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PATENTS

NOTICES

Roster of Attorneys and Agents

The Patent Office has recently published a new edition of the *Roster of Attorneys and Agents Registered to Practice Before the U. S. Patent Office.*

This edition like the preceding one is an extract of the Official Registers maintained by the Patent Office and contains the names and addresses of all individuals and firms registered in the Patent Office on January 1, 1958. This publication is composed of three sections (1) Individuals in the United States, (2) Firms, and (3) Individuals in Foreign Countries. Each section contains Part I, Arranged Alphabetically, and Part II, Arranged Geographically.

This publication may be purchased from the Superintendent of Documents, Washington 25, D. C., for $1.00 per copy. Remittance in the form of check or money order should be payable to the Superintendent of Documents.

Annual Index of Trademarks

The 1957 edition of the Annual Index of Trademarks has been published. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: Buckram bound $2.50.

Erratum

In the OFFICIAL GAZETTE, issue of March 18, 1958, page 464, under the heading "Patent Suits" second column thereof, line 32, beginning with "2,565,590, Re. 23,937," strike out all to and including "Jan. 29, 1958," in line 35.

Adjudicated Patents

(D. C. Conn.) Osius Patent No. 2,109,501 (259—108), for disintegrating mixer for producing fluent substances. Claims 3, 9, and 10 *Held* valid and infringed. *Waring Products Corp.* v. *Landers, Frory and Clark*, 158 F. Supp. 289; 116 USPQ 41.

(D. C. Ala.) Horne Patent No. 2,472,534 (263—40), for tobacco curing apparatus, *Held* valid and infringed. *Bright Leaf Industries Inc.* v. *Stabler*, 158 F. Supp. 294; — USPQ —.

(D. C. Ohio) Gilbert et al. Patent No. 2,520,895 (270—31), for sheet material spreading machine. Claims 1 to 42 *Held* invalid. *Cutting Room Appliances Corp.* v. *Weatherbee Coats, Inc.*, 158 F. Supp. 231; 116 USPQ 19.

(C. A. Ill.) Monjonnier Reissue Patent No. 23,830 (222—67), for dispensing mechanism with time controlled flow. Claims 1, 6, and 7 *Held* valid, 251 F.2d 345; 116 USPQ 106.

New Applications Received During March 1958

Patents	7,056
Designs	412
Plant Patents	13
Reissues	19
Total	7,500

Issue

Patents	1,057	No. 2,832,959 to No.	2,834,015, incl.
Designs	51	No. 182,702 to No.	182,752, incl.
Plant Pats	2	No. 1,698 to No.	1,699, incl.
Reissues	4	No. 24,468 to No.	24,471, incl.
Total	1,114		

CONDITION OF PATENT APPLICATIONS AS OF MARCH 31, 1958

Total number of pending applications (excluding Designs)		210, 227
Total number of pending Design applications		6, 592
Total number of applications awaiting action (excluding Designs)		88, 284
Total number of Design applications awaiting action		2, 926
Date of oldest new application	Mar.	8, 1957
Date of oldest amended application	Feb.	13, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	7-10-57	7-30-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	7-8-57	7-2-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	9-19-57	7-9-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	7-1-57	7-5-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	7-1-57	7-1-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	8-29-57	8-5-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. O., acting), Optics	7-1-57	7-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-5-57	5-31-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	7-11-57	7-8-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	7-17-57	7-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	8-22-57	8-7-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	7-5-57	4-15-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	7-11-57	7-15-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	7-1-57	7-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	7-15-57	7-3-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	5-21-57	5-22-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-1-57	7-1-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	7-1-57	7-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	7-1-57	7-1-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	7-1-57	7-1-57
21. (III) MADER, R. C., Textiles	5-13-57	5-9-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	7-1-57	7-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	4-4-57	4-1-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	8-13-57	8-19-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-30-57	4-4-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	9-3-57	7-1-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	8-14-57	8-13-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	7-1-57	7-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	6-20-57	4-30-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	7-9-57	7-1-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	7-10-57	7-12-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-16-57	7-10-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	8-19-57	7-12-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	8-30-57	8-20-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	10-11-57	10-1-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales	6-3-57	6-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	7-8-57	7-2-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	9-4-57	9-9-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	9-5-57	9-3-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	9-4-57	9-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-20-57	5-2-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	4-5-57	4-2-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics, Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	7-5-57	7-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	7-1-57	7-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	7-15-57	7-3-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	7-1-57	7-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	7-1-57	7-2-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	6-12-57	2-25-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	7-19-57	7-17-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	8-30-57	8-29-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	7-5-57	7-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-5-57	7-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	9-3-57	9-3-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	8-12-57	8-12-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	3-8-57	2-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	8-5-57	7-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	8-19-57	8-12-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	8-5-57	8-1-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-5-57	7-1-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	9-17-57	8-7-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	7-5-57	7-1-57
62. (IV) LOWE, D. D., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	8-13-57	8-5-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-14-57	5-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	7-8-57	4-22-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	6-7-57	7-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	7-1-57	7-3-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators	8-2-57	8-1-57
70. (II) BREWRINK, J. L., Security Laws Administration.		
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	8-5-57	8-1-57
CLASS. DIVS. II—LADY, J. E., Oscillators; Amplifiers	9-12-57	9-4-57
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	7-1-57	7-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	7-8-57	7-1-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	7-1-57	7-1-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	5-15-57	5-28-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	9-3-57	10-18-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	7-26-57	9-20-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during May 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents	Numbers 2,240,477, to 2,243,828, inclusive
Plant Patents	Numbers 466 to 469, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

LEON F. SHACKELL *v.* ROBERT C. WATSON, COMMISSIONER OF PATENTS

No. 13,875. Decided March 20, 1958

[— U. S. App. D. C. —; — F.2d —; 116 USPQ 358]

1. PATENTABILITY—PARTICULAR SUBJECT MATTER—ESTERS OF NON-AROMATIC ACIDS AS ADDITIVES TO CAUSTIC PHENOLS TO PRODUCE A GERMICIDAL COMPOSITION.

The denial, by the District Court, as non-inventive over the cited prior art, of claims directed to the use of classes of polar materials, including esters of non-aromatic acids, as additives to caustic phenols to produce a germicidal composition is affirmed.

2. SAME—COMPOSITION OF MATTER—GERMICIDE—COMPOSITION OF KNOWN GERMICIDAL PROPERTIES WITH ADDITIVE OF KNOWN ESCHAROTIC ACTION INHIBITING PROPERTY.

"Shackell did not discover the germicidal properties of caustic phenols. He did not discover that the addition of the esters of certain acids so reduced the corrosive effect of phenols as to make the resulting composition harmless to human skin. The idea contributed by him was merely that the resulting composition was usable as a germicide on skin, a fact observable to anyone familiar with the chemical properties of the composition. He says his invention is novel because of his concept that the addition of a suitable polar material to a caustic phenol acts in a twofold, selective manner, reducing causticity but not the germicidal power. We do not agree that this concept is patentable invention."

3. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—QUESTION OF FACT—INVENTION IN USE OF ESTERS OF NON-AROMATIC ACIDS IN PLACE OF ESTERS OF AROMATIC ACIDS.

The question whether appellant's particular use of esters of non-aromatic acids was invention over the previous use of esters of aromatic acids *Held* "peculiarly a question of fact dependent upon expert chemical knowledge, to be resolved in the first instance in the Patent Office and in the second instance by findings of the District Court upon expert testimony."

4. EVIDENCE—PATENTABILITY—EQUIVALENCY OF CLAIMED AND REFERENCE COMPOSITIONS.

Noted that appellant himself disclosed in claim 1 (not in issue) that the esters of aromatic acids, disclosed in a reference, and the esters of non-aromatic acids, defined in claim 24 at issue, are equivalents.

APPEAL from the United States District Court.

AFFIRMED.

Leon F. Shackell, pro se.

Clarence W. Moore (*Joseph Schimmel* of counsel) for the Commissioner of Patents.

Before PRETTYMAN, WASHINGTON, and BURGER, *Circuit Judges*

PRETTYMAN, *Circuit Judge:*

This is a civil action brought under Section 145, Title 35, of the United States Code, against the Commissioner of Patents for authorization of a patent. The complaint was dismissed by the District Court on the ground that the claims at issue did not define a patentable invention.

Caustic phenols have a corrosive effect on human skin—a burning sensation followed by whitening and necrosis of tissue. It is well known that these phenols have a considerable germicidal power. They are also useful as solvents for the removal of carbon and gum deposits from internal combustion engines. In the latter use, however, the material tends to splash on the hands, arms, and even the face of the operator, resulting in serious dermatitis conditions.

In the art prior to Shackell's application is a patent to one Backoff (Patent No. 2,347,983), in which he claimed that the addition to the caustic phenol of suitable miscible esters of aromatic acids substantially inhibits the escharotic action. He claimed that, while his compositions might have a wide variety of uses, they are particularly effective as solvents. Shackell's claims presently at issue (claims 5 and 24) are broad claims directed to the use of classes of polar materials, including esters of non-aromatic acids, as additives to caustic phenols to produce a germicidal composition. The Patent Office and the District Court denied the claims, on the ground they were not inventions over Backoff. [1] We agree with them.

[2] Shackell did not discover the germicidal properties of caustic phenols. He did not discover that the addition of the esters of certain acids so reduced the corrosive effect of phenols as to make the resulting composition harmless to human skin. The idea contributed by him was merely that the resulting composition was usable as a germicide on skin, a fact observable to anyone familiar with the chemical properties of the composition. He says his invention is novel because of his concept that the addition of a suitable polar material to a caustic phenol acts in a twofold, selective manner, reducing causticity but not the germicidal power. We do not agree that this concept is patentable invention.

[3] Shackell says his use of the esters of non-aromatic acids is invention over Backoff's use of esters of aromatic acids. This is peculiarly a question of fact dependent upon expert chemical knowledge, to be resolved in the first instance in the Patent Office and in the second instance by findings of the District Court upon expert testimony. We are not shown that the findings of those tribunals are clearly erroneous. [4] Appellant himself disclosed in claim 1 of his application (not here at issue) that the esters of aromatic acids, disclosed in Backoff, and the esters of non-aromatic acids defined in claim 24 here at issue are equivalents. Shackell does not show or claim that the use of the esters of aromatic acids destroys or reduces the germicidal power of the phenols.

AFFIRMED.

United States Court of Appeals
District of Columbia Circuit

ROBERT C. WATSON, COMMISSIONER OF PATENTS *v.* THOMAS J. ALLEN

No. 14,066. Decided April 3, 1958

[— U. S. App. D. C. —; — F.2d —; 117 USPQ 68]

1. PATENTABILITY—PUBLIC USE—NO BAR WHEN INCIDENTAL TO EXPERIMENT.

"• • • 'public use' is no bar to patentability where that use was incidental to experiment."

2. SAME—SAME—IN GENERAL.

"The statutory term 'public use' has been given an extraordinarily broad meaning. • • •. • • •, the fact that there is but one user, or the invention is given without profit, or that it is hidden from the general public's eye, would seem to be immaterial. Nor need the user even realize he is using the invention. It is immaterial that the use was without the inventor's consent, or that the use was due to factors not his fault and beyond his control. It may be fair to conclude that public use exists where the invention is used by, or exposed to, anyone other than the inventor or persons under an obligation of secrecy to the inventor."

3. SAME—SAME—USE AFTER EXPERIMENTAL USE HAS ENDED.

"• • • under the stern rules laid down by the courts any public use whatever *after* the experimental period has ended will bar patentability."

4. SAME—SAME—DURING AND AFTER EXPERIMENTATION.

"• • •, facts which may well be fatal to patentability *after* experimentation are frequently excused if they occurred *during* experimentation. A sale which is primarily for the purpose of experiment will not bar patentability. During experiment, use by assistants under no obligation of secrecy will probably not bar a patent, although after the experiments are ended, use or knowledge by assistants of workmen under no obligation of secrecy may well bar patentability."

5. SAME—SAME—EXPERIMENTAL STAGE—EFFECT OF PROFIT MOTIVE OR OF CARELESS ACTS OF INVENTOR.

"• • • the courts accord considerable hospitality to the inventor during the experimental stage. However, as a limitation, we note that this hospitality disappears even during the experimental stage when the 'experimental motive' wanes, or is superseded by a profit motive, or is tainted by careless acts of the inventor."

6. SAME — SAME — EXPERIMENTAL USE — DISPOSAL OF DISCARDED PROTOTYPES.

"• • • reasonable disposal of discarded prototypes of a still-experimental invention must, viewed favorably, be considered as incidental to experiment. What amounts to a reasonable disposal depends upon the facts of each case, keeping in mind the physical nature of the device, and the likelihood that the method of disposal chosen will lead to discovery of the secret by the public in general."

7. SAME—SAME—SAME—SAME.

"• • • the protective umbrella of the experimental use doctrine should include reasonable disposal of models and prototypes of the invention once their usefulness to the inventor has ended—reasonable in view of the nature of the device and the probability of discovery and appropriation of the invention by strangers."

8. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—SUBSTANTIAL EVIDENCE SUPPORTING TRIAL COURT'S FINDING OF EXPERIMENTAL USE.

In view of the substantial evidence in support, the trial court's finding of experimental use is affirmed.

9. SAME—WEIGHT GIVEN VIEWS OF U. S. COURT OF CUSTOMS AND PATENT APPEALS.

"Our holding with respect to public use cannot be reconciled with that of the Court of Customs and Patent Appeals. We recognize the special competence of that court to deal with matters relating to patents and as to technical or highly specialized patent matters, we would accord substantial weight to its views. However, the issues presently involved are not technical or in any sense within the areas of special expertise; hence, the views of the Court of Customs and Patent Appeals are those of a co-ordinate appellate court having, perhaps, approximately the standing of another circuit court of appeals; they are persuasive and entitled to deference, but are not authoritatively binding."

10. SAME—PRESUMPTIVE CORRECTNESS OF DISTRICT COURT'S FINDINGS AND CONCLUSION—FACT FINDINGS NOT CLEARLY ERRONEOUS, LAW OF PUBLIC USE CORRECTLY APPLIED.

"• • • we are bound to treat the District Court's findings and conclusion in this matter as we would on any appeal, that is, as presumptively correct. While the result is by no means free from doubt, we think the fact findings of the trial court are not clearly erroneous, and that the District Court correctly applied the law of public use."

APPEAL from the United States District Court.

AFFIRMED.

Clarence W. Moore (*S. W. Cochran* of counsel) for the Commissioner of Patents.

A. Yates Dowell and *A. Yates Dowell, Jr.* for Allen.

Before PRETTYMAN, BAZELON, and BURGER, *Circuit Judges*

BURGER, *Circuit Judge:*

From an adverse decision in the Patent Office, appellee invoked the jurisdiction of the District Court under 35 U. S. C. § 145, where the issue of patentability of his invention was tried de novo. The District Court rejected Patent Office claims that the invention had been in non-experimental public use, and authorized the Patent Office to issue a patent.

A person is not entitled to a patent where "the invention was . . . in public use . . . more than one year prior to the date of the application for patent. . . ."[1] An exception to this is recognized and [1] "public use" is no bar to patentability where that use was incidental to experiment.[2] The issue on this appeal is whether the District Court erred in finding that the prior use of the invention was incidental to experiment, contrary to the findings of the Patent Office.

The invention is a shim, which is a thin metal plate designed to be inserted between an engine bearing and bearing holder so as to compensate for wear in the bearing, thus reducing oil consumption in worn automobile engines. In 1939, appellee installed a set of his shims in his 1934 Oldsmobile, for the purpose of experiment. After investigating their performance, he stopped using the car. With minor exceptions, the car lay idle for a year, finally being sold for $75 in 1942, still containing the shims. Appellee did not tell the buyer of their presence, and made no effort to follow up performance of the shims in the hands of the purchaser. The car passed to several other owners, none being aware of the shims. Appellee continued to improve the design of the shims, working on other models, and in April 1946 applied for a patent. After extended proceedings his application was denied because the Patent Office found (1) his shims had been in public use, in that members of the public (the car buyers) had used the shims without any restrictions, even though unwittingly; and (2) such public use was not incidental to experiment, because after the sale, appellee did not actually experiment with those shims. The Patent Office apparently would have required appellee either to remove the shims when he was finished experimenting with them, or else apply for a patent within one year after he sold the car containing them.

The trial court found that the use of appellee's invention "was experimental and did not constitute public use regardless of whether he removed them or not. Further, his continued efforts to make shims which would be an improvement over those he had installed likewise was experimental and this experimental period extended to a date less than one year prior to the filing of his application." The trial court relied on *Goodwin* v. *Borg-Warner Corp.*,[3] also known

[1] 35 U. S. C. § 102(b).

[2] *Elizabeth* v. *Pavement Co.*, 97 U. S. 126 (1877).

[3] 157 F.2d 267 (6th Cir. 1946), cert. denied, 329 U. S. 799, 331 U. S. 860, reh. denied, 329 U. S. 835, 331, U. S. 796, 331 U. S. 869.

as the Daukus case, wherein the inventor installed an improved clutch in a friend's car without profit. The use was held experimental, and the fact that the car was later sold to a stranger, apparently without restriction, did not constitute a non-experimental public use. The Patent Office relies on a case precisely contra, which was handed down by the Court of Customs and Patent Appeals a few days after the decision of the court below.[1]

[2] The statutory term "public use" has been given an extraordinarily broad meaning. In *Egbert* v. *Lippman*,[2] the Supreme Court found public use where the inventor had given a novel corset stay to a lady friend. Thus, the fact that there is but one user, or the invention is given without profit, or that it is hidden from the general public's eye, would seem to be immaterial. Nor need the user even realize he is using the invention.[3] It is immaterial that the use was without the inventor's consent, or that the use was due to factors not his fault and beyond his control.[4] It may be fair to conclude that public use exists where the invention is used by, or exposed to, anyone other than the inventor or persons under an obligation of secrecy to the inventor.[5] Under such sweeping interpretations, we have no choice but to conclude that appellee's shims were in public use, even though the buyer did not know of the presence of the shims in the car. Since this occurred more than one year before appellee applied for a patent, it might seem that the statute expressly bars a patent.

But such a strict and inflexible result is not necessarily so. The courts have engrafted onto the statute an exception, to the effect that public use does not bar a patent where that use was incidental to experiment. The leading case is *Elizabeth* v. *Pavement Co.*[6] There the inventor paved a portion of a toll road with improved wooden pavement. After the public had used the road for six years he applied for a patent. The public use was held not to bar patentability, because such use was incidental to experiment.

In order to understand the reason for the extremely broad construction of "public use," and the judicial exception read into seemingly absolute statutory words, it is necessary to examine the policy involved. The cases seem to be hospitable to the inventor *during the experimental stage* of his invention, but become disposed to construe the law against him thereafter.[10] The judicial policy underlying this rule has been said to be that an inventor acquires an undue advantage over the public by delaying to take out a patent, inasmuch as he thereby preserves the monopoly to himself for a longer period than the law allows.[11] Of course, the inventor may, if he chooses, keep the invention secret unto himself, rather than apply for a patent, but he does so at his peril. After reduction to practice, unreasonable delay in applying for a patent may be construed to be an abandonment, with the consequence that the public is entitled to rights in the invention.[12] Whether construed to be an abandonment or not, the inventor by his delay assumes the risk that he may be forestalled by a subsequent inventor.[13] Any sale of his invention may well bar the inventor.[14] And, as we have already seen [3] under the stern rules laid down by the courts any public use whatever *after* the experimental period has ended will bar patentability.

On the other hand, the law also recognizes that the inventor may wish to perfect his idea before applying for patent, and indeed, it is in the public interest that he do so.[15] Hence, [4] facts which may well be fatal to patentability *after* experimentation are frequently excused if they occurred *during* experimentation. A sale which is primarily for the purpose of experiment will not bar patentability.[16] During experiment, use by assistants under no obligation of secrecy will probably not bar a patent,[17] although after the experiments are ended, use or knowledge by assistants or workmen under no obligation of secrecy may well bar patentability.[18] Our conclusion is that [5] the courts accord considerable hospitality to the inventor during the experimental stage. However, as a limitation, we note that this hospitality disappears even during the experimental stage when the "experimental motive" wanes, or is superseded by a profit motive, or is tainted by careless acts of the inventor.

We have already conceded that a public use existed here. But appellee's experiments continued up to within one year of his application for patent, and hence the public use occurred during the period of experimentation, and less than a year thereafter. The trial court so held, and there was evidence to support the finding. Consequently, we are bound to view the next question, whether the public use was incidental to experiment, hospitably to the inventor.

The Patent Office claims that the public use was not incidental to experiment because the inventor did not actually experiment with those very shims after the sale. There is force to this argument, but we believe that [6] reasonable disposal of discarded prototypes of a still-experimental invention must, viewed favorably, be considered as incidental to experiment. What amounts to a reasonable disposal depends upon the facts of each case, keeping in mind the physical nature of the device, and the likelihood that the method of disposal chosen will lead to discovery of the secret by the public in general.

Here the shims were minute, inexpensive, fragile (so that removal might have damaged them beyond further use), and had no salvage value. They were located deep in the heart of an old automobile engine, a place difficult of access and seldom opened to examination. The transferees of the automobile were not told of the presence of the shims, and they did not discover them in fact. There was little likelihood that they ever would be discovered except by one who dismantled the engine, and perhaps not even then. Even if discovered, it is not certain that the discoverer would have understood or recognized the purpose of the shims. Taken together, these circumstances made it reasonable that the shims be left in the car; this was a reasonable method of disposal in this case just as discarding might be in other cases, and falls short of being such carelessness as would taint the experimental motive which continued unabated throughout. We believe [7] the protective umbrella of the experimental use doctrine should include reasonable disposal of models and prototypes of the invention once their usefulness to the inventor has ended—reasonable in view of the nature of the device and the probability of discovery and appropriation of the invention by strangers.

This conclusion, however, does not resolve the issues as to claimed public use of the same idea by a third person unknown to Allen. It is claimed by the Patent Office that one Blaisdell had also put into public use shims similar to appellee's device. If this use was public use, and was not incident to experiment, then the use of Blaisdell's shims "more than one year prior to the date of" appellee's application would bar appellee from securing a patent, at least as to the elements common to both inventions. Blaisdell performed work for used car dealers and in 1934 he installed his shims in three cars sent to him for repairs. He told the dealers what he had done, and kept in touch with the cars for several months, and in 1936, he applied for a patent. He prosecuted the application to allowance of a patent but forfeited for failure to pay the final fee. He resumed work on the shims, made improvements and in March 1945 again applied for patent. In September 1945 he placed his shims on the market. [8] The trial court found that "Blaisdell's activities prior to one year before the filing of Allen's application were . . . experimental and not public use." For the reasons outlined in the discussion dealing with the appellee's use, i. e., that there is substantial evidence which supports the trial court findings, we affirm the finding of experimental use.

[9] Our holding with respect to public use cannot be reconciled with that of the Court of Customs and Patent Appeals. We recognize the special competence of that court to deal with matters relating to patents and as to technical or highly specialized patent matters, we would accord substantial weight to its views. However, the issues presently involved are not technical or in any sense within the areas of special expertise; hence, the views of the Court of Customs and Patent Appeals are those of a co-ordinate appellate court having, perhaps, approximately the standing of another circuit court of appeals; they are persuasive and entitled to deference, but are not authoritatively binding. On the other hand [10] we are bound to treat the District Court's findings and conclusion in this matter as we would on any appeal, that is, as presumptively correct. While the result is by no means free from doubt, we think the fact findings of the trial court are not clearly erroneous, and that the District Court correctly applied the law of public use.

AFFIRMED.

BAZELON, *Circuit Judge* (dissenting):

I would follow *Application of Blaisdell*, 242 F.2d 779 (CCPA 1957), where, upon precisely the same facts presented here, the United States Court of Customs and Patent Appeals upheld a determination of public use by the Board of Appeals of the United States Patent Office.

United States Court of Appeals
District of Columbia Circuit

ROBERT C. WATSON, COMMISSIONER OF PATENTS
v. MEAD JOHNSON & COMPANY

No. 13,975. Decided March 27, 1958

[— U. S. App. D. C. —; — F.2d —; 117 USPQ 13]

TRADEMARKS—REGISTRATION OF A TRADEMARK FOR A SINGLE PRODUCT IN MORE THAN ONE CLASS.

With respect to appellee's trademark "Fer-in-Sol," *Held*, on the record presented, that where a product is in fact a food and a pharmaceutical preparation, the trademark for the product may be registered in both Class 18, Medicines and Pharmaceutical Preparations, and Class 46, Foods and Ingredients of Foods.

AFFIRMED.

Clarence W. Moore (*Joseph Schimmel* of counsel) for the Commissioner of Patents.

Bertha L. MacGregor pro hac vice, by special leave of Court, with whom *Ralph H. Hudson* was on the brief, for appellee.

Before WILBUR K. MILLER, BAZELON, and BURGER, *Circuit Judges*.

PER CURIAM:

Appellee Mead Johnson & Company sought to register its trademark for an edible (or potable) liquid substance called "Fer-in-Sol," which is used as a dietary supplement. The Patent Office classifies commercial goods, for trademark registration purposes, into some 52 categories or classes (adhesives, fertilizers, vehicles, clothing, etc.). Appellee sought registration for "Fer-in-Sol" in two of these classes, viz., Class 18, Medicines and Pharmaceutical Preparations, and Class 46, Foods and Ingredients of Foods. The Patent Office registered the name in the Medicines and Pharmaceutical Preparations class, but refused to register it in the Foods and Ingredients of Foods class, for the reason that the Patent Office follows the practice of allowing registration in one class only and for the reason that it found "Fer-in-Sol" was not a food. The trial court in a 35 U. S. C. § 145 proceeding, held that a trademark may be registered in as many categories as the product's uses warrant, finding as a fact that the product was reasonably classifiable as a food as well as a pharmaceutical product. We need not decide whether this right is limited, as the trial court suggests, only by the variety of uses. On the record here presented we hold that where a product is in fact a food and a pharmaceutical preparation it may be registered in both classes.

AFFIRMED.

BAZELON, *Circuit Judge* (dissenting):

The Commissioner of Patents says that "While the authority exists for the issuance of a single certificate

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[1] *Application of Blaisdell*, 113 USPQ 289, 242 F.2d 779 (CCPA 1957), which was a companion case to the instant case. This case criticized the Goodwin case as unsound.

[2] 104 U. S. 333 (1881).

[3] *Hall* v. *Macneale*, 107 U. S. 90 (1882).

[4] *Andrews* v. *Hovey*, 123 U. S. 267 (1887). An exception may exist where the idea was gained surreptitiously from the inventor. *Shaw* v. *Cooper*, 32 U. S. (7 Pet.) 292 (1833).

[5] Use by persons under an obligation of secrecy to the inventor is probably not public use. See *Nat'l. Tube Co.* v. *Steel & Tubes Inc.*, 90 F.2d 52 (3d Cir. 1937). Cf. Journeaux, Public Use in Private or Vice Versa, 23 J. Pat. Off. Soc'y. 514 (1941), who states "With due caution it may be considered that an invention is in public use when it is used openly by the inventor for its intended purpose and also when it is used by anyone beyond the control of the inventor." Cf. Note, Public Use: The Inventor's Dilemma, 26 Geo. Wash. L. Rev. 297 (1958).

[6] 97 U. S. 126 (1877).

[10] Cf. *Cline Elec. Mfg. Co.* v. *Kohler*, 27 F.2d 638 (7th Cir. 1928), cert. denied, 278 U. S. 646; *Innis* v. *Oil City Boiler Works*, 22 Fed. 780 (C. C. W. D. Pa. 1885); *Jennings* v. *Pierce*, Fed. Cas. No. 7283 (C. C. Conn. 1878); *Spear* v. *Belsen*, 1 MacA. Pat. Cas. 699, Fed. Cas. No. 13,223 (D. C. Cir. 1859).

[11] See *Root* v. *Third Ave. R. Co.*, 146 U. S. 210, 224 (1892); *Pennock* v. *Dialogue*, 27 U. S. (2 Pet.) 1 (1829).

[12] *Saunders* v. *Miller*, 33 App. D. C. 456 (1909).

[13] *J. E. Hanger Inc.* v. *J. F. Rowley Co.*, 54 App. D. C. 336, 298 Fed. 359 (1924).

[14] *Hall* v. *Macneale*, 107 U. S. 90 (1882).

[15] *Kendall* v. *Winsor*, 62 U. S. (21 How.) 322 (1858); *Yates* v. *Huson*, 8 App. D. C. 93 (1896).

[16] *In re Mills*, 25 App. D. C. 377 (1905); see *Hall* v. *Macneale*, 107 U. S. 90 (1882).

[17] See *Mason* v. *Hepburn*, 13 App. D. C. 86 (1898); *Kendall* v. *Winsor*, note 15 supra.

[18] *Electric Storage Battery Co.* v. *Shimadzu*, 307 U. S. 5 (1939); *In re Tournier*, 17 App. D. C. 481 (1901).

for one mark properly registered in a plurality of classes, that is, where the goods are different, that authority does not mean that plural registrations are properly issuable for the same goods merely because the goods are described as having different purposes or uses." I think this construction of the applicable statutory provisions[1] is plainly permissible. I would therefore reverse the judgment of the District Court.

[1] Sections 1 and 30 of the Trademark Act of 1946, 15 U. S. C. §§ 1051 and 1112.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,158,073, Keith and Walker, Amusement devices, **filed** May 14, 1956, D. C. Oreg. (Portland), Doc. 8614, *Wayland D. Keith* v. *Eyerly Aircraft Co.* Claim 17 of patent held invalid and not infringed; complaint dismissed (notice Apr. 1, 1958).

2,268,225, J. S. Rodgers, Apparatus for repairing traction belts; **2,302,251**, P. W. Matthews, Tractor tread dismantler, **filed** Mar. 25, 1958, D. C. Minn. (St. Paul), Doc. 1/58/101, *Rodgers Hydraulic, Inc.* v. *Owatonna Tool Co.*

2,313,752, T. G. Le Clair, Automatic printing metering system; **2,366,013**, same, Automatic printing and totalizing metering system, **filed** Mar. 28, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c572, *Titus G. Le Clair* v. *Shell Oil Company.*

2,366,813. (See 2,313,752.)

2,366,966, K. A. Siden, Drapery, curtain, and similar hangings, **filed** May 18, 1956, D. C., N. D. Calif. (Sacramento), Doc. 7391, *American Beauti Pleat, Inc. et al.* v. *Rankin Mfg. Co. et al.* Plaintiff King Beauti Pleat Co. permitted to withdraw as a plaintiff; American Beauti Pleat, Inc. to recover nothing from Rankin Mfg. Co. Feb. 5, 1958.

2,392,251. (See 2,268,225.)

2,462,019, W. W. Bowman, Beverage dispensers, **filed** Oct. 20, 1955, D. C., N. D. Ill. (Chicago), Doc. 55c1869, *Rowe Spacarb, Inc.* v. *Cole Products Corp.* Patent held valid and infringed; defendant enjoined (notice Apr. 2, 1958).

2,514,190, H. T. Jones, Locking wrench and plier, **filed** Mar. 31, 1958, D. C. Colo. (Denver), Doc. 6019, *H. R. Basford Co. et al.* v. *Harold T. Jones.*

2,541,092, R. M. Page, Radio frequency pulse transmission; **2,554,515**, Young and Page, Radio ranging system; **2,559,657**, R. M. Page, Sweep generation; **2,590,884**, same, Pulse echo ranging cathode-ray tube sweep system; **2,610,319**, same, Position indicating apparatus; **2,629,866**, same, Position indicating apparatus; **2,677,127**, same, Radio echo indicating apparatus; **2,668,746**, Young and Page, Impedance control coupling and decoupling system; **2,779,939**, R. M. Page, Indicating systems; **2,800,286**, Philpott and Page, Pulse tranamitter systema, **filed** Mar. 24, 1958, D. C., S. D. Tex. (Houston), Doc. 11662, *Robert M. Page et al.* v. *Raytheon Mfg. Co. et al.*

2,542,430, J. Rabinow, Automatic regulation of timepieces, **filed** Mar. 19, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c68, *Jacob Rabinow et al.* v. *George W. Borg Corp.*

2,546,465, F. J. Martini, Spinning type fishing reel; **2,712,419**, same, **filed** July 12, 1956, D. C., E. D. Mich. (Detroit), Doc. 15830, *Franz J. Martini* v. *Great Lakes Products, Inc.* Amended complaint limits claims and allegations to 2,712,419 July 27, 1957; claim 4 of Patent 2,712,419 held valid and not infringed Mar. 27, 1958.

2,554,515. (See 2,541,092.)

2,559,657. (See 2,541,092.)

2,590,884. (See 2,541,092.)

2,591,106, D. M. Sutherland, Process of making paper pulps, **appeal** filed Jan. 27, 1958, C. C. A., 4th Cir., Doc. 7611, *Sutherland Refining Corp.* v. *North Carolina Pulp Co.* Order entered dismissing appeal upon stipulation of parties Mar. 29, 1958.

2,610,319. (See 2,541,092.)

2,629,866. (See 2,541,092.)

2,631,814, R. H. Abplanalp, Valve mechanism for dispensing glass and liquids under pressure, **filed** Mar. 25, 1958, D. C. Del. (Wilmington), Doc. 1973, *Precision Valve Corp. et al.* v. *Sun Tube Corporation.*

2,665,377, J. E. Krepps, Jr., Universal tuning system for television receivers, **filed** Mar. 27, 1958, D. C., S. D. Ind. (Indianapolis), Doc. IP/58c55, *Sarkes Tarzian, Inc.* v. *Allen B. Du Mont Laboratories, Inc. et al.*

2,668,125, Baker and Nelson, Method of insulating a metal structure and insulated metal structure, **filed** Mar. 28, 1958, D. C., N. D. Ga. (Atlanta), Doc. 6406, *American Gilsonite Co.* v. *North Bros., Inc. et al.*

2,677,127. (See 2,541,092.)

2,677,444, **Re. 24,067**, M. M. Drogin, Handle construction, **filed** Feb. 29, 1956, D. C., E. D. Pa. (Philadelphia), Doc. 20314, *General Plastics Corp. of America* v. *Philadelphia Brief Case Co.* Stipulation of counsel dismissing action with prejudice Mar. 21, 1958.

2,688,746. (See 2,541,092.)

2,697,925, N. H. Goodman, Tights and method of making same, **filed** Aug. 16, 1957, D. C., S. D. N. Y., Doc. 123/302, *Triumph Hosiery Mills, Inc.* v. *Haymaker Sports, Inc.* Order and stipulation of discontinuance Mar. 27, 1958.

2,705,827, J. Gamache, Thread cutting and inspection machine, **appeal** filed Mar. 24, 1958, C. C. A., 4th Cir., Doc. 7651, *J. W. L. Funchion* v. *Somerset Knitting Co. et al.*

2,712,419. (See 2,546,465.)

2,714,569, Prindle and Lacy, Laminated thread, **filed** Mar. 25, 1958, D. C., S. D. N. Y., Doc. 131/196, *Malina Sales Co., Inc. et al.* v. *Dow Chemical Co.* **Same**, Doc. 131/197, *Facile Corp.* v. *Dow Chemical Co.*

2,718,650, L. R. Haverberg, Washing apparatus for automobile wheels, **filed** Jan. 31, 1958, D. C., N. D. Ga. (Atlanta), Doc. 6320, *Haverberg Auto Laundry Equipment Co., Inc.* v. *Automatic Car Wash Equipment Co., Inc. et al.* Consent decree of injunction Mar. 31, 1958.

2,779,939. (See 2,541,092.)

2,781,520, R. Micek, Valve ball mountings for toilet flush tanks, **filed** Mar. 31, 1958, D. C. Colo. (Denver), Doc. 6018, *Richard Micek* v. *A. Y. McDonald Mfg. Co. et al.*

2,802,502, L. Seamon, Pass case, **filed** Nov. 1, 1957, D. C., N. D. Ga. (Atlanta), Doc. 6219, *Patent Management Corp.* v. *Jake H. Wilinsky Leather Co.* Final consent decree; permanent injunction issued Mar. 19, 1958.

2,800,286. (See 2,541,092.)

2,813,719, R. J. Hopper, Aircraft tow target installation, **filed** Mar. 28, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 276/58–TC, *Del Mar Engineering Laboratories* v. *Northrop Aircraft, Inc.*

2,815,230, Schaeffer and Eklund, Wheeled carrier for crates, **filed** Mar. 27, 1958, D. C. Oreg. (Portland), Doc. 9713, *E-Z Carrier Co.* v. *Phil S. Lucky.*

2,825,464, S. S. Mack, Water treatment device, **filed** Mar. 25, 1958, D. C. Nev. (Las Vegas), Doc. 247, *Packard Water Conditioners, Inc.* v. *Permacore, Inc.*

Re. 24,067. (See 2,677,444.)

Des. 178,436, C. C. Unzicker, Pull; **Des. 180,582**, L. E. Clayton, same, **filed** Mar. 28, 1958, D. C., W. D. Mich. (Grand Rapids), Doc. 3411, *Amerock Corp.* v. *Tassell Hardware Co.*

Des. 179,100, D. Tauben, Electric medicinal vaporizer, **filed** Apr. 3, 1958, D. C., S. D. N. Y., Doc. 131/386, *F. C. Hunt Mfg. Co.* v. *Anchor Hocking Glass Corp. et al.*

Des. 180,582. (See Des. 178,436.)

Des. 181,972, H. Goodman, Temple for an eyeglass frame, **filed** Mar. 31, 1958, D. C. Nebr. (Omaha), Doc. 0353, *Zylite Products Co., Inc.* v. *Commercial Optical Co., Inc.*

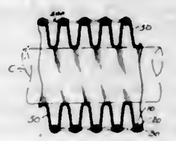
Des. 182,024, H. R. Greenberg, Bar stool or similar article, **filed** Mar. 26, 1958, D. C., S. D. N. Y., Doc. 131/218, *Finer Chrome Products Co., Inc.* v. *Hunter Metal Industries, Inc.*

REISSUES

MAY 6, 1958

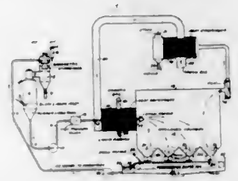
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,468
FLEXIBLE TUBE
Robert Eldon Roberts, Wilton, Conn.
Original No. 2,715,914, dated August 23, 1955, Serial No. 234,599, June 30, 1951, which is a division of Serial No. 655,268, March 18, 1946, now Patent No. 2,560,369, dated July 10, 1951. Application for reissue August 15, 1957, Serial No. 679,793
3 Claims. (Cl. 138—56)



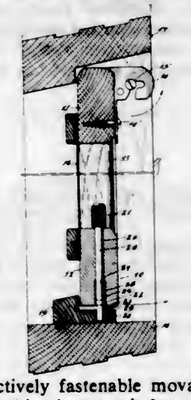
3. A flexible tube having an impervious tube comprising a layer of rubber-like material, and a reinforcing member comprising a helically coiled wire spring, said spring having an encircling coating of a rubber-like material substantially uniform in thickness, said spring being spaced axially of the rubber-like tube with its coating in contact with and bonded to the walls thereof, and wherein the wall of the tube is spirally corrugated, such corrugations extending parallel with the coils of the spring and disposed therebetween.

24,469
CONCENTRATION OF CHEMICAL LIQUORS
Armin E. Reinert, Shawano, Wis., assignor to Herbert H. Clark, Oshkosh, Wis.
Original No. 2,780,281, dated February 5, 1957, Serial No. 265,700, January 9, 1952. Application for reissue November 12, 1957, Serial No. 696,895
2 Claims. (Cl. 159—48)



2. The method of concentrating chemical liquor containing water and which is derived from paper mill digesters or the like, which method comprises, initially subjecting the liquor to vacuum to remove some of the water in the form of vapor, thereafter subjecting the partially dehydrated liquor to pressure and to temperature below 32° F. and injecting the same through a restricted orifice into a confined space to convert the liquor into snow containing congealed water and concentrated chemical liquid, separating the congealed water from the concentrated chemical liquid, converting the separated congealed water into cold liquid water, and condensing the vapor initially removed from the chemical liquor by subjecting it to heat exchange relationship with cold liquid water derived from said congealed water.

24,470
LOCKING DEVICE
Charles K. Sitterly, Dubuque, Iowa, assignor to Carr, Adams & Collier, Inc., a corporation of Iowa
Original No. 2,759,746, dated August 21, 1956, Serial No. 424,868, April 22, 1954. Application for reissue August 5, 1957, Serial No. 677,188
2 Claims. (Cl. 292—145)



1. A [a] selectively fastenable movable window unit comprising in combination; a window unit frame member of wood construction, means defining a transverse bore through the member, said bore having a pair of different diameter portions, the smaller diameter portion opening to an inner side of the member and the larger diameter portion opening to an outer side with a shoulder in the bore between said portions, a one-piece locking bolt having a cylindrical stem a portion of which is slidable snugly in the smaller of said bore portions and having [the inner] *an* exposed knob on [an] *the inner* end of said stem and of a size barring passage of the knob through the bore, an annular collar of a diameter larger than said smaller bore portion on the stem spaced from the knob and outer end of the stem and freely slidable in the larger diameter portion of the bore, said collar having a conical shape tapering gradually away from the outer end of the stem to the outer periphery of said collar to permit, in assembly, wedging of the stem in one direction from the inner side of the member through the smaller of said bore portions bringing said collar into the larger of said bore portions, and said collar forming an annular abutment facing said shoulder adapted to engage the shoulder and prevent removal of the bolt from the bore.

24,471
RADIOACTIVITY BORE HOLE LOGGING APPARATUS
Gerhard Herzog, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Original No. 2,670,442, dated February 23, 1954, Serial No. 157,903, April 25, 1950. Application for reissue October 29, 1957, Serial No. 694,697
8 Claims. (Cl. 250—83.6)

7. The method of determining characteristics of subsurface formations traversed by a liquid containing bore

hole which comprises bombarding said formations by



neutrons from a source passed through the hole, measuring in said hole in a first zone at a fixed distance from said source the intensity of gamma rays induced in said formations due to said neutron bombardment, and simultaneously measuring in a second zone in said hole at a constant fixed distance of about six feet from said source the intensity of gamma rays naturally emitted by said formations, said distance being such that the said zone of measurement of naturally emitted gamma rays will be out of range of the gamma rays induced by the neutron bombardment.

PLANT PATENTS

GRANTED MAY 6, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,698
ALMOND TREE
Frederic W. Anderson, Merced, Calif.
Application September 16, 1957, Serial No. 684,375
1 Claim. (Cl. 47—62)

A new and distinct variety of almond tree, as described, which is characterized by a late blooming period and heavy production of nuts which are firm and well sealed; additionally characterized—in comparison with the Texas almond—by a blooming period which begins a day or two later and extends a few days longer, shells which are softer, kernels which average 53% as compared with 43% for like grown specimens of the Texas almond, and a ventral suture line which is only about one-half the width; further characterized—in comparison with the Nonpareil almond—by a blooming period which begins about one week later, shells which are thicker, harder, and much better sealed, and kernels which average 53% as compared with 63% for like grown specimens of the Nonpareil almond, the kernels of the latter being larger, flatter, and smoother; and still further characterized by interfertility with both the Texas and Nonpareil almonds.

1,699
AZALEA
Arthur H. Beck, Glenolden, Pa., assignor to Vosters Nurseries and Greenhouses, Inc., Secane, Pa., a corporation of Pennsylvania
Application October 17, 1957, Serial No. 690,881
1 Claim. (Cl. 47—60)

A new and distinct variety of azalea plant substantially as illustrated and described, characterized most particularly by its production of an abundance of multiple type flowers.

PATENTS

GRANTED MAY 6, 1958

GENERAL AND MECHANICAL

2,832,959
STAPLING DEVICE
William G. Pankonin, Chicago, Ill., assignor to Triangle Tool & Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 25, 1955, Serial No. 530,579
14 Claims. (Cl. 1—3)



1. In a stapling device, a magazine for staples having at the forward end an ejection chute through which the staples are discharged and an entrance at the other end, a forwardly biased staple pusher within said magazine to force the staples along said magazine into alignment with said chute, a pivot at the other end of said magazine, and a hook carried by said staple pusher engageable with said pivot upon withdrawing said pusher from within said magazine to permit said pusher to pivot out of said entrance.

2,832,960
CUFFED SLEEVE CONSTRUCTION AND METHOD OF MAKING THE SAME
Leo J. Rothbarth, Bellefontaine Neighbors, Mo.
Application July 14, 1955, Serial No. 522,089
1 Claim. (Cl. 2—123)



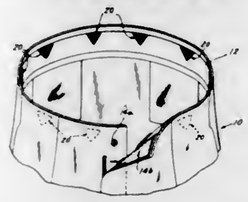
A cuffed shirt sleeve formed throughout from an elongate single piece of material, the sleeve having at one end an edge for attachment to the shoulder of a shirt and having an under-arm seam extending through the entire length thereof, a cuff formed of the said material by an upturned upper fold, an outer downturned fold and an upturned lower fold, said lower fold and said outer fold forming respectively inner and outer plies of the cuff material, said lower fold having an edge portion located between the upper fold and the outer fold, the said upper fold, the said edge portion of the lower fold and the outer fold being joined together by a line of stitching whereby there is formed a tuck above the stitching defining the top of the cuff, a button secured to the outer face of the cuff by stitching passing through the said inner and outer plies and spaced a substantial distance widthwise of the sleeve from the under-arm seam, and a button hole formed through four plies of the cuff material and bordered by stitching passing through said four plies, the said button hole being spaced a substantial distance from the button on the side of the button remote from the under-arm seam, said button and button hole being adapted to secure the cuff in a folded condition.

2,832,961
RAIN CAP
Thomas B. Weiss, Palo Alto, Calif.
Application May 27, 1954, Serial No. 432,786
3 Claims. (Cl. 2—195)



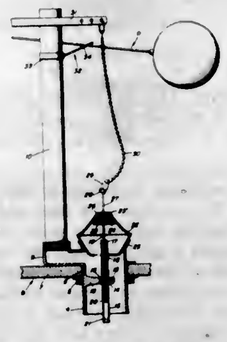
2. A cap comprising a single sheet of material folded to form side portions and an intermediate portion, said side portions and said intermediate portion having vertical parts intended to engage around the sides and back of a wearer's head, said side portions including upper parts, said upper parts being generally horizontally disposed, said upper parts being in overlapping relation, said intermediate portion including an upper forwardly directed part overlying and connecting together said upper parts and forming the top of said cap, said upper forwardly directed part projecting forwardly of the remainder of said cap and forming a bill.

2,832,962
GARMENT RETAINER
David Wendell, Baltimore, Md.
Application November 3, 1955, Serial No. 544,657
1 Claim. (Cl. 2—236)



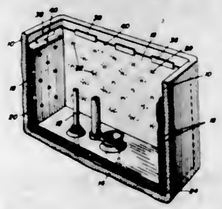
The combination with a waistband of a garment retainer including an integral elastomer body including a raised marginal rim section terminating in a flat upper face, said rim section defining and bounding a recess serving as a suction cup, and at least one raised gripping section within said rim section terminating in a flat upper face in substantial coplanar relation with the flat upper face of said rim section, said rim section being formed with an endless groove extending about said body and having a bottom spaced below the plane of said flat upper faces, and stitching within said groove extending through the underlying portions of said body and into said waistband for securing said body to said waistband, said groove being of a depth to receive said stitching and confine said stitching below the level of said flat upper face, said stitching being placed in said groove under tension to cause the respective stitches to embed in the bottom of said groove and to be engaged at opposite sides by integral portions of said body.

2,832,963
FLUSH TANK VALVE
Lillian H. Minella, Houston, Tex.
Application May 8, 1956, Serial No. 583,460
1 Claim. (Cl. 4—57)



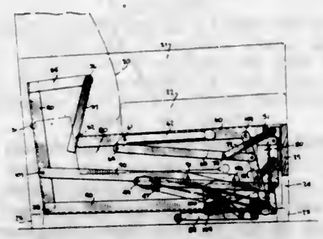
A flush tank valve of the character described comprising: a vertical outlet pipe mounted in the bottom of the flush tank, a seat on the upper end of said outlet pipe, a horizontal arm in the outlet pipe, said arm having a threaded opening extending vertically therethrough, said opening including a reduced, unthreaded lower end portion providing a flange, a guide tube mounted on the arm and extending through the opening, a collar on said guide tube at a intermediate point threaded into the opening and engaged with the flange, a stem slidably mounted in the guide tube and rising thereabove, a bulb on the upper end of said stem engageable with the seat, means for lifting said bulb to open position, and means for centering the stem in the guide tube and limiting the movement of said stem, the last named means including internal circumferential ribs at vertically spaced points in the guide tube and a ball head on the lower end of the stem operable in the tube for stabilizing the stem therein and engageable with certain of said ribs for limiting the sliding movement of said stem in opposite directions in the tube.

2,832,964
FLUSHING TANK
Bernhard B. Se Breny, Hinsdale, Ill.
Application January 26, 1955, Serial No. 484,113
8 Claims. (Cl. 4—68)



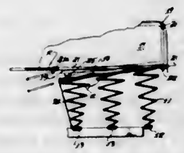
1. A flushing tank having an outer wall subject to sweating and with inlet and drain pipes extending therethrough and a double walled inner container also having openings for the inlet and drain pipes therethrough, the inner container having flexible closely spaced liquid-proof walls of plastic material, and a matted fibrous insulating filler in a close fitting layer between the walls of the inner container.

2,832,965
SOFA-BED MECHANISM HAVING CONTINUOUS-ACTION LINKAGE SYSTEM
Louis Pokorny, Jr., Ronkonkoma, N. Y., assignor of one-third to Louis Pokorny, Ronkonkoma, and one-third to John M. Pokorny, Bellport, N. Y.
Application October 31, 1956, Serial No. 619,473
13 Claims. (Cl. 5—13)



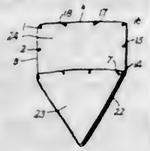
1. In a sofa-bed mechanism, sections pivoted to one another in succession and comprising a rear section, a lower horizontal section, a front vertical section, and an upper horizontal section, said sections being foldable between a collapsed sofa position in which the lower and upper horizontal sections lie in superposed parallel relation, and an extended bed position in which said sections lie in horizontal alignment; and a linkage system interconnecting said sections to constrain the mechanism to fold and unfold in accordance with a continuous predetermined pattern of movement, said linkage system comprising a first lever fulcrumed to the lower horizontal section, a second lever fulcrumed to the front vertical section, each of said levers being levers of the first class, a rear link extending between the rear section and one arm of the first lever, the other arm of the first lever being pivoted to one arm of the second lever, and a front link extending between the other arm of the second lever and the upper horizontal section.

2,832,966
BED SPRING
Louis Elliott Frey, Los Angeles, Calif.
Application April 9, 1956, Serial No. 577,047
6 Claims. (Cl. 5—248)



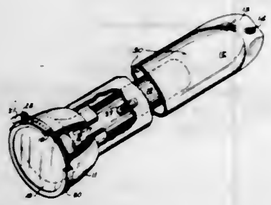
6. A bed spring adapted to be used with a mattress and bed coverings, said spring having a horizontal upper surface, said mattress adapted to rest upon said upper surface, said coverings adapted to extend across said mattress, the lower ends of said coverings adapted to extend between said mattress and spring adjacent the foot portion thereof, means depressing the foot portion of said spring downwardly to provide a shallow recess slightly depressed beneath the horizontal upper surface of said spring, said recess being adapted to receive the lower ends of said coverings, said ends adapted to be stored within said recess and adapted to extend substantially parallel to the upper surface of said spring, so that said mattress is not substantially displaced vertically upwardly from the upper surface of said spring.

2,832,967
BLANKET
Henry L. Sobel, Forest Hills, N. Y.
Application July 18, 1956, Serial No. 598,558
5 Claims. (Cl. 5—334)



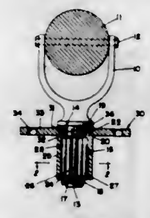
1. A blanket construction of a single sheeted fabric for outlining a bunting and varying sizes of bed coverings the edges of which are of polygonal outline, opposed edges of said polygonal outline being arranged in parallelism, each of the opposed edges having conformably located a plurality of fastening elements, each constituting one member of a pair of complemental fastening elements, and when folded serving to align the fastening elements carried by different plies to provide a polygonal outline of reduced dimension, with the opposed edges superimposed, and selectively removable, engaging, complemental, mating fastening elements, each forming the second of the pair of said elements, to hold said edges of said plies in the superimposed position with the edges of the superimposed plies betwen engaged fastening elements co-terminous and held together at each of the co-terminous ends of the plies by said fastening elements.

2,832,968
BUOYANT FLASHLIGHT COVER
Valdemar Knudsen, Honolulu, Territory of Hawaii
Application September 27, 1955, Serial No. 536,856
3 Claims. (Cl. 9—8.3)



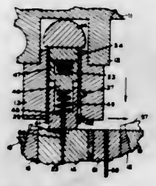
1. A waterproof cover for an electric flashlight, said flashlight being of the type consisting of an elongated battery casing joined to a larger diameter head containing illuminating means and a protecting lens, said cover being composed of a head portion having a lip of greater diameter than the head of the flashlight and containing a lens, said head portion tapering from said lip to a diameter less than said flashlight head and containing means for engaging and holding said flashlight head with the lens of said cover in register with the lens of said flashlight head, the head portion of said cover being joined by a watertight connection to the body portion of said cover consisting of a relatively flexible waterproof envelope enclosing the battery casing of the flashlight, said envelope having dimensions substantially in excess of said battery casing, in inflated condition normally making no contact with said battery casing and forming a substantial uninterrupted air chamber around said battery casing, said cover head portion further carrying means clamping said head portion against the lens of said cover, said means being adjustable to form a seal therebetween which is leakproof.

2,832,969
OARLOCK
Warren R. Kistler, Weatherly, Pa.
Application September 8, 1953, Serial No. 378,719
1 Claim. (Cl. 9—26)



In an oar mounting including a socket member for attachment to the gunwale of a boat and having therein a cylindrical bearing opening, a yoke for supporting an oar, and a tholepin projecting from the lower end of said yoke and extending axially into said bearing opening, the improvement comprising an annular ballbearing assembly supported within the socket member at the upper end of said opening and surrounding said tholepin, an enlargement on said tholepin for limiting entry thereof into said ball-bearing assembly, whereby downward thrust of said tholepin is transmitted to said socket member, an annular roller-bearing assembly loosely surrounding said tholepin within said bearing opening and extending substantially throughout the remainder of the length of said tholepin within said socket member, whereby lateral thrust of said tholepin is transmitted to said socket member, the lower end of the tholepin protruding below the bottom of the socket member, and retaining means affixed to the protruding lower end of said tholepin and in engagement with said roller-bearing assembly, said retaining means extending radially from said tholepin a distance less than the minimum diameter of said bearing opening, for substantially preventing independent longitudinal movement of said bearings relative to said tholepin while permitting the tholepin to be removed at will from the bearing opening in said socket member with the bearing assemblies retained upon the tholepin.

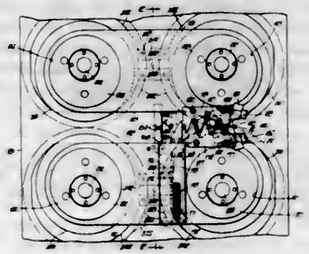
2,832,970
SINGLE BLOW HEADING MACHINE WITH TWO PART HEADER PUNCH
Raymond H. Carlson, Rockford, Ill., assignor to Camcar Screw & Mfg. Corp., Rockford, Ill., a corporation of Illinois
Application October 4, 1954, Serial No. 460,224
7 Claims. (Cl. 10—11)



1. In a cold heading press, the combination comprising a die having a face surface, a matrix cavity recessed in said surface, said cavity having a depth equal to that of the head to be formed, a punch unit having a face surface facing said die surface, said punch unit comprising a main body member having an axial bore in coaxial alignment with said die cavity, said bore having a diameter less than the diameter of said cavity, said body member having a raised annular bead about said bore providing a flared extension of said bore beyond the face surface of the remainder of said body member, the outer diameter of said bead being less than the diameter

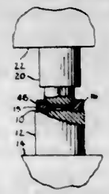
of said cavity, said bore being adapted cooperatively to receive the end portion of a workpiece to be formed in said cavity, and a drive pin slidably arranged in said bore and being adapted to expel said workpiece end portion into said matrix cavity after the punch face surface has been moved into abutting relation with the die face surface, the face of the drive pin in the extended position of the drive pin extending beyond the face of the die but not beyond the annular bead.

2,832,971
PINCH POINTING MACHINE
Ernest A. Tesch, Chicago, Ill., assignor to Pheoll Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application June 21, 1955, Serial No. 516,953
35 Claims. (Cl. 10—21)



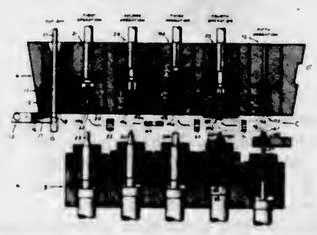
1. A machine for pointing workpieces which are characterized by a head portion and an integral shank portion, means for supporting a plurality of the workpieces for movement in a predetermined path, said workpieces being supported with the shank portion depending from the head portion, a pair of pointing dies mounted on movable die supporting members at opposite sides of the path of movement of said workpieces, means for reciprocating said die supporting members in oppositely disposed generally circular paths whereby to bring the dies thereon into cooperative engagement with successive workpieces, means associated with said die supporting members for separating the workpieces and spacing the same along said path as they approach the dies, and means mounted on said die supporting members for advancing the workpieces while they are in spaced relation between said dies.

2,832,972
METHOD AND APPARATUS FOR SWAGING INTERNAL THREADS
Arthur J. Richards, Detroit, Mich.
Application February 16, 1953, Serial No. 336,988
6 Claims. (Cl. 10—86)



1. The method of forming a screw thread in a metal blank with a punch having an end portion provided with a surface shaped to correspond to one side of the thread to be formed, comprising providing a metal blank having an aperture therein of a diameter approximately equal to the major diameter of the thread to be formed, applying pressure with the punch against the metal adjacent one end of the aperture beginning at the point of initial contact of the punch with the metal and continuing progressively around the aperture with the outer periphery of contact of the punch with the metal increasing in radius in respect to the axis of the aperture as the punch is forced inwardly thus forcing a flow of metal axially and radially inwardly of the aperture against the thread shaping surface of the punch.

2,832,973
MANUFACTURE OF ACORN NUTS
Roderic A. MacDonald, Greenwich, Conn., assignor to Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y., a corporation of New York
Application June 13, 1956, Serial No. 591,211
5 Claims. (Cl. 10—86)

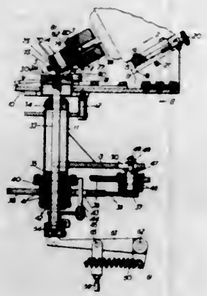


1. The method of die-forming a cylindrical slug of steel metal into an acorn nut which consists of forging the slug in successive cold forging operations, comprising forming, in a plurality of forging operations, a dome shaped nut blank, having a tapered blind hole closed at one end by said dome and open at its other end and a hex shaped apron, then introducing said blank into a die having a cavity with a hex shaped side wall and a bottom corresponding to the shape of the open end of the finished nut, said blank being presented to said die cavity with its open end toward said bottom, then applying a compressive force to the exposed dome part of said blank by a punch having a dome shaped cavity in its end face, thereby to form a blank having a dome, a hex apron, a tapered blind hole and a face corresponding to the face of the finished nut, then transferring said blank to a final die having a dome shaped cavity presenting a smooth uninterrupted surface, corresponding to the shape of the dome of the finished nut and a hex entrance, said blank being presented to said die with its blind end toward said cavity and its open end away from said cavity, then applying a compressive force to said blank by a punch having a nose of substantially cylindrical shape entering said blind hole, thereby in said last forging operation to form an acorn nut blank having a dome shaped crown with a smooth exterior surface free from flat areas and pin marks, a hex apron and a substantially cylindrical blind hole therein, then removing said blank from said die and tapping the blind hole to form an internally threaded acorn nut having a smooth exterior crown surface free from flat areas and indented tool marks.

2,832,974
APPARATUS FOR ROUGHENING RUBBER SOLES
John Tuna, Horndon-on-the-Hill, and Antonin Marcanik, Grays, England, assignors to Bata Shoe Company Inc., Belcamp, Md.
Application November 14, 1955, Serial No. 546,749
4 Claims. (Cl. 12—17)

1. An apparatus for roughening the upper surface of a formed sole and comprising a circular turntable rotatable about a vertical axis, means for rotating said turntable so that a peripheral portion of it travels directly underneath a working location, a central boss on said turntable above the level of said peripheral portion, a rotary sole-roughening device mounted to rotate about an axis which

is inclined to the horizontal in a vertical plane nearly tangential to said turntable, said device being disposed directly above the working location, and guide rollers freely journalled side-by-side near said turntable, the construction being such that when a sole unit is put on the rotating turntable and against said rollers the boss and peripheral portion below the unit and the rotating device above it hold it in a plane inclined to the turntable, the underside of the device applies to the sole unit a force



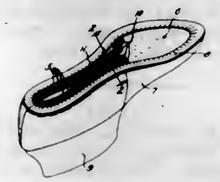
transverse to said vertical plane and towards said rollers and said peripheral portion applies to the sole unit a tangential force, said transverse and tangential forces alone co-operating to effect a circulatory movement of the sole unit in said inclined plane under the guidance of said rollers in a path through the working location, which path is locally coincident with said vertical plane, so that the sole surface is roughened by said device along an endless zone.

2,832,975
METHOD OF MAKING FLAT RIB WELT SHOES
Ralph E. Pearsall, Gloucester, and Lawrence A. Severy, Rockport, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 6, 1955, Serial No. 551,367
3 Claims. (Cl. 12—142)



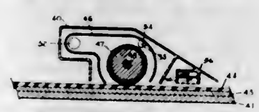
1. In the art of making welt shoes, the steps which comprise providing upon a last an insole having a flat rib attached thereto and extending inwardly from its margin in a plane substantially parallel to the outer surface of the insole, providing an upper having a lasting margin, pulling the upper over the last, lasting the heel end of the upper to the heel seat portion of the insole lasting the toe end of the upper to the inwardly extending flat rib, and then completing the lasting of the shoe along the opposite sides progressively by tensioning the upper heightwise of the shoe and drawing its margin inwardly over the rib in parallel relation to the insole in different locations successively and simultaneously attaching a welt around the periphery of the shoe from the heel breast line at one side to the heel breast line at the opposite side of the shoe, without any distortion of the welt heightwise of the shoe, by a single row of staples inserted through the welt, the upper and the rib in a direction substantially perpendicular to the insole.

2,832,976
METHOD OF FORMING A RESIN-IMPREGNATED SHOE SHANK STIFFENER
Carl A. Huprich, Carbon Hill, Ohio
Application October 3, 1956, Serial No. 613,654
4 Claims. (Cl. 12—146)



4. The method of providing a shoe with a shank stiffener which comprises: positioning a shoe upper and an insole upon a last; placing upon the outer surface of the shank portion of the insole a plurality of strands of flexible, fibrous glass substantially saturated with a liquid, polymerizable synthetic resin; shaping and arranging said strands in relatively closely spaced, substantially parallel, longitudinally extending order upon and coextensive with the shank portion of the insole; securing an outsole in coextensive relation to the insole to enclose said strands; and causing the resin carried by said strands to polymerize to a hardened state while in situ between the insole and outsole portions of the shoe.

2,832,977
ELECTROSTATIC CLEANING DEVICE
Lewis E. Walkup and Herbert E. Carlton, Jr., Columbus, Ohio, assignors, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York
Application February 5, 1952, Serial No. 269,958
2 Claims. (Cl. 15—1.5)

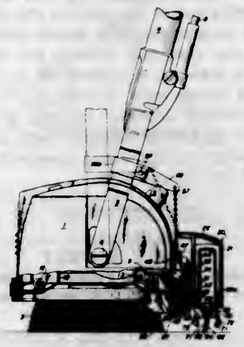


1. Xerographic apparatus to clean a residual xerographic image comprising particulate material remaining after transfer of the developed image from the surface of the photoconductive insulating layer of a xerographic plate, said apparatus comprising support means for a xerographic plate, a cylindrical brush rotatable in contact with the image bearing surface of the plate, means for rapidly rotating the brush, means to cause relative motion between the axis of said cylindrical brush and the image bearing surface, a first corona discharge electrode positioned and disposed to apply electrostatic charge to the brush, a second corona discharge electrode positioned and disposed to apply electrostatic charge to the image bearing surface ahead of the brush in its direction of motion along the surface to be cleaned, and means for withdrawing from the vicinity of the brush an air stream containing therein suspended particulate material removed from the image bearing surface.

2,832,978
FLOOR POLISHERS
Edward Frank Mann and Frederick Roy Sibbald, Perivale, Greenford, England, assignors to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application April 13, 1954, Serial No. 422,883
15 Claims. (Cl. 15—50)

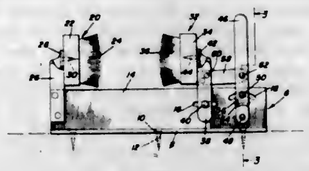
1. In a polisher having a main frame adapted to be supported on a surface to be polished and a propelling handle attached to the frame, the combination of a wax applying structure having a wax container, a depending

wax applicator and air pressure operated means for feeding wax from the container to the applicator; means on the frame mounting the wax applying structure for movement between operative and inoperative positions, means biasing the wax applying structure to inoperative position,



a releasable latch for holding the wax applying structure in operative position, a valve means operative to release air pressure from the air pressure operated means when the wax applying structure is in inoperative position, and manually operated means for releasing the latch.

2,832,979
SHOE CLEANING DEVICE
John M. Troyer, Millersburg, Ind.
Application October 15, 1956, Serial No. 615,875
1 Claim. (Cl. 15—112)



A shoe cleaning device comprising a base in the form of an angle iron having a horizontal flange which is adapted to be anchored on a foundation and having a vertical flange whose upper edge constitutes a scraping edge, a first bristle-equipped brush, a bracket fixed to the backing of said brush and also fixed to the vertical flange in a manner to maintain the bristles in a plane above the scraping edge at one end of said edge, a second bristle-equipped brush also situated above said scraping edge and opposed to the first named brush and provided with a fixedly mounted bracket depending therefrom and superimposed against one surface of said vertical flange and having a headed rivet adustably mounted in a slot provided therefor in said vertical flange, a lever also superimposed against said one surface and hingedly mounted at its lower end on said vertical flange and having its upper end extending to a position above said scraping edge and provided above said scraping edge with a hingedly mounted adjusting link, said link being fixedly secured to said second named bracket, said vertical flange being provided with an arcuate rack having rack teeth and said lever being provided with a lateral detent selectively engageable with said teeth, said vertical flange having an arcuate slot and said lever having a spring-equipped assembling and retaining bolt operable in said arcuate slot.

2,832,980
CLEANING DEVICE
Frank D. O'Neill, Toronto, Ontario, Canada
Application October 5, 1956, Serial No. 614,179
5 Claims. (Cl. 15—124)



2. A cleaning device comprising an elongated handle having a central longitudinal opening, a mounting block slidably positioned in said central opening, a blade type cleaning element removably positioned in said central opening for movement out of one end of said handle, and means pivotally connecting said cleaning element to said mounting block whereby said cleaning element is selectively retained by said mounting block in an inoperative position within said handle and a transverse operative position at said one end, a longitudinal pocket in an exterior face of said handle, a cleaning agent dispenser seated in said pocket, said cleaning agent dispenser including a spray head adjacent said cleaning element when said cleaning element is in said operative position.

2,832,981
DEVICE FOR APPLYING LIQUID ADHESIVE OR THE LIKE
Fritz Ernst Breuhan, Hannover, Germany
Application May 1, 1956, Serial No. 581,964
2 Claims. (Cl. 15—136)



1. Device for applying liquid adhesive, comprising in combination, a container for said liquid adhesive formed of a flexible, resilient material, said container having a closed flat bottom portion and an externally threaded, internally smooth, upper open neck portion; an internally threaded hollow brush holder capable of engaging with said externally threaded neck portion, an inner transversely extending flange integrally formed with said hollow brush holder, and arranged substantially centrally thereof, a first cylindrical lip portion extending axially towards one end of said brush holder and capable of close fitting engagement with said interior smooth portion, for sealing contact therewith, and to remove liquid residue therefrom, a second cylindrical lip portion extending axially from said flange towards the other end of said brush holder, said second cylindrical lip portion having a smaller outside diameter than said first cylindrical portion, and being spaced from said neck portion for easy entry thereinto and to avoid solidification of the liquid

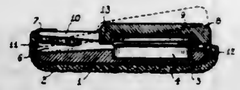
adhesive, a brush shank engaging interiorly with said second lip portion and extending partly into said second cylindrical lip portion, said shank being provided with a passage for permitting the flow of adhesive therethrough, and a brush secured to said shank and said second lip portion.

2,832,982
WINDSHIELD WIPER ARM CONNECTION
Eric Bernard Parkes, Birmingham, England, assignor to Joseph Lucas (Industries) Limited, Birmingham, England
Application May 5, 1953, Serial No. 353,068
1 Claim. (Cl. 15—255)



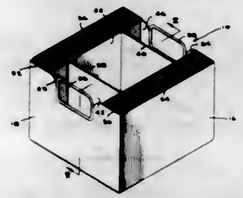
An oscillatory windscreen wiper arm comprising the combination with a coupling composed of complementary parts in the form of an internally serrated hollow boss and an externally serrated collar on which said boss is mounted with its serrations engaging those of said collar, of a branch extending radially from said boss and having an abutment thereon, a claw pivotally mounted on said branch and engageable with one end of said collar to prevent detachment of said boss therefrom, a first spring blade bearing against one side of said abutment, and a second spring blade attached to said first spring blade and having an end portion bent over to form an angle with the adjacent portion of said second spring blade, one end of said claw being situated within said angle and shaped to abut said second spring blade so that said claw is normally retained in engagement with said collar by said second spring blade, but is disengageable from said collar by the bent over end portion of said second spring blade in response to a predetermined joint angular movement of said first and second spring blades.

2,832,983
SHOE POLISHER
Ernest R. Knopf, Clinton, Conn.
Application November 25, 1955, Serial No. 548,819
1 Claim. (Cl. 15—258)



A shoe polisher comprising in combination, a polishing means; a base carrying the said polishing means and being provided with a circular cavity and a conjoint groove having a predetermined depth; an open box of shoe polish disposed in the said circular cavity; a spring attached to the said base securing the said box of shoe polish in position in the said cavity; a daubing means adapted to be disposed in the said groove with its operating surface directed toward the bottom of the said groove: an operating handle secured to the said daubing means and being so adapted that when the said daubing means is disposed in the said groove said handle functions as a cover for the said open box of shoe polish and also functions as the sole handle of the said polishing means, said handle having a fulcrum; a locking and unlocking means comprising a plate secured to the said base and partially covering the said groove and a snap lock secured to the said base near the end of said base opposite to said groove and having its cooperating element secured to the said handle, said locking and unlocking means being so adapted that when the daubing means is placed into said groove said plate engages the said daubing means and on the application of pressure on the said handle the said snap lock secures the said handle and the daubing means to the said base, and when in the thus assembled shoe polisher a pressure is applied on the said daubing means it moves downwardly into the groove as permitted by the predetermined depth of the said groove, causing the swinging of the handle angularly around said fulcrum and the disengagement of the said snap lock and the connected handle from the said base.

2,832,984
UTILITY BUCKET
Francis A. Peters, Pittsfield, Mass.
Application August 10, 1956, Serial No. 603,309
2 Claims. (Cl. 15—264)

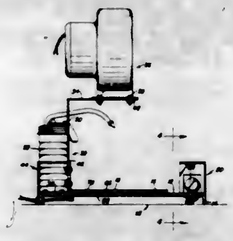


1. A combined bucket and support comprising a rectangular body having longitudinal side walls having upper and lower edges, transverse end walls secured to related ends of the side walls and having upper and lower edges, a pair of longitudinal partition panels extending between said end walls and laterally inwardly spaced from said side walls, said longitudinal panels having upper edges on a level with the upper edges of the side and end walls and lower edges spaced upwardly from the lower edges of the side and end walls, a bottom wall secured to the lower edges of said longitudinal panels and extending between said longitudinal panels and between said end walls, and being unextended to said side walls, transverse partition panels extending between said longitudinal panels and said bottom wall at points spaced inwardly from and near said end walls, said bottom wall, said transverse panels, said longitudinal panels and subtended portions of the end walls defining a main central compartment and a pair of end compartments, reinforcing struts extending between said side walls and said longitudinal panels, plates secured on the upper edges of and extending between said longitudinal panels and said side walls and subtended portions of the upper edges of the end walls, said plates having upper surfaces, and non-skid treads on and secured to said upper surfaces.

2,832,985
CLEANING APPARATUS FOR PHOTOGRAPHIC FILM NEGATIVES
Albert T. Durling, Hudson Falls, N. Y.
Application September 10, 1954, Serial No. 455,296
1 Claim. (Cl. 15—302)

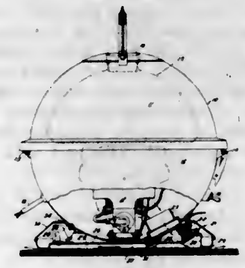
A device for cleaning a photographic film negative comprising a platform having a groove therein, a sheet of dark light absorbing material in said groove providing a dark background against which to view particles of dust on a film negative positioned over said sheet, an electric light bulb on said platform above and at one side of said sheet, a light reflecting housing rising from said platform over said bulb and deflecting light rays

from said bulb across a film negative positioned over said sheet, a bracket rising from the platform at the other side of the sheet, a downwardly discharging electric



blower on said bracket overhanging said sheet for cleaning dust off a film negative, and electric means including a single switch for simultaneously energizing said light bulb and blower.

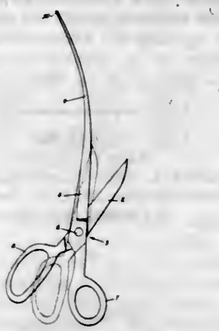
2,832,986
CONVERTIBLE AIR SUPPORTED SUCTION CLEANER
Werner G. Seck, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application April 6, 1956, Serial No. 576,734
5 Claims. (Cl. 15—327)



1. A suction cleaner comprising, a body having a suction inlet and an exhaust outlet, a suction creating unit within said body for drawing air into the suction inlet and for exhausting said air through said outlet, a supporting base for said body, a plenum chamber formed in said base and exposed over a substantial area to the surface upon which said body rests, a supporting rim surrounding said area, means including a separable member for leading exhaust air from said exhaust outlet to said plenum chamber whereby an air pressure is formed therein sufficient to carry the weight of the cleaner and excess air is diffused from beneath the bottom edge of said rim, a secondary air passage leading from said exhaust outlet direct to atmosphere, said secondary air passage being normally closed by said separable member whereby upon its removal a free path of air flow to atmosphere is provided for air exhausted by said suction creating unit.

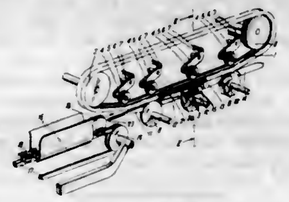
2,832,987
SHRIMP DEVEINER AND SHELLER
Antonio Di Camillo, Lyndhurst, N. J.
Application July 6, 1956, Serial No. 596,218
1 Claim. (Cl. 17—7)

A shrimp cleaning tool for removing the sand veins and shells from shrimp comprising a pair of scissors having a pair of blades with cooperating smooth straight cutting edges, one of said blades at its end carrying and merging gradually into a rigid, curved smooth finger, said finger being of uniform thickness and tapering gradually in width along its length to a midportion thereof, the terminal portion of said finger being of uniform cross-sectional dimensions, said finger being curved away from the other blade to enable the finger to be inserted into a sand vein and passed therethrough to clean the



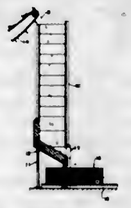
vein and impale the shrimp and said scissors being operable to sever the back and shell of the shrimp while impaled for removal of the shell.

2,832,988
METHOD OF CONVEYING FISH THROUGH FISH DRESSING MACHINES
Karl Friedrich Schlichting, Lubeck, Germany, assignor to Nordischer Maschinenbau Rud. Baader, Lubeck, Holstein, Germany, a company of Germany
Application December 16, 1954, Serial No. 475,642
Claims priority, application Germany November 5, 1954
1 Claim. (Cl. 17—45)



A method of conveying fish during a dressing operation, said method comprising the steps of engaging the entire back of a fish body by frictionally engaging portions of said back extending along the entire length thereof, whereby said frictional engagement is adapted to follow the outline of said back, pushing said fish body with its head portion forward while maintaining said frictional engagement, and simultaneously dressing said fish body.

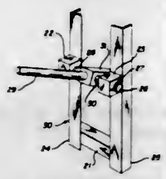
2,832,989
METHOD OF RECOVERING MEATS OF BIVALVES
Sterling Grover Harris, Beaufort, S. C., assignor to Blue Channel Corporation, Port Royal, N. C., a corporation of Maryland
Application May 9, 1956, Serial No. 583,880
9 Claims. (Cl. 17—45)



1. A method of recovering the meats from the shells of bivalve molluscs, which comprises subjecting the raw

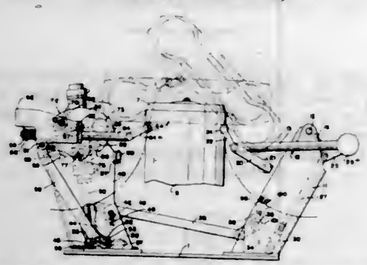
bivalves to mechanical shock sufficient to weaken the adhesion to the shells of the adductor muscles of the bivalves and cause the shells to open, heating the bivalves, after the mechanical shock treatment, to effect at least partial release of the adductor muscles of the bivalves from the valves, and agitating the bivalves after heating to complete the release of the adductor muscles from the valves and to cause removal of the meats from the shells.

2,832,990
MOLD OPENER
Theodore A. Miller, Cuyahoga Falls, Ohio
Application October 20, 1954, Serial No. 463,399
2 Claims. (Cl. 18—2)



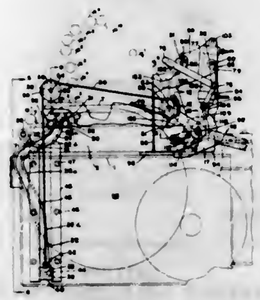
1. Mold opening apparatus for separating a pair of hingedly connected mold plates having aligned mold cavities and aligned projecting lugs opposite their hingedly connected portions, said apparatus comprising a pair of parallel bars having opposed parallel faces spaced from each other by the width of the mold lugs for receiving and guiding said lugs in a mold-opening movement, a cross member secured to said bars for holding them in spaced relation, said cross member having a base surface normal to said parallel bars for seating on a face of one of said mold lugs and providing with said parallel bars a pocket engaging the top and end and both side faces of said one of said mold lugs, a fulcrum bar rotatively mounted on said parallel bars with its axis parallel to said base surface, and a lever mounted on said fulcrum bar between said parallel bars for engaging the opposed mold lug and prying the lugs apart while both lugs are held in alignment by said parallel bars.

2,832,991
TIRE REMOVING MECHANISM FOR SHAPING AND CURING PRESSES
Leslie E. Soderquist, Silver Lake, Ohio, assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application August 2, 1955, Serial No. 525,844
27 Claims. (Cl. 18—2)



1. In a press of the type for shaping and curing tires on a diaphragm, two stripping arms on opposite sides of the diaphragm, means for moving both arms to support a tire while the diaphragm is being stripped therefrom and for raising the tire to a point near the top of the diaphragm, and means operative thereafter for raising one of said arms above the top of the diaphragm to tilt the tire to a sufficient extent to cause the tire to slide across the diaphragm and out of the press.

2,832,992
MECHANISM FOR REMOVING CURED TIRES FROM TIRE CURING PRESSES
Leslie E. Soderquist, Silver Lake, Ohio, assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application May 17, 1956, Serial No. 585,522
14 Claims. (Cl. 18—2)



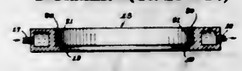
11. In a tire shaping and curing press having upper and lower mold sections, a tire forming mechanism in the press and means to lift the cured tire from the lower mold section, a stripping arm at one side of the forming mechanism and means to move the stripping arm beneath the tire after it has been lifted and to raise the stripping arm upwardly to lift the tire, a rock shaft, means to oscillate the shaft, a crank arm connected to the stripping arm, a lever on the rock shaft and a link attached to the crank arm, a cam connection between the link and the lever adapted to raise the stripping arm during the first part of the movement of the rock shaft and to delay the stripping arm during the second part of the movement of the rock shaft, a second stripping arm on the other side of the forming mechanism, and means actuated by the rock shaft to raise the second stripping arm during the entire movement of the rock shaft.

2,832,993
APPARATUS FOR EXTRUDING AND COOLING PLASTICS
Thomas K. Cox, Randallstown, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application May 13, 1952, Serial No. 287,475
4 Claims. (Cl. 18—6)



1. Apparatus for extruding and cooling articles composed of plastic compounds, which comprises an extrusion die, means for continuously forcing a hot plastic compound through the die to shape the compound into an elongated article, an elongated tube coupled to the exit end of the die, means for filling the tube with a cooling fluid under pressure so that an article issuing from the die may be advanced directly into and through the fluid in the tube, means for quickly uncoupling the tube from the die, and an annular heating unit abutting the exit end of the die and spaced concentrically from the article issuing from the die, said heating unit serving to prevent the fluid from cooling the die to a temperature at which smooth extrusion cannot be obtained

2,832,994
ACCESSORY APPARATUS FOR MAKING BLOWN POLYSTYRENE FILM
Harold G. Ahlich, Midland, and Eugene F. Habowski, Bay City, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application August 16, 1956, Serial No. 604,526
2 Claims. (Cl. 18—14)

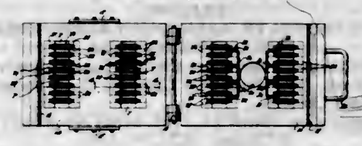


1. Accessory apparatus for use in the trapped bubble process for making thermoplastic film comprising, in association with a tube forming plastics extruder and a pair of pinch rolls disposed with their nip centered transversely on the extrusion centerline, a hollow metal ring of internal diameter greater than that of the orifice of the tube forming extruder but smaller than that of an inflated film tube to be produced in the apparatus, said ring having an inlet and an outlet for circulation therein of liquid coolant, and having a smooth metal bead circumferentially disposed along one edge of the inner face of said ring, to provide a single circumferential line of contact between the ring and such inflated film tube, the ring being mounted coaxially with the tube forming extrusion die and spaced therefrom a short distance to serve as a guide for inflated plastic film tube during operation of the apparatus for its intended purpose.

2,832,995
APPARATUS FOR MOLDING BURIAL VAULTS
Stanley W. McCaw, Phoenix, Ariz., assignor of fifty percent to Mel L. Decker, Phoenix, Ariz.
Application November 26, 1954, Serial No. 471,249
2 Claims. (Cl. 18—34)

1. A mold for forming a plastic burial vault or the like, comprising, a female member having an opening at the top, a base, sides fixed to said base, reinforcing bars fixed to said sides, a lining surrounding said reinforcing bars conforming to the outside configuration of the work piece to be molded, an angle member secured around the top edge of said sides having a sealing surface, a male member adapted to be presented into said female member, an expansible bag covering the outside surface of the male member, a clamping ring fixed to said male member and engaging the outer edge of said bag to form an air tight space between the inside of said bag and the outside surface of said male member, said clamping ring having a mating sealing surface adapted to engage said sealing surface on said angle member so as to form an airtight chamber between the outside of said bag and said lining, a vacuum suction line in said clamping ring connected into said space between said bag and lining, clamping means between said angle member and said clamping ring, and an air pressure supply pipe on said male member connected to the space between said bag and said male member.

2,832,996
MOLD FOR MULTIPLE PRODUCTION OF VIBRATION DAMPENING MOUNTINGS
Homer J. Loftis, Ironton, Ohio, assignor to Henrite Products Corporation, Ironton, Ohio, a corporation of Ohio
Application June 23, 1953, Serial No. 363,642
2 Claims. (Cl. 18—36)

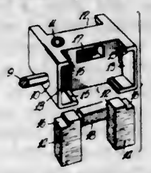


2. In a mold comprising complementary separable mold members, a plurality of mold blocks axially aligned in side by side relation and adapted to form vibration dampening mountings comprising concentrically spaced apart outer and inner circular metallic bands having a body of interposed rubber bonded thereto, and wherein the inner band is wider than the outer band, said mold blocks each comprising complementary separable half sections respectively imbedded in the respective mold members in opposition one to the other, said mold block half sections having matching mold cavities, each mold cavity providing an outer band seat between cavity side walls which are spaced apart a distance corresponding to the width of an outer band and an inner band seat of greater width formed by shoulders indenting said cavity side walls and inwardly spaced in concentric relation to said outer band seat, whereby an inner band seat thereon will span said cavity side walls to define an annular mold cavity interior intermediate seated outer and inner bands, and at least one half section of each mold block having an intake passage through which stock supplied to the mold members can be injected to fill the mold block cavity.

2,832,997
POROUS SHEET MATERIAL
Kenneth E. Bristol, Akron, Ohio, assignor, by mesne assignments, to The Goodyear Tire & Rubber Company, a corporation of Ohio
No Drawing. Application September 24, 1953
Serial No. 382,185
5 Claims. (Cl. 18—53)

1. A process for manufacturing porous fibrous sheeting of substantially uniform thickness which comprises forming a layer of frothed gellable latex containing fibrous material uniformly distributed throughout the froth, gelling the layer of froth, partially compressing the layer of gelled frothed latex to increase its density, and curing the partially compressed layer under pressure sufficient to further compress the layer into a vulcanized fibrous sheeting having a moisture vapor transfer rate of from about 25 to about 40 grams per 100 square inches per 24 hours measured at an 85% humidity differential at 77° F.

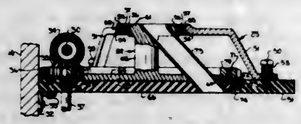
2,832,998
NEB
Richard K. Whitehead, Emory University, Ga.
Application June 2, 1953, Serial No. 359,054
3 Claims. (Cl. 19—134)



3. A neb including a body, said body having a web and lateral end flanges at both ends of said web, said

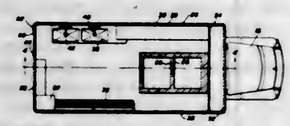
lateral end flanges having inturned facing top and bottom flanges forming generally U-shaped housings facing each other, and wear blocks of wood fitting in said housings and presenting end wood wear surfaces to a journal of a top roll.

2,832,999
ELECTROSTATICALLY INSULATED COILER HEAD MECHANISM
Joe R. Whitehurst, Bessemer City, N. C., assignor to Ideal Industries, Inc., Bessemer City, N. C., a corporation of North Carolina
Application March 14, 1955, Serial No. 494,171
6 Claims. (Cl. 19—159)



1. In a coiler mechanism for laying sliver into a can, a rotatable coiler head having a base thereon and an inclined sliver tube mounted in said coiler head; the combination of a coiler plate made from anti-static material and having an opening therein, a coiler pressure disk fixed to the lower surface of said base and loosely disposed in said opening, and said sliver tube also penetrating said coiler pressure disk, the coiler pressure disk also being made from an anti-static material whereby the anti-static material in the coiler plate and the pressure disk prevents the creation of static electricity during rotation of the pressure disk and the coiler head relative to the coiler plate.

2,833,000
MOBILE MILK ROOM
Bruce A. Jurgensen, Astoria, Oreg.
Application September 27, 1954, Serial No. 458,360
1 Claim. (Cl. 20—2)



A vehicle for receiving bulk milk for temporary storage and cooling comprising a wheeled frame, an enlarged enclosed body having vertical walls, a floor and a roof, the rear wall of the body having an access opening with closure door therein, said roof having ventilating openings with baffles overlying the openings in spaced relation to permit circulation of air, the side walls having windows to admit air and natural light into the enclosure, a plurality of sinks along one side wall, cabinets disposed below the sinks, faucets on said sinks, a hot water heater for heating water for cleaning milking utensils, a drying rack on the other side wall for supporting cleaned milking utensils, a pair of tanks within the enclosure for receiving and storing liquid bulk milk, an inlet pipe for each milk tank, each of said pipes extending to the exterior of the enclosure for filling the tanks with milk, and refrigeration equipment for cooling the milk, and a hot water tank including a transverse partition wall in spaced relation to the front wall of the enclosure for forming a compartment in the form of a tank extending transversely of the enclosure.

2,833,001
APPLIED SECTIONAL STRUCTURE FOR CUSHIONING WALL SURFACES
Jack M. Montefalco, Shelton, Conn., assignor, by mesne assignments, to The B. F. Goodrich Company, Akron, Ohio, a corporation of New York
Application June 20, 1952, Serial No. 294,560
1 Claim. (Cl. 20—4)



Sectional structure for cushioning the whole of a continuous lateral extent of wall surface, comprising in combination with a prefabricated wall and a plurality of prefabricated unitary cushioning sections assembled in mutually contacting edge-to-edge abutment at the front of the wall surface, means removably to fasten said sections to said wall in immobilized relation to one another, each of said sections comprising a body of highly compressible resilient cushioning material having opposite flat broadside faces and flat lateral edge faces meeting at least one of said broadside faces at substantially right angles whereby to form a sharp linear corner, a rigid mounting panel having a broadside surface facing and secured to the opposite flat broadside face of said body and having at least one margin projecting edgewise beyond one of said edge faces of said body into outboard relation thereto, and having an opposite margin overhung by an opposite marginal portion of said body for enabling all outboard margins of said panels to be overlapped and concealed by said cushioning bodies of respectively adjoining sections, and a non-stretchable highly flexible sheet of tough material tightly hugging one broadside face and also said edge faces of said body of cushioning material and drawn tightly over said sharp lineal square corner at the junction of said broadside face and edge faces.

2,833,002
VENTED WALL CONSTRUCTION FOR TRAILER
Donald F. Cole and Clyde F. Wait, Flint, Mich., assignors to Palace Corporation, Flint, Mich., a corporation of Michigan
Application June 17, 1953, Serial No. 362,370
1 Claim. (Cl. 20—4)

A vented wall construction for a trailer comprising the combination of a plurality of longitudinally disposed overlapping sheathings, a plurality of wall studs, a floor rail extending beneath said wall studs, the underlying flaps of said sheathings being secured at their inner edges to said wall studs when said sheathings are disposed in overlapping relationship, a plurality of vertically corrugated metal strips holding the outer edges of said sheathings in spaced relation to said underlying flaps, a portion of sheathing surrounding the outer side and bottom of said floor rails, a plurality of vertically corrugated metal strips longitudinally disposed to hold said portion of said sheathing in spaced relation to the side of said floor rails, and a plurality of corrugated metal strips secured to the



underside of said floor rail and adapted to hold the under portion of said sheathing in spaced relation to the bottom of said floor rail.

2,833,003
STRUCTURAL PANEL
Joseph B. Bourne, La Mesa, and Clifford Croome, San Francisco, Calif.
Application November 22, 1954, Serial No. 470,315
7 Claims. (Cl. 20—15)



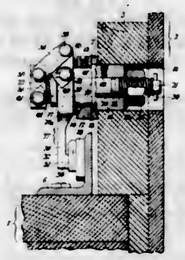
1. A structural element comprising: a panel; a channel secured to edge portions of said panel; said channel having a bight and extended flanges overlapping the surfaces of said portions; said channel having a rib integral with said bight and extending inwardly between said flanges, said rib being substantially coextensive in length with said bight said channel being bonded to the edge of said panel with the portion of the panel between said flanges compressed thereby.

2,833,004
DOOR
David R. Johnson, Dan C. Muessel, and Jack M. Roehm, Niles, Mich., assignors to Kawneer Company, Niles, Mich., a corporation of Delaware
Application June 13, 1956, Serial No. 591,170
2 Claims. (Cl. 20—91)



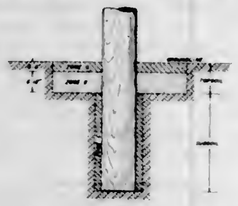
1. A composite flush door comprising, a rectangular frame formed of a cellulosic material and having a peripheral groove in and extending the entire length of the marginal edges thereof, a pair of rigid panels secured over opposite sides of said frame with the edges of said panels lying flush with the edges of the frame, a honeycomb filler material disposed within the space defined by said frame and said panels, a plurality of thin plastic sheets covering the exterior sides of said panels and partially overlapping the marginal edges of said frame, a plurality of metallic edge trim strips secured to said frame over the marginal edges thereof to provide a metallic border for said door, the widths of said strips being substantially equal to the combined thicknesses of said frame, said panels and the two covering sheets, an inwardly directed web on each of said strips which extend throughout the length thereof, said webs being positioned in said groove, the height of said webs being less than the depth of said groove, and a pair of longitudinal beads disposed near the edges of said trim strips engaging said plastic sheets only in the area adjacent to the ends of said panels.

2,833,005
SECURING DEVICES
John K. Barry, Philadelphia, Pa., assignor to South Chester Corporation, Chester, Pa., a corporation of Delaware
Application February 11, 1957, Serial No. 639,468
8 Claims. (Cl. 20—92)



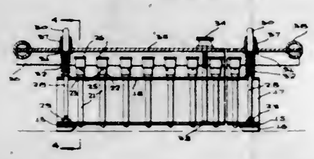
4. A securing device comprising a rotatable bushing constrained against endwise movement within a hole in a panel or the like and protruding beyond the inner face of the wall; a bolt constrained to endwise movement in the bore of the bushing and extending beyond opposite ends of the latter, said bolt having a threaded portion with a terminal stop at its outer end, and a parallel sided head at the inner end; a nut engaged upon the threaded portion of the bolt; a friction washer interposed between the nut and the confronting end of the bushing; a locking element in the form of an arm having a bevel undercut hook end, connected to the protruding end of the bushing with capacity for endwise movement at right angles to the bushing; toggle links each pivotally connected at one end to one side of the head of the bolt and to the corresponding side of the locking element; a thrust washer interposed between the inner end of the bushing and the locking element; a compression spring interposed between the head of the bolt and the bushing; and a member affixed to a part to which the panel is to be secured and having a projecting sloping bevel undercut lug for engagement from beneath by the hook end of the locking element whereby, as the nut is backed off until it contacts the stop on the bolt, the bolt is shifted by action of the spring with incidental impartation, through the toggle links, of endwise movement to the locking element to ease the hook end of the locking element from beneath the lug on the aforesaid member, and whereby upon further turning of the nut through a partial rotation in the same direction, the bushing is caused to rotate therewith, with incidental bodily swinging of the locking element away from the lug when the panel is to be removed.

2,833,006
METHOD OF INCREASING THE GROUNDLINE PROTECTION OF WOOD POLES TREATED WITH OIL-TYPE PRESERVATIVES
John W. Andrews, Pittsburgh, and Charles W. Leach, Trafford, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
Application August 11, 1955, Serial No. 527,674
7 Claims. (Cl. 20—100)



6. An installation comprising a wood pole treated with oil-type preservative inserted in the ground, a zone of powdered water insoluble hydrogen ion exchange material in contact with the pole in the proximity of the groundline, and a covering of soil over said material.

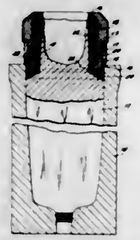
2,833,007
STERILIZING SUPPORT FOR HYPODERMIC NEEDLE CONTAINERS
Carroll B. Messer, Sr., and Donald E. Riddle, Lake City, Fla.
Application January 11, 1957, Serial No. 633,640
3 Claims. (Cl. 21—83)



2. In a sterilizing device for hypodermic needles, a frame including a horizontal top plate, a horizontal bottom plate and means rigidly connecting said plates in vertically spaced relation, said plates being formed with vertically aligned apertures, tubular hypodermic needle containers mounted in said vertically aligned apertures, said containers being formed with vent apertures at their upper ends, respective downwardly movable sealing caps on the upper ends of the containers, a plurality of vertical, upstanding guide rods on said frame, a cover plate slidably engaged over said guide rods, and spring means yieldably supporting said cover plate above said top plate, said cover plate being movable downwardly at times sufficiently to engage the sealing caps of the hypodermic needle containers and to move the sealing caps downwardly sufficiently to cover the vent apertures in the upper ends of the containers.

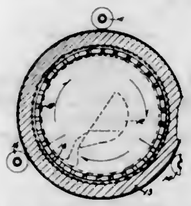
2,833,008
HOT TOP FOR INGOT MOLDS
Walter M. Charman, Shaker Heights, and Benjamin F. Anthony, Cleveland Heights, Ohio, assignors, by mesne assignments, to Oglebay Norton Company, Cleveland, Ohio, a corporation of Delaware
Application December 30, 1950, Serial No. 203,666
6 Claims. (Cl. 22—147)

1. A high efficiency hot top, comprising a metal casing, a low heat capacity, low heat conductivity, semipermanent porous insulating lining for said casing and a refractory veneer of a thickness about one-half inch and of fragile nature when subjected to contact by molten steel in direct contact with the inner surface of said lining, whereby said semipermanent lining is protected from thermal shock and mechanical blows, said hot top being



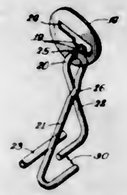
dimensioned to provide a sinkhead cavity of relatively low volume.

2,833,009
METHOD OF MANUFACTURING CIRCULAR LAMINATED PRINTING PLATES
Herbert H. Horst, Chicago, Ill.
Application October 8, 1956, Serial No. 614,677
3 Claims. (Cl. 22—200.5)



1. The method of manufacturing curved laminated printing plates which consists in the placement of a curved electroplated shell bearing printing indicia in the casting drum of a centrifugal caster, placing a complementarily formed perforate fortifying member within said shell, rotating said drum, providing a continuous flow of fused backing material to said fortifying member to pass through the perforate portions thereof and over the outer face of said fortifying member and over the adjacent back of said shell while said casting drum is being rotated, and removing, cooling and shaving the plate to the desired thickness for placing said plate on a printing press.

2,833,010
LAUNDRY CLIP
Harry Rosenthal, Chicago, Ill.
Application February 1, 1954, Serial No. 407,376
1 Claim. (Cl. 24—73)



A detachable clip for supporting a laundry bag by interconnection with a strap on the bag, and an apertured supporting identification tag attached to the clip, said clip including a wire member having first and second straight arm portions having ends and a curved portion joining said ends of said arm portions, said arm portions crossing each other and extending from said curved portion at an acute angle with respect to each other, said wire member including substantially identical inwardly extending portions on said arm portions at the terminal ends

thereof, said inwardly extending portions being spaced axially by a given amount in an open position of said clip and substantially axially aligned in a closed position of said clip, and a tubular member adapted to receive said inwardly extending portions therein and to support the strap of a laundry bag thereupon, said first arm portion having a section therein bent in a direction away from the plane of said first and second arm portions and forming a notch to receive therein said second arm portion in the closed position of said clip, said arm portions being resilient to permit spreading thereof to the open position for separating said end portions for insertion and removal of said tubular member, said clip in the open position thereof being adapted to be connected to the identification tag by spreading said wire member through an aperture in the tag to the extent that said curved portion of said wire member is positioned in the aperture, said second arm portion frictionally engaging the edges of said notch and said inwardly extending portions frictionally engaging said tubular member to restrain spreading of said arm portions in the closed position of said clip.

2,833,011
FASTENER CLIP
Robert E. Scott, Southfield Township, Oakland County, Mich., assignor to Gagnier Fibre Products Company, Oak Park, Mich., a corporation of Michigan
Application August 1, 1955, Serial No. 525,638
9 Claims. (Cl. 24—73)



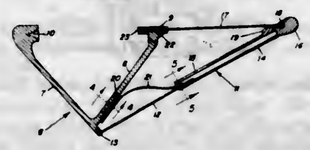
1. A fastening device made from a single piece of relatively stiff metal capable of retaining a given shape comprising a base having molding strip mounting structure thereon and means for mounting the device upon a relatively thin-walled supporting panel or the like having an aperture, comprising a first locking tongue projecting at an angle from said base and adapted to be inserted into and engage an edge of said aperture, a second locking tongue projecting through an opening in said base and adapted to be extended through said aperture at an angle with respect to said base divergently with respect to said first tongue, and an entry directing angularly disposed tongue guide lip on said base at said opening, said tongues being adapted to tightly frictionally engage opposed edges of said aperture to lock the device to said panel.

2,833,012
FASTENER FOR REMOVABLY SECURING BUTTONS OR THE LIKE TO GARMENTS
John W. Irwin and Lillian J. Irwin, Chester, Calif.
Application April 12, 1956, Serial No. 577,802
5 Claims. (Cl. 24—103)



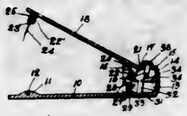
1. In a button attaching means, a pair of bars pivotally connected to one another at one of their respective ends, means for pivotally connecting the other end of one of said bars to a button, said bars being adapted to be extended across the back of said button in longitudinal relation with respect to each other, pins extending laterally from said bars adjacent to the connected ends thereof, said pins being curved laterally towards each other and adapted to pierce a garment and move into overlapped relation in such a manner as to provide a semicircular securing member within said garment when said bars are extended across the rear surface of said button, and a mechanism normally holding said bars in their extended positions.

2,833,013
SAFETY PIN
Henry S. Nonaka, Los Angeles, Calif.
Application July 1, 1957, Serial No. 669,071
4 Claims. (Cl. 24—156)



1. An improved safety pin of the character described comprising: a substantially V-shaped bar, a tubular guide on one end of the bar, a socket on the other end of said bar aligned with said guide, a telescopic bar pivotally mounted on the V-shaped bar, a pin having one end pivotally secured to the free end portion of the telescopic bar, said pin being slidable in the guide and engageable in the socket when in closed position, and means for securing the pin in the socket.

2,833,014
BABY'S SAFETY PIN
Charles R. Graham, Caseyville, Ill.
Application September 20, 1956, Serial No. 610,913
3 Claims. (Cl. 24—160)



1. A safety pin comprising a flat, elongated base member, a second flat elongated separable upper member, means pivotally mounting said flat upper member at one end on the adjacent end of said base member, means for opening and closing said upper member relative to said base member, said base member at the end remote from the pivotal connection with said upper member having an enlargement, said enlargement at the top thereof having an opening, a pointed pin adapted to fit within said enlargement opening, and means for connecting the end of said pin remote from said enlargement to the adjacent end of said upper portion, said means for mounting said pin comprising a hollow depending member secured to the undersurface of said upper portion at the end thereof remote from the pivotal connection with said base portion, said hollow member having a bottom wall having a circular opening receiving said pin downwardly therethrough, said pin having an enlarged head of greater diameter than said opening whereby to prevent complete downward displacement therethrough and a coil spring within said hollow member having one end bearing on said upper portion and the other end on said pin head.

2,833,015
BELT BUCKLES
B Bernard Kreisler, Greenwich, Conn., assignor to Kreisler Corporation, New York, N. Y., a corporation of New York
Application October 5, 1955, Serial No. 538,714
6 Claims. (Cl. 24—201)

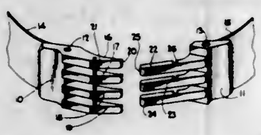
1. In a belt buckle of the character described, two separate parts, each having means for attaching a belt end

thereto respectively; the first of said parts presenting a plug having a pair of opposite end surfaces which diverge in extension of the belt end on said first part when such belt end is on said first part; the second part having a socket into and from which said plug can be entered and removed; said socket having opposite side walls which diverge in the same direction as said plug surfaces; the angles of both said divergencies being equal, whereby when the plug is inserted into said socket and upon movement of said parts to increase the distance between their belt-attaching means, said parts will become engaged by



said plug becoming wedged in said socket between said divergent side walls of the socket; said socket having clearance whereby the parts can be moved to decrease the distance between their belt-attaching means, whereupon said plug will become released for removal from the socket; said parts while in engagement, being swingable with respect to one another in opposite directions, whereby the widest end of the plug will leave the divergent walls of the socket in one direction and then in the other direction when the plug is swung one way and then the other with respect to said second part.

2,833,016
BELT BUCKLE
William E. Williams, Ojai, Calif.
Application June 10, 1957, Serial No. 664,806
3 Claims. (Cl. 24—201)



1. A quick release safety belt buckle comprising, in combination: first and second clasp members respectively secured to the two ends of a belt to be fastened together, said first clasp member including a first body portion having a first plurality of fingers extending therefrom in substantially parallel spaced relationship; a rod passing transversely through said first fingers intermediate the free ends of said first fingers and said first body portion; said second clasp member including a second body portion having a second plurality of fingers extending therefrom in substantially parallel spaced relationship, each of said second fingers having a transverse groove therein intermediate the free ends of said second fingers and said second body portion whereby upon inter-digitating said first fingers with said second fingers, said transverse rod is received in said transverse groove.

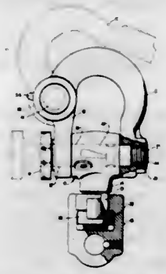
2,833,017
HOOK GUARD
Victor L. Patton, Silver City, N. Mex.
Application April 3, 1956, Serial No. 575,901
1 Claim. (Cl. 24—238)

A heavy duty snap-hook for hoisting and other working requirements comprising a stout rigid solidly smooth-finished non-corrodible shank uniformly non-circular in cross section and having a swivelly mounted line attaching clevis on its upper end and a rigid hook on its lower end, said hook terminating in a bill portion, a relatively heavy non-circular snug-fitting collar embracing and freely slidable both up and down on said shank and provided on one side with an integral depending oblique angled guard, said guard being located in alignment with, and movable toward and from, and being cooperable with, the bill portion of said hook to bridge the space between the bill portion and shank, and to function as a gravity actuatable self-closing latch, said collar being interiorly smooth-finished and capable of sliding up and down on



the shank in a substantially frictionless manner, the surfaces of said shank being wholly smooth and uninterruptedly flat, said guard being substantially triangular in cross-section, and the lower tip thereof having a terminal notch providing a seat for effectual cooperation with the tip of said bill portion.

2,833,018
PIVOTAL HOOK MEMBER
Franklin L. Le Bus, Sr., Longview, Tex.
Application July 6, 1954, Serial No. 441,475
5 Claims. (Cl. 24—241)



1. In a hook structure comprising a body member, a swivel member disposed in the body member, said swivel member provided with an aperture, a blocking bolt disposed in the aperture, a yoke member journaled on the bolt, a substantially U-shaped hook member having one end journaled in the yoke member, said opposite end of the hook member having a threaded recess for engagement with one end of the blocking bolt, and means in the yoke member permitting free pivotal movement of the hook member upon disengagement from the bolt.

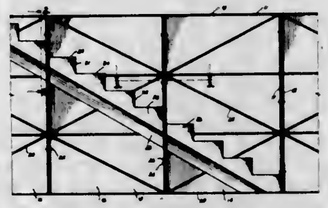
2,833,019
MACHINE FOR PRODUCING BLOCKS OR SLABS OF BREEZE, CONCRETE OR OTHER AGGREGATE OR MATERIAL
Ronald Ernest Dench and George Arthur Lee, Cuffley, England, assignors to Arthur William Peck, Cuffley, England
Application March 21, 1955, Serial No. 495,598
Claims priority, application Great Britain March 22, 1954
4 Claims. (Cl. 25—41)



1. In a machine for producing blocks or slabs of the type described, a plurality of moulds, horizontal support

means along which said moulds are adapted to travel, a hopper for moulding material mounted on the support means above said moulds, said hopper having an outlet for charging the moulds with material and entrance and exit means allowing the moulds to move past said hopper, a tamping plate located adjacent said hopper exit means for tamping material in the moulds after the same have passed through said exit means, power operated means operatively connected to said moulds to impart a stepwise movement to the moulds along the supporting means past the hopper, means operatively connected to the tamping plate to reciprocate said plate toward and away from the moulds and in the direction of movement of the moulds. and mechanical means interconnecting said power operated means and said reciprocating means for the tamping plate operative to move the tamping plate towards a mould and in the direction of movement of the mould to effect a compressive and wiping action on the material in the mould during interruption of the mould movement and to move the tamping plate away from the mould during movement of the molds along the supporting means.

2,833,020
FORMS FOR MAKING A CONCRETE STEP SUPPORT
James W. Barbour, Independence, Mo.
Application February 27, 1956, Serial No. 567,940
2 Claims. (Cl. 25—118)



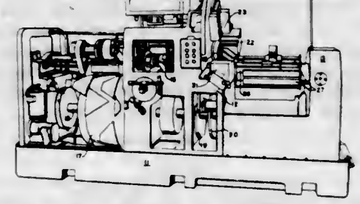
1. In a form for pouring of concrete building stair well walls with step supports thereon for receiving precast concrete treads and risers of such steps, a pair of spaced outer upright form panels for defining the outer surfaces of spaced walls of a stair well, a pair of spaced inner upright form panels for defining the inner surfaces of the spaced walls of a stair well, said inner form panels being spaced from the outer form panels to form a concrete receiving chamber therebetween, tie members extending through the concrete receiving chambers and detachably secured to the respective inner and outer form panels for maintaining the spaced relation thereof, each of said inner form panels having a plurality of connected horizontal and vertical walls connected thereto in a stepped formation, said horizontal and vertical walls extending from the respective inner form panel toward the inner form panel in substantially perpendicular relation thereto, said horizontal and vertical walls of one inner form panel being in the same planes as the corresponding horizontal and vertical walls of the other inner form panel and defining a stepped formation for step supports extending from the stair well walls, end walls for the step supports parallel to and spaced from the respective inner form panels and having a stepped formation connected to the ends of the horizontal and vertical walls of the respective inner form panels, said end walls each terminating below the respective horizontal walls in a bottom edge inclined relative to the horizontal walls substantially on a slope corresponding to the general slope of the stairs, bottom walls connected to the bottom edges of the respective end walls and sloping downwardly and toward the respective inner form panel and having the lower edge connected to said inner form panel, the said horizontal, vertical, end and bottom walls of each inner form panel cooperating to define a cavity for receiving concrete when the stair wells are poured to form continuous step supports integral with the stair well walls.

2,833,021
WITHDRAWN

2,833,022
METHOD OF RENDERING FABRICS WATER REPELLENT
William R. Collings, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application March 16, 1953
Serial No. 342,738
5 Claims. (Cl. 28—74)

1. The method of rendering cellulosic fabrics water repellent which comprises treating the fabrics with an organosilicon composition of the group consisting of hydrolyzable silanes, alkali metal salts or organosilanols and siloxanes, said organosilicon composition having on the average from 1 to 2.5 monovalent hydrocarbon radicals per silicon atom, subjecting the fabric to mechanical compressive shrinkage and thereafter heating it at a temperature of at least 100° F. until the organosilicon compound is cured.

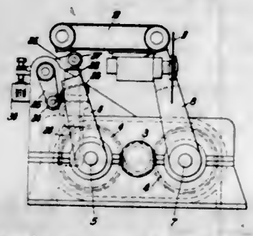
2,833,023
TOOL TURRET INDEXING MECHANISM
Alfred E. Drissner and Arthur C. Cordray, Cleveland, Ohio, assignors to The National Acme Company
Application January 21, 1953, Serial No. 332,212
7 Claims. (Cl. 29—37)



1. In a single spindle automatic machine tool having a frame, a hollow turret mechanism journalled in said frame for rotation about a substantially horizontal axis, a main cam drum rotatable in said frame, a draw rod extending coaxially through and carried in said hollow turret, a cam follower on said draw rod co-operating with said cam drum to effect longitudinal movement of said draw rod, a plurality of axially parallel ways on said turret, a plurality of tool slides on said ways, a pull sleeve on said draw rod cooperable with each of said slides for longitudinally moving said slides in unison with said draw rod, an axial cylindrical extension on said turret in said frame, an indexing disc and a Geneva gear rotatable with said turret in said frame, a rotary arm journalled in said frame and co-operating with said Geneva gear to index same by at least a partial rotation thereof, a worm and worm wheel to rotate said rotary arm, an electric motor, a clutch disposed to connect said worm to said motor, a second motor to operate said clutch, an indexing switch actuated by movement of said draw rod to one extreme position and connected to control said second motor, a locking cam rotatable with said rotary arm, a lock bolt co-operating with said indexing disc, said locking cam causing unlocking of said indexing disc by

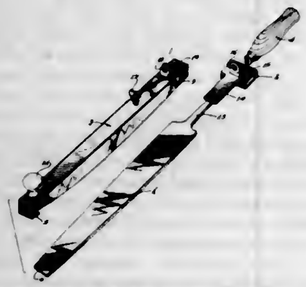
said lock bolt prior to movement of said Geneva gear by said rotary arm and effecting locking of said indexing disc subsequent to completion of indexing of said Geneva gear by said rotary arm, a clamping mechanism carried in said frame to clamp said cylindrical extension of said turret to said frame, a second switch controlled by rotation of said rotary arm to operate said second motor to release said clutch and to operate said clamping mechanism, and a third switch operated in accordance with movement of said lock bolt to override the control effected by said second switch until said indexing disc is locked.

2,833,024
ROTARY SAW
Karl Boehm, M. Gladbach, and Walter von Dorp, Rheydt, Germany, assignors to Mannesmann-Meer Aktiengesellschaft, M. Gladbach, Germany, a German company
Application April 2, 1956, Serial No. 575,471
Claims priority, application Germany March 31, 1955
1 Claim. (Cl. 29—69)



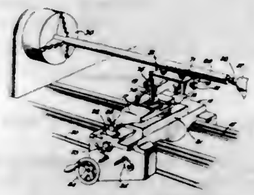
A rotary saw for cutting tubular stock emerging from a rolling mill, particularly a reducing rolling mill, comprising a saw, a table supporting the saw and having a circular orbit of movement of constant radius, and means to actuate the table through its orbit from a standstill to a speed which, while cutting, will approximate the speed of the stock emerging from the mill and then return the table to a standstill; said table actuating means including two offset overlapping levers supporting the table, the axes of said levers being parallel; whereby the size and weight of the moving table are minimized and the speed of the emerging stock can be increased.

2,833,025
CURVED FILE HOLDER
Herman C. Crawford, El Segundo, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 20, 1953, Serial No. 349,825
1 Claim. (Cl. 29—80)



In combination with a file having a tang on the rearward end thereof, a curved file holder for holding said file in curved condition: comprising a curved frame, a clip on one end of said frame that retains the forward end of said file, an open socket on the other end of said frame, a retaining member for receiving and securing the tang of said file, said retaining member having an extension thereon effective to seat within said open socket of said frame so that said file is held in curved condition over said curved frame when said frame, said file, and said retaining member are assembled, an upstruck lug on the end of said frame adjacent to said retaining member, a corresponding lug on said retaining member, and means for drawing said lugs toward each other to adjusted position and for holding the same in said position.

2,833,026
ALL PURPOSE TOOL ELEMENT HOLDER
Charles Kostka, Bronx, N. Y.
Application November 13, 1953, Serial No. 391,785
3 Claims. (Cl. 29—96)



1. A tool element holder having an elongated housing portion having an elongated horizontal opening, a shank portion extending rearwardly from the housing and adapted to secure the holder to a tool post, an extension member comprising a base portion of generally rectangular cross section adapted to enter the elongated horizontal opening and be retained in said housing, vertical and horizontal set screw means on said housing engageable with said base portion of the extension member to hold the same in place within the housing, a bifurcated extending portion extending from the base portion and adapted to receive a cutting tool member for effecting an external cutting operation upon internal surface of a hollow member, and set screw means for fixing said bifurcated portion against a tool member.

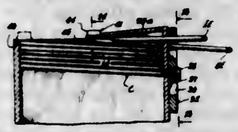
2,833,027
METHOD FOR PREPARING BACKWOUND SPRINGS FOR USE IN SPRING MOTORS
Edwin E. Foster, Austin, Tex., assignor to Majik-Ironers, Inc., Austin, Tex., a corporation of Texas
Application May 5, 1954, Serial No. 427,835
5 Claims. (Cl. 29—173)



1. A method of preparing a ribbon spring in operative relation within two relatively movable inner and outer concentric members comprising the steps of: stressing a ribbon of spring metal so that a longitudinal set is imparted thereto such that said ribbon when unrestrained will take the form of a closely wound coiled spring; securing the outer end of a said closely wound ribbon spring to said inner member; backwinding said spring on said inner member in a direction such that the coils thereof are given an opposite curvature, the diameter of said inner member and the elasticity of said spring being such that the deflection of substantially all of said spring when

so backwound is within the elastic limit of the material comprising said spring and substantially the original longitudinal bias is maintained; and securing the outer end of said spring when so backwound to the interior surface of said outer member, whereby, when said outer member is permitted to move relative to said inner member, said outer member and said spring will rotate and said spring will move from a tightly backwound position on said inner member to a tightly backwound position abutting the interior surface of said outer member and will act throughout its entire length during substantially all of such force movement.

2,833,028
PAPER CLIP DISPENSER
William A. Treimann, Denville, N. J.
Application September 8, 1955, Serial No. 533,224
7 Claims. (Cl. 29—212)



1. A dispenser for paper clips having inner and outer loops comprising a receptacle for storing a stack of such clips, said receptacle having a top cover section engageable by the uppermost clip, the bottom surface of said cover section having a recess therein so shaped that the outer loop of the clip may be displaced therein, said receptacle having an aperture at one side adjacent its upper end through which the uppermost clip is adapted to be disposed endwise, said receptacle aperture being of such size as to permit the outer loop of the clip to be displaced out of the plane of the inner loop, an outer member attached to said receptacle adjacent said receptacle aperture, said outer member having an aperture which has at least two openings to permit the outer loop to pass through one opening and the inner loop to pass through the other opening of said two openings, and means in said outer member for displacing the outer loop from the plane of the inner loop in order to separate the loops of the clip, so that the clip will engage an article on which it is to be placed.

2,833,029
PROCESS OF MAKING HIGH PRESSURE FLUID CONTAINERS
Thomas F. Kearns, Arlington, Va.
Original application July 7, 1954, Serial No. 441,957. Divided and this application May 3, 1956, Serial No. 582,610
4 Claims. (Cl. 29—423)
(Granted under Title 35, U. S. Code (1952), sec. 266)

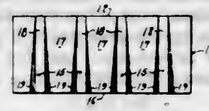


1. The process of making a high pressure fluid container comprising forming a sealed inner liner of flexible material having at least one transport duct connected thereto and communicating with the liner interior, filling said liner only with removable pressure resistant material through said transport duct to give support to said liner during subsequent wire winding of said liner, wrapping the liner exterior with reinforcing wire under tension to form a pressure resistant layer external to said liner, and removing said pressure resistant material from the interior of said liner.

2,833,030
METHOD OF JOINING METAL PARTS WITH FLEXIBLE COMPOSITE JOINING MATERIAL
Robert L. Peaslee, Royal Oak, Mich., assignor to Wall Colmonoy Corporation, Detroit, Mich., a corporation of New York
No Drawing. Application September 19, 1952
Serial No. 310,539
2 Claims. (Cl. 29—496)

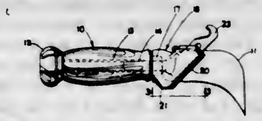
1. The method of joining metallic parts which comprises the steps of positioning a flexible joining material in the form of an elongated filament at the line of juncture between the parts to be joined to form an assembly, said joining material consisting essentially of 5%–50% of a polymerized carbon-hydrogen polymeric material which volatilizes upon the application of heat without releasing carbon and oxidizing gases and 50%–95% of finely divided particles of flowable metallic joining material uniformly distributed therethrough, and applying heat to the said joining material to first vaporize the said binder and to thereafter liquify the said metallic particles to thereby join the said metallic parts.

2,833,031
METHOD OF MAKING CURVED CORRUGATED WEDGE MEMBERS
William A. Flumerfelt, Columbus, Ohio, assignor to The Columbus Auto Parts Company, Columbus, Ohio, a corporation of Ohio
Application November 9, 1954, Serial No. 467,757
3 Claims. (Cl. 29—548)



1. A process of making a corrugated curved wedge take-up member which includes the steps of providing an elongated plain stock of sheet metal having opposite substantially parallel sides; stamping said metal to form a plurality of transverse corrugations therein, tapered from one longitudinal edge of said metal to the opposite edge by holding alternate spaced transverse sections of said metal from distortion while forcing other spaced transverse sections away from said first mentioned sections and simultaneously attenuating the metal connecting adjacent sections into triangular shaped web sections; producing a corrugated metal section having opposite lengths thereof substantially equal and forming a predetermined substantially rectangular unit of the required dimensions of the wedge member; and bending said corrugated rectangular unit into a curved wedge shaped member containing said tapered transverse corrugations.

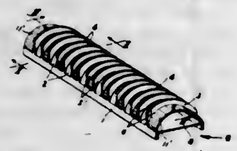
2,833,032
ADAPTER HEAD FOR TOOL HANDLE
Alfonso B. Aciego, Lawndale, Calif.
Application July 22, 1955, Serial No. 523,659
1 Claim. (Cl. 30—1)



A linoleum knife provided with an elongated handle, a cutting blade, and an adapter head, said adapter head

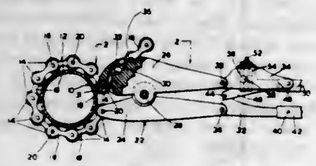
having a cup-shaped member mounted on said handle in axial alignment therewith having a closed end with a central aperture in which is received said cutting blade, said cup-shaped member having an integral arm extending outwardly in a direction away from said handle, said arm having an elongated slot in a plane parallel to the plane of said blade and dimensioned to receive a hook blade.

2,833,033
SHEET METAL LOWER BLADE FOR THE CUTTER HEAD OF DRY SHAVING APPARATUS
Gerhard Heyek, Graz, Styria, Austria
Application November 30, 1954, Serial No. 472,088
Claims priority, application Austria December 17, 1953
7 Claims. (Cl. 30—43)



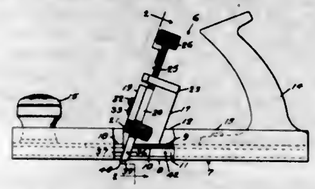
1. A cutter head of dry shaving apparatus comprising a lower blade, drive means for reciprocating said lower blade, which blade comprises a sheet metal blade body having a convex cylindrical outside surface formed with a plurality of spaced cuts extending transversely of the generatrix of said surface and leaving land portions within said surface between said cuts, and a sheet metal flange portion projecting substantially perpendicularly to and outwardly from said surface at least on one side of each of said land portions, each of said outwardly projecting flange portions having a free longitudinal edge of substantially rectangular cross-section, said free edges lying in a common imaginary cylindrical surface to form cutting edges.

2,833,034
CUTTER FOR SEVERING CAST IRON PIPE AND THE LIKE
Charles J. Wheeler, Mentor, Ohio, assignor to Wheeler Manufacturing Corporation, Ashtabula, Ohio, a corporation of Ohio
Application June 11, 1957, Serial No. 667,732
14 Claims. (Cl. 30—92)



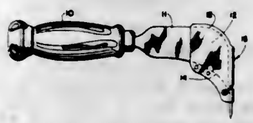
1. A cutter for a hollow article which comprises, in combination, a flexible, non-extensible cutter chain adapted to be placed around an article to be cut and to apply linearly-concentrated, circumferentially- uniform, radially-directed, article-cutting pressure thereto without rotation or oscillation thereabout, and a pressure clamp including a first clamp jaw secured to said chain, and a second clamp jaw having chain-engaging means thereon to engage said chain at a point dictated by the size of the article to be cut, at least one of said jaws having an opening therein to receive and guide excess cutter chain away from said chain-engaging means.

2,833,035
CUTTING AND GROOVING TOOL
Dessel W. Butler, Mount Vernon, Ohio
Application October 29, 1956, Serial No. 618,723
3 Claims. (Cl. 30—293)



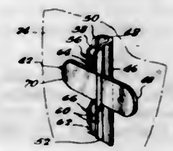
1. A cutting and grooving tool of the character described comprising an elongated stock having laterally spaced coplanar bottom portions extending from end-to-end thereof and an elongated intermediate portion of arch shaped cross section extending from end-to-end of the stock and connecting said bottom portions, said intermediate portion combining with said bottom portions to define a downwardly opening groove extending from end-to-end of the stock, said arch shaped intermediate portion including a substantially flat top wall disposed above the level of and substantially parallel to said bottom portions, a tool post secured to and extending upwardly from said top wall, said top wall having an opening including a portion disposed beneath a part of the lower end of the tool post , a cutting bit including a shank adjustably mounted in the tool post, said cutting bit having a recessed lower end portion defining a cutting blade extending downwardly through the top wall opening and through a portion of said groove, said blade having a relatively narrow forward face including sharpened side edges disposed between and spaced from the sides of the groove and a sharpened lower end adjustably positioned below the level of said bottom portions of the stock, said side edges and lower end constituting the cutting edges of the blade.

2,833,036
COMBINATION SHEATH AND TOOL HOLDER FOR KNIFE BLADE
Alfonso B. Aciego, Lawndale, Calif.
Application November 7, 1955, Serial No. 545,213
1 Claim. (Cl. 30—299)



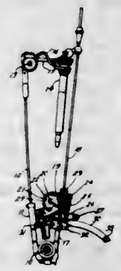
A tool holder for a knife blade having two opposing edges, said tool holder comprising: a flat member folded back on itself to form two superposed side members for disposal on either side of said blade, said side members including a folded edge portion to be positioned over and spaced apart from one edge of said blade, whereby an inner elongated channel is formed between said folded edge portion and said one edge of said blade in which the shank of a tool may be retained; a stop member extending inwardly from said folded edge portion and closing off an end portion of said channel, whereby an inner abutment is formed for receiving said shank of said tool; said side members having a pair of adjacent side edges opposing said folded edge portion, said pair of adjacent side edges being adapted to be positioned over and extend beyond the other edge of said blade; connecting means joining said pair of adjacent side edges together; and, a set screw mounted in said side members for drawing said side members adjustably together in an area adjacent said end portion of said channel.

2,833,037
ARTIFICIAL TOOTH MOUNTING
Bernard Spies and Irving C. Hirsch, Skokie, Ill.
Application June 25, 1956, Serial No. 593,688
10 Claims. (Cl. 32—10)



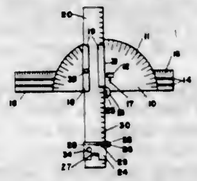
1. An artificial tooth facing adapted to be secured to a backing plate having a generally vertically arranged projection of keyhole-shaped cross section thereon, comprising a tooth-shaped body of molded material having a flat rear face, a preformed anchoring device of resilient material embedded in said body having an elongate hollow split barrel portion provided with lateral opposed integral wings parallel with and spaced from said rear face, and spaced flange means integral with the barrel portion and defining slot means opening to said rear face and communicating with the hollow of the barrel portion, the hollow having an opening at one end of the tooth-shaped body to permit insertion of the projection therein, and sliding the same into the barrel portion and said slot means, said wings being disposed between the ends of the barrel portion, and the spaced flange means being disposed on opposite sides of the wings.

2,833,038
HINGE-LOCK FOR PIVOTED ARMS
Nathan H. Gladstone and Victor Arkin, Los Angeles, Calif.
Application December 11, 1953, Serial No. 397,640
5 Claims. (Cl. 32—23)



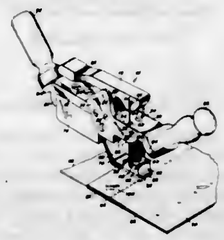
1. A dental apparatus comprising a standard member, pivot means at one end of said standard member, and an arm member connected to said pivot means and freely supported on said standard member; locking means comprising a latch and a catch, said latch attached to the arm member, said catch attached to the standard member, said locking means being positioned on said members adjacent said pivot; said latch engaging said catch to pivotally lock the two members together upon a predetermined movement of one member towards the other member, means for releasing the latch from the catch upon a further movement of one member towards the other member, and a guide for applying the latch for insuring engagement with the catch during the locking thereof, said locking means further including a pawl and ratchet wheel rotatable upon the movement of the arm member toward the standard member to shift the pawl, whereby to lock and unlock the two members.

2,833,039
COMBINATION PROTRACTOR AND COMPASS
Carmen Conigliaro, Pasadena, Md., assignor of one-half to George B. Stevens, Jr., Milford, Md.; Anna R. Conigliaro, administratrix of said Carmen Conigliaro, deceased
Application February 18, 1954, Serial No. 411,121
5 Claims. (Cl. 33—26)



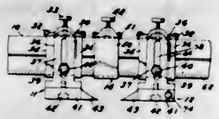
1. The combination with a flat base plate having one edge thereof straight and having an extension projecting from the central portion of the latter, of a guide having an extension projecting from one side thereof, means pivotally connecting said extensions together, a graduated straight edge slidably mounted in said guide, a locking screw carried by said guide and engageable with said straight edge to hold the same in selected positions in said guide, a second graduated straight edge provided with parallel slots in the upper face thereof, fingers projecting from the underside of said base plate and slidably engageable with the walls of said slots to guide said base plate as it travels across said second graduated straight edge, said base plate having a second edge terminating at the edges of the first mentioned edge, said second edge being in the form of a semi-circle having its center in the axis of the means connecting said extensions together and said guide having one of the sides thereof straight and aligned with said axis, and a series of radially disposed graduations along said second edge of said base plate.

2,833,040
SCRIBER
Edward D. Owen, San Diego, Calif.
Application August 18, 1955, Serial No. 529,220
6 Claims. (Cl. 33—41)



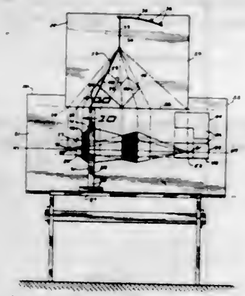
1. A scribing device comprising a base bar, handle means secured thereto, a spring plate and a guard plate each having one end secured to said base bar to one side of the midpoint thereof with said spring plate intermediate said guard plate and said base bar and biased toward said guard plate, said spring plate and said guard plate extending downwardly and forwardly from said base bar toward the opposite side of the mid point of said base bar, the forwardly extending unsecured end of each said spring plate and said guard plate terminating in downwardly extending overlapping lips, said spring plate lip constituting a scribing edge, said guard plate lip constituting a guard and a guide edge, and means pivotally mounted on said base bar and connected at one end to said spring plate for manually retracting said scribing edge from overlapping said guard and said guide edge.

2,833,041
DUAL SCRIBER
Leo J. Reno, Flint, Mich.
Application April 26, 1956, Serial No. 580,802
4 Claims. (Cl. 33—41)



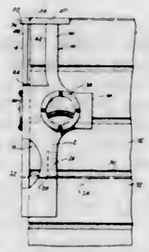
3. A dual scriber for easily marking otherwise very difficult surfaces comprising a scale, oppositely disposed dual slides slidably disposed on said scale, springs disposed between said slides and said scale establishing a displaceable frictional engagement between said slides and said scale, thumb screws on said slides adapted to fix said slides relative to said scale in any adjusted position, walls on each said slide defining a slideway at a right angle to said scale, a stud in each said slideway, cross-slides disposed in said slideway having a slot for receiving said stud, thumb nuts on said studs adapted to secure said cross-slides relative to said slide in any adjusted position, scriber points on said cross-slides, said scale and said cross-slides being provided with indices and graduation marks for determining adjusted positions; said scriber points being oppositely disposed for scribing opposed surfaces at the same time.

2,833,042
DRAFTING APPARATUS
Anatol Groman, Minneapolis, Minn.
Application February 21, 1955, Serial No. 489,627
7 Claims. (Cl. 33—77)



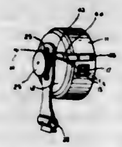
1. Drafting apparatus of the character described including a display board provided with a flat display surface and a picture plane line constituted as a straight outer edge of said display surface, a drawing board provided with a flat drawing surface positioned with respect to said display board to have said picture plane line adjacent to said drawing surface, a thread ruler including a first straight edge rule having a first straight edge along one side thereof and a thread attached to one end of said straight edge rule to be coincident with said first straight edge, means for supporting said straight edge rule on said drawing board to hold said straight edge in perpendicular relationship with respect to said picture plane line while permitting movement of said rule parallel to said line and to position said thread in adjacent relationship to said picture plane line, a ring pin having an opening therethrough to just receive said thread, said ring pin being removeably mounted on said display board, resilient means for maintaining a portion of said thread between said rule and said ring pin when said thread is passed through said ring pin in taut condition, a perspective drawing ruler including second and third straight edge rules, means for linking said second and third rules to each other for free pivotal movement in a single plane, a plurality of positioning pins adapted to be removeably situated in said drawing board to extend above the drawing surface thereof, and means for holding at least one of said straight edge rules to have a straight edge portion thereof in sliding contact with one of said positioning pins.

2,833,043
LEAD BLOCK FOR MASONS
Frank Patejdl, Jr., Lakeside, Mich.
Application February 25, 1955, Serial No. 490,524
1 Claim. (Cl. 33—85)



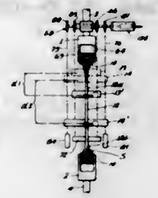
A lead block for masons comprising a pair of vertically elongated side plates fixedly connected at right angles to each other, said plates having flat outer and inner faces, the outer faces lying in perpendicularly related, vertical planes and the inner faces also lying in perpendicularly related, vertical planes, the plates having intermediate their ends a pair of securing line grooves lying in a common horizontal plane, said grooves being formed in an opening over their full lengths laterally outwardly onto said outer faces of the plates; and a pair of horizontally extending lead line guide bars mounted fixedly on the respective plates at the upper ends of the plates and joined at right angles to each other at one end, each of said bars having a flat inner side surface coplanar with the inner face of the plate on which it is mounted, said bars having longitudinal guide grooves formed in the upper longitudinal edges of the inner side surfaces of the bars and lying in a common horizontal plane, the guide grooves opening over their full lengths upwardly onto the top surfaces of the bars and laterally inwardly onto the inner side surfaces of the bars, each of the bars having a transverse groove extending from the outer side surface of the bar to the inner surface thereof in longitudinal alignment with the longitudinal guide groove of the other bar, said plates being recessed below the transverse grooves and below said ends of the bars for looping, under said ends of the bars, of a line received in the respective transverse and longitudinal grooves.

2,833,044
DEPTH GAUGE ATTACHMENT FOR FISHING RODS
Vorice M. Helms, Milwaukee, Wis.
Application August 14, 1956, Serial No. 603,937
6 Claims. (Cl. 33—129)



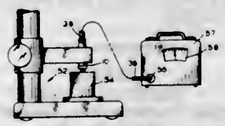
1. In a depth gauge for fishing rods or the like, a circular casing having an aperture adjacent its periphery, a dial rotatably mounted in said casing having calibrations about its periphery successively visible through the aperture in said casing, a ratchet wheel rotatable with said dial, a shaft coaxial with said dial and extending through said casing, a pulley fixed on said shaft outside of said casing, a cam member fixed on said shaft inside said casing, a rocking arm mounted inside said casing having means thereon for engaging said cam member, a spring-pressed pawl on said arm for engaging the teeth on said ratchet wheel to rotate the dial in one direction, and an auxiliary spring-pressed pawl in said casing in engagement with said ratchet teeth to restrain rotation of said dial in the opposite direction, whereby said pulley may be frictionally engageable by a fish line to bring successive calibrations on the dial into view corresponding to the length of line passed over said pulley.

2,833,045
INSTRUMENTATION FOR THE STRAIN TESTING OF RUBBER OR THE LIKE
Robert S. Strimel, Penllyn, Pa., assignor to Tinius Olsen Testing Machine Company, Willow Grove, Pa., a corporation of Pennsylvania
Application March 21, 1955, Serial No. 495,551
16 Claims. (Cl. 33—147)



1. In instrumentation for the strain testing of rubber or the like: a pair of strain-sensing elements each respectively adapted to be fixedly attached to and movable in accordance with the strain of a test specimen, each element having a member which extends across the specimen and projects outwardly from the opposite sides thereof; mechanism operative to measure said strain in accordance with the movement of said elements; a first pair of flexible elements respectively connected to the opposite sides of one of said members and connected for driving engagement with said measuring mechanism; and a second pair of flexible elements respectively connected to the opposite sides of the other of said members and connected for driving engagement with said measuring mechanism.

2,833,046
ELECTROMAGNETIC GAGE HEAD
Norman L. Jeglum, Dayton, Ohio, assignor, by mesne assignments, to The Sheffield Corporation, a corporation of Delaware
Application March 26, 1956, Serial No. 573,895
10 Claims. (Cl. 33—147)



1. An electric gage head for precision measurement of the character described comprising a body member, a differential transformer unit comprising exciter and pick-up coils supported by said body member and adapted for connection to an electric gaging system, an armature carried in said body member for movement relative to said coils to each side of a central position relative thereto to obtain an electric signal varying with the movement and the gaged condition, and a compensating element adjustable to fixed positions relative to said armature to obtain a balanced electrical condition between the exciter coil and each of the pick-up coils with the armature in said central position relative to said coils.

2,833,047
GAGING APPARATUS
Willis Fay Aller and Robert L. Esken, Dayton, Ohio, assignors, by mesne assignments, to The Sheffield Corporation, a corporation of Delaware
Application May 16, 1956, Serial No. 585,276
15 Claims. (Cl. 33—174)



1. Apparatus for gaging characteristics of a bearing or the like having relatively rotatable coaxial components comprising a base, means on said base for restraining one component, force applying means carried on said base providing surface means movable radially of the components for force application in reverse directions to the other component and tangentially of said other component at the location of force application for rotation thereof, actuating means connected to said force applying means for radial movement of said surface means and force application in reverse directions to said other component, gaging means for measuring the relative movement between the components under force application, and power means connected to said force applying means for driving said surface means tangentially during force application to relatively rotate the components during force application and during gaging.

2,833,048
PLUG GAUGES HAVING GLASS GAUGING SURFACES
Frederick J. Telgmann, Kingston, Ontario, Canada, assignor to Canadian Size Control Company Limited, Kingston, Ontario, Canada
Application March 18, 1955, Serial No. 495,315
2 Claims. (Cl. 33—178)



1. A plug gauge comprising a plain-walled glass tube constituting a gauging member, a back plate seated on one end of said tube, a front plate seated on the other end of said tube, a handle having one end seated on said back plate and a threaded socket in said one end, and a screw extending through said plates and tube and into said socket, said tube having an annular free space therein defined by the interior wall surface of said tube and said screw and plates.

2,833,049
CONTRACTIBLE PLUG GAGE WITH AXIS OF PIVOT WITHIN GAGE SURFACE BOUNDARIES
Stanley G. Johnson, West Hartford, Conn., assignor to The Johnson Gage Development Company, Bloomfield, Conn., a corporation of Connecticut
Application July 21, 1955, Serial No. 523,497
13 Claims. (Cl. 33—178)

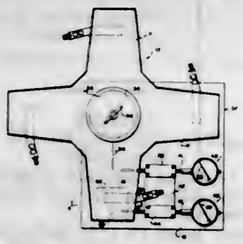
1. A pivotally contractible plug gage comprising a pair of mounting means, a gaging member secured to each mounting means and having an arcuate external gaging

surface with the center of the arc forming an axis, each gaging member being less than a semi-circle in cross section, pivot means carried by the gaging members to pivotally mount the gaging members and having its axis extending parallel to the axis of the gaging surface, the pivot means axis being within boundaries formed by the gaging surfaces and located adjacent to the gaging surfaces, spring means to pivot the mounting means and



the gaging members on the pivot means; and means to indicate the relative position of the gaging members including an indicator bracket secured to one mounting means, means carried by the indicator bracket to support an indicator in axial alignment with the gage members and for adjustment of its position thereon, said indicator having a contact element, and cooperating means carried by the other mounting means and positioned to engage the contact element of an indicator.

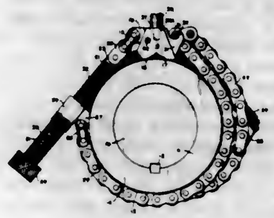
2,833,050
ALIGNING FIXTURE FOR BRUSHES
Parks W. Byrd and John B. Self, Jr., Winston-Salem, N. C., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 24, 1955, Serial No. 496,373
5 Claims. (Cl. 33—180)



1. A fixture for aligning a brush with respect to a carriage on a surface of which the brush is mounted adjustably, which comprises means for mounting the carriage rotatably, means engageable with the carriage for indicating when the carriage is in a predetermined rotative position, and means spaced a predetermined distance from the carriage surface for engagement with the brush and for indicating the alignment of the brush with respect to the predetermined rotative position.

2,833,051
SHAFT ALIGNING DEVICE
John H. Cunningham, Baltimore, Md.
Application September 7, 1956, Serial No. 608,623
7 Claims. (Cl. 33—180)

7. Test equipment comprising a block having a V-shaped dihedral notch therein for contacting a cylindrical surface, a screw pivotally mounted on one end of said V-shaped block on an axis extending in the same general direction as the intersection of the planes forming the dihedral, means to adjustably mount a chain on said screw, means to mount another portion of the chain on the block on the opposite side of the dihedral notch from the pivotal mounting of said screw and in generally symmetrical relation to the pivotal mounting of said screw, means to adjust the length of the chain between said mount of the said other portion of the chain and the adjustable mount of said chain on said screw, means to support any excess length of chain closely adjacent the adjusted length of chain whereby the equipment will



occupy a minimum of space permitting the shaft to rotate, and means to support testing devices on said block permitting accurate aligning.

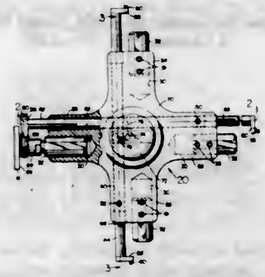
2,833,052
PUNCH
Lee R. Foster, Berwyn, Ill.
Application February 23, 1956, Serial No. 567,127
1 Claim. (Cl. 33—189)



A marking device for marking the centers of template pattern holes on an underlying work piece, comprising: a housing having a chamber therein with a central bore of circular cross section tapering at its lower end; a base portion on the bottom of said housing adapted to be placed over said hole; a centering projection of annular shape extending from said base adapted to engage the sides of the template defining the hole and fit snugly therein for positioning the base and thus the housing centrally relative to the template hole, the base and projection having a tapered opening therethrough arranged to communicate and cooperate with the chamber and its tapered end; a marking member having a generally conically shaped lower end movably mounted in said chamber and adapted to be substantially centered relative to said housing by the entrance of said conically shaped lower end into the tapered chamber, base and projection as said member is projected through said opening into contact with said underlying work piece; and a spring within said housing engaging a portion of the housing and a portion of the marking member for urging said marking member into retracted position.

2,833,053
THREAD GAGE
Russel L. Gergen, Burton, Ohio, assignor to Pipe Machinery Company, Wickliffe, Ohio, a corporation of Ohio
Application January 26, 1955, Serial No. 484,183
13 Claims. (Cl. 33—199)

1. A thread gaging device comprising: a body; a plurality of gages secured to and projecting outwardly from said body; means to axially adjust said gages; a resilient plunger housed in said body parallel and adjacent to each of said gages, each plunger being spring urged outwardly from said body; means for depressing each plunger responsive to sequential threaded engagement of a workpiece with each gage; means for holding each plunger in a depressed position; a scale secured to said body; and tolerance limit markings on said plungers alignable with



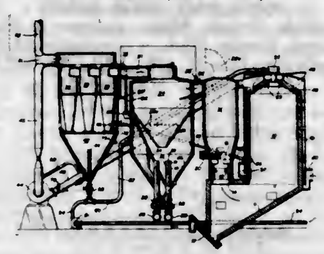
gradations on said scale, whereby depression of said plungers in a predetermined sequential order provides a relationship between said scale and said tolerance limit markings to enable the classification of the threads of said workpiece.

2,833,054
COMBINED LEVEL AND PLUMB INDICATING INSTRUMENT
Earl M. Wheeler, Belleville, Ill.
Application December 6, 1954, Serial No. 473,256
1 Claim. (Cl. 33—207)



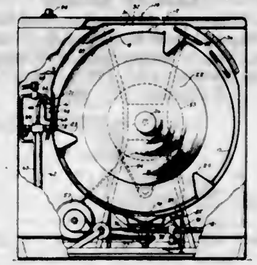
An instrument of the character and for the purpose described comprising in combination: a main body having an elongated rectangular configuration; a first level assembly having its spirit vial disposed transversely thereof mounted in the upper end portion of said main body; a cross level rigidly incorporated in said first level assembly consisting of a spirit vial disposed at right angles to and directly below the vial of said assembly; a second level assembly having its spirit vial disposed longitudinally thereof mounted in the lower end portion of said main body; and manually operable linkage pivotally mounted on the main body aforesaid whereby the instrument may be disposed against the corner surfaces of an upright structural member, said linkage including: a pair of identical short links spaced longitudinally of the instrument, each link being pivotally secured at its inner end to said body by means of a screw having a flared head engaging in a countersunk hole provided therefor in the link; a washer interposed about an unthreaded shank segment of the screw between said link and the adjacent face of the instrument body; and a long operating link having a pivotal connection at each end with the free outer end of one of said short links, each pivotal connection comprising a rivet including a cylindrical shank segment extending through a circular opening in the operating link, and a conical segment disposed in a countersunk hole provided therefor in the free outer end of the adjacent short link.

2,833,055
APPARATUS AND METHOD OF FLUIDIZED DRYING OF CARBONACEOUS FUELS
James C. Wright, Denver, Colo., assignor to Silver Engineering Works, Inc., a division of Silver Corporation, Denver, Colo., a corporation of Colorado
Application November 10, 1954, Serial No. 467,942
3 Claims. (Cl. 34—10)



3. The method of controlling a drier having a furnace for generating drying gases and a drying chamber for drying wet combustible solids by gas entrained suspension in a moving stream of heated drying gases which comprises, separating gas entrained dried product from the entraining drying gas exhausted from said drying chamber, recycling a portion of entraining drying gas exhausted from the drying chamber into said separated dried product for resuspending and removing a quantity of finer dust in said dried product for fuel for the furnace, said portion being controlled in proportion to the amount of fuel required by the furnace, and separating the resuspended dust from the entraining gas and passing said dust substantially simultaneously as it is separated for delivery into said furnace.

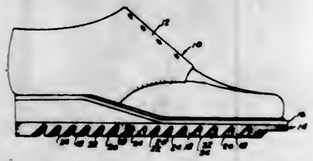
2,833,056
MEANS FOR TREATING FABRICS
Thomas R. Smith, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware
Application March 23, 1953, Serial No. 344,038
3 Claims. (Cl. 34—45)



1. A clothes drier having an operational cycle including a drying period and a lint flush period following said drying period, said drier comprising, a drum for receiving moist fabrics to be dried, a casing enclosing said drum, drive means for moving said drum, heating means for evaporating moisture from said fabrics retained in said drum during said drying period, condenser means for admitting cooling fluid into said casing to condense said evaporated moisture during said drying period circuit means including timer apparatus controlling the operation of said drier and terminating the operation of said drive means, heating means and condenser means at the end of said drying period to permit removal of said fabrics from said drum, flushing apparatus for admitting flushing fluid into said casing during said lint flush period, valve means controlling fluid flow from said casing, said timer means including manually settable means for initiating operation of said flushing apparatus, said valve means and

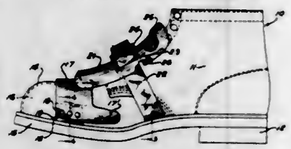
said drive means to admit flushing fluid into said casing and flush away accumulated lint from said drum and said casing by movement of said drum in a pool of flushing fluid within said casing.

2,833,057
RESILIENT SHOE SOLES
Morton Hack, Detroit, Mich., assignor to Ripple Sole Corporation, Detroit, Mich., a corporation of Michigan
Application June 21, 1957, Serial No. 667,223
7 Claims. (Cl. 36—59)



1. A shoe sole formed of resilient material having a body and a series of transversely extending, downwardly and rearwardly inclined members projecting from said body and spaced longitudinally along said body, said members being disposed in parallel relationship from the front end toward the rear end of said sole, said members also being curved transversely of said sole on substantially the same radius and having a substantially uniform cross-sectional area throughout their length, said members further having lower rounded ends and having front and rear forwardly inclined faces that diverge upwardly therefrom and form a rounded juncture with the body of said sole, whereby when said members are engaged with a hard, unyielding supporting surface, said members will flex under weight and produce straight, forward movement of said body relative to said surface, and simultaneously, the transverse curvature of said members will provide resistance to sidewise movement of said sole relative to said surface.

2,833,058
SAFETY SHOES
Frederick A. Wilmanns, Milwaukee, and Edward A. Ott, Merrill, Wis., assignors to Albert H. Weinbrenner Co., Milwaukee, Wis., a corporation of Wisconsin
Application November 27, 1957, Serial No. 699,286
8 Claims. (Cl. 36—72)



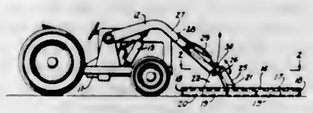
6. In a safety shoe having an upper, having a welt, and having a toe portion, an external toe shield formed of an arched strip of hard material fitting over a toe portion of said shoe, a pair of short retaining straps having lower ends stitched between the upper and welt of said shoe and having upper ends connected to said toe shield, a curved instep protector fitting over the instep portion of the shoe and overlapping the rear portion of said toe shield, a pair of retaining straps having lower ends stitched between the upper and welt rearwardly of said short straps, said instep protector having side slots, a sponge rubber lining on the inner surface of said instep protector, said straps being extended through said side slots in said instep protector and said lining being cut away from an area around and outwardly of said slots to provide a channel for said straps, and means for adjustably connected said straps together on the top side of said instep protector.

2,833,059
POWER OPERATED ADJUSTABLE BALLAST SHAPING MEMBER
Calvin W. Shipley, Munster, Ind., assignor to O. F. Jordan Company, East Chicago, Ind., a corporation of Indiana
Application September 30, 1954, Serial No. 459,242
3 Claims. (Cl. 37—105)



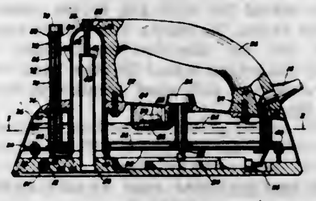
1. A railroad spreader embodying therein a car having a vertically disposed main spreader wing pivoted at its inner end to the car for swinging movement into a number of different angular positions relative to the car, said main spreader wing having front and rear sides and a lower edge portion, means forming a ballast shaping member having front and rear sides and being positioned on the outer side of the main spreader wing with its inner side in engagement with the outer side of the main wing, horizontal pivot means mounting the ballast shaping member for swinging movement in a plane paralleling that of the outer side of the main wing, and power means for causing swinging movement of the ballast shaping wing on said horizontal pivot, said means including an hydraulic cylinder positioned on the rear side of the main wing, one end of which is attached to the main wing by means of a horizontal pivot to permit swinging movement of the cylinder in a plane substantially parallel to the rear side of the main wing, a piston in said cylinder and a piston rod connected to said piston and extending outwardly from the hydraulic cylinder at the end opposite the pivoted end, a bell crank mounted on a horizontal pivot disposed under the lower edge portion of the main wing, one arm of said bell crank being disposed on the rear side of the main wing and having an end portion thereof pivotally attached to the said piston rod, the other arm of said bell crank being operatively connected to said ballast shaping member.

2,833,060
GRADER ATTACHMENT FOR A TRACTOR
Homer E. Cherwink, Riddle, Oreg.
Application March 16, 1956, Serial No. 572,015
4 Claims. (Cl. 37—153)



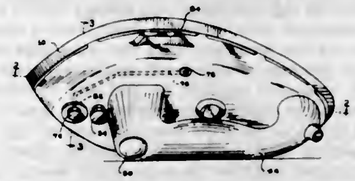
2. In combination, a tractor, a loader arm pivoted to said tractor, a grader frame of substantial horizontal area, upstanding lug means on the frame, means pivotally connecting the end of said loader arm to the top portion of said lug means, whereby said frame may be supported in a substantially horizontal position forwardly of the tractor below said loader arm, and a fluid pressure operated extensible link member connected between an intermediate portion of said loader arm and a portion of said grader frame spaced longitudinally from the pivotal connection of the frame to the loader arm, whereby the angular position of the frame may be regulated responsive to operation of said link member.

2,833,061
STEAM IRON
Edmond G. Franklin and Stanton W. Holmberg, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application March 12, 1954, Serial No. 415,812
10 Claims. (Cl. 38—77)



1. In a steam iron, a soleplate, a reservoir surmounting the soleplate, a steam generating chamber associated with the soleplate, and passage means adjacent the bottom of the reservoir between said reservoir and said steam generating chamber extending forwardly from a locus near the rear of the reservoir to a locus near the front of said reservoir and then rearwardly to said chamber for gravitationally feeding liquid from said reservoir to said steam generating chamber.

2,833,062
VENTING ARRANGEMENT FOR STEAM IRONS
Howard H. Schott, St. Paul, and Earl R. Burmeister, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application May 17, 1954, Serial No. 430,142
5 Claims. (Cl. 38—77)



1. In a steam iron, a soleplate, a reservoir surmounting the soleplate having an upper wall, steam generating means associated with said soleplate, conduit means providing communication from said reservoir to said steam generating means, conduit means providing communication from said steam generating means to the pressing face of said soleplate, filling means near one end of the iron including a tubular passage extending into the reservoir, said passage having an opening adjacent its upper and lower ends, a removable fluid tight plug in the upper opening of said filling means, and a vent tube having one end within said passage, and its other end communicating with the atmosphere through said upper wall approximately midway between the opposite ends of the iron, said one end being disposed intermediate said upper and lower passage ends.

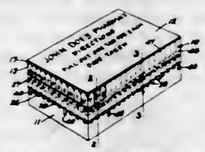
2,833,063
LATCHING AND LOCKING DEVICE FOR A COLLAPSIBLE SUPPORTING LEG STRUCTURE
Joseph W. Drummond, Waverly, Ohio
Application May 27, 1955, Serial No. 511,634
5 Claims. (Cl. 38—121)

1. In combination with a top member and a collapsible supporting leg structure including legs pivotally connected to one another intermediate of their ends in crossed relation, and means pivotally connecting the upper end of one leg or group of the crossed legs to the underside of the top member; a locking and latching device comprising an elongated bracket secured to the underside of said top member longitudinally thereof and in spaced apart relation to said means, said bracket having transversely spaced depending side walls provided with longitudinally extending aligned slots, the upper end of the other leg or group of legs of the supporting leg structure being loosely disposed in said bracket between said side walls, a rod member extending through said last mentioned upper leg end and having end portions slidably engaging and turnably disposed in said slots for slidably and pivotally connecting said last mentioned portion of the leg structure to said bracket and for sliding movement of said portion toward and away from said pivot means, said rod member being supported by the side walls beneath and spaced from the top member, an elongated latch member disposed in said bracket and longitudinally thereof, pivot means swingably connecting one end of said latch member to an end of the bracket located nearest said first mentioned pivot means for swinging movement of the latch member toward and away from the top member and in a plane perpendicular



to the plane of the top member, said latch member extending from the pivot means thereof away from said first mentioned pivot means and having a portion extending loosely between the top member and rod member, said portion having longitudinally spaced notches in an underside thereof for selective engagement with said rod member in an operative position of the latch member for releasably latching said rod member and the portion of the leg structure connected thereto to the bracket to retain the leg structure in different extended positions relative to the top member, and a locking member having end portions journaled in said side walls remote from the latch pivot and including a part offset relative to the end portions in a direction away from the top member in an operative position of the locking member and disposed between the top member and a part of the latch member and in engagement with the latch member, to prevent swinging movement of the latch member toward the top member and to a position for releasing said rod member from engagement with the notch of the latch member engaged by the rod member.

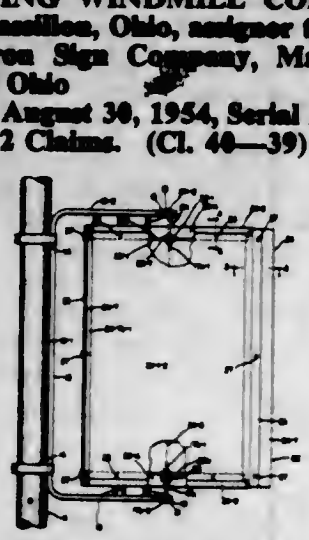
2,833,064
RECORDING AND REMINDING DEVICE IN STRIP FORM
Leon O. Parker, San Francisco, Calif.
Application November 17, 1953, Serial No. 392,626
20 Claims. (Cl. 40—7)



1. A reminding and recording device, including in combination: a plurality of superimposed, flat paper strips having portions secured together in overlying relation, each said paper strip having a series of adjacent separable spaced information-bearing tabs projecting beyond and separable from the portion where said paper strips are secured together, the corresponding tabs of different strips being aligned so that the upper ones directly overlie the lower ones, the tabs on different strips being of different

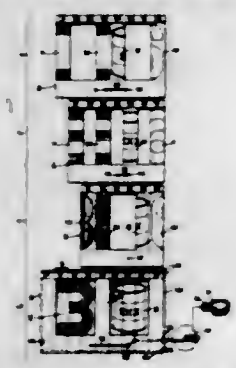
lengths so that some of them project further from said secured-together portions than do others, the presence or absence of each tab thereby being able to serve a reminding or recording function and being readily noticeable.

2,833,065
SIGN CARRYING WINDMILL CONSTRUCTION
Elliot J. Klee, Massillon, Ohio, assignor to The Massillon-Cleveland-Akron Sign Company, Massillon, Ohio, a corporation of Ohio
Application August 30, 1954, Serial No. 452,795
2 Claims. (Cl. 40—39)



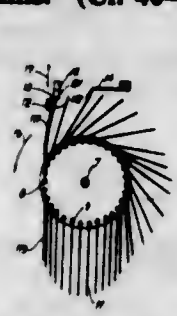
1. Construction for a windmill and the like, including anchorable support means, a rotor, bearing and shaft means operatively mounting the rotor on the support means for rotation about an axis, the rotor including heads spaced from each other in the direction of the axis of rotation, each head including a plurality of connector members spaced radially from the axis of rotation, a plurality of vanes extending between the heads, means connecting each vane with a connector member on each head; a panel located adjacent each vane and forming a dihedral angle therewith, each panel and one adjacent vane constituting a one-piece formation, each panel extending between and being connected with the heads, the panels forming a transversely closed tube coaxial with the axis of rotation, each head constituting a drum head closing one end portion of the transversely closed tube, each drum head including a web spaced intermediate the ends of the panels in the direction of the axis of rotation, each panel having a U-shaped flange at opposite ends for separately retaining a display card on the panel, and the bearing and shaft means including a member carried by each drum head web.

2,833,066
ANIMATED DISPLAY DEVICE
Michael V. Morrissey, Jackson Heights, N. Y.
Application February 26, 1954, Serial No. 412,896
5 Claims. (Cl. 40—65)



1. In means for alternately displaying two representations through a common window having two opposite border panels, a plurality of sheet members positioned consecutively face-to-back, each of such sheet members bearing a pair of subdivisions, one from each of said two representations, the subdivisions of each pair being separated by progressively diminishing selected intervals; means for sliding said sheet members back and forth relative to said border panels differing distances, each distance being a function of the interval between the subdivisions thereof, whereby at one extremity of such sliding motion the subdivisions of one representation are positioned in consecutive side-by-side relationship to display such representation in assembled form, the subdivisions of the other representation then being positioned one behind the other and hidden behind one of such border panels, the hidden subdivisions becoming so assembled and the displayed subdivisions becoming analogously hidden but behind the other panel in response to sliding motion of such sheet members to the opposite extremity thereof.

2,833,067
DRIVE MECHANISM FOR FLAP-CARRYING DRUMS
Magdalin Christian Gleerup-Möller, Copenhagen, Denmark
Application September 23, 1952, Serial No. 310,999
Claims priority, application Denmark November 6, 1951
3 Claims. (Cl. 40—111)



3. A display device of the class described, comprising: a freely revoluble shaft; a pair of axially spaced disc members fixed to said shaft; a uniform series of flap-like flat and effectively rigid yet inherently springy indicia bearing display members each having an inner portion extending between said disc members and a free outer edge portion, said inner portions of all of said display members being pivotally connected to both of said disc members for movement about regularly arranged pivotal axes disposed at equal distances from the rotational axis of said shaft; a stop member located substantially directly above a position successively assumed by each of said pivotal axes as each axis moves downwardly during revolution of said disc members, said stop member being engageable by successive ones of said display members for holding a single one of said display members with its outer edge portion disposed above its pivotal axis and with the outer edge portion of said single display member individually accessible independently of the outer edge portions of all others of said display members; a vertically reciprocable actuating member disposed above said free edge portion of said single display member, said actuating member being engageable upon downward movement thereof with the outer edge portion of said single display member to force said edge portion downwardly past said stop member accompanied by an angular displacement of said disc members entraining all others of said display members, said angular displacement bringing the next succeeding one of said display members into the position previously occupied by said single display member after subsequent upward movement of said actuating member; a supporting member engageable with the display member which has just passed said stop member for holding the display member upright with its outer edge positioned below said stop member and with one side of said display member exhibited to view; and resilient means acting on at least one of said display members for urging the outer edge of the display member which is in engagement with said supporting member upwardly against said stop member for bringing said single display member into a predetermined reference position with respect to said stop member after each actuation of said actuating member.

2,833,068
RECORDING AND REMINDING DEVICE IN DISC FORM

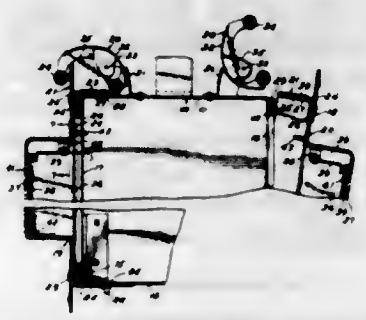
Leon O. Parker, San Francisco, Calif.
Application November 17, 1953, Serial No. 392,627
5 Claims. (Cl. 40—113)



1. A reminder and record-making device comprising a first paper disc having radially extending divisions keyed to a calendar, and a plurality of other paper discs secured concentric to said first disc and having radially extending separable and removable tab portions, radially in line with said first disc's keyed divisions but at a different distance from the center, the tab portions of different said other discs being of different radial length and aligned with each other and with said divisions, the central portions of said discs being provided with adhesive by which they may be secured together, said discs also being provided with holes through which water can pass and moisten the adhesive after the discs are aligned and held together, whereby removal of a tab portion from said second disc may indicate the performance of an act on the date indicated on the adjacent division of the other disc.

2,833,069
DISPLAY DEVICE

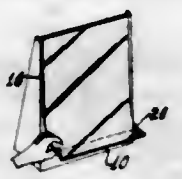
Thomas Christie Cairns, Anchorage, Ky., assignor to Lawrence C. Howe, Birmingham, Mich.
Application June 21, 1954, Serial No. 438,111
2 Claims. (Cl. 40—132)



1. A display device comprising a casing having an opening through one side thereof, a closure for said side comprising a panel having a marginal portion engageable with the adjacent side of said casing around the opening therethrough and defining therewith the joint between said closure and casing, said panel having the portion thereof encircled by said marginal portion offset laterally outwardly relative to said casing to provide an inwardly opening housing, said housing having a transparent outer wall portion spaced laterally outwardly of the joint between said closure and adjacent side of the casing, means hingedly connecting said closure to said casing permitting swinging movement of said closure relative to said casing between open and closed positions, a display sheet removably supported within the confines of said housing at the inner side of said outer transparent wall portion and spaced laterally outwardly from the joint between said closure and adjacent side of said casing, support means to support said display, and a water shed integral with and projecting inwardly from said panel across said joint and through the opening in said side of the casing above the housing extending for the full length of the housing to direct moisture escaping through the joint between the top of the closure and adjacent side of the casing in a direction away from the display sheet.

2,833,070
DISPLAY MOUNT

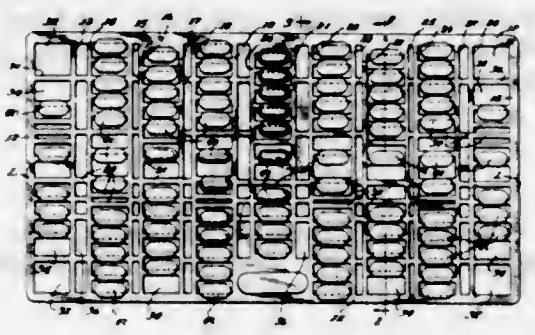
Sanford L. Goldman, Long Beach, N. Y.
Application January 22, 1954, Serial No. 405,563
1 Claim. (Cl. 40—152.1)



A collapsible display mount comprising a front rectangular section and two tapering side support sections, each of said side sections increasing in taper from the top to the bottom, all of said sections each including a rigid stiffener, a thin paper sheet extending over both said front and side sections to constitute hinges for said sections, the edges of said side sections being spaced from the adjacent edges of said front section by at least the thickness of said stiffener, whereby said side sections are freely foldable over the rear of said front section to collapse said display mount, a transparent plastic cover sheet having hooked or folded ends at the top and bottom thereof, the top hooked end of said transparent cover folding over said front section and being cemented to the top rear part only of said front section, the rest of said cover sheet including the entire front thereof being free to be drawn away from the front section, said bottom hooked end of the transparent cover folding freely over and being removably engaged from the lower edge of said front section to form a flap.

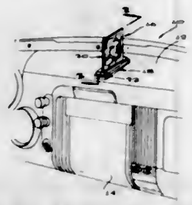
2,833,071
FRAME FOR HOLDING A PLURALITY OF SNAPSHOT PHOTOS

Marvin I. Glass, Chicago, Ill.
Application December 1, 1954, Serial No. 472,447
1 Claim. (Cl. 40—152.1)



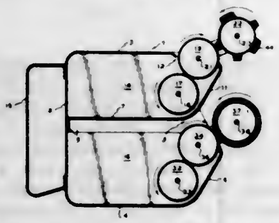
A holder comprising a one piece integrally formed rectangular shaped member having a plurality of spaced longitudinal and vertical bars joined together to form a plurality of open spaces therebetween, a plurality of spaced downwardly extending retaining members positioned over the upper half of said frame, a plurality of spaced upwardly extending retaining members positioned over the lower half of said frame, said retaining members extending over the open spaces and covering a substantial area thereof, there being no more than one of said retaining members for any single open space, said retaining members adapted to removably support a plurality of snapshots or the like of various sizes and shapes in any desired arrangement, each of said snapshots or the like being retained between the downwardly and upwardly extending retaining means of two or more separate open spaces and covering said separate open spaces.

2,833,072
IDENTIFICATION PICTURE ASSEMBLY FOR A VEHICLE IDENTIFICATION SYSTEM
William Gregory, Norwalk, Ohio
Application May 3, 1957, Serial No. 656,948
1 Claim. (Cl. 40—152.1)



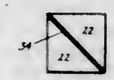
In a vehicle identification system, the combination of a picture assembly for fixed securement on a permanent portion of a vehicle such as the horizontal surface of a vehicle dashboard, a base member including means for fixedly securing the same to the vehicle; a picture including a photograph positioned between two rigid cover plates having the lower portions of the plates removably received in the base member; and a lock assembly extending between the base member and cover plates fixedly securing the picture on the base member identifying the authorized driver of the vehicle, said base member including an elongated slot portion opening into an outer surface portion thereof, said base member further including a flange overlying one end of the slot portion defining a notch at one end of said slot portion, the cover plates having lower edge portions removably received in the slot portion and including an integral lateral tongue portion lockingly received in said notch in the base member, the cover plates including a notch portion in an edge opposite the tongue portion and opening toward the opposite end of the slot portion of the base member, the base member including a transverse bore portion intersecting the slot portion thereof adjacent the notch portion of the cover plates disposed in said slot portions, the lock assembly comprising an elongated tubular body portion removably received in the transverse bore portion of the base member and including a key-actuated latch extendible therefrom removably received in the notch portions of the cover plates for locking the same in the base member.

2,833,073
PAINT APPLICATOR
Annemarie E. Doggett, Richmond, Va.
Application July 20, 1954, Serial No. 444,480
4 Claims. (Cl. 41—5.5)



1. A roller device for painting and applying a design to a surface in a single operation comprising a first and a second tank for paint, means for maintaining said tanks in a vertically disposed position with respect to one another, each of said tanks having a front panel, a top and parallel side walls, the top and front panel of each of said tanks being arranged to provide an opening between said top and said front panel which is coextensive with the distance between the side walls of each of said tanks, a first feed roll means, means for rotatably mounting said first feed roll means in said first tank about an axis perpendicular to said side walls of said first tank, a second feed roll means, means for rotatably mounting said second feed roll means in said second tank about an axis perpendicular to said side walls of said second tank, each of said feed roll means being in contact with the paint in its associated tank, separate applicator rolls associated with each of said tanks, separate means for rotatably and removably mounting each of said applicator rolls external to its associated tank and parallel to said feed roll means, each of said separate means maintaining a portion of the circumference of its associated applicator rolls in contact with a portion of the feed roll means of its associated tank, one of said applicator rolls having a design embossed on the circumference thereof.

2,833,074
POP-UP DISPLAY
Nicholas G. Jannes, Chicago, Ill.
Application August 10, 1955, Serial No. 527,570
10 Claims. (Cl. 41—11)



1. A distendable hollow display comprising flexible resilient sheet material, cut, scored and foldable to provide connected side plates and a diagonal plate, the side plates being of a combined length greater than twice that of the diagonal plate and extensible to opposite sides of the diagonal plate, the side plates when folded flatly against the diagonal plate extending from the side of the diagonal plate to which they are connected and beyond the opposite side thereof, and a resilient power member secured at one end to that side of the diagonal plate to which the side plates are connected, extending across the diagonal plate and connected at its other end at the joint between the side plates so that the side plates will be extended outward at each side of the diagonal plate when the power member extends the display, and the diagonal plate limits the extension of the side plates relative thereto when they are projected by the power member.

2,833,075
APPARATUS FOR TAKING CARE OF FISH LINES
Charles V. Herron, Evansville, Ind.
Application September 17, 1956, Serial No. 610,213
1 Claim. (Cl. 43—25.2)



In a combined fishing hook and line holder, an elongated supporting portion having a concave undersurface for attachment to a fishing pole, a bracket carried by said supporting portion, said bracket including a pair of aligned straight stretches secured to the upper surface of said supporting portion, said stretches being spaced by an upwardly bowed portion providing an aperture of sufficient size to receive the shank of a fish hook and permit passage therethrough of the barb portion of the hook, an outwardly directed angularly inclined portion on the free extremity of each of said straight stretches, and an outwardly extending finger on the free extremity of each of said inclined portions, said fingers lying in a plane substantially parallel to that of said supporting portion but

spaced therefrom whereby a fishing line may be wound around said inclined portions to retain the shank of the fishing hook in said aperture, the outwardly extending fingers retaining said fishing line upon said bracket.

2,833,076
FISH HOOK ASSEMBLY
Mario Corradi, New York, N. Y.
Application October 12, 1955, Serial No. 539,969
4 Claims. (Cl. 43—36)



1. A fish hook assembly, comprising a latch head, a pair of tapered arms pivotally carried by said head, said arms being pivotable only under tension of a first spring carried by said head, each of said arms having an inner section and an outer section pivotally joined to each other and held in alignment by a second spring, a hook rigidly attached to the free end of each of said outer sections, and a latch means including another spring arranged to retain said arms in a retracted position under predetermined tension in said other spring.

2,833,077
FISH LURE
Thomas C. Benoit, Salinas, Calif.
Application April 4, 1955, Serial No. 499,094
3 Claims. (Cl. 43—42.06)



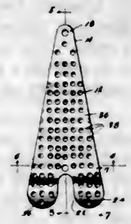
1. A fish lure comprising two elongated, flat strips of material of equal length and width, each having a flat end portion and a projecting end portion directly secured upon one another with the projecting portion of one strip extending beyond the end portion of the other strip at the front of the lure, and the projecting portion of said other strip extending beyond the end portion of said one strip at the rear of the lure, and each end portion being twisted longitudinally with respect to the projecting portion to which it is secured, intermediate portions of the strips being spaced and twisted through approximately one-quarter of a turn, and the projecting end portions having line and hook connections directly attached thereto.

2,833,078
SONIC FISHING LURE
Kenneth J. Peltz, Woodbury, N. J.
Application September 24, 1956, Serial No. 611,649
5 Claims. (Cl. 43—42.31)



1. In a sonic fishing lure, a hollow casing having a nose and a tail, a shaft journalled in said casing and having an end extending exteriorly of said casing at said tail, a propeller drivably carried by said shaft exteriorly of said casing, a sonifer mounted in the nose of said casing, and sound-producing mechanism in said casing operatively connected to said shaft and to said sonifer.

2,833,079
SPINNER FISHING LURE
Robert Flaska, Melrose Park, Ill.
Application May 13, 1955, Serial No. 508,154
1 Claim. (Cl. 43—42.34)



A spinner fishing lure comprising a flat plate of substantially triangular planar form and having a minor front end and a major rear end, said front end having means for attaching the plate to a fishing line leader, said rear end having a longitudinal, central cut-out opening through its rear edge to provide two spaced fins, said fins being bent transversely of the plate at their inner ends in opposite directions, means provided in the rear end between the fins for receiving a hook, said plate having opposing flat surfaces, one of said surfaces being smooth and the other having a series of indentations, said indentations having colored surfaces below the plane of the said other surface.

2,833,080
CRICKET, ETC., DISPENSER
Clem H. Hess and Raymond C. Hess, Conway, Ark.
Application October 3, 1957, Serial No. 687,888
5 Claims. (Cl. 43—55)

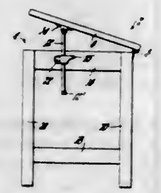


1. A cricket, etc., dispenser comprising: a container, a cover removably mounted on said container, said cover having a discharge opening therein, a removable ball valve engageable in the opening for closing the same, a coil spring for yieldingly securing the cover on the container, coil springs yieldingly securing the ball valve in the opening, and common means connecting the first and second named springs to the cover.

2,833,081
HOLDING MECHANISM
Alvin R. Pottern, Springfield, Mass., assignor to Milton Bradley Company, Springfield, Mass., a corporation
Application February 11, 1957, Serial No. 639,476
1 Claim. (Cl. 45—131)

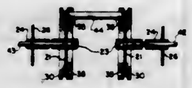
Mechanism for use with an article of furniture or the like having a top member and hinged connections be-

tween one edge of said top and a support provided with an upper horizontal upper side for swinging of said top to adjusted positions angularly relative to said horizontal upper side comprising, a bracket for securement to said top at a point thereof away from said hinged connections, an elongated rod pivotally connected at its upper end to said bracket having a lower free end for extending vertically downwardly from said bracket, a pivot member for securing to said support below the horizontal side thereof on an axis parallel to the pivotal connection of said rod, an elongated lever having an inner end pivoted on said pivot member for swinging of the outer free end thereof between lower rod holding and upper rod releasing positions, the outer free end of the lever provided with an upper ledge and a lower lip spaced downwardly therefrom to provide a pocket therebetween, said ledge and lip provided with an opening and a slot



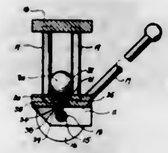
respectively for the free end of said rod, and a friction member for disposition in said pocket adapted to slide along and frictionally engage the free end of said rod for positioning thereof in adjusted positions along said rod, said slot in the lip of said lever being arranged for free sliding movements of the rod therethrough, said opening in the ledge of the lever being slightly larger than said rod and arranged whereby in relatively slight downward movement of the rod the friction member in the pocket of the lever acts on the lip thereof to swing the outer end of the lever downwardly to rod holding position wherein opposite sides of the opening in the ledge engage opposite sides of the rod to hold it against further downward movement, said lever provided with a manually engageable member for swinging the outer end thereof to rod releasing position whereby said rod is released by the sides of said opening for movement of said rod relative to said opening and friction member.

2,833,082
CONSTRUCTION TOY
Lawrence E. Carson, Alhambra, Calif., assignor to The Rig-A-Jig Toy Co., Inc., Chicago, Ill., a corporation of Illinois
Application August 5, 1954, Serial No. 447,979
2 Claims. (Cl. 46—23)



1. In a construction toy a circular disk-shaped piece having a circular axial bore therethrough for detachable receiving a cylindrical cooperating element, a resilient tire having an internal annular groove engaging and surrounding the edge of said piece, said tire having inwardly directed annular lips on opposite sides of said groove, one of said lips being longer and extending a greater distance from the bottom of said groove than the other of said lips, the longer lip having an axially directed circular recess therein of the same size as the axial bore arranged to frictionally support a said cylindrical cooperating element therein.

2,833,083
WHEELED TOY
Mary E. Dunstan, Seattle, Wash., assignor to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application July 21, 1953, Serial No. 369,306
3 Claims. (Cl. 46—114)



1. A toy comprising, base plate means, substantially parallel rows of substantially parallel posts carried by said base plate means and extending upwardly therefrom, there being the same number of posts in each of said rows thereof with the corresponding posts of said rows thereof being substantially aligned, thereby defining a number of ball confining cages equal to one less than the number of said posts in each of said rows thereof, the posts of each of said rows thereof being substantially equally spaced and said rows of posts being spaced apart a distance substantially equal to the spacing between the posts of each of said rows thereof, whereby said cages are of generally square cross sectional configuration, a ball having a diameter exceeding the space between adjacent of said posts movably confined within each of said cages, said balls having a normal position of rest adjacent the lower ends of said cages, means supporting said base plate means for movement along a supporting surface, resilient actuating means positioned adjacent said lower cage ends for engaging said balls, and means for alternately retracting and abruptly releasing said actuating means to periodically snap said balls away from their positions of rest as said toy is moved along a supporting surface.

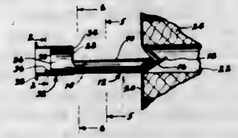
2,833,084
ATTACHMENT FOR CHILD'S EATING UTENSIL
Paul Hlousek, Omaha, Nebr.
Application April 13, 1956, Serial No. 578,145
2 Claims. (Cl. 46—116)



1. An amusement device or an attachment for a child's eating utensil comprising a housing having an opening in a side thereof, an amusement member disposed in said housing, elongated means swingably suspending said amusement member from a point in said housing disposed above said opening and spaced inwardly of said housing from said opening, whereby said amusement member is adapted to swing toward and away from said opening, and two guide members in said housing and disposed at the lower end of said suspension member, said guide members being disposed lapping said suspension member as seen in side elevation, said guide members being disposed in parallelism and extending from a point directly beneath said opening and extending from such point away from said opening in a direction for maintaining the swinging of said suspension member directly to and from said opening whereby at times when the forward end of the eating utensil is disposed substantially below the handle end thereof said amusement device will swing into a position at said opening, and means for attaching said

housing to the handle of said eating utensil comprising: a member having a recess of sufficient depth to snugly receive a substantial portion of the handle of the eating utensil for maintaining the device on the eating utensil, said recess being narrow and elongated in cross-section for receiving the usually flat handle end of an eating utensil.

2,833,085
REED AND CHANNEL SOUND MAKER WITH POINTED CHANNEL
George Wintriss, Carversville, Pa.
Application September 1, 1955, Serial No. 532,024
6 Claims. (Cl. 46—117)



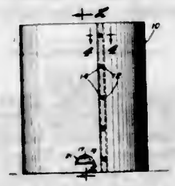
1. A pneumatic sound maker comprising a reed and a channel to which one end of the reed is fixed, the channel having an end part which is tubular beyond the fixed end of the reed, an eyelet over the tubular end part of the channel and secured thereto, a forwardly extending end portion of the channel beyond the other end of the reed pointed to provide a thorn for piercing the skin of a toy, the pointed end of the channel extending above the level of the reed to protect the free end of the reed from contact with the skin during the insertion of the sound maker into the toy, the eyelet having an in-turned lip at its forward end adjacent to the forward end of the tubular part of the channel for preventing displacement of the sound maker in a forward direction in the eyelet, the rearward end of the eyelet extending beyond the tubular part of the channel, and an indentation in the eyelet adjacent to the rearward end of the tubular part of the channel for preventing rearward displacement of the sound maker in the eyelet.

2,833,086
TURKEY CALLER
Leon C. Johenning, Lexington, Va.
Application August 2, 1955, Serial No. 525,961
13 Claims. (Cl. 46—180)



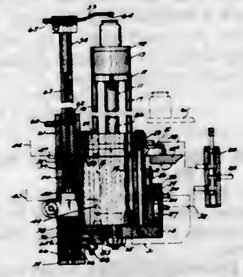
1. A box-type caller for game birds proportioned and dimensioned to emit upon use, the characteristic call of the particular wild fowl for which it is intended, and including as component parts thereof: a fixed and enclosed sound chamber defined by a generally rectangular and somewhat elongated box-like structure open at one end thereof; an acutely-angled sound anvil disposed across and nearly closing said open end of said structure, and adapted to be applied to the mouth of the user; and a flexible diaphragm extending across said anvil in spaced relation thereto; said box structure having openings in the mouth-remote end thereof for the admission of energizing air under the breath-pull of the user.

2,833,087
KNOCK DOWN METAL CONTAINER
Arthur N. Wedding, Mountain Home, Ark., and Walter H. Benson, Tinley Park, Ill.
Application January 17, 1956, Serial No. 559,624
1 Claim. (Cl. 47—37)



In a shipping container for plants, shrubbery, and trees the combination which comprises a sheet of material having sections, U-shaped in cross section and having locking elements therein positioned on opposite ends thereof, said wall having radially disposed lobes struck from openings in the lower part thereof and said lobes being inclined inwardly and upwardly, said locking elements of the U-shaped sections being positioned in overlapping flanges of said sections, and the locking elements being struck from the flanges and positioned in registering relation whereby the elements struck from one flange are positioned to engage the elements struck from the other flange, and a bottom provided with drain openings therein and having a frusto-conical shaped wall with a downwardly and outwardly inclined peripheral flange positioned in the lower part of the container and with the flange resting upon and conforming to the inclination of the lobes.

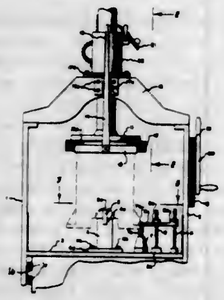
2,833,088
GLASSWARE COOLING AND TRANSFERRING APPARATUS
Ralph H. Olson and Keith Conrad, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application August 31, 1954, Serial No. 453,291
5 Claims. (Cl. 49—14)



1. An apparatus for cooling and transferring glassware after said glassware is formed in a forming machine, which apparatus comprises a base, a shaft vertically reciprocable in said base, a head mounted on the upper end of said shaft and including a support for supporting an article of glassware, means forming a part of said head for cooling the exterior surfaces of an article of glassware positioned on the support, said shaft comprising a cross head, rods in contact with the lower surface of said cross head and projecting downwardly into cavities in the base, the lower end of said rods being in the form of pistons, whereby when fluid under pressure is supplied to the cavities below the rods, the rods are caused to move upwardly and in turn press against the cross head moving the head upwardly, said vertical shaft protruding through the lower end of said base, a second cross head mounted on the lower end of said shaft, a second series of rods in contact

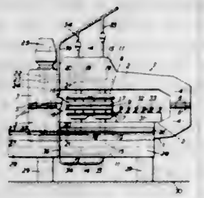
with the upper surface of said second cross head, said rods projecting into a second series of cavities in the base, the upper end of said second series of rods being in the form of pistons, whereby when fluid under pressure is applied to the second series of cavities the second series of rods is moved downwardly thereby forcing the second cross head downwardly and in turn moving the head downwardly.

2,833,089
ENGINE CYLINDER BLOCK AND HEAD GASKET SURFACE GRINDING APPARATUS
Alfred F. Beasloye, Henry Beasloye, Jr., and Max Beasloye, San Diego, Calif.
Application May 18, 1954, Serial No. 430,612
4 Claims. (Cl. 51—56)



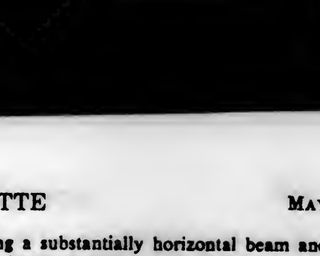
1. In an engine cylinder block gasket surface grinding apparatus, the combination of a large bed plate provided with an accurate and level upper surface, a bar extending centrally of said bed plate and positioned with its upper surface in accurate alinement with the upper surface of said bed plate, said bar being arranged to engage and rockably support said cylinder block at a point below its center of gravity, securing means arranged along one side of said bar for positioning and securing said engine block with its upper surface in true horizontal alinement with the upper surface of said bed plate, leveling means for indicating the true and accurate alinement of said engine block, and a reciprocating grinding wheel mounted above said bed plate and supporting means for holding said grinding wheel in accurate alinement with the upper surface of said bed plate.

2,833,090
APPARATUS FOR GRINDING OR POLISHING FLAT GLASS
Robert Touvay, Paris, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny & Cirey, Paris, France, a French company
Application December 6, 1954, Serial No. 473,350
Claims priority, application France December 9, 1953
1 Claim. (Cl. 51—112)



An apparatus for surfacing flat glass in ribbon form comprising an endless continuous rigid frame in the form of a closed loop encompassing a space and comprising similar upper and lower components, each component comprising a substantially horizontal beam and substantially vertical column elements at opposite ends of the beam, upper and lower surfacing tools located in said space and mounted on said beams for operating simultaneously on the upper and lower surfaces of the ribbon, means for advancing the ribbon lengthwise in a substantially horizontal plane through said space in a direction surrounded by the frame, means supporting and guiding said frame for movement with said tools substantially horizontally transverse to the path of travel of the ribbon, said frame providing a clearance in said space on the side of the path of travel of the ribbon to receive the ribbon and to cause the tools to occupy an inoperative position on the side of the ribbon upon displacement of the frame substantially horizontally transverse to the path of travel of the ribbon, a support for the ribbon disposed in said clearance and having roll elements mounted on substantially horizontal axes extendible substantially parallel to the path of travel of the ribbon and located substantially at the support level of the ribbon, said support being secured to said frame for substantially horizontal movement therewith to cause said roll elements to move underneath the ribbon to support the ribbon as the frame is displaced transverse to the path of travel of the ribbon and the tools are moved therewith towards inoperative position towards the side of the ribbon.

2,833,091
AUTOMATIC INSERTION OF PINS, ETC., IN HOLES
William E. Whitney, Belmont, Mass., assignor to Comstock & Wescott, Inc., Cambridge, Mass., a corporation of Massachusetts
Application November 21, 1955, Serial No. 548,020
3 Claims. (Cl. 53—142)

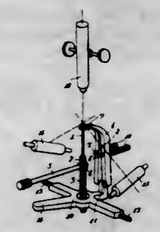


2. Device for automatic insertion of pins into a battery of holes, comprising a plate perforated with holes larger than said pins, a means for oscillating said plate rapidly up and down, and intermittent means for urging said pins downward in said holes.

2,833,092
APPARATUS FOR SHARPENING SMALL DRILLS
Jiro Hamai, Shinagawa-ku, Tokyo-to, Japan
Application February 7, 1956, Serial No. 564,075
12 Claims. (Cl. 51—219)

1. An apparatus for sharpening small drills comprising, in combination, a base; a movable support adapted to receive the rear end of a twist drill and movable in longitudinal direction of the drill; holding means having clamping portions spaced in said longitudinal direction from said support and being movably mounted in said base, said clamping portions being adapted to clamp the tip portion of a drill held with its rear end in said movable support; first control means for setting said movable support in a plurality of positions with respect to said base; second control means for moving said holding means between a clamping position and a release

position of said clamping portions; and guide means located transversely and longitudinally spaced from said clamping portions, said guide means having a guide face extending transversely of said longitudinal direction and being adapted to support an elongated whetstone at pre-



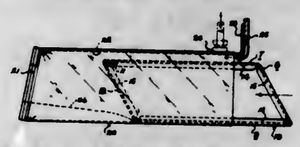
determined angles with respect to said longitudinal and transverse directions while said whetstone is in contact with the tip of said drill, whereby the tip of the drill is sharpened with the desired cutting and relief angles when the whetstone is manually moved while being guided by said guide means.

2,833,093
SEAT GRINDER
Laurence F. Shesler, Yonkers, N. Y.
Application March 23, 1956, Serial No. 573,532
4 Claims. (Cl. 51—241)



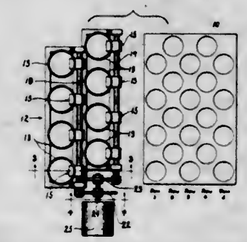
1. A valve seat refinisher for a valve having an interiorly threaded housing comprising a centering member of yieldable composition, said centering member being adapted to be compressed by the threads of the interiorly threaded housing so as to mesh with the same when the centering member is expanded in the housing, means associated with said centering member for expanding the same in the housing, a rotatable shaft, the centering member being slidably and rotatably mounted on said shaft, the valve seat end of said shaft being adapted to support abrasive means for refinishing the valve seat.

2,833,094
BAG CONTAINER
George Arlington Moore, New York, N. Y.
Application July 12, 1956, Serial No. 597,419
16 Claims. (Cl. 53—14)



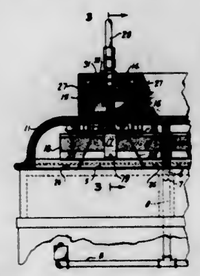
1. The method of forming a carton-like container of two component parts to provide four side walls arranged in opposing pairs and a closed end, which comprises utilizing a conventional heat-sealed bag of transparent plastic sheet material constituting the first component, opening said bag to receive an insertion of a substantially rigid four paneled frame constituting the second component and capable of being manipulated in the form of a parallelogram, reducing the dimensional width of the frame by manipular action taken to be less than the coincident dimensional width of said opened bag during said insertion therein, exerting pressure upon an end panel of said frame that is adjacent the open mouth of said bag thereby squaring the frame within the bag to tautly draw the walls of the bag over the coincident walls of said frame, providing a substantially central open section in said end panel portion that is in the open mouth of said bag to be used for filling and dispensing purposes of the constructed container, and after a filling thereof closing the open section of said end panel by folding the outwardly projected portion of the side walls of the bag and heat-sealing a marginal portion of said folds in seam forming relationship.

2,833,095
PACKING
Clifton F. Stuart, Warren, Ohio, assignor to Clifton-Grant Development Corporation, Warren, Ohio, a corporation of Ohio
Application May 19, 1953, Serial No. 355,991
11 Claims. (Cl. 53—35)



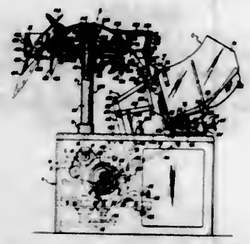
8. In the art of packing fruit and the like in a container having a plurality of fruit receiving recesses arranged in longitudinally spaced-apart rows, adjoining rows of recesses being off-set transversely to provide a staggered pattern, the method which comprises releasably supporting a plurality of fruit above the container and in at least two rows which are staggered to correspond with respective adjoining staggered rows of recesses of the container, effecting relative movement between the container and the supported fruit and releasing the supported fruit when a row of recesses of the container is in predetermined position below a supported row of fruit to permit such fruit to move to position in the recesses in the container.

2,833,096
VACUUM BAG SEALING MACHINE
Ralph S. Randall, San Francisco, Calif., assignor to Vac-U-Pak Corporation, San Francisco, Calif., a corporation of California
Application February 8, 1955, Serial No. 486,797
10 Claims. (Cl. 53—86)



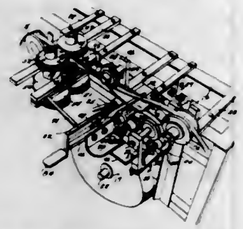
1. In a vacuum bag sealing machine, a platform adapted to receive an open-ended bag thereon, and a hollow cover mounted for movement upon the platform to form a sealed chamber therewith, the cover having spreadable spring fingers adapted for engaging over the open end of the bag when the cover moves upon the platform for smoothing out said open end.

2,833,097
BAG APPLYING MACHINE
James C. Petrea and James W. Howe, Jr., Durham, N. C., assignors, by mesne assignments, to Sperry Rand Corporation, a corporation of Delaware
Original application March 10, 1955, Serial No. 493,505. Divided and this application March 5, 1957, Serial No. 643,970
15 Claims. (Cl. 53—188)



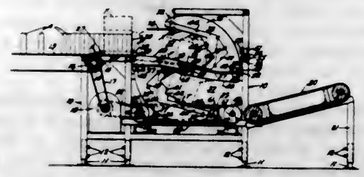
10. In a bag applying and filling machine, indexing means for supporting and sequentially moving successive bag holding devices through a plurality of stations including a bag applying and a bag filling station, said bag holding devices each comprising a downwardly extending chute of generally U-shape in horizontal section and adapted to extend into the mouth of a bag, means for clamping a bag wall against the outer face of the closed side of said chute, a bag expander pivoted to said chute and arranged to swing to a position within said chute or to swing outwardly through the open side thereof to expand a bag thereon, means normally urging said expander to move outwardly to bag expanding position, means at said bag applying station for holding said expander in retracted position but operable upon movement of said holding device out of said applying station to release said expander to move to bag expanding position, and shaking means at said bag filling station for relatively rapidly oscillating said expander through a small angle about its pivot to vibrate the walls of a bag on its associated holding device.

2,833,098
WRAPPING MACHINES
Clifford B. Bennett, Atlanta, Ga., assignor to Southern Saw Service, Inc., Atlanta, Ga., a corporation of Georgia
Application April 18, 1955, Serial No. 502,043
8 Claims. (Cl. 53—204)



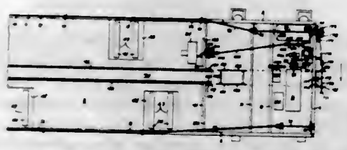
1. In a machine for applying a wrapping strip longitudinally about a band saw blade or the like, a supporting frame; a spaced pair of flanged guide rollers each rotatable about a horizontal axis for supporting the blade suspended at the front side of said frame; means for supplying a wrapping strip longitudinally of the blade to engage one face thereof; a pair of relatively movable coacting horizontally aligned traction and folding rollers, each mounted for rotation about a vertical axis for pulling the blade and wrapping strip through the machine and folding the marginal edges of the wrapping strip over the outer surface of the blade; and power operated means connected to drive the traction and folding rollers.

2,833,099
PACKING MACHINE
Jack J. Rejsa, Minneapolis, Minn., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware
Application August 21, 1956, Serial No. 605,278
17 Claims. (Cl. 53—243)



1. In apparatus for loading a cluster of articles, such as packages into a carton which is provided with an open lower end, the combination of a supporting structure, a carton-carrier movably mounted on said structure for successive and cyclic movement from a first, receiving position to a second position at least partially inverted with respect to the first, said carrier having substantially planar, article-supporting means to initially support such a cluster of articles with a carton surrounding the same and with said articles extending into the open lower end of said carton, said supporting means tilting from said first position during the initial portion of the cycle of operation of said movable carrier to an inclined position where upper and lower portions of said article-supporting means are defined, and thence in the cycle of operation, moving into said second position for substantially inverting the articles and cartons, said carrier having an abutment disposed transversely of the lower portion of said article-supporting means to restrict sliding of the carton along said article-supporting means when the carrier is moved, said carrier also having a substantially angular, shoulder-forming abutment disposed in opposed relation to said lower portion of said article-supporting means and spaced therefrom a distance to accommodate the height of the carton therebetween, said shoulder-abutment being engaged in supporting relation with a corner of the carton during tilting and inversion by the carrier.

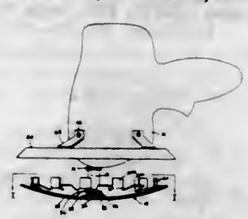
2,833,100
MOBILE HARVESTING AND PACKING APPARATUS
Manuel P. Correia, Santa Maria, Calif.
Application June 15, 1954, Serial No. 436,960
14 Claims. (Cl. 53—391)



8. In a mobile harvesting and packing apparatus for conditioning and packing in crates row crops in the field, the combination comprising a pair of spaced independently controllable tractors; a bridge frame extending therebetween in elevated relation to the ground and carried by the tractors; a crop conveying elevator unit supported on the bridge frame for conveying the harvested crop from a crop receiving station at crop level to a crop packing station on the bridge frame, conveyor means on the bridge

frame adjacent the packing station and extending lengthwise of the bridge frame for conveying the packed crop away from the packing station, said conveyor means acting in time with said elevator unit, crate loading means on the bridge frame for delivering empty crates to the packing station in time with said elevator unit and conveyor means, and power means on the bridge frame for driving the elevator unit, conveyor means and crate loading means.

2,833,101
ROTARY DISC TYPE ELECTRICALLY DRIVEN LAWN TRIMMER OR EDGER
Richard Hardy Batton, Macon, Ga.
Application August 23, 1955, Serial No. 530,015
8 Claims. (Cl. 56—25.4)



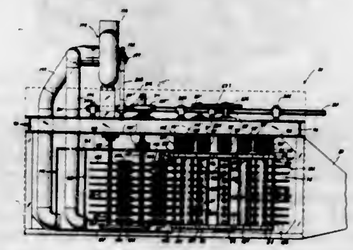
1. A cutting blade structure for a power driven grass-cutting tool comprising a circular one piece dished cutter embodying an inner concave surface and an outer convex surface, said cutter having a series of integral separate teeth disposed around the periphery thereof, certain of the teeth of the series being in a plane of the body of the cutter embodying the continuous peripheral edge thereof, certain of said teeth being offset with respect to the body of said cutter and disposed at right angles to a plane passing through the transverse central portion of the body of said cutter, and mounting means integrally and centrally located upon the concave side of said cutter.

2,833,102
VARIABLE PITCH MOWER
Earl O. Roof, Pontiac, Ill.
Application September 11, 1956, Serial No. 609,257
1 Claim. (Cl. 56—25.4)



A self-propelled, variable pitch, weed cutter and lawn mower, comprising a generally horizontally-extending frame, a cutter blade suspended below the forward portion of said frame for rotation in a generally horizontal plane, ground-engaging support means connected to the forward portion of said frame and extending for an adjustably variable distance below the rotational plane of said cutter blade, a continuous axle extending transversely across the rearward portion of said frame and projecting outwardly on each side thereof, a wheel mounted on each of the projecting ends of said axle for rotation therewith and extending downwardly below said frame, an engine carried by said frame, power transfer means connecting said engine with said axle for driving said wheels through said axle, power transfer means also connecting said engine with said cutter blade, linking means for pivotally linking said axle to the rearward portion of said frame, cranking means carried by the rearward portion of said frame and cooperating with said linking means to pivot the same for raising and lowering the rearward portion of said frame with reference to said axle and thereby varying the rotational pitch of said cutter blade, and guide handle means extending rearwardly from the rearward portion of said frame, said cranking means including a crank handle adapted for manual actuation and positioned at the rear of said frame adjacent said guide handle means, whereby the operator of said mower can adjust the rotational pitch of said cutter blade at any preselected height without discontinuing the operation of said mower.

2,833,103
COTTON PICKER DRUM ASSEMBLY
Leon Davenport, Leland, Miss., assignor of four-tenths to Southern Developers, Inc., Memphis, Tenn., a corporation of Tennessee
Application April 30, 1954, Serial No. 426,789
6 Claims. (Cl. 56—44)

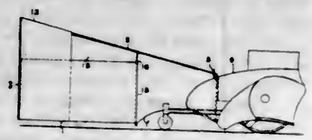


1. A cotton harvesting machine having rotary picking drum means including a plurality of cotton picking spindles adapted to pick cotton from cotton stalks as they are fed in contact therewith, said drum including means for supporting said cotton picking spindles at a plurality of stations around the periphery of the drum wherein the axis of said spindles is perpendicular to the axis of said drum, said supporting means including a plurality of elongated spindle casings arranged parallel to the axis of and connected to said drum and extending about the periphery thereof, said spindles being supported on said casings in a radial position perpendicular to the axis of said casings and radially about the periphery of the drum, and biasing means for individually shifting all the spindles supported by an individual casing from a radial position toward a tangential position with respect to said drum without changing the relative position with respect to the casing when said spindles are contacted by an obstruction, said biasing means being connected between the individual casing and the drum and urging the casing to a normal position in which the spindles extend from the drum.

2,833,104
GRASS CATCHER MEANS
John F. Mastantuono, Cedarhurst, and Frank Vilardi, Oceanside, N. Y.
Application February 25, 1957, Serial No. 642,099
1 Claim. (Cl. 56—202)

For use with a lawn mower having upstanding side frames, each having a hook on its upper portion and at least one cross member interconnecting said sides; a grass catcher having a bottom, sides and front end, the bottom extending rearwardly and terminating in an upwardly convex portion, said catcher having rearwardly extending rods attached to upper portions of said sides and having inturned and downwardly extending terminal portions, said

inturned portions being adapted to have engagement with said hooks and said downwardly extending terminal portions being adapted to have contact with portions of said cross member to hold said catcher in suspended position.

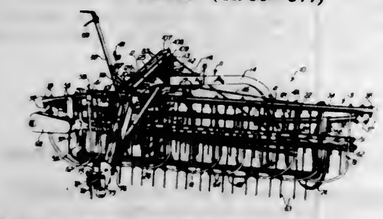


2,833,105
TRANSPORT TRUCK FOR WINDROWERS
John S. Naery, Racine, Wis., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application May 31, 1955, Serial No. 512,010
2 Claims. (Cl. 56—228)



1. A transport truck for a windrower or the like which includes a drawbar frame horizontally disposed at one end of the windrower and elongated in the direction of windrower operating movement to present a front end and a rear end of the drawbar frame, a pair of transport supporting wheels having substantially aligned axles, one of said wheels being operatively attached to the front of said frame and the other of said wheels being operatively attached to the rear of said frame, the front wheel having a mounting link pivotally connected to said frame about a longitudinal axis thereof and further having a holding link detachably attached to said frame which may be detached to enable said front wheel to be swung to inoperative position, the rear wheel having a mounting link pivotally connected to said frame about a transverse axis thereof and further having a holding link detachably attached to the frame which may be detached to enable said rear wheel to be swung to an inoperative position.

2,833,106
SUSPENSION AND CONTROL MEANS FOR ROTARY SIDE DELIVERY RAKE
Paul R. Schroeppel, Rockford, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application April 21, 1955, Serial No. 502,835
4 Claims. (Cl. 56—377)



1. In a tractor conveyed type of rake, the combination comprising a rake main frame, a vertically movable hitch attached to the front of said frame to be vertically adjustable relative thereto, a horizontally disposed wheel axle, ground wheels mounted on opposite ends of said axle, an upright post mounted on each opposite end of said axle and slidably connected to said frame for vertical movement of the latter with respect to said axle, an actuator mounted on said frame for transmitting a force through said actuator, a connector attached between said actuator and said hitch for vertically moving the latter upon transmitting said force through said actuator, and a second connector attached between said actuator and each of said upright posts and also connected to said frame for transmitting said force through said actuator to said connectors for raising and lowering said rake frame with respect to said wheels.

2,833,107
SIDE-DELIVERY RAKE
Gail R. Sutherland and Arle E. Breed, Ottumwa, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application April 19, 1956, Serial No. 579,352
16 Claims. (Cl. 56—377)

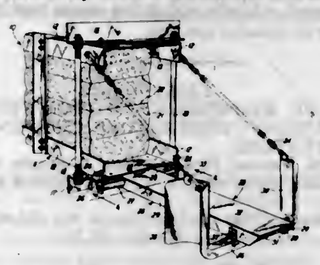


1. A side-delivery rake adapted to be supported in part on and drawn by a tractor for advance over a field, comprising: a main frame having a generally fore-and-aft upper part disposed at a substantial height above the ground and including laterally spaced apart depending rear end supports terminating above the ground and further including a pair of depending front end portions also terminating above the ground; a pair of ground-engaging wheels respectively connected to the rear end supports and sustaining the aft part of the frame; rake mechanism carried by the frame ahead of the wheels and behind said front end portions; a fore-and-aft draft element having rear end portions laterally spaced apart on the order of and pivotally connected on a first transverse axis respectively to the main frame front end portions, said element extending forwardly generally at the level of said front end portions and having a free front end including means thereon adapted for support on and connection to the tractor for vertical movement relative to the tractor about a second transverse axis ahead of the first axis; and force transmitting means having an upper end connected to the upper portion of the main frame and a lower end connected to the draft element ahead of said first axis, said force-transmitting means including relatively movable parts operative to vary the distance between the upper and lower ends of said means for varying the angle between said frame and element about said first axis and thus to vary the vertical position of the frame and rake mechanism relative to the ground.

2,833,108
BALE DROPPING CHUTE FOR PICK-UP HAY BALERS
John A. Kriva and Robert R. Qualheim, Racine, Wis., assignors to J. I. Case Company, Racine, Wis.
Application March 16, 1954, Serial No. 416,656
1 Claim. (Cl. 56—473.5)

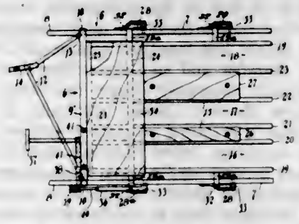
In a baling machine of the type having a baler frame defining a baling chamber, a floor for said chamber of substantially the width of the chamber, a delivery platform of substantially one-half the width of said floor extending rearwardly from the floor, a pair of brackets pivotally depending from said frame, a rod mounted on said brackets to extend transversely of and below the frame, the platform being slidably mounted on said rod to selectively position the platform with the longitudinal

centers of the platform and floor in substantial alignment or with either selected lateral edge of the platform in substantial alignment with the longitudinal center of the floor so as to selectively cause bales delivered from the baler



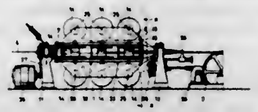
to fall along its longitudinal center line or to either selected side of said center line, and coacting means on the frame and platform to maintain the latter in a horizontal position.

2,833,109
HAY BALE STOOKER
Robert E. Walker, Port Perry, Ontario, Canada
Application October 10, 1955, Serial No. 539,556
6 Claims. (Cl. 56—473.5)



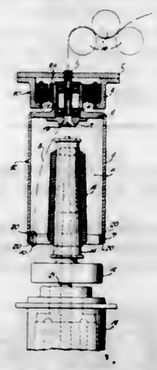
1. A stooker adapted to receive bales from such as a traveling baler and for depositing same on the ground in "ridged roof"-simulating stacks which expose up to at least as many as three superposed bales from each side with the lowermost bales in edge contact only with the ground, said stooker comprising a frame-like substantially U-form vehicular body which is open at its rear end, laterally spaced ground-adjacent runners constituting opposite sides of said vehicular body and providing upturned forward portions, upstanding members connecting the respective runners with the related upturned forward portions, a frontal body end-providing and runner-connecting cross member structure providing upper and lower portions which are spaced above the plane of said runners, a fixed rearwardly extending attendant-supporting platform functionally integral with the upper portion of said frontal cross member structure and spacedly overlying a part of the forward portion only of the length of the space between said runners, a vertically and rectilineally shiftable bale stack-supporting platform, a plurality of runner-carried supporting arms for said shiftable platform at opposite sides of the latter and spaced in the direction of the length of said runners, each of said arms transversely pivoted at longitudinally spaced points to said platform and runners, whereby to control movement of said shiftable platform in parallelism with said runners from a forwardly located elevated position to its lowermost rearwardly located position adjacent the runners, whereby to avoid capsizing a stack during such platform movement, said shiftable platform having rearwardly open laterally spaced runner-paralleling slots for the projection of bale corners therethrough whereby a bale stack will be ground supported when the shiftable platform is in its aforementioned lowermost position, and the lower portion of said frontal runner-connecting cross member structure being positioned to intercept the forward end of said shiftable bale platform after the arms have swung predeterminedly forward past vertical dead center position with respect to their runner carried pivots, whereby to cooperate with said arms in the support of the bale platform in its elevated bale-receiving position below the plane of said fixed platform.

2,833,110
MACHINES FOR MAKING CABLES
Per Sven Engelbrekt Fredriksson, Torsten Göran Emil Waenerlund, and Tore Sigfrid Schöllin, Vasteras, Sweden, assignors to Aktiebolaget Svenska Metallverken, Vasteras, Sweden, a limited joint stock company of Sweden
Application February 5, 1952, Serial No. 270,032
Claims priority, application Sweden February 8, 1951
6 Claims. (Cl. 57—14)



1. A cable stranding machine comprising a rotatably mounted central body, a plurality of frames, each of said frames having rotatably mounted thereon a plurality of bobbins for cable strands, and fastening means providing quick-detachable connections for separately mounting each of said frames on said central body.

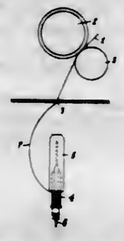
2,833,111
CAP SPINNING FRAMES AND CAP TWISTING FRAMES
Hellmuth Hadlich, Karl-Marx-Stadt, Germany, assignor to VEB Spinn-und Zwirnereimaschinenbau Karl-Marx-Stadt, Karl-Marx-Stadt, Germany
Application October 20, 1955, Serial No. 541,571
10 Claims. (Cl. 57—74)



1. In a twist imparting frame, the combination of: a substantially vertical rotatable spindle capable of operative engagement with a bobbin, first driving means operatively connected with said spindle for driving same, a substantially vertical rotatable cap, second driving means operatively connected with said cap for rotating same independently of the rotation of said spindle, said spindle extending into the interior of said cap, a traveller inside said cap, said traveller being movably mounted on said cap at the lower end thereof, a thread guide inside said cap above said spindle, said thread guide being rigid with said cap so as to rotate with the latter, and passage means on said cap, said passage means registering with said thread guide for leading thread from the outside to

said thread guide, the passage means and traveller being located within the interior of said cap to contain the thread fed therebetween interiorly of said cap.

2,833,112
CAP SPINNING FRAMES
Dorothy M. Hannah, Leeds, England
Application March 6, 1953, Serial No. 340,824
Claims priority, application Great Britain March 10, 1952
11 Claims. (Cl. 57—127)



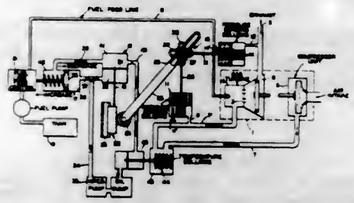
5. A hollow cap for guiding a filament during winding upon textile cap spinning frames from a pot-eye spaced from said cap, said cap having its external lower surface of generally frusto-conical form so as to provide a circumferential surface progressively tapering upwardly for a substantial distance from the lower edge of the cap forming the sole filament engaging means between said pot-eye and the wound filament providing for uniformly guiding and tensioning the filament during its said winding, the inclination of said frusto-conical surface to the cap axis being such as to correspond with the maximum angle to said axis assumed by the lower part of a freely flying filament balloon at the commencement of winding under given operating conditions whereby the ballooing filament is prevented from assuming a shape such as to cause a decrease in filament tension, said frusto-conical surface having a smallest radius from ½ to 1½ inches, and said angle of inclination ranging according to the size of the smallest radius of said frusto-conical surface from a minimum of approximately 11° to 18° for a ½ inch radius to a maximum of approximately 21° to 34° for a 1½ inch radius and with an axial extent ranging from approximately .12 to .14 of the disance from said pot-eye to said lower edge of said cap.

2,833,113
EXPANSIBLE BRACELET HAVING TWO ROWS OF TUBULAR LINKS JOINED BY H-SHAPED CONNECTOR
Charles H. Dolansky, Montreal, Quebec, Canada
Application November 18, 1955, Serial No. 547,788
10 Claims. (Cl. 59—79)



1. An expansible bracelet comprising two parallel rows of elongated units, the longitudinal axes of the units being located in parallel planes and extending transverse to the length of the bracelet, the units of one row being staggered with respect to those of the other row, and connecting means between each unit of one row and two units of the other row, each said connecting means comprising a part having two elongated flat portions located in substantially parallel spaced planes and a connecting portion extending between longitudinal edge portions thereof, located intermediate the length of and substantially shorter than said elongated flat portions, said units being hollow and said flat portions of each part being arranged one in a unit of one row and the other in a unit of the other row, said units having spaces through which the connecting member extends, and spring means in each unit engaging said elongated flat portions and resisting turning thereof, whereby said spring means tend to return the bracelet to retracted position.

2,833,114
PRESSURE RESPONSIVE CONTROL SYSTEM INCLUDING TEMPERATURE COMPENSATING FEATURE
Abe J. Perle, Verona, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application May 21, 1954, Serial No. 431,421
3 Claims. (Cl. 60—39.28)

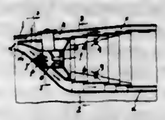


1. In a pressure fluid operated control system for regulating a flow of fuel to the combustion chamber of a hot gas turbine engine having a turbo-compressor unit, an inlet air supply line from the compressor unit to the combustion chamber and an exhaust line from the turbine; a pressure responsive device responsive to pressure variations above a certain maximum in the inlet air supply line, a pressure responsive device responsive to pressure variations below a certain minimum in the exhaust line, a control needle valve, mechanism for opening the control valve wider in response to actions of the first device in responding to variations of the inlet air pressure above the maximum, and for restricting the opening of the control valve in response to actions of the second device in responding to variations in pressure in the exhaust line below the minimum, a fuel line independent of the inlet air supply line and connected to the combustion chamber, a servo valve controlling increases and decreases of fuel flow through the fuel line to the combustion chamber, and means responsive to restrictions in the opening of the control valve to actuate the servo valve to increase the flow of fuel to the combustion chamber and responsive to wider opening of the control valve to actuate the servo valve to decrease the flow of fuel to the combustion chamber, said mechanism having a first connection with said pressure responsive device and a second connection with said second pressure responsive device, said first and second connections being movable simultaneously but independently of each other such that movement of one of said devices does not affect the other.

2,833,115
AIR-JACKETED ANNULAR COMBUSTION CHAMBERS FOR JET-PROPULSION ENGINES, GAS TURBINES OR THE LIKE
John Stanley Clarke, Blacko, near Nelson, and Squire R. Jackson and Geoffrey John Hudson, Burnley, England, assignors to Joseph Lucas (Industries) Limited, Birmingham, England
Application January 10, 1955, Serial No. 480,955
2 Claims. (Cl. 60—39.65)

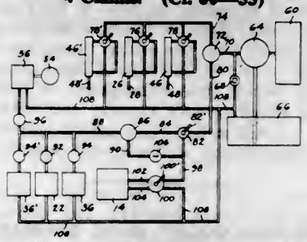
1. An annular combustion chamber having air jackets around its inner and outer walls, and having in combination a plurality of liquid fuel nozzles mounted in equi-spaced relationship and circular formation around one end of the chamber with the axes of the nozzles lying

centrally between the inner and outer walls of the chamber, air-swirling means surrounding each nozzle, a hollow annular nose piece extending from the said end of the chamber, and shaped to direct air to the air jackets, an annular air entrance situated adjacent to the outer end



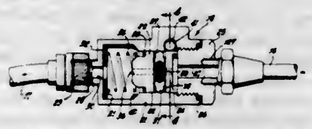
of the nose piece, an annular hood surrounding the nose piece and forming therewith air passages leading from the air entrance to the air jackets, and a plurality of air scoops situated in equi-spaced positions within the nose piece and leading from one of the air passages to the air-swirling means around the fuel nozzles.

2,833,116
HYDRAULIC DRIVE SYSTEM
Hugh M. Rush, Elkhart, Ind.
Application June 15, 1956, Serial No. 591,630
4 Claims. (Cl. 60—53)



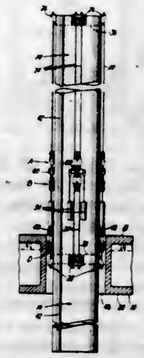
1. In combination with a plurality of fluid power motors wherein at least one of said motors is driven at constant speed and another of said motors is driven at variable speeds, a drive system comprising a source of variable fluid power, a valve having a fluid inlet and a plurality of fluid outlets and constructed to divide an inlet fluid power into one constant outlet component and a second outlet component of the excess above said one constant outlet component, first conduit means connecting the fluid source to the inlet of the valve, second conduit means connecting the one constant outlet component to a constant speed motor, third conduit means connecting the second outlet excess component to the inlet of the variable speed motor, fourth conduit means for interconnecting the first conduit means and the inlet of the variable speed motor, control bypass valve means in the first conduit means for selectively connecting the fluid source to the valve inlet and to the fourth conduit means, respectively, and check valve means in the third conduit means for preventing fluid flow toward said second outlet of the valve.

2,833,117
BRAKE SAFETY SHUT-OFF VALVE
Frederick J. Wilcocks, Altadena, Calif.
Application July 29, 1954, Serial No. 446,605
6 Claims. (Cl. 60—54.5)



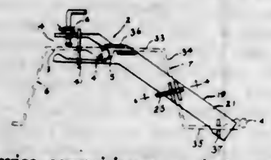
1. A brake safety valve comprising a cylinder body, an axially movable piston in said cylinder, a first fluid connection for placing said cylinder body at a first side of the piston in communication with the master cylinder of a braking system, a second fluid connection for placing the cylinder body at the other side of the piston in communication with a fluid actuated brake mechanism, means forming a fluid passage placing said opposite sides of the piston in restricted communication, a valve seat in said cylinder body at said other side of the piston and facing toward the piston, said piston having a valve portion operable upon axial movement of the piston to engage said seat and acting when engaged therewith to close off communication between said passage and said second fluid connection, a spring yieldingly urging said piston away from engagement with said seat, said spring being sufficiently strong to retain said valve portion of the piston out of closing engagement with the seat during normal brake applying actuation of said brake mechanism by pressure from said master cylinder, said passage being sufficiently restricted to cause movement of said piston into valve closing engagement with said seat upon a sudden decrease in pressure at said other side of the piston resulting from rupture of a fluid line communicating with said second fluid connection, a releasable spring urged detent mechanism for locking said piston in a position of engagement with said seat after said actuation into engagement with the seat by said sudden decrease in pressure at said other side of the piston, and releasable holding means operable to positively lock said piston in an open valve condition and against movement toward said seat to thereby permit bleeding of the system through said restricted passage without closure of the valve.

2,833,118
SPUD DRIVING RIG
Leroy Nixon, Newtown, Pa., assignor to John A. Roebling's Sons Corporation, Trenton, N. J., a corporation of Delaware
Application March 26, 1954, Serial No. 418,914
9 Claims. (Cl. 61—46.5)



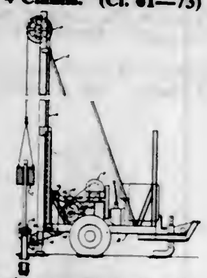
2. A marine foundation structure including a platform, a plurality of spud casings in said platform, a plurality of spuds adapted to support said platform, each of said spuds being positioned in one of said spud casings for vertical movement relative to said platform, a plurality of lengths of wire rope disposed exteriorly of and arranged in spaced relation about the periphery of each of said spuds, means securing each of said wire ropes by its opposite ends to upper and lower portions of the associated spud to extend parallel with the longitudinal axis of the spud, and jacking mechanism mounted on said platform, said jacking mechanism comprising gripping means engageable with the wire ropes secured to a particular spud to cause relative vertical movement between said spud and said platform.

2,833,119
METAL SHEETING SAFETY LOCK
James W. Molloy, Bellerose, N. Y.
Application February 18, 1955, Serial No. 489,163
5 Claims. (Cl. 61—63)



1. A device comprising a vertical member having a wall face lengthwise opposite sides thereof and including a horizontally disposed bar extending off one face thereof at the top end and a bifurcated member extending away from the opposite face at the bottom end, the bifurcated member adapted to receive and freely contain therein a thickened edge formed lengthwise of a relatively thinner metal sheet member, screw means carried by the bifurcated member transversely operable to partially close off the mouth end of the bifurcated member so as to prevent the thickened edge from slipping laterally out of the bifurcation, and the bar having keep means engageable with a lift member whereby the bifurcated member is slidable lengthwise of the thickened edge.

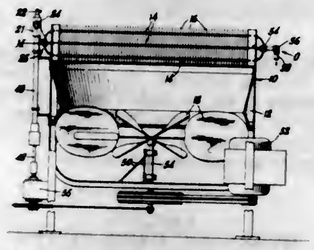
2,833,120
TESTBORER
James L. Barrett and Richard G. Parse, Pittsburgh, Pa., assignors to Pennsylvania Drilling Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 5, 1956, Serial No. 576,272
4 Claims. (Cl. 61—73)



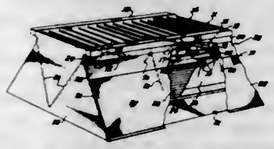
3. An earth-testing machine of the type in which a tool is driven into the earth by the gravity action of a drive hammer, the hammer being raised by a single flexible element which passes over a tower, the improvement which comprises: one end of the flexible element being fastened to the hammer, and the other end of the flexible element being fastened to the upper end of the tool, the flexible element being formed of non-stretchable material, so that its length remains substantially constant, and operating means to operate the hammer, said operating means including a reciprocable sheave over which a bight of the flexible element is passed and means to reciprocate the sheave, to raise the hammer and to permit it to fall by gravity, whereby the successive blows of the hammer on the tool are of the same magnitude, regardless of movement of the tool into the earth.

2,833,121
APPARATUS FOR VAPORIZING VOLATILE LIQUIDS
Charles J. Dorf, Indianapolis, Ind., assignor to Union Carbide Corporation, a corporation of New York
Application November 24, 1953, Serial No. 394,184
6 Claims. (Cl. 62—1)

1. Apparatus for continuously vaporizing to a gas at atmospheric temperature volatile liquids having boiling points below about 233° K. at atmospheric pressure comprising a plurality of spaced substantially parallel heat conducting fluid conduits, a plurality of substantially parallel spaced fins of heat conducting material secured in heat exchange contact with said plurality of heat conducting fluid conduits, inlet means including valve means and an inlet manifold at one end of said plurality of heat conducting fluid conduits positioned and arranged to divide said vaporizer into at least two substantially equal vaporizer sections to provide for vaporization of said volatile liquid in at least one of said sections while another of said sections is defrosting deposits of frost or ice, said valve means being adapted to alternate the path of flow of said volatile liquid from one section to another section of said vaporizer at regular intervals of time, and means for continuously forcing fresh atmospheric air through said vaporizer to simultaneously vaporize said volatile liquid in said one of said sections and remove said deposits of frost or ice from another section of said vaporizer.

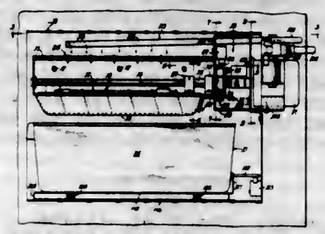


2,833,122
WATER PRE-COOLED HEAT EXCHANGER SYSTEMS
Arthur L. Kohl and Ernest Butcher, Burbank, Calif., assignors to The Fluor Corporation, Ltd., Los Angeles, Calif., a corporation of California
Application February 15, 1954, Serial No. 410,390
5 Claims. (Cl. 62—2)



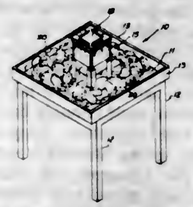
1. A heat exchanger unit comprising a housing having air inlets at two opposite sides thereof and having an open upper end through which air from the housing may discharge upwardly, a fluid conducting heat exchanger coil positioned in the path of air discharging upwardly through said upper opening, a fan positioned in the housing beneath said coil and turning about a vertical axis and operable to blow cooling air upwardly through said coil and through said upper opening to the outside of the housing, the underside of said fan being in communication with said two inlets at opposite sides of the housing to draw air generally horizontally inwardly from the inlets to the fan for delivery upwardly by the fan to said coil, said housing including means forming a pair of air inlet chambers at said opposite sides of the housing and through which the air flows generally horizontally inwardly to the fan, each of said air inlet chambers being of generally triangular vertical cross section and having an outer air passing wall structure which is inclined downwardly and outwardly and an inner air passing wall structure diverging away from said outer inclined wall structure and inclined downwardly and inwardly to a location directly beneath said fan, sprayers near the upper ends of said chambers and operable during peak load periods to spray water downwardly through said inlet chambers to precool the air flowing horizontally through said chambers to the fan, said sprayers being constructed to produce downwardly directed sprays which flare to progressively increasing horizontal widths as the sprays advance downwardly and which flare essentially in correspondence with and generally along said diverging inclined inner and outer wall structures and to locations beneath said wall structures, said inner wall structure being an inclined water eliminator acting to remove entrained water from the air passing to the fan when the sprayers are in operation.

2,833,123
AUTOMATIC ICE CUBE MACHINE
George P. Kennedy, Conklin, and Valentine M. Kurent, Muskegon, Mich., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application August 15, 1955, Serial No. 528,475
19 Claims. (Cl. 62—7)



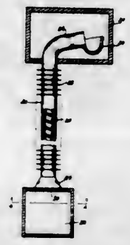
1. In an ice making machine, a tray, a grid structure disposed within said tray and composed of relatively movable plates for dividing frozen material contained within the tray into blocks, said grid structure being rotatable relative to the tray, a first power means associated with the grid structure for moving the plates relative to one another and effective to loosen the blocks while said grid structure is disposed within said tray, a second power means connected to the grid structure and means operative in response to the operation of the first power means to actuate said second power means to rotate the grid structure with respect to the tray to remove the blocks from the tray.

2,833,124
DOWN DRAFT APPARATUS FOR COOLING FOOD PRODUCTS
Harry D. Leibold, South Euclid, Ohio
Application October 22, 1956, Serial No. 617,321
3 Claims. (Cl. 62—91.5)



1. A refrigerating display case comprising a flat open top table, said table being approximately four feet square and having upright skirts completely surrounding and enclosing the outer periphery of said table, said upright skirts being approximately six inches high, a removable Dry Ice container positioned substantially in the center of said table, said container being approximately eleven inches high by eleven inches long by eleven inches wide and adapted to accommodate a ten inch cube of Dry Ice, said cube of Dry Ice when resting in the bottom of said container and positioned centrally thereof dividing the interior of said container into a plurality of passages, said passages being provided between the outer surfaces of said cube of Dry Ice and the inner surfaces of the side walls of said container, a removable top on said container, said top having a plurality of spaced slots provided therein, said slots being turned upwardly to form louvers which promote the intake of air through said top, said container provided with a bottom having a plurality of discharge perforations therein, the area of said passages provided between the outer surfaces of said cube of Dry Ice and the side walls being greater than the area of said louvers provided in said top or said perforations provided in said bottom, means on said container supporting the bottom of said container at a level no higher than the upper edge of said upstanding skirts, whereby warm air entering said louvers is cooled within said container by said cube of Dry Ice and passes downwardly and outwardly through said perforations contained in the bottom of said container into the open top display case and is retained therein by said upstanding skirts.

2,833,125
EVAPORATOR FEED CONTROL
Richard A. Sturley, Kirkville, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application April 1, 1954, Serial No. 420,329
9 Claims. (Cl. 62—119)

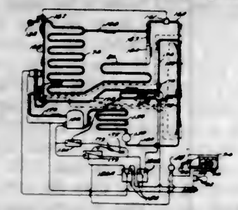


1. In an absorption refrigeration system, an evaporator having a first opening for the introduction of liquid refrigerant into the evaporator and a second opening remote from said first opening, said openings permitting the passage of refrigerant in vapor form from the evaporator, means associated with said second opening, responsive to the presence of unvaporized refrigerant in the evaporator for obstructing the passage of vapor from the second opening thereby creating increased vapor flow through the first opening.

2,833,126
ICE MAKING METHOD
Glenn Muffly, Springfield, Ohio
Original application November 14, 1950, Serial No. 195,664, now Patent No. 2,695,502, dated November 30, 1954. Divided and this application January 19, 1954, Serial No. 404,985
1 Claim. (Cl. 62—172)

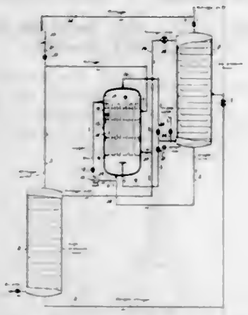
The method of cooling a body of air and holding it within a non-freezing temperature range which consists of evaporating a liquid portion of a volatile fluid in heat exchange with said air after a first portion of said fluid has been evaporated at a sub-freezing temperature for the purpose of freezing a substance, regulating the rate of flow of said liquid and thereby the quantity per unit of time evaporated to cool said air in accordance with temperature changes of said air, stopping the freezing of said substance at a preselected stage thereof, and while said freezing is thus stopped employing said substance to

absorb heat from and thereby condense a vapor portion of said fluid for the purpose of supplying said fluid in its



liquid phase to evaporate and thereby continue cooling said air while a frozen portion of said substance melts free from the surface upon which it was frozen.

2,833,127
GAS SEPARATION CONTROL PROCESS
Henri Vesque and Gerard de Percin, Paris, France, assignors to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France
Application September 28, 1953, Serial No. 382,738
Claims priority, application France January 30, 1953
4 Claims. (Cl. 62—175.5)



1. A process for separating a gaseous mixture into its constituents by successive fractionation at low temperature in a higher pressure zone and a lower pressure zone, in which are obtained, in the higher pressure zone, a liquid rich in a higher boiling constituent and a gas rich in a lower boiling constituent, and in the lower pressure zone, a liquid substantially pure in the higher boiling constituent and a gas substantially pure in the lower boiling constituent, comprising, vaporizing the liquid substantially pure in the higher boiling constituent by flowing it at an adjustable rate in indirect heat exchange with the gas rich in the lower boiling constituent, dividing the flow of said gas rich in the lower boiling constituent into two parts, liquefying a first part of said gas by said indirect heat exchange with the liquid substantially pure in the higher boiling constituent and feeding it to at least one of said fractionation zones, expanding with external work the second part of said gas to a constant low pressure and thereby producing cold, and varying the rate of flow of the liquid substantially pure in the higher boiling constituent in said indirect heat exchange to control the pressure in the higher pressure zone and thereby the cold production.

2,833,128
BRAIDED BRACELET
Aldo Del Noce, Brooklyn, N. Y.
Application June 29, 1954, Serial No. 440,166
4 Claims. (Cl. 63—3)

1. A jewelry braid comprising a plurality of wires interwoven in a pattern in which they alternately intersect each other diagonally with respect to the longitudinal axis of the braid and constituting diagonally extending warp and woof components of the braid, one of said wires being a starting wire and extending transversely of the braid at one end of said braid, the other wires being looped side-by-side around the starting wire, said starting wire extending to one side edge of the braid and being reversely bent at said side edge and extending diagonally across the braid to the opposite side edge thereof and being then reversely bent at said opposite side edge and extending diagonally across the braid to the first side edge thereof, this arrangement continuing in the direction of



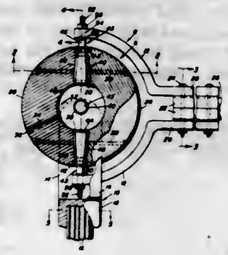
the opposite end of the braid as far as desired, said other wires extending diagonally from said starting wire to said first side edge of the braid and being reversely bent at said first side edge and extending diagonally across the braid to the opposite side edge thereof and being then reversely bent at said opposite side edge and extending diagonally across the braid to the first side edge thereof, this arrangement continuing in the direction of said opposite end of the braid as far as desired, said starting wire intersecting said other wires and said other wires intersecting each other, said starting and other wires being interwoven with each other at all points of intersection.

2,833,129
EXPANSIBLE BRACELET HAVING A COIL SPRING MOUNTED ON LINK-LIKE MEMBERS
Fritz Bürkle, Schwann, near Pforzheim, Germany
Application May 28, 1956, Serial No. 587,748
Claims priority, application Germany May 28, 1955
7 Claims. (Cl. 63—5)



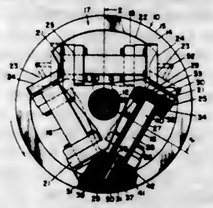
1. An elastic bracelet particularly for wrist watches comprising, in combination, a continuous substantially helical expansion spring; a series of individual elongated core members each having a body portion located inside said spring, said body portion having shouldered ends remote from each other and respectively engaging said spring from the inside at opposite points of one turn thereof, so that during expansion of said spring the moving apart of said two end points of each turn thereof forces each of said members to carry out a turning movement about the point where one of said shouldered ends engages one point of said spring, while the angle of turn for each member is determined by the increase of distance between said end points of the associated turn of said spring, said body portion having an extension projecting from each shouldered end thereof outwardly, one of said extensions being inserted between two turns of said spring, the other extension being inserted between the adjacent turn thereof; and casing means enclosing said spring and comprising a series of hollow links each associated with one turn of said spring and embracing at one end thereof one of said extensions of one of said members located at one side of said spring, and embracing at the opposite end thereof one of said extensions of an adjacent member located at the opposite side of said spring, so that when the bracelet is expanded said hollow links are forced to carry out a turning movement in a direction opposite to the turning movement of said core members due to the engagement between each of said links with two consecutive members at their respective opposite ends.

2,833,130
UNIVERSAL JOINT
Winfred R. Sanderson, Vardaman, Miss.
Application October 12, 1955, Serial No. 539,979
2 Claims. (Cl. 64—17)



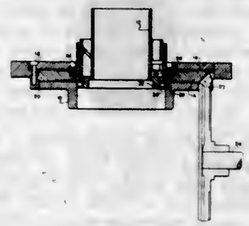
2. A universal joint comprising a jointing and coupling member having a hollow center for reception and retention of a lubricant, a lubricant injecting passage, a closure for the outer end of the passage, said passage communicating at its inner end with said hollow-center, said member being provided with at least one pair of diametrically opposite additional passages communicatively opening at their inner ends into said hollow-center and having their outer ends opening through the cooperating surface portions of said member, said additional passages defining bearings and being provided intermediate their respective inner and outer ends with circumferentially spaced roller bearings, a trunnion removably and rotatably mounted in each bearing and having an outer end extending beyond the surface of said member, a shaft, a yoke, said shaft being operatively connected with said yoke and said yoke embodying arms straddling cooperating surface portions of said member and the said arms having their respective free end portions operatively connected to the respective outer ends of said trunnions, each trunnion comprising a bolt having a tapered body portion and the bearing in which said body portion is located being correspondingly tapered, the outer end of said bolt being screw-threaded, shouldered and provided with an assembling nut, that portion of the bolt between the threaded end and shoulder being square in cross-section, the cooperating end portion of the yoke arm having a square hole into and through which the square portion of said bolt is extended, and a nut on the threaded end serving to detachably connect the bolt with the cooperating yoke arm.

2,833,131
RESILIENT COUPLING
Carl David Miller, Columbus, Ohio, assignor, by mesne assignments, to The Cooper-Bessemer Corporation, Marion, Ohio, a corporation of Ohio
Application October 25, 1954, Serial No. 464,529
12 Claims. (Cl. 64—27)



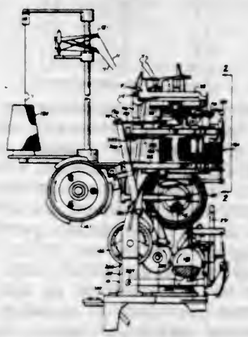
1. A resilient coupling comprising: a hub member; a wheel member; a plurality of load-transmitting tubular resilient spokes, one end of each of said spokes being fastened to said hub member and the opposite end of each of said spokes being fastened to said wheel member, providing a chamber for fluid in the hollow of each of said spokes, one of said members disposed to drive the other of said member by tension in said spokes irrespective of the pressure of a fluid in said chambers; at least one fluid reservoir in communication with said chambers; and a fluid in said chambers and said at least one reservoir, said fluid serving only to control the resilience of said spokes.

2,833,132
CIRCULAR KNITTING MACHINE
Walter M. Golaski, Philadelphia, Pa.
Application June 2, 1955, Serial No. 512,711
2 Claims. (Cl. 66—8)



1. A circular knitting machine including a fixed horizontal bed plate, a vertical rotary sleeve for supporting the needle cylinder of the machine, said sleeve having a horizontal base resting on said bed plate, a clamping plate resting on said base and secured to said bed plate, a first antifriction bearing between a vertical wall of said sleeve and an adjacent vertical wall of said clamping plate, and a second antifriction bearing intermediate a second vertical surface of said sleeve and a vertical surface of said bed plate.

2,833,133
SOLID PATCH KNITTING MACHINE
Herman E. Crawford, Kernersville, N. C., assignor to H. E. Crawford Company, Incorporated, Kernersville, N. C., a corporation of North Carolina
Application April 11, 1955, Serial No. 500,331
15 Claims. (Cl. 66—48)



1. In a circular knitting machine having a needle cylinder and needles, means for feeding yarns to said needles, and means for imparting reciprocatory and rotary motion to the needle cylinder, the combination of means to selectively elevate individual needles in any predetermined order so a fractional part of a course may be knitted by the non-elevated needles upon each of a plurality of strokes of the needle cylinder during reciprocatory movement thereof, means for shogging the needle cylinder for the knitting of an additional fractional part of a course in the coursewise plane of each of the previously knit

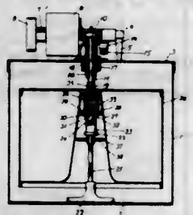
fractional parts of courses, means to elevate selected needles including terminal needles in each fractional part of a course to retain their loops so that terminal loops of each fractional part of a course may be interknit with terminal loops of another fractional part of a course to form a suture therebetween.

2,833,134
UNDERGARMENTS
John Gift, Greensboro, N. C., assignor, by mesne assignments, to Alba Hosiery Mills, Inc., Valdese, N. C., a corporation of North Carolina
Application May 16, 1956, Serial No. 585,261
3 Claims. (Cl. 66—177)



1. As a new article of manufacture a panty formed from a flat fashioned knitted blank of stretch yarn having end portions with parallel side edges and an intermediate narrowed and widened crotch portion devoid of fashioning marks, the blank being doubled upon itself about a transverse line, the coincident side edges of the end portions being united by sewing with provision of leg openings at opposite sides of the panty, the top edge of the panty and the edges of said openings being finished with elastic tape, the end portions being knitted from a light stretch yarn, and the narrowed and widened crotch region being knitted from a heavier stretch yarn.

2,833,135
WASHING MACHINE
Christian Oskar Rasmussen, Copenhagen, Denmark
Application November 25, 1955, Serial No. 549,113
4 Claims. (Cl. 68—4)



1. A washing machine comprising an upright container having an open top, a removable cover for closing the open top of the container, a column mounted at the bottom of the container, a centrifuge, a driving mechanism mounted on the cover, said mechanism including two downwardly projecting driving shafts independent of each other, a driving motor, means operatively connecting the driving motor to the two driving shafts so that said shafts may rotate at the desired speeds, means on one driving shaft for attachment of an agitator, coupling members on the other shaft for mounting the said centrifuge in readily detachable manner, and means for mounting the said centrifuge on the column.

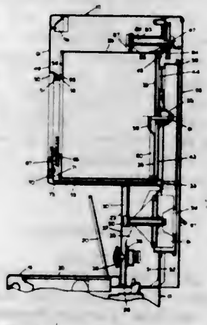
2,833,136
AGER FOR PROCESSING PRINTED FABRICS
Harry T. Prince, Warwick, and Waldo W. Smith, Warwick Neck, R. I., assignors, by mesne assignments, to Tower Iron Works Inc., Providence, R. I., a corporation of Rhode Island
Application November 29, 1952, Serial No. 323,202
3 Claims. (Cl. 68—5)

1. An ager for processing printed fabrics comprising an elongate chamber having top, side and bottom walls, said chamber having an entrance opening at one end and an exit opening at its opposite end, transversely extending conveyor roll means between the top and bottom walls of the chamber over which the fabric being processed is adapted to be drawn, entrance and exit guide means outside said chamber, said conveyor roll means and guide means being positioned with respect to said chamber to define a path of travel wherein only the non-printed face of the fabric being processed is contacted by said con-



veyor roll means as it is conducted through said chamber, means below said conveyor roll means for admitting and distributing a processing vapor, a condensate preventing means comprising a panel of corrosion-resistant sheet metal disposed between the top wall of said chamber and said conveyor roll means, said panel being substantially coextensive with the length and breadth of the path of travel through said chamber, and steam coils between said panel and top wall and in thermal contact with said panel so as to heat it by radiation and conduction.

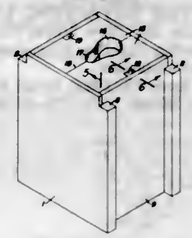
2,833,137
COMBINATION WASHING AND DRYING MACHINE
Peter Eduard Geldhof, Benton Harbor, Mich., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application May 27, 1953, Serial No. 357,797
6 Claims. (Cl. 68—19)



1. In a laundry machine for washing and drying clothes and the like, a cabinet having two vertically spaced laundry compartments, one supported on the other, the lower of which has an upwardly opening cover in its top for access thereto and the upper of which is spaced vertically from the lower of said compartments a distance sufficient to afford access to the lower of said compartments, the upper of said compartments having a drier drum rotatably mounted therein having a perforate rear wall for the circulation of air therethrough, means circulating air through the perforate rear wall of said drier drum comprising a rear wall for the upper of said compartments extending vertically from the lower of said compartments and supported thereon and supporting the upper of said compartments in vertically spaced relation with respect to the lower of said compartments, air ducts extending along the outer side of said rear wall and having communication with said drier drum through said rear wall, and a suction blower in the space between said

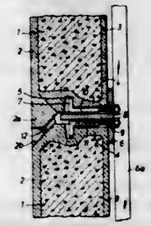
compartments disposed above the lower of said compartments and forwardly of said rear wall and having communication with one of said ducts through said rear wall, for establishing a circulation of air through said ducts and drier drum.

2,833,138
MUD CROCK
John G. Kohn, Rochester, N. Y.
Application May 25, 1955, Serial No. 510,914
3 Claims. (Cl. 72—9)



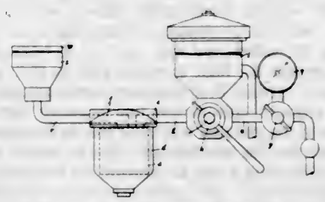
1. A knock-down concrete mud crock of rectangular cross-section comprising a pair of oppositely arranged separable and independent parallel flat side walls and a pair of oppositely arranged flat end walls of the same height as the side walls and separable from and interlocked with the side walls, each side wall having grooves of U-shaped cross section spaced from its ends and extending vertically on its inner face from its top edge to a point somewhat above its bottom edge affording shoulders at the bottoms of the grooves, and each end wall having a thickness approximating the width of said grooves and a reduced portion extending from its bottom edge to a point thereabove affording shoulders at the top of said reduced portion and a wider portion thereabove, the edges of the upper wider portions of the end walls fitting into said grooves in the side walls while the lower reduced portions of the end walls fit closely between the inner surfaces of the side walls, said grooves acting to prevent movement of the end walls in either direction endwise of the side walls when assembled, and downward movement of the end walls being limited by the interengaging shoulders on the side and end walls and the side and end walls being cut away on their inner surfaces at their upper edges affording co-planar cover supporting ledges entirely around the inner surfaces of the crock at points beneath the top edges of the walls, and a flat removable cover positioned on said ledges and flush with the tops of the walls.

2,833,139
WALL CONSTRUCTION
Victor Eugen Alexander Bonhard, Zurich, Switzerland, assignor to Durisol A.-G. für Leichtbaustoffe, Dietikon, Switzerland
Application July 12, 1955, Serial No. 521,579
3 Claims. (Cl. 72—16)



3. A wall construction comprising a supporting surface defined by a plurality of vertical support members, a T-beam having its cross flange secured to said supporting surface and having its web extending outwardly therefrom, a pair of wall plates disposed in vertically juxtaposed relationship in front of said supporting surface, said plates being of substantially rectangular cross section and being formed from a heat insulating light concrete provided with a waterproof surface on the exposed side away from said supporting surface, the side walls of said plates defining between them a space for reception of said web in parallel relationship thereto and having recesses communicating with said space, first adjustable fastening means having a portion extending into one of said recesses on one side of said web, second adjustable fastening means having a portion extending into the other of said recesses on the opposite side of said web, said first and said second fastening means being rigidly connected to said cross flange of said T-beam, the exposed sides of said plates being in coplanar relationship, and the joint between said plates visible on said exposed sides being filled with an elastic sealing composition, said first and said second fastening means being in the form of L-shaped bolts and said recesses receiving the shank and the head of said bolts, the side walls of said plates defining the vertical joints therebetween being formed with matched vertical recesses, and a sealing strip disposed partly in each of said recesses to seal said joints.

2,833,140
MEANS FOR TESTING PAPER OR OTHER FILTERS
Alan Ewart Walter Austen, Sunbury-on-Thames, and David Basil Wedmore, Ealing, London, England, assignors to C. A. V. Limited, London, England
Application September 1, 1955, Serial No. 531,929
Claims priority, application Great Britain September 22, 1954
3 Claims. (Cl. 73—38)

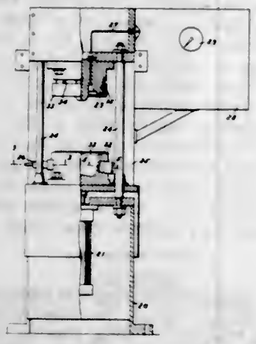


1. Apparatus for testing paper or other filters by blowing therethrough air laden with dust of such size as would be intercepted by a non-defective filter, comprising the combination with a chamber for accommodating a filter to be tested, which chamber is provided with an air inlet, and with an outlet whereby air admitted to the chamber through the inlet can leave the chamber after having passed through the filter to be tested, of a first conduit connected to the chamber inlet for conducting thereto a stream of air under pressure, means for introducing into the first conduit a quantity of dust which can be carried by the air stream into the chamber, a second conduit connected to the chamber outlet for receiving the air from the chamber, and a device connected to the second conduit for detecting the presence of dust in the effluent air, the said device having baffle means for promoting the deposition of air-borne dust, and an inspectable surface on which such deposition can take place.

2,833,141
APPARATUS AND SYSTEM FOR LEAK TESTING
Albert E. Holm, Rochester, Mich., assignor to Beach Engineering, Inc., Berkley, Mich., a corporation of Michigan
Application May 10, 1957, Serial No. 658,403
17 Claims. (Cl. 73—40)

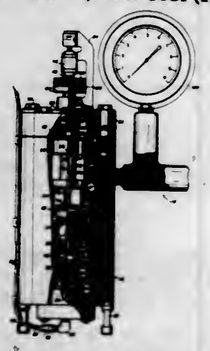
1. A leak testing apparatus integrated to determine leaks in test parts by detecting a rise in the low pressure

side preferably at atmospheric pressure due to leaking from the high pressure side comprising a stand, tension-support beams extending from said stand, a head on said beams spaced from said stand, a mating case member on said stand, a mating case member on said head; said case members having inside surfaces defining a cavity; a hydraulic ram connected to one said case member for advancing said case member to close into sealing relationship with said other case member and for retracting said case member for respectively enclosing and extracting a test part; a porous channeled member such as a screen liner disposed over said case member inside surfaces for contacting and holding a test part in spaced relationship to said case member inside surfaces; said



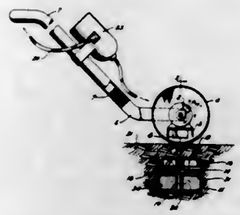
closed case members when containing a test part completely enveloping and surrounding a test part in universal spaced relationship via said porous member with a sealed fluid envelope; means for establishing said envelope at atmospheric pressure on the low pressure side such as by venting temporarily; means penetrating one said case member for sealably contacting a test part for subjecting the other said test part to a relatively high test pressure on the high pressure side so that a leak in the test part permits fluid pressure communication from the high pressure side to the low pressure side via the test orifice of the test part wall; and means for determining the pressure on the low pressure side to detect a leak in a part by indicating a rise in pressure on the low pressure side.

2,833,142
ULTRASONIC, HIGH PRESSURE INTERFEROMETER
Ernest M. Runquist and Graham W. Marks, San Diego, Calif.
Application February 15, 1955, Serial No. 488,442
8 Claims. (Cl. 73—53)
(Granted under Title 35, U. S. Code (1952), sec. 266)



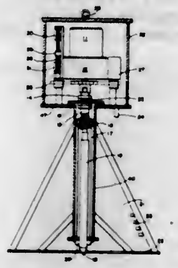
1. An ultrasonic interferometer comprising a sealed housing having a chamber therein for holding fluid under high pressure, piezoelectric means in said chamber for generating vibrations in the fluid within said chamber, universally adjustable means in said housing for supporting said piezoelectric means, a shaft slidably non-rotatably mounted within said housing for axial movement, a reflector carried by said shaft in said chamber, and rotatable means threadedly engaged with said shaft and secured against axial movement within said housing for axially moving said shaft.

2,833,143
APPARATUS FOR DETECTING LAND MINES
Nathaniel B. Wales, Jr., New York, N. Y., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application April 25, 1955, Serial No. 503,433
4 Claims. (Cl. 73—67.1)



3. In a device for detecting mines of the type which are located in the earth, the combination comprising a frame, means for vibrating said frame, signal means to produce a first cyclic electrical signal in fixed phase relation with said means for vibrating said frame, a coupling member in contact with the earth and secured to said frame whereby vibrations of said frame are imparted to the earth, a vibration sensitive transducer secured to said frame for generating a second cyclic electrical signal in fixed phase relation to a translational motion of said frame, and means for indicating a change in the relative phase between said first and second signals.

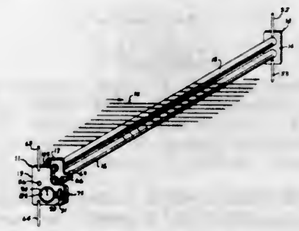
2,833,144
PENETROMETER FOR IN SITU MEASUREMENTS
Clarence E. Miller, Greenwood, R. I., and John D. Nixon, Reading, England, assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 15, 1955, Serial No. 522,406
5 Claims. (Cl. 73—84)



1. A penetrometer for measuring the characteristics of sediments in situ comprising, in combination, a constant speed motor, a threaded rod driven from the output shaft of said motor, a nut mounted on said threaded rod and

restrained against rotation so as to travel up and down the length of said rod as said rod rotates, a probe driven from said nut, a plate member supporting said threaded rod and said motor, said plate member being anchored at its ends so as to be bowed by the thrust transmitted to it from said probe via said threaded rod in response to resistance offered to the forward travel of said probe by said sediment, resistors mounted on opposite sides of said plate, the magnitudes of said resistors varying in accordance with the amount of bending experienced by said plate, and means for recording the variations in the magnitudes of said resistors as said motor rotates and said probe penetrates said sediment.

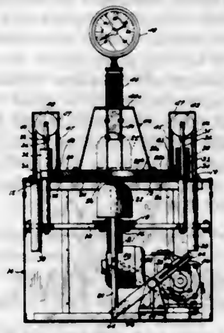
2,833,145
APPARATUS FOR DETERMINING TENSION IN WEB AND STRAND MATERIAL
Robert W. McCullough, Clemson, S. C.
Application January 28, 1952, Serial No. 268,591
20 Claims. (Cl. 73—144)



1. A tensiometer for determining the tension in a moving sheet of web or strand material comprising a head element and a foot element adapted to be positioned adjacent opposite edges of the sheet of material, the head element and the foot element each including a roll support, a pair of closely spaced parallel rolls rotatably mounted at opposite ends thereof in the roll supports, at least one indicator support pivotally connected to at least one of the roll supports, a resilient cantilever arm force measuring member fixed on the indicator support, an indicator carried by the indicator support, a cam connection between the force measuring member and the indicator for varying the position of the indicator, and an abutment carried by the roll support associated with the indicator support for transmitting force to the force measuring member, whereby upon the tension in the sheet of web or strand material causing a torsional stress to be placed upon the rolls tending to rotate the rolls and the roll support relative to the indicator support, the abutment will engage and transmit force to the force measuring member to, in turn, effect a variaiton in the position of the indicator to indicate the tension in the sheet of web or strand material.

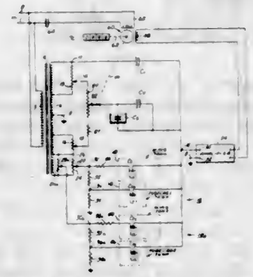
2,833,146
PLIABILITY TESTER
Thomas P. Wharton, Washington, D. C., assignor to Container Laboratories Inc., Chicago, Ill., a corporation of Illinois
Application September 15, 1955, Serial No. 534,567
10 Claims. (Cl. 73—159)

1. A pliability tester comprising a reciprocally movable plunger affixed to a rod, an axial movable circular ring positioned in a plane perpendicular to the axis of said rod, said circular ring being concentric with the axis of said rod, and having an inner diameter slightly greater than the diameter of said plunger, said circular ring being counterbalanced, stationary means adapted to position materials to be tested between said circular ring and said plunger, and a dynamometer operatively



connected to said circular ring responsive to the relative movement thereof.

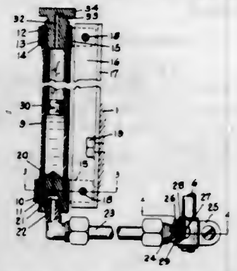
2,833,147
FLUID QUANTITY MEASURING SYSTEM
Julius V. Di Franco, Flushing, N. Y., assignor to The Liquidometer Corporation, Long Island City, N. Y., a corporation of Delaware
Application March 28, 1955, Serial No. 497,345
13 Claims. (Cl. 73—304)



1. Apparatus for measuring the total quantity of a dielectric fluid in a plurality of individual unlike containers, comprising a capacitor type measuring means arranged to be positioned in each of said containers, each of said measuring means having spaced electrodes arranged so that fluid enters the space between said electrodes to an extent depending upon the amount of fluid in the container in which it is located respectively, the capacitance value of each of said measuring means being dependent upon the amount of fluid in the respective container and also upon the dielectric constant thereof, each of said measuring means having respectively constant incremental capacitance change per unit change in the quantity of the fluid in the container in which it is located respectively; a reference condenser; a dielectric constant compensation condenser having spaced electrodes and arranged to be positioned so that a sample of the fluid exists between its spaced electrodes at all times, the capacitance value of said compensation condenser being dependent upon the dielectric constant of the fluid; a plurality of sources of alternating voltage all of the same frequency and all of the same first phase, means connecting each of said capacitor type measuring means to one of said sources to produce a plurality of signals of a first phase, the relative magnitudes of the alternating voltages from each of said sources being inversely proportional to the relative magnitudes of said incremental capacitance changes of the measuring means respectively connected thereto; another source of alternating voltage

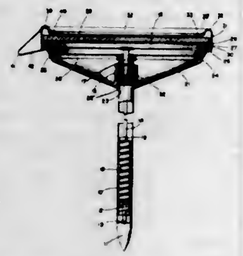
of the same frequency and of a second phase, means connecting said reference condenser and said dielectric constant compensation condenser to said other source of voltage in a manner to produce signals of a second phase; signal responsive means, means connecting said signal responsive means to said plurality of measuring means and said compensation and reference condensers to apply to said signal responsive means a signal which is a resultant of said plurality of signals of said first phase and said signals of said second phase, and means actuated by said signal responsive means to vary the signals of one of said phases in a direction tending to reduce the resultant signal substantially to zero.

2,833,148
SIGHT TANK GAUGE
Leo E. Hoyt, Climax, and Paul D. Blanchard, Battle Creek, Mich.
Application October 25, 1954, Serial No. 464,347
4 Claims. (Cl. 73—323)



4. A tank gauge of the class described comprising a sight tube of transparent flexible plastic material, top and bottom closure members having portions disposed within the ends of the tube, the top closure member having a vent opening therein in an inverted U-shaped position to open downwardly both inside and outside of said tube, the bottom closure member having a restricted flow passage therein, U clamps embracing and clamped upon end portions of the tube embracing said top and bottom closure, the arms of the clamps constituting mounting means for said tube, and a flexible flow tube connected to said bottom closure member and communicating with said flow passage.

2,833,149
DIAL TYPE THERMOMETER
Clarence F. Aldridge, Fairport, and Garrett A. Cook, Rochester, N. Y., assignors to Taylor Instrument Companies, Rochester, N. Y., a corporation of New York
Application September 25, 1952, Serial No. 311,442
2 Claims. (Cl. 73—352)



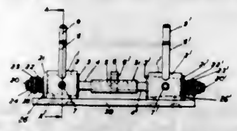
1. In a domestic science thermometer having a dial case containing an inscribed dial and indicating needle therein and a dial enclosure plate for said case of transparent, impervious material, a hermetic seal for said case comprising gaskets of high temperature resistant, low compression set material positioned between portions of said case and said plate adjacent the peripheral edges thereof, clamping and safety means for compressing said gaskets and drawing said plate and case into hermetic sealing engagement respectively therewith and to permit release of pressures within said case above a predetermined value comprising a bezel having a portion fixedly engaged with a portion of said peripheral edge of said case, a portion formed over into clamping engagement with the face of said plate opposite said gasket engaging face thereof and a portion intermediate said case engaging and formed over plate engaging portions defining a corrugation in said bezel.

2,833,150
SAMPLING DEVICE FOR CAR DUMPER
Charles R. Hymes, American Fork, Utah, assignor to United States Steel Corporation, a corporation of New Jersey
Application April 5, 1955, Serial No. 499,363
2 Claims. (Cl. 73—421)



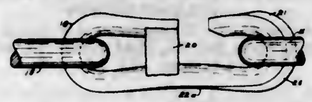
1. The combination, with a rotary car dumper having a rotatably supported frame adapted to hold and invert a car for dumping its contents, of a sampling device comprising a box fixed to the side of said frame toward which it rotates in dumping and adapted to receive a portion of the contents of the car, a chute fixed to said frame below said box, said box having an open bottom communicating with said chute to discharge material thereto, splitter means in said chute for rejecting a portion of the material received therein from said box, and a container at the lower end of said chute into which the remainder of the material in the chute drops, said container having a hinged closure counterweighted to close when said frame is upright and to open when said frame rotates to dump a car.

2,833,151
DEVICE FOR DELIVERING MEASURED QUANTITIES OF GASES OR VAPOURS
Donald Harvey, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
Application March 11, 1955, Serial No. 493,714
Claims priority, application Great Britain April 9, 1954
6 Claims. (Cl. 73—422)



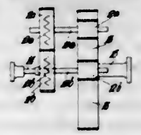
1. Apparatus adapted for measuring and delivering at controlled time intervals an accurate volume of gas and suitable for mechanical operation which comprises two valves each having a fixed metal body formed with an interior frusto-conical hole tapering outwardly, and situated in the said hole a co-operating closely fitting rotatable metal valve plug; a metal spindle rigidly connecting said valve plugs provided with means adapted for rotating the spindle and valve plugs; four metal tubes radiating from the body of each valve and in free connection with the frusto-conical hole therein; the first tube of the first valve being in connection with the supply of gas being measured, the second forming one limb of a pipette, the third being in connection with a supply of inert gas under pressure, the fourth being in connection with the fourth tube of the second valve; the first tube of the second valve being open to atmosphere, the second forming the other limb of the pipette, the third being in connection with the apparatus to which the gas is being supplied, the fourth being in connection with the fourth tube of the first valve; and situated in each of said valve plugs a first transverse duct and a second separate V-shaped duct, each having ports in the surface of the valve plug; the area of the ports and the circumferential distance between them being such that in a first configuration the first duct is in communication between the first and second tubes when the second duct is in communication between the third and fourth tubes; and that in a second configuration the second duct is in communication between the second and third tubes while the first duct is isolated and the first and fourth tubes are blocked; and there being stop means provided for register of the ducts and tubes.

2,833,152
CHAIN
Wilfred E. Hedlund, Martin R. Hedlund, Junior M. Hedlund, and Oliver K. Hedlund, Boyceville, Wis.; said Junior M. Hedlund and said Oliver K. Hedlund assignors to said Wilfred E. Hedlund and said Martin R. Hedlund, doing business as Hedlund Manufacturing Company, Boyceville, Wis.
Application April 17, 1956, Serial No. 578,793
2 Claims. (Cl. 74—245)



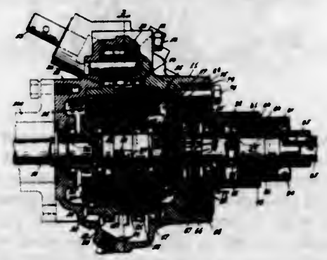
1. A link for a link chain, comprising a length of rigid half round stock having a rounded surface and having a flat surface, said half round stock having an intermediate portion and having opposite ends bent back upon themselves into spaced end-to-end relation with respect to each other for removably receiving an adjacent link of the chain therebetween, one of said ends being rigidly affixed to said intermediate portion and the other of said ends forming an open hook, said rounded surface being disposed to the interior of the link and on the inside of the bend to provide a bearing connection and substantial surface area engagement with an adjacent link, and said flat surface being disposed on the exterior of the link and in a position normal to the plane of the link and a reinforcing lamination welded to the flat exterior surface of said open hook end whereby to restrict deformation of the link.

2,833,153
POWER TRANSMISSION MECHANISMS
Thomas Hindmarch, Chesham, England
Application August 7, 1953, Serial No. 372,991
Claims priority, application Great Britain August 21, 1952
7 Claims. (Cl. 74—331)



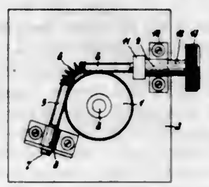
1. Power transmission gear comprising at least one unit comprising three parallel intermediate shafts, an input pinion on each intermediate shaft engaging at least one other such input pinion, an output pinion on each intermediate shaft free of other such output pinions, friction clutch means on each intermediate shaft for drivingly connecting a pinion with said intermediate shaft combined with an output shaft having thereon a common output toothed wheel with which the said output pinions on the intermediate shafts engage and an input shaft driving directly one of the input pinions, all of the pinions not associated with clutch means being fast on their respective shafts.

2,833,154
TORQUE AMPLIFIER UNIT
William B. Barnes and William A. Barnes, Muncie, Ind.
Application September 27, 1952, Serial No. 311,894
7 Claims. (Cl. 74—388)



6. In a torque amplifier, a driving shaft, a driven shaft, an input shaft adapted for connection to a source of power to be rotated thereby, a pair of rotatable members to which said input shaft is drivingly connected to rotate them respectively in opposite directions, clutch means for connecting said driven shaft selectively to said members and comprising multiple-disk friction clutches located on and spaced apart along a common axis, and a common pressure plate axially movable in opposite directions to engage one clutch and disengage the other, said pressure plate being rotatable with said driving shaft, a yieldable torque-transmitting connection between said driving and driven shafts, and actuating means responsive to yielding of said connection for controlling said clutch means, said actuating means comprising one or more anti-friction elements received in helical grooves provided in opposed faces of axially co-extensive portions of said driving shaft and presure-plate, said connection being resilient and preloaded, whereby it will not yield under torques below a predetermined minimum.

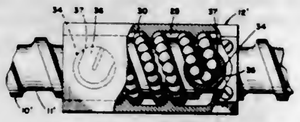
2,833,155
WORM GEAR
Jacob Verhoeff, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 27, 1955, Serial No. 518,030
Claims priority, application Netherlands July 2, 1954
3 Claims. (Cl. 74—427)



1. A worm gear comprising a worm wheel, a worm including two separate parts, both of said parts being

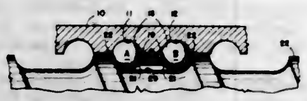
meshed with said worm wheel in angular relation, a helical spring means connecting said worm parts, means fixing one of said parts against axial movement, means mounting said other part for axial movement, and means for rotating one of said worm parts.

2,833,156
BALL SCREW
Leonard P. Spontelli, Cleveland, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application August 23, 1954, Serial No. 451,333
9 Claims. (Cl. 74—459)



7. A ball screw comprising a screw formed with a helical groove in the periphery thereof, a nut formed with two internal coaxial similar grooves therein, the lead of all of said grooves being equal, said screw groove being sufficiently wide to encompass both of said grooves in said nut, said grooves in said nut cooperating with said groove in said screw to form a pair of helical ball passes, balls in said passes, the balls in one of said passes interengaging said screw and nut limiting relative axial motion therebetween in one direction and the balls in the other of said passes interengaging said screw and nut limiting relative axial motion therebetween in the other direction, said balls and grooves being proportioned to provide clearance between one pass of balls and the associated grooves when the other of said passes is limiting axial motion between said nut and screw, and an insert mounted on each end of said nut formed with a U-shaped groove, one end of said U-shaped groove being aligned with each of said grooves in said nut, said U-shaped groove being proportioned to connect the ends of said passes and deflect the balls therein through substantially a 180° turn.

2,833,157
BALL RETAINER FOR BALL SCREWS
James T. Gates, Cleveland Heights, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application December 22, 1954, Serial No. 477,008
12 Claims. (Cl. 74—459)



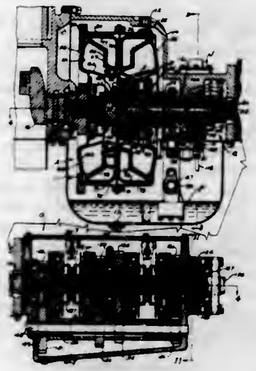
5. In a device of the character described, a body member formed with a helical groove and a helical furrow parallel to said groove, balls in said groove, and a helical retainer positioned in said furrow engaging said balls at a point spaced from said furrow cooperating with the walls of said groove to loosely retain the balls in said groove, said retainer being deflected from its unstressed position by the walls of said furrow so that substantially the entire length of said retainer is in tight engagement with said furrow walls and thereby supported throughout substantially its entire length.

2,833,158
KNOB LOCKING DEVICES
Neil F. Damon, Watertown, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application May 26, 1955, Serial No. 511,206
1 Claim. (Cl. 74—504)



In combination, a first member having a rotatable shaft and a knob attached to said shaft, and a controllable locking device mounted axially with respect to said shaft, said locking device comprising a stationary member arranged to fixedly mount said first member upon a panel, a first movable member operating upon said stationary member and arranged to move in an axial direction by cam action contacting said stationary member and said first movable member depending upon the direction of rotation of said first movable member, a second movable member having a friction-producing surface and movable in an axial direction only and operated upon by said first movable member for frictionally engaging said knob on said shaft, and a spring operating upon said first movable member for causing said first movable member and said stationary member to contact each other.

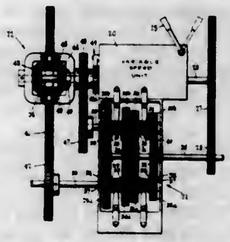
2,833,159
AUTOMATIC HYDRAULICALLY OPERATED TRANSMISSION
Alexander M. Alexandrescu, Cleveland, Ohio
Application July 21, 1954, Serial No. 444,771
32 Claims. (Cl. 74—645)



1. For connecting the crankshaft or the like of a prime mover having power controls to an output shaft, an automatic hydraulic transmission system comprising: a fluid coupling unit having impeller means driven by said crankshaft, rotor means including a driven shaft, and a hydraulically engaged coupling clutch including a driving clutch member driven by said crankshaft, a driven clutch member secured to the coupling driven shaft to rotate therewith, and hydraulic cylinder and piston means to engage said coupling clutch members; a gear change unit including a housing, an input gear member journalled in the housing and driven by the coupling driven shaft, a countershaft mounted in said housing having a plurality of gear formations thereon with a first formation in constant mesh with said input gear member, a splined output shaft journalled in said housing, gear members

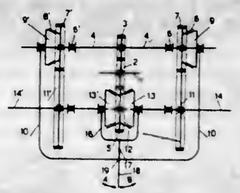
rotatably mounted on the output shaft as part of a constantly meshed gear trains including others of said gear formations, one of said trains being a reverse gear train and the others for forward speeds, a plurality of ball clutch units, each clutch unit having a corresponding driven element splined to the output shaft and a driving element and a plurality of clutch balls and an axially shiftable clutch actuating plunger cylinder, one of said clutch elements having a cylindrical flange provided with a circumferentially spaced series of radial apertures serving as a ball carrier and the other element having radially adjacent to one side of said flange a cylindrical surface provided with at least one circumferentially spaced series of recesses corresponding in number to said apertures, said plunger having a circumferential ball camming surface disposed on the other side of said flange to cam said balls into locking engagement with said recesses for clutch engagement at one axial position and release the balls for clutch disengagement at a second position, and means biasing the plunger to disengaged position, the driving element of one of the ball clutches being fixed to said input gear element to provide a direct speed clutch and the driving elements of the remaining ball clutches being fixed to corresponding said gear members to provide clutches for other speeds; actuating means for each ball clutch including a hydraulic piston-cylinder unit, means for applying the force of the piston-cylinder unit to the plunger of the corresponding ball clutch for moving the plunger to engaged position, and a restoring spring acting through the last said means in a direction opposite to the piston-cylinder unit to restore the plunger to disengaged position; a hydraulic fluid sump and a continuously driven pump drawing fluid from said sump; speed responsive valve means coupled to said output shaft and responsive to the speed thereof whereby fluid from said pump may be applied successively and individually to the ball clutches for forward speeds from the lowest speed to highest speed clutch of the gear unit and finally to the coupling clutch while the highest speed ball clutch is engaged as the output shaft attains predetermined successively higher speeds; and primary valve means linked with the power controls of the prime mover including a valve member set to an off and on position when the prime mover controls are set for idling and running conditions to connect the speed responsive valve means to the outlet of the pump and to the sump respectively.

2,833,160
TRANSMISSIONS
Porter S. Morgan, Westport, Conn., assignor to Morgan Development Laboratories, Inc., Westport, Conn., a corporation of Delaware
Application September 4, 1952, Serial No. 307,757
22 Claims. (Cl. 74—681)



1. The method of transmitting motion from a driving member to a driven member at variable speed ratios which comprises driving a variable speed unit by the driving member in increments from nil to a determinate speed; driving the driven member by the variable speed unit and thereby increasing or decreasing the speed thereof between upper and lower determinate limits of output speed of the variable speed unit; at said one of said determinate limits, connecting the driven member, to the driving member through a fixed ratio drive and a coupling means isochronal with the driven member to drive the former by the latter; uncoupling the variable speed unit from the driven member; changing the output speed of the variable speed unit to its other limit of output speed; connecting the variable speed unit to the driven member through a coupling means isochronal with the driven member at said output speed of the variable speed unit; disconnecting the fixed ratio drive between the driving member and the driven member; and driving the driven member through the variable speed unit and the isochronal coupling means.

2,833,161
MECHANICAL STEERING SYSTEM FOR TRACK VEHICLES
Emilio Fossati, Tortona, Italy
Application July 20, 1954, Serial No. 444,619
4 Claims. (Cl. 74—710.5)



1. In a device of the class described comprising, in combination, a driving shaft, a pair of wheel axles, first gear means interconnecting said driving shaft and said wheel axles for rotating the axles in the same direction, said first gear means including a first pair of clutches, second gear means engaging said driving shaft, a second pair of clutches for selectively interconnecting said second gear means with one of said wheel axles to rotate said one axle in the opposite direction and means for simultaneously and selectively disengaging one of said first pair of clutches and engaging one of said second pair of clutches.

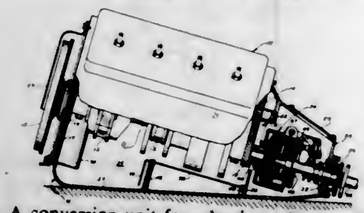
2,833,162
FLUID-OPERATED GEAR SHIFT MECHANISM, PARTICULARLY FOR MOTOR VEHICLES
Hans-Joachim M. Förster, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application November 12, 1952, Serial No. 320,032
Claims priority, application Germany November 16, 1951
26 Claims. (Cl. 74—732)



1. Control system for a motor vehicle speed change transmission equipped with a plurality of fluid-operable

clutches determining the ratio of transmission, comprising a fluid pump, a plurality of rams each adapted to actuate one of the clutches, conduits connecting said rams to said pump, gear shift control valves in said conduits for the selective connection of said rams to and disconnection from said pump, a pressure control valve coordinated with said pump and adapted to determine the pressure of the fluid fed thereby, said pressure control valve being formed as a slide valve and including controlled edges spaced relative to each other so as to open said conduits in succession when said pressure control valve moves in response to an increase of said pressure, said succession commencing with the conduit coordinated with the ram of a low speed and ending with the conduit coordinated with the ram of the highest speed, and an intake vacuum-controlled mechanism adapted to adjust said pressure control valve so as to reduce said pressure, as the intake vacuum of the motor vehicle engine increases.

2,833,163
MARINE CONVERSION UNIT
Clifford J. Trombley, Crystal, Minn.
Application August 10, 1956, Serial No. 603,432
7 Claims. (Cl. 74—780)

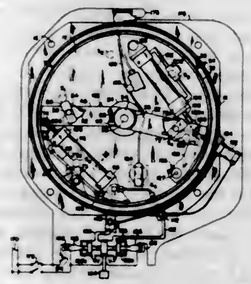


1. A conversion unit for adapting a V-type automotive internal combustion engine to marine use which comprises an elongated conversion oil pan, a planetary reversing gear system to be driven from the timing gear end of the crank shaft of said engine to drive a drive shaft, said reversing gear system being positioned in one end of said conversion pan and a reversing gear housing enclosing said reversing gear system and that end of said conversion pan and adapted to be fitted to said engine to be converted replacing the timing gear housing, the opposite end of said conversion pan being adapted to be fitted to said engine to be converted, replacing the oil pan, said conversion pan comprising a relatively deep portion to be fitted to said engine and a relatively shallower portion to receive said reversing gear system, a recess in the deeper end wall to receive a ring bearing journalling the flywheel end of the crankshaft of said engine and a recess in the shallower end wall to receive a ring bearing journalling the drive shaft of the reversing gear, the bottom wall of said pan connecting said end walls being disposed at an angle with respect to the axis of said shafts to align said converted engine with respect to a propeller shaft to be driven.

4. A conversion unit according to claim 1 further characterized in that said reversing gear system comprises a first bevel gear adapted to be driven by said engine to be converted, a second bevel gear coaxial with the first and keyed to drive a drive shaft and a plurality of planetary bevel gears meshing with both of said first mentioned gears.

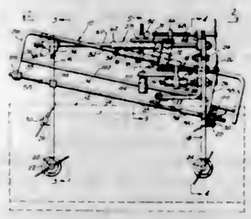
2,833,164
ROTARY INDEXING TABLE
Samuel Squiller, Mount Lebanon Township, Allegheny County, Pa.
Application September 27, 1955, Serial No. 536,942
11 Claims. (Cl. 74—821)

1. In mechanism for controlling the position of a rotary indexing table head which rotates a fraction of a revolution at a time, a plurality of arms each capable of limited independent movement in said mechanism comprising one arm having means drivingly connected thereto which is fluid actuated in one direction to operate through a stroke for rotatably moving said head through a predetermined angle, another of said arms operatively arranged to be dragged along parasitically by the table head and being



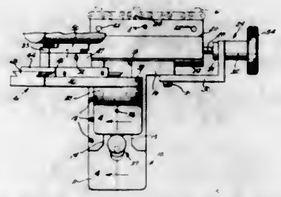
drivingly connected to hydraulic cushion means for resisting said motion through a portion of said angle, said one arm being fluid actuated in the opposite direction to reset itself for the next operating stroke and having means of adjustment operating therewith at a preselected point to limit further movement between the arms and causing the one arm to conjointly reset said other arm therewith for its next motion resisting stroke.

2,833,165
CHAIN SAW FILING DEVICE
John W. Irwin and Lillian J. Irwin, Chester, Calif.
Application March 6, 1956, Serial No. 569,884
5 Claims. (Cl. 76—31)



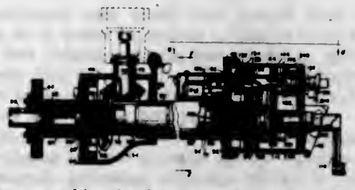
1. A device for sharpening the teeth of a chain saw mounted on a chain bar, said device comprising a frame including a pair of spaced confronting elongated substantially rectangular end plates slotted at one of their respective adjacent ends to receive said chain saw bar therebetween, means on opposite sides of each of said slots to releasably secure said end plates on said chain saw bar, a pair of laterally spaced and substantially parallel elongated rods extending between and supported on said end plates proximate their respective other adjacent ends, a carriage slidably mounted on said rods and comprising a pair of elongated sleeves having a cross bar fixedly connected to one of their respective adjacent ends, said cross bar having an integrally formed internally threaded projection, a carriage shift screw rotatably supported on one of said end plates and threadedly engaging within said projection, and means depending from said carriage for supporting a chain file for reciprocation transversely of said chain saw.

2,833,166
CHAIN SAW GRINDER
Bruce I. Wilson, Fort Atkinson, and Wilfred A. Simdon, Cambridge, Wis.
Application September 5, 1956, Serial No. 608,107
7 Claims. (Cl. 76—41)



1. A chain saw grinder comprising a body frame, a horizontal shelf at the upper end of said frame, vise means adapted to grip the chain therewithin, means slidably mounting said vise means on said shelf, means for adjusting said vise means on said shelf, a support, means slidably mounting said support upon said frame for vertical movement, means for adjusting the position of said support, means for locking the support at the adjusted position, an elongated plate pivotally mounted upon said support and extending outwardly from said vise, a carrier, means slidably mounting said carrier on said plate for longitudinal movement thereon, an electric grinder, and means for mounting said electric grinder on said carrier for adjustment about a horizontal axis, said vise means comprising a vertical plate having a cutout along the upper edge at one side and defining a stationary jaw, removable jaw positioned within said cutout and adapted for cooperative action with said stationary jaw, means for drawing said stationary and movable jaws together, spring means for urging said jaws apart, dowel means for aligning said stationary and movable jaws laterally with each other during movement, and said means for slidably mounting said vise means on said shelf comprising said shelf having a trapezoidally shaped way extending from end to end, said plate at the lower end being integrally formed with a lateral enlargement of substantially trapezoidal shape adapted to move within said way, and gib means at one side of said way.

2,833,167
DRILLING MACHINE
Frank H. Mueller, Decatur, Ill., assignor to Mueller Co., Decatur, Ill., a corporation of Illinois
Application December 13, 1955, Serial No. 552,886
26 Claims. (Cl. 77—42)



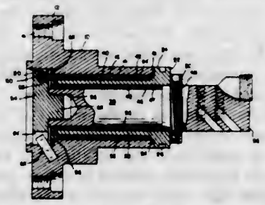
1. In a machine having a translatable and rotatable part and a pair of interengaged, relatively rotatable elements, one rotatable with the part, for effecting translation of the part on relative rotation between the elements, the combination of: differential gearing means having two relatively rotatable members and a third member which rotates at the differential rate of rotation between said two members; means for driving one of said two members with one of the elements and for driving the other of said two members with the other of the elements; and rotatable counter means driven by said third member for measuring the extent of translation of the part.

2,833,168
DRILL DEPTH GAUGE
Lloyd I. Nelson, St. Paul, Minn.
Application August 16, 1955, Serial No. 528,751
1 Claim. (Cl. 77—55)



A gauge for limiting drilling depth of a rotary drill comprising a body having a longtiudinally extending bore therethrough for receiving a drill, said body also having a transverse kerf defined by upper and lower walls, said kerf extending over a major portion of the area of the body and completely intersecting the periphery of the bore, a plate mounted within said kerf and having parallel upper and lower surfaces slidably engaging the walls of the kerf, said plate having an opening therethrough of substantially the same size as the bore for receiving the drill therethrough, the inner wall of said kerf having a flat surface extending parallel to a tangent of the bore at the nearest point on the edge of the bore, said body having a threaded aperture extending perpendicular to the inner wall of the kerf and being coaxial with a radius of the bore and extending to the periphery of the body, a setscrew threaded into said aperture and having a flat inner surface perpendicular to the longitudinal axis thereof, said plate having a flat inner face generally parallel to a tangent of the opening at the nearest point of the opening, the flat inner surface of the setscrew engaging the flat inner surface of the plate for urging the plate diametrically of the bore for urging the opening towards misalignment with the bore for clampingly locking the body to the drill with the flat upper and lower surfaces accurately positioning the body while the opening completely encircling the drill facilitates the clamping action regardless of the orientation of the flutes on the drill and provides a wide surface of pressure against the drill.

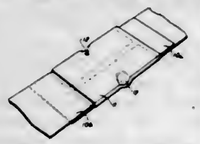
2,833,169
COUPLING STRUCTURE
Ottis R. Briney, Jr., and James W. Briney, Pontiac, Mich., assignors to Briney Manufacturing Co., Pontiac, Mich., a corporation of Michigan
Application August 6, 1956, Serial No. 602,374
3 Claims. (Cl. 77—58)



3. Coupling structure for effecting axial adjustment between first and second members while preventing angular relative movement therebetween, said first member having a cylindrical recess terminating in a radially enlarged chamber, said second member having a cylindrical portion extending through said recess and having a radially enlarged head in said chamber, pre-loaded balls

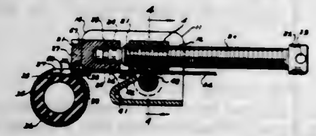
between the adjacent cylindrical walls of said recess and cylindrical portion, resilient means between said head and the wall of said chamber adjacent said recess urging said second member inwardly of said recess, and adjustable abutment means including an annular collar threaded on said second member and including also flat annular abutment surfaces perpendicular to the axes of said members, said abutment means acting between said members to adjust the extension of said second member from said recess, and key means between members to prevent relative angular movement therebetween about the axis of said recess.

2,833,170
STRAP SEALING TOOL
John J. Pachter, Harvey, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application February 16, 1955, Serial No. 488,544
12 Claims. (Cl. 81—9.1)



1. The combination in a tool adapted to form a joint between a metal seal and enclosed metal strap ends, of a casing, means including relatively movable jaws pivotally mounted in said casing for engaging said seal and deforming said seal and said strap ends, means including a reciprocating member slidably mounted in said casing for actuating said jaws, a stop pin mounted in said member for movement transversely thereof, said pin having an extremity normally projecting from one side of said member, a pivotally mounted actuating member having a part lying normally in the path of movement of said extremity of said pin, and resilient means for normally holding said actuating member in said position.

2,833,171
HOSE CLAMP TIGHTENER
Zacharie J. Campian, Detroit, Mich.
Application November 18, 1955, Serial No. 547,746
4 Claims. (Cl. 81—9.3)



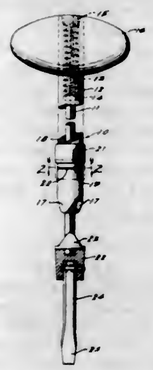
1. A hose clamp tightener comprising an elongated upright U-shaped body, an elongated nut secured within said body intermediate its opposite ends and adjacent its upper open side, with its axis extending along the length of the body, an elongated manually rotative shaft extending longitudinally into said body threadedly engaging said nut, a block of rectangular cross-section slightly longer than its width slidably positioned between and engaging throughout its height the side walls of said body and swivelly joined to the end of said shaft and longitudinally adjustable in said body on rotation of said shaft, and having a right angularly related end face projecting longitudinally from the body adapted to retainingly engage a portion of a clamp to be tightened around a cylindrical object, and a manually rotative cam within and extending across said body between its side walls and below said nut, its cam surface adapted on rotation for transverse movements towards and away from said nut adapted for gripping therebetween the free end of a movable portion of said clamp.

2,833,172
LOCK RING INSTALLATION TONGS
Roger Q. Williams, Oakland, Calif.
Application February 17, 1955, Serial No. 489,003
4 Claims. (Cl. 81—10)
(Granted under Title 35, U. S. Code (1952), sec. 266)



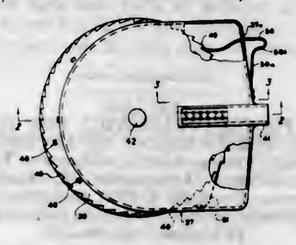
1. A pair of tongs which comprises a first lever having a first jaw formed on one end thereof, a second lever pivotally connected to said first lever and having a second jaw formed on one end thereof, said second jaw having an upper surface facing said first jaw, said first jaw having a notch located centrally in the outer end thereof, said second jaw having an opening in the outer end thereof, and a recess having arcuate wall portions formed in said upper surface for receiving a substantially circular portion of a lock ring member.

2,833,173
ROTARY IMPACT HAND TOOL
Reginald J. Aspeek, Utica, Mich.
Application January 8, 1957, Serial No. 633,107
3 Claims. (Cl. 81—52.3)



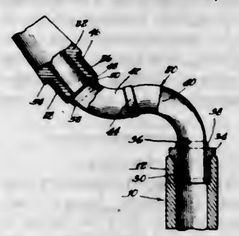
1. An axial impact type rotary tool comprising an elongated stem at least a portion of which is of square cross-section, a tubular ram member slidably and rotatably journalled on the upper portion of said stem, an integral heavy handle mass carried on the upper end of said ram member, the lower end of said ram member being provided with a pair of axially depending diametrically positioned helical lobes, a tool bit adaptor having a pair of axially upwardly extending diametrically positioned helical lobes on the upper end thereof, said pairs of lobes being normally in axially spaced relationship to each other, and positioning means effective to maintain said ram member in a pre-selected position on said stem whereby the apexes of the ram lobes are normally radially displaced on one side or the other of the apexes of the tool bit adaptor lobes, said radial relationship determining the direction of rotation of the tool bit adaptor upon the handle mass being driven downwardly to cause impact engagement of said opposed lobes such as will result in rotation of the tool bit adaptor, said positioning means comprising diametrically opposite pins carried in said ram member radially engaged with opposite faces of the stem square portion, and spring means encircling said ram member normally yieldingly maintaining said pins in stem engaging position.

2,833,174
TOY MUSICAL INSTRUMENT
William D. Noonanaker, Akron, William M. Noonanaker, Cuyahoga Falls, and Lloyd O. Lohaus, Akron, Ohio
Application July 11, 1955, Serial No. 521,242
7 Claims. (Cl. 84—93)



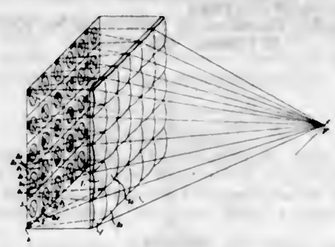
1. A musical instrument of the type having a tone-producing means and a movable tune sheet, comprising a pair of members having opposed faces and an apertured tune sheet between said faces, a wind blown tone-producing instrument on one of said members having tone holes therefrom extending to cooperative association with said apertured tune sheet at one side thereof, an air manifold on the other of said members in cooperative relation with said instrument, and a tune sheet indexing means on at least one of said members and having cooperative engagement with an edge portion of said tune sheet, whereby said tune sheet may be sequentially advanced predetermined distances to present sequential apertures of said tune sheet to said tone holes.

2,833,175
ALTO CLARINET
Leon Leblanc, Paris, France, assignor to G. Leblanc Corporation, Kenosha, Wis., a corporation of Wisconsin
Application October 12, 1955, Serial No. 540,071
1 Claim. (Cl. 84—382)



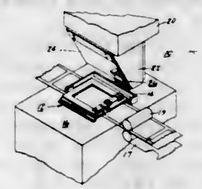
An alto clarinet comprising a body having a register hole disposed closely adjacent the top thereof, a neck inserted in the top of said body and having a first portion substantially abruptly curved rearwardly and upwardly relative to the axis of the body and substantially immediately from the top of said body and closely adjacent said register hole, the said first portion terminating laterally of the axis of the body and above the top thereof, said neck having a second portion extending from said first portion and reversely curved upwardly and further rearwardly of the axis of the body and terminating in a mouthpiece receiver thus disposed a substantial distance laterally of the axis of the body and above said first portion with the axis thereof projected toward the body intersecting the said body substantially no higher than said register hole, and a mouthpiece inserted axially in said receiver and positioned thereby further laterally of the axis of the body and further above the said first portion of the neck, whereby the head of a clarinetist can be held in substantially erect position to receive the mouthpiece with the body of the clarinet held substantially parallel to the body of the clarinetist.

2,833,176
ARRANGEMENT FOR THE EXHIBITION OF DYNAMIC SCENES TO AN OBSERVER IN MOVEMENT WITH RESPECT TO A SCREEN
Andrés Juan Luis Ossolnak, Buenos Aires, Argentina
Application July 21, 1953, Serial No. 369,361
3 Claims. (Cl. 88—16)



1. An arrangement for demonstrating moving pictures to an observer, wherein there is a relative movement between said arrangement and said observer along a predetermined path, said arrangement comprising a plurality of sections located in the direction of said path, each section comprising a plurality of convergent lenses contiguously positioned in a single plane, and a supporting frame mounted behind said lenses with its surface in the focal plane thereof, and a plurality of images on said frame one for each lens, the images in each section being identical, the images of adjacent sections varying to impart an illusion of movement to an observer viewing said sections consecutively.

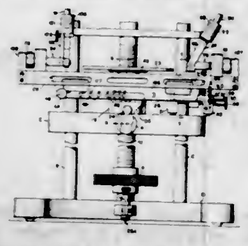
2,833,177
NEGATIVE HOLDER AND CUTTER
Lee G. Braunstein, Philadelphia, Pa.
Application March 28, 1955, Serial No. 497,259
1 Claim. (Cl. 88—24)



In a photographic printer for preparing positives from a strip of spaced negatives the improvement which comprises a negative holder including a pair of film gates hingedly connected together along one edge of each film gate, each of said film gates having a relatively large centrally positioned image-area aperture and a relatively small slot spaced from and at one side of the image-area aperture, said apertures and slots being aligned when the film gates are juxtaposed in operative negative holding disposition, cutting means spring-hingedly mounted upon the outer surface of the uppermost of said film gates, said cutting means being in registry with the slot of the film gate on which the cutting means is mounted, and an actuator for said cutting means mounted above said cutting means, said actuator comprising a hood through

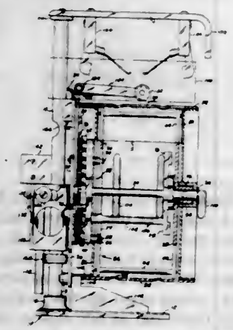
which light may be transmitted to the image-area aperture, said actuator being movable between a plurality of positions, one of said positions comprising the position in which light is transmitted to the image-area aperture and the other of said positions being a position in which said actuator engages said cutting means when the film gates are juxtaposed in respect to each other in operative negative holding disposition and urges said cutting means through the slot in at least the uppermost film gate.

2,833,178
COMPENSATOR FOR PHOTOGRAMMETRIC PROJECTION INSTRUMENTS
Harry T. Kelsh, Washington, D. C., assignor to The Kelsh Instrument Company, Inc., Baltimore, Md., a corporation of Maryland
Application December 24, 1956, Serial No. 630,330
12 Claims. (Cl. 88—24)



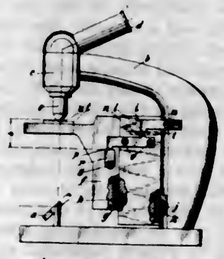
1. A compensator for a stereoscopic photogrammetric projection instrument having a tracing unit, comprising a frame adapted to be carried on the tracing unit, said stereoscopic photogrammetric projection instrument having swinging light projectors and arms for swinging said projectors, a floating mark carrier mounted for vertical movement relative to the frame, means carried by the frame and attachable to a guide arm for automatically adjusting the elevation of the floating mark carrier relative to the frame in accordance with a predetermined pattern as the tracing unit moves horizontally.

2,833,179
SLIDE PROJECTOR
William H. Richards, Dayton, Ohio
Application January 17, 1956, Serial No. 559,750
5 Claims. (Cl. 88—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



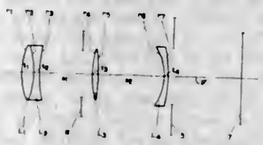
1. A slide transport apparatus comprising an upright member mounted on a platform, a bearing member extending at right angles to said upright member in fixed relation thereto, a hollow drum type slide carrying magazine mounted on said bearing member for rotation relative thereto having equidistantly spaced slots about its periphery adapted to receive slides therein, a slide lifting device extending within said magazine in parallel relation to said bearing member having slide engaging elements disposed at right angles thereto for alignment with a slide in a slot in said magazine, a carrier connected to said slide lifting device slidably mounted on said upright member, a guide pin slidably extending through a bore in said carrier, lock roller means mounted in said carrier in bearing engagement with said upright member and said guide pin for locking said guide pin in said carrier while permitting free movement of said carrier on said upright member, and handle means on said carrier for moving said carrier and said slide lifting device upwardly along said upright member to bring said slide engaging elements into engagement with a slide in a slot in said magazine and carry the slide clear of said magazine.

2,833,180
OBJECT PROTECTING DEVICE FOR THE AUTOMATIC PREFOCUSSING OF MICROSCOPES
Karl Wasner, Vienna, Austria, assignor to Fa. Optische Werke C. Reichert Aktiengesellschaft, Vienna, Austria
Application December 4, 1953, Serial No. 396,141
Claims priority, application Austria December 9, 1952
19 Claims. (Cl. 88—39)



1. In a prefocussing arrangement for microscopes or the like, in combination, a stationary stand; first support means mounted on said stand for movement relative thereto in a predetermined direction; second support means mounted on said first support means for movement relative thereto in a direction parallel to said predetermined direction; first stop means on said stand; second stop means on one of said support means and adapted to enter into operative association with said first stop means while a slide member or the like the thickness of which is to be compensated for is in engagement with at least one of said stop means; third stop means on the other of said support means; and fourth stop means on said one support means and adapted to engage said third stop means.

2,833,181
TELEPHOTO OBJECTIVE
Ludwig Bertele, Heerbrugg, Saint Gallen, Switzerland
Application October 18, 1956, Serial No. 616,743
Claims priority, application Switzerland November 2, 1955
3 Claims. (Cl. 88—57)

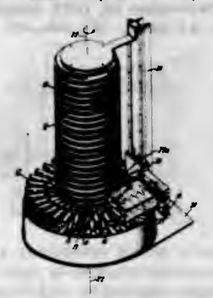


1. A telephoto objective fully corrected for the different errors of image, said objective comprising four lenses divided into three air-spaced components, the front component being positive and being composed of a biconvex and a biconcave lens, the middle component being a single biconvex lens and the third component being a single diverging lens and bent towards the image, in which—

s_1 and s_2 are the air spaces between the components,
t_1 to t_4 the thickness of the lenses,
f_{1+2} the focal length of the first component (L_1 and L_2),
f_3 the focal length of the second component (L_3),
p' the distance between the rear surface (r_7) of the objective and the image,
F the total focal length of the objective,
and which are within the limits specified in the following algebraic relationship:

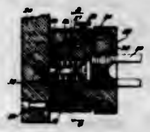
(*a*) $2\ F<f_{1+2}<6\ F$
(*b*) $F>f_3>0.4\ F$
(*c*) $0.45\ F>p'>0.27\ F$
(*d*) $1.20\ F>t_1+t_2+s_1+t_3+s_2+t_4+p'>0.95\ F$

2,833,182
AMMUNITION STORING AND FEEDING DEVICE
Chester E. Houston, Marietta, Ga., and Maurice C. Vercoe, Burlington, Vt., assignors to General Electric Company, a corporation of New York
Application December 5, 1955, Serial No. 551,473
7 Claims. (Cl. 89—33)



3. In an apparatus for storing and feeding a continuous belt carrying rounds of ammunition to a rapid-fire gun, a base support, a member rotatably mounted upon said base support and comprised of a horizontal platform having an upstanding core member concentrically positioned about the axis of rotation of the platform, whereby said ammunition belt may be spirally disposed in superposed layers about the surface of said upstanding core member as a center, means responsive to a power source for rotatably driving said member and thereby rotating all rounds of ammunition at an adjustable constant speed, and means for receiving the end of said belt and guiding a continuous strand of said rotating belt away from its circuitous path about said axis of rotation and conveying said strand to said gun, thereby unwinding the spiral layers of the belt from said member at the same speed.

2,833,183
TOOL HEAD
Frank P. Zierden, Milwaukee, Wis.
Application April 11, 1955, Serial No. 500,439
5 Claims. (Cl. 90—54)



1. In a tool head for machine tools cutting upon relative reciprocation of a tool and a workpiece and in one direction only, a receiver rigidly attachable to the machine at the location for mounting of a tool on the machine, a receiver having a conical socket, a holder having a socket for a tool and a tool having a conical external surface the internal conical surface of the receiver socket having elongated teeth extending generally axially of the conical socket and projecting radially inwardly therefrom and the external conical surface of the holder having elongated teeth extending generally axially thereof and projecting radially outwardly therefrom for meshing engagement with the teeth of said socket so that the roots of the tooth spaces extend in the general direction of movement of the conical surfaces of the holder into the conical socket of the receiver, means urging the holder teeth into seated position relative to the receiver teeth upon movement of the tool in one direction and releasing the holder teeth from seating position upon movement of the tool in the opposite direction for tilting of the holder in the receiver socket, and means for limiting movement of the holder teeth out of seated position and for limiting tilting of the holder in the receiver socket during movement of the tool in the said opposite direction.

2,833,184
MOVABLE TABLE AND SUCTION BOX STRUCTURE FOR FOURDRINIER MACHINE
Joseph Baxter, Jr., Franklin, Ohio, assignor to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio
Original application December 29, 1951, Serial No. 264,088, now Patent No. 2,760,411, dated August 28, 1956. Divided and this application April 25, 1956, Serial No. 580,596
6 Claims. (Cl. 92—44)

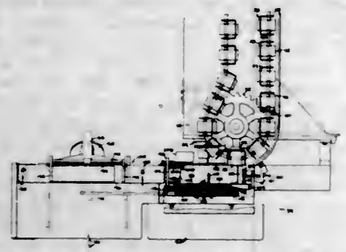


1. In a Fourdrinier paper machine having a continuous forming wire, the combination of a plurality of truss members arranged in spaced relation transversely of the direction of wire travel and each including a plurality of structural members connected together to form such truss member, a covering roof supported on the tops of said truss members and cooperating therewith to form a main frame, a plurality of table rolls for supporting the wire, means on said frame for supporting said table rolls above said roof to cause water to drain from said wire onto said roof, said roof being inclined laterally of said machine and extending laterally beyond the sides of the wire to deflect said water laterally of said machine and outwardly from between the upper and lower runs of the wire, means including a first shaft forming a horizontal mounting for the back side of said frame, at least one suction box located beyond said table rolls in the path of travel of the wire, means including a second shaft substantially coaxial with said first shaft forming a horizontal pivotal mounting for each said suction box, and means for tilting said frame and said suction box on said mountings to support the opposite side of said frame and said suction box in cantilevered position for changing the wire.

2,833,185
CONTAINER NESTING METHOD
Charles H. Dixon, St. Petersburg, Fla., assignor to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan
Application February 24, 1953, Serial No. 338,404
8 Claims. (Cl. 93—93)

1. In a mechanism for nesting tapered containers, the combination comprising a conveyor for delivering the

containers successively in an upright position to a predetermined point, means for ejecting the containers off said conveyor at said point and supporting them upright during ejection, a shelf for receiving the containers in off-center relation from said conveyor so that each container will topple off said shelf onto its side by its own



weight, a magazine, means for moving the toppled containers endwise into said magazine in nested relation to form a stack, means for counting the nested containers, and means for ejecting the stack laterally from said magazine after a predetermined count on the last-mentioned means.

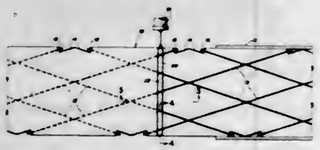
2,833,186

REINFORCED PAVEMENTS

Curzon Dobell, Nassau, Bahamas, assignor to The Preload Company, Inc., New York, N. Y., a corporation of Delaware

Continuation of application Serial No. 341,770, March 11, 1953. This application November 19, 1956, Serial No. 622,896

3 Claims. (Cl. 94—22)



1. The method of constructing a long concrete slab resting on a sub-base which comprises forming a series of slab sections between which temporary transverse joints are provided at intervals, incorporating in the sections and across the joints high strength reinforcing elements in unbonded engagement with the sections, permitting the sections to set until they have acquired considerable strength, tensioning said reinforcing elements, increasing the width of the temporary joints by forcing them apart with an expanding means to an amount corresponding to the amount of elastic shortening which would occur in the sections if unrestrained by friction with the sub-base, filling the extender joints with a material capable of attaining sufficient strength to resist substantial compression and removing the expanding means after the joint material has attained such strength to transfer compression from the sections to the joint material.

2,833,187

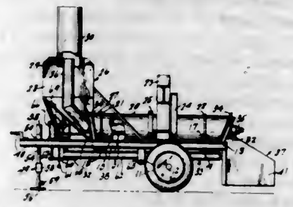
ROAD PATCHING MACHINE

Ira M. Wells and Howard A. Olds, Oakland, Calif.

Application November 1, 1954, Serial No. 465,828

6 Claims. (Cl. 94—42)

6. A road patching machine comprising, a heating drum and a burner therefor, a feed hopper having a feed opening and a discharge opening, means for heating material in said hopper and for discharging fumes from the hopper comprising, a main stack extending upwardly from the top of said feed hopper, a fire flue stack extending from said heating drum upwardly through said feed hopper with the upper end of the fire flue stack terminating within the lower end of said main stack and annularly spaced therefrom to function as an injector for discharging fumes from within the hopper through the annular space between



said main stack and the terminal portion of said fire flue stack and thence out through the main stack to prevent subjection of workers to the escape of fumes through the feed opening provided through the front of the hopper.

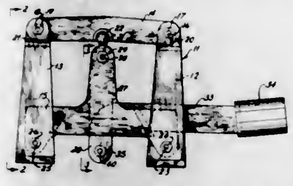
2,833,188

CONCRETE FINISHING TROWEL

Bernhard D. Wilkens, Secaucus, N. J.

Application November 16, 1955, Serial No. 547,114

2 Claims. (Cl. 94—45)



1. An automatic trowel comprising a pair of trowel blades, a frame fixedly attached to each blade, an upper cross-arm pivotally attached to each frame near its top, a lower cross-arm pivotally attached to each frame near its bottom, an arm pivotally connected to the upper cross-arm intermediate the two frames, the lower cross-arm having a central upward projection pivotally mounted on said pivoted arm, and a handle pivotally connected to the lower end portion of said pivoted arm, whereby movement of said handle in either direction will automatically raise the trowel blades in the direction of movement.

2,833,189

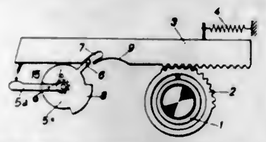
PHOTOGRAPHIC CAMERA WITH A JOINT MOTION OPERATOR FOR TRANSPORTING THE FILM AND TENSIONING OF THE SHUTTER

Willy Kaden and Alfred Winkler, Munich, Germany, assignors to AGFA Aktiengesellschaft, Leverkusen-Bayerwerk, Germany, a corporation of Germany

Application November 12, 1953, Serial No. 391,664

Claims priority, application Germany November 25, 1952

7 Claims. (Cl. 95—31)



1. A photographic camera comprising a shutter tensioning mechanism and a film-winding mechanism with the shutter being tensioned during a first portion of the film-winding operation, an operating means connected to said film-winding mechanism, movable coupling means operatively connecting said operating means with said shutter-tensioning mechanism to provide a period of simultaneous operation of said film-winding and shutter-tensioning mechanisms, open-ended slot and pin means for interconnecting said operating means and said coupling means to move said coupling means to a shutter setting position during a first portion of movement of said film-winding mechanism, interlocking means operatively associating said operating means and said movable coupling means for maintaining said movable coupling means in said shutter-setting position while said pin moves out of engagement with said slot as said operating means completes its film-winding movement, and said operating and interlocking means being constructed and arranged to release said movable coupling means after said film-winding movement has been completed.

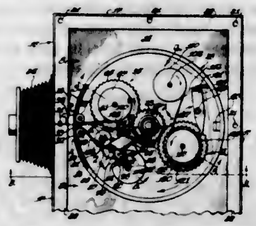
2,833,190

PHOTOGRAPHIC METERING FILM MAGAZINE

Loren D. Gilmore, Glenn Ellyn, and Simon K. Chen, Maywood, Ill., assignors to International Harvester Company, a corporation of New Jersey

Application September 30, 1955, Serial No. 537,787

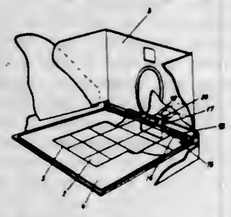
6 Claims. (Cl. 95—31)



1. A photographic camera including a rotatable magazine of photographically active film comprising an apertured chamber having a removable cover plate, a system of lenses mounted in the apertured portion of said chamber, means for admitting light rays through said lenses into said chamber for a predetermined period of time, a first bearing member mounted on and extending through said cover plate, a second bearing member mounted adjacent to and extending through the bottom of said chamber, said second bearing member being axially aligned with said first bearing member, a vertically disposed drive shaft mounted in said chamber and constrained for rotation in said second bearing member, one end of said drive shaft extending through said second bearing member externally of said chamber, an external source of power drivingly connected to said drive shaft for rotation thereof at a predetermined speed of rotation, a rotatable drum including a magazine of photographically active film mounted in said chamber and constrained for rotation with said drive shaft, the other end portion of said drive shaft extending into said drum, a sleeve shaft slidably mounted in said drum concentrically on said upper portion of said drive shaft, one end of said sleeve shaft extending through the upper end of said drum and said first bearing member externally of said chamber, means for limiting upward movement of said sleeve shaft relative to said drive shaft, a pair of large diameter annular shaped flanges disposed adjacent the other end portion of said sleeve shaft forming a circumferential groove on said sleeve shaft, a captive helical spring adapted to engage one of said flanges for urging said sleeve shaft upwardly, a first gear mounted in said drum adjacent the bottom thereof and constrained for axial rotation with said sleeve shaft, a first spindle mounted vertically in said drum, a first reel mounted on and constrained for axial rotation on said first spindle, said first reel being adapted to accommodate unexposed photographically active film, a disk mounted on said first spindle adjacent the bottom of said drum and constrained for rotation with said first reel, a second spindle mounted vertically in said drum, a second reel mounted on and constrained for axial rotation on said second spindle, said second reel being adapted to accommodate photographically active film dispensed from said first reel, a second gear mounted on said second spindle adjacent the bottom of said drum and constrained for rotation with said second reel, said first and second gears being in meshed relation with each other, a third spindle mounted vertically in said drum, said third spindle being positioned in diametric spaced relation with respect to said first spindle, a third reel mounted on and constrained for axial rotation on said third spindle, a friction element mounted on the upper portion of said third spindle adapted to engage frictionally said third reel for yieldable rotation of said third reel, said third reel being adapted to accommodate photographically inactive film having substantially equivalent weight per unit length characteristics as said photographically active film, a fourth spindle mounted vertically in said drum, said fourth spindle being positioned in diametric spaced relation with respect to said second spindle, a fourth reel mounted on and constrained for axial rotation on said fourth spindle, said fourth reel being adapted to accommodate photographically inactive film dispensed from said third reel, a ratchet wheel mounted on said fourth spindle adjacent the bottom of and constrained for rotation with said fourth reel, a pawl mounted in said drum adjacent to said ratchet wheel and adapted to engage said ratchet wheel for preventing rotation of said fourth reel in one direction and yieldable for rotation of said fourth reel in the other direction, a third gear mounted on said fourth spindle adjacent the bottom thereof and constrained for rotation with said ratchet wheel and said fourth reel, said third gear and said first gear being in meshed relation with each other, a vertically extending metering roller mounted in and journalled for rotation in said drum, said metering roller being positioned adjacent to said first and second reels and adapted to engage frictionally said unexposed photographically active film dispensed from said first reel, a pinion gear mounted on said metering roller adjacent the bottom thereof and constrained for rotation with said metering roller, a fourth gear rotatably mounted in said drum adjacent said metering roller and said first spindle, said fourth gear and said pinion gear being in meshed relation with each other, said fourth gear having a first stop element radially positioned on the diametrical surface thereof, a plurality of second stop elements radially positioned on said disk, a releasably engageable dual latch mechanism mounted in the lower portion of said drum adjacent said first gear and said fourth gear, said latch mechanism adapted to engage releasably said first stop element and one of said second stop elements simultaneously, said latch mechanism having an operating arm extended into engagement with said circumferential groove of said sleeve shaft and adapted for releasing said latch mechanism upon downward movement of said sleeve shaft, said drum having a circumferentially disposed film track on the outer periphery thereof, said film track being substantially the same width as said photographically active film, said film track being adapted to support a portion of said unexposed photographically active film in position for exposure to light rays entering said chamber through said lenses, a vertically extending slot disposed in said periphery of said drum adjacent to said metering roller and said second reel for accommodating photographically active film therethrough a pair of idler rollers positioned vertically in spaced relation adjacent to said slot, one of said idler rollers being adapted to guide said unexposed photographically active film dispensed from said first reel to said film track and the other idler roller adapted to guide said exposed pho-

tographically active film from said film track to said second reel, said metering roller and associated pinion gear and said fourth gear being interrelated to permit said first reel to dispense sufficient photographically active unexposed film to cover said film track whereby said latch mechanism automatically engages said first stop element and one of said second stop elements, and external manually operable means for engaging said sleeve shaft for releasing said latch mechanism and driving said first gear with said second and third gears to move said unexposed photographically active film to said film track and winding said exposed photographically active film from said film track to said second reel simultaneously with the dispensing of said photographically inactive film from said third reel to said fourth reel.

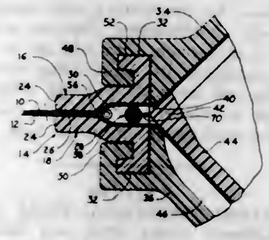
2,833,191
HOLDING MEANS FOR PHOTOGRAPHIC MASKS AND ACCESSORIES
Richard Weiss, Braunschweig, Germany, assignor to Franke & Heidecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany, a German firm
Application June 19, 1952, Serial No. 294,466
Claims priority, application Germany June 20, 1951
2 Claims. (Cl. 95—49)



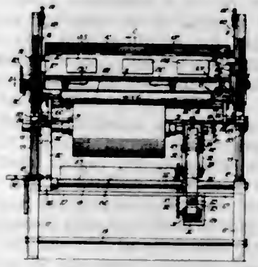
1. The combination with a reflex camera body having a horizontally arranged focusing screen at its top and having collapsible and erectable walls which, when in erected position, extend upwardly substantially from the edges of said focusing screen to form an open-top shadow box for said screen, of spring clip means releasable from outside said shadow box for overlying and detachably holding one edge of a mask or the like lying horizontally on said focusing screen within said shadow box, said clip means including a retaining portion in the form of a bent resilient wire having a loop normally located within said shadow box in overlying relation to said mask or the like, two stops engaging said wire at two points both spaced from said loop to limit inward movement of the engaged part of the wire, and a manipulating portion in the form of a manually accessible button projecting exteriorly beyond the rear wall of said shadow box approximately at the level of said focusing screen and engaging said wire on the opposite side of said stops from said loop, said button being so located with relation to said wire that inward manual pressure on the projecting end of said button will press against and flex said resilient wire to move said loop outward to non-overlying relation to said mask or the like so that said mask or the like may be removed from the focusing screen and lifted upwardly through said shadow box.

2,833,192
SELF-PROCESSING FILM ASSEMBLAGE
Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application October 3, 1955, Serial No. 538,152
15 Claims. (Cl. 95—67)

1. A photographic device for use in combination with a photographic film unit including a pair of sheets, said device comprising, in combination, means defining a passage through which the sheets of a film unit are movable, an elongated container carrying a photographic liquid, means for so mounting said container transversely of said passage that the sheets of a film unit can be located within said passage on opposite sides of said container, means permitting the withdrawal of said container, in the direction of its elongation, from said passage transversely of said passage, and means for so compressing said container during withdrawal from said passage as to cause its liquid contents to be distributed from one end of said container in an elongated mass extending substantially from side to side of the sheets of a film unit located within said passage.

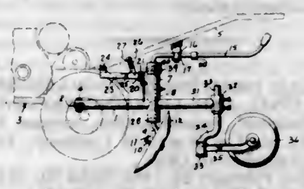


2,833,193
PHOTO-ENGRAVING APPARATUS FOR PRINTING CYLINDERS
Alfred B. Poschel, Chicago, Ill., assignor to The Meyercord Co., Chicago, Ill., a corporation of Illinois
Original application May 18, 1953, Serial No. 355,691. Divided and this application November 4, 1954, Serial No. 466,877
7 Claims. (Cl. 95—77.5)



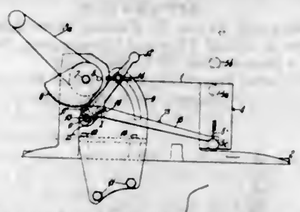
1. In a machine for photographing a design in a film upon a cylinder having a coat of a photo-sensitive solution upon its surface including a shaft upon which said cylinder is mounted, a pair of bearings upon which said shaft is supported, means for imparting a rotary movement to said shaft, a pair of standards, a pair of yokes mounted upon said standards for upright shifting movement, supports carried by said yokes, a casing enclosing a light source, said casing being mounted upon said supports and disposed above said cylinder, said casing including a pair of downwardly extending and mutually converging walls, said walls defining a slot, means for shifting said yokes upon said standards for bringing said casing to or away from said cylinder, the light emanating from said casing being adapted to be beamed through said slot upon the film when in a superimposed relation with the cylinder, and means for maintaining the portion of the film upon which the light beam is directed in a taut contactual relation with the coated surface of the cylinder.

2,833,194
REVERSIBLE DISC PLOW ATTACHMENT AND COMBINATION
Elliott Branson, Hayward, Calif.
Application April 15, 1955, Serial No. 501,520
4 Claims. (Cl. 97—31)



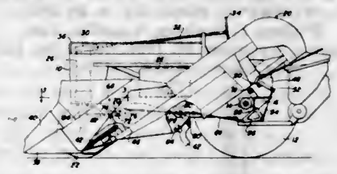
1. A reversible plow attachment for a tractor comprising a bearing sleeve, a vertically disposed spindle rotatably carried by said bearing sleeve for rotation about a vertically extending axis, a disc plow rotatable on and secured to the lower end of said spindle for movement with the latter to positions facing in directions diverging from opposite sides of a horizontal center line extending through said axis, a hitch rigidly secured at one end thereof to said bearing sleeve, pivot means at the other end of said hitch for pivotally securing said other end to such tractor for swinging said hitch, bearing sleeve, spindle, and disc plow laterally to and between two trailing positions of said disc plow at opposite sides of a line defining the path of travel of the tractor and substantially coincident with said center line when said one end of said hitch is connected to such tractor, with said other end and said bearing sleeve and plow in trailing relation to said tractor, and means connected with said spindle for so swinging said hitch and said bearing sleeve and for causing said rotatable movement of said spindle, said means being a handle projecting generally horizontally from the upper end portion of said spindle, a member for supporting said handle at a point intermediate its ends for revolvable movement of said handle about a generally vertically extending axis and for sliding of said handle longitudinally thereof, and means for securing said member to such tractor.

2,833,195
TRACTOR HYDRAULIC LIFTS
Frank William Pitney, Ilford, England, assignor to Ford Motor Company Limited, London, England
Application June 27, 1955, Serial No. 518,224
Claims priority, application Great Britain July 2, 1954
1 Claim. (Cl. 97—46.59)



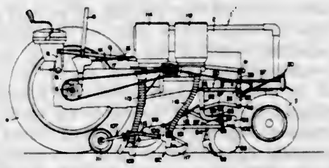
A tractor hydraulic lift comprising a body member, a pair of lift arms pivotally mounted on the body member, a hydraulic ram for operating the lift arms, valve control gear mounted on the body member for controlling said ram, a manual control lever for operating the valve control gear and having a lower position in which the ram is operated by the valve control gear so that the lift arms are lowered and a higher position in which the ram is operated by the valve control gear so that the lowering of the lift arms is arrested, a quadrant secured to the body member, a radius arm pivotally attached to the quadrant, means for securing the radius arm to the quadrant in any of a range of positions, a second lever pivotally mounted intermediate its length on the radius arm so as to have a long lever arm portion and a short lever arm portion, said long lever arm portion being disposed under the manual control lever in the lower position of said control lever and a cam attached to the outside of one of the lift arms to rotate therewith and acting on the other end of the second lever over the short lever arm portion when the lift arms are lowered to a predetermined position, dependent on the position of the radius arm, to move the manual control lever to its higher position.

2,833,196
STEERING CONTROL MEANS
Edward C. Bopf, Des Moines, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application September 6, 1955, Serial No. 532,653
10 Claims. (Cl. 97—47.41)



1. In a tractor having a lift device and steering mechanism including steerable wheel means, the improvement comprising: limit means mounted on the tractor for movement between a first and second position for controlling the steering mechanism, said limit means in its first position being operative to limit the action of the steering mechanism for restricting steering of the steerable wheel means to a range less than normal and being operative in its second position to release the steering mechanism for normal steering of the steerable wheel means; and means connecting the limit means to the lift device for selectively incurring the positions of the former in response to actuation of the latter.

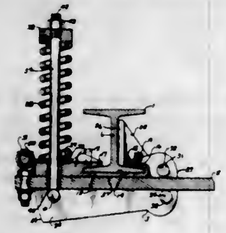
2,833,197
ATTACHMENT FRAME FOR TRACTOR PLANTERS
William P. Oehler and Charles H. Youngberg, Moline, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Continuation of application Serial No. 151,276, March 22, 1950. This application November 9, 1953, Serial No. 390,848
4 Claims. (Cl. 97—47.62)



1. In an agricultural implement adapted to be mounted on a tractor: the combination comprising an attachment frame adapted to be attached to the tarctor and including laterally spaced apart bracket means and two pairs of generally parallel vertically spaced links pivotally connected at their forward ends with said bracket means and extending generally rearwardly therefrom, a pair of normally vertically disposed standards, each having at its lower end a portion disposed in a generally horizontal fore-and-aft extending direction, a bar-receiving socket carried at the outer end of each of said fore-and-aft

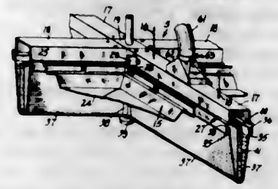
extending portions and each bar-receiving socket facing in a generally fore-and-aft extending direction lying normal to the normally vertical portions of said standards, means for detachably connecting a tool bar in said sockets, and means pivotally connecting the rear ends of said rearwardly extending links to the vertical portions of said standards at points on the latter above said horizontal fore-and-aft extending portions, said pivotal connecting means being detachable and said standards being symmetrical about the generally vertical fore-and-aft extending plane passing through said links, thereby providing for a reverse mounting of said standards, whereby they may be mounted with said bar-receiving sockets disposed to face either forwardly under the lower of said generally parallel links, to receive said bar in the forward position, or rearwardly below the level of but rearwardly of said links, to receive said bar in a rearward position relative to the tractor.

2,833,198
MOUNTING FOR THE SHANKS OF THE GROUND WORKING TOOL OF A PLOW
William T. Graham, Amarillo, Tex.
Application September 26, 1956, Serial No. 612,319
4 Claims. (Cl. 97—47.84)



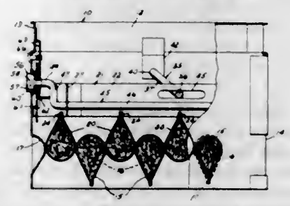
1. In a plow having a frame and a ground working tool provided with a shank member, a mount for attaching and supporting the shank member of the ground working tool for rocking movement on the frame of the plow where in normal ground working the resistance of the ground to forward movement of the shank tends to move the shank rearwardly of the frame, in which said mount includes a bracket member adapted to be fixed to the frame of the plow and having a portion extending forwardly of said frame forming a stop for the forward portion of the shank member, said forwardly extending portion of said bacKet terminating in a substantially vertical portion, spaced flanges on the bracket member at respective sides of said stop portion forming a downwardly open way to retain the shank member therebetween, means extending between said flanges for forming a transverse axis about which the shank member is adapted to rock to and from said stop portion, an arcuate guide surface on the forward end of each of the flanges of the bracket member wherein the curvature of the arcuate guide is substantially radial with respect to the transverse axis on which the shank member is adapted to rock and terminates at its upper portion in the vertical portion of said bracket, a spring having one end seated upon one member, means connecting its other end with said other member to apply force to the forward portion of the shank on a line substantially parallel with a tangent of said arcuate surface for urging the forward portion of the shank toward said stop portion and yieldingly retaining the forward portion of the shank member against said stop portion, the connection of said last named means with said other member being confined within said open way, a roller, a roller supporting means fixed on the shank member and rotatably mounting said roller in position relative to the said vertical portion of the bracket member and the arcuate guide surfaces for rolling contact therewith in response to rearward pull exerted on the shank by ground resistance to forward movement thereof whereby the engagement of the roller on the vertical portion of the bracket member and arcuate surface acts independently of the spring and limits rearward movement only of the shank during the entire rocking movement thereof.

2,833,199
OVERHEAD LIGHTING, SOUND-ABSORBING, HEATING, AND AIR CONDITIONING
George P. Wakefield, Vermilion, Ohio, assignor, by mesne assignments, to The Wakefield Company, Vermilion, Ohio, a corporation of Ohio
Application February 23, 1954, Serial No. 411,768
5 Claims. (Cl. 98—40)



1. A combined ventilating and acoustical device suitable for attachment to the ceiling of a room, said device comprising a hollow elongated casing having an upper imperforate wall, a lower wall, and opposite side walls; a correspondingly elongated body of sound-absorbing material disposed within said casing; said body being of thickness less than the distance between such opposite side walls and of height less than the distance between such upper and lower walls; and means supporting said body with opposite sides thereof spaced from the respective side walls and with its upper edge spaced below such upper wall; such side walls, only in the regions thereof below approximately the level of the upper edge of said body, being perforated whereby air supplied into the space between such upper wall and the upper edge of said body flows longitudinally therein, downwardly through the spaces between said body and the respective side walls, and thence outwardly through the perforated regions of such opposite side walls, the upper wall of said casing being provided with means for connection with an air supply duct.

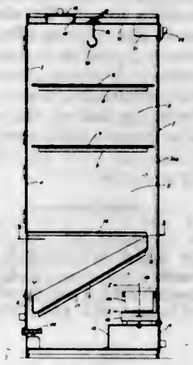
2,833,200
CONTROL REGISTER FOR AIR CONDITIONING APPARATUS
Edwin Olson and Ernest H. Person, New Britain, Conn., assignors to Allied Thermal Corporation, New Britain, Conn., a corporation of Connecticut
Application March 21, 1956, Serial No. 572,988
3 Claims. (Cl. 98—101)



1. In a control register of the type described, a hollow open ended casing, a first set of parallel spaced apart baffles fixed to the casing, a second set of spaced apart baffles respectively interposed between baffles of said first set of baffles and lying in a plane parallel to and movable toward and away from the plane of said first set, a frame

to which said second set of baffles are fixed having two pairs of spaced apart aligned slots with one pair extending transversely of the baffles of said second set and with the other pair extending at right angles to said one pair, a crank member having a center portion extending through and engaging in said one pair of slots and having aligned offset ends journaled in the casing, and a second crank member disposed at right angles to the first crank member having a center portion extending through and engaged in said other pair of slots and having aligned offset ends journaled in the casing whereby when one of said crank members is pivoted about its ends to move the second set of baffles relative to said first set the other crank member maintains the parallel relation between the planes of both sets of baffles during such movement.

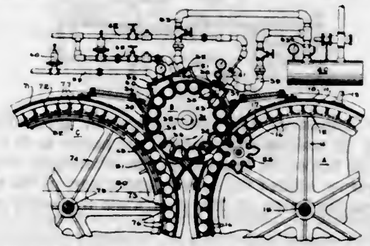
2,833,201
SMOKE HOUSE BARBECUE
Edmund W. Simank, Carmel Valley, Calif.
Application March 20, 1956, Serial No. 572,652
9 Claims. (Cl. 99—259)



1. A device of the character described comprising a housing forming a compartment, means for supporting food products in the upper portion of the compartment, and means for circulating heated air throughout the compartment, such latter means including a solid baffle plate disposed in the housing, such baffle plate being spaced along its edges from the front and rear sides of the housing and inclining upwardly from a point adjacent one of said sides of the housing to a point adjacent the other side, and air heating means disposed at a point below the higher edge of the baffle plate.

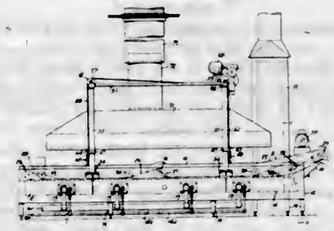
2,833,202
APPARATUS FOR COOLING SEALED FOOD CONTAINING CANS IN CONTINUOUS STERILIZATION PROCESSES
Paul C. Wilbur, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Original application January 26, 1950, Serial No. 140,683, now Patent No. 2,676,891, dated April 27, 1954. Divided and this application November 6, 1953, Serial No. 390,479
5 Claims. (Cl. 99—367)

1. A continuous can- processing arrangement comprising a closed sterilizing chamber, means for moving cans in a continuous procession through said sterilizing chamber, means for maintaining a sterilizing atmosphere including steam at a predetermined temperature and at a predetermined superatmospheric pressure in said sterilizing chamber, an open cooling chamber arranged adjacently to said sterilizing chamber, a transfer mechanism adapted to transfer cans in confined condition from said sterilizing chamber directly to said cooling chamber, means including a spray nozzle associated with said transfer means, said spray nozzle means being arranged and constructed to inject a spray of cooling medium into said transfer mechanism to effect a partial condensation of the steam component of the atmosphere around the cans when said cans are in said confined condition, and means including a conduit for delivering compressed



non-condensable gas to said transfer mechanism simultaneously with the injection of said spray of cooling medium for substituting the compressed non-condensable gas for the steam component of the atmosphere condensed by said spray of cooling medium, said last means being arranged and constructed to deliver said non-condensable gas under sufficient pressure and at a sufficient rate of flow to prevent said cans from buckling.

2,833,203
FOOD PROCESSING MACHINE
Clark K. Benson, Millbrae, James C. Harris, Jr., Berkeley, and Andrew A. Caridis, Daly City, Calif., assignors to Heat and Control, Inc., San Francisco, Calif., a corporation of California
Application October 19, 1953, Serial No. 386,986
2 Claims. (Cl. 99—404)

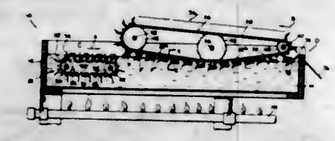


1. A food processing machine of the character described comprising a vat adapted to hold a quantity of oil, means for progressing objects to be cooked from one end of the vat to the other end thereof, said means comprising an endless conveyor, means for causing portions of the upper run of the conveyor to be looped, certain of the looped portions being intermediate the ends of the vat for elevating the product from the oil and then tumbling the product back into the oil to effect redistribution of the product upon the conveyor to eliminate striping and uneven cooking, a hood spaced from and overlying said vat, means for moving the hood and the endless conveyor vertically as a unit with respect to the vat, a flue, and means for maintaining communication between the hood and the flue during vertical movement of the hood and the conveying means.

2,833,204
PASTRY COOKING MACHINE
Abraham Kipnis, Forest Hills, N. Y.
Application November 20, 1953, Serial No. 393,445
3 Claims. (Cl. 99—405)

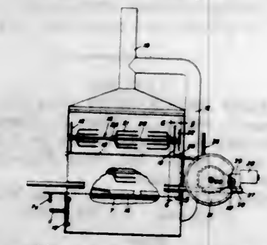
1. A pastry cooking machine comprising a tank for containing a bath of hot fat, and a conveyor mechanism

including a pusher, means to move said pusher forwardly and downwardly, said pusher being arranged to propel a buoyant pastry through the bath, the under portion of the pastry having been cooked and thereby swelled, an element associated with the pusher for submerging the pastry as the same is propelled by the pusher, and another



element associated with the pusher for gradually depressing the trailing edge only of the pastry as it is propelled and before the pastry has been submerged, whereby as the pastry is tilted the heavier upper part of the pastry will cause the pastry to turn over while the pastry still is floating.

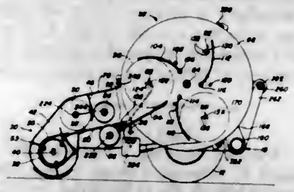
2,833,205
PORTABLE BARBECUE
Edward J. Purtzer, Tell City, Ind.
Application September 14, 1955, Serial No. 534,186
1 Claim. (Cl. 99—421)



A portable cooking apparatus comprising a casing having sides and ends and an open top, a horizontal baffle plate in the lower part of the casing fitting between the sides and ends thereof and dividing the casing into a lower firebox and an upper spit chamber and slidably fitted in said casing to close said firebox and chamber from each other or to variably open the same to each other, a spit rotatably mounted in the upper portion of the spit chamber and extending partway above the casing and including a central rotary shaft, and a plurality of independently rotatable shafts eccentric to the central shaft and provided with skewers, a hood on said casing partly closing the top thereof and extending partway over said spit for partly covering the spit while exposing a front portion thereof, and means for rotating the independently rotatable shafts intermittently a quarter-turn in response to rotation of said central shaft comprising a lug on said casing and cruciform members on said independently rotatable shafts wipingly engaging said lug.

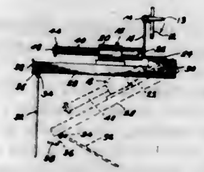
2,833,206
BALING MACHINE
Charles L. Callum and Gust Soteropulos, Ottumwa, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application September 26, 1955, Serial No. 536,469
7 Claims. (Cl. 100—79)

1. A baler, comprising: a main frame; means on the main frame providing a feeding station operative to feed material along a defined feeding path; a drum structure carried by the frame to turn about an axis transverse to said path and having spaced apart radial walls; a plurality of rotatable spindle means carried by the drum between the walls thereof and in angularly spaced relation about the drum axis, each spindle means including a pair of spindle elements coaxial on an axis parallel to the drum axis and journaled and axially slidably carried by opposed portions of the walls, respectively, for axial inward movement normally toward each other and for axial movement oppositely outwardly; intermittently operative drum-driving means for turning the drum to present one spindle means to the feeding station so that the presented spindle means, with its elements moved axially inwardly, receives material from said station and wraps said material on said presented elements to form a rolled bale; means



operative in response to a predetermined accumulation of material on the presented spindle means to cause the drum-driving means to turn the drum and thus to remove the aforesaid presented spindle means and the bale carried thereby to a position remote from the feeding station and to present a second spindle means to said station; and spindle withdrawing means operative upon turning of the drum for moving the elements of the bale-carrying spindle means axially oppositely outwardly to withdraw said elements from the bale so as to free said bale from said elements.

2,833,207
COTTON BALE WEIGHT GAUGE
Frank Smith, Orosi, Calif.
Application December 22, 1952, Serial No. 327,237
3 Claims. (Cl. 100—99)

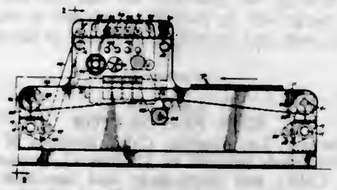


1. A bale weight gage for a cotton press having a plurality of vertically extending horizontally spaced slots in one side thereof comprising a horizontal shaft journaled on said side, a plurality of radially extending fingers affixed to said shaft and each extending through one of said slots, a spring urged axially slidable bar, a table underlying the bar and having weight indicia formed thereon to cooperate with the end of the bar, means actuated by the fingers to urge the bar axially in opposition to the spring urgement, a plunger carrying the bar, a sleeve slidably receiving the plunger, a cylinder adjustably mounted in the sleeve and a spring mounted in the cylinder and bearing against the plunger.

2,833,208
MACHINE FOR EDGE-MARKING PANELS
Robert W. Jeffs, Seattle, Wash., assignor to Western Gear Works, Seattle, Wash., a corporation of Washington
Application December 22, 1953, Serial No. 399,722
13 Claims. (Cl. 101—37)

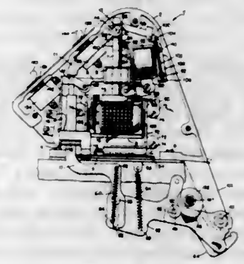
1. A machine for edge-marking plywood panels comprising, in combination: means for conveying successive

plywood panels either single or in stacks along a given horizontal travel path with at least one side edge exposed beyond the related side limit of the conveying means, a type-wheel axially shiftable into a plurality of adjusted settings selectively and journaled for rotation about a vertical axis in such a position along said travel path as causes the type-wheel to mark each panel as the latter traverses the type-wheel in course of its conveyed travel,



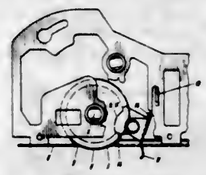
means for rotating said type-wheel at a rim speed corresponding to the travelling speed of the conveyed panel, an inking roll normally pressing against said type-wheel for continuously inking said rotating type-wheel, and means made to operate as the type-wheel moves in course of being shifted into any one of its adjusted settings for automatically backing off the inking roll from the type-wheel so that the motion of the type-wheel will not scuff the roll.

2,833,209
CONSECUTIVE NUMBER PRINTER
Robert M. Gustafson, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,616
7 Claims. (Cl. 101—79)



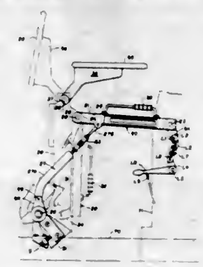
1. A printing device comprising, in combination, a cam element, means for cycling said cam element, a print member and a platen member, one of which is movable relative to the other for effecting printing, a record receiving opening between said members, means operable in timed relation with the cycling of said cam element for feeding records into said opening, means yieldingly urging said moveable member from said other member, means operable by said cam element for imparting said printing movement to said movable member, means normally latching said movable member to inhibit said printing movement thereof, means yieldingly connecting said operable means and said movable member to permit operation of said operable means when said latching means is normal and to effect printing movement of said movable member when said latching means is unlatched, means for unlatching said latching means, means aligned with said opening and operable by a said record inserted therein for operating said unlatching means.

2,833,210
PRINTING CYLINDER HAVING AN INTERCHANGEABLE PRINTING PLATE FOR APPLICATION IN POSTAGE METERS
Wilhelm Muller, Frankfurt am Main-Eckenheim, Germany, assignor to Telefonbau und Normalzeit G. m. b. H., Frankfurt am Main, Germany
Application June 11, 1956, Serial No. 590,753
6 Claims. (Cl. 101—91)



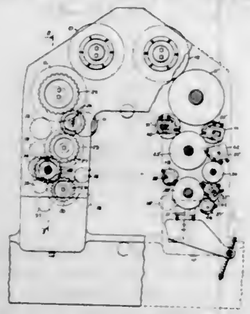
3. In combination a frame structure, a printing cylinder rotatably supported by said frame structure, a mask, means supported by said frame structure pivotally supporting said mask permitting said mask to be rocked selectively about an axis parallel to the axis of rotation of said printing cylinder, means defining an aperture for the passage of a segment of said printing cylinder, said aperture-defining means including said mask, interlock means adapted to be jointly rocked with said mask to two limit positions to selectively permit and preclude rotation of said printing cylinder relative to said mask depending upon in which of said two limit positions said mask is in, and additional interlock means under the control of said printing cylinder adapted to selectively permit and preclude rocking of said mask depending upon the position of said printing cylinder relative to said frame structure.

2,833,211
CONVEYOR MEANS FOR ROTARY OFFSET PRINTING MACHINES
James J. Trier, Elmsford, N. Y., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
Application December 30, 1953, Serial No. 404,460
6 Claims. (Cl. 101—177)



1. A metal decorating offset press comprising a plurality of horizontally aligned offset printing units arranged for printing successively upon a sheet and conveyor means for forwarding a sheet from a printing unit to the next printing unit comprising a conveyor section immediately adjacent a unit for receiving a sheet therefrom, a pivotal mounting supporting the said section for movement between an operating position and a non-operating position and to permit a workman to stand in the space between the pivotal mounting and the preceding printing unit which is normally occupied by the said section, when in operating position, a cross walk above the said section for furnishing access to the upper part of a unit, and a pivotal mounting supporting the cross walk in a horizontal position and in a swing back position.

2,833,212
INK MOTIONS FOR PRINTING MACHINES
Charles A. Harless, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
Application February 21, 1955, Serial No. 489,655
8 Claims. (Cl. 101—349)



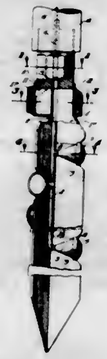
1. In a printing machine ink motion, and in combination, first and second axially reciprocable ink drums, gearing and drive mechanism for rotatably driving and axially reciprocating the said drums, means for supplying ink to the first said drum and means for taking ink from the second said drum for inking a printing cylinder, an ink transfer mechanism between the two said drums comprising first and second soft surfaced rollers contacting the respective drums and a freely rotatable hard surfaced roller contacting the two said soft surfaced rollers.

2,833,213
WELL PERFORATOR
John J. Udry, South Gate, Calif., assignor, by mesne assignments, to Borg-Warner Corporation, Vernon, Calif., a corporation of Illinois
Application April 13, 1951, Serial No. 220,770
4 Claims. (Cl. 102—20)



1. Expendable well shooting apparatus comprising: an elongated, hollow, cylindrical carrier body formed of brittle material, the walls of said body having formed therethrough a plurality of lightening and weakening openings adjacent one another throughout the length and circumference thereof and a plurality of pairs of shaped charge unit supporting apertures; shaped charge units being mounted within said cylindrical body through said supporting apertures, each such unit comprising a hollow, cylindrical, fluid-tight housing formed of frangible material, means for mounting a shaped charge therein, a shaped charge mounted in said housing, the ends of the shaped charge units being curved to conform with the curvature of the cylindrical external surface of said carrier body and being substantially flush with said external surface, one end of each shaped charge unit having a detonating fuse receiving groove opening into the outer face of said one end and extending substantially diametrically thereacross, the depth of each said groove being substantially greater than the thickness of the walls of said body and the ends of said groove opening into the hollow portion of said carrier body; a detonating fuse disposed in the hollow portion of said carrier body and extending through the groove in the said one end of each shaped charge unit in detonating relation to the shaped charge in each unit housing; and means to detonate said fuse.

2,833,214
GUN PERFORATOR
Lloyd Spencer, Los Angeles, Calif., assignor of sixty-six and two-thirds percent to Thomas C. Bannon, Altadena, Calif., and thirty-three and one-third percent to John D. Chesnut, Newport Beach, Calif.
Application August 18, 1951, Serial No. 242,488
11 Claims. (Cl. 102—20)



1. An expendable gun perforator, comprising: a pair of elongated gun body members formed of sheet material and shaped to form the complementary portions of a series of laterally expanding detonation chambers and a connected passage said body members being connected together to form a unitary structure; and a hollow charge cell closing each detonation chamber and including an end portion extending therein to define the walls of the recess in a shaped charge; said detonation chambers and passage adapted to be filled with an explosive, said body members being yieldable to submergence pressures and said cell being resistant to submergence pressures.

2,833,215
GUN PERFORATOR AND METHOD OF MANUFACTURE
Lloyd Spencer, Los Angeles, Calif., assignor of sixty-six and two-thirds percent to Thomas C. Bannon, Altadena, Calif., and thirty-three and one-third percent to John D. Chesnut, Newport Beach, Calif.
Application August 18, 1951, Serial No. 242,489
10 Claims. (Cl. 102—20)

1. A gun perforator, comprising: a cast gun body of easily rupturable material defining a plurality of laterally directed detonation cavities and connecting passages; a lining for said cavities and passages; and hollow shaped charge cells cast as inserts in said gun body at the radially outer ends of said detonation cavities; a continuous, uninterrupted body of a liquid explosive completely filling said cavities and said connecting passages; and means at the upper end of said gun body for causing that portion

of said liquid explosive within said passages to propagate a detonation wave through said passages past said detona-



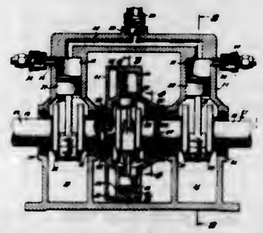
tion cavities and to cause branching detonation of the portions of said liquid explosive within said detonation cavities.

2,833,216
JET-PROPELLED MISSILE
Howard E. Rommel, Bridgeport, Conn.
Application August 26, 1952, Serial No. 306,451
5 Claims. (Cl. 102—34)



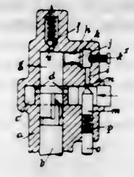
1. Apparatus comprising in combination, a housing member defining a chamber; means adapted to be rotated relatively to said chamber to effect closing of said chamber; a combustible fuel in said chamber including a plurality of relatively rotatable portions and adapted during combustion to generate a relatively large volume of gas; means within said chamber adapted to prevent the rotation of one of said portions relatively to said chamber; means connected to said closing means adapted to prevent relative rotation of the other portion of said fuel means relatively to said closing means; friction ignitible material between said portions of fuel and adapted to be ignited by the relative rotation between said portions occasioned by the rotation of said closing means; and an orifice extending from within said chamber to the atmosphere and adapted to exhaust the gas generated by the combustion of said fuel.

2,833,217
FLUID PUMP
Leo C. Bullington, Montebello, Calif.
Application September 8, 1953, Serial No. 378,774
4 Claims. (Cl. 103—37)



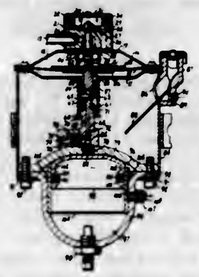
1. Mechanism employing fluid and comprising: a housing having a pair of cylinders therein; a pair of shafts rotatably mounted in said housing, each shaft having a crank therein; a pair of pistons reciprocable, respectively, in said cylinders; a pair of piston rods connecting said pistons, respectively, to the respective cranks; resilient linking means torsionally linking said shafts so that one shaft may drive the other; said linking means including dashpot means effective to dampen rapid phase displacements between said shafts; said dashpot means comprising a housing secured to one of said shafts and having a dashpot cylinder therein, a dashpot crank formed on the other of said shafts, a dashpot piston reciprocable in said dashpot cylinder, a dashpot piston rod connected between said dashpot piston and dashpot crank, and restricted conduit means communicating with said dashpot cylinder; fluid conduit means connecting said cylinders; inlet conduit means to said cylinders including check valve means; and outlet conduit means from said cylinders including check valve means.

2,833,218
LIQUID FUEL INJECTION PUMPS FOR INTERNAL COMBUSTION ENGINES
Fraser Mackie Evans, Acton, London, England, assignor to C. A. V. Limited, Acton, London, England
Application December 14, 1954, Serial No. 475,069
Claims priority, application Great Britain December 23, 1953
5 Claims. (Cl. 103—37)



1. A liquid fuel injection pump comprising in combination a body part having therein a working chamber and a variable-volume cavity open at one end to said working chamber, a reciprocatory plunger slidable in said working chamber, a fuel inlet which communicates with and serves to admit fuel to said working chamber when said plunger is at one end of its stroke, a fuel outlet which communicates at one end with said working chamber and through which fuel admitted to said working chamber from said inlet is dischargable by said plunger, a shuttle freely slidable in said cavity in response to the pressure in said working chamber, and means including a control valve situated between said inlet and the end of said cavity remote from said working chamber for exposing the corresponding end of said shuttle to fuel from said inlet so that reciprocation of said plunger is accompanied by reciprocation of said shuttle only when said valve is open.

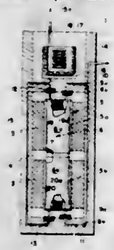
2,833,219
HYDRAULIC CONVERTER
George W. Lewis, Toledo, Ohio
Application August 18, 1954, Serial No. 450,774
5 Claims. (Cl. 103—50)



1. In combination, a cylinder, a reciprocating piston movable in said cylinder, a reservoir retaining a liquid surrounding said cylinder, a valve means on a wall of

said cylinder open for the entrance of liquid from said reservoir when the piston is moved in one direction and closed upon the discharge of the liquid from said cylinder in response to the movement of the piston in a different direction, a pressurized accumulator of the piston type carried by said reservoir operatively connected to said cylinder including valve means in said connection for establishing a predetermined working super-atmospheric pressure of high intensity for the liquid discharged from said cylinder into said pressurized accumulator, and a diaphragm motor also carried by said reservoir operable by engine manifold vacuum including resilient means operatively connected to said reciprocating piston for moving the same in its discharge stroke to thereby effect the conversion of variable sub-atmospheric pressure into hydraulic super-atmospheric pressure of high intensity.

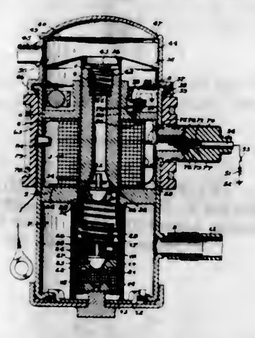
2,833,220
DOUBLE-ACTING FLUID PRESSURE PUMP
Billy W. Robinson, Santa Ana, Robert C. Cruzan, Bellflower, and Doyle E. Wilcox, Puente, Calif., assignors to North American Aviation, Inc.
Application October 8, 1954, Serial No. 461,208
1 Claim. (Cl. 103—53)



A double-acting, reciprocating pump comprising a closed-ended, cylindrical plunger; said plunger comprising first and second magnetic sections having a non-magnetic disc therebetween, said disc being of predetermined thickness, a cylinder having non-magnetic sections surrounding said plunger and forming pump chambers with the plunger at either end of the cylinder, electromagnetic means to reciprocate said plunger within said cylinder, said last means including a first solenoid coil surrounding said cylinder and said first section of said plunger, a second solenoid coil surrounding said cylinder and said second section of said plunger, and a magnetic spacer ring of predetermined thickness which is substantially greater than said disc thickness, said coils being separated by said magnetic spacer ring which is fitted in said cylinder and which forms a part of the internal face thereof, said ring abutting said non-magnetic disc, an inlet port means and an outlet port means at either end of said cylinder for receiving and exhausting fluid into and from the pump chambers formed at either end of the cylinder.

2,833,221
ELECTRO-MAGNETIC PLUNGER PUMP
John W. Dickey, Newfield, N. Y., assignor to Bendix Aviation Corporation, a corporation of Delaware
Application October 27, 1954, Serial No. 464,940
5 Claims. (Cl. 103—53)

1. In an electromagnetic pump a cylinder of non-magnetic material, a hollow magnetic piston slidably mounted therein, an electromagnet surrounding the cylinder and piston, a cylindrical casing of magnetic material, annular pole pieces at the ends of the electromagnet supporting the magnet and cylinder assembly coaxially in the casing, said casing extending beyond both said pole pieces to provide an inlet chamber at one end and an interrupter chamber at the other end formed with a terminal radial lip, said cylinder extending into both said chambers; a cup-shaped partition member formed with a centrally located cylindrical shoulder having a sealed connection to the outlet end of the pump cylinder, and having its rim tightly embracing said lip on the end of the casing, thereby forming a closure for the interrupter chamber, a domed cap member having a rim tightly embracing the rim of the partition member and the lip of the casing and externally sealed to the casing, cooperating with said partition member to form an output chamber, means for yieldingly biasing the piston



toward the output chamber, means for intermittently energizing the electromagnet to draw the piston toward the input chamber and valve means for transferring liquid from the input chamber to the output chamber responsive to reciprocation of the piston; including further a flexible impervious diaphragm and means for hermetically sealing the rim of the diaphragm to the interior of the cup in spaced relation to the dome, to thereby provide an expansible dome chamber partitioned off from the output chamber.

2,833,222
WATER AND OIL DEGASIFYING WELL
Alfred E. Hansen, Muskegon, Mich.
Application June 11, 1954, Serial No. 436,050
4 Claims. (Cl. 103—113)



1. In a well, the combination with a casing extending below the ground level of the liquid to be pumped so that a substantial length of the casing is filled with the liquid, a gas separator sleeve disposed in spaced concentric relation within said casing to be surrounded by ground liquid therein, said sleeve being closed at its lower end and having a gas exhaust at its upper end, a pump discharge column pipe disposed in spaced concentric relation within said sleeve and opening at its lower end thereto, a plurality of annular impact plates mounted on said pump discharge column and in vertically spaced

relation, with their peripheries in spaced relation to said sleeve, annular vertically corrugated impingement members mounted on said pipe below and closely adjacent to said impact plates, radially directed angularly spaced nozzles mounted on said sleeve to discharge against said impingement members and opening to said well casing, said plates, members and nozzles coacting to break up the water facilitating the escape of gas therefrom through said sleeve.

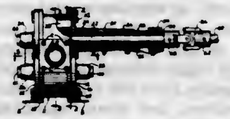
2,833,223
BEARING ARRANGEMENT FOR HYDRAULIC APPARATUS
Otto Nübling, Weener (Ems), Germany, assignor to Firma Theodor Klatte, Bremen-Huchting, Germany
Application November 30, 1953, Serial No. 395,230
Claims priority, application Germany November 28, 1952
10 Claims. (Cl. 103—126)



1. In a hydraulic apparatus, in combination, a rotary annular outer member having inner teeth; a rotary inner member located within said outer member and having an axis of rotation parallel to the axis of rotation of said outer member, said inner member having outer teeth meshing with said inner teeth of said outer member and defining with said outer member liquid-receiving chamber means adapted to receive a liquid under negative pressure, and liquid-discharging chamber means adapted to discharge a liquid under positive pressure so that the liquid in said chamber means presses said inner and outer members against each other; at least one tubular journal member rigid with said outer member and being formed with an inner cylindrical surface coaxial with said outer member and formed by a generatrix moving about the axis of said outer member at a distance equal to the radius of the pitch circle of the inner teeth of said outer member, the diameter of said inner cylindrical surface being substantially equal to the diameter of the pitch circle of said inner teeth of said outer member; and a shaft rigid with said inner member and having a shaft portion with an outer cylindrical surface coaxial with said inner member and being formed by a generatrix moving about the axis of said inner member at a distance equal to the radius of the pitch circle of said outer teeth of said inner member, the diameter of said outer cylindrical surface being substantially equal to the diameter of the pitch circle of said outer teeth of said inner member, said shaft portion being arranged within said tubular journal member with said outer cylindrical surface thereof engaging said inner cylindrical surface of said tubular journal member along a line of engagement and rolling thereon during relative turning of said rotary inner and outer members whereby sliding friction between said cylindrical surfaces is avoided.

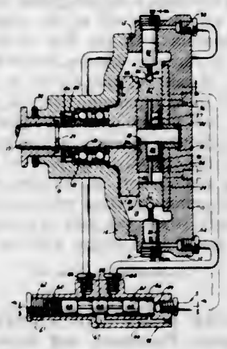
2,833,224
ROTARY PUMPS
Owen A. Meyer and Sigurd J. Andreasen, Bowie, Tex.
Application March 5, 1956, Serial No. 569,596
2 Claims. (Cl. 103—126)

1. In a housing for a gear pump utilizing a pair of gears, each of which gears is mounted on a shaft, and which gears are adapted to run in meshed relation; an end plate on each end of said housing, a pair of bosses extending outwardly in aligned relation from each of said end plates, each of said bosses having a bore formed therethrough, opposed pairs of said bores being in axial alignment, the axes of which bores are spaced apart transversely the pitch diameter of one of said gears, each pair of opposed bores being adapted to receive one of said shafts, one of said bosses of one pair of bosses extending outwardly a substantially greater distance than the other of said bosses, a counter bore formed in one of said end plates and extending into said boss which extends outward a greater distance than the other of said bosses, a counter bore in the outer end of said last mentioned boss, a sleeve bearing fitted in each of said counter bores of said last mentioned boss so said bearings will be spaced apart longitudinally, which sleeve bearings support one of said shafts in close fitting, bearing relation therein, said last mentioned boss and said last mentioned



shaft forming an annular opening between said sleeve bearings, a passage formed in said last mentioned boss and connected with said annular opening, a lubricant fitting within the passage of said boss, a packing positioned around said shaft outward of said outer sleeve bearing within said outer counter bore in said boss, said packing being in contact relation with said bearing, a gland within said outermost counterbore, said outwardly extending boss being threaded at its outer end; apertured, threaded means adapted to surround said shaft and to threadably engage said boss and be in contact relation with said gland, and set screw means screw threaded into said boss for securing said outer bearing against relative movement with respect to said boss.

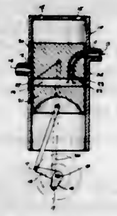
2,833,225
HYDRAULIC PUMP STRUCTURE
Floyd A. Sherman, Birmingham, Mich., assignor to Motor Products Corporation, Detroit, Mich., a corporation of New York
Application August 25, 1954, Serial No. 452,169
5 Claims. (Cl. 103—161)



1. A pump assembly comprising a body, a part supported for rotation relative to the body and having circumferentially spaced radially extending cylinders of rectangular section closed at the radially inner ends and open at the radially outer ends, said part providing radial walls for three sides of said respective cylinders, pistons of rectangular section respectively slidably supported in the cylinders and coacting therewith in defining pumping chambers radially inwardly of the pistons, said body having a bearing surface which constitutes a fourth side wall of said respective cylinders, being slidably engaged flatwise by an adjacent side of said respective pistons, a cam ring encircling the radially outer ends of the cylinders

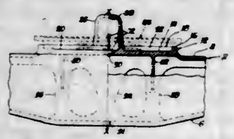
beyond the pistons, means for holding the radially outer ends of the pistons into engagement with the inner surface of the cam, said holding means comprising pins respectively slidably supported in circumferentially spaced bores extending radially through the inner walls of the cylinders and having the outer ends respectively engageable with the inner ends of the pistons, a ring surrounding the axis of rotation of the rotatable part in a position to engage the radially inner ends of the pins and supported by said part for floating movement radially with respect to the axis of rotation of said part, the inner surface of the cam ring being contoured to effect successive movement of the pistons inwardly and outwardly in response to rotation of said part, thereby to discharge and draw in fluid, respectively, in relation to said pumping chambers, an inlet passage positioned within the body to introduce fluid into the cylinders upon outward movement of the pistons and an outlet passage in the body for receiving fluid under pressure from the cylinders upon inward movement of the pistons, and means maintaining said part in end sealed engagement with said bearing surface.

2,833,226
PUMPS AND COMPRESSORS
Albin de Lange de Meux, Montreal, Quebec, Canada
Application January 19, 1954, Serial No. 405,005
Claims priority, application Canada January 5, 1954
5 Claims. (Cl. 103—166)



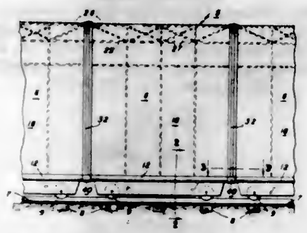
1. A machine for use as a pump or engine comprising a cylinder, a crankshaft arranged at one end of said cylinder, a first piston reciprocal in said cylinder and connected to the crankshaft, a second piston reciprocal in the same cylinder and connected to the crankshaft in out of phase relationship with the first piston whereby to define a space of variable volume between the respective operative faces of said pistons, a port so situated in the cylinder wall as to be in communication with said space only when the first piston is in the vicinity of its outer dead centre position, a passage extending through said first piston from the operative face thereof to a peripheral face thereof, a second port so situated in the cylinder wall as to be in communication with said space through said passage only when the said first piston is in the vicinity of its inner dead centre position.

2,833,227
CAR BODY MOUNTING
Charles L. Heater, Flossmoor, and Robert B. Cottrell, Deerfield, Ill., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application May 6, 1953, Serial No. 353,342
14 Claims. (Cl. 105—199)



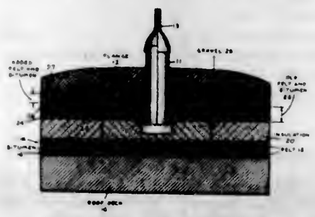
1. In a railway freight car; the combination of a truck bolster having a center bearing with two pairs of stop surfaces, each pair of surfaces converging toward the other pair, a car body with a bearing portion rotatably seated on said bearing, said portion having two pairs of faces engageable with said surfaces, respectively, to limit relative rotation between said bolster and car body.

2,833,228
DRAIN CHANNEL AND TROUGH FOR STORAGE SHELTERS
Joseph E. Martin, Detroit, Mich.
Application July 27, 1953, Serial No. 370,310
7 Claims. (Cl. 108—1)



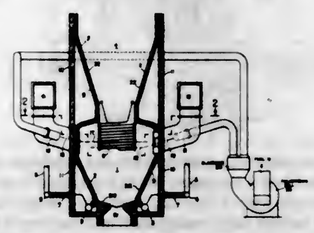
6. In a mobile storage shelter including a series of sectional arch-shaped shelter units adapted to be arranged end to end to form a continuous shelter structure, flexible sealing flaps projecting beyond the end edges of each shelter unit adapted to overlap one another and seal the joint between adjacent units when the same are in alinement longitudinally, channel members carried by and extending along the lower side edges of said sectional units adapted to be longitudinally aligned when said shelter units are in abutting relation with their ends spaced one from another when said units are assembled, and flexible connector members extending beyond the edges of said shelter units and arranged to project beyond the end edges of said channel members to overlap one another when said sectional units are placed together, said flexible connector members being formed of rubber and of the same sectional shape as the channel members with their projecting ends cut on a bias to permit random overlapping of said connectors one with the other when the sectional storage units are moved together either laterally or longitudinally.

2,833,229
ROOF CONSTRUCTION
Joseph W. Donegan, New Brunswick, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application January 17, 1955, Serial No. 482,168
6 Claims. (Cl. 108—6)



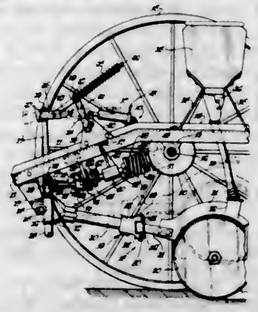
1. A roof construction comprising a layer of porous insulating material disposed between upper and lower vapor impermeable membranes, a manifolding space defined by said material and one of said membranes, and a conduit extending from said manifolding space and through one of said membranes, said conduit having therein a unidirectional valve arranged and adapted to permit passage of vapor from said insulating material and said space through said membrane and to prevent return of gases into the interior of the roof structure.

2,833,230
PULVERIZED COAL FIRING SYSTEM
Julius Krug, Stuttgart, Germany, assignor to Kohlenscheidungs-Gesellschaft, m. b. H., a corporation of Germany
Application April 22, 1954, Serial No. 425,007
6 Claims. (Cl. 110—28)



1. In a fuel burning system for burning finely divided fuel and in which the fuel residue is discharged in a molten condition, the combination of a cyclonic furnace chamber having means forming an opening for discharging the molten fuel residue at one end thereof and means forming an opening for discharging the gases of combustion at the opposite end thereof, first burner means located in the periphery of said cyclone chamber for feeding a first mixture of fuel and fuel carrying gas and air for combustion into said furnace chamber in a direction tangential to a first firing circle, second burner means located in the periphery of said cyclone chamber for feeding a second mixture of fuel and fuel carrying gas and air for combustion into said furnace chamber in a direction tangential to a second firing circle, said first firing circle being of smaller diameter than said second firing circle, and the total outer surface of the fuel for each unit of carrying gas and pound of fuel contained in said first mixture being smaller than the total outer surface of the fuel for each unit of carrying gas and pound of fuel contained in said second mixture, whereby said first mixture is preheated by penetrating said burning second mixture, said second mixture being more readily ignitable by virtue of the larger surface thereof.

2,833,231
GRAIN DRILL WITH LATERALLY SWINGING FURROW OPENER
Frank J. Dahlinghaus, Minster, Ohio
Application October 20, 1953, Serial No. 387,219
6 Claims. (Cl. 111—14)



6. In a material dispenser including a receptacle, a supporting frame therefor and a tool-carrying drawbar, means pivotally connecting the forward end of said drawbar to the frame comprising a pivot rod extending generally vertically when the tool-carrying drawbar is in operating position, means for mounting said rod on the frame for rocking thereof in a vertical plane to move said drawbar between operating and transport positions, power transmission means on the frame, mechanism operatively connecting said power transmission means to said drawbar comprising a transverse reciprocating member, depending links pivotally connected to the frame and to said member to accommodate said reciprocation thereof, and an operating connection between said member and said drawbar for swinging the latter about the axis of said rod in response to reciprocation of the member.

2,833,232
HIGH SPEED PLANTER MECHANISM
Clarence C. Haas and Robert F. Vance, Richmond, Ind., assignors to International Harvester Company, a corporation of New Jersey
Application July 2, 1956, Serial No. 595,542
8 Claims. (Cl. 111—51)

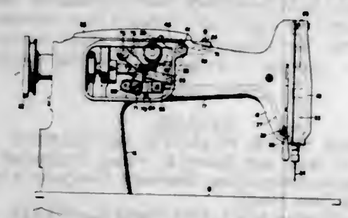


1. In a planter including a housing and a generally vertical seed tube substantially stationarily mounted in the housing having openings in the top and bottom thereof for the passage of seed therethrough, valve means associated with the opening in the bottom of said tube to control the discharge of seed comprising a rockable member pivotally mounted on the housing having an opening therein to slidably receive the lower end of said tube and a discharge outlet, a gate member pivotally mounted on the lower portion of said rockable member at a location spaced from the latter's pivot in the housing for swinging relative to the rockable member to and from a position closing said discharge outlet, link means connected to said housing and to said gate member operative to react against said housing and swing said gate in response to the rocking of said rockable member, and actuating means operatively connected to said rockable member for rocking the latter.

2,833,233
ZIGZAG SEWING MACHINES
Anthony F. D'Amico, South Norwalk, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application May 27, 1954, Serial No. 432,637
6 Claims. (Cl. 112—158)

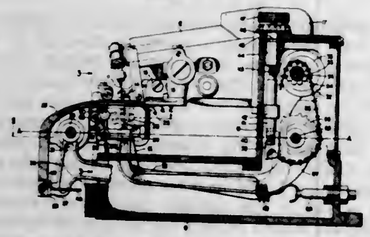
1. In an ornamental seam sewing machine, a hollow bracket-arm, a rotary main drive shaft disposed lengthwise of and within said bracket-arm, a vibratory needle-bar frame carried by said bracket-arm, a needle-bar journaled for endwise reciprocation in said frame, a rotary

pattern cam, and means associated with said pattern cam for vibrating and controlling the vibrations of said frame, said means comprising four parallel shafts mounted within and crosswise of said bracket-arm, one of said shafts being connected with said main shaft for rotation thereby and having said rotary pattern cam removably mounted thereupon, a lever disposed within said bracket-arm and pivotally supported at one end thereof by a second one of said parallel shafts, a cam follower lever pivotally supported by a third one of said shafts and being biased



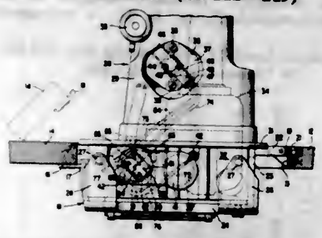
against said rotary pattern cam, a link connecting said cam follower lever with the free end portion of said first mentioned lever for rocking the latter about its pivot, a pitman having one end connected with said needle-bar frame and its other end connected with said first mentioned lever for transferring the motion of such lever to the needle-bar frame, and means carried by the fourth of said shafts and connected with said pitman for adjusting the connection point of said pitman and its associated lever lengthwise of such lever thereby to alter the amplitude of needle-bar frame vibration.

2,833,234
WORK-PRESENTING MECHANISMS FOR BLIND-STITCH SEWING MACHINES
Frank Parry, Trumbull, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application August 2, 1955, Serial No. 525,970
3 Claims. (Cl. 112—178)



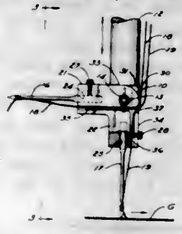
1. In a blindstitch sewing machine having a machine frame, a work supporting table pivoted on said machine frame, manually operable means carried by said machine frame for turning said work supporting table with respect to said frame, a rock frame journaled in said work table and a ridge former journaled for oscillation in said rock frame, and skip stitch mechanism for said ridge former comprising, an eccentric carried by said machine frame, a pitman embracing said eccentric, a link pivoted on said rock frame on an axis parallel to that about which said rock frame is journaled in said work table, a pivotal connection between said link and said pitman, and an anchor link pivoted on said machine frame and on said last mentioned pivotal connection, said last mentioned pivotal connection being disposed substantially on a line joining the pivotal axis of said work-supporting table and the pivotal axis of said eccentric to minimize the effect upon the skip stitch mechanism of angular adjustment of said work supporting table.

2,833,235
SEWING MACHINES EQUIPPED WITH ELECTRIC SWITCH CONTROLS
Leonard Smellie, Bound Brook, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application March 10, 1954, Serial No. 415,214
7 Claims. (Cl. 112—219)



1. In combination a portable sewing machine unit comprising a bed and a standard rising from said bed; an electric motor supported by and movable with said unit; an electric switch, so constructed and arranged as to be capable of being either electrically closed or electrically open, said switch being supported by and movable with said unit, said electric switch being of the type that when said unit is in one selected position said switch will be closed and when said unit is in another selected position said switch will be open; electric conductors for connecting said motor to said switch; and means for supplying electric energy to said motor and said switch.

2,833,236
NEEDLE HOLDER
Nicholas De Simone, Ashtabula, Ohio
Application November 22, 1955, Serial No. 548,413
3 Claims. (Cl. 112—226)

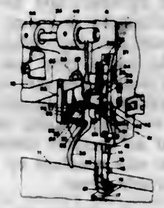


1. A needle holder for a sewing machine having a reciprocable needle bar, comprising a needle support member pivotally connected to the end portion of said bar, said member having a plurality of needle receiving bores having axes intersecting at the pivotal axis of said member, means on said member for locking a needle in each of said bores, said member having a plurality of thread guide grooves corresponding to the number of said bores, each groove extending from a thread entry point on said member adjacent said pivotal axis and in the direction of the axis of the associated needle bore for guiding a thread toward the needle supported in the bore.

2,833,237
THREAD TENSION RELEASE AND PRESSER BAR LIFTER
Karl Kleemann, Kaiserslautern, Germany, assignor to G. M. Pfaff A. G., Kaiserslautern, West Germany, a corporation of West Germany
Application August 15, 1955, Serial No. 528,401
Claims priority, application Germany August 16, 1954
5 Claims. (Cl. 112—238)

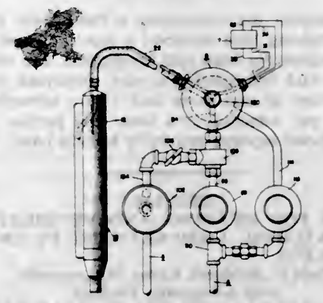
1. A device for a sewing machine having a reciprocable presser bar, a presser bar lifter movably mounted on

said sewing machine operably engageable with said presser bar to lift said bar upon movement of said lifter and thread tension release means including a reciprocable release pin, which device comprises a lever pivotally mounted on said sewing machine, said presser bar lifter being operably engageable with said lever separately of said presser bar to rotate said lever upon actuation of



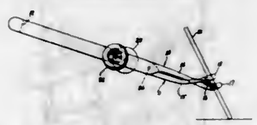
said presser bar lifter to lift said presser bar, a block having a tapered end slidably mounted on said machine with its tapered end extendable past an end of said release pin in sliding engagement therewith to reciprocate said release pin, and means biasing the other end of said block into engagement with said lever opposing said rotation of said lever and biasing said tapered end of said block out of engagement with said pin.

2,833,238
ULTRASONIC BRAZING UNIT
James Byron Jones, West Chester, Alfred L. Fuchs, Jr., Broomall, and William Rugh Bailey, West Chester, Pa., assignors to Aeroprojects, Inc., West Chester, Pa., a corporation of Pennsylvania
Application July 26, 1956, Serial No. 600,198
7 Claims. (Cl. 113—59)



1. An ultrasonic brazing unit including a longitudinal and generally imperforate housing, transducer means for producing vibratory energy within said housing, a brazing tip coupled to said transducer means, said brazing tip projecting outside of said housing through an opening in the wall thereof, a gas burner disposed within said housing and embracing said brazing tip, a perforation in the wall of said housing spaced intermediate said transducer means and said gas burner, an inlet to said housing adjacent the end of said transducer means and remote from said brazing tip, insulated flexible electrical conductors extending through said inlet into said housing to said transducer means, a flexible conduit for conveying combustible gas to said gas burner extending through said inlet and said housing and secured to said gas burner, and a flexible conduit secured to said inlet, said flexible conduit embracing said insulated electrical conductors and said gas conduit and having sufficient free space therewithin to provide for the entry of cooling gas to the interior of said housing, means for propelling cooling gas through said housing, which cooling gas escapes from said housing through said perforation in the housing.

2,833,239
DEVICE FOR HOLDING SOLDER
Wilmer C. Larsen, Fairmont, Minn.
Application November 24, 1954, Serial No. 470,943
3 Claims. (Cl. 113—111)



1. A device for holding solder for fine soldering operations which comprises a pair of opposed arms attached together at one end, the lower ends of said arms being narrower than the main portion of said arms and displaced on opposite edges of said arms with a slightly inwardly curved bow permitting the lower arm portions to cross over and return with tips of said lower arm portions in opposed relation, stable holding means for strip solder disposed on the tip of one of said arms comprising elongated stabilizing channel means disposed at an acute angle with respect to the axis of said arm, gripper means on the opposed tip of the other arm normally tensioned against the solder holding means to firmly hold solder therein and positive pressure applying means comprising slightly longitudinally displaced pins affixed to the insides of the opposed arms, each pin passing through an opening in the opposite arm and terminating in a finger gripping member on the outer side of the opposite arm.

2,833,240
TWO PIECE INTERCHANGEABLE DECK FITTING
Walter J. Semolic, Meriden, Conn.
Application August 13, 1956, Serial No. 603,695
1 Claim. (Cl. 114—218)



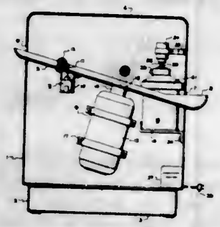
A demountable boat deck fitting set comprising a flat substantially rectangular base member, means for securing said base member to the deck of a boat, said base member having an upstanding square central post provided with a horizontal inwardly extending recess in one face thereof, an upper head member having an interior square vertical cavity shaped to non-rotatably fit upon said post, and a horizontal set screw passing through the outer portion of one side of said head member, fitting into the horizontal recess in said post for detachably locking said head member upon said base member.

2,833,241
MACHINE FOR COATING SPHERICAL OBJECTS
George C. Crowley, Asheboro, N. C., and Robert J. Sertl, Schenectady, N. Y.
Application April 18, 1955, Serial No. 501,848
9 Claims. (Cl. 118—62)

1. In a machine for coating a spherical object such as a golf ball or the like, an air blower for producing a high velocity air stream directed in an upwardly direction, thereby to lift the object being painted and suspend and confine it in the air stream, and coating spray means directed toward the position occupied by the object being coated for coating said object.

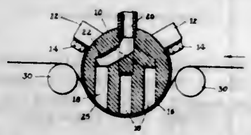
3. In a machine for coating a spherical object such as a golf ball or the like, an air blower for producing a high velocity air stream directed in an upwardly direc-

tion, electrically controlled means for guiding an object to be coated into the air stream, the object thereafter being supported on the air stream and being confined



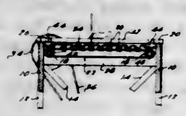
within the air stream by air flow over the spherical surface of the object, and spray means for the coating material directed to deposit such coating material on the object while supported on the air stream.

2,833,242
NOZZLE FOR STRIPING WEB MATERIALS
George G. Neidich, Rochester, Emery M. Low, Irondequoit, and Henry A. Martin, Jr., Fairport, N. Y., assignors, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application October 18, 1954, Serial No. 462,774
3 Claims. (Cl. 118—412)



3. A device for impregnating a web with a plurality of bands of ink from an ink supply means, comprising means for moving the web in a fixed path, a nozzle member formed with a plurality of ink orifices spaced in the direction parallel to the path of movement of the web and elongated in the direction transverse to the path of movement of the web, ink passages within the nozzle communicating with the ink supply means and terminating at the orifices, a thin masking plate covering the nozzle orifices and formed with a plurality of discharge openings at least one for each orifice, for confining the flow of ink only therethrough, said opening for each orifice being spaced from the others in directions both parallel to, and transverse to, the path of movement of the web, and means for detachably securing said masking plate to said nozzle member to register the openings of the masking plate in a staggered relationship with respect to their corresponding orifices in the nozzle member.

2,833,243
APPARATUS FOR COATING WINDINGS ON RODS
Earl L. McMullin, Hastings, Mich., assignor to Orchard Industries, Inc., Detroit, Mich., a corporation of Michigan
Application February 26, 1952, Serial No. 273,408
1 Claim. (Cl. 118—500)



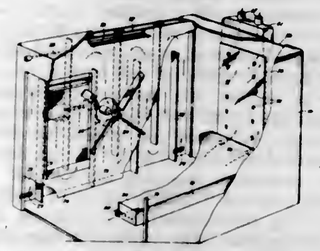
An apparatus for use in the coating of windings spaced along fishing rods and the like for mounting eyes or other parts thereon, said apparatus comprising a frame including a pair of spaced parallel rail members, a pair of supports extending transversely of and interconnecting said rails, a pair of spaced parallel shaft members rotatably mounted in said supports, a pair of endless belts trained about said shaft members to provide upper courses adapted to support a plurality of rods, said belts being adapted to be driven by at least one of said shaft members, a pair of spacer elements extending transversely of and supported on a pair of said members and having a plurality of notches spaced therealong extending below said upper courses of said belts and each adapted to receive one of said rods therein, and a hand rest member extending transversely of and mounted on said first named members and movable therealong for disposing said hand rest member adjacent windings on said rods and adapted to steady the hand of an operator during application of a coating material to said windings by said operator with a brush or other suitable means.

2,833,244
ANIMAL TOY
Walter S. Bohlman, Wilmington, Del.
Application December 7, 1956, Serial No. 626,920
4 Claims. (Cl. 119—29)



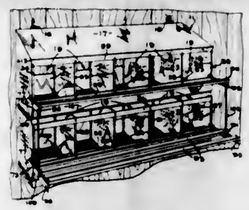
1. An animal toy comprising a hemisphere disposed as a self-righting base member; a mast attached to and extending upwardly from said hemisphere, and self-rightable with said hemisphere; a cord suspended from an upper portion of said mast; and a lure attractive to a household pet, attached to a lower end portion of said cord at a point in close proximity to said base.

2,833,245
MEANS FOR HEATING AND VENTILATING A HATCHING COMPARTMENT IN AN INCUBATOR
Basil F. Stephens, Upton St. Leonards, near Gloucester, England
Application October 25, 1954, Serial No. 464,589
3 Claims. (Cl. 119—37)



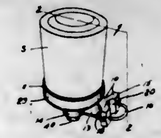
1. An incubator comprising an enclosure and a plurality of hatching units independently and fixedly mounted therein in spaced relation one above the other, each such hatching unit including a casing, an egg-receiving tray slidably arranged in said casing, and means for passing warm air through each hatching unit and out of said enclosure which is provided with a cavity common to all said units.

2,833,246
LAYING NEST FOR POULTRY
James W. Weber, Tipton, Ind., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application December 8, 1954, Serial No. 473,840
12 Claims. (Cl. 119—48)



1. A laying nest for poultry comprising a housing having a substantially uniplanar front, a sloping floor having a fixed position in the housing to enable eggs deposited by poultry on the floor to roll downwardly away from their point of deposit, and an egg abutment means attached to said housing, said abutment means being curved upwardly and outwardly from its point of attachment adjacent the lower portion of the floor into flush relation with said front to contact eggs rolling on the floor and to bring them gently to rest interiorly of said housing.

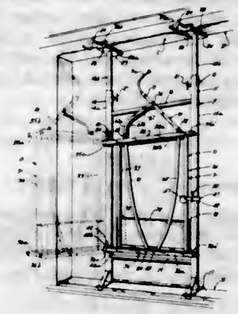
2,833,247
SALT BLOCK HOLDER
Frank Howe Beyea, Union Springs, N. Y.
Application January 19, 1955, Serial No. 482,788
5 Claims. (Cl. 119—51)



1. A holder for salt blocks, comprising in combination with a substantially vertically disposed supporting member, of a receptacle for receiving an end portion of a salt block and supporting said block in an upright position, and means rotatably connecting the receptacle with the supporting member, said means including elements disposed in angular relation with respect to each other, whereby the receptacle and salt block will be maintained in an inclined position with respect to the horizontal for the purpose set forth.

2,833,248
STOCK-HOLDERS
Gilbert Meyer, Carl Township, McPherson County, and Leslie C. Bain, Frederick, S. Dak.
Application June 4, 1956, Serial No. 589,319
5 Claims. (Cl. 119—98)

1. A portable stock holder adapted to be mounted in a doorway comprising two elongated supporting members disposed in substantially parallel spaced relation to each other adapted to be disposed in upright position in such a doorway, and a gate hingedly mounted on one of said members and pivotable thereon into open and closed position relative to the other of said members, said gate including two stanchion bars disposed in upright position when said supporting members are so disposed in said upright position, means pivotally mounting said bars at their lower end portions, and lever means mounted on and interconnecting the upper end portions of said bars for swinging said bars around said mounting means toward and away from each other between a closed position and an open position, said bars being disposed closer together when in said closed position than when in said open position, said lever means comprising two levers pivotally attached to the upper end portions of respective ones of said bars, and a pin pivotally connecting said



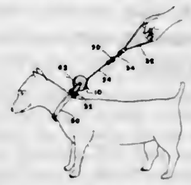
levers together in position wherein, when said bars are disposed in said closed position, said pin is disposed below the pivotal connection of said levers to said bars and said levers are effective to hold said bars against being moved outwardly relative to each other by outward pressure on said bars.

2,833,249
HAND CONTROLLED RIGID ANIMAL LEASH
Ivor Cornman, Washington, D. C.
Application June 25, 1956, Serial No. 593,659
8 Claims. (Cl. 119—109)



1. An animal leash comprising a handle adapted to be held by the master, said handle having a frame with a flexible-element-tensioning member comprising a bar pivoted at one end to said frame and free at the other end, a flexible element attached to the free end of said bar, said flexible element extending freely through a part of said frame, then through a rigidifying member which becomes rigid under compression, said flexible element then being connected at its other end to an attachment piece adapted to be secured to an animal collar, whereby as said flexible-element-tensioning member is moved with respect to said frame in one direction or another, said rigidifying member becomes stiff or relaxes.

2,833,250
SELF-RETRACTING DOG LEASH ASSEMBLY
Douglas N. Beebe, San Diego, Calif.
Application September 24, 1956, Serial No. 611,714
6 Claims. (Cl. 119—109)



1. A leash assembly comprising: a casing; a self-retracting extensible leash spirally wound in said casing and having the inner end thereof secured in fixed relation to

said casing; said casing having an opening and the outer end of said leash extending through said opening and having a handhold thereon; said leash, aside from said handhold, comprising a spring tape which in its relaxed untensioned condition consists in a relatively loosely coiled form; and means holding said casing against rotation when said leash is extended under tension, said means comprising a collar connected to the casing to prevent rotation of the casing and whereby the casing is adapted for being secured to and carried by the leashed animal in all positions of said leash.

2,833,251

WRITING INSTRUMENT

Farnham F. Boyle, St. Louis, Mo., assignor, by mesne assignments, to Ritepoint Pen and Pencil Company, St. Louis, Mo., a corporation of Missouri

Application January 28, 1955, Serial No. 484,653

6 Claims. (Cl. 120—14.5)



4. A writing instrument having a casing, a plurality of writing units movably mounted within said casing, a wheel rotatably mounted in the upper portion of said casing and being shiftable radially of its axis of rotation, a flexible cable trained around the wheel and extending at both ends into said casing, said writing units being secured to the ends of said cable, means operatively associated with said cable for keeping said cable positioned on said wheel, and detent means engageable with said wheel for locking same against rotation and keeping said writing units in a projected position during writing, said wheel being adapted, upon shifting radially of its axis of rotation, to move out of engagement with said detent means to permit rotation of said wheel and shifting of said writing units to and from projected position.

2,833,252

FOUNTAIN PEN

You K. Tom, Riverside, Calif.

Application March 14, 1955, Serial No. 493,852

4 Claims. (Cl. 120—47)

4. In a fountain pen, the combination of: a barrel having an ink reservoir therein; means providing a writing tip and providing an ink channel of variable size communicating between said ink reservoir and said writing tip, said means being carried by said barrel at one end thereof; pumping means operable from the other end of said barrel and reciprocable axially therein for filling said ink reservoir with ink through said ink channel, said pumping means including an element rotatable about the axis of said barrel from said other end thereof; and means operatively connected to said rotatable element of



said pumping means and responsive to rotation thereof about the axis of said barrel for varying the size of said ink channel to vary the rate of ink flow therethrough.

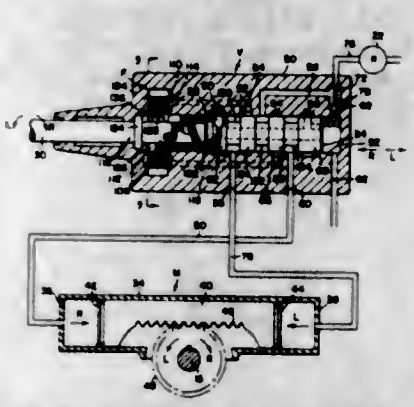
2,833,253

POWER STEERING FOR VEHICLES

Richard A. Wittren, Cedar Falls, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa

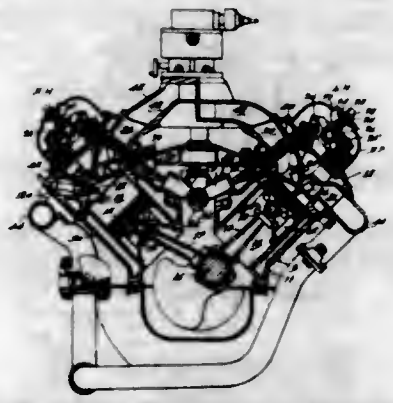
Application June 13, 1955, Serial No. 515,178

5 Claims. (Cl. 121—41)



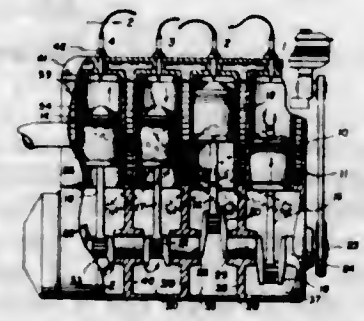
1. In a hydraulic control system: a housing having a valve bore and a flow meter chamber portion at one end of and coaxial with said bore, said chamber having opposite fluid ports and said housing having a pair of passages respectively connecting said ports to the valve bore in axially spaced apart relation, said housing further having a pressure inlet port leading to the bore axially intermediate the flow meter passages and a pair of motor passages leading to the bore respectively at axially opposite sides of the flow meter passages; flow meter means in said chamber including a rotor coaxial with the valve bore and having an axial aperture therein; a valve member axially shiftable in the bore for controlling the aforesaid passages, said valve member having one end proximate to the rotor and including at said end an axial recess in register with the rotor aperture; a control shaft journaled in the housing and having an interior end portion extending loosely through the rotor aperture and into the valve member recess; first key means interconnecting the valve member and rotor for preventing relative angular movement between the two but enabling relative axial shifting of the valve member; means restraining the rotor against axial shifting; means retaining the shaft against axial shifting; second key means interconnecting the rotor and shaft for angular movement in unison but including a lost-motion device enabling limited relative angular movement between said rotor and shaft; and helical means cooperative between the shaft and the axially recessed end of the valve member for shifting the valve member axially upon turning of the shaft relative to the rotor to control the aforesaid passages.

2,833,254
OVERHEAD VALVE ENGINE
Melbourne L. Carpentier, Detroit, and William E. Drinkard, Birmingham, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application January 4, 1955, Serial No. 479,756
8 Claims. (Cl. 123—59)



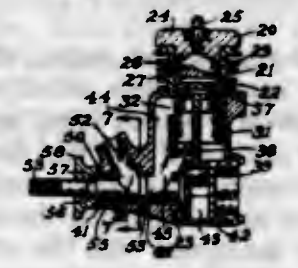
1. In an internal combustion engine, in combination, a cylinder block having a plurality of cylinder bores arranged longitudinally of the engine with their axes in a common plane, a cylinder head on said block having a mounting surface in assembled relation to said block, said head having wall means over each cylinder bore rising from said mounting surface each defining a dome-like combustion chamber having its vertical axis substantially coaxial with the vertical axis of its cylinder bore, a portion of said wall means defining each chamber being spherical and substantially conforming to part of a spherical segment of a single base having said mounting surface as its base, and said spherical surface being interrupted by recess means, a single inlet valve and a single exhaust valve disposed in said recess means of each chamber, the axis of said inlet valve being on one side of said common plane and lying in a transverse plane which is normal to said common plane and on one side of and in juxtaposition to a second transverse plane normal to said common plane and through the vertical axis of said chamber, and said inlet valve axis being inclined to said common plane at an acute angle and intersecting said common plane at a point below said mounting surface and the axis of said exhaust valve substantially paralleling said chamber axis and being offset from said common plane and said second transverse plane and on opposite sides of each of these planes from said inlet valve axis.

2,833,255
PLURAL CYLINDER TWO CYCLE ENGINE
Rafael Lejardi, Pluma Reparto El Palmar Mariano, Cuba
Application February 14, 1956, Serial No. 565,427
1 Claim. (Cl. 123—59)



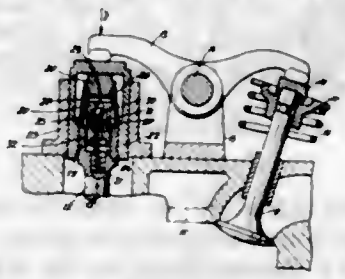
In an internal combustion engine, the combination which comprises a cylinder block having a plurality of cylinders therein, a crankcase secured to the lower end of the cylinder block, pistons in said cylinders, inlet ports in said cylinders adapted to be uncovered by the pistons in their top positions, a blower positioned on the cylinder block, an intake manifold on the cylinder block connecting the blower to said inlet ports, said crankcase having transversely disposed partitions therein forming compartments below each cylinder which communicate with said inlet port, an outlet port in each compartment, said cylinders having receiving ports adjacent the lower ends thereof adapted to be uncovered by the pistons in the lower position, connections extended between the outlet port of the compartment of one cylinder to the receiving port of another cylinder, whereby the pressure of the supercharger in combination with the pressure resulting from the first half of the downward stroke of the piston in one of the cylinders provides another cylinder with a full charge through one of said connections.

2,833,256
ONE CYLINDER TWO CYCLE ENGINE
Ernest G. Maynard, Nashua, N. H.
Application January 31, 1957, Serial No. 637,489
7 Claims. (Cl. 123—73)



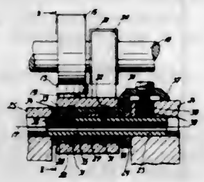
1. In a one cylinder, two cycle, internal combustion engine having a cylinder, a piston and a crankcase with a crank shaft bore the combination of a fuel inlet port in said housing connecting said crank shaft bore to a source of fuel; a fuel supply conduit in said housing, connecting said cylinder and crankcase to said bore and having a fuel outlet port at a spaced distance from said inlet port at said bore and a crank shaft rotatable in said bore and operably connected to said piston, said crank shaft forming unitary, rotary, valve plug means, including a valve port with opposite dead ends, adapted to connect said inlet and outlet ports in one angular position of said shaft and to plug said bore and disconnect said inlet and outlet ports in another angular position of said shaft during each rotation thereof.

2,833,257
VALVE CONTROL MECHANISM FOR INTERNAL COMBUSTION ENGINES
George F. W. Lengnick, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application July 5, 1955, Serial No. 520,020
8 Claims. (Cl. 123—90)



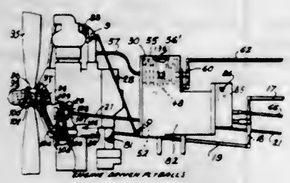
1. In an internal combustion engine, the combination comprising a valve, a reciprocating linkage connected to said valve, and a rotating cam coordinated to and adapted to impart to said linkage a reciprocatory motion transmitted to said valve, said linkage including means responsive to the rotary speed of said cam and adapted to absorb a variable part of said motion, said speed-responsive means being provided with a passage of definite size forming a hydraulic link, said variable part increasing as said rotary speed decreases, whereby the valve stroke will increase as the engine is sped up and will decrease as the engine is slowed down.

2,833,258
VALVE MECHANISM FOR INTERNAL COMBUSTION ENGINES
Manfred K. Lorscheidt, Stuttgart-Unterturkheim, and Hans Meyer, Stuttgart, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application April 11, 1956, Serial No. 577,558
Claims priority, application Germany April 28, 1955
7 Claims. (Cl. 123—90)



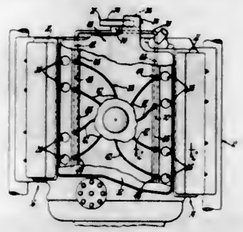
1. In an internal combustion engine, the combination comprising a valve having a stem provided with a shoulder, a cam shaft having a pair of cams, one of said cams being cooperatively associated with said stem to accelerate said valve in the opening direction, a bell crank having a hub and a pair of arms extending therefrom, one arm being cooperatively associated with the other one of said cams, the other arm engaging said shoulder to accelerate said valve in the closing direction, a pivot pin carrying said bell crank, and means for adjusting the axis of rotation of said bell crank in any desired direction, said means including a pair of relatively rotatable sleeves interposed in nested relationship between said pivot pin and said hub, each sleeve having relatively eccentric cylindrical faces on the inside and on the outside and an end flange, a detent member engaging both of said flanges, and means for releasably securing said detent member.

2,833,259
POWERPLANT TEMPERATURE REGULATING DEVICE
Ferdinando Carlo Reggio, Norwalk, Conn.
Continuation of application Serial No. 423,001, December 15, 1941. This application January 10, 1956, Serial No. 558,257
24 Claims. (Cl. 123—103)



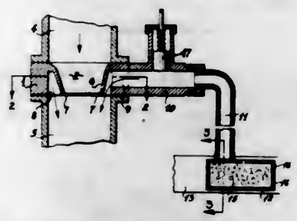
1. A pressure regulator for supercharged internal combustion engines comprising a servo-motor, means for connecting it with a throttle valve, in the air or fuel-mixture conduit of the engine, a manually operated member, a device responsive to engine intake pressure, servo-motor control means under control by said member for the purpose of selecting a pressure to be maintained and under control by the pressure responsive device for causing the servo-motor so to operate the throttle valve that a selected pressure is maintained, and means independent of the manually operated member for modifying the action of the servo-motor control means to prevent the maintenance of a high intake pressure when the temperature of the intake air or fuel mixture is reached such that engine detonation occurs with the high intake pressure.

2,833,260
ATMOSPHERIC VENT FOR FUEL INJECTION NOZZLE
John Dolza, Davisburg, and Raymond J. Haefner, Ferndale, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 31, 1955, Serial No. 512,170
4 Claims. (Cl. 123—119)



1. In an internal combustion engine having groups of cylinders, an induction manifold having a plurality of induction passages communicating with said cylinders for supplying a charge of air thereto, a throttle for controlling flow through the induction manifold, separate fuel nozzles for each of said induction passages, each of said nozzles having a chamber, an orifice interconnecting said chamber with an induction passage and a fuel jet for discharging metered fuel into said chamber and through said orifice, a second manifold having a separate branch for each of said groups of cylinders, each of said branches communicating with the chambers in the nozzles in one of said groups, said branches being interconnected with each other by means of a common air supply having an air flow therein that will insure a uniform distribution of air between each of said branches, the second air manifold anterior of said nozzles being separate and distinct from said induction manifold whereby the air flow through the second manifold is unaffected by air flow through the induction manifold anterior of the throttle.

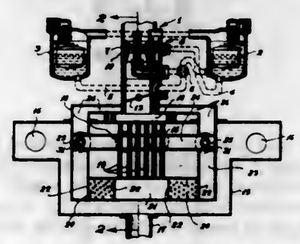
2,833,261
ACCESSORY DEVICE FOR USE IN INTERNAL COMBUSTION ENGINES
Pablo August, Bernal, Argentina
Application January 16, 1956, Serial No. 559,338
Claims priority, application Germany October 18, 1955
10 Claims. (Cl. 123—122)



1. Accessory device for use in internal combustion engines employing a carburetor, comprising a perforated flat body capable of being interposed between the carburetor and the working cylinder, a cone-shaped member arranged within the performation of said flat body in such a manner that its larger end is secured to the inner wall of the entrance opening of said perforation, whereas its smaller end forms a contact-breaking edge for the fuel condensate coming from the carburetor and travelling along the inner surface of said cone-shaped member, an annular channel formed around the latter and communicated at said contact-breaking edge with the fuel intake of said working cylinder and by way of a lateral opening with a conduit means in said flat body for the

supply of a current of hot air to said contact-breaking edge and for the formation of a tubular curtain of hot air on the inner surface of said fuel-intake, an air heating device connected with said conduit means, a throttle valve arranged in this conduit means and operatively connected with an accelerator of the engine, and a vacuum-controlled valve having its valve casing connected by a conduit means with said fuel intake of the working cylinder of the engine for regulating the quality of the fuel-air mixture admitted to said working cylinder.

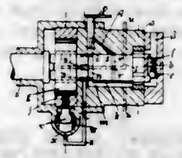
2,833,262
FUEL-GASIFYING DEVICE FOR GASOLINE ENGINES
Pablo August, Buenos Aires, Argentina
Application September 13, 1954, Serial No. 455,471
5 Claims. (Cl. 123—133)



1. In an internal combustion engine having at least one working cylinder, a fuel gasifying device comprising, in combination, at least one carburetor, first air admission means in said carburetor comprising a first Venturi, and fuel admission means in said carburetor comprising a nozzle disposed in said first Venturi, said Venturi being so dimensioned relative to said nozzle as to yield a fuel-air mixture enriched in fuel, a fuel treating device connected to the outlet of said carburetor for heating said fuel air mixture so as to completely gasify the same and for thermally and catalytically cracking at least partially the fuel in said mixture, second air admission means comprising a second Venturi of a cross-sectional area substantially larger than said first Venturi, a mixing device connected to said fuel-treating device and to said second air admission means, said mixing means serving for preparing the final air-fuel mixture by homogeneously admixing fresh air from said second air admission means to the treated fuel-air mixture from said fuel treating device by bringing the same together in counter-current rotation, and in such quantities as required for the combustion of the fuel in said final mixture, said mixing means being disposed directly adjacent and connected to the intake opening of said working cylinder for delivering the final air-fuel mixture thereto.

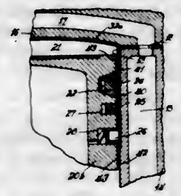
2,833,263
LIQUID FUEL PUMPS FOR INTERNAL COMBUSTION ENGINES
Fraser Mackie Evans, London, England, assignor to C. A. V. Limited, London, England
Application May 4, 1956, Serial No. 582,728
Claims priority, application Great Britain May 13, 1955
7 Claims. (Cl. 123—139)

1. Means for supplying liquid fuel to a multi-cylinder internal combustion engine, comprising in combination a feed pump, an injection pump, an adjustable throttle for controlling the rate of supply of liquid fuel from the feed pump to the injection pump, a rotary distributor for conveying successive discharges from the injection pump to the engine cylinders in turn, an adjustable cam for effecting discharge of the injection pump, a spring-loaded cam-adjusting plunger having an operative connection with the cam, a cylinder containing the plunger, a passage for conveying liquid fuel from the feed pump to one end of the cylinder, and means operable by the distributor for interrupting fuel flow through the passage prior to each discharge of the injection pump for entrapping



liquid fuel in the said end o fthe cylinder, and thereby determining the angular position of the cam at the instant of commencement of each discharge of the injection pump.

2,833,264
INTERNAL COMBUSTION ENGINE
Joseph J. Dailey, East Peoria, and Carl G. A. Rosen, Peoria, Ill., assignors, by mesne assignments, to John Altorfer, Peoria, Ill.
Application December 22, 1954, Serial No. 477,006
16 Claims. (Cl. 123—191)



1. For use with an internal combustion engine, a lightweight piston having a head and skirt, integral disk and annular portions mounted on the head and skirt of a material which is relatively harder than that of the piston skirt, said integral portions being intimately bonded to the material of the head and skirt by laminated layers of particles of a metal whose melting point is above the boiling point of the material of said head and skirt and said particles are in unoxidized metal to metal contact with the metal of the head and skirt at the interface therebetween.

2,833,265
MEANS FOR PRODUCING EFFICIENT IGNITION AND COMBUSTION IN INTERNAL COMBUSTION ENGINES
Norman F. Hindle, Charles D. King, and William R. Parish, Moscow, Idaho, assignors to University of Idaho Research Foundation Inc., Moscow, Idaho, a corporation of Idaho
Application March 19, 1956, Serial No. 572,501
4 Claims. (Cl. 123—191)



1. In an internal combustion engine having a cylinder, a piston in said cylinder, said cylinder having a combustion chamber at one end thereof, said piston operable to move toward said combustion chamber to compress gases therein, said piston and said cylinder having opposing surfaces that are moved into close juxtaposition as the piston is moved to the end of the cylinder having the combustion chamber therein whereby to cause the gases

between said opposing surfaces to flow into the combustion chamber, the improvement comprising a spark plug mounted on said engine and having electrodes thereon exposed within the combustion chamber, said electrodes being positioned adjacent said opposing surfaces in the path of the flow of gases from said opposing surfaces, said electrodes being elongated in the direction of flow of the gases and diverging in the direction of said flow of gases.

2,833,266
PORTABLE FISHING GUNS FOR THROWING FISHING SPEAR BY MEANS OF COMPRESSED GAS

Lodovico Mares, Rapallo, Italy
Application May 27, 1954, Serial No. 432,845
Claims priority, application Italy June 6, 1953
6 Claims. (Cl. 124—11)



5. A portable fishing gun comprising a tubular member provided with a radial opening, a tube provided with a rear block fastened to said tubular member and projecting forwardly beyond said tubular member, whereby between the front part of the tubular member interior and a part of said tube which is forwardly of said tube block an annular gap exists; a grip attached to said tubular member under said opening of said tubular member and carrying a trigger, a spring lock operatively connected to said trigger in such a manner as to project, when the trigger is not depressed, into the gap between said tubular member and said tube; a small compressed gas bottle provided with an automatic valve for permitting the refilling of said bottle which closes under the pressure of the gas in the gas bottle and having a front aperture for having access to the interior of the valve and opening said valve against the pressure of the gas in the bottle; a gun valve comprising two valve parts screwed the one into the other fitted to said bored rear block to which the said gun tube is attached; a projecting member fitted to the rear end of said gun valve; means for rigidly but dismountably connecting said gun valve with said automatic valve in such a manner that, when the members are connected together, the projecting member of the said gun valve projects into the said automatic valve and keeps the same open, and a spear having a tubular rod adapted to be slidably fitted on said tube and, in part, into the gap between said tube and said tubular member and provided at its rear end with an annular notch in such a position as to be engaged by said trigger-operated lock when the spear rod is completely slid onto said tube and provided at its front end with a spear head-carrying cap-like member containing a spring-urged packing member which, when the spear rod notch is engaged by said lock, tightly seals the muzzle of said tube.

2,833,267
COMBINATION WATER HEATER AND SPACE HEATER

Harold E. Handley, Jackson, Mich., assignor to Handley Brown Heater Company, Jackson, Mich., a corporation of Michigan
Application May 26, 1954, Serial No. 432,557
5 Claims. (Cl. 126—101)

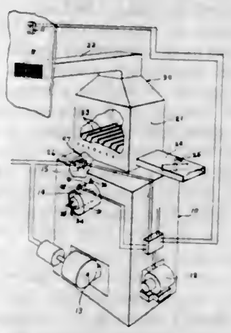
1. A combination hot air space heater and water supply heater apparatus comprising a tank, air inlet means adjacent the lower end of said tank, means defining an insulated vertically extending air passage in heat exchange relation to the exterior wall of said tank and connecting with said inlet, means defining a vertical down flow air passage extending through the interior of said tank in heat exchange relation therewith and connecting with said first passage adjacent the upper end of said tank, air outlet structure connecting with the lower end of said down flow air passage at a level adjacent the level of said air inlet means, means for heating water stored within



said tank, said passages being in substantial thermal balance to restrict air flow in said passages with said apparatus functioning solely as a water supply heater, and means associated with said passages for circulating air in said passages in heat-exchanging relation with said tank.

2,833,268
COMBINED AIR AND WATER HEATER

Albert E. Warren, Glen Cove, N. Y.
Application September 16, 1954, Serial No. 456,456
1 Claim. (Cl. 126—101)

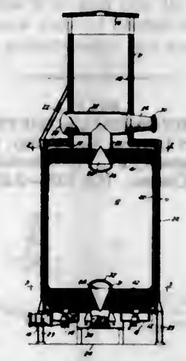


A system for heating water and also for heating a space surrounding the system, comprising a hot air furnace having a flue and having an electrically operated burner, temperature responsive means adapted to be placed in said space in control of said furnace to operate the burner when the air in the space reaches a predetermined low degree, an air duct extending upwardly from said furnace for transmitting heated air to the space, closable louvers in said duct between the furnace and the space for separating the air duct into upper and lower portions, a second duct connected with the lower portion of said air duct, and extending to the outside of the furnace, a hot water heat exchanger communicating with the flue whereby flue gases from the furnace heat the water, said heat exchanger including a water reservoir, temperature responsive means extending into the reservoir, an electric circuit to the burner including switch means controlled by the temperature responsive means for operating the burner when the temperature of the water

in the reservoir reaches a predetermined low degree, said second duct having a gate therein for diverting heated air from the lower portion of the air duct to the outside of the furnace when the gate is open and the louvers closed, whereby operation of the furnace by the last named control will heat the water but will not heat the space above the louvers.

2,833,269
AIR HEATER

John W. Throckmorton and John S. Wallis, New York, N. Y., assignors to Petro-Chem Process Company, Incorporated, New York, N. Y., a corporation of Delaware
Application September 9, 1953, Serial No. 379,264
5 Claims. (Cl. 126—109)



1. A fluid heater comprising a large cylindrical upstanding wall forming a furnace chamber, means forming a flue outlet at the top of said chamber, two cylindrical manifolds located coaxially of said chamber, one at the top and one at the bottom of the chamber, said manifolds being above and below an unobstructed space for high temperature fuel combustion and radiant heat transfer, a multiplicity of substantially vertical heat exchange tubes spaced, in a single-row cylindrical bank, close to the inner surface wall of the large furnace chamber and close to each other and having radial end extensions entering the manifolds in axially spaced relation so as to avoid interference betwen tube end extensions and to maintain the spacing thereof, said unobstructed space extending laterally within said chamber to the centrally exposed surfaces of said bank of tubes, a plurality of axially directed burners circumferentially spaced in the bottom of the chamber and located radially between the bottom manifold and the cylindrical tube bank, said lower radial end extensions of the heat exchange tubes being bent to form radial tiers extending axially between the burners so that an opening is formed above each burner.

2,833,270
OVEN DOOR HINGE ASSEMBLY

John H. Brown and Eric W. Nagel, St. Louis County, Mo., assignors to Wrought Iron Range Company, St. Louis, Mo., a corporation of Missouri
Application April 5, 1952, Serial No. 280,736
3 Claims. (Cl. 126—191)

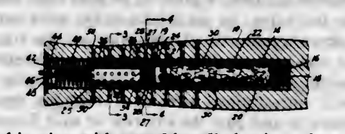
2. In an oven door pivoted to a hinge plate, said door having a slot defined by at least one substantially straight side into which slot said hinge plate extends when said door is closed, the combination with said hinge plate of a door stop comprising a ribbon of resilient material having a hump intermediate its ends of a height greater than the distance between said hinge plate and said side, and a depression atop said hump and athwart said ribbon, and means adapted to permit the mounting, for limited length-



wise movement, of said ribbon on said hinge plate with said hump extending away from said hinge plate.

2,833,271
HEATER FOR TOOL HANDLES

Clyde Barber, Al Tahoe, Calif.
Application June 1, 1955, Serial No. 512,505
1 Claim. (Cl. 126—208)



In combination with a tool handle having a bore extending inwardly from one end and terminating at a point adjacent the other end, of a heating assembly mounted in said bore, said assembly comprising a pair of hollow open ended cylinders arranged in confronting end to end relation and having the confronting ends detachably secured together in overlapping relation, one of said cylinders having the other end closed and filled with a liquid fuel absorbing material, a burner unit fixedly positioned within the other of said cylinders inwardly of the confronting end and extending across said other cylinder, said other cylinder having opposed indentations at the location of said burner unit, resilient detent means mounted on said one cylinder extending across the overlapping secured ends and having free ends retainably engaged in said indentations, there being an opening in said other cylinder at the location of said burner unit for access to said unit, said other cylinder in the portion between said burner unit and the other end being provided with a plurality of spaced perforations for egress of heated air therethrough, the portion of said tool handle complemental to said other cylinder portion being provided with openings extending transversely therethrough and in communication with said handle bore, a cap positioned adjacent to and spaced from the other end of said other cylinder, a coil spring interposed between and operatively connected to said cap and to the other end of said other cylinder, said cap closing said one end of said handle and attached to the tool handle, and another coil spring between the terminating end of said bore and the closed end of said one cylinder.

2,833,272
HAND WEED BURNER

Kenneth K. Kennepohl, Lancaster, Calif.
Application January 7, 1957, Serial No. 632,887
4 Claims. (Cl. 126—271.2)

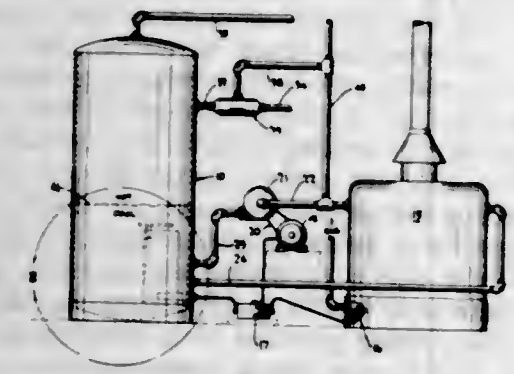
3. A portable hand operated weed burning torch comprising a torch handle having a gas passage from one end

of the handle to the other and a connection at one end for a supply of liquid petroleum gas, a supply of gas to said passage under a pressure in excess of about ten pounds per square inch, a valve in the gas passage and a valve actuating handle lying along said torch handle, a fuel supply extension pipe from the valve having an endwardly discharging fuel jet at its outermost end discharging into open air, a pilot line assembly from the valve at the supply side thereof comprising a pilot pipe having one end connected to the valve and subject to said pressure, a pilot extension portion extending outwardly beyond said fuel jet, an endwardly discharging pilot opening at the outlet end of said pilot extension portion, a generally cylindrical flame housing extending outwardly of said pilot opening and adjacent the extended axis of said fuel supply extension pipe, said flame housing being



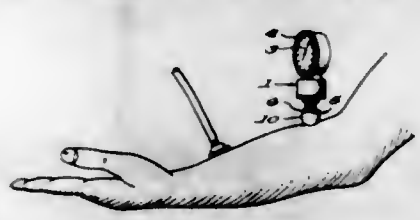
spaced endwardly clear of said fuel jet a distance enabling fuel gas to pass through the atmosphere for a distance in excess of about five inches before reaching a point of ignition adjacent said flame housing, said flame housing having a multiplicity of perforations therethrough throughout the length and circumference, and a pilot flame in said housing burning constantly during operation at a fixed preselected rate, a pilot jet in said pilot supply pipe adjacent the valve, an air intake in the pilot supply pipe on the downstream side of said pilot jet, the sizes of said pilot jet and said air intake having a predetermined set relationship, said fuel jet being adapted thereby to direct a laterally unrestrained stream of fuel gas through the atmosphere to and past the exterior of said flame housing whereby to project a mixed mass of pilot ignited fuel and air a distance outwardly of the flame housing comparable to the length of the torch.

2,833,273
HOT WATER STORAGE TANK AND WATER HEATER SYSTEM EMBODYING THE SAME
Avy L. Miller, North Hollywood, Calif.
Application May 19, 1955, Serial No. 509,571
3 Claims. (Cl. 126—362)



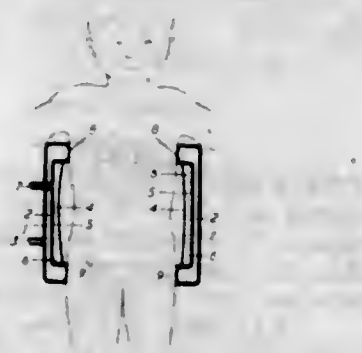
1. A water heating and storage system comprising: a circulating water heater; a cylindrical storage tank positioned with its cylindrical axis vertical; a mixing chamber located within the lower portion of said tank and of generally triangular horizontal cross-section having a pair of side walls connected together along a common vertical edge and with their free vertical edges connected to the side wall of said tank, the bottom edges of said walls being spaced above the bottom of said tank and said chamber including a generally horizontal baffle spaced above the top edges of said side walls whereby to afford upper and lower limited communication between said chamber and the interior of said tank; conduit means connecting the input and the output respectively of said heater with spaced points in said mixing chamber; a delivery port formed in the upper portion of said tank; pump means in said conduit means to effect circulation through said heater and chamber; and thermostatic control means controlling the operation of said pump means and including a temperature sensing element located in the lower portion of said tank whereby so long as the temperature of water in the lower portion of said tank is less than a predetermined value, heated water will automatically be forced into said chamber through said conduit means, while cooler water is simultaneously withdrawn from said chamber through said conduit means, said walls and baffle of said mixing chamber baffling the water entering said chamber so as to effect turbulent mixing thereof with cool water entering the lower end of said chamber from the lower portion of said tank and heated water rising by convection from the upper end of said chamber toward the upper portion of said tank and undergoing relative interchange with the contents of said tank at a sufficiently low rate that an interface is defined between water existing at said predetermined value and water existing at a lower value.

2,833,274
SPHYGMOMANOMETER
Robert J. Reiss, Sun Valley, Calif.
Application January 17, 1955, Serial No. 482,003
3 Claims. (Cl. 128—2.05)



1. In a sphygmomanometer, the combination of a fluid pressure responsive gauge including devices for visually indicating the extent of applied pressure and having a nipple containing an orifice extending from said devices to the exterior of said gauge, pressure creating devices attached to said nipple comprising a base element having an opening surrounding said nipple and connected thereto by an interposed packing and a resiliently flexible bulb having an open end attached to said base element by means effecting an air-tight seal therebetween and having the interior thereof in direct communication with said orifice with resultant transmission to said devices of fluid pressure deriving from exteriorly applied compression on said bulb.

2,833,275
MECHANICAL BREATHING APPARATUS
Edward Albert James Tunnicliffe, London, England
Application February 28, 1956, Serial No. 568,209
3 Claims. (Cl. 128—30)



1. Breathing apparatus comprising an outer reaction sleeve shaped to pass over the body of the patient and having spaced inwardly directed hollow end parts which are inflatable to contact the body of the patient at spaced boundaries of the patient's body region to be acted upon;

a diaphragm sleeve extending between said end parts and supported by the inflation thereof clear of the patient's body, whereby to provide an entrapped air cushion between said reaction sleeve end parts, said diaphragm sleeve and the patient's said body region; means to inflate said end parts to contact the body of the patient at said spaced boundaries; and means to apply a pulsating air-pressure to the surface of the diaphragm sleeve remote from the body of the patient whereby the diaphragm sleeve is caused to move inwardly and outwardly to apply a breathing action on the patient via the air trapped between the diaphragm sleeve, said end parts and the patient's said body region.

2,833,276
MOTOR OPERATED KINESITHERAPY DEVICE
Owen K. Murphy, Adamsville, Pa.
Application August 17, 1954, Serial No. 450,387
18 Claims. (Cl. 128—33)



1. A therapeutic cushion including in combination, a motor having a relatively stationary part and a rotary part journaled in said stationary part, said rotary part having a predetermined rotary unbalance well in excess of any accidental unbalance due to inaccuracy of manufacture whereby gyratory motion is transmitted to said stationary motor part, a shell structure housing said motor, means for supporting the motor in said shell structure and operative to transmit gyratory motion from said motor to said shell structure, a cushion section including motion transmitting means connected to and extending laterally from said shell structure and in a direction normal to the longitudinal axis thereof, resilient cushioning pads formed of highly resilient rubber-like composition extending laterally from one side of said shell structure in a direction normal to the longitudinal axis thereof, said motion transmitting means being compactly sandwiched between said resilient cushioning pads with the adjacent faces of said resilient cushioning pads covering and gripping the opposite faces of said motion transmitting means and in motion transmitting contact engagement therewith, said motion transmitting means embracing an area which is more than one-half the area of said resilient cushioning pads whereby gyratory motion produced by said motor is transmitted from said shell structure to said pads, and a covering envelope enclosing said motion transmitting means, and resilient cushioning pads and fitted to maintain said cushioning pads and motion transmitting means in compactly assembled relation with said cushioning pads in motion transmitting contact engagement with said motion transmitting means during operation of said motor, said cushion section being flexible in directions normal to its broad and long dimensions but relatively rigid in a direction parallel to the plan of its long and broad dimensions.

2,833,277
COMPRESSION MASSAGE INSTRUMENT
Park F. Kline, McClure, Pa.
Application November 22, 1954, Serial No. 470,415
9 Claims. (Cl. 128—35)



1. A zone-therapy compression-massage device comprising a handle, a housing within said handle, a hollow rotatable shaft within said housing, a weight operatively connected to said shaft and rotatable therewith, said weight being eccentrically mounted with said shaft, and adjustable with respect to the axis of the shaft, a cam within said shaft and engaging said weight for varying its position, a sleeve within said housing and surrounding said shaft and operatively connected to said cam, a second sleeve within said handle surrounding said housing and first sleeve and operatively connected to said first sleeve, a fixed connection between said handle and housing, means for moving said sleeves and cam relative to said handle, and a ball point applicator freely mounted at one end of said device and in axial alignment with the shaft and handle.

2,833,278
PROTECTIVE MOUTHPIECE
Harold M. Ross, Chicago, Ill.
Application April 5, 1956, Serial No. 576,448
4 Claims. (Cl. 128—136)

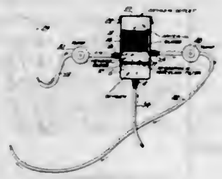


1. A protective mouthpiece comprising two resilient, bilateral, posterior, partial mouthpieces connected by a flexible labial band, each of said partial mouthpieces formed by a channel having upper and lower channel sections formed by at least one upstanding wall and at least one downwardly extending wall projecting from a web member, said web member serving to divide said channels into upper and lower channel sections, said channel sections containing an unfused thixotropic plastisol impression composition, said composition being capable of being readily shaped in the mouth to form an accurate impression of teeth, removed from the mouth and still retain said impression until fusion is desired, and fused and rendered irreversible in heated water.

2,833,279
BLOOD OXYGENATING APPARATUS
Frank Gollan, Nashville, Tenn., assignor to the United States of America as represented by the Secretary of the Army
Application May 25, 1956, Serial No. 587,433
1 Claim. (Cl. 128—214)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A blood oxygenating apparatus comprising a cylindrical vessel having an upper chamber and a lower chamber, the upper chamber being divided into an upper and a

lower portion and an intermediate portion, an oxygen inlet in the lower chamber for admitting oxygen under pressure, a venous blood inlet in the lower portion of the upper chamber of the vessel tangential to the wall of the vessel for tangentially injecting venous blood from a living subject into the vessel, a microporous porcelain filter disc between the upper chamber and the lower chamber having microscopic pores uniformly distributed throughout its mass to create a great multiplicity of microscopic jets of oxygen emanating from its upper surface and dispersing an immeasurable number of minute oxygen bubbles throughout a supply of venous blood which is ejected from the tangential blood inlet and swirls over the upper surface of the filter, the oxygen bubbles reacting with the venous blood to oxygenate it and simultaneously release carbon dioxide as a waste product, a cylindrical tube having an axis coincidental with the axis of the cylindrical vessel positioned in the intermediate portion of the upper chamber, the cylindrical tube having a diameter sufficiently smaller than the diameter of the cylindrical vessel to create an annular space between the outer surface of the tube and the inner surface of the cylindrical vessel, a support ring integral with the wall of the vessel and the wall of the tube for supporting the tube in its desired position and to separate the lower portion of the upper



chamber from the intermediate portion and to seal the bottom of the annular space from the lower portion of the upper chamber, a closely packed fibrous body having a multitude of individual fibers contained within the cylindrical tube, the fibrous body forming a multitudinous number of small interstitial spaces, individual fibers of the fibrous body being coated with an agent to break down the interfaces of the minute oxygen and carbon dioxide bubbles in the blood as it comes into contact with the fibers for causing the minute bubbles to coalesce and form increasingly large bubbles as the blood rises in the cylindrical tube and fibrous body, the resulting large bubbles of oxygen and carbon dioxide being spontaneously released from the blood by bursting upon reaching atmospheric pressure at the surface level of the blood at the top of the cylindrical tube, the upper portion of the upper chamber being provided with an opening to permit the carbon dioxide waste product and excess oxygen released from the blood at surface level to pass into the atmosphere, an arterial blood outlet positioned at the lowest point of the annular space for withdrawing resulting oxygenated gas-free arterial blood which spills over the top of the cylindrical tube into the annular space due to gravity and the pressure of the blood rising in the tube, and means for returning resulting arterial blood to the body of the living subject.

2,833,280
SYRINGE ASSEMBLY
George N. Hein, Jr., San Carlos, Calif.
Application December 19, 1952, Serial No. 326,907
19 Claims. (Cl. 128—218)

1. In a syringe assembly in combination a medicament container, a wall closing one end of said container, a hollow needle within said container and having its outer pointed end disposed adjacent said wall and means ex-



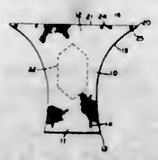
tending forwardly of said wall for projecting said needle therethrough.

2,833,281
VENTING NEEDLE
Albert E. Krug, Wyckoff, N. J., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey
Application February 25, 1953, Serial No. 338,729
2 Claims. (Cl. 128—221)



1. A venting needle including in combination a body presenting a piercing point adjacent one of its ends and said body being formed with grooves extending axially and upon opposite sides thereof, said body being formed with an opening providing communication between the base portions of said grooves and an air-pervious filtering unit passing through said opening and extending into said grooves, said unit having its ends terminating within said grooves.

2,833,282
DIAPER
Wally Moore, New York, N. Y.
Application September 5, 1956, Serial No. 608,056
1 Claim. (Cl. 128—284)



A diaper formed from a plurality of superimposed layers of absorbent fabric and being of generally rectangular shape with a central area forming a crotch portion and portions extending from each end of the crotch portion forming front and rear sections which enclose the body of the wearer, a moisture resistant pad positioned and secured between said layers in the crotch portion, the front section having openings adjacent the corners of said sections, the rear section being defined by two opposed, outwardly curved edges forming wing portions of progressively increasing width which terminate at an upper straight edge of the rear section, said wing portions extending through the openings when the diaper is on the wearer and provided with one portion of a detachable fastener at their ends, plural spaced complemental portions of the fastener secured to the sides of the rear section to secure said wing portions to said sides in place on the wearer while providing smooth unbroken front and rear central sections.

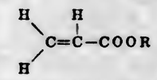
2,833,283
NONWOVEN FABRIC AND ABSORBENT PRODUCTS
Raymond J. Spahr, Cranbury, John K. Sumner, Plainfield, and Elmer J. Yedlick, Westfield, N. J., assignors to Chicopee Manufacturing Corporation, a corporation of Massachusetts
Application December 28, 1954, Serial No. 477,982
7 Claims. (Cl. 128—290)

1. A relatively soft, strong and sterilizable nonwoven fabric comprising a loosely assembled web of overlapping,

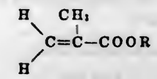
intersecting fibers, and a binder material distributed intermittently throughout the web in adhesive contact with the fibers therein and forming longitudinally and transversely spaced heat resistant bonds between the individual fibers, the distribution of the binder material being such as to retain the fibrous textile-like qualities of the original web to a large extent, said binder comprising a ma-



terial selected from the group consisting of copolymers of vinyl acetate and an alkyl acrylate, copolymers of vinyl acetate and an alkyl methacrylate and tripolymers of vinyl acetate, an alkyl acrylate, and an alkyl methacrylate and said bonds being strong and capable of resisting abrasion when wet, said acrylates having the following structural formula:



and said methacrylates having the following structural formula:



and wherein R is an alkyl radical containing less than nine carbon atoms, said binder material comprising at least about 70 percent of vinyl acetate based upon the weight of the total monomers.

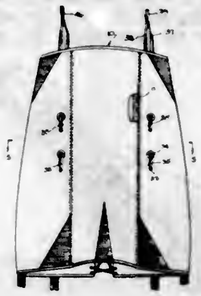
2,833,284
PATELLAR NEEDLE
Henry A. Springer, Cincinnati, Ohio
Application February 25, 1957, Serial No. 642,094
3 Claims. (Cl. 128—340)



2. A surgical instrument for repairing a fractured patella of a human being and comprising a curved needle having a point on one end, and having an eye on the other end, and a casing slidable on said needle and manually operative means to secure said casing in fixed relation at selected positions on said needle.

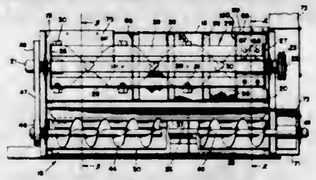
2,833,285
HEALTH CORSET
Anna Sturz, New York, N. Y.
Application January 4, 1955, Serial No. 479,718
4 Claims. (Cl. 128—543)

1. In a corset comprising two outer sections with a supplementary section disposed between said outer sections, said supplementary section comprising a pair of centrally separated panels including a network of cluster laces across the separation, buckles disposed at the rear of the corset and to which the cluster laces are fastened, tightening straps on which said buckles are slidably disposed, said buckles including a slidable cross bar for releasably locking said straps relative to said buckles, a supplementary loosening draw lace secured to each of said cross bars, said loosening draw laces extending through one of said outer sections so as to be actuable externally thereof to adjust the cluster laces, and supplementary tightening draw laces connected to an end of said straps,



said supplementary tightening laces extending through one of said outer sections and being actuable externally thereof to adjust the cluster laces.

2,833,286
CORN SHELLER
Joseph Haban, Sturtevant, Wis.
Application June 29, 1954, Serial No. 440,104
10 Claims. (Cl. 130—6)

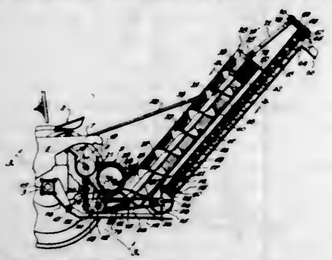


4. In a corn shelling device having a casing provided with a feed opening near one end, a shelling rotor rotatably mounted on a horizontal axis in said casing, a plurality of axially spaced arcuate retarders secured to the casing and extending only part way therearound and having inner edges close to the periphery of the rotor, at least one of said retarders being located between said feed opening and the mid-point of the length of the rotor and serving to prevent twisting of husks, and axially spaced lugs offset axially from the retarders and projecting radially outwardly beyond the periphery of the rotor a substantial distance beyond the inner edges of the retarders, some of said lugs being located between the feed opening and said twist preventing retarder and other lugs being located between pairs of retarders.

2,833,287
SHELLING AND CLEANING DEVICE FOR CORN PICKERS
Peter Sammarco, Chicago, and Ronald F. Zitko, Cicero, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application July 23, 1956, Serial No. 599,409
3 Claims. (Cl. 130—6)

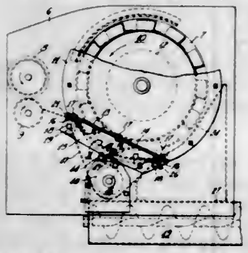
1. The combination of a shelling unit having a receiving chute and a rearward discharge opening, a cleaning component comprising an auger conveyor inclined upwardly and rearwardly from said unit and having a casing with an upper discharge end and a lower receiving end communicating with said discharge opening in said unit, said conveyor having an auger within said casing, said casing having an underside foraminous portion for sifting grain therethrough, a duct structure beneath said portion inclined downwardly and forwardly and having lower and upper open ends and substantially coextensive with said underside of the casing, said foraminous underside defining the top of said duct, a fan having a noz-

zle aligned with said duct and spaced from said lower end thereof for blowing a stream of air through the aggregate descending into the duct through said foraminous portion of the casing and blowing dirt and chaff out of said upper end of the duct while the grain gravitates



downwardly and discharges through said lower end, and an auger conveyor beneath the duct having a receiving end communicating with the lower end of the duct and having an upper discharge end extended upwardly and rearwardly of the discharge end of the cleaning component.

2,833,288
COMBINE HAVING REMOVABLE CONCAVE
Charles J. Scranton, La Porte, Ind., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application December 2, 1953, Serial No. 395,769
3 Claims. (Cl. 130—27)



3. In a combine harvester, the combination of a thresher housing, a rotary threshing cylinder operatively mounted to extend axially between opposite side walls of said housing, one of said side walls having an elongated aperture extending in the direction of its length along a lower peripheral portion of said cylinder and having a bottom edge between its front and rear ends in downwardly offset relation to said cylinder, a unitary concave structure insertable into and withdrawable from said housing by endwise movement thereof through said aperture, a pair of relatively spaced cross members fixedly mounted within said housing in underlying, adjacent relation to said cylinder so as to extend axially of the latter in proximity to said front and rear ends, respectively, of said elongated aperture, and releasable connecting means operable to retain said concave structure within said housing in cooperative relation to said cylinder upon endwise inward movement of said concave structure through said aperture, said connecting means including complementary tongue and groove means presented by said concave structure and by portions of said cross members in overlapping relation to adjacent portions of said concave structure for guiding said concave structure during said endwise movement thereof axially of said cylinder.

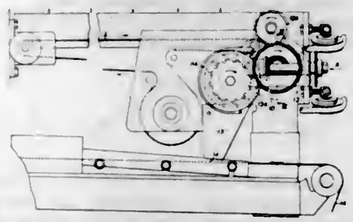
2,833,289
CIGARETTE
Samuel Lawrence Atkins, Jamaica, N. Y.
Application May 25, 1956, Serial No. 587,295
4 Claims. (Cl. 131—9)

4. A cigarette comprising a hollow mouth piece or tip communicating with a tobacco-filler portion, an easily combustible wrapper surrounding both the mouth piece and the tobacco-filler portion, said hollow mouth piece constituting a smoke chamber one end of which is adapted to enter the mouth of the person smoking the cigarette and the other end of which abuts the tobacco-filler portion, said chamber having a pair of unobstructed side holes therethrough on opposite sides thereof and near said last-named end through which air may enter thereinto to permit an admixture of air and smoke therein in response to suction on the mouth piece, the walls of said mouth piece being appreciably thicker than the paper covering the tobacco-filler portion of the cigarette, said



side holes entering said chamber along one or more lines substantially at right angles to the longitudinal axis of said cigarette and nearer the end which abuts the tobacco-filler portion than the end which is adapted to enter the mouth of the smoker, said end of said chamber abutting the tobacco-filler portion including a smoke barrier arranged transversely of the longitudinal axis of the cigarette and abutting the tobacco-filler portion, said barrier being positioned between said holes and the tobacco-filler portion and having a central aperture to permit smoke to enter the chamber, the interior of said mouthpiece being free to permit the uninterrupted passage of smoke between the ends thereof.

2,833,290
MACHINES FOR MANIPULATING CUT TOBACCO
Desmond Walter Molins, Deptford, London, England, assignor to Molins Machine Company Limited, London, England, a British company
Application January 18, 1956, Serial No. 559,798
Claims priority, application Great Britain January 28, 1955
10 Claims. (Cl. 131—109)



1. A tobacco manipulating machine comprising a fast conveyor to receive tobacco and carry it lengthwise as a stream at high speed, means to discharge said tobacco in the form of a shower whose horizontal cross-section is elongated in one direction, a slow conveyor arranged to move transversely of the shower in the direction of its elongation at a slower speed than that of the said fast conveyor to intercept the showered tobacco, and transfer means to transfer tobacco from said slow conveyor to said fast conveyor in such manner that the movement of the tobacco, as it reaches the said fast conveyor, has a substantial component in the same direction as the movement of the said fast conveyor.

2,833,291
BOBBY PIN HOLDER
Joseph J. Campagna, San Jose, Calif.
Application February 16, 1956, Serial No. 565,876
5 Claims. (Cl. 132—1)

1. A bobby pin holder comprising a band-like member of smooth, hard surfaced sheet material folded reversely upon itself along a predetermined line of fold, the side portions of the sheet material on opposite sides of the line of fold being divergent at an acute angle to receive a leg of a bobby pin clipped onto the band-like member



within the fold, a transverse member extending between the diverging side portions in the form of a cross bar of a capital letter A, and a vacuum cup attached to the transverse member for attaching the holder to a smooth non-porous surface.

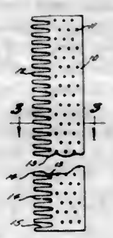
2,833,292
HAIR CURL CLIP
Sebastian Wirsing, Astoria, N. Y., assignor to Emed Inc., Astoria, N. Y., a corporation of New York
Application November 12, 1954, Serial No. 468,255
1 Claim. (Cl. 132—48)



A hair clip comprising a pair of upper and lower elongated members, the upper member having a pair of laterally spaced longitudinal legs and transverse end portions connecting said legs, the lower member having a pair of laterally spaced longitudinal prong forming legs between the legs of the upper member, and said lower member having a transverse end portion connecting the legs of said lower member and forming with one end portion of the upper member a pair of finger-grip end portions on said members movable toward each other, the legs of the upper member being bowed toward and rockably secured to and seated on the lower member whereby movement of said finger-grip portions toward each other will rock the pair of legs of the upper member away from the pair of legs of the lower member for insertion of hair between said pairs of legs, and a strip extending longitudinally of said members between the legs of the upper member and integrally connected to the finger grip end portion of the lower member and to an end portion of the upper member remote from the finger grip end portion of the upper member, said strip being bowed toward the lower member and resilient to react toward the lower member into hair gripping relation to the legs of the lower member and to urge the legs of the upper member into hair gripping relation to the legs of the lower member, and said strip being undulating in form for waving hair between the same and the legs of the lower member.

2,833,293
RINGLET CURLER
Mildred H. Parker, Honolulu, Territory of Hawaii
Application September 27, 1956, Serial No. 612,462
1 Claim. (Cl. 132—112)

In a ringlet hair curler, the combination which comprises an elongated strip of material having a plurality of staggered rows of openings positioned in said strip longitudinally thereof and having tapered slots forming tapered teeth in one edge, the rows of openings being equally distributed over the area of the strip of material providing liquid passages through the strip of material and



the teeth providing means for retaining hair wrapped on the curler equally distributed throughout the length of the curler.

2,833,294
HAIR PRESSING COMB
Silas J. Gamble, Brunswick, Ga., assignor of one-eighth to Leo Moore, Brunswick, Ga.
Application January 19, 1955, Serial No. 482,759
4 Claims. (Cl. 132—136)

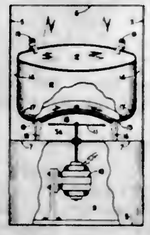


1. A hair pressing comb comprising a stationary comb member having a solid metal body portion and a plurality of metal teeth depending therefrom, said body portion including a horizontal upper face, a generally vertical side face and a plurality of horizontal lower faces between adjacent teeth; a movable comb member having a solid metal body portion and a plurality of metal teeth depending therefrom, said body portion of said movable comb member including a generally vertical side face and a flange projecting laterally beyond said side face near the top of said portion, the lower face of said flange being horizontal, said teeth of said movable comb member including horizontal upper edges projecting laterally beyond said side face in the same direction as said flange; a pin at each end of said movable comb member extending parallel to said side face of said movable comb member at a level intermediate said flange and said teeth for movably connecting said comb members together with the teeth of said movable comb member being interposed between the teeth of said stationary comb member, with the side faces of said body portions being in face-to-face contact, with the lower face of said flange being in face-to-face contact with the upper face of said body portion of the stationary comb member, and with the upper edges of said teeth on said movable comb member bearing against said lower faces of said body portion of said stationary comb member; and means for sliding the body portion of said movable comb member along the body portion of said stationary comb member to change the spacing between said teeth.

2,833,295
DEVICE FOR CLEANSING EGGS IN BULK
Charles G. Paden, Harrisburg, Pa., assignor, by mesne assignments, to The Whirl-A-Way Corporation, Harrisburg, Pa., a corporation of Pennsylvania
Application October 4, 1955, Serial No. 538,378
1 Claim. (Cl. 134—182)

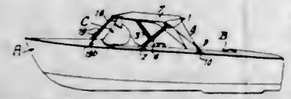
An egg washer comprising a cylindrical outer tank with its axis vertically disposed, said outer tank having an open top open the full diameter thereof and a closed

bottom, a cylindrical inner tank suspended within and spaced from said outer tank with its axis coinciding with the axis of said outer tank, said inner tank having an open top open the full diameter thereof spaced below the open top of said outer tank and a bottom opening of reduced diameter at the bottom thereof, an inwardly extending flange on the bottom of said inner tank around said bottom opening, a removable egg basket, means on said flange for centering and supporting said basket over said bottom opening, a rotary impeller below said bottom opening mounted for rotation about the axis of said



outer tank, said flange curving downwardly and inwardly to a rim portion surrounding said bottom opening, thereby streamlining the flow of said liquid out said inner tank to said impeller therebelow, said impeller being rotatable in one direction at constant speed to impart a steady spiral flow of a liquid in said washer in the same rotary direction throughout said egg washer, said flow being spirally downward and inward in said inner tank to flow in whirlpool fashion through said egg basket, spirally outward under said inner tank, spirally upward thereabout, and spirally inward over the top thereof.

2,833,296
SUN VISOR VENTILATING CONVERTIBLE BOAT TOP
Ralph S. Woodruff, Sr., Point Pleasant, N. J.
Application April 1, 1957, Serial No. 649,807
4 Claims. (Cl. 135—6)



1. The combination with a boat having a windshield and a space for an operator therebehind, of a top above said space including a frame having a portion extending substantially horizontally forwardly beyond the upper edge of the windshield providing a sun visor, said frame comprising a U-shaped main member having its arms pivotally connected to said boat and inclined rearwardly, a secondary U-shaped member having its arms pivotally connected to the arms of said main member and inclined forwardly, and an auxiliary U-shaped member having its arms pivotally connected to the arms of said secondary member and extending substantially horizontally forwardly beyond the upper edge of said windshield, a flexible cover lying upon the bights of said frame members and having a pocket at its forward end opening inwardly of the top toward said secondary member and in which the bight of said auxiliary member is disposed, and means connecting respectively the forward end and the rear end of cover to said boat.

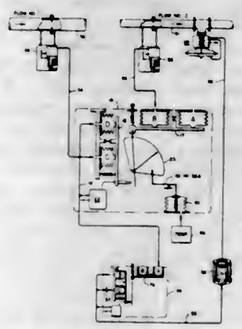
2,833,297
UMBRELLA CONSTRUCTION
Henry Tibony, Staten Island, N. Y.
Application November 5, 1947, Serial No. 784,205
11 Claims. (Cl. 135—25)

3. In an umbrella frame construction having a center stick, a collapsible rib structure comprising a plurality of inner ribs each pivoted at one end to said center stick and having a channeled bracing strut rigidly mounted on the other end thereof, said bracing strut having opposite midportions thereof indented, said indented midportions being extended to provide spaced bearings having aligned openings, and a plurality of outer ribs each terminating



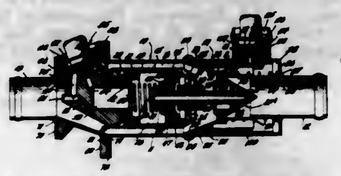
in an integral T-shaped portion forming ears pivoting in said bearing openings, said T-shaped portion having a longitudinal projection beyond said ears to cooperate with said indented midportions for minimizing relative lateral displacement of the rib ends within said channeled bracing strut when opening and closing the umbrella.

2,833,298
RATIO CONTROL SYSTEMS
Jack F. Shannon, Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application November 12, 1954, Serial No. 468,244
9 Claims. (Cl. 137—85)



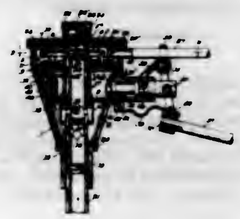
1. A system for determining the ratio of the magnitudes of two variables including, separate means for establishing a first and second impulse representative of the magnitudes of first and second conditions, a comparing relay receiving the first impulse directly and which balances impulses received to produce an output impulse representative of the ratio of the condition magnitudes, a characterizing relay receiving the second impulse directly and establishing its output as the input impulse to the comparing relay which is that impulse balanced with the first impulse, linkage structure within the characterizing relay for adjusting the ratio of the magnitudes of the input and output impulses of the relay, means by which an impulse positions the linkage structure within the characterizing relay, a conduit for subjecting the means for positioning the linkage structure to the output impulse of the comparing relay, and manifesting means responsive to the output impulse of the comparing relay in order to indicate and/or record the ratio of the magnitudes of the conditions.

2,833,299
VALVE DEVICES FOR CONTROLLING THE FLOW OF FLUIDS
Graham Frederick Marriette, Blandford, England, assignor to Flight Refueling Incorporated, Baltimore, Md., a corporation of Delaware
Application May 3, 1954, Serial No. 427,101
Claims priority, application Great Britain May 7, 1953
10 Claims. (Cl. 137—221)



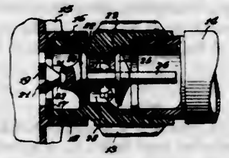
1. In a reverse flow valving installation of the class described, a fluid conduit, an annular valve seat in said conduit, a main valve movable in said conduit against the normal direction of flow of fluid in said conduit toward said seat to close the conduit to flow of fluid, a pressure chamber auxiliary to said conduit, a member operatively connected with said main valve and yieldably movable in said pressure chamber under influence of fluid pressure on opposite sides thereof to urge said main valve toward said seat, a passageway affording continual communication between said pressure chamber on the side of said member adjacent said seat and said conduit on the normally downstream side of said main valve, a passageway connecting said pressure chamber on the opposite side of the member with said conduit at a point downstream of said valve in said direction of flow, said opposite side of the member having a greater area exposed to fluid pressure than said main valve, and a pilot valve in said last named passageway normally resiliently urged to closed position and operable at will to relieve the pressure on said movable member to permit said main valve to be unseated by the direct pressure of the fluid against said side of the member adjacent the valve seat.

2,833,300
FLUSH TANK INLET CONTROL VALVE
Louis Sirotek, Chicago, Ill.
Application March 19, 1956, Serial No. 572,248
3 Claims. (Cl. 137—244)



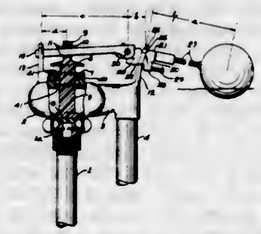
1. A water inlet control valve, comprising a housing partitioned into lower and upper chambers, said chambers intercommunicating by way of a port in the partition, a cleaning pin received by and movable in said port, a discharge head on the housing above the upper chamber having ducts in the same opening only onto its lower side and communicating with an opening in an intermediate portion thereof and having ways therein opening onto its lower and upper sides, a diaphragm between the head and the housing upper chamber engageable, at times, over and closing the head lower side opening ducts, and a pipe engaged through and connected to said housing, diaphragm and head retaining the same in assembled relation and communicating with the housing lower chamber and the ducts and ways in the head.

2,833,301
VALVE DEVICE
William Argus, Chicago, Ill., assignor to Walter Ratner, Chicago, Ill.
Application January 18, 1956, Serial No. 559,887
2 Claims. (Cl. 137—329.1)



1. In combination with a threaded female conduit having an axial member fixed therein, a tubular valve device having a female inlet and a threaded male outlet fitted into said female conduit, a pair of valve seats located between said inlet and said outlet, a pair of closure members for said valve seats, said closure members being mounted on a common axial support, one of said closure members being located between said seats and said inlet, the other closure member being located between said seats and said outlet spring means normally biasing said closure members to close the said other closure number, said closure members normally being limited in movement in the one direction toward the outlet by the axial member of said conduit which is arranged to engage said common support of said closure members thereby to position both closure members away from their respective seats when said device is fully threaded into said conduit, said closure members being capable of further movement to close the inlet valve when said device is partially unthreaded from said conduit.

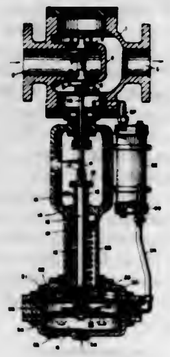
2,833,302
BALL COCK BACK LEVER
Harry F. Smith, Lexington, Ohio, assignor to Mansfield Sanitary Pottery, Inc., Perrysville, Ohio, a corporation of Ohio
Application August 18, 1955, Serial No. 529,269
4 Claims. (Cl. 137—426)



1. Lever mechanism for a ball cock valve comprising a valve body having a forward hush pipe extension, a front column extending upwardly and forwardly from said extension and a rear column extending upwardly from the body, said front column having an elongated rectangular hole therethrough near its upper end, a valve plug in the body between said columns and having an upward extension, said rear column and valve plug extension having substantially square holes therethrough, the hole in said extension having opposed upper and lower knife edges, a first lever having a portion substantially square in cross section extending through the holes in the plug and rear column and a forward bifurcated portion projecting downwardly and having holes therethrough near its front end, a second lever having a portion extending through and conforming generally to the elongated rectangular hole in the front column, having a plurality of tapped holes spaced apart longitudinally along said

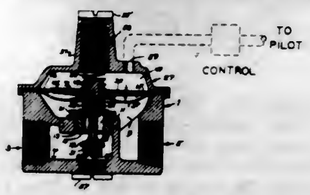
lever near its rear end, having a curved lower surface, having a notch in its upper side to engage the front column at the upper end of the hole therein, having a tapped opening in its forward end to receive a threaded float lever and having an adjusting screw on its forward end to engage the front side of said front column and a threaded pivot pin extending through the drilled holes in the bifurcated portions of the first lever and threaded in the tapped hole of the second said lever.

2,833,303
CONTROL AND PRESSURE REGULATING VALVE
Richard W. Leutwiler and John L. Ehretsman, Chicago, Ill., assignors, by mesne assignments, to American Air Filter Co. Inc., Louisville, Ky., a corporation of Delaware
Application January 22, 1953, Serial No. 332,604
1 Claim. (Cl. 137—495)



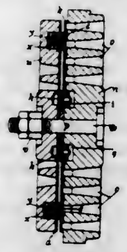
A device for regulating the flow of a fluid from a main supply line having a relatively high super-atmospheric pressure to a secondary line having a lower working pressure, which may vary over a pressured range extending from atmospheric pressure upwardly through a super-atmospheric pressure section and downwardly through a sub-atmospheric pressure section, comprising: a valve body having a movable valve member controlling the flow of fluid from the main line to the secondary line; pressure regulating means normally operative to hold the secondary line working pressure at a selected super atmospheric value by automatically adjusting the position of said valve member in response to fluctuations in the working pressure from said selected value, said pressure regulating means including a control diaphragm operatively connected to said valve member and urged by a biasing means in the valve opening direction and which is acted upon on one side by the working pressure, a super atmospheric pressure urging it in the valve closing direction and an override diaphragm of a size substantially equal to that of the control diaphragm normally subject to a super atmospheric working pressure on one side and an outside atmospheric fluid pressure on the other side and normally held, by the pressure differential across it, in an inactive position in which it is operatively disconnected from said valve member; said override diaphragm being arranged to move into operative engagement with said valve member when the pressure differential across it reverses its direction; a hollow housing member co-operating with said control and override diaphragms to form a closed chamber therebetween; said closed chamber being subject to said secondary line working pressure so as to urge said diaphragms apart under super atmospheric pressure conditions and to collapse them toward each other under sub atmospheric pressure conditions, the said override diaphragm being operable, when moved into operative engagement with said valve member to prevent the normal regulating operation of said pressure regulating means and to convert the device into a means for throttling the valve progressively as the outside fluid pressure is progressively increased above atmospheric pressure.

2,833,304
REGULATING CONTROL VALVES
Robert C. Fish, Brentwood, Mo., assignor to Richard L. Persons, St. Louis County, Mo.
Application August 24, 1954, Serial No. 451,785
8 Claims. (Cl. 137—495)



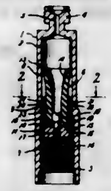
1. A gas valve comprising a housing formed with inlet and outlet chambers, means forming a valve seat therebetween, a poppet disposed in said outlet chamber for cooperation with said valve seat, spring means biasing said poppet against the valve seat to shut off the valve, a first diaphragm secured in sealing relationship to the housing and poppet adjacent the outlet chamber so as to be responsive to outlet pressure, a second diaphragm secured in sealing relationship to the housing and poppet adjacent the first diaphragm but on the side thereof opposite from said outlet chamber, said diaphragms being in part separable so as to define a first space therebetween, a second space defined on the other side of the second diaphragm by the housing, bleeder passage means formed to open from the inlet chamber into said first and second spaces, control valve means for exhausting the second space thereby to establish a pressure differential on opposite sides of the second diaphragm, and pressure plate means acting in cooperation with the diaphragms to increase the effective area of the second diaphragm relative to the first diaphragm in order to lift the poppet from its seat upon establishment of said pressure differential, pressure in the outlet chamber then acting upon the first diaphragm to further open the poppet.

2,833,305
GRID-TYPE VALVES
Henry Edward Muckley, Barnt Green, and John Waldron, Edgbaston, Birmingham, England, assignors to Belliss & Morcom Limited, Birmingham, England
Application January 20, 1956, Serial No. 560,438
Claims priority, application Great Britain April 19, 1955
2 Claims. (Cl. 137—516.13)



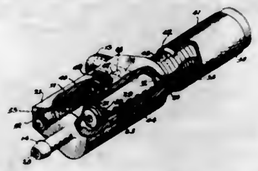
1. A valve of the type specified, comprising in combination a grid-like ported seating, a guard plate spaced from said seating, a ported closure member situated between said seating and guard plate and movable off and on to said seating, a resilient cushion plate situated between said closure member and guard plate, means securing said guard plate and cushion plate to said seating, a ring secured to deflectable parts of said cushion plate and closely fitting a central aperture in said closure member to prevent lateral movement of the latter in its own plane relatively to said seating, and helical springs arranged between said guard plate and cushion plate and acting on said closure member through other deflectable parts of said cushion plate, the latter being slotted and slit to provide said deflectable parts which are deflected by said springs out of the plane of said cushion plate into contact with said closure member, and are movable with said closure member.

2,833,306
CHECK VALVE
Leslie L. Cummings, Houston, Tex., assignor, by mesne assignments, to Otis Engineering Corporation, Dallas, Tex., a corporation of Texas
Application June 10, 1955, Serial No. 514,427
7 Claims. (Cl. 137—525)



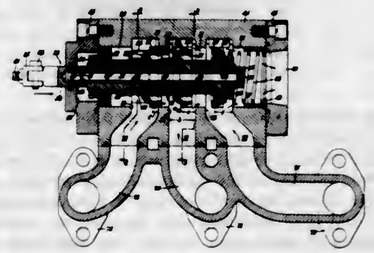
1. A check valve, comprising, a tubular casing, a plug member mounted in the bore of the casing, a cup-shaped closure member constructed of flexible resilient material having one end closed, the closed end being seated against the inner end of said plug member, a plurality of circumferentially spaced ribs extending from the inner end of said plug member about the adjacent portion of said closure member, a plurality of flexible metal fingers mounted about the exterior of the closure member in circumferentially spaced relation, said fingers and said ribs being relatively angularly oriented to mutually over-lap their respective intervening spaces, and said plug member having one or more fluid passages extending longitudinally entirely therethrough.

2,833,307
AIR METERING VALVE FOR ETHER CONTROL
Stanford A. Henderson, Buffalo, N. Y., assignor to Gomco Surgical Manufacturing Corp., Buffalo, N. Y., a corporation of New York
Application July 23, 1954, Serial No. 445,315
2 Claims. (Cl. 137—556)



1. In anesthesia apparatus, an air metering valve, comprising a body having an elongated cylindrical bore and a tubular extension forming an axial continuation of said bore, the outer end portion of said extension being internally threaded, an air outlet from said bore at that end thereof opposite from said extension, an air inlet into said bore adjacent the inner end of said extension, a cylindrical metering spindle arranged for axial movement in said bore and having a head at that end thereof which is adjacent said outlet and having its opposite end portion arranged in said extension and also having an elongated frusto-conical section intermediate said end portion and said head and adapted to move past said inlet and so arranged that the narrow end is adjacent sadi head, annular sealing means carried by said head and opposite end portion of said spindle and cooperable with the wall of said bore on opposite sides of said inlet at all times, passage means in said spindle to establish communication between the outer end face of said spindle head and the external surface of said frusto-conical section, threads on said spindle engaging with the aforementioned internal threads on said extension, and a manipulable sleeve surrounding said extension and fast to the adjacent end of said spindle.

2,833,308
MULTIPLE CONTROL VALVE FOR FLUID PUMPS, MOTORS, AND TRANSMISSIONS
Frank Berry, Corinth, Miss., assignor, by mesne assignments, to Oliver Tyrone Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 2, 1955, Serial No. 512,776
14 Claims. (Cl. 137—622)

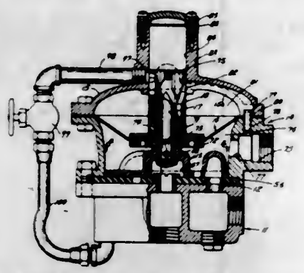


1. A multiple control valve for fluid pumps, motors and transmissions, comprising a cylinder, at least two ports spaced longitudinally along said cylinder for communication with the respective places of a multiple place fluid power device, lands between the ports, a high pressure duct adjacent one end of said cylinder for communication with another fluid power device, and a low pressure outlet adjacent the other end of said cylinder, a valve element movable lengthwise within said cylinder, and spools on said valve element, said spools having a sliding engagement with said cylinder, each of said spools having a peripheral sealing surface which is shorter than the longitudinal dimension of an adjacent one of said ports to provide a fluid passageway around the outside of the spool whenever the spool lies between the ends of its adjacent port, and each of said spools being movable into a position to block said passageway by closing with the walls of said cylinder at the lands beyond the respective ports, the spools being so spaced that when two successive spools lie opposite their respective ports the peripheral sealing surface of one spool is nearer to the land beyond its respective port than is that of the other spool to the land beyond its respective port.

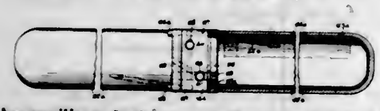
2,833,309
MULTIPLE PORT VALVES
Paul G. Bird, Rockford, Ill., assignor to Aquamatic Inc., a corporation of Illinois
Application December 26, 1952, Serial No. 328,107
14 Claims. (Cl. 137—625.46)

1. A multiport lift turn valve comprising a body having a ported face and flow passages communicating with the ports in said face, means defining a fluid supply chamber at one side of said ported face, a rotor in said supply chamber mounted to be seated in confronting relation with said ported face and to be unseated away from

said ported face, turned, and reseated at different rotative settings in confronting relation with said ported face, said rotor having ports therein arranged to register with different ports in said ported face to pass fluid from said supply chamber through the ported face in the different rotative settings of the rotor, movable pressure responsive means operatively connected to the rotor for unseating and reseating the rotor and exposed on one side to the fluid pressure in said fluid supply chamber, means operatively connected to said rotor for turning the latter between successive positions in response to movement of the rotor from a seated position to an unseated position and back, a fluid inlet for passing fluid into said fluid supply chamber, means defining a pressure chamber at the opposite side of the movable pressure responsive means and communicating with said fluid inlet for receiving fluid therefrom to establish fluid pressure at said opposite side of the pressure responsive means equalling the fluid pressure at said inlet, means communicating with said fluid inlet after the communication of said pressure chamber therewith and defining a flow restriction between said fluid inlet and said fluid supply chamber for effecting a pressure drop between the fluid inlet and the fluid supply chamber when fluid is flowing through the fluid supply chamber to establish a lower pressure at said one side of the pressure responsive means than at said opposite side thereof for maintaining the rotor seated, and means for selectively emptying fluid from said pressure chamber to lower the pressure at said opposite side of the pressure responsive means below the pressure at said one side thereof to effect movement of the pressure responsive means for unseating the rotor.

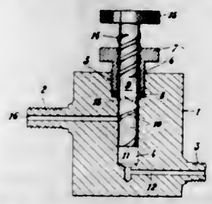


2,833,310
AUXILIARY RESERVOIR FOR PUMPS
James A. Roberts, Howard R. Fischer, and Marcel P. D'Haem, Utica, N. Y., assignors to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey
Application October 16, 1951, Serial No. 252,762, now Patent No. 2,685,865, dated August 10, 1954, which is a division of application Serial No. 19,478, April 7, 1948, now Patent No. 2,588,164, dated March 4, 1952. Divided and this application November 4, 1953, Serial No. 390,234
3 Claims. (Cl. 138—30)



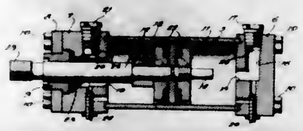
1. An auxiliary dual reservoir for pumps, comprising a cylindrical tank having an open end, a collapsible bag disposed within the tank adapted when filled with hydraulic fluid to expand so as to line the interior wall of the tank, the latter wall having a conical female seat at its open end and the open end of the bag having a marginal portion lining the seat, a second similar tank and bag arrangement having its open end disposed in opposed relation to that of the first tank, a pressure air and hydraulic flow block disposed between the open ends of both tanks and characterized by a male conical seat formed at opposite ends of the block, each male seat fitted into the open end of a bag of one of the tanks so as to wedge the marginal end of the bag fluid tight against the female seat, an annular shoulder about the block common to both tanks, a flange formed about the open end of each tank, one of the flanges abutting against one side of the shoulder and the other against the other side, fastening means through the flanges and the block whereby the tanks are held fast to the latter, a pressure air supply passage in the block communicating through opposite end portions of the block immediately with the tanks between the outer surfaces of the bags and the interior walls of the tanks, and a hydraulic fluid flow passage in the block communicating through opposite ends of the latter immediately with the open ends of both bags.

2,833,311
METERING DEVICE FOR LIQUIDS OR SOLUTIONS
Gaetano Baldelli, Rome, Italy
Application May 17, 1955, Serial No. 509,008
Claims priority, application Italy June 28, 1954
3 Claims. (Cl. 138—43)



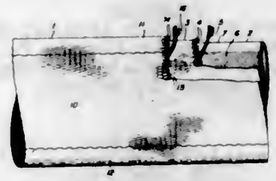
3. A liquid flow controlling device comprising a casing having an axial cavity therein, a liquid inlet duct for said cavity and a liquid outlet duct from said cavity, a valve stem fitted tightly in said cavity and having an upper threaded portion axially movable in said cavity and having a helicoidal groove on the lower surface thereof opposed to said liquid inlet duct, said groove having a cross section increasing in the direction of the flow, said groove being in communication with said outlet duct, thread means on said casing spaced from said groove and cooperable with the threaded portion of said valve stem, the threaded portion of said stem having a pitch equal to the pitch of said helicoidal groove, whereby the helicoidal groove registers with said inlet duct during the axial movement of said stem.

2,833,312
ORIFICED FLUID FLOW CONTROLLER
Francis S. Flick, Oak Park, Ill., assignor to Flick-Reedy Corporation, a corporation of Illinois
Application October 26, 1955, Serial No. 542,818
2 Claims. (Cl. 138—44)



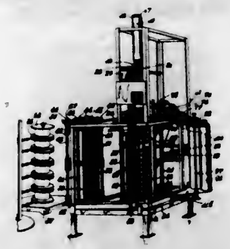
1. In a fluid operated mechanism having a fluid port internally threaded by a pipe thread tap to provide imperfect threads at the inner threaded portion and regular threads extending outwardly from the imperfect threads, a fluid flow controller, comprising: a metallic body of generally cylindrical form and having external imperfect threads for fluid-tight threaded engagement with the internal imperfect threads of the fluid port to mount said body in the inner threaded portion of said fluid port, and a socket portion in said body adapted to receive a tool for inserting the body in said inner threaded portion of the fluid port, said body having an orifice therethrough for limiting fluid flow past the body.

2,833,313
DOUBLE JACKETED FIRE HOSE
Peter H. Penman, Huntingdon Valley, Pa., assignor to H. K. Porter Company (Delaware), Pittsburgh, Pa., a corporation of Delaware
Application March 12, 1957, Serial No. 645,583
2 Claims. (Cl. 138—55)



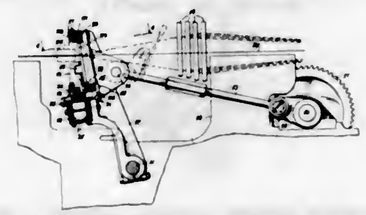
1. A double jacketed fire hose comprising an inner water impermeable elastomeric tube, a woven textile fiber tubular inner jacket bonded to the tube outer surface at diametrically spaced longitudinal zones and an outer jacket ensheathing the inner jacket and comprising woven textile fabric having high abrasion resistance in longitudinal zones respectively registering with those portions of the inner jacket occupying the spaces between the said zones of the inner jacket which are bonded to the inner tube, and other zones of relatively low abrasion resistance substantially corresponding to that of the inner jacket respectively aligned with said zones of the latter, the outer jacket zones of high abrasion resistance comprising polyester textile fiber high twist multiple ply warp yarns and the zones of relatively low abrasion resistance comprising cotton high twist multiple ply warp yarns, all said yarns being interwoven with relatively low twist single ply polyester fiber filler yarn uninterruptedly traversing the zones and the boundaries between adjacent zones.

2,833,314
LOOM
Gilbert Shaw, Middlebury, Vt.
Application April 12, 1955, Serial No. 500,813
19 Claims. (Cl. 139—18)



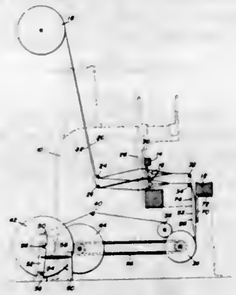
1. A loom, comprising, in combination, supply means for warp elements, shed-forming means for successively forming vertically-arranged sheds of the warp elements, and means for supplying a vertically-positioned weft element in each successive warp shed, said means comprising a container mounted for rotary motion and means for removing individual weft elements from said container for introduction into each successive warp shed.

2,833,315
LAY AND PILOT GUIDE MEANS
George W. Dunham, Westport, Conn.
Application August 31, 1954, Serial No. 453,192
2 Claims. (Cl. 139—188)



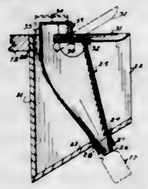
1. In a loom having a reciprocating laybeam, a reed and devices on said laybeam for projecting a pilot lengthwise of said laybeam, the combination with said laybeam of a tunnel-like raceway formed in part by said reed and in part by a plurality of similar plate-like guide members arranged in spaced relationship in a line parallel to and in front of said reed with each of said guide members disposed at right angles to the front face of said reed and having a notch therein opening toward said reed, all of said notches in said guide members being aligned and the edges of said notches together with the front face of said reed constituting pilot-guiding surfaces defining said tunnel-like raceway, said edges of said notches being so disposed as to prevent a pilot projected through the raceway from deflecting away from the plane of the dents of said reed in any direction laterally to said raceway; means rigidly maintaining said guide members aligned and in spaced relationship, said means comprising a bar extending parallel to said line of guide members and engaging an opening in each of said members, spacing elements mounted on said bar between said guide members, and nuts engaging threaded ends of said bar and pressing said guide members and said spacing elements together; and means for detachably mounting said bar and assembled guide members and spacing elements on said laybeam whereby said assembled guide members, spacing elements and bar is removable from said laybeam as a unit.

2,833,316
RIBBON ROLLER ATTACHMENT FOR RIBBON LOOM
Tate Harvey Brown, Atmore, Ala.
Application June 20, 1956, Serial No. 592,660
12 Claims. (Cl. 139—307)



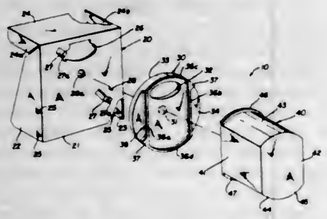
1. A method of gathering and winding ribbons in close side-by-side relation upon the ribbon beam of a ribbon loom of the type having a glass bar which comprises: moving the ribbons in parallel paths as they leave the glass bar and rotating them perpendicularly about their longitudinal axes, moving the ribbons into a relatively close juxtaposition and parallel relation, thereafter rotating the ribbons back into their original attitude.

2,833,317
ARTICLE HANDLING APPARATUS
Hoyt Q. Johnson, Decatur, Ga.
Application December 3, 1956, Serial No. 625,790
5 Claims. (Cl. 141—270)



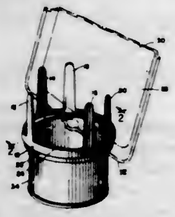
1. An article handling apparatus including a tiltably mounted article tray, a funnel type chute having an open mouth communicating with said tray, means for mounting said chute for bodily movement, and means for tilting said tray in response to the bodily movement of said chute.

2,833,318
DISPENSING DEVICE FOR GRANULAR MATERIAL
Richard W. Obarski, Akron, Fred W. Pittinger, Cuyahoga Falls, and Joseph V. Joliet, Akron, Ohio
Application August 16, 1955, Serial No. 528,672
4 Claims. (Cl. 141—321)



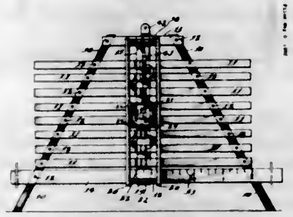
1. A dispensing device of the character described, for attachment adjacent the access opening of a closed container, comprising; a mounting adaptor having an access opening therein; a baffle, shiftable into and out of covering engagement with said access opening to open and close the same to flow therethrough; a cup detachably secured to said baffle; and means for preventing removal of said cup from said baffle when said access opening is opened; said means including a pair of opposed flanges carried by said mounting adaptor and overlying opposed edge portions of said cup; said baffle, said cup and said adaptor being interlocked when said opening of said adaptor and said baffle are in registry.

2,833,319
GREASE DRAIN RACK
William R. Justus, Chicago, Ill.
Application June 13, 1956, Serial No. 591,235
3 Claims. (Cl. 141—364)



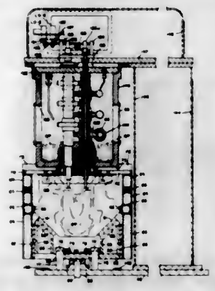
1. In a grease drain rack for supporting pans and the like on the open end of a cylindrical receptacle for grease, said rack comprising a cylindrical ring having a radially inwardly extending support shelf intermediate the ends of the ring, a pair of substantially diametrically opposed vertical support fingers integral on the upper end of said ring, and a second pair of vertical support fingers on the upper end of said ring each spaced angularly a predetermined distance from a respective one of said first pair of support fingers, said second pair of support fingers extending a distance above the plane of said ring sufficient to support a pan thereon with the rim of the pan restrained against horizontal movement by said first pair of fingers and the bottom of the pan supported by at least one of said second pair of fingers.

2,833,320
WIDE BOARD SAW APPARATUS
Richard C. Bennett, Laceyville, Pa.
Application May 6, 1952, Serial No. 286,278
8 Claims. (Cl. 143—47)



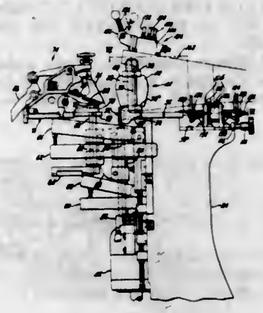
1. A wide board saw as described comprising in combination, a board supporting bed, the bed having adjacent a longitudinal edge a shoulder rest extending above the plane of the bed and comprising a support for an edge of a board on the bed, a cross slide means supported above the bed, spaced therefrom and extending across the width thereof, a power saw carrying member slidably mounted to the cross slide means, a rotatable member mounted to the saw carrying member and rotatable relative thereto, and an electric hand saw unit mounted to the rotatable saw carrying member whereby the electric hand saw unit is selectively mounted relative the saw carrying member in either of two positions, one displaced at a right angle with respect to the other.

2,833,321
TWO-STAGE TORQUING MACHINE FOR FASTENERS
Llewellyn A. Hautau and Charles F. Hautau, Detroit, Mich.
Application May 4, 1953, Serial No. 352,824
17 Claims. (Cl. 144—32)



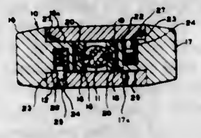
15. In a torquing machine for threading a threaded member into a workpiece, gripping means for engaging said member; hydraulically operated means for rotating said gripping means for threading said member into said workpiece; means for stopping the rotation of said gripping means upon developing in said member a torque resistance equal to the torque power of said rotating means, and means for effecting an operation of said rotating means in a reverse direction immediately upon said stopping of said rotating means.

2,833,322
WOOD HEEL TURNING MACHINES
Edgar E. Joiner, Jr., Andover, Mass., assignor to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey
Application September 28, 1955, Serial No. 537,251
4 Claims. (Cl. 144—143)



1. In a machine for use in the manufacture of heels, a cutter rotatable about an axis, an abutment, a jack for a heel block, mechanism for positioning the block in and securing it to the jack, means for mounting the jack for bodily movement substantially at right angles to the axis of rotation of the cutter and for swinging movement about an axis disposed at substantially right angles to the said axis, said means comprising a cam cooperating with the abutment to control said bodily movement of the jack at right angles to the axis of rotation of the cutter, a second cam, said means also comprising a member movable with the jack and cooperating with said second cam to control said bodily swinging movement of the jack, a pair of stops, and power operated means for moving the abutment between two different operating positions determined by said stops.

2,833,323
HAMMER
John William Strickland, Cuyahoga Falls, Ohio
Application May 16, 1955, Serial No. 508,445
6 Claims. (Cl. 145—29)



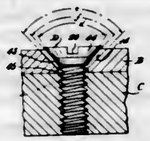
1. A hammer head comprising a tubular sleeve having impact means thereon and having opening means in the wall thereof for insertion of the end of a handle to extend at an angle to the longitudinal axis of the sleeve, at least one insert received within said sleeve from an end thereof, means on said insert for attaching the same to said end portion of the handle within the sleeve, said insert being engageable with the inner periphery of the sleeve to prevent removal of the handle from the sleeve, said impact means including at least one adapter end having a reduced portion removably received in an end of said sleeve, and means for securing said adapter end on said sleeve.

2,833,324
CONTAINER
Clarence M. Burroughs, Glendale, Calif., assignor to Burroughs Manufacturing Corp., Los Angeles, Calif., a corporation of California
Application September 12, 1955, Serial No. 533,545
2 Claims. (Cl. 150—.5)



1. A container having a mating body and cover providing an airtight closure therebetween, the body having a rim with the interior surface thereof tapering inward and toward the open end of said body, said rim having a thin, compressible, peripheral lip extending outward from the upper edge of said rim, and the cover having an axially projecting portion having a flap extending outwardly therefrom, the outer periphery of said projecting portion having a corresponding taper thereon, the minimum distance between opposing portions of said tapered interior surface of said rim being less than the maximum distance across opposing portions of said corresponding tapered outer periphery of said projecting portion of said cover, said flap having a cap around the edge thereof, said flap being extensible for hooking said cap over the edge of said lip to compress said lip, forcing said lip and flap into sealing engagement with said flap in tension and said lip in compression, and said taper on said rim engaging said taper on said projecting portion when the cover is attached to the body of the container.

2,833,325
COUNTERSUNK FLEXIBLE HEAD THREADED FASTENER
Rudyard E. Laisy, Rocky River, Ohio, assignor to The National Screw & Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application February 9, 1954, Serial No. 409,050
2 Claims. (Cl. 151—14)



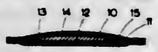
1. A countersunk head threaded fastener comprising a head portion and a shank portion depending from one side of the head portion, the side of said head portion having an inner and an outer conical surface with the inner conical surface adjacent said shank portion and extending about 50% of the height of the head portion, the outer conical surface of said head portion having an included angle which is greater than about 82°, the included angle of the inner conical surface of said head portion being about 3° to 10° less than that of the outer conical surface and said head portion having a recess in the side thereof opposite to said shank portion of approximately 50% of the height of said head for imparting flexibility to said head portion, said recess comprising about 20% to 35% of said head portion.

2,833,326
SCREW OR NUT WITH LOCKING PROJECTIONS
Friedrich Karl Knohl, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application April 19, 1956, Serial No. 579,298
6 Claims. (Cl. 151—37)



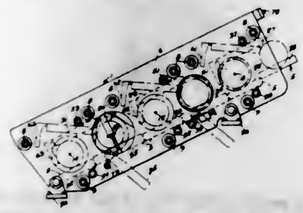
1. A torque absorbing rotary threaded fastener member adapted to be tightened by rotation in one direction, and comprising a substantially radially extending clamping face, and a plurality of relatively small integral projections in each quadrant of the clamping face and spaced from one another by a substantially planar uninterrupted portion of the clamping face and projecting axially therefrom for engaging a workpiece, each said projection including a leading front face angularly disposed with respect to the plane of the clamping face and not more than a relatively small acute angle with the vertical and terminating in a bottom scraping edge facing in the direction of tightening and a trailing rear side inclining away from the direction of tightening relatively abruptly upwardly from said scraping edge to the clamping face for providing with the leading front side a relatively narrow projection with an axially facing narrow bottom edge to facilitate axial digging and embedment of each projection into the workpiece under the vertical component of force resulting from tightening rotation of the fastener member relative to the workpiece, the outer end of each projection leading the inner end thereof in the direction of tightening rotation, each projection extending over substantially at least one half the radial extent of the clamping face and the scraping edge of each of said plurality of projections operating to scuff up abutments of increasing mass during tightening of the fastener member for providing a cumulative increasing resistance to rotation of the fastener member in tightening direction whereby to resist stripping of the threads on the fastener member, the horizontal extent of each uninterrupted portion of the clamping face between adjacent projections being such that the previously scuffed up abutments in advance of a projection will not interlock with the trailing edge of the adjacent preceding projection in the direction of tightening rotation, whereby to facilitate intentional retrograde rotation of the fastener member in loosening direction.

2,833,327
ADHESIVE REPAIR PATCHES
Reginald Donovan Boyce, Denham, England
Application August 24, 1954, Serial No. 451,893
Claims priority, application Great Britain August 28, 1953
5 Claims. (Cl. 152—367)



1. An adhesive rubber patch comprising, a rubber body member having a pair of opposite surfaces and an extremely thin peripheral lip, a first protecting sheet member affixed over one of said surfaces by a first adhesive permitting the sheet member to be peeled from the body member, a second protective sheet member affixed over the second of said surfaces by bands of second and third adhesives permitting peeling off of said second member, said second and third adhesive bands disposed side by side on the second member with a boundary line therebetween traversing a medial portion of said body member, said sheet members having adhesive-free facing areas thereof protruding beyond said body member, the bond provided by said second adhesive between the rubber body and second sheet member being more tenacious than the bond provided by said first adhesive and the corresponding bond provided by said third adhesive being less tenacious than the bond provided by the first adhesive, whereupon said sheet members may be successively peeled from the body member without distorting the said lip.

2,833,328
APPARATUS FOR MANUFACTURING WHEEL RIMS BY A PLURALITY OF DIE MECHANISMS
Frederick P. Sharpe, Dearborn, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application April 13, 1953, Serial No. 348,249
17 Claims. (Cl. 153—2)

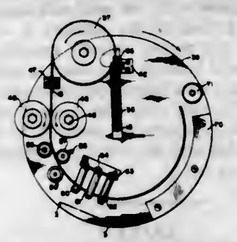


1. An apparatus for manufacturing wheel rims comprising a downwardly inclined guide having lower guide members for supporting rim blanks and over which the rim blanks are adapted to roll by gravity and upper guide members above certain of said lower guide members, mechanisms spaced longitudinally of said guide for successively engagaing and fashioning the rim blanks during their advance, said upper guide members having stops engageable with the rim blanks to position the same for engagement by said mechanisms, and means for swinging said upper guide members to move said stops to release position at the same time.

17. An apparatus for manufacturing wheel rims comprising a lower guide over which rim blanks are adapted to move, mechanisms spaced longitudinally of said lower guide for successively engaging and fashioning the rim blanks during their advance, aligned upper guides cooperable with said lower guide in guiding the movement of the rim blanks, said upper guides being alternately movable between first and second positions, said upper guides having means engageable, in said first position, with certain rim blanks for holding the latter in locations for engagement by said mechanisms and having means engageable, in said second position, with the rim blanks next succeeding said certain rim blanks for holding them in other locations in advance of said first-mentioned locations, and means for simultaneously moving said members between said first and second positions.

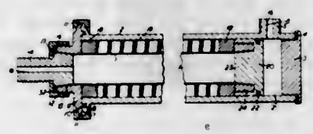
2,833,329
WIRE PACKAGING TAKEUP AND COILING APPARATUS WITH ROTATABLE FLYER
James W. De Poy, Oakland, Calif., assignor to The Colorado Fuel and Iron Corporation, Denver, Colo., a corporation of Colorado
Application December 9, 1955, Serial No. 552,030
8 Claims. (Cl. 153—65)

1. Wire packaging takeup apparatus comprising a rotatable flyer, means on the flyer for changing the direction of movement of a wire to be handled thereby substantially to the plane of rotation of the flyer, means on said flyer alone for then wholly imparting a desired circular cast to the wire substantially in said plane of rotation, and means on said flyer for changing the helical



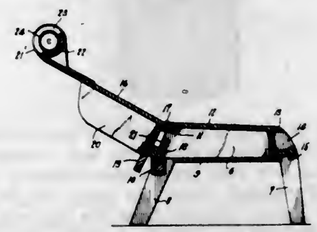
cast characteristic of the circular cast wire, said circular cast imparting means and said helical cast changing means alone determining the final cast of the wire in a coil thereof formed by said apparatus.

2,833,330
FLUID PRESSURE MECHANISM FOR SPIRALLY CORRUGATING TUBING
John Love, Langside, Glasgow, Scotland, assignor to K. A. C. Limited, Glasgow, Scotland, a British company
Application April 19, 1955, Serial No. 502,300
Claims priority, application Great Britain May 17, 1954
5 Claims. (Cl. 153—71)



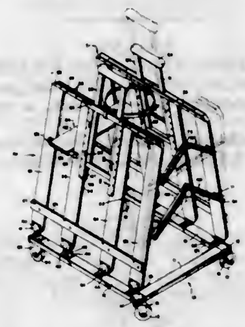
1. Apparatus for helically corrugating metal tubing comprising a cylindrical casing; a helical spring dimensioned for engagement with the outer surface of the tubing and the inner surface of the casing; means for sealing the first end of the tubing; a plug for insertion within the second end of the tubing; means for securing such plug within such end of the tubing and to the casing; a bore in such plug for passing pressure fluid to the interior of the tubing; and means for applying endwise pressure to said tubing and said spring; whereby the length of the tubing and the pitch of the spring are reduced as the fluid pressure forces the wall of the tubing between the coils of the spring.

2,833,331
COMBINATION CHAIR AND BLACKBOARD
John A. Train, Hemet, Calif.
Application July 12, 1956, Serial No. 597,486
1 Claim. (Cl. 155—2)



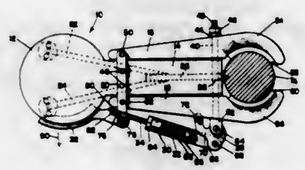
A desk chair comprising a chair frame embodying a transverse bar and including a stationary bottom or seat and a vertically swinging auxiliary seat section hingedly connected to said frame adjacent to one end of said stationary bottom or seat, the lower surface of said auxiliary seat providing a blackboard surface, a back rest forming a part of said auxiliary seat, and a stop bar extending laterally from the rear surface of said back rest adapted to engage said transverse bar of the seat frame for holding said auxiliary seat in an inclined position with respect to the stationary seat, exposing said blackboard surface.

2,833,332
WALKER
William A. Nabors, Birmingham, Ala.
Application March 20, 1956, Serial No. 572,717
2 Claims. (Cl. 155—22)



1. A walker for accommodating a person in an upright position without requiring the person to lift his feet, said walker comprising a base having a pair of side members connected at one end only by a transverse member thereby forming a U-shaped base, anti-friction means on said U-shaped base to provide for movement over a supporting surface, frame panels hinged by their lower ends to said side members and adapted to have their upper ends movable toward and away from each other for accommodating persons requiring different width spacing of the upper ends thereof, said frame panels having spaced parallel slats in the portion thereof adjacent the open end of said base for receiving a seat, cross bars extending between said spaced slats for supporting a movable seat, a seat removably mounted on said cross bars for accommodating a person and removable to permit a person to walk into and out of said walker, adjustable crutch members mounted on said frame panels centrally thereof and vertically adjustable relative thereto for accommodating persons of different heights, means to adjust and maintain the angularity of the frame panels and means to adjust the height of the crutch members.

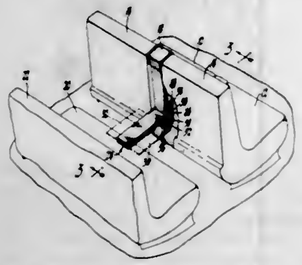
2,833,333
LINEMAN'S PORTABLE POLE SEAT
Oliver D. Babineau, Colorado Springs, Colo.
Application April 22, 1955, Serial No. 503,181
3 Claims. (Cl. 155—78)



1. A lineman's portable pole seat comprising a circular piece of material having a tongue extended therefrom, pole gripping jaws pivotally connected to the tongue and positioned on opposite sides thereof, toggle acting elements including a rod extended through the jaws and tongue of the circular piece of material, a latch pivotally

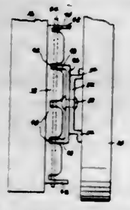
connected to one end of the rod, said latch having an arm with a jaw engaging pin therein extended from one side, a handle pivotally connected to a bar extended from said tongue, and a member having a resilient element therein connecting the latch to the handle with the connection of the said member to the handle positioned to pass over the center of the pivotal connection of the handle to the bar with said toggle elements actuated to a latching position for locking the jaws in gripping relation with the pole, and a folding brace pivotally connected to the under side of the circular piece of material and having a point on the extended end for supporting the seat from a pole.

2,833,334
FOLDING AUTOMOBILE TABLE
Letcher B. Hunt, Jr., Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 18, 1956, Serial No. 559,859
2 Claims. (Cl. 155—123)



1. In combination in an automobile, a front seat back lying in a generally vertical plane, a table member, guide projections mounted on said table member and extending beyond one end thereof in the plane of the table member, guide means movably connecting said projections to said seat back to provide for swinging movement of said table member from an inoperative position in the plane of said seat back to an operative position in a horizontal plane, and hinge links having one arm pivotally connected at one end to said table member and another arm pivotally connected to said seat back, said hinge links being formed as dog legs and said one arm lying in the plane in which said table member lies from the point of pivotal mounting of said arm to a location adjacent the seat back when the table member is in its operative position.

2,833,335
SELF-LATCHING HINGE CONSTRUCTION FOR HIGH-CHAIR TRAYS
Robert A. Leclair, Gardner, Mass.
Application April 29, 1955, Serial No. 504,735
5 Claims. (Cl. 155—127)



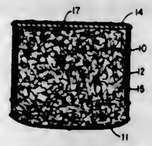
4. Locking hinge construction for a high-chair tray comprising a plate adapted for securement to an arm of a high-chair, a rod on said plate in fixed relation thereto and spaced therefrom, a bracket rotatable and slidable on said rod, means on said plate for latching said bracket in one rotative position thereof with relation to said plate, said means being free of the bracket in other rotative position thereof, and means swivelly mounting a tray for a high-chair on said bracket, said bracket including a pair of spaced ears, said ears being apertured and slidably and rotatively receiving said rod, said latching means including a notched flange extending parallel to said rod, the ears on the bracket and the notches extending generally transversely of said rod.

2,833,336
SEATS WITH ANGULARLY ADJUSTABLE BACK
Eugene R. McGregor, Litchfield, Conn., assignor to The Aerotherm Corporation, Bantam, Conn., a corporation of Connecticut
Application October 25, 1955, Serial No. 542,704
8 Claims. (Cl. 155—160)



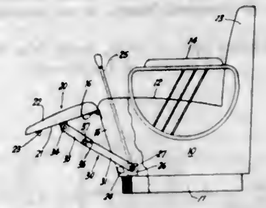
1. A seat comprising, in combination, a bottom frame; a back frame pivoted to the said bottom frame; and recline and locking mechanism for the seat comprising a first link and a second link pivoted to each other at one end, the opposite end of the first link being pivoted to the back frame, said first link being lineally adjustable between the ends thereof, and the opposite end of the second link being pivoted to the bottom frame at the pivotal connection between the back and bottom frames.

2,833,337
UPHOLSTERED HASSOCK
James J. Meekin, Huntington, Ind., assignor to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application January 26, 1956, Serial No. 561,556
2 Claims. (Cl. 155—169)



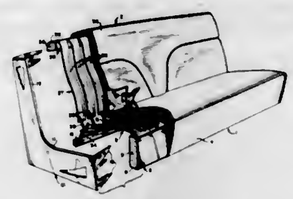
1. A hassock comprising a tube-like body of flexible fabric material having a closed top wall constituting a seating surface, side walls and an open bottom, a liner of relatively stiff material within the body with its upper edge spaced a short distance from the top wall, overlapped ends on such liner slidably engaged over one another so as to expand outwardly into said side wall in response to expansive internal forces exerted thereagainst, compressed stuffing of resilient nature filling substantially the entire interior of said body, and means closing the bottom of the body.

2,833,338
FOOT REST FOR EASY CHAIR
Hyman Fidel, Brooklyn, N. Y., assignor to Modecraft Company, Inc., Brooklyn, N. Y., a corporation
Application February 21, 1955, Serial No. 489,414
1 Claim. (Cl. 155—171)



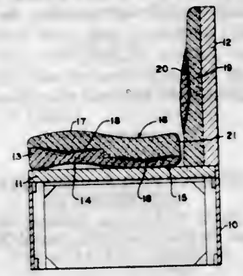
A chair comprising a body including a seat and a back wall, said seat having a front wall inclined downwardly and inwardly, a foot rest of rectangular form in plan and having one edge thereof pivoted to said seat adjacent the upper edge of said inclined front wall, means adjacent the opposite edge of said foot rest cooperating with spring means adjacent the lower edge of said front wall for normally retaining the foot rest in close parallel relation with said inclined front wall, a rock shaft extending transversely of and mounted on said chair adjacent the lower edge of said front wall, an operating handle secured to one end of said rock shaft and projecting upwardly with the free end thereof accessible from said seat, a toggle lever assembly operatively connecting said rock shaft with said foot rest, comprising a bracket secured to the under side of said foot rest substantially centrally thereof, a relatively long lever having a hub on one end thereof secured to said rock shaft, a relatively short lever having one end thereof pivotally connected to said bracket, adjacent ends of said levers being pivotally connected, and means for locking said levers against pivotal movement in the operative elevated position of said foot rest comprising a transversely bent portion on said short lever extendable over and engaging the relatively long lever at a point intermediate said rock shaft and said pivotal connection of said levers and adjacent same.

2,833,339
SEAT CONSTRUCTION
Curtis P. Liljengren, Miami, Fla.; Shirley S. Liljengren, sole legatee of said Curtis P. Liljengren, deceased
Application June 22, 1955, Serial No. 517,167
11 Claims. (Cl. 155—179)



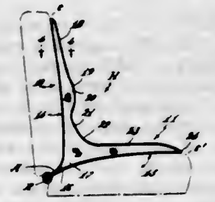
1. A seat cushion member having a supporting surface area formed of resilient sheet material and having connected thereto along one edge thereof a beam element comprising a tube of relatively thin material and means strengthening said beam element comprising a porous lightweight solidified plastic filler substantially completely filling said tube.

2,833,340
POSTURE CHAIR
Jacob Shapiro, Baltimore, Md.
Application September 12, 1955, Serial No. 533,747
4 Claims. (Cl. 155—179)



1. A seat cushion for chairs including a foam rubber body, and a pair of inherently yieldable spaced plates floatingly mounted in said foam rubber body.

2,833,341
POSTURE CUSHION FOR MOTOR VEHICLES
Samuel A. Bornstein, Waltham, Mass.
Application September 19, 1956, Serial No. 610,815
3 Claims. (Cl. 155—182)



1. A cushion for use with a motor vehicle seat of the kind which comprises a bottom portion and a back rest, the exposed surfaces of both back rest and bottom portion being convexly curved and at their point of adjacency defining a recess which converges rearwardly and downwardly, the cushion having concavely curved rear and bottom surfaces designed to fit snugly against the exposed surface of the back rest and bottom portions of the vehicle seat respectively, said concavely curved surfaces of the cushion converging to define the apex of a substantially triangular part which fills the recess between the rear and bottom surfaces of the vehicle seat, the cushion comprising a unitary core of resilient material of substantially L shape in vertical front-to-rear section, the lower leg of the core having a convex upper surface which merges smoothly with the front surface of the upper leg of the core to define the base of said triangular filler.

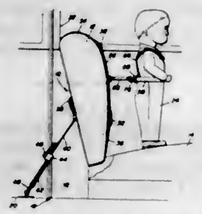
2,833,342
CUSHIONED SEAT
Carl T. Swenson, Milwaukee, Wis., assignor to Milsco Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 23, 1956, Serial No. 579,872
5 Claims. (Cl. 155—184)



1. In a seat, the combination of a sheet metal seat body having a flanged peripheral portion bent upon itself to form a downwardly inclined looped edge portion, a cushion secured to said body and extending above said flanged portion, a covering for said cushion having an

extended edge portion lining and secured to the inner side of said looped edge portion, and a filler of yieldable material having a thickened portion interposed between and secured to that portion of the covering lining said looped edge portion and having a thinner portion extending beyond said looped edge portion, the outer edge of the looped edge portion of said body contacting said extended thinner portion of said filler and crimping said thinner portion and a portion of said covering between said outer edge and the opposite side of said looped edge portion.

2,833,343
ATTACHMENT FOR SAFETY STRAP FOR AUTOMOBILES
David G. Benson, Easton, Md.
Application October 14, 1955, Serial No. 540,396
4 Claims. (Cl. 155—189)



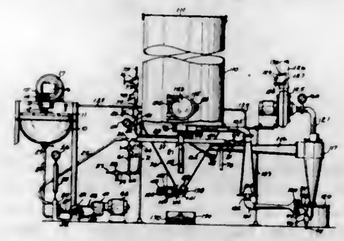
1. A safety device for use in passenger conveying vehicles having a seat with a generally vertically disposed back for preventing a child disposed on the seat from being thrown against other portions of the vehicle in the event of sudden stopping of the vehicle, said device comprising a plate member disposed vertically against the forward surface of the back of the seat, a strap encircling the back of the seat for maintaining the plate member in position, said plate member having an elongated slot therein, a disc slidably disposed behind the plate member, a projecting loop on said disc extending through the slot, a flexible member attached to said loop, and means on the free end of said flexible member for detachable engagement with a portion of a child's apparel, said strap including a pair of members having free ends adjustably secured together by buckle means, one of said free ends extending beyond the buckle means and having a hook thereon, a floor plate with a loop thereon secured to the floor of a vehicle for receiving said hook, said plate being disposed rearwardly of the seat for preventing forward tilting of the back of the seat.

2,833,344
VEHICLE SAFETY RESTRAINT
Donald C. Lucht, Harrington, Wash.
Application December 27, 1955, Serial No. 555,564
2 Claims. (Cl. 155—189)



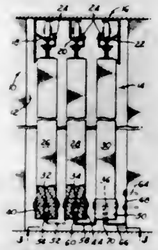
1. A safety restraint for a child occupant of vehicles comprising a vest-like garment; adjustable fastening means for releasably securing the garment successively about the trunks of children of different sizes; pressure distributing webs secured to said garment at the front thereof and at vertically spaced locations relative to the trunk of a child; the webs at each side converging to and carrying an anchor ring; straps having catches at their free ends releasably secured to said rings; and means at the opposed ends of said straps adapted to frictionally secure the straps relative to a vehicle seat.

2,833,345
SPRAY DRYING APPARATUS
Edward Van der Pyl, Holden, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application May 6, 1953, Serial No. 353,420
5 Claims. (Cl. 159—4)



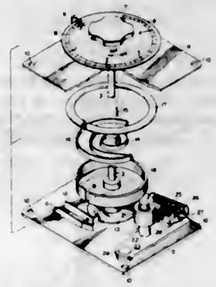
3. In a spray drying apparatus, a vertically-arranged cylindrical drying chamber, a slurry feed tube passing through said chamber, a two-fluid spray nozzle therefor comprising a slurry nozzle operatively connected therewith at a central portion thereof, an air nozzle surrounding the discharge end of said feed nozzle, a slurry tank, means including a pump to feed slurry from said tank to one end of said feed tube, means to feed a controlled stream of air under pressure to said nozzle, the axes of said nozzles being positioned in alignment with the axis of said drying chamber, a by-pass pipe connected between the other end of said feed tube and said tank, an automatically actuated diaphragm throttle valve in said by-pass pipe to vary the pressure within the slurry tube by controlling the amount of by-pass slurry thereby to regulate the quantity of slurry passing through the slurry nozzle, means including a thermostat actuated by gases from the drying chamber to control said valve, and a ring shaped burner surrounding said nozzles to produce a circular flame, said burner and nozzles being positioned so as to produce a relatively high funnel-shaped spray of material to facilitate the drying operation.

2,833,346
SLIDING DOOR ASSEMBLY
Don F. Preston, Covina, Calif., assignor to Acme Appliance Manufacturing Company, Pasadena, Calif., a corporation of California
Application January 30, 1956, Serial No. 562,103
9 Claims. (Cl. 160—197)



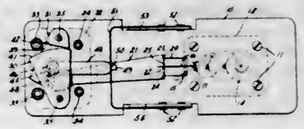
1. In a sliding door assembly, the combination of: first and second parallel, overhead tracks; first and second sliding doors respectively suspended from said first and second overhead tracks and respectively having longitudinal grooves in their lower edges; two U-shaped stops respectively embracing the lower ends of the vertical edges of and secured to said first sliding door and closing the ends of said groove in the lower edge thereof; two U-shaped stops respectively embracing the lower ends of the vertical edges of and secured to said second sliding door and closing the ends of said groove in the lower edge thereof, one of said stops on said second sliding door including a guide extending transversely under said first sliding door and terminating in a flange which projects upwardly into said longitudinal groove in the lower edge of said first sliding door so as to be engageable with said stops on said first sliding door; another guide extending transversely under said second sliding door and terminating in a flange which projects upwardly into said longitudinal groove in the lower edge of said second sliding door so as to be engageable with said stops on said second sliding door; and mounting means for said other guide.

2,833,347
TIMING MECHANISM
Paul V. Terry, Eliot, Maine, assignor to General Electric Company, a corporation of New York
Application December 26, 1956, Serial No. 630,630
6 Claims. (Cl. 161—1)



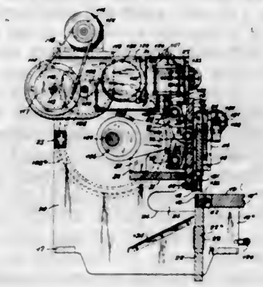
1. In a timing mechanism, in combination: means for storing energy, a flexible closed container having a flowable material therein, said container having a uniform cross-sectional area throughout its length, means bearing against said container to reduce said cross-sectional area in a portion of said container, and means coupled to said energy storing means for moving said container and said bearing means relative to each other to release said stored energy at a controlled rate, said flowable material flowing through said portion of reduced cross-sectional area to control the relative velocity of said container and said bearing means.

2,833,348
INTEGRATING TIMER
Nils T. Almquist, New Britain, Conn., assignor to Raymond Engineering Laboratory, Inc., Middletown, Conn., a corporation of Connecticut
Application September 6, 1955, Serial No. 532,385
6 Claims. (Cl. 161—15)



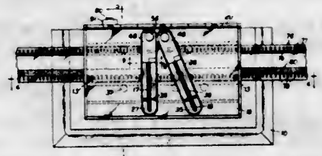
4. An acceleration responsive integrating timer comprising a frame, a clockworks mounted on the frame, a hairspring forming a part of the clockworks having a free end portion extending linearly outwardly of the clockworks, a pair of interconnected weights pivotally mounted on the frame for counter-rotational movement responsive to acceleration, a lever slidably mounted on the frame having one end connected to the weights and having its other end slidably embracing the free end portion of the hairspring, and means biasing the weights in one direction.

2,833,349
SHEAR
Lee B. Green, South Daytona, Fla.
Application January 26, 1955, Serial No. 484,247
4 Claims. (Cl. 164—47)



1. In a shear of the character described, an upright frame having thereon a work support and an upright guideway above said work support, a slide comprising an upright body plate having end portions thereof operable in said guideway and a stiffening plate extending rearwardly from said body plate in an edgewise disposed substantially right angle relation thereto and secured to the latter adjacent the lower edge thereof, bearing means connected with said body plate on the rear side thereof and located adjacent to but above said stiffening plate, cooperating shear elements one of which is mounted on said support and the other of which is secured to said body plate on the front side thereof, upright toggle means extending along said body plate on the rear side thereof and having an upper end pivotally connected with said frame and a lower end pivotally connected with said body plate by said bearing means, said toggle means comprising a pair of toggle members and a knuckle joint pivotally connecting the adjacent ends of said toggle members, said toggle means being movable between a flexed condition thereof and a substantially aligned condition of said toggle members for actuating said slide in said guideway, and actuating means mounted on said frame rearwardly of said body plate and connected with the knuckle joint of said toggle means for imparting the flexing and aligning movements to the latter.

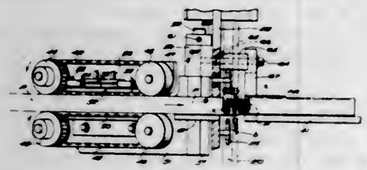
2,833,350
FILM CUTTING APPARATUS
Irving I. Merkur, Bronx, N. Y.
Application January 24, 1955, Serial No. 483,753
1 Claim. (Cl. 164—73)



In a film splicer, a base having a planar upper surface, at least one rib upstanding from said upper surface and extending the length thereof and defining an abutment shoulder for film resting on said upper surface, a plurality of centering pins upstanding from said upper sur-

face and positioned to enter sprocket holes of film mounted on said upper surface and against the shoulder, a cover hinged to said base and movable between a closed position in which it rests flush upon the upper surface of said base and an open position in which it is disposed clear of said upper surface, said cover in its closed position being substantially co-extensive with and in registration with said base and being adapted to clamp the mounted film against said upper surface, said cover having recesses in its bottom surface sized and positioned to receive the rib and pins when the cover is closed, said cover also having a through guide slot positioned and adapted to extend in a direction crosswise of the width of the mounted film and being of greater length than the width of the mounted film, a knife member slidably mounted in said guide slot for movement along the axis of said guide slot, said knife member projecting above the top surface of said cover and having a blade depending below said guide slot, said base having a cutting slot in the upper surface thereof, said cutting slot being axially alined with the guide slot of said cover, said knife blade being positioned and adapted to extend slidably into said cutting slot in the closed position of said cover, said knife blade being adapted to cut the mounted film upon closing the cover and by sliding the knife member through the guide slot and over the film.

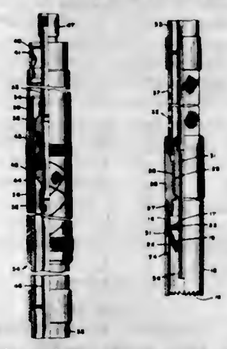
2,833,351
APPARATUS FOR CUTTING A PLEATED SHEET INTO PLEATED UNITS
Joseph H. Paton, Attleboro Falls, Mass., James W. Sherrill, Pawtucket, R. I., and Chester A. Vander Pyl, Jr., North Attleboro, Mass., assignors to Fram Corporation, Providence, R. I., a corporation of Rhode Island
Application December 16, 1955, Serial No. 553,573
17 Claims. (Cl. 164—73)



1. Apparatus for cutting an advancing sheet of pleated material into successive lengths of a multiple number of pleats, comprising a guide way along which a length of pleated sheet material is advanced, a series of counting fingers and mechanism for introducing them successively in the preformed pleat folds and for moving the fingers lengthwise in these folds to count the pleats, and means actuated by said mechanism for severing the sheet when a fixed number of pleats is counted.

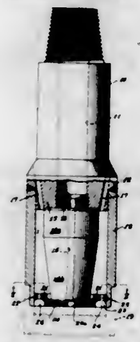
2,833,352
METHOD AND APPARATUS FOR COMPLETING WELLS
John M. Lloyd, Jr., Houston, Tex., assignor to Pan American Petroleum Corporation, a corporation of Delaware
Application April 23, 1954, Serial No. 425,194
8 Claims. (Cl. 166—34)

1. A method of completing a well which penetrates a high pressure formation and contains dirty fluids, said well containing a casing through said formation, comprising lowering and open-ended screen liner assembly into said well on a conduit, said screen liner assembly including a tubular screen, temporarily suspending said screen liner assembly in said well above said formation, displacing said dirty fluids out of said casing opposite said formation with a clean fluid, lowering a casing perforator through said conduit and said screen liner assembly, perforating a section of said casing at the elevation of said formation, and then placing said screen liner assembly in



said casing at substantially the elevation of said section with fluid seals above and below said tubular screen to cause fluids entering said well from said formation to flow through said screen.

2,833,353
RETRIEVING TOOL
George W. Walton, Dallas, Tex., and Donald L. McCarty, Milwaukee, Wis., assignors to Ideco, Inc.
Application June 1, 1954, Serial No. 433,526
7 Claims. (Cl. 166—65)

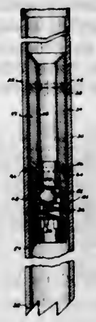


1. In a magnetic retrieving tool, a headed cylindrical casing of magnetic material having a fluid passage through the head thereof, a bi-polar bar magnet inside and spaced from the casing and having an end contacting the inner face of the head inside the casing and having a fluid passage therethrough communicating with the fluid passage in the head and discharging through the end of the magnet remote from the head, an apertured pole plate contacting said last mentioned end of the magnet with the aperture therein aligned with the fluid passage through the magnet, the pole plate projecting beyond the magnet toward the inner wall of the cylindrical casing at the end thereof remote from the head, and a passaged member of non-magnetic material secured to the top of the pole plate adjacent the outer edge thereof and also secured to the inner wall of the cylindrical casing to provide a pocket between said wall of the casing and the outer edge of the pole plate.

2,833,354
SCREEN AND SET SHOE ASSEMBLY FOR WELLS
George H. Sallers, Lake Charles, La.
Application February 15, 1955, Serial No. 488,182
6 Claims. (Cl. 166—205)

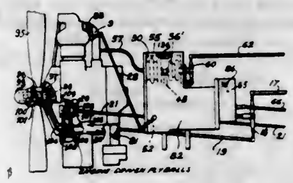
1. A set shoe assembly for an oil well filter screen comprising an elongate cylindrical set shoe, a sleeve

mounted entirely within said set shoe and slidable therein, sealing means between said set shoe and said sleeve, means for releasably positioning said sleeve at a desired



level within said set shoe, and a one-way valve positioned in the lower portion of said sleeve, said valve permitting passage of fluid downwardly through said sleeve and preventing passage of fluid upwardly through said sleeve.

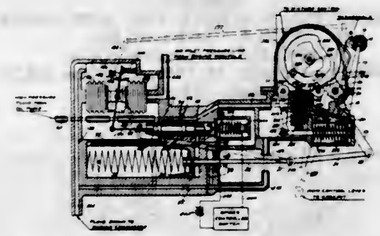
2,833,355
ENGINE CONTROL DEVICE
Ferdinando Carlo Reggio, Norwalk, Conn.
Original application December 15, 1941, Serial No. 423,001. Divided and this application August 8, 1951, Serial No. 240,860
21 Claims. (Cl. 170—135.74)



1. Apparatus for controlling the power output of an internal combustion engine comprising an adjustable control member, means operated by the control member for selecting different manifold pressures, automatic means for maintaining whatever pressure is selected, means also operated by the control member to variably regulate the engine speed in order to maintain a definite power output schedule, and means for varying such schedule by changing the position of the pressure selecting means so as to cause a different manifold pressure to be maintained, said last named means being operable independently of the control member and of the speed regulating means.

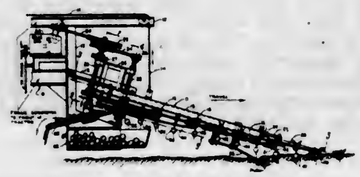
8. Control system for aircraft engine driving a variable pitch propeller, comprising in combination, a speed control including an engine driven governor for adjusting the propeller pitch to hold the engine speed at a selected value; a fuel control having valve means for controlling the rate of fuel supply to the engine and including first temperature responsive means for varying the rate of fuel supply in predetermined relation to the surrounding ambient temperature and second temperature responsive means sensing variations in an engine temperature resulting from combustion for restricting the engine fuel supply to limit said engine temperature; and a pilot's control operatively connected to said speed and fuel controls to vary the engine speed and the limit of said engine temperature according to a predetermined schedule.

2,833,356
ENGINE CONTROLLER
Arthur W. Gardiner and Arthur W. Gaubatz, Indianapolis Ind., Willard T. Nickel, Rochester, N. Y., and John Dolza, Davisburg, and Peter W. Perish, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application September 7, 1949, Serial No. 114,438, now Patent No. 2,708,426, dated May 17, 1955. Divided and this application February 25, 1955, Serial No. 490,508
3 Claims. (Cl. 170—135.74)



1. Apparatus for controlling the intake pressure of an aircraft engine, having in combination, a valve for variably restricting the intake in order to control the intake pressure, a pressure operated servo-motor for variably positioning said intake restricting valve, a control valve for regulating the action of said servo-motor, means responsive to variations in pressure and operable upon changes in altitude of the aircraft to operate said control valve in order to cause operation of the servo-motor and a movement of the intake restricting valve thereby so as to maintain approximately some predetermined selected pressure at various different altitudes, a selector cam for controlling the operation of the control valve and movable to different positions to select any desired pressure to be maintained, a second servo-motor operable to adjust the fuel mixture ratio to either enrich or lean the mixture as the selector cam is moved to different positions, a second cam for controlling the operation of said second servo-motor, a propeller governor for controlling the pitch of the propeller, a manually operable member for controlling the action of said governor, a control lever, and operating connections from said lever to both said cams and said manually operable member whereby the propeller governor and fuel mixture control means are operated in coordinated relation with the pressure selecting means in all positions of said pressure selecting means.

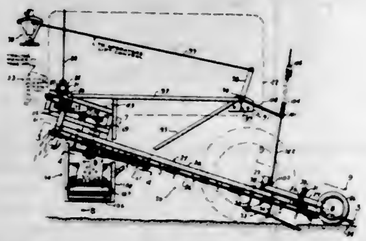
2,833,357
ROOT CROP HARVESTING MACHINE
Calvin H. Lust, Chatfield, Ohio
Application January 6, 1955, Serial No. 480,105
7 Claims. (Cl. 171—37)



1. Mechanism for harvesting and topping a row crop having a body and stems and leaves growing upwardly from the body and that are to be removed, said mechanism comprising, in combination, a frame, means on said frame for lifting the bodies serially from the earth, means also on said frame for grasping the leaves and for feeding each of the bodies along an upwardly inclined path

with the bodies dependent therefrom, means on said frame adjacent the upper end of said inclined path for moving a topping knife across said path in a plane normal to the direction of extent of said leaves away from said body, and means independent of said feeding means and engaging the stems between the leaves and the bodies for moving the bodies near to the plane of said knife as the bodies move along said path, whereby said knife severs the stems closely adjacent the bodies.

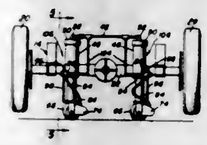
2,833,358
HARVESTING MACHINE FOR ROW GROWN TABLE VEGETABLES
Calvin H. Lust, Chatfield, Ohio
Application February 28, 1956, Serial No. 568,248
5 Claims. (Cl. 171—37)



1. A harvester for a row-grown crop each vegetable of which has a body grown beneath ground level, stems extending upwardly therefrom and leaves above ground level, said harvester comprising, in combination, an elongated frame, a pair of upwardly inclined endless belts mounted upon parallel shafts journalled on said frame and so spaced that the inner spans of said belts are closely adjacent each other, means for driving said belts with their inner spans moving upwardly together at a constant linear speed, means at the lower forward end of said frame for successively removing the bodies from the ground and for guiding the leaves into the nip between the inner spans of said belts, a guide plate mounted on said frame near the upper end of said belts and extending therebeneath, said guide plate having a slot longitudinally aligned with the inner span of said belts and being spaced beneath said belts at its forward end a distance such that the bodies depending from the leaves engaged between said belts are guided beneath said plate and the stems enter and move along said slot as the vegetables are carried along by said belts, at least one continuous chain mounted on said frame with its span extending parallel to and along said slot, spaced individual stem engaging means mounted on said chain for movement therewith above and along the slot in said plate and each engageable behind and with the stems of an individual vegetable, mechanism operatively associated with said stem engaging means for driving said stem engaging means at a lineal speed higher than the lineal speed of said belts whereby the stems are advanced relative to the leaves thereof and the body is snubbed upwardly against the undersurface of said plate, and knife means movable slidingly along the surface of said plate and generally transversely across the slot in said plate for severing the stems.

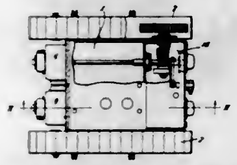
2,833,359
PARKING MEANS FOR VEHICLES
Charles S. Allen, Bakersfield, Calif.
Application December 30, 1955, Serial No. 556,542
2 Claims. (Cl. 180—1)

1. For use on a rear wheel supported axle of a vehicle, a fluid operated jack comprising a cylinder having means whereby it may be fixedly mounted in a vertical position on said axle, a piston mounted slidingly in said cylinder and projectible downwardly and beyond the lower end of said cylinder, means for feeding fluid under pressure into the upper portion of said cylinder and driving said piston to a "down" position, a yoke affixed to the lower end of said piston, a parking wheel mounted for rotation in and on said yoke, an air operated motor operatively carried by said yoke and cooperative with said wheel and having a motion transmitting shaft transmitting motion to said wheel, a flexible air conducting hose com-



municatively connected at its lower end with said air motor, a shelf-like flange fixed on the lower end portion of said cylinder and having a guide therein, a normally closed air supply valve mounted on said flange, and trip means comprising an L-shaped rod having a vertical arm connected at its lower end to said yoke and extending slidingly through said guide and above said flange, and a horizontal arm operatively engageable with said valve, the upper end of said hose being operatively connected with said valve.

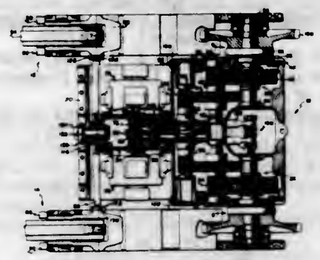
2,833,360
STEERING-BY-DRIVING OF ENDLESS TRACK VEHICLE
David Lucien Spanjer, Leeds, England, assignor, by mesne assignments, to The Elmco Corporation, Salt Lake City, Utah, a corporation of Delaware
Application June 28, 1954, Serial No. 439,771
Claims priority, application Great Britain June 26, 1953
1 Claim. (Cl. 180—6.48)



A mobile machine of the kind having a chassis structure mounted on selectively drivable ground-engaging units, wherein said chassis structure is of hollow formation and the rear portion thereof forms a single transmission housing, two independent power reduction gear units in the transmission housing, one on each side of the center line thereof, each of said reduction gear units including a laterally extending driving axle, a gear secured to the inner end of said axle, and an endless track driving sprocket secured to the outer end of said axle, a pair of reversible fluid pressure actuated motors mounted at the forward end of said chassis, power transmission means extending rearwardly from each of the motors to the reduction gearing in the transmission housing, and control means for selective operation of each of said motors.

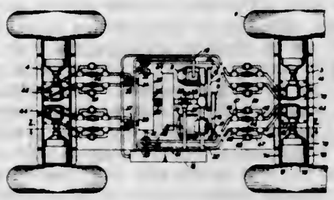
2,833,361
VEHICLE AND FRAME STRUCTURE THEREFOR
Daniel M. Schwartz, Salt Lake City, Utah, assignor, by mesne assignments, to The Elmco Corporation, Salt Lake City, Utah, a corporation of Delaware
Application April 1, 1955, Serial No. 498,505
6 Claims. (Cl. 180—6.48)

1. A mobile material handling vehicle comprising a body, ground-engaging means and drive means for propelling the vehicle, said body including a rear transverse portion, and a relatively narrow portion extending centrally and forwardly from the rear transverse portion, said ground-engaging means including paired frames carrying traction elements disposed along each side of the body, means pivotally connecting the paired frames to the body adjacent the rearward end thereof to swing about the body, said drive means including a pair of motors, means mounting said motors on opposite sides of said centrally extending portion of the body to dispose the motors between



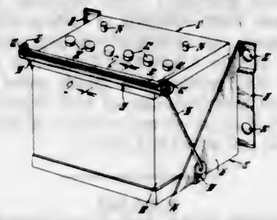
said centrally extending portion and said frames of the ground-engaging means and means drivably connecting the motors to the traction elements, and releasable support means connecting the forward end of said body and said frames of the ground-engaging means whereby upon release of said releasable means the body may be pivoted upwardly and rearwardly about the axes of said pivotal connections between the frames of the ground-engaging means and the body of the vehicle to position the motors above the frames of the ground-engaging means.

2,833,362
HYDRAULICALLY DRIVEN MOTOR VEHICLE
Fred P. Martin, Topeka, Kans.
Application May 26, 1954, Serial No. 432,385
3 Claims. (Cl. 180—66)



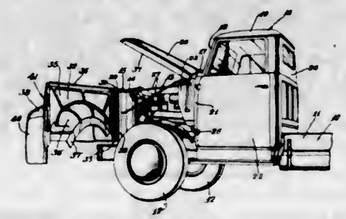
1. A fluid transmission system for vehicles comprising, a source of fluid pressure including a fluid supply tank, a variable speed prime mover, a pump having an inlet communicating with the fluid supply tank and operatively connected with the prime mover to be driven thereby, a pressure tank for receiving the delivery of said pump, an hydraulic motor for each wheel of a vehicle and operatively connected with the respective wheels of said vehicle, conduits connecting the pressure tank with the inlet side of the hydraulic motors, other conduits connecting the outlet side of the hydraulic motors with the supply tank to form return conduits, valve means in the conduits for selectively controlling flow of fluid from the pump output through the inlet conduits to the motors for causing forward movement of the vehicle, means in the conduit valves for causing reversal of flow of fluid in the inlet and return conduits for causing the motors to drive the vehicle rearwardly, flow regulators in each of the conduits for effecting substantially uniform flow of fluid to the motor inlets, and by-pass means having flow checks therein for by-passing the flow regulators in the return conduits.

2,833,363
RETAINER MEANS FOR BATTERIES AND THE LIKE
John F. Henehan, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 7, 1955, Serial No. 539,190
5 Claims. (Cl. 180—68.5)



4. Battery retainer means comprising a wall bracket attachable to a vehicle wall panel and having surfaces at right angles to each other for supporting a battery member adjacent said panel with a corner edge of said battery member positioned to engage said panel, an elongated member receivable about the corner edge of said battery member diagonally opposite said first-mentioned corner edge and extending beyond the ends of said battery member, said member having an elongated opening formed therein and between the ends thereof for receiving said last-mentioned corner edge therethrough, and tie means engaged with said bracket and extended through the ends of said opening in said elongated member extending past the ends of said battery member for holding said elongated member in engagement with the side walls forming said last-mentioned corner edge of said battery and thereby holding said battery member to said bracket.

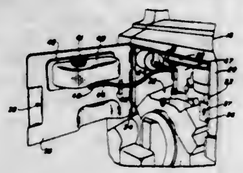
2,833,364
MOTOR VEHICLE ENGINE ENCLOSURE CONSTRUCTION
Fred A. Lee, Fort Wayne, Ind., assignor to International Harvester Company, a corporation of New Jersey
Application August 13, 1954, Serial No. 449,740
1 Claim. (Cl. 180—69)



In a motor vehicle having an engine supported by a chassis frame, a ground-engaging wheel adjacent said engine supporting said chassis frame, an operator's compartment mounted on said chassis frame rearwardly of said engine having a substantially vertical door pillar post, a transversely extending generally vertical radiator grille secured to said chassis frame forwardly of said engine, and a generally vertically disposed, longitudinally extending splash panel positioned between said engine and a ground-engaging wheel, the uppermost edges of said splash panel being vertically spaced below the top of said wheel and a substantially vertical plane passing through said pillar post and a side edge of said radiator grille being laterally spaced between said splash panel and said wheel; a member including a top wall of a wheel fender pivotally connected to the side edge of said radiator grille whereby said member is capable of swinging

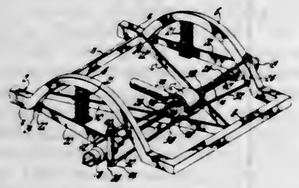
horizontally about a substantially vertical axis to and from a normal, overlying relationship with said ground-engaging wheel, said member including a vertical wall normally extending substantially between said pillar post and said radiator grille, and a curved wall portion extending inwardly and downwardly from said vertical wall, the lowermost edge of said curved wall portion being radially spaced outwardly from the outer periphery of said wheel and being normally in vertical alignment with said plash panel; and flexible means depending from said curved wall portion adapted to bridge the gap between said curved wall portion and splash panel and engage the uppermost marginal edge of said splash panel when said member is in its normal position to provide a partition between said wheel and engine.

2,833,365
GAS ENGINE FUEL TANK ON HOOD DOOR
Richard P. Keal, Waterloo, and John P. Townsend, Cedar Falls, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application September 24, 1954, Serial No. 458,242
7 Claims. (Cl. 180—69)



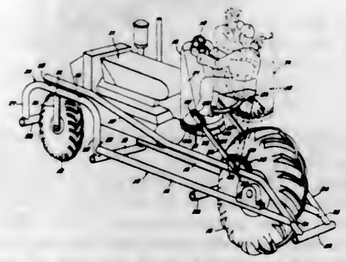
1. In a vehicle having a main fuel-consuming engine and a main fuel container associated therewith, an auxiliary fuel-consuming engine having an auxiliary fuel container associated therewith, and hood means mounted on the vehicle and over the engines and having an opening therein, the improvement residing in: a closure member registrable with and for covering and uncovering said opening; means mounting the closure member on the vehicle for movement of said member into and out of opening-covering position; means mounting the auxiliary fuel container on and for movement with said member to pass inwardly through the opening and within the hood means as the closure member is moved to its opening-covering position and to pass outwardly through the opening and outside the hood means when the member is in its open position, and flexible fuel-transferring means extending from the auxiliary fuel container to the auxiliary fuel consuming engine and being mounted in a manner so as to accommodate movement of the member to and from its covering position.

2,833,366
INDEPENDENT REAR WHEEL SUSPENSION
Maurice Olley, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 13, 1955, Serial No. 501,103
7 Claims. (Cl. 180—73)



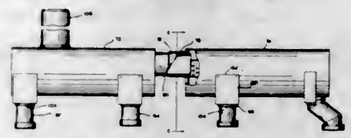
1. In an independent suspension for a vehicle having a frame, a longitudinally extending lever pivotally connected to said frame, a road wheel rotatably mounted on said lever, means disposed between said lever and said frame to resiliently support the latter, and a pair of vertically converging transversely extending control rods pivotally connected at their outer ends to said lever arm and at their inner ends to said frame, the prolonged axes of said arms intersecting at a point between the longitudinal midline of the vehicle and the opposite side thereof.

2,833,367
SWINGABLE OPERATOR'S STATION FOR IMPLEMENT CARRIER
Stuart D. Pool and Martin J. Whitney, Moline, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application August 30, 1955, Serial No. 531,531
1 Claim. (Cl. 180—77)



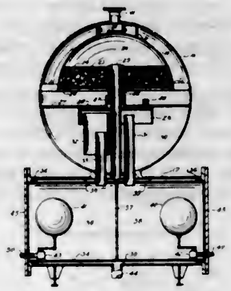
A shiftable operator's station for vehicles having a longitudinally extending frame structure, comprising arm means hingedly mounted near one end of said longitudinally extending frame structure for fore and aft swinging movement through a longitudinally extending vertical plane, first quadrant means affixed to said frame structure and arranged and constructed for holding said arm means in any desired vertical angular adjustment, first retractable pin means associated with said arm means for engaging said first quadrant means, an operator's platform having a lower portion and an upper portion, second quadrant means affixed to the lower portion of said operator's platform, means hingedly mounting the outer free end of said arm means onto said second quadrant means for fore and aft swinging movement, second retractable pin means associated with said arm means for engaging said second quadrant and holding said lower portion of the operator's platform in desired angular adjustment with respect to said arm means, said upper portion of the operator's platform having vehicle operating controls thereon, and means rotating said upper portion of the operator's platform in a horizontal plane with respect to the lower portion of the operator's platform, and means holding said upper portion in desired adjustment with respect to the lower portion.

2,833,368
MUFFLER
Wilfred W. Lowther, Chicago, Ill., assignor to United Specialties Company, Chicago, Ill., a corporation of Delaware
Application May 17, 1956, Serial No. 585,441
3 Claims. (Cl. 181—40)



1. In a muffler structure for under hood use on a tractor or the like, a pair of generally aligned housing sections disposed in spaced relation, each section having a longitudinally disposed laterally arranged perforate plate connected across it dividing the housing section generally into two chambers, a plurality of nozzles each adapted to be connected to the exhaust port on an engine and leading into one of the chambers of each section to convey exhaust gases to the said one chamber on each housing section, a single exhaust pipe connected to the other chamber of only one housing section, and an expansion conduit between the said other chamber of the housing sections so that only the said other chambers of the housing sections are in direct communication.

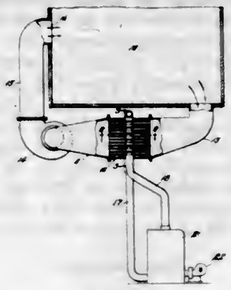
2,833,369
APPARATUS FOR SEPARATING FLUIDS
Lawton L. Laurence and Robert E. McMinn, Oklahoma City, Okla., and Chester A. Siver, Mission, Kans., assignors to Black, Sivalls & Bryson, Inc., Kansas City, Mo., a corporation of Delaware
Application June 22, 1955, Serial No. 517,194
3 Claims. (Cl. 183—2.7)



2. An oil and gas separator comprising, a spherical shell, an inlet into the uppermost portion of said spherical shell, a substantially hemispherical concavo-convex member within said shell, said member being positioned within the upper portion of said shell and spaced therefrom whereby the central portion of its convex side faces upwardly and is in close spaced relationship to the opening of said inlet through said shell and the edges of said member are positioned to be substantially horizontal, a liquid outlet from said shell and a gas outlet duct from said shell, said gas outlet duct having an inlet within said shell and positioned within the spaced encompassed by the concave side of said member.

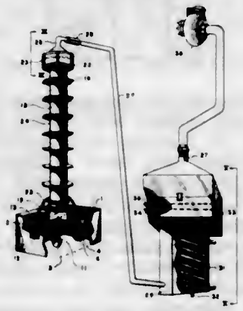
2,833,370
AIR CLEANING AND CONDITIONING BY THERMAL PRECIPITATION
Thomas K. Sherwood, Wellesley Hills, Mass., assignor, by mesne assignments, to Arkla Air Conditioning Corporation, a corporation of Delaware
Application January 12, 1951, Serial No. 205,740
2 Claims. (Cl. 183—32)

1. In an apparatus for cleaning air, a duct for flow of air, a plurality of interleaved heat transfer surfaces arranged in said duct for flow of air therebetween, and means for heating certain of said heat transfer surfaces and for cooling certain other of said heat transfer surfaces for maintaining alternate of said heat transfer surfaces at different temperatures whereby a temperature gradient is established in the air passing between said heat transfer surfaces, which air is heated by the warmer of said surfaces and cooled by the cooler of said surfaces,



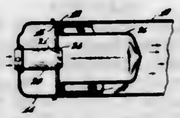
and dust or smoke particles are precipitated on the cooler of said surfaces.

2,833,371
FILTER APPARATUS FOR FLAME PHOTOMETERS
Minoru Honma, San Francisco, Calif.
Application July 26, 1956, Serial No. 600,353
9 Claims. (Cl. 183—32)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for use in flame photometric analysis, said apparatus comprising an air-permeable base filter member, a burner head sealably mounted in said member, a pump, and a containing circuit communicating said pump with said base member, said circuit including a primary filter and a condenser, said primary filter being disposed in advance of said condenser for receiving and purifying uncondensed combustion gases prior to admittance of these gases into said condenser, and said pump being operable for drawing atmosphere into said circuit through said base filter for effecting filtration and for discharging said filtered gases back to atmosphere.

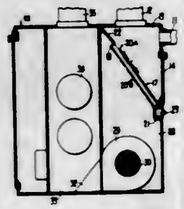
2,833,372
VACUUM CLEANER EQUIPPED WITH DISPOSABLE BAG
Robert I. Lappin, Marblehead, and Louis Zaiger, Swampscott, Mass.
Application July 29, 1955, Serial No. 525,283
5 Claims. (Cl. 183—43)



1. The combination with a suction cleaner having a tank provided with an open mouth within which is

disposed a pervious bag having a mouth coinciding with the mouth of the tank, and a bell detachably attached to the tank so as to cover the mouth; of an intake conduit to which the suction hose may be attached, said conduit having a portion extending internally into the mouth of the tank, and having a plurality of externally located lugs on its inner extremity projecting radially outward of the external surface thereof, and a disposable open mouth bag, said disposable bag having a stiff end board attached to its mouth with a centrally located hole corresponding substantially in diameter to the external diameter of the conduit adjacent the lugs, the substance of the board bounding the hole being adapted yieldably to receive the end of the conduit and to snap over the lugs.

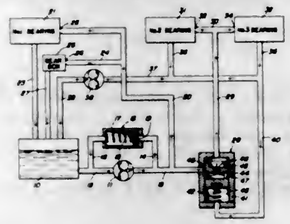
2,833,373
AIR FILTER
Elmer M. Custer, Columbus, Ohio
Application May 13, 1954, Serial No. 429,595
1 Claim. (Cl. 183—52)



A non-clogging dry filter for positioning in an opening lying in a plane inclined with respect to the normal vertical plane for removing particles from flowing air comprising at least two sheets in superposed spaced relationship to one another, frame means for supporting said sheets in inclined relationship to intercept all of the flow of air, said sheets being inclined at an angle with respect to the vertical such that particles collecting on said sheets will progress downwardly thereon by means of gravity, the first sheet having a plurality of baffles and passages alternately disposed across the surface thereof and disposed in horizontally extending disposition, the second sheet having a plurality of baffles and passages alternately disposed across the surface thereof and disposed in vertically extending disposition, each of said baffles of said sheets being formed of a strip of said sheet, said strip having two substantially parallel edges and lying between spaced coextensive slits through said sheet, each of said slits having two substantially parallel sides, and the plane of each of said strips being disposed transversely to the plane of the sheet to form said baffles such that a portion of each baffle extends from one side of the plane of the sheet and the other portion of said baffle extends from the other side of the plane of the sheet, said inclination of the strips also serving to form said passages of substantially rectangular cross-section, and particle collecting means disposed at the bottom of said plurality of sheets for receiving particles arrested from said flow that progress downwardly along said sheets by the action of gravity.

2,833,374
CONSTANT FLOW LUBE SYSTEM
Sidney P. Glasser, Long Beach, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 7, 1954, Serial No. 441,964
2 Claims. (Cl. 184—6)

1. An automatic liquid flow system for transmitting constant volumes of liquid from a constant pressure source to a constant pressure area and to a variable pressure area, respectively, comprising a source of constant pressure liquid, a constant pressure area, first conduit means connecting said source to said constant pressure area, a variable pressure area, second conduit means for passage of said liquid in a constant direction and connecting said source to said variable pressure area, return conduit means for passage of said liquid in a constant direction and operatively connecting said variable pressure area to said source, automatic pressure responsive valve means interposed in said second conduit means between said source and said variable pressure area, pressure



sensing means connecting said return conduit means with said variable pressure area and operatively connected to said pressure responsive valve means for sensing a change in pressure at said variable pressure area, said valve means including a means responsive to said pressure on the outlet side of said valve and ahead of said variable pressure area, said pressure responsive valve means responding to changes sensed by the sensing means to maintain a constant volume of liquid flowing to said variable pressure area under fluctuating pressure conditions at said variable pressure area.

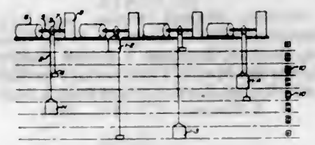
2,833,375
DRIP PAN
Gus R. Lundelius, Round Rock, Tex., assignor of one-half to Charles R. Lundelius, Round Rock, Tex.
Application March 6, 1956, Serial No. 569,890
1 Claim. (Cl. 184—106)



A drip pan to be positioned beneath a motor vehicle for catching and retaining lubricants dripping therefrom, said drip pan comprising a rectangular foldable frame including substantially U-shaped half sections terminating in aligned end loops, said half sections comprising depending, substantially U-shaped supporting legs at spaced intermediate points, a flexible panel mounted in the frame, and a supporting rod for said panel extending transversely therebeneath and including substantially U-shaped end portions engaged in the loops for hingedly connecting the half sections and mounting said rod thereon.

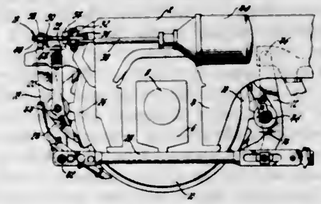
2,833,376
DISPATCH MACHINE FAILURE CIRCUIT
Raymond A. Burgy, Maumee, Ohio, assignor to Toledo Scale Corporation, a corporation of Ohio
Application February 4, 1957, Serial No. 637,970
12 Claims. (Cl. 187—29)

11. In an elevator control circuit in which elevator cars are automatically selected and dispatched, in combination, a car selecting circuit arranged to select cars substantially according to the order of arrival at a dispatching floor, dispatching circuit means adapted to energize a dispatching relay for the selected car, a car starting circuit for each car arranged to start the car after each stop, at least one dispatching floor relay having contacts arranged to interrupt the car starting circuit when the car is at the dispatching floor, said dispatching relay having contacts connected in parallel with the dispatching floor relay, means responsive to the registration of calls



for service, a timer, circuit means including the call responsive means and means responsive to movements of car doors for energizing the timer while there is a call for service and all car doors are at rest, and contacts operated by the timer arranged to break the circuit that energizes the car selection and dispatching floor relays of the elevator cars.

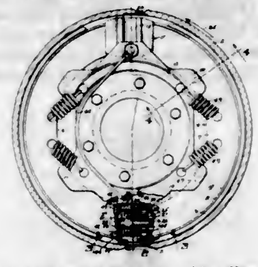
2,833,377
RAILWAY VEHICLE BRAKE RIGGING
William F. Holin, Riverside, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 1, 1954, Serial No. 465,889
1 Claim. (Cl. 188—33)



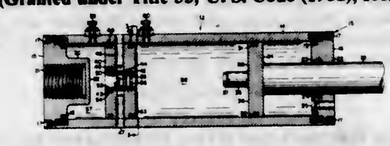
In a brake rigging for a railway vehicle truck, a connection between a substantially vertical brake lever movably supported on said truck and having wheel engaging means adjacent a wheel thereof and means to move said brake lever relative to said wheel including a substantially horizontal operating lever movably supported on said truck comprising a portion on said operating lever having a vertically extending opening therein, a flange in said opening spaced from the upper end thereof, a bushing in said opening rotatably supported on said flange, said bushing having a rectangularly shaped guide hole extending vertically therethrough, a cooperating rectangularly shaped upper end on said vertical lever received in the rectangular hole in said bushing whereby said end of said vertical brake lever may move vertically with respect to said bushing and said bushing acts as a rotatable bearing journaling the upper end of said vertical lever in said opening while allowing axial movement thereof, and a cap secured to said operating lever and having a hole therein through which said upper end extends, said cap rotatably retaining said bushing in said opening.

2,833,378
BRAKE WITH PIVOTED MOTOR
John A. Main, Birmingham, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application December 18, 1953, Serial No. 398,923
11 Claims. (Cl. 188—78)

1. A brake comprising a brake drum, brake shoes within and engageable with said drum and having adjacent ends, said shoes being movable circumferentially by said drum, and means for moving said shoes against said drum including a wheel cylinder extending between said adjacent ends of said shoes, means rockably supporting said wheel cylinder, said wheel cylinder being provided with relatively movable abutments operable by fluid under pressure to engage and spread apart said adjacent shoe ends to engage said shoes with said drum, and said wheel cylinder being provided with other abutments rockable with said wheel cylinder and engaging and transmitting thrust from one of said adjacent shoe ends to the other of said adjacent shoe ends.



2,833,379
SHOCK AND VIBRATION ISOLATOR
Lyle E. Matthews, Santa Paula, and E. Quimby Smith, Jr., Oxnard, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application December 10, 1954, Serial No. 474,632
7 Claims. (Cl. 188—94)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A device for minimizing the transmission of shocks and vibration from a first member to a second member, comprising an essentially cylindrical body means carried by said second member and having first and second closed chambers formed therein, a fluid disposed within each of said chambers, the fluid in said second chamber being initially under greater pressure than the fluid in said first chamber, piston means carried by said first member and positioned within said body means for slidable movement along the longitudinal axis thereof, said body means having passage means formed therethrough for venting said first chamber to atmosphere, valve means having opposed faces and being disposed within said body means for slidable movement coaxially with said piston means for normally sealing said passage means and preventing said first chamber from being in communication with atmosphere, means for applying the pressure of the fluid in said first chamber to one face of said valve means, and means for applying the pressure of the fluid in said second chamber to the opposite face of said valve means, the instantaneous position of said valve means on the longitudinal axis of said cylindrical body means being determined by the difference in pressure of the fluids in said two chambers.

2,833,380
SHOCK ABSORBER
James W. Carpenter, Cleveland Heights, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application April 14, 1955, Serial No. 501,396
1 Claim. (Cl. 188—96)

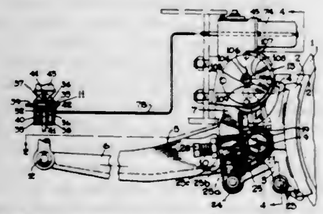
A shock absorber comprising a first cylindrical member formed with a bulkhead closing one end thereof, a

second cylindrical member with its inner end projecting into the other end of said first member, said members being capable of relative axial motion, an element on said second member formed with an orifice, and a bag-shaped flexible diaphragm closing said second member on the side of said element remote from said inner end, a first liquid filled chamber defined by said first member in fluid communication through said orifice with a second liquid filled chamber defined by said diaphragm,



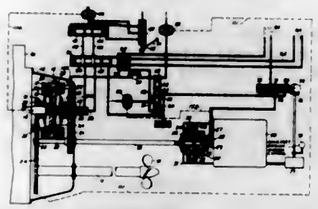
and a metering pin mounted on said first member regulating the flow of said liquid through said orifice, said members being subjected to forces effecting said axial motion of said members toward each other and causing said metering pin to project into said second chamber to engage, stretch and break said diaphragm to provide fluid escape means from said second chamber and prevent rebound of said members axially away from each other upon removal of said forces.

2,833,381
BRAKE MECHANISM WITH AUTOMATIC SLACK ADJUSTMENT
Joseph F. Frola, Braddock, and Harry C. May, East McKeesport, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application September 28, 1953, Serial No. 382,574
13 Claims. (Cl. 188—198)



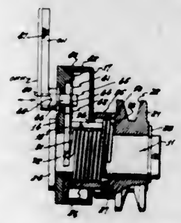
1. In a fluid pressure brake mechanism of the type comprising a braking element for frictional braking engagement with a rotatable member to be braked, the combination of a lever comprising two rigidly connected arms projecting in different directions from a common junction portion, said lever being operatively connected in proximity of said junction portion to said braking element, support means carrying one arm of said lever for permitting pivotal movement of said lever relative thereto, a brake cylinder device pivotally connected to the other arm of said lever for controlling such pivotal movement, power means for shifting position of said support means to thereby reduce the amount of arcuate travel of said lever in effecting such engagement to compensate for wear of the braking element and the member to be braked, and means effective in response to arcuate travel of said lever exceeding a certain amount in effecting braking engagement of the braking element with the member to be braked for initiating operation of said power means.

2,833,382
PROPULSION APPARATUS FOR SHIPS OR BOATS
George Hamilton Murray, Pinner, and Ernest Brook, Cleckheaton, England, assignors to D. Napier & Son Limited, London, England, a British company
Application May 9, 1955, Serial No. 506,754
Claims priority, application Great Britain May 13, 1954
8 Claims. (Cl. 192—.098)



1. A marine propulsion unit comprising a main engine and a propeller, transmission mechanism including a main clutch between the main engine and the propeller, an auxiliary engine and transmission mechanism including an auxiliary clutch between the auxiliary engine and the propeller, the auxiliary clutch including a hydraulic operating piston lying in a hydraulic chamber, and including an auxiliary engine pump driven by the auxiliary engine and constituting a source of hydraulic pressure responsive to the speed of rotation of the auxiliary engine, and an auxiliary clutch fluid pressure line between said pump and said chamber to supply pressure fluid to engage the auxiliary clutch, and a propeller driven pump constituting a second source of pressure fluid responsive to the speed of rotation of the propeller shaft, and a pressure responsive device sensitive to the pressure of this source and arranged to prevent engagement of the auxiliary clutch if the pressure exceeds some predetermined relatively low value corresponding to a relatively low speed of rotation of the propeller shaft.

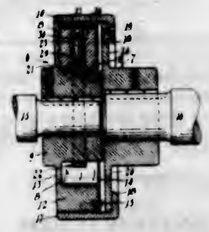
2,833,383
CLUTCH
Edwin S. Christensen, Long Beach, Calif.
Application May 13, 1955, Serial No. 508,019
4 Claims. (Cl. 192—41)



1. In a clutch, the combination of: a stationary member; a sleeve adapted to be rotated in a positive direction about an axis passing through said member, said sleeve being journalled in said member; a washer mounted to rotate on said sleeve, said washer being so placed that it can frictionally engage a stationary surface on said member; a driven member carried on and free to rotate on said sleeve; a spring having its inner end secured to said washer and its outer end secured to said driven member, the wire of said spring winding around

said sleeve away from its inner end in a negative direction; a detent secured to said stationary member, said detent having an end positioned to press said washer to said stationary surface on said stationary member; and means by which an operator can so press said end of said detent against said washer.

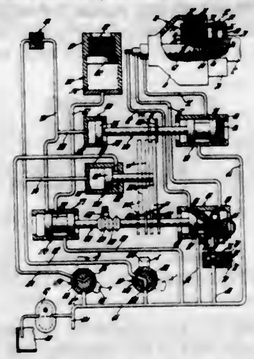
2,833,384
SHOE MOUNTING FOR CENTRIFUGAL CLUTCH
Norman B. Wilson, Toronto, Ontario, Canada
Application April 21, 1955, Serial No. 502,941
2 Claims. (Cl. 192—105)



1. In a centrifugal clutch, a shoe assembly including a central stud support and a complement of driven shoes therearound capable of radial excursion for bringing a lining into driving engagement with a circumscribing drum of a driven member, each shoe having an inner face and an outer face and further having a radial bore of a uniform diameter leading to and communicating with said inner face, said radial bore having a diametrical reduction which provides an outer end wall adjacent to said outer face with a relatively small hole leading to said outer face, said radial bore further having an annular groove in close proximity to said inner face, a stud centrally disposed in said radial bore and having an outer end and an inner end, said stud provided at its outer end with a shoulder-forming element therearound and with a wrench-receiving socket disposed axially of said stud whereby said stud may be turned by a wrench admitted through said small hole to engage in said socket, said inner end having a diametrical reduction forming a stop shoulder and the extremity of this reduction having screw threads by which it is threadedly secured in a tapped hole provided in said stud support, a split ring sprung in said annular groove in said radial bore and having an inner diameter dimensioned less than said stud but larger than said diametrical reduction at the inner end thereof, said stop shoulder and said split ring being spaced apart a distance less than the thickness of said lining so that the shoe cannot come into contact with the drum in the event that said lining wears excessively, and a helical compression spring encircling said stud, said spring seated against said shoulder-forming element and against said split ring.

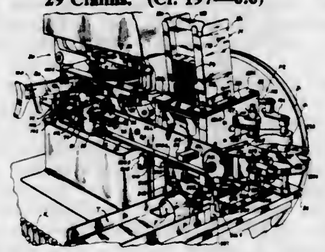
2,833,385
CLUTCH CONTROL WITH COOLING MEANS THEREFOR
Victor W. Peterson and Marshall H. Thomas, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 11, 1953, Serial No. 354,334
2 Claims. (Cl. 192—113)

1. A clutching system comprising, in combination, a driving shaft, a driven shaft, a hydraulically operated clutch for coupling the driving shaft to the driven shaft, means for supplying engaging and disengaging fluid to the clutch including a first valve, means for supplying cooling fluid to the clutch including a second valve, a first hydraulic motor for operating the first valve to engage and disengage the clutch and for opening the second valve to supply cooling fluid to the clutch while it is being engaged, means for terminating the supply of cooling fluid to the clutch by closing the second valve after



the clutch is fully engaged, and means for momentarily reopening the second valve to supply cooling fluid to the clutch while it is being disengaged including a second hydraulic motor.

2,833,386
EMBOSSING MACHINES
Carl J. Hueber, Euclid, Ohio, assignor to Addressograph-Multigraph Corporation, Wilmington, Del., a corporation of Delaware
Application February 24, 1953, Serial No. 338,341
29 Claims. (Cl. 197—6.6)

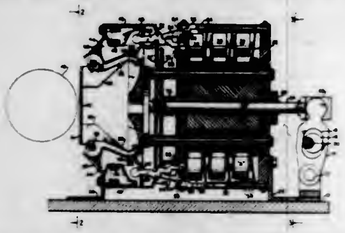


1. In a device of the kind described, a magazine for holding a supply of printing plates to be embossed, a feed means at the bottom of the magazine operative to advance such unembossed plates individually to loading position whereat the plates can be loaded on to a movable carriage to be carried to an embossing position, a passageway adjacent the magazine into which an embossed plate may be ejected for movement through the passageway, a station at the other end of the passageway including normally closed discharge means to stop said plate in the passageway, pressure-applying means for working on the face of such an embossed plate to even out the embossures thereon, means responsive to operation of the pressure-applying means to open said discharge means, and means disposed in the path of the movable carriage responsive to movement of the carriage for instituting operation of the pressure-applying means.

2,833,387
SERIAL PRINTER
Clair D. Lake, Binghamton, Michael Fiehl, Endicott, and Mortimer L. Rogers, Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 5, 1955, Serial No. 499,266
5 Claims. (Cl. 197—14)

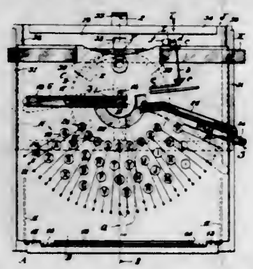
1. In a mechanism for printing serially at a common print position, a reciprocable actuating disc, a plurality of

type bars pivotally mounted in a circle coaxial to said actuating disc, said type bars being normally biased away from the print position but operable thereto to print and retractable therefrom, means for reciprocating said actuating disc axially toward and away from the print position, and a plurality of devices each associated with



a different type bar and selectively operable to connect the different type bars to the actuating disc for operation to the print position, each of said devices being also effective when the associated type bar has been operated to the print position to connect the operated type bar to the actuating disc for positive retraction from the print position.

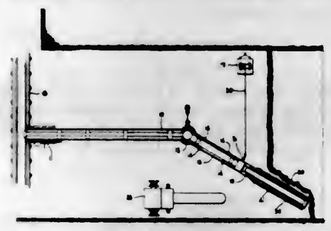
2,833,388
TOY TYPEWRITER
George E. Albert, Los Angeles, Calif.
Application September 30, 1955, Serial No. 537,757
8 Claims. (Cl. 197—47)



1. In a typewriter, a base plate, a panel mounted on and overlying said base plate for vertical swinging movement relative thereto, a stationary platen carried on and projecting upwardly from said plate, means for positioning on said platen a sheet to be printed, a flat disk pivoted on the underside of said panel, an arcuate type bar fixed on the under-side of said disk, said type bar embodying a series of type elements arranged to be individually disposed to overlie and be presented to said platen in a printing position on turning said disk, manually operable means for turning said disk, and means on said panel co-operable with said last named means to enable disposing selected of said type elements in their printing position opposite said platen; said platen being dimensioned to accommodate one only of said elements at a time.

2,833,389
SHAKER CONVEYOR LOADING DEVICE
Ernst R. Bergmann, Evergreen Park, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application January 14, 1955, Serial No. 481,753
7 Claims. (Cl. 198—14)

1. In a shaker conveyor loading device, a longitudinally reciprocable and laterally movable loading pan having a flat bottom and having generally parallel angular reinforcing plates extending along opposite sides thereof and secured to the top of said pan, said angular reinforcing plates having entering angular faces inclined with respect to the bottom of said pan at relatively flat angles with respect thereto and facing the edges of said pan and having steeper angular faces facing inwardly of said pan and



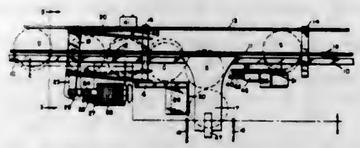
forming material retaining means for said pan in either direction of loading movement thereof, and a reversible spill plate extending along the inner edge of the retreating of said reinforcing angles at the angle of the inclined face thereof.

2,833,390
CONVEYOR SYSTEM
Gerald G. Greulich, Pittsburgh, Pa.
Application July 18, 1955, Serial No. 522,546
4 Claims. (Cl. 198—20)



1. A conveyor system comprising, in combination, a pair of substantially horizontal endless conveyor belts adapted for conveying movement in the same direction, said endless belts being parallel and longitudinally staggered with respect to each other, the looped ends of each of said endless conveyor belts being supported by a spaced pair of pulleys of different diameter, the axes of all of the pulleys of both of said endless conveyor belts occupying substantially the same plane, the larger pulley for one endless conveyor belt being disposed more adjacent the smaller pulley for the other endless conveyor belt, means for transferring materials from the highest of the upper flights of said endless conveyor belts at a point which is relatively adjacent its larger pulley onto the upper flight of the other endless conveyor at a point which is relatively adjacent its smaller pulley, and means substantially below said last-named means for transferring materials from the highest of the lower fights of said endless conveyor belts onto the lower flight of the other endless conveyor belt.

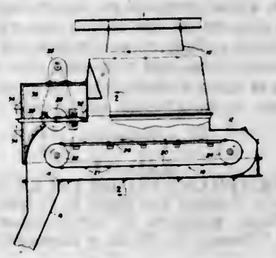
2,833,391
CONVEYOR DIVERTER
Martin J. Wilcox, Portland, Oreg.
Application January 26, 1956, Serial No. 561,565
7 Claims. (Cl. 198—31)



2. In combination with a conveyor of the character described for conveying cans and the like, a downwardly inclined slide leading off from one side along said conveyor assembly, selectively operable means for directing

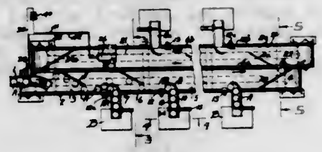
a desired can moving along said conveyor assembly from said conveyor onto said slide, a gate positioned near the top of said slide to prevent a can on said conveyor from moving off of said conveyor and down said slide when said gate is closed, means normally holding said gate closed, solenoid operated mechanism for opening said gate when said solenoid is energized, and a control circuit and switch for said solenoid operated by said first mentioned can directing means so as to cause said control circuit and switch to be closed and said solenoid to be energized whenever said first mentioned can directing means is operated.

2,833,392
FEEDER FOR DISCRETE CELLULOSE MATERIAL
Harold G. Meissner, Mount Vernon, N. Y., assignor to Combustion Engineering, Inc., a corporation of Delaware
Continuation of application Serial No. 325,816, December 13, 1952. This application June 20, 1957, Serial No. 667,311
3 Claims. (Cl. 198—62)



1. In a feeding device of the type described adapted to be positioned below a generally vertical hopper having an opening in the bottom, the combination of a generally horizontal endless conveyor, a toothed drum positioned above said conveyor adjacent one end thereof and extending generally transversely of the upper run of the conveyor, said drum being pivotally mounted for movement toward and away from said upper run and biased toward said upper run by gravity, stop means limiting the movement of the drum toward said upper run, means driving said conveyor and said drum by means of a single motor so that the movement of their proximal surfaces is in the same direction with the upper run of the conveyor moving in the direction toward said drum and with the surface of the drum traveling at a substantially greater speed than that of the conveyor, said last mentioned means comprising driving wheels secured to said drum and the driving mechanism of the conveyor with the latter having a substantially greater diameter than the former, two fixed idler wheels positioned immediately adjacent opposite sides of a plane that includes the axis of the drum and a pivotal axis of the drum mount with the axis of said idler wheels lying in a plane generally normal to the last mentioned plane and adjacent the pivotal axis of the drum mount being intermediate the drum axis and the pivotal axis and disposed so that when the drum is in its normal operating position lines drawn from said pivotal axis tangent to the upper and lower portions, respectively, of the drum driving wheel are tangent to the respective idler wheels and an endless motor driven, driving member serially passing over one of the idler wheels, the drum wheel, the other of the idler wheels and the conveyor wheel.

2,833,393
DISTRIBUTING CONVEYOR ARRANGEMENTS
John G. Kay, Detroit, Mich., assignor to F. Jos. Lamb Company, Detroit, Mich., a corporation of Michigan
Application September 25, 1956, Serial No. 611,961
1 Claim. (Cl. 198—85)



An article distribution conveyor system comprising in combination: a pair of adjacent oppositely driven belt type article supporting conveyors each of a width sufficient to support a plurality of articles distributed abreast one another on the conveyor, a partition extending along between the conveyors, an outer wall extending along the outside edge of each conveyor and each forming with the partition conveyor guideways for articles on the conveyors moving in opposite directions, a recirculating diverter wall at opposite ends of the conveyors to divert articles from the downstream end of one conveyor to the upstream end of the other conveyor, a plurality of chutes disposed spaced apart along the outer wall of each conveyor to receive articles from each conveyor, a plow disposed adjacent the downstream side of each chute and extending over the associated conveyor from the outer wall a distance only just exceeding the maximum horizontal dimension of each article to guide one article at a time into the chute from the conveyor, a plurality of diverters for each conveyor extending from said partition toward the outer wall with one diverter at the upstream side of each plow to divert articles toward the outer wall of the conveyor, a deflector disposed adjacent the outer wall at the upstream side of each chute and spaced from the point of the plow a distance just exceeding the maximum horizontal dimension of each article to closely guide one article at a time into the chute from the conveyor, each deflector having a convex article-abutting surface, stop means in each chute spaced along the chute a distance such that when the chute is filled with articles the last article plowed thereinto by the plow lies between the plow and the deflector with the plow point and the high point of the convex surface of the deflector and the surface of said last article lying substantially on a line inclined inwardly of the conveyor from the outer wall thereof and in the direction of the conveyor travel, whereby succeeding articles are deflected around the plow.

2,833,394
DUAL-BELT ELEVATOR FOR POULTRY FEEDS
Nat Cordis, Silver Lake, Wis.
Application November 12, 1953, Serial No. 391,495
6 Claims. (Cl. 198—165)

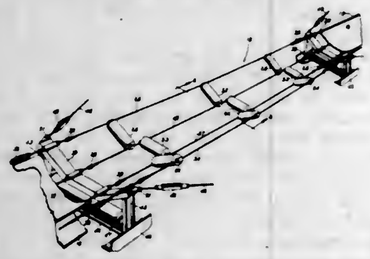
1. A multiple level feeder for poultry and the like which comprises a feed hopper on a first level, first feed distributing means on said level, second feed distributing means on a second level, a first endless conveyor receiving feed from said feed hopper and conveying feed along said first distributing means. An elevator extending from said first level to a point above said second distributing means, said elevator including an upwardly extending flight of said endless conveyor confronting a second endless conveyor extending between the two levels, and chute means extending downwardly from above said second level and discharging onto said first feed distributing

means, said elevator discharging from between said confronting endless conveyor and said flight into said chute



means and onto said second feed distributing means on said second level.

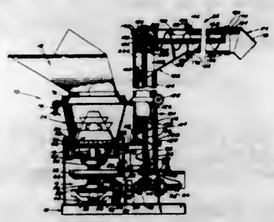
2,833,395
SUPPORT ASSEMBLY FOR CONVEYOR
Roy F. Lo Presti, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application April 22, 1955, Serial No. 503,164
9 Claims. (Cl. 198—192)



1. A support assembly for the conveying reach of an endless belt conveyor, said support assembly comprising a pair of stationary laterally spaced flexible strands, a plurality of roller means spanning the distance between said flexible strands and spaced throughout the length thereof for transferring the load on said reach into said strands, a cross member at each end of said flexible strands providing points of connection therefor, at least one stationary flexible strand extending along an axis which lies between said flexible strands and spaced from the plane defined thereby, said one flexible strand being also connected at each end to said cross members, a standard supporting said cross members, and means connected to one of said cross members and anchored at a remote point for imposing tension on said stationary flexible strands.

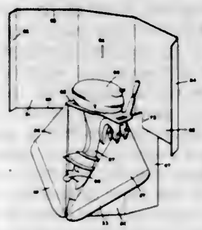
2,833,396
LATERAL AUGER DISCHARGE
Fred E. Knoedler, Streator, Ill., assignor to Knoedler Manufacturers, Inc., Streator, Ill., a corporation of Illinois
Application April 12, 1957, Serial No. 652,622
6 Claims. (Cl. 198—213)

1. A conveyor to move material, comprising a vertical auger mounted to pick up the material, said vertical auger including an auger shaft and an auger flighting mounted thereon, a first housing enclosing said vertical auger and including a portion extending laterally outwardly therefrom at the upper end thereof, the upper end of said vertical auger shaft being received in a first thrust bearing mounted on said first housing, a lateral auger positioned in said lateral portion of said first housing, said lateral auger including a lateral auger shaft and a lateral auger flighting mounted thereon, gears interconnecting the upper end of said vertical auger and the adjacent end of said lateral auger to provide driving connection therebetween, a second housing mounted in said first housing and enclosing said gears and having apertures therein to receive



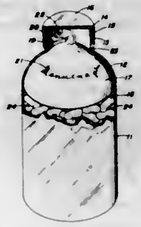
said auger shafts, a thrust bearing mounted in said second housing and receiving said lateral auger shaft therethrough to support said lateral auger in cooperation with said gears with the outer end of said lateral auger suspended free, a plate mounted on said vertical auger shaft below and adjacent to said second housing, and a pair of fins extending radially outwardly from said auger shaft and downwardly from said plate, said plate and said fins cooperating to move material from the upper end of said vertical auger to the adjacent end of said lateral auger.

2,833,397
OUTBOARD MOTOR PACKAGE
Paul F. Boeye, Mound, and Harry F. Collins, Jr., Minneapolis, Minn., assignors to Northwestern Corrugated Box Co., Minneapolis, Minn., a corporation of Minnesota
Application November 17, 1955, Serial No. 547,387
4 Claims. (Cl. 206—45.14)



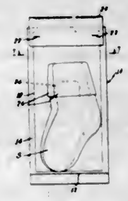
4. A display for an outboard motor having a motor case and a substructure, said display comprising a front section and a rear section having overlying vertical transverse walls secured together the upper edges of said transverse walls forming a support for engagement with the motor case, side walls issuing from the vertical edges of said transverse walls, the side walls of said first section being adapted to extend toward each other in converging relation and providing a compartment for the reception of said substructure, and the side walls of said second section being adapted to extend away from each other in diverging relation, diagonal scores on the side walls of said first section running from the upper portions of the same near the transverse wall thereof and to the lower portions of the same near the front edges thereof and forming wings adjacent the substructure adapted to extend outwardly from the lower and rear portions of said side walls and on which display matter may be placed, and a third section having a rear wall and side walls issuing from opposite ends thereof, said side walls having slots therein adapted to receive the uppermost portions of the side walls of said second section to position said rear wall in spaced parallel relation to said transverse walls to form a compartment receiving the motor case.

2,833,398
INFLATED-CUSHION SEALED CONTAINER
Theodore Henry Marshall, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application April 13, 1955, Serial No. 501,124
2 Claims. (Cl. 206—46)



1. A package comprising: a container for fragile articles comprising a glass bottle having an article receiving portion, an open neck portion thereon, said neck portion being of markedly less diameter than said article receiving portion, and a shoulder between the neck portion and the article receiving portion, a gas filled, inflated, expansible, pneumatic, thermosealing-plastic, sealed bag in contact with said shoulder, and retained against expulsion by said shoulder, a heat-sealed stem portion on said bag projecting into the bottle neck, and sealed therein, thus enclosing an article receiving space below said bag; fragile articles filling said space, and supporting said bag against said shoulder; and a protective closure over the neck of the bottle.

2,833,399
HOSE PACKAGING DEVICE
George M. Hartman, New York, N. Y., assignor to Charles H. Bacon Company, New York, N. Y., a corporation of Delaware
Application September 13, 1956, Serial No. 609,662
2 Claims. (Cl. 206—46)



1. A hose packaging device, comprising a flat envelope formed of a length of tubular stock having opposite sides secured to each other transversely thereof for closing the envelope at one end thereof, a mounting card and a pair of socks overlying the latter disposed in said envelope and held in said envelope in flat relation by said mounting card, said card having a struck out tab and each of said socks being provided with a folded over cuff, said tab being disposed between the cuff of one of said socks and the adjacent leg part of said one sock for holding the latter in position on said card, the other sock of the pair lying in juxtaposed relation against said one sock and thereby frictionally held in position, and a strip of paper folded over the end portions of the envelope at the opposite end of the envelope and secured to said end portions and to said card for closing said opposite ends of the envelope and for preventing movement of said card relative to said envelope.

2,833,400
COMBINED PACKAGE AND MAILING COVER
Frank J. Lefebvre, Caldwell, and Richard W. Miller, Livingston, N. J., assignors to Ivers-Lee Company, Newark, N. J., a corporation of Delaware
Application April 23, 1956, Serial No. 580,093
11 Claims. (Cl. 206—56)



1. A complex package and mailing cover comprising an approximately flat commodity container having thin flexible walls providing at least one compartment in which a commodity is enclosed, said container including a marginal extension, and a relatively stiff but flexible cover, said cover comprising a main body panel having a length and breadth slightly larger than the length and breadth of said container and juxtaposed to one wall of the container, a container-attaching flap having an edge adjacent an edge of said main body panel and juxtaposed to the opposite wall of the container, said marginal extension being secured to said cover intermediate said edges, the opposite edge of said main body panel being provided with a closure flap adapted to be juxtaposed to said opposite wall of the container and to engage said container-attaching flap, and a mailing and package closure portion comprising an addressing panel and package closure means for maintaining the cover closely surrounding said container but providing for opening of the cover to open the package for access to said container, said addressing panel having substantially the same dimensions as said main body panel and adapted to be exposed on one side of the package when closed, said mailing and package closure portion being separably connected to said cover.

2,833,401
COVERED PACKAGE WITH RELEASABLE INITIALLY SEALED AND LOCKED CLOSURE FLAP
Frank J. Lefebvre, Caldwell, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of Delaware
Application August 13, 1956, Serial No. 603,681
2 Claims. (Cl. 206—56)



1. A package comprising an approximately flat commodity-container having two opposed walls with outer

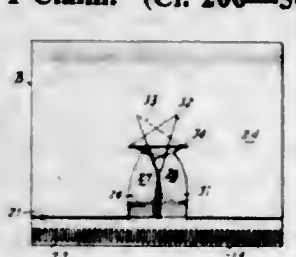
thermoplastic surfaces, and a cover comprising a strip of flexible material having a fold providing a body portion with a container-attaching flap, one edge portion of said container being disposed in said fold in juxtaposition to said body portion with one side positively secured to said body portion and with the other side at least partially covered by and positively secured to at least a part of said container-attaching flap, said body portion having a closure flap hinged at the end of the body portion opposite said container-attaching flap and of a size and shape to overlie the second mentioned side of said container, there being an opening in said cover extending across said fold and providing registering gaps in said body portion and said container-attaching flap through which are exposed portions of both of said outer surfaces of the container, and said closure flap having a tongue passing through both of said gaps and hooked over said edge of said container that is exposed in said gaps and thermoplastically sealed to both of said surfaces of the container to positively hold the closure flap in overlying relation to said container, said closure flap being otherwise free of said container, there being provision for simultaneous manual separation from said closure flap and from said container, respectively, of said tongue and the part of said container that is sealed to said tongue, thereby to release said closure flap for swinging thereof away from the container to provide access to the container.

2,833,402

COVERED PACKAGE WITH HEADED CLOSING MEMBER

Frank John Lefebvre, Caldwell, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of Delaware

Application November 20, 1956, Serial No. 623,367
1 Claim. (Cl. 206—56)



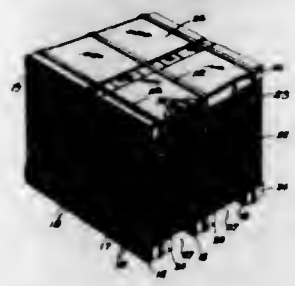
A package comprising an approximately flat commodity container having outer thermoplastic surfaces, and a cover comprising a strip of flexible material having a fold providing a body portion with a container-attaching flap, one edge portion of said container being disposed in said fold in juxtaposition to said body portion and positively thermoplastically sealed directly to said body portion and to said container-attaching flap in a zone disposed inwardly of said fold, with the edge of said container-attaching flap spaced from said container, said body portion having a closure flap hinged at the end thereof opposite said container-attaching flap and of a size and shape to overlie the side of said container opposite said body portion, the free edge of the closure flap being tucked between the container and the free edge of the container-attaching flap to close the package, and means initially positively securing said closure flap in package closing position, said means including a slot in said closure flap and a locking member projecting from the free edge of the container attaching flap overlying said closure flap and latchably receivable in said slot to hold the closure flap in package closing position, the locking member being formed with parallel shank portions each provided with a head forming a shoulder at the end of the shank portion, said shanks being laterally slidably contractable so that the heads may overlie one another for insertion into the slot and thereafter are expansible to co-planar positions where said shoulders project, the slot being of a length adapted to receive said heads in relatively overlying condition and providing locking abutments therebeyond for said shoulders when the heads are in co-planar position, said shank portions being weakened between said heads and said container-attaching flap to provide for easy tearing of the locking member away from the cover to release the closure flap for opening the package.

2,833,403

BALE OF STRIP MATERIAL

James C. Benschoter, Stockton, Calif., assignor to Fibreboard Paper Products Corporation, a corporation of Delaware

Application June 1, 1954, Serial No. 433,480
3 Claims. (Cl. 206—60)



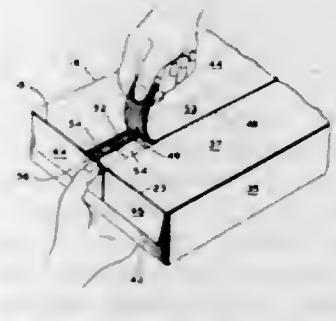
1. A bale of relatively long and narrow unfolded and flat one piece rectangularly shaped paperboard strips all of substantially the same length, said bale consisting essentially of three vertically arranged sections of said strips, one of said sections comprising some of said strips stacked in overlying relationship to provide three substantially parallel spaced apart supporting legs, the spaces between the legs forming free openings each adapted to receive a lift element, the outermost legs being spaced apart a distance in the order of the length of said strips to support the end portions of other of said strips, said other strips being arranged in a plurality of abutting parallel stacks supported by and extending transversely over all of said legs with the end portions thereof supported by said outermost legs, and said other strips forming as a second bale section the main body portion of said bale constituting the major part thereof, the third section of said bale comprising a reenforcing layer of additional strips supported by the top of said main body portion, said last named additional strips being out of register with respect to the stacked strips of said main body portion, and a plurality of securing members about said bale holding said strips together, said securing members extending about said bale only in a direction lengthwise of said legs with a securing member extending over the under surface of each of said legs.

2,833,404

SHIPPING BUNDLE OR PACKAGE

Foster Jacobs, Stamford, Conn., and George M. Woodruff, Thornwood, N. Y., assignors to General Foods Corporation, New York, N. Y., a corporation of Delaware

Application March 9, 1956, Serial No. 570,589
2 Claims. (Cl. 206—65)



1. A shipping bundle or package comprising a plurality of substantially rectangular cartons assembled to form a substantially solid substantially rectangular block, and

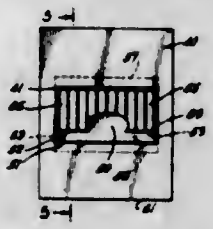
an elongated wrapper blank wrapped tightly around said block and secured thereon to form a unitary closed shipping bundle, said blank having an intermediate portion covering the bottom of said block and being wrapped tightly around the side edges of the block and over its top with the end edges of the blank overlapping and secured together to provide a two-ply strip along the center line of said top, the side edges of said blank being tucked in and secured together at the ends of said block to close said bundle, said blank being made of corrugated paperboard having an outer facing sheet and said facing sheet extending beyond one end of said corrugated board along one end edge of said blank so that one of the overlapping end portions is reduced in thickness relative to the body of the blank, said corrugated board being cut through to said face sheet parallel to but spaced from the other end edge of the blank, the overlapping end portions of the blank being secured together over at least the major portion of the area between the line of said one end of said corrugated board and the line of said cut and said facing sheet tearing along said lines when said strip is pulled up to open the bundle.

2,833,405

DISPLAY PACKAGE FOR LONGITUDINALLY ELONGATED ARTICLES

Edmundo Fernandes Del Nero, Sao Paulo, Brazil, assignor to The American Rondo Corporation, Hamden, Conn., a corporation of Connecticut

Application December 1, 1955, Serial No. 550,431
Claims priority, application Germany December 14, 1954
4 Claims. (Cl. 206—78)



4. A display package for ampoules having neck-like reduced ends, comprising, in combination, a support having a transverse slot disposed above the transverse median of said support, a cut-out locking member on said support forming a transverse opening disposed below the transverse median of said support, said cut-out locking member being arranged to be folded to provide a transversely extending ledge positioned substantially at right angles to said support at the base of said transverse opening, said locking member having a portion extending upwardly from said ledge spaced from and substantially parallel to said support and having a locking tab extending inwardly from said upwardly extending portion, a corrugated receiver constituted of spaced juxtaposed compartments and having top and bottom flaps extending from the top and bottom edges respectively of said compartments, the top flap passing through said transverse slot to engage the back of said support above said slot and the bottom flap extending through said transverse opening to engage the back of said support just below said transverse opening, the lower edge of said compartments resting on said ledge and being closed thereby, said corrugated receiver having a transversely extending locking slot passing through the walls of said compartments near the base thereof, said locking tab being positioned in said locking slot to removably lock the base of said corrugated receiver to said support and to form at the base of each compartment a receptacle for the neck end of an ampoule, which receptacle substantially completely envelopes said neck end and protects the same.

2,833,406

EXTRUSION DIES

Peter Billen, Leverkusen-Kupperteg, Germany, assignor to Schloemann Aktiengesellschaft, Duesseldorf, Germany

Application February 24, 1954, Serial No. 412,332
Claims priority, application Germany April 17, 1953
2 Claims. (Cl. 207—17)



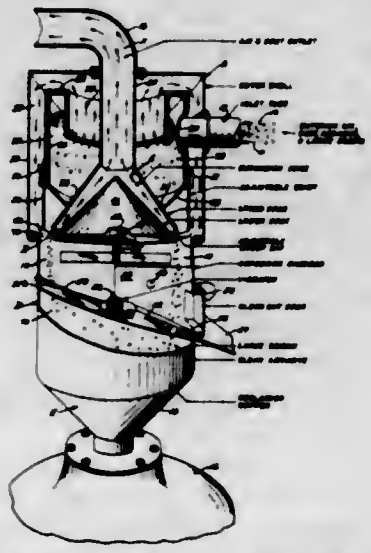
1. An extrusion die having a die aperture bounded by plane internal wall surfaces, for the production of solid and hollow products with plane surfaces, the die comprising on its front surface, that is to say, on the die surface facing the receiver, a plurality of forwardly projecting acute-angled ridges, one along each edge of the die aperture, the ridges together surrounding the entire front edge of the die aperture, the knife-edge of each ridge being located in the plane of the associated wall surface of the die aperture, and the knife-edge of each ridge having a concave curvature extending from one corner to an adjacent corner of the die aperture.

2,833,407

SEPARATOR AND RECLAIMER

William H. Mead, Oakland, Arthur A. Zambruno, San Mateo, and Alexander L. Jett, Menlo Park, Calif., assignors, by mesne assignments, to said Mead

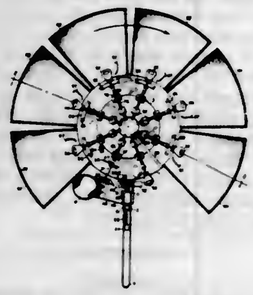
Application February 18, 1955, Serial No. 489,127
15 Claims. (Cl. 209—30)



1. In an apparatus for separating and reclaiming a relatively dense comminuted material from an airborne intermixture of said material with a plurality of relatively less dense contaminating materials, the combination of a cyclone chamber having a tangential inlet for said airborne intermixture, means for separating said air and said intermixed materials into separate streams, and a stratifying annular frusto-conical slide on which said stream of separated intermixed materials fall through and beyond a restricted annular opening at the lower end of said cyclone chamber; means directing said air stream up away from the slide through the upper end of said cyclone chamber and for redirecting the air stream around said cyclone chamber to the lower end of said slide; an outlet conduit for said air extending from below the lower end of said cyclone chamber and below the lower end of said slide axially upwardly through said cyclone chamber and out through its upper end, so that a cross current of said air sweeps through said materials into said outlet conduit as they cascade off the bottom of said slide; and a baffle means providing a restricted entryway gap into said outlet conduit

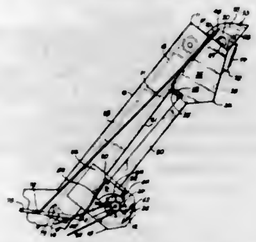
immediately adjacent the bottom of said slide and controlling the velocity of the air sweep uniformly over the gap area, whereby substantially all the relatively less dense contaminating materials may be swept free of said relatively dense materials and into said gap by said air sweep, while said dense materials fall below.

2,833,408
EGG SEPARATING MACHINE
Karl H. Norris and Albert W. Brant, Beltsville, Md.
Application May 21, 1956, Serial No. 586,332
4 Claims. (Cl. 209—111)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for separating eggs according to shell color comprising: a stationary support; a rotatable table mounted on said support; a plurality of stationary bins disposed in a circular arc about said support; a plurality of similar radially disposed vertically adjustable egg-carrying mechanisms comprising egg-carrying trays mounted on said rotatable table; egg-supporting means secured to the stationary support in advance of the first of said bins adapted to hold a single egg; egg-loading means secured to the stationary support adapted to deposit one egg on said egg-supporting means when actuated by a first of said egg-carrying trays, said egg-carrying trays being adapted to pass beneath said egg-supporting means whereby a second of said egg-carrying trays removes the egg deposited on said egg-supporting means while simultaneously actuating the egg-loading means to deposit another egg on the egg-supporting means; color measuring means comprising illuminating means for projecting a beam of light at an egg while the latter is on said egg-supporting means and photoelectric means for receiving light reflected from said egg; a self-balancing electrical bridge circuit including said photoelectric means and a balancing rheostat as legs of said bridge circuit; an amplifier having an input side and an output side for amplifying differences in voltage produced by said photoelectric means due to differences in shell color, the photoelectric means being connected to the input side of the amplifier; a synchronous motor responsive to said differences in voltage having one winding connected to the output side of the amplifier, said motor carrying said balancing rheostat and a positioning cam on its shaft; a cam follower adapted to constantly engage said positioning cam, said cam follower being so located as to engage in transit contact means rigidly dependent from the aforementioned egg-carrying trays, said egg-carrying trays being positioned in accordance with the position of the cam follower; means secured to the egg-carrying trays adapted to lock said trays in the position fixed by the cam follower; a plurality of stationary depressor bars equal in number to the number of stationary bins and located directly in front thereof, said depressor bars having their leading edges at progressively increasing heights above the stationary support in the direction of rotation of the rotatable table and having their distant edges at substantially equal heights above the stationary support, said distant edges always being lower than the leading edges; means rigidly depending from each aforementioned egg-carrying tray adapted to engage the lower surface of a depressor bar whose leading edge is at a height corresponding to the height of the tray and to draw said tray down to the lower level of the distant edge of said depressor bar; egg-ejector means associated with each depressor bar adapted to engage the egg being carried on the tray and deposit said egg in the bin associated with said depressor bar; and means in advance of the color-measuring station secured to the stationary support of the apparatus after the last bin adapted to release the egg-carrying tray from the position fixed by the cam follower whereby the egg-carrying tray is restored to a position for actuating the loading mechanism.

2,833,409
CROP CLASSIFIER FOR COTTON HARVESTERS
Michael S. Sisulak, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application October 28, 1954, Serial No. 465,412
8 Claims. (Cl. 209—137)



6. In a classifier and cleaner, the combination of a conveyor, a classifier disposed in receiving relation to a stream of material descending from the conveyor and including a distribution hood pivotal on a generally horizontal axis for directing the classified material into an associated container, a blower having a nozzle providing an air jet directed into the classifier through said stream of material for separating the material and blowing the lighter material through the hood, said blower having an air inlet opening, valve means associated with the blower for selectively opening and closing said air inlet opening, and an operating linkage interconnecting said valve means with said hood for automatically opening said valve means in one position of the hood, discharging said classified material distantly and closing said valve means in another position of the hood, discharging said classified material closely thereto attendant to and in response to said positioning of the hood.

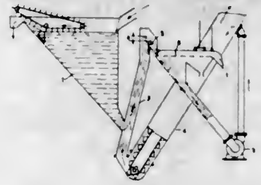
2,833,410
COTTON CLASSIFYING APPARATUS
Michael S. Sisulak and John D. Segredo, Chicago, Ill., assignors to International Harvester Company, a corporation of New Jersey
Application October 28, 1954, Serial No. 465,413
13 Claims. (Cl. 209—137)



13. In a material classifier of the type including structure having a bottom discharge opening for discharging

a mixed aggregate of light and heavy material downwardly therethrough and means including an air nozzle disposed to blow a stream of air across the path of the falling aggregate for entraining the light material therein, a guide deflector assembly disposed in general alignment with said stream of air on the leeward side of the falling aggregate for receiving said light material and including a wall extending generally lengthwise of the air stream from said discharge bottom opening of said structure, and a hood having closed sides and open ends one of which is directed toward the nozzle and the other having a discharge opening remote from the nozzle, said hood telescoped over said wall and said wall and an opposing side of said hood spaced transversely of each other and defining an air passage open at one end to the atmosphere and at the other end to said hood adjacent to said discharge opening for supplying additional air into the hood at said discharge opening thereof in consequence of said stream of air passing through said hood to collectively therewith provide a sufficient body of air for carrying said light material distantly out of said hood, said hood including a bottom positioned to move close to said wall for constricting the discharge opening for increasing the air velocity as said light material is being distantly blown.

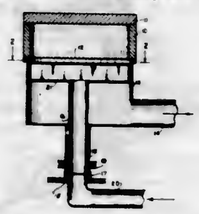
2,833,411
SEPARATING APPARATUS WITH CONSTANT FLOW RATE CONTROL
Michiel Bosman, Beek, and Josef M. H. Beckers, Heerlen, Netherlands, assignors to Stamicarbon N. V., Heerlen, Netherlands
Application October 14, 1953, Serial No. 386,016
Claims priority, application Germany October 14, 1952
4 Claims. (Cl. 209—158)



1. An upward current separator comprising a riser, means for introducing material to be separated into said riser at the lower end portion thereof, means for feeding liquid at the lower end of the riser, means for discharging settled particles at said lower end, an adjustable overflow weir at the upper end of the riser for discharging liquid and floating particles, a screen for separating liquid from said floating particles, means for reintroducing said liquid at the lower end of the riser, a dip pipe connected to said overflow weir, means for admitting compressed air to said dip pipe, a diaphragm control device having a pressure chamber communicating with said dip pipe, and means for raising or lowering the overflow weir when the pressure in the dip pipe rises or falls.

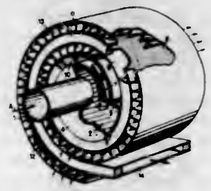
2,833,412
METHOD AND APPARATUS FOR SCREENING
Nikolai Ahlmann, deceased, late of Copenhagen, Denmark, by Klara Mathilde Ahlmann, legal representative, Copenhagen, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a corporation of New Jersey
Application July 27, 1955, Serial No. 524,782
Claims priority, application Great Britain July 28, 1954
7 Claims. (Cl. 209—358)

1. Apparatus for screening finely divided material, which comprises a substantially horizontal screen for supporting a layer of material, the screen having fine apertures, means for directing streams of fluid against the under surface only of the screen, the directing means including an orifice member beneath the screen and the fluid passing upwardly through the screen, means for causing relative movement of the member and screen to subject all parts of the screen to the action of the streams, an enclosure above the screen confining the fluid, which has



passed upwardly through the screen, and causing it to return through the screen, a casing below the screen enclosing the orifice member, and an outlet duct for conducting from the casing the fluid, which has returned through the screen, and the fine fraction entrained in the fluid.

2,833,413
SCREENING APPARATUS
Freerk J. Fontein, Heerlen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands
Application March 23, 1956, Serial No. 573,427
Claims priority, application Netherlands March 25, 1955
5 Claims. (Cl. 209—362)

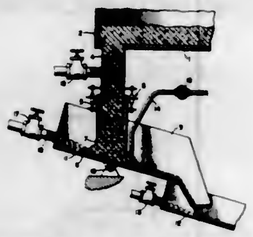


1. A screening apparatus comprising a fixed screening deck extending in a substantially spiral configuration, uninterrupted imperforate means mounted in spaced relation to said screening deck so as to define a first spiral-shaped space adjacent the concave side of said screening deck and a second spiral-shaped space adjacent the convex side of said screening deck, and means for feeding particles to be separated tangentially to one end of the concave side of the screening deck so that the coarse particles will travel from said one end through said first space along the concave side of the screening deck to the other end thereof while the fine particles pass through the screening deck into said second space.

2,833,414
MEANS FOR DISCHARGING GRANULAR PRODUCTS IN WET TREATMENT APPARATUS
Edmond Harvengt, Moustier-sur-Sambre, Belgium, assignor to Link-Belt Company, Chicago, Ill., a corporation of Illinois
Application November 4, 1953, Serial No. 390,176
3 Claims. (Cl. 209—490)

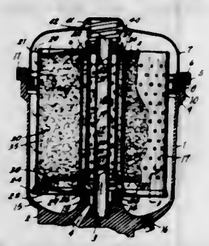
1. Evacuating device for the solid products of a wet treatment of ores, coals and similar granular materials in an independent unit comprising a treatment vessel for containing a body of wetted flowable solid products, outlet means for the products of the treatment in the vessel, means in the vessel for conveying the products of the treatment to the outlet means, a substantially vertical conduit associated with the outlet means, adjustable liquid supplying means intermediate the ends of said substantially vertical conduit, and means for adjusting said liquid

supplying means, a bottom discharge opening for the substantially vertical conduit, a support for a free heap of products located at such a distance underneath the said discharge opening that said heap forms a plug therefor to



allow the accumulation of solid products in the lower portion of said vertical conduit, and means for carrying away from the said free heap quantities of products in predetermined relation with the desired evacuation in the vessel of treatment.

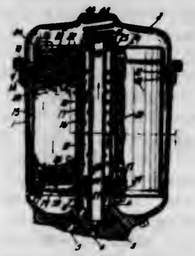
2,833,415
FILTERS
James W. Wilkinson, Hastings, Mich., assignor to Hastings Manufacturing Company, Hastings, Mich.
Application November 30, 1956, Serial No. 625,340
11 Claims. (Cl. 210—130)



2. In a filter, the combination with a closed casing including a bottom having inlet and discharge openings, an inlet tube mounted on the bottom of the casing in communication with the inlet opening thereof and discharging at the upper end of the casing, a filter cartridge surrounding and removably associated with said inlet tube and comprising foraminate concentric radially spaced outer, inner and intermediate upright walls, an imperforate outer bottom wall, a foraminate inner bottom wall spaced from and coacting with said outer bottom wall to provide a discharge header opening to said discharge, a top wall, said top wall having an annular series of inlet openings at the outer side of and adjacent to said intermediate wall, sheets of filtering fabric disposed around said inner and intermediate walls, a vertically corrugated sleeve of filtering material disposed between said inner and intermediate walls and coacting therewith to provide a plurality of outer and inner vertical passages.

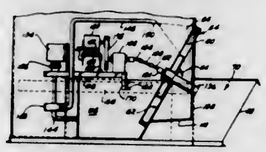
2,833,416
FILTER
James W. Wilkinson, Hastings, Mich., assignor to Hastings Manufacturing Company, Hastings, Mich.
Application November 30, 1956, Serial No. 625,358
14 Claims. (Cl. 210—130)

13. A filter cartridge comprising concentric radially spaced outer, inner and intermediate upright walls, the outer and intermediate walls being imperforate, the inner wall being foraminate and spaced from the intermediate wall, a foraminate outer top wall extending between said outer and inner upright walls, a foraminate inner top wall extending betweeen said outer and intermediate upright walls, said outer and intermediate upright walls and said inner top wall coacting to define a filter medium chamber, a fibrous filtering material in said chamber, said outer and inner top walls coacting to define an inlet header opening to the space between the said inner and intermediate upright walls, and a vertically corrugated



sleeve of filtering material disposed between said inner and intermediate upright walls, the upper end of said sleeve being in fitting embracing relation to said inner wall, said sleeve coacting with said intermediate wall to provide an annular series of inlet vertical channels and coacting with said inner wall to provide an annular series of vertical outlet channels.

2,833,417
FLUID FILTER APPARATUS
Emil Umbricht, Jackson, Gerrit Steenhagen, Dearborn, and Dewey Evans, Belleville, Mich., assignors to Ajem Laboratories, Inc., Detroit, Mich.
Application January 20, 1955, Serial No. 483,026
6 Claims. (Cl. 210—330)

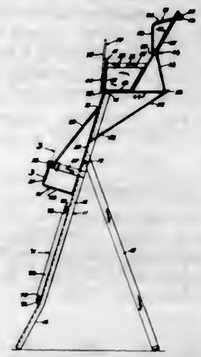


1. Filter apparatus for removing solid matter from fluid comprising means defining a fluid passage, means directing the fluid to be filtered through said passage, an inclined plane extending upwardly from said passage and being inclined away from the vertical toward the direction from which the fluid to be filtered is coming, an area of perforate filter material, a movable support for said material arranged to move said material across said passage and up parallel to and spaced from the upper surface of said inclined plane, a plurality of spaced vanes extending out from said filter material and dividing said filter material into a plurality of filter openings with said vanes defining pockets, said vanes engaging the upper surface of said inclined plane and trapping the solid material between said plane and said filter material while allowing the fluid to drain therefrom, and mechanism adjacent the top of said plane for disassociating the solid matter from said pockets.

2,833,418
NEWSPAPER VENDING RACK
Lucius M. Beebe and Charles M. Clegg, Jr., Virginia City, Nev.
Application February 28, 1955, Serial No. 491,058
2 Claims. (Cl. 211—55)

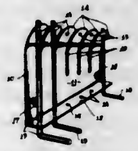
1. A newspaper vending rack to carry and display newspapers of a first size and envelopes of a second smaller size comprising; a main frame having spaced

upright members, means to support said main frame in a sloping upstanding position, a first trough having a width substantially as long as the width of the newspaper and spanning said upright members, said trough affixed to the front of said frame approximately midway between the top and the bottom of the frame and extending forwardly thereof to form a nest to receive the bottom edge of the newspaper, said first trough being formed of sheet metal bent parallel to said main frame to provide a back for newspaper nested in said trough thence forwardly to provide a bottom to support the newspaper and upwardly to provide a front, a first bail pivotally mounted adjacent the front of said trough extending upwardly to swing the upper portion of the bail rearwardly towards the back of said trough to a position against an upper



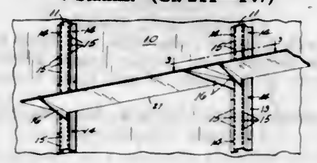
extremity of newspaper nested in said trough, a spring biasing the upper portion of said first bail rearwardly, a second trough having a length substantially equal to the length of said envelope mounted on the upper edge of said frame the front of said second trough being to the rear of said first trough and projecting rearwardly of said main frame, said second trough formed of sheet metal and shaped to provide a forwardly, downwardly sloping back to support envelopes, a bottom and a front, re-inforcement means to support the second trough from said frame, and a second bail pivotally mounted at the top of the back of said second trough to swing the lower end of the bail downwardly against envelopes supporting against said front whereby the second bail is attracted by gravity towards the back of said second trough.

2,833,419
CLIP FOR HOLDING TOOLS
Jay W. Trumpy, Santa Monica, Calif.
Application March 24, 1954, Serial No. 418,351
2 Claims. (Cl. 211—60)



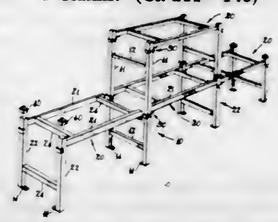
1. A clip for holding tools, comprising: a plate of resilient material formed along one edge with a right angle flange, said plate having a series of narrow slots extending normal to said flange and opening through the opposite edge of the plate to define a plurality of flexible fingers, the tips of said fingers being curved to overlie said flange, the spacing between the flange and fingertips progressively decreasing toward one side of the plate, said flange and fingertips having openings which are misaligned in the normal positions of the fingertips and which are aligned by flexing the fingertips toward the flange, each of said fingertips being adapted to be flexed toward the flange for aligning the fingertip and flange openings to accommodate insertion of a tool shank therethrough and thereafter released to cause frictional retention of the tool shank on the clip.

2,833,420
SHELF AND BRACKET ASSEMBLAGE
Edward C. Streater, Spring Park, Minn., assignor to Streater Industries, Inc., Spring Park, Minn., a corporation of Minnesota
Application August 11, 1954, Serial No. 449,065
4 Claims. (Cl. 211—147)



1. A shelf and bracket assemblage including at least two spaced apart upright supported bracket mounts and at least two shelf supporting brackets, each having an inner portion and an outer portion carried thereby, and with a shelf thereon, the bracket mounts each having a plurality of vertical, substantially equally spaced apart openings therein and with the openings in the mounts in substantially horizontal alignment, a bracket on each mount flexible in the direction of the length of the shelf, the inner portion of each bracket being at an obtuse angle relative to its outer portion, hook-like means at an edge of each said inner portion, the said inner portion of each bracket having on the surface thereof opposite the other bracket at least one laterally projecting abutment adjacent the hook-like means, the hook-like means being disposed in the said openings with the outer portions of the brackets converging in a direction away from the mounts and with the abutments engaging adjacent portions of the mounts and restricting movement of the brackets in a direction away from each other, and means at the outer end of each bracket resiliently engaging an outer portion of the shelf and urging the shelf toward the bracket mounts.

2,833,421
STACKING RACK
Leroy F. Skubic, Beverly Shores, Ind., assignor to The Paltier Corporation, Michigan City, Ind., a corporation of Illinois
Application April 23, 1954, Serial No. 425,278
2 Claims. (Cl. 211—148)



1. A load supporting platform structure comprising, in combination, a central I frame having a pair of vertically disposed posts and rigid strut means securing the posts in parallel spaced relation, a flanking L frame defined by a pair of vertical legs substantially shorter than said I frame posts and a pair of horizontal bars, each said bar having one end rigidly fixed to a respective one of said

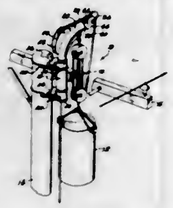
vertical legs adjacent the upper end thereof, rigid strut means securing said vertical legs and horizontal bars in parallel spaced relation, a pair of tangs rigidly fixed to the opposite ends of said horizontal bars in depending relation therewith, each said tang having an outer face coplanar with the end face of its associated horizontal bar, and straps situated on the vertical posts of said I frame defining open ended pockets for receiving said tangs when "dropped down" from the top, each said strap having an upper edge which a portion of said tang bears against, said L frame thereby buttressing said central I frame and defining therewith a composite structural assembly of great rigidity.

2,833,422
TELESCOPIC BOOM
Ray Ferwerda, Chagrin Falls, Ohio, and Koop Ferwerda, Avondale Estates, Ga.; Sophia Louise Ferwerda, administratrix of the estate of said Koop Ferwerda, deceased
Application December 28, 1950, Serial No. 203,156
4 Claims. (Cl. 212—55)



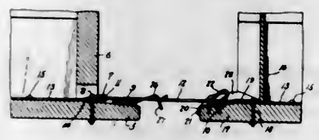
1. In a telescopic boom, a base, a hollow box beam main boom section mounted on said base, a hollow box beam extensible boom section of a cross-section to fit telescopingly within said main boom section, roller means mounted on one of said sections and engaging the other of said sections to reduce friction between them upon relative telescopic movement of one section relative to the other, means for moving said extensible boom section into and out of said main boom section, said last named means comprising an expansible chamber motor rigidly secured to one of said boom sections parallel to the longitudinally extending axis of said section, said motor having a cylinder and a piston reciprocable therein and a piston rod, a sheave rotatably mounted on the end of said rod, a cable having one end connected to said main section and its other end connected to said extensible section and the intermediate portion of said cable reeved around said sheave, and a supply of pressure fluid for said motor.

2,833,423
HOISTING DEVICE
James A. Tucker, Fullerton, Calif.
Application November 22, 1954, Serial No. 470,180
1 Claim. (Cl. 212—61)



In a portable hoisting device for use atop poles and the like, the combination of: a hollow cylindrical bearing member having flanges at each end thereof; a hollow shaft adapted to be rotatably carried within said bearing member, said shaft having an external collar intermediate the ends of said shaft for bearing against the upper of said end flanges when the lower of said ends of said shaft is carried by said bearing member, the engagement of said collar and said flange preventing further movement of said shaft through said bearing member, said shaft being curved above said collar disposing the upper of said ends out of alignment with said lower end; means defining an opening in said shaft above said collar, said opening being aligned with said lower end of said shaft; a first pulley mounted on said shaft above said opening; a second pulley mounted on said upper end of said shaft for carrying a rope passing upwardly through said lower end of said shaft, thence out through said opening and over said first pulley, and thence over said second pulley and downward substantially parallel to said bearing member; and means for clamping said bearing member against the curved surface of an upright pole with either of said flanges facing upward, said means including a bracket fixed to said bearing member, a bushing secured to one portion of said bracket, a threaded shaft carried by said bushing, means for turning said threaded shaft in said bushing, a threaded member carried by said shaft at a point remote from said bracket, a chain secured to said threaded member, and means defining a slot in an opposite portion of said bracket, said slot being of such dimension as to accommodate a single link of said chain with respect to its narrowest dimension, whereby said single link may be slipped within said slot securing said chain against movement.

2,833,424
MINE CAR COUPLER
Nathaniel Clark, Madison, W. Va.
Application January 8, 1957, Serial No. 633,038
1 Claim. (Cl. 213—75)

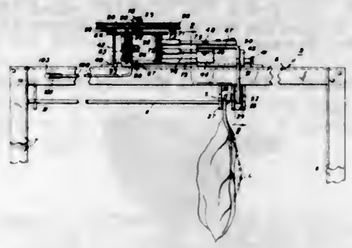


A mine car coupling comprising a downwardly inclined end portion, a coupling head including a substantially triangular coupling link pivotally connected to one end of a mine car, an operating arm, including an offset portion and a forwardly extended loop portion, pivotally mounted on said mine car under said coupling link, said looped portion of said operating arm surrounding one leg of said link, the other end of said arm extending laterally and upwardly providing an operating handle, said offset portion of said arm bearing against said downwardly inclined portion, a downwardly inclined plate secured to the upper surface of the extended end of the floor of the car to be coupled, a stationary coupling pin mounted on the end of the car to be coupled, extending through said plate, said stationary coupling pin comprising a looped rearwardly inclined keeper extending above the normal level of said link, said link having an upwardly inclined forward end adapted to ride over said stationary coupling pin, and upstanding inwardly inclined flanges formed on said plate arranged at opposite side edges of said plate, said flanges providing lateral guards, to prevent lateral movement of said link with respect to the coupling pin.

2,833,425
TOBACCO LEAF STRINGING MACHINE
Frank A. Lee, Gainesville, Fla.
Application March 14, 1957, Serial No. 645,942
14 Claims. (Cl. 214—5.5)

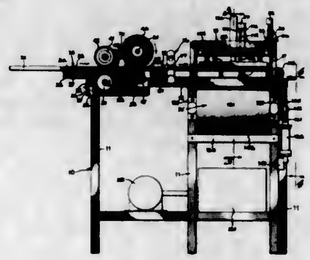
1. In a machine for stringing tobacco leaves on a hanger rod, a horizontal support, a series of spacing members connected one to the other and movably mounted on said support adapted to hold a tobacco stringing rod, gripping means for engaging the stem of a tobacco leaf when the same is presented between a pair of adjacent

spacing members, and means for cyclically moving said gripping means into and out of engagement with the tobacco leaf stem and simultaneously shifting said spac-



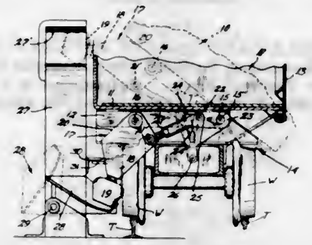
ing members so that the gripping means will be repositioned to engage the stem of another tobacco leaf presented between the next adjacent pair of spacing members.

2,833,426
AUTOMATIC TRANSFER APPARATUS
Leonard L. Bosken, Cincinnati, Ohio, assignor to Cambridge Tile Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio
Application July 19, 1952, Serial No. 299,880
14 Claims. (Cl. 214—6)



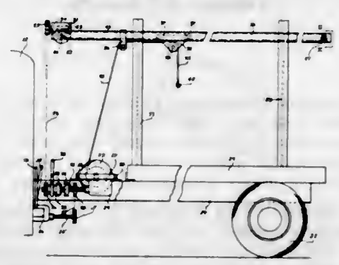
1. An apparatus for transferring work pieces to a support surface comprising a transfer station, a conveyor adapted to advance the work pieces linearly to the transfer station, a counting device mounted along said conveyor and responsive to the advancement of individual work pieces along the conveyor, stationary arresting means mounted along the conveyor downstream from the counting device in a position to arrest the linearly advancing work pieces at the transfer station, said arresting means being effective to assemble the work pieces in solid end-to-end rows upon the conveyor at the transfer station, a transfer mechanism normally disposed in a stationary position above the conveyor at the transfer station, said transfer mechanism having work pick-up means above the conveyor and parallel therewith, the said pick-up means located relative to the said arresting means to engage the arrested row of work pieces on the conveyor for transfer of said assembled row of work pieces from the transfer station to the support surface, power means connected to the transfer mechanism and adapted to reciprocate the same laterally with respect to the conveyor and support surface, said counting device being responsive to the advancement of a predetermined number of work pieces to the transfer station, the counting device being connected to the power means of the transfer mechanism and being effective to initiate the engagement and transfer of assembled rows of work pieces in response to linear advancement of the predetermined number of work pieces.

2,833,427
DUMP CAR
Lawrence A. James, Wallace, Idaho, assignor to Coeur d'Alene Hardware and Foundry Co., Wallace, Idaho, a corporation of Idaho
Application February 23, 1954, Serial No. 411,986
11 Claims. (Cl. 214—62)



1. The combination with a tiltable dump car body pivotally carried by a frame adapted to traverse a predetermined path; of a normally retracted mechanism on the body and at times adapted to project laterally therefrom to contact a ramp and tilt and return said body over its center of gravity to and from a dumping position; locking means releasably securing said body against tilting movement relative to said frame and releasable upon initial projecting movement of said mechanism; and means disposed relative to said path to engage and automatically extend said mechanism to a projecting position at a predetermined location along said path.

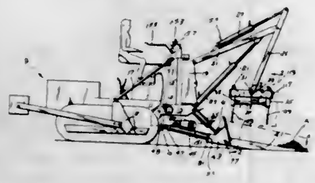
2,833,428
SELF-LOADING AND UNLOADING APPARATUS FOR MOTOR VEHICLES
Michael Smith, Youngstown, Ohio
Application June 26, 1956, Serial No. 593,905
3 Claims. (Cl. 214—75)



1. A loading and unloading attachment for a motor truck having a load-bearing bed comprising in combination a framework extending above said bed, a rail suspended from said framework longitudinally above said bed and extending longitudinally beyond one end of said bed and said framework, a sprocket journaled at each end of said rail, a trolley hanger movable along said rail intermediate said sprockets, a cable sheave journaled on said trolley hanger, a cable sheave suspended from said rail adjacent the forward end thereof, a cable-receiving drum journaled on said motor truck, a cable entrained over said sheaves and received on said drum, a chain extending over said sprockets and having its ends attached to said trolley hanger, a worm gear assembly operatively coupled with one of said sprockets and mounted on the forward end of said rail, said worm gear assembly having a protruding shaft extending generally normal to the axes of said sprockets, a third sprocket mounted on said protruding shaft, a power take-off and means to drive said take-off by the motor of the truck,

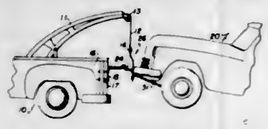
driving means interconnecting said drum and said take-off, and second driving means interconnecting said first mentioned drive means and said third sprocket including a clutch and fourth sprocket whereby said first mentioned sprockets may be driven at a speed synchronized with the movement of said cable.

2,833,429
MOBILE CANE LOADER APPARATUS
Robert C. Shoemaker, Portland, Oreg., assignor to Hyster Company, Portland, Oreg., a corporation of Oregon
Application January 7, 1955, Serial No. 480,455
17 Claims. (Cl. 214—86)



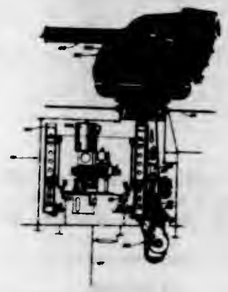
1. A cane loading apparatus comprising a mobile vehicle having a generally horizontal ground engaging member at one end adapted to slip beneath cane on the ground upon forward travel of the vehicle to lift the cane off the ground, a grapple, means mounting the grapple on the vehicle operable to bring the grapple into abutting engagement with said ground engaging member to pick up cane therefrom without engaging the ground.

2,833,430
VEHICLE TOWING APPARATUS
Joseph B. Collins, Fort Worth, Tex.
Application August 16, 1955, Serial No. 528,695
2 Claims. (Cl. 214—86)



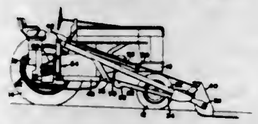
1. In vehicle towing apparatus for use in combination with a crane equipped tow truck including rearwardly extending body sides and having a crane operated depending hook extending rearwardly of said body sides, said apparatus comprising a substantially rectangular tie member horizontally secured across the extending ends of said truck body sides, a triangular spacer plate hingedly secured along one edge thereof to the upper edge of said tie member, a carrier bar having means adapted to be connected with one end of the vehicle to be towed, a triangular carrier plate extending upwardly from the center portion of the rear side of said carrier bar, a hitch plate connected to the center portion of the underside of said carrier bar and extending forwardly thereof, the central portion of said carrier plate being inclined upwardly of said carrier bar and forwardly of said vehicle to be towed so that the upper portion of said carrier plate is disposed above and forward of the lower portion of said carrier plate, a ball end socket hitch comprising a hitch ball element connected to the forward portion of said hitch plate and positioned thereabove and a hitch socket element connected to the extending portion of said spacer plate, and means detachably retaining said ball within said socket.

2,833,431
ELECTRIC AND HYDRAULIC POWER AND CONTROL SYSTEM
Robert K. Bole, Bethesda, Md.
Original application September 1, 1950, Serial No. 182,696, now Patent No. 2,745,317, dated May 15, 1956. Divided and this application February 16, 1954, Serial No. 410,469
13 Claims. (Cl. 214—89)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An electric and hydraulic power and control system for controlling the hoisting and loading of elongated objects from a horizontal position on a loading tray at a stowage area to a vertical position in a movable storage structure above the stowage area and thence from the movable storage structure to a vertical position at an unloading station above the storage structure and vice versa and comprising an accumulator for storing hydraulic fluid under pressure, hydraulic driving means for effecting step-by-step movement of said storage structure, a hoist operating piston and cylinder for effecting movement of objects from the storage structure to the station thereabove and vice versa, a hydraulic motor for moving objects from the storage structure to a station therebelow and vice versa, a hydraulic tray operating cylinder for effecting arcuate movement in a vertical plane of a horizontally disposed object in transfer at the stowage area below the storage structure, said hydraulic driving means, hoist operating cylinder, hydraulic motor, and hydraulic tray operating cylinder all being hydraulically connected to said accumulator, and hydraulic control and interlock valves hydraulically connected between the accumulator and said hydraulic driving means, hoist cylinder, motor and tray cylinder for providing sequential loading and unloading of objects from the storage structure.

2,833,432
TRACTOR MOUNTABLE IMPLEMENT ATTACHMENT
Jack F. Foster, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application January 14, 1955, Serial No. 481,903
13 Claims. (Cl. 214—131)



1. For use with a tractor having a fore-and-aft body including a transversely projecting rear axle portion: an implement mounting attachment comprising an upright support having means for the rigid affixation thereof to the axle portion, said support being of U-shaped section having its bight at the rear and a pair of laterally spaced apart walls opening forwardly to define a pocket, said walls having upper and lower ends and at least one of said walls having an aperture therein at its lower end and at least one of said walls having a downwardly and rearwardly sloping cam surface at its upper end; an upright implement part receivable rearwardly and downwardly in the pocket between the support walls and having an upper portion provided with cam means engaging the aforesaid cam surface upon the application of downward pressure to said part, and said part having a lower portion including an aperture registerable with the aforesaid wall aperture; and releasable fastener means receivable in the registered apertures to prevent separation of the support and part.

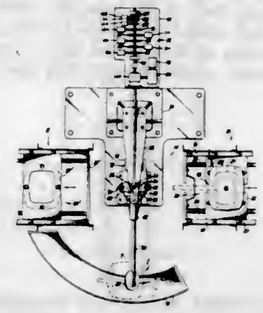
2,833,433
APPARATUS FOR LOADING WOOD LOGS
Arnold H. Paananen, Ishpeming, Mich.
Application October 20, 1953, Serial No. 387,102
1 Claim. (Cl. 214—147)



A log loader for attachment to a vehicle, including a boom pivotally connected at one end to the vehicle, a gripper frame fixedly connected to the free end of said boom, gripper members connected to, and movable with, said gripper frame, said gripper members being engageable with a plurality of piled logs at a point near one end of the logs, hoist arms engaged at one end with said gripper members intermediate their lengths, hydraulic means comprising a cylinder and piston mounted on said frame, the free terminals of said hoist arms being pivotally connected to the outer end of said piston for opening and closing said gripper members, a right angle abutment bar mounted on said boom adjacent said gripper members, one angle portion of the abutment bar being engageable with the terminals of the uppermost of the piled logs to automatically determine the locus of engagement of the gripper members with the logs and to limit the extent of movement of the logs in the direction of the vehicle when the logs are elevated, the other angle portion of the abutment bar engaging the upper surfaces of the aft terminals of the logs to limit the extent of upward movement of said terminals, and hydraulic means connected to said boom for elevating the boom, gripper frame and gripper members in a vertical arc about the point of the boom's pivotal connection with the vehicle, thereby inclining the logs at an angle to the horizontal.

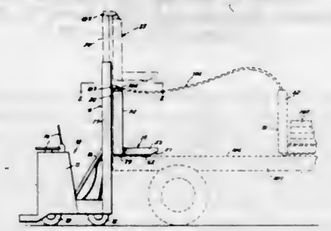
2,833,434
ARTICLE HANDLING MECHANISMS
Gerald A. Stover, Waterloo, and Earl F. Waltz, Union Springs, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 1, 1954, Serial No. 413,401
7 Claims. (Cl. 214—313)

1. In assembly line screen settling equipment for television tubes, a first conveyor for moving successive cathode ray tube blanks through a settling cycle while filled with a screen settling fluid, a second conveyor for moving successive tube blanks through a drying cycle after said settling cycle, and a transfer and decant station interposed between said first and second conveyors and arranged to pour off said settling fluid from successive tube blanks received from said first conveyor and to place the emptied tube blanks on said second conveyor, said station including a gripping head movable between said first and second conveyors, actuating means providing a varied speed turning of said gripping head during movement be-



tween said conveyors, and a fluid pressure system having a plurality of selective flow paths connected to said actuating means for operation in sequence to provide the varied speed turning movement of the gripping head.

2,833,435
MATERIALS-HANDLING VEHICLE
Hans F. Levy, Haddon Township, Camden County, N. J., assignor of one-half to Robert K. Youtie, Haddon Township, Camden County, N. J.
Application February 26, 1957, Serial No. 642,497
6 Claims. (Cl. 214—515)



1. Load-carrying apparatus comprising a master mobile vehicle, elevator means mounted on said vehicle for movement with said vehicle and up-and-down movement relative to said vehicle, an auxiliary mobile vehicle removably carried by said elevator means for movement therewith and movement independent thereof along a supporting surface, said auxiliary vehicle thus being movable along a supporting surface independently of said master vehicle toward and away from a load on said supporting surface, means on said auxiliary vehicle for raising said load from said supporting surface and lowering said load to said supporting surface, power means associated with said master vehicle, auxiliary vehicle, and elevator means, and control means on said master vehicle for controlling said power means, whereby said auxiliary vehicle is adapted to carry said load along said supporting surface and movable with said elevator means to raise and lower said load.

2,833,436
COMBINATION THERMOS BOTTLE ASSEMBLAGE
Max J. Ruderian, Santa Monica, Calif.
Application November 5, 1956, Serial No. 620,378
2 Claims. (Cl. 215—6)

1. Coupling arrangements for versatile-assemblage of Thermos bottles and jars, the combined structure of which comprises in combination an interiorly threaded tubular ring divided into first and second oppositely ended socket-like sections by an internally mounted central disk;

first and second Thermos bottles, of the class described, having closure means at their mouths, and first and second protective outer shells, respectively, each of said shells having at its closed end an exteriorly threaded section to conform fittingly any of the interiorly threaded surfaces of said first and second socket-like sections, and each of said shells having at its mouthed end a similar threaded section of smaller pitch diameter than the threaded sec-



tions aforementioned; and first and second closure cups, each cup having at its lip interiorly and exteriorly threaded sections, the interiorly threaded section being fittingly in conformity with the exteriorly threaded section of any of said mouthed-threaded sections, and the exteriorly threaded section being fittingly in conformity with said socket-like sections, whereby providing like-fitting parts for forming the versatile assemblage aforesaid.

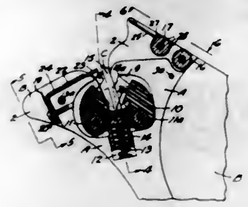
2,833,437
BEVERAGE COASTER
Charles R. Johnson, San Antonio, Tex.
Application December 26, 1956, Serial No. 630,655
4 Claims. (Cl. 215—100.5)



1. A beverage coaster comprising a circular wire of resilient material having the free ends thereof slightly spaced apart, said free ends being integrally formed with upwardly and inwardly extending portions, each of said upwardly and inwardly extending portions at the upper ends thereof being integrally formed with an oval shaped wire jaw extending forwardly thereof adapted to engage one side of the glass or the like and providing a pair of oppositely disposed complementary engaging jaws, absorbent pad means of substantially circular shape and of greater diameter than said circular wire, and means for securing said absorbent pad means to said circular wire whereby to retain the absorbent pad means in engagement with the bottom of the glass or the like by the resilient engagement therewith of said resilient jaws thereabove.

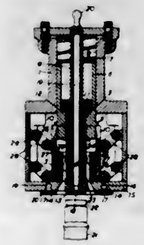
2,833,438
TAPE APPLYING MACHINE
Arthur A. Anderson, Falcon Heights, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application July 18, 1955, Serial No. 522,547
2 Claims. (Cl. 216—33)

1. Tape applying apparatus comprising means for rotatably supporting a roll of pressure-sensitive adhesive tape, a resilient member adapted to apply a strip of tape from said roll peripherally about an article or cluster of articles to hold, mark or seal the same, and a housing for said resilient member, said resilient member being a flat unitary piece having two end portions and a throat portion, each of said end portions being formed with a flat pressing face, said throat portion connecting said end portions and lying below the said pressing faces thereon, said resilient member being mounted toggle-fashion within said housing by rotatable affixation of each of said end portions to said housing, said form of mounting providing means whereby said resilient member may be caused, alternatively, to take an open position and a closed position, said pressing faces being spaced apart from each



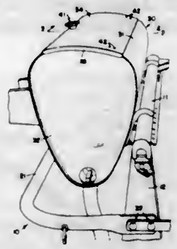
other and lying on upwardly diverging vertically inclined planes when said resilient member is in open position, said pressing faces being in vertically opposed juxtaposition when said resilient member is in closed position, said resilient member being caused to move from open to closed position by downward pressure exerted adjacent said throat portion, and being caused to move from closed to open position by upward pressure exerted adjacent said throat portion.

2,833,439
LABELLING MACHINES
Thomas Vincent Scott, Sheffield, England, assignor to Morgan Fairest Limited, Sheffield, England
Application March 1, 1955, Serial No. 491,428
1 Claim. (Cl. 216—55)



A head for applying top-strap labels to screw-stoppered bottles of the kind comprising a body, a plunger movable lengthwise of the body by contact with the stopper of a bottle, a slider also movable lengthwise by contact with the plunger, both movements being against spring action, and blocks at each side of the plunger, with suction openings to hold a top strap label to the blocks and plunger, the blocks being operatively connected to the slider so that movement of the slider by contact with the plunger moved by a bottle causes the blocks to move towards the sides of the mouth of the bottle, said head comprising pairs of parallel links inclined downwardly and inwardly from the body to support each of the blocks, and upstanding links pivotally connected at opposite ends to said slider and said blocks further supporting each of said blocks, so that the movement of the slider imparted to the blocks produces purely swinging inward and outward movements of each block by pivotal movement of the links, with the pairs of links constraining each block to move parallel to itself during such movements, said blocks thus being supported and moved by means of links.

2,833,440
REVERSIBLE HOPPER LID FOR AGRICULTURAL IMPLEMENTS
William P. Oehler, Moline, and Harold V. Hansen, Hillsdale, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Application December 31, 1956, Serial No. 631,952
6 Claims. (Cl. 220—55)



1. In a hopper having an upper opening, a cover therefor comprising a lid having a securing part engageable with the underside portion of the hopper adjacent said opening to aid in holding the lid over said opening, and an extension on said part formed as a hook adapted to engage over an edge of said opennig and hold said lid on the hopper with said opening exposed.

2,833,441
SILOXANE COATED COOKING UTENSILS
Robert C. Hedlund, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application January 24, 1957
Serial No. 635,988
3 Claims. (Cl. 220—64)

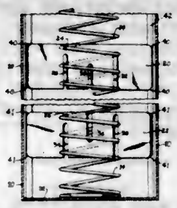
1. A cooking utensil coated with a cured composition consisting essentially of (1) from 70 to 99% by weight of a siloxane resin of the unit formula

$$R_nSiO_{\frac{4-n}{2}}$$

in which R is selected from the group consisting of saturated aliphatic hydrocarbon radicals and aryl hydrocarbon radicals and *n* has an average value from 1 to 1.8 inclusive, (2) from 1 to 30% by weight of a vinyl containing siloxane in which any remaining organic radicals are selected from the group consisting of methyl and phenyl radicals, the amount of vinylsiloxane in (2) being such that there is at least 1% by weight of vinylsiloxane in the total composition, and (3) from 0 to 15% by weight of a methylsiloxane fluid incompatible with (1) and being free of alkenyl radicals, the total amount of (2) and (3) being not greater than 30% by weight of the total composition.

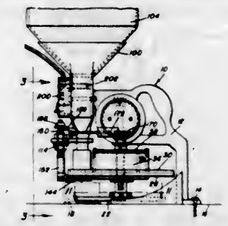
2,833,442
SELF LEVELING STORING AND DISPENSING APPARATUS
Carl H. Larsen, Brooklyn, N. Y., assignor to American Machine & Foundry Co., a corporation of New Jersey
Application August 26, 1954, Serial No. 452,331
5 Claims. (Cl. 220—93)

3. A self-leveling storing and dispensing apparatus comprising a rectangular housing enclosing said apparatus, a carrier movable up and down inside of said housing, a counterbalancing compression spring connected at one end to the lower end of said rectangular housing and connected at the upper end to the underside of said carrier, and diagonally crossed and vertically spaced rectangular plates threaded on said spring and having elongated slots formed therein to allow the coils of said spring to pass upwardly into said slots when said spring is compressed, said guide plates having the vertical edges thereof



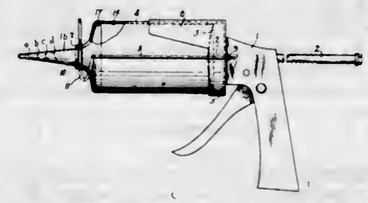
engage with the corners of said housing to support said spring against buckling.

2,833,443
POWDERED MATERIAL DISPENSER
Wilber W. Prickett and Mona E. Prickett, San Diego, Calif., assignors to Salter Machine Company, Alameda, Calif., a corporation of California
Application March 22, 1957, Serial No. 647,858
11 Claims. (Cl. 222—49)



1. A measuring and dispensing machine for fluent material comprising a frame, a dispensing plate mounted for rotation on said frame, said dispensing plate having a plurality of slots, pocket forming members movably mounted in said slots, means rotatable with said dispensing plate for simultaneously and equally adjusting said members in said slots in order to alter the sizes of said pockets, a fluent material hopper, said hopper carried by said frame and in super position to said dispensing plate, a sliding block on the upper surface of said dispensing plate and in registry with said hopper, and a valve plate slidable against the undersurface of said dispensing plate.

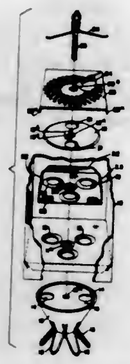
2,833,444
DISPENSING DEVICE FOR CALKING AND LIKE MATERIAL
William A. Sherbondy, Shaker Heights, Ohio
Application January 25, 1954, Serial No. 405,951
2 Claims. (Cl. 222—95)



1. In a dispensing apparatus of the character described, the combination of a piston-actuating gun, a rigid, substantially cylindrical shell open at one end and constricted at the other end to provide a shoulder terminating in a neck, said shell being attached at such one end to said gun to receive such piston for reciprocatory movement therein, and a collapsible container of which the side

wall is of flexible film material adapted to fit within said shell with one end adjacent to such piston and with the other end positioned against such shoulder, such other end of said container being of relatively rigid material and provided with a dispensing spout which projects through and substantially beyond such neck and through which spout material in said container may be discharged by longitudinally collapsing the side wall of the latter between such shoulder and piston.

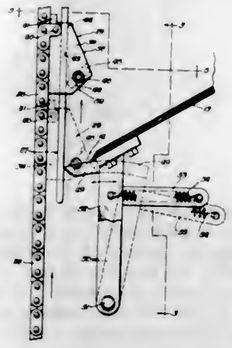
2,833,445
DISPENSER FOR POWDERED SOAP AND THE LIKE
Walter A. Spiers, Akron, Ohio
Application March 4, 1954, Serial No. 414,051
5 Claims. (Cl. 222—189)



1. A device for dispensing a comminuted material, said device comprising a container for the material and means for dispensing material from the lower end of said container in successive controlled quantities, the dispensing means comprising coacting upper and lower, relatively rotatable, material-controlling members formed with respective material-conducting holes adapted to be put into and out of overlapped relation to each other by relative rotation of the two, a sifter mounted in the said container close to, but spaced above, the upper one of said members, said sifter comprising a foraminous material-screening member and an agitator above it, one of said screening member and said agitator being rotatable with respect to the other means below said screen member for pushing the sifted material into the holes of the upper material-controlling member, one of the said pushing means and said upper material-controlling member being rotatable with respect to the other, and means for concurrently actuating element of said sifter and said material-controlling members, the discharge rates of the sifter and of said material-controlling members being so correlated that only a layer of sifted material of non-packing thickness, and of a vertical thickness less than the minimum vertical dimension of the space between said sifter and the upper one of said material-controlling members, accumulates upon the said upper one of the said material-controlling members.

2,833,446
FEEDER FOR AUTOMATIC MACHINES
Bates C. Cook and John Jokubonis, Chicago, Ill., assignors to Cook & Chick Company, Chicago, Ill., a corporation of Illinois
Application November 1, 1954, Serial No. 465,902
5 Claims. (Cl. 222—371)

1. In a feeder for automatic machines, a bin for work pieces, a receiving station at the upper portion of said bin, the latter having a bottom wall with an opening therethrough, an endless elevator having a front run extending through said opening and upward to said station for delivering work pieces thereto and a rear run exterior of said bin, said elevator having spaced flights of a length approximately the same as that of said opening, a continuous guide plate at the rear of said opening and extending from said bottom wall to said station, said plate being disposed in rear of and in close proximity to said flights of said front run effective for retaining work pieces on said flights during upward travel thereof along said plate, said flights respectively comprising end brack-



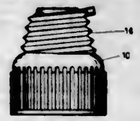
ets having grooves receiving the side edges of said plate and in cooperation therewith restraining the respective flights against forward and rearward movement, and a gate yieldingly urged toward said plate and in cooperation therewith normally closing said opening, said end brackets having upper and lower cam surfaces disposed to contact said gate and open it in the passage of a flight upward through said opening and to release said gate gradually for closing under control of said cam surfaces as a flight passes beyond said opening.

2,833,447
SPRINKLING POT FOR CONDIMENTS
Edmund Thiele, Wiesbaden, Germany
Application December 14, 1956, Serial No. 628,299
Claims priority, application Germany December 14, 1955
3 Claims. (Cl. 222—151)



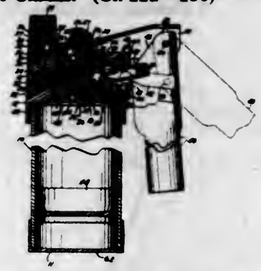
1. A condiment sprinkler comprising a lower body member having a perforated cover and means for detachably securing the body member to a container, an upper lid member pivotally connected to a hinge portion of the body member to swing to and from closed position relatively to the body member, said members being engageable when the lid member is closed to form a seal between said members, spikes projecting downwardly from the lower side of the cover of the body member, and spikes projecting from the lower side of the lid member and positioned thereon to penetrate the perforations in the cover of the body member when the lid member is closed, said hinge portion consisting of an elastic synthetic material and including a spring portion adapted to hold the upper lid member in its closed and open position, respectively.

2,833,448
DISPENSER
Louis L. Lerner, Chicago, Ill., assignor to The Gillette Company, Boston, Mass., a corporation of Delaware
Application August 31, 1954, Serial No. 453,337
6 Claims. (Cl. 222—209)



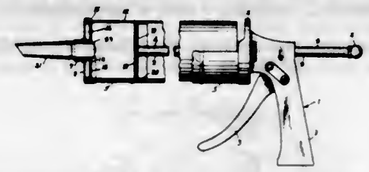
1. A dispenser for powders and viscous liquids comprising a screw cap adapted to be threaded on a bottle neck, said cap having an opening through its top, an ejection chamber mounted on said cap communicating therewith through said opening, said chamber having a flexible integral one-piece resilient wall member in the form of a continuous helical bellows biased to an expanded position by the inherent resiliency of said wall member, and an outlet aperture in the wall of said ejection chamber, the inner periphery of said bellows providing a continuous channel in the inner face of said chamber wall to promote drainage of the material to be dispensed from said chamber to the bottle after use of the dispenser.

2,833,449
LUBRICATING PUMP
Glen R. Morton, Omaha, Nebr.
Application September 4, 1956, Serial No. 607,936
6 Claims. (Cl. 222—256)



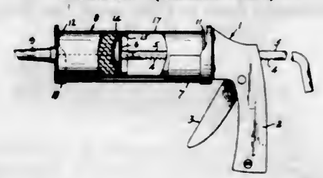
1. A lubricating pump comprising a hollow grease reservoir member, vented means closing one end of said reservoir member, a pump body closing the other end of said reservoir member, said body being provided with a chamber, a hollow piston being provided with a hole extending longitudinally therethrough, said pump body being further provided with a recess arranged at one end of said chamber in communication with said chamber and in alignment with the hole in said piston, a plunger mounted in said hole for reciprocating movement and having one end portion snugly and slidably projecting into said recess at the end of a pumping stroke, said recess having an inner wall, the inner wall of said recess and the inner end of said plunger being complementally shaped, said pump body being provided with an outlet connected in communication with said recess and with an inlet connecting the interior of said hollow grease reservoir member with said chamber, handle means carried exteriorly of said cylinder and connected to said plunger for effecting the sliding movement of the latter, and means carried by said plunger and frictionally engageable with said hollow piston for causing said piston to move with said plunger, said handle means being so constructed as to permit said inner end of said plunger to travel inwardly during a pumping stroke until said inner end of said plunger comes substantially into contact with said inner end wall of said recess to squeeze air out of said cylinder during a pumping stroke to eliminate air-locking of said pump.

2,833,450
CAULKING GUN
William A. Sherbondy, Pepper Pike, Ohio
Application July 12, 1956, Serial No. 597,514
1 Claim. (Cl. 222—327)



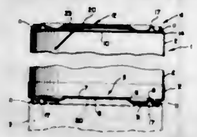
In combination, a caulking gun cartridge comprising a tubular body having a relatively thin end wall at one end provided with a central discharge opening, and a tubular lip surrounding said opening and extending axially from one side and beyond said end wall, and a snug fitting plunger in the other end, and a caulking gun having spaced apart end plates between which said cartridge is positioned with its ends adjacent the respective plates and incrementally axially movable means engageable with said plunger to incrementally move the latter in said body toward such end wall to displace caulk from within said body through such discharge opening, and a discharge spout having threaded engagement with that end plate which is adjacent to said end wall and having an inner tapered end which wedges within said tubular lip to inwardly bow said end wall while pressing such other end of the cartridge body against the other end plate, and to make wedge seating engagement within said tubular lip so as to form a leakproof joint therewith and avoid loss of caulk despite breathing of said end wall under the influence of pressure exerted on the caulk by said plunger and upon release of such pressure during periods of non-use of said gun.

2,833,451
CAULKING GUN AND CARTRIDGE THEREFOR
William A. Sherbondy, Cleveland, Ohio
Application January 17, 1957, Serial No. 634,691
2 Claims. (Cl. 222—327)



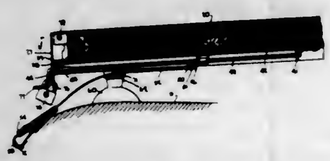
1. A caulking assembly comprising a cylindrical cartridge having, at its respective rear and front ends, a piston and a dispensing spout; said piston being integrally formed with an axially extending skirt that snugly fits within said cartridge so as to seal the cartridge and so as to remain at progressively advanced positions toward said spout and with a thin laterally flexible closure wall that is initially bulged convexly rearwardly of said cartridge; a caulking gun for supporting said cartridge; said gun being provided with an axially movable plunger that is shaped to initially laterally flex to reverse the bulge of such wall and then to engage said piston near the periphery thereof whereby caulking material in said cartridge is displaced under pressure through said spout responsive to axial movement of said piston toward said spout; said wall, upon release of axial force on said plunger, being flexed by the pressure of the caulking material with respect to said skirt so as to bulge convexly rearwardly, whereby, after use of said assembly, the expanding caulking material in said cartridge preferentially flexes said wall instead of oozing from said spout.

2,833,452
DREDGE TOP DISPENSER NESTABLE WITH LIKE CONTAINERS
Joseph E. Drummond, Riverside, and Kenneth E. Guritz, Geneva, Ill., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application December 21, 1956, Serial No. 629,995
13 Claims. (Cl. 222—555)



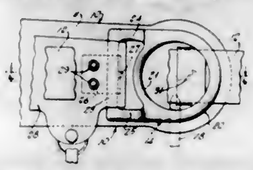
1. In a nestable dispensing container of the type described, the combination of an upstanding wall, bottom and top portions, said bottom portion including a continuous, inwardly directed rib located adjacent the outer periphery thereof, and a centrally disposed and inwardly directed dished section, said top portion including a perforated lid and a rotatable perforated cap mounted upon said lid, flange means on said upstanding wall portion holding said cap in firm but rotatable engagement with the lid, said cap also being provided with a continuous, outwardly directed rib adjacent the outer periphery thereof and a diametrically arranged elongated raised ridge element, the ends of which terminate a predetermined distance from the said outwardly directed rib, whereby when one container is nested upon a container having a similar structure, the rib on the bottom portion of one container will receive the rib on the cap of the top portion of another container, and the raised ridge element on the top portion of one container will be receivable, regardless of its position, within the dished shaped section in the bottom portion of the other container.

2,833,453
UTILITY RACKS
Henry J. Barreca, Brooklyn, N. Y.
Application April 5, 1956, Serial No. 576,359
9 Claims. (Cl. 224—42.1)



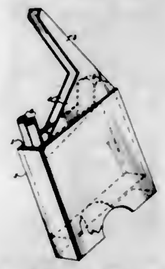
1. A ski rack for automobile tops comprising an elongated lower member and an elongated upper member adapted to clamp skis under pressure between said upper and lower members, tightening means including an operating handle disposed on said lower member, said tightening means further including a strap extending outwardly of said lower member and means to vary the effective length of said strap, a hook on the outer end of said strap for securing the strap to the rain gutter of an automobile top, an end locking bracket pivotally disposed on one of said members and adapted to embrace the other member for locking said members together, said locking bracket being formed with an opening therein, said operating handle extending through said opening and being adjustable to a first position where said locking bracket is prevented from disengaging said other member and to a second position where said bracket may be disengaged from said other member with said operating handle clearing said slot during said disengagement.

2,833,454
SAFETY BELT AND CONNECTOR THEREFOR
Joseph I. McGee, Long Branch, N. J.
Application July 6, 1956, Serial No. 596,338
2 Claims. (Cl. 227—49)



1. The combination with a safety belt of a connector secured to each side thereof for the attachment of a pole-encircling strap having safety hooks on each end, said connectors each comprising a generally toroidal part and a generally U-shaped part attached to said toroidal part, said U-shaped part having a linear transverse member spaced outwardly from the periphery of the toroid and displaced from the plane thereof for attaching said toroid to said belt and including means holding with said toroid in a plane generally parallel to a plane tangential to the belt at a point substantially aligned with the center of the toroid.

2,833,455
CONTAINERS FOR CIGARETTES
Juan A. Planas, Havana, Cuba
Application October 7, 1955, Serial No. 539,236
Claims priority, application Cuba October 14, 1954
2 Claims. (Cl. 229—20)

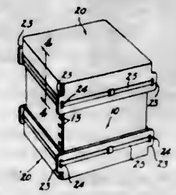


1. A cigarette container of the type consisting of an inner container slidable within an outer cover comprising on one of the lateral top edges of said outer cover an elongated member in the form of an inverted U, said member comprising a relatively narrow and rectangular upper portion with two parallel flaps extending vertically down, one from each lateral edge of said narrow rectangular portion, said U-shaped member providing a hinged lid for the top of said outer cover which is open at its base; said inner container being closed at the bottom and open at the top, said container having on its front and rear walls, at points adjacent to that where the lid is hinged to the outer cover an extension the upper edges of which are, normally, closely adjacent to the lower face of said lid; said flaps on said inverted U-shaped member being of such a length that they abut against the opposite lateral wall of said outer cover when swung through a predetermined distance.

2,833,456
CONTAINER
Charles D. Weishenbach, Sandusky, Ohio, assignor, by mesne assignments, to West Virginia Pulp and Paper Company, New York, N. Y., a corporation of Delaware
Application January 23, 1956, Serial No. 560,684
3 Claims. (Cl. 229—23)

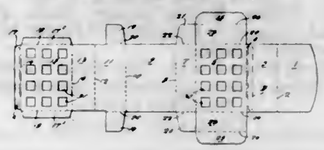
3. A paperboard container having a tubular body of polygonal cross-section having vertical sides and vertical

corners, a separate end closure wall of corresponding configuration disposed over one end of said body with the margin of said closure wall outwardly spaced from the adjacent side walls of said body, a plurality of body flaps on said body extending from said one end toward the other end of said body on the outer sides of the sidewalls of said body, closure flaps extending from said margin of said closure wall and corresponding to said body flaps, each of said closure flaps having an outer portion extending from said margin toward said other end of said body



in covering relationship with an associated body flap and each of said closure flaps having a re-bent portion extending between said associated body flap and the associated sidewall of said body from the extremity of its said outer portion toward said one end, tabs fixed to at least some of said closure flaps and extending laterally from said structure outwardly beyond the vertical side corners with which they are associated, said tabs being cut to form strap-receiving apertures, the inner edges of the apertures being substantially at the vertical side corners with which they are associated.

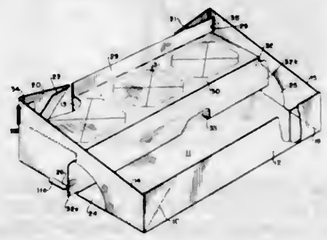
2,833,457
DISPLAY CARTONS
Walter J. Tyrseck, Montville, Conn., assignor to Robertson Paper Box Co., Inc., New London, Conn., a corporation of Connecticut
Application October 19, 1951, Serial No. 252,040
9 Claims. (Cl. 229—28)



1. In a carton, a rectangular partitioned structure comprising a series of six connected panels, the second panel from one end of the series being folded back onto and lying flat against the third panel thereof, the fourth, fifth and sixth panels forming together with the second and third panels a rectangular box structure, the first panel being joined to the second panel along a fold line spaced from the fourth and sixth panels and forming a partition between the same, and the first panel and sixth panel having aligned apertures for holding articles.

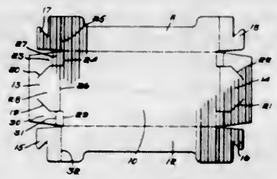
2,833,458
FOLDING TRAYS
Patrick A. Toensmeier, Hamden, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut
Application September 30, 1957, Serial No. 686,986
7 Claims. (Cl. 229—28)

1. A tray, which comprises a bottom, a front wall and a rear wall hinged to the front and rear edges of the bottom, respectively, side walls hinged to the side edges of the bottom and of less width at the front than at the rear, connections between the front ends of the side walls and the ends of the front wall and between the rear ends of the side walls and the ends of the rear wall, the connections facilitating the inward folding of the front and rear walls upon the bottom and the inward folding of the side walls upon the infolded front and rear walls, a middle wall lying parallel to and between the front and rear walls and hinged to the bottom, a platform wall hinged at its front edge to the top edge of the middle wall, and a reinforcing panel hinged to the rear edge of the platform wall and secured to the front face of the rear wall, the side



walls having openings between their ends, horizontal slots adjacent their connections to the bottom wall, and vertical slots adjacent their connections to the rear wall, the middle wall having end extensions projecting through the openings in the side walls and the reinforcing panel having end extensions receivable in the vertical slots, when the rear wall is erect, and in the horizontal slots, when the rear wall is folded inwardly upon the bottom wall.

2,833,459
SET-UP BOX AND BLANK FOR FORMING THE SAME
Kermit Greene, Newton, Mass., assignor to Sherman Paper Products Corporation, Newton Upper Falls, Mass., a corporation of Massachusetts
Application June 9, 1954, Serial No. 435,555
2 Claims. (Cl. 229—35)



1. A box blank of sheet material comprising a central panel, a first pair of panels connected thereto and adapted to be folded up to form side walls, a second pair of panels having bases connected to the central panel and adapted to be folded up to form end walls, each of said side wall forming panels having a pair of tabs and each of said end wall forming panels having a pair of slits adapted to receive the adjacent side wall tabs, the slits dividing each end wall forming panel into a central portion and side portions, said slits having inner and outer ends, the former being disposed on the base of the panel, each of said side portions having a first scored line running along its base to the inner end of the adjacent slit and a second scored line parallel to and spaced from the first line and disposed intermediate the inner and outer end of the adjacent slit and each of said central portions being scored along a line spaced from its base by approximately twice the thickness of the material from which the blank is formed and disposed parallel to and intermediate the first and second scored lines of the adjacent side portions, each of said tabs having scored lines disposed parallel to and intermediate the first and second scored lines of the adjacent side portions and spaced from said first lines by approximately the thickness of said material.

2,833,460
BAG
Michael A. Votolato, Providence, R. I.
Application December 23, 1955, Serial No. 555,023
2 Claims. (Cl. 229—53)



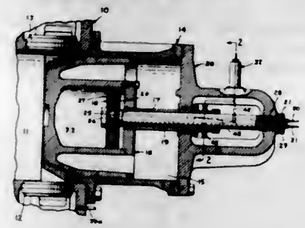
2. A bag comprising a body portion closed at the bottom end and open at the top end, said body portion comprising an integral one-piece member having a main body portion with vertical sides and an auxiliary top portion flaring outwardly to provide a top opening wider than said main body portion, said auxiliary top portion being creased along predetermined lines to fold said top portion into front and rear rectangular portions and triangular side portions extending between said rectangular portions, the top edges of said rectangular portions folding over to seal the bag.

2,833,461
EASY OPENING FOLDER
Lawrence V. Brom, Greensboro, N. C., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application March 29, 1957, Serial No. 649,552
1 Claim. (Cl. 229—85)



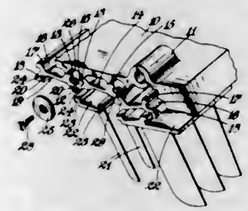
A blank for a pilfer proof folder formed of sheet material such as paperboard, said blank being cut and creased to provide a substantially rectangular principal panel, a substantially rectangular secondary panel attached along a fold line to the lower end of said principal panel and of approximately the same size as the latter, a relatively short closure flap attached along a fold line to the upper end of said principal panel, and relatively narrow attaching flaps attached along fold lines to the sides of said principal panel, the upper ends of said flaps being inclined upward and inward to the ends of the fold line of said flap, said closure flap having at the sides thereof tear-off tabs defined by inclined weakened inner tear lines constituting extensions of the inclined upper ends of said attaching flaps and weakened outer tear lines extending from the outer edge of said closure flap and intersecting said inner tear lines, the outer side edges of said tear-off tabs constituting extensions of the fold lines of said attaching flaps, said inclined inner tear lines corresponding in length to the inclined ends of said attaching flaps and the width of the outer portions of said tear-off tabs beyond said inclined tear lines corresponding to the width of said attaching flaps.

2,833,462
VARIABLE CAPACITY COMPRESSOR
William Scheerer, Ebenezer, N. Y., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application April 11, 1955, Serial No. 500,378
5 Claims. (Cl. 230—21)



1. In a compressor, a compression chamber, a clearance chamber in communication with the compression chamber, piston means slidably disposed in said clearance chamber, and actuating means operatively associated with said piston means to move the piston means in the clearance chamber for varying the capacity of said compressor in accordance with operating requirements including, cylinder means in the piston means, a stationary member disposed to divide said cylinder into a plurality of pressure fluid chambers and having passage means disposed to flow pressure fluid into and from said fluid chambers to move the piston means, valve means for opening and closing said passage means to control the flow of pressure fluid to and from said fluid chambers, and control means operatively connected to said piston means to coact with said valve means for controlling the extent of movement of said piston.

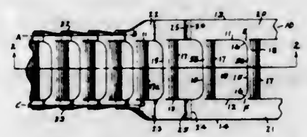
2,833,463
STATOR CONSTRUCTION FOR AXIAL FLOW COMPRESSOR
Frederick William Walton Morley, Castle Donington, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application October 25, 1954, Serial No. 464,511
Claims priority, application Great Britain November 6, 1953
1 Claim. (Cl. 230—133)



A stator for a multi-stage axial-flow compressor comprising a casing having a number of axially-spaced circumferentially-extending internal reinforcing webs, said casing being made of a light alloy and being made in a plurality of part-annular sections; a row of stator blades for each of a plurality of stages of the compressor, each stator blade having a root at one end, the root having axially-spaced circumferentially-extending edge portions, each edge portion having a pair of radially-spaced oppositely-and-radially-facing locating surfaces which are curved about the axis of the compressor; and means supporting the stator blades within the casing comprising a plurality of blade-carrier rings, each ring being associated with and carrying a single row of said stator blades, being formed in a number of arcuate sections

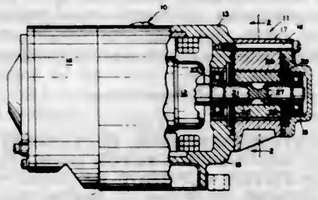
corresponding to the number of casing sections, and being made of an alloy having good hot strength properties, each ring further having in its radially-inner surface a circumferential channel having a pair of axially-spaced side walls, each of said side walls having a circumferential groove defining a pair of radially-spaced radially-and-oppositely facing locating surfaces curved about the axis of the compressor, the roots of the associated row of stator blades being received in the channel with the radially-spaced locating surfaces of the roots in contact with the radially-spaced locating surfaces of said side walls; each ring being received in the space between a pair of said reinforcing webs and having axially-spaced edge portions, said edge portions of the rings and said pair of webs each having a pair of radially-spaced oppositely-and-radially-facing surfaces curved about the compressor axis, the radially-facing surfaces of edge portions contacting the radially-facing surfaces of the webs to retain the ring radially in position but with freedom for engagement with the webs by circumferential sliding, and each of said blade-carrying rings being provided at its axially-spaced edges with axial flanges which extend to near the axial flanges on the next adjacent blade-carrier rings and provide portions of the wall of the working fluid passage through the compressor between the blade roots.

2,833,464
STRIP FORMED BLOWER WHEEL
Floyd N. Sharp, Columbus, Ind., assignor to Vernco Corporation, Columbus, Ind., a corporation of Indiana
Application May 2, 1955, Serial No. 505,113
2 Claims. (Cl. 230—134)



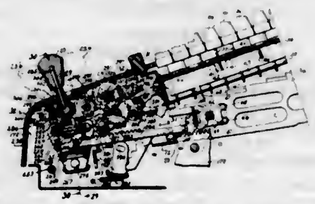
1. A blower wheel of the integral, cylindrical, strip type comprising a cylindrical drum strip having circumferentially spaced apart, transverse openings therethrough defined by substantially parallel marginal sides extending transversely of said strip and marginal ends of each spaced from the respective marginal edges of said strip defining cylindrical bands between said ends and said strip edges; a plurality of blades, one for each of said openings, extending integrally from an opening common marginal side and extending transversely of said strip for the full length of said side; a portion of each of said bands having a circumferential bend therearound intermediate said opening ends and said strip edges, said band portion in each instance between said bend and said strip edge extending into an approximately radial plane portion; said band portion between said opening ends and said bend having a plurality of folds thereacross defined by bends in parallelism with said opening sides, defining a tuck at each end of each of said openings, each of said tucks being composed of a circumferential length of said last band portion folded over onto and into substantially compressive contact with itself providing a double thickness, and thence by a second length folded back over the first length providing a triple thickness, the two lengths being in substantially compressive contact one with the other, providing in each tuck an overlapping of three contacting lengths of said last band portion.

2,833,465
MULTI-VANE POSITIVE DISPLACEMENT PUMP
Walter L. Cable, New Milford, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application August 2, 1955, Serial No. 525,846
2 Claims. (Cl. 230—152)



1. In a rotary multi-vane positive displacement pump of the type including a housing having a cavity, a rotor member rotatably mounted in said cavity, an inlet conduit for a gaseous medium opening into said cavity, an outlet conduit for said gaseous medium opening from said cavity, a plurality of slots in said rotor member; the improvement comprising a separate vane slidably fitted in each rotor slot with a continuous close tolerance, each vane having an inner end surface and an outer end edge surface, said housing cavity having a surface of predetermined contour cooperating with the outer end edge surfaces of said vanes so that upon rotation of said member the outer edge surfaces of said vanes continuously contact the surface of the cavity, each of said vanes having a plurality of closely-spaced holes opening at said inner end surface to the inner end portion of the slot in which the vane is slidably mounted and extending more than one-half the length of said vanes, said holes being substantially uniformly spaced from the sides of said vanes and from each other whereby the weight of the vane is reduced, said vanes being free of any passage between said holes and said outer end edge surface, means at both ends of said rotor arranged to prevent fluid communication with the space defined by said slots and the inner ends of said vanes, and the space defined by said slots and the inner end of said vanes being free of spring means.

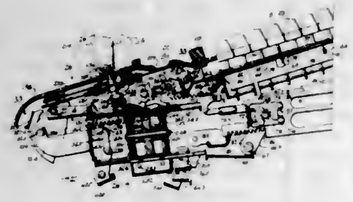
2,833,466
CALCULATING MACHINE, INCLUDING ORDINALLY SHIFTABLE FACTOR STORAGE AND VALUE ENTRY CONTROL DEVICES
Robert E. Boyden, San Gabriel, Paul B. Johnson, Los Angeles, and Chris A. Christoff, San Gabriel, Calif., assignors to Clary Corporation, a corporation of California
Application November 16, 1953, Serial No. 392,190
10 Claims. (Cl. 235—60)



10. In a calculating machine, the combination of denominationally arranged storage devices, denominationally arranged differential actuators cooperable with said devices, drive means for said actuators, means for controlling operation of said drive means, a pair of spaced wheel elements, means rotatably supporting said elements, a flexible endless support carried by said wheel elements and supporting said amount storage devices for

movement into different denominational relationships relative to said differential actuators, a rockable control shaft, means operable by said shaft upon rocking thereof for operating said controlling means, a manually operable handle, means mounting said handle on said shaft to prevent relative rotation therebetween and to permit movement of said handle along said shaft, and means operatively connecting said handle to said flexible support whereby to enable said handle to adjust said amount storage devices into any of different denominational positions.

2,833,467
CALCULATING MACHINE, INCLUDING ORDINALLY SHIFTABLE FACTOR STORAGE AND VALUE ENTRY CONTROL DEVICES
Chris A. Christoff and Robert E. Boyden, San Gabriel, Calif., assignors to Clary Corporation, a corporation of California
Application November 16, 1953, Serial No. 392,294
12 Claims. (Cl. 235—60)



12. In a calculating machine, the combination comprising a register, denominationally arranged longitudinally movable racks for actuating said register, value selecting devices for differentially controlling movement of said racks, denominationally arranged stop elements movable parallel to the racks, said stop elements being settable into different differential positions by said racks and selectively adapted in said positions to control movement of said racks into different differential positions, a denominationally shiftable support for supporting said stop elements in cooperative denominational relation with adjacent ones of said racks, manually operable means movable in either direction from an initial intermediate position to any of a plurality of positions for moving said support from an initial intermediate position to any of a plurality of corresponding denominational positions whereby to move said stop elements into cooperative relation with different ones of said racks, means controlled by said manually operable means in any of said plurality of positions for causing operation of said racks, and means for automatically returning said support to said initial position from any other position thereof.

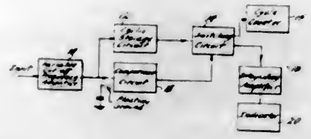
2,833,468
INDICATING DEVICE
Arthur H. Dickinson, Greenwich, Conn., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application October 1, 1952, Serial No. 312,483
8 Claims. (Cl. 235—61)

1. A cathode ray tube indicating system for a device to display characters, including in combination, a manually operable keyboard for entering values representative of a plurality of to be indicated amounts, a plurality of relay matrix network registers for receiving values as entered in said keyboard, relay matrix network means under the control of said registers operable to obtain a difference between two successively entered value amounts, relay network means operable to convert the difference amount, if in nines complement form to a true value form, a plurality of cathode ray tubes, control means for said cathode ray tubes comprising a rotatable element having light controlling tracks imprinted thereon to variably transmit different amounts of light each representative of a different digit upon rotation of said element, photocell means variably influenced according to the rotation of said element, timing selector means operable to select the time during which one of said variable density areas on



the rotatable element will influence a photocell, means under control of said registers for controlling said indicating cathode ray tubes in accordance with the amounts entered therein and the difference computed therefrom whereby said tubes produce a normal visual display of the digit values entered in said keyboard and computed by said registers.

2,833,469
TOTALIZER
Edward John Groth, Jr., Overland, Mo., assignor to Universal Match Corporation, Ferguson, Mo., a corporation of Delaware
Application April 25, 1955, Serial No. 503,414
18 Claims. (Cl. 235—61)

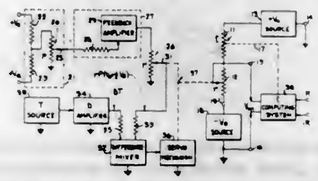


14. A device of the type described for measuring the sum of the peak values of a signal without regard to polarity, comprising a first condenser, means for charging said first condenser in proportion to peaks of one polarity, a second condenser, means for charging said second condenser in proportion to peaks of the opposite polarity, a third condenser, charge transfer switch means for transferring the charge from said first and second condensers to said third condenser additively, start-stop switch means for rendering said charging means responsive to said signal and alternately nonresponsive to said signal while at the same time disabling said charge transfer switch means, and reset switch means for discharging said third condenser while at the same time disabling said charge transfer switch means.

2,833,470
ELECTRICAL BALLISTIC COMPUTING SYSTEM
William R. Welty, West Los Angeles, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application May 31, 1951, Serial No. 229,091
10 Claims. (Cl. 235—61.5)

1. A ballistics computer for computing the average velocity V_m of a projectile discharged from an aircraft relative to the velocity V_a of the aircraft, said computer comprising: a first circuit for producing a first electrical signal proportional to $P(V_0+\frac{1}{2}V_a)$, where P is the air pressure and V_0 the initial velocity of the projectile; a

first variable circuit element electrically coupled to said first circuit for producing a second electrical signal proportional to said first electrical signal multiplied by a factor r; a second circuit for producing a third electrical signal proportional to DT, where D is a predeter-

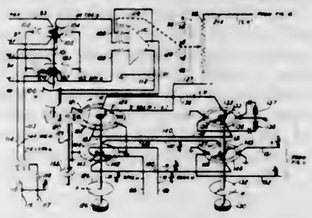


mined constant and T is the air temperature; a mixer for combining said second and third signals to produce an output signal proportional to the difference between said second and third signals; a computing circuit for electrically solving the equation:

$$V_m = \frac{rV_0 - tV_a}{r+t}$$

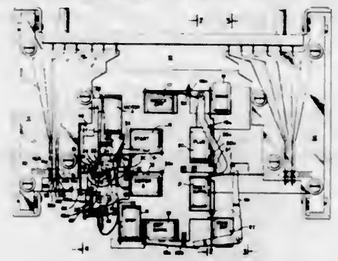
where t is the time of flight of the projectile from the aircraft to the target, said computing circuit including a second variable circuit element representing the factor r; and follow-up means coupled to said first circuit element and responsive to the output signal of said mixer for varying said first circuit element to reduce the output signal of said mixer to zero, said follow-up means being coupled to said second circuit element for varying said second circuit element simultaneously with the variation of said first circuit element.

2,833,471
COMPUTING SYSTEM AND METHOD
Emory Lakatos, Cranford, and Henry G. Och, Short Hills, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 4, 1946, Serial No. 674,338
8 Claims. (Cl. 235—61.5)



1. In a system of apparatus enabling an observer to guide a vessel to a destination at known horizontal distances north-south and east-west of his own position, the observer being provided with means for communicating with the vessel and means for continuously observing the horizontal north-south and east-west distances of the vessel's present position from his own position, computing means for ascertaining the change of course required of the vessel to reach the destination comprising means controlled by the observing means for establishing a first, a second, a third and a fourth voltage proportional respectively to the known north-south and east-west distances and to the like-named observed distances, means for simultaneously deriving from the first and third voltages a fifth voltage proportional to the north-south distance from the present position to the destination and from the second and fourth voltages a sixth voltage proportional to the east-west distance from the present position to the destination, means for differentiating with respect to time the third and the fourth voltages to derive therefrom respectively a seventh and an eighth voltage proportional respectively to the north-south and east-west components of the vessel's ground speed, means including a first and a second servomotor means responsive to the seventh and eighth voltages respectively to provide a ninth voltage proportional to the resultant of said speed components and to indicate as a first angle that between the resultant and the north-south speed component, whereby the ninth voltage is representative of the vessel's ground speed and the first angle is the compass direction of the vessel's present course, means including a third servomotor means responsive to the fifth and sixth voltages to provide a tenth and an eleventh voltage proportional to complementary segments, respectively, of the ground distance from the present position to the destination and to indicate as a second angle that between the last-named distance and the north-south component thereof, whereby the second angle defines as the required course the compass direction of the destination from the present position, and means continuously responsive to the second and the third servometer means for obtaining the angular difference between the indicated angles and means for indicating said difference as the required change of course.

2,833,472
ACCUMULATING DEVICE
Reynold B. Johnson, Palo Alto, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application June 26, 1953, Serial No. 364,414
10 Claims. (Cl. 235—61.6)

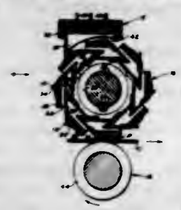


5. In an electro-mechanical accumulator, a totalizing mechanism comprising in combination a pair of cooperating gears, each of said gears mounted to pivot through a circular arc, the geometrical chords of said arcs being substantially perpendicular to one another, one of said gears rotatable and having peripheral teeth, the other of said gears having internal teeth the number of which exceed by one the number of teeth in said rotatable gear, means for pivoting each of said gears, said rotatable gear responsive to alternate successive pivoting of said gears away from a home position and then in the same sequence alternate successive pivoting of said gears back to a home position to cause a one station advance of said rotatable gear, whereby reversal of the sequence of said alternate successive pivoting of said gears to complete an excursion of each gear away from and back to a home position causes a one station retrogression of said rotatable gear.

2,833,473
RECORD SENSING DEVICE
William T. Engel, Union, N. J., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 21, 1954, Serial No. 424,699
4 Claims. (Cl. 235—61.11)

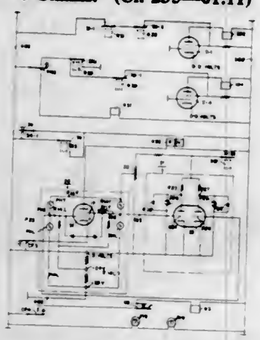
4. In a sensing device adapted to sense data representations contained in a given column of a moving record

medium, a brush holder rotatable about a stationary axis, detent means for stationarily retaining said brush holder in any selected one of a plurality of angular positions to which said holder may be adjusted, a plurality of sensing brushes electrically coupled to each other mounted in cir-



cumferentially spaced relation on said brush holder so that a respective one of said brushes is positioned to engage the record medium for each of said angular positions of said holder, and a source of potential coupled through a non-selected one of said brushes to said selected brush.

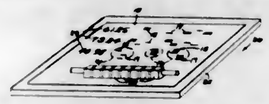
2,833,474
CARD REGISTRATION CHECKING DEVICE
Edward S. Wilson, Poughkeepsie, and Reginald A. O'Hara, Stratsburg, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 12, 1955, Serial No. 481,416
8 Claims. (Cl. 235—61.11)



3. In a cyclically operable record handling device, a record support; means for moving successive records in a predetermined path relative to said record support; means for disabling said moving means at predetermined times of said cyclical operation, two light sources positioned adjacent two points of said path; photo means positioned adjacent each said point on the side of said path opposite said light sources such that said records move between said light sources and said photo means, each said photo means being operable by coincident predetermined positioning of a said record therewith while said moving means are disabled; and means operable by coincident operation of both said photo means for enabling said moving means.

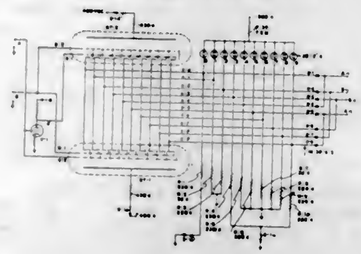
2,833,475
MAGNETIC RECORD AND RECORD-CONTROLLED MECHANISM
Frank G. Dedek, Detroit, Mich., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application September 6, 1951, Serial No. 245,356
4 Claims. (Cl. 235—61.12)

4. A data record comprising a record web having on a face thereof data-bit-representations each within an individual, small, data-bit-representation area comprising two smaller portions on opposite sides of a straight line of division, the two portions of each such area being also relatively displaced longitudinally of said line of division, each of said data-bit-representations being one of a series of different combinations of representation elements, said combinations each consisting of at most a small plurality



of representation elements in one of said area portions and at most a small plurality of representation elements in the other of said area portions, and each element consisting of a mark in the form of a short line extending substantially across said area portion in a direction transverse to said line of division.

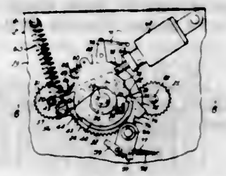
2,833,476
REVERSIBLE COUNTER
Monson H. Hayes and James L. West, Binghamton, N. Y., assignors to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application April 26, 1954, Serial No. 425,462
16 Claims. (Cl. 235—92)



4. A reversible counting circuit having a pair of counting devices, each of said counting devices having a plurality of numbered elements, each numbered element being operable to produce a signal voltage upon occurrence of a count corresponding to its number and each device having a pair of translating means responsive to applied voltages phased in accordance with counting direction for translating a current to successive numbered elements of said devices, the applied voltages to said translating means being de-phased a fraction of a unit count, and a pair of bistable flip-flops connected to receive alternately pulses from selected groups of said numbered elements to change the state of each flip-flop twice during each unit count of an adjacent higher order counting circuit connected to be operated by output voltages from said flip-flops.

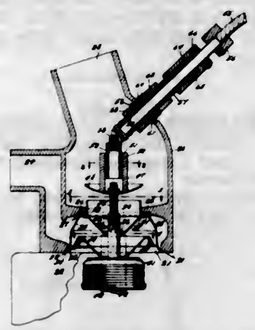
2,833,477
RESETTING MECHANISM FOR COUNTERS
Harvey N. Bliss, Windsor, and Harold B. Vroom, Simsbury, Conn., assignors to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut
Application July 2, 1954, Serial No. 441,056
17 Claims. (Cl. 235—144)

2. A resetting mechanism for registers of the type having a rotatable reset shaft comprising a rotatable member, means forming a one-way drive between the rotatable member and the reset shaft to rotate the reset shaft when the member is rotated in a resetting direction, an operating handle mounted for oscillating movement, a spring operatively connected at one end to the rotatable member and at the other end to the handle, and means forming a one-way drive between the rotatable member and the handle to permit the handle to turn relative to the rotatable member when the handle is turned in a resetting direction to load the spring and to rotate the rotatable



member with the handle when the handle is turned in the opposite direction to maintain the spring in loaded condition.

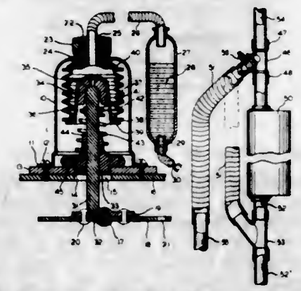
2,833,478
THERMOSTATIC CONTROL OF WATER COOLING SYSTEM OF MOTOR VEHICLE
George W. Middleton, Riverside, N. J.
Application June 9, 1955, Serial No. 514,234
4 Claims. (Cl. 236—34)



1. In a thermostat for controlling flow of water through the radiator of a motor vehicle provided with an internal combustion engine, a housing having a passage adapted to be connected to the engine, an outlet passage adapted to be connected to the radiator and a valve seat interposed in the interior of the housing between the passage from the engine and the passage from the radiator, a thermostatic element secured to the housing in contact with the water therein on the side of the valve seat toward the passage adapted to be connected to the engine, a valve located in the housing on the side of the valve seat adjoining the outlet passage, cooperating with the valve seat, a valve operating rod interconnecting the thermostat and the valve and extending through the opening in the valve seat, said thermostatic element operating to move the valve away from the valve seat when the temperature of the element becomes sufficiently high, adjustment means interposed between the valve and the operating rod and changing the distance between the valve and the thermostat, a mechanism operated from outside the housing and controlling adjustment means to vary the position of the valve with respect to the valve seat at any particular temperature.

2,833,479
THERMOSTATIC EXHAUST PRESSURE REGULATOR
Anthony B. Novesky, Milwaukee, Wis.
Application October 2, 1956, Serial No. 613,564
3 Claims. (Cl. 236—99)

1. A device of the character described comprising, a tubular body open at both ends, a tubular side member extending outward from said body, said tubular side member being open at both ends and in communication with the inner portion of said tubular body, said tubular side member provided with an opening through its wall, a housing open at its bottom and having a port at its top, a base plate having an opening therethrough, said base plate arcuated on its under face to fit the contour of said tubular member and attached thereto with the opening in said base plate in direct alignment with the opening in the wall of said tubular member, a cylindrical bellows disposed within said housing with one end fixed to the upper end thereof, a push rod, means in said housing urging the upper end of said push rod into engage-



ment with lower end of said bellows, a damper pivotally mounted within said tubular side member, resilient means on the wall of said side member body for urging said damper into a closed position, said push rod extending through the opening in said base plate and in the wall of said tubular body into engagement with the upper face of said damper, and a gas charged thermo-bulb filled with temperature affected volatile liquid, the inside of said thermo-bulb being connected with the bellows through the port in the upper end of said housing.

2,833,480
HIGHWAY RAILROAD CROSSING
Clifford H. Sandberg, Glenview, Ill.
Application July 10, 1952, Serial No. 298,040
4 Claims. (Cl. 238—8)

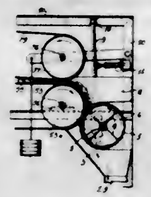


4. A structural unit for railroad crossings and the like comprising a plurality of transverse bar members connected together at their ends by longitudinal end members to form a rigid grating, at least one of said transverse members being interrupted intermediate its length and provided with at least one short longitudinal connecting bar member secured to said interrupted transverse member and to flanking transverse members thereby to form a pocket in said grating, and a substantially flat spike plate of greater plan dimension than said pocket positioned therebelow and overlapping said interrupted transverse member and flanking transverse members, and rigidly secured thereto thereby providing a bottom for said pocket, said spike plate being provided with an opening to receive a spike and said pocket being provided with drainage openings therein.

2,833,481
METHOD OF BREAKING COMPRESSED ACETYLENE BLACK
Robert L. Perks, Shawinigan Falls, Quebec, Canada, assignor to Shawinigan Chemicals Limited, Montreal, Quebec, Canada, a corporation of Canada
Application September 15, 1955, Serial No. 534,524
1 Claim. (Cl. 241—30)

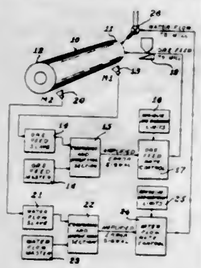
A method of breaking friable lumps of compressed acetylene black into fragments whose maximum dimen-

sion is not greater than three-quarters of an inch, without impairing the properties of said acetylene black, thereby rendering it suitable for use in the dry cell battery industry, comprising passing the acetylene black into the nip between two counter-rotating cylindrical rolls with parallel horizontal shafts in a plane tilted from the horizontal at an angle within the range from zero to about 40°, at least one of said rolls being a hollow cylinder whose sur-



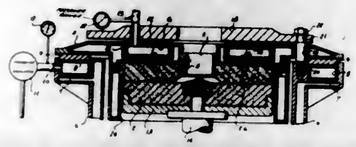
face is uniformly perforated with openings occupying at least seventy percent of the surface area, said openings having a maximum dimension not exceeding about three-quarters of an inch, driving at least one of said rolls so that its upper surface rotates toward the other roll, maintaining a pressure sufficient to keep the faces of the two rolls in contact, and recovering acetylene black that has passed through the perforated surface.

2,833,482
AUTOMATIC CONTROL FOR WET GRINDING MILLS
David Weston and Stewart W. Daniel, Toronto, Ontario, Canada; said Daniel assignor to David Weston, Toronto, Ontario, Canada
Application March 26, 1957, Serial No. 648,656
9 Claims. (Cl. 241—30)



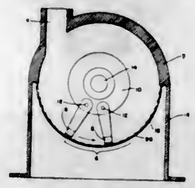
1. The method of controlling the feed to a wet grinding mill of liquid and solid feed components, which method comprises; continuously producing a first electrical signal which varies with mill loading in the region of the inlet side of the mill; continuously producing a first reference signal of predetermined magnitude corresponding to a desired mill loading; comparing the first electrical signal with the first reference signal; varying the rate of feed of solid feed component to the mill responsively to the difference between said signals whereby the rate of solids feed is increased when the mill loading is too low and vice versa; continuously producing a second electrical signal which varies with viscosity of charge in a selected region of the mill; continuously producing a second reference signal of predetermined magnitude which corresponds to a desired viscosity; comparing the second electrical signal with the second reference signal; and varying the rate of feed of liquid feed component to the mill responsively to the difference between said second signal and said second reference signal whereby to increase the rate of feed of liquid feed component when the viscosity is too high and vice versa.

2,833,483
COLLOID MILL
Frederick J. E. China, London, England
Application January 21, 1955, Serial No. 483,335
9 Claims. (Cl. 241—37)



1. A colloid mill comprising: a rotor and a stator both having plane working faces normal to the axis of rotation of the rotor and arranged one above the other, an annular flexible walled pneumatic cushion completely coaxially surrounding the axis of the stator and operable to exert pressure against the stator independently of the rotor and in a direction away from the rotor, another annular flexible pneumatic cushion also completely coaxially surrounding the axis of the stator and operable to exert pressure on the stator in the direction of the rotor, and means for supplying gaseous fluid under different pressures to both cushions.

2,833,484
HAMMER MILL AND SCREEN
William T. Gooding, Jr., Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
Application April 16, 1954, Serial No. 423,584
2 Claims. (Cl. 241—88)

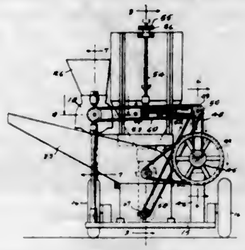


1. In a hammer mill having hammers rotatably mounted within a cylindrical chamber, means for introducing material into said chamber, and means for expelling ground material from said chamber, said latter means including a perforated peripheral plate substantially paralleling the rotational paths of said hammers and provided with a plurality of polygonal perforations therein, said perforations in cross section comprising a plurality of continuous steps, the risers of said steps being substantially on radii of said cylindrical chamber and said risers opposing the direction of rotation of said hammers, each of said steps in plan view converging to a point at said riser.

2,833,485
FEED GRINDING AND MIXING MACHINE
Perry S. Rothhaar, Bloomville, Ohio
Application July 19, 1954, Serial No. 444,205
1 Claim. (Cl. 241—101)

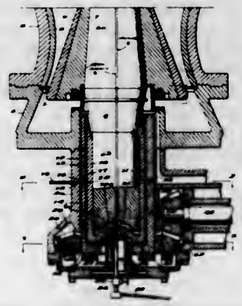
In the combination of, a mobile frame, a corn sheller on said frame, a grinder on said frame with said grinder including a plurality of pivoted flails, a chute below said sheller communicating with said grinder, a receiver carried by said frame, means conveying the ground material from said grinder to a point under said receiver, a power shaft rotatably carried by said frame, flexible drive connections between said sheller, said grinder, said conveying means, and said drive shaft; a combined mixer and conveyor comprising a tube extending from said first conveyor to the bottom of said receiver, a second tube

axially aligned with said first tube, means mounting said second tube in said receiver in spaced relation to the walls of said receiver and with the bottom of said second tube substantially spaced from the top of said first tube and the bottom of said receiver, a spiral screw extending from the bottom of said first tube to the top of



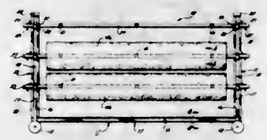
said second tube through said tubes, and means extending from said power shaft for rotating said screw so that said screw will convey material from said conveyor to said receiver through said first tube and simultaneously convey material from the bottom of said receiver to the top of said receiver through said second tube whereby material in said receiver will be continuously mixed.

2,833,486
GYRATORY CRUSHER WITH HYDRAULIC MEANS FOR ADJUSTING CRUSHER HEAD
Lester R. MacLeod, Newark, N. J.
Application January 10, 1955, Serial No. 480,689
4 Claims. (Cl. 241—215)



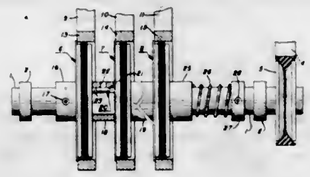
4. In a gyratory crusher, the combination comprising a first cylindrical member mounted for rotation about its axis, said member having a cylindrical bore extending longitudinally and eccentrically thereof, a second cylindrical member journalled in the bore of said first cylindrical member and having in its upper portion a cylindrical bore extending longitudinally therein, an upright cylindrical shaft having its lower end portion journalled in the bore of said second cylindrical member and longitudinally slidable therein, a head fixed upon the upper portion of said shaft, a bowl surrounding said head, the lower portion of the bore in said second cylindrical member below the lower end of said shaft constituting a hydraulic cylinder, and means for introducing hydraulic fluid under pressure into said cylinder to raise said shaft and hence also said head to effect an adjustment in the clearance between said head and bowl.

2,833,487
MANDREL CARRIER STANDARD
Jack W. Petty, Los Angeles, Calif., assignor to Roberts Manufacturing Company, Los Angeles, Calif., a corporation of California
Application October 4, 1954, Serial No. 460,060
5 Claims. (Cl. 242—55.3)



1. In a device designed to be used in supporting a rotatable mandrel, the improvement which comprises: two upright support sections secured adjacent one another so as to define a space between said support sections; a pivot pin mounted between said support sections so as to traverse said space; and a hook assembly positioned upon said pivot pin, said hook assembly including a hook element to one end of which there is secured a bushing, said bushing being positioned around said pivot pin, and to another portion of which there is secured a stop bar, said stop bar projecting from said hook element so as to normally bear against said support sections.

2,833,488
EXPANSIBLE CORE ADAPTER
Frank J. Kerber, Cedar Grove, N. J., assignor to John Dusenbery Company, Inc., Verona, N. J., a corporation of New Jersey
Application May 24, 1956, Serial No. 586,993
4 Claims. (Cl. 242—55.15)

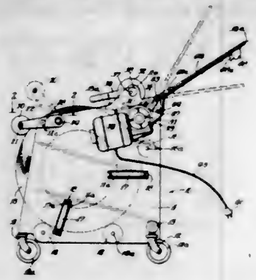


1. A core adapter for mounting a core on a rotatable shaft, the said core adapter comprising a cylindrical-shaped body having an annular groove therein, an annular resilient member seated in the said annular groove, a coil spring in the said annular groove over the resilient member, the said coil spring having spring coils normally extending radially above the circumferential edge of the groove whereby a core may be axially pressed over the said cylindrical-shaped body and restrained from rotary movement therewith by action of the spring coils on the core, and means mounting the said core adapter on a rotatable shaft.

2,833,489
BAND DISPENSER
Marchand B. Hall, Chicago, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application May 14, 1953, Serial No. 354,960
12 Claims. (Cl. 242—78.7)

3. A dispenser of the type described, comprising means for supporting a coil of binding material, means including a motor driven roll for withdrawing material from said

coil, a pivotally mounted delivery arm having a channel through which said material withdrawn from said



coil is discharged, and a circuit for said motor having a control switch mounted on the discharge end of said arm.

2,833,490
BOBBIN SUPPORTING DEVICE FOR TEXTILE SPINNING AND LIKE MACHINES
Bernard Henry John Quint, Swindon, England, assignor to The Plessey Company Limited, Ilford, England, a British company
Application September 26, 1955, Serial No. 536,636
Claims priority, application Great Britain March 25, 1955
7 Claims. (Cl. 242—130.2)



1. A bobbin supporting device for suspending bobbins in, for example, the creels of textile spinning machines comprising a tubular sleeve having supporting means at one end for attachment to the machine, bobbin supporting detents carried by and adjacent the opposite end of the tubular member, a spindle mounted within the bore of the tubular member, a collar surmounting said tubular member slidable axially along said tubular sleeve and being rotatably connected to said spindle, means above and below the rotatable connection between said sleeve and collar for imparting intermittent angular motion to the spindle as a result of axial two-way movement of the spindle to permit movement of the supports into or out of the bobbin supporting position.

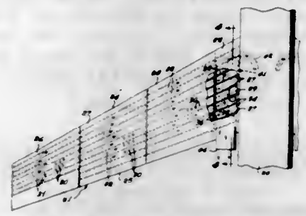
2,833,491
STRAND TENSIONING MEANS
Robert L. Carroll, Greenville, S. C.
Application August 27, 1954, Serial No. 452,601
11 Claims. (Cl. 242—154)

1. Strand tensioning means comprising a vertically extending plate support, guide members at the top and bottom of the support, spaced cylindrical friction guide posts arranged in parallelism and extending perpendicularly to the support, a carrier rotatively mounted on the support and movable about an axis parallel to said guide posts through an angle of approximately 165°, arms mounted on the carrier extending radially in opposite directions therefrom perpendicularly to said guide posts, stops located in proximity to each other on said support, each of said stops engaging one of said arms and thereby



limiting movement of said carrier in opposite directions, and guide members at the outer ends of said arms.

2,833,492
BOUNDARY LAYER CONTROL SYSTEM WITH AERODYNAMIC GLOVE
Harlan D. Fowler, Washington, D. C.
Application February 7, 1955, Serial No. 486,370
16 Claims. (Cl. 244—40)



2. In an aircraft having full functioning smooth air-contacting surfaces a removable glove structure fitting snugly over said surfaces, said glove structure comprising an outer porous layer of material and an inner impervious layer of material and means separating said layers of materials whereby to form an air passage means therebetween, and duct means having a discharge port directed rearwardly of the aircraft and a mechanical suction means in said duct means adapted to pass air from the porous layer through said discharge port, said inner layer having a contour substantially conforming to the contour of the surface adjacent thereto and connections on the inner layer connecting the glove structure to said surface.

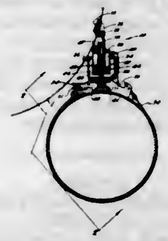
2,833,493
JATO ATTACHMENT AND EJECTING SYSTEM FOR AIRCRAFT
John J. Pfarr, Inglewood, and James O. Billups, Manhattan Beach, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 15, 1953, Serial No. 361,542
4 Claims. (Cl. 244—54)



1. In combination an aircraft; a rocket having a combustion chamber subject to fluid at varying pressures during the burning period thereof; said rocket being releasably attached to said aircraft in a manner to augment the thrust of said aircraft during said burning period; a rocket ejection mechanism including a cylinder

attached to said aircraft and a piston attached to said rocket in mating relation with said cylinder to define an expandable chamber; a source of fluid at super-atmospheric pressure; a conduit extending between said fluid source and expandable chamber to provide a fluid path therebetween; control means in said conduit responsive to said fluid at varying pressures whereby fluid flow through said conduit is blocked during the major burning period of said rocket and fluid at said super-atmospheric pressure flows from said source to said expandable chamber during a predetermined interval of the burning period of said rocket; and said cylinder and piston are attached to said aircraft and rocket in such a manner that the force exerted by said fluid at super-atmospheric pressure acting on said piston opposes the thrust of said rocket so that the latter is ejected at such time as the fluid force acting on said piston exceeds the thrust of said rocket.

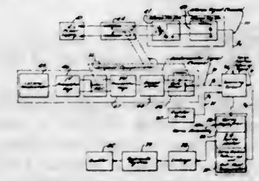
2,833,494
ROCKET EJECTION SYSTEM
Stanley R. Parker, Tarzana, and Carroll D. Phillips, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 15, 1953, Serial No. 361,544
5 Claims. (Cl. 244—63)



1. In combination: an aircraft, a rocket releasably attached to said aircraft in a manner augmenting the thrust of said aircraft when fired, and a rocket ejection mechanism, said rocket including a housing defining a combustion chamber containing an explosive charge which when fired produces fluid at varying pressures in said combustion chamber, said rocket ejection mechanism comprising a cylinder and mating piston defining a pair of variable volume chambers, conduits providing fluid passageways whereby said variable volume chambers are subjected to fluid pressure present in said combustion chamber prior to a predetermined time during the firing period of said rocket, means effective after said predetermined time to effect a difference between the fluid pressures present in said variable volume chambers which results in relative movement between said piston and cylinder, said cylinder and piston being attached to said rocket and aircraft, respectively, so that said relative movement between said piston and cylinder exerts a force on said rocket to effect the ejection of the latter from said aircraft.

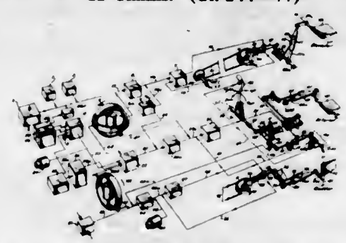
2,833,495
SIDESLIP STABILITY AUGMENTER
Thomas A. Feeney and Duane T. McRuer, Los Angeles, Calif., Richard J. Kulda, Washington, D. C., and Leonard L. Nalley, Compton, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 13, 1953, Serial No. 342,256
7 Claims. (Cl. 244—77)

2. In a high speed aircraft in flight provided with rudder and aileron control surfaces, means for automatically minimizing transient and steady state side-slip during maneuvers of said craft and during disturbances encountered in normal operation thereof comprising, single sensor means mounted on said aircraft for jointly detecting deflection forces acting on said aircraft due to side-slip and yaw, the latter being principally due to aileron deflection and to a minimum degree rudder deflection, and electrical network for converting said detected deflection forces into initial control signals proportional to the algebraic sum of the time rate of change and magnitude of said detected side-slip or yaw, pick-off means and electrical circuitry for deriving continuous delayed aileron control signals proportional to the deflection of said aileron con-



trol surfaces from neutral, means for delaying said aileron control signals to establish coincidence therebetween and said initial control signals, electrical circuitry for combining said initial and aileron control signals into a composite control signal, an automatic actuating means for deflecting said rudder control surface in response to said composite control signal, the sense of rudder deflection due to said initial control signal components being directed in opposition to the forces producing said detected side-slip or yaw, and the sense of rudder deflection due to said aileron control signal components being chosen to always correspond to the sense of deflection of said ailerons.

2,833,496
FLIGHT CONTROL SYSTEM
Duane T. McRuer, Los Angeles, Richard J. Kulda, Redondo Beach, and Alvin R. Vogel, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application December 13, 1954, Serial No. 474,888
12 Claims. (Cl. 244—77)



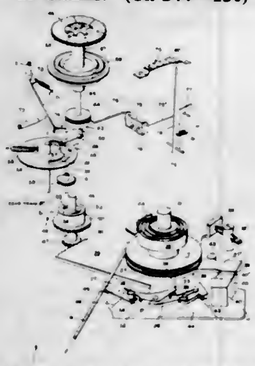
8. In an airplane having control surfaces including ailerons, an elevator and a rudder, the combination of a manual control for said control surfaces, an autopilot control for said control surfaces, separate respective linkages between said manual control and said ailerons, said elevator and said rudder, means for changing the overall length of said elevator linkage and said rudder linkage by a signal input from said autopilot control so as to effect automatic deflection of said elevator and said rudder in response to said autopilot signal input without disconnecting the manual deflection control of said same surfaces, an autopilot link member changeable in length by a signal input from said autopilot control disengageably connected into said aileron linkage so as to automatically deflect said ailerons in response to said autopilot signal input; and means for automatically disconnecting said autopilot link from said aileron linkage whenever the latter is operated through said manual control, and for automatically reconnecting said autopilot link when said latter manual control is inoperative.

2,833,497
MODEL AEROPLANE ADAPTED FOR TRAVEL ON KITE STRING
Richard B. Young, Mattapoisett, Mass.
Application April 15, 1955, Serial No. 501,601
6 Claims. (Cl. 244—155)



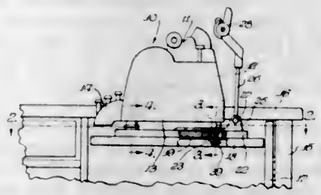
1. A toy aeroplane with a wing pivotally mounted thereon, said aeroplane being adapted to travel up and then down a kite string in simulated flight, a spring member for holding the wing in normal flying position, a trigger wire for exerting force against the wing at a point removed from its pivotal mount whereby the wing may be rotated into a depressed position substantially at right angles with the longitudinal axis of the aeroplane, said wire being of such length that it projects out beyond the tail end of the aeroplane when the wing is in its depressed position, releasable means for locking the wire in place in the fuselage to hold the wing in depressed position, means for mounting the aeroplane on a kite string so that it will run freely thereon, and said trigger wire being adapted to be cammed free of the said releasable locking means of the aeroplane so that the spring member may thereafter rotate the wing into flying position.

2,833,498
PARACHUTE RELEASE DEVICE
Rutger B. Colt, Baltimore, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application June 2, 1955, Serial No. 512,775
13 Claims. (Cl. 244—150)



1. In a parachute release device, a rotatable cable drum, a ripcord pull cable connected to the drum, a power spring operatively connected to the drum to exert a driving torque thereon, timing means including a member rotatable with and relatively to the drum, coacting latch means carried by said drum and said member and arranged to latch the drum to said member when the drum has been rotated through a predetermined arc and in a direction to wind the spring, said timing mechanism including escapement means which when released is started in motion by the torque exerted on said member by said spring, and means for automatically tripping said latch means to permit the drum to rotate free of said member and be caused to deliver a power stroke following rotation of the member through a predetermined arc during a preset time-delay period.

2,833,499
ADJUSTABLE MOUNTING MEANS FOR TYPEWRITERS
Roland H. Lysedahl, Chicago, Ill.
Application September 26, 1955, Serial No. 536,359
9 Claims. (Cl. 248—22)



8. For an office machine having a base and an operator's carriage mounted thereon; mounting means comprising a platform, said platform having a pair of transversely disposed slots, one of said slots having opposed walls with one wall extending angularly with respect to the other wall whereby one end of the slot is larger than its other end, a resilient pad supported on said platform, said pad having openings in alignment with said slots, adjustable securing means connecting said base to said platform comprising, a pair of transversely disposed spacer members connected to said base, adjustable securing means extending through said openings and adjustably connected to said spacer members, said securing means including a portion extending through the openings for limiting the linear and angular movement of said machine relative to said platform.

2,833,500
COLLAPSIBLE, PORTABLE FISHING ROD SUPPORT
Thomas B. Jones, Rich Hill, Mo.
Application August 10, 1953, Serial No. 373,097
1 Claim. (Cl. 248—42)



A support adapted for holding fishing tackle, said tackle including a reel mount having a reel thereon, a handle on one end of the mount, a chuck on the opposite end of said mount, and a rod secured to the chuck, there being a rotatable knob on said reel, said support comprising a pair of sections, one of said sections consisting of a continuous length of wire provided with a downturned, U-shaped rod-receiving bend intermediate its ends and presenting a pair of parallel legs spaced to receive the mount and handle therebetween, the ends of said wire being bent toward each other to form substantially L-shaped elements, each having an inwardly extending portion and an outermost length, said lengths being parallel, and disposed in relatively close, juxtaposed relationship, a tubular member rigidly interconnecting said lengths, whereby said portions prevent displacement of the handle in one direction, an upwardly arched handle retainer joining the legs adjacent said ends for overlying engagement with the handle, and a downwardly arched, handle-receiving cradle joining the legs intermediate said bend and said retainer, said legs being bent downwardly between the cradle and said bend to present a pair of U-shaped portions clearing the reel and the rotatable knob thereon, the other of said sections consisting of a continuous length of wire doubled upon itself to present a bight having a pair of adjacent segments, the ends of said segments being bent to form a pair of parallel, spaced, ground-piercing elements; and means for releasably securing the bight in said member, there being means rigidly interconnecting said segments.

2,833,501
METAL HANDLING AND STORAGE BOLSTER
Frederick H. Evans, Massillon, Ohio, assignor to Evans Enterprise, Inc., Massillon, Ohio, a corporation of Ohio
Application March 21, 1955, Serial No. 495,442
9 Claims. (Cl. 248—120)



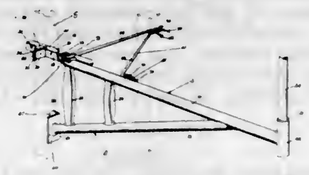
1. A bolster for handling and storage of elongated objects, said bolster comprising a spaced pair of end frames and a spaced pair of connecting and spacing members, each end frame comprising a straight elongated tubular metal shell having upright diverging tubular extensions at its ends, and concrete entirely filling each shell including said extensions, the end portions of said connecting and spacing members being located entirely through the end frames and embedded in said concrete.

2,833,502
LAMP BRACKET HOLDER
George A. Wildeboor, Savannah, Mo.
Application August 23, 1954, Serial No. 451,546
1 Claim. (Cl. 248—226)



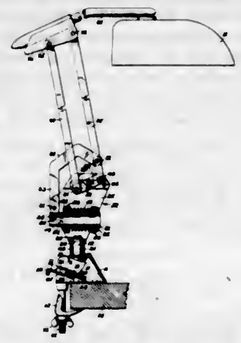
Apparatus for supporting an electric lamp above one side of a chair by engagement with the side faces of the back of the chair comprising, a tubular standard for extending parallel with the corner of the back of the chair, the upper portion of the standard being positionable above said back and having a flexible end to which the lamp is attached for adjusting the lamp to various positions above the chair, an electric cord for the lamp extending through said tubular standard and said flexible end, spaced tubular members for extending partially across the back of the chair and each having a flattened portion at one end thereof and provided with an opening, said standard having openings spaced longitudinally thereof, a pin extending through the opening in the flattened portion of each of the tubular members and said standard for pivotally mounting the tubular members on the standard, a gripping member extending from said one end of each of the tubular member and being turned laterally forming a gripping portion for engaging one side face of the chair back, rods, each having one end telescopingly engaging a respective tubular member, the free end of each rod being turned laterally and forming a gripping member for engaging the other side face of the back of the chair, a coil spring within each of said tubular members, one end of each spring being secured to the pin pivotally mounting its respective tubular member on said standard, and means securing the other end of each spring to the inner end of the telescoping rod in its respective tubular member, whereby rotation of said tubular members and said rods on said pins securing said members to the standard to extend the same outwardly from the opposite side of said standard said lamp may be mounted on the other side of said chair.

2,833,503
PLATFORM SUPPORT APPARATUS
Lynn B. Harshbarger and Paul E. Meyer, Long Beach, Calif.
Application April 18, 1955, Serial No. 501,842
2 Claims. (Cl. 248—235)



1. Platform support apparatus for use with a plurality of vertically extending studs, comprising: a support having an elongated horizontally extending load-bearing member formed at its rear end with a hook that engages one of said studs, and a diagonal compression member extending downwardly and rearwardly from the underside of the front portion of said load-bearing member, the rear end of said compression member being formed with an abutment element that engages the stud with which said hook is engaged below the point of contact of said hook and stud; and a sway brace extending sidewardly from said load bearing member for engagement with a stud adjoining the stud engaged by said hook and abutment elements, said sway brace including a rear arm, an adjustment loop formed at the outer portion of said rear arm and a front arm extending forwardly from said loop, the ends of said front and rear arms adjacent said load bearing member being pivotally affixed to the latter.

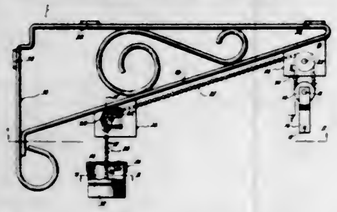
2,833,504
ADJUSTABLE WEIGHT SUPPORTING MECHANISM
Richard C. Sacksteder, Elwood, Ind., assignor to General Lamps Manufacturing Corporation, Elwood, Ind., a corporation of Indiana
Application May 17, 1954. Serial No. 430,021
4 Claims. (Cl. 248—280)



1. A mechanism of the class described, comprising means providing a fixed, generally horizontal pivotal

axis, a lever mounted to swing about said axis, means providing a generally horizontal guideway spaced from said axis and extending transversely with respect thereto, fulcrum means providing an axis substantially parallel with said pivotal axis and guided for trans-axial movement along said guideway, said fulcrum means being horizontally offset from said pivotal axis, four elements defining a parallelogram and comprising a first rocker element, a second rocker element in parallel, spaced relation to said first rocker element, a first link element pivotally connected to said first rocker element and to said second rocker element, and a second link element in parallel, spaced relation to said first link element and pivotally connected to said first rocker element and to said second rocker element, one of said four elements being pivotally supported from said fulcrum means, means providing a pivotal connection between said lever and another of said four elements adjacent said one element, means for supporting a load from a third one of said four elements, and means operatively engaging said lever and yieldably resisting movement of said lever under the influence of gravity upon such a load.

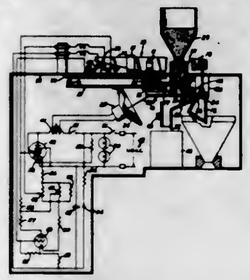
2,833,505
COMBINATION HANGER AND HOIST ASSEMBLY
William J. Dulle, Kansas City, Mo.
Application July 8, 1953, Serial No. 366,832
1 Claim. (Cl. 248—320)



In a merchandise support having means for rotatably receiving one of a pair of stretches of a ball chain from which the merchandise depends, the improvement of which comprises a tubular fixture having a top wall, a bottom wall, and a pair of spaced side walls, the top wall being adapted to be secured to the support, there being a pulley between said side walls and carried thereby for rotation on a substantially horizontal axis, said pulley being adapted to receive the other stretch of the ball chain with a part thereof extending through the bottom wall, one of the side walls and said bottom wall being provided with an opening adapted for clearing said part of the ball chain, said opening terminating in a slot within the bottom wall adapted to receive the chain between a pair of balls thereof, the slot being narrower than the diameter of the balls whereby to retain the chain when the same is disposed in the slot, said pulley having a flange, a substantially frusto-conical portion, and an annular chain-receiving groove between the flange and said portion in substantial alignment with the slot, said portion sloping inwardly toward the groove and the axis of rotation of the pulley for biasing the ball chain into the groove and therefore into the slot whereby the chain is releasably retained therein to hold the merchandise in predetermined positions relative to the support.

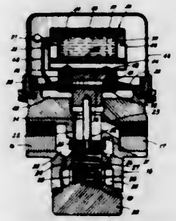
2,833,506
SCALE
Norman R. Gunderson, Pasadena, Calif.
Application November 8, 1956, Serial No. 621,167
11 Claims. (Cl. 249—42)

1. A scale for weighing a predetermined quantity of granular material into a container, comprising: a scale beam having a pair of arms, a fulcrum mounting said beam between said arms, a shiftable weight on one of said arms, the container being suspended from the other of said arms, a feeder for discharging said material into the container, means for providing said material to the feeder, means for vibrating said feeder at a plurality of amplitudes, whereby material is dischargeable from said feeder at a plurality of speeds and in a plurality of trajectories corresponding to said speeds, a cutoff trough having an edge and a notch in said edge having a width



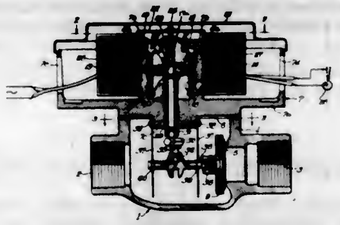
less than that of the edge, said trough being so disposed and arranged that material discharged from the feeder at a relatively faster of said speeds clears the said edge and enters the container, and so that some material discharged at one of said lower speeds passes through said notch, whereby an initial portion of said quantity can be discharged from said feeder at a high rate of flow, and whereby at a lesser speed, only a relatively small portion of the material passes through the notch to the container, and whereby any dribble from said feeder lands on the said trough.

2,833,507
HEAT MOTOR VALVE
John E. Dube, Chesterfield, and Joseph G. Wolfslau and Lyle S. Houghton, St. Louis County, Mo., assignors to Alco Valve Company, University City, Mo., a corporation of Missouri
Application October 22, 1953, Serial No. 387,766
10 Claims. (Cl. 251—11)



1. In a valve construction: a valve housing having an inlet, an outlet, and a valve seat therebetween; a valve movable toward and from the valve seat; heat motor means for operating the valve, the valve housing having a diaphragm supporting member positioned within the housing in a non-metallic contacting relation, a non-metallic diaphragm, and a rigid portion of the housing clamping the diaphragm to the supporting member, the diaphragm forming an expansion chamber with the supporting member; a spring-clip element mounted on the supporting member. with upstanding legs, a non-metallic capsule support secured between the legs, a liquid-containing capsule mounted in said support, out of contact with the upstanding legs, said capsule being substantially out of metallic contact with the valve housing and having insulation between it and all points on said valve housing, and a capillary tube connecting the capsule with the expansion chamber; a connection between the valve and the diaphragm for movement of the valve by the diaphragm; and a heater in the capsule support to apply heat to the liquid therein.

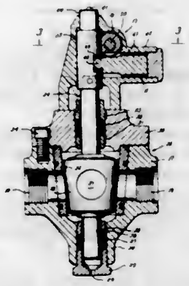
2,833,508
ELECTROMAGNETIC CONTROL DEVICE
Floyd J. Bydalek and Russell B. Matthews, Milwaukee, Wis., assignors to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application February 8, 1952, Serial No. 270,666
19 Claims. (Cl. 251—133)



16. An electromagnetic operator comprising a magnetic frame having an air gap, a primary winding affording when energized magnetic flux in said frame, a secondary winding having a circuit supplied therefrom, said magnetic flux inducing a current in said secondary winding when said circuit is closed to divert said magnetic flux across said air gap, a magnetic rotor mounted for rotation into said air gap when magnetic flux is diverted therethrough, a crank arm engaged for rotation with said rotor, an actuating member adapted for connection to a member to be controlled, a pair of spaced spiral supporting and biasing springs supporting said actuating member in a manner to permit reciprocating movement thereof and biasing said member toward a first position, and an operative connection between said crank arm and said actuating member affording movement of said actuating member to a second position against said bias on movement of said rotor into said air gap.

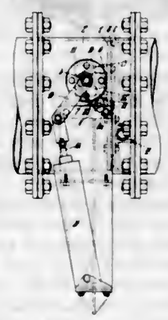
2,833,509
WITHDRAWN

2,833,510
VALVE MECHANISM
Herbert Allen and Ralph E. Hammond, Houston, Tex., assignors to Cameron Iron Works, Inc., Houston, Tex., a corporation of Texas
Application April 4, 1955, Serial No. 498,922
10 Claims. (Cl. 251—162)



1. A valve actuator mechanism for causing rotational and limited reciprocatory endwise movement of a stem about and along an axis of the stem comprising, in combination with said stem, a rotatable pinion, an eccentric connecting between the pinion and stem causing reciprocation of the stem first in one endwise direction and then in an opposite endwise direction upon continued rotation of the pinion in one direction, a rack engaging the pinion, and a rotary driving connection between the rack and stem causing rotation of the stem during at least a portion of the rack's movement, and means for driving the rack and pinion.

2,833,511
VALVE MECHANISMS
Bertram Godsall Fletcher, London, England, assignor to The British Ceca Company Limited and F. W. Berk & Company Limited, both of London, England
Application July 22, 1955, Serial No. 523,847
Claims priority, application Great Britain December 21, 1954
4 Claims. (Cl. 251—218)

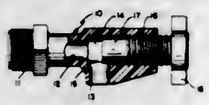


1. Valve mechanism for controlling the flow of fluids through a pipe, comprising a movable member engageable with a seating so as to form a closure within the pipe when in the shut position, said movable member being controlled by a shaft which is connected to said movable member by lever members, and is arranged to pass through bosses disposed within slotted brackets carried on said movable member, each of said brackets having a slot which is in part circular and in part parallel sided, and each of said bosses being of overall circular shape for making rotary engagement with the circular part of said slot but having flattened side parts for making slidable engagement with the parallel sided part of said slot, said brackets being so arranged with respect to said shaft that when the valve is in the shut position, the flattened side parts of said bosses are in engagement with the parallel sided parts of said slots, whereby preliminary rotation of said shaft causes said movable member and brackets to slide longitudinally away from said seating until said bosses are disposed in the circular parts of said slots, and are clear of the parallel sided parts, so as to permit said movable member to be swung into the open position by the further rotation of the shaft.

2,833,512
FAUCET ASSEMBLY
Phillip Donald Sanborn, Chardon, Ohio, assignor, by mesne assignments, to National Laboratories, Inc., a corporation of Delaware
Application December 22, 1955, Serial No. 554,856
1 Claim. (Cl. 251—214)

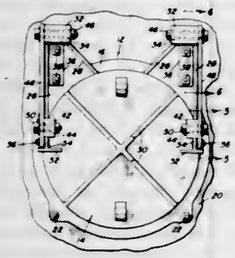
A faucet assembly comprising an elongate housing member having a hollow cylindrical bore extending from end-to-end therethrough, said bore having a relatively large diameter portion extending for part of its length from one end thereof and terminating at its inner end at

an inwardly projecting shoulder constituting a valve seat, the remainder of said bore being of relatively small diameter, threads running for part of the length of the large diameter portion of the bore adjacent said one end, the part of said large diameter portion between said threads and said shoulder constituting a valve chamber, a lateral spout on said housing member, said spout having a spout passage with an inner end terminating in the valve chamber adjacent the seat, a plug valve having a cylindrical head member slidingly engaged in said valve chamber, the outer diameter of said head member being but slightly less than the inner diameter of the large portion of the bore which constitutes the valve chamber and being of a length to engage the seat while bridging the inner end of the spout passage, said plug valve having a stem extending from the head member through the large diameter portion of



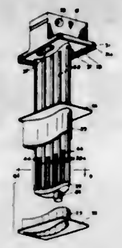
the bore to the exterior of said housing member, threads on said stem engaging the internal threads on said bore, a handle on the outer end of said stem, an attaching nipple on that end of said housing part surrounding the small diameter portion of the bore, and an annular rib integral with said housing member, said rib being rounded in cross-section and projecting inwardly into the valve chamber adjacent the inner end of the spout passage and on the side thereof nearest the internal threads, said housing member and said valve head being of resilient polyethylene plastic, said rib being of only slightly less inner diameter than the diameter of said head and constrictingly engaging a portion of the same, the rib and that portion of the head constrictingly engaged thereby being mutually deformable and of a plasticity such that the rib is partially embedded in the engaged portion of the head.

2,833,513
GATE VALVE
George Castera, Los Angeles, Calif., assignor to Snow Gates & Valves, Inc., Los Angeles, Calif., a corporation of California
Application January 18, 1956, Serial No. 559,974
2 Claims. (Cl. 251—298)



1. A gate valve comprising a mounting frame and a gate element, said mounting frame including a mounting flange, conduit sealing means connected to said mounting flange on one face thereof, a projecting seat of sufficient thickness as to allow refinishing connected to said mounting flange on the opposite face thereof, elongated spacers of sufficient thickness as to allow refinishing, pivot lugs carried by said spacers in projecting relation, means releasably securing said spacers to said opposite face above said seat, first pivot pins having aligned axes disposed in the plane of said seat, support links carried by said first pivot pins in depending relation, said gate element having a seat engaging face, mounting ears on said gate element, aligned second pivot pins carried by said mounting ears, said second pivot pins connecting said gate element to said support links, said spacers having mounting faces parallel to said seat whereby said mounting faces may be refinished together with said seat to retain the desired aligned relationship between said seat and said gate element.

2,833,514
CONSTRUCTION OF TURBINE STATOR BLADES
Horace S. Rainbow and Hans J. P. B. Kahn, Coventry, England, assignors to Armstrong Siddeley Motors Limited, Coventry, England
Application May 10, 1954, Serial No. 428,736
Claims priority, application Great Britain June 1, 1953
8 Claims. (Cl. 253—39.1)



1. A turbine stator blade, which is adapted to be supported at its ends from inner and outer walls of the gas passage of a turbine stator, comprising a core, and a sheath enclosing said core and which externally provides the blade operative surface, said core having means thereon supporting it at each end from said walls, spaced apart longitudinal lands on said core intermediate its ends, said lands substantially co-extensive in length with said sheath and said lands throughout their lengths supportingly engaging the inner surface of said sheath, said core outwardly of said lands at one end formed with a laterally-extending platform provided with a peripheral flange, said platform and flange defining a recess presented towards the other end of said core, said sheath at its end adjacent said one end of said core provided with a laterally-extending platform radially spaced from the core platform and sealingly engaging the peripheral flange of the core platform so as to form a chamber, port means in said one end of said core for admitting cooling air to said chamber, and another chamber having an open downstream side and formed by a portion of said other end of said core being spaced from said inner wall, said sheath and lands defining channels in communication with said first chamber and for conducting cooling air therefrom to said another chamber, the cooling air then discharging from said downstream side of said another chamber.

2,833,515
TURBINE BLADE
Philip P. Newcomb, Manchester, Conn., assignor to the United States of America as represented by the Secretary of the Air Force
Application August 20, 1953, Serial No. 375,584
2 Claims. (Cl. 253—77)



1. A fluid utilizing apparatus subject to centrifugal forces and fluid pressures comprising, a rotor having at least one axially extending slot formed therein, said rotor having at least one shoulder portion projecting from one side surface of said rotor slot, a blade having a root portion mounted in said rotor slot and shaped to mate with said rotor slot and said shoulder portion, said root portion having a tapered slot therein opening into said rotor slot adjacent the inner periphery of said root portion and extending medially, axially and radially the full width of the blade dividing the blade root into two portions separated by said tapered slot, said tapered slot including a side surface extending parallel to the axis of the rotor slot and a side surface adjacent said shoulder portion inclined to the axis of the rotor slot to permit the blade root to flex about the slotted portion when the blade is subjected to centrifugal forces and so cause the entire blade to rotate to a slight extent about its radial axis to compensate for the effect of centrifugal forces and fluid pressure on the blade and to eliminate resultant blade flutter vibration, said blade root closely fitting in said rotor slot so its flexure against the side surface of the rotor slot transforms the flutter vibrational energy in the blade into heat.

2,833,516
METHOD OF DRIVING HOLES IN BITUMINOUS STRATA
Gösta Johan Wilhelm Salomonsson, Orebro, Sweden, assignor to Svenska Skifferolje Aktiebolaget, Orebro, Sweden, a joint-stock company of Sweden
No Drawing. Application July 10, 1952
Serial No. 298,189
Claims priority, application Sweden February 21, 1952
10 Claims. (Cl. 255—1.8)

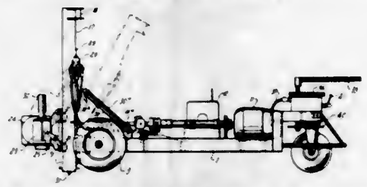
1. The method of driving holes in unconsolidated tar sands which comprises burning organic substances in the tar in situ to form volatile products and to release sand grains from the tar sand, and removing the sand grains by a stream of gas ascending in the hole produced.

2,833,517
DRILLING FLUID CIRCULATION PROCESS AND SYSTEM
Roy A. Bobo, Houston, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 14, 1954, Serial No. 436,446
18 Claims. (Cl. 255—1.8)



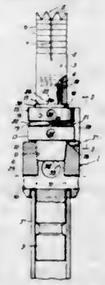
1. The process of establishing circulation of a gas lightened drilling fluid through a drill string and bit and a liquid containing well bore containing the same, comprising the steps of circulating liquid through the drill string and well bore, injecting compressed gas into said liquid to lighten the same before it enters the drill string, establishing a shortened path of circulation for the resulting gas lightened liquid between the interior of the drill string and the well bore at a point intermediate the length of the drill string, continuing the circulation of gas lightened liquid through said shortened path until the pressure of the hydrostatic head of liquid adjacent said point is less than a predetermined pressure, and then closing said shortened path and establishing circulation of said gas lightened liquid through said drill string, said bit and said well bore.

2,833,518
PORTABLE DRILLING MACHINES
Clyde Augsburger, Canton, Ohio, assignor to National Fireproofing Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 22, 1952, Serial No. 316,299
2 Claims. (Cl. 255—51)



1. In a machine for drilling holes in mine roofs and the like, a chassis mounted on wheels front and rear, a drill guide consisting of a pair of uprights with a cross-frame at the top, on the front end of the chassis frame with the center of the pivot in the same horizontal plane as the axis of the front chassis wheels but spaced from the bottom end of the uprights a distance whereby when the uprights are vertically disposed the front wheels are raised above the floor, drill guide supports having rods for supporting the drill guide in vertical or tilted position, means for locking and unlocking the drill guide supports, a carriage mounted on said uprights for sliding movement thereon, means for raising and lowering the carriage, a drill socket mounted on said carriage and a motor on said carriage for rotating the drill socket, said uprights having a channel shaped cross section comprising a web and parallel flanges, a plurality of wheels mounted on said carriage, some of said wheels having vertical rolling engagement with the outer surface of the web of each of such channels and other of said wheels having vertical rolling engagement with a flange of each of said channels.

2,833,519
EXPANSION SHELL HOLDER
John H. Phillips, Chicago, Ill., assignor to Phillips Drill Company, a corporation of Illinois
Application July 8, 1953, Serial No. 366,834
5 Claims. (Cl. 255—72)



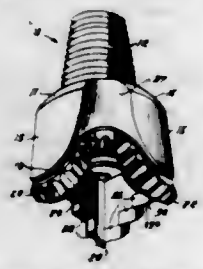
1. In a holder for drill members and the like, having a threaded mounting bore, the combination of a body member having a threaded stem extending from a face therein of a size to engage the threaded bore of such a drill member, a collar having a passageway therein through which said stem extends, the diameter of the passageway being greater than the diameter of the stem, said collar having integral reduced dimension projection means thereon engageable with such a drill member to prevent relative rotation therebetween, a spring compression member interposed between said collar and said face of the body member having said stem freely passed therethrough, said collar being freely rotatable on said stem relative to the body member to enable the drill member to be drawn down on the stem with the compression ring compressed between the collar and body member.

2,833,520
ANNULAR MILL FOR USE IN OIL WELLS
Robert G. Owen, Los Angeles, Calif.
Application January 7, 1957, Serial No. 632,930
10 Claims. (Cl. 255—72)



1. A cutter for use within a well bore, comprising: a hollow tubular body member having a plurality of pockets arranged in a predetermined pattern adjacent one end thereof and dispersed around the entire periphery thereof, said end of the body mmeber arranged to wear away to intersect said pockets; a plurality of cutting elements consisting of bodies of cemented metal carbides disposed in each of said pockets; and a matrix metal embedding said cutting elements, and bonded both to said cutting elements and the walls of said pockets, whereby as said pockets are intersected by wear of said body member said cutting elements are exposed at said end of the body member.

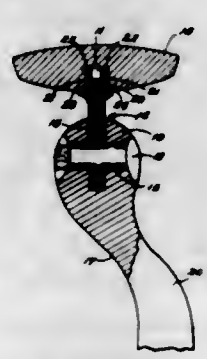
2,833,521
EARTH BORING TOOLS
Ole K. Olsen, Garland, Tex.
Application September 23, 1954, Serial No. 457,973
6 Claims. (Cl. 255—302)



1. A drill bit including: a body having downwardly and outwardly extending circumferentially spaced supporting arms; at least three roller cutters disposed between said arms; means for rotatably mounting said roller cutters on said arms; and a drag blade assembly disposed between said roller cutters and secured solely to said mounting means to lock said mounting means to said supporting arms; said drag blade assembly including radially extending blades corresponding in number to the roller cutters and each connected at its upper end to the mounting means for one of said roller cutters, said blades each having cutting edges disposed inwardly of and below said roller cutters whereby said drag blades first penetrate earth formations to form a hole which is subsequently enlarged and shaped by said roller cutters; said drag blades each having a plurality of steps formed thereon disposed in progressively upward and outward relation from a central lowermost point portion.

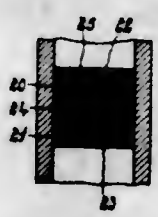
2,833,522
RAILING MOUNTING AND FASTENER THEREFOR
Frank L. Michaels, Burlington, Ky., assignor to The Michaels Art Bronze Company, Erlanger, Ky., a corporation of Kentucky
Application August 1, 1955, Serial No. 525,635
8 Claims. (Cl. 256—65)

1. A fastener for a railing member having a bottom slot with undercut side walls, comprising a unitary member having a bolting lug portion of a thickness approximating the width of the mouth of the rail slot and having laterally projecting shoulders along each side of the upper end thereof for marginally seating on the bottom of the railing member on opposite sides of the mouth of the slot, a pair of spaced parallel ribs on said upper end having outer faces conforming to the opposed slot walls, a rod member lying on said end between the ribs and con-



tacting the ribs closely adjacent said end and defining opposite lines on which the free top edges of the ribs may be bent toward each other to permit the ribs to be entered substantially to the bottom of the rail slot and the bottom margins of the railing member to seat on the shoulders, and means to bodily shift the rod member toward the free top edges of the ribs and thereby spread the latter into positive binding abutment with the sides of the rail slot.

2,833,523
REGENERATOR FOR USE IN HOT GAS RECIPROCATING ENGINES
Jose Jan Willem den Haan, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 16, 1952, Serial No. 315,037
Claims priority, application Netherlands
November 27, 1951
2 Claims. (Cl. 257—6)

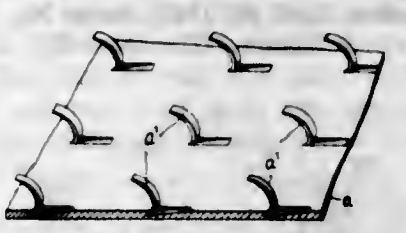


1. A regenerator for use in a hot gas reciprocating engine comprising: a plurality of layers of regenerative material of different thermal capacities, the outermost layers defining opposed entry surfaces for the flow of gases therethrough, the thermal capacities of the outermost layers being higher than those of the intermediate layers, the outermost layers being formed of spirally wound metal bands radially spaced from each other to define a series of openings longitudinally thereof, and said openings being circumferentially staggered with respect to each other.

2,833,524
HEATING AND COOLING SYSTEMS FOR WALLS, CEILINGS, AND FLOORS
Alfred Wolf, Basel, Switzerland, assignor, by mesne assignments, to Etablissement Alustra, Vaduz, Liechtenstein
Application March 11, 1953, Serial No. 341,731
Claims priority, application Switzerland March 20, 1952
1 Claim. (Cl. 257—124)

In combination, a large, flat, heat conducting metal element and at least one layer of plaster on one surface of said element, said element having a plurality of bent, splinter-like teeth of substantially uniform width peeled out of said one surface to a depth less than the thickness

of said element, said splinter-like teeth having a thickness less than the thickness of said element and extending into said layer of plaster to a point close to the surface of said layer of plaster, whereby said metal element and



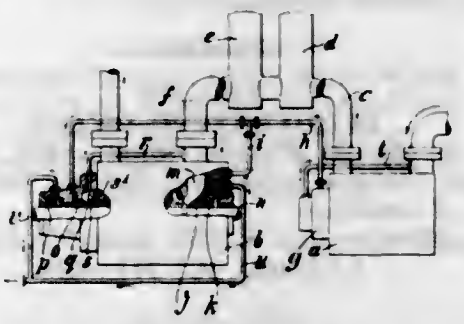
plaster may form a part of a wall of a room, said layer of plaster facing the interior of the room, and heat may be supplied to said metal element to be conducted into said plaster layer and radiated into the room through the plaster.

2,833,525

CENTRIFUGAL PUMPS

Reginald Pennington, Manchester, England, assignor to Mather & Platt Limited, Manchester, England, a British company

Application December 4, 1953, Serial No. 396,250
Claims priority, application Great Britain December 15, 1952
4 Claims. (Cl. 257—215)



1. A centrifugal pump installation for high temperature operation comprising in series a low pressure centrifugal pump and a higher pressure centrifugal pump, a water heater, means passing the delivery from the low pressure pump through the heater to the higher pressure pump, an additional booster stage on the low pressure pump taking suction from the low pressure pump casing at a point under a higher pressure than the suction of said low pressure pump to give an additional pressure to part only of the low pressure pump delivery, shaft packings at the inlet and delivery ends of the high pressure pump, means passing the booster stage delivery without heating to the said shaft packings to give a restricted flow through said packings to protect them against excessive temperatures.

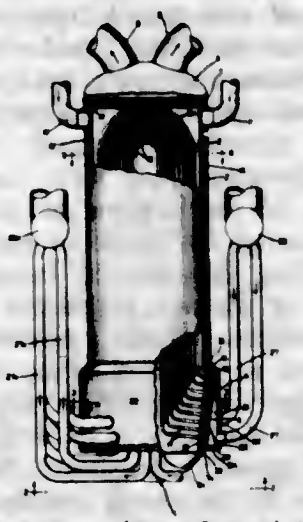
2,833,526

STEAM GENERATOR HEAD CONSTRUCTION

Phillip S. Otten, Canton, and Dewey R. Bosley, Massillon, Ohio, assignors to The Griscom-Russell Company, Massillon, Ohio, a corporation of Delaware

Application June 22, 1955, Serial No. 517,124
3 Claims. (Cl. 257—221)

1. Heat exchanger construction including a shell, a tube sheet at one end of the shell having the shape of a truncated cone with the larger end adjacent and connected to the shell and the smaller end forming an end opening for the shell, cover means for said opening at the smaller end of the truncated conical tube sheet, a plurality of partitions extending radially from the tube sheet, the partitions forming a series of compartments generally radially enveloping the tube sheet outside of said cover means, compartment cover means for each compartment extending between the outer edges of adjacent partitions, the tube sheet having a plurality of tube openings communicating with each compartment, each compartment having a conduit connected thereto, the compartments including a plurality of inlet compartments on one side of the heat exchanger and a plurality of outlet compartments on the other side, each inlet compartment having a correspond-



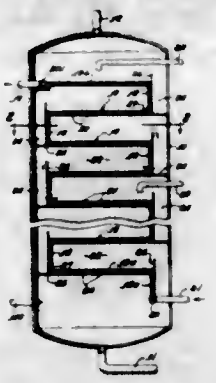
ing outlet compartment circumferentially spaced therefrom, and a bundle of U-tubes extending into the shell and connected at opposite ends to the tube openings of corresponding inlet and outlet compartments.

2,833,527

LIQUID AND GAS CONTACTING COLUMNS AND THEIR TRAY STRUCTURES

Arthur L. Kohl, Whittier, Richard S. De Wolfe, La Canada, and Robert L. Solnick, Whittier, Calif., assignors to The Fluor Corporation, Ltd., Los Angeles, Calif., a corporation of California

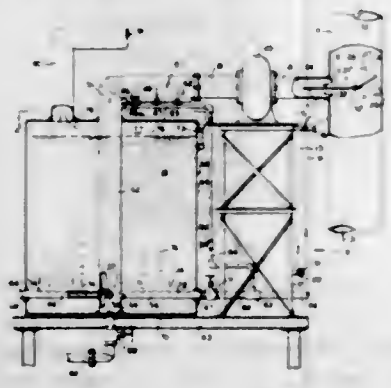
Application June 6, 1955, Serial No. 513,208
3 Claims. (Cl. 261—11)



1. A liquid and gas contacting column, comprising a vertically extending shell, means for introducing a liquid into the upper end of said shell to fall downwardly therethrough, means for passing a gas upwardly through the shell to intimately contact the liquid, a tray structure in the shell formed of a pair of superposed metal sheets in the shell bonded integrally together at localized areas and deformed to form a series of vertically spaced horizontal fluid contacting trays in the shell on which the liquid accumulates as it falls downwardly through the shell, said bonded sheets being deformed to first extend horizontally near the upper end of the shell to form a first of said trays, then extend vertically downwardly near a first side of the shell, then extend horizontally toward a second and opposite side of the shell to form a second tray spaced beneath the first, then extend downwardly at that second side of the shell, and then continue with similar alternate horizontal tray portions and connecting vertical extents throughout said entire series of trays, said two metal sheets forming between them a plurality of spaced essentially parallel heat exchange fluid conducting passages extending continuously within said alternate horizontal and vertical extents of the sheets, the vertical extents of the metal sheets being spaced from the adjacent side walls of the shell to form therewith downspaces through

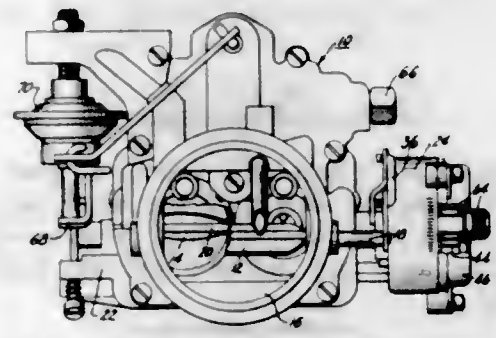
which the liquid may fall downwardly from the level of one tray to the level of the next tray, weir plates projecting above the upper surface levels of said trays at the locations of said vertical extents of the sheets and preventing flow of said liquid from one tray into the adjacent downspace until the liquid reaches a predetermined level overflowing the weir, the space between each tray and the shell wall being essentially closed against liquid downflow therethrough except at the location of the associated downspace and weir, essentially horizontal walls closing off the bottoms of said downspaces at a location preventing the liquid in each of said downspaces from falling downwardly therein past approximately the level of the next successive tray, the vertical extents of said sheets containing openings which extend through the sheets at locations offset from and isolated from said passages and through which liquid may flow from each of said downspaces onto the next successive horizontal tray formed by the sheets, the horizontal tray-forming portions of the sheets containing openings extending therethrough at locations offset from and isolated from said passages between the sheets and of a size for passing gas upwardly through the trays and into liquid standing thereon while holding liquid on the trays against downflow through said openings, said two metal sheets being integrally bonded together adjacent the locations of said openings in both the vertical and horizontal extents thereof to isolate the passages against communication with the liquid and gas flowing through said openings.

2,833,528
SMOKE CONSUMER
Otto A. Schroeder, Colfax, Calif.
Application November 22, 1955, Serial No. 548,508
1 Claim. (Cl. 261—21)



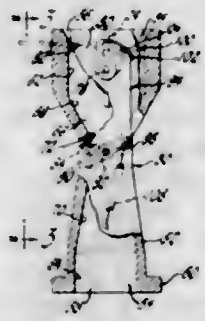
An exhaust gas cleaner for attachment to an exhaust gas stack, said cleaner comprising a frame, a tank for holding water mounted on said frame, an exhaust gas conduit having one end mounted on the bottom of said tank and extending vertically upwardly through the top of said tank, the other end of said exhaust gas conduit being in communication with said stack, a horizontal water filling and draining pipe extending across said tank at a location removed from the bottom thereof, said pipe being in communication with said exhaust gas conduit, said pipe having a plurality of apertures in the portion of said pipe located within said tank, said apertures being adapted to distribute exhaust gases located in said conduit into water disposed in said tank and to conduct water from said tank into said conduit, said apertures also being adapted to conduct water from said pipe into said tank, said pipe being led exteriorly of said tank and into communication with a water source, valve means on the exterior portion of said pipe for isolating the portion of said pipe within said tank from the water source, a plurality of spray nozzles adapted to spray water across a portion of said conduit, and a drain valve on the bottom end of said conduit at an elevation below said pipe.

2,833,529
AUTOMATIC CHOKE
Albert H. Winkler, Elmira, N. Y., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application April 29, 1955, Serial No. 504,937
5 Claims. (Cl. 261—52)



1. A choke control device for a carburetor having a throttle and a choke valve comprising a housing, an abutment in said housing, a lever in said housing operatively connected to said choke valve, a spring stressed between said housing and abutment adapted to yieldingly engage said lever to oppose the closing of said choke valve, and a lever operatively connected to said throttle and having a one way connection with said spring to disengage said spring and choke lever at a predetermined degree of throttle opening.

2,833,530
FLUID MIXING MEANS
Edward J. Martin, Pleasant Ridge, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 1, 1955, Serial No. 512,444
4 Claims. (Cl. 261—65)

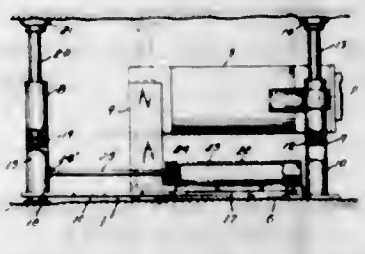


1. A carburetor comprising a housing having a passage extending therethrough, a throttle valve mounted on a shaft extending transversely of said passage for controlling the volume of air flow therethrough, a fuel jet mounted on said housing and including a portion rotatably disposed in said passage, said portion including an orifice for discharging said fuel into said air, lost motion means interconnecting said throttle valve and said fuel jet for causing said valve and said portion to rotate together, said means including a plate on said shaft having an arcuate slot and a link having a pin riding in said slot.

2,833,531
MOBILE BASE FOR MINING MACHINES
Joseph F. Joy, Pittsburgh, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Original application February 1, 1947, Serial No. 725,950, now Patent No. 2,801,093, dated July 30, 1957. Divided and this application January 25, 1954, Serial No. 405,894
3 Claims. (Cl. 262—1)

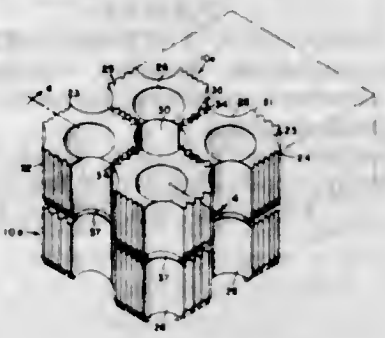
1. In an apparatus of the character disclosed, a walking base for advancing and steering the apparatus, said base having a bottom skid plate which receives the weight of the apparatus, said skid plate providing parallel longitudinally extending guideways at the sides thereof, narrow

elongated slides received in said guideways respectively, a pair of upright roof jacks mounted at the forward portion of said skid plate at the sides of the latter, a pair of upright rear roof jacks respectively secured to the rear portions of said slides for separately holding the latter stationary and parallel feed jacks extending longitudinally at the sides of said skid plate and operatively connected to said rear roof jacks and to said skid plate for moving said slides along said guideways when said



skid plate is held stationary by said front roof jacks, said feed jacks when said slides are held stationary by said rear jacks effecting advance of said skid plate relative to said slides, means for controlling said front jacks to apply or release the same, and means for separately effecting operation of said rear roof jacks and said feed jacks while said front jacks are released to effect turning of the machine either to the right or left as said skid plate is advanced.

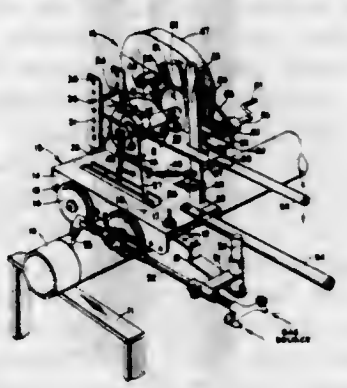
2,833,532
CHECKER-BRICK AND CHECKER-WORK CONSTRUCTION FOR REGENERATORS
Lewis B. Ries, Monessen, Pa.
Application September 8, 1955, Serial No. 533,115
5 Claims. (Cl. 263—51)



1. A regenerator construction comprising stacked superposed refractory bodies of substantially rectangular cross-section, the stacks being arranged in side-by-side relation forming layers made up of parallel rows, the bodies in said rows being in abutment at the bottom portions thereof with the opposing sides in upwardly diverging relation, said bodies having vertical passages therethrough and aligned to form vertical flues, said bodies each having vertical corner portions formed to provide other vertical flues when in assembly with corresponding portions of adjoining bodies in the layers, and the bodies of the top layer each having its top surface inwardly and downwardly sloping and merging with the vertical passage therethrough and means forming vertical passageways between said upwardly diverging opposing sides of the bodies.

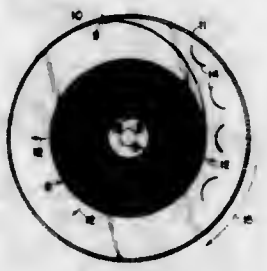
2,833,533
PORTABLE PIPE CUTTING MACHINE
Timothy E. Pannell, Ventura, Calif.
Application January 9, 1956, Serial No. 557,946
3 Claims. (Cl. 266—23)

1. A cutting machine for severing pipe comprising, in combination: carriage means; rolling supports on said carriage means adapted to ride about the periphery of said pipe; a torch supported on said carriage; means for positioning said torch adjacent a circumferential point of said pipe whereby rotation of said pipe against said rolling supports will result in said torch following a desired path about the periphery of said pipe; an operating assembly pivotably supported from one end of said carriage for arcuate movement laterally towards and away from said pipe; drive means supported on said assembly; flexible means operatively connected between said drive means and said pipe for rotating said pipe, said flexible means being adjustable by said arcuate move-



ment; securing means for holding said assembly at different lateral distances from said pipe in accordance with the diameter thereof, said securing means comprising a ratchet rod pivoted adjacent the other end of said carriage and extending past the free end of said operating assembly; and, biasing means normally urging said ratchet rod against a portion of said operating assembly to engage said portion and retain said operating assembly in a desired arcuate position.

2,833,534
REVERSE WOUND SPRING MOTOR
Edwin E. Foster, Austin, Tex.
Application January 25, 1956, Serial No. 561,971
6 Claims. (Cl. 267—1)

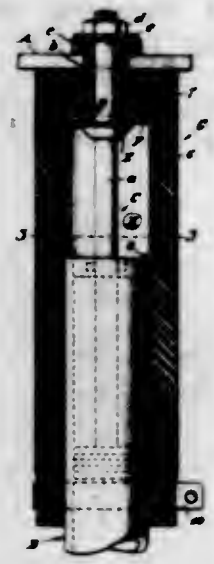


1. A spiral spring comprising a coil of spring ribbon with the convolutions of the coil wound opposite to a normal coiled spiral spring whereby substantially the entire length of the spring creates the spring force which is substantially constant throughout the force stroke of the spring, said ribbon having been stressed initially so that any sector of the spiral coil when permitted to assume its normal curvature which is opposite to the first-mentioned coil will have a longitudinal compressive residual stress on the concave side and a longitudinal tensile residual stress on the convex side.

2,833,535
SUPPLEMENTAL SHOCK ABSORBER
Allen W. Blythe, Whittier, Calif.
Application March 4, 1957, Serial No. 643,609
4 Claims. (Cl. 267—8)

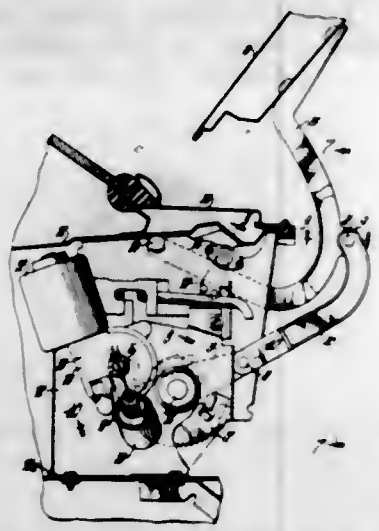
4. The combination with a shock absorber embodying a cylinder having an outer end and fitted with a piston therein having a rod projecting from the inner end of the cylinder, of a resilient tubular body open at one end into which the inner end of said cylinder extends and including an end wall having an opening through which said rod extends; means connecting said rod and end wall relative to each other, said tubular body enclosing a dead air chamber extending between said end wall and the

inner end of said cylinder the capacity of which is variable by relative longitudinal adjustment of said body



and cylinder, and means for clamping said body in sealing gripping engagement with said cylinder in any of its adjusted positions thereon.

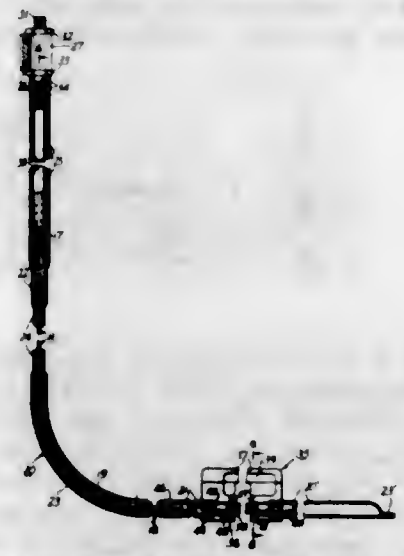
2,833,536
POWER OPERATED REAR COMPARTMENT ACTUATOR AND LOCK ASSEMBLY
Joseph G. Joachim, Detroit, and Alfred B. Sauer, Farmington, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 13, 1956, Serial No. 621,723
17 Claims. (Cl. 268—74)



1. In a vehicle having a body member with a closure member hinged thereon, a power operated extendible and retractable striker member for providing limited movement of said closure member from its closed position to an initial partially open position, a latch bolt movable between latched and unlatched positions, a control system including a control member operable from within said vehicle for releasing said latch bolt and for energizing said striker member to move said closure member to its initial partially open position, and power operated mechanism controlled by said control member for moving said closure member between its initial partially open position and its fully open position.

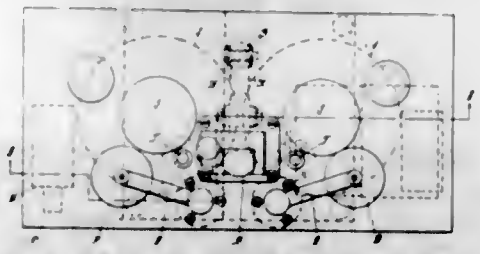
2,833,537
AWNING WINDOW OPERATOR
Theodore Hauck, Bellmore, N. Y., assignor to General Bronze Corporation, Garden City, N. Y.
Application December 31, 1953, Serial No. 401,628
10 Claims. (Cl. 268—104)

1. An operator for moving a movable member such as a window sash comprising a stationary casing, a relatively rigid tube fixedly connected to said casing, a connector fixedly connected to said movable member, an abutment in said tube adjacent said casing, a deformable and substantially noncompressible sheath snugly fitting and movable longitudinally within said tube and abutting said abutment and said connector at its ends, a flexible operating member snugly fitting within said sheath and



attached at its ends to said abutment and said connector and means for moving said abutment, said sheath, said flexible operating member and said connector in one direction to move said movable member in one direction and for moving said flexible operating member, said connector and said abutment in the opposite direction to move said movable member in the opposite direction.

2,833,538
MAGNETIC TAPE RECORDERS
Laszlo Namenyi-Katz, London, England, assignor to Epsylon Research and Development Company Limited, Twickenham, England
Application March 5, 1956, Serial No. 569,552
Claims priority, application Great Britain March 9, 1955
5 Claims. (Cl. 271—2.3)

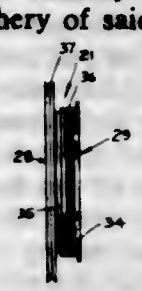


1. A tape recorder tape driving mechanism comprising a capstan head, an inertia wheel adapted to drive the capstan head, a pinch roller, means for engaging the pinch roller with the capstan head for driving a tape between the capstan head and pinch roller, a second capstan head, a second inertia wheel adapted to drive the second capstan head, a second pinch roller, second means for engaging the second pinch roller with the second capstan head to drive a tape between the second capstan head and second pinch roller, an electric motor and third means for driving the two inertia wheels from the electric motor simultaneously in opposite directions, whereby the tape may be driven in one direction by operation of the first engaging means, and in the other direction by release of the first engaging means and operating of the second engaging means and vice versa.

2,833,539
STORAGE REEL FOR ENDLESS RIBBON FILM
Stephen A. Platt, Grand Haven, Mich.
Application September 7, 1955, Serial No. 532,854
7 Claims. (Cl. 271—2.18)

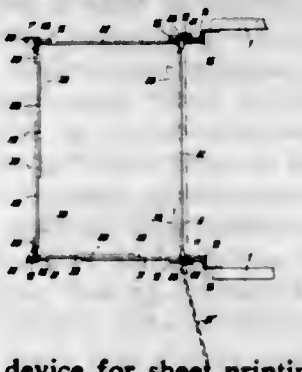
1. A storage reel for an endless ribbon; said reel having two disks connected together by a hub; the im-

provement comprising: radially extending protrusions located along the periphery of said hub; said protrusions



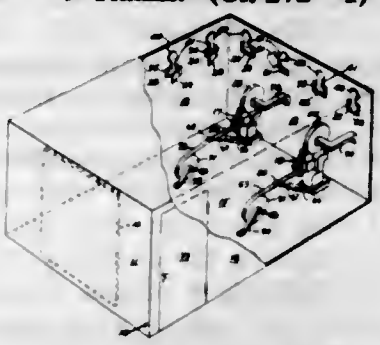
spaced from each of said disks; and a ring freely seated on said protrusions.

2,833,540
STACKING DEVICE FOR PRINTING AND THE LIKE MACHINES
Werner Koch, Offenbach am Main, Germany, assignor to Faber & Schleicher Aktiengesellschaft, Offenbach am Main, Germany, a German body corporate
Application July 1, 1954, Serial No. 440,760
Claims priority, application Germany July 6, 1953
5 Claims. (Cl. 271—62)



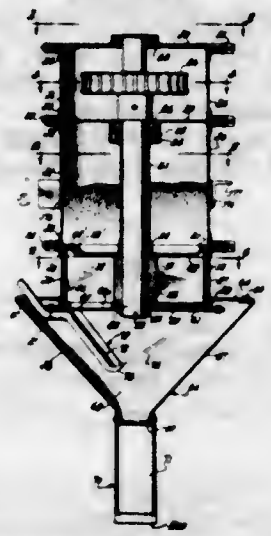
1. In a stacking device for sheet printing and the like machines having a hoisting structure, a pile table, a pile table supporting frame and rope means for raising and lowering said frame and pile table in the said hoisting structure, a rigid member in the said frame adjacent the said hoisting structure, a second rigid member in the said frame at right angles to said first rigid member, a hinged member opposite said first rigid member capable of being turned horizontally outward, a second hinged member opposite said second rigid member also capable of being turned horizontally outward, and means for connecting said rope means to the said frame outside the corners thereof and sufficiently far apart to permit a clear passage of said pile table inside the said rope means after one of the said hinged members has been turned outwardly.

2,833,541
MOTION PICTURE APPARATUS
Jackson G. Foster and Arthur H. Foster, Concord, Calif.
Application July 12, 1954, Serial No. 442,592
9 Claims. (Cl. 272—1)



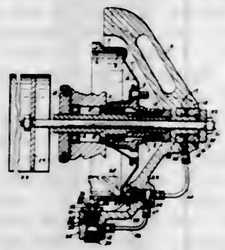
7. In a motion picture apparatus having a rectangular booth with front, rear, and side walls, a screen inside said booth adjacent said rear wall, projection means for projecting a picture on said screen, a plurality of windows in said booth for viewing the picture on said screen, and a corresponding plurality of shutters normally closing off the view through each said window, the combination therewith of an electric circuit with a rotatable circular solenoid for each said shutter and serving when energized to move its said shutter out of the way and hold it out of the way so long as it is energized, independently of the remaining shutters; a coin-operated switch for each said solenoid, whereby said solenoid is energized by insertion of a coin in said switch; a timer for holding each said solenoid energized for a predetermined interval of time after insertion of a coin in its said switch; a plurality of mercury switches, each rotated by one of said solenoid from open to closed position by energization of said solenoid, said mercury switches being in parallel with each other and in series with said projection means so that upon closing of any said mercury switch, said projection means operates and continues to operate so long as any mercury switch is closed and film is on said projection means, said projection means stopping when all said mercury switches are open; and another mercury switch means in series with said projection means held open mechanically by film passing through said projection means and closing when no film holds it open, so that said projection means then stops.

2,833,542
APPARATUS FOR DISTRIBUTING PARTICLES ALONG A SURFACE
Earnest E. Martin, Pasadena, Calif., assignor to George D. Bavin, Los Angeles, Calif.
Application February 14, 1952, Serial No. 271,608
2 Claims. (Cl. 275—2)



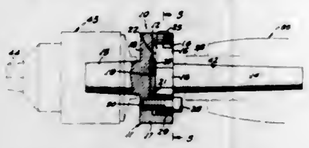
1. A road striping bead dispenser to be mounted to a carriage movable along a road surface; said dispenser comprising a body including a first section adapted for attachment to the carriage and a second section having a bottom downwardly projecting and downwardly opening discharge spout through which beads fall downwardly onto the road surface, said spout having a portion for defining the bead discharge pattern which portion extends entirely about and confines the beads as they pass downwardly therethrough and which portion is elongated in horizontal section to dispense beads over an elongated area, said spout being open to passage of beads downwardly therefrom along the major portion of the length of said elongated area, the path of the beads substantially directly downwardly from said spout to the road surface being unobstructed, means within the body for dispensing beads downwardly through said spout at a controlled rate, and a connection attaching said second of the body to said first section for relative rotary adjusting movement about an essentially vertical axis and to positions in which said spout is elongated in different horizontal directions relative to said first section and the carriage to thereby vary the width of area along which said spout deposits beads, said second body section being free to remain in a fixed adjusted position relative to the first body section as the carriage advances.

2,833,543
FLUID OPERATED CHUCK
John A. Main, Birmingham, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application December 29, 1955, Serial No. 556,237
7 Claims. (Cl. 279—4)



7. A chuck for holding an annular article, the article having a hub and a webbed member formed with an annular flange, said chuck comprising clamping members engageable with the hub, supporting members engageable with the webbed member, means for engaging said clamping members with the hub, means for engaging said supporting members with the webbed member, and means for holding said supporting members in engagement with the webbed member to resist deformation thereof.

2,833,544
COMPENSATING TOOL HOLDER
Robert E. Blades, Hollywood, Calif., assignor, by mesne assignments, to Precision Processing Co., Glendale, Calif., a corporation of California
Application April 9, 1956, Serial No. 577,108
6 Claims. (Cl. 279—6)



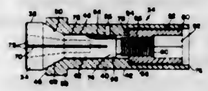
1. An article of manufacture comprising a tool holder for use in a machine tool to compensate for both radial and angular misalignment between a tool chuck and the operating axis of the machine tool, said article comprising a pair of oppositely directed tapering spindles, one of said spindles having a disc-like head integral with and projecting radially from its larger end, the other spindle having its large diameter end integral with the bottom wall of a cup-shaped member adapted to telescope over and fit loosely about said disc-like head, means including a plurality of adjusting screws extending axially and radially between the opposed end walls and circumferential walls of said head and cup-shaped member for adjusting said spindles with the respective axes thereof in radially offset and angularly inclined positions as necessary to compensate for a particular misalignment condition and for locking the same in said adjusted position.

2,833,545
PUSHER DEVICE HAVING ADJUSTABLE TENSION
Larry F. Smrekar, Solon, Ohio, assignor to The Balas Collet Manufacturing Company, a corporation of Ohio
Application March 1, 1957, Serial No. 643,301
9 Claims. (Cl. 279—47)

1. A pusher for advancing stock extending axially of the pusher comprising in combination, a feed member having a bore adapted to accommodate stock therein, said feed member having a rearward portion and forwardly extending fingers resiliently movable at the forward end of the feed member toward the axis of the feed member, said fingers carrying pad portions adapted to engage stock in said bore, said feed member at the forward end thereof being chamfered to provide a camming surface therearound disposed at an included angle of more than 45 degrees to the axis of the feed member, and a shell member concentrically mounted around said feed member, said shell member having an internal shoulder adjacent the forward end thereof interengaging the said camming surface of said feed member, said shell member and said feed member at an axial distance rearwardly from said interengaged camming surface and shoulder having complementary threaded portions threadably interlocked, said shell member along its length intermediate said shoulder and its respective said threaded portion having a plurality of spirally disposed slots provided therein at circumferentially spaced locations therearound, the said shell member intermediate said slots being resiliently distortable under axial tension, the adjustment of the threaded interlocking of said threaded portions relative to said shoulder engaging said camming surface varying the longitudinally directed resilient tension imposed by the resilient shell member upon said camming surface by the said shoulder, said longitudinally directed tension of said shoulder on said camming surface urging said fingers radially inward toward said stock whereby said pad portions engage said stock in accordance with the degree of said tension.



2,833,546
UNIVERSAL TOOL HOLDER
Victor C. Johnson, Davenport, Iowa
Application December 19, 1956, Serial No. 629,323
1 Claim. (Cl. 279—51)



For use in a machine tool having a carrying element providing a cylindrical open-ended socket, a tool holder comprising: a tubular body having an exterior cylindrical surface fitting said socket to enable axial insertion and withdrawal of said body relative to said socket, said body having front and rear ends and being formed with a front axial bore opening at said front end as a truncated conical annulus and extending rearwardly into said body, and said body having a rear larger counterbore opening at said rear end and extending forwardly into the body to adjoin the front bore at an inner annular radial shoulder ahead of and facing said rear end; tool-gripping means axially rearwardly receivable in and forwardly removable from the front bore and having an annular truncated conical front head rearwardly engaging the aforesaid truncated conical annulus for supporting a coaxial forwardly extending first tool means, an integral cylindrical shank fitting said front bore and terminating in a solid rear end portion ahead of said shoulder, and a coaxial externally threaded solid extension integral with the shank rear end portion and projecting rearwardly therefrom past said shoulder and terminating forwardly of said rear end of the body; said front end of the body having an exterior concentric cylindrical portion for supporting a second tool means; means cooperative between the body and tool-gripping means for preventing relative turning thereof while permitting relative axial movement; said truncated annulus at the front end of the body and the truncated head on the tool-gripping means being accurately mated to locate the front end of the tool-gripping means concentrically in the body, and the solid rear end portion of the shank having thereon just ahead of the threaded extension a rear cylindrical surface accurately mated with the proximate interior surface portion of the body front bore so as to locate the rear part of the tool-gripping means concentrically in the body, said shank and front bore being further so dimensioned as to provide a relief annulus about the shank intermediate its head and said rear cylindrical surface; and a rotatable cylindrical drawbar closely but loosely fitting the counterbore and forwardly receivable in and rearwardly removable from said counterbore, said drawbar having an internally threaded axial bore threadedly engaging the shank extension and a front annular radial face abutting the aforesaid shoulder, and said drawbar being normally wholly within the counterbore and having a rear part including means axially accessible through the open rear end of the counterbore for effecting turning thereof relative to the body and tool-gripping means to draw said tool-gripping means rearwardly relative to the body.

2,833,547
DRILLING OR LIKE ROTARY CUTTING TOOL
Howard I. Selch, Canal Fulton, Ohio
Application July 19, 1955, Serial No. 523,012
10 Claims. (Cl. 279—91)



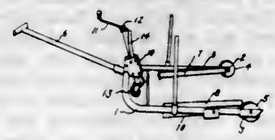
1. A holder of the character described for receiving a shank portion provided with at least one flat side, comprising a member having socket extending axially inwardly from an end thereof and adapted to receive said flat-sided shank portion axially therein, at least one element pivotally mounted in said member to be firmly backed and supported thereby and having a flat side presented inwardly of said socket for complemental engagement by a corresponding flat side of a said shank portion to prevent relative rotation of the shank portion in the member, said element thereby being pivotally self-adjusting to flatwise complemental engagement with said flat side of a said shank portion as by tendency of the same to rotate relatively of the member in use.

2,833,548
IMPLEMENT DRIVING DEVICE
Frederick G. Clark, Buffalo, N. Y., assignor of one-half to Wade Stevenson
Application July 19, 1956, Serial No. 598,950
4 Claims. (Cl. 279—102)



1. A driving implement comprising a bit holder formed at one end for engagement with a driving member and having at the opposite end a socket portion of polygonal cross section, said socket portion adapted to receive a bit member having a shank of polygonal cross section complementary to said socket for removable reception therein, an annular member of a material having a high coefficient of friction with the shank of the bit member at the end of said bit holder adjacent said socket portion for retaining the bit therein, said annular member having an inside dimension smaller than said socket of polygonal cross-section when the bit is removed, capable of being distorted when the bit is inserted in said socket, and a holder member for said annular member removably mounted on said bit holder.

2,833,549
CASTER EQUIPPED LIFTING TRUCK
Arthur R. Burch, Berkeley, Calif.
Application March 21, 1955, Serial No. 495,401
4 Claims. (Cl. 280—44)



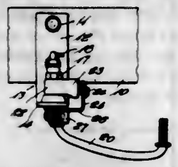
1. A caster equipped lifting truck comprising a body including a fork with forwardly extending tines and a transverse rear portion, ground engaging wheels on said tines, a guide housing fixed on said rear portion, a curved guide, means of said housing for confining said guide, a ground engaging caster at the bottom of said guide with the axis of said caster vertical, a lifting screw journalled with respect to said guide, and a supporting member having a nut portion engaging said screw and having a part engaging said guide housing.

2,833,550
MOBILE CARRIERS
William H. Frick, Cleveland, Ohio, assignor to W. H. Frick Inc., Cleveland, Ohio, a corporation of Ohio
Application April 23, 1952, Serial No. 283,920
2 Claims. (Cl. 280—47.34)



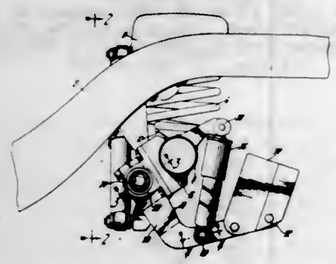
1. A mobile carrier comprising, a pair of end frames each being of an inverted U-shape and consisting of a pair of vertically extending spaced apart legs and a cross member interconnecting the upper ends of the legs, the lower end of each frame leg being bent inwardly to form horizontally disposed short arms, a pair of hollow tubular base members one being disposed at each side of the carrier and each in its ends telescopically receiving the inturned arms of a pair of frame legs, a wheel below each end of each base member and provided with a caster having a shaft extending through the frame member and the inturned frame arm therein, the upper ends of said caster shafts above the frame members being provided with detachable means for securing said shafts against longitudinal displacement, and an article carrying and supporting platform disposed between the end frames and supported on the legs thereof.

2,833,551
SIMPLIFIED IDLER ARM ADJUSTER
James B. Dick, Birmingham, Ala.
Application March 5, 1957, Serial No. 644,097
1 Claim. (Cl. 280—95)



A device of the character described comprising, in combination with an idler arm having a vertically extending threaded end portion, a bracket having an apertured horizontal arm, a bushing vertically affixed and extending through said horizontal arm and threadably receiving through its lower end said threaded end portion of said idler arm, the provision of an idler arm adjuster comprising a sleeve adapted to encompass said bushing above said horizontal arm, a lateral extension affixed to said sleeve, a vertically dependent tensioning arm having its lower end in contact with said idler arm below said horizontal arm, and a screw interconnecting said extension with the upper end of said tensioning arm, said tensioning arm having an inwardly directed web formed integrally with the lower end thereof, and said web having a dependent socket formed at the inner end thereof, said socket adapted to bear against the idler arm below said horizontal arm of said bracket.

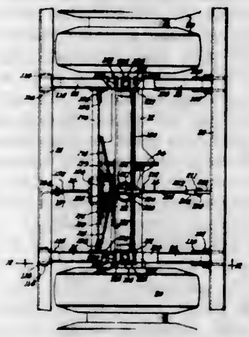
2,833,552
DYNAMIC VIBRATION DAMPER
Von D. Polhemus, Franklin, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 26, 1955, Serial No. 536,431
11 Claims. (Cl. 280—124)



1. In a vehicle including a wheel and axle, a dynamic vibration damper comprising an oscillatable lever connected at one end to said axle, a weight attached at the other end of said lever, a spring connected between said axle and said lever for controlling the frequency of oscillation of the latter, and a dashpot connected between said lever and said axle for controlling the amplitude of oscillation of said lever.

2,833,553
FRONT AND REAR SUSPENSION SYSTEM FOR TRANSPORTER
Kenneth H. Mindrum, Battle Creek, Mich., assignor to the United States of America as represented by the Secretary of the Army
Application March 1, 1957, Serial No. 643,485
4 Claims. (Cl. 280—124)

1. In a vehicle having a chassis including a transverse bracing member and an axle resiliently mounted beneath said transverse member, the improvement including spring assemblies connected to the chassis and supporting said axle, channel means secured to said transverse member above said axle, normally intersecting tubular members supported on said spring assemblies parallel to said transverse member, linking means interconnecting said tubular



members and said chassis, guide means secured to said tubular members and engaging said channel means for limiting the motion of said tubular members to a vertical path and permitting oscillation of the axle with respect to the chassis.

2,833,554
APPARATUS FOR THE SAFETY AND PROTECTION OF AUTOMOBILE PASSENGERS
Giorgio Ricordi, Milan, Italy
Application August 17, 1955, Serial No. 535,142
8 Claims. (Cl. 280—150)



1. A protection and safety system for seated passengers in an automobile, comprising in combination a head shielding plate, a chest shielding plate, at least one shielding plate for the knees and supporting means spaced from the regions directly in front of and directly in back of the seated passenger, said supporting means comprising arm-like projections for holding said head shielding plate and said chest shielding plate in slanting positions at an adjustable distance in front of the head and chest, respectively, of the seated passenger, said supporting means also comprising elements for affixing the same to the automobile body.

2,833,555
VEHICLE SAFETY BELT
Walter John Zotkewicz, Costa Mesa, Calif.
Application June 26, 1956, Serial No. 593,865
1 Claim. (Cl. 280—150)



A safety belt for a vehicle comprising a pair of shoulder straps having their one ends adapted to extend over the shoulders of a person and over the back of a seat and having their other ends adapted to extend downwardly and rearwardly at the sides of a person's body and rearwardly under the back of said seat; cross-straps and a connecting buckle therefor secured to said shoulder straps at approximately chest-level of a person; means for holding said one ends of said shoulder straps at a predetermined maximum distance apart at approximately the point at which they extend over the back of said vehicle seat; and fastening means for each of said shoulder straps secured to the floor of said vehicle below the back of said seat and rearwardly of said seat, said means holding both ends of the respective strap adjustably and non-yieldingly.

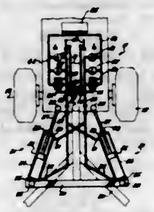
2,833,556
WEIGHT TRANSFER SYSTEM AND APPARATUS FOR TRACTOR-TRAILERS
Robert W. Kling, Wilmette, Ill., assignor to Athey Products Corporation, Chicago, Ill., a corporation of Illinois
Application January 30, 1957, Serial No. 637,204
3 Claims. (Cl. 280—405)



1. In a load hauling vehicle of the tractor-trailer type, wherein the tractor has a wheel supported frame, and the trailer has a draw bar connected to the tractor frame through a yoke, said yoke being swingably connected to the tractor frame for movements about an axis substantially parallel to the axis of the tractor wheels, the combination therewith of a weight transfer system and apparatus comprising hydraulic rams having relatively movable piston and cylinder means, one of which on each ram is connected to the tractor frame at a position spaced from the yoke, and the other of which is connected to the yoke at a position spaced from the tractor frame, the connections of the piston and cylinder means of the rams to the tractor frame and yoke being movable relative to axes substantially parallel to the axis of swinging movement of the yoke, and hydraulic means including a source of liquid under pressure for supplying said liquid to the rams, said hydraulic means also including an accumulator comprising a cylinder, one end of which has a connection thereto for the flow of liquid under pressure to and from said rams, and the other end of which is normally closed, a piston mounted for floating movement in said cylinder, and a compressible fluid under predetermined pressure trapped in said cylinder between the normally closed end thereof and said piston, whereby the position of said piston is determined by the balance of the pressure of the liquid under pressure in said rams and the pressure of the trapped compressible fluid.

2,833,557
CONTROL DEVICE FOR TRACTOR-TRAILER COMBINATION
Daniel A. Palmiter, Alhambra, Calif., assignor to Shepherd Tractor & Equipment Co., Los Angeles, Calif., a limited partnership
Application September 20, 1954, Serial No. 457,269
2 Claims. (Cl. 280—432)

1. In a hydraulic mechanism for controlling the angular relation between a steerable tractor vehicle and a trailer vehicle, the combination of: a first hydraulic cylinder having a first piston therein, said first piston defining rod and clear chambers in said first cylinder, said first piston being pivotally connected to one of said vehicles and said first cylinder being pivotally connected to the other of said vehicles; a second hydraulic cylinder having a second piston therein, said second piston defining rod and clear chambers in said second cylinder, said second piston being pivotally connected to one of said vehicles and said second cylinder being pivotally connected to the other of said vehicles; a first normally closed valve having an inlet and an outlet; a second normally closed valve having an inlet and an outlet; a first fluid conduit directly interconnecting said inlet of said first valve, said rod chamber of said first cylinder and said clear chamber of said second cylinder; a second fluid



conduit directly interconnecting said inlet of said second valve, said rod chamber of said second cylinder and said clear chamber of said first cylinder; a third fluid conduit directly interconnecting said outlets of said first and second valves, said first, second and third conduits and said rod and clear chambers of each of said cylinders being filled with a hydraulic fluid; a first check valve for fluid flow only from said third conduit to said first conduit; a second check valve for fluid flow only from said third conduit to said second conduit; first control means for opening said first valve; and second control means for opening said second valve, said first and second control means being operable independently of each other.

2,833,558
FIFTH WHEEL HITCH
Abraham S. Fenster, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application November 2, 1956, Serial No. 619,987
10 Claims. (Cl. 280—434)



1. A fifth wheel comprising a body having an entrance slot for a king-pin terminating in a pin pocket, a U-shaped coupling member pivotally mounted at one side of the slot near said socket and having a rear leg adapted to swing across said slot behind the socket to retain a pin in the socket and having a front leg disposed in front of the socket, a locking bar pivotally mounted at the opposite side of the slot and having a swinging end engageable with the free end of said forward leg of the coupling member to lock it in pin retaining position, the pivot of said locking bar being in substantially direct alignment with the thrust of said coupling member thereagainst, a handle connected directly to said locking bar for swinging it into and out of locking position, said locking bar having a lockset portion projecting outwardly from said end and positioned in front of said front leg in the locked position

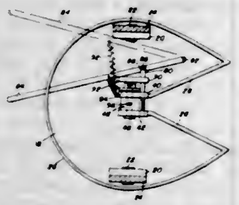
of the coupling member, a bellcrank lockset latch element pivoted at its elbow to said front leg and having a laterally extending arm forwardly of the front leg and having an end portion overlapping the end of said lockset portion. said element having a forwardly projecting arm, a fulcrum on the body abuttable with said forwardly projecting arm, spring means connected between said forwardly projecting arm and said body for biasing said element in a direction engaging said lateral arm with said lockset portion of the locking bar, said lockset portion having a side edge adapted to catch behind the end of said lateral arm attendant to said coupling member being swung to release position with respect to said forward leg of the coupling member.

2,833,559
FIFTH WHEEL COUPLER
Robert C. Miner, La Grange, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application November 2, 1956, Serial No. 619,994
7 Claims. (Cl. 280—434)



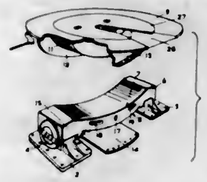
2. In a coupler, a fifth wheel member having a kingpin socket, a coupling jaw swingably mounted upon said wheel member for movement to coupling and uncoupling position with respect to said kingpin, a lock element swingably supported at one end upon the member and swingable at its other end to locking and released positions with respect to said jaw, movable means for moving said element to release position, a holding latch pivoted on the said member and extending transversely of said locking element, said holding latch having a catch intermediate its ends adapted to catch in front of said lock element for holding it in released position, said holding latch having cam means engageable with said lock element in the holding position thereof for camming the same into holding position, and trip means carried upon said jaw for releasing said latch from its holding position with said element attendant to said jaw being swung to uncoupled position.

2,833,560
ROCK LOCK TYPE COUPLER FOR TRACTOR-TRAILER FIFTH WHEEL LOCKING MECHANISM
Reuel A. Cochrane, Chilesburg, Va., assignor of fifty per cent to The Gamble Company, Inc., Fairmont, Minn., a corporation of Minnesota
Application December 23, 1955, Serial No. 555,001
5 Claims. (Cl. 280—437)



1. A fifth wheel coupling unit comprising a coupling pin and a coupler, said coupling pin including enlarged upper and lower portions connected by a reduced cross section intermediate portion, there being formed by said intermediate portion at the underside of said upper portion a shoulder, said coupler including a fifth wheel plate, a pin receiving slot in said plate, said pin receiving slot terminating in a pin receiving seat, said pin receiving seat including a vertcally extending, semicircular upper portion snugly receiving one half of said upper portion of said pin and a lower semiannular shoulder, said semiannular shoulder engaging said shoulder of said pin and said intermediate portion, a lock member pivotally carried by said fifth wheel plate for rocking movement into and out of cooperating relation with said seat, said lock member including generally a horizontal part and a vertical part, said vertical part having formed therein a socket which includes a vertical arcuate portion opposed to said seat and engaging said upper portion of said pin, a shoulder on said upper part engaging said shoulder of said pin, and a latch member carried by said fifth wheel plate releasably engaged with said lock member to retain said lock member in engagement with said pin.

2,833,561
SEMI-TRAILER COUPLING PERMITTING LATERAL TILTING OF THE TRAILER
Alexandre Vaugoyeau, Marseille, France
Application February 27, 1956, Serial No. 567,925
Claims priority, application France March 3, 1955
1 Claim. (Cl. 280—438)



A hitch for connecting a semi-trailer vehicle to a towing vehicle, comprising a cradle on the towing vehicle having an upper concave part-cylindrical bearing surface and a concentric lower convex part-cylindrical bearing surface, the cylinder axis of said cradle bearing surfaces being aligned fore and aft of the towing vehicle and positioned above the cradle, a coupling platform having a part-cylindrical under bearing surface of corresponding radius seated on the upper concave bearing surface of the cradle, abutments on the platform depending from the ends thereof to engage against the ends of the cradle and prevent relative movement of the cradle and platform in the direction parallel to the axis of the part-cylindrical surfaces, a tie member secured to the abutments and engaged as a sliding fit against the lower convex bearing surface of the cradle to prevent relative radial parting of the cradle and platform, a king-pin on the semi-trailer, and releasable coupling means on the platform to receive and retain the king-pin whilst permitting it to rotate.

2,833,562
COUPLING DEVICE FOR THE LIFTING AND TRANSPORTING OF LOADS
Paul Francois, Miraumont, France
Application July 29, 1955, Serial No. 525,257
Claims priority, application France December 23, 1954
8 Claims. (Cl. 280—479)



1. A device for coupling together two vehicles including a tractor and a trailer, said trailer having a wheel-supported rear end and a front end supported by the tractor in the coupled condition of said vehicles, comprising an axle with at least one wheel, an elongated body

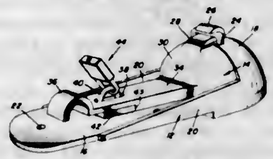
fulcrumed on said axle, a stop member pivotally connected with said body for relative movement about a horizontal axis and adapted to bear upon said trailer, actuating means having a pair of relatively displaceable parts anchored to said stop member and to said body, respectively, said actuating means being operable to swing said body around said axle relative to said stop member, first hitching means on a point of said body remote from said axle for coupling said body to said tractor at the end of its swinging movement about said axle, and second hitching means on a portion of said body rising during said swinging movement for coupling said portion to the front end of said trailer and lifting said front end by said movement.

2,833,563
TELESCOPING TRAILER HITCH
Lloyd S. Pruitt, Parsons, Kans.
Application March 26, 1956, Serial No. 573,662
2 Claims. (Cl. 280—482)



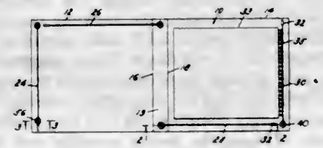
2. A draft hitch for attaching a trailer vehicle to a tractor having a draw bar, said trailer vehicle having a coupling member, an elongated cylindrical outer tubular member having open ends, a rigid member extending from a portion of said tubular member adjacent one of said open ends and rigidly secured to said coupling with said one open end spaced from the coupling whereby a substantial portion of the end edge of said one open end is unobstructed, an elongated cylindrical inner tubular member fitted and adapted to slide longitudinally in the outer tubular member, said cylindrical tubular members being adapted for relative rotation, means at the end of the inner tubular member opposite said one end of the outer tubular member for detachably and swingably connecting said inner tubular member to the tractor draw bar, a latch member having a laterally extending hook portion hingedly mounted in the inner tubular member adjacent the end thereof toward said one open end of the outer tubular member and said hook portion extending through said open end for engaging on the unobstructed portion of the end edge when the tubular members are fully contracted in telescoped relation, and spring means urging said latch member to one side of the inner tubular member whereby when the inner tubular member is fully telescoped within the outer tubular member the hook portion will releasably engage the said end edge of the outer tubular member in sliding engagement to permit substantial relative rotation of the tubular members and for holding said tubular members against relative extension movement.

2,833,564
BALL HITCH CONNECTOR
Kale C. Brown, Brainerd, Minn.
Application November 6, 1956, Serial No. 620,679
2 Claims. (Cl. 280—512)



1. For use in conjunction with a ball joint member such as is used, for example, as a component part of a ball-type vehicle hitch, a connector member comprising an elongated rigid plate provided at one end with an upstanding part-spherical socket section and also provided beneath said socket section with a circular opening, at least one-half portion of which is in alignment beneath the socket section and the other half portion projects beyond the open side of said socket section, said opening being of a diameter to permit passage of the ball of the joint member therethrough for cooperation with said socket section, the crown portion of said socket section being provided with an upstanding U-shaped clevis, a second part-spherical socket section cooperable with said first socket section and provided on its crown portion with a hook constituting a hinging member and which is releasably and hingedly connected with said clevis, said second socket section being disposed in the plane above the plate and having an arm attached to and extending therefrom and normally adapted to rest atop said plate, said arm being provided with a free end equipped with a finger grip and constituting a hasp and having a slot therein, and a staple fixedly mounted on and rising from said plate and adapted to extend through the slot in the hasp to, in this manner, accommodate the shackle of a padlock.

2,833,565
BINDER
Joseph E. Santino, Detroit, Mich., assignor to Universal Bindery Co., Detroit, Mich., a partnership consisting of Joseph E. Santino, Carmen Santino, and Pat Santino
Application August 13, 1956, Serial No. 603,535
1 Claim. (Cl. 281—17)



A binder for the purpose described comprising a cover having side edges and end edges and including a pair of hingedly connected flaps, a plurality of pad mounting means connected to the inside of the cover along said side edges and said end edges; each pad mounting means comprising a knob rotatably mounted on said cover for rotational movement about an axis perpendicular to the inside of the cover, an arm extending through the pad and having one end rotatably mounted on said knob for rotational movement about an axis parallel to the surface of the inside of the cover, and snap retaining means mounted on the inside of said cover at a position spaced from said knob to releasably retain the other end of said arm in position on said cover; at least one of the knobs of said plurality of pad mounting means being mounted on the cover at a side edge of the cover substantially midway between the end edges to enable utilization of the leaves of the pad on the arm extending from said one of the knobs with leaves of pads at each of said flaps.

2,833,566
SWING PIPE JOINT, WITH GASKET HOLDER TO PERMIT RELEASE OF GASKET FOR REPAIR
William Meyer, East Orange, and Richard Slawinski, Elizabeth, N. J., assignors to Wheaton Brass Works, Union, N. J., a corporation of New Jersey
Application July 28, 1953, Serial No. 370,704
3 Claims. (Cl. 285—18)

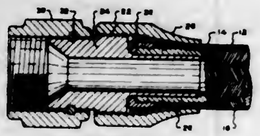
1. A swing joint for pipes comprising a body having a fluid passage therethrough and provided at its inner end with an external flange, a swivel member having a fluid passage therethrough for communication with said

body fluid passage, an antifriction bearing structure to support said swivel member comprising an annular flange projecting externally from the swivel member, an inner set of ball-bearings cooperative with the inner side of said swivel member flange, an inner ball retainer ring for said inner set of ball bearings, an outer set of ball bearings cooperative with the outer side of said swivel member flange, and an outer ball retainer ring for said outer set of ball bearings, a seal ring holder plate displaceably insertable between the body and the swivel member and its supporting bearing structure, a seal ring carried by said holder plate for sealing interposition between the swivel member and body, a plurality of hollow jack screws threaded through the body flange in circumferentially spaced apart relation to abut said inner ball retainer ring, retainer bolts respectively extending through the respective jack screws to engage the antifric-



tion bearing structure, said holder plate being pivotally supported by one of said jack screws for in and out lateral swinging movement intermediate the body and said swivel member and its supporting bearing structure, said holder having hook elements radially projecting from its periphery to releaseably engage the remaining jack screws, whereby to determine the in-swung operative position of said holder plate, said jack screws when outturned through said body flange being adapted to exert draft upon said retainer bolts operative to inwardly move the swivel member and its supporting bearing structure whereby to sealingly compress the seal ring carried by the holder plate between the swivel member and body but when in-turned to separate those parts so as to release the holder plate and seal ring for out-swinging movement to give access to the seal ring, and means to releasably secure said holder plate in its in-swing operative position.

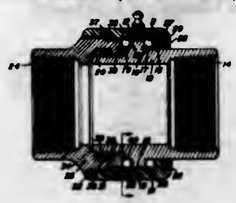
2,833,567
FITTING FOR REINFORCED HOSE WITH SEAL MAINTAINING MEANS
Hans Eugen Bacher and Roger R. La Marre, Jackson, Mich., assignors to Aeroquip Corporation, Jackson, Mich.
Application October 11, 1955, Serial No. 539,831
5 Claims. (Cl. 285—95)



1. The combination with a flexible hose having an inner tube of substantially uniform wall thickness and an outer tubular reinforcement, the material of said inner tube being characterized by being of the class of elastomers and plastomers which either harden and stiffen upon aging in hose line service or as in the case of polymerized tetrafluoroethylene have low elasticity and an relatively high degree of stiffness before being placed in service, of a detachable, reusable end fitting for said hose of the type in which the sealing against leakage is performed by a fluid actuated flexible lip and axial separation of the hose and fitting is prevented by the attachment between the fitting and the hose reinforcement, said fitting comprising a sealing sleeve having an outer surface for expanding said reinforcement independently of said tube upon insertion of said sleeve between said reinforcement and said tube, said sleeve having an axial bore to receive said tube therein with a relatively snug fit, said sleeve at the inner leading end of said sleeve tapering from adjacent the tube entrance end of said bore to provide a thin edged annular nose to facilitate the entrance of said sleeve between said reinforcement and said tube and to expand and support said reinforcement along said outer surface, a nipple having a substantially cylindrical portion of substantially uniform diameter inserted into said inner tube, said inserted nipple portion in axial extent exceeding the inserted axial length of said tube in said sleeve to dispose the entering end of said nipple inwardly beyond the nose of said sleeve to give support to said tube beyond its inserted length within said sleeve, the portion of said bore in the locality of the inserted axial length of said tube being substantially cylindrical and of substantial uniform diameter from the tube entrance end, said nipple being disposed substantially concentric within said sleeve to define with said cylindrical portion of said bore an annular cavity substantially corresponding in radial and axial dimensions to the original wall thickness and the inserted length of said tube whereby said tube substantially fills said cavity, at least one of said concentric parts having a radial wall portion to define one end of said cavity and to locate the terminal portion of the said tube within said sleeve, at least one annular rib of generally saw tooth form defined as a radial projection on the inner cylindrical surface of said bore of said sleeve with the leading side of said rib sloping to facilitate the insertion of said tube within said bore from said entrance end, said rib being located within the axial limits of said cavity, the axial extent of said cavity and the inserted tube length therein being at least twice the wall thickness of said tube with said rib being located at least the wall thickness of said tube from said radial wall portion the axial spacing of each said rib, along said cylindrical bore, with respect to any other such rib and to each end of said cavity being at least as great as the wall thickness of said tube to provide a flexible lip portion of tube of substantial axial length between said radial wall portion and said rib with the radial inward projection of said rib from the wall of said bore being only a small fractional part of the wall thickness of said tube and in the order of .008" to .013", said radial projection of said rib being in an amount, however, to be at least slightly in excess of any clearance that might otherwise exist between the outer surface of said tube and the inner surface of said bore as a result of manufacturing tolerances to always provide localized superficial deformation of the outer surface of said tube in the plane of said rib but said deformation being of an order providing no appreciable retention of the hose against axial separation from the fitting, said nipple and sleeve at a point axially spaced from said radial wall portion having an annular sealing connection with each other, a socket embracing said sleeve and nipple and gripping said expanded reinforcement upon said outer surface of said sleeve, an assembly connection between said socket and nipple to attach said reinforcement to said nipple with that portion of said inner tube inserted within the bore of said sleeve functioning as a fluid pressure actuated sealing lip against the inner cylindrical surface of said sleeve bore, the deformation of the outer surface of said tube providing localized conditions in said plane sufficiently to initiate self-energization of said sealing lip by fluid pressure between said tube and nipple within said cavity and adjacent said plane, whereby a reduction in flexibility, stiffness, loss of compression due to flow and other structural characteristics either inherent

in the said material of said tube in the green state or resulting from aging in service do not produce leakage at said sealing lip.

2,833,568
SWIVEL PIPE FITTING WITH BEARING RETAINER
William T. Corsette, Long Beach, Calif., assignor, by mesne assignments, to The Youngstown Sheet and Tube Company
Application February 8, 1954, Serial No. 408,928
1 Claim. (Cl. 285—281)



In a swivel connection: a tubular part having a front end with an outer cylindrical surface, a rear end for connection to a fluid conducting member, and an external annular rib intermediate the ends thereof, said rib having a forward face and a rearward face; a cylindrical shell surrounding said tubular part, having an inwardly extending flange on its rear end surrounding the rear end of said tubular part and being spaced from said rearward face of said rib, and having its front end surrounding and defining an annular recess around said front end of said tubular part, said front end of said shell having internal screw threads; a rear circle of bearing balls between said rearward face of said rib and said inwardly extending flange of said shell, and engaging the contiguous portions of said tubular part and said shell; a front circle of bearing balls in said recess adjacent said forward face of said rib and engaging the contiguous portions of said tubular part and said shell; a retaining ring secured to the inner face of said front end of said shell, said shell having in the inner face of its front end a groove to receive said retaining ring, said retaining ring engaging the outer portions of the balls of said front circle of bearing balls forwardly of their points of engagement with said shell, for holding said shell in its operative position surrounding said tubular part and retaining said front circle of balls in said recess; an annular connector part having one end for connection to a fluid conducting member and its other end extending into said recess, said other end having external screw threads for engagement with said internal screw threads of said shell and having an end face to engage said front circle of balls, said other end having therein an annular recess facing inwardly toward said cylindrical surface of said front end of said tubular part and said other end of said connector part having a portion of reduced external diameter adjacent said end face thereof so that said retaining ring will not interfere with the adjustment of said connector part into working relation to said front circle of the balls; and a sealing member in said last named annular recess for engagement with said cylindrical surface.

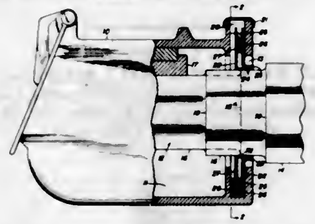
2,833,569
SHEET METAL SPLIT GLAND RING FOR THREADLESS COUPLING
Joseph Budnick, New York, N. Y., assignor to Electrical Fittings Corporation, Woodside, N. Y., a corporation of New York
Application April 21, 1953, Serial No. 350,100
2 Claims. (Cl. 285—389)

1. A split gland ring for a threadless coupler for joining a smooth ended conduit pipe by gripping same at such end upon contraction of said ring, said ring comprising, a section of rectangular ribbon of suitable material having spaced opposed longitudinal edges formed as a circular-shaped ring having a side wall with inner and outer surfaces, said wall extending the full axial length of said ring and terminating at opposed frontal edges wherein one of said longitudinal edges being a first of said frontal edges coextending along the periphery of said ring, the other longitudinal edge being doubled over to form a reinforcing margin extending axially from the other frontal edge but less than the entire axial length of said ring, said other longitudinal and frontal edges also coextending along the periphery of said ring, the outer



surface of said margin bearing directly against said inner wall surface for the entire axial and circumferential dimension of said margin, the unreinforced portion of said wall being gradually tapered to define a smaller circumferential diameter at the unreinforced frontal edge, said ring being split in the plane of said wall from one frontal edge to the other and having closely spaced opposed ends to allow circumferential contraction of said ring, whereby the smooth end of said conduit pipe is firmly gripped by said ring as said unreinforced frontal edge circumferentially bites therein and as the inner surface of said margin circumferentially grips said pipe upon contraction of said ring.

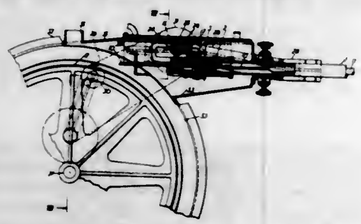
2,833,570
SEAL AND DUST GUARD FOR JOURNAL BOX
George C. La Porte, Edwin W. Taylor, and Charles H. Spence, Baltimore, Md.
Application February 21, 1955, Serial No. 489,546
3 Claims. (Cl. 286—6)



1. A dust guard and a seal for a car journal box and an axially movable axle of the type having a seal receiving portion of one diameter, an outer journal portion of lesser diameter, and a shoulder between said diameters, said journal box having a pair of spaced-apart inner and outer parallel vertical walls forming a slot surrounding the axle, and the axle being capable of axial movement relative to the journal box to bring said shoulder to a position substantially in vertical alignment with said inner wall of the slot, said guard and seal comprising a flexible member having a vertical portion positioned within said slot and engaging said inner wall, said vertical portion having a continuous annular lip surrounding said seal receiving portion and extending axially thereof beyond said inner wall and in a direction toward the center line of the car, a bearing ring secured to the inner periphery of said lip and sealingly embracing said first diameter of said axle to form a seal thereabout, said ring extending axially of said axle beyond said inner wall in a direction toward the center line of the car and extending axially of said axle in the opposite direction beyond the vertical portion of said flexible member, and resilient compressive means in said slot and

acting on said vertical portion of the flexible member to press said portion into sealing engagement with the inner wall of said slot.

2,833,571
SEALING GLANDS
Arthur Bruce Fraser Gillespie Richardson, Leigh, England, assignor to British Insulated Callender's Cables Limited, London, England, a British company
Application June 17, 1953, Serial No. 362,343
Claims priority, application Great Britain June 26, 1952
8 Claims. (Cl. 286—16)



3. Means for limiting the escape of fluid under super-atmospheric pressure from a vulcanising chamber whilst a cable is being hauled towards and then through an outlet in the chamber wall by a lead wire of smaller cross-section than the cable, comprising a main outlet gland designed to suit the cross-sectional size and shape of the cable and on the exit side of the main gland an auxiliary sealing gland designed to fit the lead wire, latching means for retaining the auxiliary gland in place, a hydraulic relay for withdrawing said latching means, a valve controlling said relay and a cam whose movement is co-ordinated with the speed of travel of the lead wire through the outlet, for actuating said valve whereby to operate said relay to withdraw said latching means and release the auxiliary gland on the approach of the leading end of the cable.

2,833,572
DOUBLE PACKED OIL WELL STUFFING BOX
Charles Fredrick Moseley, Bartlesville, Okla.
Application January 20, 1954, Serial No. 405,200
4 Claims. (Cl. 286—16.3)



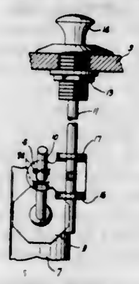
1. A stuffing box for an oil well polished rod, comprising a tubular body loosely surrounding the polished rod, a main set of super-imposed conical shaped packing rings in the body around the polished rod, a tubular gland extending into the upper end of the body into contact with the uppermost main packing ring adjacent the outer periphery thereof, a second tubular gland disposed in the first mentioned gland in contact with the uppermost main packing ring adjacent the inner periphery thereof, connecting means on the body for independently adjusting said first and second tubular glands, an auxiliary set of super-imposed conical shaped packing rings in the body around the polished rod arranged below the main packing rings, a compression ring in the body loosely disposed around the polished rod in contact with the uppermost auxiliary packing ring, an inwardly projecting shoulder provided in the body to retain the compression ring in position adjacent the auxiliary packing rings and to support the lowermost main packing ring, and means adjustably secured in the body for contacting the compression ring and controlling the compression of said auxiliary packing rings.

2,833,573
FABRICATED PULLEY HUB
Bruce R. Bagley, Detroit, Mich.
Application March 12, 1954, Serial No. 415,738
2 Claims. (Cl. 287—52)



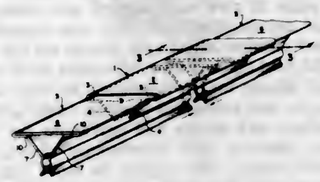
1. A fabricated hub for mounting a pulley upon a shaft, said hub comprising a built-up multi-piece body including a tubular inner member consisting of a strip of sheet material disposed in a circular path with its opposite edges abutting one another in a generally axial direction extending longitudinally thereof and having a bore adapted to receive said shaft, and a generally disc-shaped outer member having a radially-disposed disc-shaped marginal portion and an integral central tubular portion projecting axially therefrom and also containing a bore, said tubular inner member being tightly and permanently secured in said outer member bore, said marginal portion having means thereon for securing said pulley thereto, said outer member tubular portion being disposed in constricting engagement with said tubular inner member and holding said opposite edges of said tubular inner member in tightly-compressed abutting engagement with one another.

2,833,574
POP-UP GUIDE LINK
Robert J. Fife, Delphi, Ind., assignor to Stephen A. Young, Delphi, Ind.
Application June 14, 1954, Serial No. 436,561
1 Claim. (Cl. 287—54)



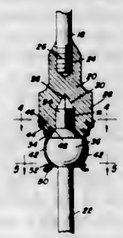
A link for connecting a lift rod to a ball rod, comprising a relatively thin one piece sheet metal body, including spaced generally parallel ears extending at right angles to said body, said ears having openings near the ends of each, and a tapped hole in the body intermediate said ears, the holes in the ears being in axial alignment to receive a lift rod, and t' e axis of the tapped hole being at substantially right angles to the ear hole axis, said body having a generally co-planar extension, and an aperture in said extension for receiving a ball rod.

2,833,575
SLEEVE FOR JOINING T BARS IN INSTALLING TILE
Millard E. Haller and George S. Andrews, New York, N. Y.
Application May 13, 1954, Serial No. 429,645
1 Claim. (Cl. 287—108)



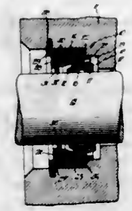
A sleeve for joining T-bars having cross bar members and leg members which consists of a base member, side members extending from the base and with said base member forming a channel structure adapted to receive the cross bar members of the T-bars to be joined, said side members converging towards one another from said base member, and each forming an acute angle with the base member, and flanges extending from the edges of the side members remote from the base member, said flanges converging towards each other, and each forming an acute angle with the base member larger than the acute angle formed by its side member with the base member, the edges of said flanges remote from the side members being free and spaced from one another, the length of the side members being substantially equal to the distance between the outer edge of the cross bars of the T-bars to be joined and the juncture of the cross bars of such T-bars and the legs thereof, said sleeve being adapted to be slipped over adjacent ends of the T-bars to be joined and to have the sides and flanges, respectively, pressed against the underside of the cross bars and against the legs of the T-bars with the junctures between the side members and flanges of the sleeve fitting snugly in the junctures between the cross bars and legs of the T-bars.

2,833,576
CONNECTING MEANS FOR A MIXER AND A DISPOSABLE MIXING BLADE
Joseph Cirone, Ridgefield, N. J.
Application November 15, 1955, Serial No. 546,973
2 Claims. (Cl. 287—126)



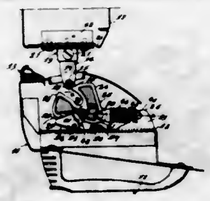
1. A device for connecting a drive shaft to a driven shaft, an end of said driven shaft being of a regular polygonal cross sectional shape and having an enlarged retainer portion closely spaced from said end of said shaft, said device comprising a connecting head, said connecting head having a socket receiving said end of said driven shaft, and means detachably securing said driven shaft to said connecting head, said means including fingers mounted on said connecting head resiliently engaging said retainer portion.

2,833,577
SCRAPER SEAL
Percival L. Reynolds, Glenview, Ill., assignor to Chicago Rawhide Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application December 24, 1956, Serial No. 630,373
7 Claims. (Cl. 288—3)



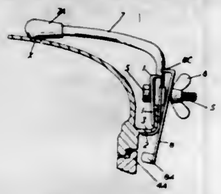
1. A scraper seal for use with a reciprocating shaft, said seal including a sealing lip portion for resiliently engaging said shaft, cooperating seal positioning and rigidifying ring-like members associated with the body portion of said seal, and a resiliently expandable scraper ring unit formed from integrally connected non-continuous ring elements coiled upon one another the inner peripheries of which are adapted for resilient expandable engagement with said shaft, said ring unit being held along its radially directed side surfaces in operative position by opposing surfaces of said ring-like members.

2,833,578
REFRIGERATOR LATCH MECHANISM
William O. Burke, Rockford, Ill., assignor to National Lock Co., Rockford, Ill., a corporation of Delaware
Application November 14, 1956, Serial No. 622,035
5 Claims. (Cl. 292—71)



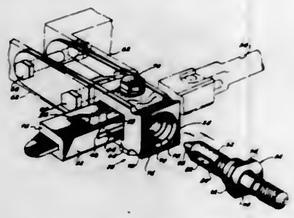
1. Refrigerator latch mechanism mounted on a door and adapted to have latching engagement with a keeper on a refrigerator cabinet when the door is closed, consisting of a supporting housing secured to the door, a latch bolt in said housing, a spring-loaded retainer mounted at one end in one end of said housing for pivotal and longitudinal movement in the housing, means for pivotally connecting the other end of said retainer to said latch bolt, a toggle pivotally mounted intermediate its ends in the housing and having one end pivotally connected to the latch bolt at a point spaced from the pivotal connection of the retainer to the latch bolt to thereby connect said latch bolt to said toggle and to said retainer for pivotal and edgewise movement in the housing with the pivot connecting the retainer to the latch bolt being movable from one to the other side of a line connecting the pivotal mounting of the retainer to the housing and the pivotal mounting of the toggle to the latch bolt, movement of said latch bolt from unlatched to latched position and from latched to unlatched psition being accomplished from the exterior or interior of the door and without the use of a movable handle on the door.

2,833,579
SAFETY DEVICE FOR MOTOR VEHICLE DOORS
Ronald G. J. Moody, Bulawayo, Southern Rhodesia
Application July 31, 1957, Serial No. 675,508
4 Claims. (Cl. 292—288)



1. A safety device to secure the door of a motor vehicle against accidental opening, said motor vehicle having a gutter extending lengthwise of the vehicle body over the door, said device comprising a clamp including a pair of jaws securely attached to the vehicle roof gutter above the door to be secured against opening, a member associated with said clamp and including a lever pivotally secured at a point between the ends thereof to said clamp and extending sufficiently downwardly to prevent the opening of said door, an arm rigidly connected to one of said jaws and extending generally upwardly therefrom and inwardly to embrace the adjacent region of the roof of said vehicle above said gutter and to bear adjacent its free end upon said roof, said member having its upper end adapted to bear inwardly upon said arm when its lower end lies opposite the upper rail of the closed door.

2,833,580
AIRCRAFT DOOR LOCK
John E. Hogan, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application August 22, 1955, Serial No. 529,662
1 Claim. (Cl. 292—302)



A lock for fastening two parts together comprising a receiving member attached to one of said parts and having a receiving passage axially facing the other of said parts; said passage being a pair of concentric openings having a shoulder therebetween; a bolt member slidable through said receiving member in a direction perpendicular to the central axis of said passage; a striker member fixed to said other part opposite said receiving member and having thereon structure that is complementary to the configuration of said passage and is adapted to project into said passage when said parts are brought together; said striker having an elongated hole extending therethrough parallel to the sliding direction of said bolt in said receiving member; a tongue movable with said bolt located to enter and fill said elongated hole when said striker has entered said receiving member, to thus determine a locked position; operating means connected to slide said bolt to and from said locked position; a first sloping side on said tongue positioned to contact the outermost end of said elongated hole remote from said other part as said bolt is being moved toward said locked position, to pull said parts together by sliding cam action of said first sloping side against said elongated hole end; a second sloping side on said tongue intersecting said first sloping side at the tip of said tongue; said striker having a tapered nose positioned to guide said receiving member into alignment around said striker from off-center positions during closure of said parts; said second sloping side having a predetermined angle to meet said tapered nose along a sloping surface intersection; said bolt and tongue having a prelatched position where said tongue tip lies in interference with said tapered nose when said parts are being closed; and elastic means connected to urge said bolt and tongue to said prelatched position from an unlocked position where said tongue and striker do not interfere in passing, whereby said interference during preliminary closure causes said tongue to move against said elastic means until said tongue tip is opposite said elongated hole and then said tongue tip will engage in said elongated hole in said prelatched position to hold said parts adjacent prior to locking by said sliding cam action.

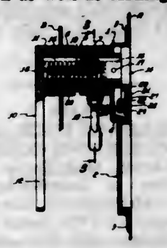
2,833,581
HASP SEAL
Arthur Dietze, Three Bridges, N. J.
Application November 2, 1955, Serial No. 544,399
4 Claims. (Cl. 292—315)



1. A seal for use with a staple that projects through a hasp, the projecting portion of the staple having an opening therethrough of substantially semi-circular shape and providing a bearing surface within the staple whereby the seal can be lifted and swung outwardly away from the plane of the front face of the hasp through which the staple projects, said seal including a one-piece unit having a body portion, an arm, and a neck connecting one end of the arm to the body portion, the arm being spaced from the body portion at all places except said neck for admitting the thickness of the staple between the arm and body portion when the arm is inserted through the opening in said staple, the material of the neck where the arm joins the body portion being of an original transverse width substantially wider than the opening through the hasp and being deformed to at least an approximately semi circular cross section having an approximately rounded surface forming a bearing of less cross section than the bearing in the hasp and for pivotal movement therein, the arm beyond the neck being of less width than the opening through the staple but too wide to rotate in said opening, the arm having a deformable portion for location on the side of the staple remote from the neck when the seal is inserted through the staple and in its intended assembled relation with the hasp and staple, the original cross section of the deformable portion of the arm being sufficient to flatten to a width greater than the width of the opening through the staple.

2,833,582
EXTERNALLY SEALED FLUSH LATCH OPERATING MECHANISM
Bernard W. Henrichs, Northridge, Calif., assignor to Hartwell Aviation Supply Company, Los Angeles, Calif.
Application August 2, 1956, Serial No. 601,839
7 Claims. (Cl. 292—336.3)

1. An externally sealed flush latch operating mechanism, comprising: a recessed housing having a closed tubular mandrel extending therefrom; a handle adapted to be received in said recess, and having a stem axially slidable and rotatable within said mandrel, to permit extension and retraction as well as turning movement of said



handle relative to said housing; a sleeve journaled on said mandrel and having means for connection to a latch; a drive connection between said stem and sleeve extending through said mandrel; and means for sealing said drive connection.

2,833,583
SNAP-IN DOOR LATCH STRIKE
Roy A. Stone and Ralph F. Anderson, Rockford, Ill., assignors to National Lock Co., Rockford, Ill., a corporation of Delaware
Application November 7, 1956, Serial No. 620,965
5 Claims. (Cl. 292—340)



4. A snap-in latch strike adapted to be anchored in an opening in a wall without the use of other fastening means, consisting of a one-piece assembly including a projecting strike member at the outer end, anchoring means at the inner end and an enlargement therebetween providing a stop to abut the exterior wall when the inner end and its anchoring means are projected through an opening in the wall, and a part adjacent said enlargement and conformably received in the opening in the wall to retain said strike against lateral movement, said anchoring means comprising spaced flexible tongues projecting forwardly and diverging outwardly from the inner end toward the interior of the supporting wall about the opening, and when the strike is anchored in operative position these tongues flex outwardly to engage the interior surface when said part enters the opening and the enlargement engages the exterior surface of the supporting wall.

2,833,584
RETRIEVER FOR GOLF BALLS
Patrick J. McEvoy, San Francisco, Calif.
Application February 2, 1956, Serial No. 563,055
3 Claims. (Cl. 294—19)



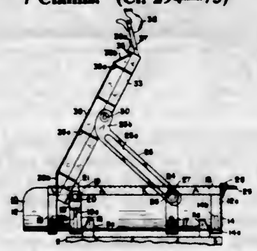
1. On a golf club shaft, a golf ball retriever comprising a base against which the end of the shaft is adapted to seat, yielding means carried by said base for releasably securing said base to the shaft, said yielding means comprising a pair of spaced frames, at least one of said frames having a spring operatively connected with it and opposing movement thereof in one direction, spring fingers arranged to accept and hold a golf ball therebetween, and means fastening said frames and said fingers to said base.

2,833,585
SPADES
Carl Erich Wilhelm Nischan, Grossenaspe, Germany
Application March 27, 1956, Serial No. 574,243
Claims priority, application Germany May 21, 1955
6 Claims. (Cl. 294—51)



1. An implement, comprising a handle; a longitudinal tool pivoted at one end to an adjacent end of said handle and having at said one end substantially flat rest surfaces angularly spaced about the pivot axis and facing away from the latter; a lateral projection on said handle; and a sleeve turnable and axially movable on said handle between said pivoted tool and projection and having adjacent the latter a helicoidal end face cooperating with said projection, on turning said sleeve in a certain direction, to advance said sleeve axially with its other end face firmly wedging against either of said rest surfaces for locking said tool to said handle in different angular dispositions thereon, respectively.

2,833,586
SCRAP BOX CONSTRUCTION
Harry L. McFeaters, New Castle, Pa., assignor to Pennsylvania Engineering Corporation, New Castle, Pa., a corporation of Pennsylvania
Application April 28, 1955, Serial No. 504,604
7 Claims. (Cl. 294—73)



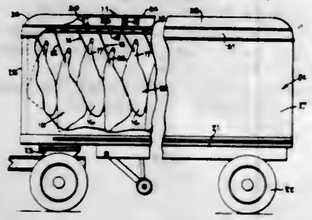
1. An improved scrap box for furnace and converter utilization which comprises, a container-shaped longitudinally-elongated body having an open mouth portion to receive scrap and an open front end portion to deliver scrap when said body is tilted forwardly, a lift frame positioned along said mouth portion, means pivotally mounting said lift frame on said body for raising and lowering movement with respect thereto, said means including a pair of guide arms that are pivotally secured on said lift frame to project therefrom, said arms having longitudinally extending guide slots therealong, and said means including pivot means secured on said body to slidably cooperate with said guide slots.

2,833,587
ADJUSTABLE HEIGHT GURNEY
Harry Baird Saunders, Woodland, Calif.
Application May 11, 1956, Serial No. 584,324
1 Claim. (Cl. 296—20)



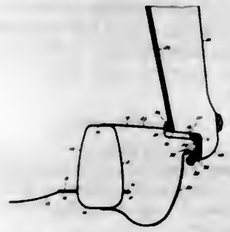
An adjustable-height stretcher comprising an elongated wheel-supported bottom frame which includes inwardly facing channel side beams, an elongated mattress-supporting top frame which includes inwardly facing channel side beams, pairs of intersecting lever arms disposed in transversely spaced longitudinal planes, the lever arms of each pair being pivotally connected intermediate their ends, means transversely pivoting the corresponding upper and lower ends of the lever arms to the corresponding side beams of the top and bottom frames, rollers on the other ends of the arms riding in said beams, hydraulic cylinders parallel to and laterally inward of the side beams of the upper frame, and in a longitudinal position between the upper ends of the pairs of arms, means connecting the cylinders at one end to those arms having the rollers on their upper ends, means connecting the cylinders at their other ends to the corresponding side beams of the upper frame, and a manually operated fluid pressure system mounted on the upper frame adjacent one end and connected to the cylinders to supply power thereto.

2,833,588
CARGO SUSPENSION STRUCTURE FOR ROAD VEHICLES
James J. Black, Cincinnati, Ohio, assignor to Trailmobile, Inc., Cincinnati, Ohio, a corporation of Delaware
Application November 18, 1955, Serial No. 547,735
9 Claims. (Cl. 296—28)



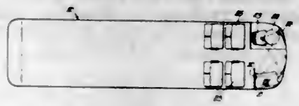
1. A suspension structure for suspending cargo units in a vehicle body having an undercarriage and sidewall members secured to the chassis and rising upwardly from opposite sides thereof, said undercarriage and sidewall members being formed of metal, said suspension structure comprising metallic roof beams spaced apart from one another and extending across said side wall members, said roof beams having opposite end portions in load bearing engagement upon the side wall members, non-metallic heat insulating means interposed between the side wall members and the said end portions of the roof beams, said heat insulating means transmitting the weight load of the roof beams in compression to the sidewall members, a plurality of metallic suspension rails spaced apart from one another and extending at right angles to the roof beams beneath the roof beams, means attaching the suspension rails to the roof beams, and non-metallic heat insulating means interposed between the roof beams and suspension rails, said suspension rails having spaced apertures therein for engaging and suspending said cargo units from the suspension rails, thereby to maintain the original weight distribution of the cargo while the vehicle is in transit, said heat insulating means substantially eliminating the conduction of heat through the roof beams and suspension rails to the cargo units in the vehicle body.

2,833,589
VEHICLE DOOR LOWER EDGE AND SILL PROTECTING AND SEALING CONSTRUCTION
Hermann H. F. Ahrens, Sindelfingen Kreis Boblingen, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application April 13, 1954, Serial No. 422,913
5 Claims. (Cl. 296—44)



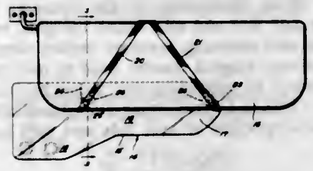
1. In a vehicle body the combination comprising a hollow sheet metal door sill having a continuous cross-sectional top wall and side wall profile composed of a substantially horizontal top line and of a downward step followed by another substantially horizontal top line extended by a downward and inward curve continguous with and forming a re-entrant angle with a downward line curved inwardly to constitute the bottom profile of said sill, whereby the latter is formed with a longitudinal outwardly extending bulge, a hollow sheet metal door having an inner wall, an outer wall spaced therefrom and having an inwardly curved lower marginal zone extending to an edge located outwardly of and beneath the lower edge of said inner wall, and a bottom wall contiguous with said edges and forming an inwardly facing channel profile adapted, when the door is closed, to embrace said bulge, a sealing strip fixed within said channel profile and adapted to contact said bulge, and another sealing strip on the lower margin of said inner wall and adapted, when said door is closed, to contact said step.

2,833,590
WINDSHIELD ARRANGEMENT
Edward C. Zimmerman, Chicago, Ill., assignor to Patent License Corporation, Chicago, Ill., a corporation of Illinois
Application December 1, 1955, Serial No. 550,429
8 Claims. (Cl. 296—84)



1. A windshield arrangement including a windshield the inner surface of which is provided with an elliptical curvature, means for originating an observer's line of sight through said windshield and inwardly thereof at one of the focal points of said elliptical curvature, and reflection eliminating means in spaced relation to said first named means inwardly of said windshield, said reflection eliminating means including a non-reflective surface established by said windshield originating from said first substantially aligned with the reflective line of sight named means.

2,833,591
AUXILIARY VISOR SECURABLE TO VEHICLE SUN VISOR BY RESILIENT MEMBERS
John A. Kurtzke, Laurelton, N. Y.
Application May 15, 1953, Serial No. 355,385
1 Claim. (Cl. 296—97)



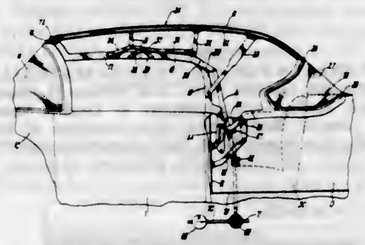
An auxiliary visor for glare control adapted for adjustable and detachable mounting on a standard automobile visor comprising a generally rectangular member planar throughout its entire area and consisting of colored substantially transparent and shatter proof material, said member embodying a secondary glare shield portion at one end and a primary eye shade portion at the other, said eye shade portion being of greater transverse dimension than said glare shield portion, said member having a first slot within its body portion between said glare shield portion and said eye shade portion disposed angularly with reference to its longitudinal margins and a second slot adjacent the free end margin of said glare shield portion and disposed with reference to the longitudinal margins of said portion at a reverse angle to said first slot and at substantially the same inclination, each of said slots communicating with an outer margin of said member to permit reception of an endless elastic member from the exterior into the slot, said slots being adapted to receive wide elastic members laced therethrough and passing around said standard visor at an angle to the longitudinal margins thereof whereby the elastic members may yield to permit pivoting or sliding the auxiliary visor with reference to the standard visor about or along its points of elastic support into operative or inoperative position while retaining portions of said visors in firm face-to-face relation in either position, the location of said slots with reference to said eye shade portion permitting longitudinal adjustment of said auxiliary visor with reference to said standard visor to a position where the primary eye shade portion extends beyond the end and longitudinal margins of said standard visor.

2,833,592
TINTED TRANSPARENT SUN VISOR
Frank L. Lewis, Clearwater, Fla.
Application June 15, 1955, Serial No. 515,610
1 Claim. (Cl. 296—97)



In a two stage non-glare sun visor, an elongated body, a shaft providing a visor support, the upper portion of said body being of greater thickness than the lower portion thereof, the upper edge of the upper portion of the body being provided with grooves therein, a channel member positioned over said shaft and over the upper edge of the body and said channel member including a back and side walls, said side walls being arranged in spaced parallel relation with respect to each other, said side walls being arranged at right angles with respect to said back, flanges extending from said side walls and extending into said grooves, said shaft including a pin member having an annular recess therein, a coupling sleeve including a split end portion receiving said pin member, there being a slot in said coupling sleeve, lips arranged on opposite sides of said slot, a screw member extending through said lips and positioned to mesh with the recess in said pin member for clamping the pin member in the coupling sleeve, a Z-shaped mounting arm having an end portion thereof projecting into an end of said sleeve, a mounting member connected to the other end of said arm, and a screw member connecting said sleeve to said arm.

2,833,593
CONVERTIBLE TOP WITH AN INFLATABLE COVERING
Jules A. Olivier, Detroit, and William J. Tell, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 28, 1953, Serial No. 400,614
4 Claims. (Cl. 296—107)

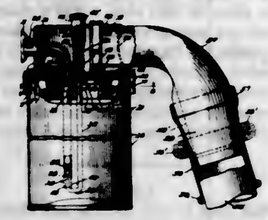


2. In a convertible vehicle the combination comprising a foldable top frame supported by said vehicle for movement between raised and lowered positions and including a pair of foldable side rails joined by a number of spaced transverse bows, an inflatable and deflatable flexible envelope secured to said bows and covering said top frame in the raised position thereof, said envelope including two layers of impervious material forming an air tight enclosure and a number of tension members joined to said layers to hold said layers in predetermined spaced relationship when said envelope is inflated in the raised position of said top frame, means for inflating and deflating said envelope, a window extending between the rear quarter area of said vehicle and said flexible envelope in the raised position thereof, parallelogram linkage means supporting said window within said vehicle for substantially vertical movement between raised and lower positions, said linkage means being interconnected with said foldable side rails whereby said window is raised and lowered as said top frame is raised and lowered, a seat within said vehicle located forwardly of said window, and a package shelf extending from adjacent the lower edge of said window to adjacent said seat, said package shelf being supported by and movable with said window.

2,833,594
SPRAYER CONSTRUCTION
George H. Palm, Chicago, Ill.
Application July 17, 1952, Serial No. 299,335
19 Claims. (Cl. 299—89)

1. In a spray gun including a liquid container for the liquid to be sprayed and a hose connection, a sprayer head comprising a sprayer cover for the liquid container comprising an upper cylindrical portion provided with a discharge outlet opening and an inlet opening for a spraying fluid under pressure for detachably mounting the hose connection, a lower cylindrical portion including securing means complementally formed to the threaded end of the

container for detachably mounting and securing the sprayer head on the container, and an intermediate wall detachably mounted intermediate the ends of the sprayer head forming a chamber for the discharge of the fluid



under pressure from the inlet opening to the outlet opening, said hose connection being detachable, and securing means for detachably securing the hose connection within the inlet opening and to the intermediate wall and the intermediate wall to the sprayer cover.

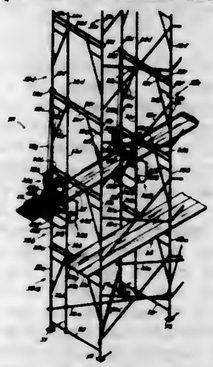
2,833,595
APPARATUS FOR CONVEYING MATERIAL
Myles Standish, Omaha, Nebr., and William D. Shadwick, Council Bluffs, Iowa, assignors to Omaha Standard, Inc., Council Bluffs, Iowa, a corporation of Iowa
Application November 8, 1955, Serial No. 545,755
9 Claims. (Cl. 302—29)



1. In an apparatus adapted for conveying finely divided material comprising a container having a bottom opening, an air duct below said bottom opening mounted on said container, a gas-permeable porous medium having a surface along which the material is adapted to flow when aerated, a removable frame member for supporting said porous medium at said bottom opening, a base below said frame member, trackway means in said air duct for supporting said frame member, sealing members between the edges of said porous medium and said container adjacent bottom opening thereof, supporting links pivotally connected to said base member and to said trackway means, and means for holding said frame member on said trackway means adjacent said bottom opening of said container to maintain an airtight seal between said porous medium and said container.

2,833,596
ELEVATING BRACKETS
Arthur C. Borgman and Eugene V. Holahan, Franklin Square, N. Y., assignors to The Patent Scaffolding Co., Inc., Long Island City, N. Y., a corporation of New York
Application June 27, 1956, Serial No. 594,182
3 Claims. (Cl. 304—29)

1. In a scaffold consisting of a base and superposed rectangular sections, said sections each comprising four uprights and reinforcing braces between the first and second, second and third, and third and fourth of said uprights, the combination of said first and said fourth uprights with a pair of vertical guide rods attached to said braces between said first and said second uprights and between said third and said fourth uprights, respectively; a pair of elevating brackets each having a pair of upper horizontals, lower horizontals and connecting means between said horizontals, said upper horizontals of said brackets extending from said first and said fourth uprights toward said second and said third uprights, respectively, with said first uprights between the upper horizontals of one bracket and said fourth uprights between the upper horizontals of the other bracket, and said lower horizontals extending in substantial parallelism with said upper horizontals in the opposing direction away from said first and said fourth uprights, resepctively, each of said elevating brackets further comprising a pair of vertically aligned sheaves fixed to said connecting means adjacent to said upper and lower horizontals, respectively, of each of said brackets and rotatable along the peripheral portion of said first and said fourth up-



rights facing away from said second and said third uprights, respectively, a third sheave supported by at least one of said horizontals of each of said brackets and slidable along the peripheral portion of the adjacent one of said guide rods facing away from said first and said fourth uprights, respectively, with said third sheave of each of said brackets located at a level between the levels of said vertically aligned sheaves; a winch attached to each of said brackets for moving the same along said first and said fourth uprights and said guide rods; an upper horizontal platform between the upper horizontals of said brackets within said scaffold; and a lower horizontal platform supported by said lower horizontals of said brackets externally of said scaffold.

2,833,597
MACHINERY SUPPORTS
Jerome J. Sloyan, Trenton, N. J.
Application March 8, 1955, Serial No. 492,944
8 Claims. (Cl. 308—3)



1. A support for machinery and the like, comprising a carriage and a rail, said carriage having a glider slidable with respect to said rail, and a bearing assembly interposed between said rail and glider, said bearing assembly having sliding fit on said rail and lateral mobility in said glider enabling said assembly to be self-aligning coaxially on said rail.

2,833,598
ANTI-FRICTION SUPPORT
Jerome J. Sloyan, Trenton, N. J.
Application March 8, 1954, Serial No. 414,771
4 Claims. (Cl. 308—6)

1. A support comprising a cylindrical rail, a rectangular glider movable longitudinally of said rail, said glider having four walls contiguous pairs of which form corners

and provide corner spaces between said glider and rail thereby constituting a plurality of longitudinal raceways, series of balls in said raceways with the balls in each raceway contacting the said contiguous walls of the glider thereat and contacting the cylindrical surface of said rail, and each said series being of less length than the respective raceway containing the series of balls and



leaving voids at both ends of each series of balls, and yieldable means in the ends of said raceways entirely within said voids and maintained aligned each with its series of balls by confinement in its respective raceway, said yieldable means adapted to apply forces effective on the ends of said series of balls in said raceways and longitudinally of and aligned with each of said series of balls.

2,833,599
STANDARD AND BEARING ASSEMBLY FOR A DISK BEDDER GANG
John R. Padrick, Anniston, Ala., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Original application May 26, 1953, Serial No. 357,401, now Patent No. 2,781,710, dated February 19, 1957. Divided and this application February 4, 1957, Serial No. 642,922
2 Claims. (Cl. 308—19)



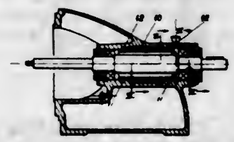
1. A bearing assembly including a bearing housing having a central bore formed therein, said central bore diverging outwardly adjacent its opposite ends so as to form conical bearing surfaces, a pair of journals, each of said journals having a conical shaped bearing portion and a hub portion, the bearing portions of said journals being caused to move into bearing relationship with respect to said bearing surfaces of said bearing housing when the hub portions of said journals are inserted in the opposite ends of said central bore, each of said journals having formed therein a bore substantially coaxial with said central bore, and an arbor bolt received in said bore and effective for urging said journals into abutting relationship, the abutting ends of said journals having formed thereon complementary serrations, said serrations being formed on an inclined plane so that the effective distance between said bearing portions when said journals are held in abutting relationship can be changed upon locking the journals in different indexed positions.

2,833,600
RAILWAY AXLE JOURNAL BEARING
Lee J. Lyons, Webster Groves, Mo.
Application May 2, 1955, Serial No. 505,204
6 Claims. (Cl. 308—53)



1. A railway axle journal bearing back and liner unit having a journal-fitting concave lower face and a wedge supporting upper face, there being an upright flange at an end of the upper face for engaging a journal wedge, there being a plurality of relatively slight upward projections near the ends and sides of said upper face and intermediate the ends of said upper face and spaced apart from each other and each projection having upwardly converging sides merging together to form minute upper surfaces projecting above said upper face a relatively slight distance substantially but terminating below the level of the top of said flange and readily wearable away by sliding contact with a wedge mounted on the unit.

2,833,601
BEARINGS
Paul André Guinard, Saint Cloud, France
Application June 21, 1955, Serial No. 516,910
Claims priority, application France June 25, 1954
3 Claims. (Cl. 308—77)

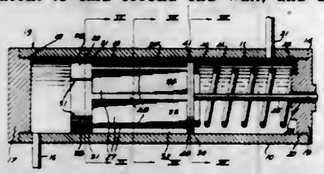


1. A pillow-block, particularly for centrifugal pumps having a horizontal shaft, of the type comprising a body provided with two concentric annular chambers to circulate a lubricating and a cooling liquid respectively, said body being provided with a central cavity and, either side of said cavity, with two axially aligned cylindrical borings having a diameter smaller than that of said central cavity, two antifriction bearings carrying the shaft and fitted near the outer extremities of said borings which have a relatively great length so as to extend inwardly of said bearings towards the central cavity, a cylindrical tube tightly and removably inserted into said inwardly extending borings between the antifriction bearings to separate the central cavity into said two concentric annular chambers comprised between the wall of said cavity and the tube, and between the tube and the shaft respectively, means to supply the inner annular chamber with a lubricating substance, inlet and outlet openings provided in the outer annular chamber to circulate cooling water therethrough, and closing members, inserted in the outer ends of the borings provided in the body and having each a central bore for the shaft.

2,833,602
SELF-CENTERING PISTON
Frank C. Bayer, Euclid, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 26, 1954, Serial No. 418,947
14 Claims. (Cl. 309—5)

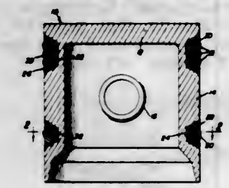
1. In an assembly of the class described, a sleeve, a piston reciprocably arranged in said sleeve, a first end wall on said piston limiting a high pressure chamber in said sleeve, a second end wall on said piston limiting a low pressure chamber in said sleeve, a peripheral wall on

said piston having a plurality of peripherally spaced recesses therein disposed to form a relatively wide land adjacent to said first end wall and a relatively narrow land adjacent to said second end wall, and a plurality



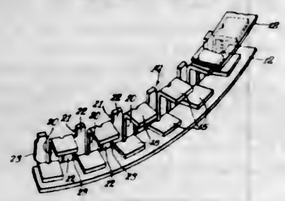
of axial grooves in the relatively wide land communicating the high pressure chamber with each of said recesses respectively, whereby the piston is self-centering in said sleeve and substantially friction free and hysteresis free reciprocable within said sleeve.

2,833,603
ARTICLE OF MANUFACTURE
Joseph J. Dailey, East Peoria, and John E. Fox, Washington, Ill.
Original application June 10, 1954, Serial No. 435,696. Divided and this application July 31, 1957, Serial No. 679,792
15 Claims. (Cl. 309—14)



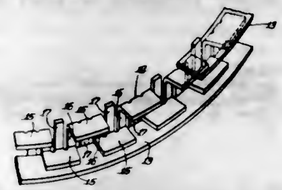
1. An article of manufacture comprising a body made of a metal containing aluminum, a coating of laminated particles of metal containing molybdenum whose innermost face is molecularly mixed with unoxidized metal at the surface of said body, a ferrous aluminate layer bonded to the outermost face of said coating, and a stock of stainless steel bonded to said layer.

2,833,604
PISTON RING ASSEMBLY
Myron C. Hunt, Richmond, Ind., assignor to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana
Application March 3, 1955, Serial No. 491,903
17 Claims. (Cl. 309—43)



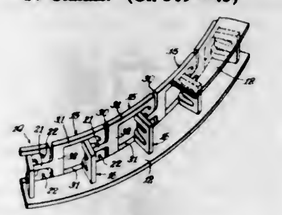
1. A piston ring assembly comprising a pair of axially spaced rails, and combined spacer and expander means for holding the rails in axially spaced relation and for forcing the rails outwardly, said spacer and expander means comprising two rows of segments, and a plurality of web members connecting the segments in one row with those in the other row, each of certain of said web members having a pair of portions extending axially to engage the respective rails, said portions for each of such web members being circumferentially offset from each other.

2,833,605
PISTON RING ASSEMBLY
John F. Shirk, Hagerstown, Ind., assignor to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana
Application March 3, 1955, Serial No. 491,904
18 Claims. (Cl. 309—43)



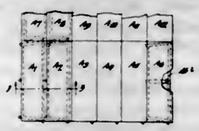
1. A piston ring assembly comprising a pair of axially spaced rails, and combined spacer and expander means for holding the rails in axially spaced relation and for forcing the rails outwardly, said spacer and expander means comprising two rows of segments holding the rails in axially spaced relation, and web structure at the inner periphery of said means having web members connecting the segments in the two rows and other web members bearing outwardly against the rails.

2,833,606
PISTON RING ASSEMBLY
Arthur M. Brenneke, Hagerstown, Ind., assignor to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana
Application March 4, 1955, Serial No. 492,233
16 Claims. (Cl. 309—43)



1. A piston ring assembly comprising a rail, and a combined expanding and positioning means for holding the rail adjacent one side of the piston ring groove, said means comprising a plurality of circumferentially arranged sections connected by slitted tongues, each comprising a single layer of material extending outwardly from the sections with the inner end of said layer connected to two adjoining sections.

2,833,607
SECTIONAL PLATFORM WITH NESTING SECTIONS
Charles Mackintosh, Los Angeles, Calif.
Application March 28, 1955, Serial No. 497,028
4 Claims. (Cl. 311—4)



1. A sectional platform comprising a plurality of individual table-like assemblies, each of which includes a four-sided frame having one side shortened at each end as compared to the opposite side, a group of legs mounted on the exterior of said shortened side, a second group of legs including a leg mounted on the exterior of each of

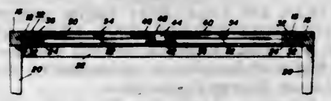
the two remaining opposite sides of said frame at a point adjacent the side opposite said shortened side, and a rectangular panel overlying said frame, said panel having one edge approximately coterminous with the exterior of said shortened side and a portion opposite said edge projecting outwardly of the exterior of the side opposite said shortened side and being of a length approximately equal to the length of the side opposite said shortened side, whereby portions of said panel also project outwardly of the exterior of said two remaining opposite sides adjacent said shortened side, said assemblies being arranged together with the outwardly projecting portions of the panel of one assembly overlapping with and being supported by at least one leg of an adjacent assembly, said panels fitting together and constituting a substantially continuous surface when viewed in plan, and said assemblies being nestable together when disarranged.

2,833,608
TABLE FOR ATTACHMENT TO AN AUTOMOBILE BUMPER
Jesse C. Tobias, Harrisburg, Pa.
Application September 14, 1956, Serial No. 609,830
3 Claims. (Cl. 311—17)



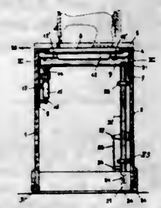
1. In a table, a top, a pair of aligned channel members secured to the undersurface of said top and each channel member including a top wall, a pair of spaced parallel vertically disposed side walls depending from said top wall, opposed tongues extending inwardly from the lower ends of said side walls, a stop member on the ends of said channel members, a block slidably mounted in each of said channel members, said stop members limiting movement of said blocks in said channel members, each of said blocks being provided with opposed slots for slidably receiving said tongues, an arm pivotally connected to each of said blocks, a link telescopically connected to each of said arms, a hook on the outer end of each of said links for engagement with a vehicle bumper, a pair of spaced apart support members secured to the undersurface of said top, a first pair of sprung clips connected to said support members. a leg pivotally connected to each support member, and said legs being mounted for movement into and out of engagement with said spring clips, a second pair of spring clips secured to the undersurface of said top for at times receiving said legs, and an extension slidably connected to each of said legs, and a securing element extending through each leg for engagement with said extension.

2,833,609
TABLE CONSTRUCTION WITH REVERSIBLE TOP
Clement J. Lawless, Kingston, Ontario, Canada
Application November 15, 1956, Serial No. 622,355
2 Claims. (Cl. 311—35)



1. A table construction comprising a supporting frame and a top member, said supporting frame comprising a pair of transversely spaced longitudinal frame members. depending legs at opposite ends of said frame members, said longitudinal frame members having inner faces, channel shaped open-ended and uninterrupted track members secured to said inner faces, said track members opening inwardly towards each other, transverse frame members underlying said track members and connecting together said longitudinal frame members, said top member having reduced side edges slidably mounted in said track members, said top member being of the reversible type, said longitudinal frame member, said track members and said top member having coplanar upper surfaces.

2,833,610
SUPPORTING MEANS FOR SEWING MACHINES AND THE LIKE
Giacomo Cross and Luigi Cross, Genoa-Bolzaneto, Italy, assignors to Vittorio Necchi S. p. A., Pavia, Italy
Application January 5, 1954, Serial No. 402,311
1 Claim. (Cl. 312—30)



A device for lowering a sewing machine or the like into a piece of furniture through an opening in the top thereof, comprising a table on wheels on which said machine is positioned, a tube beneath one edge of said table to which said table is attached, said tube journaled in a horizontal position to said piece of furniture, a coil spring within said tube, one end of which is attached to said tube and the other end to said piece of furniture, means for preventing movement of said table in relation to the surface on which said wheels stand comprising a rod having a rubber stop on the lower end thereof slidably mounted on said piece of furniture, said tube having an extension thereon adapted to bear against the end of said rod opposite the rubber stop to press said rod downwardly and cause said stop to engage said surface, and spring means normally urging said rod upwardly to disengage said rubber stop from said surface.

2,833,611
FACSIMILE RECORDER
Milton Alden, Needham, Mass.
Application July 1, 1954, Serial No. 440,705
11 Claims. (Cl. 346—101)



10. A facsimile recorder comprising a housing, a support movably mounted on the housing, a first electrode carried by the support, a cradle detachably mounted in the housing, a drum having a helical electrode around its periphery and adapted to be rotated to bring successive portions of the helical electrode into a recording zone between said electrodes, positioning means on said cradle for engaging the first electrode and positively locating it on one side of said zone, fixed bearing members at

opposite ends of said cradle facing oppositely to said positioning means, and spring urged bearing means yieldingly urging the ends of said drum against said fixed bearing means thereby positively to locate the drum

periphery on the opposite side of said zone, whereby the position of said two electrodes relative to said zone is precisely controlled independently of the position of the cradle in said housing.

CHEMICAL

2,833,612
RESTORATION OF FADED INK WRITINGS
Lloyd H. Almy, Pittsburgh, Pa., assignor to Carl E. Hultman, Pittsburgh, Pa.
No Drawing. Application July 22, 1957
Serial No. 673,135
10 Claims. (Cl. 8—7)

1. In a method of restoring faded writings made from iron ink susceptible to oxidation with consequent color fading in which the writing is treated with an aqueous solution of an alkali metal ferrocyanide of the group consisting of $Na_4Fe(CN)_6$ and $K_4Fe(CN)_6$ containing acid and an alkali metal halide, the improvement consisting in adding in said solution an ionizable soluble alkaline earth salt.

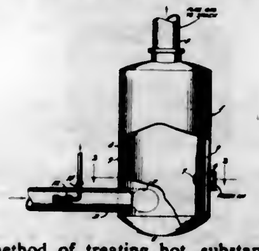
2,833,613
PROCESS FOR DYEING POLYESTER FIBER
Donald P. Hallada and Harold P. Landerl, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 26, 1955
Serial No. 543,037
9 Claims. (Cl. 8—55)

1. A carrier for applying disperse dyes to hydrophobic fiber, comprising a mixture of dimethyl terephthalate and benzanilide, each component being present in the mixture in proportion not less than 25% of the joint weight of the two, and said mixture being in powder form having an average particle size not coarser than 100 mesh sieve.

2,833,614
METHOD OF MILDEWPROOFING CELLULOSE FIBER BY ETHERIFYING, ESTERIFYING, AND QUATERNIZING THE CELLULOSE
Paul William Kerauer, Baltimore, Md.
No Drawing. Application February 16, 1954
Serial No. 410,703
1 Claim. (Cl. 8—120)

A method of mildew-proofing cellulose fiber comprising: impregnating said fiber at room temperature with a 5 to 10 percent aqueous alkali metal hydroxide solution for approximately 5 minutes and then removing the excess of alkaline solution adhering to the fiber; contacting the moist alkali treated fiber with a vapor of an epoxide of the group consisting of ethylene and propylene oxide at room temperature for approximately one hour to form with the hydroxyl groups of the cellulose, random hydroxyl ether groups; neutralizing the excess alkali on the fiber with a dilute acid solution followed by thorough washing with clear water until free of salts and acid; drying the fiber to remove residual surface water; contacting the fiber with a solution containing an aromatic sulfonyl chloride to react with the random hydroxyl ether groups to form sulfonate ester groups by immersing the above dried fiber in a solution containing an aromatic sulfonic chloride of the group consisting of benzene sulfonyl chloride and p-toluene sulfonyl chloride, said solution also containing a tertiary amine of the group consisting of trimethyl amine, triethyl amine, and benzyl dimethyl amine; the solvent in said solution being one of a group consisting of benzol, a chlorinated hydrocarbon, and petroleum naphtha; rinsing the fiber with alcoholic water to remove any hydrochloride salt adhering to the fiber followed by drying of the fibers; and then reacting the random sulfonate ester groups so formed on said fiber to form quaternary ammonium sulfonate groups by heating the fibers so dried for approximately 30 minutes at a temperature of approximately 85° C. in an approximately 3 percent benzol solution of a tertiary amine of the group consisting of trimethyl amine, triethyl amine, and o-hydroxy m-butyl benzyl dimethyl amine.

2,833,615
ABATEMENT OF SMOG IN FLUE GASES
Reyner Kollgaard, San Rafael, Calif., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
Application October 3, 1952, Serial No. 312,953
4 Claims. (Cl. 23—2)



1. The method of treating hot, substantially oxygen-free flue gas derived from the combustion of carbonaceous and hydrocarbonaceous materials, and containing smog-forming contaminants including residual non-combusted hydrocarbonaceous material having a relatively high dew point and finely-divided solid carbonaceous material which comprises the steps of: pre-cooling said flue gas to a temperature below the dew point of said residual hydrocarbonaceous material to thereby condense said hydrocarbonaceous material into a fine dispersion of liquid particles; introducing the cooled flue gas into one end of a confined cylindrical combustion zone having a peripheral permeable envelope of combustion catalyzing material, while imparting to said flue gas a whirling motion adapted to centrifugally concentrate said carbonaceous material and said condensed hydrocarbonaceous material at the surface of the catalyst envelope; introducing oxygen-containing gas into a confined annular zone surrounding said catalyst envelope; passing said oxygen-containing gas through the entire envelope of permeable catalyst into said combustion zone, thereby effecting a combustion of the centrifugally-separated heavier particles of carbonaceous and hydrocarbonaceous materials in the peripheral region of said combustion zone; and venting the treated flue gas stream from the other end of said combustion zone.

2,833,616
SEPARATION OF URANIUM FROM ZIRCONIUM AND NIOBIUM BY SOLVENT EXTRACTION
Eugene E. Voiland, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application March 26, 1954
Serial No. 419,125
6 Claims. (Cl. 23—14.5)

1. A process of extracting uranium values from an aqueous nitric acid solution containing the uranium together with zirconium and niobium values comprising adding phosphoric acid anions to said aqueous solution in a quantity to yield a concentration of between 0.005 and 0.2 M, contacting said aqueous solution with an organic substantially water-immiscible solvent whereby said uranyl values are taken up by an extract phase while said zirconium and niobium values remain in an aqueous raffinate, and separating said extract phase from said aqueous raffinate.

2,833,617
FLUORINE PROCESS FOR SEPARATION OF MATERIALS
Glenn T. Seaborg and Harrison S. Brown, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application January 30, 1943
Serial No. 474,063
13 Claims. (Cl. 23—14.5)

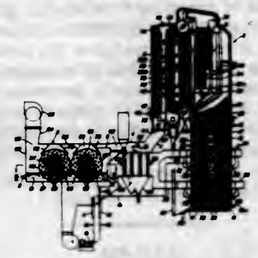
1. A method of producing substantially pure plutonium fluoride, comprising bombarding a uranium-containing mass selected from the group consisting of uranium metal, uranium carbides, uranium oxides, uranium oxyhalides, and uranium chlorides with neutrons whereby a mixture containing uranium values, plutonium values, neptunium values and fission product values is obtained; reacting said mixture with hydrogen fluoride at about 500° C. whereby that part of said fission product values that is volatile at 500° C. is volatilized and a residue is obtained; reacting said residue with fluorine gas at a temperature of between 140° and 315° C. whereby said neptunium values and uranium values are volatilized as fluorides while said plutonium values and fission product values stay in a remainder; and reacting said remainder with fluorine gas at a temperature of between 315° and 600° C. whereby said plutonium values are volatilized in the form of fluoride away from said nonvolatile fission product values.

2,833,618
SEPARATING URANIUM CONTAINING SOLIDS SUSPENDED IN A LIQUID
Edward C. Creutz, Santa Fe, N. Mex., and Eugene P. Wigner, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application May 28, 1945
Serial No. 596,218
7 Claims. (Cl. 23—14.5)

1. A process for separating uranium-containing solids suspended in a liquid, including the step of adding to said liquid a wetting agent for said solids in an amount sufficient to form a separate liquid phase, said wetting agent having a density greater than the density of said liquid and being selected from the group consisting of halogenated acetic acid ester, salicylic acid ester, halogenated alkane and xylyl bromide.

2,833,619
METHOD AND APPARATUS FOR CONTROLLING THE CONCENTRATION OF LIQUORS FROM EVAPORATORS
Vincent P. Owens, Fairlawn, N. J., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application September 24, 1952, Serial No. 311,176
16 Claims. (Cl. 23—48)

1. The method of recovering chemicals from black liquor in a recovery unit including a furnace, boiler and waste heat evaporator, comprising the steps of normally supplying black liquor of given low solid concentration to said waste heat evaporator; increasing the concentration of said black liquor in said evaporator to a given high value by normally delivering waste gases from said recovery furnace and boiler to said evaporator after said waste heat gases have passed over and among the heat absorbing surfaces of said boiler and passing said gases through said evaporator where a portion thereof contact the black liquor therein picking up moisture therefrom; delivering said high concentration liquor into said recovery unit and boiler at a given rate; and maintaining the concentration of the liquor leaving said evaporator and being delivered into said furnace substantially constant and the temperature of the gases as they leave the evaporator within predetermined limits when the liquor supplied to the evaporator drops below said given low concentration by controllably by-passing hot waste gases in said boiler to increase the temperature of the waste gases delivered to said evaporator and by controllably directing a relative greater portion of said gases passing through the evaporator into contact with the black liquor therein to thereby reduce the temperature of said gases prior to



their egress from the evaporator thereby improving the overall efficiency of the recovery unit.

5. A chemical recovery unit for recovering chemicals from black liquor comprising a furnace in which said black liquor is burned, a boiler associated with said furnace to receive the hot combustion gases thus produced, means within said boiler operable to control the temperature of the hot combustion gases as they leave the boiler, conduit means for supplying black liquor to said furnace, a direct contact evaporator comprising a container connected into said conduit so that the black liquor flows through the lower portion thereof prior to entering said furnace, means for conveying the hot combustion gases leaving the boiler to the upper portion of said evaporator for passage therethrough aond means disposed in said evaporator in the flow path of the hot combustion gases passing therethrough operable to vary the proportion of said gases that contacts the liquor contained therein.

2,833,620
AN INORGANIC FLEXIBLE FIBROUS MATERIAL CONSISTING OF THE ASBESTOS-LIKE FORM OF AN ALKALI METAL TITANATE AND ITS PREPARATION
Thurman E. Gier and Paul L. Salzberg, Wilmington, Del., and Howard S. Young, Chadds Ford, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application September 24, 1954
Serial No. 458,279
27 Claims. (Cl. 23—51)

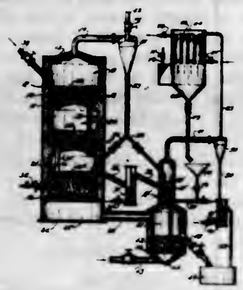
1. A method for preparing an asbestos-like fibrous, water-insoluble alkali metal titanate which comprise reacting in the presence of water, a water-soluble basic oxygen-containing alkali metal compound, wherein the alkali metal has an atomic number of at least eleven, with an oxygen-containing titanium compound in a molar ratio of 1:6 to 12:1, calculated as alkali metal oxide to titanium dioxide, at a temperature of at least 400° C. under a pressure of at least 200 atmospheres, and separating as the resulting product an alkali metal titanate in the form of water-insoluble, non-hydratable, flexible fibers.

12. As a new inorganic fibrous material, alkali metal titanate crystalline fibers each having a ratio of length to width of at least 10:1, and each being sufficiently flexible to be felted, said fibers being insoluble in water, not absorbing water of crystallization to form a hydrate, and having the general formula $M_2O \cdot (TiO_2)_n$, wherein M is an alkali metal having an atomic number of at least 11 and n has a value of from 6 to 7.

2,833,621
METHOD OF PREPARING METALLURGICAL GRADE ALUMINA
David H. Reeve, Chicago, Ill., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application May 27, 1955
Serial No. 511,752
6 Claims. (Cl. 23—142)

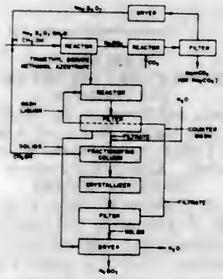
1. A method of preparing metallurgical grade alumina which comprises treating phosphate-contaminated ammonium alum at temperatures below the melting point of the crude alum under conditions of temperature sufficient to partially dehydrate said alum to the extent of removing between about 10 and about 17 moles of water per mole of alumina, admixing the partially dehydrated alum with carbon and calcining the mixture under reducing conditions, whereby an alumina of greater than 22 lbs. per cubic foot bulk density is produced.

2,833,622
CATALYTIC TREATMENT OF ALUMINA IN FLUIDIZED BEDS
Elliott J. Roberts and Walfred W. Jukkola, Westport, Conn., assignors to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware
Application November 1, 1956, Serial No. 619,718
2 Claims. (Cl. 23—142)



1. The process for calcining finely divided alumina solids to yield the alpha form of alumina, comprising establishing and maintaining a plurality of successive fluidized beds including a first bed maintained at a solids calcining temperature sufficient to form gamma alumina, a second bed maintained as a catalytic conversion bed, and a third bed maintained as a solids cooling bed; introducing alumina into the first bed and there calcining it to yield gamma alumina; introducing such gamma alumina and finely divided aluminum fluoride into the second bed and there converting gamma alumina to alpha alumina; transferring such alpha alumina into the third bed; fluidizing solids in the first and third beds by passing a stream of gas upwardly first through the third bed thence through the first bed thereby cooling solids in the third bed and preheating gas prior to its entry into the first bed; separately fluidizing solids in the second bed; and discharging gases exiting from said first bed and said second bed as separate streams.

2,833,623
RECOVERY OF BORIC ACID FROM TRIMETHYL BORATE
Frank H. May, Vladimir V. Levashoff, and Howard N. Hammar, Whittier, Calif., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 26, 1954, Serial No. 471,173
9 Claims. (Cl. 23—149)



8. A method of preparing boric acid from a mixture of trimethyl borate and methanol comprising hydrolyzing trimethyl borate contained in such a mixture with a substantial stoichiometric excess of a saturated aqueous solution of boric acid, recovering the boric acid that precipitates during hydrolysis, distilling off methanol from the hydrolysis mixture that has been freed of precipitated boric acid, crystallizing boric acid from the residue of said distillation, and recovering the crystallized boric acid.

2,833,624
PRODUCTION OF CHLORINE DIOXIDE
Jerome W. Sprauer, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 2, 1956
Serial No. 613,382
6 Claims. (Cl. 23—152)

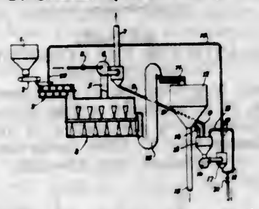
1. The method of producing chlorine dioxide comprising continuously feeding, in reacting proportions to produce chlorine dioxide, aqueous solutions of a chlorate of the group consisting of the alkali metal chlorates, the alkaline earth metal chlorates and magnesium chlorate; a chloride of the group consisting of the alkali metal chlorides, the alkaline earth metal chlorides, magnesium chloride and hydrogen chloride; hydrogen peroxide and a strong mineral acid into a reaction zone wherein said solutions are rapidly mixed and the resulting mixture is maintained for a time not exceeding 5 minutes at a temperature in the range 75 to 100° C., the solution of said acid being fed into said zone separately from the solution of said chlorate, while continuously removing reacted mixture comprising a solution of chlorine dioxide from said reaction zone at a rate corresponding to the rate of feed of materials into said reaction zone, said chlorate, chloride and hydrogen peroxide being employed in proportions equivalent to 0.1 to 2 moles of chloride ion and 0.2 to 1 mole of peroxide per mole of chlorate ion.

2,833,625
STABILIZATION OF LIQUID SULFUR TRIOXIDE AND OLEUMS
Rudolph Pick, Elizabeth, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 3, 1956
Serial No. 556,813
8 Claims. (Cl. 23—167)

1. The method of stabilizing against SO_3 polymerization a compound selected from the group consisting of liquid sulfur trioxide and oleum of SO_3 strength such

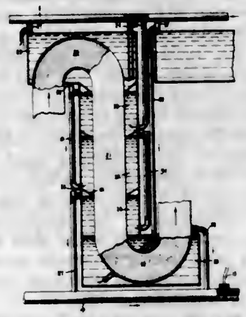
that SO_3 polymers tend to form comprising incorporating therein about 0.1 to 2.5% by weight of dimethyl sulfate and about 0.1 to 2.5% by weight of a material selected from the group consisting of silicon tetrachloride, tin tetrachloride and metal salts of fluotitanic acid.

2,833,626
HYDRATION OF LIME AND ALLIED SUBSTANCES
Norman Victor Sydney Knibbs and Edward George Stanley Thyer, Longfield, England, assignors to Fawham Developments Limited, London, England
Application August 18, 1955, Serial No. 529,196
10 Claims. (Cl. 23—188)



1. In a process for the hydration of lime wherein quicklime is admixed with water in a hydrating zone to produce powdered hydrated lime and tailings, said tailings being of a larger particle size than that of said hydrated lime, said tailings consisting essentially of unhydrated lime and a nonhydratable residue, the improvement which comprises mixing said tailings with water in an agitation zone to produce an aqueous mixture including additional hydrated lime and said residue, introducing said aqueous mixture to a settling zone to produce an overflow of said additional hydrated lime in aqueous suspension and passing said overflow to said hydrating zone.

2,833,627
METHOD FOR COOLING THE HOT, GAS-CONTAINING REACTION PRODUCTS RESULTING FROM THE OXIDATION OF TITANIUM TETRACHLORIDE
Ignace J. Krchma, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application January 3, 1956, Serial No. 556,977
4 Claims. (Cl. 23—202)

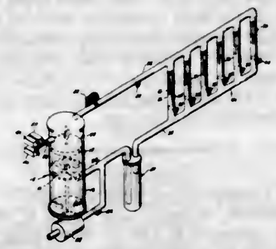


1. An improved method for cooling the hot, gas-containing reaction products resulting from the oxidation of titanium tetrachloride which comprises passing said products through a conduit while contacting the exterior of said conduit with a continuously-supplied aqueous cooling liquid maintained at a pressure which is less than the adjacent pressure of the passing gases within said conduit, continuously removing cooling liquid from contact with said conduit, and analyzing said aqueous cooling liquid for contamination by materals from within said conduit.

2,833,628
MANUFACTURE OF SILICON TETRAFLUORIDE
Melvin C. Molstad, Swarthmore, Pa., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut
No Drawing. Application June 9, 1954
Serial No. 435,628
5 Claims. (Cl. 23—205)

1. A process for preparing substantially pure silicon tetrafluoride which comprises providing a body of sulfuric acid stronger than 70% by weight H_2SO_4, continuously introducing to said body fluosilicic acid, maintaining at all times a quantity of silica in said body of sulfuric acid at least sufficient to react completely with the fluosilicic acid added, continuously feeding sulfuric acid to said body to maintain its concentration above 70% and withdrawing sulfuric acid of a concentration not less than about 70% by weight H_2SO_4, and continuously removing substantially pure silicon tetrafluoride.

2,833,629
CARBON MONOXIDE INDICATOR
Victor E. Carbonara, Manhasset, Nathan Kaplan, Belle Harbor, Gerard Spiller, Elmhurst, and Michael Wengryn, Bellerose, N. Y., assignors to Kollsman Instrument Corporation, Elmhurst, N. Y., a corporation of New York
Application September 17, 1953, Serial No. 380,792
9 Claims. (Cl. 23—254)



1. An indicator for measuring carbon monoxide content in a sample of air comprising a gas reservoir having lower and upper compartments, said lower compartment being filled with water, electrically energized pump means in communication with said lower compartment for forcing a sample of air into said lower compartment to displace said water into said upper compartment, a reaction system adapted to be connected to said gas reservoir for receiving said sample, said reaction system including a thermistor-catalyst bed for oxidizing the carbon monoxide in said sample and for sensing the percent carbon monoxide as a decrease in thermistor resistance in dependence upon temperature rise brought about by oxidation, conditioning means interposed between said reservoir and said bed for reducing the relative humidity of said sample below a predetermined value, valve means normally isolating said reaction system from said gas reservoir, and control means including a float switch in said upper compartment for de-energizing said pump means and opening said valve means when the water in said upper chamber reaches a predetermined level.

2,833,630
APPARATUS FOR LEACHING
Hirsch Loevenstein, Los Angeles, Calif., assignor to Harvey Machine Company, Incorporated, Torrance, Calif., a corporation of California
Application January 21, 1954, Serial No. 405,313
6 Claims. (Cl. 23—267)

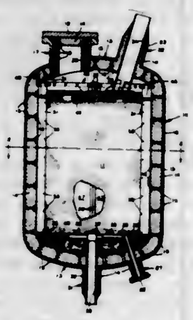
1. Apparatus of the character described including, a plurality of like vertically disposed leaching units on a common central axis spaced one above the other, each

unit including an elongate vertically disposed draft tube with a substantially cylindrical outer wall, said tube being open at its upper and lower ends and being adapted to receive material at the upper end and to discharge it from the lower end, and a vertically disposed cylindrical body surrounding the tube, the body being closed at its lower end by a bottom and adapted to receive material from the tube and direct it from the bottom of the tube toward the upper end of the body, and means conducting material



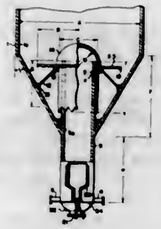
from one unit to another including a conduit depending from the upper end of the body to the upper end of the draft tube of the next lower unit, there being an opening in the bottom of the body concentric with the said central axis, and a single material circulating means for said units including, a vertically disposed shaft extending through the units through the openings in the bottoms, and an impeller on the shaft within the tube of each unit to move material downwardly therethrough.

2,833,631
LINED REACTOR VESSEL
David B. Rossheim, Teaneck, and Victor K. Tock, River Edge, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application May 17, 1954, Serial No. 430,108
1 Claim. (Cl. 23—288)



A reactor vessel comprising a normally vertically disposed cylindrical shell having a refractory insulating lining covering the internal wall surface thereof and defining a reaction zone including a section adapted to house a bed of subdivided contact material, inlet means in the top of said vessel for passing reactant material to said reaction zone, outlet means in the bottom of said vessel for outlet of reacted material from said reaction zone, a flow impervious annular member united to the vessel wall positioned in the region of said inlet means and surrounding said inlet means, said annular member extending across said insulating lining, a light gauge impervious metal lining covering the portion of said insulating lining defining said bed housing section and extending upwardly to said annular member and united thereto, said metal lining formed of a plurality of similarly united sections, each of said sections having a channel-like cross section, said channel-like sections juxtaposed with their respective flanges extending inwardly to simulate folds therein to thereby provide for substantially unrestrained expansion and contraction of said metal lining, and a plate member of approximately triangular section united to said annular member and said sections and extending into the upper end of the space between said juxtaposed channel sections to seal said space to the flow of reactant material therethrough.

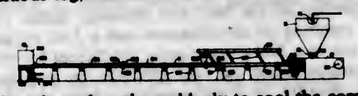
2,833,632
APPARATUS FOR THE COMBUSTION OF FLUID COKE
Peter H. Spitz, New York, N. Y., and Gerard P. Canevari, Metuchen, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application May 27, 1954, Serial No. 432,859
6 Claims. (Cl. 23—288)



1. Apparatus of the type described for the combusting and heating of carbon containing particles, comprising, in combination, a combustion vessel adapted to contain a fluid bed of carbon-containing particles therein supported by the bottom end wall of said vessel, means extending into said fluid bed for supplying gaseous materials thereto, said means including a vertically disposed, centrally located conduit projecting through and a substantial distance above the bottom end wall of said vessel and opening into said vessel, said conduit being mounted substantially integrally with said bottom end wall, means for supplying a free oxygen-containing gasiform medium to said conduit, a distributing cap enclosing the upper end of said conduit and suspended in said vessel concentrically with said conduit in vertical spaced relation thereto, said cap extending generally vertically downwards just short of the bottom end wall of said vessel, and substantially below the upper end of said conduit in radially spaced relation to said conduit and forming therewith a downwardly opening, elongated, relatively narrow annular passageway for discharging gases directly into said fluid bed while preventing particle flow into said gas conveying conduit, and distributing means exteriorly and integrally supported by said distributing cap and terminating in spaced relation to the shell of said vessel for distributing gases issuing from said annular passageway in a uniform pattern of discharge throughout the lower portion of said fluidized bed.

2,833,633
APPARATUS FOR FORMING LOGS OF COMPRESSIBLE MATERIALS
John R. Hecht, Vancouver, British Columbia, Canada
Application January 10, 1955, Serial No. 480,940
23 Claims. (Cl. 44—13)

1. In apparatus for forming logs of compressible materials, such as sawdust, a long tube through which compressed material is moved, means in the tube for resisting the movement of the material therethrough and creating a back pressure therein to compress said material into a continuous log, and means for directing large quantities



of cooling air to the tube suddenly to cool the compressed material, said sudden cooling increasing the binding effect of the compressed material.

2,833,634
SYNERGISTIC ANTIOXIDANTS AND THEIR USE
Eugene F. Hill, Birmingham, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application January 26, 1953, Serial No. 333,371
5 Claims. (Cl. 44—69)

5. A leaded olefinic gasoline containing about 0.005 to about 0.01 percent by weight of a mixture of two parts of N,N'-di-sec-butyl-p-phenylenediamine with one part of a synergist selected from the class of ascorbic acid and ascorbyl palmitate.

2,833,635
GASOLINE FUEL
Eugene F. Hill, Birmingham, and David O. De Pree, Royal Oak, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application April 29, 1954 Serial No. 426,568
14 Claims. (Cl. 44—69)

5. A fuel of adapted for use in spark ignition internal combustion engines which consists essentially of hydrocarbon fuel of the gasoline boiling range containing up to 6.3 grams of lead per gallon as a lead alkyl antiknock agent and a phosphonitrilic halide having from 3 to 4 atoms of phosphorus per molecule, said phosphonitrilic halide being present in amount such that the phosphorus-to-lead atom ratio is from about 0.0067 to about 0.67.

2,833,636
STABILIZATION OF ORGANIC COMPOUNDS
William K. T. Gleim, Orland Park, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application January 12, 1954 Serial No. 403,660
12 Claims. (Cl. 44—75)

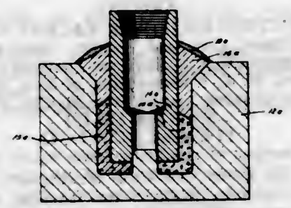
1. A substance selected from the group consisting of hydrocarbon and fatty materials subject to deterioration in storage containing, as an inhibitor for said deterioration, a stabilizing amount of N-aryl-ortho-aminophenol.

11. Gasoline normally subject to oxidative deterioration containing from about 0.0001% to about 5% by weight of N-aryl-ortho-aminophenol and from about 0.00001% to about 0.5% by weight of a compound selected from the group consisting of alkylene polyamine and N,N'-di-alkyl-p-phenylene diamine.

2,833,637
BUFFING WHEEL
Henry G. Zucker, Matawan, and Warren S. Wilkinson, Rumson, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 9, 1953 Serial No. 391,151
5 Claims. (Cl. 51—295)

1. A buffing wheel section comprising an assemblage of a plurality of layers of woven cloth, each of said layers of cloth being uniformly but lightly impregnated throughout its entire body with a lubricant composition free of any abrasive and including a non-drying fatty acid as an essential constituent.

2,833,638
HARD FACING MATERIAL AND METHOD OF MAKING
Robert G. Owen, Los Angeles, Calif., assignor to Servco Manufacturing Corporation, Long Beach, Calif., a corporation of California
Application March 24, 1955, Serial No. 496,498
9 Claims. (Cl. 51—309)



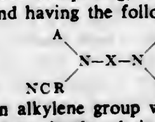
1. A hard surfacing material comprising a plurality of contiguous bodies of cemented metal carbide bonded together by and dispersed throughout a metal matrix, said cemented carbide bodies each comprising particles of metal carbide cemented together by a ductile cementing metal having a lower melting point than said carbide and comprising at least one metal selected from the group consisting of cobalt, iron and nickel, said matrix filling the spaces between said bodies, being alloyed to said cementing metal at the surfaces of said bodies and inwardly thereof for a limited distance, and comprising a tough, ductile and shockproof metal having a melting point not substantially higher than the melting point of said cementing metal.

2,833,639
PRE-EMERGENCE HERBICIDE CONTROL WITH DINITRO-PHENOLS
Keith C. Barrons and John D. Eastman, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application April 6, 1953 Serial No. 347,167
2 Claims. (Cl. 71—2.4)

1. A method which comprises applying to the soil surface of an area previously planted with a large seeded crop (*a*) an aqueous dispersion of a phytotoxicant selected from the group consisting of the 2,4-dinitro-6-loweralkyl-phenols and their water-soluble salts at a substantially uniform dosage of from 1 to 18 pounds of 2,4-dinitro-6-loweralkyl-phenol per acre and (*b*) an alkali at a substantially uniform dosage per acre of at least the weight of 2,4-dinitro-6-loweralkyl-phenol applied to said soil, said applications being completed at least 48 hours prior to the normal time for emergence of said crop plants.

2,833,640
METHOD AND COMPOSITION FOR AMMONIATION OF SOILS
Frederick C. Bersworth, Framingham Center, Mass., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application September 10, 1954 Serial No. 455,343
9 Claims. (Cl. 71—27)

1. A composition for application to soil to induce ammoniation thereof comprising, a solid carrier blended with a compound having the following general formula:



wherein X is an alkylene group which interposes two to three carbon atoms in the chain between the indicated nitrogen atoms; R is chosen from the group consisting

of methylene, ethylene, isopropylene, trimethylene; A is selected from the group consisting of $—CH_2CH_2OH$ and longer chain low molecular weight β-hydroxy alkyl groups; B is selected from the group consisting of A, $—CH_2COOM$, and —RCN; and M is selected from the group consisting of hydrogen, alkali metal and ammonium.

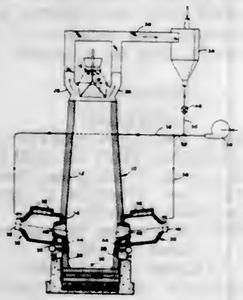
2,833,641
PRODUCTION OF LOWER VALENT HALIDES
Eugene Wainer, Cleveland Heights, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
No Drawing. Application May 16, 1956
Serial No. 585,171
11 Claims. (Cl. 75—1)

1. The method of producing lower valent halides of a metal of the group consisting of titanium, zirconium, hafnium, vanadium, niobium and tantalum which comprises bringing a higher valent halide vapor of one of said metals into contact with a lower valent sulfide of the same metal in the form of particles at least as fine as about 200 mesh, the valence of the metal in the lower valent sulfide being no higher than the valence of the metal in the resulting lower valent halide product, and effecting reaction between said metal halide vapor and metal sulfide by maintaining the reactants at a temperature at least as high as the volatilization temperature of said higher valent metal halide but below that at which the resulting lower valent metal halides disproportionate to the metal itself.

2,833,642
BINDER ADDITIVE FOR MAKING ORE PELLETS
Norval G. Barker and Robert Nordgren, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
No Drawing. Application November 10, 1954
Serial No. 468,142
3 Claims. (Cl. 75—3)

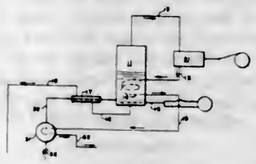
1. A mineral ore pellet composed of an agglomerate of finely divided ore particles held together by a binder in which the binder includes from 0.03 to 0.1% of alkaline soybean meal and from 0.2 to 0.5% of bentonite.

2,833,643
APPARATUS FOR AND METHOD OF REDUCING ORE
Louis L. Newman, Washington, D. C.
Application April 19, 1956, Serial No. 579,188
14 Claims. (Cl. 75—41)



1. In the production of iron in a blast furnace having walls defining a hearth, a bosh and a stack wherein a charge including a mixture of iron ore, carbonaceous solids and fluxing agents is supplied to the top of said stack and blast air is supplied to the lower portion of the bosh, the method of operation which comprises introducing into a combustion chamber of substantially circular cross-section a combustible mixture including a slag-forming fuel in a quantity sufficient to provide a major portion of the heat and reducing agents required for the smelting of the iron ore and a free oxygen-containing gas in a fuel-oxygen ratio insufficient for the complete combustion of the fuel, partially burning the combustible mixture at a temperature above the fuel ash fusion temperature to produce gaseous products of combustion rich in carbon monoxide, causing the burning fuel and oxygen-containing gas so introduced to move axially through the combustion chamber in a helical path along the circumferential wall of sufficient length to cause the release of the ash content of the fuel and the deposition of slag on the circumferential wall to form a sticky surface thereon sufficient to cause fuel particles to adhere thereto, passing the carbon monoxide-rich gases thus generated into the lower portion of the blast furnace, supplying the remaining heat and iron ore reducing requirements of the charge by reacting the carbonaceous solids in the charge with the blast air and mixing the gases so generated with the carbon monoxide-rich gases from the combustion chamber, passing the gases so mixed upwardly through the descending blast-furnace charge, and withdrawing slag separated in the combustion chamber in a molten condition.

2,833,644
RESOLUTION OF ALKALI METAL AMALGAMS
Julian M. Avery, Greenwich, Conn., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware
Application November 17, 1955, Serial No. 547,466
5 Claims. (Cl. 75—66)



1. The process of resolving a sodium amalgam comprising feeding a dilute amalgam to a boiling, sodium enriched amalgam in a boiling zone, the boiling amalgam being heated by indirect heat exchange with a condensing mercury rich vapor, boiling an enriched mercury vapor from said boiling liquid, compressing said vapor and returning said compressed vapor for indirect heat relationship and condensing adjacent the boiling liquid.

2,833,645
REDUCTION OF CHROMIUM OXIDES
Hendrik de W. Erasmus, Lewiston, N. Y., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application August 19, 1955
Serial No. 529,577
6 Claims. (Cl. 75—84)

1. Method of reducing chromium oxide by carbon which comprises preparing a mixture of chromic oxide and a carbonaceous reducing agent which is stoichiometric in carbon and oxygen with respect to the carbon monoxide-forming reaction, pelleting said mixture, maintaining the pellets so formed at a temperature of at least 1100° C. and below the melting point of any part of said pellets until the rate of evolution of carbon monoxide decreases markedly, cooling and comminuting the treated pellets, readjusting the composition of the comminuted material, if necessary, to obtain a stoichiometrical balance between carbon and oxygen, blending the comminuted material, pelleting the comminuted material, and maintaining the pellets so formed at a pressure less than atmospheric

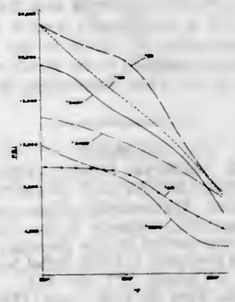
and at a temperature of at least 1100° C. and below the melting point of any part of said pellets until the rate of evolution of carbon monoxide decreases markedly.

2,833,646
NICKEL BASE ALLOY GLASS MOLDING ELEMENTS AND METHOD OF MAKING SAME
Gerald L. Lee, Plainfield, N. J., assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application June 20, 1955
Serial No. 516,759
7 Claims. (Cl. 75—170)

1. An alloy having improved resistance to thermal shock and the corrosive effects of molten glass and comprising about 20% to 40% copper, about 0.5% to 17% aluminum, about 0.01% to 0.5% titanium, about 0.03% to 0.5% boron, about 0.2% to 1.5% silicon, carbon up to about 0.2%, about 0.02% to about 0.1% magnesium, about 0.5% to about 2.5% manganese and the balance essentially nickel.

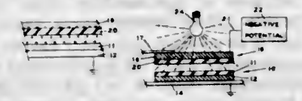
4. The method for producing sound, thermal shock-resistant and corrosion-resistant cast glass molding elements which comprises establishing a molten bath containing copper and the balance essentially nickel oxidizing the bath with an addition of about 0.25% to 0.35% of nickel oxide, deoxidizing the bath with at least about 0.25% silicon and at least about 0.5% manganese, carburizing the bath with about 0.1% to 0.2% carbon, then adding about half the aluminum required to give an aluminum content of about 3.5% to 5.5%, then adding titanium in an amount to give a titanium content of about 0.3% to 0.4%, adding the remainder of the aluminum to give an aluminum content of about 3.5% to 5.5%, then adding boron to give a boron content of about 0.06% to 0.1%, adding at least about 0.05% magnesium at a time not preceding said boron addition and casting metal from said bath to provide castings of glass molding elements containing about 28% to 30% copper, about 0.3% to 0.4% titanium, about 3% to about 5.5% aluminum, about 0.06% to 0.1% boron, about 0.1% to 0.15% carbon, about 0.8% to about 1.2% silicon, about 0.03% to 0.06% magnesium, about 0.5% to about 1.2% manganese and the balance essentially nickel.

2,833,647
TUNGSTEN-ZIRCONIUM-NICKEL CATHODES
Richard L. Hoff, Norristown, and Ardrey M. Bounds, Laverock, Pa., assignors to Superior Tube Company, Norristown, Pa., a corporation of Pennsylvania
Application March 7, 1957, Serial No. 644,610
3 Claims. (Cl. 75—170)



2. An indirectly-heated cathode structure such as a sleeve or cup characterized by high strength at cathode-operating temperatures, sustained high level of emission and negligible sublimation and interface impedance and composed of an alloy containing 0.05% to 1.5% zirconium; 2% to 4% tungsten; at least one of the activating agents aluminum and magnesium in the range of not more than 0.07% magnesium, 0.1% aluminum; and the balance essentially nickel with not more than about 0.02% silicon, 0.1% iron, 0.1% maganese, 0.08% carbon, 0.05% copper, as residuals.

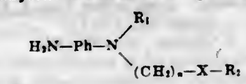
2,833,648
TRANSFER OF ELECTROSTATIC CHARGE PATTERN
Lewis E. Walkup, Columbus, Ohio, assignor, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York
Application July 16, 1953, Serial No. 368,408
6 Claims. (Cl. 96—1)



1. A method of forming an electrostatic latent image on a xerographic plate comprising a photoconductive insulating layer overlying a conductive backing member and in electrically conductive contact therewith, said method comprising positioning closely spaced over the photoconductive insulating layer a conductive electrode separated from said photoconductive insulating layer by a layer structure comprising a solid insulating film, the surface of the insulating film facing the photoconductive insulating layer being in virtual contact therewith, applying to said electrode a first potential, with respect to the backing member, of a magnitude of at least about 100 volts while simultaneously exposing the photoconductive insulating layer to a light image pattern to selectively increase its conductivity selectively allowing current flow to the surface of the photoconductive insulating layer in virtual contact with said insulating layer in accordance with the light image pattern, said first applied potential being of a sufficient magnitude to cause charge transfer in areas exposed to light between the surfaces in virtual contact, cutting off said light image pattern from said photoconductive insulating layer, and subsequently applying to said electrode a second potential, with respect to the backing member, of a polarity opposite to the polarity of said first potential and of a magnitude of at least about 100 volts and of a sufficient magnitude to cause transfer between the surfaces in virtual contact at least in the areas previously exposed to light thereby forming an electrostatic latent image on the photoconductive insulating layer usable in xerography.

2,833,649
LIGHT-SENSITIVE DIAZOTYPE MATERIAL
Oskar Süs, Wiesbaden-Biebrich, and Manfred Grundkötter, Wiesbaden, Germany, assignors, by mesne assignments, to Keuffel & Esser Co., Hoboken, N. J., a corporation of New Jersey
No Drawing. Application August 6, 1954
Serial No. 448,393
Claims priority, application Germany August 11, 1953
12 Claims. (Cl. 96—91)

1. Light sensitive diazotype material for development by the semi-wet process comprising a base material coated with a light-sensitive layer including a diazo compound of a para-phenylene diamine of the general formula:



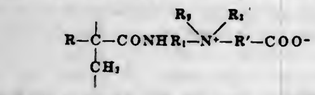
wherein

Ph is a phenylene radical
X is selected from the group consisting of O, S and SO_2

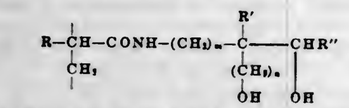
R_1 is selected from the group consisting of H and alkyl radicals having 1 to 3 carbon atoms
R_2 is an aromatic radical directly attached to X by a carbon atom of the aromatic ring
n is selected from the group consisting of 2 and 3

2,833,650
PHOTOGRAPHIC EMULSIONS
Comer Drake Shacklett, Roselle, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 7, 1955
Serial No. 486,696
19 Claims. (Cl. 96—114)

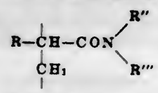
1. An emulsion of light-sensitive silver halide in a water-permeable colloid binding agent wherein at least 2% by weight is an addition copolymer having hydrophilic properties composed solely of a substantial number of recurring intralinear units of (*a*) at least one type of unit taken from the group consisting of those of formulae:



wherein R is a member taken from the group consisting of hydrogen, alkyl radicals of 1 to 3 carbon atoms, phenyl and cyclohexyl, R_1 is a saturated divalent, aliphatic hydrocarbon radical of 2 to 6 carbon atoms, R_2 is an alkyl radical of 1 to 3 carbon atoms, R_3 is an alkyl radical of 1 to 3 carbon atoms, and R' is a saturated divalent, aliphatic hydrocarbon radical of 1 to 4 carbon atoms, and



wherein R is a member taken from the group consisting of hydrogen, alkyl of 1 to 3 carbon atoms, phenyl and cyclohexyl, R' is a member taken from the group consisting of hydrogen and alkyl of 1 to 3 carbon atoms, R'' is a member taken from the group consisting of hydrogen and alkyl of 1 to 3 carbon atoms, m is a cardinal number from 0 to 4, n is a cardinal number from 0 to 1 and the sum of m and n equals at least 1 and (*b*) at least one type of unit of the formula:



wherein R, R'' and R''' are members taken from the group consisting of hydrogen, alkyl of 1 to 3 carbon atoms, phenyl and cyclohexyl, said unit (*a*) being present in an amount of at least 5 mol percent.

2,833,651
METHOD OF MAKING PROTEIN FOOD PRODUCT
Mortimer Louis Anson, New York, N. Y., and Morton Pader, West Englewood, N. J., assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine
No Drawing. Application June 3, 1954
Serial No. 434,313
3 Claims. (Cl. 99—14)

1. In the preparation of a protein food product, the steps which comprise adjusting the pH of protein filaments to within the range of 6 to 7.5 and then heating the filaments at a temperature of at least 100° C. to convert them into chewy protein gel.

2,833,652
METHOD OF MECHANICALLY SEPARATING LUPULIN FROM HOPS
Winifred A. Nantz, Milwaukee, Wis.
No Drawing. Application September 15, 1954
Serial No. 456,325
4 Claims. (Cl. 99—50.5)

1. A method of obtaining lupulin from fresh hops which comprises freezing the hops, then shaking the frozen hops to free frozen lupulin particles therefrom and separating the frozen lupulin particles from the remainder of the frozen hops and dehydrating the lupulin particles.

2,833,653
WET-ROASTING OF GREEN COFFEE
Fletcher A. Chase, Morris Plains, and Samuel Lee, Fair Lawn, N. J., assignors, by mesne assignments, to American Home Products Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application October 27, 1954
Serial No. 465,144
4 Claims. (Cl. 99—71)

1. In a process of preparing a coffee extract suitable for use in the manufacture of a solid soluble coffee preparation, in which process unroasted coffee is heated with water in a pressure vessel at a temperature above 300° F., the improvement which comprises: suspending comminuted unroasted coffee in water in a closed pressure vessel, heating the contents of the vessel to a temperature in the range 375°–450° F., continuing the heating in this range until a sudden rise of pressure of the order of 75–150 pounds per square inch, gage, occurs, and separating the aqueous extract from the grounds.

2,833,654
FOOD PRODUCT AND METHOD AND APPARATUS FOR MAKING THE PRODUCT
Henry Sonnensbein and Bruce J. Leet, Milwaukee, Wis.
Application September 28, 1954, Serial No. 458,856
5 Claims. (Cl. 99—100)

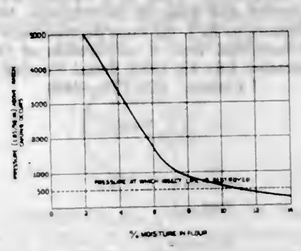


1. The method of making a potato basket comprising the steps of placing a given quantity of shredded potatoes in a bowl-shaped mold having a peripheral flange, forming the shreds generally uniformly over the inside surface of the mold with a substantially greater thickness over the flange, compressing the shreds in the mold with the greatest compression applied to the shreds over the flange, and frying the shreds while maintaining the compression thereon.

2,833,655
METHOD OF MAKING NON-CAKED INFESTATION-RESISTANT FLOUR
Robert A. Larsen, Minneapolis, Minn., and Samuel A. Matz, Chicago, Ill., assignors to the United States of America as represented by the Secretary of the Army
Application February 1, 1954, Serial No. 407,619
2 Claims. (Cl. 99—153)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Method of preparing ordinary flour for shipment at materially reduced shipping weight and volume by drying and compression under controlled conditions so as to avoid caking of said flour, and simultaneously freeing said flour from insect infestation, said method comprising drying said flour to a moisture content not

exceeding about 7.5%, and applying to said dried flour a pressure of at least about 500 pounds per sq. in. but

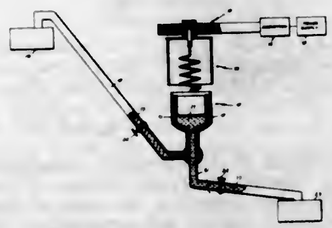


not in excess of the value represented by the curve shown in the drawing for the moisture content at which compression is effected.

2,833,656
METHOD AND MEANS FOR TREATING PERISHABLE AGRICULTURAL PRODUCTS
Arthur F. Kaluser and Hugh F. Fitzpatrick, Riverside, Calif., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
No Drawing. Application June 2, 1953
Serial No. 359,216
4 Claims. (Cl. 99—154)

1. A method of treating perishable agricultural products which comprises, contacting said products with an aqueous solution containing at least 0.02% by weight of a water soluble salt of orthophenylphenol, at least 0.5% by weight of hexamethylenetetramine, and also containing an alkaline substance in sufficient concentration to maintain the pH of said solution above a value of 11 to depress hydrolysis of said salt.

2,833,657
MICROWAVE IRRADIATION OF FRUIT JUICES
David A. Copson, Waltham, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application January 8, 1954, Serial No. 402,936
5 Claims. (Cl. 99—221)



1. The method of treating fruit juices and fruit juice concentrates, said method comprising causing a continuous stream of said juice material to flow at ambient temperature, filming a portion of said continuous stream, irradiating and treating said filmed portion with microwave energy having a wavelength in the range of substantially 1 to 500 millimeters for a period of time sufficient to substantially completely inactivate the enzymes and microorganisms therein, and maintaining said filmed portion in intimate heat exchange relationship with a substantially untreated portion of said continuous stream whereby heat in said irradiated juice material is continuously removed and absorbed by said untreated material.

2,833,658
ORGANOSILICON RELEASE AGENTS
William C. May, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application May 26, 1955
Serial No. 511,425
1 Claim. (Cl. 106—38.24)

A method of molding an article which comprises applying to a mold an aqueous dispersion of from .1–5 percent by weight based on the weight of the dispersion of a dimethylsilyl ester of a hydroxy compound selected from the group consisting of ethylene glycols and propylene glycols, said ester containing from 1–60 percent by weight based on the total weight of the ester of dimethylsilyl units calculated as $Me_2Si=$, molding the article in said mold and removing the article therefrom.

2,833,659
METHOD OF MAKING CERAMIC PRODUCT AND MOLDABLE MIX THEREFOR
William H. Bauer, Piscataway Township, Middlesex County, N. J., assignor to G. & W. H. Corson, Inc., Plymouth Meeting, Pa., a corporation of Delaware
No Drawing. Application November 9, 1953
Serial No. 391,113
15 Claims. (Cl. 106—71)

1. In the manufacture of a heavy clay ceramic body from fly ash and a material selected from the group consisting of clays and shales, and containing between about 10% and 95% by weight, based on the solids in the mix, of the selected material, the step which comprises intimately mixing with said fly ash and said selected material, water and between about 0.01% and about 5%, by weight, based on the solids in the mix, of a lignosulphonic acid compound selected from the group consisting of lignosulphonic acid and water-soluble salts thereof.

2,833,660
PLASTER
Vito G. Busatti, New York, N. Y.; Josephine Busatti, administratrix of said Vito G. Busatti, deceased
No Drawing. Application December 31, 1952
Serial No. 329,120
6 Claims. (Cl. 106—114)

1. A wall plaster composition suitable when mixed with water for application to a surface with a trowel in a single coat and also for application in more than one coat without waiting for the underneath coat to dry, said composition consisting essentially of lime and plaster of Paris as its principal constituents, the plaster of Paris being present in an amount from 5 to 100% of the weight of the lime, boric acid as a setting rate retarder in an amount of from 0.1 to 4% of the weight of the plaster of Paris, and starch in an amount of from 0.3 to 10% of the weight of the lime, said composition being characterized by ease of application when applied with a trowel and great resiliency, toughness and strong adherence to surfaces on which it is applied after setting.

2,833,661
COMPOSITION COMPRISING WATER SOLUBLE ORGANIC POLYMER AND COLLOIDAL SILICA AND PROCESS OF COATING THEREWITH
Ralph K. Iler, Brandywine Hundred, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 28, 1952
Serial No. 323,140
5 Claims. (Cl. 106—193)

1. An aqueous medium having an alkali-stabilized colloidal silica sol of ultimate particle size in the range 0.01 to 0.03 micron dispersed therein and a water-soluble organic polymer dissolved therein, the polymer being

selected from the group consisting of polyvinyl alcohol and methyl cellulose and the silica having a molecular weight of from 0.6 million to 50 million as determined by light scattering in aqueous solution.

2,833,662

WHEAT AND CORN STARCH ADHESIVES AND METHOD OF MAKING THEM

Levi M. Thomas and Thomas J. Neel, Worthington, and Frank Paul McCombs, Columbus, Ohio, assignors to National Industrial Products Company, a corporation of Ohio

No Drawing. Application December 21, 1953
Serial No. 399,644
5 Claims. (Cl. 106—213)

2. A starch product for use as an adhesive consisting of a gelatinized starch carrier in combination with an aqueous raw starch mixture carried thereby, said aqueous raw starch mixture consisting of about one part by weight of raw starch comprising a mixture of at least 30% and not more than 52% of dry raw wheat starch and at least 48% and not more than 70% of dry pearl raw corn starch and about 3.5 parts by weight of water.

2,833,663

METHOD OF MAKING ASPHALT EMULSIONS

Robert F. Jenkins, Cleveland, and Elwood D. Wells, Lakewood, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

Application August 17, 1953, Serial No. 374,628
3 Claims. (Cl. 106—277)

1. A method of producing a stable asphalt emulsion having improved adhesion and other requisite properties, which comprises adding an aqueous solution of aluminum sulfate to asphalt which is maintained at a temperature above the boiling point of water and intimately mixing the aluminum sulfate solution with the asphalt, and then emulsifying the resulting asphalt mixture with an aqueous solution of an emulsifier and an excess of a strong base to form an asphalt emulsion.

2,833,664

SEALING PUTTY

Alfred P. Knapp, Jackson Heights, N. Y., assignor to Knapp Mills Incorporated, Long Island City, N. Y., a corporation of New York

No Drawing. Application April 17, 1953
Serial No. 349,565
7 Claims. (Cl. 106—287)

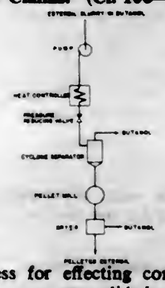
1. A putty-like sealing composition having a pliancy adapting it to be pressure shaped to fill cracks, crevices and the like emitting injurious radiation, consisting of a mixture of a relatively large proportion of fine protective ray-absorbing metal powder particles including soft metal particles and with a relatively small proportion of a soft coating and binding material selected from the group consisting of oils and greases sufficient in amount to film the powder particles, said metal particles being compacted and agglomerated together and coalesced and joined into aggregates of various groupings with metal-to-metal contacts between portions of the surfaces of the said particles and by thin intermediate films of said soft material so that the density of the composition is 70% to 95% of the density of the metal of the particles and there is a coalescence of the said metal-to-metal contacted particles forming a pliant mass adapted to be pressure shaped into close fitting engagement with said cracks, crevices and the like and adapted to provide a continuous barrier seal against radiation blocked by the metal of said particles of said composition.

2,833,665

SHAPED BODY OF POROUS SILICA PARTICLES AND METHOD FOR ITS PRODUCTION

Roger E. Drexel and John R. McWhorter, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 23, 1953, Serial No. 369,889
7 Claims. (Cl. 106—308)



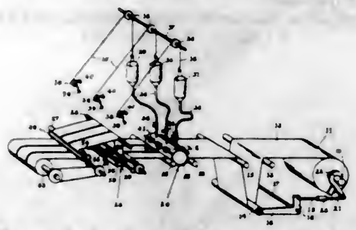
1. In a process for effecting controlled densification of a particulate, porous solid having an amorphous silica internal structure and a specific surface area of at least 200 square meters per gram, the steps comprising making a fluid mixture of the solid and an organic liquid having a boiling point below 200° C. selected from the class consisting of primary and secondary alcohols, hydrocarbons, and ketones, heating the mixture under pressure to a temperature above the boiling point of the organic liquid, reducing the pressure and vaporizing off organic liquid until the amount remaining is about from 20% of the maximum amount which can be present in the porous solid in an apparently dry, free-flowing powder form to the amount required to fill the pores of the solid, and mechanically compacting the solid containing the residual liquid.

2,833,666

METHOD OF MAKING INK TRANSFER RIBBONS

George G. Neidich, Rochester, N. Y., assignor, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application October 18, 1954, Serial No. 462,815
2 Claims. (Cl. 117—4)



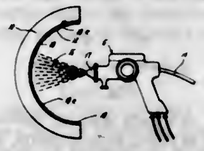
1. The method of simultaneously manufacturing a plurality of separate ink transfer ribbons of the same or different colors comprising the steps of feeding a continuous web in contact with a plurality of laterally spaced inking means of the desired color for impregnating same with parallel bands of ink with each band being separated by a narrow uninked strip, cutting said web in lines between adjacent bands along the uninked strips, and applying to the cut edges of the web a liquid adhesive binding material, said web being cut before the ink has sufficient time to migrate to the cutting line and said binding material being applied before the ink impregnant has sufficient time to migrate to the cut edges, whereby the cutting of the web along the uninked strips avoids staining of the cutting means, the application of the binding material to edges which are ink-free produces more strongly bonded edges, and the application of the binding material only to the cut edges permitting the migration of the ink impregnant thereto produces ribbons having increased ink-carrying surfaces.

2,833,667

METHOD OF LINING A BEARING SHELL

Noel L. Dalton, Houston, Tex.

Application June 7, 1954, Serial No. 434,695
4 Claims. (Cl. 117—50)



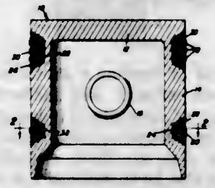
1. In a method for the production of lined bearings, the steps of, heating a bearing shell having a layer of tinning material bonded thereto to a temperature sufficient to soften the tinning material to a semi-solid condition, and then spraying a relatively thin layer of babbitt onto the layer of tinning material while the tinning material is in such semi-solid condition to effect a fusion of the babbitt with the tinning material whereby the applied babbitt and the tinning material are firmly bonded to the bearing shell the layer consisting of the fused tinning and babbitt material being between .004 and .006 inches in thickness, and the inner portion of said babbitt layer is fused with said tinning material and the outer portion of said babbitt layer comprises babbitt material only as the tinning and babbitt layers cool, the thickness of the applied babbitt layer being such that the force of shrinkage developed by the applied babbitt layer as said babbitt layer cools is insufficient to affect the bond between the tinning material and the bearing shell.

2,833,668

METHOD OF BONDING ALUMINUM TO A METAL

Joseph J. Dalley, East Peoria, and John E. Fox, Washington, Ill., assignors, by mesne assignments, to John Altorfer, Peoria, Ill.

Application June 10, 1954, Serial No. 435,696
14 Claims. (Cl. 117—50)



3. The method of bonding a plurality of metals together including a light metal, a ferrous metal and an intermediate metal comprising a metal selected from a group consisting of molybdenum, titanium, cobalt and nickel, said method including the steps of roughening the surface of said light metal, spraying said intermediate metal against the light metal at a temperature above the boiling point of said light metal and vaporizing a surface portion thereof, precipitating the vaporized metal on the exposed surface of the intermediate metal, and bringing said ferrous metal in molten condition into contact with said precipitated metal above the melting point thereof to form an alloy therewith.

2,833,669

METHOD OF APPLYING DEODORISING, DISINFECTING, FUNGICIDAL AND BACTERICIDAL SUBSTANCES TO CARRIERS AND IN PARTICULAR FIBROUS CARRIER SUBSTANCES

Josef Ziegler, Mainz (Rhine), Germany, assignor to Hakle-Werke Hans Klenk, Mainz (Rhine), Germany

No Drawing. Application October 21, 1955
Serial No. 542,110
Claims priority, application Germany October 22, 1954
10 Claims. (Cl. 117—60)

1. A method of applying substances chemically active against microorganisms comprising at least one substance selected from the group of deodorizing, disinfecting, fungicidal and bactericidal substances to the surfaces of a carrier web of paper-type fibrous material in such a manner that said substances remain separable from the web surface by light rubbing, comprising the steps of preparing a mixture of at least one of said chemically active substances in an agent having affinity to the fibrous material from which said carrier web is made, adding thereto a finishing glue adhering to the surface, but non-penetrating into the interior of said web, and a wetting agent, homogenizing said mixture to form an emulsion therefrom, swelling said carrier web by moistening the same, moving said web and applying thereon continuously said emulsion so as to distribute the same evenly thereon as a doughlike chemically active layer, applying pressure to said layer on said swelled web, thereby causing the layer to close the pores in said web, and subsequently drying said web and layer to form a surface film containing said chemically active substances on said web, which film can easily be rubbed off.

2,833,670

AFTER-TREATMENT OF TEXTILE FABRIC HAVING CURED FORMALDEHYDE LIBERATING RESINS AND ARTICLE FORMED THEREBY

Philip B. Roth, Somerville, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 13, 1956
Serial No. 591,013
10 Claims. (Cl. 117—62)

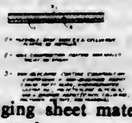
1. A process for reducing the amount of formaldehyde liberated from a fabric having a cured formaldehyde liberating resin thereon, said cured resin being capable of liberating formaldehyde in amounts in excess of 0.3% based on the weight of the fabric when stored for 20 hours at 100° F. and at 100% relative humidity, which comprises after-treating said resin-treated fabric with an amount of a formaldehyde acceptor, said formaldehyde acceptor being a nitrogenous compound capable of reacting with formaldehyde to form a condensation product, said amount being sufficient to reduce the amount of formaldehyde liberated when fabric so treated is stored for 20 hours at 100° F. and 100% relative humidity to 0.3% and less based on the weight of the fabric, and thereafter drying the fabric.

2,833,671

NON-BLOCKING COATED SHEET MATERIAL

Murry C. Funk, Menasha, and John F. Helms, Neenah, Wis., assignors, by mesne assignments, to American Can Company, New York, N. Y., a corporation of New Jersey

Application May 22, 1956, Serial No. 586,541
7 Claims. (Cl. 117—76)



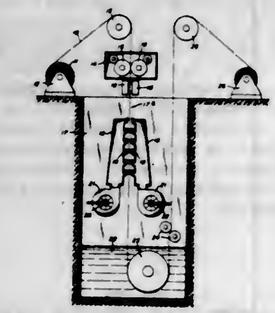
1. A flexible packaging sheet material coated with a heat-sealable normally tacky wax composition and overcoated with a non-blocking composition comprising a solid binding agent selected from the group consisting of ethyl cellulose, polyamides and polyvinyl acetate, and a non-blocking component selected from the group consisting of solid straight chain saturated fatty acids, solid hydrogenated castor oil, and solid polyethylene glycols, said solid binding agent being present in amount of at least 2 percent by weight of the solids in the non-blocking composition.

2,833,672

METHOD AND APPARATUS FOR CONTINUOUSLY APPLYING A PROTECTIVE FILM OF LACQUER TO STEEL STRIP

Aner N. Laubscher and George H. Rendel, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

Application May 17, 1955, Serial No. 508,891
6 Claims. (Cl. 117—103)



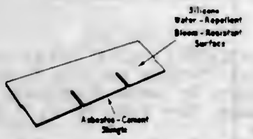
1. In a method of coating ferrous-metal strip, the steps comprising drawing the strip along a predetermined path at a speed of several hundred F. P. M., applying a continuous film of liquid containing a volatile solvent to at least one surface thereof, at one point in said path, progressively heating the strip immediately thereafter to a temperature between 500 and 800° F. substantially instantaneously and before substantial evaporation of the solvent from the film, by electro-magnetic induction, thereby flashing the solvent into vapor, and immediately thereafter bringing the heated strip into contact with cooling fluid in a region closely adjacent said point of heating, thereby cooling the strip at a rate at least equal to that at which it was heated.

2,833,673

WATER-REPELLENT ASBESTOS-CEMENT STRUCTURAL ARTICLES AND METHOD OF MAKING

Thomas F. Hart, Eggertsville, N. Y., and Ronald S. Wishart, Jr., Lakewood, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application March 25, 1954, Serial No. 418,757
6 Claims. (Cl. 117—126)



1. An asbestos-cement shingle having a water-repellent bloom-resistant surface formed by coating said surface with a silicone composition, in a loading amount of from 20 grams to 40 grams per square of surface, said silicone being the hydrolysis and condensation copolymer product of amyltrichlorosilane and methyltrichlorosilane in about equal mole proportions.

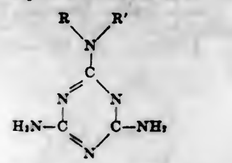
2,833,674

COMPOSITIONS FOR THE TREATMENT OF TEXTILES, TEXTILES OBTAINED AND PROCESSES FOR THE TREATMENT THEREOF

Melvin D. Hurwitz, Huntingdon Valley, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

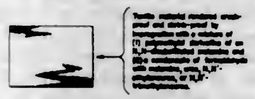
Application June 21, 1955, Serial No. 517,061
20 Claims. (Cl. 117—139.4)

1. A composition comprising an aqueous solution of a mixture of 5 to 85 mole percent of a polymethylol derivative of a compound of Formula I:



I

where R and R' are each selected individually from the group consisting of allyl, hydroxyethyl, and alkyl having 1 to 3 carbon atoms, and 95 to 15 mole percent respectively of at least one condensate of formaldehyde with a member selected from the group consisting of melamine, urea, N,N'-ethyleneurea, and N,N'-trimethyleneurea.

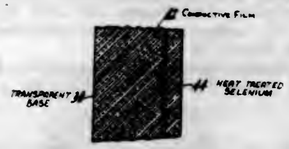


2,833,675

METHOD OF IMPARTING RED RESPONSE TO A PHOTOCONDUCTIVE TARGET FOR A PICKUP TUBE

Paul K. Weimer, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 1, 1953, Serial No. 383,572
6 Claims. (Cl. 117—201)



1. The method of forming a photoconductive layer on a supporting base member, said method comprising depositing a layer of amorphous selenium on said base member, said base member being maintained at a temperature below that at which crystalline selenium is formed, heating said layer uniformly at a temperature of the order of 80–100° C., and continuing the heating for a time within the approximate range of 15–1.5 minutes whereby the red response of said layer approaches a maximum.

2,833,676

METAL COATED DIELECTRICS AND METHOD FOR PRODUCING SAME

Jerome D. Heibel and John W. Schell, Erie, Pa., assignors to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania

Application August 17, 1954, Serial No. 450,334
4 Claims. (Cl. 117—213)



1. In the method of gas plating copper coatings on the surface of titanate ceramic dielectrics by flowing into contact with the heated surface of the ceramic a mixture of inert gas and carbureted vapor of a copper compound having the property of vaporizing at a temperature below that at which it decomposes by pyrolysis, the improvement which consists in first freeing the ceramic surface of adsorbed oxygen by substitution of adsorbed inert gas for the adsorbed oxygen prior to flowing the mixture into contact with the surface whereby the pyrolysis of the copper compound takes place on an oxygen free surface and the resultant copper coating has low resistance characteristic of pure copper rather than high resistance characteristic of a copper coating having codeposited oxides.

2,833,677

RECORDING PAPER FOR SPARK RECORDERS

Wilhelm Hermann Gunther Baumiein, Gernsbach, Baden, Germany, assignor to Schoeller & Hoesch, Gernsbach, Baden, West-Germany

Application June 7, 1955, Serial No. 513,716
Claims priority, application Germany June 9, 1954
3 Claims. (Cl. 117—217)



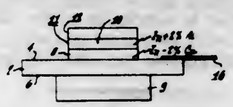
1. A multi-layer recording paper for use in spark recording by printing intelligence by electrically burning away a metal coating, comprising a basic paper layer which is conductive, a metallic top layer having a low electric conductance across its plane, and a uniform and continuous dielectric layer interposed between the two layers and throughout electrically separating said basic layer and said top layer.

2,833,678

METHODS OF SURFACE ALLOYING WITH ALUMINUM-CONTAINING SOLDER

Lorne D. Armstrong and Michael J. Bentivegna, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application September 27, 1955, Serial No. 537,006
13 Claims. (Cl. 148—1.5)



1. Semiconductor device comprising a semiconductive body of material selected from the group consisting of germanium and silicon and an electrode surface alloyed thereto, said electrode consisting essentially of an alloy of indium with 0.1% to 10% copper, up to 2% aluminum, and including a small proportion of the material of said body.

2,833,679

METHOD OF COATING PROCESS ALUMINUM AND ITS ALLOYS

Morris A. Steinberg, University Heights, Ohio, assignor to Horizons Incorporated, Princeton, N. J., a corporation, of New Jersey

No Drawing. Application April 15, 1955
Serial No. 501,709
3 Claims. (Cl. 148—6.11)

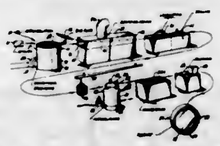
1. The method of coating aluminum and aluminum-base alloys with a coating metal which is more electronegative than aluminum, which comprises establishing a molten body of the coating metal, forming on at least a portion of the surface of said molten body of coating metal a fused, homogeneous salt composition comprising a major amount of an aluminum chloride-alkali metal chloride constituent consisting essentially of between about 52 mol percent and 82 mol percent of aluminum chloride and between about 18 mol percent and 48 mol percent of at least one alkali metal chloride from the group consisting of sodium chloride, potassium chloride and lithium chloride, and between about 1 percent and 25 percent by weight of the aluminum chloride-alkali metal chloride constituent of a chloride of at least one metal from the group consisting of zinc chloride, stannous chloride, lead chloride and cadmium chloride, passing the article to be coated downwardly through the supernatant fused salt composition and into the underlying molten body of coating metal, whereby the aluminum oxide film on the article is removed and a coating of the metal of the metal chloride of said group of metal chlorides is formed on the article, as the article passes through the supernatant fused salt composition and before it is immersed into the molten body of the coating metal, and thereafter withdrawing the article from the molten body of said coating metal with a coating of the coating metal thereon.

2,833,680

METHOD FOR MAKING OPTICAL LAMINATIONS

William C. Kneeling, Los Angeles, Calif.

Application January 30, 1956, Serial No. 562,186
15 Claims. (Cl. 154—2.65)



1. A method for making an optical lamination which includes the steps of: pouring a plastic solution on the central part of a first optical element; spinning said first element about an axis through said central part to centrifugally spread said plastic solution as a thin coating on the surface of said first element; exhausting gas over said spreading coating by blowing it from the peripheral region of said spinning first element to remove particles thrown off by said spreading coating; laminating a second optical element to the coated surface of said first optical element; and subjecting said lamination to softening temperature over 170° F. and elevated pressure to expel residual air from between said first and second optical elements.

2,833,681

EPOXY RESINS CURED WITH A FLUORINE-CONTAINING ANHYDRIDE

Samuel J. Nelson and James S. Sconce, Niagara Falls, and Paul Robitschek, Wilson, N. Y., assignors to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Application August 23, 1956
Serial No. 605,705
14 Claims. (Cl. 154—43)

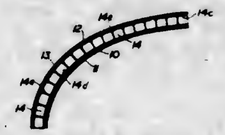
1. A polymerizable composition comprising (A) a glycidyl ether of a polyhydric compound having a 1,2-epoxy equivalency of more than one and (B) a fluorobicyclo heptene dicarboxylic anhydride.

2,833,682

REINFORCED STRUCTURES

Patrick David de Laszlo, London, England

Application November 30, 1953, Serial No. 395,245
2 Claims. (Cl. 154—45.9)



1. A substantially rigid reinforced structure comprising a layer of reinforcing material curved in two planes,

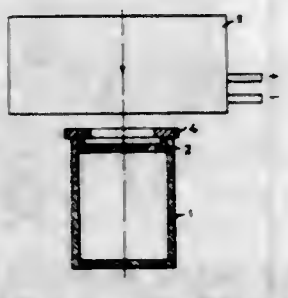
a plurality of elongated articulated hollow forms each consisting of endwise aligned substantially rigid hollow elements constituting consecutive sections of a single transversely notched channel member providing spaced side walls flexibly joined together at their ends, said forms being also curved in two planes to conform to said layer of reinforcing material, and at least one additional layer of reinforcing material having portions paralleling said first named layer, said forms being positioned between said first named layer and said additional layer and bonded to both of them.

2,833,683

METHOD OF WELDING THERMOPLASTIC CONTAINER PARTS

Hans Hubert Quandt, Karlsruhe, Germany, assignor to Rudolf Mohr, Karlsruhe, Germany

Application April 23, 1956, Serial No. 580,090
Claims priority, application Germany April 26, 1955
1 Claim. (Cl. 154—83)



A method of welding a cover of thermoplastic synthetic resin material, having a central portion projecting from a peripheral flange, in the open end of a container of thermoplastic synthetic resin material, which consists in positioning the cover over the open end of the container with the central portion located in said open end and the peripheral flange seated on the edges of the side walls of the container, positioning an apertured sheet metal member in the form of a frame and acting as a heat bridge in contact with the cover so that the sides of the frame extend over the area around the peripheral flange which is to be welded to the container, applying a heated body to the heat bridge so that heat flows through said heat bridge to soften the thermoplastic material of the container at the edges of said side walls and the material of the cover over the area adjacent said flange, to cause said parts to be fused together, separating said heated body and said heat bridge out of contact with each other, cooling the welded container and cover and the heat bridge and separating the heat bridge from the cover of the container.

2,833,684

PROCESS OF MAKING LAMINATED PLASTIC-IMPREGNATED PAPER TUBES

Joseph Horowitz, Hanson, Mass., assignor to Babbitt Pipe Co., Inc., West Hanover, Mass., a corporation of Massachusetts

No Drawing. Application October 18, 1956
Serial No. 616,604
1 Claim. (Cl. 154—83)

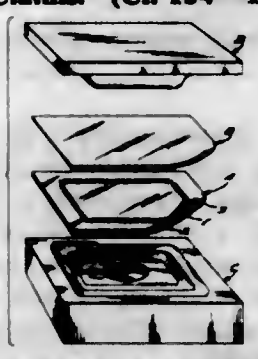
The process of making laminated reinforced substantially non-porous plastic tubes which comprises mixing 100 pounds of a solution of 60% phenol formaldehyde resin and 40% alcohol with between 7 and 60 pounds of a thermosetting copolymer of approximately 60% vinyl chloride and 40% acrylonitrile, at about 80° F., spraying said mixture onto paper whereby said phenolic resin penetrates the paper fibers and said copolymer penetrates said paper fibers to a less extent and remains primarily on the surface thereof, baking said sprayed paper for about 30 minutes at about 250° F. to evaporate moisture in said paper, to eliminate said alcohol, and to cause said resin to enter the "B" stage thereof, laminating said paper, forming said paper into a tube containing a plurality of laminations, and curing said resin under a pressure of about 1,000 p. s. i. while heating the same to about 340° F. for about 4 minutes whereby said resin and said copolymer become chemically linked, and thereafter baking said tube at about 300° F. for about 3 hours.

2,833,685

PROCESS OF APPLYING A DECORATIVE SURFACE TO A MOLDED ARTICLE OF THERMOSETTING RESIN

Winthrop S. Lawrence, Landenberg, Pa., assignor to Kaumagraph Company, Wilmington, Del., a corporation of Delaware

Application April 23, 1956, Serial No. 579,950
3 Claims. (Cl. 154—110)



1. The process of applying a decorative surface to an article made by compression molding of a thermosetting resin molding powder which comprises impregnating and coating only one surface of an absorbent paper with a thermosetting resin of the same group as said thermosetting resin molding powder, printing a decorative design on the uncoated surface of said absorbent paper to form a decorated sheet, impregnating a second absorbent paper, placing said impregnated absorbent paper over the decorative design on said decorated sheet to form a two-sheet assembly, positioning said assembly on the article in the opened mold prior to completion of the curing step with the decorative design away from said article in said mold, completing the curing step and removing the molding.

2,833,686

BONDING POLYTETRAFLUOROETHYLENE RESINS

Bernd Wilhelm Sandt, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 20, 1955
Serial No. 516,790
3 Claims. (Cl. 154—139)

1. A method of forming strong non-porous bonds between two surfaces, at least one of which is of polytetrafluoroethylene resin, which comprises the steps of forming an assembly by disposing between and in intimate contact with said surfaces a resinous copolymer of 5 to 50% by weight of hexafluoropropylene and 95 to 50% by weight of tetrafluoroethylene, and heating the resulting assembly to a temperature of at least 327° C.

2,833,687

METHOD FOR CONTROLLING NEMATODE INFESTATIONS AND NEMATOCIDES USEFUL THEREFOR

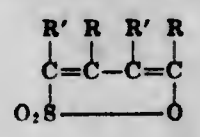
W E Craig, Philadelphia, and John O. Van Hook, Roslyn, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application February 7, 1956
Serial No. 563,834
5 Claims. (Cl. 167—22)

1. A method of controlling nematode infestations of soil which comprises introducing 2,2,2-trichloro-1-cyanoethyl acetate into the soil infested with nematodes.

2,833,688
ADDITION PRODUCTS
Van R. Geertner, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 12, 1955
Serial No. 552,255
11 Claims. (Cl. 167—33)

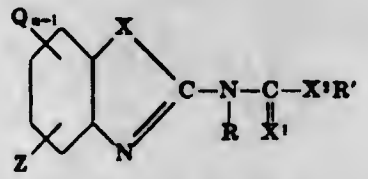
1. Adducts in which 2 moles of a hydrocarbon substituted hydrazine which is free of non-benzenoid unsaturation and has from 1 to 12 carbon atoms are combined with one mole of a dienic sultone of the formula



in which R is an alkyl radical of from 1 to 4 carbon atoms and R' is selected from the class consisting of R and hydrogen.

2,833,689
FUNGICIDAL COMPOSITIONS COMPRISING BENZOTHIAZOLE AND BENZOXAZOLE CARBONIC ACID ESTERS AND METHOD OF CONTROL OF FUNGI
Henry J. Gerjovich, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 15, 1957
Serial No. 646,212
4 Claims. (Cl. 167—33)

3. The method for the control of fungi comprising applying to organic material subject to fungus infection, in a fungicidally effective amount, a compound selected from the group represented by the formula



wherein X, X^1 and X^2 are selected from the group consisting of oxygen and sulfur, R is selected from the group consisting of hydrogen and lower alkyl groups of less than five carbon atoms, R' is an aliphatic hydrocarbon radical of less than five carbon atoms, Q is halogen, Z is selected from the group consisting of hydrogen and nitro, and *n* is a whole number less than 4.

2,833,690
MAGNESIUM HYDROXIDE SUSPENSIONS CONTAINING SEA-PLANT HYDROCOLLOID
Durward N. Entrekin, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application August 15, 1956
Serial No. 604,060
3 Claims. (Cl. 167—56)

1. A pharmaceutical composition comprising an aqueous suspension of magnesium hydroxide in which has been incorporated a refined sea-plant hydrocolloid, said hydrocolloid essentially comprising salts of a polysaccharide sulfate derived primarily from a plant of the group consisting of *Chondrus crispus* and *Gigartina mamillosa*.

2,833,691
BLOOD PRESERVATION BY ION EXCHANGE RESIN DECALCIFICATION
Nicholas Paul Klass, Pennsauken, N. J., and Arnold E. Osterberg, Waukegan, Ill.; said Klass assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware, and said Osterberg assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
No Drawing. Application July 24, 1951
Serial No. 238,404
5 Claims. (Cl. 167—78)

1. In the method of preserving whole blood, the step which essentially comprises, contacting blood, immediately on withdrawal from a living body, with a mixture of cation exchange resins buffered to pH 7.2–7.4, said mixture comprising about 2%–10% on a volume/volume basis of the potassium salt form thereof, and the remainder of the mixture in the sodium salt form thereof, whereby the calcium ion of the blood plasma is substantially absorbed on the cation exchange resin, and the blood plasma and blood cell potassium-sodium ionic balance is substantially maintained.

2,833,692
PROCESS FOR PRODUCING A VITAMIN B_{12} ACTIVE PRODUCT FROM SEWAGE SLUDGE
Bernard Wolnak, Chicago, and Robert E. Zinn, Wilmette, Ill., assignors to Sewerage Commission of the City of Milwaukee, Milwaukee, Wis., a corporation of Wisconsin
Application November 15, 1954, Serial No. 468,705
1 Claim. (Cl. 167—81)

A continuous process for producing a vitamin B_{12} active product from dry sewage sludge which comprises contacting said dry sludge with a solution enriched with a vitamin B_{12} extract as hereinafter defined, forming a layer of the thus treated sludge, moving said layer to a leaching zone, passing a vitamin B_{12} solvent onto and through said layer in said zone to leach vitamin B_{12} from said sludge in said layer and to provide said vitamin B_{12} extract, recycling a first portion of said extract through said layer in said zone for further enrichment of vitamin B_{12} in said extract, cycling a second portion of said extract to said dry sludge-contacting step, and withdrawing a third portion of the vitamin B_{12} extract from the system for further concentration.

2,833,693
TRANSPARENT SHAVING CREAM
George M. Naimark, Cleveland, Ohio
No Drawing. Application September 30, 1953
Serial No. 383,395
1 Claim. (Cl. 167—85)

A transparent shaving preparation of the brushless type taking the form of a water-white easily spreadable jelly consisting, in parts by weight, of 1.5% to 3.5% of a pharmaceutical grade sodium carboxymethyl cellulose of the high viscosity type characterized by a degree of hydroxyl substitution per anhydroglucose unit of less than about 1.3, 5% to 10% of a polyol selected from the group consisting of glycerol, propylene glycol and d-sorbitol, 0.5% of a surface-active agent having beard-softening properties, a cosmetic preservative, soluble in water, in quantity sufficient to be effective, and water as needed to make up the balance, the jelly being transparent, physiologically inert, devoid of graininess, free of any tendency to attack common metals, of a consistency such that it will not only flow from a collapsible tube under pressure but will maintain its form upon being released from the tube, and characterized by a pH in the range between 6 and 9.

2,833,694

PROCESS FOR SPLITTING RACEMATES

Vladimir Prelog, Zurich, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application August 16, 1956
Serial No. 604,341
Claims priority, application Switzerland August 25, 1955
26 Claims. (Cl. 195—2)

1. Process for splitting racemates, which comprises subjecting racemates of bicyclic-alicyclic compounds containing at least one grouping reducible with the formation of a new centre of asymmetry, to the action of reducing enzymes produced by cultures of microorganisms, isolating at least one of the resulting optically active products and subjecting any hydrogenated product obtained to the action of a dehydrogenating agent.

2,833,695

PRODUCTION OF DEXTRAN-DEXTRINASE

Earl R. Kooi, La Grange, Ill., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application June 24, 1955
Serial No. 517,913
8 Claims. (Cl. 195—66)

2. The method of producing dextran-dextrinase and ketoses which comprises increasing the yield of dextran-dextrinase by culturing an organism from the group consisting of *Acetobacter capsulatum* and *Acetobacter viscosum* in a nutrient medium containing an added polyhydric alcohol as the source of carbon at a pH within the range of about 3.5 to 7.5 until a substantial amount of enzyme is produced and recovering dextran-dextrinase therefrom.

2,833,696

CULTURE PROCESS FOR ERYTHROMYCIN A

Waldo C. Friedland, Waukegan, Frank W. Denison, Jr., Lake Bluff, and Merlin H. Peterson, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

Application March 1, 1954, Serial No. 413,386
12 Claims. (Cl. 195—80)

1. A method of producing an erythromycin A-containing fermentation broth having as the erythromycin component therein substantially only erythromycin A which comprises: forming a fermentation culture medium containing an assimilable source of carbon, inorganic salt, and nitrogen; the nitrogen content of said medium being a maxium of about 1.2 mg./ml. culture medium; and cultivating under aerobic conditions an erythromycin-producing strain of *Streptomyces erythreus* therein to form a substantial amount of the said erythromycin A in the said culture medium without having therein appreciable amounts of other erythromycin products.

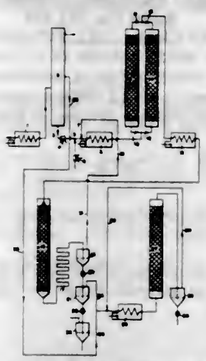
2,833,697

DESULFURIZATION OF CRUDE OILS BY CATALYTIC HIGH-PRESSURE HYDROGENATION

Will Oettinger, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application October 19, 1954, Serial No. 463,213
Claims priority, application Germany October 23, 1953
6 Claims. (Cl. 196—24)

1. In a process for desulfurizing crude oils by catalytic high-pressure hydrogenation, the steps which comprise (1) expelling from the crude oil by distillation at least one fraction, (2) subjecting the residue to catalytic refining high-pressure hydrogenation with hydrogen at about 200 to 1000 atmospheres and 350° C. to 490° C., (3) cooling the resultant reaction mixture at about the reaction pressure to a temperature below 100° C., (4) separating the gas and liquid fractions formed in step 3 from each other, (5) returning the gas recovered from step (4) to step (2), (6) reducing the pressure of said liquid fraction recovered from step 4 to a pressure at least 50 atmospheres lower but above atmospheric pressure



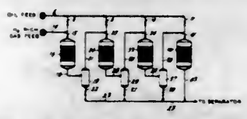
to liberate a quantity of hydrogen-containing gas, and (7) refining by catalytic high-pressure hydrogenation with gas liberated from step (6) at least one of the fractions separated by the distillation of the crude oil in step (1).

2,833,698

HYDROCARBON HYDROCONVERSION WHERE PETROLEUM FRACTIONS ARE TREATED IN PARALLEL REACTIONS WHILE PASSING HYDROGEN SERIALLY THROUGH THE REACTORS

James L. Patton, Ramsey, N. J., and Charles Bednars, Port Washington, N. Y., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application April 27, 1954, Serial No. 425,956
13 Claims. (Cl. 196—28)



1. A process for desulfurizing a sulfur-containing hydrocarbon oil feed which comprises separating said feed into a plurality of separate portions of substantially the same boiling range, contacting one portion of said oil feed with a mass of hydrogenation catalyst in the presence of added hydrogen under suitable desulfurization conditions including superatmospheric pressure such that a desulfurized product and unreacted hydrogen are obtained, separating hydrogen containing gas from the desulfurized product under essentially the pressure of reaction, recovering said desulfurized product, contacting another portion of said hydrocarbon oil feed with the separated hydrogen-containing gas under liquid phase desulfurization conditions with a second mass of hydrogenation catalyst in a second desulfurization zone operated at a lower pressure than the first desulfurization zone, thereby providing a pressure differential sufficient for the flow of hydrogen-containing gas from the first to the second desulfurization zone.

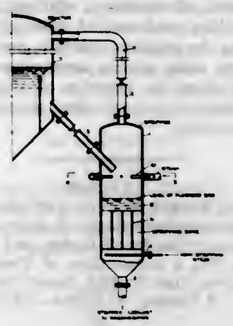
2,833,699

CATALYST STRIPPING PROCESS

Robert S. Dicks, Charlotte, N. C., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application August 10, 1953, Serial No. 373,306
7 Claims. (Cl. 196—52)

1. In the stripping of a powdered hydrocarbon conversion catalyst prior to regeneration of the catalyst by burning off carbonaceous deposits and wherein the contaminated catalyst is transferred in a pseudo liquid condition by gravity flow from a hydrocarbon conversion zone to a separate stripping zone, the improvement which comprises blasting the pseudo liquid catalyst entering said stripping zone with a jet of steam to thoroughly disperse the catalyst, immediately separating the dispersed catalyst from the resulting mixture of steam and hydrocaron, immediately withdrawing the mixture of steam and hydrocarbon from said stripping zone out of contact with the catalyst, collecting the separated catalyst in a pseudo liquid bed, and passing other steam up through the pseudo liquid bed thereby to further strip the catalyst of hydrocarbon constituents.



2,833,700

RESOLUTION OF MIXTURES OF HYDROGEN IODIDE, WATER, AND IODINE

Herman J. Baumgartner, Denville, and Charles M. Gable, Lafayette, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 21, 1957
Serial No. 641,461
18 Claims. (Cl. 202—40)

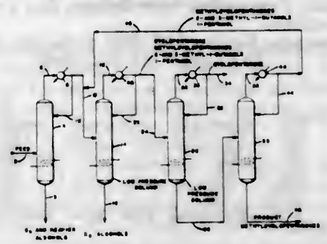
1. A process for recovering water from a dilute solution of hydrogen iodide and iodine in water comprising passing said solution into an intermediate part of a rectification zone wherein there is maintained an iodide ion concentration of at least about 15% by weight on an iodine-free basis in the liquid material in the part of said zone above the point at which the said solution enters it, recovering substantially pure water as overhead product and a concentrated solution of hydrogen iodide and iodine in water as bottoms product.

2,833,701

VACUUM DISTILLATION OF CRUDE C_5 ALCOHOLS

Kent R. Barnard, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application August 13, 1954, Serial No. 449,679
8 Claims. (Cl. 202—52)



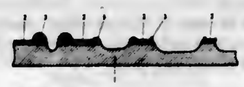
1. In a process for the recovery of 1-pentanol, 2-methyl-1-butanol and 3-methyl-1-butanol from a crude mixture containing close-boiling ketones and wherein both low- and high-boiling impurities if originally present in said mixture have been removed therefrom, the steps which comprise subjecting said mixture to fractionation in a distillation zone at a pressure ranging from about 30 to about 100 mm. and at a temperature of from about 50° to about 80° C. to take overhead substantially all of said close-boiling ketones in the form of a narrow-boiling mixture with a substantial portion of said 2-methyl-1-butanol and 3-methyl-1-butanol together with a minor amount of 1-pentanol and withdrawing as bottoms a mixture of 1-pentanol, 2-methyl-1-butanol and 3-methyl-1-butanol substantially free from said ketones, thereafter removing the bulk of said ketones from the alcohols in the above-mentioned overhead by subjecting the latter to fractional distillation at a pressure range from about 300 to about 800 mm. at vapor temperatures of from about 100° to about 130° C. and combining the resulting alcohol-rich overhead mixture with the feed to said first-mentioned fractionation step whereby an excess of alcohols in said zone is maintained over that required to force overhead substantially all of the ketones in said crude mixture.

2,833,702

METHOD FOR THE MANUFACTURE OF A METAL RELIEF PRINTING PLATE

Albertus Elfers, Haarlem, Netherlands, assignor to N. V. Quod Bonum, Haarlem, Netherlands, a corporation of the Netherlands

Application March 21, 1955, Serial No. 495,458
Claims priority, application Denmark March 22, 1954
7 Claims. (Cl. 204—17)



1. A method including the use of a current-supplying anode for the manufacture of a metal relief printing plate comprising coating a metal plate with a photomechanical layer, next exposing said layer to an image to be reproduced and developing said layer, electrodepositing a metal on the bared areas of the plate in a galvanic bath in which the plate functions as the cathode while the anode is at a distance of less than 3 millimeters from the cathode, etching the plate with an etching agent capable of dissolving the electro-deposited metal and the base metal and then removing the remaining portions of the photo-mechanical layer.

2,833,703

REMOVAL OF CHROMIUM FROM PLATING BATHS AND ELECTROPLATING PROCESS

Erich Lane, Watertown, Conn., assignor to MacDermid Incorporated, Waterbury, Conn., a corporation of Connecticut

No Drawing. Application November 13, 1957
Serial No. 696,058
16 Claims. (Cl. 204—44)

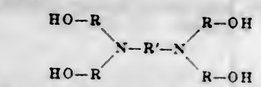
1. A process for removing trivalent chromium contaminants from a metal cyanide plating bath, which comprises adding thereto a substituted anthraquinone capable of forming a chromium lake therein selected from the group consisting of 1,2-dihydroxy anthraquinone, ring substituted 1,2-dihydroxy anthraquinones and mixtures thereof, contacting the thus treated bath with activated carbon and then separating the carbon, chromium lake and adsorbed substituted anthraquinone from the bath.

2,833,704
PRODUCTION OF TITANIUM
Eugene Wainer, Cleveland Heights, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
No Drawing. Application August 16, 1956
Serial No. 604,343
9 Claims. (Cl. 204—64)

1. The method of producing a product containing titanium, sulfur and carbon, from which the titanium may be readily obtained by electrolysis of said product in a fused salt bath which comprises: reacting a titanium carbide with a titanium sulfide at an elevated temperature above 1500° C.; removing gaseous carbon- and sulfur-containing reaction products from the reaction zone during said reaction, until the titanium-sulfur-carbon product formed contains at least about 90% by weight of titanium, and recovering the titanium-sulfur-carbon product formed during said process.

2,833,705
CADMIUM PLATING
John B. Winters, Westlake, Ohio
No Drawing. Application December 14, 1956
Serial No. 628,237
21 Claims. (Cl. 204—50)

15. A cadmium cyanide plating bath composition containing a totally hydroxyalkylated alkylene diamine having the formula



in which each R and R′ is an alkyl radical containing from 2 to 4 carbon atoms, in a concentration of about 0.1 to about 1 gram per liter.

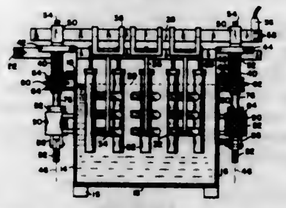
2,833,706
ELECTROLYTIC METHOD OF PRODUCING TITANIUM
Eugene Wainer, Cleveland Heights, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
No Drawing. Application May 16, 1956
Serial No. 585,172
7 Claims. (Cl. 204—64)

1. The method of producing a metal of the group consisting of vanadium, niobium, tantalum, titanium, zirconium and hafnium by electrolyzing a fused salt melt containing a lower valent halide of said metal which comprises: bringing a halide vapor of said metal in which the valence of the metal is higher than the valence of the metal in the lower valent halide to be electrolyzed into contact with a sulfide of one of said metals in the form of particles at least as fine as about 200 mesh the valence of the metal in the sulfide being no higher than the valence of the metal in the resulting lower valent product, effecting reaction between said halide vapor and said solid sulfide by maintaining the reactants at a temperature at least as high as the volatilization temperature of said higher valent metal halide but below that at which the resulting lower valent metal halide disproportionates to the metal itself, recovering the lower valent transition metal halide from the reaction mass by extracting same with at least one molten alkali metal halide, and electrolyzing the molten product containing the recovered lower valent transition metal halide whereby the transition metal is obtained as a cathode deposit.

2,833,707
ELECTROLYTIC PRODUCTION OF ALUMINA
Pietro Guareschi, Genoa, Italy
No Drawing. Application May 21, 1951
Serial No. 227,513
Claims priority, application Italy January 29, 1951
1 Claim. (Cl. 204—96)

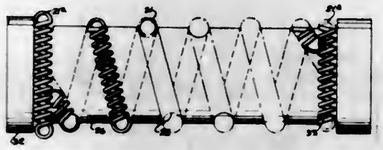
A process for electrolytic production of alumina, comprising the steps of roasting a starting silico-aluminous material, attacking said roasted material with sulphuric acid, decanting the resulting solution, purifying said solution from iron salts, adding ammonium sulphate in a ratio of 4–10 times the quantity of aluminum sulphate present, and electrolyzing said final solution to precipitate aluminum hydroxide.

2,833,708
ELECTROPLATING APPARATUS
Milton B. Hammond and Glade B. Bowman, Edgeworth, Pa., assignors to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application May 5, 1955, Serial No. 506,338
9 Claims. (Cl. 204—222)



1. Apparatus for electroplating a three-dimensional article having convex surfaces comprising a tank for fluid in which the article is to be immersed, a member thereon adapted to suspend the article in the fluid and having means for conducting current therefrom, rows of elongated electrodes defining an unobstructed open space in the tank, spaced apart means for moving the member and the suspended article through a curved path oscillating so as to weave between the electrode rows to continually reverse direction with respect thereto and to the length of the tank to constantly change the distance between the article and the electrodes, said member having opposite end structures disposed one over each of said means, connections supporting each end structure with a rotating fit upon the means at that end for motion in a path closing on itself, and thrust delivery means for applying thrust to shiftably operate said spaced apart means for moving the member and the suspended article in reciprocatory motion in a direction perpendicular to the plane of rotation aforesaid, said means constituting the sole means of support of said member.

2,833,709
ELECTROLYTIC WATER CORRECTION DEVICE
Roland L. Welcker, New Orleans, La., assignor to The Welcker Corporation, New Orleans, La., a corporation of Louisiana
Application February 24, 1953, Serial No. 338,472
16 Claims. (Cl. 204—248)



1. An improved electrolytic water correction device comprising a cathode of resilient wire of a positive material wound in a coil of open coarse-lead convolutions, and an anode of negative material about which said coil is wound externally in a serpentine with the axis and included space of the coil outstanding beyond the outer surface of said anode against which successive points on the exteriors of the convolutions contact in helically spaced order to support the coil from the anode only at such spaced points, the spaced contact points of said convolutions being electrical contacts and expanding on the anode to permit of axial expansion and contraction of the coil and simultaneous expansion and contraction of the serpentine and the pitch of the helices in accompaniment to corresponding changes in size of said anode.

2,833,710
ELECTRODE ASSEMBLY
Dorothy Mielke, Indianapolis, Ind.
Application February 15, 1956, Serial No. 565,635
1 Claim. (Cl. 204—286)



An electrode structure comprising an elongated electrode body, a support hook detachably secured at one end of said body, an elastic sleeve tightly engaging a portion of said hook, said sleeve having a skirt portion defined by a laterally extending portion with a depending peripheral portion tightly engaging the upper end of said electrode, the wall thickness of the entire skirt portion being uniform and substantially less than the wall thickness of the remainder of said sleeve.

2,833,711
METHOD OF TREATING BRINE DISPOSAL WELLS AND COMPOSITION THEREFOR
Wilbur Ray Arnold, Chase, Kans., assignor, by mesne assignments, to Sinclair Oil & Gas Company, Tulsa, Okla., a corporation of Maine
No Drawing. Application October 4, 1954
Serial No. 460,277
5 Claims. (Cl. 252—8.55)

3. The method of treating brine disposal wells having a tendency towards decreased input rates which consists essentially of adding an oil-soluble sulfonate to a brine disposal well in an amount effective to increase the input rate of said well.

4. The method of claim 3 wherein carbon disulfide is added to the well in an amount sufficient to increase the effect of the oil soluble sulfonates.

2,833,712
SOLIDIFIED CORROSION INHIBITOR
Loyd W. Jones, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
No Drawing. Application February 13, 1956
Serial No. 564,894
7 Claims. (Cl. 252—8.55)

1. A normally solid corrosion inhibitor comprising: (*a*) from about 15 to about 50 parts of a complex mixture of an aliphatic amine having a hydrocarbon radical containing from about 10 to about 20 carbon atoms with a carboxylic acid containing from about 5 to about 20 carbon atoms; (*b*) from about 1 to about 10 parts of a water-soluble nonionic emulsifying agent capable of dispersing the amine-acid complex mixture in an aqueous solution; (c) from about 25 to about 60 parts of an oil-soluble polymerized olefin binder having a melting point between about 150° and 250° F.; and (*d*) a coupling agent consisting of from about 3 to about 30 parts of an amide of an aliphatic carboxylic acid containing from about 6 to about 18 carbon atoms.

2,833,713
CORROSION INHIBITED MOTOR OILS
Norman E. Lemmon and Hurley D. Cook, Hammond, and Walter W. Frank, Ogden Dunes, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application April 18, 1955
Serial No. 502,222
3 Claims. (Cl. 252—32.7)

1. A lubricating oil composition comprising a major proportion of a hydrocarbon lubricating oil and from about 0.05% to about 3% of a mixture comprising essentially polymeric long chain unsaturated polybasic carboxylic acids, said acid mixture comprising monomers, dimers, trimers and higher fatty acid polymers in the ratio of from about 45% to about 55% of a monomer and dimer fraction having a molecular weight in the range of from about 300 to about 600 and from about 45% to about 55% of a trimer and higher polymer fraction having a molecular weight in excess of 600 and from about 0.002% to about 10% of an alkaline earth-containing neutralized reaction product of a phosphorus sulfide and an olefin polymer.

2,833,714
LUBRICANT COMPOSITIONS
Eugene E. Richardson, Hammond, and Roger W. Watson, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application September 28, 1955
Serial No. 537,268
6 Claims. (Cl. 252—32.7)

1. A lubricating oil composition having improved valve lifter anti-pitting and anti-wear properties comprising a major proportion of a lubricating mineral oil base, between about 0.002 and 10% of a phosphorus sulfide-hydrocarbon reaction product which has been neutralized with a basic reagent between about 0.001 and 5% of the polymerization products of those unsaturated fatty acids which have between 16 and 26 carbon atoms per molecule, said polymerization products having a molecular weight between about 400 and 2000, and between about 0.001 and 5% of at least one saturated fatty acid compound selected from the class consisting of stearic acid and the salts thereof.

2,833,715
LUBRICANT COMPOSITIONS
Norman E. Lemmon, Whiting, Ind., and Ellis K. Fields, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application September 29, 1955
Serial No. 537,588
10 Claims. (Cl. 252—32.7)

1. A lubricating oil composition having improved valve lifter anti-pitting and anti-wear properties comprising a major proportion of a lubricating mineral oil base, between about 0.002 and 10% of a phosphorus sulfide-hydrocarbon reaction product which has been neutralized with a basic reagent, and between about 0.001 and 5% of an amine salt of the polymerization products of those unsaturated fatty acids which have between 16 and 26 carbon atoms per molecule, said amine being an oil soluble aliphatic mono-amine, and said polymerization products having a molecular weight between about 400 and 2000.

2,833,716

PROCESS FOR PURIFYING AND INCREASING COMBINED CALCIUM OF CALCIUM SULFONATES

John F. Collins, Elizabeth, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application August 7, 1953
Serial No. 373,037
3 Claims. (Cl. 252—33.4)

1. A method of purifying an oil solution of calcium sulfonate and increasing the alkalinity thereof, said solution containing residual calcium chloride, which comprises adding to said solution an amount of aqueous sodium hydroxide sufficient to convert substantially all of the calcium chloride to calcium hydroxide soluble in said solution, heating said solution to dehydrate and precipitate sodium chloride and removing the precipitated sodium chloride from said solution.

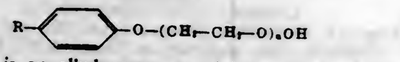
2,833,717

CORROSION INHIBITING LUBRICATING OIL

Charles H. Whitacre, Cleveland, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application March 16, 1956
Serial No. 571,876
2 Claims. (Cl. 252—33.4)

1. A lubricating composition consisting essentially of an oil base of lubricating viscosity, at least about 0.15 weight percent of an oil-soluble barium petroleum sulfonate, and at least about 0.1 weight percent of a polyoxyethylated alkylphenol having the following structural formula:



where R is an alkyl group containing 8 to 20 carbon atoms and n is between about 2 to 4.

2,833,718

LUBRICATING COMPOSITION CONTAINING POLYETHYLENE RESINS

Arnold J. Morway, Clark, and Thomas E. Witts, Metuchen, N. J., and David W. Young, Homewood, Ill., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 17, 1955
Serial No. 516,308
7 Claims. (Cl. 252—39)

1. A lubricating grease composition which comprises a mineral lubricating oil thickened to a grease consistency with about 10 to 30 wt. percent of a combination of (1) a mixed-salt complex grease thickener consisting of metal salt of low molecular weight fatty acid and metal salt of higher molecular weight fatty acid wherein said metal is selected from the group consisting of alkali metals and alkaline earth metals and (2) a polyethylene resin having a molecular weight of about 5,000 to 50,000, said grease composition containing about 0.02 to 10 wt. percent of said polyethylene resin.

2,833,719

LUBRICATING OIL ADDITIVE COMPOSITIONS AND LUBRICATING OIL COMPOSITIONS

William L. Van Horne, Cheltenham, and Herman H. Radtke, Feasterville, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

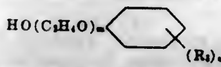
No Drawing. Application March 25, 1955
Serial No. 496,944
10 Claims. (Cl. 252—42.7)

1. A composition adapted to improve a lubricating oil to which it is added consisting essentially of (1) about 1 to 100 parts by weight of an oil-soluble polymer of at least one compound of the formula

$$CH_2=CRCOOR'$$

where R is selected from the group consisting of hydrogen and methyl, and R' is a monovalent saturated hydrocarbon radical having 4 to 18 carbon atoms, (2) about 10 to 50 parts by weight of an oil-soluble alkaline earth metal salt of a condensate of three to ten moles of a higher alkyl-substituted phenol with at least two to seven moles of formaldehyde, the alkyl substituent in the phenol having from 6 to 12 carbon atoms, and (3) about 1 to 10 parts by weight of an oil-soluble polyether alcohol having the formula

III



where m is an integer having an average value of 3 to 5, n is an integer having a value of 1 to 3, and R^3 is an alkyl group, at least one of which has from 7 to 12 carbon atoms, the total number of carbon atoms in $(R_3)_n$ being from 7 to 18.

2,833,720

ORGANOPHILIC BENTONITE BODIED LUBRICANT CONTAINING A NITROPARAFFIN

Charles A. Stratton, Caney, Kans., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 2, 1954, Serial No. 453,721
18 Claims. (Cl. 252—49.7)

1. A bodied lubricant comprising an organic lubricating liquid; a sufficient amount of an organophilic bentonite clay to thicken said lubricating liquid to a grease consistency; and an amount of a mono-nitroparaffin containing from 1 to 3 carbon atoms per molecule sufficient to disperse said clay.

2,833,721

LUBRICANT FOR RECYCLE GAS COMPRESSOR EMPLOYED IN HYDROFORMING SYSTEMS

William P. Hilliker, New Orleans, La., and Harry K. Wheeler, El Dorado, Ark., assignors, by mesne assignments, to The American Oil Company, a corporation of Maryland

No Drawing. Application May 9, 1955
Serial No. 507,117
2 Claims. (Cl. 252—56)

1. In a naphtha hydroforming system wherein a lubricated gas compressor recycles a hydrogen gas stream to a hydroforming reactor containing a platinum-on-alumina catalyst, said catalyst gradually having carbonaceous deposits formed thereon during the hydroforming of the naphtha, the improvement whereby the formation of carbonaceous deposits on the catalyst due to coking thereon of compressor lubricant carried off by the recycle hydrogen gas is reduced which improvement comprises lubricating said compressor with a lubricant consisting of a mixture of butylene polymers ranging in viscosity from about 100 seconds Saybolt at 100° F. to 1000 seconds Saybolt at 210° F. which mixture has a viscosity in the range of about 50 to 90 seconds Saybolt at 210° F. and a small amount not substantially exceeding about 1 percent by weight of a fatty material which serves as a lubricity oiliness agent.

2,833,722

DETERGENT COMPOSITIONS

George O. Funderburk, Upper Penn's Neck, N. J., Robert C. Johnson, Wilmington, Del., and Russell H. Smith, Western Springs, Ill., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application March 1, 1955, Serial No. 491,346
6 Claims. (Cl. 252—152)

1. A detergent composition adapted for emulsifying

greasy soil, comprising as active ingredient a mixture of a water-soluble sulfate of the formula

$$n\text{-}C_{12}H_{25}—O—SO_3M$$

and a water-soluble propionate of the formula

$$R—NH—CH_2CH_2CO—OX$$

wherein X and M represent cations selected from the group consisting of sodium, potassium, ammonium, diethanolammonium and triethanolammonium, and R is a normal alkyl radical of the group consisting of decyl and dodecyl, the proportion of the propionate being not less than 10% and not more than 30% of the combined weight of said propionate and sulfate.

2,833,723

SILICEOUS PARTICLES HAVING SURFACE-COATING OF —OR GROUPS, DISPERSED IN VOLATILE ORGANIC LIQUIDS

Ralph K. Iler, Brandywine Hundred, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 27, 1955
Serial No. 511,883
3 Claims. (Cl. 252—306)

1. A composition consisting essentially of a dispersion, in a volatile organic liquid having a boiling point no higher than 150° C., of an organophilic solid which is preferentially wetted by butanol in a butanol-water mixture and which comprises a supercolloidal substrate coated with —OR groups, the substrate having a surface of silica and having a specific surface of from 1 to 900 square meters per gram, the coating of —OR groups being chemically bound to said silica, R being a hydrocarbon radical of from 2 to 18 carbon atoms wherein the carbon attached to oxygen is also attached to hydrogen, the weight ratio of organic liquid to organophilic solid being at least 1:1.

2,833,724

CONCENTRATING SILICA SOLS WITHOUT PARTICLE GROWTH

Guy B. Alexander and John R. McWhorter, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 28, 1954
Serial No. 458,963
3 Claims. (Cl. 252—313)

1. In a process for producing a concentrated, aqueous silica sol in which the silica is present as uniformly sized particles in the size range of 4 to 10 millimicrons, the steps comprising preparing separate bodies of an aqueous silica sol containing less than 10 percent by weight of silica, the silica being in the form of particles no larger than the size desired in the final product and each body of sol having a pH in the range of 7.0 to 10.5, simultaneously heating the sol bodies to a temperature in the range from 50 to 150° C. and, while maintaining the separate bodies at substantially the same temperature, evaporating water from one body of sol, adding sol from the second body to replace the evaporated water and keep the volume of the first body substantially constant, and continuing the evaporation and replacement at constant volume until the silica content of the first body of sol is from 10 to 50 percent SiO_2.

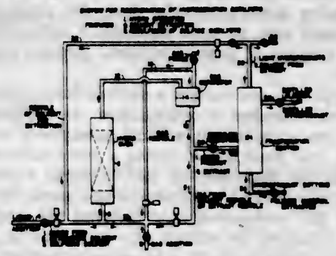
2,833,725

REGENERATION OF HYDROGENATION CATALYST

John J. Owen, Ralph B. Mason, and Rhea N. Watts, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application February 5, 1953, Serial No. 335,366
4 Claims. (Cl. 252—414)

1. The process of regenerating a spent sulfactive Oxo aldehyde hydrogenation catalyst which is molybdenum sulfide supported on activated carbon, said spent catalyst being deactivated by deposits of high boiling organic materials including polymers and cobalt deposits, which comprises contacting said deactivated catalyst with a liquid



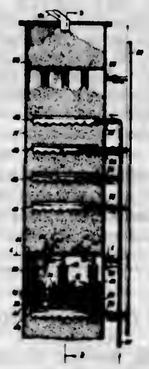
polar organic solvent which dissolves the organic materials and with carbon monoxide-comprising gas at a pressure of about 1500 to 4500 p. s. i. g. and temperature of about 100° to 450° F. to remove said deposits from said catalyst prior to resulfiding said catalyst.

2,833,726

METHOD AND APPARATUS FOR COOLING GRANULAR CONTACT MATERIAL

Frank C. Fahnestock, Manhasset, N. Y., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application December 3, 1952, Serial No. 323,764
8 Claims. (Cl. 252—418)



1. The method of cooling a particle-form contact material which comprises: passing at least one stream of contact material downwardly within a cooling zone, as a laterally-confined column of contact material occupying substantially less than the total cross-sectional area of the cooling zone, discharging the contact material from the bottom of said column, to expand laterally to cover the entire cross-section of the zone, gravitating the material downwardly through upright open-ended passages distributed across the cross-section of the zone below the laterally-confined column, said passages possessing a multiplicity of cooling conduits for contacting and cooling the descending contact material, at least one of said passages being located substantially directly below said laterally-confined column and at least one of said passages being laterally displaced therefrom, lowering the level at which said column is expanded laterally in response to a need for less cooling, so that at least the major portion of the flow of contact material is through those passages beneath the column and no more than a minor portion of the flow of contact material is through those passages laterally displaced from said column, passing a cooling medium through all the cooling conduits, so as to main-

tain the cooling conduits at all times at a substantially different temperature than said contact material, introducing contact material into the upper portion of said cooling zone, so as to replenish the laterally-confined column and withdrawing contact material from the cooling zone at a controlled rate, so as to maintain a substantially continuous column of contact material through the zone at all times.

5. Apparatus for cooling a particle-form contact material which comprises in combination: an upright housing, at least one substantially vertical passageway within said housing, said passageway having a cross-section substantially smaller than that of said housing, a plurality of substantially vertical partitions located across the housing beneath the passageway, for dividing the housing into several substantially vertical flow paths, at least one of which is located beneath a passageway and at least one of which is located laterally displaced from said passageway, means for raising and lowering the lower end of said passageway, for controlling the number of flow paths filled with contact material, heat exchanging tubes distributed across said housing at the level of said vertical partitions, means for supplying heat-exchanging fluid to said tubes and means for withdrawing heat exchanging fluid from said tubes, means for supplying contact material continuously to the top of said passageway in said housing and means for withdrawing contact material continuously from the lower portion of said housing.

2,833,727

MANUFACTURE OF SOLID PHOSPHORIC ACID CATALYSTS

Julian M. Mavity, Hinsdale, and Mitchell S. Bielawski, Berwyn, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application July 28, 1954
Serial No. 446,405
8 Claims. (Cl. 252—435)

1. A process for the manufacture of a solid phosphoric acid catalyst which comprises mixing a phosphoric acid and a siliceous adsorbent, subjecting the resulting mixture to compression at a pressure of from about 5000 to about 50,000 pounds per square inch, and thereafter extruding, drying and calcining said mixture.

2,833,728

MANUFACTURE OF SOLID PHOSPHORIC ACID CATALYSTS

Mitchell S. Bielawski, Berwyn, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application October 11, 1954
Serial No. 461,687
5 Claims. (Cl. 252—437)

1. A process for the manufacture of a solid phosphoric acid catalyst which comprises preparing a slurry of a siliceous adsorbent and carbon tetrachloride, substantially removing said carbon tetrachloride, compositing the siliceous adsorbent with a phosphoric acid, and extruding and calcining the resultant composite.

2,833,729

GEL CATALYST PREPARATION

Howard F. Reeves, Jr., Chattanooga, Tenn., and Salem F. Belt, North Texas City, Tex., assignors, by mesne assignments, to Morton Chemical Company, Chicago, Ill., a corporation of Delaware

Application November 16, 1953, Serial No. 392,112
4 Claims. (Cl. 252—448)

1. A method of producing a microspheroidal synthetic oxide gel having a particle density of about 0.9 to 1.0 which comprises collecting a newly coagulated microspheroidal silica-alumina gel in an aqueous solution of water-soluble salts selected from the group consisting of magnesium chloride, calcium chloride and ammonium chloride, said salts being present in amounts providing 2.2 to 2.3 millequivalents of chloride ion per cubic centimeter of solution, said aqueous solution having a pH of about 3.0 to 6.0, partially drying the thus treated gel to a volatile content of about 30 to 45 percent as determined by heating at 1800° F. to fix said salts within the gel structure, water-washing the partially dried gel to remove said salts therefrom, and drying the washed gel.

2,833,730

ARYLENE DIISOCYANATE-FATTY ACID TRIGLYCERIDE-POLYOL CELLULAR MATERIALS AND PROCESS OF PRODUCING SAME

Eric Barthel, Jr., New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 30, 1953
Serial No. 383,370
12 Claims. (Cl. 260—2.5)

1. A cellular plastic material comprising the reaction product of water with a polyurethane product formed by the reaction between (*a*) an arylene diisocyanate, (*b*) a fatty acid triglyceride having a hydroxyl number of at least 49 and selected from the group consisting of castor oil and blown drying oils, and (*c*) a polyhydroxy compound from the class consisting of saturated diols and triols and having a molecular weight below about 200, the reagents being used in such relative amounts that the ratio of hydroxyl groups present in the low molecular weight polyhydroxy compound to triglyceride hydroxyl groups is from 0.6:1 to 2.3:1, the ratio of the combined total number of hydroxyl groups present in the triglyceride and in the polyhydroxy compound to the number of isocyanate groups present in the arylene diisocyanate is from 0.65:2 to 1.1:2, and the amount of water used is from about 0.4 to 1.7 moles per mole of arylene diisocyanate used in the preparation of said polyurethane product.

2,833,731

COMPOSITION FOR THE PREPARATION OF SPONGE PRODUCTS OF BUTYL RUBBER

Heinz A. Pfisterer, Point Edward, Sarnia, Ontario, and David W. G. Hay, Corunna, Ontario, Canada, assignors to Polymer Corporation Limited, Sarnia, Ontario, Canada, a corporation of Canada

No Drawing. Application August 11, 1954
Serial No. 449,275
Claims priority, application Canada July 23, 1954
2 Claims. (Cl. 260—2.5)

1. A composition for the preparation of sponge products said composition comprising an elastic copolymer of a major amount of an isoolefin and a minor amount of a diolefin, 5–20% by weight of polymer of sodium bicarbonate, 0.5–5.0% by weight of polymer of a mixture of 98% selected mineral oil containing about 12 carbon atoms, 1.6% sulphonated naphthenic petroleum product and 0.4% n-butyl alcohol, and 60–95% by weight of polymer of talc which is substantially all of a particle size not coarser than 300 mesh.

2,833,732

METHOD OF PREPARING SILOXANE RESIN FOAMS

Donald E. Weyer, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application August 25, 1954
Serial No. 452,215
4 Claims. (Cl. 260—2.5)

1. A method of preparing a foam which comprises heating a mixture of (1) an organic resin, (2) from .05 to 50% by weight based on the weight of the resin of an organosiloxane in which at least a major portion of the siloxane units are of the formula

$$\frac{R'_mH_aSiO_{4-m-a}}{2}$$

in which R' is selected from the group consisting of lower alkyl radicals and monocyclic aryl hydrocarbon radicals and *m* and *a* each have an average value from 1 to 2 inclusive, essentially all of the silicon atoms of any remaining siloxane units in (2) being substituted with organic radicals of the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals and (3) a hydroxylated compound, at a temperature sufficient to give a resin foam.

2,833,733

MANUFACTURE OF INTERPOLYMERS OF STYRENE WITH DRYING OIL FATTY ACIDS AND DERIVATIVES OF SUCH INTERPOLYMERS

Jack Andrews Cottrell and Donald Helmsley Hewitt, London, England; Ernest Booth and Richard H. Buckle, executors of said Donald H. Hewitt, deceased, assignors, by mesne assignments, to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Original application February 11, 1947, Serial No. 727,950, now abandoned. Divided and this application June 24, 1953, Serial No. 366,608
5 Claims. (Cl. 260—23)

1. A process for the production of liquid styrenated drying oil fatty acids comprising heating a styrene-partially polymerized drying oil copolymer with an alkali metal hydroxide under reflux to saponify said copolymer, acidifying said saponified copolymer with a dilute mineral acid, and separating the styrenated drying oil fatty acids from the reaction mixture.

2,833,734

STABILIZED ISOOLEFIN POLYOLEFIN INTERPOLYMER DERIVATIVES AND METHOD OF PRODUCING SAME

Richard T. Morrissey, Cuyahoga Falls, Ohio, and Henry J. Weiss, Joliet, Ill., assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application October 29, 1953
Serial No. 389,143
3 Claims. (Cl. 260—23.7)

1. A stabilized rubber composition comprising a partially brominated derivative of a rubbery interpolymer of from 70 to 99% by weight isobutylene and from 1 to 30% by weight of isoprene, said brominated derivative retaining residual olefinic unsaturation and containing about 1.5 to about 4% by weight combined bromine, and as a stabilizer therefor from about 1 to about 5% by weight of an epoxidized vegetable oil containing glycerides of oleic and linoleic acids having about 1 mol epoxy group per mol of esterified fatty acid in the vegetable oil.

2,833,735

CATALYZED ORGANOSILOXANE MIXTURE AND METHOD OF TREATING TEXTILES THEREWITH

Siegfried Nitzsche and Ewald Pirson, Burghausen, Oberbayern, Germany, assignors to Wacker Chemie G. m. b. H., Munich, Germany

No Drawing. Application March 14, 1955
Serial No. 494,288
Claims priority, application Germany March 13, 1954
5 Claims. (Cl. 260—29.1)

1. A composition of matter consisting essentially of a mixture of (1) an organopolysiloxane oil having the average general formula

$$\frac{R_nSiO_{4-n}}{2}$$

where *n* has an average value of from 1.8 to 2.5 inclusive and R represents a monovalent hydrocarbon radical, (2) an organopolysiloxane resin which is free of polymeric units of the formula SiO_2 and which has the average general formula

$$\frac{R_xSiO_{4-x}}{2}$$

where R is as above defined and *x* has an average value of from 1.0 to 1.7 inclusive, and (3) a curing catalyst selected from the group consisting of (A) metal chelates of enols selected from the group consisting of acetylacetone, acetoacetic acid, alkyl esters of acetoacetic acid and alkyl esters of malonic acid, and (B) reaction products of a metal alcoholate with the above defined enols, the metal in said chelates and alcoholate being selected from the group consisting of zirconium and titanium, said mixture being substantially free of any siloxane polymeric units containing silicon-bonded hydrogen atoms.

2,833,736

AQUEOUS GRAPHITE-POLYVINYL ALCOHOL INK COMPOSITION

Harry W. Glaser, Middle Village, N. Y., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

No Drawing. Application July 20, 1953
Serial No. 369,231
2 Claims. (Cl. 260—29.6)

1. A drawing ink comprising graphite particles within the size range of 2 to 5 microns and as a binder therefor a solution of polyvinyl alcohol in water, said ink having the following proportions: 8 to 12 grams graphite, .2 to .3 gram polyvinyl alcohol and 160 to 240 grams water.

2,833,737

VINYL ACETATE EMULSION

Jacob G. Mark and David Rubinstein, Brookline, Norman G. Tompkins, Melrose, and Anthony J. Urjil, Byfield, Mass., assignors to W. R. Grace & Co., Cambridge, Mass., a corporation of Connecticut

Application December 30, 1954, Serial No. 478,626
6 Claims. (Cl. 260—29.6)

1. A composition of matter comprising in combination, an aqueous dispersion of the copolymer formed by the emulsion polymerization of vinyl acetate and the di-ester of a butenedioic acid and an aliphatic alcohol selected from the group consisting of ethanol, 1-butanol, propanol, 1,4-dimethyl-1-butanol and 2-ethyl-1-hexanol, the said monomeric ingredients being present in the proportion of 82½ to 67½ parts by weight of vinyl acetate and 17½ to 32½ parts by weight of the di-ester and from 5 to 17 parts by weight, per 100 parts by weight of the copolymer solids, of a compound selected from the group consisting of hexylene glycol, 3-chloro-1,2-propanediol, 2-(beta butoxy ethoxy)ethanol, 2-butoxy ethanol acetate and di-propylene glycol.

2,833,738

METHOD OF PRODUCING A SPINNING SOLUTION OF AN ACRYLONITRILE POLYMER

Ernst Pirot, Erlenbach (Main), Germany, assignor to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft, Wuppertal-Elberfeld, Germany, a joint-stock company of Germany

No Drawing. Application June 16, 1954
Serial No. 437,285
Claims priority, application Germany June 25, 1953
3 Claims. (Cl. 260—31.6)

1. The method of producing a spinning solution of a polymer of the group consisting of polyacrylonitrile and

a copolymer of 90% by weight of acrylonitrile and 10% by weight of acrylic acid amide which comprises dissolving the said polymer in a solvent mixture consisting of glycolic acid nitrile and a diester of the general formula

$$CH_3.(CH_2)_n.CO.O.CH_2.O.CO.(CH_3)_n.CH_3$$

wherein n may be a numeral between 0 and 2.

2,833,739

VINYL CHLORIDE POLYMER PLASTICIZER WITH ADDUCTS OF FUMARATES AND ALKYLENE ESTERS OF LONG CHAIN FATTY ACIDS

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Original application August 28, 1950, Serial No. 181,947, now Patent No. 2,782,227, dated February 19, 1957. Divided and this application October 12, 1956, Serial No. 615,457

5 Claims. (Cl. 260—31.8)

1. A resinous composition comprising a vinyl chloride polymer plasticized with a polycarboxylate having the general formula:

$$T.CH_2OOC.X$$
$$\begin{bmatrix} Y.C.COO.alk \\ Y.CH.COO.alk \end{bmatrix}_n$$

in which T is an alkenyl radical of from 9 to 23 carbon atoms, Y is selected from the class consisting of hydrogen and the methyl radical, alk is an alkyl radical of from 1 to 6 carbon atoms, X is selected from the class consisting of alk and the radical —CY:CY.COO.alk, and n is a number of from 1 to 3.

2,833,740

PROCESSING OF POLYURETHANE POLYMERS PREPARED FROM POLYALKYLENEETHER GLYCOLS AND PRODUCT RESULTING THEREFROM

John Joseph Verbanc, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 7, 1955
Serial No. 533,019
8 Claims. (Cl. 260—45.5)

1. In the processing of a stable, uncured polyurethane polymer which contains substantially no free isocyanate groups, said polymer having been prepared by the reaction of polyalkyleneether glycols of molecular weight from about 750 to 10,000, organic diisocyanates and a chain-extending agent selected from the group consisting of water, hydrazine, organic glycols, organic diamines, organic dicarboxy acids, organic dicarboxy amides, organic disulfonic acids and organic disulfonamides, by incorporating therewith a diisocyanate curing agent and heating the mixture to a temperature of between about 90 and 150° C. until a cured elastomer is formed, the step which comprises incorporating therewith prior to the addition of the curing agent from 1 to 10% by weight of a copolymer of ethylene and carbon monoxide having a molecular weight in the range of 700 to 1500 and a molar ratio of ethylene to carbon monoxide between about 5:1 and 12:1.

2,833,741

METHOD OF POLYMERIZING ACRYLATE ESTERS IN THE PRESENCE OF AN ORGANO-METALLIC INHIBITOR

Joginder Lal, Drexel Hill, Pa., assignor to H. D. Justi & Son, Inc., Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application March 29, 1956
Serial No. 574,582
9 Claims. (Cl. 260—45.5)

1. A method of forming a polymer of an ester of an acid selected from the group consisting of acrylic acid and methacrylic acid comprising polymerizing said ester in the presence of an organic peroxide polymerization catalyst and from about 0.0006 to about 0.1% of a metal organic compound of the formula $R_1R_2R_3Me$ wherein R_1 and R_2 are selected from the group consisting of phenyl, tolyl and alkoxyphenyl, R_3 is selected from the group consisting of phenyl, tolyl alkoxyphenyl, lower alkyl and alkylol and Me is a metal selected from the group consisting of antimony, phosphorous, arsenic and bismuth.

2,833,742

ROOM TEMPERATURE CURING SILOXANE ELASTOMERS WITH POLYSILICATE AND AMINE-ALDEHYDE PRODUCT

Robert J. Koch, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application October 5, 1955
Serial No. 538,801
5 Claims. (Cl. 260—46.5)

1. An elastomeric composition consisting essentially of (1) an organopolysiloxane free of silicon-bonded acid anions which produce acids on hydrolysis, said siloxane having a viscosity of at least 1 cs. at 25° C., said siloxane having the unit formula

$$R_nSiO_{\frac{4-n}{2}}$$

where R is selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals and n has an average value from 1.99–2 inclusive, (2) from .1–50% by weight based on the weight of the siloxane of a substantially non-volatile alkylpolysilicate in which the alkyl groups have less than 6 carbon atoms and (3) from .01–10% by weight based upon the weight of the siloxane of the condensation product of an aliphatic aldehyde having less than eight carbon atoms and a primary aliphatic amine having less than eight carbon atoms.

2,833,743

POLYCYANOHYDRINS PRODUCED BY REACTING HYDROCYANIC ACID WITH A STYRENE-METHACROLEIN COPOLYMER

Raymond H. Reinhard, Galveston, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 13, 1955
Serial No. 552,719
11 Claims. (Cl. 260—73)

1. A process for the preparation of polycyanohydrins which comprises reacting a copolymer of styrene and methacrolein in an organic solvent medium with hydrocyanic acid in the presence of an organic amine catalyst at a temperature within the range from about 0° C. to about 100° C., said copolymer and hydrocyanic reactants being employed in proportions such that the mole ratio of hydrocyanic acid to aldehyde present is at least 1:1.

2,833,744

POLYUREAS AND PROCESS OF PREPARING SAME

Robert Neher, Binningen, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application August 24, 1954
Serial No. 451,955
Claims priority, application Switzerland August 27, 1953
11 Claims. (Cl. 260—77.5)

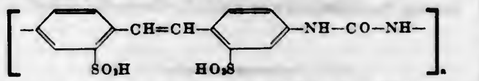
1. A member of the group consisting of polyureas, mixtures thereof, and the salts thereof, which can be represented by the general formula

$$(—R—NH—CO—NH—)_n$$

in which R represents a residue of the group consisting of —Ph— and —Ph—X—Ph— substituted by a member

of the group consisting of free and esterified sulphonic acid groups, in which —Ph— represents a phenylene residue, X represents a member of the group consisting of —C≡C—, —CH=CH—, —CH_2—CH_2— and —NH— radicals, and n represents a whole number such that the molecular weight of the compound is greater than 4000 and in which any terminal residue R in the compound is bound to a free amino group.

4. The polyurea of the formula



in which each terminal stilbene disulphonic acid residue in the compound is bound to a free amino group, and which has an average molecular weight of about 124,000.

2,833,745

PRODUCTION OF THE SALTS OF POLYMERIZED ALPHA.BETA-UNSATURATED ALIPHATIC ACIDS

Hans Fikentscher, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application June 15, 1954
Serial No. 436,995
Claims priority, application Germany June 24, 1953
7 Claims. (Cl. 260—80)

1. A process of manufacturing a solid salt of a polyacrylic acid which comprises mixing a monomeric acrylic acid with a compound selected from the group consisting of ammonium and alkali metal carbonates, bicarbonates and carbaminates, the mixture of the monomeric acrylic acid and of said compound containing at most 50% of water with reference to the monomeric acrylic acid and the monomeric acrylic acid being neutralized to at least 50% by said compound, and polymerizing the mixture in the presence of a polymerization accelerator with the evolution in the reaction mixture of at least one gas from the group consisting of carbon dioxide and ammonia in order to produce a solid salt of a polyacrylic acid which can be comminuted to a powder.

2,833,746

ACRYLONITRILE-ISOBUTYLENE-STYRENE INTERPOLYMER

Albert J. Haefner, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 23, 1953
Serial No. 400,135
3 Claims. (Cl. 260—80.5)

1. A tough clear interpolymer having a high impact strength consisting essentially of between about 40–80 percent of acrylonitrile, between about 5–45 percent by weight of styrene, and between about 10–30 percent by weight of isobutylene, said polymer having a flexural strength above about 15,000 p. s. i.

2,833,747

EPOXIDIZED HYDROCARBON RESINS

Frank P. Greenspan, Buffalo, and Rupert E. Light, Jr., Kenmore, N. Y., assignors, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

No Drawing. Application October 20, 1954
Serial No. 463,622
2 Claims. (Cl. 260—82)

1. An epoxidized polymeric olefinic hydrocarbon resin obtained by the polymerization of unsaturated alicyclic fractions of petroleum, said resin having an average molecular weight of 150 to 250,000 and containing at least 1% by weight oxirane oxygen.

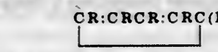
2,833,748

NEW COPOLYMERS

Herbert K. Wiese, Cranford, and Winthrope C. Smith, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application August 17, 1954
Serial No. 450,540
27 Claims. (Cl. 260—82.1)

1. A solid copolymer of a cyclodienyl trichlorosilane having the general formula



in which R is selected from the group consisting of hydrogen and alkyl and an unsaturated hydrocarbon.

2,833,749

SILICON CONTAINING ADDITION PRODUCTS OF PARTIALLY HYDROGENATED RUBBERY POLYMERS

Rufus V. Jones and Peter J. Canterino, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application April 23, 1953
Serial No. 350,778
16 Claims. (Cl. 260—85.1)

1. As new compositions of matter, the addition product of a compound selected from the group consisting of halosilanes and silicon tetrahalides, and partially hydrogenated compounds selected from the group consisting of polymers of conjugated dienes and copolymers of conjugated dienes and monomers copolymerizable therewith, the residual unsaturation of said polymer being not greater than 50 percent.

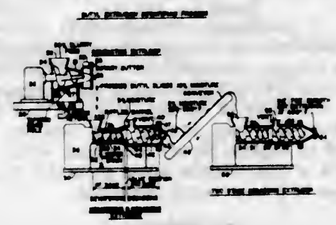
5. The product produced by reacting bromosilane with a partially hydrogenated rubbery synthetic rubber selected from polymers of conjugated dienes and copolymers of conjugated dienes and monomers copolymerizable therewith, the residual unsaturation of said polymer being not greater than 50 percent, and treating the reaction product with a compound selected from the group consisting of water, aliphatic alcohols containing not over 4 carbon atoms per molecule, and alkoxy silanes.

2,833,750

METHOD FOR FINISHING POLYMERS

Herbert H. Vickers, Union, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application June 17, 1953, Serial No. 362,365
13 Claims. (Cl. 260—85.3)



1. In a process for finishing particles of solid polymers containing occluded liquids, the improvement which comprises pressing out sufficient liquid that the polymer particles are compacted, subdividing the compacted agglomerate formed, pressing out sufficient liquid from the resulting subdivided material that the liquid content is less than about 5% based on polymer, and raising the temperature to a level between about 250° and 450° F. until substantially all of the remaining liquid is volatilized.

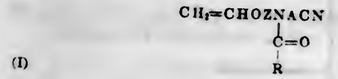
2,833,751

NOVEL VINYLOXYALKYLAMIDONITRILES, POLYMERS THEREOF, AND THEIR PRODUCTION

Leo S. Luskin and Peter L. de Benneville, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application November 29, 1955
Serial No. 549,851
14 Claims. (Cl. 260—85.5)

1. A composition of matter comprising a compound of Formula I:



(I)

where Z is an alkylene group having 2 to 6 carbon atoms, the oxygen and the nitrogen being attached to different carbons thereof, A is selected from the group consisting of cyclohexylidene, $—CH_2—$, $—CH(CH_3)—$, $—CH_2CH_2—$, $—CH(CH_3)CH_2—$, $—CH(CH(CH_3)_2)—$, $—CHR'—$ and



where R′ is an alkyl group having 1 to 8 carbon atoms and R^3 is selected from the group consisting of methyl and ethyl, and R is selected from the group consisting of H, alkyl groups having 1 to 18 carbon atoms, phenyl, naphthyl, alkylphenyl in which the alkyl group has 1 to 4 carbon atoms, halogenated phenyl and naphthyl groups, benzyloxy, and alkoxy and alkoxyalkyl groups of the formulas $R^3O—$ and $R^3OR^4—$ where R^3 and R^4 are selected from the group consisting of the same and different alkyl groups having 1 to 4 carbon atoms; with the proviso that when R is H, the two carbon atoms in A and Z that are attached directly to the N atom therebetween each carry two hydrogen atoms.

5. A composition of matter comprising a copolymer of a compound of Formula I as defined in claim 1 with acrylonitrile.

2,833,752

CROSS-LINKING OF FLUORINATED ELASTOMERS

Francis J. Honn, Westfield, and Willard M. Sims, Hackensack, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application June 14, 1954
Serial No. 436,714
18 Claims. (Cl. 260—87.7)

1. A method of cross-linking a chain saturated polymer, containing fluorine substitution at at least half the positions available for such substitution and composed substantially exclusively of carbon, hydrogen and halogen atoms which comprises heating said polymer in the presence of an organic peroxy compound which is relatively stable at temperatures below about 50° C. and in the presence of a basic metal compound.

2,833,753

POLYMERIZATION CATALYST FOR ACRYLIC MONOMERS

Joginder Lal, Cuyahoga Falls, Ohio, assignor to H. D. Justi & Son, Inc., Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application October 13, 1955
Serial No. 540,322
12 Claims. (Cl. 260—89.5)

1. A method of polymerizing an acrylic ester monomer comprising treating said acrylic monomer with from 0.1 to 5.0 mol percent based on the weight of said monomer of a polymerization catalyst consisting of a member of the group consisting of (1) an N-salt of saccharin with an N,N-dialkyl aryl amine and (2) a mixture of a water-soluble organic carboxylic acid activated at the alpha carbon atom with an electronegative substituent selected from the group consisting of halogen, phenyl and aryloxy substituents and an N,N-dialkyl aryl amine, the mol ratio of said carboxylic acid to said last named aryl amine varying from about 0.8 to 1.3.

2,833,754

PROCESS OF SUSPENSION POLYMERIZATION OF VINYL HALIDE UTILIZING GELATIN AS DISPERSING AGENT

Roger G. Richards, Painesville, and James J. Lukes, Euclid, Ohio, assignors to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application March 14, 1955
Serial No. 494,259
6 Claims. (Cl. 260—92.8)

1. A process for producing a high quality polymer which comprises intimately mixing in water an ethylenically unsaturated monomer containing at least about 85% vinyl halide and a dispersing agent consisting essentially of gelatin in an amount from about 0.1 to 0.45% by weight of monomer, the resulting solution having a pH at least as high as the isoelectric pH of the gelatin, thoroughly agitating this aqueous polymerization medium to form a stable dispersion of monomer in water, thereafter adding an acid to lower the pH of the aqueous polymerization medium to a value within the range from 2 to 5, inclusive, below the isoelectric pH of the gelatin, and polymerizing said monomer in the thus-formed suspension.

2,833,755

PREPARATION OF POLYOLEFINS OF IMPROVED COLOR BY CATALYTIC POLYMERIZATION WITH A TITANIUM TETRAALKOXIDE AND A MONOALKYL ALUMINUM DIHALIDE

Harry W. Coover, Jr., Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 29, 1955
Serial No. 549,860
15 Claims. (Cl. 260—93.7)

1. In the polymerization of α-monoolefinic hydrocarbon material from the group consisting of ethylene and propylene to form solid polymer, the improvement which comprises catalyzing the polymerization with a catalytic mixture in a molar ratio of from 1:4 to 4:1 of a titanium tetraalkoxide wherein each alkoxide group contains 1–4 carbon atoms and a monoalkyl aluminum dihalide wherein the alkyl group contains 1–12 carbon atoms and the halogen atoms are from the group consisting of chlorine and bromine, and thereby forming a solid high molecular weight polymer of improved color.

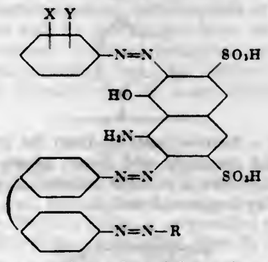
2,833,756

POLYAZO DYESTUFFS

Richard Fleischhauer, Frankfurt am Main-Fechenheim, Germany, assignor to Cassella Farbwerke Mainkur Aktiengesellschaft, Frankfurt am Main-Fechenheim, Germany, a company of Germany

No Drawing. Application April 27, 1955
Serial No. 504,348
Claims priority, application Germany May 5, 1954
7 Claims. (Cl. 260—171)

1. Polyazo dyestuffs of the general formula



wherein X is a member selected from the group consisting of hydrogen, carboxylic and sulfonic acid groups, Y means a radical of the group consisting of hydrogen, methyl, methoxy, chlorine and nitro and R means a radical of the group consisting of ortho and para phenylene diamine.

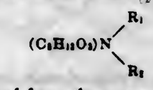
2,833,757

N-CYANOALKYL HEXITYL AMINES

John D. Zech, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 12, 1953
Serial No. 385,717
10 Claims. (Cl. 260—211)

1. A compound of the formula:



wherein R_1 is selected from the group consisting of hydrogen, alkyl containing 1 to 20 carbon atoms, hydroxyalkyl containing 1 to 10 carbon atoms, aryl, aralkyl, cycloalkyl and cyanoalkyl containing 1 to 4 carbon atoms; R_2 is a cyanoalkyl radical containing 1 to 4 carbon atoms; $(C_6H_{13}O_5)$ represents the hexane pentol residue of a hexityl amine.

2,833,758

METHOD OF PRODUCING RAPIDLY SOLUBLE CELLULOSE ETHER POWDERS

Rudolf Köhler, Duesseldorf, and Werner Scherff, Hilden, Germany, assignors to Henkel & Cie. G. m. b. H., Duesseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application April 3, 1953
Serial No. 346,798
Claims priority, application Germany April 5, 1952
11 Claims. (Cl. 260—232)

1. The process of producing a free-flowing granular powder of a cellulose lower alkyl ether selected from the group consisting of methyl and ethyl cellulose, said ether having a high solubility rate in cold water, which comprises the steps of subjecting a hot-water-insoluble, cold-water-soluble fibrous cellulose lower alkyl ether free from salt-forming groups and having a water content of between 50% and 70% by weight, to a homogenizing treatment under pressure while maintaining said moist ether at a temperature between 0° C. and 50° C., grinding the moist homogenized material and thereafter drying the moist ground product at a temperature above 60° C.

2,833,759

DEGRADATION OF STARCH AND STARCH DERIVATIVES

Kenneth C. Hobbs, Chicago, Ralph W. Kerr and Francis E. Kite, Riverside, Ill., assignors to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application December 31, 1953
Serial No. 401,732
3 Claims. (Cl. 260—233.3)

1. A process for preparing a degraded hydroxyalkyl starch ether which comprises etherifying starch with an alkylene oxide in an aqueous system containing hydrated lime, said etherification being carried out while stirring in a stream of molecular oxygen and at a temperature not exceeding about 50° C.

2,833,760

2,5-BIS-(METHYL - ETHYLENIMINO) - HYDROQUINONES AND PROCESS FOR PREPARATION

Adrian Marxer, Basel, Switzerland, assignor to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application January 23, 1956
Serial No. 560,880
Claims priority, application Switzerland January 28, 1955
5 Claims. (Cl. 260—239)

1. A compound of the group consisting of 2,5-bis-(methyl-ethylenimino)-hydroquinone and the alkali metal salts thereof.

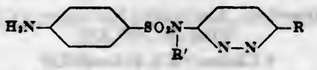
2,833,761

SULFAPYRIDAZINES AND METHODS OF PREPARING THE SAME

Dorothy M. Murphy, Riverside, Conn., and Robert G. Shepherd, Ridgewood, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 28, 1957
Serial No. 636,475
9 Claims. (Cl. 260—239.7)

1. A compound having the general formula:



in which R is a member of the group consisting of hydrogen, bromo, chloro, iodo, lower alkyl, and lower alkoxy radicals and R′ is a lower alkanoyl radical.

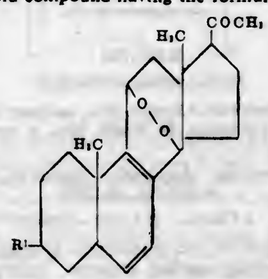
2,833,762

$\Delta^{6,8}$-ALLOPREGNADIENE-3β-OL-20-ONE 11,14-PEROXIDE AND ESTERS THEREOF

Gerald D. Laubach, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Original application March 17, 1954, Serial No. 416,936. Divided and this application March 18, 1957, Serial No. 646,571
2 Claims. (Cl. 260—239.55)

1. A steroid compound having the formula



wherein R^1 is selected from the class consisting of OH and formate, acetate, propionate and benzoate ester groups.

2,833,763

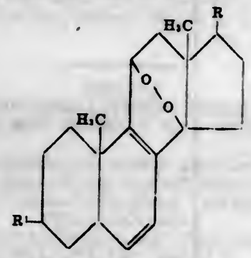
$\Delta^{5,6}$-ALLOPREGNADIENE-3β,21-DIOL-20-ONE 11,14 PEROXIDE AND ESTERS THEREOF

Gerald D. Laubach, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Original application March 17, 1954, Serial No. 416,936. Divided and this application March 18, 1957, Serial No. 646,572

1 Claim. (Cl. 260—239.55)

A steroid compound having the formula



wherein R is selected from the class consisting of $-COCH_2OH$ and its formate, acetate, propionate and benzoate esters, and R^1 is selected from the class consisting of OH and formate, acetate, propionate and benzoate ester groups.

2,833,764

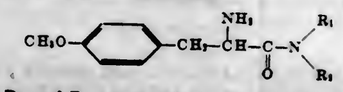
O-METHYL-L-TYROSYL AMIDES AND THEIR PREPARATION

Bernard Randall Baker and Henry Marcell Kissman, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 18, 1954
Serial No. 469,838

6 Claims. (Cl. 260—247.2)

1. Compounds selected from the group consisting of those having the general formula:



wherein R_1 and R_2 are members selected from the group consisting of hydrogen, phenyl-lower-alkyl, hydroxy-lower-alkyl and cyclohexyl radicals and R_1 and R_2 together are the morpholide radical, and acid addition salts thereof.

5. The new compound O-methyl-L-tyrosine morpholide.

2,833,765

MELAMINE PROCESS

Carroll A. Hochwalt, Clayton, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 15, 1956
Serial No. 604,070

3 Claims. (Cl. 260—249.7)

1. A method for the preparation of melamine which comprises heating together ammonia, hydrogen cyanide, and sulfur at a temperature in the range from 200 to 450° C. and a pressure in the range from 200 to 2000 p. s. i. g.

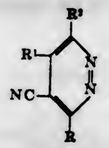
2,833,766

6-ALKOXY-5-CYANO-PYRIDAZINES

Jean Druey, Riehen, and Paul Schmidt, Therwil, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application May 4, 1955
Serial No. 506,060
Claims priority, application Switzerland May 11, 1954
8 Claims. (Cl. 260—250)

1. A compound of the formula



wherein R is a member selected from the group consisting of lower alkyl mercapto and lower alkoxy groups and R^1 and R^2 represent a member selected from the group consisting of hydrogen and methyl.

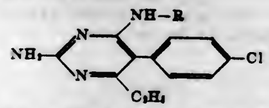
2,833,767

NEW PYRIMIDINE COMPOUNDS

Robert Michel Jacob, Ablon-sur-Seine, France, assignor to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application October 28, 1952
Serial No. 317,369
Claims priority, application France November 6, 1951
4 Claims. (Cl. 260—256.4)

1. Pyrimidine derivatives having valuable chemotherapeutic properties, and having particularly valuable antimalarial properties, selected from the class consisting of bases of the general formula:



and the non-toxic acid salts of such bases, where R is selected from the class consisting of

$-CH_2.CH_2.CH_2.CH_3$ and $-CH_2.CH_2.CH(CH_3)-CH_3$

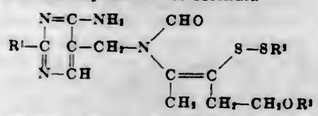
2,833,768

COMPOUNDS WITH VITAMIN B_1-LIKE ACTIVITY AND THE PREPARATION THEREOF

Motonori Fujiwara and Hiroshi Watanabe, Kyoto, Taizo Matsukawa, Osaka, Syojiro Yurugi, Kyoto, and Takeo Iwatsu and Hajime Kawasaki, Osaka, Japan, assignors to Takeda Pharmaceutical Industries, Ltd., Osaka, Japan, a Japanese firm

No Drawing. Application March 30, 1956
Serial No. 574,976
Claims priority, application Japan January 22, 1952
12 Claims. (Cl. 260—256.5)

1. A member selected from the class consisting of compounds which correspond to the formula



and the medicinally useful salts thereof, wherein R^1 is a member selected from the group consisting of methyl and ethyl, R^2 is a member selected from the group consisting of lower alkyl, lower alkenyl, lower hydroxyalkyl, lower aralkyl and mononuclear carbocyclic aryl, and R^3 is a member selected from the group consisting of H, acetyl and benzoyl.

2,833,769

THIAMIN SALTS

William E. Stieg, Mystic, Conn., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application June 21, 1955
Serial No. 517,085
3 Claims. (Cl. 260—256.6)

1. A process for the preparation of a salt of thiamin selected from the group consisting of thiamin chloride, thiamin phosphate and thiamin sulfate which comprises contacting thiamin bromide hydrobromide in a lower aliphatic alcohol with an acid chosen from the group consisting of hydrogen chloride, phosphoric acid and sulfuric acid, and distilling from the reaction mixture an alkyl bromide formed from the lower aliphatic alcohol.

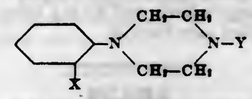
2,833,770

SUBSTITUTED PIPERAZINES AND METHODS FOR OBTAINING THE SAME

Robert F. Parcell, Detroit, Mich., assignor to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application June 25, 1956
Serial No. 593,377
10 Claims. (Cl. 260—268)

1. A compound of the class consisting of a free base and its acid salts, said free base having the formula



where X is a member of the group consisting of chlorine and bromine radicals and Y is a member of the group consisting of methyl and straight chain omega-substituted alkylene containing 2 to 5 carbon atoms inclusive, said alkylene being substituted at the omega-carbon atom by a member of the group consisting of hydrogen, hydroxyl, —NH—COH, and —NH—CO (lower alkyl) radicals.

2,833,771

PROCESS FOR THE PREPARATION OF RESERPINE

Robert Schwyzer, Riehen, and Johannes Mueller, Arlesheim, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application February 24, 1955
Serial No. 490,426
Claims priority, application Switzerland
February 26, 1954
5 Claims. (Cl. 260—287)

1. In a process for the preparation of reserpine from Rauwolfia plants, the steps which comprise extracting crude root material of Rauwolfia plants exclusively with a solvent selected from the group of acetic acid, methanol and ethanol, treating the resulting extract in the presence of an acid with a member of the group consisting of a Reinecke's salt and a salt of nitric and hydrochloric acid to precipitate a sparingly soluble salt of reserpine, separating the precipitated salt and setting free reserpine by treatment of the salt with a base liberating agent using as diluent exclusively a completely water-miscible solvent of the group consisting of lower alkanols and acetone.

2,833,772

ORGANIC COMPOUNDS

Richard V. Heinzelman, Robert B. Moffett, and Robert H. Levin, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 16, 1955
Serial No. 528,805
4 Claims. (Cl. 260—292)

1. A compound selected from the class consisting of tropine benzhydryl ether N-oxide, tropine p-chlorobenzhydryl ether N-oxide, and acid addition salts thereof with pharmacologically acceptable acids.

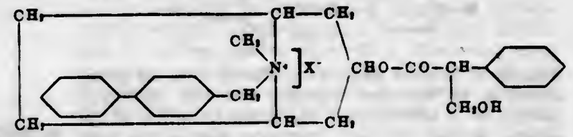
2,833,773

NEW TROPEINE DERIVATIVES

Károly Nádor and László Gyermek, Budapest, Hungary, assignors to "Licencia" Talalmanyokat Ertekesito Vallalat, Budapest, Hungary

No Drawing. Application August 6, 1956
Serial No. 602,461
7 Claims. (Cl. 260—292)

1. As new compounds, compounds of the general formula



wherein X is halogen.

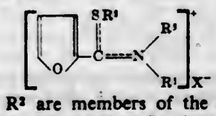
2,833,774

QUATERNIZED THIOFURAMIDE DERIVATIVES

Robert I. Meltzer, Rockaway, and John A. King, Short Hills, N. J., assignors to Warner-Lambert Pharmaceutical Company, New York, N. Y., a corporation of Delaware

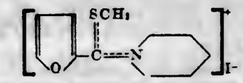
No Drawing. Application April 27, 1956
Serial No. 580,979
6 Claims. (Cl. 260—293.4)

1. A new chemical compound represented by the structural formula:



where R^1 and R^2 are members of the group consisting of methyl, and taken together, a piperidyl and morpholinyl group, R^3 is a member of the group consisting of methyl, allyl, methallyl, phenyl and benzyl, and X is a member of the group consisting of bromine and iodine.

6. The new chemical compound N-(2-thiofuroyl)-piperidine methiodide represented by the formula



2,833,775

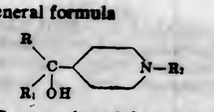
SUBSTITUTED PIPERIDINES

Nathan Sperber, Bloomfield, Frank Villani, Cedar Grove, and Domenick Papa, Bloomfield, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Original application August 17, 1951, Serial No. 242,438, now Patent No. 2,739,968, dated March 27, 1956. Divided and this application August 22, 1955, Serial No. 529,902
5 Claims. (Cl. 260—294.7)

1. Piperidyl carbinols of the group consisting of com-

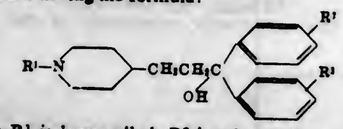
pounds of the general formula



wherein R and R_1 are selected from the group consisting of phenyl, chlorophenyl, and lower alkylphenyl, lower alkoxyphenyl, and R_2 is selected from the group consisting of hydrogen and lower alkyl, and their non-toxic acid addition salts and quaternary salts.

2,833,776
ARYL-SUBSTITUTED PIPERIDYLPROPANOLS
Arlo Wayne Ruddy, Morris Plains, N. J., assignor to Warner-Lambert Pharmaceutical Company, New York, N. Y., a corporation of Delaware
No Drawing. Application September 6, 1955
Serial No. 532,772
6 Claims. (Cl. 260—294.7)

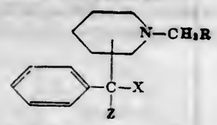
1. A compound selected from the group consisting of compounds having the formula:



wherein R^1 is lower alkyl; R^2 is selected from the group consisting of hydrogen, halogen, hydroxyl, methoxyl, methyl; R^3 is selected from the group consisting of hydrogen, halogen, hydroxyl, methoxyl, methyl; and salts thereof.

2,833,777
N-(CYCLIC AMINOMETHYL) PHENYLPIPERIDYL-METHANES AND CARBINOLS
Kurt J. Rorig, Glenview, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware
No Drawing. Application December 31, 1956
Serial No. 631,394
7 Claims. (Cl. 260—294.7)

1. A compound of the formula



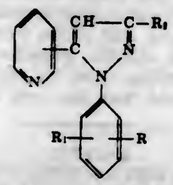
wherein R is selected from the group consisting of succinimido, phthalimido, and β-ethyl-β-methylglutarimido radicals, X is selected from the group consisting of hydrogen and hydroxyl radicals, and Z is selected from the group consisting of hydrogen and phenyl radicals.

2,833,778
PROCESS FOR PREPARATION OF CARBOXYL DERIVATIVES OF CERTAIN N-HETEROCYCLICS BY OXIDATION
Alfred Saffer, Bayside, N. Y., and Robert S. Barker, Plainfield, N. J., assignors, by mesne assignments, to Mid-Century Corporation, Chicago, Ill., a corporation of Delaware
No Drawing. Application March 22, 1955
Serial No. 496,068
13 Claims. (Cl. 260—295)

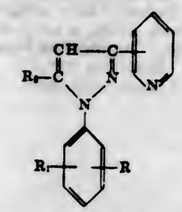
1. A process for producing heteroaromatic carboxylic acids which comprises oxidizing a substituted heteroaromatic compound selected from the group consisting of alkyl-substituted and partially oxidized alkyl-substituted pyridine, quinoline, isoquinoline and acridine in the liquid phase with molecular oxygen in the presence of catalytic amounts of heavy metal and bromine catalysts and recovering said heteroaromatic carboxylic acid.

2,833,779
SUBSTITUTED PYRAZOLES
Thomas L. Fields, Pearl River, N. Y., and Martin J. Weiss, Oradell, and William B. Wright, Jr., Woodcliff Lake, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application October 29, 1956
Serial No. 618,691
12 Claims. (Cl. 260—296)

1. A compound selected from the group consisting of those having the general formulas:



and



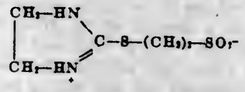
in which R is a member of the group consisting of halogen, hydroxyl, and lower alkoxy radicals, R_1 is a member of the group consisting of hydrogen, halogen, lower alkyl, and lower alkoxy radicals, and R_2 is a lower alkyl radical and acid addition salts thereof.

2,833,780
PRODUCTION OF LYSINE-YIELDING HYDANTOINS AND OF LYSINE THEREFROM
William R. Schmitz, Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 26, 1955
Serial No. 511,421
15 Claims. (Cl. 260—309.5)

1. The method comprising reacting a halobutyl hydantoin from the group consisting of 5-(4-chlorobutyl) hydantoin and 5-(4-bromobutyl) hydantoin with ammonia, employing not in excess of 20 moles of ammonia per mole of said halobutyl hydantoin, at a temperature of at least 100° C. and for a time not exceeding 30 minutes to obtain a mixture of lysine-yielding hydantoins substantially free of said halobutyl hydantoin, and hydrolyzing said mixture to lysine.

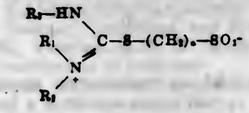
2,833,781
ISOTHIOUREA-ALKYLSULFONATES
Hermann Haas, Dusseldorf-Holthausen, Germany, assignor to Bohme Fettchemie G. m. b. H., Dusseldorf, Germany, a corporation of Germany
No Drawing. Application July 13, 1954
Serial No. 443,147
Claims priority, application Germany July 13, 1953
5 Claims. (Cl. 260—309.6)

4. The process of producing a compound having the structural formula

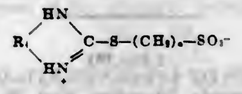


which comprises reacting ethylene thiourea with propane sultone at substantially room temperature, and separating the reaction product from the reaction mass.

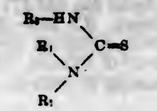
5. The process of producing compounds selected from the group of compounds having the structural formulas



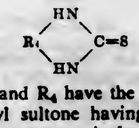
and



wherein R_1 is selected from the group consisting of hydrogen, phenyl and ethyl, R_2 is hydrogen, R_3 is selected from the group consisting of hydrogen, phenyl, p-tolyl and ethyl, R_4 is an ethylene radical and n is an integer from 3 to 4, inclusive, which comprises reacting a compound selected from the group consisting of compounds having the structural formulas



and



wherein R_1, R_2, R_3 and R_4 have the meaning above indicated, with an alkyl sultone having an alkyl chain of from 3 to 4 carbon atoms, inclusive, at substantially room temperature, and separating the reaction products from the reaction mass.

2,833,782
TREATMENT OF POLYCHLORO COPPER PHTHALOCYANINE
Harvey I. Stryker, Carney's Point, N. J., Addison H. Williamson, Louisville, Ky., and Peter F. Gross, Woodstown, N. J., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application April 12, 1954, Serial No. 422,492
15 Claims. (Cl. 260—314.5)

1. A process of recovering pigmentary polychloro copper phthalocyanine from an anhydrous reaction mass containing non-pigmentary polychloro copper phthalocyanine in admixture with a metal halide of the group consisting of aluminum chloride, aluminum bromide and ferric chloride, the proportion of metal halide to pigment being not less than 2:1 in moles, which comprises contacting said reaction mass with water and with an inert, water-immiscible, organic diluent which is capable of displacing water from the surface of a solid phthalocyanine pigment particle, the proportion of said organic liquid to pigment being not less than 0.3:1 by weight, whereby to form an aqueous solution of said metal halide, and separating the pigment from said aqueous solution.

2,833,783
TREATMENT OF POLYCHLORO COPPER PHTHALOCYANINE
Felix Frederick Ehrich, Westfield, and Hans Billroth Gottlieb, Glassboro, N. J., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 12, 1954
Serial No. 422,673
4 Claims. (Cl. 260—314.5)

1. A process of forming an aqueous paste of a pigmentary polychloro copper phthalocyanine from a dry, crude mass of said color which contains no substantial quantities of any salts of the form MX_3 as defined below, which comprises contacting said crude with a metal halide of the formula MX_3, wherein M is a metal of the group consisting of aluminum and iron while X is a halogen of the group consisting of chlorine and bromine, the quantity of said metal halide being not less than 2 moles of MX_3 per mole of pigment, said contacting being effected by stirring said crude and said metal halide together, under anhydrous conditions, in an organic liquid which is water-immiscible and which is capable of displacing water from the surface of phthalocyanine pigments, whereby to effect an intimate association of said crude with said metal halide, and then stirring the system thus obtained with water in sufficient quantity to dissolve out the metal halide.

2,833,784
PRODUCTION OF CHLORINATED PHTHALOCYANINES
Felix Frederick Ehrich, Westfield, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del.
No Drawing. Application April 12, 1954
Serial No. 422,674
10 Claims. (Cl. 260—314.5)

1. In a process for producing a chlorinated phthalocyanine wherein a phthalocyanine compound is chlorinated in a closed reaction zone with a chlorinating agent consisting predominantly of sulfur dichloride, the improvement which comprises prior to removal of sulfur chloride from the reaction mass introducing into the process at least 2 mols per mol of phthalocyanine of a metal halide selected from the group consisting of aluminum chloride, aluminum bromide, ferric chloride, ferric bromide, and sodium aluminum fluoride.

2,833,785
PROCESS FOR THE PRODUCTION OF GLYCOL SULFITE
Wilhelm Dietrich, Marl, Westphalia, and Horst Höfermann, Recklinghausen, Germany, assignors to Chemische Werke Hüls Aktiengesellschaft, Marl, Germany, a corporation of Germany
No Drawing. Application July 25, 1955
Serial No. 524,289
Claims priority, application Germany October 21, 1954
1 Claim. (Cl. 260—327)

Process for the production of glycol sulfite which consists in heating a mixture consisting of ethylene oxide and sulfur dioxide in the liquid phase at a temperature within the range from 50 to 170° C. at a superatmospheric pressure within the range from at least 4 to 25 atmospheres which is sufficient to maintain said mixture in liquid phase and separating the glycol sulfite by distilling the reaction product.

2,833,786
PROCESS FOR PRODUCTION OF GLUTAMIC ACID
Joseph L. Purvis, Cincinnati, Ohio, assignor to International Minerals & Chemical Corporation, a corporation of New York
No Drawing. Application February 28, 1956
Serial No. 568,199
16 Claims. (Cl. 260—343.6)

14. A process comprising oxidizing 3-chlorocyclopentene with ozone by passing an ozone-containing gas through a solution of 3-chlorocyclopentene in an organic solvent at a temperature below room temperature and oxidizing the resulting ozonide with an oxidizing agent to produce a mixture of alpha-hydroxyglutaric acid lactone and alpha-chloroglutaric acid, treating said mixture with ammonia at a temperature above about 200° C. until the reaction is substantially complete, hydrolyzing the resulting reaction product mixture to produce glutamic acid and recovering glutamic acid from the hydrolyzate.

2,833,787

EPOXIDATION PROCESS USING HYDROGEN PEROXIDE AND AN ACID SALT OF A HEAVY METAL PERACID

George J. Carlson, Berkeley, John R. Skinner, Oakland, Curtis W. Smith, Berkeley, and Charles H. Wilcoxen, Jr., San Lorenzo, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application March 15, 1955
Serial No. 494,552
16 Claims. (Cl. 260—348.5)

1. A process for producing an epoxide which comprises reacting a non-conjugated ethylenic compound containing not more than two ethylenic groups and having at least one carbon atom between any two such ethylenic groups with hydrogen peroxide in the presence of an acid salt of an unstable peracid-forming acid of a heavy metal of the group consisting of tungsten and molybdenum at a pH between 3.0 and 7.0.

2,833,788

PRODUCTION OF EPOXIDES

John R. Skinner, Oakland, Charles H. Wilcoxen, Jr., San Lorenzo, and George J. Carlson, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 28, 1955
Serial No. 555,754
12 Claims. (Cl. 260—348.5)

1. In a process for producing an epoxide by reacting hydrogen peroxide with a monoethylenic alcohol of 3 to 18 carbon atoms per molecule the improvement which comprises carrying out the reaction in the presence of at least 0.2% by weight of the feed to the reaction of a water soluble neutral salt of a tungstic acid and discontinuing the reaction before substantial opening of the epoxide ring produced takes place.

2,833,789

HALOSALICYLOYLAMIDOANTHRAQUINONES

Vito A. Giambalvo and Robert J. Albeim, Middlesex Borough, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 30, 1956
Serial No. 562,015
6 Claims. (Cl. 260—377)

2. A compound selected from the group consisting of 1-(3,5-dihalosalicyloylamido) - anthraquinone and 1-(3-halosalicyloylamido)-anthraquinone.

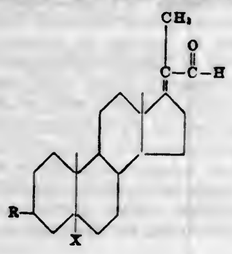
2,833,790

5-HALO-17(20)-BISNORCHOLENAL COMPOUNDS AND PROCESS FOR PREPARING SAME

John M. Chemerda, Metuchen, Earl M. Chamberlin, Westfield, and Edward W. Tristram, Cranford, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application December 2, 1954, Serial No. 472,756, now Patent No. 2,777,843, dated January 15, 1957. Divided and this application November 4, 1955, Serial No. 545,132
10 Claims. (Cl. 260—397.4)

1. Compounds having the structural formula:



wherein R is selected from the class consisting of radicals having the formula —O—R^2 and

wherein R^2 and R^3 are hydrocarbon groups containing less than nine carbon atoms and X is a halogen.

2,833,791

PREPARATION OF 5-PREGNEN-3,17α-DIOL-20-ONE

John M. Chemerda, Metuchen, Earl M. Chamberlin, Westfield, and Edward W. Tristram, Cranford, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 4, 1955, Serial No. 545,132, which is a division of application Serial No. 472,756, December 2, 1954, now Patent No. 2,777,843, dated January 15, 1947. Divided and this application January 7, 1957, Serial No. 632,671
3 Claims. (Cl. 260—397.4)

1. A process which comprises reacting a 3-R-5-halo-17,20-epoxypregnan-20-ol formate, wherein R is selected from the class consisting of radicals having the formula —O—R^2 and

wherein R^2 and R^3 are hydrocarbon groups containing less than nine carbon atoms with a basic substance to form 5-pregnen-3,17α-diol-20-one.

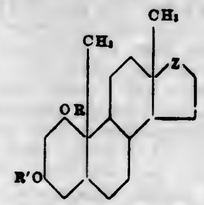
2,833,792

1,3,17-TRIOXYGENATED ANDROSTANE DERIVATIVES

Raymond M. Dodson, Park Ridge, Arthur H. Goldkamp, Deerfield, and Raphael Pappo, Skokie, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application August 2, 1957
Serial No. 675,806
7 Claims. (Cl. 260—397.4)

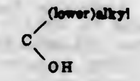
1. A compound of the structural formula



wherein R and R' are members of the class consisting of hydrogen and the acyl radicals of hydrocarbon carboxylic acids and hydrocarbon sulfonic acids having fewer than nine carbon atoms; and Z is a member of the class consisting of the carbonyl group, the hydroxymethylene group, groups of the formula

CHO-acyl

wherein the acyl radical is selected from among the acyl radicals of hydrocarbon carboxylic acids and hydrocarbon sulfonic acids having fewer than nine carbon atoms, and groups of the formula



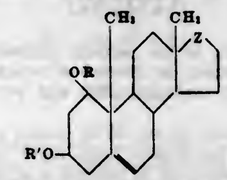
2,833,793

17-OXYGENATED DERIVATIVES OF 5-ANDROSTENE-1,3-DIOL

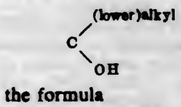
Raymond M. Dodson, Park Ridge, and Robert D. Muir, Deerfield, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application September 30, 1957
Serial No. 686,877
9 Claims. (Cl. 260—397.4)

1. A compound of the structural formula



wherein R and R' are members of the class consisting of hydrogen and the acyl radicals of lower alkanoic and lower alkanesulfonic acids; and Z is a member of the class consisting of the carbonyl group, the hydroxymethylene group, groups of the formula



and groups of the formula

CHO-(lower)alkanoyl

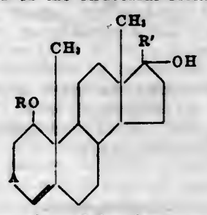
2,833,794

3-OXYGENATED 4-ANDROSTENE-1,17-DIOLS AND DERIVATIVES

Arthur H. Goldkamp, Deerfield, and Raymond M. Dodson, Park Ridge, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application December 18, 1957
Serial No. 703,487
13 Claims. (Cl. 260—397.4)

1. A compound of the structural formula



wherein A is a member of the class consisting of the hydroxymethylene and carbonyl groups, R is a member of the class consisting of hydrogen and (lower alkyl) CO-radicals, and R' is a member of the class consisting of hydrogen, lower alkyl, ethynyl, and vinyl radicals.

2,833,795

PROCESSES OF PRODUCING $\Delta^{4,8(14)}$-3,11,20-TRIKETO - 17 - HYDROXY-21-ACYLOXY-PREGNADIENES

Robert P. Graber, Elizabeth, Norman L. Wendler, Summit, and Calvin Stewart Snoddy, Jr., Plainfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application October 13, 1955
Serial No. 540,335
9 Claims. (Cl. 260—397.45)

1. The process which comprises reacting Δ^4-3,20-diketo - 9,11 - oxido - 17 - hydroxy - 21 - lower hydrocarbon carbonyloxy-pregnene with perchloric acid to produce $\Delta^{4,8(14)}$-3,20-diketo-11,17-dihydroxy-21-lower hydrocarbon carbonyloxy-pregnadiene, and reacting the latter compound with an oxidizing agent to form $\Delta^{4,8(14)}$-3,11,20-triketo-17-hydroxy-21-lower hydrocarbon carbonyloxy-pregnadiene.

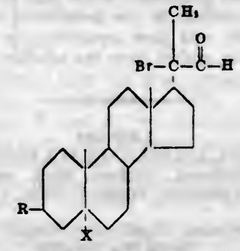
2,833,796

PREPARATION OF 4-PREGNEN-17α-OL-3,20-DIONE

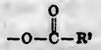
John M. Chemerda, Metuchen, Earl M. Chamberlin, Westfield, and Edward W. Tristram, Cranford, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 4, 1955, Serial No. 545,132, which is a division of application Serial No. 472,756, December 2, 1954. Divided and this application January 7, 1957, Serial No. 632,670
5 Claims. (Cl. 260—397.47)

1. Compounds having the structural formula:



wherein R is selected from the class consisting of radicals having the formula —O—R^2 and



wherein R^2 and R^3 are hydrocarbon groups containing less than nine carbon atoms and X is a halogen.

2,833,797

HYDROXYLATED STEROID DERIVATIVES

Emanuel B. Hershberg, West Orange, N. J., assignor to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application December 30, 1957
Serial No. 705,811
5 Claims. (Cl. 260—397.47)

1. Compounds of the group consisting of 1,4-pregnadiene-16α,21-diol-3,20-dione and the lower alkanoyl esters thereof.

2,833,798

METHOD OF DEGREASING WOOL AND RECOVERY OF WOOL GREASE

Daniel P. Norman, Ipswich, Mass., assignor to Pacific Mills, Lawrence, Mass., a corporation of Massachusetts

No Drawing. Application November 2, 1955
Serial No. 544,612
7 Claims. (Cl. 260—412.8)

1. The process for the removal of suint and wool grease from raw wool which comprises leaching the raw wool containing wool grease and suint with a mixture of methylene chloride and a liquid selected from the class consisting of water and polar organic liquids soluble in methylene chloride, to extract wool grease and suint therefrom, the amount of said liquid being less than 35% by weight on the wool.

2,833,799

RECOVERY OF TETRAVALENT CATIONS FROM AQUEOUS SOLUTIONS

Robert L. Moore, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 3, 1954
Serial No. 413,971
12 Claims. (Cl. 260—429.1)

1. A process of converting tetravalent cations selected from the group consisting of plutonium, zirconium and cerium contained in an aqueous mineral acid solution to a more concentrated form comprising adding a water-miscible monoalkyl orthophosphate to said solution whereby a precipitate forms, and separating the precipitate from the solution.

2,833,800
PROCESS FOR PURIFYING PLUTONIUM
Donald F. Mastick, Napa, Calif., and Arthur C. Wahl, University City, Mo., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application December 19, 1947
Serial No. 792,834
1 Claim. (Cl. 260—429.1)

A process which comprises treating solutions of higher valence plutonium and hexavalent uranium with a soluble iodide to obtain plutonium in the plus three state, while leaving the uranium in the hexavalent state, adding a soluble oxalate, and then separating the insoluble plus three plutonium oxalate from the solution.

2,833,801
ORGANOSILICON SULFONES
George W. Holbrook, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application August 3, 1955
Serial No. 526,310
1 Claim. (Cl. 260—448.2)

A method of preparing organosilicon sulfones which comprises reacting (1) SO_2 with (2) an organosilicon compound having at least one alkenyl group per molecule, the remaining valences of the silicon atoms in said organosilicon compound being satisfied by substituents of the group consisting of hydrocarbon radicals, halohydrocarbon radicals, hydrocarbonoxy radicals and oxygen, in the presence of (3) a catalyst of the group consisting of ultraviolet light, amine oxides, metallic chlorates, metallic nitrates, ozonides, peracids, and peroxides.

2,833,802
PROCESS FOR THE PREPARATION OF ORGANOSILICON COMPOUNDS
Robert L. Merker, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan
No Drawing. Application February 27, 1956
Serial No. 567,714
16 Claims. (Cl. 260—448.2)

1. A process which comprises reacting a tertiary amine salt of an acidic organic compound, said acidic compound having a dissociation constant of greater than 1×10^{-7} and the organic radicals attached directly to nitrogen in said amine salt being alkyl radicals of from 1 to 4 inclusive carbon atoms, with an organosilicon compound containing at least one monohalogenated alkyl radical attached to at least one silicon atom per molecule, said organosilicon compound being free of any other substituents reactive toward other constituents of the reaction mass.

2,833,803
METHOD FOR DETERMINING RECYCLE TO HYDROCARBON SYNTHESIS REACTOR
Clifton G. Frye, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
Application March 14, 1955, Serial No. 493,958
2 Claims. (Cl. 260—449.6)

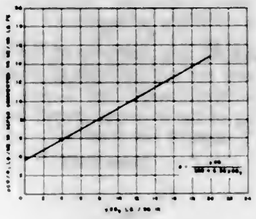
1. In a process for the synthesis of hydrocarbons by the reduction of CO with hydrogen in a reaction zone and in the presence of a relatively dense fluidized bed of catalyst under known operating conditions wherein the resulting product gas is subjected to a cooling step and a portion of the normally gaseous fraction obtained from said step is recycled back to the stream of CO and hydrogen prior to injection of said stream into said zone, the improvement which comprises returning said portion of the normally gaseous fraction to said bed at a level therein at which the rate expression

$$\left(\frac{p\mathrm{CO}}{a+bp\mathrm{CO}_2}\right)_f$$

becomes equal to the rate expression

$$\left(\frac{p\mathrm{CO}}{a+bp\mathrm{CO}_2}\right)_r$$

wherein f refers to the partially converted fresh feed gas and r represents the mixture of recycle and partially converted fresh feed gas, pCO and $p\mathrm{CO}_2$ are partial



pressures of CO and CO_2, respectively, a is a constant representing the intercept of a line with the ordinate axis and b represents the slope of said line, said line having been obtained by plotting

$$\frac{p\mathrm{CO}}{R}(\text{ordinate})$$

against $p\mathrm{CO}_2$ where R is the reaction rate and is equal to the expression

$$\frac{p\mathrm{CO}}{a+bp\mathrm{CO}_2}$$

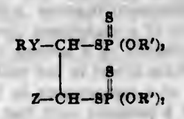
R having been determined by establishing the slope of a curve at any given point, said curve having been obtained by plotting as the ordinate s. c. f. CO converted to hydrocarbons per s. c. f. CO fed against the reciprocal of the space velocity employed.

2,833,804
PRODUCTION OF ORGANIC ACIDS FROM OXYGENATED ORGANIC COMPOUNDS
Karol L. Hujsak and Richard Mungen, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
No Drawing. Original application December 7, 1953, Serial No. 396,624, now Patent No. 2,770,635, dated November 13, 1956. Divided and this application May 31, 1956, Serial No. 588,238
7 Claims. (Cl. 260—450)

1. In a process for converting into organic acids a mixture of aldehydes and ketones, the step which comprises subjecting said mixture to the action of a gas consisting primarily of carbon dioxide in the presence of a hydrocarbon synthesis catalyst but in the absence of hydrocarbon synthesis at pressures ranging upwardly from about 200 p. s. i. and temperatures of from about 145° to about 360° C., said carbon dioxide being the only component reacting with said mixture of aldehydes and ketones.

2,833,805
DITHIOPHOSPHATE INSECTICIDES
William R. Diveley, Newark, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 30, 1955
Serial No. 531,607
20 Claims. (Cl. 260—461)

1. As a new composition of matter a compound of the formula



in which R is a radical of the group consisting of lower alkoxyethyl and lower alkyl radical and R′ is a lower alkyl radical, Y is a member of the group consisting of sulfur and oxygen and Z is a member of the group consisting of hydrogen and RY.

2,833,806
METHOD OF PREPARING ETHYLENE PHOSPHITE
Ingenuin Hechenbleikner, Clarksburg, and Francis C. Lanoue, North Adams, Mass., assignors to Shea Chemical Corporation, Jeffersonville, Ind., and Columbia, Tenn., a corporation of Tennessee
No Drawing. Application April 3, 1957
Serial No. 650,324
13 Claims. (Cl. 260—461)

1. A process of preparing ethylene phosphite comprising hydrolyzing a phosphite selected from the group consisting of aryl ethylene phosphites, halo-arylethylene phosphites and triethylene diphosphite with water.

2,833,807
PRODUCTION OF PHTHALONITRILES
Adalbert Farkas, Media, and Rudolph Rosenthal, East Lansdowne, Pa., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application June 26, 1956
Serial No. 593,795
6 Claims. (Cl. 260—465)

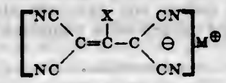
1. The method of preparing phthalonitriles which comprises passing a gaseous mixture comprising a xylene, oxygen and about 2 to 3.5 mols of ammonia per mol of xylene upwardly through a finely divided catalyst for the vapor phase partial oxidation of benzene and naphthalene, respectively, to maleic and phthalic anhydride at linear velocity sufficient to effect fluidization of the catalyst, and maintaining said gaseous mixture in contact with the catalyst at a temperature of about 300 to 550° C.

2,833,808
TELOMERIZATION
Heinrich Brendlein, Hanau (Main) Hohe Tanne, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany
Application January 11, 1957, Serial No. 640,995
Claims priority, application Germany January 13, 1956
7 Claims. (Cl. 260—465.3)

1. In a process for the production of telomerization products by reacting a halogen containing telogen with an olefinic taxogen in the presence of a radical forming catalyst in which non-reacted olefinic taxogen is recycled to the reaction zone, the step which comprises contacting the recycling olefinic taxogen outside of the reaction zone with calcium oxide to remove the hydrohalide formed as a by-product in the telomerization reaction.

2,833,809
ACYCLIC, POLYNITRILE-CONTAINING, UNSATURATED COMPOUNDS AND PREPARATION THEREOF
William Joseph Middleton, Claymont, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 21, 1955
Serial No. 542,091
20 Claims. (Cl. 260—465.5)

1. A compound represented by the formula,

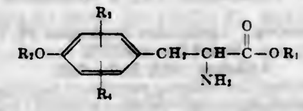


wherein X is selected from the group consisting of —Cl, —Br, piperidino, morpholino, —NH_2, —NHR and —NRR′, wherein R and R′ are hydrocarbon radicals of 1 to 18 carbon atoms, and M is selected from the group consisting of hydrogen and salt-forming cations.

13. The process for preparing a 2-amino-1,1,3,3-tetracyanopropene which comprises reacting tetracyanoethylene with sodiomalononitrile and with a reactant selected from the group consisting of ammonia and primary and secondary hydrocarbon amines of up to 18 carbon atoms in the presence of anhydrous alcohol.

2,833,810
O-ALKYLTYROSINE ESTERS
Henry Marcell Kissman, Nanuet, N. Y., Joseph Peter Joseph, Cliffside Park, N. J., and Bernard Randall Baker, Birmingham, Ala., assignors to American Cyanamid Company, New York, N. Y., a corporation of Delaware
No Drawing. Application March 5, 1956
Serial No. 569,225
6 Claims. (Cl. 260—471)

1. Compounds selected from the group consisting of O-alkyl-L-tyrosine esters of the formula:



wherein R_1 is a member of the group consisting of alkyl radicals, lower alkenyl radicals, lower alkoxy lower alkyl radicals, halo-substituted lower alkyl radicals, cycloalkyl radicals, phenyl lower alkyl radicals, and tetrahydrofurfuryl radical; R_2 is a lower alkyl radical; R_3 and R_4 are members of the group consisting of hydrogen atoms, halogen atoms, nitro and amino radicals with the proviso that when R_3 and R_4 are both hydrogen and R_1 and R_2 are unsubstituted and saturated, the sum of the carbon atoms of R_1 and R_2 is at least seven; and acid addition salts thereof.

2,833,811
CARBOXYLIC ACID ESTERS OF CIS-3,7-DIMETHYL-2-OCTEN-1-OL
Joseph Donald Surmatis, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application October 11, 1954
Serial No. 461,669
4 Claims. (Cl. 260—476)

1. Cis-1-acyloxy-3,7-dimethyl-2-octene wherein the acyl radical contains not more than eight carbon atoms and consists of carbon and hydrogen atoms only, exclusive of a single oxygen atom contained in a carbonyl group.

2,833,812

CARBOXYLIC ACID ESTERS OF CIS-3,6,7-TRIMETHYL-2-OCTEN-1-OL

Joseph Donald Surmatis, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application October 14, 1954
Serial No. 462,359
4 Claims. (Cl. 260—476)

1. Cis-1-acyloxy-3,6,7-trimethyl-2-octene wherein the acyl radical contains not more than eight carbon atoms and consists of carbon and hydrogen atoms only, exclusive of a single oxygen atom contained in a carbonyl group.

2,833,813

PREPARATION AND USE OF PERACETIC ACID

John G. Wallace, Lewiston, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 18, 1952
Serial No. 326,772
8 Claims. (Cl. 260—502)

1. The method of dissociating acetaldehyde hemiperacetate to peracetic acid comprising subjecting said hemiperacetate to the action of a strong acid having a dissociation constant of at least 1.0×10^{-4}.

2,833,814

PREPARATION OF PERACETIC ACID

David R. V. Golding, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 18, 1952
Serial No. 326,773
8 Claims. (Cl. 260—502)

1. The method of dissociating acetaldehyde hemiperacetate to peracetic acid comprising subjecting said hemiperacetate to the action of a base.

2,833,815

TREATMENT OF NAPHTHENIC ACIDS

Stanford J. Hetzel, Cheltenham, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application September 28, 1954
Serial No. 458,974
4 Claims. (Cl. 260—514)

1. In a process for refining petroleum naphthenic acids wherein naphthenic acids, in liquid phase, are reacted with formaldehyde in the presence of a condensation catalyst to form a substantially insoluble, semi-solid sludge, the improvement which comprises contacting a granular solid adsorbent with said sludge whereby the sludge is dispersed by adsorption on said adsorbent, and separating naphthenic acids from the solid adsorbent containing adsorbed sludge.

2,833,816

PREPARATION OF AROMATIC POLYCARBOXYLIC ACIDS

Alfred Saffer, Bayside, N. Y., and Robert S. Barker, Plainfield, N. J., assignors, by mesne assignments, to Mid-Century Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application August 24, 1955
Serial No. 530,401
12 Claims. (Cl. 260—524)

1. A process for producing a polycarboxylic aromatic acid which comprises reacting in a reaction zone, while maintaining a liquid phase in said zone, an aromatic compound selected from the group consisting of polyalkyl aromatic compounds and intermediate oxygenated derivatives thereof with molecular oxygen in the presence of a catalyst comprising in conjoint presence bromine and a heavy metal oxidation catalyst and recovering said polycarboxylic aromatic acid.

2,833,817

PROCESS FOR THE PREPARATION OF TEREPHTHALIC ACID

Alfred Saffer, Bayside, N. Y., assignor, by mesne assignments, to Mid-Century Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application June 27, 1956
Serial No. 594,085
13 Claims. (Cl. 260—524)

1. A process for preparing phthalic acids which comprises reacting diisopropylbenzene with molecular oxygen in the presence of a manganese compound as a catalyst and in the presence as a solvent a mono-carboxylic acid of 2 to 8 carbon atoms in the molecule inert to the oxidation system, at a temperature in the range of 150° to 275° C. and at a pressure such that a liquid phase of said solvent acid is maintained.

2,833,818

PROCESS FOR THE PREPARATION OF TEREPHTHALIC ACID

Ralph Landau, Roslyn Heights, and Alfred Saffer, Bayside, N. Y., assignors, by mesne assignments, to Mid-Century Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application July 30, 1956
Serial No. 600,706
16 Claims. (Cl. 260—524)

1. A process for preparing phthalic acids which comprises reacting diisopropylbenzene with molecular oxygen in the presence of a manganese compound and a mixture of benzoic acid and a saturated aliphatic monocarboxylic acid of 5 to 6 carbon atoms in the molecule, at a temperature in the range of 150 to 275° C. and in which a liquid phase of said acid mixture is maintained.

2,833,819

PROCESS FOR THE PREPARATION OF ISOPHTHALIC AND TEREPHTHALIC ACIDS

Robert B. Egbert, Roslyn Heights, and David Brown, New York, N. Y., assignors to Mid-Century Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application June 14, 1957
Serial No. 665,649
11 Claims. (Cl. 260—524)

1. In a process for the production of a member selected from a group consisting of isophthalic acid and terephthalic acid wherein a liquid mixture containing a member of the group consisting of meta-diisopropylbenzene and para-diisopropylbenzene is oxidized at an elevated temperature in the presence of a heavy metal oxidation catalyst by intimate contact of the mixture with molecular oxygen, the improvements comprising: adding an amount of water to said liquid mixture to provide a reaction mixture at least 10% saturated with respect to water, carrying out said oxidation in the presence of a manganese salt of a monocarboxylic acid containing 2 to 10 carbon atoms and maintaining throughout the oxidation reaction a reaction mixture at least 10% saturated with respect to water by maintaining the reaction mixture at a pressure within the range of 100 to 1500 p. s. i. g. and a temperature in the range of 150 to 275° C.

2,833,820

PROCESS FOR THE PREPARATION OF ISOPHTHALIC AND TEREPHTHALIC ACIDS

Robert B. Egbert, Roslyn Heights, David Brown, New York, and Alfred Saffer, Bayside, N. Y., assignors to Mid-Century Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application June 14, 1957
Serial No. 665,650
15 Claims. (Cl. 260—524)

1. A process for preparing a member selected from a class consisting of isophthalic acid and terephthalic acid which comprises reacting a member of a class consisting of meta-diisopropylbenzene and para-diisopropylbenzene with molecular oxygen in the presence of a catalytic amount of a manganese salt of a monocarboxylic acid containing 2 to 10 carbon atoms and a non-acid organic liquid boiling in the range of 50 to 450° C., and stable under the reaction conditions, and in the presence of water in an amount such that the reaction mixture is at least 10% saturated with water at a temperature in the range of 150 to 275° C., and at a pressure in the range of 100 to 1500 p. s. i. g. such that a liquid phase of organic compound is maintained.

2,833,821

PREPARATION OF CALCIUM LYSINATE

Norman L. Haese, Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 7, 1954
Serial No. 461,011
9 Claims. (Cl. 260—534)

1. The method of preparing calcium lysinate comprising dissolving calcium hydroxide in an alkaline aqueous solution of lysine, in which solution lysine is the sole solute, and recovering solid calcium lysinate by evaporating the resulting solution of calcium lysinate.

2,833,822

METHOD FOR HALOGENATION AND PREPARING HALOGENATED LOWER ALKANOIC ACIDS IN A FLAME

Charles S. Cleaver, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 1, 1955
Serial No. 485,619
21 Claims. (Cl. 260—539)

1. In a process for preparing polyfunctional organic compounds wherein an aqueous dispersion of a lower alkanoic acid is contacted with a fuel combusting mixture having a normal combustion wave in a zone thereof where the temperature is at least 1500° F. measured at standard atmospheric pressure, the improvement which comprises contacting and maintaining halogen free-radicals of atomic number 17 to 53 in intimate mixture with an aqueous dispersion, containing at least 5% liquid water, of said lower alkanoic acid and with said combusting mixture in a zone thereof where the temperature is at least 1500° F. measured at standard atmospheric pressure, removing the aqueous dispersion thereby obtained from contact with said combusting mixture before complete combustion of said organic compound occurs, collecting the aqueous dispersion thus removed, and separating therefrom as a resulting product the halogenated lower alkanoic acid having halogen as an additional functional group.

2,833,823

METHOD FOR THE SEPARATION OF OPTICALLY ACTIVE ISOMERS OF AMPHETAMINE

Mitchell F. Zienty, Elkhart, Ind., assignor to Miles Laboratories, Inc., Elkhart, Ind., a corporation of Indiana

No Drawing. Application August 13, 1953
Serial No. 374,135
7 Claims. (Cl. 260—570.8)

1. A method of separating *l*-amphetamine from a mixture of *l*- and *d*-amphetamine rich in *l*-amphetamine which comprises making a methanol solution of said mixture, reacting said amphetamine in solution with phosphoric acid, and cooling said reaction solution to crystallize *l*-amphetamine in diphosphate form.

2,833,824

PURIFICATION OF N,N'-DIPHENYL-p-PHENYLENEDIAMINE

Benjamin Pecherer, Montclair, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

Application April 10, 1956, Serial No. 577,285
5 Claims. (Cl. 260—576)

1. A process for the purification of N,N'-diphenyl-p-phenylenediamine which comprises percolating a solution comprising impure N,N'-diphenyl-p-phenylenediamine in an inert organic solvent through acid activated, basic magnesium aluminum silicate in an inert atmosphere.

2,833,825

PREPARATION OF ACYLPHENOLS

Allen H. Lewis, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 22, 1954
Serial No. 417,969
4 Claims. (Cl. 260—592)

1. A process for the preparation of para-acylphenols, which comprises contacting an ester of a saturated C_7–C_{18} fatty acid and phenol with about 6 to 30 mols of substantially anhydrous liquid hydrogen fluoride per mol of the ester at a temperature from about 0° to 30° C. and substantially atmospheric pressure to convert said ester to a product mixture of predominantly C_7–C_{18} para-acylphenol, and recovering said para-acylphenol from said product mixture.

2,833,826

PREPARATION OF DIXYLYL SULFONE

James A. Jarboe III, Texas City, Tex., assignor to The American Oil Company

No Drawing. Application April 7, 1955
Serial No. 500,020
8 Claims. (Cl. 260—607)

1. A process for preparing a normally liquid mixture of dixylyl sulfones, which process comprises introducing into a reaction zone a feed mixture of C_8 aromatic hydrocarbons consisting of o-xylene, about 5 to 25%, m-xylene, about 35 to 50%, p-xylene, about 10 to 25%, and ethylbenzene, about 5 to 20%, and an acid selected from the class consisting of (*a*) sulfuric acid and (*b*) xylenesulfonic acid prepared by reacting said mixture of C_8 aromatic hydrocarbons and sulfuric acid, essentially simultaneously in an amount between about 50% and 300% in excess of the stoichiometric requirement for the formation of dixylyl sulfone, said reaction zone being maintained at a temperature between about 310° F. and about 340° F., and a super-atmospheric pressure sufficient to maintain xylenes in essentially the liquid state in said reaction zone; withdrawing a vapor stream of water and xylene to a reflux condenser; separating liquid water from xylene condensate and returning said xylene condensate to said reaction zone; said reaction being continued for a time sufficient to produce dixylyl sulfones in a yield between about 10% and 30% of the theoretical, and recovering from the reaction product mixture a crude dixylyl sulfone mixture containing substantially no tarry materials.

2,833,827

TRI (3,5-DI LOWER ALKYL-4-HYDROXY PHENYL)-SULFONIUM CHLORIDES AND METHOD OF PREPARING SAME

Willi Hahn, Koln-Stammheim, and Rudolf Stroh, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application January 13, 1956
Serial No. 558,849
Claims priority, application Germany January 17, 1955
6 Claims. (Cl. 260—607)

1. A member selected from the group consisting of tri - (3,5 - lower dialkyl - 4 - hydroxy - phenyl) - sulphonium chlorides.

5. A process for the production of sulphonium compounds, which comprises reacting a substituted phenol substituted in at least each of the 2 and 6 positions with a member selected from the group consisting of lower alkyl radicals and chlorine atoms with thionyl chloride in the presence of Friedel-Crafts catalysts and in the additional presence of an inert solvent.

2,833,828

SEPARATION OF ISOMERS OF DIHYDROXY DIPHENYL SULFONE

Thomas W. Sauls, College Park, Ga., assignor to Tennessee Corporation, New York, N. Y., a corporation of New York

No Drawing. Application February 2, 1956
Serial No. 562,925
9 Claims. (Cl. 260—607)

1. A method of separating p,p' dihydroxy diphenyl sulfone and o,p' dihydroxy diphenyl sulfone from one another which comprises contacting a mixture of said isomers with an ether of the formula R—O—R' where R is an unsubstituted alkyl radical containing from one to six carbon atoms and R' is selected from the group consisting of unsubstituted, alkyl radicals containing from one to six carbon atoms and phenyl, to dissolve the o,p' isomer from the mixture, and then separating said o,p' isomer from the undissolved p,p' isomer.

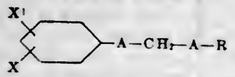
2,833,829

PHENOL AND THIOPHENOL METHYLENE ALKYL ETHERS

Gerhard Schrader, Opladen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

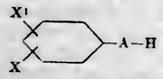
No Drawing. Application March 10, 1954
Serial No. 415,443
Claims priority, application Germany March 16, 1953
7 Claims. (Cl. 260—609)

1. A compound having the formula



in which X is chlorine, X^1 is a member selected from the group consisting of hydrogen and chlorine, A is a member selected from the group consisting of oxygen and sulfur and R is a lower alkyl radical having from 1–4 carbon atoms.

3. A process for the production of phenol and thiophenol methylene alkyl ethers which comprises reacting a chlorophenol having the formula



in which X is chlorine, X^1 is a member selected from the group consisting of hydrogen and chlorine with a halogeno methyl alkyl ether having the formula

$$Hal—CH_2—A—R$$

in which A is a member selected from the group consisting of oxygen and sulfur and R is a lower alkyl radical having from 1–4 carbon atoms in the presence of an acid-binding agent.

2,833,830

3,4,6-TRICHLORO-o-ANOL

Raymond H. Rigterink, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 4, 1956
Serial No. 575,976
1 Claim. (Cl. 260—623)

3,4,6-trichloro-o-anol.

2,833,831

PREPARATION OF PERFLUORODIENES

Robert Neville Haszeldine, Cambridge, England

No Drawing. Application July 14, 1955
Serial No. 522,177
Claims priority, application Great Britain July 26, 1954
9 Claims. (Cl. 260—653.3)

1. A process for the preparation of a perfluorodiene which comprises subjecting to pyrolysis, at a pressure below about 300 mm. of mercury absolute, an anhydrous compound having the formula

$$MO_2C(CF_2)_nCO_2M$$

in which M represents an alkali metal and n is an integer from 4 to 20, thereby producing a perfluorodiene having two less carbon atoms than its precursor and having the formula

$$F_2C{=}CF(CF_2)_mCF{=}CF_2$$

in which m has a value from zero to sixteen.

2,833,832

OXIDATIVE DEHYDROGENATION OF CYCLOHEXANE

John E. Fox, Texas City, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 26, 1954
Serial No. 419,109
7 Claims. (Cl. 260—668)

1. A process for the production of benzene by oxidative dehydrogenation of cyclohexane which comprises bringing a mixture of cyclohexane and a gas containing free oxygen in contact with a catalyst comprising copper chloride, cobalt chloride, and ferric chloride deposited on alumina at temperatures in the range from about 250° C. to about 400° C. and separating benzene.

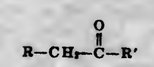
2,833,833

PREPARATION OF POLYALKYLATED BENZENES FROM KETONES

Louis Schmerling, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application February 15, 1955
Serial No. 488,425
9 Claims. (Cl. 260—668)

1. A process for the preparation of a polyalkylated benzene which comprises reacting a ketone having the formula:



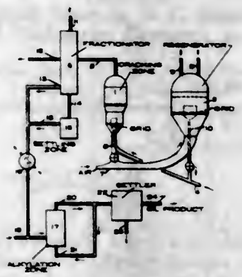
in which R is selected from the group consisting of hydrogen, alkyl and aryl radicals and R' is selected from the group consisting of alkyl and aryl radicals in the presence of a metallic oxide combined with halogen and composited with platinum, and recovering the resultant polyalkylated benzene.

2,833,834

ALKYLATION OF HIGH BOILING CATALYTICALLY CRACKED PRODUCTS

John Rehner, Jr., Westfield, and Lawrence T. Eby, Linden, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application July 16, 1953, Serial No. 368,376
3 Claims. (Cl. 260—671)



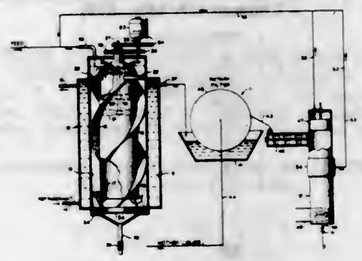
1. A process for reducing the carcinogenicity of a catalytically cracked petroleum fraction boiling above about 700° F. which comprises intimately contacting said fraction under alkylation conditions with an olefin having about 8 carbon atoms per molecule and selectively alkylating carcinogenic constituents of said fraction.

2,833,835

CONTINUOUS CIRCULATING CRYSTALLIZATION PROCESS AND APPARATUS

Richard M. Green and Joseph W. Clark, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

Application November 19, 1954, Serial No. 469,976
14 Claims. (Cl. 260—674)



1. Apparatus for continuously forming crystals in a slurry, comprising a closed chamber; a heat exchange jacket surrounding said chamber, a tube rotatably mounted within said chamber constructed and adapted to permit liquid flow between the space inside of said tube and the space between said tube and said chamber at each end of said tube; means to drive said tube; at least one scraper blade attached to said tube adapted to scrape the inner wall of said chamber; impeller means adapted to circulate material around said tube in a longitudinal direction; means to drive said impeller; a feed material inlet conduit communicating with the space between said tube and said chamber; and an outlet conduit communicating with the space between said tube and said chamber.

2,833,836

SEPARATION OF C_8 AROMATIC HYDROCARBON ISOMERS

Carl B. Linn, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application July 13, 1955
Serial No. 521,917
11 Claims. (Cl. 260—674)

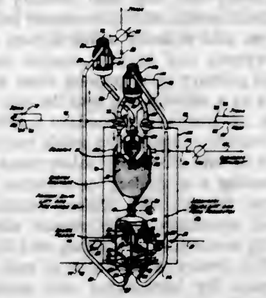
1. A process for separating meta-xylene from a C_8 aromatic hydrocarbon mixture containing the same which comprises contacting said mixture with a solution of a metal halide-boron trihalide complex salt in a liquefied hydrogen halide, the metal of said metal halide being selected from the group consisting of the metals of the iron group and the metals in the left-hand columns of groups IV, V, VI, and VII of the periodic table, to form an extract phase containing meta-xylene in said solvent and a raffinate phase comprising undissolved C_8 aromatic hydrocarbon and thereafter separating said raffinate phase from said extract phase.

2,833,837

PROCESS AND APPARATUS FOR HIGH TEMPERATURE CONVERSIONS

Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application July 19, 1954, Serial No. 444,185
15 Claims. (Cl. 260—679)



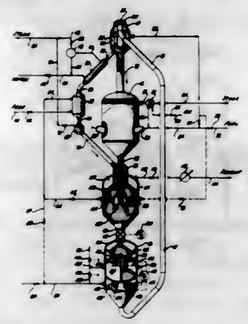
1. A process for conducting high temperature reactions at very short controlled contact times which comprises establishing a reaction zone communicating with a surrounding quenching zone, passing a primary stream of hot granular solids downwardly by gravity as a moving bed through said reaction zone and into said quenching zone, passing a secondary stream of cold granular solids downwardly by gravity as a moving bed around and below said reaction zone through said quenching zone, removing said solids as a mixed stream from said quenching zone, dividing said mixed stream into said primary and said secondary streams, separately raising the pressure of fluids present in the interstices of said primary and secondary solids streams in separate mechanically sealable solids pressuring zones, passing the pressured primary stream of said solids through a primary solids conveyance and heating zone as an upwardly moving bed concurrently with a heating and conveyance fluid forming said primary stream of hot granular solids, passing the pressured secondary stream of said solids through a secondary solids conveyance and cooling zone as an upwardly moving bed concurrently with a cooling fluid forming said secondary stream of cold granular solids, applying a force against the primary and secondary solids streams discharging respectively from the outlets of said primary and secondary solids conveyance zones to maintain the solids therein as upwardly moving beds having substantially the solids' static bulk density to permit sub-

stantially complete heat transfer between the fluid and said solids, passing a reactant fluid into and through said reaction zone in direct concurrent contact with said primary stream of hot solids to react said fluid wherefrom it passes into and through said quenching zone in direct countercurrent contact with said secondary stream of cold solids to terminate the reaction, and removing the effluent from said quenching zone.

13. An apparatus for contacting a fluid with high temperature granular solid contact materials at short contact times which comprises a reaction chamber having a lower outlet opening of restricted cross section, an inlet conduit for reactant fluids opening into the top thereof, a quenching chamber surrounding said reaction chamber and connected at an intermediate point in solids and reaction chamber effluent receiving relation therewith, an outlet conduit for solids opening from the bottom of said quenching chamber, an outlet conduit opening from the top thereof for the effluent fluids, means connected in solids receiving relation to the bottom of said quenching chamber for dividing said solids into a primary and a secondary stream, separate primary and secondary solids pressuring means connected in solids receiving relation to said last named means and adapted for raising the pressure of fluids in the interstices of said solids streams, an elongated primary solids conveyance and heating conduit connected in solids receiving relation to the bottom of said primary solids pressuring means, means for passing a primary conveyance and heating fluid concurrently with solids therefrom through said conveyance and heating conduit to convey and heat said primary solids stream simultaneously, a solids receiving means for disengaging said fluid from said primary solids stream at the outlet of said conveyance and heating conduit means for introducing said primary solids stream from said solids receiving means as a moving bed into the top of said reaction chamber, an elongated secondary solids conveyance and cooling conduit connected in solids receiving relation to the bottom of said secondary solids measuring means, means for passing a secondary conveyance and cooling fluid therefrom through said cooling conduit to convey and cool said secondary solids stream simultaneously, solids receiving means for disengaging said fluid from said secondary solids stream at the outlet of said cooling conduit, and means for introducing said secondary solids stream from said solids receiving means as a moving bed into the top of said quenching chamber around said reaction chamber.

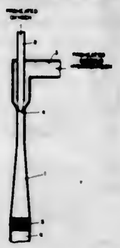
2,833,838
APPARATUS AND PROCESS FOR HIGH TEMPERATURE CONVERSIONS
Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application July 19, 1954, Serial No. 444,281
15 Claims. (Cl. 260—679)

1. A process for conducting high temperature reactions at very short contact times of controlled duration which comprises establishing a reaction zone surrounded by and communicating at its lower open end with an intermediate point in a quenching zone, passing a primary stream of hot granular solids downwardly by gravity as a moving bed indirectly through said quenching zone and directly into said reaction zone and then from its lower open end directly into said quenching zone, passing a secondary stream of cold granular solids downwardly by gravity as a moving bed entirely around said reaction zone through said quenching zone, passing said solids as a mixed warm stream from the bottom thereof into a solids pressure feeding zone, raising the pressure of fluids in the interstices of said warm solids therein to a pressure substantially above that of said reaction and quenching zones, passing the thus pressured solids through an elongated solids conveyance and cooling zone as an upwardly moving bed concurrently with a conveyance fluid to cool the solids and heat the fluid, applying a force against a mass of solids discharging at the outlet of said solids conveyance and cooling zone to maintain said solids therein as a moving mass having substantially the solids' static bulk density, passing a primary stream of said solids downwardly through a heating zone to form said primary stream of hot solids,



passing a secondary stream of said solids downwardly through a cooling zone to form said secondary stream of cold solids, passing a reactant fluid into direct concurrent contact with said primary stream of hot solids to react said fluid in said reaction zone wherefrom it flows directly into said quenching zone and flows therethrough countercurrent to said secondary solids stream to stop said reaction and removing a quenched effluent from the top of said quenching zone.

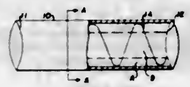
2,833,839
PRODUCTION OF ACETYLENE BY INCOMPLETE COMBUSTION OF HYDROCARBONS WITH OXYGEN
Erwin Lehrer, Bad Duerkheim, Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
Application February 21, 1955, Serial No. 489,807
Claims priority, application Germany March 11, 1954
4 Claims. (Cl. 260—679)



1. In a process for the production of acetylene by incomplete combustion of a preheated hydrocarbon gas with preheated oxygen wherein the two preheated gases are supplied separately through concentric tubes into an elongated mixing chamber of circular cross-section, the two gases are mixed in said mixing chamber and distributed therefrom by means of a plurality of parallel channels into a combustion chamber in which said gases react with flame formation, and the gaseous reaction products are rapidly cooled by spraying with water, the improvement for avoiding formation of a stationary flame in said mixing chamber which comprises: maintaining the mean speed of flow of the two gases at their junction point in the mixing chamber at not less than 150 meters per second, the speed of flow of the preheated hydrocarbon gas being greater than that of the preheated oxygen at said junction point, at a hydrocarbon gas throughput of more than 1000 normal cubic meters per hour and preheating temperatures above 500° C.

2,833,840
PROCESS FOR CONTACTING IMMISCIBLE LIQUIDS
John P. Longwell, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 21, 1954, Serial No. 437,911
2 Claims. (Cl. 260—683.59)

1. An improved process for contacting a relatively light liquid with a lesser quantity of a relatively dense liquid immiscible therewith which comprises introducing said liquids into one end of an elongated cylindrical vessel, imparting helical flow to the liquids along the inner wall of said vessel, forming a slow moving film of the heavier



liquid adjacent to the vessel wall and a faster moving central stream of the lighter liquid flowing concurrently with said slow moving film, and withdrawing the two streams from the opposite end of said vessel.

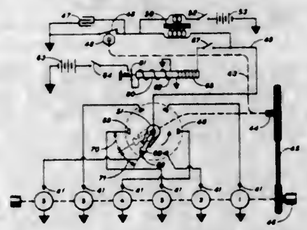
ELECTRICAL

2,833,841
THEFTPROOF IGNITION DEVICE
Theodore E. Diehl, Baltimore, Md.
Application June 3, 1955, Serial No. 512,969
6 Claims. (Cl. 123—146.5)



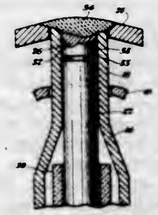
1. In a theft prevention device for a motor vehicle ignition system having a distributor including a breaker and having a lockable ignition switch and a lock therefor having a housing and including a lock cylinder within the lock housing, the improvement comprising a condenser housing removably attached to the lock housing, a condenser within the condenser housing and having one terminal adapted to be connected to the breaker means of the ignition distributor and having a second terminal adjacent said lock cylinder and accessible only from within the condenser housing, means operated by the lock cylinder for engaging the second terminal to ground said terminal to the lock housing.

2,833,842
METHOD AND APPARATUS FOR REMOVING COMBUSTION CHAMBER DEPOSITS
Harrison W. Sigworth and Edward J. McLaughlin, El Cerrito, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application June 29, 1953, Serial No. 364,796
9 Claims. (Cl. 123—148)



1. The method of removing combustion chamber deposits from a combustion chamber of an operating spark-ignition internal combustion engine which comprises supplying a combustible mixture to said combustion chamber and burning substantially all of the mixture in the said chamber while the piston associated therewith is on the compression stroke, and maintaining the combustion products from the burned mixture in said chamber during the power stroke of said piston.

2,833,843
PILOT BURNER AND THERMOCOUPLE THEREFOR
Wilbur Fred Jackson, Compton, and Michael J. Caparone, Arcadia, Calif., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application October 15, 1954, Serial No. 462,502
4 Claims. (Cl. 136—4)



4. In a combination pilot burner and thermocouple, a first thermocouple element of nickel containing metal, a tubular thermocouple element of nickel-free metal in radially spaced coaxial relation to said first element and projecting beyond one end thereof to form a recess, an insert portion of nickel-free metal in said recess having one end welded to said one end of said first element to form a hot thermojunction, a tubular fuel conducting member enveloping said tubular element and terminating in radial flame ports on one side of said thermojunction for directing flame upon said projection adjacent said thermojunction, and a flame retaining plate of nickel-free metal positioned on the opposite side of said thermojunction from said flame ports, said plate being welded to the opposite end of said portion and to said projection leaving an unmelted section of nickel-free metal between said first element and the surrounding atmosphere.

2,833,844
MEASUREMENT OF TEMPERATURES
Eric John Burton, London, and Reginald Mayorcas, Sheffield, England, assignors to Land Pyrometers Limited, Sheffield, England, a British company
Application July 13, 1955, Serial No. 521,819
Claims priority, application Great Britain July 20, 1954
3 Claims. (Cl. 136—4)

1. A suction pyrometer for the measurement of gas temperature, comprising a tube with a suction connection

at one end, the tube being open at the other end, a refractory radiation shield wholly within that other end of the tube with a lengthwise bore, a sheathed thermocouple hot junction located in the bore in the shield, with clearance for gas drawn into the open end of the



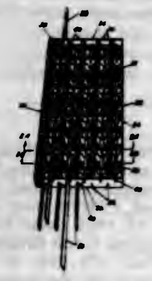
tube to pass round the thermocouple in the bore, passages in the refractory shield surrounding and parallel to the bore in the shield for the further passage of gas drawn into the open end of the tube, and a water-jacket surrounding the part of the tube containing the passaged shield and the hot junction of the thermocouple.

2,833,845
ELECTRIC BATTERY
Leo E. Pucher and William A. Cunningham, South Euclid, and Joseph F. Szabo, Lakewood, Ohio, assignors to The Electric Storage Battery Company, a corporation of New Jersey
Application November 6, 1953, Serial No. 390,707
3 Claims. (Cl. 136—9)



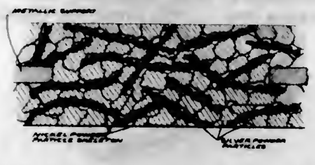
1. The method of forming a silver zinc battery comprising applying a paste of silver oxide to a metallic grid, zinc plating a metallic grid selected from the group consisting of copper, bronze and silver, applying zinc oxide to said zinc plated grid, pressing the edges of both of said grids, forming the positive and negative plates together until the positive active material is electro-chemically converted to silver oxide and the negative active material is electro-chemically converted to metallic zinc, and subjecting said positive plate to additional formation against dummy negative plates whereby said positive active material is electro-chemically converted to silver peroxide.

2,833,846
PLATES AND SEPARATORS FOR STORAGE BATTERIES
Grant Wheat, Marlboro, Mass., assignor to Koehler Manufacturing Company, Marlboro, Mass., a corporation of Massachusetts
Application January 13, 1955, Serial No. 481,521
8 Claims. (Cl. 136—9)



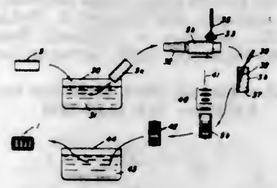
1. A positive plate grid adapted for use in a storage battery of the non-spillable type, comprising two side bars, a top bar and a bottom bar connecting the top and bottom ends, respectively, of said side bars, a plurality of spines of smaller cross-sectional area than said side bars positioned between said side bars and each extending from said top bar to said bottom bar, said spines being arranged in staggered side-to-side relation and being strengthened by a plurality of reinforcing ribs extending in zig-zag configuration from each one of said spines to the next and to the bars at either side, said ribs and said bottom bar being adapted to receive strips around which active material will be pasted, each of said strips running lengthwise of said grid and being opposite one of said spines.

2,833,847
POSITIVE PLATE FOR BATTERIES
Jean Salauze, Paris, France, assignor to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme), Romainville, Seine, France, a French company
Application July 9, 1954, Serial No. 442,445
Claims priority, application France July 24, 1953
7 Claims. (Cl. 136—29)



1. A method of producing an electrode for use as a positive plate for a charged alkaline cell, comprising the steps of preparing a mixture by intimately mixing a finely divided nickel powder having a density of approximately 0.9 and a silver providing substance in the form of finely divided powder capable of passing an approximately 300 mesh/sq. in. screen, with the major portion by weight of the mixture being the silver providing substance, providing a supporting member having interstices, coating said mixture over and into the interstices of the supporting member and sintering the coated assembly.

2,833,848
FLAT DRY CELL BATTERY
Wilbert Henry Marty, Madison, Wis.
Application March 23, 1955, Serial No. 496,248
10 Claims. (Cl. 136—111)



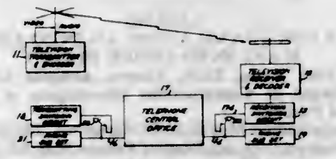
1. A flat dry-cell battery comprising a plurality of cells, each of which comprises a flat negative metal electrode disc, a positive electrode disc having its outer marginal edges turned upwardly, a liquid electrolyte disposed between and in contact with said electrodes, end caps and a single insulating, sealing, containing and strengthening tubular member of plastic having elastic memory, characterized by said positive electrode consisting of synthetic polymeric resinous electrically conductive material inert to chemical degradation by said electrolyte and by said negative electrode being sealed to a positive electrode and by said positive electrode being sealed to a negative electrode and further characterized by an adherent bond between the outer upturned edges of said positive electrode discs and the adjacent interior surface of said tubular member.

2,833,849
ANTENNA MOUNT FOR VEHICLES
Jack Abel, Flushing, N. Y.
Application November 10, 1955, Serial No. 546,058
13 Claims. (Cl. 174—153)



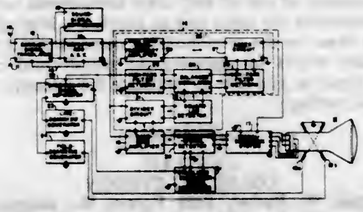
1. An antenna mount for a vehicle, said mount comprising an insulating support adapted to seat on the exterior of a vehicle body, a conductive base piece on said support and formed with an outwardly opening recess, a conductive fastener extending inwards through said base piece, support and vehicle body for fixing said base piece relative to said vehicle body, the inner end of said fastener being adapted for electrical connection to a radio, an integral lug projecting outwards from said base piece on one side of said recess, a conductive member disposed alongside of said lug and rotatably received in said recess, holding means for releasably clamping said member against said lug in any desired position of member rotation, and an elongate aerial projecting from said member.

2,833,850
SUBSCRIBER TELEVISION SYSTEM
Everhard H. B. Bartelink, Bronxville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application April 4, 1952, Serial No. 280,613
2 Claims. (Cl. 178—5.1)



1. A subscriber television system comprising, a television transmitter transmitting a composite television signal including synchronizing signals and interlaced picture field signals, said television transmitter including means for delaying interlaced horizontal scanning lines as respects horizontal synchronizing signals in accordance with a selected harmonic time function of the field frequency, said selected function having a fundamental frequency of one-half said field frequency, means at said transmitter for generating a phasing signal whose frequency is equal to said fundamental frequency, means for modulating said composite television signal by said phasing signal, a television receiver including a picture tube for receiving said delayed horizontal scanning lines and said phasing signal, trigger means at said receiver operated conjointly by said phasing signal and vertical synchronizing signals producing therefrom an output signal synchronized by said vertical synchronizing signals and phased by said phasing signal, decoder means actuated by said trigger means output signal for generating a voltage having a harmonic time function of said field frequency, circuit means for applying said last named voltage to said picture tube to neutralize said horizontal scanning line delay, receiving switching circuit means for adjusting the time function of the voltage generated by said decoding means, a code signal generator positioned at a point remote from said receiver generating selected code signals for controlling and adjusting said receiving switching circuit means, and a line circuit connecting said code signal generator and said receiving switching circuit means for transmitting said selected code signals.

2,833,851
COLOR-TELEVISION SIGNAL-MODIFYING APPARATUS
Bernard D. Loughlin, Lynbrook, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application August 4, 1954, Serial No. 447,761
14 Claims. (Cl. 178—5.2)

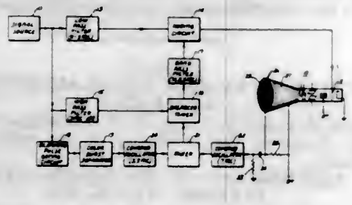


1. A color-television apparatus for translating a wide band luminance component and a reduced band-width chrominance component of a video-frequency composite color-television signal, which chrominance component tends to affect the reproduced luminance and thereby to degrade the fine detail of a color image when utilized in a color-television receiver together with the luminance component to reproduce the more saturated colors, comprising: a first channel for translating said luminance component; a second channel for translating the high-frequency portion of said luminance component including a modulator circuit having a controllable gain characteristic for modifying the amplitude of the high-frequency portion of said luminance component relative to the amplitude of the low-frequency portion of said luminance component; circuit means for supplying a signal representative of the amplitude of said chrominance component; a divider circuit jointly responsive to the amplitudes of said luminance and chrominance components for developing a signal representative of the ratio of the amplitudes of said components; a square-law detector responsive to said ratio signal for controlling the gain characteristic of said modulator circuit in accordance with the square of said ratio signal to modify said high-frequency portion of said luminance component in accordance with the saturation of the color; and an adding circuit for adding said high-frequency portion of said luminance-signal component translated by said second channel with said luminance component translated by said first channel to correct for the tendency to degrade the fine detail of a color image reproduced by said color receiver.

2,833,852
COLOR SIGNAL CONTROL SYSTEM FOR COLOR TELEVISION RECEIVERS
Robert C. Moore, Erdenheim, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 10, 1951, Serial No. 214,995
12 Claims. (Cl. 178—5.4)

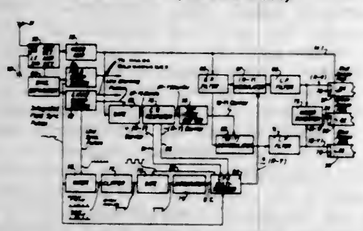
8. In a color television receiver, a display tube having screen elements responsive in different colors to electron beam impingement as the beam successively scans said elements during each line scanning, and also having indexing means to generate a control signal, a source of a composite chrominance signal in the form of a single

alternating wave having successively occurring portions representative of different selected color components of the image to be reproduced, means for utilizing said control signal to transform said chrominance signal into a single alternating signal having successive portions



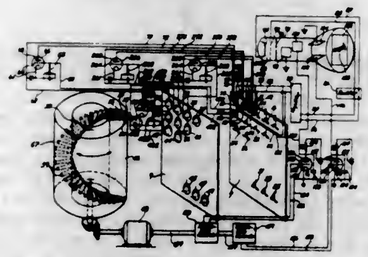
representative of one of said color components occurring at substantially the same rate as successive impingements of said beam on the corresponding color elements of said tube, and means for applying the transformed chrominance signal to said tube to modulate the intensity of said beam accordingly.

2,833,853
COLOR TELEVISION
Norman W. Parker, Park Forest, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application October 24, 1952, Serial No. 316,690
5 Claims. (Cl. 178—5.4)



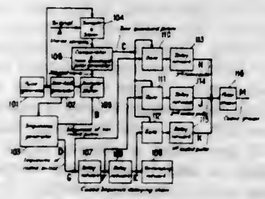
1. In a color television receiver for utilizing a color television signal having line and field synchronizing components whose relative timing varies at the end of each frame so that a line synchronizing pulse may appear effectively pedestaled on predetermined alternate ones of the field synchronizing pulses, and including a trigger circuit actuated between two stable operating conditions by said field synchronizing components, a control circuit for controlling the sequence of actuation of the trigger circuit by successive ones of said field synchronizing components including in combination, a mixer network responsive to said line and field synchronizing components for pedestaling a line synchronizing pulse on the predetermined alternate ones of the field synchronizing pulses, a clipper circuit for producing a control pulse in time coincidence with said predetermined alternate ones of said field synchronizing components, an integrating network for developing a control potential in response to applied pulses, a gate network controlled by the trigger circuit for passing said control pulses from said clipper network to said integrating network, said gate-circuit being actuated by output pulses from said trigger circuit of a selected polarity to pass said control pulses only when the actuation of the trigger circuit by successive ones of said field synchronizing pulses is in a desired sequence so that said integrating network develops a control potential exceeding a selected threshold during such desired sequence, and a connection extending from said integrating network to the trigger circuit for impressing said control potential on said trigger circuit to trigger said trigger circuit into a selected operating condition and to arrest the actuation thereof by said field synchronizing components when said control potential falls below said selected threshold, the trigger circuit being so triggered into said selected operating condition whereby said third network passes said control pulses so as to increase said control potential above said selected threshold and restore the actuation of the trigger circuit with the desired sequence.

2,833,854
ELECTRIC SYSTEM
Robert Harvey Rines, Brookline, Mass.
Application February 3, 1944, Serial No. 520,980
5 Claims. (Cl. 178—7.5)



1. An electric system having, in combination, a plurality of normally ineffective means for receiving radio waves from an object, a radio-frequency tuned circuit responsive to the frequency of the radio waves, relay means for successively connecting the radio-receiving means to the radio-frequency tuned circuit to render the radio-receiving means successively effective, and means controlled synchronously with the connecting means and responsive to the radio waves received by the receiving means when rendered effective and fed to the tuned circuit for producing a likeness of the object.

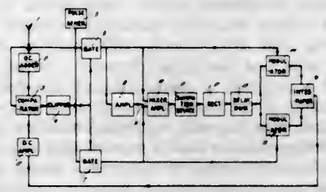
2,833,855
CODER FOR TRANSLATING AN INTELLIGENCE WAVE INTO CODED PULSES
Andre Paul Pagès, Paris, France, assignor to Societe Alsacienne de Constructions Mecaniques, a corporation of France
Application May 6, 1952, Serial No. 286,234
Claims priority, application France May 17, 1951
3 Claims. (Cl. 178—43.5)



1. In a telecommunication system wherein an intelligence wave to be transmitted is sampled for its instantaneous amplitude at periodically recurring instants with a time period T and in which each sampled amplitude is represented by a group of an integer number n of coded electric pulses, each of which may be two possible signalling conditions 2^n possible different amplitudes being respectively represented by the 2^n possible different permutation groups of n electric pulses of one or of the other of said signalling conditions, a coding device comprising

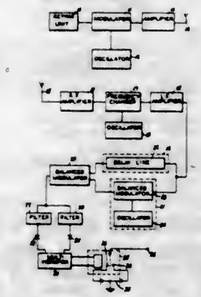
a main generator of periodic pulses of period T, electron tube means controlled by pulses from said generator whereby a non-coded sequence and a coded sequence of voltage pulses are produced, a storer and sampler device controlled by said periodic pulses from said generator for periodically sampling the said intelligence wave and storing the value of its sampled instantaneous amplitude in the form of an electric voltage, a stepped-wave generator controlled by the pulses of the said non-coded sequence and supplying a stepped-save whose successive voltage levels are in number 2^n and reproduce the 2^n different amplitudes of the said intelligence wave to be represented, a voltage comparator for comparing the level of the said stepped wave to said stored amplitude of the said intelligence wave and a control pulse generator controlled by the said comparator allowing a control pulse to be generated when the amplitude of the said stepped wave equals the value of the said stored amplitude of the said intelligence wave, a chain of delay networks provided with n connection points to the input end of which the above said sequence of coded pulses is applied and to the output end of which a non-reflective terminal impedance is connected, and n gate devices controlled by the said control pulse for causing the n values of the n voltages present at the said n points to be transferred as n voltage pulses to a common utilization circuit.

2,833,856
PULSE TRANSMISSION TELECOMMUNICATION SYSTEMS
Jean André Ville, Paris, France, assignor to Societe Alsacienne de Constructions Mecaniques, Paris, France
Application December 13, 1954, Serial No. 474,753
Claims priority, application France December 31, 1953
7 Claims. (Cl. 178—43.5)



1. In a telecommunication system including a sending end, a transmission circuit and a receiving end and in which intelligence is transmitted in the form of recurrent electric pulses each of which is of one or the other of two possible signalling conditions according to whether the instantaneous amplitude sampled at recurrent instants of an intelligence signal of variable amplitude and constant polarity exceeds or not that of a comparison signal generated at said sending end and derived from said transmitted pulses, the method consisting in forming said comparison signal by continuously producing a sequence of constant amplitude pulses derived from said transmitted pulses and individually having a positive or a negative polarity according to the individual signalling condition of said transmitted pulses, deriving from said sequence at any instant a first auxiliary signal by integrating in time of said sequence after multiplying the individual amplitude of each pulse of said sequence produced previous to said instant by a numerical factor decreasing with the increasing time rank of said pulse counted from said instant, deriving from said first auxiliary signal, a second auxiliary signal by rectifying said first auxiliary signal so as to preserve its instantaneous amplitude while giving it a constant polarity, continuously amplitude modulating above said pulse sequence proportionally to the instantaneous amplitude of said second auxiliary signal, time integrating the so-obtained amplitude-modulated pulse sequence and adding to the latter integrated sequence a signal component of constant amplitude and polarity, whereby said comparison signal is obtained.

2,833,857
FREQUENCY SHIFT SIGNALLING SYSTEM
Harold Kilner Robin, Tunbridge Wells, England, assignor to National Research Development Corporation, London, England
Application February 6, 1956, Serial No. 563,765
Claims priority, application Great Britain December 6, 1950
7 Claims. (Cl. 178—66)

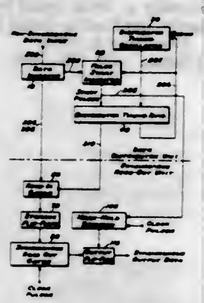


1. An electric signalling system comprising means for generating at least two signals for transmission in succession, a transmitter, means to apply said signals to said transmitter, said transmitter comprising means controlled by said signals to transmit a first burst of oscillations in response to the first of said signals and, in response to the second of said signals, to transmit a second burst of oscillations whose frequency differs from that of the oscillations in said first burst by an amount directly characteristic of and individual to said second signal, and a receiver to receive said bursts of oscillations, said receiver comprising means forming two transmission channels having a common input, means to apply the received bursts to the two channels, one of the channels including means for changing the frequency of oscillations passed therethrough by a fixed amount, and at least one of the two channels including a delay device to delay the output from said one channel relative to the output of the other channel by a period equal to the period between the commencement of the two bursts, an output circuit and means for applying the outputs of the two channels to the output circuit, said output circuit including means to derive from the outputs of said channels an output oscillation whose frequency is directly dependent upon the difference between the frequencies of the outputs of the two channels.

2,833,858
CODE CONVERTER
George F. Grondin, Van Nuys, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application February 28, 1956, Serial No. 568,219
8 Claims. (Cl. 178—70)

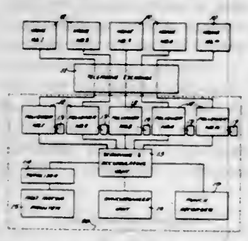
2. An electronic code converter for converting a non-synchronous mark-space input signal from a teletypewriter to a synchronous output code, comprising, a distributor timing ring, said ring initiating a plurality of space distributed pulses adapted to be individually coincident with each code element, a plurality of storage flip-flops, a pair of read-in gates connected to the inputs of each of said storage flip-flops, each pair of read-in

gates receiving individual ones of said pulses from said distributor timing ring, means for inverting said input signal, the first one of each pair of read-in gates connected to said non-synchronous input signal, the second one of each pair of read-in gates connected to the inverted input signal, the outputs of each storage flip-flop individually connected to a pair of read-out gates, an output flip-flop, first ones of each pair of read-out gates connected to a first input of said output flip-flop, second ones of each pair of read-out gates connected to a



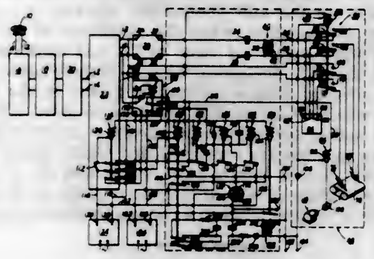
second input of said output flip-flop, a source of synchronous clock pulses, individual ones of said clock pulses connected to each of said pairs of read-out gates, wherein said clock pulses are passed to the output flip-flop through particular ones of each of said pairs of read-out gates as controlled by the information stored within the storage flip-flop associated therewith, whereby the output of said input flip-flop is successively switched to a condition corresponding to each data element of said non-synchronous code input and the rate of such switching is controlled by said synchronous clock pulses.

2,833,859
SYSTEM FOR DETERMINING LISTENING HABITS OF WAVE SIGNAL RECEIVER USERS
Henry A. Rahmel, Evanston, Robert L. Freeman, Glenview, Charles H. Currey, Palatine, and Darrel W. Holbrook, Park Ridge, Ill., assignors to A. C. Nielsen Company, Chicago, Ill., a corporation of Illinois
Application March 16, 1956, Serial No. 572,159
35 Claims. (Cl. 179—2)



1. In a system for monitoring the use of a wave signal receiver, the combination of sender means operatively connected to said receiver, follower means disposed at a remote location with respect to said sender means, a transmission medium interposed between said sender means and said follower means for conveying electric signals from one of said means to the other of said means, said sender means comprising a constant speed motor which is energized whenever the operating condition of said receiver is changed, said follower means comprising a constant speed motor which is energized whenever the operating condition of said receiver is changed, synchronizing means responsive to every change in operating condition of said receiver for synchronizing the operation of said motors, and means including said transmission medium for stopping both of said motors when the movable element of said sender motor is in a position corresponding to the tuning condition of said receiver.

2,833,860
DICTATION SYSTEM
Frederick W. Roberts, Fairfield, Roger C. Curtis, New Haven, and Lloyd R. Jones and Rudolf E. Freund, Bridgeport, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
Application April 10, 1956, Serial No. 577,305
22 Claims. (Cl. 179—6)

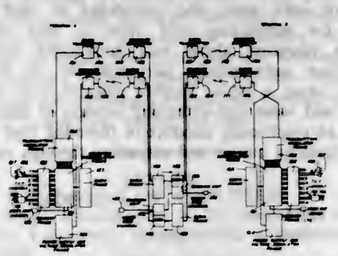


1. A remote dictation system comprising, in combination, a plurality of remote dictator's stations each including sound transducing apparatus and a dial-operated switch, telephone switchboard apparatus with means for connecting said dictator's stations to said switchboard apparatus, a centrally-located recording machine having a movable record and a recording head arranged for relative traveling movement, motor drive means for producing said relative travelling movement, control means for activating said drive means, said machine also including at least one operating element arranged when actuated to accomplish a predetermined function relating to operation of the machine for dictation purposes, a talking circuit coupling said recording machine to said switchboard apparatus in such a manner that said switchboard may be conditioned to establish a sound channel between any one of said remote dictator's stations and said machine, means responsive to pulses transmitted through said sound channel by said dial-operated switch and arranged to actuate said operating element in said machine when a predetermined number of dial impulses has been produced at said one dictator's station, a voice signal-responsive device coupled to said sound channel and arranged when energized by sound signals produced by said sound transducing apparatus to actuate said control means and thereby activate said drive means, and means for delaying the transmission of said sound signals to said recording head for a time duration longer than the time required for said drive means to reach proper operating speed.

2,833,861
COMMUNICATION SYSTEM, INTERMEDIATE RELAY REPEATER STATION
Frithiof B. Anderson, Fanwood, and James O. Edson, Warren Township, Somerset County, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Continuation of application Serial No. 675,902, June 11, 1946. This application October 6, 1952, Serial No. 313,278
10 Claims. (Cl. 179—15)

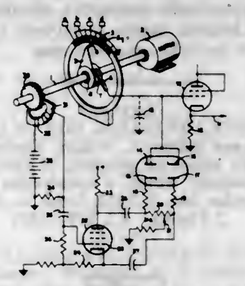
1. In a communication system, a source of permutation code groups of pulses each group comprising successive pulses, each of one of a plurality of different signal-

ing conditions, and representing in accordance with the permutation code the instantaneous value of a message



wave, and means for modulating the time position of said pulses in accordance with another message wave to simultaneously transmit both said message waves.

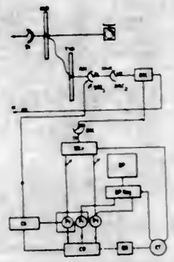
2,833,862
MULTIPLEXING COMMUTATORS
William A. Tolson, Hightstown, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 11, 1953, Serial No. 379,747
5 Claims. (Cl. 179—15)



3. A signal multiplexing system comprising a plurality of sources of separate signals of varied amplitude; a transmission circuit; commutator means successively coupling said transmission circuit to said sources; a grid controlled amplifier in said transmission circuit; means to return the grid of said amplifier to a reference level after the transmission of each signal, said means comprising a diode means connected between said grid and a point of reference potential; and a pulse generator synchronized with said commutator means, the pulse generator being so coupled to said diode means as to make the diode means conductive after transmission of each signal.

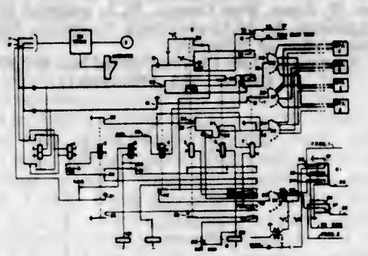
2,833,863
RECODING EQUIPMENT IN AN AUTOMATIC COMMUNICATION SYSTEM
Leendert Kosten, The Hague, Netherlands, assignor to Staatsbedrijf der Posterijen, Telegrafie en Telefonie, The Hague, Netherlands
Application January 11, 1954, Serial No. 403,349
Claims priority, application Netherlands January 13, 1953
13 Claims. (Cl. 179—18)

1. A recording equipment for an automatic communication system having a plurality of subscribers and an automatic switching apparatus, comprising: a magnetic drum which stores impulse signals at a more rapid rate than said automatic switching apparatus can operate and has different preselected portions thereof corresponding to different subscribers, means for recording and reading said signals on said drum, an operator's position circuit for changing the signals recorded on said drum, a coincidence circuit for selecting a position on said drum corresponding to a desired subscriber, and special register circuits for storing signals corresponding to a selected posi-



tion on said drum for a corresponding subscriber and transforming said stored signals at a relatively slower rate for operation of said automatic switching apparatus.

2,833,864
TELEPHONE SYSTEM PAYSTATION IDENTIFICATION
Clarence E. Lomax, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application January 3, 1955, Serial No. 479,528
10 Claims. (Cl. 179—18)

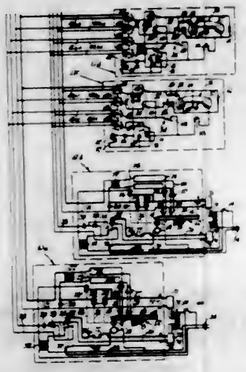


1. In a telephone system, a calling line, a plurality of called lines certain of which are paystation lines, means for establishing a connection between said calling line and any one of said called lines, a source of ringing current, a source of signalling current, ringing means for applying said ringing current to said connection to ring the called line at intermittent predetermined timed intervals, and additional means in said ringing means effective only in the event that said called line is a paystation line for applying said signalling current to said connection alternately during the intervening times between said predetermined intervals to thereby notify the calling party that said called line is a paystation line.

2,833,865
MULTISTATION REMOTELY-CONTROLLED PHONOGRAPH SYSTEMS
Martin J. Kutik, New York, N. Y., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application July 10, 1956, Serial No. 596,867
19 Claims. (Cl. 179—100.1)

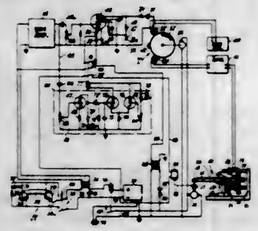
1. In a remotely-controlled selective phonographic system comprising a plurality of dictating machines each including a drive motor and a plurality of dictators' stations: the combination of a stand-by relay at each machine; a master switch at each machine having "on" and "off" positions; communication and control circuits for connecting the stations selectively to said machines; means responsive to shifting the master switch at a machine to "on" position for causing the stand-by relay to shift from one posi-

tion to another; and a power circuit for each motor controlled by the respective master switch and a switch of the



respective stand-by relay, said latter switch being closed to permit said motor to run only when the stand-by relay is in said other position.

2,833,866
VOICE-CONTROLLED DICTATION-RECORDING SYSTEM
George W. Easer, West Orange, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application July 12, 1956, Serial No. 597,370
7 Claims. (Cl. 179—100.1)



1. In a dictation-recording system including a dictating machine and a dictator's transducer: the combination of control means for starting and stopping said dictating machine; an audio circuit for connecting said transducer to said machine; an electrically-operable device connected to said audio circuit and operated by audio signals therein produced by dictation spoken into said transducer for operating said control means to start position; means controlled by said electrically-operable means for feeding a warning signal into said audio circuit to apprise the dictator when said control means is in stop position; and means for causing the signal energy in said audio circuit to said dictating machine to be at a reduced level when said control means is in stop position.

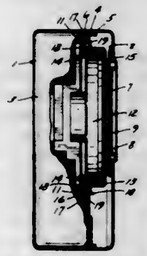
2,833,867
PHONOGRAPH TONE ARM
William Blinoff, Prospect Heights, Lester C. Gutschick and Joseph E. Wrzepski, Chicago, and Fred P. Venditti, Lisle, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application September 11, 1953, Serial No. 379,518
4 Claims. (Cl. 179—100.41)

4. A phonograph pick-up cartridge including in combination, housing means having a cavity therein, an electrically conductive vane, a first electrically conductive member integral with one end of said vane and disposed at an obtuse angle with respect thereto, said first electrically conductive member being substantially flat in the plane of said vane and supported in said housing means for supporting said vane in said cavity for resilient vibration about said conductive member in a direction substantially perpendicular to the plane of said vane, a stylus formed integral with the other end of said vane and extending outside of said housing means, an electrically conductive threaded stud mounted in said housing means and extending through one of the



pieces thereof with its longitudinal axis substantially perpendicular to the plane of said vane and having an end spaced from said vane to constitute a variable capacitive element therewith, said stud being adjustable along the longitudinal axis thereof to vary its spacing from said vane, and a second electrically conductive member supported in said housing means and extending across said threaded stud in electrical contact therewith, said first and second electrically conductive members protruding through said housing means to provide respective electrical contacts for said vane and stud.

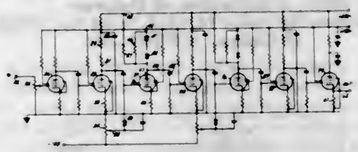
2,833,868
MICROPHONE MOUNTING FOR HEARING AIDS
John J. Kojis and William C. Wilcox, Minneapolis, Minn., assignors, by mesne assignments, to Maico Electronics, Inc., Minneapolis, Minn., a corporation of Minnesota
Application May 7, 1953, Serial No. 353,541
2 Claims. (Cl. 179—107)



1. In a device of the class described, a casing having a sound aperture in a wall thereof, a mounting plate supported within the casing in spaced generally parallel relation to said apertured casing wall and having an aperture generally concentric with the sound aperture of said casing wall and providing an annular seating surface marginally of said aperture and opposed to said apertured casing wall, a microphone located in the space between the apertured casing wall and the apertured mounting plate and generally in axially centered relation therewith, the microphone being of less diameter than the aperture in the mounting plate, an annular mounting element of highly resilient and elastic material marginally embracing the periphery of the microphone and having axially spaced radially inwardly directed inner and outer retaining flanges engaging the marginal portions of the inner and outer walls of the microphone, the outer of said flanges comprising an acoustical seal and flaring radially inwardly and axially outwardly of the associated marginal edge portion of the microphone into engagement with the front

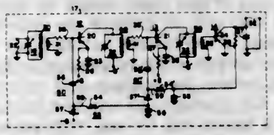
wall of the casing adjacent the microphone opening therein, and said resilient and elastic mounting member further defining a radially outwardly projecting annular mounting flange spanning the space between said microphone and said microphone mounting seat and seated upon the latter, said acoustical seal forming flange exerting outward yielding pressure on the front wall of the casing and yieldingly urging said mounting flange against its cooperating seating surface.

2,833,869
POWER LAW AMPLIFIER
Julius C. Ward, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application August 16, 1950, Serial No. 179,753
3 Claims. (Cl. 179—171)



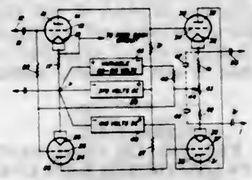
1. An amplifier of the class described comprising, a thermionic tube having at least an anode, cathode and control electrode, means for impressing an input signal on said control electrode, a nonlinear resistance circuit including at least one germanium crystal connected in series between said anode and a positive terminal, said crystal being so poled as to be more conductive in the direction toward said anode, a resistor connected in shunt to said nonlinear resistance circuit, a second resistor connected between said anode and a second positive terminal, and an output circuit connected to said anode.

2,833,870
AUTOMATIC-GAIN-CONTROL SYSTEM
Carl R. Wilhelmsen, Westbury, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application June 26, 1956, Serial No. 593,843
1 Claim. (Cl. 179—171)



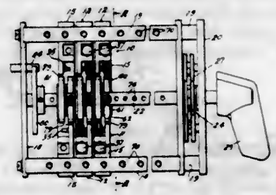
An automatic-gain-control system comprising: a source of a modulated wave signal; a pair of cascade-coupled transistor repeater circuits coupled to said source for translating said signal; a transistor detector having an input circuit coupled to said repeater circuits and having an output circuit and effectively biased to cutoff in the absence of said translated signal for deriving in said output circuit a control effect representative of the average amplitude of said modulated wave signal; a pair of circuits including a pair of variable conductivity means individual ones of which are effectively coupled in shunt with at least a portion of individual ones of said repeater circuits; and control circuit means directly connected between said output circuit and said variable conductivity means for applying said control effect to the latter to vary the conductivity thereof and the energy translated by said repeater circuits in a sense to maintain the average amplitude of said translated signal within a relatively narrow range for a wide range of intensities of said modulated wave signal.

2,833,871
PHASE INVERTER
Elgin Fremont Worthen, Manchester, N. H.
Application March 12, 1957, Serial No. 645,586
11 Claims. (Cl. 179—171)



1. A phase inverter, comprising a first vacuum tube having a first anode, cathode and grid, a second vacuum tube having a second anode, cathode and grid, a third vacuum tube having a third anode, cathode and grid, a fourth vacuum tube having a fourth anode, cathode and grid, a point of fixed reference potential connected to said first and second cathodes, means for applying input signal between said first grid and said point of reference potential, a first anode load for said first vacuum tube, a second anode load for said second vacuum tube, a source of first anode voltage connected from said point of reference potential via said first anode load to said first anode and via said second anode load to said second anode, an impedanceless connection from said third grid to said first anode, an impedanceless connection from said fourth grid to said second anode, a source of second anode voltage greater than said first voltage, means connecting said source of second anode voltage from said point of reference potential directly to said third and fourth anodes in parallel, first, second and third cathode load resistances connected in series in the stated order between said third cathode and said fourth cathode, said first and third cathode load resistances being equal, a tap to a point of said second resistance, a source of further voltage having a positive terminal and a negative terminal, a direct connection from said positive terminal to said point of reference potential, a further resistance, means connecting said negative terminal via said further resistance to said tap, another resistance, a connection from said tap via said another resistance to said first grid, an impedanceless connection from said tap to said second grid and means for connecting a load to said phase inverter.

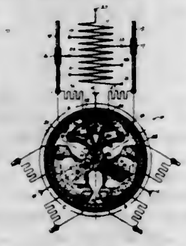
2,833,872
ROTARY SWITCH
Max Oberholzer, Liebefeld, near Bern, Switzerland, assignor to Hasler A. G. Werke für Telephonie und Praziosionsmechanik, Bern, Switzerland
Application March 16, 1954, Serial No. 416,546
Claims priority, application Switzerland March 30, 1953
15 Claims. (Cl. 200—6)



1. In a multi-position multi-contact cam switch, in combination with contact actuating means and a rotatable operating shaft of rectangular transverse cross-sectional configuration for controlling said contact actuating means, the provision of a unitary control cam having a notched circular periphery arranged to engage and control said

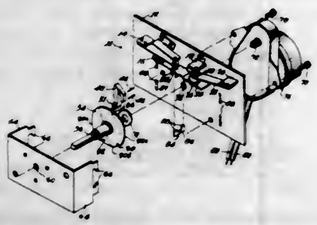
contact actuating means and having a slot formed therein, said slot being open at the periphery of said cam and of sufficient width to receive said operating shaft laterally removably therein, said slot having a closed end portion shaped to closely embrace three sides of said operating shaft and position the periphery of said cam concentrically with respect to the rotational axis of said shaft, and disengageable fastening means removably securing said cam on said shaft in said concentric position.

2,833,873
MULTI-POLE TAP SWITCH CONSTRUCTION FOR CHANGING TRANSFORMER TAPS UNDER LOAD
Bernhard Jansen, Regensburg, Germany
Application December 26, 1956, Serial No. 630,598
Claims priority, application Germany January 7, 1956
32 Claims. (Cl. 200—17)



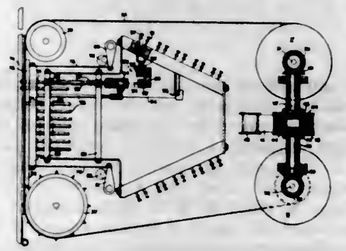
1. A switch construction, comprising a plurality of stationary contact members disposed in spaced relationship in a circular arcuate configuration, a revoluble operating shaft having its axis of rotation concentric with said arcuate configuration, a contact carrier eccentrically pivoted to said shaft, a plurality of movable contact members carried by said carrier, said contact members being radially movable with respect to the pivotal axis of said carrier, resilient means urging said contact members radially toward said stationary contact members, said movable contact members being spaced apart at their outer end portions for individual engagement each with a cooperating one of said stationary contact members, and planetary gear means separate from all of said contact members driven by said shaft, said gear means being mechanically connected to said carrier for maintaining said movable contacts positioned for said individual engagement with said stationary contact members.

2,833,874
TIME SWITCH MECHANISM
Anthony D. Stolle, Chicago, Ill., assignor to International Register Company, Chicago, Ill., a corporation of Illinois
Application December 15, 1955, Serial No. 553,292
8 Claims. (Cl. 200—38)



1. In a switch assembly, the combination of a revolvable main cam having a track with a recess therein, first and second switch arm means asociated with said main cam, a floating cam follower associated with said first switch arm means and engageable with said cam track for moving said first switch arm means into and out of contact with said second switch arm means, a slidable pivotable member associated with said second switch arm means and being adapted to move said second switch arm means into and out of contact with said first switch arms means, and a supplemental cam moving fixedly with said main cam and operative in one direction of rotation of said main cam for imparting sliding movement to said slidable pivotable member, and operative in the opposite direction of rotation of said main cam for imparting pivotal movement to said slidable pivotable member.

2,833,875
CONTROL APPARATUS
Raymond E. Michel, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 14, 1953, Serial No. 397,882
10 Claims. (Cl. 200—46)



1. Apparatus of the class described comprising, in combination: a bank of aligned reading pins; means mounting said pins in selected relative positions for individual axial displacement; a spring acting axially on each of said pins to urge it into a normal position; a backing plate having a field of openings whose relative positions are the same as those of said pins; means mounting said backing plate adjacent said bank of pins so that one end of each pin, in the normal position thereof, enters an opening in said plate; means for simultaneously retracting all said pins to displace the ends thereof out of said openings; a record strip having fields of perforations whose relative positions correspond to those of pins in said bank; means for guiding said strip along said plate on the side thereof adjacent said bank of pins; a feed roll and a takeup roll for said strip; means including a drive roll spaced along said strip between said feed roll and said takeup roll for advancing said strip intermittently and incrementally to align successive fields of perforations therein with the pins of said bank; spring torque motor means acting on said feed and take-up rolls to maintain the tension in said strip on the feed side of said drive roll equal to the tension in said strip on the takeup side of said drive roll; means immobilizing said torque motor means to permit removal and insertion of different records strips without loss of torque; torque balancing spring means; motor driven means connected to said retracting means and said torque balancing spring means for first retracting all said pins and simultaneously allowing said torque balancing spring means to expand, and advancing said strip to align a new field of perforations with said bank of pins, and finally allowing said pins to return from their retracted position and simultaneously compressing said torque balancing spring means; and means in the connection between said motor means and said torque balancing spring means for abruptly changing the effective spring rate thereof.

2,833,876
FLASH LAMP SUPPORT
Reinder Westra, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 11, 1956, Serial No. 597,218
Claims priority, application Netherlands July 19, 1955
6 Claims. (Cl. 200—51.03)



6. A multiple flash bulb holder comprising a support both electrically and mechanically removable from said holder, means on said support for removably holding a plurality of flash bulbs, a switching arrangement operatively and selectively connected to each of said flash bulbs when said support is mounted in said holder whereby the flash bulbs are ignited in a predetermined sequence, said switching arrangement being fixed, said support being relatively flat and being rotatable relative to said switching arrangement whereby the rotation of said support causes each of said flash bulbs to be selectively connected to said switching arrangement, and said flash bulbs extending in a plane parallel to the central axis of said support.

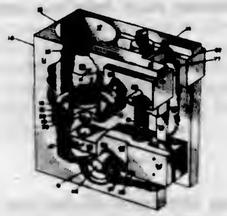
2,833,877
SPEED INDICATOR
Carmine Acierno, River Edge, N. J., assignor of one-half to Salvatore Tropea, Fort Lee, N. J.
Application May 18, 1955, Serial No. 507,305
2 Claims. (Cl. 200—56)



2. A speed-indicating device acting as a warning signal for vehicles comprising, a rotative shaft, means for rotating the shaft from the transmission to an extent dependent upon the speed of the vehicle, a disk carried by and rotated with said shaft, said disk having a face provided with a contact segment, a dial fitted over the disk and mounted stationarily with respect thereto, a pointer adjustably carried by the dial and adapted for the designation of different vehicle speeds on the dial, a contact finger carried by the pointer and adapted to contact the segment at a predetermined speed of the vehicle, the contact of the finger with the segment closing circuit, and means by which the dial can be calibrated according to vehicle speeds determined by a speedometer in the vehicle to thereby adjust the speed-indicating device for operation at a predetermined vehicle speed.

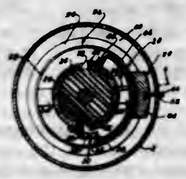
2,833,878
ACCELERATION RESPONSIVE SWITCH
Edward Dawson, State College, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 13, 1956, Serial No. 591,256
13 Claims. (Cl. 200—61.5)

6. In an acceleration responsive switch the combination comprising: a housing structure; a seat disposed in said housing structure and having a supporting surface; a tiltable inertia member having its mass disposed above said supporting surface and a flat end surface in engagement with said supporting surface; a lever arm operationally associated with said inertia member and having a front portion and a rear portion and pivotally mounted intermediate of its ends in said housing structure; means connecting said inertia member and the front portion



of said lever arm whereby said inertia member may tilt in any direction; means associated with said housing structure and said lever arm whereby said lever arm and said connecting means are urged in such a direction as to oppose tilting of said inertia member; and an electrical switch mechanism operationally associated with said lever arm whereby said switch mechanism is actuated by rotation of said lever arm due to acceleration of said housing structure.

2,833,879
SPEED REGULATOR
James M. Nani, Plainfield, N. J., assignor to Eastern Air Devices, Inc., Dover, N. H., a corporation of New York
Application January 4, 1956, Serial No. 557,289
11 Claims. (Cl. 200—80)



1. A centrifugal governor for an electric motor comprising a rotatable support, a pair of contacts thereon, means biasing one of said contact in one direction with respect to the other of said contacts, said one contact being movable in the other direction with respect to the other contact in response to centrifugal force, means for making electrical connection to said contacts, a stationary magnetic means operatively magnetically effective on said one contact continuously as said contact rotates with said support so as always to urge said one contact in the same direction with respect to said other contact, and means for varying the operative intensity of said magnetic means.

2,833,880
STOP LIGHT CONTROL ARRANGEMENT
George W. Repkow, Waukegan, Ill.
Application July 18, 1955, Serial No. 522,697
3 Claims. (Cl. 200—83)

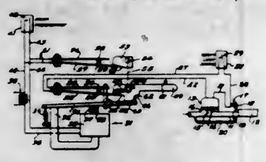
1. A vacuum operated switch comprising a casing, a diaphragm secured in said casing and dividing the same into lower and upper chambers, one of said chambers being communicated to a source of vacuum, a stationary contact in the other of said chambers, a movable contact in the other of said chambers, said contacts being mounted on said casing with the movable contact being biased

toward said stationary contact, said contacts adapted to be electrically connected to a circuit for selectively completing and breaking the circuit, a retainer mounted on said diaphragm with one end thereof forming an abutment for engagement with the movable contact and moving the same away from the stationary contact, a spring in said one chamber for urging the diaphragm and retainer towards the other chamber for normally holding the movable contact away from the stationary contact



whereby vacuum introduced in the one chamber will move the retainer away from the movable contact thereby permitting engagement of the contacts for completing the circuit, said retainer being hollow for communicating the chambers for equalizing the pressures therein, and means in the hollow retainer for restricting the flow of air therebetween whereby the equalization of the pressures in the chambers will require a length of time determined by the differential in pressure in the chambers.

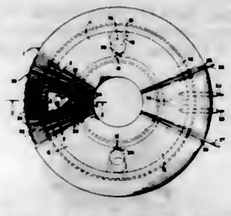
2,833,881
MANUALLY SETTABLE RELAY
William A. Ray, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Application July 27, 1954, Serial No. 446,101
8 Claims. (Cl. 200—87)



1. In combination: an electromagnet; an armature mounted for attraction toward the electromagnet when the same is energized and biased to a fixed position away from the electromagnet; switching means linked to said armature for actuation by movement thereof, said switching means being arranged for actuation by the armature to one controlling position when the armature is attracted; a member manually movable to actuate said switching means to said one position while the armature is maintained in said biased position; means biasing said member to unmoved position; and means for maintaining said member in switch-actuating position against the force of its bias comprising means forming, while the armature is in said biased position, a holding connection between the armature and said member.

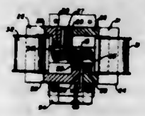
2,833,882
SHOCKPROOF RELAY
Emil M. Valehrach, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application August 30, 1955, Serial No. 531,514
4 Claims. (Cl. 200—87)

1. A switching device comprising in combination, an annular casing of insulating material, contact segments arranged in said casing and spaced from each other, terminals connected to the adjacent ends of two of said segments and projecting outwardly through said casing, the other ends of said segments having plane surfaces extending radially of said casing and cooperating with each other and said casing to form outwardly flared pockets, ball shaped contact elements arranged in said pockets and engageable with the adjacent ends of said contact segments when moved inwardly within said pock-



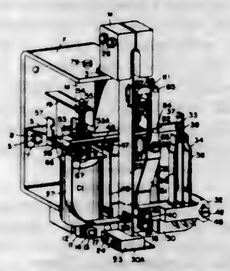
ets, and wire turns wrapped about said annular casing for producing, when electrically energized, a magnetic force to move said ball elements inwardly within said pockets.

2,833,883
ALTERNATING CURRENT RELAY
Lloyd D. Auten, Fredericktown, Ohio, assignor to The Hartman Electrical Manufacturing Company
Application May 29, 1953, Serial No. 358,500
17 Claims. (Cl. 200—91)



1. An electromagnetic structure comprising, a frame, an armature pivoted to said frame, first and second discrete permeable cores fixedly attached to said frame and each being magnetically coupled to said armature at least in one position of said armature for first and second magnetic circuits, means to urge said armature clockwise, first and second winding means on said structure to establish first and second varying in time magnetomotive forces in said cores of different phase, and said cores being physically disposed relative to said armature whereby said first and second magnetomotive forces each establish counter-clockwise torques at the same time in said armature of a value sufficient to overcome said urging means.

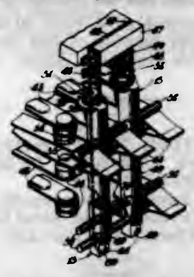
2,833,884
DAMPING DEVICE FOR MECHANICALLY RESONANT RELAYS
Robert W. Craig, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application October 19, 1956, Serial No. 617,056
9 Claims. (Cl. 200—91)



1. In a mechanically resonant relay structure having an armature which at times oscillates in response to a particular code frequency and a pendulum member having a resonant frequency similar to that of said particular

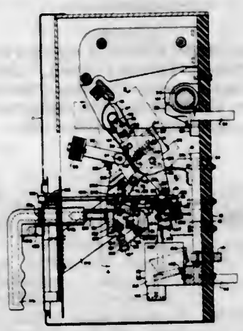
code frequency, flexible means interconnecting said armature and said pendulum member whereby the oscillations of said armature are transmitted to said pendulum operating said pendulum member harmoniously therewith, decoding contacts having at least one movable spring capable of cooperating with said decoding contacts, a damping mechanism connected to said pendulum and to said movable spring for operating said decoding contacts when said pendulum member is oscillating, said damping device including a means for adjusting the magnitude of its damping effect on said pendulum member whereby said pendulum member will dissipate its energy rapidly when said particular code frequency is not present.

2,833,885
ELECTRICAL RELAYS
Wesley B. Wells and Russell M. Adkins, Wilkinsburg, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application October 25, 1954, Serial No. 464,236
11 Claims. (Cl. 200—104)



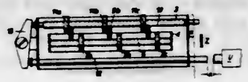
1. A contact actuating linkage for interconnecting a movable contact actuating member and a plurality of movable contacts comprising an insulated movable contact actuating means, flexible means for securing said contact actuating means to said contact actuating member, and resilient means located between said contact actuating member and said contact actuating means for tensioning said flexible means to eliminate all lost motion between said contact actuating member and said contact actuating means.

2,833,886
AIR CIRCUIT BREAKER
Anatole J. Goodwin, West Vancouver, British Columbia, Canada
Application March 29, 1954, Serial No. 419,221
25 Claims. (Cl. 200—106)



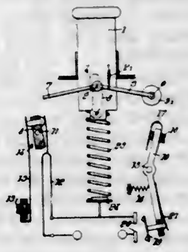
1. In an electric circuit breaker having stationary main contacts, a spring-loaded main contact block, linkage carrying the block for moving the latter towards and away from the stationary contacts, an auxiliary spring connected to the linkage, said block spring exerting a pressure through the linkage to keep the block against the stationary contacts, two substantially aligned pivotally connected toggle links beneath and extending towards the linkage, the upper end of said links being pivotally connected to the linkage and the lower end thereof being mounted on a fixed pivot, a stop against which the pivot between the toggle links is maintained to one side of a toggle line between the outer pivots of said links under the pressure of the block and auxiliary springs, and means beneath the linkage beside the toggle links for removably holding said linkage in position with the block against the stationary contacts, said holding means being movable to allow the linkage to collapse, whereby the block and auxiliary springs force said block away from the stationary contacts.

2,833,887
TRIPPING DEVICE FOR CIRCUIT BREAKERS FOR THE PROTECTION OF POLYPHASE CIRCUITS AGAINST OVERCURRENT AND PHASE ASYMMETRY
Eduard Schrack, Vienna, Austria
Application October 5, 1955, Serial No. 538,568
Claims priority, application Austria December 23, 1954
12 Claims. (Cl. 200—116)



1. A tripping device for a circuit breaker inserted in a polyphase circuit, said tripping device being responsive to overcurrent and phase asymmetry and comprising a plurality of current sensitive members each of which is responsive to one phase of said circuit, a frame, two abutment bars and one transmitting bar, said bars being parallel and carried by said frame for lengthwise movement relative to each other, two sets of abutments, each of said sets being affixed to one of said abutment bars and comprising a plurality of abutments each of which is operable by one of said current sensitive members, a single coupling lever carried by one of said bars in loose engagement with the other two bars and capable of a limited pivotal movement, and a release member operable by a predetermined movement of said transmitting bar to release said circuit breaker.

2,833,888
CIRCUIT BREAKERS
Pierre Etienne Bessière, Paris, France, assignor to Etablissements Labinal, Saint-Ouen (Seine), France, a society of France
Application February 14, 1957, Serial No. 640,231
Claims priority, application France February 18, 1956
9 Claims. (Cl. 200—116)



1. A circuit-breaker which comprises, in combination, a frame, two fixed contacts insulated from each other

toward said stationary contact, said contacts adapted to be electrically connected to a circuit for selectively completing and breaking the circuit, a retainer mounted on said diaphragm with one end thereof forming an abutment for engagement with the movable contact and moving the same away from the stationary contact, a spring in said one chamber for urging the diaphragm and retainer towards the other chamber for normally holding the movable contact away from the stationary contact



whereby vacuum introduced in the one chamber will move the retainer away from the movable contact thereby permitting engagement of the contacts for completing the circuit, said retainer being hollow for communicating the chambers for equalizing the pressures therein, and means in the hollow retainer for restricting the flow of air therebetween whereby the equalization of the pressures in the chambers will require a length of time determined by the differential in pressure in the chambers.

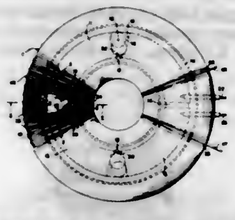
2,833,881
MANUALLY SETTABLE RELAY
William A. Ray, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Application July 27, 1954, Serial No. 446,101
8 Claims. (Cl. 200—87)



1. In combination: an electromagnet; an armature mounted for attraction toward the electromagnet when the same is energized and biased to a fixed position away from the electromagnet; switching means linked to said armature for actuation by movement thereof, said switching means being arranged for actuation by the armature to one controlling position when the armature is attracted; a member manually movable to actuate said switching means to said one position while the armature is maintained in said biased position; means biasing said member to unmoved position; and means for maintaining said member in switch-actuating position against the force of its bias comprising means forming, while the armature is in said biased position, a holding connection between the armature and said member.

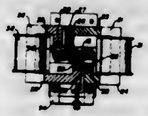
2,833,882
SHOCKPROOF RELAY
Emil M. Valehrach, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application August 30, 1955, Serial No. 531,514
4 Claims. (Cl. 200—87)

1. A switching device comprising in combination, an annular casing of insulating material, contact segments arranged in said casing and spaced from each other, terminals connected to the adjacent ends of two of said segments and projecting outwardly through said casing, the other ends of said segments having plane surfaces extending radially of said casing and cooperating with each other and said casing to form outwardly flared pockets, ball shaped contact elements arranged in said pockets and engageable with the adjacent ends of said contact segments when moved inwardly within said pock-



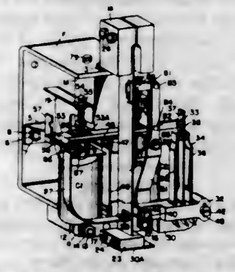
ets, and wire turns wrapped about said annular casing for producing, when electrically energized, a magnetic force to move said ball elements inwardly within said pockets.

2,833,883
ALTERNATING CURRENT RELAY
Lloyd D. Autea, Fredericktown, Ohio, assignor to The Hartman Electrical Manufacturing Company
Application May 29, 1953, Serial No. 358,500
17 Claims. (Cl. 200—91)



1. An electromagnetic structure comprising, a frame, an armature pivoted to said frame, first and second discrete permeable cores fixedly attached to said frame and each being magnetically coupled to said armature at least in one position of said armature for first and second magnetic circuits, means to urge said armature clockwise, first and second winding means on said structure to establish first and second varying in time magnetomotive forces in said cores of different phase, and said cores being physically disposed relative to said armature whereby said first and second magnetomotive forces each establish counter-clockwise torques at the same time in said armature of a value sufficient to overcome said urging means.

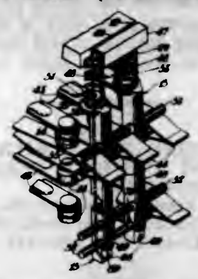
2,833,884
DAMPING DEVICE FOR MECHANICALLY RESONANT RELAYS
Robert W. Craig, Rochester, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application October 19, 1956, Serial No. 617,056
9 Claims. (Cl. 200—91)



1. In a mechanically resonant relay structure having an armature which at times oscillates in response to a particular code frequency and a pendulum member having a resonant frequency similar to that of said particular

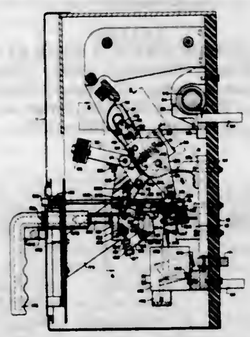
code frequency, flexible means interconnecting said armature and said pendulum member whereby the oscillations of said armature are transmitted to said pendulum operating said pendulum member harmoniously therewith, decoding contacts having at least one movable spring capable of cooperating with said decoding contacts, a damping mechanism connected to said pendulum and to said movable spring for operating said decoding contacts when said pendulum member is oscillating, said damping device including a means for adjusting the magnitude of its damping effect on said pendulum member whereby said pendulum member will dissipate its energy rapidly when said particular code frequency is not present.

2,833,885
ELECTRICAL RELAYS
Wesley B. Wells and Russell M. Adkins, Wilkinsburg, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application October 25, 1954, Serial No. 464,236
11 Claims. (Cl. 200—104)



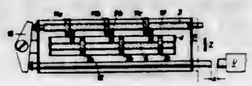
1. A contact actuating linkage for interconnecting a movable contact actuating member and a plurality of movable contacts comprising an insulated movable contact actuating means, flexible means for securing said contact actuating means to said contact actuating member, and resilient means located between said contact actuating member and said contact actuating means for tensioning said flexible means to eliminate all lost motion between said contact actuating member and said contact actuating means.

2,833,886
AIR CIRCUIT BREAKER
Anatole J. Goodwin, West Vancouver, British Columbia, Canada
Application March 29, 1954, Serial No. 419,221
25 Claims. (Cl. 200—106)



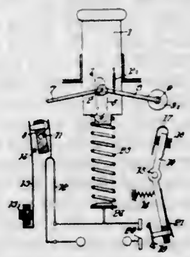
1. In an electric circuit breaker having stationary main contacts, a spring-loaded main contact block, linkage carrying the block for moving the latter towards and away from the stationary contacts, an auxiliary spring connected to the linkage, said block spring exerting a pressure through the linkage to keep the block against the stationary contacts, two substantially aligned pivotally connected toggle links beneath and extending towards the linkage, the upper end of said links being pivotally connected to the linkage and the lower end thereof being mounted on a fixed pivot, a stop against which the pivot between the toggle links is maintained to one side of a toggle line between the outer pivots of said links under the pressure of the block and auxiliary springs, and means beneath the linkage beside the toggle links for removably holding said linkage in position with the block against the stationary contacts, said holding means being movable to allow the linkage to collapse, whereby the block and auxiliary springs force said block away from the stationary contacts.

2,833,887
TRIPPING DEVICE FOR CIRCUIT BREAKERS FOR THE PROTECTION OF POLYPHASE CIRCUITS AGAINST OVERCURRENT AND PHASE ASYMMETRY
Eduard Schrack, Vienna, Austria
Application October 5, 1955, Serial No. 538,568
Claims priority, application Austria December 23, 1954
12 Claims. (Cl. 200—116)



1. A tripping device for a circuit breaker inserted in a polyphase circuit, said tripping device being responsive to overcurrent and phase asymmetry and comprising a plurality of current sensitive members each of which is responsive to one phase of said circuit, a frame, two abutment bars and one transmitting bar, said bars being parallel and carried by said frame for lengthwise movement relative to each other, two sets of abutments, each of said sets being affixed to one of said abutment bars and comprising a plurality of abutments each of which is operable by one of said current sensitive members, a single coupling lever carried by one of said bars in loose engagement with the other two bars and capable of a limited pivotal movement, and a release member operable by a predetermined movement of said transmitting bar to release said circuit breaker.

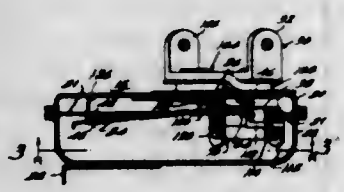
2,833,888
CIRCUIT BREAKERS
Pierre Etienne Bessière, Paris, France, assignor to Etablissements Labinal, Saint-Ouen (Seine), France, a society of France
Application February 14, 1957, Serial No. 640,231
Claims priority, application France February 18, 1956
9 Claims. (Cl. 200—116)



1. A circuit-breaker which comprises, in combination, a frame, two fixed contacts insulated from each other

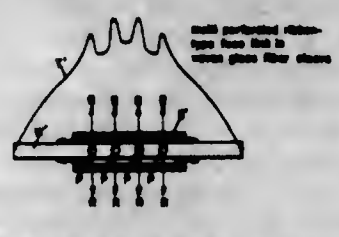
carried by said frame, a switching part movably carried by said frame, two movable contacts, electrically connected to each other, carried by said part arranged, to be applied, for one position of said part in said frame, against said fixed contacts respectively for electrically interconnecting them, a lever having a pivot axle movably guided in said frame with a translatory movement transverse to said pivot axle, said lever being freely pivotable with respect to said frame about the axis of said pivot axle, a control member operatively connected with said lever pivot axle for imparting thereto said translatory movement in one direction, resilient means interposed between said control member and said frame for opposing movement of said member in said direction, abutment means carried by said frame adapted to cooperate with said lever for causing it to pivot about the axis of said pivot axle when said pivot axle is moved in said direction by said control member, means carried by said lever for engaging said switching part when said lever is thus pivoted and then moving said part into the above mentioned position thereof, whereby said fixed contacts are interconnected, and means carried by said frame and electrically inserted between said two fixed contacts, said means being responsive to variations of the electric current flowing between said contacts, for retracting said abutment means from the path of said lever when said current rises in excess of a predetermined value, whereby, in this case, said switching part is not held in said above mentioned position thereof.

2,833,889
VOLTAGE REGULATING DEVICE
Leonard Boddy, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan
Application August 3, 1955, Serial No. 526,190
8 Claims. (Cl. 200—122)



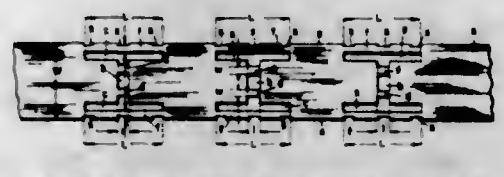
1. In a thermally actuated device, a support surface, a first and a second terminal, means fixing said first terminal to said support surface, fastening means fixing said second terminal to said support surface in spaced proximity to said first terminal, an arm on said first terminal connected to said fastening means, a first spring member, means including said first terminal fixing means for fixing one end of said first spring member relative to said support surface, a first electrical contact on the other end of said first spring member, a second spring member, means including said fastening means for fixing one end of said second spring member relative to said support surface, a second electrical contact on the other end of said second spring member engageable with said first electrical contact, means including said first spring member for applying a force tending to move said first electrical contact into engagement with said second electrical contact, means including said second spring member for applying a force tending to move said second electrical contact into engagement with said first electrical contact, said first spring being deformable in response to applied heat, means for applying heat to said first spring, and adjustable means for limiting the movement of said second electrical contact towards said first electrical contact.

2,833,890
FILLERLESS ONE TIME FUSES
Philip C. Jacobs, Jr., Newtonville, Mass., assignor to The Chase-Shawmut Company, Newburyport, Mass.
Application July 22, 1955, Serial No. 523,670
4 Claims. (Cl. 200—131)



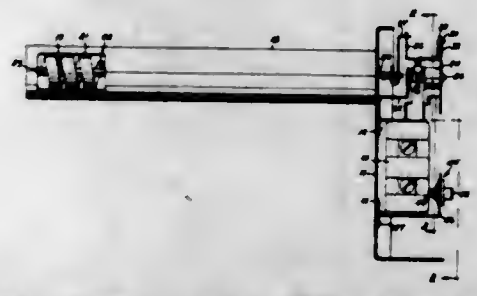
1. An electric fuse comprising a current-carrying fusible element in ribbon-form, a plurality of serially related sections of restricted cross-sectional area formed in said element, a porous sleeve of tubularly woven fibers substantially of silicon dioxide directly mounted on said fusible element enveloping the area of said fusible element wherein said plurality of sections of restricted cross-sectional area is located, and the number of said sections of restricted cross-sectional area being so correlated to the arc-energy absorbing capacity of said sleeve as to enable dispensing with arc-quenching means other than said sleeve.

2,833,891
CURRENT-LIMITING FUSES WITH BALANCED LOW-CURRENT AND HIGH CURRENT INTERRUPTING PERFORMANCE
Philip C. Jacobs, Jr., Newtonville, Mass.
Application October 1, 1956, Serial No. 613,267
8 Claims. (Cl. 200—131)



1. A current-limiting fuse comprising a tubular casing of insulating material, a pulverulent arc-quenching filler inside said casing, a pair of terminal elements closing the ends of said casing, a ribbon-type fuse link of a relatively high conductivity relatively low fusing energy metal immersed in said filler conductively interconnecting said pair of terminal elements, said link comprising a relatively short neck portion and said link further comprising a relatively long neck portion having an ohmic resistance considerably higher than said relatively short neck portion, and said relatively long neck portion being adapted to shunt said relatively short neck portion.

2,833,892
ELECTRIC SWITCH OPERATOR
Clifford M. Payne, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, Portland, Oreg.
Application February 3, 1956, Serial No. 563,303
1 Claim. (Cl. 200—138)



An electric switch apparatus comprising in combination a hollow switch case having an open front, a cover for said front, a condition responsive cam including a cam stem and condition responsive means for rotating

said stem, said cam being positioned in said case, a cam follower lever biased into constant contact with said cam to position said lever in response to a condition, an electric switch in said case, means biasing said switch toward a closed circuit position, switch stem means operable to move said switch against said biasing means to an open circuit position, resilient lever means carried on said cam follower lever to overcome said first biasing means and move said switch stem to the open position of said switch when said cam moves under said cam follower to a preset position and post means slidably carried inside said cover for manual movement from the outside thereof when said cover is closed on said case to interpose said post in the path of said resilient lever to prevent said resilient lever from operating said switch stem to open said switch.

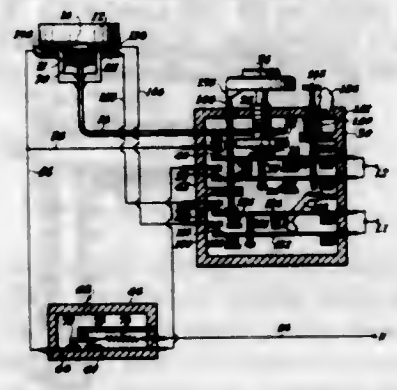
2,833,893
THERMOSTATIC SWITCH
Victor Weber, Greensburg, Pa., assignor to Robertshaw-Fulton Controls Company, Westmoreland County, Pa., a corporation of Delaware
Application November 16, 1956, Serial No. 622,623
8 Claims. (Cl. 200—138)



8. A thermostatic switch comprising a supporting base, an oscillating member having one end affixed to said base and carrying electrical contacts on its free end for engagement with stationary contacts on said base, said member having an opening therethrough, a tongue secured at one end to said member and having a free end disposed within said opening, a U-shaped spring operatively mounted between the free end of said tongue and the fixed end of said oscillating member, an actuating member having a central opening therethrough with oppositely disposed projections extending into said central opening, a coil spring mounted between said actuating member and said base to bias said actuating member from said base, said tongue being disposed through said central opening to engage each of said projections upon corresponding positions of said over-center spring, an operating element having one end adjustably mounted on said base and a free end in engagement with said actuating member in opposed relation to said coil spring, said operating element being operative in response to variations in temperature to effect movement of said actuating member causing pivotal movement of said tongue on one of said projections.

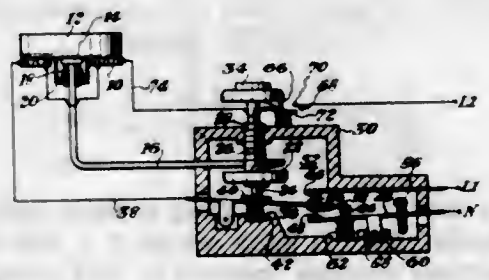
2,833,894
TEMPERATURE RESPONSIVE CONTROL
Victor Weber, Greensburg, Hugh J. Tyler, Pittsburgh, and William J. Russell, Jeannette, Pa., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Original application September 8, 1954, Serial No. 454,753. Divided and this application December 12, 1956, Serial No. 627,908
7 Claims. (Cl. 200—140)

4. A thermostatic control device comprising a casing a pair of fixed contacts mounted on said casing in spaced superposed relation, a pair of movable contacts mounted in said casing in spaced superposed relation and being engageable with said fixed contacts respectively, temperature responsive means including a movable element in said casing operatively connected to one of said movable contacts for actuating the same, adjustable abutment means mounted on said one movable contact and extending laterally thereof for actuating the other of said movable contacts, a second pair of fixed contacts mounted



in said casing, a second pair of movable contacts mounted in said casing and being engageable with said second pair of fixed contacts respectively, adjusting means for said temperature responsive means, means operatively associated with said adjusting means for actuating said second pair of movable contacts, and manually operable means for actuating one of said second pair of movable contacts.

2,833,895
TEMPERATURE RESPONSIVE CONTROL
Victor Weber, Greensburg, Hugh J. Tyler, Pittsburgh, and William J. Russell, Jeannette, Pa., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Original application September 8, 1954, Serial No. 454,753. Divided and this application December 14, 1956, Serial No. 628,371
7 Claims. (Cl. 200—140)



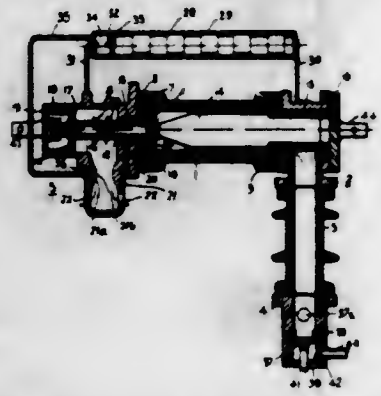
1. A thermostatic control device comprising, a casing, first switch means in said casing having open and closed positions for controlling a first circuit, second switch means in said casing having open and closed positions for controlling a second circuit, means responsive to a temperature condition including a member mounted on said casing and movable in response to a change in the temperature condition, means operatively connected to said member and said first and second switch means for maintaining said first switch means in said closed position and said second switch means in said open position in response to said temperature condition and for sequentially actuating said first switch means from said closed position to said open position and said second switch means from said open position to said closed position in response to an increase in the temperature condition, and means operatively associated with said member and said second switch means for actuating said second switch means to said open position in response to a further increase in the temperature condition.

2,833,896

ELECTRIC CIRCUIT BREAKERS OF THE AIR- OR GAS-BLAST TYPE

Albert Roxburgh, Willesden, London, and Albert Leigh, Kenton, Harrow, England, assignors to The British Thomson-Houston Company Limited, London, England, a British company

Application February 21, 1956, Serial No. 566,973
Claims priority, application Great Britain February 23, 1955
18 Claims. (Cl. 200—148)



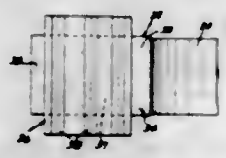
1. A gas blast electric circuit interrupter having main circuit breaker contacts, a chamber around said main contacts, means for supplying gas under pressure to said chamber for opening said main contacts and for extinguishing the arc therebetween, a circuit in parallel with said main contacts comprising a resistance and a gap in series, and means responsive to flow of gas through the gap between said main contacts in open circuit position for reducing the pressure in said series gap whereby breakdown thereof is facilitated.

2,833,897

MEANS TO MINIMIZE FUSING OF CIRCUIT BREAKER CONTACTS

Wallace J. Driver, Morristown, N. J., assignor to Federal Electric Products Company, Newark, N. J., a corporation of Delaware

Application October 29, 1953, Serial No. 388,986
10 Claims. (Cl. 200—166)



1. In a circuit breaker having contact opening means automatically effective upon overload, a pair of substantially flat-faced contacts operated by said contact opening means and mounted for mutual relative movement to effect flatwise engagement and disengagement of contacting surfaces, respectively, thereof; that improvement which comprises the provision of a mounting arrangement for said contacts wherein said contacting surfaces are mutually disposed in the engaged condition thereof to prevent an overall face-to-face contact engagement of said surfaces, whereby to limit said contact engagement to predetermined portions of said surfaces, respectively, for minimizing the fusing of said contacts upon abnormal heating thereof.

2,833,898

VIBRATOR MOUNT

Anthony A. De Lisse, Raleigh, N. C., assignor to Cornell-Dubilier Electric Corporation, South Plainfield, N. J., a corporation of Delaware

Application November 2, 1954, Serial No. 466,273
3 Claims. (Cl. 200—168)

1. A one piece moldable mount for vibrator units formed of resilient material comprising a vibrator unit receiving sleeve sized to closely and compressively contain a vibrator unit therewithin, a dependent outer skirt portion integral with said sleeve adjacent the mid length thereof and extending beyond the end of said sleeve, and



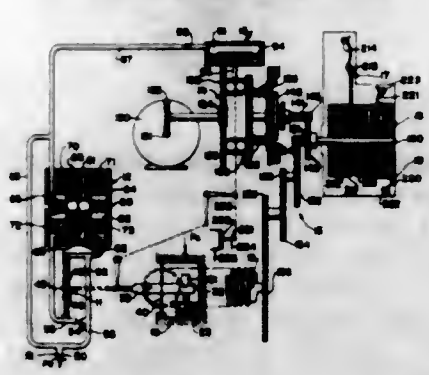
an outwardly extending flange portion on the dependent end of said outer skirt portion for positioning said vibrator containing mount in a completed vibrator assembly with a vibrator unit contained within said sleeve freely suspended therewithin.

2,833,899

ALTITUDE CONTROLLER

Dain B. Lones, Palos Verdes Estates, and Sydney E. Westman, Inglewood, Calif., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application November 1, 1956, Serial No. 619,888
13 Claims. (Cl. 201—48)



1. A device for converting barometric pressure changes to useful outputs comprising: a closed chamber; conduit means for connecting said chamber to a source of barometric pressure; an evacuated bellows mounted in said chamber and connected to one end of a pivoted beam; pneumatic means for sensing the position of the other end of said beam; said pneumatic means positioning a variable speed drive in response to the movement of the other end of said beam; said drive being connected to an output shaft; the rotation of said shaft repositioning a force balancing means to return said beam to a null position; and said shaft, in addition, positioning a variable resistance for indicating the incremental change in altitude.

2,833,900

ELECTROMECHANICAL CONTINUOUS SCAN CONTACT PROBE

Paul G. Mariotti, Forest Hills, and Lucio M. Vallese, Brooklyn, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application June 30, 1954, Serial No. 440,578
3 Claims. (Cl. 201—62)

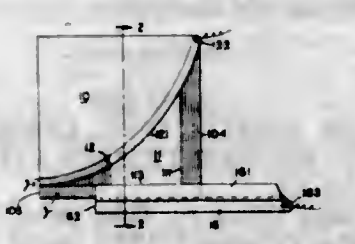
1. In combination with a multi-dimensional continuous resistive surface having a potential distribution impressed thereon, means to provide a continuous scan of said resistive surface, said means comprising a carriage having a shaft thereon, a ball bearing having a race rotatably mounted on the shaft of said carriage, and a circular

sleeve press-fit onto the race of said bearing, said sleeve having a circular cross-sectional portion for contacting



said resistive surface, whereby an almost-point contact made between said sleeve and such resistive surface generates a continuous single line in a transverse direction.

2,833,901
VARIABLE ELECTRICAL RESISTOR
David Katz, Wilmington, Del.
Application December 15, 1955, Serial No. 553,334
15 Claims. (Cl. 201—62)



1. An electrical resistor comprising in combination (1) a sheet or plate of non-conducting material having imprinted thereon an assembly of closely adjacent relatively thin, non-crossing, electrically conductive lines of uniform and substantial resistivity and covering by their number a substantial width of said sheet or plate compared to its average height, and (2) two conductive contact members in contact with said assembly and spaced from each other whereby to delimit the electrically effective length of each imprinted line, the resistance of said contact members being negligible compared to the resistance of the average imprinted line delimited between them; one of said contact members being fixed relative to said assembly and extending crosswise of the imprinted lines whereby to provide a permanent conductive connection between the lines thus contacted at one end of the assembly; and the other contact member being movable across said assembly and being shaped to contact but a selected group of said lines in any one of its positions; all to the effect that when a potential difference is applied to said two contact members, current will flow through a selected group of said imprinted lines from one of the contact members to the other, the magnitude of the current being determined by the potential difference applied and by the summed conductance of said selected group of lines which is in simultaneous contact with both said contact members.

2,833,902
ELECTRICALLY CONDUCTING GLASS
Romey A. Gaiser, Toledo, and Lazarus D. Thomas, Walbridge, Ohio, assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application October 30, 1953, Serial No. 389,319
8 Claims. (Cl. 201—73)

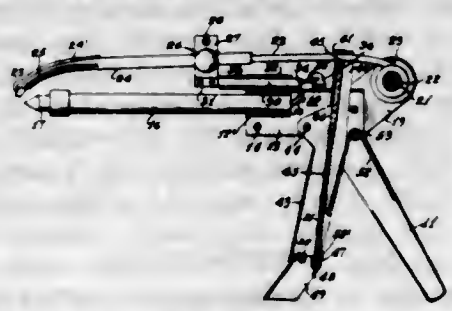


4. The method of producing an electrically conducting glass unit which comprises applying strips of silver-flux in liquid form along spaced lines on the surface of a glass sheet, heating said sheet to approximately 1350° F., spraying the heated sheet with an organic compound of tin selected from the class consisting of dibutyl tin diacetate, dibutyl tin diformate, dibutyl tin dilaurate, dibutyl tin oxide, dibutyl diphenyl tin, dibutyl tin ethylate, tin oleate, tetraphenyl tin, diethyl tin ethylate, tetrabutyl tin and dibutyl tin diethylate in a chloride ion free solution through the critical temperature range of approximately 1350 to 1150° F., and then spraying the sheet with a solution of a tin halide.

2,833,903
FULLY AUTOMATIC ELECTRIC IRON
Robert L. Waddell, Inglewood, Calif.
Application February 16, 1956, Serial No. 565,888
13 Claims. (Cl. 219—25)

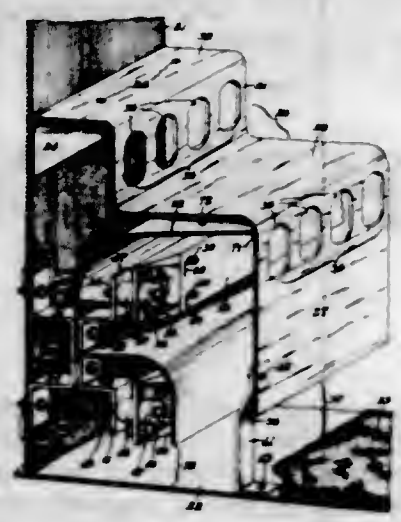
1. A fully automatic electric iron, including: a base; a casing attached thereto; a handle carried by the casing; an electric heating element in the base and an electric circuit therefor; a pair of relatively movable thermostat contacts in said circuit for opening and closing the same; a bimetallic thermostat element operative to effect closing and opening of said thermostat contacts in response to variations in the temperature of the iron; a wedge element movable in the plane of the line of engagement of said thermostat contacts; and a weight-actuated means engaging said wedge element and operative, when the iron is placed in an erect inoperative position, to move said wedge element into position to wedge between said thermostat contacts when the latter are separated by the action of said thermostat element, so as to maintain said circuit open to allow cooling of the iron, said weight-actuated means being operative, when the iron is moved to a substantially horizontal ironing position, to withdraw said wedge element from between said thermostat contacts so as to permit closing of the latter under the action of said thermostat element.

2,833,904
SELF-FEEDING SOLDERING IRON
John Hart Cunningham, Baltimore, Md.
Application June 30, 1955, Serial No. 519,192
6 Claims. (Cl. 219—27)



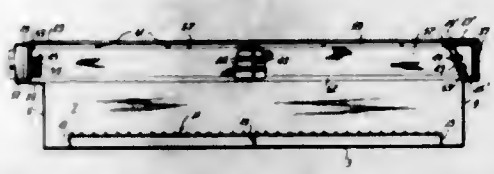
1. A self-feeding electrically heated soldering iron comprising a pistol grip handle including a fixed and a pivoted member, an electrically heated soldering iron secured in fixed relation to said handle, insulation located between said electric heating element and said handle to prevent the conduction of heat to said handle, a spring projected retractable carriage mounted on said handle, a solder-supplying tube adjustably mounted on said carriage, a lever located on said handle for controlling the retraction of said retractable carriage so that the tube and solder therein may be applied and retracted relative to the work and moved into contact with or in close proximity to the end of the soldering iron, a holder for a spool of solder on the rear of said handle, a clutch arm carried by said pivoted member, a spring-retracted rod providing a clutch for engagement with the solder, and a spring tip pivoted on the lower end of said pivoted member operable for causing said clutch to engage said solder and advance the same in said tube.

2,833,905
HEATING APPARATUS
Thomas J. Kenny, Elkins Park, Pa.
Application May 2, 1955, Serial No. 505,337
6 Claims. (Cl. 219—34)



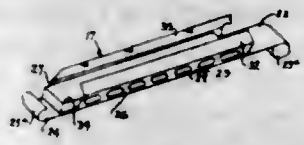
1. Heating apparatus for mounting on the inside wall and floor of railroad passenger cars for warming the interior of said railroad passenger cars, comprising in combination an enclosure including a first and a second vertical surface and a first and a second horizontal surface, the second horizontal surface extending inwardly from the inside wall of the railroad passenger car substantially parallel to and spaced away from the floor, the second vertical surface extending downwardly from the inner edge of the second horizontal surface substantially parallel to and spaced away from the inside wall, the first horizontal surface extending inwardly from the lower edge of the second vertical surface substantially parallel to and spaced away from the floor and the second horizontal surface, the first vertical surface extending downwardly from the inner edge of the first horizontal surface substantially parallel to the inside wall and the second vertical surface, the first vertical surface having its lower edge spaced away from the floor to form an air inlet, the first vertical surface having a plurality of elongated slots in the upper portions thereof to form a first air outlet, the second vertical surface having a plurality of elongated slots in the upper portion thereof to form a second air outlet; a first electric strip heater element of about 0.8 watt density mounted within said enclosure between the first horizontal surface and the floor and positioned midway between the first vertical surface and the inside wall; a second electric strip heater element of about 3.2 watts density mounted within said enclosure below the first electric strip heater element and within the lower one-third of the first vertical surface; a curved baffle contiguous to the first vertical surface and curving downwardly to pass between the inside wall and the first electric strip heater element, then extending substantially horizontally to pass between the first and the second electric strip heater elements, then extending downwardly to pass between the second electric strip heater element and the first vertical surface and terminating short of the floor to leave an air space between said baffle and the floor; whereby to admit cool air through the air inlet, pass a portion of said cool air to the area adjacent the first electric strip heater to warm the air, the warm air rising to be deflected by said baffle to said first air outlet for discharge into the railroad passenger car; whereby to pass a portion of said cool air behind said curved baffle to the area adjacent the second electric strip heater to warm the air, said warm air rising to said second air outlet for discharge into the railroad passenger car; and whereby to maintain said enclosure at such a temperature so as to prevent burning of passengers and their clothing.

2,833,906
FOOD WARMER
Charles Newton Wingo, Miami, Fla.
Application March 5, 1957, Serial No. 644,018
12 Claims. (Cl. 219—35)



1. A food warmer, comprising: an open-topped receptacle having side walls, front and rear walls, and a bottom; means for supporting food within said receptacle; a heating element mounted in the uppermost part of said receptacle along the inside of one of said walls; reflecting means mounted between said heating element and said one wall and arranged to direct heat from said heating element across said receptacle above said food; and reflecting means mounted above said heating element and arranged to direct heat from said heating element downwardly along said one wall.

2,833,907
GUARD FOR PROTECTING COOKING VESSELS FROM THE HIGHER TEMPERATURES OF ELECTRIC RANGES
Ralph Olleo, Jr., Glen Cove, N. Y.
Application October 9, 1953, Serial No. 385,116
5 Claims. (Cl. 219—37)



4. In a guard for cooking vessels adapted to be placed upon the upper surface of an electric heating element for supporting a cooking vessel thereon, an annulus adapted to embrace the outer perimeter of said heating element, an inner annulus substantially concentric with first annulus, and a plurality of guard elements spaced apart from each other and extending radially between said annuli, each guard element being comprised of: a body having a lower surface adapted to contact said heating element, an upper surface spaced apart therefrom and adapted to be contacted by said cooking vessels; and stratified insulating means, reflecting means and radiating means disposed between said surfaces in the order set forth for substantially reducing the conduction of heat from one of said surfaces to the other.

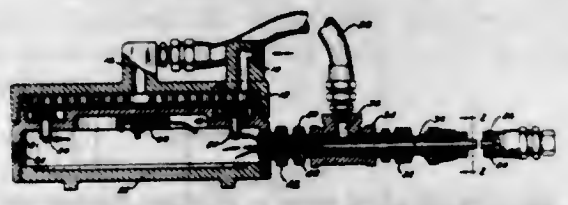
2,833,908
ELECTRICAL HEATING UNIT
Donald W. Scofield, Glenside, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application April 25, 1955, Serial No. 503,667
8 Claims. (Cl. 219—37)



4. An electrical heater comprising: a plate of high silica glass having an upper side adapted to support a cooking vessel and having a downwardly facing lower surface; a body of electrically and also thermally insulating material, having an upper surface substantially upwardly facing, parallel to and co-extensive with the lower surface of said plate; an elongated metallic heating

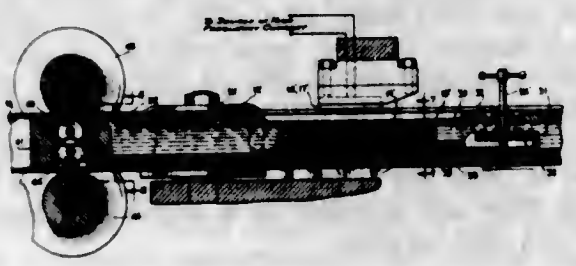
element disposed between the upper surface of said body and the lower surface of said plate and maintained in direct contact with said surfaces substantially throughout the extent of the element; and means for maintaining said direct contact by clamping said element between said body and said plate.

2,833,909
HOSE-TYPE PAINT HEATER
Gustave S. Levey, Houston, Tex.
Application May 29, 1956, Serial No. 588,002
23 Claims. (Cl. 219—39)



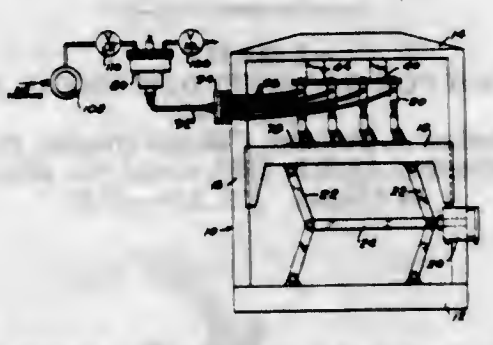
16. A heat exchanger comprising an elongated flexible conduit, a flexible electrical heating element in the said conduit and extending throughout the length thereof, an electrical circuit for said heating element, a perforate body of heat conductive material having a passageway for fluid to be heated, said passageway being connected to the inlet of said conduit, a heating element in said body connected to a source of electrical energy, and a thermostatic switch in said body actuated by the temperature of the fluid in the passageway in the body whereby the introduction of cold fluid into said passageway immediately closes the circuit to the heating element in said conduit and the interruption of the flow through the conduit allows the heating element in said body to raise the temperature of the fluid adjacent said thermostatic switch and open the circuit to the heating element in said conduit.

2,833,910
TUBE WELDING
Robert J. Stanton, Brooklyn, and Wallace C. Rudd, Larchmont, N. Y., assignors to Magnetic Heating Corp., New Rochelle, N. Y., a corporation of New York
Application March 14, 1956, Serial No. 592,702
9 Claims. (Cl. 219—59)



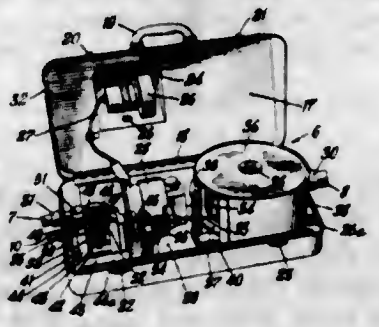
1. Apparatus for welding together the edges of a longitudinal gap in metal tubing which comprises: means for longitudinally advancing the tubing while bringing said edges together at a weld point in a narrow V-shaped formation; a pair of contacts mounted respectively to be engaged by surfaces of the metal of the tubing along opposite sides of the gap at a position shortly in advance of said point; a source of heating current of a frequency of the order of 100,000 cycles per second or higher and having its terminals connected to said contacts respectively, whereby such current will follow a path from one of said contacts along one edge of the gap to said welding point and back along the opposite edge of the gap to the other contact; core means and means for mounting same inside the tubing for increasing the reactance of current paths extending between said contacts circumferentially of the tubing, such core means comprising a ferromagnetic but substantially an insulating mass extending along below the region of said V-shaped formation; tubular means mounted in conjunction with said core means and providing a container therefor; and means for providing a flow of cooling fluid through said container for maintaining said core means at a temperature below its Curie point.

2,833,911
WELDING ORGANIZATION
Alfred Fetz, Detroit, Mich.
Application September 8, 1953, Serial No. 378,817
5 Claims. (Cl. 219—89)



1. In a welding machine, the combination of a work support, an electrode support, an electrode on said last named support, a hydraulic cylinder, a piston movable in said hydraulic cylinder, means for relatively moving said supports for bringing said electrode into pressure contacting relation with a work piece to be welded on said work support, means operably connecting said electrode and piston and responsive to pressure engagement of said electrode and work to relatively move said piston and cylinder in a direction tending to discharge hydraulic fluid from said cylinder at one side of said piston, a second cylinder and a piston movable therein, said second cylinder communicating on one side of said second piston with said one side of said first cylinder whereby the hydraulic fluid discharged from said one side of said first cylinder is caused to flow into said one side of said second cylinder to thereby displace said second piston in said second cylinder, the portion of said second cylinder on the other side of said piston comprising an air compression chamber, means for controlling the pressure of the air in said air compression chamber to a predetermined maximum value whereby the contact pressure of said electrode on said work piece is proportional to said predetermined maximum pressure, said last mentioned means comprising a source of air under pressure and a relief value connected with the other side of said second cylinder, and means for regulating the pressure from said source of air under pressure for varying the extent to which said second piston is displaced before said relief valve is effective to relieve the pressure in said other side of said second cylinder.

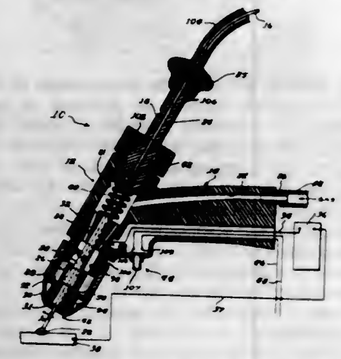
2,833,912
ARC WELDING APPARATUS
Stanley H. Royer, Elizabeth, N. J., assignor to Union Carbide Corporation, a corporation of New York
Application June 6, 1955, Serial No. 513,216
2 Claims. (Cl. 219—130)



1. In an arc welding apparatus including a welding control assembly and a wire drive unit for feeding filler wire to the welding zone, a carry case unit adapted to

be moved close to the welding zone comprising a portable casing having a lid hinged thereto at the bottom, a wire drive motor mounted on the bottom of said casing at one side of the hinge having a horizontal motor shaft and a vertical shaft driving wire feed rollers thereabove receiving wire from a reel mounted on a horizontal rotatable hub secured to the side of said casing above and transverse to said motor shaft, said casing in loading position lying on its side with its lid open having said reel shaft upstanding for convenient loading of the reel thereon.

2,833,913
TORCH FOR GAS SHIELDED METAL ARC WELDING
Arthur A. Bernard, Chicago Heights, Ill.
Application April 8, 1957, Serial No. 651,282
14 Claims. (Cl. 219—130)



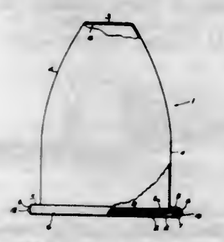
1. In welding apparatus including a torch having a nozzle at one end thereof, and an electrode associated with the torch and extending outwardly thereof through said nozzle, the improvement wherein a tubular piston of substantially the same size as the nozzle opening is reciprocably mounted within the torch adjacent the nozzle and in alignment with the nozzle opening, said piston being received about the electrode, and wherein means is provided for forcing the piston into the nozzle opening to remove weld spatter and for withdrawing the piston from the opening.

2,833,914
ELECTRICALLY-CONDUCTIVE BODY FOR USE IN BUTT-WELDING
Willem Pieter van den Blink and Eelke Herman Ettema, Utrecht, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 22, 1954, Serial No. 445,103
Claims priority, application Netherlands August 18, 1953
1 Claim. (Cl. 219—136)



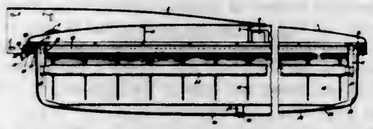
An electrically conductive slag forming body for use in butt welding two objects comprising said slag forming body positioned therebetween and being at least partly composed of reduced titanium dioxide constituting 60% by weight of the body, bentonite being 27% by weight of the body, and manganese-silicon being 13% by weight of said body, said body having a central cavity in which the welding arc burns, and the electric conductivity of said body necessary for the ignition of the arc flame when the welding current is applied being brought about at least partly by said reduced titanium dioxide in said body.

2,833,915
THEATRICAL SPOT LIGHT GEL HOLDER
Robert W. Beecher, Los Angeles, Calif.
Application August 9, 1955, Serial No. 527,236
2 Claims. (Cl. 240—3.1)



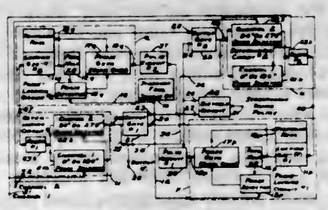
1. In a lamp of the type described: a housing including a reflector body having a cylindrical forward portion, a radial flange providing a shoulder projecting outwardly from the forward end of said cylindrical portion and a cylindrical rim flange projecting axially forwardly from said shoulder; a light beam framing and transmitting assembly including a frame comprising a pair of axially spaced, generally parallel, opaque, substantially flat rings having a maximum diameter somewhat less than the inner diameter of said rim and an inner diameter less than the inner diameter of said cylindrical forward portion of the reflector body, a colored light diffusing medium of disc form having a marginal portion embraced and supported between the inner portions of said rings, and a plurality of fastener elements bridging between and connecting said rings in clamping engagement with said color medium, said fastener elements being disposed just outwardly of the periphery of said color medium to locate the same in coaxial relation to said ring; and means for detachably securing said light beam transmitting and framing unit within said rim and against said shoulder, including a plurality of retainer pins anchored in said rim and projecting radially inwardly in overlapping contact with the outer ring, said rings having registering peripheral notches adapted, upon rotation of said unit, to register with and receive one of said pins to permit that side of said unit to be tilted away from said shoulder to a position clearing the margin of said rim so that said unit may be lifted out of the housing and said pins being so spaced from said shoulder as to secure said frame in contact with said shoulder.

2,833,916
LUMINAIRE
John P. Foulds, Lynnfield Center, Mass., assignor to General Electric Company, a corporation of New York
Application May 25, 1953, Serial No. 357,281
3 Claims. (Cl. 240—25)



1. A luminaire comprising: an elongated hood having an elongated opening therein for a globe; an elongated globe-supporting frame including a pair of spaced side rails mounted in and extending lengthwise of said globe opening in said hood; an elongated globe formed of a light-transmissive material having a temperature coefficient of expansion differing from that of said frame, said globe having a pair of lengthwise extending sidewalls and a pair of end walls closing the respective ends of said side walls forming an elongated opening extending lengthwise of said globe, and a supporting flange extending along the sidewalls adjacent that portion thereof which forms a part of said globe opening with the flanged portions of said globe engaged by said side rails; and clamps mounted on the closed ends of said globe, said clamps having end portions supported on the end portions of said side rails with which they make a freely sliding connection for movement lengthwise thereof as a result of differential expansion and contraction between said globe and said globe-supporting frame under varying temperature conditions.

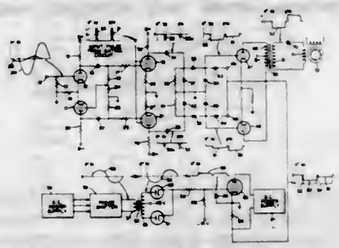
2,833,917
LOCKING-OSCILLATOR PHASE-PULSE GENERATOR
Dean F. Babcock, Tarzana, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application January 16, 1957, Serial No. 634,559
6 Claims. (Cl. 250—8)



1. A phase-pulse generator including first and second phase-locking means, first and second phase-determining-means for respectively shifting the phase of their received frequencies by an integer multiple of 90°, the outputs of said first and second phase-determining-means being connected respectively to the inputs of said first and second phase-locking means, frequency-source means for providing a stable frequency that is eight times the required output frequency of said generator, a locking-oscillator means included within each of said phase-locking means, each of said phase-locking means locking the eighth multiple of its locking-oscillator means to the frequency of said frequency-source means, first and second output gates having their inputs respectively connected to the outputs of said first and second locking-oscillator means, timing means having a pair of inverted outputs connected respectively to the control inputs of said output gates, and a pair of momentary-disabling means respectively connected between said first and second phase-locking means and the inverted outputs of said momentary-disabling circuit to alternately disable said opposite locking means, and binary-data means being connected to each of said phase-determining means to control its output phase.

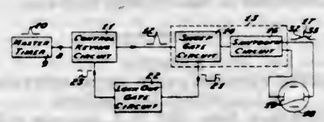
2,833,918
AMPLIFIER
Lewis A. Knox, Owego, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 30, 1953, Serial No. 334,118
4 Claims. (Cl. 250—27)

1. In an amplifier having a voltage input which includes a desirable phase component of voltage and a phase component in quadrature therewith, said amplifier comprising a gate-controlled electron discharge device including a control electrode and a gating electrode, said input voltage being applied to said control electrode, a gating circuit connected to said gating electrode for generating a gating pulse of relatively short duration, said pulse being generated at a time when said quadrature-phase component of voltage is of substantially minimum amplitude, said gating pulse causing said gate-controlled device to conduct during the time said pulse is generated, capacitor means connected to said gate-controlled device



to receive the output voltage therefrom, a discharge path for said capacitor means, and a switching circuit connected to said capacitor means for controlling the discharging thereof through said discharge path, said capacitor means being charged during one gating time of said tube and discharged immediately before the next gating time.

2,833,919
JITTER ALLEVIATING SYSTEM FOR A SCOPE
Thomas C. Stephens, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application March 5, 1953, Serial No. 340,582
4 Claims. (Cl. 250—27)

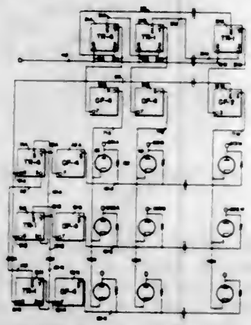


1. A jitter alleviating circuit for a cathode ray tube comprising, a control trigger circuit producing trigger pulses, a control trigger tube in said trigger circuit, a saw tooth generator circuit which includes a first single-shot multi-vibrator connected to said trigger tube and producing a sweep circuit gate, a saw tooth circuit connected to and controlled by said first multi-vibrator, a second single-shot multi-vibrator connected to said first multi-vibrator and producing a lock out gate, and said second multi-vibrator connected to said control trigger tube so as to cut it off during the period of a lock out gate.

2,833,920
ELECTRONIC MATRIX COMMUTATOR
Theodore L. Buley, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application March 30, 1953, Serial No. 345,651
12 Claims. (Cl. 250—27)

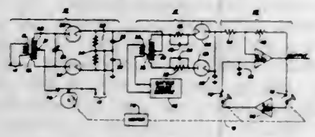
1. An electronic commutator comprising, in combination, a first ring of M hard tube type cross coupled triode trigger stages, means initiating sequential individual operations of said M triggers in said first ring, a second ring of N hard tube type cross coupled triode trigger stages, means connecting one of said M triggers in said first ring to said second ring to initiate sequential individual operations of said N triggers in said second ring after each complete cycle of operation of said first ring, cathode followers associated with said triggers in each of said rings, means connecting each of said triggers in each of said rings to the input of its associated cathode follower, said

connecting means being operative to selectively activate said associated cathode follower upon the sequential operation of said triggers in each of said rings, a two dimensional diode matrix comprising a plurality of diodes arranged in M columns of N rows, a plurality of resistors, each of which is connected at one end to one electrode of each of said diodes, first leads individually connected to the other electrode of each of said diodes along individual columns, second leads individually connected to



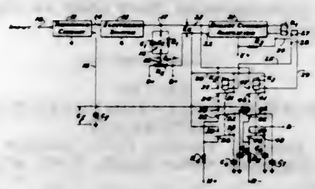
the other end of each of said resistors along individual rows, means connecting said first leads to the output of said cathode followers associated with each of the M triggers of said first ring, means connecting said second leads to the output of said cathode followers associated with each of the N triggers of said second ring, and output terminals connected between each of said resistors and said diodes, said output terminals being rendered operative in the matrix pattern controlled by the relative sequential activations of said cathode followers.

2,833,921
AUTOMATIC CONTINUOUS ZERO-SETTING OF A BALANCED DETECTOR
James R. McCrory, Mine Hill, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,808
10 Claims. (Cl. 250—27)



1. Apparatus comprising a first balanced circuit having a signal input and a signal output and subject to electrical unbalance, said circuit being adapted to receive on said input a signal having its principal components in a predetermined frequency band and carrying modulations representing changing intelligence values including zero and to translate the signal into a voltage on said output having its principal components in a lower frequency band and carrying corresponding modulations representing the same values; a second balanced circuit having a signal input and a signal output and adapted to have its balance changed in response to a control voltage; said output of the first circuit being coupled to said input of the second circuit; means for artificially producing a condition at the signal input of said first circuit to cause the instantaneous modulation of said voltage on said output to represent said zero intelligence value; means for sampling the condition of signal output of the second circuit during said artificial condition to obtain a voltage thereat when said first circuit is unbalanced; and means for applying said voltage to said second circuit to change the electrical balance thereof in a direction to reduce an undesired effect of the unbalance of said first circuit.

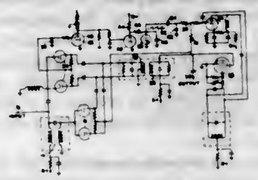
2,833,922
STEPPED ELECTRICAL FEEDBACK SERVO MEANS
Irvin H. Gerks, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application October 21, 1955, Serial No. 541,980
7 Claims. (Cl. 250—27)



1. Servo means having a stepped electrical feedback voltage for regulating an electrical wave comprising, means having a feedback input and an output for regulating said wave in response to said feedback voltage to provide a regulated output wave having a direct-current component, a feedback capacitor connected across the feedback input to said wave regulating means, a low-pass filter connected serially to the output of said wave regulating means, a direct-voltage means connected serially with said low-pass filter and providing a voltage having opposite polarity from the regulated output, wherein an error-voltage is provided by the difference between the charged voltage of said low-pass filter and the voltage of said direct-voltage means, positive feedback controlling relay means, negative feedback controlling relay means, means for actuating said positive and negative feedback controlling relay means in response to positive and negative polarities of said error voltage respectively, means included in each of said relay means for short-circuiting said error-voltage when one of said relay means is actuated, a positive feedback controlling capacitor connected serially with said feedback capacitor by actuation of said positive feedback controlling relay means, a negative feedback controlling capacitor connected serially to said feedback capacitor by actuation of said negative feedback controlling relay means, means for charging said positive feedback controlling capacitor to a maximum value of positive direct-voltage by deactivation of said positive relay means, means for discharging said positive feedback controlling capacitor into said feedback capacitor by activation of said positive relay means, means for charging said negative feedback controlling capacitor to a maximum value of negative direct-voltage by deactivation of said negative relay means, and means for discharging said negative feedback controlling capacitor into said feedback capacitor by activation of said negative relay means.

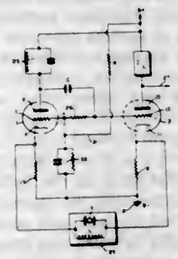
2,833,923
HUNTING A. F. C. SYSTEM
Wolf J. Gruen, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application October 13, 1955, Serial No. 540,301
3 Claims. (Cl. 250—36)

1. An automatic frequency control system comprising a first phase detector adapted to receive synchronizing signals, an oscillator to be synchronized with said signals, a circuit coupling a signal representative of the output of said oscillator to said first phase detector, oscillator control means coupled to said oscillator to control its phase and frequency in response to an error voltage, a circuit connecting the output of said first phase detector to the input of said oscillator control means so as to couple the error voltage output of said first phase detector to said oscillator control means, a second phase detector adapted to receive said synchronizing signal, a phase shifting circuit coupling the signal representative of said oscillator output to said second phase detector, a control tube having an anode, cathode and control grid with said cathode being connected to ground, means for coupling the output of said second phase detector to the control grid of



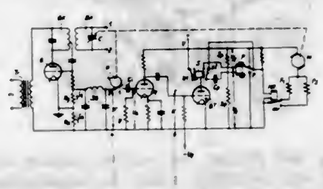
said control tube, a gaseous discharge device having one electrode connected to ground, a resistor connected between the anode of said control tube and another electrode of said gaseous discharge device, a capacitor connected between the last named electrode of said gaseous discharge device and ground, said gaseous discharge device and said capacitor operating when said oscillator is out of synchronism to provide low frequency oscillations, means for coupling said low frequency oscillations to said oscillator control means to thereby vary the frequency of said oscillator when said low frequency oscillations are produced.

2,833,924
AMPLITUDE-STABILIZED OSCILLATING CIRCUIT
Ben H. Tongue, West Orange, N. J.
Application November 13, 1956, Serial No. 621,564
16 Claims. (Cl. 250—36)



1. In a cathode-coupled oscillator circuit comprising a pair of electron tubes each having cathode, grid and anode electrodes, tuned-circuit means coupled between the cathode electrodes, a feed-back connection from the anode electrode of one of the tubes to the grid electrode of the other tube, grid-leak resistance connected between the grid electrodes, means for connecting the grid electrode of the said one tube to a source of positive potential, and resistance disposed in the said connecting means of value sufficient to permit oscillation in the circuit with high dissipation in the tuned-circuit means when electron tubes of maximum transconductance are employed, in order that the grid electrode of the said one tube may operate with slightly negative bias, whereby the grid electrode of the said one tube will operate at more positive bias when weaker electron tubes are employed in the said circuit, tending to control the voltage at the grid electrode of the said other tube, through the said feed-back connection, at substantially the same amplitude level as when the said electron tubes of maximum transconductance are employed.

2,833,925
HEAT SUPPLYING HIGH-FREQUENCY APPARATUS
Fritz Lappe, Erlangen-Bachenbach, Germany
Application July 11, 1952, Serial No. 298,420
Claims priority, application Germany July 12, 1951
13 Claims. (Cl. 250—40)

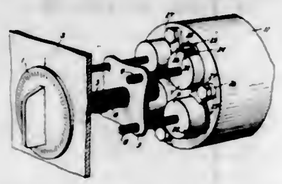


1. High-frequency apparatus for treating objects with high-frequency oscillations, comprising a high-frequency current source and a load circuit associated with an object to be treated, to impart heat to said object; tuning means for tuning the resonance between said source and said load circuit; a motor for driving said tuning means, said motor rotating constantly during said treatment; switching means for controlling the direction of rotation of said motor; control means for governing the operation of said switching means depending upon an operating criterion which reaches a characteristic value upon establishing said resonance; control members in said control means for operatively releasing said switching means for the control of direction of rotation of said motor only incident to variation of said characteristic value of said criterion which indicates an increase of the spacing of said tuning from said resonance; means for actuating said control members for releasing said switching means for the control of the direction of rotation of said motor responsive to occurrence of a voltage which results from the difference of the magnitudes of said criterion before and after the increase of spacing from said resonance; a capacitor constituting a control member for determining said difference; circuit means for supplying to said capacitor a voltage which increases when approaching said resonance during said tuning and which decreases responsive to detuning from said resonance; electrical means connected with said capacitor constituting a control member for operative release of said switching means, said electrical means supplying a control signal for said switching means only incident to the discharge of said capacitor; directional relay means connected with said capacitor; said relay means being operatively energized only responsive to discharge of said capacitor; and means controlled by said relay means for generating a control impulse for actuating said switching means.

2,833,926
TRACKING ADJUSTMENT FOR VARIABLY CAPACITIVELY END-LOADED LONG-LINE ULTRA HIGH FREQUENCY TUNER
John O. Silvey and Antony Wright, Fort Wayne, Ind., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application January 22, 1953, Serial No. 332,584
11 Claims. (Cl. 250—40)

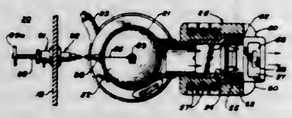
1. An ultra high frequency tuner comprising a coaxial line having an inner and outer conductor, a capacitive tuning plunger mounted for longitudinal movement into said line between said conductors, said plunger forming a capacitance with one conductor, and being coupled to the other of said conductors, which capacitance varies in accordance with the amount of insertion of said plunger between said conductors, characterized by means for adjusting the rate of change of capacitance with respect to amount of insertion of the plunger into

the line, consisting of a generally longitudinally-extending irregularity along the generally cylindrical surface of said plunger facing said one conductor, a generally longitudinally extending irregularity along the opposing generally cylindrical surface of said one conductor, means



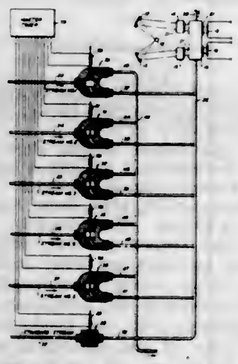
for mounting said plunger for relative rotation with respect to said one conductor, about the longitudinal axis, to vary the juxtaposition of said irregularities with respect to each other and thereby adjust the capacitance, and means for locking said plunger against rotation while permitting longitudinal movement thereof.

2,833,927
METHOD OF SEPARATING ISOTOPES OF URANIUM IN A CALUTRON
Francis A. Jenkins, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application November 17, 1944, Serial No. 563,952
5 Claims. (Cl. 250—41.9)



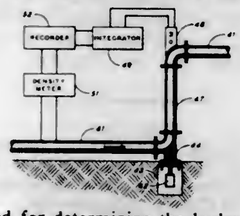
1. The method of separating isotopes of uranium comprising heating uranium hexachloride to a temperature in the range of 60° C. to 100° C. in a vacuum and thereby forming a vapor thereof, ionizing uranium hexachloride vapor, whereby ions of the isotopes of uranium are produced, and then segregating the ions of the isotopes of uranium in accordance with their masses.

2,833,928
ANALYZER
James R. Parsons, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application July 17, 1952, Serial No. 299,515
10 Claims. (Cl. 250—43.5)



1. In an analyzer including a Wheatstone bridge circuit having radiation sensitive elements disposed in two arms thereof, and a source of alternating voltage applied across opposite terminals of said bridge; a potentiometer having the end terminals thereof connected across said voltage source, the contactor of said potentiometer being maintained at a point of reference potential; a pair of variable impedances connected in said bridge circuit; motor-driven means responsive to electrical unbalance of said bridge circuit for adjusting the value of at least one of said impedances to restore said bridge to balance; and means for minimizing the effect of extraneous electrical signals which may be introduced into the motor circuit which do not tend to actuate said motor-driven means comprising, in combination, means for amplifying the unbalance bridge signal applied to said motor-driven means, and means for detecting the components of the amplified signal which are not of the same frequency and phase as the bridge unbalance signal derived from said voltage source, whereby the contactor of said potentiometer can be adjusted to reduce to a minimum the components of said amplified signal which do not actuate said motor-driven means.

2,833,929
METHOD OF DETERMINING CHARACTERISTICS OF HYDROGEN-CONTAINING SUBSTANCES
Robert E. Barieau, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application July 23, 1953, Serial No. 369,858
6 Claims. (Cl. 250—43.5)



1. A method for determining the hydrogen content of a hydrogen-containing substance comprising the steps of transmitting a beam of gamma rays over a predetermined path through a first hydrogen-containing material having a known density and a known hydrogen content, measuring the intensity of said beam after being transmitted through said first material, transmitting said beam over said predetermined path through a second hydrogen-containing material having a known density and a known hydrogen content different from the hydrogen content of said first material, measuring the intensity of said beam after being transmitted through said second material, establishing a relationship between said measured intensities of said beam and the respective quantities

$$\frac{d(1+H)}{2}$$

for said first and said second materials, where d is the density and H is the percentage of hydrogen by weight, transmitting said beam over said predetermined path through said substance, measuring the intensity of said beam after being transmitted through said substance, and, from said established relationship, determining the hydrogen content of said substance.

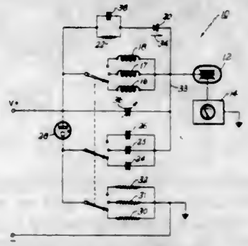
2,833,930
ELECTROSTATIC CHARGING METHOD AND APPARATUS
Lewis E. Walkup, Columbus, Ohio, assignor, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York
Application July 16, 1953, Serial No. 368,258
6 Claims. (Cl. 250—49.5)

1. A method of sensitizing a xerographic plate comprising a photoconductive insulating layer overlying a conductive backing member and in elecarically conductive contact therewith, said method comprising positioning closely spaced over the photoconductive insulating layer a conductive electrode separated from said photoconductive insulating layer by a layer structure comprising a solid insulating film, the surface of the insulating film facing the photoconductive insulating layer being in virtual contact therewith, applying to said electrode a first potential, with respect to the backing member, of a magnitude of at least about one hundred volts while simultaneously exposing the photoconductive insulating layer to uniform light to increase its conductivity allowing cur-



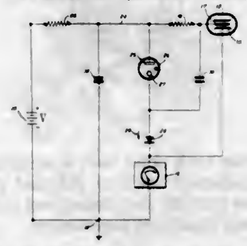
rent flow to the surface of the photoconductive insulating layer in virtual contact with said insulating layer, said first applied potential being of a sufficient magnitude to cause charge transfer between the surfaces in virtual contact, cutting off said light from said photoconductive insulating layer, and subsequently applying to said electrode a second potential, with respect to the backing member, of a polarity opposite to the polarity of said first potential and of a magnitude of at least about a hundred volts and of a sufficient magnitude to cause charge transfer between the surfaces in virtual contact thereby uniformly electrostatically charging the photoconductive insulating layer sufficiently for use in xerographic processes.

2,833,931
HIGH RANGE RADIATION MEASURING CIRCUIT
James M. Constable, White Plains, N. Y., assignor to Electronic Products Company, Mount Vernon, N. Y.
Application October 31, 1955, Serial No. 543,780
14 Claims. (Cl. 250—83.6)



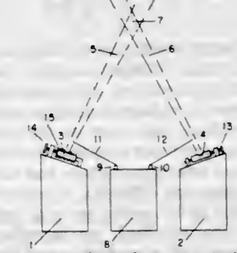
4. An instrument for accurately measuring very high intensity radiation comprising a G–M tube, a metering circuit connected to said tube, means establishing a direct current connection between said tube and a source of high voltage and including an inductor connected in series with said tube and said source, a capacitor connected to one end of said inductor and in series therewith and with said source and with a charging resistor, a gas discharge tube connected in parallel across said capacitor and inductor in series, and clipping means including a current rectifier connected across said inductor and poled for conduction substantially in one direction only, the steady state voltage applied to said G–M tube by said source being less than that needed to energize said G–M tube to conduction, the voltage applied by said source to said gas discharge tube being greater than the breakdown voltage thereof, whereby said G–M tube is energized to conduction by voltages developed periodically across said inductor, the time duration and the repetition rate of these voltages being substantially constant.

2,833,932
PORTABLE HIGH-SENSITIVITY RADIATION MEASURING CIRCUIT
James M. Constable, White Plains, N. Y., and Gerard J. Achtellik, North Greenwich, Conn., assignors to Electronic Products Company, Mount Vernon, N. Y.
Application January 25, 1956, Serial No. 561,331
10 Claims. (Cl. 250—83.6)



1. A radiation measuring circuit including a G–M tube, source means to supply a voltage high enough to energize said G–M tube, impedance means conductively connecting said source means and said G–M tube, a cold cathode gas discharge diode and a current rectifier connected in series with each other and conductively connected to said source means, the breakdown voltage of said gas discharge diode being greater than the output voltage of said source means, means to couple output pulses of voltage generated by said G–M tube across said current rectifier in such polarity that these pulses cause gas breakdown in said gas discharge diode, and meter means connected to indicate the average circuit current and hence the intensity of radiation impinging on said G–M tube.

2,833,933
X-RAY APPARATUS
Georg S. Mittelstaedt, Brooklyn, N. Y.
Application September 9, 1955, Serial No. 533,406
11 Claims. (Cl. 250—93)

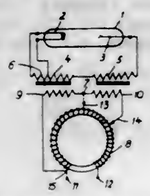


1. An apparatus adapted to send forth intersecting beams of ionizing short waves, an electric source communicating with the matter within said beams of ionizing radiation, thereby closing an electric circuit, and a means to move said beams apart and together for breaking and making said electric circuit, said circuit making and breaking means comprising a rotatably mounted sending apparatus and a means to rotate said sending apparatus.

2,833,934
ELECTRIC COUPLING FOR THE OPERATION OF X-RAY TUBES OR OTHER THERMIONIC TUBES
Gotfred Borge Davidsen, Hareskovby, Denmark
Application June 30, 1954, Serial No. 440,481
Claims priority, application Denmark March 26, 1954
3 Claims. (Cl. 250—103)

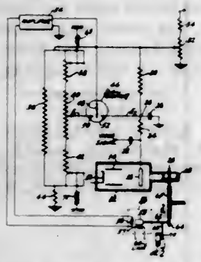
1. A regulating apparatus for thermionic tubes having an incandescent cathode and an anode, a pair of transformers for energizing the tube, at least one of said transformers having a winding for supplying filament current to said incandescent cathode, the primary windings of said transformers having a common terminal as well as

a pair of exterior terminals, and a voltage regulating transformer connected to said common terminal and having a pair of contacts connected to said exterior terminals of said primary winding and having sliding contact



toward and from each other over a stripped part of said regulating transformer whereby the said primary windings as occasion requires may counteract each other upon operation of said regulating transformer.

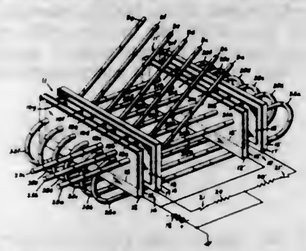
2,833,935
MOTOR CONTROL CIRCUIT
William James Hannan, Middle Village, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application February 1, 1955, Serial No. 485,399
The terminal fifteen years of the term of the patent to be granted has been disclaimed
12 Claims. (Cl. 250—201)



1. A motor control system comprising, in combination, a source of reference voltage; a motor; means coupled to said motor and responsive to its movement for producing a comparison voltage having a sense relative to said reference voltage indicative of the direction of departure of said motor from a desired position; means for deriving from said reference voltage and said comparison voltage, when they are different, a control voltage for driving said motor in the proper sense to reduce said control voltage to zero; and limit means responsive to rotation of said motor past a predetermined limit for changing said reference voltage in the proper sense to reduce said control voltage to zero, said limit means including resistor means in circuit with said reference voltage source, and means rotatable with the motor and engageable with said resistor means when said motor rotates to said predetermined limit for changing the value of said resistor means in the proper sense to reduce said control voltage to zero.

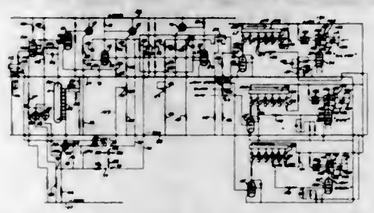
2,833,936
ELECTROOPTICAL SHIFT REGISTER SYSTEM
Thomas L. Rees, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 4, 1956, Serial No. 557,377
6 Claims. (Cl. 250—208)

1. Apparatus comprising, a plurality of at least two register means, each register means being in the form of a light amplifier means which, when energized, is responsive to a radiant energy pulse to change from a dark to a radiant energy emitting state, an input radiant energy duct coupled to a first of said two register means to transmit radiant energy pulses thereto, a shift means in the form of light amplifier means which, when energized, is responsive to a radiant energy pulse to change from a dark to a radiant energy emitting state, a register-to-shift radiant energy duct coupled between said first register means and said shift means to transmit radiant energy emission from the former as a radiant energy pulse to the



latter, a shift-to-register radiant energy duct coupled between said shift means and the second of said register means to transmit radiant energy emission from the former as a radiant energy pulse to the latter, and means to energize said plurality of register means during two successive periods and to energize said shift means during a period which extends between and overlaps the periods of energization of said register means.

2,833,937
COMPENSATOR, REGULATOR, AND TWO-POINT COMPENSATOR-REGULATOR FOR PHOTOELECTRIC AMPLIFIER AND SORTING SYSTEM
David C. Cox, Grand Rapids, Mich., assignor to Mandrel Industries, Inc., a corporation of Michigan
Application June 19, 1952, Serial No. 294,427
20 Claims. (Cl. 250—214)

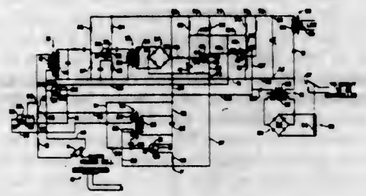


3. An amplifier comprising in combination a first stage amplifier tube having a control grid to which an input signal may be applied, a cathode having a cathode resistor, an anode, and an operating point setting electrode, a voltage compensator responsive to amplifier output under standard conditions with means therein for applying to said operating point setting electrode a voltage sufficient to produce a predetermined amplifier output to compensate said amplifier for disturbing factors, and means for intermittently standardizing the input to said control grid for adjusting said voltage compensator to give a predetermined output.

2,833,938
CONDITION RESPONSIVE APPARATUS
Balthasar H. Pinckaers, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 29, 1956, Serial No. 625,156
7 Claims. (Cl. 307—88.5)

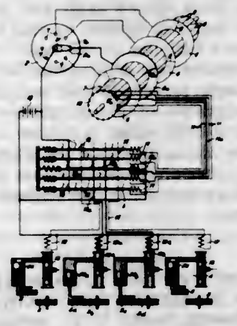
1. Condition responsive apparatus comprising; condition responsive means including sensing means adapted to be subjected to a given condition and constructed and arranged to provide an alternating signal voltage when subjected to the given condition and including rectifying

means connected to said condition responsive means to derive a direct current voltage upon said condition responsive means providing said alternating signal voltage, integrating means connected to said condition responsive means to integrate said direct current voltage, an electronic flip-flop circuit having an input and an output, means connecting the input of said flip-flop circuit to the output of said integrating means to thereby cause said flip-flop circuit to assume a first condition upon the absence of an output from said integrating means and to



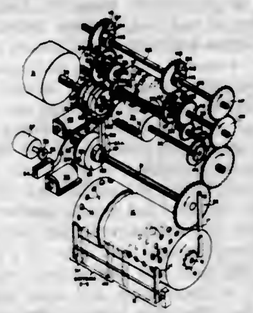
assume a second condition upon the presence of an output from said integrating means, further means connected to and controlled by said flip-flop circuit in said second condition to render said condition responsive means inoperative to sense the presence or absence of the given condition to thereby cause the simulated absence of the given condition and to thereby cause said flip-flop circuit to alternate between said first and second condition, and further means responsive to the continued alternation of said flip-flop circuit between said first and second position.

2,833,939
SWITCHING MECHANISM
Felix Leber, Koln-Riehl, Germany
Application March 10, 1954, Serial No. 415,385
Claims priority, application Germany March 11, 1953
7 Claims. (Cl. 307—112)



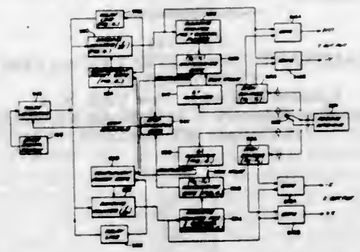
7. An electrical presettable switch arrangement, which comprises in combination: a cylinder, a plurality of electric current conducting means supported by said cylinder and arranged thereon in spaced and substantially parallel relationship with regard to each other, said conducting means being insulated from each other and extending in longitudinal direction of said cylinder, a plurality of ring means adjustably mounted on said cylinder and respectively provided with contact means arranged for selective electrical connection with any one of said conducting means in conformity with the respective adjusted position of said ring means, and a plurality of control contacts respectively arranged for electrical connection with said contact means, and means operable selectively to connect any one of said control contacts with an electric current source.

2,833,940
TIME CYCLE CONTROLLER
George A. Harris, Malvern, Pa.
Application January 29, 1957, Serial No. 636,893
22 Claims. (Cl. 307—112)



5. Sequence control apparatus comprising; a plurality of circuit controlling switches for connecting mechanisms in sequence to a source of electrical energy; means for selectively actuating said switches for effecting sequential operation of said mechanisms; a plurality of single-pole, double throw time cycle control switches each operable between first and second conditions for timing the operation of said mechanisms in predetermined time cycles; means operative simultaneously with said circuit control switch actuating means for selectively actuating said timing switches from one condition to another thereby to change a time cycle; a plurality of time cycle adjusting switches alternately in series circuit with said timing switches, each of said cycle adjusting switches comprising a power input contact, two power output contacts, and a plurality of elements to effect bridging of said contacts in pairs, each pair including said input contact and one of said output contacts, said cycle adjusting switches being normally conditioned in closed series circuit with said timing switches when the latter are in one of said conditions; and means for moving said elements successively to effect bridging of said contacts in selected pairs effective to place said timing and said cycle adjusting switches in series circuit after a predetermined time cycle determined by actuation of selected timing switches to the other of said conditions thereby to terminate said time cycle.

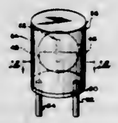
2,833,941
AUTOMATION SYSTEM
Jack Rosenberg and Alexander F. Brewer, Pacific Palisades, and Thomas J. Scuitto, Santa Monica, Calif., assignors to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application November 2, 1955, Serial No. 544,478
46 Claims. (Cl. 307—149)



46. A system for obtaining signals to control the relative motion of a tool and workpiece along a first and a second co-ordinate to effectuate a given length operation along a desired circular path comprising a first decimal

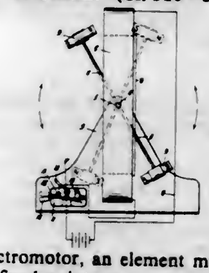
system register, a second decimal system register, a first decimal system reversible counter, a first means to sense the sign of the count in said first reversible counter, a second decimal system reversible counter, a second means to sense the sign of the count in said second reversible counter, means to respectively enter the value and sign of a first number in said first decimal system reversible counter and said first means to sense, means to enter the value and sign of a second number in said second decimal system reversible counter and said second means to sense, said first and second number values and signs being respectively those of the differences between the values of the first and second co-ordinates at the beginning of said desired circular path and at the center of a circle which has the same radius as said desired circular path, means to transfer said first and second numbers and their signs into said first and second reversible counters, means to respectively enter the sign and value of a third and a fourth number into said first and second registers, said third and fourth number values and signs being respectively those of the differences between the values of the first and second co-ordinates at the ending of said desired circular path and at the center of said circle, a first and second decimal system dividing counter, a source of pulses, means for controlling the frequency of said source, means for applying pulses from said source to both said dividing counters to be counted, first means for sensing when the count of said first dividing counter equals the value of the number in said first reversible counter to provide an output pulse indicative thereof, means to apply the output of said first means to sense to said first reversible counter to be added or subtracted to the number therein responsive to the sign of said second sign sensing means, second means for sensing when the count of said second dividing counter equals the value of the number in said second reversible counter to provide an output pulse indicative thereof, means to apply the output of said second means to sense to said second reversible counter to be added or subtracted to the number therein responsive to the sign of said first sign sensing means, recording means having a first and a second recording channel for respectively recording signals for controlling motion along said respective first and second co-ordinates, each recording channel having a positive and a negative track for respectively controlling the direction of motion along the associated co-ordinate, means for recording output pulses of said first means to sense in the track of said first recording channel which corresponds to the sign in said second sign sensing means, means for recording output pulses of said second means to sense in the track of said second recording channel which corresponds to the sign in said first sign sensing means, and means to block further output from said pulse source when the signs and values of the numbers in said first and second reversible counters respectively equal the signs and values of said third and fourth numbers entered in said first and second registers.

2,833,942
CONTAMINANT-PROOF ELECTRICAL CIRCUIT COMPONENTS
Leonard E. Ravich, New York, N. Y.
Application February 5, 1953, Serial No. 335,381
6 Claims. (Cl. 310—8.9)



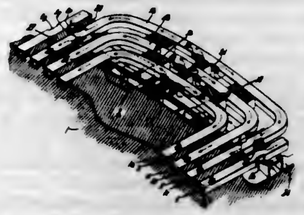
1. In combination, a contaminant sensitive electrical circuit component supported by spaced small wires, said wires being mechanically and electrically connected at one end thereof to said component and extending in a common plane along a portion of their length to a mounting base, enclosure means mounted on said wires and spacedly enclosing said component to form a fluid tight contaminant free chamber about said component, said enclosure means comprising a pair of thin planar plastic sheets having opposed mating concave portions enclosing said component, said planar sheets being abutted together along a plane including said wires to sealingly engage said wires and lend rigidity thereto.

2,833,943
ELECTROMOTORS
Joseph Anthony, Aldershot, Ontario, Canada
Application March 4, 1954, Serial No. 414,093
10 Claims. (Cl. 310—32)



1. In an electromotor, an element mounted for movement about a fixed point; means providing the said element with at least one bi-polar magnetic field which is adapted to be carried by the element through at least two positions along a constant course, and means for procuring the movement of the element including, propulsion means intermittently energizable to co-operate with one of the poles of said magnetic field, and a switching device which is magnetically actuatable only by the other pole of said magnetic field to effect energization of said propulsion means; said switching device and propulsion means being spaced apart and arranged to be passed by said magnetic field in its said course; one of the two aforesaid positions of the latter consisting of a first position wherein one of the poles of said magnetic fields within range to actuate said switching device to effect the energization of the propulsion means while the other said pole is within range to co-operate with such propulsion means to move the element about its fixed point; the other of the two positions aforesaid being one in which the poles of the said magnetic area are beyond such range.

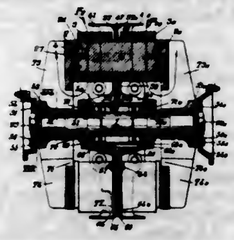
2,833,944
VENTILATION OF END TURN PORTIONS OF GENERATOR ROTOR WINDING
David M. Willyoung, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application July 22, 1957, Serial No. 673,451
5 Claims. (Cl. 310—61)



1. A dynamoelectric machine rotor core member having winding slots, hollow conductors disposed in said slots and having end windings including both axially and

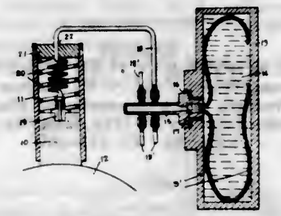
circumferentially extending portions disposed outside of the rotor core body at at least one end, a retaining ring surrounding the end turns for maintaining them in place against the action of centrifugal force, the end turns and rotor defining a cooling gas intake space therebetween, first gas inlet means in a circumferential portion of the end turns for admitting cooling gas from the intake space into the hollow conductors, first outlet means in the axial portion of at least one of the end turns, exhaust duct means communicating with said first outlet means to direct the gases flowing therefrom away from the intake space, second inlet means in the axially extending portion of the end turn for admitting cooling gas from the intake space to a section of the conductor disposed in the rotor winding slots, barrier means blocking off the first outlet means from the second inlet means, and second outlet means extending through an intermediate portion of the rotor and interconnecting the hollow conductors with the outside of the rotor for venting the cooling gas after it has blown partially through the slot-lying hollow conductor coil side portions.

2,833,945
FOUCAULT CURRENT APPARATUS AND ESPECIALLY BRAKING APPARATUS
Pierre Etienne Bessiere, Paris, France, assignor to Telma, Paris, France, a French society
Application March 30, 1955, Serial No. 497,984
Claims priority, application France April 5, 1954
16 Claims. (Cl. 310—93)



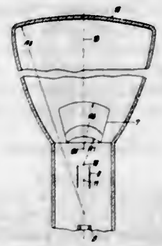
1. For use to slow down the movement of rotation of a shaft, an eddy current braking apparatus which comprises, in combination, a rotor including said shaft and two metal discs parallel to each other fixed on said shaft coaxially therewith and at a distance from each other, a stator including a sleeve coaxially surrounding a portion of said shaft located between said rotor discs, bearings for said shaft mounted in said sleeve, a transverse plane fixed with respect to said sleeve and at right angles thereto being parallel to said rotor discs and located at least substantially at mid-distance between them, a support fixed on said sleeve transversely thereto on the outside thereof, the portion of said support located between said rotor discs extending to only a small distance on either side of said transverse plane, a plurality of electro-magnet cores of elongated shape having each of its longer dimension parallel to the axis of said shaft, said cores being fixed directly on said support and regularly distributed about said axis, each of said cores extending throughout said support and on opposite sides thereof to short distances from the inner faces of said rotor discs respectively, said cores being supported exclusively by said support, and a plurality of electro-magnet windings surrounding said cores, two of said windings being mounted on each of said cores, one on one side of said support and the other on the opposite side, the intervals between said windings being in free communications with the atmospheric space surrounding said apparatus, and means carried by said rotor discs for circulating cooling air streams through the spaces between said support and said discs and between said electro-magnet windings.

2,833,946
HIGH ALTITUDE ELECTRICAL EQUIPMENT
Trevor James Anderson, Clifton, England, assignor to The British Thomson-Houston Company Limited, a British company
Application April 1, 1955, Serial No. 498,692
Claims priority, application Great Britain April 2, 1954
4 Claims. (Cl. 310—228)



1. An electrical current collector comprising a brushholder, a contact-making brush in said brushholder, said brush having a body capable of passing vapor therethrough and formed with a contact-making surface adapted to cooperate with a rotatable member electrical contact surface, a reservoir for containing vaporizable material, a vaporizable material in said reservoir having brush contact lubricating properties and being non-paste forming in the vapor state with finely divided material of said contact-making brush, communicating means between said reservoir and a position located interiorly of said brush body and removed from said contact surface thereof for the passage of vapor from said vaporizable material in said reservoir to said brush body and to said latter contact surface, and restricting means through which said vapor can flow disposed in the path of the vapor between said reservoir and said brush body for controlling the rate of vapor flow into said brush and to said contact surface thereof.

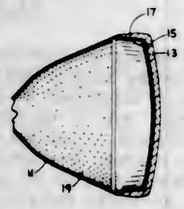
2,833,947
ELECTRON BEAM DEFLECTING SYSTEM
Eberhard Gundert and Werner Kluge, Ulm (Danube), Germany, assignors to Telefunken Gesellschaft für Drahtlose Telegraphie m. b. H., Hannover, Germany
Application October 20, 1953, Serial No. 387,122
Claims priority, application Germany October 28, 1952
5 Claims. (Cl. 313—78)



1. In an electron beam deflecting system for cathode ray tubes embodying means for emitting an electron beam along a principal axis, in combination, first electron beam deflecting means for deflecting an emitted electron beam in a predetermined plane of deflection; and second electron beam deflecting means including a pair of deflecting plates located in direction of the principal axis after and spaced from said first electron beam deflecting means on opposite sides of said principal axis, said deflecting plates having entrance edges extending substantially transversely to said principal axis in the form of arcs whose centers of curvature are located in a first center line passing through a first point of said principal axis perpendicular

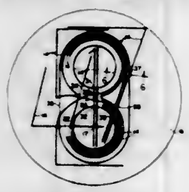
thereto and to said predetermined plane of deflection and having arcuate exit edges extending substantially transversely to said principal axis in the form of arcs whose centers of curvature are located in a second center line passing through said principal axis parallel to said first center line and at a second point of said principal axis located between said first point of said principal axis and said deflecting plates.

2,833,948
CATHODE RAY TUBE SCREEN
Lyle W. Evans, Seneca Falls, N. Y., assignor to Sylvania Electric Products, Inc., a corporation of Massachusetts
Application February 24, 1956, Serial No. 567,525
2 Claims. (Cl. 313—83)



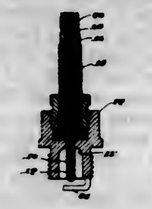
1. An electron discharge device comprising a glass envelope with side walls and an end wall, a layer of fluorescent material deposited on said end wall, a film of electron emissive material disposed upon said layer and extended to lie upon said glass envelope side walls, and an anode formed by a conductive coating disposed on said side walls spaced from said film to receive electrons emitted from said film.

2,833,949
GLOW INDICATING TUBE
Robert R. Driscoll, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application December 13, 1955, Serial No. 552,850
8 Claims. (Cl. 313—109.5)



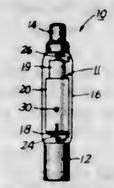
1. An indicating tube of the glow lamp type, comprising a gas filled transparent envelope, a plurality of cathodes formed respectively in the shape of individually complete characters, means mounting the major portion of said cathodes in a common plane in said envelope, dielectric material between said cathodes, an anode operatively associated with said cathodes to ionize the gas thereabout, and a single lead from each complete character cathode and said anode to the exterior of the envelope at least two of said cathodes having overlapping portions, the overlapping portion of one of said two cathodes being insulated from the other cathode and bridging said other cathode to maintain the electrical continuity of each cathode while at the same time maintaining both of said cathodes insulated from each other.

2,833,950
SPARK PLUG
Arthur C. Hastings, Jr., Toronto, Ontario, Canada
Application November 7, 1955, Serial No. 545,489
3 Claims. (Cl. 313—137)



1. A spark plug comprising a hollow metal housing adapted for installation in an internal combustion engine and having walls providing a lower chamber, said chamber having an open mouth at its bottom and a substantially plane ceiling at its top which meets and merges with said housing walls; a thin-walled ceramic tube projecting into said lower chamber through said ceiling; an insulating body disposed, hermetically engaged and held by said housing above said chamber, supporting said ceramic tube in said chamber; a metal rod contained within said tube with both of its ends projecting therefrom, and an electrode carried by said housing forming a spark gap with one end of said metal rod at the mouth of said lower chamber; said insulating body having an opening imparting accessibility to the other end of said metal rod and having also a socket accommodating the upper end of said ceramic tube and within which said ceramic tube is integrally bonded to said insulating body above said lower chamber.

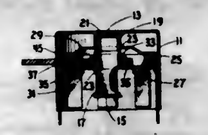
2,833,951
COLD CATHODE GAS-DISCHARGE TUBE
James M. Constable, White Plains, N. Y., assignor to Electronic Products Company, Mount Vernon, N. Y.
Application November 1, 1955, Serial No. 544,206
7 Claims. (Cl. 313—185)



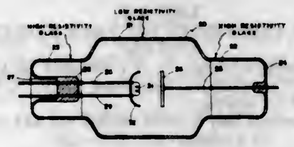
1. A cold cathode gas-discharge tube comprising coaxial inner and outer electrodes having a ratio of inside diameter of the outer electrode to the outside diameter of the inner electrode equal or less than the number *e* and a spacing of roughly ¼ inch, an envelope surrounding said electrodes, hydrogen gas having a pressure of the order of 15 mm. contained within said envelope, and means for supporting said electrodes in spaced relation within said envelope.

2,833,952
CATHODE RAY TUBE ELECTRODE ASSEMBLY
Frederick A. Hemphill and George R. Kantz, Seneca Falls, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application October 14, 1955, Serial No. 540,543
2 Claims. (Cl. 313—250)

1. An electron tube sub-assembly comprising a tubular electrode having a longitudinal axis and a base formed with an electron aperture, an insulating support structure having a rim disposed within the electrode, a cathode mounted upon said support structure, and a retainer formed to provide a central portion terminating in a shoulder and having a plurality of resilient appendages depending from said shoulder formed to pivot about said shoulder transversely of said longitudinal axis for engagement with and affixation to the internal wall of said electrode, said shoulder contacting the upper potrion of the support structure and said appendages having an off-set portion contacting said support structure rim to provide positioning of said cathode relative to the electron aperture.

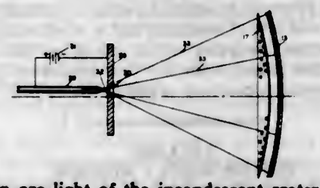


2,833,953
HIGH VOLTAGE ELECTRON TUBE
Thomas H. Rogers, New Canaan, Conn., assignor to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut
Application April 13, 1953, Serial No. 348,508
5 Claims. (Cl. 313—317)



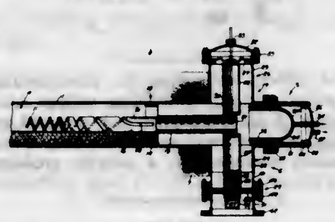
1. A high voltage electron tube having an evacuated envelope of dielectric material and a conductor penetrating the envelope, the envelope comprising a first portion adapted to accumulate a charge when bombarded by electrons and having a specific resistivity of approximately $10^{7.7}$ to $10^{8.8}$ ohms per cm.^{3} at 250° C. whereby a charge accumulated thereon will tend to leak to the conductor, and a second portion of substantial length located intermediate the first portion and the conductor and surrounding the conductor and having a specific resistivity of at least $10^{9.3}$ ohms per cm.^{3} at 250° C. and being sufficiently higher than the specific resistivity of the first portion whereby leakage of the charge accumulated on the first portion will be retarded and the charge will be maintained substantially at a predetermined level.

2,833,954
LIGHT SOURCE AND METHOD OF USE
Joseph G. Koeneman, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application July 27, 1954, Serial No. 446,015
9 Claims. (Cl. 314—134)



1. In an arc light of the incandescent crater type, the combination comprising: a cathode comprising a plate having an aperture therethrough, said aperture having the configuration of a truncated cone; and an anode comprising a rod positioned in free air so that said incandescent crater at the end thereof is at the projected apex of said truncated cone whereby light from said crater passes through said aperture, while light from the arc itself or the fluorescent flare thereof is masked by the solid portion of the plate surrounding said aperture.

2,833,955
TRAVELING WAVE ELECTRON DISCHARGE DEVICES
Theodore J. Marchese, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application February 4, 1954, Serial No. 408,266
20 Claims. (Cl. 315—3.5)

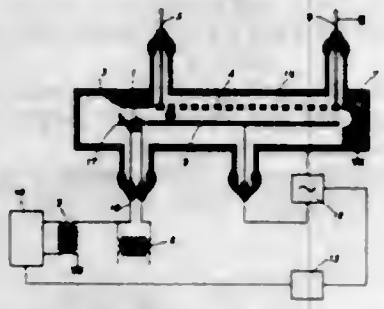


1. A traveling wave electron discharge device comprising a vacuum envelope having conductive cylindrical portions, an electron gun unit disposed at one end of said envelope to project an electron beam along an axial path within said envelope, a collector at the other end of said envelope to collect the electrons of said beam, a wave propagating structure including a helical transmission line of hollow tubing providing therein a passage for a liquid coolant disposed adjacent said path for transmission of radio frequency energy in interacting relation with the electrons of said beam, input coupling means disposed adjacent said gun unit to couple radio frequency energy to said propagating structure, and an output coupling unit disposed adjacent said collector to remove radio frequency energy from said propagating structure, said output coupling unit including a furcated transmission line junction section having first, second and third branches, said first branch being disposed coaxially of said conductive cylindrical portion and coupled to said propagating structure, said first branch also having a passage therealong for coolant from said propagating structure in non-interfering relation with the field of said radio frequency energy, said second branch serving as an output for radio frequency energy, and said third branch having a fluid connection for the coolant passage of said first branch in non-interfering relation with the field of said radio frequency energy and means within said third branch and in coupled relation to the conductive portion of said envelope to provide an impedance matching stub for the junction between said second branch and said propagating structure.

2,833,956
TRAVELLING WAVE TUBES OF THE MAGNETRON TYPE
Daniel Reverdin, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application February 17, 1955, Serial No. 488,752
Claims priority, application France March 11, 1954
6 Claims. (Cl. 315—3.5)

1. In combination with a travelling wave tube of the magnetron type, including an electron emissive cathode, an emission unblocking electrode facing said cathode, and a pair of parallel electrodes extending in a predetermined direction, and defining therebetween an electron and wave interaction space, said cathode and said emission unblocking electrode being positioned to concentrate in a beam travelling in said space, the electrons emitted parallel to said predetermined direction: an alternating voltage

source for applying between said parallel electrodes an alternating potential establishing in said space an alternating electric field with lines of force perpendicular to said direction; means for creating in said space a magnetic field with lines of force perpendicular both to said direction and to the lines of force of said electric field;



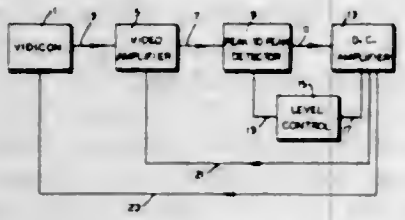
a source of pulses; and means for synchronizing said source of pulses with said alternating voltage source for applying pulses of suitable polarity between said auxiliary electrode and said cathode and unblocking them when said alternating potential has a suitable predetermined intensity.

2,833,957

RADIATION RECEIVER SENSITIVITY CONTROL

Irving Horowitz, Eatontown, N. J., assignor, by mesne assignments, of one-half to Isaac S. Blonder and one-half to Ben H. Tongue

Application December 17, 1956, Serial No. 628,696
11 Claims. (Cl. 315—10)



3. An electric system having, in combination, a radiation-sensitive receiver video signal-amplifying means connected to the receiver for producing an amplified video signal corresponding to the radiation impinged upon the receiver, peak-to-peak detector means for detecting components of the amplified video signal, direct-current amplifier means responsive to the detector means, a first feed-back path connected between the direct-current amplifier means and the video signal-amplifying means providing a first closed-circuit control loop comprising the video signal-amplifying means, the detector means and the direct-current amplifier means, and a second feed-back path connected between the direct-current amplifier means and the radiation-sensitive receiver providing a second closed-circuit control loop comprising the radiation-sensitive receiver, the video signal-amplifying means, the detector means and the direct-current amplifier means, whereby the sensitivity of both the radiation-sensitive receiver and the video signal-amplifying means is varied simultaneously in accordance with the radiation intensity impinged upon the receiver.

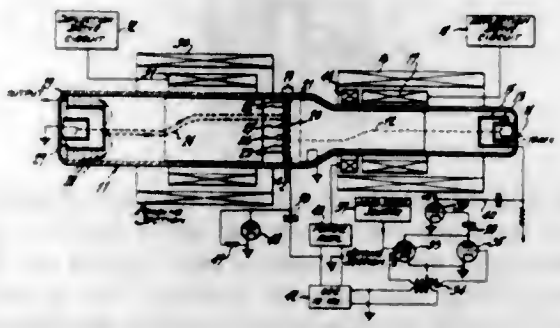
2,833,958

SCANNING CONVERSION APPARATUS

Louis Pensak, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application June 29, 1954, Serial No. 439,973
The terminal fifteen years of the term of the patent to be granted has been disclaimed
8 Claims. (Cl. 315—12)

1. A signal conversion system, comprising a signal storage device including a target, means providing an electron beam for scanning said target line by line at a predetermined rate for depositing a charge pattern on one side of said target in accordance with signal information derived in accordance with a first scanning standards, means for imparting a periodic discontinuous forward motion to said beam during each line scanning interval, means for causing said charge pattern depositing means alternately to erase information previously stored on said target during a first predetermined portion of the interval of said periodic discontinuous forward



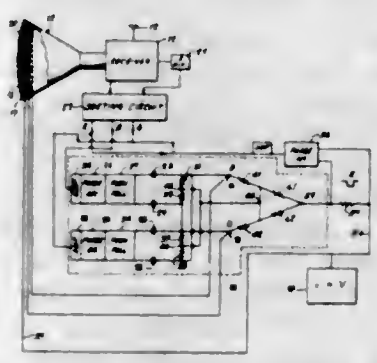
motion and to write information on said target in response to said first set of signals during a second predetermined portion of said interval of said periodic discontinuous forward motion, and means for scanning the opposite side of said target to read said deposited charge pattern in accordance with second scanning standards whereby a corresponding output wave is produced.

2,833,959

COLOR TELEVISION VOLTAGE CONTROL SYSTEM

Robert Dressler, Elmont, N. Y., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California

Application July 6, 1954, Serial No. 441,367
12 Claims. (Cl. 315—21)



1. In a color television system a cathode ray tube having a screen and two sets of electron deflecting elements positioned longitudinaly adjacent the screen thereof, a generator of periodic pulses of control voltage, a phase inverter circuit, said generator being connected to said phase inverter circuit and to said sets of elements to apply a positive voltage pulse on the first of said sets of elements and a substantially equal but negative voltage pulse on the second of said sets of elements, a second generator of periodic pulses of control voltage and a second phase inverter circuit, said second generator being connected to said second phase inverter circuit and to said sets of elements to apply a negative voltage pulse to the first of said sets of elements and a substantially equal but positive voltage pulse to the second of said sets of elements, said pulses from the first generator and said second generator occurring sequentially.

2,833,960

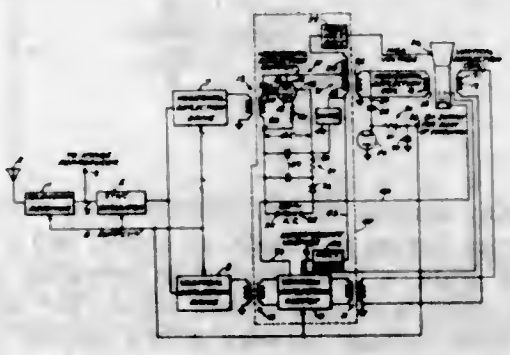
POWER SUPPLY SYSTEM

Arnold M. Levine, River Edge, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland

Application October 7, 1954, Serial No. 460,887
19 Claims. (Cl. 315—27)

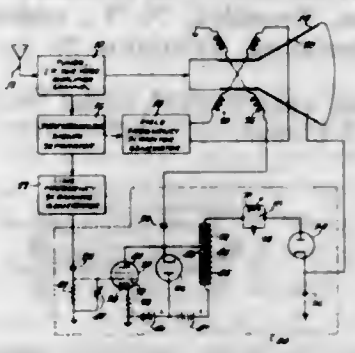
1. A unidirectional voltage supply system for apparatus having a cathode ray device and in which both high

and low unidirectional voltages are required, comprising a deflection system for the cathode ray device, a source of sawtooth shaped waves, a circuit including an electron discharge device to impress the waves of said source upon said deflection system, a source of power line voltage, means responsive to said source of power line voltage to



supply a potential for establishing a predetermined operating condition for said electron discharge device, means coupled to said circuit to develop said high unidirectional voltage during the retrace portion of said sawtooth waves, and means coupled to said deflection system to develop said low unidirectional voltage during said retrace portion.

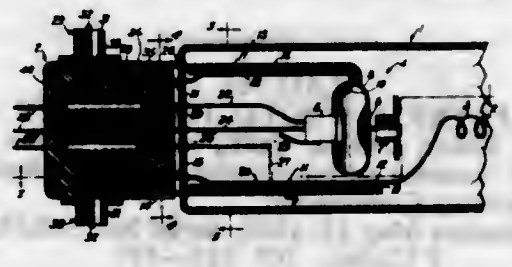
2,833,961
CATHODE RAY BEAM DEFLECTION CIRCUIT
Robert R. Thalner, Buffalo, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application February 2, 1956, Serial No. 562,969
8 Claims. (Cl. 315—27)



1. A scanning signal amplifier and high voltage supply comprising, means for producing a signal of scanning voltage waveform, means for developing a magnetic scanning field in response to said signal, said last mentioned means including a transformer having an input and an output circuit, a rectification system responsive to a signal from said output circuit to derive a high unidirectional voltage, and parallel resonant impedance means serially connected in said rectification system, said impedance means being resonant at the ringing frequency of said scanning signal amplifier and high voltage supply.

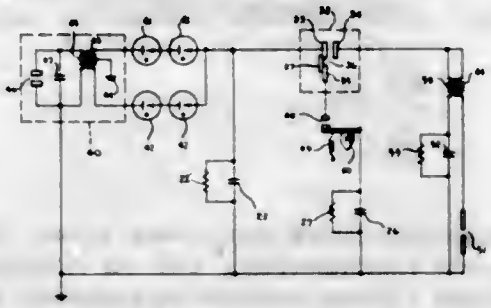
2,833,962
TRAVELING WAVE ELECTRON DISCHARGE DEVICES
Maurice Arditi, Clifton, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application December 31, 1953, Serial No. 401,582
12 Claims. (Cl. 315—39)

1. In an electron discharge device having an envelope enclosing an electrode to which radio frequency coupling must be had through said envelope, a radio frequency coupler contained within said envelope, said coupler comprising first and second conductors one of which is coupled to one of said electrodes, dielectric means disposed to maintain said conductors in closely spaced substantially parallel relation, said first conductor being wider than said second conductor and having a planar surface over which said second conductor extends, and said first and second conductors being terminated in the form of termi-



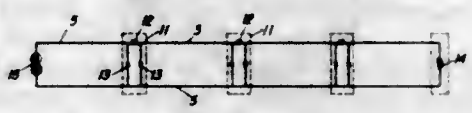
nal pins extending through and in sealed relation to said envelope.

2,833,963
ELECTRICAL APPARATUS
Tullio Tognola, Sidney, N. Y., assignor to Bendix Aviation Corporation, New York, N. Y., a corporation of Delaware
Application April 17, 1953, Serial No. 349,444
18 Claims. (Cl. 315—232)



16. Electrical apparatus comprising a source of electrical energy including a storage condenser, and circuit means connected to said storage condenser comprising a first branch including a shunted surface spark gap, a second condenser of smaller capacity than said storage condenser and normally non-conductive circuit completing means connected in series across said storage condenser, a second branch comprising a hold-off spark gap, the primary winding of a transformer and a third condenser connected in series across said storage condenser, said shunted surface gap and said hold-off gap having a common electrode, and a third branch comprising the secondary winding of said transformer and an igniter gap connected across said primary winding and said third condenser.

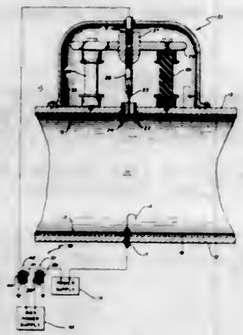
2,833,964
LUMINOUS BODIES
Walter V. Etzkorn, Oakland, Calif.
Application March 2, 1953, Serial No. 339,821
5 Claims. (Cl. 315—248)



1. An illuminating device adapted to be illuminated by a high frequency standing wave having high voltage sections operative for illuminating and low voltage sections inoperative for this purpose, comprising a light transmissive body assembly having an effective length of at least about one-half wave length of the illuminating high frequency standing wave, said body assembly incorporating a series of discrete, confined and sealed spaces containing a low pressure ionizable gas, and antenna means for propagating the illuminating high frequency standing wave, said antenna means including a pair of conductors extending along the effective length of the body assembly adjacent the spaces containing said gas

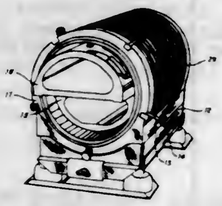
and interrupted only for short lengths by means concentrating the low voltage sections of the standing wave into small areas spaced approximately one-quarter wave length apart.

2,833,965
ELECTRICAL PROTECTIVE DEVICE
William R. Baker, Orinda, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 17, 1956, Serial No. 585,588
5 Claims. (Cl. 317—51)



4. A protective device comprising means defining a spark gap and communicating with an electrical cavity energized from a power supply to be protected, a peaking transformer having a primary winding connected in circuit with said power supply and an element in said cavity insulated therefrom, means biasing said peaking transformer, and a pulse transformer having a primary winding connected to the secondary winding of said peaking transformer and a primary winding connected across said spark gap for impressing a high voltage across same upon large reverse current flow from said cavity element.

2,833,966
HEAT CONDUCTING TUBE MOUNT
George N. Goodier, Indianapolis, and Billy E. Orr, West Lafayette, Ind., assignors to the United States of America as represented by the Secretary of the Navy
Application June 13, 1956, Serial No. 591,249
3 Claims. (Cl. 317—101)
(Granted under Title 35, U. S. Code (1952), sec. 266)



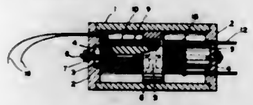
1. A heat transferring device comprising, a cylindrical case; at least one chassis of half-cylinder configuration having a longitudinal stringer on the outer periphery thereof; a plurality of leaf springs each removably attached to said longitudinal stringer; a plurality of mounting blocks having one surface of same curvature as the inner wall of said cylindrical case, one each being removably attached to each end of said leaf springs whereby said leaf springs bias said mounting blocks against the inner wall of said cylindrical case; and means on each said mounting block for mounting electron tubes.

2,833,967
RELAY CONTROL CIRCUIT
Etienne de Faymoreau, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application November 8, 1955, Serial No. 545,611
7 Claims. (Cl. 317—149)



1. A relay control circuit comprising an electron discharge device having a cathode, an anode, and a plurality of control grids, a relay having its operating coil connected in series with said anode, means for applying a variable input voltage between a first control grid and the cathode, means for biasing the cathode to establish a threshold level for electron flow, means for applying a positive bias to the second of said control grids, and means for applying a fixed positive bias to a third of said control grids, said cathode biasing means including means responsive to the flow of current to said cathode for increasing in a positive sense the bias applied to said cathode with increases in said flow of current so as to cut off current flow to said anode when the input voltage exceeds a given level and causes said current flow to increase above a given value.

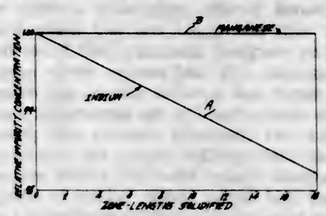
2,833,968
MAGNETIC ACTUATOR
John C. Karlson, Brooklyn, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application April 5, 1954, Serial No. 420,785
5 Claims. (Cl. 317—171)



1. A composite magnetic actuator comprising a cylindrical housing tube closed by end walls, a pair of identical permanent linear cylindrical magnets of high retentivity disposed axially within the housing, each magnet having one end secured to an end wall of the housing and each magnet having its free end of similar polarity and spaced from the other by a short gap, a ring extending from the center of the inner wall of the housing and closely surrounding the free ends of the magnets, the ring, housing and end walls of the housing formed of material having low magnetic retentivity and providing a flux path of low reluctance to the magnets, and an electrical winding sleeving the entire length of one magnet and a portion of the length of the other magnet, the winding adapted on receiving a current flow in one direction to be pushed and pulled linearly over the magnets in a particular direction from one end wall to the other by repelling magnetic forces arising between the magnet and coil at one end of the coil and by supporting magnetic forces arising between the magnet and coil at the other end of the coil.

2,833,969
SEMI-CONDUCTOR DEVICES AND METHODS OF MAKING SAME
Schuyler M. Christian, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 1, 1953, Serial No. 395,382
9 Claims. (Cl. 317—235)

1. In a semi-conductor device comprising a semi-conductor body of a material selected from the class consisting of germanium and silicon and electrodes connected to said body, the improvement consisting of said body comprising a region of p-type semi-conductive material having an excess of p-type over n-type impurities, said excess being of the order of 10^{-6} to 10^{-7} atomic percent, and said excess impurities being atoms of manganese.



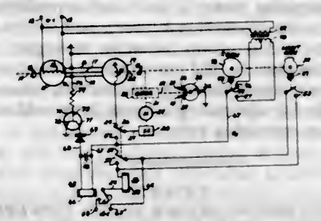
2,833,970
SELF CENTERING ALTITUDE CONTROLLER FOR AIRCRAFT
Kimball C. Cummings, Golden Valley, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 13, 1953, Serial No. 367,515
8 Claims. (Cl. 318—28)



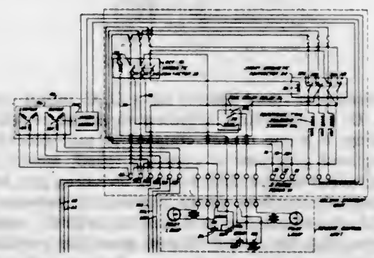
1. Apparatus of the class described, comprising, in combination: control means adjusting the elevators of a craft in accordance with an electrical signal; comparing means giving a first electrical signal determined by two mechanical inputs; altitude responsive means connected to supply a first mechanical input to said comparing means which is a measure of the actual altitude of the craft; motor means connected to supply a second mechanical input to said comparing means; selecting means supplying a second electrical signal the magnitude of which is a measure of the desired altitude of the craft; motor control means for causing operation of said motor means in proportion to an electrical signal; means normally interconnecting said elevator adjusting control means, said comparing means, said altitude responsive means, said motor means, said selecting means, and said motor control means so that said first electrical signal is supplied to said control means and so that said second electrical signal is supplied to said motor control means; and means in said interconnecting means operable to disconnect said selecting means and said control means and to supply said first electrical signal to said motor control means.

2,833,971
ROTARY INDUCTOR SIGNAL TRANSMITTER
John W. Gray, Pleasantville, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application June 25, 1956, Serial No. 593,434
8 Claims. (Cl. 318—30)

2. A rotary inductor signal transmitting system comprising, an input signal shaft in said system, a servo driven output signal shaft in said system, said output signal shaft having stops including cams limiting its angular displacement, transistor means sensing the electrical phase of said inductor signal transmitting system, cam means sensing the sense of said output signal shaft angular position relative to the angular position of said input signal shaft, comparator means including a unilaterally conductive device comparing the sense of said electrical phase with the sense of said angular positions and switching means automatically reversing the direction in which said output signal shaft is driven by said servo when said output signal shaft is at a stop and said electrical phase changes sense.

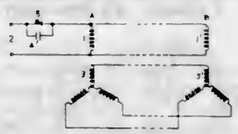


2,833,972
POWER TYPE SELSYN MOTOR CONTROL SYSTEM
Carl E. Hittle, North Hollywood, and John J. Askins, Jr., Burbank, Calif., assignors to Radio Corporation of America, a corporation of Delaware
Application November 1, 1955, Serial No. 544,264
8 Claims. (Cl. 318—44)



1. In an interlock motor system of the type including a polyphase distributor interlock motor having a rotor and stator, and at least one polyphase load interlock motor having a rotor and stator, said rotors being connected in parallel, and said stators being connected in parallel, an arrangement for locking the rotor of said load motor to the rotor of said distributor motor comprising, means for applying single-phase power to said stators; and means for changing the flux distribution pattern of the rotor of said load motor so as to rotate said rotor through a relatively small angle.

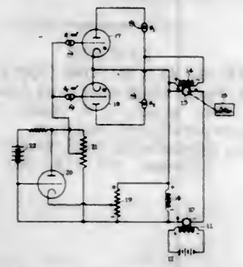
2,833,973
OPERATION OF DYNAMO-ELECTRIC MACHINES IN MUTUAL SYNCHRONISM
Shafi-uddin Ahmed Choudhury, Rugby, England, assignor to The British Thomson-Houston Company Limited, London, England, a British company
Application March 19, 1956, Serial No. 572,429
Claims priority, application Great Britain April 7, 1955
7 Claims. (Cl. 318—44)



7. In a synchronous system, the combination of a plurality of dynamo-electric machines each having relatively rotatable members, primary energizing means on one of said relatively rotatable members of each of said machines, a polyphase secondary winding on the others of

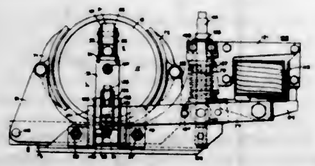
said members, a source of single-phase alternating voltage, means interconnecting the poly-phase secondary windings of said machines, means mutually connecting said primary energizing means to said source, rectifying means inserted into the connection between said source and said primary energizing means whereby to supply a direct current component to said primary energizing means, and an impedance means shunting said rectifier means to provide a path for alternating current from said source to said primary energizing means.

2,833,974
ELECTRONIC MOTOR SPEED CONTROL
Oscar E. Carlson, Paterson, N. J.
Application June 21, 1956, Serial No. 592,976
4 Claims. (Cl. 318—144)



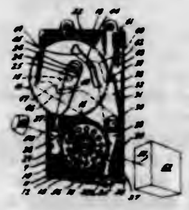
1. An electronic speed control for a D. C. motor comprising: a D. C. generator including an armature and a field winding; a prime mover coupled to said generator for driving said generator at constant speed; means for energizing said generator field winding including grid controlled gaseous rectifier means connected between a source of A. C. voltage and said winding; a D. C. motor; means connecting the output of said generator armature to the armature of said motor; means for immersing the armature of said motor in a unidirectional magnetic field; a series field winding connected in series between the motor and generator armatures; grid controlled vacuum tube amplifier means; means connecting at least a portion of the voltage appearing across said series field winding between the cathode and grid of said amplifier; means providing a D. C. voltage; means for varying said D. C. voltage in proportion to the conductivity of said vacuum tube amplifier, whereby said D. C. voltage becomes a motor load compensated reference voltage; means for supplying the grid of said gaseous rectifier means with an A. C. voltage which is substantialy 90° out of phase with the anode voltage; and means for superimposing said load compensated D. C. reference voltage on said A. C. grid voltage.

2,833,975
MOTOR SYSTEM
Gilbert Currie, Williamsville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 7, 1955, Serial No. 499,980
7 Claims. (Cl. 318—369)



1. A motor system comprising a motor, a brake for said motor cooperative with said motor, means maintaining said brake in braking engagement with said motor in the deenergized condition of said motor, a speed responsive governor for said motor coupled to said motor to be actuated thereby, electrically actuable means cooperative with said brake and said maintaining means which when energized disengages said brake from braking engagement with said motor, power supply means for said motor and actuable means, and means including switch means closed in the deenergized condition of said motor and connected between said power supply means and said actuable means for supplying current to said actuable means when said switch means remains closed and said power supply means is energized, the said system being characterized by mechanical latch means cooperative with said brake and switch means to latch said brake in braking disengagement and to permit said switch means to open, and by means responsive to said governor when the motor speed falls below a predetermined magnitude to unlatch said brake and close said switch means.

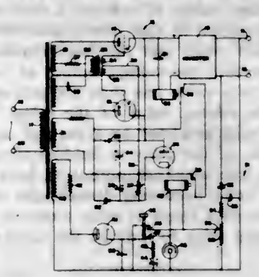
2,833,976
POSITIONING MECHANISM
Gilbert J. Kennedy, Philadelphia, and Winfield W. Loose, Reading, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application July 15, 1955, Serial No. 522,293
4 Claims. (Cl. 318—467)



1. A self-cycling ratchet stepping mechanism, comprising: a ratchet wheel to be rotated step-by-step through predetermined angular increments; means for rotating said wheel including, a pawl, a motor, and means interconnecting said pawl and said motor whereby, when energized, said motor will drive said pawl through reciprocatory movements; means for guiding said pawl against said wheel during such movement to move said wheel, one increment for each complete reciprocation of said pawl; a source of power; a control switch to energize said motor from said source; a circuit holding switch; a bell crank; means at predetermined positions on said wheel to condition said bell crank to open said holding switch; and means operable by said means interconnecting said pawl and said motor to effect movement of said bell crank to open said holding switch and stop operation of said motor.

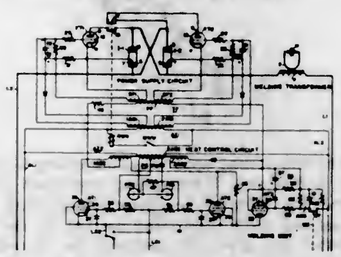
2,833,977
PROTECTIVE CIRCUIT FOR INVERTERS
Ernest Levy, Jr., and Charles Mittel, Norwalk, Conn., assignors to Sorensen and Company, Stamford, Conn., a corporation of Connecticut
Application October 10, 1955, Serial No. 539,412
7 Claims. (Cl. 321—2)

1. A protective circuit for inverters comprising, an inverter having a direct current input circuit and an alternating current output circuit, a direct current supply circuit which provides direct current power to said input circuit, an output relay having a winding coupled to said output circuit and having normally open contacts which are closed when the inverter is delivering a predetermined output voltage, and a voltage control circuit adapted to slowly increase the direct current potential



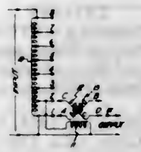
applied to said input circuit, said control circuit including said relay contacts and a portion of said direct current supply circuit.

2,833,978
CURRENT REGULATOR
William E. Large, Lancaster, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 27, 1953, Serial No. 351,338
18 Claims. (Cl. 323—18)



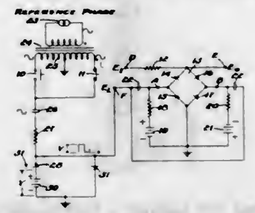
1. In combination, a balanced network having a first output terminal and a second output terminal; a first cathode-follower network, said first follower network including a discharge device having a control electrode, an anode and a cathode and a third output terminal connected to said cathode; means connecting said first terminal to said control electrode; a second cathode-follower network, said second follower network including a discharge device having a control electrode, an anode and a cathode and including a fourth output terminal connected to said last-named cathode; means connecting said second terminal to said last-named control electrode and means connecting said cathodes to a point electrically intermediate said first and second terminals.

2,833,979
PRECISION TRANSDUCER
Larkin B. Scott, Fort Worth, Tex., assignor to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application July 7, 1955, Serial No. 520,546
5 Claims. (Cl. 323—43.5)



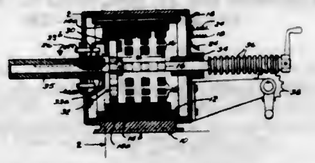
1. An electrical apparatus, which comprises a series of terminals, one of which is a reference terminal, means for maintaining a reference voltage on the reference terminal and voltages of predetermined values relative to the reference voltage on the respective other terminals along the series, and means for deriving voltages intermediate those on the terminals, said means including a first inductive element connected across two of said terminals along said series, second and third inductive elements positioned in magnetic flux relation with said first inductive element and in quadrature relation with each other, means for continuously varying the magnetic flux relation of said second and third inductive elements with respect to said first inductive element, at least one of said second and third elements producing a linear potential at all times, and means for alternately connecting said second and third inductive elements to successive terminals along the series.

2,833,980
END-STOP CIRCUIT FOR SERVO SYSTEMS
Wendell T. Hedgcock and David C. Arnold, Cedar Rapids, Iowa, assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application January 4, 1956, Serial No. 557,262
5 Claims. (Cl. 323—65)



4. In a closed loop servo system having an error signal path, an end-stop circuit comprising input and output terminals, a first impedance connected between said terminals, a controllable impedance connecting said first impedance to ground to form a controllable potentiometer, said controllable potentiometer substantially reducing to zero transfer of signals from input to output terminals when said controllable impedance is controlled to be a low impedance, means to select an alternating voltage of predetermined phase, and means to connect said voltage of predetermined phase to said controllable impedance.

2,833,981
CONTROL FOR THREE VARIABLES
William H. Newell, Mount Vernon, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application April 13, 1955, Serial No. 501,057
2 Claims. (Cl. 323—90)



1. A mutual induction device having a variably controlled output comprising a source of exciting current, a stator having a plurality of circumferentially and axially distributed pole pieces, a rotor mounted to rotate in inductive proximity to said stator and to move axially thereof, an input circuit having an excitation winding inductively related to said rotor, said input circuit being connected to said current source, an output circuit having induction windings inductively related to the stator pole pieces, each of said induction windings having a predetermined number of turns, a flux standardizing cir-

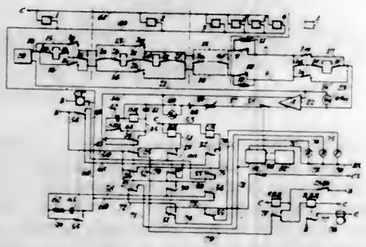
cuit having pick-up windings series wound the same number of turns on each pole piece and a comparison network including a pair of resistors, one of said resistors being disposed in said flux standardizing circuit and the other being connected to said current source, the output of said comparison network being connected to said input circuit.

2,833,982
WATER ENTRY DETECTION METHOD AND APPARATUS
George P. Maly, Fullerton, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application January 14, 1957, Serial No. 634,018
14 Claims. (Cl. 324—2)



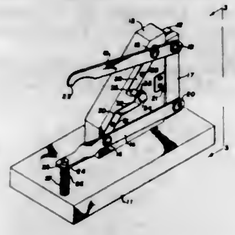
1. A method for logging a fluid-producing permeable interval penetrated by a borehole which comprises disposing a fluid-permeable matrix enclosing a plurality of superimposed spaced-apart electrodes in said borehole at a known depth opposite said interval and surrounding a perforated section of production tubing, said matrix being intially saturated with a known fluid giving said matrix between pairs of electrodes a known electrical property, removing fluid from said borehole through the production tubing thereby permitting flow of fluids thereinto from said permeable interval through said matrix, and measuring said electrical property of said matrix between said pairs of electrodes to determine the nature of fluid flowing therebetween into said borehole.

2,833,983
RELAY CONTACT TESTING CIRCUITS
Noble C. Shaw, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application May 23, 1956, Serial No. 586,833
14 Claims. (Cl. 324—28)



6. A circuit for testing the contact operation of a multiplicity of relays, the front contacts and the back contacts of all the relays being series-connected to form two chains of contacts, comprising means for alternately and simultaneously energizing and deenergizing the relays to alternately close and open the front and back contacts of said relays, a control relay having predetermined pickup and release values of voltage, a source of energy, an amplifier connected to said source alternately through the front contact chain and the back contact chain of the relays under test, the voltage output of the amplifier being adjusted to a value less than the pickup value but greater than the release value of the relay, a capacitor chargeable by said amplifier to a voltage equivalent to the pickup value of the relay, a holding circuit for said relay including the amplifier output to hold said relay energized, said relay becoming deenergized upon failure in the continuity of a chain of relay contacts, and means controlled by said relay to indicate the failure.

2,833,984
CONTACTING APPARATUS
Theodore H. Eickhoff, Cleveland, Ohio
Application April 1, 1955, Serial No. 498,625
8 Claims. (Cl. 324—29.5)

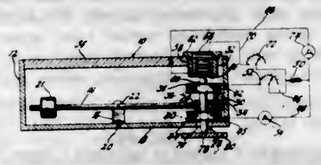


1. In battery testing apparatus comprising a supporting member, a first arm, a first pivot connection carried by the supporting member for pivotally carrying the first arm, a second pivot connection carried by the supporting member for pivotally carrying the second arm, a connecting member operatively connecting said arms at distances rearwardly from the respective pivot connection of each to provide for movement of the respective rear ends of the arms both in one direction and for corresponding simultaneous movement of the respective free ends of the arms both in an opposite direction, said arms extending forwardly distances from the respective pivot connection of each to provide free ends movable simultaneously in the same direction upon the movement of said arms, the said distances forwardly and rearwardly of said pivot connections along the respective arms to said free ends and said connecting member being so proportioned as to cause the free end of one arm while moving in said same direction to move toward the free end of the other arm as said free ends move together in one direction, the arrangement of the supporting member, pivot connections and arms being such that pressing one end of a battery being tested against the free end of one of said arms in said one direction a certain distance causes the free end of the other arm to move a greater distance in said one direction to engage the opposite end of said battery.

2,833,985
PERMEAMETER
Edward J. Martin, Pleasant Ridge, and Walter E. Sargeant, Huntington Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 11, 1953, Serial No. 379,628
5 Claims. (Cl. 324—34)

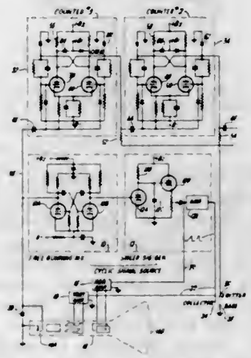
1. A permeameter comprising a housing having a balanced support arm mounted therein, a ferromagnetic bar secured to one end of said arm, means within said housing for producing a magnetic field about said bar, said

bar being adapted to assume a position of magnetic balance centrally within said field, an electrical coil secured to said housing, one end of said bar being disposed adjacent said coil and the other end thereof being adapted to be disposed adjacent a member of unknown



permeability, said member altering the configuration of said magnetic field and thereby repositioning said bar, and calibrated means connected to said coil for adjusting the magnetic conductivity thereof to rearrange said field and return said bar to its original balance position.

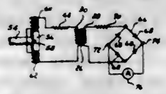
2,833,986
CHARACTERISTIC CURVE TRACER
Norman J. Golden, Arlington, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application July 21, 1952, Serial No. 300,078
12 Claims. (Cl. 324—57)



10. Apparatus for testing an electrical device and for displaying the characteristics thereof, comprising in combination a variable voltage signal source having cyclically variable output connection to a set of terminals for a device to be tested, a cascaded series of electronic counters each having a portion of the output thereof connected as bias supplies in energizing relation to said set of test device energizing terminals, an energizing connection from said signal source to the unit-counting portion of said cascaded counter effective during each energization to advance the counter one unit during each cycle of the signal source thereby to utilize the bias supplies selectively and in selected combinations, and a display device having a deflection system coupled to said set of test terminals for displaying a family of characteristics of the device under test during the successive applications of bias from the several bias supplies.

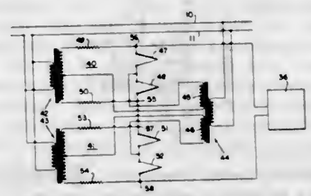
2,833,987
BALANCEABLE SATURABLE REACTOR
Francis H. Shepard, Jr., Summit, N. J.
Application April 12, 1954, Serial No. 422,549
6 Claims. (Cl. 324—70)

1. In a transformer circuit of the character described, a transformer having a saturable magnetic core, a primary and a secondary winding disposed upon said core and positioned relative to each other so that the changing flux linking said primary and secondary windings through said core after it has been saturated is substantially equal and opposite to the changing flux linking said windings through the region outside of said core, means calibrated in terms of frequency to measure the average voltage output from said secondary winding, and means to apply a



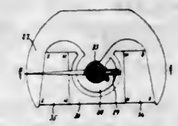
current to said primary winding of magnitude at least sufficient to saturate said core whereby the average voltage from said secondary winding is substantially independent of the current to said primary winding above saturation.

2,833,988
THERMAL CONVERTER POWER MEASURING APPARATUS
John Parnell, Ambler, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application July 21, 1953, Serial No. 369,420
10 Claims. (Cl. 324—119)



1. A thermal converter for converting an alternating power signal into a proportional direct current signal, the combination comprising, a first thermocouple unit comprising at least one pair of differentially connected thermocouples arranged to be energized by the sum and difference currents of signals representative of alternating voltage and current and having a direct current output with an alternating signal superimposed thereon, a second thermocouple unit comprising at least one pair of differentially connected thermocouples arranged to be energized by the sum and difference currents of signals representative of alternating voltage and current and having a direct current output with an alternating current superimposed thereon which is of opposite phase to the alternating current superimposed on the direct current output of said first unit, and circuit means connecting the outputs of said first and second units in direct current additive relation and alternating current opposing relation so that the output signal will be only a direct current signal proportional to power.

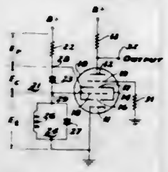
2,833,989
LONG SCALE ELECTRICAL INSTRUMENTS
Arnold L. Nylander, Swampscott, Mass., assignor to General Electric Company, a corporation of New York
Application May 26, 1953, Serial No. 357,615
4 Claims. (Cl. 324—150)



1. In a long-scale electrical instrument of the moving coil type the combination of a substantially annular inner pole piece, an outer pole piece having a C-shaped inner pole face substantially concentric with said inner pole

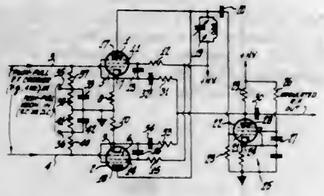
piece, a C-shaped yoke extending about a portion of said outer pole piece but not in direct contact therewith, said yoke having a tongue portion extending inwardly from its center, means connecting said inner pole piece directly to said tongue portion, and a pair of permanent magnets connected between said yoke and said outer pole piece, said magnets each having substantially the shape of a truncated wedge, said pair of magnets being respectively located on diametrically opposite sides of said outer pole piece and being respectively magnetized in opposite straight-line directions to provide magnetic flux between said pole pieces, each of said magnets having pole faces of like polarity in juxtaposition to the pole face of said outer pole piece.

2,833,990
CONTROLLED OSCILLATOR MEANS UTILIZING GATED-BEAM TUBES
Jack D. Van Tilbury, Marion, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application November 21, 1955, Serial No. 548,028
10 Claims. (Cl. 332—25)



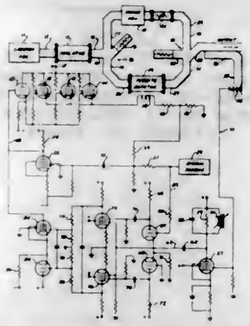
1. Oscillatory means comprising a gated-beam electron tube having at least a cathode, an accelerator electrode, a limiter grid, a gating grid and a plate, a parallel-resonant circuit connected between said limiter grid and said cathode, a first direct-voltage potential level connected to said cathode, a second direct-voltage potential level that is positive with respect to said first level operably connected to said plate, first impedance means capable of conducting direct-current connected between said second potential level and said accelerator electrode, second impedance means capable of passing alternating-current and blocking direct-current connected between said accelerator electrode and said limiter grid, and third impedance means connected between said gating grid and said first potential level, whereby oscillatory feedback is provided from said accelerator electrode to said parallel resonant circuit.

2,833,991
BALANCED MODULATOR
Kaare Karstad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 11, 1953, Serial No. 397,515
6 Claims. (Cl. 332—43)



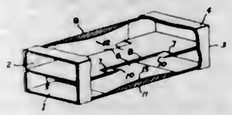
1. A balanced modulator comprising two electron discharge devices each of which has input electrodes and also output electrodes, means connecting the output electrodes of said devices in parallel to a common load, means for supplying carrier wave energy in push-pull relation to the respective input electrodes of said devices, means for supplying push-pull modulating voltages to the respective input electrodes of said devices, said modulator becoming unbalanced and causing a modulated carrier wave to appear across said load in response to modulating voltages and as a result of unavoidable inequalities arising in the circuits of said devices, and means capable of passing only alternating current for feeding back a portion of the modulated carrier wave appearing across said load to said devices in such phase as to reduce the modulated carrier wave appearing across said load.

2,833,992
SUPPRESSED CARRIER MODULATION SYSTEM
Michael W. McKay, Tarrytown, and Harry J. Horn, Pleasantville, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application October 6, 1955, Serial No. 538,938
9 Claims. (Cl. 332—44)



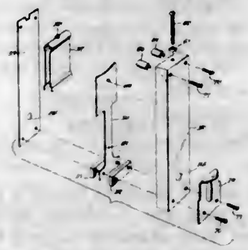
1. Electrical apparatus comprising, a first source of electrical oscillations, a second source of electrical oscillations, two transmission paths connected to said first source, means for modulating the energy in one of said paths with the energy from said second source, a four-armed hybrid junction having two opposite arms connected to said transmission paths, means for sampling the energy in one of the remaining arms of said hybrid junction, and means responsive to energy at the frequency of said first source appearing in said sampling means for adjusting the amplitude of the energy in one of said transmission paths.

2,833,993
TOP WALL HYBRID JUNCTIONS
Henry J. Riblet, Wellesley, Mass.
Application June 20, 1952, Serial No. 294,599
8 Claims. (Cl. 333—11)



1. A microwave hybrid junction comprising, a hollow generally rectangular conductive structure having substantially parallel broad and narrow walls, a conductive plane partition extending longitudinally and centrally through said structure coextensively with and parallel to said broad walls, said partition thereby dividing said structure into first and second like rectangular waveguides having a common broad wall and input and output sections dimensioned for normal microwave energy propagation throughout a relatively broad frequency spectrum, each pair of said input and output sections being disposed on opposite sides of a coupling section, said common broad wall in said coupling sections being formed with a pair of longitudinal elongated slots adjacent said narrow walls, said broad and narrow walls of said structure being indented in said coupling sections, whereby said slots and said indented coupling sections coact to yield hybrid performance for said junction over a frequency band lying wholly within the aforesaid frequency spectrum normally transmitted by said input and output sections.

2,833,994
HIGH FREQUENCY LONG-LINE VARIABLY END-LOADED TUNER STACKABLE WITH SIMILAR TUNERS FOR INTERCOUPLING
Clarence P. Pipes, Chicago, and John F. Mitchell, Berkeley, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application July 2, 1954, Serial No. 440,902
11 Claims. (Cl. 333—73)



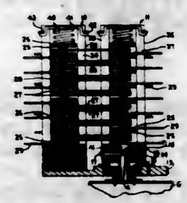
1. A high frequency wave signal tuner including an elongated rectangular housing of electrically conductive material forming a cavity, said housing having first and second end portions and two face portions, an elongated conducting plate member supported at one end thereof by said first end portion of said housing and extending within said housing toward said second end portion, a U-shaped tuning member within said housing and surrounding the end of said plate member opposite said first end portion, said tuning member having two arm portions engaging said face portions of said housing, adjusting means engaging said tuning member and said second end portion of said housing to permit selective positioning of said tuning member with respect to said plate member for determining the resonant frequency of said tuner, and an aperture in said housing for electrical connection to said plate member.

2,833,995
MICROWAVE TRANSMISSION LINE
Maurice Arditi, Clifton, N. J., and Jack Elefant, Brooklyn, N. Y., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application May 8, 1952, Serial No. 286,765
9 Claims. (Cl. 333—97)



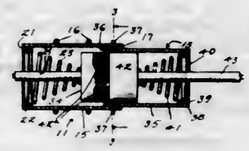
1. A transmission line comprising first and second ribbon-like conductors, means disposing said conductors in spaced substantially parallel relation, and means for adjusting the line wavelength of a section of said line including a piece of conductor having an elongated flat surface disposed in longitudinal overlying parallel contact relation to said first conductor and means for adjusting the position of said piece of conductor laterally to extend beyond said first conductor and confront said second conductor to thereby widen the conductor characteristics of said first conductor relative to said second conductor.

2,833,996
CENTERLINE ROTARY ELECTRICAL CONTACTOR DEVICE
Joseph E. Whicker and Robert W. Mann, Indianapolis, Ind.
Application March 30, 1954, Serial No. 419,943
12 Claims. (Cl. 339—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A multiple contact rotatable contactor device comprising: a pair of electrical contact supporting components in side-by-side relation, one component being rotatable relative to the other component; pairs of contactor elements and insulator elements alternately stacked in each component, said contactor elements in at least said rotatable component each having a point contact surface on a side removed from said insulation elements and on the axis of rotation; means applying a resilient compressive force on said stacks; and conductor strip means lying between said pairs of contactor elements connecting companion contactor elements in each component whereby electrical connections between the companion contact elements are maintained in all rotative positions of said rotatable component.

2,833,997
LOCKING ATTACHMENT FOR ELECTRIC EXTENSION CORDS
Vincent C. Brown, Big Stone City, S. Dak.
Application April 25, 1955, Serial No. 503,508
2 Claims. (Cl. 339—90)



1. A locking attachment for forming a locked connection between a conventional electric plug and socket in a line cord, comprising a first sleeve adapted to loosely contain the plug, a second sleeve adapted to loosely contain the socket, said sleeves having adjacent ends sized for telescopic interfitting engagement, means interlocking said adjacent sleeve ends together, expansion spiral springs of conical shape disposed in said sleeves and through which electric cords are adapted to extend from remote ends of the plug and socket outwardly through remote ends of said sleeves, said springs having restricted adjacent ends bearing against the plug and socket and enlarged remote ends, said sleeves having internal restrictions at the remote ends thereof forming seats for the enlarged ends of said springs for maintaining the springs under tension between the spring seats and the coupled plug and socket when said sleeves are connected in interfitting relation to one another and for urging the plug and socket to projected and exposed positions outwardly of said adjacent ends of the sleeves when said sleeve ends are disconnected.

2,833,998
ELECTRICAL OUTLET
John M. Alden, Dedham, Mass.
Application March 19, 1954, Serial No. 417,269
2 Claims. (Cl. 339—191)



1. An electrical outlet for receiving the bayonets of a mating plug comprising a body of a non-conducting material formed with a central cavity and two spaced apertures in one end opening into said cavity for receiving the bayonets, and two arcuate contacts, each having only a single radius of curvature, movably disposed in said cavity with their convex surfaces respectively in abutment with opposed sides of said body directly beneath said apertures, one end of said body having parallel slotted recesses for slidably engaging the ends of said contacts, the other ends of said contacts resting against the opposite end of said body so that the contacts are free to expand lengthwise into the slotted recesses as the bayonets of the mating plug are inserted between the convex faces of the contacts and the opposed walls of said body.

2,833,999
TRANSDUCER
Douglass H. Howry, Denver, Colo.
Application September 28, 1953, Serial No. 382,547
4 Claims. (Cl. 340—8)



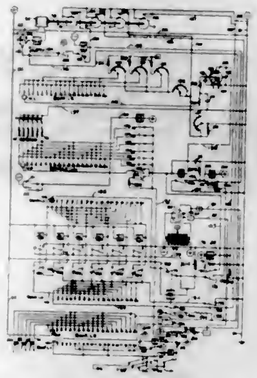
2. An electroacoustical transducer element for transmitting ultrasonic energy from a generator into a body of liquid comprising an ultrasonic energy generating element, a block of sound-transmitting material having an energy-receiving face and an energy-transmitting face, said transmitting face having a network of grooves therein forming a multiplicity of projections each constituting an exponential horn, and a resilient diaphragm in engagement with the outer ends of said projections and acoustically bonded thereto.

2,834,000
SOUND DETECTING DEVICE
Alpha M. Wiggins, Buchanan, Mich., assignor to Electro-Voice, Incorporated, Buchanan, Mich.
Application December 9, 1953, Serial No. 397,077
10 Claims. (Cl. 340—8)



3. A sound responsive device comprising, in combination, a pair of resilient cylindrical plugs, a pair of elongated substantially semicylindrical segments of a rigid metal cylinder arranged to be movable transversely to the axis thereof, each segment having an end attached to each of the plugs to form a hollow bifurcated cylinder, resilient sealing means located between adjacent edges of said segments, and at least one cylindrical electromechanical transducer disposed transversely within the cylinder in contact with both segments of the cylinder.

2,834,001
TRAFFIC CYCLE SELECTOR
Harry A. Wilcox, Westport, Conn., assignor to Eastern Industries, Incorporated, East Norwalk, Conn., a corporation of Delaware
Application March 23, 1956, Serial No. 573,465
9 Claims. (Cl. 340—41)

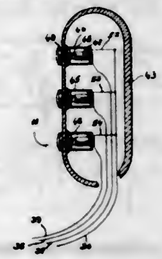


1. In a traffic control apparatus having a plurality of traffic signalling cycles and a selector device for selecting among said cycles in accordance with the amount of traffic, said selecting device comprising a step-by-step switch having a series of more than two switch positions and providing connections in the respective positions for the several signalling cycles, traffic counting means, periodic timing means for periodically resetting said counting means, means responsive to the counting of a predetermined amount of traffic by said counting means during the time period of said periodic timing means to maintain said step-by-step switch in a position it has already attained to provide the same signal cycle or the following such time period, means responsive to the counting of a predetermined greater amount of traffic by such counting means during said time period to step said step-by-step switch ahead one position to provide another signal cycle for such following time period, and means responsive to the counting of a predetermined lesser amount of traffic by said counting means during said time period to step said step-by-step switch back one position to provide a third cycle for such following time period, said step-by-step switch having a uni-directional stepping mechanism and a scale of successive positions corresponding to a scale of traffic count values and repeated cyclically in said series and said step-back means including relay circuits for predetermining stepping ahead of said step-by-step switch to the position corresponding to the next position back in said scale of positions.

2,834,002
HEIGHT CLEARANCE FEELER DEVICE
Fredrick James Nordsiek, Indianapolis, Ind.
Application August 17, 1955, Serial No. 528,978
1 Claim. (Cl. 340—61)

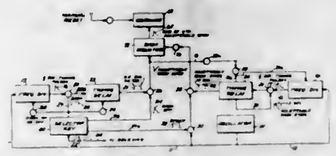
A device of the class described comprising frame means adapted to be secured to a vehicle, cam means supported from said frame means to swing about an axis transverse to the direction of travel of said vehicle, a plurality of normally open switches, each having an element movable to close the associated switch, said switches being supported from said frame means with said elements positioned for sequential engagement by said cam means, a plurality of signal devices, means for mounting said signal devices on said vehicle, a source of electrical energy supported from said frame means and connected, through said respective switches, to energize said respective signal

devices, feeler means mounted to move with said cam means and projecting upwardly beyond said frame means, and a stiffly resilient spring having one end anchored on said feeler means closely adjacent said cam means, ex-



tending downwardly, in forwardly-bowed formation, ahead of and outside said frame means, and having its lower end removably received in a socket formed in the forward face of said frame means.

2,834,003
SIGNAL SELECTOR DEVICE
Harry Hugo Abelew, Brooklyn, N. Y., assignor to Mackay Radio and Telegraph Company, New York, N. Y., a company of Delaware
Application March 18, 1954, Serial No. 416,981
7 Claims. (Cl. 340—164)



1. An automatic alarm device responsive to a predetermined sequence of received signal dashes of predetermined length separated by spaces of a definite length comprising signal receiving means, electronic switch means coupled to and adapted to be controlled by said receiving means, said switch means adapted to deliver a plurality of control potentials, dash register means for registering dash signals of said predetermined length, first electronic timing means for measuring minimum and maximum duration of acceptable received dash signals, second electronic timing means for measuring maximum duration of acceptable spaces between received acceptable dashes, a coincidence gate having an output coupled to said register means and said second timing means and having inputs connected to said first timing means and a first one of said control potentials, respectively, said first timing means coupled to a second one of said control potentials for co-joint control, register-cancelling means coupled between said second timer and said register, said last named means under the joint control of said second timer and a third one of said control potentials, whereby registration on said register means will be cancelled in the event of a space of longer duration during reception of said predetermined signal sequence.

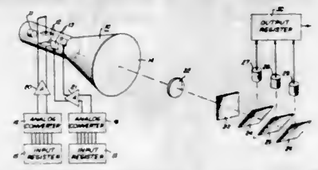
2,834,004
TRIGGER PAIR
Michele Canepa, South Norwalk, Conn., assignor to Olivetti Corporation of America, New York, N. Y., a corporation of Massachusetts
Application April 1, 1955, Serial No. 498,694
4 Claims. (Cl. 340—174)

1. A binary system capable of providing indications of the presence of a signal, or of its binary complement, comprising a pair of ferromagnetic elements having an approximately rectangular hysteresis loop, first winding means on each of said elements for causing saturation of one of said elements in one direction and saturation of the second of said elements in the opposite direction, second winding means on each of said elements for applying a signal to said pair of elements whereby the application of said signal causes the first of said elements to saturate in the direction opposite to the said one direction and causes the second of said elements to return to its original saturation, third



winding means on each of said elements for returning the said first element to its original satuartion and maintaining said second element in that original saturation, output winding means on each of said elements, one of said output means being energized when said third means are energized and producing an indication of the prior energization of the other means, said second output means providing an output signal when said third means are energized if said second means had not been previously energized.

2,834,005
OPTICAL STORAGE SYSTEM
Raymond W. Ketchledge, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 26, 1956, Serial No. 573,989
18 Claims. (Cl. 340—173)

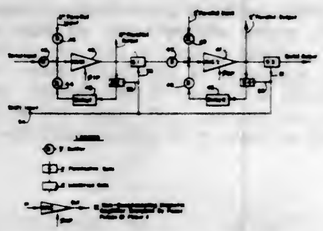


1. A storage system comprising an electron discharge device including a luminescent surface, means for projecting an electron beam against said surface to produce a spot of light on the area of incidence and means for deflecting said electron beam, an information storage member having binary information stored on discrete areas thereof in a form providing frequency selective light transmission characteristics at various of the discrete areas, and a plurality of light responsive devices generating electrical manifestations of the light directed thereto from said surface through said information storage member.

2,834,006
SHIFTING REGISTER UTILIZING MAGNETIC AMPLIFIERS
Henry William Kaufmann, Phoenixville, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application May 21, 1954, Serial No. 431,509
20 Claims. (Cl. 340—174)

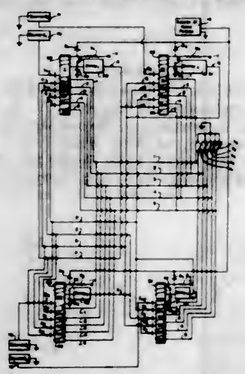
14. A shifting register comprising a plurality of chain-connected bistable stages, each of said stages including a magnetic amplifier, feedback means for selectively passing energy from the output to the input of said magnetic amplifier, said feedback means including recirculation gate means and delay means comprising a further magnetic amplifier, a plurality of normally closed transfer gates respectively interconnecting said bistable stages, and control means coupled to said recirculation gates

and to said transfer gates for selectively closing said recirculation gates and for selectively opening said transfer



gates, said control means including a complementing magnetic amplifier coupled to each of said recirculation gates.

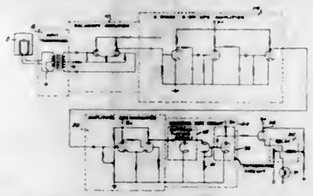
2,834,007
SHIFTING REGISTER OR ARRAY
Bruce K. Smith, Devon, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application October 7, 1954, Serial No. 460,949
19 Claims. (Cl. 340—174)



1. A pulse type array comprising a plurality of magnetic amplifiers, each of said amplifiers including a core of magnetic material having a power winding and a plurality of input windings thereon, means coupling a source of regularly occurring power pulses to one end of each of said power windings, first coupling means connecting the other end of the power winding of each of said amplifiers to one end of at least a first input winding of the same said amplifier, second coupling means connecting the output of each of said amplifiers to one end of at least a second input winding of another of said amplifiers, and control means coupled to the other ends of each of said input windings for selectively permitting or inhibiting the passage of signal currents through said input windings.

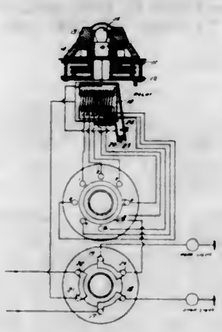
2,834,008
FLAME DETECTOR SYSTEM
Robert E. Carbaugh, Medfield, Mass., assignor to Petcar Research Corporation, Belleville, N. J., a corporation of New Jersey
Application April 28, 1953, Serial No. 351,632
3 Claims. (Cl. 340—227)

1. A surveillance type flame detector system operable to provide an indication in response to an intermittent source of infra-red radiation such as a flame, comprising at least one thermocouple of such small mass that the parts thereof dissipate heat sufficiently rapidly to permit thermocouple response in the range of 3 to 30 C. P. S., means for amplifying the output of the thermocouple, amplitude discriminating means admitting amplified thermocouple signal voltages exceeding a predetermined amplitude and rejecting amplified inherent circuit noise voltages below such predetermined amplitude, means for counting the number of times the amplified



thermocouple signal voltage exceeds said predetermined amplitude per unit time, means for producing a voltage proportional to such frequency, indicating means, and means operable by a predetermined voltage produced by the counting means to operate said indicating means.

2,834,009
CONTROL DEVICE FOR AUTOMOBILE LIGHTS
Martin Ragoczy, Darmstadt, Germany
Application May 12, 1954, Serial No. 429,335
4 Claims. (Cl. 340—251)

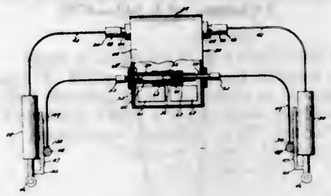


1. Control device for testing lamps and other current consuming devices in automobiles especially rear and stop lights in multiple circuits, comprising a relay having a plurality of taps, a control lamp arranged to be placed in circuit by said relay, a plurality of lamps, means for selectively connecting said relay in series circuit with said lamps to determine at will if the lamps are functioning, and a pair of knobs and hollow shafts concentrically mounted and connected to operate said means, said means including a step switch controlled by one of the knobs and hollow shafts connecting the taps to the lamps through a change-over switch controlled by the other knob and hollow shaft.

2,834,010
AUTOMATIC POWER CUT-OFF SYSTEM FOR AIRCRAFT CONTROL SURFACES
Henry J. Sieradzki, Garden City, N. Y., assignor to Lundy Manufacturing Corporation, Long Island City, N. Y., a corporation of New York
Application July 22, 1955, Serial No. 523,788
6 Claims. (Cl. 340—268)

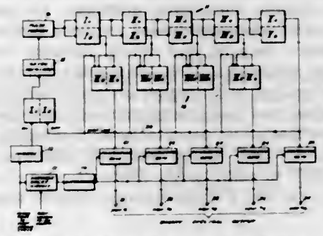
1. An aircraft control surface operating mechanism comprising: a power unit, first and second power transmission means associated with said power unit; first and second screw jack elements associated with said first and second power transmission means, respectively, and motion output means capable of rotational movement corresponding to the linear extension of said jack elements;

and means for interrupting the operation of said power unit upon the failure of said screw jack elements to extend and contract simultaneously; said means including an internally threaded nut member driven by the motion output means of one screw jack element and a screw



shaft driven by the other of said motion output means; said screw shaft and nut member being threadedly engaged; and switch means actuated by the axial movement of said nut member with respect to said screw shaft for interrupting the operation of said power unit.

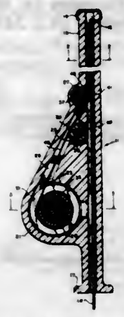
2,834,011
BINARY CYCLICAL ENCODER
Raymond P. Mork, Needham Heights, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application September 29, 1954, Serial No. 459,066
8 Claims. (Cl. 340—347)



8. A device for deriving an *n*-digit binary cyclical code characterized in that successive numbers of said code differ in but one code digit comprising means receptive of a keying pulse for deriving a plurality of successively occurring fixed interval pulses, means triggered by said keying pulse and receptive of an input signal whose amplitude is representative of a code number to be selected for obtaining a waveform whose delay relative to said keying pulse is representative of said code number, a counter-chain responsive to said impulses and including *n* serially connected bistable devices for deriving a first arrangement of pulses which changes in correspondence with the number of said impulses received, an array of bistable devices each receptive of pulses from one of the devices of said counter chain for obtaining a second arrangement of pulses, and an array of *n* gating means each receptive of pulses from one of said bistable devices and each opened by said waveform for deriving an output representing a given digit of said binary cyclical code.

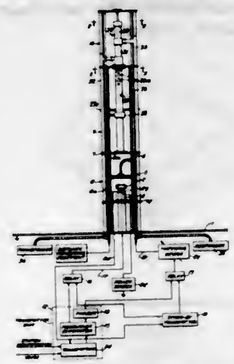
2,834,012
VARIABLE LENGTH ANTENNA
Carl Allen, Middletown, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application September 2, 1953, Serial No. 378,185
3 Claims. (Cl. 343—723)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A variable length antenna assembly comprising a single integral elongated protective housing of flexible dielectric material having a longitudinal passageway with one end of said passageway terminating within said protective housing and with the other end of said passageway open to the outside of said protective housing, a substantially rigid drive element of insulating material disposed within said passageway and extending outside of said protective housing, a flexible ribbon antenna having one end



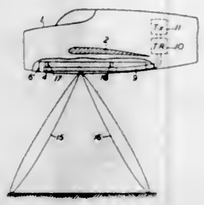
fastened to the end of said drive element within said passageway and the other end coiled up outside said passageway whereby longitudinal movement of said drive element varies the effective length of said antenna within said passageway.

2,834,013
PLURAL ANTENNA ASSEMBLY
Francis X. Bucher and Richard J. Fahnestock, Nutley, and Frank J. Lundburg, East Orange, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application September 2, 1953, Serial No. 377,995
12 Claims. (Cl. 343—726)



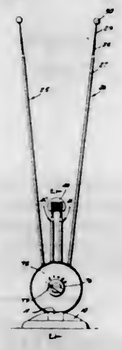
1. In combination, an omnidirectional antenna assembly comprising a vertically disposed cylindrical cage structure divided by a conductive plate into lower and upper antenna sections, first antenna means disposed in the lower section to produce a radiation pattern horizontally polarized at a first frequency, second antenna means disposed in said upper section to produce a radiation pattern vertically polarized at a second frequency, the upper cage section being formed of a plurality of circumferentially spaced vertically disposed conductors with openings between them having a width of less than a half wavelength at said first frequency and at least a half wavelength at said second frequency to suppress the vertical polarized component of the radiation from said lower section and to pass therebetween vertically polarized radiation from said second antenna means.

2,834,014
AERIAL SYSTEMS
Thomas George Thorne, Malvern, England, assignor to Minister of Supply in His Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, London, England
Application February 16, 1951, Serial No. 211,208
Claims priority, application Great Britain February 16, 1950
8 Claims. (Cl. 343—771)



1. An aerial system for airborne radio navigational apparatus in which the velocity of an aircraft is found by measuring the Doppler beat frequency produced when reflected ground signals from a transmitter in the aircraft received with a forward-looking aerial are mixed with those received with a backward-looking aerial, comprising two linear arrays of radiating elements one adapted to provide a radiation and reception pattern beamed in a direction downwardly and forwardly of the aircraft, the other adapted to provide a radiation and reception pattern beamed in a direction downwardly and rearwardly of the aircraft, a feed channel coupled to said arrays, one of said arrays having its radiant elements coupled to said feed channel for in-phase energisation of adjacent elements the other of said arrays having its radiant elements coupled to said channel for anti-phase energisation of alternate adjacent elements.

2,834,015
TELEVISION ANTENNA
Douglas H. Carpenter, Brooklyn, N. Y., assignor to JFD Manufacturing Company, Incorporated, Brooklyn, N. Y., a corporation of New York
Application October 26, 1954, Serial No. 464,693
2 Claims. (Cl. 343—876)



2. An improved antenna comprising a base member, a pair of laterally spaced elongated antenna elements pivotally connected to said base member adjacent their inner ends to permit the relative angular adjustment thereof, each of said antenna elements including a plurality of mutually slidable telescoping members, an open ended pair of parallel elongated tuning elements carried by said base member, each of said tuning elements including a plurality of mutually slidable telescoping members, a pair of conductors and switching means connected to said pair of conductors and said tuning elements and said antenna elements whereby to permit selective coupling of said conductors to said tuning elements and antenna elements, solely to said tuning elements, and to a single tuning element and a single antenna element respectively.

DESIGNS

MAY 6, 1958

182,702
SIDE HANDLES FOR TRAYS OR THE LIKE
Ralph B. Billig, Westlake, and Manuel S. Ziskin, Mayfield Heights, Ohio, assignors to Kromex Corporation, Cleveland, Ohio, a corporation of Ohio
Application August 15, 1957, Serial No. 47,375
Term of patent 14 years
(Cl. D44—10)



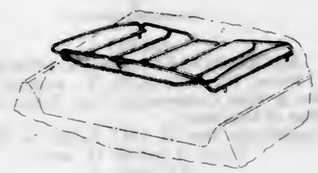
182,703
HANDLE FOR TRAYS OR SIMILAR ARTICLES
Ralph B. Billig, Westlake, and Manuel S. Ziskin, Mayfield Heights, Ohio, assignors to Kromex Corporation, Cleveland, Ohio, a corporation of Ohio
Application August 15, 1957, Serial No. 47,376
Term of patent 14 years
(Cl. D44—10)



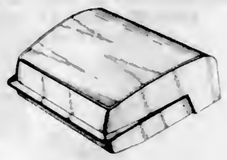
182,704
COVER KNOB FOR DISHES AND THE LIKE
Ralph B. Billig, Westlake, and Manuel S. Ziskin, Mayfield Heights, Ohio, assignors to Kromex Corporation, Cleveland, Ohio, a corporation of Ohio
Application August 15, 1957, Serial No. 47,377
Term of patent 14 years
(Cl. D44—15)



182,705
LUGGAGE RACK FOR VEHICLES OR SIMILAR ARTICLE
Kenneth W. Binding, Winchester, Mass., assignor to Market Forge Company, Everett, Mass., a corporation of Massachusetts
Application July 25, 1957, Serial No. 47,073
Term of patent 14 years
(Cl. D14—27)



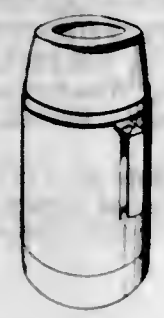
182,706
DISPLAY BOX FOR ELECTRIC RAZORS OR THE LIKE
Francis Eugene Blod, New Canaan, Conn., assignor to Farrington Manufacturing Company, Needham Heights, Mass., a corporation of Massachusetts
Application December 20, 1957, Serial No. 48,973
Term of patent 14 years
(Cl. D80—5)



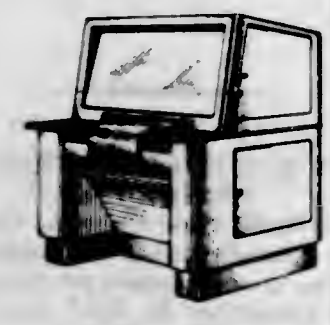
182,707
SHOE
John A. Borden, South Miami, Fla.
Application April 23, 1957, Serial No. 45,865
Term of patent 14 years
(Cl. D7—7)



182,708
VACUUM BOTTLE CASING
Carl Bramming, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application November 13, 1956, Serial No. 43,746
Term of patent 14 years
(Cl. D58—8)



182,709
MICROFILM ENLARGER-VIEWER
Joel W. Bravo, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application June 21, 1957, Serial No. 46,688
Term of patent 14 years
(Cl. D61—1)



182,710
CHAIR
Morton R. Cohen, Chicago, Ill.
Application September 25, 1957, Serial No. 47,854
Term of patent 14 years
(Cl. D15—1)



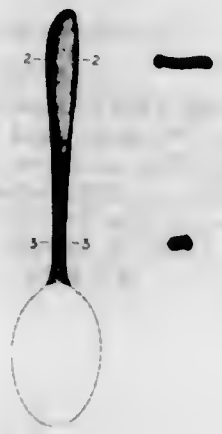
182,711
EASEL OR THE LIKE
Louis L. Deal, Rye, N. Y., assignor to Deal Slide-Lock Devices, Inc., New Canaan, Conn., a corporation of New York
Application December 6, 1956, Serial No. 44,098
Term of patent 14 years
(Cl. D29—20)



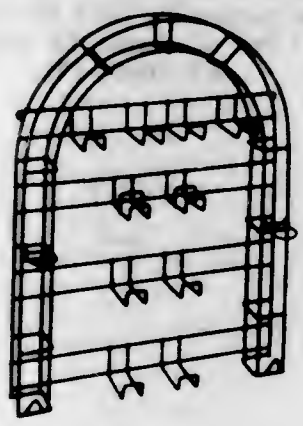
182,712
FOOD CONTAINER OR THE LIKE
Jack M. Dinken, Tokyo, Japan
Application June 21, 1957, Serial No. 46,681
Claims priority, application Japan March 6, 1957
Term of patent 7 years
(Cl. D58—11)



182,713
SPOON OR SIMILAR ARTICLE OF FLATWARE
Robert L. Doerfler, Meriden, Conn., assignor to The International Silver Company, Meriden, Conn., a corporation of Connecticut
Application November 5, 1956, Serial No. 43,659
Term of patent 14 years
(Cl. D54—12)



182,714
VACUUM CLEANER ACCESSORY RACK
Thomas George Dowdall, Sevenoaks, England, assignor to T. G. Dowdall & Sons Limited, London, England, a British company
Application May 6, 1957, Serial No. 46,022
Claims priority, application Great Britain January 3, 1957
Term of patent 14 years
(Cl. D33—3)



182,715
SPACE CONDITION RESPONSIVE INSTRUMENT
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 17, 1957, Serial No. 46,624
Term of patent 14 years
(Cl. D52—1)



182,716
WHEELED HAND CART
Ruth R. Ferguson, Atlanta, Ga.
Application June 18, 1956, Serial No. 41,939
Term of patent 14 years
(Cl. D14—3)



182,717
AIRSHIP
Leonor Zalles Freeland, New York, N. Y.
Application June 4, 1956, Serial No. 41,763
Term of patent 14 years
(Cl. D71—1)



182,718
TOOL HOLDER
Raymond T. Gutz, Aurora, Ohio, assignor to True Temper Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 8, 1957, Serial No. 45,168
Term of patent 14 years
(Cl. D80—10)



182,719
COMBINED BOTTLE AND CAP OR SIMILAR ARTICLE
Edward Hack, London, England, assignor to Flip Limited, London, England
Application August 12, 1957, Serial No. 47,327
Term of patent 14 years
(Cl. D58—9)



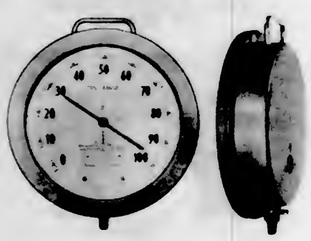
182,720
CLEANING RACK FOR FENDER COVERS OR THE LIKE
William C. Harben, Pacific Palisades, Calif., assignor to Vacuum Grip Cover Co., Inc., Bridgeport, Conn., a corporation of Connecticut
Application March 12, 1956, Serial No. 40,546
Term of patent 7 years
(Cl. D9—2)



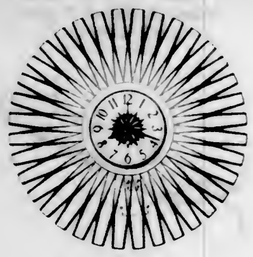
182,721
HOLDER FOR A MULTIPLE DRINKING STRAW
Daniel Hunter Howes, Darien, Conn.
Application March 12, 1957, Serial No. 45,225
Term of patent 3½ years
(Cl. D2—3)



182,722
TEST GAUGE OR SIMILAR ARTICLE
Robert J. Ingham, Jr., Fairfield, Conn., assignor to Manning, Maxwell & Moore, Incorporated, New York, N. Y., a corporation of New Jersey
Application December 3, 1956, Serial No. 44,039
Term of patent 14 years
(Cl. D52—1)



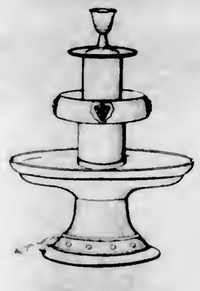
182,723
CLOCK OR SIMILAR ARTICLE
William V. Judson, Dover, Mass., assignor to General Electric Company, a corporation of New York
Application May 2, 1957, Serial No. 45,979
Term of patent 14 years
(Cl. D42—7)



182,724
FOUNTAIN
Alfred W. Kaufmann, Brooklyn, N. Y.
Application November 4, 1957, Serial No. 48,323
Term of patent 7 years
(Cl. D91—4)



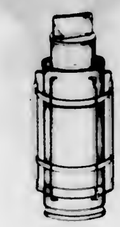
182,725
FOUNTAIN
Alfred W. Kaufmann, Brooklyn, N. Y.
Application November 4, 1957, Serial No. 48,324
Term of patent 7 years
(Cl. D91—4)



182,726
PINAFORE
Bess Kaye, New York, N. Y.
Application November 20, 1957, Serial No. 48,562
Term of patent 7 years
(Cl. D3—26)



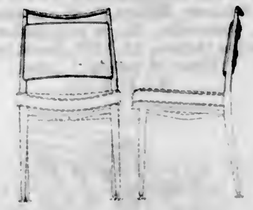
182,727
DISPLAY STAND
Thaddeus I. Kingsford, Atlanta, Ga., assignor to Scripto, Inc., a corporation of Georgia
Application December 18, 1957, Serial No. 48,948
Term of patent 14 years
(Cl. D80—9)



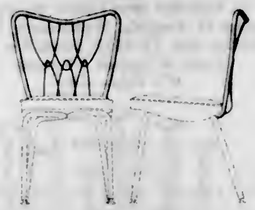
182,728
BOAT
Wilmer L. Kinzie, Alva, Okla.
Application February 25, 1957, Serial No. 44,976
Term of patent 3½ years
(Cl. D71—1)



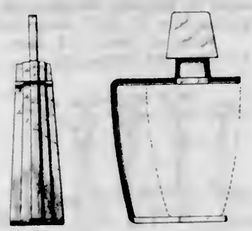
182,729
CHAIR
Robert E. Kjer Jakobsen, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application October 21, 1957, Serial No. 48,163
Term of patent 14 years
(Cl. D15—1)



182,730
CHAIR
Robert E. Kjer Jakobsen, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application October 28, 1957, Serial No. 48,259
Term of patent 14 years
(Cl. D15—1)



182,731
COMBINED BOTTLE HOLDER, CLOSURE CAP, AND HANDLE
Paul Klein, West Los Angeles, Calif.
Application May 22, 1957, Serial No. 46,285
Term of patent 14 years
(Cl. D58—26)



182,732
SHUFFLEBOARD
Thomas La Salle and John Perec, Utica, N. Y.
Application July 26, 1955, Serial No. 37,135
Term of patent 3½ years
(Cl. D34—5)



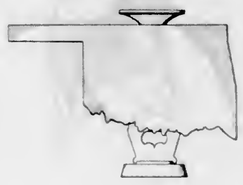
182,733
COMBINED CANDLE AND PRAYER CARD HOLDER
Alex P. Le Vay, Dayton, Ohio
Application May 13, 1957, Serial No. 46,119
Term of patent 14 years
(Cl. D48—2)



182,734
TILTABLE BOTTLE
Giorgio Luxardo, and Nicolo Luxardo, Torreglia, Italy
Application June 17, 1957, Serial No. 46,615
Claims priority, application Italy April 18, 1957
Term of patent 14 years
(Cl. D58—8)



182,735
TROPHY BASE
Thomas F. Merle, Lincolnwood, Ill.
Application September 6, 1957, Serial No. 47,638
Term of patent 14 years
(Cl. D29—23)



182,736
HANDBAG OR SIMILAR ARTICLE
Gladys Murray, New York, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application December 12, 1957, Serial No. 48,882
Term of patent 7 years
(Cl. D87—3)



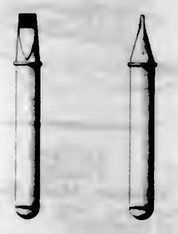
182,737
HANDBAG OR SIMILAR ARTICLE
Gladys Murray, New York, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application December 12, 1957, Serial No. 48,883
Term of patent 7 years
(Cl. D87—3)



182,738
HANDBAG OR SIMILAR ARTICLE
Gladys Murray, New York, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application December 12, 1957, Serial No. 48,884
Term of patent 7 years
(Cl. D87—3)



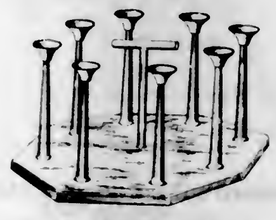
182,739
PASTE DISPENSER OR THE LIKE
Edward A. Pawson and George J. Custer, Long Beach, Calif.
Application January 14, 1957, Serial No. 44,492
Term of patent 3½ years
(Cl. D74—10)



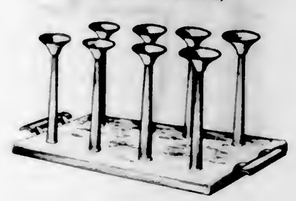
182,740
CHAIR OR SIMILAR ARTICLE
Lawrence I. Peabody, Rindge, N. H., assignor to Kroehler Mfg. Co., Naperville, Ill., a corporation of Illinois
Application October 21, 1957, Serial No. 48,171
Term of patent 7 years
(Cl. D15—1)



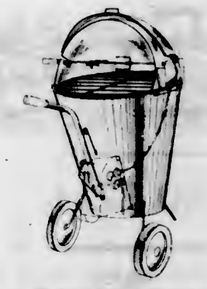
182,741
TUMBLER HOLDING TRAY
Charles H. Rennels, Woodworth, Ohio
Application July 22, 1957, Serial No. 47,040
Term of patent 14 years
(Cl. D44—10)



182,742
TUMBLER TRAY
Charles H. Rennels, Woodworth, Ohio
Application July 22, 1957, Serial No. 47,042
Term of patent 14 years
(Cl. D44—10)



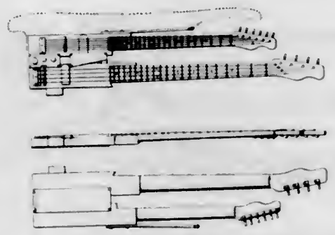
182,743
BARBECUE UNIT
Robert L. Rodman, Alliance, Ohio
Application January 28, 1957, Serial No. 44,621
Term of patent 14 years
(Cl. D81—10)



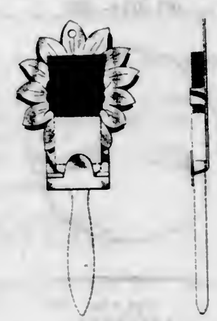
182,744
FEEDING CUP FOR MINKS OR THE LIKE
Harold Rossing and Dann L. Rossing, Fort Atkinson, Wis.
Application April 10, 1957, Serial No. 45,678
Term of patent 14 years
(Cl. D12—2)



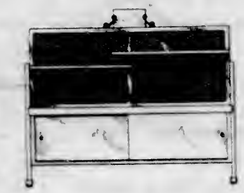
182,745
STRINGED MUSICAL INSTRUMENT
Charles Savona, Paterson, N. J.
Application July 31, 1957, Serial No. 47,166
Term of patent 14 years
(Cl. D56—9)



182,746
BRUSH DISPLAY
Lawrence R. Schumann, Boston, Mass.
Application January 22, 1957, Serial No. 44,548
Term of patent 14 years
(Cl. D80—5)



182,747
COMBINED STORAGE AND DISPLAY CASE
Henry J. Talge, Kansas City, Mo., assignor to John C. Hockery, Kansas City, Mo., trustee for Henry J. Talge and Foster L. Talge
Application February 25, 1957, Serial No. 44,985
Term of patent 14 years
(Cl. D80—9)



182,748
CHAIR
Robert D. Vanderminden, Granville, N. Y., assignor to The Telescope Folding Furniture Co., Inc., Granville, N. Y., a corporation of New York
Application December 28, 1956, Serial No. 44,344
Term of patent 14 years
(Cl. D15—1)



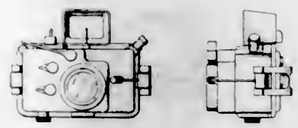
182,749
STEERING WHEEL
Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application May 4, 1956, Serial No. 41,359
Claims priority, application Germany November 26, 1955
Term of patent 14 years
(Cl. D14—30)



182,750
LEG REST
William F. Williams, St. Clair Shores, Mich., assignor to Yorna L. Malcolm, St. Clair Shores, Mich.
Application August 7, 1957, Serial No. 47,262
Term of patent 14 years
(Cl. D15—8)



182,751
UNDERSEA CAMERA HOUSING
Jerold S. Wollman and George F. Schmidt, New York, N. Y.
Application September 20, 1957, Serial No. 47,795
Term of patent 3½ years
(Cl. D61—1)



182,752
FAUCET HANDLE
Stephen A. Young, Delphi, Ind.
Application July 14, 1955, Serial No. 36,971
Term of patent 14 years
(Cl. D91—3)



LIST OF REISSUE PATENTEES

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NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Carr, Adams & Collier, Inc.: *See*—
Sitterly, Charles K. Re. 24,470.
Clark, Herbert H.: *See*—
Reinert, Armin E. Re. 24,469.
Herzog, Gerhard, to The Texas Co. Radioactivity bore hole logging apparatus. Re. 24,471, 5–6–58, Cl. 250—83.6.
Reinert, Armin E., to H. H. Clark. Concentration of chemical liquors. Re. 24,469, 5–6–58, Cl. 159—48.
Roberts, Robert E. Flexible tube. Re. 24,468, 5–6–58, Cl. 138—56.
Sitterly, Charles K., to Carr, Adams & Collier, Inc. Locking device. Re. 24,470, 5–6–58, Cl. 292—145.
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Billig, Ralph B., and M. S. Ziskin, to Kromex Corp. Handle for trays or similar articles. 182,703, 5–6–58, Cl. D44—10.
Billig, Ralph B., and M. S. Ziskin, to Kromex Corp. Cover knob for dishes and the like. 182,704, 5–6–58, Cl. D44—15.
Binding, Kenneth W., to Market Forge Co. Luggage rack for vehicles or similar article. 182,705, 5–6–58, Cl. D14—27.
Blod, Francis E., to Farrington Mfg. Co. Display box for electric razors or the like. 182,706, 5–6–58, Cl. D80—5.
Borden, John A. Shoe. 182,707, 5–6–58, Cl. D7—7.
Bramming, Carl, to Aladdin Industries, Inc. Vacuum bottle casing. 182,708, 5–6–58, Cl. D58—8.
Bravo, Joel W., to General Aniline & Film Corp. Microfilm enlarger-viewer. 182,709, 5–6–58, Cl. D61—1.
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Murray, Gladys. 182,737.
Murray, Gladys. 182,738.
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Farrington Mfg. Co.: *See*—
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Ingham, Robert J., Jr., to Manning, Maxwell & Moore, Inc. Test gauge or similar article. 182,722, 5–6–58, Cl. D52—1.
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Kaufmann, Alfred W. Fountain. 182,725, 5–6–58, Cl. D91—4.
Kaye, Bess. Pinafore. 182,726, 5–6–58, Cl. D3—26.
Kingsford, Thaddeus I., to Scripto, Inc. Display stand. 182,727, 5–6–58, Cl. D80—9.
Kinzie, Wilmer L. Boat. 182,728, 5–6–58, Cl. D71—1.
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Kjer Jakobsen, Robert E., to Virtue Bros. Mfg. Co. Chair. 182,730, 5–6–58, Cl. D15—1.
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Billig, Ralph B., and Ziskin. 182,703.
Billig, Ralph B., and Ziskin. 182,704.
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Le Vay, Alex P. Combined candle and prayer card holder. 182,733, 5–6–58, Cl. D48—2.
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Murray, Gladys, to Bernard Cahn Co., Inc. Handbag or similar article. 182,738, 5–6–58, Cl. D87—3.
Pawson, Edward A., and G. J. Custer. Paste dispenser or the like. 182,739, 5–6–58, Cl. D74—10.
Peabody, Lawrence I., to Kroehler Mfg. Co. Chair or similar article. 182,740, 5–6–58, Cl. D15—1.
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Rennels, Charles H. Tumbler holding tray. 182,741, 5–6–58, Cl. D44—10.
Rennels, Charles H. Tumbler tray. 182,742, 5–6–58, Cl. D44—10.
Rodman, Robert L. Barbecue unit. 182,743, 5–6–58, Cl. D81—10.
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Rossing, Harold and D. L. 182,744.
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Savona, Charles. Stringed musical instrument. 182,745, 5–6–58, Cl. D56—9.
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Wollman, Jerold S., and Schmidt. 182,751.

Schumann, Lawrence R. Brush display. 182,746, 5–6–58, Cl. D80—5.
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Talge, Henry J. 182,747.
Talge, Henry J., to J. C. Hockery, trustee for H. J. and F. L. Talge. Combined storage and display case. 182,747, 5–6–58, Cl. D80—9.
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Kjer Jakobsen, Robert E. 182,730.
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Williams, William F., to Y. L. Malcolm. Leg rest. 182,750, 5–6–58, Cl. D15—8.
Wollman, Jerold S., and G. F. Schmidt. Undersea camera housing. 182,751, 5–6–58, Cl. D61—1.
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Billig, Ralph B., and Ziskin. 182,703.
Billig, Ralph B., and Ziskin. 182,704.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 6TH DAY OF MAY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

AGFA Aktiengesellschaft: *See*—
Kaden, Willy, and Winkler. 2,833,189.
Abbott Laboratories: *See*—
Friedland, Waldo C., Denison, and Peterson. 2,833,696.
Klaas, Nicholas P., and Osterberg. 2,833,691.
Abel, Jack. Antenna mount for vehicles. 2,833,849, 5–6–58, Cl. 174—153.
Abelew, Harry H., to Mackay Radio and Telegraph Co. Signal selector device. 2,834,003, 5–6–58, Cl. 340—164.
Achtellik, Gerard J.: *See*—
Constable, James M., and Achtellik. 2,833,932.
Aciego, Alfonso B. Adapter head for tool handle. 2,833,032, 5–6–58, Cl. 30—1.
Aciego, Alfonso B. Combination sheath and tool holder for knife blade. 2,833,036, 5–6–58, Cl. 30—299.
Acierno, Carmine, ¼ to S. Tropea. Speed indicator. 2,833,877, 5–6–58, Cl. 200—56.
Acme Appliance Mfg. Co.: *See*—
Preston, Don F. 2,833,346.
Acme Steel Co.: *See*—
Hall, Marchand B. 2,833,489.
Pachter, John J. 2,833,170.
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Hueber, Carl J. 2,833,386.
Adkins, Russell M.: *See*—
Wells, Wesley B., and Adkins. 2,833,885.
Aeroprojects, Inc.: *See*—
Jones, James B., Fuchs, and Bailey. 2,833,238.
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Bacher, Hans E., and La Marre. 2,833,567.
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McGregor, Eugene R. 2,833,336.
Ahlich, Harld G., and E. F. Habowski, to The Dow Chemical Co. Accessory apparatus for making blown polystyrene film. 2,832,994, 5–6–58, Cl. 18—14.
Ahlmann, Klara M.: *See*—
Ahlmann, Nikolai. 2,833,412.
Ahlmann, Nikolai, deceased, by K. M. Ahlmann, legal representative, to F. L. Smidth & Co. Method and apparatus for screening. 2,833,412, 5–6–58, Cl. 209—358.
Ahrens, Hermann H. F., to Daimler-Benz Akt. Vehicle door lower edge and sill protecting and sealing construction. 2,833,589, 5–6–58, Cl. 296—44.
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Dube, John E., Wolfslau, Houghton. 2,833,507.
Alden, John M. Electrical outlet. 2,833,998, 5–6–58, Cl. 339—191.
Alden, Milton. Facsimile recorder. 2,833,611, 5–6–58, Cl. 346—101.
Aldridge, Clarence F., and G. A. Cook, to Taylor Instrument Co. Dial type thermometer. 2,833,149, 5–6–58, Cl. 73—252.
Alexander, Guy B., and J. R. McWhorter, to E. I. du Pont de Nemours and Co. Concentrating silica sols without particle growth. 2,833,724, 5–6–58, Cl. 252—313.
Alexandrescu, Alexander M. Automatic hydraulically operated transmission. 2,833,159, 5–6–58, Cl. 74—645.
Alheim, Robert J.: *See*—
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Allen, Carl, to United States of America, Army. Variable length antenna. 2,834,012, 5–6–58, Cl. 343—723.
Allen, Charles S. Parking means for vehicles. 2,833,359, 5–6–58, Cl. 180—1.
Allen, Herbert, and R. E. Hammond, to Cameron Iron Works, Inc. Valve mechanism. 2,833,510, 5–6–58, Cl. 251—162.
Aller, Willis F., and R. L. Esken, to The Sheffield Corp. Gaging apparatus. 2,833,047, 5–6–58, Cl. 33—174.
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Scranton, Charles J. 2,833,288.
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Almy, Lloyd H., to C. E. Hultman. Restoration of faded ink writings. 2,833,612, 5–6–58, Cl. 8—7.
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Anderson, Frithiof B., and J. O. Edson, to Bell Telephone Laboratories, Inc. Communication system; intermediate relay repeater station. 2,833,861, 5–6–58, Cl. 179—15.
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Andrews, John W., and C. W. Leach, to United States Steel Corp. Method of increasing the groundline protection of wood poles treated with oil-type preservatives. 2,833,006, 5–6–58, Cl. 20—100.
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Augsburger, Clyde, to National Fireproofing Corp. Portable drilling machines. 2,833,518, 5–6–58, Cl. 255—51.
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Austen, Alan E. W., and D. B. Wedmore, to C. A. V. Ltd. Means for testing paper or other filters. 2,833,140, 5–6–58, Cl. 73—38.
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Avery, Julian M., to Ethyl Corp. Resolution of alkali metal amalgams. 2,833,644, 5–6–58, Cl. 75—66.
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Bacher, Hans E., and R. R. La Marre, to Aeroquip Corp. Fitting for reinforced hose with seal maintaining means. 2,833,567, 5–6–58, Cl. 285—95.

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Jones, James B., Fuchs, and Bailey. 2,833,238.

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Baker, Bernard R., and H. M. Kissman, to American Cyanamid Co. O-methyl-L-tyrosyl amides and their preparation. 2,833,764, 5–6–58, Cl. 260—247.2.

Baker, William R., to United States of America, Atomic Energy Commission. Electrical protective device. 2,833,965, 5–6–58, Cl. 317—51.

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Smrekar, Larry F. 2,833,545.

Baldelli, Gaetano. Metering device for liquids or solutions. 2,833,311, 5–6–58, Cl. 138—43.

Bannon, Thomas C.: *See*—
Spencer, Lloyd. 2,833,214.
Spencer, Lloyd. 2,833,215.

Barber, Clyde. Heater for tool handles. 2,833,271, 5–6–58, Cl. 126—208.

Barbour, James W. Forms for making a concrete step support. 2,833,020, 5–6–58, Cl. 25—118.

Barieau, Robert E., to California Research Corp. Method of determining characteristics of hydrogen-containing substances. 2,833,929, 5–6–58, Cl. 250—43.5.

Barker, Norval G., and R. Nordgren, to General Mills, Inc. Binder additive for making ore pellets. 2,833,642, 5–6–58, Cl. 75—3.

Barker, Robert S.: *See*—
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Saffer, Alfred, and Barker. 2,833,816.

Barnard, Kent R., to Pan American Petroleum Corp. Vacuum distillation of crude C_3 alcohols. 2,833,701, 5–6–58, Cl. 202—52.

Barnes, William A.: *See*—
Barnes, William B. and W. A. 2,833,154.

Barnes, William B. and W. A. Torque amplifier unit. 2,833,154, 5–6–58, Cl. 74—388.

Barreca, Henry J. Utility racks. 2,833,453, 5–6–58, Cl. 224—42.1.

Barrett, James L., and R. G. Parse, to Pennsylvania Drilling Co. Testborer. 2,833,120, 5–6–58, Cl. 61—73.

Barrons, Keith C., and J. D. Eastman, to The Dow Chemical Co. Pre-emergence herbicide control with dinitrophenols. 2,833,639, 5–6–58, Cl. 71—2.4.

Barry, John K., to South Chester Corp. Securing devices. 2,833,005, 5–6–58, Cl. 20—92.

Bartelink Everhard H. B., to General Precision Laboratory Inc. Subscriber television system. 2,833,850, 5–6–58, Cl. 178—5.1.

Barthel, Eric, Jr., to E. I. du Pont de Nemours and Co. Arylene diisocyanate-fatty acid triglyceridepolyol cellular materials and process of producing same. 2,833,730, 5–6–58, Cl. 260—2.5.

Baso Inc.: *See*—
Brydalek, Floyd J., and Matthews. 2,833,508.

Bata Shoe Co. Inc.: *See*—
Tusa, John, and Marcanik. 2,832,974.

Batton, Richard H. Rotary disc type electrically driven lawn trimmer or edger. 2,833,101, 5–6–58, Cl. 56—25.4.

Bauer, William H., to G. & W. H. Corson, Inc. Method of making ceramic product and moldable mix therefor. 2,833,659, 5–6–58, Cl. 106—71.

Baumgartner, Herman J., and C. M. Gable, to Shell Development Co. Resolution of mixtures of hydrogen iodide, water and iodine. 2,833,700, 5–6–58, Cl. 202—40.

Baumlein, Wilhelm H. G., to Schoeller & Hoesch. Recording paper for spark recorders. 2,833,677, 5–6–58, Cl. 117—217.

Bavin, George D.: *See*—
Martin, Earnest E. 2,833,542.

Baxter, Joseph, Jr., to The Black-Clawson Co. Moveable table and suction box structure for Fourdrinier machine. 2,833,184, 5–6–58, Cl. 92—44.

Bayer, Frank C. to Thompson Products, Inc. Self-centering piston. 2,833,602, 5–6–58, Cl. 309—5.

Beach Engineering, Inc.: *See*—
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Beauloye, Alfred F., H. Beauloye, Jr., and M. Beauloye. Engine cylinder block and head gasket surface grinding apparatus. 2,833,089, 5–6–58, Cl. 51—56.

Beauloye, Henry, Jr.: *See*—
Beauloye, Alfred F., H. Beauloye, Jr., and M. Beauloye. 2,833,089.

Beauloye, Max: *See*—
Beauloye, Alfred F., H. Beauloye, Jr., and M. Beauloye. 2,833,089.

Beckers, Jozef M. H.: *See*—
Bosman, Michiel, and Beckers. 2,833,411.

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Krug, Albert E. 2,833,281.

Beebe Douglas N. Self-retracting dog leach assembly. 2,833,250, 5–6–58, Cl. 119—109.

Beebe, Lucius M., and C. M. Clegg, Jr. Newspaper vending rack. 2,833,418, 5–6–58, Cl. 211—55.

Beecher, Robert W. Theatrical spot light gel holder. 2,833,915, 5–6–58, Cl. 240—3.1.

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Anderson, Frithiof B., and Edson. 2,833,861.
Ketchledge, Raymond W. 2,834,005.
Lakatos, Emory, and Och. 2,833,471.
McCrory, James R. 2,833,921.

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Muckley, Henry E., and Waldron. 2,833,305.

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Reeves, Howard F., Jr., and Belt. 2,833,729.

Bendix Aviation Corp.: *See*—
Cable, Walter L. 2,833,465.
Colt, Rutger B. 2,833,498.
Dickey, John W. 2,833,221.
Karlson, John C. 2,833,968.
Perle, Abe J. 2,833,114.
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Bennett, Clifford B., to Southern Saw Service, Inc. Wrapping machines. 2,833,098, 5–6–58, Cl. 53—204.

Bennett, Richard C. Wide board saw apparatus. 2,833,320, 5–6–58, Cl. 143—47.

Benoit, Thomas C. Fish lure. 2,833,077, 5–6–58, Cl. 43—42.06.

Benschoter, James C., to Fibreboard Paper Products Corp. Bale of strip material. 2,833,403, 5–6–58, Cl. 206—60.

Benson, Clark K., J. C. Harris, Jr., and A. A. Caridis, to Heat and Control, Inc. Food processing machine. 2,833,203, 5–6–58, Cl. 99—404.

Benson, David G. Attachment for safety strap for automobiles. 2,833,343, 5–6–58, Cl. 155—189.

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Wedding, Arthur N., and Benson. 2,833,087.

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Armstrong, Lorne D., and Bentivengna. 2,833,678.

Berg, Clyde H. O., to Union Oil Co. of California. Process and apparatus for high temperature conversions. 2,833,837, 5–6–58, Cl. 260—679.

Berg, Clyde H. O., to Union Oil Co. of California. Apparatus and process for high temperature conversions. 2,833,838, 5–6–58, Cl. 260—679.

Bergmann, Ernst R., to Goodman Mfg. Co. Shaker conveyor loading device. 2,833,389, 5–6–58, Cl. 198—14.

Berk, F. W., & Co. Ltd.: *See*—
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Bernard, Arthur A. Torch for gas shielded metal arc welding. 2,833,913, 5–6–58, Cl. 219—130.

Berry, Frank, to Oliver Tyrone Corp. Multiple control valve for fluid pumps, motors and transmissions. 2,833,308, 5–6–58, Cl. 137—622.

Bersworth, Frederick C., to The Dow Chemical Co. Method and composition for ammoniation of soils. 2,833,640, 5–6–58, Cl. 71—27.

Bertele, Ludwig. Telephoto objective. 2,833,181, 5–6–58, Cl. 88—57.

Bessiere, Pierre E., to Etablissements Labinal. Circuit breakers. 2,833,888, 5–6–58, Cl. 200—116.

Bessiere, Pierre E., to Telma. Foucault current apparatus and especially braking apparatus. 2,833,945, 5–6–58, Cl. 310—93.

Beyea, Frank H. Salt block holder. 2,833,247, 5–6–58, Cl. 119—51.

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Mavity, Julian M., and Bielawski. 2,833,727.

Bielawski, Mitchell S., to Universal Oil Products Co. Manufacture of solid phosphoric acid catalysts. 2,833,728, 5–6–58, Cl. 252—437.

Billen, Peter, to Schloemann Akt. Extrusion dies. 2,833,406, 5–6–58, Cl. 207—17.

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Pfarr, John J., and Billups. 2,833,493.

Bird, Paul G., to Aquamatic Inc. Multiple port valves. 2,833,309, 5–6–58, Cl. 137—625.46.

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Black, Sivalls & Bryson, Inc.: *See*—
Laurence, Lawton L., McMinn, and Siver. 2,833,369.

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Hoyt, Leo E., and Blanchard. 2,833,148.

Blinoff, William, L. C. Gutschick, J. E. Wrzepski, and F. P. Venditti, to Motorola, Inc. Phonograph tone arm. 2,833,867, 5–6–58, Cl. 179—100.41.

Bliss, Harvey N., and H. B. Vroom, to Veeder-Root Inc. Resetting mechanism for counters. 2,833,477, 5–6–58, Cl. 235—144.

Blonder, Isaac S.: *See*—
Horowitz, Irving. 2,833,957.

Blue Channel Corp.: *See*—
Harris, Sterling G. 2,832,989.

Blythe, Allen W. Supplemental shock absorber. 2,833,535, 5–6–58, Cl. 267—8.

Bobo, Roy A., to Phillips Petroleum Co. Drilling fluid circulation process and system. 2,833,517, 5–6–58, Cl. 255—1.8.

Boddy, Leonard, to King-Seeley Corp. Voltage regulating device. 2,833,889, 5–6–58, Cl. 200—122.

Boehm, Karl, and W. von Dorp, to Mannesmann-Meer Akt. Rotary saw. 2,833,024, 5–6–58, Cl. 29—69.

Boeye, Paul F., and H. F. Collins, Jr., to Northwestern Corrugated Box Co. Outboard motor package. 2,833,397, 5–6–58, Cl. 206—45.14.

Bohlman, Walter S. Animal toy. 2,833,244, 5–6–58, Cl. 119—29.

Bohme Fettchemie G. m. b. H.: *See*—
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Bole, Robert K. Electric and hydraulic power and control system. 2,833,431, 5–6–58, Cl. 214—89.

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Bopf, Edward C., to Deere Mfg. Co. Steering control means. 2,833,196, 5–6–58, Cl. 97—47.41.

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Borgman, Arthur C., and E. V. Holahan, to The Patent Scaffolding Co., Inc. Elevating brackets. 2,833,596, 5–6–58, Cl. 304—29.

Bornstein, Samuel A. Posture cushion for motor vehicles. 2,833,341, 5–6–58, Cl. 155—182.

Bosken, Leonard L., to Cambridge Tile Mfg. Co. Automatic transfer apparatus. 2,833,426, 5–6–58, Cl. 214—6.

Bosley, Dewey R.: *See*—
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Bosman, Michiel, and J. M. H. Beckers, to Stamicarbon N. V. Separating apparatus with constant flow rate control. 2,833,411, 5–6–58, Cl. 209—158.

Bosshard, Victor E. A., to Durisol A.-G. für Leichtbaustoffe. Wall construction. 2,833,139, 5–6–58, Cl. 72—16.

Bounds, Ardrey M.: *See*—
Hoff, Richard L., and Bounds. 2,833,647.

Bourne, Joseph B., and C. Croome. Structural panel. 2,833,003, 5–6–58, Cl. 20—15.

Bowman, Glade B.: *See*—
Hammond, Milton B., and Bowman. 2,833,708.

Boyce, Reginald D. Adhesive repair patches. 2,833,327, 5–6–58, Cl. 152—367.

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Boyden, Robert E., P. B. Johnson, and C. A. Christoff, to Clary Corp. Calculating machine including ordinally shiftable factor storage and value entry control devices. 2,833,466, 5–6–58, Cl. 235—60.

Boyle, Farnham F., to Ritepoint Pen and Pencil Co. Writing instrument. 2,833,251, 5–6–58, Cl. 120—14.5.

Bradley, Milton, Co.: *See*—
Pottern, Alvin R. 2,833,081.

Branson, Elliott. Reversible disc plow attachment and combination. 2,833,194, 5–6–58, Cl. 97—31.

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Norris, Karl H., and Brant. 2,833,408.

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Sutherland, Gail R., and Breed. 2,833,107.

Brendlein, Heinrich, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Telomerization. 2,833,808, 5–6–58, Cl. 260—465.3.

Brenneke, Arthur M., to Perfect Circle Corp. Piston ring assembly. 2,833,606, 5–6–58, Cl. 309—43.

Breuhan, Fritz E. Device for applying liquid adhesive or the like. 2,832,981, 5–6–58, Cl. 15—136.

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Briney, Ottis R., Jr., and J. W. 2,833,169.

Briney Mfg. Co.: *See*—
Briney, Ottis R., Jr., and J. W. 2,833,169.

Briney, Ottis R., Jr., and J. W., to Briney Mfg. Co. Coupling structure. 2,833,169, Cl. 77—58.

Bristol, Kenneth E., to The Goodyear Tire & Rubber Co. Porous sheet material. 2,832,997, 5–6–58, Cl. 18—53.

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British Insulated Callenders Cables Ltd.: *See*—
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British Thomson-Houston Co. Ltd., The: *See*—
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Egbert, Robert B., Brown, and Saffer. 2,833,820.

Brown, Harrison S.: *See*—
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Brown, John H., and E. W. Nagel, to Wrought Iron Range Co. Oven door hinge assembly. 2,833,270, 5–6–58, Cl. 126—191.

Brown, Kale C. Ball hitch connector. 2,833,564, 5–6–58, Cl. 280—512.

Brown, Tate H. Ribbon roller attachment for ribbon loom. 2,833,316, 5–6–58, Cl. 139—307.

Brown, Vincent C. Locking attachment for electric extension cords. 2,833,997, 5–6–58, Cl. 339—90.

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Bullington, Lee C. Fluid pump. 2,833,217, 5–6–58, Cl. 103—37.

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Bürkle, Fritz. Expansible bracelet having a coil spring mounted on link-like members. 2,833,129, 5–6–58, Cl. 63—5.

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Carpenter, James W., to The Cleveland Pneumatic Tool Co. Shock absorber. 2,833,380, 5–6–58, Cl. 188—96.

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Chemerda, John M., Chamberlin, and Tristram. 2,833,791.
Chemerda, John M., Chamberlin, and Tristram. 2,833,796.

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Chicago Rawhide Mfg. Co.: *See*—
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Christoff, Chris A., and R. E. Boyden, to Clary Corp. Calculating machine including ordinally shiftable factor storage and value entry control devices. 2,833,467, 5–6–58, Cl. 235—60.

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Marxer, Adrian. 2,833,760.
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Prelog, Vladimir. 2,833,694.
Schwyzer, Robert, and Mueller. 2,833,771.

Cirone, Joseph. Connecting means for a mixer and disposable mixing blade. 2,833,576, 5–6–58, Cl. 287—126.

Clark, Frederick G., ½ to W. Stevenson. Implement driving device. 2,833,548, 5–6–58, Cl. 279—102.

Clark, Joseph W.: *See*—
Green, Richard M., and Clark. 2,833,835.

Clark, Nathaniel. Mine car coupler. 2,833,424, 5–6–58, Cl. 213—75.

Clarke, John S., S. R. Jackson and G. J. Hudson, to Joseph Lucas (Industries) Ltd. Air-jacketed annular combustion chambers for jet-propulsion engines, gas turbines or the like. 2,833,115, 5–6–58, Cl. 60—39.65.

Clary Corp.: *See*—
Boyden, Robert E., Johnson, and Christoff. 2,833,466.
Christoff, Chris A., and Boyden. 2,833,467.

Cleaver, Charles S., to E. I. du Pont de Nemours and Co. Method for halogenation and preparing halogenated lower alkanoic acids in a flame. 2,833,822, 5–6–58, Cl. 260—539.

Clegg, Charles M., Jr.: *See*—
Beebe, Lucius M. and Clegg. 2,833,418.

Cleveland Pneumatic Tool Co., The: *See*—
Carpenter, James W. 2,833,380.
Gates, James T. 2,833,157.
Spontelli, Leonard P. 2,833,156.

Clifton-Grant Development Corp.: *See*—
Stuart, Clifton F. 2,833,095.

Cochrane, Renel A., 50% to The Gamble Co. Rock lock type coupler for tractor-trailer fifth wheel locking mechanism. 2,833,560, 5–6–58, Cl. 280—437.

Coeur d'Alene Hardware and Foundry Co.: *See*—
James, Lawrence A. 2,833,427.

Cole, Donald F., and C. F. Wait, to Palace Corp. Vented wall construction for trailer. 2,833,002, 5–6–58, Cl. 20—4.

Collings, William R., to Dow Corning Corp. Method of rendering fabrics water repellent. 2,833,022, 5–6–58, Cl. 28—74.

Collins, Harry F., Jr.: *See*—
Boeye, Paul F., and Collins. 2,833,397.

Collins, John F., to Esso Research and Engineering Co. Process for purifying and increasing combined calcium of calcium sulfonates. 2,833,716, 5–6–58, Cl. 252—33.4.

Collins, Joseph B. Vehicle towing apparatus. 2,833,430, 5–6–58, Cl. 214—86.

Collins Radio Co.: *See*—
Babcock, Dean F. 2,833,917.
Gerks, Irvin H. 2,833,922.
Grondin, George F. 2,833,858.
Hedgcock, Wendell T., and Arnold. 2,833,980.
Stephens, Thomas C. 2,833,919.
Van Tilbury, Jack D. 2,833,990.

Colorado Fuel and Iron Corp., The: *See*—
De Poy, James W. 2,833,329.

Colt, Rutger B., to Bendix Aviation Corp. Parachute release device. 2,833,498, 5–6–58, Cl. 244—150.

Columbus Auto Parts Co., The: *See*—
Flumerfelt, William A. 2,833,031.

Combustion Engineering, Inc.: *See*—
Meissner, Harold G. 2,833,392.
Owens, Vincent P. 2,833,619.

Compagnie Generale de Telegraphie Sans Fil: *See*—
Reverdin, Daniel. 2,833,956.

Comstock & Wescott, Inc.: *See*—
Whitney, William E. 2,833,091.

Conigliaro, Anna R.: *See*—
Conigliaro, Carmen. 2,833,039.

Conigliaro, Carmen, deceased; A. R. Conigliaro, administratrix, ½ to G. B. Stevens, Jr. Combination protractor and compass. 2,833,039, 5–6–58, Cl. 33—26.

Conrad, Keith: *See*—
Olson, Ralph H., and Conrad. 2,833,088.

Constable, James M., to Electronic Products Co. High range radiation measuring circuit. 2,833,931, 5–6–58, Cl. 250—83.6.

Constable, James M., and G. J. Achtellik, to Electronic Products Co. Portable high-sensitivity radiation measuring circuit. 2,833,932, 5–6–58, Cl. 250—83.6.

Constable, James M., to Electronic Products Co. Cold cathode gas-discharge tube. 2,833,951, 5–6–58, Cl. 313—185.

Container Corp. of America: *See*—
Brom, Lawrence V. 2,833,461.

Container Laboratories Inc.: *See*—
Wharton, Thomas P. 2,833,146.

Cook, Bates C., and J. Jokubonis, to Cook & Chick Co. Feeder for automatic machines. 2,833,446, 5–6–58, Cl. 222—371.

Cook & Chick Co.: *See*—
Cook, Bates C., and Jokubonis. 2,833,446.

Cook, Garrett A.: *See*—
Aldridge, Clarence F., and Cook. 2,833,149.

Cook, Illurley D.: *See*—
Lemmon, Norman E., Cook, and Frank. 2,833,713.

Cooper-Bessemer Corp., The: *See*—
Miller, Carl D. 2,833,131.

Coover, Harry W., Jr., to Eastman Kodak Co. Preparation of polyolefins of improved color by catalytic polymerization with a titanium tetraalkoxide and a monoalkyl aluminum dihalide. 2,833,755, 5–6–58, Cl. 260—93.7.

Copson, David A., to Raytheon Mfg. Co. Microwave irradiation of fruit juices. 2,833,657, 5–6–58, Cl. 99—221.

Cordis, Nat. Dual-belt elevator for poultry feeds. 2,833,394, 5–6–58, Cl. 198—165.

Cordray, Arthur C.: *See*—
Driessner, Alfred E., and Cordray. 2,833,023.

Corn Products Refining Co.: *See*—
Hobbs, Kenneth C., Kerr, and Kite. 2,833,759.
Kool, Earl R. 2,833,695.

Cornell-Dubilier Electric Corp.: *See*—
De Lisse, Anthony A. 2,833,898.

Cornman, Ivor. Hand controlled rigid animal leash. 2,833,249, 5–6–58, Cl. 119—109.

Corradi, Mario. Fish hook assembly. 2,833,076, 5–6–58, Cl. 43—36.

Correia, Manuel P. Mobile harvesting and packing apparatus. 2,833,100, 5–6–58, Cl. 53—391.

Corsette, William T., to The Youngstown Sheet and Tube Co. Swivel pipe fitting with bearing retainer. 2,833,568, 5–6–58, Cl. 285—281.

Corson, G. & W. H., Inc.: *See*—
Bauer, William H. 2,833,659.

Cottrell, Jack A., and D. H. Hewitt, deceased (E. Booth and R. H. Buckle, executors), to The Sherwin-Williams Co. Manufacture of interpolymers of styrene with drying oil fatty acids and derivatives of such interpolymers. 2,833,733, 5–6–58, Cl. 260—23.

Cottrell, Robert B.: *See*—
Heater, Charles L., and Cottrell. 2,833,227.

Cox, David C., to Mandrel Industries, Inc. Compensator, regulator, and two point compensator-regulator for photoelectric amplifier and sorting system. 2,833,937, 5–6–58, Cl. 250—214.

Cox, Thomas K., to Western Electric Co., Inc. Apparatus for extruding and cooling plastics. 2,832,993, 5–6–58, Cl. 18—6.

Craig, Robert W. to General Railway Signal Co. Damping device for mechanically resonant relays. 2,833,884, 5–6–58, Cl. 200—91.

Craig, W. E., and J. O. Van Hook, to Rohm & Haas Co. Method for controlling nematode infestations and nematocides useful therefor. 2,833,687, 5–6–58, Cl. 167—22.

Crawford, H. E., Co., Inc.: *See*—
Crawford, Herman E. 2,833,133.

Crawford, Herman C., to Northrop Aircraft, Inc. Curved file holder. 2,833,025, 5–6–58, Cl. 29—80.

Crawford, Herman E., to H. E. Crawford Co., Inc. Solid patch knitting machine. 2,833,133, 5–6–58, Cl. 66—48.

Creuts, Edward C., and E. P. Wigner, to United States of America, Atomic Energy Commission. Separating uranium containing solids suspended in a liquid. 2,833,618, 5–6–58, Cl. 23—14.5.

Croome, Clifford: *See*—
Bourne, Joseph B., and Croome. 2,833,008.

Crosa, Giacomo and L., to "Vittorio Necchi S. p. A." Supporting means for sewing machines and the like. 2,833,610, 5–6–58, Cl. 312—30.

Crosa, Luigi: *See*—
Crosa, Giacomo and L. 2,833,610.

Crowley, George C., and R. J. Sertl. Machine for coating spherical objects. 2,833,241, 5–6–58, Cl. 118—62.

Crusan, Robert C.: *See*—
Robinson, Billy W., Crusan, and Wilcox. 2,833,220.

Cummings, Kimball C., to Minneapolis-Honeywell Regulator Co. Self-centering altitude controller for aircraft. 2,833,970, 5–6–58, Cl. 318—28.

Cummings, Leslie L., to Otis Engineering Corp. Check valve. 2,833,306, 5–6–58, Cl. 137—525.

Cunningham, John H. Shaft aligning device. 2,833,051, 5–6–58, Cl. 33—180.

Cunningham, John H. Self-feeding soldering iron. 2,833,904, 5–6–58, Cl. 219—27.

Cunningham, William A.: *See*—
Pucher, Leo E., Cunningham, and Szabo. 2,833,845.

Currey, Charles H.: *See*—
Rahmel, Henry A., Freeman, Currey, and Holbrook. 2,833,859.

Currie, Gilbert, to Westinghouse Electric Corp. Motor system. 2,833,975, 5–6–58, Cl. 318—369.

Curtis, Roger C.: *See*—
Roberts, Frederick W., Curtis, Jones, and Freund. 2,833,860.

Custer, Elmer M. Air filter. 2,833,373, 5–6–58, Cl. 183—52.

Dahlinghaus, Frank J. Grain drill with laterally swinging furrow opener. 2,833,231, 5–6–58, Cl. 111—14.

Dailey, Joseph J., and C. G. A. Rosen, to J. Altorfer, Internal combustion engine. 2,833,264, 5–6–58, Cl. 123—191.

Dailey, Joseph J., and J. E. Fox. Article of manufacture. 2,833,603, 5–6–58, Cl. 309—14.

Dailey, Joseph J., and J. E. Fox, to J. Altorfer. Method of bonding aluminum to a metal. 2,833,668, 5–6–58, Cl. 117—50.

Daimler-Benz Akt.: *See*—
Ahrens, Hermann H. F. 2,833,589.

Daimler-Benz Aktiengesellschaft: *See*—
Förster, Hans-Joachim M. 2,833,162.
Lengnick, George F. W. 2,833,257.
Lorscheidt, Manfred K., and Meyer. 2,833,258.

Dalton, Noel L. Method of lining a bearing shell. 2,833,667. 5–6–58, Cl. 117—50.

D'Amico, Anthony F., to The Singer Mfg. Co. Zigzag sewing machines. 2,833,233, Cl. 112—158.

Damon, Neil F., to Raytheon Mfg. Co. Knob locking devices. 2,833,158, 5–6–58, Cl. 74—504.

Daniel, Stewart W.: *See*—
Weston, David, and Daniel. 2,833,482.

Davenport, Leon, ⅛ to Southern Developers, Inc. Cotton picker drum assembly. 2,833,103, 5–6–58, Cl. 56—44.

Davidsen, Gotfred B. Electric coupling for the operation of X-ray tubes or other thermionic tubes. 2,833,934, 5–6–58, Cl. 250—103.

Dawson, Edward, to United States of America, Navy. Acceleration responsive switch. 2,833,878, 5–6–58, Cl. 200—61.5.

Dassi, Joachim, to Monsanto Chemical Co. Vinyl chloride polymer plasticiser with adducts of fumarates and alkylene esters of long chain fatty acids. 2,833,739, 5–6–58, Cl. 260—31.8.

De Benneville, Peter L.: *See*—
Luskin, Leo S., and de Benneville. 2,833,751.

Decker, Mel L.: *See*—
McCaw, Stanley W. 2,832,995.

Dedek, Frank G., to Burroughs Corp. Magnetic record and record-controlled mechanism. 2,833,475, 5–6–58, Cl. 235—61.12.

Deere & Co.: *See*—
Foster, Jack F. 2,833,432.
Oehler, William P., and Hansen. 2,833,440.
Oehler, William P., and Youngberg. 2,833,197.

Deere Mfg. Co.: *See*—
Bopf, Edward C. 2,833,196.
Callum, Charles L., and Soteropulos. 2,833,206.
Kesl, Richard P., and Townsend. 2,833,365.
Sutherland, Gail R., and Breed. 2,833,107.
Wittren, Richard A. 2,833,253.

De Faymoreau, Etienne, to International Telephone and Telegraph Corp. Relay control circuit. 2,833,967, 4–6–58, Cl. 317—149.

De Lange de Meux, Albin. Pumps and compressors. 2,833,226, 5–6–58, Cl. 103—166.

De Laszlo, Patrick D. Reinforced structures. 2,833,682, 5–6–58, Cl. 154—45.9.

De Lisse, Anthony A., to Cornell-Dubilier Electric Corp. Vibrator mount. 2,833,898, 5–6–58, Cl. 200—168.

Del Nero, Edmundo F., to The American Rondo Corp. Display package for longitudinally elongated articles. 2,833,405, 5–6–58, Cl. 206—78.

Del Noce, Aldo. Braided bracelet. 2,833,128, 5–6–58, Cl. 63—3.

Dench, Ronald R., and G. A. Lee, to A. W. Peck. Machine for producing blocks or slabs of breese, concrete or other aggregate or material. 2,833,019, 5–6–58, Cl. 25—41.

Den Haan, Jose J. W., to North American Philips Co., Inc. Regenator for use in hot gas reciprocating engines. 2,833,523, 5–6–58, Cl. 257—6.

Denison, Frank W., Jr.: *See*—
Friedland, Waldo C., Denison, and Peterson. 2,833,696.

De Percin, Gerard: *See*—
Vesque, Henri, and De Percin. 2,833,127.

De Poy, James W., to The Colorado Fuel and Iron Corp. Wire packaging takeup and coiling apparatus with rotatable flyer. 2,833,329, 5–6–58, Cl. 153—65.

De Pree, David O.: *See*—
Hill, Eugene F., and De Pree. 2,833,635.

De Simone, Nicholas. Needle holder. 2,833,236, 5–6–58, Cl. 112—226.

Deutsche Gold- und Silber-Scheideanstalt vormals Roessler: *See*—
Brendlein, Heinrich. 2,833,808.

De Wolfe, Richard S.: *See*—
Kohl, Arthur L., De Wolfe, and Solnick. 2,833,527.

D'Haem, Marcel P.: *See*—
Roberts, James A., Fischer, and D'Haem. 2,833,310.

Diamond Alkali Co.: *See*—
Gooding, William T., Jr. 2,833,484.
Richards, Roger G., and Lukes. 2,833,754.

Di Camillo, Antonio. Shrimp deveiner and sheller. 2,832,987. 5–6–58, Cl. 17—7.

Dick, James B. Simplified idler arm adjuster. 2,833,551, 5–6–58, Cl. 280—95.

Dickey, John W., to Bendix Aviation Corp. Electro-magnetic plunger pump. 2,833,221, 5–6–58, Cl. 103—53.

Dickinson, Arthur H., to International Business Machines Corp. Indicating device. 2,833,468, 5–6–58, Cl. 235—61.

Dicks, Robert S., to Shell Development Co. Catalyst stripping process. 2,833,699, 5–6–58, Cl. 196—52.

Dictaphone Corp.: *See*—
Roberts, Frederick W., Curtis, Jones, and Freund. 2,833,860.

Diehl, Theodore E. Theftproof ignition device. 2,833,841, 5–6–58, Cl. 123—146.5.

Dietrich, Wilhelm, and H. Höfermann, to Chemische Werke Hüls Akt. Process for the production of glycol sulfite. 2,833,785, 5–6–58, Cl. 260—327.

Dietze, Arthur. Hasp seal. 2,833,581, 5–6–58, Cl. 292—315.

Di Franco, Julius V., to The Liquidometer Corp. Fluid quantity measuring system. 2,833,147, 5–6–58, Cl. 73—304.

Diveley, William R., to Hercules Powder Co. Dithiophosphate insecticides. 2,833,805, 5–6–58, Cl. 260—461.

Dixon, Charles H., to Ex-Cell-O Corp. Container nesting method. 2,833,185, 5–6–58, Cl. 93—93.

Dobell, Curson, to The Preload Co., Inc. Reinforced pavements. 2,833,186, 5–6–58, Cl. 94—22.

Dodson, Raymond M.: *See*—
Goldkamp, Arthur H., and Dodson. 2,833,794.

Dodson, Raymond M., A. H. Goldkamp, and R. Pappo, to G. D. Searle & Co. 1,3,17-trioxygenated androstane derivatives. 2,833,792, 5–6–58, Cl. 260—397.4.

Dodson, Raymond M., and R. D. Muir, to G. D. Searle & Co. 17-oxygenated derivatives of 5-androstene-1,3-diol. 2,833,793, 5–6–58, Cl. 260—397.4.

Doggett, Annemarie E. Paint applicator. 2,833,073, 5–6–58, Cl. 41—5.5.

Dolansky, Charles H. Expansible bracelet having two rows of tubular links joined by H-shaped connector. 2,833,113, 5–6–58, Cl. 59—79.

Dolsa, John: *See*—
Gardiner, Arthur W., Gaubats, Nickel, Dolsa, and Periah. 2,833,356.

Dolsa, John, and R. J. Haefner, to General Motors Corp. Atmospheric vent for fuel injection nozzle. 2,833,260, 5–6–58, Cl. 123—119.

Donegan, Joseph W., to Allied Chemical & Dye Corp. Roof construction. 2,833,229, 5–6–58, Cl. 108—6.

Dorf, Charles J., to Union Carbide Corp. Apparatus for vaporizing volatile liquids. 2,833,121, 5–6–58, Cl. 62—1.

Dorr-Oliver Inc.: *See*—
Roberts, Elliott J., and Jukkola. 2,833,622.

Dow Chemical Co., The: *See*—
Ahlich, Harld G., and Habowski. 2,832,994.
Barrons, Keith C., and Eastman. 2,833,639.
Bersworth, Frederick C. 2,833,640.
Rigterink, Raymond H. 2,833,830.

Dow Corning Corp.: *See*—
Collings, William R. 2,833,022.
Hedlund, Robert C. 2,833,441.
Holbrook, George W. 2,833,801.
Koch, Robert J. 2,833,742.
May, William C. 2,833,658.
Merker, Robert L. 2,833,802.
Weyer, Donald E. 2,833,732.

Dressler, Robert, to Chromatic Television Laboratories, Inc. Color television voltage control system. 2,833,959, 5–6–58, Cl. 315—21.

Drexel, Roger E., and J. R. McWhorter, to E. I. du Pont de Nemours and Co. Shaped body of porous silica particles and method for its production. 2,833,665, 5–6–58, Cl. 106—308.

Drinkard, William E.: *See*—
Carpentier, Melbourne L., and Drinkard. 2,833,254.

Driscoll, Robert R., to Burroughs Corp. Glow indicating tube. 2,833,949, 5–6–58, Cl. 313—109.5.

Driessner, Alfred E., and A. C. Cordray, to The National Acme Co. Tool turret indexing mechanism. 2,833,023, 5–6–58, Cl. 29—37.

Driver, Wallace J., to Federal Electric Products Co. Means to minimise fusing of circuit breaker contacts. 2,833,897, 5–6–58, Cl. 200—166.

Druey, Jean, and P. Schmidt, to Ciba Pharmaceutical Products, Inc. 6-alkoxy-5-cyano-pyridazines. 2,833,766, 5–6–58, Cl. 260—250.

Drummond, Joseph E., and K. E. Gurits, to Kaiser Aluminum & Chemical Corp. Dredge top dispenser nestable with like containers. 2,833,452, 5–6–58, Cl. 222—555.

Drummond, Joseph W. Latching and locking device for a collapsible supporting leg structure. 2,833,063, 5–6–58, Cl. 38—121.

Dube, John E., J. G. Wolfslau, and L. S. Houghton, to Alco Valve Co. Heat motor valve. 2,833,507, 5–6–58, Cl. 251—11.

Dulle, William J. Combination hanger and hoist assembly. 2,833,505, 5–6–58, Cl. 248—320.

Du Mont, Allen B., Laboratories, Inc.: *See*—
Kooeman, Joseph G. 2,833,954.

Dunham, George W. Lay and pilot guide means. 2,833,315, 5–6–58, Cl. 139—188.

Dunstan, Mary E., to Fisher-Price Toys, Inc. Wheeled toy. 2,833,083, 5–6–58, Cl. 46—114.

Du Pont de Nemours, E. I., and Co.: *See*—
Alexander, Guy B., and McWhorter. 2,833,724.
Barthel, Eric, Jr. 2,833,730.
Cleaver, Charles S. 2,833,822.
Drexel, Roger E., and McWhorter. 2,833,665.
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Ehrich, Felix F., and Gottlieb. 2,833,783.
Funderburk, George O., Johnson, and Smith. 2,833,722.
Gerjovich, Henry J. 2,833,689.
Gier, Thurman E., Salzberg, and Young. 2,833,620.
Golding, David R. V. 2,833,814.
Hallada, Donald P., and Landerl. 2,833,613.
Hause, Norman L. 2,833,821.
Iler, Ralph K. 2,833,661.
Iler, Ralph K. 2,833,723.
Krchma, Ignace J. 2,833,627.
Middleton, William J. 2,833,809.
Pick, Rudolph. 2,833,625.
Sandt, Bernd W. 2,833,686.
Schmitz, William R. 2,833,780.
Shacklett, Comer D. 2,833,650.
Sprauer, Jerome W. 2,833,624.
Stryker, Harvey I., Williamson, and Gross. 2,833,782.
Verbanc, John J. 2,833,740.
Wallace, John G. 2,833,813.

Durisol A.-G. für Leichtbaustoffe: *See*—
Boashard, Victor E. A. 2,833,139.

Durling, Albert T. Cleaning apparatus for photographic film negatives. 2,832,985, 5–6–58, Cl. 15—302.

Dusenberry, John, Co., Inc.: *See*—
Kerber, Frank J. 2,833,488.

Eastern Air Devices, Inc.: *See*—
Naul, James M. 2,833,879.

Eastern Industries, Inc.: *See*—
Wilcox, Harry A. 2,834,001.

Eastman, John D.: *See*—
Barrons, Keith C., and Eastman. 2,833,639.

Eastman Kodak Co.: *See*—
Coover, Harry W., Jr. 2,833,755.

Eby, Lawrence T.: *See*—
Rehner, John, Jr., and Eby. 2,833,834.

Edson, James O.: *See*—
Anderson, Frithiof B., and Edson. 2,833,861.

Egbert, Robert B., and D. Brown, to Mid-Century Corp. Process for the preparation of isophthalic and terephthalic acids. 2,833,819, 5–6–58, Cl. 260—524.

Egbert, Robert B., D. Brown, and A. Saffer, to Mid-Century Corp. Process for the preparation of isophthalic and terephthalic acids. 2,833,820, 5–6–58, Cl. 260—524.

Ehretsman, John L.: *See*—
Leutwiler, Richard W., and Ehretsman. 2,833,303.

Ehrich, Felix F., to E. I. du Pont de Nemours and Co. Production of chlorinated phthalocyanines. 2,833,784, 5–6–58, Cl. 260—314.5.

Ehrich, Felix F., and H. B. Gottlieb, to E. I. du Pont de Nemours & Co. Treatment of polychloro copper phthalocyanine. 2,833,783, 5–6–58, Cl. 260—314.5.

Eickhoff, Theodore H. Contacting apparatus. 2,833,984, 5–6–58, Cl. 324—29.5.

Elmco Corp, The: *See*—
Schwartz, Daniel M. 2,833,361.
Spanjer, David L. 2,833,360.

Electric Storage Battery Co., The: *See*—
Pucher, Leo E., Cunningham, and Szabo. 2,833,845.

Electrical Fittings Corp.: *See*—
Budnick, Joseph. 2,833,569.

Electro-Voice, Inc.: *See*—
Wiggins, Alpha M. 2,834,000.

Electronic Products Co.: *See*—
Constable, James M. 2,833,931.
Constable, James M. 2,833,951.
Constable, James M., and Achtellik. 2,833,932.

Elefant, Jack: *See*—
Arditi, Maurice, and Elefant. 2,833,995.

Elfers, Albertus, to N. V. Quod Bonum. Method for the manufacture of a metal relief printing plate. 2,833,702, 5–6–58, Cl. 204—17.

Emed Inc.: *See*—
Wirsing, Sebastian. 2,833,292.

Engel, William T., to Burroughs Corp. Record sensing device. 2,833,473, 5–6–58, Cl. 235—61.11.

Entrekin, Durward N., to Olin Mathieson Chemical Corp. Magnesium hydroxide suspensions containing sea-plant hydrocolloid. 2,833,690 5–6–58, Cl. 167—56.

Epsylon Research and Development Co. Ltd.: *See*—
Namenyi-Katz, Laszlo. 2,833,538.

Erasmus, Hendrik de W., to Union Carbide Corp. Reduction of chromium oxides. 2,833,645, 5–6–58, Cl. 75—84.

Erie Resistor Corp.: *See*—
Heibel, Jerome D., and Schell. 2,833,676.

Esken, Robert L.: *See*—
Aller, Willis F., and Esken. 2,833,047.

Esser, George W., to McGraw-Edison Co. Voice-controlled dictation-recording system. 2,833,866, 5–6–58, Cl. 179—100.1.

Esso Research and Engineering Co.: *See*—
Collins, John F. 2,833,716.
Longwell, John P. 2,833,840.
Morway, Arnold J., Witta, and Young. 2,833,718.
Owen, John J., Mason, and Watts. 2,833,725.
Rehner, John, Jr., and Eby. 2,833,834.
Spitz, Peter H., and Canevari. 2,833,632.
Vickers, Herbert H. 2,833,750.
Wiese, Herbert K., and Smith. 2,833,748.

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Etablissements Labinal: *See*—
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Ethyl Corp.: *See*—
Avery, Julian M. 2,833,644.
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Hill, Eugene F. 2,833,634.
Hill, Eugene F., and De Pree. 2,833,635.

Ettema, Eelke H.: *See*—
Van den Blink Willem P., and Ettema. 2,833,914.

Etzkorn, Walter V. Luminous bodies. 2,833,964, 5–6–58, Cl. 315—248.

Evans, Dewey: *See*—
Umbricht, Emil, Steenhagen, and Evans. 2,833,417.

Evans Enterpriser, Inc.: *See*—
Evans, Frederick H. 2,833,501.

Evans, Fraser M., to C. A. V. Ltd. Liquid fuel injection pumps for internal combustion engines. 2,833,218, 5–6–58, Cl. 103—37.

Evans, Fraser M., to C. A. V. Ltd. Liquid fuel pumps for internal combustion engines. 2,833,263, 5–6–58, Cl. 123—139.

Evans, Frederick H., to Evans Enterpriser, Inc. Metal handling and storage bolster. 2,833,501, 5–6–58, Cl. 248—120.

Evans, Lyle W., to Sylvania Electric Products, Inc. Cathode ray tube screen. 2,833,948, 5–6–58, Cl. 313—83.

Ex-Cell-O Corp.: *See*—
Dixon, Charles H. 2,833,185.

Fa. Optische Werke C. Reichert Aktiengesellschaft: *See*—
Wasner, Karl. 2,833,180.

Faber & Schleicher Akt.: *See*—
Koch, Werner. 2,833,540.

Fahnestock, Frank C., to Socony Mobil Oil Co., Inc. Method and apparatus for cooling granular contact material. 2,833,726, 5–6–58, Cl. 252—418.

Fahnestock, Richard J.: *See*—
Bucher, Francis X., Fahnestock, and Lundburg. 2,834,013.

Farbenfabriken Bayer Akt.: *See*—
Hahn, Willi, and Stroh. 2,833,827.
Schrader, Gerhard. 2,833,829.

Farkas, Adalbert, and R. Rosenthal, to Allied Chemical & Dye Corp. Production of phthalonitriles. 2,833,807, 5–6–58, Cl. 260—465.

Fawham Developments Ltd.: *See*—
Knibbs, Norman V. S., and Thyer. 2,833,626.

Federal Electric Products Co.: *See*—
Driver, Wallace J. 2,833,897.

Feeney, Thomas A., D. T. McRuer, R. J. Kulda, and L. L. Nalley, to Northrop Aircraft, Inc. Sideslip stability augmenter. 2,833,495, 5–6–58, Cl. 244—77.

Fenster, Abraham S., to International Harvester Co. Fifth wheel hitch. 2,833,558, 5–6–58, Cl. 280—434.

Ferwerda, Koop: *See*—
Ferwerda, Ray and K. 2,833,422.

Ferwerda, Ray, and K. Ferwerda, deceased (S. L. Ferwerda, administratrix). Telescopic boom. 2,833,422, 5–6–58, Cl. 212—55.

Ferwerda, Sophia L.: *See*—
Ferwerda, Ray and K. 2,833,422.

Fetz, Alfred. Welding organization. 2,833,911, 5–6–58, Cl. 219—89.

Fibreboard Paper Products Corp.: *See*—
Benschoter, James C. 2,833,403.

Fidel, Hyman, to Modecraft Co., Inc. Foot rest for easy chair. 2,833,338, 5–6–58, Cl. 155—171.

Fiehl, Michael: *See*—
Lake, Clair D., Fiehl, and Rogers. 2,833,387.

Fields, Ellis K.: *See*—
Lemmon, Norman E., and Fields. 2,833,715.

Fields, Thomas L., M. J. Weiss, and W. B. Wright, Jr., to American Cyanamid Co. Substituted pyrazoles. 2,833,779, 5–6–58, Cl. 260—296.

Fife, Robert J., to S. A. Young. Pop-up guide link. 2,833,574, 5–6–58, Cl. 287—54.

Fikentscher, Hans, to Badische Anilin & Soda-Fabrik Akt. Production of the salts of polymerized alpha beta-unsaturated aliphatic acids. 2,833,745, 5–6–58, Cl. 260—80.

Firma Theodor Klatte: *See*—
Nubling, Otto. 2,833,223.

Fischer, Artur: *See*—
Bürkle, Fritz. 2,833,129.

Fischer, Howard R.: *See*—
Roberts, James A., Fischer, and D'Haem. 2,833,310.

Fish, Robert C., to R. L. Persons. Regulating control valves. 2,833,304, 5–6–58, Cl. 137—495.

Fisher-Price Toys, Inc.: *See*—
Dunstan, Mary E. 2,833,083.

Fitzpatrick, Hugh F.: *See*—
Kalmar, Arthur F., and Fitzpatrick. 2,833,656.

Flaska, Robert. Spinner fishing lure. 2,833,079, 5–6–58, Cl. 43—42.34.

Fleischhauer, Richard, to Cassella Farbwerke Mainkur Akt. Polyazo dystuffs. 2,833,756, 5–6–58, Cl. 260—171.

Fletcher, Bertram G., to The British Ceca Co. Ltd., and F. W. Berk & Co. Ltd. Valve mechanisms. 2,833,511, 5–6–58, Cl. 251—218.

Flick, Francis S., to Flick-Reedy Corp. Orificed fluid flow controller. 2,833,312, 5–6–58, Cl. 138—44.

Flick-Reedy Corp.: *See*—
Flick, Francis S. 2,833,312.
Flight Refueling Inc.: *See*—
Marriette, Graham F. 2,833,299.
Flumerfelt, William A., to The Columbus Auto Parts Co. Method of making curved corrugated wedge members. 2,833,031, 5–6–58. Cl. 29—548.
Fluor Corp., Ltd., The: *See*—
Kohl, Arthur L., and Butcher. 2,833,122.
Kohl, Arthur L., De Wolfe, and Solnick. 2,833,527.
Fontein, Freerk J., to Stamicarbon N. V. Screening apparatus. 2,833,413, 5–6–58, Cl. 209—362.
Food Machinery and Chemical Corp.: *See*—
Greenspan, Frank P., and Light. 2,833,747.
Kalmar, Arthur F., and Fitzpatrick. 2,833,656.
Weber, James W. 2,833,246.
Wilbur, Paul C. 2,833,202.
Ford Motor Co. Ltd.: *See*—
Pitney, Frank W. 2,833,195.
Förster, Hans-Joachim M., to Daimler-Benz Aktiengesellschaft. Fluid-operated gear shift mechanism, particularly for motor vehicles. 2,833,162, 5–6–58. Cl. 74—732.
Fossati, Emilio. Mechanical steering system for track vehicles. 2,833,161, 5–6–58, Cl. 74—710.5.
Foster, Arthur H.: *See*—
Foster, Jackson G. and A. H. 2,833,541.
Foster, Edwin E., to Majik-Ironers, Inc. Method for preparing background springs for use in spring motors. 2,833,027, 5–6–58, Cl. 29—173.
Foster, Edwin E. Reverse wound spring motor. 2,833,534, 5–6–58, Cl. 267—1.
Foster, Jack F., to Deere & Co. Tractor mountable implement attachment. 2,833,432, 5–6–58, Cl. 214—131.
Foster, Jackson G. and A. H. Motion picture apparatus. 2,833,541, 5–6–58, Cl. 272—1.
Foster, Lee R. Punch. 2,833,052, 5–6–58, Cl. 33—189.
Foulds, John P., to General Electric Co. Luminaire. 2,833,916, 5–6–58, Cl. 240—25.
Fowler, Harlan D. Boundary layer control system with aerodynamic glove. 2,833,492, 5–6–58, Cl. 244—40.
Fox, John E.: *See*—
Dailey, Joseph J., and Fox. 2,833,603.
Dailey, Joseph J., and Fox. 2,833,668.
Fox, John E., to Monsanto Chemical Co. Oxidative dehydrogenation of cyclohexane. 2,833,832, 5–6–58, Cl. 260—668.
Fram Corp.: *See*—
Paton, Joseph H., Sherrill, and Vander Pyl. 2,833,351.
Francois, Paul. Coupling device for the lifting and transporting of loads. 2,833,362, 5–6–58, Cl. 280—479.
Frank, Walter W.: *See*—
Lemmon, Norman E., Cook, and Frank. 2,833,713.
Franke & Heidecke, Fabrik Photographischer Prazisions-Apparate: *See*—
Weiss, Richard. 2,833,191.
Franklin, Edmond G., and S. W. Holmberg, to General Mills, Inc. Steam iron. 2,833,061, 5–6–58, Cl. 38—77.
Fredriksson, Per S. E., T. G. E. Waeverlund, and T. S. Schölin, to Aktiebolaget Svenska Metallverken. Machines for making cables. 2,833,110, 5–6–58, Cl. 57—14.
Freeman, Robert L.: *See*—
Rahmel, Henry A., Freeman, Currey, and Holbrook. 2,833,859.
Freund, Rudolf E.: *See*—
Roberts, Frederick W., Curtis, Jones, and Freund. 2,833,860.
Frey, Louis E. Bed spring. 2,832,966, 5–6–58, Cl. 5—248.
Frick, W. H., Inc.: *See*—
Frick, William H. 2,833,550.
Frick, William H., to W. H. Frick, Inc. Mobile carriers. 2,833,550, 5–6–58, Cl. 280—47.34.
Friedland, Waldo C., F. W. Denison, Jr., and M. H. Peterson, to Abbott Laboratories. Culture process for erythromycin A. 2,833,696, 5–6–58, Cl. 195—80.
Frola, Joseph F., and H. C. May, to Westinghouse Air Brake Co. Brake mechanism with automatic slack adjustment. 2,833,381, 5–6–58, Cl. 188—198.
Frye, Clifton G., to Pan American Petroleum Corp. Method for determining recycle to hydrocarbon synthesis reactor. 2,833,803, 5–6–58, Cl. 260—449.6.
Fuchs, Alfred L., Jr.: *See*—
Jones, James B., Fuchs, and Bailey. 2,833,238.
Fujiwara, Motonori, H. Watanabe, T. Matsukawa, S. Yurugi, T. Iwatsu, and H. Kawasaki, to Takeda Pharmaceutical Industries, Ltd. Compounds with vitamin B_{12}-like activity and the preparation thereof. 2,833,768, 5–6–58, Cl. 260—256.5.
Funderburk, George O., R. C. Johnson, and R. H. Smith, to E. I. du Pont de Nemours and Co. Detergent compositions. 2,833,722, 5–6–58, Cl. 252—152.
Funk, Murry C., and J. F. Helms, to American Can Co. Nonblocking coated sheet material. 2,833,671, 5–6–58, Cl. 117—76.
Gable, Charles M.: *See*—
Baumgartner, Herman J., and Gable. 2,833,700.
Gaertner, Van R., to Monsanto Chemical Co. Addition products. 2,833,688, 5–6–58, Cl. 167—33.
Gagnier Fibre Products Co.: *See*—
Scott, Robert E. 2,833,011.
Gaiser, Romey A., and L. D. Thomas, to Libbey-Owens-Ford Glass Co. Electrically conducting glass. 2,833,902, 5–6–58, Cl. 201—73.
Gamble Co., The: *See*—
Cochrane, Reuel A. 2,833,560.
Gamble, Silas J., ⅛ to L. Moore. Hair pressing comb. 2,833,294, 5–6–58, Cl. 132—136.
Gardiner, Arthur W., A. W. Gaubatz, W. T. Nickel, J. Dolza, and P. W. Perish, to General Motors Corp. Engine controller. 2,833,356, 5–6–58, Cl. 170—135.74.
Garrett Corp., The: *See*—
Lones, Dain B., and Westman. 2,833,899.
Gates, James T., to The Cleveland Pneumatic Tool Co. Ball retainer for ball screws. 2,833,157, 5–6–58, Cl. 74—459.
Gaubatz, Arthur W.: *See*—
Gardiner, Arthur W., Gaubatz, Nickel, Dolza, and Perish. 2,833,356.
Geldhof, Peter E., to Whirlpool Corp. Combination washing and drying machine. 2,833,137, 5–6–58, Cl. 68—19.
General Bronze Corp.: *See*—
Hauck, Theodore. 2,833,537.
General Controls Co.: *See*—
Ray, William A. 2,833,881.
General Dynamics Corp.: *See*—
Rosenberg, Jack, Brewer, and Scuitto. 2,833,941.
General Electric Co.: *See*—
Foulds, John P. 2,833,916.
Gruen, Wolf J. 2,833,923.
Houston, Chester E., and Vercoe. 2,833,182.
Nylander, Arnold L. 2,833,989.
Terry, Paul V. 2,833,347.
Willyoung, David M. 2,833,944.
General Foods Corp.: *See*—
Jacobs, Foster, and Woodruff. 2,833,404.
General Lamps Mfg. Corp.: *See*—
Sacksteder, Richard C. 2,833,504.
General Mills, Inc.: *See*—
Barker, Norval G., and Nordgren. 2,833,642.
Franklin, Edmond G., and Holmberg. 2,833,061.
Schott, Howard H., and Burmeister. 2,833,062.
General Motors Corp.: *See*—
Dolza, John, and Haefner. 2,833,260.
Gardiner, Arthur W., Gaubatz, Nickel, Dolza, and Perish. 2,833,356.
Henehan, John F. 2,833,363.
Holin, William F. 2,833,377.
Hunt, Letcher B., Jr. 2,833,334.
Joachim, Joseph G., and Sauer. 2,833,536.
Martin, Edward J. 2,833,530.
Martin, Edward J., and Sargeant. 2,833,985.
Olivier, Jules A., and Tell. 2,833,593.
Olley, Maurice. 2,833,366.
Peterson, Victor W., and Thomas. 2,833,385.
Polhemus, Von D. 2,833,552.
General Precision Laboratory Inc.: *See*—
Bartelink, Everhard H. B. 2,833,850.
Gray, John W. 2,833,971.
McKay, Michael W., and Horn. 2,833,992.
Ward, Julius C. 2,833,869.
General Railway Signal Co.: *See*—
Craig, Robert W. 2,833,884.
General Telephone Laboratories, Inc.: *See*—
Lomax, Clarence E. 2,833,864.
Gergen, Russel L., to Pipe Machinery Co. Thread gage. 2,833,053, 5–6–58, Cl. 33—199.
Gerjovich, Henry J., to E. I. du Pont de Nemours and Co. Fungicidal compositions comprising benzothiazole and benzoxazole carbonic acid esters and method of control of fungi. 2,833,689, 5–6–58, Cl. 167—33.
Gerks, Irvin H., to Collins Radio Co. Stepped electrical feedback servo means. 2,833,922, 5–6–58, Cl. 250—27.
Giambalvo, Vito A., and R. J. Alheim, to American Cyanamid Co. Halosalicyloylamidoanthraquinones. 2,833,789, 5–6–58, Cl. 260—377.
Gier, Thurman E., P. L. Salzberg, and H. S. Young, to E. I. du Pont de Nemours and Co. Inorganic flexible fibrous material consisting of the asbestos-like form of an alkali metal titanate and its preparation. 2,833,620, 5–6–58, Cl. 23—51.
Gift, John, to Alba Hosiery Mills, Inc. Undergarments. 2,833,134, 5–6–58, Cl. 66—177.
Gillette Company, The: *See*—
Lerner, Louis L. 2,833,448.
Gilmore, Loren D., and S. K. Chen, to International Harvester Co. Photographic metering film magazine. 2,833,190, 5–6–58, Cl. 95—31.
Gladstone, Nathan H., and V. Arkin. Hinge-lock for pivoted arms. 2,833,038, 5–6–58, Cl. 32—23.
Glaser, Harry W., to The Western Union Telegraph Co. Aqueous graphite-polyvinyl alcohol ink composition. 2,833,736, 5–6–58, Cl. 260—29.6.
Glass, Marvin I. Frame for holding a plurality of snapshot photos. 2,833,071, 5–6–58, Cl. 40—152.1.
Glasser, Sidney P., to United States of America, Navy. Constant flow lube system. 2,833,374, 5–6–58, Cl. 184—6.
Gleerup-Moller. Drive mechanism for flap-carrying drums. 2,833,067, 5–6–58, 40—111.
Gleim, William K. T., to Universal Oil Products Co. Stabilization of organic compounds. 2,833,636, 5–6–58, Cl. 44—75.
Golaski, Walter M. Circular knitting machine. 2,833,132, 5–6–58, Cl. 66—8.
Golden, Norman J., to Sylvania Electric Products Inc. Characteristic curve tracer. 2,833,986, 5–6–58, Cl. 324—57.
Golding, David R. V., to E. I. du Pont de Nemours and Co. Preparation of peracetic acid. 2,833,814, 5–6–58, Cl. 260—502.
Goldkamp, Arthur H.: *See*—
Dodson, Raymond M., Goldkamp, and Pappo. 2,833,792.
Goldkamp, Arthur H., and R. M. Dodson, to G. D. Searle & Co. 3-oxygenated 4-androstene-1,17-diols and derivatives. 2,833,794, 5–6–58, Cl. 260—397.4.
Goldman, Sanford L. Display mount. 2,833,070, 5–6–58, Cl. 40—152.1.
Gollan, Frank, to United States of America, Army. Blood oxygenating apparatus. 2,833,279, 5–6–58, Cl. 128—214.
Gomco Surgical Mfg. Corp.: *See*—
Henderson, Stanford A. 2,833,307.

Goodier, George N., and B. E. Orr, to United States of America, Navy. Heat conducting tube mount. 2,833,966, 5-6-58, Cl. 317—101.
Gooding, William T., Jr., to Diamond Alkali Co. Hammer mill and screen. 2,833,484, 5–6–58, Cl. 241—88.
Goodman Mfg. Co.: *See*—
Bergmann, Ernst R. 2,833,389.
Lo Presti, Roy F. 2,833,395.
Goodrich, B. F., Co., The: *See*—
Morrissey, Richard T., and Weiss. 2,833,734.
Motefalco, Jack M. 2,833,001.
Goodwin, Anatole J. Air circuit breaker. 2,833,886, 5–6–58, Cl. 200—106.
Goodyear Tire & Rubber Co., The: *See*—
Bristol, Kenneth E. 2,832,997.
Gottlieb, Hans B.: *See*—
Ehrich, Felix F., and Gottlieb. 2,833,783.
Graber, Robert P., N. L. Wendler, and C. S. Snoddy, Jr., to Merck & Co., Inc. Processes of producing Δ4,8(14)-3,11,20-triketo-17-hydroxy-21-acyloxy-pregnadienes. 2,833,795, 5–6–58, Cl. 260—397.45.
Grace, W. R., Co.: *See*—
Mark, Jacob G., Urjil, Rubinstein, and Tompkins. 2,833,737.
Molstad, Melvin C. 2,833,628.
Graham, Charles R. Baby's safety pin. 2,833,014, 5–6–58, Cl. 24—160.
Graham, William T. Mounting for the shanks of the ground working tool of a plow. 2,833,198, 5–6–58, Cl. 97—47.84.
Gray, John W., to General Precision Laboratory Inc. Rotary inductor signal transmitter. 2,833,971, 5–6–58, Cl. 318—30.
Green, Lee B. Shear. 2,833,349, 5–6–58, Cl. 164—47.
Green, Richard M., and J. W. Clark, to Phillips Petroleum Co. Continuous circulating crystallization process and apparatus. 2,833,835, 5–6–58, Cl. 260—674.
Greene, Kermit, to Sherman Paper Products Corp. Set-up box and blank for forming the same. 2,833,459, 5–6–58, Cl. 229—35.
Greenspan, Frank P., and R. E. Light, Jr., to Food Machinery and Chemical Corp. Epoxidized hydrocarbon resins. 2,833,747, 5–6–58, Cl. 260—82.
Gregory, William. Identification picture assembly for a vehicle identification system. 2,833,072, 5–6–58, Cl. 40—152.1.
Greulich, Gerald G. Conveyor system. 2,833,390, 5–6–58, Cl. 198—20.
Griscom-Russell Co., The: *See*—
Otten, Phillip S., and Bosley. 2,833,526.
Groman, Anatol. Drafting apparatus. 2,833,042, 5–6–58, Cl. 33—77.
Grondin, George F., to Collins Radio Co. Code converter. 2,833,858, 5–6–58, Cl. 178—70.
Gross, Peter F.: *See*—
Stryker, Harvey I., Williamson, and Gross. 2,833,782.
Groth, Edward J. Jr., to Universal Match Corp. Totalizer. 2,833,469, 5–6–58, Cl. 235—61.
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Grundkötter, Manfred: *See*—
Sös, Oskar, and Grundkötter. 2,833,649.
Guareschi, Pietro. Electrolytic production of alumina. 2,833,707, 5–6–58, Cl. 204—96.
Guinard, Paul A. Bearings. 2,833,601, 5–6–58, Cl. 308—77.
Gunderson, Norman R. Scale. 2,833,506, 5–6–58, Cl. 249—42.
Gundert, Eberhard, and W. Kluge, to Telefunken Gesellschaft fuer Drahtlose. Telegraphie m. b. H. Electron beam deflecting system. 2,833,947, 5–6–58, Cl. 313—78.
Guritz, Kenneth E.: *See*—
Drummond, Joseph E., and Guritz. 2,833,452.
Gustafson, Robert M., to International Business Machines Corp. Consecutive number printer. 2,833,209, 5–6–58, Cl. 101—79.
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Blinoff, William, Gutschick, Wrzepski, and Venditti. 2,833,867.
Gyermek, Laszlo: *See*—
Nador, Karoly, and Gyermek. 2,833,773.
Haas, Clarence C., and R. F. Vance, to International Harvester Co. High speed planter mechanism. 2,833,232, 5–6–58, Cl. 111—51.
Haas, Herman, to Bohme Fettchemie G. m. b. H. Isothiourea-alkylsulfonates. 2,833,781, 5–6–58, Cl. 260—309.6.
Haban, Joseph. Corn sheller. 2,833,286, 5–6–58, Cl. 130—6.
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Ahlich, Harld G., and Habowski. 2,832,994.
Hack, Morton, to Ripple Sole Corp. Resilient shoe soles. 2,833,057, 5–6–58, Cl. 36—59.
Hadlich, Hellmuth, to VEB Spinn-und Zwirnereimaschinenbau Karl-Marx-Stadt. Cap spinning frames and cap twisting frames. 2,833,111, 5–6–58, Cl. 57—74.
Haefner, Albert J., to Ethyl Corp. Acrylonitrile-isobutylene-styrene interpolymer. 2,833,746, 5-6-58, Cl. 260—80.5.
Haefner, Raymond J.: *See*—
Dolza, John, and Haefner. 2,833,260.
Hahn, Willi, and R. Stroh, to Farbenfabriken Bayer Akt. Tri (3,5-di lower alkyl-4-hydroxy phenyl)-sulfonium chlorides and method of preparing same. 2,833,827, 5–6–58, Cl. 260—607.
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Ziegler, Josef. 2,833,669.
Hall, Marchand B., to Acme Steel Co. Band dispenser. 2,833,489, 5–6–58, Cl. 242—78.7.
Hallada, Donald P., and H. P. Landerl, to E. I. du Pont de Nemours and Co. Process for dyeing polyester fiber. 2,833,613, 5–6–58, Cl. 8—55.
Haller, Millard E., and G. S. Andrews. Sleeve for joining T bars in installing tile. 2,833,575, 5–6–58, Cl. 287—108.
Haloid Co., The: *See*—
Walkup, Lewis E. 2,833,648.
Walkup, Lewis E. 2,833,930.
Walkup, Lewis E., and Carlton. 2,832,977.
Hamai, Jiro. Apparatus for sharpening small drills. 2,833,092, 5–6–58, Cl. 51—219.
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May, Frank H., Levasheff, and Hammar. 2,833,623.
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Hammond, Ralph E.: *See*—
Allen, Herbert, and Hammond. 2,833,510.
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Handley, Harold E. 2,833,267.
Handley, Harold E., to Handley Brown Heater Co. Combination water heater and space heater. 2,833,267, 5–6–58, Cl. 126—101.
Hannah, Dorothy M. Cap spinning frames. 2,833,112, 5–6–58, Cl. 57—127.
Hannan, William J., to Radio Corp. of America. Motor control circuit. 2,833,935, 5–6–58, Cl. 250—201.
Hansen, Alfred E. Water and oil degasifying well. 2,833,222, 5–6–58, Cl. 103—113.
Hansen, Harold V.: *See*—
Oehler, William P., and Hansen. 2,833,440.
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Zucker, Henry G., and Wilkinson. 2,833,637.
Harless, Charles A., to R. Hoe & Co., Inc. Ink motions for printing machines. 2,833,212, 5–6–58, Cl. 101—349.
Harris, George A. Time cycle controller. 2,833,940, 5–6–58, Cl. 307—112.
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Benson, Clark K., Harris, and Caridis. 2,833,203.
Harris, Sterling G., to Blue Channel Corp. Method of recovering meats of bivalves. 2,832,989, 5–6–58, Cl. 17—45.
Harshbarger, Lynn B., and P. E. Meyer. Platform support apparatus. 2,833,503, 5–6–58, Cl. 248—235.
Hart, Thomas F., and R. S. Wishart, Jr., to Union Carbide Corp. Water-repellent asbestos-cement structural articles and method of making. 2,833,673, 5–6–58, Cl. 117—126.
Hartman Electrical Mfg. Co.: *See*—
Auten, Lloyd D. 2,833,883.
Hartman, George M., to Charles H. Bacon Co. Hose packaging device. 2,833,399, 5–6–58, Cl. 206—46.
Hartwell Aviation Supply Co.: *See*—
Henrichs, Bernard W. 2,833,582.
Harvengt, Edmond, to Link-Belt Co. Means for discharging granular products in wet treatment apparatus. 2,833,414, 5–6–58, Cl. 209—490.
Harvey, Donald, to Imperial Chemical Industries Ltd. Device for delivering measured quantities of gases or vapours. 2,833,151, 5–6–58, Cl. 73—422.
Harvey Machine Co., Inc.: *See*—
Loevenstein, Hirsch. 2,833,630.
Hasler A. G. Werke für Telephonie und Prasisionmechanik: *See*—
Oberholser, Max. 2,833,872.
Hastings, Arthur C., Jr. Spark plug. 2,833,950, 5–6–58, Cl. 313—137.
Hastings Mfg. Co.: *See*—
Wilkinson, James W. 2,833,415.
Wilkinson, James W. 2,833,416.
Hasszeldine, Robert N. Preparation of perfluorodienes. 2,833,831, 5–6–58, Cl. 260—653.3.
Hauck, Theodore, to General Bronze Corp. Awning window operator. 2,833,537, 5–6–58, Cl. 268—104.
Hause, Norman L., to E. I. du Pont de Nemours and Co. Preparation of calcium lysinate. 2,833,821, 5–6–58, Cl. 260—534.
Hautau, Charles F.: *See*—
Hautau, Llewellyn A. and C. F. 2,833,321.
Hautau, Llewellyn A. and C. F. Two-stage torquing machine for fasteners. 2,833,321, 5–6–58, Cl. 144—32.
Hay, David W. G.: *See*—
Pfisterer, Heinz A., and Hay. 2,833,731.
Hayes, Monson H., and J. L. West, to Link Aviation, Inc. Reversible counter. 2,833,476, 5–6–58, Cl. 235—92.
Hazeltine Research, Inc.: *See*—
Loughlin, Bernard D. 2,833,851.
Wilhelmsen, Carl R. 2,833,870.
Heat and Control, Inc.: *See*—
Benson, Clark K., Harris, and Caridis. 2,833,203.
Heater, Charles L., and R. B. Cottrell, to American Steel Foundries. Car body mounting. 2,833,227, 5–6–58, Cl. 105—199.
Hechenbleinkner, Ingenuin, and F. C. Lanoue, to Shea Chemical Corp. Method of preparing ethylene phosphite. 2,833,806, 5–6–58, Cl. 260—461.
Hecht, John R. Apparatus for forming logs of compressible materials. 2,833,633, 5–6–58, Cl. 44—13.
Hedgcock, Wendell T., and D. C. Arnold, to Collins Radio Co. End-stop circuit for servo systems. 2,833,980, 5–6–58, Cl. 323—65.
Hedlund, Junior M.: *See*—
Hedlund, Wilfred E., M. R., J. M., and O. K. 2,833,152.
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Hedlund, Wilfred E., M. R., J. M., and O. K. 2,833,152.
Hedlund, Martin R.: *See*—
Hedlund, Wilfred E., M. R., J. M., and O. K. 2,833,152.
Hedlund, Oliver K.: *See*—
Hedlund, Wilfred E., M. R., J. M., and O. K. 2,833,152.
Hedlund, Robert C., to Dow Corning Corp. Siloxane coated cooking utensils. 2,833,441, 5–6–58, Cl. 220—64.
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Heibel, Jerome D., and J. W. Schell, to Erie Resistor Corp. Metal coated dielectrics and method for producing same. 2,833,676, 5–6–58, Cl. 117—213.
Hein, George N., Jr. Syringe assembly. 2,833,280, 5–6–58, Cl. 128—218.
Heinzelman, Richard V., R. B. Moffett, and R. H. Levin, to The Upjohn Co. Organic compounds. 2,833,772, 5–6–58, Cl. 260—292.
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Helms, Vorice M. Depth gauge attachment for fishing rods. 2,833,044, 5–6–58, Cl. 33—129.
Hemphill, Frederick A., and G. R. Kautz, to Sylvania Electric Products Inc. Cathode ray tube electrode assembly. 2,833,952, 5–6–58, Cl. 313—250.
Henderson, Stanford A., to Gomco Surgical Mfg. Corp. Air metering valve for ether control. 2,833,307, 5–6–58, Cl. 137—356.
Henehan, John F., to General Motors Corp. Retainer means for batteries and the like. 2,833,363, 5–6–58, Cl. 180—68.5.
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Köhler, Rudolf, and Scherff. 2,833,758.
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Henrite Products Corp.: *See*—
Loftis, Homer J. 2,832,996.
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Diveley, William R. 2,833,805.
Herron, Charles V. Apparatus for taking care of fish lines. 2,833,075, 5–6–58, Cl. 43—25.2.
Hershberg, Emanuel B., to Schering Corp. Hydroxylated steroid derivatives. 2,833,797, 5–6–58, Cl. 260—397.47.
Hess, Clem H. and R. C. Cricket, etc., dispenser. 2,833,080, 5–6–58, Cl. 43—55.
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Hess, Clem H. and R. C. 2,833,080.
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Hetzel, Stanford J., to Sun Oil Co. Treatment of naphthenic acids. 2,833,815, 5–6–58, Cl. 260—514.
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Heyek, Gerhard. Sheet metal lower blade for the cutter head of dry shaving apparatus. 2,833,033, 5–6–58, Cl. 30—43.
Hill, Eugene F., to Ethyl Corp. Synergistic antioxidants and their use. 2,833,634, 5–6–58, Cl. 44—69.
Hill, Eugene F., and D. O. De Pree, to Ethyl Corp. Gasoline fuel. 2,833,635, 5–6–58, Cl. 44—69.
Hilliker, William P., and H. K. Wheeler, to The American Oil Co. Lubricant for recycle gas compressor employed in hydroforming systems. 2,833,721, 5–6–58, Cl. 252—56.
Hindle, Norman F., C. D. King, and W. R. Parish, to University of Idaho Research Foundation, Inc. Means for producing efficient ignition and combustion in internal combustion engines. 2,833,265, 5–6–58, Cl. 123—191.
Hindmarch, Thomas. Power transmission mechanisms. 2,833,153, 5–6–58, Cl. 74—331.
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Spies, Bernard, and Hirsch. 2,833,037.
Hittle, Carl E., and J. J. Askins, Jr., to Radio Corp. of America. Power type selsyn motor control system. 2,833,972, 5–6–58, Cl. 318—44.
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Hobbs, Kenneth C., R. W. Kerr, and F. E. Kite, to Corn Products Refining Co. Degradation of starch and starch derivatives. 2,833,759, 5–6–58, Cl. 260—233.3.
Hochwalt, Carroll A., to Monsanto Chemical Co. Melamine process. 2,833,765, 5–6–58, Cl. 260—249.7.
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Surmatis, Joseph D. 2,833,812.
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Holbrook, George W., to Dow Corning Corp. Organosilicon sulfones. 2,833,801, 5–6–58, Cl. 260—448.2.
Holin, William F., to General Motors Corp. Railway vehicle brake rigging. 2,833,377, 5–6–58, Cl. 188—33.
Holm, Albert E., to Beach Engineering, Inc. Apparatus and system for leak testing. 2,833,141, 5–6–58, Cl. 73—40.
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Horizons Titanium Corp.: *See*—
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Wainer, Eugene. 2,833,704.
Wainer, Eugene. 2,833,706.
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Horowitz, Irving, ½ to I. S. Blonder and ½ to B. H. Tongue. Radiation receiver sensitivity control. 2,833,957, 5–6–58, Cl. 315—10.
Horowitz, Joseph, to Babbitt Pipe Co., Inc. Process of making laminated plastic-impregnated paper tubes. 2,833,684, 5–6–58, Cl. 154—83.
Horst, Herbert H. Method of manufacturing circular laminated printing plates. 2,833,009, 5–6–58, Cl. 22—200.5.
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Kollgaard, Reyner. 2,833,615.
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Petren, James C., and Howe. 2,833,097.
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Clarke, John S., Jackson, and Hudson. 2,833,115.
Hueber, Carl J., to Addressograph-Multigraph Corp. Embossing machines. 2,833,386, 5–6–58, Cl. 197—6.6.
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Hunt, Myron C., to Perfect Circle Corp. Piston ring assembly. 2,833,604, 5–6–58, Cl. 309—43.
Huprich, Carl A. Method of forming a resin-impregnated shoe shank stiffener. 2,832,976, 5–6–58, Cl. 12—146.
Hurwitz, Melvin D., to Rohm & Haas Co. Compositions for the treatment of textiles, the textiles obtained and processes for the treatment thereof. 2,833,674, 5–6–58, Cl. 117—139.4.
Hymes, Charles R., to United States Steel Corp. Sampling device for car dumper. 2,833,150, 5–6–58, Cl. 73—421.
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Illinois Tool Works: *See*—
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Imperial Chemical Industries Ltd.: *See*—
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International Business Machines Corp.: *See*—
Buley, Theodore L. 2,833,920.
Dickinson, Arthur H. 2,833,468.
Gustafson, Robert M. 2,833,209.
Johnson, Reynold B. 2,833,472.
Knox, Lewis A. 2,833,918.
Lake, Clair D., Fiehl, and Rogers. 2,833,387.
Ress, Thomas I. 2,833,936.
Valehrach, Emil M. 2,833,882.
Wilson, Edward S., and O'Hara. 2,833,474.
International Harvester Co.: *See*—
Fenster, Abraham S. 2,833,558.
Gilmore, Loren D., and Chen. 2,833,190.
Hans, Clarence C., and Vance. 2,833,232.
Lee, Fred A. 2,833,364.
Miner, Robert C. 2,833,559.
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Sisulak, Michael S., and Segredo. 2,833,410.
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International Register Co.: *See*—
Stolle, Anthony D. 2,833,874.
International Telephone and Telegraph Corp.: *See*—
Arditi, Maurice. 2,833,962.
Arditi, Maurice, and Elefant. 2,833,995.
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De Faymoreau, Etienne. 2,833,967.
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Marchese, Theodore J. 2,833,955.
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Irwin, John W. and L. J. Fastener for removably securing buttons or the like to garments. 2,833,012, 5-6-58, Cl. 24—103.

Irwin, John W. and L. J. Chain saw filing device. 2,833,165, 5-6-58, Cl. 76—31.

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Irwin, John W. and L. J. 2,833,012.
Irwin, John W. and L. J. 2,833,165.

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Lefebvre, Frank J. 2,833,402.
Lefebvre, Frank J., and Miller. 2,833,400.

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Fujiwara, Motonori, Watanabe, Matsukawa, Yurugi, Iwatsu, and Kawasaki. 2,833,768.

J F D Mfg. Co., Inc.: *See*—
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Jackson, Squire R.: *See*—
Clarke, John S., Jackson, and Hudson. 2,833,115.

Jackson, Wilbur F., and M. J. Caparone, to Robertshaw-Fulton Controls Co. Pilot burner and thermocouple therefor. 2,833,843, 5-6-58, Cl. 136—4.

Jacob, Robert M., to Societe des Usines Chimiques Rhone-Poulenc. New pyrimidine compounds. 2,833,767, 5-6-58, Cl. 260—256.4.

Jacobs, Foster, and G. M. Woodruff, to General Foods Corp. Shipping bundle or package. 2,833,404, 5-6-58, Cl. 206—65.

Jacobs, Philip C., Jr., to The Chase-Shawmut Co. Fillerless one time fuses. 2,833,890, 5-6-58, Cl. 200—131.

Jacobs, Philip C., Jr. Current-limiting fuses with balanced low-current and high current interrupting performance. 2,833,891, 5-6-58, Cl. 200—131.

James, Lawrence A., to Coeur d'Alene Hardware and Foundry Co. Dump car. 2,833,427, 5-6-58, Cl. 214—82.

Jannes, Nicholas G. Pop-up display. 2,833,074, 5-6-58, Cl. 41—11.

Jansen, Bernhard. Multi-pole tap switch construction for changing transformer taps under load. 2,833,873, 5-6-58, Cl. 200—17.

Jarboe, James A., to The American Oil Co. Preparation of dixylyl sulfone. 2,833,826, 5-6-58, Cl. 260—607.

Jeffs, Robert W., to Western Gear Works. Machine for edge-marking panels. 2,833,208, 5-6-58, Cl. 101—37.

Jeglum, Norman L., to The Sheffield Corp. Electromagnetic gage head. 2,833,046, 5-6-58, Cl. 33—147.

Jenkins, Francis A., to United States of America, Atomic Energy Commission. Method of separating isotopes of uranium in a calutron. 2,833,927, 5-6-58, Cl. 250—41.9.

Jenkins, Robert F., and E. D. Wells, to The Standard Oil Co. Method of making asphalt emulsions. 2,833,663, 5-6-58, Cl. 106—277.

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Mead, William H., Zambruno, and Jett. 2,833,407.

Joachim, Joseph G., and A. B. Sauer, to General Motors Corp. Power operated rear compartment actuator and lock assembly. 2,833,536, 5-6-58, Cl. 268—74.

Johenning, Leon C. Turkey caller. 2,833,086, 5-6-58, Cl. 46—150.

Johnson, Charles R. Beverage coaster. 2,833,437, 5-6-58, Cl. 215—100.5.

Johnson, David R., D. C. Muessel, and J. M. Roehm, to Kawneer Co. Door. 2,833,004, 5-6-58, Cl. 20—91.

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Johnson, Hoyt Q. Article handling apparatus. 2,833,317, 5-6-58, Cl. 141—270.

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Johnson, Stanley G., to The Johnson Gage Development Co. Contractible plug gage with axis of pivot within gage surface boundaries. 2,833,049, 5-6-58, Cl. 33—178.

Johnson, Victor C. Universal tool holder. 2,833,546, 5-6-58, Cl. 279—51.

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Jones, James B., A. L. Fuchs, Jr., and W. R. Bailey, to Aeroprojects, Inc. Ultrasonic brazing unit. 2,833,238, 5-6-58, Cl. 113—59.

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Jones, Loyd W., to Pan American Petroleum Corp. Solidified corrosion inhibitor. 2,833,712, 5-6-58, Cl. 252—8.55.

Jones, Rufus V., and P. J. Canterino, to Phillips Petroleum Co. Silicon containing addition products of partially hydrogenated rubbery polymers. 2,833,749, 5-6-58, Cl. 260—85.1.

Jones, Thomas B. Collapsible, portable fishing rod support. 2,833,500, 5-6-58, Cl. 248—42.

Jordan, O. F., Co.: *See*—
Shipley, Calvin W. 2,833,059.

Joseph, Joseph P.: *See*—
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Joy Mfg. Co.: *See*—
Joy, Joseph F. 2,833,531.

Jukkola, Walfred W.: *See*—
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Lal, Joginder. 2,833,753.

Justus, William R. Grease drain rack. 2,833,319, 5-6-58, Cl. 141—364.

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Kaden, Willy, and A. Winkler, to AGFA Aktiengesellschaft. Photographic camera with a joint motion operator for transporting the film and tensioning of the shutter. 2,833,189, 5-6-58, Cl. 95—31.

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Rainbow, Horace S., and Kahn. 2,833,514.

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Drummond, Joseph E., and Guritz. 2,833,452.

Kalmar, Arthur F., and H. F. Fitzpatrick, to Food Machinery and Chemical Corp. Method and means for treating perishable agricultural products. 2,833,656, 5-6-58, Cl. 99—154.

Kaplan, Nathan: *See*—
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Karlson, John C., to Bendix Aviation Corp. Magnetic actuator. 2,833,968, 5-6-58, Cl. 317—171.

Karstad, Kaare, to Radio Corp. of America. Balanced modulator. 2,833,991, 5-6-58, Cl. 332—43.

Katz, David. Variable electrical resistor. 2,833,901, 5-6-58, Cl. 201—62.

Kaufmann, Henry W., to Sperry Rand Corp. Shifting register utilizing magnetic amplifiers. 2,834,006, 5-6-58, Cl. 340—174.

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Kautz, George R.: *See*—
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Fujiwara, Motonori, Watanabe, Matsukawa, Yurugi, Iwatsu, and Kawasaki. 2,833,768.

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Johnson, David R., Muessel, and Roehm. 2,833,004.

Kay, John G., to F. Jos. Lamb Co. Distributing conveyor arrangements. 2,833,393, 5-6-58, Cl. 198—85.

Kearns, Thomas F. Process of making high pressure fluid containers. 2,833,029, 5-6-58, Cl. 29—423.

Kellogg, M. W., Co., The: *See*—
Patton, James L. and Bednars. 2,833,698.
Rossheim, David B., and Tock. 2,833,631.

Kelsey-Hayes Co.: *See*—
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Main, John A. 2,833,543.
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Kennedy, Gilbert J., and W. W. Loose, to Philco Corp. Positioning mechanism. 2,833,976, 5-6-58, Cl. 318—467.

Kennepohl, Kenneth K. Hand weed burner. 2,833,272, 5-6-58, Cl. 126—271.2.

Kenny, Thomas J. Heating apparatus. 2,833,905, 5-6-58, Cl. 219—34.

Kerber, Frank J., to John Dusenberry Co., Inc. Expansible core adapter. 2,833,488, 5-6-58, Cl. 242—55.15.

Kerr, Ralph W.: *See*—
Hobbs, Kenneth C., Kerr, and Kite. 2,833,759.

Kersnar, Paul W. Method of mildewproofing cellulose fiber by etherifying, esterifying and quaternizing the cellulose. 2,833,614, 5-6-58, Cl. 8—120.

Kesl, Richard P., and J. P. Townsend, to Deere Mfg. Co. Gas engine fuel tank on hood door. 2,833,365, 5-6-58, Cl. 180—69.

Ketchledge, Raymond W., to Bell Telephone Laboratories, Inc. Optical storage system. 2,834,005, 5-6-58, Cl. 340—173.

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Kies, Elliot J., to The Massillon-Cleveland-Akron Sign Co. Sign carrying windmill construction. 2,833,065, 5-6-58, Cl. 40—39.

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King, John A.: *See*—
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King-Seeley Corp.: *See*—
Boddy, Leonard. 2,833,889.

Kipnis, Abraham. Pastry cooking machine. 2,833,204, 5-6-58, Cl. 99—405.

Klasman, Henry M.: *See*—
Baker, Bernard R., and Klasman. 2,833,764.
Klasman, Henry M., J. P. Joseph, and B. R. Baker, to American Cyanamid Co. O-alkyltyrosine esters. 2,833,810, 5-6-58, Cl. 260—471.

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Kite, Francis E.: *See*—
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Klaas, Nicholas P., and A. E. Osterberg; said Klaas assor. to Rohm & Haas Co., and said Osterberg assor. to Abbott Laboratories. Blood preservation by ion exchange resin decalcification. 2,833,691, 5-6-58, Cl. 167—78.

Kleemann, Karl, to G. M. Pfaff, A. G. Thread tension release and presser bar lifter. 2,833,237, 5-6-58, Cl. 112—238.

Kline, Park F. Compression massage instrument. 2,833,277, 5-6-58, Cl. 128—35.

Kling, Robert W., to Athey Products Corp. Weight transfer system and apparatus for tractor-trailers. 2,833,556, 5-6-58, Cl. 280—405.

Kluge, Werner: *See*—
Gundert, Eberhard, and Kluge. 2,833,947.

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Knapp Mills Inc.: *See*—
Knapp, Alfred P. 2,833,664.

Kneeling, William C. Method for making optical laminations. 2,833,680, 5-6-58, Cl. 154—2.65.

Knibbs, Norman V. S., and E. G. S. Thyer, to Fawham Developments Ltd. Hydration of lime and allied substances. 2,833,626, 5-6-58, Cl. 23—188.

Knoedler, Fred E., to Knoedler Manufacturers, Inc. Lateral auger discharge. 2,833,396, 5-6-58, Cl. 198—213.

Knoedler Manufacturers, Inc.: *See*—
Knoedler, Fred E. 2,833 396.

Knohl, Friedrich K., to Illinois Tool Works. Screw or nut with locking projections. 2,833,326, 5-6-58, Cl. 151—37.

Knopf, Ernest R. Shoe polisher. 2,832,983, 5-6-58, Cl. 15—258.

Knox, Lewis A., to International Business Machines Corp. Amplifier. 2,833,918, 5-6-58, Cl. 250—27.

Knudsen, Valdemar. Buoyant flashlight cover. 2,832,968, 5-6-58, Cl. 9—8.3.

Koch, Robert J., to Dow Corning Corp. Room temperature curing alloxane elastomers with polysilicate and amine-aldehyde product. 2,833,742, 5-6-58, Cl. 260—46.5.

Koch, Werner, to Faber & Schleicher Akt. Stacking device for printing and the like machines. 2,833,540, 5-6-58, Cl. 271—62.

Koebler Mfg. Co.: *See*—
Wheat, Grant. 2,833,846.

Kohl, Arthur L., and E. Butcher, to The Fluor Corp., Ltd. Water pre-cooled heat exchanger systems. 2,833,122, 5-6-58, Cl. 62—2.

Kohl, Arthur L., R. S. De Wolfe, and R. L. Solnick, to The Fluor Corp., Ltd. Liquid and gas contacting columns and their tray structures. 2,833,527, 5-6-58, Cl. 261—11.

Kohlenscheidungs-Gesellschaft, m. b. H.: *See*—
Krug, Julius. 2,833,230.

Köhler, Rudolf, and W. Scherff, to Henkel & Cie. G. m. b. H. Method of producing rapidly soluble cellulose ether powders. 2,833,758, 5-6-58, Cl. 260—232.

Kohn, John G. Mud crock. 2,833,138, 5-6-58, Cl. 72—9.

Kolin, John J., and W. C. Wilcox, to Maico Electronics, Inc. Microphone mounting for hearing aids. 2,833,868, 5-6-58, Cl. 179—107.

Kollgaard, Reyner, to Houdry Process Corp. Abatement of smog in flue gases. 2,833,615, 5-6-58, Cl. 23—2.

Kollsman Instrument Corp.: *See*—
Carbonara, Victor E., Kaplan, Spiller, and Wengryn. 2,833,629.

Kool, Earl R, to Corn Products Refining Co. Production of dextran-dextrinase. 2,833,695, 5-6-58, Cl. 195—66.

Koosman, Joseph G., to Allen B. du Mont Laboratories, Inc. Light source and method of use. 2,833,954, 5-6-58, Cl. 314—134.

Kosten, Leendert, to Staatsbedrijf der Posterijen, Telegrafie en Telefonie. Recoding equipment in an automatic communication system. 2,833,863 5-6-58, Cl. 179—18.

Kostka, Charles. All purpose tool element holder. 2,833,026, 5-6-58, Cl. 29—96.

Krchma, Ignace J., to E. I. du Pont de Nemours and Co. Method for cooling the hot, gas-containing reaction products resulting from the oxidation of titanium tetrachloride. 2,833,627, 5-6-58 Cl. 23—202.

Kreisler, B B., to Kreisler Corp. Belt buckles. 2,833,015, 5-6-58, Cl. 24—201.

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Kreisler, B B. 2,833,015.

Kriva, John A., and R. R. Qualheim, to J. I. Case Co. Bale dropping chute for pick-up hay balers. 2,833,108, 5-6-58, Cl. 56—473.5.

Krug, Albert E., to Becton, Dickinson and Co. Venting needle. 2,833,281, 5-6-58, Cl. 128—221.

Krug, Julius, to Kohlenscheidungs-Gesellschaft, m. b. H. Pulverised coal firing system. 2,833,230, 5-6-58, Cl. 110—28.

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Feeney, Thomas A., McRuer, Kulda, and Nalley. 2,833,495.
McRuer, Duane T., Kulda, and Vogel. 2,833,496.

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Kennedy, George P., and Kurent. 2,833,123.

Kurtzke, John A. Auxiliary visor securable to vehicle sun visor by resilient members. 2,833 591, 5-6-58, Cl. 296—97.

Kutik, Martin J., to McGraw-Edison Co. Multistation remotely-controlled phonograph systems. 2,833,865, 5-6-58, Cl. 179—100.1.

L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude: *See*—
Vesque, Henri, and De Percin. 2,833,127.

Laisy, Rudyard E., to The National Screw & Mfg. Co. Countersunk flexible head threaded fastener. 2,833,325, 5-6-58, Cl. 151—14.

Lakatos, Emory, and H. G. Och, to Bell Telephone Laboratories, Inc. Computing system and method. 2,833,471, 5-6-58, Cl. 235—61.5.

Lal, Joginder, to H. D. Justi & Son, Inc. Method of polymerizing acrylate esters in the presence of an organometallic inhibitor. 2,833,741, 5-6-58, Cl. 260—45.5.

Lal, Joginder, to H. D. Justi & Son, Inc. Polymerization catalyst for acrylic monomers. 2,833,753, 5-6-58, Cl. 260—89.5.

La Marre, Roger R.: *See*—
Bacher, Hans E., and La Marre. 2,833,567.

Lamb, F. Jos., Co.: *See*—
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Land, Edwin H., to Polaroid Corp. Self-processing film assemblage. 2,833,192, 5-6-58, Cl. 95—67.

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Landau, Ralph, and A. Saffer, to Mid-Century Corp. Process for the preparation of terephthalic acid. 2,833,818, 5-6-58, Cl. 260—524.

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Hallada, Donald P., and Landerl. 2,833,618.

Lanoue, Francis C.: *See*—
Hechenbleinkner, Ingenuin, and Lanoue. 2,833,806.

Lake, Clair D., M. Fiehl, and M. L. Rogers, to International Business Machines Corp. Serial printer. 2,833,387, 5-6-58, Cl. 197—14.

La Porte, George C., E. W. Taylor, and C. H. Spence. Seal and dust guard for journal box. 2,833,570, 5-6-58, Cl. 286—6.

Lappe, Frits. Heat supplying high-frequency apparatus. 2,833,925, 5-6-58, Cl. 250—40.

Lappin, Robert I., and L. Zaiger. Vacuum cleaner equipped with disposable bag. 2,833,372, 5-6-58, Cl. 183—43.

Large, William E., to Westinghouse Electric Corp. Current regulator. 2,833,978 5-6-58, Cl. 323—18.

Larsen, Carl H., to American Machine & Foundry Co. Self leveling storing and dispensing apparatus. 2,833,442, 5-6-58, Cl. 220—93.

Larsen, Robert A., and S. A. Matz, to United States of America, Army. Method of making non-caked infestation-resistant flour. 2,833 655, 5-6-58, Cl. 99—153.

Larsen, Wilmer C. Device for holding solder. 2,833,239, 5-6-58, Cl. 113—111.

Laubach, Gerald D., to Chas. Pfizer & Co. Δ 6,8-allopregnadiene - 3β - ol - 20 - one 11,14-peroxide and esters thereof. 2,833,762, 5-6-58, Cl. 260—239.55.

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Laubacher, Aner N., and G. H. Rendel, to United States Steel Corp. Method and apparatus for continuously applying a protective film of lacquer to steel strip. 2,833,672, 5-6-58, Cl. 117—103.

Laue, Erich, to MacDermid Inc. Removal of chromium from plating baths and electroplating process. 2,833,703, 5-6-58, Cl. 204—44.

Laurence, Lawton L., R. E. McMinn, and C. A. Siver, to Black, Sivalls & Bryson, Inc. Apparatus for separating fluids. 2,833,369, 5-6-58, Cl. 183—2.7.

Lawless, Clement J. Table construction with reversible top. 2,833,609, 5-6-58, Cl. 311—35.

Lawrence, Winthrop S., to Kaumagraph Co. Process of applying a decorative surface to a molded article of thermo-setting resin. 2,833,685, 5-6-58, Cl. 154—110.

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Leber, Felix. Switching mechanism. 2,833,939, 5-6-58, Cl. 307—1.2.

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Leblanc, Leon. 2,833,175.

Leblanc, Leon, to G. Leblanc Corp. Alto clarinet. 2,833,175, 5-6-58, Cl. 84—382.

Le Bus, Franklin L., Sr. Pivotal hook member. 2,833,018, 5-6-58, Cl. 24—241.

Leclair, Robert A. Self-latching hinge construction for high-chair trays. 2,833,335, 5-6-58, Cl. 155—127.

Lee, Frank A. Tobacco leaf stringing machine. 2,833,425, 5-6-58, Cl. 214—5.5.

Lee, Fred A., to International Harvester Co. Motor vehicle engine enclosure construction. 2,833,364, 5-6-58, Cl. 180—69.

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Lee, Samuel: *See*—
Chase, Fletcher A., and Lee. 2,833,653.

Leet, Bruce J.: *See*—
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Lefebvre, Frank J., and R. W. Miller, to Ivers-Lee Co. Combined package and mailing cover. 2,833,400, 5-6-58, Cl. 206—56.

Lefebvre, Frank J., to Ivers-Lee Co. Covered package with releasable initially sealed and locked closure flap. 2,833,401. 5-6-58, Cl. 206—56.

Lefebvre Frank J., to Ivers-Lee Co. Covered package with headed closing member. 2,833,402, 5-6-58, Cl. 206—56.

Lehrer, Erwin, to Badische Anilin- & Soda-Fabrik Akt. Production of acetlyene by incomplete combustion of hydrocarbons with oxygen. 2,833,839, 5-6-58, Cl. 260—679.

Leibold, Harry D. Down draft apparatus for cooling food products. 2,833,124, 5-6-58, Cl. 62—91.5.

Leigh, Albert: *See*—
Roxburgh, Albert, and Leigh. 2,833,896.

Lejardi, Rafael. Plural cylinder two cycle engine. 2,833,255, 5-6-58, Cl. 123—59.

Lemmon, Norman E., H. D. Cook, and W. W. Frank, to Standard Oil Co. Corrosion inhibited motor oils. 2,833,718, 5-6-58, Cl. 252—32.7.

Lemmon, Norman E., and E. K. Fields, to Standard Oil Co. Lubricant compositions. 2 833,715. 5-6-58, Cl. 252—32.7.

Lengnick, George F. W., to Daimler-Benz Aktiengesellschaft. Valve control mechanism for internal combustion engines. 2,833,257, 5-6-58, Cl. 123—90.

Lerner, Louis L., to The Gillette Co. Dispenser. 2,833,448, 5-6-58, Cl. 222—209.

Leutwiler, Richard W., and J. L. Ehretsman, to American Air Filter Co. Inc. Control and pressure regulating valve. 2,833 303, 5-6-58, Cl. 137—495.

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Levy, Ernest, Jr., and C. Mittel, to Sorensen and Co. Protective circuit for inverters. 2,833,977, 5–6–58, Cl. 321—2.
Levy, Hans F., ½ to R. K. Youtie. Materials-handling vehicle. 2,833,435, 5–6–58, Cl. 214—515.
Lewis, Allen H., to California Research Corp. Preparation of acylphenols. 2,833,825, 5–6–58, Cl. 260—592.
Lewis, Frank L. Tinted transparent sun visor. 2,833,592, 5–16–58, Cl. 296—97.
Lewis, George W. Hydraulic converter. 2,833,219, 5–6–58, Cl. 103—50.
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Light, Rupert E., Jr.: *See*—
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Liljengren, Curtis P. 2,833,339.
Link Aviation, Inc.: *See*—
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Di Franco, Julius V. 2,833,147.
Lloyd, John M., Jr., to Pan American Petroleum Corp. Method and apparatus for completing wells. 2,833,352, 5–6–58, Cl. 166—34.
Loevenstein, Hirsch, to Harvey Machine Co., Inc. Apparatus for leaching. 2,833,630, 5–6–58, Cl. 23—267.
Loftis, Homer J., to Henrite Products Corp. Mold for multiple production of vibration dampening mountings. 2,832,996, 5–6–58, Cl. 18—36.
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Lomax, Clarence E., to General Telephone Laboratories, Inc. Telephone system paystation identification. 2,833,864, 5–6–58, Cl. 179—18.
Lones, Dain B., and S. E. Westman, to The Garrett Corp. Altitude controller. 2,833,899, 5–6–58, Cl. 201—48.
Longwell, John P., to Esso Research and Engineering Co. Process for contacting immiscible liquids. 2,833,840, 5–6–58, Cl. 260—683.59.
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Kennedy, Gilbert J., and Loose. 2,833,976.
Lo Presti, Roy F., to Goodman Mfg. Co. Support assembly for conveyor. 2,833,395, 5–6–58, Cl. 198—192.
Lorscheidt, Manfred K., and H. Meyer, to Daimler-Benz Aktiengesellschaft. Valve mechanism for internal combustion engines. 2,833,258, 5–6–58, Cl. 123—90.
Loughlin, Bernard D., to Hazeltine Research, Inc. Color-television signal-modifying apparatus. 2,833,851, 5–6–58, Cl. 178—5.2.
Love, John, to K. A. C. Ltd. Fluid pressure mechanism for spirally corrugating tubing. 2,833,330, 5–6–58, Cl. 153—71.
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Neidich, George G., Low, and Martin. 2,833,242.
Lowther, Wilfred W., to United Specialties Co. Muffler. 2,833,368, 5–6–58, Cl. 181—40.
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Sieradzki, Henry J. 2,834,010.
Luskin, Leo S., and P. L. de Benneville, to Rohm & Haas Co. Novel vinyloxyalkylamidonitriles polymers thereof and their production. 2,833,751, 5–6–58, Cl. 260—85.5.
Lust, Calvin H. Root crop harvesting machine. 2,833,357, 5–6–58, Cl. 171—37.
Lust, Calvin H. Harvesting machine for row grown table vegetables. 2,833,358, 5–6–58, Cl. 171—37.
Lyons, Lee J. Railway axle journal bearing. 2,833,600, 5–6–58, Cl. 308—53.
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Abelew, Harry H. 2,834,003.
Mackintosh, Charles. Sectional platform with nesting sections. 2,833,607, 5–6–58, Cl. 311—4.
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Mann, Edward F., and F. R. Sibbald, to The Hoover Co. Floor polishers. 2,832,978, 5–6–58, Cl. 15—50.
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Smith, Harry F. 2,833,302.
Marcanik, Antonin: *See*—
Tusa, John, and Marcanik. 2,832,974.
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Mares, Lodovice. Portable fishing guns for throwing fishing spear by means of compressed gas. 2,833,266, 5–6–58, Cl. 124—11.
Mariotti, Paul G., and L. M. Vallese, to United States of America, Navy. Electromechanical continuous scan contact probe. 2,833,900, 5–6–58, Cl. 201—62.
Mark, Jacob G., A. J. Urjil, D. Rubinstein, and N. G. Tompkins, to W. R. Grace Co. Vinyl acetate emulsion. 2,833,737, 5–6–58, Cl. 260—29.6.
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Martin, Earnest E., to G. D. Bavin. Apparatus for distributing particles along a surface. 2,833,542, 5–6–58, Cl. 275—2.
Martin, Edward J., to General Motors Corp. Fluid mixing means. 2,833,530, 5–6–58, Cl. 261—65.
Martin, Edward J., and W. E. Sargeant, to General Motors Corp. Permeameter. 2,833,985, 5–6–58, Cl. 324—34.
Martin, Fred P. Hydraulically driven motor vehicle. 2,833,362, 5–6–58, Cl. 180—66.
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Marty, Wilbert H. Flat dry cell battery. 2,833,848, 5–6–58, Cl. 136—111.
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Mastantuono, John F., and F. Vilardi. Grass catcher means. 2,833,104, 5–6–58, Cl. 56—202.
Mastick, Donald F., and A. C. Wahl, to United States of America, Atomic Energy Commission. Process for purifying plutonium. 2,833,800, 5–6–58, Cl. 260—429.1.
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Bydalek, Floyd J., and Matthews. 2,833,508.
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Merker, Robert L., to Dow Corning Corp. Process for the preparation of organosilicon compounds. 2,833,802, 5–6–58, Cl. 260—448.2.
Merkur, Irving I. Film cutting apparatus. 2,833,350, 5–6–58, Cl. 164—73.
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Middleton, George W. Thermostatic control of water cooling system of motor vehicle. 2,833,478, 5–6–58, Cl. 236—34.
Middleton, William J., to E. I. du Pont de Nemours and Co. Acyclic, polynitrile-containing, unsaturated compounds and preparation thereof. 2,833,809, 5–6–58, Cl. 260—465.5.
Mielke, Dorothy. Electrode assembly. 2,833,710, 5–6–58, Cl. 204—286.
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Miller, Avy L. Hot water storage tank and water heater system embodying the same. 2,833,273, 5–6–58, Cl. 126—362.
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Miller, Clarence E., and J. D. Nixon, to United States of America, Navy. Penetrometer for in situ measurements. 2,833,144, 5–6–58, Cl. 73—84.
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Miller, Theodore A. Mold opener. 2,832,990, 5–6–58, Cl. 18—2.
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Mindrum, Kenneth H., to United States of America, Army. Front and rear suspension system for transporter. 2,833,553, 5–6–58, Cl. 280—124.
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Hochwalt, Carroll A. 2,833,765.
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Scott, Thomas V. 2,833,439.
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Peterson, Victor W., and M. H. Thomas, to General Motors Corp. Clutch control with cooling means therefor. 2,833,385, 5–6–58, Cl. 192—113.
Petrea, James C., and J. W. Howe, to Sperry Rand Corp. Bag applying machine. 2,833,097, 5–6–58, Cl. 53—168.
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Laubach, Gerald D. 2,833,762.
Laubach, Gerald D. 2,833,763.
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Parker, Stanley R., and Phillips. 2,833,494.
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Green, Richard M., and Clark. 2,833,835.
Jones, Rufus V., and Canterino. 2,833,749.
Parsons, James R. 2,833,928.
Stratton, Charles A. 2,833,720.
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Pinckaers, Balthasar H., to Minneapolis-Honeywell Regulator Co. Condition responsive apparatus. 2,833,938, 5–6–58, Cl. 307—88.5.
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Pipes, Clarence P., and J. F. Mitchell, to Motorola, Inc. High frequency long-line variably end-loaded tuner stackable with similar tuners for intercoupling. 2,833,994, 5–6–58, Cl. 333—73.
Pirot, Ernst, to Vereinigte Glanzstoff-Fabriken Akt. Method of producing a spinning solution of an acrylonitrile polymer. 2,833,738, 5–6–58, Cl. 260—31.6.
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Pokorny, Louis, Jr. 2,832,965.
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Pruitt, Lloyd S. Telescoping trailer hitch. 2,833,563, 5–6–58, Cl 280—482.

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Hittle, Carl E., and Askins. 2,833,972.
Karstad, Kaare. 2,833,991.
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Raamussen, Christian O. Washing machine. 2,833,135, 5–6–58, Cl. 68—4.

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Reeve, David H., to United States of America, Atomic Energy Commission. Method of preparing metallurgical grade alumina 2,833,621, 5–6–58, Cl. 23—142.

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Reggio, Ferdinando C. Powerplant temperature regulating device. 2,833,259, 5–6–58, Cl. 123—103.

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Ress, Thomas I., to International Business Machines Corp. Electrooptical shift register system. 2,833,936, 5–6–58, Cl. 250—208.

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Reynolds, Percival L., to Chicago Rawhide Mfg. Co. Scraper seal. 2,833,577, 5–6–58, Cl. 288—3.

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Richards, William H. Slide projector. 2,833,179, 5–6–58, Cl. 88—27.

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Richardson, Eugene E., and R. W. Watson, to Standard Oil Co. Lubricant compositions. 2,833,714, 5–6–58, Cl. 252—32.7.

Ricordi, Giorgio. Apparatus for the safety and protection of automobile passengers. 2,833,554, 5–6–58, Cl. 280—150.

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Roberts, Elliott J., and W. W. Jukkola, to Dorr-Oliver Inc. Catalytic treatment of alumina in fluidized beds. 2,833,622, 5–6–58, Cl. 23—142.

Roberts, Frederick W., R. C. Curtis, L. R. Jones, and R. E. Freund, to Dictaphone Corp. Dictation system. 2,833,860, 5–6–58, Cl. 179—6.

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Weber, Victor, H. J. Tyler, and W. J. Russell. 2,833,895.

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Soderquist, Leslie E., to The McNeil Machine & Engineering Co. Tire removing mechanism for shaping and curing presses. 2,832,991, 5–6–58, Cl. 18—2.

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CLASSIFICATION OF DESIGNS

D 2— 3: Des. 182,721
D 3—26: Des. 182,726
D 7— 7: Des. 182,707
D 9— 2: Des. 182,720
D12— 2: Des. 182,744
D14— 3: Des. 182,716
27: Des. 182,705
30: Des. 182,749
D15— 1: Des. 182,710

D15— 1: Des. 182,729
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8: Des. 182,750
D29—20: Des. 182,711
23: Des. 182,735
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D42— 7: Des. 182,723
D44—10: Des. 182,702
Des. 182,703
Des. 182,741
Des. 182,742
15: Des. 182,704
D48— 2: Des. 182,733
D52— 1: Des. 182,715
Des. 182,722

D54—12: Des. 182,713
D56— 9: Des. 182,745
D58— 8: Des. 182,708
Des. 182,734
9: Des. 182,719
11: Des. 182,712
26: Des. 182,731
D61— 1: Des. 182,709

D61— 1: Des. 182,751
D71— 1: Des. 182,717
Des. 182,728
D74—10: Des. 182,739
D80— 5: Des. 182,706
Des. 182,746
9: Des. 182,727
Des. 182,747

D80—10: Des. 182,718
D81—10: Des. 182,743
D87— 3: Des. 182,736
Des. 182,737
Des. 182,738
D91— 3: Des. 182,752
4: Des. 182,724
Des. 182,725

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

May 6, 1958 Volume 730 Number 1

TRADEMARKS

NOTICES

Roster of Attorneys and Agents

The Patent Office has recently published a new edition of the *Roster of Attorneys and Agents Registered to Practice Before the U. S. Patent Office.*

This edition like the preceding one is an extract of the Official Registers maintained by the Patent Office and contains the names and addresses of all individuals and firms registered in the Patent Office on January 1, 1958. This publication is composed of three sections (1) Individuals in the United States, (2) Firms, and (3) Individuals in Foreign Countries. Each section contains Part I, Arranged Alphabetically, and Part II, Arranged Geographically.

This publication may be purchased from the Superintendent of Documents, Washington 25, D. C., for $1.00 per copy. Remittance in the form of check or money order should be payable to the Superintendent of Documents.

Annual Index of Trademarks

The 1957 edition of the Annual Index of Trademarks has been published. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: Buckram bound $2.50.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 208,122 (ATRAUMATIC), Davis & Geck, Inc., Surgical and dental needles and combined needles and sutures, filed Mar. 27, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37162, *American Cyanamid Co.* v. *Lionharen, Ltd.*

TM 391,503 (BONNIE MAID), Bonnie Maid Hats, Inc., Children's and ladies' hats and children's coats, filed May 10, 1957, D. C., S. D. N. Y., Doc. 120/201, *Bonnie Maid Togs, Inc. et al.* Consent judgment; complaint dismissed as to defendants Maruiber, Schoenbach and Spiro; defendant Bonnie Maid Togs, Inc. (now Bonnie Deb Togs, Inc.), enjoined Mar. 29, 1958.

TM 511,068 (1ST AND DESIGN), The First National Bank of Chicago, The transaction of commercial, savings, investment and foreign banking, etc., filed Mar. 28, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c569, *The First National Bank of Chicago* v. *The First Commercial Bank.*

TM 649,886 (THE LIFE AND LEGEND OF WYATT EARP), Wyatt Earp Enterprises, Inc., Title of a television program, namely, western type stories, filed Nov. 26, 1957, D. C., S. D. N. Y., Doc. 127/165, *Wyatt Earp Enterprises, Inc.* v. *Sackman, Inc. et al.* Filed consent judgment; defendants enjoined Mar. 24, 1958.

CONDITION OF TRADEMARK APPLICATIONS AS OF MARCH 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 11,234
Date of oldest new application ..... Aug. 7, 1957
Date of oldest amended application ..... Aug. 12, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 44, 50	8-26-57	8-12-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	8-13-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	8-7-57	10-23-57
Renewals (All Classes)	2-25-58	3-14-58
Sec. 12 (c) Publications (All Classes)	2-6-58	3-17-58

Applications Filed During the Month of March 1958—1,966

Registrations Issued ..... 281—No. 661,202 to 661,482
Renewals Issued 86

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 24,442. Inter-State Nurseries, Incorporated, Hamburg, Iowa. Filed Feb. 14, 1957.



For Shrubs (Hypericum Kalmianum).
First use October 1956.

SN 28,246. Fleming-Joffe, Ltd., New York, N. Y. Filed Apr. 16, 1957.

CALYPSO CALF

No claim is made to the word "Calf" apart from the mark as shown.
For Leather.
First use Mar. 25, 1957.

SN 28,595. Greene Trading Company, Inc., New York, N. Y. Filed Apr. 22, 1957.

P·Y·R

For Powdered Pyrethrum, Dried Pyrethrum Flowers, and Extracts Therefrom.
First use Nov. 20, 1956.

SN 29,788. Continental Can Company, Inc., New York, N. Y. Filed May 10, 1957.

STRIP ZIT

For Tear Tape—Namely, a Non-Adhesive Strip of Plastic Material.
First use Jan. 9, 1956.

SN 29,818. Omicron Products, Inc., New York, N. Y. Filed May 10, 1957.

OMICRON

For Pipes, Sheets, and Rods in Extruded Shapes Made of Plastic Material, Valves and Pipe Fittings Made of Plastic Material.
First use about Feb. 10, 1956.

SN 31,027. The Sexauer Co., Brookings, S. Dak. Filed May 29, 1957.



The drawing is stippled lightly for blue coloring and heavily for red coloring but no claim as to color is made. The words "Lawn Seed" are disclaimed apart from the mark as shown.
For Seeds Such as Lawn and Field Seeds.
First use in the spring of 1930.

SN 34,426. Hastings & Co., Inc., Philadelphia, Pa. Filed July 26, 1957.

CHROMAR

For Metallized Plastic Film.
First use May 22, 1957.

SN 34,902. American Colloid Company, Chicago, Ill. Filed Aug. 5, 1957.

STEEL-FLO

For Hard Wood Fibrous Wood Flour Colored With Iron Ore Oxide To Be Used as an Additive in a Foundry Mold or Core Sand Mixture.
First use July 12, 1957.

SN 35,129. Seton Leather Company, Newark, N. J. Filed Aug. 7, 1957.

PUFF

For Leather.
First use Aug. 1, 1957.

SN 35,951. The Sexauer Co., Brookings, S. Dak. Filed Aug. 21, 1957.



For Seeds, and Particularly for Alfalfa Seed.
First use Feb. 17, 1957.

SN 36,310. Nutrilite Products, Inc., Buena Park, Calif. Filed Aug. 27, 1957.

NPI

For Planter Mix and Plant Supplement.
First use May 9, 1957.

SN 36,358. Columbus Coated Fabrics Corporation, Columbus, Ohio. Filed Aug. 28, 1957.

COL-O-FOAM

For Plastic Sheeting Supported or Unsupported and Backed With Rubber or Polyurethane Foam.
First use May 1, 1957.

SN 36,724. Middle West Distributors, Inc., River Forest, Ill. Filed Sept. 5, 1957.

MI-PET

For Cedar Shavings, for Veterinary Use.
First use March 1956.

SN 37,179. Ohio Lime Company, Woodville, Ohio. Filed Sept. 13, 1957.

BUCKITE

For Dead Burned or Roasted Dolomite Shipped in Bulk in Closed Railway Cars Such as Box Cars, Hopper Cars, and Container Cars.
First use Apr. 9, 1957.

SN 37,990. Union Bag-Camp Paper Corporation, New York, N. Y. Filed Sept. 27, 1957.

UNION CAMP

Owner of Reg. Nos. 52,383, 387,873, and others.
For Tall Oil, Tall Oil Fatty Acids, Tall Oil Pitch, Tall Oil Rosin, and Tall Oil Heads.
First use Apr. 19, 1957, on tall oil rosin.

SN 37,991. Union Bag-Camp Paper Corporation, New York, N. Y. Filed Sept. 27, 1957.



Owner of Reg. Nos. 39,837, 387,873, and others.
For Tall Oil, Tall Oil Fatty Acids, Tall Oil Pitch, Tall Oil Rosin, and Tall Oil Heads.
First use Apr. 19, 1957.

Class 2—Receptacles

SN 21,178. Milprint, Inc., Milwaukee, Wis. Filed Dec. 17, 1956.

TOASTER-REDI

For Foil Bags and Pouches for Packaging Pre-Cooked Food.
First use on or about Nov. 28, 1956, on pouches.

SN 28,040. Paul Escaut Societe Anonyme, Alfortville, Seine, France. Filed Apr. 12, 1957.



The representation of the goods is disclaimed apart from the mark as shown.
For Collapsible Wire Baskets.
First use Nov. 18, 1954; in commerce Nov. 18, 1954.

SN 33,650. Stone Container Corporation, Chicago, Ill. Filed July 12, 1957.

STONE-COR

Owner of Reg. No. 639,197.
For Corrugated Cartons.
First use Nov. 26, 1956.

SN 34,087. Stone Container Corporation, Chicago, Ill. Filed July 19, 1957.



Owner of Reg. No. 639,197.
For Corrugated Cartons.
First use Nov. 26, 1956.

SN 36,472. The Plas-Tex Corporation, Los Angeles, Calif. Filed Aug. 29, 1957.



Owner of Reg. Nos. 549,440 and 655,656.
For the Following Articles, All Made of Plastic: Basins, Diaper Pails, Laundry Baskets, Baby Baths, Insulated Jugs and Decanters, and Decanter Cups.
First use Nov. 29, 1956, on basins.

SN 36,555. Ames Safety Envelope Company, Somerville, Mass. Filed Sept. 3, 1957.

SIMPLEX

For Mailing Enclosures—Namely, Mailing Tubes.
First use Sept. 1, 1927.

SN 36,556. Ames Safety Envelope Company, Somerville, Mass. Filed Sept. 3, 1957.

PEERLESS

For Mailing Enclosures—Namely, Mailing Tubes.
First use Sept. 1, 1927.

SN 36,582. Gotham Industries, Inc., Chicago, Ill. Filed Sept. 3, 1957.

SERV-KING

For Housewares Made of Plastic—Namely, Pitchers, Trays, Tumblers, and Salad Sets, Comprising Bowls, Forks, and Spoons.
First use in November 1956.

SN 36,886. Home Decorators, Inc., Newark, N. Y. Filed Sept. 9, 1957.

GAYTIME

For Table Dinnerware Including Cups, Saucers, Plates, and Bowls Made of Plastic.
First use Dec. 24, 1956.

Class 4 — Abrasives and Polishing Materials

SN 34,495. American Buff Company, Chicago, Ill. Filed July 29, 1957.

GOLDEN TREATED

For Buffing Wheels, Buffing Fabric, and Buffs.
First use on or about Aug. 3, 1956.

SN 34,809. Manard Products, Inc., New Rochelle, N. Y. Filed Aug. 1, 1957.

CHEMWIPE

For Impregnated Wiping, Cleaning, Dusting, and Polishing Cloths.
First use July 9, 1957.

Class 5 — Adhesives

SN 30,342. Hukill Chemical Corporation, Cleveland, Ohio. Filed May 20, 1957.

HUVINAC

For Vinyl Resin Adhesives, Cements, or Glues.
First use September 1948.

Class 6 — Chemicals and Chemical Compositions

SN 685,727. Juan Llurba, Havana, Cuba. Filed Apr. 18, 1955.

Doctor

Owner of Cuban Reg. No. 60,413, dated June 29, 1940.
For Insecticides, Fungicides, Insect Repellents.

SN 24,916. Braznell Company, St. Louis, Mo. Filed Feb. 25, 1957.

AMBERETCH

For Etching Composition.
First use September 1947.

SN 29,634. Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. Filed Apr. 8, 1957.

CALGLOW

Owner of Reg. No. 429,593.
For Brightening Agent for Laundry and Dry-Cleaning Use.
First use Feb. 25, 1957.

SN 29,673. United States Movidyn Corporation, Chicago, Ill. Filed May 8, 1957.

PHEMADYN

For Liquid Germicide for Industrial Use.
First use Apr. 29, 1957.

SN 32,674. Fuelane Corporation, Liberty, N. Y. Filed June 26, 1957.

HAPPY COOKING

Owner of Reg. Nos. 349,959, 440,423, and others.
For Liquefied Petroleum Gas, i. e., Propane Gas.
First use Feb. 1, 1937.

SN 35,106. Lever Brothers Company, New York, N. Y. Filed Aug. 7, 1957.

de-scent

For Room Deodorant.
First use June 4, 1957.

SN 35,431. Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. Filed Aug. 13, 1957.

BEAM

For Optical Fabric Brightening Agent for Laundry Use.
First use June 19, 1957.

SN 36,142. Agfa Aktiengesellschaft für Photofabrikation, Leverkusen-Bayerwerk, Germany. Filed Aug. 26, 1957.

AGFACOLOR

Owner of German Reg. No. 442,478, dated Feb. 17, 1932; and U. S. Reg. Nos. 215,536, 599,049, and others.
For Chemical Products for Photographic Purposes.

SN 38,566. Compagnie Francaise des Matieres Colorantes, Société Anonyme, Paris, France. Filed Oct. 8, 1957.

ESTERAZOL

Priority claimed under Sec. 44(d) on French Reg. No. 464,146, dated Apr. 9, 1957 (Seine); Natl. Inst. No. 88,561.
For Dyestuffs.

Class 7 — Cordage

SN 36,475. Sacos y Tejidos Dominicanos, C. por A., Ciudad Trujillo, Dominican Republic. Filed Aug. 29, 1957.

SHELL

For Baler, Binder, and Wrapping Twine.
First use Mar. 2, 1957; in commerce Mar. 2, 1957.

SN 36,830. Academy Ribbon Mills, Burbank, Calif. Filed Sept. 9, 1957.

SUNRAY

For Ribbons for Gift Wrapping.
First use in August 1957.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 33,357. Lane, Limited, New York, N. Y. Filed July 8, 1957.

EVER-FRESH

For Tobacco Pouches.
First use in August 1955.

SN 35,704. Telex, Inc., St. Paul, Minn. Filed Aug. 16, 1957.

Filtek

For Cigarette Holder.
First use in August 1954.

SN 36,299. Larus & Brother Company, Richmond, Va. Filed Aug. 27, 1957. Sec. 2(f).

OLDE LONDON

Owner of Reg. No. 357,240.
For Pipes.
First use Apr. 15, 1935.

Class 10 — Fertilizers

SN 32,565. Nitro-Form Agricultural Chemical Company, Woonsocket, R. I. Filed June 20, 1957.

THE "BLUE CHIP" OF UREA-FORM
NITRO-FORM
N
AGRICULTURAL CHEMICALS

No claim is made to the letter "N" and the term "Agricultural Chemicals" apart from the mark as shown. Owner of Reg. No. 637,027.
For Synthetic Organic Water-Insoluble Nitrogen Compound Designated Primarily for Predetermined Nitrogen Release Values in Crop Raising.
First use Apr. 1, 1957.

SN 33,969. International Minerals & Chemical Corporation, Chicago, Ill. Filed July 18, 1957.

MEM

For Minor Element Mixture Used as an Additive in Fertilizers.
First use June 21, 1957.

Class 11 — Inks and Inking Materials

SN 22,797. Commercial Ink & Lacquer Co. Inc., Fair Lawn, N. J. Filed Jan. 18, 1957.

Cilco

For Inks.
First use Apr. 1, 1955.

Class 12 — Construction Materials

SN 29,092. Owens-Corning Fiberglas Corporation, Toledo, Ohio. Filed Apr. 29, 1957.

SONOBATTS

For Acoustical and Thermal Insulations.
First use Nov. 9, 1956.

SN 29,778. Basic, Incorporated, Cleveland, Ohio. Filed May 10, 1957.

TARBLOK

For Refractory Brick for Use in Making and Repairing Furnace Linings and the Like.
First use Apr. 19, 1957.

SN 34,275. Allied Chemical & Dye Corporation, New York, N. Y. Filed July 24, 1957.

RANCHLINE

For Composition Shingles.
First use Jan. 10, 1956.

SN 34,694. The General Tire & Rubber Company, Akron, Ohio. Filed July 31, 1957.

GENERAL
PLASTICS
The General Tire & Rubber Company

No claim is made to the word "Plastics" except in connection with the use of the mark as shown. Owner of Reg. Nos. 114,963, 395,212, and others.
For Rigid Plastic Vinyl Tile for Use as Floor Covering.
First use about January 1955.

SN 35,248. Dri-Rite Kiln Corporation, d. b. a. S & S Lumber Company, Downey, Calif. Filed Aug. 9, 1957.

swirl S W wood

Applicant disclaims the term "Wood" apart from the mark as shown, without prejudice to common law rights.
For Patterned Wood.
First use May 9, 1957.

SN 36,282. The Combination Door Co., Fond du Lac, Wis. Filed Aug. 27, 1957.

Winnebago

For Combination Storm and Screen Sashes and Combination Storm and Screen Doors.
First use Sept. 1, 1954.

SN 38,084. R. O. W. Window Company, Joliet, Ill. Filed Sept. 30, 1957.

THERMO-TITE

For Storm Sash and Doors.
First use June 6, 1957.

SN 38,232. Roddis Plywood Corporation, Marshfield, Wis. Filed Oct. 2, 1957.

TIMBLEND

For Composition Wood Panel.
First use Sept. 12, 1957.

SN 38,476. Locke Manufacturing Co., Lodi, Ohio. Filed Oct. 7, 1957.

Ajust-a-Rail

For Adjustable Wrought Iron Railings, Wrought Iron Columns, Wrought Iron Posts, and Wrought Iron Decorative Designs.
First use Jan. 24, 1957.

SN 38,515. West Coast Roofing Company, d. b. a. Glas-Top Products, Oakland, Calif. Filed Oct. 7, 1957.

GLAS-TOP

For Emulsified Asphalt Roofing Compound, Roofing Sheet Fabric Material, and Roof Coloring Coating Material.
First use Sept. 25, 1957.

SN 38,874. Tibbals Flooring Company, Oneida, Tenn. Filed Oct. 14, 1957.

"HARTCO"

For Wood Tile Flooring.
First use Sept. 27, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 20,587. Bergen Research Engineering Corp., Teterboro, N. J. Filed Dec. 7, 1956.

Captive Seal

For Valves for Fuel Systems, Pneumatic Systems, and Hydraulic Systems Controlling the Flow of Fluids and Gases.
First use Aug. 9, 1956.

SN 30,865. Weather Products Inc., Hialeah, Fla. Filed May 27, 1957.

By-Pass Master

For Sliding Door Hardware.
First use Mar. 1, 1957.

SN 32,826. Kirk-Young Machine Company, East Walpole, Mass. Filed June 28, 1957.

PULSAIR

For Intermittent Air Valves.
First use June 17, 1953.

SN 34,659. Burndy Corporation, Norwalk, Conn. Filed July 31, 1957.

BURNDY

For Cable Hangers.
First use Dec. 15, 1951.

SN 34,932. Dudley Industrial Corp., Santa Clara, Calif. Filed Aug. 5, 1957.

Glaceramic

For Ceramic Shower Pans, Stall Shower Units, Bath Tubs, Vanity Tops, Lavatory Bowls, and Bathroom and Kitchen Fixtures.
First use July 10, 1957.

SN 34,944. Grinnell Corporation, Providence, R. I. Filed Aug. 5, 1957.

MULTIMATIC

For Deluge Valves.
First use June 28, 1957.

SN 35,275. Lyon Incorporated, Detroit, Mich. Filed Aug. 9, 1957.

Lyoncraft

For Kitchen Sinks.
First use June 26, 1957.

SN 35,321. Harold Bradley, d. b. a. Better Way Products Co., Branchville, N. J. Filed Aug. 12, 1957.

GENT-L-GRIP

For Rack.
First use May 28, 1957.

SN 35,589. Groov-Pin Corporation, Ridgefield, N. J. Filed Aug. 15, 1957. Sec. 2(f).

"TAP-LOK"

Owner of Reg. No. 607,442.
For Metal Inserts for Accommodation of Screws in Softer Structural Materials.
First use in July 1952.

SN 35,691. Shand and Jurs Co., Berkeley, Calif. Filed Aug. 16, 1957.

S & J

For Balanced Valves, Bobs, Vacuum and Pressure Valves, Cable Winches, Controls for Valves, Dock Valves, Drain Valves, Flame Arrestors, Flanges, Fusible Plugs, Gas Exhausters, Gate Valves, Hatch Covers, Hydraulic Manifolds, Hydraulic Operators, Internal Safety Valves, Level Alarms, Level Indicators, Line Housings, Line Traps, Level Gauges, Manometers, Nozzles, Oil Seal Housings, Oil Strainer Fittings, Outlet Assemblies, Regulators, Relief Valves, Remote-Control Valves, Sampling and Temperature Bombs, Selective Controls for Hydraulic Operators, Sheave Brackets and Cases, Tape Block Valves, Tapes, Truck Tank Dome Covers, Tank Gauges, Tank Vents, Water Level Indicators and Water Drain Safety Valves.
First use Jan. 1, 1926.

SN 35,782. Joseph Hall, d. b. a. Joseph Hall Co., Philadelphia, Pa. Filed Aug. 19, 1957.

AIR KING

For Door Checks.
First use June 26, 1956.

SN 35,829. Ventfabrics, Inc., Chicago, Ill. Filed Aug. 19, 1957.

VENTLOK

For Access Door and Damper Hardware.
First use July 26, 1957.

SN 35,961. The Yale & Towne Manufacturing Company, New York, N. Y. Filed Aug. 21, 1957.

YALE

For Window and Jalousie Hardware, Including Window Operators, Catches, Hinges, Handles, Hold Rings, Pull Hooks, Cords and Pulleys, Screen Clips, Chain Wheels and Chains, and Friction Pivots and Shoes.
First use May 10, 1957.

SN 35,965. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 22, 1957.

ENDWELDUR

For Base Metal Chain.
First use Aug. 18, 1939.

SN 35,966. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 22, 1957.

AJAX

For Chain and Chain Links.
First use in May 1906.

SN 41,288. M & D Store Fixtures, Inc., La Puente, Calif. Filed Nov. 25, 1957.

M&D

For Store Fixtures of the Bracket or Clamp Type for Displaying Goods.
First use during July 1946.

Class 15—Oils and Greases

SN 33,132. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

STARLIGHT

For White Mineral Oil.
First use Dec. 13, 1950.

SN 35,432. Industrial Oil Corporation, Warren, Pa. Filed Aug. 13, 1957.

P-H

For Lubricating Oils.
First use Mar. 21, 1957.

Class 16—Protective and Decorative Coatings

SN 30,858. Jerome A. Taudte Company, Incorporated, Miami, Fla. Filed May 27, 1957.

Vinyl-Lux

For Paint.
First use Feb. 5, 1956.

SN 33,325. Arnolt Corporation, Warsaw, Ind. Filed July 8, 1957.

"ARNOLTONE"

For Protective Finish for Metal Furniture.
First use June 21, 1957.

SN 34,952. Industrial Waterproofing Company, Houston, Tex. Filed Aug. 5, 1957.

BRUTEM

For Protective Coating Compositions for Waterproofing and Acid Proofing Various Surfaces.
First use Jan. 1, 1948.

SN 40,022. Breining Brothers, Inc., Hoboken, N. J. Filed Nov. 4, 1957.

EVERDURE

For Wood Finishing Materials Such as Stains and Varnishes.
First use in the early 1920's.

SN 41,920. Robert J. Merkl, d. b. a. The B. O. M. Company, Chicago, Ill. Filed Dec. 6, 1957.

BOM-KOTE

For Liquid Protective Coating for Application to Surfaces.
First use Oct. 17, 1957.

Class 17 — Tobacco Products

SN 33,356. Lane, Limited, New York, N. Y. Filed July 8, 1957.

ORIENTA

For Smoking Tobacco.
First use in June 1956.

SN 34,293. Lane, Limited, New York, N. Y. Filed July 24, 1957.

JULEP

For Smoking Tobacco.
First use April 1948.

Class 18 — Medicines and Pharmaceutical Preparations

SN 697,855. Schering Aktiengesellschaft, Berlin, Germany. Filed Nov. 7, 1955.



Owner of German Reg. No. 620,531, dated May 19, 1952.
For Preparations for the Treatment of Endocrine Disorders and Diseases; Preparations for the Treatment of Inflammatory Diseases; X-Ray Contrast Media; Anesthetics; Analgetics.

SN 13,898. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

STAPHYLOMYCIN

For Antibiotic.
First use Aug. 3, 1956.

SN 15,813. Harry J. Ottersen, Jr., d. b. a. The Canker-Eze Co., Seattle, Wash. Filed Sept. 17, 1956.

Skerf

For Scalp-Treating Preparation for Relief From and Control of Dandruff.
First use October 1955.

SN 15,934. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

QUIVET

For Veterinary Tranquilizing Agent.
First use Sept. 4, 1956.

SN 22,822. L. L. Laboratories, Orlando, Fla. Filed Jan. 18, 1957.

NU-YOU

For Vitamin and Energy Building Supplement.
First use Sept. 10, 1954.

SN 28,461. Schering Corporation, Bloomfield, N. J. Filed Apr. 18, 1957.

PROFEM

For Hormone-Analgesic Preparation for the Relief of Premenstrual Tension.
First use Feb. 11, 1957.

SN 33,925. The Upjohn Company, Kalamazoo, Mich. Filed July 17, 1957.

UNICAP M

Owner of Reg. No. 384,267.
For Vitamin and Mineral Preparation.
First use Aug. 5, 1955.

SN 35,895. Benjamin Zirin, d. b. a. Zirin Enterprises, Hialeah, Fla. Filed Aug. 20, 1957.

STAMIN-Z-ATOM

For Veterinarian Preparation for Animals Which Acts as a Tonic, a Dietary Supplement and Helps to Maintain Normal Hemoglobin.
First use Aug. 1, 1956.

SN 37,249. F & F Laboratories, Inc., Chicago, Ill. Filed Sept. 16, 1957.

ACID-TROL

For Tablet for Control of Acid Stomach.
First use about Sept. 10, 1957.

SN 37,254. H. Clay Glover Co., Inc., West Hempstead, N. Y. Filed Sept. 16, 1957.

IMPERIAL

Owner of Reg. Nos. 345,655 and 520,971.
For Ointment for Sarcoptic Mange, Dog and Puppy Capsules, and Tapeworm Capsules.
First use 1897 on ointment for sarcoptic mange.

SN 37,879. Imperial Chemical Industries Limited, Millbank, London, England. Filed Sept. 26, 1957.

DICTYCIDE

Owner of British Reg. No. 761,023, dated Jan. 3, 1957.
For Veterinary Preparations for Treatment of Lungworm Infestations.

SN 39,164. The Upjohn Company, Kalamazoo, Mich. Filed Oct. 18, 1957.

UPRIN

Owner of Reg. No. 591,038.
For Analgesic Preparation.
First use May 16, 1956.

SN 39,484. E. S. Miller Laboratories, Inc., Los Angeles, Calif. Filed Oct. 24, 1957.

Tetrad

For Psychosomatic Restorative-Stimulant.
First use Aug. 6, 1957.

SN 39,694. The William A. Webster Company, Memphis, Tenn. Filed Oct. 28, 1957.

PARESULFA

For Anti-Diarrheal-Anti-Infective Preparation.
First use July 17, 1957.

SN 39,731. Irwin, Neisler and Co., Decatur, Ill. Filed Oct. 29, 1957.

CHLORAMORAL

For Synthetic Anorexigenic Agent in Capsule Form.
First use Sept. 18, 1957.

Class 19 — Vehicles

SN 13,777. Pilot Distributing Co., Battle Creek, Mich. Filed Aug. 10, 1956.

BLUE CHIP TOW-PILOT

Owner of Reg. Nos. 631,648 and 642,025.
For Tow Bars.
First use November 1955.

SN 16,899. Mastercraft Trailers, Inc., Middletown, Conn. Filed Oct. 3, 1956.

MASTERCRAFT

For Boat Trailers and Component Parts Thereof.
First use Apr. 2, 1947.

SN 35,185. Ford Motor Company, Dearborn, Mich. Filed Aug. 8, 1957.

GREEN LIGHT

For Automobiles.
First use July 10, 1957.

SN 38,752. Hyster Company, Portland, Oreg. Filed Oct. 11, 1957.

TUGSTER

For Industrial Towing Vehicles.
First use Dec. 7, 1956.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 36,351. Chicago Telephone Supply Corporation, Elkhart, Ind. Filed Aug. 28, 1957.



For Potentiometers of the Variable Resistance Type Used in Radio, Television, and Other Electronic Equipment, Rheostats, Tone Controls, Switches, Selector Switches, and Snap Switches.
First use July 25, 1957.

SN 36,435. Electric Parts Corporation, Georgetown, Ky. Filed Aug. 29, 1957.

BEAUTY WARM

For Electric Blankets.
First use June 15, 1957.

SN 36,513. Great Lakes Carbon Corporation, New York, N. Y. Filed Aug. 30, 1957.

UNITRODE

For Carbon Electrode Connectors.
First use Mar. 18, 1957.

SN 36,645. Anaconda Wire and Cable Company, New York, N. Y. Filed Sept. 4, 1957.

ANATHERM

For Insulated Magnet Wire.
First use Aug. 16, 1957.

SN 36,944. Weather-Seal, Inc., Barberton, Ohio. Filed Sept. 9, 1957.

DOR-TENDA

For Garage Door Operators Controlled by Radio, Key, or Magnetic Activators.
First use Sept. 5, 1957.

SN 36,986. Ullman Devices Corp., Norwalk, Conn. Filed Sept. 10, 1957.

FIRE-SPY

For Electrically-Operated, Automatic, Plug-in, Audible, Fire-Alarm Devices.
First use on or about June 15, 1956.

SN 36,993. Burndy Corporation, Norwalk, Conn. Filed Sept. 11, 1957.

HYLOK

For Electrical Conductor Terminals.
First use Aug. 6, 1957.

SN 36,994. Burndy Corporation, Norwalk, Conn. Filed Sept. 11, 1957.

HYFEN

Owner of Reg. No. 394,539.
For Electrical Connectors.
First use Aug. 29, 1957.

SN 37,092. McGraw-Edison Company, St. Louis, Mo. Filed Sept. 12, 1957.

LIMITRON

For Electric Fuses.
First use Mar. 12, 1957.

SN 37,121. Alphaduct Wire & Cable Company, New Brunswick, N. J. Filed Sept. 13, 1957.

SPIRACODE

For Electric Wires and Cables.
First use on or about Sept. 6, 1957.

SN 37,139. Capitol Records, Inc., Los Angeles, Calif. Filed Sept. 13, 1957.

Capitol

For Electro-Magnetic Tape Recorders.
First use Aug. 2, 1957.

SN 37,152. Essex Electronics, Berkeley Heights, N. J. Filed Sept. 13, 1957.

X-L

For Electrical Coils and Transformers, Including Metal-Spring Windings.
First use Nov. 15, 1956.

SN 37,230. Controls Company of America, Schiller Park, Ill. Filed Sept. 16, 1957.

SORENG

For Switches, Interval Timers, Coils, Solenoids, Solenoid Operated Valves.
First use June 7, 1956.

SN 38,681. Fox Products Company, Philadelphia, Pa. Filed Oct. 10, 1957.

FOX

For Battery Chargers and Combined Battery Chargers and Testers.
First use at least as early as June 1, 1946.

Class 22 — Games, Toys, and Sporting Goods

SN 27,760. Wilson Sporting Goods Co., River Grove, Ill. Filed Apr. 8, 1957. Sec. 2(f).

American Lady
Hagen

"Hagen" is the surname of Walter Hagen, well-known golfer. Consent is of record.
For Golf Clubs.
First use June 1, 1933.

SN 27,761. Wilson Sporting Goods Co., River Grove, Ill. Filed Apr. 8, 1957. Sec. 2(f).

International
Hagen

"Hagen" is the surname of Walter Hagen, well-known golfer. Consent is of record.
For Golf Clubs.
First use Aug. 30, 1928.

SN 27,997. United States Rubber Company, New York, N. Y. Filed Apr. 11, 1957.

QUEEN ROYAL

Owner of Reg. Nos. 149,273 and 149,533.
For Golf Balls.
First use not later than March 1932.

SN 34,095. Maurice L. Vaughn, d. b. a. Vaughn Bait Co., Smithville, Tenn. Filed July 19, 1957.

POLAR FLY

The word "Fly" is disclaimed apart from the mark as shown.
For Artificial Fish Lures.
First use Feb. 20, 1956.

SN 37,817. Schroeder Co., McGregor, Iowa. Filed Sept. 25, 1957.

RIDE-N-GLIDE

For Pedal Pony.
First use Aug. 20, 1957.

SN 37,835. Wetzell Gummiwerke Aktiengesellschaft, Hildesheim, Germany. Filed Sept. 25, 1957.

Wetzell

Priority under Sec. 44(d) on German application filed May 28, 1957; Reg. No. 705,879, dated Aug. 29, 1957.
For Toys and Sporting Goods—Namely, Inflatable Rubber Mattresses and Toys Made of Rubber.

SN 37,876. The Hi-Flier Manufacturing Co., Decatur, Ill. Filed Sept. 26, 1957. Sec. 2(f).

HI-FLIER

Owner of Reg. Nos. 541,834, 636,608, and others.
For Aerial Toys—Namely, Kites, Gliders, Airplanes, and Boomerangs.
First use at least as early as Jan. 1, 1922.

SN 37,904. Professional Bat Company, Little Falls, N. Y. Filed Sept. 26, 1957.

PRO-BATS

For Baseball Bats.
First use June 22, 1957.

SN 38,044. The Hi-Flier Manufacturing Co., Decatur, Ill. Filed Sept. 30, 1957.

BIG BOY

Owner of Reg. No. 551,835.
For Aerial Toys—Namely, Kites.
First use at least as early as Sept. 15, 1926.

SN 38,067. Momoi Company, Inc., Los Angeles, Calif. Filed Sept. 30, 1957.

TRAWLON

For Shrimp Netting.
First use Aug. 30, 1957.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 26,907. Wolverine Paper Converting Machinery Corporation, Detroit, Mich. Filed Mar. 25, 1957.

HYDRO-LINE

Owner of Reg. No. 561,066
For Printing Machinery, Parts and Equipment Therefor.
First use Feb. 20, 1956.

SN 32,191. Lyon Incorporated, Detroit, Mich. Filed June 18, 1957.

INTERLUDE

For Stainless Steel Flat Tableware—Namely, Knives, Forks, Spoons, and the Like.
First use May 9, 1957.

SN 32,192. Lyon Incorporated, Detroit, Mich. Filed June 18, 1957.

QUEEN'S FANCY

For Stainless Steel Flat Tableware—Namely, Knives, Forks, Spoons, and the Like.
First use May 9, 1957.

SN 33,209. The Cincinnati Shaper Co., Cincinnati, Ohio. Filed July 5, 1957. Sec. 2(f).

RIGID-PRESS

For Mechanical Presses.
First use Oct. 18, 1933.

SN 34,563. A. O. Smith Corporation, Milwaukee, Wis. Filed July 29, 1957.

SHURE-TEMP

For Water Systems Including Pumps Therefor.
First use June 5, 1957.

SN 35,335. The Delsam Co., Wilmington, Del. Filed Aug. 12, 1957.

KING karver

For Knife for Cutting and Sawing.
First use August 1956.

SN 36,418. The American Pulley Company, Philadelphia, Pa. Filed Aug. 29, 1957.

SCREW KING

Owner of Reg. No. 596,708.
For Speed Reduction Units.
First use Sept. 16, 1956.

SN 37,415. Cattaraugus Cutlery Company, Little Valley, N. Y. Filed Sept. 18, 1957.

Pat Cutter's

For Household and Professional Cutlery—Namely, Knives, Spreaders, Forks, and Spatulas.
First use on or about July 19, 1957.

SN 38,751. Arthur A. Hurt, Spencer, Iowa. Filed Oct. 11, 1957.

THE MULTI-SPREAD

For Fertilizer Mixing and Spreading Vehicle.
First use Oct. 7, 1956.

SN 41,812. Highway Trailer Company, Edgerton, Wis. Filed Dec. 5, 1957.

HIGHWAY

For Boring Machines, Winches, Power Take-Offs, Fifth Wheels and Parts Therefor.
First use on or about Sept. 1, 1957; on or about 1929 as to "Highway".

SN 41,890. Chrysler Corporation, Highland Park, Mich. Filed Dec. 6, 1957.

RED RAM

For Automobile Engines.
First use Oct. 15, 1952.

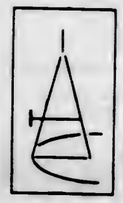
Class 26—Measuring and Scientific Appliances

SN 3,491. Vapor Recovery Systems Company, Compton, Calif. Filed Feb. 27, 1956.

VAREC

For Gaging and Sampling Units, Manometers, Electronic Remote Gaging Systems and Equipment, Liquid Level Indicators, Telemetering Systems and Equipment, Bomb-Form Sampling and Temperature Apparatus, Swing Pipe Level Indicators, Hand Type Gages, Automatic Tank Gages, Electronic Gager Transmitters, Electric Gager Indicating Receivers, Sampling and Temperature Lock Apparatus.
First use Mar. 10, 1928.

SN 4,859. Bernard V. Strianese, d. b. a. Ackerman Engravers, New York, N. Y. Filed Mar. 19, 1956.



For Instrument Panels, Dials, and Indicators.
First use on or about Feb. 25, 1955.

SN 18,026. Paul J. Showstack, d. b. a. Cig-Alarm Company, Boston, Mass. Filed Oct. 23, 1956.

CIG-ALARM

For Mechanically Actuated Fire Alarms Which Operate Upon the Melting of a Fusible Link.
First use Aug. 12, 1956.

SN 21,530. Eastern Photo Supply Co. Inc., Canton, Mass. Filed Dec. 24, 1956.



Owner of Reg. No. 601,632.
For Photographic Supplies—Namely, Cameras, Developing Trays and Enlargers, Enlarger-Viewers, Projectors, Lenses and Finders, Flashbulbs, Photolamps, Slide Files, Screens, Tripods, and Easels, Photographic Film, Plates and Slides, Camera and Projector Cases, Reels and Cans for Photographic Film and Photo-Flash Synchronizers.
First use Oct. 25, 1956.

SN 22,949. Optica S. p. A., Milan, Italy. Filed Jan. 22, 1957.



The term "Milano" is herewith disclaimed. Owner of Italian Reg. No. 71,465, dated Nov. 28, 1946.
For Optical Instruments.

SN 23,550. Graflex, Inc., Rochester, N. Y. Filed Jan. 31, 1957.

STROBOMITE

Owner of Reg. Nos. 523,660, 627,780, and others.
For Portable Electronic Flash Units and Accessories for Photographic and Other Purposes.
First use Jan. 3, 1957.

SN 24,804. Sperry Rand Corporation, New York, N. Y. Filed Feb. 20, 1957. Sec. 2(f).

FILM-A-RECORD

For Photographing Machines, Cameras and Parts Thereof, Card, Check and Document Feeders Used in Connection With Such Machines, Photographic Film, Film Readers, Processors, Film Spools.
First use Mar. 31, 1938.

SN 27,005. Anschütz & Company, Gesellschaft mit Beschränkter Haftung, Kiel-Wik, Germany. Filed Mar. 27, 1957.

COMPILOT

Priority under Sec. 44(d) on German application filed Sept. 28, 1956; Reg. No. 707,364, dated Oct. 14, 1957.
For Automatic Steering Mechanism for Ships.

SN 29,531. Fischer & Porter Company, Hatboro, Pa. Filed May 7, 1957.



For Laboratory Glassware for Use With Chemicals.
First use Jan. 15, 1957.

SN 30,822. Packard Bell Electronics Corporation, Los Angeles, Calif. Filed May 27, 1957.

PULTRATOR

For Dual Pulse Code Train Generator That Can Be Used To Simulate Radar Return From Multiple Targets, To Test the Video Circuitry of Beacon Systems by Connecting Several Dual Pulse Code Train Generators in Cascade, To Simulate the Air Traffic Control Beacons, and Other Applications Where Multiple Pulses Are Required.
First use Mar. 18, 1957.

SN 32,947. General Aniline & Film Corporation, d. b. a. Ansco, New York, N. Y. Filed July 1, 1957.

DUALET

For Cameras and Projectors.
First use Mar. 22, 1957.

SN 38,141. Friden Calculating Machine Co., Inc., San Leandro, Calif., now by change of name Friden, Inc. Filed Oct. 1, 1957. Sec. 2(f).

FRIDEN

Owner of Reg. Nos. 353,891, 639,336, and others.
For Adding and Calculating Machines.
First use May 19, 1934.

SN 38,176. Trans-World Optical Corp., New York, N. Y. Filed Oct. 1, 1957.



For Eye Glass Frames.
First use about Mar. 1, 1954.

SN 38,222. Metropolitan Refining Co., Inc., Long Island City, N. Y. Filed Oct. 2, 1957.

METRONITE

For Test Kit, Including Capillary Tubes and Capillary Chart for Comparison Purposes, To Determine the Concentration of Nitrites in a Water Solution.
First use in September 1957.

SN 38,226. The National Cash Register Company, Dayton, Ohio. Filed Oct. 2, 1957.

SALES-TRONIC

For Cash Registers, Which in Addition to Their Usual Cash Register Functions Control a Recorder, and/or a Media Reader To Produce Records for Accounting Functions.
First use on or about Apr. 26, 1957.

SN 38,416. American Optical Company, Southbridge, Mass. Filed Oct. 7, 1957.

DELINEASCOPE

For Projectors.
First use March 1912.

SN 38,633. Stuart W. Pochapin, Miami, Fla. Filed Oct. 9, 1957.

"SHOPOMETER"

For Pocket-Size Adding Machines.
First use Sept. 1, 1956.

SN 38,682. Fox Products Company, Philadelphia, Pa. Filed Oct. 10, 1957.

FOX

For Electrical Testers for Storage Batteries.
First use May 1, 1952.

SN 38,708. Phillips Lens Co., Inc., Middlesex, N. J. Filed Oct. 10, 1957.

TWIN-VUE

For One-Piece Bifocal Lenses.
First use Aug. 6, 1957.

SN 38,784. Adcon Corporation, Boston, Mass. Filed Oct. 14, 1957.

DIGISYN

For Encoders.
First use on or about Mar. 13, 1957.

SN 38,829. Leslie Co., Lyndhurst, N. J. Filed Oct. 14, 1957.

PROPO-MATIC

For Temperature Regulators.
First use Sept. 27, 1957.

Class 27—Horological Instruments

SN 30,760. Finlay Departments, Inc., New York, N. Y. Filed May 27, 1957.

André Bonnard

For Watches and Watch Movements.
First use Dec. 5, 1956.

Class 28—Jewelry and Precious-Metal Ware

SN 15,282. Bishara M. Lawrence, San Francisco, Calif. Filed Sept. 7, 1956.

NOBKE

For Key Holders for Personal Use.
First use Aug. 17, 1956.

SN 36,051. Bullock's, Inc., Los Angeles, Calif. Filed Aug. 23, 1957.

Wynbrier

For Jewelry—Namely, Cuff Links, Necktie Bars and Studs, Dress Shirt Studs, Necktie and Collar Pins, Key Chains, Key Fobs, and Money Clips.
First use Apr. 12, 1957.

Class 30—Crockery, Earthenware, and Porcelain

SN 700,264. Sooty Concessions Limited, London, England. Filed Dec. 19, 1955.

SOOTY

Priority claimed under Sec. 44(d) on British Reg. No. 743,610, dated June 21, 1955.

For China and Earthenware Tableware—Namely, Cups, Saucers, Plates, Beakers, and Mugs.

Class 32—Furniture and Upholstery

SN 7,568. Carter-Parratt Limited, London, England. Filed May 3, 1956.

VISTAMATIC

Owner of British Reg. No. 747,600, dated Nov. 2, 1955.

For Compartmented Display Board for Filing and Displaying Colored Index Signals, Indicators, and the Like.

SN 40,805. The Basic-Witz Furniture Industries, Waynesboro, Va. Filed Nov. 18, 1957.

it's the hidden quality



that spells true value

For Furniture Case Goods—Namely, Diningroom and Bedroom Furniture.

First use Mar. 15, 1956.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 19,029. Master Vibrator Company, d. b. a. Knickerbocker Products Company, Dayton, Ohio. Filed Nov. 9, 1956.

KNICKERBOCKER

For Space Heaters.

First use Mar. 10, 1956.

SN 19,471. Lennox Industries Inc., Marshalltown, Iowa. Filed Nov. 19, 1956. Sec. 2(f).

LENNOX

Owner of Reg. No. 546,478.

For Furnaces, Air Distribution Systems for Furnaces and Air Conditioning Systems, Including Ducts and Fittings, Humidifiers, Fuel Burners, Blowers, Burner Nozzles, Cabinets for Housing Heating Systems, Burner Pot Sets, Dampers, Air Conditioning Apparatus and Controls, Evaporative Coolers, and Parts for the Foregoing.

First use 1895 on furnaces.

SN 27,879. Niagara Blower Company, New York, N. Y. Filed Apr. 10, 1957.

NIAGARA

Owner of Reg. Nos. 341,839, 584,518, and others.

For Inter and After Coolers for Air or Gas Compressors; Engine Jacket Water Coolers; Dehumidifiers Which Contact the Gas To Be Dried With a Hygroscopic Liquid; Concentrators for Restoring the Concentration of Aqueous Anti-Freeze or Hygroscopic Solutions and in Which the Solution Is Heated to a Degree Either To Volatilize the Water as Steam or To Evaporate the Water Into a Passing Stream of Fresh Air; Industrial Evaporative Coolers and Condensers for Liquifying Gases and Which Have Coils Over Which Streams of Water and Air Are Passed; Smokehouse Conditioning Units Which Maintain the Temperature, Purity, Humidity, and Smoke Concentration of the Atmosphere Within the Smokehouse at Desired Levels; Condensers Which Have Coils in Which Gases Are Liquified and Over Which Air Is Propelled by Motor Operated Blowers; Gas or Air Conditioning Units Including Cooling, Humidifying and Dehumidifying as Well as Heating and Purifying Means and Controls To Maintain Desired Levels of Temperature and Humidity of the Gas or Air; Industrial Exhaust and Recirculating Motor Operated Blowers for Storage Rooms and Industrial Plants; Coil Type Cooling Units With or Without Motor Operated Blowers for Cooling Liquids and Gases; Steam and Hot Water Radiators Particularly in the Form of Coil Sections Used for Industrial Cooling; Industrial Coil Type Steam and Hot Water Heaters With Motor Operated Blowers To Be Installed in the Space To Be Heated; and Industrial Sheet Metal Outlet Branches and Bends for the Above Apparatus.

First use in 1928.

SN 30,253. Industrial Heat Engineering Company, Greenville, S. C. Filed May 17, 1957.



For Industrial Heating Apparatus, Fabric Drying and Singeing Apparatus, Gas and Oil Burners.

First use Mar. 1, 1952.

SN 32,045. The Bastian-Blessing Company, Chicago, Ill. Filed June 17, 1957.

VAPORMATIC

For Food Serving Tables and Parts Thereof.

First use May 1, 1957.

SN 32,204. National Welding Equipment Company, San Francisco, Calif. Filed June 18, 1957.

National of ...california

The words "Of California" are disclaimed apart from the mark as shown, without prejudice to applicant's rights under common law, State law and laws of foreign countries. Owner of Reg. Nos. 219,752 and 591,167.

For Gas Welding and Cutting Outfits; Gas Welding Torches; Gas Cutting Torches; Gas Blast Heating Torches; Gas Welding Nozzles; Gas Cutting Tips, Nozzles, and Attachments; Water Cooled Nozzles for Welding Purposes; Gas Blowpipes; Gas Blowpipe Tips; Gas Blowtorches; Circle Gas-Cutting Attachments for Cutting Along a Circular Path; Roller Gas-Cutting Attachments; Scarfing Tips; Gas Crossfire Burners for Glassblowing; Ribbon Gas Burners; Cylinder Gas, Pipe Line, Station Outlet and Cylinder Manifold Regulators for All Cylinder Gases; Cylinder Manifolds; and Parts Therefor.

First use Nov. 12, 1953.

SN 34,679. Eureka Williams Corporation, Bloomington, Ill. Filed July 31, 1957.

AIR-MATIC

Owner of Reg. Nos. 331,365 and 559,234.

For Air Conditioning Apparatus—Namely, Cooling Units, Evaporators, and Compressor-Condenser Units.

First use in March 1956.

SN 35,279. National Propane Corporation, New Hyde Park, L. I., N. Y. Filed Aug. 9, 1957.



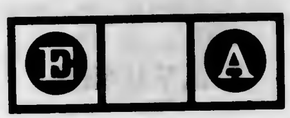
The words "Glass-Lined" are disclaimed apart from the mark as shown.

For Water Heaters.

First use Nov. 14, 1956.

Class 36—Musical Instruments and Supplies

SN 29,889. Beverly Merrill, d. b. a. Experiences Anonymes, New York, N. Y. Filed May 13, 1957.



For Phonographic Records, Grooved.

First use September 1956.

Class 37—Paper and Stationery

SN 694,854. Chicago Show Printing Company, d. b. a. Mystik Ahesive Products, Chicago, Ill. Filed Sept. 19, 1955.

Chek-Tab

For Partially Printed Self-Adhesive Labels.

First use on or about July 15, 1935.

SN 11,110. Sel-Index Manufacturing Corp., Burbank, Calif. Filed June 27, 1956.

SEL-TRAVEX

For Tabs for File Folders.

First use Jan. 1, 1956.

SN 22,559. Menasha Wooden Ware Corporation, Menasha, Wis. Filed Jan. 14, 1957.



Owner of Reg. No. 379,905.

For Corrugated Fiberboard for Use in the Manufacture of Boxes, Cartons, and Parts Thereof.

First use Dec. 27, 1956.

SN 24,778. International Paper Company, New York, N. Y. Filed Feb. 20, 1957.

TRANSPORT

For Paper Shopping Bags.

First use Feb. 8, 1957.

SN 27,190. Frank P. Davis, d. b. a. Nulog Products, Annandale, Va. Filed Mar. 29, 1957.

NULOG

For Log Books.

First use Mar. 8, 1957.

SN 32,937. Fabrique Suisse de Crayons Caran d'Ache S. A., Geneva, Switzerland. Filed July 1, 1957.

NEOCOLOR

Owner of Swiss Reg. No. 142,311, dated May 12, 1952.

For Pencils and Wax Chalks.

SN 34,240. L. Hardtmuth & Co., Inc., Bloomsbury, N. J. Filed July 23, 1957.

KOH-I-BALL

Owner of Reg. No. 405,204.

For Ball Point Pencils.

First use Nov. 10, 1955.

SN 35,190. Groveton Papers Company, Groveton, N. H. Filed Aug. 8, 1957.



For Bond Paper, Mimeograph Paper and Offset and Spirit Duplicator Papers.
First use in September 1956.

Class 38 — Prints and Publications

SN 27,590. Fairchild Publications, Inc., New York, N. Y. Filed Apr. 5, 1957. Sec. 2(f).

HOME FURNISHINGS DAILY

For Newspaper.
First use Apr. 1, 1957; and Sept. 19, 1931, as to "Home Furnishings."

SN 27,652. World Neighbors, Inc., Washington, D. C. Filed Apr. 5, 1957.

World Neighbors



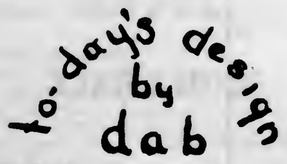
The lining has no color significance.
For Periodical Issued From Time to Time at Varying Intervals.
First use Oct. 1, 1953.

SN 33,089. Motor West Publishing Co., Inc., Orange, Calif. Filed July 2, 1957.

MOTOR WEST

For Periodical Publication—Namely, a Trade Journal.
First use 1907.

SN 35,957. Today's Design, Inc., Burlington, Vt. Filed Aug. 21, 1957.



For Greeting Cards.
First use July 2, 1957.

SN 36,546. The University of Miami, Coral Gables, Fla. Filed Aug. 30, 1957.



For Educational Publications—Namely, Books, Periodicals, Leaflets, Bulletins, Manuals, Motion Pictures, Student Magazines, and Pamphlets.
First use Sept. 1, 1926.

SN 36,690. James L. Careskey, Dallas, Tex. Filed Sept. 5, 1957.

REAL-X-AIR-CISES

Owner of Reg. No. 424,334.
For Magazine for the Teaching of Mental-Physical Culture Without Drugs or Mechanical Appliances.
First use Aug. 7, 1957.

SN 39,848. The Upjohn Company, Kalamazoo, Mich. Filed Oct. 30, 1957.

OVERFLOW

For Periodical Magazine.
First use in or about December 1909.

SN 40,017. John Baumgarth Co., Melrose Park, Ill. Field Nov. 4, 1957.

PLAYMATES

For Calendars.
First use about 1956.
Subj. to Intf. with SN 40,119.

SN 40,068. The McNaught Syndicate, Inc., New York, N. Y. Filed Nov. 4, 1957.

BONNIE

For Newspaper Comic Feature.
First use Apr. 30, 1956.

SN 40,119. HMH Publishing Co., Inc., Chicago, Ill. Filed Nov. 5, 1957.

PLAYMATE

For Calendars.
First use Nov. 1, 1953.
Subj. to Intf. with SN 40,017.

Class 39 — Clothing

SN 663,331. Thorer & Company, Offenbach am Main, Germany. Filed Mar. 9, 1954.



Owner of German Reg. No. 626,219, dated Sept. 11, 1952; and U. S. Reg. No. 645,561.
For Furs in the Form of Garments of Wear—Namely, Fur Pieces and Fur Coats.

SN 7,762. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed May 7, 1956. Sec. 2(f).

LINK CUFF

For Shirt Cuffs Sold Only as Parts of Outer Shirts.
First use August 1954; at least as early as January 1916 as to "Link."

SN 20,181. Gann Hosiery Mills Company, Durham, N. C. Filed Nov. 30, 1956.

FRONTLINE

For Hosiery for Men, Women, and Children.
First use 1946.

SN 20,762. Manchester Hosiery Mills, Manchester, N. H. Filed Dec. 10, 1956.



Owner of Reg. No. 609,935.
For Hosiery.
First use Sept. 6, 1955.

SN 26,413. Utica Duxbak Corporation, Utica, N. Y. Filed Mar. 18, 1957.

Dri Deal

For Waterproof Clothing—Namely, Men's Jackets, Parkas, Hoods, Caps, Pants, and Waders.
First use Feb. 1, 1957.

SN 26,662. Maria Wighardt, nee Weber, d. b. a. Hermann Wighardt Textilwerk Fulda, Fulda, Germany. Filed Mar. 21, 1957.

Fulwiline

Owner of German Reg. No. 646,374, dated Oct. 21, 1953.
For Coats, Jackets, Sports Jackets, Rainwear, Parkas, Blouses for Men, Women, and Children.

SN 26,949. Le Roy Knitted Sportswear, Inc., Los Angeles, Calif. Filed Mar. 26, 1957.

Wunda-Silk

"Silk" is disclaimed apart from the mark as shown. Owner of Reg. No. 614,496.
For Lady's Knitted Sweater.
First use Mar. 1, 1957.

SN 27,475. Wear-A-Blanket, Inc., Cleveland, Ohio. Filed Apr. 3, 1957. Sec. 2(f)

WEAR-A-BLANKET

Owner of Reg. No. 585,341.
For Outer Sleeping Garment for Children in the Nature of Pajamas.
First use about Sept. 15, 1950.

SN 27,629. J. Schoeneman, Incorporated, Baltimore, Md. Filed Apr. 5, 1957.

GOLDEN HOUSE

For Suits, Coats, Vests, and Trousers for Men.
First use Mar. 20, 1957.

SN 27,752. Teenform Foundations, Inc., New York, N. Y. Filed Apr. 8, 1957.

"BRA-O-MINE"

For Brassieres.
First use Mar. 1, 1957.

SN 28,171. Mavest, Inc., New York, N. Y. Filed Apr. 15, 1957.

CAMARA

"Camara" is a Spanish word meaning "congress."
For Men's Sport Coats and Outercoats.
First use Mar. 18, 1951.

SN 28,895. Trencher of Old New York, Inc., New York, N. Y. Filed Apr. 25, 1957.

TRENCHER

For Fur Garments—Namely, Coats, Jackets, Capes, Stoles, Muffs, Collars, Cuffs, and Neck Pieces.
First use on or about Jan. 15, 1927.

SN 29,535. Industrial Gloves Company, Danville, Ill. Filed May 7, 1957. Sec. 2(f).

WOVEN-GARD

Owner of Reg. No. 555,752.
For Hand Guards, Pads, and Spats; Arm Guards; Sleeves; Ankle Guards and Spats; and Mittens Including Open End, Closed End, and Reversible Types.
First use Mar. 24, 1949.

SN 29,725. International Shoe Company, St. Louis, Mo. Filed May 9, 1957.

Perf-O-Stat

For Footwear in the Nature of Boots and Shoes.
First use Mar. 19, 1957.

SN 31,381. Burma-Bibas, Inc., New York, N. Y. Filed June 5, 1957.

BURMA-BIBAS

For Neckties.
First use Oct. 19, 1955; December 1927 as to "Bibas"; September 1939 as to "Burma."

SN 32,609. Marubeni-Iida Co. (New York), Inc., New York, N. Y., now by change of name Marubeni-Iida (America), Inc. Filed June 25, 1957.

EASI-FORM

For Tennis Shoes and Brassieres.
First use June 17, 1957.

SN 32,629. Puritan Shoe Mfg. Co., Los Angeles, Calif. Filed June 25, 1957.

BALLITO

For Shoes of Leather, Cloth, Plastic, Rubber and Combinations Thereof.
First use May 22, 1957.

SN 33,043. Berkshire Knitting Mills, Reading, Pa. Filed July 2, 1957.

Nylace 'Top-n-Toe'

Owner of Reg. No. 381,699.
For Hosiery.
First use May 8, 1957.

SN 33,536. Cordé de Parie Corset Company, Inc., New York, N. Y. Filed July 11, 1957.

Cordé de Parie

For Corsets, Brassieres, and Corselets.
First use December 1950.

SN 33,840. Shapiro Bros. Shoe Co. Inc., Auburn, Maine. Filed July 16, 1957.

SARITA

For Women's Shoes.
First use Sept. 15, 1956.

SN 34,047. Feldsott Bros. & Hecht, Inc., New York, N. Y. Filed July 19, 1957.



The words "Artistry in Furs" are disclaimed apart from the mark as shown.
For Capelets, Stoles, Capes, Jackets, and Coats Made of Fur.
First use May 1950.

SN 34,486. The Country Cupboard, Inc., New Canaan, Conn. Filed July 17, 1957.

COUNTRY CUPBOARD

For Ladies' Wearing Apparel and Accessories—Namely, Hats, Hoods, and Bandeaux, Gloves and Mittens, Scarfs and Stoles, Handkerchiefs, Belts, Aprons, Hula Skirts, Ties, Hosiery, Shoes, Suspenders, and Cummerbunds.
First use February 1950.

SN 35,006. Saks & Company, New York, N. Y. Filed Aug. 5, 1957.

INVERGARRY

For Women's and Misses' Sweaters and Skirts.
First use July 29, 1957.

SN 35,035. H. Childs & Co., Inc., Pittsburgh, Pa. Filed Aug. 6, 1957.

Cool TIMERS

For Shoes for Men, Women, and Children Constructed of Leather, Fabric, Rubber, Straw, Nylon, or Combinations Thereof.
First use May 1, 1954.

SN 35,047. Helen of Troy, Inc., New York, N. Y. Filed Aug. 6, 1957.

HUG-A-BRA

For Ladies' and Misses' Chemise Slips.
First use June 28, 1957.

SN 35,397. Supowitz Brothers, Pittsburgh, Pa. Filed Aug. 12, 1957.

Pedicross

Owner of Reg. No. 402,706.
For Women's Hosiery.
First use June 1, 1955.

SN 35,637. A. L. Duckwall Stores Company, Pueblo, Colo. Filed Aug. 16, 1957.

Aldus

For Ladies' Hosiery.
First use May 15, 1957.

SN 35,685. Clarence M. Salzer, Cincinnati, Ohio. Filed Aug. 16, 1957.

parkway

For Hosiery for Men, Women, and Children.
First use Dec. 5, 1929.

SN 35,763. Feldman Brothers, Inc., New York, N. Y. Filed Aug. 19, 1957.

THE STREAMLINER

Owner of Reg. No. 626,612.
For Men's Work Socks.
First use Dec. 15, 1952.

SN 35,952. Scott & Williams, Incorporated, Laconia, N. H. Filed Aug. 21, 1957.

AMSL

For Hosiery.
First use July 11, 1957.

SN 36,116. Supowitz Brothers, Pittsburgh, Pa. Filed Aug. 23, 1957.

TREASURE ISLAND

Owner of Reg. No. 330,753.
For Children's Hosiery.
First use Feb. 1, 1957.

SN 36,197. Knipe Bros., Incorporated, Ward Hill, Mass. Filed Aug. 26, 1957.

FEATHER-FLEX

For Men's Shoes.
First use May 23, 1957.

SN 36,223. Phelps Shoe Company, Ltd., Shreveport, La. Filed Aug. 26, 1957.

Delgado

For Ladies' Shoes and Slippers.
First use Nov. 14, 1949.

SN 36,224. Pioneer Industries, Inc., Darby, Pa. Filed Aug. 26, 1957.

ACTIONAIRE

For Belts.
First use Feb. 11, 1955.

SN 36,225. Plymouth Hosiery Mills, Inc., High Point, N. C. Filed Aug. 26, 1957.

ANCESTOR

For Hosiery.
First use June 27, 1934.

SN 36,465. Nu-Way Shoe Company, Inc., New York, N. Y. Filed Aug. 29, 1957.

WALK-O-PEDIC

For Women's, Children's, and Men's Shoes, Oxfords, Pumps, Made of Rubber, Leather, Fabric, Plastics, and Combinations Thereof.
First use August 1926.

SN 36,907. A. I. Meyer Corporation, Boston, Mass. Filed Sept. 9, 1957.

STEWART DOUGLAS

For Men's Sport Coats.
First use May 1, 1957.

SN 36,950. Bifex Foundations, Inc., New York, N. Y. Filed Sept. 10, 1957.

ENGAGE

For Girdles, Brassieres, Corsets, Corselettes, Garter Belts.
First use Sept. 3, 1957.

SN 37,583. Merit Clothing Company, Mayfield, Ky. Filed Sept. 20, 1957.

PENDENNIS

For Men's Suits.
First use Aug. 30, 1957.

SN 37,637. Dazian's, Inc., New York, N. Y. Filed Sept. 23, 1957.

DAISYTOES

For Leotards.
First use July 1, 1957.

SN 37,638. Dazian's, Inc., New York, N. Y. Filed Sept. 23, 1957.

DAISYETTES

For Leotards.
First use July 1, 1957.

SN 37,639. Dazian's, Inc., New York, N. Y. Filed Sept. 23, 1957.

DAISYSKINS

For Leotards.
First use July 1, 1957.

SN 37,640. Dazian's, Inc., New York, N. Y. Filed Sept. 23, 1957.

DAISYTARDS

For Leotards.
First use July 1, 1957.

SN 37,641. Dazian's, Inc., New York, N. Y. Filed Sept. 23, 1957.

DAISYTIGHTS

For Leotards.
First use July 1, 1957.

SN 37,642. Dazian's, Inc., New York, N. Y. Filed Sept. 23, 1957.

DAISYKINS

For Leotards.
First use July 1, 1957.

SN 37,673. Peter Pan Foundations, Inc., New York, N. Y. Filed Sept. 23, 1957.

GOLDEN TREASURE

Owner of Reg. No. 527,906.
For Girdles, Corsets, and Brassieres.
First use Sept. 2, 1957.

SN 37,674. Peter Pan Foundations, Inc., New York, N. Y. Filed Sept. 23, 1957.

HIDDEN ASSET

Owner of Reg. No. 527,906.
For Girdles, Corsets, and Brassieres.
First use Sept. 2, 1957.

SN 37,701. Wembley, Inc., New Orleans, La. Filed Sept. 23, 1957.

WEMBLEY, JR.

Owner of Reg. Nos. 291,959, 645,782, and others.
For Neckties.
First use Aug. 27, 1957.

SN 37,727. Julius Garfinckel & Co., Incorporated, New York, N. Y. Filed Sept. 24, 1957.

WEYBRIDGE

For Collars.
First use at least as early as 1938.

SN 37,733. Hat Corporation of America, Norwalk, Conn. Filed Sept. 24, 1957.

PAVILION

For Hats for Men.
First use Aug. 8, 1957.

SN 38,057. Levin & Co. Inc., New York, N. Y. Filed Sept. 30, 1957.



For Aprons, Hooverettes—Namely, Coat Style Dresses Open in the Front and Tied in the Back for Kitchen and Household Purposes, Housedresses, Smocks, and Daytime Dresses.
First use July 15, 1936.

SN 38,109. White Stag Mfg. Co., Portland, Oreg. Filed Sept. 30, 1957.

SUD'N'WEAR

Owner of Reg. No. 632,322.
For Men's and Women's Outer Wear—Namely, Jackets, Reversible Jackets, Shirts, Slacks, Shorts, Pedal Pushers, Coats, Vests, Trousers, Coveralls, Pants, Caps, Scarfs; and Women's Skirts.
First use Aug. 22, 1957.

Class 40—Fancy Goods, Furnishings, and Notions

SN 33,157. The James Company of Hickory, N. C., Inc., Hickory, N. C. Filed July 3, 1957.

FULLINE

For Shoe Strings.
First use May 15, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 21,655. Weil & Schoenfeld Fabrics, Inc., New York, N. Y. Filed Dec. 26, 1956.

WASHOMATIC

For Fabric Made of Rayon or Other Synthetic Fibers or of Cotton Fiber Combined With Synthetic Fibers.
First use about November 1951.
Subj. to Intf. with Reg. No. 652,123.

SN 26,162. Crompton Company, New York, N. Y. Filed Mar. 14, 1957.

FRESHERIZED

For Fabric Finish With Which Applicant Has Treated Its Piece Goods.
First use Feb. 4, 1957.

SN 26,542. D. B. Fuller & Co., Inc., New York, N. Y. Filed Mar. 20, 1957.

SONNET

For Drapery Fabrics.
First use Nov. 2, 1956.

SN 27,298. The General Tire & Rubber Company, Akron, Ohio. Filed Apr. 1, 1957.

PINTO

Owner of Reg. No. 271,823.
For Supported Vinyl Sheet Material for Use in the Luggage and Shoe Trade.
First use Aug. 11, 1891.

SN 27,299. The General Tire & Rubber Company, Akron, Ohio. Filed Apr. 1, 1957.

DURATEX

Owner of Reg. Nos. 111,800 and 225,276.
For Plastic-Coated Fabric Sheet Material, fo Use as Seat Covers, Interior Trim, Upholstery, Compartment Linings, Convertible Topping, Tarpaulins, and the Like.
First use about Feb. 26, 1916.

SN 31,890. Ansonia Mills Incorporated, East Taunton, Mass. Filed June 13, 1957.

FABULASTIC

For Elasticized Fabrics.
First use May 31, 1957.

SN 32,458. Charles Bloom, Inc., New York, N. Y. Filed June 24, 1957.

DOMINO

For Curtains, Household Ensembles Consisting of Draperies and Bedspreads, and Textile Fabrics for Making Into These Goods.
First use Feb. 14, 1957.

SN 33,039. S. Augstein & Co. Inc., College Point, N. Y. Filed July 2, 1957.

LOOM 88

For Knitted Fabrics To Be Used for Women's Dresses, Suits, and Sportswear and Children's Wear.
First use on or about June 3, 1957.

SN 33,173. Clarence A. Ross, New York, N. Y. Filed July 3, 1957. Sec. 2(f).

NEVASAG

Owner of Reg. No. 577,474.
For Knitted Fabrics for Jerseys, Dresses, and the Like.
First use Apr. 1, 1952.

SN 33,759. S. p. A. Lanificl Riuniti Bona e Delleani-Carignano (Torino), Carignano, Turin, Italy. Filed July 15, 1957.



Priority claimed under Sec. 44(d) on Italian application filed Feb. 23, 1957; Reg. No. 134,342, dated Jan. 20, 1958.
For Elastic Fabrics, More Particularly Fabrics for Skiers' Trousers.

SN 34,025. West Point Manufacturing Company, West Point, Ga. Filed July 18, 1957.



For Non-Woven and Woven Fabrics of Natural and Synthetic Fibers, and Combinations Thereof, Said Woven Fabrics Exemplified by Drill, Twill, Duck, Sateen, Headlining, Crash, Huck, Terry Cloth, Tufted, Denim, Lawn, Satin, and the Like.
First use Feb. 23, 1955.

SN 35,396. E. F. Timme & Son, Inc., New York, N. Y. Filed Aug. 12, 1957.

TIMMINKA

Owner of Reg. No. 502,235.
For Pile Fabrics Made of Synthetic Pile and Cotton Back.
First use June 24, 1957.

SN 37,331. Ferdinand W. Mostertz & Sons, Inc., Philadelphia, Pa. Filed Sept. 16, 1957.

Mos-Tex

For Pile and Flat Fabrics for Upholstered Furniture and Other Uses.
First use Aug. 1, 1936.

SN 37,371. Quality Looms, Inc., New York, N. Y. Filed Sept. 17, 1957.

BAGPIPER

For Woven Cotton Poplin.
First use June 18, 1957.

SN 37,408. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Sept. 18, 1957.

LISBON

For Fine Textured Carpets.
First use Aug. 1, 1957.

SN 37,409. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Sept. 18, 1957.

APOLLO

For Fine Textured Carpets.
First use Aug. 1, 1957.

SN 37,410. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Sept. 18, 1957.

DATELINE

For Fine Textured Carpets.
First use Aug. 1, 1957.

SN 37,412. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Sept. 18, 1957.

VALLEJO

For Fine Textured Carpets.
First use Aug. 1, 1957.

SN 37,508. Lockport Felt Company, Inc., Newfane, N. Y. Filed Sept. 19, 1957.

DURA-LOFT

For Papermakers' Felt.
First use Aug. 13, 1957.

SN 37,746. Rhea Manufacturing Company, Milwaukee, Wis. Filed Sept. 24, 1957.

BALLERINA

For Slip-On Covers for Pillows and the Like.
First use in May 1957.

SN 37,839. Wyner Fabrics, Ltd., New York, N. Y. Filed Sept. 25, 1957.

COM-PLEAT

For Precut Jersey Fabric Lengths for Skirts.
First use June 20, 1957.

SN 38,024. Dan River Mills, Incorporated, Danville, Va. Filed Sept. 30, 1957.

DAN ROYAL

For Corduroy Fabric.
First use Aug. 20, 1957.

Class 43—Thread and Yarn

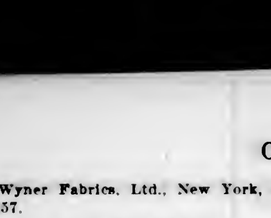
SN 36,597. Loblaw, Inc., Buffalo, N. Y. Filed Sept. 3, 1957.

FAMILY FAIR

For Thread.
First use June 27, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 34,007. Plastibells, Rochester, N. Y. Filed July 18, 1957.



For Surgical Devices in the Nature of Apparatus for Performing Circumcisions.
First use Apr. 21, 1955.

Class 45—Soft Drinks and Carbonated Waters

SN 34,721. The Miller-Becker Co., d. b. a. Cotton Club Bottling Co., Cleveland, Ohio. Filed July 31, 1957.

50 50

The drawing is lined for the colors red and green. Owner of Reg. No. 519,230.
For Soft Drinks.
First use Apr. 4, 1953.

SN 39,060. The Grapette Company, Incorporated, Camden, Ark. Filed Oct. 17, 1957.

Mr.

Root Beer

The words "Root Beer" are disclaimed apart from the mark as shown.
For Root Beer Concentrate.
First use Sept. 6, 1957.

Class 46—Foods and Ingredients of Foods

SN 641,563. Minnesota Paints, Inc., Minneapolis, Minn. Filed Jan. 30, 1953. Sec. 2(f).

Minnesota

Owner of Reg. Nos. 73,573 and 73,574.
For Linseed Meal for Stock Feed.
First use at least about 1932.

SN 18,401. Anderson, Clayton & Co., Dallas, Tex. Filed Oct. 30, 1956.

JUBILEE

For Vegetable Shortening, Salad Oil, and Oleomargarine.
First use Oct. 2, 1956.

SN 25,243. Elnor Provision Co., Inc., Cleveland, Ohio. Filed Feb. 28, 1957.

Flav-a-Redi

For Frozen Chopped Beef Patties.
First use Jan. 15, 1956.

SN 27,452. Louis Milani Foods, Inc., Los Angeles, Calif. Filed Apr. 3, 1957.

HINDERAZLE

For Cheese Sauce.
First use Feb. 11, 1951.

SN 30,101. Louis Milani Foods, Inc., Los Angeles, Calif. Filed May 15, 1957. Sec. 2(f).

BRAZE

Owner of Reg. No. 547,363.
For Sauce Containing Beef Extract for Use in Basting Meats and Preparing Gravy.
First use Mar. 2, 1950.

SN 34,849. Franco-Italian Packing Company, Terminal Island, Calif. Filed Aug. 2, 1957.



The words "Sea Boy" are on the chest of the representation of the boy. Owner of Reg. No. 237,918.
For Canned Sardine Fillets in Barbecue Sauce.
First use Oct. 15, 1956; Feb. 1, 1928 as to "Sea Boy."

SN 36,651. Fine Products Corporation, Augusta, Ga. Filed Sept. 4, 1957.

MONTREAT

For Candy.
First use in 1924.

SN 37,162. Hercules Powder Company, Wilmington, Del. Filed Sept. 13, 1957.

Prozate

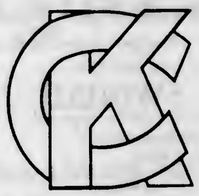
For Hydrolysed Vegetable Protein Food Seasoning.
First use May 27, 1955.

SN 37,556. Budget Saver Markets, Berkeley, Calif. Filed Sept. 20, 1957.



For Frozen Meat Loaf.
First use May 1957.

SN 38,449. Ronald Funk, d. b. a. Funk Produce Company, Aberdeen, Idaho. Filed Oct. 7, 1957.



For Fresh Potatoes.
First use in October 1947.

SN 38,743. Farmers Chemical Company, Kalamazoo, Mich. Filed Oct. 11, 1957.

Vegetone

For Food Coloring Preparation.
First use June 14, 1957.

SN 38,779. Venice Maid Co., Inc., Vineland, N. J. Filed Oct. 11, 1957.

JERSEY SOUPER

For Canned Soups.
First use Aug. 1, 1957.

SN 39,146. Leaf Brands, Inc., Chicago, Ill. Filed Oct. 18, 1957.

SPUTNIK

For Chewing Gum.
First use Oct. 11, 1957.

SN 39,427. Sunkist Growers, Inc., Los Angeles, Calif. Filed Oct. 23, 1957.

PERMA-STABIL

For Solid Flavoring.
First use Sept. 16, 1957.

SN 39,810. Jennings Food Products Company, Geneva, N. Y. Filed Oct. 30, 1957.

salad mate

For Dressing for Salads.
First use Sept. 6, 1957.

SN 39,972. Markesan Canning Company, Markesan, Wis. Filed Nov. 1, 1957.



Owner of Reg. No. 350,656.
For Canned Vegetables.
First use 1906.

SN 40,435. Raymond A. Costa, d. b. a. Ray Costa Distributing Co., Yuba City, Calif. Filed Nov. 12, 1957.

DESERT-AIRE

For Fresh Vegetables—Namely, Lettuce and Melons.
First use on about Sept. 5, 1946, on lettuce.

Class 47—Wines

SN 695,195. Viña San José-Tocornal, Santiago, Chile. Filed Sept. 22, 1955.



The drawing is lined for gold. All wording on the drawing except "Ismael Tocornal" and "Viña San José" is disclaimed apart from the mark. Owner of U. S. Reg. Nos. 575,914, 578,454, and 603,383.
For Riesling Wine.

Class 49—Distilled Alcoholic Liquors

SN 5,037. The Governor and Company of Adventurers of England Trading Into Hudson's Bay, d. b. a. Hudson's Bay Company, Winnipeg, Manitoba, Canada. Filed Dec. 11, 1956.



HUDSON'S BAY

The drawing is lined for red. Owner of U. S. Reg. Nos. 310,276, 376,025, and others.
For Whisky and Brandy.
First use October 1946; in commerce October 1946.

Class 50—Merchandise Not Otherwise Classified

SN 21,064. W. Goebel Porzellanfabrik, Oeslau near Coburg, Bavaria, Germany. Filed Dec. 14, 1956.

HUMMELKINDER

Owner of German Reg. No. 690,970, dated May 23, 1956; and U. S. Reg. Nos. 615,433 and 615,434.
For Ceramic Figurines.

SN 27,423. D. and H. Corporation, La Grange, N. C. Filed Apr. 3, 1957.

NIGHT HAWK

For Insect Traps of the Lamp and Fan Type for the Catching of Night Flying Insects.
First use May 1, 1956.

SN 35,500. Denver Wood Products Company, Denver, Colo. Filed Aug. 14, 1957.

DENWOOD

For Pallets and Sign Boards.
First use Jan. 15, 1957.

SN 37,963. George O. Jenkins Company, Bridgewater, Mass. Filed Sept. 27, 1957.

PLASTAN

For Fibreboard in Sheet Form for Use in Making Shoe Components Such as Heels, Midsoles, and Counters.
First use Sept. 9, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 4,005. Dodge & Olcott, Inc., New York, N. Y. Filed Mar. 7, 1956.

MASKODOR

For Essential Oils and Aromatic Oils Used in the Manufacture of Perfumes.
First use Feb. 27, 1956.

SN 34,948. Richard Hudnut, Morris Plains, N. J. Filed Aug. 5, 1957.

FIGURAMA

For Skin Cream.
First use July 12, 1957.
Subj. to Intf. with SN 43,081.

Class 52—Detergents and Soaps

SN 24,696. Incentive Sales Inc., New York, N. Y. Filed Feb. 19, 1957.

BYET

For Detergent and Cleanser in Tablet Form, for Cleaning and Polishing Windows, Mirrors, Porcelain, and Tile.
First use Jan. 30, 1957.

SN 33,649. Snyder Chemical Company, Akron, Ohio. Filed July 12, 1957.

SWOOSH

For Degreasing Composition.
First use in August 1955.

SN 36,904. Eleanor Mast, d. b. a. Imperial Toiletries Company, New York, N. Y. Filed Sept. 9, 1957.

PRO-X

For Toilet Soap.
First use Feb. 25, 1953.

SERVICE MARKS

Class 100—Miscellaneous

SN 24,448. National Retail Dry Goods Association, New York, N. Y., now by change of name National Retail Merchants Association Inc. Filed Feb. 14, 1957.



For Consumer Market Research in the Field of Retailing or Allied Areas in Order To Improve the Welfare and Efficiency of Retail Management, and To Disseminate and Distribute Such Information to Its Members.
First use Jan. 1, 1956.

SN 28,788. Jerrico, Incorporated, Lexington, Ky. Filed Apr. 24, 1957.



For Restaurant Services.
First use Apr. 19, 1951.

SN 43,081. Figurama Sales & Mfg. Inc., New York, N. Y. Filed Dec. 27, 1957.

Figurama

For Slenderizing, Spot Reducing and Massage Services.
First use Sept. 4, 1956.
Subj. to Intf. with SN 34,948.

Class 102—Insurance and Financial

SN 25,109. Auctioneering, Detroit, Mich. Filed Feb. 26, 1957.

AUCTIONEERING

For Soliciting of Manufacturing Contracts for Others, and Bringing Together Manufacturers of Tools, Dies, Gages, and Fixtures With Such Others as Purchasers of Said Tools, Dies, Gages, and Fixtures.
First use Feb. 1, 1956.

SN 27,420. College Club Program, Inc., Brookline, Mass. Filed Apr. 3, 1957.



For Savings Account Services.
First use on or about June 8, 1956.

Class 104—Communication

SN 18,000. Faircast System, Hamilton, Mass. Filed Oct. 23, 1956.

FAIRCAST

For Sound Transmitting and Sound Recording Services Rendered Through Mobile Equipment, Motion Picture Sound Projection Equipment, and Through Radio and Closed Television Circuits.

Class 105—Transportation and Storage

SN 39,625. Illinois-California Express, Inc., Denver, Colo. Filed Oct. 28, 1957.

ICX

For Transportation of Cargo and Freight by Motor Vehicle.
First use January 1948.

SN 39,626. Illinois-California Express, Inc., Denver, Colo. Filed Oct. 28, 1957.



For Transportation of Cargo and Freight by Motor Vehicle.
First use January 1948.

SN 39,730. Illinois-California Express, Inc., Denver, Colo. Filed Oct. 29, 1957.



For Transportation of Cargo and Freight by Motor Vehicle. First use May 1952.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 32,433. Chicago Truck Drivers, Chauffeurs, and Helpers Union of Chicago and Vicinity, Local 705 (Independent), Chicago, Ill. Filed May 20, 1957.



Owner of Reg. No. 621,919.
For Indicating Membership Therein.
First use in February 1908.

SN 40,531. Ring Guild of America, Inc., New York, N. Y. Filed Oct. 24, 1957.



For Indicating Membership in Applicant.
First use on or about June 2, 1957.

Class 107 — Education and Entertainment

SN 24,597. King Broadcasting Company, Seattle, Wash. Filed Feb. 18, 1957.

DETECT-A-TOWN

For Title of a Television Quiz Program in Which Home Viewers Attempt To Identify Cities on the Basis of Aerial Photographs and Pertinent Commentary.
First use Dec. 26, 1956.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

661,202. REX ELK HORN. Floyd County Coal Company, Incorporated. SN 683,193. Pub. 2–18–58. Filed 3–10–55.

661,203. CIP. Essex Wire Corporation. SN 17,347. Pub. 2–18–58. Filed 10–12–56.

661,204. THERMALOFT. Camden Fibre Mills, Inc. SN 22,417. Pub. 2–18–58. Filed 1–11–57.

661,205. BOB WHITE. Godfrey L. Cabot, Inc. SN 28,104. Pub. 2–18–58. Filed 4–15–57.

661,206. FASHION GRAIN. Karg Brothers, Inc. SN 30,128. Pub. 2–18–58. Filed 5–1–57.

661,207. DENSFOAM. Essex Wire Corporation. SN 30,152. Pub. 2–18–58. Filed 5–16–57.

661,208. DANCO. The Danielson Manufacturing Company. SN 32,473. Pub. 2–18–58. Filed 6–24–57.

661,209. LUCCIA. Armour and Company. SN 32,874. Pub. 2–18–58. Filed 7–1–57.

661,210. MELHER. Armour and Company. SN 32,875. Pub. 2–18–58. Filed 7–1–57.

661,211. BUCKSHOT. Armour and Company. SN 32,877. Pub. 2–18–58. Filed 7–1–57.

661,212. ARMORITA. Armour and Company. SN 32,878. Pub. 2–18–58. Filed 7–1–57.

661,213. LONGEVITY. Armour and Company. SN 32,879. Pub. 2–18–58. Filed 7–1–57.

661,214. MILAN. Armour and Company. SN 32,880. Pub. 2–18–58. Filed 7–1–57.

661,215. QUILL. Armour and Company. SN 32,882. Pub. 2–18–58. Filed 7–1–57.

661,216. GEISHA. Armour and Company. SN 32,883. Pub. 2–18–58. Filed 7–1–57.

661,217. SCUFFETTE. Armour and Company. SN 32,884. Pub. 2–18–58. Filed 7–1–57.

661,218. WILLOWIST. Armour and Company. SN 33,197. Pub. 2–18–58. Filed 7–1–57.

661,219. CHAR-BASE AND DESIGN. Style Stone, Inc. SN 34,185. Pub. 2–18–58. Filed 7–22–57.

Class 2 — Receptacles

661,220. TOUCH-N-FLO. Richford Corporation. SN 23,827. Pub. 2–18–58. Filed 2–5–57.

661,221. STO-AIDS. Tedlee Plastics, Inc. SN 25,903. Pub. 2–18–58. Filed 3–11–57.

661,222. E JARDINIER RED-EE TO USE FLORAL VASES. Dale E. Fonner. SN 28,442. Pub. 1–7–58. Filed 4–18–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

661,223. LITTLE PRINCESS. Pyramid Leather Goods Co., Inc. SN 33,517. Pub. 2–18–58. Filed 7–5–57.

Class 4 — Abrasives and Polishing Materials

661,224. GE-HALIN. Rene Saporta, d. b. a. Ge-Halin Products. SN 25,505. Pub. 2–18–58. Filed 3–5–57.

Class 5 — Adhesives

661,225. DESIGN OF A BEAR'S HEAD. Norton Company. SN 27,047. Pub. 2–11–58. Filed 3–27–57.

661,226. ULTRAGRIP. S & F Chemical Co., Inc. SN 31,689. Pub. 2–18–58. Filed 6–10–57.

Class 6 — Chemicals and Chemical Compositions

661,227. BUG BLAST. Cenol Company, Inc. SN 685,168. Pub. 2–18–58. Filed 4–8–55.

661,228. NET-LIFE. Techkote Company Incorporated. SN 4,401. Pub. 2–18–58. Filed 3–12–56.

661,229. FIRE DEFY-ER. Albert I. Rappaport, d. b. a. Fire Box Industries, to Fire Box Industries Inc. SN 8,438. Pub. 1–28–58. Filed 5–16–56.

661,230. NEPTUNE, ETC. AND DESIGN. John Rork. SN 9,400. Pub. 2–18–58. Filed 5–31–56.

661,231. ACCO. American Cyanamid Company. SN 10,744. Pub. 2–18–58. Filed 11–20–57.

661,232. BLACK HAWK AND DESIGN. Quinn Drug and Chemical Company. SN 12,746. Pub. 2–18–58. Filed 7–24–56.

661,233. CPA 1800 AND DESIGN. Diamond Alkali Company. SN 14,442. Pub. 2–18–58. Filed 8–23–56.

661,234. LATON. Laton, Inc. SN 23,064. Pub. 2–18–58. Filed 1–23–57.

661,235. HOSTAPLAST. Hoechst Chemical Corporation. SN 24,966. Pub. 2–18–58. Filed 2–25–57.

661,236. HOSTACET. Hoechst Chemical Corporation. SN 24,967. Pub. 2–18–58. Filed 2–25–57.

661,237. HOSTACID. Hoechst Chemical Corporation. SN 24,968. Pub. 2–18–58. Filed 2–25–57.

661,238. HOSTASOL. Hoechst Chemical Corporation. SN 24,972. Pub. 2–18–58. Filed 2–25–57.

661,239. HOSTATEX. Hoechst Chemical Corporation. SN 24,974. Pub. 2–18–58. Filed 2–25–57.

661,240. HOSTATONE. Hoechst Chemical Corporation. SN 24,975. Pub. 2–18–58. Filed 2–25–57.

661,241. HOSTAGEN. Hoechst Chemical Corporation. SN 24,976. Pub. 2–18–58. Filed 2–25–57.

661,242. HOSTAVAT. Hoechst Chemical Corporation. SN 24,977. Pub. 2–18–58. Filed 2–25–57.

661,243. FRANSIL. Fransol, Societe Anonyme. SN 26,083. Pub. 2–18–58. Filed 3–13–57.

661,244. CALOSIL. Fransol, Societe Anonyme. SN 26,084. Pub. 2–18–58. Filed 3–13–57.

661,245. PETRO-TEX AND DESIGN. Petro-Tex Chemical Corporation. SN 26,723. Pub. 2–18–58. Filed 3–22–57.

661,246. THERMAFLOW. Atlas Powder Company. SN 27,168. Pub. 2–18–58. Filed 3–29–57.

661,247. ATLAC. Atlas Powder Company. SN 27,413. Pub. 2–18–58. Filed 4–3–57.

661,248. ATLAC THERMAFLOW. Atlas Powder Company. SN 27,414. Pub. 2–18–58. Filed 4–3–57.

661,249. PARI SPRAY. Robert W. Gabler, d. b. a. The House of Gabler. SN 27,430. Pub. 2–18–58. Filed 4–3–57.

661,250. THIONEB. United States Rubber Company. SN 27,645. Pub. 2–18–58. Filed 4–5–57.

661,251. FP. Ozark-Mahoning Company. SN 29,298. Pub. 2–18–58. Filed 5–2–57.

661,252. MANUTEX. Alginate Industries Limited. SN 31,063. Pub. 2–18–58. Filed 5–31–57.

661,253. CAROLID. The Tanatex Chemical Corporation. SN 31,705. Pub. 2–18–58. Filed 6–10–57.

661,254. DIAMOND BLACK LEAF AND DESIGN. Diamond Black Leaf Company, to Diamond Alkali Company. SN 31,908. Pub. 2–18–58. Filed 6–13–57.

661,255. FUMASOL. American Chemical Paint Company. SN 32,227. Pub. 2–18–58. Filed 6–19–57.

661,256. R & R 551. Ross & Rowe, Inc. SN 32,339. Pub. 2–18–58. Filed 6–20–57.

661,257. NUOPLAZ. Heyden Newport Chemical Corporation. SN 33,710. Pub. 2–18–58. Filed 7–15–57.

661,258. PHALTAN. California Spray-Chemical Corporation. SN 33,861. Pub. 2–18–58. Filed 7–17–57.

661,259. DIARON. Reichhold Chemicals, Inc. SN 33,909. Pub. 2–18–58. Filed 7–17–57.

661,260. LEMOFLEX. The Borden Company. SN 34,114. Pub. 2–18–58. Filed 7–22–57.

661,261. JUS-RITE. Potter-McCune Company. SN 34,553. Pub. 2–18–58. Filed 7–29–57.

661,262. TYRIL. The Dow Chemical Company. SN 38,031. Pub. 2–18–58. Filed 9–30–57.

Class 7 — Cordage

661,263. DANCO. The Danielson Manufacturing Company. SN 32,474. Pub. 2–18–58. Filed 6–24–57.

Class 8 — Smokers' Articles, Not Including Tobacco Products

661,264. CROYDEN. Rogers Imports Inc. SN 31,865. Pub. 2–18–58. Filed 6–12–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

661,265. PACKAGED POWER. Olin Mathieson Chemical Corporation. SN 23,080. Pub. 2–18–58. Filed 1–23–57.

Class 10 — Fertilizers

661,266. GARDEN JOY. Bryan Chemical Company. SN 22,506. Pub. 2–18–58. Filed 1–14–57.

Class 12 — Construction Materials

661,267. RAMODE AND DESIGN. Ramode, Inc. SN 26,489. Pub. 2–18–58. Filed 3–19–57.

661,268. MALCO. Malco, Inc. SN 26,715. Pub. 2–18–58. Filed 3–22–57.

661,269. CORNER-LOK. AA Wire Products Company. SN 27,255. Pub. 2–18–58. Filed 4–1–57.

661,270. KEY. ACF Industries, Incorporated. SN 27,259. Pub. 2–18–58. Filed 4–1–57.

661,271. FLAKE-BOND. Carolina Forest Products, Inc. SN 29,135. Pub. 2–18–58. Filed 4–30–57.

661,272. BITULASTEEL. Bitulac, Limited. SN 34,769. Pub. 2–18–58. Filed 8–1–57.

661,273. CHROMOCEL TROPIGLAS. Russell Reinforced Plastics Corporation. SN 35,004. Pub. 2–18–58. Filed 8–5–57.

661,274. WIRETITE. National Gypsum Company. SN 35,874. Pub. 2–18–58. Filed 8–20–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

661,275. GOTTA-GO. Hanover Associates, Inc. SN 27,308. Pub. 2–18–58. Filed 4–1–57.

661,276. HANDI-HOOK. Van Brode Sales Co., Inc. SN 27,826. Pub. 2–18–58. Filed 4–9–57.

661,277. HUB EYE. Hubbard & Company. SN 30,907. Pub. 2–18–58. Filed 5–28–57.

661,278. S AND DESIGN. The Independent Nail & Packing Company, Inc. SN 30,908. Pub. 2–18–58. Filed 5–28–57.

661,279. TORQ-SET AND DESIGN. American Screw Company. SN 33,670. Pub. 2–18–58. Filed 7–15–57.

Class 14 — Metals and Metal Castings and Forgings

661,280. BAUER "THE TYPES OF TODAY AND TOMORROW." Bauer Alphabets Inc. SN 30,470. Pub. 2–18–58. Filed 5–22–57.

Class 15 — Oils and Greases

661,281. H. Hamilton Watch Company. SN 22,615. Pub. 2–18–58. Filed 1–15–57.

661,282. POCOTEMP. The Pure Oil Company. SN 28,378. Pub. 2–18–58. Filed 4–17–57.

661,283. BLUE BAY. The Plowman Company. SN 30,442. Pub. 2–18–58. Filed 5–21–57.

661,284. CEN-PE-CO DIESEL-KLENZ. Curtis Manufacturing Company. SN 32,236. Pub. 2–18–58. Filed 6–19–57.

661,285. BRILLOL. Continental Oil Company. SN 33,129. Pub. 2–18–58. Filed 7–3–57.

Class 16 — Protective and Decorative Coatings

661,286. DUTCH KRAFT ETC. AND DESIGN. Grand Rapids Paint and Enamel Company. SN 6,251. Pub. 2–18–58. Filed 4–12–56.

661,287. V AND DESIGN. R. T. Vanderbilt Company, Inc. SN 29,322. Pub. 2–18–58. Filed 5–2–57.

661,288. LAMCO PREVENT-O-SLIP. Lamco Chemical Co., Inc. SN 38,617. Pub. 2–18–58. Filed 10–9–57.

661,289. DUX BAC. F. E. Schundler & Co. Inc. SN 38,638. Pub. 2–18–58. Filed 10–9–57.

661,290. RADON. Maintenance, Inc. SN 38,660. Pub. 2–18–58. Filed 9–26–57.

Class 18 — Medicines and Pharmaceutical Preparations

661,291. DR. D. B. HAND'S ETC. AND DESIGN. Hand Medicine Company. SN 2,877. Pub. 2–18–58. Filed 2–17–56.

661,292. WALLEX. Carter Products, Inc. SN 8,744. Pub. 2–18–58. Filed 5–22–56.

661,293. SYMBICIN. American Cyanamid Company. SN 19,084. Pub. 2–18–58. Filed 10–23–57.

661,294. METHACET. Isaac D. Kinley, d. b. a. Kinley Laboratories. SN 21,555. Pub. 2–18–58. Filed 12–24–56.

661,295. PATHOLON. American Cyanamid Company. SN 28,743. Pub. 2–18–58. Filed 4–24–57.

661,296. FRIGOPLASMA. Walter Birnstiel. SN 29,783. Pub. 2–18–58. Filed 5–10–57.

661,297. CANARY PILLS. Alonso Ancira, d. b. a. Romero Drug Company. SN 31,449. Pub. 2–18–58. Filed 6–6–57.

661,298. DURAFOAM. Durex Products, Inc. SN 31,645. Pub. 2-18-58. Filed 6-10-57.

661,299. LINODOXINA. Chas. Pfizer & Co., Inc. SN 32,116. Pub. 2-18-58. Filed 6-17-57.

661,300. KOROMEX A. Holland-Rantos Company, Inc. SN 32,755. Pub. 2-18-58. Filed 6-27-57.

661,301. PREPAR. Bernhoft Laboratories, Inc., d. b. a. Bernhoft Laboratories. SN 33,044. Pub. 2-18-58. Filed 7-2-57.

661,302. LINODOXINE. Chas. Pfizer & Co., Inc. SN 33,371. Pub. 2-18-58. Filed 7-8-57.

661,303. PROZANCHOL. G. D. Searle & Co. SN 33,575. Pub. 2-18-58. Filed 7-11-57.

661,304. ACTHAR-PRO. Armour and Company. SN 33,938. Pub. 2-18-58. Filed 7-18-57.

661,305. MILPATH. Carter Products, Inc. SN 34,771. Pub. 2-18-58. Filed 8-1-57.

661,306. PROCALMADINE. Carter Products, Inc. SN 35,085. Pub. 2-18-58. Filed 8-7-57.

661,307. WHAM AND DESIGN. Lester Y. Heller. SN 35,194. Pub. 2-18-58. Filed 8-8-57.

661,308. APINOL. The Apinol Corporation. SN 36,558. Pub. 2-18-58. Filed 9-3-57.

Class 19—Vehicles

661,309. DESIGN OF EIGHT POINTED STAR. Ford Motor Company. SN 17,900. Pub. 2-18-58. Filed 10-22-56.

661,310. AUTOPAK. Cory Corporation. SN 18,497. Pub. 2-18-58. Filed 10-31-56.

661,311. DESIGN OF 3 DIMENSIONAL THREE POINTED STAR IN A RING. Daimler-Benz Aktiengesellschaft. SN 23,897. Pub. 2-18-58. Filed 2-6-57.

661,312. RANCH WAGON. Ford Motor Company. SN 24,151. Pub. 2-18-58. Filed 2-11-57.

661,313. ROUGH-N-IT. John C. Weaver, d. b. a. Rough-N-It Products Co. SN 28,215. Pub. 2-18-58. Filed 4-15-57.

661,314. TRUNKARRIER. A. J. Industries Corporation. SN 28,565. Pub. 2-18-58. Filed 4-22-57.

661,315. GLASS MAGIC AND DESIGN. Marine Plastics, Inc. SN 31,673. Pub. 2-18-58. Filed 6-10-57.

661,316. SANIVAN. Sicard Industries Inc. SN 31,700. Pub. 2-18-58. Filed 6-10-57.

661,317. FLEETFORM. Fleetform Corporation. SN 31,756. Pub. 2-18-58. Filed 6-11-57.

661,318. HARTMAN. Hartman Trailer Manufacturing Company. SN 31,765. Pub. 2-18-58. Filed 6-11-57.

661,319. GO-BI-BI. The Frank F. Taylor Company. SN 32,024. Pub. 2-18-58. Filed 6-14-57.

661,320. PROMENADER. The Frank F. Taylor Company. SN 32,025. Pub. 2-18-58. Filed 6-14-57.

661,321. MIDAS. Midas, Inc. SN 32,199. Pub. 2-18-58. Filed 6-18-57.

661,322. IMPALA. General Motors Corporation. SN 32,751. Pub. 2-18-58. Filed 6-27-57.

661,323. BISCAYNE. General Motors Corporation. SN 32,752. Pub. 2-18-58. Filed 6-27-57.

661,324. BROOKWOOD. General Motors Corporation. SN 32,753. Pub. 2-18-58. Filed 6-27-57.

Class 21—Electrical Apparatus, Machines, and Supplies

661,325. PESCO B-W BORG-WARNER AND DESIGN. Borg-Warner Corporation. SN 21,864. Pub. 2-18-58. Filed 12-31-56.

661,326. DYNAPULSE. Machlett Laboratories, Incorporated. SN 27,214. Pub. 2-18-58. Filed 3-29-57.

661,327. SIGALERT. Packard Bell Electronics Corporation. SN 30,187. Pub. 2-18-58. Filed 5-16-57.

661,328. CHADICK AND DESIGN. Charles L. Dick. SN 30,753. Pub. 2-18-58. Filed 5-27-57.

661,329. DANCING LITE. Signalite Incorporated. SN 33,288. Pub. 2-18-58. Filed 7-5-57.

661,330. SNUG-A-BED. Candace, Inc. SN 33,532. Pub. 2-18-58. Filed 7-11-57.

661,331. VOICE GUN. Wm. A. Holmin Corporation. SN 33,554. Pub. 2-18-58. Filed 7-11-57.

Class 22—Games, Toys, and Sporting Goods

661,332. LITTLE BURP. Mattel, Incorporated. SN 12,442. Pub. 2-18-58. Filed 7-19-56.

661,333. TOM MIX JR. AND DESIGN. Mount Vernon Manufacturing Corp. SN 27,041. Pub. 2-18-58. Filed 3-27-57.

661,334. SNAP-A-TOY. David Damast. SN 30,068. Pub. 2-18-58. Filed 5-15-57.

661,335. CORKY PIG. Hull Pottery Co. SN 31,737. Pub. 2-18-58. Filed 6-10-57.

661,336. TOTSY-TEENA. Totsy Manufacturing Co., Inc. SN 32,639. Pub. 2-18-58. Filed 6-25-57.

661,337. ROPERCISE. William M. Van der Veer, d. b. a. Billy Van. SN 33,656. Pub. 2-18-58. Filed 7-12-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

661,338. CARDWRITER AND DESIGN. Addressograph-Multigraph Corporation. SN 19,560. Pub. 2-18-58. Filed 11-20-56.

661,339. POWDER ACTUATED TOOLS AND DESIGN. Powder Actuated Tools, Inc. SN 26,866. Pub. 12-17-57. Filed 3-25-57.

661,340. SUPERTEC. Seaboard Equipment Company, Inc. SN 30,367. Pub. 2-18-58. Filed 5-20-57.

661,341. ACRO-FEED. Acro-Feed Industries, Inc. SN 30,706. Pub. 2-18-58. Filed 5-27-57.

661,342. DURIUM. The Rawlplug Company Limited. SN 30,833. Pub. 2-18-58. Filed 5-27-57.

661,343. SAFE-TORQUE. Scully-Jones and Company. SN 35,008. Pub. 2-18-58. Filed 8-5-57.

661,344. CELLOFLOT. Leje & Thurne Aktiebolag. SN 35,105. Pub. 2-18-58. Filed 8-7-57.

661,345. MONTGOMERY. Montgomery Elevator Company. SN 35,112. Pub. 2-18-58. Filed 8-7-57.

661,346. METEOR. American Chain & Cable Company, Inc. SN 35,151. Pub. 2-18-58. Filed 8-8-57.

661,347. FLEXOPRESS. Precision Flexopress Corporation. SN 35,204. Pub. 2-18-58. Filed 8-8-57.

661,348. AIRTUBE. Lamson Corporation. SN 38,469. Pub. 2-18-58. Filed 10-7-57.

661,349. BOOKVEYOR. Lamson Corporation. SN 38,471. Pub. 2-18-58. Filed 10-7-57.

661,350. MIRACLE MAGNET. Dale K. Chowning, d. b. a. Miracle Magnet Company. SN 38,529. Pub. 2-18-58. Filed 10-8-57.

661,351. PANORAMA. The International Silver Company. SN 38,615. Pub. 2-18-58. Filed 10-9-57.

661,352. CHI-CO. Chi-Co, Inc. SN 38,671. Pub. 2-18-58. Filed 10-10-57.

661,353. HIALEAH. The International Silver Company. SN 38,754. Pub. 2-18-58. Filed 10-11-57.

661,354. POWER MASTER. Oxwall Tool Co., Ltd. SN 38,845. Pub. 2-18-58. Filed 10-14-57.

661,355. VERTI-SLIDE. The Torrington Manufacturing Company. SN 38,875. Pub. 2-18-58. Filed 10-14-57.

661,356. FEEDCISION AND DESIGN. Modern Devices. SN 38,936. Pub. 2-18-58. Filed 10-15-57.

661,357. WHALE. Munster, Simms & Company Limited. SN 38,938. Pub. 2-18-58. Filed 10-15-57.

Class 24 — Laundry Appliances and Machines

661,358. FULLINE. The James Company of Hickory, N. C., Inc. SN 33,159. Pub. 2–18–58. Filed 7–3–57.

Class 26 — Measuring and Scientific Appliances

661,359. RECHARGE-A-MATIC. Hauman Instruments Company, Inc. SN 16,121. Pub. 2–18–58. Filed 9–21–56.

661,360. APO-RONAR. Optische Werke G. Rodenstock. SN 16,465. Pub. 2–18–58. Filed 9–23–57.

661,361. ROTELAR. Optische Werke G. Rodenstock. SN 16,467. Pub. 2–18–58. Filed 9–23–57.

661,362. EURYGON. Optische Werke G. Rodenstock. SN 16,468. Pub. 2–18–58. Filed 9–23–57.

661,363. SOLORAMIC. The Wayne Pump Company. SN 23,527. Pub. 2–18–58. Filed 1–30–57.

661,364. W AND DESIGN. Waters Manufacturing, Inc. SN 24,014. Pub. 2–18–58. Filed 2–7–57.

661,365. ENSCO. Engineering Specialty Company. SN 24,766. Pub. 2–18–58. Filed 2–20–57.

661,366. OPTO MECHANISMS. OPTOmechanisms, Inc. SN 25,722. Pub. 2–18–58. Filed 3–7–57.

661,367. SPRAY-RATER. Monsanto Chemical Company. SN 27,038. Pub. 2–18–58. Filed 3–27–57.

661,368. ELGIN. Elgin Softener Corporation. SN 27,095. Pub. 2–18–58. Filed 3–28–57.

661,369. GARD. Sargent-Rayment Co. SN 27,895. Pub. 2–18–58. Filed 4–10–57.

661,370. RINCO. Francis J. Rinderer, d. b. a. Rinco Instrument Company. SN 30,268. Pub. 2–18–58. Filed 5–17–57.

Class 27 — Horological Instruments

661,371. ZILA. Fabrique de Montres Zila S. A. SN 26,076. Pub. 2–18–58. Filed 3–13–57.

661,372. TUDOR. Montres Tudor S. A. (Tudor Watch Co. Ltd.). SN 28,262. Pub. 11–12–57. Filed 4–16–57.

Class 28 — Jewelry and Precious-Metal Ware

661,373. DIAMOND STAR. The Stieff Company. SN 29,837. Pub. 2–18–58. Filed 5–10–57.

Class 29 — Brooms, Brushes, and Dusters

661,374. TOPS IN MOPS AND DESIGN. Cotton Specialty Co., Inc. SN 12,709. Pub. 2–18–58. Filed 7–24–56.

661,375. RAYO. Otis Company. SN 24,620. Pub. 2–18–58. Filed 2–18–57.

661,376. DABS. Whitestone Products Co. Inc. SN 29,679. Pub. 2–18–58. Filed 5–8–57.

Class 30 — Crockery, Earthenware, and Porcelain

661,377. CHALFONTE ETC. AND DESIGN. Chalfonte Products Corporation. SN 23,125. Pub. 2–18–58. Filed 1–24–57.

661,378. ROYAL PALATINE AND DESIGN. Krister Porzellan-Manufaktur Aktiengesellschaft. SN 35,177. Pub. 2–18–58. Filed 8–8–57.

Class 32 — Furniture and Upholstery

661,379. MAGIC "V" SEATING. Diamond Bros. Company. SN 8,836. Pub. 2–18–58. Filed 5–23–56.

661,380. TRI-COP-R. The Toledo Plate & Window Glass Company. SN 28,559. Pub. 2–18–58. Filed 4–19–57.

661,381. CASA DEL SOL. Drexel Furniture Company. SN 36,287. Pub. 2–18–58. Filed 8–27–57.

661,382. SYMMETRY. Drexel Furniture Company. SN 38,530. Pub. 2–18–58. Filed 10–8–57.

Class 33 — Glassware

661,383. DURAN. Jenaer Glaswerk Schott & Gen. SN 17,366. Pub. 2–18–58. Filed 10–12–56.

661,384. GOLD BAND. Wheaton Glass Company. SN 35,145. Pub. 2–18–58. Filed 8–7–57.

Class 34 — Heating, Lighting, and Ventilating Apparatus

661,385. ORTHOFLOW. The M. W. Kellogg Company. SN 12,890. Pub. 2–18–58. Filed 7–26–56.

661,386. KOOK-CENTER. Western-Holly Appliance Company. SN 13,108. Pub. 2–18–58. Filed 7–30–56.

661,387. EXITAIRE. The Exitaire Company. SN 25,089. Pub. 2–18–58. Filed 2–26–57.

Class 36 — Musical Instruments and Supplies

661,388. KIMBO AND DESIGN. Robert G. Kimble, d. b. a. Kimbo Records. SN 22,847. Pub. 2–18–58. Filed 1–18–57.

Class 37 — Paper and Stationery

661,389. EJECTO. L. & C. Hardtmuth, Inc. SN 32,387. Pub. 2–18–58. Filed 6–21–57.

Class 38 — Prints and Publications

661,390. BEER DISTRIBUTOR. Beer Distributor Publishing Corp. SN 17,543. Pub. 2–18–58. Filed 10–16–56.

661,391. PLAYBOY'S PLAYMATE OF THE MONTH. HMH Publishing Co., Inc. SN 20,267. Pub. 2–18–58. Filed 12–3–56.

661,392. DINER DRIVE-IN. Davidson Publishing Company. SN 20,825. Pub. 2–18–58. Filed 12–11–56.

661,393. FILMSCOPE. The Upjohn Company. SN 28,079. Pub. 2–18–58. Filed 4–12–57.

661,394. READER FEEDBACK. McGraw-Hill Publishing Company, Inc. SN 30,179. Pub. 2–18–58. Filed 5–16–57.

661,395. THE POWER OF FAITH. The Associated Press. SN 35,563. Pub. 2–18–58. Filed 8–15–57.

661,396. WIDE WORLD. George Newnes, Limited. SN 35,674. Pub. 2–18–58. Filed 8–16–57.

661,397. PLASTICS HI-LITES. Hercules Powder Company. SN 35,772. Pub. 2–18–58. Filed 8–19–57.

Class 39 — Clothing

661,398. SAINT-LAURIE. Chester Laurie Ltd. SN 11,014. Pub. 2–18–58. Filed 6–26–56.

661,399. JULIUS GROSSMAN. Julius Grossman, Inc. SN 23,232. Pub. 2–18–58. Filed 1–25–57.

661,400. BECKY SHARP. Vanity Fair Mills, Inc. SN 24,886. Pub. 2-18-58. Filed 2-21-57.

661,401. TOPPETTES BY BROD. A. Brod, Inc. SN 25,393. Pub. 2-18-58. Filed 3-4-57.

661,402. SHERI-SUE ORIGINALS AND DESIGN. Onita Specialty Co., Inc. SN 25,451. Pub. 2-18-58. Filed 3-4-57.

661,403. CALI-MERE AND DESIGN. Le Roy Knitted Sportswear, Inc. SN 26,948. Pub. 2-18-58. Filed 3-26-57.

661,404. COUNTRY SET. Margit Sportswear, Incorporated. SN 28,363. Pub. 2-18-58. Filed 4-17-57.

661,405. WENDY WILLOW. Lynn's Fashions, Inc. SN 29,462. Pub. 2-18-58. Filed 5-6-57.

661,406. VICKIE ROBINS AND DESIGN. Jamie Togs, Inc. SN 29,913. Pub. 2-18-58. Filed 5-13-57.

661,407. GENE SHELLY. Gene Shelly. SN 29,962. Pub. 2-18-58. Filed 5-13-57.

661,408. MISS LEONORA GOWN OF THE MONTH. Leonora, Inc. SN 30,796. Pub. 2-18-58. Filed 5-27-57.

661,409. SARA MYA. Meco Knitting Mills, Inc. SN 31,019. Pub. 2-18-58. Filed 5-29-57.

661,410. CAROL BRENT. Montgomery Ward & Co., Incorporated. SN 31,340. Pub. 2-18-58. Filed 6-4-57.

661,411. WOOLANO AND DESIGN. Elias Sayour Co., Inc. SN 31,849. Pub. 2-18-58. Filed 6-10-57.

661,412. COATIME. Suitime, Inc. SN 32,215. Pub. 2-18-58. Filed 6-18-57.

661,413. BIANCHINI. Bianchini, Ferier, Inc. SN 33,118. Pub. 2-18-58. Filed 7-3-57.

661,414. CASTLEROCK. Roos Bros., Inc. SN 33,374. Pub. 2-18-58. Filed 7-8-57.

661,415. IRIDESTE. Lamm Brothers, Inc. SN 33,422. Pub. 2-18-58. Filed 7-9-57.

661,416. "CAMERA CLASSICS." Standard Garments, Inc. SN 33,508. Pub. 2-18-58. Filed 7-10-57.

661,417. PACKARD. Howard & Foster Co., Inc. SN 38,885. Pub. 2-18-58. Filed 9-23-57.

Class 40—Fancy Goods, Furnishings, and Notions

661,418. TIME SAVER. Consolidated Trimming Corporation. SN 10,584. Pub. 2-18-58. Filed 6-20-56.

661,419. ELEGANT LADY. Standard Pyroxoloid Corporation. SN 30,960. Pub. 2-18-58. Filed 5-28-57.

661,420. ELEGANT MISS. Standard Pyroxoloid Corporation. SN 30,961. Pub. 2-18-58. Filed 5-28-57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

661,421. AURORA. D. B. Fuller & Co., Inc. SN 700,858. Pub. 5-22-56. Filed 12-30-55.

661,422. AURORA. The Columbia Mills, Inc. SN 12,013. Pub. 4-23-57. Filed 7-12-56.

661,423. SILKROME STRIPES. Flamingo Fabrics Corp. SN 25,531. Pub. 2-18-58. Filed 3-5-57.

661,424. MIMIX. E. Albrecht & Son Company, d. b. a. Albrecht Furs. SN 31,536. Pub. 2-18-58. Filed 6-7-57.

661,425. REEDSTWEEDS. Robert G. Reed Co., Inc. SN 32,852. Pub. 2-18-58. Filed 6-28-57.

Class 43—Thread and Yarn

661,426. BEARLON. Bear Brand Hosiery Co. SN 11,053. Pub. 11-5-57. Filed 6-27-56.

661,427. PARKWAY. Standard Thread Co., Inc. SN 32,859. Pub. 2-18-58. Filed 6-28-57.

Class 44—Dental, Medical, and Surgical Appliances

661,428. VISO-SCOPE. Sanborn Company. SN 20,858. Pub. 2-18-58. Filed 12-11-56.

661,429. HANGER AND DESIGN. J. E. Hanger, Inc. SN 30,332. Pub. 2-18-58. Filed 5-20-57.

661,430. GUARDIAN. Youngs Rubber Corporation. SN 30,703. Pub. 2-18-58. Filed 5-24-57.

Class 45—Soft Drinks and Carbonated Waters

661,431. SKI AND DESIGN. Seminole Flavor Company. SN 14,413. Pub. 2-18-58. Filed 8-22-56.

Class 46—Foods and Ingredients of Foods

661,432. CHEF'S FANCY AND DESIGN. Associated Packers, Inc. SN 11,462. Pub. 12-31-57. Filed 7-3-56.

661,433. PORTRAIT OF CHINESE GIRL AND DESIGN. The Great Western Sugar Company. SN 19,451. Pub. 2-18-58. Filed 11-19-56.

661,434. IXL. IXL Food Company. SN 25,861. Pub. 2-18-58. Filed 3-11-57.

661,435. TARGET. Thai Tapioca Limited. SN 26,304. Pub. 12-3-57. Filed 3-15-57.

661,436. HARVEST MOON. Kraft Foods Company, now by merger National Dairy Products Corporation. SN 27,322. Pub. 2-18-58. Filed 4-1-57.

661,437. TROPIC SEA. Berelson, Inc. SN 27,770. Pub. 2-18-58. Filed 4-9-57.

661,438. MARKET BASKET. Bush Bros. & Company, Inc. SN 28,102. Pub. 2-18-58. Filed 4-15-57.

661,439. OREGANELLA. Tolibia Cheese Manufacturing Corporation. SN 29,764. Pub. 2-18-58. Filed 5-9-57.

661,440. CHALET SUZANNE. Chalet Suzanne Foods, Inc. SN 31,821. Pub. 2-18-58. Filed 6-12-57.

661,441. SOUTHERN SUN. H. P. Hood & Sons, Inc., d. b. a. H. P. Hood & Sons. SN 31,984. Pub. 2-18-58. Filed 6-14-57.

661,442. RICARDO. Falcon Packing Company Inc. SN 32,671. Pub. 2-18-58. Filed 6-26-57.

661,443. 3 BROTHERS. Pandol & Sons. SN 32,979. Pub. 2-18-58. Filed 7-1-57.

661,444. DOH-FRI. B. Schwartz & Co. SN 35,007. Pub. 2-18-58. Filed 8-5-57.

661,445. CRACKER-MATE. Cracker-Mate Cheese Company. SN 35,332. Pub. 2-18-58. Filed 8-12-57.

661,446. HAWTHORNE. Safeway Stores, Incorporated. SN 35,684. Pub. 2-18-58. Filed 8-16-57.

661,447. GIOIA. Gioia Macaroni Company, Inc. SN 37,830. Pub. 2-18-58. Filed 9-4-57.

661,448. BERK'S. J. Berk, Inc. SN 38,884. Pub. 2-18-58. Filed 6-20-57.

Class 49—Distilled Alcoholic Liquors

661,449. DUNFIFE. H. Stone & Co. Ltd. SN 31,877. Pub. 2-18-58. Filed 6-12-57.

Class 50—Merchandise Not Otherwise Classified

661,450. UNIFLEX. Leatherflex Products, Inc. SN 32,828. Pub. 2-18-58. Filed 6-28-57.

661,451. "PROTECT-O-POUR." Schenley Industries, Inc. SN 33,300. Pub. 2–18–58. Filed 8–9–57.

Class 51 — Cosmetics and Toilet Preparations

661,452. JOHN ROBERT POWERS. John Robert Powers Products Co. Inc. SN 14,197. Pub. 2–18–58. Filed 8–20–56.

661,453. PROFILE. Profile Company, Inc. SN 21,571. Pub. 2–18–58. Filed 12–24–56.

661,454. JARDIN BLANC. Main R. Bocher. SN 21,861. Pub. 2–18–58. Filed 12–31–56.

661,455. LANOLIN BEAUTY. Charles Antell, Inc. SN 22,154. Pub. 2–18–58. Filed 1–7–57.

661,456. OLD WESTERN. Para Laboratories. SN 23,170. Pub. 2–18–58. Filed 1–24–57.

661,457. DESERT DRI. Shulton, Inc. SN 25,569. Pub. 2–18–58. Filed 3–5–57.

661,458. CYL-DENT. Day-Baldwin, Inc. SN 29,142. Pub. 2–18–58. Filed 6–20–57.

661,459. R-WAVE. The Realistic Company, d. b. a. Reavis Sales Company. SN 29,387. Pub. 2–18–58. Filed 5–3–57.

661,460. CHECKER. Ray E. Schubert, d. b. a. Checker Co. SN 33,375. Pub. 2–18–58. Filed 7–8–57.

661,461. POPSICLE. Joe Lowe Corporation. SN 33,884. Pub. 2–18–58. Filed 7–17–57.

661,462. LADY LENNOX. Norman W. Siebras, d. b. a. Lady Lennox Co. SN 34,319. Pub. 2–18–58. Filed 7–24–57.

Class 52 — Detergents and Soaps

661,463. SUPERGLO. Calgon, Incorporated, now by change of name to Hagan Chemicals & Controls, Inc. SN 13,017. Pub. 11–5–57. Filed 7–30–56.

661,464. SAK. Plunkett Chemical Company. SN 21,939. Pub. 2–18–58. Filed 12–31–56.

661,465. NU BOL. Reta L. McInnes, d. b. a. King Manufacturing Company. SN 22,939. Pub. 2–18–58. Filed 1–22–57.

Service Mark

Class 107 — Education and Entertainment

661,466. THE THEATER GUILD ETC. AND DESIGN. The Theatre Guild. SN 29,402. Pub. 2–18–58. Filed 5–3–57.

Collective Membership Mark

Class 200

661,467. AMERICAN ASSOCIATION ETC. American Association of Fund-Raising Counsel, Inc. SN 30,545. Pub. 2–18–58. Filed 5–23–57.

Certification Mark

Class B — Services

661,468. REPRESENTATION OF HUMAN FIGURE AND DESIGN. Orville H. Emmons, d. b. a. Emmons Walker. SN 687,333. Pub. 2–18–58. Filed 5–11–55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 6 — Chemicals and Chemical Compositions

661,469. Roy H. Cochran, d. b. a. Excelsior Laboratory, Atlantic City, N. J. SN 3,826. Filed P. R. 3–5–56. Am. S. R. 1–20–58.

MIL-DU-GAS

For Mildew Proofing and Household Deodorant Compound.
First use Feb. 4, 1955.

661,470. The Dow Chemical Company, Midland, Mich. SN 12,872. Filed 7–26–56.



The drawing is lined for the color red. No claim is made to the word "Latex" apart from the mark as shown.
For Synthetic Latex Based on Styrene for General Industrial Use.
First use Apr. 7, 1955.

Class 12 — Construction Materials

661,471. Masonite Corporation, Chicago, Ill. SN 9,996. Filed P. R. 6–11–56. Am. S. R. 3–5–58.

FARM ★ BOARD

For Fiber Board, Insulating Board, Composite Board, Hardboard, and Synthetic Lumber or Artificial Lumber Used for Various Construction Purposes.
First use May 30, 1956.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

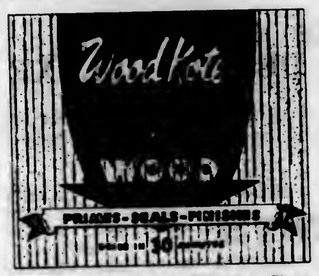
661,472. R. M. Wade & Co., Portland, Oreg. SN 700,066. Filed P. R. 12–15–55. Am. S. R. 2–24–58.

POWER-SHIFT

For Wheeled Attachments for Sprinkler Irrigation Pipes Which Enable Such Pipes To Be Propelled by Auxiliary Power.
First use Mar. 2, 1955.

Class 16 — Protective and Decorative Coatings

661,473. Walter Noel Sommer, d. b. a. Spe-De-Way Products Company, Portland, Oreg. SN 24,819. Filed P. R. 2–21–57. Am. S. R. 3–10–58.



Applicant disclaims the words "Crystal Clear Finish for Wood," "Primes—Seals—Finishes," and "Dries in 30 Minutes," apart from the mark shown.
For Wood Finishing Preparation.
First use Aug. 27, 1956.

Class 18 — Medicines and Pharmaceutical Preparations

661,474. S. O. Barnes & Son, Inc., Gardena, Calif. SN 12,137. Filed P. R. 7–16–56. Am. S. R. 2–20–58.

EXTRI-POTENT

For Dietary Supplement, Remedy, Vitamins, Minerals, Lipotropic Factors, and Amino Acids.
First use on or about June 19, 1956.

Class 26 — Measuring and Scientific Appliances

661,475. Precision Scientific Company, Chicago, Ill. SN 28,797. Filed P. R. 4–24–57. Am. S. R. 2–19–58.



For Apparatus for Use in Scientific and Clinical Laboratories—Namely, Constant Temperature Cabinets, Constant Temperature Baths, and Petroleum Testing Equipment.
First use Jan. 25, 1957.

Class 34 — Heating, Lighting, and Ventilating Apparatus

661,476. Dri-Heat Food System, Inc., Washington, D. C. SN 19,303. Filed P. R. 11–15–56. Am. S. R. 3–13–58.



For Apparatus for Use in Transporting and Serving Hot Foods Including Metal Heat Retaining Pellets, Metal Plate Shells and Covers, Pellet Ovens, Pellet Oven Stands, and Tray Conveyors.
First use Dec. 5, 1950.

661,477. The Ohio Foundry & Manufacturing Company, Steubenville, Ohio. SN 22,948. Filed P. R. 1–22–57. Am. S. R. 3–4–58.

FLAME-BUFFER

For Headers for Wall Furnace Heaters and Room Heaters.
First use Dec. 21, 1956.

661,478. Hasty-Bake Manufacturing Company, Inc., Tulsa, Okla. SN 31,806. Filed 6–10–57.

"IT'S THE HOOD THAT DOES THE GOOD"

For Out-Door Portable Barbecue Ovens.
First use Sept. 1, 1950.

Class 46 — Foods and Ingredients of Foods

661,479. E. Cherry Sons & Co., Inc., d. b. a. Cherrydale Farms, Philadelphia, Pa. SN 662. Filed P. R. 1–13–56. Am. S. R. 1–21–58.

BISCANE BISQUE

For Confection Composed Principally of Candies and Nuts.
First use June 1, 1955.

661,480. Lucky Stores, Inc., San Leandro, Calif. SN 9,995. Filed P. R. 6–11–56. Am. S. R. 2–18–58.



The drawing is lined for the color green, the heavy lining in the lower band indicating dark green; the horizontal lining in the upper band is an integral part of the design.
For Canned Fruits, Canned Vegetables, Canned Berries, Canned Beans With Pork, Canned Fruit Juices, Canned Vegetable Juices, Canned Sauerkraut, Canned Fruit Cocktail, Canned Applesauce, Canned Olives, Canned Fish, Canned Tomato Sauce, Canned Sliced Pimientos, Tomato Catsup, Dried Vegetables, Pearl Barley, Raw Popcorn, Mayonnaise Dressing, Vegetable Shortening, Salt, Peanut Butter, Apple Butter, Jams, Jellies, Marmalades, Fruit and Berry Preserves, Cottage Cheese, Ice Cream, Margarine, Canned Evaporated Milk and Alimentary Paste Products.
First use August 1947; August 1939 as to "Lady Lee."

661,481. Zuckerman Farms Company, Stockton, Calif. SN 25,211. Filed P. R. 2-27-57. Am. S. R. 8-13-57.

Long Green

For Fresh Vegetables.
First use Apr. 3, 1956.

661,482. Arlington Heights Citrus Company, Riverside, Calif. SN 26,754. Filed P. R. 3-25-57. Am. S. R. 2-24-58.

DESERT DELUXE

For Fresh Citrus Fruits.
First use Nov. 2, 1956.

TRADEMARK REGISTRATIONS RENEWED

117,880. FIRST STEP. Cl. 39. 8-7-17.
120,218. PURO. Cl. 13. 1-15-18.
120,626. PRIZE. Cl. 46. 2-19-18.
120,913. BEAU BRUMMEL AND DESIGN. Cl. 39. 3-12-18.
120,927. FEATHER. Cl. 23. 3-12-18.
121,180. GLOBE-WERNICKE. Cl. 32. 4-16-18.
121,754. VALOR. Cl. 39. 5-28-18.
121,944. P. D. CO. Cl. 14. 6-11-18.
121,945. C. Q. AND DESIGN. Cl. 14. 6-11-18.
122,005. DRUID. Cl. 42. 6-18-18.
122,273. GAYLIME AND DESIGN. Cl. 4. 7-16-18.
122,349. S AND DESIGN. Cl. 15. 7-23-18.
122,443. PEEK-A-BOO AND DESIGN. Cl. 46. 8-20-18.
122,508. PIXIE. Cl. 51. 8-20-18.
122,509. SAKURA. Cl. 51. 8-20-18.
350,743. BLUEBIRD AND DESIGN. Cl. 40. 10-5-37.
351,558. YE OLDE TAVERN. Cl. 46. 11-2-37.
352,071. TELAS A. B. C. Cl. 42. 11-16-37.
352,951. HOUSE OF LORDS AND DESIGN. Cl. 46. 12-21-37.
354,117. FIVE HUNDED. Cl. 39. 2-1-38.
354,725. DESIGN OF LINKS. Cl. 35. 2-22-38.
354,865. TRAVELAIR. Cl. 39. 3-1-38.
354,944. SUPERTHERM. Cl. 44. 3-1-38.
354,963. GERMAINE MONTEIL BEAUTY BALM. Cl. 51. 3-1-38.
355,034. ROUX AND DESIGN. Cl. 51. 3-8-38.
355,102. CERADYNE. Cl. 18. 3-8-38.
355,116. PAISLAYS AND DESIGN. Cl. 51. 3-8-38.
355,138. B-PLEX. Cl. 18. 3-8-38.
355,180. DAYLIGHT CREPE. Cl. 39. 3-8-38.
355,181. TWILIGHT CREPE. Cl. 39. 3-8-38.
355,248. SWAGS. Cl. 39. 3-8-38.
355,544. DESIGN OF FOUR MEN AND RECTANGLE. Cl. 39. 3-22-38.
355,548. MANESTY. Cl. 23. 3-22-38.
355,640. BY APPOINTMENT TO THE AMERICAN HOSTESS AND DESIGN. Cl. 46. 3-22-38.
355,726. BROWN-X. Cl. 21. 3-29-38.
355,727. CHROME-X. Cl. 21. 3-29-38.
355,728. IVORY-X. Cl. 21. 3-29-38.
355,778. ALROK. Cl. 14. 3-29-38.
355,863. ERUSTO. Cl. 6. 4-5-38.
355,865. NADUSTCO. Cl. 34. 4-5-38.
355,944. CAMOKA. Cl. 42. 4-5-38.
355,984. NEEDLE-N-THREAD. Cl. 42. 4-5-38.
356,081. LE GOUT SEASONING. Cl. 46. 4-12-38.
356,243. KUTMASTER. Cl. 23. 4-19-38.
356,260. RESORTER. Cl. 39. 4-19-38.
356,416. HOOD'S AF. Cl. 18. 4-26-38.
356,486. DESIGN OF ELECTRICAL SYMBOL. Cl. 21. 4-26-38.
356,563. BRIDGEPORT AND DESIGN. Cl. 26. 5-3-38.
356,668. MAYFAIR GREEN. Cl. 12. 5-10-38.
356,723. PEPSI-COLA. Cl. 2. 5-10-38.
356,751. PARTAGAS. Cl. 17. 5-10-38.
356,926. BRUTIR. Cl. 15. 5-17-38.
356,936. GARDA AND DESIGN. Cl. 46. 5-17-38.
356,937. GALBANI AND DESIGN. Cl. 46. 5-17-38.
356,950. PEERLOY. Cl. 14. 5-17-38.
357,289. P. C. A. Cl. 10. 5-31-38.
357,321. STOPIT. Cl. 16. 5-31-38.
357,329. CABALLERO TWINS. Cl. 39. 5-31-38.
357,455. KURLOX. Cl. 40. 6-7-38.
357,610. PERMAFORM. Cl. 32. 6-7-38.
357,727. NATIONAL COOPERATIVES CO-OP AND DESIGN. Cl. 21. 6-14-38.
357,804. LOUVREX. Cl. 33. 6-14-38.
358,064. QUICKIES. Cl. 51. 6-28-38.
358,088. 10 UP PISTON RINGS AND DESIGN. Cl. 35. 6-28-38.
358,247. DINGHY. Cl. 39. 7-5-38.
358,264. RAYC AND DESIGN. Cl. 37. 7-5-38.
358,321. METAXA AND DESIGN. Cl. 49. 7-5-38.
358,334. FIELDMASTER. Cl. 23. 7-5-38.
358,401. HILL-BILLY AND DESIGN. Cl. 23. 7-12-38.
358,421. X 2B. Cl. 50. 7-12-30.
358,547. COVER-NOTE. Cl. 37. 7-19-38.
358,579. IRIUM. Cl. 6. 7-19-38.
358,603. CHARBERT. Cl. 51. 7-19-38.
358,753. PLATEN. Cl. 37. 7-26-38.
358,804. THE DIARY OF A PLAIN DIRT GARDENER. Cl. 38. 7-26-38.
358,805. IT'S NEWS TO ME! Cl. 38. 7-26-38.
358,806. THE MAN NEXT DOOR. Cl. 38. 7-26-38.
358,819. HARCO VICTORY LANE AND DESIGN. Cl. 39. 7-26-38.
358,923. KENTUCKY ANTHEM. Cl. 49. 7-26-38.
359,071. ELECTRONOME. Cl. 36. 8-2-38.
359,102. BEMBERG. Cl. 43. 8-2-38.
359,139. DESIGN OF SAILBOAT. Cl. 46. 8-9-38.
359,191. DIXIANNA AND DESIGN. Cl. 46. 8-9-38.
359,276. L & K AND DESIGN. Cl. 18. 8-9-38.
359,286. METROGON. Cl. 26. 8-9-38.
359,390. LITTLE GIANT. Cl. 23. 8-16-38.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

322,704. ISO RAPID. Cl. 26. 3-19-35.
603,079. CALAIRE. Cl. 42. 3-8-55.

Section 8

89,017. PRIMA DONNA. Cl. 46. 11-5-12.
195,374. MYLANETTE. Cl. 39. 2-24-25.
278,618. WHITE ROSE LIME AND DESIGN. Cl. 12. 12-23-30.
287,847. CLEARWATER. Cl. 39. 10-13-31.
289,657. SOLLO. Cl. 52. 12-1-31.
290,030. HEPTEEN. Cl. 6. 12-22-31.
381,787. CRAVATEUR. Cl. 39. 10-8-40.
391,808. BOTANY ROBE. Cl. 39. 11-25-41.
544,408. SALVADOR RODRIGUEZ. Cl. 17. 6-26-51.

The following registrations issued Mar. 18, 1952

556,153. TOPPS AND DESIGN. Cl. 46.
556,159. ARAMA. Cl. 6.
556,160. KOOLWEAVE AND DESIGN. Cl. 39.
556,163. FARM MASTER AND DESIGN. Cl. 12.
556,169. BEAUTY IN THE MORNING AND DESIGN. Cl. 51.
556,170. LEDERCILLIN SPERSOIDS. Cl. 18.
556,174. DICKY BOY AND DESIGN. Cl. 46.
556,177. ANAID. Cl. 18.
556,187. EMGE. Cl. 39.
556,188. 3 SECRETS AND DESIGN. Cls. 51, 52.
556,191. KOPPERS AND DESIGN. Cl. 19.
556,193. PASACYLID. Cl. 18.
556,201. TORCH. Cl. 6.
556,202. DUOCOTIN. Cl. 18.
556,210. AMERICAN INDUSTRY SPRINGS AND DESIGN. Cl. 19.
556,213. WEATHER-OR-NOT. Cl. 39.
556,214. BREATHETTES. Cl. 18.
556,221. AQUALAX. Cl. 6.
556,223. QUESTRONE. Cl. 18.
556,226. T-C-M. Cl. 12.
556,229. STRATO-MASTER. Cl. 39.
556,232. CO-HALANT. Cl. 18.
556,243. PACK-HAULER. Cl. 19.
556,250. AT HOME IN THE AIR AND DESIGN. Cl. 19.
556,251. LIFE-SIDE. Cl. 12.
556,252. BASELINE AND LINE DESIGN. Cl. 34.
556,259. TELESTAR. Cl. 36.
556,260. COLAREX. Cl. 18.
556,264. 4 STAR. Cl. 5.
556,265. AQUAIRE. Cl. 34.
556,271. EMOLICIDE. Cl. 18.
556,275. BILAMIDE-CILAG. Cl. 6.
556,276. CILAG AND DESIGN. Cl. 6.
556,277. A PLEDGE PIN FASHION. Cl. 39.
556,283. STEAGEL. Cl. 15.
556,286. GAIACONES. Cl. 18.
556,287. WARGOTAN. Cl. 6.
556,289. PSA PALCO PALCOSULFONIC ACID AND DESIGN. Cl. 6.
556,291. SPS PALCO SODIUM PALCOSULFONATE AND DESIGN. Cl. 6.
556,298. LE JOI. Cl. 44.
556,301. HELLA-GUM. Cl. 6.
556,303. FENAMUN. Cl. 18.
556,304. ETHLOZINE. Cl. 18.
556,310. MERRY MAID AND DESIGN. Cl. 24.
556,311. POWER TWILL. Cl. 39.
556,312. READING AND DESIGN. Cl. 25.
556,314. HAIRBON. Cl. 18.
556,318. PARA CREME AND DESIGN. Cl. 15.
556,320. NATIONAL DISTILLERS CHEMICAL CORP. AND DESIGN. Cl. 6.
556,321. CO-ORD-I-KNITS. Cl. 39.
556,323. HAKO AND DESIGN. Cl. 12.
556,330. MAXODYNE. Cl. 18.
556,334. PRAGMIN. Cl. 18.
556,342. UNITED SURPLUS ASSOCIATES AND DESIGN. Cl. 39.
556,343. KING'S ROW. Cl. 46.
556,346. GRAY BOY. Cl. 19.
556,349. SWEATSTER. Cl. 42.
556,351. VIVACRYL. Cl. 42.
556,352. MYTOLON. Cl. 18.
556,357. TOWN SERIES. Cl. 39.
556,358. GROSGRANA. Cl. 42.
556,359. CHINA SEA AND DESIGN. Cl. 42.
556,363. VINA-PINA. Cl. 18.
556,364. BULU THE ZULU. Cl. 42.
556,366. WONDERLON. Cl. 42.
556,369. SILCUNA. Cl. 42.
556,375. DAN-SARI. Cl. 42.
556,377. ATRALOSE. Cl. 18.
556,380. CERTACOUSTIC. Cl. 12.
556,381. EAGLE NYLORD. Cl. 39.
556,383. KILOWATTCHER. Cl. 21.
556,384. BANASIL ON RED BACKGROUND. Cl. 18.
556,386. BERKOLEUM. Cl. 12.
556,392. NULLIFIRE. Cl. 6.
556,396. ANGUS AND DESIGN. Cl. 39.
556,397. BETTY LOU. Cl. 3.
556,411. ZAMBA. Cl. 34.
556,415. TRILBY. Cl. 22.
556,422. DENTAPHONE. Cl. 101.
556,423. TREASURE ISLAND. Cl. 101.
556,427. SOO DOMINION. Cl. 105.
556,430. GROOVIE'S BOOGIE. Cl. 101.
556,433. BELGIAN LINEN ETC. AND DESIGN. Cl. 42.
556,437. SUPER SPRAY. Cl. 6.
556,442. SILVAPLATE AND DESIGN. Cl. 4.
556,448. DON JUAN PACHECO. Cl. 46.
556,451. SURE SAFE. Cl. 2.
556,453. TYRE'S PRIDE. Cl. 46.
556,454. CHILDERS. Cl. 12.
556,460. YOUR PALS DRINK PAL. Cl. 45.
556,461. HANDI-ARM AND DESIGN. Cl. 13.
556,462. GRAVURA AND DESIGN. Cl. 37.
556,464. NURLIZED. Cl. 23.
556,466. SPIN-O-SERVER. Cl. 2.
556,468. DUBROCK. Cl. 45.
556,469. FLORIDIAN. Cl. 48.
556,470. FAIRFIELD. Cl. 13.
556,476. FOTOTITLES. Cl. 100.
556,477. SOUTHWEST AIRWAYS. Cl. 105.

Section 18

57,579. BOUQUET. Cl. 46. 11-13-1906.
133,266. KARPENESQUE. Cl. 32. 7-20-20.
371,748. RHAPSODY TWEED. Cl. 42. 10-3-39.
375,991. KARPEN. Cl. 32. 3-12-40.
375,992. KARPEN GUARANTEED FURNITURE. Cl. 32. 3-12-40.
414,941. TEXOMA. Cl. 46. 2-20-1905.
417,221. DANCOLINE. Cl. 39. 10-16-45.
428,616. PRETTY LEGS. Cl. 6. 3-25-47.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

121,927. NOPCO AND DESIGN. Cl. 15. 6–11–18. National Oil Products Co. Nopco Chemical Company, Harrison, N. J. Amended to appear:

NOPCO

173,417. AMERICAN. Cl. 26. 9–25–23. American Steam Gauge & Valve Manufacturing Company. Manning, Maxwell & Moore, Incorporated, New York, N. Y. Amended to appear:

AMERICAN

337,389. MINIBRIX. Cl. 22. 8–4–36. Premo Rubber Company Limited, Petersfield, England. Amended: In the statement, column 1, line 7, "all of India rubber" is deleted.

358,377. RED CREST AND DESIGN. Cl. 46. 7–12–38. Mor-Pak Preserving Corporation, Stockton, Calif. Corrected: In the certificate, line 4, and in line 4 of the statement, "California" should be *Nevada*.

602,531. NEWS AND DESIGN. Cl. 52. 2–22–55. Purex Corporation, Ltd., South Gate, Calif. Amended: In the statement, column 2, line 7, "The drawing is lined to indicate gold and blue." is deleted and *The drawing is lined to indicate red, gold and blue.* is inserted and the drawing is amended to appear:



606,391. CROMPAK. Cl. 35. 5–24–55. Wilkening Manufacturing Company, Philadelphia, Pa. Amended to appear:

Crom - Pak

612,854. DEARBORN. Cl. 6. 9–27–55. Dearborn Chemical Company, Chicago, Ill. Corrected: In the statement, column 2, line 1, "water softening compound" should be deleted and *materials for preventing scale formation, corrosion and foaming of boiler water and for preventing deleterious action of water when used in steam boilers* should be inserted.

643,855. DYRID. Cl. 18. 4–9–57. The Chattanooga Medicine Co., Chattanooga, Tenn. Corrected: In the statement, column 2, line 2, after "of" *upset stomach and* should be inserted.

644,770. BONNIE BABY. Cl. 39. 4–30–57. Arkwright Merchandising Corporation, New York, N. Y. Amended: In the statement, column 2, lines 2 and 3, "diapers" is deleted.

658,448. OASIS. Cl. 17. 2–18–58. Liggett & Myers Tobacco Company, New York, N. Y. Corrected: In the statement, column 1, line 1, "and" should be *&*.

658,510. TOURICAMP. Cl. 32. 2–18–58. International Touri Camp Organisation Reg. Trust, Vaduz, Liechtenstein. Corrected: In the statement, column 1, line 1, "Orangisation" should be *Organisation*.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

33,266. NIP. Cl. 45. H. P. Finlay & Company Limited. 7–25–1899. New Cert. Sec. 7(c), to Arthur Guinness Son & Company Limited, London, England, 5–6–58.

60,735. READ BROTHERS, LONDON ETC. AND DESIGN. Cl. 48. Read Brothers, Limited. 2–19–07. New Cert. Sec. 7(c), to Arthur Guinness Son & Company Limited, London, England, 5–6–58.

389,106. BED OF ROSES. Cl. 6. Stuart Products, Inc. 7–22–41. New Cert. Sec. 7(c), to Helena Rubinstein, Inc., New York, N. Y., 5–6–58.

402,137. AMERICANA AND DESIGN. Cl. 39. Eastern Footwear Corporation. 7–6–43. New Cert. Sec. 7(c), to The United States Shoe Corporation, Cincinnati, Ohio, 5–6–58.

412,160. TWIRL. Cl. 6. Beauty Research Laboratories, Inc. 2–20–45. New Cert. Sec. 7(c), to The Gillette Company, doing business under the name and style of The Toni Company, Chicago, Ill., 5–6–58.

553,879. FIESTA. Cl. 2. Sterling Products, Inc. 1–22–52. New Cert. Sec. 7(c), to Standard Packaging Corporation, New York, N. Y., 5–6–58.

564,694. SPORTSMAN. Cl. 46. Baker Food Products Company. 9–30–52. New Cert. Sec. 7(c), to Associated Products, Inc., Chicago, Ill., 5–6–58.

578,218. TWIRL. Cl. 51. Winco Associates, Inc. 8–4–53. New Cert. Sec. 7(c), to The Gillette Company, doing business under the name and style of The Toni Company, Chicago, Ill., 5–6–58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 2 — Receptacles

416,922. Oct. 2, 1945. Continental Can Company, Inc., New York, N. Y. Pub. by registrant.



For Metal Cans.

Class 6 — Chemicals and Chemical Compositions

354,811. Feb. 22, 1938. E. F. Houghton & Co., Philadelphia, Pa. Pub. by registrant.

NU-CARB

For Composition of Carbonaceous Material and Energizer for the Carburizing of Steel.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

355,788. Mar. 29, 1938. Hercules Powder Company, Wilmington, Del. Pub. by registrant.

VIBROCAP

For Electric Blasting Cap.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

352,396. Nov. 30, 1937. Aluminum Products Company, La Grange, Ill. Pub. by West Bend Aluminum Co., West Bend, Wis.

Lifetime

For Base Metal Cooking Hollowware.

Class 15 — Oils and Greases

354,220. Feb. 8, 1938. E. F. Houghton & Co., Philadelphia, Pa. Pub. by registrant.

CUT-MAX

For Cutting Oils.

Class 17 — Tobacco Products

354,075. Feb. 1, 1938. The Axton-Fisher Tobacco Company, Louisville, Ky. Pub. by Philip Morris Incorporated, New York, N. Y.

HIGH HAT

For Cigarettes.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

354,101. Feb. 1, 1938. Chambersburg Engineering Company, Chambersburg, Pa. Pub. by registrant.

CECO STAMP

For Stamping Hammers and Presses.

Class 34 — Heating, Lighting, and Ventilating Apparatus

439,810. July 27, 1948. Ducon Company, Brooklyn, N. Y. Pub. by The Ducon Company, Inc., Mineola, N. Y.



For Air Washing, Centrifugal Dust Collecting, and Air Filtering Apparatus.

Class 38 — Prints and Publications

361,469. Oct. 18, 1938. Eugene Nelson Beard, Washington, D. C. Pub. by Time, Incorporated, New York, N. Y.

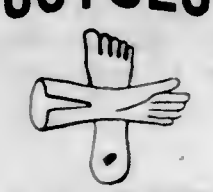
House & Home

For Magazine.

Class 39—Clothing

353,733. Jan. 18, 1938. Swan Shoe Company, Inc., Baltimore, Md. Pub. by registrant.

FOOTGLUV



For Slippers and Shoes of Leather and/or Fabric, and/or Rubber, and/or Combination of Said Materials, and Fasteners for the Same.

354,721. Feb. 22, 1938. Rhea Manufacturing Company, Milwaukee, Wis. Pub. by registrant.

Joan Miller

For Women's, Misses', and Children's Dresses, Smocks, and Housecoats of Cotton, Silk, Artificial Fibers, and Combinations of Aforesaid Materials.

357,090. May 24, 1938. Eugene E. Stone, III, d. b. a. The Stone Manufacturing Company, Greenville, S. C. Pub. by Stone Manufacturing Company, Greenville, S. C.

"COLORGLO"

For Garments Formed of Cotton and/or Rayon—Namely, Sun Suits, Play Suits, Underwear for Men, Women, and Children, Pajamas for Men, Women, and Children, Nightgowns for Women and Children, Aprons, Maids' Uniforms, Maids' Aprons, Maids' Collars, Maids' Cuffs, and Maids' Head Band Sets, Diapers, Infants' Dresses, Boys' Rompers, Wash Suits.

357,091. May 24, 1938. Eugene E. Stone, III, d. b. a. The Stone Manufacturing Company, Greenville, S. C. Pub. by Stone Manufacturing Company, Greenville, S. C.



For Garments Formed of Cotton and/or Rayon—Namely, Sun Suits, Play Suits, Underwear for Men, Women, and Children, Pajamas for Men, Women, and Children, Nightgowns for Women and Children, Aprons, Maids' Uniforms, Maids' Aprons, Maids' Collars, Maids' Cuffs, and Maids' Head Band Sets, Diapers, Infants' Dresses, Boys' Rompers, Wash Suits.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

354,630. Feb. 15, 1938. Joseph Bancroft & Sons Co., Wilmington, Del. Pub. by registrant.

Staze-Rite

For Cotton Piece Goods.

Class 50—Merchandise Not Otherwise Classified

356,429. Apr. 26, 1938. Godfrey Roller Company, Philadelphia, Pa. Pub. by registrant.

AQUATEX

For Knitted Fabric Covers for Dampening Rollers for Lithography or Offset Printing.

420,097. Mar. 26, 1946. Continental Can Company, Inc., New York, N. Y. Pub. by registrant.



For Crown Caps.

INDEX OF REGISTRANTS

MAY 6, 1958

(Registered ; Renewed ; Canceled ; Amended, Disclaimed, Corrected etc. ; New Certificates ; 12c Publications.)

AA Wire Products Co., Chicago, Ill. 661,269, pub. 2–18–58. Cl. 12.
ACF Industries, Inc., New York, N. Y. 661,270, pub. 2–18–58. Cl. 12.
A. J. Industries Corp., Delavan, Wis. 661,314, pub. 2–18–58. Cl. 19.
Acro-Feed Industries, Inc., Detroit, Mich. 661,341, pub. 2–18–58. Cl. 23.
Addressograph-Multigraph Corp., Cleveland, Ohio. 661,338, pub. 2–18–58. Cl. 23.
Agfa Ansco Corp., Binghamton, N. Y. 322,704, canc. Cl. 26.
Albrecht, E., & Son Co., d. b. a. Albrecht Furs, St. Paul, Minn. 661,424, pub. 2–18–58. Cl. 42.
Albrecht Furs : *See*—
Albrecht, E., & Son Co.
Alginate Industries Ltd., London, England. 661,252, pub. 2–18–58. Cl. 6.
Allied Raw Materials Co., Inc., New York, N. Y. 556,159, canc. Cl. 6.
Allyn, Walter L., Fort Worth, Tex. 556,451, canc. Cl. 2.
Aluminum Co. of America, Pittsburgh, Pa. 355,778, ren. 3–29–58. Cl. 14.
Aluminum Products Co., La Grange, Ill., by West Bend Aluminum Co., West Bend, Wis. 352,396, 12(c) pub. 5–6–58. Cl. 13.
Amerace Corp. : *See*—
American Hard Rubber Co.
American Association of Fund-Raising Counsel, New York, N. Y. 661,467, pub. 2–18–58. Cl. 200.
American Bemberg Corp., to Beaunit Mills, Inc., New York, N. Y. 359,102, ren. 8–2–58. Cl. 43.
American Chain & Cable Co., Inc., Bridgeport, Conn. 661,346, pub. 2–18–58. Cl. 23.
American Chemical Paint Co., Ambler, Pa. 661,255, pub. 2–18–58. Cl. 6.
American Cyanamid Co., New York, N. Y. 556,170, canc. Cl. 18.
American Cyanamid Co., New York, N. Y. 661,231, pub. 2–18–58. Cl. 6.
American Cyanamid Co., New York, N. Y. 661,293, pub. 2–18–58. Cl. 18.
American Cyanamid Co., New York, N. Y. 661,295, pub. 2–18–58. Cl. 18.
American Hard Rubber Co., Hempstead and New York, to Amerace Corp., New York, N. Y. 357,455, ren. 6–7–58. Cl. 40.
American Hard Rubber Co., Hempstead, to Amerace Corp., New York, N. Y. 358,421, ren. 7–12–58. Cl. 50.
American Home Products Corp. : *See*—
S. M. A. Corp.
American Screw Co., Willimantic, Conn. 661,279, pub. 2–18–58. Cl. 13.
American Steam Gauge & Valve Mfg. Co. Manning, Maxwell & Moore, Inc., New York, N. Y. 173,417. Am. 7(d). Cl. 26.
American Truck & Body Co., Inc., Martinsville, Va. 556,243, canc. Cl. 19.
Ammon & Person, Jersey City, N. J., to Swift & Co., Chicago, Ill. 120,626, ren. 2–19–58. Cl. 46.
Ancira, Alonso, d. b. a. Romero Drug Co., San Antonio, Tex. 661,297, pub. 2–18–58. Cl. 18.
Antell, Charles, Inc., Baltimore, Md. 661,455, pub. 2–18–58. Cl. 51.
Apinol Corp., The, Wilmington, N. C. 661,308, pub. 2–18–58. Cl. 18.
Arkwright Merchandising Corp., New York, N. Y. 644,770. Am. 7(d). Cl. 39.
Arlington Heights Citrus Co., Riverside, Calif. 661,482. Cl. 46.
Armour and Co., Chicago, Ill. 661,209–18, pub. 2–18–58. Cl. 1.
Armour and Co., Chicago, Ill. 661,304, pub. 2–18–58. Cl. 18.
Associated Merchandising Corp., New York, N. Y. 556,359, canc. Cl. 42.
Associated Packers, Inc., Los Angeles, Calif. 661,432, pub. 12–31–57. Cl. 46.
Associated Press, The, New York, N. Y. 661,395, pub. 2–18–58. Cl. 38.
Associated Products, Inc. : *See*—
Baker Food Products Co.
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Atlas Mineral Products of Pennsylvania, The, Mertztown, Pa. 556,386, canc. Cl. 12.
Atlas Powder Co., Wilmington, Del. 661,246–8, pub. 2–18–58. Cl. 6.
Autoyre Co., Inc., The, Oakville, Conn. 556,470, canc. Cl. 13.
Axton-Fisher Tobacco Co., The, Louisville, Ky., by Philip Morris Inc., New York, N. Y. 354,075, 12(c) pub. 5–6–58. Cl. 17.
Baker Food Products Co., to Associated Products, Inc., Chicago, Ill. 564,694, new cert. Cl. 46.
Baltimore Bargain House, Baltimore, Md., to Butler Brothers, Chicago, Ill. 122,005, ren. 6–18–58. Cl. 42.
Bancroft, Joseph, & Sons Co., Wilmington, Del. 354,630, 12(c) pub. 5–6–58. Cl. 42.
Bardstown Distillery, Inc., Bourbon Springs, Bardstown, Ky., to Glencoe Distilling Co., Beverly Hills, Calif.. 358,923, ren. 7–26–58. Cl. 49.
Barnes, S. O., & Son, Inc., Gardena, Calif. 661,474. Cl. 18.
Baseline Mfg. Corp., Washington, D. C. 556,252, canc. Cl. 34.
Battle Creek Equipment Co., to Battle Creek Equipment Co., Battle Creek, Mich. 354,944, ren. 3–1–58. Cl. 44.
Bauer Alphabets Inc., New York, N. Y. 661,280, pub. 2–18–58. Cl. 14.
Bausch & Lomb Optical Co., Rochester, N. Y. 359,286, ren. 8–9–58. Cl. 26.
Beacon Products Corp., Newton Highlands, Mass. 556,466, canc. Cl. 2.
Bear Brand Hosiery Co., Chicago, Ill. 354,865, ren. 3–1–58. Cl. 39.
Bear Brand Hosiery Co., Chicago, Ill. 661,426, pub. 11–5–57. Cl. 43.
Beard, Eugene N., Washington, D. C., by Time, Inc., New York, N. Y. 361,469, 12(c) pub. 5–6–58. Cl. 38.
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Beaunit Mills, Inc. : *See*—
American Bemberg Corp.
Beauty Research Laboratories, Inc., to The Gillette Co., d. b. a. The Toni Co., Chicago, Ill. 412,160, new cert. Cl. 6.
Beer Distributor Publishing Corp., Stamford, Conn. 661,390, pub. 2–18–58. Cl. 38.
Beir, Arthur, & Co., Inc., New York, N. Y. 352,071, ren. 11–16–57. Cl. 42.
Bell, Frank E. : *See*—
Western Consolidated Abstract Co.
Bellanca Aircraft Corp., New Castle, Del. 556,250, canc. Cl. 19.
Bel Paese Sales Co. Inc. : *See*—
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Berelson, Inc., San Francisco, Calif. 661,437, pub. 2–18–58. Cl. 46.
Berk, J., Inc., New York, N. Y. 661,448, pub. 2–18–58. Cl. 46.
Bernhoft Laboratories : *See*—
Bernhoft Laboratories, Inc.
Bernhoft Laboratories, Inc., d. b. a. Bernhoft Laboratories, Bremerton, Wash. 661,301, pub. 2–18–58. Cl. 18.
Bianchini, Ferier, Inc., New York, N. Y. 661,413, pub. 2–18–58. Cl. 39.
Birnstiel, Walter, Bern, Switzerland. 661,296, pub. 2–18–58. Cl. 18.
Bitulac, Ltd., Newcastle-on-Tyne, England. 661,272, pub. 2–18–58. Cl. 12.
Blue Ridge Glass Corp., Kingsport, Tenn. 357,804, ren. 6–14–58. Cl. 33.
Bocher, Main R., New York, N. Y. 661,454, pub. 2–18–58. Cl. 51.
Borden Co., The, New York, N. Y. 661,260, pub. 2–18–58. Cl. 6.
Borg-Warner Corp., Chicago, Ill. 661,325, pub. 2–18–58. Cl. 21.
Botany Worsted Mills, Passaic, N. J. 391,808, canc. Cl. 39.
Brainerd Aluminum Products, Inc., Brainerd, Minn. 556,251, canc. Cl. 12.
Breathette Co. : *See*—
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Bridgeport Thermostat Co., Inc., Bridgeport, Conn., to Robertshaw-Fulton Controls Co., Richmond, Va. 356,563, ren. 5–3–58. Cl. 26.
Brod, A., Inc., New York, N. Y. 661,401, pub. 2–18–58. Cl. 39.
Brooklyn Telephone Answering Service : *See*—
Schiller, Solemon S.
Bry, Edwin & Louis, Inc., New York, N. Y. 371,748, canc. Cl. 42.
Bryan Chemical Co., Baltimore, Md. 661,266, pub. 2–18–58. Cl. 10.
Burchell, N. Landon, Washington, D. C. 57,579, canc. Cl. 46.
Bush Bros. & Co., Inc., Dandridge, Tenn. 661,438, pub. 2–18–58. Cl. 46.
Butler Brothers : *See*—
Baltimore Bargain House.
Butler Brothers, Chicago, Ill. 121,754, ren. 5–28–58. Cl. 39.
Cabot, Godfrey L., Inc., Boston, Mass. 661,205, pub. 2–18–58. Cl. 1.
Calderon, Victor M., Co., Inc., New York, N. Y. 352,951, ren. 12–21–57. Cl. 46.
Calgon, Inc., Pittsburgh, Pa., now by change of name Hagan Chemicals & Controls, Inc. 661,463, pub. 11–5–57. Cl. 52.
California Spray-Chemical Corp., Richmond, Calif. 661,258, pub. 2–18–58. Cl. 6.
Callaway Mills Co., La Grange, Ga. 603,079, canc. Cl. 42.
Camden Fibre Mills, Inc., Philadelphia, Pa. 661,204, pub. 2–18–58. Cl. 1.
Candace, Inc., Chicago, Ill. 661,330, pub. 2–18–58. Cl. 21.
Carolina Forest Products, Inc., Wilmington, N. C. 661,271, pub. 2–18–58. Cl. 12.
Carpenter Paper Co. : *See*—
Nation Wide Papers, Inc.
Carrel, Ltd. : *See*—
Walgreen Co.

Carter Products, Inc., New York, N. Y. 661,292, pub. 2–18–58. Cl. 18.
Carter Products, Inc., New York, N. Y. 661,305–6, pub. 2–18–58. Cl. 18.
Cenol Co., Inc., Chicago, Ill. 661,227, pub. 2–18–58. Cl. 6.
Certain-teed Products Corp., Ardmore, Pa. 556,380, canc. Cl. 12.
Chalet Suzanne Foods, Inc., Lake Wales, Fla. 661,440, pub. 2–18–58. Cl. 46.
Chalfonte Products Corp., Brooklyn, N. Y. 661,377, pub. 2–18–58. Cl. 30.
Chambersburg Engineering Co., Chambersburg, Pa. 354,101, 12(c) pub. 5–6–58. Cl. 23.
Chattanooga Medicine Co., The, Chattanooga, Tenn. 643,855, cor. Cl. 18.
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Schubert, Ray E.
Cheese Products Co., Inc.: *See*—
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Cherry, E., Sons & Co., Inc., d. b. a. Cherrydale Farms, Philadelphia, Pa. 661,479. Cl. 46.
Cherrydale Farms: *See*—
Cherry, E., Sons & Co., Inc.
Chi-Co, Inc., Northfield, Ohio. 661,352, pub. 2–18–58. Cl. 23.
Childers Mfg. Co., Houston, Tex. 556,454, canc. Cl. 12.
Chowning, Dale K., d. b. a. Miracle Magnet Co., Mountain View, Mo. 661,350, pub. 2–18–58. Cl. 23.
Cifuentes, Pego y Compania, to Cifuentes y Compania, Havana, Cuba. 356,751, ren. 5–10–58. Cl. 17.
Cifuentes y Compania: *See*—
Cifuentes, Pego y Compania.
Cilag Aktiengesellschaft, Schaffhausen, Switzerland. 556,275, canc. Cl. 6.
Cilag Aktiengesellschaft, Schaffhausen, Switzerland. 556,276, canc. Cl. 6.
Cloverdale Knitwear Corp., Brooklyn, N. Y. 556,321, canc. Cl. 39.
Cochran, Roy H., d. b. a. Excelsior Laboratory, Atlantic City, N. J. 661,469. Cl. 6.
Co-Halant Products: *See*—
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Cohen, George, d. b. a. Co-Halant Products, Easton, Pa. 556,232, canc. Cl. 18.
Colarex Co., The: *See*—
Evans, Emanuel E.
Colorado Milling & Elevator Co., The, Denver, Colo. 122,443, ren. 8–20–58. Cl. 46.
Columbia Mills, Inc., The, Syracuse, N. Y. 661,422, pub. 4–23–57. Cl. 42.
Columbian Art Works, Inc., Milwaukee, Wis. 358,547, ren. 7–19–58. Cl. 37.
Consolidated Trimming Corp., New York, N. Y. 661,418, pub. 2–18–58. Cl. 40.
Continental Can Co., Inc., New York, N. Y. 416,922, 12(c) pub. 5–6–58. Cl. 2.
Continental Can Co., Inc., New York, N. Y. 420,097, 12(c) pub. 5–6–58. Cl. 50.
Continental Oil Co., Ponca City, Okla. 661,285, pub. 2–18–58. Cl. 15.
Cory Corp., Chicago, Ill. 661,310, pub. 2–18–58. Cl. 19.
Cotton Specialty Co., Inc., Chicago, Ill. 661,374, pub. 2–18–58. Cl. 29.
Cracker-Mate Cheese Co., Washington, Ind. 661,445, pub. 2–18–58. Cl. 46.
Crawford Creamery Co.: *See*—
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Crucible Steel Co. of America, Pittsburgh, Pa. 358,334, ren. 7–5–58. Cl. 23.
Curtis Mfg. Co., Cleveland, Ohio. 661,284, pub. 2–18–58. Cl. 15.
Cyclone Seeder Co., The, Urbana, Ind. 359,390, ren. 8–16–58. Cl. 23.
Daimler-Benz Aktiengesellschaft, Stuttgart, Germany. 661,311, pub. 2–18–58. Cl. 19.
Damast, David, Riverdale, N. Y. 661,334, pub. 2–18–58. Cl. 22.
Danbury Novelty Co., Danbury, Conn. 417,221, canc. Cl. 39.
Danielson Mfg. Co., The, Danielson, Conn. 661,208, pub. 2–18–58. Cl. 1.
Danielson Mfg. Co., The, Danielson, Conn. 661,263, pub. 2–18–58. Cl. 7.
Dan River Mills, Inc., Danville, Va. 556,375, canc. Cl. 42.
Davidson Publishing Co., Duluth, Minn. 661,392, pub. 2–18–58. Cl. 38.
Davis, Jack, New York, N. Y. 556,364, canc. Cl. 42.
Day-Baldwin, Inc., Irvington, N. J. 661,458, pub. 2–18–58. Cl. 31.
Dearborn Chemical Co., Chicago, Ill. 612,854, cor. Cl. 6.
Defense Committee for the Flax and Linen Industry in Belgium, Tielt, Belgium. 556,433, canc. Cl. 42.
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Diamond Alkali Co., Cleveland, Ohio. 661,233, pub. 2–18–58. Cl. 6.
Diamond Black Leaf Co., Cleveland, Ohio, to Diamond Alkali Co. 661,254, pub. 2–18–58. Cl. 6.
Diamond Bros. Co., Trenton, N. J. 661,379, pub. 2–18–58. Cl. 32.
Dick, Charles L., Kent, Wash. 661,328, pub. 2–18–58. Cl. 21.
Dixon, Delia and Claire, Missoula, Mont. 556,318, canc. Cl. 15.
Doodeheefver, F. C., d. b. a. "Gravura," Amsterdam, Netherlands. 556,462, canc. Cl. 37.
Dow Chemical Co., The, Midland, Mich. 661,262, pub. 2–18–58. Cl. 6.
Dow Chemical Co., The, Midland, Mich. 661,470. Cl. 6.
Drexel Furniture Co., Drexel, N. C. 661,381–2, pub. 2–18–58. Cl. 32.
Dri-Heat Food System, Inc., Washington, D. C. 661,476. Cl. 34.
Du Brock, Inc., Los Angeles, Calif. 556,468, canc. Cl. 45.
Ducon Co., Brooklyn, by The Ducon Co., Inc., Mineola, N. Y. 439,810, 12(c) pub. 5–6–58. Cl. 34.
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Duluth-Superior Milling Co., Duluth, Minn. 89,017, canc. Cl. 46.
Durex Products, Inc., New York, N. Y. 661,298, pub. 2–18–58. Cl. 18.
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Elgin Softener Corp., Elgin, Ill. 661,368, pub. 2–18–58. Cl. 26.
Emmons, Orville H., d. b. a. Emmons Walker, Dover, Mass. 661,468, pub. 2–18–58. Cl. B.
Emmons Walker: *See*—
Emmons, Orville H.
Engineering Specialty Co., Salt Lake City, Utah. 661,365, pub. 2–18–58. Cl. 26.
Essex Wire Corp., Fort Wayne, Ind. 661,203, pub. 2–18–58. Cl. 1.
Essex Wire Corp., Fort Wayne, Ind. 661,207, pub. 2–18–58. Cl. 1.
Esso Standard Oil Co.: *See*—
Standard Oil Co.
Standard Oil Co. of New Jersey.
Evans, Emanuel E., d. b. a. The Colarex Co., Youngstown, Ohio, to Rexall Drug Co., Los Angeles, Calif. 556,260, canc. Cl. 18.
Excelsior Laboratory: *See*—
Cochran, Roy H.
Exitaire Co., The, Pacoima, Calif. 661,387, pub. 2–18–58. Cl. 34.
Fabrique de Montres Zila S. A., La Heutte, Switzerland. 661,371, pub. 2–18–58. Cl. 27.
Falcon Packing Co. Inc., New York, N. Y. 661,442, pub. 2–18–58. Cl. 46.
Fearn Foods Inc.: *See*—
Fearn Laboratories, Inc.
Fearn Laboratories, Inc., Chicago, to Fearn Foods Inc., Franklin Park, Ill. 356,081, ren. 4–12–58. Cl. 46.
Finlay, H. P., & Co. Ltd., to Arthur Guinness Son & Co. Ltd., London, England. 33,266, new cert. Cl. 45.
Fire Box Industries: *See*—
Rappaport, Albert I.
Flamingo Fabrics Corp., New York, N. Y. 661,423, pub. 2–18–58. Cl. 42.
Fleetform Corp., Fort Worth, Tex. 661,317, pub. 2–18–58. Cl. 19.
Floridian Beverage Co., The: *See*—
Rothe, Walter F.
Floyd County Coal Co., Inc., Charleston, W. Va. 661,202, pub. 2–18–58. Cl. 1.
Fonner, Dale E., Elkhart, Ind. 661,222, pub. 1–7–58. Cl. 2.
Ford Motor Co., Dearborn, Mich. 661,309, pub. 2–18–58. Cl. 19.
Ford Motor Co., Dearborn, Mich. 661,312, pub. 2–18–58. Cl. 19.
Fransol, Societe Anonyme, Paris, France. 661,243–4, pub. 2–18–58. Cl. 6.
Franz Mfg. Co., Inc., New Haven, Conn. 359,071, ren. 8–2–58. Cl. 36.
Frosst, Charles E., & Co., Montreal, Quebec, Canada. 556,223, canc. Cl. 18.
Fuller, D. B., & Co., Inc., New York, N. Y. 661,421, pub. 5–22–56. Cl. 42.
Gabler, Robert W., d. b. a. The House of Gabler, Chambersburg, Pa. 661,249, pub. 2–18–58. Cl. 6.
Galbani, S. A. E., Melzo, Italy, to Bel Paese Sales Co. Inc., New York, N. Y. 356,936, ren. 5–17–58. Cl. 46.
Galbani, S. A. E., Melzo, Italy, to Bel Paese Sales Co. Inc., New York, N. Y. 356,937, ren. 5–17–58. Cl. 46.
Gaylord, Charles H., to The Matchless Metal Polish Co., Chicago, Ill. 122,273, ren. 7–16–58. Cl. 4.
Ge-Halin Products: *See*—
Saporta, Rene.
Gene, Shelly, Los Angeles, Calif. 661,407, pub. 2–18–58. Cl. 39.
General Motors Corp., Detroit, Mich. 661,322–4, pub. 2–18–58. Cl. 19.
Germaine Monteil Cosmetiques Corp., New York, N. Y. 354,963, ren. 3–1–58. Cl. 51.
Gillette Co., The: *See*—
Beauty Research Laboratories, Inc.
Winco Associates, Inc.
Gioia Macaroni Co., Inc., Buffalo, N. Y. 661,447, pub. 2–18–58. Cl. 46.
Glencoe Distilling Co.: *See*—
Bardstown Distillery, Inc.
Glen Raven Cotton Mills, Inc., Glen Raven, N. C. 556,351, canc. Cl. 42.
Globe-Wernicke Co. (1955), The: *See*—
Globe-Wernicke Co., The.
Globe-Wernicke Co., The, to The Globe-Wernicke Co. (1955), Cincinnati, Ohio. 121,180, ren. 4–16–58. Cl. 32.
Godfrey Roller Co., Philadelphia, Pa. 356,429, 12(c) pub. 5–6–58. Cl. 50.
Gordon, M., Hosiery Mills, Inc., Sinking Spring, Pa. 556,187, canc. Cl. 39.
Grand Rapids Paint and Enamel Co., Grand Rapids, Mich. 661,286, pub. 2–18–58. Cl. 16.
"Gravura": *See*—
Doodeheefver, F. C.
Great Western Sugar Co., The, Denver, Colo. 661,433, pub. 2–18–58. Cl. 46.

Grossman, Julius, Inc., New York, N. Y. 661,399, pub. 2-18-58. Cl. 39.
Guinness, Arthur, Son & Co. Ltd.: *See*—
Finlay, H. P., & Co. Ltd.
Read Brothers, Ltd.
HMH Publishing Co., Inc., Chicago, Ill. 661,391, pub. 2-18-58. Cl. 38.
Hachmeister-Inc., Pittsburgh, Pa. 556,328, canc. Cl. 12.
Hagan Chemicals & Controls, Inc.: *See*—
Calgon, Inc.
Hair Bon Laboratories, Inc., Providence, R. I. 556,314, canc. Cl. 18.
Hamilton Watch Co., Lancaster, Pa. 661,281, pub. 2-18-58. Cl. 15.
Hand Medicine Co., New York, N. Y. 661,291, pub. 2-18-58. Cl. 18.
Hanger, J. E., Inc., Washington, D. C. 661,429, pub. 2-18-58. Cl. 44.
Hanover Associates, Inc., West Orange, N. J. 661,275, pub. 2-18-58. Cl. 13.
Hardin & Co.: *See*—
Hardin, Kenneth F.
Hardin, Kenneth F., d. b. a. Hardin & Co., New Albany, Ind. 358,819, ren. 7-26-58. Cl. 39.
Hardtmuth, L. & C., Inc., Bloomsbury, N. J. 661,389, pub. 2-18-58. Cl. 37.
Harrower Laboratory, Inc., The, Glendale, Calif. 556,202, canc. Cl. 18.
Hartman Trailer Mfg. Co., Perkasie, Pa. 661,318, pub. 2-18-58. Cl. 19.
Hasty-Bake Mfg. Co., Inc., Tulsa, Okla. 661,478. Cl. 34.
Hat Corp. of America, Norwalk, Conn. 354,117, ren. 2-1-58. Cl. 39.
Hat Corp. of America, Norwalk, Conn. 356,260, ren. 4-19-58. Cl. 39.
Hauman Instruments Co., Inc., Watertown, Mass. 661,359, pub. 2-18-58. Cl. 26.
Heller, Lester Y., Pottstown, Pa. 661,307, pub. 2-18-58. Cl. 18.
Hercules Powder Co., Wilmington, Del. 355,788, 12(c) pub. 5-6-58. Cl. 9.
Hercules Powder Co., Wilmington, Del. 661,397, pub. 2-18-58. Cl. 38.
Heyden Newport Chemical Corp., New York, N. Y. 661,257, pub. 2-18-58. Cl. 6.
Hills, John H.: *See*—
Puro Sanitary Drinking Fountain Co.
Hoechst Chemical Corp., West Warwick, R. I. 661,235-42, pub. 2-18-58. Cl. 6.
Holland American Seed Co.: *See*—
Luikens, Wilbur.
Holland-Rantos Co., Inc., New York, N. Y. 661,300, pub. 2-18-58. Cl. 18.
Hollywood Textile Converters, Los Angeles, Calif. 556,369, canc. Cl. 42.
Holmin, Wm. A., Corp., Rockford, Ill. 661,331, pub. 2-18-58. Cl. 21.
Home Ideas Co., The: *See*—
Kosil, John.
Hood, H. P., & Sons: *See*—
Hood, H. P., & Sons, Inc.
Hood, H. P., & Sons, Inc., d. b. a. H. P. Hood & Sons, Dunedin, Fla. 661,441, pub. 2-18-58. Cl. 46.
Hood Pharmacal Co., Washington, D. C. to Prince Matchabelli, Inc., New York, N. Y. 356,416, ren. 4-26-58. Cl. 18.
Houghton, E. F., & Co., Philadelphia, Pa. 354,220, 12(c) pub. 5-6-58. Cl. 15.
Houghton, E. F., & Co., Philadelphia, Pa. 354,811, 12(c) pub. 5-6-58. Cl. 6.
House of Gabler, The: *See*—
Gabler, Robert W.
Howard & Foster Co., Inc., Brockton, Mass. 661,417, pub. 2-18-58. Cl. 39.
Hubbard & Co., Pittsburgh, Pa. 661,277, pub. 2-18-58. Cl. 13.
Hull Pottery Co., Crooksville, Ohio. 661,335, pub. 2-18-58. Cl. 22.
IXL Food Co., San Leandro, Calif. 661,434, pub. 2-18-58. Cl. 46.
Ideal Toy Corp., Hollis, N. Y. 556,415, canc. Cl. 22.
Independent Lock Co., Fitchburg, Mass. 556,312, canc. Cl. 25.
Independent Nail & Packing Co., Inc., The, Bridgewater, Mass. 661,278, pub. 2-18-58. Cl. 13.
Insley Mfg. Corp., Indianapolis, Ind. 358,401, ren. 7-12-58. Cl. 23.
International Broadcasting Corp., Shreveport, La. 556,430, canc. Cl. 101.
International Silver Co., The, Meriden, Conn. 661,351, pub. 2-18-58. Cl. 23.
International Silver Co., The, Meriden, Conn. 661,353, pub. 2-18-58. Cl. 23.
International Touri Camp Organisation Reg. Trust, Vaduz, Liechtenstein. 658,510, cor. Cl. 32.
Iowa Pearl Button Co., to Iowa Pearl Button Co., Muscatine, Iowa. 350,743, ren. 10-5-57. Cl. 40.
Irwill Knitwear Corp., New York, N. Y. 357,329, ren. 5-31-58. Cl. 39.
Isaacson, L., & Sons: *See*—
Isaacson, L., & Sons, Inc.
Isaacson, L., & Sons, Inc., to L. Isaacson & Sons, New York, N. Y. 358,247, ren. 7-5-58. Cl. 39.
James Co. of Hickory, N. C., Inc., The, Hickory, N. C. 661,358, pub. 2-18-58. Cl. 24.
Jenaer Glaswerk Schott & Gen., Mainz, Germany. 661,383, pub. 2-18-58. Cl. 33.
Johns-Manville Corp., New York, N. Y. 556,264, canc. Cl. 5.
Karg Brothers, Inc., Johnstown, N. Y. 661,206, pub. 2-18-58. Cl. 1.
Karpen, S., & Bros., Chicago, Ill. 133,266, canc. Cl. 32.
Karpen, S., & Bros., Chicago, Ill. 375,991, canc. Cl. 32.
Karpen, S., & Bros., Chicago, Ill. 375,992, canc. Cl. 32.
Kaufmann Department Stores, Inc., Pittsburgh, Pa. 289,657, canc. Cl. 52.
Kellogg, M. W., Co., The, New York, N. Y. 661,385, pub. 2-18-58. Cl. 34.
Keystone Steel & Wire Co., Peoria, Ill. 356,950, ren. 5-17-58. Cl. 14.
Kilowattcher Corp., Chicago, Ill. 556,383, canc. Cl. 21.
Kimble, Robert G., d. b. a. Kimbo Records, Mountain View, N. J. 661,388, pub. 2-18-58. Cl. 36.
Kimbo Records: *See*—
Kimble, Robert G.
King, A. R., Mrs., Inc., to B. W. Woodbury, Philadelphia, Pa. 117,880, ren. 8-7-57. Cl. 39.
King Maljan & Co., El Centro, Calif. 556,343, canc. Cl. 46.
King Mfg. Co.: *See*—
McInnes, Reta L.
Kinley, Isaac D., d. b. a. Kinley Laboratories, Pittsburgh, Pa. 661,294, pub. 2-18-58. Cl. 18.
Kinley Laboratories: *See*—
Kinley, Isaac D.
Koppers Co., Inc., Pittsburgh, Pa., and Baltimore, Md. 556,191, canc. Cl. 19.
Kosil, John, d. b. a. The Home Ideas Co., Chicago, Ill. 556,461, canc. Cl. 13.
Kraft Foods Co., Chicago, Ill., now by merger National Dairy Products Corp. 661,436, pub. 2-18-58. Cl. 46.
Krister Porzellan-Manufaktur Aktiengesellschaft, Marktredwitz, Bavaria, Germany. 661,378, pub. 2-18-58. Cl. 30.
Lady Lennox Co.: *See*—
Siebras, Norman W.
Lamco Chemical Co., Inc., Boston, Mass. 661,288, pub. 2-18-58. Cl. 16.
Lamm Brothers, Inc., Baltimore, Md. 661,415, pub. 2-18-58. Cl. 39.
Lamont, Corliss & Co., New York, to The Nestlé Co., Inc., White Plains, N. Y. 359,139, ren. 8-9-58. Cl. 46.
Lamson Corp., Syracuse, N. Y. 661,348-9, pub. 2-18-58. Cl. 23.
Lander Co. Inc., The: *See*—
Lundborg Co.
Langrock, David T., New Haven, Conn. 556,160, canc. Cl. 39.
Lanman & Kemp-Barclay & Co., Inc., Palisades Park, N. J. 359,276, ren. 8-9-58. Cl. 18.
Larson, Leroy J., Bagley, Minn. 556,298, canc. Cl. 44.
Laton, Inc., Merrick, N. Y. 661,234, pub. 2-18-58. Cl. 6.
Laucks, I. F., Inc., Seattle, Wash., to Monsanto Chemical Co., St. Louis, Mo. 357,321, ren. 5-31-58. Cl. 16.
Laurie, Chester, Ltd., New York, N. Y. 661,398, pub. 2-18-58. Cl. 39.
Leatherflex Products, Inc., Newark, N. J. 661,450, pub. 2-18-58. Cl. 50.
Leje & Thurne Aktiebolag, Stockholm, Sweden. 661,344, pub. 2-18-58. Cl. 23.
Leonardi, S. B., & Co. Inc., New Rochelle, N. Y. 556,330, canc. Cl. 18.
Leonora, Inc., New York, N. Y. 661,408, pub. 2-18-58. Cl. 39.
Le Roy Knitted Sportswear Inc., Los Angeles, Calif. 661,403, pub. 2-18-58. Cl. 39.
Lever Brothers Co.: *See*—
Pepsodent Co., The.
Liggett & Myers Tobacco Co., New York, N. Y. 658,448, cor. Cl. 17.
Limback, Curtis A., New York, N. Y. 381,787, canc. Cl. 39.
Little Grey Gift Shop: *See*—
Silvaplate Corp.
Los Banos Produce Distributors, Los Banos, Calif. 556,448, canc. Cl. 46.
Lowe, Joe, Corp., New York, N. Y. 661,461, pub. 2-18-58. Cl. 51.
Lucky Stores, Inc., San Leandro, Calif. 661,480. Cl. 46.
Luikens, Wilbur, d. b. a. Holland American Seed Co., Grand Rapids, Mich. 556,174, canc. Cl. 46.
Lundborg Co., to The Landor Co. Inc., New York, N. Y. 122,508, ren. 8-20-58. Cl. 51.
Lundborg Co., to The Lander Co. Inc., New York, N. Y. 122,509, ren. 8-20-58. Cl. 51.
Lynn's Fashions, Inc., New York, N. Y. 661,405, pub. 2-18-58. Cl. 39.
Machlett Laboratories, Inc., Springdale, Conn. 661,326, pub. 2-18-58. Cl. 21.
Maintenance, Inc., Wooster, Ohio. 661,290, pub. 2-18-58. Cl. 16.
Malco, Inc., Rock Island, Ill. 661,268, pub. 2-18-58. Cl. 12.
Maltine Co., The, Morris Plains, N. J. 556,377, canc. Cl. 18.
Manesty Machines Ltd., Liverpool, England. 355,548, ren. 3-22-58. Cl. 23.
Manning, Maxwell & Moore, Inc.: *See*—
American Steam Gauge & Valve Mfg. Co.
Margit Sportswear, Inc., St. Louis, Mo. 661,404, pub. 2-18-58. Cl. 39.
Marine Plastics, Inc., Fort Worth, Tex. 661,315, pub. 2-18-58. Cl. 19.
Marroquin, Carlos C., d. b. a. Nova Laboratories, San Antonio, Tex. 556,363, canc. Cl. 18.
Masonite Corp., Chicago, Ill. 661,471. Cl. 12.
Matchless Metal Polish Co., The: *See*—
Gaylord, Charles H.
Mattel, Inc., Los Angeles, Calif. 661,332, pub. 2-18-58. Cl. 22.
May Department Stores Co., The, St. Louis, Mo. 287,847, canc. Cl. 39.
McCrory Stores Corp., New York, N. Y. 359,191, ren. 8-9-58. Cl. 46.

McGraw-Hill Publishing Co., Inc., New York, N. Y. 661,394, pub. 2–18–58. Cl. 38.
McInnes, Reta L., d. b. a. King Mfg. Co., Flint, Mich. 661,465, pub. 2–18–58. Cl. 52.
Meco Knitting Mills, Inc., Brooklyn, N. Y. 661,409, pub. 2–18–58. Cl. 39.
Meredith Publishing Co., Des Moines, Iowa. 358,804, ren. 7–26–58. Cl. 38.
Meredith Publishing Co., Des Moines, Iowa. 358,805, ren. 7–26–58. Cl. 38.
Meredith Publishing Co., Des Moines, Iowa. 358,806, ren. 7–26–58. Cl. 38.
Meypro Ltd., Weinfelden, Switzerland. 556,301, canc. Cl. 6.
Midas, Inc., Chicago, Ill. 661,321, pub. 2–18–58. Cl. 19.
Mimar Products, Inc., Brooklyn, N. Y. 556,265, canc. Cl. 34.
Minneapolis, St. Paul & Sault Ste. Marie Railroad Co., Minneapolis, Minn. 556,427, canc. Cl. 105.
Miracle Magnet Co.: *See*—
Chowning, Dale K.
Miron Mills, Inc., Clinton, Mass. 556,358, canc. Cl. 42.
Modern Devices, Libertyville, Ill. 661,356, pub. 2–18–58. Cl. 23.
Monsanto Chemical Co.: *See*—
Laucks, I. F., Inc.
Monsanto Chemical Co., St. Louis, Mo. 661,367, pub. 2–18–58. Cl. 26.
Montgomery Elevator Co., Moline, Ill. 661,345, pub. 2–18–58. Cl. 23.
Montgomery Ward & Co., Inc., Chicago, Ill. 661,410, pub. 2–18–58. Cl. 39.
Montres Tudor S. A. (Tudor Watch Co. Ltd.), Geneva, Switzerland. 661,372, pub. 11–12–57. Cl. 27.
Morgan Crucible Co. Ltd., The, London, England. 354,725, ren. 2–22–58. Cl. 35.
Mor-Pak Preserving Corp., Stockton, Calif. 358,377, cor. Cl. 46.
Morris, Philip, Inc.: *See*—
Axton-Fisher Tobacco Co., The.
Mount Vernon Mfg. Corp., New York, N. Y. 661,333, pub. 2–18–58. Cl. 22.
Munster, Simms & Co. Ltd., Belfast, Northern Ireland. 661,357, pub. 2–18–58. Cl. 23.
Nachman Corp.: *See*—
Nachman Springfilled Corp.
Nachman Springfilled Corp., to Nachman Corp., Chicago, Ill. 357,610, ren. 6–7–58. Cl. 32.
Nadeau Laboratory Ltd., Montreal, Quebec, Canada. 556,286, canc. Cl. 18.
National Blow Pipe & Mfg. Co., Inc.: *See*—
National Dust Control Co.
National Co-Operatives Inc., Indianapolis, Ind., to National Cooperatives, Inc., Albert Lea, Minn. 357,727, ren. 6–14–58. Cl. 21.
National Cooperatives, Inc.: *See*—
National Co-Operatives Inc.
National Dairy Products Corp.: *See*—
Kraft Foods Co.
National Distillers Chemical Corp., New York, N. Y. 556,320, canc. Cl. 6.
National Dust Control Co., to National Blow Pipe & Mfg. Co. Inc., New Orleans, La. 355,865, ren. 4–5–58. Cl. 34.
National Electric Products Corp., Pittsburgh, Pa. 356,486, ren. 4–26–58. Cl. 21.
National Gypsum Co., Buffalo, N. Y. 661,274, pub. 2–18–58. Cl. 12.
National Oil Products Co. Nopco Chemical Co., Harrison, N. J. 121,927. Am. 7(d). Cl. 15.
National Package Drugs, Inc., St. Louis, Mo. 556,437, canc. Cl. 6.
Nation Wide Papers, Inc., Chicago, Ill., to Carpenter Paper Co., Omaha, Nebr. 358,753, ren. 7–26–58. Cl. 37.
Naugatuck Chemical Co., The, New York, N. Y. 290,030, canc. Cl. 6.
Nestlé Co., Inc., The: *See*—
Lamont, Corliss & Co.
Newnes, George, Ltd., London, England. 661,396, pub. 2–18–58. Cl. 38.
Nopco Chemical Co.: *See*—
National Oil Products Co.
Norton Co., Troy, N. Y. 661,225, pub. 2–11–58. Cl. 5.
Nova Laboratories: *See*—
Marroquin, Carlos C.
Ohio Foundry & Mfg. Co., The, Steubenville, Ohio. 661,477. Cl. 34.
Olin Mathieson Chemical Corp., East Alton, Ill. 661,265, pub. 2–18–58. Cl. 9.
Onita Specialty Co., Inc., Brooklyn, N. Y. 661,402, pub. 2–18–58. Cl. 39.
Optische Werke G. Rodenstock, Munich, Germany. 661,360–2, pub. 2–18–58. Cl. 26.
Optomechanisms, Inc., Mineola, N. Y. 661,366, pub. 2–18–58. Cl. 26.
Otis Co., San Francisco, Calif. 661,375, pub. 2–18–58. Cl. 29.
Ozwall Tool Co., Ltd., New York, N. Y. 661,354, pub. 2–18–58. Cl. 23.
Ozark-Mahoning Co., Tulsa, Okla. 661,251, pub. 2–18–58. Cl. 6.
Pacific Lumber Co., The, San Francisco, Calif. 556,289, canc. Cl. 6.
Pacific Lumber Co., The, San Francisco, Calif. 556,291, canc. Cl. 6.
Packard Bell Electronics Corp., Los Angeles, Calif. 661,327, pub. 2–18–58. Cl. 21.
Pal, Inc., Washington, D. C. 556,460, canc. Cl. 45.
Palmers Ltd., Montreal, Quebec, Canada. 556,188, canc. Cl. 51 and 52.
Palm Terrace Co., Mt. Dora, Fla. 556,453, canc. Cl. 46.
Pandol & Sons, Delano, Calif. 661,443, pub. 2–18–58. Cl. 46.
Para Laboratories, New York, N. Y. 661,456, pub. 2–18–58. Cl. 51.
Parfait, Inc., Chicago, Ill. 428,616, canc. Cl. 6.
Parfums Charbert, Inc., Newark, N. J. 358,603, ren. 7–19–58. Cl. 51.
Pass & Seymour, Inc., Syracuse, N. Y. 355,726, ren. 3–29–58. Cl. 21.
Pass & Seymour, Inc., Syracuse, N. Y. 355,727, ren. 3–29–58. Cl. 21.
Pass & Seymour, Inc., Syracuse, N. Y. 355,728, ren. 3–29–58. Cl. 21.
Penney, J. C., Co., New York, N. Y. 355,180, ren. 3–8–58. Cl. 39.
Penney, J. C., Co., New York, N. Y. 355,181, ren. 3–8–58. Cl. 39.
Penney, J. C., Co., New York, N. Y. 355,544, ren. 3–22–58. Cl. 39.
Penney, J. C., Co., New York, N. Y. 355,984, ren. 4–5–58. Cl. 42.
Pennsalt Chemicals Corp.: *See*—
Sterling Products Co.
Pepsi-Cola Co., New York, N. Y. 356,773, ren. 5–10–58. Cl. 2.
Pepsodent Co., The, Chicago, Ill., to Lever Brothers Co., New York, N. Y. 358,579, ren. 7–19–58. Cl. 6.
Perfect Circle Corp., Hagerstown, Ind. 556,464, canc. Cl. 23.
Peterson Lithograph & Printing Co., Omaha, Nebr. 358,264, ren. 7–5–58. Cl. 37.
Petro-Tex Chemical Corp., Houston, Tex. 661,245, pub. 2–18–58. Cl. 6.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 661,299, pub. 2–18–58. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 661,302, pub. 2–18–58. Cl. 18.
Phelps Dodge & Co., to Phelps Dodge Corp., New York, N. Y. 121,944, ren. 6–11–58. Cl. 14.
Phelps Dodge Corp.: *See*—
Phelps Dodge & Co.
Phelps Dodge Corp., New York, N. Y. 121,945, ren. 6–11–58. Cl. 14.
Physicians and Hospitals Supply Co., Inc., d. b. a. Ulmer Pharmacal Co., Minneapolis, Minn. 556,384, canc. Cl. 18.
Pledgewear, Inc., St. Louis, Mo. 556,277, canc. Cl. 39.
Plowman Co., The, Garden City, N. Y. 661,283, pub. 2–18–58. Cl. 15.
Plunkett Chemical Co., Chicago, Ill. 661,464, pub. 2–18–58. Cl. 52.
Potash Co. of America, Carlsbad, N. Mex. 357,289, ren. 5–3–58. Cl. 10.
Potter-McCune Co., McKeesport, Pa. 661,261, pub. 2–18–58. Cl. 6.
Powder Actuated Tools, Inc., San Diego, Calif. 661,339, pub. 12–17–57. Cl. 23.
Powers, John Robert, Products Co. Inc., New York, N. Y. 661,452, pub. 2–18–58. Cl. 51.
Precision Flexopress Corp., Cincinnati, Ohio. 661,347, pub. 2–18–58. Cl. 23.
Precision Scientific Co., Chicago, Ill. 661,475. Cl. 26.
Premo Rubber Co. Ltd., Petersfield, England. 837,389. Am. 7(d). Cl. 22.
Prentis Clothes Corp., New York, N. Y. 556,213, canc. Cl. 39.
Prince Matchabelli, Inc.: *See*—
Hood Pharmacal Co.
Profile Co., Inc., Fort Lauderdale, Fla. 661,458, pub. 2–18–58. Cl. 51.
Pure Oil Co., The, Chicago, Ill. 661,282, pub. 2–18–58. Cl. 15.
Purex Corp., Ltd., South Gate, Calif. 602,531. Am. 7(d). Cl. 52.
Puro Sanitary Drinking Fountain Co., Haydenville, to J. H. Hills, d. b. a. Puro Sanitary Drinking Fountain Co., Amherst, Mass. 120,218, ren. 1–15–58. Cl. 13.
Pyramid Leather Goods Co., Inc., New York, N. Y. 661,223, pub. 2–18–58. Cl. 3.
Quinn Drug and Chemical Co., Greenwood, Miss. 661,232, pub. 2–18–58. Cl. 6.
Ramode, Inc., Cleveland, Ohio. 661,267, pub. 2–18–58. Cl. 12.
Ramsey Accessories Mfg. Corp., St. Louis, Mo., to Ramsey Corp., Manchester, Mo. 358,088, ren. 6–28–58. Cl. 35.
Ramsey Corp.: *See*—
Ramsey Accessories Mfg. Corp.
Rappaport, Albert I., d. b. a. Fire Box Industries, Long Island City, N. Y., to Fire Box Industries Inc. 661,229, pub. 1–28–58. Cl. 6.
Rawlplug Co. Ltd., The, London, England. 661,342, pub. 2–18–58. Cl. 23.
Read Brothers, Ltd., to Arthur Guinness Son & Co. Ltd., London, England. 60,735, new cert. Cl. 48.
Realistic Co., The, d. b. a. Reavis Sales Co., Cincinnati, Ohio. 661,459, pub. 2–18–58. Cl. 51.
Reavis Sales Co.: *See*—
Realistic Co., The.
Reed, Robert G., Co., Inc., Boston, Mass. 661,425, pub. 2–18–58. Cl. 42.
Reemtsma, Bernard A., Garner, Iowa. 556,310, canc. Cl. 24.
Reichhold Chemicals, Inc., Detroit, Mich. 661,259, pub. 2–18–58. Cl. 6.
Rexall Drug Co.: *See*—
Evans, Emanuel E.
Rhea Mfg. Co., Milwaukee, Wis. 354,721, 12(c) pub. 5–6–58. Cl. 39.
Richford Corp., Oceanside, N. Y. 661,220, pub. 2–18–58. Cl. 2.
Rinco Instrument Co.: *See*—
Rinderer, Francis J.
Rinderer, Francis J., d. b. a. Rinco Instrument Co., Greenville, Ill. 661,370, pub. 2–18–58. Cl. 26.
Robertshaw-Fulton Controls Co.: *See*—
Bridgeport Thermostat Co., Inc.

Rogers Imports Inc., New York, N. Y. 661,264, pub. 2–18–58. Cl. 8.
Romero Drug Co.: *See*—
Ancira, Alonso.
Roos Bros., Inc., San Francisco, Calif. 661,414, pub. 2–18–58. Cl. 39.
Rork, John, Brooklyn, N. Y. 661,230, pub. 2–18–58. Cl. 6.
Ross & Rowe, Inc., New York, N. Y. 661,256, pub. 2–18–58. Cl. 6.
Rothe, Walter F., d. b. a. The Floridian Beverage Co., Washington, D. C. 556,469, canc. Cl. 48.
Rough-N-It Products: *See*—
Weaver, John C.
Roux Laboratories, Inc., to Roux Laboratories, Inc., New York, N. Y. 355,034, ren. 3–8–58. Cl. 51.
Rubinstein, Helena, Inc.: *See*—
Stuart Products, Inc.
Russell Reinforced Plastics Corp., Lindenhurst, N. Y. 661,273, pub. 2–18–58. Cl. 12.
S. & E. & A. Metaxa, Piraeus, Greece. 358,321, ren. 7–5–58. Cl. 49.
S & F Chemical Co., Inc., Nashville, Tenn. 661,226, pub. 2–18–58. Cl. 5.
S. M. A. Corp., Cleveland, Ohio, to American Home Products Corp., New York, N. Y. 355,138, ren. 3–8–58. Cl. 18.
Safeway Stores, Inc., Oakland, Calif. 661,446, pub. 2–18–58. Cl. 46.
Saginaw Lime & Stone Co., Saginaw, Ala. 278,618, canc. Cl. 12.
Salvador Rodrigues, Inc., Tampa, Fla. 544,408, canc. Cl. 17.
Sanborn Co., Cambridge, Mass. 661,428, pub. 2–18–58. Cl. 44.
Saporta, Rene, d. b. a. Ge-Halin Products, New York, N. Y. 661,224, pub. 2–18–58. Cl. 4.
Sargent-Rayment Co., Palo Alto, Calif. 661,369, pub. 2–18–58. Cl. 26.
Sayour, Elias, Co., Inc., New York, N. Y. 661,411, pub. 2–18–58. Cl. 39.
Schenley Industries, Inc., New York, N. Y. 661,451, pub. 2–18–58. Cl. 50.
Schiller, Solomon S., d. b. a. Brooklyn Telephone Answering Service, Brooklyn, N. Y. 556,422, canc. Cl. 101.
Schluderberg-T., Wm., J. Kurdle Co., The, Baltimore, Md. 355,640, ren. 3–22–58. Cl. 46.
Schreiber, Brantman & Wyner, Inc., New York, N. Y. 195,374, canc. Cl. 39.
Schubert, Ray E., d. b. a. Checker Co., Hamden, Conn. 661,460, pub. 2–18–58. Cl. 51.
Schuls, Arthur F., d. b. a. Breathette Co., Kansas City, Mo. 556,214, canc. Cl. 18.
Schundler, F. E., & Co. Inc., Joliet, Ill. 661,289, pub. 2–18–58. Cl. 16.
Schwartz, B., & Co., Chicago, Ill. 661,444, pub. 2–18–58. Cl. 46.
Scientific Solutions, Inc., West Palm Beach, Fla. 556,392, canc. Cl. 6.
Scully-Jones and Co., Chicago, Ill. 661,343, pub. 2–18–58. Cl. 23.
Seaboard Equipment Co., Inc., New York, N. Y. 661,340, pub. 2–18–58. Cl. 23.
Searle, G. D., & Co., Skokie, Ill. 661,303, pub. 2–18–58. Cl. 18.
Sears, Roebuck and Co., Chicago, Ill. 556,163, canc. Cl. 12.
Seminole Flavor Co., Chattanooga, Tenn. 661,431, pub. 2–18–58. Cl. 45.
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Sheraton Mills, Inc., New York, N. Y. 556,366, canc. Cl. 42.
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Shulton, Inc., Clifton, N. J. 661,457, pub. 2–18–58. Cl. 51.
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Siegel, Henry I., Co. Inc., New York, N. Y. 556,311, canc. Cl. 39.
Signalite Inc., Neptune, N. J. 661,329, pub. 2–18–58. Cl. 21.
Silverplate Corp., d. b. a. Little Grey Gift Shop, New York, N. Y. 556,442, canc. Cl. 4.
Siris, A. J., Products Corp., New York, N. Y. 556,397, canc. Cl. 3.
Smith, Kline & French Laboratories, Philadelphia, Pa. 556,334, canc. Cl. 18.
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Societe Normande de Produits Chimiques, Paris, France. 556,283, canc. Cl. 15.
Sommer, Walter N., d. b. a. Spe-De-Way Products Co., Portland, Oreg. 661,473. Cl. 16.
Southwest Airways Co., South San Francisco, Calif. 556,477, canc. Cl. 105.
Spe-De-Way Products Co.: *See*—
Sommer, Walter N.
Spontane Mfg. Co., Atlanta, Ga. 556,221, canc. Cl. 6.
Squibb, E. R., & Sons, New York, N. Y. 556,303, canc. Cl. 18.
Squibb, E. R., & Sons, New York, N. Y. 556,304, canc. Cl. 18.
Standard Garments, Inc., Baltimore, Md. 661,416, pub. 2–18–58. Cl. 39.
Standard Oil Co., Bayonne, N. J., to Esso Standard Oil Co., Wilmington, Del. 122,349, ren. 7–23–58. Cl. 15.
Standard Oil Co., Whiting, Ind., and Chicago, Ill. 556,201, canc. Cl. 6.
Standard Oil Co. of New Jersey, to Esso Standard Oil Co., Wilmington, Del. 356,926, ren. 5–17–58. Cl. 15.
Standard Packaging Corp.: *See*—
Sterling Products, Inc.
Standard Pyroxoloid Corp., Leominster, Mass. 661,419–20, pub. 2–18–58. Cl. 40.
Standard Thread Co., Inc., New York, N. Y. 661,427, pub. 2–18–58. Cl. 43.
Stephens, W. E., Mfg. Co., Inc., Nashville, Tenn. 556,396, canc. Cl. 39.
Sterling Products Co., Easton, to Pennsalt Chemicals Corp., Philadelphia, Pa. 355,863, ren. 4–5–58. Cl. 6.
Sterling Products, Inc., to Standard Packaging Corp., New York, N. Y. 553,879, new cert. Cl. 2.
Stieff Co., The, Baltimore, Md. 661,373, pub. 2–18–58. Cl. 28.
Stockport Distributing Co. (Mail Order) Ltd., The, Stockport, England. 556,411, canc. Cl. 34.
Stone, Eugene E., III, d. b. a. The Stone Mfg. Co., by Stone Mfg. Co., Greenville, S. C. 357,090, 12(c) pub. 5–6–58. Cl. 39.
Stone, Eugene E., III, d. b. a. The Stone Mfg. Co., by Stone Mfg. Co., Greenville, S. C. 357,091, 12(c) pub. 5–6–58. Cl. 39.
Stone, H., & Co. Ltd., Philadelphia, Pa. 661,449, pub. 2–18–58. Cl. 49.
Stone Mfg. Co., The: *See*—
Stone, Eugene E., III.
Stuart Products, Inc., to Helena Rubinstein, Inc., New York, N. Y. 389,106, new cert. Cl. 6.
Style Stone, Inc., Cleveland, Ohio. 661,219, pub. 2–18–58. Cl. 1.
Suitime, Inc., New York, N. Y. 661,412, pub. 2–18–58. Cl. 39.
Swan Shoe Co., Inc., Baltimore, Md. 353,733, 12(c) pub. 5–6–58. Cl. 39.
Swift & Co.: *See*—
Ammon & Person.
Tanatex Chemical Corp., The, Kearny, N. J. 661,253, pub. 2–18–58. Cl. 6.
Taylor, Frank F., Co., The, Norwood, Cincinnati, Ohio. 661,319–20, pub. 2–18–58. Cl. 19.
Techkote Co. Inc., Inglewood, Calif. 661,228, pub. 2–18–58. Cl. 6.
Tedlee Plastics, Inc., New York, N. Y. 661,221, pub. 2–18–58. Cl. 2.
Telefunken Forsaljningsaktiebolag, Stockholm, Sweden. 556,259, canc. Cl. 36.
Thai Tapioca Ltd., Bangkok, Thailand. 661,435, pub. 12–3–57. Cl. 46.
Theatre Guild, The, New York, N. Y. 661,466, pub. 2–18–58. Cl. 107.
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Thomas, Jack O.
Thomas, Jack O., d. b. a. Thomas Candy Co., Denison, Tex. 414,941, canc. Cl. 46.
Thread Compounds Mfg. Co., Gardena, Calif. 556,226, canc. Cl. 12.
Time, Inc.: *See*—
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Togs, Jamie, Inc., New York, N. Y. 661,406, pub. 2–18–58. Cl. 39.
Toledo Plate & Window Glass Co., The, Toledo, Ohio. 661,380, pub. 2–18–58. Cl. 32.
Tolibia Cheese Mfg. Corp., Fond du Lac, Wis. 661,439, pub. 2–18–58. Cl. 46.
Toni Co., The: *See*—
Beauty Research Laboratories, Inc.
Winco Associates, Inc.
Topps Chewing Gum, Inc., Brooklyn, N. Y. 556,153, canc. Cl. 46.
Torrington Mfg. Co., The, Torrington, Conn. 661,355, pub. 2–18–58. Cl. 23.
Totsy Mfg. Co., Inc., Springfield, Mass. 661,336, pub. 2–18–58. Cl. 22.
Treasure Island, Inc., Cleveland, Ohio. 556,423, canc. Cl. 101.
Ulmer Pharmacal Co.: *See*—
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United States Gypsum Co., Chicago, Ill. 356,668, ren. 5–10–58. Cl. 12.
United States Rubber Co., New York, N. Y. 661,250, pub. 2–18–58. Cl. 6.
United States Spring & Bumper Co., Los Angeles, Calif. 556,210, canc. Cl. 19.
United Surplus Associates, New York, N. Y. 556,342, canc. Cl. 39.
Universal Laboratories, Inc., East Orange, to Westport Laboratories, Inc., Bridgeton, N. J. 556,169, canc. Cl. 51.
Upjohn Co., The, Kalamazoo, Mich. 556,193, canc. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 661,393, pub. 2–18–58. Cl. 38.
Utica Cutlery Co., Utica, N. Y. 356,243, ren. 4–19–58. Cl. 23.
Valentine Laboratories, Inc.: *See*—
Walgreen Co.
Van, Billy: *See*—
Van der Veer, William M.
Van Brode Sales Co., Inc., Clinton, Mass. 661,276, pub. 2–18–58. Cl. 13.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 661,287, pub. 2–18–58. Cl. 16.
Van der Veer, William M., d. b. a. Billy Van, San Diego, Calif. 661,337, pub. 2–18–58. Cl. 22.
Vanity Fair Mills, Inc., Reading, Pa. 661,400, pub. 2–18–58. Cl. 39.
Van Korngut, Joseph G., d. b. a. Crawford Creamery Co., Harmonsburg, Pa., to Cheese Products Co., Inc., Chicago, Ill. 351,558, ren. 11–2–57. Cl. 46.
Wade, R. M., & Co., Portland, Oreg. 661,472. Cl. 13.
Walgreen Co., d. b. a. Valentine Laboratories, to Valentine Laboratories, Inc., Chicago, Ill. 355,102, ren. 3–8–58. Cl. 18.

Walgreen Co., to Carrel, Ltd., Chicago, Ill. 355,116, ren. 3–8–58. Cl. 51.
Wanamaker, John, Philadelphia, Philadelphia, Pa. 355,248, ren. 3–8–58. Cl. 39.
Wargons Aktiebolag, Vargon, Sweden. 556,287, canc. Cl. 6.
Warren Woolen Co., Stafford Springs, Conn. 355,944, ren. 4–5–58. Cl. 42.
Waters Mfg. Co., South Sudbury, Mass. 661,364, pub. 2–18–58. Cl. 26.
Watkins, Phyllis E., d. b. a. Victor E. Watkins Co., Holland, Mich. 556,346, canc. Cl. 19.
Watkins, Victor E., Co.: *See*—
Watkins, Phyllis E.
Wayne Pump Co., The, Salisbury, Md. 661,363, pub. 2–18–58. Cl. 26.
Weaver, John C., d. b. a. Rough-N-It Products, Overland Park, Kans. 661,313, pub. 2–18–58. Cl. 19.
Weber and Heilbroner, Inc., New York, N. Y. 556,357, canc. Cl. 39.
West Bend Aluminum Co.: *See*—
Aluminum Products Co.
Western Consolidated Abstract Co., from F. E. Bell, d. b. a. Western Consolidated Abstract Co., Midland, Tex. 556,476, canc. Cl. 100.
Western-Holly Appliance Co., Culver City, Calif. 661,386, pub. 2–18–58. Cl. 34.
Westport Laboratories, Inc.: *See*—
Universal Laboratories, Inc.
Wheaton Glass Co., Millville, N. J. 661,384, pub. 2–18–58. Cl. 33.
White Laboratories, Inc., Newark, N. J. 556,271, canc. Cl. 18.
Whitestone Products Co. Inc., Brooklyn, N. Y. 661,376, pub. 2–18–58. Cl. 29.
Whitewater Raincoat Co., Whitewater, Wis. 556,349, canc. Cl. 42.
Wilkening Mfg. Co., Philadelphia, Pa. 606,391. Am. 7(d). Cl. 35.
Winco Associates, Inc., to The Gillette Co., d. b. a. The Toni Co., Chicago, Ill. 578,218, new cert. Cl. 51.
Winthrop-Stearns Inc., New York, N. Y. 556,352, canc. Cl. 18.
Woodbury, Byron W.: *See*—
King, A. R. (Mrs.), Inc.
Worthington Corp.: *See*—
Worthington Pump and Machinery Corp.
Worthington Pump and Machinery Corp., New York, N. Y., to Worthington Corp., Harrison, N. J. 120,927, ren. 3–12–58. Cl. 23.
Younghusband, James L., Chicago, Ill., to Associated Products, Inc., New York, N. Y. 358,064, ren. 6–28–58. Cl. 51.
Youngs Rubber Corp., New York, N. Y. 661,430, pub. 2–18–58. Cl. 44.
Zuckerman Farms Co., Stockton, Calif. 661,481. Cl. 46.

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PATENTS

NOTICES

Roster of Attorneys and Agents

The Patent Office has recently published a new edition of the *Roster of Attorneys and Agents Registered to Practice Before the U. S. Patent Office.*

This edition like the preceding one is an extract of the Official Registers maintained by the Patent Office and contains the names and addresses of all individuals and firms registered in the Patent Office on January 1, 1958. This publication is composed of three sections (1) Individuals in the United States, (2) Firms, and (3) Individuals in Foreign Countries. Each section contains Part I, Arranged Alphabetically, and Part II, Arranged Geographically.

This publication may be purchased from the Superintendent of Documents, Washington 25, D. C., for $1.00 per copy. Remittance in the form of check or money order should be payable to the Superintendent of Documents.

Annual Index of Trademarks

The 1957 edition of the Annual Index of Trademarks has been published. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: Buckram bound $2.50.

Change in Rules of Practice

Notice was given in the Federal Register of April 16, 1958, of the following change in the Rules of Practice which will take effect May 16, 1958:

1. *Rules of Practice in Patent Cases*
   Paragraph (b) of Rule 21 is amended to read as follows:

   (b) For photocopies or other reproductions of records or printed material, per page of material copied $0.30

2. *Trademark Rules of Practice*
   Paragraph (b) of Rule 2.6 is amended to read as follows:

   (b) For photocopies or other reproductions of records or printed material, per page of material copied $0.30

Erratum

All references to Patent No. 2,831,816 to Joseph L. Switzer, Robert C. Switzer, and Richard A. Ward, assignors to John D. Steele, for Method of Making Fluorescent Paramagnetic Pigments, appearing in the OFFICIAL GAZETTE of April 22, 1958, should be deleted as the application was withdrawn from issue and the patent was not issued.

Adjudicated Patents

(C. A. Calif.) Welch Patent No. 2,534,644 (33—126.4), for liquid measuring gauge, *Held* invalid. *Welch* v. *Grindle*, 251 F.2d 671; 116 USPQ 236.

(C. A. Oreg.) Korter Patent No. 2,631,552 (108—17), for aluminum shingles, *Held* invalid. *Bergman* v. *Aluminum Lock Shingle Corp.*, 251 F.2d 801; — USPQ —.

(D. C. Oreg.) Speed Patent No. 2,253,990 (279—631), for tool handle, *Held* valid and infringed. *Webster* v. *Speed Corp.*, 158 F. Supp. 472; 115 USPQ 285.

(D. C. N. Y.) Hochman Patent No. 2,326,997 (128—156), for bandage, *Held* invalid. *Surgitube Products Corporation* v. *Scholl Mfg. Co., Inc.*, 158 F. Supp. 540; 116 USPQ 253.

(D. C. R. I.) Oldak Patent No. 2,472,958 (24—97), cuff link construction. Claims 1 to 4 *Held* invalid. *Niash Refining Co.* v. *Azor, Inc.*, 158 F. Supp. 505; 116 USPQ 406.

Adverse Decisions in Interferences

In the designated interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed.

Pat. 2,714,131, F. N. Gillette, R. L. Garman, and L. L. Pourciau, Television recording apparatus, decided Feb. 4, 1958, Interference No. 87,979, claims 1, 2, 3, 11, and 12.

Pat. 2,728,105, A. Pacciarini, Apparatus for making tires, decided Nov. 25, 1957, Interference No. 88,165, claims 1, 4, 6, 7, 9, and 12.

Pat. 2,738,379, I. J. P. James and J. A. Lodge, Color television apparatus, decided Mar. 12, 1958, Interference No. 88,300, claims 1 and 6.

Pat. 2,742,185, J. L. Landry, Method and apparatus for feeding and dispensing particulate materials, decided Apr. 7, 1958, Interference No. 88,233, claims 1, 2, 3, 4, 10, and 11.

Disclaimers

2,457,310.—*David N. Judelshon*, Park Ridge, N. J. CUTTING MACHINE. Patent dated Dec. 28, 1948. Disclaimer filed Apr. 11, 1958, by the inventor.

Hereby enters this disclaimer to claims 1, 2, 3, 4, 5, 6, 7, and 8 of said patent.

2,658,728.—*George W. Evans, Jr.*, Teaneck, N. J. METHOD OF DETECTING LEAKAGE BETWEEN HEAT TRANSFER FLUIDS. Patent dated Nov. 10, 1953. Disclaimer filed Apr. 11, 1958, by the assignee, *The Lummus Company*.

Hereby enters this disclaimer to claim 1 of said patent.

New Applications Received During March 1958

Patents	7,056
Designs	412
Plant Patents	13
Reissues	19
Total	7,500

Issue

Patents	947	No. 2,834,016 to No. 2,834,962, incl.
Designs	29	No. 182,753 to No. 182,781, incl.
Plant Patents	9	No. 1,700 to No. 1,708, incl.
Total	985	

CONDITION OF PATENT APPLICATIONS AS OF MARCH 31, 1958

Total number of pending applications (excluding Designs)		210, 227
Total number of pending Design applications		6, 592
Total number of applications awaiting action (excluding Designs)		88, 284
Total number of Design applications awaiting action		2, 926
Date of oldest new application	Mar.	8, 1957
Date of oldest amended application	Feb.	13, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
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	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	7-10-57	7-30-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	7-8-57	7-2-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	9-19-57	7-9-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	7-1-57	7-5-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	7-1-57	7-1-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	8-29-57	8-5-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	7-1-57	7-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-5-57	5-31-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	7-11-57	7-8-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	7-17-57	7-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	8-22-57	8-7-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	7-5-57	4-15-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	7-11-57	7-15-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	7-1-57	7-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	7-15-57	7-3-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	5-21-57	5-22-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-1-57	7-1-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	7-1-57	7-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	7-1-57	7-1-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	7-1-57	7-1-57
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23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	4-4-57	4-1-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	8-13-57	8-19-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-30-57	4-4-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	9-3-57	7-1-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	8-14-57	8-13-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	7-1-57	7-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	6-20-57	4-30-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	7-9-57	7-1-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	7-10-57	7-12-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-16-57	7-10-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	8-19-57	7-12-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	8-30-57	8-20-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	10-11-57	10-1-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales	6-3-57	6-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	7-8-57	7-2-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	9-4-57	9-9-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	9-5-57	9-3-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	9-4-57	9-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-20-57	5-2-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	4-5-57	4-2-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	7-5-57	7-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	7-1-57	7-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	7-15-57	7-3-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	7-1-57	7-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	7-1-57	7-2-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	6-12-57	2-25-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	7-19-57	7-17-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	8-30-57	8-29-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	7-5-57	7-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-5-57	7-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	9-3-57	9-3-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	8-12-57	8-12-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	3-8-57	2-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	8-5-57	7-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	8-19-57	8-12-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	8-5-57	8-1-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-5-57	7-1-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	9-17-57	8-7-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	7-5-57	7-1-57
62. (IV) LOWE, D. E., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	8-13-57	8-5-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-14-57	5-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	7-8-57	4-22-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	6-7-57	7-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	7-1-57	7-3-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators	8-2-57	8-1-57
70. (II) BREWRINK, J. L., Security Laws Administration.		
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	8-5-57	8-1-57
CLASS. DIVS. II—LADY, J. E., Oscillators; Amplifiers	9-12-57	9-4-57
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	7-1-57	7-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	7-8-57	7-1-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	7-1-57	7-1-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	5-15-57	5-28-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	9-3-57	10-18-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	7-26-57	9-20-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during May 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,240,477, to 2,243,828, inclusive
Plant Patents ..... Numbers 466 to 469, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE HOLLINGSWORTH ET AL.

No. 6285. Decided March 14, 1958

[— CCPA —; — F.2d —; 117 USPQ 182]

1. EVIDENCE—AFFIDAVITS TO SHOW CRITICALNESS OF DIFFERENCES OVER PRIOR ART—STATEMENTS OF OPINIONS AND OF FACT.

Where applicants filed affidavits in support of a contention that differences between references and claimed processes were critical, *Held* that the Board of Appeals "properly refused to give weight to the affidavits so far as they express merely the opinions of the affiants as to the relative merits of appellants' process and those of the references, or as to possible difficulties involved in the carrying out of the processes of the references," but, *Held* that some of the affidavits contain statements of fact considered relevant and material to the question of patentability.

2. SAME—COMMERCIAL SUCCESS—MUST RESULT FROM INVENTION AS CLAIMED—PARTICULAR RANGES CLAIMED.

"* * * if evidence as to commercial success is to be persuasive it must appear that such success resulted from the invention as claimed, but that principle does not necessarily require that, when a particular range is claimed, there must have been successful commercial operation at every point in the range. Where, as here, the claims are directed to a combination of ranges and procedures not shown by the prior art, and where substantial commercial success is achieved at an apparently typical point within those ranges, and the affidavits definitely indicate that operation throughout the claimed ranges approximates that at the particular points involved in the commercial operation, we think the evidence as to commercial success is persuasive."

3. PATENTABILITY—PARTICULAR SUBJECT MATTER—METHOD OF DEFLUORINATING PHOSPHATE ROCK.

Claims to a method of defluorinating phosphate rock *Held* patentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 213,284.

REVERSED.

Pennie, Edmonds, Morton, Barrows & Taylor (*Clarence M. Fisher* and *Merton W. Sage* of counsel) for Hollingsworth et al.

Clarence W. Moore (*H. S. Miller* and *J. Schimmel* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the final rejection by the Primary Examiner of claims 1, 10, 11, and 12 of appellants' application for a patent on a method of defluorinating phosphate rock, on the ground of unpatentability over prior patents. No claims were allowed.

Claim 1, typical of the appealed claims, and upon which the other claims are dependent, reads:

1. The method of defluorinating phosphate rock which comprises subjecting the rock with a silica content not exceeding 6% to calcination at a temperature of at least 2600° F. without substantial fusion in the presence of water vapor and of a reagent mixture consisting essentially of the reaction product of sodium carbonate and phosphoric acid, the mol ratio of the Na_2O to P_2O_5 content of the reaction product being between 1.6 and 2.8, and the CaO, Na_2O, P_2O_5 and SiO_2 content of the combined phosphate rock and reagent mixture being such that the mol ratio of these constituents in the formula

$$\frac{\text{Mols } CaO + Na_2O - 3P_2O_5}{\text{Mols } SiO_2}$$

is between 1.3 and 2.8, and maintaining the calcining charge at said calcining temperature for a sufficient period of time to produce a phosphate product having high fertilizer availability and containing less than one part of fluorine for each 40 parts of phosphorus.

The references relied on are:

Meriwether, 1,058,249, April 8, 1913.
British Patent, 453,646, September 11, 1946.
Tremel, 2,093,176, September 14, 1947.
Ritter et al., 2,337,498, December 21, 1943.
Butt, 2,442,969, June 8, 1948.

Appellants' process relates to the defluorinating of phosphate rock by calcination for producing a product suitable for use as a fertilizer or as a supplement for animal feed. As claimed here, the process consists essentially of subjecting such rock with a silica content of not more than 6% to calcination at a temperature of at least 2600° F. in the presence of water vapor and a reagent mixture consisting essentially of the reaction product of sodium carbonate and phosphoric acid, with the mol ratio of the Na_2O to P_2O_5 content of the reaction mixture being between 1.6 and 2.8, and the CaO, Na_2O, P_2O_5 and SiO_2 content of the rock and reagent mixture having a mol ratio corresponding to a specified formula. The charge is maintained at calcining temperature long enough to produce a product containing less than one part of fluorine for each forty parts of phosphorus.

The Board, in affirming the Examiner's rejection of claim 1, considered as a basic reference only the Ritter patent which it found "most nearly approaches the claimed process." That patent relates to a process of producing fertilizer from phosphate rock by heating in the presence of phosphoric acid or alkali metal phosphates. The temperature may be as high as 2552° F., but it is stated that when alkali metal phosphates are used the temperature should be lower, with the preferable maximum being 2336° F. Ritter does not indicate that the silica content of the rock should be less than 6%. He suggests a 4% silica content when phosphoric acid is used, but notes that a higher silica content is suitable when alkali metal phosphates are used, and some of his examples involve the use of more than 6% silica. Unlike appellants, Ritter does not add a reaction product of soda and phosphoric acid, but adds those ingredients separately.

Ritter gives six specific examples, none of which fully satisfies the requirements of appealed claim 1. Example 6 is the closest, since it is the only one in which the mol ratio of the lime, soda, phosphoric acid, and silica meets the requirements of the claim. In that example, however, the soda and phosphoric acid are added separately and the mol ratio of Na_2O to P_2O_5 is 4.38 as opposed to the upper limit of 2.8 set forth in claim 1. Moreover, the operating temperature in Example 6 does not exceed 2336° F. whereas claim 1 requires a temperature of at least 2600° F.

The Board was of the opinion the differences between Ritter's process and that of claim 1 involved merely variations which would be obvious to a skilled worker in the art. [1] Appellants, on the other hand, assert that the differences as recited in claim 1 are critical and have filed several affidavits in support of that contention.

The Board properly refused to give weight to the affidavits so far as they express merely the opinions of the affiants as to the relative merits of appellants' process and those of the references, or as to possible difficulties involved in the carrying out of the processes of the references. However, as pointed out below, some of the affidavits contain statements of fact which we consider relevant and material to the question of patentability of the appealed claims.

The affidavits state that unless a temperature substantially in excess of 2500° F. is attained during the calcining the tricalcium phosphate present remains in its beta form, which appears to have no commercial value as a fertilizer. Heating to a higher temperature results in conversion of the phosphate to its alpha form which produces a higher availability as fertilizer. Accordingly, the difference in operating temperatures between appellants' process and that of Ritter is not merely arbitrary, but has a definite significance.

It was noted by the Board that the Butt patent "mentions a temperature of 2642° F. as previously used in the calcination of phosphate rock to reduce the fluorine content thereof." While Butt does refer to that temperature, he states that it may be used only "by the exercise of extreme care" and that because of the difficulties involved in operating commercially at such a temperature it has been the general practice to pretreat the phosphate rock with sulphuric acid to convert it "into so-called den superphosphate." He does not describe how operation at any temperature above 2500° C. can be carried out. It therefore seems to us that the Butt disclosure would tend to discourage, rather than encourage, the use of a temperature as high as 2600° in the Ritter process.

From the foregoing, it appears there are definite and significant differences in temperature, proportions of materials, and operating procedures between appellants' process and that of the Ritter patent, which apparently constitutes the closest approach in the prior art. The affidavits reflect that appellants' process is being used extensively and that it is the only commercial process being used to defluorinate phosphate rock solely by calcination to produce a defluorinated product suitable as both a fertilizer and a supplement for animal feed.

The Board gave no weight to the evidence relating to commercial success. Although the commercial process was carried out with the particular type of raw material available, there is nothing to suggest that other similar materials would not also be successful so long as they conformed to the requirements of the claims. On the contrary, the affidavits appear to be sufficient to establish that satisfactory operation can be obtained throughout the claimed ranges but that difficulties are encountered at once in going beyond them.

It is, of course, true, as observed by the Board, that [2] if evidence as to commercial success is to be persuasive it must appear that such success resulted from the invention as claimed, but that principle does not necessarily require that, when a particular range is claimed, there must have been successful commercial operation at every point in the range. Where, as here, the claims are directed to a combination of ranges and procedures not shown by the prior art, and where substantial commercial success is achieved at an apparently typical point within those ranges, and the affidavits definitely indicate that operation throughout the claimed ranges approximates that at the particular points involved in the commercial operation, we think the evidence as to commercial success is persuasive.

Claim 1 is drawn to a rather specific method which differs in substantial respects from those of the prior art, and which is shown to have resulted in the successful solution of a commercial problem of long standing. Under the circumstances of the case we feel that appellants have made an inventive contribution to the art and that it is properly defined in claim 1.

Claims 10, 11, and 12 are dependent upon and more limited than claim 1, and are allowable for the same reasons.

[3] The decision of the Board of Appeals is reversed.

REVERSED.

JACKSON, *J.*, retired, recalled to participate was present at the hearing of this appeal but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

IN RE TANSEL

No. 6325. Decided March 14, 1958

[— CCPA —; — F.2d —; 117 USPQ 188]

1. PRIORITY OF INVENTION—COMPLETION OF INVENTION—DILIGENCE—NOT MATERIAL TO PRIORITY IF BEFORE CONCEPTION.

"It is not clear how an inventor can be diligent with respect to an invention before he has conceived it and, if he were, such diligence would not be material to any issue of priority. The only diligence which is material in that respect relates to the reduction to practice of an invention after it has been conceived (35 U. S. C. 102(g))."

2. SAME — SAME — CONCEPTION — *Mergenthaler* v. *Scudder* (1897), 11 APP. D. C. 264, 1897 C. D. 724, CONSTRUED.

"The Mergenthaler decision has been repeatedly cited and approved by this court, * * *, but we do not construe it as holding that the final size and shape of every part and the location of every nut, screw, and bolt must be exactly foreseen before the conception of an apparatus can be said to be complete. It is sufficient if the inventor is able to make a disclosure which would enable a person of ordinary skill in the art to construct the apparatus without extensive research or experimentation."

3. SAME—SAME—SAME—EFFECT OF TRYING TO IMPROVE MACHINE BEFORE BUILDING.

"* * * the Board * * * observed that 'Mr. Harder was perhaps working for a degree of excellence and efficiency in the completed machine beyond what was required to constitute a reduction to practice of the invention.' The fact that Harder was trying to improve the machine before building it does not necessarily establish that the original conception by appellant did not embrace an operative machine."

4. PATENTABILITY—ANTEDATING A REFERENCE, RULE 131—CONCEPTION—PARTICULAR SUBJECT MATTER—PHOTOGRAPHIC PRINTING APPARATUS.

Upon finding that appellant had established conception of the invention defined by the claims prior to the filing date of the basic reference, with lack of diligence not being in issue, *Held* that the decision of the Board of Appeals refusing claims to a photographic printing apparatus is reversed.

APPEAL from Patent Office. Serial No. 56,880.

REVERSED.

Earl Babcock and *Solon B. Kemon* for Tansel.

Clarence W. Moore (*S. Wm. Cochran* of counsel) for the Commissioner of Patents.

Before O'CONNELL, *Acting Chief Judge*, and WORLEY, and RICH, *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the final rejection by the Primary Examiner of claims 9, 10, 11, 13, 14, 16 to 20, inclusive, 34, 35, and 38 to 44, inclusive, of appellant's application for a patent on photographic printing apparatus. Claim 9 is representative of the appealed claims and reads:

> 9. In photographic printing apparatus, in combination, a carrier, means for mounting the carrier for continuous rotation during operation, a motor for rotating the carrier continuously, a plurality of fonts of characters on said carrier, a source of flash light, a photographic film and an optical system for projecting, upon the occurrence of successive flashes of light, images of the characters of a given font onto said film one at a time and means for bringing a selected font of characters in between the source of light and the optical system when desired.

The following references were relied on:

Franke, 829,263, August 21, 1906.
Muller (German), 407,965, January 6, 1925.
Harrold, 2,475,497, July 5, 1949.

Claims 34 and 40 were rejected on Harrold in view of Muller, claim 41 on Harrold in view of Franke, and the remainder of the claims on Harrold alone. All the rejections are thus dependent upon the use of the Harrold patent as a reference, and it is not disputed by appellant that if that patent is properly used as a reference the rejection is proper. Appellant contends, however, that he has established a date of invention prior to November 15, 1944, the filing date of the application on which the Harrold patent was granted, and that the patent is thus not properly used as a reference.

The evidence relied on by appellant in support of his alleged date of invention comprises a number of affidavits and exhibits, as well as the evidence presented by him in Interference No. 84,685, which was considered by this court in *Tansel* v. *Higonnet et al.*, 42 CCPA (Patents) 732, 215 F.2d 457, 103 USPQ 58. The Board of Appeals, while holding that appellant had failed to prove a conception date as early as November 15, 1944, stated that "The record in the interference proceeding is considered as establishing that the party Tansel was diligent in working on the subject matter supporting such claims [the claims involved here] from a time prior to November 15, 1944." [1] It is not apparent how an inventor can be diligent with respect to an invention before he has conceived it and, if he were, such diligence would not be material to any issue of priority. The only diligence which is material in that respect relates to the reduction to practice of an invention after it has been conceived (35 U. S. C. 102(g)). It seems clear from the Board's decision, however, that lack of diligence was not a ground for rejection of the appealed claims, and that the sole issue here is whether appellant has established conception of the invention defined by those claims prior to Harrold's filing date, November 15, 1944.

Appellant's application discloses a photocomposing machine in which characters on a continuously moving carrier are photographically recorded on film for use in the printing process. The machine is controlled by a keyboard and a register is provided for storing information as to the characters and spaces in each line of composition. A decoding device controlled from the stored information controls the projection of such characters onto a film in proper spaced relation. The projecting device includes a rotatable character carrier, optical projecting system, film carrying devices, and an intermittent discharge tube for giving flash exposures to selected characters. The control of the flash discharge tube to operate at the proper time is effected by solenoids controlled by the decoding device.

It is unnecessary to consider appellant's rather complicated apparatus in further detail since the Board's holding that appellant had not conceived the invention prior to November 15, 1944, is based solely on the finding that he did not have "a definite and permanent idea of the complete and operative concept of the flash circuit component of his invention," prior to that date. The claims have not been discussed separately either in the decision of the Board or in the brief for the Commissioner, and apparently they will all stand or fall together, since it appears to be conceded by the Board that if the various exhibits and disclosures of appellant prior to November 15, 1944, contained an adequate disclosure of the flash circuit component of the device, they are sufficient to establish conception as to all the appealed claims.

In support of its holding, the Board relied on the following statement in *Mergenthaler* v. *Scudder*, 11 App. D. C. 264, 1897 C. D. 724:

> The conception of the invention consists in the complete performance of the mental part of the inventive act. All that remains to be accomplished in order to perfect the act or instrument belongs to the department of construction, not invention. It is, therefore, the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice that constitutes an available conception within the meaning of the patent law.

[2] The Mergenthaler decision has been repeatedly cited and approved by this court, *Harry P. Townsend* v. *Henry L. Smith*, 17 CCPA (Patents) 647, 36 F.2d 292, 4 USPQ 269; *Kenneth F. Cooper* v. *Jesse P. Hubbell*, 19 CCPA (Patents) 790, 53 F.2d 1072, 12 USPQ 21; *Orvis F. Royce* v. *Frederick C. Holtz*, 19 CCPA (Patents) 964, 55 F.2d 465, 12 USPQ 203; and *In re Beach*, 33 CCPA (Patents) 815, 152 F.2d 981, 68 USPQ 196, but we do not construe it as holding that the final size and shape of every part and the location of every nut, screw, and bolt must be exactly foreseen before the conception of an apparatus can be said to be complete. It is sufficient if the inventor is able to make a disclosure which would enable a person of ordinary skill in the art to construct the apparatus without extensive research or experimentation. *In re Beach*, supra; *Garand* v. *Pedersen*, 22 CCPA (Patents) 1161, 76 F.2d 407, 25 USPQ 247; and *Barba* v. *Brizzolara*, 26 CCPA (Patents) 1281, 104 F.2d 198, 41 USPQ 749.

As stated by the Board, the evidence of record shows that appellant, prior to November 15, 1944, had prepared a written description of his invention "including the concept that a flash tube, photo-cell timing circuit, and electronic equipment to flash said tube would be used in the combination." Appellant does not contend that his disclosures prior to November 15, 1944, included a specific flash circuit or timing means, and admits that if he were claiming to be the inventor of a flash circuit, such disclosures would be insufficient. It is his position, however, that such circuits were old and that those skilled in the art would have understood, on the basis of his disclosures, how they could be employed to produce the desired result.

Donald C. Harder, who was employed by appellant to build a machine embodying his invention, executed an affidavit in which he made the following statements:

> That the new combination using the flash control was fully disclosed to him by Tansel in December, 1943, and that he

told Tansel in December, 1943, that he could successfully build a photocomposing machine in accordance with his conception, which he then proceeded to do;

That immediately after Tansel's disclosure to him in December, 1943, he began a study of the prior art, particularly the art on flash circuits and controls therefor and as a result of that study selected, from the prior art, the circuits known as the Edgerton circuits for controlling the flash in the Tansel machine;

* * * * * * *

That while Tansel helped him build the machine he had sufficient knowledge long before November 6, 1944, to enable him to have built it without Tansel's help.

We find nothing of record which tends to discredit the above statements. The problem involved is essentially one of accurately coordinating the timing of the flash with the remaining operations of the apparatus. Such coordination is, of course, broadly old in a wide variety of mechanisms, and it does not appear that its application to appellant's device presented any problems of peculiar difficulty. If we correctly understand the invention, there is no apparent reason why a skilled mechanic could not have readily worked out an operative apparatus, on the basis of appellant's disclosures, for performing the necessary functions.

Both in the decision of the Board and in the brief for the Commissioner emphasis is placed on the fact that in January 1945 Harder wrote a letter which indicates that he was still seeking information as to triggering circuits for operating flash tubes to meet "the requirements of the apparatus I have in mind." That letter, however, in our opinion, does not refute Harder's categorical statements that he could have built an operative machine on the basis of information which he had prior to November 15, 1944, but merely indicates that he was seeking the best method of adapting appellant's disclosure for use. [3] This appears to have been recognized by the Board which observed that "Mr. Harder was perhaps working for a degree of excellence and efficiency in the completed machine beyond what was required to constitute a reduction to practice of the invention." The fact that Harder was trying to improve the machine before building it does not necessarily establish that the original conception by appellant did not embrace an operative machine.

[4] For the reasons given, we are of the opinion that appellant has established conception of the invention defined by the appealed claims prior to November 15, 1944. Thus, it becomes necessary to reverse the decision of the Board of Appeals.

REVERSED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,163,638, S. P. Vaughn, Cleaning devices; **2,358,673**, same, Mop, **filed** Nov. 1, 1955, D. C., S. D. Calif. (San Diego), Doc. 1794-SD, *Sidney P. Vaughn et al.* v. *Alfred M. Lewis, Inc. et al.* Claims 8 and 9 of Pat. No. 2,163,638 held valid and not infringed; claim 5 of Pat. No. 2,358,673 held valid and infringed; defendants restrained Mar. 25, 1958.

2,220,509, F. Brons, Process and apparatus for exploring geological strata, **amended** report filed Jan. 17, 1958, D. C., S. D. Tex. (Houston), Doc. 11454, *Pgac Development Co.* v. *Lane-Wells Co., Inc.*

2,255,770, E. A. Glynn, Retreading mold; **2,593,137**, same, Tread centering mechanism for tire molds; **2,734,225**, same, **filed** July 24, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35707, *Super Mold Corp. of California* v. *Bacon Vulcanizer Mfg. Co., Inc.* Consent judgment of dismissal as to Patents 2,255,770 and 2,593,137; permanent injunction as to Patent 2,734,225 Apr. 2, 1958.

2,358,673. (See 2,163,638.)

2,384,806, E. Berdach, Undergarment; **2,549,361**, same, **filed** Dec. 26, 1956, D. C., S. D. N. Y., Doc. 116/58, *Lily of France, Inc.* v. *Enchantress Foundations, Inc. et al.* Stipulation and order of discontinuance Apr. 3, 1958.

2,403,298, F. E. Payne, Seals; **2,464,988**, same, Single convolution rubber sealing element; **2,472,257**, A. J. Matter, Shaft seal with internal drive, **filed** May 2, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c805, *Crane Packing Co.* v. *Garlock Packing Co.* Consent order; dismissed without prejudice Jan. 29, 1958.

2,438,173, Johnson and Harvey, Portable and collapsible scaffolding unit; **2,619,390**, W. J. S. Johnson, Scaffolding and span therefor, **filed** Apr. 9, 1958, D. C. Minn. (Minneapolis), Doc. 458/58, *Up-Right, Inc. et al.* v. *Wayne K. Brush.*

2,464,988. (See 2,403,298.)

2,472,257. (See 2,403,298.)

2,495,870, G. J. Sonkup, Trim attaching device, **filed** Apr. 4, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 296/58-HW, *Lockheed Aircraft Corp.* v. *Chrysler Corp.*

2,549,361. (See 2,384,806.)

2,593,137. (See 2,255,770.)

2,619,390. (See 2,438,173.)

2,657,500, H. W. Samolewitz, Transparent doll eye, **filed** Dec. 1, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 16080, *Morgon Corp.* v. *Winslow Metal Mfg. Corp. et al.* Consent judgment Apr. 7, 1958.

2,667,990, Re. 23,830, A. B. Mojonnier, Dispensing mechanism with time controlled flow, **filed** Apr. 10, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c648, *The Mojonnier Dawson Co.* v. *Liquid Package Equipment Co. et al.*

2,668,328, F. E. Porter, Method of coating patterned plastic sheets, **filed** July 1, 1954, D. C. N. J. (Camden), Doc. 600/54, *U. S. Chemical Corp.* v. *National Solvents Corp.* Stipulation of dismissal with prejudice (notice Mar. 25, 1958).

2,705,827, Jean-Paul Gamache, Thread cutting and inspection machine, **appeal** filed Mar. 24, 1958, C. C. A., 4th Cir., Doc. 7651, *J. W. L. Funchion* v. *Somerset Knitting Co. et al.* Dismissed on stipulation with prejudice; cause remanded to District Court Apr. 8, 1958.

2,734,225. (See 2,255,770.)

2,737,662, J. Winson, Waterproof mittens, **filed** Dec. 23, 1957, D. C., S. D. N. Y., Doc. 128/106, *Air Baby, Inc.* v. *Improved Plastic Mitten Corp. et al.* Consent judgment for permanent injunction Apr. 4, 1958.

2,760,885, Larsen and Groome, Process for bonding hydraulic cementitious materials, **filed** Apr. 4, 1958, D. C. Oreg. (Portland), Doc. 9739, *Larsen Products Corp. et al.* v. *Pacific Builders Supply Co. et al.*

2,762,391, W. M. Reese, Differential pressure responsive device; **2,762,392**, same, Differential pressure responsive bellows device; **2,762,393**, same, Differential pressure responsive device; **2,827,716**, same, **filed** Apr. 2, 1958, D. C., S. D. Tex. (Houston), Doc. 11692, *Industrial Instrument Corp.* v. *The Foxboro Co.*

2,762,392. (See 2,762,391.)

2,762,393. (See 2,762,391.)

2,787,826, C. N. Aronson, Work holder, **filed** Apr. 8, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c85, *Charles N. Aronson* v. *Harnischfeger Corp.*

2,808,834, W. G. Marden, Apparatus for semen collection, **filed** Jan. 2, 1958, D. C. Colo. (Denver), Doc. 5906, *William G. Marden* v. *Nicholson Mfg. Co. et al.* Order of dismissal with prejudice Mar. 26, 1958.

2,809,673, A. W. McMurray, Non-slip or friction-surfaced extensible woven fabric etc., **filed** Apr. 3, 1958, D. C., W. D. N. C. (Statesville), Doc. 368, *Ansonia Mills, Inc.* v. *National Weaving Co., Inc.*

2,816,666, M. R. Nadel, Display devices, **filed** Apr. 10, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18616, *Comptone Co., Ltd.* v. *Opti-Ray, Inc.*

2,827,716. (See 2,762,391.)

Re. 23,830. (See 2,667,990.)

Des. 168,426, I. Roskin, Gem setting or similar article, filed Nov. 29, 1956, D. C., S. D. N. Y. Doc. 115/124, *I. Roskin Co., Inc.* v. *Alsan Mfg. Co.* Stipulation and order of dismissal Apr. 8, 1958.

Des. 178,001, L. W. Sparks, Watch or similar article, filed May 1, 1957, D. C., S. D. N. Y., Doc. 120/60, *Vacheron & Constantin-Le Coultre Watches, Inc.* v. *Louvic Watch, Inc.* Consent order and judgment for permanent injunction Apr. 8, 1958.

Des. 180,907, Kay and Cormier, Sock, filed Dec. 3, 1957, D. C., S. D. N. Y., Doc. 127/238, *Roland J. G. Nadeau, Trustee, Under a Declaration of Trust* v. *Kramer Bros., Inc.* Final consent judgment for permanent injunction Apr. 4, 1958. Same, filed Dec. 12, 1957, same, Doc. 127/346, *Roland J. G. Nadeau, Trustee* v. *W. W. Woolworth Co., Inc.* Decree as above.

PLANT PATENTS

GRANTED MAY 13, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,700

ROSE PLANT

Francis Meilland, Cap Azura, Cap d'Antibes, Alpes Maritimes, France, assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania

Application September 30, 1957, Serial No. 687,315

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its relatively tall, vigorous and free habit of growth, its flowering stems of good cutting length, its floriferousness, its very double blooms and their good form when open, the clear, bright Delft Rose general color tonality of its blooms and their habit of maintaining their color throughout their life, and the good substance and longlasting quality of the flower petals.

1,701

AZALEA PLANT

Owen R. Bristow, San Bernardino, Calif., assignor to Mossholder Nursery, Orange County, Calif.

Application December 19, 1956, Serial No. 629,429

1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove characterized generally by its firm rooting and unusual controllable forcing qualities as well as adaptability to outdoor growth, its compactness of plant with prolific bud setting qualities, and particularly characterized by its massive blooming of large deeply ribbed flowers having characteristic speckling on the top half of the flower.

1,702

AZALEA PLANT

Owen R. Bristow, San Bernardino, Calif., assignor to Mossholder Nursery, Orange County, Calif.

Application March 1, 1957, Serial No. 643,482

1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove, and characterized generally by the massive blooming habit of an unusually large hose-in-hose flower having ruffled edges, and further characterized by the extended holding quality of the flower, but particularly characterized by the flower color of a soft salmon with contrasting maroon speckling and throat markings.

1,703

AZALEA PLANT

Owen R. Bristow, San Bernardino, Calif., assignor to Mossholder Nursery, Orange County, Calif.

Application May 6, 1957, Serial No. 657,466

1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove, and characterized generally by its compact bushy growth in the absence of trimming and its attractive green glossy foliage between blooming seasons, and particularly characterized by the exceptional commercial forcing quality as an unusually heavy bud setter with resulting blooming period of longer duration than most known varieties, the flower being characterized by a delicate pastel color particularly suitable for spring and Easter forcing.

1,704

AZALEA PLANT

Owen R. Bristow, San Bernardino, Calif., assignor to Mossholder Nursery, Orange County, Calif.

Application May 6, 1957, Serial No. 657,467

1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove, and characterized generally by the ease and rapidity with which the plant may be grown outdoors or as forced under glass, the plant being distinguished by its bushy and many-branched feature with attractive dark green glossy foliage, and particularly characterized by the heavy and prolonged bud setting quality resulting in continuing massive blooming of orchid-like pure white flowers having distinctive red speckling in their throats.

1,705

AZALEA PLANT

Owen R. Bristow, San Bernardino, Calif., assignor to Mossholder Nursery, Orange County, Calif.

Application May 6, 1957, Serial No. 657,468

1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove, and characterized generally by the extended salable period of the forced plant when the buds are ready to open into full bloom, and particularly characterized by rosebud form of the bud while opening and the exceptional lasting quality of the unusual double flower having an outstandingly delicate pink color.

1,706

AZALEA PLANT

Owen R. Bristow, San Bernardino, Calif., assignor to Mossholder Nursery, Orange County, Calif.

Application May 9, 1957, Serial No. 658,211

1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove, and characterized generally by its strength of rooting and growth on its own roots, its rapid growth as a forcing variety, its glossy deep green mature foliage, and its delicate outstanding pastel lavender colored flowers with white blotchings, and particularly characterized by the exceptional holding ability of the flowers after they come into bloom.

1,707
AZALEA PLANT
Owen R. Bristow, San Bernardino, Calif., assignor to Moonholder Nursery, Orange County, Calif.
Application July 30, 1957, Serial No. 675,237
1 Claim. (Cl. 47—60)

A distinct and new variety of azalea plant, substantially as illustrated and described hereinabove, and characterized generally by its compact, bushy, symmetrical plant aspect with very dark green, glossy foliage, and particularly characterized by the exceptionally different color markings on the hose-in-hose and hose-in-hose semi-double ruffled flowers as seen to be a variation in their pink coloring with irregular white mottling.

1,708
AZALEA PLANT
Owen R. Bristow, San Bernardino, Calif., assignor to Moonholder Nursery, Orange County, Calif.
Application July 30, 1957, Serial No. 675,238
1 Claim. (Cl. 47—60)

A distinct and new variety of white azalea plant, substantially as illustrated and described hereinabove, and characterized generally by its trumpet shaped hose-in-hose flower having prominent stamens, and particularly characterized by its exceptionally late blooming season from a heavy consistent set of greenish-yellow buds in which the greenish-yellow color decreases in saturation on the petals as the flower opens.

PATENTS

GRANTED MAY 13, 1958

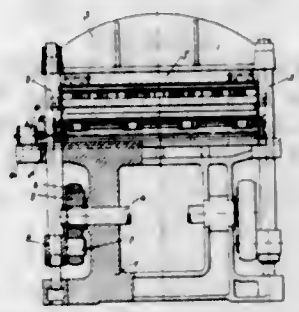
GENERAL AND MECHANICAL

2,834,016

APPARATUS FOR SECURING NAILS ON PLATES MADE FROM PLIABLE MATERIAL, ESPECIALLY PLYWOOD PLATES

Heinrich Friedrich Wilhelm Stedler, Lauterbach, Hessen, Germany, assignor to Durabel-Faltbox Stedler Kommanditgesellschaft, Lauterbach, Hessen, Germany

Application December 7, 1955, Serial No. 551,695
Claims priority, application Germany December 20, 1954
8 Claims. (Cl. 1—1)



1. In an apparatus of the type described for nailing a plurality of superposed workpieces together, the combination of table means including a plate for supporting said workpieces, hammer means for driving a nail through said workpieces, clinching anvil means disposed below said table means and in alignment with said hammer means for engaging the protruding end of a nail shank after the nail is driven through the workpieces by said hammer means, resiliently mounted sleeve means surrounding said clinching anvil means, said plate being provided with a recess in which said resiliently mounted sleeve is sunk, said plate also being spring-biased, a locking member firmly holding said plate, while the nail is driven through said workpieces by said hammer means, means for disengaging said locking member after the nail is driven through said workpieces so as to allow said plate in said table means to descend and the protruding portion of the nail shank to contact said clinching anvil means, and means for rotating said anvil means whereby the protruding portion of the nail shank will be spirally twisted and pressed flat against a face of one of the workpieces.

2,834,017

DETACHABLE SHIELD FOR SAFETY HATS

Jack N. Simpson and William R. Bohner, Reading, Pa., assignors, by mesne assignments, to The Electric Storage Battery Company, Philadelphia, Pa., a corporation of New Jersey

Application March 28, 1955, Serial No. 497,052
1 Claim. (Cl. 2—10)



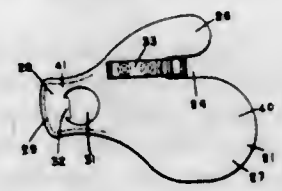
In combination with a safety helmet having a crown and an outwardly extending brim at the front part thereof, an arcuate transparent shield of substantially the same radius as the brim for protecting the face of the wearer, a flexible strip bent into arcuate shape and rigidly secured across the upper portion of the shield and projecting outwardly beyond the shield, a pair of readily detachable supporting clips clipped onto opposite side portions of said brim for rotatably supporting the end portions of said strip, each of said clips being in the form of a single strip of spring metal having a substantially U-shaped portion adapted to be clipped onto a side portion of said brim and having a vertical portion extending upwardly from one of the extremities of said U-shaped portion and inwardly of said brim, said vertical portion having a hole with a bolt extending therethrough, the ends of the strip extending from said shield across the brim and being pivotally attached to the said vertical portion by the said bolt.

2,834,018

FINGER PROTECTORS

Allen E. Farmes, Minneapolis, Minn.

Application May 23, 1955, Serial No. 510,470
6 Claims. (Cl. 2—21)



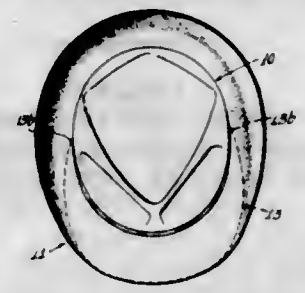
1. An archer's finger protector comprising a finger covering constructed of flexible material and adapted to overlie the portions of the fingers of the archer which grasp the bow string, said covering having a slot therein adapted to register with the space between the fingers through which the arrow slides and a spacer, plate-like in form having an edge overlying a portion of said covering and substantially in alignment with said slot, said spacer being constructed of a rigid material, fasteners extending through said covering and into said spacer for holding the spacer through said edge attached to the covering, and holding means on said covering and adapted to engage portions of the fingers of the user to hold the covering and spacer in operative position.

2,834,019

HAT

Lawrence D. Cavanagh, East Norwalk, Conn., assignor to Hat Corporation of America, Norwalk, Conn., a corporation of Delaware

Application January 6, 1956, Serial No. 557,735
3 Claims. (Cl. 2—175)



1. In a felt hat having a crown and a connected brim extending therearound, said brim having the outer portion folded back and secured to the crown adjacent the base thereof to form a two-ply, soft, flexible brim, the

improvement wherein a preformed, stiff, downwardly extending visor member is disposed between and completely enclosed by the plies of the brim at the front of the hat, the front portion of said visor being substantially coextensive with the brim at the front central portion of the brim, with the outer edge of the brim and the secured portion of the brim at the base of the crown tightly engaging the visor for a substantial portion across the front of the brim to provide a predetermined fixed, downwardly extending shape for the brim at the front of the hat.

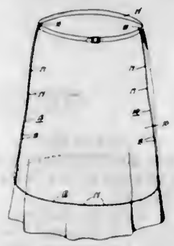
2,834,020
PANT TYPE GARMENT
Fredrick Warten, Carversville, Pa., assignor to Kingsboro Mills, Inc., Chattanooga, Tenn., a corporation of New York
Application September 20, 1955, Serial No. 535,417
1 Claim. (Cl. 2—224)



A panty garment comprising a central elongated panel wider at its midportion than at its ends and having the edges of said midportion concave to conform to the shape of the legs at the inner sides thereof and having straight side edges extending from the opposite ends of said concave portions in outwardly converging directions, a pair of rear sections of identical shape and size, each section having an inner edge coextensive with and stitched to the adjacent straight side edges of one end of said panel, the outer edges on said sections parallel with the inner edges thereof and being shorter than said inner edges, the outer ends of said sections disposed parallel and in the same plane with the adjacent end of said panel, front sections of identical shape and size having their inner edges coextensive with and stitched to the adjacent straight edges of the adjacent end of said panel, the outer edges of said front sections being shorter than the inner edges thereof, and the end edges parallel and in the same plane with the adjacent end of said panel, the outer side edges of said rear and front sections being of equal length and are stitched together, and the inner end edges of said front and rear sections curved to form continuations of the concave edges of said central panel forming leg engaging portions, elastic bands superimposed upon the outer sides of the waist line edge portions and the outer sides of the leg engaging portions whereby the panty garment is devoid of seams in the central crotch panel, and whereby the concave portions engage the legs and hold the garment against ride-up.

2,834,021
SKIRT RESTRAINER
Charles W. Landauer, Detroit, Mich.
Application August 30, 1955, Serial No. 531,367
6 Claims. (Cl. 2—273)

1. A restraining device adapted to be worn over a skirt, comprising, a flaccidly flexible loop to freely encircle and lie upon the lower outer face portion of a skirt above the lower skirt hem, a plurality of flexible supporting members extending upwardly from said loop along the outer face of said skirt, and means for fastening the upper ends of said members at the waist line of the skirt, the said flexible loop and said flexible supporting members providing outer weighted means which will



restrain the skirt against wind gusts but will not interfere with natural movement of the skirt due to body motion.

2,834,022
TROUSERS SUPPORT
Louis Heyman, Plainfield, N. J.
Application April 5, 1956, Serial No. 576,354
1 Claim. (Cl. 2—323)



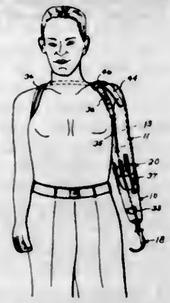
The combination of a suspender-depending member having a slotted lower end, with a trousers support comprising a single body of oval outline and having a front portion, a rear portion and a narrow intermediate portion joining said front and rear portions and forming a circumferential groove, said intermediate portion being removably mounted into said slotted end, said front portion having a front surface; and a hook firmly connected with said front portion and extending from an edge of said front portion over a part of said front surface and parallel to said front surface.

2,834,023
ANTERIOR CHAMBER LENSES FOR REFRACTIVE CORRECTION OF APHAKIA, HIGH AMETROPIA, AND ANISOMETROPIA
Wolfgang A. Lieb, Richmond, Va., assignor to Titmus Optical Company, Inc., Petersburg, Va., a corporation of Virginia
Application February 6, 1957, Serial No. 638,484
7 Claims. (Cl. 3—1)



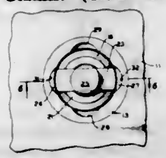
1. An optical lens having resilient mounting means for positioning said lens in the anterior chamber of the eye between the cornea and the iris, said means comprising loops formed of a thin rod of resilient material secured to said lens and in the form of tapered wings terminating in arcuate end portions having a radius of curvature less than the radius of curvature of the lens.

2,834,024
ARTIFICIAL ARM
Joseph C. Aveni, Melrose, Mass.
Continuation of application Serial No. 208,199, January 27, 1951. This application September 10, 1954, Serial No. 455,162
2 Claims. (Cl. 3—12)



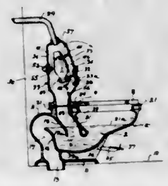
1. An artificial arm for use with a gripping device and with a supporting harness, said arm comprising a hollow upper arm section having a stump receiving socket at its upper end, a hollow forearm section including at one end a device receiving support, means pivotally connecting the other ends of said arm sections so that said arm may be flexed from a predetermined straightened position with a pivot center at the lower end of said upper arm section, the front portion of said forearm section having an opening extending forwardly from its connected end and being dimensioned and located to enable said arm to be flexed to an extent approximately equal to that of a normal human arm, and a relatively wide transversely disposed slot adjacent said support in the front part of the side of said forearm section, said upper arm section having a first aperture in its front portion and a second aperture in its back portion located between the bottom of said socket and said center, an arm flexing cord attached at one end to the front portion of said forearm section adjacent the front end of said opening and extending freely into said upper arm section and directly through said second aperture for attachment to said harness, said means including a pulley and a transverse supporting shaft mounted in the lower end of said upper arm section over which shaft said cord extends, and a second cord in said arm trained under said pulley with one end extending directly through said slot for attachment to said device and the other end extending directly through said first aperture for attachment to said harness.

2,834,025
SUCTION DEVICE FOR PROSTHETIC LIMB
Jerry D. Leavy, Campbell, Calif., assignor to A. J. Hosmer Corporation, San Jose, Calif., a corporation of California
Application December 7, 1956, Serial No. 627,024
4 Claims. (Cl. 3—17)



1. In an artificial limb of the type that is provided with a socket portion that is adapted to be pulled over the stockinet covered limb stump of the wearer, said socket portion being provided with a suction controlling device having an aperture through which the loose end of the stockinet is exposed when the stump is being inserted into the socket of the artificial limb, the improvement comprising a ring-shaped member fixed in said aperture, said ring-shaped member having a seating surface near its inner end, a resilient member engaging said seating surface in sealing relation, said ring-shaped member having a flange near its outer end, a rotatable bridge member having fingers adapted to engage said ring-shaped member on inner surfaces of said flange for holding said bridge member in place in said ring-shaped member, means for supporting said resilient member on said bridge member, a spring positioned between said bridge member and said resilient member for pressing said resilient member against said seating surface when said bridge member is locked in place, said flange having cut away portions for clearing the fingers of said bridge member so that said bridge member and said resilient member may be removed from said ring-shaped member when said bridge member is rotated and the fingers thereof are aligned with said cut away portions.

2,834,026
DEVICE FOR WASHING BEDPANS AND URINALS
Joseph Kronish, Mount Vernon, N. Y.
Application December 26, 1952, Serial No. 328,033
1 Claim. (Cl. 4—10)

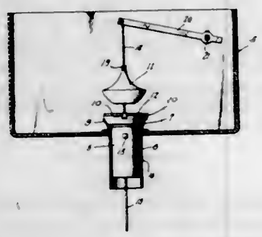


In combination, a toilet bowl and a vertical hopper fixed to said toilet bowl, said bowl having a top seat-opening, said hopper extending upwardly from the top of said bowl and being located rearwardly of said seat-opening, said bowl having an outflow passage, said hopper having a communicating opening at its lower end which communicates with said bowl, said bowl having an integral lateral partition trap-wall which extends completely laterally across the inner wall of said bowl, said partition trap wall being at and depending from the rear of said communicating opening, said partition trap-wall being located in front of said outflow passage and extending below the entire inlet mouth of said outflow passage and being proximate to the rear wall of the bowl, said outflow passage being located above the bottom of said bowl to provide a basin-part in said bowl which is normally filled with a pool of water, said trap-wall extending below the top of said basin part to be located below the top of said pool, said partition trap wall being shaped and located to block any reverse flow of gas through said outlet passage into said hopper or out of said bowl, said hopper having holding means to hold a receptacle therein and having a door which can be moved to closed position and to open position, said hopper having internal washing means for supplying wash water to wash said receptacle, and said combination having supply means for supplying water to said bowl and to said internal washing means.

2,834,027
COMBINED VALVE SEAT AND GUIDE FIXTURE FOR FLUSH TANKS
Lester S. Coffelt, Sacramento, Calif.
Application January 23, 1957, Serial No. 635,833
1 Claim. (Cl. 4—56)

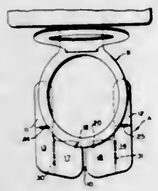
The combination with the discharge pipe and valve seat of a flush tank, of a valve seat attachment comprising

a tubular member adapted to fit within the discharge pipe a substantial distance, the upper end of said tubular member being outwardly flared providing a supplemental valve seat adapted to fit within the valve seat of the flush tank, laterally extended ears formed integral with the flared end of said tubular member, said ears extending downwardly over the upper edge of the flush tank valve seat securing the attachment within the flush tank discharge pipe, a float valve operating in said tubular member, a rod forming a part of said valve and depending



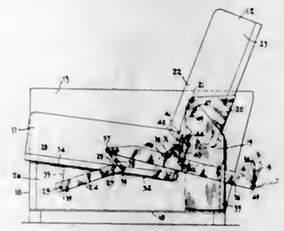
therefrom, cross arms fitted within said tubular member, said cross arms being spaced apart vertically of said tubular member, and extending at substantially right angles to each other, said tubular member having vertically spaced diametrically opposed pairs of openings, into which the ends of said cross arms extend, said cross arms having vertically aligned bushings through which the depending rod of the valve extends, guiding the rod in its movements, and means for effecting vertical movement of said valve.

2,834,028
TOILET STAND FOR CHILDREN
Glenn D. Stanley, Cupertino, Calif.
Application April 9, 1957, Serial No. 651,719
6 Claims. (Cl. 4—254)



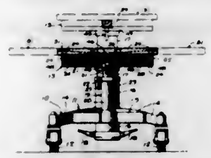
1. A toilet stand for children comprising a U-shaped base frame of predetermined height, and of a size to fit freely around the front and sides of the base of a predetermined toilet bowl, a pair of first, rear platform members secured one to the top of each side of the U-shaped base frame adjacent its open end, said first platform members being separated by a width sufficient to span the base of such toilet bowl, a pair of second platform members hingedly mounted one on the forward end of each rear platform member and swingable from a position overlying their respective rear platform members to a position co-extensive therewith, and a pair of third platform members, hingedly connected one to the inner edge of each second platform member and swingable oppositely from the direction of swinging movement between the first and second platform members, each third platform member being of a size to provide proper support for a child standing thereon.

2,834,029
CONVERTIBLE FURNITURE
Kenneth John Frampton and Max Silverberg, Toronto, Ontario, Canada, assignors to Exclusive Upholstering Company, Limited, Toronto, Ontario, Canada, a corporation of Canada
Application December 1, 1954, Serial No. 472,464
Claims priority, application Canada August 27, 1954
8 Claims. (Cl. 5—47)



1. In an article of furniture convertible between seat and bed forming positions a framework, a backrest member pivotally mounted within said framework at pivot points intermediately positioned in the lower portion of the backrest member, a seat member, seat supporting means adapted to guide the seat member from a seat forming position forwardly and upwardly to a bed forming position, means pivotally connecting the inner end of the seat and the lower end of the backrest member, means including an operating lever for positively initiating forward and upward movement of the seat member while the article is in seat forming position, causing the backrest member to tilt rearwardly, the weight of the upper portion of the backrest member when tilted rearwardly acting through the pivotal connection between the backrest and seat members to complete the movement of the seat member to a raised forward position in which the upper surface of the seat member and the front surface of the backrest member are in aligned level, bed forming position, means operably connecting said operating lever to the assembly constituted by said back rest member, said seat member and said means pivotally connecting the inner end of the seat and the lower end of the back rest member and co-operating with said means for positively initiating forward and backward movement of the seat member to return said operating lever substantially to its original position, means for locking said seat and backrest members in aligned position and means for returning the article from bed forming to seat forming position.

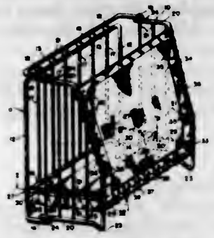
2,834,030
WHEELED STRETCHER
Lucille P. Jones, Flint, Mich.
Application February 23, 1955, Serial No. 489,948
4 Claims. (Cl. 5—81)



1. A wheeled stretcher comprising a lower frame structure, an upper frame structure substantially rectangular in plan, a vertical adjusting and supporting mechanism connected to both frame structures for raising and lowering said upper frame structure relative to said lower frame structure, casters on said lower frame structure for moving the stretcher bodily so as to position it alongside of a bed, an upstanding transversely extending flange at each

end of said upper rectangular frame structure, spaced rollers supported on horizontal axes mounted laterally along said rectangular upper frame structure and positioned inwardly of and upon said end flanges, a substantially rectangular horizontally arranged platform of less length than said upper frame structure positioned between said upstanding flanges at opposite ends of said upper frame structure, a transversely extending channel rail fixed to each end of said platform, said channel rails having the outer surfaces of their parallel flanges substantially flush with the upper and lower surfaces of said platform and having their cavities open outwardly and receiving therein said rollers so as to guide the platform in lateral horizontal movement relative to said upper frame structure, said platform and channel rails being of uniform minimum thickness and free from obstructions on their under sides so as to minimize the amount of elevation of the upper surface of said platform above the mattress of a bed when said platform is in a position pressing on and overlapping said mattress, and manually operated means for imparting lateral movement to said platform.

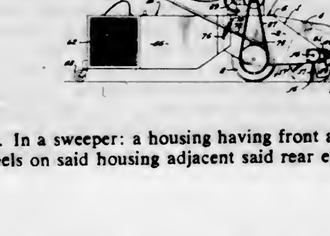
2,834,031
CRIB AND PLAY PEN FOR AUTOMOBILES
Fred W. Johansen, Silver Spring, Md.
Application September 27, 1955, Serial No. 536,945
5 Claims. (Cl. 5—94)



5. An automobile crib comprising a back member having a plurality of vertical bars and a pair of horizontal members to which the bars are secured, a pair of tubular barred side members pivoted to said back member about a pair of vertical axes, each of said side members having a front vertical edge portion and a front inclined edge portion contiguous therewith for close fitting engagement with the rear surface of the front seat of an automobile when installed therein, a bottom pivoted to said back member for inward movement with respect thereto, means for detachably securing said bottom to the side members whereby the bottom is in a horizontal position when the crib is installed in the automobile and the side members and bottom may be folded inwardly against the back member when the bottom has been disconnected from the side members, and a flexible cover secured to the front edge portions of said side members and the front edge of said bottom thereby to form a front wall in closely spaced adjacency to the rear of the back portion of the front seat of an automobile when the crib is installed therein.

2,834,032
BODY SUPPORT
Henry M. Scott, Washington, D. C., assignor of three-tenths to T. Blair Middleton, Washington, D. C., and two-tenths to James J. Shanley, Bethesda, Md.
Application July 10, 1956, Serial No. 596,934
8 Claims. (Cl. 5—327)

1. An adjustable body support comprising a base portion adapted to be placed on a supporting surface, a back rest portion having one end pivotally joined to the base portion for swinging movement relative to the base portion, a back rest portion supporting member having one end pivotally joined to the back rest portion in spaced relation to the one end of the back rest portion for swinging movement relative to the back rest portion, the back rest supporting member having another end constructed and arranged to contact the supporting surface when the base portion is placed on the supporting surface, a thigh rest portion having one end pivotally joined to the base portion for swinging movement relative to the base portion, a thigh rest portion supporting member having one end pivotally joined to the thigh rest portion in spaced relation to the one end of the thigh rest portion for swinging



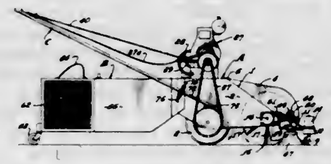
movement relative to the thigh rest portion, the thigh rest support member having another end constructed and arranged to contact the supporting surface when the base portion is placed on the supporting surface, elongated tensional means connected to the back rest supporting member in spaced relation to the one end for adjusting the angular position of the back rest portion relative to the base portion, and holding means carried by the body support contiguous to the base portion for receiving and holding the elongated tensional means at desired points along the length of the elongated tensional means to thereby hold the back rest portion in adjusted position relative to the base portion.

2,834,033
BLANKET
Anne Louise O'Brien, Somerset, Mass.
Application September 20, 1954, Serial No. 457,289
3 Claims. (Cl. 5—334)



1. A blanket comprising substantially superimposed upper and lower walls of textile material, said upper and lower walls being joined to each other so as to form a pocket thereinbetween having an access opening leading thereinto, and a sponge rubber-like removable positioned within said pocket.

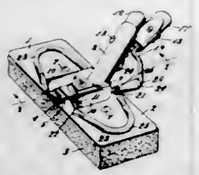
2,834,034
SWEEPING APPARATUS
Ernest A. Angell, Loma Linda, Calif.
Application July 11, 1955, Serial No. 521,182
4 Claims. (Cl. 15—79)



2. In a sweeper: a housing having front and rear ends; wheels on said housing adjacent said rear end supporting

said housing for tilting movement about the axis of the wheels; a rotary brush carried by said housing adjacent said front end; means on said housing for driving said wheels and said brush; a receptacle for the sweepings picked up by said brush; said receptacle having front and rear ends; wheels supporting said receptacle adjacent said rear end of said receptacle; means pivotally connecting the front end of said receptacle with the rear end of said housing; said last named means including side walls on said housing and receptacle respectively disposed in overlapping relation and pivot members extending through said overlapped side walls; and a handle connected with the side walls of said housing and said receptacle respectively, operable for tilting said housing and said receptacle about the axis of the supporting wheels therefor.

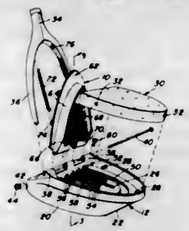
2,834,035
MOPS WITH SEPARATE CLEANING AND EXTRACTING HANDLES
Peter S. Vosbikian and Thomas S. Vosbikian, Melrose, Pa.
Application September 29, 1954, Serial No. 459,055
1 Claim. (Cl. 15—119)



A mop, comprising a block of absorbent material, backing members secured to the top face of the block with their inner ends in spaced relationship and adapted to receive pintles, front and rear U-shaped pintles extending transversely of said backing members and pivoted thereto, a body portion overhanging the inner ends of the backing members and having front and rear portions bent around the bight ends of the U-shaped pintles, a sectional handle bracket having an upper section fixed only to the body portion and having a lower section bent around said rear pintle, an extractor handle connected with said handle bracket, a mop handle for moving said block over a surface to be cleaned, and a wire strand secured to said mop handle, said strand being bent upon itself to form outwardly extending lateral stretches merging into downwardly extending stretches which merge into forwardly extending straight stretches spaced from each other and terminating in pivot members pivoted to the forward end of said body portion, whereby when said extractor handle is moved forwardly and downwardly relative to the mop handle the backing members are pressed towards each other until stopped by said lateral stretches coming into contact with said backing members.

2,834,036
COMBINED MOP, SQUEEZER AND RESERVOIR
Mary E. Shannon, Akron, Ohio
Application April 22, 1955, Serial No. 503,212
10 Claims. (Cl. 15—124)

1. A mop comprising a hollow container defining a reservoir for a cleansing liquid and having opposing top and bottom walls, said container having outlet means for passage of the liquid from the reservoir through the bottom wall, an absorbent applicator, means detachably mounting the applicator over the bottom wall so that the liquid feeds into and through the applicator to a floor surface, a handle, means pivoting the container to the handle so that it can be swung about the handle to selectively position the applicator and the top wall in superimposed engagement with a floor surface, a squeezer element pivotably carried by the handle and positioned above the container and movable downwardly under manual pressure into pressing contact with the applicator, when the top wall is in contact with the floor surface, to press the liquid from the applicator back into the container, means normally holding said squeezer element in a



position raised above the container, said squeezer element being pivotally attached to the handle on a common axis with the container and being adapted to be moved by a user's foot downwardly into contact with the applicator and spring means connected between the handle and the squeezer element for normally retaining it in a raised position.

2,834,037
BASTING BRUSH
Lawrence R. Schumann, Boston, Mass.
Application June 27, 1955, Serial No. 518,139
1 Claim. (Cl. 15—160)



A new and improved basting brush comprising a body of pliant bristles enclosed in and extending from the bottom of a rectangular casing, a rectangular flat back plate attached to the rectangular top of said casing, an elongated tubular metal handle rigidly connected to said back plate and extending longitudinally and outwardly therefrom, there being an acute angle between the plane of said back plate and the longitudinal axis of said handle, and a gripping body composed of a heat insulating material rigidly connected to the extremity of said handle, said gripping body having its upper portion terminating in a straight transverse edge at the end remote from the brush, said edge being parallel to the upper, outer transverse edge of the back plate, whereby said brush will have contact with a flat supporting surface only at its opposite ends with its bristles extending in an upward direction.

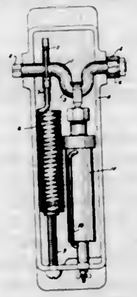
2,834,038
WINDSHIELD WIPER ARM MECHANISM
Clarence F. Kramer, Birmingham, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application April 13, 1953, Serial No. 348,305
4 Claims. (Cl. 15—255)

3. A windshield wiper assembly for cleaning a windshield of a vehicle body, comprising a power driven shaft rotatably mounted upon said body, a primary arm mounted upon said pivot shaft for rotation therewith, a secondary arm between said primary arm and said windshield, a blade adapted to clean said windshield and having two spaced points of connection to the outer ends of said primary and said seocndary arms, a driving connection between said primary and secondary arms adjacent said pivot shaft, the inner end of said secondary arm being pivotally connected to said driving connection for rotation about a transversely extending axis such that



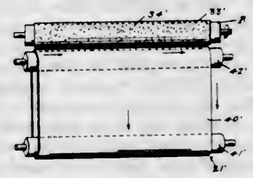
said secondary arm extends at an acute angle to said primary arm so that the point of connection of the secondary arm to the blade is located on one side of the line joining the point of connection of the primary arm to the blade with the axis of the pivot shaft, a stationary cam mounted upon said vehicle body adjacent said driving connection and engageable with said driving connection to move said secondary arm relative to said primary arm in a direction radially of said pivot shaft to vary the angle of inclination of said blade with respect to said primary arm as said pivot shaft is rotated.

2,834,039
DOOR CLOSING DEVICE
Gunther Sasse, Bremerhaven, Germany, assignor, by direct and mesne assignments, of one-half to Joseph Stachowicz, Bronx, N. Y., and one-half to Otto Benecke, Bremerhaven, Germany
Application April 6, 1953, Serial No. 346,853
Claims priority, application Germany April 5, 1952
6 Claims. (Cl. 16—51)



1. Automatic door closing apparatus comprising, in combination, a housing; a shaft mounted for rotation about its axis in said housing; a first crank portion connected to said shaft, being located in said housing, and extending radially from the turning axis of said shaft; spring means located in said housing and being operatively connected to said first crank portion for urging the latter to turn said shaft in a direction which closes a door to which the apparatus is connected, said spring means including an elongated tension coil spring having one end portion which is nearer to said first crank portion than the opposite end portion is, said opposite end portion being connected to said housing, said spring means further including a flexible member connected at one end thereof to said one end of said tension coil spring and at an opposite end to the free end of said first crank portion, said first crank portion being turnable to and from an end position where the shortest distance between said flexible member and the turning axis of said shaft is at a maximum so that the effective moment arm of said first crank portion at said end position is at a maximum and where the door to which the apparatus is connected is closed; a second crank portion connected to said shaft, being located in said housing, and extending radially from the turning axis of said shaft; and hydraulic braking means operatively connected to said second crank portion for braking the turning of said shaft under the influence of said spring means during the closing of a door to which the apparatus is connected.

2,834,040
SEA FOOD PROCESSING APPARATUS
Melroy M. Martinez, New Orleans, La.
Application August 27, 1956, Serial No. 606,300
5 Claims. (Cl. 17—2)



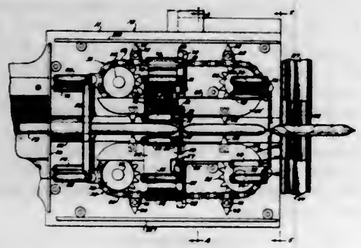
1. Sea food processing apparatus comprising means having an abradant surface arranged for movement in a vertical plane, an endless belt having upper and lower courses arranged perpendicularly to said abradant surface of said means with said upper course moving outwardly therefrom, said endless belt being arranged at an angle to the horizontal.

2,834,041
FISH HOLDING DEVICE
Walter F. Miron, Detroit, Mich.
Application September 13, 1956, Serial No. 609,612
1 Claim. (Cl. 17—8)



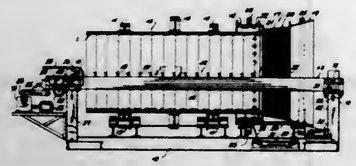
In a device for holding a fish extended for cleaning, comprising a single piece of wire coiled to form a spring member having the ends extending approximately parallel a substantial distance to form a handle portion, one of said ends being extended to form an attenuated fish holding device adapted to be inserted in the fish to extend along the backbone from the head to the tail thereof, said extended portion being provided with a crimped area adapted to engage in the roof of the mouth of the fish to form a gripping jaw portion, and the other extended portion of said handle being bent in a direction approximately at right angles thereto with its free end provided with a return bent portion extending around the other handle section in proximity to said crimped portion to yieldingly urge the head of the fish into contactual engagement with said crimped portion and frictionally hold the head of the fish in position on said attenuated portion, and a coiled loop on one of said handle sections intermediate the end of the handle and said crimped portion adapted to form a thumb engaging area to permit separation of the gripping jaw portions by yieldingly exerting pressure on said handle sections whereby said jaw portions will separate.

2,834,042
SAUSAGE LINKING MACHINE
Lawrence P. Cross, Valparaiso, Ind.
Application April 14, 1954, Serial No. 423,135
12 Claims. (Cl. 17—34)



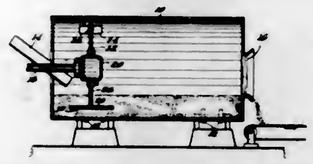
1. In a linking machine, a supporting frame, guard members mounted on said frame for directing a continuous length of filled casing along a linear path, a pair of elongate endless conveyors mounted on said frame adjacent said guard members, said conveyors having spaced opposed runs on opposite sides of said path, drive means connected to said conveyors for moving the same in opposite directions, and cooperating divider elements mounted on said conveyors at longitudinally spaced points, each of said divider elements having a plate-like portion extending laterally and outwardly of the conveyor on which it is mounted and being supported for rotating movement relative to said conveyor, said plate-like portion having an outer edge with an outwardly opening slot therein and being movable by said conveyor into cooperative casing constricting relation with the corresponding portion of a divider element on the opposite conveyor whereby to constrict the casing to a relatively small area defined by the slots in said divider elements.

2,834,043
APPARATUS FOR MAKING PELLETS
Kenneth M. Haley, Babbitt, Minn., Harold V. Trask, Shaker Heights, Ohio, and William C. Larter, Ashland, Ky., assignors to Oglebay, Norton and Company, Cleveland, Ohio, a corporation of Delaware
Application August 5, 1954, Serial No. 448,073
5 Claims. (Cl. 18—1)



1. An apparatus for forming substantially spherical bodies from finely divided material, the said apparatus comprising an open-ended drum, means to supply the material to the interior of said drum adjacent one end thereof, means mounting said cylinder to permit rotation thereof, a nonrotatable supporting member extending longitudinally through said drum in spaced relationship to the inner wall of the drum, means adjacent each end of said member supporting the latter exteriorly of said drum, means for reciprocating the said supporting member and a plurality of flexible scraper members supported on said longitudinally extending member in spaced relationship and extending transversely therefrom substantially at right angles to the axis of said drum into radial engagement with the layer of material adhering to the inner surface of said drum whereby the reciprocation of the supporting member as the cylinder is rotated moves the said scraper members progressively to ultimately engage the entire surface of the drum whereby the thickness and surface roughness of said layer are maintained substantialy constant and the material scraped therefrom is formed into the said substantially spherical bodies by rolling within said drum, the outer ends of said flexible scraper members being unsupported.

2,834,044
APPARATUS FOR WETTING FINELY-DIVIDED PIGMENTS
Randolph Antonsen, Boston, and Robert D. Beattie, Cambridge, Mass., assignors to Godfrey L. Cabot, Inc., Boston, Mass., a corporation of Massachusetts
Application December 10, 1954, Serial No. 474,512
8 Claims. (Cl. 18—1)



1. In apparatus for pelleting finely-divided pigments, including a rotatable drum, the improvement which comprises a fixed liquid supply conduit extending into said drum approximately in the axis thereof, a substantially liquid-tight swivel joint connected to and supported by the discharge end of said conduit, a longitudinally adjustable branch conduit radially connected into the swivel joint, a spray distributor connected to the end of said branch conduit, adjustable counterbalancing means for the branch conduit and spray distributor affixed to the swivel joint, and means to deliver liquid under pressure to the supply conduit.

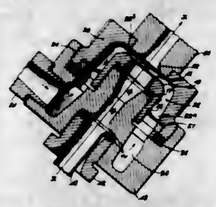
2,834,045
APPARATUS FOR PRODUCING FOAM RUBBER SLAB MATERIAL
Clarence J. Davies, Grosse Pointe Woods, Mich., assignor to National Automotive Fibres, Inc., Detroit, Mich., a corporation of Delaware
Application March 5, 1956, Serial No. 569,304
7 Claims. (Cl. 18—4)



1. Apparatus for injecting gas bubbles in uncured foam comprising a conveyor, a doctor blade over said conveyor to determine the shape and thickness of foam passing therebeneath, means for depositing uncured foam on the conveyor just in front of said blade, a plurality of hollow needles having ports at the ends thereof, said needles being disposed with their ports located in the space between the conveyor and the lower edge of said doctor blade, means for admitting gas into the interior of the foam through said needles, and means for controlling the admission of gas.

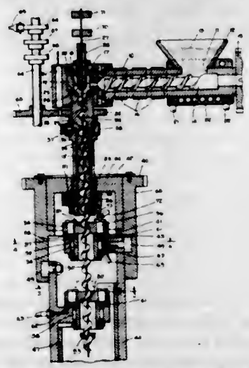
2,834,046
SPINNERET ARRANGEMENT
Frans Hesselink, Arnhem, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application June 13, 1955, Serial No. 515,146
Claims priority, application Netherlands June 17, 1954
8 Claims. (Cl. 18—8)

1. A spinning apparatus comprising a spinneret having a flat outer face extending normal to an extrusion axis, first means defining a surface flush with the face of said spinneret and extending radially from the periphery thereof, a conduit having a mouth coaxial with but spaced slightly from the face of said spinneret, second means defining a surface flush with and extending radially away



from the mouth of said conduit, said first and second means defining therebetween an annular zone surrounding the extrusion axis, and means to circulate coagulating liquid radially inwardly through said zone and coaxially into said conduit.

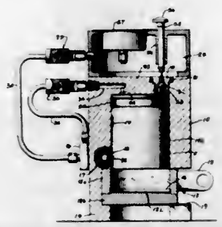
2,834,047
APPARATUS FOR MAKING EXTRUDED SPIRAL COAXIAL CABLE
Louis H. Morin, Bronx, N. Y.
Application January 15, 1954, Serial No. 404,178
2 Claims. (Cl. 18—13)



1. In a device for continuously making an insulated conductor, a hopper for granular plastic, a feed screw in a cylinder communicating with the bottom of said hopper, heating elements for said cylinder to plasticize the plastic as it is fed through said cylinder, an elongated die communicating with the discharge end of said cylinder and adapted to receive the plastic discharged therefrom, means for guiding an elongated conductor into through said die along the central axis thereof, means for cooling said die adjacent the discharge end thereof to solidify said plastic, a plurality of grippers adapted to engage the insulated conductor after it emerges from said die, means for operating said grippers successively to continuously withdraw said insulated conductor from said die, and said means comprising a rotating cam adapted to reciprocate said grippers in sequence to continuously feed said conductor through said die.

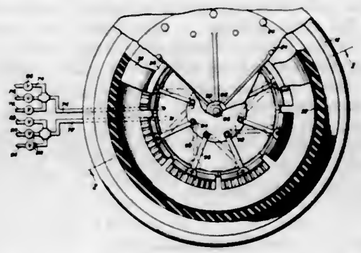
2,834,048
HYDRAULIC POWDER PRESS
Arthur Wright, Mountain Lakes, N. J., assignor, by mesne assignments, to Charles of the Ritz Inc., a corporation of Delaware
Application September 6, 1955, Serial No. 532,682
4 Claims. (Cl. 18—16)

2. In a press adapted to compress a powdered material, the combination comprising a substantially vertically disposed cylinder having a closed upper end and an open lower end, a pressure-applying piston axially slidable within said cylinder betweeen retracted position and position with the lower end substantially protruded from said open lower end of said cylinder, a base substantially spaced from the lower end of said cylinder and rigidly secured thereto, a removable cup-shaped receptacle adapted and shaped to be disposed between said lower end of said cylinder and said base with the inner surface of the side wall thereof in substantial registration with the



inner surface of said cylinder for receiving said lower end of said piston, means cooperating with external surface presented by said receptacle for positioning said receptacle with the inner surface of the side wall of said receptacle in substantial registration with the inner surface of said cylinder and means for advancing and retracting said pressure-applying piston for first compressing powder within said receptacle and then withdrawing said piston therefrom for permitting removal of said receptacle from said base.

2,834,049
TIRE RETREADING MOLD WITH MECHANICAL TIRE EXPANDER ASSEMBLY
Eldridge S. White, Florence, Ala., assignor to Robbins Tire and Rubber Company, Inc., Tuscumbia, Ala., a corporation of Alabama
Application September 2, 1954, Serial No. 453,817
8 Claims. (Cl. 18—18)



5. A tire expander assembly for use with a tire retreading mold comprising an arcuate and circumferentially extending expander section having opposed relatively oppositely inclined wedge shaped surfaces engageable with the adjacent inner faces of the beads of a tire, an arm connected to said section upon the concave side thereof, means connected to said arm for selectively and positively moving said section radially inwardly and outwardly with respect to the center of a tire whereby to cause said wedge shaped surfaces to wedgingly contact the beads of a tire to thereby engage the side walls of a tire against the retreading mold and to disengage said wedging contact and thereby release the pressure upon the tire beads.

2,834,050
APPARATUS FOR THE INJECTION OF MOLTEN THERMOPLASTIC MATERIAL FOR MOULDING

Tadeusz Dymsza and Maurice Alfred Burdin, London, England

Application March 17, 1955, Serial No. 495,018
Claims priority, application Great Britain June 23, 1954
1 Claim. (Cl. 18—30)



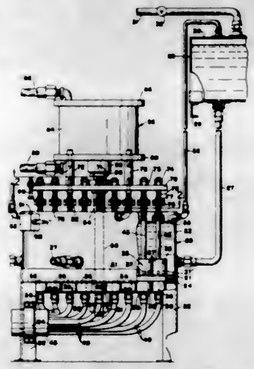
In an apparatus for the injection of molten thermoplastic material into molds having a sprue opening, a discharge cylinder presented to said mold, an outlet nozzle on said cylinder having a central bore larger than said sprue opening and being provided with an internal conical valve seat, said central bore forming an outlet passage as an extension of said conical valve seat, a conical valve having a conicity the same as that of the conical valve seat the smallest diameter of which is equal to the diameter of said outlet passage, and arranged for movement into and out of seating engagement with said valve seat, a stem on said valve having a diameter equal to the internal diameter of said outlet passage and arranged to extend beyond the outer end of said nozzle to unseat said valve when the end of the stem is brought into engagement with the mold body, said valve stems being provided with a longitudinally extending central bore of a diameter substantially equal to the diameter of said sprue opening, said bore extending from the outer end of said stem inwardly to said conical valve and said valve stem being provided with a series of equiangularly spaced radially extending slots extending axially from the outer end of the stem to its junction with said valve and providing communication from the outlet passage to the central bore along the whole of the length of said valve stem, said valve preventing discharge of material from said cylinder when in its closed position and the lower slotted portion of said valve stem being closed when the discharge nozzle is moved into engagement with a mold, whereby material from said cylinder will be discharged inwardly through the radial slots to the central bore of said stem and through said sprue opening.

2,834,051
MOLD CHARGING MECHANISM

Paul Rekettye, Akron, Ohio, assignor to The Sun Rubber Company, Barberton, Ohio, a corporation of Ohio

Application September 14, 1955, Serial No. 534,316
9 Claims. (Cl. 18—30)

1. A device for charging liquid material into a mold having a plurality of matrices, including a charging reservoir containing said liquid material, a plurality of individual charging cylinders for the respective matrices communicating with said reservoir, a movable piston in each cylinder, conduits for conducting liquid material from said cylinders to the respective matrices, a reciprocating plate for operating said pistons, and individual adjustable lost motion means for transmitting the down-



stroke of said plate to the several pistons whereby the stroke of each piston may be varied.

2,834,052
METHOD OF MAKING MOLD MASTERS

James V. Hunn, Avon Lake, Ohio, assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

Application January 14, 1954, Serial No. 404,136
14 Claims. (Cl. 18—47.5)

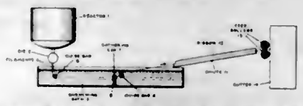


1. A process for making molds which includes the steps of gelling a liquid plastisol to form a solid body, cooling said gelled plastisol, shaping said gelled plastisol body by removing material therefrom to form a design in the surface thereof, and then reheating said shaped gelled plastisol to a temperature below the fusion point of said plastisol, but sufficient to completely solvate said plastisol.

2,834,053
GRANULATION OF FUSIBLE, MOLECULARLY ORIENTABLE POLYMERS

Frank Bilanin, Morris Plains, Harry E. Gronich, deceased, late of Morristown, by Claire K. Gronich, Morristown, N. J., legal representative, assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application November 4, 1955, Serial No. 545,046
4 Claims. (Cl. 18—47.5)



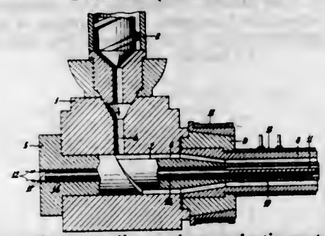
1. Process for forming granules from fusible, molecularly orientable thermoplastic organic polymer which comprises extruding from a melt of said polymer separate, rounded, essentially uniform, essentially nonmolecularly-oriented filaments; passing said filaments into an inert cooling liquid; cooling said filaments to surface temperature below the temperature at which fusion occurs and coalescence between filaments will develop immediately

at all adjacent areas but with average temperature remaining in the range in which the filaments adhere while maintaining their individual identity; then immediately gatherings said filaments into side-by-side contact in a ribbon wherein each filament substantially maintains its individual identity throughout its length; continuing to extract heat from the surface of the ribbon except the laterally contacting surfaces of the filaments, at a rate to allow the ribbon to solidify into a connected structure; then passing the ribbon under nonorienting tension to a cutter which severs the free end thereof and breaks the severed strip into separate granules at the lateral bonds between filament ends.

2,834,054
PROCESS FOR EXTRUDING POLYCHLOROTRIFLUOROETHYLENE

Bruce H. Maddock, Fanwood, N. J., and William M. Land, Jr., Worcester, Mass., assignors to Union Carbide Corporation, a corporation of New York

Application May 27, 1953, Serial No. 357,856
1 Claim. (Cl. 18—55)

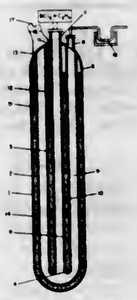


A process for extruding a thermoplastic material comprising a chlorotrifluoroethylene polymer having a melt viscosity from about 5 to 100 megapoises at 230° C. into hollow forms which comprises supplying said material to a chamber, heating said material in said chamber at a temperature below 600° F. to convert said polymer to a plastic state and forcing said heated material through an annular-forming section comprising inner and outer members while maintaining the inner member of said annular-forming section through heating means positioned within said inner member at a temperature above 700° F. and the temperature of the outer member of said annular-forming section below 600° F. whereby said extruded material will have a melt viscosity of from about 4 to 10 megapoises at 230° C.

2,834,055
PREPARATION OF POLYETHYLENE

Gosta Carl Akerlof, Princeton, N. J., assignor to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 22, 1955, Serial No. 517,213
6 Claims. (Cl. 18—58)

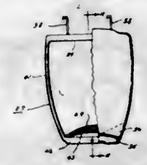


1. A method of preparing polyethylene which comprises subjecting a mixture of ethylene and boron trichloride to an electrodeless discharge, and recovering solid polyethylene thus formed.

2,834,056
MANUFACTURE OF DEPOSITED LATEX ARTICLES

Wilbur A. Miller, Dover, Del., assignor to International Latex Corporation, Dover, Del., a corporation of Delaware

Application April 7, 1953, Serial No. 347,227
2 Claims. (Cl. 18—58.7)

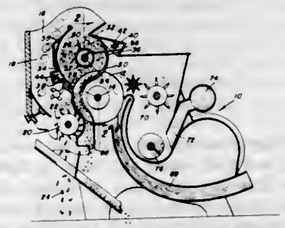


2. The method for imparting a desired appearance to a shaped rubber latex garment comprising a thickened reinforcement, said reinforcement being generated during the dipping of a form in rubber latex, which comprises removing an incompletely cured film comprising said reinforcement from the dipping form on which it was generated, stretching the region of said film in which said thickened reinforcement is located with the surface reversed on a stretching form similarly shaped to said dipping form but comprising tension exerting members positioned to exert tension on said region of the film, and completely curing said film while so positioned on said stretching form, so that, when in a relaxed position on a horizontal surface, said garment assumes a flat configuration with desired curved sides.

2,834,057
TRASH REMOVER FOR COTTON GIN

Charlie J. Raynor, Rocky Mount, N. C.

Original application June 16, 1953, Serial No. 361,904, now Patent No. 2,743,484, dated May 1, 1956. Divided and this application April 16, 1956, Serial No. 578,416
10 Claims. (Cl. 19—55)



1. A trash remover for a cotton gin having a roll box comprising a hollow cylinder positioned substantially axially in said roll box, said cylinder being perforated, a wiper rotatably mounted in said cylinder, means for driving said wiper, a perforated plate defining a surface of the roll box, and a wiper mounted adjacent and movable across the outer surface of the perforated plate to clean said surface.

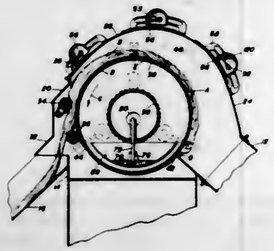
2,834,058
PROCESS AND APPARATUS FOR CONTROLLING THE MOISTURE CONTENT OF LINT COTTON

William R. Bryant, Jonesboro, Ark.

Application November 9, 1954, Serial No. 467,813
32 Claims. (Cl. 19—66)

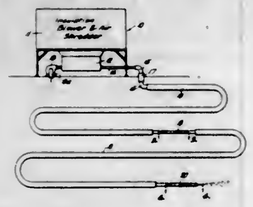
1. A method of producing in the lint condenser of a seed cotton ginning plant a predetermined percentage by weight moisture content in lint cotton having a percentage by weight deficiency of moisture which comprises; delivering from a gin stand of a seed cotton ginning plant to a lint condenser thereof lint cotton accompanied by an air stream, continuously forming in said lint condenser

a batt of lint cotton, continuously introducing into the air stream and within the confines of the lint condenser and applying to said batt a surplus of moisture over that which would produce the said predetermined percentage of moisture content to thereby increase the rate of moisture absorption by the batt, continuously removing from



said batt and lint condenser by said air stream said surplus of moisture of said introduced moisture, controlling the relative quantities of moisture introduced and surplus moisture removed and thereby limiting the total moisture content of the lint cotton in said batt to said predetermined percentage by weight moisture content.

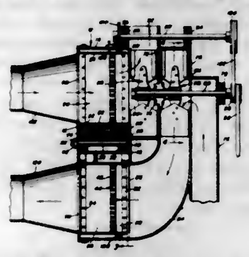
2,834,059
APPARATUS FOR INSTALLING BULK INSULATION MATERIAL
Herman H. Hoelzel, Kansas City, Mo.
Application May 28, 1954, Serial No. 433,225
3 Claims. (Cl. 19—72)



1. In a pneumatic system for laying loose fibrous bulk insulation material which includes a flexible conduit through which the insulation is forced by pneumatic means and from which it is discharged in a continuous stream, the improvement which comprises a tube section coupled with said conduit to form a part thereof, said tube section being provided on its inside wall with a plurality of inwardly extending combing teeth spaced from one another around the inside of and lengthwise of said tube section to comb and separate the fibrous material as it passes therethrough.

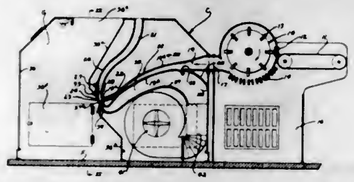
2,834,060
BLOWER SCREEN
Edward M. Burns, Porterville, Calif.
Application March 12, 1956, Serial No. 570,740
4 Claims. (Cl. 19—72)

1. In a cotton cleaning blower, a housing, a screen rotatably mounted in said housing, a cotton inlet in one side of said housing, a trash outlet in an opposite side of said housing in alignment with said cotton inlet, a hot air inlet in said opposite side remote from said trash outlet, a cotton outlet in said one side in alignment with said hot air inlet, said screen including concentric inner and outer drums, a spiral wound strip extending between said inner and outer drums intermediate ends thereof, dividers extending radially between said inner and outer drums and dividing said strip into sections, said



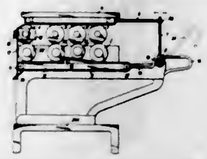
dividers being secured to said strip and reinforcing said strip.

2,834,061
PNEUMATIC FIBER CLEANING APPARATUS
Donald W. Van Doorn, Columbus, Ga., assignor to Lummus Cotton Gin Company, a corporation of Georgia
Application May 7, 1954, Serial No. 428,355
2 Claims. (Cl. 19—76)



1. In apparatus for separating trash from an air borne commingled stream of fiber and trash, a duct having an inlet section into which the commingled stream is introduced and an outlet section joined at an abrupt angle to the inlet section and through which fiber is discharged, said duct being of substantial width and having a depth which is a minor fraction of its width, there being a narrow trash discharge opening extending the width of the duct and located at the juncture of the inlet and outlet sections in the path of movement of the fiber-trash stream flowing in the inlet section, an air nozzle disposed near the trash discharge opening and having a narrow opening coextensive in length with the trash discharge opening and disposed to direct a ribbon-like stream of clean air therethrough and transversely onto the fiber-trash stream approaching the trash discharge opening, and means to supply air to the nozzle under pressure positively to impel said ribbon-like stream of air at a velocity above the velocity of the fiber-trash stream as the latter reaches said trash discharge opening.

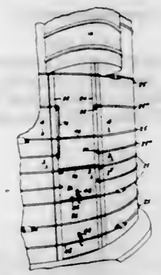
2,834,062
CLEANING DEVICE FOR DRAFT SYSTEMS, ESPECIALLY FOR FLYER DRAFT SYSTEMS
Ernst Toennissen, Munich, Germany
Application September 14, 1954, Serial No. 455,991
5 Claims. (Cl. 19—139)



1. A roller cleaning device for draft systems, in particular flyer draft systems, comprising lower cleaning plates engaging the lower draft cylinders from below

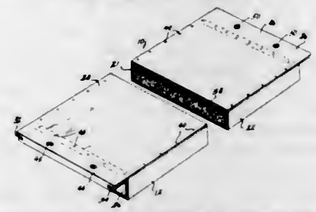
and extending from the delivery cylinders to behind the intake cylinders, said cleaning plates being tiltably mounted at their rear ends behind the intake cylinders for being swung down from the lower cylinders, and releasable flat locking springs for securing their front ends in their operative position, said locking springs being fixed with their upper ends to an upper fixing point of the system and having a hook-like head with an inclined abutment surface at their lower ends engaging the front ends of the lower cleaning plates in their operative position.

2,834,063
SILO CONSTRUCTION
Peter Rutten, Plainfield, Ill., assignor to Railoc Company, Inc., Plainfield, Ill., a corporation of Illinois
Application May 3, 1955, Serial No. 505,638
10 Claims. (Cl. 20—1.4)



1. In silo construction, the combination with a stave silo having a row of horizontally aligned silo tie rods encircling the same, a vertical door frame forming a door opening throughout it height, said opening formed by oppositely facing side frame members which are angle members, spacers fastened between said frame members at spaced distances, rectangular door members each having a bracket for mounting on one of said spacers, said door members adapted to be mounted in vertical alignment against the inside of said door opening to close said door opening, each of said side frame members having an aligned row of slots in its facing leg, sets of brackets mounted in said slots and extending forward from the door opening, and removable steps fastened to certain of said brackets.

2,834,064
PANEL
MacMillan Clements, Bethel, Conn.
Application March 13, 1953, Serial No. 342,232
3 Claims. (Cl. 20—4)



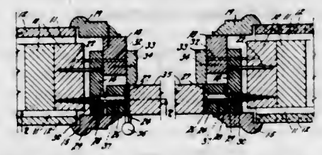
3. A panel for use in building construction and refrigerators comprising in combination, a metallic sheet and a non-metallic sheet of material, said sheets being bonded to each other and fashioned to define a U-shaped open-ended metal covered assembly having a base, sides and turned-over flanges, a cover, means for attaching said cover to said locking flanges, said means including rabbeted side edges on said cover for the reception of said locking flanges, said means further including a plurality of nails extending through said rabbeted side edges and through said locking flanges, said locking flanges comprising portions of said metallic and non-metallic sheets of material, said panel having end pieces, and fastening means extending through said top member and said end pieces comprising nails, said cover being of non-metallic character and extending beyond the ends of said assembly.

2,834,065
PORTABLE, REVERSIBLE DANCE FLOOR
Herbert B. Mueller, Los Angeles, Calif.
Application March 6, 1953, Serial No. 340,791
2 Claims. (Cl. 20—6)



2. The combination, with a portable laid floor, a carpet upon which said floor is superimposed, and a permanent floor underlying said carpet; of horizontal anchor plates between said floor and carpet, and fastening means securing said plates both to said portable floor and to said carpet, said fastening means having point portions terminating superjacent to the permanent floor.

2,834,066
ADJUSTABLE DOOR JAMBS
Nile R. Lybarger, Grand Junction, Colo.
Application December 21, 1953, Serial No. 399,471
2 Claims. (Cl. 20—12)

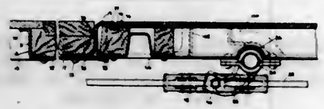


1. An adjustable jamb for mounting a door in a door opening, having a pair of door bucks and a header in a wall forming a door opening, said door bucks and header having a first face and a second face, both faces being parallel with the plane of the opening, and said door bucks and header having a side face normal to the plane of the opening, comprising: a side casing nailer secured in said opening at each side thereof; a casing secured to each nailer and projecting outwardly therefrom to overlie one face of said wall and projecting inwardly therefrom towards said door; a hinge and lock strip positioned against the inwardly projecting portion of each casing; screws extending through said strips and through said casing nailer adapted to be threaded into the sides of said door opening; abutment means on said screws acting to prevent longitudinal movement of the latter in said strips; a jamb strip positioned against the inner face of each casing nailer in spaced relation to the hinge and lock strip thereon; a second casing secured to each jamb strip and adapted to overlie the other face of said wall; and a door stop strip secured to each jamb strip and extending to the adjacent hinge and lock strip to cover the space between said jamb strip and said hinge and lock strip and acting as a stop for said door.

2,834,067
BOX CARS AND DOORS THEREFOR
Wilfred A. Beauchamp, Chicago, Ill., assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio
Application February 20, 1956, Serial No. 566,419
20 Claims. (Cl. 20—23)

15. In a railway box car having a side wall provided with a door opening, a sliding flush door adapted to be

seated in the door opening, a track secured to said car below the door opening, said track being parallel to said side wall, means mounting said door upon said track for longitudinal movement and for lateral movement into and out of the door opening, said means embodying vertical pipes rotatably mounted on said door and provided with upper and lower cranks, said door when



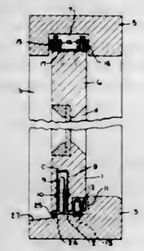
seated in the door opening being flush with the inside and outside of said wall, flanges on said wall lying substantially in the inner and outer planes thereof and extending vertically along the door opening, and cooperating means on said door and said car automatically shifting said door rearwardly to dispose the rear margin thereof between said flanges during the lateral movement of said door into the door opening.

2,834,068
JAMB ATTACHMENTS FOR WINDOW STRUCTURE
Earl M. Trammell, Sr., and Earl M. Trammell, Jr., St. Louis, Mo.
Original application May 11, 1949, Serial No. 92,572, now Patent No. 2,676,367, dated April 27, 1954. Divided and this application January 28, 1954, Serial No. 406,816
5 Claims. (Cl. 20—52)



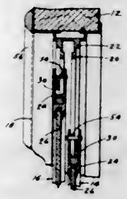
4. As an article of manufacture, a cover element including an inverted channel portion having sides which are of resilient character adapted to receive in gripping relation, a bead element of a window frame, said cover element including a base portion extending laterally outward of said resilient sides, said base portion being normally angularly related to said sides so as to exert a retaining force on an adjacent fixed element of the sashway.

2,834,069
WINDOW CONSTRUCTION
Ruben O. Perrone, Buenos Aires, Argentina
Application November 29, 1954, Serial No. 471,768
2 Claims. (Cl. 20—52)



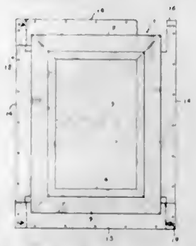
1. In a structure for a window or the like, the combination of a sill, a lintel, said sill having a straight horizontal surface, at least one sash frame including upper and lower rails disposed above, and movable laterally in opposite directions along, said sill, the lower rail having recesses and including wheels journalled for turning in said recesses and engaging said horizontal surface of said sill as a track surface and supporting the major portion of the base surface of the lower rail above the track surface of the sill, a plurality of freely rotatable guide elements journalled to said sill along a straight line parallel of said sill, adjacent guide elements being spaced apart from each other for substantially the same distance, said lower rail having a straight groove open on the bottom of said lower rail throughout its horizontal length, said distance between the guide elements being sufficiently smaller than the length of said groove whereby at least some of said guide elements will protrude into said groove in all positions of said sash frame for jam-free guiding of the sash frame during its movement in either direction, said lintel having a recess opposite said track surface of said sill, said upper rail protruding into said recess, and rollers connected to said upper rail and disposed in said recess adjacent the opposite front and rear surfaces of said recess for guiding of said upper rail.

2,834,070
ADJUSTABLE VERTICAL SLIDING SASH
John S. Deats, Los Angeles, Calif.
Application July 2, 1956, Serial No. 595,304
6 Claims. (Cl. 20—52)



1. An adjustable vertical sliding sash, said sash having a top rail, a bottom rail and side stiles, and comprising a channeled pane supporting structure, a corresponding frame in which the sash is fitted for movement and means for automatically locking the sash in desired position in the frame, said means including a cam bar, said cam bar extending completely across the sash, with its ends in juxtaposition with the frame and positioned in the top member of the sash and an operating protruding latch element fitted onto the cam bar.

2,834,071
EXPANDABLE AND CONTRACTIBLE AUXILIARY WINDOW FRAMING
Ernest Camerino, Lindenhurst, N. Y.
Application September 21, 1954, Serial No. 457,341
1 Claim. (Cl. 20—55)



An auxiliary window unit formed to fit in window openings of varying sizes and to be mounted to conventional stops about the inner walls of the window opening, comprising a rectangular casing adapted to receive sash members therein, a pair of perimetrical closely spaced flanges extending integrally from the outer walls of the casing and defining between them a continuous narrow

channel about the casing, resilient material lining the inner walls of the channel, four broad flat strips defining a rectangular outer frame for the casing, two of the strips being in opposed relation and having their marginal end portions recessed in from their inner edges, the other two strips having offset marginal end portions overlapping the aforementioned recessed marginal end portions, each strip normally extending part way into the channel between the resilient lining and being frictionally gripped by the latter, and each strip being moveable as desired further in or out of the channel whereby the overall projected dimensions of the combined casing and outer frame may be selectively expanded or contracted so as to fit in a selected window opening, and the outer frame being adapted to be fixed to the conventional stops of the selected window opening, whereby the casing attains a floating relation to the fixed outer frame by virtue of the resiliently lined channel in which the outer frame is gripped.

2,834,072
AWNING STRUCTURE
Urban J. Miller, Jackson, Mich.
Application March 11, 1954, Serial No. 415,527
2 Claims. (Cl. 20—57.5)



1. In a rigid type sectional awning, a frame and hinge structure comprising a pair of elongated extruded members of integral one-ply construction each having a flat frame attachment surface portion, one of said members having a C-shaped socket portion to which its associated flat attachment portion is generally tangential at a point opposite the throat of said socket, the inner surface of said socket being generally cylindrical and exceeding 180° in inner circumference, the other of said members having a C-shaped male portion connected to its associated attachment portion through an L-shaped offset portion, the point of connection between said male portion and said offset portion being spaced from the throat of said male portion, the outer surface of said male portion being cylindrical and having its narrowest dimension across its axis less than the width of the throat of said socket member with the inner diameter of said socket portion and the outer diameter of said male portion being approximately the same so as to permit one to have a bearing within the other, the C-shape of said socket and male portions enabling said male portion to be laterally inserted into said socket portion through the throat of said socket portion with the throat of said male portion in one relative position to the throat of said socket portion, said socket and male portions in another relative position interlocking with each other.

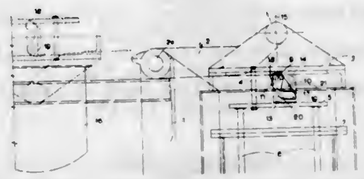
2,834,073
FABRICATED POLE
Robert J. Hoyle, Jr., Syracuse, N. Y., assignor, by mesne assignments, to The MacGillis & Gibbs Company, Milwaukee, Wis., a corporation of Wisconsin
Application September 28, 1953, Serial No. 382,563
2 Claims. (Cl. 20—99)

1. A fabricated pole comprising a pair of elongated side panels formed of a series of wood laminations glued in face to face relation along the wide dimension thereof and with the width of each panel decreasing from its lower end toward the top thereof, said laminations in each of said side panels being disposed relative to one another so that the outer edges thereof collectively provide a generally conically contoured outer surface, a pair of laminated wood cover plates having the outer edge portions thereof overlying and glued to the faces of the outermost laminations of said side panels respectively to



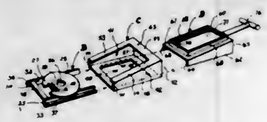
form a pole having a substantially annular wall cross-section with the overall diameter of the pole decreasing from the lower end thereof toward the top, wood members glued to said side panels and said cover plates along the interior of said pole for a portion of the length adjacent the lower end thereof to provide thickened walls in the base portion of the pole, and plug seal members secured within the open top and bottom ends of the pole to seal against the entrance of moisture and foreign material into the hollow pole interior.

2,834,074
APPARATUS FOR THE MANUFACTURE OF MOULDS, HOLLOW CORES AND THE LIKE FOR FOUNDRY PURPOSES
Gwyuville Jenkins, Staines, England, assignor to Polygram Casting Company Limited, Victoria, England, a British company
Application July 11, 1955, Serial No. 521,257
Claims priority, application Great Britain August 3, 1954
5 Claims. (Cl. 22—34)



1. Apparatus for the manufacture of moulds, hollow cores and the like for foundry purposes comprising in combination, upright support means, arms pivotally mounted on said support means, a pattern plate mounted between said arms, ejector pins passing through said pattern plate, an ejector plate mounted below said pattern plate for operating said pins, locking levers pivotally mounted on said pattern plate for locking said ejector plate against movement relative to said pattern plate and releasing means secured to said upright support means for releasing said locking levers from locking engagement with said ejector plate and said pattern plate.

2,834,075
EMERGENCY STOPPER FOR LADLE POUR HOLES
Chris K. Hansen, St. Paul, Minn.
Application September 6, 1956, Serial No. 608,347
5 Claims. (Cl. 22—85)



1. In combination with the pour hole of a ladle for molten metal, an apertured plate member, a wall depending in spaced relationship from said plate member adjacent to and extending partially about said aperture, a trackway supported from said plate member, an open top frame supported by said trackway, a cam surface on said frame, an open top container, a frame supporting said container on said cam surface of said frame, and a handle on said frame supporting said container, whereby a plastic material when placed in said container is forced by said wall into said pour hole upon forcing said frame supporting said container to ride over said cam surface and said open top frame to ride forwardly on said trackway.

2,834,076
HOT SAND CURING OF SHELL MOLDS
Julius M. Bleuenstein, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application August 12, 1953
Serial No. 373,919
2 Claims. (Cl. 22—193)

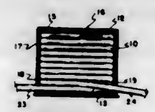
1. The process of preparing shell molds comprising heating a pattern, securing the heated pattern to an open topped sand box containing a mixture of sand and a heat settable resin, inverting the assemblage of sand box and pattern to shower the sand resin mixture upon the heated pattern, permitting the sand box to remain inverted until a shell of the desired thickness has been secured, detaching the pattern, carrying the shell from this sand box and attaching it to the top of a second open topped sand box containing sand heated to a temperature of 350° F. to 1,300° F., inverting the assemblage of the second sand box and pattern until the desired degree of cure of the resin is obtained, detaching the pattern from the second sand box and removing the shell.

2,834,077
METHOD OF PRODUCING PATTERNS FOR CORED CASTINGS
Howard A. Greis, Cedar Grove, N. J., and John R. Watson, Wauwatosa, Wis.
Application May 28, 1954, Serial No. 433,054
3 Claims. (Cl. 22—194)



1. The method of producing a mold for casting a unitary flat manifold having therein several segregated and crossing fluid conducting conduits terminating at a flat side of the final casting, which comprises, endwise uniting straight and arcuate end and medial sections of tubing formed of plastic having uniform wall thickness and smooth interiors to provide an independent pattern for each conduit having the same configuration and dimensions as those of the required final conduit, completely filling each tubular pattern with self-hardening refractory core forming material and after said material has hardened removing the plastic pattern from each hardened core having curved ends formed by said arcuate tube end sections, die molding a flat manifold cavity corresponding to the external shape of the final casting desired, and mounting the arcuate core ends at one side of the mold cavity to support the intermediate core portions within the cavity with arcuate medial portions thereof crossing but spaced from adjacent medial portions of other cores.

2,834,078
CORD STORAGE DEVICE
Helen S. Brundage, Aurora, Colo.
Application July 2, 1954, Serial No. 441,009
3 Claims. (Cl. 24—71.2)



1. A cord storage device, comprising a spool having a central post and upper and lower circular flanges attached to and extending radially from the upper and lower ends of said post; and a cylindrical housing having an inside diameter corresponding to the diameter of said spool flanges and a height corresponding to the height of said spool, said housing having an open bottom adapted to be closed by the lower flange of said spool when said spool is inserted in said housing and a top which is imperforate except for a centrally disposed, circular opening through which pressure may be applied to the upper flange of said spool for pushing said spool out of said housing, said housing also having an annular side wall provided at its lower edge with upwardly extending slots disposed in diametrically opposite positions and communicating with the open bottom of said housing, said slots having a width and height sufficient to accommodate a cord passing into said housing through one slot and out of said housing through the opposite slot, said side wall of said housing having a plurality of longitudinally extending ribs on the inside theerof, said ribs extending substantially the full height of said housing and being substantially semi-circular in cross section and being adapted to frictionally engage said spool flanges, to retain said spool in said housing and oppose turning of said spool in said housing, whereby a length of cord may be wound on said spool with the opposite ends of such cord length extending outwardly from said spool and said spool with such length of cord wound thereon may be inserted within said housing so that said spool is enclosed by said housing with said ends of such length of cord extending through said slots.

2,834,079
CUFF LINKS FOR GARMENTS
Elaine Haber and Milton Haber, Little Neck, N. Y.
Application November 26, 1954, Serial No. 471,408
1 Claim. (Cl. 24—97)



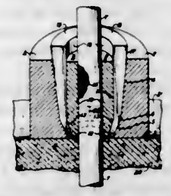
A cuff link comprising a disc-shaped support having a central depressed portion, said central depressed portion having a central opening and an off-center opening, a disc-shaped ornamental insert mounted on the disc-shaped support over said central depressed portion, a stem support extending through said central opening, a stem pivotally supported on the outer end of said stem support, an angular extension on the inner end of said stem support positioned in the space between the ornamental insert and the central depressed portion of the disc-shaped support, and extending along the under surface of said central depressed portion, said extension having an opening registering with the off-center opening in the central depressed portion, and a rivet extending through said registered openings for securing the angular extension to the inner face of the central depressed portion.

2,834,080
BUTTON ORNAMENT MOUNTING
Alfred Corbi, Pawtucket, R. I.
Application August 31, 1954, Serial No. 453,223
1 Claim. (Cl. 24—113)



A button ornament mounting comprising a housing having a flat portion and an integral wall portion extending at right angles from the periphery of said flat portion, said housing being of sufficient size to house a garment button, an ornament mounted on the outside of said housing, and means pivotally mounted in said housing and adapted to extend between a garment button and its attached garment for locking the garment button in said housing, said means being adapted to nest in said housing in closed position, said means including a plate, said plate having an integral tubular portion adjacent one end, a pivot pin mounted in said housing and extending through said tubular portion, said plate having integral side walls adapted to nest within the walls of said housing, said plate having a V-shaped cut out extending from the free edge to a point beyond the center of said plate, the sides of said cut out being curved, and means for releasably retaining said plate in nested position in said housing.

2,834,081
ROD FASTENER
Charles W. Stump, Jr., Hagerstown, Md.
Application August 26, 1955, Serial No. 530,721
10 Claims. (Cl. 24—126)



1. A rod fastener for concrete reinforcing elements comprising a socket member having an inclined tapered bore extending therethrough from end to end, said socket member being adapted to receive a reinforcing rod within said bore, a plurality of rod-gripping jaw members disposed within said bore longitudinally thereof, said jaw members having inner surfaces adapted to grip a reinforcing rod within the socket member, each said jaw member also having an outer surface, said outer surfaces at the small end of the socket bore each being provided with a portion inclined inwardly towards the small end of the socket bore and jointly providing a generally conic terminal portion, a plurality of wedge members disposed in a circular series within the socket and surrounding the jaw members, each said wedge member having an inner surface which jointly define a generally cylindrical bore the inner surface of which is in contact with the outer surfaces of the jaw members and an inclined outer surface which jointly define a generally conic wedging surface engaging the inclined tapered wall of the bore in the socket member and acting to force the jaw members into gripping engagement with a reinforcing rod within the socket member when said wedge members are advanced axially towards the small end of the inclined tapered bore, said inclined tapered bore near the small end thereof being provided with a generally conic constriction disposed in opposition to the jointly formed, generally conic, terminal portion of the jaw members, the advancing ends of the wedge members bending inwardly into engagement with the inwardly inclined surface portions of the jaw members upon engagement with said conic constriction.

2,834,082
PIN FASTENERS FOR FURNITURE COVERS AND THE LIKE
Marietta A. Moser, Erie, Pa.
Application November 29, 1954, Serial No. 471,832
8 Claims. (Cl. 24—152)



1. A fastener comprising an elongated body member made of relatively rigid material having an opening formed therein and extending from the front side to the back side thereof, a first prong member attached to said body member at a location spaced from said opening, and a locking prong attached to said body member on the back side at a position spaced from said opening and having a pointed end, said pointed end being positioned to extend through said opening, the pointed end of said locking prong adapted to swing through said opening toward said first prong member.

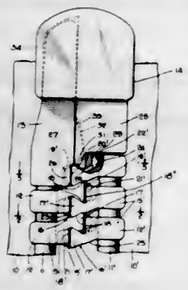
2,834,083
PARACHUTE CANOPY RELEASE
William H. Newell, Mount Vernon, and Howard W. Brevoort, Stewart Manor, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application May 29, 1953, Serial No. 358,325
10 Claims. (Cl. 24—201)



10. In a combination, a canopy riser lug for a parachute comprising a cylindrical metal core pin of elongated shape, and a canopy riser webbing wrapped around said core pin to form therewith said lug, in the general form of a cylindrical handle or bar, said pin being entirely enclosed within the wrapping of said webbing, whereby said lug is free of metal parts or fittings projecting outwardly beyond said webbing, and a parachute canopy release for use in connection with the harness of a parachutist, comprising a pair of opposed jaws with substantially semi-cylindrical recesses and end walls to embrace and completely house said web-padded lug for coupling, means for supporting said jaws for relative movements towards and away from each other into closed and open

position, means for locking said jaws in closed lug holding position, latch means for unlocking said jaws to permit said jaws to open up and the riser lug to be released, and means for securing the release to the harness of a parachutist with its jaws at the upper end of the release. said jaws when open defining an opening therebetween at the top through which the riser lug may escape upwardly.

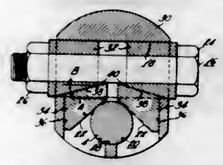
2,834,084
SEPARABLE FASTENERS
Louis H. Morin, Bronx, N. Y.
Application September 27, 1951, Serial No. 248,477
17 Claims. (Cl. 24—205.11)



1. A separable fastener consisting of a pair of stringer tapes carrying scoops, each scoop having a mounting portion with a forward end projecting beyond the tape edge, a coupling portion projecting beyond said forward end of the mounting portion, said forward end consisting of a male section on one side of the scoop and a female section on the opposite side of the scoop, the coupling portion consisting at its forward end of a recess on said one side of the scoop and, on the said opposite side of the scoop, of a projection, the said male section and projection adapted, respectively, to enter the recess and female section of a single scoop on the opposite tape and to overlap, respectively, the projection and male section of such single scoop, thereby interlocking each scoop with a single opposite scoop against transverse separation; the scoops of each pair of said opposed interlocked scoops being in sufficient transverse alinement as to provide alined, opposed portions of stringer tape between next adjacent pairs of opposed interlocked scoops, thereby providing increased flexibility to said fastener; each coupling portion also incorporating upper and lower projecting portions, and, inwardly thereof, upper and lower surfaces converging toward the tape edge, the said upper and lower projecting portions and surfaces adapted to overlie, respectively, the corresponding surfaces and upper and lower projecting portions of two scoops on the opposite tape, thereby interlocking the scoops of one tape with two scoops of the opposite tape against longitudinal and pull-apart separation.

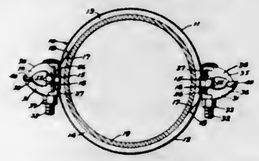
2,834,085
TWO BLOCK SYSTEM CLAMPING DEVICE
Camille Speisman, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application January 18, 1957, Serial No. 634,974
8 Claims. (Cl. 24—263)

1. A clamp for a workpiece comprising: a housing, first and second wedge shaped blocks movably supported within said housing, force means connected to said wedge shaped blocks to move said wedge shaped blocks, a first movable jaw in engagement with said first wedge shaped block, and a second movable jaw in engagement with said second wedge shaped block, said first and said second jaws being moved by said first and said second wedge shaped blocks respectively, portions of the interior of said housing abutting portions of said first and said second jaws to guide said first and said second jaws so they move toward said workpiece, a portion of the interior surface of said housing abutting said workpiece, and a portion of the surface of said first jaw and of said second jaw cooperating to define the sides of a V for engagement with



the surface of the workpiece to be clamped, said first and said second wedge shaped blocks when they are moved by said force means, moving said first and said second jaws and in turn their surfaces that define said V against said workpiece, forcing said workpiece against said portion of the interior surface of said housing abutting said workpiece to clamp said workpiece.

2,834,086
PIPE CLAMP OR COUPLING AND LUG MEMBERS THEREFOR
Telford L. Smith, South San Francisco, and Paul G. Dunmire, Burlingame, Calif., assignors to Smith-Blair, Inc., San Francisco, Calif., a corporation of California
Application March 22, 1954, Serial No. 417,588
9 Claims. (Cl. 24—279)

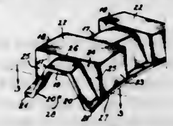


9. In a clamp for tightening a band about an object, having a flexible band with bent-back spaced-apart ends, and a plurality of lugs each adapted to engage one of said bent-back ends, with a bolt extending between each adjacent pair of said lugs, the improvement comprising lugs in which each lug has a gripping portion which extends axially of said bolt so it engages the bent-back band at points radially spaced from said bolt, a wedge-engaging portion spaced between said bolt and said gripping portion, and a single arm projecting in a plane radially in line with said bolt and curved inwardly to meet a like arm on the adjacent lug with a male and female joint, and a wedge between said wedge-engaging portion and said bent-back end forming said bent-back end into tight engagement with said gripping portion, whereby, upon installation of said clamp about an object, the insertion of said bolt and first engagement of said male and female portions will assure continued axial alignment of said lugs while tightening said band and the bolt-in-line contact of said arms will assure an equalized pull on the bent-back band ends, while said wedge prevents sidewise slipping of the band.

2,834,087
V-BAND CLAMP WITH INTEGRAL STRENGTHENING RIBS
Albert Dale Herman, Encino, Calif.
Application May 21, 1957, Serial No. 660,667
14 Claims. (Cl. 24—279)

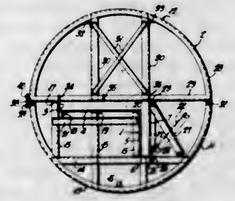
1. In a V-band clamp for coupling together a pair of tube flanges, in combination: a flexible constrictor band

of ribbon metal having means to connect the ends thereof and to develop constricting tension therein; and a plurality of arcuate coupling segments attached to said band in an arrangement such as to collectively constitute a coupling collar of substantially 360° circumferential extent when drawn around a pair of flanges, each segment comprising a plurality of circumferentially separated coupling jaw elements and a plurality of buttress elements in alternating relation to said jaw elements and integrally joining the same, each jaw element being of truncated V-channel section, including a crown web portion and a pair of integral jaws diverging axially and toward the coupling axis from respective axial extremities of the respective crown web portion, each of said buttress elements including a peripheral head member seated against a respective area of the inner face of said constrictor band, having respective end portions extending axially beyond the axial extremities of said crown webs, and having respective axially extending side margins the



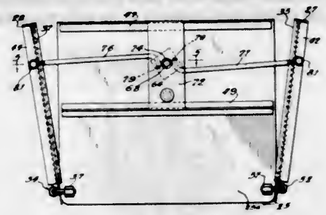
central portions of which are integrally joined to the circumferential extremities of the respective crown webs, a pair of bracing legs joined integrally to respective end portions of each of said side margins of the head member and extending inwardly in a common plane parallel and adjacent to the coupling axis, said legs having inner margins joined integrally to respective ends of respective jaws, and a pair of end members integral with respective axial extremities of said head member and extending generally radially inwardly in axially spaced planes transverse to the coupling axis and joined integrally to the outer margins of said legs by dihedral bends extending generally radially, said legs and end members transmitting from said constrictor band to said jaws, radially inwardly directed loading derived from radially constricting forces resulting from the tension developed in said constrictor band, whereby to brace said jaws against spreading under the wedging reaction loads received by said tube flanges as they are drawn together by said flanges.

2,834,088
COMBINED MOLD AND RACK
Buel W. Miller, Oklahoma City, Okla., assignor to Varsity Pre-Cast Seat Company, Inc., a corporation of Oklahoma
Application December 16, 1955, Serial No. 553,467
9 Claims. (Cl. 25—118)



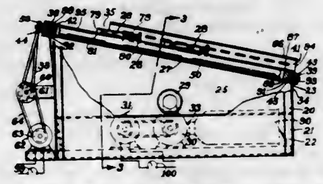
1. In a combined mold and rack therefor, a mold having an open top, a two-part rack with each part having semi-circular hoop members, said mold being mounted in one of said rack parts with the open top of said mold in the plane of separation of said rack parts, means carried by the other of said rack parts at the plane of separation of said rack parts to support articles cast in said mold when said rack is inverted, and means to secure said rack parts together.

2,834,089
FORM FOR MOLDING QUADRANGULAR OBJECTS
Walter Bast, Cicero, Ill., and Wesley Miles Chandler and Paul Fred Heuser, St. Paul, Minn., assignors to Wilbert W. Haase Co., Forest Park, Ill., a corporation of Illinois
Application October 14, 1955, Serial No. 540,383
4 Claims. (Cl. 25—121)



2. In a form for molding quadrangular objects, two side walls, two end walls, said walls being hingedly mounted relative to each other for pivotal movement inwardly and outwardly relative to each other between closed and open positions, actuating means, including elongated rods movably mounted on said end walls and engaged with said side walls, for pivoting said side walls inwardly and outwardly relative to each other, and means projecting inwardly over and progressively slidably engageable with the edges of said end walls for pushing the latter inwardly toward each other and for engaging the outer surfaces of said end walls to lock said end walls in their closed position when said side walls reach their closed position during movement of said side walls inwardly toward each other.

2,834,090
SUCTION TYPE BOBBIN STRIPPER
Philip J. Vowles, Fitchburg, Mass.
Application December 1, 1955, Serial No. 550,336
8 Claims. (Cl. 28—19)

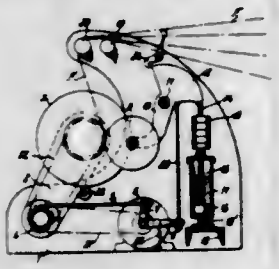


1. In a bobbin stripping machine, a pair of rotatable, inclined, smooth, cylindrical rolls closely spaced in parallelism and having a nip defining an elongated suction slot of greater length than the length of a bobbin, for guiding a single file of spent bobbins in a downward longitudinal path along said slot while supporting such bobbins only on each opposite side of the underface of the tip and butt thereof; means continuously rotating said rolls in the same angular direction for frictionally rotating each bobbin around its axial centre line while the bobbin is advancing along said nip formed suction slot; and suction means continuously creating air suction through said nip formed suction slot and away from said bobbins for picking up loose ends of residue yarn and unwinding said yarn from said rotating bobbins.

2,834,091
BEAM WARPING MACHINE
Stefan Fürst, M. Gladbach, Germany, assignor to Walter Reiners, M. Gladbach, Germany
Application December 13, 1955, Serial No. 552,739
Claims priority, application Germany December 15, 1954
12 Claims. (Cl. 28—38)

1. A beam warping machine, comprising a revolvable warp beam, a revolvable pressure roller parallel to said

beam and engageable with the warp on said beam, an arm structure on which said beam is journaled, a pivot located beneath the axis of said beam, said arm structure being pivotally movable about said pivot so that the beam weight has a pressure component directed toward said roller when said beam axis is horizontally displaced toward said roller relative to said pivot, arresting means for said beam comprising a fixed stop enagageable with said

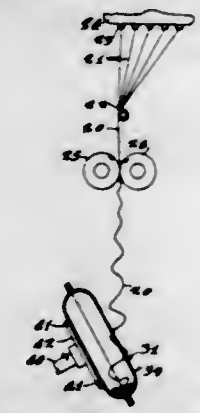


arm structure on the side facing said roller so as to define the extreme beam position on said side, a carrier structure on which said pressure roller is journaled, said carrier structure being displaceable in a direction transverse to the beam axis, biasing means connected with said carrier structure for urging it toward said beam, and latch means to delimit the extent of displacement of the carrier structure in a direction transverse to and away from the beam axis.

2,834,092
PROCESS FOR PACKAGING CONTINUOUS STRAND

Warren Wendell Drummond and William R. Steitz, Anderson, S. C., and Philip J. Frickert, Hebron, Ohio, assignors to Owens-Corning Fiberglas Corporation, Toledo, Ohio, a corporation of Delaware

Application June 30, 1953, Serial No. 365,156
8 Claims. (Cl. 28—72)



3. A method for the packaging of a continuous strand that comprises laying said strand in generally waveform spiral layers on the interior of a rotating cylindrical surface.

2,834,093
REGENERATED CELLULOSE FILAMENTS AND PRODUCTS THEREFROM

Rudolph Woodell, Richmond, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application May 21, 1954, Serial No. 431,567
6 Claims. (Cl. 28—78)

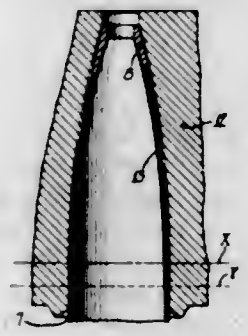


1. A regenerated cellulose filament having a rough surface comprising wave-like irregularities of the order of 200 to 700 per inch along the length of the filament.

2,834,094
COLD NOSING OF THIN WALL SHELLS

George Albert Lyon, Detroit, Mich.

Application April 26, 1955, Serial No. 504,018
4 Claims. (Cl. 29—1.21)

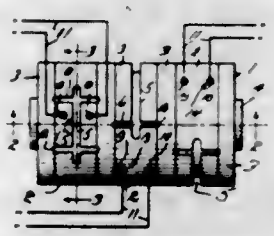


1. In a method of nosing a drawn thin wall shell, contracting the tip terminal of the shell to a substantially reduced diameter joined to the thin terminal wall on a relatively small radius ogive and therefore bulging to a larger diameter than desired, and thereafter substantially increasing the radius of the ogive and reducing the bulge diameter thereof to the desired taper while the tip diameter remains substantially unchanged from said contracted reduced diameter.

2,834,095
METHOD OF MAKING DRUM TYPE SEQUENCE SWITCHES

Robert M. Lazzopina, Flushing, and Joseph V. D'Onofrio, Hicksville, N. Y., assignors to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware

Application October 16, 1956, Serial No. 616,335
1 Claim. (Cl. 29—155.5)



The method of producing a sequence switch contact surface of the character described comprising providing a metallic open ended cylindrical tube having an unbroken wall of uniform thickness throughout the length thereof, forming a plurality of spaced parallel annular grooves in the inner surface of said tube, filling said grooves and coating the inner surface of said tube with thermosetting plastic material, machining the outer surface of said tube to a depth sufficient to remove the tubing material surrounding said grooves thereby providing a plurality of spaced parallel slip rings embedded in said plastic material, cutting a circumferentially extending segmental slot completely through each of said slip rings, and then cutting a pair of spaced transversely extending slots completely through each of said slip rings, each transversely extending pair of slots extending completely across a slip ring and intersecting the said longitudinally extending segmental slot therein between the ends thereof to thereby provide a pair of segments in each slip ring which are isolated from the remainder of the slip ring and from each other.

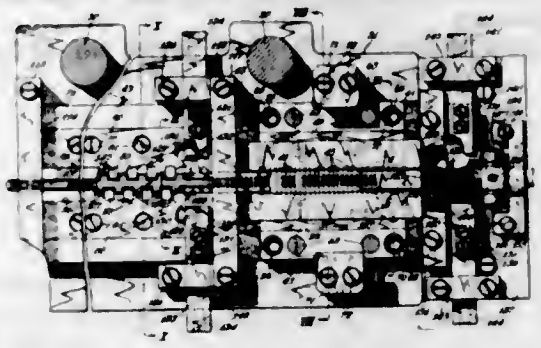
2,834,096

METHOD OF MAKING PISTON RING STOCK

Samuel H. Norton, University Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Original application August 18, 1949, Serial No. 111,311, now Patent No. 2,699,209, dated January 11, 1955. Divided and this application April 10, 1953, Serial No. 347,868

1 Claim. (Cl. 29—156.6)



The method of fabricating a channel shaped ladder-like metal strip which comprises simultaneously piercing a plurality of longitudinally spaced parallel transverse slots along the longitudinal central portion of the advance end of the strip to produce a ladder-like blank with longitudinal side legs and spaced transverse cross portions connecting the legs together in a plurality of successive piercing operations along the length of the strip, and during the second piercing operation locating the strip by engagement with the pierced portions thereof, then advancing the pierced strip and supporting the legs of an advance increment in length of the pierced strip at longitudinally spaced areas and leaving alternate portions of the opposite side legs unsupported in staggered relation with respect to each other, then in a third operation simultaneously piercing and locating the strip by engaging the pierced portions of a next succeeding length of strip and holding down and straightening the supported leg portions and transversely shearing the unsupported leg portions from the supported portions and in the same operation bending the unsupported leg portions to form downwardly bent tabs staggered with respect to each other on each side of the strip, advancing the resulting sheared and alternately bend strip to move the remaining unbent leg portions beyond the supports therefore and during the advancing operation guiding the strip on the alternately bent leg portions, and then in a fourth operation simultaneously piercing and locating next succeeding increments in length of strip and holding down the supported leg portions and shearing and alternately slitting and bending the unsupported leg portions of an increment in length of the strip in advance of the length pierced and at the same time bending the unbent leg portions of an increment in length of the strip in advance of the increment in length being slit and bent into alignment with the bent leg portions of an advance increment in length of the strip to form a channel-like strip, and then continuing advance of the strip and simultaneous piercing, locating, shearing holding down and alternate bending and finish bending and guiding operations at spaced equal increments in length of the strip throughout the length of the strip, to continuously produce a channel-like strip having a ladder-like web and slit legs extending therefrom.

2,834,097

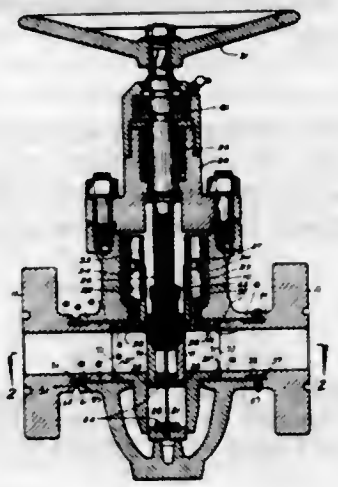
WELDED CONNECTIONS AND VALVES AND METHOD OF MAKING SAME

Robert Eichenberg and J C Shuptrine, Houston, Tex., assignors to George A. Butler, Houston, Tex.

Application November 24, 1952, Serial No. 322,283

2 Claims. (Cl. 29—157.1)

2. With reference to a subassembly comprising a hollow steel body having an inlet-outlet port, a steel coupling having a neck adapted to be press-fitted into said port, said body having an external neck around said port and said coupling having an external collar around its neck, said external neck and collar being spaced outwardly from said coupling neck when the coupling neck is fitted into said port, the method of assembling said subassembly comprising press fitting said coupling neck into said port from the exterior of said body until the end of said collar



abuts against the end of said body neck, and welding together the ends of said collar and body neck including the inner peripheries thereof adjacent the space between said body neck and collar and said coupling neck while said coupling and body are kept stationary relative to each other so as to leave after welding an annular air space between said coupling neck and the welded ends of said collar and body neck.

2,834,098

METAL ARC WELDING OF 90-10 TYPE COPPER-NICKEL MATERIAL

George Raymond Pease, Westfield, and Theodore Ephraim Kihlgren, Berkeley Heights, N. J., assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Original application November 6, 1953, Serial No. 390,732, now Patent No. 2,745,771, dated May 15, 1956. Divided and this application November 3, 1955, Serial No. 544,822

5 Claims. (Cl. 29—194)

1. As an article of manufacture, a welded structure comprising at least two members made of a 90–10 type copper-nickel alloy containing 5% to 15% nickel, 1% to 1.5% iron and the balance substantially copper joined together by at least one weld metal deposit composed of an alloy having as the essential elements 84.5% to 89.4% copper, 9% to 11% nickel, 1% to 2.2% iron, 0.5% to 1.25% manganese, and 0.1% to 0.15% silicon with any lead contamination in the resultant weld metal not exceeding the amount being expressed by the equation:

$$\text{Maximum percent lead in weld} = 0.08 - 0.2 \times \text{percent silicon in weld}$$

2,834,099

APPARATUS FOR INSERTING AND REMOVING PINS

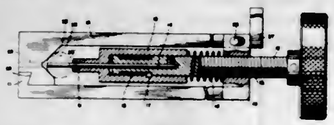
Robert R. Gasper, Clarendon Hills, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application October 8, 1953, Serial No. 384,873

2 Claims. (Cl. 29—257)

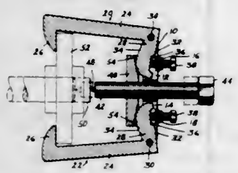
1. A tool for inserting and removing pins from elements, which comprises a bushing, a push rod carried by the bushing and movable relative thereto, a tubular guide for the push rod provided with a bore through which the push rod may slide and a counterbore in the free end thereof, means for urging the guide away from the bush-

ing, an arm pivotally secured at one end to the bushing and having at its other end a hook movable into alignment with the push rod, said hook having a notch for receiving an element from which a pin is to be removed and also having a latching notch, and a handle projecting



laterally from the arm at said one end thereof for moving the hook into and out of alignment with the push rod, said bushing having a projection extending into the latching notch in the hook for holding it in alignment with the push rod.

2,834,100
GEAR PULLER
Carl R. Harsh, Newton, Iowa
Application August 11, 1954, Serial No. 449,137
1 Claim. (Cl. 29—261)

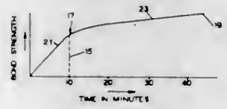


In a pulling tool, a block member provided with a slot on two opposite ends, a jaw member pivotally secured to the outer end of each respective slot and extending therefrom in the same direction so as to be movable toward and away from each other, an integral shoulder on each jaw at its pivot point, said shoulders movable in said respective slots when said jaws are moved, a set screw threaded through said block member for adjustable engagement with the shoulder of one of said jaw members, a second set screw threaded through said block member for adjustable engagement with the shoulder of the other said jaw member, said block member provided with a transverse opening, a rod loosely slidably disposed through said opening so that its major portion can be intermediate of said jaws, and a plate threaded on said rod and engageable with said shoulders of said jaw members, to limit their movement in one direction; said set screws and said plate operable together to adjustably limit any movement of said jaws from a predetermined position.

2,834,101
METHOD OF BRAZING TITANIUM
Willard M. Boam, Fairlawn, N. J., Isidore Friedman, Brooklyn, Henry Paige, New York, and Leo Souzis, Brooklyn, N. Y., and Kurt Strater, Paterson, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware
No Drawing. Application February 23, 1955
Serial No. 490,143
1 Claim. (Cl. 29—488)

The method of bonding together two parts in which at least one of said parts is of titanium; said method comprising the steps of immersing at least the surface of said one part to be bonded to the other part in a bath of boiling hydrochloric acid for at least ten minutes; while still wet with said hydrochloric acid, connecting said part to the negative side of an electric circuit; after making said electric circuit connection and while still wet with said hydrochloric acid, immersing at least said surface of the part in a ferrous chloride bath; while immersed in said latter bath, electroplating a layer of iron having a thickness of 0.0004 to 0.0006 inch on at least said surface; and then brazing said parts together at a temperature of at least 1300° F.

2,834,102
SOLID-PHASE BONDING OF METALS
Heinz R. Pflumm, North Attleboro, and Freeman P. Rogers, Plainville, Mass., assignors to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application September 28, 1956, Serial No. 612,635
18 Claims. (Cl. 29—497)

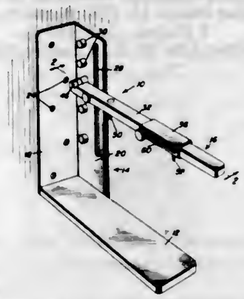


1. The method of solid-phase bonding malleable metal pieces which have been cleaned throughout their surfaces which are to be bonded, which have at least one of said surfaces work hardened and which have said surfaces placed in contact; comprising, first, simultaneously heating and pressing together the metals, the pressure during said pressing and heating being sufficient to effect substantially throughout the bonding area a multitude of discrete contacts, said heating being at a temperature lying within the range which extends from and includes the recrystallization temperature of the one of the metals which has been work hardened, or if there be more than one work-hardened metal then from and including the recrystallization temperature of the one which has the highest recrystallization temperature, and in either case up to but not including the temperature at which a liquid-phase or brittle intermetallic compound would appear in the bonding area, in order to create a first partial bond between the metals throughout said area, second, squeezing the partially bonded metals at a temperature below the recrystallization temperature of that one of the metals having the highest recrystallization temperature, said squeezing being carried out with a substantial reduction of the combined thicknesses of the metals with a concomitant substantial increase in the bonding area, in order to re-energize the interface; and, third, heating the metals at a temperature which will recrystallize at least one of the metals, but below one of those temperatures, whichever is the lower, as the case may be, at which liquid-phase material or a brittle intermetallic compound would form in appreciable amount, said heating being continued for such a time as to effect growth of the partial bond, thereby substantially to increase the over-all bond strength.

2,834,103
CAN PUNCH
Arthur E. Wood, Pendleton, Ind.
Application August 12, 1957, Serial No. 677,442
5 Claims. (Cl. 30—6.1)

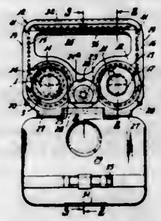
1. A can opener comprising a base for supporting cans to be opened, a bracket mounted on said base and extending upwardly therefrom, one leg of said bracket having apertures therein adapting said opener to be attached to a supporting surface, the other leg of said bracket having a longitudinally extending slot formed therein, pegs mounted on said other leg in spaced longitudinal relation to each other so as to form a row, said row being in spaced parallel relation to said slot, a handle slidably mounted in said slot in opposing relation to said base, one end of said handle being adapted to be pivoted about one of said pegs whereby the height of said handle

may be adjusted to accommodate various size cans, a can punch adjustable along said handle whereby when



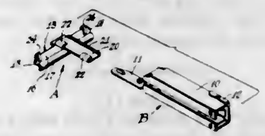
said handle is pivoted about said peg said punch will be inserted into the upper surface of a can so as to form an opening therein.

2,834,104
HOLDER FOR RIBBON TYPE RAZOR BLADE
Maxym Olijnyk, New York, N. Y.
Application September 13, 1954, Serial No. 455,461
7 Claims. (Cl. 30—40)



1. A ribbon type blade safety razor comprising a blade assembly including an elongated flat ribbon of hard metal sharpened along at least one edge thereof, a holder for said ribbon comprising a pair of rollers for supporting said ribbon blade, said ribbon blade attached to said rollers and wound on one of said rollers, an open spring metal ring encasing the periphery of the ribbon of hard metal wound on said rollers and helping to hold said ribbon in place, said rollers provided with flanges and braking means interposed between said rollers and said flanges to exert a frictional braking drag thereon and thereby hold said ribbon in place.

2,834,105
SAFETY RAZOR HAVING A DETACHABLE RAZOR STORING HANDLE
Alfred F. Terenzi, Bridgeport, Conn.
Application June 7, 1956, Serial No. 589,929
1 Claim. (Cl. 30—47)



An improved, inexpensively constructed, throw-away safety razor comprising a sheet metal, backing plate having a flat portion provided with opposed inwardly bent tabs on the ends thereof, said flat portion adapted to support a razor blade in face to face contact therewith and slidably received between said inwardly bent tabs, said backing plate having integral therewith a half round transverse rib providing a skin guard, said rib extending substantially coextensive with said flat portion and stiffening the same against warping or bending, projecting tabs at the ends of the rib providing stops for determinately positioning the cutting edge of the blade with respect to the rib to shield the corners of the blade and prevent cutting and scratching of the skin of the user, a front clamping plate having a pair of reversely bent spring clips for releasably securing said clamping plate on said backing plate, said plates adapted to firmly wedge said blade therebetween to prevent relative movement of the blade and a handle-receiving means integrally formed with said backing plate and angularly disposed relative thereto, said means including an elongate flat portion having a flange substantially coextensive along one marginal portion and a pair of spaced clip tabs positioned along the opposite margin thereof for receiving therebetween a handle means.

2,834,106
APPARATUS FOR SPLITTING TUBES
Christy F. Conder, Fairport Harbor, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
Application November 19, 1956, Serial No. 622,948
2 Claims. (Cl. 30—91)



1. Apparatus for longitudinally cutting the wall of a hollow tube extending through a tube support when forced into said tube, said apparatus comprising in combination a support, and a cutter assembly secured thereto, said cutter assembly comprising a cylindrical shank provided adjacent its free end with three intersecting openings perpendicular to each other, one of said openings containing a cutter which projects therefrom for a distance dictated by the depth of cut desired, the plane including the longitudinal axes of the other two openings being parallel to and spaced towards the cutter from the longitudinal axis of said shank.

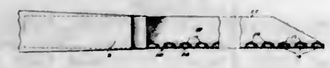
2,834,107
TOOL FOR PRUNING GROWTH ON TOBACCO PLANTS
Adelard R. Brunelle, Batiscan, Quebec, Canada
Application June 19, 1957, Serial No. 666,676
2 Claims. (Cl. 30—251)



1. A tool for pruning growth on tobacco plants comprising a hollow tubular body of elongated shape and tapering from one end to the other, an integral handle depending from the larger end of said body, said handle having a U-shaped cross-section with its open side directed towards said body, an operating member of U-shaped cross-section inserted within the open side of said handle and pivoted thereto at the outer end of said handle, said operating member having a guard member projecting outwardly therefrom and extending close to said body, resilient means to urge said operating member

outwardly of said handle, abutment shoulders on said body engageable with the outer end of said operating member to limit the outward pivotal movement thereof with respect to said handle, the smaller end of said tubular body having an integral extension forming a first claw member of substantially U-shaped cross-section terminated by an inturned lip having a bevelled cutting edge, said second claw member pivoted for movement of its cutting edge towards and away from the cutting edge of said first claw member, and a rod connecting said second claw member to said operating member whereby squeezing of said operating member will cause closing movement of said pivoted claw member in respect to said stationary claw member.

2,834,108
KNIFE
Charles C. Thompson, Lakewood, N. J.
Application January 19, 1956, Serial No. 560,138
1 Claim. (Cl. 30—355)



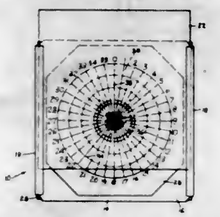
A knife blade having fore and aft ends and having a cutting edge comprising a series of teeth ground on opposite sides to said cutting edge, said blade adjacent its toothed cutting edge being of sinuous formation transversely of the blade and including a series of longitudinally spaced plane surfaces of semi-tear drop form on each side of the blade, said semi-tear drop surfaces each having a longitudinal axis disposed in a line at the roots of said teeth, the semi-tear drop surfaces on each side of the blade longitudinally lapping those on the opposite side of the blade, and the semi-tear drop surfaces extending into the ground side edges of the teeth, the upper edges of said semi-tear drop surfaces being curved and including arcs of relatively small radius and arcs of relatively large radius, the arcs of relatively large radius on one side of the blade being disposed toward the front end thereof and the arcs of relatively large radius on the opposite side of the blade being disposed toward the rear end thereof, and a generally lunar shaped ridge disposed above each tear-drop surface, the lower concave edges of said ridges coinciding with the upper curved edges of the tear-drop surfaces and the upper convex edges of said ridges being defined by arcs of circles.

2,834,109
ANTI-FOGGING DEVICE FOR DENTAL MIRRORS
Allan W. O'Hara, Kingston, Ontario, Canada, assignor to Shirley O'Hara, Kingston, Ontario, Canada
Application March 7, 1957, Serial No. 644,538
5 Claims. (Cl. 32—69)



1. An anti-fogging device for a dental mirror having a frame, a member having a reflecting surface supported by the frame, a shank carrying said frame, and a handle attached to said shank, said device comprising an air distributing skirt having side walls engageable with and arranged to extend around a substantial portion of the periphery of said frame, a bottom wall having a free edge substantially engageable with a portion of the periphery of said reflecting member, a top wall arranged for disposition above said frame and reflecting surface, and a restricted neck, and means for supplying an air stream to said neck and the interior of said skirt.

2,834,110
COMPUTER
Louis Malakoff, Brooklyn, N. Y.
Application March 16, 1953, Serial No. 342,768
3 Claims. (Cl. 33—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A target computer comprising a frame, parallel vertical track means on one side of said frame, parallel horizontal track means on the opposite side of said frame, a first transparent plate slidably retained in said vertical track means, cardinal heading markings on said plate, a second transparent plate slidably retained in said horizontal track means, a 360 degree compass rose on said second plate, concentric speed ring indicia intersecting said rose, and a fixed speed ring indicia on said second plate, said cardinal heading markings overlying said fixed speed ring when the first plate is superimposed over the second plate.

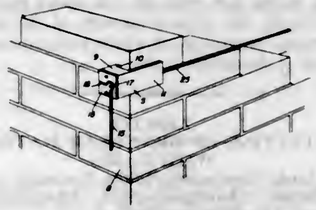
2,834,111
OPTICAL SURFACE GAUGE
John B. Sweany, Calistoga, Calif.
Application May 1, 1953, Serial No. 352,598
2 Claims. (Cl. 33—46)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for comparing surface contour variations, said apparatus comprising in combination: instruments including a telescope and a collimator, each having a sighting mark adapted to fix its optical axis, movable bases adapted to rest upon and be movable over selected areas on said surface, said telescope and said collimator being mounted on said bases, each base having a bottom surface which is parallel to the optical axis of its respective instrument, the optical axes of said instruments being parallel with their sighting marks in coincidence when their bases are parallel whereby the contour of the surface locations may be compared by the relationship of the sighting marks when viewed through the telescope, an external target mounted on the collimator base and adapted to be sighted through the telescope, a micrometer for reciprocating the target perpendicular to the bottom surface of the base and measuring the travel for aligning the target and the telescope sighting mark, said micrometer capable of measuring the movement of the target.

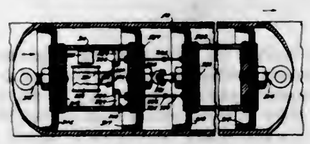
2,834,112
MASONRY GUIDE LINE HOLDER
Lionel D. Seagraves, San Jose, Calif.
Application October 6, 1955, Serial No. 538,976
1 Claim. (Cl. 33—85)

In a masonry guide line holder, an L-shaped body having right angularly disposed wall corner engaging portions, one of said wall engaging portions having a horizontal groove adapted to receive a guide line, a conical chamber in the body aligned with the groove, an arcuate slot in the outer end of the body registering with the chamber and having a lateral entrance slot leading to one edge portion of the body, said line passing through the chamber and outwardly through the arcuate slot and



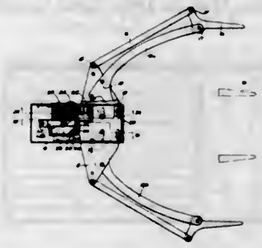
retained in the latter out of alignment with the entrance slot, and a captive spring biased clamping member in the chamber engaging the line.

2,834,113
PIPELINE SURVEYING
Howard J. En Dean, Fox Chapel, Pa., John Delbert Jones, Tulsa, Okla., and Edward Topanelian, Jr., Pittsburgh, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application June 28, 1956, Serial No. 594,541
6 Claims. (Cl. 33—141.5)



1. Apparatus for surveying the spatial configuration of a pipeline which comprises a first vehicle insertable in the pipe, a second vehicle insertable in the pipe connected to said first vehicle by a universal joint, a packer on one of said vehicles adapted to form a sliding seal against the wall of the pipe, means on each of said vehicles adapted to align the axis of each vehicle with the axis of the pipe adjacent thereto, means on at least one of said vehicles responsive to angular misalignment between the axes of said vehicles, means in at least one of said vehicles responsive to a parameter indicative of the location of the vehicle in the pipe, and means in at least one of said vehicles adapted to record the correlation between the response of said angle-responsive means and the response of said parameter-responsive means.

2,834,114
MEASURING AND RECORDING DEVICES
Tord Olof Rickard Dahlberg, Bromma, Sweden
Application June 11, 1954, Serial No. 436,123
Claims priority, application Sweden June 12, 1953
6 Claims. (Cl. 33—148)



1. A portable instrument for measuring and recording diameter dimensions of growing timber and the like comprising a protective cover, a record strip therein, two measuring shanks pivotally supported by and extending outside the cover, with the shanks having simultaneous movement toward and away from each other, a measuring jaw at one end of each shank, link means connected to guide the jaws in parallel relationship to each other upon the movement of the shanks, recording means, and means to actuate the recording means to make an impression on the record strip in dependence of the measuring shanks having engaged the object to be measured, handle means to bring the jaws into engagement with the object to be measured, a longitudinal slide member, means securing the handle means to the slide member, the slide member being operatively connected to the measuring shanks to bring the jaws to engage the object to be measured and to assume actuated positions having a predetermined linear relationship to the distance between the measuring jaws, spring means interconnecting the shanks and opposing the action of the slide member to bring the jaws to engage the object to be measured, and a record guide for said strip and feed mechanism for said strip actuated by the slide member, said guide and mechanism being carried by said slide member for bringing the latter to engage a measuring object against the action of spring means, said slide member being provided with record strip guide and feed mechanism.

2,834,115
DIAL INDICATOR MECHANISM
Walter H. Bachmann, Athol, Mass.
Application July 22, 1953, Serial No. 369,609
4 Claims. (Cl. 33—172)

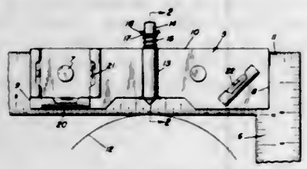


2. A portable gauge for indicating pressure on a contact point, said gauge comprising a hollow cylindrical body member having a hollow stem extending perpendicular to the circumferential surface thereof; a contact rod, having a contact point, said rod being rectilinearly slideable in said stem; a needle shaft rotatably supported axially of said cylindrical body member and having an indicator needle thereon, an indicator dial in said body adapted to be traversed by said needle; a smooth faced pulley on said needle shaft and a flexible spring propulsion rod, of inherently resilient material, said rod having a base portion fixed to said contact rod for rectilinear movement therewith and being free and unsupported throughout its length except for an elongated smooth face in frictional resilient engagement with the smooth circumferential face of said pulley.

2,834,116
CENTERING AND MARKING TOOL FOR PIPES
William T. Hambrick, Rudy, Ark.
Application November 22, 1955, Serial No. 548,370
1 Claim. (Cl. 33—189)

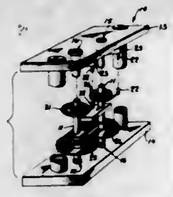
A carpenter's pipe center locating and marking tool comprising an elongated channel member having a pair of spaced flat parallel front and rear flanges and a flat back and adapted to straddle a carpenter's square and be slidably adjusted along the same, a transverse sleeve on the front flange substantially midway between the ends of the member, a spring retracted punch slidably fitted in said sleeve and having a punch end, a transverse

pin in said punch at said punch end engaging one end of the sleeve to limit the traction of the punch, and a pair of setscrews in one of said flanges at opposite sides of the sleeve and adjacent the ends of the channel member engageable with a carpenter's square to retain said channel



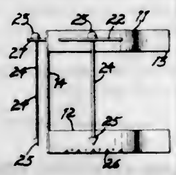
member in adjusted position, said front flange having a longitudinal free edge provided with a longitudinal recess in which the punch is set back and which is open for reading the punch therethrough against graduations on one edge of the carpenter's square.

2,834,117
PENDULUM CONSTRUCTION
Theodore W. Kenyon, Old Lyme, Conn.
Application November 1, 1955, Serial No. 544,189
5 Claims. (Cl. 33—215)



1. A pendulum type sensing device of the character described comprising a pair of like pendulums, means to support each pendulum rotatively about an independent parallel axis so that the two pendulums extend toward each other from their respective axes, gear means for coupling the two pendulums to provide mutual interaction on both by gravitational forces affecting each pendulum individually and spring restraint means for the pendulums.

2,834,118
CLAMP FOR VERTICAL ALIGNMENT OF POLES
Riley N. Jackson, Abilene, Tex.
Application June 25, 1956, Serial No. 593,689
2 Claims. (Cl. 33—215)



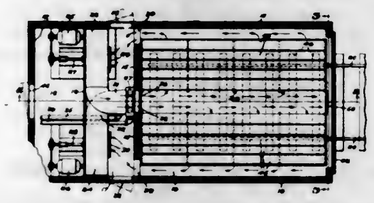
1. A detachable pole clamp consisting of upper and lower spring jaws each jaw having a flattened portion at the back thereof, and being adapted to be inserted over and grip the pole, and a rigid vertical member to which each of said flattened portions is joined, a shelf support fastened to said vertical member near the top thereof provided with means for supporting a vertical pointer at any one of several positions, a second shelf support fastened to the side of said upper spring jaw provided with means for supporting a vertical pointer at any one of several positions, a swingable vertical pointer depending from each of said supports, a scale on the lower part of said vertical member, and a second scale on the side of the lower spring jaw, each of said scales provided with marks whereby the vertical position of the pointer can be determined regardless of which position on the shelf the pointer is depending from.

2,834,119
CONTACTING OF GRANULAR MATERIALS WITH GASES
Franz Schaub, Oberhausen-Holten, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a German corporation
Application December 12, 1951, Serial No. 261,191
Claims priority, application Germany December 16, 1950
13 Claims. (Cl. 34—25)



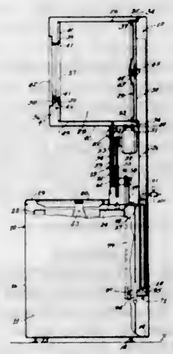
1. In the method for the contacting of granular materials with gases in which a granular material is substantially continuously passed downwardly in the form of a contiguous body over an inclined gas-permeable surface and a gas is substantially continuously passed upwardly through the gas-permeable surface in counter-current contact with the granular material, the granular material having a higher flow velocity at the lower portion of the inclined surface than at the upper portion thereof, the improvement which comprises substantially continuously controlling the flow velocity of the upwardly flowing gas so that the same moves at a higher flow velocity at the places of higher flow velocity of the granular material and at a lower flow velocity at the places of lower flow velocity of the granular material, by passing the gas through the gas-permeable surface at a velocity to substantially reduce the downward pressure of the granular material on the surface without causing substantial eddying thereof and in which the flow velocity of the gas through the granular material is controlled by maintaining a lower layer height of granular material at the place of higher granular material flow velocity than at the place of lower granular material flow velocity.

2,834,120
LUMBER CURING PROCESS
Elisha Russell Greenhood, Wellesley, Mass.
Application May 24, 1954, Serial No. 431,671
5 Claims. (Cl. 34—37)



1. The process of curing a stack of boards arranged in spaced courses in a kiln which comprises circulating in a horizontal path a gaseous atmosphere through a horizontally disposed stack at a velocity in excess of 200 feet per minute so as to change the atmosphere immediately surrounding the lumber at a frequency between 40 and 90 times per minute, while supplying heat to the circulating atmosphere at a rate suitable to raise the temperature of the lumber to 140° F. in about an hour, thereafter heating the atmosphere at the same rate to a temperature in the range of 212°–220° and maintaining the atmosphere at said temperature while continuing the circulation at said velocity.

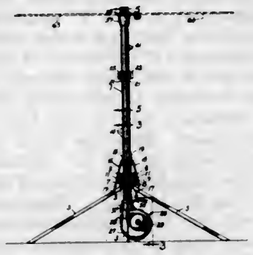
2,834,121
COMBINED CLOTHES WASHER AND DRIER
Peter Eduard Geldhof, Benton Harbor, Mich., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application October 19, 1953, Serial No. 386,924
5 Claims. (Cl. 34—75)



1. In a combined washer and drier for clothes or the like wherein the drier is disposed above the washer and spaced therefrom to provide for opening and closing of a door disposed at the upper face of the washer and wherein a bulkhead substantially seals and supports a perforate end wall of a rotatable drier drum, the improvement which comprises, a condenser positioned adjacent to a rear surface of said washer, means to exhaust air from said drier and deliver the same to said condenser, means to exhaust air from said condenser and heat the air and redeliver the air to the drier, said condenser having a pair of outer chambers, and a pair of inner chambers positioned within said outer chambers, all of said chambers being substantially closed, a passage between said pair of outer chambers, a passage between said inner chambers, and a coolant passage between one of said inner chambers and one of said outer chambers, and means to deliver liquid coolant to the other of said inner chambers of said condenser whereby coolant will flow through both of said inner chambers and said one of said outer chambers to wash and dehumidify the air delivered to the condenser, said exhaust air first passing through said one outer chamber having said coolant passage to contact the coolant and then through the other outer chamber in order that the lint will be removed first from the air.

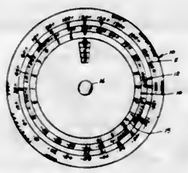
2,834,122
DRIER
William J. Ashworth, Memphis, Tenn., assignor to Mechanical Patents, Inc., Memphis, Tenn., a corporation of Tennessee
Application October 22, 1954, Serial No. 463,993
9 Claims. (Cl. 34—163)

1. A collapsible and portable drier for clothes and the like comprising a tubular standard; collapsible legs on the standard for supporting it in vertical position, each of said legs being adapted to be moved from a standard-supporting position extending laterally outward and downward from the standard to a collapsed position extending upward alongside the standard; a centrifugal fan comprising a scroll housing having a tangential air outlet mounted at the lower end of the standard for blowing air into the lower end of the standard, an electric motor mounted on one side of the housing with its shaft extending horizontally into the scroll housing; and a fan wheel on the shaft inside the housing; an electrical resistance



heating element for heating air blown into the standard; and a plurality of arms carried by the standard for movement between a retracted position and a position extending laterally outward from the standard at its upper end; the standard having holes for lateral exit of heated air therefrom, and said legs, when in standard-supporting position, holding the standard with its lower end spaced above the floor a distance greater than the overall height of the centrifugal fan.

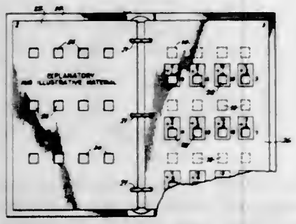
2,834,123
INTERPRETING CONVERTER
George A. Knight, Berlin, Germany
Application June 30, 1955, Serial No. 519,283
4 Claims. (Cl. 35—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An interpreting device for inter-conversion of conventional geographic longitude and latitude indicia and their corresponding code symbols including five disks superimposed one on the other and relatively rotatable about a common center, said disks increasing in diameter from top to bottom, each of said four largest disks having two circularly arranged scales spaced from each other with one of said scales being disposed along the periphery of each of said disks to form a set of scales, the inner spaced scales of said four largest disks forming a second set of scales, one of said scales on each of said four largest disks having one of said geographic latitude and longitude indicia, the other of said scales having a corresponding code symbol for said indicia, one of said sets of scales having indicia on all of its scales, the other of said sets of scales having code symbols on all of its scales, said largest disk having 24 graduations indicating 15° increments of longitude on one of said scales equally spaced about the circumference of said scale, the other scale of said largest disk having 24 graduations indicating major longitude zone code symbols corresponding to each 15° longitude increment and equally spaced about the circumference of said scale, said fourth largest disk having 15 graduations indicating 1° increments of latitude on one of said scales spaced the same distance apart

as the graduations on the scales of said largest disk, the other scale of said fourth largest disk having 15 graduations indicating minor latitude code symbols corresponding to each 1° latitude increment, one of the two remaining disks of said four largest disks having 15 graduations indicating 1° increments of longitude on one of said scales spaced the same distance apart as the graduations on the scales of said largest disk, the other scale of said one of the two remaining disks of said four largest disks having 15 graduations indicating minor longitude code symbols corresponding to each 1° longitude increment, the remaining disk of said four largest disks having 13 graduations indicating 15° increments of latitude on one of said scales spaced the same distance apart as the graduations on the scales of said largest disk, the other scale of said remaining disk of said four largest disks having 13 graduations indicating major latitude code symbols corresponding to each 15° latitude increment, said scales on said disks being so arranged that the graduations representing the 15° and 1° longitude increments are adjacent with the 15° longitude increments on the larger of the two disks, the graduations representing the 15° and 1° latitude increments are adjacent with the 15° latitude increments on the larger of the two disks, the graduations representing the major longitude and latitude zone code symbols are adjacent with the longitude symbols on the larger of the two disks, and the graduations representing the minor longitude and latitude zone code symbols are adjacent with the longitude symbols on the larger of the two disks, and means on said smallest disk to convert the indicia on one set of said scales to the symbols on the other set of said scales and vice versa.

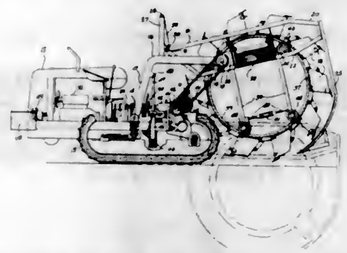
2,834,124
EDUCATIONAL WORKBOOK
John W. Studebaker and John G. Studebaker, Bronxville, N. Y.
Application December 10, 1956, Serial No. 627,285
4 Claims. (Cl. 35—9)



1. An educational workbook for use with insertable worksheets on which answers may be written by a learner comprising a plurality of pairs of apertured leaves, the apertures in each leaf of the pair being in the same spaced relation with respect to each other but the apertures in the first leaf being staggered with respect to said apertures in said second leaf so that the non-apertured portions of each leaf provide a smooth supporting writing surface for an inserted worksheet resting thereon, said first leaf carrying questions associated with its apertures through which answers may be written on said inserted worksheet, correct answers for the questions on said first leaf appearing adjacent the apertures in the second leaf.

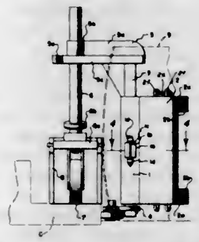
2,834,125
TRENCH DIGGER
Robert J. Brant, San Rafael, Calif.
Application January 5, 1954, Serial No. 402,255
3 Claims. (Cl. 37—97)

1. In combination, a tractor, a pair of arms pivoted at their ends to opposite sides of the tractor and extending upwardly and longitudinally thereof, a transverse shaft mounted in the opposite ends of said arms, upstanding means rigidly connecting the intermediate portions of said arms, a frame rotatably mounted on said shaft between said arms and having an end portion extending subjacent the top of said upstanding means, link means connecting said frame portion to the top of said upstanding means, a digging wheel rotatably supported on the inter-



mediate portion of said frame for rotation around a transverse axis, said wheel being provided with digging buckets on its periphery, a belt conveyor mounted on said frame within and transverse to said wheel, jack means connected between the tractor and said arms for raising and lowering said arms, and means on the tractor drivingly coupled to said digging wheel and arranged to rotate said digging wheel.

2,834,126
MOTOR GRADER ATTACHMENT SUPPORT AND GRADER BLADE CONTROL
John A. Swanson, San Diego, Calif.
Application June 24, 1954, Serial No. 439,074
6 Claims. (Cl. 37—143)

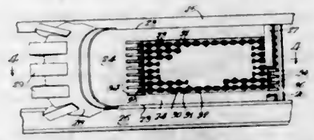


1. In a motor grader attachment adapted to support and control the scraper blade of said grader, the combination of an attachment support adapted to be removably and adjustably secured to the rear wall of the scraper blade, means for holding said attachment support in a horizontally adjusted position on said blade, a hollow upright member on said attachment support extending from the bottom to the top thereof, a shaft carried by said attachment support and slidably mounted in said upright member, means for holding said shaft in a fixed vertical position, a bracket carried by the upper end of said shaft, a caster wheel supported by said bracket adapted to engage a ground surface, and a roller supported by the lower end of said shaft adapted to engage a vertical reference surface.

2,834,127
SELF-CLEANING DIGGING WHEEL BUCKETS
Frank F. Kolbe, Winnetka, Ill., assignor to The United Electric Coal Companies, Chicago, Ill., a corporation of Delaware
Application May 16, 1956, Serial No. 585,335
11 Claims. (Cl. 37—189)

1. A self-cleaning digging wheel bucket for excavating apparatus comprising a bucket including spaced

parallel side walls each having a generally arcuate peripheral edge, a lip portion bridging between the peripheral edges of said side walls at the leading edges thereof, a tail portion bridging between the peripheral edges of said side walls at the trailing edges thereof, said peripheral edges and said lip and tail portions defining an opening, and a perforate flexible mat for said opening extending between said lip and tail portions, said mat being of a width less than the distance between the peripheral edges of said side walls and of a length



substantially greater than the shortest distance between said lip and tail portions, said mat being hingedly connected to the bucket at its forward edge in rearwardly spaced relation to the trailing edge of said lip portion and at its rearward edge in forwardly spaced relation to the leading edge of said tail portion, said mat at the side edges thereof being freely spaced from and freely movable with respect to said side walls, said mat being flexible in all directions and freely movable into and out of said opening.

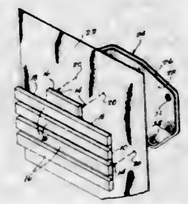
2,834,128
SELF-CLEANING DIGGING WHEEL BUCKETS
Frank F. Kolbe, Winnetka, Ill., assignor to The United Electric Coal Companies, Chicago, Ill., a corporation of Delaware
Original application October 1, 1952, Serial No. 312,517. Divided and this application May 23, 1956, Serial No. 586,806
4 Claims. (Cl. 37—189)



1. In a digging wheel bucket having spaced generally parallel side walls and an arcuate back wall joining the side walls, the back wall having an opening therein constituting the major portion of the back wall, the improvement comprising a sheet of flexible material mounted in said opening, said sheet being of a width less than the width of said opening and of a length substantially greater than the shortest distance between the front and rear edges of said opening, said sheet being hingedly connected solely at its forward and rearward edges to said back wall adjacent the front and rear edges of said opening, said sheet at the side edges thereof being freely spaced from and freely movable with respect to the side edges of said opening, said sheet being freely spaced from and not overlying or underlying the walls and surface portions of the bucket, said sheet being flexible in all directions and freely movable into and out of said opening.

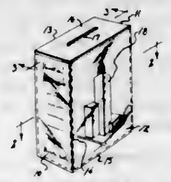
2,834,129
CAMPAIGN RIBBON BAR HOLDER
Jack D. Kirkbride, Lincoln, Nebr.
Application December 23, 1954, Serial No. 477,275
1 Claim. (Cl. 40—1.5)

In a military campaign ribbon bar assembly the combination, with a plurality of spaced, separately formed, horizontally extending, elongated campaign ribbon bars the midlength points of which are in vertical alignment, each bar including a plurality of pins projecting rearwardly therefrom, the pins of each bar being arranged in pairs with the pins of each pair being equidistantly spaced, along a horizontal line, from the vertical line passing through said midlength points, of a holder for supporting the bar upon a military uniform, comprising: a plate having a plurality of indentations arranged in horizontal rows with a plurality of pairs of indentations in each row, the indentations of each pair being equidistantly spaced from a vertical line registering with the first line and bisecting the plate, the pins of each pair registering with indentations of pairs of indentations corresponding with the pairs of pins, said plate being of a material capable of being readily perforated by the pins for projection of



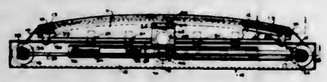
the pins through the indentations rearwardly from said plate, the pins of some of the bars being bent laterally in back of the plate to secure their associated ribbon bars to the plate, the pins of the remaining bars extending straight rearwardly from the plate for passing through the material of the uniform; a clamp plate for positioning in back of the material of said uniform in registration with the first named plate, said clamp plate having a plurality of openings receiving said pins of the remaining pairs of pins; and buttons removably attached to said remaining pins in back of and bearing against the clamp plate for connecting the clamp plate and the first named plate together with the uniform engaged therebetween, said buttons holding said remaining ribbon bars against the first named plate, and supporting the first named plate and ribbon bars as a unit against the uniform.

2,834,130
PICTORIAL BOX
Ira R. Nelson, Minneapolis, Minn.
Application February 10, 1955, Serial No. 487,423
4 Claims. (Cl. 40—7)



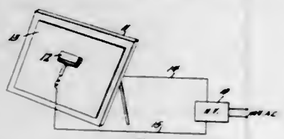
4. A double box construction for holding articles such as coins and simultaneously displaying protected sheet inserts, said double box comprising, an open-topped rectangular outer box having a uniform cross section and transparent side wall areas and a bottom closure, said outer box having vertical corner construction, a rectangular inner casing of slightly smaller and similar configuration having each end open and defining an encompassed space of constant dimension from one end to the other, said inner casing having straight and vertical corner construction, and integrally formed spacing abutments at the corner structure of said inner and outer casings when interfitted whereby to establish a protected spaced clearance for removable insertion of a display sheet therein and which will be visible through the transparent wall area of said outer box.

2,834,131
VEHICLE DESTINATION SIGN MECHANISM
Harry Yale Mageoch, Havertown, Pa., assignor, by mesne assignments, to H. K. Porter Company, Inc. of Pittsburgh, a corporation of Pennsylvania
Application October 11, 1954, Serial No. 461,365
8 Claims. (Cl. 40—95)



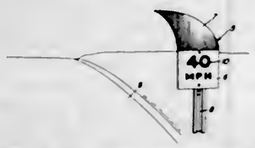
1. In a vehicle station designation sign mechanism of the character described, a pair of spaced, parallel curtain rollers respectively adapted to receive opposite end portions of a curtain to be wound upon one roller simultaneously as it is unwound from the other whereby to present to view a selected portion of the curtain extending between said rollers, and a drive shaft for the rollers having its opposite ends drive-connected to corresponding ends of the rollers, said drive shaft extending lengthwise between said corresponding ends of the rollers and including within its own length a pair of relatively rotatable, concentric members coaxial with and respectively secured to axially spaced portions of the drive shaft, said members being yieldingly connected together.

2,834,132
ELECTROSTATIC APPLYING AND HOLDING DEVICE
John O. Taylor, Pleasantville, and Ralph R. Bergman, New York, N. Y., assignors, by mesne assignments, to American Type Founders Co., Inc., Elizabeth, N. J., a corporation of Delaware
Application December 14, 1954, Serial No. 475,195
5 Claims. (Cl. 40—125)



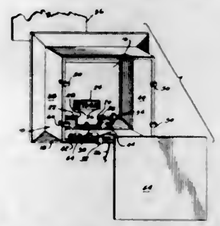
1. An electrostatic sheet applying and holding device comprising sheet holding means including a relatively smooth sheet supporting surface of electrical insulating material, a flat electrode supported on the back of said sheet supporting surface, an instrument comprising an extended current carrying surface providing a second electrode, and a source at high voltage current connected with said electrode whereby when a sheet is placed upon the sheet supporting surface, the sheet is charged when the instrument is moved thereover and the sheet is sustained upon the supporting surface by the electrostatic charge induced on the sheet.

2,834,133
HIGHWAY SIGN
Clarence A. Carmack, Pocatello, Idaho
Application March 2, 1955, Serial No. 491,714
3 Claims. (Cl. 40—125)



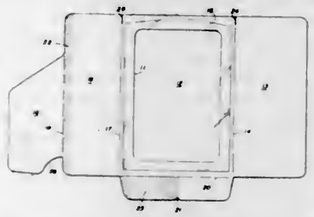
1. A highway warning sign comprising a rigid elongated body of sheet material, means supporting the body in an edgewise upstanding position, said body including a panel at its lower portion adapted to display a warning indicia thereon, and a coplanar tip integrally formed and displayed in silhouette at the upper portion of the body curved outwardly at one side edge thereof and having a tapered upper end.

2,834,134
ILLUMINATED DISPLAY DEVICE
Lonas S. Young, Tucson, Ariz.
Application December 11, 1953, Serial No. 397,574
1 Claim. (Cl. 40—130)



An illuminated display device comprising a hollow body having both ends open and carrying a frame at one end thereof, said frame having an opening therein defining a window in communication with the interior of said body, a background panel removably carried at the other end of said body and visible through said window, a silhouette panel removably carried by said frame in spaced parallel relation to said background panel and extending across said window to define a foreground for said background panel, and a source of illumination carried by said body between said panels to illuminate said background panel thereby intensifying the depth perception effect of the foreground on the background panel as viewed through said window, said frame including a bottom panel having a cut-out section therein defining a plate-receiving recess, a plate having indicia thereon removably received in said recess.

2,834,135
WINDOW PHOTO FRAME ENVELOPE AND SUPPORT
Ralph W. Clarke, Salem, Va., assignor to Double Envelope Corporation, Roanoke, Va., a corporation of Virginia
Application April 10, 1957, Serial No. 651,865
8 Claims. (Cl. 40—152.1)



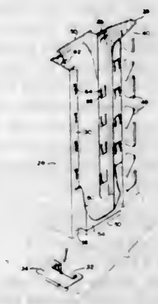
1. A display envelope comprising a windowed front panel, an imperforate back panel formed of two flaps the one overlying and secured to the other centrally of said back panel by an adhesive seam, a bottom flap overlying said two back panel flaps and secured to only one of said flaps, a support formed as an extension of one of said flaps extending along the edge of said flap beyond said seam and normally held against said other flap by the bottom flap and adapted to be withdrawn from under said bottom flap and folded outwardly along said seam to form a support for said envelope.

2,834,136
FILM MOUNT
Paul G. Kiehl, St. Louis, and William H. Kolath, Jr., Kirkwood, Mo.
Original application March 15, 1948, Serial No. 15,004, now Patent No. 2,659,992, dated November 24, 1953. Divided and this application October 30, 1953, Serial No. 389,374
5 Claims. (Cl. 40—159)



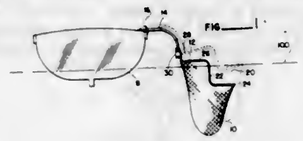
1. A component member of a slide binder including a transparent panel having a continuous planar inner surface bounded by four edges, a right angularly extending flange extending continuously along one edge of said inner surface, a shoulder extending continuously along the opposite edge, a wall extending continuously along a third edge of said inner surface having a concave inner surface, and a wall extending continuously along the fourth edge of said inner surface having a convex inner surface.

2,834,137
MAGAZINE CHARGER
William R. Kunz, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application June 15, 1956, Serial No. 591,769
1 Claim. (Cl. 42—87)
(Granted under Title 35, U. S. Code (1952), sec. 266)



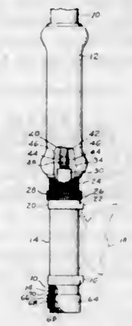
For a firearm having a magazine and a port aligned therewith, a charger comprising a butt section having a pair of forwardly projecting leg portions for slidingly holding the base portions of a column of cartridges, a nose section for protecting the projectile portions of the column of cartridges and having a pair of side portions extending rearwardly for sliding engagement with the necks of the cartridges in the column, a pair of bridge sections joining said base and nose sections at opposite sides and opposite ends thereof to form a rigid unit insertable at either end through the port into communication with the magazine and to provide a clearance for facilitating the manual transfer of the column of cartridges in part or in toto to the magazine from either end of said charger, a plurality of first tab means extending into one side of said charger from said leg and side portions for resilient and camming engagement with one side of the cartridge cases in the column, a plurality of second tab means extending into the opposite side of said charger from said leg and side portions for resilient and camming engagement with the opposite sides of the cartridge cases in the column to resiliently support and maintain each of the cartridges in the column in aligned position whichever end of said charger is inserted into the port, and end tabs disposed at opposite ends of said butt and nose sections for resiliently holding in said charger those cartridges which have not been transferred therefrom into the magazine during the loading thereof.

2,834,138
FISH LANDING GEAR
Marius Pedersen, Ellensburg, Wash.
Application November 10, 1955, Serial No. 546,248
8 Claims. (Cl. 43—11)



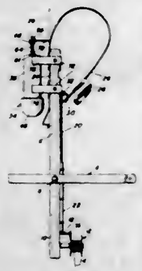
1. A fish landing net adapted to be supported on the edge of a boat, comprising: a rod upper frame and a fish net of bag form having an upper edge and depending from said frame which extends around the bag upper edge, a clamp adapted to be secured to the side of a boat, and a supporting arm connected to said clamp at one end and secured in supporting relationship to one edge of said frame at its other end, the supporting arm extending from said clamp in position so that the major part of said net may be submerged in the water, and said frame having a portion thereof which is offset from the one edge secured to said supporting arm for disposition in a plane substantially lower than the remainder of said frame forming a mouth to be located below water level through which fish may be led into said net.

2,834,139
COMBINED FISHING ROD HANDLE AND LANDING NET
Dee E. Needham, Eugene, Oreg.
Application January 17, 1956, Serial No. 559,651
5 Claims. (Cl. 43—12)



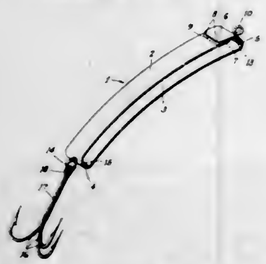
1. In combination, a fishing rod handle comprising a hollow, elongated container open at its rearward end, a separate landing net comprising a handle section, elongated arms having forward free ends, and rearward ends attached to said handle section, the arms being biased resiliently to diverge toward their forward ends, and an open-mesh net having an open end secured to said arms, the forward free ends of the arms being connected solely by a flexible edge of the net to permit the free and unobstructed opening and closing of the net, the landing net arms being movable toward each other against the resistance of their resiliency, the landing net arms, handle section and net being receivable within the hollow container, and the landing net arms being urged apart automatically to open the net when the landing net is separated from the container and to cause closing of the net solely by pressing the arms together when the net is to be restored to the container.

2,834,140
TIP-UP WITH ILLUMINABLE SIGNAL
Joseph P. Knier, Adell, Wis.
Application August 29, 1956, Serial No. 606,863
2 Claims. (Cl. 43—17)



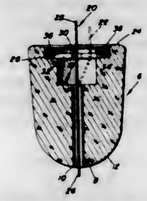
1. A tip-up comprising, in combination, a post, means for supporting the same in alignment with an ice hole, a line-equipped reel mounted for operation on said post, metal attaching brackets for a flashlight having rings encircling the upper end portion of said post, signalling means comprising a spring metal band having one end portion attached to the upper end of the post by way of said rings and having a free end portion provided with a signalling flag, a keeper on said post at which said free end portion is releasably engageable, a flashlight removably mounted on said post by way of said brackets and provided with a downwardly directed illuminable lamp, said flashlight having a metallic casing with a battery and switch-button-controlled lamp, a screw-threaded stud carried by and projecting above the upper end of said casing, said stud having electrical contact with said battery, and a circuit make and break finger adjustably mounted on the upper end of said stud and disposed at right angles to said stud and having a free-end portion arranged for cooperative alignment and engagement with an adjacent cooperating part of the free end portion of said spring metal band.

2,834,141
FISHING LURE
Martin E. Quyle, Stockton, Calif.
Application February 16, 1956, Serial No. 565,825
2 Claims. (Cl. 43—42.06)



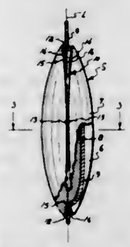
1. A fishing lure comprising an elongated body adapted at the rear for attachment to a hook and at the front for connection to a line, said body being formed of a single length of unbroken-surface resilient strip material arranged in the form of a pair of longitudinal strips having matching lengthwise curvature in a continuous direction and disposed in spaced parallel relation, one integral bend connecting the strips at the rear of the body, another integral bend connected at one end to one strip at the front of the body and extending toward the other strip, and a lip projecting rearwardly from the other end of said other integral bend and lapping the front end of the other strip on the outside in disconnected yieldable relation and parallel thereto; both of said bends being substantially semi-circular in form and merging directly into the adjacent ends of the strips and lip.

2,834,142
FISHING FLOAT
John F. Saye, Forsyth, Mo., assignor, by mesne assignments, of one-quarter to Philip A. McCarthy and one-quarter to Edward M. McCarthy and Lenore W. McCarthy as joint owners
Application January 22, 1957, Serial No. 635,187
3 Claims. (Cl. 43—44.87)



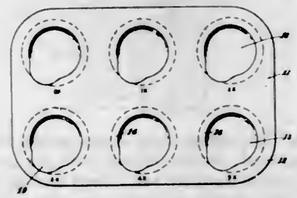
1. A fishing float comprising a buoyant body having an axial passage adapted to receive and retain a fishing line, the upper end of said body having centrally disposed recess means defining upper and lower recesses communicating with each other and also with said axial passage, the upper recess providing a pocket, the lower recess providing a line clearing and liberating socket, said pocket being of a cross-sectional diameter greater than the cross-sectional diameter of said socket, and a washer seated and retained in said pocket and having its centrally apertured portion spanning and covering the upper end of the socket, said washer having at least one radial slit closed at its outer end and open at its inner end and communicating with said aperture, said slit serving as a friction retaining line-grip when the line is intentionally and forcibly yanked, pulled, and seated in the slit.

2,834,143
FISH LINE SINKER
Russell J. Bibeau, White Bear Lake, Minn.
Application April 13, 1953, Serial No. 348,542
1 Claim. (Cl. 43—44.95)



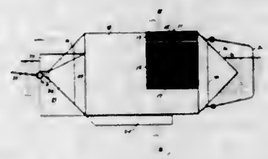
A fishing sinker having in combination an elongated body heavier than water, said body having a line-receiving slot formed longitudinally thereof in its outer surface and extending inwardly therefrom, said body also having a groove formed in its outer surface extending peripherally of said body and longitudinally of said body in a plane disposed substantially normal to the plane of said slot and slightly offset from the longitudinal center of said body, the plane of said groove being inwardly disposed relative to the bottom of said slot and between the longitudinal center of said body and the bottom of said slot, a fish line extending within said slot and extending longitudinally therethrough, and an elastic band extending within said groove and snugly encircling said body, said band engaging said line and in cooperation with the bottom of said groove securing it against movement relative to said body, said groove having a restricted portion for retaining said band on said sinker body.

2,834,144
FISHING LEADER HOLDER
Stephen Jones, Binghamton, N. Y.
Application February 17, 1955, Serial No. 488,781
5 Claims. (Cl. 43—54.5)



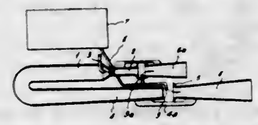
1. A fishing leader holder comprising a plate, a plurality of receptacles formed in said plate, each of said receptacles having sides that slope at an angle of less than 90° with said plate and merge with said plate, and a generally annular rim projecting inwardly partially across each of the cavities formed by said sloping sides to form a central opening and annular guides for receiving coiled fishing leaders through said opening, each of said rims being relieved to the full diameter of said cavity about a portion of the periphery to form a natural opening for the insertion and withdrawal of said coiled leaders.

2,834,145
MINNOW BUCKET
Stanley C. Kisiel, Leicester, and Cecil S. Kisiel and Henry J. Kisiel, Batavia, N. Y., assignors to The Pinnacle Products Company, Batavia, N. Y.
Application August 16, 1956, Serial No. 604,376
2 Claims. (Cl. 43—56)



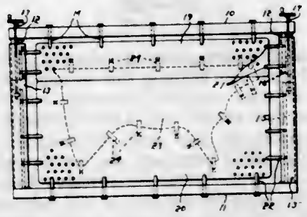
1. A minnow bucket comprising an enclosed body having front and rear ends, a convex head at each end of said body, an airtight bulkhead formed in each head for supporting said body upon the surface of a body of water, said body being formed with an access opening formed in the rear end thereof and being so positioned that a portion only of said opening will be submerged when the device is supported in its horizontal position, a screen for covering said opening, said screen being formed with a stationary part extending over the submerged portion of said opening and a pivotally mounted portion extending over the unsubmerged portion of said opening, means for detachably fastening said pivotal portion in place, and a plurality of longitudinally disposed fins carried by the front end of said body and equidistantly spaced thereon, said fins extending forwardly in axial direction and having their forward edges lying in a plane substantially normal to the longitudinal axis of said body thus providing feet for supporting said body in vertical position when resting upon a horizontal surface.

2,834,146
APPARATUS FOR PROJECTING SUBSTANCES IN A DIVIDED STATE
Jean H. Bertin, Neuilly-sur-Seine, François G. Paris, Garches, and Maurice Pain, Paris, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company
Application March 20, 1956, Serial No. 572,695
Claims priority, application France March 22, 1955
4 Claims. (Cl. 43—147)



1. An apparatus for projecting substances in a divided state comprising a pulse jet unit having a valveless air intake duct and an exhaust pipe facing substantially in the same direction, said pulse jet unit being in the form of a U-shaped duct, an ejector tube extending opposite said intake duct and substantially coaxial therewith to collect the leak gas issuing therefrom, a further ejector tube extending opposite said exhaust pipe and substantially coaxial therewith to collect the exhaust gas issuing therefrom, and means for introducing the substance to be projected into each of the gaseous streams through said ejector tubes.

2,834,147
LEATHER STRETCHING APPARATUS
John W. Durkee, Wilmington, Mass.
Application January 20, 1956, Serial No. 560,382
4 Claims. (Cl. 45—24)

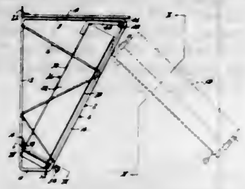


4. In apparatus for use in stretching leather, a pair of members each of which includes side portions provided with a series of spaced connectors, the side portions of one member being in the form of channels opening towards each other and including a plurality of rollers, the side portions of the other pair of members being T-shaped and entrant of said channels each with its base approximately in engagement with the closed end of the channel and its cross bar slidably engaging said rollers thereby to establish a frame adapted to be expanded and contracted, and an adjusting jack threaded through one member and rotatably connected to the other member.

2,834,148
BOOK HOLDER WITH RETRACTABLE BOOK CARRIER
Gerald W. Walter, Kansas City, Mo., and Elwood M. Walter, Mission, Kans.
Application March 25, 1957, Serial No. 648,076
6 Claims. (Cl. 45—58)

1. A book holder comprising a frame including a frame member, a book carrier comprising rigid front and rear cover plates hingedly joined together along one side in the manner of a book, said rear cover plate being pivoted in said frame on an axis parallel to and spaced apart from the upper edge thereof whereby said carrier may be pivoted from a relatively vertical retracted

position to a relatively horizontal extended position, said carrier being so positioned relative to said frame member that when said carrier is opened when in its extended position, said front cover plate will engage said



frame member to retain said carrier in its extended position, and means operable to secure a book in said carrier with its bound edge adjacent the hinge of said carrier.

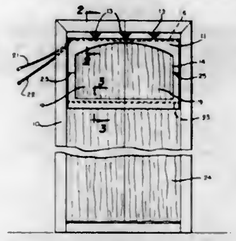
2,834,149
BOOKHOLDER
Thomas J. Flahive and Joseph L. Hunter, Chicago, Ill. Substituted for abandoned application Serial No. 406,644, January 28, 1954. This application April 11, 1956, Serial No. 577,615
7 Claims. (Cl. 45—85)



1. A bookholder comprising two pairs of parallel arms, the arms of each pair being in side by side relation and said pairs of arms normally extending horizontally in opposite directions parallel with a predetermined common plane, a support for said arms, fixed means on said support for pivotally attaching the corresponding ends of each pair of arms thereto for swinging movement of said arms in a direction normal to said common plane, each pair of arms being swingable independently of the other pair, bracket means on each pair of arms pivotally connecting the free ends thereof on axes parallel with and respectively equidistant from the pivot attachment of each of said arms to said support, a book support plate on each of said bracket means and lying parallel with said common plane, means normally urging said pairs of arms toward said common plane, and fixed means on said support extending into the path of movement of said plates toward said common plane.

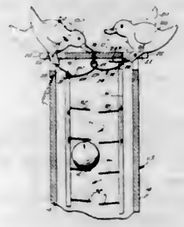
2,834,150
DOORWAY PUPPET STAGE
Nancy M. White, Sausalito, Calif.
Application September 25, 1956, Serial No. 611,908
1 Claim. (Cl. 46—13)

A doorway puppet stage comprising, in combination, a rectangular stage proscenium adapted to fit within a conventional doorway opening, said proscenium having an upper horizontal edge defining a shelf extending at right angles thereto, releasable means comprising a plurality of longitudinally spaced suction cups secured to said shelf adapted to engage with the under surface of a doorway opening for supporting said proscenium therein, drawstring curtain means mounted behind the central proscenium opening and a lower curtain mounted at the bottom of the proscenium to fill the remaining door opening and to conceal the operator, said drawstring curtain means comprising a channel shaped member mounted behind said proscenium above the opening therein and having a longitudinally extending opening at the rear side thereof, a plurality of rollers slidably positioned within said channel shaped member and having rearwardly extending pins, and a pair of curtain halves supported on



said pins at their upper ends, draw strings for opening and closing said curtain halves each having different identifying means thereon, said lower curtain comprising a curtain rod extending across the rear face of said proscenium at the bottom thereof, and means for mounting the ends of said curtain rod on said proscenium.

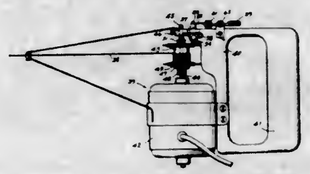
2,834,151
BALL ACTUATED TOY
Paul Zobrist, Charlotte, N. C.
Application April 2, 1957, Serial No. 650,135
2 Claims. (Cl. 46—42)



1. A toy comprising a horizontally disposed base provided with a ball receiving recess therein, a housing extending upwardly from said base and including vertically disposed spaced parallel side walls, and vertically disposed spaced parallel front and rear walls, there being a slot in the lower portion of said front wall adjacent the recess in said base, there being an opening in the upper end of the front wall, for receiving a ball, a horizontally disposed plate mounted on the upper end of said housing, a pair of spaced apart body members pivotally connected to said plate, a pair of spaced parallel vertically shiftable bars movably mounted in said housing, a plurality of inclined shelves extending inwardly from each of said bars, a support member including an intermediate coil portion pivotally secured to said plate and oppositely extending arms extending from said coil portion, said arms being loosely connected to the upper ends of said bars, and fingers extending from said body members and loosely connected to said arms, whereby by inserting the ball in the opening in the upper end of the housing, the ball will selectively engage the shelves to move the bars and body members.

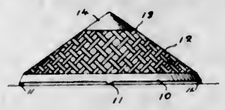
2,834,152
CONTROL FOR BOAT
Donald J. Lambert, Troutdale, Oreg.
Application August 31, 1956, Serial No. 607,483
5 Claims. (Cl. 46—77)

1. Control mechanism for a captive self-propelled vehicle having a body and propulsion means comprising a movable control element mounted in said body for controlling said vehicle, biasing means mounted in said body urging said control element in one direction, and remotely controlled regulating means for moving said control element in another direction against said biasing means, said regulating means comprising a flexible line connected at one end to said control element in said vehicle body, and portable mechanism connected to the other end of said line for varying the tension in said line,



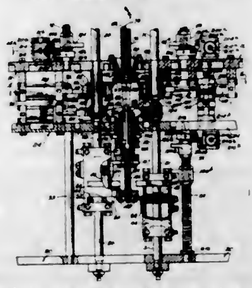
said mechanism having a power source, a friction clutch having a rotatable driving element connected to said power source for rotation thereby and a rotatable frictionally engaged driven element, and manually operable control means for adjusting the engagement of said driven element, said line being connected to said portable mechanism through said driven element, engagement of said driven element by said driving element being operable to tension said line and move said control element against said biasing means.

2,834,153
FLOWERPOT CONE
William H. G. Fearn, Oswego, N. Y.
Application March 13, 1956, Serial No. 571,261
2 Claims. (Cl. 47—34)



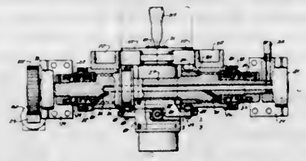
1. A ventilating cone for use in the lower part of a flowerpot and adapted to be positioned over the opening in the bottom thereof comprising an annular rim having spacing nodes extended from the under surface, a wall having an intermediate portion of interlaced strips extended upwardly from the upper edge of the rim, and an imperforate cone extended from the upper edge of the wall to the apex of the device.

2,834,154
CONTAINER MANUFACTURING MACHINE
Bernard H. Koob, Anderson, Ind., assignor to Lynch Corporation, Anderson, Ind., a corporation of Indiana
Application November 8, 1954, Serial No. 467,595
14 Claims. (Cl. 49—9)



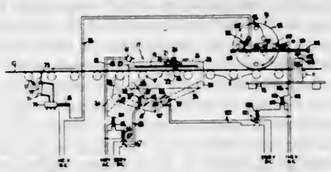
1. In a container manufacturing machine of the character disclosed, an inverted mold, a finish mold associated therewith, a finish sleeve and a finish plunger projecting upwardly into said finish mold, a bottom forming plunger and a bottom forming sleeve movable downwardly into said inverted mold to plug it, said inverted mold being openable relative to said finish mold, and means for sequentially closing said finish mold around said finish sleeve and said finish plunger, closing said inverted mold about said finish mold, drawing a vacuum in said inverted mold around said finish sleeve after a charge of container forming material enters said inverted mold, entering said bottom forming sleeve and said bottom forming plunger into said inverted mold and further moving said bottom forming plunger into contact with the charge in said inverted mold, drawing a vacuum at said bottom forming plunger, simultaneously moving said finish plunger and said bottom forming plunger upwardly to stretch the parison and form the interior thereof hollow, retracting said finish plunger, introducing expansion medium into the cavity of the parison left thereby to expand the parison to fill said inverted mold, releasing the application of vacuum around said finish sleeve and at said bottom forming plunger, opening said inverted mold, retracting said finish sleeve and said bottom forming plunger to permit removal of the finished ware, and retracting said bottom forming sleeve.

2,834,155
EQUALIZING MEANS FOR MOLD OPENING AND CLOSING MECHANISM
Russell G. Allen, Godfrey, Ill., assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application October 14, 1954, Serial No. 462,227
3 Claims. (Cl. 49—41)



1. The combination of a horizontal shaft mounted for rotation about its axes, power mechanism for rotating the shaft, mold arms connected to the shaft for rotation therewith, a partible mold comprising mold sections carried by said arms, means comprising air operated motors for moving said arms lengthwise of the shaft and thereby opening and closing the mold, and centering mechanism interconnecting the mold arms and comprising means for positively controlling the movement of each mold arm relative to the other and equalizing the said opening and closing movements of the arms.

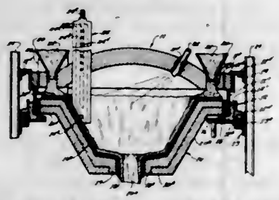
2,834,156
CUTTING MACHINE
William C. Oberlin, Crystal City, Mo., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application November 14, 1955, Serial No. 546,665
7 Claims. (Cl. 49—48)



1. A cutting machine for cutting transversely a continuous ribbon of glass moving along a conveyor, which comprises a cutter, means for moving the cutter into engagement with and across the moving continuous rib-

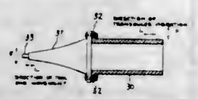
bon, a snapping device mounted on the conveyor for opening the cut produced by said cutter, a yoke pivotally mounted on the conveyor above the moving continuous glass ribbon and about an axis transverse to the movement of glass ribbon, a wheel rotatively mounted on the yoke to ride on the moving continuous glass ribbon, a first cam means and a second cam means mounted on the wheel, cam-actuated means for actuating said cutter-moving means including a first limit switch mounted to be tripped by said first cam means, and cam-actuated means for actuating said snapping device including a second limit switch mounted to be tripped by said second cam means.

2,834,157
GLASS MELTING FURNACE
Urban E. Bowes, Perrysburg, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application November 3, 1954, Serial No. 466,596
3 Claims. (Cl. 49—53)



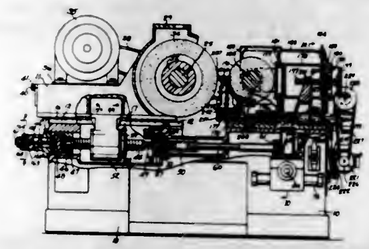
2. A glass melting furnace comprising a rotatable hearth of inverted frusto-conical interior configuration having a central discharge opening in the bottom thereof, means for rotating said hearth, said hearth having a generally horizontal top rim portion, means for feeding batch onto said rim portion, means responsive to the rotation of said hearth for distributing batch from said rim portion into the frusto-conical portion, a cover enclosing and sealing the top of said hearth, means for tangentially directing heating flames within said hearth, whereby batch is melted in the upper regions of said hearth and flows down the walls thereof to said discharge opening, a fluid cooled scraper movable in a rotary path relative to said frusto-conical portion to level the molten batch on said frusto-conical portion, said discharge opening also constituting the exhaust port for combustion gases, whereby maximum contact of the hot gases with the molten batch is maintained.

2,834,158
ULTRASONIC DRILL
Lucien A. Petermann, Metuchen, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey
Application January 28, 1955, Serial No. 484,648
16 Claims. (Cl. 51—57)



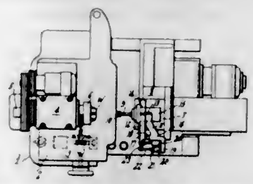
1. An ultrasonic drill for removing material from a hard substantially non-yielding object comprising a transducer having a tool member connected thereto and suitable electrodes affixed to the surfaces of said transducer; said electrodes being electrically connected to means for exciting said transducer such that the end of said tool member will vibrate in at least two modes with respect to the major axis of said tool member; means for urging said transducer and object toward each other along a line substantially parallel to the longitudinal axis of the tool member and means for applying abrasive particles in liquid suspension between the tool member and the object such that said abrasive particles are driven against said object to remove material therefrom.

2,834,159
CENTERLESS GRINDING MACHINE
Olva E. Hill, West Boylston, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application April 16, 1956, Serial No. 578,412
27 Claims. (Cl. 51—103)



1. In a centerless grinding machine, a rapidly rotating grinding wheel, a regulating wheel opposed thereto, driving means for rotating the regulating wheel at a slow speed for a grinding operation or at a faster speed for a wheel truing operation, a feeding mechanism including a nut and screw mechanism for causing a transverse feeding movement between said wheels, means to impart a rotary motion to said feed screw to produce a plunge-cut grinding feed, a work gauge arranged to intermittently move into gauging contact with a ground work piece, a feed compensating mechanism operatively connected to impart a rotary motion to said feed nut in one direction to compensate for over size work, a second compensating mechanism operatively connected to impart a rotary motion to said feed nut in the opposite direction to compensate for under size work, means to intermittently move the gauging device into operative engagement with successive ground work pieces, an electric counter operatively connected to receive an impulse after each movement of said gauge to and from operation position, and a limit switch actuated by said gauge which is arranged so that after a predetermined number of work pieces have been ground at count-out of the counter to actuate either one or the other of said compensating mechanisms to facilitate grinding succeeding work pieces to the desired predetermined size.

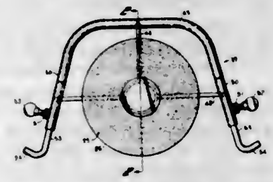
2,834,160
GRINDING MACHINE
Gordon E. Lillie, Bellows Falls, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application May 9, 1955, Serial No. 506,893
6 Claims. (Cl. 51—165)



1. In a grinding machine, workpiece supporting means including a headstock and spindle means rotatably mounted therein for rotatively supporting a workpiece on which a surface of revolution is to be generated, carriage means movable relatively to said workpiece supporting means, grinding tool supporting means including a spindle for supporting a grinding tool in peripheral engagement with said surface of revolution to grind said surface, said grinding tool supporting means being pivotally mounted

on said carriage for movement about an axis generally perpendicular to the axis of said grinding tool supporting spindle, resilient preloaded ball means interposed between said grinding tool supporting means and said carriage means at a point remote from said grinding tool spindle axis and said supporting means pivot axis, means including spring means for preloading said resilient means to an initial predetermined pressure and means responsive to the degree of deformation of said resilient means from pressure contact of said grinding tool and said workpiece adapted to control the grinding cycle of said machine.

2,834,161
ADJUSTABLE PORTABLE GRINDING TOOL
Theodore F. Schmidt, National City, Calif., assignor to Rohr Aircraft Corporation, Chula Vista, Calif., a corporation of California
Application July 1, 1957, Serial No. 668,983
6 Claims. (Cl. 51—166)



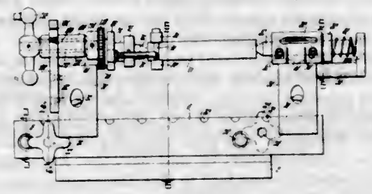
1. A portable tool adapted to grind material protruding beyond the substantially plane face of a long member comprising, in combination: a shaft disposed substantially normal to the plane of said face and having a rear end exposed to be gripped by a rotating chuck; a grinding wheel adjacent said plane face and secured to the front end of said shaft; a hollow casing surrounding said shaft; a bearing secured within said casing, said bearing supporting said shaft for both rotary and axial movement; a stop within said casing to limit the movement of said shaft towards said plane face; and a pair of spaced apart legs attached to said casing, said legs being constructed to slide along said plane face and guide said grinding wheel while said wheel is grinding away said protruding material and also to prevent said grinding wheel from contactng said plane face when said shaft is in its extreme forward position against said stop.

2,834,162
TOOL FOR SHARPENING PEELERS
Johan Emil Adel, Chicago, Ill.
Application June 21, 1956, Serial No. 592,907
1 Claim. (Cl. 51—181)



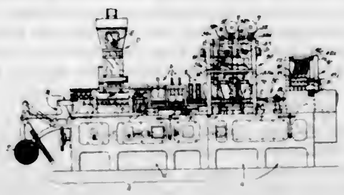
A sharpener adapted to sharpen cutting edges defining in part a narrow elongate slot, said sharpener comprising an elongate member composed of hard durable material, said member having a distal end portion defining a projecting triangular finger, said finger being obliquely disposed to the longitudinal axis of said elongate member, one of the face surfaces of said triangular finger being adapted to engage said edge to be sharpened in the normal course of operation, an adjacent portion of said elongate member to which said projecting finger is attached being adapted to be guided thereby in the course of slidingly engaging the opposed slot defining edge in the normal course of said sharpening operation.

2,834,163
WORK HOLDING DEVICE
Robert H. Fay, Wilbraham, Mass.
Application November 30, 1956, Serial No. 625,503
4 Claims. (Cl. 51—237)



1. A device for rotatably supporting a work piece for a surface grinding or other machining operation comprising, an elongated support, head and tail posts secured at lower ends to said support in relatively spaced relation and extending upwardly therefrom, head and tail bearings secured to upper portions of said posts, a head center secured in said head bearing, a tail center reciprocable in said tail bearing in axial alignment with said head center, yielding means urging said tail center towards said head center, a bearing fixed relative to said head post having a shaft rotatable therein, a member rotatable in said head center, driving connections between said shaft and member, a base, said support pivotally connected at one end to said base for swinging relative thereto and having a pivot fixed to an opposite end of said support, a cam member rotatable on said pivot having an eccentric portion engageable with a part provided on said support whereby as said cam member is rotated said pivot is moved to swing said base.

2,834,164
MANUFACTURE OF FILLED PACKAGES WITH STRING-HANDLES IN PREDETERMINED COUNTED OUTPUT GROUPS
Hans O. Irmscher, Uniondale-Hempstead, N. Y., assignor to National Tea Packing Co., Inc., a corporation of New York
Application August 28, 1952, Serial No. 306,764
36 Claims. (Cl. 53—14)

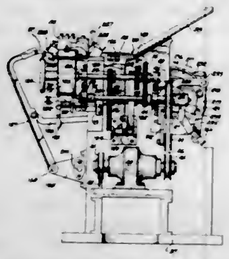


9. In an apparatus unit of the character described having means for forming filled packages with closure seams and for continously moving them in a uniformly constant advancing motion along a first path, means for making string-handles each terminated by a tag in consecutive sequence along a path intersecting said first path in timed relation with the rate of said advancing motion of said package closure seams along said first path, and a wire stapler for anchoring free ends of said string-handles opposite said tags to said closure seams, in combination with a transferor means portion operated in timed relation with said wire stapler for positioning said string-handle ends in over-edge extending relation to the package closure seams prior to applying anchoring staple by said stapler while the filled packages continue in said constant advancing motion passing through the apparatus unit, and shortener means for looping the string-handles through the packages to non-tangling positions while ad-

vancing the filled packages along said first mentioned path.

26. In a method of manufacturing packages with string-handles and tags, the steps of forming along one path tags from strip sheet material to terminate an end of each string-handle, forming along a second path simultaneously multiple filled flat sided pillow shaped packages each with a closure seam while advancing in uniform constant motion, extending the other end of each string-handle in position in an over-edge relation against a closure seam of each of said multiple filled packages during said constant motion, stapling said extended ends to said closure seams while said packages continue in said constant motion in said first path, moving in successive sequence equal numbers of said packages from said line series sequence to erect face to face abutment groups along a plurality of paths, and then combining said abutment groups into a single file of successive segregated predetermined packages count deliveries for cartoning.

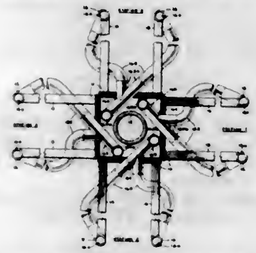
2,834,165
PACKING MACHINE
Gay M. Bonebrake, Chicago, Ill., assignor to Wm. Wrigley Jr. Company, Chicago, Ill., a corporation of Delaware
Application November 5, 1954, Serial No. 467,090
16 Claims. (Cl. 53—57)



1. In a machine for packing articles into boxes, the combination comprising a box holder for supporting a box during the placement of articles therein, means including a reciprocating ram for successively placing empty boxes on the box holder, means including an article conveyor and a second reciprocating ram movable relative to said conveyor and toward and from the box holder for moving groups of articles from the conveyor to a box supported on the box holder, means for driving both of the said reciprocating rams in timed relationship to one another, the last mentioned means including a clutch responsive to the force transmitted therethrough for stopping the operation of both rams in the event that movement of either ram is abnormally resisted, a plurality of unequally spaced feeler elements adjacent the conveyor and normally engaging articles on the conveyor, each of said elements being movable into any gaps between articles as such articles pass on the conveyor, and a second clutch responsive to the movement of any one of the feeler elements into a gap between articles for stopping the operations of the rams.

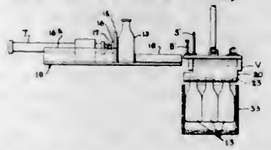
2,834,166
PACKAGING MACHINE
Joseph W. Fogwell, Herbert I. Hoffman, William E. Oakey, and Willis L. Donaldson, San Antonio, Tex., assignors, by mesne assignments, to Carbon Black Packaging, Inc., Bartlesville, Okla., a corporation of Delaware
Application August 10, 1955, Serial No. 527,435
32 Claims. (Cl. 53—59)

30. A machine for packaging fluent, powdery or pelletized materials comprising a turntable and means for driving same, a plurality of stations radially disposed about said turntable, said turntable being rotatable from station to station; a bag carrier supported on said turntable for each station; means for opening a bag and supporting it in said carrier at a first station; means for guiding a charge of material into said opened bag at a second station and means for jogging said bag and carrier at said second station to settle the contents thereof



at said station; means for severely jolting said carrier at a third station to compact the bag contents to a predetermined level in the bag; means for discharging the compacted bag at a fourth station, said bag carrier having side walls and a bottom, end walls for said carrier, said end walls being permanently positioned at the jogging and jolting stations, with means provided at said stations for giving dynamic support to said end walls during the jogging and jolting cycles.

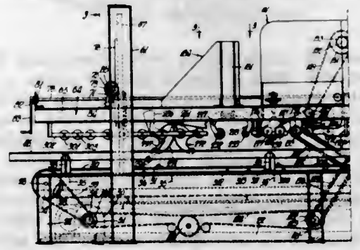
2,834,167
MILK BOTTLE CASE LOADING MACHINE
William Barnum Loveridge, Prospect, Conn.
Application November 18, 1953, Serial No. 392,849
17 Claims. (Cl. 53—61)



10. In an apparatus for loading beaded milk bottles into a rectangular packing case, a table, a conveyor for delivering a first row of four bottles in single file upon said table, a pusher plate for moving said first row of four bottles at right angles to said conveyor one bottle space along said table, a vertically movable bottle carrier at the opposite end of said table from said pusher plate, means for causing said conveyor to deliver a second row of four bottles in single file upon said table, parallel to said first row of four bottles, means to cause said pusher plate to advance said first and second rows of four bottles each along said table another bottle space, means for causing said conveyor to deliver a third row of four bottles in single file upon said table parallel with said second row of four bottles, means to cause said pusher plate to advance all three rows of bottles off said table into said bottle carrier, and means to cause said carrier to descend and deposit said twelve bottles simultaneously into a packing case beneath it.

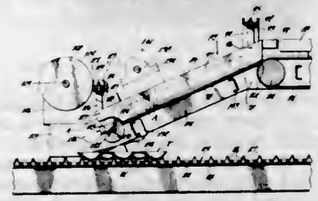
2,834,168
BOX FLAP TAPING AND END SEALING EQUIPMENT
John P. Lopez, New York, N. Y., assignor to Universal Corrugated Box Machinery Corporation, a corporation of New York
Application March 3, 1954, Serial No. 413,935
13 Claims. (Cl. 53—137)

1. Equipment for sealing boxes having side and end flaps, comprising means to apply a length of tape to the top of such box over the adjacent edges of said side flaps with the front and rear ends of such tape protruding beyond the adjacent ends of such box, means to advance such box, a pair of pressing members in the path of movement of such box, supporting means for each of said pressing members, respectively pivotally mounted on axes extending at right angles to the path of movement of such box, resilient means associated with the supporting means for each of said pressing members normally urging said supporting means in opposite direction toward each other, vertically movable mounting means for



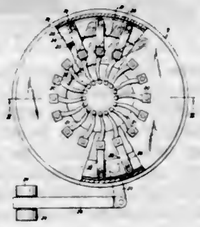
said supporting means, and means operative in timed relation with the movement of such box to effect vertical downward movement of said mounting means to bring one of said pressing members in front of such box and the other of said pressing members against the top of the tape of such box, whereby with continued forward movement of such box, the first pressing member will ride up the front of the box to press the tape thereagainst and the second pressing member will ride along the top of the box and down the rear thereof to press the rear end of the tape thereagainst.

2,834,169
APPARATUS FOR DEPOSITING ARTICLES INTO RECEPTACLES
Clifton F. Stuart, Warren, Ohio, assignor to The Clifton-Grant Development Corporation, a corporation of Ohio
Application May 6, 1954, Serial No. 427,941
18 Claims. (Cl. 53—246)



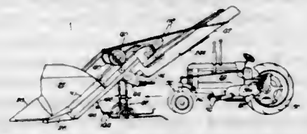
1. Apparatus for depositing articles, such as fruit and the like, in the recesses in a tray wherein such recesses are arranged in a path in staggered relation, comprising a hopper for a plurality of aforementioned trays, supporting means for supporting a plurality of articles, a conveyor underlying said supporting means and adapted to carry a tray for movement relative to said supporting means and in the direction of said path whereby successive recesses along said path are positioned in juxtaposed relation with respect to a portion of said supporting means, means for releasing said trays from said hopper one at a time at spaced-apart intervals and for depositing said trays on said conveyor in successive relationship, positioning means at said supporting means portion for receiving articles from said supporting means and for positioning said articles for deposition into respective tray recesses, said positioning means being shiftable transversely of the direction of movement of said conveyor, and means for timing shifting movement of said positioning means in accordance with the position of the tray relative to said positioning means whereby the latter will align and move in accordance with the disposition of said recesses.

2,834,170
APPARATUS FOR APPLYING CLOSURES TO JARS OR LIKE CONTAINERS
Keith Alexander Robinson, Chalfont, St. Peter, England, assignor to The Paper Cap Manufacturing Company Limited, Bedfont, England
Application June 13, 1955, Serial No. 515,144
Claims priority, application Great Britain June 14, 1954
4 Claims. (Cl. 53—293)



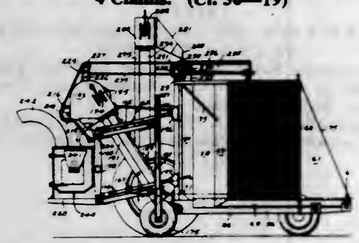
1. Apparatus for applying elastically stretchable cup-like closure caps to containers, including a horizontally disposed annular capping head comprising a hollow annular body surrounding a central space open on its upper and lower sides, a plurality of horizontally disposed fingers spaced around the space of said body and each pivotally mounted thereon about a vertical axis, said fingers extending in a common horizontal plane into the central space of the body and having free inner ends which project above said body and terminate in spherical enlargements adapted to engage the inside of the depending flange of a cup-like closure cap, operating means disposed within said hollow body for simultaneously rotating all of said fingers about their respective pivots, a support for a container to be capped disposed beneath said capping head, said capping head and said support being relatively movable in a vertical direction, and means for moving said operating means in one direction upon an approaching movement of said capping head and support, whereby to move the free ends of the fingers outwards and stretch the closure cap, and for moving said operating means in the reverse direction upon a separating movement of said capping head and support, whereby to return the free ends of the fingers inwards.

2,834,171
TRACTOR MOUNTED CORN HARVESTER
Homer B. Aber, Bettendorf, Iowa, assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application October 8, 1953, Serial No. 384,829
7 Claims. (Cl. 56—18)



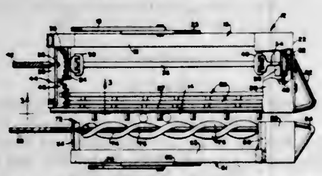
1. An elongated harvester adapted to be mounted on a tractor having a power take-off, a transverse mounting shaft adjacent the center of balance of said harvester having bearing portions supporting said harvester adjacent the axle of said tractor, drive means on said shaft having means connected to the power take-off of the tractor, a slotted arm and pin connection between said tractor and a portion of said harvester spaced from said shaft, whereby said harvester may be adjusted about its center of balance without affecting said drive means.

2,834,172
APPARATUS FOR HARVESTING CASTOR BEANS
William S. Wood, Oklahoma City, Okla., assignor to The Boardman Co., a corporation of Oklahoma
Application October 19, 1955, Serial No. 541,368
4 Claims. (Cl. 56—19)



1. A combination tractor attached harvester thresher comprising a laterally extending frame detachably secured to said tractor, a vertically adjustable frame secured to said laterally extending frame, means on said laterally extending frame engaging the ground for spacing said vertically adjustable frame from the ground, horizontally oscillating plant striking members mounted on said vertically adjustable frame, an upright shaft mounted on said vertically adjustable frame driven by said tractor, crank throws formed on said upright shaft, means yieldable connecting said striking members to said crank throws for oscillating said members, a housing on said vertically adjustable frame extending under said members for collecting the crop dislodged from said plant, a thresher mounted on said laterally extending frame, means on said laterally extending frame driven by said tractor for operating said thresher, a conveyor system on said vertically adjustable frame for conveying the harvested crop to said thresher, a crop storage bin on said tractor, and means on said laterally extending frame extending between said thresher and said crop storage bin for conveying the threshed crop from said thresher to said crop storage bin.

2,834,173
TOBACCO PRIMING DEVICE
Robert W. Wilson, Charlotte, N. C., assignor to Research Corporation, New York, N. Y., a corporation of New York
Application October 24, 1955, Serial No. 542,355
8 Claims. (Cl. 56—27.5)



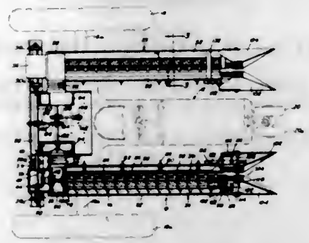
1. Apparatus for priming tobacco plants having stalks and leaves extending outwardly therefrom comprising a frame movable along a row of such plants, a pair of closely spaced means carried by said frame for engaging the plants adjacent their stalks on opposite sides thereof as the frame is moved therealong, at least one of said means comprising a plurality of defoliating elements, means operatively associated with said elements mounting the same on said frame for movement in an endless path including a portion during which said elements move translationally downward intc engagement with the leaves of the plants, and means operatively associated with said elements for rapidly moving the same in said endless path so that during the translationally downward portion thereof the members will deliver to substantially all of the leaves engaged thereby a downward impact blow adjacent their connection with the stalks.

2,834,174
TOBACCO PRIMING DEVICE
Charles W. Suggs, Raleigh, and Robert W. Wilson, Charlotte, N. C., assignors to Research Corporation, New York, N. Y., a corporation of New York
Application October 24, 1955, Serial No. 542,356
5 Claims. (Cl. 56—27.5)



1. A tobacco plant priming device comprising frame means movable along a row of tobacco plants, a pair of elongated defoliating members mounted on said frame means for rotation about horizontally spaced upwardly and forwardly inclined axes, each of said defoliating members including resilient web means disposed outwardly from its associated axis and extending substantially throughout the longitudinal extent of the associated member, and means operatively associated with said defoliating members for rapidly rotating the same in opposite directions during the movement of said frame means so that said web means will be deflected by the engagement of the tobacco stalks therewith to thereby contact the leaves adjacent their stalks and remove them with a downward wiping action.

2,834,175
COTTON HARVESTER
James H. Knowles, Tulia, Tex.
Application May 14, 1953, Serial No. 355,062
7 Claims. (Cl. 56—33)

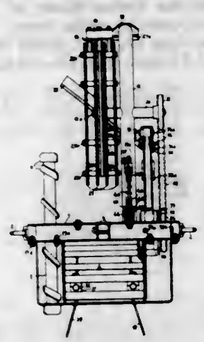


1. A cotton harvester comprising a supporting frame, an auger type cutter carried by said frame, a paddle wheel assembly mounted on said supporting frame and operatively connected to said cutter for delivering cotton bolls from said cutter to a blower, a blower connected to and communicated with said paddle wheel, delivery duct means carried by said blower.

2,834,176
ROOT-CROP TOPPER
Horace F. Howell, Coventry, England, assignor to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application November 23, 1955, Serial No. 548,738
9 Claims. (Cl. 56—121.46)

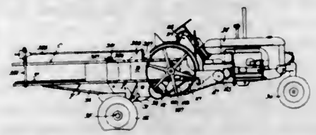
1. A root-crop topper comprising, a support frame adapted to be attached to a tractive vehicle for lateral swinging movement relative thereto, a finder arm swingably and trailingly mounted at one end to said frame for vertical movement relative thereto, a rotary finder wheel rotatably mounted on the other end of said arm, a topping knife disposed in a plane that is substantially parallel to the ground over which it traverses and having a cutting edge disposed beneath said finder, said edge being disposed at an angle to the direction of travel, parallel arm

means swingably connecting said knife to said frame, link means pivotally connected between said knife and said finder arm whereby upon upward movement of said finder



arm said knife will also move upwardly but at a slower rate and will also move rearwardly in respect to said finder wheel.

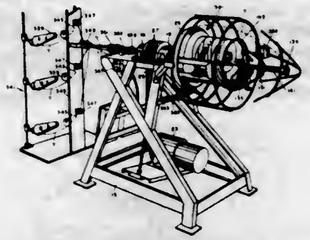
2,834,177
DRIVE MECHANISM FOR A PICK-UP HAY BALER
Stanley D. Russell, Racine, Wis., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Original application March 10, 1948, Serial No. 13,969, now Patent No. 2,674,839, dated April 13, 1954. Divided and this application September 8, 1953, Serial No. 378,904
5 Claims. (Cl. 56—341)



1. In a self-propelled baler having a frame, support wheels journalled on said frame, an engine supported upon said frame, said engine having a propeller shaft which is adapted to be driven at a constant rate of speed, a baling chamber supported longitudinally of said frame, feeding means supported upon said frame adjacent said baling chamber, means within said chamber for compressing the material fed into said chamber, and means supported upon said frame for picking up crop materials from the field and moving them to said feeding means, the improvement comprising baler drive mechanism including means for driving said feeding means and said compressing means at a constant rate of speed from said propeller shaft, and means for transmitting tractive power from said propeller shaft to at least one of said support wheels, said last mentioned means including an infinitely variable, speed change mechanism, whereby the ground speed of the implement in the field is infinitely variable in a range determined by the capacity of said baler.

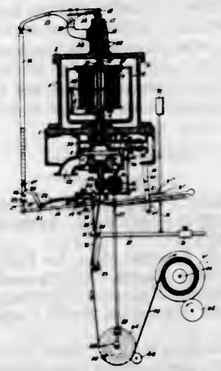
2,834,178
STRAND HANDLING MACHINE
Norman E. Klein, Pendleton, S. C., assignor to Deering Milliken Research Corporation, Pendleton, S. C., a corporation of Delaware
Application April 20, 1954, Serial No. 424,461
29 Claims. (Cl. 57—58.52)

1. In a machine for twisting and winding a flexible strand, a rotatable spindle, a rotatable winding core support carried by said spindle, a winding core slidably mounted on said support, means for advancing a strand into the machine at a rate in direct proportion to the rate of rotation of said spindle, means for directing said strand to said winding core including a traverse mechanism driven in timed relation with respect to said rotatable support, and means driving said rotatable support from said spindle through an adjustable constant torque coupling for controlling the tension on the strand being



wound on said core, said adjustable constant torque coupling comprising a slip clutch having driving and driven members urged into coactive engagement with each other through resilient means, and means for adjusting the operative tension of the resilient means for controlling the torque transmitted by the driving and driven members.

2,834,179
THREAD TWISTING MACHINE
Katsuji Nishimura, Simada City, Shizuoka Ken, Japan
Application April 28, 1953, Serial No. 351,707
11 Claims. (Cl. 57—59)

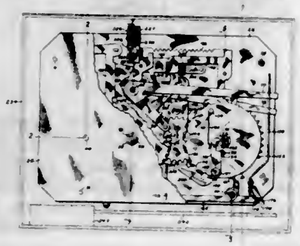


1. In a thread twisting machine in combination a bobbin having an unwound thread comprising a plurality of strands thereon, a driven spindle supporting the bobbin and frictionally rotating the bobbin, a cylindrical member substantially surrounding the bobbin and being rotated by said spindle, adjustable resilient means for biasing the bobbin into frictional engagement with said spindle, a stationary closed member substantially enclosing said cylindrical member and bobbin, said spindle having a hollow portion communicating with a thread entry portion to receive the unwound thread from the bobbin, said thread entry portion being adapted to twist the thread when said spindle is driven and the threads are pulled therethrough, driving means for driving the spindle.

2,834,180
TIME INDICATING DEVICE
Tracy B. Tyler, Miami Beach, Fla.
Application June 22, 1954, Serial No. 438,407
46 Claims. (Cl. 58—38)

23. In a time indicating device, timekeeping mechanism and periodically operable time-sounding mechanism, an

element activatable by the time-sounding mechanism to produce sound, prime moving means, means motivated by the prime moving means to automatically operate the time-sounding mechanism at prescribed time intervals, elements incorporated in the time-sounding mechanism by which in a full operation it is adapted to activate the sound producing element twelve consecutive times, means for limiting such activation of the sound producing element to any number from one to twelve soundings, the last said means comprising a control element connected to the timekeeping mechanism and movable to twelve different conditions, and a cooperative arresting element



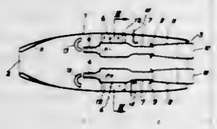
connected to the time-sounding mechanism and provided with a plurality of projections each corresponding to one of the twelve conditions of the control element, means motivated by the prime moving means to automatically and progressively move the control element to a different one of its twelve conditions once each hour, means whereby each condition defines a predetermined number of soundings of the activatable element, and means whereby the sound activating operation of the time-sounding mechanism is arrested by cooperation of the control element and the arresting element after sounding such number of times as the condition of the control element determines.

2,834,181

JET PROPULSION UNIT COMPRISING PULSE JET UNITS HAVING EJECTOR TUBES WITHIN A RAMJET UNIT

François G. Paris, Chaville, Jean Le Foll, Le Pre-Saint-Gervais, and Jean Bertin, Neuilly-sur-Seine, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a company of France

Application June 5, 1951, Serial No. 229,946
Claims priority, application France October 7, 1950
2 Claims. (Cl. 60—35.6)



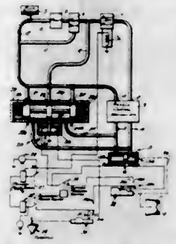
1. A composite jet propulsion engine comprising a ram jet nacelle ending with a rearwardly facing nozzle, a plurality of pulse jet units housed inside said nacelle, an ejector tube extending to the rear of each pulse jet unit in spaced relation with said nozzle and ending substantially in a transverse plane close to the outlet of said nozzle, at least the major portion of said ejector tubes being surrounded by air flowing through said nacelle, and means for injecting fuel into the airstream flowing through the ram jet nacelle, upstream of the ejector tubes.

2,834,182

HIGH ALTITUDE COMPENSATION OF TWO POSITION EXHAUST NOZZLE CONTROL

Charles H. Culbertson, Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application June 21, 1955, Serial No. 517,108
2 Claims. (Cl. 60—35.6)



2. Emergency control apparatus for the variable exhaust nozzle of a jet propulsion unit said apparatus comprising a pressurized fluid source; a fluid operated actuator which, when moved in one direction, increases the effective area of the exhaust nozzle and which, when moved in the opposite direction, decreases the effective area of the exhaust nozzle; a valve assembly which controls the flow of fluid from the fluid source to the actuator, said valve assembly having a solenoid operated valve element which, when in a first position, produces movement of the actuator in the said one direction and which, when in a second position, produces movement of the actuator in the said opposite direction; a throttle for the propulsion unit; a two position switch; a cam which moves with the throttle and which causes the two position switch to move from its first contact position to its second contact position when the throttle is positioned for maximum power; an emergency power source; a stepped cam; a three position switch, said stepped cam, said three position switch and said variable exhaust nozzle being operatively coupled one to another such that the three position switch occupies its first position when the area of the nozzle is less than a predetermined range of values and occupies its second position when the nozzle area falls within said predetermined range of values and occupies its third position when the area of the nozzle exceeds said predetermined range of values; a barometric switch which closes at a predetermined altitude; a first electrical circuit which includes the emergency power source and the first contact position of the two position switch and which energizes the solenoid operated valve element moving it into its said first position; a second electrical circuit which includes the emergency power source and the second contact position of the two position switch and the first position of the three position switch and which energizes the solenoid operated valve element moving it into its said second position; and a third electrical circuit which includes the emergency power circuit, the second contact position of the two position switch, the second contact position of the three position switch, and the barometric switch, said third electrical circuit being adapted to energize the solenoid operated valve element and move it into its said second position.

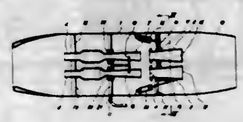
2,834,183

COMPOSITE RAMJET-PULSEJET ENGINE

Jean H. Bertin, Neuilly-sur-Seine, Benjamin J. Salmon, Suresnes, and François G. Paris, Garches, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company

Application July 11, 1955, Serial No. 521,352
Claims priority, application France July 28, 1954
2 Claims. (Cl. 60—35.6)

1. A composite jet propulsion engine comprising a ramjet nacelle having in succession a ramming air intake, an intermediate space of greater cross-section fed with air at reduced velocity and increased pressure which has traversed said ramming intake, and a jet propulsion nozzle; a plurality of pulsejet units extending inside said intermediate space, in spaced relationship with each other and with the wall of said nacelle, and having a combustion chamber adapted to heat the air flowing through said nacelle around said units and an exhaust pipe facing downstream toward said propulsion nozzle; an individual ejector tube coaxially associated with each pulsejet unit



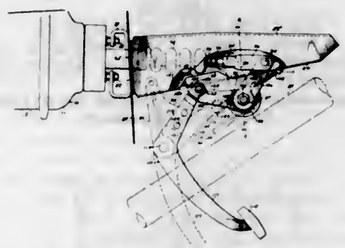
and having an inlet opening spaced from and facing toward the exhaust pipe of said unit and an outlet opening in a rear part of said ramjet nacelle, said ejector tubes being adapted to suck said heated air; and a transverse partition across said nacelle in a part thereof lying between the inlet openings and the outlets of said ejector tubes whereby said nacelle is divided into two compartments communicating with each other through said ejector tubes, at least a portion of said partition being retractable to provide direct communication between said compartments.

2,834,184

BOOSTER BRAKE MECHANISM

Jeannot G. Ingres, Dearborn, Mich., assignor to Kelsey Hayes Company, a corporation of Delaware

Application May 5, 1952, Serial No. 286,081
9 Claims. (Cl. 60—54.6)



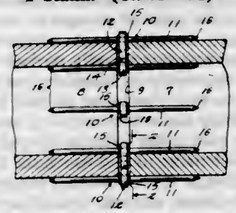
5. In a hydraulic booster brake mechanism comprising a fluid pressure operated motor having a pressure movable unit, a manually movable plunger, a hydraulic fluid chamber into which portions of said manually movable plunger and said pressure movable unit project to displace fluid from said chamber upon energization of said motor, said plunger being displaceable relative to said pressure movable unit for displacing hydraulic fluid prior to motor energization, valve mechanism for controlling energization of said motor, spring means acting against said valve mechanism and said manually operable plunger to tend to return both to normally "off" positions; a pedal lever mounted to rock on a fixed axis, a rock shaft mounted to rock on a second fixed axis, means for translating rocking movement of said rock shaft into movement of said manually operable plunger and said valve mechanism in a motor energizing direction, and a cam arm carried by said rock shaft and having a cam surface engageable by a portion of said pedal lever, the point of contact of said lever portion with said cam lying to one side of a plane passing through said axes and movement of said pedal lever away from a normal "off" position moving said point closer to said plane whereby the initial effective lever length of said cam arm progressively decreases as said pedal lever moves away from said normal "off" position to provide an initial "soft" pedal when overcoming said spring means, operating said valve mechanism and initially displacing said plunger into said hydraulic fluid chamber independent of said pressure movable unit.

2,834,185

DRAIN PIPE POSITIONER AND SEPARATOR

Clinton R. Suttle, Marion, N. C.

Application May 8, 1953, Serial No. 353,791
1 Claim. (Cl. 61—11)



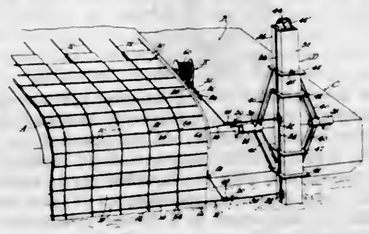
A pipe positioner comprising a pair of straight elongated rigid rods of circular cross section, and a rigid connecting member of rod stock extending between said rods and having end portions defining loops in which intermediate portions of said rods are secured, said connecting member having an intermediate portion extending between the rods and supporting the rods in spaced apart substantially parallel relation to one another, complementary end portions of the rods combining with said connecting member to form aligned bifurcated portions adapted to straddle portions of the walls of two adjacently disposed ends of sections of a drain pipe of circular or other cross sectional shapes for maintaining the wall portions engaged thereby in alignment, said connecting member being of substantial thickness in a direction longitudinally of the pipe positioner and having the intermediate portion thereof disposed between the adjacent ends of the pipe sections to form a separator for maintaining an open gap between the pipe section ends.

2,834,186

APPARATUS FOR LAUNCHING REVETMENT MATS AND CABLE CLAMPING MEANS THEREFOR

John O. Frerichs and Earl P. Houston, Memphis, Tenn., assignors to the United States of America as represented by the Secretary of the Army

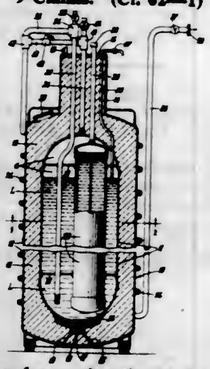
Application August 16, 1955, Serial No. 528,855
1 Claim. (Cl. 61—38)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A launching system for controllably launching transversely of a stream current articulated revetment mats having a plurality of spaced longitudinally extending launching cables from a launching platform while preventing lifting and backward folding of upstream courses of the mats under action of water currents in streams in which the mats are being placed for inhibiting erosion of embankments subject to water current action, which comprises, in combination, a launching platform, a plurality

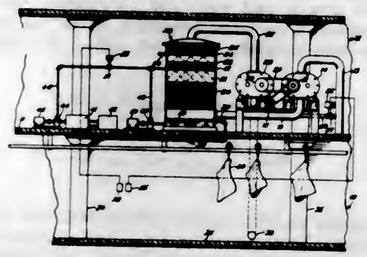
of spaced transverse cables adapted to interconnect the said spaced longitudinally extending launching cables, means for applying tension to said launching cables, said tensioning means including a vertically disposed toggle-beam mounted on the launching platform adjacent to launching stations thereon, said toggle-beam having a vertical longitudinal slot extending through the beam from top to bottom thereof, toggle cable means extending through said slot in said beam and connected successively to a pair of transverse cables next to submerge, anchoring means cooperating with said slot for the toggle cable means in the toggle beam, means connecting said toggle cable means to the pair of successive transverse cables next to submerge, the toggle cable means and anchoring means being movable downwardly through the slot in the toggle-beam responsively to launching movement of the revetment mat, a winch mounted on said launching platform for launching the revetment mats, means releasably interconnecting each upper cable of the pair of transverse cables next to submerge to said winch for tensioning such upper cable through the connecting means between the top toggle cable means and said transverse cable to apply tension to such transverse cable longitudinally thereof and in opposition to direction of stream flow, and clamping means adapted to permanently interconnect each lower cable of the pair of transverse cables next to submerge to the leading launching cable through the connecting means between the toggle cable means and the said lower transverse cable, thereby continuously maintaining the tension applied by the tensioning means to each upper cable of the pair of transverse cables next to submerge.

2,834,187
REFRIGERATED CONTAINER FOR LIQUEFIED GASES
Paul E. Loveday, Kenmore, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application September 10, 1954, Serial No. 455,194
9 Claims. (Cl. 62—1)



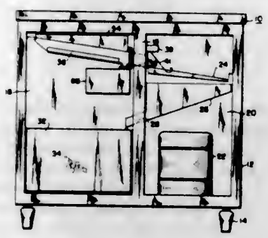
1. In a system for storing liquefied gas material and dispensing gas therefrom, a thermally insulated pressure vessel for holding a supply of the liquefied gas under pressure, a refrigeration compartment in thermally conductive association with the liquefied gas in said vessel, and means for dispensing gas material at least from the gas phase of said vessel to a service connection under high pressure and temperature conditions occurring in said vessel, said refrigeration compartment being sealed and having a non-consumable refrigerant characterized by a high latent heat of phase change within the temperature and pressure range of the liquefied gas in said vessel, for reducing the buildup in temperature and pressure in the liquid by absorption of heat during prolonged periods of non-dispensation, and for reducing the drop of pressure by supplying heat during periods of dispensing.

2,834,188
METHOD AND APPARATUS FOR ATMOSPHERIC CONDITIONING
Purdy Bradford, Palos Park, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application May 10, 1956, Serial No. 584,140
14 Claims. (Cl. 62—6)



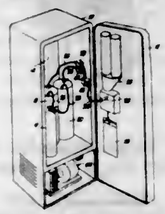
1. In an air conditioning apparatus for a chamber, the combination comprising: a conditioning unit, a first air duct for removing air from the chamber to the unit, a second air duct for returning air from the unit to the chamber, means for pressurizing the air within the unit, a means for controlling the pressure differential between the unit and the chamber as a function of the temperature of the chamber, means for spraying and varying the temperature of the air within the unit, means for controlling the temperature of the air within the conditioning unit as a function of the relative humidity of the chamber, and means for enabling the pressurized air to do work in expanding.

2,834,189
ICE CUBE MAKING MACHINE
Wilbert J. Jaeger, Orange, Calif., assignor to Carbonic Dispenser, Inc. of California, Los Angeles, Calif., a corporation of California
Application May 27, 1955, Serial No. 511,674
16 Claims. (Cl. 62—7)



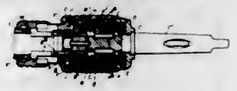
1. In an ice cube making machine, a multi-compartment cabinet divided into adjacent compartments having a common vertical division wall, said wall having vertically spaced apart chutes formed therein connecting the compartments, an ice slab cuber in one compartment disposed at a level between the chutes for receiving slabs to be cubed from one of the chutes and discharging the cubes into the other of the chutes, said one chute having a deflectable door in the path of the ice slabs and normally effective to keep the chute closed, and a separate slab freezing and cube storing units in the adjacent compartment, said slab freezing unit confronting said one chute for discharging slabs thereinto and said cube storing unit being disposed in the path of the cubes discharged from the other chute.

2,834,190
DISPENSING MACHINE FOR REFRIGERATED PRE-MIXED DRINKS
Boley A. Andrews, Mission, Kans., and Theodore L. Hanson, Kansas City, Mo., assignors to The Vendo Company, Kansas City, Mo., a corporation of Missouri
Application November 19, 1956, Serial No. 623,122
7 Claims. (Cl. 62—7)



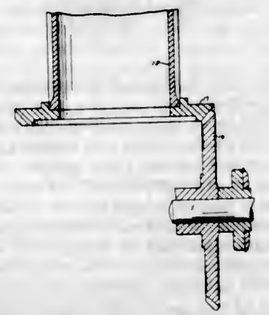
1. In apparatus for bringing the temperature of fluid material within a bulk container therefor from an ambient level normally characterizing the material prior to introduction thereof into the apparatus to a different, desired level and for delivering the material from the container only when the temperature thereof has been brought to said desired level, the combination of: means presenting a compartment having a fluid medium therewithin, said compartment being adapted to receive therewithin in heat exchanging relationship with the medium a thermally conductive container with a quantity of said material therein whose temperature when initially introduced into the compartment will normally be at said ambient level; means, including an element in heat exchanging relationship with the medium, for maintaining the temperature of the medium at a predetermined level at least as far removed from said ambient level as said desired level is and in the same direction; fluid handling means adapted for effecting delivery of a quantity of said material to a location where same may be utilized; conduit means coupled with the fluid handling means and adapted for coupling with the container for carrying said material from the container to the fluid handling means; electrically responsive valve means interposed in the conduit means; thermally responsive means adapted for operable association with the container and for responding to the temperature of material within the container, said thermally responsive means including a thermostatically operable electrical switch adapted for automatic actuation whenever the temperature of the material within the container is within a predetermined range including said desired level and excluding said ambient level; and coupling means including an electrical control circuit operably coupling said switch of the thermally responsive means with the valve means for controlling operation of the valve means responsive to actuation of the thermally responsive means.

2,834,191
INFINITELY VARIABLE TORQUE TRANSMITTER
Geoffrey Toothill, Shelf, near Halifax, England, assignor to William Asquith Limited, Halifax, England, a British company
Continuation of abandoned application Serial No. 228,169, May 25, 1951. This application March 22, 1957, Serial No. 649,587
12 Claims. (Cl. 64—29)



1. A driving unit for rotary cutting tools, comprising, in combination, a drive shaft turnable about its axis; slippable clutch means engageable to different extents for slipping at different driving forces and connected to said drive shaft to be rotated thereby for driving a tool with a maximum force which varies with the extent of engagement of said clutch means, the latter including a driven clutch element having a positioning face in a plane extending across said axis and means for supporting said driven clutch element for movement from a fully disengaged position, where said plane including said positioning face is at a predetermined point of said axis, along said axis to an engaged position of predetermined extent; a tool carrier having a control portion included between a free end face of said tool carrier and a second face of said tool carrier directed oppositely from said end face and located at a predetermined distance therefrom; and adaptor means for positioning said tool carrier with said faces thereof in planes extending across said axis, with said end face thereof in engagement with said positioning face of said driven clutch element, and with said second face of said carrier located at less than said predetermined distance along said axis from said point, said adaptor means being connected to said driven clutch element for rotation therewith and for transmitting the drive from said driven clutch element to said tool carrier, whereby said control portion of said carrier moves said driven clutch element into a predetermined extent of engagement.

2,834,192
CIRCULAR KNITTING MACHINE
Eugene St. Pierre, Pawtucket, and Joseph Wawzonek, Cumberland, R. I., assignors to Hemphill Company, Pawtucket, R. I., a corporation of Massachusetts
Application March 10, 1953, Serial No. 341,536
11 Claims. (Cl. 66—56)

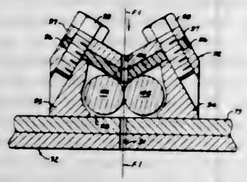


1. A circular, independent needle, knitting machine having a rotatable needle bearing cylinder coupled to a shaft whereby said cylinder is rotated, and means for rotating said shaft which comprises a driving member freely turnable on said shaft and a driven member fixed to said shaft so as to rotate in unison therewith, a clutch plate attached to said driven member and resiliently urged against said driving member, said clutch plate having a projection on its face urged against said driving member, said driving member having a number of recesses disposed about said shaft and adapted to receive said projection whereby said member and said clutch plate may be engaged in different angular relationships, means for turning said driving member, and means for withdrawing said clutch plate so as to free said projections from said recesses while said driving member is turned thereby permitting said angular relationship to be changed.

2,834,193
PRESSURE SEAL
Victor T. Fahringer, Clarksville, Va.
Application April 22, 1954, Serial No. 424,869
16 Claims. (Cl. 68—5)

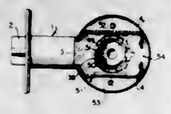
8. In a pressure treating apparatus having a vessel provided with means for creating fluid pressure therein

substantially above atmospheric pressure and having an opening therein through which a web material is adapted to pass, a pressure seal for said opening comprising a plurality of rollers, said plurality of rollers comprising at least two freely displaceable pressure rollers adapted



to straddle the web material passing through the opening in the vessel and means for permitting the passage of the web material therethrough and normally loosely confining said rollers and for directing the pressure rollers relative to each other into sealing position upon pressure escaping through the opening in the vessel.

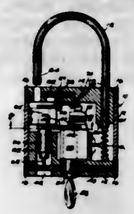
2,834,194
LOCK SPINDLE CONSTRUCTION
Ernest L. Schlage, Burlingame, John Axel Tornoe, Redwood City, and Armin H. Green, San Mateo, Calif., assignors to Schlage Lock Company, a corporation
Application August 6, 1956, Serial No. 602,253
4 Claims. (Cl. 70—146)



4. In a door lock having a bolt retractor slidably supported for movement from an outer position in which the bolt is projected to an inner position in which the bolt is retracted, spring means urging said retractor to said outer position, inside and outside knob spindles supported for rotation about an axis independently of each other, and a lock mechanism housed in said outside spindle and independently rotatable, and wherein said inside knob spindle is provided with a rollback in engagement with said retractor for sliding said retractor toward said inner position upon rotation of said inner spindle, the improvement comprising: a pair of lugs one on said outside spindle and one on said lock mechanism, respectively, extending axially thereof into spaced relation with said retractor, and a pair of separate rollback elements interposed between opposite sides of said lugs and said retractor, said lugs and said elements being formed at their points of engagement such that moving said lugs toward said inner position of said retractor separates said lugs from said elements.

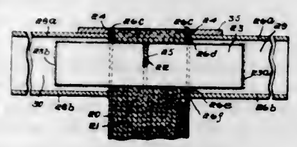
2,834,195
MULTI-BARREL LOCK
Wells Stackhouse, Havertown, Pa., assignor to American Locker Company, Inc., Boston, Mass., a corporation of Delaware
Application August 31, 1955, Serial No. 531,732
10 Claims. (Cl. 70—339)

7. A lock comprising a casing, a primary rotary key receiving barrel in the casing normally locked against rotation, a secondary rotary barrel in the casing normally locked against rotation, a shutter disposed to render the key slot of the primary barrel inaccessible to key reception when the secondary barrel is in locked position, and means associated with the shutter and both barrels for rendering said key slot accessible to key reception and locking the primary barrel against forward rotation when the secondary barrel is rotated through a predetermined arc in reverse direction from its normally locked position, said means including mechanism for rotating the primary barrel forwardly upon rotation



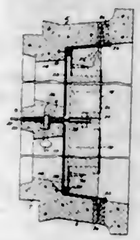
of the secondary barrel forwardly from its normally locked position when the primary barrel key is disposed in its barrel.

2,834,196
WELDED SHEARHEAD
John Stanley Donahue, Chestnut Hill, Mass., and George E. Strehan, Leonia, N. J., assignors to Lally Column Co., Cambridge, Mass., a corporation of Massachusetts
Application August 26, 1955, Serial No. 530,660
1 Claim. (Cl. 72—75)



In a column of the type having a hollow cylindrical casing and a plastic core, the casing having an upper margin and oppositely disposed upright slots in said margin; a head frame comprising a through plate embedded in said core having end portions passing through said slots and projecting outward from said casing, the slots being deeper than the plate so that part of said margin lies above said plate; an integral flat ring disposed horizontally around the upper part of said margin and having an inner edge closely engaging said casing; and a pair of beams disposed outside said casing, each beam having an upright web attached to one of said plate end portions and a top flange close to and attached to said casing, said top flange lying below and being attached to said ring.

2,834,197
COMBINATION WINDOW FRAME AND SHUTTER
Frank McM. Sawyer, Miami, Fla.
Application March 25, 1954, Serial No. 418,663
1 Claim. (Cl. 72—98)



A concrete window construction comprising a frame including concrete stiles, an upper concrete member connecting the upper ends of said stiles, a concrete sill connecting the stiles at their lower ends, a main concrete post disposed centrally of the window frame, vertically swinging shutters arranged side by side pivotally mounted within the frame at opopsite sides of said main concrete post, locking means embodying apertured spaced plates integrally embedded within said post, said plates extending to points flush with one edge of said central post, a disk rotatably mounted between said plates and having spaced radially disposed openings therein a shutter operating arm extending from said disk between said spaced plates, means for pivotally connecting the operating arm to said shutters effecting vertical swinging movement of said shutters, bolt means extending through the apertures in said plates and engageable in a selected one of said openings.

2,834,198
SEALING STRIP
James E. Goodman, Toronto, Ontario, Canada
Application March 21, 1957, Serial No. 647,704
5 Claims. (Cl. 72—106)



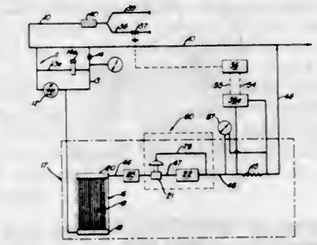
1. Means for use as a waterstop between adjacent surfaces of concrete slabs or forms, including a strip of a material which is flexible and elastic, the strip, when viewed in transverse cross section, being bifurcated throughout its length in the direction of the width of the strip and transverse to the thickness thereof to an extent enabling the arms formed by the bifurcation to be flexed through at least 180° relative to each other for them to lie substantially in a common plane, and complementary male and female formations integral with the arms and positioned for the formations to interlock when the arms are brought together for the arms to be in substantially parallel relationship.

2,834,199
ADJUSTABLE CONCRETE TROWELING TOOL
Lowell O. Freeman, Concord, Calif.
Application October 7, 1955, Serial No. 539,056
3 Claims. (Cl. 72—136)



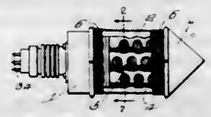
1. A concrete working tool comprising: a workpiece frame; a substantially flat trowel type workpiece defining substantially parallel leading and trailing edges mounted to the underside of said workpiece frame; a handle receiver pivotally connected to said workpiece frame about a horizontal axis disposed substantially parallel to said leading and trailing edges; an elongate handle having its lower end rotatably mounted in said handle receiver; an arcuate cam rotatable with and mounted on said handle adjacent the lower end thereof; a cam follower disposed in the vertical plane of the axis of said handle and engageable by said cam carried by said workpiece frame to one side of said pivotal axis; spring means normally biasing said cam and cam follower into engagement; said last-named means, said cam, and cam follower cooperable upon rotation of said handle and said cam mounted thereon to cause relative tilting between the leading and trailing edges of said workpiece.

2,834,200
CONTINUOUS AUTOMATIC VISCOSIMETER
Joseph C. Rhodes, Park Forest, and John P. Segers, Crete, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application December 28, 1955, Serial No. 555,897
8 Claims. (Cl. 73—55)



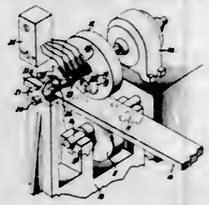
1. A continuous flow viscosimeter apparatus including a product line, a closed high pressure circulating system in parallel with said line, a first sample conduit leading from said system, a heat exchanger providing a multiplicity of parallel flows therethrough said heat exchanger including an inlet manifold, an outlet manifold, and a multiplicity of tubing strands providing parallel flow between said manifolds, said first conduit discharging into said inlet manifold, a discharge line from the outlet manifold of said heat exchanger, a constant volumetric flow rate metering means connected to said discharge line, said metering means comprising a metering device and a zero differential pressure regulator across the inlet and outlet of said metering device, said differential pressure regulator maintaining a constant pressure differential across the metering device such that the slippage of the metering device is substantially constant regardless of the viscosity of the sample passing therethrough, a capillary in said discharge line and means in series with said metering means, and a second conduit means in series flow with said capillary means for returning the sample to said product line.

2,834,201
APPARATUS FOR MEASURING HUMIDITY CONDITIONS IN MATERIALS
Carlton E. Ohlheiser, Silver Spring, Md., assignor to The American Instrument Company, Silver Spring, Md., a corporation of Maryland
Original application November 3, 1948, Serial No. 58,146, now Patent No. 2,655,734, dated October 20, 1953. Divided and this application October 16, 1953, Serial No. 386,498
5 Claims. (Cl. 73—73)



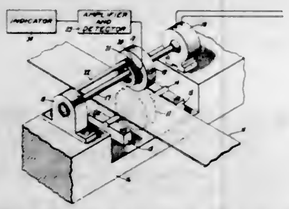
1. Apparatus for measuring conditions of humidity in material comprising a device constituting a cylindrical hood structure insertable into the material for forming an air pocket therein, a support for a multiplicity of humidity sensing elements carried interiorly of said hood, a multiplicity of selectively removable and replaceable humidity sensing elements mounted on said support, said hood structure being perforated to permit the moisture in the air surrounding the material in which the device is inserted to circulate in contact with the humidity sensing elements, electrical measuring apparatus, and connections from said humidity sensing elements through said support with said electrical measuring apparatus for impressing upon said measuring apparatus control currents integrated from each of said humidity sensing elements.

2,834,202
APPARATUS FOR MEASURING HARDNESS
Ellsworth D. Cook, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application June 27, 1955, Serial No. 518,282
20 Claims. (Cl. 73—81)



1. Apparatus for determining hardness of a moving material comprising movable supporting means, indenting means movably carried by said supporting means for making an indentation in said material, means coupled to said supporting means for imparting cyclical movement in response to movement of said material whereby said indenting means periodically makes indentations in the moving material along its length, means mounted in said supporting means and coupled to said indenting means for providing an indication of the depth of said indentation, and means disposed between said supporting means and said indenting means for providing an indication of the force exerted to make said indentation.

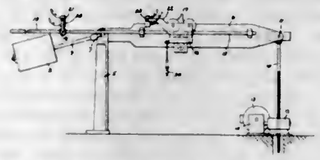
2,834,203
APPARATUS FOR MEASURING HARDNESS
Ernest S. Sampson, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application June 27, 1955, Serial No. 518,283
11 Claims. (Cl. 73—81)



1. Apparatus for determining the hardness of a continuously moving strip of material comprising movable supporting means, indenting means carried by said supporting means for making an indentation of predetermined depth in the material, means coupled to said supporting means for imparting cyclical movement whereby said indenting means periodically makes an indentation in the moving material along its length, piezoelectric means carried by said supporting means and positioned to receive forces applied to said indenting means for providing an electrical potential related in amplitude to the force exerted to make said indentation, and means for measuring said electrical potential.

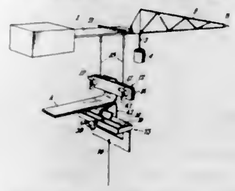
2,834,204
FILAMENT CLAMP AND TENSILE TESTER
Richard H. Braunlich, West Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application March 30, 1955, Serial No. 497,899
4 Claims. (Cl. 73—95)

1. A stress-strain testing apparatus for filamentary material and the like comprising a bracket, a receptacle pivotally mounted in said bracket, a magnetizable fluid mixture in said receptacle, a second receptacle, a bracket in which said second receptacle is pivotally mounted, a magnetizable fluid mixture in said second receptacle, means for magnetizing the fluid mixture in each of said



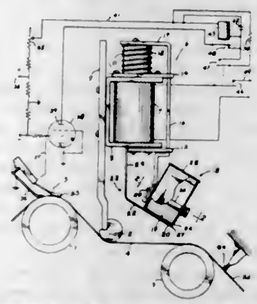
receptacles to "solidify" the fluid mixture, and means for moving said receptacles away from each other when the fluids are solidified.

2,834,205
ADHESION TESTING MACHINES
Bryan Pickup, Sutton Coldfield, England, assignor to Dunlop Rubber Company Limited, London, England, a British company
Application December 8, 1954, Serial No. 473,898
Claims priority, application Great Britain December 11, 1953
4 Claims. (Cl. 73—150)



1. A machine for tesfing the adhesion between two materials comprising a beam having a high natural frequency of oscillation rigidly secured at one end and carrying a clamp for one material, damping means operatively connected with the beam, a recording device, a pointer extending from the free end of the beam into operative coaction with said recording device, a second clamp for the other material and means for drawing the second away from the first clamp at a constant speed, the natural frequency of the beam with the attachments thereto being at least one hundred cycles per second and the damping force provided by the damping means being at least 0.2 of the critical damping force for the beam and its attachments.

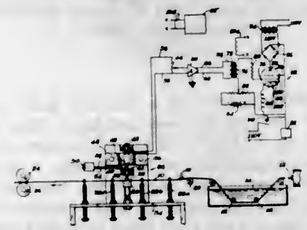
2,834,206
SLUB MARKING MECHANISM
Daniel Mindheim, Glen Cove, and Howard C. Lindemann, Westbury, N. Y., assignors to Lindly & Company, Inc., Mineola, N. Y.
Application September 30, 1955, Serial No. 537,654
6 Claims. (Cl. 73—159)



4. In apparatus of the class described, comprising a solenoid operated shaker including a slotted bottom

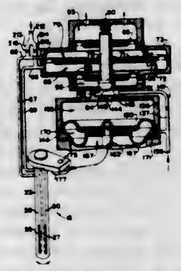
through which powdered chalk within the shaker is adapted to fall upon operation of the latter, means for sensing a defect in a web moving below the shaker and for establishing an energizing circuit to the solenoid, and timing means responsive to a sensing action of the sensing means for delaying the establishment of the circuit to the solenoid until the sensed defect has arrived substantially beneath the shaker.

2,834,207
GEL COUNTER
Malcolm Chamberlain and Paul V. Greenfield, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application March 29, 1954, Serial No. 419,558
5 Claims. (Cl. 73—160)



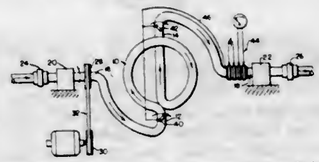
1. Apparatus for measuring surface imperfections in strands or sheets of plastic material, comprising a signal pickup assembly, driving means for drawing said material past said pickup assembly, vibration damping means, said damping means being disposed in physical contact with said material and disposed on the side of said pickup assembly which is remote from said driving means, said pickup assembly including a hollow coil having a signal winding, a rod-like stylus member adapted to be in substantially continuous contact with the surface of the material being mounted to permit free longitudinal vertical movement thereof, and having a portion which extends into the interior of said coil, magnetic means secured to that portion of said stylus which extends into said coil, whereby longitudinal motion of said stylus member moves said magnetic member with respect to said signal coil and induces an electrical signal therein, indicator means for registering said surface imperfections, and electronic amplifier means having an input circuit coupled to said signal coil and an output circuit coupled to said indicator means.

2,834,208
AIR STREAM DIRECTION INDICATOR
Sydney E. Westman, Inglewood, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application March 24, 1954, Serial No. 418,397
21 Claims. (Cl. 73—180)



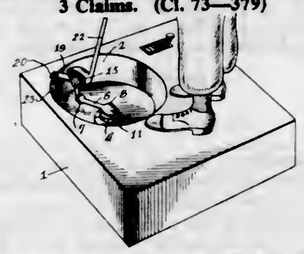
1. An instrument for measuring the angle of a moving aircraft with its air stream in a predetermined plane of the aircraft, said instrument comprising an angular movable sensing head having a pair of apertures positioned at an angle to each other, each of said apertures being adapted to sense a fluid pressure representative of said angle of said airplane; a fluid pressure amplifier stage, means applying the fluid pressures sensed by said apertures to said pressure amplifier stage, a source of regulated fluid pressure, means coupled to said pressure amplifier stage for varying the magnitude of said regulated fluid pressure in response to variations of said fluid pressures sensed by said apertures; a power output stage, said output stage being responsive to variations of said regulated fluid pressure; and means coupling said output stage to said sensing head whereby said sensing head is rotated until said fluid pressures sensed by said apertures are equal.

2,834,209
GYROSCOPIC FLOWMETER
William A. Jones, Newtonville, and George S. Cherniak, Newton, Mass., assignors, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application October 6, 1954, Serial No. 460,640
8 Claims. (Cl. 73—194)



1. A flowmeter comprising a curved conduit through which fluid to be measured flows whereby an angular momentum is developed by said fluid, means forming inlet and outlet passages communicating with said curved conduit axially aligned and establishing a drive axis perpendicular to an axis about which there exists at least a component of said angular momentum whereby a gyroscopic couple is developed by said fluid when said curved conduit is rotated about said drive axis, means for continuously rotating said curved conduit unidirectionally about said drive axis, flexible conduit portions connecting the ends of said curved conduit respectively with said means forming inlet and outlet passages, each of said conduit portions being coaxial with an axis passing through the intersection of said above-named axes and substantially perpendicular to said drive axis, whereby said gyroscopic couple constantly deflects said curved conduit about the axis of said conduit portions by an amount responsive to the mass rate of fluid flow through said curved conduit at any given instant, and means responsive to the amount of such deflection for indicating said mass rate of flow.

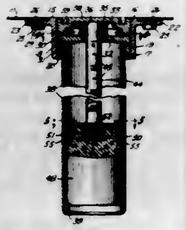
2,834,210
GOLF PRACTICE MACHINE
Edward Crelinsten, Montreal, Quebec, Canada
Application March 14, 1955, Serial No. 493,972
3 Claims. (Cl. 73—379)



1. A golf practice machine comprising a base, a shaft journalled vertically therein, a link extending from the

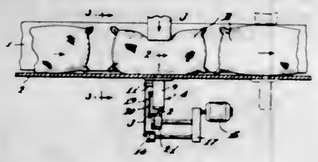
upper end of said shaft, a universal joint connecting one end of said link to said end of said shaft, a stem extending upwardly from the remaining end of said link, a universal joint connecting one end of said stem to the latter end of said link, a golf ball mounted on the remaining end of said stem, adjustable spring tensioning means in said joints, and a counting device connected to said shaft.

2,834,211
LIQUID FUEL GAUGE FOR AIRCRAFT
Joseph Samaritano, Hawthorne, Calif.
Application March 25, 1952, Serial No. 278,421
10 Claims. (Cl. 73—422)



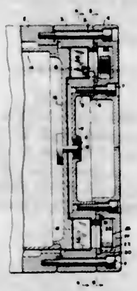
1. A gauge for indicating the liquid content of an aircraft fuel tank, comprising: an annular mounting member securable against the under surface of the top wall of the tank in axial alignment with an opening in said wall and with its upper end flush with the top surface of said wall, said member having a threaded axial bore; a circular head screwed downwardly into said bore and having a bore at its upper end and a screw-threaded counterbore at its lower end; a guide tube having an upper threaded end adjustably screwed into said counterbore, said tube depending from said head; a graduated gauge tube telescopically mounted in said guide tube with its upper end slidable in said bore of said head; a float connected to the lower end of said gauge tube and slidable vertically in said guide tube, said float and gauge tube assembly being adapted to float on the liquid fuel in the tank and to rise within the guide tube to project its upper end above the tank in response to rise of the liquid level; and a cap screwed into the upper end of said mounting member with its upper surface adapted to align with the upper surface of the top wall of the tank.

2,834,212
CORE SAMPLING
Herbert J. Wollner, Belmont, Mass., assignor to American Conditioning House, Inc., Boston, Mass., a corporation of Massachusetts
Application November 30, 1955, Serial No. 550,137
3 Claims. (Cl. 73—423)



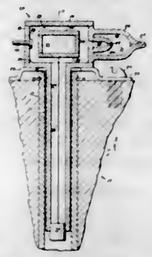
1. For extracting a sample of material from a container, apparatus which comprises spreading means having a tapered nose for puncturing a container and then spreading the opening, and coring means movable through said opening from a retracted position where its cutting end is behind said nose to an advanced position where its cutting end projects beyond said nose.

2,834,213
DAMPING CONTROL
Robert E. Fredericks, Encino, Calif.
Application May 29, 1956, Serial No. 587,995
6 Claims. (Cl. 74—5.5)



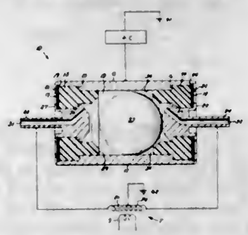
1. A damping control for a rotatable body comprising a casing for carrying the body and being filled with fluid about the body, a plurality of walled chambers formed by and positioned interiorly of said casing, a plurality of vanes secured to said rotatable body, one each of said vanes extending into each of said chambers with the peripheral edge of each vane being in spaced relationship to the walls of said chambers, said chambers each being provided with a pair of orifices, control means associated with said chamber orifices to vary the passage of fluid to and from said chambers and thermal responsive means to actuate said control means.

2,834,214
GRAVITY RESPONSIVE CONTROL SYSTEM
James W. Deer, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, a corporation of Oregon
Application October 21, 1957, Serial No. 691,370
6 Claims. (Cl. 74—5.6)



1. A gravity responsive control system for a gyroscope having a first axis required to be continuously erected towards a gravity vertical reference position, said gyroscope being gimbal supported for free movement about second and third mutually perpendicular axes to allow said first axis to be erected towards said reference position, said system including a pair of two directional electric motors each adapted when selectively energized to apply a torque to said gyroscope in a selected direction about one of said second or third axes to precess said gyroscope about the other of said second or third axes toward its said reference position, said system including a gravity vertical sensing four terminal potentiometer, and said system including additional circuit means responsive to said sensing means for selectively varying the energization of said motors continuously to torque said gyroscope about selected axes to erect said gyroscope toward its said reference position, said potentiometer including an insulating container filled with a liquid electrolyte having a selected specific electric resistance, an insulating body buoyantly supported in said electrolyte for free lateral motion therein, laterally flexible vertical tension filar means attached at one end interiorly to said container below said body and at the other end to said body on the vertical centerline thereof to tether said body submerged in said liquid, four electrodes extending through the wall of said container, the inner ends of said electrodes being spaced in quadrature about said centerline and radially equidistant from said body when said first axis of said gyroscope is in its vertical reference position.

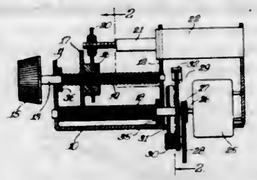
2,834,215
GRAVITY SENSING POTENTIOMETER
James W. Deer, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, a corporation of Oregon
Application March 18, 1957, Serial No. 646,908
6 Claims. (Cl. 74—5.47)



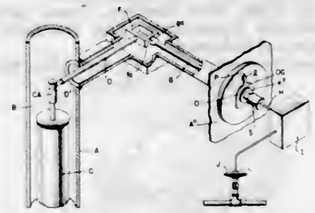
2. A gravity vertical sensing potentiometer for continuously controlling the erection from either of two opposite directions in a vertical plane of a gravity vertical gyroscope, the erection forces being provided by a reversible two phase motor one winding of which is continuously excited from a first power source and the other winding of which is intermittently excited from a second power source, the supply of power to said second winding being controlled by said potentiometer to be of one phase for erection of said gyroscope in one direction in said plane and of opposite phase for erection of said gyroscope in the other direction in said plane, said potentiometer comprising a resistor having a pair of opposite end terminals and intermediate terminal together with gravity sensing means for varying the relative resistances of the parts of said resistor connected between said intermediate terminal and the respective end terminals, said intermediate terminal of said potentiometer including an electrically conducting rigid cylinder having a smoothly cylindrical inner surface, said end terminals comprising electrically conducting means insulatedly and hermetically sealed concentrically into the opposite ends of said rigid cylinder, said resistor comprising a liquid fill of an electrolyte for said cylinder and said gravity sensing means comprising a smoothly spherical inorganic electric insulator slightly smaller in diameter than the inside of said cylinder.

2,834,216
TUNER DRIVE MECHANISM
Reynald E. Thompson, Mount Prospect, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application April 26, 1955, Serial No. 504,053
6 Claims. (Cl. 74—10.85)

1. A tuner drive mechanism for controlling the position of longitudinally movable tuning elements by operation of a first relatively low speed manual rotary control and of a second relatively high speed motor driven rotary control, said mechanism including in combination, a first elongated member adapted to be actuated by the manual control and mounted for rotation about its longitudinal axis, said first member having a threaded periphery, a gear member having peripheral teeth and further having a threaded center opening for receiving said first member, a second elongated member formed of pinion stock adapted to be actuated by the motor driven control, said second member being mounted for rotation about its longitudinal axis and being at least partially coextensive longitudinally with said first member, said second member having teeth intermeshed with said teeth of said gear member, and means rotatably coupled to said gear member for moving the tuning elements, whereby rotation of said first member causes said gear member to move without rotation along said threaded first member, and rotation of said second member causes rotation of said gear member so that it moves along said first member which remains at rest.



2,834,217
LIQUID LEVEL RESPONSIVE APPARATUS
William E. Bauer, Palmyra, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 16, 1953, Serial No. 331,626
7 Claims. (Cl. 74—18)

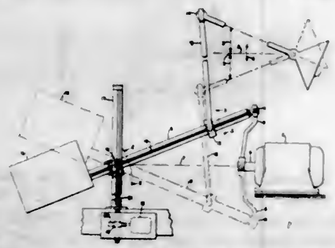


1. In apparatus for measuring variations in the level of liquid in a container, comprising a vertically movable displacer, a horizontal arm having one end pivoted to turn about a horizontal axis transverse to the length of the arm, a suspension connection through which said displacer is suspended from the second end of said arm, a torque tube transverse to said arm and having one end connected to the first mentioned end of said arm, and a stationary member, the improved means for adjustably anchoring the second end of said torque tube to said stationary member comprising an element angularly adjustable relative to the second end of said torque tube about the axis of the latter, means for detachably securing said element to said member in a predetermined position, and means including a splined connection between said element and torque tube for detachably securing said element to said second end in different angular positions relative to said second torque tube end.

2,834,218
SCANNING DEVICE
John Lovell, East Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application July 1, 1957, Serial No. 669,019
7 Claims. (Cl. 74—86)

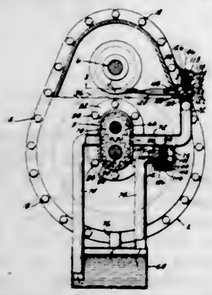
1. In combination, a shaft, means for rotating said shaft about a given centerline, a crank, a driving arm having one end supported at a pivot point, means for causing said arm to trace out a cone of movement with

respect to said pivot point comprising said crank having one end connected to said rotating shaft and its other end connected to the other end of said driving arm for driving said arm with respect to said pivot point, a connecting rod, means for imparting a component of linear movement of given amplitude to one end of said rod with respect to a given reference line comprising a collar for coupling said rod at the other end to a position on said



driving arm, means for adjusting the position of said reference line comprising a first driven screw device operative to adjust the position of said pivot point with respect to said centerline, means for adjusting said amplitude a second driven screw device operative to adjust the coupling position of said collar along the length of said driving arm, and means for independently operating each of screw devices during movement of said rod.

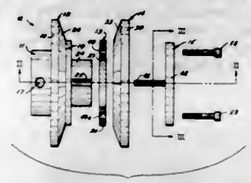
2,834,219
FLUID TRANSMISSION UNIT
Alexander H. King, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application November 13, 1953, Serial No. 391,790
8 Claims. (Cl. 74—206)



1. A transmission comprising a driving and a driven shaft, said shafts being spaced apart, a wheel having circumferential grooves and flanges drivably mounted on said driving shaft, a wheel having circumferential grooves and flanges drivably mounted on said driven shaft, said wheels so placed that the flanges of the driving wheel project into the grooves of the driven wheel, the flanges on both wheels being spaced from the wheel into which they project, a nozzle mounted so as to inject fluid under high pressure into the meshing grooves and flanges, and fluid supply means to supply fluid to said nozzle including a high pressure pump having its outlet connected to said nozzle.

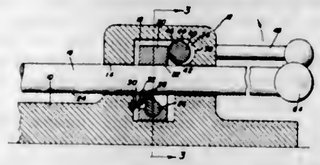
2,834,220
EXPANSIBLE PULLEY
Myrle E. Kingdom, Lowell, Mich.
Application January 23, 1957, Serial No. 635,762
1 Claim. (Cl. 74—230.17)

An expansible pulley, comprising: a hub having a coaxial, cylindrical shaft opening; an annular, co-axial flange fixed to, and extending radially from, said hub between, and spaced from, the axial ends thereof, said flange having two co-axial, axially spaced, peripheral surfaces of different diameters and a conical surface connecting said peripheral surfaces; a circular, movable flange, having a co-axial, cylindrical opening, through which that portion of said hub adjacent to the smaller peripheral surface on said fixed flange is snugly receivable, said movable flange having a conical surface substantially identical in shape and size to the conical surface on said fixed flange; an insert ring, having a co-axial opening through which said hub portion is slidably and snugly receivable, and having an outside diameter substantially equal to that of the smaller peripheral sur-



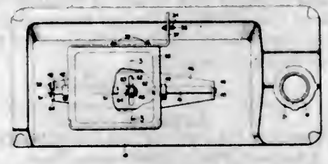
face on said fixed flange; means defining cooperating, semi-cylindrical grooves in the periphery of said hub portion and the walls of the openings in said insert ring and said movable flange, the axes of said grooves being parallel with the axis of said hub, and said grooves being arranged to form cylindrical openings when said insert ring and said movable flange are mounted upon said hub portion; a lock member, having spaced, parallel and cylindrical pins extending from one side thereof and snugly, but slidably, receivable into the cylindrical openings created by said grooves; and screw means slidably receivable through said insert ring, said movable flange and said lock member, for preventing axial movement of said movable flange with respect to said integral flange.

2,834,221
VISE LOCK
Carl O. Lassy, Plainville, Conn.
Application January 8, 1954, Serial No. 402,868
1 Claim. (Cl. 74—503)



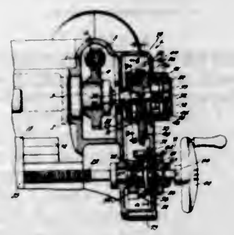
A bar lock mechanism comprising an elongated frame having an upstanding head portion at one end, said head portion being provided with a longitudinal bore, a bar slidably received through said bore, said bar being serrated, said head portion having a transverse recess intersecting said bore, a block received on said bar within said recess, a shaft journaled in said block having an end portion projecting outwardly of the head through said recess, an arm fixed to said shaft terminating in a toothed end portion engaged with the serrated portion of said bar, a cam element journaled transversely of said head, means for oscillating said cam element between first and second positions, said cam element having a surface engaging said block for urging the same in one direction in one of said positions, and means operative between said positions for pivoting said arm out of engagement with the serrated bar, said means for operating said arm comprising a link pivotally connected at one end to said shaft, a collar secured to said cam element, a projection on said collar, the other end of said link being disposed in the path of movement of said projection as the cam element is rotated from said one position, and a set screw selectively securing said collar to said cam element.

2,834,222
ADJUSTABLE TREADLES FOR SEWING MACHINES
Frederick R. Hermanns, Union, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 29, 1955, Serial No. 556,150
2 Claims. (Cl. 74—561)



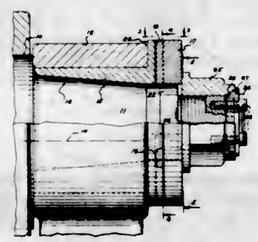
2. In a support and treadle mechanism adapted for supporting and controlling an industrial type sewing machine and before which an operator sits when operating the sewing machine; a base member having a longitudinal axis which extends to the right and to the left of the operator, and said base having a front-to-back axis which extends away from the operator, and said base having two threaded holes the central axes of said holes defining a vertical plane extending parallel to the longitudinal axis of said base; a treadle-plate having a longitudinal axis and a front-to-back axis both of which in general extend in the same direction as the respective axes of said base, and said treadle-plate having a centrally located elongated hole the longitudinal axis of said hole extending along and parallel to the front-to-back axis of said treadle-plate; a single threaded screw passing through the elongated hole in said treadle-plate, and being engageable with a selected one of said threaded holes in said base; bearing supports carried by said treadle-plate and located on the longitudinal axis of said treadle-plate; a treadle-rod pivotally carried by said bearing supports; and a treadle secured to said treadle-rod.

2,834,223
ADJUSTABLE ECCENTRIC
James J. Strnad, Bedford, Ohio, assignor to Lempco Products, Incorporated, Bedford, Ohio, a corporation of Ohio
Application September 18, 1952, Serial No. 310,257
7 Claims. (Cl. 74—571)



1. Eccentric drive mechanism comprising a frame; a power-driven member supported for rotation in said frame; a coupling plate mounted on said member for rotation therewith, said plate being formed with a plurality of spaced openings disposed in circular order about its axis of rotation; an inner eccentric member rotatably and slidably positioned on said power-driven member, said eccentric member being formed with a circular body extending outwardly through an opening formed in said frame for exterior manipulation, said body being mounted concentrically on said driven member, the body of said eccentric member further including an internal chamber opening to its outer side; an indexing device positioned rigidly on said power-driven member and arranged within said chamber, spring means disposed between said indexing device and said inner eccentric member; an eccentrically disposed hub extension having a circular outer periphery forming a part of said inner eccentric member; a pin projecting forwardly from said hub extension receivable selectively in the openings of said plate, said pin serving to rotate said inner member in unison with said plate and power-driven member in all positions of rotational adjustment of the inner eccentric member on said power-driven member; a second outer eccentric member having a circular opening therein slidably and rotatably receiving the hub extension of said first-named inner eccentric member; and stud means carried by said plate and engaging said outer eccentric member for causing the latter to rotate in unison with said plate and power-driven member.

2,834,224
ADJUSTABLE THROW CRANKS
Jerome R. Marcus, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 5, 1954, Serial No. 414,384
5 Claims. (Cl. 74—571)

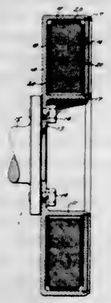


1. An adjustable throw crank for a punch press, which comprises a crank pin having a tapered portion, a portion provided with flats and a threaded portion arranged in the order named, a tapered eccentric bushing designed to fit on the tapered portion of the pin and provided with a flange on one end having a plurality of spaced, radially extending wedge-shaped slots, a locking ring having a radially extending, wedge-shaped projection designed to enter only partially any of the slots and also being provided with flats for engaging closely the flats on the pin, and a nut designed to be threaded on the threaded portion of the pin to force the wedge-shaped projection tightly into one of the wedge-shaped slots to force the bushing tightly on the tapered portion of the pin and key the bushing to the pin.

2,834,225
CORK FACED VIBRATION DAMPER
John W. Carter and William P. Evans, Peoria, Ill., assignors to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application December 8, 1954, Serial No. 473,845
6 Claims. (Cl. 74—574)

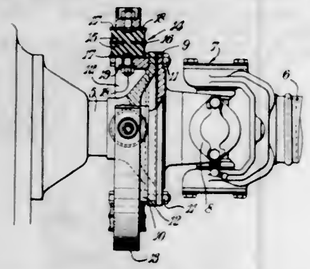
1. A vibration damper which comprises a casing defining an annular chamber, an annular weight within the

chamber and spaced from the inner walls a distance to permit relative rotation of the casing and weight, a lining



of non-metallic pliable material in the space to prevent contact between the weight and chamber, and a viscous substance substantially filling the remainder of the space.

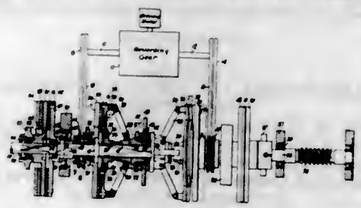
2,834,226
TORSIONAL VIBRATION DAMPERS
Archie John Hirst, Leicester, England, assignor to Metalastik Limited, Leicester, England
Application March 26, 1956, Serial No. 573,768
3 Claims. (Cl. 74—574)



1. A torsional vibration damper for the propeller shaft of a motor vehicle comprising a ring-like inertia member, a hub member co-axial within the inertia member and at least three equi-spaced cylinders of rubber-like material each extending with its cylindrical axis radially of the hub and inertia members with which the end faces of the cylinders drivingly engage so that upon relative rotation of the members the cylinders are subject substantially entirely to shear whereby low torsional frequency is provided to de-tune the vibrations of the propeller shaft.

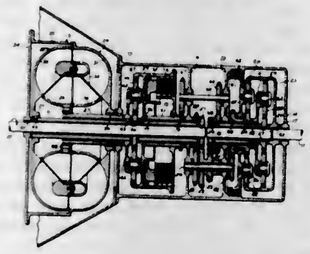
2,834,227
SLIPPING CLUTCH VARIABLE SPEED GEAR
Clifford William Sweet, Orpington, England, assignor to Leverstart Limited, London, England, a British company
Application July 29, 1955, Serial No. 525,304
Claims priority, application Great Britain March 31, 1955
12 Claims. (Cl. 74—665)

8. A variable speed and reversing gear comprising a gear box having two output shafts rotatable in opposite directions, a primary driven shaft, two pairs of clutch members mounted on said shaft, one clutch member of each pair rotatable on said shaft and the other member of each pair being fixed to said shaft, a transmission between each said rotatable clutch member and one of said output shafts, a friction plate secured to one of said clutch members of each pair and having a friction face transverse to the axis of rotation of the clutch members, a number of friction elements mounted on the other clutch member of each pair having a friction face arranged opposite the first said friction face, a pivotal connection between each friction element and said other clutch



member, and arranged with its axis of pivoting transverse to the axis of rotation and a control mechanism adapted to impart pivotal movement to the two sets of frictional elements in opposite directions.

2,834,228
TURBO-MECHANICAL TRANSMISSION
Charles I. Place, Middletown, Conn.
Application February 23, 1954, Serial No. 411,754
14 Claims. (Cl. 74—688)

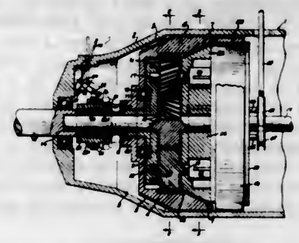


1. A transmission interconnecting driving and driven shafts comprising a fluid unit having driving and driven members, an operative connection between the driving shaft and said driving member, a differential gearing providing a terminal gear connected to the driven shaft, including a sun gear, and including a planet gear means having a planet carrier and planet gears engaging said sun gear and said terminal gear, a gear element drive connected to said driving shaft, means operatively connecting the gear element to said sun gear, a second sun gear drive connected to the driving shaft, a ring gear rotatively carried on said driving shaft, a second planet gear means including a second carrier drive connected to said driven member and including second planet gears engaging said second sun gear and said ring gear, means operatively interconnecting said ring gear to said first planet carrier of the differential gearing.

2,834,229
REVERSING MECHANISM
Clinton L. Graybill, Superior, Mont.
Application September 23, 1954, Serial No. 457,882
1 Claim. (Cl. 74—765)

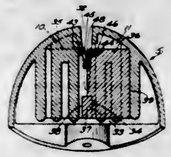
A reversing mechanism of the character described comprising in combination a driving shaft and a driven shaft, both extending into a fixedly mounted casing, said driving shaft being rotatably mounted within a circular housing disposed within the casing, a plurality of rotary pumps disposed within said housing and in communication with each other by interconnecting ducts, said pumps having shafts extending into a gear casing formed in said circular housing and connected to a plurality of spiral planetary gears meshing with a spiral sun gear carried by said driving shaft, said driving shaft extending from said sun gear through one wall of said housing and into a longitudinal

bore formed in said driven shaft whereby rotation of the driving shaft will impart rotation to said pumps, an engaging member slidably mounted on and rotatable relative to one end of said housing and operatively connected by internal spirally arranged teeth to said planetary gears, manually actuated means for engaging said driven shaft with and disengaging it from said housing, means formed on said engaging member for selective engagement with said first mentioned means for interconnecting said engaging member with said driven shaft, said engaging member having an external surface engageable with said fixed casing and an internal surface engageable with said cir-



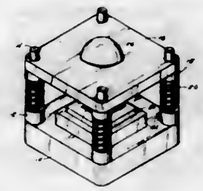
cular housing whereby movement of the engaging member in one direction will engage it with said fixed casing to stop rotation of the engaging member and whereby movement of the engaging member in an opposite direction will engage it with said circular housing to lock them together as a unit whereupon said driving and driven shafts will be connected in direct drive, manually actuated valve means disposed within said ducts for selectively blocking off the flow of fluid from one of said pumps to the other, fluid pressure actuated means in communication with said ducts and actuated by said fluid pressure therein to lock said circular housing to said casing and to hold the engaging member in a disengaged neutral position.

2,834,230
KNIFE SHARPENER
Evert R. Tengberg, Peabody, Mass., assignor to New England Carbide Tool Company, Inc., Medford, Mass., a corporation of Massachusetts
Application June 6, 1957, Serial No. 663,984
6 Claims. (Cl. 76—88)



1. A knife sharpener of the type having sharpening elements in a generally V-shape relation comprising, in combination, a case having offset parallel slots extending part way up from the bottom, said slots being defined by parallel side and end walls and including offset co-planar surfaces, said slots overlapping to form an enlarged central space, said case having a vertical knife receiving aperture transverse to said slots and extending downwardly from its top into said central space, a pair of sharpener element supports having surfaces corresponding with the wall surfaces of the slots and press fitted into partially overlapping relation in said slots, said supports having adjacent cut-away inward edge portions in V-shape relation, and a pair of sharpener elements mounted on said edge portions partially overlapping each other in said V-shape relation in said aperture.

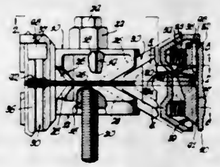
2,834,231
THREE-DIMENSIONAL OPTICAL DIE MAKING METHOD AND DEVICE
John T. Gruetzner, Audubon, N. J.
Application October 24, 1952, Serial No. 316,820
13 Claims. (Cl. 76—107)
(Granted under Title 35, U. S. Code (1952), sec. 266)





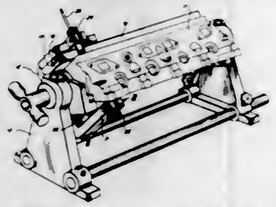
1. A device for engraving spherical cavities in a die comprising a base, a tool holder mounted on said base, a work holder mounted on said base in spaced relation to said tool holder, means to mount said tool holder and work holder for relative movement toward and from each other, a tool mounted in said tool holder, a die-plate mounted in said work holder, said die-plate being provided with a working surface having a smooth mirror-like finish, and a plurality of minute balls tangent to one another and secured in said tool.

2,834,232
TOOL MOUNTING
Thomas E. Brooks, Clarinda, Iowa, assignor to Lisle Corporation, Clarinda, Iowa, a corporation of Iowa
Application October 27, 1953, Serial No. 388,653
5 Claims. (Cl. 77—2)



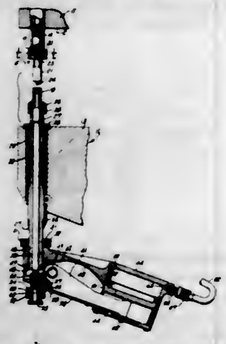
1. Tool mounting means for a carrier member comprising a slot in the carrier member, an elongated blade loosely received in said slot and having a cutting edge adjacent one end thereof and a work contacting portion adjacent the other end thereof, said ends being independently slidable into and out of said slot, a pair of enlarged spring sockets in said slot, a spring in each socket back of said blade and constituting the sole supporting means therefor in opposition to the work, one of said springs being located back of said cutting edge and the other back of said work contacting portion of said blade with said springs exerting substantially equal pressures on said cutting edge and said work contacting portion of said blade, and means projecting into said spring sockets at the outer ends thereof past which the springs may be threaded and thereafter retained entirely within said sockets by said projecting means.

2,834,233
ENGINE RECONDITIONING EQUIPMENT
Vyron E. Anderson, Cedar Rapids, Iowa, assignor to Cedar Rapids Engineering Company, Cedar Rapids, Iowa, a corporation of Iowa
Application February 17, 1955, Serial No. 488,824
3 Claims. (Cl. 77—2)



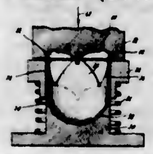
1. In an engine boring tool of the type described, a yoke member, the jaws thereof being sufficiently distant from each other to be positioned on both sides of an engine head adjacent an opening therein, a pair of opposed bushings positioned in opposite jaws of said yoke member, one of said bushings having a slightly lesser internal diameter than the other, an arbor member slidably positioned in said bushing, said arbor being composed of three sections, one of said sections being of the same diameter as the smaller bushing, the opposed section being of the same diameter as the larger bushing, and the center section thereof being slightly tapered whereby said arbor member may be inserted through said bushings in said opposed jaws and through said opening in said engine head in accurate circumferential dimensional relationship therewith, and means for mounting said yoke on said engine head, said means including a locking portion adapted to rigidly position said yoke in relation to said mounting means after said arbor is aligned in the engine head.

2,834,234
COIN DIMPLING APPARATUS
Howard R. Fischer, Utica, N. Y., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey
Application May 25, 1954, Serial No. 432,185
14 Claims. (Cl. 78—18)



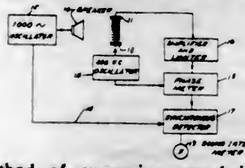
1. Apparatus having a post arrangement including means to support the post for movement in an axial direction at substantially constant pressure, said means comprising a cylinder having a piston reciprocably arranged therein, a mechanical movement interposed between the piston and the post to multiply the reactive force of the piston against the post in an axial direction thereof, a pressure fluid connection on the cylinder, a manipulative means for adjusting the force of pressure fluid entering the cylinder by way of the pressure fluid connection, and a visible means for providing an indication of the amount of pressure in the cylinder.

2,834,235
METAL BUTTON AND ITS METHOD OF MANUFACTURE
Joseph Sarti, New York, N. Y.
Application July 13, 1955, Serial No. 521,934
7 Claims. (Cl. 79—3)



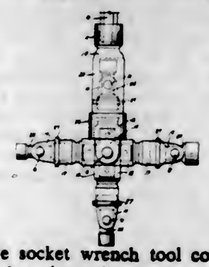
1. In the manufacture of a metal button, the steps including forming a blank having four sides meeting by pairs at corners, cupping said blank to form a body having integral triangular projections, each of said projections being defined by converging half-sections of a pair of sides meeting at a corner, and turning said triangular projections inwardly until the corners of said blank define an aperture substantially centrally of said body and simultaneously indenting said projections to displace said aperture into a plane offset inwardly from the rim of said body and to form curved gripping jaws surrounding said aperture.

2,834,236
SOUND INTENSITY MEASUREMENT
Don R. Pardue, Silver Spring, and Albert L. Hedrich, Bethesda, Md.
Application October 12, 1956, Serial No. 615,727
2 Claims. (Cl. 181—.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A method of measuring sound intensity, which method comprises: transmitting high-frequency acoustical energy from a first point to a second point; transmitting lower-frequency sound, the intensity of which is to be measured, over at least a portion of the path between said first point and said second point traversed by said high-frequency energy, thereby producing phase shifts in the high-frequency energy at said second point relative to the high-frequency energy at said first point; and measuring said phase shifts, said phase shifts being dependent upon the intensity of said low-frequency energy.

2,834,237
ANGULARLY ADJUSTABLE, MULTIPLE-SOCKET WRENCH
Kenneth L. Renoux, Pueblo, Colo.
Application February 27, 1957, Serial No. 642,765
7 Claims. (Cl. 81—57.5)



1. A multiple socket wrench tool comprising: an inverted U-shaped main yoke; a transversely-extending pivot member supported between the legs of said main yoke; wrench-receiving means mounted on said main yoke for rotating the latter; a cross frame member rotatably mounted on said pivot member so as to rotate in the plane of the axis of said yoke, said cross frame member having oppositely projecting radial studs; a secondary U-shaped yoke supported upon each of said studs; and a double-ended, work-receiving, socket wrench member rotatably supported in each secondary yoke.

2,834,238
PIPE WRENCH WITH COOPERATING SLIDABLE JAW AND FLEXIBLE PIPE HOLDING MEANS
Fredrick D. Stover, Sr., Coalgate, Okla.
Application March 6, 1956, Serial No. 569,888
1 Claim. (Cl. 81—64)



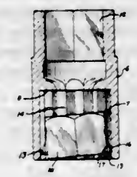
A wrench comprising a stationary handle having a head at one end and at one side thereof formed with a slot, a filler member fixed in said slot, a slidable jaw having a shank slidably fitted in the slot between the stationary handle and the filler member for sliding of said slidable jaw outwardly and inwardly of said end of the stationary handle, a second handle pivoted to said filler member for movement toward and from the stationary handle, a flexible member adapted to embrace work positioned against the slidable jaw and having one end fixed in said filler member, pockets in the other side of the stationary handle spaced along the same, said flexible member interlocking with selected pockets to adjust the flexible member into engaging relation to work positioned against the slidable jaw, and a roller on the second handle working in said slot against said shank to move said slidable jaw outwardly in response to movement of said second handle toward the stationary handle whereby to tighten the flexible member against the work.

2,834,239
FRICTION DRIVE SOCKET WRENCHES
Michael Mancini, Pittsburgh, Pa.
Application February 8, 1957, Serial No. 639,073
1 Claim. (Cl. 81—64)



A friction wrench comprising a head having a circular opening therein surrounded in part by a thin resilient section, a socket normally rotatable in said opening, a slot in said head extending from the circular opening to the periphery of the head, a pair of semicylindrical keyways in the head on diametrically opposite sides of the slot and opening into said slot over an arc substantially less than half the circumference of each, a handle and a pair of side by side cylindrical keys on said handle adapted to slide axially into said keyways and adapted to move the parts of the head on opposite sides of the slot with respect to one another, whereby to reduce the circumference of said opening about the socket to lock the socket against rotation when the handle is rotated in one direction and to enlarge the opening and free the socket when the handle is turned the opposite direction.

2,834,240
RELIEVED WRENCH SOCKET FOR HOLDING EITHER A NUT OR HEADED FASTENER
Frederick P. Schlichting, St. Louis, Mo., assignor to ACF Industries, Incorporated, St. Louis, Mo., a corporation of New Jersey
Application June 11, 1956, Serial No. 590,527
2 Claims. (Cl. 81—125)



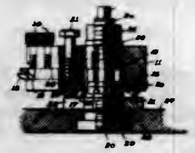
1. In a wrench of the character described, a member having at one end thereof a socket provided with longitudinally extending circumferentially spaced ribs to engage a nut, said ribs being interrupted adjacent the outer end of the socket by a groove to provide inner and outer rib sections, the inner ends of the outer rib sections having abutment surfaces for abutting engagement with marginal portions of a nut when the latter is tilted within the socket, each abutment surface being disposed in a plane substantially normal to the longitudinal axis of the socket.

2,834,241
MAGNETIC SOCKET WRENCH
Dale K. Chowning, Mountain View, Mo.
Application March 22, 1957, Serial No. 647,846
2 Claims. (Cl. 81—125)



2. A socket wrench comprising a handle having a bore extending axially therethrough from one end to the other end thereof, a hollow tube having a portion adjacent one end extending into one end of said bore and fixedly secured therein, an open-ended socket on the other end of said tube; a housing, open at one end and closed at the other end, conformably shaped to the interior of said socket and positioned within said socket so that the open end of the housing is normally disposed inwardly of and spaced from the free end of said socket, the closed end of the housing being remote from said socket free end, said housing being movable within said socket from the normal position to a position in which said housing open end is in alignment with said socket free end; a shank carried by the closed end of said housing and extending slidably through said bore; a magnet positioned within said housing and having one end disposed exteriorly of the open end of said housing, the portion of said socket intermediate the free end thereof and the free end of said magnet forming a recess for a nut therein; and means operatively connected to said shank for effecting the movement of said housing.

2,834,242
TOOL HOLDER ATTACHMENT FOR LATHES
F. Kenneth Stein, Rockford, Ill., assignor of one-half to S. Byrle Stein, Rockford, Ill.
Application July 26, 1954, Serial No. 445,868
2 Claims. (Cl. 82—36)



1. In a tool holder, the combination of a vertical cylindrical collet having a vertically split portion for expansibility thereof and a base portion of increased radius for resting on a support providing thereon a flat horizontal top surface annularly with respect to the bottom of said collet, a vertically elongated key projection on the lower portion of said collet above the base portion, a tool holder element slidably mounted on said collet for demountable support thereon and having a bore in which the collet has a free fit when not expanded whereby to permit adjustment lengthwise and circumferentially of the collet to any desired position, said tool holder element also having in its lower portion a smooth counterbore provided therein concentric with the first named bore, a ring having a smooth outer periphery rotatably adjustable to an infinite degree in the counterbore and having a keyway provided therein on its inner diameter to receive the key projection on said collet with an easy sliding fit, a set screw in said tool holder element for clamping said ring in any adjusted position in said tool holder element, so that the latter may be removed and replaced on the collet without disturbing its setting with respect to circumferential adjustment relative to the collet, vertically adjustable screw means provided on and projecting downwardly from the tool holder element for engagement with the flat top surface on said base portion for support of the tool holder element at any selected elevation on the collet, the adjustment of said screw means also remaining unchanged in the event of removal and replacement of said tool holder element and means for expanding said collet to clamp the tool holder element.

2,834,243
TONE GENERATORS FOR ELECTRONIC MUSICAL INSTRUMENTS
Benjamin F. Miessner, Harding Township, Morris County, N. J., assignor to Miessner Inventions, Inc., Harding Township, Morris County, N. J., a corporation of New Jersey
Application February 7, 1952, Serial No. 270,311
4 Claims. (Cl. 84—1.14)



3. A musical instrument for the selective production of plurality of notes comprising for each note respectively a tuned vibrator, a pick-up in spaced relation to the vibrator and a vibratory support for the pick-up, the pick-up and support together having a natural frequency of vibration musically related to the predominant natural frequency of the vibrator, and means for effecting impulse excitation of the vibrator, the vibratory support being positioned to be struck by the vibrator and thereby set into vibration upon such excitation of the vibrator.

2,834,244
ORCHESTRAL AND BAND DRUM WITH IMPROVED SHELL
Hobart I. Willits, Holgate, Ohio, assignor to Bom-Bee Drums, Incorporated, Defiance, Ohio
Application October 21, 1955, Serial No. 541,890
2 Claims. (Cl. 84—411)



1. For orchestral and band use a drum comprising a shell which is generally cylindrical in cross-section, is open at the top and has a closed imperforate hemispherical bottom, a single vibratory batter head stretched tautly over and covering said open top, head hold-down and tensioning means embracing the marginal edge of said head and operatively and accessibly mounted on the upper wall portion of said shell, a plate secured to the interior of the wall of the shell adjacent the upper end of the shell, an anchor block secured to the shell at a diametrically opposite point, a plurality of snares having end portions connected with the block and plate respectively, said snares being engageable with the underside of said drum, a lever pivotally mounted on the interior of the wall of the drum, a yoke mounted on the upper end of said lever, a roller carried by the arms of said yoke, said roller being engageable with the snares at a point between the plate and anchor block, and means for swinging said lever inwardly and outwardly for purposes of regulating the tensioning function of said roller.

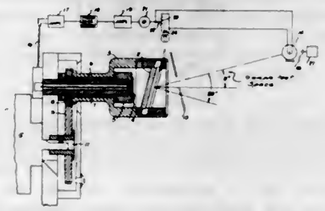
2,834,245
BLAST HOLE LOADING DEVICE
Charles C. Osborne, Miami, Okla.
Application April 5, 1954, Serial No. 421,140
7 Claims. (Cl. 86—20)



1. A pneumatic device for projecting a series of explosive charges into blast holes, said device comprising an elongated tubular chamber; closure means sealing one end of the chamber; spaced stops within the chamber, one of said stops being disposed adjacent to and spaced from said closure means; an elongated tubular ram telescoped in the open end of the chamber, one end of the ram being adapted to engage said one stop; valve structure on said one end of the ram, said structure including a valve normally closing said one end of the ram and movable means engageable with the other stop for opening the valve upon engagement of said movable means with said other stop; a first conduit communicating with the chamber adjacent said other stop for directing air under pressure against said movable means to reciprocate the ram toward and up against said one stop; a second conduit communicating with the chamber between said one stop and the closure means for directing air under pressure into the chamber after release of pressure in the first conduit to move the ram with the valve thereon

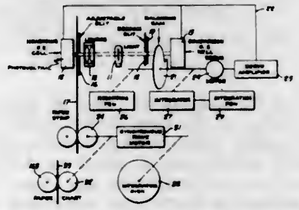
closed, toward the other stop, said valve opening upon engagement of the movable means with said other stop; a third conduit communicating with the chamber between said other stop and the closure means for directing air under pressure into the chamber and past the open valve upon opening of the latter; an air supply line; and control means connected to said conduits and the line for successively directing air under pressure to said first, second and third conduits respectively and for releasing the pressure in said first conduit upon pressurization of the second conduit.

2,834,246
METHOD AND APPARATUS FOR ABSORPTION SPECTRA ANALYSIS
Laurence W. Foskett, Washington, D. C., Norman B. Foster, Falls Church, Va., William R. Thickstun, Washington, D. C., and Rex C. Wood, Rockville, Md., assignors to the United States of America as represented by the Secretary of Commerce
Application June 16, 1954, Serial No. 437,307
7 Claims. (Cl. 88—14)



1. In an absorption spectrum analyzer of the type described, the method of producing two groups of light waves which are closely related in the light spectrum and in which one of the groups of light waves lies in the absorption spectrum of a medium which is to be analyzed and in which a second of the groups of light waves lies in a region of the spectrum which is unaffected by the medium, which method comprises directing a beam of light at a transmission-type narrow band-pass light filter and periodically varying the angle of incidence between the face of the filter and the beam of light through a predetermined angle.

2,834,247
OPTICAL DENSITY ANALYZING APPARATUS
Edward G. Pickels, Atherton, Calif., assignor to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California
Application January 26, 1955, Serial No. 484,268
4 Claims. (Cl. 88—14)



1. Analyzing apparatus of the type adapted to measure the optical density along a strip material and serving to trace a curve of the density on a chart comprising a source of radiant energy, first and second photoelectric means disposed to receive energy from said source and having their electrical outputs opposed to generate a difference voltage, a first adjustable slit disposed between said first photoelectric means and said source and providing means for adjusting the resolution of the apparatus, a second adjustable slit located between said source and said second photoelectric means and providing means for zeroing the apparatus, means for driving the strip material past said first slit whereby energy transmitted by the adjacent portion of said strip is incident upon said first photoelectric means, a chart table, means for driving the chart, said paper strip and chart driving means being adapted to simultaneously drive said paper strip and chart whereby the distance along said chart may be correlated with distance along said paper strip, a cam shaped shutter disposed between said second photoelectric means and said source and adapted to control the energy incident upon said second photoelectric means, a driven shaft serving to mount said cam shaped shutter, servo means adapted to receive said difference voltage and serving to drive said shaft whereby the shutter is rotated until the difference voltage is reduced to zero, a pen, means serving to guide said pen transversely across the chart, a continuous cable connected to said pen and adapted to move the pen, and a drive member mounted on said shaft and adapted to receive said cable whereby the pen is moved a distance which corresponds to the angular rotation of said shaft, whereby a trace of the optical density as a function of distance along the strip material is plotted on the chart.

2,834,248
APPARATUS AND METHOD FOR ANALYZING REFRACTIVE INDEX VARIATIONS AND REFRACTIVE INDEX GRADIENTS
Edward G. Pickels, Atherton, and Frank A. Pearson, Los Altos, Calif., assignors to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California
Application May 12, 1955, Serial No. 507,854
8 Claims. (Cl. 88—14)

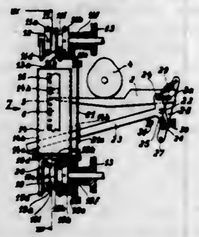


6. In apparatus for analyzing refractive index variations and refractive index gradients in solutions contained in a cell, means for projecting a light beam, a slit disposed to intercept said beam and serving to form an illuminated slit source of light, the light rays from said source being projected through the cell and solution, an optical system serving to produce a pattern of interference fringes including an undeviated slit image, a mask assembly interposed between the slit source and the cell and including means for forming a reference pattern of interference fringes adjacent said pattern of interference fringes, means for calibrating the equipment to a particular cell, and movable shutters adapted to be continuously moved to follow and mask the undeviated portion of the light beam for reducing the intensity of the undeviated slit image.

2,834,249
MECHANISM FOR PROJECTING FILMS OF DIFFERENT WIDTHS
Erwin May, Wetzlar (Lahn), Germany, assignor to Ernst Leitz, G. m. b. H., a corporation of Germany
Application August 30, 1955, Serial No. 531,381
Claims priority, application Germany September 2, 1954
14 Claims. (Cl. 88—18.4)

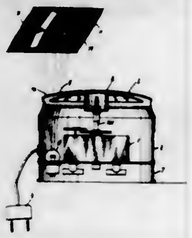
1. In a film transporting and film guiding mechanism for use in a film projection apparatus, an exchangeable film

guide for the passage of the film therethrough for projection of the film; means for detachably securing said film guide to said apparatus; a picture window in the film guide; a pivotally supported and laterally movable film claw engaging the film to move it past said picture window; a coupling lever; means in said film guide for receiving said coupling lever manually inserted in said guide in a pre-



determined position depending upon the spacing of the perforations in the film to be projected and means interposed between and operatively connected to said coupling lever and the said film claw for changing the location of the operating pivot of the film claw to position the film claw for engagement with the perforations in the film to be projected and means for operating said film claw.

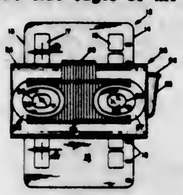
2,834,250
PROJECTING CLOCKS PROVIDED WITH ROTATABLE DIALS
Enea Stefani, Bologna, Italy
Application December 7, 1955, Serial No. 551,640
Claims priority, application Italy March 28, 1955
4 Claims. (Cl. 88—24)



1. In a projecting clock combination having an arbor of the hours driven by a conventional clock mechanism mounted in a casing, a rotatable dial having transparent indicia fastened to said arbor for rotation therewith; a window in said clock casing in front of the transparent section of said dial; a non-transparent pointer projecting from said window through a transparent section of said window and pointing to the corresponding transparent indicia of the dial fastened to said hours wheel arbor, and an electric lamp arranged behind said dial fastened to a part of the said clock casing remote from said window whereby a shadow image of said transparent indicia and of said non-transparent pointer may be projected upon a viewing screen surface.

2,834,251
STEREOSCOPIC VIEWER AND RECTANGULAR VIEW MOUNTING CARD
Clarence L. Romrell, Portland, Oreg., assignor to Sawyer's Inc., Progress, Oreg., a corporation of Oregon
Application June 5, 1953, Serial No. 359,866
2 Claims. (Cl. 88—31)

1. A stereoscopic viewer for viewing stereo-paired transparencies mounted in an elongated holder having parallel side edges with the transparencies in two parallel in two parallel rows adjacent the respective side edges of the holder and said holder having a row of feeding apertures arranged in a row parallel to said side edges, comprising a housing, a laterally spaced pair of eyepiece lenses at the rear of said housing, a laterally spaced pair of light admitting windows at the front of said housing, guide means defining a transverse slot extending through said housing from top to bottom thereof and in which a holder may be maintained with the rows of transparencies in alignment with the respective lenses and windows, said guide means having openings therethrough with which the stereo-pairs of transparencies may be registered successively for viewing purposes, reciprocable feeding means guided for vertical sliding movement in said housing and including a feeding claw engageable successively with said feeding apertures, said guide means defining a slot of greater width than the distance between the side edges of said holder and serving roughly to locate said holder in said housing, and orienting means mounted in said housing and engaging the side edges of the inserted holder



comprising a fixed guide extending vertically, a short distance above and below the transverse axis of the viewer through the optical centers of said eyepiece lenses, at one side of said slot for engagement with one side edge of said holder, and resilient guide means engaging the other side edge of said holder for pressing said one side edge against said fixed guide in order to orient the transverse axis of each stereo-pair of transparencies parallel to the transverse axis of the viewer through the optical centers of said eyepiece lenses, said resilient guide means comprising a pair of vertically spaced leaf springs projecting inwardly beyond the adjacent side of the slot, one above and the other below said transverse axis of the viewer so as to engage the edge of the card at a pair of spaced points respectively above and below said transverse axis of the viewer, each of said leaf springs comprising an inwardly bowed leaf spring having its ends directed outwardly away from the slot, and said housing comprising means forming niches in which said leaf spring ends are maintained.

2,834,252
SEMI-RIMLESS SPECTACLE MOUNTING
Walter F. Morrison, Los Angeles, Calif.
Application February 5, 1951, Serial No. 209,452
8 Claims. (Cl. 88—47)



3. Spectacles comprising a pair of lenses, each lens having its edges at the upper corners thereof in the form of obtuse angled convexities, the sides of which converge downwardly and the tops of which extend towards each other and form portions of the top edges of the lenses, sockets adapted to receive said convexities, said sockets being transversely concave across the side edges of the lenses and being angular in plan providing portions complementary to the downwardly converging side edges of the convexities and portions complementary to the tops of the convexities, resilient means connecting the sockets for each lens to each other serving to urge the sockets into clamping engagment upon the convexities, and means connecting the resilient means to each other.

2,834,253
HIGH APERTURE WIDE ANGLE FOUR COMPONENT LENS
Hiroshi Ito, Setagaya-ku, Tokyo, Japan, assignor to Canon Camera Company, Inc., Tokyo, Japan, a corporation of Japan
Application August 24, 1955, Serial No. 530,243
Claims priority, application Japan December 1, 1954
2 Claims. (Cl. 88—57)



1. A high aperture wide angle lens comprising a diaphragm, a first cemented positive lens of which each constituent lens is of meniscus shape, a first cemented negative lens of which each constituent lens is of meniscus shape, the first cemented positive and the first cemented negative lenses being air spaced from each other and to the object side of the diaphragm, a single negative lens of meniscus shape, and a second cemented positive lens of which each constituent lens is of meniscus shape, the single negative and the second cemented positive lenses being air spaced from each other and to the image side of the diaphragm, every curved surface of each lens and including the cemented surfaces being disposed concave toward the stop, the refractive indices, $n_{subscript}$, and the Abbe numbers, $\nu_{subscript}$, of the lens elements, with the subscripts increasing in the direction from the object to the image side of the array, satisfying the following conditions:

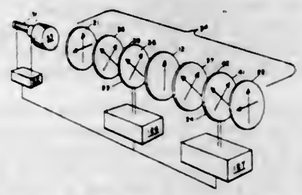
$0.12>n_3-n_1>0.03$	$32>\nu_1-\nu_3>10$
$1.75>n_{12}>1.58$	$60>\nu_2>35$
$1.75>n_{14}>1.58$	$50>\nu_4>26$
$1.76>n_{16}>1.56$	$45>\nu_5>25$
$0.12>n_{14}-n_{17}>0.03$	$32>\nu_4-\nu_7>10$

and the following relations with respect to the absolute values for the radii of curvature of the cemented surfaces r_2 and r_{10} of the first and second cemented positive lenses and the concave surfaces, r_6 and r_7, of the cemented negative lens and the single negative lens toward the stop:

$0.40\ f>r_2>0.25\ f$	$0.50\ f>\lvert r_{10}\rvert>0.24\ f$
$0.29\ f>r_6>0.18\ f$	$0.30\ f>\lvert r_7\rvert>0.18\ f$

where f is the focal length of the whole objective.

2,834,254
ELECTRONIC COLOR FILTER
Stanley J. Sage, Brookline, Mass., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application October 22, 1953, Serial No. 387,729
2 Claims. (Cl. 88—106)



1. An electronic color filter comprising in order along an optical path, a first dichroic polarizer passing first and second primary color components in a first plane of polarization and a third primary color component in a perpendicular plane; a first optically active element comprising a first optical bias plate having a retardation of approximately one-sixth of a wavelength of green light and a first electro-optic retardation plate having an optic axis, said electro-optic retardation plate having a pair of substantially transparent electrodes thereon; a substantially pure alternating current pulse source connected to said electrodes to establish an electric field substantially parallel to the optic axis thereof, the pulses of said source having a duty cycle of substantially ⅓; a linear polarizer aligned substantially parallel to one of said planes of polarization; a second optically active element comprising a second optical bias plate having a retardation of approximately one-sixth of a wavelength of green light and a second electro-optic retardation plate having an optic axis, said electro-optic retardation plate having a pair of substantially transparent electrodes thereon; a second substantially pure alternating current pulse source connected to said last named electrodes to establish an electric field substantially perpendicular to said optic axis thereof, the pulses of said second source having a duty cycle of substantially ⅓; and a second dichroic polarizer passing said first and third primary color components in one said plane of polarization and said second primary color component in the other said plane.

2,834,255
RECOILLESS FIREARM AND AMMUNITION THEREFOR
C Walton Musser, Philadelphia, Pa., assignor to the United States of America as represented by the Secretary of the Army
Application August 27, 1952, Serial No. 306,743
1 Claim. (Cl. 89—1.7)
(Granted under Title 35, U. S. Code (1952), sec. 266)

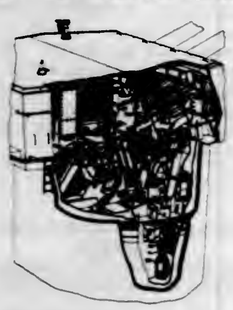


A recoilless firearm including a gun tube having a cylindrical forward portion blending into a tapered rear portion and having a plurality of openings forward of said rear portion, said rear portion being arranged to receive the cartridge case of an ammunition round with the forward edge of said case in a plane substantially coextensive with the rear edges of said openings and said forward portion being arranged to receive the round's projectile with its rotating band located between the front and rear edges of said openings, and a recoil neutralizing sleeve encircling said tube to form between it and said tube a venturi having its rear end open to the atmosphere and joined at its front end to said cylindrical portion at a point forward of said opening.

2,834,256
RAPID FIRE GUN SLIDE HYDRAULIC CONTROL SYSTEM
David Wertman, Kensington, Md.
Application April 19, 1955, Serial No. 502,536
12 Claims. (Cl. 89—45)
(Granted under Title 35, U. S. Code (1952), sec. 266)

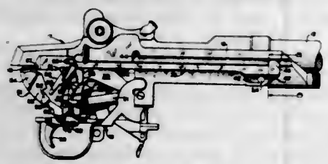
1. In combination with a rapid fire turret gun and a trunnion mounted slide assembly of a type including a projectile transfer tray and a powder case transfer tray for usage of semi-fixed cased ammunition of major bore and for movement of said ammunition as separate increments from a receiving position external to the gun slide to mutually aligned positions for ramming in alignment with the gun breech, a hydraulic power and control system for said automatic gun assembly which comprises pump means for supplying a source of pressure energy to

said system, an accumulator type pressure regulator connected to receive the output of said pump means and to maintain available a constant supply of fluid under pressure for use by the system, a bi-directional breech operating cylinder assembly in said system, a sliding joint connecting means connected in interposed relationship between the said breech operating cylinder and the accumulator assembly whereby the breech operating cylinder functions to receive and dissipate fluid under recoil and counterrecoil conditions of the gun in its housing, a hydraulically operated empty case extraction means, a control valve means for said extraction means and disposed to be actuated by the breechblock on completion of the opening cycle thereof, the valve being connected between the operating device and the accumulator pressure regulator, a breechblock control valve connected in the breechblock operating lines of said hydraulic power and



control system to control the cycle of movement of the breechblock operating cylinder, a rammer drive assembly in fluid communication with said accumulator, a control valve operatively connected with said rammer drive assembly for controlling ramming and ram retracting action thereof, a pair of transfer tray operating cylinders disposed on said slide respectively to move the projectile transfer tray and the powder transfer tray of said gunslide from their respective load increment receiving positions rearwardly of the gunslide trunnions to a position wherein the trays are aligned for simultaneous ramming, a transfer tray valve block assembly interposed between the transfer tray operating cylinders and the accumulator, and a sequence valve assembly in fluid communication with said tray control valve block assembly and in fluid communication with said pressure regulator to control the time functioning of the gun system.

2,834,257
INERTIA OPERATED RATE REDUCER FOR AUTOMATIC FIREARMS
John C. Garand, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application February 15, 1954, Serial No. 410,466
6 Claims. (Cl. 89—131)
(Granted under Title 35, U. S. Code (1952), sec. 266)



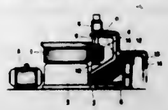
1. In an automatic firearm having an operating rod reciprocable between a recoil and a battery position, a bolt reciprocable with the operating rod and having a firing pin therein, a firing pin actuating hammer reciprocable between a cocked and a firing position and sear means for releasably holding the hammer in the cocked position, a device for reducing the normal rate of the automatic fire of the firearm including a first inertia means slidingly responsive to recoil movement of the operating rod for delaying the return of the operating rod from the recoil position, and a second inertia means pivotally responsive to battery movement of the operating rod for delaying the release of the hammer by the sear means after the operating rod is in battery position, said second inertia means including a member having a relatively massive body portion and a stem portion extending therefrom mounted to the firearm to provide pivotal movement of said member between a retracting and an actuating position, said member being engageable with the sear means when in said actuating position for release of the hammer, a spring for biasing said member to said actuating position, and cam means responsive to said battery movement of the operating rod for actuating said member to said retracting position against the bias of said spring for delaying the actuation of the sear means by said member according to the energy imparted to the operating rod by said first inertia means.

2,834,258
GEAR CUTTING MACHINE WITH AUTOMATIC LOADER
Henry J. Anderson and Leonard O. Carlsen, Rochester, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application March 29, 1957, Serial No. 649,396
7 Claims. (Cl. 90—1)

1. A gear cutting machine having a rotary cutter and a work spindle adapted to support a bevel gear workpiece in such position that the periphery of the cutter is substantially tangent to the root of the tooth space to be cut in the workpiece, the cutter comprising a disc having around its periphery a plurality of radial blades with a gap between the last and first blades to permit tooth-to-tooth indexing of the work without cessation of cutter rotation, a loader having a plurality of equi-spaced sets of work-gripping jaws and being rotatable, about an axis parallel to the work spindle and perpendicular to the cutter axis, to cause said sets of jaws to successively carry workpieces to and from a position of alignment with the work spindle, and said loader being reciprocable rearwardly and forwardly along its rotation axis to load the workpiece on the spindle and to unload it from the spindle, respectively, and the cutter disc having a recess in the periphery thereof adjacent said gap and into which the workpiece may extend when the loader is in forward position.

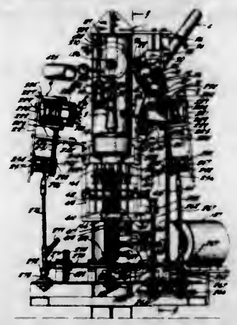
7. A gear cutting machine comprising a rotatable and axially movable loader head, a plurality of sets of jaws equi-spaced about the head and each comprising two jaws extending radially outwards from the head and pivoted to the head on axes parallel to the axis of rotation of the head, an arm on each jaw extending radially inwards from the jaw pivot axis, a spring disposed between adjacent arms of adjacent sets for urging opening movement of the jaws, a spring-backed plunger for each set movable radially in the head and engaging both arms of the set for urging closing movement of the jaws, and a jaw actuator concentric with the head and movable axially therein for shifting said plungers outwardly to open the jaws.

2,834,259
MACHINES FOR HOT INGOTS
Scipione Capetti, Milan, Italy, assignor to Innocenti Società Generale per l'Industrie Metallurgica e Meccanica, Milan, Italy
Application August 30, 1955, Serial No. 531,388
Claims priority, application Italy September 14, 1954
1 Claim. (Cl. 90—18)



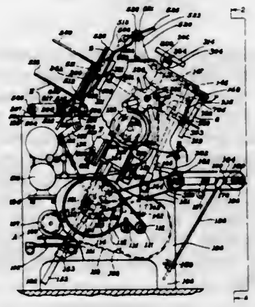
In a machine tool for removing the superficial crusts from hot metal ingots, a device for reducing the heat loss from a hot ingot during working on the latter and for shielding the parts of the machine tool from heat from the hot ingot; said device comprising a metal case having hollow top, bottom, back and opposite side portions defining a recess open only at the front thereof to loosely receive a hot ingot during the performance of work on the latter by the machine tool with the metal case being spaced from the hot ingot so that the ventilating movement of the surrounding air past the hot ingot is discouraged, thereby to reduce the loss of heat from the ingot by convection and to reflect back to the ingot at least some of the heat radiated from the ingot, and means for circulating cooling water through said hollow portions of the metal case, thereby to remove heat absorbed from the hot ingot by said metal case and to avoid the transmission of the absorbed heat to adjacent parts of the machine tool.

2,834,260
METHOD OF AND APPARATUS FOR MAKING CONTAINERS
Ferdinand A. de Wiess, Tuckahoe, N. Y., assignor to Rondo Development Corporation, New York, N. Y., a corporation of Delaware
Application November 19, 1954, Serial No. 470,109
7 Claims. (Cl. 93—39.1)



1. Apparatus for forming a thin-walled hollow body from a thin flexible sheet of mouldable material: comprising a stationary rigid mandrel having circumferentially thereof a moulding surface which is essentially a surface of revolution; means for releasably holding a sheet of said mouldable material to said moulding surface in a poistion in which one of a pair of opposite ends of said sheet is held in substantially tangential contact with said moulding surface along a generating line thereof, and the other is free; means for progressively wrapping said sheet from its held end to its free end, around said mandrel and for clamping said sheet firmly to said moulding surface throughout substantially the entire circumference of said mandrel, said sheet being a length such that in the wrapped position thereof said free end overlaps said held end; and, sealing means engageable with said sheet along the overlap, for sealingly joining the overlapping portions of said sheet.

2,834,261
MULTIPLE FORM MACHINE AND METHOD FOR MAKING PAPER BOXES
Harold J. Goss, Nashua, N. H., assignor to The International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application May 1, 1953, Serial No. 355,284
5 Claims. (Cl. 93—44.1)

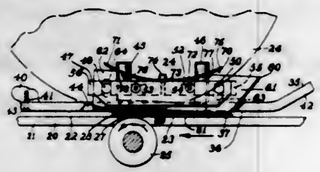


1. Apparatus for setting up boxes from flat box blanks of bendable material and having notched interlocking flaps, said apparatus comprising a carrier rotatable about a horizontal axis and having four box forms spaced therearound each with a suction face having central suction openings therein; Geneva motion driving mechanism for halting each box form successively at four stations spaced around the axis of the carrier; blank supply means including a forwardly tilted magazine reciprocating rectilinearly at a slight angle from the horizontal toward and away from the suction face of a box form halted at a blank supply station, said means feeding the endmost blank in the magazine flatwise and bowing said blank during retraction of the magazine; box folding means including a rigid box forming channel, reciprocating rectilinearly at a slight angle from the vertical upwardly toward and downwardly away from the suction face of a box form halted at a box folding station for folding and locking the flaps of a blank adhered thereon; box discharge means including a pair of oppositely disposed pairs of hooks, reciprocating rectilinearly at a slight angle from the horizontal toward and away from the suction face of a box form halted at a box discharge station and positively locking the locking flaps of a box while extracting the box from said box form in a slightly downward direction and suction control means for releasing the suction on the suction faces of said box forms during extraction of a box therefrom.

2,834,262
BLANK HOLDDOWN APPARATUS
Raymond A. Labombarde, Nashua, N. H.
Application April 26, 1956, Serial No. 580,946
7 Claims. (Cl. 93—49)

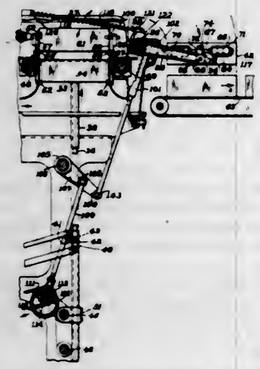
1. Holddown apparatus for holding down portions of a foldable box blank, advancing individually and succes-

sively through the zone of an adhesive applying roll opposed by a pressure roll in a box folding machine, said apparatus comprising fixed, rigid, support means on said machine in said zone and proximate the path of said blank portions; a unitary, elongated, holddown element of rigid material mounted on said support means alongside the nip of said rolls for movement normal to the path of said blanks, said holddown element having a straight elongated holddown face normally parallel to said path and extending along said path from a forward end in advance of the nip of the rolls to a rearward end in rear of the nip of the rolls; first spring means between



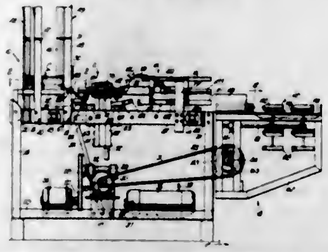
the forward end of said holddown element and said support means for resiliently urging said end in a direction away from the adhesive applying roll and toward the path of the flatwise unfolded portions of said blank and second spring means between the rearward end of said holddown element and said support means for resiliently urging said end in a direction away from the adhesive applying roll and toward the path of the flatwise unfolded portions of said blank whereby said elongated holddown element rocks as it yields upwardly for holding down the unfolded part of a blank trailing behind an overfolded flap.

2,834,263
BOX STRIPPING AND EXTRACTING APPARATUS
Harold J. Goss, Nashua, N. H., assignor to The International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application December 3, 1956, Serial No. 625,696
11 Claims. (Cl. 93—51)



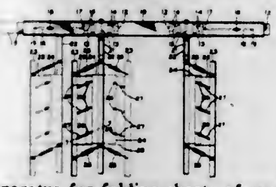
1. Apparatus for extracting completed inverted tray boxes from a plunger and channel box forming machine, said apparatus comprising mechanical box stripping means, at opposite sides of the box forming channel of said machine in the path of each successive completed tray box, said means frictionally gripping opposite outside walls of each said tray box and preventing rearward, while permitting free forward, movement thereof and box discharge means supporting said box stripping means and moving in timed relation to the box forming mechanism of said machine toward and away from a box discharge station, said box discharge means supporting said box stripping means at said box discharge station in righted position for free downward movement of a box under the influence of gravity.

2,834,264
CARTON SET-UP MACHINE
John L. Ferguson and Carl E. Bellharz, Joliet, and Lawrence E. Arneson, Morris, Ill., assignors, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York
Application November 10, 1953, Serial No. 391,172
12 Claims. (Cl. 93—53)



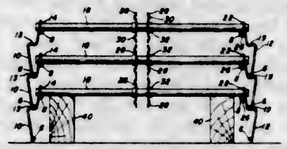
10. A machine for erecting and latching containers, comprising a device engageable with opposite side walls of a flat, knocked-down container to spread the same to spaced parallel relation, a container holding frame into which spread containers are advanced from said device, a rear wall deflecting unit engageable with a rear wall of a container in said frame to deflect said rear wall forwardly in relation to the spread side walls, and a latching unit associated with said frame comprising a laterally shiftable stop finger engageable with a container in the frame to sustain the container longitudinally during movement of said deflecting unit, and a tucker arm acting transversely on a spread bottom wall of the container to deflect the same inwardly of said side walls for latching engagement with a centrally arranged longitudinal partition in the container, and means actuating said stop finger and tucker arms in timed relation to one another.

2,834,265
APPARATUS FOR FOLDING CORRUGATED CARDBOARD SHIELDS FOR PACKING CASES
Earl E. Crist, Decatur, Ill.
Application November 4, 1955, Serial No. 544,883
4 Claims. (Cl. 93—84)



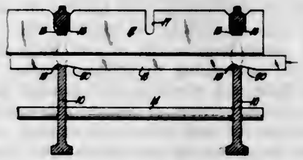
1. An apparatus for folding sheets of cardboard comprising an elongated casing, said casing being rectangular in cross section and being provided with a pair of aligned slots, a pair of folding assemblies projecting from said casing through said slots in spaced parallel relation, a pair of bearing blocks disposed within the casing, means for adjusting said blocks lengthwise of the casing, said foldable assemblies being rotatably supported by spindles projecting in each of said blocks, said block adjusting means comprising a stop bar adjustably supported within said casing adjacent each end thereof, and a spring interconnecting each bearing block and stop bar whereby the bearing blocks engage the stop bars in any adjusted position thereof.

2,834,266
TRANSLOAD DEVICE
Alan E. Brickman, Williamsville, N. Y., assignor to United States Steel Corporation, a corporation of New Jersey
Application October 20, 1954, Serial No. 463,539
5 Claims. (Cl. 94—5)



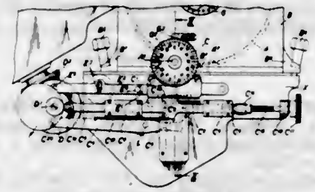
1. In a transload device for adjacent slabs having a filled therebetween, the combination including a pair of telescoping supporting units, one positioned on each side of the filler, each unit comprising a pair of outboard longitudinal rods spaced apart one above the other, spaced apart rods extending between and welded to said longitudinal rods, each of said last named rods extending upwardly and outwardly from said bottom rod, then inwardly to form a knee at a point intermediate the top and bottom rods and then upwardly to the top rod, a dowel fastened to each of said last named rods, the spacing between opposed bottom longitudinal rods being at least approximately as great as the length of said dowel, a plate welded to each of said dowels adjacent said filler, a clamping rod between adjacent pairs of said last named rods extending between and welded to the bottom and top longitudinal rods in opposed relationship to the second named rods associated with the opposite pair of longitudinal rods, said clamping rod having a loop extending above said top longitudinal rod and clamping the free end of the dowel secured to said opposed rod, each of said clamping rods extending upwardly and outwardly from said bottom rod, then inwardly to form a knee at a point intermediate the top and bottom rods and then upwardly to the top rod, the knees associated with each pair of outboard longitudinal rods being in alignment and forming a support for the bottom longitudinal rod of a second transload device when arranged in nested position.

2,834,267
GRATING
Gerald T. Beebe, Cleveland, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey
Application January 26, 1954, Serial No. 406,264
1 Claim. (Cl. 94—30)



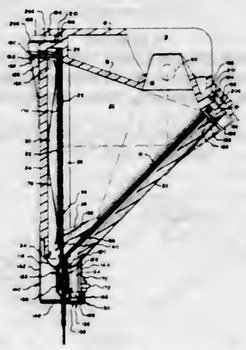
A grating comprising a plurality of spaced parallel main longitudinal bars having aligned slots, a plurality of transverse lacing bars extending through said slots and having notches in their upper edges receiving the upper portions of the said main bars, and a plurality of wedge bars corresponding with said lacing bars and extending through said slots underneath the respective lacing bars, each of said slots having an enlarged horizontal portion and upper and lower vertical leg portions merging into said horizontal portion and forming upper and lower shoulders, each of said wedge bars having a plurality of spaced notches in its bottom edge adapted to register with the respective main bars, the rearward portions of said last named notches being inclined to form wedge surfaces, said lacing bars being insertable in the horizontal portions of said slots and rotatable through the enlargements into the vertical leg portions when the notches in said wedge bars are in registry with said main bars, said wedge bars locking said lacing bars behind said upper and lower shoulders when moved in the direction of their length so that their notches are out of registry with said main bars.

2,834,268
SHEET-FEEDING MECHANISM FOR PHOTOCOMPOSING MACHINES
Joseph Henry Williams, Carshalton, England, assignor to The Monotype Corporation Limited, London, England, a British corporation
Application October 6, 1953, Serial No. 384,460
Claims priority, application Great Britain September 24, 1953
4 Claims. (Cl. 95—4.5)



1. A mechanism for feeding sensitized sheet in a photocomposing machine comprising in combination, a rigid cylindrical support furnished with registering devices for the sheet and rotatably mounted on a shaft within a light-excluding casing furnished with a transverse opening for the admission of photographic rays, a ratio-reducing driving gear for the support, and adjustable measuring and gauging bar furnished with a rack, a rotating cam for operating the measuring bar to impart periodically step-by-step movements to the support, a holding pawl for the cylindrical support, a rotating cam for raising the measuring bar to engage the rack thereon, and a rotating cam for engagement and disengaging the measuring bar and holding pawl with the driving gear alternately.

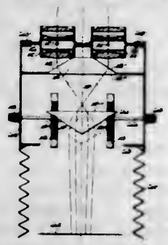
2,834,269
PHOTOGRAPHIC APPARATUS INCLUDING MEANS FOR TREATING EXPOSED PHOTOSENSITIVE SHEET MATERIAL
Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application October 3, 1955, Serial No. 537,982
29 Claims. (Cl. 95—13)



1. A camera for use with a plurality of film units each including a first element having a photosensitive area adapted to be exposed to actinic light, a second element

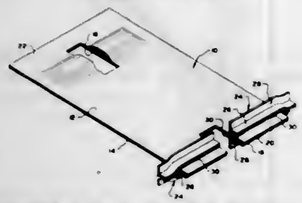
having an area superposable with said photosensitive area and means containing a processing liquid, a housing within which the first elements of a plurality of film units may be positioned in stacked relation for exposure, a passage in said housing adapted to receive a plurality of said film units with the first and second elements thereof disposed in stacked relation, means within said passage for separating the stack of said first elements from the stack of said second elements during movement of said film units through said passage into exposure position, means within said housing for positioning said stack of second elements apart from said stack of first elements during movement of said film units into said camera and during exposure of said first elements, and means mounted on said camera adjacent said passage for superposing the first and second elements of each film unit during withdrawal of said film unit through said passage and so distributing said processing liquid between the outer surfaces of said first and second elements as to effect the processing of the exposed photosensitive area of said first element.

2,834,270
OPTICAL SYSTEM FOR PHOTOGRAPHY
David L. Williams, Weehawken, N. J., assignor to L. Sarnoff-Williams Camera Corporation, a corporation of New York
Application October 30, 1951, Serial No. 253,772
5 Claims. (Cl. 95—18)



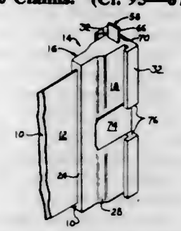
1. In a camera for simultaneously projecting a pair of objective scenes on a single photosensitive element, a pair of lenses spaced laterally from the longitudinal axis of the camera a distance corresponding to the normal spacing of the human eyes, a focal plane in which said element is positioned, a pair of spaced isosceles prisms disposed symmetrically with respect to and on said axis and between said lenses and said focal plane, said prisms having their bases in adjacent relation and normal to said axis, and means for varying the distance between said prisms to converge the images in superposed relation on said element.

2,834,271
PHOTOGRAPHIC PRODUCT
Joseph H. Booth, Belmont, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application October 3, 1955, Serial No. 538,010
7 Claims. (Cl. 95—67)



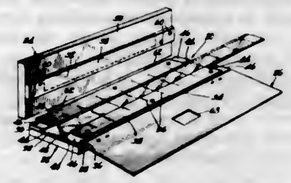
1. A photographic film unit including a pair of superposed sheets having a portion adapted to be introduced into a camera through a passage in the housing of said camera, said portion having an enlarged leading end section and the remainder of said portion being of substantially uniform width and thickness throughout its length, and a device for light-sealing said passage during introduction of said film unit therethrough, said device being secured in surrounding relation to said portion of said film unit adjacent said enlarged leading end section and including at least a pair of difficultly deformable members disposed on opposite sides of said sheets and having opposed surface portions located substantially parallel with one another and a pliant material secured to at least said surface portions between the latter and the outer surfaces of said sheets for contacting transverse areas of said sheets in a lighttight manner, said members being so constructed as to engage the housing of a camera in a lighttight manner in the region of a passage therein through which said sheets are introduced, said device being movable in lighttight engagement with the first mentioned portion of said sheets during movement thereof commencing at said leading end section through said passage.

2,834,272
PHOTOGRAPHIC PRODUCT
Irving Erlichman, Natick, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application October 3, 1955, Serial No. 538,048
20 Claims. (Cl. 95—67)



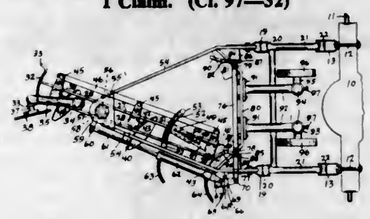
1. A photographic film unit of the self-processing type comprising a photosensitive sheet, a second sheet secured in superposition with said photosensitive sheet along the lateral margins of said sheets, said sheets being adapted to be introduced into a camera through an aperture in the housing of said camera and separated from one another during introductory movement, a quantity of photographic liquid capable of processing said film unit when distributed between said sheets carried in a container located between the leading end sections of said sheets and a device secured around said leading end sections of said sheets and adapted to be coupled with a camera, said device comprising a pair of end walls and a pair of side walls cooperating to define a passage through which said sheets are movable, said passage including a relatively narrow section at which substantially rigid parallel portions of said side walls engage said superposed sheets for preventing the admission of light through said passage and a relatively wide section wherein said side walls are spaced apart so that said leading end sections of said sheets may be maintained in separated condition with said container located therebetween, and means within said wide section of said passage and located between said lateral margins of said sheets for retaining said leading end sections of said sheets apart from one another and for separating said sheets in response to introductory movement of said sheets through said passage against said members, said rigid parallel portions of said side walls being so constructed as to superpose said sheets during withdrawal from said camera through said passage and apply compressive pressure to said superposed sheets to effect the spreading of said photographic liquid in a layer between said sheets.

2,834,273
PHOTOGRAPHIC PRINTING DEVICE
William P. Bertilotta, Chicago, Ill.
Application April 18, 1955, Serial No. 502,011
5 Claims. (Cl. 95—77)



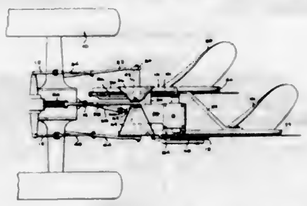
1. A photographic printing device for a film strip of photosensitive material, and comprising a base having a longitudinal recess providing a film strip guideway, a platen having a longitudinal opening substantially coextensive with said guideway and moveable relative to the base to a position with the opening overlying the guideway and in alignment therewith, a section of transparent material on the underside of said platen and closing said opening and snugly fitting in said guideway when the platen is positioned with the opening overlying the guideway for holding an inserted film strip flat in the guideway, a mask of opaque material having an aperture positioned laterally symmetrically with respect to said guideway and said opening and of lesser longitudinal extent, and means removably connecting said mask to said base for movement thereof between operative and inoperative positions and including a mounting member for the mask shiftable relative to said base between a position in which said mask may be moved to parallel and directly overlie said guideway and a position in which said mask may be moved to parallel and overlie the section of transparent material on said platen.

2,834,274
REVERSIBLE DISC PLOW
Charles F. Barrett, Jr., Selma, Calif.
Application August 10, 1956, Serial No. 603,379
1 Claim. (Cl. 97—32)



A reversible disc plow having a main framework, a swinging frame pivotally mounted in said main framework and lying substantially in the plane thereof, a plurality of discs mounted on said swinging frame, means for swinging said swinging frame laterally, means cooperant with the sides of said main framework to limit movement of said swinging frame, latches for securing said swinging frame in either position, a hydraulic ram for operating said latches, said ram also being adapted to swing said swinging frame, a draft control coulter wheel, a further swinging frame to which said coulter wheel is journalled, said further swinging frame being pivotally secured to said swinging frame at a point ahead of the rearmost of said discs, a pair of wheels secured to said main framework, means for adjustably positioning said wheels vertically, said wheels being positioned forwardly of the plow elements of said reversible disc plow, means for adjustably positioning the angle of attack of said discs comprising an adjustable bar attached to the vertical spindle of one of said discs, said adjustable bar including a further bar portion substantially at right angles thereto, said further bar portion having a pair of vertically positioned stop portions adapted to abut against said swinging frame and said main framework, a stop bracket attached at the termination of said swinging frame having stop portions for limiting movement of said coulter wheel, said latches being pivotally mounted on said main framework, a transverse bar for operating said latches, said transverse bar having slots therein, pins engaged in said slots, a bell crank attached to said transverse bar and to said hydraulic ram, said transverse bar operating either of said latches to provide holding means for the forward end of said swinging frame when in either swung position.

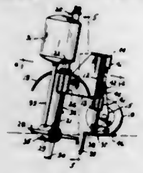
2,834,275
POWER DRIVEN ROLLING CUTTER
Doyle Hines, Carmi, Ill.
Application April 20, 1956, Serial No. 579,649
1 Claim. (Cl. 97—35)



In a rolling cutter attachment for a tractor, the combination, with an elevatable implement hook-up and a power take-off, said hook-up comprising a pair of hydraulically actuated lift arms mounted on said tractor for vertical swinging movement about a horizontal axis extending transversely of the tractor, said power take-off comprising a horizontal shaft extending rearwardly from the tractor below and rearwardly from the lift arms, said hook-up further including a center link having a pivotal connection at one end to the tractor, the link extending rearwardly from the tractor above the power take-off shaft, a pair of side links pivoted at one end on the tractor for swinging movement about a common axis parallel to that of the lift arms, a pair of connecting links pivotally connected between the lift arms and intermediate portions of the side links, of: a pair of plow beams formed identically to each other and having horizontal, straight leading end portions extending in a fore-and-aft direction and downwardly curving trailing end portions, said plow beams being spaced transversely of one another and being offset from one another in a direction longitudinally of the plow beams; plow bottoms carried by the plow beams at the trailing end portions thereof and spaced transversely and logitudinally of the plow beams correspondingly to the spacing of the plow beams; means adjacent the front end of the plow beams, connectable to said hook-up comprising upwardly convergent plates rigid at their divergent lower ends with the respective plow beams and spaced closely apart at their upper ends at a location offset laterally from a vertical plane lying medially between the respective plow beams, said plates at their upper ends being pivotally connected to the other end of the center link of said hook-up, said means further including a cross bar extending perpendicularly to the lengths of the plow beams and projecting at its opposite ends beyond the respective plow beams, through said plates, one end of said cross bar being pivotally connected to one of the side links of the hook-up in closely spaced relation to one of the plow beams, the other end of the cross bar projecting outwardly a substantial distance beyond the other plow beam and being pivotally connected to the other side link of the hook-up, the con-

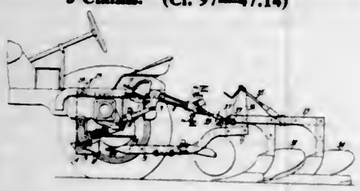
vergent ends of the plates being disposed symmetrically in respect to a vertical plane intersecting the cross bar medially between the points at which the cross bar is connected to the second and third portions of said hook-up; a pair of hanger bars extending downwardly from the front end portions of the respective plow beams and offset from one another longitudinally of the plow beams; substantially horizontal arms carried by said hanger bars and adjustable longitudinally of the hanger bars; a gear box mounted upon and between the plow beams, the gear box including an input shaft having a telescopic driving connection with the power take-off, said telescopic connection being universally connected at its opposite ends to the power take-off shaft and input shaft, and an output shaft projecting laterally from opposite sides of the gear box; cutter discs rotatably mounted upon the respective arms; and chain and sprocket driving connections between the projecting portions of the output shaft and the respective cutter discs, the chains of the last named driving connections being adjustably tensioned responsive to adjustment of the arms longitudinally of their associated hanger bars.

2,834,276
POWER DRIVEN SOIL SPADES
Harold M. Schwab, Beaverton, Oreg.
Application July 20, 1955, Serial No. 523,181
4 Claims. (Cl. 97—40)



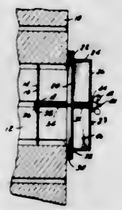
1. A power driven soil spade, comprising in combination, a wheeled frame, means for anchoring said frame to the ground, an upwardly and downwardly movable carrier mounted on said frame, a handle provided on said carrier for moving the same, a rotary spade unit provided on said carrier and including a set of spade members adapted to engage the soil when the carrier is lowered relative to the frame, and a motor mounted on said carrier and operatively connected to said spade unit for rotating the same, said means for anchoring said frame to the ground comprising a prong unit movable upwardly and downwardly on said frame and adapted to be embedded in the ground when in its lowered position, a foot plate provided on said prong unit for lowering the same relative to said frame, and means for biasing said prong unit to its raised position.

2,834,277
QUICK HITCH SYSTEM
Willard H. Tanke, La Crosse, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application August 13, 1953, Serial No. 373,938
3 Claims. (Cl. 97—47.14)



1. A hitch and power lift system for connecting an implement with a tractor, said system comprising, in combination, a coupling device having relatively engageable and disengageable component elements operatively connected, respectively, with said tractor and implement and being operable to automatically establish a universally swingable draft transmitting connection between said tractor and implement by relative movement of said tractor and implement in a mutually approaching direction; control means for said coupling device mounted on said tractor and manually operable to interrupt said draft transmitting connection; a pair of power lift arms mounted on said tractor for up and down swinging movement relative thereto about a transverse axis; actuating means for said power lift arms operable to control the application of lifting power thereto; and lift force transmitting means including a pair of elongated members universally connected with said implement at one side and at the other side, respectively, thereof, and a pair of separable connecting devices operatively associated, respectively, with said elongated members and with said power lift arms, so that either of said elongated members may be connected with its respective power lift arm to establish one of said lift force transmitting connections without restraining universal movement of the other of said elongated members relative to said implement, said separable connecting devices each comprising a knuckle piece pivotally connected with the associated elongated member for swinging movement on a hinge axis extending in right angle relation to said transverse axis of swinging movement of said power lift arms, stud portions connected with and extending in opposite directions from said knuckle piece in right angle relation to said hinge axis, and a hanger element rigidly connected with the associated lift arm and having a pair of hanger arms straddling said knuckle piece so as to supportingly engage said stud portions from below, said hanger arms having upwardly facing recesses for removably seating said stud portions on said hanger element, and locking means pivotally mounted on said hanger element and positionable in cooperative locking engagement with said stud portions from above.

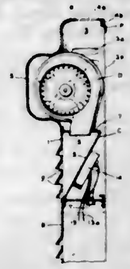
2,834,278
VENT CLOSURE
James Edmonson Crute, Jr., Wilson, N. C.
Application September 26, 1955, Serial No. 536,713
8 Claims. (Cl. 98—29)



1. A weather tight and insulated vent closure for the grill vent opening of a building wall or the like, and comprising a base wall adapted to be disposed adjacent the building wall, an inner wall having peripheral side walls sealed to said base wall within the peripheral edges thereof to leave a peripheral flange portion, a gasket carried by said flange portion for engagement with the building wall surface around the vent opening therethrough, the said walls providing an interior sealed insulating space, the base and inner walls having aligned openings therethrough, a sealing sleeve traversing the insulating space in line with said openings and sealed to the base and inner walls adjacent the openings therethrough to maintain the insulating space in sealed condition, and a bolt member extending through said sealing sleeve and substantially

filling the same, said bolt having an angular end adapted for engagement with the grill in the opening, and a fastener element engaging the opposite end of the bolt to press the closure against the building wall with the gasket in sealing engagement with the wall surface around the vent opening therethrough.

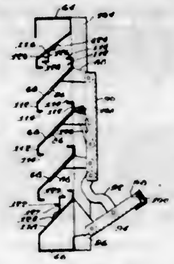
2,834,279
BLOWER UNIT FOR WALL HEATERS
Harry E. Thompson, Steubenville, Ohio, assignor to The Ohio Foundry & Manufacturing Company, Steubenville, Ohio, a corporation of Ohio
Application November 10, 1955, Serial No. 546,207
1 Claim. (Cl. 98—38)



A wall heater comprising a main front panel having a louvered front wall and rearwardly directed side walls, the space between the upper edges of the front wall and the side walls being open to permit the escape of heated air currents, a blower housing surmounting the panel and having a louvered front wall and side and top walls each having air intake openings, the bottom edges of said front and side walls being formed for registry with the corresponding upper edges of the main panel so that the blower housing receives said heated air currents, a forced-air-duct-forming and blower-means-supporting member of angular cross section disposed horizontally across the space between the side walls of the blower housing and in the path of said heated air currents, said member including a horizontal shelf portion located at the rear of the louvered front wall of the blower casing and a portion inclined forwardly and downwardly to direct forced air currents toward the louvered front wall of the blower housing, blower means supported on said horizontal shelf portion and including a motor and a casing having its discharge outlet directed toward the outer face of the inclined portion of said member, said blower means when in operation drawing air through the openings of the side and top walls of the blower housing and discharging it onto the outer face of the inclined portion of the duct forming member to conduct a forced air blast through the louvered front of the blower housing and across the path of heat currents rising from the louvered front wall of the main panel.

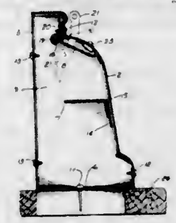
2,834,280
LOUVER
Max B. Feldman, Pittsburgh, and Oscar E. Roseman, Leetsdale, Pa., assignors to H. H. Robertson Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 10, 1954, Serial No. 409,356
5 Claims. (Cl. 98—88)

1. A louver having, in combination, a frame, a plurality of vertically spaced louver blades pivotally mounted in said frame, each blade having a cross sectional shape defined by an inclined blade portion, vertical front and rear flanges extended from the edges of said inclined portion, each flange having a relatively short inwardly extended rib, means for rocking said blades, said blades being spaced to effect overlapping of adjacent edges when closed to present the rib portions of adjacent blades into engagement with the inclined portions of their cooperating blades to form two spaced weather seals along the engaging faces of adjacent blades when closed, and stop means



carried by said frame at the top and bottom thereof engageable by a rib on the upper and lower blades to form weather seals therewith when said blades are in their closed position.

2,834,281
AIR OUTLET REGISTER
Clarence O. Griner, Ceresco, Mich., assignor to United States Register Company, Battle Creek, Mich., a corporation of Michigan
Application February 1, 1954, Serial No. 407,293
7 Claims. (Cl. 98—108)

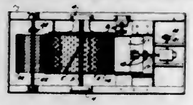


1. An air outlet register for delivery of preconditioned air therethrough, which comprises a single compartment hollow housing having a front, back, ends, and top with an outlet located wholly in its upper portion and extending substantially from end to end thereof, said front and back members having engageable lower edges, a bottom member for said housing, said bottom member having an inlet for admitting said preconditioned air into said housing, said bottom member also having upwardly extending outturned ears for engagement with said engageable lower edges of said front and back members of said housing, as well as upwardly extending inturned ears adjacent its side edges, and gate members for varying the length and position of said inlet, said gate members slidably fitting said inturned ears, a damper hinged adjacent the rear edge of said outlet portion, and means for controlling the operation of said damper and the air flow through said outlet portion.

2,834,282
MACHINE FOR TREATING VEGETABLES AND FRUITS
James J. Barry, Black's Harbour, New Brunswick, Canada, assignor to Connors Bros. Limited, Black's Harbour, New Brunswick, Canada
Application September 7, 1956, Serial No. 608,610
1 Claim. (Cl. 100—98)

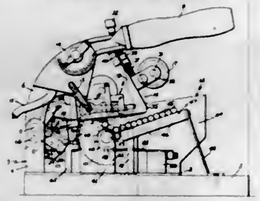
A machine for treating cooked fruits or vegetables which comprises a frame, a perforated drum rotatably mounted in the frame, a pair of plungers reciprocally mounted in the frame, one of said plungers being superimposed on the other plunger, each plunger having an

end surface facing the external surface of the drum and movable with the plunger into substantial engagement with said external drum surface, the width of each said plunger end surface and said external drum surface being



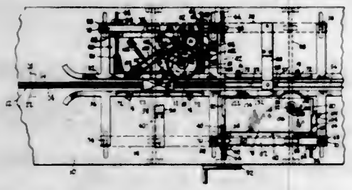
substantially coextensive, means for feeding material to be treated between said plunger end surfaces and said external drum surface to press a portion of said material through said perforated drum, and means for reciprocating the plungers in opposite directions.

2,834,283
ROTATABLE WORK HOLDER IN PENCIL STAMPING MACHINES
Henry A. Mintz, Norwood, Mass.
Application March 3, 1955, Serial No. 491,864
7 Claims. (Cl. 101—11)



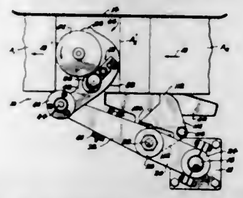
1. A stamping machine comprising a base, a rotatable arbor mounted on said base, a plurality of ribs spaced around the periphery of said arbor whereby a plurality of recesses is formed, each of said recesses being shaped to engage an elongated article to be stamped around approximately half of its peripheral cross-section whereby a tendency is created for each of said articles to be jammed into one of said recesses, means for feeding a plurality of said articles toward said arbor, means for rotating said arbor between stamping operations whereby one of said articles is picked up from said feeding means and moved to a stamping position, means for imparting a jar of sufficient magnitude to said arbor as it moves into said stamping position to insure the correct seating of said article in its recess and to cause ejection of a previously stamped article from its recess, and means mounted on said base for stamping the article in said stamping position.

2,834,284
ARTICLE MARKING
John D. Van Buskirk, Southport, Conn., assignor to Van Buskirk & Company, Inc., Bridgeport, Conn., a corporation of Connecticut
Application November 14, 1952, Serial No. 320,463
12 Claims. (Cl. 101—35)



1. A marking device of the class described comprising a cylindrical indicia-bearing marking drum arranged to be frictionally rotated by an article passing by the same to be marked; means to ink the indicia as the drum rotates; means for locking said marking drum in a predetermined indexed position; and means for unlocking the drum to permit printing rotation thereof including a feeler arm at the point of contact between the article and the drum engageable by an article as it comes into contact with the printing drum; and means activated by the operation of said feeler arm by one article and driven by contact with a subsequent article to rotate the printing drum to locked position after the printing of the one article is completed and before the printing of the next article begins.

2,834,285
MARKING DEVICES
Ira S. Gottscho, Millburn, N. J., Malcolm Hirschey, Woodside, N. Y., and Andrew J. Alessi, Jr., Colonia, N. J., assignors to Adolph Gottscho, Inc., Hillside, N. J., a corporation of New York
Application May 21, 1953, Serial No. 356,374
15 Claims. (Cl. 101—35)

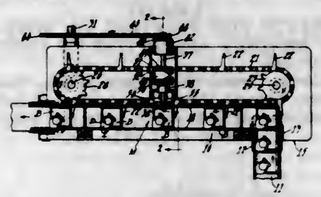


1. A device for marking a side surface and the trailing end surface of successive articles moving continuously in spaced apart relationship along a straight path; said device comprising a marking wheel having marking means on the periphery thereof for rolling and marking contact with a side surface and the trailing end surface of each article in succession, frame means having said marking wheel rotatably mounted thereon, support means at one side of the straight path of travel of the article rotatably carrying said frame means for repeated rotation of the latter in one direction through 360 degrees about an axis which is parallel to and spaced from the axis of rotation of said marking wheel on the frame means so that the marking wheel moves bodily along a circular path extending into and out of the path of the articles, and actuating means operative to urge said frame means to rotate only in said one direction moving said marking wheel bodily in the direction of movement of the articles from in front of an article to be marked into initial rolling and marking contact with the side surface of the article facing toward said support means and then to continue to urge said marking wheel against the moving article at least until said marking wheel has rolled along that side surface and across the trailing end surface of the article to complete the marking of said surfaces.

2,834,286
ARTICLE MARKING MECHANISM
John P. Jakob, Roselle, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application March 9, 1955, Serial No. 493,237
1 Claim. (Cl. 101—35)

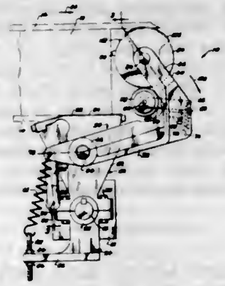
Mechanism for marking articles such as containers and the like with an identifying legend, comprising a conveyor for feeding the containers in spaced relation to and through a marking station, an inking device at an inking station disposed adjacent said marking station in spaced relation thereto, a shaft movable axially relative to said stations, means for rotating said shaft continuously in time with said conveyor, a marking die on said shaft and a cam on said shaft, said cam having a pair of grooves having spaced parallel sections and connecting sections which

cross each other, and a stationary element operating in said grooves to shift said shaft, cam and die as a unit first in one axial direction upon one revolution of said shaft and then in an opposite direction upon a second revolution of said shaft, whereby said one shaft revolution holds said marking die in alignment with said inking device to receive



a supply of ink and thereafter shifts said die laterally into alignment with a container to be marked at said marking station, and said second shaft revolution holds said marking die in alignment with said container for marking the latter and thereafter shifts said die laterally back into alignment with said inking device to receive ink for a subsequent container marking operation.

2,834,287
MARKING APPARATUS
Louis Gross, Plainfield, N. J., assignor to Adolph Gottscho, Inc., Hillside, N. J., a corporation of New York
Application April 27, 1955, Serial No. 504,179
5 Claims. (Cl. 101—35)



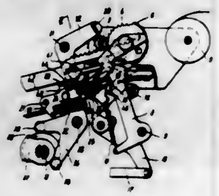
1. Apparatus for applying markings to the front wall surface and a side wall surface of each successive rectangular box carried by an associated conveyor; said apparatus comprising an arm having a fixed axle at one end on which a marking wheel is rotatably mounted, means swingably supporting said arm at the other end thereof for swinging movement between an inner position, in which said marking wheel is interposed in the path of travel of the successive conveyed boxes, and an outer position along-side the path of travel of the conveyed boxes, spring means yieldably urging said arm toward said inner position so that the front wall of each box first engages said marking wheel with said arm in said inner position and swings said arm to said outer position while said marking wheel rolls and applies markings across the front wall and then along the side wall of the box, a latch member movable radially within said marking wheel, said fixed axle having a keeper groove therein to receive said latch member when said wheel is in a predetermined rotational position with respect to said arm, a spring urging said latch member radially inward to engage in said groove, and a latch actuating rod connected to said latch member and extending slidably through said wheel parallel to the direction of movement of said latch member to project from said wheel when said latch member engages in said keeper groove, said latch member and rod being arranged in said wheel so that said rod extends out of said wheel in the direction opposed to the movement of the conveyed boxes when said wheel is in said predetermined rotational position and said arm is in said inner position so that each box, in first engaging the marking wheel, depresses said rod to release said latch member from said keeper groove thereby to free said marking wheel for rotation until said latch member again registers with said keeper groove.

2,834,288
MARKING DEVICES
Louis Gross, Plainfield, N. J., assignor to Adolph Gottscho, Inc., Hillside, N. Y., a corporation of New York
Application April 27, 1955, Serial No. 504,291
15 Claims. (Cl. 101—35)



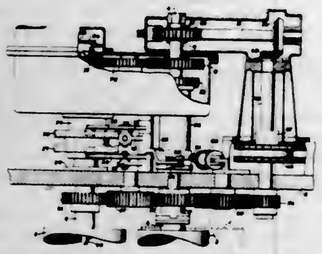
1. A device for marking a side surface and the trailing end surface of each of a succession of rectangular articles moving along a straight path; said device comprising a marking wheel having marking means on the periphery thereof for rolling and marking contact with a side surface and the trailing end surface of each article in succession, frame means having said marking wheel rotatably mounted thereon, support means at one side of the straight path of travel of the articles and movable toward and away from that path, said frame means being rotatably mounted on said support means for swinging relative to the latter about an axis which is spaced from the axis of rotation of said marking wheel, cam means connected to said frame means and controlling the swinging of the latter in response to the movement of said support means, means yieldably urging said support means to move toward the path of travel of the articles, and means controlling the movement of said support means including a trigger member movable laterally into and out of the path of travel of the articles, actuating arms mounted on said support means for limited rocking with respect to the latter to project more or less in the lateral direction from said support means toward the path of the articles and cooperative means extending from said trigger member and actuating arms to control the rocked position of the latter relative to said support means in response to the lateral position of said trigger member so that, as long as the latter is engaged by an article to be marked and is thereby moved out of the path of the article, said actuating arms simultaneously engaging the article maintain the support means in a position wherein said cam means dispose said frame means to space said marking wheel from the side surface of the article and, when the article moves off the trigger member to permit the latter to move into the path of the articles, said actuating arms are free to rock in the direction decreasing the extent of their lateral projection from said support means to permit further movement of the latter toward the path of the articles for then bringing the marking wheel into initial rolling and marking contact with the side surface of the article facing toward the support means and to continuously urge the same against the moving article until said marking wheel has rolled along that side surface and across the trailing end surface of the article to complete the marking of said surfaces.

2,834,289
ZERO PRINTING DEVICE
Otto Haberkorn, Gerstetten, Wurttemberg, Germany, assignor to Walther Büromaschinen Gesellschaft m. b. H., Gerstetten, Wurttemberg, Germany, a firm
Application December 27, 1955, Serial No. 555,730
Claims priority, application Germany January 18, 1955
4 Claims. (Cl. 101—95)



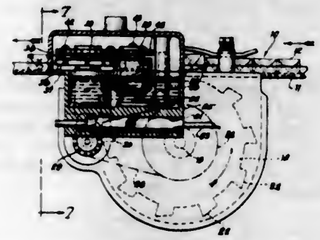
1. In a printing device for adding and calculating machines including a platen, having in each denomination: a type carrier with a series of types 0 to 9 adapted to be bodily impressed against the platen, a differential member for adjusting said type carrier with each of its types into the printing position and having an edge with a recess portion, a spring actuated bridging member adapted to assume a locking and an unlocking position, a feeling finger on said bridging member cooperating with said edge and recess portion, causing the unlocking position of the bridging member when it touches said edge and permitting the bridging member to be urged into its locking position when said recess portion being adjusted in its reach, a locking lug on said bridging member adapted to lock said type carrier in its home position when the bridging member is in its locking position, an overlap fixed to the bridging member overlying the bridging member of the neighbouring denomination to the right adapted, when its bridging member assumes the unlocking position, to hold said bridging member neighbouring on the right and the ones following to the right in unlocking position, and a retaining member adapted to hold all bridging members in their unlocking position when the differential members and type carriers perform their adjusting movement.

2,834,290
INK DISTRIBUTIONS FOR ROTARY PRINTING PRESSES
Joseph E. Meyer, Westerly, R. I., assignor, by mesne assignments, to The Cottrell Company, Westerly, R. I., a corporation of Delaware
Application June 26, 1953, Serial No. 364,339
15 Claims. (Cl. 101—350)



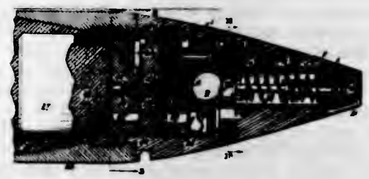
1. In an ink distribution for rotary printing presses, a continuous speed ink fountain roll, two ink rolls, two ductors, rocking supports therefor, two rotary main cams for oscillating the ductors between the ink fountain roll and the ink rolls, two auxiliary cams for also oscillating said ductors, means for altering the angular relationship of the auxiliary cams to their main cams to vary the dwell of the ductors on the ink fountain roll, throw-off cams rotatably mounted on the axis of the auxiliary cams, and means for turning said throw-off cams to cause them to hold the said ductors out of contact with the ink fountain roll.

2,834,291
APPARATUS FOR PRINTING ON SURFACES NOT READILY ABSORPTIVE OF PRINTING MEDIUMS
Louis Mastella, Cicero, Ill., assignor to Wm. Wrigley, Jr., Company, Chicago, Ill., a corporation of Delaware
Application April 21, 1955, Serial No. 502,914
5 Claims. (Cl. 101—350)



1. Apparatus for printing indicia upon a relatively non-absorptive surface comprising a printing roller having embossed thereon the indicia to be printed, a reservoir having therein a supply of colored thermo-liquefied printing medium, means for maintaining the printing medium in liquid state, a soft porous roller of cylindrical shape rotatable about a central axis parallel to the axis of the printing roller, one axial end of the soft porous roller being immersed in the liquefied printing medium in said reservoir and the other end being above the liquefied printing medium in the reservoir and in contact with the printing roller, and means responsive to the rotation of the soft porous roller for compelling the liquefied printing medium to travel from the reservoir to the said end of the soft porous roller which is in contact with the printing roller.

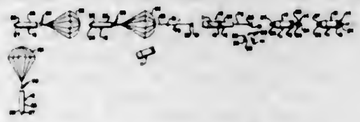
2,834,292
INTERMITTENT ACTION BALL CAM ROTOR
Vladimir Vlasmensky, New York, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application July 6, 1956, Serial No. 596,367
7 Claims. (Cl. 102—79)



7. The combination in a point detonator fuze of the type disclosed comprising a fuze body having a booster charge at the rear end thereof, impact responsive means at the forward end thereof and a periodic time-delay arming mechanism within said body disposed between said impact means and said booster charge, said mechanism including a stator fixedly attached to said fuze body, a rotor parallel to and spaced from said stator, said rotor journaled for rotation within said housing about an axis coincident with the longitudinal axis of said stator, normally angular spaced powder train elements carried within a bore in said stator and said rotor, spring biased detents co-

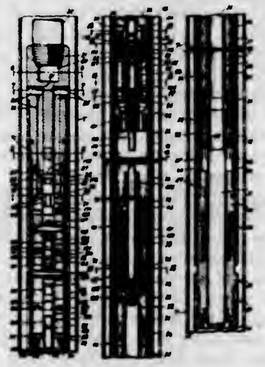
acting with detent pockets formed in said rotor to lock said rotor in unarmed position, said detents releasing said rotor in response to predetermined angular acceleration of said fuze body, a plurality of semi-circular straight radial grooves cut in one face of said stator from the outer edge of said stator and terminating in cup shaped recesses adjacent the longitudinal axis of said stator, said rotor having a single spiral cam groove cut in the face adjacent said stator and extending from the circumference of said rotor to a point adjacent the axis of rotation of said rotor, a plurality of steel indexing balls loosely fitting within said cup shaped recesses for successively and periodically rotating said rotor in response to centrifugal forces acting on said balls to index said rotor to align said powder train elements to armed position, said balls successively and periodically received in a plurality of pockets formed inwardly in the body of said fuze as said balls pass from the semi-circular grooves in said stator and said rotor, and means to lock said rotor in armed position, said means including a semi-circular radial groove cut in said stator and having its outer end terminating in an outwardly inclined surface inwardly of the periphery of said rotor.

2,834,293
DEVICE FOR RECOVERING FUZES
Frederick H. Beach, Kensington, Md., and Waldo E. Albert, Jr., Ossian, Ind.
Application July 20, 1951, Serial No. 237,812
5 Claims. (Cl. 102—89)
(Granted under Title 35, U. S. Code (1952), sec. 266)



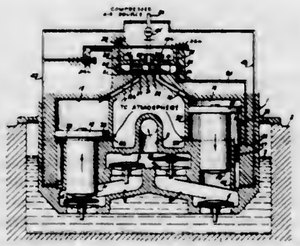
1. A projectile of the character disclosed for recording information as the projectile is fired from a gun and travels along the trajectory, comprising inner and outer separable containers, said inner container having suitable recording instruments arranged therein, means including a pilot member detachably secured to said inner container and adapted to be forcibly ejected from said containers into the airstream for retarding the forward motion of the inner container sufficiently to cause the outer container to be separated therefrom in response to the retardation of the inner container with respect to the outer container, explosive means including a time delay fuze adapted to be fired in time delayed relation with respect to the firing of the projectile from said gun for forcibly ejecting said last named means from said containers, a parachute arranged within the inner container and adapted to be withdrawn therefrom into the airstream by said pilot member when the pilot member is detached from said inner container thereby to gently float the inner container to the ground when the forward motion of the inner container has reached a minimum value and the parachute is fully opened, means including a fluid actuated device secured to the inner container for detachably securing the pilot member to said inner container and adapted to detach the pilot member therefrom in response to a predetermined decrease in the pressure exerted on the fluid actuated device as the pilot member travels through said airstream, and flexible means secured to the pilot member and detachably secured to said parachute for rendering the pilot member effective to withdraw the parachute from the inner container as the pilot member is detached therefrom, said flexible means being adapted to be detached from the parachute in response to the sudden shock exerted thereon by the pilot member when the parachute is fully extended.

2,834,294
DEEP WELL PUMP
Roger W. Schoen, Mineral Wells, Tex., assignor to Alco Valve Company, University City, Mo., a corporation of Missouri
Application August 13, 1953, Serial No. 373,955
10 Claims. (Cl. 103—46)



1. In a well pump: a power cylinder; a piston reciprocable therein and provided with a tubular cage; valve means to control flow of fluid under pressure to the piston to effect reciprocation of the piston, the valve means including a valve movable in the same directions as the piston; a valve stem coaxial with the piston and extending into the tubular cage of the piston; first abuttable elements on piston and stem within the piston comprising a ring-like retainer to be engaged at the end of a stroke in which the piston moves in a first direction to withdraw from the stem, the elements preventing such withdrawal; second abuttable elements on piston and stem comprising a collar to be engaged at the end of an opposite stroke when the piston moves in its second direction; and yieldable means including a spring surrounding the stem and yieldably holding the retainer a maximum distance toward the collar so as to resistingly yield when the elements are abutted as aforesaid, to permit overtravel of the piston relatively to the valve.

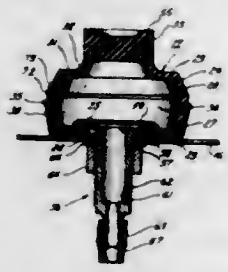
2,834,295
PNEUMATIC LIQUID PRESSURE PUMP
Eric Georg Hjärpe, Goteborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Goteborg, Sweden, a corporation of Sweden
Application January 12, 1955, Serial No. 481,443
Claims priority, application Sweden January 20, 1954
5 Claims. (Cl. 103—49)



1. A pneumatically operated liquid pressure pump including, in combination, a connection to a source of compressed air; a valve body carrying said connection; a pair of cylinders; a pair of differential pistons reciprocable in said cylinders, each differential piston consisting of a large piston and a small piston united together; a pressure-responsive piston valve reciprocable

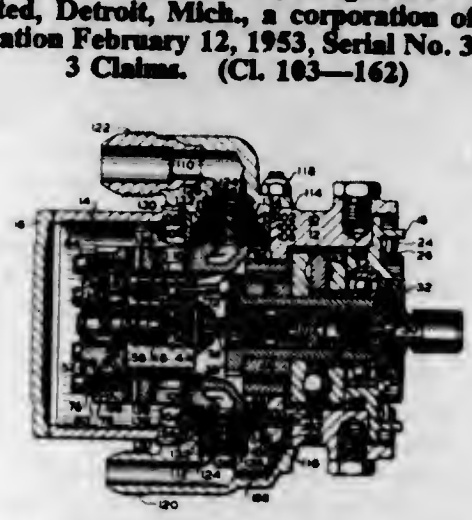
in a valve chamber provided in said valve body; means connecting said valve chamber with said source of compressed air; said valve body having air channels leading from said valve chamber to said cylinders at such points that the compressed air flowing through said channels acts only on the large piston of each differential piston; the piston valve being so shaped, positioned and proportioned relative to said air channels and said means connecting the valve chamber with said source that both cylinders can never be cut off simultaneously from said source; said cylinders and said valve chamber all having exhaust ports to the atmosphere; a plurality of reciprocable auxiliary pistons movable in chambers adjacent said cylinders and connected to said source, said auxiliary pistons being operatively associated with said differential pistons to move the same in their suction strokes; means providing channels for flow of air from the auxiliary piston chambers associated with one differential piston to one end of the piston valve chamber; a pair of separate liquid chambers, one connected with each of said cylinders and into each of which liquid chambers the small piston of one of the differential pistons moves as the differential piston makes its working or liquid-displacing stroke; automatic inlet valves controlling inflow of liquid to said liquid chambers; automatic outlet valves controlling egress of liquid from said liquid chambers to a discharge outlet; the parts being so constructed and arranged that one of said differential pistons always makes complete working strokes of constant length while the other differential piston moves through only such part of a complete working stroke as is required to maintain the pressure on the liquid being pumped during the period of the return or suction stroke and the initiation of the working stroke of the first-mentioned differential piston.

2,834,296
PUMP UNIT FOR WINDSHIELD CLEARING SYSTEMS
Leonard C. Neufeld and Rudolph L. Lowell, Des Moines, Iowa, assignors to The Delman Company, Cookeville, Tenn., a corporation of Tennessee
Application November 23, 1953, Serial No. 393,826
3 Claims. (Cl. 103—148)



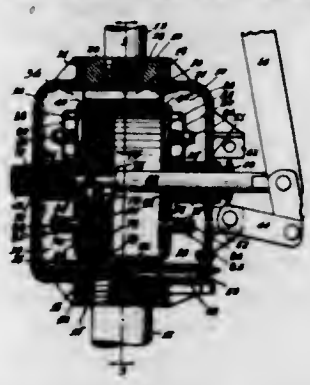
1. For use in a vehicle windshield clearing system, a pump comprising a body member formed of a flexible material and having a fluid chamber therein, said body member having a bottom wall, a top wall, and a side wall connected to and extended between said top and bottom walls, said top wall including an inwardly and upwardly curved annular portion connected to said side wall and a cylindrical actuating portion connected to and extended upwardly from said annular portion said side wall having a pair of reversely inclined sections of substantially equal thickness arranged in a diverging relation inwardly of the body member, with the junction of said pair of sections being formed with a groove on the inner side thereof so as to constitute a hinge, whereby on movement of said top wall toward said bottom wall, the top one of said side wall sections is moved downwardly about said hinge to a position within and into a substantially nested relation with the bottom one of said side wall sections.

2,834,297
POWER TRANSMISSION
Kenneth I. Postel, Detroit, and Conrad J. Hohmann, Grosse Pointe Woods, Mich., assignors to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application February 12, 1953, Serial No. 336,531
3 Claims. (Cl. 103—162)



1. A fluid pressure energy translating device of the rotary, variable stroke type comprising: a housing; a drive shaft rotatably supported in the housing; a cylinder barrel in a driving relation with the drive shaft and having a plurality of cylinder bores therein; pistons in the bores; articulated rods connecting the pistons to the drive shaft; a distributing valve member; distributing ports in the cylinder barrel to cooperate with said valve member; means for rotatably supporting the cylinder barrel in axial abutment with the distributing valve member; a yoke supporting the valve member; hollow pintle means integral with the yoke; fluid passage means in the yoke communicating between the pintle means and the valve member; port means in the housing communicating with the pintle means; and means in the housing for journalling the pintle means for swinging movement about an axis substantially perpendicular to the drive shaft axis to vary the stroke of the unit, said means including means forming a bore in the housing having a cut-away portion through which the pintle means are movable radially of the pintle means, and a wall portion movable to its assembled location, wherein it blocks said cutaway portion, subsequent to positioning of the yoke, thereby restraining radial movement of the pintle means.

2,834,298
MANUALLY OPERABLE PISTON PUMP
George W. Wright and Otto R. Scheurer, Fort Wayne, Ind., assignors to Tokheim Oil Tank and Pump Company, Fort Wayne, Ind., a corporation of Indiana
Application May 15, 1952, Serial No. 287,878
12 Claims. (Cl. 103—175)



1. A double-acting piston-pump, comprising a body having end faces, a cylinder extending end-to-end through said body, a sheet-metal valve-plate gasketed against each end of said cylinder and having a central rod-passing opening, a cover secured over each valve plate against each body end-face and having a central boss surrounding a bearing area, the inner edge of said boss extending into proximate abutment with the adjacent valve plate

about its central opening, webs extending generally radially from said boss and dividing said cover to form inlet and outlet passages on opposite sides of said boss, the edges of said webs extending into proximate abutment with the adjacent valve plate, intake valves in said valve plates opening from the inlet passages to said cylinder, outlet valves in said valve plates opening from said cylinder to the outlet passages, a sealing member between each valve plate and the inner edges of the boss and webs of its overlying cover, sealing the inlet and outlet passages from each other and from the central rod-passing opening in the valve plate, a rod slidably journaled in said cover bosses, and a double acting piston carried by said rod.

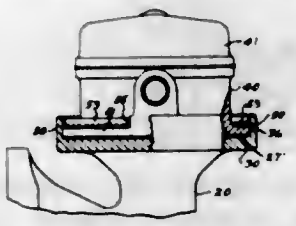
2,834,299

SEALING MEANS FOR DIAPHRAGM CASINGS

Irven E. Coffey, Clayton, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Original application October 29, 1952, Serial No. 317,499, now Patent No. 2,786,423, dated March 26, 1957. Divided and this application October 15, 1956, Serial No. 618,166

4 Claims. (Cl. 103—202)



1. In a fuel pump, the combination of separate pump casings, flanges on said casings, opposed registering faces on said flanges, and means for coupling said casings when assembled, comprising a first ring on one of said flanges, a second ring on the other of said flanges, and a resiliently deformable portion on said second ring for engaging said first ring and anchoring said pump casings in assembled relation by wedging action.

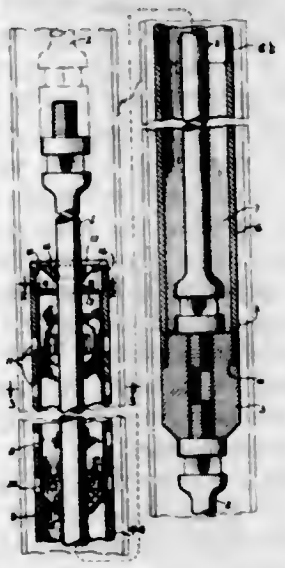
2,834,300

COMBINATION SAND TRAP AND JUNK BASKET

Eugene N. Brock, Odessa, Tex.

Application July 15, 1955, Serial No. 522,220

5 Claims. (Cl. 103—220)



1. An apparatus for installation within a string of threaded sucker rods within a well tubing for entrapping sand and junk encountered therein; comprising a threaded coupling, said threaded coupling being adapted to be threadably secured between adjacent ends of a pair of threaded sucker rods within said string, a tubular member, said tubular member being secured to said threaded coupling and adapted to extend upward around a portion of said sucker rod string within said well tubing to form a sand receiving receptacle, the lower end of which is closed, said tubular member having apertures formed in the upper portion thereof, a perforate, cylindrical screen fitted within the upper portion of said tubular member and covering said apertures, said upwardly extending, apertured tubular member forming a sand trap, a guide member, which guide member is fitted on said tubular member near the upper end thereof and is adapted to embrace a sucker rod of said sucker rod string, said guide means having longitudinal openings formed therethrough, said longitudinal openings being in communication with the interior of said tubular member.

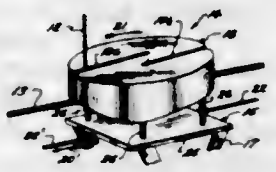
2,834,301

CABLE TRAVELERS

Leon A. Morris, Abqaiq, Saudi Arabia

Application June 21, 1956, Serial No. 592,776

12 Claims. (Cl. 104—182)



1. A device for carrying a load while traveling along a cable suspended from above by spaced apart supports; said device comprising an upper portion rotatable around a vertical axis adapted to rest on the cable and movable along the latter, a lower portion disposed below the cable and adapted to carry a load, and means rotatably connecting said upper portion to said lower portion, said upper portion having a slot extending in a generally radial direction from substantially at the axis of rotation to the periphery thereof, said slot opening in the direction of the forward movement of the device along the cable, and means effecting rotation of said upper portion when the axis of rotation of the upper portion of said device arrives at a support for said cable so that, when the device approaches a support for the cable with said slot opening in the direction of movement of the device along the cable, the support is received in said slot to permit movement of the device to a position along the cable where the support is proximate to the axis of rotation of said upper portion, whereupon, turning of said upper portion through an angle of substantially 180 degrees disposes said slot to open in the direction opposed to the movement of the device along the cable for permitting movement of the device away from the support which is thereby extracted from said slot.

2,834,302

SELF-PROPELLING AERIAL TRAMWAY CAR

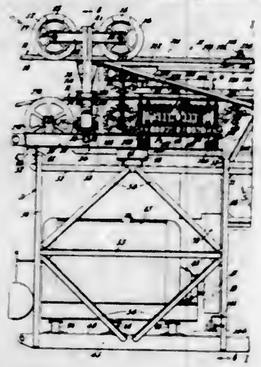
Leroy Nixon, Newtown, Pa., assignor to John A. Roebling's Sons Corporation, Trenton, N. J., a corporation of Delaware

Application April 30, 1954, Serial No. 426,741

10 Claims. (Cl. 105—148)

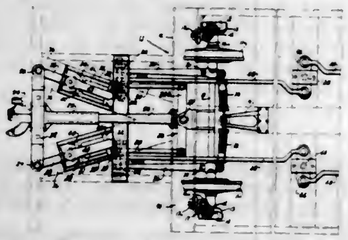
2. A power driven propelling device for moving an aerial tramway car along a suspended overhead stationary traction rope comprising an upper and two lower frames, a lower endless travelling link belt mounted on sprockets on each of said lower frames, an upper endless travelling link belt mounted on sprockets on said upper frame, said sprockets normally lying in a single vertical plane, said belts carrying traction rope grippers, the grippers of the lower run of said upper belt being complementary to and mating with the grippers of the upper runs of said lower belts, said mating grippers being engageable with and disengageable from said traction rope, levers pivotally mounted on said lower frames, the pivotal axes of said levers lying beneath and parallel with said rope and in

said vertical plane, said levers mounting said upper frame for swinging movement about the pivotal axis of said levers, a power driven mechanism connected to drive said belts, an upper trackway guide above the lower run of said upper belt, a lower trackway guide below each of the upper runs of said lower belts, compression springs on said lower frames normally urging said lower guides upwardly to force the grippers of the upper runs of said lower belts into gripping contact with said traction rope, said grippers driving said device along said traction rope



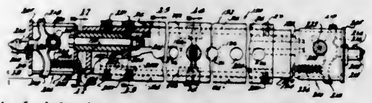
when said belts are in gripping contact with said traction rope and driven by said driving mechanism, hydraulically operated jacks connected to said lower trackway guides to move said lower trackway guides downwardly against the force of said springs to disengage the grippers of said upper runs of said lower belts from said traction rope, and hydraulically operated jacks mounted on said lower frames and engaging said levers to rotate said levers about their pivots to swing said upper frame to swing the grippers of said upper belt free from said traction rope.

2,834,303
LIGHTWEIGHT VEHICLE
John R. Furrer, Milwaukee, Wis., assignor to ACF Industries, Incorporated, a corporation of New Jersey
Application November 22, 1952, Serial No. 322,125
5 Claims. (Cl. 105—176)



1. A railway car comprising the combination with a car body portion and a pair of axles, each axle having a wheel at each end thereof and being dirigibly mounted adjacent an end of said car, of a swinger mounted for longitudinal swinging motion on said car body adjacent each corner thereof, a radius rod extending substantially longitudinally of said car body and connecting each axle end to the adjacent swinger, a draft means including a coupler pivotally connected to said car body portion for swinging in a horizontal plane, said coupler having a longitudinally extending portion extending beyond the adjacent end of said car body for coupling said car to an adjacent car, said coupler further comprising a yoke portion at its pivoted end and extending laterally on each side thereof, a link extending substantially longitudinally of said car and connecting each end of said yoke portion to the adjacent swinger, and linkage means connecting together the swingers at opposite ends of said car for moving the swingers on the same side of the car either toward or away from each other upon the actuation of the swingers at either end of the car, whereby swinging of a coupled coupler actuates the axle at the coupled end of said car through said yoke, said links, said swingers and said radius rods to a position collinear with the radius of a curve of trackage being traversed, and the axle at the opposite end of the car is actuated through said yoke, said links and said swingers at the coupled end of the car, and further through said linkage means connecting together the swingers at opposite ends of the car, and further through said swingers and radius rods at the opposite end of the car, to a corresponding collinear position.

2,834,304
FREIGHT LOADING APPARATUS
Harvey W. Chapman, Detroit, and Henry L. Dunlap, Dearborn, Mich., assignors to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Application September 21, 1954, Serial No. 457,474
17 Claims. (Cl. 105—369)



1. A freight bracing bar for extending between and being supported as its ends in aligned series of holes in spaced support surfaces, said bar comprising an elongated body having fittings adjacent the respective ends of the body that are no wider than the body and each of which has a pair of pins for entry into selected said holes to secure the bar in place, said body having at least one elongated bore extending lengthwise of the body and opening out of one end thereof, one of the fittings having a portion telescopically mounted in said bore, coengageable stop surfaces on said one fitting and body for limiting the telescopic movement of said one fitting in said bore, both said fittings having side sections which are laterally spaced from each other and extend parallel to the length of the bar, the pins of each said pair being laterally spaced from each other and rigid with the corresponding fitting and projecting parallel to each other and to the length of the bar and located on opposite sides of the fitting, said pins of each pair having tapered ends for extending into spaced pairs of said holes in a said support surface, each fitting having a latching lever located centrally between the corresponding said side sections and pivoted on the corresponding fitting for movement about an axis transverse to the length of the body, each said lever including a handle portion located between the corresponding said side sections and movable in a plane parallel to them, each said lever further including a tapered-end latch pin extending parallel to the corresponding said side sections for entering a said hole intermediate said spaced pair of holes, each said latch pin being located approximately midway between the corresponding rigid pins and approximately in a plane defined by such rigid pins, each said latch pin having a transverse locking surface thereon facing toward the bar body for engaging behind said support surface when the lock pin extends through a said intermediate hole, spring means acting between the lever and each fitting and biasing the corresponding said latch pin to a position in which it partially but not completely registers with a said intermediate hole when the corresponding rigid pins completely register with said pair of holes, each said latch pin being movable against the opposition of said spring means to a position in which it registers with a said intermediate hole, thereby enabling said fittings to be moved toward the respective said support

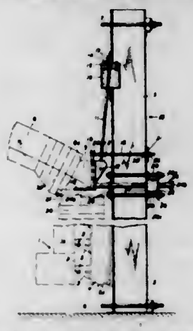
surfaces to thereby project said rigid pins and said latch pins through the corresponding holes and enabling the latch pins to engage behind the said surfaces and prevent withdrawal of the pins from the holes.

2,834,305
MARGINAL RAIL FOR COVER STRIP RETAINING PANELS, ESPECIALLY FOR RAILWAY CAR
Albert G. Dean, Narberth, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Original application November 1, 1948, Serial No. 57,796, now abandoned. Divided and this application February 18, 1955, Serial No. 489,152
3 Claims. (Cl. 105—401)



1. In a vehicle body, a panel having nodes provided with cover-strip-retaining means, a separately made molding section secured to a margin of said panel free of a node, said section having formed thereon cover-strip-retaining means corresponding to the means on said nodes so that the means on said section and on the next node of the panel serve for the retention of a cover strip between them.

2,834,306
FURNACES
William Bryson Roxburgh, St. Helens, England, assignor to Pilkington Brothers Limited, Liverpool, England, a corporation of Great Britain
Application January 14, 1953, Serial No. 331,198
Claims priority, application Great Britain February 26, 1952
1 Claim. (Cl. 110—99)



In a furnace having buckstays and an arched roof resting on springers at the sides of the roof along the length thereof and supported solely at the sides to permit movement of the roof as a unit upon expansion and contraction thereof, the combination to permit the roof to accommodate itself to thermal changes during the stages when the temperature of the furnace is substantially increasing or decreasing, comprising links on the sides of the roof extending downward therefrom for carrying the downward pressure of the roof, and pivotally supported at their upper ends by the buckstays for swinging movements towards and away from the adjoining buckstays, a springer supporting angle bracket at each longitudinal side of the roof, said angle brackets being pivotally supported from the lower ends of said links for angular movement about axes extending lengthwise of the roof arch, rigid thrust reaction members engaging the angle brackets at about the corner junctions of the sides thereof to produce in the roof a thrust along a line disposed more than half the distance from the outside to the inside of the roof, thereby to hold together the elements of the roof at its inner face, said links, angle brackets and thrust reaction members constituting the sole means of support of the roof during said stages, whereby as said roof is expanded or contracted by changes in temperature, the link swing about their upper supports towards or away from the adjoining buckstays and at the same time, the sides of said roof under control of said angle brackets swing angularly about the thrust reaction members as fixed fulcrums, and means rigidly but adjustably supporting said thrust reaction members on said buckstays for adjustment along straight lines in their respective directions of thrust in relation to said buckstays to vary lateral thrust transmitted from said thrust reaction members to the buckstays and to the roof during said stages and to compensate thereby for thermal expansion or contraction of the roof.

2,834,307
MACHINE FOR PROVIDING DIVIDED FLEXIBLE STRUCTURES
Gordon A. Jones, Brooklyn, and Edward W. Jones, Oriskany Falls, N. Y.
Application June 30, 1953, Serial No. 365,082
11 Claims. (Cl. 112—2)

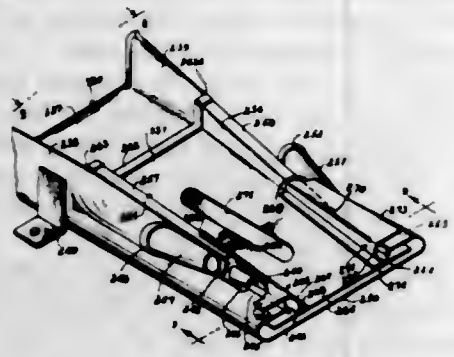


1. A sewing device comprising a conveyor, a plurality of sewing machines spaced in alinement longitudinally of said conveyor to produce stitching on a single line, means for normally causing the operation of one of said sewing machines to produce a line of stitching, means for rendering said one of said sewing machines inoperative and automatically rendering another of said sewing machines operative to continue said line of stitching, and means for rendering a machine other than said other machine operative to further continue said line of stitching and for automatically rendering said other machine inoperative.

2,834,308
FOLD GUIDES
Max Blumenkrantz, New York, N. Y.
Original application January 9, 1956, Serial No. 558,149, now Patent No. 2,773,266, dated December 11, 1956. Divided and this application July 31, 1956, Serial No. 601,247
14 Claims. (Cl. 112—139)

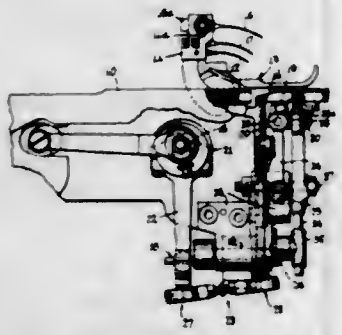
1. In a folder for the formation of double welting, a casing having an inlet end and an exit end, said inlet end being larger than said exit end and generally U shaped in cross section, while said exit end is smaller and generally rectangular in form with its lateral sides rounded, a second casing secured to said first casing and having a portion extending outwardly from said inlet end to form a web support upon which a web may be fed therethrough, and having an extending plate portion terminating at a point adjacent to said outlet end, said extending plate portion being supported therein to divide said out-

let end into upper and lower passages, said plate portion having free lateral edges adjacent to said rounded lateral sides, a pair of spaced-apart cord tubes supported by said folder through which cords are fed to form said welting, said casings conjointly defining a graded passage for the transit of a fabric web therethrough, wherein the



borders of said fabric web being passed therethrough are folded about said cords and delivered to double stitching means which forms a row of stitches in said web adjacent to each of said cords, and longitudinal slot means in the upper surface of the upper of said casings to facilitate the guiding of a fabric web therethrough during a setup.

2,834,309
OVEREDGE SEWING MACHINE FOR MAKING SAFETY SEAM
Harvey W. Russell, Nyack, and Norman Wonnacott, Scarsdale, N. Y., assignors to Willcox & Gibbs Sewing Machine Company, New York, N. Y., a corporation of New York
Application August 5, 1954, Serial No. 448,071
9 Claims. (Cl. 112—163)



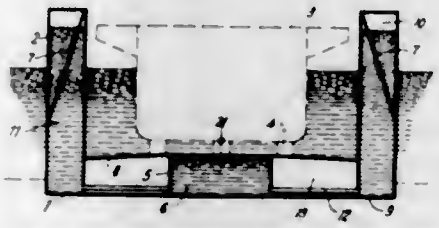
1. In a sewing machine having a frame and a main shaft, means feeding the superposed edge portions of a plurality of pieces of fabric through a stitching station having at least two needles disposed in laterally spaced relation and also offset in the direction of stitching; means driven by said main shaft for actuating said needles; secondary looper mechanism driven from said main shaft and cooperating with the needle adjacent the edge to form an overedge binding stitch extending around the edges of the fabric; and looper mechanism driven from said main shaft and cooperating with remaining needles to secure the pieces of fabric together, said last-named mechanism comprising a crank arm and eccentric connected to the main shaft, a pivotally mounted looper support connected to said crank arm for forward and rearward rocking movement, a looper carrier having a looper thereon for each remaining needle mounted on the support for transverse sliding movement, and a pivotally mounted actuator lever driven from said crank arm and reciprocating the carrier in timed relation to the rocking of the looper support.

2,834,310
SEWING MACHINE NEEDLE
William J. Hleb, Elizabeth, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application May 19, 1955, Serial No. 509,654
6 Claims. (Cl. 112—226)



1. A three-blade sewing machine needle comprising a needle element having an eye-pointed work-penetrating blade, a shank and a tapered intermediate portion converging from said shank to said blade, said shank having a flat side extending into said intermediate portion, a pair of needle-blades arranged parallel to and in a plane with said element with one of said blades disposed upon each side of said element, each of said blades having an eye-pointed work-penetrating end and a butt end, the butt ends of said blades being arranged in overlapping relation with the intermediate portion of said element, and a connector cast in place about the butt ends of said blades and the intermediate portion of said element which are thereby embedded in said connector, the embedded butt ends of said blades and intermediate portion of said shank having indents formed therein, which indents together with the embedded ends of said blades, the converging side walls of the intermediate portion and the portion of the flat side extending into said intermediate portion, will prevent both rotation and axial movement of said element and blades relative to said connector.

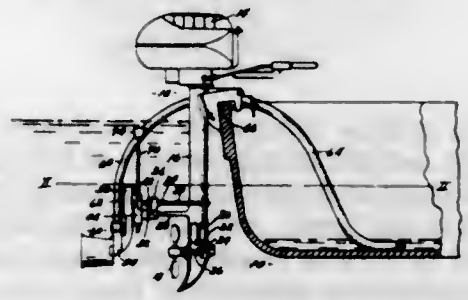
2,834,311
FLOATING DRY DOCK
Gunnar C. Engstrand, New York, N. Y., assignor, by mesne assignments, to Frederic R. Harris, Inc., New York, N. Y., a corporation of New York
Original application December 7, 1950, Serial No. 199,650, now Patent No. 2,740,367, dated April 3, 1956. Divided and this application February 16, 1955, Serial No. 488,504
3 Claims. (Cl. 114—45)



1. A floating dry dock having a pontoon hull with bottom, a deck and wings at the sides of the hull, the height of each wing being less than the beam of the dock, said hull having a central compartment and each wing having compartments closed against each other, all said compartments to be flooded and pumped out as required to sink and raise the dock, a bulkhead extending longitudinally along the interior of the wing, one of said last-named compartments extending from the top of the wing containing it towards the deck of the pontoon, said one compartment having such capacity when flooded as to hold said wing water-borne along its entire outboard side and the remainder of the dock above water in nearly vertical position, each bulkhead extending from the bottom adjacent

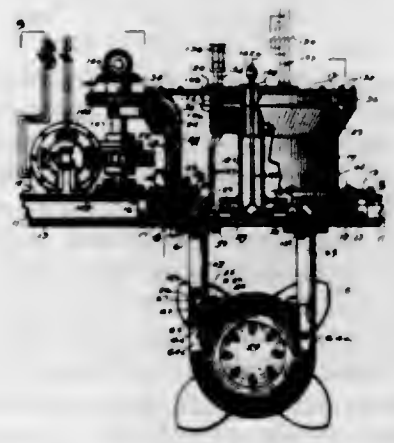
the inboard side to the outboard side, above the deck, and being horizontal at the outboard side, said hull having buoyancy compartments, one extending along the hull between said middle compartment and each wing.

2,834,312
PUMPING APPARATUS FOR BOATS
George C. Baxter, Marion, Kans., assignor to Hopkins Manufacturing Corporation, Emporia, Kans., a corporation of Kansas
Application September 25, 1953, Serial No. 382,324
4 Claims. (Cl. 114—185)



1. A water ejection apparatus for a propeller driven boat comprising a frusto-conical tube, means for mounting said tube on said boat in a position behind said propeller in the wake thereof, said conical tube being positioned with its smaller end forwardly, a suction tube fixed to said conical tube with its rearward end portion disposed concentrically within the forward portion of said conical tube, and a flexible tube having one end attached to the opposite end of said suction tube, the opposite end of said flexible tube being adapted to be placed in the bilge of the boat.

2,834,313
MARINE PROPELLING AND STEERING MECHANISM
Willy O. Frohlich, Philadelphia, Pa.
Application October 19, 1955, Serial No. 541,425
8 Claims. (Cl. 115—35)



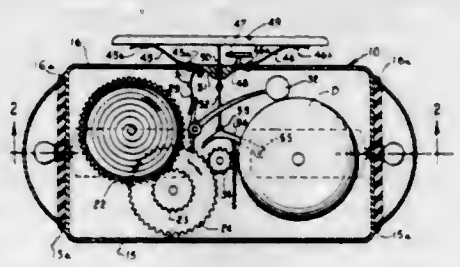
1. In a marine propelling and steering mechanism, in combination, a hollow main support fixedly mounted above an opening in the hull of a vessel, a hollow turret assembly revolubly nested within and fixed against axial displacement relative to said support, a water-tight housing depending from said turret and arranged beneath the opening in said hull for rotation with said turret, a shaft revolubly journaled in and fixed against axial displacement relative to said housing, a propeller mounted upon a terminal portion of said shaft extending through the wall of said housing, electric motor elements within said housing operatively associated with said shaft, and means for supplying said motor elements with electric current for actuating the same and thereby turning said shaft and propeller, said supply means including stationary brush means carried by said main support and mounted over the hollow interior of said turret, and conductor ring means carried by said turret and mounted therein for rotation with said turret in contact with said brushes.

2,834,314
TRAFFIC SIGNALLING DEVICE
George L. Moore, Los Angeles, Calif.
Application March 7, 1956, Serial No. 570,177
1 Claim. (Cl. 116—63)



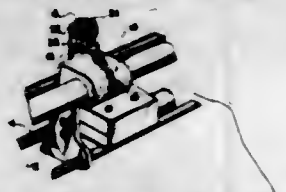
A traffic signalling device comprising: a housing, a reel rotatably mounted within said housing, a ribbon having traffic instructing indicia thereon wound on said reel with one end secured to said reel and the other end extending out of said housing, spring means resisting rotation of said reel incident to withdrawal of said ribbon from said housing, a ratchet disc fixed in said housing and having a toothed periphery, a pawl pivoted on said reel and cooperating with said ratchet teeth to prevent said spring rewinding said ribbon on said reel, a weak spring urging said pawl toward said ratchet, the extremities of said ratchet teeth and said pawl being rounded whereby said pawl does not engage in said teeth while said reel is rotating in rewinding direction, and said pawl being so mounted that centrifugal force, when said reel is rotating, urges said pawl away from said ratchet, a shaft mounted in said housing, said reel being rotatably mounted on said shaft, said shaft having a bifurcated end projecting outwardly of said housing, a cap fixed to said housing, overlying said end and having a portion engaging within said bifurcated end to hold said shaft against rotation, said spring means comprising a coiled spring around said shaft having an end secured thereto and its other end secured to said reel.

2,834,315
PERSONAL SAFETY ALARM
Emmett B. Simpson, Greenville, S. C.
Application April 8, 1957, Serial No. 651,261
5 Claims. (Cl. 116—67)



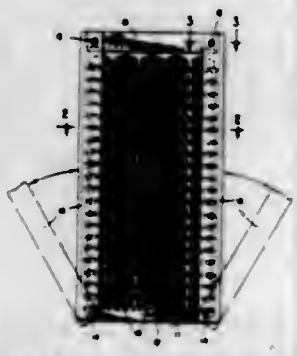
1. A personal safety alarm including, a casing adapted to be carried in the hand of the user, means providing an audible alarm carried within the casing, means providing a visible alarm carried within the casing, a source of mechanical energy actuating said audible alarm carried within the casing, a source of electrical energy also carried within the casing, cam means intermittently contacting the source of electrical energy also actuated by said source of mechanical energy to actuate the visible alarm, and automatic control mechanism which actuates the source of mechanical energy to thereby simultaneously actuate both the audible and visible alarm.

2,834,316
AUTOMATIC MICRO GUIDE FOR DUPLICATING MACHINES
Anthony Perez, New York, and William Goldsborough, Babylon, N. Y., assignors to Elliot Mandel, New York, N. Y.
Application October 29, 1956, Serial No. 618,885
3 Claims. (Cl. 116—133)



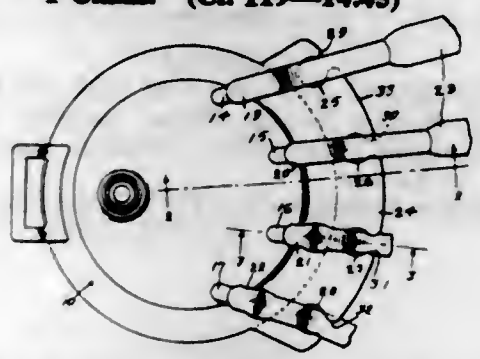
1. In a multiple sheet detector of a duplicating machine the combination, with a detector setting knob having a peripheral series of notches, and with a detent pin engageable in any selected notch of said series, of means attachable to said knob having indicia designating different weights of stock to be fed through said detector, said indicia being selectively registrable with the detent pin responsive to rotation of the knob for selection of different knob settings corresponding to the weights of the stock fed through the detector, said means comprising a plate element of inverted cup shape including a flat, circular plate portion overlying the knob and a depending, peripheral skirt having an external series of notches extending in parallelism with the axis of rotation of the knob, said element including means on the inner surface of the skirt lockably engageable with selected notches of the knob for connecting the cup-shaped element and knob together for conjoint rotation, the notches of the skirt being adapted for engagement of said detent pins therein, said means on the inner surface of the skirt comprising angularly spaced ribs extending in parallelism with the axis of rotation of the knob, said ribs being slidably engaged in the notches of the knob, for axial adjustment of the cup-shaped element relative to the knob, said notches of the skirt terminating short of the plate portion to define a smooth-surfaced portion on the skirt against which the detent pin engages in a selected position of axial adjustment of the cup-shaped element, to permit free rotational movement of the cup-shaped element and knob between selected settings of the knob.

2,834,317
WOUND CAPACITOR RACKS
Edward F. Eger and Warren O. Simpson, Indianapolis, Ind., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 1, 1954, Serial No. 440,766
4 Claims. (Cl. 118—503)



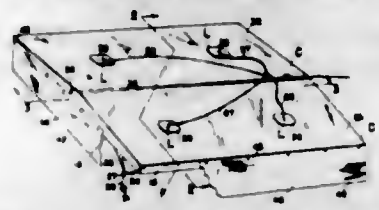
1. A capacitor rack which comprises a pair of U-shaped channel members having the open portions thereof facing each other, a bottom bar pivotally secured at each end to a lower end of one of said U-shaped members, a plurality of spacer bars of such length as to extend into both said channel members, a top bar, said top bar and the upper ends of said channel members being provided with a pair of aligned apertures, a pair of pins extending through said apertures, and a head on the end of each pin of a diameter that is slightly less than the diameter of said apertures.

2,834,318
ATTACHMENT FOR MILKING MACHINES
Samuel Sorensen, Sioux City, Iowa
Application March 14, 1956, Serial No. 571,481
1 Claim. (Cl. 119—14.45)



A milking machine attachment comprising a relatively flat cover for said machine, a plurality of tubular conduits extending through said cover and terminating a substantial distance above said cover, said conduits having the outer ends thereof beveled at a substantial angle thereto with the beveled ends being substantially parallel to said cover, an arcuate plate projecting radially integrally from the peripheral edge of said cover adjacent said conduits, and a teat cup flexible tube connected to each of said conduits, said plate having a plurality of teat cup tube receiving bores extending therethrough with each of said bores having a reduced neck portion communicating said bore with the edge of said plate, said teat cup tubes being positioned in said bores, said tubes having bends between said conduits and said plate forming seals whereby said conduits are sealed against entry of foreign material.

2,834,319
BROODERS
Carl P. Goodman, Tigard, Oreg.
Application September 11, 1956, Serial No. 609,247
2 Claims. (Cl. 119—33)

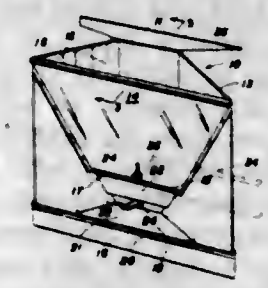


1. A brooder comprising a rectangular framework including a pair of spaced parallel horizontal side rails connected at their opposite ends by a pair of parallel transverse beams, a central beam intermediate said pair of beams and parallel thereto extending between and connecting the mid-points of said side rails, said beams each having upwardly sloping centrally converging upper edges, a plurality of depending legs supporting said framework, a pair of plywood roof panels secured to the sloping upper edges of said beams, an aluminum foil sheet supported in intimate contact with the under surface of each of said plywood panels, a peripheral curtain depending from said framework, a plurality of infra red radiant heating lamps suspended from said roof panels in widely spaced relation for establishing heat zones within said brooder of different temperatures with the zones having a higher temperature at points spaced outwardly from the axial center of the brooder, means automatically controlling actuation of a portion of said lamps, and means for manually controlling actuation of the remaining portions of said lamps.

2,834,320
PIG FEEDER
Theodore Tolley, Eaton, Ohio
Application April 5, 1955, Serial No. 499,270
3 Claims. (Cl. 119—53)

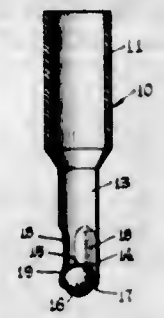
1. In a pig feeder accessible to little pigs but inaccessible to the sow, a flat rear wall, a pair of side walls

diverging from the ends of said rear wall at right angles to each other, a bottom wall interconnecting the bottom edges of said side and rear walls, a first front wall upstanding from the front edge of said bottom wall to form a feed trough therein, a second front wall between said side walls and extending on an incline toward said rear



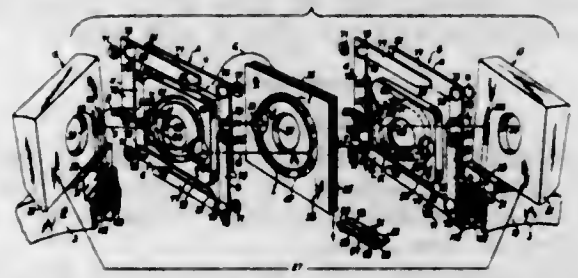
wall from the top edge of said side walls to a line above said bottom wall and forwardly of said rear wall to form with said side and rear a wall hopper having an opening at the lower end thereof, the first front wall and the front edges of said side, second front wall and bottom wall being positioned in the same vertical plane.

2,834,321
BALL-TYPE WRITING TIP
George Dusfrene, Stepney, Conn.
Application November 9, 1954, Serial No. 467,755
3 Claims. (Cl. 120—42.4)



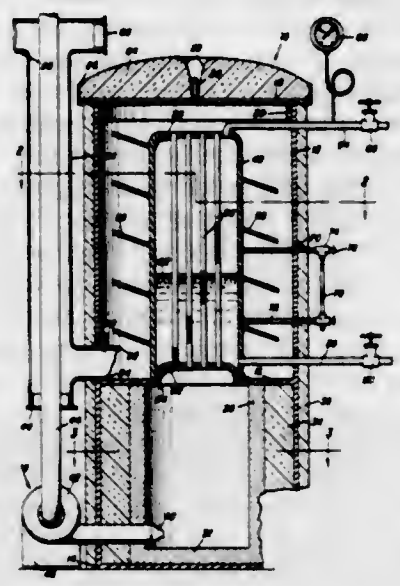
1. A writing tip for a ball-type pen comprising an ink applicator ball, a cylindrical tube having a sheet metal side wall and having integral with said side wall a sheet metal end wall doubling back on said side wall and extending into the tube, said end wall being so formed as to provide a semispherical socket having a radius to receive the applicator ball, said socket-forming end wall having an ink feed hole extending from the interior of the tube to said socket, the end of said side wall and the adjacent portion of the end wall extending inwardly to embrace and retain the ball in the socket, portions of the side wall of the tube extending radially inwardly and into engagement with portions of the socket-forming end wall to reenforce the latter against distortion when force is applied to the ball in the direction of the axis of the tube.

2,834,322
ROTARY ENGINE, PISTONS AND SEALING MEANS THEREFOR
George E. Mallinckrodt, St. Louis, Mo.
Application January 25, 1957, Serial No. 636,416
17 Claims. (Cl. 121—49)



1. In a rotary piston engine, a frame having an annular cylinder and at least one fluid inlet and at least one fluid outlet, a pair of rotors, pistons on each rotor interdigitating in the cylinder, annularly disposed and radially movable sealing means contained in each piston, a fluid off-take passage in each piston forming a connection with said fluid outlet, said off-take passage in each piston relative to piston movement being located behind said sealing means, whereby any leakage of gas past said sealing means may pass through said off-take passage to said fluid outlet, a fluid inlet passage in each piston forming a connection with said fluid inlet and adapted to deliver hydraulic pressurizing fluid within the radially movable sealing means to bias said sealing means against the cylinder wall, any radial leakage of said hydraulic pressurizing fluid past the sealing means also passing through said off-take passage to said fluid outlet, said piston having hydraulic coolant circulating passages disposed therein adapted to prevent commingling of said coolant with said hydraulic pressurizing fluid within the piston, said coolant circulating passages having connections with said fluid inlet and outlet respectively.

2,834,323
STEAM BOILER CONSTRUCTION
Arthur A. Radford, Woodstock, Ontario, Canada
Application July 27, 1955, Serial No. 524,699
3 Claims. (Cl. 122—114)



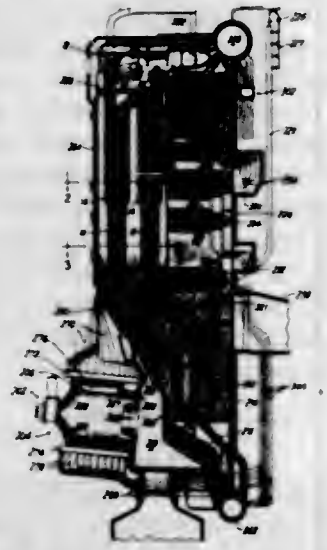
1. In a steam boiler, a firepot, a vertically disposed boiler shell disposed above the firepot, inlet and outlet conduits in communication with said shell, a plurality of tubes extending through said boiler shell for permitting passage of hot gases therethrough, a jacket enclosing said shell in spaced relation thereto, an exhaust stack extending from the bottom of said jacket, a plurality of fins between the shell and jacket for slowing the flow of hot gases therebetween, and means for supplying a combustible mixture to the firepot, said fins being rigidly secured to the boiler shell in high heat transfer relationship, said means for supplying a combustible mixture including an elongated air intake pipe, said exhaust stack being elongated and surrounding said intake pipe thereby preheating the intake air for reducing the temperature of the exhaust gases and increasing the efficiency of the boiler, said jacket having an inwardly extending flange engaging the top of the firepot and the lower periphery of the shell, the upper end of the jacket being spaced from the upper end of the shell and being removable for inspection and cleaning of the tubes and surfaces of the shell, jacket and fins, said fins being annular plates attached to the shell in inclined relation, each of said fins having a plurality of apertures therein and an outer edge spaced from the jacket for permitting tortuous passage of hot gases from the upper end of the tubes downwardly to the exhaust stack.

2,834,324

VAPOR GENERATOR WITH HIGH TEMPERATURE PENDENT SUPERHEATER PLATENS

Glen J. Schoessow, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application February 12, 1953, Serial No. 336,525
11 Claims. (Cl. 122—476)



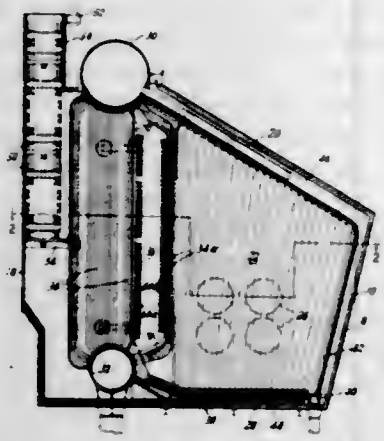
4. In a fluid heater having a vertically extending heating gas pass, a pair of headers, a vertically arranged bank of vapor heating tubes in said heating gas pass and comprising a plurality of horizontally spaced tube platens arranged in vertical planes, each of said tube platens comprising at least one return bend vapor heating tube having vertically arranged horizontally spaced tube legs, said return bend tube being connected at its opposite ends to said headers, a fluid cooled platen spacer tube connected at its opposite ends to said headers and having a substantially horizontal tube leg portion extending through said platens at a position intermediate the upper and lower ends of said platens, means for pendently supporting the weight of said headers and tubes to permit relative vertical movement of said platens and spacer tube, and platen spacer means including metallic members secured at spaced positions along the length of said horizontal tube leg portion and disposed on opposite sides of and adjacent said platen tube legs to maintain said platens in their spaced relation, while permitting vertical movement of said platens.

2,834,325

VAPOR GENERATING AND SUPERHEATING UNIT

John J. Banker, Cranford, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 16, 1953, Serial No. 368,326
4 Claims. (Cl. 122—478)



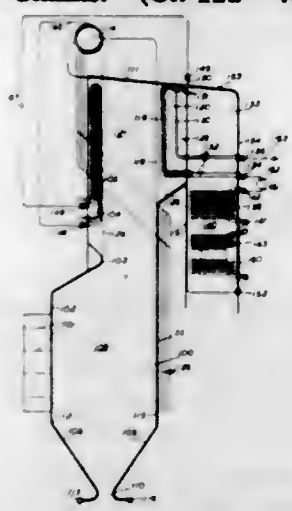
1. A vapor generating and superheating unit comprising an upper horizontally extending vapor and liquid drum, a lower horizontally extending liquid drum, a bank of vapor generating tubes connecting said drums, walls defining a furnace chamber arranged along one side of said tube bank, fuel burning means for said furnace chamber, a heating gas outlet at the opposite side of said tube bank, a vertically extending bank of U-shaped vapor superheating tubes horizontally arranged in the space alongside said tube bank and having the legs of the tubes laterally spaced a distance apart to form a manway therebetween, a pair of vertically extending headers at one end of said unit externally of said walls and one header laterally spaced from the other a distance slightly greater than the spacing of said tube legs, said superheating tubes having their opposite ends connected to said headers, a manway door in the wall between said headers permitting access by a man to said manway, a pair of laterally spaced heavy tube wall vapor generating tubes at opposite sides of the vapor superheating tube bank, and superheater support means on each of said last named tubes including a series of superheater tube-supporting fingers of sufficient size to permit lateral and longitudinal sliding movement of the superheater tubes supported thereon.

2,834,326

VAPOR GENERATING AND SUPERHEATING UNIT, AND METHOD EFFECTED THEREBY

Willem F. C. Schaap, London, England, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application August 26, 1952, Serial No. 306,329
13 Claims. (Cl. 122—481)



2. In a vertically elongated vapor generating and superheating unit, means including vapor generating wall tubes defining a combustion chamber, fuel burning means at the lower part of the combustion chamber providing the combustion chamber with high temperature combustion products, means providing a gas outlet at the upper part of the combustion chamber, a wall construction having its upper part presenting a recess or pocket opening at one side toward the main flow of combustion products from the fuel burning means to said outlet, radiant superheater tubes associated as tubular platens dividing said recess into a plurality of sub-pockets opening at said one side toward the main flow of combustion products to said outlet, some of the vapor generating tubes having parts arranged in close formation and in wall alignment to constitute a tubular wall of each of the sub-pockets at the side opposite said one side of said pocket.

2,834,327

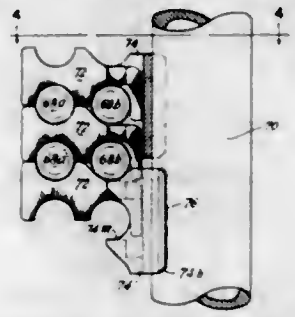
CANTILEVER SUPERHEATER TUBE SUPPORT

John J. Banker, Cranford, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application August 19, 1953, Serial No. 375,237
8 Claims. (Cl. 122—510)

1. In a vapor generating and superheating unit having a fluid circulation system and a heating gas pass, a vertical

bank of return bend horizontally arranged vapor superheating tubes disposed in said heating gas pass, a vertically extending support tube arranged alongside and laterally spaced from said tube bank and connected into said fluid circulation system, a plurality of superheater tube supports each comprising a bracket and a cantilever member, each bracket being mounted on said support tube at vertically spaced positions along the length thereof and having at least one socket and one tube positioning recess, each cantilever member being releasably engaged at one end in



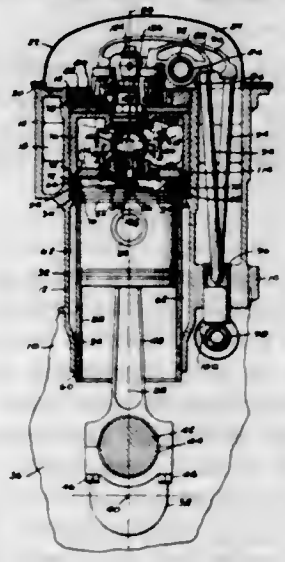
said socket and arranged between vertically adjacent superheater tubes, each cantilever member being formed with a plurality of recesses arranged to receive said superheater tubes and cooperate with said bracket and vertically adjacent superheater tube supports to restrain lateral and vertical movements of the superheater tubes while permitting longitudinal movement thereof, said bracket tube positioning recess and one of said cantilever member recesses cooperating to form a seat to support one of said superheater tubes.

2,834,328

INTERNAL COMBUSTION ENGINE

Julius E. Witzky, Royal Oak, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Application January 27, 1954, Serial No. 406,415
17 Claims. (Cl. 123—32)



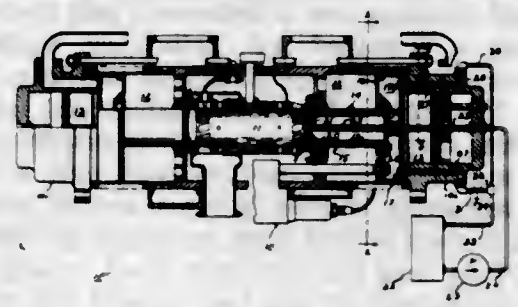
1. In combination, an engine cylinder, a piston movable therein, a fixed cylinder head structure coaxial with the cylinder and piston and having a near end cooperating therewith to define a varying sized main combustion chamber depending on the position assumed by the movable piston, said head structure having a remote end for receiving an injector nozzle, a central opening in the near end of the head structure disposed so as to be coaxial with the nozzle, means providing a spherically formed pre-combustion chamber between the ends of the head structure and having diametrically opposed openings one in registry with the nozzle and the other in registry with the cylinder head opening, and a centrally passaged member received in said other of said registered openings and having a tubular upstanding part within and spaced from the walls of the spherical pre-combustion chamber at all points, said upstanding tubular part of the centrally passaged member having a plurality of vertically spaced apart terraced surfaces one providing a sharp cornered mouth for the noted central passage, another of said terraced surfaces defining a sharp cornered marginal edge for a non-circular counter socket surrounding the mouth of the passage for receiving a complementary noncircular tool, the body of said centrally passaged member being externally threaded for threadably engaging the adjacent surface of said other of said registered openings.

2,834,329

FREE PISTON ENGINE

Carl F. Bachle, Grosse Pointe, and Earl R. Klinge, Harper Woods, Mich., assignors to Continental Aviation & Engineering Corporation, Detroit, Mich., a corporation of Virginia

Application September 28, 1956, Serial No. 612,617
8 Claims. (Cl. 123—41.35)



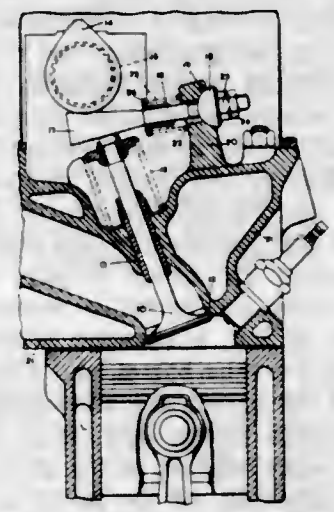
1. In an internal combustion engine of the free piston type and having a cylinder structure, a free piston reciprocating in said cylinder structure, a chamber in said piston, means connecting said chamber with a source of liquid supply, and means selectively operable to trap a desired amount of liquid in said chamber whereby to change the mass of said piston and alter the reciprocating cycle frequency thereof.

2,834,330

INTERNAL COMBUSTION ENGINES

John H. Weaving, Copt Heath, Knowle, England, assignor to The Austin Motor Company Limited, Birmingham, England

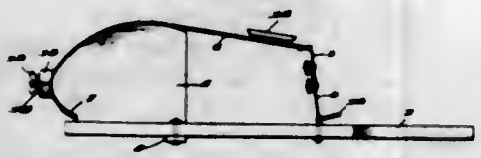
Application June 19, 1957, Serial No. 666,649
3 Claims. (Cl. 123—90)



1. In an internal combustion engine of the overhead valve type in which the valves are operated by an overhead camshaft, means interposed between each valve stem and its operating cam for adjusting valve clearance, comprising a tapered tappet, means for pivotally mounting the tappet for pivotal movement in a plane containing the axis of the valve and coincident with the plane of rotation of the cam, comprising a stationary bracket having an enlarged opening through which the free end of the tappet extends, a spherical bearing surface formed on

one side of the bracket, a spherical bearing member carried by the free end of the tappet and cooperating with said bearing surface, resilient means for maintaining said bearing member in bearing contact with said bearing surface, and means for longitudinally adjusting said tappet.

2,834,331
FOOT TARGET THROWER
James Campbell Cowie, Liverpool, Nova Scotia, Canada
Application November 21, 1955, Serial No. 548,291
1 Claim. (Cl. 124—7)



A target thrower comprising a base member, a resilient throwing arm, a form means attached to said base about which said throwing arm is deformed, said throwing arm comprising a U-shaped rod, cylindrical holder means attached to the lower front portion of said form for holding the free ends of said U-shaped rod, said form means being shaped such that said rod extends from said holding means forward and upwards and is then deformed rearwards, rubber bumper means attached to the front portion of said form to absorb the shock from said throwing arm, and foot lever hook means pivotally attached to the rear of said base to hold and release the rearmost portion of said throwing arm, said foot lever hook means being adjustable in length to control the amount of deformation of said throwing arm.

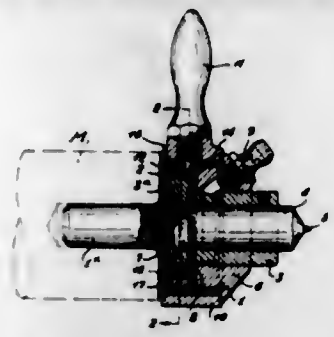
2,834,332
TOY GUN
John M. Guthrie, Pomona, Calif.
Application July 18, 1955, Serial No. 522,649
11 Claims. (Cl. 124—13)



1. A gun comprising an elongate barrel formed of non-magnetic material having a breech end, a muzzle end and an open passage extending longitudinally therethrough, a breech member having a cylindrical cavity formed therein, said cavity being open at one end thereof to the outside surface of the breech member, the barrel being slidable in the breech end portion thereof axially in the cavity, the barrel having at least a longitudinal length of its breech end portion conforming in cross section in the outside surface thereof substantially to the cross section of the cavity so that the barrel slides snugly in the cavity to cause air within the cavity to pass out through the barrel passage when the barrel is moved in a direction inwardly in the cavity, a plunger formed of magnetic material integral with the barrel, and a coil in the breech member around the barrel, the coil being connectable to a source of electric power and being arranged in the breech member with relation to the plunger to cause the barrel to move inwardly of the cavity as a result of the plunger being pulled in a direction toward a position of minimum reluctance in the coil when the coil is electrically energized.

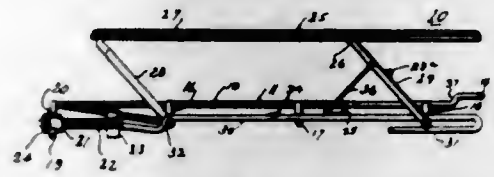
2,834,333
TURNING DEVICE FOR DIAMOND TOOL
Joe Loecy, Jr., Chardon, Ohio
Application March 28, 1955, Serial No. 497,227
2 Claims. (Cl. 125—39)

1. In a device of the class described, the combination of an interiorly cylindrical housing having a central base portion, an oscillatable annular transfer ring co-axially arranged within said housing with respect to the longitudinal axis thereof, a tool holder rotatably and co-axially mounted within said ring and having a recess at the rear end thereof, means of one-way clutch connection between said transfer ring and said tool holder for effecting one-way rotary movement of said tool holder, a spring disk having frictional engagement between said central base portion of said housing and the recessed rear end of



said tool holder for holding said tool holder in position to which adjusted, a cover ring surrounding and oscillatable about said housing, a removable handle extending radially outwardly from said cover ring for manipulation thereof and having an inward projection therethrough, the wall of said housing having an arcuate aperture through which said projection extends, and said transfer ring having a recess to receive the inner end of said projection for operative engagement therewith for manipulation of said one-way clutch means.

2,834,334
OVEN RACK WITH RAISABLE SHELF PORTION
William Bill, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application July 30, 1956, Serial No. 600,799
2 Claims. (Cl. 126—41)

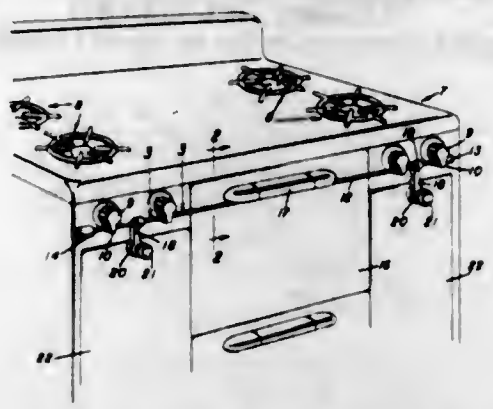


1. In an oven rack having a rectangular base framework including a plurality of transversely extending structural members and a shelf structure having linkage means pivotally attached to said framework for elevating said shelf in parallel relation to said base framework; the combination of an elongated U-shaped guide member slidably supported by said transversely extending structural members, said guide member being of rod-like material and at its closed end being bent back on itself about one of said transverse members to provide upper and lower portions of said guide member in spaced mutually parallel relation with said transverse member confined therebetween, a rigid actuating member pivotally connecting said guide member and said linkage means to rotate the latter according to the direction of movement of said guide member relative to said base framework, a screw rotatably mounted relative to said base framework and extending longitudinally of said guide member, a nut on said screw, said nut having apertures in diametrically opposite sides thereof, the free ends of said guide member being angularly offset to enter the respective apertures to mechanically connect said nut and said guide member, the said free ends being of less diameter than the diameter of said nut apertures whereby said nut is permitted a limited rotation relative thereto, and means for rotating said screw to effect displacement of said nut and said guide member relative to said base framework and said linkage means.

2,834,335
GAS STOVE SAFETY DEVICE

Antonio Rondello, East Northport, N. Y.

Application July 12, 1956, Serial No. 597,434
6 Claims. (Cl. 126—42)

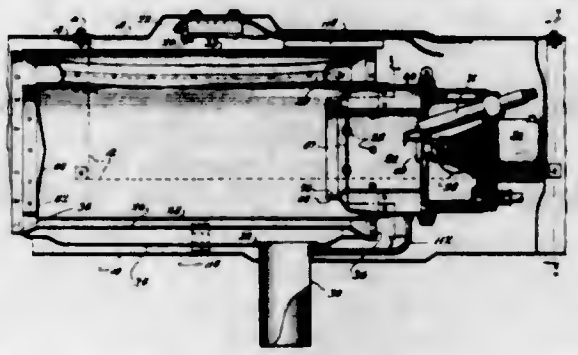


1. A gas stove comprising a plurality of burner valve operating knobs having openings therein which are aligned when the valves are in closed position, said stove further comprising a plurality of hinged doors and handles on said doors, a removable rod slidably mounted in the aligned openings in said valve knobs for securing the valves in closed position, and bars engaged with the rod and mounted on the door handles for securing the doors in closed position.

2,834,336
VEHICLE COMBUSTION HEATER

Frank A. Ryder, Vernon N. Tramontini, and John F. Wein, Indianapolis, Ind., assignors to Stewart-Warner Corporation, Indianapolis, Ind., a corporation of Virginia

Application September 2, 1955, Serial No. 532,299
6 Claims. (Cl. 126—116)

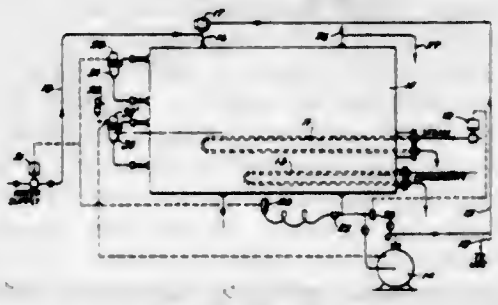


1. In a relatively small, compact vehicle heater of the sealed combustion type, means forming three nested generally cylindrical sheet metal shells with the second of said shells being located within the first, and the third being located within the second in closely spaced relation thereto, a flanged end cap closing one end of said third shell, a burner secured in and closing the other end of said third shell, said second shell being expanded at its ends to fit said first shell and being welded thereto, said third shell having a single longitudinally extending slot therein having a length less than the length of said third shell, the metal of said third shell surrounding said slot being shaped outwardly to form a peripheral outstanding rib surrounding said slot, said second shell having a single longitudinally extending slot formed therein with the metal surrounding the last said slot being shaped inwardly to form a peripheral rib surrounding the last said slot, said peripheral ribs being telescoped a distance not greater than the spacing distance between said third and second shells opposite said slots and joined together by resistance welding such that said welded-together ribs serve to support said third shell, said burner, and said flanged end cap from said second shell, whereas said second shell is supported at its ends from said first shell and said joined slots form a single passage connecting the interior of said third shell to the space between said first and second shells, said first shell having an exhaust outlet opening formed therein on the side opposite said passage, a sheet metal air case surrounding said first shell and spaced therefrom to form a generally annular passage between said first shell and said air case, means supporting said first shell from said case, and an exhaust fitting secured to said first shell around said exhaust outlet opening, said fitting extending through an opening in said air case.

2,834,337
WATER HEATING SYSTEM

Robert F. Schaub, Chicago, Ill., assignor to Fred H. Schaub Engineering Co., Inc., Chicago, Ill., a corporation of Illinois

Application September 7, 1954, Serial No. 454,506
2 Claims. (Cl. 126—362)

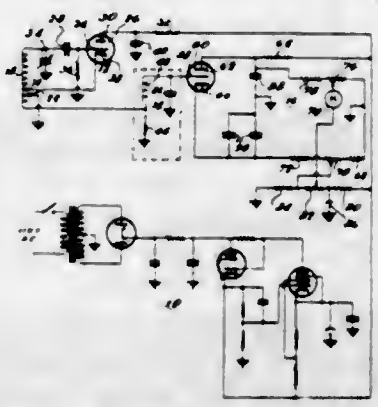


1. A water heating system comprising a tank adapted to contain hot water, heating means to heat water in the tank at a substantially constant rate, an external circulating system having an outlet connection from the tank and a return connection to the tank and from which hot water is taken for use, a pump to cause a substantially constant circulation of water through the external system, said pump having a capacity at least as great as the maximum demand for hot water, a connection to the tank to supply cold water thereto, a control valve in the last named connection, and control means responsive to the temperature of the water withdrawn from the tank to open the valve when the temperature exceeds a predetermined maximum and close the valve when the temperature is below a predetermined minimum.

2,834,338
DEVICE FOR MEASURING BLOOD DENSITY IN TISSUE

James E. Carson, Denver, Colo., assignor, by mesne assignments, to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania

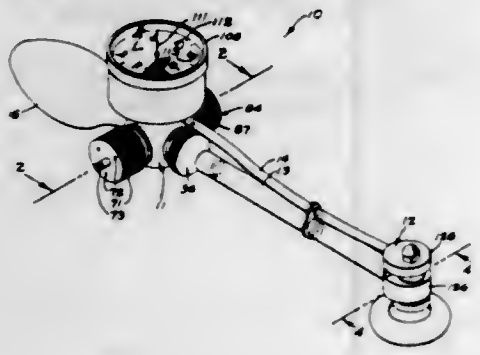
Application November 16, 1954, Serial No. 469,140
6 Claims. (Cl. 128—2)



2. A device for measuring the amount of blood in a given quantity of tissue comprising a circuit including a coil and a capacitor having a pair of spaced plates lying in a single plane, an electrically insulating envelope

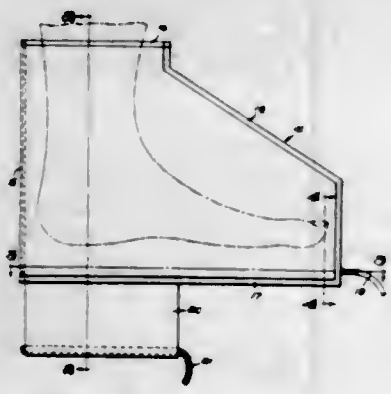
disposed about the plates, and means connected to the circuit to measure the Q of the circuit, whereby the amount of blood in a given quantity of tissue may be determined by pressing the tissue against the insulating envelope adjacent to the capacitor and measuring the Q of the circuit.

2,834,339
POSITIVE PRESSURE BREATHING APPARATUS
Vivian Ray Bennett, Beverly Hills, Calif., and Rollen E. Brown, Denver, Colo., assignors to Bennett Respiration Products, Inc., a corporation of California
Application December 14, 1955, Serial No. 553,009
6 Claims. (Cl. 128—29)



1. Positive pressure breathing apparatus comprising a manually supportable bulb compressible to expel air therefrom, a housing connected to the bulb for support therefrom and having a chamber communicating with the interior of the bulb, said housing having inlet and outlet ports communicating with said chamber, check valves associated with said ports, a flexible delivery tube secured to the housing with its bore communicating with said outlet port, a face mask secured to the delivery tube with the interior of the tube in communication with the bore of the tube, means defining an exhalation port adjacent said mask and in communication with the interior of the same, valve means operatively associated with said exhalation port, and means operative in response to fluctuation of pressure within said chamber for controlling said valve.

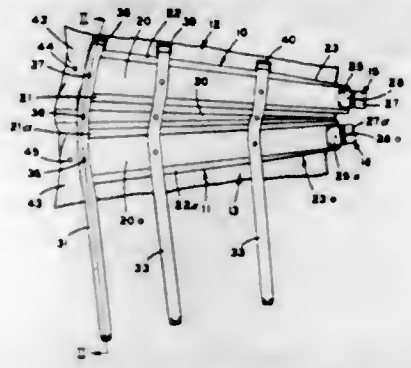
2,834,340
INFLATABLE TRACTION DEVICE
Carl W. Walter, Holliston, Mass.
Application March 9, 1954, Serial No. 415,060
7 Claims. (Cl. 128—84)



1. An article-holding device comprising a flexible collapsible double-walled envelope shaped and proportioned to fit about the article and having an opening through which it may be introduced, said envelope formed of flexible sheets opposed and sealed together at their margins, communicating tube means sealed through said sheets and for inflating the envelope, and means on said sheets adapting the envelope for coupling to a traction device.

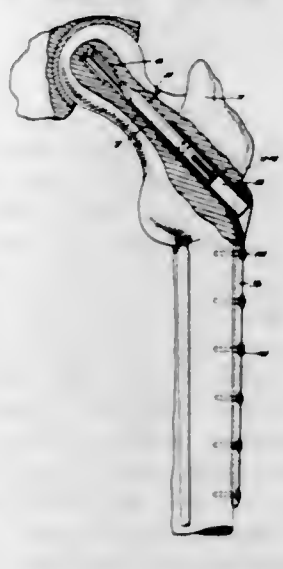
2,834,341
SPLINT
Homer H. Stryker, Kalamazoo, Mich., assignor to Orthopedic Frame Company, Kalamazoo, Mich., a corporation of Michigan
Application September 20, 1955, Serial No. 535,399
9 Claims. (Cl. 128—87)

1. A splint construction for an injured bodily member,



including in combination: a pair of similar rigid, substantially channel-shaped frame members; deformable compressors, positioned on the interior surface of said frame members and extending beyond the lateral edges thereof, said compressors including a casing and material within said casing resisting deformation thereof with a force which is substantially uniform, said compressors overlapping the edges of said frame members; a web connecting a pair of adjacent compressors each of said adjacent compressors being located respectively on one of said frame members, said web thereby providing an operative connection between a pair of adjacent edges of said frame members so that said frame members may be moved relative to each other into engagement with different portions of the injured member; and means secured to said frame members for securing said frame members and compressors about the injured member.

2,834,342
SURGICAL DEVICE FOR THE FIXATION OF FRACTURED BONES
Clyde E. Yost, Evansville, Ind.
Application August 29, 1956, Serial No. 606,838
3 Claims. (Cl. 128—92)



1. In a device of the class described for the fixation of fractured bones, in combination, guide means adapted to be fixedly mounted on the fractured bone, said guide means including a sleeve, a pin slidably disposed within the sleeve, said pin adapted to be held in place by the sleeve and to extend through the fractured bone, and means for adjusting the frictional engagement between the sleeve and pin, said means including slots in one end of the pin and a tapered screw fitting in the end of the pin.

2,834,343
COMBINATION MASK AND SUIT REGULATORS

John W. Keckler and Walter O. Wilkening, Bryan, Ohio, assignors to The Aro Corporation, Bryan, Ohio, a corporation of Ohio

Application March 30, 1955, Serial No. 498,025
12 Claims. (Cl. 128—142)

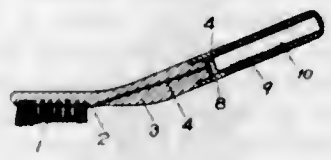


1. In combination mask and suit regulators for a diluter demand oxygen regulator having a first-stage chamber and a demand diaphragm, a suit regulator comprising a housing having a suit regulator chamber communicating with a suit for pressurizing the suit, a suit valve seat between said first-stage chamber and said suit regulator chamber, an exhaust valve seat between said suit regulator chamber and atmosphere, a suit valve disc and an exhaust valve disc connected together for simultaneous movement, a diaphragm carrying said exhaust valve seat, altitude responsive means for closing said exhaust valve seat against said exhaust valve disc upon increase in altitude to a predetermined degree and thereupon moving both discs for immediately opening said suit valve upon further increase above said degree, said diaphragm forming one wall of said suit regulator chamber and thereby responsive on one side thereof to the pressure therein and in the suit, and responsive on the other side thereof to atmosphere, spring means for acting on said diaphragm to bias said exhaust valve seat toward said exhaust valve disc, manually operable means to apply and increase the force of said spring means to close said exhaust valve and open said suit valve, a mask regulator comprising a housing having a first chamber communicating with said demand diaphragm to pressurize the same, a pressure breather valve seat between said first-stage chamber and said first chamber, said demand diaphragm having a leak opening therein from said first chamber to the demand diaphragm chamber, a first diaphragm responsive on one side to pressure from said first chamber, said diaphragm being responsive on the other side thereof to atmospheric pressure, a pressure breather valve disc normally seated on said pressure breather valve disc seat and operatively connected with said first diaphragm to be spaced thereby from said pressure breather valve seat upon response of said first diaphragm to predetermined differential of pressures between that in said first chamber and to atmospheric pressure, a second diaphragm responsive on one side to atmospheric pressure and on its other side to pressure from said suit regulator chamber, said second diaphragm opposing said first diaphragm to unseat said pressure breather valve disc from said pressure breather valve seat and to regulate the action thereof on said pressure breather valve disc proportional to altitude, and adjustable spring means acting on said first and second diaphragms and tending to open said pressure breather valve.

2,834,344
DEVICE FOR PENETRATING TEETH WITH FLUORIDE

Masakuni Kanai, Ichikawa, Japan, assignor of one-half to Lion Brush K. K., Tokyo, Japan

Application July 20, 1955, Serial No. 523,338
Claims priority, application Japan July 22, 1954
1 Claim. (Cl. 128—172.1)

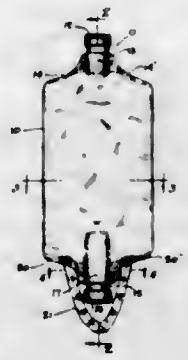


A tooth brush comprising an elongated bristle carrying and handle portion made of electrically non-conductive material, said handle portion having an elongated hollow free end located distant from said bristle carrying portion thereof, an electrically conductive plate carried by said bristle carrying portion, a plurality of bristles carried by said bristle carrying portion and engaging said plate so that an electrically conductive liquid carried by the bristle will communicate electrically with said plate, an electrical lead extending from said plate through said handle portion to said hollow end thereof, a battery in said hollow end of said handle portion having one pole connected electrically with said lead, and an electrically conductive member covering said hollow end of said handle portion, adapted to be engaged by the hand of the user, closing said hollow end of said handle portion and electrically connected with the other pole of said battery.

2,834 345
FLEXIBLE CONTAINER WITH INTEGRAL SAMPLE TUBE

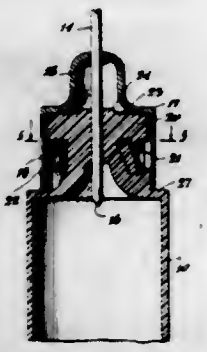
Donna S. Tabbert, Waukegan, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

Application November 3, 1954, Serial No. 466,498
4 Claims. (Cl. 128—214)



1. A container for receiving, storing, and dispensing fluids comprising in combination: a flexible walled body section of chemically inert and physically non-porous plastic, said body section having a filling end and a bottom end providing a fluid impervious container for receiving, storing, and dispensing fluids; at least one of said ends of the said body section having integrally affixed therewith a plastic small diameter fluid retaining chamber forming an impervious non-frangible compartment which extends inwardly into the interior of the said body section and outwardly therefrom; said chamber having its outer end closed by a penetrable closure member; thereby providing a small volume fluid compartment which is integral with the said body section and protected thereby.

2,834,346
SYRINGE AND HUB LOCKING ASSEMBLY
John Q. Adams, Newark, N. J., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey
Application June 6, 1955, Serial No. 513,482
7 Claims. (Cl. 128—218)



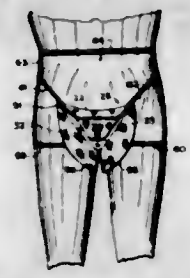
1. A hypodermic syringe assembly including in combination a barrel, a tip at the end of said barrel, a hollow needle having piercing ends, a cup-shaped hub secured to said needle at a point intermediate its ends, an enlarged head portion defining the end of said tip, the side face of said tip presenting a receiving recess intermediate said head and barrel, a pawl carried by said hub and extending into said recess to lock said hub and needle against removal from said tip, said hub encircling said tip and having its edge in engagement with the outer surface of said barrel and one of the needle ends extending through said tip into communication with the interior of the barrel, at least certain recited parts of said assembly being formed of compressible material whereby that material will be placed under compression as said hub is telescoped over said tip, whereby to cause said hub to be urged outwardly and force an edge of said pawl into contact with an end surface of said receiving recess.

2,834,347
DISPOSABLE DIAPER
Adrian Connally, Madison, Wis.
Application July 6, 1956, Serial No. 596,225
3 Claims. (Cl. 128—284)



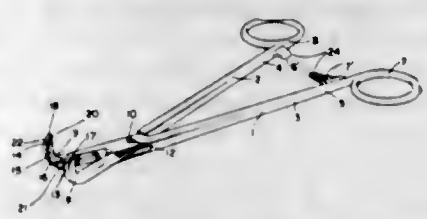
1. An article of manufacture, a disposable diaper made from a folded structure, said structure embodying an outer sheet of water-repellant material and an inner sheet of water-absorbent material conformably shaped to fit said outer sheet and superimposed upon said outer sheet, each of the side edges of said assembled sheets having medially thereof an inwardly extending arcuate cut-out with the portions of the side edges of the assembled sheets between each of the ends of the sheets and the adjacent cut-out extending in diverging directions to the ends of said sheets, said assembled sheets being folded so that the diverging portions of the side edges of the sheets on one side of the cut-outs are in mating relation with the diverging portions of the side edges of the sheets on the other side of the cut-outs, said mating portions being adhesively bound together, and a tear string positioned between and extending longitudinally along each of the adhesively bound mating portions and having opposed free end parts projecting from each of the adhesively bound mating portions.

2,834,348
PANTY
Egidio Tucci, Seaford, N. Y.
Application March 30, 1956, Serial No. 575,092
3 Claims. (Cl. 128—288)



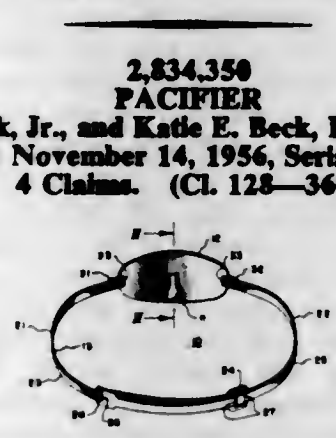
1. An underwear garment, comprising a first elongated fabric panel having inwardly curved sides, a portion of said panel having a substantially V-shaped opening extending transversely therein, a suspensory bag member of similar shape secured to a section of said portion to define a scrotal support, a cod piece member covering said scrotal support and secured to said portion, and a plurality of strap members secured to the corners of said panel.

2,834,349
FASCIA CUTTER AND CARRIER
Henry A. Springer, Cincinnati, Ohio
Application February 25, 1957, Serial No. 642,095
3 Claims. (Cl. 128—305)



3. A surgical instrument comprising a pair of pivoted legs each having a manually operative handle on an end, a pair of jaws on the other ends of said legs and being bent at an angle to the main body of each of said legs, the outer ends of each of said jaws having a sharp outer elongated edge capable of keen cutting.

2,834,350
PACIFIER
George Beck, Jr., and Katie E. Beck, El Cajon, Calif.
Application November 14, 1956, Serial No. 622,168
4 Claims. (Cl. 128—360)

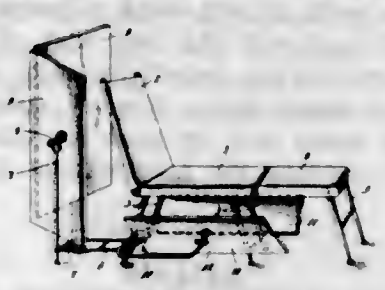


1. An infant's pacifier comprising a nipple, a guard, said nipple being located generally centrally of said guard and projecting rearwardly therefrom, and securing means connected to said guard for holding the pacifier in position on an infant's head, said securing means comprising a plurality of lengths of strap having adjustable interconnection therebetween to permit variation in the size of the head opening defined by said securing means.

2,834,351
SUN-TANNING CHAIR
Edwin H. Garson, New York, N. Y.
Application January 5, 1954, Serial No. 402,345
1 Claim. (Cl. 128—377)

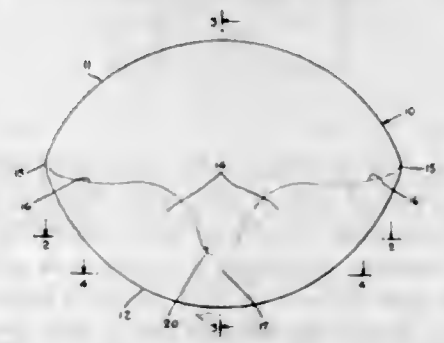
A sun-tanning chair including a seat and a back both made of material which is transparent to ultra-violet rays

and having legs which are slender as compared to their lengths for supporting the seat, a plurality of ultra-violet ray reflectors for the back of the chair, an ultra-violet ray reflector for each side of the seat of the chair, and a mounting assembly connected to the chair legs and



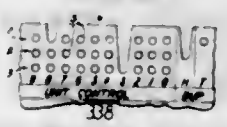
mounting the respective reflectors each by means of an adjustable means permitting adjustment of the angularities of the reflectors relative to the chair so as to reflect rays from an ultra-violet ray source above the chair through the seat and back thereof.

2,834,352
BRASSIERE PADS
Murry Ullian, Merrick, N. Y.
Application May 16, 1956, Serial No. 585,282
3 Claims. (Cl. 128—481)



1. A brassiere pad of the character described, comprising a cup-like body of soft yieldable material, said body having a rounded upper peripheral edge and a rounded lower peripheral edge, the lower portion of the cup body being of greater thickness than the upper portion to form an enlarged lift portion, said lift portion including a pair of spaced rounded lift members disposed at side portions of the body, said members having curved receding portions extending to the lower peripheral edge of said body, and said receding portions, intermediate the members, uniting in a central relatively thick supplemental lift materially less in thickness than and bridging said members.

2,834,353
MARGINALLY PUNCHED AND NOTCHED SORTING CARDS
Albert A. Rembold, San Francisco, Calif.
Application July 6, 1954, Serial No. 441,314
2 Claims. (Cl. 129—16.1)



2. Selective sorting cards for direct sorting of combinations of different symbols representing different titles, each card having at least three rows of openings formed therein along and parallel with one edge of said cards disposed in an undivided field, the openings in said rows being in alignment perpendicular to said edge thus defining files each having the same number of openings as there are rows thereof, a series of different symbols on each card identifying said files in a predetermined order from one of the corresponding ends of said rows to the other with one symbol for each file, each card having a title thereon formed from a group of symbols occurring in said series arranged in a predetermined order, the opening nearest said edge in the file identified by a first predetermined symbol in the title on each card being slotted out to said edge, the second opening from said edge in the file identified by a second predetermined symbol in the title on each card being slotted out to said edge and the third opening from said edge in the file identified by a third predetermined symbol in the title on each card being slotted out to said edge, said first, second and third predetermined symbols being in a predetermined order in each title and being independent of each other in each title, the cards in which said first predetermined symbol is duplicated and the remaining predetermined symbol is different being slotted out to said edge to openings in only two of said files in said field, and the cards in which said first, second, and third predetermined symbols in the title are the same having only one slot in said field and which slot extends to the opening in the third row from said edge in the file identified by said first, second and third predetermined symbols, a second field and a third field on each card, said second field and said third having openings formed therein in alignment with the row in said undivided field that is nearest to said edge and said second field having an opening formed therein in alignment with the second row from said edge in said undivided field, aligned perpendicular to said edge with respect to the other opening in said second field, said cards in which the duplication of said predetermined symbols occurs in said first and second predetermined symbols only, being slotted out to said edge from the opening in said third field, and the cards in which said duplication is in said first and third predetermined symbols only, being slotted out to said edge from the opening in said second field that is nearest to said edge, and the cards in which said duplication of symbols is in said second and third predetermined symbols only, being slotted out to said edge from the opening in said second field that is aligned with the second row of openings from said edge, and the cards in which said first, second and third predetermined symbols are the same being slotted out to said edge from the opening in said third field and from the opening in said second field that is aligned with the openings in said second row.

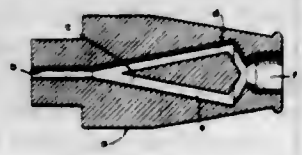
2,834,354
FILTERING MATERIAL FOR TOBACCO SMOKE
Elias Rosenberg, Paris, France
No Drawing. Application March 23, 1956
Serial No. 573,558
Claims priority, application France March 25, 1955
5 Claims. (Cl. 131—208)

1. Filtering material of the class used to filter tobacco smoke, comprising a support permeable to gases, and slightly polymerized furfural fixed on said support so that the said material can retain tars and heavy hydrocarbons carried by the tobacco smoke, but permit the passage of light hydrocarbons which constitute a substantial part of the aroma of tobacco smoke.

2,834,355
MOUTHPIECES
Irving J. Grantfest, Philadelphia, Pa.
Application January 14, 1954, Serial No. 403,957
2 Claims. (Cl. 131—216)

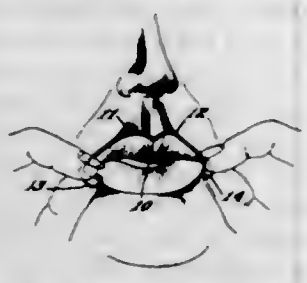
1. A mouthpiece for smoking pipes and cigarette and cigar holders consisting of a single unit having one end adapted for connectoin to a zone where tobacco is burned, having a second end containing a terminal chamber and being adapted for holding the said mouthpiece

in the mouth of the smoker, and having a plurality of passages converging and merging in one face of said



chamber at an obtuse angle to one another, and said chamber being open to the mouth of the smoker.

2,834,356
LIP LINER
Jessie I. Weller, Los Angeles, Calif.
Application July 12, 1955. Serial No. 521,607
1 Claim. (Cl. 132—88.7)



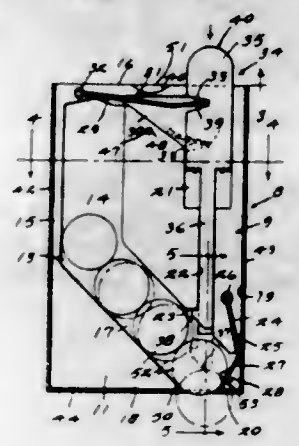
As a new article of manufacture, a lip liner patterned to correspond with the outline of a person's upper lip, said liner facilitating the application of lip rouge to lips of an individual whereby a substantially perfect lip line is readily obtained, said liner being made of wire-like material and shaped to include a V-shaped intermediate portion, said V-shaped portion terminating in arcuate upwardly extending sections which terminate in downwardly extending portions that are curved, knobs arranged contiguous to the lower ends of said last named portions, the longitudinal axes of said knobs being arranged in spaced parallel relation with respect to each other, said curved portions extending to the corners at the sides of the mouth, whereby a complete line is provided that extends from a corner of a mouth at one side of the center to a corner of the mouth at the opposite side, arms connecting said knobs to said curved portions, the longitudinal axes of the arms being arranged in spaced parallel relation with respect to each other, said arcuate sections, curved portions and arms being of substantially uniform cross-section, said knobs being flattened out and being of a size which is greater than the cross-section of the arcuate sections and curved portions, whereby a line is adapted to be formed by placing lip rouge on the inner surface of the liner and pressing the liner against the lip, and with a line representing the upper edge of the upper lip positioned on the upper lip, the upper rouged lip is rolled over the lower lip whereby the line is positioned on the lower lip and the surface between the lines and inner portion of the mouth is readily covered with lip rouge providing substantially perfectly formed lips.

2,834,357
COMB FOR THE HAIR
William L. Gould, Albany, N. Y.
Application April 3, 1956, Serial No. 575,751
2 Claims. (Cl. 132—109)



2. A comb for the hair comprising a back; a multiplicity of fine teeth and a multiplicity of coarse teeth projecting from said back; a flat piece of solid coloring material adapted to impart the color thereof to the hair when rubbed in contact therewith; a rigid plate overlying said coloring material; manually operable means securing said plate to the back of said comb with a portion of said coloring material clamped between said plate and a few of the coarse teeth of said comb adjacent one end only of said comb and with the free edge of said material adjacent the ends of the underlying teeth; all of the other teeth of said comb being free of coloring material; whereby said comb may be used for coloring the hair and also for combing the hair without imparting color thereto.

2,834,358
COIN DISPENSER AND PERMIT HOLDER
Harry J. Lorence, Cincinnati, Ohio
Application June 21, 1954, Serial No. 438,284
2 Claims. (Cl. 133—6)

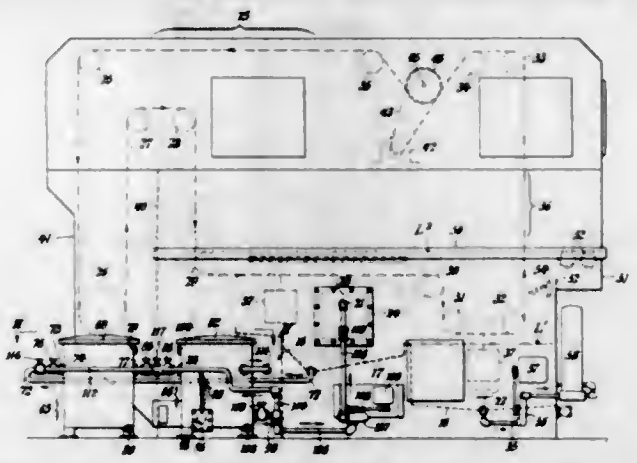


2. A device of the character described comprising a plate having a rear side, a rear wall secured against said rear side of the plate, said rear wall and plate combining to form a housing including a lower end and an upper end, a coin slot formed in said housing having an open end opening outwardly of the lower end thereof and a closed upper end, a plunger slidably mounted in and disposed longitudinally of the housing and having a lower end displaceable into the coin slot in alignment with the open end thereof for ejecting a coin therethrough, said coin slot including a lower portion disposed obliquely to the longitudinal axis of the plate and at an oblique angle to the direction of sliding movement of the plunger and terminating at its lower end in said open end of the slot, said plunger having an upper end projecting from the upper end of the housing when the plunger is in a retracted position, a plunger spring retained in said housing and engaging and urging the plunger to a retracted position, a coin retaining spring disposed in said housing including a free end extending into the coin slot adjacent the open end thereof and yieldable relative to the slot to permit the passage of coins in either direction through the open end of said coin slot, said rear side of the plate having a recess forming said coin slot, a recess for slidably receiving said plunger and recesses for receiving and anchoring opposite ends of said springs.

2,834,359
CLEANING APPARATUS
Thomas J. Kearney, Detroit, Mich., assignor to Detrex Chemical Industries, Inc., Detroit, Mich., a corporation of Michigan
Application August 4, 1954, Serial No. 447,780
3 Claims. (Cl. 134—74)

1. In apparatus for cleaning machine parts or the like by treatment with a chlorinated solvent such as trichlorethylene, perchlorethylene and the like, a horizontally elongate housing having serially arranged therein, an evaporation trough in which the solvent is boiled off, a catch tray with a spray means positioned thereover, and a wash trough containing solvent; an endless chain con-

veyer with spaced carriers for the parts to be cleaned; a system of guide wheels defining a circuit from a loading and unloading station at one end of the housing through the housing such that the carriers are passed over the evaporating trough for treatment with solvent vapor, then over the catch tray beneath the spray means for spray treatment, and then submerged in the wash trough; a separator tank with magnetic means therein; a circula-



tory piping for conducting spray liquid collected in the tray back to the spray pipe; valves interposed on the piping and selectively operable to determine passage of the spray solvent from the collecting tray through the settling and separator tanks in succession enroute from the tray to the spray means or through either the separator tank or the settling tank alone; and a pump also interposed in the piping to maintain the spray solvent in circulation.

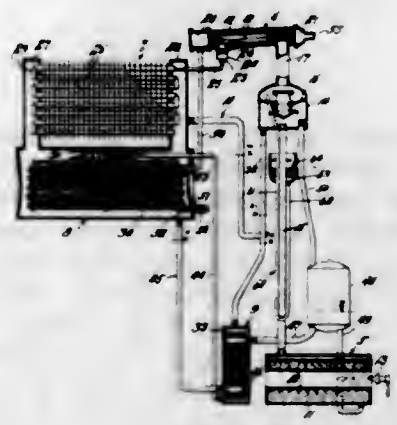
2,834,360

HEAT OPERATED APPARATUS

Edward M. Stubblefield, Cincinnati, Ohio, assignor, by mesne assignments, to Arkla Air Conditioning Corporation, a corporation of Delaware

Continuation of application Serial No. 296,875, July 2, 1952. This application April 23, 1956, Serial No. 580,132

2 Claims. (Cl. 137—72)



1. In a closed heat operated apparatus containing a working medium, a safety device for hermetically sealing the apparatus during inoperative periods and venting the apparatus at a predetermined pressure therein during operative periods comprising a trap connecting the interior of the apparatus to the ambient atmosphere, a material in said trap which is solid at atmospheric temperatures, and means for heating said trap above the melting temperature of said material during operation of the apparatus, said trap having an upright leg for producing a liquid column of the material of a height corresponding to the venting pressure.

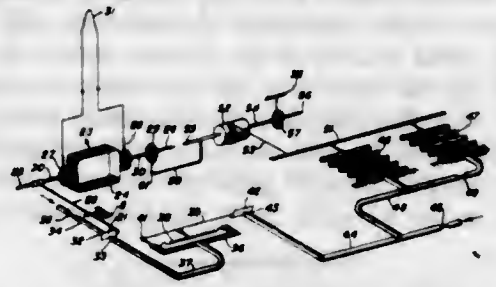
2,834,361

ELECTRO-PNEUMATIC SYSTEM WITH RATE-RESPONSIVE ACTION

Paul F. K. Erbguth, Great Neck, N. Y., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey

Application March 10, 1955, Serial No. 493,523

13 Claims. (Cl. 137—84)



13. An electro-pneumatic system comprising an electrical instrument having a rotatable pointer, a discharge nozzle and an axially-aligned receiving nozzle, means normally maintaining an air stream flowing from the discharge nozzle to the receiving nozzle, a lever on a shaft and movable by said pointer during operation, a vane movable by the lever to intercept more or less of the air stream, an air relay having a chamber closed by a diaphragm, a tube connecting said chamber to the receiving nozzle, means actuated upon movement of said diaphragm to correspondingly vary the pressure in an air line, a first bellows directly connected to the air line, a second bellows connected to the air line through a flow restrictor, a beam pivotally movable in accordance with the movement of both bellows, a second shaft coaxial with said lever shaft, resilient means positioning said lever and having one end connected to the lever shaft and the other end attached to said second shaft, an arm extending from said second shaft, an adjustable disc carried by said arm, and means carried by said beam for engaging said disc so as to move the vane in a sense to maintain it in a throttling position in the air stream.

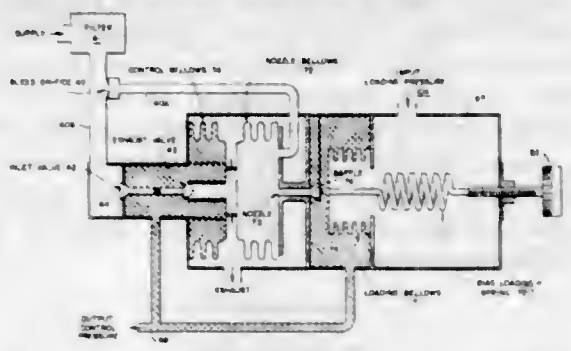
2,834,362

FLUID PRESSURE RELAY VALVE MEANS

Harvard H. Gorrie, Cleveland Heights, Jack F. Shannon, Euclid, and Michael Panich, Mayfield Heights, Ohio, assignors to Bailey Meter Company, a corporation of Delaware

Application January 4, 1954. Serial No. 402,124

5 Claims. (Cl. 137—85)



5. A fluid pressure relay of the biased type having a pair of pressure chambers with a common movable wall, one of the chambers receptive of a variable input loading pressure, the other chamber receptive of relay output control pressure, manually loadable spring means for the movable wall, whereby the said wall is positioned responsive to pressure differential of the two chambers and the bias loading spring means; a nozzle baffle positioned in the second chamber by the movable wall relative to a nozzle entrance to that chamber; a supply of commercially constant pressure fluid to the assembly; a third chamber having a movable wall, supplied with pressure fluid from said supply through a fixed bleed orifice and discharging through said nozzle at a flow rate regulated by

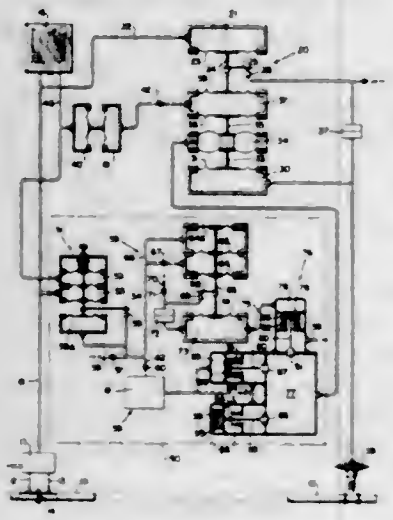
baffle position; a fourth chamber having a spring loaded movable wall also acted upon by the movable wall of the third chamber, the four chambers being aligned and the first and second chambers increase or decrease at the expense of each other and the third and fourth chambers increase or decrease at the expense of each other, and the said fluid pressure relay includes exteriorly adjustable inlet-exhaust valve seat spacing means, an inlet and exhaust valve assembly cooperating with a supply inlet in a fixed wall and an exhaust outlet in the movable wall in development of the relay output control pressure, and pipe means communicating the second and fourth chambers with an output control conduit, whereby the relay output control pressure is made linearly proportional to the variable input loading pressure.

2,834,363

SELF ADJUSTING CONTROL APPARATUS

David W. Pensen, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application October 8, 1954, Serial No. 461,131
8 Claims. (Cl. 137—85)



1. A self adjusting controller comprising, a controller apparatus for producing an output controlling action in accordance with the magnitude of an input variable, a single controller gain and reset adjusting means connected to said controller to regulate the response of the controller to changes in the magnitude of the input variable, a stability meter connected to said adjusting means, said stability meter comprising a chambered space, means connected to supply a fluid pressure to said space upon the presence of steady state deviation of the input variable, and means connected to bleed fluid pressure from said space when there is an oscillatory deviation of the input variable, and means connected to and responsive to the fluid pressure in said space and operable to adjust said adjusting means.

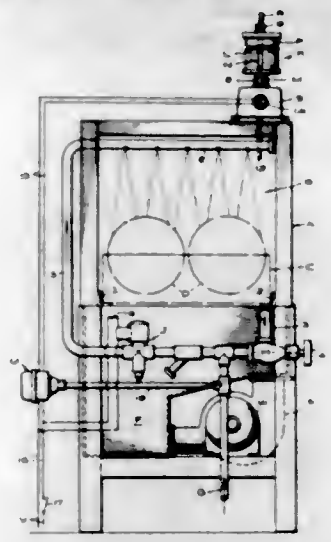
2,834,364

AUTOMATIC LIQUID SOAP OR DETERGENT DISPENSER FOR DISH WASHING MACHINES

George Joseph Federighi and Tore H. Noren, San Francisco, Calif.

Application October 13, 1955, Serial No. 540,194
3 Claims. (Cl. 137—88)

1. In combination: a dishwashing machine having a dish-receiving compartment and a tank disposed below the compartment for holding dish-washing water; a liquid soap or detergent dispenser mounted above the tank and having an outlet tube leading downwardly from the dispenser for delivering liquid from the dispenser into the tank by gravity; a hot water feed pipe; hot water spray nozzles mounted in the compartment and communicating through a spray pipe line with the hot water feed pipe; a first valve for controlling the flow of hot water from the feed pipe to the spray pipe line; a branch pipe leading from the hot water feed pipe to the tank for delivering hot water to the tank; a second valve in the branch pipe for controlling the flow of hot water therethrough to the tank; a pressure switch operable by a change in pressure of water flowing from the feed pipe to the nozzles or



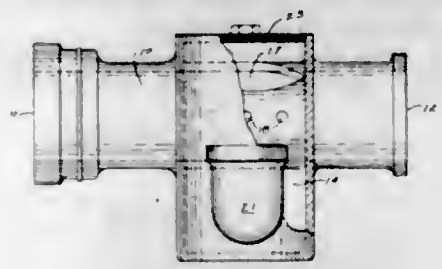
tank, and being automatically closed when either valve is opened; and an electric valve mounted in the liquid-delivering outlet tube of the dispenser and being electrically connected to the pressure switch; said electric valve being normally closed but being opened when the pressure switch closes due to either the first or second-named valves being opened; the opening of the electric valve permitting liquid to flow from the dispenser to the tank.

2,834,365

OVERFLOW DEVICE FOR SEWAGE

Thomas M. Pair, Birmingham, Ala.

Application October 1, 1954, Serial No. 459,586
4 Claims. (Cl. 137—247.11)



1. An overflow device for sewage comprising a cylindrical body portion having inlet and outlet portions adapted to be horizontally disposed and connected into a sewage conduit, a waste receiving chamber formed integrally with and surrounding said body portion a major part of which extends below the said body portion, and a minor part above said body portion, overflow passage means through the upper wall of the body portion into the waste receiving chamber, and a discharge outlet in the lower end of the waste receiving chamber.

2,834,366

VALVE FOR GAS FLOW

George R. Bond, Jr., Paulsboro, N. J., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware

Application January 11, 1957, Serial No. 633,782
3 Claims. (Cl. 137—251)

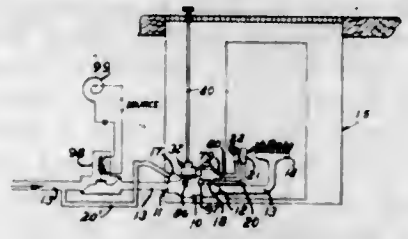
1. A check valve adapted to permit gases to flow in one direction and adapted automatically to close upon cessation of forward flow, and adapted to prevent reverse flow, said check valve consisting of: a substantially vertical tube having a gas entry at a lower portion there-

of; a horizontal porous plate positioned across the passageway of said vertical tube and adapted to permit passage of the gas therethrough without loss of a significant portion of the pressure thereof; a quantity of fluidizable solids forming a compact bed at least about 2 mm. deep and at least as deep as one tenth the longest lateral dimension of the porous plate, said compact bed of fluidizable solids resting on said porous plate during periods when no gas flows upwardly through said plate; a fluidizing chamber in said vertical tube above said porous plate, in which chamber the fluidizable solids are



maintained as a fluidized bed by the normal upflow of gases; means for preventing the fluidizable solids from being blown out from the fluidizing chamber, but permitting gases to flow therethrough without loss of a significant portion of the pressure thereof; and a gas exit at the upper portion of said vertical tube, said fluidizable solids being fluidized in said fluidizing chamber during normal upward flow of gases through the check valve. but said fluidizable solids forming a gas impermeable bed on said porous plate during the absence of upward flow of gases.

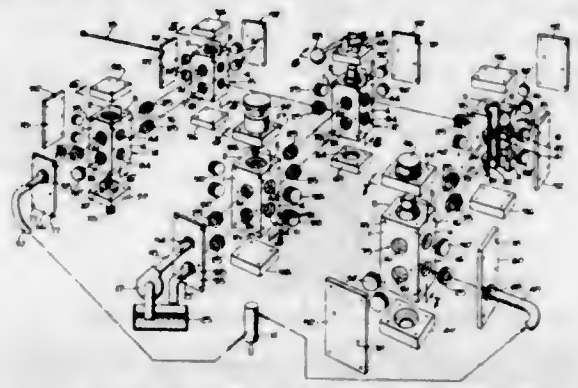
2,834,367
FUEL CONTROL DEVICE
Herman A. Miihm, Wauwatosa, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application June 2, 1953, Serial No. 359,184
4 Claims. (Cl. 137—66)



1. A fuel control device comprising, a pilot fuel passage and a main fuel passage separate from said pilot fuel passage, a valve interposed in both the pilot fuel passage and the main fuel passage, electromagnetically controlled safety shutoff means for both of said fuel passages downstream from said first-mentioned valve, and means including a selector valve interposed between said main and said pilot fuel passages upstream from said first-mentioned valve, said selector valve being movable between an open position wherein it affords communication between said main and pilot fuel passages and a closed position wherein such communication is shut off.

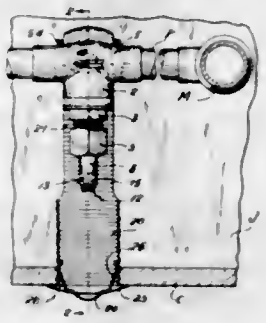
2,834,368
MULTIPLE VALVE ASSEMBLY
Landon R. Gray, Torrance, Calif.
Application August 1, 1955, Serial No. 525,447
2 Claims. (Cl. 137—271)

1. A multiple valve assembly comprising: a first valve body having four equal faces disposed to form a 90° angle with one another about a central axis, a valve receiving chamber formed in said body along said axis, a first set of similar ports formed in said body, one each of said ports extending inwardly from one each of said faces between the side edges in line with the central axis thereof to intersect said chamber, each of said ports having its axis in a common plane perpendicular to said central axis, a second set of similar ports formed in said body, one each of said second set of ports extending inwardly from one each of said faces between the side edges in line with the central axis thereof to intersect said chamber, each of said second set of ports having its axis in a common plane parallel to and spaced from said common plane of said first set of ports; second and third valve bodies identical to said first valve body and in which the spacing between the first and second ports on



each side of each of the three valve bodies is the same; said valves being assembled with the axes of the valve bodies being parallel; said valves being further assembled with one face of said first valve body being flush against one face of said second valve body and with the first and second ports of said faces being in registration; said valves being further assembled with one face of said third valve body being flush against a second face of said second valve body and with the first and second ports of these latter faces being in registration; valve means in each of said valve receiving chambers to control flow between selected ports of the first set of ports and selected ports of the second set of ports within each of said valve bodies; and means to hold said assembled valve bodies rigidly in the above assembled relationship.

2,834,369
STOP AND WASTE VALVE COMBINED WITH INSTALLATION SLEEVE
Myron C. Wheeler, Shaker Heights, Ohio
Application June 26, 1956, Serial No. 593,871
12 Claims. (Cl. 137—360)



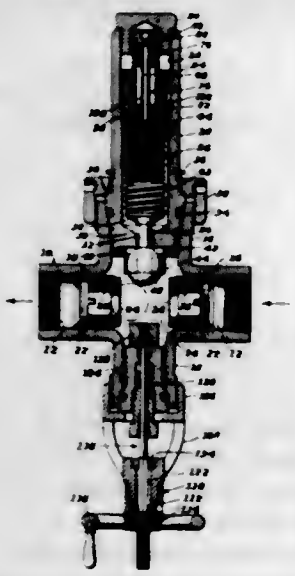
9. In combination, a valve that is adapted to be installed in a pipe concealed in a wall in inwardly spaced relation to the outer wall surface, said valve having a laterally facing holding part, and an installation sleeve of fixed length enclosing the valve and adapted to have its entrance end exposed through and located substantially in the plane of said wall surface, the valve including an operating member accessible through said sleeve, the sleeve including a resilient portion provided with a series of holding parts for frictional engagement with the holding part of the valve and that are spaced apart longitudinally of the sleeve.

2,834,370
FLOAT VALVE CONSTRUCTION
Pernil N. Nelson, Galesburg, Ill., assignor to Lynn H. Ewing, doing business as Black Hawk Company, Rock Island, Ill.
Application July 18, 1957, Serial No. 672,675
3 Claims. (Cl. 137—433)



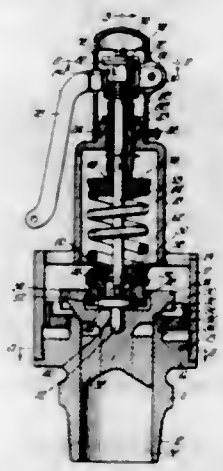
1. A float operated valve comprising a cylindrically shaped valve housing having a bottom wall, side walls and a frusto-conically shaped chamber in said housing having an open upper end, an inlet conduit connected to the lower end of said bottom wall to support said housing thereon, said bottom wall and housing having passageways therein communicating with said inlet conduit and with ports in said chamber wall near its open upper end, a tapered plug valve reciprocal in said frusto-conically shaped chamber, said plug valve being of a size slightly smaller than said frusto-conically shaped chamber, a stem extending upwardly therefrom, a float ball connected to the upper end of said stem, said plug valve closing the ports in said chamber wall in raised position and opening the same when said float ball is lowered.

2,834,371
AUTOMATIC SHUT-OFF VALVE
Stanley E. Liljestrand, Houston, Tex., assignor, by mesne assignments, to U. S. Industries, Inc., a corporation of Delaware
Application January 4, 1954, Serial No. 401,940
17 Claims. (Cl. 137—458)



6. An automatic shut-off valve for a flow line comprising: a housing adapted to be connected into a flow line and having an interior valve chamber provided with an inlet port and an outlet port; a valve seat on the inner end of said outlet port; a valve member in said chamber cooperable with said seat for shutting off flow through the valve; means defining a space in said chamber disposed laterally of said seat for accommodating said valve member, said valve member normally being positioned in said space in laterally-spaced relation to said seat out of the direct path of flow into said outlet port; piston means disconnected from said valve member, exposed to pressure in said chamber, and urged by said pressure to move into engagement with and project said valve member into said direct path of flow for engagement with said seat; and spring means for urging said piston means away from said valve member and effective below a predetermined high chamber pressure to restrain said piston means against movement.

2,834,372
VALVE CONSTRUCTION
Maurice W. Young, Fort Wayne, Ind., assignor to Kunkle Valve Company, Fort Wayne, Ind., a corporation of Indiana
Application June 8, 1955, Serial No. 514,042
5 Claims. (Cl. 137—478)

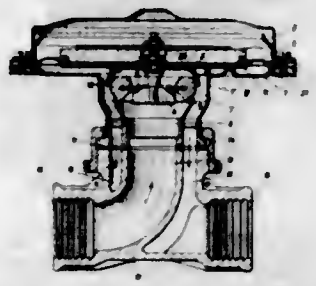


1. A relief valve comprising a body member having a valve seat carried thereby, a valve disc slidably fitted in the body member and having a portion adapted to engage the valve seat, the valve disc having a thrust seat formed therein upon its axis, a pressure pin having a portion adapted to engage the disc thrust seat, a bottom spring thrust collar having a universally tiltable engagement with the pressure pin, a pressure spring having its lower end engaging the thrust collar, a floating spindle in alignment with the pressure pin and extending upwardly through the bottom spring thrust collar and spring, means interconnecting the bottom thrust collar and valve disc and means interconnecting the spindle and bottom thrust collar whereby an upward movement of the spindle will lift the valve disc, means for raising the spindle and adjustable means for supplying a thrust against the upper end of the spring, said adjustable means being supported from the body member.

2,834,373
GAS PRESSURE REGULATOR
Karl H. Schwarz, Chicago, Ill., and Josef Drabik, near Osnabruck, Germany, assignors to G. Kromschroder Aktiengesellschaft, Osnabruck, Germany
Application November 9, 1954, Serial No. 467,697
Claims priority, application Germany November 12, 1953
4 Claims. (Cl. 137—484.2)

1. A gas pressure regulator of the type described comprising a casing, an open-ended tubular valve body mounted in one end of said casing and forming a gas admission channel and defining with said casing an annular gas discharge channel, said body having an inwardly facing valve seat at the inner end thereof, a loaded diaphragm disposed within said casing beyond the inner end of said valve body coaxially therewith, a valve head ar-

ranged within said valve body and adapted to cooperate with said valve seat and a valve stem connecting said valve head with said diaphragm, said diaphragm defining with said casing a discharge pressure chamber communicating with said discharge channel and so arranged that gas pressure within said chamber acts upon said diaphragm in opposition to the loading thereof to tend to move said valve head toward said valve seat to reduce the flow of gas through said valve body into said discharge channel, and a bell-shaped baffle concentrically attached to said diaphragm and having the skirt portion thereof adapted to extend increasingly into said discharge channel in increasingly overlapping relationship with the inner



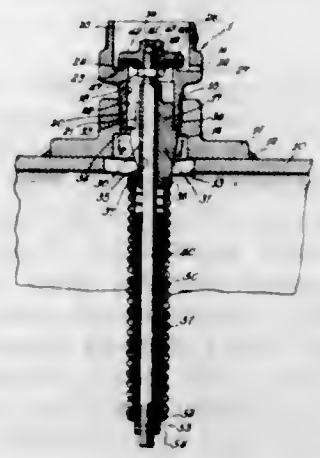
end portion of said valve body as increasing gas demand tends to lower the pressure in said discharge chamber and increase the rate of flow of gas through said regulator, the opposed surfaces of the overlapping portions of said baffle and valve body being generally parallel to form an annular throttling passageway therebetween, the form and arrangement being such that movement of said diaphragm to increase the rate of flow of gas through said regulator also moves said baffle to increase the throttling effect of the throttling passageway whereby to further lower the pressure in said discharge chamber and cause increased action of said diaphragm and valve head to permit increased flow of gas and thus to compensate for the falling regulating characteristic of the regulator.

2,834,374

SAFETY RELIEF VALVE

Otto Klinkenberg, Winnetka, Ill., assignor to The Bastian-Blessing Company, Chicago, Ill., a corporation of Illinois

Application June 16, 1955, Serial No. 515,829
3 Claims. (Cl. 137—541)



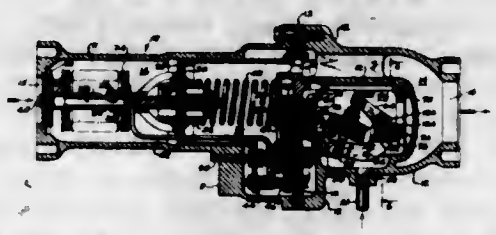
3. A safety valve characterized by a limited range of opening and closing pressures comprising a housing portion adapted to be mounted in a threaded coupling defining an opening in a wall of a container, said housing having a downward opening passage therethrough including a bore at one end, axially elongated web-like guide members disposed radially in said passage, said guide members extending below the lower end of said housing and having integral with their inner edges a guide element having an axial bore therethrough and terminating at a predetermined distance below said passage, a stem slidably mounted in the bore of said guide element, an elongated helical spring disposed in surrounding relation to said stem, said spring being subject to lateral deflection when compressed by upward movement of said stem, said housing portion being formed with an annular valve seat surrounding said bore, a retainer assembly including a valve secured to the upper end of said stem, a retainer washer mounted on the lower end of said stem and in abutting relation with said spring, said spring being confined under a predetermined compression between said washer and said guide member whereby the spring normally urges the valve into contact with said seat, and an elongated sleeve disposed between and in closely adjacent relation to both said stem and said spring to prevent lateral deflection of said spring and consequent binding of the stem in the bore of said guide member, said sleeve having a length slightly less than the length of said spring when the valve is closed, and the upper end of said sleeve abutting said guide element to limit the upward movement of said stem when said valve is in its fully open position.

2,834,375

FUEL FLOW CONTROLLER

Elia A. Gallo, Englewood, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware

Application October 18, 1954, Serial No. 463,019
8 Claims. (Cl. 137—614.2)



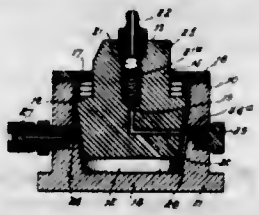
1. Mechanism for providing a control force comprising a support structure; an arm; means supporting said arm on said support structure for pivotal adjustment about an axis; a lever pivotally supported on said support structure, said lever having a concave circular portion with the center of curvature of said circular portion being substantially on the axis of adjustment of said arm; a flexible bellows; means for subjecting said bellows to a control pressure; and means operatively connecting said bellows to said arm and to said lever concave portion so that said bellows exerts a turning moment on said lever the moment arm of which varies with the pivotal adjustment of said arm; and means exerting a force on said lever to provide an opposing turning moment on said lever which increases and decreases with said first mentioned turning moment.

2,834,376

APPARATUS FOR CONTROLLING LUBRICANT FLOW TO A PLURALITY OF LUBRICATED POINTS

John Farrar Hughes, Droylsden, Manchester, England

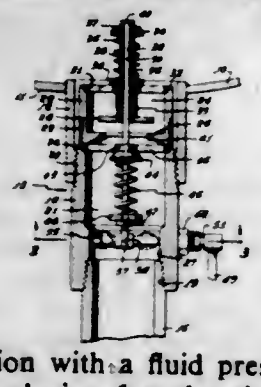
Application April 25, 1956, Serial No. 580,619
Claims priority, application Great Britain May 10, 1955
3 Claims. (Cl. 137—625.11)



1. A valve for controlling fluid to a plurality of points comprising in combination, a body provided with a bore disposed on a vertical axis having a bottom and being closed at its upper end, said body provided with circumferentially spaced separate outlets extending outwardly from said bore, a plug in said bore having inlet

means in the upper end thereof for connection to a fluid supply and provided with a central opening therebelow and outlet means extending from the central opening radially outwardly through said plug, check valve means in the central opening below said inlet means arranged to prevent flow outwardly of fluid through said inlet means, said plug being reciprocable in said bore between upper and lower positions and the sides of said bore and plug being complemental and converging downwardly and arranged for engagement to limit the lower position of said plug and provide a space between the lower end thereof and bottom of said bore, a spring urging said complemental sides into engagement with each other, said plug being rotatable in said bore and the outlet means thereof being arranged for communication with a selected one of the outlets of said body in lower position of said plug, said body provided with communicating means between at least one of the outlets thereof and the space between said lower end of the plug and bottom of said bore whereby inlet pressure is transmitted into the bottom of said bore for acting on the bottom of said plug to raise it against the force of said spring and permit all of said outlets of said body to be fed simultaneously.

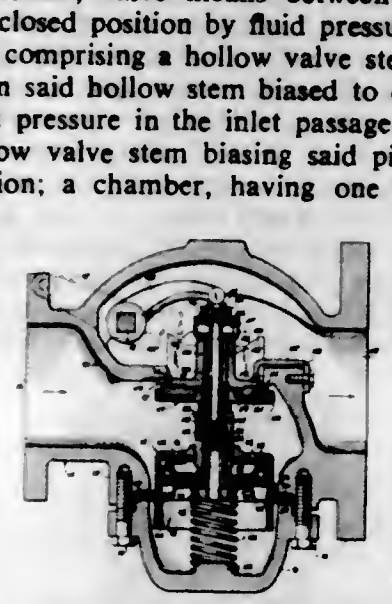
2,834,377
SAFETY FLOW VALVE
Robert M. Bragg, Fresno, Calif.
Application March 16, 1955, Serial No. 495,140
6 Claims. (Cl. 137—630.14)



1. In combination with a fluid pressure tank a safety tank filling valve device for charging and discharging fluid comprising a valve body having a hollow section forming an exterior chamber, a hollow section comprising part of said tank forming an interior chamber, means releasably joining said sections together in axial alignment, and a valve seat intermediate said chambers, a disc valve element in the fluid path through the interior chamber adapted to engage said seat, and including a valve stem slidably mounted in the interior chamber and a closure-resisting spring between the valve body and the stem normally urging said valve device to unseated position, a valve closing shaft extending through the stem and the valve and having a lost motion connection therebetween, a closing spring of strength greater than the first spring acting between the shaft and the body normally biased to close said valve element, and valve-operating means extending to the exterior section of the valve body and in engagement with said shaft and adapted to move said shaft in a direction inwardly against tension of the closing spring to a valve releasing position.

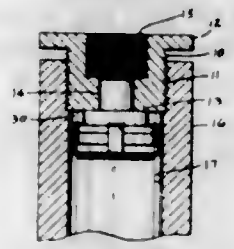
2,834,378
VALVE
Fritz Niesemann, Pittsburgh, Pa., assignor to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Continuation of application Serial No. 410,975, February 17, 1954. This application June 3, 1957, Serial No. 663,097
4 Claims. (Cl. 137—630.15)

1. A flow control valve for use in a predetermining dispensing apparatus comprising: a valve body having an inlet passage and an outlet passage therein disposed adjacent one another; valve means between said passages biased to a closed position by fluid pressure in the inlet passage and comprising a hollow valve stem, pilot valve means within said hollow stem biased to closed position by said fluid pressure in the inlet passage, spring means in said hollow valve stem biasing said pilot valve to a closed position; a chamber, having one apertured end



wall disposed concentrically to said valve stem in said inlet passage; piston means on said valve stem within and dividing said chamber into upper and lower portions; predetermined orifice bleed means connecting the lower cylindrical chamber portion to said inlet valve passage; fluid passage means formed in said apertured end wall and connecting said upper chamber portion with said inlet passage; and means to successively actuate said pilot valve and said main valve againt the biasing forces.

2,834,379
FLUID FLOW CONTROL UNIT
George C. Fields, Wilmette, Ill., assignor to Scovill Manufacturing Company, Waterbury, Conn., a specially chartered corporation of Connecticut
Application August 21, 1956, Serial No. 605,343
3 Claims. (Cl. 138—43)



2. A flow control unit for assembly into a fluid supply line of varying pressures, said unit comprising a body, a resilient washer and a pressure responsive element, said body having a passageway therethrough and a flat shoulder surrounding one end of said passageway, means supporting said washer against said shoulder, said element having a base portion disposed across said body passageway and a series of fingers loosely embracing said body, said base portion having channels formed radially therein on the side adjacent said washer whereupon when fluid pressure is applied against said base portion said washer will be compressed and proportionately fill and restrict said channels.

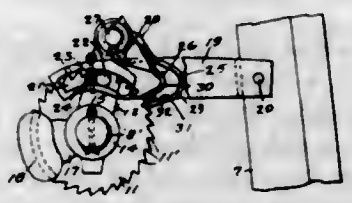
ERRATUM

For Class 139—38 see:
Patent No. 2,834,806

2,834,380
SLACK PAWL FOR LOOMS
Fred A. Hamilton, Easley, S. C.
Application June 15, 1956, Serial No. 591,585
3 Claims. (Cl. 139—313)

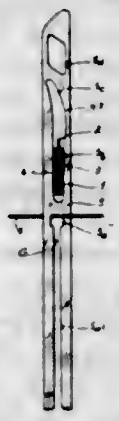
1. In a loom, a let-back mechanism comprising a ratchet heel, a slack pawl carrier, a shaft on which the ratchet

wheel and carrier are mounted to turn during the let-back operation, said carrier including an arm extending upwardly from the shaft, a pair of slack pawls, means pivotally mounting said slack pawls on the outer end of said arm for pivotal movement relative to the arm about a common pivot, a stationary slack pawl stop, means forming a loose connection between the slack pawl carrier and slack pawl stop for limiting swinging movement of the carrier about said shaft, said carrier including a weight for urging the carrier and slack pawls to swing in a direction opposite to the direction of swinging movement thereof during the let-back operation, said ratchet wheel



being disposed in a forward position relative to the loom, and said slack pawls extending rearwardly from the pivot thereof and having inturned forwardly extending free ends engaging teeth of the ratchet wheel whereby the free ends of the slack pawls are disposed behind the ratchet wheel, said slack pawls including a long pawl and a short pawl, each of said pawls being formed from a strip of metal, said pawl forming strips having twisted substantially corresponding ends disposed in substantially abutting engagement and in planes substantially corresponding to the plane of the ratchet wheel and forming shank ends of the pawls, said shank ends being engaged by the pawl pivot.

2,834,381
DROPPERS FOR WARP DETECTORS
Emile Louis Grangier, Lyon-Montchat, France
Application September 29, 1955, Serial No. 537,496
Claims priority, application France April 8, 1955
1 Claim. (Cl. 139—368)

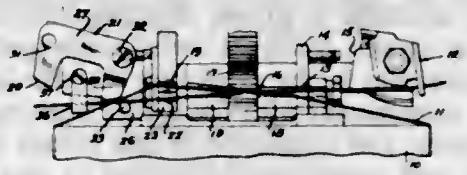


A dropper for warp detectors having a transverse member of flat vertically elongated cross-section, said dropper being formed of a vertically elongated blade with parallel vertical edges, having an eye for the passage of a warp thread adapted to normally support said dropper; and an elongated opening above said eye for passage of said transverse member, said opening comprising a lower vertically elongated lower portion having substantially the same width as said transverse member and wherein said transverse member is situated when said dropper is supported by said warp thread, an upper obliquely directed blind portion adapted to be engaged by said transverse member when said dropper falls to cause said dropper to assume a substantially oblique position, and an intermediate portion connecting said lower portion and said upper portion, the edge of said intermediate portion which is exterior to the angle formed by said lower and upper portions being curved outwardly, with respect to the mean axis of said opening to provide in said intermediate portion a progressively increasing and then decreasing width to permit passage of said transverse member from said lower portion into said upper portion.

ERRATUM

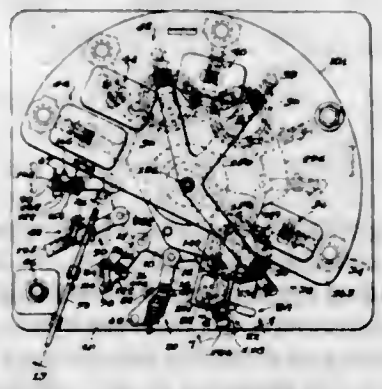
For Class 139—406 see:
Patent No. 2,834,807

2,834,382
GRIPPER FOR WIRE TYING MACHINE
David M. Daniel, Berkeley, Calif., assignor to Ernest Roe, doing business as Coast Wire Company, San Francisco, Calif.
Application July 13, 1953, Serial No. 367,587
1 Claim. (Cl. 140—93.6)



A gripper for a wire tying machine comprising a support having a substantially flat, vertical surface extending parallel to the direction assumed by the wire to be tied, a horizontal pin in said support, a gripper plate, and means mounting said gripper plate on said support for pivotal movement parallel to said vertical surface of said support, said pin being positioned substantially directly below said mounting means, said gripper plate having a leg depending below said mounting means and a heavy portion positioned tending to rotate said plate about said mounting means to bring the lower end of said leg into contact with said pin, the lower end of said leg being formed with teeth disposed along the bottom of the lower end of said leg, said gripper plate having a central portion parallel to and in bearing contact with said vertical surface of said support for connecting said leg and heavy portion, the lower end of said leg being disposed at an angle such that said teeth grip the top of a wire inserted over said pin, the vertical surface of said support being recessed beyond said pin in the direction opposite that of normal insertion of a wire, the recess extending upward to an elevation higher than the elevation of the top of said pin, and guide means connected on said support to prevent outward movement of said wire adjacent said recess.

2,834,383
POWDER FILLING MACHINE
Victor G. Williams, Toronto, Ontario, Canada, assignor to Delamere & Williams Company, Limited, Toronto, Ontario, Canada, a corporation of Ontario
Application December 17, 1952, Serial No. 326,449
2 Claims. (Cl. 141—73)



1. In a container filling machine of the type having an intermittently rotated spider having a plurality of carriers secured thereto and movable therewith for supporting open-mouthed containers having cylindrical body por-

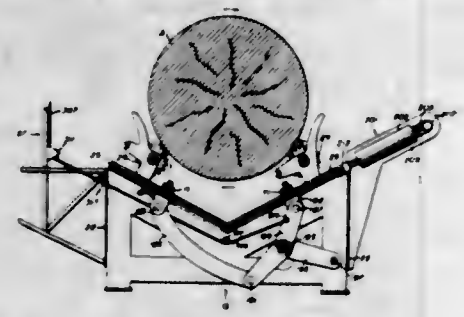
tions and conically shaped at their lower ends, and means for alternately depositing and compressing a plurality of successive partial charges of material into successive containers, the improvement comprising each of said carriers having a holder provided with an opening cylindrical at its open upper end and conically shaped at its lower end forming a socket conforming to the shape of the container for snugly receiving and embracing the entire container with the open end thereof flush with the upper surface of the holder whereby to prevent expansion of the walls of the container during the compressing operations, said holder having a tapered ejection opening at its lower end communicating with said socket opening, said carrier having a pivotally mounted arm provided with a funnel shaped opening arranged to be rocked into alignment with the holder opening and resiliently urged into snug engagement therewith prior to the filling operation, driving means including a clutch, detecting means including an electrical circuit having a switch arranged to be engaged by said arm in the event that the arm is prevented from snug engagement with the holder opening by a non-flush container, and a solenoid in said circuit actuated by said switch and operatively connected to said clutch for disengaging the same when a non-flush condition is detected.

2,834,384
VENEER JOGGERS AND JOINTERS
John J. Pearl, Lebanon, Oreg., assignor to Cascades Plywood Corporation, Portland, Oreg., a corporation of Delaware
Application August 2, 1955, Serial No. 525,911
19 Claims. (Cl. 144—117)



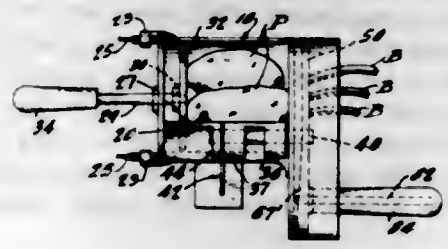
13. A sheet jogger comprising jogging means, pack tipping means operable to tip a pack of sheets on edge on said jogging means, and means actuated by said pack tipping means in moving to tip a pack of sheets on edge, operable to initiate operation of said jogging means.

2,834,385
LOG-BARKING MACHINE HAVING LOG-FEEDING MECHANISM
John L. Gyllenberg, Baker, Oreg., assignor to Anthony Brandenthaler, Baker, Oreg.
Original application October 16, 1953, Serial No. 386,491, now Patent No. 2,780,252, dated February 5, 1957. Divided and this application June 18, 1956, Serial No. 592,104
14 Claims. (Cl. 144—246)



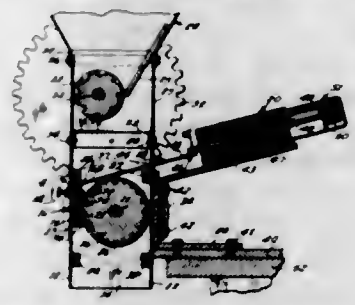
11. In a log-barking machine, log-supporting means including two laterally spaced rows of longitudinally spaced log-rotating elements, guide means supporting the elements for movement of said rows toward or away from one another and mutually toward and away from a log supported by the elements so that different-sized logs may be supported with their axes contained in a common vertical plane, said guide means also supporting said elements for rotary movement, and means for rotating said elements.

2,834,386
SLICING APPARATUS
Ralph F. Heininger, Toledo, Ohio
Application September 26, 1955, Serial No. 536,449
1 Claim. (Cl. 146—78)



A slicing machine of the character disclosed, in combination, a frame, a hopper carried by said frame adapted to contain material to be sliced, a closure plate at one end of said hopper, a removable rotatable member journaled on said frame at the other end of said hopper, means for locking said rotatable member to said frame; said rotatable member comprising a web, an annular band enclosing said web and integral therewith, said web comprising two flat surfaces interconnected by an angular surface, said flat surfaces being substantially parallel to each other and to said closure plate with one of said flat surfaces spaced a closer distance to said plate than the other to provide a generally radially disposed gap in said web of involute curvature, a planar severing cutter carried on said one flat surface closest to said plate and having an involute cutting edge projecting into said gap and coextensive therewith and arranged in a plane normal to the axis of rotation of said rotatable member, an integral cutter element carried by said rotatable member on the other of said flat surfaces, said cutter element having a plurality of cutting blades located adjacent said gap and having cutting edges out of radial alignment arranged for rotation in concentric paths, said cutting edges being disposed in a curved zone substantially parallel with a wall of said gap, said concentrically spaced edges being arranged to progressively engage the material to be sliced in advance of the planar severing cutter whereby the cutting operation of the concentrically arranged cutting blades is effected in a zone in advance of the zone of severing the material by the planar severing cutter, a plate disposed in said hopper and engageable with the material in the hopper to advance the material into position to be severed by the cutter and cutter element blades, and a guard secured to said frame and substantially encasing said rotatable member.

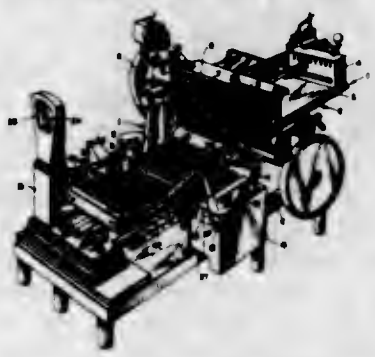
2,834,387
CORN CRACKER
Wilfred F. Traugott, West Point, Va.
Application April 8, 1954, Serial No. 421,776
1 Claim. (Cl. 146—79)



In a corn cracker, the combination which comprises a vertically disposed housing, rectangular-shaped in cross section having side and end walls, an L-shaped bracket positioned on one side of the housing for mounting the housing, a hopper extended from the upper end of the housing, a longitudinally disposed shaft extended through the housing and rotatably mounted in the end walls thereof, a milling cutter mounted on the shaft, a block having vertically spaced horizontally disposed cutting

blades on the face thereof positioned between the milling cutter head and a side wall of the housing, means for pivotally mounting the lower edge of the block on the side wall of the housing, a screw threaded in the upper part of the block and rotatably mounted in said side wall for adjusting the position of the blades on the face of the block in relation to cutting blades of the cutter head, an L-shaped bracket having a leg secured to the side wall of the housing opposite to the side wall upon which the block is positioned and having an arm extended upwardly from the upper end thereof, a solenoid carried by said arm, a gate slidably mounted in an inclined position in the housing and extended over the milling cutter head, means for operatively connecting the gate to the solenoid whereby the position of the gate is controlled by the solenoid, a rotary cutter rotatably mounted in the end walls of the housing and positioned above the milling cutter head, a baffle extended from the hopper to a point adjacent the rotary cutter for guiding corn to the cutter, meshing gears carried by the rotary cutter and shaft of the milling cutter head for rotating the rotary cutter by the milling cutter shaft, and means for rotating the shaft of the milling cutter head.

2,834,388
SLICING MACHINE SLICER, STACKER, AND WEIGHER
Paul H. Meyer, La Porte, Ind., assignor to U. S. Slicing Machine Company, Inc., La Porte, Ind., a corporation of Indiana
Application October 4, 1954, Serial No. 459,899
3 Claims. (Cl. 146—94)



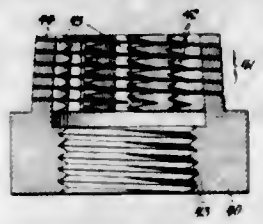
3. In a slicing machine having a cutting knife, a platform upon which cut slices are accumulated in successive stacks, and means for conveying stacks of slices along a predetermined path to a plurality of stack receiving positions, said means comprising a rear pusher normally arranged behind a stack, operating means to operate said pusher in a forwardly direction to move a said stack to a predetermined position, a second pusher forwardly of the first pusher to push said stack to a second predetermined position, said pushers being pivotally connected together by spaced links, spaced pivotally mounted plates connected to the second pusher, driven links connected to and driven by the first named links, said second pusher being pivotally connected to a slidable guided member.

2,834,389
NON-SLIP BILLFOLD
Benjamin M. Major, New York, N. Y.
Application March 12, 1957, Serial No. 645,578
2 Claims. (Cl. 150—47)



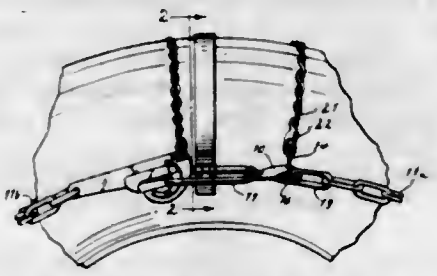
1. A wallet comprising oblong front and rear walls connected to form a bill receiving compartment foldable about a medial line with the folded front wall portions adjoining one another, a lining wall secured to and overlying said rear wall, each of the folded rear wall portions having a plurality of spaced strip-like cut-outs parallel to said medial line, a plurality of friction members conforming to said cut-outs and having a friction coefficient greater than the friction coefficient of said rear wall, and means to mount said members within said cut-outs with the friction surface thereof protruding beyond the surface of said rear wall including lateral flanges secured to the inside of said rear wall adjacent to said cut-outs.

2,834,390
RESILIENT COIL PAWL AND RATCHET TYPE NUT AND BOLT LOCK
Ludlow Stevens, Philadelphia, Pa.
Application December 7, 1953, Serial No. 396,476
1 Claim. (Cl. 151—11)



In combination, a nut and bolt which are correspondingly threaded, said nut having a threaded resilient coiled portion comprising a plurality of complete, generally helically arranged and connected turns, said coiled portion being longitudinally displaced and disposed about and extending along the central longitudinal axis of said nut, the threads of said coiled portion being tapered relative to the threads of said bolt and being axially displaced relative to said bolt threads in the direction of the body of said nut, whereby the coiled portion is elastically unwound or uncoiled and axially extended when the nut and bolt are threaded together, and said bolt and said coiled portion each having longitudinally extending grooves forming coacting teeth having sets of corresponding locking surfaces which extend at an angle to the radius and are resiliently locked to one another when the nut and bolt are threaded together.

2,834,391
RELEASABLE SECURING MEANS
Simon M. Hellman, Waukegan, Ill.
Application July 16, 1954, Serial No. 443,778
2 Claims. (Cl. 152—213)



1. In an anti-skid chain formed of a pair of side chains and a plurality of transverse tread chains, means for releasably coupling the ends of said side chains together, said means comprising a substantially flat hook element secured to one end of each of said side chains, a flat substantially C-shaped member pivotally secured at one end to each of said hook elements and each rotatable in a plane adjacent the plane of a respective hook element, each of said members being rotatable to a position to extend across the open portion of a respective hook element to lock a chain end to said hook element, said C-shaped member constituting camming means whereby when said member is rotated in an opposite direction the outer edge of said member is caused to trasverse the open

portion of a respective hook element to cam the chain end out of the open portion of a corresponding hook element, means secured to each of said members for rotating the same, a transverse tread chain having a first end operatively secured to one of said last-mentioned means, and having a second end releasably secured to the other of said last-mentioned means, said tread chain when disconnected at said second end and when twisted effecting rotation of said first end and the corresponding C-shaped member to urge a corresponding side chain out of engagement with a corresponding hook element.

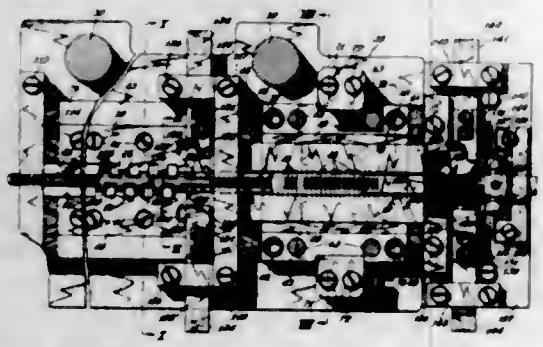
2,834,392

PUNCH-PRESS APPARATUS FOR FORMING STRIP METAL

Samuel H. Norton, University Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Original application August 19, 1949, Serial No. 111,311, now Patent No. 2,699,209, dated January 11, 1955. Divided and this application April 10, 1953, Serial No. 347,869

13 Claims. (Cl. 153—2)



1. In a punch press for strip material, a main frame, laterally spaced die means extending along said frame and having spaced portions supporting the edge portions of the strip material, a bending bar extending between said die means to the discharge end of said frame, means feeding strip material to said bending bar and die means, and slitting and bending punch means alternately arranged for cooperation with said die means to slit and alternately bend the strip material on opposite sides of said bending bar over and along the sides of said bending bar, whereby said bending bar forms an anvil and guide means for the formed strip, for discharge beyond the end of said frame.

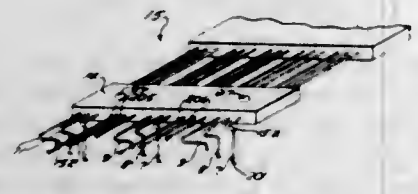
2,834,393

METHOD OF FORMING ARTICLES BY BENDING THE FREE END PORTIONS THEREOF

Anthony J. Cihlar, Riverside, and Frank A. Klasek, La Grange Park, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application December 29, 1954, Serial No. 478,336

4 Claims. (Cl. 153—16)



1. The method of forming terminal end portions of wires of wire spring relay combs, which comprises bending portions of wires of a plurality of groups of parallel wires which lie in the same plane in a direction transversely of the plane, bending the edge wire of one group laterally in said plane toward the group adjacent thereto, and then bending the wire next to the previously bent wire of that group laterally in said plane into the space left by said previously bent wire.

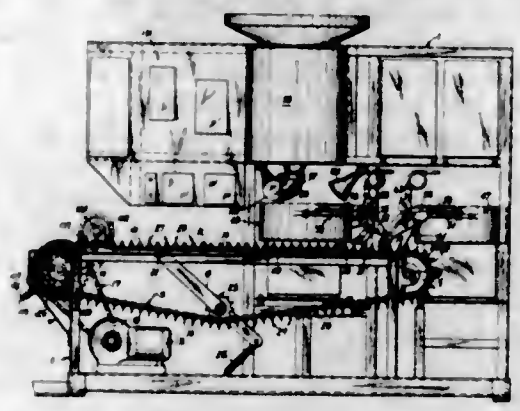
2,834,394

APPARATUS FOR ASSEMBLING AND BONDING TOGETHER MASTIC WASHERS AND NUT-WASHERS

Fred J. Sharn, St. Louis, Mo., and Arthur H. Boundy, Grosse Pointe Farms, Mich., assignors to American-Marietta Company, Chicago, Ill., a corporation of Illinois

Application August 2, 1956, Serial No. 601,685

10 Claims. (Cl. 154—1)



1. Apparatus for assembling and bonding together mastic washers and nut-washers, the mastic washers having a bonding agent thereon adapted to be activated by heat, said apparatus comprising an endless chain, means for driving the chain, the chain having an upper horizontal reach, a series of holders on the chain each comprising a seat having a convex face and a pin extending outward from said face, the pins extending upward in the upper horizontal reach of the chain, means for delivering a mastic washer onto a pin at one station on the path of travel of the upper reach of the chain, the pin being received in the aperture of the mastic washer, means for delivering a heated nut-washer onto the pin at another station along the path of the upper reach of the chain, the nut-washer overlying the mastic washer and the pin being received in the nut-washer, and means at a third station along the path of the upper reach of the chain for pressing the heated nut-washer on a pin against the mastic washer on the pin and for pressing the mastic washer against the convex face of the seat to deform the mastic washer to conform to the shape of said face.

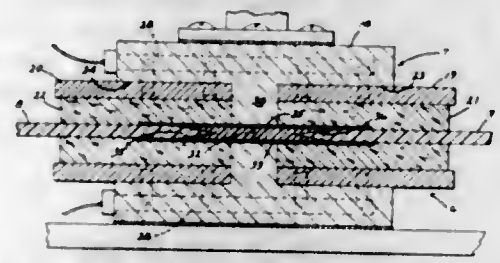
2,834,395

APPARATUS FOR JOINING THERMOPLASTIC SHEETS

Arthur O. Russell and Michael Gravatt Jones, Fredericksburg, Va., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application December 10, 1954, Serial No. 474,365

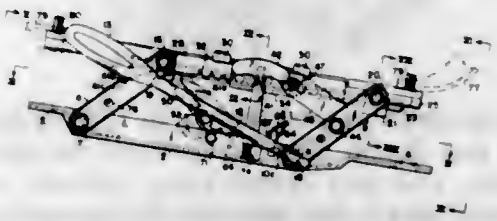
2 Claims. (Cl. 154—42)



1. Apparatus for joining adjacent portions of thermoplastic sheet materials comprising a pair of cooperating heat-conductive bodies disposed in opposing relationship and adapted for relative movement in directions toward and away from each other, an elongated extension formed integrally with each of said heat-conductive bodies, said extensions disposed in aligned relationship and projecting toward each other, a pair of flat thin heat-conductive plates, said plates being fixed at approximately a middle section thereof to the ends of each of said extensions with lateral portions of said plates disposed in spaced relation-

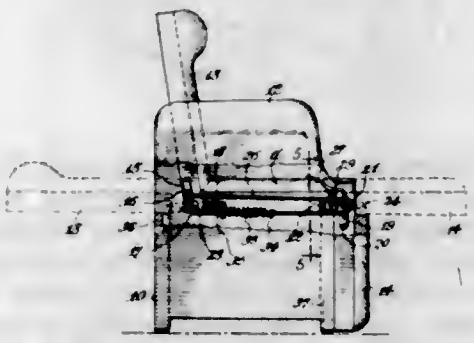
ship with portions of its respective heat-conductive body, means for heating said heat-conductive body, thermal insulation interposed between the lateral portions of said plates and its respective body, and a plurality of spaced ducts formed in said heat-conductive plates and adapted to convey a cooling fluid.

2,834,396
SEAT SUPPORT
Elmer A. Herider, Dearborn Township, Wayne County, and James Cumming, Detroit, Mich., assignors to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania
Application March 21, 1955, Serial No. 495,536
12 Claims. (Cl. 155—14)



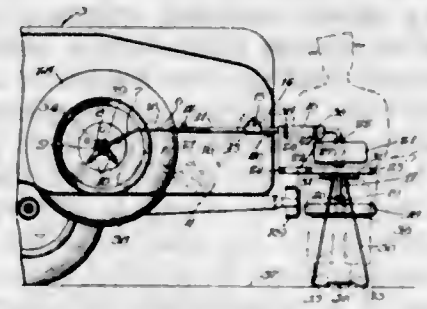
1. A seat support adapted to move a seat mounted thereon fore and aft and upwardly and downwardly, which comprises a base, a pair of supporting links adjacent the front end of said base and a pair of supporting links adjacent the rear end of said base, each of said links being pivoted adjacent its lower end to said base and having its upper end extending above said base, a lower seat track located above said base and pivotally supported by said supporting links, said links and the portions of said base and said lower seat track between said links forming a parallelogram, an upper seat track slidably supported on said lower seat track, a crosshead having a slide connection to said upper seat track, means for locking said upper seat track to said crosshead, a stabilizing link pivoted adjacent one end directly to an intermediate portion of one of said supporting links and pivoted adjacent its other end to said crosshead to constrain the same to freedom of movement substantially in the up and down direction only, means for rotating said supporting links about their pivots to the base to raise and lower said lower seat track, and means for locking said lower seat track in and releasing it from adjusted vertical position.

2,834,397
CHAIR BED
Theobald Kluglein and Helmuth Kluglein, Valley Stream, N. Y.
Application December 8, 1955, Serial No. 551,894
2 Claims. (Cl. 155—49)



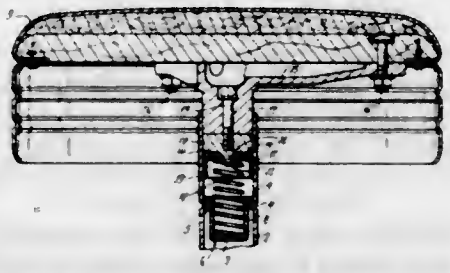
1. In a chair, the combination of a base section having spaced side members and a seat arranged between the side members and secured thereto, a seat-back, a leg-rest, means on the seat connected with the seat-back and the leg-rest mounting the seat-back and leg-rest for pivotal movement on transverse axes respectively and enabling the movement of the leg-rest into different angular positions of adjustment in response to the movement of the seat-back into different angular positions of adjustment with respect to the seat, said first means comprising plates respectively fixed on opposite sides of said seat-back, plates respectively fixed on opposite sides of said leg-rest, sprockets fixedly secured to all of said plates respectively by trunnions integral with the plates and sprockets, bearings on the seat which turnably support said trunnions respectively, said sprockets being arranged in pairs respectively at opposite sides of the seat, and a chain meshing with the sprockets of each pair thereof; means which cooperates with the first mentioned means for causing the return movement of the seat-back and the leg-rest with respect to the seat, and a manually operable device which cooperates with the first mentioned means to releasably prevent the movement of the seat-back and the leg-rest and to hold them in the desired positions of adjustment.

2,834,398
CONCEALABLE SEAT ATTACHMENT FOR VEHICLES
Kenneth J. Thelen, Macomb, Ill.
Application May 13, 1955, Serial No. 508,122
8 Claims. (Cl. 155—80)



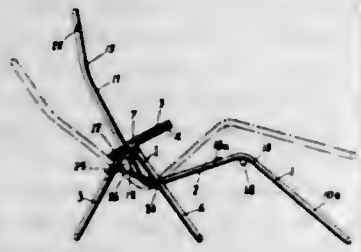
1. A concealable attachment for the luggage compartment of a vehicle or the like provided with spare tire anchorage means, comprising telescopic arm means adapted to be secured to said anchorage means, arm support means hingeably secured to said telescopic arm means and having a vertical support portion, and a seat element and a back rest element rotatably mounted on said vertical support portion of said arm support means, rivets means secured to said arm support means, and table means removably secured by virtue of bayonet slot lock means to said rivet means.

2,834,399
SWIVEL SEAT
Wilmot H. Scott, Clayton, Mo.
Application January 13, 1955, Serial No. 481,677
4 Claims. (Cl. 155—95)



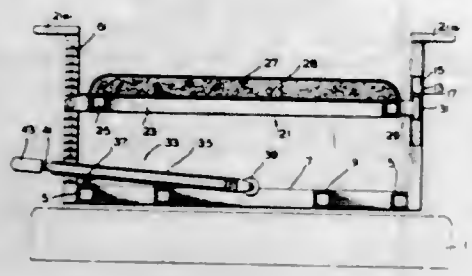
1. In a seat of the character described having an upright tubular support; an internal supporting projection formed on said support intermediate its ends, a spring holder having a flange supported on said projection, a spring supported on said holder, said holder having an axially extending portion positioned to center said spring and support the same against buckling, a ball-socket supported by said spring and having a peripheral flange slidably guided in said tubular support, said ball-socket being engageable with said holder after a predetermined compression of said spring to limit such compression, and a seat bracket having a ball-swivel engaging said ball-socket and supported thereby in said tubular support.

2,834,400
LOUNGE CHAIRS
Julien Hebert, Montreal, Quebec, Canada, assignor to Siegmund Werner Ltd., Montreal, Quebec, Canada
Application September 19, 1955, Serial No. 535,197
1 Claim. (Cl. 155—117)



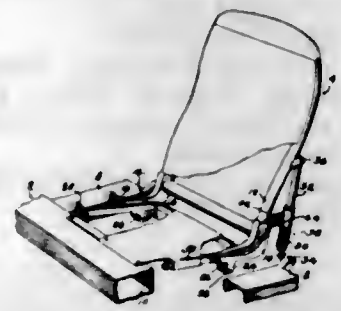
A lounge chair including a leg structure comprising front and rear U shaped leg members having straight sides of approximately equal length, the ends of the U members being pivotally joined together to provide for relative folding and unfolding movement of the said leg members, means to limit the spread of said leg structure, a unitary body supporting structure including a seat section, a leg section extending downwardly from the front portion of the seat section and a back section extending upwardly from the rear portion of the seat section, the said body supporting structure being pivotally supported on the side members of the front leg structure to afford a horizontal axis about which the body supporting structure may be swung to different operative positions relative to the leg structure in the set-up position of the lounging chair, the pivot of the body structure being disposed at a point on the side members of the front U-shaped leg member substantially adjacent the midpoint of the side members of the front leg member, the pivot of the said body structure and the pivot of the leg structure being in the same straight line as the axis of the side members of the front leg structure, and means for limiting the swinging movement of the body supporting structure.

2,834,401
AUXILIARY CHAIR
Troy Tanner, Mobile, Ala.
Application March 8, 1957. Serial No. 644,837
2 Claims. (Cl. 155—131)



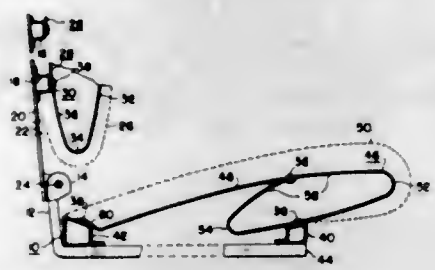
1. An auxiliary chair adapted for removable mounting on a basic supporting chair, said auxiliary chair including a supporting framework and a seat framework adapted for vertical movement relative to said supporting framework, means on said supporting framework for guiding said seat framework in its vertical movements, and a sheath rockably mounted on said supporting framework, the inner end of said sheath being engageable with said seat framework when the sheath is rocked on said supporting framework, an operating lever telescopically mounted in said sheath and projectable therefrom for manual actuation to cause said sheath to rock and engage said seat framework for its upward movement to adjusted positions, and means for releasably maintaining said seat framework in any such adjusted position.

2,834,402
SEATS OF THE RECLINING TYPE
Roger A. Lautier, Litchfield, Conn., and Eugene R. McGregor, Glendale, Calif., assignors to The Aerotherm Corporation, Bantam, Conn., a corporation of Connecticut
Application November 21, 1956, Serial No. 623,704
3 Claims. (Cl. 155—155)



1. A seat structure comprising, in combination, a base frame; a seat frame disposed between the sides of said base frame, said seat frame being pivoted to the two sides of said base frame adjacent the forward end of the seat frame; a back frame extending upwardly from the base frame adjacent the rear ends of the base frame sides; a pair of projections rigid with the two sides of said back frame and extending therefrom forwardly of the seat frame between the two sides of the said base frame; a pivotal connection between each of said projections and the two sides of the base frame to provide for rearward movement of said back frame to various angles of recline; and means for attaching the seat frame to the said forwardly extending projections of the back frame to the rear of the said pivotal connections of said projections to the sides of the base frame, to provide for pivoting of the seat frame about its said pivotal connections to the sides of the said base frame, to lower the rear end of the seat frame as the back frame is pivoted rearwardly about its pivotal connections to the sides of the base frame.

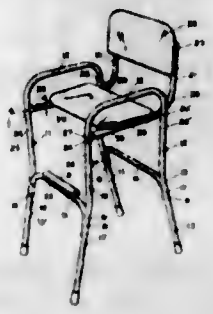
2,834,403
STRIP SPRING CONSTRUCTION
Kennard Pitts, Detroit, and Elmer A. Herider, Dearborn Township, Wayne County, Mich., assignors to Rockwell Spring and Axle Co., Coraopolis, Pa., a corporation of Pennsylvania
Application January 31, 1957. Serial No. 637,456
6 Claims. (Cl. 155—179)



1. In combination, a spring element made from a one-piece spring metal band having a supported portion and a pair of portions at the ends projecting outwardly from opposite sides, one of which projecting portions extends at an acute angle from the supported portion and from which a section is bent and overlapped in a joint to the supported portion between its ends thereby arching a section of said supported portion and stressing said extending portion into complementary arched shape, the other projecting portion of said pair having a substantially straight terminal joined to said supported portion by a main bend to produce an upward offset between the two portions and further joined by a rebend for directing the terminal of the projecting portion for lying flat against a transverse supporting surface, and spaced transverse

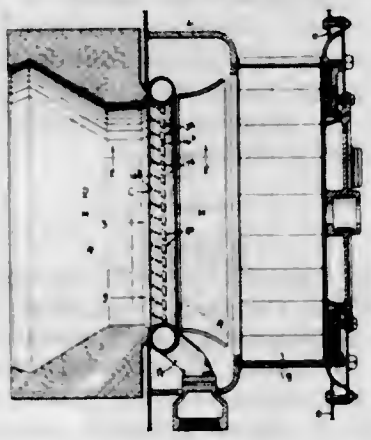
frame members presenting integral spring securing means on which to pin respectively said upwardly offset terminal and said extending portion at a point in the lower arch thereof opposite to the overlapped joint.

2,834,404
ARTICLE OF FURNITURE
Thomas E. Groome, Miami, Fla.
Application January 18, 1955, Serial No. 482,456
1 Claim. (Cl. 155—194)



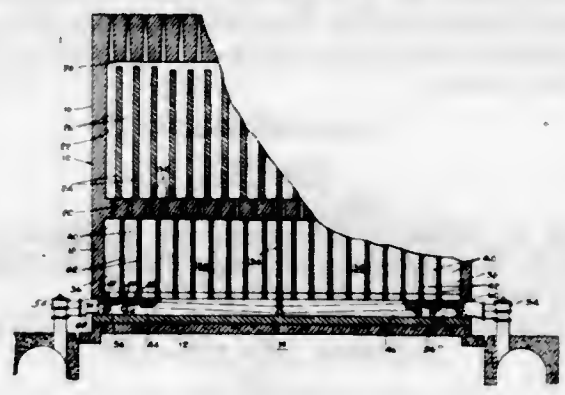
A high chair comprising a pair of spaced parallel inverted U-shaped frames, each of said frames including a pair of parallel upright members integrally connected at their upper ends by a horizontal member, outwardly diverging front and rear legs integrally formed on the lower ends of each of said frames, a horizontal spacer bar secured at its opposite ends to the upper ends of said rear legs, a second spacer bar extending between the upper ends of said front legs, means securing said second spacer bar to said front legs for vertical adjustment thereon, a footrest mounted on said second spacer bar, a horizontal bar extending between the upright members of each of said frames parallel to said horizontal member, an arcuate offset end portion integrally formed on the forward end of each of said horizontal bars engaging the rear face of the forward upright member, an upright portion integrally formed on the rear end of each of said horizontal bars, a back rest having its opposite edges secured to said upright portions, means securing said arcuate offset end portions to the forward upright member for vertical adjustment thereon, means securing the rear end portions of said horizontal bars to the rear upright members for vertical adjustment thereon, and a seat having its opposite edges secured to said horizontal bars.

2,834,405
FLAME RETENTION MEANS FOR GAS BURNERS
Temple S. Voorheis, San Francisco, Calif.
Application October 22, 1954, Serial No. 463,922
1 Claim. (Cl. 158—7)



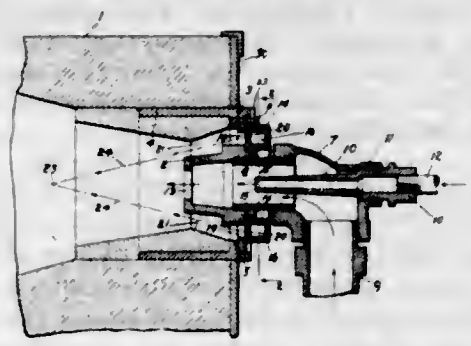
In a gas burner unit of the type having a combustion chamber, a forced draft air source for introducing air to said combustion chamber in a generally swirling motion disposed at an oblique angle relative to the medial axis of the said chamber, an annular gas pipe disposed adjacent the throat opening to said chamber between said chamber and said source through which air from said source passes into said chamber, a plurality of jet openings arranged in circumferentially spaced echelon groups around the inner circumference of said annular gas pipe with said echelon groups disposed along lines of bearing substantially paralleling the said oblique angle at which the swirling air enters said chamber, the improvement comprising: a plurality of baffles spaced circumferentially around the inner circumference of said gas pipe and projecting therefrom generally toward the center of said ring and into the path of swirling air flow from said source to said chamber; each said baffle disposed adjacent a respectively associated echelon group of jet openings and also disposed between and in approximate alignment with a said echelon group and said source to create eddy currents of mixed gas and air flowing into said combustion chamber; each baffle formed substantially rhomboidal in shape defining parallel end surfaces each lying within a plane extending parallel to the said oblique angle at which the swirling air flow enters said chamber.

2,834,406
COKE OVEN
Carl Otto, Manhasset, N. Y.
Application April 5, 1956, Serial No. 576,444
14 Claims. (Cl. 158—7.5)



1. In combination with a regenerator having an elongated edge and a sole channel alongside said edge, a wall interposed between said edge and said sole channel and having a plurality of ports distributed along the length thereof, and valve means operatively associated with said ports and selectively responsive to pressure exerted in the direction of gaseous fluid flow through the regenerator for subjecting some of said ports to a throttling effect when gaseous fluid flow is in one direction and for subjecting said some ports to a different throttling effect when gaseous fluid flow is in the opposite direction.

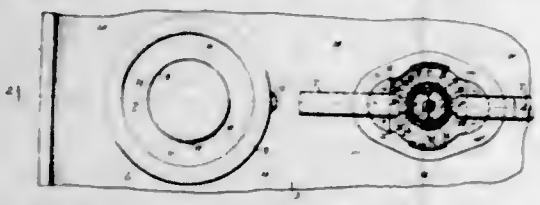
2,834,407
BURNER FOR BAKERY OVENS
Charles O. M. Mason, East Weymouth, Mass., assignor, by mesne assignments, to Quincy Syrian Baking Co., Inc., Quincy, Mass., a corporation of Massachusetts
Application January 31, 1956, Serial No. 562,494
1 Claim. (Cl. 158—109)



A burner for a baking oven which has a combustion chamber and a burner-receiving opening in one wall thereof that communicates with the combustion chamber,

said burner having a tubular burner element provided at its rear portion with a laterally extending flange, adapted to overlie and be bolted to the outside of the wall of the baking oven and to support said burner element with the major portion thereof within said burner-receiving opening, said burner element having a diameter sufficiently smaller than that of the burner-receiving opening to provide an annular space of substantial width between said burner element and the wall of said burner-receiving opening, which annular space is adapted to be covered by said flange, said flange having openings therein adapted to communicate with said annular space, means to deliver gaseous fuel to the burner element, means to deliver a stream of primary air to the burner element axially thereof, an air induction ring separate from the burner element and encircling the rear end thereof, said ring having an interior chamber, a supporting arm rigid with said ring and extending outwardly therefrom in a radial direction, said arm overlapping said flange and adapted to be secured thereto by the means for bolting the flange to the wall of the baking oven, said arm being operative to hold the inner face of the ring against the outer face of the flange, said inner face of the ring having jet openings therethrough which communicate with said chamber and register with the openings in said flange, said jet openings being directed toward a point in front of the burner element, and means to deliver secondary air to the chamber of the air induction ring whereby jets of secondary air are delivered through said jet openings.

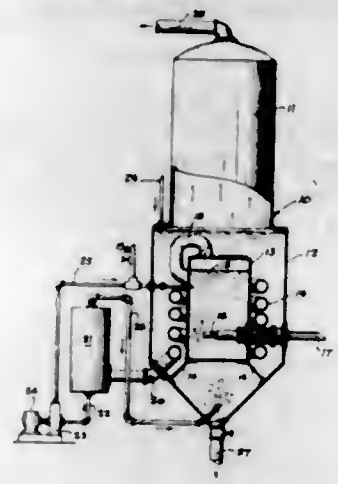
2,834,408
PILOT BURNER
Harold C. Reinhart, Ferguson, and Eugene P. Portas, Affton, Mo., assignors to Magic Chef-Food Giant Markets, Inc., a corporation of New Jersey
Application April 12, 1954, Serial No. 422,412
8 Claims. (Cl. 158—115)



1. A pilot burner comprising a sheet metal cup, said cup having a bottom and a side wall, portions of the side wall being struck in to provide side openings for entry of gas, said struck-in portions being angled to act as baffles for the openings, a spud at the bottom of the cup, and a filament extending across the cup above the top of the spud in position to be located in the pilot flame for stabilizing the flame.

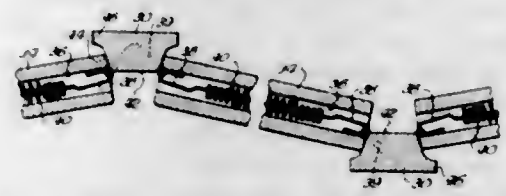
2,834,409
EVAPORATION OF CHARRABLE ORGANIC LIQUIDS
Lowell W. Petersen, Homewood, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Original application November 16, 1951, Serial No. 256,680, now Patent No. 2,762,429, dated September 11, 1956. Divided and this application December 22, 1955, Serial No. 554,761
10 Claims. (Cl. 159—16)

6. In a method for concentrating charrable organic liquids by direct contact combustion gas heating, the steps which comprise: passing a stream of hot combustion gases in direct heat exchange relationship into a body of non-charrable, condensible fluid maintained below the surface of and out of direct contact with the charrable, organic liquid to be concentrated; vaporizing at least a portion of said noncharrable fluid by heat obtained from said gases, thereby effecting a partial cooling of said gases; transferring the heat from the vapors thus formed to condense the same by indirect heat transfer with the organic liquid to be concentrated; separating the uncondensed products



from the condensed, noncharrable fluid; and directly contacting said organic liquid with at least a portion of said uncondensed products.

2,834,410
FOLDING DOOR
Herman S. Kuyper, Pella, Iowa, assignor to Rolscreen Company, Pella, Iowa, a corporation of Iowa
Application December 5, 1955, Serial No. 550,875
2 Claims. (Cl. 160—199)

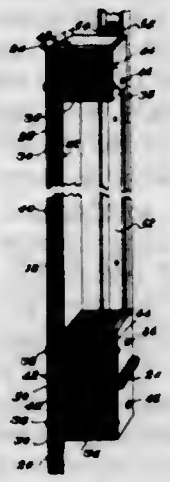


1. A folding door comprising a series of panels arranged substantially edge to edge, moldings between the edges thereof, said panels having openings extending into the edges thereof, tensioned flexible resilient elements received in said openings, said moldings having inner faces and side edges at obtuse angles to said inner faces, hinge elements at substantially the corners between said inner faces and said side edges lying in registry with said openings and connected with said tensioned flexible resilient elements, said resilient elements urging the edges of said panels against said moldings to cooperate therewith in tending to retain said panels in both edge-to-face relationship with said moldings in the folded position of the door and edge-to-edge relation with said moldings in the unfolded position of the door, and permitting accordion-like folding and unfolding of the door, the coaction of said panel edges and said molding inner faces holding the door in said folded position when open, and the coaction of said panel edges and said molding side edges holding the door in a substantially shallow accordion formation when closed.

2,834,411
ACCORDION-TYPE DOOR
MacMillan Clements, Nantucket, Mass.
Application September 23, 1955, Serial No. 536,227
7 Claims. (Cl. 160—207)

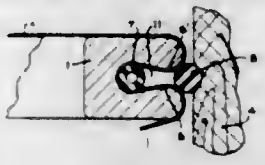
1. An accordion-type door comprising a plurality of articulated sections, means pivotally connecting the sections to each other, at least one of said door sections comprising a panel having a metallic skin and a non-metallic layer bonded to said skin, and guide means for guiding said sections from the open to the closed position of the door, said aforesaid door section which includes said metallic skin and non-metallic layer having a forwardly facing metallic and non-metallic portion, a

pair of horizontally extending metallic and non-metallic portions, and a pair of inturned metallic and non-metallic



portions, said portions forming U-bends in cross section at opposite ends of the panel and filler blocks in each U-bend.

2,834,412
DEVICE FOR THE SUPPORT OF SCREENS
Herbert Velke, Uzwil, Switzerland, assignor to Gebrüder Bühler, Uzwil, Switzerland
Application November 10, 1953, Serial No. 391,311
Claims priority, application Germany November 18, 1952
4 Claims. (Cl. 160—395)



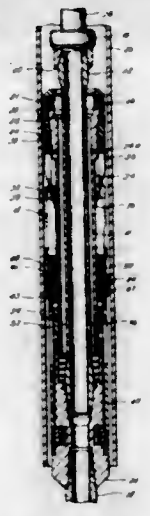
1. In a device for the supporting of screens, and particularly fabric screens, a housing, a screen supporting frame located in said housing, said frame having a first recess outwardly opening towards said housing, a screen carried by said frame having edge portions extending between said housing and frame and across said first recess, said housing having a second recess outwardly opening towards said frame, said recesses being situated adjacently one to another, an elastic cord member in said recesses, to resiliently fasten said screen to said frame and the latter in said housing.

2,834,413
SOLE BLANKING APPARATUS
Eino Jaakkola, Los Angeles, Calif.
Application November 8, 1954, Serial No. 467,415
6 Claims. (Cl. 164—21)



1. In sole blanking apparatus, a work station including intermittently operable cutting die mechanism, and means for automatically feeding a sheet of material to be cut in a plurality of cutting passes with respect to said work station so that a different area of said sheet will be presented to said cutting die mechanism at each pass, said feeding means including a pusher member for engagement with the trailing edge of said sheet, a reciprocably guided support for said pusher member, a pinion carried by said support, a fixed rack member with which said pinion is constantly operatively engaged, a travelling chain in driving engagement with said pinion, means for imparting linear travel to said chain to rotate said pinion and cause it to travel along said rack to thereby impart linear movement to said pusher member and therethrough to said sheet toward the die mechanism at the work station, means for imparting a reversal of travel to said chain to retract said pusher member at the completion of a series of die-cutting operations in one pass of said sheet, cooperating pairs of feed rollers mounted in flanking relation to the near and far sides of the work station as related to the linear travel of the sheet during a cutting pass, sheet cutting means at the far side of said work station, means for causing engagement of the far side pair of rollers with said sheet in the completion of a cutting pass, means for imparting rotative drive to said far side pair of rollers to feed said sheet through said sheet cutting means to sever the scrap therefrom, means for subsequently reversing rotative drive of said far side pair of rollers to feed said sheet in a reverse direction for engagement with said near side pair of rollers, means for imparting rotative drive to said near side pair of rollers in a direction to continue the reverse travel of the sheet and cause its trailing edge to move toward and for engagement with the pusher member when in its retracted position, trip and gauge means at said work station for operative contact with said sheet, means operatively connected with said trip and gauge means for controlling the sheet feeding and retracting movements of said pusher member imparted thereto by said chain in response to the position of the sheet with respect to said trip and gauge means, and means operative in response to actuation of said trip and gauge means for causing said actuation of the pairs of rollers.

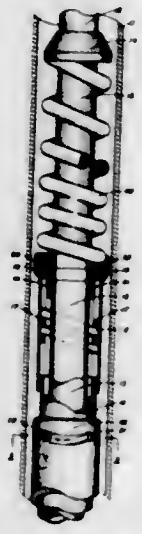
2,834,414
WELL PACKER
Jack E. Edwards, Houston, Tex.
Application August 23, 1955, Serial No. 530,033
6 Claims. (Cl. 166—130)



1. A well packer for use in a casing comprising, a generally tubular body, a packer element secured about the body, a sleeve member slidably disposed about the body and extending beyond one end thereof, slips secured to the sleeve member and disposed about the body for radial expansion and contraction into and out of frictional engagement with an inner wall of a casing, a slip expander slidably secured to the body and engaging the slips, said slip expander and slips having guide and slide surfaces for such radial expansion and contraction of said slips upon relative movement of the slip expander and slips, shoulders on the body and the slip expander abutting and confining the packer element whereby upon relative movement of said body and sleeve member in one direction said slips are expanded radially into frictional engagement with the wall of the casing thereby fixing said slip expander against further movement in said one direction, continued movement of said body in said one direction compressing said packer element between said shoulders and expanding the packer element into sealing engagement

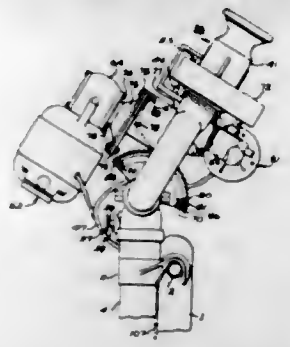
with the wall of the casing, a tubular mandrel slidably extending throughout the length of said body and said sleeve, said mandrel adapted to be connected to a string of pipe for raising, lowering, and manipulating the well packer in said casing, an unrestricted passageway between the mandrel and the body, first and second enlargements rigidly mounted on the mandrel exteriorly of and spaced from opposite ends of the body for engaging each such end for moving the body relative to the sleeve member, at least a portion of the second enlargement being internally receivable within the sleeve member, coacting and engageable valve surfaces on each enlargement and each end of the body for selectively closing the passageway at each end on reciprocation of the mandrel relative to the body, yieldable means between the second enlargement and the body yieldably separating the engageable valve surfaces on the second enlargement and body, expansible latch means yieldingly mounted on said second enlargement, engageable thread means on said latch means and on the sleeve member threadedly locking the mandrel and sleeve member against relative longitudinal movement in one direction, said latch means being disengageable on rotation of the mandrel relative to the sleeve member and engageable by longitudinal movement of the sleeve member relative to the mandrel in the other direction, and friction means cooperating with the sleeve member yieldingly and frictionally engaging said wall of the casing for holding the sleeve member substantially stationary during movement of said mandrel when the latch means is released from the sleeve member.

2,834,415
TUBING PACKER
George Boer, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application May 17, 1954, Serial No. 430,207
3 Claims. (Cl. 166—139)



1. A packer adapted to be connected into a tubing string which comprises, in combination, a full opening tubular packer mandrel, a packer sleeve assembly embraceably surrounding the lower end of said packer mandrel, frangible means releasably connecting said packer mandrel to said packer sleeve, a slip cage assembly carried on the lower end of said packer sleeve, a plurality of pipe slips arranged in said slip cage assembly, said packer sleeve having stepped surfaces in operative contact with corresponding stepped surfaces of said pipe slips, a plurality of friction springs carried on said slip cage assembly holding said packer sleeve against rotation with respect to said packer mandrel, releasable means interconnecting said packer sleeve and said slip cage assembly for relative movement for setting said pipe slips by moving the stepped surfaces on the pipe slips and the packer sleeve relative to each other and thereby engaging the pipe slips with the wall of a casing on downward movement of the packer mandrel, a single, continuous, helical, reinforced, deformable solid rubber packing member spirally arranged on and connected by its upper end to said packer mandrel for vertical movement with said packer mandrel and by its lower end to said packer sleeve for rotational movement with respect to its upper end for providing a seal in the annulus between the tubing and a casing on downward movement of the upper end of said packing member with respect to said packer sleeve to compress said packing member into sealing engagement with the wall of said casing, and projection means on the intermediate portion of said packer mandrel threadedly engaging with a groove formed on the inner surface of said packer sleeve for rotational movement of said packer mandrel and providing rotational movement of said packing member on shearing said frangible means by continued downward movement of the packer mandrel whereby uniform wrapping of said packing member on said packer mandrel is obtained.

2,834,416
FIRE FIGHTING APPARATUS
Lloyd J. Becker, Wooster, Ohio, assignor to Akron Brass Manufacturing Co., Inc., Wooster, Ohio, a corporation of Ohio
Application July 25, 1955, Serial No. 524,045
4 Claims. (Cl. 169—25)



1. A remotely controlled fire fighting apparatus comprising a ladder pipe for facile connection to a ladder, upper and lower mounting brackets carried by the ladder pipe, the brackets being in longitudinally adjustable relationship on the ladder pipe, one of the brackets including a clamp arrangement to removably fix the ladder pipe to a ladder, a support base of generally Y-shaped construction, the support base having one inlet and two outlet openings, a siamese carried by the support base and having first and second inlet openings, pivotal fluid tight connection means pivotally connecting the siamese to the support base with the siamese first and second inlet openings being in communication with the support base first and second outlet openings respectively, a gear segment fixed to and forming a part of the support base, the siamese including a first motor bracket, a first reversible motor fixed to the siamese motor bracket, the motor having a drive shaft, a first worm gear carried by the first motor shaft, the first worm gear and the gear segment being in engagement with one another whereby operation of the first reversible motor in one direction will elevate the siamese and operation of the first motor in the other direction will depress the siamese, an adjustable nozzle carried by the siamese, said nozzle having a base, a sleeve, and a baffle, the baffle being fixed to the base, the sleeve being a tubular member threaded to the base and disposed about the baffle, the sleeve member and the baffle together defining an adjustable annular fluid opening, a sleeve gear disposed circumferentially about and fixed to the sleeve, the sleeve and sleeve gear being shiftable axially relative to the base upon rotation relative to the base, the siamese including a second motor bracket, a second reversible motor fixed to the siamese second

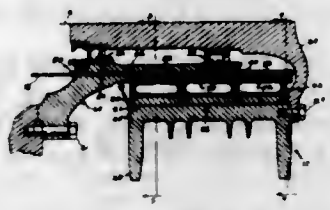
motor bracket, the second motor having a shaft and a drive gear fixed to the second motor shaft, the drive gear being fixed axially and being engaged with the sleeve gear whereby operation of the second motor will cause the sleeve to move axially relative to the base and baffle to adjust the size of the annular fluid opening, means to selectively operate the first motor in either direction, and means to selectively operate the second motor in either direction.

2,834,417

ENDLESS TRACK VEHICLE BRAKE MECHANISM

Carl F. Bachle, Grosse Pointe, Mich., assignor to Continental Aviation and Engineering Corporation, Detroit, Mich., a corporation of Virginia

Application December 22, 1955, Serial No. 554,810
5 Claims. (Cl. 180—9.1)



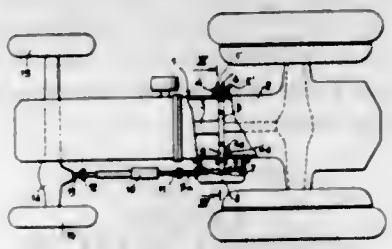
1. In a track laying military vehicle having driving means and a track driven thereby, a sprocket wheel and brake mechanism assembly adapted to be supported by a front axle of said vehicle, said sprocket wheel being rotatably carried on said axle, said sprocket wheel carrying said track and rotated thereby, said brake mechanism comprising a plurality of segmental brake shoes annularly arranged and carried by said axle, said brake shoes operable to be radially urged in braking contact with said sprocket wheel actuating means for said brake shoes, and retaining means operable to restrain said brake shoes against angular displacement with respect to said axle, said axle comprising a substantially tubular supporting member, said sprocket wheel comprising a hub portion rotatably carried internally of said axle tubular member and a sprocket portion carried by said hub portion and having an inner cylinder forming a brake drum element concentric with and radially spaced from the outer surface of said axle tubular member, said brake shoes arranged in the space between said axle and said sprocket wheel inner cylinder and adapted to be selectively urged into frictional braking contact with said inner cylinder.

2,834,418

CONVERSION OF A TWO WHEEL DRIVE TRACTOR TO A FOUR WHEEL DRIVE TRACTOR

Carlo Torchio, Belgioloso, and Sion Segre Amar, Nichelino (Turin), Italy; said Torchio assignor to Selene S. r. l., Nichelino (Turin), Italy

Application December 13, 1954, Serial No. 474,907
Claims priority, application Italy December 12, 1953
1 Claim. (Cl. 180—49)



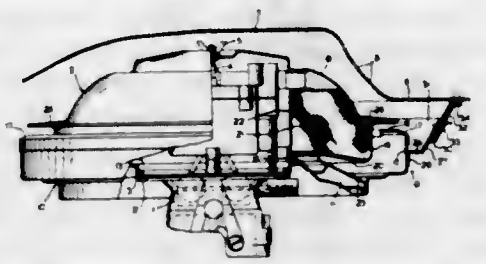
In a rear drive tractor, a box shaped body comprising rear and fore portions detachably secured together, said rear portion supporting the rear wheels and enclosing the differential gear and power transmission shaft for the rear wheels, said fore portion supporting a front wheel shaft and enclosing at its end adjacent said rear body portion a change speed gear with the output shaft thereof projecting toward said rear portion for connection with said power transmission shaft for the rear wheels, complementary flanges on said rear and fore portions each arranged in a transverse plane of said body and in registration when said body portions are secured together, a frame secured to and between said flanges with both sides thereof contacting the faces of both flanges so as to form a continuation of said body, there being an opening in said frame, a lateral box on said frame and communicating with the interior of said body through said frame opening, a rotatably mounted shaft in said lateral box, a transmission drive within said frame to transmit power to said shaft in said lateral box from the same change gear output shaft which is drivingly connected through said power transmission shaft to said rear wheels whereby said front and rear wheels can be driven at the same rotary speed, means for transmitting power from said lateral box shaft to said front wheel shaft, and clutch means for selectively engaging and disengaging said lateral box shaft from said transmission drive.

2,834,419

HOOD AND AIR CLEANER MOUNTING ASSEMBLY

Joseph B. Sebok, Dearborn, Mich., assignor, by mesne assignments, to Purolator Products, Inc., Rahway, N. J., a corporation of Delaware

Application November 15, 1954, Serial No. 468,825
4 Claims. (Cl. 180—54)



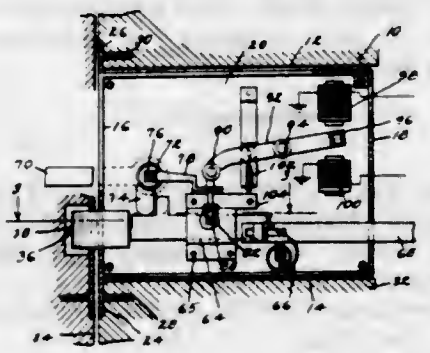
2. In combination, a vehicle having an engine compartment and a hood over said compartment with an elevation therein, the forward part of said elevation having vent openings therein, an air cleaner mounted in the engine compartment and projecting into the space under said elevation, said air cleaner having an annular air inlet, and resilient sealing means on said air cleaner extending upwardly over the forward part of said inlet into sealing engagement with said hood forward of said elevation.

2,834,420

ELECTRICALLY OPERATED DOOR LOCKING AND WINDOW CLOSING MEANS FOR MOTOR VEHICLES

Shorey C. Guess, Tucson, Ariz.

Application March 16, 1955, Serial No. 494,717
1 Claim. (Cl. 180—82)



The combination of an automotive vehicle of the type having door latches including latching bolts having means

associated therewith for positively locking said bolts in latching position, a plurality of window raising motors, and an ignition circuit with an electric control circuit, a switch in said electric control circuit and having portions thereof simultaneously controlling said ignition circuit, electromagnetic means in said electric circuit for moving said latch bolt locking means into locking engagement therewith, electromagnetic means for moving latch bolt locking means out of locking engagement therewith, electromagnetic means for simultaneously energizing said motors, said switch being adapted when turned through a plurality of predetermined select positions to actuate said latch bolt locking means, said latch bolt unlocking means, said motor energizing means and said ignition circuit both singly and in preselected combinations, a latching head telescopically mounted on said latch bolt, means on said latch bolt for retaining said head thereon, and a spring normally biasing said head in a latching direction whereby said head may move in an unlatching direction to permit said door to close with said bolt in locked condition.

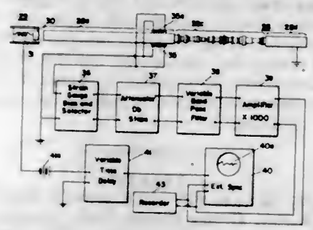
2,834,421
LOW NOISE LEVEL ACOUSTIC LOGGING SYSTEM
Gerald C. Summers, Dallas, Tex., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application January 7, 1954, Serial No. 402,798
10 Claims. (Cl. 181—.5)



4. In combination a magnetostrictive transducer for translating electrical energy into acoustic energy and including a pair of cylinders of magnetostrictive material, separate toroidal windings for each of said cylinders, cable means for supporting said transducer including electrical conducting means forming a signal channel at least a portion of which passes through both said cylinders, a source of alternating current, and circuit means interconnecting said source and said windings for flow of current from said source instantaneously in relatively opposed directions through said windings to maintain at a minimum the voltages induced in said signal channel by the resultant magnetic fields while producing like dimensional changes in said cylinders for generation of an acoustic energy field in adjacent media.

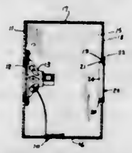
2,834,422
SEISMIC DATA PRODUCING SYSTEM
Frank A. Angona, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Company, Inc., New York, N. Y., a corporation of New York
Application June 21, 1956, Serial No. 592,960
16 Claims. (Cl. 181—.5)

1. The combination with an elongated elastic member which has a section whose cross-sectional area changes lengthwise thereof in scaled correspondence with velocity changes existing below the earth's surface, of means for applying a pulse of acoustic energy to said elastic member,



and detecting means coupled to said elastic member responsive to the effect upon said pulse of acoustic energy of said section.

2,834,423
HIGH FIDELITY LOUD SPEAKER ENCLOSURE
Robert L. Bradford, New York, N. Y.
Application September 1, 1954, Serial No. 453,635
15 Claims. (Cl. 181—31)



1. In an enclosed loud speaker enclosure having a speaker opening in one wall thereof, a speaker mounted in said enclosure and having a cone thereof forming a closure for said opening, pressure relief means movably mounted in an opening formed in at least one wall of said enclosure for placing the interior of the enclosure in communication with the atmosphere and thereby relieving pressures exerted by the air column within said enclosure upon the rear face of the cone of said speaker and thereby permitting it to move freely and reproduce sound with a minimum loss of life, color and timbre.

2,834,424
SOUND-REPRODUCING DEVICE
Alexis Badmaleff, Los Angeles, Calif., assignor to Altec Lansing Corporation, Beverly Hills, Calif., a corporation of Delaware
Application January 26, 1956, Serial No. 561,632
6 Claims. (Cl. 181—32)

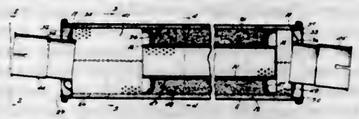


1. In a sound-reproducing device of the type having a conical diaphragm concentrically divided by corrugations into an inner conical section and an outer peripheral section, the improvement in said sound-reproducing device comprising a coating on said corrugations of a resistance-increasing agent.

2,834,425
EXHAUST MUFFLER
Emanuel Rawson, Chicago, Ill., assignor to Grand Sheet Metal Products Co., Melrose Park, Ill., a corporation of Illinois
Application April 2, 1954, Serial No. 420,607
7 Claims. (Cl. 181—42)

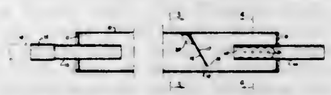
1. A muffler for automobile engines comprising three nested elongated tubular metal members laterally spaced

from each other along substantially all of their respective opposed surfaces, the two inner members thereof being perforated, means for maintaining said members in generally symmetrical relation with respect to each other, a layer of relatively coarse glass fiber mat disposed immediately around the outer surface of said innermost mem-



ber and additional fibrous inert material disposed over the first named fiber mat, said additional material being substantially finer than the coarse glass fiber and normally being subject to rapid deterioration when used directly around said innermost member, the fiber mat being strong enough to resist deterioration due to exposure to the exhaust gases.

2,834,426
MUFFLER
Lindon D. Mason, Denver, Colo., assignor to Nu-Flo Products, Incorporated, Littleton, Colo., a corporation of Colorado
Application November 8, 1954, Serial No. 467,251
4 Claims. (Cl. 181—57)



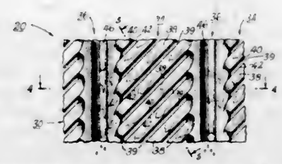
1. An exhaust gas muffler comprising an elongated, hollow shell closed at its ends, an open-ended, otherwise, imperforate, inlet pipe centrally through one closed end of the shell for delivery interiorly of the shell well beyond the end thereby intersected, an open-end tailpipe centrally through the other closed end of the shell for major intake at some distance from the end thereby intersected, a single, apertured baffle inclined to the longitudinal axis of the shell transversely within and substantially obstructing the shell interior more nearly adjacent said tailpipe than said inlet pipe, whereby to divide the shell interior into a greater inlet compartment and a lesser outlet compartment, said baffle being the only barrier to direct free flow of gas through the shell between the inlet pipe and tailpipe, and a margin at the edge of said baffle most nearly adjacent the tailpipe spaced from the shell wall to provide a passage interconnecting said compartments.

2,834,427
MUFFLER HAVING A COVER AND A RETAINING STRIP THEREFOR
Walter H. Powers and Benton D. Jacokes, Jackson, Mich., assignors to Walker Manufacturing Company of Wisconsin, Racine, Wis., a corporation of Wisconsin
Application December 22, 1953, Serial No. 399,686
2 Claims. (Cl. 181—61)



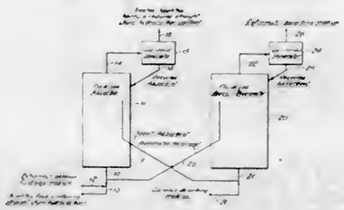
1. A muffler for silencing exhaust gases comprising, a casing having a gas inlet port and a gas outlet port, means between said ports in said casing adapted to silence exhaust gases, a layer of non-heat conducting material on the outside surface of said casing, a sheet metal cover wrapped around said casing and adapted to hold said non-heat conducting material in place, said cover having its adjoining longitudinal edges folded upwardly and backwardly to form a pair of outwardly extending longitudinal ears, a sheet metal retaining strip bent along its longitudinal center line to form a pair of downwardly slanting shoulders flexible about said center line, said shoulders having the longitudinal edges thereof folded downwardly and inwardly to form a pair of inwardly facing channels adapted to be slid over said outwardly extending longitudinal ears to lock said cover on said casing.

2,834,428
ELIMINATOR SCREEN FOR EVAPORATIVE TOWERS AND THE LIKE
Madan L. Ghai, Manchester, and Joseph A. Koren, Hartford, Conn., assignors, by mesne assignments, to Dunham-Bush, Inc., West Hartford, Conn., a corporation of Connecticut
Application September 1, 1955, Serial No. 532,054
8 Claims. (Cl. 183—75)



1. In apparatus of the character described, an eliminator screen comprising, a frame construction, and an eliminator screen supported by said frame construction formed by sheet metal and comprising a plurality of vertically extending rows of louvers having passageways therebetween and trough means adjacent each of said rows, said louvers being positioned at an angle to the horizontal and extending downwardly toward said trough means whereby liquid collecting on said louvers flows downwardly therealong to said trough means and thence in a protected stream downwardly toward the bottom of said screen.

2,834,429
TREATING PROCESS EMPLOYING A FLUIDIZED MASS OF ADSORBENT
Arthur J. Kinsella, Jr., Samuel P. Dickens, and Wiley P. Ballard, Port Arthur, and Benjamin F. Smith, Groves, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
Application October 25, 1955, Serial No. 542,722
2 Claims. (Cl. 183—114.2)

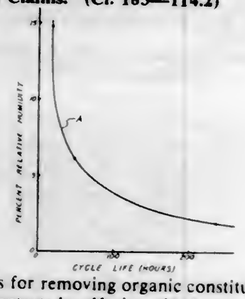


1. A method of treating a gaseous mixture containing a component to be separated therefrom which comprises introducing said mixture into an adsorption zone provided with a fluidized admixture consisting essentially of about 40% by weight finely divided alumino-silicate molecular sieve type selective adsorbent which selectively adsorbs said component from said mixture, said adsorbent having a particle size in the range 0.5–5.0 microns and an av-

erage particle size of about 2 microns, and about 60% by weight of a finely divided solid particle form clayey material having an average particle size of about 55 microns and the following particle size distribution:

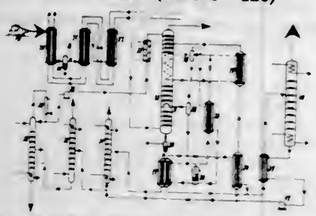
Particle size:	Weight percent
0–20 microns	14
20–40 microns	21
40–80 microns	30
80+ microns	35

2,834,430
REMOVAL OF HYDROCARBONS FROM SULFUR DIOXIDE GASES
Walter F. Johnson, Westfield, N. J., assignor to American Smelting and Refining Company, New York, N. Y., a corporation of New Jersey
Application March 5, 1956, Serial No. 569,495
6 Claims. (Cl. 183—114.2)



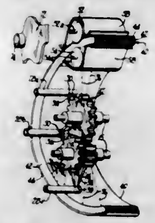
1. In a process for removing organic constituents which discolorize concentrated sulfuric acid from an SO_2 gas involving contacting a stream of said gas with an activated carbon adsorbent to remove said discolorizing organic constituents from the gas, the improvement which comprises establishing in said gas stream a relative humidity below about 10% and passing the thus established stream in contact with the activated carbon adsorbent, whereby the adsorptive capacity of said adsorbent is enhanced.

2,834,431
METHOD OF SEPARATING ACETYLENE FROM METHANE CRACKING GASES
Giacomo Fauser, Novara, Italy, assignor to Montecatini, Societa Generale per l'Industria Mineraria e Chimica, a corporation of Italy
Application December 12, 1955, Serial No. 552,619
Claims priority, application Italy December 16, 1954
2 Claims. (Cl. 183—120)



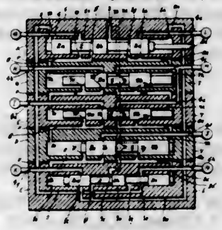
1. A process for the separation and recovery of the constituents of a gaseous mixture obtained from a partial combustion of methane whereby the acetylene and carbon dioxide constituents of the mixture are recovered substantially pure, said process comprising compressing the gaseous mixture to about 13 atm., cooling to a temperature of the order of −80° C. in a multiple stage operation including the removal of condensed moisture and the addition of a first portion acetaldehyde as selective solvent, subjecting a rising flow of said admixture to a scrubbing and absorbing action of a countercurrently applied second portion of said solvent which, already rich in acetylene, selectively absorbs higher acetylenes and additional acetylene, subjecting the rising vapors to a scrubbing and absorbing action of a countercurrently applied third and larger portion of said solvent which has been cooled to a temperature slightly above the freezing point of acetylene and which completely absorbs the remaining acetylene and the carbon dioxide of said gaseous mixture, separating the scrubbed gaseous mixture into a carbon monoxide and hydrogen fraction, a methane fraction which is recycled for combustion, and an ethylene fraction, liberating said countercurrently applied second solvent portion of hydrogen, carbon monoxide, methane and nitrogen by degassing through pressure release and recovering acetylene and carbon dioxide by heating and refluxing said second solvent portion, liberating said countercurrently applied third solvent portion of the less soluble gases hydrogen and carbon monoxide as well as of inert gas by degassing through pressure release, recovering the main portion of acetylene and carbon dioxide by heating to about 30° C. and refluxing said third solvent portion, separating the carbon dioxide from acetylene, partly cooling said third solvent portion after having been freed of hydrogen, carbon monoxide, acetylene and carbon dioxide in a heat exchange with parts of said third solvent portion which have not been heated and refluxed as yet, compressing to the initial pressure of about 13 atm., cooling one part of the compressed solvent to a temperature of the order of −80° C., adding said cooled and compressed solvent as part of said countercurrently applied third solvent portion, combining the balance of said partly cooled and compressed solvent with said heated second solvent portion, liberating this combined fraction of most of the higher acetylenes by means of passing methane through said combined fraction and subjecting the gaseous discharge to cracking and recycling, heating the remaining solvent while partially refluxing, condensing rectified solvent vapors in heat exchange with water, compressing to about 13 atm., cooling to about −90° C. and using said compressed solvent at about −85° C. as said countercurrently applied third solvent portion.

2,834,432
LUBRICATION SYSTEM
Norman M. Sacks, New York, N. Y., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application April 12, 1956, Serial No. 577,887
10 Claims. (Cl. 184—6)



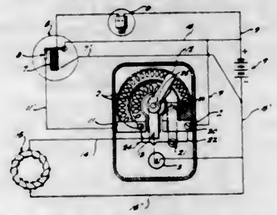
1. Apparatus adapted to lubricate a moving mechanism in a non-gravity environment comprising a supply conduit for feeding liquid lubricant under pressure to the moving mechanism, a rotatable absorbent endless belt surrounding the moving mechanism in spaced relation thereto, means for rotating said belt, means for guiding said belt for travel in a circular path, said belt being adapted to absorb lubricant flung from the mechanism during the course of movement thereof, said rotating means being operable upon actuation to press lubricant from said belt, and means connecting said rotating means and said supply conduit for feeding the lubricant back to the moving mechanism.

2,834,433
LUBRICATING SYSTEMS
Cecil Cyprian Higgens, West Worthing, England, assignor, by mesne assignments, to Tanway Limited, Barnby Dun, Doncaster, England, a British company
Application January 25, 1955, Serial No. 483,962
Claims priority, application Great Britain February 26, 1954
4 Claims. (Cl. 184—7)



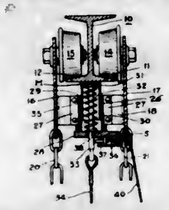
1. A lubricating system for delivering quantities of a lubricant to various lubricating points comprising end blocks containing pistons of the three-land double-acting type, blocks intermediate said end blocks and containing pistons of the two-land double-acting type, passages in all of said blocks controlled by the pistons therein for delivering the lubricant to a plurality of lubricating points, and means for operating said pistons successively in series from a first end block through the intermediate blocks to the last end block, said operating means comprising passages in said intermediate blocks controlled by the lands of the pistons therein whereby on movement of an intermediate piston by lubricant under pressure applied to one end thereof, the supply of lubricant is directed from said end to the same end of the next piston in sequence, passages in said end blocks controlled by the middle lands of said end pistons, a lubricant feed line connected solely to said passages controlled by said middle lands, and communicating passages arranged in said blocks so that when the last piston in the series is operated, lubricant under pressure is directed under the control of the middle land of the last piston to the appropriate end of the first piston in series to effect reversal thereof, whereupon lubricant is directed from the feed line under the control of the middle land of the first piston to the appropriate end of the next piston to effect reversal thereof, and so on throughout the series.

2,834,434
DUAL BRAKE APPLICATOR
Harry A. Stuart, Long Beach, Calif.
Application December 31, 1953, Serial No. 401,619
4 Claims. (Cl. 188—3)



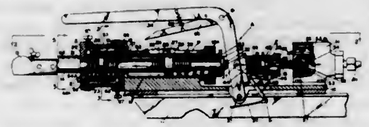
1. A brake applicator for electrical trailer brakes including a brake solenoid on the trailer, said brake applicator including the combination with the hydraulic brake lines of a pulling vehicle and a manually operable rheostat, a hydraulically actuated electric switch mounted in the hydraulic brake line of the pulling vehicle, a relay including contact points, a battery, said relay contact points being electrically connected to the battery, an electrical lead extending from the battery to the hydraulically actuated switch and thence to the rheostat, a second lead extending from the rheostat to the brake solenoid, another lead extending from the rheostat to the battery, and still another lead extending from the brake solenoid to the battery, a manually operable switch means electrically connected to the rheostat and to the battery to by-pass the hydraulically actuated switch.

2,834,435
CRANE ANCHORING DEVICE
Alfred G. Vanderbeck, Merion Golf Manor, Pa.
Application August 17, 1954, Serial No. 450,474
2 Claims. (Cl. 188—42)



1. In combination with an overhead flanged rail, a trolley including spaced vertical side plates, said plates having upper portions with wheels journalled therebetween and rotatable along the upper face of the rail flange and lower portions mounting therebetween and below the rail flange nested inner and outer vertically disposed cylinders, one of said cylinders being fixed to a side plate and the other being movable axially of the fixed cylinder toward and away from the lower face of the rail flange, said movable cylinder having an anchoring surface at its upper end and said fixed cylinder having a base plate at its lower end providing a housing, a spring within the housing in tension between said anchoring surface and said base plate for maintaining the movable cylinder in extended position and its anchoring surface in contact with the lower face of the rail flange, an actuating rod having abutment means at one end adjacent the upper end of the spring and said rod being manually operable to urge said abutment means downwardly to compress the spring and release the anchoring surface of the movable member from the lower face of the rail to thereby permit the frame and supported structure to be moved along the rail to a new position.

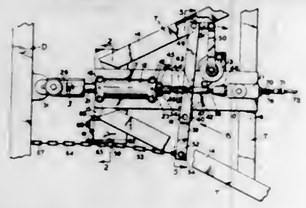
2,834,436
AUTOMATIC BRAKE APPLICATOR
Berryman O. Davids, Longview, Wash.
Application November 21, 1955, Serial No. 547,910
1 Claim. (Cl. 188—112)



An automatic inertia brake operator for trailer vehicles comprising a trailer frame, a housing mounted on said frame, a shaft mounted for longitudinal reciprocation in said housing, a trailer coupling mounted on said shaft, a hydraulic shock absorber mounted on said housing and engaging said shaft to restrain the longitudinal oscillating movement of said shaft, a spring mounted in said housing, an adjustable stop on said shaft engaging said spring, a brake actuator mounted on said housing, a lever operatively connected to said brake actuator and engaging said shaft whereby reciprocating movement of said

shaft will move said lever and operate said brake actuator, said lever being hand operative to operate said brake actuator when the trailer is parked, and an emergency spring operator in said brake actuator to operate said actuator on disconnection of said trailer from a towing vehicle.

2,834,437
AUTOMATIC BRAKE APPLICATOR
Berryman O. Davids, Longview, Wash.
Application August 22, 1956, Serial No. 605,504
5 Claims. (Cl. 188—112)



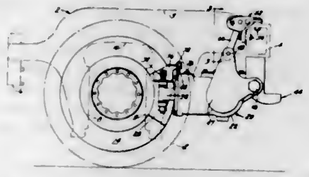
1. An automatic momentum brake applicator for trailers comprising a support mounted on the forward end of said trailer, a coupling slidably mounted in said support and extending forwardly therefrom, means in said support normally biasing said coupling forwardly in said support, a hydraulic brake applicator pump mounted on said trailer rearwardly of said coupler, a lever pivoted intermediate its ends to said trailer and extending transversely thereof between said coupling and said hydraulic brake applicator pump, means on said lever engaging said coupler whereby said coupler is adapted upon movement toward said pump to move said lever on its pivot, means positively connecting said lever to said pump whereby pivotal movement of said lever will actuate said pump, a motion retarding shock absorber carried by said trailer and connected to said lever for retarding the release of the brakes, and flexible means connecting said lever to a tractor vehicle to move said lever to a brake applying position upon separation of said tractor vehicle and said trailer.

2,834,438
AUTOMATIC BRAKE SETTING DEVICE
Robert E. Riddle and George R. Lee, St. Marys, Ga.
Application May 19, 1955, Serial No. 509,458
1 Claim. (Cl. 188—152)



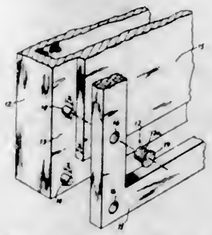
In combination with a motor vehicle of the type having a cable controlled parking brake assembly, a yoke engaging said cable intermediate its ends, a hydraulic cylinder fixedly secured to said vehicle, a piston positioned for reciprocation within said cylinder, a stem member integrally extending from said yoke, a piston rod connected to said piston and extending in axial alignment with said yoke, a sleeve, means adjustably connecting one end of said sleeve to said stem, means adjustably connecting the other end of said sleeve to said piston rod, a bracket member secured to said cylinder, oppositely projecting end extensions integrally formed on said bracket member, a pair of support arms pivotally connected at one end to each of said end extensions, a pair of toggle levers pivotally connected at one end to the other end of each of said support arms, said toggle levers extending inwardly from said support arms to said piston rod, means pivotally connecting said toggle levers together at their other ends and to said piston rod, a pair of oppositely disposed tension springs connected at one end to said bracket and at the opposite end to said toggle levers for normally biasing said toggle levers and said piston rod toward said bracket, a fluid pressure pump, conduits connecting said pump with said hydraulic cylinder, an electric motor for actuating said pump, a key controlled switch energizing said electric motor, means responsive to predetermined pressure in said hydraulic cylinder for deenergizing said electric motor, and means alternately energized by said key controlled switch to release the hydraulic pressure in said hydraulic cylinder to release said brakes.

2,834,439
ROTOR BRAKE MOUNTING
Walter R. Polanin, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application May 20, 1954, Serial No. 431,075
2 Claims. (Cl. 188—206)



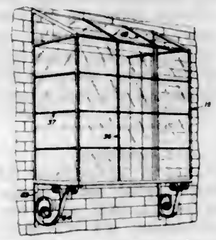
1. In a brake arrangement for a railway car truck having a truck frame and a supporting wheel and axle assembly including a brake surface which is approximately radial to the rotational axis of said assembly; the combination of: a brake support pivoted to the frame for pivotal movement relative thereto or a substantially horizontal axis, brake means carried by said support for braking cooperation with said surface, a bracket on said frame comprising a plurality of openings arranged in a series extending toward said surface, a torque link having a pivotal connection to the support on another substantially horizontal axis, said link having at least two holes arranged one closer than the other to said surface, the openings of said series having their axes at different heights and being formed and arranged to register with one or the other of said holes to adjust the height of said other axis to one of a plurality of points along a path extending upwardly and away from said surface, and a readily removable retainer extending through one of said openings and one of said holes registered therewith.

2,834,440
SPACERS FOR HOLDING A GASKET IN PLACE AND FOR OBTAINING SLIT WIDTH WITH THERMAL DIFFUSION PLATES
Wendell T. Berg, Euclid, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application November 3, 1953, Serial No. 390,070
2 Claims. (Cl. 189—36)



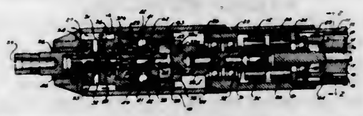
1. Apparatus for use with a gasket having substantially parallel lateral faces to be assembled between two parallel spaced-apart members which are required to be spaced apart a critical distance, one of said spaced-apart members having a gasket receiving recess therein and said gasket having a thickness greater than the combined depth of said gasket receiving recess and said critical distance, and having an aperture between and communicating with said lateral faces, comprising a gasket holding stud fixedly mounted in said gasket receiving recess in corresponding relation to said aperture and having a height equivalent to the depth of said gasket receiving recess, a cap member snugly receiving said gasket holding stud and being received by said aperture in said gasket, said cap member having a non-compressible head thereon of a thickness equivalent to the desired spacing between said two spaced-apart members when assembled and said non-compressible head being contiguous with one end of said gasket holding stud opposite said receiving recess so as to serve as a positive stop which controls the spacing between the spaced-apart members.

2,834,441
WINDOW CONSERVATORY
Philip Burns Mims, Alexandria, Va.
Application December 31, 1954, Serial No. 479,005
1 Claim. (Cl. 189—64)



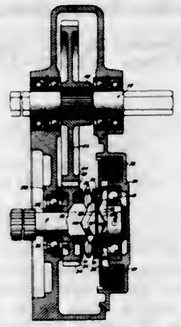
A knock-down type conservatory detachably connected to a wall having upper, lower or sill and side elements which define a window opening; said conservatory comprising a metal box frame of rigidly connected members which members when united form panel openings for a top panel, a bottom panel, a front panel and side panels; glass panels placed in said top, side and front openings; and a metal panel having drainage holes placed in the bottom panel opening; said metal box frame and its panels resting on the sill element and projecting outwardly therefrom to support the entire box frame against the wall; said bottom panel with its rigidly connected members resting flush on the sill while the top panel member and its rigidly connected members rest against the wall above the window opening, and the side panel members with their rigidly connected members rest against the wall beyond the window opening; and bolt means securing the rigidly connected box frame members to the wall.

2,834,442
TORQUE CONTROL CLUTCH
James Sturrock, Orwell, Ohio, assignor to Master Pneumatic Tool Company, Inc., Bedford, Ohio, a corporation of Ohio
Application October 17, 1956, Serial No. 616,542
12 Claims. (Cl. 192—.096)



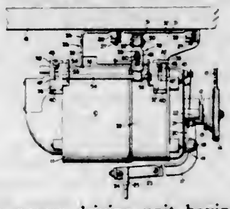
1. A power torque tool comprising a pneumatic motor having a rotatable driving member, a rotatable driven member, a liquid pump having passageways forming a liquid circuit with a restricted orifice therein, differential means coupling said driving member to said pump and to said driven member so that rotation of said driving member tends both to pump liquid through said restricted orifice and to rotate said driven member, a housing enclosing and spaced from said liquid pump and means for conducting the exhaust air from said motor through said housing and around said liquid pump for removing the heat generated by the operation thereof.

2,834,443
IRREVERSIBLE DRIVE
Joseph M. Olchawa, Chicago, Ill., assignor to Foote Bros. Gear and Machine Corporation, Chicago, Ill., a corporation of Delaware
Application March 29, 1954, Serial No. 419,214
6 Claims. (Cl. 192—8)



1. In an irreversible drive coupling, a rotatable driving element and a rotatable driven element, a rotatable drive pinion and a rotatable and axially slidable floating jaw clutch carried by said driving element, a driving jaw clutch rigidly secured to said driving element, said drive pinion, floating jaw clutch and driving jaw clutch coupling elements being disposed in consecutive axially adjacent relation and having cooperating cam surfaces therebetween means for limiting movement of said floating jaw clutch relative to said driving jaw clutch, whereby said floating and driving jaw clutches are connected for rotation together through said cam surfaces, said drive pinion engaging a driven pinion carried by said driven element whereby rotation of said drive pinion effects rotation of said driven element, and brake means controlled by camming movement of said floating jaw clutch, said brake means being operatively engaged upon over-riding rotation of said driven element.

2,834,444
ELECTRIC CLUTCH-BRAKE DRIVING DEVICES
Lorenz A. Wendel, Somerville, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application January 3, 1956, Serial No. 557,046
9 Claims. (Cl. 192—18)



1. An electric power driving unit having a substantially cylindrical housing and including an actuating lever operatively connected to a clutch-brake mechanism

forming a part of the driving unit, and means for adjustably mounting said unit on the supporting structure of the machine to be driven; said mounting means comprising a bracket, a pivot means supported on said bracket, strap means rotatably mounted on said pivot means, means securing said driving unit to the straps to support the driving unit substantially parallel with said pivot means, means for locking said straps in a selective angular position on said pivot means, and means provided on said straps cooperating with said driving unit securing means to permit axial rotational adjustment of said driving unit whereby said actuating lever may be aligned to lie in a selective predetermined plane.

2,834,445
SPRAG CLUTCH
Rudolph J. Gorsky, Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 20, 1955, Serial No. 535,442
2 Claims. (Cl. 192—45.1)



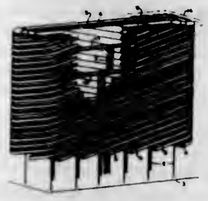
1. In a device of the class described, the combination of a member having a cylindrical inner race, a member having a cylindrical outer race disposed concentrically about said inner race to form an annular space therebetween, an array of sprags circumferentially spaced around said annular space with the opposite ends thereof engaging the axially central portions of said races for allowing said races to overrun in one direction of movement, a washer shaped bearing element disposed substantially normal to the axis of said races immediately adjacent each of the axially opposite ends of said sprags, each of said bearing elements including an inner and an outer bearing surface for slidably engaging said races adjacent the axially opposite ends thereof for maintaining said races substantially concentric, each of the bearing surfaces on said bearing elements including recessed portions disposed adjacent said races.

2,834,446
SEED DISTRIBUTING SHOE
Robert E. Wade, Consort, Alberta, Canada
Application September 23, 1953, Serial No. 381,860
1 Claim. (Cl. 193—9)



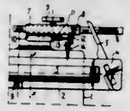
A seed distributing shoe of the character described providing a base portion and upstanding column on the base portion, said column having diverging apertures extending downward therethrough terminating in rearwardly directed outlets and a further aperture in the upper part thereof communicating with the diverging apertures, the portion of the column between the diverging apertures forming a dividing saddle semi-circular throughout its length as viewed in transverse section, and the further aperture having a seed inlet tube mounted therein, said tube having its lower end turned inward to provide an annular downwardly inclined ledge portion concavely curved on its upper side and terminating in a delivery outlet of less diameter than the body of the tube at the start of the ledge portion.

2,834,447
SILO INSTALLATION FOR STORING ARTICLES
Bruno Gmür, St. Gallen, Switzerland, assignor to Gebrueder Buehler, Uzwil, Switzerland, a firm of Switzerland
Application July 13, 1954, Serial No. 443,107
Claims priority, application Switzerland July 20, 1953
1 Claim. (Cl. 193—12)



A silo for the transport and the storage of goods comprising a plurality of coaxially located transporting and storing systems, said systems being composed of gradually downwardly extending superposed spiral slides consisting of substantially straight lateral and rounded edge proportions, said slides forming continuously spirally shaped superposed slideways for said goods to effect a downward slide thereof under the influence of their own weight, and an inner free space in the center of said silo and formed by said slides, said inner free space accommodating control devices and supervision passages and a frame to support said superposed slideways.

2,834,448
BLANK TYPING OF TERMINAL SEGMENTS
Pierre Léglise, Paris, France
Application July 21, 1952, Serial No. 300,072
18 Claims. (Cl. 197—84)

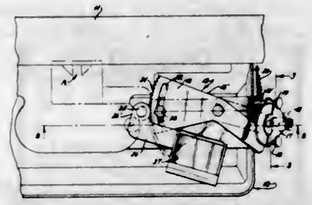


1. A method of typing justified lines which comprises typing an initial portion of a line, stopping said typing at a predetermined point in the travel of the typewriter carriage, said point being the same for all the lines to be typed in a given piece of work, introducing a no-impression device for the terminal segment of the line and continuing typing to the end of said segment while the carriage moves but without producing impressions on the sheet, then returning to the beginning of the terminal segment, setting the justifier according to the carriage course during the blank typing of said terminal segment, removing the no-impression device and actually typing said terminal segment.

2,834,449
COMBINED ERASER PARTICLE COLLECTING DEVICE AND DUST GUARD FOR TYPEWRITERS
William Siskind, Takoma Park, Md.
Application July 17, 1956, Serial No. 598,436
9 Claims. (Cl. 197—181)

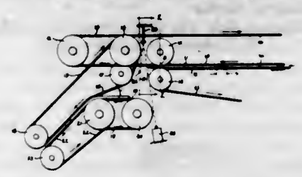
1. In combination with a typewriter having a platen, an anvil adjacent the platen and type bars and operating mechanism therefor beneath the anvil, the improvement comprising a dust pan pivotally mounted on the typewriter for movement into and out of a position adjacent said platen and over said anvil for collecting any erased particles when the operator makes an erasure and preventing the particles from falling between said type bars and their operating mechanism, mounting means attached

to the typewriter for movably supporting said pan for pivotal movement, power drive means urging said pan into erasure particle collecting position and cover position for said type bars and their operating mechanism adjacent said platen, and control means for said power means, said control means including an eraser member



used for erasing typed work adapted to be housed in said control means and upon removal therefrom causing said power means and the control means operated thereby to move said dust pan and its pivotal mounting means so that the dust pan is positioned adjacent the platen to collect erased particles and cover said type bars and their operating mechanism.

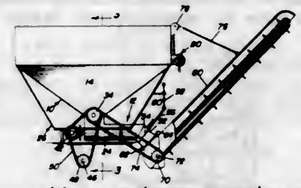
2,834,450
COUNTING SYSTEM FOR STACKER
Charles T. Govin, Mattoon, Ill., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application April 4, 1957, Serial No. 650,735
10 Claims. (Cl. 198—40)



1. In a system for conveying and counting substantially flat, flexible articles, in combination, conveyor means for moving said articles in a given direction, a first light source disposed to project a first light beam across the path of travel of said articles, a second light source disposed to project a second light beam across the path of travel of said articles, said second beam disposed upstream of said first beam with respect to the direction of travel of said articles, light sensitive means disposed to have said first and second beams impinge thereon, electroresponsive registration means associated with said light sensitive means, said electroresponsive means registering when both said first beam and second beam are effectively interrupted simultaneously, and means for driving said conveyor means for conveyance of said articles and to effect in succession passage of an article into said second beam, directing of the leading portion of said article through said first beam while said second beam is interrupted by portions of said article, and movement of said article clear of said second beam while portions of said article is in a position wherein it could be flipped through said first beam again.

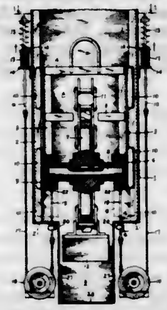
2,834,451
MECHANICAL FEED BOX
Jack W. Turner, Cody, Wyo., assignor of forty-nine percent to Harold R. Crumb, Cody, Wyo.
Application July 20, 1953, Serial No. 369,196
1 Claim. (Cl. 198—99)

A mechanical feed box comprising: a wheel supported hopper for the reception of feed, a discharge conveyor including a horizontal conduit communicating at one end with the hopper for receiving the feed therefrom, said conduit terminating in a downwardly inclined free end portion, an elevating conveyor mounted for swinging movement in a vertical plane on the discharge conveyor and adapted to receive the feed therefrom, said elevating



conveyor comprising a stationary mounting member on one end hingedly connected to the free end of the conduit and including a flange, and hooks pivotally mounted on the conduit and engageable by gravity with the flange for securing said member to said conduit in end-abutting engagement therewith.

2,834,452
AUTOMATIC GRAVITY TAKE-UP FOR BUCKET ELEVATORS
Edgar C. Richardson, Wenonah, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application February 8, 1957, Serial No. 639,087
3 Claims. (Cl. 198—208)

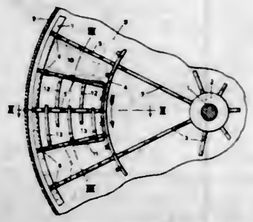


1. In a vertically disposed bucket elevator including an endless bucket belt, a lower sprocket wheel, a shaft fixed thereto and rotatable therewith, and a floating gravity take-up assembly adapted to rotatably support either end of said shaft and adapted to move freely in vertically disposed guides; a substantially gas-tight casing surrounding said sprocket wheel, said shaft, said floating assembly and said guides, and means for imparting a constantly applied down-thrust to said floating take-up assembly, said means including an axially movable first rod passing through said casing through a gas-tight packing gland, means inside the casing for connecting said rod to said floating assembly, and arranged, when said rod is under tension, to impart down-thrust to said assembly, and means mounted outside said casing and adjacent thereto at a position above the normal position of the top of the sprocket wheel and connected by means of a second rod and flexible cable to said rod to maintain said rod under axial tension.

2,834,453
BOTTLE CONVEYING DEVICE
Hendrikus W. M. Domensino, Helmond, Netherlands
Application January 20, 1956, Serial No. 560,456
Claims priority, application Netherlands January 27, 1955
10 Claims. (Cl. 198—211)

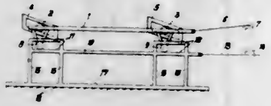
1. Bottle conveying device comprising a plurality of conveying wheels mounted for rotation about a common

axis, each of said wheels being provided with a number of compartments for radially positioned bottles, while intermediate said wheels dividing walls are arranged which are provided with passages for the bottles, near said passages switches being provided which are directed obliquely with respect to the direction of transportation of the bottles and serve for transmitting the bottles to a next



wheel or for discharging the bottles, said switches cooperating with carriers defining laterally the bottle compartments, each of said switches being composed of two sets of overlapping combs, directed towards each other from opposite dividing walls and each said carrier being composed of a member bent in a zigzag line in such a manner that it can pass said switches.

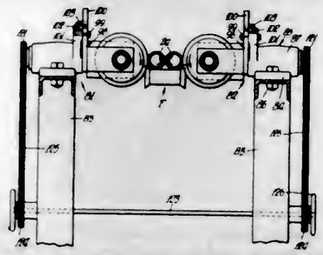
2,834,454
APPARATUS FOR SEPARATING SOLID MATTER FROM LIQUIDS
Adolf Sambraus, Luneburg, Germany
Application August 10, 1954, Serial No. 448,818
Claims priority, application Germany August 13, 1953
5 Claims. (Cl. 198—224)



1. In a device of the character described for scraping a surface, in combination, scraper means; and combined positive motion transmitting and driving means for positively moving said scraper means along a substantially elliptical path having a major axis extending in a direction substantially coextensive with the surface and a minor axis substantially normal thereto, said combined positive motion transmitting and driving means comprising first slide guide means for guiding said scraper means for sliding movement in a direction parallel to said major axis, second slide guide means for mounting said first slide guide means for sliding movement in a direction inclined to said major axis so that when said first slide guide means is sought to be moved parallel to said major axis, said first slide guide means together with said scraper means moves parallel to said minor axis, and moving means for simultaneously moving said scraper means and said first slide guide means in said direction parallel to said major axis in such a manner that said scraper means moves along said substantially elliptical path.

2,834,455
APPARATUS FOR FEEDING TUBES
Israel H. Marantz, Forest Hills, N. Y., assignor to Columbia Cable & Electric Corporation, New York, N. Y., a corporation of New York
Application March 11, 1952, Serial No. 275,944
9 Claims. (Cl. 203—75)

1. A feed mechanism for tubes comprising a support adapted to carry a pair of tubes in side by side relation in a horizontal plane, a pair of drive means positioned respectively on each side of said support, said drive means each having a bushing, a rod rotatably and slidably mounted in each of said bushings, said rods being longitudinally aligned and extending transversely with respect to said support, means to effect longitudinal movement of said rods in said bushings toward and away from each other, a drive roller rotatably mounted at the inner end of each of said rods respectively and adapted to engage



an associated tube, the axes of said rollers extending parallel to a vertical plane through the path of movement of such tubes on said support, means to rotate said rods to adjust the angle of inclination of the roller thereon, and means to rotate said rollers to effect simultaneous rotation of the tubes in opposed directions and advance of the tubes engaged by said rollers.

2,834,456
FRANGIBLE TABLET PACKAGING
Adolph Arthur Langer, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application July 18, 1955, Serial No. 522,424
2 Claims. (Cl. 206—42)

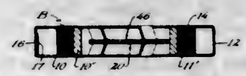


1. A package containing a plurality of frangible tablets comprising: a thick rigid mold sheet of inert plastic material having top and bottom planar faces, said sheet having therein spaced uniformly-tapered-wall apertures extending therethrough from the top face to the bottom face of said plastic mold sheet, a tablet of coalesced powdered material, too frangible to be shipped in commerce without support, in each of said apertures and adhering to the tapered-wall of said aperture, said tablet extending from the plane of the top face to the plane of the bottom face of said mold sheet, and an adherent protective cover sheet of inert, flexible, strippable material covering the tablet filled cavities and adherent to the top and bottom surfaces of said inert plastic mold sheet, said inert plastic mold sheet and said adherent protective sheets being partially severed into divisible segments by breakable zones of weakness, so that selected numbers of tablets in the protective inert plastic mold sheet, still protected by the adherent protective sheets, may be separated.

2,834,457
TAPE PACKAGES
Robert M. Dunning, St. Paul, Minn., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application March 11, 1957, Serial No. 645,209
10 Claims. (Cl. 206—52)

1. A holder for a member having a hollow generally cylindrical core, the holder including a panel of paperboard, a support cut from said panel and including a series of angularly spaced members having substantially

arcuate outer surfaces having a substantially common center, and a series of straps connecting said angularly



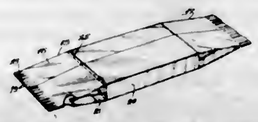
spaced members to said panel, and fold lines connecting said straps to said panel and to said angularly spaced members and extending in a generally radial direction from the center of curvature.

2,834,458
MAKE-UP STICK HOLDER
Murray Dulberg, New York, N. Y.
Continuation of application Serial No. 293,154, June 12, 1952. This application August 22, 1956, Serial No. 605,922
3 Claims. (Cl. 206—56)



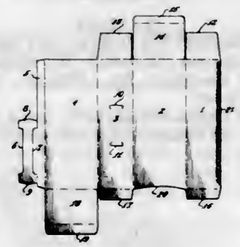
1. An article holder comprising a casing, an article carrier movable longitudinally within said casing and having a cylindrical lateral projection, slot means within said casing defining a helical path having opposed side edges to receive said lateral projection, means rotatable relative to said casing and said slot means and operatively connected to the same and to said article carrier for advancing and retracting said article carrier upon rotation relative to said casing and said slot means, said helical path defining the path of movement of said lateral projection; said casing having a conical projection lying in said helical path adjacent one side edge of said helical path at a location before the retracted position of said lateral projection, the diameter of said conical projection at its base plus the diameter of the cylindrical lateral projection being greater than the width of the slot and the width of the slot minus the diameter of the cylindrical lateral projection being substantially one half the diameter of the conical projection at its base wherein upon the application of force greater than normally required to move said article carrier longitudinally of said casing once past said casing projection said lateral projection will be forced between and past said casing projection and the opposite side edge of said helical path at said location.

2,834,459
ABSORBENT DRESSING PACKAGE
Charlotte I. Rickard and John C. Bletzinger, Neenah, Wis., assignors to Kimberly-Clark Corporation, a corporation of Delaware
Application June 5, 1956, Serial No. 589,527
8 Claims. (Cl. 206—63.2)



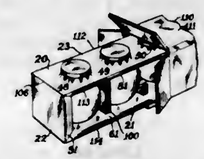
1. An absorbent dressing package comprising an absorbent dressing having a pad, a wrapper enclosing said pad and having attachment tab portions which extend from the opposite ends of the pad, said pad being folded intermediate its ends into U-shape and said tabs being folded over the respectively adjacent end portions of the folded pad, a wiping member positioned between mutually overlying portions of said absorbent dressing so as to be thereby held in assembled relationship to the folded pad, and an envelope enclosing said folded pad and wiping member and holding the same in the aforesaid assembled relationship.

2,834,460
COLLAPSIBLE SHOE BOXES
Charles A. Lee, Jr., and Robert D. Weyman, Middletown, Ohio, assignors, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application March 11, 1955, Serial No. 493,740
6 Claims. (Cl. 206—65)



1. In a package comprising a collapsible paperboard box having a tubular body and end closure flaps and a pair of shoes contained in said box, a flat self-sustaining handle element detachably secured to the inner surface of one of the box body walls, said shoes being arranged in the box with the sole of one of said shoes juxtaposed to said handle element, whereby said last named shoe will overlie and protect said handle element from accidental disengagement, one of the body walls including means contactable from the exterior surface thereof for receiving the handle element in package carrying position upon its removal from the interior of the box and the engagement of the ends thereof with said handle receiving means.

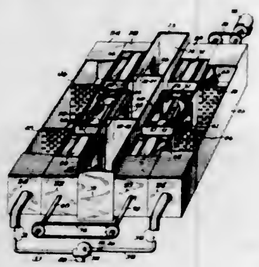
2,834,461
SHIPPING AND DISPLAY CONTAINER
John L. Dusseault, Chelmsford, Mass.
Application April 30, 1956, Serial No. 581,760
11 Claims. (Cl. 206—65)



4. A wrap around folding box for the visual packaging of bulge type bottles, said box comprising four rectangular panels substantially greater in width than the maximum diameter of a bulge bottle to be contained therein and connected in series by corner fold lines to form a top panel, a first end panel, a bottom panel and a second end panel, said top panel having at least one aperture therein; integral, detachable, connecting means at the free ends of said series of panels for detachably connecting said free ends together; a pair of bottle cushioning flaps, each hingedly connected to an opposite side of said bottom panel, each folded inwardly toward the other at an acute angle to said bottom panel to resiliently support the bottom of a bottle depending by its neck portion from an aperture in said top panel and each having a locking

notch at each opposite end thereof; a pair of bottle buttressing flaps each hingedly connected to an opposite side of said top panel, each folded inwardly toward the other at an acute angle to said top panel and each having oppositely disposed cutouts in the free side edge thereof for embracing the adjacent side of the top of a bulge bottle and buttressing the same against lateral movement in any direction and two pairs of stiffening flaps each pair hingedly connected to an opposite side of one of said end panels and each flap of each pair being folded inwardly toward the other at an acute angle to its respective end panel and seated in the notch of the adjacent cushioning flap.

2,834,462
PNEUMATIC MATERIAL SEPARATION
Raymond E. Dawson, Riverdale, Ill., assignor to Thompson-Starrett Company, Inc., Chicago, Ill., a corporation of Delaware
Application September 12, 1955, Serial No. 533,712
14 Claims. (Cl. 209—475)

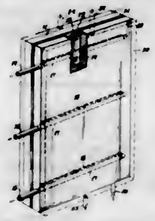


4. In combination with apparatus for separating by the application of air impulses heterogeneously intermixed material particles in accordance with the specific gravities thereof, said apparatus comprising enclosed spaced and successive perforate decks for receiving a stream of material particles to be separated thereon and having means for discharging separated particles from each of said decks, a device for producing air impulses to act upon said stream for the purpose of causing the particles therein to stratify for discharge therefrom, said device comprising means forming underneath each of said decks a pulsing chamber, an air inlet and an air outlet valve for said pulsing chamber, a fan for supplying air under pressure to said inlet valve and for withdrawing air from said outlet valve, and means for successively opening one of said valves and simultaneously closing the other valve for the duration of each opening interval of said one valve.

2,834,463
FLOTATION OF BARITE
Kenneth C. Vincent, Palo Alto, Calif., assignor to National Lead Company, New York, N. Y., a corporation of New York
No Drawing. Application April 4, 1956
Serial No. 575,926
4 Claims. (Cl. 209—166)

1. In the concentration of barite from a comminuted barite-containing ore by a process of flotation, the steps comprising: treating the comminuted ore with a mahogany petroleum sulfonate derived by the sulfonation with fuming sulfuric acid of a California stock hydrocarbon petroleum fraction having a molecular weight of between 360 and 380 and containing from 30% to 36% aromatics, said petroleum sulfonate having a molecular weight of from 460 to 470, so as to render the barite particles floatable, and subjecting the so-treated ore to froth flotation.

2,834,464
METHOD AND APPARATUS FOR CONTINUOUS LIQUID THERMAL DIFFUSION
Albert T. Fellows, Woodbury Heights, and James R. White, Wenonah, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
Application August 23, 1954, Serial No. 451,604
3 Claims. (Cl. 210—72)



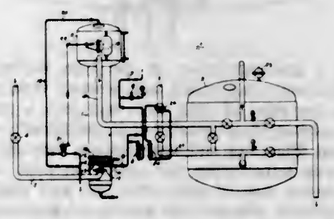
1. In a process for effecting continuous separation by thermal diffusion of a mixture having unlike components which are liquid under the conditions of separation wherein said mixture is continuously introduced into a substantially vertical slit formed of two smooth surfaces across which is maintained a temperature gradient and wherein a fraction containing a greater concentration of one of said unlike components than the initial mixture is continuously removed from one part of said slit and a fraction containing a greater concentration of another of said unlike components is continuously removed from another part of said slit, the improvement which comprises uniformly introducing said mixture through a porous feed inlet extending laterally across one of said surfaces to thereby achieve uniform lateral distribution of said mixture over the surface through which it is introduced into said slit and uniformly withdrawing said fractions through porous outlets, positioned above and below said feed inlet and extending laterally across at least one of said surfaces to thereby achieve uniform lateral withdrawal of the separated liquid fractions over the surfaces through which they are removed from said slit, the rate of liquid flow through each of the porous openings being uniform throughout the opening area thereof and further being characterized by being insufficient to induce turbulence in the liquid in said slit.

2,834,465
SWIVEL HOSE ASSEMBLY
Palmer L. McMichael, Torrance, Calif., assignor to Allen T. Chase, doing business as Standardized Aircraft, Los Angeles, Calif.
Application April 25, 1955, Serial No. 503,408
1 Claim. (Cl. 210—95)



A swivel hose assembly comprising a length of flexible hose, a swivelled coupling at each end of the hose, means for removably fastening one swivelled coupling to a source of fluid supply, means for similarly fastening the other coupling to a receptacle, a continuous series of vent ducts in parallel with the hose and coupling assembly, the swivel at one end of the hose including a web for supporting the duct portions, one portion of said swivel including an integral duct portion, a removable duct portion with a supporting web mounted in said swivel section, the swivel connection at the other end of the hose including a strainer and sight glass, the swivel connection at the first end of the hose comprising a sleeve, a screw-threaded tube rotatably mounted on the sleeve, means for rotatably but non-leakably maintaining said tube in position on the sleeve, said means including manually operated handles, the strainer and sight glass mounting additionally including a passageway for displaced air, and wherein a portion of said series of air ducts is inside the swivelled fittings and wherein another portion of the air duct is outside the hose, integral duct exit studs on certain of the swivel connections, the air duct connection in one of the swivels including a T-shaped fitting, the vent duct at one end of the coupling extending into the source of fluid supply and comprising a removable pipe and the vent duct at the receptacle end of the coupling including a fixed sleeve and a rotatable connecting pipe mounted exteriorly of the sleeve and spaced therefrom.

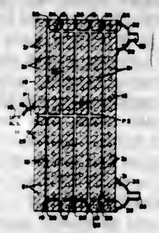
2,834,466
LIQUID PURIFICATION APPARATUS
Louis Hamont, Montville, N. J.
Application May 2, 1955, Serial No. 505,182
13 Claims. (Cl. 210—120)



1. In apparatus for treating liquid to remove therefrom oxidizable materials carried in solution and/or in suspension, a generally vertically disposed gas-liquid intermingling chamber, a plurality of elements loosely disposed in random manner as a packing in said chamber, each element being shaped to provide in conjunction with the other elements a multiplicity of small tortuous interconnected passages extending in numerous directions upwardly through said chamber and a large total area of liquid and gas scrubbing surfaces defining said passages, means for introducing liquid to be treated into the bottom portion of said chamber and forcing it upwardly through said packing, means to introduce an oxidizing gas into said liquid for concurrent flow upwardly in intimate and thorough diffusion with the liquid as the liquid and gas pass upwardly through the tortuous passages formed by said randomly disposed elements to oxidize the oxidizable material carried by said liquid and means separating gas from the treated liquid including a continuation of the upper portion of said gas-liquid intermingling chamber to function as a gas disengaging chamber, means to maintain an upper liquid surface level in said gas disengaging chamber, and means under control of said surface level maintaining means to vent gases from said disengaging chamber.

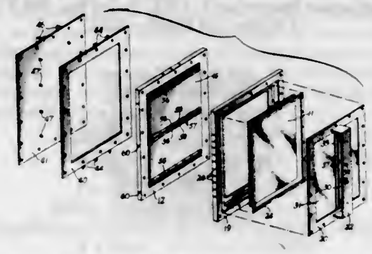
2,834,467
THERMAL DIFFUSION APPARATUS
John W. Thomas, Cleveland, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application July 26, 1954, Serial No. 445,547
7 Claims. (Cl. 210—176)

1. A plate adapted to form at least one side of a liquid thermal diffusion separation chamber comprising heat transfer means and having at least three slots therein in order to provide communication between adjacent separation chambers formed by a plurality of said plates,



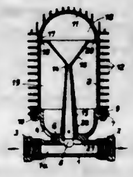
said slots being substantially co-extensive with the breadth of said separation chamber.

2,834,468
THERMAL DIFFUSION APPARATUS
John W. Thomas, Mayfield Heights, Richard W. Asmus, Cleveland, and Wendell T. Berg, Euclid, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application May 11, 1955, Serial No. 507,596
9 Claims. (Cl. 210—176)



1. Thermal diffusion apparatus comprising first and second wall members having opposed surfaces spaced apart substantially equidistantly for forming a thermal diffusion separation chamber between them, one of said wall members being transparent and having an electrically conductive film substantially coextensive with the chamber-forming surface thereof; means for introducing and withdrawing liquid into and from said chamber; means for passing an electric current through the conductive film and thereby relatively heating the transparent wall member; means for relatively cooling the other wall member; and means for maintaining the spacing of the chamber-forming surfaces substantially constant.

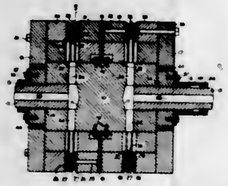
2,834,469
FUEL CONDENSER AND STRAINER
Adolph V. Mitterer, Karlsfeld-Munich, Germany
Application October 19, 1954, Serial No. 463,227
Claims priority, application Germany October 22, 1953
5 Claims. (Cl. 210—181)



1. A fuel condenser for a fuel supply system of an internal combustion engine having a fuel line, comprising a base connected with the fuel line, a closed vessel mounted on said base and having cooling ribs on its

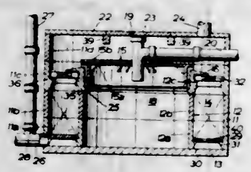
outside and an aperture of relatively large diameter in its bottom communicating with the fuel line in said base, a Venturi tube mounted within said aperture and extending substantially vertically from said base, said tube tapering gradually from its relatively large bottom opening to a relatively narrow opening within the upper portion of said vessel and then again tapering outwardly at a funnel-like angle toward a peripheral upper edge abutting against the inner wall of said vessel, the funnel-like portion of said tube above said narrow opening separating said condenser vessel into upper and lower chambers, said funnel-like portion having a series of drain openings near said peripheral edge, whereby the fuel vapor rising through said Venturi tube and projected against a wall of said upper chamber is condensed thereon and then flows downwardly along said wall to pass through said drain openings into said lower chamber, and said lower chamber having at least one opening therein communicating with said fuel line for draining the condensate from said lower chamber.

2,834,470
MEANS FOR MAGNETICALLY SEPARATING SOLID MAGNETIC PARTICLES FROM A FLUID CURRENT
George Henry Jones, Hayle, England, assignor of one-half to Austen Ernest Janes, Dogon Dutsi, N. Nigeria
Application December 5, 1955, Serial No. 551,071
1 Claim. (Cl. 210—222)



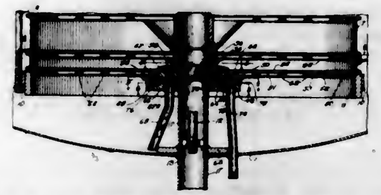
A magnetic separator comprising a cylindrical magnet assembly mounted for rotation about its longitudinal axis, said magnet assembly having at least one pair of opposed poles slightly spaced apart to provide therebetween an annular gap having a mean plane disposed at right angles to the axis of rotation of the magnet assembly, means for delivering a current of magnetic-particle-carrying fluid in a substantially axial direction into said magnet assembly and thence in a direction outwardly thereof through the gap between said opposed annular poles whereby magnetic particles are separated by the magnets from the fluid.

2,834,471
TREATMENT OF DOMESTIC SEWAGE
John Gibson, Penwortham, Preston, England
Application October 15, 1954, Serial No. 462,549
2 Claims. (Cl. 210—256)



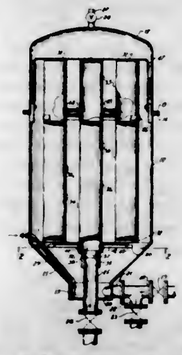
1. A self-contained domestic sewage treatment unit comprising inner and outer chambers formed inside inner and outer co-axial concentric cylinders, said inner chamber being a sewage digestion chamber connected to an affluent inlet pipe and said outer chamber being an annular filter chamber, containing filter media, connected to an effluent discharge pipe, said inner cylinder being shorter than said outer cylinder and said inner cylinder being provided with an annular ring constructed in segments which co-operate to form a drip edge extending half way over said filter media, below said ring an imperforate annular spreader plate positioned over said filter media and adapted to guide liquid, coming from said inner digestion chamber by way of said drip edge, radially inwardly and outwardly substantially uniformly over the filter media and a scum hood extending over said inner chamber so as to prevent substantially the passage of scum from said inner digestion chamber on to said filter media.

2,834,472
SCAVENGING FILTER
Vincent C. Lynford, Libertyville, Ill., assignor to Sparkler Mfg. Co., a corporation of Illinois
Application August 12, 1955, Serial No. 527,975
7 Claims. (Cl. 210—314)



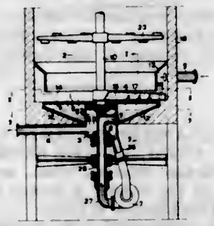
1. In a filter apparatus of the type having one or more filter units in a sealed tank wherein fluid is filtered through the sides of said units and into a center discharge column; a scavenging unit positioned below the lowermost filter unit and comprising a separate filtering unit having imperforate side walls; an inlet tube connected to one side of said latter unit and extending to a point closely adjacent the bottom of said tank and a discharge tube connected to the other side of said separate unit and extending through said tank; and a pressure connection connected to said tank whereby pressure may be placed upon the fluid in said tank.

2,834,473
FILTER
Everett M. Battey, Alexandria, Va., assignor to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware
Application February 16, 1953, Serial No. 337,089
12 Claims. (Cl. 210—333)



1. A filter element for a diatomite filter of the type described comprising a hollow member free of internal structure having end walls and an encompassing side wall, said end walls being impervious members, said side wall having a lower pervious portion providing a filtering area through which the liquid filters into said element, and having an upper impervious portion cooperating with at least one of said end walls to form an airtight chamber, wherein air is compressed by the liquid filtering into said element, one of said walls having a port, and a conduit connected to said port and in direct hydraulic communication with the space in said element subjacent said airtight chamber, for withdrawing filtered liquid from said element.

2,834,474
STRAINER APPARATUS
Matti Johannes Jalkanen, Rauma, Finland, assignor to Rauma-Repola Oy, Rauma, Finland
Application May 12, 1954, Serial No. 429,308
Claims priority, application Finland May 28, 1953
20 Claims. (Cl. 210—408)



1. In a strainer apparatus, in combination, an upright container; strainer means arranged near the bottom of said container and having a horizontal first upwardly directed face on which a suspension of solid material to be strained is deposited, the filtrate passing in one direction through said strainer means to the second face thereof and a deposit of strained solid material remaining on said first face of said strainer means; doctor means arranged adjacent said first face of said strainer means and having a cleaning edge extending along the same; moving means moving one of said means relative to the other with said cleaning edge of said doctor means moving relative to and along said first face of said strainer means; and loosening means for forcing filtrate which has passed in said one direction through said strainer means back in the opposite direction from said second face through said strainer means to said first face thereof and in front of said cleaning edge of said doctor means, said loosening means being mounted in a position relative to said doctor means for forcing filtrate out of said first face of said strainer means in front of the cleaning edge of said doctor means during movement thereof relative to said strainer means, so as to thereby loosen said deposit of solid material on said first face of said strainer means whereby the strained solid material accumulates in said upright container to apply pressure to the suspension of solid material deposited on said horizontal first face.

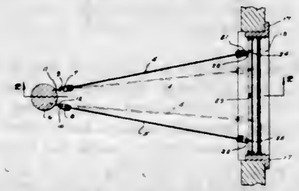
2,834,475
SUPPORT FOR HOLDING A PLURALITY OF GARMENT HANGERS IN CLOSELY SPACED RELATION
Harold A. Reich, New York, N. Y.
Application September 18, 1956, Serial No. 610,620
1 Claim. (Cl. 211—113)

A carrier for holding and transporting a group of garment hangers as a unit on a supporting rail, comprising upright flexible yieldingly separable side plates spaced to stand at opposite sides of a supporting rail and having horizontally aligned bearing openings disposed to stand above and at opposite sides of the center of the supporting rail, a roller confined between said side plates having projecting spindles at opposite ends rotatably and removably engaged in said bearing openings and having a midlength located, circumferentially extending annular V groove providing reversely faced conical surfaces effecting engagement of the roller with the top of the supporting rail at opposite sides of the rail center for centering the roller and supported structure and for holding the same against twisting on supporting rails of different diameters, said side plates having spaced apart portions extending below said roller and supporting rail center having laterally separated horizontally extended transverse notches



for receiving garment hanger hooks in spaced relation to maintain garment hangers laterally separated and whereby said carrier may be engaged on or be removed from different supporting rails on springing the flexible side plates apart to release the spindle extensions of the roller and whereby said V grooved roller will hold the carrier against twisting or turning on the rail and the horizontally extended hanger hook notches will hold the garment hangers against twisting or turning on the carrier.

2,834,476
CLOTHESLINE SUPPORT
Arthur Picone, Jr., Brooklyn, N. Y.
Application February 18, 1955, Serial No. 489,194
1 Claim. (Cl. 211—119.02)



In combination, a window having spaced vertical side members, a support spaced from the window, brackets secured to said side members in facing relation to each other, a horizontal rod extending between said side members, said rod having ends supportably journalled on said brackets, said rod having longitudinally spaced slots in opposite sides thereof, some of said slots being disposed adjacent to ends of the rod and others of the slots being disposed spacedly between the other slots, a clothesline having an outer end secured to said support and an inner end, a ring secured on said inner end and freely encircling said rod, said ring being adapted to be selectively engaged in slots in the side of the rod remote from the support and means for rotating the rod to position others of the slots for selective reception of said ring.

2,834,477
TOWEL RACK HAVING TOWEL CLAMPING MEANS
Gail A. Schmuck, San Diego, Calif.
Application May 24, 1954, Serial No. 431,712
2 Claims. (Cl. 211—124)

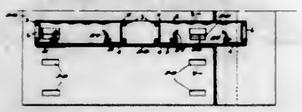
2. A towel rack comprising a fixed rail and a movable rail coextensive therewith, support arms extending from

the ends of said fixed rail to one side thereof, hinge arms shorter than said support arms and extending from the ends of said movable rail parallel to said support arms and disposed therebetween, whereby said movable rail in one position thereof is adjacent said one side of the fixed rail and parallel thereto, hinge pins interconnecting said support arms and said hinge arms, said movable rail having slots engaged with said pins for limited sliding



movement on said hinge pins, back plates depending from said support arms and including flat back stop portions adjacent the support arms, flat end surfaces on said hinge arms for firmly abutting said flat back stop portions when said movable rail is shifted to the limit of said sliding movement by a towel clamped between the rails, whereby said movable rail is locked against inadvertent pivotal displacement.

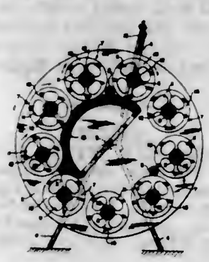
2,834,478
BOOK SHELVES
Angus Snead Macdonald, near Rapidan, Va., assignor to Carthage Corporation, Cincinnati, Ohio, a corporation of Ohio
Original application January 17, 1949, Serial No. 71,287. Divided and this application August 19, 1953, Serial No. 375,129
2 Claims. (Cl. 211—136)



1. In a book shelf, the combination with a wide shelf bar having a top wall and downturned front and rear walls, each of said downturned walls having horizontal flanges extending inwardly toward each other from the lower edges of said downturned walls, the inner edges of the flanges being curved upwardly toward said top wall, of supporting brackets secured to spaced upright columns for the opposite ends of the shelf bar, said brackets having horizontal flange portions extending inwardly toward each other upon which the ends of said shelf bar are supported, a pair of struck-out upstanding spring clips carried by the flange portion of each bracket, and said pair of clips being spaced apart a distance approximately corresponding with the spacing of the upwardly curved inner edges of the shelf bar flanges and having outwardly directed faces engaging said upwardly curved edges.

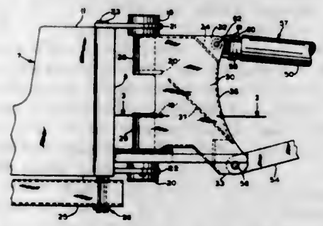
2,834,479
ROTATABLE DISPLAY DEVICE
Robert Kayton, Jackson Heights, N. Y., assignor to Robert Kayton Associates, Inc., a corporation of New York
Application March 1, 1955, Serial No. 491,291
7 Claims. (Cl. 211—164)

1. A merchandise display device comprising a supporting frame; at least two parallel carrier members spaced apart and rotatably mounted on said supporting frame; means for rotating said carrier members; a plurality of merchandise holders rotatably mounted on shafts on said carrier members, each said merchandise holder comprising at least two parallel side members spaced apart and constructed to support articles of merchandise and having a drivingly engageable surface; and stationary means affixed to said supporting frame and engageable



with said drivingly engageable surfaces during rotation of said carrier members to effect rotation of said merchandise holders relative to said carrier members.

2,834,480
TURN POST AND HYDRAULIC MEANS FOR SWINGING THE SAME
Daniel F. Przybylski, Winona, Minn., assignor, by mesne assignments, to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio
Application September 7, 1954, Serial No. 454,484
1 Claim. (Cl. 212—66)

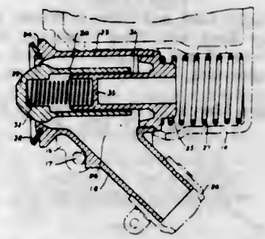


A support, upper and lower bearings fixed to the support, a frame, including a pair of laterally spaced forwardly projecting side plates the rear end portions thereof extending between the said bearings, a turnpost including an upper section and a lower section axially aligned and axially spaced, said upper and lower turnpost sections being journaled in said uper and lower bearings respectively, said turnpost sections being interposed between the said side plates at their rear end portions and fixed thereto, the upper and front portions of said side plates being extended to form a pair of ears having means for attaching a hydraulic ram thereto, the front and lower portion of said side plates being extended to form a pair of ears having means for attaching a boom thereto, and means for turning the lower turnpost sections and thus swing the frame about the axis of the lower turnpost sections.

2,834,481
AUTOMATIC COUPLERS FOR RAILWAY AND LIKE VEHICLES
Gerald Cranton Marsh, Bramhall, Cheshire, Eric John Wilson, Ecclesall, Sheffield, Yorks, and John William Greenwood Kershaw, Leigh-on-Sea, Essex, England, assignors to Westinghouse Brake & Signal Company Limited, London, England
Application November 8, 1955, Serial No. 545,709
Claims priority, application Great Britain November 16, 1954
5 Claims. (Cl. 213—76)

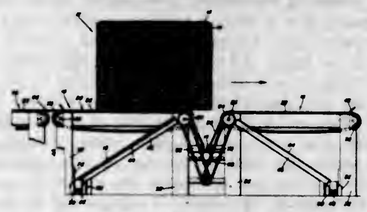
1. In an automatic coupler of the kind having a substantially vertical face arranged to abut a corresponding vertical face of a mating coupler and to be locked in

abutting relationship therewith, a detachable train pipe connecting unit comprising a hollow body slidable axially within the coupler in a direction normal to the plane of said vertical face, said body defining therein a chamber open at the end thereof facing outwards of the coupler and closed at the other end and having a port to establish permanent communication between said chamber and the train pipe, a valve device for opening and closing the open end of said chamber, a resilient sealing member extending around said open end and located to be engageable with the corresponding member of a mating coupler, a spring positioning said body, when the coupler is not coupled, with said open end projecting



slightly beyond said plane so that the coupling together of two couplers causes said spring to be further stressed to provide sealing pressure between the sealing members, and means for the automatic opening of said valve device by the coupling together of the two couplers, said valve device comprising a valve member which is biassed by a spring towards its closed position and which is opened by the flow of air between the train pipe and atmosphere through said chamber when two couplers are accidentally parted and remains open until the difference in pressure between the train pipe and atmosphere is reduced to a value no longer sufficient to hold the valve member open against the action of said spring.

2,834,482
LUMBER HACK EXTRACTOR
Verno W. Parton, Rutherfordton, N. C.
Application December 27, 1955, Serial No. 555,425
3 Claims. (Cl. 214—8.5)



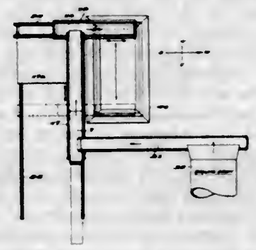
1. A device for extracting pieces of lumber from lumber hacks having intermediate spacer strips between the layers of lumber, said device comprising a pair of reversible conveyor systems disposed in spaced relation in the direction of movement of a lumber hack supported on the conveyor systems, said spacing between the conveying systems being of a width to permit passage of pieces of lumber therethrough, said reversible conveyor systems being adapted to feed a lumber hack alternatively in each direction over said space between the conveyor systems to allow the pieces of lumber constituting the lowermost layer to fall down between said conveyor systems, conveying means between the conveyor system for carrying the extracted pieces of lumber transversely of the conveyor systems, means for transporting the spacer strips away from the conveyor systems, each of said conveyor systems including a supporting frame, remotely spaced shafts on said frame, sprocket gears arranged in aligned pairs on said shafts, an endless conveyor chain encircling each pair of sprockets with the upper flight of said chains forming a support for the lumber hack, and means for simultaneously driving said conveyor chains on each system in the same direction and at the same speed, said transporting means for the spacer strips including an inclined collecting ramp under each conveyor system and extending substantially the full distance between the conveyor chains for accommodating randomly arranged spacer strips, each ramp being downwardly and outwardly inclined, and conveying means at the lower edge of each ramp for carrying the strips to a remote area.

2,834,483
SILAGE DISTRIBUTOR AND SUPPORTING STRUCTURE THEREFOR
Andrew J. Friedman, West Lafayette, Ind.
Application December 21, 1955, Serial No. 554,536
8 Claims. (Cl. 214—17)



6. A silage distributor assembly adapted to be hoisted to the top of a silo and secured thereto, comprising a bracket having a distributor supporting arm, a bracing arm attached at one end to one end of said distributor supporting arm, and a movable platform on said distributor supporting arm, a clamp mountable over the top edge of a silo wall and including hooks for engaging the free end of said distributor supporting arm, said clamp including pulleys for guiding a hoisting rope when said bracket is hoisted into engagement with said hooks, and ties connecting the free ends of said bracket arms to hold the free end of said bracing arm in spaced relation to and below the hook engaged end of said distributor supporting arm, thereby to support said distributor in operative position.

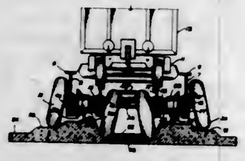
2,834,484
APPARATUS FOR CHARGING FURNACE HAVING RECTANGULAR MOUTH
Fred D. De Vaney, Hibbing, Minn., and Donald Beggs, Toledo, Ohio, assignors to Erie Mining Company, Hibbing, Minn., a corporation of Minnesota
Application June 21, 1954, Serial No. 437,948
10 Claims. (Cl. 214—18)



1. In combination with a vertical shaft furnace having a substantially rectangular mouth, of means for charging fluent material into the mouth of said furnace, said furnace charging means comprising, a first conveyor belt disposed parallel to one side of the furnace mouth, a

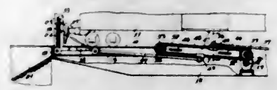
second conveyor belt disposed at the discharge end of said first belt and transversely of the latter for receiving material discharged from said first belt, means for rotating said first and second belts, means for reciprocating said first and second belts as a unit longitudinally of said side of said furnace mouth whereby to move said first belt in translation with respect to a point of loading therefor, means for transversely reciprocating said second belt relative to said first belt whereby to move said second belt in translation with respect to the point of loading from said first belt and thereby enabling the discharge end of said second belt to be moved in longitudinal and transverse paths over the furnace mouth, means superimposing the actual translational speeds of said belts in reverse upon their respective rotational speeds and means changing the rotational speed of said second belt by the same percentage as the change in rotational speed of said first belt thereby to maintain constant the effective speeds of said belts relative to their respective points of loading irrespective of the translatory movements of said belts thereby to maintain constant the material loading on said belts.

2,834,485
TRAILER TRUCK FOR RAILROAD CARS AND LOADING DOCK THEREFOR
John J. Simmonds, Lawrence, Kans., assignor of one-half to Dick Williams, Lawrence, Kans.
Application February 21, 1955, Serial No. 489,623
3 Claims. (Cl. 214—38)



1. A device for moving rail cars to destinations having no rail facilities comprising, a trailer truck having a frame with a substantially level portion extending from one end toward the other end thereof, said frame including spaced side members extending longitudinally of the frame and a plurality of spaced transverse members secured to the lower portions of the side members whereby the upper portions of the transverse members define the level portion of the frame, said side members having greater spacing than the width of a rail car, laterally spaced rails fixed on the transverse members of the frame and extending longitudinally thereof from the said one end, said rails having a spacing corresponding to the normal spacing of railroad rails, self-propelled wheel means supporting said other end of the frame, a shaft mounted on the frame and extending transversely thereof near said one end of the frame, aligned trunnions rotatably mounted on the shaft whereby the axes of the trunnions are movable in vertical planes extending longitudinally of the frame between the rails and the adjacent side members, oppositely directed axle members rotatably mounted on the trunnions whereby the axes of the axle members are movable in planes extending transversely of the frame, said axle members extending beyond the adjacent rails and side members, wheels rotatably mounted on the portions of the axle members extending beyond the adjacent rails and side members, said wheels being adapted to operate on a roadway at the end of a railroad track and at a lower elevation than said track, a ramp extending from the end of the railroad track and in alignment therewith, said ramp having spaced level portions, guide members fixed on the spaced level portions of the ramp in parallel relation to the railroad track, and means on the said one end of the frame engageable with spaced guide members on the ramp for guiding said end of the frame as the trailer is moved toward the end of the railroad track whereby the rails on the trailer are moved into vertical and horizontal alignment with the end of the railroad track, said ramp having portions between the level portions thereof of a lower level than the portions at each exterior side thereof adapted to be engaged by the wheels near said one end of the frame whereby the wheels on the inside of the rails on the trailer frame are lowered sufficiently to present no obstruction to passage of a rail car thereover.

2,834,486
CAR CLAMP AND MECHANISM FOR OPERATING THE SAME
Halver R. Straight, Adel, and Cyrus J. Bristol, Des Moines, Iowa; Valley Bank and Trust Company, Des Moines, Iowa, executor of said Straight, deceased; assignors to Straight Engineering Company, Adel, Iowa, a corporation of Iowa
Application March 23, 1955, Serial No. 496,266
6 Claims. (Cl. 214—55)

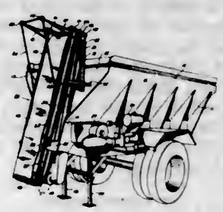


1. The combination of a car supporting cradle mounted to tilt longitudinally and transversely of itself and adapted to support a railway box car having at each end a standard D type coupler, a clamp support movably mounted on each end of said cradle to move toward and from said coupler, said clamp support including a pair of spaced upright plates, having near their upper ends vertical slots and below said slots laterally projecting and notched flanges, a horizontal pressure bar slidably mounted in said slots, a spring supporting rod having a head at its upper end pivotally mounted on each end of said pressure bar with the heads resting on said notched flanges with the rods in said notches, a helical spring supported on each rod with its upper end against the under side of said flanges, adjusting nuts on the lower ends of said rods, a horizontally inclined link having one end fixed to the central portion of said pressure bar, means yieldably maintaining said link in an inclined position relative to the horizontal, said link being mounted for swinging movement downwardly from said inclined position to a vertical position, a vertical and elongated contact bar having its upper end pivotally connected to the lower end of said link and depending therefrom, having at one side a contact face and at its upper end a laterally projecting contact flange adapted to engage the free end and the upper face of said coupler respectively, the upper contact face being normally supported above the level of the top of the coupler and adapted to be lowered to engage the top of the coupler as the free end of the coupler is engaged by the vertical contact face of the contact bar by movement of the clamp support toward the coupler.

2,834,487
FOLDING ELEVATOR FOR VEHICLES
Roy C Gaddis, Cedar Rapids, Iowa
Application July 11, 1955, Serial No. 520,947
4 Claims. (Cl. 214—83.26)

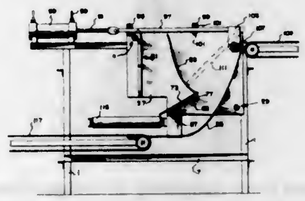
1. In a vehicle having a hopper and a generally horizontal conveyor for unloading the hopper; an elevating conveyor comprising, a lower boom, means pivotally mounting the lower boom adjacent the discharge end of the horizontal conveyor, an upper boom pivotally attached at the outer end of the lower boom, hinge stop means adapted to prevent downward hinging at the point of attachment of the outer boom to the inner boom, a driving drum mounted co-axial with the pivotal mounting

means, an idler drum mounted for free rotation in the outer end of the outer boom, a belt extending over the said drums, and a rigging for supporting the elevating conveyor when extended, the said rigging including, rigid struts extending upwardly from the inner end of the outer



boom, flexible supporting means extending between the rigid struts and the adjacent end of the vehicle hopper at a point above the pivot mounting means and tie members extending between the upper ends of the struts and an intermediate portion of the outer boom generally in line with the said flexible supporting means.

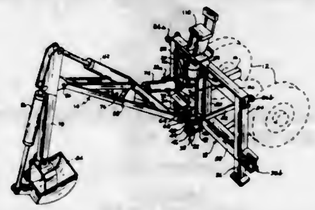
2,834,488
BAKERY PRODUCTS DEPANNING APPARATUS
Milton Firl and Elwood E. Firl, Meyersdale, Pa.
Application October 18, 1955, Serial No. 541,216
9 Claims. (Cl. 214—308)



1. A baked product depanning apparatus adapted to receive pans from a conveyor, including fulcrum elements for initially supporting a pan as it is fed from the conveyor and for permitting said pan to rock downwardly when a portion thereof has passed beyond said fulcrum elements, pan supporting and guiding means for supporting the pan on its lower end when it has rocked downwardly, and mechanism operably connected with said fulcrum elements and operable after the pan has rocked downwardly and is supported on said pan supporting and guiding means to move said fulcrum elements into position engaging the under side of the pan adjacent the upper end thereof and rocking it rearwardly to dump the baked products from the pan, and further means engageable by said pan when it rocks downwardly and operated thereby to cause said mechanism to operate.

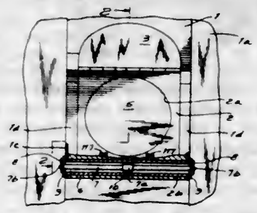
2,834,489
MECHANICAL SHOVEL
Charles J. Davis, Wichita, Kans., assignor, by mesne assignments, to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application June 21, 1956, Serial No. 592,809
5 Claims. (Cl. 214—138)

1. A mechanical shovel attachment for a wheeled vehicle comprising: an upright transversely elongated frame; means rigidly connecting said frame to a wheeled vehicle supporting the frame in a fixed upright position transverse to the longitudinal axis of the vehicle, said frame extending beyond the opposite sides of the vehicle; a unitary shovel actuating boom assembly; an upright swivel post to which said boom assembly is connected and about which said boom assembly may pivot on a vertical axis; an ear depending from said post; a tongue secured to the upper end of said post; a plurality of spaced ear receiving and post supporting seats carried by said frame including at least one seat near one end of said frame located beyond the adjacent side of said vehicle; a clevis secured to



said frame at the upper end thereof overlying each of said seats; means securing said tongue in a selected clevis; and means for securing said ear and hence the entire boom assembly in the one of said seats underlying said selected clevis.

2,834,490
WASTE DISPOSAL APPARATUS
Hans Zöller, Laubenheim, near Mainz, Germany
Application October 29, 1954, Serial No. 465,698
Claims priority, application Germany October 29, 1953
16 Claims. (Cl. 214—303)

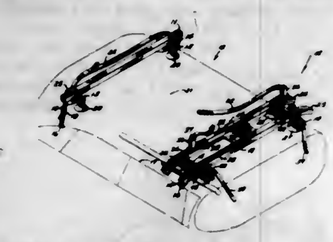


1. Waste disposal apparatus comprising, in combination, support means including a pair of substantially parallel spaced side walls; a front plate formed with a bore passing transversely therethrough from one side edge thereof to an opposite side edge thereof, said front plate being located between said side walls with said side edges of said front plate respectively located next to said side walls, and said front plate being carried by said side walls of said support means for turning movement about the axis of said bore; straight torsion spring means located in said bore and connected to said support means and to said front plate for urging the latter to a rest position on said support means; and setting means mounted on said support means for setting said torsion spring means to a predetermined condition.

2,834,491
BOAT LOADER AND CARRIER
Russell A. Wells, St. Johns, Mich.
Application February 6, 1956, Serial No. 563,462
5 Claims. (Cl. 214—450)

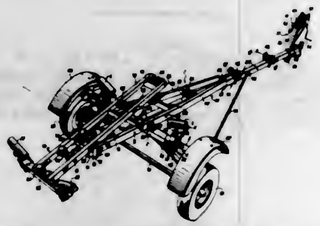
1. A car top boat carrier comprising: front and rear support members; positioning elements electively positionable on a vehicle body surface and attached to said support members; a loading arm centrally pivotal on and slidably attached to the said front support member so as to transversely move across an automobile top; a lock selectively positioning said arm in restraint of

sliding motion; a second lock selectively positioning said arm in restraint of swivel motion; restrainers associated



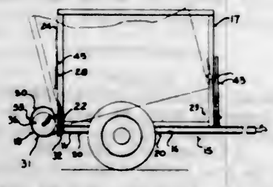
with said front and rear members and said arm to secure a load to said supports and arm.

2,834,492
BOAT TRAILER
Dwight B. Roy, Sr., and Richard M. Roy, Wethersfield, Conn., assignors to Mastercraft Trailers, Inc., Middlesex, Conn., a corporation
Application March 7, 1956, Serial No. 570,028
18 Claims. (Cl. 214—505)



1. A boat trailer, comprising: a wheel supported frame having keel supporting means thereon and a winch positioned adjacent to the forward end thereof; and a ramp pivotally mounted on the rearward end of said frame on an axis extending transversely of said trailer, said ramp being mounted independently of the wheels supporting said frame and having the major portion of its length extending forwardly of said axis and having a plurality of keel guiding and supporting rollers mounted thereon, one at each end of said ramp, with said rollers being sufficiently closely spaced adjacent the rearward end of said ramp to prevent the bow of a boat directly contacting said rollers and being raised on said ramp by a line from said winch trained over the forwardmost of said rollers from hanging between adjacent rollers.

2,834,493
PORTABLE STORAGE BIN
Harvey Romberg, Oshkosh, Wis.
Application April 2, 1956, Serial No. 575,549
6 Claims. (Cl. 214—509)



1. A portable bin device comprising: a mobile frame unit, a storage compartment, means mounting said storage compartment on the frame for pivotal movement therewith, means adjacent one end of the storage compartment for unloading the same comprising an auger having a split casing portion and being mounted on the storage compartment by hingedly connecting one portion of the casing to a stationary portion of the storage compartment, a movable door in said storage compartment, and the other split casing portion being hingedly mounted on said movable door whereby opening of said door separates a portion of the casing and exposes the auger to the interior of the storage compartment, and completely closes the communication between the storage compartment and the auger upon movement of the split casing portions to a closed position, said split casing portion being adapted to provide an opening from the storage bin to said auger from a closed position to an opening which provides an exposure of one half of the circumference of the said auger.

2,834,494
HAND TRUCK
Rudolph Peters, Oakland, Calif., assignor, by direct and mesne assignments, of one-half to Frank Domonic Nicoli and one-half to Charles Thomas, both of El Cerrito, Calif.
Application August 13, 1954, Serial No. 449,672
5 Claims. (Cl. 214—511)



1. A hand truck comprising an upright frame; a load carrying platform secured to the lower end of said frame; an axle secured to said frame back of said platform; a pair of wheels carried by the ends of said axle; means for pushing the load off said platform, comprising a lever arranged on said frame, a pusher secured to the lower end of said lever for pushing the load off the platform, said pusher extending parallel to said platform in close proximity thereto, a pair of parallel spaced guide plates secured to the frame, a fulcrum for the lever secured to said guide plates, said guide plates having a pair of slots, means sliding in said slots to control the motion of said lever for moving said pusher over said platform substantially parallel thereto said means providing greater leverage to said lever at the beginning of the load pushing operation and diminishing leverage toward the end of same.

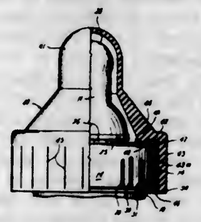
2,834,495
CONTAINER TRANSFER APPARATUS
Ragnar A. Norbom, Alexandria, Va., assignor to David N. Finnie, doing business as David N. Finnie Associates, New York, N. Y.
Application August 24, 1954, Serial No. 451,857
5 Claims. (Cl. 214—516)



1. In freight container transfer equipment for a vehicle, the combination comprising guide means mounted

on the vehicle; an elongate slide reversibly movable in said guide means laterally of the vehicle between extreme positions respectively at the opposite sides of the vehicle; a drive member movable longitudinally on said slide between fixed limits; means interconnecting said slide and drive member for simultaneous movement at different rates, said means causing the slide to be positioned at one side or the other of the vehicle in response to completed movement of the drive member along said slide in one direction or the other, respectively, to one of its limits of movement; a power drive connected to said interconnecting means, said interconnecting means comprising a chain carrying the drive member and sprockets mounted adjacent the ends of the slide, said chain passing over said sprockets and at its ends being anchored to the slide at points removed from the ends of the slide; a drive shaft having a sprocket, said power drive comprising additional sprockets alongside and turning with the sprockets adjacent the ends of the slide; a second chain which passes over the sprocket on the drive shaft and the said additional sprockets, the ends of said chain being anchored to the slide at points removed from the ends of the slide.

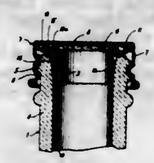
2,834,496
SKIRTED NURSER HOOD
Frank E. Boston and Joseph J. Shomock, Ravenna, Ohio, assignors to The Pyramid Rubber Company
Application September 16, 1955, Serial No. 534,815
6 Claims. (Cl. 215—11)



1. A nurser hood comprising a cover portion closed at its upper end, a flange portion extending radially from the lower part of the cover portion, and a skirt portion extending downwardly from the outer part of the flange portion, and channel means inside said skirt and under said flange to allow the escape of aeriform fluid from a nurser on which said hood is placed, said channel means comprising a plurality of ridges on the interior of said skirt extending downwardly from the flange, and a relieved area on the inner periphery of said flange, said flange having a recess in its under surface connecting said relieved area with the space between ridges on the interior of said skirt.

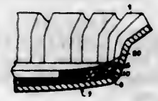
2,834,497
NON-DRIP BOTTLE INSERT
Stanford J. Wolf, Palo Alto, Calif., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application August 7, 1953, Serial No. 372,899
4 Claims. (Cl. 215—40)

1. In combination with a container which has a neck and which contains a liquid which has the free flow of water and wine, said neck being made of material which is wetted by said liquid, a flexible hollow insert made of resilient, non-wettable material, said neck having a bore which has a longitudinal axis, said bore having an axial wall, said neck having an outer and substantially planar end-wall which is transverse relative to said axis, said insert having an inner hollow sleeve located in said bore and in liquid-tight contact with said inner axial wall, said inner sleeve being integral with a step-flange which is external to said end-wall, said step-flange being transverse relative to said axis, said step-flange consisting of an inner flange-portion of outer diameter less than the outer diameter of said end-wall and an outer flange-portion of substantially the same outer diameter as the outer diameter of said end-wall, said inner flange-portion having a transverse inner face which contacts liquid-tight with only a part of said end-wall of said neck adjacent said inner axial wall of said neck, said flange-portions being thus



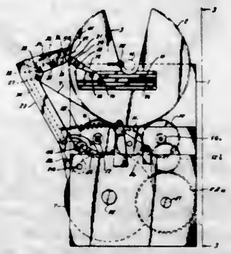
shaped to provide an annular air-space between said end-wall and said outer flange-portion, said outer flange-portion having an outer end-surface which is substantially planar and substantially perpendicular to said axis, the height of said outer flange-portion being less than the height of said inner flange-portion, the difference in height and the difference in outer diameter of said flange-portions being sufficiently great in relation to the viscosity of said liquid to prevent a drop of said liquid, in a pouring operation, from bridge of said annular air space.

2,834,498
CROWN WITH IMPROVED LINER
Leonard F. Olt, Baltimore, Md., and Robert L. Olt, New Castle, Del., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application February 13, 1957, Serial No. 639,925
4 Claims. (Cl. 215—40)



4. A container closure having a liner composed of 10 to 87.5% granular cork bonded together by 90 to 12.5% polyethylene.

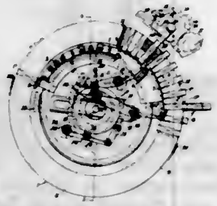
2,834,499
DEVICE FOR TAPING WIRING HARNESSES
Franklin D. Semkow, Spencer, Ohio
Application July 16, 1957, Serial No. 672,302
13 Claims. (Cl. 216—29)



1. In a device for wrapping tape about an article while the article is supported with a portion unobstructed radially, feed means to apply one end of a length of tape radially to the periphery of the article at said portion, tensioning means, carrier means supporting the tensioning means for movement concurrently peripherally about and

inwardly toward said portion, and holding means connected the other end of the tape to the tensioning means for maintaining the tape under tension endwise during said inward movement and for releasing said other end when the tensioning means has moved a predetermined distance inwardly.

2,834,500
PACKING MACHINES
Donald Richard Patrick Jackson, London, England, assignor to Molins Machine Company Limited, London, England, a British company
Application July 6, 1953, Serial No. 366,308
Claims priority, application Great Britain July 10, 1952
6 Claims. (Cl. 216—59)



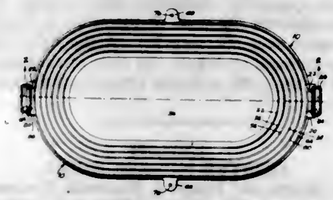
1. A stacker wheel having pockets open at both ends, means to insert a partly-finished packet into each pocket in turn, a movable member arranged to enter and move with a pocket so as to reduce its depth in order to prevent complete entry thereinto of a packet, means to apply a stamp or the like to the projecting end of a packet, and means to insert a stamped packet completely into the pocket, the said movable member being arranged to withdraw from the pocket by moving in the reverse direction of that of the wheel in timed relationship with said last-named means to permit such insertion.

2,834,501
SPHERICAL SHELL CLOSURE
George H. Nutter, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application June 14, 1954, Serial No. 436,299
1 Claim. (Cl. 220—4)



An openable spherical container for corrosive liquids at high pressure and temperature, the walls of which are substantially free from bending moments and have substantially uniform wall thickness throughout, said container comprising a first spherical shell segment consisting of substantially more than half the sphere, said first segment having a circular opening intersecting its inner surface, a second spherical shell segment forming a cover for said first segment and completing the sphere, said first segment having a threaded conical surface extending between the periphery of said opening and the outer surface of said segment and its axis extending through the center of said opening and through the center of said sphere with its apex intersecting said axis at a point externally of said sphere, said second shell segment having a threaded conical surface extending around its inner edge and threadably engaging the threaded conical surface on said first shell segment, and an annular stop on one of said shell segments having a sliding engagement with the circular edge of the outer shell segment as said segments are threadably engaged.

2,834,502
COLLAPSIBLE CLOTHES BASKET
Jean Trojan, Wyandotte, Mich.
Application May 11, 1955, Serial No. 507,574
1 Claim. (Cl. 220—8)



A collapsible clothes basket comprising a base, a multiplicity of elongated continuous open-centered upwardly-flared side wall sections disposed in telescoping relationship relatively to one another, the lowermost of said sections being secured to said base, each of said sections having cross diameters adjacent its lower edge which are slightly smaller than the cross diameters adjacent the upper edge of the section immediately inside it, handles secured to the uppermost of said sections, and a casing having a bottom disposed beneath said side wall sections and extending laterally outward beyond the lower edge of the outermost side wall section in its collapsed position, the lower edges of all of said side wall sections being engageable with said bottom in their collapsed positions, said base being connected to said bottom, said casing having an upstanding side wall having a height at least as great as the height of the highest of said sections, said casing side wall being secured to said bottom outwardly of said sections in their collapsed telescoped positions, said handles projecting laterally into overhanging relationship with said casing side wall, and the upper edge portion of said casing side wall having notches aligned with said handles and through which said handles project outwardly in the collapsed telescoped positions of said sections.

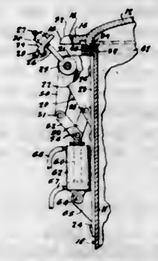
2,834,503
NECK CONSTRUCTION FOR JUG
Andrew S. Knapp, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application March 5, 1956, Serial No. 569,329
3 Claims. (Cl. 220—15)



1. A neck construction for a thermal jug, which jug includes an outer shell and an inner liner, said neck construction including upper portions of said shell and liner, said neck construction comprising, in combination: a horizontal annular shoulder formed on said upper portion of the inner liner, and an elongated vertical annular

collar extending upwardly from said shoulder; said upper portion of the outer shell defining a horizontally extending annular wall of smaller inner dimension than the outer dimension of said annular shoulder on the inner liner and of larger inner dimension than the annular collar on the liner, and an upwardly extending annular collar of smaller height than the annular collar on the liner; a single preformed annular gasket fitted on the annular collar of the shell to engage the inner and outer walls of the shell's collar and to engage opposite annular portions of said shell's annular wall, and being of a size to engage annular portions of the outer wall of the liner's collar and of the liner's horizontal shoulder; a portion of the liner's collar extending above said gasket being spun over to define a lateral annular clamping wall engaging the gasket to compress same between said lateral clamping wall, said shell's annular wall, and the liner's shoulder, and to define a downwardly extending annular clamping collar engaging the gasket to compress same between said clamping collar, said shell's collar, and said liner's collar.

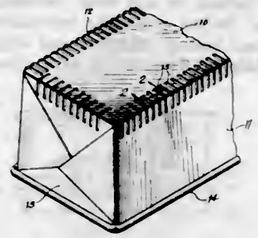
2,834,504
PRESSURE VESSEL LOCKING MECHANISM
Joseph Annicq, Renaix, Belgium
Application November 10, 1954, Serial No. 468,105
Claims priority, application Belgium November 20, 1953
9 Claims. (Cl. 220—46)



1. A locking device for fastening the edges of two members together, comprising: a pivot support mounted on one of said members near its edge with its pivotal axis parallel to said edge, a forked extension having two tines mounted on the other of said members near its edge and projecting adjacent said pivot support, a bell crank type primary lever pivoted on said pivot support, one arm of said lever movable between said tines and having an enlarged means thereon for engagement with the opposite side of said tines from said pivot for said lever, a pair of toggle links connected between the other arm of said lever and said support, a second pivot mounted on said support for connecting said toggle thereto, and reciprocating motor means connected to the pivot between said pair of toggle links to move said toggle to and from its dead center position and to move said one arm of said lever between and away from said tines to lock and unlock said two members, respectively.

2,834,505
BAKING PAN
Jerome H. Debs, Chicago, Ill., assignor to Chicago Metallic Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application March 9, 1955, Serial No. 493,144
3 Claims. (Cl. 220—72)

1. In a baking pan having a flat, horizontally disposed bottom wall and deep side and end walls extending upwardly substantially perpendicularly from the outer edges of the bottom wall, and elongate grooves in closely spaced apart parallel relation in the inner walls of the pan extending continuously from the corner portions inwardly in the flat bottom wall of the pan for a distance short of the center and up the respective side and end walls for a distance short of the center and dimensioned to have a width narrow enough to resist entrance of dough therein



during the baking operation thereby to provide continuous open channels in the interior of the pan extending along outer portions of the bottom wall, about the corners and up the lower portions of the side and end walls of the pan through which moisture vapors are able to escape during the baking operation.

2,834,506
TOWEL DISPENSER AND WASTE RECEPTACLE UNIT, AND MOUNTING BRACKET THEREFOR
Charles V. Schaefer, Jr., Medina, N. Y., assignor to The Bennett Manufacturing Company, Alden, N. Y.
Application August 29, 1955, Serial No. 530,986
7 Claims. (Cl. 220—85)



1. In combination with, a waste receptacle having a flat-sided head portion provided with openings on opposite sides thereof for the deposit of refuse therein and having a generally flat top surface, a clamp device including opposed clamp parts each having a generally flat base portion resting on said receptacle head top surface and a flanged part engaging under said head portion along the upper edge of one of said openings, said clamp device having an upstanding flange positioned generally centrally of said receptacle head top surface, a mounting panel having a generally flat bottom wall provided with an opening therethrough, said panel resting on said clamp device base portions with said upstanding flange projecting through said opening in the bottom wall thereof, and means securing said panel to said upstanding flange, said panel being adapted to have towel dispensers mounted on opposite sides thereof substantially directly above said receptacle openings.

2,834,507
DISPENSER STACKING DEVICE
Charles L. Metzler, Palisades Park, N. J., and John D. Wark, Freeport, N. Y., assignors to Johnson & Johnson, a corporation of New Jersey
Application October 29, 1953, Serial No. 389,084
1 Claim. (Cl. 220—97)

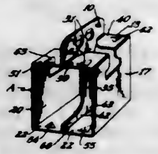
A portable dispensing device for adhesive tape comprising circular top and bottom members, said top and bottom members having a downwardly extending flange portion and an upwardly extending flange portion respectively immediately adjacent their peripheral edges, said top and bottom members interconnected by an outer peripheral wall member being in engagement with the flange portions of said top and bottom members and

an inner cylindrical wall for supporting the tape roll, said inner wall being split intermediate the top and bottom members forming separate sections interconnected with one another, said top and bottom members and said inner and outer wall members forming an annulus for enclosing the tape, said annulus having a central opening defined by said inner cylindrical wall, and circular ridge devices projecting outwardly from each of said top and bottom members and disposed around the central hole of the annulus in a closed geometric



conformation, opposite portions of said ridge devices extending vertically and in substantially parallel relation with one another, said ridge devices comprising extensions of said inner wall and one ridge device having an outside diameter substantially the same as the inside diameter of the other ridge device whereby the ridge portions on the top and bottom members of a plurality of such dispensers will meet one within the other, and said top and bottom members tapering from the ridge devices toward their peripheral edges.

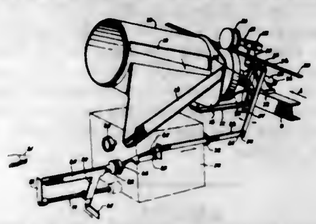
2,834,508
CAN CARRIER
Carl T. Osterberg, Milwaukee, Wis., assignor to A. Geo. Schulz Company, Milwaukee, Wis., a corporation of Wisconsin
Application May 3, 1957, Serial No. 656,777
6 Claims. (Cl. 220—112)



1. A carrier including a pair of hingedly connected sections including in succession a handle panel, a top panel, a side wall panel, a bottom panel, and a securing flange connected by substantially parallel fold lines, a partition strap cut from the top panel and from an adjoining portion of each side wall in each section, said handle panels being secured in surface contact and said flanges being folded upwardly from said bottom panels and secured together in surface contact, each of said flanges having a notch therein, said notches being offset on opposite sides of center, each of said partition straps having its extremity longitudinally split into two individually flexible portions, each said notch being of proper size to accommodate one portion of one of said partition straps therein, and means securing said one portion of the partition strap of each section to the flange of the other section.

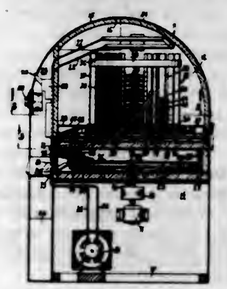
2,834,509
CORE DELIVERY DEVICE FOR COP WINDING MACHINES
Harold Lionel Muschamp, Bramhall, and John Robert Grady, Cheadle Hulme, England; said Grady assignor to said Muschamp
Application April 16, 1953, Serial No. 349,218
3 Claims. (Cl. 221—22)

1. A core delivery device for cop winding machines comprising a rotatable magazine adapted to receive and hold loosely a plurality of cores and having an aperture in its side, pick-up means within the magazine associated with said aperture for picking up and delivering one core through said aperture on each complete rotation of the magazine, a holder to receive said core from the magazine, feeler means adjacent to and advanceable toward said holder to detect the presence or absence of a core in the holder, continuously rotating driving means having a clutch for periodic engagement with the magazine connected to the said feeler means to engage the driving means with the magazine upon advancement of the feeler means, said continuously rotating driving means being axially movable and said clutch having a cam as-



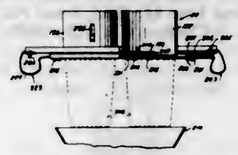
sociated with the continuously rotating driving means, a lever having a cam follower at one end and co-operating with feeler means at the other and means urging the driving means in a direction to maintain contact of the cam with the follower, in combination with complementary driving formations on the driving means and the magazine engageable once in each revolution whereby prevention of movement of the lever due to engagement of the feeler with a core in the holder causes the driving means to be moved back as the cam rides on the follower so that the driving formation on the driving means passes that on the magazine and means for preventing advancement of the feeler means whenever a core is in the holder.

2,834,510
PIE-VENDING MACHINE
Lewis Cenotti, West Haven, Conn., assignor to The Pie-O-Matic Corporation, North Haven, Conn., a corporation of Connecticut
Application December 20, 1956, Serial No. 629,753
13 Claims. (Cl. 221—79)



2. In a machine such as described, a housing including a cooling compartment and a heating compartment below the cooling compartment, refrigerating means associated with the cooling compartment, heating means associated with the heating compartment, an annular gravity-feed rack rotatably supported in the cooling compartment and adapted to support a plurality of food articles arranged in columns disposed circumferentially thereof, plate members supporting the respective articles from below, the plate members being slidable toward the bottom of the rack by gravity, a chute having the upper end thereof radially inwardly of the rack and adjacent thereto, a chute having the upper end thereof radially outwardly of the rack and adjacent thereto, one of said chutes extending toward the heating compartment and the other extending toward a collection chamber formed by the housing, said rack being rotatable to selectively position any column of food articles thereon between and adjacent the upper ends of said chutes, means associated with the cooling compartment for ejecting the lowermost food article and plate member therefor in the selected column, the last-mentioned means ejecting the food article to the chute extending toward the heating compartment and ejecting the plate member to the chute extending toward the collection chamber, and means in the heating compartment to receive the food article from the chute therefor and transport the article to an exit in the heating compartment, the last-mentioned means comprising a motor-driven article-supporting member.

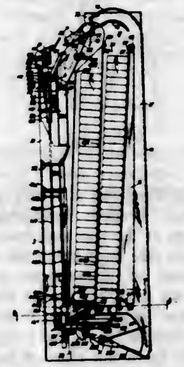
2,834,511
CUP DISPENSER FOR BEVERAGE VENDING MACHINES
Jack J. Booth, Dallas, Tex.
Application December 15, 1954, Serial No. 475,395
7 Claims. (Cl. 221—116)



7. A cup dispensing means comprising a stationary plate having a pair of openings through which cups may pass; a slidable plate reciprocably mounted on said stationary plate for dispensing cups alternately through said openings, a leaf spring at each end of said stationary plate, said leaf springs each having an end secured to an end of said stationary plate and formed into a loop lying in the path of said slidable plate, the opposite end of said spring extending past the edge of an adjacent opening to hold a cup against tilting as the cup is dropped through said opening, said loop being engaged by said slidable plate to withdraw the extended end of said spring from said opening.

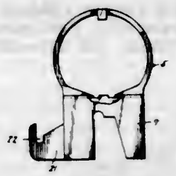
2,834,512
ARTICLE DISPENSING APPARATUS
Benjamin W. Fry, Ladue, Mo., assignor, by mesne assignments, to National Vendors, Inc., a corporation of Missouri
Original application December 13, 1948, Serial No. 65,057, now Patent No. 2,594,147, dated April 22, 1952. Divided and this application October 8, 1951, Serial No. 250,253
4 Claims. (Cl. 221—131)

1. A vending machine comprising a cabinet adapted to be opened at the front, a plurality of magazines within the cabinet for holding upright stacks of articles to be dispensed, said magazines being located side-by-side and being open at the front, a plurality of traps, one for each magazine, located adjacent and in front of the upper ends of the magazines, each trap being adapted releasably to retain an article supplied thereto from its respective magazine, means for guiding articles for travel upward in the rear of the magazines and around the upper ends of the magazines to the traps, mechanism for ejecting the lowermost article of any stack from the respective magazine rearward into said guiding means, means for causing the ejected article to shoot through said guide means and around the upper end of said magazine to the respective trap, supporting means mounted for movement between a closed position in front of the magazines and an open position out of the way of the fronts of the magazines, a receptacle carried by said supporting means opening to the front of said supporting means and located in front of the magazines and at a level between the upper and lower ends of the magazines when the supporting means is in



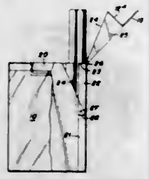
closed position for receiving an article discharged from any trap, a delivery chute carried by said supporting means located in front of said magazines and above the receptacle when the supporting means is in closed position for delivering to the receptacle an article discharged from any trap, and means for releasing the traps to discharge articles therefrom into the delivery chute.

2,834,513
DISPENSING DEVICE FOR CYLINDRICAL OBJECTS
Alfred J. Schupp, San Antonio, Tex.
Application September 20, 1955, Serial No. 535,481
1 Claim. (Cl. 221—151)



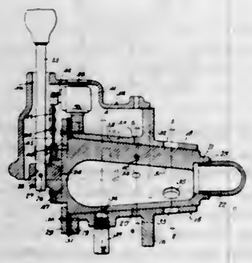
A device for dispensing cylindrical objects, comprising a frame, a case having a delivery slot mounted within said frame, a delivery drum having an article receiving groove formed in the periphery thereof, mounted within the frame under said case into which articles are delivered from said case, a rack onto which articles are delivered from said drum, said rack having horizontal openings and notches, locking arms slidable through said openings, adapted to engage an article resting on said rack restricting movement of said arms in a forward direction, a member connected between said drum and arms adapted to hold said drum against rotation for the reception of an article in said groove to deliver an article to said rack upon contact of said arms with an article deposited in said receiving notches, and a guard strip extending across said case and disposed within said delivery slot, the longitudinal edges of said guard strip being spaced from the longitudinal edges of said slot, controlling the passage of articles from said case into said slot, and a lip carried by said delivery drum movable over said guard adapted to deliver an article to said article receiving groove in said drum.

2,834,514
CIGARETTE PACKAGE OPENER AND EXTRACTOR
Angel E. Redondo, Hatboro, Pa.
Application October 25, 1954, Serial No. 464,289
3 Claims. (Cl. 221—208)



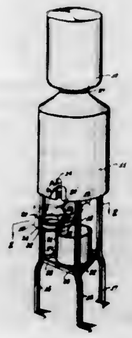
1. A package for cigarettes comprising inner and outer wrappers, said inner wrapper including sides and ends having closure flaps at the top and bottom ends thereof, said top and bottom side flaps being slit at intervals from one side to the other of the wrapper and said sidewalls being slit at intervals from the top to the bottom to provide an extractor for lifting one or more cigarettes from the package, said side walls of the wrapper being slit at intervals diagonally from the ends of the slits across the top end flaps to one of the end walls intermediate the ends thereof to provide a hinge line for the upper portion of the extractor, said side walls being cut horizontally inward from the hinge line to provide downwardly facing stop shoulders in the retained portion of the side walls, said side walls being slit at intervals from the inner ends of the horizontally cut lines in the wrapper to the ends of the slits in the bottom flaps whereby a pull on the top end flap of the extractor will sever the wrapper between the slits and release the extractor for withdrawing one or more cigarettes from the package.

2,834,515
SAMPLING MEANS FOR REMOVING A PREDETERMINED QUANTITY OF LIQUID FROM A CONTAINER
Samuel H. Lanyon, Oakland, Calif.
Application November 22, 1955, Serial No. 548,395
1 Claim. (Cl. 222—38)



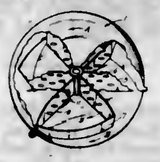
A liquid sampling device comprising a frusto-conical housing, a flange carried by said housing between the ends thereof and engageable with a container wall for attaching said housing to the container with the small end of said housing projecting into said container, said housing having a pair of intake ports adjacent the small end thereof, a frusto-conical hollow measuring plug rotatable in said housing, a hollow projection carried by the small end of said plug for adjusting the interior volume of said plug, said plug having a pair of intake ports adapted in one position of said plug to register with said first named intake ports whereby liquid in said container will flow into said plug, said housing having a discharge port adjacent the large outer end thereof and said plug having an outlet port adapted in a second position of said plug to register with said discharge port, said housing and plug having vent ports adapted to register with each other when said outlet and discharge ports are in registry, means for rotating said plug, a counter mechanism carried by said housing, a driven gear member carried by said counter mechanism, a driving gear fixed relative to said plug meshing with said driven gear for operating said counter mechanism with rotation of said plug, a filler extending along one side of the inner of said plug, said filler being adapted to be uppermost when the plug is in filling position to eliminate the formation of an air pocket when the plug is in filling position, a cover for said housing, apertured screws securing said cover to said housing, a sealing wire extending through the apertures in said screws and connecting said cover and housing, said cover having a slot therein through which said handle means extends, and said housing having apertures therein on opposite sides of said slot adapted to receive the hasp of a padlock to prevent unauthorized actuation of the device.

2,834,516
NON-SPILLING MOVABLE DRIP CATCHER
Walter E. Mosher, North Hollywood, Calif.
Application June 14, 1955, Serial No. 515,467
9 Claims. (Cl. 222—108)



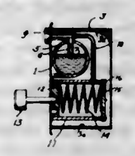
9. A drip catcher for use with a faucet comprising: a framework for supporting said drip catcher having three equally spaced legs; a pan normally positioned beneath said faucet and having a rearwardly directed exit portion so disposed that a generally horizontal reference line lies along said bottom from the front portion to said exit portion; a support member for supporting said pan; a hinge connecting said support member to a first of said legs and allowing pivotal movement of said pan rearwardly from said normal position to a position removed from beneath said faucet, said hinge being positioned rearwardly and outwardly from said pan and having the upper portion of its axis tilted forwardly and inwardly from the vertical such that vertical planes passing through said axis and said line intersect forward of said exit portion whereby said pan is tilted during said movement to prevent spillage therefrom and is automatically returned to said normal position by gravity; and limiting means on said support member for engaging a second of said legs when said pan is pivotally moved to said removed position to limit said pivotal movement and engaging a third of said legs when said pan is returned to said normal position to assure proper positioning beneath said faucet.

2,834,517
ROTATING PROPELLANT TANK HAVING BAFFLE MEANS FOR DIRECTING PROPELLANT TO OUTLETS
John J. Townsley, Wharton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application March 15, 1954, Serial No. 416,450
2 Claims. (Cl. 222—168)



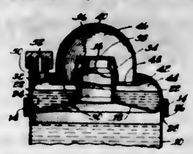
1. In a rotatable propellant tank, a series of baffles forming compartments, openings in said baffles to provide fluid communication between compartments, said baffles also being provided with imperforate walls which form end walls for said compartments and which also form, in combination with the wall of said tank, a series of passages, said tank having a plurality of outlet ports provided therein, said passages being directed toward said ports.

2,834,518
COMBINATION TILE AND LIQUID DISPENSER
Frances Erzen, Pittsburgh, Pa.
Application February 21, 1957, Serial No. 641,570
1 Claim. (Cl. 222—193)



In combination with a tile, an outlet nozzle and plunger projecting through said tile, a container enclosing a supply of liquid in communication with said nozzle, a pressure cylinder having one end secured to the rear face of said tile and containing a piston and a helical spring normally urging said piston toward the rear surface of said tile, an outlet tube connecting said cylinder to a tube projecting into said liquid and to said nozzle, whereby as the piston is pushed in by said plunger, it will compress said spring and force compressed air through said nozzle so as to create a vacuum in said tube and spray liquid through said nozzle.

2,834,519
DISPENSER CAP
Lloyd C. Miller, Blue Island, Ill., assignor to Formold Plastics, Inc., Blue Island, Ill., a corporation of Illinois
Application November 25, 1955, Serial No. 548,898
18 Claims. (Cl. 222—455)



1. A dispenser adapted for attachment to the apertured end of a container holding fluent material, and comprising a body portion having upper and lower compartments and partition means separating the same and adapted to cooperate with the container aperture to seal the lower compartment from the container aperture except through the partition means, aperture means through the partition means communicating with the upper compartment and adapted to provide direct communication with the container aperture, said lower compartment having an open bottom with peripheral sealing means around the edge thereof engageable with the container end to complete therewith the sealing of the lower compartment, aperture means through the partition means providing separate communication between the upper compartment and the lower compartment, and a dispensing opening in the wall of the lower compartment for dispensing material accumulated therein.

2,834,520
SPOUTS FOR CONTAINERS
Robert Nyden, Manhasset, N. Y.
Application June 15, 1956, Serial No. 591,688
7 Claims. (Cl. 222—525)



1. A spout for a container comprising a mounting member having a cylindrical portion extending from one end of the mounting member and a discharge passage extending axially through the mounting member and the cylindrical portion, said cylindrical portion being arranged with a valve seat in an intermediate portion of the discharge passage in the cylindrical portion and an annular inturned lip at the outer end of the cylindrical portion to constrict the outer end of the discharge passage, and a valve-spout member having a tubular portion sliding in the constricted end of the discharge passage and an enlarged portion at the inner end of the tubular portion sliding in the discharge passage above the valve seat and arranged to engage the valve seat and close the discharge passage, the tubular portion of the valve-spout member having an axial bore opening at the outer end of the tubular portion and the enlarged portion of the valve-spout member being arranged with a port opening to said bore and forming a communication between the bore and the discharge passage, whereby outward movement of the valve-spout member opens the discharge passage and permits the discharge of the contents of the container through the part in the enlarged portion and the base of the tubular portion and inward movement of the valve-spout member closes the discharge passage and seals the container.

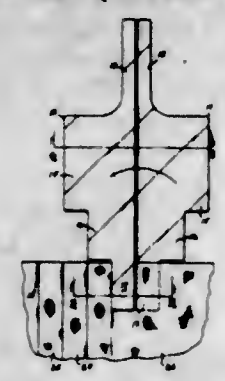
2,834,521
SPOUTS COMBINED WITH CONTAINERS
Robert Nyden, Manhasset, N. Y.
Application January 31, 1956, Serial No. 562,395
5 Claims. (Cl. 222—569)



1. A spout of resilient material comprising a cup-shaped base portion having an opening through the center of the bottom wall of the base portion, and a tubular portion having a maximum outer diameter smaller than the inner diameter of the base portion and integral with

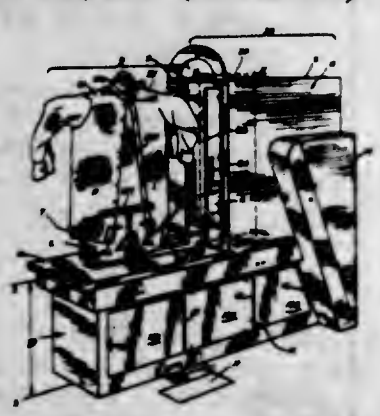
and terminating at the bottom wall of the base portion with the bore of the tubular portion communicating with the opening in the bottom wall of the base portion and extended centrally of the base portion and beyond the open end of the base portion, whereby an uninterrupted annular well is formed in the base portion for the insertion of an assembling tool and the flexing of the wall of the well into the well.

2,834,522
PLEAT FORMING DEVICE
Annette Marie Ogle, Fort Dodge, Iowa
Application December 1, 1954, Serial No. 472,361
4 Claims. (Cl. 223—34)



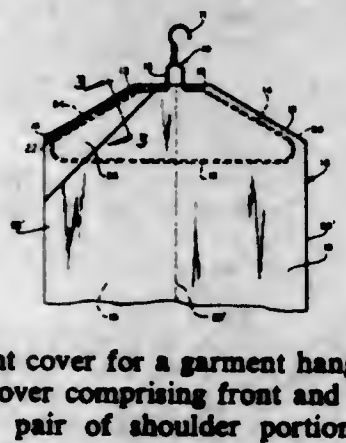
1. In a pleat forming device, two sheet members spaced apart at their inner adjacent sides to provide a slit opening between them for at least a major portion of their lengths, a hinge means hingedly connecting said two sheet members together at a point away from the ends of their inner adjacent edges whereby one sheet member may be laterally folded over the other without moving the other; said two sheet members having straight outer side edges and widths of different values.

2,834,523
SHIRT PRESSING MACHINE
Ira C. Maxwell, Richfield, and Ole H. Langen and Calvin E. Pillois, Minneapolis, Minn., assignors to The Unipress Company, Incorporated, Minneapolis, Minn., a corporation of Minnesota
Application May 13, 1955, Serial No. 508,142
33 Claims. (Cl. 223—57)



1. A press for finishing the body portions of shirts comprising a frame having mounted thereon, a padded buck having longitudinal axis and a generally elliptical cross sectional shape of substantially uniform dimension from one end to the other, said buck having a major division plane thru said longitudinal axis and the major axis of said cross-section ellipse shape, thin buck wings mounted for variable extension movement in said major division plane, a pair of presser heads symmetrical about said major division plane and each having flat portions extending at opposite sides for contacting opposite faces of said wings, said flat portions being smoothly connected to semi-elliptical recesses shaped to conform to said buck, said heads being shaped so as together to embrace all but the edges of said wings and said buck when said heads are brought against opposite portions of said buck symmetrically in respect to said major division plane, means for moving said buck from a loading position, thence by a translatory motion edgewise and parallel to said division plane to a position between said heads, means for then moving said heads simultaneously toward each other and into contact with said buck with ironing pressure and for simultaneously imparting to each of said heads a slight component of motion in a direction parallel to the longitudinal axis of said buck.

2,834,524
WRAPAROUND GARMENT COVER
Don Holliday, Harrison, Ark.
Application August 10, 1954, Serial No. 448,802
5 Claims. (Cl. 223—98)



1. A garment cover for a garment hanger and garment thereon, said cover comprising front and rear walls, each wall having a pair of shoulder portions, a horizontal upper edge and a pair of vertical edges and adapted to fit downwardly over the garment and hanger, said front and rear walls being secured together along one shoulder portion, said front and rear walls being open across the horizontal upper edges thereof whereby to receive the hanger hook upwardly therethrough, said front and rear walls being integral along the vertical edges adjacent said shoulder portions which are secured together, the other vertical edges of said front and rear walls being separable, an intermediate wall integral with said other vertical edge of said front wall and disposed intermediate said front and rear walls and having a sloping shoulder portion, said intermediate and front walls being secured together along the adjacent shoulder portions, and means for engaging the other shoulder portion of said rear wall with said front wall whereby to retain the cover about the garment and hanger.

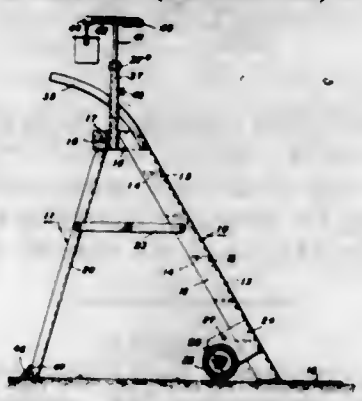
2,834,525
SAFETY BODY BELT
Ellis Claude Shawgo, Franklin, Pa., assignor to Miller Equipment Company, Inc., Franklin, Pa., a corporation of Pennsylvania
Application December 20, 1956, Serial No. 629,596
6 Claims. (Cl. 227—49)



1. A safety body belt for use with a safety strap extending around a pole or the like, said belt comprising, in combination, a saddle, D-rings on each end of said saddle engageable by snap hooks on the safety strap, a body back strap slidably mounted at its lower portions on said saddle, said back strap extending upwardly from said slide mounting for supporting a wearer's back and including on its upper portion a tongue and buckle for

snugly fastening said back strap about the wearer's waist and for holding the back strap snugly against the wearer's back whereby the wearer is safely and comfortably supported by the safety body belt while being free to move relative to the saddle.

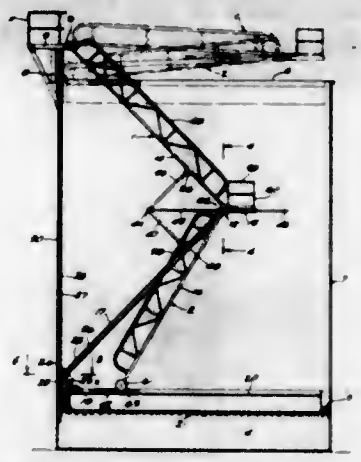
2,834,526
COMBINATION TRUCK AND LADDER
August F. Paris, Brockway, Pa.
Application August 9, 1956, Serial No. 603,034
2 Claims. (Cl. 228—16)



1. A wheeled truck useable as a stepladder and having a load-carrying body and a foldable leg member pivoted at its upper end to the rear of the top portion of the body to support the latter in an inclined position for loading and foldable into parallel relation with the rear of the body, the body having at its top rearwardly curved handles to serve as body-supporting feet when the body is disposed horizontally for loading with the leg member in folded position beneath it, a flat load supporting platform plate projecting forwardly from the lower end of the body and disposed horizontally for supporting engagement with the floor or ground when the body is in its inclined position, a pair of laterally-opposed bearing bracket plates projecting rearwardly from the lower end portion of the body in upwardly spaced relation to said platform plate, a transverse shaft mounted in the lower portions of said bracket plates, a pair of ground-engaging wheels mounted on the end portions of said shaft, the peripheries of said wheels being disposed above the plane of said platform plate, whereby they will be spaced above the ground when the body is in its inclined position, a combined stop and keeper rod having its ends mounted in the upper portions of said bracket plates and engageable by said leg member to limit its folding movement, and manually-retractable spring projected latch means carried by the lower portion of said leg member and engageable with said keeper rod to hold the leg member in its folded position when the truck is used for hauling a load.

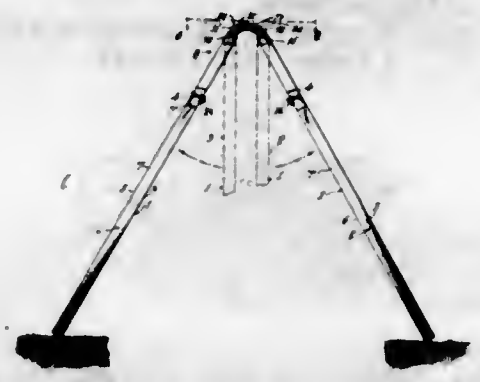
2,834,527
SECTIONAL LADDER INSTALLATION FOR LARGE TANKS
T Dwight Aller, San Gabriel, Calif., assignor to Southwest Welding & Mfg. Company, a corporation of California
Application August 15, 1955, Serial No. 528,251
12 Claims. (Cl. 228—23)

1. In a ladder installation for liquid tanks, or the like, having a floating deck therein, the combination of upright guide-means on the inner face of the tank wall, a floating deck on the surface of the liquid in the tank and having means for engaging the said guide means, a ladder comprising two sections located at different levels, with a flexible connection between the same, the lower ladder section having its lower end guided to move in a transverse direction on the upper side of the deck when the deck rises and falls with the surface of the liquid in the tank, the upper section of the ladder having its upper end supported adjacent the upper end of said tank, said ladder sections being offset laterally from each other, and having a transverse landing shelf supported at about the level of the said joint; and means for maintaining said



landing shelf in a substantially horizontal position as the said joint flexes with the rise and fall of the said floating deck.

2,834,528
CONVERTIBLE LADDER
Kibbey W. Couse, Newark, N. J.
Application July 12, 1954, Serial No. 442,836
7 Claims. (Cl. 228—25)



1. A ladder convertible to provide a propped ladder or an extension ladder and comprising a main ladder section and an auxiliary ladder section, each section including side rails having steps secured thereto and bridging the same, curved extensions on the top ends of the side rails of the main section, curved extensions on the top ends of the side rails of the auxiliary section separably telescopically connectible to the curved extensions on the main section for use of the ladder as a propped ladder, the side rails of said auxiliary section adjacent their bottom ends having slots, the curved extensions of said main section being separably receivable in said slots when the ladder is used as an extension ladder, and means to secure the side rails of the ladder sections together when the ladder is used as an extension ladder including means carried by the curved extensions of the main section and coactive with said auxiliary section, and a part on a step of one of said main and auxiliary ladder sections cooperative with a part on a step of the other of said main and auxiliary ladder sections.

2,834,529
SPACING DISKS FOR JACOB'S LADDERS
Noël L. Dahlander, Sr., New Milford, Pa., assignor of one-half to Robert J. Earl, New York, N. Y.
Application December 19, 1955, Serial No. 553,942
3 Claims. (Cl. 228—40)

1. The spacing disk for a Jacob's ladder having flexible stiles and rigid rungs having end portions characterized by flanges at the lateral edges of the disk, extending inwardly from said disk and having openings through said flanges in alinement with said rungs, yieldable devices

engaging said disk and having portions extending through said openings in a direction substantially parallel to said disk and at substantially right angles to the rungs and projecting from the outside of said flanges to form bumpers, and means for connecting the end portions of the



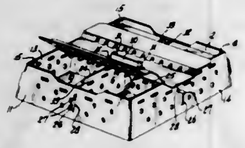
rungs to said disks, the end portions of the rungs when so connected engaging said yieldable devices, the yieldable devices when so engaging said disk and end portions of the rungs being captured to anchor said bumpers in place.

2,834,530

CHICK SHIPPING CONTAINER

Jay H. Nute, Lynwood, Calif., assignor to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts

Application January 9, 1957, Serial No. 633,342
1 Claim. (Cl. 229—6)



In a chick shipping container of paperboard, a body member comprising a bottom and side walls, partition members and a cover member, side wall members connected together by means of lock tabs in slots adjacent the corners of said container and said cover secured by lock tabs in slots therein, said side walls being wider at their bottom than at the top, one pair of said side walls having recesses in their upper edges, said cover member comprising seven sections foldably connected to each other and being folded into said recesses so as to form a channel in the top of the container, said cover having four rows of U-shaped cut-outs, the base of each U-shaped cut-out being continuous with the cover member and not separated therefrom by fold lines whereby in assembled relationship U-shaped tabs extend into the container in the same plane as the bottom of said channel.

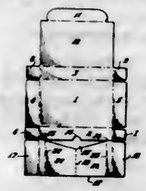
2,834,531

TAMPER PROOF CARTON

Glenn E. Struble, Hamilton, Ohio, assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware

Application July 2, 1956, Serial No. 595,157
4 Claims. (Cl. 229—33)

1. In a tamper proof carton, a bottom part having a bottom wall, front, rear and end walls articulated to said bottom wall and permanently secured together at their end edges, an outer cover member hingedly connected to the upper edge of said rear wall, said cover member having a tuck flap extending along its free side edge, and an inner cover member hingedly connected to said front wall adjacent the end edges thereof, said inner cover member having an opening therein extending along the upper edge of said front wall intermediate its end edges, said inner cover member having end parts articulated to the end edges thereof, said parts being permanently secured to the end walls of said bottom part, and a line for severance dividing said inner cover part into a pair



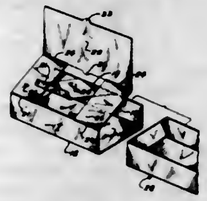
of foldable panel parts capable of being folded upwardly to gain access to the interior of said bottom part upon separation of said panel parts along said line for severance, said line for severance traversing said inner cover member and terminating at the opening therein.

2,834,532

DUAL OPENING DISPLAY CARTONS

John H. Roepke, Milwaukee, Wis., assignor to David D. Davis and Gilbert F. Fitzgerald, both of Milwaukee, Wis.

Application August 6, 1957, Serial No. 676,587
8 Claims. (Cl. 229—44)



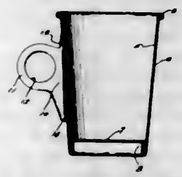
1. In a carton, first and second spaced apart upright walls defining therebetween an enclosure for articles of merchandise, a dual opening lid for controlling access to the enclosure and having first and second spaced apart longitudinal margins adapted to substantially coincide respectively with the upper edges of the first and second spaced apart upright walls, a hinge strip traversing the upper end of the enclosure and having one end hingedly secured to the first upright wall and having its other end hingedly secured to the second longitudinal margin of the lid, and a panel also traversing the upper end of the enclosure and hingedly secured at one end to the second upright wall and hingedly secured at its other end to a portion of the first longitudinal margin of the lid.

2,834,533

PAPER CUP WITH REMOVABLE HANDLE

Herman Carew, Easton, Pa., assignor, by mesne assignments, to American Can Company, New York, N. Y., a corporation of New Jersey

Application March 8, 1954, Serial No. 414,841
9 Claims. (Cl. 229—52)



1. In combination, a paper cup having at least one external slot-like wall socket, a reusable rigid handle for

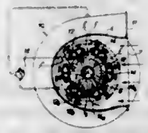
removable attachment to said cup, and an upward projection on said handle gradually decreasing in thickness away from the point of connection with the handle to enter said wall socket in an upward direction and establish a frictional wedging engagement therein.

2,834,534

CENTRIFUGAL AIR COMPRESSOR CONTROL DEVICE

Marcel Kadosch, Paris, and Jean Le Foll, Le Pre-Saint-Gervais, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a company of France

Application September 22, 1952, Serial No. 310,870
Claims priority, application France September 27, 1951
5 Claims. (Cl. 230—114)



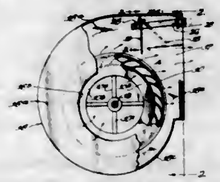
1. In a centrifugal air compressor having a rotor provided with radial blades, a discharge pressure control device comprising a plurality of arcuately spaced, air inlet passages extending radially of, positioned around, and ending at the intake portion of said rotor whereby air is normally sucked through said passages and into said intake portion in a radial direction with respect thereto, and controllable means positioned laterally of said passages for selectively diverting the air flows therethrough from said radial direction.

2,834,535

BLOWER DAMPER MOUNTING

Wilford A. Autry, Fort Worth, Tex., and Robert Warren Eichorn, Marshalltown, Iowa, assignors to Lennox Industries, Inc.

Application March 8, 1954, Serial No. 414,580
1 Claim. (Cl. 230—114)



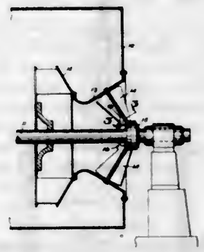
In a variable discharge blower having a rotor, a volute casing surrounding the rotor comprising a pair of opposed end plates and an arcuate panel extending between said end plates defining a discharge passage, and a damper disposed within said discharge passage having one edge adjacent said panel, said damper extending laterally across the discharge passage and having an axially extending offset near said edge, mounting means for said damper comprising openings in said opposed end plates, a rubber grommet lining each opening having a flange in contact with the outside margin surrounding said opening and having a second flange in contact with the inside margin surrounding said opening, and a stubby shaft extending through each grommet into said discharge passage having a head engaging said one flange and an axial split in its inner end, the opposite margins of said offset being disposed in said axial split and bearing against said other flange, whereby said damper is pivotally mounted in insulating relation to said discharge passage.

2,834,536

SPIN VANE CONTROLS FOR FANS

John E. McDonald, Newton, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 29, 1955, Serial No. 537,484
2 Claims. (Cl. 230—114)



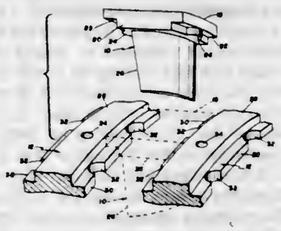
1. In a fan having a fan shaft with an air moving rotor, having an inlet sheet extending around said shaft, having an annular spin vane support around said shaft, and having spin inducing vanes pivoted at said sheet and said support, the combination of means for removing the spin from the air in a small annulus around and adjacent the surface of said shaft comprising tabs on the downstream sides of said vanes protruding towards said rotor, the outer ends of said tabs being spaced a distance from said shaft which is a small fraction of the distance the outer ends of said vanes are, and the inner ends of said tabs being located closer to said shaft than the inner ends of said vanes are.

2,834,537

COMPRESSOR STATOR STRUCTURE

Kenneth J. Neary, El Cajon, Calif., assignor to The Ryan Aeronautical Co., San Diego, Calif., a corporation of California

Application January 18, 1954, Serial No. 404,437
7 Claims. (Cl. 230—133)



1. An axial flow compressor stator structure, comprising a plurality of stator blades having platforms thereon at one end, said platforms each having opposed keys integral therewith on the face adjacent the blade, retaining rings having spaced notches to receive said keys, a compressor casing, and means for securing said retaining rings to said compressor casing with said blades therebetween.

2,834,538

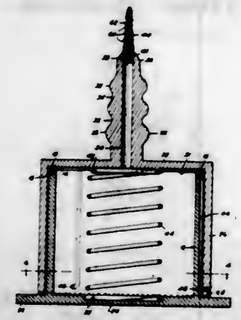
APPARATUS FOR TESTING AND CLEARING

Joseph Sugrue and James Anstett, Chicago, Ill.

Application December 4, 1956, Serial No. 626,195
4 Claims. (Cl. 230—174)

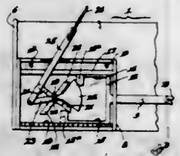
1. Apparatus of the class described comprising a base member having an upwardly extending open-ended cylinder, an inverted cylindrical member adapted to be telescopically positioned over the same for reciprocation, said cylindrical member having an open end and a transverse wall, a nozzle member positioned axially thereof and extending upwardly from said wall, a central bore in said

nozzle member and spring means positioned between said base and said transverse wall for normally holding said cylindrical member in an extended position, and means limiting the reciprocal travel of said cylindrical member,



said means including vertical slots in the outside wall of said open-ended cylinder and pin members extending inwardly from the inside wall of said cylinder member engaging said slots.

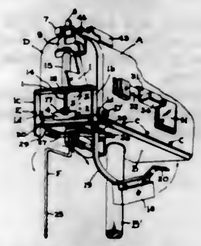
2,834,539
MAIL BOX SIGNAL DEVICE
Lawrence M. Carey, Lancaster, Pa.
Application April 22, 1954, Serial No. 424,987
3 Claims. (Cl. 232—35)



1. In combination with a rural delivery mail box provided with a swingably mounted door; of a signal device comprising, a signaling member mounted for up and down movement, link means arranged to extend along a side wall of the mail box and having its front end pivotally connected with the door of the mail box in such manner that the link means will be reciprocated during swinging movement of the mail box door to its open and closed positions, a rotatably mounted member that is operatively connected with said signaling member, and reciprocable motion transmitting means interposed between the link means and the rotatably mounted member which reciprocable motion transmitting means is adapted to effect step-by-step rotary movement of said rotatably mounted member in one direction only and thereby effect upward movement of the signaling member to its uppermost position during one reciprocating movement of the link means and downward movement to its lowermost position during the next reciprocating movement of said link means.

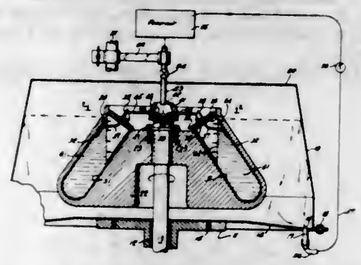
2,834,540
DOOR-OPENING ATTACHMENT FOR RURAL-TYPE MAILBOXES
Peter D. Hudgins, South Boston, Va.
Application August 27, 1957, Serial No. 680,574
3 Claims. (Cl. 232—45)

1. In a mailbox, a door hinged on a horizontal axis thereof and normally biased to closed position, and means supported beneath the bottom of the box for moving said door to an open position to permit access to the box, said means comprising a vertical shaft, a pair of door-operating levers having their inner ends coaxially mounted on said shaft for independent movement and having their outer ends free to swing, springs connected with the outer free ends of the levers and also connected to the door below the said hinged axis thereof, and means for selectively actuating one or the other of said levers, said means comprising a substantially U-shaped bracket having a vertical web and its opposite end portions offset in the same direction to straddle the levers, said member being horizontally swingable on said shaft, the edges of



said web extending laterally to either side of the axis of said shaft and engaged by said levers, and crank means having one end rigidly carried by the web of said U-shaped bracket and its other end adapted to be engaged to turn the crank, whereby the rotating of the crank in one direction will turn and actuate a related lever to yieldingly pull the door to open position through its related spring while the other spring is relaxed.

2,834,541
CENTRIFUGING APPARATUS AND SYSTEM
Albert Szent-Gyorgyi, Woods Hole, Mass., and Josef Blum, Norwalk, Conn., assignors to Ivan Sorvall, Inc., Norwalk, Conn., a corporation of New York
Application September 20, 1956, Serial No. 610,943
14 Claims. (Cl. 233—26)

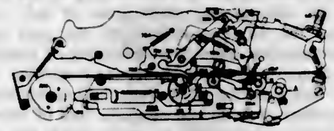


1. A centrifuge apparatus comprising a centrifuge rotor, a plurality of separately removable receivers in radial array in said rotor, a distributor cup positioned axially at the top of said rotor, a plurality of distributing means communicating between said distributor cup and each of said respective receivers, an aperture in the outer wall of each of said receivers, a plurality of apertures bored through the outer wall of said rotor and corresponding in number to said first mentioned apertures, the apertures in said receivers registering with corresponding apertures in said rotor.

2,834,542
TOTALIZER ENGAGING MECHANISM
Oscar J. Sundstrand, West Hartford, Conn., assignor to Victor Adding Machine Co., Chicago, Ill., a corporation of Illinois
Application January 14, 1954, Serial No. 404,088
4 Claims. (Cl. 235—60)

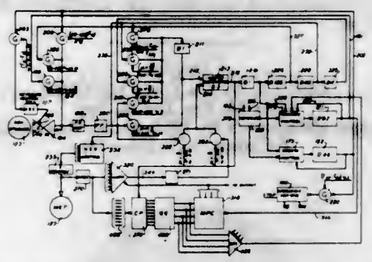
1. In an electric motor driven calculating machine having a plurality of registers and actuators therefor, means for engaging and resilient means for disengaging

the registers and their actuators comprising a plurality of slides each of which is cooperable with one of the registers to move it into engagement with its actuators, resilient means for biasing the slides for movement in one direction, a shaft rotated through one revolution during each operating cycle of the machine, a plurality of operating



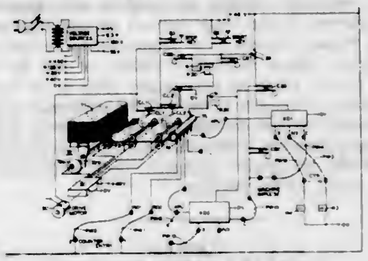
cams secured to said shaft and cooperable respectively with the slides to move the latter in a direction opposing the resilient biasing means, and a cycle control shaft having a plurality of stop cams secured thereto positionable in cooperable relation with the slides and effective to prevent movement of the slides by their respective resilient biasing means.

2,834,543
MULTIPLYING AND DIVIDING MEANS FOR ELECTRONIC CALCULATORS
William H. Burkhart, East Orange, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application July 12, 1952, Serial No. 298,526
36 Claims. (Cl. 235—61)



1. In a cyclically operable computer wherein numbers embodying one or more digits are represented by electric signals, the combination of a source of representations of numbers to be used in computations, a precessing storage unit wherein a number representation is precessed one digit representation time per cycle, an adder-subtracter wherein the nine multiples of a multiplicand or divisor whose representation is applied thereto are formed by adding the same to itself and its sums on nine successive cycles, means for so operating the adder-subtracter, a multichannel storage unit wherein representations of the multiples are stored, means for transmitting a multiplier representation to the precessing unit, a selector circuit controlled by multiplier digit representations for selecting the channel of the multiples storage unit appropriate to the value of a multipler digit on each of a plurality of successive cycles, means for applying the multiples representations in selected channels to the adder-subtracter on successive cycles for addition of one multiple to another to form a product, means for shifting the representations of the first multiple so applied and the representations of the sums of it and other multiples one digit representation time per cycle to align the same for appropriate addition to the next multiple whose representation is transmitted to the adder-subtracter, means for transmitting a representation of the product formed in the adder-subtracter to the number source, means for transmitting a dividend representation from the number source to the adder-subtracter, circuit means for comparing a predetermined portion of the dividend representation with the representations of said nine multiples of the divisor, said comparison means controlling said selection circuit in accordance with the highest multiple divisible into the dividend to effect transmittal of the representation of said multiple to the adder-subtracter for subtraction of that multiple from the dividend, means for shifting the representation of the remainder produced by said subtraction effectively, one digit representation time for application to the comparison circuit for comparison with the representations of the nine multiples, means for recording in the precessing unit representations of the quotient digits appropriate to the results of the comparisons, and means for transmitting assembled quotient representations to said number source.

2,834,544
ACCUMULATOR CARRY MEANS
Peter W. Daino and Charles B. Stott, Endwell, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 24, 1956, Serial No. 630,321
11 Claims. (Cl. 235—61.6)



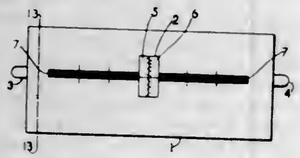
9. In combination a decimal accumulating element controlled by records having columns for bearing data and in each of which the presence of any one of the data designations, 0–9, inclusive, constitutes a valid entry which enables a corresponding value to be stored in the element, the absence of the designation constituting an invalid entry that enables a value to be stored which in effect provides no change in the element except to yield a carry signal; an entry means for the element and including entry controllable means responsive to valid entries and nonresponsive to invalid entries; carry yielding means for the element and adapted to yield a carry signal whenever the element passes from 9 to 0 in response to entries; an associated electronic carry storage means having OFF and ON conditions of stability, respectively, to indicate storage and nonstorage, and effective in response to a carry signal to assume an ON condition, including connections to said carry yielding means which enables the electronic storage means to receive a carry signal; carry storage enabling means, including first and second switch controls, the first switch control being normally effective during the entry of data to enable a carry signal, irrespective of character, to cause the electronic carry storage means to assume an ON condition, the second switch control rendered effective under control of said entry controllable means in response to a valid entry to maintain the ON condition of the electronic carry storage means for an interval after the completion of an entry; and means operative after entry has been completed to open said first switch control to cause the electronic carry storage means to assume an OFF condition whenever the second switch control is noneffective in response to an invalid entry, or, to maintain the ON condition whenever the second switch control is effective in response to a valid entry; and a utilization circuit including connections, effective during the interval, to read out the ON condition of the electronic carry storage means.

2,834,545
DIGITAL COUNTER FOR COMPACT GROUP INDICATION AND/OR RECORDING
Herbert M. Heuver, Dayton, Ohio
Application March 30, 1955, Serial No. 498,125
8 Claims. (Cl. 235—71)
(Granted under Title 35, U. S. Code (1952), sec. 266)



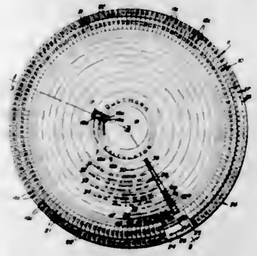
2. A register for compact group indication comprising a support, orbit forming guideways rigidly mounted in said support, an endless flexible belt rigid in sections riding on the surface of said orbit forming guideways, said orbit forming guideways shaped to cause said endless flexible belt to follow a substantially rectangular orbit, said rectangular orbit having a width substantially equal to the length of a single rigid section, each of said rigid sections having an outer surface and an inner surface, indicium on the outer surface of each rigid section substantially equal to the size of the rigid section, a portion of said inner surface of said rigid section in sliding engagement with said orbit forming guideways, belt driving signal responsive means mounted in said support, another portion of the inner surface of said rigid sections having means adapted to be sequentially engaged by said belt driving signal responsive means so that the flexible belt is moved along its rectangular orbit to an extent determined by the signal to the belt driving signal responsive means, said endless flexible belt positioned on said orbit forming guideways so that the indicium on the rigid sections at the end of the rectangular orbit records the value of the signal to the register.

2,834,546
CALCULATING DEVICES
Roland Eric Gunther, Princeton Junction, N. J.
Application January 18, 1957, Serial No. 634,896
6 Claims. (Cl. 235—71)



1. In a calculating device of the band scale slide rule type, the combination of a housing, a hairline read-out indicator, said hairline readout indicator mounted in said housing, a plurality of essentially transparent drums, said drums axially and rotatably mounted in said housing, said drums being peripherally provided with sets of regularly spaced teeth, a plurality of essentially opaque bands, said bands so placed as to run on said drums, said bands provided with regularly spaced perforations, said perforations corresponding to said teeth on said drums, each said band bearing a calibrated scale, and each said band bearing a pattern of light-conductive horizontal stripes; the said housing provided with a plurality of windows, said windows laterally extended across said housing essentially in line with the hairline on said hairline read-out indicator, said windows being laterally disposed and positioned over the said pattern of light conductive stripes on said bands; the said pattern of light conductive stripes consisting of distinct stepped-off groups of stripes, with the leftmost of the said groups on each said band comprising individual stripes, each of said individual stripes being of exactly the same physical length as one of the full unit divisions of said calibrated scale, and the next to leftmost of said groups comprising second degree individual stripes, each of said second degree individual stripes being of exactly the same physical length as one of the first unit subdivisions on the said calibrated scale, each following said group being placed to the right of each previous said group, and each following group representing in the same said manner the subsequent subdivisions of said calibrated scale until the physical lengths of the said individual stripes become less than the dimension of height of the said windows in said housing, and further the said windows being inscribed to bear indicia corresponding to the readings of units and of major and of intermediate and of minor subdivisions of units which the said calibrated scale as well as the laterally displaced segmented forms of the said calibrated scale represented by the said groups of stripes, there being an individual said stripe in the said pattern for every said calibrated scale division of physical length greater than the said limit imposed by the said window height; further, the said stripes in the said pattern being so aligned with respect to the said windows over each said band that lateral coincidence is established between each individual said stripe and that particular said window bearing a said inscribed value equal to the immediate value of the division of said calibrated scale to which the individual said stripe is equal in length; and further, a light source, said light source positioned behind said essentially opaque bands in said housing in the vicinity of said windows, and said light source capable of illuminating whichever of said windows that may be uncovered by the alignment with said window of any said light conductive stripe in said bands.

2,834,547
DIRECT WORK CALCULATOR
Percy M. Fry, Dallas, Tex.
Application March 16, 1955, Serial No. 494,723
4 Claims. (Cl. 235—88)



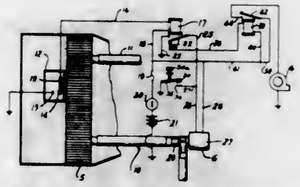
1. A calculator for duct work estimating and for other purposes comprising in combination, concentric top and bottom disks, means pivotally connecting said disks at centers for relative rotation, the bottom disk being diametrically larger than the top disk, each disk having at its top surface an outer marginal and circumferentially extending series of registerable indicia-bearing spaces, each disk also providing a top surface gap separating the first and the last of the marginal spaces of its said series, an indicator on the top surface of each disk adjacent the site of the related top surface gap, said indicators extending in opposite circumferential directions to define a marginal space-provided work area therebetween, adjacent radial rows of indicia legends on said bottom disk, said rows of bottom disk-carrying indicia being corelated to different work area-defined groups of registering marginal indicia, and said top disk having slot means through which the rows of bottom disk indicia are selectively displayed.

2,834,548
THERMOSTATIC VALVE
Poul J. Olsen, Park Ridge, and George J. Safranek, Chicago, Ill., assignors to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application February 4, 1957, Serial No. 638,012
7 Claims. (Cl. 236—34)



1. In a thermostatic valve, a valve housing having a seat at one end thereof, a bridge extending across said housing and spaced upstream from said seat, a thermal element having a cylinder carried by said bridge and having a piston extensible from said cylinder toward said seat upon certain predetermined increases in temperature, a valve engageable with said seat and loosely mounted on said piston, means for mounting said valve on said piston and biasing said valve into engagement with said seat and retractibly moving said piston upon reductions in temperature comprising a yoke extending across the upstream face of said valve and secured thereto and having spaced legs extending along said thermal element, and a spring interposed between said bridge and the free ends of said legs.

2,834,549
AUTOMOTIVE HEATER
Elmer A. Carlson, Detroit, Mich., assignor to Essex Wire Corporation
Application September 24, 1953, Serial No. 382,136
2 Claims. (Cl. 236—37)



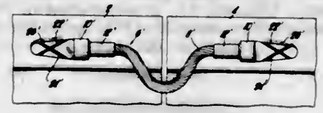
1. In a heating system for the passenger compartment of a vehicle including a passageway for conveying air into the passenger compartment, a source of heated fluid, and a heat exchanger located in the air passageway and connected to the source of heated fluid, said heat exchanger having heat exchanging elements over which the air in said passageway passes and through which said heated fluid is circulated in a heat exchanging relationship with said air, said heat exchanging elements being arranged such that cool air passing over the portion of the heat exchanging elements through which the heated fluid first passes issues from the heat exchanger at a higher temperature than does air issuing from other portions of the heat exchanging elements through which the heated fluid subsequently flows; automatic control means comprising: a valve for controlling the flow of heated fluid in said heat exchanger; and a thermostat located adjacent a selected portion of said heat exchanger on the air issuing side to maintain the air issuing from said selected heat exchanger portion at a nearly constant temperature by actuating said valve which regulates the flow of heated fluid through the heat exchanger; said portion of the heat exchanger adjacent the thermostat being selected such that with a constant temperature of air issuing from said selected heat exchanger portion, the flow of heated fluid through the heat exchanger will vary inversely with the temperature of the air entering heat exchanger to cause the average temperature of all the air issuing from the heat exchanger to vary inversely with the temperature of the air entering the heat exchanger.

2,834,550
RAIL BOND OR ELECTRICAL CONNECTOR
Ralph T. Lowerre, Bedford, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey
Application May 16, 1955, Serial No. 508,669
4 Claims. (Cl. 238—14.9)



1. A rail bond for connecting two rails at widely spaced points comprising a rigid metal rod of electrical conducting material, a flexible stranded wire end connector of electrical conducting material fastened to each end of said rod, the length of each connector being short in comparison to the length of said rod, and a terminal fitting secured to the free end of at least one of said stranded wire end connectors.

2,834,551
ARC WELD RAIL BOND
Merrill F. Black, Denver, Colo., assignor to United States Steel Corporation, a corporation of New Jersey
Application October 27, 1953, Serial No. 388,481
1 Claim. (Cl. 238—14.13)

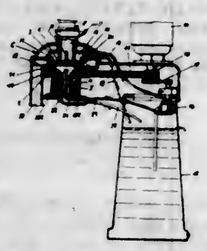


A rail bond comprising a conductor and a pair of terminal fittings, each of said fittings including a sleeve portion for attachment to one end of said conductor and an elongated body portion extending from said sleeve, said body portion having a flat surface and a portion extending outwardly therefrom so as to form a pocket for receiving weld metal when the fitting is against the rail, said body portion having a pair of intersecting diagonal grooves therein on the side thereof opposite the flat surface and away from the pocket, said grooves intersecting at a point remote from said conductor, one of said grooves extending from the point of intersection upwardly toward the end of the body portion adjacent the conductor and the other of said grooves extending from the point of intersection downwardly toward the end of the body portion adjacent the conductor, said grooves being adapted for selectively receiving a chisel to cut the fitting from the rail.

2,834,552
WATER-COOLED MOTOR-DRIVEN COFFEE MILL
Giovanni Gozzoli, Bologna, Italy
Application October 23, 1956, Serial No. 617,839
3 Claims. (Cl. 241—67)

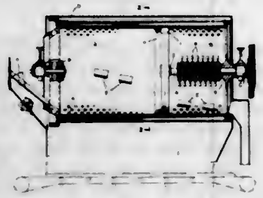
1. In a motor-driven coffee mill the combination comprising a housing; a container for the coffee to be ground; an upper and a lower horizontal toothed grinding disc arranged below said container for cooperation; a central opening in the upper grinding disc; a conduit leading from said container to said opening; a support for said upper grinding disc integral with said housing and forming with the rear surface of said upper grinding disc a tight an-

nular jacket surrounding said conduit; a hollow vertical stub shaft projecting from the back of the said lower grinding disc and having a funnel-shaped end portion adjacent to said disc; a screw-conveyor projecting from the other side or said lower disc into said conduit; means for rotatably mounting said lower grinding disc in said housing with the ridges of its outer teeth row in sliding contact with the ridges of the corresponding teeth row of



the said upper grinding disc; means for rotating said lower grinding disc; a tube mounted coaxially in said hollow stub shaft; a spraying device arranged at the end of said tube within said funnel-shaped end portion of said shaft; a cooling liquid tank; a pump with conduits delivering liquid from said tank through said jacket and through said spraying device against the back of said lower grinding disc; and conduits for returning said liquid back into said tank.

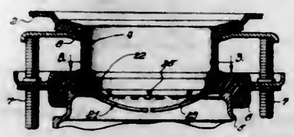
2,834,553
HAMMER ROTOR TYPE BRADFORD CRUSHER
Forest H. Neely, Philadelphia, Pa., assignor to Poor & Company, Chicago, Ill., a corporation of Delaware
Application November 26, 1956, Serial No. 624,415
2 Claims. (Cl. 241—81)



1. In a hammer rotor type Bradford crusher, the combination, including, a perforated screening cylinder, a spider dividing the cylinder into an initial screening chamber to receive bulk material and a hammer chamber downstream of the screening chamber, a rotary hammer in the hammer chamber, said hammer including a shaft having its inner end journalled in the spider and its outer end journalled outside the chamber, and means at the exit side of said screening chamber for arresting the movement of tramp iron and preventing the same from entering the hammer chamber to protect the hammers of the rotor.

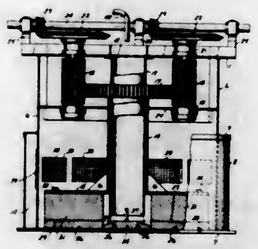
2,834,554
SPLASH GUARD FOR FOOD WASTE DISPOSER
Jack E. Bebinger, Brookfield, Ill., assignor to General Electric Company, a corporation of New York
Application October 31, 1955, Serial No. 543,750
2 Claims. (Cl. 241—100.5)

1. A food waste disposer comprising in combination, a comminution chamber, means including a sleeve member secured to said chamber and providing an entrance for the introduction of food waste thereto, means for securing said sleeve member about an opening of a kitchen sink for the flow of water from said sink into said chamber, means within said chamber for comminuting material contained therein in the presence of water entering said chamber from said sink, means for discharging the mixture of comminuted waste and water, and guard means disposed within said sleeve above said chamber, said guard means extending entirely across said sleeve and including a spherical body portion of flexible sheet material disposed with the concave side thereof facing the inlet end of said sleeve, said body portion being subdivided, by narrow slit-like water passages extending radially from a very small opening at the center of said



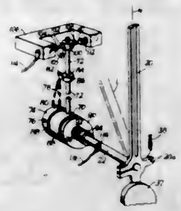
body portion to near the rim thereof, into a plurality of imperforate triangular sectors which are distortable to permit passage of waste material into said chamber but restore to original concavo-convex condition to provide a cup-like device to restrict the passage of water into said chamber to substantially the flow capacity of said slits and said opening, whereby upon flow of water into said sleeve member from said sink at a rate faster than said flow capacity a volume of water will accumulate in said spherical body portion to provide a sound insulation medium during the operation of said disposer.

2,834,555
ORE GRINDING MILL
Benjamin J. Pugh, Helena, Mont.
Application December 30, 1954, Serial No. 478,660
5 Claims. (Cl. 241—205)



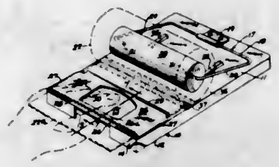
2. In a crushing mill, a tank, crushing shoes fixed in the bottom of said tank, a hollow standard extending into said tank concentrically therewith and from the top thereof and receiving directly the material to be crushed, said standard terminating above the bottom of said tank, a hollow shaft enclosing said standard and capable of reciprocating and rotary movement thereon, a flange at the lower end of said shaft, grinding shoes secured to the lower face of said flange and resting upon said fixed shoes, the engaging faces of said shoes having complementary inclined surfaces, a gear affixed to the upper end of said shaft, elongated pinions secured in said tank on opposite sides of said shaft and in parallelism therewith, said pinions in mesh with said gear, means for driving said pinions, means for introducing liquid to the interior of said standard, and a circular member secured to the bottom of said tank beneath said standard and provided with an outwardly and downwardly inclined circular wall to direct and deflect material from the interior of the hollow standard to the grinding surfaces of the shoes.

2,834,556
TENSION CONTROL DEVICE
August Lucas Kraft, Roselle Park, N. J.
Application February 16, 1954, Serial No. 410,522
7 Claims. (Cl. 242—45)



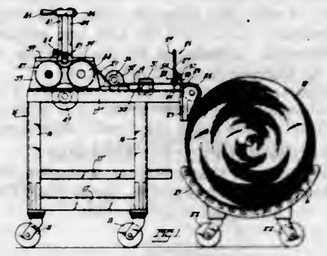
1. A tension control device for regulating the tension applied to a length of material including in combination a drive means, a sensing element in engagement with said length of material, means for mounting said sensing element for movement in response to changes in tension on said length of material, a control adapted when actuated to activate said drive means, a control actuating member, and frictional means interconnecting said sensing element and said control actuating member, said frictional means normally providing a driving connection between said sensing element and said control actuating member while permitting relative movement between said element and said member in response to a predetermined force tending to move said element and said member with respect to each other.

2,834,557
ROLL PAPER DISPENSER
William S. Graham, Berkeley, Calif.
Application March 10, 1955, Serial No. 493,343
7 Claims. (Cl. 242—55.5)



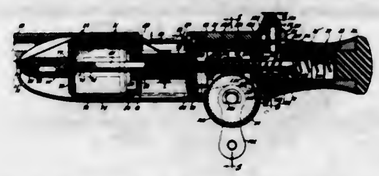
6. In a dispensing device for spirally rolled paper which includes a planar face plate the forward end of which is spaced from a supporting surface, said face plate having mounted at its forward end a guide for a strip of paper and a shearing edge and means whereby the strip of paper may be manually moved through said guide towards said shearing edge, the combination therewith of a bracket means pivotally mounted at the opposite end portion of the base and having extending arms for rotatively mounting a roll of paper to be dispensed, said bracket arms being adapted for swinging on said pivot arcuately forwardly towards the shearing edge and maintaining the circumference of the paper roll against the face plate whereby the axis of the paper roll and the contact with the face plate are progressively moved forwardly toward the shearing edge as the roll becomes smaller from use, and means on said face plate for increasing the frictional resistance to rotation of the paper roll against the face plate when the paper roll is diminished in diameter from its use and has been moved by said bracket arms to a relatively forward position of circumferential contact with the face plate.

2,834,558
PORTABLE RE-ROLL, INSPECTION, MEASURING, AND CUTTING UNIT FOR RUGS
John G. Haipin, Babylon, N. Y.
Application April 21, 1955, Serial No. 502,876
3 Claims. (Cl. 242—56)



1. A portable re-roll inspection, measuring and cutting device for carpets, rugs and like heavy materials comprising a frame with casters, said frame having a table adapted for moving carpeting, rugs and other like heavy material thereacross, a cutting member mounted on the frame and disposed over the table, a measuring roller rotatably mounted on the table adjacent the cutting member, spaced spindle holding brackets on the frame adjacent the table adapted to hold a re-roll spindle therebetween, spindle winding members rotatably mounted on the frame adjacent the spindle holding brackets, means to rotate the spindle winding members, said spaced spindle holding brackets each having a pair of vertical arms spaced apart a distance rotatably and slidably to hold a re-roll spindle therebetween, one of said arms of each bracket being pivotally connected to swing outwardly from the other arm for inserting and removing re-roll spindles, and a bifurcated locking lever on the other of said arms for each pair of arms to prevent the pivotable arm from pivoting.

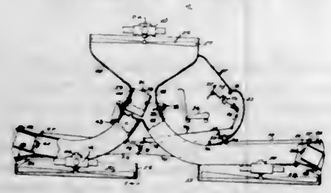
2,834,559
FISHING REEL
Michael J. Nagy, Inglewood, Calif.
Application November 30, 1953, Serial No. 395,107
16 Claims. (Cl. 242—84.21)



1. In a reel of the character described to control a fishing line, the combination of: a spool to receive wound turns of the line; means to support the spool on a fishing rod with clearance around one end of the spool to permit the line to unwind by peeling off the spool end while the spool is stationary; manually rotatable winding means adapted to overhang said spool end for slidable engagement with the line to wind the line onto the spool with the spool stationary, said winding means being retractible from said spool end in the general direction of the axis of the spool to a position to release the line for unwinding by said peeling action, and a housing provided by said support means and enclosing said winding means, said housing having an opening for said line in the region of the projected axis of said spool, said housing having a peripheral window in the region of said spool, said manually rotatable winding means being retractible to a position substantially closing said window, said housing being made in two sections having adjacent ends and a

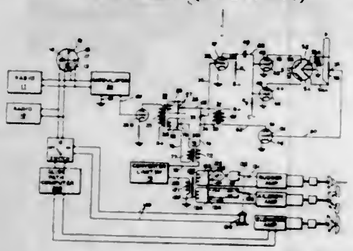
ring member being mounted on one of said adjacent ends, said two sections being releasably joined by a bayonet type connection including two sets of multiple circumferentially spaced longitudinal lands, each of which lands has multiple screw threads, one of said sets being on said ring member, the other of said sets being on the other of said two adjacent ends, said ring member being rotatably adjustable on said one adjacent end for circumferential adjustment of the position of said window in the factory assembly of the reel.

2,834,560
FLUID PROPELLED AIRCRAFT
Luczio Werner and Frank Werner, Irvington, N. J.
Application November 20, 1956, Serial No. 623,346
1 Claim. (Cl. 244—23)



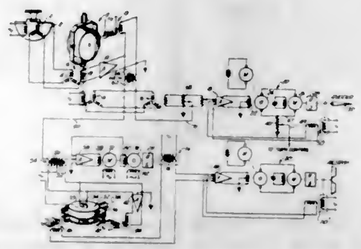
An aircraft comprising a frame, spaced horizontally disposed lower propellers mounted in the frame, an upper propeller positioned in a plane spaced above the plane in which the lower propellers are positioned, ducts for guiding air from the upper propeller to the rear and forward ends of the frame, said ducts including forwardly and rearwardly discharging outlets on opposite sides of said frame and control means for guiding the air through said ducts, selectively, to the front, rear, and also to opposite sides of the rear portion of the frame.

2,834,561
SYSTEM FOR CHANGING THE COORDINATION OF CRAFT CONTROL SURFACES
Charles R. Bell, Bergenfield, and Arthur C. Diani, Clifton, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 22, 1952, Serial No. 278,022
10 Claims. (Cl. 244—77)



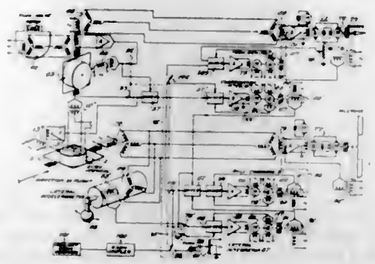
2. A regulator for an automatic pilot system which by way of signals controls the aileron and rudder surfaces of an aircraft, comprising first means operatively connected to said automatic pilot system for regulating the signal ratio between the aileron and the rudder surfaces for the aircraft so as to control the craft mainly by the aileron surface while the craft is cruising, second means operatively connected to said automatic pilot system for regulating the signal ratio between the aileron and the rudder surfaces so as to control the craft mainly by the rudder while the craft is landing, and selecting means operatively connected with said first and second means for selecting one of said means.

2,834,562
AIRCRAFT AUTOMATIC PILOT
George F. Jude, Flushing, and Harry Miller, Brooklyn, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application October 28, 1954, Serial No. 465,332
8 Claims. (Cl. 244—77)



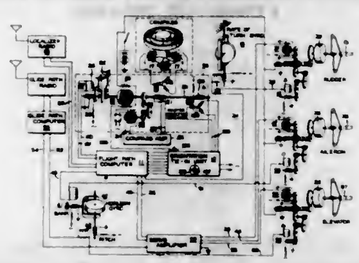
3. A correction device for automatic pilots having rudder and aileron controlling servo systems and directional and vertical gyroscopes slaved to a magnetic compass and a gravitational device, respectively, through error signals, means for integrating the error signals both between the magnetic compass and directional gyroscope and between the gravitational device and gyro vertical, and means for feeding said integrated signal as a corrective factor for said aileron servo system.

2,834,563
AIRCRAFT AUTOMATIC PILOT
Harry Miller, Brooklyn, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application November 30, 1954, Serial No. 471,991
14 Claims. (Cl. 244—77)



14. In an automatic pilot susceptible of radio path and manual guidance, and having attitude maintaining instruments and a radio guidance receiver, servomotors for moving the rudder and ailerons, manual means producing a signal commanding a turn, a lateral accelerometer, means for integrating the output thereof to produce a signal, means producing a signal upon displacement of the craft with respect to its radio path, means producing signals upon error between the craft's attitude in azimuth and bank from that maintained by said instruments, means for controlling said aileron servo from a mixture of said integrated radio displacement and attitude signals to keep and damp the craft on its radio defined path, and alternative means for controlling both said servos from a mixture of said command and error signals, said mixed signals being introduced into the controls for both said servomotors.

2,834,564
ORIENTATION CONTROL
Corles Melvin Perkins, Sr., Rutherford, N. J., and Alfred Bennett, Bronx, N. Y., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application September 19, 1947, Serial No. 774,956
33 Claims. (Cl. 244—77)



1. Apparatus for automatically steering an aircraft toward a directional radio beam when the aircraft is within the radio pattern but is displaced a substantial distance from the beam, the aircraft being provided with an automatic pilot and with an automatic approach control system for controlling craft flight along the beam through the automatic pilot, comprising means for rendering ineffective control of the automatic pilot by the automatic approach system, and means responsive to said first means for developing a signal for assuming primary control of the automatic pilot to turn the aircraft toward the beam.

2,834,565
AUTOMATIC FLIGHT CONTROL FOR AIRCRAFT
Louis F. Cole, Sherwood, Oreg.
Application March 5, 1956, Serial No. 569,445
1 Claim. (Cl. 244—82)



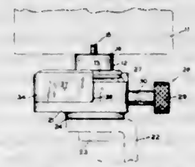
In a control mechanism for controlling the direction of flight of an aircraft having a fuselage and a rudder movably mounted thereon and manually operable by main rudder horns and rudder cables and having a neutral position and movable in opposite directions from neutral position to steer the aircraft, the combination of an auxiliary rudder horn carried by the rudder on each side thereof, means for effecting power operation of the rudder independent of said manually operable means, said power means comprising a double acting suction motor mounted within the fuselage provided with a piston connected to one of said auxiliary rudder horns, valve means for controlling the supply of suction to said motor, said valve means including a first valve for supplying suction to the motor to operate the latter and the rudder in one direction and a second valve for supplying suction to the motor to operate the latter to return the rudder to a neutral position, a pressure responsive free-floating tab swingably attached to the rudder extending rearwardly therefrom and swingable independently of the rudder in response to impact pressures other than that of the slip stream and connected to said first valve for operating the same to control the supply of suction to said suction motor, and means interconnecting the other of said auxiliary rudder horns and said second valve for operating the latter to supply suction to the motor to return the rudder to a neutral position.

2,834,566
BABY BOTTLE WARMER
Marian E. Bower, Bridgewater, Iowa, assignor of one-third to S. Merwyn Allen, Creston, Iowa
Application March 22, 1954, Serial No. 417,675
1 Claim. (Cl. 248—103)



For use in an automobile having the usual instrument panel including a structural portion having a defroster slot; a nursing bottle holder and warmer comprising a sheath-like holder in which a nursing bottle is to be removably held, said holder comprising an elongate one-piece expansible and contractible resilient clamp constructed of imperforate sheet material, said clamp being channel-shaped in cross-section, open at its opposite ends, provided along a lengthwise edge with laterally bent outstanding ear-like anchoring lugs which are adapted to be removably fitted and thus anchored in a defroster slot, said lugs being spaced from each other and located at the respective outer transverse end portions of said holder, said sheet material being indented at longitudinally spaced transversely disposed places to provide transverse beads, the convex sides of the beads projecting into the channel portion of said holder and providing bottle contacting and spacing elements, said beads being situated inwardly of and between the respective anchoring lugs, and laterally bent ears provided on the intermediate portions of the respective transverse ends of said holder and providing stops and serving to assist in preventing endwise displacement of the bottle once it is put in its intended position in the channel portion of said holder.

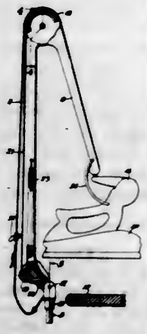
2,834,567
CAMERA TRIPOD ADAPTER
James B. Young, Salem, Oreg.
Application March 30, 1954, Serial No. 419,741
1 Claim. (Cl. 248—187)



An adapter for detachably mounting a camera on a tripod comprising a pedestal, said pedestal comprising a column and a foot at the lower end thereof, said foot having three straight edges defining the base and sides of a regular triangle, means mounted in said pedestal to secure the pedestal to a camera in dependent relation to the bottom thereof, a support adapted to be secured to a tripod, said support having a horizontal outline in the shape of a regular triangle equiangular with respect to said foot and having a longer base and longer sides, an undercut gib extending along the base of said support, a rib extending along the base of said foot and adapted

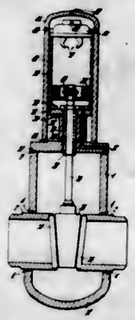
to interlock with said gib when the foot is resting on said support, a longitudinally movable plunger slidably mounted in said support and projecting rearwardly from the base thereof, the axis of said plunger being parallel to the upper surface of said support and bisecting the angle between the sides thereof, said plunger comprising a stem and a manually engageable knob thereon, said support being provided with a bore slidably guiding said stem and said bore having a rearwardly open enlargement at its outer end through which said step coaxially projects, a clamping shoe fixed to the inner end of said plunger, said shoe comprising a pair of walls embracing portions of the sides of said support adjacent the apex thereof, each of said walls comprising a claw facing inwardly and overhanging the upper surface of said support and engaging the top of said foot when it is resting on said support, a spiral spring seated in said bore enlargement in encircling relation to said stem and compressed between said support and said knob to urge said shoe into clamping engagement with said foot and said rib into interlocking engagement with said gib, and a cylindrical sleeve coaxially surrounding said stem and enclosing said spring, said sleeve extending into the enlargement of said bore and slidably engaging the wall thereof, and the ends of said sleeve engaging the inner end of said enlargement and said knob when said plunger is forced inwardly to limit opening movement of said clamping shoe.

2,834,568
JOINTED SUPPORTING ARMS FOR FLATIRONS
Edwin E. Foster, Austin, Tex., assignor to Majik-Ironers, Inc., a corporation of Texas
Application July 17, 1953, Serial No. 368,592
7 Claims. (Cl. 248—280)



1. Jointed supporting arms for a flatiron comprising a support fixed against vertical movement, a first arm pivoted on the support on a horizontal axis, a second arm pivoted to the free end of the first arm on a horizontal axis, a first cam member fixed to the support adjacent to the pivot for the first arm and having a curved outer surface, a second cam member fixed to the second arm adjacent to its pivotal connection to the first arm and having a curved outer surface, and a flexible tension element passing over and engaging the curved outer surfaces and secured at its ends in the support and the second arm against longitudinal movement relative thereto, there being a theoretical shape for the cams which would cause the free end of the second arm to move in a horizontal plane as the arms pivot relative to each other if the parts were weightless, the arms and tension elements yielding in response to their own weight and the weight of an iron suspended on the second arm and at least one of the cam surfaces being non-circular and having a greater rate of rise than the theoretical cam shape thereby to compensate for yielding of the arms and the tension element.

2,834,569
PISTON ACTUATED VALVE WITH RESTRAINING DETENT
Elmer K. Nickerson, deceased, late of Springfield, Mass., by Martha N. Steele, administratrix, West Haven, Conn., assignor to Chapman Valve and Manufacturing Company
Application November 16, 1955, Serial No. 547,195
1 Claim. (Cl. 251—62)



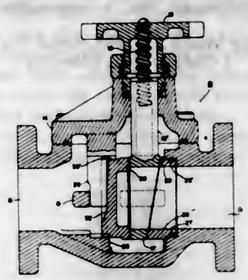
In a valve construction including a cylinder being closed at its upper end and having a reciprocable piston disposed therein and connected to a valve disc, the improvement consisting of, a head disposed on the upper side of the piston and having a lower surface diverging outwardly and upwardly from the piston to an enlarged intermediate portion and an upper surface converging inwardly and upwardly from the intermediate portion, a pair of arms having a pivotal connection on the upper end of the cylinder and having lower free ends depending therefrom and being swingable between closed head-embracing and open head-releasing positions, lower ends of said arms having surfaces formed for engagement by the upper surface of said head as the piston approaches its upper open position, said arms being arranged to releasably embrace and hold said head in the upper open position of the piston, means including a rod extending through said arms and compression springs on said rod acting on the outer sides of said arms urging said arms to closed position, said pivotal connection being disposed on an axis transverse to the axis of movement of the piston.

2,834,570
SOLENOID VALVE
Howard L. Harrison, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application March 27, 1953, Serial No. 345,047
11 Claims. (Cl. 251—129)



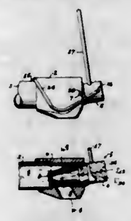
5. In a solenoid, a solenoid tube, a coil of wire encircling said tube, and a plunger in said tube, said plunger comprising a plurality of relatively movable magnetic members spaced from one another and adapted to move axially to one another after said coil is energized and means actuated by said relative motion of said members for supporting said members within said tube.

2,834,571
VALVES WITH WEDGING VALVE ELEMENTS
Walter C. Hollander, Buckingham County, Va.
Application June 24, 1955, Serial No. 517,689
22 Claims. (Cl. 251—195)



4. A valve comprising a valve body having a fluid passageway therethrough, a movable valve element having opposite faces which are inclined at an angle to each other and which seat when the valve is in closed position, and a structure for seating the valve element, said structure being removably mounted in the valve body and comprising spaced metal members which receive the valve element between them and which are wedged apart by the valve element as it moves into seated position, and a pair of metal connecting arms extending integrally between said members and adapted to resiliently oppose the wedging action of the closing valve element on said members, said arms being disposed on opposite sides of said members and adapted to flex so that said members may move laterally and tilt relative to each other as the valve gate seats between them.

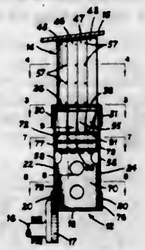
2,834,572
FAUCETS
William Stelzer, Summit, N. J., assignor to Walter Eickele, Summit, N. J.
Application August 15, 1955, Serial No. 528,189
17 Claims. (Cl. 251—243)



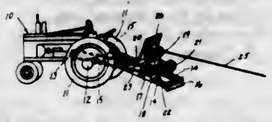
1. A faucet comprising a body, a liquid passage extending through said body and having an open end, an outlet port in said body branching from said passage, a pivotally movable stopper fitted into said open end to seal said open end and to close off said outlet port from said passage, an external spring supported by said body and pivotally engaging said stopper to releasably hold said stopper in an assembled position relative to said body and to bias said stopper in a position to close off said outlet port, and a handle to manually operate said stopper.

2,834,573
ROTOR CONSTRUCTION FOR FLUID MACHINES
Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
Application June 23, 1953, Serial No. 363,472
15 Claims. (Cl. 253—39)

1. In combination in an axial flow light weight rotor for interchanging force with an elastic fluid, a rotatable hub structure comprising axially spaced sheet metal plates, a plurality of hollow axial flow blades of limited weight supported on said structure peripherally spaced thereabout and extending radially outward therefrom, said blades upon rotation developing limited centrifugal forces at the root ends thereof and a change in pressure and density of said fluid between the leading and trailing edges thereof, a plurality of radially extending webs peripherally spaced and extending axially from one said plate to the other, each said web having flanges on opposite sides thereof faying with the adjacent said plate, each said blade having a sheet metal element extending radially inward and secured to a said web, and a plurality of rim segments positioned between adjacent said blades to close the hub periphery and sustain said variation in pressure, said segments having flanges bonded to said blades and other flanges bonded to said plates, said elements serving to transmit said centrifugal forces to said web while leaving said segments substantially free of said forces, said webs and said rim segments cooperating to position said blades.



2,834,574
WINCH ASSEMBLY
Charles E. Sentman, Waveland, Ind.
Application January 24, 1955, Serial No. 483,785
1 Claim. (Cl. 254—166)

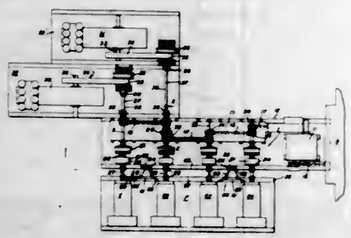


A winch assembly for use with farm implements having a rear axle and a power take-off, said assembly comprising a downwardly inclined frame having hooks at one end for readily separable connection to said rear axle, the other end of said frame including a ground engaging shoe, a drum rotatably carried by said frame and including means for connection to said power take-off whereby said drum may be rotated, a pair of aligned posts secured to said frame and extending upwardly from opposite sides thereof, a second drum rotatably journalled in the upper ends of said posts in a plane forwardly of and above said first drum, and a cable connected to said first drum and extending first under and then around a portion of said second drum to the rear of said assembly for attachment to objects to be pulled, whereby backward and downward pressure will be exerted upon said frame as objects are being pulled.

2,834,575
POWER AND TRANSMISSION ASSEMBLY FOR DRILLING RIGS
Ardell Hughes, South Gate, Calif., assignor, by mesne assignments, to The Youngstown Sheet and Tube Company
Application April 19, 1954, Serial No. 424,135
4 Claims. (Cl. 255—19)

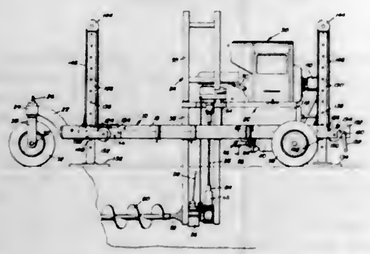
1. In a portable power and transmission assembly for driving the drawworks of a drilling rig: a portable trans-

mission unit having an elongated base, a plurality of laterally directed shafts spaced lengthwise of said base, transmission means connecting said shafts and transmission means for connecting at least one of said shafts to said drawworks, a plurality of torque converters spaced along one side of said base in spaced relation to like ends of said shafts, clutches between said shafts and said torque converters for connecting the output members of said torque converters respectively to said shafts; a portable power unit arranged along the torque converter side of said base, said power unit having an elongated base with



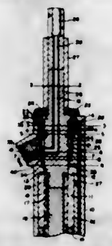
one edge thereof adjacent said base of said transmission unit, a plurality of engines spaced along said base in alignment with said torque converters; flexible shaft means connecting the output members of said engines with the input members of said torque converters; and links connecting the adjacent edges of said bases so that the base of said power unit may have up and down adjusting movement relative to said base of said transmission unit, said links being characterized by having horizontal hinge means at the ends thereof connecting said links to said bases.

2,834,576
BORING MACHINE
Cleo R. Ivey, Jasper, Ala.
Application November 17, 1952, Serial No. 320,959
5 Claims. (Cl. 255—20)



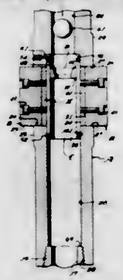
1. A machine for drilling horizontal bores, said machine comprising a horizontal frame having a forward guide wheel and a pair of rear driving wheels, a carriage slidably supported on the frame and movable between the ends of the frame, means connecting the carriage to the frame for moving the carriage relative to the frame, a vertical support slidably carried by the carriage, means connected to the support for adjusting the same vertically, a drill driving means mounted on the support, a power plant carried by the carriage, a universal joint connected to the power plant and including a multi-sided sleeve, a rear wheel driving shaft connected to the driving wheels, a second universal joint connected to the rear wheel driving shaft, and means for selectively coupling the sleeve to the second joint or the drill driving means.

2,834,577
ROCK DRILL FRONT END WITH DUST COLLECTING DEVICE
Jacob E. Feucht, Garfield Heights, Ohio, assignor to Cleveland Rock Drill Division, Westinghouse Air Brake Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 23, 1955, Serial No. 496,181
7 Claims. (Cl. 255—50)



1. In a rock drill front end, a chuck housing, a drill steel chuck member within said housing having one end of a drill steel fitted therein, a first portion of said member spaced from said housing to form therewith a dust chamber, a dust passage through said drill steel opening into said chamber, said chamber adapted to be connected to a suction source for drawing cutting dust through said passage, bearing means for a second portion of said member, an annular passageway around said member axially between said first and second portions opening into sid chamber, and means connecting said passageway to the exterior of said housing whereby upon suction created in said chamber free air is drawn through said passageway to isolate said second portion from the dust within said chamber.

2,834,578
REAMER
Charles J. Carr, Long Beach, Calif.
Application September 12, 1955, Serial No. 533,543
8 Claims. (Cl. 255—73)



1. A reamer of the character referred to including, an elongate tubular body engageable in a fluid handling drilling string, a plurality of cutters shiftably carried by the body to project radially outwardly therefrom, an elongate fluid conducting sleeve slidably engaged in the body and positioned radially inward of and adjacent to the cutters to prevent them from shifting radially inwardly, and fluid pressure actuated control means adapted to shift the sleeve longitudinally of the body and away from the cutters.

2,834,579
WELL BORE ENGAGING TOOL
Vincent Emanuel, Arcadia, Calif., assignor to Grant Oil Tool Company, Los Angeles, Calif., a corporation of California
Application May 21, 1956, Serial No. 586,239
6 Claims. (Cl. 255—73)

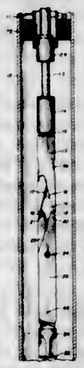
6. An oil well tool comprising a body adapted to be lowered into a well, an element rotatably carried at a

side of said body and adapted to engage and act upon the well bore wall; attaching means for rotatably mounting said element radially at the side of said body, said attaching means including a shaft, said shaft rotatably mounting said element and extending entirely therethrough, said shaft having a first and second end section extending beyond the ends of said element; first and second mounting members attached to said body to radially mount said shaft, said mounting members each defining a bearing recess for receiving and axially and radially positioning said respective end sections of said shaft, said bearing recess being a cylindrical recess substantially circular in cross-sectional configuration, said end sec-



tions of said shaft receivable within said bearing recesses and having a symmetrical cross-sectional configuration at the arcuate portion of said shaft which is radially inward of a diameter of said bearing recess which diameter is substantially perpendicular to a radius of said body extending through the axial centerline of said bearing recess, said symmetrical cross-section having a radius substantially equal to the radius of said bearing recess, the portion of said end section of said shaft which is radially outward of said diameter being reduced in radius whereby a clearance is defined between said end section and the wall of said bearing recess radially outward of said diameter; and means for preventing the rotation of said shaft within said bearing recesses.

2,834,580
EXPANSIBLE DRILLING DEVICE
Martin E. True, George Boer, and Wallace M. O'Reilly, Houston, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application September 14, 1956, Serial No. 609,918
10 Claims. (Cl. 255—76)



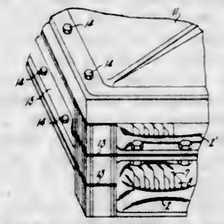
1. A device for use in a well and lowerable through a well tubing string which comprises in combination, a retrievable support member, a sleeve member slidably arranged on said support member, at least a pair of expansible blades pivotally connected to said sleeve member, frangible means releasably attaching said blades in inoperative position to said sleeve member, said support member enclosing the upper ends of said blades and being provided with upwardly inclined surfaces matingly engaging with corresponding inclined surfaces on said blades, and biasing means urging said sleeve upwardly relative to said support member for expanding said blades into operative position on release of said frangible means.

2,834,581
STEEL RECUPERATOR
Gerhard Schefels, Gerd Wellenstein, and Hugo Trebbe, Wilhelm-Marx-Haus, Dusseldorf, Germany
Application May 18, 1953, Serial No. 355,468
Claims priority, application Germany May 20, 1952
4 Claims. (Cl. 257—224)



1. A steel recuperator comprising a cylindrical casing, means in said casing for defining a sealed heat exchanging space, said means including an upper partition member and a lower partition member, tubes mounted with their respective ends in said members and extending through said space, an inlet for gas to be heated leading into the upper part of said space, and an outlet for the heated gas from the lower part of said space, means mounted in the lower part of said casing for heating gas to pass through said tubes, baffle means mounted in said casing for increasing the velocity of the gas to be heated in the passage through the cylinder, the lower partition member comprising two horizontally disposed plates extending completely across said cylinder and a space extending between said plates from one side to the other of said cylinder for the circulation of cooling air between the plates, and inlet and outlet pipes connected respectively to opposite sides of said space, said outlet pipe passing the air for entry to said heat exchanging space to constitute a portion of the gas to be heated thereby.

2,834,582
PLATE HEAT EXCHANGER
Richard Kablitz, Berlin-Schoeneberg, Germany
Application June 11, 1954, Serial No. 436,178
Claims priority, application Germany June 24, 1953
6 Claims. (Cl. 257—245)



3. A heat exchanger comprising a plurality of superposed plate elements, each having a pair of opposed substantially planar surfaces and a flange curved out of the plane of said surfaces, the flange of one plate element being connected fluid-tightly to and being substantially coextensive with the flange of an adjacent plate element,

a plurality of spaced substantially parallel serpentine-shaped ribs disposed on each of said opposed surfaces, said ribs being subdivided in longitudinal direction thereof to form successive groups of rib portions, each of said rib portions being crescent-shaped in cross-section and having a median part gradually converging to the respective ends, the ends of the rib portions of adjacent groups facing in opposite directions, adjacent groups of rib portions being slidably offset in transverse direction with respect to each other, said ribs of one of said surfaces extending in transverse direction to said ribs of the other of said surfaces and being greater in height than said ribs of said other surface, each of said plate elements being further provided with at least one substantially straight rib disposed on said one surface along said flange and extending in longitudinal direction of the latter, outwardly curved cover means positioned on said superposed plate elements, and means connecting said cover means and said plate elements.

2,834,583
HEAT EXCHANGER
Oscar Oldberg, Birmingham, Mich., and Ray A. Sandberg, Waukegan, Ill., assignors to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application September 19, 1955, Serial No. 534,941
2 Claims. (Cl. 257—262.16)



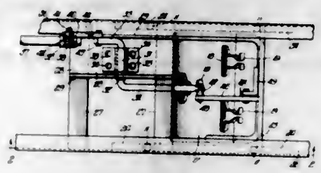
1. A plate and tube assembly comprising a length of tubing, a plurality of plates stacked in closely spaced overlying parallel relation with an exterior edge of each plate lying flush with corresponding exterior edges of the other plates and with a notch formed in each of said exterior edges in alignment with corresponding notches in the other plates, said length of tubing extending through the aligned notches of the respective plates, the margin of each notch being of U-shape and being defined by interior edge portions of said plate integral with the plate, the interior edge portion of said plate at the inner closed end of each notch contacting a semi-peripheral portion of the tubing, and the interior edge portions at the respective sides of each notch having niches therein extending outwardly from the notch in the direction away from the center line of the notch to provide generally right angle shoulders of substantial extent in the direction at right angles to the center line of the notch and facing the inner closed end of the notch, said niches having a substantially greater extent along the sides of the notch than the depth of said shoulders, said shoulders joining with adjacent edge portions of the plate defining the bottoms of the niches to define a corner at the ends of the shoulders remote from the center line of the notch, and a single continuous elongated channel retaining member which normally assumes a U-shape with a substantially planar body portion and right angle flanges extending in the same direction from the opposite sides of the body portion and generally at right angles to the body portion, said channel member extending through the aligned notches and having its body portion transversely arced in conforming contact to a further portion of the periphery of the tubing at the side of the tubing nearest the open end of the notch, said arced body portion contacting a portion of the periphery of the tubing substantially less than a semi-periphery thereof and the integral flange portions extending outwardly away from said tubing and forming acute angles of substantially less than 90° with the center line of the notch and extending toward the open end of the notch and laterally away from the center line of the notch and terminating in free ends seated in the corners between the shoulders and the adjacent edge portions of the niches, the transverse extent of the shoulders inwardly toward the center line of the notch from the corners preventing the body portion from assuming its normal planar configuration.

2,834,584
PNEUMATIC VIBRATORS
Lennart Per-Trolle Bonde Bondeson, Ljungby, Sweden, and Eric Fridh, Sao Paulo, Brazil, assignors to Vibro-Plus Corp., Woodside, N. Y., a corporation of Delaware
Application July 6, 1954, Serial No. 441,542
2 Claims. (Cl. 259—1)



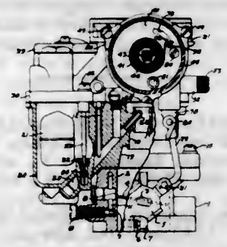
2. A pneumatically operated vibrator comprising means forming a cylindrical chamber, a hollow tubular roller body in the chamber having an external diameter smaller than the interior diameter of the chamber, means to direct a flow of pressurized air longitudinally through the hollow tubular roller body and said cylindrical chamber, and vane means in the hollow tubular roller body responsive to the air flow to rotate the roller body whereby, primarily, rotational movement about its own axis is imparted to the roller body and, secondarily, a rolling movement in engagement with the inside wall surface of the cylindrical chamber is imparted to the roller body.

2,834,585
RETORT SHAKING APPARATUS
Lubomyra Oharenko, Chicago, Ill.
Application December 20, 1955, Serial No. 554,162
4 Claims. (Cl. 259—75)



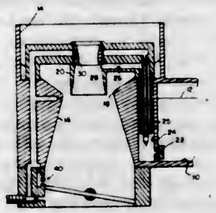
1. A retort shaking device comprising a pair of spaced frame members, each frame member having a pair of spaced vertical bars connected at their lower ends by a horizontal member having its ends terminating in said vertical bars, a pair of spaced interconnected horizontal bars, each connected to the upper ends of the vertical bars, means on said frame members extending laterally substantially beyond the lateral confines of said frame members, a platform pivoted to and between said lower horizontal members, an upwardly directed rocking member rigidly connected with said platform, a crank member pivoted to the upper horizontal frame bars, linkage means interconnecting the upper end of said rocking member and said crank member, and a reciprocable shaft pivoted to said crank member, whereby said shaking device may be suspended in a container containing boiling water with said laterally extending means resting on the rim of said container.

2,834,586
AUTOMATIC CHOKE LATCH
Jesse L. Szwargulski, St. Louis, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application November 18, 1954, Serial No. 469,583
8 Claims. (Cl. 261—39)



1. In a carburetor, the combination of a choke valve and a throttle for controlling the flow of fuel from said carburetor, a manifold suction operated mixture ratio control means including a temperature responsive means to actuate said valve, latch means for rendering said mixture ratio control inoperative when said valve is in its full open position, and means to release said latch responsive to full opening of said throttle to restore control of the fuel mixture ratio to said suction operated means and said temperature responsive means.

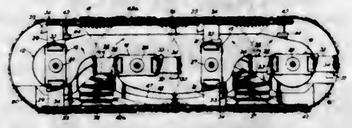
2,834,587
CARBURETOR
Charles R. Goodyear, Detroit, Mich., assignor to Holley Carburetor Company, Van Dyke, Mich., a corporation of Michigan
Application November 7, 1955, Serial No. 545,159
4 Claims. (Cl. 261—78)



1. In a downdraft carburetor having an induction passage in which air and liquid fuel are mixed, said passage having a venturi portion provided with a restricted throat, a fuel supply system including a passage having a port opening radially inwardly into a side of said venturi adjacent its throat, said venturi comprising an annular lip of acute included angle cross-section located upstream from and above said port and partially overhanging said port.

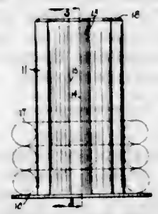
2,834,588
BORING TYPE MINING MACHINE HAVING FOUR BORING HEADS
Chester C. Boesewetter, Erie, Pa., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application February 24, 1956, Serial No. 567,547
1 Claim. (Cl. 262—7)

In a mobile boring type mining machine, a frame, four boring heads mounted on the frame for rotation about parallel axes disposed in a common horizontal plane, each of the boring heads having a plurality of boring arms of equal length, the two inner boring heads being arranged to cut overlapping bores, means on the frame defining a pair of cuttings receiving throats disposed one between an outer boring head and the adjacent inner boring head and the other between the other two boring heads, conveyor means on the frame having a pair of material receiving ends and a single material discharge end, said material receiving ends being disposed one in each said throat and adapted to move cuttings longitudinally rearwardly of the frame, means for rotating the two outer boring heads in opposite directions with their respective boring arms moving toward each other along the mine floor, a cutter bar mounted on the machine adjacent the mine floor and disposed generally tangentially of and extending between the bores cut by the two outer boring heads, a paddle at the outer end of each boring



arm of each of the two inner boring heads for moving cuttings laterally of the axes of the two inner boring heads, and common means for rotating the two inner boring heads at equal angular velocities with their respective boring arms in out-of-phase relationship and in opposite directions such that the boring arms of the two inner boring heads move away from each other along the mine floor, whereby the paddles on the boring arms of the two inner boring heads divide the mass of cuttings which is between the two cuttings receiving throats and move portions of that mass of cuttings alternately in opposite directions toward each of the cuttings receiving throats.

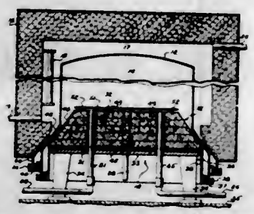
2,834,589
ANNEALING SPIDER
John P. King, North Haven, Conn., assignor to The Alfred B. King Company, North Haven, Conn., a corporation of Connecticut
Application September 23, 1955, Serial No. 536,079
3 Claims. (Cl. 263—47)



1. A coil-supporting spider comprising a base plate and a core member secured thereto and rising therefrom, said core member having a hollow body comprising a plurality of longitudinally extending outwardly projecting hollow ribs of substantially V-shaped form, said base plate extending outwardly beyond the core and adapted to provide a support for the coils and being provided with a substantially centrally disposed opening communicating with the interior of the core member, a cover for the core member also provided with a substantially centrally disposed opening of smaller size than the opening in the base plate, a hollow cylindrical member within the core member having flanges at its upper and lower ends, the edges of said flanges being secured to the inner edges of said ribs to reinforce the core member, a coupling member having a stem portion received in the opening of the cover, and a body portion of larger diameter than the stem portion projecting above the cover and adapted to rest thereon and to be received in the opening of a base plate of a second spider stacked upon the first,

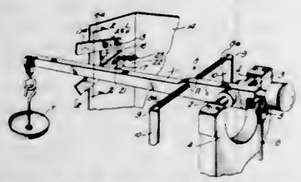
and the interior of said cylindrical member providing a socket within which the stem of the coupling member is snugly received.

2,834,590
BASE STRUCTURE FOR HIGH TEMPERATURE FURNACE
Emerson Pugh, Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Original application January 8, 1954, Serial No. 403,001, now Patent No. 2,798,716, dated July 9, 1957. Divided and this application May 17, 1957, Serial No. 659,863
3 Claims. (Cl. 263—49)



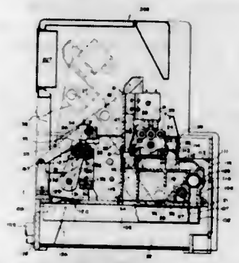
1. A base for a high temperature furnace having a removable domed hood, which comprises a stationary platform supported on a floor, a metal base plate supported on the stationary platform above and in spaced relation to the floor and having a marginal portion for supporting the domed hood to form a gas-tight chamber for heating articles therein, a unitary hearth structure supported removably on the base plate comprising a metal hearth plate supported on the base plate, a layer of refractory material supported upon the hearth plate, said layer of refractory material forming a bottom for the gas-tight chamber for insulating the hearth plate, the base plate, and the platform from direct exposure to heat within the chamber, and vertical tubes extending through and attached to the base plate with upper portions of said tubes extending through the hearth to the top surface thereof and with lower portions of said tubes extending through a portion of the platform and being detachably arranged to conduct gases into and out of said chamber, the hearth and the platform having clearance apertures for receiving the said tubes therein.

2,834,591
LOCKING MECHANISM FOR OSCILLATING SCALE BEAMS
Emerson Eugene Hess, Powell, Ohio
Application May 3, 1954, Serial No. 427,312
3 Claims. (Cl. 265—49)



1. Mechanism for holding a pivotally mounted weight-balancing beam of a weighing scale in a position of balance during periods of scale inactivity, comprising: upper and lower arms arranged respectively above and below such an oscillatory scale beam, means pivotally mounting the upper arm at one end thereof on an associated scale frame, means pivotally mounting the lower of said arms on said frame at a position midway of the length of said lower arm, a link pivotally connected at one end thereof with said upper arm at a position spaced outwardly from the pivotal connection of said upper arm with said frame, said link having its opposite end pivotally connected with said lower arm at a position spaced inwardly from the pivotal mounting of the lower arm on said frame, and manually operated means joined with the inner end of said lower arm and operative through the interposition of said link to impart concomitant swinging movement in opposite directions to said arms in holding and releasing the associated scale beam.

2,834,592
ROLLING QUENCH MACHINE
Robert V. Adair and Leonard O. Carlsen, Rochester, and Earl D. Dammert, Penfield, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application August 19, 1952, Serial No. 305,262
14 Claims. (Cl. 266—6)



1. A rolling quench machine having a quenching chamber containing lower rollers for supporting work, upper rollers and supporting means carrying them and arranged to be lowered and raised to carry said upper rollers into and from operative position wherein they clamp the work upon the lower rollers, means to rotate at least one of the rollers to thereby rotate the work during the quenching operation, means to continuously supply quenching liquid to the chamber, the wall structure of the chamber including a stationary wall portion of such height that overflow maintains the level of the liquid below work supported on the lower rollers, said chamber wall structure also including a movable wall portion adapted in one position thereof to cooperate with the stationary wall portion to increase the overflow height of the chamber structure sufficiently to raise the level of the liquid above the work supported on the lower rollers, and power operated means to lower and raise the supporting means for the upper rollers and, in time therewith, to move said movable wall portion to and from said one position thereof.

2,834,593
PALLET FOR SINTERING MACHINES
Edwin B. Hudson, Middletown, Ohio, assignor to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
Application May 23, 1955, Serial No. 510,478
10 Claims. (Cl. 266—21)



1. A pallet for sintering machines, comprising a pair of end frame members each provided with a pair of aligned wheels, and a grate bar carrying frame, means pivotally securing said grate bar carrying frame to said end frame members on the longitudinal axis of said grate

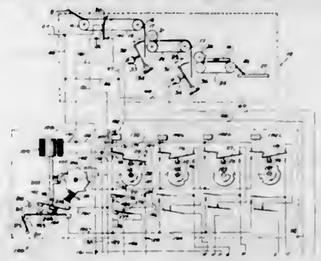
bar carrying frame, whereby said grate bar carrying frame may be inverted, means fixing said grate bar carrying frame to said end frame members against pivotal movement both in obverted and inverted position, a pair of grate bar carriers, means for securing said grate bar carriers to either side of said grate bar carrying frame, said grate bar carriers having a series of aligned apertures, alternate of said apertures being substantially circular, and intermediate ones of said apertures being vertically elongated slots of a width equal to the diameter of said circular apertures, and a series of rod-like grate bars retained at their ends in aligned apertures in the respective grate bar carriers.

2,834,594
ONE PIECE FORMED SINUOUS SPRING
Walter M. Pietruszka, Brooklyn, N. Y., assignor to Kay Manufacturing Corporation, Brooklyn, N. Y., a corporation of New York
Application February 18, 1957, Serial No. 640,745
5 Claims. (Cl. 267—1)



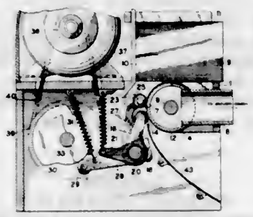
1. A one piece sinuous wire spring having two thicknesses of wire extending inwardly from one end of the spring toward the other end, corresponding portions of said thicknesses being coextensive and self-urged into mutual pressed contact, and means securing the thicknesses together, said thicknesses continuing past said means and diverging, said corresponding portions of the thicknesses being interlaced, and the securing means comprising a single clip.

2,834,595
FOLDER CONTROL
John E. Gilchrist, Seattle, Wash., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application December 7, 1954, Serial No. 473,522
5 Claims. (Cl. 270—81)



1. A control system for article folding apparatus comprising article folding means; a plurality of timing mechanisms having means connected to said folding means and each operable to selectively control the operation of said folding means; sensing means adapted to initiate operation of each of said mechanisms and responsive to the lengths of the articles being folded and connectable to each of said timing mechanisms for controlling the same; a sequence controller connected to said sensing means and actuated thereby operable to sequentially transfer control to each of said timing mechanisms in sequence for successively fed articles such that each of the timing mechanisms controls the operation of said folding means for each of a sequence of articles being folded; and sequence modifying means operable in a first position to permit said sequential transfer of control by said sensing means to each of said timing mechanisms in sequence and operable in a second position to prevent said sequential transfer of control by said sensing means to at least one of said timing mechanisms while permitting said sequential transfer of control by said sensing means to each of the remaining timing mechanisms.

2,834,596
PAPER FEEDING MECHANISM
John Halahan, Brookville, Theodore F. Aronson, Valley Stream, and Floyd A. Lyon, Brookville, N. Y., assignors to Halm Instrument Co., Inc., Elmhurst, N. Y., a corporation of New York
Original application January 29, 1951, Serial No. 208,398, now Patent No. 2,704,209, dated March 15, 1955. Divided and this application December 13, 1954, Serial No. 475,652
5 Claims. (Cl. 271—29)

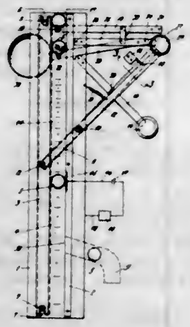


1. A feeding mechanism for paper and the like comprising a hollow member having at least one peripherally extending aperture therein communicating between the exterior and interior of said member, means for supporting a stack of papers to rest operatively upon said member with the closest paper adjacent one end of said aperture and tangent to said curved surface, the surface of said hollow member being inclined away from the leading edge of said stack to peel off the leading edge of the closest paper in said stack, means for placing portions of said aperture under vacuum in controlled sequence, including means inside the hollow member to provide a vacuum applied first at the end of the aperture adjacent the stack only and then progressingly being applied to the other portions of the aperture, and means for moving the closest paper when overlapping the slotted portion of said cylinder separated in part from the rest of the stack and for removing said paper from the stack, including means for holding said paper against said surface whereby as the trailing edge of said paper exposes said aperture a second paper is sucked onto said surface in overlapping relation to said first paper, whereby said overlapping papers seal said aperture continuously.

2,834,597
REACTION TIME METERS
Klaus Johannes Ylinen, Stockholm, Sweden
Application August 21, 1956, Serial No. 605,257
Claims priority, application Sweden August 26, 1955
10 Claims. (Cl. 273—95)

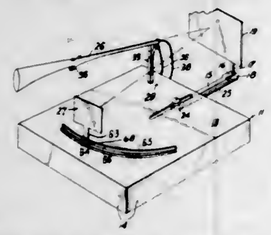
4. An apparatus for measuring the reaction time of a person, comprising means forming a channel for a falling body, a spring-actuated temporary support for such body disposed adjacent the upper end of said channel and being normally withdrawn from the active position therein, a push-button for moving said support into the active position within said channel, delay means cooperating with said push-button for delaying the sub-

sequent withdrawal of the spring-actuated support, means for emitting a signal at the moment of withdrawal of the support when the body starts its falling movement, a brake rod disposed in said channel and extending along the same, said brake rod being movable from an inactive position into an active position in which latter it



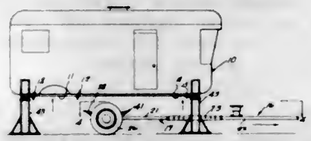
is adapted to stop the falling movement of said body, and manually operable means for causing said brake rod to move suddenly from the inactive into the active position to stop the movement of the body, the distance which the body has fallen until stopped indicating the reaction time of the person being tested.

2,834,598
TARGET APPARATUS
Jerome J. Weinblatt, New York, N. Y.
Application June 29, 1956, Serial No. 594,957
4 Claims. (Cl. 273—101.2)



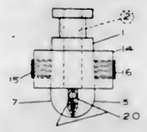
1. In an apparatus of the character described, a base including a top wall having a guide slot therein, a rail mounted above said top wall, said rail being coincidental to the slot, a tiltable target mounted for manual positioning along said rail, a bracket extending through the slot, means connecting the target and bracket for movement along the rail and slot respectively in unison, said means retaining the target in an upright position, target displacement mechanism pivotally mounted at one end within the base, a displacement plunger carried by the said mechanism, a vertically adjustable guide on the plunger carrying end of said mechanism, said plunger projecting through the said guide, mirror means to reflect an image of said target, an aiming device pivotally mounted on said base, means operably connecting the aiming device and the pivoted end of the target displacement mechanism for swinging said mechanism in a horizontal plane in one direction when the aiming device is swung in a horizontal plane in the opposite direction while aiming it at the image to point the plunger in the general direction of the bracket, means operable to raise and lower the adjustable guide to vary the effective elevation of the plunger relative to the bracket when the aiming device is tilted in a vertical plane, trigger mechanism in the aiming device, and means connecting said trigger mechanism with the plunger to actuate the plunger to displace the bracket and permit the target to tilt out of upright position.

2,834,599
TRAILER BODY HOUSE AND CHASSIS
Thomas H. Sarchet, Spokane, Wash.
Application April 5, 1957, Serial No. 650,912
3 Claims. (Cl. 280—30)



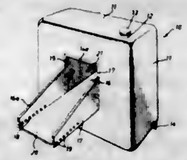
1. The combination with a trailer body house supported above a ground surface and including a floor, a pair of spring shackles arranged in longitudinal spaced relation positioned along each of the sides of the house inwardly of the rear end of said house and dependingly carried by the house floor, and longitudinally spaced attaching elements positioned along each of the sides of said house inwardly of the forward end of said house and dependingly carried by the house floor, of a mobile supporting chassis movable into and out of a supporting position beneath said house floor, said chassis comprising a bed frame, an axle extending transversely of said frame adjacent the rear end thereof and carried by said frame, a rotatable wheel supporting each end of said axle, a horizontally disposed spring assembly arranged transversely of said axle and inwardly of each of said wheels, a horizontally disposed support plate arranged above and along said frame on each side of and inwardly of the forward end of said frame and resiliently supported on said frame, a tongue projecting longitudinally from the forward end of said frame and having means on the free end thereof for attachment to a towing vehicle, said spring assemblies and said supporting plates of said chassis being detachably connectable to said spring shackles and fastening elements respectively when said chassis has been moved to the supporting position beneath said trailer body house.

2,834,600
JIG SAW CHUCK
Otto Merrian Revell, North Star, Alberta, Canada
Application August 15, 1956, Serial No. 604,246
3 Claims. (Cl. 279—107)



1. In a jig saw chuck including a stem and integral body, said body having a transverse opening providing opposing flat parallel faces and a bore aligned centrally with said opening, a back plate positioned against one of the flat faces of said bore, a jaw in the slotted opening, means securing the jaw and back plate to the chuck body with the working face of said jaw adapted to align a saw blade held against said working face and back plate axially of said bore, a movable jaw pivoted in the slotted opening of the chuck body lying against the back plate in opposing relation to the jaw fixed to said back plate and between which jaws a saw blade is adapted to be held, and a collar embracing the chuck body slidable thereon, said collar including set screws adapted to be brought to bear against the jaws.

2,834,601
LIQUID TANK STRUCTURE FOR ROAD GRADERS
John Wilmot Seeley, Dundalk, Ontario, Canada
Application April 15, 1957, Serial No. 652,824
3 Claims. (Cl. 280—5)



1. A liquid tank attachment structure for road grading equipment and the like having a drive motor radiator at one end supported on the frame thereof, and comprising in combination: a plurality of outer walls defining a tank enclosure; a plurality of inner walls defining an opening through said tank; and supporting means extending from said inner walls for attachment to the said frame and disposing the opening of said structure substantially in alignment with said radiator for communication of coolant air thereto.

2,834,602
LIFT ASSEMBLY FOR HAND TRUCKS
Alfred H. Hanson, Garrison, N. Y., assignor to The Fairbanks Company, New York, N. Y., a corporation of New Jersey
Application March 14, 1956, Serial No. 571,556
10 Claims. (Cl. 280—5.3)



1. In combination with an appliance hand truck having a frame, and at least one glider unit for traversing a raised surface, a lift assembly mounted at the rear of said hand truck, said lift assembly comprising a hollow housing secured to said truck frame and having a top open end, a shoe slidably mounted on the rear of said housing and having a hollow interior communicating with the interior of said housing, pulleys mounted within said housing and said shoe and being spaced longitudinally of said housing, a cable trained over said pulleys and connected at one end to said shoe, a handle at the top open end of said housing, connected to the other end of said cable, said handle being movable upwardly away from said housing to withdraw a portion of the cable out through the open end of said housing and decrease the distance between said pulleys, thereby sliding said shoe downwardly on said housing, said shoe being slidable on said housing between a normally-raised position above said glider unit and a lowered position below said glider unit, whereby said hand truck is lifted to the level of said raised surface upon a single upward movement of said handle, and spring means urging said shoe back to its normally-raised position.

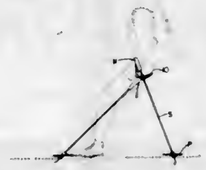
2,834,603
SELF-LEVELING WHEEL SUPPORTED DEVICE
Harry Guthrie Bell, Paris, Ky., assignor to Gay-Bell Corporation, Paris, Ky., a corporation of Kentucky
Application May 24, 1955, Serial No. 510,778
8 Claims. (Cl. 280—6)

1. Apparatus for raising and lowering a tractor drawn vehicle body while maintaining same level which comprises: a first member pivotally connected to the tractor and to the vehicle body; ground engaging wheels mounted on axles journaled in slides movable in tracks fixed on the vehicle body; means fixed on said body and



connected to said slides for moving them simultaneously and equally in said tracks whereby to raise and lower the body; a second member pivotally connected to said body and to one of said slides; and a link pivotally connected between said first and second members.

2,834,604
SKIER'S SEAT AND SUPPORTING MEANS THEREFOR
Paul M. Osmun, Seattle, Wash.
Application September 24, 1954, Serial No. 458,043
7 Claims. (Cl. 280—11.37)



3. A skier's seat member, comprising: a seat member adapted to be positioned on a shaft and slidable thereon, said seat member including a hub and a series of spokes radiating therefrom and a rim joining said spokes and encircling at least approximately half of the periphery of said hub, said hub having a through opening in which said shaft is positioned and opposed outstanding lugs in opposite sides of said opening, a first and a second locking member positioned in said opposite sides of said opening and having horizontal grooves in their exterior surfaces in which said lugs are loosely positioned, said locking members having opposed surfaces on their inner sides at the level of said grooves adapted to closely fit said shaft and said lugs and grooves being disposed to fixedly clamp said opposed surfaces on said shaft when said seat member is tilted when supporting a weight.

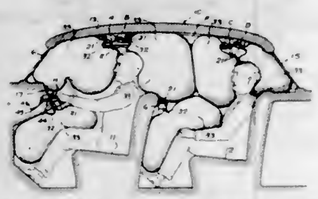
2,834,605
WHEELED VEHICLE WITH DIFFERENTIAL STEERING MECHANISM
John D. McCollough, Los Angeles, Calif., assignor of one-half to Alan E. Grimley, Glendale, Calif.
Application November 27, 1953, Serial No. 394,705
16 Claims. (Cl. 280—91)



1. In a wheeled vehicle, the combination of: a load supporting structure; a plurality of supporting rotatable rolling wheels on the structure, at least two of which are castered and are symmetrically related to one axis of the structure; a reversibly movable steering means for the wheels; a first gear wheel rotatively driven by the steering means; two second gear wheels associated with the two caster wheels respectively and connected to

steeringly rotate their associated wheels on vertical caster axes at a constant speed ratio respectively; intermediate third gear wheels each engaging the first gear wheel and an associated one of the second gear wheels respectively, the first gear wheel being movable translatively of its axis while in operative engagement with the third gear wheels in a path directed between the second gear wheels; and the third gear wheels being free to move translatively of their axis while in engagement with both the first gear wheel and their respectively associated second gear wheels; and means for effecting the translative movement of the first gear wheel concurrently and commensurately with the steering rotation thereof.

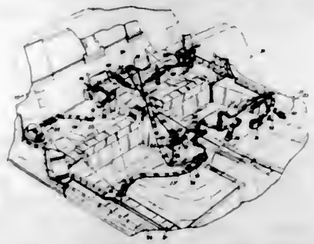
2,834,606
SAFETY DEVICE FOR PASSENGERS
Harry A. Bertrand, Flint, Mich.
Application October 5, 1955, Serial No. 538,748
3 Claims. (Cl. 280—150)



1. A safety device for use in a passenger-carrying compartment of a conveyance, said safety device comprising a casing having therein a compressed fluid chamber, an inflatable bag connected to said casing, supporting means for yieldably holding said bag when deflated in a folded position adjacent said casing, a valve for communicating the chamber of said casing with the interior of said bag and for communicating the interior of the bag with the atmosphere, spring means for normally and yieldably holding said valve in a position communicating the interior of the bag with the atmosphere, an electric solenoid connected to said valve and when energized moves said valve to the position where the chamber of the casing and interior of the bag communicate, said bag being forced from its yieldable support and extended by the expansion thereof to a position between a passenger and structural parts of the conveyance upon the inflation thereof, and a time delay electric switch conveniently arranged in said compartment of the conveyance and wired to said solenoid for energizing the same to inflate the bag and for de-energizing said solenoid to deflate the bag after a period of time has elapsed since said inflation.

2,834,607
SAFETY BELT ASSEMBLY FOR AUTOMOBILES
Kenneth H. Higgins, Pontiac, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application November 7, 1955, Serial No. 545,259
2 Claims. (Cl. 280—150)

1. In an automobile safety belt assembly that improvement comprising in combination mountings, longitudinal frame members, a longitudinal central frame member, safety belts, safety belt connecting means, a mounting being placed on each of said longitudinal frame members, a mounting being placed on either side of said longitudinal central frame member, said mountings being substantially aligned with the lower rear edge of seat members with which safety belt assembly is to be used, said mounting comprising a raised portion, said raised portion having elliptical cutouts with grooves extending along the major axis thereof, said major axis and groove being approximately aligned with the safety belt when in operating position, spring means, said spring means being located between said raised portion and the longitudinal member to which said raised portion is mounted, T-shaped belt ends, said belt ends being fastened to the end of said seat belts, said belt ends being designed to be inserted into said grooves contacting said spring means



so that said belt ends upon being depressed and turned approximately ninety degrees will be substantially locked in said raised portion, said spring means exerting a pressure on said belt end to hold said belt end in constant relative position to said raised portion, said raised portion being accessible through the automobile floor coverings thereby providing an even, attractive surface.

2,834,608
MOTOR VEHICLE UNDERCARRIAGE PROTECTIVE DEVICE
John B. Wixson, Lyndhurst, N. J.
Application July 25, 1956, Serial No. 600,105
3 Claims. (Cl. 280—150)



1. In a protective device for the undercarriage of motor vehicles having a framework with downwardly-facing surface portions, the combination comprising a U-shaped bracket adapted to be attached in inverted position along the underside of a motor vehicle framework, a U-shaped wheel support member, said U-shaped bracket having a web portion in face-to-face abutting disposition with respect to the downwardly-facing surface portion of an automobile framework, means for connecting said wheel support member in inverted position at one of a plurality of vertical positions, selectively, between the sides of said U-shaped bracket, and a wheel journalled at the lower end of said wheel support member between the sides thereof and operative to ride along the road surface when the vehicle travels over a deep depression or the like to prevent damage to the underside of the vehicle.

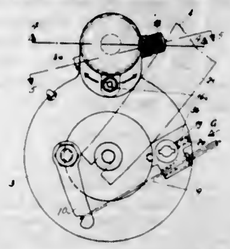
2,834,609
PASSENGER SAFETY DEVICE FOR VEHICLES
Harry A. Bertrand, Flint, Mich.
Application November 5, 1956, Serial No. 620,312
8 Claims. (Cl. 280—150)



1. A device of the character described comprising an air pressure tank, an inflatable bag attached to said tank,

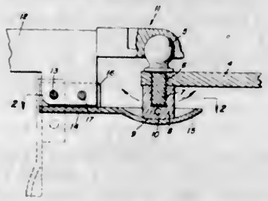
a relatively large inflating valve interconnecting the tank and bag, and means operable by the pressure of air in said tank to open said inflating valve, said means including a cylinder mounted beneath said inflating valve exteriorly of said tank and having a plurality of relatively large openings therein communicating with the interior of said bag, a piston-like member that abuts said inflating valve when in raised condition, said inflating valve having a passageway therethrough communicating said tank with the space between the bottom of the cylinder and said piston-like member, a pilot valve seated at the upper end of said passageway, a stem for said pilot valve extending through said passageway and through the bottom of the cylinder, and means for opening said pilot valve.

2,834,610
DEVICE FOR OPERATIVELY CONNECTING A DYNAMO WITH A WHEEL HUB
Otto Kurz, Goppingen, Germany
Application August 8, 1955, Serial No. 526,844
6 Claims. (Cl. 280—289)



1. A device for attachment to a wire wheel vehicle, such device comprising a frame fastened fixedly to the hub of one of the wire wheels, an externally toothed gear provided with an internal peripheral brake surface keyed to the axle of said wire wheel between said frame and said wire wheel, a plurality of cogs extending laterally from said gear to enter into driven contact with wires of the rotating wire wheel, a shoe brake provided with brake linings and means of expanding the brake shoes arranged to enter into braking engagement with the brake surface of said gear upon expansion of said brake shoes, a housing forming part of said frame provided eccentric to the axle of said wire wheel, a generator mounted within said housing, a gear train mounted within said housing which is operative by connecting said generator with said externally toothed gear, and means for moving said gear train in and out of operative contact with said generator.

2,834,611
BALL AND SOCKET HITCH LOCKING MEANS
Joseph E. Chenette, Madera, Calif.
Application September 20, 1956, Serial No. 611,060
3 Claims. (Cl. 280—511)



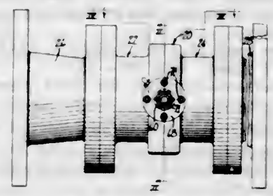
1. A trailer hitch of the character described comprising: a drawbar for mounting on a towing vehicle, a tongue for mounting on a trailer, a ball mounted on the drawbar and including a threaded stud depending there-

2,834,612
POSTING DEVICE
Henry A. Gripekoven, Bronxville, N. Y., assignor to VISIrecord, Inc., New York, N. Y., a corporation of New York
Application March 29, 1956, Serial No. 574,687
5 Claims. (Cl. 282—29)



1. A posting device consisting of a pair of metallic side members, each of said side members including a flat upper surface, a series of equally spaced pins on one of said side members, an upper member and a lower member, said upper and lower members each including flat upper surfaces arranged in planes slightly above the flat upper surfaces of the side members, a supporting plate arranged between said upper and lower members in the plane of the upper surfaces of the side members, said supporting plate being adapted to receive sheets of paper with the sheets arranged beneath the flat upper surface of the upper member, and means for clamping the sheets in position.

2,834,613
QUICK DISCONNECT COUPLING
Jacob Rush Snyder, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application September 6, 1955, Serial No. 532,597
8 Claims. (Cl. 284—11)



1. In a detachable coupling comprising first and second detachably connected coupling boxes defining a conduit for fluid flow communication therebetween, a multiple-

part valve member including first and second slidable valve plates respectively carried by and laterally shiftable in said boxes in and between a conduit closing position in which portions thereof seal off the ends of said conduit whereupon said boxes may be detached one from another, and a conduit-communicating position in which openings provided in said plates register with one another and with said conduit to permit fluid flow through said coupling, a bushing carried by said first plate and having a forward portion projecting ahead of said first plate to be received within the said opening provided in said second plate, the opening of said first plate in the face thereof remote from said second plate being enlarged, and the said bushing having a flange means disposed in said enlarged opening to present a shoulder limiting approach of said bushing toward the second plate, and flange means carried by said bushing and adapted to engage a portion of said first plate to locate said bushing with respect to said first plate.

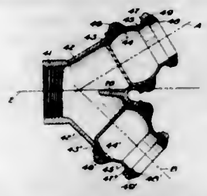
2,834,614
MACHINE-INSERTED SERVICE T WITH CONICAL WEB
Frank H. Mueller and John J. Smith, Decatur, Ill., assignors to Mueller Co., Decatur, Ill., a corporation of Illinois
Application June 26, 1953, Serial No. 364,370
2 Claims. (Cl. 285—119)



1. A service T having a through bore and a lateral outlet, one end of said T being exteriorly threaded for engagement in a tapped opening in a main and the other end of said T being interiorly threaded for reception of a threaded plug and provided with exterior means for the attachment of means defining a pressure chamber through which tools may be manipulated, and a relatively thin conical drillable web of uniform thickness throughout blocking that section of said through bore extending between said one T end and said lateral outlet with the concave surface of said web facing said other T end, whereby in drilling through said web from said concave surface thereof with a metal drill having a conical tip complementary to said concave surface, the drill need travel a distance equal only to the thickness of said web measured axially of said bore.

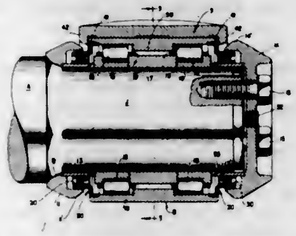
2,834,615
NON-SYMMETRICAL ADJUSTABLE Y-TYPE CONNECTOR
Norman F. Bleakley, Cedar Rapids, Iowa, assignor to Dearborn Brass Company, Cedar Rapids, Iowa, a corporation of Iowa
Application April 15, 1954, Serial No. 423,273
1 Claim. (Cl. 285—151)

A non-symmetrical Y-fitting for fluid transmission therethrough, comprising a main body portion having a main axis, a first branch arm formed integral with one side of said body portion and having a main axis secondary to said first main axis and extending at substantially a 45 degree angle relative thereto, a second branch arm formed integral with the other side of said body portion and having a main axis secondary to said first main axis and extending at substantially a 30 degree angle relative thereto, said axes lying in but one plane and said secondary axes forming the radial limits of a first radial arc having an angular value equal to the combined angles therebetween, and a connector member corresponding to and being pivotally connected at the terminal end of each branch arm whereby the axis of said connector member has an angular movement relative to the axis of said branch arm of approximately 15 degrees on any side thereof, each said connector member being pivoted along



the branch arm axis a spaced distance from the intersection of said main axes whereby, upon movement of both said connectors within said plane, a second radial arc is formed having an apex on said first main axis and encompassing and extending the angular value of said first radial arc substantially 15 degrees from each limit thereof relative to the first main axis, and wherein the connector axes are movable into a substantial like angular relation with said first main axis.

2,834,616
SHAFT SEALS
Marshall K. Gebert, San Carlos, and George E. Rich, Santa Clara, Calif., assignors, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application March 29, 1955, Serial No. 497,632
23 Claims. (Cl. 286—5)

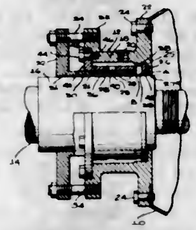


1. A shaft seal assembly for use in excluding dirt from a bearing chamber while preventing the escape of lubricant therefrom, said assembly comprising inner and outer cupped rings of rigid material formed to nest snugly one within the other, each ring having a radial wall with an inner face and outer face, an outwardly flaring sealing lip of resilient material bonded to the outer face of the radial wall of said outer ring, an oppositely flaring sealing lip of resilient material bonded to the inner face of the radial wall of said inner ring, means for holding said rings nested together in a fluid-tight manner, and means on the outer periphery of said outer ring for securing said shaft seal assembly to a bearing chamber with said resilient lips seated against a cylindrical relatively rotating surface.

2,834,617
STUFFING BOX FOR SOLIDS HANDLING PUMPS
Macajah R. Creasy, Lakeland, Fla.
Application June 10, 1955, Serial No. 514,539
1 Claim. (Cl. 286—8)

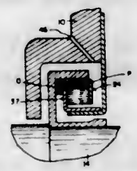
A stuffing box for a solids handling pump including an impeller housing and a shaft, comprising a cylindrical tubular body carried by said housing in circumposed relation about said shaft, said body having an annular longi-

tudinal recess in its inner surface and opening through one end thereof, a cylindrical sleeve arranged within said body in spaced surrounding relation to said shaft, said sleeve and the recess in said body defining a water seal chamber, an outer lantern ring carried by said sleeve adjacent one end thereof and defining one end wall for said chamber adjacent the other end of said body, there being a port through said body and in communication with said lantern ring, an inner ring carried by said sleeve adjacent said one end thereof to define at its juncture with said sleeve a shoulder, packing extending about said shaft disposed in the space between said sleeve and said shaft and in abutting relation at one end against said shoulder, an



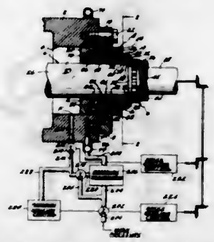
outwardly extending flange on said sleeve adjacent its other end and defining an end wall for said chamber at said one end of the body, said flange being secured to said body, a gland carried by said body for adjustment axially thereof for maintaining said packing under a predetermined compression against said shoulder, said inner ring having a plurality of circumferentially spaced radial openings therethrough in communication with said chamber to transmit the pressure sealing water entering into said chamber through the length of said sleeve and said flange to said body, said predetermined compression on said packing being greater than the pressure of the sealing water.

2,834,618
FLUID SEAL FOR ROTARY SHAFTS
Sumner D. Wiltse, Detroit, Mich.
Application May 21, 1953, Serial No. 356,533
1 Claim. (Cl. 286—9)



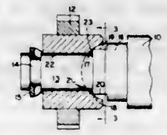
High temperature seal structure for sealing the space between a stationary member having an opening and a rotary shaft in said opening, said structure comprising a radially inwardly open annular channel carried by and surrounding said shaft and sealed thereto, an annular member surrounding said shaft and carried by and sealed to said stationary member, said annular member having a continuous flat annular portion received in said annular channel and extending radially outwardly therein to be closely adjacent to the bottom of said annular channel, and a fluid sealing material in said annular channel in which the outer edge of said flat annular portion is received, said fluid sealing material comprising a mixture of a silicone oil and powdered molybdenum di-sulphide, said seal when said shaft is rotating at high speeds comprising centrifugally separated powdered molybdenum disulphide at the bottom of said channel in which the edge of said flat annular portion is received, and a radially inwardly located cover of said silicone oil, said oil forming a liquid seal over and throughout said powder.

2,834,619
FLUID SEAL MEANS FOR ROTATING SHAFTS
John A. McNab, Glastonbury, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 15, 1955, Serial No. 501,703
8 Claims. (Cl. 286—9)



1. In combination, a rotating shaft, a nonrotating member through which said shaft extends having on one side thereof a fluid under pressure, and means for sealing said shaft with said nonrotating member, said sealing means including a flange means fixed on said shaft, said flange means having a first annular face thereon, said nonrotating member having a second annular face thereon biased against said first annular face, said second annular face having a plurality of arcuate pockets of substantial area therein, said second face also having an annular groove therearound between said pockets and the outer edge of said face, means connecting said pockets under one condition of operation with an independent source of fluid under pressure which is greater than the pressure of fluid on said one side of said member, means for directing the fluid on said one side of said nonrotating member to said annular groove under a different condition of operation.

2,834,620
IMPROVED ROTATIVE DRIVE ASSEMBLY
William A. Maude, Lynn, Mass., assignor to General Electric Company, a corporation of New York
Application May 14, 1956, Serial No. 584,626
6 Claims. (Cl. 287—53)

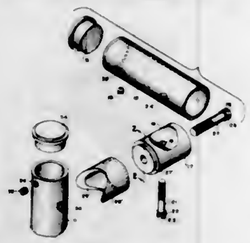


1. A rotative drive assembly comprising a rotatable driving member having an end portion adapted to have at least one straight edge transverse to an axis of rotation, a driven member mounted on said end portion for rotation therewith, said driven member having a curved coupling surface abutting said edge in a tangential manner to form a rotative drive engagement, and retaining means engaging and axially constraining said members to maintain said drive engagement whereby relative movement between said members is prevented.

2,834,621
HAND RAILING AND MOUNTING
John B. Schroer, Las Vegas, Nev.
Application June 6, 1956, Serial No. 589,702
8 Claims. (Cl. 287—54)

1. A combination hand rail and mounting comprising supporting post structure, a pipe-type hand rail, a supporting fitting for mounting said rail on said post structure, said supporting fitting having a recess with a wall corresponding to the external surface of said hand rail

for receiving said hand rail therein, said supporting fitting having a reduced cylindrical extension providing a shoulder at one end, a spacer having a cylindrical recess at one end adapted to receive said reduced extension and to abut said shoulder and said spacer having its other end provided with a recess corresponding to the external sur-



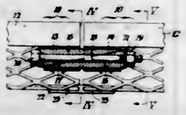
face of said supporting post structure for intimate engagement therewith, an axial connection between said supporting fitting said spacer and said supporting post structure uniting them in a manner that said supporting fitting may be rotated the desired angularity of the hand rail which it supports and to which it is attached.

2,834,622

CONNECTING MEANS FOR CABLE-SUPPORTING TROUGH SYSTEMS AND THE LIKE

Thomas C. Reeves, Philadelphia, Pa., assignor to T. J. Cope, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application December 15, 1954, Serial No. 475,374
3 Claims. (Cl. 287—62)



1. Means for connecting together, end to end, prefabricated channel section trough components of cable or tube-supporting trough systems, comprising pairs of axially-aligned tubular lugs, the lugs of each pair being horizontally arranged and affixed to corresponding side walls of the trough components adjacent the confronting ends of said walls; pairs of cooperative overlapping wedge members meeting in an inclined plane and respectively engaged in the corresponding pairs of lugs; and screw means for drawing the wedge members of the respective pairs toward each other for lateral expansion within the hollows of the lugs.

2,834,623

METHOD OF INTERLOCKING PARTS BY DEFORMATION AND AN ARTICLE OF MANUFACTURE FORMED THEREBY

Fred W. Doering, Cicero, and James C. Morison, La Grange, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application December 8, 1953, Serial No. 396,802
10 Claims. (Cl. 287—82)



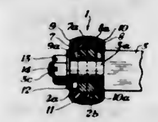
1. In an article of manufacture the combination of a plate having a plurality of tabs extending from one face thereof in aligned and uniformly spaced relation one to another and spaced inwardly from the edges of the plate, said tabs having perforations therein substantially tangential to one face of the plate, and a wire extending through the perforations in said tabs in contact with said one face of the plate and having flat portions on opposite sides of the tabs in parallel relation to the plate, said flat portions being disposed parallel to the plate and having a thickness less than the diameter of the wire and a width greater than said diameter and provided with laterally extending shoulders in engagement with opposite sides of the tabs to prevent longitudinal movement of the wire relative to the plate and to establish a connection between the plate and the wire of high tensile strength.

2,834,624

MEANS FOR CONNECTING SWITCH CIRCUIT CONTROLLER OPERATING RODS AND THE LIKE TO RAILWAY SWITCHES

David C. Bettison, Omaha, Nebr.

Application March 19, 1954, Serial No. 417,377
17 Claims. (Cl. 287—85)



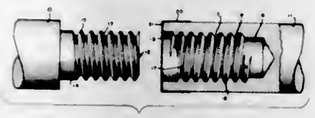
7. A connecting means for interconnecting two members, one of said members being adapted to be moved in two planes, comprising an eye on one of said members to receive a portion of the other member with some clearance in a single plane only, two washers of resilient material for said eye interposed between the received portion of said other member and said eye, and means for clamping said washers and said eye to said other member.

2,834,625

MULTI-PART HANDLE

John C. Stanley, Corinth, Miss., George Le Goff, Bangor, Maine, and Robert B. Moore, Jr., and Charles F. Williams, Corinth, Miss., assignors to Gateway Corporation, Corinth, Miss.

Application September 18, 1957, Serial No. 684,733
1 Claim. (Cl. 287—125)



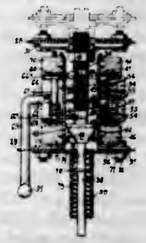
A relatively solid two-piece handle for a broom, mop or the like comprising a pair of shaft sections of hard wood and of substantially identical external diameters, one of said shaft sections having a portion of substantial length of reduced diameter and provided with external threads thereon in spaced relation to the junction of said reduced portion with the remaining portion of said shaft section, said threads being provided with flattened crests and base portions, the opposed extremity of the other of said shafts being provided with an axial bore having threads terminating short of the bottom of the bore, the threads of said bore being complementary to the threads on said portion of reduced diameter and being spaced from the free extremity of said bore a distance substantially equal to the length of the unthreaded part of said portion of reduced diameter and providing a cooperating bearing portion for a snug fit therewith, and a reinforcing sleeve surrounding the free extremity of said other shaft portion, said reinforcing sleeve having an integral radial flange with a central aperture of a diameter to accommodate the unthreaded part of said portion of reduced diameter.

2,834,626

HOOD LATCH

Arthur Claud-Mantle, Trumbull, Conn., assignor to The Bassick Company, Bridgeport, Conn., a corporation of Connecticut

Application February 23, 1954, Serial No. 411,793
15 Claims. (Cl. 292—52)



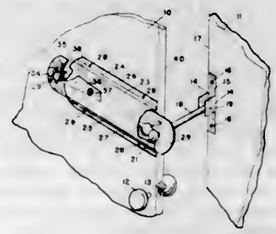
1. In a latch for alligator-type hoods, upper and lower mounting or carrying members respectively applicable to the lid and to the lower fixed part of the hood structure, a keeper fixed to one of said members and having a latching head, and a cooperating latch member fixed to the other of said members and presenting a centering and guiding channel projecting toward the keeper head to guide the lid preliminary to latching, said latch member having independent primary and secondary latching members laterally of said channel cooperating with the keeper head and providing for latching the lid in fully closed and partially closed positions, said primary and secondary members being constituted by levers having latching lugs movable into and out of said centering and guiding channel, and said latch member being provided with a swingable manually operable lever operable from the forward end of the hood for releasing both the primary and secondary latching members.

2,834,627

DOOR SPACER

John B. Sullivan, Atlanta, Ga., assignor of one-half to George Moses, Atlanta, Ga.

Application September 17, 1954, Serial No. 456,729
4 Claims. (Cl. 292—274)



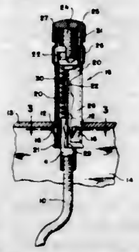
1. A door spacer for locking a door member in a partially open position with respect to a wall member comprising a spacer member and a locking member connected one to said door member adjacent the edge thereof and the other to said wall member adjacent an edge thereof, said spacer member including a terminal disc-shaped flange having a spherical head joined thereto by a small waist, said locking member including a casing, a tongue slidable in said casing and defining an opening for receiving said spherical head therethrough and a communicating smaller opening to receive said waist and means for locking said tongue against movement with respect to said casing.

2,834,628

DOOR LOCK KNOB

Joseph Paparelli, Yonkers, and Bertram M. Kaplan, Bayside, N. Y., assignors to Kastar Incorporated, Bronx, N. Y., a corporation of New York

Application August 18, 1954, Serial No. 450,754
8 Claims. (Cl. 292—347)



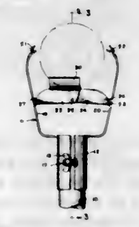
1. In an automobile door having a window frame with an aperture therein and a terminal member which may be depressed to a first position to lock said automobile door and raised from said first position to a second position to unlock said door, a control mechanism movable within said aperture, said control mechanism having a first means for releasably engaging said terminal member, a second means for preventing upward movement of said control mechanism beyond a point of maximum extension through said aperture, and spring means for maintaining said terminal member in said first position and said control mechanism at said point of maximum extension when said terminal member is not engaged by said control mechanism, whereby when said terminal member is in said first position and said control mechanism is at said point of maximum extension and said terminal member is engaged by said control mechanism, said terminal member may not be moved from said first position, said control mechanism being movable from said point of maximum extension to a down position, whereby when said terminal member is in said first position and said control mechanism is in said down position and said terminal member is releasably engaged by said control mechanism, said door may be unlocked by moving said control mechanism.

2,834,629

GOLF BALL RETRIEVER

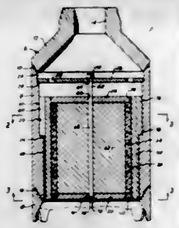
James A. Williams, Chapel Hill, N. C.

Application March 20, 1956, Serial No. 572,709
3 Claims. (Cl. 294—19)



1. A device for recovering a golf ball comprising a retriever head, a pair of opposed members movable toward and from each other, spring means reacting between and tending to move said members yieldably toward each other, and a toggle for holding said opposed members in spaced relation, means including a concave ball engaging surface on said retriever and operatively connected to said toggle and located in a manner to be engaged by a golf ball passing between said opposed members and acting to shift said toggle to cause said members to engage and hold said golf ball.

2,834,630
MAGNETIC FISHING TOOL
Warner W. Greer, Oklahoma City, Okla.
Application March 16, 1955, Serial No. 494,733
16 Claims. (Cl. 294—65.5)



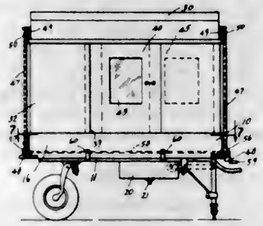
10. A fishing tool for removing articles from a well bore, comprising a tubular housing having a lower open end for receiving the articles during downward movement of the tool in the well bore, a plate secured transversely in said housing and having fluid inlets therethrough, and a magnetic unit slidingly disposed in said housing below said plate and being responsive to contact with the articles for relative upward movement in said housing into contact with said plates, said magnetic unit comprising a sleeve of magnetic material of a size to slidingly fit in said housing, there being vertical passageways between said sleeve and said housing out of alignment with said fluid inlets, magnetic material plates enclosing the upper and lower ends of said sleeve, a ring of non-magnetic material securing said lower plate to said sleeve, and a tubular shaped permanent magnet core secured in said sleeve between said upper and lower plates and being of a smaller diameter than the inner diameter of said sleeve to provide an annular space between said core and said sleeve, and a plastic non-magnetic material in said annular space between said core and said sleeve, whereby a portion of a magnetic circuit is formed by said lower plate, core, upper plate and sleeve to provide a concentration of flux in substantially annular pattern on said lower plate.

2,834,631
TRAILER FOR HAULING AUTOMOBILES AND OTHER CARGO
David L. Taraldsen, Burbank, Calif.
Application April 6, 1956, Serial No. 576,569
2 Claims. (Cl. 296—1)



1. In a vehicle for transporting automobiles and other cargo, a main frame having forward and after ends; wheels on said frame for movably supporting the latter on the ground; a pair of upwardly opening, longitudinally extending, generally U-section channels fixed to the main farme and forming tracks laterally spaced to receive the wheels of a lower row of automobiles; a pair of vertical side frames at each side of the main frame; one side frame of each pair of side frames being located adjacent the forward end of the main frame and each having a vertical forward edge, the other side frame of each pair of side frames being located adjacent the rear end of the main frame and each having a vertical rear edge; means hinging the forward side frames to the main frame for swinging about vertical axes lying along said forward edges of the forward side frames; means hinging the rear side frames to the main frame for swinging about vertical axes lying along said rear edges of the rear side frames; said side frames being swingable between closed positions against the sides of the main frame and open positions away from the sides of the main frame to accommodate the loading of cargo onto the main frame from the sides of the latter; an upper, horizontal, generally U-section channel fixed to each side frame a distance above the main frame, said upper channels of each pair of side frames being longitudinally aligned and said upper channels of the pairs of side frames forming upper tracks laterally spaced to receive the wheels of an upper row of automobiles in the closed positions of the side frames; the opposing ends of the upper channels of each pair of side frames being lonigtudinally spaced sufficiently to accommodate outward swinging of the side frames and their respective upper channels; cooperating vertical support means on the main frame and side frames for vertically supporting the free ends of the side frames against downward deflection under the weight of automobiles supported in said upper tracks when the side frames are in said closed positions; and releaseable latch means for latching said side frames in said closed positions.

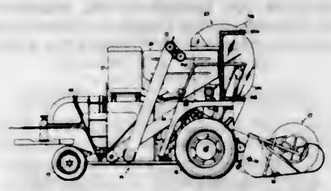
2,834,632
CAMPING TRAILER
Fred N. Mattox, Indianapolis, Ind.
Application September 9, 1955, Serial No. 533,374
5 Claims. (Cl. 296—27)



1. A collapsible camping trailer comprising a body having a floor adapted to be attached to a trailer chassis and a second floor spaced therefrom to provide storage space, upwardly facing end and side channels mounted around the outer edges of said second floor, end panels mounted in the end channels, each end panel having hinged thereto a pair of partial side panels mounted in the side channels, said partial side panels being spaced from one another to form a door space on each side of said body, a roof including downwardly facing channel members fitting over the upper edges of said panels to lock them in upright position, columns hingedly mounted at each corner of said body and including hoisting apparatus attached to said roof for lifting or lowering said roof with respect to said body, and a winch having a drum at each end of said body cooperating with said hoisting apparatus whereby said panels may be erected or collapsed with respect to said body.

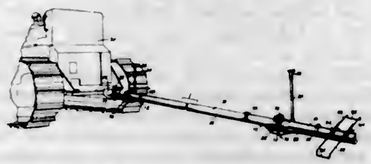
2,834,633
OPERATOR'S CAB AND GRAIN TANK ARRANGEMENT FOR HARVESTERS
Robert Ashton, Toronto, Ontario, Canada, assignor to Massey-Harris-Ferguson, Inc., Racine, Wis., a corporation of Maryland
Application October 5, 1955, Serial No. 538,667
13 Claims. (Cl. 296—28)

1. In a self-propelled harvester having a body, an operator's cab secured on top of said body at the forward end thereof, a grain tank also secured on top of said body and having a substantially U-shaped wall forming the rear side of said cab, said tank also having side walls which together with said U-shaped wall forms grain storage portions extending along either side of the rear



side of said cab, means for rigidly and detachably securing said tank and cab together.

2,834,634
PORTABLE IRRIGATION SYSTEM
Alexander John Johnson, Eugene, Oreg., assignor, by mesne assignments, to R. H. Pierce Investment Co., a corporation of Oregon
Application October 24, 1955, Serial No. 542,230
7 Claims. (Cl. 299—47)



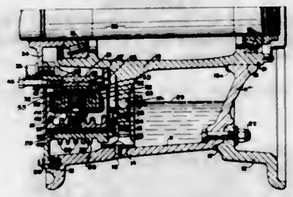
1. An irrigation system comprising a plurality of pipe sections, means releasably coupling said sections end-to-end to form an elongate conduit, draft means for imparting longitudinal movement to said conduit comprising a plurality of elongate strap elements associated one with each of said sections, said strap elements being positioned horizontally and beneath said sections, and being of substantially the length of the associated section and extending end-to-end thereof, means securing each of said strap elements to its associated section, interengaging means on the ends of said strap elements releasably connecting the same together whereby endwise traction may be imparted to said conduit through said strap elements, each of said pipe sections having a drain valve closely adjacent an end thereof for draining the conduit, and a plurality of generally flat plates positioned horizontally and one beneath each of said coupling means and the corresponding, interengaged ends of the strap elements, said plates having a width substantially greater than that of said pipe sections and being of substantial length, whereby said plates stabilize said conduit laterally and distribute water draining from said drain valves to minimize washout of the soil therebeneath.

2,834,635
LIQUID SPRAY DEVICE
Melvin W. Miller, Broadview, Ill., assignor to Mueller-mist Irrigation Co., a corporation of Illinois
Application June 22, 1955, Serial No. 517,246
11 Claims. (Cl. 299—104)



9. The method of spraying a liquid in a fan-like sheet from a source outwardly into the atmosphere having a lower pressure than that of the liquid in the source comprising forcing the liquid under the pressure differential through an opening in means constituting a bounding portion of the liquid source, the opening being bounded by wall surfaces defining a frusto-pyramidal outwardly widening orifice having a rhombic lateral cross section.

2,834,636
FORGED WHEEL
Thomas L. Fawick, Cleveland, Ohio
Application October 28, 1953, Serial No. 388,799
2 Claims. (Cl. 301—6)



1. A wheel and brake assembly comprising a plurality of forged wheel-body parts and a separately formed, highly heat-conductive brake-drum, sealingly secured to one another and defining a coolant-retaining space in direct communication with only a face of the said brake-drum that is not its friction face, a torque-sustaining brake-shoe mounting, a plurality of brake-shoes hinged on said mounting for movement of all of them in the same rotative direction for frictional engagement with said brake-drum, a pull spring connecting each of said brake-shoes near its outer end with said brake-shoe mounting for retracting the shoes respectively, actuating means for exerting engaging pressure against each shoe at a position between its spring and its hinge axis, and adjustable force-transmitting means between each of the actuating means and the shoe that it actuates, for compensation of wear of the shoes, each of the said wheel-body parts being of a shape permitting it to be formed wholly by forging approximately to its final shape.

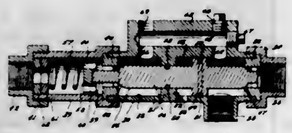
2,834,637
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application February 18, 1954, Serial No. 411,150
2 Claims. (Cl. 301—37)



1. In a wheel structure, a wheel having a stepped tire rim including an outer margin and an intermediate flange extending generally axially inwardly therefrom and having a plurality of circumferentially spaced boss-like spoke terminals thereon, and an annular trim ring section to fit generally over said outer margin and having an axially inner substantially continuous margin notched out to receive and complementary to said boss-like spoke terminals and provided with finger means for gripping

engagement with said intermediate flange between said terminals, said notches each being defined by a terminal edge nestingly cooperable with said spoke terminal to resist turning of the ring section on the wheel and providing a rigid back-up for said ring section when engaged against the spoke terminal to resist inward deflection of the ring section.

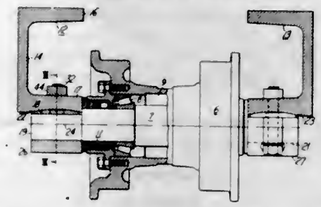
2,834,638
AIR BRAKE SYSTEMS FOR AUTOMOTIVE VEHICLES
Robert H. George, Melrose Park, Pa.
Application December 31, 1954, Serial No. 479,076
4 Claims. (Cl. 303—85)



1. In an air brake system for automotive vehicles including an air compressor, a reservoir tank, air operated brakes, manually operable means for controlling the flow of air for the operation of said brakes, and automatic valve means for permitting the actuation of said brakes by direct flow of air under pressure from the compressor and for restoring the normal operating pressure in said reservoir tank, said automatic valve including a slidably mounted valve member having a valve surface at each end thereof, the valve member having an enlarged piston portion, means for applying air from the compressor to said piston portion to impel the valve member in one direction tending to seat the valve surface at the outlet end of the valve structure, a spring impelling the valve member in the other direction to seat the valve surface at the inlet end of the valve structure, a connection from the inlet end of the valve structure to the reservoir tank, and a connection from the outlet end of the valve structure to the means for controlling the flow of the air to the brakes.

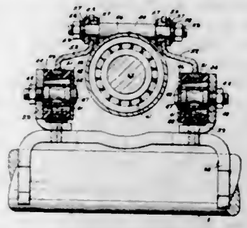
4. In an air brake system for automotive vehicles of the tractor trailer type including an air compressor, a reservoir tank for the tractor, air operated brakes on the tractor, a reservoir tank for the trailer, air operated brakes on the trailer, manually operable means for controlling the flow of air for the operation of said brakes, and an automatic valve for permitting the actuation of the tractor brakes by direct flow of air under pressure from the compressor and for restoring the normal operating pressure in the reservoir tanks, said automatic valve comprising a housing having an internal bore, a valve member slidably mounted within said housing and having a valve surface at each end thereof, the valve member having an enlarged piston portion intermediate its ends, an inlet for air from the compressor under pressure at one end of the valve structure, a connection to the tractor reservoir tank extending from the inlet end of the valve housing, a spring impelling the valve member in a direction to seat the valve at the inlet end of the valve structure, the valve having a bypass passage between the end portions of the interior of the housing, and the interior of the housing having an annulus subdividing the internal bore between the piston portion of the valve member and the outlet end of the housing thereby providing an intermediate chamber between said annulus and said piston portion, the housing having a port extending from said intermediate chamber to the exterior, and a connection from the outlet end of the valve structure to the operating valves for the control of the brakes and to the trailer reservoir tank.

2,834,639
SHAFT MOUNTING FOR ROLLER ON TRACKED VEHICLE
Charles H. Herr, Jr., Springfield, Ill., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application March 8, 1955, Serial No. 492,979
12 Claims. (Cl. 305—1)



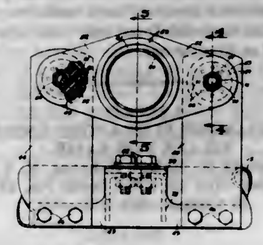
1. In combination: a support member, a shaft having an attaching portion in overlapping relation to said support at one side of the latter; a bracket connected with said attaching portion at said one side of said support; an adapter member operatively interposed between said bracket and said one side of said support, one of said support and adapter members presenting a concave bearing surface and the other of said members presenting a convex bearing surface complementary to and in load transmitting engagement with said concave bearing surface, one said surface being adjustable with respect to the other said surface; and releasable fastening means operatively associated with and rigidly retaining said bracket, adapter member and support member in cooperating load transmitting relation to one another.

2,834,640
MOTOR VEHICLE DRIVELINE MOUNTING
George H. Muller and William E. Davis, Northville, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application May 31, 1955, Serial No. 512,122
1 Claim. (Cl. 308—28)



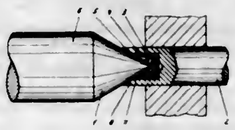
In combination, a vehicle frame member, a vehicle driveline, a cylindrical bearing housing surrounding said driveline, a bearing assembly within said bearing housing rotatably supporting said driveline, a cylindrical trunnion extending horizontally and at right angles to the axis of said driveline and rigidly secured to the upper portion of said cylindrical bearing housing and projecting beyond the lateral sides thereof, a bracket secured to said frame member and extending directly beneath said driveline, said bracket having vertically extending flanges on opposite sides of said driveline vertically overlapping the lower portion of said cylindrical bearing housing, and a pair of vertically extending supporting members for said bearing housing, each of said supporting members having its lower end pivotally connected to one of the flanges of said bracket and its upper end pivotally connected to one of the projecting ends of said trunnion, the upper end of each of said supporting members being offset inwardly from the lower end of said supporting member toward the vertical plane through the axis of said driveline for pivotal connection to said trunnion closely adjacent said cylindrical bearing housing, the axes of the pivotal connections at the corresponding ends of said supporting members being in alignment with each other to form a pair of vertically spaced parallel axes accommodating limited movement of said bearing housing and said bearing assembly axially of said driveline axis.

2,834,641
MOTOR VEHICLE DRIVELINE MOUNTING
George H. Muller and William E. Davis, Northville, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application May 31, 1955, Serial No. 512,123
2 Claims. (Cl. 308—28)



1. In a motor vehicle, a frame member, a driveline, a bearing housing having a vertical plate portion extending laterally of said vehicle and an annular ring portion embracing the vehicle driveline, a bearing assembly mounted within said ring portion and rotatably supporting said driveline, a pair of axially extending studs carried by said bearing housing on the laterally opposite sides of said driveline, resilient bushings having cylindrical outer surfaces mounted upon said studs, and a pair of flat spring members extending generally vertically and equally spaced on opposite sides of a vertical plane containing the axis of said driveline, said flat spring members being rigidly connected at their lower ends to said frame member and at their upper ends being apertured to receive and embrace the cylindrical outer surfaces of said bushings intermediate the ends of the latter, said spring members being flexible in a direction longitudinally of the vehicle frame to permit limited axial movement of said bearing housing and bearing assembly.

2,834,642
MOUNTINGS FOR MEASURING ROLLERS OF PLANIMETERS OR SIMILAR INSTRUMENTS
Hermann Ott, Kempten, Germany
Application September 28, 1954, Serial No. 458,927
Claims priority, application Germany September 30, 1953
1 Claim. (Cl. 308—233)



A planimeter comprising a measuring roller in the form of a spindle having a conical apex on one end, and a fixed bearing pin having a cylindrical wall in a bore in one end extending to said conical apex and having a ball bearing in the inner end of the bore in engagement with the conical apex, the outer end face of the bore being conically bevelled forming a conical surface to cooperate with the conical apex as an annular gap of capillary size, the diameter of said bearing pin being smaller than the diameter of said spindle, said ball bearing being spaced axially from the conical surface of said bore to provide a space forming a grease chamber between said capillary gap and said ball bearing, and said grease chamber and said capillary gap being filled with a grease of very low viscosity.

2,834,643
TOP-GROOVED OIL RING GROOVE
Frank C. Hutto, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application November 29, 1954, Serial No. 471,784
5 Claims. (Cl. 309—8)



1. An internal combustion engine piston comprising compression ring grooves and an oil retaining ring groove, the radial surface of the oil retaining ring groove nearest the combustion chamber when assembled in an engine being provided with substantially peripheral undulations of a height sufficient to form with the oil ring a labyrinth seal to prevent loss of oil, said undulations being saw-tooth shaped in section with the portion of the saw-tooth making the larger angle with the axis of the piston sloping simultaneously away from the combustion chamber and toward the axis of the piston, the apices of said undulations being arranged to contact the adjacent surface of the oil retaining piston ring.

2,834,644
COLLAPSIBLE STORAGE TABLE WITH CROSS LEGS
Ebbe Anders Israel Johansson and Sture Allan Mattias Johansson, Halmstad, Sweden
Application March 23, 1955, Serial No. 496,298
Claims priority, application Sweden March 29, 1954
1 Claim. (Cl. 311—79)



A collapsible storage table comprising a rectangular table top, a pair of substantially rectangular closed frames each having the sides thereof pivotally connected to corresponding sides of the other frame whereby said frames can assume a table top supporting position in which their respective planes cross each other or a folded position in which said frames are positioned in a common plane with one frame inside the other, and means for detachably connecting said frames in their folded position to, but spaced from said table top providing a storage space therebetween which connecting means consists

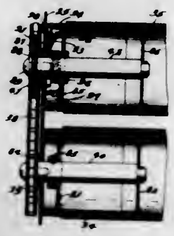
of a pair of L-shaped bars connected to said table each along a side of said top for receiving said folded frames therebetween, a pair of spaced apart clips connected to one of said bars and projecting towards the other of said bars for retaining one of the sides of said frames, and a hasp pivotally mounted on the other of said bars for retaining the other sides of said frames.

2,834,645

TOWEL DISPENSING APPARATUS

Rudolph G. Birr, Lombard, Ill., assignor to American Linen Supply Co., Chicago, Ill., a corporation of Nevada

Application September 22, 1951, Serial No. 247,829
9 Claims. (Cl. 312—38)



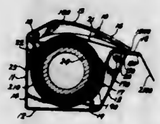
4. In a towel dispensing cabinet including a rotatably mounted towel measuring roll, a rotatably mounted soiled towel take-up drive roll and a member rotated in response to rotation of said measuring roll; the combination comprising a rotatably mounted element, means responsive to rotation of said member for rotating said element, an elastic coupling device connected between said element and said drive roll for imparting gradual rotation to said drive roll in response to rotation of said element, and mechanism responsive to a predetermined limited arc of rotation of said element with respect to said drive roll for effecting a direct drive between said element and said drive roll.

2,834,646

DISPENSERS FOR ROLLED SHEET MATERIAL

Louis Berg, Birmingham, Mich.

Application February 25, 1955, Serial No. 490,667
2 Claims. (Cl. 312—39)



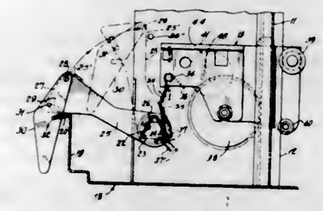
1. A dispenser for rolled sheet material comprising a container into which a roll of sheet material is freely positioned, said container including a front, a back, sides and a top pivoted to open from the front of the container, and a cutter-lever bar pivotally mounted on the ends of said container on a transverse axis rearwardly of the top of the front thereof, said container including a cutter portion and a lever portion, the said lever portion normally depending within said container adjacent the front thereof, the said cutter portion normally extending from said container in spaced relationship above the upper edge of the front thereof, the said cutter portion having a cutting edge formed at the outer edge thereof, sheet material from said roll extending out of and withdrawable from said container between the front edge of said pivoted top and the cutter portion of said cutter-lever bar, said lever portion of said cutter-lever bar being formed to engage said roll of sheet material and bias it in non-turnable relationship against the back of the container responsive to pressure applied on the cutter portion of said cutter-lever bar responsive to manual pressure applied on the pivoted cover of said container during the tearing of sheet material from said roll along the said cutting edge of said cutter bar.

2,834,647

VENDING MACHINE ELEVATORS AND LOCKING MEANS FOR SAME

Fairfield W. Hoban, Babylon, N. Y.

Application May 20, 1954, Serial No. 431,093
10 Claims. (Cl. 312—71)



1. In a vending machine including a cabinet having a dished bottom, the latter terminating in a low frontal wall provided with a frontally projecting lip, said cabinet including a door panel adapted, when in closing position, to cover said low frontal wall, said lip of the latter forming a stop for the door panel, a plurality of substantially vertical, channel-shaped article magazines in the cabinet, each magazine having a gear rack and guide bar, an article elevator operative in each of the magazines and engaging said gear rack and guide bar and being adapted to automatically move articles in upward direction to their ejecting position; a detent bar extending across the bottom of the cabinet, operating means for the detent bar for moving it either to what may be termed its operative or inoperative positions, said bar operating means being adapted, when moved to place the detent bar into operative position, to extend beyond said projecting lip of the low bottom frontal wall, thus preventing the door panel from closing; the elevators of all magazines having means for engaging said detent bar in the latter's operative position when the elevators are forced to their lowermost position, thus being held in that position until released by the bar when the latter is brought by said operating means to its inoperative position, said detent bar operating means then assuming a retracted position within the cabinet, thus permitting the closing of the door panel.

CHEMICAL

2,834,648

DISPROPORTIONATION OF CHLOROSILANES EMPLOYING AMINE-TYPE CATALYSTS

Donald L. Bailey, Snyder, Paul W. Shafer, Niagara Falls, and George H. Wagner, Clarence, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application March 25, 1953
Serial No. 344,683
17 Claims. (Cl. 23—14)

1. A process of disproportionating a chlorosilane containing at least one hydrogen atom bonded to silicon, which comprises heating said silane with a hydrocarbyl amine catalyst at a temperature of at least 150° C. and recovering two different silane compounds one of which contains more chlorine atoms and fewer hydrogen atoms attached to silicon than the starting chlorosilane and the other contains more hydrogen atoms and fewer chlorine atoms attached to silicon than the starting chlorosilane.

2,834,649

MANUFACTURE OF CHLORINE DIOXIDE

Souren Z. Avedikian, Larchmont, N. Y.

No Drawing. Application January 30, 1956
Serial No. 562,017
4 Claims. (Cl. 23—152)

3. The method of preparing chlorine dioxide consisting of adding a dry mixture of salt consisting of two moles of finely divided sodium chlorate mixed with one mole of finely divided sodium sulfite to a suitable amount of aqueous acid solution to liberate chlorine dioxide.

2,834,650

PRODUCTION OF BORON NITRIDE

Louis A. Conant, Indianapolis, Ind., and Evart F. Hittle, Kenmore, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 4, 1955
Serial No. 538,531
7 Claims. (Cl. 23—191)

1. A process for producing boron nitride which comprises reacting a compound selected from the group consisting of metaboric acid and boric oxide with calcium cyanamide at a temperature in the range 1200° C. to 2000° C. in a non-oxidizing, nitrogenous atmosphere.

2,834,651

PROCESS FOR THE PRODUCTION OF BORON CARBIDE

Edgar Garry Gray, Longford, England

No Drawing. Application May 21, 1953
Serial No. 356,599
9 Claims. (Cl. 23—208)

1. A process for the production of boron carbide powders of desired particle size, including the steps of heating to a temperature within the range of 930° C. to 2000° C. a charge containing carbon, a material selected from the group consisting of boric oxide (B_2O_3), alkali metal tetraborate, and alkali earth metal tetraborate; and a reducing agent consisting essentially of metallic magnesium, and subsequently separating the boron carbide by a leaching treatment.

2,834,652

RECOVERY OF SELENATE VALUES CONTAINED IN SULFURIC ACID SOLUTIONS

Max L. Hollander, Plainfield, and Yurii E. Lebedeff, Metuchen, N. J., assignors to American Smelting and Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 1, 1956
Serial No. 612,968
6 Claims. (Cl. 23—209)

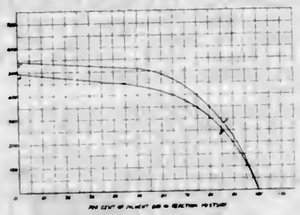
1. In a process for recovering elemental selenium from an alkali slag containing selenites and selenates of an alkali metal involving leaching said slag to dissolve said selenium values therefrom, acidifying the leach solution with sulfuric acid, introducing sulfur dioxide into the acidified solution to reduce the selenite values therein to elemental selenium, and recovering the latter from the solution, the improvement which comprises reducing selenate values remaining in the residual acid solution from said selenite reduction step to elemental selenium in the presence of thiourea in said residual solution, recovering the thus precipitated elemental selenium from said residual solution, incorporating said last mentioned elemental selenium into a molten alkali slag, controlling the oxidation conditions in the latter to convert the selenium values therein to values comprising an alkali metal selenite, and repeating said selenite reduction step and the recovery of the elemental selenium precipitated therein.

2,834,653

PRODUCTION OF SULFUR FROM HYDROGEN SULFIDE AND SULFUR DIOXIDE

Edward P. Fleming, Los Angeles, and Theodore C. Fitt, Selby, Calif., assignors to American Smelting and Refining Company, New York, N. Y., a corporation of New Jersey

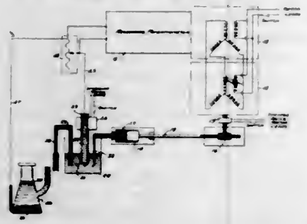
Application February 24, 1953, Serial No. 338,314
5 Claims. (Cl. 23—225)



1. In a method of producing sulfur from hydrogen sulfide and sulfur dioxide involving passing a gaseous stream of said reactants through a bed of catalyst contained in a catalytic reaction zone to form sulfur and recovering the thus formed sulfur, the improvement which comprises passing said stream through said zone at atmospheric pressure; controlling the amount of any diluent gases contained in said stream passing to said zone, including one of said reactants in amounts greater than two mols of hydrogen sulfiide for each mol of sulfur dioxide, to a value not in excess of about 60% by volume of said stream, whereby said stream of reactants is capable of sustaining a reaction temperature of about 400–600° C. in said catalyst; passing said stream of reactants through said catalyst at a space velocity of at least about 0.66 cubic foot of gas as measured at standard conditions of temperature and pressure per second per cubic foot of catalyst but at space velocity which is below that at which migration of the zone of reaction out of the catalyst in the direction of said stream

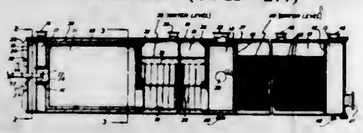
is avoided; whereby a reaction zone having a temperature in the range of about 400–600° C. is established an autogenously sustained in said catalyst zone and substantially all of the sulfur formed by the reaction is in a gaseous state and poisoning of the catalyst due to sulfur deposition thereon is avoided during the process; passing the hot products of reaction to a cooling zone; cooling and condensing sulfur from said hot gases in said cooling zone; and recovering the thus condensed sulfur.

2,834,654
METHOD AND APPARATUS FOR AUTOMATIC AMPEROMETRIC TITRATION
Makio Murayama, Dearborn, Mich.
Application February 1, 1954, Serial No. 407,500
3 Claims. (Cl. 23—230)



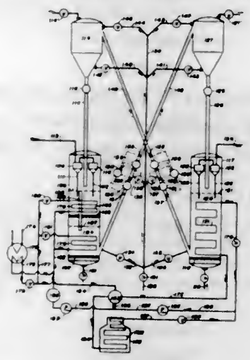
3. In a method for automatic amperometric titration, the steps which include: uninterruptedly inserting material to be titrated into a titrating vessel while constantly agitating said titrating material; continually uninterruptedly and graphically measuring the amperometric characteristics of the said material to be titrated; adding a titrant to said material to be titrated at a constant rate while synchronizing the automatic amperometric measurements with the addition of titrant.

2,834,655
PRODUCTION OF ELEMENTAL SULFUR
Andrew E. Chute, South Pasadena, George E. Smalley, Arcadia, James W. Klohr, Whittier, and Blair G. Aldridge, Los Angeles, Calif., assignors to The Ralph M. Parsons Company, Los Angeles, Calif., a corporation of Nevada
Application September 9, 1955, Serial No. 533,283
11 Claims. (Cl. 23—277)



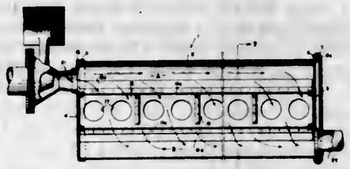
1. In apparatus for producing elemental sulfur from gaseous hydrogen sulfide by burning part of the hydrogen sulfide to form sulfur dioxide and reacting this sulfur dioxide with remaining hydrogen sulfide, an elongated drum of substantially uniform cross section disposed on its side and enclosing a plurality of successive portions each extending across the drum and comprising a combustion chamber for the hydrogen sulfide at the front of the drum, a first water jacket following the combustion chamber and provided with a relatively few tubes of large cross section spaced from each other and extending longitudinally of the drum through the jacket and opening at one end into the combustion chamber, a first open chamber immediately following the first water jacket with the other end of the tubes of large cross section opening thereinto, a second water jacket following the first open chamber and provided with relatively numerous tubes of small cross section spaced from each other and extending longitudinally of the drum through the second water jacket and opening at one end into the first open chamber, and a second open chamber following the second water jacket with the tubes of small cross section opening thereinto at their opposite end, a conduit connected to and opening into the bottom of the second open chamber for draining elemental sulfur therefrom, a vapor outlet conduit connected to an upper portion of the second open chamber, the drum being provided with means for introducing the hydrogen sulfide and an oxygen-containing gas into the combustion chamber, and the combustion chamber and the two water jackets each being substantially longer than said first and second chambers.

2,834,656
APPARATUS FOR CONDUCTING FLUIDIZATION REACTIONS
Kenneth M. Watson, Lake Zurich, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application December 29, 1953, Serial No. 401,026
8 Claims. (Cl. 23—288)



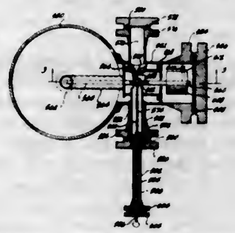
1. An apparatus for conducting fluidized reactions comprising a reactor having a fluidized reaction zone, a regenerated catalyst hopper above said reactor, said catalyst hopper having a downwardly extending catalyst conduit communicating with said reaction zone, means for controlling the flow of catalyst through said conduit, a regenerator having a fluidized catalyst regeneration zone, the top of said fluidized regeneration zone being at substantially the same level as the top of said fluidized reaction zone, a spent catalyst hopper above said regenerator, said spent catalyst hopper having a downwardly extending catalyst conduit communicating with said regeneration zone, means for controlling the flow of catalyst through said conduit, a catalyst fill line communicating between said reaction zone and said spent catalyst hopper, a second catalyst fill line communicating between said regeneration zone and said regenerated catalyst hopper, valve means within each of said fill lines for controlling the flow of catalyst therethrough, said valve means being above the top levels of said fluidized reaction and regeneration zones, a source of inert gas under pressure higher than the pressure in said reactor and regenerator, means for conducting said inert gas into said valve means within said first and second fill lines to sweep the catalyst particles therefrom on closing of same, with means for increasing and decreasing the pressure within said hoppers to create a pressure differential between said regenerated catalyst hopper and said reactor and between said spent catalyst hopper and said regenerator whereby incremental transfer of catalyst to and from reactor and regenerator in alternate cycles may be accomplished.

2,834,657
CATALYTIC MUFFLER
Eugene J. Houdry, Ardmore, Pa., assignor to Oxy-Catalyst, Inc., a corporation of Pennsylvania
Application March 8, 1954, Serial No. 414,715
6 Claims. (Cl. 23—288)



1. Catalytic apparatus suitable for attachment to the exhaust outlet of an internal combustion engine for oxidizing toxic and obnoxious components of the exhaust gases therefrom comprising a housing, a rigid beam extending longitudinally within said housing in the central portion thereof, said beam being arranged horizontally with respect to its length and vertically with respect to its width, a pair of horizontally arranged vertically spaced-apart foraminous trays rigidly fastened to said centrally located beam in parallel relationship along the length thereof, said trays extending laterally from said beam in both directions to the walls of said housing and defining between them a space for receiving a layer of catalyst pellets, the beam and tray assembly being carried by said housing by means permitting limited sliding motion between said assembly and said housing whereby said assembly is free to expand and contract thermally independently of said housing.

2,834,658
SOLIDS LEVEL INDICATION AND CONTROL SYSTEM
William C. Lieffers, Santa Ana, and Frank C. Riddick, Jr., and Robert L. Switzer, Long Beach, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application January 20, 1955, Serial No. 483,122
17 Claims. (Cl. 23—288)



1. An apparatus for handling granular solid material which comprises, in combination with a vessel adapted to confine in said vessel a continuous downwardly moving bed of solids, means for introducing and means for removing substantially continuous streams of solids at the top and bottom of said vessel respectively, a detecting element having a small cross section relative to said vessel and disposed within said vessel opposite a point along the wall thereof entirely below the desired solids level, a lever arm connected at one end to said detecting element and extending through the wall of said vessel to a pivotable lever arm support, a torque tube disposed at substantially right angles to said lever arm and connected at its inner end thereto and rigidly anchored at its outer end, a torque rod coaxially disposed within said torque tube and integrally connected thereto at its inner end, the outer and free end of said torque rod being free to rotate through angular deflections in continuous response to equal angular deflections of said lever arm in response to changes in depth of solids above said detecting element.

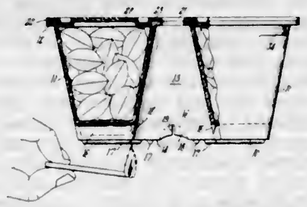
2,834,659
CHEMICAL POLISHING OF METALS
Owen B. Mathre and Donald M. Sowards, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 25, 1957
Serial No. 647,980
8 Claims. (Cl. 41—42)

5. The process of polishing a metal surface which comprises contacting the same at a temperature of 100° C. to 110° C. with a solution containing 0.5 to 3% monoperphosphoric acid, 73% to 79% phosphoric acid, and 20% to 23% water.

2,834,660
PROCESS OF BRIQUETTING
Franz Eisenhut, Gelsenkirchen-Horst, Viktor Goblet, Bottrop, and Adolf Siegl, Essen-Ruhr, Germany, assignors to Gelsenkirchener Bergwerks Aktiengesellschaft, Essen, Germany
No Drawing. Application March 18, 1953
Serial No. 343,233
Claims priority, application Germany March 19, 1952
10 Claims. (Cl. 44—19)

1. A process of briquetting, comprising the steps of intimately mixing a wet, subdivided solid material having a water content of between 3.9–90% by weight with a molten pitch in an amount sufficient to bind said subdivided solid material and between 1–30% by weight, said molten pitch containing between 2–40% by weight of at least one polycyclic aromatic hydrocarbon having a maximum of three rings so as to form a homogeneous mass of said wet, subdivided solid material and said molten pitch containing said polycyclic aromatic hydrocarbon, the amount of water in the thus formed mixture being between .8 and 9 times the weight of the pitch; and drying and cooling said homogeneous mass, thereby causing the components thereof to adhere to each other, thus forming a coherent briquette.

2,834,661
SELF-KINDLING FUEL PACKAGE
Charles J. Chaplin, South Portland, Maine, assignor to Chaplin Corporation, Portland, Maine, a corporation of Maine
Application October 11, 1956, Serial No. 615,398
8 Claims. (Cl. 44—40)



1. A substantially dust-tight self-kindling fuel package comprising a readily combustible container having loose discrete pieces of fuel therein, said container including spaced outer and inner wall means joined at their ends around their peripheries providing a substantially dust-tight seal, said inner wall means forming a chimney within said outer wall means with said fuel positioned around said chimney between said outer and inner wall means.

2,834,662
GASOLINE FUELS
Daniel A. Hirschler, Jr., Birmingham, Glenn Irish, Detroit, and James B. Hinkamp, Birmingham, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application May 28, 1953
Serial No. 358,174
12 Claims. (Cl. 44—62)

1. Gasoline containing an antiknock quantity of a hydrocarbon lead antiknock agent, said quantity being up to about 6.34 grams of lead per gallon of said gasoline, and a gasoline-soluble, sulfur-free organic magnesium compound containing only the elements magnesium, carbon, hydrogen and oxygen, the magnesium being bonded to the organic portion of the molecule through oxygen, said compound being selected from the group consisting of (A) magnesium salts of (1) saturated monobasic hydrocarboaliphatic carboxylic acids, (2) monobasic unsaturated aliphatic carboxylic acids, (3) dibasic aliphatic acids, (4) polybasic aliphatic acids, (5) aromatic carboxylic acids, (6) naphthenic acids, (7) rosin acids, (8) monohydric phenols, (9) polyhydric phenols; said acids and said phenols containing up to about 30 carbon atoms in the molecule; (B) magnesium alcoholates made from alcohols containing from about 10 to about 30 carbon atoms in the molecule, and (C) magnesium chelates made from bidentate chelating agents which contain one acidic group and one coordinating group and which contain up to about 20 carbon atoms in the molecule; said compound being present in amount such that the magnesium-to-lead atom ratio is between about 0.001 to 1 and about 4 to 1.

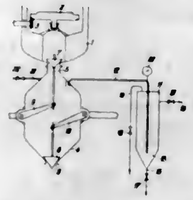
2,834,663
GASOLINE FUELS
James B. Hinkamp and Daniel A. Hirschler, Jr., Birmingham, and Glenn Irish, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application May 28, 1953
Serial No. 358,207
11 Claims. (Cl. 44—62)

1. Gasoline containing an antiknock quantity of a hydrocarbon lead antiknock agent, said quantity being up to about 6.34 grams of lead per gallon of said gasoline, and a gasoline-soluble, sulfur-free organic calcium compound containing only the elements calcium, carbon, hydrogen and oxygen, the calcium being bonded to the organic portion of the molecule through oxygen, said compound being selected from the group consisting of (A) calcium salts of (1) saturated monobasic hydrocarboaliphatic carboxylic acids, (2) monobasic unsaturated aliphatic carboxylic acids, (3) dibasic aliphatic acids (4) polybasic aliphatic acids, (5) aromatic carboxylic acids, (6) naphthenic acids, (7) rosin acids, (8) monohydric phenols, (9) polyhydric phenols; said acids and said phenols containing up to about 30 carbon atoms in the molecule; (B) calcium alcoholates made from alcohols containing from about 10 to about 30 carbon atoms in the molecule, and (C) calcium chelates made from bidentate chelating agents which contain one acidic group and one coordinating group and which contain up to about 20 carbon atoms in the molecule; said compound being present in amount such that the calcium-to-lead atom ratio is between about 0.005 to 1 and about 2 to 1.

2,834,664
GASOLINE FUELS
Glenn Irish, Detroit, and James B. Hinkamp and Daniel A. Hirschler, Jr., Birmingham, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application May 28, 1953
Serial No. 358,214
11 Claims. (Cl. 44—62)

1. Gasoline containing an antiknock quantity of a hydrocarbon lead antiknock agent, said quantity being up to about 6.34 grams of lead per gallon of said gasoline, and a gasoline-soluble, sulfur-free organic strontium compound containing only the elements strontium, carbon, hydrogen and oxygen, the strontium being bonded to the organic portion of the molecule through oxygen, said compound being selected from the group consisting of (A) strontium salts of (1) saturated monobasic hydrocarboaliphatic carboxylic acids, (2) monobasic unsaturated aliphatic carboxylic acids, (3) dibasic aliphatic acids, (4) polybasic aliphatic acids, (5) aromatic carboxylic acids, (6) naphthenic acids, (7) rosin acids, (8) monohydric phenols, (9) polyhydric phenols; said acids and said phenols containing up to about 30 carbon atoms in the molecule; (B) strontium alcoholates made from alcohols containing from about 10 to about 30 carbon atoms in the molecule, and (C) strontium chelates made from bidentate chelating agents which contain one acidic group and one coordinating group and which contain up to about 20 carbon atoms in the molecule; said compound being present in amount such that the strontium-to-lead atom ratio is between about 0.001 to 1 and about 1.5 to 1.

2,834,665
DEPRESSURIZING OF ASH DISCHARGE LOCKS AND SIMILAR CHAMBERS
Paul Rudolph, Frankfurt am Main, Germany, and Friedrich Danulat, deceased, late of Frankfurt am Main, Germany, by Hedwig Gertrud Danulat, Ilse Danulat, Hans Friedrich Danulat, and Dieter Danulat, administrators, Frankfurt am Main, Germany, assignors to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany
Application August 15, 1955, Serial No. 528,218
Claims priority, application Germany August 17, 1954
3 Claims. (Cl. 48—87)

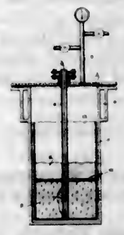


3. In combination with a gas generator having an ash discharge lock with a lock chamber for the discharge of ash therethrough; a pressure-tight container, conduit means connecting said lock chamber to said container, means for passing water into said container for contacting the gases passed therein through said conduit means, a pressure reducing valve for releasing said gases from said container therethrough after contact with the water and means for removing water from the container.

2,834,666
METHOD FOR THE PRODUCTION OF METAL POWDERS
Sven Sigvard Bergh, Vargon, Curt Anders Gustav Ericsson, Surahammar, and Bölge Troberg, Vargon, Sweden, assignors to Wargons Aktiebolag, Vargon, Sweden, a company of Sweden
No Drawing. Application September 17, 1953
Serial No. 380,862
Claims priority, application Sweden September 25, 1952
2 Claims. (Cl. 75—.5)

1. A method for the manufacture of powders from low carbon iron-chromium-nickel alloys containing from 30% to 60% of chromium and from 10% to 30% of nickel, the weight of the nickel amounting to from one-half to one-third of the weight of the chromium which comprises subjecting such an alloy to a temperature within the range from 600° C. to 880° C. for a period of time sufficient to effect the transformation of said alloy into the sigma phase, and cooling and crushing said alloy.

2,834,667
METHOD OF THERMALLY REDUCING TITANIUM OXIDE
Douglas W. Rostron, Haley, Ontario, Canada, assignor to Dominion Magnesium Limited, Toronto, Ontario, Canada
Application November 10, 1954, Serial No. 468,097
14 Claims. (Cl. 75—.5)



10. The method of producing metal selected from the group consisting of zirconium and titanium, comprising mixing an oxide of the selected metal with magnesium metal, using the magnesium in excess of that theoretically needed to effect complete reduction, heating the mixture in inert gas to a temperature not less than 1000° C. for a period of time sufficient to melt the magnesium, to cause it to react with said oxide to effect a partial reduction, cooling the mixture, leaching, drying the partially reduced oxide, mixing it with commercial calcium, using the calcium in excess of that theoretically needed to effect complete reduction, heating the mixture in an inert gas to a temperature not less than 1000° C. for a period of time sufficient to melt the calcium, to cause it to react with the partially reduced oxide and liberate the selected metal in powder form, leaching and drying the separated powder.

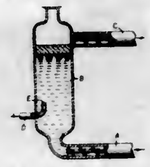
2,834,668
MIXTURE FOR TREATING CAST IRON
Homer C. Barnes, Jr., Butler, and George P. Dahm, Linden, N. J., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application May 10, 1954
Serial No. 428,812
3 Claims. (Cl. 75—58)

1. A mixture for treating cast iron comprising 40% to 70% by weight calcium carbide, and the remainder magnesium-ferrosilicon, and calcium silicon, the total amount of silicon in said mixture being by weight between 7 and 20 times the amount of magnesium in said mixture.

2,834,669
PROCESS FOR DIRECT EXTRACTION OF A METAL FROM ITS SULPHIDE
Kenneth Pendar, Tangier, Morocco, assignor to Sesam S. A., Tangier, Morocco, a corporation
No Drawing. Application April 9, 1954
Serial No. 422,236
Claims priority, application France April 18, 1953
6 Claims. (Cl. 75—77)

1. A method of extracting a metal from its sulfide, comprising the steps of melting lead sulfide in the presence of sodium carbonate, an oxide selected from the group consisting of zinc oxide, iron oxide, silica and lime, sodium chloride, and carbon, thereby causing reduction of said lead sulfide to the corresponding lead; and recovering the thus formed free lead.

2,834,670
PROCESS FOR SEPARATING LEAD AND SODIUM CHLORIDE
Edward Alexander Sienicki, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 28, 1955, Serial No. 518,626
3 Claims. (Cl. 75—78)



1. In the process of separating sodium chloride from an intimate mixture with finely divided unoxidized metallic lead, said lead resulting from the reaction of ethyl chloride with NaPb, the improvement which comprises intimately mixing said mixture by conventional agitating means with a mass of unoxidized molten lead maintained at a temperature within the range of 327 to 800° C., said mixing being conducted under inert atmospheric conditions followed by allowing the solid sodium chloride to rise through said molten lead to form a granular supernatant layer of said sodium chloride in an inert atmosphere, said process being conducted under anhydrous conditions, said process resulting in substantially complete separation of said sodium chloride and said unoxidized lead.

2,834,671
METHOD OF PRODUCING MOLYBDENUM
John S. Nachtman, Washington, D. C., and Henry Gordon Poole, Cleveland, Ohio
No Drawing. Application May 13, 1954
Serial No. 429,674
8 Claims. (Cl. 75—84)

1. The method of producing metallic molybdenum from its sulfide by heating molybdenum sulfide with tin under non-oxidizing conditions at a temperature of about 1200° C. and to about 1300° C. to reduce molybdenum sulfide in the solid phase with tin in the liquid phase to obtain a purified molybdenum.

2,834,672
METHOD OF PRODUCING URANIUM
Laurence S. Foster, Belmont, and Theodore T. Magel, Cambridge, Mass., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application June 10, 1946
Serial No. 675,834
5 Claims. (Cl. 75—84.1)

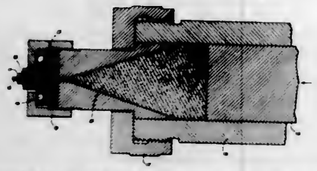
1. A process for the production of uranium metal, which comprises heating a closed system containing a mixture comprising a uranium halide, a manganese halide and at least one metal selected from the group consisting of alkali and alkaline earth metals to a temperature between 400° and 800° C. wherein the manganese halide is present in stoichiometric proportions equivalent to a yield of uranium-manganese alloy containing from 1 to 60 atomic percent of manganese; maintaining said temperature until the reduction of uranium and manganese is completed and molten metal is obtained; holding the resultant reaction products in said heated closed system for a sufficient length of time to allow settling of the molten uranium-manganese alloy; separating said alloy from the slag formed; and recovering the uranium from said uranium-manganese alloy.

2,834,673

METHOD OF FORMING AN EXTRUDED CATHODE

Robert T. Lynch, Berkeley Heights, and Lawrence J. Speck, Basking Ridge, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 22, 1955, Serial No. 529,642
1 Claim. (Cl. 75—208)



The method of manufacturing a minute electron emissive cathode for use in evacuated electron discharge devices comprising the steps of preparing a paste of a sinterable metal powder, an alkaline earth carbonate powder, and a suitable lubricant binder; extruding said paste through the bore of an accurately machined cathode-shell of said sinterable metal, a portion of the paste projecting out of the ejection end of said cathode-shell; severing said projecting portion flush with said ejection end before the projected paste can become brittle, the inner periphery of said cathode-shell thereby defining the outer periphery of the emissive surface area; and heating the paste in said cathode-shell in a hydrogen atmosphere to vaporize the lubricant binder and sinter said metal powder together and to said cathode-shell, thereby forming a rigid matrix in which at least a portion of said alkaline earth carbonates are reduced to their oxides.

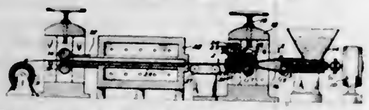
2,834,674

METHOD OF MAKING STRIP

John E. Silvasy and Louis Taylor, Youngstown, Ohio; said Taylor assignor to said Silvasy

Original application June 30, 1951, Serial No. 234,524, now Patent No. 2,771,637, dated November 27, 1956. Divided and this application May 12, 1955, Serial No. 507,861

5 Claims. (Cl. 75—214)



1. The method of producing sheet metal strips from powdered metal comprising feeding powdered metal under pressure to pressure rolls, compressing the powdered metal by rolling in said rolls, frictionally resisting the passage of the material from the rolls to increase the compression of the material between the rolls, sintering the material after the same has been compressed, and then finish-rolling the strip.

ERRATUM

For Class 92—3 see:
Patent No. 2,834,809

2,834,675

POLYALKYLENE-POLYAMINE RESINOUS COMPOSITION, METHOD OF MAKING PAPER USING SAME AND PAPER CONTAINING SAME

Yun Jen and Sewell T. Moore, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 22, 1954
Serial No. 445,169
20 Claims. (Cl. 92—3)

1. A resinous composition of matter having a viscosity of from about A to about Z_6 at 33% resin solids measured at 25° C. on the Gardner-Holdt scale which comprises the reaction product of a dihaloalkane having the general formula

$$X—C_nH_{2n}—X$$

wherein X is a halogen having an atomic weight greater than 35 and n is an integer of not more than 4 and containing at least 2 and not more than 3 chain carbon atoms between the halogen atoms thereof, and a polyalkylene polyamine having the general formula

$$H_2N(C_mH_{2m}NY)_pC_mH_{2m}NH_2$$

wherein Y is selected from the group consisting of H, alkyl radicals containing from 1 to 4 carbon atoms and $C_mH_{2m}NH_2$, m is an integer of at least 2 and p is an integer of from 0 to 4, in a mol ratio of from about 0.5:1 to about 1.2:1, respectively, and wherein the sum of the chain carbon atoms of said dihaloalkane and said polyamine is an integer of at least 5.

2,834,676

PHOTOGRAPHIC DIFFUSION TRANSFER PROCESS FOR PRODUCING MULTIPLE DIRECT POSITIVE COPIES

Edward I. Stanley, Lake Mohawk, John J. Dughi, Lake Owassa, and Walton Arthur Hey, Sussex, N. J., assignors to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 19, 1955
Serial No. 523,098
8 Claims. (Cl. 96—29)

1. A process for obtaining multiple copies from an exposed silver halide emulsion layer which comprises contacting said emulsion layer with a reception layer containing development nuclei, said contacting being in the presence of an alkaline silver halide developer containing a silver halide solvent and a fixation accelerator selected from the class consisting of alkali metal and ammonium chlorides, and a latent image desensitizer selected from the class consisting of cupric, mercuric, zinc, and manganese chlorides, and a gelatin softening agent selected from the class consisting of alkali metal and ammonium nitrates, separating the layers and recontacting the silver halide emulsion layer with another reception layer in the presence of said alkaline developer.

2,834,677

METHOD OF MAKING A FROZEN SANDWICH

William Geisler, Tenafly, N. J., assignor, by mesne assignments, to C & C Super Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 5, 1951
Serial No. 250,019
3 Claims. (Cl. 99—1)

1. The method of making sandwiches which consists in providing slices of frozen bread, chilling the filling for the sandwich to an extent such that it is not absorbed by the frozen bread, assembling the sandwich filling with the bread while the bread is frozen and placing the sandwich in sub-freezing storage while the bread is still frozen.

2,834,678

DIETARY SUPPLEMENT

William A. Hanson, Van Nuys, Calif.

No Drawing. Application November 16, 1953
Serial No. 392,491
5 Claims. (Cl. 99—11)

1. A dietary supplement composition, the essential components of which consist of: enzymatically active powdered whole edible veal bone having a phosphatase enzyme content substantially corresponding to that of the original unprocessed bone; the mixed calcium and magnesium salt of inositol hexaphosphoric acid, commonly known as phytin; and a moisture content approximately within the range of 4% to 10%; wherein said phosphatase enzyme of said powdered bone provides for bodily assimilation of the phytin during the digestive process in that it acts to hydrolyze said phytin and to thereby release free inositol, phosphoric acid and calcium and magnesium ions and to inhibit deleterious decalcifying action of the phytin per se; said powdered bone and phytin being intermixed and bonded together in a hard coherent tablet in which the phytin, functioning as a binder, provides the coherence of the mixture; the proportion of phytin to bone powder being substantially within the range of 4:10 and 7:10.

2,834,679

PREPARATION OF FLAVORED MILK DRINKS

Leonard S. Stoloff, New Bedford, Mass., assignor to Seaplant Chemical Corporation, New Bedford, Mass., a corporation of Delaware

No Drawing. Application January 28, 1955
Serial No. 484,839
5 Claims. (Cl. 99—54)

1. A method of producing a flavored milk drink which is flavored by a flavoring ingredient, a portion of which is in the form of fine particles, which comprises adding at least 0.01% but not more than 0.01% by weight of Irish moss extractive to the milk, heating the mixture of extractive and milk without added flavoring ingredients at a temperature and for sufficient time to adequately modify the proteins in the milk and to pasteurize it, then cooling the milk, thereby forming a stabilized milk, and thereafter adding to the stabilized milk a flavoring ingredient a portion of which is in the form of discrete fine particles.

2,834,680

METHOD FOR THE PRESERVATION OF ROASTED AND GROUND COFFEE AND THE MAINTENANCE OF THEIR NUTRITIVE VALUE

Hans Jenny, Chur, Switzerland

Application April 12, 1954, Serial No. 422,587
Claims priority, application Switzerland April 10, 1953
5 Claims. (Cl. 99—68)

1. Process for heating coffee beans, comprising the steps of roasting said beans, allowing said beans to cool to substantially 40° C., producing a pressure gradient from the interior of the beans to the outside by the creation of a partial vacuum around the beans with continuous removal of roasting gases and aqueous vapors from said beans and simultaneously therewith providing a constant coolant temperature for cooling said beans to a temperature below ambient temperature, thereby allowing an undisturbed completion of the roasting process to provide beans in a dry state.

2,834,681

METHOD OF MAKING A FRUIT CONFECTION

Frank O. Kreager, deceased, late of Pullman, Wash., by Homer Dana, administrator, Pullman, Wash.

No Drawing. Application June 3, 1955
Serial No. 513,152
3 Claims. (Cl. 99—102)

1. A method of making a fruit confection from fruits having a fibrous structure in their raw state which comprises first cutting the fruits into pieces of desired size, immediately immersing the cut fruit pieces in salt water, thereafter transferring the pieces to a cold water sugar solution and soaking the particles in the cold water sugar solution until the pieces are thoroughly impregnated with said solution, thereafter transferring the impregnated fruit pieces into a previously boiled cold sugar syrup and boiling the syrup with the fruit pieces therein until the fruits are cooked to a semi-translucent state, about 45 minutes, cooling the syrup and fruit pieces to about 150 degrees F., then removing the fruit pieces from the syrup and drying them in hot air at a temperature below caramelization temperature of the sugar until they show no loose moisture when broken.

2,834,682

METHOD OF MAKING FOAMED PEANUT BUTTER

Paul Zuckerman, Detroit, Mich., assignor to Sunshine Biscuits, Inc., Long Island City, N. Y., a corporation of New York

No Drawing. Application June 15, 1955
Serial No. 515,779
4 Claims. (Cl. 99—128)

1. A process for making foamed peanut butter, comprising the steps of grinding an admixture of peanuts and a stabilizing agent at a temperature substantially above 100° F., mixing said ground peanuts and stabilizing agent while cooling the same to a temperature of about 90–100° F., whipping the mixture at a substantially higher intensity than that of said first mixing step and at a pressure of about 30–40 p. s. i. while maintaining the temperature of the mass below about 100° F., and simultaneously feeding an inert gas into the mass at a predetermined rate so that the resulting foamed peanut butter will have about 12–19% by volume of entrapped gas.

2,834,683

METHOD OF PREPARING COLD WATER-SOLUBLE GELATIN AND THE RESULTING PRODUCT

Leo D. Corben, Roxbury, and Ernst Albert Steigmann, Stoneham, Mass., assignors to General Foods Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 25, 1956
Serial No. 593,343
13 Claims. (Cl. 99—130)

1. The method of preparing cold water-soluble gelatin characterized by solubility in water at temperature as low as 1° C.–20° C., low tendency to cake on contact with water, low hygroscopicity, and high density which comprises contacting a solution of gelatin at temperature above its aggregation temperature with a liquid dehydrating medium, maintaining the mixture at temperature of 50° C.–70° C. whereby cold water-soluble gelatin is formed in and precipitates from the reaction mixture, and separating cold water-soluble gelatin from said reaction mixture.

2,834,684

STABILIZED BODIED MILK AND FROZEN MILK PRODUCTS COMPRISING CARBOXYMETHYL DEXTRAN

Harry A. Toulmin, Jr., Dayton, Ohio, assignor, by mesne assignments, to Midland Chemical Corporation, Dayton, Ohio, a corporation of Delaware

No Drawing. Application June 17, 1954
Serial No. 437,584
3 Claims. (Cl. 99—136)

1. An ice cream mix containing from 0.01% to 0.5% by weight of a carboxymethyl ether of a native, unhydrolyzed, water-soluble dextran characterized in that 90% to 97% of the linkages joining the anhydroglucopyranosidic unit are 1,6 linkages, said ether containing an average of from about 2.0 up to 3.0 carboxymethyl groups per anhydroglucopyranosidic unit of the dextran.

2,834,685

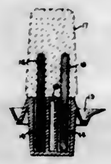
COMBINATION CONFECTION HOLDER AND TOY BOAT

Martin J. Ferguson, Rye, N. Y.

Application September 15, 1954, Serial No. 456,203
8 Claims. (Cl. 99—137)

1. A combination toy boat and frozen-on-a-stick confection holder comprising a boat-shaped supporting container for the confection including a unitary hull and keel, said keel serving as a handle when the confection is being consumed, a platform in the center section of

the boat at a level at least as high as the gunwales of said boat, a slot extending downwardly through said platform



into said keel adapted to receive the handle end of a confection-on-a-stick, the boat thereby comprising a holder for said confection during consumption thereof.

2,834,686
PACKAGE
Paul B. Reuman, Atlantic Highlands, N. J.
Application October 12, 1954, Serial No. 461,775
7 Claims. (Cl. 99—171)



1. A sealed package for an article having a predetermined configuration comprising a first sheet moulded on the article to form a trough for nesting at least a portion of the article to be packed, said trough conforming substantially to the contours of said nested portion of said article and having a continuous outwardly-extending planar wrinkle-free flange surrounding the open end thereof, and a second sheet enclosing said article in said trough and having its margins secured to said flange to form a gas-tight seam, at least the first sheet being constituted by a polyester film made from polyethylene terephthalate.

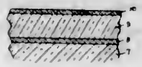
2,834,687
CONTROL OF NAVEL BITTER IN DEHYDRATED JUICE PRODUCTS
Horton E. Swisher, Upland, Calif., assignor to Sunkist Growers, Inc., Los Angeles, Calif., a corporation of California
No Drawing. Application April 19, 1954
Serial No. 424,271
9 Claims. (Cl. 99—206)

1. A process for producing nonbitter dehydrated navel orange juice which comprises extracting the juice from navel oranges, adjusting the pH of said juice before bitterness has developed to 5 to 7 to inhibit the development of bitterness, concentrating, dehydrating to a moisture content of less than 4% and adding citric acid sufficient to obtain a pH of from 3.4 to 4.5 upon reconstitution with water.

2,834,688
REGENERATED CELLULOSE FILM CARRYING ANTI-BLOCKING COMPOSITION
William M. Wooding, Old Greenwich, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application November 30, 1956
Serial No. 625,218
4 Claims. (Cl. 106—168)

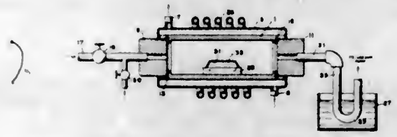
1. Non-fibrous regenerated cellulose film plasticized with a water-soluble hygroscopic polyhydric alcohol and carrying a small but effective amount of a cationic methylenebisacrylamide-higher fatty amine condensation product as anti-blocking agent.

2,834,689
INFRARED TRANSMITTING MEDIUM AND METHOD OF MAKING SAME
Helen Jupnik, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application April 28, 1955, Serial No. 504,634
17 Claims. (Cl. 117—33.3)



1. An infrared transmitting medium comprising arsenic trisulphide glass having a thin layer of thorium oxyfluoride bonded to said arsenic trisulphide glass by an intermediate layer of a lead compound selected from the group consisting of lead fluoride, lead chromate, lead sulphide and lead phosphate which is a fraction in thickness of the thorium oxyfluoride layer.

2,834,690
METHOD CF PRODUCING METAL SHAPES BY GAS PLATING
Philip R. Marvin, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Application March 22, 1954, Serial No. 417,895
2 Claims. (Cl. 117—60)

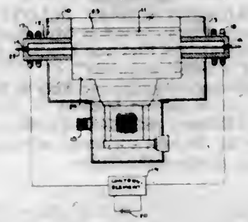


1. A method of producing integral metal shapes by gas plating which consists in the steps of providing a shape from cellulosic material which is combustible at a relatively low temperature, applying a coating film thereover which is heat conductive, heating the resultant coated-shape under reduced atmospheric pressure conditions to a temperature to cause a gaseous metal compound brought into contact therewith to be decomposed, contacting the heated coated-shape with a gaseous metal compound which decomposes depositing the metal constituent as a coating thereon, and continuing the deposition of metal to build up a relatively thick coating of metal, and then burning away the cellulosic material to provide a completed metal shape.

2,834,691
PROCESS FOR PREPARING A METAL SURFACE FOR COATING AND PRODUCT THEREOF
William Budd Stephenson, Jr., and Don Homer Greisl, Cincinnati, Ohio, assignors to General Electric Company, a corporation of New York
No Drawing. Application October 9, 1956
Serial No. 614,787
4 Claims. (Cl. 117—65)

1. A method of preparing iron or an iron base metal article to produce a bonding film for subsequent coating comprising the steps of: treating the article with an aqueous solution including about 6–9% by weight hydrated sodium sulfate and about 6–11% by weight hydrochloric acid solution having a concentration of about 37% by weight of hydrogen chloride until a soft bonding film is produced on the surface of the article; rinsing the article; and then heating the article to about 400–440° F. to convert the soft bonding film to a hard and adherent form.

2,834,692
ARTICLE METAL COATING
Mario Tama, Morrisville, Pa., assignor to Ajax Engineering Corporation, Trenton, N. J., a corporation of New Jersey
Application March 14, 1955, Serial No. 494,205, which is a division of application Serial No. 281,333, April 9, 1952. Divided and this application March 28, 1957, Serial No. 649,259
2 Claims. (Cl. 117—93)



2. In a method of electrically coating elongated articles, apt to withstand metal melting temperature, in a container for molten electrically inductable metal having two opposite apertures disposed below the metal level, the steps comprising, inserting said article in one aperture and drawing it through said bath and through said other aperture, and restraining gravitational outflow of metal through said other apertures by electric induction tensioning applied to the metal bath.

2,834,693
VINYL SILANE COMPOSITION AND PROCESS FOR TREATING FIBROUS GLASS MATERIAL THEREWITH
Maurice H. Jellinek, Kenmore, N. Y., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application March 27, 1953
Serial No. 345,263
17 Claims. (Cl. 117—126)

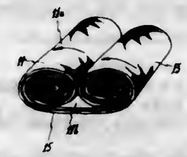
11. A composition for treating fibrous glass materials prior to the formation of composite products therefrom in combination with polyester resin, said composition comprising a non-flammable aqueous organic solvent containing at least 0.6 part of vinyltriethoxysilane per 100 parts of said solvent and a small catalytic amount of an alkaline reacting material such as to provide a pH of 8 to 11 in said solution; said solvent being predominantly water in admixture with a water-miscible organic solvent for vinyltriethoxysilane and non-reactive therewith.

2,834,694
FRUCTOSE POLYMERS AND METHOD OF PREPARATION
Robert Hill, Richmond, Calif.
No Drawing. Application October 7, 1955
Serial No. 539,292
2 Claims. (Cl. 127—41)

1. The method of preparing a polymer of fructose from inulin which comprises heating said inulin at a temperature of between about 30° C. and 130° C. for more than one minute in contact with a 0.05% to 100% by volume aqueous solution of a weak acid to form a polymer of fructose having a molecular weight between about 340 and 2500, having the property of being soluble in cold water, being substantially hydrolyzable by 0.1 N HCl at below 40° C. to form fructose, and having an unsweet flavor.

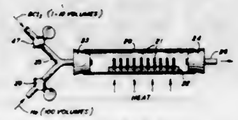
2,834,695
PROCESS FOR CONSERVING TOWELING
Richard T. Scalf, Chicago, Ill.
Application April 19, 1956, Serial No. 579,329
4 Claims. (Cl. 134—6)

1. A process for utilizing endless toweling employed in cleaning and the like whereby the same is conserved, comprising the steps of winding the endless towel into a first roll; wiping with the successively exposed portions of the outer face of the towel while intermittently winding the used toweling into a second roll wound in a direction opposite to that of the winding of the first roll; rewinding the toweling into a third roll in a direction



opposite to that of the winding of the first roll to expose an unused towel face of the towel outer surface; successively wiping with the surface portion exposed from said third roll while intermittently winding the used surface portion from the third roll into a fourth roll after use; said fourth roll being wound in a direction opposite to said third roll.

2,834,696
METHOD OF FORMING SEMICONDUCTIVE BODIES
Calvin S. Fuller, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 5, 1954, Serial No. 414,272
4 Claims. (Cl. 148—1.5)



1. The method of diffusing a significant impurity into a body of n-type conductivity silicon to a depth of the order of 0.1 mil which comprises heating said body in a gas flow composed of about one volume of boron trifluoride vapor and 100 volumes of helium at a rate of about 0.5 liter per minute at a temperature of 1000° C. for a period of about five hours.

2,834,697
PROCESS FOR VAPOR-SOLID DIFFUSION OF A CONDUCTIVITY-TYPE DETERMINING IMPURITY IN SEMICONDUCTORS
Friedolf M. Smits, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 18, 1956, Serial No. 585,851
10 Claims. (Cl. 148—1.5)



1. The process for vapor-solid diffusion of a conductivity-type determining impurity into a semiconductor comprising the steps of heating the semiconductor in a

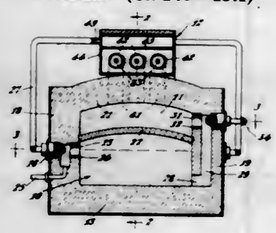
diffusion furnace to a temperature at which the desired impurity will diffuse into the semiconductor, and introducing the desired impurity in vapor form into the diffusion furnace at a controlled rate, while simultaneously evacuating the diffusion furnace for the evaporation of the semiconductor at a rate comparable to the rate of diffusion of the impurity into the semiconductor.

2,834,698
SUPERIOR GALVANIC MAGNESIUM ANODE
John J. Newport, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 17, 1957
Serial No. 666,218
6 Claims. (Cl. 148—3)

1. A process for preparing a magnesium alloy which contains from 0.2 to 2.0 percent manganese and from 0.0 to 1.0 percent other materials and which has superior galvanic anode activity, comprising: cooling said alloy from its pourable temperature to a temperature between 450 and 350 degrees centigrade at a rate of at least 65 centigrade degrees per minute in a water-cooled mold, removing said alloy from said mold at said temperature and cooling said alloy at a different rate.

2. A process for preparing a magnesium alloy which contains from 0.2 to 2.0 percent manganese and 0.0 to 1.0 percent metallic materials other than magnesium and which has superior galvanic anode activity, comprising: cooling said alloy from its pourable temperature to a temperature between 450 and 350 degrees centigrade at a rate of at least 65 centigrade degrees per minute in a water-cooled mold, and, thereafter cooling said alloy to a temperature below approximately 110 degrees centigrade by quenching.

2,834,699
METHOD OF VENTING CONTROLLED ATMOSPHERE FURNACES
Frank A. Rusciano, New York, N. Y., assignor to Metallurgical Processes Co., Newark, N. J., a corporation of New Jersey
Application May 13, 1954, Serial No. 429,493
5 Claims. (Cl. 148—13.1)



1. The method of producing scale-free heating of metal at high temperatures in a furnace having a work chamber and a second chamber in heat transfer relation to said work chamber which comprises thermally reacting a mixture of fuel and air having a large deficiency of air for complete combustion to produce hot reaction products, continuously supplying a sufficient volume of the unmodified hot reaction products of said such reaction to the work chamber to heat the same and to maintain a positive pressure of said products in said chamber, continuously conveying the products from said work chamber into said second chamber, adding air to said second chamber in an amount substantially equal to said deficiency, utilizing said added air, at least in part, to covey said products from said work chamber to said second chamber at a rate which will maintain a positive pressure of from .001 to .008 inch of water in said work chamber, burning said products to completion with said air in the second chamber, to produce secondary products of complete combustion therein in heat imparting relation to said work chamber and venting said secondary products of combustion from said second chamber at a rate which will maintain a pressure in said second chamber below that in the work chamber.

2,834,700
MAGNESIUM BASE ALLOYS
James H. T. Petch, Clifton Junction, Manchester, England, assignor to Magnesium Elektron Limited, Clifton Junction, England, a British company
No Drawing. Application May 6, 1955
Serial No. 506,661
3 Claims. (Cl. 148—21.90)

1. A process for the heat treatment of magnesium base alloys consisting of the following:

Zinc	5 to 7%.
Rare earth metals	0.2 to 1%.
Manganese	0.3 to 0.7%.
Aluminum	From nil to 0.1%.
Iron	0.01 to 0.1%.
Tellurium	From nil up to 0.1%.
Beryllium	From nil to 0.05%.
Magnesium	Remainder.

wherein the alloy is subjected to a solution heat treatment commencing at a temperature of at least 400° C., which temperature is increased slowly up to a temperature of at least 445° C. and not exceeding 465° C., the duration of heat treatment, whilst over 440° C., not exceeding that which will produce appreciable grain growth or distortion, and subsequently subjecting the alloy to precipitation heat treatment.

2,834,701
SEMICONDUCTOR TRANSLATING DEVICES
Richard A. Gudmundsen and Joseph Maserjian, Jr., Inglewood, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application June 1, 1956, Serial No. 588,743
15 Claims. (Cl. 148—33)



1. A semiconductor translating device comprising: a semiconductor wafer selected from the group consisting of germanium and silicon of a predetermined conductivity type having first and second major faces; a region having a conductivity type opposite to that of said wafer within at least a portion of one of said major faces; and a separate mechanical backing member ohmically affixed to substantially the entire surface of at least one of said major faces of said wafer and spaced from said region, said separate mechanical backing member being of the same kind of semiconductor material as that of the said wafer and being of said predetermined conductivity type, and said separate mechanical backing member having an electrical resistivity substantially less than that of said semiconductor wafer.

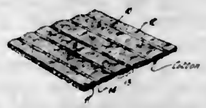
2,834,702
REINFORCED SYNTHETIC RESIN SHEETS
John F. Gibb, Tulsa, Okla., assignor to National Tank Company, Tulsa, Okla., a corporation of Nevada
Application August 15, 1955, Serial No. 528,335
6 Claims. (Cl. 154—43)

1. A reinforced synthetic resin wall member for liquid-containing enclosures, including, a sheet of hardened synthetic resin, at least two main reinforcing layers embedded in said sheet, each main reinforcing layer comprising a plurality of parallel substantially-abutting relatively large diameter rovings of reinforcing glass fibers disposed in a single layer over the area of the sheet, and supplementary reinforcing layers embedded in the sheet outwardly of



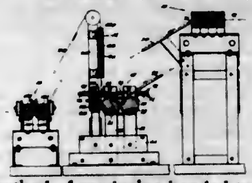
the main reinforcing layers, said supplementary reinforcing layers comprising a multiplicity of reinforcing glass fibers arranged in small diameter yarns and extending primarily transversely to the rovings of the main reinforcing layers.

2,834,703
TISSUE-FACED COTTON SQUARES
Ralph L. Atkinson, Westfield, N. J., assignor to Personal Products Corporation, a corporation of New Jersey
Application February 26, 1954, Serial No. 412,858
3 Claims. (Cl. 154—46)



1. A nonwoven fabric consisting of a relatively heavy layer of a nonwoven cotton fiber web and a relatively light layer of an extensible paper tissue on one face thereof, the layers being united nonadhesively by strong pressure at frequent intervals along narrow lines of compression formed by high pressure so as to provide a substantially permanent bond between the layers along the lines of compression, the layers being in an uncompressed state at approximately their natural bulk in relatively wide areas between the lines, said paper tissue having sufficient extensibility to permit said layers to remain at said natural bulk without the layers separating.

2,834,704
METHOD OF PRODUCING BONDED TWISTLESS YARN
Beardsley Lawrence, Boston, Mass., assignor to Fiberbond Laboratories Inc., Boston, Mass., a corporation of Massachusetts
Original application March 29, 1952, Serial No. 279,282, now Patent No. 2,759,520, dated August 21, 1956. Divided and this application December 19, 1955, Serial No. 557,224
2 Claims. (Cl. 154—91)



1. The method of producing bonded twistless yarn consisting in the steps of drafting staple length fibers into a thin ribbon wherein said fibers lie in substantially parallel and overlapping relation, thoroughly saturating said ribbon with adhesive, thereafter forming first portions of said ribbon into composite twistless filamentary groups by moving said saturated ribbon through a first fixed station and reciprocally rubbing said ribbon transversely thereof at said first station while said ribbon is passing through the same, whereby said first formed portions of said ribbon lie in spaced relationship along the axis of said ribbon leaving intermediate second portions of said ribbon in a state of less complete formation, and thereafter completing the formation of said ribbon into a continuously twistless filamentary body by moving the partially formed ribbon relative to a second fixed station and reciprocally rubbing said partially formed ribbon at said second station transversely thereof primarily in the portions of said partially formed ribbon which were left in said state of incomplete formation after passing said first station.

2,834,705
PROCESS FOR EDGE-GLUING WOODEN ELEMENTS
Stephen Marcucio, Derby, and Harold Brodsky, Wallingford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application February 16, 1954
Serial No. 410,743
5 Claims. (Cl. 154—126.5)

1. In the process for edge-gluing wooden elements wherein the edges thereof are coated with a layer of an adhesive, the edges tightly clamped together and the adhesive cured by the passage of a high-frequency electric current therethrough, the improvement which comprises employing as the adhesive a composition comprising from about 75% to about 86% of a urea-formaldehyde condensation product wherein the mol ratio of urea to formaldehyde is from about 1.0:1.0 to about 1.0:2.0, respectively, from about 10% to about 20% of a melamine-formaldehyde condensation product wherein the mol ratio of melamine to formaldehyde is from about 1.0:3.0 to about 1.0:4.0, respectively, from about 1% to about 2% of a hardening ingredient selected from the group consisting of ammonium fluosilicate and ammonium borofluoride and the balance being a metallic soap, wherein all percentages are based on the total weight of solids in said composition.

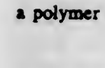
2,834,706
METHOD OF KILLING MARINE BORERS
Clarence Oscar Fulton, Vernon, British Columbia, and Paul Chandos Trussell, Vancouver, British Columbia, Canada
No Drawing. Application August 1, 1956
Serial No. 601,386
8 Claims. (Cl. 167—14)

1. The method of killing adult forms of teredine marine borers that exist during their entire adult stage in burrows in wood in sea water and have siphons normally projecting from the wood into the sea water by means of which they detect normally-accepted poisons, comprising the application to the sea water surrounding the infested wood of a solution of a water-soluble alkali arsenite selected from the group comprising sodium, potassium and ammonium arsenites, the arsenite being dissolved in water so that the water-soluble arsenite is sucked into the body of the borer, the solution ranging in concentration from 0.000625% to 2% arsenite (calculated as arsenic trioxide) by weight of water, whereby said borers, being unable to detect the solution over these concentrations, are killed as they draw the sea water containing the solution in through their siphons.

2,834,707
INSECTICIDAL COMPOSITIONS AND METHOD OF USING SAME
Fred Smith, Wayzata, and Laurence K. Cutkomp, St. Paul, Minn., and Abdel Aziz Fathy, Giza, Egypt, assignors to Regents of the University of Minnesota, Minneapolis, Minn., a corporation of Minnesota
No Drawing. Application October 2, 1952
Serial No. 312,854
13 Claims. (Cl. 167—22)

4. An insecticidal composition of matter comprising

a polymer of a compound having the following formula:



in which R and R' are, respectively, an alkyl group and a perfluoro alkyl group, each containing from 1 to 20 carbon atoms, and a carrier therefor.

2,834,708

DIPHENYLACETALDEHYDES

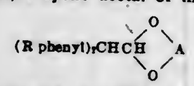
Edward F. Riener, Haddonfield, N. J., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application December 27, 1954
Serial No. 477,937
8 Claims. (Cl. 167—30)

1. A process for preparing diphenylacetaldehydes of the formula

$$(R\ phenyl)_2CHCHO$$

which comprises heating at a temperature between about 75° and 150° C., a cyclic acetal of the formula



with an aqueous strong inorganic acid, the strength of said acid being between about 5% and about 65%, R being a member of the class consisting of hydrogen, fluorine, chlorine, and bromine and A being an alkylene group of not over 12 carbon atoms having two to three carbon atoms between the oxygen atoms.

7. A process for controlling fungi on plants which comprises applying to plants a composition comprising a minor proportion of bis(chlorophenyl)acetaldehyde dispersed in a major proportion of a carrier therefor.

2,834,709

WITHDRAWN

2,834,710

PANCREATIC DESOXYRIBONUCLEASE PENICILLIN COMPOSITION AND PROCESS OF PREPARATION

Werner Baumgarten, North Hills, and Reginald F. Johnson, Willow Grove, Pa., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application June 29, 1955
Serial No. 518,948
6 Claims. (Cl. 167—65)

1. A dry stable lyophilized powder containing penicillin, pancreatic desoxyribonuclease, sodium glycerophosphate as a pH 7 buffer and as a stabilizer therefor calcium ions, which composition, when reconstituted with a diluent, results in a homogeneous solution maintaining maximum enzymatic and antibiotic activity.

2,834,711

PRODUCTION OF BACITRACIN

Eli Zinn, Painesville, Ohio, and Francis W. Chornock, Farmersburg, Ind., assignors to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland

No Drawing. Application May 17, 1956
Serial No. 585,380
8 Claims. (Cl. 167—65)

1. In a process for purifying bacitracin, the steps which comprise adding a water-soluble zinc salt to an aqueous solution of bacitracin, adjusting the pH to from 5 to 9, recovering the precipitate which forms, dissolving the precipitate in water at a pH not substantially in excess of 4, and removing the zinc ion by passing the aqueous solution through a cation exchange resin.

2,834,712

URINARY ESTROGEN COMPOSITIONS AND METHODS FOR PREPARING THEM

Desmond Beall, Westmount, Quebec, and Gordon A. Grant, Mount Royal, Montreal, Quebec, Canada, assignors, by mesne assignments, to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 27, 1953
Serial No. 357,898
5 Claims. (Cl. 167—74.5)

5. The process for obtaining an estrogenic, therapeutic product comprising extracting equine urinary material containing water-soluble estrogenic substances in conjugate form with an organic solvent selected from the group consisting of aliphatic ketones and alcohols having a water-solubility of less than about 6% which selectively removes substantially all of the estrogenic conjugates together with some urinary solids from proteinaceous materials as well as higher aliphatic amines and diamines, washing under acid conditions the extract obtained, with benzene, and then with ether to remove phenolic constituents thus obtaining an estrogenic concentrate substantially free of odoriferous urinary substances, neutralizing the acidity, separating the active estrogenic components substantially free of pyrogens, indoxyl and cresol toxic compounds by contacting said concentrate with a saturated aqueous solution of an alkali metal salt of an acid of the group consisting of sulfuric, phosphoric and hydrochloric acid, said salt solution causing the precipitation of the estrogenic factors substantially free of said toxic components, then extracting the estrogenic components from said precipitated material with a mixture of lower aliphatic ketone and alcohol solvent and finally evaporating off the solvent to obtain the estrogenic potency in highly purified form.

2,834,713

PREPARATION OF ENZYME EXTRACTS FROM LIVER

Kenneth C. Robbins, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application November 22, 1952
Serial No. 322,160
9 Claims. (Cl. 195—66)

1. In a process for obtaining from liver tissue at least one enzyme selected from the group consisting of catalase, cathepsin and arginase, said tissue being selected from the group consisting of beef liver tissue and hog liver tissue, the steps of washing said tissue with a mixture of water and ethanol at a temperature ranging from −3 to −15° C., said ethanol being present in said mixture while it is in contact with said tissue in concentrations ranging from 40 to 50% by volume, extracting the residual solid material with water at a pH ranging from 6.3 to 6.7, subsequently subjecting the extract thus obtained to an isoelectric precipitation at a pH within the range from 5.2 to 5.4 to obtain a purified enzyme extract, fractionating said extract at a pH ranging from 5.4 to 6.2, at an ionic strength below .1, and at a temperature between −3 to −15° C. by adding an organic solvent thereto to a concentration of between 20 to 50% by volume said organic solvent being selected from the group consisting of ethanol and methanol, and separating the resulting precipitate from the supernatant.

2,834,714

CULTURE PROCESS FOR ERYTHROMYCIN B

Frank W. Denison, Jr., Lake Bluff, and Waldo C. Friedland and Merlin H. Peterson, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

Application March 1, 1954, Serial No. 413,402
12 Claims. (Cl. 195—80)

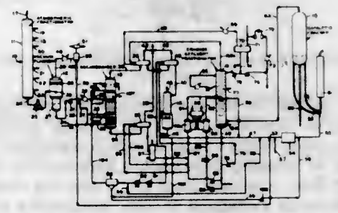
1. A method of producing an erythromycin B-containing fermentation broth having a major proportion of erythromycin B therein which comprises: forming a fermentation culture medium containing an assimilable source of carbon, inorganic salt, and nitrogen; the nitrogen content of said medium being in excess of 2.5 mg./ml. culture medium; and cultivating under aerobic conditions an erythromycin-producing strain of *Streptomyces erythreus* therein to form a substantial amount of erythromycin B in the said culture medium.

2,834,715

PREPARATION OF CATALYTIC CRACKING FEED

Thomas W. Pratt, Rutherford, N. J.

Application June 3, 1954, Serial No. 434,182
7 Claims. (Cl. 196—14.46)



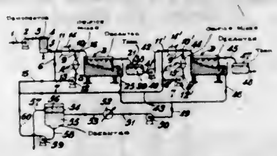
1. A method for preparing a charge oil for catalytic cracking, which includes the steps of: heating an atmospheric reduced crude and introducing it into a vacuum flash tower at a temperature sufficiently high to maintain a flash temperature within the range of about 200° F. below that at which substantial thermal decomposition begins to take place; withdrawing a vacuum distillate from said tower; withdrawing from said tower a vacuum bottoms comprised of at least 25% of the oil present in said reduced crude and suitable for catalytic cracking; cooling said vacuum bottoms, introducing said cooled vacuum bottoms into a fractionation zone and countercurrently contacting said cooled vacuum bottoms therein with normally gaseous hydrocarbon solvent at temperatures within 100° F. of the critical temperature of said solvent to fractionate said vacuum bottoms into an asphaltic raffinate and a decarbonized oil extract having a Conradson carbon residue substantially lower than said vacuum bottoms; and employing the major parts of said vacuum distillate and said decarbonized oil in forming a catalytic cracking feed.

2,834,716

SEPARATION OF HYDROCARBONS

Alfred Champagnat and Charles Vernet, Paris, France, assignors to The British Petroleum Company, Limited, London, England, a British joint-stock corporation

Application March 29, 1955, Serial No. 497,642
Claims priority, application France May 19, 1954
17 Claims. (Cl. 196—17)



1. A process for the extractive crystallization of a hydrocarbon mixture comprising hydrocarbons which form adducts with urea and hydrocarbons which do not form adducts with urea, which comprises treating said hydrocarbon mixture with a solution comprising urea dissolved in a solvent whereby there is formed a complex slurry, said slurry comprising a liquid phase comprising a urea adduction raffinate, a liquid phase comprising urea solution, and, in suspension, a solid urea adduct, thereafter separating at least part of the urea adduction raffinate from the complex slurry by decantation and within the period prior to and during said separation, subjecting said slurry to the action of mechanical vibrations of an amplitude in the range of 1 mm. to 5 cms. and a frequency in the range of 100–2000 per minute whereby there is formed an upper liquid phase comprising raffinate and whereby the solid materials pass into the lower liquid phase comprising urea solution, and after said separation recovering the urea adduction extract from the remaining mixture of solid and liquid phases.

2,834,717

PROCESS OF DESULFURIZING HYDROCARBONS WITH A BORON FLUORIDE COORDINATION COMPOUND FOLLOWED BY HYDROFINING WITH A HYDROGEN DONOR

Chyn duog Shiah, Manhasset, N. Y.

No Drawing. Application March 7, 1956
Serial No. 569,971
8 Claims. (Cl. 196—28)

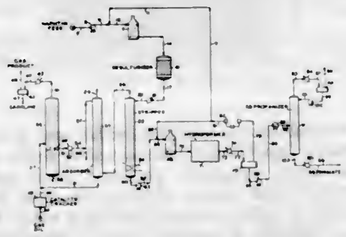
1. A process of treating crude oil, residua and like heavy hydrocarbon oil stocks characterized by a significant content of sulfur compounds to reduce the quantity of said sulfur compounds in said stocks which comprises, intimately mixing the heavy hydrocarbon oil stock at substantially atmospheric pressure with a coalescing agent comprising a coordination compound of boron fluoride, said coalescing agent being employed in a quantity of at least about 0.1% by volume but substantially less than the quantity required for solvent separation of said sulfur compounds from said heavy hydrocarbon oil stock, causing the intimately mixed stock to separate into a coalesced phase and a purified phase, separating said purified phase from said coalesced phase, mixing said purified phase with a hydro-aromatic compound and introducing the mixture into a hydrogenation zone maintained at a pressure ranging from atmospheric pressure to 700 p. s. i. g. in the presence of a hydrogenation-dehydrogenation catalyst, maintaining a temperature of 650 to 1,000° F. in said hydrogenation zone to effect hydrogenation of said purified phase, withdrawing the hydrogenated purified phase from said hydrogenation zone in admixture with the dehydrogenation product of the hydro-aromatic compound, and separating said dehydrogenation product from the hydrogenated purified phase.

2,834,718

HYDROCARBON CONVERSION SYSTEM

George W. Stanford, Linden, and James L. Patton, Ramsey, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application October 15, 1954, Serial No. 462,426
6 Claims. (Cl. 196—50)



1. A process which comprises contacting a light hydrocarbon oil with a reforming catalyst under suitable reforming conditions in a reforming zone to produce a reaction product including normally liquid product and

a gaseous product containing hydrogen, separating the normally liquid product from the reaction product, combining a portion of the separated gaseous product with a sulfur containing light hydrocarbon oil feed and subjecting the same to contact with a desulfurization catalyst under suitable desulfurization reaction conditions to produce a desulfurized reaction product including desulfurized normally liquid product and gaseous product containing hydrogen sulfide, gasoline components and normally gaseous hydrocarbons, cooling the desulfurized reaction product to condense the normally liquid product containing dissolved hydrogen sulfide, separating the condensed liquid product from the gaseous product, passing the desulfurized liquid product to a stripping zone wherein the same is subjected to heat and thereby hydrogen sulfide is separated substantially therefrom, passing the gaseous product from the stripping zone to an absorption zone, contacting the gaseous product in the absorption zone with a hydrocarbon oil whereby gasoline components are absorbed from the gaseous product, said oil comprising at least a portion of the feed to the desulfurization reaction and passing the stripped desulfurized liquid product to the reforming zone.

2,834,719

CATALYTIC CRACKING OF HYDROCARBON OILS

Robert B. Mosely, Lafayette, and George M. Good, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application January 17, 1955
Serial No. 482,376
4 Claims. (Cl. 196—52)

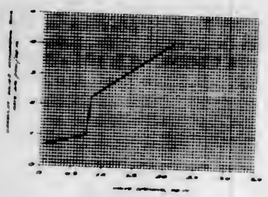
1. In the catalytic cracking of a hydrocarbon oil to produce gasoline, the improvement which comprises contacting the oil to be cracked under cracking conditions with discrete particles of an active cracking catalyst and in admixture therewith discrete particles of silica gel having a microporous structure affording a large surface area the ratio of the latter to the former being such that the ratio of their available surfaces is between 1 and 8.

2,834,720

GRANULAR SOLIDS WITHDRAWAL METHOD AND APPARATUS

Joseph I. Savoca, Woodstown, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application August 26, 1953, Serial No. 376,686
8 Claims. (Cl. 196—147)



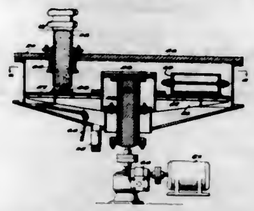
1. A method for the controlled withdrawal of granular solids from a liquid hydrocarbon-granular solids contacting zone, which comprises: passing a liquid hydrocarbon-granular solids stream downwardly from the contacting zone as a slurry stream flowing in other than viscous flow through a confined passage, removing sufficient liquid hydrocarbon from said stream while in said passage to convert the stream into viscous flow, interposing an obstruction to flow in said passage after said stream is in viscous flow and varying the degree of obstruction to vary the rate of flow of the granular solids through said passage.

2,834,721

METHOD AND APPARATUS FOR THE CONTROLLED WITHDRAWAL OF GRANULAR SOLIDS FROM A LIQUID-GRANULAR SOLIDS CONTACTING ZONE

Grady L. Payne, Mickleton, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York

Application August 26, 1953, Serial No. 376,687
5 Claims. (Cl. 196—147)



1. A method for the continuous withdrawal of granular solids at controlled rates from a liquid hydrocarbon-granular solids contacting zone, which comprises: passing a stream of granular solids-liquid hydrocarbon slurry in turbulent flow condition from the contacting zone downwardly through a confined passage; discharging the slurry from said passage onto a substantially horizontal perforated surface which is pervious to the liquid hydrocarbons but impervious to granular solids so that liquid hydrocarbons will pass through the surface while granular solids are retained thereon; rotating said surface about a vertical axis of rotation removed a substantial distance from the point of supply of the slurry to the surface; controlling the linear velocity of the stream in the drain passage, the distance between the lower end of the passage and the surface, the rate of rotation of the surface and the perviousness of the surface to liquid flow so as to cause an accumulation of wet granular solids to build up on the surface and throttle the flow of granular solids from the passage, which accumulation has an oil content less than that determined by the following equation:

$$L=100V^{0.0217}-54$$

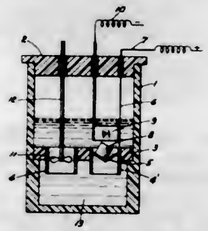
where L=liquid oil content of the accumulation as percent volume and V=viscosity of the liquid in centipoises; and controlling the rate of discharge of granular solids from the passage by controlling the distance between the lower end of the passage and the perforated surface.

2,834,722

ELECTROCHEMICAL DECONTAMINATION AND RECOVERY OF URANIUM VALUES

James A. McLaren, Byington, and Jerry H. Goode, Kingston, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application June 8, 1953, Serial No. 359,988
10 Claims. (Cl. 204—1.5)



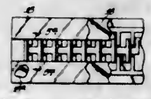
1. A new and improved process for segregating and separately recovering uranium values from a mass of metallic uranium contaminated throughout with values from the group consisting of rare earth values and plutonium values, which comprises subjecting said mass of uranium to anodic dissolution, employing an anode current density approximating the range of 1 to 5 amperes per square decimeter of surface of the dissolving uranium mass, in an electrolytic cell containing substantially-saturated aqueous sodium bicarbonate solution as its electrolyte while continuously circulating said electrolyte solution past the surface of the anodically-dissolving uranium mass, thereby promoting a concomitant settling from the solution of a solid sludge from about the electrodes of said cell, and separating the resulting electrolyte solution containing consequently-decontaminated anodically-dissolved uranium values from the resulting sludge containing a substantial amount of said contaminating values.

2,834,723

METHOD OF ELECTROPLATING PRINTED CIRCUITS

James C. Robinson, La Crosse, Wis., assignor to Northern Engraving & Manufacturing Co., La Crosse, Wis., a corporation of Wisconsin

Application December 31, 1953, Serial No. 401,529
4 Claims. (Cl. 204—15)



1. The method of electro-plating the conducting elements of a multi-part printed circuit formed on the face of a non-conducting base, comprising the steps of: masking a fragmentary portion of each conducting element while leaving a fragment of each element exposed along the margin of the masked portion; covering the entire face with a removable electrically conducting coating; applying an electrically non-conducting coating over the electrically conducting coating; removing the first mask and the coatings thereon to expose the masked portion and define a unitary conducting area including the electrically conducting coating and the conducting elements of the printed circuit; electro-plating onto the face using the said conducting area as one electrode; and removing the remaining portions of the coatings to restore the original circuit configuration.

2,834,724

METHOD OF ELECTROPLATING PLASTIC ARTICLES

Abraham Piza Mendes, New York, N. Y.

No Drawing. Application April 26, 1956
Serial No. 580,964
6 Claims. (Cl. 204—20)

1. A method of coating a plastic article with a noble metal, which comprises the steps of forming on said plastic article in a vapor vacuum chamber a thin film base of a metal selected from the group consisting of antimony, bismuth and arsenic, and then coating said article with the noble metal by electrodeposition.

2,834,725

COBALT-NICKEL ELECTROPLATING SOLUTION

Herman C. Scheer, Endicott, and Edward R. York, Endwell, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

No Drawing. Application December 27, 1956
Serial No. 630,750
6 Claims. (Cl. 204—43)

1. An electroplating solution for depositing a coating of an alloy consisting of cobalt and nickel, which consists of a water solution containing chlorides of cobalt and nickel, boric acid, and a thiocyanate from the class consisting of sodium, potassium and ammonium thiocyanates, the amount of thiocyanate ranging from 5×10^{-4} to 5×10^{-3} grams per liter.

2,834,726

ELECTROLYTICALLY DISSOLVING IRON

Jay Y. Welsh, Brainerd, Minn., assignor to Manganese Chemicals Corporation, Minneapolis, Minn., a corporation of Minnesota

No Drawing. Application June 8, 1955
Serial No. 514,118
13 Claims. (Cl. 204—82)

1. Process of producing an aqueous solution of an ammonio complex of iron which comprises anodically dissolving iron metal in an electrolyte consisting essentially of a strongly ammoniacal aqueous solution of ammonium carbamate by passing unidirectional direct current therethrough from a ferrous metal anode to a cathode and continuing the passage of direct current until a predetermined dissolved iron concentration has been attained.

2,834,727

PURIFICATION OF MOLTEN ELECTROLYTES

William W. Gullett, College Park, Md., assignor to Chicago Development Corporation, Riverdale, Md., a corporation of Delaware

No Drawing. Application August 26, 1957
Serial No. 680,391
1 Claim. (Cl. 204—64)

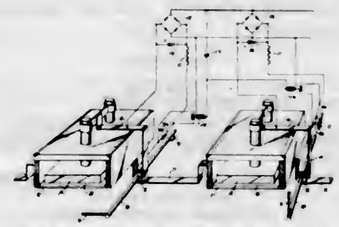
In a process of electrorefining titanium in a single-phase bath consisting essentially of at least one alkali or alkaline earth metal chloride containing 1–8% dissolved titanium chloride, average valence of titanium 2.05–3.0, and 1–5% dissolved alkali or alkaline earth metal, said bath being contaminated by a significant amount of a metal of the group consisting of iron, chromium, aluminum and magnesium, in which process direct current is passed through the electrolyte from an anode of the impure titanium to be refined to an inert solid cathode, the steps which consist in purifying the contaminated bath, without substantially changing the composition of the same as regards said essential constituents, by substituting a pure titanium anode for said impure anode, passing a direct current through the electrolyte from said pure titanium anode to a substantially smaller inert cathode at a current density on the cathode, at least 2000 amps./sq. ft., several times as great as that employed in the electrorefining operation, for a period of time, at least 10 minutes, sufficient to remove substantially all of the contaminating metal from the bath as a fine powderous alloy deposit, and thereupon replacing the impure anode and the cathode and continuing the electrorefining operation.

2,834,728

METHOD AND APPARATUS FOR PROTECTING THE CATHODES OF ELECTROLYTIC CELLS

Patrizio Gallone, Milan, Italy, assignor to Oronzio De Nora Impianti Elettrochimici

Application March 1, 1954, Serial No. 413,332
Claims priority, application Italy March 2, 1953
5 Claims. (Cl. 204—147)

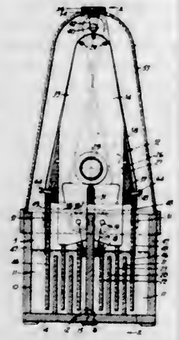


1. The method of protecting the cathodes of electrolytic cells, having anodes and a mercury cathode said

anodes and said cathode being of substantially the same surface area, a main electrolysis circuit, and a source of polarizing current, when the cell is cut out of the main electrolysis current, which comprises disconnecting said source of polarizing current from the anodes and cathode of said cell when the cell is in the main electrolysis circuit, automatically connecting said source of polarizing current, having a potential lower than the decomposition potential of the electrolysis solution to the electrolysis anodes and the mercury cathode of the cell when the cell is cut out of the main electrolysis circuit.

4. In a switching device for electrolytic cells comprising fixed and movable contacts, a rotary shaft, a movable contact member formed of a plurality of segments of a cylinder spaced closely adjacent to one another longitudinally of the axis of said shaft, springs spaced on each side of the axis of said rotary shaft pressing outwardly against each end of each of said segments, means to limit the outward movement of said segments by said springs, connections between said springs and said segments and the rotary shaft whereby rotary movement of said shaft causes rotary movement of said segments past said fixed contact members, said connections also permitting radial tipping movement of said segments relative to said shaft.

2,834,729
ELECTROPHORESIS APPARATUS
Edward G. Pickels and Philip F. Scofield, Atherton, and Fred G. Williams, Redwood City, Calif., assignors to Beckman Instruments, Inc., Fullerton, Calif., a corporation of California
Application February 24, 1955, Serial No. 490,261
8 Claims. (Cl. 204—299)



1. In paper strip electrophoresis apparatus, container means forming two cells for electrolyte, a rack comprising two side portions hingedly connected together, said side portions having means thereon for engaging end portions of paper strips, support means carried by the container means for supporting said rack and said strips with the side portions of the rack swung downwardly to thereby establish electrical contact between the extremities of the strips and the electrolyte of the cells, said hinged rack being readily removable from said supporting means at the end of a run.

2,834,730
FILTER MEDIA
Erle V. Painter, Jr., and William R. Strickel, Chicago, Ill., assignors to Johnson & Johnson, a corporation of New Jersey
No Drawing. Application January 18, 1956
Serial No. 560,039
8 Claims. (Cl. 210—504)

1. A filter sheet of matted regenerated cellulose fibers of about 1 to 2 inches in length and cotton comprising (*a*) a top layer containing about ⅔ of the total weight of the non-woven fibrous sheet composed of an about 50–50 blend of crimped rayon having about 6 to 15 crimps per inch, of about 1⅜ inch staple length and about 5.5 denier, with cotton having a fineness weight of about 3 to 6 micrograms per inch, and (*b*) a bottom layer containing the remainder of the total weight of said sheet, said bottom layer containing substantially all cotton fibers of about 3 to 6 micrograms per inch, said sheet being bonded with an adhesive bonding agent, said bonding agent defining two continuous zones within said sheet co-extensive with the opposite external surfaces thereof, each of said adhesive containing zones containing ⅙ to ⅓ of the total fibers in the sheet, the weight of said sheet based on non-woven fibers being about 2 ounces per square yard.

2,834,731
HYDROCARBON OIL EMULSIFIER
John F. Carpenter, Clark, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application January 11, 1956
Serial No. 558,402
4 Claims. (Cl. 252—8.9)

1. A water-emulsifiable oil concentrate which comprises a paraffinic petroleum white oil containing about 0.5 to 1 wt. percent of an alkylphenoxy ether of diethylene glycol, the alkyl group substituent in the phenoxy group containing about 9 carbon atoms, and 0.5 to 1 wt. percent of monooleate ester of polyethylene glycol containing 4 to 6 ethylene glycol units.

2,834,732
EXTREME PRESSURE LUBRICANT
Morton Faiman, Chicago, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application November 29, 1954
Serial No. 471,877
1 Claim. (Cl. 252—33.6)

An extreme pressure lubricant consisting essentially of a viscous mineral oil base, about 10 to 15 weight percent of lead sulfurized tall oil prepared by heating tall oil with about 10 percent of its weight of sulfur for obtaining sulfurized tall oil and then heating about 3 parts by weight of the sulfurized tall oil with about 1 part by weight of lead oxide in the presence of an aqueous medium to obtain said lead sulfurized tall oil, said extreme pressure lubricant also containing an aromatics-rich lubricating oil extract in a small but sufficient amount to solubilize the lead sulfurized tall oil in said mineral oil base, a small amount of asphalt having a softening point of about 160° F., and about 3 weight percent lead naphthenate.

2,834,733
HYDRAULIC FLUID AND LUBRICANT COMPOSITION
Douglas H. Moreton, Pacific Palisades, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.
No Drawing. Application April 1, 1949
Serial No. 85,042
15 Claims. (Cl. 252—49.8)

1. The composition consisting essentially of a mixture of monoalkyl diaryl phosphates in which the aryl groups are members of the group consisting of phenyl, cresyl and xylyl radicals and the monoalkyl groups are branched chain having from 4 to 8 carbon atoms, and a sufficient proportion of a poly alkyl methacrylate having an average molecular weight of about 8,000 to 12,000 and in

which the alkyl portion has from 4 to 12 carbon atoms to increase the viscosity of the composition at elevated temperatures and to increase the viscosity index of the composition.

2,834,734
LIQUID ELECTRICAL INSULATING COMPOSITIONS
Vernon Warner David, Chester, and Robert Irving, Great St. Helens, London, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 18, 1956
Serial No. 591,781
Claims priority, application Great Britain August 12, 1955
4 Claims. (Cl. 252—63)

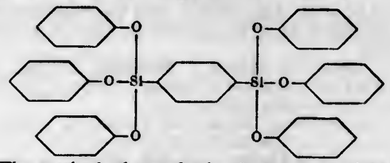
1. A liquid dielectric composition comprising a major amount of a gas evolving electric insulating solvent refined, acid treated and adsorbent earth treated mineral oil containing from about 0.01% to about 2% of a non-aromatic cyclopentene compound selected from the group consisting of C_1–C_8 alkyl fulvene and dicyclopentadiene.

2,834,735
PRODUCING AN ALCOHOL-BASE ANTIFREEZE CONTAINING AN ALKALINE EARTH METAL BORATE AS AN INHIBITOR
Robert A. Woodle, Groves, and Robert H. Howell and William B. Chandler, Port Arthur, Tex., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application April 23, 1954
Serial No. 425,308
12 Claims. (Cl. 252—74)

1. A process for producing a glycol base antifreeze containing an alkaline earth metal borate as an inhibitor, said process comprising dissolving a compound selected from the group consisting of borax and boric acid in a glycol to form a glycol solution, and then contacting said glycol solution with a cation exchange resin having exchangeable cations of said alkaline earth metal.

2,834,736
BIS(TRIPHENOXYSILYL)BENZENE AND METHOD OF TRANSFERRING HEAT THEREWITH
Herbert C. Kaufman, West Haven, Conn., assignor to John B. Pierce Foundation, New York, N. Y., a corporation of New York
No Drawing. Application March 5, 1956
Serial No. 569,265
2 Claims. (Cl. 252—78)

1. A heat transmitting medium comprising the compound having the following structural formula:



2. The method of transferring heat to materials in indirect contact with a heat transmitting medium, which comprising using as a heat transmitting medium the compound described in claim 1.

2,834,737
FOAMING BLEACH
Roland Z. Farkas, Greenville, S. C., assignor to Texize Chemicals, Inc., Greenville, S. C., a corporation of South Carolina
No Drawing. Application January 15, 1957
Serial No. 634,170
4 Claims. (Cl. 252—187)

1. A bleach comprising an aqueous solution of sodium hypochlorite containing from about 3% to about 16.5% available chlorine by weight and from about 0.05% to about 1% by weight of a C-higher alkyl-N-trimethyl-α-betaine, said higher alkyl group containing 10 to 18 carbon atoms.

2,834,738
PRODUCTION OF SKELETAL GLASS CATALYSTS
George Clarkson Vincent, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application August 8, 1955
Serial No. 527,120
Claims priority, application Great Britain August 25, 1954
4 Claims. (Cl. 252—432)

1. A process for the production of a skeletal glass catalyst in the form of a sintered aggregate which comprises the steps of subjecting a glass having the composition:

	Percent
Alumina	10–35
Silica	30–60
Alkaline earths	5–20
Boric oxide	12–22

to a temperature from 650° to 950° C. for a period of at least about 24 hours to cause a phase separation wherein at least one phase is soluble in mineral acid, reducing the glass to particles of a suitable size, and thereafter subjecting the particles to a sintering temperature to form an aggregate and extracting with said mineral acid for a period of about 2 to 3 hours to remove at least part of one soluble phase from said aggregate.

2,834,739
METHOD FOR CONTROLLING GELATION TIME
Hugo G. Becker and Carl W. Streed, Woodbury, N. J., assignors to Socony Mobil Oil Company, Inc., a corporation of New York
No Drawing. Application June 25, 1953
Serial No. 364,206
6 Claims. (Cl. 252—448)

1. In a process for preparing a siliceous hydrogel by intimately admixing an aqueous alkali metal silicate solution and an aqueous acidic solution under conditions of constant pH and temperature to yield a siliceous hydrosol which inherently undergoes gelation after lapse of time to a hydrogel of unvarying composition, the improvement which comprises controlling the gelation time of said hydrogel without change in the solids content thereof by inversely varying the concentration of said aqueous alkali metal silicate solution, without variation in the alkali metal oxide to silica ratio thereof, and the concentration of said aqueous acidic solution by adjusting the relative water contents of the solutions while maintaining the volumetric ratio of acidic solution to alkali metal silicate solution between about 0.27 and about 2.08.

2,834,740
PLATINUM CATALYST AND PREPARATION THEREOF
Oliver Johnson, Berkeley, and Kenzie Nozaki, El Cerrito, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application November 1, 1956
Serial No. 619,690
4 Claims. (Cl. 252—466)

1. In the preparation of a supported platinum-containing catalyst comprising a major amount of a chloride-free carrier and a minor amount between 0.1 and 1% platinum the improvement which comprises impregnating the carrier with an aqueous solution of tetrammine

platinous hydroxide, drying, and calcining to decompose said compound leaving the carrier impregnated with platinum.

2,834,741
SAND COATING
Julius M. Bleuenstein, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application May 12, 1954, Serial No. 429,385
5 Claims. (Cl. 260—25)



1. The process of preparing a sand suitable for use in shell molding comprising agitating together Vinsol comprising a dark colored, hard, pine resin which is substantially insoluble in petroleum hydrocarbons and which has a methoxy content of 3 to 7 percent and sand heated to a temperature of 300 to 500° F. until the Vinsol has melted and coated each sand grain, exposing the heated and Vinsol coated grains to hexamethylenetetramine to produce a higher melting resin, permitting this reaction to occur, at least partially cooling the resin coated sand and agitating the cooled sand with a heat settable resin.

2,834,742
ELASTIC INSULATING TAPE
Johnny N. Scott and Rufus Vernon Jones, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application February 15, 1954
Serial No. 410,418
5 Claims. (Cl. 260—28.5)

1. An elastic insulating tape having a tensile strength of at least 120 p. s. i. and prepared by blending from 25 to 45 weight percent of an asphalt with from 75 to 55 weight percent of a polymeric material selected from the group consisting of polyethylene having a melt index from 0.4 to 25 and solid hydrogenated polymers of butadiene.

2,834,743
SOLUTION OF α-CHLORO-ACRYLONITRILE POLYMERS IN NITROMETHANE SOLVENT MIXTURE AND METHOD OF MAKING
Heinz Peter Basch, Sutton, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
No Drawing. Application January 12, 1954
Serial No. 403,635
Claims priority, application Great Britain February 7, 1953
5 Claims. (Cl. 260—29.6)

1. A composition comprising an α-chloroacrylonitrile polymer containing at least 85% of α-chloroacrylonitrile units in its molecular structure dissolved in a nitromethane solvent mixture, said mixture having as its second component a compound selected from the group consisting of water, a mononuclear phenol having not more than ten carbon atoms in the molecule and mixtures thereof.

2,834,744
AQUEOUS SODIUM SILICATE ADHESIVE COMPOSITION
James G. Lander, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
No Drawing. Application August 2, 1956
Serial No. 601,602
6 Claims. (Cl. 260—29.7)

1. A composition of matter comprising:

	Percent
Aqueous silicate glass solution ($Na_2O:SiO_2$ ratio, 1:2.5–4, 35–47% solids)	70–85
Urea	2–8
Clay	5–20
Piccopale Resin	0.1–2
Water	Balance to 100

2,834,745
METHOD OF PRODUCING CRESOL-FORMALDEHYDE POLYMER COATING COMPOSITIONS
Gene C. Weber, Hermosa Beach, Robert P. Hoyt, Redondo Beach, and Robert L. Dinsmore, Long Beach, Calif., assignors to Richfield Oil Corporation, Los Angeles, Calif., a corporation of Delaware
No Drawing. Application February 5, 1954
Serial No. 408,568
5 Claims. (Cl. 260—32.8)

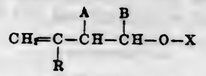
1. A method of producing a cresol formaldehyde polymer coating composition containing about 25 to 97 parts by weight of the polymer, said polymer being substantially insoluble in liquid aliphatic hydrocarbons after curing, which comprises heating a mixture of the cresol and formaldehyde containing about ¼ to 5 mols of formaldehyde per mole of cresol, in the presence of a basic catalyst to effect polymerization until the formaldehyde is virtually all reacted and the product when cooled to about 70 to 120° F. is in the fluid state, quenching the reaction mixture with water, immediately removing catalyst and water from the reaction mixture, reheating the reaction mixture to polymerize it until it approaches a semi-solid state when at room temperature, cooling the reaction product, adding to the reaction product about 3 to 10 parts by weight of a solvent selected from the group consisting of low boiling, lower aliphatic alcohols and low boiling, lower aliphatic ketones, said alcohols and ketones being volatile under normal atmospheric conditions, and mixing about 5 to 60 parts by weight of an inorganic filler with the reaction product-solvent mixture.

2,834,746
MINERAL OIL MODIFIED POLYSTYRENE-POLYETHYLENE BLEND AND PROCESS OF MAKING SAME
Ival O. Salyer and Robert J. Slocombe, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application January 8, 1953
Serial No. 330,352
12 Claims. (Cl. 260—33.6)

1. A method of improving a blend of 90 to 99 parts by weight styrene polymer and 10 to 1 parts by weight ethylene polymer, which comprises forming an intimate mixture of said blend with from 1 to 5 weight percent, based on the total weight of said mixture, of a high molecular weight mineral oil, said styrene polymer being a normally solid high molecular weight styrene polymer composed at least principally of styrene, said ethylene polymer being a normally solid high molecular weight ethylene polymer composed at least principally of ethylene, and said mineral oil being a high molecular weight mineral oil which is principally aliphatic hydrocarbon in character and at least about 80 percent of which has a boiling point of at least 300° C. corrected to atmospheric pressure.

2,834,747
CO-POLYMERS FROM ARYL-SUBSTITUTED BUTENYL ALCOHOLS, ETHERS, AND ESTERS AND A CONJUGATED DIENE, COMPOSITIONS CONTAINING SAME, AND METHOD OF MAKING
James N. Short, Borger, Carl A. Uraneck, Phillips, and Alvin C. Rothlisberger, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application November 23, 1953
Serial No. 393,924
19 Claims. (Cl. 260—41.5)

1. As a new composition of matter, a copolymer of a compound of the formula



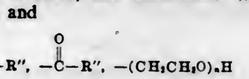
where R is an aryl radical, A and B are selected from the group consisting of H, methyl and ethyl radicals, and X is selected from the group consisting of

(1) 

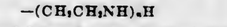
and



where R′ is selected from the group consisting of saturated aliphatic radicals, and substituted saturated aliphatic radicals; and

(2) 

and



where R″ is selected from the group consisting of radicals having aliphatic unsaturation and *n* is an integer from 1 to 16 and a conjugated diene.

2,834,748
SILOXANE-OXYALKYLENE BLOCK COPOLYMERS
Donald L. Bailey, Snyder, and Francis M. O'Connor, Kenmore, N. Y., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application March 22, 1954
Serial No. 417,935
15 Claims. (Cl. 260—42)

1. A composition of matter comprising a mixture of block copolymers wherein each copolymer contains a siloxane polymer and at least one oxyalkylene polymer in combination, the siloxane polymer being composed of at least one trifunctional silicon atom, bonded to three oxygen atoms and a single monovalent hydrocarbon radical, and joined to at least three difunctional silicon atoms through oxysilicon bonds, each of said difunctional silicon atoms having two monovalent hydrocarbon radicals bonded thereto and the oxyalkylene polymer being composed of at least five oxyalkylene groups bonded to each other by oxycarbon bonds and bonded at one end to the siloxane polymer through a carbon-oxy-silicon bond and bonded at the other end to a monoether radical.

2,834,749
HIGH IMPACT STYRENE POLYMER PREPARED FROM STYRENE MONOMER CONTAINING CHLOROSULFONATED POLYETHYLENE AND PROCESS OF MAKING SAME
Ival O. Salyer and James A. Herbig, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 26, 1952
Serial No. 328,126
7 Claims. (Cl. 260—30.6)

3. Styrene polymer containing from 1 to 30 weight percent (based on total product) preformed chlorosulfonated ethylene polymer which was present in the monomeric styrene from which said styrene polymer was derived by polymerization to a high molecular weight resin, said ethylene polymer having had a molecular weight of at least 6,000 prior to chlorosulfonation.

2,834,750
BLENDS OF POLYSTYRENE AND HYDROGENATED POLYMERS OF CONJUGATED DIOLEFINS
Ival O. Salyer and James A. Herbig, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application January 12, 1953
Serial No. 330,911
2 Claims. (Cl. 260—45.5)

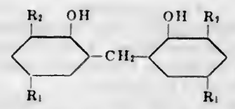
1. Styrene polymer containing from 1 to 30 weight percent (based on total product) of a material prepared by catalytically hydrogenating a rubbery polymer of a monomeric material comprising an aliphatic conjugated diolefin hydrocarbon containing from 4 to 6 carbon atoms per molecule to a residual unsaturation of from 1 to 50 percent that in the unhydrogenated rubbery polymer.

2,834,751
COMPOSITIONS COMPRISING HYDROGENATED CONJUGATED DIENE POLYMERS AND POLY-1-OLEFINS
Rufus V. Jones, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
No Drawing. Application April 23, 1953
Serial No. 350,779
7 Claims. (Cl. 260—45.5)

1. As a new composition of matter, a resinous blend comprising a normally solid polyethylene and a partially hydrogenated polybutadiene wherein at least 50 percent but not all of the double bonds of the unhydrogenated polybutadiene have been saturated, the partially hydrogenated polybutadiene constituting from 5 to 95 weight percent of said blend.

2,834,752
STABILIZING SYNTHETIC RUBBERS
Arnold R. Davis, Riverside, and Frank A. V. Sullivan, Darien, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application January 27, 1954
Serial No. 406,596
4 Claims. (Cl. 260—45.95)

1. A synthetic rubber composition stabilized against polymerization, cyclization, cross linkage and the formation therein of an insoluble gel fraction, consisting of an unvulcanized, sulfur vulcanizable synthetic rubber selected from the group consisting of rubber-like polymers and copolymers of butadiene-1,3 and from about 0.25% to about 2.5% by weight of said rubber of a compound of the formula



in which R_1 is a straight chain alkyl radical of 1–3 carbon atoms and R_2 is a tertiary alkyl radical of 4–8 carbon atoms, the linkage from the tertiary carbon being directly to the phenol ring.

2,834,753
REMOVAL OF POLYMERIZING AGENTS FROM CONVERTIBLE ORGANOPOLYSILOXANES

Frederic W. Hammesfahr and Robert L. Hatch, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York

No Drawing. Application December 3, 1953
Serial No. 396,067
3 Claims. (Cl. 260—46.5)

1. The process for removing small amounts of an alkaline polymerizing agent and volatile materials boiling below 250° C. when measured at 760 mm. from an organopolysiloxane having a ratio of from 1.98 to 2.01 organic groups per silicon atom, the organic groups being attached to silicon by carbon-silicon linkages and being selected from the class consisting of monovalent hydrocarbon radicals and chlorinated aryl radicals, the said organopolysiloxane containing the aforesaid polymerizing agent and volatile materials as a result of polymerizing a low molecular weight organopolysiloxane, in which the organic radicals are the same as those recited above, with the aforesaid alkaline polymerizing agent to a high molecular weight organopolysiloxane of a viscosity above 500,000 centipoises and being convertible to the cured, solid, elastic state, which process comprises (1) subjecting the said convertible organopolysiloxane to a kneading action in a dough mixer equipped with mixing arms while simultaneously intimately dispersing water having a temperature of from 75° to 125° C. and steam by means of this kneading action of the mixing arms through the said convertible organopolysiloxane, the water being present, by weight, in a ratio of at least 0.2 to 2 parts of the latter per part of convertible organopolysiloxane, and (2) thereafter removing from the kneading chamber (*a*) the treating water containing the polymerizing agent therein and (*b*) the volatile organopolysiloxanes in the form of vapors in the effluent stream.

2,834,754
PROCESS FOR REMOVING VOLATILE ORGANOPOLYSILOXANES FROM HIGH MOLECULAR WEIGHT ORGANOPOLYSILOXANES BY STRIPPING GAS AND KNEADING

Robert L. Hatch, Pittsfield, Mass., and John F. Blumenfeld, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application December 3, 1953
Serial No. 396,068
8 Claims. (Cl. 260—46.5)

1. The process which comprises subjecting an organopolysiloxane of at least 500,000 centipoise viscosity to a kneading action at a temperature from 75° to 175° C. while simultaneously and continuously introducing a stripping gas selected from the class consisting of air, steam, nitrogen, neon, and argon through the aforesaid organopolysiloxane by means of the kneading action, and simultaneously and continuously sweeping out by means of the effluent stripping gas, the volatile materials originally present in the aforesaid organopolysiloxane, the organic groups of the organopolysiloxane being monovalent organic radicals selected from the class consisting of monovalent hydrocarbon radicals and chlorinated aryl radicals, there being present from about 1.98 to 2.05 organic groups per silicon atom.

2,834,755
PHENOLIC LIQUID RESINS

Louis M. Higashi and Reino A. Jarvi, San Jose, Calif., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 9, 1955
Serial No. 545,999
4 Claims. (Cl. 260—57)

1. A process for preparing a liquid phenolic resin which comprises: (1) condensing 1 mol of a monohydric phenol with from 0.8–3 mols of paraformaldehyde in the presence of 0.01–0.1 mol of a catalyst taken from the group consisting of barium oxide, barium hydroxide, barium hydroxide octahydrate, and barium carbonate, and in the presence of 0.2 to 1 mol of water said condensation reaction being maintained at a temperature of 30 to 60° C. until the paraformaldehyde is dissolved and then continued at 65 to 75° C. under reflux at reduced pressure until the free formaldehyde content is less than 5% by weight, (2) thereafter cooling the reaction medium to less than 30° C., (3) neutralizing the cooled reaction medium with orthophosphoric acid to a pH of 6.0–7.5, (4) diluting the neutralized medium with cool water to less than 50% solids by weight, whereby a crystalline precipitate is obtained and (5) filtering the reaction medium.

2,834,756
PROCESS FOR PREPARING AMINE-ALDEHYDE RESINOUS COMPOSITIONS AND PRODUCT OBTAINED

Tzeng Jiueq Suen, New Canaan, and Yun Jen and Sewell T. Moore, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 10, 1954
Serial No. 435,931
8 Claims. (Cl. 260—72)

1. A process for preparing a resinous composition which comprises reacting dihaloalkane of the general formula

$$X—C_nH_{2n}—X$$

wherein X is a halogen having an atomic weight greater than 21 and *n* is an integer of not more than 4 and containing at least 2 and not more than 3 chain carbon atoms between the halogen atoms thereof, and a polyalkylene polyamine of the general formula

$$H_2N(C_mH_{2m}NY)_pC_mH_{2m}NH_2$$

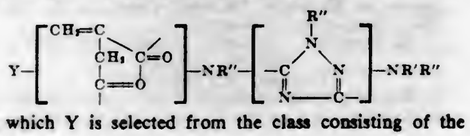
wherein Y is selected from the group consisting of H and $C_mH_{2m}NH_2$, *m* is an integer of from 2 to 4 and *p* is an integer of from 0 to 4, in a mol ratio of from about 0.5:1 to about 1.2:1, respectively, at a temperature ranging from about 25° C. to reflux until the reaction product has a viscosity within the range of from about A to about T at 33% resin solids measured at 25° C. on the Gardner-Holdt scale and wherein the sum of the chain carbon atoms of said dihaloalkane and said polyamine employed is an integer of from 5 to 6, adding a sufficient amount of an acid to form the complete polyamine salt, reacting therewith a compound selected from the group consisting of alkali metal cyanate and alkali metal thiocyanate in the order of from about 0.9 to about 1.5 mols per atom of nitrogen in said salt until the exotherm ceases, and reacting therewith formaldehyde in the molar ratio of from about 1:1 to about 3:1 based on the mols of the compound selected from the group consisting of alkali metal cyanate and alkali metal thiocyanate present therein.

2,834,757
N-(AMINO-1,2,4-TRIAZOLYL) ITACONAMIDES AND POLYMERS THEREOF

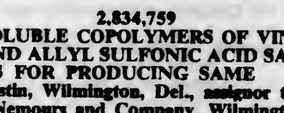
Gaetano F. D'Alelio, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware

No Drawing. Application June 26, 1953
Serial No. 364,512
13 Claims. (Cl. 260—78)

1. A new monomeric compound having the formula



in which Y is selected from the class consisting of the carbonylophilic radicals piperidyl, piperazino, morpholino, RO—, R_2N—, and



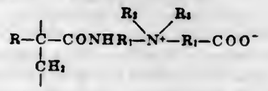
R is selected from the class consisting of hydrogen and the alkyl, aryl, aralkyl, alkaryl, and cycloaliphatic hydrocarbon groups and their halo-, carboxylic acyloxy-, and alkoxy-derivatives; R′ is selected from the class consisting of hydrogen, carboxylic acyl, and alkyl groups; R″ is selected from the class consisting of hydrogen and alkyl groups and in which R′ and R″ contain together not more than four carbon atoms.

2,834,758
COPOLYMERS OF N-ACRYLAMIDO ALKYL BETAINES

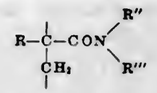
Comer Drake Shacklett, Roselle, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 9, 1954
Serial No. 415,163
11 Claims. (Cl. 260—78)

1. A copolymer containing recurring intralinear units of the formulae:



and



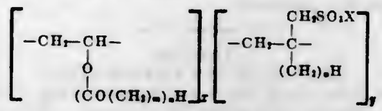
wherein R, R″ and R‴ are members taken from the group consisting of hydrogen, alkyl radicals of 1 to 3 carbon atoms, phenyl and cyclohexyl, R_1 is a saturated bivalent aliphatic hydrocarbon radical of 2 to 6 carbon atoms, R_1 and R_2 are hydrocarbon radicals of 1 to 3 carbon atoms and R′ is a saturated hydrocarbon radical of 1 to 4 carbon atoms, said first unit constituting 5 to 80 mol percent of the copolymer.

2,834,759
WATER SOLUBLE COPOLYMERS OF VINYL ACETATE AND ALLYL SULFONIC ACID SALTS AND PROCESS FOR PRODUCING SAME

Paul R. Austin, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 8, 1954
Serial No. 442,201
8 Claims. (Cl. 260—79.3)

1. As a new composition of matter, a water-soluble copolymer having the formula



wherein *n* is a cardinal number of zero to one, *m* is a cardinal number of zero to three, X is a cation from the group consisting of alkali metal, alkaline earth metal and ammonium, and the ratio of *x* to *y* is between 65:35 and 97:3.

2,834,760
REDOX TYPE POLYMERIZATION

Robert J. Orr and Harry Leverne Williams, Sarnia, Ontario, Canada, assignors to Polymer Corporation Limited, Sarnia, Ontario, Canada, a corporation of Canada

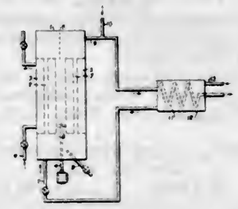
No Drawing. Application January 31, 1955
Serial No. 485,296
Claims priority, application Canada December 14, 1954
7 Claims. (Cl. 260—82.5)

1. In the process of polymerizing, in an aqueous emulsion, a conjugated diolefin containing from 4 to 12 carbon atoms, the improvement which comprises carrying out the polymerization in the presence of an iron salt and p-diisopropylbenzene dihydroperoxide, said dihydroperoxide being present in an amount between about 0.01 and 0.4 part by weight based on said diolefin.

2,834,761
METHOD FOR HANDLING OF EFFLUENT STREAMS FROM POLYMERIZATION PROCESS

Harold J. Rose and John L. Ernst, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 24, 1953, Serial No. 363,727
8 Claims. (Cl. 260—85.3)



1. In the process of polymerizing isobutylene with a minor amount of C_4 to C_6 diolefin with a Friedel-Crafts catalyst at temperatures below —40° C., in the presence of a liquefied normally gaseous saturated hydrocarbon of 2 to 5 carbon atoms as reaction diluent, the improvement which comprises completing the polymerization reaction to the desired percent conversion, withdrawing cold reaction liquid, containing polymer at least substantially dissolved in the reaction diluent together with unreacted monomers and residual catalyst, from the reaction zone, adding thereto 5 to 20% of a higher boiling substantially inert material boiling between 15 and 175° C., which is a solvent for the polymer, and passing the resulting mixture in heat exchange with fresh feed whereby precipitation of polymer from said cold reaction liquid during said heat exchange is substantially prevented.

2,834,762
POLYMERIZATION OF BUTYL RUBBER

Charles A. McKenzie and Robert F. Killey, Sarnia, Ontario, Canada, assignors to Polymer Corporation Limited, Sarnia, Ontario, Canada, a corporation of Canada

No Drawing. Application December 27, 1954
Serial No. 477,920
2 Claims. (Cl. 260—85.3)

1. In a low temperature polymerization reaction which includes the steps in combination of mixing together a major proportion of isobutylene and a minor proportion of a conjugated diolefin hydrocarbon containing 4–6 carbon atoms together with a non-polymerizable diluent having a freezing point sufficiently near to the polymerization temperature to permit the freezing out of a layer containing frozen diluent, cooling the resulting liquid feed mixture to a temperature within the range between —40° C. and —164° C., by the application thereto of refrigeration from a refrigerating jacket, polymerizing the mixture by the application thereto of a catalyst solution of a Friedel-

Crafts catalyst dissolved in a low-freezing non-complex forming solvent and adjusting the temperature of the refrigerant to such a value as to freeze out on the wall of the jacket a solid layer containing frozen diluent from the reaction mixture prior to and during the time of application of catalyst to the cold mixture to ensure a continuous layer containing frozen diluent thereon, the improvement which comprises effecting such polymerization by circulating the reacting mass at a flow rate of at least 4 feet per second but less than 8 feet per second.

2,834,763

COPOLYMERS OF TRIFLUOROETHYL ACRYLATE

Benjamin D. Halpern, Wolf Karo, and Philip Levine, Leominster, Mass., assignors, by mesne assignments, to The Borden Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 29, 1954
Serial No. 465,725
7 Claims. (Cl. 260—85.5)

1. Addition copolymers of at least 88% by weight of trifluoroethyl acrylate with a member of the group consisting of acrylonitrile, acrylamide, and N-alkyl substituted acrylamide.

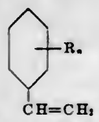
2,834,764

POLYMERIZATION PROCESS EMPLOYING N-SUBSTITUTED-BENZOSULFOTRIAZINE POLYMERIZATION CATALYSTS

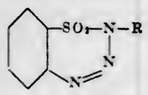
Walter M. Thomas, Noroton Heights, and Frank A. V. Sullivan, Glenbrook, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 14, 1954
Serial No. 475,291
15 Claims. (Cl. 260—85.5)

3. A process for polymerizing acrylonitrile and a compound of the general formula



wherein R is a lower alkyl radical of from 1 to 2 carbon atoms and *n* is an integer of from 0 to 2, at elevated temperatures wherein the polymerization catalyst comprises an N-substituted-benzosulfotriazine of the formula



wherein R is selected from the group consisting of alkyl radicals of from 1 to 6 carbon atoms, aryl radicals of from 6 to 12 carbon atoms, aralkyl radicals, cycloalkyl radicals and chloro- and hydroxy-derivatives of such radicals.

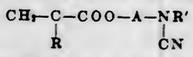
2,834,765

N-CYANO-N-ALKYLAMINOALKYL ESTERS

Peter L. De Benneville, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application July 20, 1954
Serial No. 444,629
9 Claims. (Cl. 260—86.1)

7. Copolymers of a compound of the structure



and another polymerizable ethylenically unsaturated compound, R being a member of the class consisting of hydrogen and the methyl group, A being an alkylene group of two to three carbon atoms, and R′ being an alkyl group.

2,834,766

COPOLYMERS OF PERFLUOROBUTADIENE AND VINYL ALKYL ETHERS AND METHOD OF PREPARATION THEREOF

John M. Hoyt, Woodside, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application January 13, 1955
Serial No. 481,690
12 Claims. (Cl. 260—87.5)

1. A copolymer of a vinyl alkyl ether having 1 to 8 carbon atoms in the alkyl group and in which said alkyl group is selected from the group consisting of an unsubstituted alkyl radical, a haloalkyl radical and an alkoxy substituted alkyl radical, and perfluorobutadiene.

7. A process which comprises copolymerizing a vinyl alkyl ether having 1 to 8 carbon atoms in the alkyl group and in which said alkyl group is selected from the group consisting of an unsubstituted alkyl radical, a haloalkyl radical and an alkoxy substituted alkyl radical, with perfluorobutadiene at a temperature between about —30° C. and about 150° C.

2,834,767

COPOLYMERS AND METHOD OF PREPARATION THEREOF

John M. Hoyt, Woodside, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application January 26, 1955
Serial No. 484,317
10 Claims. (Cl. 260—87.5)

7. A copolymer of a vinyl alkyl ether having one to eight carbon atoms in the alkyl group and in which said alkyl group is selected from the group consisting of an unsubstituted alkyl radical, a chloroalkyl radical and an alkoxy-substituted alkyl radical, and dichlorodifluoroethylene as the remaining major monomeric constituent.

9. A process which comprises copolymerizing a monomeric mixture of a vinyl alkyl ether having one to eight carbon atoms in the alkyl group and in which said alkyl group is selected from the group consisting of an unsubstituted alkyl radical, a chloroalkyl radical and an alkoxy-substituted alkyl radical, and dichlorodifluoroethylene as the remaining major monomeric component of said monomeric mixture at a temperature between about —30° C. and about 150° C.

2,834,768

CATALYTIC POLYMERIZATION OF ALKENES TO NORMALLY SOLID POLYMERS

Herbert N. Friedlander, Homewood, Ill., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 18, 1955
Serial No. 529,326
13 Claims. (Cl. 260—93.7)

1. A process for the production of a normally solid polymer from a normally gaseous unbranched alkene, which process comprises contacting said alkene under polymerization conditions with a catalyst prepared by mixing a metal aluminum hydride with a boron halide in a proportion sufficient to provide an atomic Al:B ratio of at least one, and recovering a normally solid polymer thus produced.

2,834,769

CATALYTIC POLYMERIZATION

Morris Feller, Park Forest, and Edmund Field, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application February 18, 1954
Serial No. 411,245
20 Claims. (Cl. 260—94.9)

1. In a process for the production of a normally solid polymer, the steps of contacting ethylene with an alkaline

earth metal and a catalyst comprising essentially an oxide of a metal of subgroup 5 of the periodic table at a polymerization reaction temperature between about 75° C. and about 325° C., and separating a normally solid polymer thus produced.

2,834,770

WATER-SOLUBLE SHELLAC POWDER

Walter Kalkhof-Rose, Mainz, Germany

No Drawing. Application July 22, 1957
Serial No. 673,108
1 Claim. (Cl. 260—97)

A shellac powder obtained by spray drying at elevated temperatures not exceeding 70° C. a shellac solution with a pH of between 5–6.7 and a moisture content of between 40–80% by weight, the solution being prepared by subjecting at room temperatures between 15–40% by weight of chlorine bleached shellac, free of bleaching residues and while still wet, to the action of between 2–12% by weight of a fixed alkali selected from the group consisting of borax, caustic soda, potassium hydroxide, sodium perborate, ammonia, sodium phosphate and triethanolamine, the spray dried powder being dry, non-adhesive, of uniform fine mesh, non-blocking, stable at above refrigeration temperatures, having a liter weight of about 0.2, a gravity of about 6.5–6.6 Bé., an acid number of about 60–65 and being dispersible in water without addition of alkali, the aqueous dispersion of the powder having a pH not exceeding 6.7.

2,834,771

GELATIN DERIVATIVES AND THEIR PREPARATION

William A. Mitchell, Lincoln Park, and William C. Seidel, Dumont, N. J., assignors to General Foods Corporation, White Plains, N. Y., a corporation of Delaware

No Drawing. Application January 3, 1956
Serial No. 556,796
6 Claims. (Cl. 260—117)

1. The method of preparing a gelatin derivative which comprises adjusting a gelatin solution to an alkaline pH by means of calcium hydroxide, and reacting carbon dioxide therewith.

5. The method of preparing a gelatin derivative which comprises adjusting a gelatin solution to an alkaline pH by means of calcium hydroxide, reacting carbon dioxide therewith, and drying the resulting solution while maintaining it in the sol state.

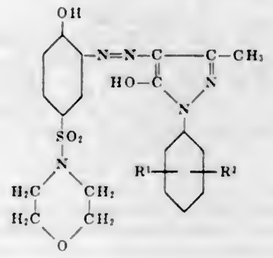
2,834,772

METALLIZED COMPOUNDS OF 3-AMINO-4-HYDROXYBENZENE SULFONYLMORPHOLINE AZO DYESTUFFS

Albert F. Strobel, Phillipsburg, N. J., and William W. Williams, Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 20, 1954
Serial No. 451,292
6 Claims. (Cl. 260—147)

1. The metallized compounds of a monoazo dyestuff, containing a metal selected from the class consisting of chromium and cobalt, having the following general formula:



wherein R^1 and R^2 represent a member selected from the class consisting of hydrogen, chlorine, lower alkyl, lower alkoxy, sulfamyl, lower alkyl sulfamyl, lower dialkyl sulfamyl, and sulfonylmorpholine radicals.

2,834,773

STABILIZATION OF COPPERIZED AZO DYESTUFFS

Mario Scalera, Somerville, Frederick Brody, Plainfield, and Frank Fazio, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 23, 1952
Serial No. 311,152
16 Claims. (Cl. 260—148)

1. A storage-stable composition comprising the dyestuff obtained by coupling tetrazotized dianisidine with 1-amino-8-naphthol-2,4-disulfonic acid and copperizing, and a water-soluble aliphatic aminopolycarboxylic acid sequestering agent in an amount of at least 1% and not exceeding about 10% of the weight of the dyestuff.

2,834,774

MANNAN TYPE GUMS

Charles A. Anker, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

No Drawing. Application May 27, 1953
Serial No. 357,934
2 Claims. (Cl. 260—209)

1. Process of treating guar flour to produce a guar product having increased viscosity and increased viscosity stability when made into a sol as well as improved odor, color, and flavor which comprises extracting guar flour with a solvent selected from the group consisting of anhydrous lower aliphatic alcohols containing less than 5 carbon atoms and aqueous solutions of these alcohols containing less than 50% water to remove impurities soluble in the solvent while maintaining the bulk of the guar flour in the form of a solid residue, separating the residue from the solvent which contains the dissolved impurities, and drying the residue to produce the improved guar product.

2,834,775

CARBAMATE COMPOUNDS

Fred E. Boettner, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 19, 1954
Serial No. 451,045
10 Claims. (Cl. 260—211)

1. A method for preparing the cyclic urethanes of N-alkyl-N-sorbitylcarbamic acid which comprises reacting an N-alkylglucamine, in which the alkyl group contains one to eighteen carbon atoms, and urea at a temperature of 140 to 175° C. until two equivalents of ammonia are liberated.

5. As new compositions of matter, the cyclic urethanes of N-alkyl-N-sorbitylcarbamic acid, in which the alkyl group contains one to eighteen carbon atoms, formed by reacting an N-alkylglucamine with urea until two equivalents of ammonia are liberated.

2,834,776

METHOD OF PREPARING HYDROLYZED CELLULOSE ACETATE BUTYRATES

Carl J. Malm and Loring W. Blanchard, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 9, 1953
Serial No. 397,272
2 Claims. (Cl. 260—225)

1. A method for preparing a hydrolyzed cellulose acetate-butyrate of good uniformity and which will dissolve in solvents therefor without haze or grain, which com-

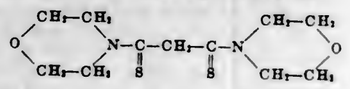
prises reacting upon cellulose with an esterification bath essentially consisting, except for the catalyst, only of acetic and butyric compounds, the mol ratio of butyryl to acetyl being greater than 1, in which the liquid to cellulose ratio does not exceed 8:1, and hydrolyzing the thus prepared cellulose acetate butyrate by allowing it to stand in solution in the hydrolysis bath obtained by dilution of the spent esterification mass with acetic acid and aqueous acetic acid to the point where the ratio of liquid to cellulose ester is within the ratio of 8:1 to 10:1 by weight and acetic acid is the predominating acid therein.

2,834,777
METHODS OF TREATING CELLULOSE ETHERS
Elof Ingvar Jullander, Örnsköldsvik, Sweden, assignor to Mo Och Domsjö Aktiebolag, Örnsköldsvik, Sweden, a corporation of Sweden
No Drawing. Application April 30, 1957
Serial No. 655,968
9 Claims. (Cl. 260—232)

1. A method of treating a water-soluble cellulose ether, which comprises reacting said cellulose ether with an alkali metal borohydride.

2,834,778
DITHIOMALONIC ACID-DIMORPHOLIDE
Hans Feichtinger, Duisburg-Beeck, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a German corporation
No Drawing. Application January 20, 1956
Serial No. 560,288
Claims priority, application Germany January 22, 1955
9 Claims. (Cl. 260—247.1)

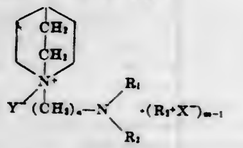
1. A novel compound having the formula



2,834,779
DISUBSTITUTED AMINOALKYL QUINUCLIDINIUM DERIVATIVES
John H. Biel and Alexander E. Drukker, Milwaukee, Wis., assignors to Lakeside Laboratories, Inc., a corporation of Wisconsin
No Drawing. Application December 11, 1956
Serial No. 627,549
6 Claims. (Cl. 260—247.5)

4. N - (3 - morpholinopropyl)-quinuclidinium bromide methobromide.

6. A compound of the formula



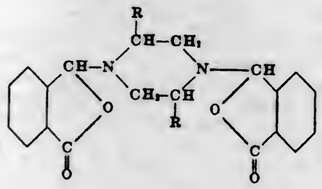
wherein n is an integer from 2 to 10, m is an integer no larger than 2, R_1 and R_3 are members of the group consisting of lower alkyl groups, phenyl, phenyl-lower alkyl groups, cyclohexyl, cyclopentyl, and groups in which



represents heterocyclic groups of the group consisting of pyrrolidino, piperidino, morpholino, 1,2,3,4-tetrahydroquinolino, 1,2,3,4-tetrahydroisoquinolino and isoindolino, R_2 is a member of the group consisting of lower alkyl and phenyl-lower alkyl groups, and X and Y are nontoxic anions.

2,834,780
PHTHALIDYL PIPERAZINES
Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application July 5, 1956
Serial No. 595,844
4 Claims. (Cl. 260—268)

1. A phthalidyl piperazine having the formula



wherein each R is a member of the group consisting of hydrogen and methyl.

2,834,781
HYDRAZIDES AND METHOD OF PREPARATION
Peter S. Petrie and Lee H. Horsley, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application October 3, 1956
Serial No. 613,617
11 Claims. (Cl. 260—268)

1. A member of the group consisting of 1-pyrrolidinealkanoic acid hydrazides, 1-piperidinealkanoic acid hydrazides, 1-piperazinealkanoic acid hydrazides, 1,4-piperazinebis-(alkanoic acid hydrazides) and their lower alkyl ring-substituted homologs and analogs, the alkanoic moiety having up to 4 carbon atoms.

2,834,782
MONOCALCIUM MONOPIPERAZINE SALT OF ETHYLENEDIAMINETETRACETIC ACID
Albert Schlesinger, Jackson Heights, Karl Schoen, Kew Gardens, and Samuel M. Gordon, Forest Hills, N. Y., assignors to Endo Laboratories, Inc., Richmond Hill, N. Y., a corporation of New York
No Drawing. Application July 14, 1955
Serial No. 522,172
11 Claims. (Cl. 260—268)

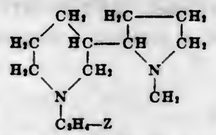
1. As a new composition, the monocalcium monopiperazine salt of ethylenediaminetetraacetic acid having the formula $C_{14}H_{24}N_4O_8Ca.2H_2O$.

2,834,783
NORTROPENE AND TROPANOLS 2-SUBSTITUTED BY DIPHENYL CARBINOL
Barry M. Bloom and Gerald D. Laubach, Jackson Heights, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
No Drawing. Application August 22, 1956
Serial No. 605,470
5 Claims. (Cl. 260—292)

1. A compound chosen from the group consisting of tropane 2α-diphenylcarbinol-3β-ol, tropane-2β-diphenylcarbinol-3β-ol, N-nor-Δ^2-tropene-2-diphenylcarbinol, and the esters thereof.

2,834,784
1 SUBSTITUTED-3-(1-METHYL-2-PYRROLIDINYL)-PIPERIDINE
Edgar C. Britton and Lee H. Horsley, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application April 1, 1957
Serial No. 649,618
3 Claims. (Cl. 260—293)

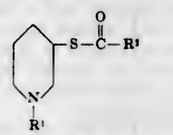
1. As a new composition of matter, a compound of the structure:



wherein Z is selected from the group consisting of a nitrile radical and an aminomethyl radical.

2,834,785
N-SUBSTITUTED-3-THOL PIPERIDINES AND THIOESTERS THEREOF
John H. Biel, Milwaukee, Wis., assignor to Lakeside Laboratories, Inc., a corporation of Wisconsin
No Drawing. Application November 16, 1954
Serial No. 469,312
18 Claims. (Cl. 260—293.4)

8. A member of the group consisting of compounds having the formula



non-toxic acid addition salts thereof and non-toxic quaternary ammonium salts thereof, wherein R^1 is a member of the group consisting of lower alkyl groups and aralkyl groups in which the alkyl moiety is a lower alkyl and the aryl moiety is phenyl, and R^2 is a member of the group consisting of lower alkyl groups, lower alkenyl groups, phenyl, aralkyl groups in which the alkyl moiety is a lower alkyl group and in which the aryl moiety is phenyl, monocycloalkyl groups, and the benzohydryl group.

2,834,786
PROCESS FOR PREPARING NICOTINIC ACID
Max B. Mueller, Westwood, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application September 1, 1955, Serial No. 531,931
7 Claims. (Cl. 260—295.5)

1. A process for converting the diammonium salt of isocinchomeronic acid to ammonium nicotinate, which comprises subjecting a non-acidic aqueous solution of said diammonium salt of isocinchomeronic acid to temperatures between about 225° C. and about 325° C. under pressures ranging from about 500 p. s. i. g. to about 1500 p. s. i. g. for a time between about 2 minutes and about 2 hours, correlated with temperature, whereby substantial decarboxylation of the alpha carboxylate group is effected without substantial decarboxylation of the beta carboxylate group.

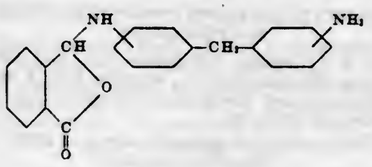
5. A continuous process for the preparation of ammonium nicotinate which comprises continuously passing an aqueous solution of diammonium isocinchomeronate through a confined reaction zone maintained at a temperature in the range between about 225° C. and about 325° C. and under pressure ranging from about 500 p. s. i. g. to about 1500 p. s. i. g. during a residence time correlated with temperature of between about 2 minutes and about 2 hours, whereby diammonium isocinchomeronate is converted to ammonium nicotinate.

2,834,787
PYRIDINE-3-ALDEHYDE ACETALS
Adolf Christian Josef Opfermann, Bergisch-Gladbach, Germany
No Drawing. Application July 24, 1956
Serial No. 599,690
Claims priority, application Germany August 3, 1955
1 Claim. (Cl. 260—297)

As a new product pyridine-3-aldehyde-dimethylacetal.

2,834,788
AMINOBENZYLANILINOPHTHALIDES
Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application July 5, 1956
Serial No. 595,850
2 Claims. (Cl. 260—343.3)

1. An aminobenzylanilinophthalide having the structure



2,834,789
PROCESS OF PREPARING LOWER ALKYL 2,3,6-TRIHYDROXYBENZOATE, AND INTERMEDIATES THEREFOR
Niels K. F. W. Clauson-Kaas, Haifa, Israel, assignor to A/S Sadolin & Holmblad, Copenhagen, Denmark
No Drawing. Application February 15, 1955
Serial No. 488,405
6 Claims. (Cl. 260—347.5)

1. Lower alkyl 2,5-di(lower alkoxy)-2,5-dihydro-2-furoyl acetate.

2,834,790
HEXACHLOROCYCLOPENTADIENE ADDUCT
Wilbur L. Bressler and John C. Smith, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application June 4, 1956
Serial No. 588,982
1 Claim. (Cl. 260—348)

The compound, 1,4,5,6,7,7 - hexachloro - 2 - (2,3-epoxypropoxymethyl) - bicyclo (2.2.1.) - 5 - heptene.

2,834,791
PROCESS FOR PREPARING ISOVIOLANTHRONE
Maurice H. Fleysher, Buffalo, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application December 8, 1954
Serial No. 474,018
6 Claims. (Cl. 260—358)

1. A process for preparing isoviolanthrone which comprises heating to a temperature between about 115° C. and about 140° C., a homogeneous, fluid mixture of sodium hydroxide, a saturated lower aliphatic monohydric alcohol having from 1 to 8 carbon atoms inclusive, and a compound selected from the group consisting of Bz-1,Bz-1'-dibenzanthronyl sulfide and Bz-1, Bz-1'-dibenzanthronyl selenide, in the proportions of between about 1 part and about 3 parts of sodium hydroxide to 1 part of dibenzanthronyl compound, a ratio of alcohol to sodium hydroxide substantially in excess of 1 and at least sufficient to maintain the mixture in fluid condition at temperatures between about 115° C. and about 140° C., and continuing said heating until condensation to isoviolanthrone is substantially complete.

2,834,792

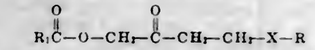
ADDITION PRODUCTS OF 1-ACYLOXY-3-BUTEN-2-ONES

Joseph M. Wilkinson, Jr., and Edgar E. Renfrew, Jr., Easton, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 31, 1952
Serial No. 329,105

7 Claims. (Cl. 260—376)

1. A compound of the formula



in which R_1 is alkyl, X is NH, and R is aryl.

2,834,793

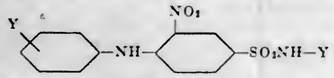
DERIVATIVES OF 4-ANILINO-3-NITROBENZENESULFONAMIDE

Herbert K. Livingston, Wilmington, Del., and Alfred J. Johnson, Woodstown, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 8, 1957
Serial No. 676,915

3 Claims. (Cl. 260—397.7)

1. A dye compound of the group consisting of the free base form, salts and quaternized compounds of a compound whose free base form corresponds to the formula



wherein Y is a tertiary nitrogenous base radical of the group consisting of dialkylaminoalkyl, dialkylaminoalkylphenyl and dialkylaminoalkoxy-phenyl, wherein all the alkyl radicals named contain not over 4 C-atoms each, while the alkoxy radical contains from 2 to 4 C-atoms, and wherein X is a member of the group consisting of hydrogen, alkyl of 1 to 4 C-atoms, alkoxy of 1 to 4 C-atoms and phenyl.

2,834,794

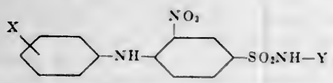
DERIVATIVES OF 4-ANILINO-3-NITROBENZENESULFONAMIDE

John D. Sterling, Jr., Wenonah, N. J., and John W. Richter, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 8, 1957
Serial No. 676,916

4 Claims. (Cl. 260—397.7)

1. A dye compound of the group consisting of the free base form, salts and quaternized compounds of a compound whose free base form corresponds to the formula



wherein X is a tertiary nitrogenous base radical of the group consisting of dialkylaminoalkyl and dialkylaminoalkoxy, wherein all the alkyl radicals named contain not over 4 C-atoms each, while the alkoxy radical contains from 2 to 4 C-atoms, and wherein Y is a member of the group consisting of hydrogen, alkyl of 1 to 4 C-atoms, phenyl, tolyl, biphenyl and alkoxyphenyl having from 1 to 4 C-atoms in the alkoxy group.

2,834,795

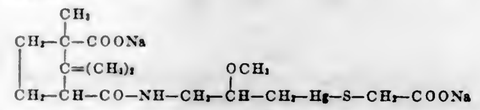
METHOD OF PREPARING SULFUR-CONTAINING ORGANIC MERCURIAL DIURETICS AND INTERMEDIATES THEREFOR

Gerhard R. Wendt, Havertown, Pa., assignor to American Home Products Corporation, New York, N. Y., a corporation of Delaware

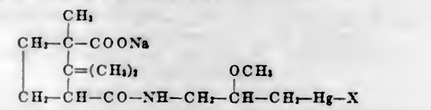
No Drawing. Application November 5, 1953
Serial No. 390,410

3 Claims. (Cl. 260—431)

1. The method of preparing a compound having the formula



which comprises condensing in an inert atmosphere and in a non-aqueous lower alcoholic medium a compound having the formula



in which X is a halogen selected from the class consisting of chlorine and bromine, with a solution of disodium thioglycolate in a lower alkanol in the presence of sufficient sodium lower alkanolate to bring the pH into the range 10–11, filtering the reaction mixture, adding the filtrate to a multiple volume of a lower ketone, and filtering off the resulting precipitate.

2,834,796

PREPARATION OF IRON CYCLOPENTADIENIDES

Maurice R. Barusch and Eddie G. Lindstrom, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 2, 1953
Serial No. 350,216

10 Claims. (Cl. 260—439)

1. A process for the preparation of an iron cyclopentadienide which comprises reacting an alkali metal cyclopentadienide with an anhydrous iron salt in the presence of a non-aqueous liquid reaction medium.

2,834,797

METHOD OF PRODUCING MONO- AND DIALKYL HYDROGEN PHOSPHITES

David H. Chadwick, Anniston, Ala., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application February 25, 1953, Serial No. 338,738

7 Claims. (Cl. 260—461)

1. The method of preparing an alkyl hydrogen phosphite wherein the alkyl substituent contains from 1 to 6 carbon atoms, which consists in reacting an ester selected from the group consisting of dialkyl phosphites and trialkyl phosphites, wherein the respective phosphites the alkyl substituents contain from 1 to 6 carbon atoms, and phosphorous acid in a molar ratio of said ester to said phosphorous acid of about 100:1 to about 1:100 at a temperature within the range of about 25° C. up to the temperature at which substantial decomposition of the reaction products is avoided.

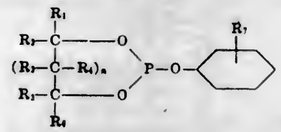
2,834,798

HETEROCYCLIC PHOSPHORUS COMPOUNDS

Ingenuin Hechenbleikner, Clarksburg, Carl William Pause, Adams, and Francis C. Lanoue, North Adams, Mass., assignors to Shea Chemical Corporation, Jeffersonville, Ind., and Columbia, Tenn., a corporation of Tennessee

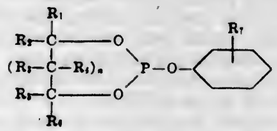
No Drawing. Application December 20, 1957
Serial No. 704,004
25 Claims. (Cl. 260—461)

1. Cyclic phosphites having the formula:

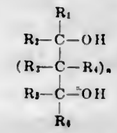


where R_1, R_2, R_3, R_4, R_5 and R_6 are selected from the group consisting of hydrogen and lower alkyl groups, R_7 is selected from the group consisting of hydrogen, halo, nitro, lower alkyl, lower alkoxy, cyclohexyl, phenoxy, naphthoxy and phenyl and *n* is an integer of the group consisting of 0 and 1.

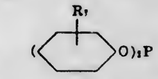
15. A process of preparing a cyclic phosphite having the formula:



where R_1, R_2, R_3, R_4, R_5 and R_6 are selected from the group consisting of hydrogen and lower alkyl groups, R_7 is selected from the group consisting of hydrogen, halo, nitro, lower alkyl, lower alkoxy, cyclohexyl, phenoxy, naphthoxy and phenyl and *n* is an integer of the group consisting of 0 and 1 comprising reacting 1 mol of a glycol having the formula:



with at least about 1 mol of a phosphite having the formula:



2,834,799

METHODS OF PRODUCING ESTERS OF CARBAMIC AND CARBONIC ACIDS

Frank J. Sowa, Cranford, N. J.

No Drawing. Application November 18, 1955
Serial No. 547,840
14 Claims. (Cl. 260—463)

1. The method of producing esters of carbamic and carbonic acid which comprise the step of bringing a urea containing the group



into reaction contact with a saturated monohydric alcohol and a source of boron trifluoride at a temperature above about 60° C.

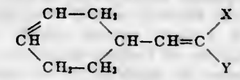
2,834,800

ACRYLIC ACID COMPOUNDS

Walter B. Trapp and Donald E. Pletcher, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 17, 1956
Serial No. 604,601
5 Claims. (Cl. 260—464)

1. A compound having the structure



wherein X represents a radical selected from the group consisting of cyano and carbalkoxyl containing from 2 to 5 carbon atoms, inclusive; and Y represents a radical selected from the group consisting of cyano, carboxyl and carbalkoxyl radicals containing from 2 to 5 carbon atoms, inclusive.

2,834,801

METHOD OF ESTERIFICATION AND PURIFICATION OF HIGHER ALCOHOLS

Clyde L. Aldridge, Baker, and Joseph K. Mertzweiller, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application September 22, 1954, Serial No. 457,707
5 Claims. (Cl. 260—475)

1. In a process of preparing a plasticizer ester from a branched C_5 to C_{10} alcohol, the improvement which comprises removing by distillation from said ester under subatmospheric pressure excess unreacted alcohol and contaminants which are principally ethers which have a lower boiling range than the desired ester and higher boiling than the alcohol, and recovering said ester as an undistilled bottoms stripped of the excess unreacted alcohol and of said contaminants which are principally ethers.

2,834,802

SULFONATION OF PETROLEUM OILS

Le Roi Hutchings, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application November 26, 1954
Serial No. 471,527
2 Claims. (Cl. 260—504)

1. The method of preparing petroleum solfonic acids which comprises treating solvent refined neutral oils, having a viscosity index of not more than 100 and obtained as a raffinate from the solvent refining of petroleum lubricating oil fractions of Mid-Continent origin, with a sulfonating agent consisting of sulfur trioxide diluted with sulfur dioxide at a temperature of between about 32° to 50° F. in the liquid phase in a reaction zone, withdrawing the liquid reaction mixture comprising a hydrocarbon oil phase and a sulfur dioxide phase from the reaction zone, introducing into said reaction mixture a mutual solvent miscible with both of said phases, said solvent being selected from the group consisting of benzene, toluene and xylene, the amount of said solvent being at least about 10% by volume based on the amount of said neutral lubricating oil fraction charged and passing the combined mixture to a sulfur dioxide separation stage wherein the sulfur dioxide is separated by the application of heat, thereby preventing the separation of insolubles from said phases.

2,834,803

PURIFICATION PROCESS

Gifford W. Crosby, River Forest, and Le Roi E. Hutchings, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application October 1, 1956
Serial No. 612,950
12 Claims. (Cl. 260—504)

1. The process for the preparation and purification of petroleum sulfonic acids which comprises reacting a

petroleum oil containing about 10 to 40% of sulfonatable material with a sulfonating agent selected from the group consisting of sulfur trioxide, sulfuric acid and mixtures thereof at a temperature of between about −30° F. to 100° F. in the presence of a diluent, recovering a reaction mixture containing petroleum sulfonic acids and undesired impurities from said reaction, adding to said reaction mixture between about 50% to 300% by volume based on the total amount of petroleum oil in said reaction mixture of a single mutual solvent selected from the group consisting of ketones containing a total of 5 to 10 carbon atoms per molecule, ethers containing about 5 to 9 carbon atoms per molecule and chlorinated hydrocarbons containing more than 1 carbon atom per molecule, said solvents being further characterized by having a boiling point above the boiling point of said diluent and below the boiling point of said reaction mixture and forming a homogeneous solution of said reaction mixture, removing said diluent from said homogeneous reaction solution, adding to said homogeneous solution about 0.1 to 1 volume of water per 10 volumes thereof, removing a water phase consisting essentially of all of said added water along with said impurities from said reaction solution and recovering an oil phase of purified petroleum sulfonic acids.

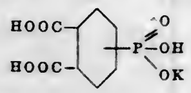
2,834,804

DICARBOXYPHENYLPHOSPHONIC ACID

Hans Z. Lecher, Plainfield, and Ruth A. Greenwood, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 10, 1956
Serial No. 596,820
12 Claims. (Cl. 260—515)

2. As a new product a mono-potassium salt of the formula



2,834,805

PROCESS FOR PRODUCING MONOSODIUM GLUTAMATE CRYSTALS

Joseph L. Purvis, Northbrook, and Bruno Vassel, Deerfield, Ill., assignors to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application June 2, 1955
Serial No. 512,874
8 Claims. (Cl. 260—534)

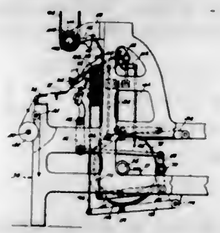
1. In a process for crystallizing monosodium glutamate from a supersaturated aqueous solution of monosodium glutamate which normally deposits long, needle-like crystals thereof, the improvement which comprises adding to said solution prior to said crystallization a small amount, at least about 0.1% by weight, of alanine based on the weight of monosodium glutamate in said solution, and maintaining a relatively low rate of crystal growth during said crystallization, said rate of crystal growth being at least as low as that which occurs when a super-saturated solution containing about 50% by weight of monosodium glutamate in water at room temperature is allowed to undergo spontaneous crystallization at room temperature without evaporation, seeding and agitation, whereby crystals of monosodium glutamate are obtained in which the longest axis is less than about 5 times the length of the shortest axis.

2,834,806

MANUFACTURE OF PILE CARPETS

Harry F. Jamrogowicz, Scituate, Conn., assignor to Bigelow-Sanford Carpet Company, Inc., Thompsonville, Conn., a corporation of Delaware

Application May 4, 1953, Serial No. 352,874
46 Claims. (Cl. 139—38)



1. The method of weaving a carpet having a raised warp pile surface which comprises the steps of shedding ground warps and pile warps at a different level from the ground warps, inserting wefts into the successively formed sheds and beating the wefts into the fell in accordance with a predetermined sequence of shedding to produce successive rows of weaving, and manipulating in substantially vertical directions and oscillating a hook bar assembly comprising a bar having hooks individually positioned and supported in said bar to engage and raise loops of said pile warps of different selected heights to be beaten into the fell, and changing the hook bar assembly after a selected row of weaving to provide a different selection of bar supported hook lengths to produce different loop height selections for a successive row of weaving in accordance with a pattern.

2,834,807

MANUFACTURE OF CARPETS

Harry F. Jamrogowicz, Hazardville, Conn.

Original application May 4, 1953, Serial No. 352,874. Divided and this application June 3, 1954, Serial No. 434,209
5 Claims. (Cl. 139—406)



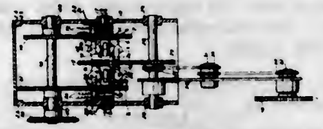
1. A woven pile fabric floor covering comprising a backing structure including stuffer warps, chain warps and wefts interwoven with said stuffer warps and chain warps in successive rows of weaving, and a pile surface which comprises pile loops raised from pile warps in a plurality of individually selected graduated heights providing a substantial range of such differing heights including pile loops of widely differing heights and intervening loops of graduated intermediate heights between a predetermined maximum and a predetermined minimum height in accordance with the dictation of a pattern, and in any desired sequence both weftwise and warpwise of the fabric providing selections of said pile loops graduated between said maximum and said minimum heights, and selections of said pile loops weftwise of the fabric of widely differing heights in adjacent relation omitting the intervening loops of graduated intermediate heights in said weftwise direction.

2,834,808

RATIONAL SPEED SYNCHRONIZING SWITCH

Robert Bradshaw, London, England

Application August 20, 1948, Serial No. 45,254
1 Claim. (Cl. 200—61.46)



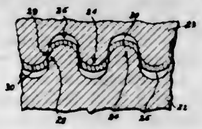
A dual device for effecting a first control operation in an electric circuit according to a first predetermined order of speed of rotation of a first rotary member in relation to the speed of rotation of a second rotary member and for subsequently effecting a further control operation in an electric circuit when the said members attain a predetermined relative rate of rotation of a different order from the first, comprising a first control device and a second control device, each of said control devices comprising a switch, said switch including a first switch-part and a second switch-part complementary to said first switch-part, means to support said first switch-part to rotate in a circular path and means to support said second switch-part to rotate in the same circular path as said first switch-part, a first drive-transmitting means for connecting each of said first switch-parts to said first rotary member in driven relation thereto to effect the travel of said first switch-parts in their respective circular paths, a second drive-transmitting means for connecting each of said second switch-parts of said second rotary member in driven relation thereto to effect the travel of said second switch-parts in their respective circular paths, said second drive-transmitting means including coupling means responsive to a change of predetermined degree in the rate of relative rotation of said members to move said second switch-parts into cooperative relation to their respective first switch-parts.

2,834,809

ABSORBENT PAPER

Richard W. Schutte, Newtown Square, Kenneth W. Britt, Norwood, and Albert L. McConnell, Morton, Pa., assignors to Scott Paper Company, Chester, Pa., a corporation of Pennsylvania

Application July 6, 1953, Serial No. 366,108
18 Claims. (Cl. 92—3)



3. Paper having a plurality of crests and depressions in each side thereof, the depressions in one side forming the crests on the other side and the crests on one side forming depressions in the other side, sloping connecting portions intervening crests and depressions, the paper being ruptured in areas which form said sloping connecting portions, said paper including substantial areas which are not ruptured.

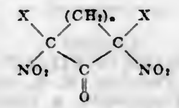
2,834,810

DIHALO DINITROCYCLIC KETONES AND PROCESS FOR PRODUCING SAME

Henry Feuer, Lafayette, Ind., and James W. Shepherd, Mars, Pa., assignors to Purdue Research Foundation, Lafayette, Ind., a corporation of Indiana

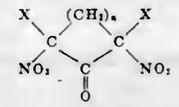
No Drawing. Application June 14, 1956
Serial No. 591,507
14 Claims. (Cl. 260—586)

1. Dihalo dinitrocyclic ketones having the following structural formula

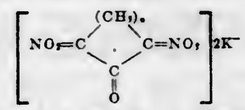


where X is a hologen selected from the group consisting of bromine and chlorine and where *n* is an integer from 1 to 5.

7. A process for producing dihalo dinitrocyclic ketones having the following structural formula



where X is a hologen selected from the group consisting of bromine and chlorine and where *n* is an integer from 1 to 5 which comprises reacting a halogen selected from the group consisting of bromine and chlorine with a dipotassium dinitrocyclic ketone having the formula



where *n* is an integer from 1 to 5 under anhydrous conditions.

2,834,811

PREPARATION OF ACETYLACETONE

Karl K. Georgieff, Shawinigan Falls, Quebec, Canada, assignor to Shawinigan Chemicals Limited, Montreal, Quebec, Canada, a corporation of Canada

No Drawing. Application November 27, 1956
Serial No. 624,492
5 Claims. (Cl. 260—593)

1. A process for the preparation of acetylacetone from a reaction mixture containing the sodium salt of acetylacetone comprising (a) acidifying the reaction mixture with organic acid to decreasing pH values in successive stages to liberate only a part of the acetylacetone from its salt in each stage prior to the last stage and (b) recovering the liberated acetylacetone from the acidified reaction mixture after each of the successive acidification stages.

2,834,812

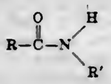
PROMOTED CARBONYLATION REACTION

Vincent L. Hughes, Clark Township, and Isidor Kirshenbaum, Union, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application April 9, 1956
Serial No. 576,768
5 Claims. (Cl. 260—604)

1. In a carbonylation reaction wherein an olefinic compound is reacted with carbon monoxide and hydrogen at elevated temperatures and pressures in the presence of a metal-containing carbonylation catalyst to produce an aldehyde containing one more carbon atom in the molecule than said olefinic compound, the improvement which

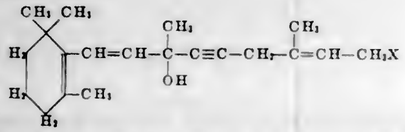
comprises employing an amide having the following structural formula:



wherein R and R' each represent a radical selected from the group consisting of hydrogen and a lower alkyl radical as a promoter for said reaction.

2,834,813
SYNTHESIS OF VITAMIN A
William Oroshnik, Plainfield, N. J., assignor to Ortho Pharmaceutical Corporation, a corporation of New Jersey
No Drawing. Application April 21, 1953
Serial No. 350,250
13 Claims. (Cl. 260—611)

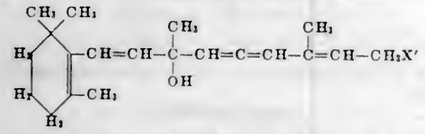
1. A process for the synthesis of compounds having vitamin A activity which comprises treating a compound of the formula



wherein X is selected from the group consisting of —OR and

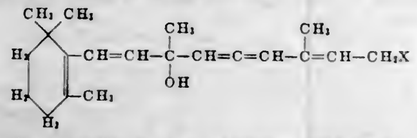


and R is a lower alkyl radical, with a strongly alkaline reagent whereby a compound having the formula



wherein X' is selected from the group consisting of —OR and —OH, and R is a lower alkyl radical, is produced.

11. A compound of the formula



in which X is selected from the group consisting of —OR and —OH, and R is a lower alkyl radical.

2,834,814
PREPARATION OF VERBENYL ETHERS
Joseph P. Bain, Wilbur Y. Gary, and Albert B. Booth, Jacksonville, Fla., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application July 15, 1953
Serial No. 368,208
14 Claims. (Cl. 260—611)

1. Ethers of 3-pinene-2-ol and a hydroxy compound of the formula R—OH in which R is a monovalent radical selected from the class consisting of hydrocarbon radicals, halogen substituted hydrocarbon radicals and hydroxy substituted hydrocarbon radicals.

2. 2-methoxy-3-pinene.

3. o-Verbenyl phenols in which the aromatic radical to which the phenolic hydroxy group is attached is a hydrocarbon radical.

4. o-Verbenyl phenol.

2,834,815
SOLID COBALT ACETATE AS CATALYST FOR OXO SYNTHESIS OF ALCOHOLS
Joseph K. Mertzweiller and Ralph B. Mason, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application April 2, 1954, Serial No. 420,494
8 Claims. (Cl. 260—638)

1. In the process wherein an olefinic compound is reacted with H_2, CO, and a cobalt catalyst at elevated pressures and temperatures in a reaction zone to produce an aldehyde compound containing one more carbon atom than said olefinic compound, and said aldehyde is subsequently hydrogenated to an alcohol product in a hydrogenation zone, the improvement which comprises employing as the catalyst in said first named reaction zone solid cobalt acetate.

2,834,816
PRODUCTION OF ISOPROPANOL BY HYDRATION WITH PROPYLENE RECYCLE
Norman Levy and Ronald Cooper Thomson, Norton-on-Tees, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain
No Drawing. Application January 4, 1954
Serial No. 402,164
Claims priority, application Great Britain April 13, 1949
4 Claims. (Cl. 260—641)

1. A process for the production of isopropanol substantially free from propylene which comprises hydrating propylene in a reaction zone with water under elevated temperature and superatmospheric pressure in the vapour phase in the presence of a solid catalyst and of liquid water; taking off together from the hydration zone a mixed product consisting of (i) a vaporous mixture of propylene, isopropanol and steam, and (ii) of liquid comprising isopropanol and water; releasing the pressure over the mixed product to between 10 and 25 atmospheres: and without addition of water, flash distilling the mixture in a vessel at a column head temperature just above the vaporisation temperature of propylene at the pressure employed, obtaining as overhead propylene at between 10 and 25 atmospheres, substantially free from isopropanol and as bottoms aqueous isopropanol, substantially free from propylene, condensing the propylene to the liquid state by cooling, recompressing and recycling the said propylene to the hydration reaction zone.

2,834,817
PURIFICATION OF THE GAMMA ISOMER OF BENZENE HEXACHLORIDE
Ernest Marcel Dégeorges and Jean Lehureau, Lyon, France, assignors to Progil, Paris, France, a corporation of France
No Drawing. Application December 8, 1954
Serial No. 474,034
Claims priority, application France December 9, 1953
10 Claims. (Cl. 260—648)

1. A process for the removal of both odor-imparting impurities and chlorinated benzene impurities from a benzene-hexachloride gamma isomer concentrate which comprises mixing the concentrate with nitric acid of a density of at least about 1.48 in a quantity which will react with the odor-imparting impurities and also dissolve substantially all of the gamma isomer content during the subsequent heating operation, heating the resulting mass to a temperature at which the nitric acid reacts with the odor-imparting impurities, and at which the gamma isomer and unavoidably also some of the chlorinated benzene impurities are dissolved, rapidly cooling the resulting solution to a temperature at which substantially only the gamma isomer crystallizes out, and separating such crystals from the acid solution still containing the dissolved impurities.

2,834,818
ALKYLATION OF SATURATED HYDROCARBONS
Louis Schmerling, Riverside, and Vladimir Haensel, Hinsdale, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application December 16, 1955
Serial No. 553,418
20 Claims. (Cl. 260—666)

1. A process for the alkylation of an alkylatable saturated hydrocarbon with an olefin-acting compound at alkylating conditions in the presence of a catalyst comprising a free alkali metal and a minor promoting amount of an organic compound capable of reacting with a portion of said free alkali metal to form a metallized organic compound.

2,834,819
PRODUCTION OF LOW MOLECULAR WEIGHT POLYMER WITH SULFONIC ACID-CONTAINING POLYMER AS CATALYST
Gaetano F. D'Alelio, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
No Drawing. Application April 11, 1952
Serial No. 281,884
29 Claims. (Cl. 260—669)

1. A process for the production of polymeric compositions comprising predominantly dimers, trimers and tetramers comprising the polymerization of a polymerizable mass comprising at least one polymerizable ethylenic monomer in the presence of a fusible, aqueous-alkali-soluble polymer having sulfonic acid groups therein as a catalyst.

2,834,820
SOLVENT EXTRACTION OF ORGANIC MIXTURES WITH MIXED GLYCOL ETHERS AS SOLVENTS
Herman S. Bloch, Chicago, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application July 28, 1953
Serial No. 370,860
8 Claims. (Cl. 260—674)

1. A solvent extraction process which comprises contacting a feed stock containing an aromatic hydrocarbon with a solvent comprising a mixed ether-glycol of ethylene and propylene glycols having the empirical formula:

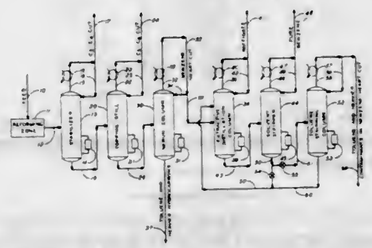
$$HO(C_2H_4O)_x(C_3H_6O)_yH$$

in which x is a whole number having a value of from 1 to 6 and y is a whole number having a value of from 1 to 5, thereby forming an extract phase and a raffinate phase, and separating said phases.

2,834,821
PURIFICATION OF XYLENE-ETHYLBENZENE MIXTURES
Ingolfur Bergsteinsson, Orange, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application June 21, 1954
Serial No. 438,347
9 Claims. (Cl. 260—674)

1. A process for removing ethylbenzene from a mixture thereof with at least one xylene isomer which comprises subjecting said mixture to a temperature between about 170° and 450° C. in the presence of a catalyst consisting essentially of activated alumina-silica and between about 1 to 50 moles of a fused-ring aromatic hydrocarbon per mole of ethylbenzene, for a sufficient length of time to transfer substantially all of the ethyl groups from ethylbenzene to said fused-ring hydrocarbon, and thereafter recovering substantially ethylbenzene-free xylene.

2,834,822
DISTILLATION PROCESS FOR RECOVERING AROMATICS
Robert S. Worthington, El Segundo, and Harrison M. Lavender, Jr., San Anselmo, Calif.
Application August 9, 1954, Serial No. 448,456
4 Claims. (Cl. 260—674)



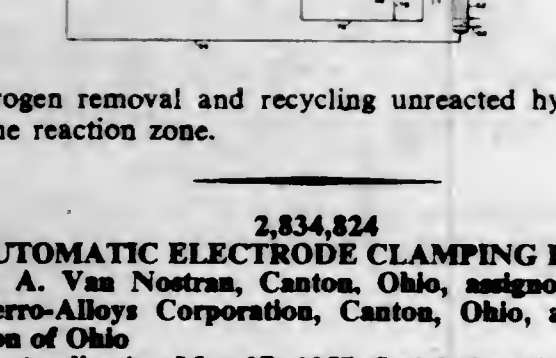
1. In a process for recovering substantially pure benzene from a catalytic reformate containing benzene, toluene and nonaromatic components, the steps comprising fractionally distilling said reformate to produce a concentrate containing substantially all the benzene content of said reformate, along with nonaromatic components and from about 0.2 to 5% toluene, based on the volume of benzene present in said concentrate; passing said concentrate to an extractive distillation zone, and there contacting the concentrate with a selective solvent at elevated temperatures whereby the relatively low boiling non-aromatic components are separated as an overhead product, while withdrawing a bottoms product containing substantially all the benzene and toluene content of the concentrate, along with solvent; passing said bottoms product through a first stripping zone maintained at a temperature adapted to distill the benzene content thereof overhead as a pure benzene stream, while withdrawing a bottoms product containing solvent, toluene and any higher boiling nonaromatic components; passing at least a portion of said latter bottoms product to a second stripping zone maintained at a temperature sufficient to distill toluene and any nonaromatic components overhead while withdrawing a solvent-containing bottoms product; and recycling to the extractive distillation zone said last-mentioned bottoms product, along with any bottoms from the first stripping zone not passed to the second stripping zone.

2. The process of claim 1 wherein the selective solvent employed in the extractive distillation zone is phenol.

2,834,823
ISOMERIZATION OF HYDROCARBONS
James L. Patton, Ramsey, George W. Stanford, Linden, and William P. Burton, Little Silver, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application March 7, 1955, Serial No. 492,537
6 Claims. (Cl. 260—683.65)

1. A process for the isomerization of hydrocarbons which comprises contacting an isomerizable hydrocarbon in a vapor state in the presence of hydrogen and a solid isomerization catalyst under suitable conversion conditions, separating the reaction zone effluent into a hydrogen rich gas, product isomer, unreacted hydrocarbon, low boiling hydrocarbon side products and high boiling hydrocarbon side products, contacting the hydrogen rich gas with a portion of the high boiling side products in an absorption zone to effect the removal of light hydrocarbons therefrom, passing hydrogen from the absorption

zone to the reaction zone, combining the high boiling side product absorbent with the reaction zone effluent after



hydrogen removal and recycling unreacted hydrocarbon to the reaction zone.

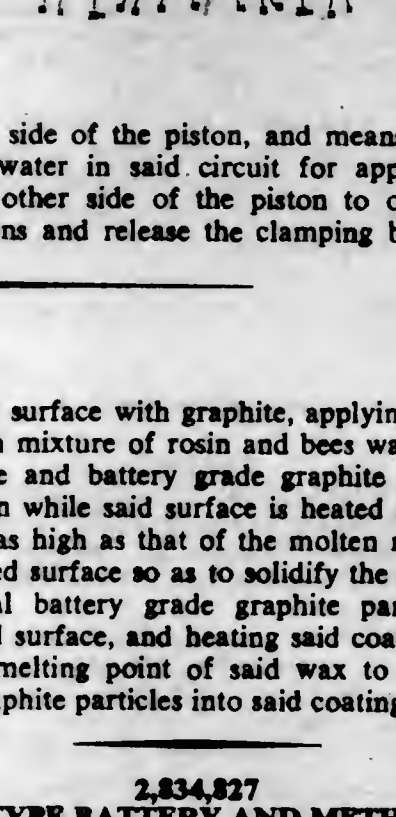
2,834,824

AUTOMATIC ELECTRODE CLAMPING DEVICE

Jack A. Van Nostran, Canton, Ohio, assignor to Ohio Ferro-Alloys Corporation, Canton, Ohio, a corporation of Ohio

Application May 27, 1957, Serial No. 661,710
12 Claims. (Cl. 13—16)

1. An electrode clamping device comprising clamping bands, a hydraulic cylinder having a piston therein for operating the clamping bands, pressure means in the cylinder on one side of the piston for forcing the clamping bands into contact with the electrode, means providing a continuous circuit of cooling water within the cylinder



on the other side of the piston, and means for trapping the cooling water in said circuit for applying presure against said other side of the piston to overcome said pressure means and release the clamping bands.

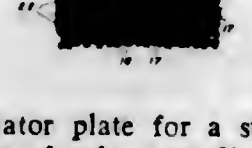
ELECTRICAL

2,834,825

STORAGE BATTERIES, MORE PARTICULARLY STORAGE BATTERY PLATES AND METHOD OF MANUFACTURE

Elwood P. Wenzelberger, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application March 14, 1955, Serial No. 496,867
11 Claims. (Cl. 136—69)



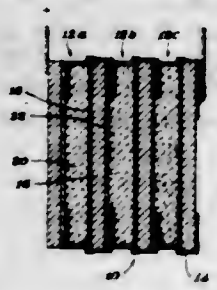
1. An accumulator plate for a storage battery comprising a plurality of refractory fibers having a porous metal surface, and a binding agent of sponge rubber latex bonding said metal plated fibers, said accumulator plate having a honeycomb structure which is permeable to electrolyte.

2,834,826

CONDUCTIVELY COATED ELECTRODES AND METHOD OF MAKING SAME

Raymond W. Reid, Sanford, and Percy F. George, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application June 30, 1954, Serial No. 440,397
7 Claims. (Cl. 136—100)



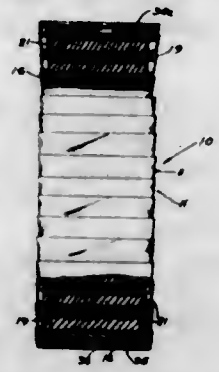
7. The method of applying an electrically conductive, fluid impervious coating to a magnesium surface, comprising weak bright pickling the surface to be coated, abrading said surface with graphite, applying to said surface a molten mixture of rosin and bees wax which contains gilsonite and battery grade graphite particles dispersed therein while said surface is heated to a temperature at least as high as that of the molten mixture, cooling said coated surface so as to solidify the mixture, adding additional battery grade graphite particles to the cooled coated surface, and heating said coated surface at least to the melting point of said wax to disperse said additional graphite particles into said coating.

2,834,827

FLAT TYPE BATTERY AND METHOD OF MANUFACTURE THEREOF

Raymond Emeriat, Paris, France, assignor to Societe de la Pile Leclanche, Chasseneuil du Poitou, France, a French company

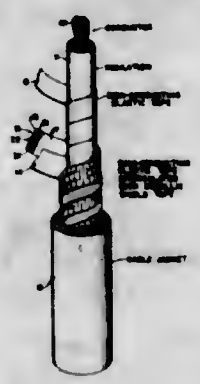
Application January 20, 1955, Serial No. 483,087
Claims priority, application France January 27, 1954
13 Claims. (Cl. 136—111)



1. That improvement in the process of preparing a battery block comprising *n* piled flat cells including providing *n*+1 trays of thermoplastic material each having a depth in excess of the depth of a completed cell and a bottom opening and each being provided interiorly at its bottom with an anode plate overlying the bottom opening, and exteriorly on its bottom with a conductive coating plate united both to the bottom and to the anode plate appearing in the opening, loading a first of said trays with

an electrolyte carrying separator and a mix cake as components of the first of said cells, nesting a second of said trays in the first so that upper wall portions of the first tray lap only the lower wall portions of the second tray and so that the conductive coating plate of the second tray is in surface contact with the mix cake in the first tray, applying a predetermined amount of compression to the cell components between the two trays and simultaneously providing internal support for the lapped portions and externally applied, lateral pressure with heat to said lapped portions against said support for uniting said lapped portions of the two trays permanently to complete the first of the cells, thereafter successively and independently repeating the loading, nesting, compression and union to complete each of the succeeding cells until n piled cells have been prepared with the $n+1$ trays, all of the successive compressions utilizing like pressure and each union serving independently to unite the uppermost of the piled trays to the next preceding tray of the already united trays of preceding cells so that when n cells are completed a unitary overall covering for all the cells is defined by the united wall portions of the $n+1$ individual trays, and the components of each individual cell are maintained in required contact with each other and those of adjacent cells at substantially identical pressures.

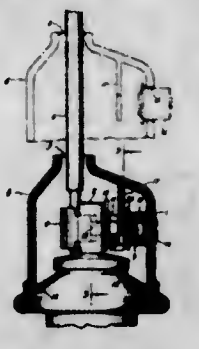
2,834,828
ELECTRIC CABLE
Lawrence C. Ebel, Hastings-on-Hudson, N. Y., assignor to Anaconda Wire and Cable Company, a corporation of Delaware
Application November 19, 1954, Serial No. 469,961
7 Claims. (Cl. 174—102)



1. An electric cable comprising a metallic conductor, a layer of insulation having a high coefficient of thermal expansion surrounding said conductor, and a shield tape surrounding said layer of insulation, said shield tape comprising a layer of thin metal tape securely bonded to a layer of elastic material, said thin metal tape being formed with repeating groups of laterally extending expansion slits longitudinally spaced along the length of the metal tape, each group of said expansion slits comprising at least two laterally overlapping longitudinally spaced slits which individually extend laterally only part way across the metal tape and which together extend laterally from edge to edge completely across the metal tape.

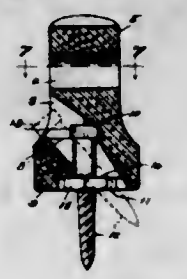
2,834,829
BUSHING TERMINAL GUARD
Michael Broverman, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application December 20, 1955, Serial No. 554,170
5 Claims. (Cl. 174—138)

1. An electrical insulating material hollow member which is adapted to enclose substantially completely an electrical lead clamp therein, said member having an aperture formed in a portion thereof for the passage of an electrical lead therethrough, an internal tab formed in said member, and another aperture formed in another portion of said member, and an electrically insulated



plug adapted to close said another aperture and simultaneously clamp said tab between said plug and clamp.

2,834,830
SERVICE INSULATOR CONSTRUCTION
Walter E. Skidmore, East Liverpool, Ohio
Application April 12, 1955, Serial No. 500,798
1 Claim. (Cl. 174—165)

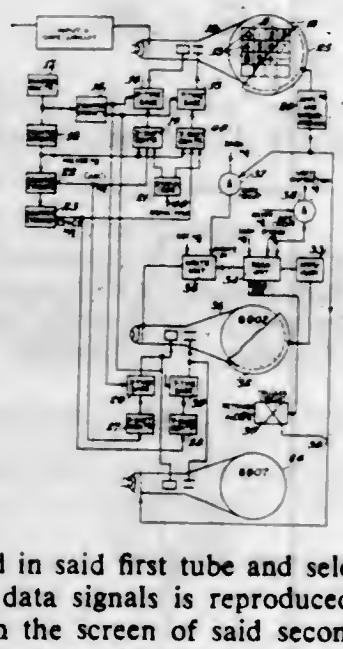


A service insulator comprising an insulator body having a transverse opening adjacent the upper end thereof, said body having an axial recess extending upwardly from the lower end thereof, said body also having an obliquely inclined opening extending downwardly from one side thereof and communicating at the lower end thereof with said recess, said body also having a shoulder on each side of said oblique opening parallel with the lower end of said body, a lag screw formed with a square head insertable in said body through said oblique opening, the head of said screw seating on said shoulder with the shank of said screw coaxial with the axis of said body, machine screw threads on said shank above the wood screw threads, and a nut engaging said machine threads and seated in said recess for tightly holding said lag screw relative to said body.

2,834,831
DATA RECORDING MEANS
John Anthony Hardinge Giffard, London, England, assignor, by mesne assignments, to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 19, 1950, Serial No. 201,810
Claims priority, application Great Britain December 22, 1949
3 Claims. (Cl. 178—15)

1. Data recording means comprising a first cathode ray tube having a screen bearing a number of areas in the form of symbols suitable for expressing the data which is to be recorded and which have a secondary electron emission ratio different from that of the rest of said screen, an electrostatic signal pick-up plate associated with said screen, means causing the electron beam of said tube to scan part of said screen bearing one of said areas in a plurality of different random selected orders, the part scanned being chosen in accordance with the signal representing the data to be recorded, such means comprising means for scanning the whole of said larger screen portion by a raster-like movement of the cathode ray tube beam and means for rendering said

scanning beam ineffective except at those time instants when it is passing over the part of said screen bearing one of said areas, a second cathode ray tube, means for scanning part of the screen in said second tube in synchronism with the scanning in said first tube, the parts of the screen which are successively scanned in said second tube being arranged in an orderly sequence, means for modulating the electron beam in said second tube in accordance with the signals received from said electrostatic signal pick-up plate of said first tube so that the



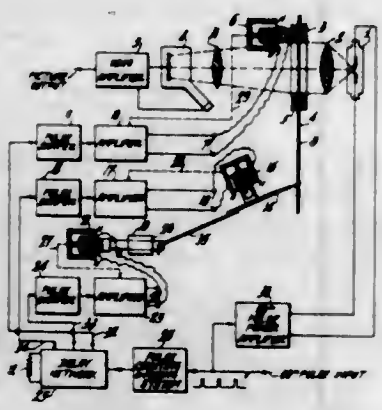
symbol scanned in said first tube and selected in accordance with the data signals is reproduced in an orderly arrangement on the screen of said second tube, a third cathode ray tube arranged as an electrostatic storage device, circuit means for operating said third cathode ray tube in parallel with said second cathode ray tube and means for deriving beam controlling potentials for said second cathode ray tube from said third cathode ray tube to provide a persistent display on said second tube of the recorded data.

2,834,832

FILM DRIVE APPARATUS

Frank J. Somers, Los Angeles, Calif., assignor to Radio Corporation of America, a corporation of Delaware

Application July 1, 1953, Serial No. 365,409
11 Claims. (Cl. 178—7.2)



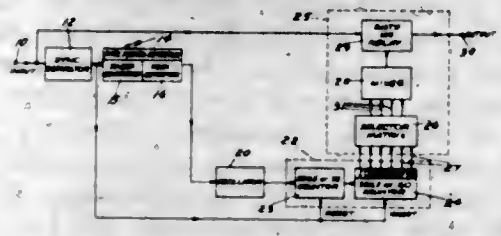
1. In a television film pickup system of the type including a light source, a television pickup tube, and a source of television field frequency pulses, and wherein said film is to be intermittently moved in a path between said light source and said tube, the combination comprising means for periodically energizing said light source in accordance with said field frequency pulses, counting means responsive to said field frequency pulses for deriving actuating pulses separated alternately by intervals of two field frequency cycles and three field frequency cycles respectively, and means responsive to said actuating pulses for controlling the advancement of said film in said path.

2,834,833

ELECTRONIC COMMUTATED CHANNEL SEPARATORS

Carl A. Segerstrom, Winchester, Conrad H. Hoeppner, Weston, and Anthony Abate, Waltham, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware

Application November 21, 1952, Serial No. 321,754
6 Claims. (Cl. 179—15)



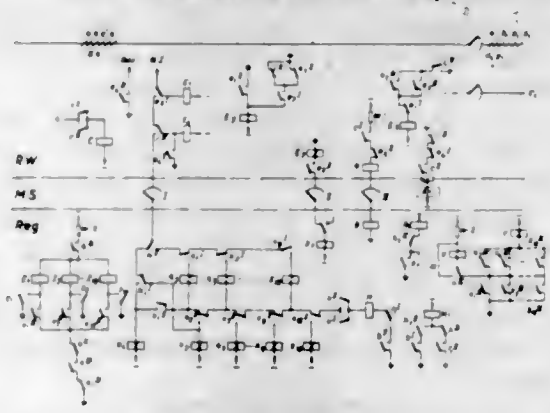
1. An electronic commutated channel separator having input and output terminals and adapted to selectively transmit therebetween a desired channel of communication in the form of pulses from recurring multiple channel trains of signal pulses, each of said trains of pulses including a synchronizing pulse followed by a plurality of channel pulses, comprising means responsive only to said synchronizing pulses for producing a control voltage which is a direct function of the period between successive synchronizing pulses, a generator of electrical energy whose frequency is maintained at a multiple of said period in response to said control voltage, electronic counter means receptive of said electrical energy for producing pulses which have substantially the same recurrence frequency as said synchronizing pulses, selector-tor means adapted to be selectively connected to said counter means in accordance with the channel desired, said selector means being productive of an impulse corresponding in phase and duration to said desired channel, a gate circuit interposed between said input and output terminals and responsive to said impulse for effecting transmission of said desired channel between said input and output terminals.

2,834,834

CIRCUIT ARRANGEMENT FOR REDUCING THE CALL LOSSES IN TELEPHONE SYSTEMS WITH REGISTERS

Anton Pfau, Stuttgart, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application September 21, 1953, Serial No. 381,382
Claims priority, application Germany September 20, 1952
9 Claims. (Cl. 179—16)



1. A circuit arrangement for telecommunication systems comprising a plurality of selectors arranged in groups a register for each group, means responsive to an impulse from one of said selectors for seizing the register associated therewith and for connecting said register thereto over a plurality of connecting paths, means at each of said selectors for receiving dial impulses, means at each of said selectors for storing a particular number of the first train of dial impulses to be received, means operative subsequent to the connection of a register for transmitting said particular number of stored dial impulses to said

connected register over a first path in said connecting means, and means for transmitting succeeding dial impulses over a second path in said connecting means.

2,834,835
DIAL TELEPHONE SYSTEM EMPLOYING SENDERS WITH CARD TRANSLATORS
Judson O'D. Shepherd, Atlanta, Ga.; Margaret F. Shepherd, executrix of said Judson O'D. Shepherd, deceased
Application June 23, 1952, Serial No. 295,044
12 Claims. (Cl. 179—18)



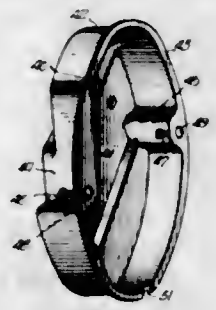
12. A dial telephone sender including a register to register a wanted telephone number, outgoing switching control means, a card translator comprising data and block cards with means to selectively displace them, means to interconnect said register and said selective means in said card translator to selectively displace a data card in response to the registration of two of the first three digits of the wanted telephone number in said register and to selectively displace a block card in response to the registration of the third of said first three digits in said register, scanning means for said displaced cards to control jointly with said register said outgoing switching control means to transmit step-by step impulses followed by multi-frequency impulses to designate the wanted number.

2,834,836
STATIC ELECTRICAL CODE TRANSLATING APPARATUS
George Clifford Hartley, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application January 10, 1955, Serial No. 480,965
Claims priority, application Great Britain
January 13, 1954
9 Claims. (Cl. 179—18)



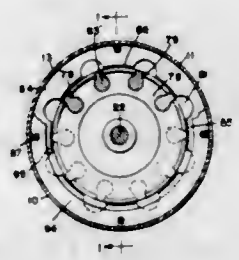
1. Static electrical code translating apparatus comprising a plurality of static electric switching devices arranged in a coordinate array and having control circuits therefor, means responsive to a signal denoting one part of a code to be translated for applying an operating voltage to one of said control circuits to render the switching device thereof conductive, a first plurality of terminals, a second plurality of terminals, the terminals of said first plurality of terminals being connected respectively to said switches, a plurality of toroidal cores, each of said cores having a secondary winding, a plurality of jumper wires there being one for each translation to be made, each of said wires being threaded through a different combination of said cores from one terminal of said first plurality of terminals to one terminal of said second plurality of terminals, the combination of said first and second terminals representing the number to be translated and the combination of cores through which the jumper wire connecting said combination of terminals is threaded representing the translated number, means responsive to a signal denoting the other part of a code to be translated for applying a potential to one of the terminals of said second plurality of terminals sufficient to cause a surge of current through one of said jumper wires connected to a terminal of said first plurality which is in turn connected to a static electric switching device which has been rendered conductive, and means for utilizing the voltage developed in the secondary windings of toroidal cores traversed by said jumper wire for indicating the translated number.

2,834,837
DUST COVER OF SILENCING MATERIAL FOR TELEPHONE DIAL MECHANISM
Lloyd Bender, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio
Application December 8, 1954, Serial No. 473,837
3 Claims. (Cl. 179—90)



1. A telephone dialing mechanism comprising a base member, electrical impulse generating means mounted on said base member, a housing of a material having the effective sound attenuation characteristics of a polyethylene material relative to the noise produced by said impulsing means, said housing having depending sides abutting said base member for effecting a substantially dustproof shield for said means and for reducing the intensity of noise produced by said impulse generating means.

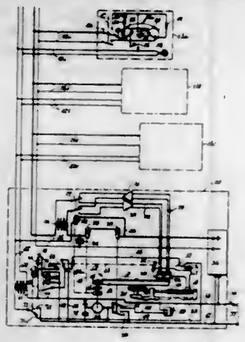
2,834,838
TELEPHONE CALLING DEVICE
Edward L. Klingel, St. Paul, Minn.
Application October 3, 1956, Serial No. 613,634
4 Claims. (Cl. 179—90)



1. In a telephone calling device, supporting means, a shaft carried thereby and rotatable relative thereto, a dial mounted on said supporting means, a finger wheel attached to said shaft and serving to rotate the same, resilient means acting between said supporting means and shaft and stressed upon manual rotation of the wheel in one direction to urge rotation of the shaft in the opposite

direction, switch means operated by said shaft upon movement in said last named direction, said shaft and supporting means having corresponding parts, a magnetic structure carried by one of said parts and including a number of groups of pole pieces, there being an even number of pole pieces in each group, a core carried by the other of said parts and having the same number of groups of pole pieces as the magnetic structure, the number of pole pieces in each group of the core differing from the number of pole pieces in each group of the magnetic structure by one, the pole pieces on said shaft being movable past the pole pieces on said supporting means, and an amortisseur winding on said core.

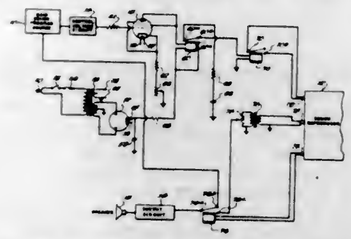
2,834,839
DICTATION-RECORDING SYSTEM
William W. Logan, Glen Ridge, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application November 24, 1953, Serial No. 394,071
10 Claims. (Cl. 179—100.1)



1. In a remotely-controlled dictation-recording system comprising an attendant's station including a dictating machine having a movable support onto and from which a record may be mounted and removed, a record-cooperable translating device, and drive means operative to produce a relative advance movement between said record support and translating device for scanning a supported record by said device: the combination of a remote dictator's station and interstation wiring for connecting said dictator's station to said dictating machine; apparatus at said dictator's station for operating said dictating machine to record dictation, said apparatus including an on-off station switch; means controlled by said station switch via said interstation wiring to enable recordation of dictation from the dictator's station only while the station switch is in "on" position; signaling means at said attendant's station; operation-preparing means for said signaling means; means for operating said preparing means as said station switch is moved to "on" position; and means controlled by said station switch and preparing means for activating said signaling means upon return of said station switch to "off" position while said preparing means is in operated position.

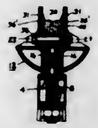
2,834,840
CONTROL MECHANISM TO COORDINATE A SOUND REPRODUCER WITH A PROGRAM SOURCE
Anthony Flan, Evanston, and Harold N. Miller, Glencoe, Ill., assignors to Oakton Engineering Corporation, Evanston, Ill., a corporation of Illinois
Application May 31, 1956, Serial No. 588,335
5 Claims. (Cl. 179—100.1)

1. A control device operable to supply signal to an output circuit from a sound reproducer in coordination with a sound program source, the sound program source having means to generate a predetermined negative control voltage in response to program material of a predetermined kind and the sound reproducer having start terminals operable when connected momentarily to initiate a reproducer program of predetermined duration and a second set of terminals across which predetermined voltage exists when the reproducer is in operation, the control device comprising: a control relay having a pair of normally closed and a pair of normally open contacts; means to energize the control relay in the absence of negative control voltage; a capacitor; means to charge said capacitor through the normally open contacts of the control relay; a start relay having an operating coil and a pair of normally open contacts; means connecting the operating coil of the start relay



to the capacitor through the normally closed contacts of the control relay, whereby the start relay is momentarily energized in response to said negative control voltage; means connecting the contacts of the start relay to the start terminals of the reproducer; a priority relay having a pair of normally open and a pair of normally closed contacts; and means connecting the priority relay to said second set of terminals of the sound reproducer whereby the sound reproducer is connected to the output circuit through the normally open contacts when the predetermined voltage exists across said second set of terminals of the reproducer and the output circuit is connected to the program source through the normally closed contacts when the predetermined voltage is removed from said second set of terminals of the reproducer.

2,834,841
CURRENT COLLECTING DEVICE
John W. Waugh, Bellville, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey
Application November 6, 1953, Serial No. 390,470
16 Claims. (Cl. 191—59.1)



1. A sliding current collector comprising, a swivel head and a saddle detachably secured together and each having spherical and parallel bearing surfaces, a support provided with spherical bearing surfaces cooperating with the first said bearing surfaces whereby the swivel head and saddle may rotate about a substantially vertical axis and pivot in a vertical plane, the saddle having a central longitudinal portion and a longitudinal bearing surface of substantially the full width and length of the central longitudinal portion, a plurality of lugs, one projecting both laterally and lognitudinally from each corner of the said central portion thereby forming a recess at each end of the saddle, an opening extending

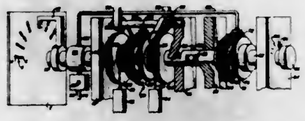
transversely through the said central portion, a holder mounted on the saddle, the holder provided with a pair of spaced upright walls with end walls thereby forming an elongated receptacle positioned above the said longitudinal bearing surface and of substantially the width thereof, a downwardly projecting lug at each end of the holder inter-engaging with the recesses at the ends of the saddle to prevent longitudinal and lateral relative movement of the holder and the saddle, the receptacle having an upper portion to receive a trolley wire and a lower portion, an insert of frangible electrical conducting material with plane parallel side surfaces mounted in the lower portion of the receptacle and resting upon the said longitudinal bearing surface of the saddle, the portion of the side walls adjacent the insert being inwardly yieldable and the inner surfaces thereof being concave relative to the adjacent side surface of the insert, a lug depending from the lower longitudinal center of each wall normally in spaced relation to the adjacent side face of the saddle, an opening in each lug registering with the opening through the saddle, and securing means extending through the openings to first draw the said inner concaved surfaces of the walls into contact with the insert and then draw the last said lug into engagement with the saddle.

2,834,842
DETENT MECHANISM, ESPECIALLY FOR ROTARY SWITCHES
Lee Le Beau, Palo Alto, Calif., assignor to Alto Scientific Company, Palo Alto, Calif., a corporation of California
Application December 19, 1955, Serial No. 553,826
4 Claims. (Cl. 200—11)



1. A detent mechanism for a rotary member comprising a disc mounted for rotation in unison with said member and having a number of notches formed in its edge, a casing of an elastic material surrounding said disc and having a tooth formed on its inner wall integral with and of the same material as said casing, for yieldable engagement with the notches in the edge of said disc.

2,834,843
CONTROL APPARATUS
Raymond N. Auger, New York, N. Y.
Application December 1, 1955, Serial No. 550,264
14 Claims. (Cl. 200—17)

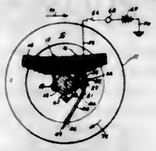


1. The combination which comprises a movable member, a source of mechanically stored energy operatively connected to said member and applying a force to said member tending to cause said member to move, stop-means movable between a first position in which it contacts said member to prevent movement of the member and a second position in which it is out of contact with said member, means for moving said stop means from said first position to said second position to free said movable member for motion under the influence of the force applied by said source of mechanically stored energy, and means operable in response to movement of said movable member for returning said stop means to said first position.

ERRATUM

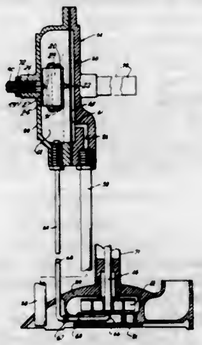
For Class 200—61.46 see:
Patent No. 2,834,808

2,834,844
TIRE AND WHEEL ALARM
Thomas S. Zastrow, St. Paul, Minn., assignor to Remmele Engineering Company, St. Paul, Minn., a corporation of Minnesota
Application November 20, 1953, Serial No. 393,266
9 Claims. (Cl. 200—61.23)



1. In combination, an elongated member having means adjacent one end for supporting the same from the framework of a motor vehicle, at least a portion of said member adjacent the other end thereof being hollow, means threaded on said hollow end of said elongated member for concentrically supporting an insulating element, said element in turn concentrically supporting an elongated indicator actuator member having an extension partially within and partially without said hollow member, a tubular sleeve threaded into said means threaded on said hollow end of said elongated member, resilient insulating means supporting said extension of said indicator actuator member within said sleeve in spaced relation with reference to said sleeve, a contact element located on said end of said indicator actuator member within said sleeve and a second contact element positioned on said tubular sleeve and slightly spaced from said first contact element.

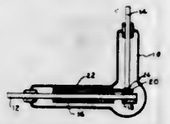
2,834,845
SUMP PUMP CONTROL
Axel L. Nielsen, Hazel Park, Mich.
Application March 12, 1956, Serial No. 570,730
5 Claims. (Cl. 200—81.5)



1. A pump motor control of the class described, comprising the combination of means including a flexible diaphragm defining a sealed liquid receiving pressure chamber having a pressure opening to its exterior through which the chamber is variably pressurized, and electrical control means actuated by said diaphragm to open and close an electrical control circuit in response to the flexure of the diaphragm under differing pressure in said chamber, said control means and diaphragm having means operatively connecting the same to open and close said circuit only at the limits of a substantial range of

pressures in said chamber, said first named means including a sealed control chamber on the side of said diaphragm opposite said pressure chamber, and a hollow vacuum line communicating said control chamber with the intake side of a pump powered by the controlled motor.

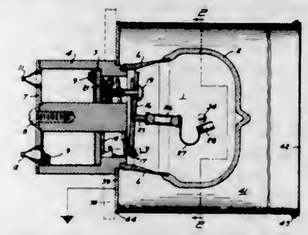
2,834,846
RELAY SWITCH
Hubert H. Eaves and Walter R. Clinton, Santa Barbara, Calif., assignors to Penta Laboratories, Inc., Santa Barbara, Calif., a corporation of California
Application February 14, 1955, Serial No. 488,071
4 Claims. (Cl. 200—87)



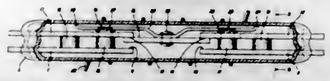
1. In a vacuum switch of the type having magnetically operable first and second contact points within an evacuated envelope and a magnetic flux producing means positionable adjacent the envelope operable to produce a magnetic flux field to operate the contact points, the combination of: an integral electrically conductive nonmagnetic shaft having a first section supported by the walls of the envelope, a second section within said envelope in spaced relation from the envelope walls, and a third section extending exteriorly of the envelope to form a terminal lead for the first contact point of the switch; first and second cylindrical magnetic core members axially aligned on the shaft; said first member being longer than said second member and positioned within the flux field of magnetic flux producing means; said second core member being spaced from said first core member to form a gap between the core members; a magnetic electrically conductive armature aligned substantially parallel with said core members and positioned to overlie the first and second core members and the gap, electrically conductive spring means mounted on said first core and supporting said armature; said spring means formed to resiliently bias said armature in a first position in spaced relation with said cores whereat said armature is positioned to be magnetically shifted into a second position in abutting engagement with the cores upon magnetic flux producing means being energized; said first contact point positioned on said armature; and means to position the second contact point in electrical contact with the first contact point when the armature is in one of said first and second positions but not in the other; the second contact point having a terminal lead extending exteriorly of the envelope.

2,834,847
VACUUM RELAY
Jo Emmett Jennings, San Jose, Calif., assignor to Jennings Radio Manufacturing Corporation, San Jose, Calif., a corporation of California
Application May 13, 1955, Serial No. 508,111
7 Claims. (Cl. 200—87)

1. A vacuum relay comprising a dielectric bulb closed on one side with a metallic wall and therewith enclosing a vacuumized chamber, a magnetic core integral with the metallic wall and extending on both sides thereof, core energizing means adjacent the external end of the core, an armature pivotally mounted within the chamber adjacent the inner end of the core, means pressing the armature away from the core, spaced contact points within the chamber fixedly mounted on the bulb and each integrally continuous with a lead external to the bulb, a stem fixed on the armature and having a dielectric portion substantially axially aligned with said core and having a resilient transverse metallic portion and a movable contact to engage the contact points for closing the circuit therebetween mounted on the resilient metallic portion of the stem.

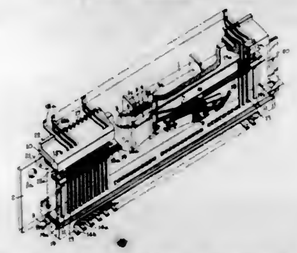


2,834,848
ELECTRIC SWITCH
Walter B. Ellwood, New York, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 2, 1955, Serial No. 532,258
12 Claims. (Cl. 200—87)



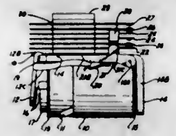
1. A switch comprising a switch envelope, a plurality of contact members enclosed in said envelope and having contact areas, a bridging element movably supported within said envelope and arranged when moved to bridge contact areas of certain of said members, support means for said bridging element comprising a spring, and spacing means within said envelope for positioning said contact members in spaced juxtaposed relation to each other and to said spring and for positioning a portion of said spring against the inner wall of said envelope.

2,834,849
MULTI-CONTACT RELAY
Arthur Mehls, Stuttgart-Zuffenhausen, Wurttemberg-Baden, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 16, 1951, Serial No. 256,687
Claims priority, application Germany November 18, 1950
14 Claims. (Cl. 200—104)



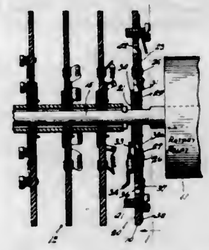
1. A flat multi-contact relay comprising a mounting base having an aperture therethrough, an electromagnet mounted on one side of said base intermediate the ends thereof, an array of fixed contacts mounted on the other side of said base adjacent a first edge thereof, an array of movable contacts mounted on said base adjacent an opposite edge thereof, each of said movable contacts having its longitudinal axis in a common plane, each adapted to cooperate with a corresponding one of said fixed contacts, single contact-operating means disposed between said base and said movable contact array, resilient means coupled to said contact operating means for normally causing said contact operating means to abut against said base, an armature actuating means responsive to energization of said electromagnet, said armature being pivoted about an axis parallel to said plane within said aperture and said armature having a portion overlying said base on the opposite side from said electromagnet, said portion being engageable with said contact operating means transversely to said axis when said contact operating means is in abutment with said base against the tension of said resilient means upon energization of said electromagnet to cause movement of said movable contacts in a direction normal to said plane.

2,834,850
RELAY
Leonard Eugene Earling, Logansport, Ind., assignor to Essex Wire Corporation
Application February 12, 1954, Serial No. 409,793
2 Claims. (Cl. 200—104)



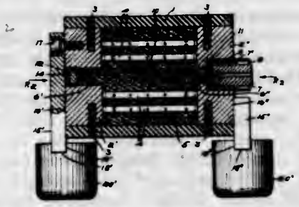
1. A relay including an energizable coil, a support frame for said coil, an armature pivotally mounted to said frame and adapted to be attracted by the energization of said coil, and further characterized by an armature extension, an actuator in biased overlapping engagement with the free end of said armature extension and pivotally hinged at the end remote from said armature extension, said actuator being further characterized by a groove in the free end thereof for mating engagement with said extension to avoid lateral disengagement of the actuator and extension with the result that a concurrent displacement of the actuator results from armature action.

2,834,851
ELECTRICAL APPARATUS
Edward J. Mastney, Berwyn, and Ludwig J. Fichter, Chicago, Ill., assignors to Oak Mfg. Co., a corporation of Illinois
Application May 7, 1956, Serial No. 583,213
4 Claims. (Cl. 200—105)



1. A switch construction comprising an insulating base, a plurality of stationary contacts rigidly supported on said base and arranged in a circular pattern, each stationary contact extending radially with the inner end as an active contact portion, a rotor supported on said insulating base, a movable contact carried by said rotor, said movable contact having an active contact portion for cooperating with one stator contact at a time, means for grounding said rotor contact, a solid metal support member, said solid metal support member having a plurality of movable spring contact fingers, there being a spring contact finger for each stator contact, a fixed metal contact portion adjacent each spring contact finger, said fixed contact portion being electrically connected to a stator contact, screw means for effecting engagement or disengagement between a spring contact finger and its corresponding fixed contact portion, each spring contact finger being thereby electrically connectable selectively to its corresponding stator contact, said metal support member having a common connection, said entire construction being adaptable to have the rotor stepped along by solenoid means, the rotor contact stepping from one stator contact to the next stator contact, the control circuit for said solenoid means being adapted to include said grounded rotary contact and the common connection for said support member and the stopping position of said switch means being readily adjustable by said individual screw means.

2,834,852
PLUG-IN TYPE POWER FUSES
Kenneth W. Swain, Hampton Falls, and Frederick J. Kozacka, Southampton, N. H.
Application June 21, 1956, Serial No. 592,852
7 Claims. (Cl. 200—117)



1. In combination, a pair of spaced tulip-type contacts, a pair of spaced plug-type contacts plugged into said pair of tulip-type contacts, said pair of plug-type contacts forming an integral part of an electric power fuse comprising a tubular insulating casing, a pair of metal plugs plugged into the ends of said casing and fuse link means conductively interconnecting said pair of plugs, and one of said pair of plug-type contacts being permanently secured to one of said pair of plugs and the other of said pair of plug-type contacts being removably secured to the other of said pair of plugs.

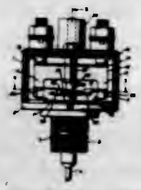
2,834,853
SNAP-ACTING BIMETAL DEVICE
Stanley R. Hood, Birmingham, Mich., assignor to Essex Wire Corporation
Application April 12, 1957, Serial No. 652,500
7 Claims. (Cl. 200—138)



7. A thermally responsive switch comprising: a support member; a fixed contact carried by said support member; a bimetal member of substantially triangular shape mounted upon said support member; a movable contact member carried by said bimetal member for engagement with said fixed contact; said bimetal member comprising first and second strip portions joined by a base portion at their separated ends; said second strip portion having a generally uniform width less than that of said first strip portion and having a length greater than that of said first strip portion; said first and second strip portions being initially formed with a longitudinally convex curvature away from a common plane; said second strip portion being additionally formed with a transversely extending crimp buckling said bimetal member in a

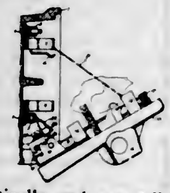
direction at an angle to said longitudinal convex curvature to stress said bimetal member into a non-developable form; and means attaching said bimetal member to said support member such that the base portion adjacent one strip portion is freely flexible in the presence of thermal stresses for movement relative to the base portion adjacent the other of said strip portions.

2,834,854
TEMPERATURE RESPONSIVE SPRING ACTUATED SWITCH FOR ELECTRICAL HEATING DEVICES
Theodor H. Stiebel and Otto I. Irslinger, Holzminden (Weser), Germany
Application July 25, 1956, Serial No. 600,051
Claims priority, application Germany July 29, 1955
12 Claims. (Cl. 200—140)



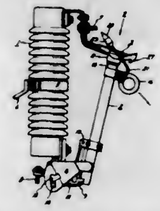
1. A switching mechanism for lines supplying electrical energy to heat an enclosure comprising a movable element responsive to the temperature of the enclosure, at least one fixed terminal in the line, a first and a second switch element, at least one movable terminal on the first switch element engageable to the fixed terminal to close the line circuit, a first stop limiting the motion of each switch element in the direction away from the fixed terminal, a pair of prebiased plate springs having one end of each spring pivotally supported in the second switch element, a second stop, a pair of supports for the other ends of the plate springs positioned above the second switch element in the line closing position of the mechanism, the second switch element being moved toward the first switch element by the heat responsive element with increasing temperature to position such one ends of the springs coplanar with the other ends of the springs and slightly therebeyond and being rapidly propelled in such direction thereafter by the plate springs to engage the second stop, the first switch element simultaneously with the spring propelled movement of the second switch element moving in the opposite direction by the plate springs to disengage the movable terminal from the fixed line terminal until it engages the first stop, and means connected to the second switch element to restore the first and second switch elements to the circuit closing position.

2,834,855
LOAD BREAK DEVICE
Thomas J. Carpenter, Pittsfield, and Sidney R. Smith, Jr., Stockbridge, Mass., assignors to General Electric Company, a corporation of New York
Application April 18, 1956, Serial No. 578,995
10 Claims. (Cl. 200—148)



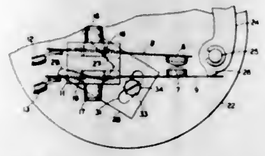
1. In an automatically and manually operable circuit interrupter, said interrupter having means for automatically interrupting an overcurrent therethrough, said interrupter having other means for extinguishing an electric arc established when said interrupter is manually opened, said other means comprising a replaceable cartridge which is small with respect to said interrupter, said cartridge being adapted to produce an electric arc extinguishing pressure blast into said electric arc, and means for initiating said pressure blast only if an electric arc is established when said interrupter is manually opened.

2,834,856
LOAD BREAK DEVICE
Francis J. Charewicz, Lanesboro, and Sidney R. Smith, Jr., Stockbridge, Mass., assignors to General Electric Company, a corporation of New York
Application September 11, 1956, Serial No. 609,219
19 Claims. (Cl. 200—148)



1. A manually operable circuit maker and breaker for controlling the energization of electrical apparatus from a source of electrical energy, comprising, in combination, a fixed contact for connection to said source, a cooperating manually operable and removable switch member for connection to said apparatus, an expendable and replaceable cartridge for producing an electrical arc interrupting fluid blast, said cartridge being small with respect to said switch member and being detachably mounted on said switch member, means for initiating said fluid blast into an electrical arc which is established when said switch member is manually opened, and means rendering said initiating means inactive when said switch member is being manually closed and active when said switch member is being manually opened.

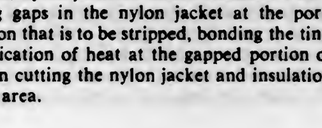
2,834,857
ELECTRICAL SWITCH
George O. Baker, Rochester, and Francis W. Truesdell, Dover, N. H., assignors to General Electric Company, a corporation of New York
Application December 26, 1956, Serial No. 630,686
2 Claims. (Cl. 200—166)



1. An electrical switch comprising, in combination: first and second spaced, resilient, relatively movable switch blades, first and second electrical contacts mounted on corresponding switch blades, a molded plastic block having a wedge-shaped section molded as a part thereof and a mounting post formed on one end thereof, support means on which said block is mounted including a metallic plate having an opening through which said mounting post extends, means for clamping said block to said plate, said clamping means permitting limited turning

of said block about the axis of said mounting post, means for mounting said switch blades on the other end of said block, said blades extending at right angles to the axis of said mounting post, switch actuating means for selectively changing the spacing of said switch blades to make and break said contacts, said actuating means including a member bearing against one of said blades to normally separate said contacts, a metallic adjusting arm wedged on said block for turning said block about the axis of said mounting post to adjust the normal separation of said contacts, said adjusting arm having one end thereof notched to receive said wedge-shaped section whereby the two parts are wedged securely together, and means for clamping said adjusting arm in a fixed position upon adjustment of said contact separation.

2,834,858
CORROSION TESTING PROBE
Edward Schaschl, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application December 18, 1956, Serial No. 629,077
11 Claims. (Cl. 201—63)



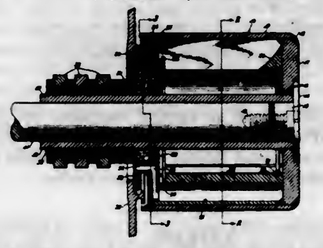
1. A corrosion test probe comprising an external insulating base means supporting a conductor rod, a cap means attached to one end of said rod to present an annular, continuous sealing surface toward said base means, said base means having a corresponding annular, continuous sealing surface toward the sealing surface of said cap means, a sleeve means encompassing and spaced from said base means and having terminal annular, continuous sealing surfaces opposite the sealing surfaces of said base means and said cap means, resilient annular seals between said opposed sealing surfaces, a pair of elongated test specimens mounted longitudinally by said base means, each having their contiguous ends held by said sealing surfaces and said annular seals under compression by said cap means, one of said test specimens having its body portion outside said base and said sleeve means, the other of said test specimens having its body within the annular space between said sleeve means and said base means, and one pair of contiguous ends of said test specimens being maintained in electrical contact with said conductor rod forming a common lead therefrom.

2,834,859
BONDING STRANDED NYLON JACKETED INSULATED WIRE
Donald C. Alexander, Paxton, and Harold L. Pibus, Sterling, Mass.
Application April 1, 1957, Serial No. 649,798
9 Claims. (Cl. 219—9.5)



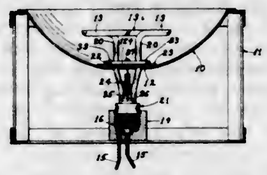
1. The method for bonding and stripping an end of insulated, nylon jacketed tinned stranded wire comprising forming gaps in the nylon jacket at the portion of the insulation that is to be stripped, bonding the tinned strands by application of heat at the gapped portion of the wire, and then cutting the nylon jacket and insulation off at the bonded area.

2,834,860
APPARATUS FOR CONTINUOUS DRYING OF YARN, ETC.
Jefferson L. Claiborne and William F. Luther, Chattanooga, Tenn., assignors to Dixie Mercerizing Company, Chattanooga, Tenn., a corporation of Tennessee
Application March 18, 1955, Serial No. 495,242
4 Claims. (Cl. 219—19)



1. Drying apparatus comprising a pair of rotatable hollow cylinders the surfaces of which are adapted to support thread or yarn for drying, a segmented and expansible metal body in contact with most of the interior of each cylinder and rotatable therewith, each body having a plurality of axially extending circumferentially spaced cavities therein, a thermostat in one cavity of each body, a heater in each other cavity of both bodies, means to control the circuit to the heaters of each body and means to actuate said control means, said actuating means being connected in series with both said thermostats.

2,834,861
RADIANT HEATER
Sidney J. Temple, Pittsburgh, Pa., assignor to Edwin L. Wiegand Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 22, 1955, Serial No. 523,865
9 Claims. (Cl. 219—34)

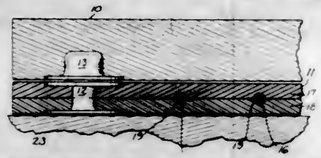


1. An electric heater for use with an apertured supporting member, comprising an electric heating element having electrically connected spaced-apart portions one of which generates heat when current is passed therethrough and the other of which provides for making an electrical connection to a source of current, said heating element being securable to said supporting member and passing through its aperture to position said one portion thereof on one side of said member and said other portion thereof on the other side of said member, shield means slideably carried by said heating element and interposed between said one portion and said supporting member and overlying the aperture in the latter to protect said other portion from the heat produced by said one portion, and means resiliently urging said shield means in a direction away from said one portion and toward said supporting member.

2,834,862
HEATING ELEMENT
Cornelius W. Meyers, Portland, Oreg.
Application June 26, 1956, Serial No. 593,942
3 Claims. (Cl. 219—34)

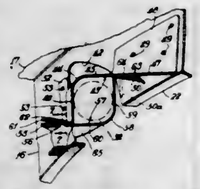
1. A heating panel comprising the combination of a relatively thin rigid upper sheet member and a relatively

thin flexible lower sheet member substantially coextensive therewith and disposed thereunder, said lower sheet member being comprised of a pair of relatively thin flexible thermoplastic laminae bonded together and having



embedded therebetween an electric resistance conductor, said upper and lower sheet members being loosely secured together so as to permit flexure of said lower sheet member independently of said upper sheet member.

2,834,863
ELECTRIC HEATING UNIT ASSEMBLY
George G. Anderson, Fox River Grove, and Leroy C. Hanson, Elmhurst, Ill., assignors, by mesne assignments, to Ferro Corporation, Cleveland, Ohio, a corporation of Ohio
Application February 1, 1956, Serial No. 562,757
11 Claims. (Cl. 219—37)



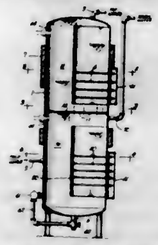
7. A heater mounting assembly which comprises a tubular sheathed embedded resistor heating unit in the form of a flat winding with a substantially tangential extension, a thin walled mounting having a depending annular wall defining an opening in the upper end of which the winding is removably supported with the extension projecting outwardly through said annular wall in which said extension is pivoted for swinging of the flat winding from said opening to an upraised position at one side thereof, the said bearing having an access opening at the bottom through which the extension of the winding is enterable by sidewise movement thereof and the bearing and said extension having parts which are cooperatively engaged by such sidewise movement to hold the said extension against endwise movement in the bearing.

2,834,864
HEAD BOLT HEATER
George H. Grinde, Minneapolis, Minn.
Application September 10, 1956, Serial No. 608,764
1 Claim. (Cl. 219—38)



In a device of the class described, an elongated tubular housing comprising upper and lower sections, said lower section being diametrically reduced with respect to the upper section and having a closed bottom, an electrical heating element in said lower section, electric conduit means for said heating element extending through said upper section, threads on the lower end of said upper section adapted to engage the threads in a bolt hole of an engine block below the cylinder head, a longitudinally slidable tubular head mounted on said upper section, a set screw extending through the wall of said head having selective reception in one of a plurality of longitudinally spaced recesses in the outer surface of said upper housing section, and a tubular cylinder head engaging pressure member having screw threaded engagement with said tubular head and depending therefrom, said recesses being longitudinally spaced with respect to said housing a distance less than the extent of threaded engagement between said head and said pressure member.

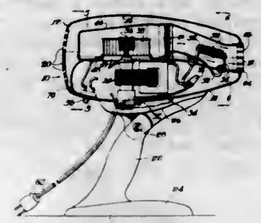
2,834,865
TWO-COMPARTMENT HOT WATER TANK
Sydney N. Coates, Seattle, Wash.
Application July 17, 1957, Serial No. 672,499
3 Claims. (Cl. 219—38)



1. A hot water heater comprising an upright tank, a transverse partition intermediate its ends dividing the tank into upper and lower compartments, said partition having a group of apertures for limited communication between the two compartments, a heating chamber in each compartment, freely open at top and at bottom to the space therein, and each aligned with said group of apertures, whereby heated water rising from the lower heating chamber will in part rise through the apertures to enter the upper heating chamber, and in part will circulate within the lower compartment, and heated water rising from the upper chamber will circulate within the upper compartment, a cold water inlet admitting to the lower compartment only, two hot water delivery connections, from the upper portion of the respective compartments, a heating element in each chamber acting upon the water rising therethrough, and thermostatic control means for the respective heating elements, to maintain the water in the upper compartment at a given temperature, and that in the lower compartment at a given lower temperature.

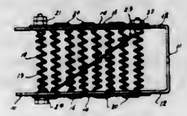
2,834,866
PORTABLE DRYER
Louis Bentzman, Oak Hill, Del., assignor to Saxony Electronics, Inc., Wilmington, Del., a corporation of Delaware
Application October 15, 1956, Serial No. 615,946
13 Claims. (Cl. 219—39)

1. A structure for a portable dryer comprising a pedestal, a shell in the form of an elongated spheroid mounted on its side upon said pedestal, said shell having an air discharge opening in its front end, an electric motor having an extending shaft, said motor being mounted within said shell over said pedestal, a fan impeller mounted upon said shaft, a fan scroll housing and discharge duct mounted within said shell and respectively enclosing said impeller and being aligned with said air discharge opening, said scroll being mounted close to said motor to provide a compact assembly, an air inlet opening in said scroll adjacent said motor and fan impeller shaft, an air intake aperture in said shell for admitting a stream of air which flows over said



motor and into said scroll inlet, an electrical heater disposed within said discharge duct, and said motor is mounted within the bottom of said shell with its shaft extending upward.

2,834,867
RESISTANCE HEATING ELEMENT
Robert M. White, Waukegan, Ill., assignor to The Chicago Hardware Foundry Company, North Chicago, Ill., a corporation of Illinois
Application November 2, 1956, Serial No. 619,984
3 Claims. (Cl. 219—39)



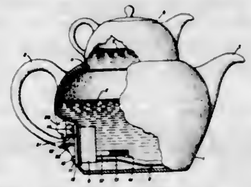
1. A heating element, comprising in combination: an elongated U-shaped supporting base adapted for being mounted at its bight; a pair of opposed flatwise-spaced electrically insulative sheets each secured to only one leg of said base and lying in separate spaced planes defining a volumetric space therebetween; a heater wire uniformly externally wound directly around said spaced sheets and cooperating in the defining of said volumetric space, one end of said heater wire terminating adjacent to the bight of said U-shaped base and the other end terminating remotely therefrom; and a connector wire disposed within said volumetric space in spaced relation to said heater wire, one end of said connector wire communicating with said other other end of said heater wire, and the other end of said connector wire terminating adjacent to the bight of said U-shaped base.

2,834,868
TEMPERATURE CONTROL SYSTEM FOR COOKING UTENSILS
William L. Greene, Annapolis, Md., and Henry A. Berliner, Washington, D. C.
Application March 19, 1956, Serial No. 572,318
2 Claims. (Cl. 219—43)



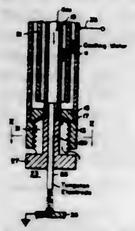
1. Cooking apparatus comprising a cooking utensil having electrical heating means built into it, external electrical contact plugs on said utensil connected to the heating means, a heat transfer member formed integrally with the cooking utensil and extending outwardly therefrom adjacent said contact plugs, a guide member connected to the cooking utensil and at least partially surrounding the contact plugs and the heat transfer member, a connecting member having a cross-sectional shape corresponding to that of the guide member and being separate from the cooking utensil and having sockets therein connected to a source of electricity to receive said terminal plugs, temperature control means associated with said connecting member and responsive to variation from a predetermined temperature to open the connection of said sockets to the source of electricity, and means within said connecting member positioned to be engaged by said heat transfer member upon insertion of the terminal plugs into the sockets for transferring the heat of the cooking utensil to the temperature control means.

2,834,869
TEMPERATURE CONTROLLED REGULATOR SWITCH HAVING MEANS LIMITING DRY-RUN HEATING AND PREVENTING SUBSEQUENT ENERGIZATION OF ELECTRIC HEATERS FOR LIQUIDS
Theodor H. Stiebel, Holzminden, Weser, Germany
Application July 20, 1956, Serial No. 599,143
5 Claims. (Cl. 219—44)



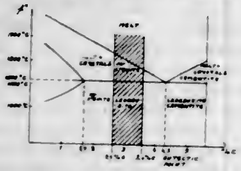
1. Temperature controlled switch for electric heaters for liquids comprising an electric heating coil for heating a body of liquid, a housing immersed into the body of liquid, a temperature responsive bimetal plate spring within the housing, the bimetal plate spring having a free end region which is increasingly deflected with increasing temperature, the spring having also a pair of laterally aligned projections at its free end region, a pair of electrically conductive switch members engageable with each other to connect a source of electrical energy to the heating coil, a connector interconnecting the bimetal plate spring and one of the pair of switch members to move it in the direction of disengagement from the other of the switch members with increasing temperature of the bimetal plate spring and to disengage such one switch member from the other when the bimetal plate spring is at a predetermined temperature, a heat-conductive body directly connects a limited area of the heating coil to the housing to transmit heat to the bimetal plate spring with a time delay, and an automatically operating latching means cooperating with the bimetal plate spring is at such distance from the latter that only when the heating element runs dry does the latching means operate to latch the one switch member to its disengaging position, the automatically operating latching means comprising a pivoted two-armed lever, a recess in the free end of one arm of the lever through which the free end of the plate spring normally extends, a spring pressing the free end of the one arm against the laterally, aligned projections when the plate spring extends through the recess and beyond the projections when the plate spring is deflected out of the recess, and a stop means in the path of movement of the two-armed lever limiting the movement of the free end of the one arm on deflection of the plate spring out of the recess to a position in which the return of the plate spring into the recess is blocked.

2,834,870
ARC WELDING GUN
William N. Platte, Boston, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 9, 1956, Serial No. 570,566
6 Claims. (Cl. 219—75)



1. An arc welding gun for welding work in a shield of non-reactive gas comprising a gun body having a channel for transmitting said gas and including means for supporting an electrode in welding relationship to said work, and means for supplying current for welding to said electrode, the said gun being characterized by gettering means connected to said gun body and interposed at the terminus of said channel, said gettering means being so connected to said arc that during welding said gettering means is heated to a temperature such that it is effective in removing material such as water vapor, oxygen and nitrogen from said gas.

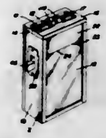
2,834,871
PROCESS FOR MANUFACTURING WELDED CAST IRON TUBES BY ELECTRICAL RESISTANCE WELDING
Manfred V. Berg, Gothenburg, Sweden
Application August 2, 1952, Serial No. 302,342
4 Claims. (Cl. 219—104)



1. The method of producing welded cast iron articles which comprises: effecting electric current flow through pieces by flash welding means, the said pieces of cast iron having a total percentage of carbon within the range of from 2.7 to 3.6% with a mutual variation in carbon content not exceeding 0.5% and containing more totally bound carbon than free graphite, a percentage of silicon not exceeding 1.9% and a percentage of phosphorus not exceeding 0.5%, with a mutual variation in phosphorus content not exceeding 0.2%; rapidly cooling the weld to a temperature of about 500° C.; and slowly cooling the weld from said temperature of about 500° C. to room temperature.

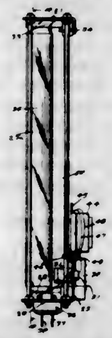
2,834,872
PORTABLE ILLUMINABLE MIRROR
Theodore Van Esley, Detroit, Mich.
Application February 13, 1957, Serial No. 640,015
2 Claims. (Cl. 240—4.2)

1. An illuminable self-contained portable pocket-size mirror comprising a box-like case having an open front and embodying non-transparent bottom, top, back and side walls defining a compartment, said bottom and side walls having aligned horizontal and vertical grooves situated adjacent and parallel with said open front, said top wall having a fixed rearward half-portion and a forward half-portion, the latter being hingedly mounted on the rearward half-portion and providing a lid, the upper ends of the vertical grooves opening through the upper end portions of the side walls and being covered by the lid when the lid is closed, a mirror slidingly and removably fitted and retained in said grooves and covering in part said open front, a glass panel coplanar with and complemental to said mirror, said panel being slidingly and removably keyed in upper portions of said vertical grooves and being held against displacement by said lid, and a source of illumination operatively mounted in said compartment and including flashlight batteries and a miniature lamp, the latter supported in cooperating



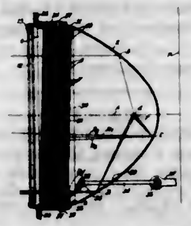
alignment with said glass panel, said glass panel being situated at the top portion of said compartment and being frosted, and a reflector mounted in the top portion of said compartment directly behind said panel and said lamp being removably supported by said reflector, said reflector being inclined and thus slanted forwardly and downwardly and provided centrally with a hole which is bushed by a collar, the base of said lamp being friction-fitted into said collar and thus supported in its operating position, said lid being spring-biased and normally held in its closed position, the lower edge of said panel resting atop the upper edge of the mirror and the upper edge of said panel being flush with the upper edges of said side walls.

2,834,873
FLUORESCENT LIGHTING FIXTURE
John R. Cooper, Miami, Fla., assignor to Simon Gross, Miami, Fla.
Application January 16, 1957, Serial No. 634,484
1 Claim. (Cl. 240—11.4)



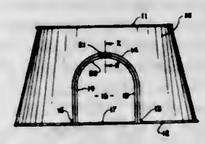
A fluorescent light fixture comprising a frame formed of a pair of spaced apart upper and lower L-shaped members, one side of each member constituting an end wall and said end walls being parallel, the other sides of said members being disposed in confronting position and constituting rear walls, elongated rods connecting the portions of said plates which comprise the end walls to form a frame, confronting sockets carried by said members, a contact plugs, means securing said plug on the outer side of one end wall, said plug when engaged with a receptacle constituting the sole support for the fixture, means electrically connecting said plug with said sockets, a transformer interposed in said electrical connecting means, a starter also interposed in said electrical connecting means for electrical interconnection of said plug, sockets, transformer and starter, and means securing said starter and transformer to one of said rear walls.

2,834,874
VEHICLE HEADLIGHT WITH MOVABLE SCREEN
Marcel Edouard Henchoz and Edmond Theophile Dégallier, Lausanne, Switzerland
Application March 31, 1954, Serial No. 420,142
Claims priority, application Switzerland April 1, 1953
8 Claims. (Cl. 240—46.07)



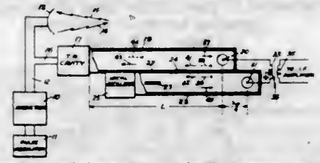
1. A vehicle headlight comprising, in combination, a parabolic reflector, a source of light centered at the focus of said reflector, and means for modifying the paths of the light rays leaving said light source and reflector for the purpose of diminishing the glaring effect produced by the rays upon the driver of an approaching vehicle, said means comprising a front extension to said reflector, a rigid disk formed from a plurality of laminae of a solid transparent material, said laminae being assembled with their lateral edges forming the front and rear faces of the disk, a frame holding the assembly of laminae to define said disk, said disk being sufficiently large that it receives at least the greater part of the light rays reflected by the reflector, said laminae having their upper faces polished and their lower faces furrowed in a direction parallel to their edges, said disk being mounted for rotation about a horizontal axis parallel with its faces and the faces of the said laminae, said axis being perpendicular to the optical axis of the headlight, said laminae having a thickness comprised between 1/15 and 1/40 of their width measured in a vertical plane parallel to the optical axis and having their front and rear lateral edges polished over at least the greater part of their height, actuating means for adjusting the angular position of the disk in said extension.

2,834,875
SIDE-OPENING LAMP SHADE
Elmer F. Grobskopf, Sheboygan, Wis.
Application July 30, 1956, Serial No. 600,813
3 Claims. (Cl. 240—108)



1. A side-opening lamp shade, comprising: a substantially conventional lamp shade having an upper supporting rim and a lower supporting rim and a generally upwardly directed sidewall disposed therebetween; a section of said lower rim and said sidewall being separated from said shade, providing a lateral door-aperture therein; said lower rim of said shade being provided with an aperture edge rim extending along the edge of said door-aperture; and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said sidewall of said shade defining said lateral door-aperture; said separated section of said lower rim being provided with a door edge rim extending around the outer edge of said separated sidewall section and being of U-channel conformation having parallel sides receiving, effectively holding, and supporting in a rigid manner therebetween edge portions of said separated sidewall section and effectively defining a door dimensioned to interfit within said aperture edge rim extending along the edge of the door-aperture; frictional hinge means fastened to said aperture edge rim carried by said shade and also fastened to said door edge rim carried by said door, said frictional hinge means normally frictionally mounting and holding said door within said aperture and in substantial peripheral alignment with said sidewall of said shade, said frictional hinge means including two hinge portions forcibly frictionally engaged in interleaved frictional contact with each other and frictionally pivotally cooperable to fixedly support said door in rotatively displaced position with respect to said aperture at any predetermined outwardly projecting angle with respect to said sidewall of said shade; and stop means carried by said rim extending inwardly with respect to said aperture along the inner edges of said rim and abuttingly cooperable with said door holding same in substantial peripheral alignment with said sidewall of said shade when said door is closed with respect thereto.

2,834,876
BALANCED MIXERS WHICH UTILIZE IMAGE-FREQUENCY POWER REFLECTED FROM DETECTOR DIODES
Wilbur L. Pritchard, Watertown, and Carlo P. Domenichini, Lexington, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application October 1, 1953, Serial No. 383,676
1 Claim. (Cl. 250—20)

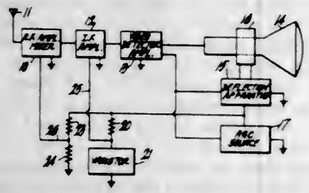


Apparatus for mixing two periodic waves of different frequencies comprising two sections of wave guide having a common wall with an opening in said wall, means including a resonant cavity to propagate a first of said waves in a first of said wave guides, means to propagate a second of said waves in a second of said wave guides, a nonlinear impedance mounted in a transverse plane in each of said wave guides, and means coupled to each of said nonlinear impedances for deriving therefrom an output wave at a third frequency, the nonlinear impedance in the first wave guide being positioned at such a distance from the resonant cavity at the input end that said cavity appears as substantially an open circuit to energy at the image frequency with the result that said energy is reflected back toward said non-linear impedances where it combines with energy at the second frequency to produe energy at the third frequency, the plane of the second impedance being located at a distance from the plane of the first equal to approximately a quarter of a guide wave length at the image frequency.

2,834,877
AUTOMATIC GAIN CONTROL CIRCUITS
William Milwitt, Reseda, Calif., assignor to Radio Corporation of America, a corporation of Delaware
Application April 14, 1955, Serial No. 501,423
5 Claims. (Cl. 250—20)

1. In a signal receiving apparatus including first and second signal amplifier stages adapted to amplify re-

ceived signal waves and automatic gain control voltage generating means for deriving a gain control voltage proportional to the amplitude of said received signal waves, an automatic gain control circuit comprising, a first voltage divider network including a pair of resistors connected in series between said voltage generating means and a point of fixed reference potential, circuit means connected between said second signal amplifier stage and the junction of said pair of resistors for applying a predetermined portion of said control voltage to said second



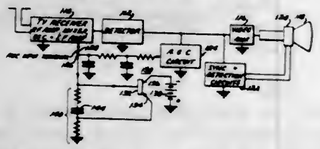
signal amplifier, a second voltage divider network including a varistor and a resistor connected in series arrangement in shunt with said first voltage divider network, said varistor having the characteristic defined by $I=KV^n$ where I=current, V=voltage, K and n are constants, and circuit means connected between said first signal amplifier stage and the junction of said varistor and said resistor whereby the magnitude and rate of applied control voltage to each of said signal amplifier stages is different.

2,834,878

CONTROLLABLE REACTANCE SYSTEMS

Leslie L. Burns, Jr. and Eugene O. Keizer, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application July 27, 1955, Serial No. 524,707
The terminal 15 years of the term of the patent to be granted has been disclaimed
1 Claim. (Cl. 250—20)



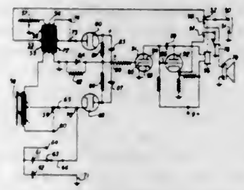
In a television signal receiving apparatus the combination of: means for receiving and demodulating modulated radio frequency signals to produce video frequency signals, said means including an automatic gain control potential acceptance terminal means; an automatic gain control circuit operatively coupled with said receiving means responsive to received signals to develop an automatic gain control potential; means operatively coupling said automatic gain control circuit with said gain control potential acceptance terminal means to operatively apply said developed automatic gain control potential in stabilizing relation to said receiving means to reduce amplitude variations in demodulated video frequency signals as a result of variations in the intensity of received radio frequency signals; time constant means included in said automatic gain control circuit and substantially in shunt with said coupling means to reduce the response speed of said automatic gain control circuit; a capacitance means and resistance means connected in series with one another to form a combination; means connecting said combination in shunt with said time constant means in such relation thereto as to increase the time constant value thereof by an amount depending upon the effective value of capacitance appearing across the terminals of said combination, said combination being further connected such that said automatic gain control potential appears at least in part across said combination; a transistor amplifier device having a base electrode, collector electrode and emitter electrode; means connecting said capacitance means between said base electrode and said emitter electrode; means direct current connecting the extremity of said resistance means remote from said capacitance means with said collector electrode to form a collector-emitter current path; power supply means operatively connected in said collector-emitter path for rendering said transistor operative for power amplification with a power gain determined by the value of automatic gain control potential appearing across said combination such that the effective value of capacitance presented by said combination and hence the time constant of said automatic gain control circuit is rendered a function of the value of developed automatic gain control potential.

2,834,879

FREQUENCY SELECTIVE SYSTEM

Edward Bauman, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill, a corporation of Illinois

Application January 23, 1952, Serial No. 267,887
5 Claims. (Cl. 250—27)



1. An electric signal frequency selector circuit having input and output terminals and adapted to respond to an input signal of selected continuous frequency in the presence of random mixed discontinuous frequency input signals, said circuit including in combination, a first resonant circuit portion connected to said input terminals and being tuned to the frequency of the signal of selected frequency, a second circuit portion connected to said input terminals in parallel with said first resonant circuit portion and including transformer means, said second portion being adapted to pass the random mixed frequency input electric signals and to attenuate signals of said selected frequency, the resonant impedance of said resonant circuit portion being substantially less than the parallel connected impedance of said second circuit portion, the Q of said resonant circuit portion being of substantially the same value as the transformation factor of said transformer means, means coupled to said resonant circuit portion to recify the selected signal frequency signals passed by said resonant circuit portion to produce a first direct current signal of one polarity, means coupled to said second circuit portion to rectify the mixed frequency signals passed by said second circuit portion to produce a second direct current signal having a polarity opposite to said first direct current signal, and means connected with both of said rectifying means and said output terminals to differentially combine said first direct current signal of one polarity with said direct current signals of the opposite polarity to produce at least momentarily across said output terminals a signal of said one polarity and amplitude responding to said selected continuous frequency signal.

2,834,880

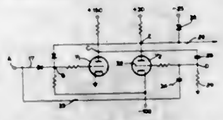
PULSE GENERATOR

Genung L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application April 6, 1953, Serial No. 346,941
4 Claims. (Cl. 250—27)

1. A pulse generator comprising in combination first and second vacuum tubes each having at least an anode

and a control electrode, a condenser connected between the anode of said first vacuum tube and the control electrode of said second vacuum tube, a resistor connected between the control electrode of said second vacuum tube and a point of reference potential, a first rectifier con-



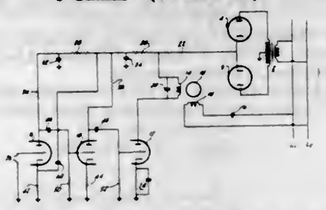
nected between the anode of said second vacuum tube and the control electrode of said first vacuum tube for impressing rises in potential at the anode of said second vacuum tube on the control electrode of said first vacuum tube, an input terminal for receiving input pulses, and a second rectifier connected between said input terminal and the control electrode of said first vacuum tube.

2,834,881

AMPLIFIER AND POWER SUPPLY THEREFOR

Samuel Feinstein, Wantagh, N.Y., assignor to Servomechanisms Inc., a corporation of New York

Application December 10, 1953, Serial No. 397,408
3 Claims. (Cl. 250—27)



1. The combination with a source of alternating voltage and load circuit tuned for parallel resonance at the frequency of the source, of an amplifier and power supply therefor for controlling the load in response to an alternating current control signal of the frequency of the source comprising an amplifier stage, including a voltage amplifier tube and a driver tube, for amplifying the input signal, a power stage coupled to said amplifier stage and including a power tube having an anode connected to one end of said tuned load circuit, and a power transformer having a primary connected across said source and a center grounded secondary, a full wave rectifier for rectifying the voltage across said secondary and impressing unfiltered rectified voltage across said load circuit and power tube in series and two decoupling networks for delivering operating energy from said rectifier to said amplifier stage, said voltage amplifier tube being connected for receipt of operating energy through both said networks and said driver tube receiving operating energy through one decoupling network, and a feedback connection from the output end of said last mentioned network to an electrode of said amplifier tube phased to minimize current through the load circuit of twice the frequency of the source.

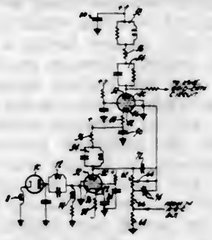
2,834,882

ELECTRIC WAVE AMPLITUDE CLIPPING CIRCUIT

Richard Wolfgang Sonnenfeldt, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 17, 1954, Serial No. 450,418
8 Claims. (Cl. 250—27)

1. A wave signal amplifier system including, a pair of amplifier devices having input and output circuits, a pair of resistive elements connected in series and coupled to the output circuit of one of said amplifier devices, one of said resistive elements having a tapping thereon and two terminals, a connection between said tapping and the input circuit of the second of said amplifier devices, capacitive reactance elements connected between said tapping and the terminals of said one resistive element and biasing means including said resistive elements for connection with the input circuit of said second amplifier device to



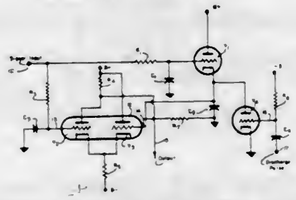
render said second amplifier device non-conductive in response to signal waves in excess of a predetermined amplitude, the setting of said predetermined amplitude being determined by the position of said tapping along said one resistive element.

2,834,883

PEAK AMPLITUDE INDICATOR

Herman Lukoff, Philadelphia, Pa., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application October 12, 1955, Serial No. 540,019
15 Claims. (Cl. 250—27)



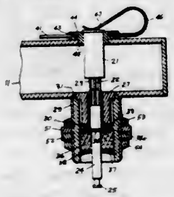
1. In a control circuit, a differential amplifier having first and second inputs, a peak detector, means substantially simultaneously coupling a varying amplitude input signal to said first input and to said peak detector, said peak detector including unidirectional means for following said input amplitude variations in a single sense only, means coupling said peak detector to said second input, and means for taking an output from said differential amplifier in response to a difference in potential applied to the said first and second inputs.

2,834,884

WAVE GUIDE WITH CRYSTAL DIODE SOCKET HAVING CAPTIVE CLAMPING MEANS

Carlo P. Domenichini, Lexington, and Joseph Bakura, Watertown, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

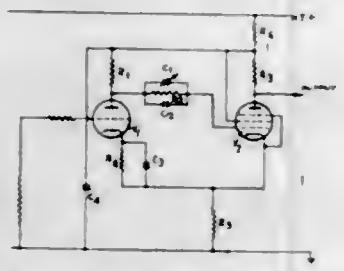
Application April 8, 1954, Serial No. 421,721
1 Claim. (Cl. 250—31)



In an electromagnetic wave energy guiding structure, the improvement comprising first and second spaced bush-

ings secured to said wave guiding structure, said bushings having aligned central apertures therein communicating with the interior of said wave guiding structure, a conductor mounted within the aperture of said second bushing, said conductor terminating in resilient gripping elements, a crystal element positioned in the aperture of said first bushing and projecting within said wave guiding structure, said crystal element having a portion thereof engaged by said gripping elements establishing an electrical juncture, said first bushing having a peripheral groove therein, a slidable member having a pair of spaced parallel fingers carrying a resilient element, said fingers cooperating with said peripheral groove whereby said resilient element may be slidably positioned over the aperture in said first bushing to bear upon the exposed end of said crystal element, said parallel fingers being of sufficient length to permit said resilient element to be displaced entirely clear of said aperture, and means secured to said fingers at the ends thereof to prevent separation of said slidable member from said first bushing.

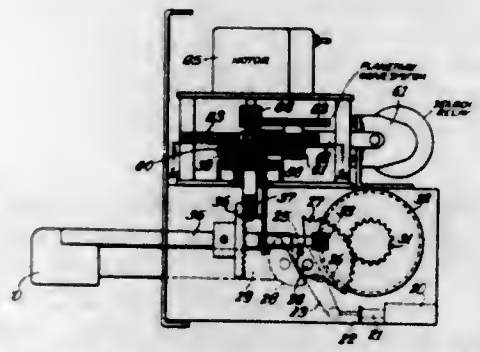
2,834,885
OSCILLATOR CIRCUITS
Ralph Ashley Shute, Cambridge, England, assignor to Pye Limited, Cambridge, England, a British company
Application December 12, 1955, Serial No. 552,592
Claims priority, application Great Britain December 24, 1954
9 Claims. (Cl. 250—36)



1. An oscillator circuit, particularly for use as a time base oscillator, comprising at least one electronic valve, a high tension supply for said valve, a condenser connected to an electrode of said valve, the action of said valve charging and discharging said condenser in order to form a sawtooth waveform, a rectifying device connected to a grid electrode of said valve, a resistor connected in series with said rectifying device and a voltage stabilising device having a non-linear voltage/current characteristic connected to bias said rectifying device in order to clamp the oscillator waveform appearing at said grid electrode to a level set by said stabilising device, and thereby maintain the frequency of the oscillator substantially constant within given limits, when variations occur in the high tension supply.

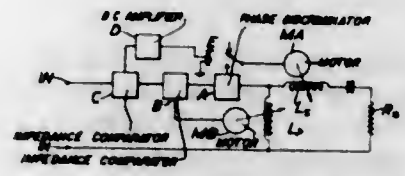
2,834,886
TUNING APPARATUS
Reynald E. Thompson, Mount Prospect, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application February 14, 1955, Serial No. 487,989
18 Claims. (Cl. 250—40)

6. Tuning apparatus for a radio receiver adapted to provide tuning over a range of frequencies and to stop the tuning in response to a predetermined signal, said tuning apparatus including in combination, energy supply means, driving means, means for connecting said driving means to said supply means, movable tuner means for the receiver, and rotary speed reducing means interconnecting said driving means and said tuner means for causing said tuner means to sweep the frequency range in response to operation of said driving means, said rotary means including a rotatable member which is effective to cause transfer of motion through said rotary means when said rotatable member is held against rotation, said rotatable member being effective to disengage said rotary means when allowed to rotate, said connecting means including a portion adapted to physically engage said rotatable member when said connecting means is actuated



to prevent rotation thereof, with said connecting means being actuated when tuning is initiated to energize said driving means, and to prevent rotation of said rotatable member so that said tuner means is operatively connected to said driving means.

2,834,887
CONTROL SYSTEMS FOR MATCHING IMPEDANCE NETWORKS
Thomas Theodore Brown, Epping, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application October 31, 1955, Serial No. 543,975
Claims priority, application Great Britain November 18, 1954
2 Claims. (Cl. 250—40)

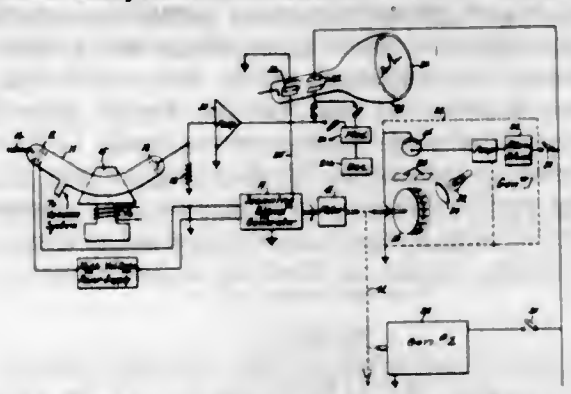


1. An automatic control system for an impedance matching network having at least two adjustable elements, comprising two impedance comparators and a phase discriminator, adjustment means for each of said elements, means controlled by said phase discriminator for adjusting the adjustment means for one of said elements for tuning said element in response to departures from a resonant condition and in a direction to restore said condition, means controlled by one impedance comparator for adjusting the adjustment means for the other of said elements for matching said last mentioned element in response to departures from a matched condition and in a direction to restore said matched condition, and means controlled by the other impedance comparator in response to the occurrence of an input impedance of said network below a predetermined value which is substantially less than that for the matched condition, for reversing the direction of adjustment of said first mentioned element as determined by the phase discriminator.

2,834,888
DATA ANALYZING EQUIPMENT
James F. Norton, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 31, 1954, Serial No. 479,166
12 Claims. (Cl. 250—41.9)

1. A data analyzer for spectrum analysis instruments comprising an oscilloscope, means for supplying the electric output signal from a spectrum analysis device to one set of deflection elements of said oscilloscope, generator means for producing electric signals representative of the calibration of constituents that compose the various mixtures to be analyzed, means for coupling the output from

said generator means to said one set of deflection elements in phase opposition to the output signal from said spectrum analysis device, and means for supplying a syn-



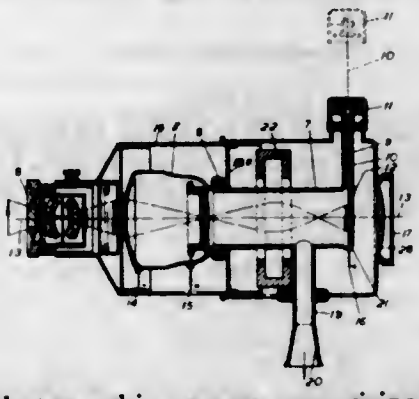
chronizing signal to the remaining set of transverse deflecting elements of said osciloscope for sweeping the beam of the oscilloscope in synchronism with the scanning through the range of the spectrum analysis device.

2,834,889

ELECTRONIC CAMERA

Gustav Fries, Ostheim, near Hanau-on-Main, Germany, assignor to Julius Cato Vredenburg-Inglesby, London, England

Application June 8, 1953, Serial No. 360,264
Claims priority, application Great Britain, June 10, 1952
21 Claims. (Cl. 250—49.5)



1. A photographic camera comprising a camera housing having a lens; a diaphragm stop associated with said lens, an evacuated envelope the wall of which includes a light-pervious portion and an electron-pervious material window including a continuous, self-supporting part; an electrode having a photo-emissive surface within said evacuated envelope adjacent said light pervious wall part thereof and spaced from said electron-pervious window so as to emit electrons according to a distribution pattern determined by the light falling through said light pervious wall portion, said envelope being mounted in said housing with said photo-cathode in imaging relation to said lens; electron-optical means for accelerating and focussing electrons emitted from the photo-cathode so as to cause said electrons to pass through said window and form outside said envelope a sharply focussed electron image of at least part of said photocathode area; an electron-sensitive record-receiving element, and means for supporting said record-receiving element in said housing outside said envelope in such a position that said sharply focussed image is formed on the record-receiving surface of said element.

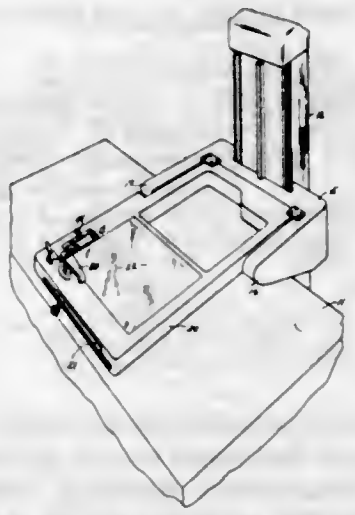
2,834,890

MULTI-FILMER

Edgar J. Bastin, Chesterland, and David M. Barrett, Lyndhurst, Ohio, assignors to Picker X-Ray Corporation, Waite Mfg. Div. Inc., Cleveland, Ohio, a corporation of Ohio

Application May 12, 1955, Serial No. 507,846
28 Claims. (Cl. 250—66)

1. In an X-ray apparatus, a hollow fluoroscope housing having a fluorescent screen forming a portion of one wall and defining an X-ray exposure area, the remaining portion of said one housing wall being open to provide access to a film cassette in the housing, a cassette carrier disposed in the housing and adapted for selective reciprocable movement between the film access and multiple exposure areas in the housing where each exposure area corre-



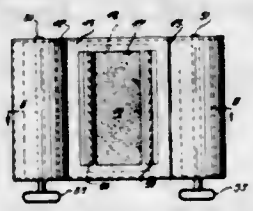
sponds to a different predetermined exposure location for the film, and adjustable means for selectively reciprocating the carrier into and out of each exposure area in a simple harmonic motion the maximum amplitude of which can be adjusted to coincide with the selected exposure area.

2,834,891

RADIATION DETECTION METHODS AND DEVICES

Leonard E. Ravich, New York, N. Y., assignor, by mesne assignments, to Hupp Corporation, Cleveland, Ohio, a corporation of Virginia

Application March 5, 1954, Serial No. 414,319
19 Claims. (Cl. 250—71)



1. An infra-red counter-detection device for field use comprising a phosphor which after excitation is stimulable to visible luminescence by exposure to infra-red radiation, said phosphor being dispersed through a solid carrier material impervious to moisture and transparent to visible, infra-red and excitation radiation, and envelope means substantially opaque to infra-red enclosing said phosphor bearing carrier material and having an opening through which said material may be passed for exposure to incident radiation.

2,834,892

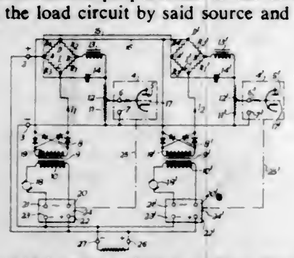
APPARATUS FOR THE REGULATION OF THE VOLTAGE ACROSS A COMMON LOAD CIRCUIT SUPPLIED FROM TWO OR MORE SOURCES OF DIRECT CURRENT

Raymond Gerald Martin, King's Cross, London, England, assignor to Westinghouse Brake and Signal Company Limited, London, England

Application March 3, 1954, Serial No. 413,889
Claims priority, application Great Britain March 31, 1953
6 Claims. (Cl. 307—52)

1. Apparatus for the regulation of the voltage across a common load circuit supplied simultaneously from two or more parallel connected sources of direct current comprising, in combination, associated with each source, voltage regulating means having input terminals and arranged to regulate the output voltage of its associated

source in accordance with a direct current potential applied across said input terminals; means for deriving a first direct current potential proportional to the voltage across said load circuit, a resistance bridge having a first and a second pair of diametrically opposite points, means for supplying to said first pair of diametrically opposite points a direct current proportional to the direct current supplied to the load circuit by said source and means for



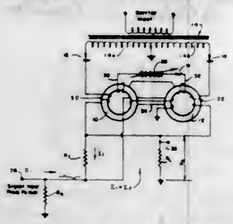
applying to said input terminals a voltage dependent upon the sum of said first direct current potential and a second direct current potential appearing across said second pair of diametrically opposite points, a corresponding point of each other pair of diametrically opposite points being connected to a common interconnection, all bridge arms having one end connected to said common interconnection having equal resistances and all other bridge arms also having equal resistances.

2,834,893

MAGNETIC AMPLIFIER FLIP-FLOP CIRCUIT

Richard W. Spencer, Philadelphia, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application January 10, 1955, Serial No. 480,671
21 Claims. (Cl. 307—88)



17. In a magnetic control circuit, magnetic core means, a source of carrier potential, first coil means on said core means, means coupling one end of said first coil means to said carrier source for producing a flux in said core means, an output circuit coupled to the other end of said first coil means, rectifier means in series with said first coil means between said carrier source and said output circuit, a signal source, second coil means on said core means coupled to said signal source for selectively producing a further flux in said core means in response to occurrence of a signal from said signal source, and impedance means coupling said output circuit to said core means for producing a feedback flux in said core means in additive relation to said further flux in response to an output voltage in said output circuit.

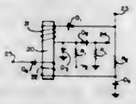
2,834,894

ASYMMETRICALLY ENERGIZED MAGNETIC AMPLIFIERS

William F. Steagall, Merchantville, N. J., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application June 5, 1956, Serial No. 589,426
27 Claims. (Cl. 307—88)

26. In a magnetic amplifier system that employs a plurality of magnetic amplifiers connected in cascade so that output pulses from one are applied as input pulses to the next, and a source of alternating potential is used for energizing said amplifiers, the improvement in such a system of each of said magnetic amplifiers comprising a saturable magnetic element, winding means linked to said element, unidirectional means for connecting said source to a terminal of said winding means whereby at least a portion of said winding means tends to be energized by voltage excursions of only one polarity of said alternating potential source to magnetize said element in one direction, output load means connected to a terminal of said winding means for deriving output pulses in ac-



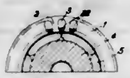
cordance with certain pulses of current in said winding means, means for supplying a bias voltage and for combining said bias voltage with the alternating potential of said source to provide opposite going voltage excursions of different effective magnitudes, and means for energizing at least a portion of said winding means to magnetize said element in the opposite direction and to develop a voltage across said winding means during said voltage excursions of the other polarity, which developed voltage is in a direction tending to cause said unidirectional means to conduct and which has a magnitude less than the effective magnitude of said other polarity voltage excursion.

2,834,895

ELECTRIC ROTARY-FIELD SYSTEM

Hermann Papst, St. Georgen (Schwarzwald), Germany

Application July 8, 1954, Serial No. 444,055
4 Claims. (Cl. 310—44)



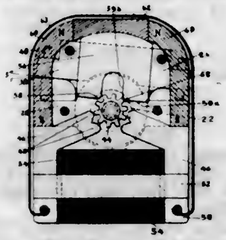
1. In an electric rotary apparatus comprising a primary cylindrical member adapted to produce a rotating field and a secondary cylindrical member coaxial with the primary member, the first and secondary members being rotatable relative to each other, a layer of hysteretic material on the surface region of the secondary member adjacent to the primary member comprising a plurality of finite length striplike portions disposed with their longitudinal axes substantially parallel to each other and to the axis of rotation.

2,834,896

STEPPING MOTOR

Charles P. Fisher, Framingham, Mass., assignor to Sigma Instruments, Incorporated, a corporation of Massachusetts

Application September 28, 1955, Serial No. 537,102
18 Claims. (Cl. 310—49)



1. A stepping motor having a rotatable soft iron armature with a plurality of spaced poles thereon, a stationary

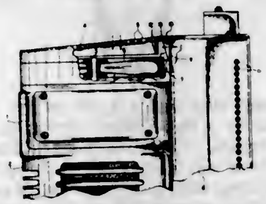
field structure surrounding the armature having at least one detent pole with a pole face of limited area to concentrate flux in a single adjacent armature pole, a plurality of torque poles, means for establishing a permanent magnetic circuit making said detent pole of one polarity, and said torque poles of the opposite polarity, said torque poles being linked in a variable magnetic circuit having coil means associated therewith for modifying the flux therein, and means for supplying variable current to said coil means so as to reverse the polarity of a part only of the torque poles at each current change.

2,834,897

DYNAMOELECTRIC MACHINE COOLING

Kenneth H. Fox, Fair Haven, N. J., assignor to Bendix Aviation Corporation, Eatontown, N. J., a corporation of Delaware

Application December 21, 1953, Serial No. 399,389
4 Claims. (Cl. 310—59)



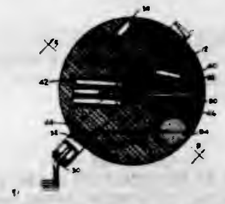
1. A dynamoelectric machine, comprising a housing, a rotatable member mounted inside said housing, a control box mounted on said housing, a fan mounted on said rotatable member adjacent one end of said housing and adapted to provide a flow of air into said dynamoelectric machine, the normal flow of air from said fan being towards the other end of said housing over said rotatable member and having a reverse flow of air around the outer circumference thereof, a circumferential channel positioned adjacent said fan on the side away from said normal air flow with the center of said channel being substantially in line with the outer circumference of said fan, and means connecting said channel to said control box whereby air flow in a reverse direction from said fan is diverted into said control box.

2,834,898

VOLTAGE GENERATOR

Leslie W. Partridge, Janesville, Wis., assignor to The Burdick Corporation, Milton, Wis., a corporation of Delaware

Application April 22, 1955, Serial No. 503,157
14 Claims. (Cl. 310—111)



1. An apparatus for use with an electrocardiograph adapted to be operated by cardiac voltages derived from electrodes applied to two legs, two arms, and the chest of a human being and including an amplifier having a pair of input leads comprising a voltage generating network having three voltage generating means connected to provide three output leads connected to one side of each of said three generating means and two output leads connected in common with said three generating means, said three output leads and said three generating means providing voltage waves representing voltages derived from two arm electrodes and one chest electrode, said two common output leads providing voltages representing voltages derived from two leg electrodes; and switching means for selectively connecting said output leads to said pair of amplifier input leads.

2,834,899

RADIOACTIVE RESISTOR

Victor E. Ragosine, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application April 29, 1955, Serial No. 504,966
2 Claims. (Cl. 313—54)



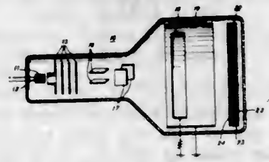
1. A resistor comprising a sealed glass envelope, at least two uniformly spaced electrodes of low secondary emission material positioned within said envelope, said envelope filled with a radioactive gaseous mixture consisting essentially of tritium and an electronegative gas selected from the group consisting of oxygen, air and water vapor, having a pressure of from 500 microns to 1½ centimeters of mercury, said electrodes having an electrode spacing of about 1 to 1.5 millimeters, so constructed and arranged that the current and voltage across the electrodes vary linearly in an inter-related manner to enable either to function as the measure of the other.

2,834,900

GRID STRUCTURE

John A. McCarthy, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 30, 1956, Serial No. 607,083
5 Claims. (Cl. 313—68)



1. A barrier grid storage tube comprising a dielectric target, an electrode upon one face of said target, electron gun means for projecting a stream of electrons against the opposite face of said target, and a multilayer barrier grid adjacent said opposite face and through which said electrons are projected, said barrier grid comprising four arrays of parallel wires, the wires of each array being oriented at 45°, 90° and 135° with respect to the wires of the other arrays.

2,834,901

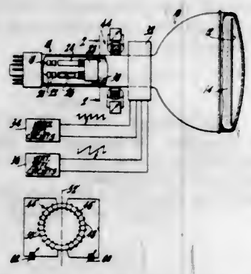
CATHODE RAY TUBE ADJUNCT

William H. Barkow, Pennsauken, and Jerrold K. Kratz, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application May 6, 1954, Serial No. 428,014
9 Claims. (Cl. 313—76)

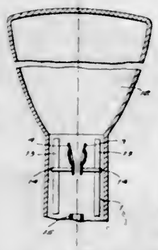
1. An adjunct for a cathode ray tube having a target, means for directing an electron beam along the longitudinal axis of such tube toward said target and electromagnetic means for deflecting such electron beam transversely of said target, said adjunct comprising: a continuous core member adapted to surround such tube and reside in a plane substantially normal to such axis; a first

conductor wound about said core; a second conductor wound about said core but spaced from said first conductor on said core; means including a circuit element



connecting the ends of said first conductor; and means including a circuit element connecting the ends of said second conductor, said first and second conductors forming electrically and physically separate coils.

2,834,902
DEFLECTION SYSTEM FOR CATHODE RAY TUBES
Eberhard Gundert, Ulm (Danube), Germany, assignor to Telefunken Gesellschaft fuer drahtlose Telegraphie m. b. H., Hannover, Germany
Application July 19, 1954, Serial No. 444,298
Claims priority, application Germany July 18, 1953
7 Claims. (Cl. 313—78)



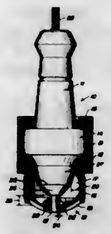
1. In an electrostatic deflection system for a cathode ray tube; a pair of deflecting plates between which the electron beam passes in direction from the inlet edges to the outlet edges of said plates, said plates having a first zone spaced from the inlet edges thereof wherein said plates are substantially planar and equidistant from the electron beam; and means combined with said deflecting plates for establishing between said first zone and said inlet edges a second zone in which the electric field varies in intensity in a direction transverse to the direction of the plane of deflection of said electron beam.

2,834,903
ELECTROLUMINESCENT LIGHTING DEVICE
Shepard Roberts, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application October 30, 1952, Serial No. 317,613
3 Claims. (Cl. 313—108)



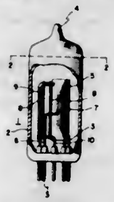
1. An electroluminescent device comprising a pair of superposed electrically conductive layers, one of said layers being light-transmitting, an electroluminescent phosphor of a low resistance type dispersed in a solid light transmitting dielectric material sandwiched between said conductive layers, and a light transmitting insulating layer interposed between said phosphor dielectric layer and said light transmitting conductive layer, said dielectric material and the material composing said insulating layer each being soluble in a solvent in which the other is not.

2,834,904
SPARK PLUG
Alexander F. Dickey, Honeyville, Utah
Application May 9, 1955, Serial No. 506,769
9 Claims. (Cl. 313—143)



1. In a spark plug having a cell at the ignition end thereof closed by a fluid diffuser serving as one of the electrical terminals, said cell defining a zone for fluid turbulence within said ignition end of the spark plug, the improvement comprising outwardly directed and arcuately configurated elongate vanes defining substantially similarly outwardly directed and arcuately configurated elongate fluid-flow openings, said vanes each having an undercut beveled, longitudinal, edge surface and an opposite overcut beveled, longitudinal, edge surface, so that said openings are disposed to direct flowing gases substantially spirally with respect to the longitudinal axis of the spark plug.

2,834,905
ELECTRON DISCHARGE DEVICE
Robert A. Lee, Locust, N. J., assignor to Bendix Aviation Corporation, Eatontown, N. J., a corporation of Delaware
Application March 28, 1956, Serial No. 574,430
3 Claims. (Cl. 313—179)



1. A gas discharge device comprising an envelope, an elongated concave shaped cathode, an inverted L-shaped anode, and barium filled rods supported substantially parallel to said cathode.

2,834,906
GAS-FILLED ELECTRIC DISCHARGE TUBES
George Francis Klepp and Douglas Albert Beard, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application April 28, 1954, Serial No. 426,194
Claims priority, application Great Britain May 18, 1953
10 Claims. (Cl. 313—217)

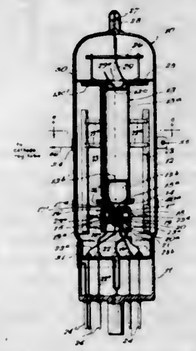
1. A cold cathode gas-filled electric glow discharge tube comprising an anode and a cathode having a common axis of symmetry and defining a discharge gap between them, the cathode being shaped so that the radius of curvature of the intersection of the cathode discharge

surface with any plane containing the said axis is not positive as viewed from the anode over the region at the



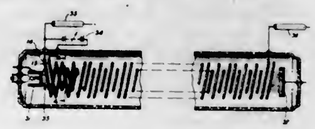
minimum distance from the anode and is finite over at least a portion of said intersection, whereby the cathode glow is spread uniformly across the cathode surface.

2,834,907
ELECTRON TUBE
Nicholas D. Glyptis, Chicago, Ill.
Application November 6, 1953, Serial No. 390,675
15 Claims. (Cl. 313—293)



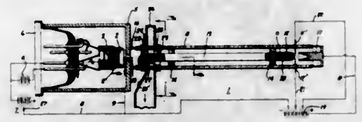
1. An electron tube, comprising: an anode; a cathode; means supporting and housing said anode and said cathode; a high resistance coating on at least a portion of said supporting and housing means; and connector means in electrically conductive relation with said coating for making a plurality of connections between said high resistance coating and an external circuit.

2,834,908
TRAVELING WAVE TUBE
Rudolf Kompfner, Far Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 9, 1953, Serial No. 360,579
6 Claims. (Cl. 315—3.6)



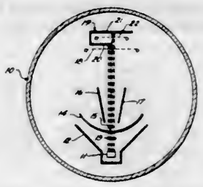
2. In an electron beam wave interaction device, means for forming and projecting an electron beam along an axis, focusing means disposed along said axis for alternately focusing said beam in a first plane parallel thereto for a portion of its travel along said axis and then in a different plane parallel thereto for a portion of its travel along said axis, said focusing means comprising at least two helically wound conductors, each helix having a flat sided cross section which periodically is angularly rotated along the length of said helix, means for applying a potential difference between said helices, and input and output signal transmission means connected to said focusing means.

2,834,909
TRAVELING WAVE ELECTRON DISCHARGE DEVICE
William L. Beaver, Palo Alto, Calif., assignor to Varian Associates, San Carlos, Calif., a corporation of California
Application June 17, 1954, Serial No. 437,461
4 Claims. (Cl. 315—3.6)



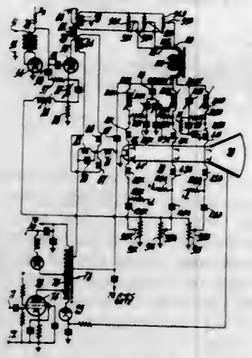
1. In an oscillation device of the backward wave type, in combination, a wave amplifying device including an electromagnetic wave transmission path comprising a pair of conductors wound into the form of a bifilar helix having the individual helices thereof of the same pitch and diameter with the conductors of the two helices interleaved though insulated from each other for carrying signal currents in phase opposition, a source of electrons, means for forming electrons from said source into a concentrated stream traveling at a suitable velocity longitudinally of and in the proximity of said helix and in a direction contra to the phase velocity of the traveling wave thereon, means applying differential direct current voltages to said conductors, an output waveguide, means coupled respectively with said conductors for conveying the out-of-phase signal components of said individual helices for supplying a microwave output to said waveguide, and means for varying the velocity of said electron stream to thereby vary the frequency of said microwave output, the electrons of said stream moving through a pitch distance of the helices in one cycle less the phase delay of the wave traveling one pitch distance.

2,834,910
VARIABLE TRANSCONDUCTANCE AMPLIFIER, MODULATOR TUBE
Herbert J. Wolkstein, Newark, N. J., assignor to National Union Electric Corporation, Orange, N. J., a corporation of Delaware
Application February 28, 1955, Serial No. 490,984
8 Claims. (Cl. 315—12)



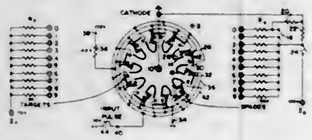
1. Electron tube apparatus comprising, means to develop a deflectable electron beam, electrode means to control the beam current, target electrode means having front and rear portions with respect to the beam trajectory one portion being a dynode and the other an anode, said target means being mounted transversely of the beam trajectory so that when the beam is in its normal undeflected position it impinges in a predetermined ratio on both the dynode and the anode to produce a zero combined current from the dynode and the anode, means to deflect the beam to vary said ratio of interception and thereby to vary the said combined current, means connecting the dynode and anode in common to the same output load, and the entire dynode surface impinged upon by the beam having substantially uniform secondary emission characteristics.

2,834,911
MULTI-BEAM CONVERGENCE CIRCUITS
Morris D. Nelson, New York, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application October 3, 1955, Serial No. 539,883
9 Claims. (Cl. 315—13)



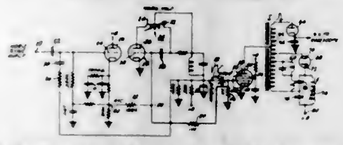
1. A beam convergence circuit arrangement for multi-beam kinescope the electron beams of which are deflected in two directions normal with respect to each other, including a plurality of convergence windings through which currents of substantially parabolic waveform of frequency corresponding to electron beam deflection in one of said directions are desired, a plurality of series circuits each comprising an inductance element and a resistance element connected in series, means to apply a voltage pulse train of recurrence rate corresponding to said deflection in said one direction across said series circuits, and means to couple said windings individually across said resistance elements in such manner that the voltage produced across each resistance element by said pulse train is impressed upon its associated winding.

2,834,912
SWITCHING METHODS AND STRUCTURE WITH MULTI-OUTPUT TUBES
Sin-Pih Fan and Rudolph A. Cola, Philadelphia, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application September 7, 1954, Serial No. 454,288
18 Claims. (Cl. 315—21)



1. A switching system comprising in combination, a multiple compartment beam tube having an elongated cathode, a plurality of spade holding electrodes surrounding the cathode, a plurality of beam receiving target electrodes positioned exterior to the spade electrodes to receive the beam when it passes between two adjacent spade electrodes, at least one auxiliary holding electrode, and corresponding switching electrode adjacent to one spade electrode in each tube compartment, means forming a magnetic field with flux lines parallel to the elongated cathode, a circuit coupled to said tube providing operating potentials for forming a beam which follows an equipotential path established between adjacent electrodes, a circuit coupled to each spade electrode for holding the beam in a stable locked-in position responsive to beam current flow to the individual spade electrode, a circuit for coupling an input switching pulse commonly to all the switching electrodes, and circuit means for causing the beam to step from a stable locked-in position on one spade electrode to at least one semi-stable locked-in position on the adjacent auxiliary holding electrode for the duration of an input trigger pulse coupled to the switching electrode, whereby upon cessation of the trigger pulse the presence of magnetic field and the change of electric field together cause the beam to progress to the next adjacent holding electrode to become locked into a corresponding position.

2,834,913
TELEVISION DEFLECTION APPARATUS
Leonard Dietch, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 26, 1956, Serial No. 593,893
3 Claims. (Cl. 315—27)

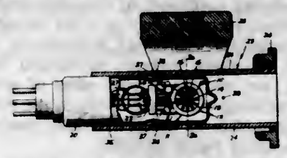


1. A horizontal deflection amplifier for use in a television receiver, which amplifier comprises: an electron tube having a cathode, control grid, screen grid and anode; means connecting said tube as an amplifier, said means including a reactive load circuit connected between said anode and a source of positive operating voltage, means for applying a positive operating voltage to said screen grid and means connecting said cathode to a point of reference potential; a source of sawtooth voltage waveforms; means including a coupling capacitor connected between said saw tooth waveform source and said control grid and a grid leak resistor connected between said control grid and a point of fixed potential for applying waveforms from said source to said control grid to control current conduction of said tube, said operating voltages being so proportioned and said waveform being of such amplitude as to drive said tube beyond cut-off for a substantial portion of a horizontal scanning interval and thereafter to increase anode grid conduction through said tube such that said tube operates, for a latter portion of the scanning interval, in its region of control grid current conduction, during which time the voltage at said anode decreases to a value substantially below that of said screen grid, such that said tube is susceptible to undesirable high frequency oscillations, said capacitor and resistor being so proportioned as to develop a self-bias for said control grid from such control grid current conduction of said amplifier tube; and means for applying to said control grid a negative direct current bias voltage, whereby the self-bias required to be developed by said tube is reduced to such a point that the time in which said tube draws control grid current is substantially reduced, thereby to minimize the tendency of said tube to such undesired oscillations.

2,834,914
MAGNETRON CONSTRUCTION
Palmer P. Derby, Weston, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application February 25, 1955, Serial No. 490,573
3 Claims. (Cl. 315—39)

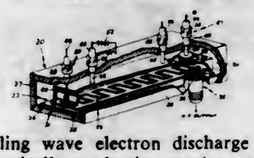
1. In combination, an electron discharge device comprising a cathode, an anode structure spaced from said cathode, said anode structure at least partially defining a plurality of cavity resonators, means for applying a transverse magnetic field to the space between the said anode and cathode, a rectangular waveguide, means for producing an electrical unbalance across said anode

parallel to its axis, and means for mounting said anode structure within said waveguide with its axis parallel



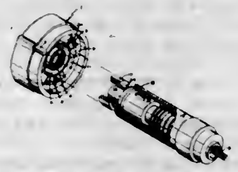
to the electrical vector of energy propagated in the waveguide.

2,834,915
TRAVELING WAVE TUBE
Edward C. Dench, Needham, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Original application October 30, 1953, Serial No. 389,415. Divided and this application March 4, 1955, Serial No. 492,073
4 Claims. (Cl. 315—39.3)



4. A traveling wave electron discharge device comprising an electrically conductive envelope, an electrically insulating member mounted on a portion of said envelope, a pair of thin interleaved electrically conductive coatings attached to said insulating member, said coatings forming an interdigital periodic slow wave propagating network, and energy coupling means having a portion thereof connected to said network through an aperture in said insulating member.

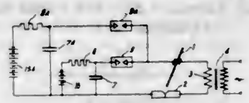
2,834,916
TUNING MEMBER FOR TUNABLE MAGNETRON DEVICES
Richard S. Briggs, Beverly, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts
Application August 28, 1956, Serial No. 606,722
5 Claims. (Cl. 315—39.61)



2. In a capacitively-tuned magnetron comprising an anode member having a plurality of radially disposed resonant cavities defined by metallic vane members, concentrically disposed metallic strap means electrically connecting alternate vane members and providing therebetween a capacitance, a tuning member of a dielectric material movable between said strap means to alter the capacitance.

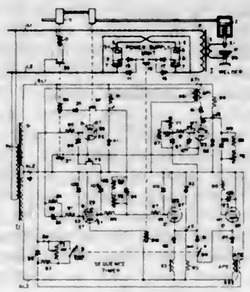
2,834,917
DEVICE FOR STARTING AND STABILIZING A WELDING ARC
Jacques Moignet, La Frette, France, assignor to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France
Application January 31, 1956, Serial No. 562,526
4 Claims. (Cl. 315—163)

1. A pulse generating circuit for starting and stabilizing an alternating current welding arc comprising, first capacitor means in series with a first gaseous discharge device, second capacitor means in series with a second gaseous discharge device having a firing voltage other



than that of said first discharge device, means for charging said capacitor means, and circuit means for permanently connecting both said members in parallel with the welding arc terminals.

2,834,918
ELECTRIC DISCHARGE APPARATUS
Edward C. Hartwig, Walnut Creek, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 4, 1953, Serial No. 378,546
11 Claims. (Cl. 315—230)



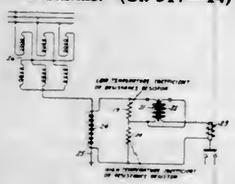
1. In combination a first conductor, a second conductor, a third conductor, means for impressing a first alternating potential between said first conductor and said second conductor, means for impressing a second alternating potential between said third conductor and said second conductor, said potentials being so related that the potential of said first conductor is substantially in opposite phase with respect to the potential of said third conductor, a first electric discharge device having an anode, a cathode and a control electrode, a second electric discharge device having an anode, a cathode and a control electrode, said second device being of the gaseous type which cleans up if a negative potential of substantial magnitude is impressed between its control electrode and its cathode while it is conducting, inductive reactance means, means including said inductive reactance means for connecting said anode and cathode of said first device between said first conductor and said second conductor respectively, a time constant network, an impedance, means for connecting said impedance between said first conductor and said network, means for connecting said network to said control electrode of said second device, means for connecting said anode and cathode of said second device between said third conductor and said second conductor respectively, means for connecting the junction of said impedance and said network to said anode of said first device, and rectifier means connected between said second conductor and said anode of said first device in a direction to conduct from said second conductor to said anode.

2,834,919
SYNCHRONIZING SYSTEM
Gustav V. A. Malmros, Binghamton, and Donald K. Rex, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application February 24, 1954, Serial No. 412,213
25 Claims. (Cl. 317—6)



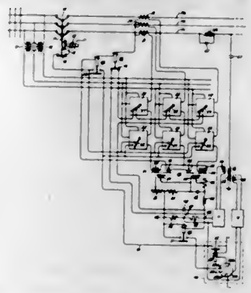
1. A system for synchronizing the operation of two independently driven machines comprising two synchronous generators each of which is coupled to a respective machine so that the generator rotational speed is proportional to that of the coupled machine, an electrical circuit interconnecting the output terminals of the generators so that electrical power is transferred therebetween to equalize the rotational speed of the generators, the circuit including switching means for sequentially reversing the relative polarity of the interconnection between the generator output terminals so that the generator into which electrical power is being transferred drops back 180 electrical degrees with respect to the other generator during each reversal by the switching means, and control means for rendering the switching means inoperative in response to rotation of the generators at the same speed with no relative mechanical phase difference therebetween.

2,834,920
CIRCUIT FOR SIMULATING TRANSFORMER WINDING HOT SPOT TEMPERATURE
Thomas C. Lennox and Howard A. Fohrhaltz, Pittsfield, and James F. McKenney, Lenox, Mass., assignors to General Electric Company, a corporation of New York
Application June 29, 1953, Serial No. 364,702
6 Claims. (Cl. 317—14)



1. In a three-phase grounding transformer apparatus having a magnetic core and electrical windings surrounding said core, said windings and core submerged in a dielectric fluid and a neutral ground lead extending from a neutral point in said windings to ground, an electrical circuit for simulating hot spot temperature in said windings, comprising two series connected resistance elements, another transformer having two electrical windings, one of said another transformer windings connected across one of said resistance elements and the other of said another transformer windings connected in series with the other of said resistance elements, and means for sending a current proportional to a fault current in said neutral ground lead through said series connected resistance elements, one of said resistance elements having a high temperature coefficient of resistance and the other of said resistance elements having a low temperature coefficient of resistance, said high temperature coefficient of resistance resietance element submerged in said dielectric fluid, the polarity of said other of said another transformer windings and the polarity of the voltage drop in the resistance element which is serially connected with said other winding being opposed.

2,834,921
PHASE COMPARISON PROTECTIVE RELAYING SYSTEM
Andrew J. McConnell, Delmar, N. Y., assignor to General Electric Company, a corporation of New York
Application November 14, 1955, Serial No. 546,575
6 Claims. (Cl. 317—28)



1. A phase comparison relaying system for protecting an alternating current polyphase electric power transmission circuit having spaced apart terminals and having an electroresponsively tripped circuit interrupter at one of said terminals comprising, a transmitter located at another terminal of the protected circuit and operable when energized to transmit an oscillating signal of predetermined frequency, means including a first fault responsive starting relay for energizing said transmitter only when the circuit current at said other terminal is flowing in a predetermined instantaneous direction during predetermined fault conditions, a receiver located at said one terminal and tuned to said predetermined frequency for producing a restraining voltage in response to energization by said oscillating signal, a network for deriving an operating voltage whenever the circuit current at said one terminal is flowing in said predetermined instantaneous direction, a second fault responsive starting relay for suppressing said operating voltage, said second starting relay being operable to liberate said operating voltage in response to a fault in the protected circuit, comparing means coupled to said receiver and network for producing a tripping impulse when energized by said operating voltage in the absence of energization by said restraining voltage, and a fault responsive supervising relay operable in response to one of said predetermined fault conditions to supply said tripping impulse to said circuit interrupter, said supervising relay being arranged to operate after said first starting relay operates.

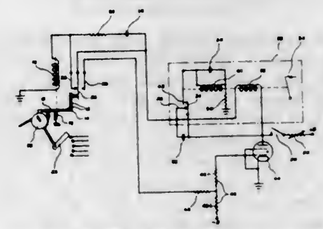
2,834,922
CELLULAR METHOD OF ELECTRONIC ASSEMBLY
Paul J. Selgin, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application May 28, 1954, Serial No. 433,311
5 Claims. (Cl. 317—101)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A coupling device comprising a frame of non-conducting material having a first side, means on said first side for receiving electron tube pins, a second side opposite to and spaced from said first side, a circuit on said second side, a plurality of conducting springs mounted on said first side, a first leg of each spring in juxtaposition with said pin receiving means and adapted to be contacted



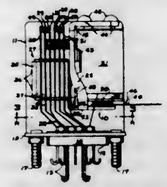
by an electron tube pin, the second leg of each spring extending into the space between said first and second sides, whereby a cell may be inserted into said space and be contacted and resiliently held between the second legs of said springs and said circuit.

2,834,923
CONTROL CIRCUITS FOR ROTARY STEPPING SWITCHES
William A. England, Morristown, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application September 27, 1954, Serial No. 458,310
4 Claims. (Cl. 317—149)



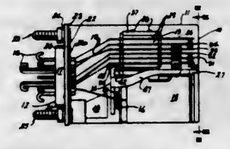
1. A circuit for effecting single step operations of a stepping switch comprising a stepping switch having an actuating coil, a thyratron, a relay means for applying operating potential to said stepping switch actuating coil, means for firing said thyratron in response to operation of said stepping switch, means for shunting said actuating coil and for operating said relay in response to conduction by said thyratron and means for disconnecting said means for applying operating potential from said actuating coil in response to operation of said relay.

2,834,924
HERMETICALLY SEALED ELECTROMAGNETIC RELAY
George A. Binder, Logansport, Ind., assignor to Essex Wire Corporation
Application January 31, 1957, Serial No. 637,441
3 Claims. (Cl. 317—165)



1. In a hermetically sealed relay, the combination with a magnetic relay structure including a fixed core member having an end portion defining a pole face and a movable armature separated in a normal deenergized position from said pole face by an air gap, and a terminal header assembly; of a housing forming a closure with said header assembly to enclose said relay, said housing including an opening therethrough aligned with respect to said air gap and having a transverse axis substantially coplanar with said pole face; said air gap being accessible through said opening to permit the temporary insertion of a thickness gauge through said opening into the air gap between the core and the armature for testing purposes; and a cover plate attached to said housing to seal said opening.

2,834,925
ELECTROMAGNETIC DEVICE
Arthur R. Brinkruff and George A. Binder, Logansport, Ind., assignors to Essex Wire Corporation
Application June 21, 1955, Serial No. 516,857
3 Claims. (Cl. 317—171)



1. In an electromagnetic relay of the type having a core and an armature, the combination of a relatively high conductivity metal disposed on the armature on the opposite side thereof from the core and a permanent magnet mounted adjacent to the relatively high conductivity metal to generate eddy currents in the high conductivity metal by movement of the armature.

2,834,926
TANTALUM ELECTROLYTIC CAPACITOR WITH IRON CHLORIDE DEPOLARIZER
James M. Booe, Indianapolis, Ind., assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware
Application November 16, 1954, Serial No. 469,094
12 Claims. (Cl. 317—230)

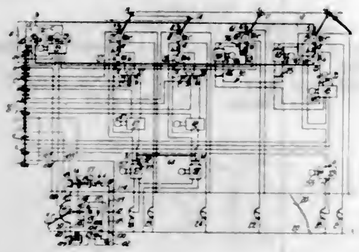


1. An electrolytic capacitor comprising an anode of tantalum, a cathode selected from the group silver and gold, an electrolyte selected from the group consisting of aqueous solutions of alkali metal chlorides and of hydrochloric acid, and a depolarizer of a chloride of iron.

2,834,927
MOTOR CONTROL SYSTEM RESPONSIVE TO COUNTER ELECTROMOTIVE FORCE
Allan C. Halter, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application November 18, 1953, Serial No. 392,945
3 Claims. (Cl. 318—77)

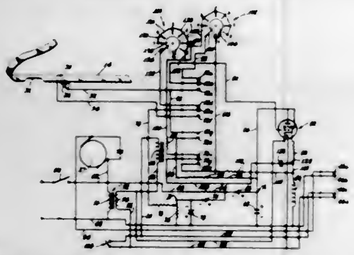
1. In a control system for maintaining the speed of a first motor at the speed of a second motor, a first circuit including in series the armature winding of said first motor, a field winding of said first motor and the armature of a booster generator, a second circuit including in series the armature winding and a field winding of said second motor, an exciter generator for controlling the

excitation of said booster generator, a first resistor connected across said windings of said first motor, a first pair of conductors connected across a point on said first resistor and a point between said windings of said first motor for picking off a first signal voltage, a second resistor connected across said windings of said second motor, a second pair of conductors connected across a point on said second resistor and a point between said windings of said second motor for picking off a second



signal voltage, a first magnetic amplifier connected to said first pair of conductors for producing a first control voltage proportional to said first signal voltage, a second magnetic amplifier connected to said second pair of conductors for producing a second control voltage proportional to said second signal voltage, and a third magnetic amplifier responsive to the difference of said control voltages for energizing said exciter generator to maintain the speed of said first motor at the speed of said second motor.

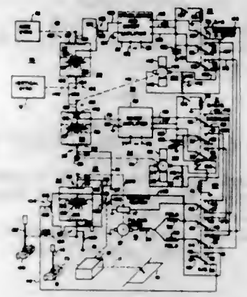
2,834,928
ELECTRONIC DEVICE FOR CONTROLLING RECORD TAPES
Melvin A. Carter, New York, N. Y.
Application November 19, 1956, Serial No. 623,239
18 Claims. (Cl. 318—162)



1. In combination with a tape carrying conductive material lengthwise and having an interruption in said conductive material, the combination comprising an electric motor, means controlled by said motor for moving the tape, circuit means for energizing said motor, a switch in said circuit means controlled by the conductive material in said tape, and means in the circuit means for deenergizing said motor to stop movement of said tape when said interruption reaches said switch.

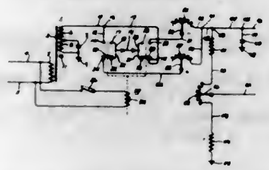
2,834,929
AUTOMATIC STEERING APPARATUS
Benjamin H. Ciecel, Golden Valley, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 6, 1953, Serial No. 335,563
12 Claims. (Cl. 318—489)

1. An apparatus for controlling the attitude of a dirigible craft about one of its axes by positioning a control surface thereof, a servomotor adapted to position said control surface; a first balanceable means comprising means for producing a voltage varying in response to variation of attitude of said craft about said one axis and means operated from a normal posiiton for producing an attitude control voltage, a first servo means connectable to said balanceable means for operation therefrom for producing in said balanceable means a voltage in accordance with the relative values of the attitude voltage and the attitude control voltage, a second balanceable means including said means for producing an attitude control voltage, a second servo means connectable with said second balanceable means for operation therefrom and supplying to the second balance-



able means a voltage varying with said attitude control voltage; means for alternatively solely controlling said servomotor that positions said surface from said first balanceable means while the first servo means is disconnected and controlling said second servo means from said second balanceable means or solely controlling said servomotor from said second balanceable means while said second servo means is disconnected and controlling said first servo means from said first balanceable means whereby control of said servo motor, without reaction on said craft, may be transferred from one balanceable means to the other while the operated position of the attitude control voltage producing means is unchanged.

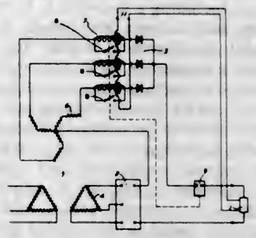
2,834,930
REVERSIBLE CONSTANT-VOLTAGE DIRECT-CURRENT
Ezra C. Hill, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application September 12, 1955, Serial No. 533,805
6 Claims. (Cl. 321—8)



1. A circuit for providing constant-voltage direct-current power from a variable-voltage alternating-current source comprising a high-reactance transformer having a core, a primary winding on said core adapted to be connected across the source, a secondary winding on another portion of said core, a path for leakage flux between said windings, a capacitor connected across at least a part of said secondary winding thereby to provide a leading current in said secondary winding, said core having a secondary winding portion of such dimensions that saturation occurs at operating voltages whereby said secondary winding has an alternating-current output adapted to vary in a predetermined manner, current rectifying means connected in series with said secondary winding thereby to provide a

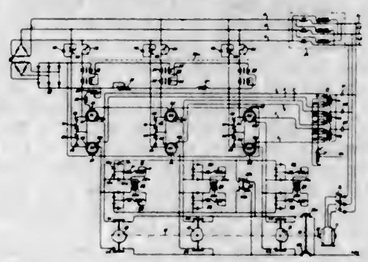
constant-voltage direct-current output, conductive apparatus connected in series with said rectifying means and adapted to connect a load thereto, and switch means for reversing the connections of said rectifying means to said secondary winding and said conductive apparatus respectively.

2,834,931
MEANS FOR SUPPLYING INTERMITTENT OVERLOAD CURRENTS FROM VOLTAGE REGULATING RECTIFIER SETS
Alec H. B. Walker, King's Cross, London, England, assignor to Westinghouse Brake & Signal Company Limited, London, England
Application July 6, 1954, Serial No. 441,469
Claims priority, application Great Britain July 6, 1953
5 Claims. (Cl. 321—20)



1. Means for supplying direct current to a load circuit from an alternating current source comprising, in combination, a main rectifier having input terminals and output terminals, a first alternating current supply circuit for supplying said input terminals, a boost rectifier having input terminals and output terminals, a second alternating current supply circuit for supplying said input terminals of said boost rectifier, the output terminals of said boos. rectifier being connected in series with said output terminals of said main rectifier and said load circuit, a transductor having an alternating current winding connected in series with said second supply circuit, the impedance of said alternating current winding being controlled in accordance with the voltage across said load circuit and means for automatically short-circuiting at least a part of said alternating current winding when the current in said load circuit exceeds a predetermined magnitude.

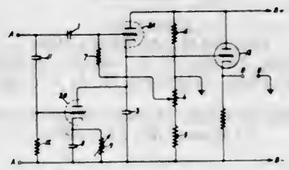
2,834,932
CONTROL SYSTEM FOR PREVENTING CONTACT SPARKING IN SYNCHRONOUS SWITCHING APPARATUS
Clyde G. Dewey, Philadelphia, Pa., assignor to General Electric Company, a corporation of New York
Application July 25, 1955, Serial No. 524,178
11 Claims. (Cl. 321—48)



1. In an apparatus for rectifying alternating current, a current conducting phase circuit adapted to be connected to a source of alternating voltage and including a movable contact operable to open and close the circuit, actuating means for cyclically operating said contact in synchronism with the alternating voltage thereby to rectify the alternating current, said actuating means periodically closing said contact in advance of zero voltage in said phase circuit, a current limiting shunting circuit connected to bypass said contact, said shunting circuit limiting the current in said phase circuit to a predetermined maximum magnitude whenever said contact is open, a saturable reactor having a main winding connected in series in said phase circuit, a control winding for said reactor, and a source of bias current of substantially rectangular waveform connected to supply to said control winding alternating forward and reverse bias current, said forward bias current saturating said reactor in opposition to the magnetization produced by current of said predetermined maximum magnitude flowing in said main winding and said reverse bias current unsaturating said reactor, said bias current source being arranged to change the bias current from its forward to its reverse direction at a predetermined instant of time before said contact is closed, whereby said reactor is unsaturated and the voltage in said phase circuit is applied across said main winding thereby to control the rate of change of flux in said reactor during contact closure.

9. In a circuit controlling apparatus having a pair of cyclically actuated circuit opening and closing contacts arranged to conduct direct current in alternating relationship with respect to each other, two rectifier bridge networks each having a pair of alternating current and a pair of direct current terminals, means connecting each pair of alternating current terminals across one of said contacts, two inductive circuits each connected across one pair of direct current terminals for limiting change of current flowing therein, and transformer coupling means interconnecting said inductive circuits.

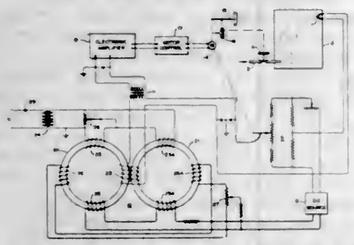
2,834,933
ELECTRICAL PEAK FOLLOWER CIRCUIT
Theodore A. Rich, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application October 13, 1954, Serial No. 462,021
2 Claims. (Cl. 323—22)



1. An electrical peak follower circuit comprising, a first triode having its anode connected to a source of positive potential and being biased to cut-off by means of a bias potential applied to its control grid, said control grid being receptive of positive voltage pulses having sloping rising and falling edges each of which serves to cause said first triode to conduct, a capacitor connected between the cathode of said first triode and a source of negative potential for storing the peak values of said positive voltage pulses transmitted to it whenever said first triode conducts, a second triode having its anode connected to the cathode of said first triode and having its control grid receptive of said positive voltage pulses, said second triode being caused to conduct by said positive voltage pulses and providing a discharge path for said capacitor upon becoming conductive, and a resistor connected in parallel with a capacitor, the parallel combination being connected between the cathode of said second triode and the source of negative potential, the parallel circuit serving to provide a bias for said second triode and

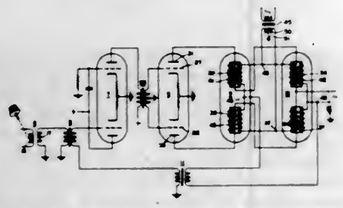
having a time constant such that second triode will remain cut off until said positive voltage pulses are near their peaks.

2,834,934
MAGNETIC INVERTER CIRCUIT
Harold H. Koppel, South Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application October 19, 1953, Serial No. 386,870
6 Claims. (Cl. 323—56)



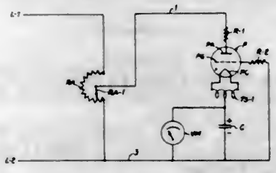
1. A reactor for inverting a single low-level D.-C. signal of reversible polarity into an A.-C. signal of reversible phase, comprising, two independent magnetic core paths, an A.-C. source of power for producing equal M. M. F.'s in each of the two magnetic paths in predetermined sense during each half cycle, multi-purpose windings connected to carry the low-level D.-C. signal and arranged in respect to said core paths to provide M. M. F.'s to aid the A.-C. M. M. F.'s in one path and oppose the A.-C. M. M. F.'s in the other path during one half cycle and vice versa during the other, a circuit for detecting the A.-C. voltage induced into the multi-purpose windings at the fundamental frequency of said A.-C. source, bias windings connected for carrying D.-C. of fixed polarity and magnitude and arranged in respect to said core paths to produce M. M. F.'s to aid the D.-C. signal M. M. F.'s in one path and oppose the D.-C. signal M. M. F.'s in the other path, and means responsive to the A.-C. voltage induced in the detection circuit for manifesting the value of the low level D.-C. signal.

2,834,935
THERMAL INTEGRATOR
Paul A. Noxon, Tenafly, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application December 18, 1953, Serial No. 399,106
5 Claims. (Cl. 323—69)



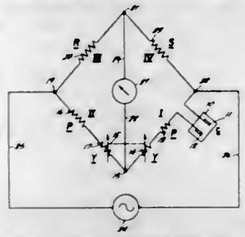
1. A circuit for obtaining the linear function of the rate of change of energy input comprising a Wheatstone bridge capable of an energy output when unbalanced, a means responsive to the energy input to unbalance adjacent arms of said bridge including means for delaying for an interval of time the unbalancing of said bridge so that at a time interval after the energy input one arm of said bridge unbalances and after a further interval an adjacent arm of said bridge unbalances, a means to feed the output of the bridge back to the input and a means for obtaining as an output a portion of the output as the signal corresponding to the rate of change of input.

2,834,936
TUBE ANALYZER
Jerrold B. Winther, Kenosha, Wis.
Application November 23, 1956, Serial No. 623,994
7 Claims. (Cl. 324—27)



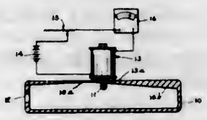
1. A phanotron tube analyzer comprising means adapted to receive a phanotron tube to be tested, said tube having a control grid and an anode and a cathode, a first electrical circuit including a variable A. C. voltage source interconnecting said cathode and anode to establish an A. C. potential therebetween, means for varying said A. C. potential, a condenser series-connected in said first circuit between said voltage source and said cathode, a second electrical circuit interconnecting said grid and said cathode and commonly including said condenser, and a voltmeter having a predetermined meter resistance shunt-connected across said condenser, said condenser being responsive to variation in said A. C. anode-cathode potential to impress a potential across said cathode-grid circuit substantially equal to the critical grid-anode voltage of said phanotron which is thereby indicated by said voltmeter.

2,834,937
CONDUCTIVITY BRIDGES
Derek Raynor, Goldington, England, assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine
Application June 15, 1955, Serial No. 515,728
Claims priority, application Great Britain June 24, 1954
4 Claims. (Cl. 324—30)



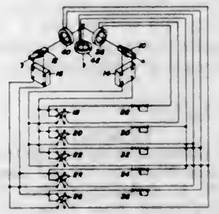
1. A temperature compensated bridge for measuring the conductivity of variable temperature solutions comprising four arms, a test cell connected in the first arm adapted to be immersed in a solution and provide a resistance which is a function of the solution characteristics, first resistance means variable to a reference minimum value in series with the test cell in the first arm, second variable resistance means in the second bridge arm joined to the first arm, means for simultaneously varying the first and second resistances through the same range of values, temperature controlled resistance means having a temperature coefficient of resistance less than the temperature coefficient of conductivity of the solution being tested, said temperature controlled resistance means being disposed in the third bridge arm joined to the second arm and being adapted to be maintained at the temperature of the solution tested by the cell, third resistance means having a reference value connected in the fourth bridge arm between the first and third arms, a detector connected between two opposite junctions each formed by conjugate bridge arms, the remaining two opposite junctions being adapted to be connected to a power source.

2,834,938
METHOD AND APPARATUS FOR MEASURING THICKNESS
Frederick W. Cunningham, Stamford, Conn., assignor to American Bosch Arma Corporation, a corporation of New York
Application April 14, 1953, Serial No. 348,703
8 Claims. (Cl. 324—34)



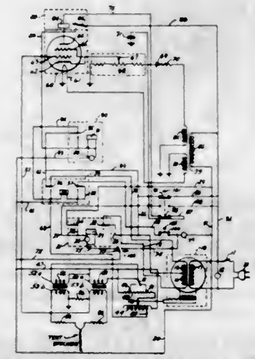
1. In a device of the character described for measuring the thickness of a wall, a variable strength magnet adapted to be positioned on one side of a wall, the thickness of which is to be measured, said magnet being movable relative to varying portions of said wall, indicator means for indicating the strength of the magnetic field and a separate, loose, magnetizable member adapted to be positioned on the opposite side of the wall the thickness of which is to be measured from said magnet, said magnetizable member being retained against said opposite side of said wall by said magnet.

2,834,939
COMPENSATION OF INDUCED MAGNETIC FIELDS
Walter E. Tolles, Mineola, N. Y., assignor to the United States of America as represented by the Secretary of the Navy
Application July 31, 1944, Serial No. 547,447
2 Claims. (Cl. 324—43)



1. An induced magnetic field compensator for aircraft equipped with magnetometers arranged to measure field components in the direction of the earth's magnetic field, which comprises a pair of magnetometer means for measuring components of the earth's magnetic field in two mutually perpendicular directions in respect to the aircraft and producing voltages proportional to said field components in said directions, first and second coils for generating magnetic fields in each of said directions when excited, a third coil for producing magnetic fields in a a direction normal to each of said directions when excited, and polarity reversing and magnitude varying means connecting the output from said magnetometer means to said coils for exciting said coils, the output from one of said magnetometer means being supplied in adjustable polarity and magnitude, through said polarity reversing and magnitude varying means, individually to each of said coils, and the output from the other of said magnetometer means being supplied in adjustable polarity and magnitude, through said polarity reversing and magnitude varying means, individually to said first and third coils.

2,834,940
APPARATUS FOR TESTING WIRE COATINGS
Richard D. Dermer and John A. Whitney, Fort Wayne, Ind., assignors, by mesne assignments, to Essex Wire Corporation
Application June 23, 1954, Serial No. 438,687
3 Claims. (Cl. 324—54)

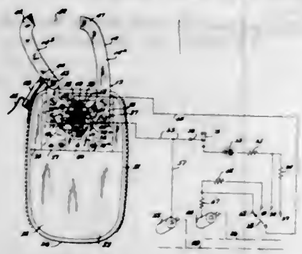


1. A device for applying a potential difference across a dielectric for testing purposes consisting of: a source of power; a variable output voltage transformer; a moveable tap on said variable transformer for adjusting its output voltage; a reversible motor for driving said variable transformer tap; a high potential transformer, a starting control circuit to energize said variable transformer, and to cause said motor to drive said variable transformer tap from a predetermined minimum voltage point to provide a constantly increasing input voltage to said high potential transformer; means for applying the output voltage of said high potential transformer to said dielectric; a fault control circuit to deenergize said variable transformer and arrest further movement of said variable transformer tap upon failure of said dielectric; and a reset control circuit to deenergize said variable transformer if not already deenergized, and to cause said motor to drive said variable transformer tap in a direction to reduce the output voltage of said variable transformer until the variable transformer tap is returned to said minimum voltage point; said control circuits preventing said variable transformer from being energized after failure of the dielectric until said variable transformer tap has been returned to said minimum voltage point.

2,834,941
CLAMP-ON ELECTRICAL MEASURING INSTRUMENT
Robert D. Hickok, Jr., Shaker Heights, and Sterling Davies, Cleveland Heights, Ohio, and William H. Yenni, Nellisville, Wis., assignors of one-half to Cleveland Patents, Incorporated, Cleveland, Ohio, a corporation of Ohio, and one-half to Auto-Test, Incorporated, Chicago, Ill., a corporation of Illinois
Application March 5, 1953, Serial No. 340,474
13 Claims. (Cl. 324—127)

1. In a direct-current electrical measuring instrument, means defining a magnetic circuit and comprising a frame structure of magnetic material having spaced pole portions and an openable yoke portion adapted to embrace a current-carrying conductor, a coil movable in the space between said pole portions, indicating means including a movable pointer connected with said coil to be actuated thereby, a battery having a substantially constant terminal potential and a milliampere current output rating, circuit means connecting said coil with said battery, and a permanent magnet of a high permanence characteristic and a low flux permeability contained in

said magnetic circuit and having substantially fixed engagement with said pole portions and extending across said space, said magnet being a bar magnet of relatively



small cross-sectional area, the indicating movement of said coil being responsive to the resultant effect of the fluxes produced by said permanent magnet and by the currents of said conductor and coil.

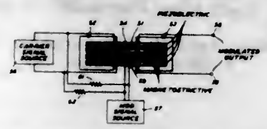
2,834,942
MAGNETIZED CORE MEASURING INSTRUMENT WITH T-SHAPED MOVING SYSTEM
Hermann Ragnar Eggers, Heiligenhaus, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application May 9, 1955, Serial No. 506,944
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
3 Claims. (Cl. 324—151)



1. An electrical measuring instrument comprising a substantially-cylindrical soft iron yoke having a cylindrical bore therethrough, a cylindrical core within said bore, said core having a diameter less than the diameter of the bore and being transversely magnetized to have a plane of maximum magnetization extending through the longitudinal axis of said core, means connecting one side of said core midway between its polar regions to said yoke so that the core will be spaced from the yoke by an annular air gap, and a coil system movable with respect to said core and said yoke including a substantially-flat main coil surrounding said core and having two parallel coil sides in said air gap, said coil sides being parallel to the longitudinal axis of said core, and a substantially-flat auxiliary coil mounted upon said yoke with one coil side in said air gap and a parallel coil side adjacent the outer surface of said yoke, said auxiliary coil being rigidly connected to said main coil at one side thereof and lying in a plane normal to the plane of said main coil.

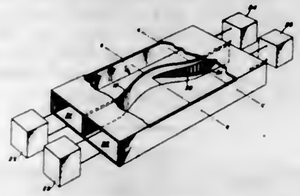
2,834,943
MECHANICALLY COUPLED ELECTROMECHANICAL AND MAGNETOMECHANICAL TRANSDUCERS
Richard O. Grisdale, Short Hills, and John H. Rowen, Morristown, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 16, 1953, Serial No. 380,574
9 Claims. (Cl. 332—51)

1. In combination, a plurality of substantially cylindrical elements of magnetostrictive material, a plurality of cylindrical elements of piezoelectric material having electrodes secured to two opposite sides thereof, means for bonding said cylinders together, said cylinders of



magnetostrictive material being bonded to and interleaved with said cylinders of piezoelectric material, and electrical means for inductively coupling to said magnetostrictive cylinders.

2,834,944
BROAD BAND DIRECTIONAL COUPLERS
Arthur G. Fox, Rumson, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 29, 1954, Serial No. 465,579
23 Claims. (Cl. 333—10)



1. A coupling device comprising a pair of electromagnetic wave transmission lines, means for coupling said lines along a given longitudinal section of said lines, said coupling varying smoothly between substantially different maximum and minimum coupling amplitudes at different points along said section, said lines having phase constants, the difference between said phase constants varying smoothly along said section with a maximum difference at substantially the point of minimum coupling and a minimum difference at substantially the point of maximum coupling.

2,834,945
FIELD DISPLACEMENT ISOLATOR
Howard Boyet, New York, N. Y., and Samuel Weisbaum, Morristown, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 25, 1955, Serial No. 503,382
6 Claims. (Cl. 333—81)



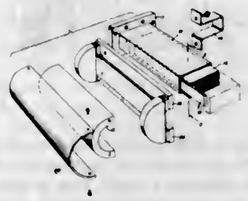
1. In a device for producing nonreciprocal wave transmission by displacing the electromagnetic field distribution of wave energy with gyromagnetic material to provide an electric field intensity differential in wave energy being transmitted in opposite directions through said device and including material of electrical characteristic different from said gyromagnetic element for converting said field intensity differential into a nonreciprocal attenuation, a wave guide, two elements of said gyromagnetic material mounted on opposite sides of and spaced away from the wave guide, each said element having a coating of said different material attached to a portion of the surface thereof, and externally applied means magnetizing the respective gyromagnetic elements in opposite senses.

2,834,946
FIELD DISPLACEMENT ISOLATOR
Frank J. Sansalone, Summit, and Samuel Weisbaum, Morristown, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 25, 1955, Serial No. 503,677
4 Claims. (Cl. 333—81)



1. In a device for producing nonreciprocal wave transmission by displacing the electromagnetic field distribution of wave energy with a magnetically polarized gyromagnetic element to provide an electric field intensity differential in energy being transmitted in opposite directions through said device and including resistive material having a loss characteristic different from said gyromagnetic element for converting said field intensity differential into a nonreciprocal attenuation, a wave guide, said element having a rectangular face and mounted within said wave guide with the rectangular face extending longitudinally along the wave guide, said resistive material being in the form of a centrally located longitudinally extending resistive film strip approximately one-half the length of the said rectangular face and attached thereto, and a diagonally located resistive film strip approximately the length of the diagonal of said rectangular face and attached thereto to render said nonreciprocal attenuation frequency insensitive over a broad frequency band.

2,834,947
FIELD DISPLACEMENT ISOLATOR
Samuel Weisbaum, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 25, 1955, Serial No. 503,678
10 Claims. (Cl. 333—81)



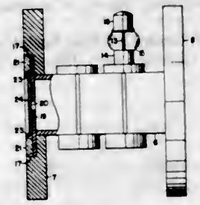
1. In a device for producing nonreciprocal wave transmission by displacing the electromagnetic field distribution of wave energy with a magnetically polarized gyromagnetic element to provide an electric field intensity differential in wave energy being transmitted in opposite directions through said device and including a coating of material of electrical characteristic different from said gyromagnetic element for converting said field intensity differential into a nonreciprocal attenuation, a wave guide of rectangular cross section having wide and narrow sides, said gyromagnetic element having two substantially parallel plane faces defining a thickness therebetween, said element being mounted longitudinally within said wave guide with a material spacing from each of the narrower side walls, said spacing being more than one-half the width of said guide from one of said narrow side walls and less than one-half the width from the other of said narrow side walls, said coating being on that one of said parallel plane faces of the gyromagnetic element facing that one of said narrow side walls from which said element is spaced more than one-half the width of said guide.

2,834,948
FREQUENCY SELECTIVE CIRCUIT STRUCTURES
Wen Yuan Pan and David J. Carlson, Haddon Heights, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application November 1, 1954, Serial No. 466,033
6 Claims. (Cl. 333—82)



1. A high frequency tuner structure comprising in combination a conductive chasis, a conductive ground plane element supported for rotation with respect to said conductive chassis, said conductive ground plane element being closely electrically coupled to said chassis to provide a low impedance path to said chassis for high frequency signal currents, a tunable resonant transmission line conductor supported in close proximity to said ground plane element relative to said chassis, a tuning element for said transmission line conductor, and means including said rotatable ground plane element for moving said transmission line conductor and said tuning element relative to each other to vary the effective length of the transmission line conductor and the frequency response of said tuner structure.

2,834,949
ROTATABLE RESONANT IRIS
John M. Duffy, Lynn, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts
Application February 18, 1955, Serial No. 489,233
1 Claim. (Cl. 333—98)

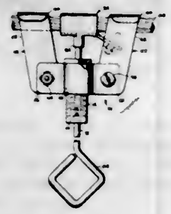


A resonant window structure for hermetically sealing an open end of a waveguide envelope for microwave transmission devices comprising a circular flange member secured to and encircling a section of rectangular waveguide, said flange member having a circular recessed portion with a depth sufficient to expose the end of said waveguide, a metallic plate member having a central iris opening positioned within said recessed portion and contacting said waveguide end, said plate member being rotatable about its center to thereby angularly displace said iris opening with respect to the longitudinal axis of said waveguide, and an outer frame member having a central dielectric covered aperture positioned in contiguous relationship against said plate member, the overall structure being retained within said recessed portion without extending beyond the outer face of said flange member.

2,834,950
HOT LINE CONNECTOR
Samuel S. Houlton, Kensington, Md.
Application March 16, 1955, Serial No. 494,772
3 Claims. (Cl. 339—109)

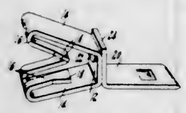
1. A hot line connector comprising a tubular cylindrical housing, a wall closing one end of said housing and

having an axial bore extending therethrough, a pair of L-shaped members encompassing said housing, means detachably securing said members to said housing, an arm on each of said L-shaped members extending in diverging relation therefrom, a reverted hook formed on the terminal of each of said arms in opposed relation, a closure wall detachably secured in the end of said tubular housing opposite said first named wall, said closure wall having a bore therein axially aligned with the bore in said first wall, a stem projecting through said bores



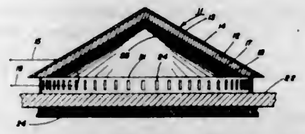
and adapted to move therein, a worm gear on said stem in said housing, a coil spring resting on said closure wall and having one end thereof secured to said housing, said coil spring engaging the convolutions of said worm gear whereby rotation of said worm gear will move said worm gear and said stem axially in said housing, with said stem resiliently carried by said housing, a hot line engaging cradle journalled on the upper end of said stem and adapted to engage one side of a hot line having its opposite side engaged by said hooks and means on said stem for connecting said stem to a source of rotary power.

2,834,951
SOCKET CONNECTOR
Charles A. Aquillon, West Newton, and Stafford E. Davis, Newtonville, Mass., assignors to Ark-Les Switch Corporation, Watertown, Mass., a corporation of Massachusetts
Application March 22, 1956, Serial No. 573,213
6 Claims. (Cl. 339—217)



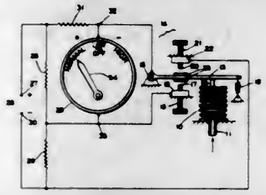
6. A socket connector block for receiving a plurality of flat spade connectors to provide an electrical connection therebetween comprising a plurality of generally U-shaped sheet metal members each having a base, and a pair of arms connected to and extending from opposite edges of said base and flaring outwardly therefrom in their free position, each of said arms having its free end portion bent inwardly back toward the other arm and said base so that it extends along and is spaced from said other arm, said end portions being divided to provide a pair of spaced arm portions each having a lug extending outwardly, terminal means on said bases in contact therewith and extending beyond said bases, and a block of insulating material for said sheet metal members, said block having a plurality of through-passages each with a pair of grooves in opposite sides thereof terminating short of one face of said sleeve to provide a pair of stops, said sheet metal members being inserted in said through-passages from said one face with their arms in firm pressure contact with the sides of said passages to press their bent-inwardly end portions into contact with one another to receive and retain spade terminals therebetween and with their lugs in said grooves to prevent movement of said members relative to said block in a direction toward said one face, and said terminal means being positioned against said one face of said block to prevent movement of said members relative to said block in a direction away from said one face.

2,834,952
TRANSDUCER
Wilbur T. Harris, Southbury, Conn.
Application March 19, 1953, Serial No. 343,531
2 Claims. (Cl. 340—8)
(Granted under Title 35, U. S. Code (1952), sec. 266)



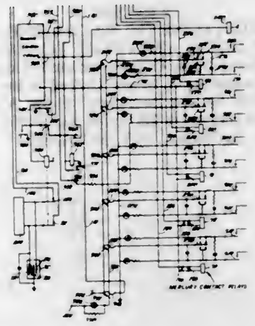
1. In a transducer, a sensitive element in the form of a hollow cone, said sensitive element being formed of electrostrictive material, a pair of electrodes one on the inner and one on the outer face of said cone, a layer of air-filled rubber covering the inside of said cone, and a ring upon which said sensitive element rests for supporting said sensitive element, said ring being formed of metal, said ring being provided with slots parallel to its axis to provide radial flexibility.

2,834,953
PRESSURE INDICATING SYSTEM
Paul F. Bechberger, Tenafly, N. J., and Donald F. Hastings, Suffern, N. Y., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 14, 1955, Serial No. 494,192
4 Claims. (Cl. 340—236)



1. A fluid pressure condition indicating system comprising a first circuit means connected to a source of direct current voltage, a single pole double throw switch including a pair of electrical contacts and a switch arm having a normal position out of contacting relation with said contacts and alternately movable into contacting relation with one or the other of said pair of contacts, fluid pressure responsive means to operatively position said switch arm, a voltmeter type indicator having a first and a second terminal operatively connected in said first circuit means, said first circuit means including electrical resistance means effective to apply a normal voltage to said indicator upon said switch arm being adjusted by said fluid pressure responsive means to said first-mentioned normal position and out of contacting relation with said contacts so as to cause said indicator to be adjusted to a first position indicative of a normal fluid pressure condition, one of said contacts being connected to the first terminal of said indicator and the said switch arm being connected to the second terminal of said indicator, said fluid pressure responsive means being so arranged as to adjust said switch arm to a second position to close said one contact upon the fluid pressure decreasing below a predetermined normal fluid pressure range, said switch arm upon closing said one contact short circuiting the indicator to cause the indicator to be adjusted to a second position indicative of a low fluid pressure condition, the other of said pair of contacts being connected to a terminal of the direct current voltage means, said fluid pressure responsive means being so arranged as to adjust said switch arm to a third position to close said other contact upon the fluid pressure increasing above a predetermined normal fluid pressure range, a second circuit means completed upon the closing of said other contact by said switch arm to apply a different voltage to said indicator to cause the indicator to be adjusted to a third position indicative of a high fluid pressure condition, and said voltmeter type indicator being so arranged in said first and second circuit means that failure of said source of direct current voltage causes said indicator to be adjusted to the aforementioned second position as an indication thereof.

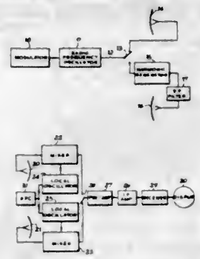
2,834,954
MULTI-FREQUENCY RINGING MACHINE
Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application April 15, 1953, Serial No. 348,862
7 Claims. (Cl. 340—248)



4. An apparatus for generating a telephonic ringing signal comprising electron valve means for generating a voltage having a fixed output frequency, relay means operated in accordance with said fixed frequency voltage, means controlled by said relay means for producing waves of said fixed frequency, means for initiating operation of said relay means, and means controlled by said relay means and responsive to proper steady state operation of said relay means at said fixed frequency for initiating operation of said producing means under the control of said relay means after a time interval following the initiation of the operation of the relay means.

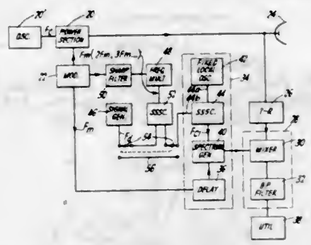
2,834,955
RADAR SYSTEMS
Stanley Rees Tanner and Ronald Lawrence Burr, London, England, assignors to The Decca Record Company Limited, London, England, a British company
Application September 22, 1952, Serial No. 310,806
Claims priority, application Great Britain December 17, 1951
10 Claims. (Cl. 343—5)

10. A radar system comprising a continuous wave oscillator for generating radio frequency signals, a modulator coupled to said oscillator to modulate the output thereof, first radiating means coupled to said oscillator for radiating said modulated output, a harmonic generator coupled to the oscillator to be excited by said modulated output so as to produce correspondingly modulated radio frequency signals of a frequency higher than that generated by said oscillator, second radiating means coupled to said harmonic generator for radiating said modulated signals of higher frequency, and a receiver for alternatively receiving and displaying echoes of signals



radiated either by said first or by said second radiating means.

2,834,956
REDUCING DOPPLER SEARCH TIME IN CROSS-CORRELATION SYSTEMS
Hunter C. Harris, Jr., Roslyn Heights, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application May 10, 1952, Serial No. 287,163
8 Claims. (Cl. 343—14)

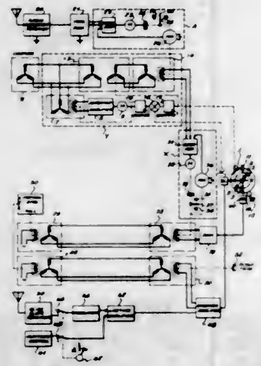


7. A doppler search radar including a transmitter having a modulator and further including a receiver and yielding a transmitted signal having a predetermined frequency spectrum, said receiver including means for generating a spectrum having frequency components corresponding to the transmitted spectrum, means for adjustably shifting the generated spectrum gradually through a range equal to the modulation frequency and additional means for adjustably shifting the spectrum stepwise at modulation frequency intervals.

2,834,957
NAVIGATIONAL AID FOR DIRIGIBLE CRAFT
Spencer Kellogg 2nd, Glen Head, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application September 29, 1952, Serial No. 312,024
11 Claims. (Cl. 343—107)

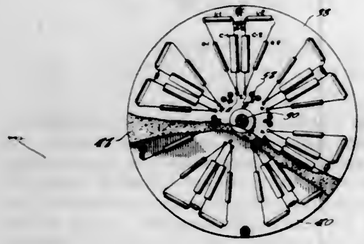
1. In a navigational aid for dirigible craft, means including a localizer receiver for providing a first signal proportional to the displacement of the craft laterally of a localizer-defined path, a heading reference device including means for supplying a second signal of reversible sign and having a magnitude variable in accordance with deviations of the craft from the reference heading, means responsive to said first signal for offsetting the heading reference from a preselected index value in an amount proportional to the magnitude of said first signal such that the second signal represents deviations in heading of the craft from the offset heading reference, said second signal being substantially zero when the craft heading corresponds to the offset reference heading, and limiting means for rendering said signal responsive means incapable of offsetting the heading reference in excess of a given amount from said preselected index value so that

when said second signal is maintained substantially at a zero value, the craft will travel in a substantially straight line toward said localizer-defined path until the offset di-



minishes from said given amount thereof, whereupon said craft will thereafter travel along a path asymptotically intercepting said localizer-defined path.

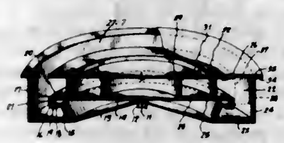
2,834,958
INDOOR TV ANTENNA
Marcos B. Perez, Ciudad Trujillo, Dominican Republic
Application July 29, 1955, Serial No. 525,334
6 Claims. (Cl. 343—751)



1. An indoor TV antenna comprising a body member adapted to be located and oriented relative to a TV transmitter, a first contact and a second contact carried by said body member and adapted to be connected to the terminals of a TV receiver by a transmission line, and the following components carried by the body member: a first resistor, a first inductor, and a first capacitor connected in series, the junction of said first resistor and first condenser being connected to said first contact; a second resistor, a second inductor, and a second capacitor in series, the junction of said second resistor and said second capacitor being connected to said second contact, and a third resistor bridging the junction between said first capacitor and said first inductor and the junction between said second capacitor and said second inductor, said inductors each including a coil of magnetic wire supported upon an insulated iron core.

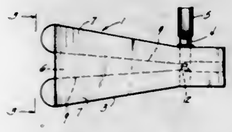
2,834,959
ANTENNAS
Arthur Dorne, Glen Head, N. Y., assignor to Dorne and Margolin, Inc., Westbury, N. Y., a corporation of New York
Application May 1, 1956, Serial No. 581,909
14 Claims. (Cl. 343—769)

1. A recessed annular-slot antenna comprising an antenna structure having a substantially continuous wall adapted to be mounted flush in a conductive surface, said structure also having means defining a generally annular cavity with said wall and said wall comprising a generally annular conductive member surrounding and substantially coplanar with a curved-outline conductive plate to define a generally annular slot therebetween, a radial conical



transmission line within said structure, a coaxial line connector at the center thereof, means defining a generally annular distributed capicitance at the outer rim of said radial line, said last means comprising means coupling said radial line to said cavity, and symmetrically located inductive means resonating said distributed capacitance.

2,834,960
ELECTROMAGNETIC RADIATING HORN UTILIZING APERTURE LOADING
William W. Henderson, Old Greenwich, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 28, 1955, Serial No. 491,235
3 Claims. (Cl. 343—786)

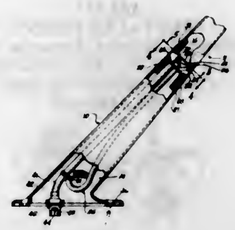


1. An electromagnetic wave radiating device comprising a flared horn having a throat section at one end thereof and four outwardly flared walls extending from said throat section defining an enlarged aperture at the opposite end thereof, and a pair of opposed elongated members disposed within said horn and extending between said throat section and said enlarged aperture with one of the extremities of said pair of opposed elongated members terminating a predetermined distance beyond the plane of said enlarged aperture and the opposite extremities of said pair of opposed elongated members terminating proximate said throat section, the extremities of said pair of opposed elongated members terminating a predetermined distance beyond said plane of said enlarged aperture being rounded and each of said opposed elongated members being rectangular in cross-section over substantially its entire length, each of said opposed elongated members being bound by tapered walls and progressively increasing in cross-section from a point in the plane of said enlarged aperture to the extremity thereof terminating proximate said throat section.

2,834,961
AIRCRAFT ANTENNA WITH IMPEDANCE MATCHING DEVICE
William Powell Lear, Sr., Prevorzier, Mies, Switzerland, and Clyde J. Norton, Canogo Park, Calif., assignors to Lear, Incorporated, Grand Rapids, Mich.
Application March 7, 1955, Serial No. 492,658
8 Claims. (Cl. 343—860)

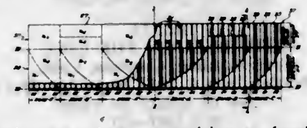
1. A broad band antenna construction comprising an elongated, hollow, lower section having means for sup-

porting the antenna, an elongated upper section aligned with said lower section and spaced therefrom, a transmission line passing into said space and connected to the upper section, an impedance-matching stub connected



to said line at a position in said space, said sections each having a reduced end portion adjacent said space, and an electrically insulating, rigid sleeve fitted over said portions, the exterior surfaces of said sleeve and sections being in flush relation.

2,834,962
WAVE GUIDE LENS
Edward K. Proctor, Jr., Forest Hills, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 2, 1954, Serial No. 413,577
22 Claims. (Cl. 343—909)

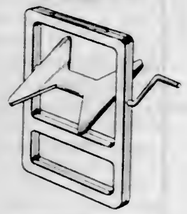


1. A microwave lens, comprising a plurality of wave guide channels forming a cellular lens structure, the effective refractive indices of said channels and electrical lengths thereof being predetermined so that the lens converts incident electromagnetic wave energy of a predetermined frequency and phase front into exit wave energy having a different phase front, and conductive ridge means in each wave guide channel extending from the region of one lens face to another lens face to thereby load said wave guide channels and effectively lower their cut-off frequencies and reduce chromatic aberration due to dispersion of said effective refractive indices with frequency variation.

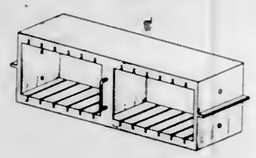
DESIGNS

MAY 13, 1958

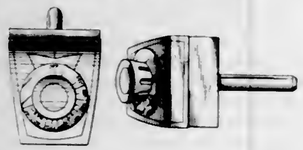
182,753
KITE REEL OR THE LIKE
Fred A. Allen, Gardena, Calif.
Application June 4, 1957, Serial No. 46,478
Term of patent 14 years
(Cl. D41—1)



182,754
DRAWER FOR A MAGNETIC RECORDER OR SIMILAR ARTICLE
Roberto O. Alvarado, Miraflores, Peru
Application February 11, 1957, Serial No. 44,823
Term of patent 7 years
(Cl. D26—14)



182,755
ELECTRIC UTENSIL CONTROL PLUG
Ralph J. T. Bauer, Briar Cliff Manor, N. Y., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application January 18, 1957, Serial No. 44,529
Term of patent 7 years
(Cl. D81—25)



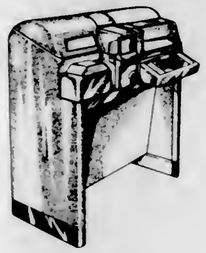
182,756
PILLOWCASE OR SIMILAR ARTICLE
Harry Beidelman, New York, N. Y., assignor to Pepperell Manufacturing Company, Boston, Mass., a corporation of Massachusetts
Application May 2, 1957, Serial No. 45,973
Term of patent 7 years
(Cl. D92—26)



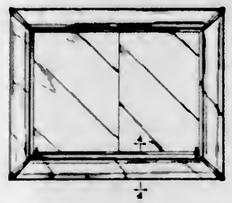
182,757
SPECTACLE FRONT
Austin B. Belgard, Evanston, Ill.
Application April 10, 1956, Serial No. 40,990
Term of patent 14 years
(Cl. D57—1)



182,758
PRINTING TELEGRAPH APPARATUS CABINET
Adolph T. Berg, Chicago, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application June 19, 1957, Serial No. 46,639
Term of patent 14 years
(Cl. D64—11)



182,759
BATHROOM CABINET
Bernard Berger, Chicago, Ill., assignor to National Steel Cabinet Company, Chicago, Ill., a corporation of Illinois
Application August 27, 1957, Serial No. 47,518
Term of patent 14 years
(Cl. D4—3)



182,760
PAIR OF SPECTACLES
Bernard Cretin-Maitenaz, Joinville-le-Pont, France, assignor to Societe Industrielle & Commerciale des Ouvriers Lunetiers (Cottet, Poichet, Tagnon & Cie), Paris (Seine), France
Application May 20, 1957, Serial No. 46,228
Term of patent 14 years
(Cl. D57—1)



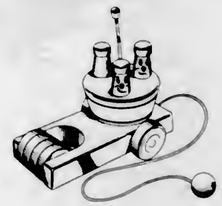
182,761
HAND DRYER
Warner A. Douglas, West Hempstead, N. Y.
Application August 2, 1957, Serial No. 47,199
Term of patent 14 years
(Cl. D4—3)



182,762
PORTABLE GRILL
Joseph B. Forrest, Charlotte, N. C.
Application September 12, 1955, Serial No. 37,881
Term of patent 14 years
(Cl. D81—10)



182,763
PULL TOY
Raymond C. Gaston, Madeira, Ohio, assignor to The Chas. Wm. Doepke Manufacturing Company, Inc., Rossmoyne, Ohio, a corporation of Ohio
Application June 13, 1957, Serial No. 46,590
Term of patent 14 years
(Cl. D34—15)



182,764
SPOON OR SIMILAR ARTICLE
Richard C. Gavette, Southington, Conn., assignor to Wallace Silversmiths, Inc., Wallingford, Conn., a corporation of Connecticut
Application June 6, 1957, Serial No. 46,502
Term of patent 14 years
(Cl. D54—12)

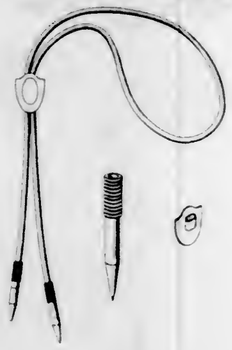


182,765
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 25, 1957, Serial No. 47,857
Term of patent 14 years
(Cl. D92—1)

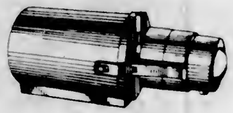
182,766
JEWEL BOX
William H. Hardy, River Edge, N. J.
Application October 28, 1957, Serial No. 48,255
Term of patent 3½ years
(Cl. D86—9)



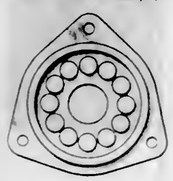
182,767
COMBINED SLIDE NECKTIE AND PENCIL
Robert A. Klitzner, Cranston, R. I.
Application August 12, 1957, Serial No. 47,340
Term of patent 14 years
(Cl. D3—16)



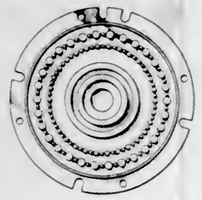
182,768
ICE CREAM FREEZER
Leroy H. Knibb, Chicago, Ill.
Application May 7, 1957, Serial No. 46,053
Term of patent 14 years
(Cl. D67—2)



182,769
COMMUTATOR PLATE
George J. Lynch, Bloomfield, N. J., assignor to Mycalex Electronics Corporation, Clifton, N. J., a corporation of New York
Application April 27, 1956, Serial No. 41,238
Term of patent 14 years
(Cl. D26—13)



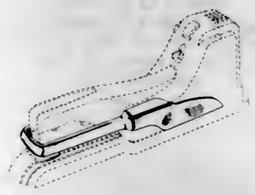
182,770
COMMUTATOR PLATE
George J. Lynch, Bloomfield, N. J., assignor to Mycalex Electronics Corporation, Clifton, N. J., a corporation of New York
Application April 27, 1956, Serial No. 41,239
Term of patent 14 years
(Cl. D26—13)



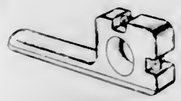
182,771
TEAR-DROP-SHAPED BICYCLE LANTERN
Eric T. New, Kew Gardens, N. Y.
Application March 26, 1957, Serial No. 45,443
Term of patent 7 years
(Cl. D48—24)



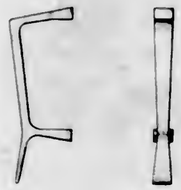
182,772
STAPLING MACHINE
Henry Ruskin, New York, N. Y., assignor to Swingline, Inc., Long Island City, N. Y., a corporation of New York
Application July 9, 1957, Serial No. 46,871
Term of patent 14 years
(Cl. D74—1)



182,773
FINGER RING SPIRIT LEVEL
Edward W. Souter, Moss Beach, Calif.
Application September 20, 1957, Serial No. 47,790
Term of patent 14 years
(Cl. D45—10)



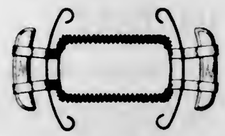
182,774
DOOR PULL
Harold Spitznagel, Sioux Falls, S. Dak.
Application February 6, 1957, Serial No. 44,770
Term of patent 14 years
(Cl. D10—8)



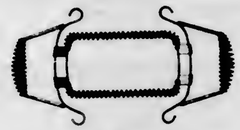
182,775
SEA FOOD SHELL DISH OR SIMILAR ARTICLE
Harry A. Tomarin, Cincinnati, Ohio
Application February 28, 1957, Serial No. 45,027
Term of patent 14 years
(Cl. D44—15)



182,776
ADJUSTABLE SERVICE DISH HOLDER
Ray E. Troendly, Elkton, Oreg., assignor to Troendly Illinois Corporation, Melrose Park, Ill., a corporation of Delaware
Application January 25, 1957, Serial No. 44,601
Term of patent 14 years
(Cl. D44—10)



182,777
ADJUSTABLE SERVICE DISH HOLDER
Ray E. Troendly, Elkton, Oreg., assignor to Troendly Illinois Corporation, Melrose Park, Ill., a corporation of Delaware
Application January 25, 1957, Serial No. 44,613
Term of patent 14 years
(Cl. D44—10)



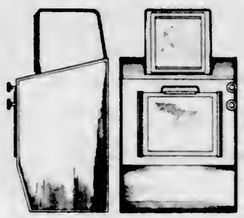
182,778
GOLFER'S GLOVE
Sidney T. Tudor, Sacramento, Calif.
Application April 11, 1957, Serial No. 45,690
Term of patent 14 years
(Cl. D3—11)



182,779
COMBINED JAR AND COVER THEREFOR OR SIMILAR ARTICLE
Earl S. Tupper, Upton, Mass., assignor to Tupper Corporation, North Smithfield, R. I., a corporation of Delaware
Application November 27, 1953, Serial No. 27,805
Term of patent 14 years
(Cl. D58—25)



182,780
CAMERA OR SIMILAR ARTICLE
Walter Wanielista, Chicago, Ill., assignor to Robertson Photo-Mechanix, Inc., Chicago, Ill., a corporation of Illinois
Application June 21, 1957, Serial No. 46,678
Term of patent 14 years
(Cl. D61—1)



182,781
SHOE SOLE
Albert Zerkowitz, New York, N. Y.
Application August 6, 1957, Serial No. 47,247
Term of patent 14 years
(Cl. D7—5)



LIST OF PLANT PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 13TH DAY OF MAY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,701, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,702, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,703, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,704, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,705, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,706, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,707, 5–13–58, Cl. 47—60.

Bristow, Owen R., to Mossholder Nursery. Azalea plant. 1,708, 5–13–58, Cl. 47—60.

Conard-Pyle Co., The: *See*—
Meilland, Francis. 1,700.

Meilland, Francis, to The Conard-Pyle Co. Rose plant. 1,700, 5–13–58, Cl. 47—61.

Mossholder Nursery: *See*—
Bristow, Owen R. 1,701–8.

LIST OF DESIGN PATENTEES

Allen, Fred A. Kite reel or the like. 182,753, 5–13–58, Cl. D41—1.

Alvarado, Roberto O. Drawer for a magnetic recorder or similar article. 182,754, 5–13–58, Cl. D26—14.

Bauer, Ralph J. T., to Casco Products Corp. Electric utensil control plug. 182,755, 5–13–58, Cl. D81—25.

Beidelman, Harry, to Pepperell Mfg. Co. Pillowcase or similar article. 182,756, 5–13–58, Cl. D92—26.

Belgard, Austin B. Spectacle front. 182,757, 5–13–58, Cl. D57—1.

Berg, Adolph T., to Teletype Corp. Printing telegraph apparatus cabinet. 182,758, 5–13–58, Cl. D64—11.

Berger, Bernard, to National Steel Cabinet Co. Bathroom cabinet. 182,759, 5–13–58, Cl. D4—3.

Casco Products Corp.: *See*—
Bauer, Ralph J. T. 182,755.

Cretin-Maitenas, Bernard, to Societe Industrielle & Commerciale des Ouvriers Lunetiers (Cottel, Poichet, Tagnon & Cie). Pair of spectacles. 182,760, 5–13–58, Cl. D57—1.

Doepke, Chas. Wm., Mfg. Co., Inc., The: *See*—
Gaston, Raymond C. 182,763.

Douglas, Warner A. Hand dryer. 182,761, 5–13–58, Cl. D4—8.

Forrest, Joseph B. Portable grill. 182,762, 5–13–58, Cl. D81—10.

Gaston, Raymond C., to The Chas. Wm. Doepke Mfg. Co., Inc. Pull toy. 182,763, 5–13–58, Cl. D34—15.

Gavette, Richard C., to Wallace Silversmiths, Inc. Spoon or similar article. 182,764, 5–13–58, Cl. D54—12.

Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 182,765, 5–13–58, Cl. D92—1.

Hardy, William H. Jewel box. 182,766, 5–13–58, Cl. D66—9.

Klitsner, Robert A. Combined slide necktie and pencil. 182,767, 5–13–58, Cl. D3—16.

Knibb, Leroy H. Ice cream freezer. 182,768, 5–13–58, Cl. D67—2.

Lynch, George J., to Mycalex Electronics Corp. Commutator plate. 182,769, 5–13–58, Cl. D26—13.

Lynch, George J., to Mycalex Electronics Corp. Commutator plate. 182,770, 5–13–58, Cl. D26—13.

Mycalex Electronics Corp.: *See*—
Lynch, George J. 182,769.
Lynch, George J. 182,770.

National Steel Cabinet Co.: *See*—
Berger, Bernard. 182,759.

New, Eric T. Tear-drop-shaped bicycle lantern. 182,771, 5–13–58, Cl. D48—24.

Pepperell Mfg. Co.: *See*—
Beidelman, Harry. 182,756.

Robertson Photo-Mechanix, Inc.: *See*—
Wanielista, Walter. 182,780.

Ruskin, Henry, to Swingline, Inc. Staping machine. 182,772, 5–13–58, Cl. D74—1.

Societe Industrielle & Commerciale des Ouvriers Lunetiers (Cottel, Poichet, Tagnon & Cie): *See*—
Cretin-Maitenas, Bernard. 182,760.

Souter, Edward W. Finger ring spirit level. 182,773, 5–13–58, Cl. D45—10.

Spitznagel, Harold. Door pull. 182,774, 5–13–58, Cl. D10—8.

Swingline, Inc.: *See*—
Ruskin, Henry. 182,772.

Teletype Corp.: *See*—
Berg, Adolph T. 182,758.

Tomarin, Harry A. Sea food shell dish or similar article. 182,775, 5–13–58, Cl. D44—15.

Troendly Illinois Corp.: *See*—
Troendly, Ray E. 182,776.
Troendly, Ray E. 182,777.

Troendly, Ray E., to Troendly Illinois Corp. Adjustable service dish holder. 182,776, 5–13–58, Cl. D44—10.

Troendly, Ray E., to Troendly Illinois Corp. Adjustable service dish holder. 182,777, 5–13–58, Cl. D44—10.

Tudor, Sidney T. Golfer's glove. 182,778, 5–13–58, Cl. D3—11.

Tupper Corp.: *See*—
Tupper, Earl S. 182,779.

United States Rubber Co.: *See*—
Goforth, Henry E. 182,765.

Wallace Silversmiths, Inc.: *See*—
Gavette, Richard C. 182,764.

Zerkowitz, Albert. Shoe sole. 182,781, 5–13–58, Cl. D7—5.

Tupper, Earl S., to Tupper Corp. Combined jar and cover therefor or similar article. 182,779, 5–13–58, Cl. D58—25.

Wanielista, Walter, to Robertson Photo-Mechanix, Inc. Camera or similar article. 182,780, 5–13–58, Cl. D61—1.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 13TH DAY OF MAY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc. : *See*—
Coffey, Irven E. 2,834,299.
Furrer, John B. 2,834,303.
Schlichting, Frederick P. 2,834,240.
Szwargulski, Jesse L. 2,834,586.

A/S Sadolin & Holmblad : *See*—
Clauson-Kaas, Niels K. F. W. 2,834,789.

Abate, Anthony : *See*—
Segerstrom, Carl A., Hoeppner, and Abate. 2,834,833.

Abbott Laboratories : *See*—
Denison, Frank W., Jr., Friedland, and Peterson. 2,834,714.
Tabbert, Donna S. 2,834,345.

Aber, Homer B., to J. I. Case Co. Tractor mounted corn harvester. 2,834,171, 5–13–58, Cl. 56—18.

Adair, Robert V., L. O. Carlsen, and E. D. Dammert, to The Gleason Works. Rolling quench machine. 2,834,592, 5–13–58, Cl. 266—6.

Adams, John Q., to Becton, Dickinson and Co. Syringe and hub locking assembly. 2,834,346, 5–13–58, Cl. 128—218.

Adel, Johan E. Tool for sharpening peelers. 2,834,162, 5–13–58, Cl. 51—181.

Aerotherm Corp., The : *See*—
Lautier, Roger A., and McGregor. 2,834,402.

Ajax Engineering Corp. : *See*—
Tama, Mario. 2,834,692.

Akerlof, Gosta C., to Callery Chemical Co. Preparation of polyethylene. 2,834,055, 5–13–58, Cl. 18—58.

Akron Brass Mfg. Co., Inc. : *See*—
Becker, Lloyd J. 2,834,416.

Aktiebolaget Svenska Kullagerfabriken : *See*—
Hjarpe, Eric G. 2,834,295.

Albert, Waldo E., Jr. : *See*—
Beach, Frederick H., and Albert. 2,834,293.

Alco Valve Co. : *See*—
Schoen, Roger W. 2,834,924.

Aldridge, Blair G. : *See*—
Chute, Andrew E., Smalley, Klohr, and Aldridge. 2,834,655.

Aldridge, Clyde L., and J. K. Mertzweiller, to Esso Research and Engineering Co. Method of esterification and purification of higher alcohols. 2,834,801, 5–13–58, Cl. 260—475.

Alessi, Andrew J., Jr. : *See*—
Gottscho, Ira S., Hirschey, and Alessi. 2,834,285.

Alexander, Donald C., and H. L. Pibus. Bonding stranded nylon jacketed insulated wire. 2,834,859, 5–13–58, Cl. 219—9.5.

Allen, Russell G., to Owens-Illinois Glass Co. Equalizing means for mold opening and closing mechanism. 2,834,155, 5–13–58, Cl. 49—41.

Allen, S. Merwyn : *See*—
Bower, Marian E. 2,834,566.

Aller, T. Dwight, to Southwest Welding & Mfg. Co. Sectional ladder installation for large tanks. 2,834,527, 5–13–58, Cl. 228—23.

Allied Chemical & Dye Corp. : *See*—
Bilanin, Frank, and Gronich. 2,834,053.
Fleysher, Maurice H. 2,834,791.
Mueller, Max B. 2,834,786.
Richardson, Edgar C. 2,834,452.

Allis-Chalmers Mfg. Co. : *See*—
Halter, Allan C. 2,834,927.
Herr, Charles H., Jr. 2,834,639.
Speisman, Camille. 2,834,085.
Tanke, Willard H. 2,834,277.

Altec Lansing Corp. : *See*—
Badmaieff, Alexis. 2,834,424.

Alto Scientific Co. : *See*—
Le Beau, Lee. 2,834,842.

American Bosch Arma Corp. : *See*—
Cunningham, Frederick W. 2,834,938.

American Can Co. : *See*—
Carew, Herman. 2,834,533.
Jakob, John P. 2,834,286.

American Conditioning House, Inc. : *See*—
Wollner, Herbert J. 2,834,212.

American Cyanamid Co. : *See*—
Davis, Arnold R., and Sullivan. 2,834,752.
Jen, Yun, and Moore. 2,834,675.
Langer, Adolph A. 2,834,456.
Lecher, Hans Z., and Greenwood. 2,834,804.
Marcucio, Stephen, and Brodsky. 2,834,705.
Scalera, Mario, Brody, and Fazio. 2,834,773.
Suen, Tzeng J., Jen, and Moore. 2,834,756.
Thomas, Walter M., and Sullivan. 2,834,764.
Wooding, William M. 2,834,688.

American Enka Corp. : *See*—
Hesselink, Frans. 2,834,046.

American Home Products Corp. : *See*—
Beall, Desmond, and Grant. 2,834,712.
Wendt, Gerhard R. 2,834,795.

American Instrument Co., The : *See*—
Ohlheiser, Carlton E. 2,834,201.

American Linen Supply Co. : *See*—
Birr, Rudolph G. 2,834,645.

American Locker Co., Inc. : *See*—
Stackhouse, Wells. 2,834,195.

American Machine and Metals, Inc. : *See*—
Gilchrist, John E. 2,834,595.

American-Marietta Co. : *See*—
Sharn, Fred J., and Boundy. 2,834,394.

American Optical Co. : *See*—
Jupnik, Helen. 2,834,689.

American Radiator & Standard Sanitary Corp. : *See*—
Jones, William A., and Cherniak. 2,834,209.

American Smelting and Refining Co. : *See*—
Fleming, Edward P., and Fitt. 2,834,653.
Hollander, Max L., and Lebedeff. 2,834,652.
Johnson, Walter F. 2,834,430.

American Steel Foundries : *See*—
Polanin, Walter R. 2,834,439.

American Type Founders Co., Inc. : *See*—
Taylor, John O., and Bergman. 2,834,132.

American Viscose Corp. : *See*—
Braunlich, Richard H. 2,834,204.
Russell, Arthur O., and Jones. 2,834,395.

Anaconda Wire and Cable Co. : *See*—
Ebel, Lawrence C. 2,834,828.

Anderson, George G., and L. C. Hanson, to Ferro Corp. Electric heating unit assembly. 2,834,863, 5–13–58, Cl. 219—37.

Anderson, Henry J., and L. O. Carlsen, to The Gleason Works. Gear cutting machine with automatic loader. 2,834,258, 5–13–58, Cl. 90—1.

Anderson, Vyron E., to Cedar Rapids Engineering Co. Engine reconditioning equipment. 2,834,233, 5–13–58, Cl. 77—2.

Andrews, Boley A., and T. L. Hanson, to The Vendo Co. Dispensing machine for refrigerated pre-mixed drinks. 2,834,190, 5–13–58, Cl. 62—7.

Angell, Ernest A. Sweeping apparatus. 2,834,034, 5–13–58, Cl. 15—79.

Anglo-Iranian Oil Co. Ltd. : *See*—
Champagnat, Alfred, and Vernet. 2,834,716.

Angona, Frank A., to Socony Mobil Oil Co., Inc. Seismic data producing system. 2,834,422, 5–13–58, Cl. 181—5.

Anker, Charles A., to General Mills, Inc. Mannan type gums. 2,834,774, 5–13–58, Cl. 260—209.

Annicq, Joseph. Pressure vessel locking mechanism. 2,834,504, 5–13–58, Cl. 220—46.

Anstett, James : *See*—
Sugrue, Joseph, and Anstett. 2,834,538.

Antonsen, Randolph, and R. D. Beattie, to Godfrey L. Cabot, Inc. Apparatus for wetting finely-divided pigments. 2,834,044, 5–13–58, Cl. 18—1.

Aquilion, Charles A., and S. E. Davis, to Ark-Les Switch Corp. Socket connector. 2,834,951, 5–13–58, Cl. 339—217.

Arkla Air Conditioning Corp. : *See*—
Stubblefield, Edward M. 2,834,360.

Ark-Les Switch Corp. : *See*—
Aquilion, Charles A., and Davis. 2,834,951.

Armco Steel Corp. : *See*—
Hudson, Edwin B. 2,834,593.

Armour and Co. : *See*—
Robbins, Kenneth C. 2,834,713.

Arneson, Lawrence E. : *See*—
Ferguson, John L., Beilhars, and Arneson. 2,834,264.

Aro Equipment Corp., The : *See*—
Keckler, John W., and Wilkening. 2,834,343.

Aronson, Theodore F. : *See*—
Halahan, John, Aronson, and Lyon. 2,834,596.

Ashton, Robert, to Massey-Harris-Ferguson, Inc. Operator's cab and grain tank arrangement for harvesters. 2,834,633, 5–13–58, Cl. 296—28.

Ashworth, William J., to Mechanical Patents, Inc. Drier. 2,834,122, 5–13–58, Cl. 34—163.

Asmus, Richard W. : *See*—
Thomas, John W., Asmus, and Berg. 2,834,468.

Asquith, William, Ltd. : *See*—
Toothill, Geoffrey. 2,834,191.

Atkinson, Ralph L., to Personal Products Corp. Tissue-faced cotton squares. 2,834,703, 5–13–58, Cl. 154—46.

Auger, Raymond N. Control apparatus. 2,834,843, 5–13–58, Cl. 200—17.

Austin Motor Co. Ltd., The : *See*—
Weaving, John H. 2,834,330.

Austin, Paul R., to E. I. du Pont de Nemours and Co. Water soluble copolymers of vinyl acetate and allyl sulfonic acid salts and process for producing same. 2,834,739, 5–13–58, Cl. 260—79.3.

Auto-Test, Inc. : *See*—
Hickok, Robert D., Jr., Davies, and Yenni. 2,834,941.

Autry, Wilford A., and R. W. Eichorn, to Lenox Industries, Inc. Blower damper mounting. 2,834,535, 5–13–58, Cl. 230—114.

Avedikian, Souren Z. Manufacture of chlorine dioxide. 2,834,649, 5–13–58, Cl. 23—152.

Aveni, Joseph C. Artificial arm. 2,834,024, 5–13–58, Cl. 3—12.

Babcock & Wilcox Co., The: *See*—
Banker, John J. 2,834,325.
Banker, John J. 2,834,327.
Schaap, Willem F. C. 2,834,326.
Schoessow, Glen J. 2,834,324.

Bachle, Carl F., and E. R. Klinge, to Continental Aviation & Engineering Corp. Free piston engine. 2,834,329, 5–13–58, Cl. 123—41.35.

Bachle, Carl F., to Continental Aviation and Engineering Corp. Endless track vehicle brake mechanism. 2,834,417, 5–13–58, Cl. 180—9.1.

Bachmann, Walter H. Dial indicator mechanism. 2,834,115, 5–13–58, Cl. 33—172.

Badmaieff, Alexis, to Altec Lansing Corp. Sound-reproducing device. 2,834,424, 5–13–58, Cl. 181—32.

Bailey, Donald L., P. W. Shafer, and G. H. Wagner, to Union Carbide Corp. Disproportionation of chlorosilanes employing amine-type catalysts. 2,834,648, 5–13–58, Cl. 23—14.

Bailey, Donald L., and F. M. O'Connor, to Union Carbide Corp. Siloxane-oxyalkylene block copolymers. 2,834,748, 5–13–58, Cl. 260—42.

Bailey Meter Co.: *See*—
Gorrie, Harvard H., Shannon, and Panich. 2,834,362.
Koppel, Harold H. 2,834 934.

Bain, Joseph P., W. Y. Gary, and A. B. Booth, to The Glidden Co. Preparation of verbenyl ethers. 2,834,814, 5–13–58, Cl. 260—611.

Baker, George O., and F. W. Truesdell, to General Electric Co. Electrical switch. 2,834,857, 5–13–58, Cl. 200—166.

Bakura, Joseph: *See*—
Domenichini, Carlo P., and Bakura. 2,834,884.

Ballard, Wiley P.: *See*—
Kinsella, Arthur J., Jr., Dickens, Ballard, and Smith. 2,834,429.

Banker, John J., to The Babcock & Wilcox Co. Vapor generating and superheating unit. 2,834,325, 5–13–58, Cl. 122—478.

Banker, John J., to The Babcock & Wilcox Co. Cantilever superheater tube support. 2,834,327, 5–13–58, Cl. 122—510.

Barkow, William H., and J. K. Kratz, to Radio Corp. of America. Cathode ray tube adjunct. 2,834,901, 5–13–58, Cl. 313—76.

Barnes, Homer C., Jr., and G. P. Dahm, to Union Carbide Corp. Mixture for treating cast iron. 2,834,668, 5–13–58, Cl. 75—58.

Barrett, Charles F., Jr. Reversible disc plow. 2,834,274, 5–13–58, Cl. 97—32.

Barrett, David M.: *See*—
Bastin, Edgar J., and Barrett. 2,834,890.

Barry James J. to Connors Bros Ltd. Machine for treating vegetables and fruits. 2,834,282, 5–13–58, Cl. 100—98.

Bartilotta, William P. Photographic printing device. 2,834,273, 5–13–58, Cl. 95—77.

Barusch, Maurice R., and E. G. Lindstrom, to California Research Corp. Preparation of iron cyclopentadienides. 2,834,796, 5–13–58, Cl. 260—439.

Basch, Heinz P., to The Distillers Co. Ltd. Solution of α-chloro-acrylonitrile polymers in nitromethane solvent mixture and method of making. 2,834,743, 5–13–58, Cl. 260—29.6.

Baso Inc.: *See*—
Mihm, Herman A. 2,834,367.

Bast, Walter, W. M. Chandler, and P. F. Heuser, to Wilbert W. Haase Co. Form for molding quadrangular objects. 2,834,089, 5–13–58, Cl. 25—121.

Bastian-Blessing Co., The: *See*—
Klinkenberg, Otto. 2,834,374.

Bastian, Edgar J., and D. M. Barrett, to Picker X-Ray Corp., Waite Mfg. Div. Inc. Multi-filmer. 2,834,890, 5–13–58, Cl. 250—66.

Battey, Everett M., to Infilco Inc. Filter. 2,834,473, 5–13–58, Cl. 210—333.

Bauer, William E., to Minneapolis-Honeywell Regulator Co. Liquid level responsive apparatus. 2,834,217, 5–13–58, Cl. 74—18.

Bauman, Edward, to Motorola, Inc. Frequency selective system. 2,834,879, 5–13–58, Cl. 250—27.

Baumgarten, Werner, and R. F. Johnson, to Merck & Co., Inc. Pancreatic desoxyribonuclease penicillin composition and process of preparation. 2,834,710, 5–13–58, Cl. 167—65.

Baxter, George C., to Hopkins Mfg. Corp. Pumping apparatus for boats. 2,834,312, 5–13–58, Cl. 114—185.

Beach, Frederick H., and W. E. Albert, Jr. Device for recovering fuzes. 2,834,293, 5–13–58, Cl. 102—89.

Beall, Desmond, and G. A. Grant, to American Home Products Corp. Urinary estrogen compositions and methods for preparing them. 2,834,712, 5–13–58, Cl. 167—74.5.

Beard, Douglas A.: *See*—
Klepp, George F., and Beard. 2,834,906.

Beattie, Robert D.: *See*—
Antonsen, Randolph, and Beattie. 2,834,044.

Beauchamp, Wilfred A., to The Youngstown Steel Door Co. Box cars and doors therefor. 2,834,067, 5–13–58, Cl. 20—23.

Beaver, William L., to Varian Associates. Traveling wave electron discharge device. 2,834,909, 5–13–58, Cl. 315—3.6.

Bebinger, Jack E., to General Electric Co. Splash guard for food waste disposer. 2,834,554, 5–13–58, Cl. 241—100.5.

Bechberger, Paul F., and D. F. Hastings, to Bendix Aviation Corp. Pressure indicating system. 2,834,953, 5–13–58, Cl. 340—236.

Beck, George, Jr., and K. E. Pacifier. 2,834,350, 5–13–58, Cl. 128—360.

Beck, Katie E.: *See*—
Beck, George, Jr., and Beck. 2,834,350.

Becker, Hugo G., and C. W. Streed, to Socony Mobil Oil Co., Inc. Method for controlling gelation time. 2,834,739, 5–13–58, Cl. 252—448.

Becker, Lloyd J., to Akron Brass Mfg. Co., Inc. Fire fighting apparatus. 2,834,416, 5–13–58, Cl. 169—25.

Beckman Instruments, Inc.: *See*—
Pickels, Edward G. 2,834,247.
Pickels, Edward G., and Pearson. 2,834,248.
Pickels, Edward G., Scofield, and Williams. 2,834,729.

Becton, Dickinson and Co.: *See*—
Adams, John Q. 2,834,346.

Beebe, Gerald T., to United States Steel Corp. Grating. 2,834,267, 5–13–58, Cl. 94—30.

Beggs, Donald: *See*—
De Vaney, Fred D., and Beggs. 2,834,484.

Beilhars, Carl E.: *See*—
Ferguson, John L., Beilhars, and Arneson. 2,834,264.

Bell, Charles R., and A. C. Diani, to Bendix Aviation Corp. System for changing the coordination of craft control surfaces. 2,834,561, 5–13–58, Cl. 244—77.

Bell, Harry G., to Gay-Bell Corp. Self-leveling wheel supported device. 2,834,603, 5–13–58, Cl. 280—6.

Bell Telephone Laboratories, Inc.: *See*—
Boyet, Howard, and Weisbaum. 2,834,945.
Ellwood, Walter B. 2,834,848.
Fox, Arthur G. 2,834,944.
Fuller, Calvin S. 2,834,696.
Grisdale, Richard O., and Rowen. 2,834,943.
Kompfner, Rudolf. 2,834,908.
Lynch, Robert T., and Speck. 2,834,673.
McCarthy, John A. 2,834,900.
Sansalone, Frank J., and Weisbaum. 2,834,946.
Smits, Friedolf M. 2,834,697.
Weisbaum, Samuel. 2,834,947.

Bender, Lloyd, to North Electric Co. Dust cover of silencing material for telephone dial mechanism. 2,834,837, 5–13–58, Cl. 179—90.

Bendix Aviation Corp.: *See*—
Bechberger, Paul F., and Hastings. 2,834,953.
Bell, Charles R., and Diani. 2,834,561.
Fox, Kenneth H. 2 834,897.
Lee, Robert A. 2,834 905.
Noxon, Paul A. 2,834,935.
Perkins, Corles M., Sr., and Bennett. 2,834,564.

Benecke, Otto: *See*—
Sasse, Gunther. 2,834,039.

Bennett, Alfred: *See*—
Perkins, Corles M., Sr., and Bennett. 2,834,564.

Bennett Mfg. Co., The: *See*—
Schaefer, Charles V., Jr. 2,834,506.

Bennett Respiration Products, Inc.: *See*—
Bennett, Vivian R., and Brown. 2,834,339.

Bennett, Vivian R., and R. E. Brown, to Bennett Respiration Products, Inc. Positive pressure breathing apparatus. 2,834,339, 5–13–58. Cl. 128—29.

Bentzman, Louis, to Saxony Electronics, Inc. Portable dryer. 2 834,866, 5–13–58, Cl. 219—39.

Berg, Louis. Dispensers for rolled sheet material. 2,834,646, 5–13–58, Cl. 312—39.

Berg, Manfred V. Process for manufacturing welded cast iron tubes by electrical resistance welding. 2,834,871, 5–13–58, Cl. 219—104.

Berg, Wendell T.: *See*—
Thomas, John W., Aamus, and Berg. 2,834,468.

Berg, Wendell T., to The Standard Oil Co. Spacers for holding a gasket in place and for obtaining slit width with thermal diffusion plates. 2,834,440, 5–13–58, Cl. 189—36.

Bergh, Sven S., C. A. G. Ericsson, and B. Troberg, to Wargons Aktiebolag. Method for the production of metal powders. 2,834,666, 5–13–58. Cl. 75—0.5.

Bergman, Ralph R.: *See*—
Taylor, John O., and Bergman. 2,834,132.

Bergsteinsson, Ingolfur, to Union Oil Co. of California. Purification of xylene-ethylbenzene mixtures. 2,834,821, 5–13–58, Cl. 260—674.

Berliner, Henry A.: *See*—
Greene, William L., and Berliner. 2,834,868.

Bertin, Jean: *See*—
Paris, Francois G., Le Foll, and Bertin. 2,834,181.

Bertin, Jean H., F. G. Paris, and M. Pain, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Apparatus for projecting substances in a divided state. 2,834,146, 5–13–58, Cl. 43—147.

Bertin, Jean H., B. J. Salmon, and F. G. Paris, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Composite ramjet-pulsejet engine. 2,834,183, 5–13–58, Cl. 60—35.6.

Bertrand, Harry A. Safety device for passengers. 2,834,606, 5–13–58, Cl. 280—150.

Bertrand, Harry A. Passenger safety device for vehicles. 2,834,609, 5–13–58, Cl. 280—150.

Bettison, David C. Means for connecting switch circuit controller operating rods and the like to railway switches. 2,834,624, 5–13–58, Cl. 287—85.

Bibeau, Russell J. Fish line sinker. 2,834,143, 5–13–58, Cl. 43—44.95.

Biel, John H., and A. E. Drukker, to Lakeside Laboratories, Inc. Disubstituted aminoalkyl quinuclidinium derivatives. 2,834,779, 5–13–58, Cl. 260—247.5.

Biel, John H., to Lakeside Laboratories, Inc. N-substituted-3-thiol piperidines and thioesters thereof. 2,834,785, 5–13–58, Cl. 260—293.4.

Bigelow-Sanford Carpet Co., Inc.: *See*—
Jamrogowicz, Harry F. 2,834,806.

Bilanin, Frank, and H. E. Gronich, deceased (by C. K. Gronich, legal representative), to Allied Chemical & Dye Corp. Granulation of fusible, molecularly orientable polymers. 2,834,053, 5–13–58, Cl. 18—47.5.

Bill, William, to General Electric Co. Oven rack with raisable shelf portion. 2,834,334, 5–13–58, Cl. 126—41.

Binder, George A.: *See*—
Brinkruff, Arthur R., and Binder. 2,834,925.

Binder, George A., to Essex Wire Corp. Hermetically sealed electromagnetic relay. 2,834,924, 5–13–58, Cl. 317—165.

Birr, Rudolph G., to American Linen Supply Co. Towel dispensing apparatus. 2,834,645, 5–13–58, Cl. 312—38.

Black Hawk Co.: *See*—
Nelson, Permil N. 2,834,370.

Black, Merrill F., to United States Steel Corp. Arc weld rail bond. 2,834,551, 5–13–58, Cl. 238—14.13.

Blanchard, Loring W., Jr.: *See*—
Malm, Carl J., and Blanchard. 2,834,776.

Bleakley, Norman F., to Dearborn Brass Co. Non-symmetrical adjustable Y-type connector. 2,834,615, 5–13–58, Cl. 285—151.

Bletzinger, John C.: *See*—
Rickard, Charlotte I., and Bletzinger. 2,834,459.

Bleuenstein, Julius M., to Ford Motor Co. Hot sand curing of shell molds. 2,834,076, 5–13–58, Cl. 22—193.

Bleuenstein, Julius M., to Ford Motor Co. Sand coating. 2,834,741, 5–13–58, Cl. 260—25.

Bloch, Herman S., to Universal Oil Products Co. Solvent extraction of organic mixtures with mixed glycol ethers as solvents. 2,834,820, 5–13–58, Cl. 260—674.

Bloom, Barry M., and G. D. Laubach, to Chas. Pfizer & Co., Inc. Nortropene and tropanols 2-substituted by diphenylcarbinol. 2,834,783, 5–13–58, Cl. 260—292.

Blum, Josef: *See*—
Szent-Gyorgyi, Albert, and Blum. 2,834,541.

Blumenfeld, John F.: *See*—
Hatch, Robert L., and Blumenfeld. 2,834,754.

Blumenkrantz, Max. Fold guides. 2,834,308, 5–13–58, Cl. 112—139.

Boam, Willard M., I. Friedman, H. Paige, L. Souzis, and K. Strater to Curtiss-Wright Corp. Method of brazing titanium. 2,834,101, 5–13–58, Cl. 29—488.

Boardman Co., The: *See*—
Wood, William S. 2,834,172.

Boer, George: *See*—
True, Martin E., Boer, and O'Reilly. 2,834,580.

Boer, George, to Esso Research and Engineering Co. Tubing packer. 2,834,415, 5–13–58, Cl. 166—139.

Boesewetter, Chester C., to Goodman Mfg. Co. Boring type mining machine having four boring heads. 2,834,588, 5–13–58, Cl. 262—7.

Boettner, Fred E., to Rohm & Haas Co. Carbamate compounds. 2,834,775, 5–13–58, Cl. 260—211.

Bohner, William R.: *See*—
Simpson, Jack N., and Bohner. 2,834,017.

Bom-Bee Druma, Inc.: *See*—
Willits, Hobart I. 2,834,244.

Bomac Laboratories Inc.: *See*—
Briggs, Richard S. 2,834,916.
Duffy, John M. 2,834,949.

Bond, George R., Jr., to Houdry Process Corp. Valve for gas flow. 2,834,366, 5–13–58, Cl. 137—251.

Bondeson, Lennart P. B., and E. Fridh, to Vibro-Plus Corp. Pneumatic vibrators. 2,834,584, 5–13–58, Cl. 259—1.

Bonebrake, Gay M., to Wm. Wrigley, Jr., Co. Packing machine. 2,834,165, 5–13–58, Cl. 53—57.

Booe, James M., to P. R. Mallory & Co., Inc. Tantalum electrolytic capacitor with iron chloride depolarizer. 2,834,926, 5–13–58, Cl. 317—230.

Booth, Albert B.: *See*—
Bain, Joseph P., Gary, and Booth. 2,834,814.

Booth, Jack J. Cup dispenser for beverage vending machines. 2,834,511, 5–13–58, Cl. 221—116.

Booth, Joseph H., to Polaroid Corp. Photographic product. 2,834,271, 5–13–58, Cl. 95—67.

Borden Co., The: *See*—
Halpern, Benjamin D., Karo, and Levine. 2,834,783.

Boston, Frank E., and J. J. Shomock, to The Pyramid Rubber Co. Skirted nurser hood. 2,834,496, 5–13–58, Cl. 215—11.

Boundy, Arthur H.: *See*—
Sharn, Fred J., and Boundy. 2,834,394.

Bower, Marian E., ⅛ to S. M. Allen. Baby bottle warmer. 2,834,566, 5–13–58, Cl. 248—103.

Bowes, Urban E., to Owens-Illinois Glass Co. Glass melting furnace. 2,834,157, 5–13–58, Cl. 49—53.

Boyet, Howard, and S. Weisbaum, to Bell Telephone Laboratories, Inc. Field displacement isolator. 2,834,945, 5–13–58, Cl. 333—81.

Bradford, Purdy, to Swift & Co. Method and apparatus for atmospheric conditioning. 2,834,188, 5–13–58, Cl. 62—6.

Bradford, Robert L. High fidelity loud speaker enclosure. 2,834,423, 5–13–58, Cl. 181—31.

Bradshaw, Robert. Rational speed synchronizing switch. 2,834,808, 5–13–58, Cl. 200—61.46.

Bragg, Robert M. Safety flow valve. 2,834,377, 5–13–58, Cl. 137—630.14.

Brandenthaler, Anthony: *See*—
Gyllenberg, John L. 2,834,385.

Brant, Robert J. Trench digger. 2,834,125, 5–13–58, Cl. 37—97.

Braunlich, Richard H., to American Viscose Corp. Filament clamp and tensile tester. 2,834,204, 5–13–58, Cl. 73—95.

Breseler, Wilbur L., and J. C. Smith, to The Dow Chemical Co. Hexachlorocyclopentadiene adduct. 2,834,790, 5–13–58, Cl. 260—348.

Brevoort, Howard W.: *See*—
Newell, William H., and Brevoort. 2,834,083.

Brickman, Alan E., to United States Steel Corp. Transload device. 2,834,266, 3–13–58, Cl. 94—8.

Briggs, Richard S., to Bomac Laboratories Inc. Tuning member for tunable magnetron devices. 2,834,916, 5–13–58, Cl. 315—39.61.

Brinkruff, Arthur R., and G. A. Binder, to Essex Wire Corp. Electromagnetic device. 2,834,925, 5–13–58, Cl. 317—171.

Bristol, Cyrus J.: *See*—
Straight, Halver R., and Bristol. 2,834,486.

British Petroleum Co., Ltd., The: *See*—
Champagnat, Alfred, and Vernet. 2,834,716.

Britt, Kenneth W.: *See*—
Schutte, Richard W., and Britt. 2,834,809.

Britton, Edgar C., and L. H. Horsley, to The Dow Chemical Co. 1 substituted-3-(1-methyl-2-pyrrolidinyl)-piperidine. 2,834,784, 5–13–58, Cl. 260—293.

Brock, Eugene N. Combination sand trap and junk basket. 2,834,300, 5–13–58, Cl. 103—220.

Brodsky, Harold: *See*—
Marcuclo, Stephen, and Brodsky. 2,834,705.

Brody, Frederick: *See*—
Scalera, Mario, Brody, and Fasio. 2,834,773.

Brooks, Thomas E., to Lisle Corp. Tool mounting. 2,834,232, 5–13–58, Cl. 77—2.

Broverman, Michael, to General Electric Co. Bushing terminal guard. 2,834,829, 5–13–58, Cl. 174—138.

Brown, Rollen E.: *See*—
Bennett, Vivian R., and Brown. 2,834,339.

Brown, Thomas T., to Marconi's Wireless Telegraph Co. Ltd. Control systems for matching impedance networks. 2,834,887, 5–13–58, Cl. 250—40.

Brundage, Helen S. Cord storage device. 2,834,078, 5–13–58, Cl. 24—71.2.

Brunelle, Adelard R. Tool for pruning growth on tobacco plants. 2,834,107, 5–13–58, Cl. 30—251.

Bryant Chucking Grinder Co.: *See*—
Lillie, Gordon E. 2,834,160.

Bryant, William R. Process and apparatus for controlling the moisture content of lint cotton. 2,834,058, 5–13–58, Cl. 19—66.

Budd Co., The: *See*—
Dean, Albert G. 2,834,305.

Buehler, Gebrueder: *See*—
Gmür, Bruno. 2,834,447.
Velke, Herbert. 2,834,412.

Burdick, Corp., The: *See*—
Partridge, Leslie W. 2,834,898.

Burdin, Maurice A.: *See*—
Dymsza, Tadeusz, and Burdin. 2,834,050.

Burkhart, William H., to Monroe Calculating Machine Co. Multiplying and dividing means for electronic calculators. 2,834,543, 5–13–58, Cl. 235—61.

Burns, Edward M. Blower screen. 2,834,060, 5–13–58, Cl. 19—72.

Burns, Leslie L., Jr., and E. O. Keizer, to Radio Corp. of America. Controllable reactance systems. 2,834,878, 5–13–58, Cl. 250—20.

Burr, Ronald L.: *See*—
Tanner, Stanley R., and Burr. 2,834,955.

Burroughs Corp.: *See*—
Fan, Sin-Pih, and Cola. 2,834,912.

Burton, William P.: *See*—
Patton, James L., Stanford, and Burton. 2,834,823.

Butler, George A.: *See*—
Eichenberg, Robert, and Shuptrine. 2,834,097.

C & C Super Corp.: *See*—
Geisler, William. 2,834,677.

Cabot, Godfrey L., Inc.: *See*—
Antonsen, Randolph, and Beattie. 2,834,044.

California Research Corp.: *See*—
Barusch, Maurice R., and Lindstrom. 2,834,796.

Callery Chemical Co.: *See*—
Akerlof, Gosta C. 2,834,055.

Camerino, Ernest. Expandable and contractible auxiliary window framing. 2,834,071, 5–13–58, Cl. 20—55.

Canon Camera Co., Inc.: *See*—
Ito, Hiroshi. 2,834,253.

Capetti, Scipione, to Innocenti Societa Generale per l'Industrie Metallurgica e Meccanica. Machine for hot ingots. 2,834,259, 5–13–58, Cl. 90—18.

Carbon Black Packaging, Inc.: *See*—
Fogwell, Joseph W., Hoffman, Oakey, and Donaldson. 2,834,166.

Carbonic Dispenser, Inc. of California: *See*—
Jaeger, Wilbert J. 2,834,189.

Carew, Herman, to American Can Co. Paper cup with removable handle. 2,834,533, 5–13–58, Cl. 229—52.

Carey, Lawrence M. Mail box signal device. 2,834,539, 5–13–58, Cl. 232—35.

Carlsen, Leonard O.: *See*—
Adair, Robert V., Carlsen, and Dammert. 2,834,592.
Anderson, Henry J., and Carlsen. 2,834,258.
Pan, Wen Y., and Carlsen. 2,834,948.

Carlson, Elmer A., to Essex Wire Corp. Automotive heater. 2,834,549, 5–13–58, Cl. 236—37.

Carmack, Clarence A. Highway sign. 2,834,133, 5–13–58, Cl. 40—125.

Carpenter, John F., to Esso Research and Engineering Co. Hydrocarbon oil emulsifier. 2,834,731, 5–13–58, Cl. 252—8.9.

Carpenter, Thomas J., and S. R. Smith, Jr., to General Electric Co. Load break device. 2,834,855, 5–13–58, Cl. 200—148.

Carr, Charles J. Reamer. 2,834,578, 5–13–58, Cl. 255—73.

Carson, James E., to Hamilton Watch Co. Device for measuring blood density in tissue. 2,834,338, 5–13–58, Cl. 128—2.

Carter, John W., and W. P. Evans, to Caterpillar Tractor Co. Cork faced vibration damper. 2,834,225, 5–13–58, Cl. 74—574.

Carter, Melvin A. Electronic device for controlling record tapes. 2,834,928, 5–13–58, Cl. 318—162.

Carthage Corp.: *See*—
Macdonald, Angus S. 2,834,478.

Cascades Plywood Corp.: *See*—
Pearl, John J. 2,834,384.
Case, J. I., Co.: *See*—
Aber, Homer B. 2,834,171.
Russell, Stanley D. 2,834,177.
Caterpillar Tractor Co.: *See*—
Carter, John W., and Evans. 2,834,225.
Cavanagh, Lawrence D., to Hat Corp. of America. Hat. 2,834 019 5–13–58, Cl. 2—175.
Cedar Rapids Engineering Co.: *See*—
Anderson, Vyron E. 2,834,233.
Cenotti, Lewis, to Pie-O-Matic Corp. Pie-vending machine. 2,834,510. 5–13–58, Cl. 221—79.
Chadwick, David H., to Monsanto Chemical Co. Method of producing mono- and dialkyl hydrogen phosphites. 2,834,797, 5–13–58, Cl. 260—461.
Chamberlain, Malcolm, and P. V. Greenfield, to The Dow Chemical Co. Gel counter. 2,834,207, 5–13–58, Cl. 73—160.
Champagnat, Alfred, and C. Vernet, to The British Petroleum Co., Ltd., previously Anglo-Iranian Oil Co. Ltd. Separation of hydrocarbons. 2,834,716, 5–13–58, Cl. 196—17.
Chandler, Wesley M.: *See*—
Bast, Walter, Chandler, and Heuser. 2,834,089.
Chandler, William B.: *See*—
Woodle, Robert A., Howell, and Chandler. 2,834,735.
Chaplin, Charles J., to Chaplin Corp. Self-kindling fuel package. 2,834,661, 5–13–58, Cl. 44—40.
Chaplin Corp.: *See*—
Chaplin, Charles J. 2,834,661.
Chapman, Harvey W., and H. L. Dunlap, to Evans Products Co. Freight loading apparatus. 2,834,304, 5–13–58, Cl. 105—369.
Chapman Valve and Mfg. Co.: *See*—
Nickerson, Elmer K. and Steele. 2,834,569.
Charewicz, Francis J., and S. R. Smith, to General Electric Co. Load break device. 2,834,856, 5–13–58, Cl. 200—158.
Charles of the Ritz Inc.: *See*—
Wright, Arthur. 2,834,048.
Chase, Allen T.: *See*—
McMichael, Palmer L., and Chase. 2,834,465.
Chenette, Joseph E. Ball and socket hitch locking means. 2,834,611, 5–13–58, Cl. 280—511.
Cherniak, George S.: *See*—
Jones, William A., and Cherniak. 2,834,209.
Chicago Development Corp.: *See*—
Gullett, William W. 2,834,727.
Chicago Hardware Foundry Co., The: *See*
White, Robert M. 2,834,867.
Chicago Metallic Mfg. Co.: *See*—
Debs, Jerome H. 2,834,505.
Chicago Pneumatic Tool Co.: *See*—
Fischer, Howard R. 2,834,234.
Chornock, Francis W.: *See*—
Zinn, Eli, and Chornock. 2,834,711.
Chowning, Dale K. Magnetic socket wrench. 2,834,241, 5–13–58. Cl. 81—125.
Chute, Andrew E., G. E. Smalley, J. W. Klohr, and B. G. Aldridge, to The Ralph M. Parsons Co. Production of elemental sulfur. 2,834,655, 5–13–58, Cl. 23—277.
Cihlar, Anthony J., and F. A. Klasek, to Western Electric Co., Inc. Method of forming articles by bending the free end portions thereof. 2,834,393, 5–13–58, Cl. 153—16.
Ciscel, Benjamin H., to Minneapolis-Honeywell Regulator Co. Automatic steering apparatus. 2,834,929, 5–13–58, Cl. 318—489.
Claiborne, Jefferson L., and W. F. Luther, to Dixie Mercerizing Co. Apparatus for continuous drying of yarn, etc. 2,834,860, 5–13–58, Cl. 219—19.
Clapper, Genung L., to International Business Machines Corp. Pulse generator. 2,834,880, 5–13–58, Cl. 250—27.
Clarke, Ralph W., to Double Envelope Corp. Window photo frame envelope and support. 2,834,185, 5–13–58, Cl. 40—152.1.
Claud-Mantle, Arthur, to The Bassick Co. Hood latch. 2,834,626, 5–13–58, Cl. 292—52.
Clauson-Kaas, Niels K. F. W., to A/S Sadolin & Holmblad. Process of preparing lower alkyl 2,3,6-tri-hydroxybenzoate, and intermediates therefor. 2,834,789, 5–13–58. Cl. 260—347.5.
Clements, MacMillan. Panel. 2,834,064, 5–13–58, Cl. 20—4.
Clements, MacMillan. Accordion-type door. 2,834,411, 5–13–58, Cl. 160—207.
Cleveland Patents, Inc.: *See*—
Hickok, Robert D., Jr., Davies, and Yenni. 2,834,941.
Cleveland Rock Drill Division Westinghouse Air Brake Co. *See*—
Feucht, Jacob E. 2,834,577.
Clifton-Grant Development Corp., The: *See*—
Stuart, Clifton F. 2,834,169.
Clinton, Walter R.: *See*—
Eaves, Hubert H., and Clinton. 2,834,846.
Coast Wire Co.: *See*—
Daniel, David M. 2,834,382.
Coates, Sydney N. Two-compartment hot water tank. 2,834,865, 5–13–58, Cl. 219—38.
Coffelt, Lester S. Combined valve seat and guide fixture for flush tanks. 2,834,027, 5–13–58, Cl. 4—56.
Coffey, Irven E., to ACF Industries Inc. Sealing means for diaphragm casings. 2,834,299, 5–13–58, Cl. 103—202.
Cola, Rudolph A.: *See*—
Fan, Sin-Pih, and Cola. 2,834,912.
Cole, Louis F. Automatic flight control for aircraft. 2,834,565, 5–13–58, Cl. 244—82.
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Marantz, Israel H. 2,834,455.
Commercial Solvents Corp.: *See*—
Zinn, Eli, and Chornock. 2,834,711.
Commonwealth Engineering Co. of Ohio, The: *See*—
Marvin, Philip R. 2,834,690.
Wenzelberger, Elwood P. 2,834,825.
Conant, Louis A., and E. F. Hittle, to Union Carbide Corp. Production of boron nitride. 2,834,650, 5–13–58, Cl. 23—191.
Conder, Christy F., to Diamond Alkali Co. Apparatus for splitting tubes. 2,834,106, 5–13–58, Cl. 30—91.
Connally, Adrian. Disposable diaper. 2,834,347, 5–13–58, Cl. 128—284.
Connors Bros. Ltd.: *See*—
Barry, James J. 2,834 282.
Continental Aviation and Engineering Corp.: *See*—
Bachle, Carl F. 2,834,417.
Bachle, Carl F., and Klinge. 2,834,329.
Cook, Ellsworth D., to General Electric Co. Apparatus for measuring hardness. 2,834,202. 5–13–58, Cl. 72—81.
Cooper, John R., to S. Gross. Fluorescent lighting fixture. 2 834.873. 5–13–58, Cl. 240—11.4.
Cope T. J., Inc.: *See*—
Reeves, Thomas C. 2,834,622.
Corben, Leo D., and E. A. Steigmann, to General Foods Corp. Method of preparing cold water-soluble gelatin and the resulting product. 2,834,683, 5–13–58, Cl. 99—130.
Corbi, Alfred. Button ornament mounting. 2,834,080, 5–13–58, Cl. 24—113.
Cottrell Co., The: *See*—
Meyer, Joseph E. 2.834 290.
Couse, Kibbey W. Convertible ladder. 2,834,528, 5–13–58, Cl. 228—25.
Cowie, James C. Foot target thrower. 2,834,331, 5–13–58, Cl. 124—7.
Creasy, Macajah R. Stuffing box for solids handling pumps. 2.834,617, 5–13–58, Cl. 286—8.
Crelinsten, Edward. Golf practice machine. 2,834,210, 5–13–58. Cl. 73—379.
Crist, Earl E. Apparatus for folding corrugated cardboard shields for packing cases. 2,834,265, 5–13–58, Cl. 93—84.
Crosby, Gifford W., and L. E. Hutchings, to The Pure Oil Co. Purification process. 2,834,803, 5–13–58, Cl. 260—504.
Cross, Lawrence P. Sausage linking machine. 2,834,042, 5–13–58, Cl. 17—34.
Crown Cork & Seal Co., Inc.: *See*—
Olt, Leonard F. and R. L. 2,834,498.
Crumb, Harold R.: *See*—
Turner, Jack W. 2,834,451.
Crute, James E., Jr. Vent closure. 2,834,278, 5–13–58, Cl. 98—29.
Culbertson, Charles H., to United States of America, Navy. High altitude compensation of two position exhaust nozzle control. 2,834,182, 5–13–58, Cl. 60—35.6.
Cumming, James: *See*—
Herider, Elmer A., and Cumming. 2,834,396.
Cunningham, Frederick W., to American Bosch Arma Corp. Method and apparatus for measuring thickness. 2,834,938, 5–13–58. Cl. 324—34.
Curtiss-Wright Corp.: *See*——
Boam, Willard M., Friedman, Paige, Sonzis, and Strater. 2.834 101.
Gallo, Elia A. 2,834,375.
Cutkomp, Laurence K.: *See*—
Smith, Fred, Cutkomp, and Fathy. 2,834,707.
Cutler-Hammer, Inc.: *See*—
Govin, Charles T. 2,834,450.
Dahlander, Nöel L., Sr., ¼ to R. J. Earl. Spacing disks for Jacob's ladders. 2,834,529. 5–13–58, Cl. 228—40.
Dahlberg, Tord O. R. Measuring and recording devices. 2,834,114, 5–13–58, Cl. 33—148.
Dahm, George P.: *See*—
Barnes, Homer C., Jr., and Dahm. 2,834,668.
Daino, Peter W., and C. B. Stott, to International Business Machines Corp. Accumulator carry means. 2,834,544, 5–13–58. Cl. 235—61.6.
D'Alelio, Gaetano F., to Koppers Co., Inc. N-(amino-1.2.4-triazolyl) itaconamides and polymers thereof. 2,834,757, 5–13–58, Cl. 260—78.
D'Alelio, Gaetano F., to Koppers Co., Inc. Production of low molecular weight polymer with sulfonic acid-containing polymer as catalyst. 2,834,819, 5–13–58, Cl. 260—669.
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Adair, Robert V., Carlsen, and Dammert. 2,834,592.
Dana, Homer: *See*—
Kreager, Frank O., and Dana. 2,834,681.
Daniel, David M., to E. Roe, d. b. a. Coast Wire Co. Gripper for wire tying machine 2,834,382, 5–13–58, Cl. 140—93.6.
Danulat, Dieter: *See*—
Rudolph, Paul, and Danulat. 2,834,665.
Danulat, Friedrich: *See*—
Rudolph, Paul, and Danulat. 2,834,665.
Danulat, Hans F.: *See*—
Rudolph, Paul, and Danulat. 2,834,665.
Danulat, Hedwig G.: *See*——
Rudolph, Paul, and Danulat. 2,834,665.
Danulat, Ilse: *See*—
Rudolph, Paul, and Danulat. 2,834,665.
David, Vernon W., and R. Irving, to Shell Development Co. Liquid electrical insulating compositions. 2,834,734, 5–13–58. Cl. 252—63.
Davids, Berryman O. Automatic brake applicator. 2,834,436, 5–13–58, Cl. 188—122.
Davids, Berryman O. Automatic brake applicator. 2,834,437, 5–13–58. Cl. 188—112.
Davies, Clarence J., to National Automotive Fibres, Inc. Apparatus for producing foam rubber slab material. 2,834,045, 5–13–58, Cl. 18—4.
Davies, Sterling: *See*—
Hickok, Robert D., Jr., Davies, and Yenni. 2,834,941.

Davis, Arnold R., and F. A. V. Sullivan, to American Cyanamid Co. Stabilising synthetic rubbers. 2,834,752, 5–13–58, Cl. 260—45.95.

Davis, Charles J., to Massey-Harris-Ferguson Inc. Mechanical shovel. 2,834,489, 5–13–58, Cl. 214—138.

Davis, David D.: *See*—
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Davis, Stafford E.: *See*—
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Davis, William E.: *See*—
Muller, George H., and Davis. 2,834,640.
Muller, George H., and Davis. 2,834,641.

Dawson, Raymond E., to Thompson-Starrett Co., Inc. Pneumatic material separation. 2,834,462, 5–13–58, Cl. 209—475.

Daystrom, Inc.: *See*—
Erbguth, Paul F. K. 2,834,361.

Dean, Albert G., to The Budd Co. Marginal rail for cover strip retaining panels, especially for railway car. 2,834,305, 5–13–58, Cl. 105—401.

Dearborn Brass Co.: *See*
Bleakley, Norman F. 2,834,615.

Deats, John S. Adjustable vertical sliding sash. 2,834,070, 5–13–58, Cl. 20—52.

De Benneville, Peter L., to Rohm & Haas Co. N-cyano-N-alkylaminoalkyl esters. 2,834,765, 5–13–58, Cl. 260—86.1.

Debs, Jerome H., to Chicago Metallic Mfg. Co. Baking pan. 2,834,505, 5–13–58, Cl. 220—72.

Decca Record Co. Ltd., The: *See*—
Tanner, Stanley R., and Burr. 2,834,955.

Deer, James W., to Iron Fireman Mfg. Co. Gravity responsive control system. 2,834,214, 5–13–58, Cl. 74—5.6.

Deer, James W., to Iron Fireman Mfg. Co. Gravity sensing potentiometer. 2,834,215, 5–13–58, Cl. 74—5.47.

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Dégeorges, Ernest M., and J. Lehureau, to Progil. Purification of the gamma isomer of benzene hexachloride. 2,834,817, 5–13–58, Cl. 260—648.

Delamere & Williams Co., Ltd.: *See*—
Williams, Victor G. 2,834,383.

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Dench, Edward C., to Raytheon Mfg. Co. Traveling wave tube. 2,834,915, 5–13–58, Cl. 315—39.3.

Denison, Frank W., Jr., W. C. Friedland, and M. H. Peterson, to Abbott Laboratories. Culture process for erythromycin B. 2,834,714, 5–13–58, Cl. 195—80.

Derby, Palmer P., to Raytheon Mfg. Co. Magnetron construction. 2,834,914, 5–13–58, Cl. 315—39.

Dermer, Richard D., and J. A. Whitney, to Essex Wire Corp. Apparatus for testing wire coatings. 2,834,940, 5–13–58, Cl. 324—54.

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Kearney, Thomas J. 2,834,359.

De Vaney, Fred D., and D. Beggs, to Erie Mining Co. Apparatus for charging furnace having rectangular mouth. 2,834,484, 5–13–58, Cl. 214—18.

Dewey, Clyde G., to General Electric Co. Control system for preventing contact sparking in synchronous switching apparatus. 2,834,932, 5–13–58, Cl. 321—48.

De Wiess, Ferdinand A., to Rondo Development Corp. Method of and apparatus for making containers. 2,834,260, 5–13–58, Cl. 93—39.1.

Diamond Alkali Co.: *See*—
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Lander, James G. 2,834,744.

Diamond Gardner Corp.: *See*—
Lee, Charles A., Jr., and Weyman. 2,834,460

Diamond Match Co., The: *See*—
Struble, Glenn E. 2,834,531.

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Bell, Charles R., and Diani. 2,834,561.

Dickens, Samuel P.: *See*—
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Dickey, Alexander F. Spark plug. 2,834,904, 5–13–58, Cl. 313—143.

Dietch, Leonard, to Radio Corp. of America. Television deflection apparatus. 2,834,913, 5–13–58, Cl. 315—27.

Dinsmore, Robert L.: *See*—
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Distillers Co. Ltd., The: *See*—
Basch, Heins P. 2,834,743.

Dixie Mercerizing Co.: *See*—
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Doering, Fred W., and J. C. Morison, to Western Electric Co., Inc. Method of interlocking parts by deformation and an article of manufacture formed thereby. 2,834,623, 5–13–58, Cl. 287—82.

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Olsen, Poul J., and Safranek. 2,834,548.

Domenichini, Carlo P.: *See*—
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Domenichini, Carlo P., and J. Bakura, to Raytheon Mfg. Co. Wave guide with crystal diode socket having captive clamping means. 2,834,884, 5–13–58, Cl. 250—31.

Domensino, Hendrikus W. M. Bottle conveying device. 2,834,453, 5–13–58, Cl. 198—211.

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Donaldson, Willis L.: *See*—
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D'Onofrio, Joseph V.: *See*—
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Dorne, Arthur, to Dorne and Margolin, Inc. Antennas. 2,834,959, 5–13–58, Cl. 343—769.

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Dorne, Arthur. 2,834,959.

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Clarke, Ralph W. 2,834,135.

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Newport, John J. 2,834,698.
Petrie, Peter S., and Horsley. 2,834,781.
Reid, Raymond W., and George. 2,834,826.
Trapp, Walter B., and Fletcher. 2,834,800.
Wheeler, Donald D., and Young. 2,834,780.
Wheeler, Donald D., and Young. 2,834,788.

Drabik, Josef: *See*—
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Drummond, Warren W., W. R. Steitz, and P. J. Frickert, to Owens-Corning Fiberglas Corp. Process for packaging continuous strand. 2,834,092, 5–13–58, Cl. 28—72.

Duefrene, George. Ball-type writing tip. 2,834,321, 5–13–58, Cl. 120—42.4.

Duffy, John M., to Bomac Laboratories Inc. Rotatable resonant iris. 2,834,949, 5–13–58, Cl. 333—98.

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Dulberg, Murray. Make-up stick holder. 2,834,458, 5–13–58, Cl. 206—56.

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Sage, Stanley J. 2,834,254.

Dunham-Bush, Inc.: *See*—
Ghai, Madan L., and Koren. 2,834,428.

Dunlay, Henry L.: *See*—
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Dunlop Rubber Co. Ltd.: *See*—
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Smith, Telford L., and Dunmire. 2,834,086.

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Mathre, Owen B., and Sowards. 2,834,650.
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Stedler, Heinrich F. W. 2,834,016.

Durkee, John W. Leather stretching apparatus. 2,834,147, 5–13–58, Cl. 45—24.

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Earling, Leonard E., to Essex Wire Corp. Relay. 2,834,850, 5–13–58, Cl. 200—104.

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Ebel, Lawrence C., to Anaconda Wire and Cable Co. Electric cable. 2,834,828, 5–13–58, Cl. 174—102.

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Eger, Edward F., and W. O. Simpson, to Western Electric Co., Inc. Wound capacitor racks. 2,834,317, 5–13–58, Cl. 118—503.

Eggers, Hermann R., to Licentia Patent-Verwaltungs- G. m. b. H. Magnetised core measuring instrument with T-shaped moving system. 2,834,942, 5–13–58, Cl. 324—151.

Eichenberg, Robert, and J. C. Shuptrine, to G. A. Butler. Welded connections and valves and method of making same. 2,834,097, 5–13–58, Cl. 29—157.1.

Eichorn, Robert W.: *See*—
Autry, Wilford A., and Eichorn. 2,834,535.

Eickele, Walter: *See*—
Stelser, William, and Eickele. 2,834,572.

Eisenhut, Franz, V. Goblet, and A. Siegl, to Gelsenkirchener Bergwerks Akt. Process of briquetting. 2,834,660, 5–13–58, Cl. 44—19.

Electric Storage Battery Co., The: *See*—
Simpson, Jack N., and Bohner. 2,834,017.

Ellwood, Walter B., to Bell Telephone Laboratories, Inc. Electric switch. 2,834,848, 5–13–58, Cl. 200—87.

Emanuel, Vincent, to Grant Oil Tool Co. Well bore engaging tool. 2,834,579, 5–13–58, Cl. 255—73.

Emeriat, Raymond, to Societe de la Pile Leclanche. Flat type battery and method of manufacture therefor. 2,834,827, 5–13–58, Cl. 136—111.

En Dean, Howard J., J. D. Jones, and E. Topanelian, Jr., to Gulf Research & Development Co. Pipeline surveying. 2,834,113, 5–13–58, Cl. 33—141.5.

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England, William A., to Monroe Calculating Machine Co. Control circuits for rotary stepping switches. 2,834,923, 5–13–58, Cl. 317—149.

Engstrand, Gunnar C., to Frederic R. Harris, Inc. Floating dry dock, 2,834,311, 5–13–58, Cl. 114—45.

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Ersen, Frances. Combination tile and liquid dispenser. 2,834,518, 5–13–58, Cl. 222—193.

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Brinkruff, Arthur R., and Binder. 2,834,925.
Carlson, Elmer A. 2,834,549.
Dermer, Richard D., and Whitney. 2,834,940.
Earling, Leonard E. 2,834,850.
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Boer, George. 2,834,415.
Carpenter, John F. 2,834,731.
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Hirschler, Daniel A., Jr., Irish, and Hinkamp. 2,834,662.
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Ewing, Lynn H.: *See*—
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Fawick, Thomas L. Forged wheel. 2,834,636, 5–13–58, Cl. 301—6.

Fay, Robert H. Work holding device. 2,834,163, 5–13–58, Cl. 51—237.

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Federighi, George J., and T. H. Noren. Automatic liquid soap or detergent dispenser for dish washing machines. 2,834,364, 5–13–58, Cl. 137—88.

Feichtinger, Hans, to Ruhrchemie Akt. Dithiomalonic acid-dimorpholide. 2,834,778, 5–13–58, Cl. 260—247.1.

Feinstein, Samuel, to Servomechanisms Inc. Amplifier and power supply therefor. 2,834,881, 5–13–58, Cl. 250—27.

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Fellows, Albert T., and J. R. White, to Socony Mobil Oil Co., Inc. Method and apparatus for continuous liquid thermal diffusion. 2,834,464, 5–13–58, Cl. 210—72.

Ferguson, John L., C. E. Beilhars, and L. E. Arneson, to Federal Paper Board Co., Inc. Carton set-up machine. 2,834,264, 5–13–58, Cl. 92—53.

Ferguson, Martin J. Combination confection holder and toy boat. 2,834,685, 5–13–58, Cl. 99—187.

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Feucht, Jacob E., to Cleveland Rock Drill Division Westinghouse Air Brake Co. Rock drill front end with dust collecting device. 2,834,577, 5–13–58, Cl. 255—50.

Feuer, Henry, and J. W. Shepherd, to Purdue Research Foundation. Dihalo dinitrocyclic ketones and process for producing same. 2,834,810, 5–13–58, Cl. 260—586.

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Finnie, David N., Associates: *See*—
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Firl, Milton and E. E. Bakery products depanning apparatus. 2,834,488, 5–13–58, Cl. 214—308.

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Fleming, Edward P., and T. C. Fitt, to American Smelting and Refining Co. Production of sulfur from hydrogen sulfide and sulfur dioxide. 2,834,653, 5–13–58, Cl. 23—225.

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Muller, George H., and Davis. 2,834,641.

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Foster, Edwin E., to Majik-Ironers, Inc. Jointed supporting arms for flatirons. 2,834,568, 5–13–58, Cl. 248—280.

Foster, Laurence S., and T. T. Magel, to United States of America, Atomic Energy Commission. Method of producing uranium. 2,834,672, 5–13–58, Cl. 75—84.1.

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Fox, Kenneth H., to Bendix Aviation Corp. Dynamoelectric machine cooling. 2,834,897, 5–13–58, Cl. 310—59.

Frampton, Kenneth J., and M. Silverberg, to Exclusive Upholstering Co., Ltd. Convertible furniture. 2,834,029, 5–13–58, Cl. 5—47.

Fredericks, Robert E. Damping control. 2,834,213, 5–13–58, Cl. 74—5.5.

Freeman, Lowell O. Adjustable concrete troweling tool. 2,834,199, 5–13–58, Cl. 72—136.

Frerichs, John O., and E. P. Houston, to United States of America, Army. Apparatus for launching revetment mats and cable clamping means therefor. 2,834,186, 5–13–58, Cl. 61—88.

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Frohlich, Willy O. Marine propelling and steering mechanism. 2,834,313, 5–13–58, Cl. 115—35.

Fry, Benjamin W., to National Vendors, Inc. Article dispensing apparatus. 2,834,512, 5–13–58, Cl. 221—131.

Fry, Percy M. Direct work calculator. 2,834,547, 5–13–58, Cl. 235—88.

Fuller, Calvin S., to Bell Telephone Laboratories, Inc. Method of forming semiconductive bodies. 2,834,696, 5–13–58, Cl. 148—1.5.

Fulton, Clarence O., and P. C. Trussell. Method of killing marine borers. 2,834,706, 5–13–58, Cl. 167—14.

Furrer, John R., to ACF Industries, Inc. Lightweight vehicle. 2,834,303, 5–13–58, Cl. 105—176.

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Gallo, Ella A., to Curtiss-Wright Corp. Fuel flow controller. 2,834,375, 5–13–58, Cl. 137—614.2.

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George, Robert H. Air brake systems for automotive vehicles. 2,834,638, 5–13–58. Cl. 303—85.
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Gibson, John. Treatment of domestic sewage. 2,834,471, 5–13–58. Cl. 210—256.
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Gould, William L. Comb for the hair. 2,834,357, 5–13–58, Cl. 132—109.
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Gripekoven, Henry A., to VISIrecord, Inc. Posting device. 2,834,612, 5–13–58, Cl. 282—29.
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Halahan, John, Aronson, and Lyon. 2,834,596.
Halpern, Benjamin D., W. Karo, and P. Levine, to The Borden Co. Copolymers of trifluoroethyl acrylate. 2,834,763, 5–13–58. Cl. 260—85.5.
Halpin, John G. Portable re-roll, inspection, measuring and cutting unit for rugs. 2,834,558, 5–13–58, Cl. 242—56.
Halter, Allan C., to Allis-Chalmers Mfg. Co. Motor control system responsive to counter electromotive force. 2,834,927, 5–13–58, Cl. 318—77.
Hambrick, William T. Centering and marking tool for pipes. 2,834,116, 5–13–58, Cl. 33—189.
Hament, Louis. Liquid purification apparatus. 2,834,466, 5–13–58, Cl. 210—120.
Hamilton, Fred A. Slack pawl for looms. 2,834,880, 5–13–58, Cl. 139—313.
Hamilton Watch Co.: *See*—
Carson, James E. 2,834,338.
Hammesfahr, Frederic W., and R. L. Hatch, to General Electric Co. Removal of polymerising agents from convertible organopolysiloxanes. 2,834,753, 5–13–58, Cl. 260—46.5.
Hansen, Chris K. Emergency stopper for ladle pour holes. 2,834,075, 5–13–58, Cl. 22—85.
Hanson, Alfred H., to The Fairbanks Co. Lift assembly for hand trucks. 2,834,602, 5–13–58, Cl. 280—5.3.
Hanson, Leroy C.: *See*—
Anderson, George G., and Hanson. 2,834,863.
Hanson, Theodore L.: *See*—
Andrews, Boley A., and Hanson. 2,834,190.
Hanson, William A. Dietary supplement. 2,834,678, 5–13–58, Cl. 99—11.
Harris, Frederic R., Inc.: *See*—
Engstrand, Gunnar C. 2,834,311.
Harris, Hunter C., Jr., to Sylvania Electric Products Inc. Reducing doppler search time in cross-correlation systems. 2,834,956, 5–13–58, Cl. 343—14.
Harris, Wilbur T. Transducer. 2,834,952, 5–13–58, Cl. 340—8.
Harrison, Howard L., to Minneapolis-Honeywell Regulator Co. Solenoid valve. 2,834,570, 5–13–58, Cl. 251—129.
Harsh, Carl R. Gear puller. 2,834,100, 5–13–58, Cl. 29—261.
Hartley, George C., to International Standard Electric Corp. Static electrical code translating apparatus. 2,834,836, 5–13–58. Cl. 179—18.
Hartwig, Edward C., to Westinghouse Electric Corp. Electric discharge apparatus. 2,834,918, 5–13–58, Cl. 315—230.
Hastings, Donald F.: *See*—
Bechberger, Paul F., and Hastings. 2,834,953.
Hat Corp. of America: *See*—
Cavanagh, Lawrence D. 2,834,019.
Hatch, Robert L.: *See*—
Hammesfahr, Frederic W., and Hatch. 2,834,753.
Hatch, Robert L., and J. F. Blumenfeld, to General Electric Co. Process for removing volatile organopolysiloxanes from high molecular weight organopolysiloxanes by stripping gas and kneading. 2,834,754, 5–13–58, Cl. 260—46.5.
Hebert, Julien, to Siegmund Werner Ltd. Lounge chairs. 2,834,400. 5–13–58. Cl. 155—117.
Hechenbleikner, Ingenuin, C. W. Pause, and F. C. Lanoue, to Shea Chemical Corp. Heterocyclic phosphorus compounds. 2,834,798, 5[13–58, Cl. 260—461.
Hedrich, Albert L.: *See*—
Pardue, Don R., and Hedrich. 2,834,236.
Heininger, Ralph F. Slicing apparatus. 2,834,386, 5–13–58, Cl. 146—78.
Hellman, Simon M. Releasable securing means. 2,834,391, 5–13–58. Cl. 152—213.
Hemphill Co.: *See*—
St. Pierre, Eugene, and Wawsonek. 2,834,192.
Henchoz, Marcel, and E. Dégallier. Vehicle headlight with movable screen. 2,834,874, 5–13–58, Cl. 240—46.07.
Henderson, William W., to United States of America, Navy. Electromagnetic radiating horn utilizing aperture loading. 2,834,960, 5–13–58, Cl. 343—786.
Herbig, James A.: *See*—
Salyer, Ival O., and Herbig. 2,834,749.
Salyer, Ival O., and Herbig. 2,834,750.
Herider, Elmer A.: *See*—
Pitts, Kennard, and Herider. 2,834,403.
Herider, Elmer A., and J. Cumming, to Rockwell Spring and Axle Co. Seat support. 2,834,396, 5–13–58, Cl. 155—14.
Herman, Albert D. V-band clamp with integral strengthening ribs. 2,834,087, 5–13–58, Cl. 24—279.
Hermanns, Frederick R., to The Singer Mfg. Co. Adjustable treadles for sewing machines. 2,834,222, 5–13–58, Cl. 74—561.
Herr, Charles H., Jr., to Allis-Chalmers Mfg. Co. Shaft mounting for roller on tracked vehicle. 2,834,639, 5–13–58, Cl. 305—1.
Hess, Emerson E. Locking mechanism for oscillating scale beams. 2,834,591, 5–13–58, Cl. 265—49.
Hesselink, Frans, to American Enka Corp. Spinneret arrangement. 2,834,046, 5–13–58, Cl. 18—8.
Heuser, Paul F.: *See*—
Bast, Walter, Chandler, and Heuser. 2,834,089.
Heuver, Herbert M. Digital counter for compact group indication and/or recording. 2,834,545, 5–13–58, Cl. 235—71.
Hey, Walton A.: *See*—
Stanley, Edward I., Dughi, and Hey. 2,834,676.
Heyman, Louis. Trousers support. 2,834,022, 5–13–58, Cl. 2—323.
Hickok, Robert D., Jr., S. Davies, and W. H. Yenni, ½ to Cleveland Patents, Inc., and ½ to Auto-Test, Inc. Clamp-on electrical measuring instrument. 2,834,941, 5–13–58, Cl. 324—127.
Higashi, Louis M., and R. A. Jarvi, to Monsanto Chemical Co. Phenolic liquid resins. 2,834,755, 5–13–58, Cl. 260—57.
Higgens, Cecil C., to Tanway Ltd. Lubricating systems. 2,834,433, 5–13–58, Cl. 184—7.
Higgins, Kenneth H., to Ford Motor Co. Safety belt assembly for automobiles. 2,834,607, 5–13–58, Cl. 280—150.
Hill, Ezra C., to General Electric Co. Reversible constant-voltage direct-current. 2,834,930, 5–13–58, Cl. 321—8.
Hill, Oiva E., to Norton Co. Centerless grinding machine. 2,834,159, 5–13–58, Cl. 51—103.
Hill, Robert. Fructose polymers and method of preparation. 2,834,694, 5–13–58, Cl. 127—41.
Hines, Doyle. Power driven rolling cutter. 2,834,275, 5–13–58, Cl. 97—85.
Hinkamp, James B.: *See*—
Hirschler, Daniel A., Jr., Irish, and Hinkamp. 2,834,662.
Hinkamp, James B.: *See*—
Irish, Glenn, Hinkamp, and Hirschler. 2,834,664.
Hirschey, Malcolm: *See*—
Gottsche, Ira S., Hirschey, and Alessi. 2,834,285.
Hinkamp, James B., D. A. Hirschler, Jr., and G. Irish, to Ethyl Corp. Gasoline fuels. 2,834,663, 5–13–58, Cl. 44—62.
Hirschler, Daniel A., Jr.: *See*—
Hinkamp, James B., Hirschler, and Irish. 2,834,663.
Hirschler, Daniel A., Jr.: *See*—
Irish, Glenn, Hinkamp, and Hirschler. 2,834,664.
Hirschler, Daniel A., Jr., G. Irish, and J. B. Hinkamp, to Ethyl Corp. Gasoline fuels. 2,834,662, 5–13–58, Cl. 44—62.
Hirst, Archie J., to Metalastik Ltd. Torsional vibration dampers. 2,834,226, 5–13–58, Cl. 74—574.
Hittlo, Evart F.: *See*—
Connant, Louis A., and Hittlo. 2,834,650.
Hjärpe, Eric G., to Aktiebolaget Svenska Kullagerfabriken. Pneumatic liquid pressure pump. 2,834,295, 5–13–58, Cl. 103—49.
Hleb, William J., to The Singer Mfg. Co. Sewing machine needle. 2,834,310, 5–13–58, Cl. 112—226.
Hoban, Fairfield W. Vending machine elevators and locking means for same. 2,834,647, 5–13–58, Cl. 312—71.
Hoelzel, Herman H. Apparatus for installing bulk insulation material. 2,834,059, 5–13–58, Cl. 19—72.
Hoeppner, Conrad H.: *See*—
Segerstrom, Carl A., Hoeppner, and Abate. 2,834,833.
Hoffman, Herbert I.: *See*—
Fogwell, Joseph W., Hoffman, Oakey, and Donaldson. 2,834,166.
Hohmann, Conrad J.: *See*—
Postel, Kenneth I., and Hohmann. 2,834,297.
Hollander, Max L., and Y. E. Lebedeff, to American Smelting and Refining Co. Recovery of selenate values contained in sulfuric acid solutions. 2,834,652, 5–13–58, Cl. 23—209.
Hollander, Walter C. Valves with wedging valve elements. 2,834,571, 5–13–58, Cl. 251—195.
Holley Carburetor Co.: *See*—
Goodyear, Charles R. 2,834,587.
Holliday, Don. Wraparound garment cover. 2,834,524, 5–13–58, Cl. 223—98.
Hood, Stanley R., to Essex Wire Corp. Snap-acting bimetal device. 2,834,853, 5–13–58, Cl. 200—138.
Hopkins Mfg. Corp.: *See*—
Baxter, George C. 2,834,312.
Horsley, Lee H.: *See*—
Britton, Edgar C., and Horsley. 2,834,784.
Petrie, Peter S., and Horsley. 2,834,781.
Hosmer, A. J., Corp.: *See*—
Leavy, Jerry D. 2,834,025.
Houdaille Industries, Inc.: *See*—
Oldberg, Oscar, and Sandberg. 2,834,583.
Houdry, Eugene J., to Oxy-Catalyst, Inc. Catalytic muffler. 2,834,657, 5–13–58, Cl. 23—288.
Houdry Process Corp.: *See*—
Bond, George R., Jr. 2,834 366.
Houlton, Samuel S. Hot line connector. 2,834,950, 5–13–58, Cl. 339—109.
Houston, Earl P.: *See*—
Frerichs, John O., and Houston. 2,834,186.
Howell, Horace F., to Massey-Harris-Ferguson Inc. Root-crop topper. 2,834,176, 5–13–58, Cl. 56—121.46.
Howell, Robert H.: *See*—
Woodle, Robert A., Howell, and Chandler. 2,834,735.
Hoyle, Robert J., Jr., to The MacGillis & Gibbs Co. Fabricated pole. 2,834,073, 5–13–58, Cl. 20—99.
Hoyt, John M., to Minnesota Mining and Mfg. Co. Copolymers of perfluorobutadiene and vinyl alkyl ethers and method of preparation thereof. 2,834,766, 5–13–58, Cl. 260—87.5.

Hoyt, John M., to Minnesota Mining and Mfg. Co. Copolymers and method of preparation thereof. 2,834,767, 5–13–58, Cl. 260—87.5.

Hoyt, Robert P.: *See*—
Weber, Gene C., Hoyt, and Dinsmore. 2,834,745.

Hudgins, Peter D. Door-opening attachment for rural-type mailboxes. 2,834,540, 5–13–58, Cl. 232—45.

Hudson, Edwin B., to Armco Steel Corp. Pallet for sintering machines. 2,834,593, 5–13–58, Cl. 266—21.

Hughes Aircraft Co.: *See*—
Gudmundsen, Richard A., and Maserjian. 2,834,701.

Hughes, Ardell, to The Youngstown Sheet and Tube Co. Power and transmission assembly for drilling rigs. 2,834,575, 5–13–58, Cl. 255—19.

Hughes, John F. Apparatus for controlling lubricant flow to a plurality of lubricated points. 2,834,376, 5–13–58, Cl. 137—625.11.

Hughes, Vincent L., and I. Kirshenbaum, to Esso Research and Engineering Co. Promoted carbonylation reaction. 2,834,812, 5–13–58, Cl. 260—604.

Hunter, Joseph L.: *See*—
Fiahive, Thomas J., and Hunter. 2,834,149.

Hupp Corp.: *See*—
Ravich, Leonard E. 2,834,891.

Hutchings, Le Roi E.: *See*—
Crosby, Gifford W., and Hutchings. 2,834,803.

Hutchings, Le Roi, to The Pure Oil Co. Sulfonation of petroleum oils. 2,834,802, 5–13–58, Cl. 260—504.

Hutto, Frank C., to Ford Motor Co. Top-grooved oil ring groove. 2,834,643, 5–13–58, Cl. 309—8.

Hunn, James V., to The Sherwin-Williams Co. Method of making mold masters. 2,834,052, 5–13–58, Cl. 18—47.5.

Imperial Chemical Industries Ltd.: *See*—
Levy, Norman, and Thomson. 2,834,816.
Vincent, George. 2,834,738.

Inflico Inc.: *See*—
Battey, Everett M. 2,834,473.

Ingres, Jeannot G., to Kelsey Hayes Co. Booster brake mechanism. 2,834,184, 5–13–58, Cl. 60—54.6.

Innocenti Societa Generale per l'Industrie: *See*—
Capetti, Scipione. 2,834,259.

International Business Machines Corp.: *See*—
Clapper, Genunng L. 2,834,880.
Daino, Peter W., and Stott. 2,834,544.
Giffard, John A. 2,834,831.
Malmros, Gustav V. A., and Rex. 2,834,919.
Scheer, Herman C., and York. 2,834,725.

International Latex Corp.: *See*—
Miller, Wilbur A. 2,834,056.

International Minerals & Chemical Corp.: *See*—
Purvis, Joseph L., and Vassel. 2,834,805.

International Nickel Co., Inc., The: *See*—
Pease, George R., and Kihlgren. 2,834,098.

International Paper Box Machine Co., The: *See*—
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Goss, Harold J. 2,834,263.

International Standard Electric Corp.: *See*—
Hartley, George C. 2,834,836.
Klepp, George F., and Beard. 2,834,906.
Mehlis, Arthur. 2,834,849.
Pfau, Anton. 2,834,834.

Irish, Glenn: *See*—
Hinkamp, James B., Hirschler, and Irish. 2,834,663.
Hirschler, Daniel A., Jr., Irish, and Hinkamp. 2,834,662.

Irish, Glenn, J. B. Hinkamp, and D. A. Hirschler, Jr., to Ethyl Corp. Gasoline fuels. 2,834,664, 5–13–58, Cl. 44—62.

Irmscher, Hans O., to National Tea Packing Co., Inc. Manufacture of filled packages with string-handles in predetermined counted output groups. 2,834,164, 5–13–58, Cl. 53—14.

Iron Fireman Mfg. Co.: *See*—
Deer, James W. 2,834,214.
Deer, James W. 2,834,215.

Irslinger, Otto I.: *See*—
Stiebel, Theodor H., and Irslinger. 2,834,854.

Irving, Robert: *See*—
David, Vernon W., and Irving. 2,834,734.

Ito, Hiroshi, to Canon Camera Co., Inc. High aperture wide angle four component lens. 2,834,253, 5–13–58, Cl. 88—57.

Ivey, Cleo R. Boring machine. 2,834,576, 5–13–58, Cl. 255—20.

Jaakkola, Eino. Sole blanking apparatus. 2,834,413, 5–13–58, Cl. 164—21.

Jackson, Donald R. P., to Molins Machine Co. Ltd. Packing machines. 2,834,500, 5–13–58, Cl. 216—59.

Jackson, Riley N. Clamp for vertical alignment of poles. 2,834,118, 5–13–58, Cl. 33—215.

Jacokes, Benton D.: *See*—
Powers, Walter H., and Jacokes. 2,834,427.

Jaeger, Wilbert J., to Carbonic Dispenser, Inc. of California. Ice cube making machine. 2,834,189, 5–13–58, Cl. 62—7.

Jakob, John P., to American Can Co. Article marking mechanism. 2,834,286, 5–13–58, Cl. 101—35.

Jalkanen, Matti J., to Rauma-Repola Oy. Strainer apparatus. 2,834,474, 5–13–58, Cl. 210—408.

Jamrogowicz, Harry F., to Bigelow-Sanford Carpet Co., Inc. Manufacture of pile carpets. 2,834,806, 5–13–58, Cl. 139—38.

Jamrogowicz, Harry F. Manufacture of carpets. 2,834,807, 5–13–58, Cl. 139—406.

Janes, Austen E.: *See*—
Jones, George H. 2,834,470.

Jarvi, Reino A.: *See*—
Higashi, Louis M., and Jarvi. 2,834,755.

Jellinek, Maurice H., to Union Carbide Corp. Vinyl silane composition and process for treating fibrous glass material therewith. 2,834,693, 5–13–58, Cl. 117—126.

Jen, Yun: *See*—
Suen, Tseng J., Jen, and Moore. 2,834,756.

Jen, Yun, and S. T. Moore, to American Cyanamid Co. Polyalkylene-polyamine resinous composition, method of making paper using same and paper containing same. 2,834,675, 5–13–58, Cl. 92—3.

Jenkins, Gwynville, to Polygram Casting Co. Ltd. Apparatus for the manufacture of moulds, hollow cores and the like for foundry purposes. 2,834,074, 5–13–58, Cl. 22—34.

Jennings, Jo E., to Jennings Radio Mfg. Corp. Vacuum relay. 2,834,847, 5–13–58, Cl. 200—87.

Jennings Radio Mfg. Corp.: *See*—
Jennings, Jo E. 2,834,847.

Jenny, Hans. Method for the preservation of roasted and ground coffee and the maintenance of their nutritive value. 2,834,680, 5–13–58, Cl. 99—68.

Johansen Fred W. Crib and play pen for automobiles. 2,834,031, 5–13–58, Cl. 5—94.

Johansson, Ebbe A. I. and S. A. M. Collapsible storage table with cross legs. 2,834,644, 5–13–58, Cl. 311—79.

Johansson, Sture A. M.: *See*—
Johansson, Ebbe A. I. and S. A. M. 2,834,644.

Johnson, Alexander J., to R. H. Pierce Mfg. Co. Portable irrigation system. 2,834,634, 5–13–58, Cl. 299—47.

Johnson, Alfred J.: *See*—
Livingston, Herbert K., and Johnson. 2,834,793.

Johnson & Johnson: *See*—
Metsler, Charles L., and Wark. 2,834,507.
Painter, Erle V., Jr., and Strickel. 2,834,730.

Johnson, Oliver, and K. Nozaki, to Shell Development Co. Platinum catalyst and preparation thereof. 2,834,740, 5–13–58 Cl. 252—466.

Johnson, Reginald F.: *See*—
Baumgarten, Werner, and Johnson. 2,834,710.

Johnson, Walter F., to American Smelting and Refining Co. Removal of hydrocarbons from sulfur dioxide gases. 2,834,430, 5–13–58, Cl. 183—114.2.

Jones, Edward W.: *See*—
Jones, Gordon A. and E. W. 2,834,307.

Jones, George H., ½ to A. E. Janes. Means for magnetically separating solid magnetic particles from a fluid current. 2,834,470 5–13–58, Cl. 210—222.

Jones, Gordon A. and E. W. Machine for providing divided flexible structures. 2,834,307, 5–13–58, Cl. 112—2.

Jones, John D.: *See*—
En Dean, Howard J., Jones, and Topanelian. 2,834,113.

Jones, Lucille P. Wheeled stretcher. 2,834,030, 5–13–58, Cl. 5—81.

Jones, Michael G.: *See*—
Russell, Arthur O., and Jones. 2,834,395.

Jones, Rufus V., to Phillips Petroleum Co. Compositions comprising hydrogenated conjugated diene polymers and poly-1-olefins. 2,834,751, 5–13–58, Cl. 260—45.5.

Jones, Rufus V.: *See*—
Scott, Johnny N., and Jones. 2,834,742.

Jones, Stephen. Fishing leader holder. 2,834,144, 5–13–58, Cl. 43—54.5.

Jones, William A., and G. S. Cherniak, to American Radiator & Standard Sanitary Corp. Gyroscopic flowmeter. 2,834,209, 5–13–58, Cl. 73—194.

Jude, George F., and H. Miller, to Sperry Rand Corp. Aircraft automatic pilot. 2,834,562, 5–13–58, Cl. 244—77.

Jullander, Elof I., to Mo Och Domsjo Aktiebolag. Methods of treating cellulose ethers. 2,834,777, 5–13–58, Cl. 260—232.

Jupnik, Helen, to American Optical Co. Infra red transmitting medium and method of making same. 2,834,689, 5–13–58, Cl. 117—33.3.

Kablitz, Richard. Plate heat exchanger. 2,834,582, 5–13–58, Cl. 257—245.

Kadosch, Marcel, and J. Le Foll, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Centrifugal air compressor control device. 2,834,534, 5–13–58, Cl. 230—114.

Kalkhof-Rose, Walter. Water-soluble shellac powder. 2,834,770, 5–13–58, Cl. 260—97.

Kanai, Masakuni, ½ to Lion Brush K. K. Device for penetrating teeth with fluoride. 2,834,844, 5–13–58, Cl. 128—172.1.

Kaplan, Bertram M.: *See*—
Paparelli, Joseph, and Kaplan. 2,834,628.

Karo, Wolf: *See*—
Halpern, Benjamin D., Karo, and Levine. 2,834,763.

Kastar Inc.: *See*—
Paparelli, Joseph, and Kaplan. 2,834,628.

Kaufman, Herbert C., to John B. Pierce Foundation. Bis (triphenoxysilyl) benzene and method of transferring heat therewith. 2,834,736, 5–13–58, Cl. 252—78.

Kay Mfg. Corp.: *See*—
Pietruszka, Walter M. 2,834,594.

Kayton, Robert, to Robert Kayton Associates, Inc. Rotatable display device. 2,834,479, 5–13–58, Cl. 211—164.

Kayton, Robert, Associates, Inc.: *See*—
Kayton, Robert. 2,834,479.

Kearney, Thomas J., to Detrex Chemical Industries, Inc. Cleaning apparatus. 2,834,359, 5–13–58, Cl. 134—74.

Keckler, John W., and W. O. Wilkening, to The Aro Equipment Corp. Combination mask and suit regulators. 2,834,343, 5–13–58, Cl. 128—142.

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Kellogg, M. M., Co., The: *See*—
Patton, James L., Stanford, and Burton. 2,834,823.
Stanford, George W., and Patton. 2,834,718.

Kellogg, Spencer, 2nd, to Sperry Rand Corp. Navigational aid for dirigible craft. 2,834,957, 5–13–58, Cl. 343—107.

Kelsey Hayes Co.: *See*—
Ingres, Jeannot G. 2,834,184.

Kenyon, Theodore W. Pendulum construction. 2,834,117, 5–13–58, Cl. 33—215.

Kershaw, John W. G.: *See*—
Marsh, Gerald C., Wilson, and Kershaw. 2,834,481.

Kinsella, Arthur J., Jr., S. P. Dickens, W. P. Ballard, and B. F. Smith, to The Texas Co. Treating process employing a fluidized mass of adsorbent. 2,834,429, 5–13–58, Cl. 183—114.2.

Kiehl, Paul G., and W. H. Kolath, Jr. Film mount. 2,834,136, 5–13–58, Cl. 40—159.

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Pease, George R., and Kihlgren. 2,834,098.

Killey, Robert F.: *See*—
McKenzie, Charles A., and Killey. 2,834,762.

Kimberly-Clark Corp.: *See*—
Rickard, Charlotte L., and Bletsinger. 2,834,459.

King, Alexander H., to United Aircraft Corp. Fluid transmission unit. 2,834,219, 5–13–58, Cl. 74—206.

King, Alfred B., Co., The: *See*—
King, John P. 2,834,589.

King, John P., to The Alfred B. King Co. Annealing spider. 2,834,589, 5–13–58, Cl. 263—47.

Kingdom, Myrle E. Expansible pulley. 2,834,220, 5–13–58, Cl. 74—230.17.

Kingsboro Mills, Inc.: *See*—
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Kirkbride, Jack D. Campaign ribbon bar holder. 2,834,129, 5–13–58, Cl. 40—1.5.

Kirshenbaum, Isidor: *See*—
Hughes, Vincent L., and Kirshenbaum. 2,834,812.

Kisiel, Cecil S.: *See*—
Kisiel, Stanley C., C. S., and H. J. 2,834,145.

Kisiel, Henry J.: *See*—
Kisiel, Stanley C., C. S., and H. J. 2,834,145.

Kisiel, Stanley C., C. S., and H. J., to The Pinnacle Products Co. Minnow bucket. 2,834,145, 5–13–58, Cl. 43—56.

Klasek, Frank A.: *See*—
Cihlar, Anthony J., and Klasek. 2,834,393.

Klein, Norman E., to Deering Milliken Research Corp. Strand handling machine. 2,834,178, 5–13–58, Cl. 57—58.52.

Klepp, George F., and D. A. Beard, to International Standard Electric Corp. Gas-filled electric discharge tubes. 2,834,906, 5–13–58, Cl. 313—217.

Klinge, Earl R.: *See*—
Bachle, Carl F., and Klinge. 2,834,329.

Klingel, Edward L. Telephone calling device. 2,834,838, 5–13–58, Cl. 179—90.

Klinkenberg, Otto, to The Bastian-Blessing Co. Safety relief valve. 2,834,374, 5–13–58, Cl. 137—541.

Klohr, James W.: *See*—
Chute, Andrew E., Smalley, Klohr, and Aldridge. 2,834,655.

Kluglein, Helmuth: *See*—
Kluglein, Theobald and H. 2,834,397.

Kluglein, Theobald and H. Chair bed. 2,834,397, 5–13–58, Cl. 155—49.

Knapp, Andrew S., to Knapp-Monarch Co. Neck construction for jug. 2,834,503, 5–13–58, Cl. 220—15.

Knapp-Monarch Co.: *See*—
Knapp, Andrew S. 2,834,503.

Knier, Joseph P. Tip-up with illuminable signal. 2,834,140, 5–13–58, Cl. 48—17.

Knight, George A. Interpreting converter. 2,834,128, 5–13–58, Cl. 35—2.

Knowles, James H. Cotton harvester. 2,834,175, 5–13–58, Cl. 56—33.

Kolath, William H., Jr.: *See*—
Kiehl, Paul G., and Kolath. 2,834,136.

Kolbe, Frank F., to The United Electric Coal Companies. Self-cleaning digging wheel buckets. 2,834,127, 5–13–58, Cl. 37—189.

Kolbe, Frank F., to The United Electric Coal Companies. Self-cleaning digging wheel buckets. 2,834,128, 5–13–58, Cl. 37—189.

Kompfner, Rudolf, to Bell Telephone Laboratories, Inc. Traveling wave tube. 2,834,908, 5–13–58, Cl. 315—3.6.

Koob, Bernard H., to Lynch Corp. Container manufacturing machine. 2,834,154, 5–13–58, Cl. 49—9.

Koppel, Harold H., to Bailey Meter Co. Magnetic inverter circuit. 2,834,934, 5–13–58, Cl. 323—56.

Koppers Co., Inc.: *See*—
D'Alelio, Gaetano F. 2,834,757.
D'Alelio, Gaetano F. 2,834,819.

Koren, Joseph A.: *See*—
Ghai, Madan L., and Koren. 2,834,428.

Kosacka, Frederick J.: *See*—
Swain, Kenneth W., and Kosacka. 2,834,852.

Kraft, August L. Tension control device. 2,834,556, 5–13–58, Cl. 242—45.

Kramer, Clarence F., to Ford Motor Co. Windshield wiper arm mechanism. 2,834,038, 5–13–58, Cl. 15—255.

Krats, Jerrold K.: *See*—
Barkow, William H., and Krats. 2,834,901.

Kreager, Frank O., deceased, by H. Dana, administrator. Method of making a fruit confection. 2,834,681, 5–13–58, Cl. 99—102.

Kromschroder, G., Akt.: *See*—
Schwarz, Karl H., and Drabik. 2,834,373.

Kronish, Joseph. Device for washing bedpans and urinals. 2,834,026, 5–13–58, Cl. 4—10.

Kunkle Valve Co.: *See*—
Young, Maurice W. 2,834,372.

Kuns, William R., to United States of America, Army. Magazine charger. 2,834,137. 5–13–58, Cl. 42—87.

Kurs, Otto. Device for operatively connecting a dynamo with a wheel hub. 2,834,610. 5–13–58, Cl. 280—289.

Kuyper, Herman S., to Rolscreen Co. Folding door. 2,834,410, 5–13–58, Cl. 160—199.

L. Sarnoff-Williams Camera Corp.: *See*—
Williams, David L. 2,834,270.

Labombarde, Raymond A. Blank holddown apparatus. 2,834,262, 5–13–58, Cl. 93—49.

L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploition des Procedes Georges Claude: *See*—
Moignet, Jacques. 2,834,917.

Lakeside Laboratories, Inc.: *See*—
Biel, John H. 2,834,785.
Biel, John H., and Drukker. 2,834,779.

Lally Column Co.: *See*—
Donahue, John S., and Strehan. 2,834,196.

Lambert, Donald J. Control for boat. 2,834,152, 5–13–58, Cl. 46—77.

Land, Edwin H., to Polaroid Corp. Photographic apparatus including means for treating exposed photosensitive sheet material. 2,834,269, 5–13–58, Cl. 95—13.

Land, William M., Jr.: *See*—
Maddock, Bruce H., and Land. 2,834,054.

Landauer, Charles W. Skirt restrainer. 2,834,021, 5–13–58, Cl. 2—273.

Lander, James G., to Diamond Alkali Co. Aqueous sodium silicate adhesive composition. 2,834,744, 5–13–58, Cl. 260—29.7.

Langen, Ole H.: *See*—
Maxwell, Ira C., Langen, and Pfiola. 2,834,523.

Langer, Adolph A., to American Cyanamid Co. Frangible tablet packaging. 2,834,456, 5–13–58, Cl. 206—42.

Lanoue, Francis C.: *See*—
Hechenbleikner, Ingenuin, Pause, and Lanoue. 2,834,798.

Lanyon, Samuel H. Sampling means for removing a predetermined quantity of liquid from a container. 2,834,515, 5–13–58, Cl. 222—38.

Larter, William C.: *See*—
Haley, Kenneth M., Trask, and Larter. 2,834,043.

Lassy, Carl O. Vise lock. 2,834,221, 5–13–58, Cl. 74—503.

Laubach, Gerald D.: *See*—
Bloom, Barry M., and Laubach. 2,834,783.

Lautier, Roger A., and E. R. McGregor, to The Aerotherm Corp. Seats of the reclining type. 2,834,402, 5–13–58, Cl. 155—155.

Lavender, Harrison M.: *See*—
Worthington, Robert S., and Lavender. 2,834,822.

Lawrence, Beardsley, to Fiberbond Laboratories Inc. Method of producing bonded twistless yarn. 2,834,704, 5–13–58, Cl. 154—91.

Lazzopina, Robert M., and J. V. D'Onofrio, to Sperry Rand Corp., Ford Instrument Co. Division. Method of making drum type sequence switches. 2,834,095, 5–13–58, Cl. 29—155.5.

Lear, Inc.: *See*—
Lear, William P., Sr., and Norton. 2,834,961.

Lear, William P., Sr., and C. J. Norton, to Lear, Inc. Aircraft antenna with impedance matching device. 2,834,961, 5–13–58, Cl. 343—880.

Leavy, Jerry D., to A. J. Hosmer Corp. Suction device for prosthetic limb. 2,834,025, 5–13–58, Cl. 3—17.

Le Beau, Lee, to Alto Scientific Co. Detent mechanism, especially for rotary switches. 2,834,842, 5–13–58, Cl. 200—11.

Lebedeff, Yurii E.: *See*—
Hollander, Max L., and Lebedeff. 2,834,652.

Lecher, Hans Z., and R. A. Greenwood, to American Cyanamid Co. Dicarboxyphenylphosphonic acid. 2,834,804, 5–13–58, Cl. 260—515.

Lee, Charles A., Jr., and R. D. Weyman, to Diamond Gardner Corp. Collapsible shoe boxes. 2,834,460, 5–13–58, Cl. 206—65.

Lee, George R.: *See*—
Riddle, Robert E., and Lee. 2,834,438.

Lee, Robert A., to Bendix Aviation Corp. Electron discharge device. 2,834,905, 5–13–58, Cl. 313—179.

Le Foll, Jean: *See*—
Kadosch, Marcel, and Le Foll. 2,834,534.
Paris, François G., Le Foll, and Bertin. 2,834,181.

Léglise, Pierre. Blank typing of terminal segments. 2,834,448, 5–13–58, Cl. 197—84.

Le Goff, George: *See*—
Stanley, John C., Le Goff, Moore, and Williams. 2,834,625.

Lehureau, Jean: *See*—
Dégeorges, Ernest M., and Lehureau. 2,834,817.

Leitz, Ernst, G. m. b. H.: *See*—
May, Erwin. 2,834,249.

Lempco Products, Inc.: *See*—
Strnad, James J. 2,834,223.

Lennox, Thomas C., H. A. Fohrhaltz, and J. F. McKenney, to General Electric Co. Circuit for simulating transformer winding hot spot temperature. 2,834,920, 5–13–58, Cl. 317—14.

Lenox Industries, Inc.: *See*—
Autry, Wilford A., and Eichorn. 2,834,535.

Lever Brothers Co.: *See*—
Raynor, Derek. 2,834,937.

Leverstart Ltd.: *See*—
Sweet, Clifford W. 2,834,227.

Levine, Philip: *See*—
Halpern, Benjamin D., Karo, and Levine. 2,834,763.

Levy, Norman, and R. C. Thomson, to Imperial Chemical Industries Ltd. Production of isopropanol by hydration with propylene recycle. 2,834,816, 5–13–58, Cl. 260—641.

Licentia Patent-Verwaltungs- G. m. b. H.: *See*—
Eggers, Hermann R. 2,834,942.

Lieb, Wolfgang A., to Titmus Optical Co., Inc. Anterior chamber lenses for refractive correction of aphakia, high ametropia and anisometropia. 2,834,023, 5–13–58, Cl. 3—1.

Lieffers, William C., F. C. Riddick, Jr., and R. L. Switzer, to Union Oil Co. of California. Solids level indication and control system. 2,834,658, 5–13–58, Cl. 23—288.

Liljestrand, Stanley E., to U. S. Industries, Inc. Automatic shut-off valve. 2,834,371, 5–13–58, Cl. 137—458.

Lillie, Gordon E., to Bryant Chucking Grinder Co. Grinding machine. 2,834,160, 5–13–58, Cl. 51—165.

Lindemann, Howard C.: *See*—
Mindheim, Daniel, and Lindemann. 2,834,206.

Lindly & Co.: *See*—
Mindheim, Daniel, and Lindemann. 2,834,206.

Lindstrom, Eddie G.: *See*—
Barusch, Maurice R., and Lindstrom. 2,834,796.

Lion Brush K. K.: *See*—
Kanai, Masakuni. 2,834,344.

Lisle Corp.: *See*—
Brooks, Thomas E. 2,834,232.

Livingston, Herbert K., and A. J. Johnson, to E. I. du Pont de Nemours and Co. Derivatives of 4-anilino-3-nitrobenzenesulfonamide. 2,834,793, 5–13–58, Cl. 260—397.7.

Loecy, Joe, Jr. Turning device for diamond tool. 2,834,333, 5–13–58, Cl. 125—39.

Logan, William W., to McGraw-Edison Co. Dictation-recording system. 2,834,839, 5–13–58, Cl. 179—100.1.

Lopez, John P., to Universal Corrugated Box Machinery Corp. Box flap taping and end sealing equipment. 2,834,168, 5–13–58, Cl. 53—137.

Lorence, Harry J. Coin dispenser and permit holder. 2,834,358, 5–13–58, Cl. 133—6.

Lovell, John, to General Electric Co. Scanning device. 2,834,217, 5–13–58, Cl. 74—86.

Loveridge, William B. Milk bottle case loading machine. 2,834,167, 5–13–58, Cl. 53—61.

Lowell, Rudolph L.: *See*—
Neufeld, Leonard C., and Lowell. 2,834,296.

Lowerre, Ralph T., to United States Steel Corp. Rail bond or electrical connector. 2,834,550, 5–13–58, Cl. 238—14.9.

Lukoff, Hermann, to Sperry Rand Corp. Peak amplitude indicator. 2,834,883, 5–13–58, Cl. 250—27.

Lummus Cotton Gin Co.: *See*—
Van Doorn, Donald W. 2,834,061.

Luther, William F.: *See*—
Claiborne, Jefferson L., and Luther. 2,834,860.

Lybarger, Nile R. Adjustable door jambs. 2,834,066, 5–13–58, Cl. 20—12.

Lynch Corp.: *See*—
Koob, Bernard H. 2,834,154.

Lynch, Robert T., and L. J. Speck, to Bell Telephone Laboratories, Inc. Method of forming an extruded cathode. 2,834,673, 5–13–58, Cl. 75—208.

Lynford, Vincent C., to Sparkler Mfg. Co. Scavenging filter. 2,834,472, 5–13–58, Cl. 210—314.

Lyon, Floyd A.: *See*—
Halahan, John, Aronson, and Lyon. 2,834,596.

Lyon, George A. Cold nosing of thin wall shells. 2,834,094, 5–13–58, Cl. 29—1.21.

Lyon, George A. Wheel° cover. 2,834,637, 5–13–58, Cl. 301—37.

Macdonald, Angus S., to Carthage Corp. Book shelves. 2,834,478, 5–13–58, Cl. 211—136.

MacGillis & Gibbs Co., The: *See*—
Hoyle, Robert J., Jr. 2,834,073.

Maddock, Bruce H, and W. M. Land, Jr., to Union Carbide Corp. Process for extruding polychlorotrifluoroethylene. 2,834,054, 5–13–58, Cl. 18—55.

Magel, Theodore T.: *See*—
Foster, Laurence S., and Magel. 2,834,672.

Mageoch, Harry Y., to H. K. Porter Co., Inc. Vehicle destination sign mechanism. 2,834,131, 5–13–58, Cl. 40—95.

Magic Chef-Food Giant Markets, Inc.: *See*—
Reinhart, Harold C., and Portas. 2,834,408.

Magnesium Elektron Ltd.: *See*—
Petch, James H. T. 2,834,700.

Majik-Ironers, Inc.: *See*—
Foster, Edwin E. 2,834,568.

Major, Benjamin M. Non-slip billfold. 2,834,389, 5–13–58, Cl. 150—47.

Malakoff, Louis. Computer. 2,834,110, 5–13–58, Cl. 33—1.

Mallinckrodt, George E. Rotary engine, pistons and sealing means therefor. 2,834,322, 5–13–58, Cl. 121—49.

Mallory, P. R., & Co., Inc.: *See*—
Booe, James M. 2,834,926.

Malm, Carl J., and L. W. Blanchard, Jr., to Eastman Kodak Co. Method of preparing hydrolyzed cellulose acetate butyrates. 2,834,776, 5–13–58, Cl. 260—225.

Malmros, Gustav V. A., and D. K. Rex, to International Business Machines Corp. Synchronising system. 2,834,919, 5–13–58, Cl. 317—6.

Mancini, Michael. Friction drive socket wrenches. 2,834,239, 5–13–58, Cl. 81—64.

Mandel, Elliot: *See*—
Peres, Anthony, and Goldsborough. 2,834,316.

Manganese Chemicals Corp.: *See*—
Welsh, Jay Y. 2,834,726.

Marants, Israel H., to Columbia Cable & Electric Corp. Apparatus for feeding tubes. 2,834,455, 5–13–58, Cl. 203—75.

Marconi's Wireless Telegraph Co. Ltd.: *See*—
Brown, Thomas T. 2,834,887.

Marcucio, Stephen, and H. Brodsky, to American Cyanamid Co. Process for edge-gluing wooden elements. 2,834,705, 5–13–58, Cl. 154—126.5.

Marcus, Jerome R., to Western Electric Co., Inc. Adjustable throw cranks. 2,834,224, 5–13–58, Cl. 74—571.

Marsh, Gerald C., E. J. Wilson, and J. W. Kershaw, to Westinghouse Brake & Signal Co. Ltd. Automatic couplers for railway and like vehicles. 2,834,481, 5–13–58, Cl. 213—76.

Martin, Raymond G., to Westinghouse Brake and Signal Co. Ltd. Apparatus for the regulation of the voltage across a common load circuit supplied from two or more sources of direct current. 2,834,892, 5–13–58, Cl. 307—52.

Martines, Melroy M. Sea food processing apparatus. 2,834,040, 5–13–58, Cl. 17—2.

Marvin, Philip R., to The Commonwealth Engineering Co. of Ohio. Method of producing metal shapes by gas plating. 2,834,690, 5–13–58, Cl. 117—60.

Maserjian, Joseph, Jr.: *See*—
Gudmundsen, Richard A., and Maserjian. 2,734,701.

Mason, Charles O. M., to Quincy Syrian Baking Co., Inc. Burner for bakery ovens. 2,834,407, 5–13–58, Cl. 158—109.

Mason, Lindon D., to Nu-Flo Products, Inc. Muffler. 2,834,426, 5–13–58, Cl. 181—57.

Mason, Ralph B.: *See*—
Mertsweiller, Joseph K., and Mason. 2,834,815.

Massey-Harris-Ferguson, Inc.: *See*—
Ashton, Robert. 2,834,633.
Davis, Charles J. 2,834,489.
Howell, Horace F. 2,834,176.

Mastella, Louis, to Wm. Wrigley, Jr., Co. Apparatus for printing on surfaces not readily absorptive of printing mediums. 2,834,291, 5–13–58, Cl. 101—350.

Master Pneumatic Tool Co., Inc.: *See*—
Sturrock, James. 2,834,442.

Mastercraft Trailers, Inc.: *See*—
Roy, Dwight B., Sr., and R. 2,834,492.

Mastney, Edward J., and L. J. Fichter, to Oak Mfg. Co. Electrical apparatus. 2,834,851, 5–13–58, Cl. 200—105.

Mathre, Owen B., and D. M. Sowards, to E. I. du Pont de Nemours and Co. Chemical polishing of metals. 2,834,659, 5–13–58, Cl. 41—42.

Mattox, Fred N. Camping trailer. 2,834,632, 5–13–58, Cl. 296—27.

Maude, William A., to General Electric Co. Improved rotative drive assembly. 2,834,620, 5–13–58, Cl. 287—53.

Maxwell, Ira C., O. H. Langen, and C. E. Ptilola, to The Unipress Co., Inc. Shirt pressing machine. 2,834,523, 5–13–58, Cl. 223—57.

May, Erwin, to Ernst Leitz, G. m. b. H. Mechanism for projecting films of different widths. 2,834,249, 5–13–58, Cl. 88—18.4.

McCarthy, Edward M.: *See*—
Saye, John F. 2,834,142.

McCarthy, John A., to Bell Telephone Laboratories, Inc. Grid structure. 2,834,900, 5–13–58, Cl. 313—68.

McCarthy, Lenore W.: *See*—
Saye, John F. 2,834,142.

McCarthy, Philip A.: *See*—
Saye, John F. 2,834,142.

McCollough, John D., ½ to A. E. Grimley. Wheeled vehicle with differential steering mechanism. 2,834,605, 5–13–58, Cl. 280—91.

McConnell, Albert L.: *See*—
Schutte, Richard W., Britt, and McConnell. 2,834,809.

McConnell, Andrew J., to General Electric Co. Phase comparison protective relaying system. 2,834,921, 5–13–58, Cl. 317—28.

McDonald, John E., to Westinghouse Electric Corp. Spin vane controls for fans. 2,834,536, 5–13–58, Cl. 101—350.

McGraw-Edison Co.: *See*—
Logan, William W. 2,834,839.

McGregor, Eugene R.: *See*—
Lautier, Roger A., and McGregor. 2,834,402.

McKenney, James F.: *See*—
Lennox, Thomas C., Fohrhaltz, and McKenney. 2,834,920.

McKensie, Charles A., and R. F. Killey, to Polymer Corp. Ltd. Polymerization of butyl rubber. 2,834,762, 5–13–58, Cl. 260—85.3.

McLaren, James A., and J. H. Goode, to United States of America, Atomic Energy Commission. Electrochemical decontamination and recovery of uranium values. 2,834,722, 5–13–58, Cl. 204—1.5.

McMichael, Palmer L., to A. T. Chase, d. b. a. Standardized Aircraft. Swivel hose assembly. 2,834,465, 5–13–58, Cl. 210—95.

McNab, John A., to United Aircraft Corp. Fluid seal means for rotating shafts. 2,834,619, 5–13–58, Cl. 286—9.

Mechanical Patents, Inc.: *See*—
Ashworth, William J. 2,834,122.

Mehlis, Arthur, to International Standard Electric Corp. Multi-contact relay. 2,834,849, 5–13–58, Cl. 200—104.

Mendes, Abraham P. Method of electroplating plastic articles. 2,834,724, 5–13–58, Cl. 204—20.

Merck & Co., Inc.: *See*—
Baumgarten, Werner, and Johnson. 2,834,710.

Mertsweiller, Joseph K.: *See*—
Aldridge, Clyde L., and Mertsweiller. 2,834,801.

Mertsweiller, Joseph K., and R. B. Mason, to Esso Research and Engineering Co. Solid cobalt acetate as catalyst for oxo synthesis of alcohols. 2,834,815, 5–13–58, Cl. 260—638.

Metalastik Ltd.: *See*—
Hirst, Archie J. 2,834,226.

Metallgesellschaft Akt.: *See*—
Rudolph, Paul, and Danulat. 2,834,665.

Metallurgical Processes Co.: *See*—
Rusciano, Frank A. 2,834,699.

Metals & Controls Corp.: *See*—
Pfumm, Heins R., and Rogers. 2,834,102.

Metsler, Charles L., and J. D. Wark, to Johnson & Johnson. Dispenser stacking device. 2,834,507, 5–13–58, Cl. 220—97.

Meyer, Joseph E., to The Cottrell Co. Ink distributions for rotary printing presses. 2,834,290, 5–13–58, Cl. 101—350.

Meyer, Paul H., to U. S. Slicing Machine Co., Inc. Slicing machine slicer, stacker and weigher. 2,834,388, 5–13–58, Cl. 146—94.

Meyers, Cornelius W. Heating element. 2,834,862, 5–13–58, Cl. 219—34.

Middleton, T. Blair: *See*—
Scott, Henry M. 2,834,032.

Midland Chemical Corp.: *See*—
Toulmin, Harry A., Jr. 2,834,684.

Miessner, Benjamin F., to Miessner Inventions, Inc. Tone generators for electronic musical instruments. 2,834,243, 5–13–58, Cl. 84—1.14.

Miessner Inventions, Inc.: *See*—
Miessner, Benjamin F. 2,834,243.

Mihm, Herman A., to Baso Inc. Fuel control device. 2,834,367, 5–13–58, Cl. 137—66.

Miller, Buel W., to Varsity Pre-Cast Seat Co., Inc. Combined mold and rack. 2,834,088, 5–13–58, Cl. 25—118.

Miller Equipment Co., Inc.: *See*—
Shawgo, Ellis C. 2,834,525.

Miller, Harold N.: *See*—
Flan, Anthony, and Miller. 2,834,840.

Miller, Harry: *See*—
Jude George F., and Miller. 2,834,562.

Miller, Harry, to Sperry Rand Corp. Aircraft automatic pilot. 2,834,563, 5–13–58, Cl. 244—77.

Miller, Lloyd C., to Formold Plastics, Inc. Dispenser cap. 2,834,519, 5–13–58, Cl. 222—455.

Miller, Melvin W., to Muellermist Irrigation Co. Liquid spray device. 2,834,635, 5–13–58, Cl. 299—104.

Miller, Urban J. Awning structure. 2,834,072, 5–13–58, Cl. 20—57.5.

Miller, Wilbur A., to International Latex Corp. Manufacture of deposited latex articles. 2,834,056, 5–13–58, Cl. 18—58.7.

Milwitt, William, to Radio Corp. of America. Automatic gain control circuits. 2,834,877, 5–13–58, Cl. 250—20.

Mims, Philip B. Window conservatory. 2,834,441, 5–13–58, Cl. 189—64

Mindheim, Daniel, and H. C. Lindemann, to Lindly & Co. Slub marking mechanism. 2,834,206, 5–13–58, Cl. 73—159.

Minneapolis-Honeywell Regulator Co.: *See*—
Bauer, William E. 2,834,217.
Ciscel, Benjamin H. 2,834,929.
Harrison, Howard L. 2,834,570.
Pessen, David W. 2,834,363.

Minnesota Mining and Mfg. Co.: *See*—
Dunning, Robert M. 2,834,457.
Hoyt, John M. 2,834,766.
Hoyt, John M. 2,834,767.

Mintz, Henry A. Rotatable work holder in pencil stamping machines. 2,834,283, 5–13–58, Cl. 101—11.

Miron, Walter F. Fish holding device. 2,834,041, 5–13–58, Cl. 17—8.

Mitchell, William A., and W. C. Seidel, to General Foods Corp. Gelatin derivatives and their preparation. 2,834,771, 5–13–58, Cl. 260—117.

Mitterer, Adolph V. Fuel condenser and strainer. 2,834,469, 5–13–58, Cl. 210—181.

Moignet, Jacques, to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploition des Procedes Georges Claude. Device for starting and stabilizing a welding arc. 2,834,917, 5–13–58, Cl. 315—163.

Molins Machine Co. Ltd.: *See*—
Jackson, Donald R. P. 2,834,500.

Monotype Corp. Ltd., The: *See*—
Williams, Joseph H. 2,834,268.

Monroe Calculating Machine Co.: *See*—
Burkhart, William H. 2,834,543.
England, William A. 2,834,923.

Monsanto Chemical Co.: *See*—
Chadwick, David H. 2,834,797.
Higashi, Louis M., and Jarvi. 2,834,755.
Salyer, Ival O., and Herbig. 2,834,749.
Salyer, Ival O., and Herbig. 2,834,750.
Salyer, Ival O., and Slocombe. 2,834,746.

Montecatini, Societa Generale per l'Industria Mineraria e Chimica: *See*—
Fauser, Giacomo. 2,834,431.

Mo Och Domsjo Aktiebolag: *See*—
Jullander, Elof I. 2,834,777.

Moore, George L. Traffic signalling device. 2,834,314, 5–13–58, Cl. 116—63.

Moore, Robert B., Jr.: *See*—
Stanley, John C., Le Goff, Moore, and Williams. 2,834,625.

Moore, Sewell T.: *See*—
Jen, Yun, and Moore. 2,834,675.

Moore, Sewell T.: *See*—
Suen, Tzeng J., Jen, and Moore. 2,834,756.

Moreton, Douglas H., to Douglas Aircraft Co., Inc. Hydraulic fluid and lubricant composition. 2,834,733, 5–13–58, Cl. 252—49.8.

Morin, Louis H. Apparatus for making extruded spiral coaxial cable. 2,834,047, 5–13–58, Cl. 18—13.

Morin, Louis H. Separable fasteners. 2,834,084, 5–13–58, Cl. 24—205.11.

Morison, James C.: *See*—
Doering, Fred W., and Morison. 2,834,623.

Morris, Leon A. Cable travelers. 2,834,301, 5–13–58, Cl. 104—182.

Morrison, Walter F. Semi-rimless spectacle mounting. 2,834,252, 5–13–58, Cl. 88—47.

Mosely, Robert B., and G. M. Good, to Shell Development Co. Catalytic cracking of hydrocarbon oils. 2,834,719, 5–13–58, Cl. 196—52.

Moser, Marietta A. Pin fasteners for furniture covers and the like. 2,834,082, 5–13–58, Cl. 24—152.

Moses, George: *See*—
Sullivan, John B. 2,834,627.

Mösher, Walter E. Non-spilling movable drip catcher. 2,834,516, 5–13–58, Cl. 222—108.

Motorola, Inc.: *See*—
Bauman, Edward. 2,834,879.
Thompson, Reynald E. 2,834,216.
Thompson, Reynald E. 2,834,886.

Mueller Co.: *See*—
Mueller, Frank H., and Smith. 2,834,614.

Mueller, Frank H., and J. J. Smith, to Mueller Co. Machine-inserted service T with conical web. 2,834,614, 5–13–58, Cl. 285—119.

Mueller, Herbert B. Portable, reversible dance floor. 2,834,065, 5–13–58, Cl. 20—6.

Mueller, Max B., to Allied Chemical & Dye Corp. Process for preparing nicotinic acid. 2,834,786, 5–13–58, Cl. 260—295.5.

Muellermist Irrigation Co.: *See*—
Miller, Melvin W. 2,834,635.

Muller, George H., and W. E. Davis, to Ford Motor Co. Motor vehicle driveline mounting. 2,834,640, 5–13–58, Cl. 308—28.

Muller, George H., and W. E. Davis, to Ford Motor Co. Motor vehicle driveline mounting. 2,834,641, 5–13–58, Cl. 308—28.

Murayama, Makio. Method and apparatus for automatic amperometric titration. 2,834,654, 5–13–58, Cl. 23—230.

Muschamp, Harold L., and J. E. Grady, said Grady assor. to said Muschamp. Core delivery device for cop winding machines. 2,834,509, 5–13–58, Cl. 221—22.

Musser, Walton, to United States of America, Army. Recoilless firearm and ammunition therefor. 2,834,255, 5–13–58, Cl. 89—1.7.

Nachtman, John S., and H. G. Poole. Method of producing molybdenum. 2,834,671, 5–13–58, Cl. 75—84.

Nagy, Michael J. Fishing reel. 2,834,559, 5–13–58, Cl. 242—84.21.

National Automotive Fibres, Inc.: *See*—
Davies, Clarence J. 2,834,045.

National Lead Co.: *See*—
Vincent, Kenneth C. 2,834,463.

National Tank Co.: *See*—
Gibb, John F. 2,834,702.

National Tea Packing Co., Inc.: *See*—
Irmscher, Hans O. 2,834,164.

National Venders, Inc.: *See*—
Fry, Benjamin W. 2,834,512.

National Union Electric Corp.: *See*—
Wolkstein, Herbert J. 2,834,910.

Neary, Kenneth J., to The Ryan Aeronautical Co. Compressor stator structure. 2,834,537, 5–13–58, Cl. 230—133.

Needham, Dee E. Combined fishing rod handle and landing net. 2,834,139, 5–13–58, Cl. 43—12.

Neely, Forest H., to Poor & Co. Hammer rotor type Bradford crusher. 2,834,553, 5–13–58, Cl. 241—81.

Nelson, Ira R. Pictorial box. 2,834,130, 5–13–58, Cl. 40—7.

Nelson, Morris D., to Radio Corp. of America. Multi-beam convergence circuits. 2,834,911, 5–13–58, Cl. 315—13.

Nelson, Permil N., to Lynn H. Ewing, d. b. a. Black Hawk Co. Float valve construction. 2,834,370, 5–13–58, Cl. 137—433.

Neufeld, Leonard C., and R. L. Lowell, to The Delman Co. Pump unit for windshield clearing systems. 2,834,296, 5–13–58, Cl. 103—148.

New England Carbide Tool Co., Inc.: *See*—
Tengberg, Evert R. 2,834,230.

Newell, William H., and H. W. Brevoort., to Sperry Rand Corp. Parachute canopy release. 2,834,083, 5–13–58, Cl. 24—201.

Newport, John J., to The Dow Chemical Co. Superior galvanic magnesium anode. 2,834,698, 5–13–58, Cl. 148—3.

Nickerson, Elmer K., deceased, by M. N. Steele, to Chapman Valve and Mfg. Co. Piston actuated valve with restraining detent. 2,834,569, 5–13–58, Cl. 251—62.

Nicoll, Frank D.: *See*—
Peters, Rudolph. 2,834,494.

Nielsen, Axel L. Sump pump control. 2,834,845, 5–13–58, Cl. 200—81.5.

Niesemann, Fritz, to Rockwell Mfg. Co. Valve. 2,834,378, 5–13–58, Cl. 137—630.15.

Nishimura, Katsuji. Thread twisting machine. 2,834,179, 5–13–58, Cl. 57—39.

Nixon, Leroy, to John A. Roebling's Sons Corp. Self-propelling aerial tramway car. 2,834,302, 5–13–58, Cl. 105—148.

Norbom, Ragnar A., to D. N. Finnie, d. b. a. David N. Finnie Associates. Container transfer apparatus. 2,834,495, 5–13–58, Cl. 214—516.

Noren, Tore H.: *See*—
Federighi, George J., and Noren. 2,834,364.

North Electric Co.: *See*—
Bender, Lloyd. 2,834,837.

Northern Engraving & Mfg. Co.: *See*—
Robinson, James C. 2,834,723.

Norton, Clyde J.: *See*—
Lear, William P., Sr., and Norton. 2,834,961.

Norton Co.: *See*—
Hill, Oiva E. 2,834,159.

Norton, James F., to General Electric Co. Data analysing equipment. 2,834,888, 5–13–58, Cl. 250—41.9.

Norton, Samuel H., to Thompson Products, Inc. Method of making piston ring stock. 2,834,096, 5–13–58, Cl. 29—156.6.

Norton, Samuel H., to Thompson Products, Inc. Punch-press apparatus for forming strip metal. 2,834,392, 5–13–58, Cl. 153—2.

Noxon, Paul A., to Bendix Aviation Corp. Thermal integrator. 2,834,935, 5–13–58, Cl. 323—69.

Nozaki, Kenzie: *See*—
Johnson, Oliver, and Nozaki. 2,834,740.

Nu-Flo Products, Inc.: *See*—
Mason, Lindon D. 2,834,426.

Nute, Jay H., to The Patent and Licensing Corp. Chick shipping container. 2,834,530. 5–13–58, Cl. 229—6.

Nutter, George H., to United Aircraft Corp. Spherical shell closure. 2,834,501, 5–13–58, Cl. 220—4.

Nyden, Robert. Spouts for containers. 2,834,520, 5–13–58, Cl. 222—525.

Nyden, Robert. Spouts combined with containers. 2,834,521, 5–13–58, Cl. 222—569.

Oak Mfg. Co.: *See*—
Mastney, Edward J., and Fichter. 2,834,851.

Oakney, William E.: *See*—
Fogwell, Joseph W., Hoffman, Oakey, and Donaldson. 2,834,166.

Oakton Engineering Corp.: *See*—
Flan, Anthony, and Miller. 2,834,840.

Oberlin, William C., to Pittsburgh Plate Glass Co. Cutting machine. 2,834,156, 5–13–58, Cl. 49—48.

O'Brien, Anne L. Blanket. 2,834,033. 5–13–58, Cl. 5—334.

O'Conner, Francis M.: *See*—
Bailey, Donald L., and O'Connor. 2,834,748.

Ogle, Annette M. Pleat forming device. 2,834,522, 5–13–58, Cl. 223—34.

Ogiebay, Norton and Co.: *See*—
Haley, Kenneth M., Trask, and Larter. 2,834,043.

O'Hara, Allan W., to Shirley O'Hara. Anti-fogging device for dental mirrors. 2,834,109, 5–13–58, Cl. 32—69.

O'Hara, Shirley: *See*—
O'Hara, Allan W. 2,834,109.

Oharenko, Lubomyra. Retort shaking apparatus. 2,834,585, 5–13–58, Cl. 259—75.

Ohio Brass Co., The: *See*—
Waugh, John W. 2,834,841.

Ohio Ferro-Alloys Corp.: *See*—
Van Nostran, Jack A. 2,834,824.

Ohio Foundry & Mfg. Co., The: *See*—
Thompson, Harry E. 2,834,279.

Ohlheiser, Carlton E., to The American Instrument Co. Apparatus for measuring humidity conditions in materials. 2,834,201, 5–13–58, Cl. 73—73.

Oichawa, Joseph M., to Foote Bros. Gear and Machine Corp. Irreversible drive. 2,834,443, 5–13–58, Cl. 192—8.

Oldberg, Oscar, and R. A. Sandberg, to Houdaille Industries, Inc. Heat exchanger. 2,834,583, 5–13–58, Cl. 257—262.16.

Olijnyk, Maxym. Holder for ribbon type razor blade. 2,834,104, 5–13–58, Cl. 30—40.

Olsen, Poul J., and G. J. Safranek, to The Dole Valve Co. Thermostatic valve. 2,834,548. 5–13–58, Cl. 236—34.

Olt, Leonard F. and R. L., to Crown Cork & Seal Co., Inc. Crown with improved liner. 2,834,498, 5–13–58, Cl. 215—40.

Olt, Robert L.: *See*—
Olt, Leonard F. and R. L. 2,834,498.

Opfermann, Adolf C. J. Pyridine-3-aldehyde acetals. 2,834,787, 5–13–58, Cl. 260—297.

O'Reilly, Wallace M.: *See*—
True, Martin E., Boer, and O'Reilly. 2,834,580.

Oronzio De Nora Impianti Elettrochimici: *See*—
Gallone, Patrizio. 2,834,728.

Oroshnik, William, to Ortho Pharmaceutical Corp. Synthesis of vitamin A. 2,834,813, 5–13–58, Cl. 260—611.

Orr, Robert J., and H. L. Williams, to Polymer Corp. Ltd. Redox type polymerization. 2,834,760, 5–13–58, Cl. 260—82.5.

Ortho Pharmaceutical Corp: *See*—
Oroshnik, William. 2,834,813.

Orthopedic Frame Co.: *See*—
Stryker, Homer H. 2,834,341.

Osborne, Charles C. Blast hole loading device. 2,834,245, 5–13–58, Cl. 86—20.

Osmun, Paul M. Skier's seat and supporting means therefor. 2,834,604, 5–13–58, Cl. 280—11.37.

Osterberg, Carl T., to A. Geo. Schulz Co. Can carrier. 2,834,508, 5–13–58, Cl. 220—112.

Ott, Hermann. Mountings for measuring rollers of planimeters or similar instruments. 2,834,642, 5–13–58, Cl. 308—233.

Otto, Carl. Coke oven. 2,834,406, 5–13–58, Cl. 158—7.5.

Owens-Corning Fiberglas Corp.: *See*—
Drummond, Warren W., Stitz, and Frickert. 2,834,092.

Owens-Illinois Glass Co.: *See*—
Allen, Russell G. 2,834,155.
Bowes, Urban E. 2,834,157.

Oxy-Catalyst, Inc.: *See*—
Houdry, Eugene J. 2,834,657.

Paige, Henry: *See*—
Boam, Willard M., Friedman, Paige, Sousis, and Strater. 2,834,101.

Pain, Maurice: *See*—
Bertin, Jean H., Paris, and Pain. 2,834,146.

Painter, Erle V., Jr., and W. R. Strickel, to Johnson & Johnson. Filter media. 2,834,730, 5–13–58, Cl. 210—504.

Pair, Thomas M. Overflow device for sewage. 2,834,365, 5-13-58, Cl. 137—247.11.

Pan, Wen Y., and D. J. Carlson, to Radio Corp. of America. Frequency selective circuit structures. 2,834,948, 5–13–58, Cl. 333—82.

Panich, Michael: *See*—
Gorrie, Harvard H., Shannon, and Panich. 2,834,362.

Paparelli, Joseph, and B. M. Kaplan, to Kastar Inc. Door lock knob. 2,834,628, 5–13–58, Cl. 292—347.

Paper Cap Mfg. Co. Ltd., The: *See*—
Robinson, Keith A. 2,834,170.

Papst, Hermann. Electric rotary-field system. 2,834,895, 5–13–58, Cl. 310—44.

Pardue, Don R., and A. L. Hedrich. Sound intensity measurement. 2,834,236, 5–13–58, Cl. 181—.5.

Paris, August F. Combination truck and ladder. 2,834,526, 5–13–58, Cl. 228—16.

Paris, François G.: *See*—
Bertin, Jean H., Paris, and Pain. 2,834,146.

Paris, François G.: *See*—
Bertin, Jean H., Salmon, and Paris. 2,834,183.

Paris, François G., J. Le Foll, and J. Bertin, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Jet propulsion unit comprising pulse jet units having ejector tubes within a ramjet unit. 2,834,181, 5–13–58, Cl. 60—35.6.

Parsons, Ralph M., Co., The: *See*—
Chute, Andrew E., Smalley, Klohr, and Aldridge. 2,834,655.

Parton, Verno W. Lumber hack extractor. 2,834,482, 5–13–58, Cl. 214—8.5.

Partridge Leslie W., to The Burdick Corp. Voltage generator. 2,834,898, 5–13–58, Cl. 310—111.

Patent and Licensing Corp., The: *See*—
Nute, Jay H. 2,834,530.

Patton, James L.: *See*—
Stanford, George W., and Patton. 2,834,718.

Patton, James L., G. W. Stanford, and W. P. Burton, to The M. W. Kellogg Co. Isomerization of hydrocarbons. 2,834,823, 5–13–58, Cl. 260—683.65.

Pause, Carl W.: *See*—
Hechenbleikner, Ingenuin, Pause, and Lanoue. 2,834,798.

Payne, Grady L., to Socony Mobil Oil Co., Inc. Method and apparatus for the controlled withdrawal of granular solids from a liquid-granular solids contacting zone. 2,834,721, 5–13–58, Cl. 196—147.

Pearl, John J., to Cascades Plywood Corp. Veneer joggers and jointers. 2,834,384, 5–13–58, Cl. 144—117.

Pearson, Frank A.: *See*—
Pickels, Edward G., and Pearson. 2,834,248.

Pease, George R., and T. E. Kihlgren, to The International Nickel Co., Inc. Metal arc welding of 90–10 type copper-nickel material. 2,834,096, 5–13–58, Cl. 29—194.

Pedersen, Marius. Fish landing gear. 2,834,138, 5–13–58, Cl. 43—11.

Pendar, Kenneth, to Sesam S. A. Process for direct extraction of a metal from its sulphide. 2,834,669, 5–13–58, Cl. 75—77.

Penta Laboratories, Inc.: *See*—
Eaves, Hubert H., and Clinton. 2,834,846.

Peres, Anthony, and W. Goldsborough, to E. Mandel. Automatic micro guide for duplicating machines. 2,834,316, 5–13–58, Cl. 116—133.

Peres, Marcos B. Indoor TV antenna. 2,834,958, 5–13–58, Cl. 343—751.

Perkins, Corles M., Sr., and A. Bennett, to Bendix Aviation Corp. Orientation control. 2,834,564, 5–13–58, Cl. 244—77.

Perrone, Ruben O. Window Construction. 2,834,069, 5–13–58, Cl. 20—52.

Personal Products Corp.: *See*—
Atkinson, Ralph L. 2,834,703.

Pessen, David W., to Minneapolis-Honeywell Regulator Co. Self adjusting control apparatus. 2,834,363, 5–13–58, Cl. 137—85.

Petch, James H. T., to Magnesium Elektron Ltd. Magnesium base alloys. 2,834,700, 5–13–58, Cl. 148—21.90.

Petermann, Lucien A., to Gulton Industries, Inc. Ultrasonic drill. 2,834,158, 5–13–58, Cl. 51—57.

Peters, Rudolph, ¼ to F. D. Nicoli, and ¼ to C. Thomas. Hand truck. 2,834,494, 5–13–58, Cl. 214—511.

Petersen, Lowell W., to Swift & Co. Evaporation of charrable organic liquids. 2,834,409, 5–13–58, Cl. 159—16.

Peterson, Merlin H.: *See*—
Denison, Frank W., Jr., Friedland, and Peterson. 2,834,714.

Petrie, Peter S., and L. H. Horsley, to The Dow Chemical Co. Hydrazides and method of preparation. 2,834,781, 5–13–58, Cl. 260—268.

Pfau, Anton, to International Standard Electric Corp. Circuit arrangement for reducing the call losses in telephone systems with registers. 2,834,834, 5–13–58, Cl. 179—16.

Pfizer, Chas., & Co., Inc.: *See*—
Bloom, Barry M., and Laubach. 2,834,783.

Pflumm, Heinz R., and F. P. Rogers, to Metals & Controls Corp. Solid-phase bonding of metals. 2,834,102, 5–13–58, Cl. 29—497.

Phillips Petroleum Co.: *See*—
Jones, Rufus V. 2,834,751.
Scott, Johnny N., and Jones. 2,834,742.
Short, James N., Uraneck, and Rothlisberger. 2,834,747.

Pibus, Harold L.: *See*—
Alexander, Donald C. 2,834,859.

Pickels, Edward G., to Beckman Instruments, Inc. Optical density analysing apparatus. 2,834,247, 5–13–58, Cl. 88—14.

Pickels, Edward G., and F. A. Pearson, to Beckman Instruments, Inc. Apparatus and method for analysing refractive index variations and refractive index gradients. 2,834,248, 5–13–58, Cl. 8—14.

Pickels, Edward G., P. F. Scofield, and F. G. Williams, to Beckman Instruments, Inc. Electrophoresis apparatus. 2,834,248, 5–13–58, Cl. 88—14.

Picker X-Ray Corp., Waite Mfg. Div. Inc.: *See*—
Bastin, Edgar J., and Barrett. 2,834,890.

Pickup, Bryan, to Dunlop Rubber Co. Ltd. Adhesion testing machines. 2,834,206, 5–13–58, Cl. 73—150.

Picone, Arthur, Jr. Clothesline support. 2,834,476, 5–13–58, Cl. 211—119.02.

Pie-O-Matic Corp.: *See*—
Cenotti, Lewis. 2,834,510.

Pierce, John B., Foundation: *See*—
Kaufman, Herbert C. 2,834,736.

Pierce, R. H., Mfg. Co.: *See*—
Johnson, Alexander J. 2,834,634.

Pietruszka, Walter M., to Kay Mfg. Corp. One piece formed sinuous spring. 2,834,594, 5–13–58, Cl. 267—1.

Piilola, Calvin E.: *See*—
Maxwell, Ira C., Langen, and Piilola. 2,834,523.

Pilkington Brothers Ltd.: *See*—
Roxburgh, William B. 2,834,306.

Pinnacle Products Co., The: *See*—
Kisiel, Stanley C., C. S. and H. J. 2,834,145.

Pitts, Kennard, and E. A. Herider, to Rockwell Spring and Axle Co. Strip spring construction. 2,834,403, 5–13–58, Cl. 155—179.

Pittsburgh Plate Glass Co.: *See*—
Oberlin, William C. 2,834,156.

Place, Charles I. Turbo-mechanical transmission. 2,834,288, 5–13–58, Cl. 74—688.

Platte, William N., to Westinghouse Electric Corp. Arc welding gun. 2,834,870, 5–13–58, Cl. 219—75.

Polanin, Walter R., to American Steel Foundries. Rotor brake mounting. 2,834,439, 5–13–58, Cl. 188—206.

Polaroid Corp.: *See*—
Booth, Joseph H. 2,834,271.
Erlichman, Irving. 2,834,272.
Land, Edwin H. 2,834,269.

Polygram Casting Co. Ltd.: *See*—
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Polymer Corp Ltd.: *See*—
McKenzie, Charles A., and Killey. 2,834,762.
Orr, Robert J., and Williams. 2,834,760.

Poole, Henry G.: *See*—
Nachtman, John S., and Poole. 2,834,671.

Poor & Co.: *See*—
Neely, Forest H. 2,834,553.

Portas, Eugene P.: *See*—
Reinhart, Harold C., and Portas. 2,834,408.

Porter, H. K., Co., Inc.: *See*—
Mageoch, Harry Y. 2,834,131.

Postel, Kenneth I., and C. J. Hohmann, to Vickers Inc. Power transmission. 2,834,297, 5–13–58, Cl. 103—162.

Powers, Walter H., and B. D. Jacokes, to Walker Mfg. Co. of Wisconsin. Muffler having a cover and a retaining strip therefor. 2,834,427, 5–13–58, Cl. 181—61.

Pratt, Thomas W. Preparation of catalytic cracking feed. 2,834,715, 5–13–58, Cl. 196—14.46.

Pritchard, Wilbur L., and C. P. Domenichini, to Raytheon Mfg. Co. Balanced mixers which utilizes image-frequency power reflected from detector diodes. 2,834,876, 5–13–58, Cl. 250—20.

Proctor, Edward K., Jr., to Sperry Rand Corp. Wave guide lens. 2,834,962, 5–13–58, Cl. 343—909.

Progil: *See*—
Degorges, Ernest M., and Lehureau. 2,834,817.

Przybylski, Daniel F., to The Warner & Swasey Co. Turn post and hydraulic means for swinging the same. 2,834,480, 5–13–58, Cl. 212—66.

Pugh, Benjamin J. Ore grinding mill. 2,834,555, 5–13–58, Cl. 241—205.

Pugh, Emerson, to Western Electric Co., Inc. Base structure for high temperature furnace. 2,834,590, 5–13–58, Cl. 263—49.

Purdue Research Foundation: *See*—
Feuer, Henry, and Shepherd. 2,834,810.

Pure Oil Co., The: *See*—
Crosby, Gifford W., and Hutchings. 2,834,803.
Hutchings, Le Roi. 2,834,802.
Schaschl, Edward. 2,834,858.
Watson, Kenneth M. 2,834,656.

Purolator Products, Inc.: *See*—
Sebok, Joseph B. 2,834,419.

Purvis, Joseph L., and B. Vassel, to International Minerals & Chemical Corp. Process for producing monosodium glutamate crystals. 2,834,805, 5–13–58, Cl. 260—534.

Pye Ltd.: *See*—
Shute, Ralph A. 2,834,885.

Pyramid Rubber Co., The: *See*—
Boston, Frank E., and Shomock. 2,834,496.

Quincy Syrian Raking Co., Inc.: *See*—
Mason, Charles O. M. 2,834,407.

Quyle, Martin E. Fishing lure. 2,834,141, 5–13–58, Cl. 43—42.06.

Radford, Arthur A. Steam boiler construction. 2,834,823, 5–13–58, Cl. 122—114.

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Barkow, William H., and Kratz. 2,834,901.
Burns, Leslie L., Jr., and Kelzer. 2,834,878.
Dietch, Leonard. 2,834,913.
Milwitt, William. 2,834,877.
Nelson, Morris D. 2,834,911.
Pan, Wen Y., and Carlson. 2,834,948.
Somers, Frank J. 2,834,832.
Sonnenfeldt, Richard W. 2,834,882.

Ragosine, Victor E., to Sprague Electric Co. Radioactive resistor. 2,834,899. 5–13–58, Cl. 313—54.

Railoc Co., Inc.: *See*—
Rutten, Peter. 2,834,063.

Rauma-Repola Oy: *See*—
Jaikanen, Matti J. 2,834,474.

Ravich, Leonard E., to Hupp Corp. Radiation detection methods and devices. 2,834,891, 5–13–58, Cl. 250—71.

Rawson, Emanuel, to Grand Sheet Metal Products Co. Exhaust muffler. 2,834,425, 5–13–58, Cl. 181—42.

Raynor, Charlie J. Trash remover for cotton gin. 2,834,057, 5–13–58, Cl. 19—55.

Raynor, Derek, to Lever Brothers Co. Conductivity bridges. 2,834,937, 5–13–58, Cl. 324—30.

Raytheon Mfg. Co.: *See*—
Dench, Edward C. 2,834,915.
Derby, Palmer P. 2,834,914.
Domenichini, Carlo P., and Bakura. 2,834,884.
Pritchard, Wilbur L., and Domenichini. 2,834,876.
Segerstrom, Carl A., Hoeppner, and Abate. 2,834,883.

Reeves, Thomas C., to T. J. Cope, Inc. Connecting means for cable-supporting trough systems and the like. 2,834,622, 5–13–58, Cl. 287—62.

Reich, Harold A. Support for holding a plurality of garment hangers in closely spaced relation. 2,834,475, 5–13–58, Cl. 211—113.

Reid, Raymond W., and P. F. George, to The Dow Chemical Co. Conductively coated electrodes and method of making same. 2,834,826, 5–13–58, Cl. 136—100.

Reiners, Walter: *See*—
Furst, Stefan. 2,834,091.

Reinhart, Harold C., and E. P. Portas, to Magic Chef-Food Giant Markets, Inc. Pilot burner. 2,834,408, 5–13–58, Cl. 158—115.

Rekettye, Paul, to The Sun Rubber Co. Mold charging mechanism. 2,834,051, 5–13–58, Cl. 18—30.

Rembold, Albert A. Marginally punched and notched sorting cards. 2,834,353, 5–13–58, Cl. 129—16.1.

Remmele Engineering Co.: *See*—
Zastrow, Thomas S. 2,834,844.

Rendondo, Angel E. Cigarette package opener and extractor. 2,834,514, 5–13–58, Cl. 221—208.

Renfrew, Edgar E., Jr.: *See*—
Wilkinson, Joseph M., Jr., and Renfrew. 2,834,792.

Renoux, Kenneth L. Angularly adjustable, multiple-socket wrench. 2,834,237, 5–13–58, Cl. 81—57.5.

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Suggs, Charles W., and Wilson. 2,834,174.
Wilson, Robert W. 2,834,173.

Reuman, Paul B. Package. 2,834,686, 5–13–58, Cl. 99—171.

Revell, Otto M. Jig saw chuck. 2,834,600, 5–13–58, Cl. 279—107.

Rex, Donald K.: *See*—
Malmros, Gustav V. A., and Rex. 2,834,919.

Rhodes, Joseph C., and J. P. Segers, to Standard Oil Co. Continuous automatic viscosimeter. 2,834,200, 5–13–58, Cl. 73—55.

Rich, George E.: *See*—
Gebert, Marshall K., and Rich. 2,834,616.

Rich, Theodore A., to General Electric Co. Electrical peak follower circuit. 2,834,933, 5–13–58, Cl. 323—22.

Richardson, Edgar C., to Allied Chemical & Dye Corp. Automatic gravity take-up for bucket elevators. 2,834,452, 5–13–58, Cl. 198—208.

Richfield Oil Corp.: *See*—
Weber, Gene C., Hoyt, and Dinsmore. 2,834,745.

Richter, John W.: *See*—
Sterling, John D., Jr., and Richter. 2,834,794.

Rickard, Charlotte I., and J. C. Bletzinger, to Kimberly-Clark Corp. Absorbent dressing package. 2,834,459, 5–13–58, Cl. 206—63.2.

Riddick, Frank C., Jr.: *See*—
Lieffers, William C., Riddick, and Switzer. 2,834,658.

Riddle, Robert E., and G. R. Lee. Automatic brake setting device. 2,834,438, 5–13–58, Cl. 188—152.

Riener, Edward F., to Rohm & Haas Co. Diphenylacetaldehydes. 2,834,708, 5–13–58, Cl. 167—30.

Robbins, Kenneth C., to Armour and Co. Preparation of ensyme extracts from liver. 2,834,713, 5–13–58, Cl. 195—66.

Robbins Tire and Rubber Co., Inc.: *See*—
White, Eldridge S. 2,834,049.

Roberts, Shepard, to General Electric Co. Electroluminescent lighting device. 2,834,903, 5–13–58, Cl. 313—108.

Robertson, H. H., Co.: *See*—
Feldman, Max B., and Roseman. 2,834,280.

Robinson, James C., to Northern Engraving & Mfg. Co. Method of electroplating printed circuits. 2,834,723, 5–13–58, Cl. 204—15.

Robinson, Keith A., to The Paper Cap Mfg. Co. Ltd. Apparatus for applying closures to jars or like containers. 2,834,170. 5–13–58, Cl. 53—293.

Rockwell Mfg. Co.: *See*—
Niesemann, Fritz. 2,834,378.

Rockwell Spring and Axle Co.: *See*—
Pitts, Kennard, and Herider. 2,834,403.
Herider, Elmer A., and Cumming. 2,834,396.

Roe, Ernest: *See*—
Daniel, David M. 2,834,382.

Roebling's, John A., Sons Corp.: *See*—
Nixon, Leroy. 2,834,302.

Roepke, John H., to D. D. Davis and G. F. Fitzgerald. Dual opening display cartons. 2,834,532, 5–13–58, Cl. 229—44.

Rogers, Freeman P.: *See*—
Pflumm, Heinz R., and Rogers. 2,834,102.

Rohm & Haas Co.: *See*—
Boettner, Fred E. 2,834,775.
De Benneville, Peter L. 2,834,765.
Riener, Edward F. 2,834,708.

Rohr Aircraft Corp.: *See*—
Schmidt, Theodore F. 2,834,161.

Rolscreen Co.: *See*—
Kuyper, Herman S. 2,834,410.

Romberg, Harvey. Portable storage bin. 2,834,493, 5–13–58, Cl. 214—509.

Romrell, Clarence L., to Sawyer's Inc. Stereoscopic viewer and rectangular view mounting card. 2,834,251, 5–13–58, Cl. 88—31.

Rondello, Antonio. Gas stove safety device. 2,834,835, 5–13–58, Cl. 126—42.

Rondo Development Corp.: *See*—
De Wiess, Ferdinand A. 2,834,260.

Rose, Harold J., and J. L. Ernst, to **Esso** Research and Engineering Co. Method for handling of effluent streams from polymerization process. 2,834,761, 5–13–58, Cl. 260—85.3.

Roseman, Oscar E.: *See*—
Feldman, Max B., and Roseman. 2,834,280.

Rosenberg, Elias. Filtering material for tobacco smoke. 2,834,354, 5–13–58, Cl. 131—208.

Rostron, Douglas W., to Dominion Magnesium Ltd. Method of thermally reducing titanium oxide. 2,834,667, 5–13–58, Cl. 75—0.5.

Rothlisberger, Alvin C.: *See*—
Short, James N., Uraneck, and Rothlisberger. 2,834,747.

Rowen, John H.: *See*—
Griadale, Richard O., and Rowen. 2,834,943.

Roxburgh, William B., to Pilkington Brothers Ltd. Furnaces. 2,834,306, 5–13–58, Cl. 110—99.

Roy, Dwight B., Sr., and R. M. Roy, to Mastercraft Trailers, Inc. Boat trailer. 2,834,492, 5–13–58, Cl. 214—505.

Roy, Richard M.: *See*—
Roy, Dwight B., Sr., and R. M. Roy. 2,834,492.

Rudolph, Paul, and F. Danulat, deceased (by H. G., I., H. F., and D. Danulat, administrators), to Metallgesellschaft Akt. Depressurizing of ash discharge locks and similar chambers. 2,834,665, 5–13–58, Cl. 48—87.

Ruhrchemie Akt.: *See*—
Feichtinger, Hans. 2,834,778.
Schaub, Franz. 2,834,119.

Rusciano, Frank A., to Metallurgical Processes Co. Method of venting controlled atmosphere furnaces. 2,834,699, 5–13–58, Cl. 148—13.1.

Russell, Arthur O., and M. G. Jones, to American Viscose Corp. Apparatus for joining thermoplastic sheets. 2,834,395, 5–13–58, Cl. 154—42.

Russell, Harvey W., and N. Wonnacott, to Willcox & Gibbs Sewing Machine Co. Overedge sewing machine for making safety seam. 2,834,309, 5–13–58, Cl. 112—163.

Russell, Stanley D., to J. I. Case Co. Drive mechanism for a pick-up hay baler. 2,834,177, 5–13–58, Cl. 56—341.

Rutten, Peter, to Railoc Co., Inc. Silo construction. 2,834,063, 5–13–58, Cl. 20—1.4.

Ryan Aeronautical Co., The: *See*—
Neary, Kenneth J. 2,834,537.

Ryder, Frank A., V. N. Tramontini, and J. F. Wein, to Stewart-Warner Corp. Vehicle combustion heater. 2,834,336, 5–13–58, Cl. 126—16.

Sacks, Norman M., to Thompson Products, Inc. Lubrication system. 2,834,432, 5–13–58, Cl. 184—6.

Safranek, George J.: *See*—
Olsen, Poul J., and Safranek. 2,834,548.

Sage, Stanley J., to Allen B. Du Mont Laboratories, Inc. Electronic color filter. 2,834,254, 5–13–58, Cl. 88—106.

St. Pierre, Eugene, and J. Wawzonek, to Hemphill Co. Circular knitting machine. 2,834,192, 5–13–58, Cl. 66—56.

Salmon, Benjamin J.: *See*—
Bertin, Jean H., Salmon, and Paris. 2,834,183.

Salyer, Ival O., and R. J. Slocombe, to Monsanto Chemical Co. Mineral oil modified polystyrene-polyethylene blend and process of making same. 2,834,746, 5–13–58, Cl. 260—33.6.

Salyer, Ival O., and J. A. Herbig, to Monsanto Chemical Co. Polymer prepared from styrene monomer containing chlorosulfonated polyethylene and process of making same. 2,834,749, 5–13–58, Cl. 260—30.6.

Salyer, Ival O., and J. A. Herbig, to Monsanto Chemical Co. Blends of polystyrene and hydrogenated polymers of conjugated diolefins. 2,834,750, 5–13–58, Cl. 260—45.5.

Samaritano, Joseph. Liquid fuel gauge for aircraft. 2,834,211, 5–13–58, Cl. 73—422.

Sambraus, Adolf. Apparatus for separating solid matter from liquids. 2,834,454, 5–13–58, Cl. 198—224.

Sampson, Ernest S., to General Electric Co. Apparatus for measuring hardness. 2,834,203, 5–13–58, Cl. 73—81.

Sandberg, Ray A.: *See*—
Oldberg, Oscar, and Sandberg. 2,834,583.

Sansalone, Frank J., and S. Weisbaum, to Bell Telephone Laboratories, Inc. Field displacement isolator. 2,834,946, 5–13–58, Cl. 333—81.

Sarchet, Thomas H. Trailer body house and chassis. 2,834,589, 5–13–58, Cl. 280—30.

Sarti, Joseph. Metal button and its method of manufacture. 2,834,235 5–13–58, Cl. 79—3.

Sasse, Gunter, ½ to J. Stachowicz and ½ to O. Benecke. Door closing device. 2,834,039, 5–13–58, Cl. 16—51.

Savoca, Joseph I., to Socony Mobil Oil Co., Inc. Granular solids withdrawal method and apparatus. 2,834,720, 5–13–58, Cl. 196—147.

Sawyer, Frank McM. Combination window frame and shutter. 2,834,197, 5–13–58, Cl. 72—98.

Sawyer's Inc.: *See*—
Romrell, Clarence L. 2,834,251.

Saxony Electronics, Inc.: *See*—
Bentsman, Louis. 2,834,866.

Saye, John F., ¼ to P. A. McCarthy and ¼ to E. M. and L. W. McCarthy. Fishing float. 2,834,142, 5–13–58, Cl. 43—44.87.

Scalera, Mario, F. Brody, and F. Fazio, to American Cyanamid Co. Stabilization of copperized azo dyestuffs. 2,834,773, 5–13–58, Cl. 260—148.

Scalf, Richard T. Process for conserving toweling. 2,834,695, 5–13–58, Cl. 134—6.

Schaap, Willem F. C., to The Babcock & Wilcox Co. Vapor generating and superheating unit, and method effected thereby. 2,834,326, 5–13–58, Cl. 122—481.

Schaefer, Charles V., Jr., to The Bennett Mfg. Co. Towel dispenser and waste receptacle unit, and mounting bracket therefor. 2,834,506, 5–13–58, Cl. 220—85.

Schaschl, Edward, to The Pure Oil Co. Corrosion testing probe. 2,834,858, 5–13–58, Cl. 201—63.

Schaub, Frans, to Ruhrchemie Akt. Contacting of granular materials with gases. 2,834,119, 5–13–58, Cl. 34—25.

Schaub, Fred H., Engineering Co., Inc.: *See*—
Schaub, Robert F. 2,834,337.

Schaub, Robert F., to Fred H. Schaub Engineering Co., Inc. Water heating system. 2,834,337, 5–13–58, Cl. 126—362.

Scheer, Herman C., and E. R. York, to International Business Machines Corp. Cobalt-nickel electroplating solution. 2,834,725, 5–13–58, Cl. 204—43.

Schefels, Gerhard, G. Wellensiek, and H. Trebbe. Steel recuperator. 2,834,581, 5–13–58, Cl. 257—224.

Schenley Industries, Inc.: *See*—
Wolf, Stanford J. 2,834,497.

Scheurer, Otto R.: *See*—
Wright, George W., and Scheurer. 2,834,298.

Schlage, Ernest L., J. A. Tornoe, and A. H. Green, to Schlage Lock Co. Lock spindle construction. 2,834,194, 5–13–58, Cl. 70—146.

Schlage Lock Co.: *See*—
Schlage, Ernest L., Tornoe, and Green. 2,834,194.

Schlesinger, Albert, K. Schoen, and S. M. Gordon, to Endo Laboratories, Inc. Monocalcium monopiperasine salt of ethylenediaminetetraacetic acid. 2,834,782, 5–13–58, Cl. 260—268.

Schlichting, Frederick P., to ACF Industries, Inc. Relieved wrench socket for holding either a nut or headed fastener. 2,834,240, 5–13–58, Cl. 81—125.

Schmerling, Louis, and V. Haensel, to Universal Oil Products Co. Alkylation of saturated hydrocarbons. 2,834,818, 5–13–58, Cl. 260—666.

Schmidt, Theodore F., to Rohr Aircraft Corp. Adjustable portable grinding tool. 2,834,161, 5–13–58, Cl. 51—166.

Schmuck, Gail A. Towel rack having towel clamping means. 2,834,477, 5–13–58, Cl. 211—124.

Schoen, Karl: *See*—
Schlesinger, Albert, Schoen, and Gordon. 2,834,782.

Schoen, Roger W., to Alco Valve Co. Deep well pump. 2,834,924, 5–13–58, Cl. 103—46.

Schoessow, Glen J., to The Babcock & Wilcox Co. Vapor generator with high temperature pendent superheater platens. 2,834,324, 5–13–58, Cl. 122—476.

Schroer, John B. Hand railing and mounting. 2,834,621, 5–13–58, Cl. 287—54.

Schuls, A. Geo., Co.: *See*—
Osterberg, Carl T. 2,834,508.

Schumann, Lawrence R. Basting brush. 2,834,087, 5–13–58, Cl. 15—160.

Schupp, Alfred J. Dispensing device for cylindrical objects. 2,834,513, 5–13–58, Cl. 221—151.

Schutte, Richard W., K. W. Britt, and A. L. McConnell, to Scott Paper Co. Absorbent paper. 2,834,809, 5–13–58, Cl. 92—3.

Schwab, Harold M. Power driven soil spades. 2,834,276, 5–13–58, Cl. 97—40.

Schwarz, Karl H., and J. Drabik, to G. Kromschroder Akt. Gas pressure regulator. 2,834,373, 5–13–58, Cl. 137—484.2.

Scofield, Philip F.: *See*—
Pickels, Edward G., Scofield, and Williams. 2,834,729.

Scott, Henry M., 3/10 to T. B. Middleton and 3/10 to J. J. Shanley. Body support. 2,834,032, 5–13–58, Cl. 5—327.

Scott, Johnny N., and R. V. Jones, to Phillips Petroleum Co. Elastic insulating tape. 2,834,742, 5–13–58, Cl. 260—28.5.

Scott Paper Co.: *See*—
Schutte, Richard W., Britt, and McConnell. 2,834,809.

Scott, Wilmot H. Swivel seat. 2,834,399, 5–13–58, Cl. 155—95.

Scovill Mfg. Co.: *See*—
Fields, George C. 2,834,379.

Seagraves, Lionel D. Masonry guide line holder. 2,834,112, 5–13–58, Cl. 33—85.

Seaplant Chemical Corp.: *See*—
Stoloff, Leonard S. 2,834,679.

Sebok, Joseph B., to Purolator Products, Inc. Hood and air cleaner mounting assembly. 2,834,419, 5–13–58, Cl. 180—54.

Seeley, John W. Liquid tank structure for road graders. 2,834,601, 5–13–58, Cl. 280—5.

Segers, John P.: *See*—
Rhodes, Joseph C., and Segers. 2,834,200.

Segerstrom, Carl A., C. H. Hoeppner, and A. Abate, to Raytheon Mfg. Co. Electronic commutated channel separators. 2,834,833, 5–13–58, Cl. 179—15.

Segre Amar, Sion: *See*—
Torchio, Carlo, and Segre Amar. 2,834,418.

Seidel, William C.: *See*—
Mitchell, William A., and Seidel. 2,834,771.

Selene S. r. l.: *See*—
Torchio, Carlo, and Segre Amar. 2,834,418.

Selgin, Paul J., to United States of America, Navy. Cellular method of electronic assembly. 2,834,922, 5–13–58, Cl. 317—101.

Semkow, Franklin D. Device for taping wiring harnesses. 2,834,499, 5–13–58, Cl. 210—29.

Sentman, Charles E. Winch assembly. 2,834,574, 5–13–58, Cl. 254—166.

Servomechanisms Inc.: *See*—
Feinstein, Samuel. 2,834,881.

Sesam S. A.: *See*—
Pendar, Kenneth. 2,834,669.

Shacklett, Comer D., to E. I. du Pont de Nemours and Co. Copolymers of N-acrylamide alkyl betaines. 2,834,758, 5–13–58, Cl. 260—78.

Shafer, Paul W.: *See*—
Bailey, Donald L., Shafer, and Wagner. 2,834,648.

Shanley, James J.: *See*—
Scott, Henry M. 2,834,032.

Shannon, Jack F.: *See*—
Gorrie, Harvard H., Shannon, and Panich. 2,834,362.

Shannon, Mary E. Combined mop, squeezer and reservoir. 2,834,036, 5–13–58, Cl. 15—124.

Sharn, Fred J., and A. H. Boundy, to American-Marietta Co. Apparatus for assembling and bonding together mastic washers and nut-washers. 2,834,394, 5–13–58, Cl. 154—1.

Shawgo, Ellis C., to Miller Equipment Co., Inc. Safety body belt. 2,834,525, 5–13–58, Cl. 227—49.

Shawinigan Chemicals Ltd.: *See*—
Georgieff, Karl K. 2,834,811.

Shea Chemical Corp.: *See*—
Hechenbleikner, Ingenuin, Pause, and Lanoue. 2,834,798.

Shell Development Co.: *See*—
David, Vernon W., and Irving. 2,834,734.
Johnson, Oliver, and Nosaki. 2,834,740.
Mosely, Robert B., and Good. 2,834,719.

Shepherd, James W.: *See*—
Feuer, Henry, and Shepherd. 2,834,810.

Shepherd, Judson O'D., deceased; M. F. Shepherd, executrix. Dial telephone system employing senders with card translators. 2,834,835, 5–13–58, Cl. 179—18.

Shepherd, Margaret F.: *See*—
Shepherd, Judson O'D. 2,834,835.

Sherwin-Williams Co., The: *See*—
Hunn, James V. 2,834,052.

Shiah, Chyn d. Process of desulfurising hydrocarbons with a boron fluoride coordination compound followed by hydrofining with a hydrogen donor. 2,834,717, 5–13–58, Cl. 196—28.

Shomock, Joseph J.: *See*—
Boston, Frank E., and Shomock. 2,834,496.

Short, James N., C. A. Uraneck, and A. C. Rothlisberger, to Phillips Petroleum Co. Co-polymers from aryl-substituted butenyl alcohols, ethers and esters and a conjugated diene, compositions containing same, and method of making. 2,834,747, 5–13–58, Cl. 260—41.5.

Shuntrine, J C: *See*—
Eichenberg, Robert, and Shuptrine. 2,834,097.

Shute, Ralph A., to Pye Ltd. Oscillator circuits. 2,834,885, 5–13–58, Cl. 250—36.

Siegl, Adolf: *See*—
Eisenhut, Frans, Gobiet, and Siegl. 2,834,660.

Sienicki, Edward A., to E. I. du Pont de Nemours and Co. Process for separating lead and sodium chloride. 2,834,670, 5–13–58, Cl. 75—78.

Sigma Instruments, Inc.: *See*—
Fisher, Charles P. 2,834,896.

Silvasy, John E., and L. Taylor; said Taylor assor to said Silvasy. Method of making strip. 2,834,674, 5–13–58, Cl. 75—214.

Silverberg, Max: *See*—
Frampton, Kenneth J., and Silverberg. 2,834,029.

Simmonds, John J., ½ to D. Williams. Trailer truck for railroad cars and loading dock therefor. 2,834,485, 5–13–58, Cl. 214—38.

Simpson, Emmett B. Personal safety alarm. 2,834,315, 5–13–58, Cl. 116—67.

Simpson, Jack N., and W. R. Bohner, to The Electric Storage Battery Co. Detachable shield for safety hats. 2,834,017, 5–13–58, Cl. 2—10.

Simpson, Warren O.: *See*—
Eger, Edward F., and Simpson. 2,834,317.

Singer Mfg. Co., The: *See*—
Hermanns, Frederick R. 2,834,222.
Hieb, William J. 2,834,310.
Wendel, Lorens A. 2,834,444.

Siskind, William. Combined eraser particle collecting device and dust guard for typewriters. 2,834,449, 5–13–58, Cl. 197—181.

Skidmore, Walter E. Service insulator construction. 2,834,830, 5–13–58, Cl. 174—165.

Slocombe, Robert J.: *See*—
Salyer, Ival O., and Slocombe. 2,834,746.

Smalley, George E.: *See*—
Chute, Andrew E., Smalley, Klohr, and Aldridge, 2,834,655.

Smith, Benjamin F.: *See*—
Kinsella, Arthur J., Jr., Dickens, Ballard, and Smith. 2,834,429.

Smith-Blair, Inc.: *See*—
Smith, Telford L., and Dunmire. 2,834,086.

Smith, Fred, L. K. Cutkomp, and A. A. Fathy, to Regents of the University of Minnesota. Insecticidal compositions and method of using same. 2,834,707, 5–13–58, Cl. 167—22.

Smith, John C.: *See*—
Bressler, Wilbur L., and Smith. 2,834,790.

Smith, John J.: *See*—
Mueller, Frank H., and Smith. 2,834,614.

Smith, Sidney R., Jr.: *See*—
Carpenter, Thomas J., and Smith. 2,834,855.
Charewicz, Francis J., and Smith. 2,834,856.

Smith, Telford L., and P. G. Dunmire, to Smith-Blair, Inc. Pipe clamp or coupling and lug members therefor. 2,834,086, 5–13–58, Cl. 24—279.

Smits, Friedolf M., to Bell Telephone Laboratories, Inc. Process for vapor-solid diffusion of a conductivity-type determining impurity in semiconductors. 2,734,697, 5–13–58, Cl. 148—1.5.

Snyder, Jacob R., to Thompson Products, Inc. Quick disconnect coupling. 2,834,613, 5–13–58, Cl. 284—11.

Societe de la Pile Leclanche: *See*—
Emeriat, Raymond. 2,834,827.

Societe Nationale d'Etude et de Construction de Moteurs d'Aviation: *See*—
Bertin, Jean H., Paris, and Pain. 2,834,146.
Bertin, Jean H., Salmon, and Paris. 2,834,183.
Kadosch, Marcel, and Le Foll. 2,834,534.
Paris, François G., Le Foll, and Bertin. 2,834,181.

Socony Mobil Oil Co., Inc.: *See*—
Angona, Frank A. 2,834,422.
Becker, Hugo G., and Streed. 2,834,739.
Fellows, Albert T., and White. 2,834,464.
Payne, Grady L. 2,834,721.
Savoca, Joseph I. 2,834,720.
Summers, Gerald C. 2,834,421.

Somers, Frank J., to Radio Corp. of America. Film drive apparatus. 2,834,832, 5–13–58, Cl. 178—7.2.

Sonnenfeldt, Richard W., to Radio Corp. of America. Electric wave amplitude clipping circuit. 2,834,882, 5–13–58, Cl. 250—27.

Sorensen, Samuel. Attachment for milking machines. 2,834,318, 5–13–58, Cl. 119—14.45.

Sorvall, Ivan, Inc.: *See*—
Szent-Gyorgyi, Albert, and Blum. 2,834,541.

Southwest Welding & Mfg. Co.: *See*—
Aller, T. Dwight. 2,834,527.

Sousis, Leo: *See*—
Boam, Willard M., Friedman, Paige, Sousis, and Strater. 2,834,101.

Sowa, Frank J. Methods of producing esters of carbamic and carbonic acids. 2,834,799, 5–13–58, Cl. 260—463.

Sowards, Donald M.: *See*—
Mathre, Owen B., and Sowards. 2,834,659.

Sparkler Mfg. Co.: *See*—
Lynford, Vincent C. 2,834,472.

Speck, Lawrence J.: *See*—
Lynch, Robert T., and Speck. 2,834,673.

Spelsman, Camille, to Allis-Chalmers Mfg. Co. Two block system clamping device. 2,834,085, 5–13–58, Cl. 24—263.

Spencer, Richard W., to Sperry Rand Corp. Magnetic amplifier flip-flop circuit. 2,834,893, 5–13–58, Cl. 307—888.

Sperry Rand Corp.: *See*—
Jude, George F., and Miller. 2,834,562.
Kellogg, Spencer, 2nd. 2,834,957.
Lukoff, Herman. 2,834,883.
Miller, Harry. 2,834,563.
Newell, William H., and Brevoort. 2,834,083.
Proctor, Edward K., Jr. 2,834,962.
Spencer, Richard W. 2,834,893.
Stanley, Edward I., Dughi, and Hey. 2,834,676.
Steagall, William F. 2,834,894.

Sperry Rand Corp., Ford Instrument Co. Division: *See*—
Lazzopina, Robert M., and D'Onofrio. 2,834,095.

Sprague Electric Co.: *See*—
Ragosine, Victor E. 2,834,899.

Springer, Henry A. Fascia cutter and carrier. 2,834,349, 5–13–58, Cl. 128—305.

Stackhouse, Wells, to American Locker Co., Inc. Multi-barrel lock. 2,834,195, 5–13–58, Cl. 70—339.

Stachowicz, Joseph: *See*—
Sasse, Gunther. 2,834,039.

Stalker Development Co., The: *See*—
Stalker, Edward A. 2,834,573.

Stalker, Edward A., to The Stalker Development Co. Rotor construction for fluid machines. 2,834,573, 5–13–58, Cl. 253—39.

Standard Oil Co. (Indiana): *See*—
Faiman, Morton. 2,834,732.
Feller, Morris, and Field. 2,834,769.
Friedlander, Herbert N. 2,834,768.
Rhodes, Joseph C., and Segers. 2,834,200.

Standard Oil Co., (Ohio), The: *See*—
Berg, Wendell T. 2,834,440.
Thomas, John W. 2,834,467.
Thomas, John W., Asmus, and Berg. 2,834,468.

Standardized Aircraft: *See*—
McMichael, Palmer L. 2,834,465.

Stanford, George W.: *See*—
Patton, James L., Stanford, and Burton. 2,834,823.

Stanford, George W., and J. L. Patton, to The M. W. Kellogg Co. Hydrocarbon conversion system. 2,834,718, 5–13–58, Cl. 196—50.

Stanley, Edward I., J. J. Dughi, and W. A. Hey, to Sperry Rand Corp. Photographic diffusion transfer process for producing multiple direct positive copies. 2,834,676, 5–13–58, Cl. 96—29.

Stanley, Glenn D. Toilet stand for children. 2,834,028, 5–13–58, Cl. 4—254.

Stanley, John C., G. Le Goff, R. B. Moore, Jr., and C. F. Williams, to Gateway Corp. Multi-part handle. 2,834,625, 5–13–58, Cl. 287—125.

Steagall, William F., to Sperry Rand Corp. Asymmetrically energized magnetic amplifiers. 2,834,894, 5–13–58, Cl. 307—88.

Stedler, Heinrich F. W., to Durabel-Faltbox Stedler Kommanditgesellschaft. Apparatus for securing nails on plates made from pliable material, especially plywood plates. 2,834,016, 5–13–58, Cl. 1—1.

Steele, Martha N.: *See*—
Nickerson, Elmer K., and Steele. 2,834,569.

Stefani, Enea. Projecting clocks provided with rotatable dials. 2,834,250 5–13–58, Cl. 88—24.

Steigmann, Ernst A.: *See*—
Corben, Leo D., and Steigmann. 2,834,683.

Stein, F. Kenneth, ¼ to S. B. Stein. Tool holder attachment for lathes. 2,834,242, 5–13–58, Cl. 82—36.

Stein, S. Byrle: *See*—
Stein, F. Kenneth. 2,834,242.

Steitz, William R.: *See*—
Drummond, Warren W., Steitz, and Frickert. 2,834,092.

Stelzer, William, to W. Eickele. Faucets. 2,834,572, 5–13–58, Cl. 251—243.

Stephenson, William B., Jr., and D. H. Greisl, to General Electric Co. Process for preparing a metal surface for coating and product thereof. 2,834,691, 5–13–58, Cl. 117—65.

Sterling, John D., Jr., and J. W. Richter, to E. I. du Pont de Nemours and Co. Derivatives of 4-anilino-3-nitrobenzene-sulfonamide. 2,834,794, 5–13–58, Cl. 260—397.7.

Stevens, Ludlow. Resilient coil pawl and ratchet type nut and bolt lock. 2,834,390, 5–13–58, Cl. 151—11.

Stewart-Warner Corp.: *See*—
Ryder, Frank A., Tramontini, and Wein. 2,834,336.

Stiebel, Theodor H., and O. I. Irslinger. Temperature responsive spring actuated switch for electrical heating devices. 2,834,834, 5–13–58, Cl. 200—140.

Stiebel, Theodor H. Temperature controlled regulator switch having means limiting dry-run heating and preventing subsequent energization of electric. 2,834,869, 5–13–58, Cl. 219—44.

Stoloff, Leonard S., to Seaplant Chemical Corp. Preparation of flavored milk drinks. 2,834,679, 5–13–58, Cl. 99—54.

Stott, Charles B.: *See*—
Daino, Peter W., and Stott. 2,834,544.

Stover, Frederick D., Sr. Pipe wrench with cooperating slidable jaw and flexible pipe holding means. 2,834,238, 5–13–58 Cl. 81—64.

Straight Engineering Co.: *See*—
Straight, Halver R., and Bristol. 2,834,486.

Straight, Halver R., deceased, and C. J. Bristol; Valley Bank and Trust Co., executor, to Straight Engineering Co. Car clamp and mechanism for operating the same. 2,834,486, 5–13–58, Cl. 214—55.

Strater, Kurt: *See*—
Boam, Willard M., Friedman, Paige, Souzis, and Strater. 2,834,101.

Streed, Carl W.: *See*—
Becker, Hugo G., and Streed. 2,834,739.

Strehan, George E.: *See*—
Donahue, John S., and Strehan. 2,834,196.

Strickel, William R.: *See*—
Painter, Erle V., Jr., and Strickel. 2,834,730.

Strnad, James J., to Lempco Products, Inc. Adjustable eccentric. 2,834,223, 5–13–58, Cl. 74—571.

Strobel, Albert F., and W. W. Williams, to General Aniline & Film Corp. Metallised compounds of 3-amino-4-hydroxybenzene sulfonylmorpholine azo dyestuffs. 2,834,772, 5–13–58, Cl. 260—147.

Struble, Glenn E., to The Diamond Match Co. Tamper proof carton. 2,834,531, 5–13–58, Cl. 229—33.

Stryker, Homer H., to Orthopedic Frame Co. Splint. 2,834,341, 5–13–58, Cl. 128—87.

Stuart, Clifton F., to The Clifton-Grant Development Corp. Apparatus for depositing articles into receptacles. 2,834,169, 5–13–58 Cl. 53—246.

Stuart, Harry A. Dual brake applicator. 2,834,434, 5–13–58, Cl. 188—3.

Stubblefield, Edward M., to Arkla Air Conditioning Corp. Heat operated apparatus. 2,834,360, 5–13–58, Cl. 137—72.

Studebaker, John G.: *See*—
Studebaker, John W. and J. G. 2,834,124.

Studebaker, John W. and J. G. Educational workbook. 2,834,124 5–13–58, Cl. 35—9.

Studebaker-Packard Corp.: *See*—
Witsky, Julius E. 2,834,328.

Stump, Charles W., Jr. Rod fastener. 2,834,081, 5–13–58, Cl. 24—126.

Sturrock, James, to Master Pneumatic Tool Co., Inc. Torque control clutch. 2,834,442, 5–13–58, Cl. 192—.096.

Suen, Tzeng J., Y. Jen, and S. T. Moore, to American Cyanamid Co. Process for preparing amine-aldehyde resinous compositions and product obtained. 2,834,756, 5–13–58, Cl. 260—72.

Suggs, Charles W., and R. W. Wilson, to Research Corp. Tobacco priming device. 2,834,174, 5–13–58, Cl. 56—27.5.

Sugrue, Joseph, and J. Anstett. Apparatus for testing and clearing. 2,834,538, 5–13–58, Cl. 230—174.

Sullivan, Frank A. V.: *See*—
Davis, Arnold R., and Sullivan. 2,834 752.
Thomas, Walter M., and Sullivan. 2,834,764.

Sullivan, John B., ½ to G. Moses. Door spacer. 2,834,627, 5–13–58. Cl. 292—274.

Summers, Gerald C., to Socony Mobil Oil Co., Inc. Low noise level acoustic logging system. 2,834,421, 5–13–58, Cl. 181—5.

Sun Rubber Co., The.: *See*—
Rekettye, Paul. 2,834 051.

Sundstrand, Oscar J., to Victor Adding Machine Co. Totaliser engaging mechanism. 2,834,542, 5–13–58, Cl. 235—60.

Sunkist Growers, Inc.: *See*—
Swisher, Horton E. 2,834,687.

Sunshine Biscuits, Inc.: *See*—
Zuckerman, Paul. 2,834,682.

Suttle, Clinton R. Drain pipe positioner and separator. 2,834,185 5–13–58, Cl. 61—11.

Swain, Kenneth W., and F. J. Kozacka. Plug-in-type power fuses. 2,834,852, 5–13–58, Cl. 200—117.

Swanson, John A. Motor grader attachment support and grader blade control. 2,834,126, 5–13–58, Cl. 37—143.

Sweany, John B. Optical surface gauge. 2,834,111, 5–13–58, Cl. 33—46.

Sweet, Clifford W., to Leverstart Ltd. Slipping clutch variable speed gear. 2,834,227, 5–13–58, Cl. 74—665.

Swift & Co.: *See*—
Bradford, Purdy. 2,834,188.
Petersen, Lowell W. 2,834,409.

Swisher, Horton E., to Sunkist Growers, Inc. Control of navel bitter in dehydrated juice products. 2,834,687, 5–13–58, Cl. 99—206.

Switzer, Robert L.: *See*—
Lieffers, William C., Riddick, and Switzer. 2,834,658.

Sylvania Electric Products Inc.: *See*—
Harris, Hunter C., Jr. 2,834,956.

Szent-Gyorgyi, Albert, and J. Blum, to Ivan Sorvall, Inc. Centrifuging apparatus and system. 2,834,541, 5–13–58, Cl. 233—26.

Szwarguiski, Jesse L., to ACF Industries, Inc. Automatic choke latch. 2,834,586, 5–13–58, Cl. 261—39.

Tabbert, Donna S., to Abbott Laboratories. Flexible container with integral sample tube. 2,834,345, 5–13–58, Cl. 128—214.

Tama, Mario, to Ajax Engineering Corp. Article metal coating. 2,834,692. 5–13–58, Cl. 117—93.

Tanke, Willard H., to Allis-Chalmers Mfg. Co. Quick hitch system. 2,834,277, 5–13–58, Cl. 97—47.14.

Tanner, Stanley R., and R. L. Burr, to The Decca Record Co. Ltd. Radar systems. 2,834,955, 5–13–58, Cl. 343—5.

Tanner, Troy. Auxiliary chair. 2,834,401, 5–13–58, Cl. 155—131.

Tanway Ltd.: *See*—
Higgins, Cecil C. 2,834,433.

Taraldsen, David L. Trailer for hauling automobiles and other cargo. 2,834,631, 5–13–58, Cl. 296—1.

Taylor, John O., and R. R. Bergman, to American Type Founders Co., Inc. Electrostatic applying and holding device. 2,834,132, 5–13–58, Cl. 40—125.

Taylor, Louis: *See*—
Silvasy, John E., and Taylor. 2,834,674.

Telefunken Gesellschaft fuer drahtlose Telegraphie m. b. H.: *See*—
Gundert, Eberhard. 2,834,902.

Temple, Sidney J., to Edwin L. Wiegand Co. Radiant heater. 2,834,861, 5–13–58, Cl. 219—34.

Tengberg, Evert R., to New England Carbide Tool Co., Inc. Knife sharpener. 2,834,230, 5–13–58, Cl. 76—88.

Telenzi, Alfred F. Safety razor having a detachable razor storing handle. 2,834,105, 5–13–58, Cl. 30—47.

Texas Co., The: *See*—
Kinsella, Arthur J., Jr., Dickens, Ballard, and Smith. 2,834,429.
Woodle, Robert A., Howell, and Chandler. 2,834,735.

Texize Chemicals, Inc.: *See*—
Farkas, Roland Z. 2,834,737.

Thelen, Kenneth J. Concealable seat attachment for vehicles. 2,834,398, 5–13–58, Cl. 155—80.

Thickstun, William R.: *See*—
Foskett, Laurence W., Foster, Thickstun, and Wood. 2,834,246.

Thomas, Charles: *See*—
Peters, Rudolph. 2,834,494.

Thomas, John W., to The Standard Oil Co. Thermal diffusion apparatus. 2,834,467, 5–13–58, Cl. 210—176.

Thomas, John W., R. W. Asmus, and W. T. Berg, to The Standard Oil Co. Thermal diffusion apparatus. 2,834,468, 5–13–58 Cl. 210—176.

Thomas, Walter M., and F. A. V. Sullivan, to American Cyanamid Co. Polymerization process employing N-substituted-benzosulfotriazine polymerization catalysts. 2,834,764, 5–13–58, Cl. 260—85.5.

Thompson, Charles C. Knife. 2,834,108, 5–13–58, Cl. 30—355.

Thompson, Harry E., to The Ohio Foundry & Mfg. Co. Blower unit for wall heaters. 2,834,279, 5–13–58, Cl. 98—38.

Thompson Products, Inc.: *See*—
Sacks, Norman M. 2,834,432.
Norton, Samuel H. 2,834,096.
Norton, Samuel H. 2,834,892.
Snyder, Jacob R. 2,834,613.

Thompson, Reynald E., to Motorola, Inc. Tuner drive mechanism. 2,834,216, 5–13–58, Cl. 74—10.85.

Thompson, Reynald E., to Motorola, Inc. Tuning apparatus. 2,834,886, 5–13–58, Cl. 250—40.

Thompson-Starrett Co., Inc.: *See*—
Dawson, Raymond E. 2,834,462.

Thomson, Ronald C.: *See*—
Lacy, Norman, and Thomson. 2,834,816.

Titmus Optical Co., Inc.: *See*—
Lieb, Wolfgang A. 2,834,023.

Toennissen, Ernst. Cleaning device for draft systems, especially for flyer draft system 2,834,062, 5–13–58, Cl. 19—139.

Tokheim Oil Tank and Pump Co.: *See*—
Wright, George W., and Scheurer. 2,834,298.

Tolles, Walter E., to United States of America, Navy. Compensation of induced magnetic fields. 2,834,939, 5–13–58, Cl. 324—43.

Tolley, Theodore. Pig feeder. 2,834,320, 5–13–58, Cl. 119—53.

Toothill, Geoffrey, to William Asquith Ltd. Infinitely variable torque transmitter. 2,834,191, 5–13–58, Cl. 64—29.

Topanelian, Edward, Jr.: *See*—
En Dean, Howard J., Jones, and Topanelian. 2,834,113.

Torchio, Carlo, and A. Segre; said Torchio assor. to Selene S. r. l. Conversion of a two wheel drive tractor to a four wheel drive tractor. 2,834,418, 5–13–58, Cl. 180—49.

Tornoe, John A.: *See*—
Schlage, Ernest L., Tornoe, and Green. 2,834,194.

Toulmin, Harry A., Jr., to Midland Chemical Corp. Stabilized bodied milk and frozen milk products comprising carboxymethyl dextran. 2,834,684, 5–13–58, Cl. 99—136.

Townsley, John J., to United States of America, Navy. Rotating propellant tank having baffle means for directing propellant to outlets. 2,834,517, 5–13–58, Cl. 222—168.

Trammell, Earl M., Jr.: *See*—
Trammell, Earl M., Sr., and E. M. Trammell, Jr. 2,834,068.

Trammell, Earl M., Sr., and E. M. Trammell, Jr. Jamb attachments for window structure. 2,834,068, 5–13–58, Cl. 20—52.

Tramontini, Vernon N.: *See*—
Ryder, Frank A., Tramontini, and Wein. 2,834,336.

Trapp, Walter B., and D. E. Fletcher, to The Dow Chemical Co. Acrylic acid compounds. 2,834,800, 5–13–58, Cl. 260—464.

Trask, Harold V.: *See*—
Haley, Kenneth M., Trask, and Larter. 2,834,048.

Traugott, Wilfred F. Corn cracker. 2,834,387, 5–13–58, Cl. 146—79.

Trebbe, Hugo: *See*—
Schefels, Gerhard, Wellensiek, and Trebbe. 2,834,581.

Troberg, Bolge: *See*—
Bergh, Sven S., Ericsson, and Troberg. 2,834,666.

Trojan, Jean. Collapsible clothes basket. 2,834,502, 5–13–58, Cl. 220—6.

Trousdale, Robert B., to General Dynamics Corp. Multifrequency ringing machine. 2,834,954, 5–13–58, Cl. 340—248.

True, Martin E., G. Boer, and W. M. O'Reilly, to Esso Research and Engineering Co. Expansible drilling device. 2,834,580, 5–13–58. Cl. 255—76.

Truesdell, Francis W.: *See*—
Baker, George O., and Truesdell. 2,834,857.

Trussell, Paul C.: *See*—
Fulton, Clarence O., and Trussell. 2,834,706.

Tucci, Egidio. Panty. 2,834,348, 5–13–58. Cl. 128—288.

Turner, Jack W., 49% to H. R. Crumb. Mechanical feed box. 2,834,451, 5–13–58, Cl. 198—99.

Tyler, Tracy B. Time indicating device. 2,834,180, Cl. 58—88.

Ullian, Murry. Brassiere pads. 2,834,352, 5–13–58, Cl. 128—481.

Union Carbide Corp.: *See*—
Bailey, Donald L., and O'Connor. 2,834,748.
Bailey, Donald L., Shafer, and Wagner. 2,834,648.
Barnes, Homer C., Jr., and Dahm. 2,834,668.
Conant, Louis A., and Hittle. 2,834,650.
Jellinek, Maurice H. 2,834,693.
Loveday, Paul E. 2,834,187.
Maddock, Bruce H., and Land. 2,834,054.

Union Oil Co. of California: *See*—
Bergsteinsson, Ingolfur. 2,834,821.
Lieffers, William C., Riddick, and Switzer. 2,834,658.

Unipress Co., Inc., The: *See*—
Maxwell, Ira C., Langen, and Pillola. 2,834,528.

United Aircraft Corp.: *See*—
King, Alexander H. 2,834,219.
McNab, John A. 2,834,619.
Nutter, George H. 2,834,501.

United Electric Coal Companies, The: *See*—
Kolbe, Frank F. 2,834,127.
Kolbe, Frank F. 2,834,128.

U. S. Industries, Inc.: *See*—
Liljestrand, Stanley E. 2,834,371.

United States of America
Army: *See*—
Frerichs, John O., and Houston. 2,834,186.
Kunz, William R. 2,834,137.
Musser, Walton. 2,834,255.
Vlasmensky, Vladimir. 2,834,292.
Atomic Energy Commission: *See*—
Foster, Laurence S., and Magel. 2,834,672.
McLaren, James A., and Goode. 2,834,722.
Commerce: *See*—
Foskett, Laurence W., Foster, Thickstun, and Wood. 2,834,246.
Navy: *See*—
Culbertson, Charles H. 2,834,182.
Henderson, William W. 2,834,960.
Selgin, Paul J. 2,834,922.
Tolles, Walter E. 2,834,939.
Townsley, John J. 2,834,517.

United States Register Co.: *See*—
Griner, Clarence O. 2,834,281.

U. S. Slicing Machine Co., Inc.: *See*—
Meyer, Paul H. 2,834,388.

United States Steel Corp.: *See*—
Beebe, Gerald T. 2,834,267.
Black, Merrill F. 2,834,551.
Brickman, Alan E. 2,834,266.
Lowerre, Ralph T. 2,834,550.

Universal Corrugated Box Machinery Corp.: *See*—
Lopez, John P. 2,834,168.

Universal Oil Products Co.: *See*—
Bloch, Herman S. 2,834,820.
Schmerling, Louis, and Haensel. 2,834,818.

University of Minnesota, Regents of the: *See*—
Smith, Fred, Cutkomp, and Fathy. 2,834,707.

Uraneck, Carl A.: *See*—
Short, James N., Uraneck, and Rothlisberger. 2,834,747.

VISIrecord, Inc.: *See*—
Gripekoven, Henry A. 2,834,612.

Valley Bank and Trust Co.: *See*—
Straight, Halver R., and Bristol. 2,834,486.

Van Buskirk & Co., Inc.: *See*—
Van Buskirk, John D. 2,834,284.

Van Buskirk, John D., to Van Buskirk & Co., Inc. Article marking. 2,834,284, 5–13–58, Cl. 101—35.

Vanderbeck, Alfred G. Crane anchoring device. 2,834,435, 5–13–58, Cl. 188—42.

Van Doorn, Donald W., to Lummus Cotton Gin Co. Pneumatic fiber cleaning apparatus. 2,834,061, 5–13–58, Cl. 19—76.

Van Esley, Theodore. Portable illuminable mirror. 2,834,872, 5–13–58, Cl. 240—4.2.

Van Nostran, Jack A., to Ohio Ferro-Alloys Corp. Automatic electrode clamping device. 2,834,824, 5–13–58, Cl. 13—16.

Varian Associates: *See*—
Beaver, William L. 2,834,909.

Varsity Pre-Cast Seat Co., Inc.: *See*—
Miller, Buel W. 2,834,088.

Vassel, Bruno: *See*—
Purvis, Joseph L., and Vassel. 2,834,805.

Velke, Herbert, to Gebruder Buhler. Device for the support of screens. 2,834,412, 5–13–58, Cl. 160—295.

Vendo Co., The: *See*—
Andrews, Boley A., and Hanson. 2,834,190.

Vernet, Charles: *See*—
Champagnat, Alfred, and Vernet. 2,834,716.

Vlasmensky, Vladimir, to United States of America, Army. Intermittent action ball cam rotor. 2,834,292, 5–13–58, Cl. 102—79.

Vibro-Plus Corp.: *See*—
Bondeson, Lennart P. B., and Fridh. 2,834,584.

Vickers Inc.: *See*—
Postel, Kenneth I., and Hohmann. 2,834,297.

Victor Adding Machine Co.: *See*—
Sundstrand, Oscar J. 2,834,542.

Vincent, George C., to Imperial Chemical Industries Ltd. Production of skeletal glass catalysts. 2,834,738, 5–13–58, Cl. 252—432.

Vincent, Kenneth C., to National Lead Co. Flotation of barite. 2 834,463, 5–13–58, Cl. 209—166.

Voorhels, Temple S. Flame retention means for gas burners. 2 834,405, 5–13–58, Cl. 158—7.

Vosbikian, Peter S., and T. S. Mops with separate cleaning and extracting handles. 2,834,035, 5–13–58, Cl. 15—119.

Vosbikian, Thomas S.: *See*—
Vosbikian, Peter S., and Voebikian. 2,834,035.

Vowles, Philip J. Suction type bobbin stripper. 2,834,090, 5–13–58, Cl. 28—19.

Vredenburg-Inglesby, Julius C.: *See*—
Fries, Gustav.

Wade, Robert E. Seed distributing shoe. 2,834,446, 5–13–58, Cl. 198—9.

Wagner, George H.: *See*—
Bailey, Donald L., Shafer, and Wagner. 2,834,648.

Walker, Alec H. B., to Westinghouse Brake & Signal Co. Ltd. Means for supplying intermittent overload currents from voltage regulating rectifier sets. 2,834,931, 5–13–58, Cl. 321—20.

Walker Mfg. Co. of Wisconsin: *See*—
Powers, Walter H., and Jacokes. 2,834,427.

Walter, Carl W. Inflatable traction device. 2,834,340, 5–13–58, Cl. 128—84.

Walter, Elwood M.: *See*—
Walter, Gerald W., and Walter. 2,834,148.

Walter, Gerald W., and E. M. Book holder with retractable book carrier. 2,834,148, 5–13–58, Cl. 45—58.

Walther Buromaschinen Gesellschaft m. b. H.: *See*—
Haberkorn, Otto. 2,834,289.

Wargons Aktiebolag: *See*—
Bergh, Sven S., Ericsson, and Troberg. 2,834,666.

Wark, John D.: *See*—
Metzler, Charles L., and Wark. 2,834,507.

Warner & Swasey Co., The: *See*—
Przybylski, Daniel F. 2,834,480.

Warten, Frederick, to Kingsboro Mills, Inc. Pant type garment. 2,834,020, 5–13–58, Cl. 2—224.

Watson, John R.: *See*—
Greis, Howard A., and Watson. 2,834,077.

Watson, Kenneth M., to The Pure Oil Co. Apparatus for conducting fluidization reactions. 2,834,656, 5–13–58, Cl. 23—288.

Waugh, John W., to The Ohio Brass Co. Current collecting device. 2,834,841, 5–13–58, Cl. 191—59.1.

Wawsonek, Joseph: *See*—
St. Pierre, Eugene, and Wawsonek. 2,834,192.

Weaving, John H., to The Austin Motor Co. Ltd. Internal combustion engines. 2,834,330, 5–13–58, Cl. 123—90.

Weber, Gene C., R. P. Hoyt, and R. L. Dinsmore, to Richfield Oil Corp. Method of producing cresol-formaldehyde polymer coating compositions. 2,834,745, 5–13–58, Cl. 260—32.8.

Weiler, Jessie I. Lip liner. 2,834,356, 5–13–58, Cl. 132—88.7.

Wein, John F.: *See*—
Ryder, Frank A., Tramontini, and Wein. 2,834,336.

Weinblatt, Jerome J. Target apparatus. 2,834,598, 5–13–58, Cl. 273—101.2.

Weisbaum, Samuel: *See*—
Boyet, Howard, and Weisbaum. 2,834,945.
Sansalone, Frank J., and Weisbaum. 2,834,946.

Weisbaum, Samuel, to Bell Telephone Laboratories, Inc. Field displacement isolator. 2,834,947, 5–13–58, Cl. 333—81.

Wellensiek, Gerd: *See*—
Schefels, Gerhard, Wellensiek, and Trebbe. 2,834,581.

Wells, Russell A. Boat loader and carrier. 2,834,491, 5–13–58, Cl. 214—450.

Welsh, Jay Y., to Manganese Chemicals Corp. Electrolytically dissolving iron. 2,834,726, 5–13–58, Cl. 204—82.

Wendel, Lorenz A., to The Singer Mfg. Co. Electric clutch-brake driving devices. 2,834,444, 5–13–58, Cl. 192—18.

Wendt, Gerhard R., to American Home Products Corp. Method of preparing sulfur-containing organic mercurial diuretics and intermediates therefor. 2,834,795, 5–13–58, Cl. 260—431.

Wenzelberger, Elwood P., to The Commonwealth Engineering Co. of Ohio. Storage batteries, more particularly storage battery plates and method of manufacture. 2,834,825, 5–13–58, Cl. 136—69.

Werner, Luczio and F. Fluid propelled aircraft. 2,834,560, 5–13–58, Cl. 244—23.

Werner, Siegmund, Ltd.: *See*—
Hebert, Julien. 2,834,400.

Werner, Frank: *See*—
Werner, Luczio and F. 2,834,560.

Wertman, David. Rapid fire gun slide hydraulic control system. 2,834,256, 5–13–58, Cl. 89—45.

Western Electric Co., Inc. : *See*—
Cihlar, Anthony J., and Klasek. 2,834,393.
Doering, Fred W., and Morison. 2,834,623.
Eger, Edward F., and Simpson. 2,834,317.
Gasper, Robert R. 2,834,099.
Marcus, Jerome R. 2,834,224.
Pugh, Emerson. 2,834,590.

Westinghouse Brake & Signal Co. Ltd. : *See*—
Marsh, Gerald C., Wilson, and Kershaw. 2,834,481.
Martin, Raymond G. 2,834,892.
Walker, Alec H. B. 2,834,931.

Westinghouse Electric Corp. : *See*—
Hartwig, Edward C. 2,834,918.
McDonald, John E. 2,834,536.
Platte, William N. 2,834,870.

Westman, Sydney E., to The Garrett Corp. Air stream direction indicator. 2,834,208, 5–13–58, Cl. 73—180.

Weyman, Robert D. : *See*—
Lee, Charles, A., Jr., and Weyman. 2,834,460.

Wheeler, Donald D., and D. C. Young, to The Dow Chemical Co. Phthalidyl piperazines. 2,834,780, 5–13–58, Cl. 260—268.

Wheeler, Donald D., and D. C. Young, to The Dow Chemical Co. Aminobenzylanilinophthalides. 2,834,788, 5–13–58, Cl. 260—343.3.

Wheeler, Myron C. Stop and waste valve combined with installation sleeve. 2,834,369, 5–13–58, Cl. 137—360.

Whirlpool Corp. : *See*—
Geldhof, Peter E. 2,834,121.

White, Eldridge S., to Robbins Tire and Rubber Co., Inc. Tire retreading mold with mechanical tire expander assembly. 2,834,049, 5–13–58, Cl. 18—18.

White, James R. : *See*—
Fellows, Albert T., and White. 2,834,464.

White, Nancy M. Doorway puppet stage. 2,834,150, 5–13–58, Cl. 46—13.

White, Robert M., to The Chicago Hardware Foundry Co. Resistance heating element. 2,834,867, 5–13–58, Cl. 219—39.

Whitney, John A. : *See*—
Dermer, Richard D., and Whitney. 2,834,940.

Wiegand, Edwin L., Co. : *See*—
Temple, Sidney J. 2,834,861.

Wilkening, Walter O. : *See*—
Keckler, John W., and Wilkening. 2,834,343.

Wilkinson, Joseph M., Jr., and E. E. Renfrew, Jr., to General Aniline & Film Corp. Addition products of 1-acyloxy-3-buten-2-ones. 2,834,792, 5–13–58, Cl. 260—376.

Wilcox & Gibbs Sewing Machine Co. : *See*—
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CLASSIFICATION OF DESIGNS

D 3—11: Des. 182,778
16: Des. 182,767
D 4— 3: Des. 182,759
Des. 182,761
D 7— 5: Des. 182,781

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Des. 182,770
14: Des. 182,754
D34—15: Des. 182,763

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D44—10: Des. 182,776
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15: Des. 182,775
D45—10: Des. 182,773

D48—24: Des. 182,771
D54—12: Des. 182,764
D57— 1: Des. 182,757
Des. 182,760
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D61— 1: Des. 182,780
D64—11: Des. 182,758
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D74— 1: Des. 182,772
D81—10: Des. 182,762

D81—25: Des. 182,755
D86— 9: Des. 182,766
D92— 1: Des. 182,765
26: Des. 182,756

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

May 13, 1958 Volume 730 Number 2

TRADEMARKS

NOTICES

Roster of Attorneys and Agents

The Patent Office has recently published a new edition of the *Roster of Attorneys and Agents Registered to Practice Before the U. S. Patent Office.*

This edition like the preceding one is an extract of the Official Registers maintained by the Patent Office and contains the names and addresses of all individuals and firms registered in the Patent Office on January 1, 1958. This publication is composed of three sections (1) Individuals in the United States, (2) Firms, and (3) Individuals in Foreign Countries. Each section contains Part I, Arranged Alphabetically, and Part II, Arranged Geographically.

This publication may be purchased from the Superintendent of Documents, Washington 25, D. C., for $1.00 per copy. Remittance in the form of check or money order should be payable to the Superintendent of Documents.

Annual Index of Trademarks

The 1957 edition of the Annual Index of Trademarks has been published. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: Buckram bound $2.50.

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

Farmac Sales, Los Angeles, Calif., Reg. No. 397,626, Canc. No. 7058.

Barbara Lee Chocolate Company, Boston 30, Mass., Reg. Nos. 417,273 and 417,277, Canc. No. 7071.

William Frank Company, Chicago, Ill., Reg. No. 371,928, Canc. No. 7075.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

Change in Rules of Practice

Notice was given in the Federal Register of April 16, 1958, of the following change in the Rules of Practice which will take effect May 16, 1958:

1. *Rules of Practice in Patent Cases*
Paragraph (b) of Rule 21 is amended to read as follows:

(b) For photocopies or other reproductions of records or printed material, per page of material copied $0.30

2. *Trademark Rules of Practice*
Paragraph (b) of Rule 2.6 is amended to read as follows:

(b) For photocopies or other reproductions of records or printed material, per page of material copied $0.30

CONDITION OF TRADEMARK APPLICATIONS AS OF MARCH 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 11,234
Date of oldest new application ..... Aug. 7, 1957
Date of oldest amended application ..... Aug. 12, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 44, 50	8-26-57	8-12-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	8-13-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	8-7-57	10-23-57
Renewals (All Classes)	2-25-58	3-14-58
Sec. 12 (c) Publications (All Classes)	2-6-58	3-17-58

Applications Filed During the Month of March 1958—1,966

Registrations Issued ..... 301—No. 661,483 to No. 661,783
Renewals Issued 58

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

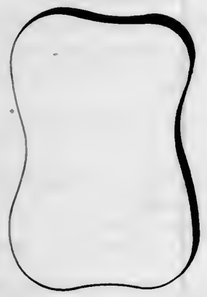
Class 1 — Raw or Partly Prepared Materials

SN 669,017. Olin Industries, Inc., East Alton, Ill., now by merger and change of name Olin Mathieson Chemical Corporation. Filed June 28, 1954.

Western

For Plastic Sheeting and Tubing.
First use on or about Apr. 15, 1953.

SN 35,377. The National Plastic Products Company, Odenton, Md. Filed Aug. 12, 1957.



For High Pressure Thermosetting Laminates Used for Surface Coverings Including Table Tops, Counter Tops, Wall Coverings, Cabinets, Furniture, and the Like.
First use Sept. 20, 1949.

Class 2 — Receptades

SN 23,874. Dalmine S. p. A., Milan, Italy. Filed Jan. 14, 1957.

RIVESTIMENTO DALMINE

Owner of Italian Reg. No. 120,372, dated Jan. 18, 1955; and U. S. Reg. No. 640,200.
For Receptacles—Namely, Pressure Tanks and Bottles.

SN 26,815. George B. Gordon, Santa Rosa, Calif. Filed Mar. 25, 1957.

SPRĀ-PAK
"NATURES WAY to a BETTER SPRAY"

The wording "Natures Way to a Better Spray" is disclaimed apart from the mark as shown.
For Cut Flower Pillow-Like Base Through Which the Stems of Said Flowers Are Inserted.
First use Mar. 15, 1949.

SN 37,199. Tempo Products Company, Cleveland, Ohio. Filed Sept. 13, 1957.

TEMPO

Owner of Reg. No. 621,666.
For Auxiliary Gasoline Tanks for Outboard Motors.
First use Mar. 11, 1957.

SN 37,494. Wilbert W. Haase Co., Forest Park, Ill. Filed Sept. 19, 1957.

MONARCH GRANITEX

Owner of Reg. Nos. 420,694, 601,483, and others.
For Burial Vaults.
First use on or about Aug. 5, 1957.

SN 37,495. Wilbert W. Haase Co., Forest Park, Ill. Filed Sept. 19, 1957.

MONARCH SILVERTEX

Owner of Reg. Nos. 420,694, 501,932, and 601,483.
For Burial Vaults.
First use on or about Aug. 3, 1957.

SN 37,496. Wilbert W. Haase Co., Forest Park, Ill. Filed Sept. 19, 1957.

MONARCH GOLDTEX

Owner of Reg. Nos. 420,694, 601,483, and others.
For Burial Vaults.
First use on or about Aug. 3, 1957.

SN 37,497. Wilbert W. Haase Co., Forest Park, Ill. Filed Sept. 19, 1957.

MONARCH COPPERTEX

Owner of Reg. Nos. 420,694, 501,932, and 601,483.
For Burial Vaults.
First use on or about Aug. 3, 1957.

SN 38,733. The Cal-Dak Company, San Gabriel, Calif. Filed Oct. 11, 1957.

CAL-DAK

For Hose Reels and Parts Therefor.
First use in September 1956.

Class 4 — Abrasives and Polishing Materials

SN 36,025. Schultz Shoe Company, Inc., St. Louis, Mo. Filed Aug. 22, 1957.

SHINE MAGIC

For Liquid Preparation for Renewing, Refurbishing, Refinishing, and Polishing Leather and Similar Materials.
First use June 1, 1953.

Class 5 — Adhesives

SN 30,170. Invention Development Corporation, Madison, Wis. Filed May 16, 1957.

GRIFFOBOND

For Adhesives and Catalysts for Adhesives for Bonding Aluminum to Aluminum, Steel to Steel, Glass to Glass, Polymethyl Methacrylate to Polymethyl Methacrylate, Wood to Wood, Aluminum to Steel, Aluminum to Glass, Aluminum to Polymethyl Methacrylate, Aluminum to Wood, Steel to Glass, Steel to Polymethyl Methacrylate, Steel to Wood, Glass to Polymethyl Methacrylate, Glass to Wood, Polymethyl Methacrylate to Wood, et cetera.
First use Mar. 4, 1957.

SN 38,892. Borne Chemical Company, Inc., Elizabeth, N. J. Filed Oct. 15, 1957.

BORNE CHEMICAL COMPANY, INC. Est. 1874

For Adhesives, Specifically, Adhesives Based Largely on Natural and Synthetic Organic Compounds for General Industrial Purposes, Compounded Neoprene for Binding Natural and Synthetic Fibers, Synthetic Latex Compound Designed for Rug Backing, and Latex Based Combining Adhesive for Burlap Wrap.
First use Aug. 7, 1956.

SN 38,935. Harold Joseph Meyer, Galesburg, Ill. Filed Oct. 15, 1957. Sec. 2(f).

MEYER'S

For Adhesive Tape for Florists.
First use Nov. 13, 1955.

Class 6 — Chemicals and Chemical Compositions

SN 21,983. John H. Breck, Inc., Springfield, Mass. Filed Jan. 2, 1957.

FLORES Y ENCAJE

The mark is translated as "flowers and lace." Owner of Reg. No. 434,149.
For Perfumed Sachet in Liquid Form for Spraying on Linens, Handkerchiefs, and the Like.
First use Dec. 26, 1956.

SN 30,189. Pennsalt Chemicals Corporation, Philadelphia, Pa. Filed May 16, 1957.

AQUET

For Alkaline Composition for Controlling Acidity of Swimming Pool Water.
First use Apr. 4, 1957.

SN 31,699. John Sherry, d. b. a. Forest Scent Co., San Bernardino, Calif. Filed June 10, 1957.

FOREST SCENT

For Blend of Oils for Providing Aromatic Fragrance to Christmas Trees.
First use Aug. 1, 1955.

SN 32,956. Huntington Laboratories, Inc., Huntington, Ind. Filed July 1, 1957.

HUNTINGTON
HI-SINE

For Iodine Preparation for Use as a Germicide and Disinfectant in Institutions.
First use June 5, 1957.

SN 33,788. American Potash & Chemical Corporation, Los Angeles, Calif. Filed July 16, 1957.

CHARG-A-CAN

Owner of Reg. Nos. 555,754 and 645,592.
For Refrigerants.
First use Aug. 15, 1949.

SN 39,187. California Spray-Chemical Corporation, Richmond, Calif. Filed Oct. 21, 1957.

ORTHO-KLOR

Owner of Reg. Nos. 121,042, 589,153, and others.
For Insecticides, Pesticides, and Parasiticides.
First use Nov. 8, 1948.

SN 39,290. Standard Brands Incorporated, New York, N. Y. Filed Oct. 21, 1957.

DIASTAFOR

Owner of Reg. Nos. 64,546 and 302,486.
For Amylolytic or Starch Liquefying Preparation for Use as a Desizing Agent in the Textile Industry, as an Ingredient of Paste, Fillers for Paper or Leather and for like Purposes.
First use in or about November 1904.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 10,637. Aerojet-General Corporation, Azusa, Calif. Filed June 21, 1956.

Aerojet-General

For Liquid Explosives Useful as Blasting Agents.
First use on or before March 1954.

Class 10 — Fertilizers

SN 30,084. John Wilson Gouge, Vancouver, British Columbia, Canada. Filed May 15, 1957.

GREEN GENIE

Priority claimed under Sec. 44(d) on Canadian application filed Dec. 13, 1956; Reg. No. 107,803, dated Aug. 23, 1957.
For Liquid Fertilizers and Solid Fertilizers.

SN 38,239. O. M. Scott & Sons Company, Marysville, Ohio. Filed Oct. 2, 1957.

PRO GRO

For Fertilizer.
First use Sept. 28, 1957.

SN 41,680. West Kentucky Liquid Fertilizer Co., Inc., Hopkinsville, Ky. Filed Dec. 2, 1957.

HERBA-LIZER

For Liquid Fertilizer.
First use Oct. 28, 1957.

SN 41,690. Bonnie Brands, Inc., New York, N. Y. Filed Dec. 3, 1957.

BLUE BIRD

For Soil Conditioner.
First use Nov. 19, 1957.

SN 42,118. The Eclipse Peat Company Limited, Glastonbury, England. Filed Dec. 10, 1957.

HUMULL

Owner of British Reg. No. 487,498, dated Jan. 12, 1928.
For Powdered Peat for Use as a Fertiliser.

SN 43,300. The Consolidated Mining and Smelting Company, of Canada Limited, Montreal, Quebec, Canada. Filed Jan. 2, 1958.

MALLARD
BRAND



Applicant disclaims exclusive use of the word "Brand" apart from the mark.
For Chemical Fertilizers.
First use Oct. 5, 1957; in commerce Oct. 5, 1957.

SN 44,647. Product Development Co., Inc., Omaha, Nebr. Filed Jan. 24, 1958.

PRO-D-CO

For Liquid Fertilizer.
First use Dec. 10, 1957.

Class 11 — Inks and Inking Materials

SN 40,106. Write Incorporated, New York, N. Y. Filed Nov. 4, 1957.

STATESMAN

For Carbon Paper and Typewriter Ribbons.
First use in May 1945.

Class 12 — Construction Materials

SN 689,529. I. & J. Suckno Co., Union, N. J. Filed June 14, 1955.

CONTOURAIL

For Rails for Multiple Purpose Use—Namely, for Stairways and Balconies.
First use Mar. 1, 1955.

SN 6,464. Ply-Bord Inc., Healdsburg, Calif. Filed Apr. 16, 1956.

PLY-BORD

For Paper Covered Veneer.
First use Jan. 16, 1956.

SN 12,949. Flexangle Corporation, West Hartford, Conn. Filed July 27, 1956.



The mark includes capital letter "F."
For Slotted Angle Construction Member.
First use June 12, 1956.

SN 13,965. Canti-Bac Manufacturing Co., Pittsburgh, Pa. Filed Aug. 15, 1956.

CANTI-BAC

For Wall Shelving.
First use in March 1954.

SN 16,164. All Aluminum Corp., Brooklyn, N. Y. Filed Sept. 24, 1956.

VYN-A LUME

For Aluminum Thresholds Equipped With Vinyl Inserts for Weather Stripping.
First use Apr. 18, 1956.

SN 21,586. Spee-D-Rect, Asbury Park, N. J. Filed Dec. 24, 1956.

SPEE-D-RECT

For Prefabricated Wall Panels Comprising Material Laminations on Various Cores, Including Honeycomb.
First use Mar. 1, 1955.

SN 25,020. National Chemical & Manufacturing Company, Chicago, Ill. Filed Feb. 25, 1957. Sec. 2(f).

NU-PUTTIE

Owner of Reg. Nos. 411,167, 394,133, and others.
For Plastic Compound for Caulking, Glazing, Sealing, and Putty.
First use June 1, 1933.

SN 25,856. The B. F. Goodrich Company, Akron, Ohio. Filed Mar. 11, 1957.

AGATINE

For Floor Tile Made of Rubber or Rubber-Like Material.
First use Nov. 10, 1955.

SN 27,159. Winter Seal Corporation, Detroit, Mich. Filed Mar. 28, 1957.

JAL MASTER

For Jalousie Doors and Windows.
First use Feb. 15, 1957.

SN 29,779. Basic, Incorporated, Cleveland, Ohio. Filed May 10, 1957.

TARMIX

For Ramming Mixes for Use in Making and Repairing Furnace Linings and the Like.
First use Mar. 13, 1957.

SN 32,931. The Duraflex Co., Miami, Fla. Filed July 1, 1957.

VINL-STOP

For Combined Weather Stripping and Cushioned Door Stop.
First use June 17, 1957.

SN 32,936. Exomet, Incorporated, Conneaut, Ohio. Filed July 1, 1957.

THERMOGARD

For Insulating Pads, Sleeves and the Like Adapted To Retain Heat in Risers or Within Sections of Molds for Non-Ferrous Castings and the Like.
First use September 1949.

SN 33,122. Borg-Warner Corporation, Chicago, Ill. Filed July 3, 1957.

REFLECTAL
B-W
BORG-WARNER

Owner of Reg. Nos. 513,546, 649,972, and others.
For Reflective Insulating Material, Wire Fabric Screening, Pre-Fabricated Roofing and Cellular Concrete.
First use on or before June 2, 1955.

SN 33,849. United States Ceramic Tile Company, Canton, Ohio. Filed July 16, 1957.

CERAMIWALL

For Prefabricated Ceramic Tile Panels.
First use June 11, 1957.

SN 35,748. Delta Roofing Mills Incorporated, Slidell, La. Filed Aug. 19, 1957.

DELTA

For Roofing Material, to Wit, Deadening Felt, Saturated Felts, Mica Surfaced Roofing, Mineral Surfaced Roofing, Asphalt Composition Roof Shingles, Plastic Cements, Roof Coatings, Roofing Asphalts, and Lap Seal Roofing Cement.
First use Apr. 22, 1957.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 696,609. Western Plastics Corporation, Hastings, Nebr. Filed Oct. 17, 1955.

WESTERN

For Plastic Pipe.
First use June 4, 1954.

SN 23,875. Dalmine S. p. A., Milan, Italy. Filed Jan. 14, 1957.

RIVESTIMENTO DALMINE

Owner of Italian Reg. No. 120,372, dated Jan. 18, 1955.
For Plastic Tubes and Fittings and Flexible Non-Metallic Tubes, Clamps for Scaffoldings and Single Parts for Such, Bases, Pins, Anchor Bolts; Belts, Chains, and Spanner Couplings.

SN 24,126. Cornell Manufacturing Co., Inc., Yonkers, N. Y. Filed Feb. 11, 1957.

CBS

For Screws, Bolts, and Nuts.
First use June 1956.

SN 24,986. Huck Manufacturing Company, Detroit, Mich. Filed Feb. 25, 1957.

TAU BOLT

The word "Bolt" is disclaimed apart from the mark as shown.
For Blind Fasteners.
First use Oct. 25, 1956.

SN 30,732. Clayton Mark & Company, Evanston, Ill. Filed May 27, 1957.

MARK

Owner of Reg. No. 419,256.
For Tubing, Pipe, Unions for Connecting Pipes or Rods, and Filters.
First use Jan. 15, 1913.

SN 31,541. Beacon Metal Products Co., Chicago, Ill. Filed June 7, 1957.

SHISH-KA-BAB-EEZ

For Portable Skewers.
First use Apr. 11, 1957.

SN 32,535. Research Products Corporation, Madison, Wis. Filed June 24, 1957. Sec. 2(f).

FILTER-FRY

Owner of Reg. No. 592,364.
For Steam Pervious Metal Covers for Cooking Utensils.
First use July 30, 1951.

SN 34,844. Carlson Products, Inc., University City, Mo. Filed Aug. 2, 1957.

Sta-Put

Owner of Reg. Nos. 579,220 and 602,673.
For Spring Devices for Household Use, Namely, Fasteners for Lids of Trash and Garbage Cans and the Like, Spring-and-Bracket Sets for Storing Household Articles Against Vertical Surfaces.
First use May 6, 1954.

SN 34,924. Cornells Manufacturing Corporation, Long Island City, N. Y. Filed Aug. 5, 1957.

STA-ON

For Garbage Can Hinges.
First use Mar. 15, 1957.

SN 34,995. Reliable Luggage, Inc., West Pittsburg, Pa. Filed Aug. 5, 1957.

RELCOMATIC

For Hardware for Luggage.
First use July 1, 1957.

SN 34,996. Reliable Luggage, Inc., West Pittsburg, Pa. Filed Aug. 5, 1957.

AIR-O-MATIC

For Hardware for Luggage.
First use July 1, 1957.

SN 34,997. Reliable Luggage, Inc., West Pittsburg, Pa. Filed Aug. 5, 1957.

ULTRAMATIC

For Hardware for Luggage.
First use July 1, 1957.

SN 35,671. Montgomery Ward & Co., Incorporated, Chicago, Ill. Filed Aug. 16, 1957.

FAIRWAY

For Watercloset.
First use July 31, 1957.

SN 35,967. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 22, 1957.

H C

For Chains.
First use June 12, 1902.

SN 35,968. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 22, 1957.

H B

For Chain and Chain Links.
First use Aug. 1, 1875.

SN 36,162. Campbell Chain Company, York, Pa. Filed Aug. 26, 1957.

Blue Temper

For Steel Chain.
First use June 6, 1957.

SN 36,849. Carlon Products Corporation, Cleveland, Ohio. Filed Sept. 9, 1957.

MORHAND

For Conduits, Made of Polymeric Material, Such as Polyethylene, Cellulose Acetate, Cellulose Acetate Butyrate, Co-Polymerized Vinyls, Poly-Styrene and Co-Polymers Thereof.
First use Aug. 27, 1956.

SN 37,115. United Specialties Company, Chicago, Ill. Filed Sept. 12, 1957.

USC

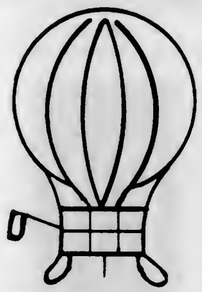
For Slide Extensions for Drawers on Furniture.
First use Apr. 4, 1956.

SN 37,362. Mueller Co., Decatur, Ill. Filed Sept. 17, 1957.

ORISEAL

For Rotary Plug Valves.
First use July 23, 1957.

SN 37,406. Avica Corporation, Newport, R. I. Filed Sept. 18, 1957.



Owner of Reg. No. 549,805.
For Tube Fittings.
First use Dec. 31, 1947.

SN 37,648. Carl J. Erickson, d. b. a. Titewall Hanger Company, Chicago, Ill. Filed Sept. 23, 1957.

TITEWALL

For Hangers for Supporting Bath Tubs.
First use in or about March 1942.

SN 37,651. Grinnell Corporation, Providence, R. I. Filed Sept. 23, 1957.

SELFCON

For Stationary Self-Contained Fire Extinguishing Water Spray System, and Water Reservoir Tank, Pressurizing Means, Pressure Regulating Means, Pipe, Pipe Fittings, Valves, Nozzles and Water Spray Heads for Use in Such a System.
First use Sept. 11, 1957.

SN 37,747. W. G. Rovang & Associates, Inc., Portland, Oreg. Filed Sept. 24, 1957.

ROVALVE

For Pipe Line Valves.
First use in the year 1951.

SN 37,909. Roberts Manufacturing Co., Los Angeles, Calif. Filed Sept. 26, 1957. Sec. 2(f).

ROBERTS

For Carpet Anchoring Strips for Holding Carpet in Position on Floors.
First use at least as early as 1939.

SN 37,918. George Tucker Eyelet Company, Limited, Birmingham, England. Filed Sept. 26, 1957.

IMEX

Owner of British Reg. No. 742,680, dated May 25, 1955.
For Rivets.

SN 38,193. Bartite Products Corp., Everett, Mass. Filed Oct. 2, 1957.

"BARTITE"

For Washers.
First use July 27, 1954.

SN 38,228. Pheoll Manufacturing Company, Chicago, Ill. Filed Oct. 2, 1957.



Owner of Reg. No. 503,741.
For Fasteners—Namely, Nuts, Screws, Bolts, Studs, Washers, Rivets, and Turnbuckles.
First use Sept. 20, 1957.

SN 38,280. Grinnell Corporation, Providence, R. I. Filed Oct. 3, 1957.

PROTECTOFOAM

For Stationary Fire Extinguishing System and Foam Proportioning and Foam Agitating Means, Pipe, Pipe Fittings, Valves, Cocks, Nozzles and Foam Makers, and Foam Spray Heads for Use in Such a System.
First use Sept. 30, 1957.

SN 38,346. R. D. Cole Manufacturing Company, Newnan, Ga. Filed Oct. 4, 1957. Sec. 2(f).



For Standpipes.
First use Jan. 1, 1925.

SN 38,389. Safety Socket Screw Company, Chicago, Ill. Filed Oct. 4, 1957.

SAF-LOK

For Self-Locking Screw Products.
First use in or about February 1956.

SN 38,390. Safety Socket Screw Company, Chicago, Ill. Filed Oct. 4, 1957.

LED-LOK

Owner of Reg. No. 640,894.
For Self-Locking Screw Products.
First use on or about July 19, 1954.

SN 38,445. L. W. Fleckenstein, Inc., Butler, Wis. Filed Oct. 7, 1957.

FLECK-SEAL

For Closure Cap Assemblies.
First use Nov. 1, 1954.

Class 14 — Metals and Metal Castings and Forgings

SN 29,733. Madeco Manufacturas de Cobre S. A., Santiago, Chile. Filed May 9, 1957.

MADECO

For Copper Wire, Copper Bars, Billets, Slabs, and Sheets.
First use in September 1951; in commerce in September 1951.

SN 32,291. Columbus Brass and Aluminum Co., Inc., Columbus, Ind. Filed June 20, 1957.

CobrA

For Die Castings.
First use May 1, 1957.

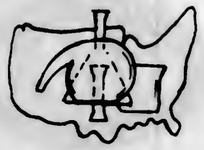
Class 15 — Oils and Greases

SN 5,546. Quaker State Oil Refining Corporation, Oil City, Pa. Filed Mar. 30, 1956.



The drawing is lined for the color green. Owner of Reg. No. 626,082.
For Motor Oil.
First use Feb. 16, 1956.

SN 15,416. United States Petrochemical Co., Inc., Mount Vernon, N. Y. Filed Sept. 10, 1956.



For Fuel Oil, Lubricating Oil, and Hydrocarbon Oil; Petroleum Waxes, Fuel Oil Sludge Solvent, Rust Proof Coatings, and Silicone Additive for Lubricating Oils and Greases.
First use on or about Mar. 12, 1955.

SN 36,277. Buchanan & Company, Inc., New York, N. Y. Filed Aug. 27, 1957.

FUTURFUEL

For Gasoline.
First use July 1, 1957.

SN 37,590. Quaker State Oil Refining Corporation, Oil City, Pa. Filed Sept. 20, 1957.



The drawing is lined for the colors green, gold, and red. Applicant disclaims any exclusive right in the words "Super Blend" apart from the mark as shown. Owner of Reg. Nos. 179,212, 626,082, and others.
For Motor Fuel and Gasoline.
First use June 3, 1957.

SN 39,219. The Globe Oil & Refining Company, Wichita, Kans. Filed Oct. 21, 1957.

GLOBE

Owner of Reg. No. 546,485.
For Petroleum Products—Namely, Lubricating Oils and Greases, Gasoline, Tractor Fuel Oil, Kerosene, Range Oil, Gas Oil, and Fuel Oils.
First use at least as early as 1901.

Class 16—Protective and Decorative Coatings

SN 31,107. Grand Rapids Varnish Corporation, Grand Rapids, Mich. Filed May 31, 1957.

Guardsman
Royaline

Owner of Reg. No. 621,658.
For Finishing (Coating) Material.
First use Jan. 15, 1954.

SN 36,226. Pratt & Lambert-Inc., Buffalo, N. Y. Filed Aug. 26, 1957.

PALCO

For Oil Color for Tinting Lead in Oil, Paints and Enamels of All Kinds, and for Making Stains.
First use July 22, 1957.

SN 39,779. Carlisle Chemical Works, Inc., Reading, Ohio. Filed Oct. 30, 1957.

ADVACAR

For Paint Driers.
First use June 14, 1957.

SN 41,556. Marine Paint & Varnish Company, Inc., New Orleans, La. Filed Nov. 29, 1957.



For Paints, Varnishes, Enamels, and Stains.
First use in the year 1932.

Class 18—Medicines and Pharmaceutical Preparations

SN 17,019. Lawrence Industries, Inc., Havertown, Pa. Filed Oct. 5, 1956.

SLENDER-AID

For Chewing Gum for Use as an Appetite Satient.
First use Sept. 21, 1956.

SN 22,288. The Amburgo Company Inc., Philadelphia, Pa. Filed Jan. 9, 1957.

AMBUR

For Soluble Phosphates Concentrate With Trace Minerals, and Trace Mineral Concentrates, for Mixing in Livestock and Poultry Feeds.
First use November 1951.

SN 29,083. Lionel Kent (S. A.) (Proprietary) Limited, Benoni, Transvaal, Union of South Africa. Filed Apr. 29, 1957.

BELL

Owner of Union of South Africa Reg. No. 1026/43, dated Sept. 2, 1943.
For Preparation for the Treatment of Simple Coughs, Bronchial Conditions, Colds, Croup, and Whooping Cough.

SN 33,418. Imperial Chemical Industries Limited, London, England. Filed Feb. 11, 1958.

DISPOLAC

Owner of British Reg. No. 748,442, dated Nov. 25, 1955.
For Intrammary Veterinary Preparations.

SN 39,291. Standard Brands Incorporated, New York, N. Y. Filed Oct. 21, 1957.

FIDY

Owner of Reg. No. 417,199.
For Irradiated Dry Yeast for Use as a Food Supplement for Livestock.
First use Mar. 19, 1945.

SN 39,374. Barth Levitt Products, Lynbrook, N. Y. Filed Oct. 23, 1957.

GERI-AIDE

For Dietary Supplements, Including Vitamin C and/or Minerals.
First use in June 1957.

SN 39,445. Bristol Laboratories Inc., Syracuse, N. Y. Filed Oct. 24, 1957.

PRN

Owner of Reg. No. 641,331.
For Tranquilizing Pharmaceutical Preparation.
First use June 22, 1957.

SN 39,475. Eli Lilly and Company, Indianapolis, Ind. Filed Oct. 24, 1957.

V-CILLIN K

Owner of Reg. Nos. 523,793, 642,004, and others.
For Medicinal Preparation of the Potassium Salt of Penicillin V, Used in the Treatment of All Infections Caused by Penicillin Susceptible Pathogens.
First use Sept. 6, 1957.

SN 39,476. Eli Lilly and Company, Indianapolis, Ind. Filed Oct. 24, 1957.

DARVON

For Non-Narcotic Medicinal Preparation Used for the Reduction or Amelioration of Pain.
First use Apr. 22, 1957.

SN 39,781. Carter Products, Inc., New York, N. Y. Filed Oct. 30, 1957.

DEPROL

For Pharmaceutical Preparation for Use in the Treatment of Depression.
First use Oct. 4, 1957.

SN 39,853. Allergan Corp., Los Angeles, Calif. Filed Oct. 31, 1957.

PREDMYCIN

For Medicated Eye Drops.
First use Sept. 19, 1957.

Class 19—Vehicles

SN 27,142. Arthur G. Schramm, Phoenix, Ariz. Filed S. R. Mar. 28, 1957; Am. P. R. Mar. 3, 1958.

SCHRAMM
Wonderlift

For Vehicle Trailers for Hauling Freight and Heavy Objects and Assembly Accessories for Trailers Including Tail Gates, Fenders, Extra Brakes, and Safety Chains.
First use Jan. 15, 1956.

SN 29,757. Societe Anonyme Andre Citroen, Paris, France. Filed May 9, 1957.



Owner of French Reg. No. 456,129, dated Feb. 29, 1956 (Seine); Natl. Inst. No. 73,086; and U. S. Reg. Nos. 558,422 and 629,862.
For Automobiles and Structural Parts Thereof, Vehicle Bodies, Wheels, and Springs.

SN 36,328. Velamos, Narodni Podnik, Petrov nad Desnou, Sobotin, Czechoslovakia. Filed Aug. 27, 1957.

VELAMOS

Owner of Czechoslovakian Reg. No. 12,017/Brno, dated July 20, 1937.
For Bicycles and Parts Thereof.

SN 37,042. Reinforced Plastics Corporation, Mobile, Ala. Filed Sept. 11, 1957.

FeatherFender

For Marine Fenders for Boats.
First use Aug. 1, 1955.

SN 38,753. Hyster Company, Portland, Oreg. Filed Oct. 11, 1957.

FREIGHTER

For Industrial Platform Trucks.
First use Jan. 21, 1957.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 694,566. George Gale, d. b. a. St. George and Gale, Westport, Conn. Filed Sept. 13, 1955.

Inframatic

For Electrical Broilers.
First use Feb. 15, 1955.

SN 26,834. Killark Electric Manufacturing Co., St. Louis, Mo. Filed Mar. 25, 1957.

ALUMALET

For Electrical Conduit Fittings.
First use Jan. 15, 1952.

SN 27,022. Electro-Chek Corporation of America, Ogden, Utah. Filed Mar. 27, 1957.

Electro-Chek

For Electrically Operated Building Security Indicating and Recording Device.
First use Apr. 9, 1956.

SN 27,482. Airtron, Inc., Linden, N. J. Filed Apr. 4, 1957.

FERROGUIDE

Owner of Reg. Nos. 439,244, 528,359, and 642,037.
For Waveguides for Microwave Systems.
First use Feb. 22, 1957.

SN 29,873. Complete-Reading Electric Co., Inc., Chicago, Ill. Filed May 13, 1957.

CORECO

For Parts for Electric Motors—Namely, Capacitors, Carbon Brushes, Motor Oilers, Oil-Less Motor Bearings, Bronze Motor Bearings, and Electrical Conductor Numbering Tags, and Parts for Electric Motor Driven Fans—Namely, Fan Blades and Fan Guards.
First use Jan. 1, 1956.

SN 30,879. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed May 28, 1957.

SELECTOHEAT

For Transformers.
First use Apr. 16, 1957.

SN 30,930. New York Merchandise Co., Inc., New York, N. Y. Filed May 28, 1957.

SPEARPOINT

For Flash-Light Batteries; Flash-Light Cases; Electrical Bulbs; Electrical Switches; Christmas Tree Lights and Lamps.
First use May 28, 1956.

SN 33,205. Birmingham Sound Reproducers Limited, Old Hill, England. Filed July 5, 1957.

FUL-FI

Owner of British Reg. No. 758,063, dated Sept. 28, 1956.
For Electric Apparatus for Reproducing Sound.

SN 33,472. General Precision Laboratory Incorporated, Pleasantville, N. Y. Filed July 10, 1957.

GPL

The drawing is lined for contrast purpose only and color is not a feature of the mark. Owner of Reg. Nos. 580,779, 586,219, and others.
For Television Cameras, Television Camera Control Units, Television Monitors, Television Switching Units, Systems for Receiving and Projecting Television Images, Television Film Chains for Converting Motion Picture Images to Television Signals, Amplifiers, and Power Supplies.
First use May 27, 1956; June 21, 1951, in different display.

SN 34,881. Zenith Radio Corporation, Chicago, Ill. Filed Aug. 2, 1957.

ZENITH

Owner of Reg. Nos. 164,341, 590,019, and others.
For Electrical Apparatus Including Radio Receivers, Television Receivers, Phonographs, and Combinations of Any Two or More of the Foregoing; Record Changers; Remote Control Systems; Power Supplies; Batteries; Amplifiers; Tuners; Electric Motors; Electromechanical Transducers Including Phonograph Cartridges, Loud Speakers, Microphones, and Headphones; Electromechanical Vibrators; Electric Switches; Relays; Rectifiers; Crystal Diodes; Photocells; Electron Tubes; Cathode-Ray Tubes; Electric Lamps; Transistors; Electrical Wave Traps, Filters, and Noise Suppressors; Transformers; Deflection Yokes; Inductance Coils; Lightning Arrestors; Antennas; Voltage Dividers; Potentiometers; Electrical Sockets, Connectors, and Fuses; Capacitors; Resistors; Electrical Wire, Cord, and Cable; Electrical Shields; and Parts of Any of the Foregoing.
First use 1918 on radio receivers.

SN 35,384. Philco Corporation, Philadelphia, Pa. Filed Aug. 12, 1957.

TELEVETTE

For Television Receivers.
First use July 17, 1957.

SN 35,419. Chester Cable Corp., Chester, N. Y. Filed Aug. 13, 1957.

CHESTERFLUR

For Insulated Cables and Wires.
First use Feb. 4, 1957.

SN 35,504. Fenwal Incorporated, Ashland, Mass. Filed Aug. 14, 1957.

FENWAL

Owner of Reg. Nos. 348,914 and 551,683.
For Electric Switches and Mounts Therefor Including Electric Relays.
First use in or about September 1936.

SN 35,539. Special Electric Company, Inc., Milwaukee, Wis. Filed Aug. 14, 1957.

H TO O

For Water Reducible Insulating Varnish for Application on Stators, Wound Rotors, Armatures, Transformers, and Other Electrical Apparatus.
First use Aug. 9, 1957.

SN 35,971. AMP Incorporated, Harrisburg, Pa. Filed Aug. 22, 1957.

PIDG

For Electrical Connectors.
First use in the last quarter of 1942.

SN 36,464. Nutone, Inc., Cincinnati, Ohio. Filed Aug. 29, 1957.

NUTONE

Owner of Reg. Nos. 355,825, 623,972, and others.
For Radio Intercommunication Systems and Equipment.
First use June 10, 1957.

SN 36,688. Capitol Records, Inc., Los Angeles, Calif. Filed Sept. 5, 1957.

FDS

Owner of Reg. No. 569,989.
For Electro-Magnetic Tapes With Sound Recorded Thereon.
First use July 22, 1957.

SN 36,689. Capitol Records, Inc., Los Angeles, Calif. Filed Sept. 5, 1957.

Capitol

Owner of Reg. Nos. 621,325, 601,056, and 589,746.
For Electro-Magnetic Tapes With Sound Recorded Thereon.
First use July 22, 1957.

SN 36,918. Radio Corporation of America, New York, N. Y. Filed Sept. 9, 1957.

VICTROLA

Owner of Reg. Nos. 50,081, 195,825, and others.
For Television Sets, Tape Recorders, and Stereotape Players and Accessories for Such Goods.
First use April 1947.

SN 36,972. Magnetics, Inc., Butler, Pa. Filed Sept. 10, 1957.

ORTHONOL

Owner of Reg. No. 549,641.
For Ferro-Magnetic Alloy Material the Specific Form of Which Is Tape Wound Cores, Bobbin Cores, and Laminations.
First use Nov. 22, 1948.

Class 22 — Games, Toys, and Sporting Goods

SN 27,852. Carl M. Dunham, New Milford, Conn. Filed Apr. 10, 1957.

SIGNARSE

For Game Board and Pieces.
First use Mar. 20, 1957.

SN 32,951. The Hart Manufacturing Company, St. Paul, Minn. Filed July 1, 1957.

Hart

For Snow Skis.
First use Oct. 14, 1955.

SN 36,221. Pequea Fishing Tackle, Inc., Strasburg, Pa. Filed Aug. 26, 1957.

PEQUEA

Owner of Reg. No. 611,388.
For Fishing Tackle—Namely, Snelled Hooks; Lures, Artificial; Landing Net Holder; Reels; Rods; Leaders; Snaps and Swivels; Bottom Rigs; Leather Thongs; Rudders; Bait Needles; Minnow Rigs; Lines and Sinkers.
First use 1902.

SN 36,492. Hi-Jinx Records, Inc., Phoenix, Ariz. Filed Aug. 19, 1957.

Hi-Jinx

For Musical Game Comprising Records, Cards, and Markers Therefor for Identifying the Nursery Rhymes on the Records.
First use July 1, 1948.

SN 37,263. The Husky Toy Company, Grand Rapids, Minn. Filed Sept. 16, 1957.

HUSKY

For Toy Vehicles.
First use July 7, 1957.

SN 38,517. F. W. Woolworth Co., New York, N. Y. Filed Oct. 7, 1957.

GRACELINE

For Fishing Tackle—Namely, Fishing Lines and Lures.
First use June 28, 1957.

SN 38,643. Standard Toykraft Products, Inc., Brooklyn, N. Y. Filed Oct. 9, 1957.

TOP ME

For Board Game.
First use Mar. 4, 1957.

SN 38,762. National Production Company, Detroit, Mich. Filed Oct. 11, 1957.

DOLLIEBABE

For Jumper Chair for a Doll.
First use Oct. 9, 1950.

SN 38,806. Cortland Line Company, Inc., Cortland, N. Y. Filed Oct. 14, 1957.

SEMAPHORE

For Fishing Line.
First use on or about Dec. 31, 1956.

SN 38,865. South Bend Tackle Company, Inc., South Bend, Ind. Filed Oct. 14, 1957.

MASTERGLASS

For Fishing Rods and Poles.
First use Sept. 13, 1957.

SN 39,102. Thommen, Inc., Bronx, N. Y. Filed Oct. 17, 1957.

TOMSURF

For Spinning Reels.
First use on or about May 1, 1956; on or about May 8, 1953, in a different display.

SN 39,208. Evans Products Company, Plymouth, Mich. Filed Oct. 21, 1957.

EVANS

For Wheeled Toys—Namely, Tricycles and Trailers.
First use Nov. 30, 1954.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 21,284. Winkler & Dünnebier, Maschinenfabrik und Eisenglesserei K. G., Neuwied, Rhineland, Germany. Filed Dec. 18, 1956.

HELIOS MACHINERY

Owner of German Reg. No. 709,580, dated Dec. 27, 1957.
For Machines, Apparatus and Devices for the Manufacture of Cocoa, Chocolate, Confections, Biscuits, Cookies, Licorice and Candy; Machines, Apparatus and Devices for Automatic Weighing, Filling, Packaging and Wrapping of Solid, Liquid and Powdery Substances; Rotary Printing Machines; Rotary Envelope-Making Machines; Rotary Bag-Making Machines.

SN 24,007. Stowe-Woodward, Inc., Newton Upper Falls, Mass. Filed Feb. 7, 1957.

DENSITE

For Rolls for Machinery Having a Metallic Core and a Non-Metallic Covering.
First use Jan. 23, 1957.

SN 26,469. Landmaster Limited, Hucknall, England. Filed Mar. 19, 1957.

Landmaster

Owner of Reg. No. 617,181.
For Agricultural and Horticultural Tractors and Attachments Therefor for Adapting Such Tractors for Hoeing, Ploughing, Ridging, Spraying, Seeding, Hedge Trimming and the Like Agricultural Uses.
First use in May 1950; in commerce Dec. 31, 1952.

SN 27,902. Seco Engineering & Mfg., Inc., Detroit, Mich. Filed Apr. 10, 1957.

SECO

Owner of Reg. No. 567,161.
For Fire Fighting Equipment Including Fire Hose Reels, Fire Extinguishers, and Fire Control Vehicles.
First use Jan. 5, 1957.

SN 28,338. Dixie Cup Company, Easton, Pa., to American Can Company, New York, N. Y. Filed Apr. 17, 1957.

DIXIE

For Machines for Packaging Foods, Dairy Products, Confections, and Other Merchandise in Cups, Cartons, and Similar Packaging Containers Made of Paper, Cardboard, Cardboard-Like Material, Fibre, Metal Foil, Metal and Paper Laminate, Plastics, Glassine, and Combinations Thereof, Attachments and Parts Therefor.
First use Mar. 5, 1957.

SN 30,067. Cook Engineering & Electronics, Inc., Concord, N. C. Filed May 15, 1957.

TRIMSEAL

For Machine for Closing Plastic Bags.
First use May 7, 1957.

SN 30,115. The Sheffield Corporation, Dayton, Ohio. Filed May 15, 1957.

SONIPAK

For Unit for Forming or Shaping a Workpiece by Means of a Vibrating Cutting Tool Driven Electrically at High Frequencies.
First use Feb. 13, 1956.

SN 30,395. E. W. Bliss Company, Canton, Ohio. Filed May 21, 1957.

MACK-HEMP

For Rolls, Straighteners, Lathes, and Other Massive Machinery, Tools, and Parts Thereof.
First use in or about 1952.

SN 30,982. K. W. Atwater Engineering Inc., Chicago, Ill. Filed May 29, 1957.

LIGNALLOY

For Non-Metallic Machinery Bearings.
First use Mar. 30, 1937.

SN 33,853. Ferrostaal A. G., Essen, Germany. Filed June 11, 1957.

FERROSTAAL

Owner of German Reg. No. 673,127, dated Mar. 17, 1955.
For Auxiliary Units; Motor Driven Pumping Sets, Portable and Stationary; Cranes and Hoisting Appliances; Machines for Manufacture of Chemical Products and for Treatment of Products of the Iron and Metal Industry and the Processing of Wood and Leather; Textile Machines; Machines for the Manufacture of Electrical Products; Combustion Engines; Building Machines; Mining Machinery; Track Tools; Pumps; Machine Tools; Material Handling Equipment and Similar Constructions; Crossings; Switches; Turntables; Steam and Diesel Locomotives; and Traverses.

SN 35,349. Henry S. Hoffar, Sidney, British Columbia, Canada, to Apex Marine & Equipment, Inc., Seattle, Wash. Filed Aug. 12, 1957.

ELASTOMUFFLE

For Engine Silencers.
First use Mar. 22, 1957.

SN 36,614. The National Acme Company, Cleveland, Ohio. Filed Sept. 3, 1957.

NAMCO

Owner of Reg. Nos. 190,244, 294,191, and 624,022.
For Metalworking Machines, Metalworking Tools and Dies, and Parts Thereof.
First use March 1908.

SN 38,581. The Falk Corporation, Milwaukee, Wis. Filed Sept. 23, 1957.

ALL-MOTOR

For Geared Power Transmissions.
First use Aug. 6, 1957.

SN 38,826. Andrew Kux, d. b. a. Occidental Electric Company, Nogales, Ariz. Filed Oct. 14, 1957.

AIR-CON

For Centrifugal Pumps for Pumping Liquids of All Kinds.
First use Oct. 8, 1957.

SN 38,857. The Rolin Corporation, Chicago, Ill. Filed Oct. 14, 1957.

ROLIN

For Railroad Supplies—Namely, Journal Lubricators and Parts Therefor.
First use Dec. 11, 1954.

SN 38,863. H. C. Smith Oil Tool Co., Compton, Calif. Filed Oct. 14, 1957.

DYNA-DRILL

For Well Drilling Tools.
First use May 10, 1957.

SN 38,880. Waugh Equipment Company, New York, N. Y. Filed Oct. 14, 1957.

WAUGHPAK

For Lubricators Insertable in Journal Boxes of Railway Cars.
First use February 1957.

SN 38,949. Scharmann Machine Corporation, Pittsburgh, Pa. Filed Oct. 15, 1957.

For Machine Tools—for Example, Horizontal Boring and Milling Machines.
First use in or about 1907.

SN 40,501. Roberts Manufacturing Co., Los Angeles, Calif. Filed Nov. 12, 1957.

ANKRETE

For Piston-Type Powder Actuated Hammers for Driving Studs Into Concrete.
First use in February 1957.

SN 42,742. Swingline, Inc., Long Island City, N. Y. Filed Dec. 19, 1957.

Swingline

Owner of Reg. Nos. 641,731, 358,506, and others.
For Stapling Machines, Tackers, and Pliers.
First use Jan. 2, 1937.

SN 42,898. New England Tap Company, Inc., Norwood, Mass. Filed Dec. 23, 1957. Sec. 2(f).

CROMCLAD

Owner of Reg. No. 547,667.
For Cutting Tools—Namely, Taps.
First use on or about Mar. 27, 1950.

SN 42,928. Shawnee Manufacturing Company, Inc., Topeka, Kans. Filed Dec. 23, 1957.

CLAW

For Materials Handling Equipment—Namely, Tractor Mounted Loaders.
First use August 1957.

SN 42,940. Stewart-Warner Corporation, Chicago, Ill. Filed Dec. 23, 1957.

STEWART-WARNER

Owner of Reg. Nos. 238,103, 242,872, and others.
For Liquid Fuel Feeding Pumps and Devices for Internal Combustion Engines.
First use September 1926.

SN 42,943. Swingline, Inc., Long Island City, N. Y. Filed Dec. 23, 1957.

SPEEDMATIC

Owner of Reg. Nos. 400,294 and 412,913.
For Tackers.
First use June 26, 1940.

SN 42,953. Warn Manufacturing Company, Seattle, Wash. Filed Dec. 23, 1957.

WARN

For Front-End Hubs for 4-Wheel Drive Vehicles.
First use in or about September 1948.

SN 43,010. Challenge Manufacturing Co., Los Angeles, Calif. Filed Dec. 26, 1957.

CHALLENGE

For Vehicle Mounted Concrete Mixers, Concrete Trowelers, and Vehicle Mounted Trench Digging Machines.
First use in the year 1947.

SN 43,014. Diamond Calk Horseshoe Company, Duluth, Minn. Filed Dec. 26, 1957.

DIAMALLOY

For Adjustable Wrenches.
First use Oct. 1, 1927.

Class 26—Measuring and Scientific Appliances

SN 30,491. The Hilsinger Corporation, Attleboro, Mass. Filed May 22, 1957.

HILCO

For Parts and Accessories for Ophthalmic Mountings—Namely, Nose Pads, Nose Pad Arms, Temples, Temple Hinges, Screws, Decorative Plaques, Temple Covers, Lens Gaskets.
First use in April 1956.

SN 30,562. Brown & Sharpe Manufacturing Company, Providence, R. I. Filed May 23, 1957.

THRIFT BLOCKS

Exclusive use of the word "Blocks" is disclaimed apart from the mark as shown.
For Precision Gaging Blocks.
First use Oct. 22, 1956.

SN 32,642. Eugene S. Weiss, Campbell, Calif., to Miterite, Inc., Campbell, Calif. Filed June 25, 1957.

MITERITE

For Miter Calculator for Setting Saw and Fence Angles of Table Saw.
First use on or about June 4, 1957.

SN 33,474. Gilbert & Barker Manufacturing Company, West Springfield, Mass. Filed July 10, 1957.

SALES-MAKER

For Measuring and Fluid Dispensing Pumps.
First use Feb. 29, 1956.

SN 33,929. Victor Hasselblad Aktiebolag, Gothenburg, Sweden. Filed July 17, 1957.

HASSELBLAD

Owner of Swedish Reg. No. 64,896, dated Aug. 27, 1948; and U. S. Reg. No. 522,869.
For Photographic Cameras, Mounts for Camera Lenses, Plate Holders for Cameras and Slide Projectors.

SN 34,181. Shell Electronic Mfg. Corp., Brooklyn, N. Y. Filed July 22, 1957.

TEST-O-MATIC

For Tube Testers for Radio and Television Sets.
First use May 3, 1957.

SN 34,290. Charlotte P. Hoffman, Harworth, N. J. Filed July 24, 1957.

REDI-TAX

For Automatic Payroll Withholding Tax Tables and Machines.
First use Jan. 16, 1957.

SN 34,699. Hellige, Incorporated, Garden City, N. Y. Filed July 31, 1957.

PERMA Line

For Glassware for Laboratory and Scientific Purposes—Namely, Volumetric Pipettes, Measuring Pipettes, Water Analysis Pipettes, Graduates and Graduated Cylinders, Hemacytometer Pipettes, Hemometer Pipettes, Blood Sugar Pipettes, Volumetric Flasks, Sedimentation Tubes, Blood Sugar and N. P. N. Tubes, Graduated Glass Testing Instruments and Tubes, Hemometer Tubes, Graduated Burettes, Hydrometers, Stalagmometer Tubes, Viscometer Tubes, Viscosity and Flow-Rate Measuring Tubes, Water Funnels, Cones, Counting Plates, Thermometers, Graduated Beakers, Flasks, Bottles, Jars and Vials, Centrifuge Glassware and Tubes, Comparison and Absorption Tubes.
First use July 1949.
Subj. to Intf. with SN 37,190.

SN 35,505. Fenwal Incorporated, Ashland, Mass. Filed Aug. 14, 1957.

FENWAL

Owner of Reg. Nos. 348,914 and 551,683.
For Thermally Responsive Regulators, Controls, Indicators, and Recorders; Overheat and Fire Detectors; Explosion and Incipient Explosion Detectors; Electrical and Electronic Devices, Units, and Elements Responsive to Radiant Energy; Thermocouples and Thermocouple Harnesses; Transducers, Particularly Thermistors; and Controls and Detectors for Fluid Flow.
First use in or about May 1936.

SN 36,090. C. W. Logeman Company, Brooklyn, N. Y. Filed Aug. 23, 1957.

ELECTRO-PORTIONER

For Machines for Dispensing Measured Quantities of Brine or Flavoring Liquid.
First use Apr. 15, 1955.

SN 36,141. Agfa Aktiengesellschaft für Photofabrikation, Leverkusen-Bayerwerk, Germany. Filed Aug. 26, 1957.

AGFACOLOR

Owner of German Reg. No. 442,478, dated Feb. 17, 1932; and U. S. Reg. Nos. 215,536, 599,049, and others.
For Photographic Plates, Unexposed Photographic Films, Light-Sensitive and Exposed Cinematographic Films, Photographic and Cinematographic Apparatus.

SN 37,190. Richard-Allan Company, Inc., Evanston, Ill. Filed Sept. 13, 1957.

PERMA-LINE

For Pipettes and Thermometers.
First use Apr. 10, 1957.
Subj. to Intf. with SN 34,699.

SN 38,204. Eastman Kodak Company, Rochester, N. Y. Filed Oct. 2, 1957.

EKTANAR

Owner of Reg. Nos. 353,915 and 435,564.
For Photographic Lenses.
First use Sept. 13, 1957.

SN 38,352. Giddings & Lewis Machine Tool Company, Fond du Lac, Wis. Filed Oct. 4, 1957.

NUMERICORD

For Machine Tool Control Apparatus—Namely, Digital Tape Preparation Units, Tape-Data Converting and Signal-Recording Units, Signal Playback Units, and Signal-Responsive Tool-Controlling Servomechanisms.
First use June 7, 1955.

Class 27—Horological Instruments

SN 20,203. Mido Watch Company of America, Inc., New York, N. Y., to S. A. Mido, Bienne, Switzerland. Filed Nov. 30, 1956.

Midoluxe

For Watches and Parts of Watches.
First use Nov. 19, 1956.

SN 28,139. General Electric Company, Schenectady, N. Y. Filed Apr. 13, 1957.

SNOOZ-ALARM

For Clocks.
First use May 15, 1956.

SN 28,235. Henri J. Bourdeaux, d. b. a. Henri J. Bourdeaux and Company, Chicago, Ill. Filed Apr. 16, 1957.

BOURDEAUX-GENEVE

For Watches.
First use July 1, 1953.

SN 28,573. Max Buslik, d. b. a. Embe Watch Company, New York, N. Y. Filed Apr. 22, 1957.

EZB

For Watches.
First use Jan. 1, 1955.

Class 28—Jewelry and Precious-Metal Ware

SN 35,999. The International Silver Company, Meriden, Conn. Filed Aug. 22, 1957.

CAPTIVATE

For Silverplated Flatware—Namely, Knives, Forks, and Spoons.
First use Aug. 14, 1957.

SN 36,000. The International Silver Company, Meriden, Conn. Filed Aug. 22, 1957.

LEADING LADY

For Silverplated Flatware—Namely, Knives, Forks, and Spoons.
First use Aug. 14, 1957.

SN 37,054. Trifari, Krussman & Fishel, Inc., New York, N. Y. Filed Sept. 11, 1957.

TIE-UPS

Owner of Reg. Nos. 413,507, 612,161, and others.
For Costume Jewelry.
First use Aug. 21, 1957.

Class 30—Crockery, Earthenware, and Porcelain

SN 35,717. Allied Stores Corporation, New York, N. Y. Filed Aug. 19, 1957.

WENTWORTH

Owner of Reg. No. 563,507.
For China Dinnerware.
First use Sept. 10, 1950.

Class 32—Furniture and Upholstery

SN 5,613. Duo-Bed Corporation, Los Angeles, Calif. Filed Apr. 2, 1956.

ROLLER FRAME

Applicant makes no claim to the word "Frame" apart from the mark as shown.
For Frames for Beds, Sofa Beds, Combination Sofa Beds and End Tables, and Combination Sofa Beds and Desks.
First use Mar. 10, 1955.

SN 17,456. Grand Rapids Sectional Equipment Company, Grand Rapids, Mich. Filed Oct. 15, 1956. Sec. 2(f).

SCHWARTZ

For Sectional Storage Cabinet Units for Pharmaceuticals and Other Druggist Supplies.
First use January 1918.

SN 31,981. Faries-McMeekan, Inc., Elkhart, Ind. Filed June 14, 1957.



For Framed and Unframed Mirrors and Mountings Therefor, Shelving and Brackets Therefor.
First use Apr. 10, 1956.

SN 40,125. James Lees and Sons Company, Bridgeport, Pa. Filed Nov. 5, 1957.

ACC-SELL-ERATOR

For Carpet and Rug Display Racks.
First use Sept. 24, 1957.

SN 42,101. Consider H. Willett, Inc., Louisville, Ky. Filed Dec. 9, 1957.

MARBLEHEAD CHERRY

The exclusive use of the word "Cherry," apart from the mark as shown, is disclaimed.

For Household Furniture Consisting of (1) Bedroom Furniture—Namely, Beds, Bed Canopies, Benches, Chairs, Chests, Dressers, Dressing Tables, Mirrors, Night Stands, and Vanities; (2) Dining Room Furniture—Namely, Buffets, Chairs, Cupboards, China Cupboards, Corner Cabinets, Servers, and Tables; and (3) Living Room Furniture—Namely, Book Cases, Chairs, Desks, Love Seats, Ottomans, Sofas, and Coffee, Drop-Leaf, End, Lamp, Tavern, and Television Tables.
First use Oct. 18, 1957.

SN 43,259. Roscoe H. McGlone, Flint, Mich. Filed Dec. 31, 1957.

FLOATALONG

For Seat Cushion.
First use Nov. 4, 1957.

SN 43,790. Unimach Corporation, Chicago, Ill. Filed Jan. 10, 1958.

ADAPTA-LEGS

For Metal Furniture Legs.
First use Oct. 16, 1957.

SN 44,153. Blazon, Inc., Akron, Ohio. Filed Jan. 17, 1958.

FLIP-FLOP-TOP

For Folding Play Benches and Tables for Children.
First use on or about Nov. 29, 1957.

SN 44,331. Williamsburg Restoration, Incorporated, Williamsburg, Va. Filed Jan. 20, 1958.

WILLIAMSBURG C W RESTORATION

Owner of Reg. No. 399,815.
For Household Furniture—Namely, Furniture for Living Rooms, Dining Rooms, Libraries, Game Rooms, Halls, and Bedrooms.
First use in June 1945.

SN 44,639. National Blank Book Company, Holyoke, Mass. Filed Jan. 24, 1958.

RITE-HITE

For Adjustable Platform Stand for Bookkeeping Record File Trays.
First use Sept. 11, 1957.

SN 44,826. Jentzen-Miller Company, Royal Oak, Mich. Filed Jan. 28, 1958.

ADJUST-O-STRUT

For Wall Displays—Namely, Cabinets, Showcases, and Shelving.
First use Jan. 20, 1958.

SN 44,929. Simmons Company, New York, N. Y. Filed Jan. 29, 1958.

BERMUDA LOUNGER

For Sofas and Lounges.
First use Dec. 2, 1957.

SN 44,930. Simmons Company, New York, N. Y. Filed Jan. 29, 1958.

BEAUTY BACK

For Mattresses.
First use Dec. 30, 1957.

SN 44,942. Watson Manufacturing Company, Inc., Jamestown, N. Y. Filed Jan. 29, 1958.

ROL-TRONIC

Owner of Reg. No. 548,292.
For Office Filing Equipment, Particularly Top Opening Racks or Cases Having Adjustable and Removable Record Receiving Trays.
First use Jan. 8, 1958.

Class 33 — Glassware

SN 32,184. Houze Glass Corporation, Point Marion, Pa. Filed June 18, 1957.

TRAY KARDS

The word "Tray" is disclaimed apart from the mark.
For Glassware—Namely, Coasters, Trays, and Ornamental Receptacles.
First use May 22, 1957.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 23,879. Dalmine S. p. A., Milan, Italy. Filed Jan. 14, 1957.

RIVESTIMENTO DALMINE

Owner of Italian Reg. No. 120,372, dated Jan. 18, 1955.
For Heating, Lighting, and Ventilating Apparatus—Namely, Steam Pipes.

SN 25,765. Dunham-Bush, Inc., West Hartford, Conn. Filed Mar. 8, 1957.

DUNHAM-BUSH

The drawing is lined for the colors red and blue. Owner of Reg. Nos. 127,926, 527,058, and others.
For Central Station and Multi-Zone Air Conditioning Units, Comfort Cooling Units, Heating and Cooling Units, Unit Heaters, Radiation for Heating Systems, and Heating Systems, Convectors, Finned Pipe Radiation Elements and Covers, Heating Coils, Baseboard Radiation Components, and Controls and Replacement Parts Therefor.
First use June 29, 1956.

SN 27,049. James Perry Mfg. Co., Providence, R. I. Filed Mar. 27, 1957.

JP

For Ventilating Louvres.
First use on or about August 1955.

SN 28,552. The Siegler Corporation, Pasadena, Calif. Filed Apr. 19, 1957.

PIN-UP

For Gas Fired Heaters and Air Conditioners.
First use Jan. 30, 1957.

SN 36,379. Kelley Manufacturing Company, Houston, Tex. Filed Aug. 28, 1957.

KELLEY BEACH BUCKET

For Outdoor Cooking Units.
First use May 20, 1957.

SN 36,715. The International Boiler Works Co., East Stroudsburg, Pa. Filed Sept. 5, 1957.

THERMOJET

For Hot Water Generators.
First use Aug. 7, 1957.

SN 36,908. Fred Meyer of California, Inc., San Francisco, Calif. Filed Sept. 9, 1957.

MEYERSCREEN

For Fireplace Screens.
First use in or about January 1952.

SN 37,022. Keramische Industrie Bedarfs Kom. Ges. Paul Gatzke, Berlin-Charlottenburg, Germany. Filed Sept. 11, 1957.

KERA

Owner of German Reg. No. 502,266, dated May 16, 1938.
For Industrial Furnaces, Ceramic and Metallurgical Kilns of All Kinds.

SN 37,207. American Air Filter Company, Inc., Louisville, Ky. Filed Sept. 16, 1957.

AUDIvent

For Large Capacity Forced Draft Heater-Ventilator Units.
First use Jan. 8, 1957.

SN 37,264. International Oil Burner Co., St. Louis, Mo. Filed Sept. 16, 1957.

TEMPORA

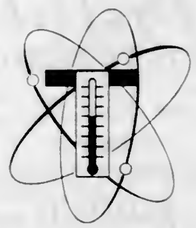
For Electrically Operated Air Conditioners and Heaters.
First use Mar. 20, 1957.

SN 37,291. Reznor Manufacturing Company, Mercer, Pa. Filed Sept. 16, 1957.

Flexi'Temp

For Gas Fired Unit and Space Heaters.
First use Jan. 31, 1957.

SN 37,303. Temptron, Inc., Columbus, Ohio. Filed Sept. 16, 1957.



For Furnaces.
First use Aug. 31, 1957.

SN 37,753. Wm. Steinen Mfg. Co., Newark, N. J. Filed Sept. 24, 1957.

S

Owner of Reg. Nos. 579,148, 645,968, and others.
For Draft Regulators.
First use January 1953.

SN 37,806. Palmer Manufacturing Corporation, Phoenix, Ariz. Filed Sept. 25, 1957.

CORONET

For Air Conditioning Units.
First use Dec. 7, 1956.

SN 37,807. Palmer Manufacturing Corporation, Phoenix, Ariz. Filed Sept. 25, 1957.

ROYAL DELUXE

For Air Conditioning Units.
First use Nov. 26, 1956.

SN 38,361. The Keeney Manufacturing Company, Newington, Conn. Filed Oct. 4, 1957.

Keeney Climatizer

The drawing is lined for the color red.
For Humidifiers.
First use Mar. 1, 1957.

Class 37—Paper and Stationery

SN 3,154. Charmin Paper Mills, Inc., Green Bay, Wis., to The Charmin Paper Products Company, Cincinnati, Ohio. Filed Feb. 23, 1956. Sec. 2(f).

STUBBY-FOLD

Owner of Reg. No. 526,434.
For Paper Napkins.
First use June 1938.

SN 10,215. Cory Corporation, Chicago, Ill. Filed June 14, 1956.

Ballet

For Ball Point Pens.
First use June 6, 1956.

SN 28,188. Portco Corporation, Portland, Oreg. Filed Apr. 16, 1957.

PORTCO

Owner of Reg. No. 425,527.
For Paper Bags and Paper Slip Over Covers.
First use July 20, 1949.

SN 30,417. The Esterbrook Pen Company, Camden, N. J. Filed May 21, 1957.

DESKMASTER

For Desk Pen Sets.
First use Apr. 18, 1957.

SN 35,376. Name-Maker, Inc., New York, N. Y. Filed Aug. 12, 1957.

MONTEREY

For Ball Point Pens.
First use July 1, 1957.

Class 38—Prints and Publications

SN 26,589. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed Mar. 21, 1957.

TEX-O-GRAM

For Internal House Bulletins.
First use Aug. 5, 1943.

SN 40,011. American School Publishing Corp., New York, N. Y. Filed Nov. 4, 1957.

EDUCATIONAL BUSINESS

For Monthly Periodical.
First use October 1957.

SN 40,193. Sutton Publishing Company, Inc., White Plains, N. Y. Filed Nov. 6, 1957. Sec. 2(f).

CONTRACTORS' ELECTRICAL EQUIPMENT

Owner of Reg. Nos. 398,455, 553,263, and others.
For Periodicals Published From Time to Time.
First use Dec. 9, 1948.

SN 40,220. Film Strip-of-the-Month Clubs, Inc., New York, N. Y. Filed Nov. 7, 1957.

FOM

For Strips of Film Bearing Separate Pictures for Still Projection.
First use Oct. 7, 1957.

SN 40,645. The Billboard Publishing Company, Cincinnati, Ohio. Filed Nov. 14, 1957.

AUDITION

For Periodical.
First use on or about Oct. 26, 1957.

SN 40,661. The Complete Shopper Inc., New York, N. Y. Filed Nov. 14, 1957.

THE COMPLETE SHOPPER

For Periodic Publication Devoted to Shopping Information for the Public.
First use Oct. 22, 1957.

Class 39—Clothing

SN 24,547. Munsingwear, Inc., d. b. a. Vassar Company, Minneapolis, Minn. Filed Feb. 15, 1957.

UNDERNEATH IT ALL...A Vassarette

Owner of Reg. No. 343,305.
For Ladies' Underwear, Bandeaux, Girdles, and Foundation Garments.
First use on or about Mar. 1, 1936.

SN 29,829. J. Schoeneman Incorporated, Baltimore, Md. Filed May 10, 1957.

CARAVAN

For Suits, Coats, Vests, and Trousers for Men.
First use Jan. 31, 1928.

SN 33,475. Gladstone-Arcuni, Inc., New York, N. Y. Filed July 10, 1957.

Donna Treat

For Ladies' Dresses.
First use May 16, 1957.

SN 33,834. Ply Clothing Co., Seattle, Wash. Filed July 16, 1957.

PADDY-PUFF

For Hand Muff for Women and Children.
First use Feb. 19, 1957.

SN 35,518. Lane Bryant, Inc., New York, N. Y. Filed Aug. 14, 1957.

debu-Talls

For Teenage Dresses, Coats, Suits, and Slips Proportioned for Taller Figures.
First use July 26, 1957.

SN 35,919. Delightform Foundations, Inc., New York, N. Y. Filed Aug. 21, 1957.

NET RESULT

For Girdles.
First use July 19, 1957.

SN 36,189. International Latex Corporation, Dover, Del. Filed Aug. 26, 1957.

MAGIC-CLING

For Brassieres.
First use Aug. 8, 1957.

SN 36,820. The Vanta Company, Inc., Brockton, Mass. Filed Sept. 6, 1957.

Vanta

Owner of Reg. Nos. 257,158 and 262,156.
For Children's and Infants' Knitted Hosiery, Socks, Shirts, Panties, Two-Piece Sleepers, Pajamas, Pants, Drooling Bibs, and Sun Suits, and Textile Diapers.
First use Aug. 20, 1957; 1911 as to "Vanta."

SN 38,610. Joseph W. Henschel, d. b. a. Henschel Manufacturing Company, St. Louis, Mo. Filed Oct. 9, 1957.

VAPO-COOL

For Men's and Boys' Hats and Caps.
First use Sept. 23, 1957.

SN 38,818. Good Luck Glove Company, Carbondale, Ill. Filed Oct. 14, 1957.

OIL PATCH

For Work Gloves.
First use Sept. 17, 1957.

SN 38,824. Hudson Hosiery Company, Charlotte, N. C. Filed Oct. 14, 1957.

FASHION STAR

For Ladies' Hosiery.
First use Sept. 27, 1957.

SN 38,906. Edmont Manufacturing Company, Coshocton, Ohio. Filed Oct. 15, 1957.

MITEY-MITS

For Children's Coated Gloves and Mittens.
First use on or about Sept. 25, 1957.

SN 38,933. Marion Donovan, Southport, Conn. Filed Oct. 15, 1957.

DREAM BOAT

For Diaper Coverings.
First use Oct. 7, 1949.

Class 40—Fancy Goods, Furnishings, and Notions

SN 34,418. General Plastics Corporation, Paterson, N. J. Filed July 26, 1957.

IDENTATAPE

For Identification Tape.
First use June 10, 1957.

SN 37,446. Sidney Meyer, d. b. a. F. Wolkow & Sons, Louisville, Ky. Filed Sept. 18, 1957.

PERMA-TITE

For Hair Straightening Combs.
First use Sept. 10, 1957.

SN 38,472. Hester Lancaster, New York, N. Y. Filed Oct. 7, 1957.

LANCASTER

For Slide Pulling Hook String for Slide Fasteners.
First use Mar. 26, 1957.

SN 38,646. Sunbeam Corporation, Chicago, Ill. Filed Oct. 9, 1957.

SUNBEAM

For Combs.
First use Aug. 7, 1957.

Class 41 — Canes, Parasols, and Umbrellas

SN 27,351. Shedrain Umbrella Company, Portland, Oreg. Filed Apr. 1, 1957.



The words "Shed Rain" are disclaimed apart from the mark.
For Umbrellas.
First use Mar. 1, 1956.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 23,245. Pepperell Manufacturing Company, Boston, Mass. Filed Jan. 25, 1957.

RHAPSODY

For Blankets.
First use Nov. 23, 1956.

SN 24,558. Beaunit Mills, Inc., New York, N. Y. Filed Feb. 18, 1957.



Owner of Reg. No. 597,665.
For Woven Fabrics—Namely, Nylon Georgette.
First use on or about Nov. 18, 1956.

SN 24,861. Mohasco Industries, Inc., Amsterdam, N. Y. Filed Feb. 21, 1957.

MEDALIST

For Textile Rugs and Carpets.
First use Dec. 18, 1956.

SN 32,959. The Jaunty Fabric Corporation, New York, N. Y. Filed July 1, 1957.

BANTAM BROADCLOTH

Without waiving its common law rights and for purposes of registration only, applicant makes no claim to the word "Broadcloth" apart from the mark as shown.
For Woven Fabric Made of Cotton, Nylon, and Other Synthetic Fibers and Combinations Thereof.
First use Nov. 30, 1956.

SN 38,490. Sadwin Curtain Mfg. Co., Inc., Woonsocket, R. I. Filed Oct. 7, 1957.



For Curtains.
First use January 1940.

SN 38,553. Mission Valley Mills, Inc., New Braunfels, Tex. Filed Oct. 8, 1957.

BUENO

For Cotton and Synthetic Piece Goods.
First use June 1, 1957.

SN 38,554. Mission Valley Mills, Inc., New Braunfels, Tex. Filed Oct. 8, 1957.

PUEBLO

For Cotton and Synthetic Piece Goods.
First use June 1, 1957.

SN 38,597. Deering, Milliken & Co. Inc., New York, N. Y. Filed Oct. 9, 1957.

GAYLANA

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about July 1, 1954.

SN 38,598. Deering, Milliken & Co. Inc., New York, N. Y. Filed Oct. 9, 1957.

HEYDAY

For Textile Fabrics Made of Wool, Cotton, and Synthetic Fibers and Combinations Thereof.
First use on or about Nov. 1, 1956.

Class 44 — Dental, Medical, and Surgical Appliances

SN 37,924. Louis Yellin, Inc., Philadelphia, Pa. Filed Sept. 26, 1957.

TRACTO-HALTER

For Head Harness for Application of Cervical Traction.
First use Jan. 26, 1957.

SN 38,130. Coralite Dental Products, Chicago, Ill. Filed Oct. 1, 1957.

CORA-LINE

Owner of Reg. Nos. 405,905, 429,762, and others.
For Dental Materials Used To Rebase, Line, Reline, or Correct Full and Partial Artificial Dentures.
First use Aug. 26, 1957.

SN 38,155. National Sanitary Sales, Inc., Chicago, Ill. Filed Oct. 1, 1957.

Strikes

For Rubber Prophylactics Sold for the Prevention of Diseases Only.
First use Aug. 1, 1957.

SN 38,235. Nunziato Schepis, Cambridge, Mass. Filed Oct. 2, 1957.

Cuti-Curl

For Permanent Hair Waving Kits, Containing Curling Units Having Disposed Therein Exothermic Heating Pads, Scalp-Protecting Members, and Pad-Covering Wrappers.
First use Aug. 12, 1957.

SN 38,248. Whaledent, Inc., Brooklyn, N. Y. Filed Oct. 2, 1957.

TACH-E-Z

For Attachments for Partial Dentures.
First use Aug. 12, 1957.

Class 46 — Foods and Ingredients of Foods

SN 12,707. Cheezdog Corporation of America, Little Rock, Ark. Filed July 24, 1956.

CHEEZDOG

For Frankfurters With a Cheese Center.
First use June 20, 1955.

SN 13,738. Davis Canning Company, Atwater, Calif. Filed Aug. 10, 1956.

SIVAD

For Canned Fruits and Canned Vegetables.
First use in December 1954.

SN 14,686. Operators' Warehouse, Inc., Shreveport, La. Filed Aug. 27, 1956.

Sno-Club

For Mellorine.
First use July 9, 1956.

SN 14,928. Woodard Foods, Inc., St. Louis Park, Minn. Filed Aug. 30, 1956.

CHESSY

For Cut Food.
First use May 2, 1956.

SN 16,914. Henry Thayer Co., Cambridge, Mass. Filed Oct. 3, 1956.

TEMPO

Owner of Reg. No. 595,263.
For Bouillon in Powdered Form, Instant Meatless Gravy Mix, and Meat Loaf Mix Consisting Principally of Dried Bread Crumbs and Vegetables.
First use Apr. 11, 1952.

SN 17,757. Rockwood & Co., Brooklyn, N. Y., to Rockwood Chocolate Co., Inc., Brooklyn, N. Y. Filed Oct. 18, 1956. Sec. 2(f).

ROCKWOOD

Owner of Reg. Nos. 423,104 and 567,608.
For Chocolate Candy.
First use 1910.

SN 23,337. National Tea Co., Chicago, Ill. Filed Jan. 28, 1957.

Top Taste

Owner of Reg. Nos. 444,626 and 652,143.
For Fresh and Frozen Wieners and Beef Patties, and Smoked Meats Including Pork Shoulder and Bacon.
First use May 12, 1956, on wieners.

SN 24,464. Universal Mills, Fort Worth, Tex. Filed Feb. 14, 1957.



Owner of Reg. No. 618,744.
For Poultry and Fowl, Frozen and Fresh Dressed, and Fresh Eggs.
First use Nov. 9, 1954.

SN 26,552. Jeld's Caramel Corn, Longmont, Colo. Filed Mar. 20, 1957.

JELD'S

For Caramel Pop Corn Confection.
First use Apr. 1, 1955.

SN 27,354. Suzanne Vee, Inc., Denver, Colo. Filed Apr. 1, 1957.

Suzanne Vée

For Salad Dressing.
First use Apr. 18, 1956.

SN 30,559. H. F. Botsford & Company, Carnegie, Pa. Filed May 23, 1957. Sec. 2(f).

TWEED'S

For Honey, Horse Radish, Mustard, Oil for Salads, Mayonnaise, Table Syrup, Vinegar.
First use in 1900.

SN 32,044. George E. Balash, d. b. a. Montello Products Co., San Jose, Calif. Filed June 17, 1957.

TREAT OF THE WEST

For Berry Syrups for Food Purposes.
First use May 2, 1957.

SN 32,722. Airmen's Enterprises Inc., d. b. a. Coronet Tea Room, New Rochelle, N. Y. Filed June 27, 1957.

CORONET

For Salad Dressing.
First use Nov. 15, 1955.

SN 33,633. Northam Trading Co., Inc., New York, N. Y. Filed July 12, 1957.

STAR MAID

For Canned Bonito.
First use July 5, 1957.

SN 35,328. Ciruli Brothers, Pueblo, Colo. Filed Aug. 12, 1957.

CRISP PAK

Owner of Reg. No. 365,740.
For Fresh and Frozen Vegetables.
First use Oct. 21, 1937.

SN 35,787. General Mills, Inc., Minneapolis, Minn. Filed Aug. 19, 1957.

HI-PRO

For Breakfast Cereal.
First use Aug. 6, 1957.

SN 36,168. Dubuque Packing Company, Dubuque, Iowa. Filed Aug. 26, 1957.

BAR-D BRAND

No claim is made to the word "Brand."
For Bacon.
First use May 1, 1957.

SN 36,547. Albert Valdora, d. b. a. Valdora Produce Co., Riverside, Calif. Filed Aug. 30, 1957.

MR. TANGERINE

Applicant disclaims the word "Tangerine" apart from the mark.
For Fresh Tangerines.
First use Aug. 22, 1957.

SN 36,891. Jacobs, Malcolm & Burtt, San Francisco, Calif. Filed Sept. 9, 1957.

SEA SIREN

For Canned Abalone.
First use Aug. 22, 1957.

SN 37,173. Meyer M. Levin, d. b. a. Carolina Peach Distributors, Campobello, S. C. Filed Sept. 13, 1957.

CRIPPIN' HONEY

Owner of Reg. No. 532,226.
For Fresh Peaches.
First use on or about June 15, 1952.

SN 37,486. Eastern States Farmers' Exchange, Incorporated, West Springfield, Mass. Filed Sept. 19, 1957.

MEDICATED-LACTO-LIFE

For Medicated Feeds, Containing 6% Mix of Calcium Lactate and Sodium Lactate for Dairy Cows.
First use Sept. 9, 1957.

SN 38,147. Hawthorn-Mellody Farms Dairy, Inc., also d. b. a. Hawthorn-Mellody, Chicago, Ill. Filed Oct. 1, 1957.

PRIVATE RECIPE

For Ice Cream.
First use Aug. 1, 1957.

SN 39,753. Slayman Fruit Company, Lindsay, Calif. Filed Oct. 29, 1957.

MR. POMEGRANATE

Applicant disclaims the word "Pomegranate" apart from the mark as shown.
For Fresh Pomegranates.
First use Sept. 24, 1957.

SN 40,184. National Licorice Company, Brooklyn, N. Y. Filed Nov. 6, 1957.

FLEXO-BARS

Owner of Reg. No. 274,352.
For Candy.
First use about 1936; about 1904 as to "Flexo."

SN 40,185. National Licorice Company, Brooklyn, N. Y. Filed Nov. 6, 1957.

Y&S

Owner of Reg. Nos. 88,935, 536,832, and others.
For Candy.
First use at least as early as 1912; 1870 as to letters "Y & S."

SN 40,592. National Licorice Company, Brooklyn, N. Y. Filed Nov. 13, 1957.

HYDIT

Owner of Reg. No. 324,918.
For Candy.
First use Jan. 7, 1935.

SN 40,740. T. W. Burleson & Son, d. b. a. Waxahachie Honey Company, Waxahachie, Tex. Filed Nov. 15, 1957.

WAXAHACHIE CHIEF

For Honey.
First use Sept. 9, 1957.

SN 40,874. Patterson & Hale, Bakersfield, Calif. Filed Nov. 18, 1957.

STAND PAT

For Fresh Fruits.
First use Aug. 6, 1957.

SN 40,937. Gem Canning Co., Emmett, Idaho. Filed Nov. 19, 1957.

ADAM

For Canned Apple Sauce.
First use Oct. 28, 1957.

SN 41,077. H. C. Christians Co., Chicago, Ill. Filed Nov. 21, 1957.

PACE

For Oleomargarine.
First use Oct. 24, 1957.

SN 41,172. Garwood L. Johns, d. b. a. Garwood L. Johns Co., Glendale, Ariz. Filed Nov. 22, 1957.

GARWOOD

For Fresh Vegetables and Melons.
First use in 1937.

SN 41,633. The Grand Union Company, East Paterson, N. J. Filed Dec. 2, 1957.

KITCHEN GARDEN

Owner of Reg. Nos. 424,442 and 620,973.
For Frozen Waffles and Butter.
First use on or about Aug. 16, 1957, on frozen waffles.

Class 47 — Wines

SN 37,442. Martini & Rossi S. p. A., Turin, Italy. Filed Sept. 18, 1957.

GREEN BALL

Owner of Italian Reg. No. 132,070, dated Apr. 12, 1957.
For Vermouth.

SN 37,479. Browne-Vintners Co., Inc., New York, N. Y. Filed Sept. 19, 1957.

BON SANTÉ

For Wine.
First use July 25, 1957.

SN 37,480. Browne-Vintners Co., Inc., New York, N. Y. Filed Sept. 19, 1957.

SANTÉ

For Wine.
First use July 25, 1957.

SN 39,332. Kneipp-Mittel-Zentrale Hermann Oberhaeusser, d. b. a. Kneipp-Heilmittel-Werk, Wurzburg, Germany.



Filed Oct. 22, 1957.
Owner of German Reg. No. 615,808, dated Jan. 22, 1952.
For Wines.

Class 49 — Distilled Alcoholic Liquors

SN 36,786. Conrad, Incorporated, St. Louis, Mo. Filed Sept. 6, 1957.

FALL SPRINGS

For Bourbon Whiskey.
First use in July 1953.

SN 38,207. Glenmore Distilleries Company, Louisville, Ky. Filed Oct. 2, 1957.



The drawing is lined for red and gold. Owner of Reg. Nos. 502,859, 310,855, and others.
For Vodka.
First use Aug. 19, 1957.

SN 39,333. Kneipp-Mittel-Zentrale Hermann Oberhaeusser, d. b. a. Kneipp-Heilmittel-Werk, Wurzburg, Germany. Filed Oct. 22, 1957.



Owner of German Reg. No. 615,808, dated Jan. 22, 1952.
For Liqueurs.

Class 50—Merchandise Not Otherwise Classified

SN 38,127. Marshall Budd, Jackson Heights, N. Y. Filed Oct. 1, 1957.

ROAD-BUOY

For Emergency Highway Flags.
First use Sept. 6, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 35,485. Seena Feldman, d. b. a. Lorna-Jean Perfumes Company and also as Lorna-Jean, Jackson Heights, N. Y.

Coy

Filed Aug. 12, 1957.
For Perfume.
First use Oct. 4, 1956.

Class 52—Detergents and Soaps

SN 18,161. Harper Method, Incorporated, Rochester, N. Y. Filed Oct. 25, 1956.

HARPERTINT

Owner of Reg. Nos. 550,950 and 622,818.
For Oil Shampoo Tint.
First use Feb. 2, 1948.

SN 28,542. I. Posner, Inc., New York, N. Y. Filed Apr. 19, 1957.

POSNER'S 111 ONE-ELEVEN

Owner of Reg. Nos. 354,985 and 607,155.
For Dandruff Treatment Shampoo.
First use Feb. 19, 1957.

SN 36,680. Utility Chemical Company, Paterson, N. J. Filed Sept. 4, 1957.

UTIKLEEN

For Sanitation and All-Purpose Cleaners for Substantially All Type Surfaces.
First use Aug. 26, 1952.

SN 36,955. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company, Columbia, S. C. Filed Sept. 10, 1957.

STA-COL

For Hair Shampoo.
First use in June 1945.

SN 37,027. Les Parfums de Dana, Inc., New York, N. Y. Filed Sept. 11, 1957.

DIVIDEND

For Soap.
First use Aug. 21, 1957.

SN 37,658. F. W. Hoffman & Company, Inc., Philadelphia, Pa. Filed Sept. 23, 1957.

WA-SO

For Cleaning Compound for Use in Renovating and Maintaining Every Surface and Finish for Floors, Walls, and Woodworks of Buildings.
First use 1945.

SN 39,116. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Oct. 17, 1957.

ROTAX

For Cleaning, Cleansing, and Detergent Compound.
First use Feb. 28, 1957.

SERVICE MARKS

Class 103—Construction and Repair

SN 689,247. Structo Schools Corporation, Boston, Mass. Filed June 9, 1955.

STRUCTO SCHOOLS

The lining represents actual lines appearing in the mark. No exclusive claim is made to the word "Schools" excepting in the combination as shown.
For Rendering of Services in Connection With the Designing, Building, Equipping, and Financing of School Buildings.
First use Apr. 5, 1955.

Class 107—Education and Entertainment

SN 42,461. Jack Farley, Wichita Falls, Tex. Filed Dec. 16, 1957.

PET PARADE

For Title of Entertainment Service Rendered Through the Medium of a Television Broadcast Children's Program.
First use May 31, 1957.

SN 42,717. Peoples Broadcasting Corporation, Columbus, Ohio. Filed Dec. 19, 1957.

PM

For Title of a Radio Program, Comprised Principally of Popular Music.
First use July 15, 1957.

SN 43,375. Claster Enterprises, Inc., Baltimore, Md. Filed Jan. 3, 1958.

STRIKES 'N SPARES

For Title of a Television Competitive Bowling Show.
First use Dec. 9, 1957.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 27,540. Sigma Sigma Sigma, Inc., Denison, Tex. Filed Apr. 4, 1957.



The Greek words mean "Faithful Unto Death." The drawing is lined for the colors purple and gold.
For Indicating Membership in a National Collegiate Fraternal Organization.
First use 1902.

SN 36,236. Self-Realization Fellowship Church, Inc., Los Angeles, Calif. Filed Aug. 26, 1957.



For Indicating Membership in the Self-Realization Fellowship Church, Inc.
First use Mar. 29, 1935.

SN 36,237. Self-Realization Fellowship Church, Inc., Los Angeles, Calif. Filed Aug. 26, 1957.



For Indicating Membership in the Self-Realization Fellowship Church, Inc.
First use Aug. 6, 1957.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

661,483. MATCH LITE. Anderson, Clayton & Co. SN 16,513. Pub. 2-25-58. Filed 9-27-56.

661,484. VISCOL. Snia Viscosa Societa Nazionale Industria Applicazioni Viscosa. SN 20,969. Pub. 2-25-58. Filed 12-12-56.

661,485. MULTRATHANE. Mobay Chemical Company. SN 21,384. Pub. 2-25-58. Filed 12-20-56.

661,486. F. C. AND DESIGN. Fulton-Cole Seed Co. SN 23,696. Pub. 2-25-58. Filed 2-4-57.

661,487. PLIOFOAM. The Goodyear Tire & Rubber Company. SN 28,347. Pub. 2-25-58. Filed 4-17-57.

661,488. FILM-GARD. Extruders, Inc. SN 29,148. Pub. 2-25-58. Filed 4-30-57.

661,489. RESPAD. The Stearns & Foster Company. SN 29,563. Pub. 2-25-58. Filed 5-7-57.

661,490. CHARBO. The Hill & Griffith Company. SN 30,430. Pub. 2-25-58. Filed 5-21-57.

661,491. CHROMOSORB. Johns-Manville Corporation. SN 32,604. Pub. 2-25-58. Filed 6-25-57.

661,492. TROPHY. Raymond D. Payne, d. b. a. Lone Star Rose Nursery. SN 33,740. Pub. 2-25-58. Filed 7-15-57.

661,493. PATIO. The Lawn Seed Corporation. SN 35,360. Pub. 2-25-58. Filed 8-12-57.

661,494. SHOW PLACE. The Lawn Seed Corporation. SN 35,362. Pub. 2-25-58. Filed 8-12-57.

Class 2 — Receptacles

661,495. RANCH-O-WOOD AND DESIGN. Fern Hawaii Company, Inc. SN 11,356. Pub. 2-25-58. Filed 7-2-56.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

661,496. BERT BACHARACH MALE BAGS AND DESIGN. Atlantic Products Corp. SN 16,657. Pub. 2-25-58. Filed 10-1-56.

661,497. MALE BAGS. Atlantic Products Corp. SN 16,658. Pub. 2-25-58. Filed 10-1-56.

661,498. MARLEN 5TH AVENUE AND DESIGN. Philip Mitchell & Sons, Inc. SN 36,208. Pub. 2-25-58. Filed 8-26-57.

Class 4 — Abrasives and Polishing Materials

661,499. KRETE-KUT. Bay State Abrasive Products Company. SN 25,587. Pub. 2-25-58. Filed 3-6-57.

Class 5 — Adhesives

661,500. BULBET. Household Aids, Inc. SN 23,793. Pub. 2-25-58. Filed 2-5-57.

661,501. CYZAC. American Cyanamid Company. SN [illegible]15. Pub. 2-25-58. Filed 5-17-57.

661,502 ULTRABOND. S & F Chemical Co., Inc. SN 31,688 Pub. 2-25-58. Filed 6-10-57.

661,503. SINTOLIT. Frank Mottola. SN 32,618. Pub. 2-25-58. Filed 6-25-57.

Class 6 — Chemicals and Chemical Compositions

661,504. APEX. British Fire Extinguishers Ltd. SN 10,512. Pub. 2-25-58. Filed 6-19-56.

661,505. FLEETWOOD AND DESIGN. Fleetwood Chemical Co., Inc. SN 15,273. Pub. 2-25-58. Filed 9-7-56.

661,506. SPACE. Shulton, Inc. SN 20,060. Pub. 2-25-58. Filed 11-28-56.

661,507. SESOXANE. Shulton, Inc. SN 24,288. Pub. 2-25-58. Filed 2-12-57.

661,508. HOSTAMINE. Hoechst Chemical Corporation. SN 24,970. Pub. 2-25-58. Filed 2-25-57.

661,509. GORDONS AND DESIGN. Gordon Chemical Co., Inc. SN 26,265. Pub. 2-25-58. Filed 3-15-57.

661,510. CELA AND DESIGN. Cela Landwirtschaftliche Chemikalien G. m. b. H. SN 26,443. Pub. 12-24-57. Filed 3-19-57.

661,511. CYANALUBE. American Cyanamid Company. SN 27,922. Pub. 2-25-58. Filed 4-11-57.

661,512. ROSE LEAF. Diamond Black Leaf Company, to Diamond Alkali Company. SN 29,046. Pub. 2-25-58. Filed 4-29-57.

661,513. ZORON. E. I. du Pont de Nemours and Company. SN 30,075. Pub. 10-22-57. Filed 5-15-57.

661,514. FLOFORM. Commercial Solvents Corporation. SN 30,229. Pub. 2-25-58. Filed 5-17-57.

661,515. SIPONATE. American Alcolac Corporation. SN 30,466. Pub. 2-25-58. Filed 5-22-57.

661,516. HYDROZIN. Jacques Wolf & Co. SN 32,028. Pub. 2-25-58. Filed 6-14-57.

661,517. PENETRO-WET. S. G. Stevens. SN 33,380. Pub. 2-25-58. Filed 7-8-57.

661,518. KYLOTHIN. Minnesota Mining and Manufacturing Company. SN 33,489. Pub. 2-25-58. Filed 7-10-57.

661,519. FABRITONE. C. H. Patrick & Co., Inc. SN 34,320. Pub. 2-25-58. Filed 7-24-57.

661,520. PERMACOTE. Brockway Glass Company, Inc. SN 34,909. Pub. 2-25-58. Filed 8-5-57.

661,521. PARADENE. Neville Chemical Company. SN 34,980. Pub. 2-25-58. Filed 8-5-57.

Class 8 — Smokers' Articles, Not Including Tobacco Products

661,522. DUR O LITER. Dur-O-Lite Pencil Company, d. b. a. Dur-O-Lite Company. SN 674,329. Pub. 2-25-58. Filed 10-5-54.

661,523. MINILITE. Shore Manufacturing Corporation. SN 23,858. Pub. 2-25-58. Filed 2-5-57.

Class 10 — Fertilizers

661,524. NORTHWEST. Northwest Nitro-Chemicals Ltd. SN 20,207. Pub. 2-25-58. Filed 11-30-56.

661,525. NITRO-CUBES. Northwest Nitro-Chemicals Ltd. SN 20,208. Pub. 2-25-58. Filed 11-30-56.

Class 11 — Inks and Inking Materials

661,526. CILCO AND DESIGN. Commercial Ink & Lacquer Co. Inc. SN 22,796. Pub. 2-25-58. Filed 1-18-57.

Class 12 — Construction Materials

661,527. BOLTA FLOOR AND DESIGN. The General Tire & Rubber Company. SN 8,070. Pub. 2-25-58. Filed 5-10-56.

661,528. NYFON. Driscoll Incorporated. SN 16,106. Pub. 2-25-58. Filed 9-21-56.

661,529. INSTANT-PAVE. The Sicilian Asphalt Paving Company. SN 20,309. Pub. 2-25-58. Filed 12-3-56.

661,530. WARREN BLUE. Warren Brothers Company. SN 21,233. Pub. 2-25-58. Filed 12-17-56.

661,531. CHANNELOX. Kilby Steel Company. SN 22,439. Pub. 2-25-58. Filed 1-11-57.

661,532. SITUFLEX. Revertex Limited. SN 22,575. Pub. 2-25-58. Filed 1-14-57.

661,533. TERRA-BLOCKS. Terra-Block, Inc. SN 22,987. Pub. 2-25-58. Filed 1-22-57.

661,534. CADENCE. Roddis Plywood Corporation. SN 23,640. Pub. 2-25-58. Filed 2-1-57.

661,535. R-T. Johns-Manville Corporation. SN 23,994. Pub. 2-25-58. Filed 2-7-57.

661,536. RANDOM-ROCK. Nitterhouse Concrete Products. SN 25,631. Pub. 2-25-58. Filed 3-6-57.

661,537. QUIET-DUCT. Industrial Acoustics Company, Inc. SN 26,945. Pub. 2-25-58. Filed 3-26-57.

661,538. 90-RAM. The S. Obermayer Company, d. b. a. The Ramtite Company. SN 28,181. Pub. 2-25-58. Filed 4-15-57.

661,539. GRAND HANDY HOUSE AND DESIGN. Grand Sheet Metal Products Company. SN 29,064. Pub. 2-25-58. Filed 4-29-57.

661,540. RAMBLER GRAND AND DESIGN. Grand Sheet Metal Products Company. SN 29,065. Pub. 2-25-58. Filed 4-29-57.

661,541. GRAND ELDORADO ETC. AND DESIGN. Grand Sheet Metal Products Company. SN 29,066. Pub. 2-25-58. Filed 4-29-57.

661,542. HAN-D-POST. Sawhill Tubular Products, Inc. SN 29,393. Pub. 2-25-58. Filed 5-3-57.

661,543. OXIMIX. Harbison-Walker Refractories Company. SN 31,008. Pub. 2-25-58. Filed 5-29-57.

661,544. CATHEDRAL TROPIGLAS. Russell Reinforced Plastics Corporation. SN 35,001. Pub. 2-25-58. Filed 8-5-57.

661,545. PRONTO! Permanente Cement Company. SN 35,675. Pub. 2-25-58. Filed 8-16-57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

661,546. X-WELD. American Chain & Cable Company, Inc. SN 5,012. Pub. 2-25-58. Filed 3-22-56.

661,547. QUALITY ALUMINUM NUTS AND DESIGN. Aluminum Nut Corporation. SN 15,512. Pub. 10-1-57. Filed 9-12-56.

661,548. TIGER. United States Steel Corporation. SN 30,208. Pub. 2-25-58. Filed 5-16-57.

Class 14 — Metals and Metal Castings and Forgings

661,549. "135." The International Nickel Company, Inc. SN 692,473. Pub. 2-25-58. Filed 8-4-55.

Class 15 — Oils and Greases

661,550. PARAGON. Victrylite Candle Company. SN 31,524. Pub. 2-25-58. Filed 6-6-57.

661,551. MP AND DESIGN. Imperial Distributors. SN 32,494. Pub. 2-25-58. Filed 6-24-57.

661,552. TYTON JOINT. United States Pipe and Foundry Company. SN 32,708. Pub. 2-25-58. Filed 6-26-57.

661,553. KREMOL. Continental Oil Company. SN 33,127. Pub. 2-25-58. Filed 7-3-57.

661,554. SHEROLATUM. Continental Oil Company. SN 33,128. Pub. 2-25-58. Filed 7-3-57.

661,555. SHEROSOL. Continental Oil Company. SN 33,134. Pub. 2-25-58. Filed 7-3-57.

661,556. INDIGO. Magie Bros. Oil Co. SN 33,254. Pub. 2-25-58. Filed 7-5-57.

Class 16 — Protective and Decorative Coatings

661,557. STAY COOL. Cool Roof of America, Inc. SN 8,633. Pub. 4-23-57. Filed 5-21-56.

661,558. SILEXORE ETC. AND DESIGN. Société Anonyme dite: Etablissements L. Van Malderen. SN 10,033. Pub. 2-25-58. Filed 6-11-56.

661,559. EZY. Steel Corner Tape Corp. SN 25,726. Pub. 2-25-58. Filed 3-7-57.

661,560. DURER. Nobema Products Corporation. SN 29,743. Pub. 2-25-58. Filed 5-9-57.

661,561. WEBSEAL. William T. Deacon, d. b. a. Solvents and Plastics Company. SN 35,089. Pub. 2-25-58. Filed 8-7-57.

661,562. WALLCO. Wallco Kjemisk Industri A/S. SN 37,830. Pub. 2-25-58. Filed 9-25-57.

Class 18 — Medicines and Pharmaceutical Preparations

661,563. ALL AMERICAN. Anthony Ted Spano, d. b. a. All American Food Supplement Co. SN 18,197. Pub. 2-25-58. Filed 10-25-56.

661,564. HARCO MEDICATED RUMENTRATE AND DESIGN. Harper Feed Mills, Incorporated. SN 23,317. Pub. 2-25-58. Filed 1-28-57.

661,565. PLASMABEL. Roger Bellon. SN 24,414. Pub. 2-25-58. Filed 2-14-57.

661,566. ANTIPHLOGISTINE "HEATPAK." The Denver Chemical Manufacturing Company. SN 25,165. Pub. 11-26-57. Filed 2-27-57.

661,567. SUN-GAL. D. Richard Ricotta, d. b. a. Sun-Gal Herb Tea Co. SN 25,466. Pub. 2-25-58. Filed 3-4-57.

661,568. AEROCAPS. Armour and Company. SN 29,256. Pub. 2-25-58. Filed 5-2-57.

661,569. ALKAFEN. Garner Drug Corporation. SN 29,961. Pub. 2-25-58. Filed 4-4-57.

661,570. PREDASMAL. Organon Inc. SN 30,818. Pub. 2-25-58. Filed 5-27-57.

661,571. TPC AND DESIGN. Texas Pharmacal Company. SN 32,147. Pub. 2-25-58. Filed 6-17-57.

661,572. VITAGERAL. C. H. Boehringer Sohn. SN 32,462. Pub. 2-25-58. Filed 6-24-57.

661,573. BOUNCE. Carson J. Morris. SN 32,972. Pub. 2-25-58. Filed 7-1-57.

661,574. ZYMABASIC. The Upjohn Company. SN 34,192. Pub. 2-25-58. Filed 7-22-57.

661,575. METI. Schering Corporation. SN 34,463. Pub. 2-25-58. Filed 7-26-57.

661,576. ALBAPLEX. The Upjohn Company. SN 35,140. Pub. 2-11-58. Filed 8-7-57.

661,577. AQUATEF. The Upjohn Company. SN 35,141. Pub. 2-25-58. Filed 8-7-57.

661,578. RAY-BURN. Cosmos Drugs, Inc. SN 35,244. Pub. 2-25-58. Filed 8-9-57.

661,579. TETRASTATIN. Chas. Pfizer & Co., Inc. SN 35,285. Pub. 2-25-58. Filed 8-9-57.

661,580. SIGNESTATIN. Chas. Pfizer & Co., Inc. SN 35,286. Pub. 2-25-58. Filed 8-9-57.

661,581. TERRASTATIN. Chas. Pfizer & Co., Inc. SN 35,287. Pub. 2-25-58. Filed 8-9-57.

661,582. TRICORTAN. Jensen-Salsbery Laboratories Inc. SN 35,434. Pub. 2-25-58. Filed 8-13-57.

661,583. ANGINAX. Chas. Pfizer & Co., Inc. SN 35,450. Pub. 2-25-58. Filed 8-13-57.

Class 19—Vehicles

661,584. NAPCO ETC. AND DESIGN. Napco Industries, Inc. SN 6,456. Pub. 2-25-58. Filed 4-16-56.

661,585. TONEE. Western Rubber Products Company, Inc. SN 7,892. Pub. 2-25-58. Filed 9-12-57.

661,586. AEROPRODUCTS TURBO PROPELLER AND DESIGN. General Motors Corporation. SN 13,440. Pub. 2-25-58. Filed 8-6-56.

661,587. SEA-LAN. Clay Robison, d. b. a. Robison Impl. Co. SN 22,576. Pub. 2-25-58. Filed 1-14-57.

661,588. DRAG STRIPS. Forward-Henes Company. SN 26,262. Pub. 2-25-58. Filed 3-15-57.

661,589. YEOMAN. General Motors Corporation. SN 32,750. Pub. 2-25-58. Filed 6-27-57.

661,590. HERO. Markt & Hammacher Company. SN 33,164. Pub. 2-25-58. Filed 7-3-57.

Class 21—Electrical Apparatus, Machines, and Supplies

661,591. DUWEL. Electro Engineering Products Co., Inc. SN 14,806. Pub. 1-29-57. Filed 8-29-56.

661,592. MRP AND DESIGN. Mosler Research Products, Inc. SN 22,207. Pub. 2-25-58. Filed 1-7-57.

661,593. WHIRL A DOG. Helmco, Inc. SN 22,314. Pub. 2-25-58. Filed 1-9-57.

661,594. PUSH BUTTON. The Electric Storage Battery Company. SN 23,389. Pub. 2-25-58. Filed 1-29-57.

661,595. GUIDE-O-MATIC. Barrett Electronics Corporation. SN 24,673. Pub. 2-25-58. Filed 2-19-57.

661,596. E C P AND DESIGN. ECP Corporation. SN 31,479. Pub. 2-25-58. Filed 6-6-57.

661,597. COM-PAK. Lambda Electronics Corporation. SN 31,493. Pub. 2-25-58. Filed 6-6-57.

661,598. GLUCK. S. Gluck & Co., Inc. SN 32,815. Pub. 2-25-58. Filed 6-28-57.

661,599. GENERAL SCIENTIFIC. San Fernando Electric Manufacturing Co. SN 32,993. Pub. 2-25-58. Filed 7-1-57.

661,600. TMI. Thermo Materials, Inc. SN 33,005. Pub. 2-25-58. Filed 7-1-57.

661,601. ANOCAP. Dorothy Mielke. SN 33,268. Pub. 2-25-58. Filed 7-5-57.

661,602. PLESSEY. The Plessey Company Limited. SN 33,370. Pub. 2-25-58. Filed 7-8-57.

661,603. GRADECK. W. H. Sanders (Electronics) Limited. SN 33,574. Pub. 2-25-58. Filed 7-11-57.

Class 22—Games, Toys, and Sporting Goods

661,604. EXPANDO ACCORDION POOL. The Holiday Line Inc. SN 682,149. Pub. 2-25-58. Filed 2-23-55.

661,605. PLAYMASTER COACHING AIDS. The Program Aids Company, Inc. SN 94. Pub. 2-25-58. Filed 1-3-56.

661,606. PHOENIX HARBURG AND DESIGN. Phoenix Gummiwerke Aktiengesellschaft. SN 15,818. Pub. 2-25-58. Filed 9-17-56.

661,607. WH FLEETWOOD AND DESIGN. Wilson Sporting Goods Co. SN 27,762. Pub. 2-25-58. Filed 4-8-57.

661,608. WIGGLE JIG. Phillips Fly & Tackle Company. SN 27,885. Pub. 2-25-58. Filed 4-10-57.

661,609. DON FUTURE ROCKETEER AND DESIGN. Hyman Walter Shafer, d. b. a. H. W. Shafer Game Co. SN 28,289. Pub. 2-25-58. Filed 4-16-57.

661,610. MAGNUM. Pacific Laminates, Incorporated. SN 28,879. Pub. 2-25-58. Filed 4-25-57.

661,611. CHINCHO. H. J. Clay. SN 30,405. Pub. 2-25-58. Filed 5-21-57.

661,612. TEXAS BRONC. Southern Toy Manufacturing Company. SN 33,919. Pub. 2-25-58. Filed 7-17-57.

661,613. GEP-ROD. M-B Corporation. SN 34,294. Pub. 2-25-58. Filed 7-24-57.

661,614. EDCO. Engineering Development Corporation. SN 34,347. Pub. 2-25-58. Filed 7-25-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

661,615. VACU-FLO. D. W. Onan & Sons Inc. SN 1,714. Pub. 2-25-58. Filed 1-30-56.

661,616. CROWN AND DESIGN. Wisconsin Knife Works. SN 12,998. Pub. 3-5-57. Filed 7-27-56.

661,617. LAYCO. L. A. Young Spring & Wire Corporation, also d. b. a. Daybrook Hydraulic Div. SN 25,238. Pub. 2-25-58. Filed 2-28-57.

661,618. EVERSHARP. Eversharp Food Slicing Machine Company. SN 26,454. Pub. 2-25-58. Filed 3-19-57.

661,619. SUPREME UTK. Utica Cutlery Company. SN 26,900. Pub. 2-25-58. Filed 3-25-57.

661,620. CRAWL-IR ETC. AND DESIGN. Ingersoll-Rand Company. SN 27,315. Pub. 2-25-58. Filed 4-1-57.

661,621. A-KAY. Akim Engineering Company, Incorporated, d. b. a. The Akim Co. SN 27,411. Pub. 2-25-58. Filed 4-29-57.

661,622. MACKINTOSH-HEMPHILL. E. W. Bliss Company. SN 27,565. Pub. 2-25-58. Filed 4-5-57.

661,623. MWM DIESEL. Motoren-Werke Mannheim A. G. vorm. Benz Abt. Stat. Motorenbau. SN 31,413. Pub. 2-25-58. Filed 6-5-57.

661,624. Q AND DESIGN. Addo Machine Company, Inc. SN 34,653. Pub. 2-18-58. Filed 7-31-57.

661,625. BURNDY. Burndy Corporation. SN 34,661. Pub. 2-25-58. Filed 7-31-57.

661,626. CUTALATOR. American Chain & Cable Company, Inc. SN 35,152. Pub. 2-25-58. Filed 8-8-57.

661,627. SATISFACTION. Utica Cutlery Company. SN 38,507. Pub. 2-25-58. Filed 10-7-57.

661,628. GENERAL AND DESIGN. General Corrugated Machinery Company. SN 38,816. Pub. 2-25-58. Filed 10-14-57.

Class 24—Laundry Appliances and Machines

661,629. TOE HOLD. The Don-Jon Company, to Cosom Industries, Inc. SN 24,575. Pub. 2-25-58. Filed 2-18-57.

661,630. LAUNDRITE. American Machine and Metals, Inc. SN 33,114. Pub. 2-25-58. Filed 7-3-57.

Class 26—Measuring and Scientific Appliances

661,631. KW AND DESIGN. VEB Kamera Werke Niedersedlitz, to Standard Camera Corporation. SN 6,975. Pub. 4-23-57. Filed 5-14-56.

661,632. VEECO AND DESIGN. Vacuum-Electronic Mfg. Corp. SN 11,724. Pub. 4-2-57. Filed 7-6-56.

661,633. CENTRICATOR. Centricator G. m. b. H. SN 13,196. Pub. 2-25-58. Filed 8-1-56.

661,634. CENTRICATOR. Centricator G. m. b. H. SN 13,197. Pub. 2-25-58. Filed 8-1-56.

661,635. AUTO-BRIDGE. Industrial Instruments, Inc. SN 17,917. Pub. 2-25-58. Filed 10-22-56.

661,636. BREATHALYZER. Robert F. Borkenstein. SN 28,025. Pub. 2-25-58. Filed 4-12-57.

661,637. CINTAGON. Sylvania Electric Products, Inc. SN 28,072. Pub. 2-25-58. Filed 4-12-57.

661,638. SPINLAB. Special Instruments Laboratory, Inc. SN 28,464. Pub. 2-25-58. Filed 4-18-57.

661,639. TRANSIMULATOR. Sprague Products Company. SN 28,734. Pub. 2-25-58. Filed 4-23-57.

661,640. PLASTI-CARD. Plasti-Card Co., to Bernard Ulano. SN 30,035. Pub. 2-25-58. Filed 5-14-57.

661,641. SUN VALLEY. Service Manufacturing Company, Inc. SN 30,041. Pub. 2-25-58. Filed 5-14-57.

661,642. AUDIOLATOR. Kay Electric Company. SN 30,497. Pub. 2-25-58. Filed 5-22-57.

661,643. AGN AND DESIGN. Aerojet-General Corporation. SN 30,543. Pub. 2-25-58. Filed 5-23-57.

661,644. TRIMPOT JR. Bourns Laboratories, Inc. SN 30,720. Pub. 2-25-58. Filed 5-27-57.

Class 27—Horological Instruments

661,645. SKIN DIVER. Hawthorne Watch Company. SN 685,708. Pub. 1-10-56. Filed 4-18-55.

661,646. VIXIA. Vixia Watch Co. S. A. SN 692,554. Pub. 12-27-55. Filed 8-5-55.

661,647. CAROLINE. Enicar S. A. (Enicar AG.) (Enicar Ltd.). SN 33,893. Pub. 2-25-58. Filed 7-17-57.

Class 28—Jewelry and Precious-Metal Ware

661,648. LORD LEATHER. Speidel Corporation. SN 30,047. Pub. 2-25-58. Filed 5-14-57.

Class 30—Crockery, Earthenware, and Porcelain

661,649. THOKNOS AND DESIGN. Mediterranean Commercial Corp. SN 11,385. Pub. 2-25-58. Filed 7-2-56.

Class 31—Filters and Refrigerators

661,650. KWIK-KOLD. Albert A. Robbins. SN 15,827. Pub. 2-25-58. Filed 9-17-56.

661,651. ME AND DESIGN. McIntyre Engineering Co. Inc. CONSOLIDATED CERTIFICATE. SN 28,621, pub. 9-17-57, filed 4-22-57, Cl. 31; SN 28,622, pub. 11-12-57, filed 4-22-57, Cl. 34.

661,652. EVENFLO. Evenflo Filters Inc. SN 30,576. Pub. 2-25-58. Filed 5-23-57.

661,653. FILTRAPOOL. The Cuno Engineering Corporation. SN 36,361. Pub. 2-25-58. Filed 8-28-57.

661,654. PARKER REACTIFIER. Parker Rust Proof Company. SN 38,630. Pub. 2-25-58. Filed 10-9-57.

661,655. SLUDGE AND DESIGN. Evenflo Filters Inc. SN 38,909. Pub. 2-25-58. Filed 10-15-57.

Class 32—Furniture and Upholstery

661,656. "KITCHENS OF DISTINCTION." Raleigh A. Dresser, d. b. a. Dresser Equipment Company. SN 19,750. Pub. 2-25-58. Filed 11-23-56.

661,657. CONCEALITE. A. Marchand, Inc. SN 29,810. Pub. 2-25-58. Filed 5-10-57.

661,658. MARCHAND. A. Marchand, Inc. SN 29,811. Pub. 2-25-58. Filed 5-10-57.

661,659. HANOVER BABY SITTER AND DESIGN. Hanover Manufacturing Company. SN 37,009. Pub. 2-25-58. Filed 9-11-57.

661,660. GOOD NIGHT AND DESIGN. Schultz & Hirsch Co. SN 38,236. Pub. 2-25-58. Filed 10-2-57.

661,661. ECONOFLEX. Nachman Corporation. SN 38,370. Pub. 2-25-58. Filed 10-4-57.

661,662. HASSO-SEAT. Allen Industries, Inc. SN 38,785. Pub. 2-25-58. Filed 10-14-57.

Class 33—Glassware

661,663. MAXOS. Jenaer Glaswerk Schott & Gen. SN 17,373. Pub. 2-25-58. Filed 10-12-56.

Class 34—Heating, Lighting, and Ventilating Apparatus

661,664. COMFORTAIRE. W. W. McMillan, d. b. a. W. W. McMillan & Co. SN 665,834. Pub. 3-19-57. Filed 5-6-54.

661,665. COMFORTAIRE AND DESIGN. Comfortaire Corporation, to W. W. McMillan, d. b. a. W. W. McMillan & Co. SN 667,612. Pub. 3-19-57. Filed 6-3-54.

661,666. BANTAM. Tetco Metal Products, Inc. SN 8,283. Pub. 3-19-57. Filed 5-14-56.

661,667. WIZARD. Western Auto Supply Company. SN 16,780. Pub. 2-25-58. Filed 10-1-56.

661,668. USI AND DESIGN. U. S. Industries, Inc. SN 31,610. Pub. 2-25-58. Filed 6-7-57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

661,669. BELMONT. The Belmont Packing & Rubber Company. SN 28,021. Pub. 2-25-58. Filed 4-12-57.

661,670. BELMONT ETC. AND DESIGN. The Belmont Packing & Rubber Company. SN 29,193. Pub. 2-25-58. Filed 5-1-57.

661,671. BIG 7. OK Tires Inc. SN 32,254. Pub. 2-25-58. Filed 6-19-57.

661,672. TUFF-EDGE. H. K. Porter Company. SN 32,530. Pub. 2-25-58. Filed 6-24-57.

661,673. BOL-WAX. William H. Harvey, d. b. a. Wm. H. Harvey Co. SN 32,598. Pub. 2-25-58. Filed 6-25-57.

Class 36—Musical Instruments and Supplies

661,674. CORONET. Accordian Manufacturers and Wholesalers Outlet, Inc. SN 34,896. Pub. 2-25-58. Filed 8-5-57.

661,675. T RIM AND DESIGN. Capitol Records, Inc. SN 35,083. Pub. 2-25-58. Filed 8-7-57.

Class 37—Paper and Stationery

661,676. CAMELEON. Kadrill S. A. SN 21,695. Pub. 2-25-58. Filed 12-27-56.

661,677. SCHOOL-MATE. Paper Mate Manufacturing Company. SN 22,273. Pub. 8-6-57. Filed 1-8-57.

Class 38 — Prints and Publications

661,678. AUTEX. Autrey Brothers, Inc. SN 20,081. Pub. 2-25-58. Filed 11-29-56.

661,679. BROADCASTING TELECASTING AND DESIGN. Broadcasting Publications, Inc. SN 26,680. Pub. 2-25-58. Filed 3-22-57.

661,680. MECKI. Galen Gavel. SN 29,353. Pub. 2-25-58. Filed 5-3-57.

661,681. THE VIRGINIA GAZETTE. The Virginia Gazette. SN 31,880. Pub. 2-25-58. Filed 6-12-57.

661,682. HIGH FIDELITY. Audiocom, Inc. SN 32,725. Pub. 2-25-58. Filed 6-27-57.

Class 39 — Clothing

661,683. TRES JOLIE. Penobscot Shoe Company. SN 15,629. Pub. 2-25-58. Filed 9-13-56.

661,684. THE ICELANDER BY HADLEY. The Cashmere Corporation of America. SN 18,493. Pub. 2-25-58. Filed 10-31-56.

661,685. FIELD AND STREAM. F. & F. Shoe Company. SN 23,903. Pub. 2-25-58. Filed 2-6-57.

661,686. RAIN QUEENS. National Transparent Plastics Company. SN 24,277. Pub. 2-25-58. Filed 2-12-57.

661,687. NORMANDIE. Kingsboro Mills, Inc. SN 25,000. Pub. 2-25-58. Filed 2-25-57.

661,688. ROGERS VISIONETTES. Kingsboro Mills, Inc. SN 25,001. Pub. 2-25-58. Filed 2-25-57.

661,689. BEAU D'OR. Rainbow Shops, Inc. SN 25,888. Pub. 2-25-58. Filed 3-11-57.

661,690. WINGS. Piedmont Shirt Company. SN 27,974. Pub. 2-25-58. Filed 4-11-57.

661,691. BOYS ★ TONE. Boyston Shirt Co., Inc., now by change of name Boys ★ Tone Shirt Co., Inc. SN 29,427. Pub. 2-25-58. Filed 5-6-57.

661,692. KALEE KLASSIC. Moe Kalina. SN 30,663. Pub. 2-25-58. Filed 5-24-57.

661,693. BLUE GOOSE AND DESIGN. Standard Textile Company, Inc. SN 31,701. Pub. 2-25-58. Filed 6-10-57.

661,694. JONATHAN SCOTT. Eagle Clothes, Inc. SN 31,913. Pub. 2-25-58. Filed 6-13-57.

661,695. NETTIE ROSENSTEIN. N. R. Enterprises. SN 32,112. Pub. 2-25-58. Filed 6-17-57.

661,696. ROZBUD. Indianapolis Glove Company, Inc. SN 32,318. Pub. 2-25-58. Filed 6-20-57.

661,697. DUOLINER. The Louis Marcus Corporation. SN 32,327. Pub. 2-25-58. Filed 6-20-57.

661,698. DA VID. D. J. Schwartz & Co., Inc. SN 32,545. Pub. 2-25-58. Filed 6-24-57.

661,699. WALL ST. Wall St., Clothes, Inc. SN 35,144. Pub. 2-25-58. Filed 8-7-57.

Class 40 — Fancy Goods, Furnishings, and Notions

661,700. VELCRO. Velcro S. A. SN 29,769. Pub. 2-25-58. Filed 5-9-57.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

661,701. PRENOLINE. Albert Müller. SN 16,902. Pub. 2-25-58. Filed 10-3-56.

661,702. KARISA. Einiger Mills, Inc. SN 30,313. Pub. 2-25-58. Filed 5-20-57.

661,703. A SEA ISLAND FABRIC AND DESIGN. Sea Island Mills, Inc. SN 32,994. Pub. 2-25-58. Filed 7-1-57.

661,704. ORIOLE. Paca Manufacturing Co. Inc. SN 40,539. Pub. 2-25-58. Filed 11-1-57.

Class 43 — Thread and Yarn

661,705. HOLLAND WINDMILL AND DESIGN. Wool Trading Company, Inc. SN 696,758. Pub. 2-25-58. Filed 10-19-55.

661,706. VISCA. Courtaulds Limited. SN 33,401. Pub. 2-25-58. Filed 7-9-57.

Class 44 — Dental, Medical, and Surgical Appliances

661,707. FORM-CUT AND DESIGN. United States Plastic Bandage Company. SN 15,498. Pub. 2-25-58. Filed 9-11-56.

661,708. STEWART. Sunbeam Corporation. SN 22,480. Pub. 2-25-58. Filed 1-11-57.

661,709. AMPLISCOPE AND DESIGN. Oliver E. Turner. SN 30,862. Pub. 2-25-58. Filed 5-27-57.

661,710. ZIMFOAM. Zimmer Manufacturing Company. SN 34,833. Pub. 2-25-58. Filed 8-1-57.

661,711. SANIKLEEN. S. H. Kress and Company. SN 35,271. Pub. 2-25-58. Filed 8-9-57.

Class 45 — Soft Drinks and Carbonated Waters

661,712. GOLD DOT. National NuGrape Company. SN 32,113. Pub. 2-25-58. Filed 6-17-57.

Class 46 — Foods and Ingredients of Foods

661,713. IF IT'S BELL—IT'S SWELL! Bell Brand Foods, Ltd. SN 700,563. Pub. 2-25-58. Filed 12-27-55.

661,714. I-RON POT. Lee Israel, to I-Ron Pot Packing Company, Inc. SN 4,548. Pub. 2-25-58. Filed 3-14-56.

661,715. AMERICL X. Kurt Reiss. SN 10,023. Pub. 2-25-58. Filed 6-11-56.

661,716. REGENCY. National Dairy Products Corporation. SN 19,259. Pub. 2-25-58. Filed 11-14-56.

661,717. MOSEMANN'S PENNSYLVANIA DUTCH AND DESIGN. Mosemann Company. SN 19,794. Pub. 2-25-58. Filed 11-23-56.

661,718. NICHOLS AND DESIGN. Nichols Incorporated. SN 20,776. Pub. 2-25-58. Filed 12-10-56.

661,719. GUEST QUALITY AND DESIGN. Guest Quality Foods, Inc. SN 21,151. Pub. 2-25-58. Filed 12-17-56.

661,720. SEEL-PEEL. Sunkist Growers, Inc. SN 21,280. Pub. 2-25-58. Filed 12-18-56.

661,721. IN ANY WEATHER IT WILL SHAKE . . . . IF IT'S GULF AND DESIGN. United Salt Corporation. SN 21,485. Pub. 2-25-58. Filed 12-21-56.

661,722. VIBRA-DIPT. Goren Packing Co., Inc. SN 24,436. Pub. 2-25-58. Filed 2-14-57.

661,723. MIRACLE PROCESS. The Manhattan Coffee Company. SN 25,103. Pub. 2-25-58. Filed 2-26-57.

661,724. BELGIUM BOY. Paul Hooge, d. b. a. L. A. Hooge Co. SN 27,798. Pub. 2-25-58. Filed 4-9-57.

661,725. EVENING STAR. George M. Karam, d. b. a. Karam Frozen Foods. SN 27,802. Pub. 2-25-58. Filed 4-9-57.

661,726. KRUM'S. Samuel S. Krum, d. b. a. S. S. Krum & Co. SN 28,157. Pub. 2-25-58. Filed 4-15-57.

661,727. KRISP-IT. Wilno Kosher Sausage Company. SN 28,474. Pub. 2-25-58. Filed 4-18-57.

661,728. DESIGN OF CIRCLE. Producentforeningen af Danish Blue Cheese og Mycella. SN 30,443. COLLECTIVE MARK. Pub. 2-25-58. Filed 5-21-57.

661,729. FE AND DESIGN. Central Carolina Farmers Exchange, Inc. SN 31,172. Pub. 2-25-58. Filed 5-17-57.

661,730. SF AND DESIGN. Saltwater Farm Incorporated. SN 32,261. Pub. 2-25-58. Filed 6-19-57.

661,731. COM-ETTES. Raymond Confections, Inc. SN 34,306. Pub. 2-25-58. Filed 7-24-57.

661,732. BIOTTA AND DESIGN. Gemüsebau A. G. Tägerwilen. SN 35,344. Pub. 2-25-58. Filed 8-12-57.

661,733. BREM. American Breddo Corp. SN 35,718. Pub. 2-25-58. Filed 8-19-57.

661,734. GOLDEN ELK. Mid-State Horticultural Co. SN 35,796. Pub. 2-25-58. Filed 8-19-57.

661,735. HULA SWISH. A. E. Ilies Company. SN 36,441. Pub. 2-25-58. Filed 8-29-57.

661,736. GENEDA. Eugene A. Bozzo, d. b. a. Geneda Products Co. SN 37,215. Pub. 2-25-58. Filed 9-16-57.

Class 47 — Wines

661,737. FAMIGLIA CRIBARI AND DESIGN. Alta Vineyards Company, d. b. a. B. Cribari & Sons. SN 20,676. Pub. 2-25-58. Filed 12-10-56.

661,738. AYALA & CO. CHATEAU D'AY AND DESIGN. Champagne Ayala (Société Anonyme). SN 22,403. Pub. 2-25-58. Filed 1-7-57.

Class 48 — Malt Beverages and Liquors

661,739. MALTA CORONA. Cerveceria Corona, Inc. SN 33,892. Pub. 2-25-58. Filed 7-17-57.

Class 49 — Distilled Alcoholic Liquors

661,740. OLDE HEIRLOOM. The Fleischmann Distilling Corp. SN 605,152. Pub. 2-25-58. Filed 10-19-50.

661,741. 'T LOOTSJE AND DESIGN. Erven Lucas Bols Incorporated. SN 18,833. Pub. 2-25-58. Filed 11-6-56.

661,742. SCOTS' ELEGANCE BY SCHENLEY. Schenley Industries, Inc. SN 35,686. Pub. 2-25-58. Filed 8-16-57.

Class 50 — Merchandise Not Otherwise Classified

661,743. KATHE KRUSE. Max Kruse, d. b. a. Käthe Kruse Werkstätten Donauwörth. SN 16,229. Pub. 2-25-58. Filed 9-24-56.

661,744. NYLOKRAFT. Bernhard Ulmann Co. Inc. SN 23,754. Pub. 2-25-58. Filed 2-4-57.

661,745. GENERAL PLASTICS ETC. AND DESIGN. The General Tire & Rubber Company. SN 34,693. Pub. 2-25-58. Filed 7-31-57.

Class 51 — Cosmetics and Toilet Preparations

661,746. L'OREAL. Societe Monsavon-L'Oreal, Societe Anonyme. SN 10,934. Pub. 2-25-58. Filed 6-25-56.

661,747. MY KNIGHT AND DESIGN. Pharmetics Corporation. SN 15,140. Pub. 2-25-58. Filed 9-5-56.

661,748. ROMA LIND. Roma Lind, d. b. a. Roma Lind Co. SN 16,066. Pub. 2-25-58. Filed 9-20-56.

661,749. VAPON. Vapon, Inc. SN 20,673. Pub. 2-25-58. Filed 12-7-56.

661,750. HB. Hazel Bishop, Inc. SN 30,556. Pub. 2-25-58. Filed 5-23-57.

661,751. PARDON. Charles Stutzer, d. b. a. Royal Luxury Perfumes Distributors. SN 31,358. Pub. 2-25-58. Filed 6-4-57.

661,752. M-L. Middlebrooke Lancaster, Inc. SN 34,160. Pub. 2-25-58. Filed 7-22-57.

661,753. TAKY. Societe Anonyme des Laboratoires Charles Roger. SN 35,603. Pub. 2-25-58. Filed 8-15-57.

Class 52 — Detergents and Soaps

661,754. FAST. The Rapp-Ramsey Company. SN 11,701. Pub. 2-25-58. Filed 7-6-56.

661,755. MAC'S. Mac's Super Gloss Co., Inc. SN 24,612. Pub. 2-25-58. Filed 2-18-57.

661,756. HYONIC. Nopco Chemical Company. SN 27,811. Pub. 2-25-58. Filed 4-9-57.

661,757. NI-PLEX. United Chemical Corporation of New England. SN 32,786. Pub. 2-25-58. Filed 6-27-57.

661,758. CHEMBURR. Heatbath Corporation. SN 32,952. Pub. 2-25-58. Filed 7-1-57.

Service Marks

Class 100 — Miscellaneous

661,759. MEC ETC. AND DESIGN. H. B. Maynard and Company Incorporated, formerly known as Methods Engineering Council Incorporated. SN 19,982. Pub. 2-25-58. Filed 11-27-56.

661,760. DESIGN OF COAT OF ARMS. William Edward Hennessee, d. b. a. The American College of Arms. SN 22,852. Pub. 2-25-58. Filed 1-18-57.

661,761. AMADA. Archery Manufacturers and Dealers Association. SN 31,301. Pub. 2-25-58. Filed 6-4-57.

Class 101 — Advertising and Business

661,762. AD OF A AND DESIGN. Advertising Distributors of America, Inc. SN 3,333. Pub. 2-25-58. Filed 2-27-56.

661,763. NMAA AND DESIGN. National Machine Accountants Association. SN 4,350. Pub. 2-25-58. Filed 3-12-56.

661,764. NEA IMAGINEERS SINCE 1908 AND DESIGN. New England Advertising. SN 10,099. Pub. 2-25-58. Filed 6-12-56.

Class 102 — Insurance and Financial

661,765. DESIGN OF GEOMETRICAL FIGURE. Virginius H. Goodman. SN 19,450. Pub. 2-25-58. Filed 11-19-56.

661,766. FPC AND DESIGN. Future Planning Corporation. SN 29,280. Pub. 2-25-58. Filed 5-2-57.

661,767. FIRST EKON-O-ME CHECK AND DESIGN. The First National Bank of Edmond. SN 35,255. Pub. 2-25-58. Filed 8-9-57.

Class 103—Construction and Repair

661,768. PURE AND REPRESENTATION OF SEAL WITH ARROW. The Pure Oil Company. SN 27,888. Pub. 2-25-58. Filed 4-10-57.

Class 105—Transportation and Storage

661,769. GLOBAL VAN LINES AND DESIGN. Global Van Lines, Inc. SN 28,587. Pub. 2-25-58. Filed 4-22-57.

661,770. GOOD CITIZEN OF THE HIGHWAY P.I.E AND DESIGN. Pacific Intermountain Express Co. SN 31,999. Pub. 2-25-58. Filed 6-14-57.

Class 107—Education and Entertainment

661,771. GOLD AWARD THEATRE. Beautyrama Incorporated. SN 31,809. Pub. 2-25-58. Filed 6-12-57.

Certification Mark

Class B—Services

661,772. SLEEP BEST ON BEAUTYREST ETC. Simmons Company. SN 689,244. Pub. 2-11-58. Filed 6-9-55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 1—Raw or Partly Prepared Materials

661,773. Leroy Chance, d. b. a. The Kob Seal Co., Liberal, Kans. SN 29,269. Filed P. R. 5-2-57. Am. S. R. 3-13-58.

KOB SEAL

For Processed Corn Cobs Used in Circulation and Sealing in Oil and Gas Well Drilling.
First use Feb. 4, 1957.

Class 11—Inks and Inking Materials

661,774. Gunther Wagner, Hannover, Germany. SN 663,784. Filed P. R. 4-2-54. Am. S. R. 3-2-55.



Owner of German Reg. No. 355,217, dated July 31, 1926.
For Liquid Drawing Inks.

Class 21—Electrical Apparatus, Machines, and Supplies

661,775. Max Egon Becker, Karlsruhe, Germany. SN 15,579. Filed P. R. 9-13-56. Am. S. R. 2-28-58.

becker
autoradio

For Automobile Radios.
First use June 1955; in commerce June 1955.

661,776. Max Egon Becker, Karlsruhe, Germany. SN 18,047. Filed P. R. 10-24-56. Am. S. R. 2-28-58.

Becker-Autoradio

Owner of German Reg. No. 688,178, dated Mar. 2, 1956.
For Automobile Radios.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

661,777. The Miller Spreader Corporation, Youngstown, Ohio. SN 28,534. Filed P. R. 4-19-57. Am. S. R. 1-2-58.

Curbilder

For Curb Forming Machines.
First use Dec. 15, 1956.

661,778. Dansk Designs Inc., Great Neck, N. Y. SN 31,090. Filed P. R. 5-31-57. Am. S. R. 3-10-58.

DANSK

For Stainless Steel Knives, Forks, Spoons, Ladles, Cap Lifters, Bar Sets, Carving Sets, Servers, Carving Boards, and Salt and Pepper Mills.
First use July 28, 1954.

Class 32—Furniture and Upholstery

661,779. Bulova Watch Company, Inc., Flushing, N. Y. SN 16,938. Filed P. R. 10-4-56. Am. S. R. 3-20-58.

LOKTITE

For Drawers and Compartments for Fitted Cabinets and Cases.
First use Sept. 26, 1956.

661,780. Bulova Watch Company, Inc., Flushing, N. Y. SN 16,940. Filed P. R. 10-4-56. Am. S. R. 3-20-58.

E-Z SLIDE

For Drawers and Compartments for Fitted Cabinets and Cases.
First use Sept. 26, 1956.

Class 38—Prints and Publications

661,781. The Industrial Publishing Corporation (formerly Telenews Productions, Inc.), Cleveland, Ohio. SN 10,944 Filed P. R. 6-25-56. Am. S. R. 1-13-58.

FLUID POWER
World

For Publication Published From Time to Time, the Subject Matter of Which Is Directed to Fluid Power.
First use June 23, 1956.

661,782. Ziff-Davis Publishing Company, New York, N. Y. SN 37,203. Filed P. R. 9-13-57. Am. S. R. 3-3-58.

POPULAR BOATING

For Periodical.
First use Oct. 2, 1956.

Service Mark

Class 105—Transportation and Storage

661,783. Trailerent, Inc., Secaucus, N. J. SN 32,275. Filed P. R. 6-19-57. Am. S. R. 2-4-58.

TRAILERENT

For Services in Leasing of Commercial Trailers and Servicing Thereof.
First use May 24, 1956.

TRADEMARK REGISTRATIONS RENEWED

120,737. TUNGAR. Cl. 21. 3-5-18.
120,863. AJAX. Cl. 35. 3-12-18.
120,864. DESIGN OF MALTESE CROSS. Cl. 50. 3-12-18.
121,148. STRUCTOLITE. Cl. 12. 4-9-18.
121,175. RED ARROW AND DESIGN. Cl. 9. 4-16-18.
121,218. SEAL-CO. Cl. 12. 4-16-18.
121,338. ROBSOL. Cl. 15. 4-23-18.
122,537. SCHLITZ. Cl. 48. 8-29-18.
354,207. ESSEX HOUSE. Cl. 46. 2-8-38.
354,726. MORGANITE. Cl. 35. 2-22-38.
354,887. VISIONAID. Cl. 37. 3-1-38.
354,927. CANDLELIGHT CREPE. Cl. 39. 3-1-38.
355,205. BECKAMINE. Cl. 16. 3-8-38.
355,316. DESIGN OF CIRCLE. Cl. 23. 3-15-38.
355,365. RED MAN. Cl. 23. 3-15-38.
355,370. IGEPAL. Cl. 52. 3-15-38.
355,443. ROMARK. Cl. 16. 3-15-38.
355,453. 3 IN 1 AND DESIGN. Cl. 15. 3-15-38.
355,454. 3-IN-ONE AND DESIGN. Cl. 15. 3-15-38.
355,455. 3-EN-UNO AND DESIGN. Cl. 15. 3-15-38.
355,458. 3-EN-UND AND DESIGN. Cl. 4. 3-15-38.
355,652. BUY WELL. Cl. 46. 3-22-38.
355,739. BECKAMINE. Cl. 1. 3-29-38.
356,052. CHINX. Cl. 12. 4-12-38.
356,215. HIP-HUG. Cl. 39. 4-19-38.
356,227. RED DEVIL AND DESIGN. Cl. 23. 4-19-38.
356,311. USG. Cl. 12. 4-26-38.
356,440. HI-WAY PATROL. Cl. 19. 4-26-38.
356,558. OZALID. Cl. 11. 5-3-38.
356,583. TENSOCREPE. Cl. 44. 5-3-38.
356,666. VICKERS. Cl. 23. 5-10-38.
356,820. NORFOLD. Cl. 37. 5-10-38.
356,944. LUSTAN. Cl. 15. 5-17-38.
357,001. STIXIE. Cl. 46. 5-24-38.
357,011. FRO-ZEE. Cl. 46. 5-24-38.
357,073. FIBA-WELD. Cl. 6. 5-24-38.
357,188. CYCLOTTE. Cl. 39. 5-24-38.
357,323. FUDGI-FROST. Cl. 46. 5-31-38.
357,405. LA SALLE AND DESIGN. Cl. 46. 6-7-38.
357,692. GYREX. Cl. 23. 6-14-38.
357,693. VIBREX. Cl. 23. 6-14-38.
357,735. NATIONAL COOPERATIVES CO-OP AND DESIGN. Cl. 6. 6-14-38.
357,812. XYNOPERM. Cl. 6. 6-14-38.
357,856. TOM'S. Cl. 45. 6-14-38.
358,066. RUBY-BEE AND DESIGN. Cl. 46. 6-28-38.
358,444. VAC-REL. Cl. 13. 7-12-38.
358,562. MINSOL. Cl. 46. 7-19-38.
358,787 NATIONAL COOPERATIVES CO-OP AND DESIGN. Cl. 16. 7-26-38.
358,815. NATIONAL SEEDSMAN. Cl. 38. 7-26-38.
359,074. FRESHWAY. Cl. 46. 8-2-38.
359,156. SKIN-FIX AND DESIGN. Cl. 18. 8-9-38.
359,366. BEBE AGUA AND DESIGN. Cl. 46. 8-16-38.
359,388. JIM DANDY AND DESIGN. Cl. 46. 8-16-38.
359,445. ONE MINUTE. Cl. 24. 8-23-38.
359,447. THUNDERBOLT. Cl. 46. 8-23-38.
359,562. FLAKORN. Cl. 46. 8-23-38.
359,591. SPIROGRAPH. Cl. 11. 8-23-38.
359,616. AIRFOAM. Cl. 32. 8-23-38.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

587,347. THE HOUSE DOCTOR. Cl. 12. 3-23-54.
587,348. THE HOUSE DOCTOR AND DESIGN. Cl. 12. 3-23-54.
640,820. DARLAN. Cl. 1. 2-5-57.

Section 8

206,167. PROVEN. Cl. 46. 11-24-25.
288,025. HUNTINGTON PARK SIGNAL ETC. AND DRAWING. Cl. 38. 10-20-31.
288,982. VALESSE. Cl. 44. 11-10-31.
307,669. ALAHAM. Cl. 46. 10-31-33.
419,098. REXENITE. Cl. 21. 2-5-46.

The following registrations issued Mar. 25, 1952

556,482. SONGSTER AND DESIGN. Cl. 46.
556,489. NATURAL BEND. Cl. 39.
556,492. SWEET CLOVER. Cl. 46.
556,497. GAY DOG. Cl. 46.
556,498. DELICAF. Cl. 46.
556,503. TRANS-METER. Cl. 23.
556,506. ZIPPET. Cl. 32.
556,516. TOPKIX. Cl. 39.
556,518. SANATILE. Cl. 20.
556,523. THE MOVIE MONEY IS IN THE BAG. Cl. 46.
556,525. KOSTO AND DESIGN. Cl. 46.
556,526. CHALEX SALES AUDIT RECORDER. Cl. 26.
556,527. AUTOMATIC. Cl. 23.
556,528. FAMILY CIRCLE. Cl. 46.
556,529. O. G. AND DESIGN. Cl. 46.
556,530. LITTLE GOOSE. Cl. 46.
556,534. PATTY-CAKE. Cl. 46.
556,539. DIAMAGIC. Cl. 32.
556,543. TOP-POP AND DESIGN. Cl. 46.
556,544. CITY OF LAKES. Cl. 46.
556,548. HARPER. Cl. 28.
556,552. ADD-A-TAG. Cl. 28.
556,556. FRIENDSHIP TREE AND DESIGN. Cl. 5.
556,559. CHASP. Cl. 18.
556,561. CHINA DOLL. Cl. 51.
556,568. VANDRYNILLA. Cl. 46.
556,569. GENEVA. Cl. 32.
556,570. STAR OF MUZO. Cl. 28.
556,571. ANGELENO. Cl. 12.
556,572. H & M BANKER'S CHOICE. Cl. 17.
556,573. SURF CLUB. Cl. 46.
556,574. GOLDEN BAMBOO. Cl. 28.
556,575. DAILY. Cl. 46.
556,577. LEMON-X. Cl. 52.
556,579. REPRESENTATION OF A FISH AND DESIGN. Cl. 46.
556,580. TEXAS NORTHER. Cl. 39.
556,586. PATHFINDERS. Cl. 32.
556,589. "PANGEE'S". Cl. 39.
556,596. SCREWBALL. Cl. 23.
556,599. CHIEF TREAT AND DESIGN. Cl. 46.

556,600. NARCOFORM. Cl. 18.
556,604. PAR-TO-MIX. Cl. 2.
556,612. LYON. Cl. 26.
556,614. HOLL-O-TORQ AND DESIGN. Cl. 23.
556,615. HOLL-O-TORQ. Cl. 23.
556,618. C-CLIP. Cl. 24.
556,620. AMBASSADOR JR. AND DESIGN. Cl. 32.
556,621. GRIDIRON. Cl. 46.
556,622. ICE JET. Cl. 50.
556,623. FRANKLIN VILLAGE. Cl. 46.
556,627. PAM. Cl. 46.
556,628. CORONET AND DESIGN. Cl. 32.
556,630. YOUR SIGNET. Cl. 28.
556,631. ECONO-FORM. Cl. 32.
556,633. SILSKIN AND DESIGN. Cl. 44.
556,634. IRMA HARDING. Cl. 5.
556,635. IRMA HARDING AND DESIGN. Cl. 5.
556,641. PAX AND DESIGN. Cl. 36.
556,643. SLOGS AND DESIGN. Cl. 39.
556,644. CHAUMONT. Cl. 26.
556,645. DEAUVILLE. Cl. 26.
556,649. RODOS. Cl. 27.
556,651. SAHARA. Cl. 2.
556,657. DANISH BEAUTY BRAND. Cl. 46.
556,658. FROST'N FEAST ETC. AND DESIGN. Cl. 46.
556,662. NOMA. Cl. 22.
556,663. NOMA. Cl. 22.
556,675. BATH CORRAL. Cl. 52.
556,678. SHU-SHINE JOE. Cl. 23.
556,681. REPRESENTATION OF HORSE AND RIDER. Cl. 44.
556,683. ANGELO PETRI SIGNATURE AND DESIGN. Cl. 47.
556,684. WALUM. Cl. 46.
556,685. SHELLTITE. Cl. 2.
556,688. CADET. Cl. 17.
556,694. SAFE-T-SLIDE. Cl. 32.
556,695. PUERTO DEL SOL. Cl. 46.
556,702. BACILLYRIUM. Cl. 18.
556,703. EXTENDEX. Cl. 18.
556,704. XTENDEX. Cl. 18.
556,705. PETAMIDON. Cl. 18.
556,714. MIRALIN. Cl. 20.
556,716. GOLDEN CALF. Cl. 39.
556,717. DUO THERM. Cl. 2.
556,724. NANCY CLAIRE. Cl. 39.
556,726. CHAMPION. Cl. 32.
556,731. GOOP. Cl. 46.
556,738. JEAN NICOT AND DESIGN. Cl. 17.
556,740. FURLON. Cl. 39.
556,745. FANCY DANS. Cl. 39.
556,746. THE DRAKE. Cl. 32.
556,748. CARPETONE. Cl. 20.
556,759. FRESH AND FUSSY. Cl. 46.
556,761. KAY CEE AND DESIGN. Cl. 46.
556,765. THE PUPPET HOUSE AND DESIGN. Cl. 22.
556,766. PICKFAIR. Cl. 46.
556,767. RATERO. Cl. 6.
556,770. SPOTLITE. Cl. 13.
556,776. ENPRO. Cl. 100.
556,777. JACK STRAUSBERG'S KIDDIE CARTOONS AND DESIGN. Cl. 107.
556,781. RABBIT FOOT. Cl. 107.
556,784. STADIUM SACK. Cl. 39.
556,785. INQUE ETC. AND DESIGN. Cl. 11.
556,789. ZOO-OGRAPHY. Cl. 22.
556,792. TEL-A-PHONY. Cl. 38.
556,796. NARROWALL. Cl. 34.
556,797. SHUR BOND. Cl. 19.
556,801. NU-NURSE. Cl. 39.
556,805. MOVIE PIN-UPS. Cl. 38.
556,806. LOCKHART PHOTO-CARD. Cl. 38.
556,809. MAAR AUTOMATIC CAR-WATCH AND DESIGN. Cl. 27.
556,815. THE COUNTRY SHOPPER. Cl. 39.

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440,687. SAMSON. Cl. 39. 9–21–48.
617,828. COLUMBIA. Cl. 28. 12–20–55.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

171,311. MISS AMERICA AND DESIGN. Cl. 46. 8–7–23. American Pickle & Canning Co. The Brown-Miller Company, New Orleans, La. Amended: In the statement, column 2, last paragraph is deleted, and the drawing is amended to appear:

MISS AMERICA

356,943. MUMBLY PEG. Cl. 23. 5–17–38. Camillus Cutlery Company, New York, N. Y. Corrected: In the certificate, lines 2 and 15, and in the statement, in the heading, in line 2 and in the signature, "Inc." should be deleted.

380,618. NICKELSWORTH. Cl. 38. 8–27–40. The International Nickel Company, Inc., New York, N. Y. Amended to appear:

NICKELSWORTH

410,505. TUNG SOL. Cl. 21. 11–28–44. Tung-Sol Lamp Works, Inc. Tung-Sol Electric Inc., Newark, N. J. Amended to appear:

TUNG-SOL

513,857. ADEMCO. Cl. 5. 8–16–49. The Adhesive Dry Mounting Company, Limited. Ademco Limited, London, England. Amended: In the certificate, lines 4 and 15, and in the statement, in the heading, in column 1, line 2, and in column 2, line 2, after "Limited," *now by change of name Ademco Limited*, is inserted.

518,758. ADEMCO. Cl. 37. 12–13–49. The Adhesive Dry Mounting Company, Limited. Ademco Limited, London, England. Amended: In the certificate, lines 4 and 15, and in the statement, in the heading, in column 1, line 1, and in column 2, line 2 after "Limited," *now by change of name Ademco Limited*, is inserted.

520,783. ADEMCO. Cl. 26. 2–7–50. The Adhesive Dry Mounting Company, Limited. Ademco Limited, London, England. Amended: In the certificate, lines 4 and 15, and in the statement, in the heading, in column 1, line 2, and in column 2, line 1, after "Limited," *now by change of name Ademco Limited*, is inserted.

523,045. ADEMCO. Cl. 21. 3–28–50. The Adhesive Dry Mounting Company, Limited. Ademco Limited, London, England. Amended: In the certificate, lines 4 and 15, and in the statement, in the heading, in column 1, line 1, and in column 2, line 1, after "Limited," *now by change of name Ademco Limited*, is inserted.

628,563. DEQUADIN. Cl. 18. 6–12–56. Allen & Hanburys, Limited, London, England. Amended: In the statement, column 2, line 2, "bactericidal" is deleted and *bacterial* is inserted.

655,767. VALLEY. Cl. 22. 12–17–57. Valley Manufacturing Co., Inc., Bay City, Mich. Amended: In the statement, column 2, line 2, "bumper pool tables," is deleted.

INDEX OF REGISTRANTS

MAY 13, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected, etc.; New Certificates; 12c Publications.)

Accordian Manufacturers and Wholesalers, Chicago, Ill. 661,674, pub. 2–25–58. Cl. 36.
Addo Machine Co., Inc., New York, N. Y. 661,624, pub. 2–18–58. Cl. 23.
Ademco Ltd.: *See*—
Adhesive Dry Mounting Co., Ltd., The.
Adhesive Dry Mounting Co., Ltd., The. Ademco Ltd., London, England. 513,857. Am. 7(d). Cl. 5.
Adhesive Dry Mounting Co., Ltd., The. Ademco Ltd., London, England. 518,758. Am. 7(d). Cl. 37.
Adhesive Dry Mounting Co., Ltd., The. Ademco Ltd., London, England. 520,783. Am. 7(d). Cl. 26.
Adhesive Dry Mounting Co., Ltd., The. Ademco Ltd., London, England. 523,045. Am. 7(d). Cl. 21.
Advertising Distributors of America, Inc., New York, N. Y. 661,762, pub. 2–25–58. Cl. 101.
Aerojet-General Corp., Azusa, Calif. 661,643, pub. 2–25–58. Cl. 26.
Akim Co., The: *See*—
Akim Engineering Co., Inc.
Akim Engineering Co., Inc., d. b. a. The Akim Co., Willimantic, Conn. 661,621, pub. 2–25–58. Cl. 23.
All American Food Supplement Co.: *See*—
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Allen, Erwin V., Peoria, Ill. 556,726, canc. Cl. 32.
Allen & Hanburys, Ltd., London, England. 628,563. Am. 7(d). Cl. 18.
Allen Industries, Inc., Detroit, Mich. 661,662, pub. 2–25–58. Cl. 32.
Alta Vineyards Co., Calif. Corp. 661,737, pub. 2–25–58. Cl. 47.
Aluminum Nut Corp., Yonkers, N. Y. 661,547, pub. 10–1–57. Cl. 13.
American Alcolac Corp., Baltimore, Md. 661,515, pub. 2–25–58. Cl. 6.
American Breddo Corp., New York, N. Y. 661,733, pub. 2–25–58. Cl. 46.
American Can Co.: *See*—
Northern Paper Mills.
American Chain & Cable Co., Inc., Bridgeport, Conn. 661,546, pub. 2–25–58. Cl. 13.
American Chain & Cable Co., Inc., Bridgeport, Conn. 661,626, pub. 2–25–58. Cl. 23.
American College of Arms, The: *See*—
Hennessee, William E.
American Cyanamid Co., New York, N. Y. 661,501, pub. 2–25–58. Cl. 5.
American Cyanamid Co., New York, N. Y. 661,511, pub. 2–25–58. Cl. 6.
American Hollow Boring Co., Erie, Pa. 556,614, canc. Cl. 23.
American Hollow Boring Co., Erie, Pa. 556,615, canc. Cl. 23.
American Home Products Corp.: *See*—
Boyle, A. S., Co., The.
American Machine and Metals, Inc., East Moline, Ill. 661,630, pub. 2–25–58. Cl. 24.
American Pickle & Canning Co., The Brown-Miller Co., New Orleans, La. 171,311. Am. 7(d). Cl. 46.
American Pop Corn Co., Sioux City, Iowa. 359,447, ren. 8–23–58. Cl. 46.
Anderson, Clayton & Co., Dallas, Tex. 661,483, pub. 2–25–58. Cl. 1.
Archery Manufacturers and Dealers Association, Waverly, Iowa. 661,761, pub. 2–25–58. Cl. 100.
Armour and Co., Chicago, Ill. 661,568, pub. 2–25–58. Cl. 18.
Armstrong Cork Co., Lancaster, Pa. 556,748, canc. Cl. 20.
Atlanta Milling Co., Atlanta, Ga. 556,523, canc. Cl. 46.
Atlantic Products Corp., Trenton, N. J. 661,496–7, pub. 2–25–58. Cl. 3.
Atomised Food Products Ltd., Hertfordshire, England. 556,498, canc. Cl. 46.
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Barrett Electronics Corp., Northbrook, Ill. 661,595, pub. 2–25–58. Cl. 21.
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Bay State Abrasive Products Co., Westboro, Mass. 661,499, pub. 2–25–58. Cl. 4.
Beaumart Co., New York, N. Y. 556,815, canc. Cl. 39.
Beautyrama Inc., Kansas City, Mo. 661,771, pub. 2–25–58. Cl. 107.
Beck, Koller & Co., Inc., Detroit and Ferndale Station, Detroit, to Reichhold Chemicals, Inc., Detroit, Mich. 355,205, ren. 3–8–58. Cl. 16.
Beck, Koller & Co., Inc., Detroit and Frendale Station, Detroit, to Reichhold Chemicals, Inc., Detroit, Mich. 355,739, ren. 3–29–58. Cl. 1.
Becker, Max E., Ruppurrerstrasse, Karlsruhe, Germany. 661,775–6. Cl. 21.
Bell Brand Foods, Ltd., Los Angeles, Calif. 661,713, pub. 2–25–58. Cl. 46.
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Bellon, Roger, Neuilly-Sur-Seine, France. 661,565, pub. 2–25–58. Cl. 18.
Belmont Packing & Rubber Co., The, Philadelphia, Pa. 661,669–70, pub. 2–25–58. Cl. 35.
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Boyle, A. S., Co., The, Jersey City, N. J., to American Home Products Corp., New York, N. Y. 355,455, ren. 3–15–58. Cl. 15.
Boyle, A. S., Co., The, Jersey City, N. J., to American Home Products Corp., New York, N. Y. 355,458, ren. 3–15–58. Cl. 4.
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Broadcasting Publications, Inc., Washington, D. C. 661,679, pub. 2–25–58. Cl. 38.
Brockway Glass Co., Inc., Brockway, Pa. 661,520, pub. 2–25–58. Cl. 6.
Brooks Shoe Mfg. Co., Philadelphia, Pa. 556,489, canc. Cl. 39.
Brown-Miller Co., The: *See*—
American Pickle & Canning Co.
Bulova Watch Co., Inc., Flushing, N. Y. 661,779–80. Cl. 32.
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Tex-O-Kan Flour Mills Co.
Cahill Mfg. Co., Chicago, Ill. 556,797, canc. Cl. 19.
Camillus Cutlery Co., New York, N. Y. 356,943, cor. Cl. 23.
Capitol Amusements, Inc., Erwin, Tenn. 556,781, canc. Cl. 107.
Capitol Records, Inc., Los Angeles, Calif. 661,675, pub. 2–25–58. Cl. 36.
Carr, Alva U., Ponca City, Okla. 587,347, canc. Cl. 12.
Carr, Alva U., Ponca City, Okla. 587,348, canc. Cl. 12.
Carwood Mfg. Co., Winder, Ga. 440,687, canc. Cl. 39.
Cashmere Corp. of America, The, Weaverville, N. C. 661,684, pub. 2–25–58. Cl. 39.
Cela Landwirtschaftliche Chemikalien G. m. b. H., Ingelheim am Rhein, Germany. 661,510, pub. 12–24–57. Cl. 6.
Central Carolina Farmers Exchange, Inc., Durham, N. C. 661,729, pub. 2–25–58. Cl. 46.
Centricator G. m. b. H., Munchen, Germany. 661,633–4, pub. 2–25–58. Cl. 26.
Cerveceria Corona, Inc., New York, N. Y. 661,739, pub. 2–25–58. Cl. 48.
Chalex Corp., Chicago, Ill. 556,526, canc. Cl. 26.
Champagne Ayala (Societe Anonyme), Ay, Marne, France. 661,738, pub. 2–25–58. Cl. 47.
Chance, Leroy, d. b. a. The Kob Seal Co., Liberal, Kans. 661,773. Cl. 1.
Chen Yu, Inc., New York, N. Y., to Richard Hudnut. 556,561, canc. Cl. 51.
Chunk-E-Nut Products Co.: *See*—
Chunk-E-Nut Products Co., Inc.
Chunk-E-Nut Products Co., Inc., d. b. a. Chunk-E-Nut Products Co., Philadephia, Pa. 556,543, canc. Cl. 46.
Clay, H. J., Clarks Summit, Pa. 661,611, pub. 2–25–58. Cl. 22.
Comfortaire Corp., Washington, D. C., to W. W. McMillan, d. b. a. W. W. McMillan & Co., Jacksonville, Fla. 661,665, pub. 3–19–57. Cl. 34.

Commercial Ink & Lacquer Co. Inc., Fair Lawn, N. J. 661,526, pub. 2–25–58. Cl. 11.
Commercial Solvents Corp., New York, N. Y. 556,600, canc. Cl. 18.
Commercial Solvents Corp., New York, N. Y. 556,702, canc. Cl. 18.
Commercial Solvents Corp., New York, N. Y. 556,703, canc. Cl. 18.
Commercial Solvents Corp., New York, N. Y. 556,704, canc. Cl. 18.
Commercial Solvents Corp., New York, N. Y. 661,514, pub. 2–25–58. Cl. 6.
Continental Oil Co., Ponca City, Okla. 661,553–5, pub. 2–25–58. Cl. 15.
Cool Roof of America, Inc., Coral Gables, Fla. 661,557, pub. 4–23–57. Cl. 16.
Cosmos Drugs, Inc., New York, N. Y. 661,578, pub. 2–25–58. Cl. 18.
Cosum Industries, Inc.: *See*—
Don-Jon Co., The.
Courtaulds Ltd., London, England. 661,706, pub. 2–25–58. Cl. 43.
Covington, James O., d. b. a. Covington Sales Co., Nashville, Tenn. 556,633, canc. Cl. 44.
Covington Sales Co.: *See*—
Covington, James O.
Cuno Engineering Corp., The, Meriden, Conn. 661,653, pub. 2–25–58. Cl. 31.
Daggett & Ramsdell, Inc., Newark, N. J. 556,675, canc. Cl. 52.
Dakota Laboratories: *See*—
Lockhart, Jack H.
Dansk Designs Inc., Great Neck, N. Y. 661,778. Cl. 23.
Daybrook Hydraulic Div.: *See*—
Young, L. A., Spring & Wire Corp.
Deacon, William T., d. b. a. Solvents and Plastics Co., St. Louis, Mo. 661,561, pub. 2–25–58. Cl. 16.
Denver Chemical Mfg. Co., The, New York, N. Y. 661,566, pub. 11–26–57. Cl. 18.
De-Raef Corp., Kansas City, Mo. 358,562, ren. 7–19–58. Cl. 46.
Diamond Alkali Co.: *See*—
Diamond Black Leaf Co.
Diamond Black Leaf Co., to Diamond Alkali Co., Cleveland, Ohio. 661,512, pub. 2–25–58. Cl. 6.
Donbert Co., Inc., New York, N. Y. 556,622, canc. Cl. 50.
Don-Jon Co., The, St. Paul, to Cosum Industries, Inc., Minneapolis, Minn. 661,629, pub. 2–25–58. Cl. 24.
Dorrer, Walter B., d. b. a. Higbee & Dorrer, Los Angeles, Calif. 617,828, canc. Cl. 28.
Dresser Equipment Co.: *See*—
Dresser, Raleigh A.
Dresser, Raleigh A., d. b. a. Dresser Equipment Co., Hartford, Conn. 661,656, pub. 2–25–58. Cl. 32.
Driscoll Inc., Bethesda, Md. 661,528, pub. 2–25–58. Cl. 12.
Duet Hosiery Corp., to Warren Knitting Mills, Inc., New York, N. Y. 556,801, canc. Cl. 39.
Du Pont, E. I., de Nemours & Co., Wilmington, Del. 121,175, ren. 4–16–58. Cl. 9.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 661,513, pub. 10–22–57. Cl. 6.
Dur-O-Lite Co.: *See*—
Dur-O-Lite Pencil Co.
Dur-O-Lite Pencil Co., d. b. a. Dur-O-Lite Co., Melrose Park, Ill. 661,522, pub. 2–25–58. Cl. 8.
ECP Corp., Cleveland, Ohio. 661,596, pub. 2–25–58. Cl. 21.
Eagle Clothes, Inc., Brooklyn, N. Y. 661,694, pub. 2–25–58. Cl. 39.
Eininger Mills, Inc., New York, N. Y. 661,702, pub. 2–25–58. Cl. 42.
Electric Storage Battery Co., Philadelphia, Pa. 661,594, pub. 2–25–58. Cl. 21.
Electro Engineering Products Co., Inc., Chicago, Ill. 661,591, pub. 1–29–57. Cl. 21.
Engineering Development Corp., Berkeley, Calif. 661,614, pub. 2–25–58. Cl. 22.
Enicar S. A. (Enicar Ag.) (Enicar Ltd.), Lengnau near Bienne, Switzerland. 661,647, pub. 2–25–58. Cl. 27.
Enpro Engineered Products: *See*—
Evelyn, Steven F.
Esso Standard Oil Co.: *See*—
Standard Oil Co. of New Jersey.
Evelyn, Steven F., d. b. a. Enpro Engineered Products, Springfield, Mass. 556,776, canc. Cl. 100.
Evenflo Filters Inc., Providence, R. I. 661,652, pub. 2–25–58. Cl. 31.
Evenflo Filters Inc., Providence, R. I. 661,655, pub. 2–25–58. Cl. 31.
Eversharp Food Slicing Machine Co., Kansas City, Mo. 661,618, pub. 2–25–58. Cl. 23.
Extruders, Inc., Hawthorne, Calif. 661,488, pub. 2–25–58. Cl. 1.
F & F Laboratories, Inc., Chicago, Ill. 556,731, canc. Cl. 46.
F. & F. Shoe Co., Chippewa Falls, Wis. 661,685, pub. 2–25–58. Cl. 39.
Federal Equipment Co., Washington, D. C. 556,631, canc. Cl. 32.
Fern Hawaii Co., Inc., Wilmington, Calif. 661,495, pub. 2–25–58. Cl. 2.
First National Bank of Edmond, The, Edmond, Okla. 661,767, pub. 2–25–58. Cl. 102.
Flako Products Corp., New Brunswick, N. J., to The Quaker Oats Co., Chicago, Ill. 359,562, ren. 8–23–58. Cl. 46.
Fleetwood Chemical Co., Inc., Webster, Mass. 661,505, pub. 2–25–58. Cl. 6.
Fleischmann Distilling Corp., The, New York, N. Y. 661,740, pub. 2–25–58. Cl. 49.
Forrest, Inc., Oyster Bay, N. Y. 556,559, canc. Cl. 18.
Forward-Henes Co., Minneapolis, Minn. 661,588, pub. 2–25–58. Cl. 19.
Friedberg, Bert, d. b. a. Bert Friedberg & Co., San Francisco, Calif. 556,644, canc. Cl. 26.
Friedberg, Bert, d. b. a. Bert Friedberg & Co., San Francisco, Calif. 556,645, canc. Cl. 26.
Friedberg, Bert, & Co.: *See*—
Friedberg, Bert.
Frozen Novelties, Inc., Long Island City, to Fruit Products Corp., New York, N. Y. 357,323, ren. 5–31–58. Cl. 46.
Fruit Products Corp.: *See*—
Lowe, Joe, Corp.
Frozen Novelties, Inc.
Fulton-Cole Seed Co., Alturas, Fla. 661,486, pub. 2–25–58. Cl. 1.
Future Planning Corp., New York, N. Y. 661,766, pub. 2–25–58. Cl. 102.
Garner Drug Corp., Baltimore, Md. 661,569, pub. 2–25–58. Cl. 18.
Gavel, Galen, Providence, R. I. 661,680, pub. 2–25–58. Cl. 38.
Gemüsebau A. G. Tägerwilen, Tägerwilen, Switzerland. 661,732, pub. 2–25–58. Cl. 46.
Geneda Products Co.: *See*—
Bosso, Eugene A.
General Aniline & Film Corp.: *See*—
General Dyestuff Corp.
Ozalid Corp.
General Corrugated Machinery Co., Palisades, N. J. 661,628, pub. 2–25–58. Cl. 23.
General Dyestuff Corp., to General Aniline & Film Corp. New York, N. Y. 355,370, ren. 3–15–58. Cl. 52.
General Electric Co., Schenectady, N. Y. 120,737, ren. 3–5–58. Cl. 21.
General Motors Corp., Detroit, Mich. 661,586, pub. 2–25–58. Cl. 19.
General Motors Corp., Detroit, Mich. 661,589, pub. 2–25–58. Cl. 19.
General Tire & Rubber Co., The, Akron, Ohio. 661,527, pub. 2–25–58. Cl. 12.
General Tire & Rubber Co., The, Akron, Ohio. 661,745, pub. 2–25–58. Cl. 50.
Geneva Modern Kitchens, Inc., Geneva, Ill. 556,569, canc. Cl. 32.
Glidden Co., The, Cleveland, Ohio. 355,443, ren. 3–15–58. Cl. 16.
Global Van Lines, Inc., Long Beach, Calif. 661,769, pub. 2–25–58. Cl. 105.
Gluck, S., & Co., Inc., Philadelphia, Pa. 661,598, pub 2–25–58. Cl. 21.
Goodman, Virginius H., Richmond, Va. 661,765, pub. 2–25–58. Cl. 102.
Goodrich, B. F., Chemical Co.: *See*—
Goodrich, B. F., Co., The.
Goodrich, B. F., Co., The, d. b. a. B. F. Goodrich Chemical Co., a division of The B. F. Goodrich Co., Akron, Ohio. 640,820, canc. Cl. 1.
Goodyear Tire & Rubber Co., The: *See*—
Goodyear Tire & Rubber Co., Inc., The.
Goodyear Tire & Rubber Co., Inc., The, Wilmington, Del., and Akron, Ohio, to The Goodyear Tire & Rubber Co., Akron, Ohio. 356,440, ren. 4–26–58. Cl. 19.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 359,616, ren. 8–23–58. Cl. 32.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 661,487, pub. 2–25–58. Cl. 1.
Gordon Chemical Co., Inc., Kansas City, Kans. 661,509, pub. 2–25–58. Cl. 6.
Goren Packing Co., Inc., East Boston, Mass. 661,722, pub. 2–25–58. Cl. 46.
Grand Sheet Metal Products Co., Melrose Park, Ill. 661,539–41, pub. 2–25–58. Cl. 12.
Greene, Harry M., d. b. a. Greene Optical Mfg. Co., Chicago, Ill. 556,612, canc. Cl. 26.
Greene Optical Mfg. Co.: *See*—
Greene, Harry M.
Guest Quality Foods, Inc., Waterloo, Iowa. 661,719, pub. 2–25–58. Cl. 46.
Gunther Wagner, Hannover, Germany. 661,774. Cl. 11.
Gutta Percha & Rubber Mfg. Co., The, to Hewitt-Robins Inc., New York, N. Y. 120,863, ren. 3–12–58. Cl. 35.
Gutta Percha & Rubber Mfg. Co., The, to Hewitt-Robins Inc., New York, N. Y. 120,864, ren. 3–12–58. Cl. 50.
H & M Cigar Factory, Inc., Jacksonville, Fla. 556,572, canc. Cl. 17.
Hadley, Charles R., Co., Los Angeles, Calif. 556,586, canc. Cl. 32.
Hanover Mfg. Co., Hanover, Ill. 661,659, pub. 2–25–58. Cl. 32.
Harbison-Walker Refractories Co., Pittsburgh, Pa. 661,543, pub. 2–25–58. Cl. 12.
Harper Feed Mills, Inc., Washington, Pa. 661,564, pub. 2–25–58. Cl. 18.
Harris, A., and Co., Dallas, Tex. 556,580, canc. Cl. 39.
Hart, Frank A., New York, N. Y. 359,156, ren. 8–9–58. Cl. 18.
Hartness Bottling Works: *See*—
Hartness, Tom P.
Hartness Bottling Works, Inc.: *See*—
Hartness, Tom P.

Hartness, Tom P., d. b. a. Hartness Bottling Works, to Hartness Bottling Works, Inc., Spartansburg, S. C. 357,856, ren. 6–14–58. Cl. 45.
Harvey, William H., d. b. a. Wm. H. Harvey Co., Omaha, Nebr. 661,673, pub. 2–25–58. Cl. 35.
Harvey, Wm. H., Co.: *See*—
Harvey, William H.
Hawkins, Paul, Co., Los Angeles, Calif. 359,074, ren. 8–2–58. Cl. 46.
Hawthorne Paper Co., Kalamazoo, Mich. 354,887, ren. 3–1–58. Cl. 37.
Hawthorne Watch Co., San Francisco, Calif. 661,645, pub. 1–10–56. Cl. 27.
Heatbath Corp., Indiana Orchard, Mass. 661,758, pub. 2–25–58. Cl. 52.
Helmco, Inc., Chicago, Ill. 661,593, pub. 2–25–58. Cl. 21.
Hennessee, William E., d. b. a. The American College of Arms. 661,760, pub. 2–25–58. Cl. 100.
Hewitt-Robins Inc.: *See*—
Gutta Percha & Rubber Mfg. Co., The.
Robins Conveying Belt Co.
Higbee & Dorrer: *See*—
Dorrer, Walter B.
Hill & Griffith Co., The, Cincinnati, Ohio. 661,490, pub. 2–25–58. Cl. 1.
Hoechst Chemical Corp., West Warwick, R. I. 661,508, pub. 2–25–58. Cl. 6.
Holeproof Hosiery Co., Milwaukee, Wis. 556,716, canc. Cl. 39.
Holiday Line Inc., The, New York, N. Y. 661,604, pub. 2–25–58. Cl. 22.
Holly Mfg. Co., Pasadena, Calif. 556,796, canc. Cl. 34.
Hooge, L. A., Co.: *See*—
Hooge, Paul.
Hooge, Paul, d. b. a. L. A. Hooge Co., San Antonio, Tex. 661,724, pub. 2–25–58. Cl. 46.
Hosey, Harry A., d. b. a. The Old Hickory Sales Co., Old Hickory, Tenn. 556,618, canc. Cl. 24.
Household Aids, Inc., Hackensack, N. J. 661,500, pub. 2–25–58. Cl. 5.
Hume, G. W., Co., San Francisco, Calif. 206,167, canc. Cl. 46.
Ideal Publishing Corp., New York, N. Y. 556,805, canc. Cl. 38.
Illes, A. E., Co., Dallas, Tex. 661,735, pub. 2–25–58. Cl. 46.
Imperial Distributors, Minneapolis, Minn. 661,551, pub. 2–25–58. Cl. 15.
Indianapolis Glove Co., Inc., Indianapolis, Ind. 661,696, pub. 2–25–58. Cl. 39.
Industrial Acoustics Co., Inc., New York, N. Y. 661,537, pub. 2–25–58. Cl. 12.
Industrial Instruments, Inc., Cedar Grove, N. J. 661,635, pub. 2–25–58. Cl. 26.
Industrial Publishing Corp., The (formerly Telenews Productions, Inc.), Cleveland, Ohio. 661,781. Cl. 38.
Ingersoll-Rand Co., New York, N. Y. 661,620, pub. 2–25–58. Cl. 23.
Interchemical Corp., New York, N. Y. 556,518, canc. Cl. 20.
International Harvester Co., Chicago, Ill. 556,634, canc. Cl. 5.
International Harvester Co., Chicago, Ill. 556,635, canc. Cl. 5.
International Nickel Co., Inc., The, New York, N. Y. 380,618. Am. 7(d). Cl. 38.
International Nickel Co., Inc., The, New York, N. Y. 661,549, pub. 2–25–58. Cl. 14.
I-Ron Pot Packing Co., Inc.: *See*—
Israel, Lee.
Israel, Lee, Ville Platte, La., to I-Ron Pot Packing Co., Inc. 661,714 pub. 2–25–58. Cl. 46.
Jenaer Glaswerk Schott & Gen., Mainz, Germany. 661,663, pub. 2–25–58. Cl. 33.
Jensen-Salsbery Laboratories Inc., Kansas City, Mo. 661,582, pub. 2–25–58. Cl. 18.
Johns-Manville Corp., New York, N. Y. 661,491, pub. 2–25–58. Cl. 1.
Johns-Manville Corp., New York, N. Y. 661,535, pub. 2–25–58. Cl. 12.
K & G Mfg. Co., Culver City, Calif. 556,620, canc. Cl. 32.
Kadrill S. A., Moutier, Berne, Switzerland. 661,676, pub. 2–25–58. Cl. 37.
Kalina, Moe, New York, N. Y. 661,692, pub. 2–25–58. Cl. 39.
Karam Frozen Foods: *See*—
Karam, George M.
Karam, George M., d. b. a. Karam Frozen Foods, Nogales, Ariz. 661,725, pub. 2–25–58. Cl. 46.
Kay Electric Co., Pine Brook, N. J. 661,642, pub. 2–25–58. Cl. 26.
Kermath Mfg. Co., Detroit, Mich. 556,596, canc. Cl. 23.
Keystone Slipper Co., Inc., Philadelphia, Pa. 556,516, canc. Cl. 39.
Kilby Steel Co., Anniston, Ala. 661,531, pub. 2–25–58. Cl. 12.
Kilray Blind Co., Atlanta, Ga. 556,628, canc. Cl. 32.
Kindlund & Drake, to Mechanical Marine Co., Inc., New York, N. Y. 358,444, ren. 7–12–58. Cl. 13.
Kingsboro Mills, Inc., Daisy, Tenn. 661,687–8, pub. 2–25–58. Cl. 39.
Kleenzit Corp., The, Brownsville, Tenn. 556,577, canc. Cl. 52.
Kob Seal Co., The: *See*—
Chance, Leroy.
Kosto Co., The, Chicago, Ill. 556,525, canc. Cl. 46.
Kreisler, Jacques Mfg. Corp., North Bergen, N. J. 556,574, canc. Cl. 28.
Kreisler, Jacques Mfg. Corp., North Bergen, N. J. 556,630, canc. Cl. 28.
Kresge, S. S., Co., Detroit, Mich. 556,623, canc. Cl. 46.
Kress, S. H., and Co., New York, N. Y. 661,711, pub. 2–25–58. Cl. 44.
Krum, S. S., & Co.: *See*—
Krum, Samuel S.
Krum, Samuel S., d. b. a. S. S. Krum & Co., New York, N. Y. 661,726, pub. 2–25–58. Cl. 46.
Kruse, Käthe, Werkstätten Donauworth: *See*—
Kruse, Max.
Kruse, Max, d. b. a. Käthe Kruse Werkstätten Donauworth, Donauworth, Germany. 661,743, pub. 2–25–58. Cl. 50.
Lambda Electronics Corp., College Point, N. Y. 661,597, pub. 2–25–58. Cl. 21.
Lang, C. C., & Son, Inc., Baltimore, Md. 556,573, canc. Cl. 46.
Lasser, Aaron: *See*—
Michaelis, Curt.
Laucks, I. F., Inc., Seattle, Wash., to Monsanto Chemical Co., St. Louis, Mo. 356,052, ren. 4–12–58. Cl. 12.
Laurentide Dairy Products Ltd., Quebec, Quebec, Canada. 556,575, canc. Cl. 46.
Lawn Seed Corp., The, Milwaukee, Wis. 661,493–4, pub. 2–25–58. Cl. 1.
Les Frigoriferes du Littoral, Oostende, Belgium. 556,579, canc. Cl. 46.
Lind, Roma, d. b. a. Roma Lind Co., Hollywood, Calif. 661,748, pub. 2–25–58. Cl. 51.
Lind, Roma, Co.: *See*—
Lind, Roma.
Lockhart, Jack H., d. b. a. Dakota Laboratories, Redfield, S. D. 556,806, canc. Cl. 38.
Lone Star Rose Nursery: *See*—
Payne, Raymone D.
Loudonville Milling Co., The, Loudonville, Ohio, to Standard Milling Co., Chicago, Ill. 556,482, canc. Cl. 46.
Lowe, Joe, Corp., New York, N. Y. 556,534, canc. Cl. 46.
Lowe, Joe, Corp., New York, N. Y. 357,001, ren. 5–24–58. Cl. 46.
Lowe, Joe, Corp., to Fruit Products Corp., New York, N. Y. 357,011, ren. 5–24–58. Cl. 46.
Lubin-Weeker Co., Inc., New York, N. Y. 556,745, canc. Cl. 39.
M-B Corp., New Holstein, Wis. 661,613, pub. 2–25–58. Cl. 22.
Maar, Zvonko, Zurich, Switzerland. 556,809, canc. Cl. 27.
Mac's Super Gloss Co., Inc., Los Angeles, Calif. 661,755, pub. 2–25–58. Cl. 52.
Magic Bros. Oil Co., Franklin Park, Ill. 661,556, pub. 2–25–58. Cl. 15.
Manhattan Coffee Co., The, St. Louis, Mo. 661,723, pub. 2–25–58. Cl. 46.
Marchand, A., Inc., New York, N. Y. 661,657–8, pub. 2–25–58. Cl. 32.
Marcus, Louis, Corp., The, Baltimore, Md. 661,697, pub. 2–25–58. Cl. 39.
Marjack Co., The, also d. b. a. The Marjack Co., Inc., Washington, D. C. 556,599, canc. Cl. 46.
Marjack Co., Inc., The: *See*—
Marjack Co., The.
Markham, E. L., Jr.: *See*—
Ruggles, Donald H.
Markt & Hammacher Co., New York, N. Y. 661,590, pub. 2–25–58. Cl. 19.
Marshall Field & Co., Chicago, Ill. 556,528, canc. Cl. 46.
Maynard, H. B., and Co. Inc.: *See*—
Methods Engineering Council, Inc.
McGregor-Doniger, Inc.: *See*—
O'Bryan Brothers, Inc.
McIntyre Engineering Co. Inc., South San Francisco, Calif. 661,651. Pub. 9–17–57, Cl. 31; pub. 11–12–57, Cl. 34. (Consolidated certificate, Classes 31 and 34.)
McMillan, W. W.: *See*—
Comfortaire Corp.
McMillan, W. W., d. b. a. W. W. McMillan & Co., Jacksonville, Fla. 661,664, pub. 3–19–57. Cl. 34.
McMillan, W. W., & Co.: *See*—
Comfortaire Corp.
Mechanical Marine Co., Inc.: *See*—
Kindlund & Drake.
Mediterranean Commercial Corp., New York, N. Y. 661,649, pub. 2–25–58. Cl. 30.
Methods Engineering Council, Inc., to H. B. Maynard and Co. Inc., Wilkinsburg, Pittsburgh, Pa. 661,759, pub. 2–25–58. Cl. 100.
Michaelis, Beatrice Y.: *See*—
Michaelis, Curt.
Michaelis, Curt, deceased, Union City, N. J.; B. Y. Michaelis and A. Lasser, executors, to Basic Foods, Inc. 556,658, canc. Cl. 46.
Middlebrooke Lancaster, Inc., Brooklyn, N. Y. 661,752, pub. 2–25–58. Cl. 51.
Mid-State Horticultural Co., Fresno, Calif. 661,734, pub. 2–25–58. Cl. 46.
Midwest Metal Stamping Co.: *See*—
One Minute Washer Co.
Mielke, Dorothy, Indianapolis, Ind. 661,601, pub. 2–25–58. Cl. 21.
Miller Spreader Corp., The, Youngstown, Ohio. 661,777. Cl. 23.
Minneapolis Allied Grocers, Inc., Minneapolis, Minn. 556,544, canc. Cl. 46.
Minnesota Mining & Mfg. Co., St. Paul, Minn. 556,556, canc. Cl. 5.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 661,518, pub. 2–25–58. Cl. 6.

Mitchell, Philip, & Sons, Inc., Brooklyn, N. Y. 661,498, pub. 2–25–58. Cl. 3.
Mitchell, Richard D., d. b. a. Mitchell Syrup & Preserving Co., to Mitchell Syrup and Preserve Co., Detroit, Mich. 358,066, ren. 6–28–58. Cl. 46.
Mitchell Syrup and Preserve Co.: *See*— Mitchell, Richard D.
Mitchell Syrup & Preserving Co.: *See*— Mitchell, Richard D.
Mobay Chemical Co., St. Louis, Mo. 661,485, pub. 2–25–58. Cl. 1.
Modern Food Process Co., Philadelphia, Pa. 307,669, canc. Cl. 46.
Monsanto Chemical Co.: *See*— Laucks, I. F., Inc.
Morgan Crucible Co. Ltd., The, London, England. 354,726, ren. 2–22–58. Cl. 35.
Morris, Carson J., Northridge, Calif. 661,573, pub. 2–25–58. Cl. 18.
Mosemann Co., Lancaster, Pa. 661,717, pub. 2–25–58. Cl. 46.
Mosler Research Products, Inc., Danbury, Conn. 661,592, pub. 2–25–58. Cl. 21.
Motoren-Werke Mannheim A. G. vorm. Benz ABT. Stat. Motorenbau, Mannheim, Germany. 661,623, pub. 2–25–58. Cl. 23.
Mottola, Frank, Los Angeles, Calif. 661,503, pub. 2–25–58. Cl. 5.
Müller, Albert, Koln-Ehrenfeld, Germany. 661,701, pub. 2–25–58. Cl. 42.
N. R. Enterprises, New York, N. Y. 661,695, pub. 2–25–58. Cl. 39.
Nachman Corp., Chicago, Ill. 661,661, pub. 2–25–58. Cl. 32.
Napco Industries, Inc., Minneapolis, Minn. 661,584, pub. 2–25–58. Cl. 19.
National Cooperatives, Inc.: *See*— National Co-Operatives, Inc.
National Co-Operatives, Inc., Indianapolis, Ind., to National Cooperatives, Inc., Albert Lea, Minn. 357,735, ren. 6–14–58. Cl. 6.
National Co-Operatives, Inc., Indianapolis, Ind., to National Cooperatives Inc., Albert Lea, Minn. 358,787, ren. 7–26–58. Cl. 16.
National Dairy Products Corp., New York, N. Y. 661,716, pub. 2–25–58. Cl. 46.
National Machine Accountants Association, Paris, Ill. 661,763, pub. 2–25–58. Cl. 101.
National NuGrape Co., Atlanta, Ga. 661,712, pub. 2–25–58. Cl. 45.
National Seedsman Publications, to Seed World Publications, Chicago, Ill. 358,815, ren. 7–26–58. Cl. 38.
National Transparent Plastics Co., Springfield, Indian Orchard, Mass. 661,686, pub. 2–25–58. Cl. 39.
Neville Chemical Co., Pittsburgh, Pa. 661,521, pub. 2–25–58. Cl. 6.
New England Advertising, Newton Highlands, Mass. 661,764, pub. 2–25–58. Cl. 101.
New York Knitting Mills, Inc., New York, N. Y. 556,740, canc. Cl. 39.
Nichols Inc., Kingston, N. H. 661,718, pub. 2–25–58. Cl. 46.
Nitterhouse Concrete Products, Chambersburg, Pa. 661,536, pub. 2–25–58. Cl. 12.
Nobema Products Corp., New York, N. Y. 661,560, pub. 2–25–58. Cl. 16.
Noma Electric Corp., New York, N. Y. 556,662, canc. Cl. 22.
Noma Electric Corp., New York, N. Y. 556,663, canc. Cl. 22.
Nopco Chemical Co., Harrison, N. J. 661,756, pub. 2–25–58. Cl. 52.
Northern Paper Mills, Green Bay, Wis., to American Can Co., New York, N. Y. 356,820, ren. 5–10–58. Cl. 37.
Northwest Nitro-Chemicals Ltd., Medicine Hat, Alberta, Canada. 661,524–5, pub. 2–25–58. Cl. 10.
OK Tires Inc., Columbus, Ga. 661,671, pub. 2–25–58. Cl. 35.
Obermayer, S., Co., The, d. b. a. The Ramtite Co., Chicago, Ill. 661,538, pub. 2–25–58. Cl. 12.
O'Bryan Brothers, Inc., Nashville, Tenn., to McGregor-Doniger, Inc., New York, N. Y. 356,215, ren. 4–19–58. Cl. 39.
Old Hickory Sales Co., The: *See*— Hosey, Harry A.
Onan, D. W., & Sons Inc., Minneapolis, Minn. 661,615, pub. 2–25–58. Cl. 23.
One Minute Washer Co., Newton, Iowa, to Midwest Metal Stamping Co., Kellogg, Iowa. 359,445, ren. 8–23–58. Cl. 24.
Onyx Oil & Chemical Co., to Onyx Oil & Chemical Co., Jersey City, N. J. 357,073, ren. 5–24–58. Cl. 6.
Onyx Oil & Chemical Co., to Onyx Oil & Chemical Co., Jersey City, N. J. 357,812, ren. 6–14–58. Cl. 6.
Organon Inc., Orange, N. J. 661,570, pub. 2–25–58. Cl. 18.
Ozalid Corp., to General Aniline & Film Corp., New York, N. Y. 356,558, ren. 5–3–58. Cl. 11.
Paca Mfg. Co. Inc., Baltimore, Md. 661,704, pub. 2–25–58. Cl. 42.
Pacific Intermountain Express Co., Oakland, Calif. 661,770, pub. 2–25–58. Cl. 105.
Pacific Laminates, Inc., Costa Mesa, Calif. 661,610, pub. 2–25–58. Cl. 22.
Pam Co., The, Kansas City, Mo. 556,627, canc. Cl. 46.
Paper Mate Mfg. Co., Culver City, Calif. 661,677, pub. 8–6–57. Cl. 37.
Parker Rust Proof Co., Detroit, Mich. 661,654, pub. 2–25–58. Cl. 31.
Patrick, C. H., & Co., Inc., Greenville, S. C. 661,519, pub. 2–25–58. Cl. 6.
Pattrelouex, J. A. (Overseas) Ltd., London and Westminster, London, England. 556,688, canc. Cl. 17.
Payne, Raymond D., d. b. a. Lone Star Rose Nursery, Tyler, Tex. 661,492, pub. 2–25–58. Cl. 1.
Penick, S. B., & Co., New York, N. Y. 556,568, canc. Cl. 46.
Penney, J. C., Co., New York, N. Y. 354,927, ren. 3–1–58. Cl. 39.
Penobscot Shoe Co., Boston, Mass. 661,683, pub. 2–25–58. Cl. 39.
Permanente Cement Co., Oakland, Calif. 661,545, pub. 2–25–58. Cl. 12.
Perry Novelty Co., Providence, R. I. 556,548, canc. Cl. 28.
Petri Wine Co., San Francisco, Calif. 556,683, canc. Cl. 47.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 661,579–81, pub. 2–25–58. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 661,583, pub. 2–25–58. Cl. 18.
Pharmetics Corp., Baltimore, Md. 661,747, pub. 2–25–58. Cl. 51.
Phillips Fly & Tackle Co., Alexandria, Pa. 661,608, pub. 2–25–58. Cl. 22.
Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. 661,606, pub. 2–25–58. Cl. 22.
Pickfair Associates, Fullerton, Calif. 556,766, canc. Cl. 46.
Piedmont Shirt Co., Greenville, S. C. 661,690, pub. 2–25–58. Cl. 39.
Plasti-Card Co., Bronx, to Bernard Ulano, Brooklyn, N. Y. 661,640, pub. 2–25–58. Cl. 26.
Plessey Co. Ltd., The, Ilford, England. 661,602, pub. 2–25–58. Cl. 21.
Porter, H. K., Co., Philadelphia, Pa. 661,672, pub. 2–25–58. Cl. 35.
Producentforeningen af Danish Blue Cheese og Mycella, Odense, Denmark. 661,728, pub. 2–25–58. Cl. 46.
Program Aids Co., Inc., The, Tuckahoe, N. Y. 661,605, pub. 2–25–58. Cl. 22.
Puppet House, The: *See*— Sellers, Sarah E.
Pure Oil Co., The, Chicago, Ill. 661,768, pub. 2–25–58. Cl. 103.
Quaker Oats Co., The: *See*— Flako Products Corp.
Rainbow Shops, Inc., Brooklyn, N. Y. 661,689, pub. 2–25–58. Cl. 39.
Ramtite Co., The: *See*— Obermayer, S., Co., The.
Rapp-Ramsey Co., The, Shenandoah, Iowa. 661,754, pub. 2–25–58. Cl. 52.
Raymond Confections, Inc., Chicago, Ill. 661,731, pub. 2–25–58. Cl. 46.
Red Devil Tools: *See*— Smith, Landon P., Inc.
Reichhold Chemicals, Inc.: *See*— Beck, Koller & Co., Inc.
Reiss, Kurt, Toronto, Ontario, Canada. 661,715, pub. 2–25–58. Cl. 46.
Revertex Ltd., London, England. 661,532, pub. 2–25–58. Cl. 12.
Rex Co., Inc., The, Cambridge, Mass. 419,098, canc. Cl. 21.
Ricotta, D. Richard, d. b. a. Sun-Gal Herb Tea Co., Passaic, N. J. 661,567, pub. 2–25–58. Cl. 18.
Ritter Co., Inc., Rochester, N. Y. 556,681, canc. Cl. 44.
Robbins, Albert A., West Covina, Calif. 661,650, pub. 2–25–58. Cl. 31.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., to Hewitt-Robins Inc., New York, N. Y. 357,692, ren. 6–14–58. Cl. 23.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., to Hewitt-Robins Inc., New York, N. Y. 357,693, ren. 6–14–58. Cl. 23.
Robinson, William C., & Son, Co., Baltimore, Md. 121,338, ren. 4–23–58. Cl. 15.
Robison, Clay, d. b. a. Robison Impl. Co., Maxwell, Iowa. 661,587, pub. 2–25–58. Cl. 19.
Robison Impl. Co.: *See*— Robison, Clay.
Rodana A. G., Grenchen, Switzerland. 556,649, canc. Cl. 27.
Roddis Plywood Corp., Marshfield, Wis. 661,534, pub. 2–25–58. Cl. 12.
Royal Luxury Perfumes Distributors: *See*— Stutzer, Charles.
Royce Shoe Corp., Boston, Mass. 556,724, canc. Cl. 39.
Ruggles, Donald H., Tulsa, Okla., to E. L. Markham, Jr., Dallas, Tex. 556,506, canc. Cl. 32.
Russell Reinforced Plastics Corp., Lindenhurst, N. Y. 661,544, pub. 2–25–58. Cl. 12.
S & F Chemical Co., Inc., Nashville, Tenn. 661,502, pub. 2–25–58. Cl. 5.
Sacks, Samuel, d. b. a. Uneeda Shine Machine Co., New York, N. Y. 556,678, canc. Cl. 23.
Salem, Robert H.: *See*— Wisconsin Knife Works.
Saltwater Farm Inc., Damariscotta, Maine. 661,730, pub. 2–25–58. Cl. 46.
Sanders, W. H., (Electronics) Ltd., London, England. 661,603, pub. 2–25–58. Cl. 21.
San Fernando Electric Mfg. Co., San Fernando, Calif. 661,599, pub. 2–25–58. Cl. 21.
Sawhill Tubular Products, Inc., Sharon, Pa. 661,542, pub. 2–25–58. Cl. 12.
Schenley Industries, Inc., New York, N. Y. 661,742, pub. 2–25–58. Cl. 49.
Schering Corp., Bloomfield, N. J. 661,575, pub. 2–25–58. Cl. 18.
Schlitz, Jos., Brewing Co., to Jos. Schlitz Brewing Co., Milwaukee, Wis. 122,537, ren. 8–20–58. Cl. 48.
Schoncite, Ina, Los Angeles, Calif. 556,552, canc. Cl. 28.

Schrank, M. C., Co., Bridgeton, N. J. 357,188, ren. 5–24–58. Cl. 39.
Schulman Enterprises: *See*—
Schulman, Nate.
Schulman, Nate, d. b. a. Schulman Enterprises, Chicago, Ill. 556,785, canc. Cl. 11.
Schultz, Baujan & Co., Beardstown, Ill. 556,492, canc. Cl. 46.
Schultz & Hirsch Co., Chicago, Ill. 661,660, pub. 2–25–58. Cl. 32.
Schwartz, D. J., & Co., Inc., New York, N. Y. 661,698, pub. 2–25–58. Cl. 39.
Schwartz, Max Lingerie, Inc., New York, N. Y. 556,589, canc. Cl. 39.
Sea Island Mills, Inc., New York, N. Y. 661,703, pub. 2–25–58. Cl. 42.
Seed World Publications: *See*—
National Seedsman Publications.
Selectile Co., Inc., West Los Angeles, Calif. 556,571, canc. Cl. 12.
Sellers, Sarah E., d. b. a. The Puppet House, Cincinnati, Ohio. 556,765, canc. Cl. 22.
Service Mfg. Co., Inc., Yonkers, N. Y. 661,641, pub. 2–25–58. Cl. 26.
Sexton, John, & Co., Chicago, Ill. 357,405, ren. 6–7–58. Cl. 46.
Shafer, H. W., Game Co.: *See*—
Shafer, Hyman W.
Shafer, Hyman W., d. b. a. H. W. Shafer Game Co., New York, N. Y. 661,609, pub. 2–25–58. Cl. 22.
Shelton Mfg. Co., Inc., Long Island City, N. Y. 556,685, canc. Cl. 2.
Sho-Me, Inc., New York, N. Y. 556,604, canc. Cl. 2.
Shore Mfg. Corp., Roslyn Heights, N. Y. 661,523, pub. 2–25–58. Cl. 8.
Shulton, Inc., Clifton, N. J. 661,506–7, pub. 2–25–58. Cl. 6.
Sicilian Asphalt Paving Co., The, New York, N. Y. 661,529, pub. 2–25–58. Cl. 12.
Sifo Products Co., St. Paul, Minn., to United States Gypsum Co., Chicago, Ill. 121,218, ren. 4–16–58. Cl. 12.
Signal Publishing Corp., Huntington Park, Calif. 288,025, canc. Cl. 38.
Simmons Co., New York, N. Y. 661,772, pub. 2–11–58. Cl. B.
Smith, Landon P., Inc., Irvington, to Red Devil Tools, Union, N. J. 355,365, ren. 3–15–58. Cl. 23.
Smith, Landon P., Inc., Irvington, to Red Devil Tools, Union, N. J. 356,227, ren. 4–19–58. Cl. 23.
Smith, T. J., & Nephew, Ltd., Hull, England. 356,583, ren. 5–3–58. Cl. 44.
Snia Viscosa Società Nazionale Industria Applicazioni Viscosa, Milan, Italy. 661,484, pub. 2–25–58. Cl. 1.
Societe Anonyme des Laboratoires Charles Roger, Boulogne-S/-Seine (Seine), France. 661,753. Cl. 51.
Societe Anonyme dite: Etablissements L. Van Malderen, Paris, France. 661,558, pub. 2–25–58. Cl. 16.
Societe Monsavon-L'Oreal, Societe Anonyme, Paris, France. 661,746, pub. 2–25–58. Cl. 51.
Solvents and Plastics Co.: *See*—
Deacon, William T.
Southern Toy Mfg. Co., Waco, Tex., to Wonder Products Co., Collierville, Tenn. 661,612, pub. 2–25–58. Cl. 22.
Spano, Anthony T., d. b. a. All American Food Supplement Co., Los Angeles, Calif. 661,563, pub. 2–25–58. Cl. 18.
Special Instruments Laboratory, Inc., Knoxville, Tenn. 661,638, pub. 2–25–58. Cl. 26.
Speidel Corp., Providence, R. I. 661,648, pub. 2–25–58. Cl. 28.
Spengler-Loomis Mfg. Co., d. b. a. Automatic Pencil Sharpener Co., Rockford, Ill. 556,527, canc. Cl. 23.
Spiegel, Inc., Chicago, Ill. 556,746, canc. Cl. 32.
Sprague Products Co., North Adams, Mass. 661,639, pub. 2–25–58. Cl. 26.
Standard Camera Corp.: *See*—
VEB Kamera Werke Niedersedlitz.
Standard Milling Co.: *See*—
Loudonville Milling Co., The.
Standard Oil Co. of New Jersey, to Esso Standard Oil Co., Wilmington, Del. 356,944, ren. 5–17–58. Cl. 15.
Standard Textile Co., Inc., Memphis, Tenn. 661,693, pub. 2–25–58. Cl. 39.
Stanley, Wm. H., Inc., New York, N. Y., to Westgate-California Corp., San Diego, Calif. 355,652, ren. 3–22–58. Cl. 46.
Stearns & Foster Co., The, Lockland, Cincinnati, Ohio. 661,489, pub. 2–25–58. Cl. 1.
Steel Corner Tape Corp., South Ozone Park, N. Y. 661,559, pub. 2–25–58. Cl. 16.
Stephano Brothers, Philadelphia, Pa. 556,738, canc. Cl. 17.
Stevens, S. G., Toledo, Ohio. 661,517, pub. 2–25–58. Cl. 6.
Strausberg, Jack, Chicago, Ill. 556,777, canc. Cl. 107.
Stutzer, Charles, d. b. a. Royal Luxury Perfumes Distributors, New York, N. Y. 661,751, pub. 2–25–58. Cl. 51.
Sunbeam Corp., Chicago, Ill. 661,708, pub. 2–25–58. Cl. 44.
Sun-Gal Herb Tea Co.: *See*—
Ricotta, D. Richard.
Sunkist Growers, Inc., Los Angeles, Calif. 661,720, pub. 2–25–58. Cl. 46.
Swift & Co., Chicago, Ill. 556,621, canc. Cl. 46.
Sylvania Electric Products, Inc., New York, N. Y. 661,637, pub. 2–25–58. Cl. 26.
Tanner, Edward E., Jr., Chicago, Ill. 556,784, canc. Cl. 39.
Tel-A-Phony, Inc., Chicago, Ill. 556,792, canc. Cl. 38.
Terra-Block, Inc., Kansas City, Mo. 661,533, pub. 2–25–58. Cl. 12.
Tetco Metal Products, Inc., Dolton, Ill. 661,666, pub. 3–19–57. Cl. 34.
Texas Pharmacal Co., San Antonio, Tex. 661,571, pub. 2–25–58. Cl. 18.
Tex-O-Kan Flour Mills Co., to Burrus Mills Inc., Dallas, Tex. 359,366, ren. 8–16–58. Cl. 46.
Thermo Materials, Inc., Menlo Park, Calif. 661,600, pub. 2–25–58. Cl. 21.
Tobal Products Inc., Chicago, Ill. 556,787, canc. Cl. 6.
Trabert & Hoeffer Inc., New York, N. Y. 556,570, canc. Cl. 28.
Trallerent, Inc., Secaucus, N. J. 661,783. Cl. 105.
Trans-Meter Corp., New York, N. Y. 556,503, canc. Cl. 23.
Trommer, Lawrence R., Washington, D. C. 556,641, canc. Cl. 36.
Tung-Sol Electric Inc.: *See*—
Tung-Sol Lamp Works, Inc.
Tung-Sol Lamp Works, Inc. Tung-Sol Electric Inc., Newark, N. J. 410,505. Am. 7(d). Cl. 21.
Turner, Oliver E., Pittsburgh, Pa. 661,709, pub. 2–25–58. Cl. 44.
Uiano, Bernard: *See*—
Plasti-Card Co.
Ulmann, Bernhard, Co., Inc., Long Island City, N. Y. 661,744, pub. 2–25–58. Cl. 50.
Uneeda Shine Machine Co.: *See*—
Sacks, Samuel.
United Chemical Corp. of New England, Providence, R. I. 661,737, pub. 2–25–58. Cl. 52.
United Salt Corp., Houston, Tex. 661,721, pub. 2–25–58. Cl. 46.
United States Gypsum Co.: *See*—
Sifo Products Co.
United States Gypsum Co., to United States Gypsum Co., Chicago, Ill. 121,148, ren. 4–9–58. Cl. 12.
United States Gypsum Co., Chicago, Ill. 356,311, ren. 4–26–58. Cl. 12.
U. S. Industries, Inc., Goleta, Calif. 661,668, pub. 2–25–58. Cl. 34.
United States Pipe and Foundry Co., Birmingham, Ala. 661,552, pub. 2–25–58. Cl. 15.
United States Plastic Bandage Co., Buffalo, N. Y. 661,707, pub. 2–25–58. Cl. 44.
United States Rubber Co., New York, N. Y. 288,982, canc. Cl. 44.
United States Steel Corp., Pittsburgh, Pa. 661,548, pub. 2–25–58. Cl. 13.
Upjohn Co., The, Kalamazoo, Mich. 661,574, pub. 2–25–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 661,576. pub. 2–11–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 661,577, pub. 2–25–58. Cl. 18.
Utica Cutlery Co., Utica, N. Y. 661,619, pub. 2–25–58. Cl. 23.
Utica Cutlery Co., Utica, N. Y. 661,627, pub. 2–25–58. Cl. 23.
VEB Kamera Werke Niedersedlitz, Dresden, Germany, to Standard Camera Corp., New York, N. Y. 661,631, pub. 4–23–57. Cl. 26.
Vaca Foods, Inc., Chicago, Ill. 556,529, canc. Cl. 46.
Vaca Foods, Inc., Chicago, Ill. 556,530, canc. Cl. 46.
Vacuum-Electronic Mfg. Corp., New Hyde Park, N. Y. 661,632, pub. 4–2–57. Cl. 26.
Vacuum Products Corp., Newark, N. J. 556,717, canc. Cl. 2.
Valley Mfg. Co., Inc., Bay City, Mich. 655,767. Am. 7(d). Cl. 22.
Vapon, Inc., Montclair, N. J. 661,749, pub. 2–25–58. Cl. 51.
Vassilaros, John A., New York, to John A Vassilaros & Son Inc., Long Island City, N. Y. 354,207, ren. 2–8–58. Cl. 46.
Vassilaros, John A., & Son Inc.: *See*—
Vassilaros, John A.
Velcro S. A., Lenzerheide, Grisons, Switzerland. 661,700, pub. 2–25–58. Cl. 40.
Vickers, Inc., Detroit, Mich. 355,316, ren. 3–15–58. Cl. 23.
Vickers, Inc., Detroit, Mich. 356,666, ren. 5–10–58. Cl. 23.
Victrylite Candle Co., Oshkosh, Wis. 661,550, pub. 2–25–58. Cl. 15.
Virginia Gazette, The, Williamsburg, Va. 661,681, pub. 2–25–58. Cl. 38.
Vixia Watch Co. S. A., Bienne, Switzerland. 661,646, pub. 12–27–55. Cl. 27.
Wallco Kjemisk Industri, A/S, Oslo, Norway. 661,562, pub. 2–25–58. Cl. 16.
Wall St. Clothes, Inc., New York, N. Y. 661,699, pub. 2–25–58. Cl. 39.
Walum Trading Co., San Francisco, Calif. 556,684, canc. Cl. 46.
Warren Brothers Co., Cambridge, Mass. 661,530, pub. 2–25–58. Cl. 12.
Warren Knitting Mills, Inc.: *See*—
Duet Hosiery Corp.
Washington Steel Products, Inc., Tacoma, Wash. 556,770, canc. Cl. 13.
Webster, F. S., Co., Cambridge, Mass. 359,591, ren. 8–23–58. Cl. 11.
Western Auto Supply Co., Kansas City, Mo. 661,667, pub. 2–25–58. Cl. 34.
Western Grain Co., Birmingham, Ala. 359,388, ren. 8–16–58. Cl. 46.
Western Rubber Products Co., Inc., St. Louis, Mo. 661,585, pub. 2–25–58. Cl. 19.
Westgate-California Corp.: *See*—
Stanley, Wm. H., Inc.
Westgate-Sun Harbor Co., Sandiego and Monterey, Calif. 556,695, canc. Cl. 46.
Westinghouse Electric Corp., Pittsburgh and East Pittsburgh, Pa. 556,539, canc. Cl. 32.
Whitman, Stephen F., & Son, Inc. 556,759, canc. Cl. 46.
Willson Products, Inc., Reading, Pa. 556,694, canc. Cl. 32.

Wilno Kosher Sausage Co., Chicago, Ill. 661,727, pub. 2–25–58. Cl. 46.
Wilson Sporting Goods Co., River Grove, Ill. 661,607, pub. 2–25–58. Cl. 22.
Winthrop-Stearns Inc., New York, N. Y. 556,705, canc. Cl. 18.
Wisconsin Knife Works, to R. H. Salem, Beloit, Wis. 661,616, pub. 3–5–57. Cl. 23.
Wolf, Jacques, & Co., Clifton, N. J. 661,516, pub. 2–25–58. Cl. 6.
Wool Trading Co., Inc., New York, N. Y. 661,705, pub. 2–25–58. Cl. 43.
Wonder Products Co.: *See*—
Southern Toy Mfg. Co.
Wright, John H., Chicago, Ill. 556,789, canc. Cl. 22.
Young, J. H., Co.: *See*—
Young, James H.
Young, James H., d. b. a. J. H. Young Co., Pittsburgh, Pa. 556,651, canc. Cl. 2.
Young, L. A., Spring & Wire Corp., d. b. a. Daybrook Hydraulic Div., Detroit, Mich. 661,617, pub. 2–25–58. Cl. 23.
Ziff-Davis Publishing Co., New York, N. Y. 661,782. Cl. 38.
Zimmer Mfg. Co., Warsaw, Ind. 661,710, pub. 2–25–58. Cl. 44.

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PATENTS

NOTICES

Erratum

All references to Patent No. 2,832,861 to William Anthony Kuhar and Forrest Howard Seiple, assignors to Electric Distribution Products, Inc., for Fusible Plug-In Device, appearing in the OFFICIAL GAZETTE of April 29, 1958, should be deleted as the application was withdrawn from issue and the patent was not issued.

Adjudicated Patents

(C. A. Mich.) Tufts Patent No. 2,590,738 (223—98), for slip resistant pants guard for coat hangers, *Held* invalid. *L. M. Leathers' Sons* v. *Goldman*, 252 F.2d 188; 116 USPQ 219.

(D. C. N. J.) Schmidt et al. Patent No. 2,669,269 (146—73), for rotary disc slicer for slicing a plurality of rows of buns, *Held* valid and infringed. *Alto Co.* v. *Fish Mfg. Co.*, 158 F. Supp. 752; 116 USPQ 331.

(D. C. N. J.) Schmidt and Shaffer Patent No. 2,753,907 (146—78), slicing machine for making vertical and horizontal slits in bun clusters. *Id.*

Patents Available for Licensing or Sale

2,798,289. Safety Cutting Tool for Steel Bands (Cutting Band and Gripping Severed Edges). Charles H. Fennell, 1775 47th Ave., San Francisco, Calif.

2,820,748. Process for Electrowinning Zirconium and Hafnium. Foord von Bichowsky, 1620 Harvey Road, Wilmington 3, Del.

2,821,453. Holder for Electric Shaver and Take-Up Reels Therefor. Paul J. Jessen, 313 Sheridan Road, Kenosha, Wis.

2,826,778. Disposable Mat (Door, Bath, and the Like). Lester E. Highlen, 4420 Pinedale, M. R. #2, Clarkston, Mich.

2,829,453. Calendar Wrist Band Attachment. Alan P. Mattes, 5412 62nd St., Sacramento, Calif.

General Electric Company is prepared to grant non-exclusive licenses under the following 17 patents on reasonable terms to domestic manufacturers.

Applications for license under the following 7 patents may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention Patent Counsel.

2,305,649. Electromagnetic Induction Apparatus.

2,305,650. Method of Making Electromagnetic Induction Apparatus.

2,333,464. Stepped Up Outline Wound Core.

2,344,337. Core Winding Machine.

2,456,461. Magnetic Core.

2,823,247. Gas Piping Connection for Transformers.

2,825,034. Cooling System.

Applications for licenses under the following 2 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,811,540. Organopolysiloxane Lubricants and Their Preparation.

2,826,599. Recovery of Methyl Alkoxysilanes From Methylpolysiloxanes.

The following 8 patents are available for non-exclusive licensing *in the field of radio purposes*.

Applications for licenses may be addressed to: Patent Counsel, Defense Electronics Division, General Electric Company, Syracuse, N. Y.

2,792,508. Pulse Generator.

2,808,203. Binary Shift Register.

2,808,204. Binary Digital Computing Apparatus.

2,818,505. Control Circuit.

2,818,550. Capacitive Scanning Apparatus.

2,820,152. Semi-Conductor Network.

2,821,684. Noise Elimination System for Capacitive Scanning Apparatus.

2,823,312. Semi-Conductor Network.

Proposed Changes in Trademark Rules

Notice is hereby given that the United States Patent Office proposes to amend certain rules and regulations relating to trademarks. The amendments are proposed to be issued pursuant to the authority contained in Title 15, U. S. Code, section 1123, Title 35, U. S. Code, section 6, and other authority.

All persons who desire to submit written data, views, arguments or suggestions, for consideration in connection with the proposed amendments, are invited to forward the same to the Commissioner of Patents, Washington 25, D. C., on or before July 1, 1958. An oral hearing will not be scheduled unless sufficient requests for the same are received.

The text of the proposed amendments follows:

1. Paragraph (a) of § 2.12 is proposed to be amended to read as follows:

(a) Attorneys at law: Any person who is a member in good standing of the bar of the Supreme Court of the United States or of the highest court of any State, Territory, or the District of Columbia, and is not under any order of any court suspending, enjoining, restraining, disbarring, or otherwise restricting him in the practice of law, may represent others before the Patent Office in trademark cases. No application for recognition to practice in trademark cases by attorneys at law is required.

2. Section 2.15 is proposed to be amended to read as follows:

New Applications Received During March 1958

Patents	7,056
Designs	412
Plant Patents	13
Reissues	19
Total	7,500

Issue

Patents	931	No. 2,834,963 to No. 2,835,893, incl.
Designs	86	No. 182,782 to No. 182,867, incl.
Plant Patents	2	No. 1,709 to No. 1,710, incl.
Reissues	5	No. 24,472 to No. 24,476, incl.
Total	1,024	

§ 2.15 *Signature and certificate of attorney or agent.* (a) Every paper filed by an attorney at law or other person representing an applicant or party to a proceeding in the Patent Office must bear the signature of such attorney at law or other person except those papers which are required to be signed by the applicant or party (such as the application itself and verifications required of applicants, registrants or others). The signature of an attorney at law or such other person to a paper filed by him, or the filing of any paper by him, constitutes a certificate that the paper has been read; that its filing is authorized; that to the best of his knowledge, information, and belief there is good ground to support it; and that it is not interposed for delay.

(b) When an applicant or party is represented by a firm composed of attorneys at law, papers may carry the signature or name of the firm, with the signature of a member or associate of the firm.

(c) When an applicant or party is represented by a firm (registered in accordance with § 1.341 (d) of this chapter, Patent Rule 341 (d)) which includes one or more nonlawyers, papers may carry the signature or name of the firm, but in any case, they must carry the signature of an individual member of the firm or of an individual employee of the firm who is registered in the Patent Office and who is authorized to sign on behalf of the firm, and the certification referred to in paragraph (a) of this section shall, in either case, be a certification by and on behalf of the firm and by the individual.

3. Section 2.17 is proposed to be amended to read as follows:

§ 2.17 *Recognition for representation.* (a) When an attorney at law acting in a representative capacity appears in person or signs a paper in practice before the Patent Office in a trademark case, his personal appearance or signature shall constitute a representation to the Patent Office that under the provisions of these rules and the law he is authorized, and qualified under § 2.12 (a), to represent the particular party in whose behalf he acts. Further proof of authority to act in a representative capacity may be required.

(b) Before any nonlawyer will be allowed to take action of any kind in any application or proceeding, a written authorization from the applicant, party to the proceeding, or other person entitled to prosecute such application or proceeding must be filed therein.

4. Section 2.18 is proposed to be amended to read as follows:

§ 2.18 *Correspondence held with attorney or agent.* Correspondence will be held with the attorney at law, or other recognized person who shall have filed his written authorization, representing the applicant or party to a proceeding. Double correspondence will not be undertaken, and if more than one attorney at law appears or more than one agent is authorized, correspondence will be held with the one last appearing or appointed, as the case may be, unless otherwise requested.

5. Section 2.19 is proposed to be amended to read as follows:

§ 2.19 *Revocation of power of attorney or authorization of agent.* Authority to represent an applicant or a party to a proceeding may be revoked at any stage in the proceedings of a case upon notification to the Commissioner; and when it is so revoked, the Office will communicate directly with the applicant or party to the proceeding or with such other qualified person as may be authorized. The Patent Office will notify the person affected of the revocation of his authorization.

6. The last sentence of § 2.24 is proposed to be deleted and the following inserted in lieu thereof: "Official communications of the Patent Office will be addressed to the domestic representative unless the application is being prosecuted by an attorney at law or other qualified person duly authorized. The mere designation of a domestic representative does not authorize the person designated to prosecute the application unless qualified under § 2.12 (a), or qualified under subparagraph (b) or (c) of § 2.12 and authorized under § 2.17 (b)."

7. Section 2.27 is proposed to be amended by changing the title to read *"Pending applications index; access to applications"* and by changing the word "description" in the first sentence to "reproduction."

8. Section 2.37 is proposed to be amended to read as follows:

§ 2.37 *Authorization for representation; U. S. representative.* The authorization of a qualified person to represent applicant (§ 2.17 (b)) and the appointment of a domestic representative (§ 2.24) may be included as a paragraph or paragraphs in the application.

9. The last sentence of paragraph (a) of § 2.39 is proposed to be amended to read as follows: "If the certificate is not in the English language, a translation is required."

10. Section 2.41 is proposed to be amended to read as follows:

§ 2.41 *Proof of distinctiveness under section 2(f).* (a) When registration is sought of a mark which would be unregistrable by reason of section 2 (e) but which is said by applicant to have become distinctive in commerce of the goods set forth in the application, applicant may, in support of registrability, submit with the application, or in response to a request for evidence or to a refusal to register, affidavits, depositions, or other appropriate evidence showing duration, extent and nature of use and advertising expenditures in connection therewith (identifying types of media and attaching typical advertisements), and affidavits, letters or statements from the trade or public, or both, tending to show that the mark distinguishes such goods.

(b) In appropriate cases, ownership of one or more prior registrations on the principal register or under the act of 1905 of the same mark may be accepted as prima facie evidence of distinctiveness. Also, if the mark is said to have become distinctive of applicant's goods by reason of substantially exclusive and continuous use thereof by applicant for the five years next preceding the application filing date, a showing by way of verified statements in the application may, in appropriate cases, be accepted as prima facie evidence of distinctiveness. In each of these situations, however, further evidence may be required.

11. Section 2.53 is proposed to be amended to read as follows:

§ 2.53 *Transmission of drawings.* Drawings transmitted to the Patent Office, other than those typed in accordance with § 2.51 (d), should be sent flat, protected by a sheet of heavy binder's board, or should be rolled for transmission in a suitable mailing tube to prevent mutilation or folding.

12. Paragraph (b) of § 2.67 is proposed to be amended to read as follows:

(b) If registration is refused solely on the basis of a prior registration and the applicant files a petition to cancel the reference registration, such action upon notice thereof being placed in the application file by the applicant within the time for reply, shall be taken as a response to the refusal, and further action by the Office shall, at applicant's request, be suspended pending the termination of the cancellation proceeding.

13. Section 2.75 is proposed to be amended by canceling the last sentence thereof.

14. Section 2.86 is proposed to be amended by canceling the word "description" and substituting the word "identification."

15. The second sentence of § 2.95 is proposed to be amended by inserting the words "under § 2.143" after the word "Commissioner."

16. Section 2.98 is proposed to be amended by deleting the third and fourth sentences and substituting in lieu thereof the following: "If, however, any testimony has been, or is about to be, taken the case will not be added except upon approval of the Examiner of Interferences. If not added, the Examiner of Trademarks may suspend action on such case pending termination of the interference proceeding, following which an interference may be instituted between such case and the case of the party prevailing in the first interference."

17. Section 2.120 is proposed to be amended to read as follows:

§ 2.120 *Discovery procedure.* The provisions of the Federal Rules of Civil Procedure relating to discovery are inapplicable in inter partes trademark cases except as specifically set forth in this section.

(a) *Depositions for discovery.* (1) Any party to an opposition, interference, cancelation or concurrent use proceeding may, at any time not later than thirty days prior to the date when any testimony may be first taken, take the deposition of any person, including a party, for the purpose of discovery. Such depositions may be taken upon oral examination in the manner prescribed by §§ 1.273, 1.274 and 1.275 of this chapter (Patent Rules 273, 274 and 275), or upon written interrogatories in the manner prescribed by § 2.124.

(2) *Scope of examination.* The deponent may be examined regarding any matter, not privileged, which is relevant to the subject matter involved in the pending proceeding, whether it relates to the claim or defense of the examining party or to the claim or defense of any other party, including the existence, description, nature, custody, condition and location of any books, documents, or other tangible things and the identity and location of persons having knowledge of relevant facts. It is not ground for objection that the testimony will be inadmissible at the trial if the testimony sought appears reasonably calculated to lead to the discovery of admissible evidence.

(3) *Use of discovery depositions.* Discovery depositions may be used in accordance with Rule 26 (d) (1), (2), (4) and (f) of the Federal Rules of Civil Procedure, provided the party offering the deposition, or any part thereof, in evidence files it before the close of his testimony period and also files a notice of reliance thereon, setting forth in said notice the specific portions to be relied upon. Objections, including any made during the examination, will be considered only if they are renewed in the brief or at the time of the hearing.

(b) *Requests for admission.* (1) Any party to an opposition, interference, cancelation or concurrent use proceeding may, at any time prior to the opening of his period for taking testimony, serve upon any adverse party a written request for admission by the latter of the genuineness of any relevant document described in and attached to the request (a photocopy may be attached, provided the original thereof is made available for inspection). The genuineness of each such document shall be considered as admitted unless, within fifteen days after service thereof, the party to whom the request is directed serves upon the party requesting the admissions a sworn statement denying the genuineness thereof, or setting forth in detail the reasons why he cannot truthfully either admit or deny the same.

(2) *Effect of admissions.* No admission shall be considered as part of the record in the case unless a party files, before the close of his testimony period, a notice of reliance thereon, setting forth in said notice each request and admission relied upon. Any objections noticed will be considered only if made at the time of the hearing.

18. Section 2.127 is proposed to be amended by deleting paragraph (c).

19. Paragraph (a) of § 2.128 is proposed to be amended by changing "date of service," both occurrences, to "due date."

20 Section 2.131 is proposed to be amended to read as follows:

§ 2.131 *Ex parte matter in an inter partes case.* If, in considering an inter partes case involving an application, facts appear which, in the opinion of the Examiner of Interferences, may render the mark of the applicant unregistrable on one or more ex parte grounds, he may in his decision on the inter partes issues in the case recommend that if the applicant finally prevails in the case, registration be withheld pending a reexamination by the Examiner of Trademarks of the application in the light of such facts. If, upon such reexamination following termination of the inter partes case, the Examiner of Trademarks finally refuses registration to applicant, appeal may be taken as provided in §§ 2.141 and 2.142.

21. New § 2.162a is proposed, reading as follows:

§ 2.162a *Notice to registrant.* If no affidavit is filed within a reasonable time prior to expiration of the sixth year, the registrant may be notified that the registration will be canceled by the Commissioner at the end of such sixth year unless the owner files in the Patent Office the affidavit of use or excusable nonuse required by section 8. Failure to notify the registrant does not, however, relieve the registrant of the responsibility of filing the affidavit within the period required by statute.

22. Paragraph (b) of § 2.164 is proposed to be amended by deleting "he may petition to the Commissioner for review under § 2.146" and inserting in lieu thereof "he may request the Commissioner to review the action under § 2.146," in the first sentence; by deleting "petition to" and inserting in lieu thereof "review by" in the second and third sentences; and by inserting "or review by the" before the word "court" in the last sentence.

23. The first sentence of § 2.165 is proposed to be amended to read as follows: "If no affidavit is filed within the sixth year following registration or publication under section 12 (c), the registration will be canceled forthwith by the Commissioner."

24. Section 2.173 is proposed to be amended by inserting the words "and verified" after the word "signed" in the second sentence of paragraph (a) and by deleting the word "specification" and inserting in lieu thereof the word "identification" in paragraph (b).

25. Paragraph (b) of § 2.175 is proposed to be amended by inserting the words "and verified" after the word "signed," in the first sentence.

26. Section 2.176 is proposed to be amended by deleting "petition may be taken to the Commissioner under § 2.146" and inserting in lieu thereof, "registrant may request the Commissioner to review the action under § 2.146."

27. Paragraph (b) of § 2.184 is proposed to be amended by deleting "he may petition to the Commissioner for review under § 2.146" and inserting in lieu thereof "he may request the Commissioner to review the action under § 2.146."

[SEAL]

ROBERT C. WATSON,
Commissioner of Patents.

Approved: April 16, 1958.

SINCLAIR WEEKS,
Secretary of Commerce.

Published in 23 FR 2641-2643, Apr. 22, 1958.

CONDITION OF PATENT APPLICATIONS AS OF MARCH 31, 1958

Total number of pending applications (excluding Designs)		210, 227
Total number of pending Design applications		6, 592
Total number of applications awaiting action (excluding Designs)		88, 284
Total number of Design applications awaiting action		2, 926
Date of oldest new application	Mar.	8, 1957
Date of oldest amended application	Feb.	13, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	7-10-57	7-30-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	7-8-57	7-2-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	9-19-57	7-9-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	7-1-57	7-5-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	7-1-57	7-1-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	8-29-57	8-5-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	7-1-57	7-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-5-57	5-31-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	7-11-57	7-8-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	7-17-57	7-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	8-22-57	8-7-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	7-5-57	4-15-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	7-11-57	7-15-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	7-1-57	7-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	7-15-57	7-3-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	5-21-57	5-22-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-1-57	7-1-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	7-1-57	7-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	7-1-57	7-1-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	7-1-57	7-1-57
21. (III) MADER, R. C., Textiles	5-13-57	5-9-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	7-1-57	7-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	4-4-57	4-1-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	8-13-57	8-19-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-30-57	4-4-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	9-3-57	7-1-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	8-14-57	8-13-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	7-1-57	7-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	6-20-57	4-30-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	7-9-57	7-1-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	7-10-57	7-12-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-16-57	7-10-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	8-19-57	7-12-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	8-30-57	8-20-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	10-11-57	10-1-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales	6-3-57	6-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	7-8-57	7-2-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Aso, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	9-4-57	9-9-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	9-5-57	9-3-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	9-4-57	9-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-20-57	5-2-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	4-5-57	4-2-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	7-5-57	7-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	7-1-57	7-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	7-15-57	7-3-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	7-1-57	7-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	7-1-57	7-2-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	6-12-57	2-25-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	7-19-57	7-17-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	8-30-57	8-29-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	7-5-57	7-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-5-57	7-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	9-3-57	9-3-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	8-12-57	8-12-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	3-8-57	2-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	8-5-57	7-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	8-19-57	8-12-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	8-5-57	8-1-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-5-57	7-1-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	9-17-57	8-7-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	7-5-57	7-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	8-13-57	8-5-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-14-57	5-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	7-8-57	4-22-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	6-7-57	7-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	7-1-57	7-3-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators	8-2-57	8-1-57
70. (II) BREWRINK, J. L., Security Laws Administration.		
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	8-5-57	8-1-57
CLASS. DIVS. II—LADY, J. E., Oscillators; Amplifiers	9-12-57	9-4-57
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	7-1-57	7-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	7-8-57	7-1-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	7-1-57	7-1-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	5-15-57	5-28-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	9-3-57	10-18-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	7-26-57	9-20-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during May 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents ..... Numbers 2,240,477, to 2,243,828, inclusive
Plant Patents ..... Numbers 466 to 469, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

BELLBROOK DAIRIES, INC. (EDLO, INC., ASSIGNEE, SUBSTITUTED)

v.

HAWTHORN-MELLODY FARMS DAIRY, INC.

No. 6337. Decided March 21, 1958

[— CCPA —; — F.2d —; 117 USPQ 213]

1. TRADEMARKS—CONFUSING SIMILARITY—NOT AVOIDED BY ADDITION TO APPROPRIATE MARK OF DESCRIPTIVE OR OTHERWISE SUBORDINATE MATTER.

"* * *, it is the general rule 'that one may not appropriate the entire mark of another and avoid a likelihood of confusion by the addition thereto of descriptive or otherwise subordinate matter.'"

2. SAME—DESCRIPTIVENESS—NOTATION "VITA".

Held that use of the notation "Vita" on skim milk fortified by the addition of vitamins, obviously has a descriptive connotation.

3. SAME—DOMINANT PART—"VITA SLIM" WHERE VITAMINS ARE USED IN PRODUCT AND "VITA" IS DISCLAIMED.

Held that "Vita" cannot properly be regarded as the principal or dominant part of applicant's mark "Vita-Slim" for fluid milk where the evidence shows its milk is fortified with vitamins and its application contains a disclaimer of all rights to the expression "Vita" separate and apart from its combination with "Slim."

4. SAME—CONFUSING SIMILARITY—MANNER IN WHICH MARK MIGHT ACTUALLY BE USED—REGISTRABILITY.

"The fact that each of the parties applies an additional name or trademark to its product is not sufficient to remove the likelihood of confusion. The right to register a trademark must be determined on the basis of what is set forth in the application rather than the manner in which the mark may be actually used."

5. SAME—OPPOSITION—OPPOSER NEED NOT BE REGISTRANT OR EXCLUSIVE OWNER—SUFFICIENT TO SHOW PROBABLE DAMAGE.

"* * *, it is not necessary that an opposer shall be the registrant or exclusive owner of the mark on which it relies. It is sufficient to show that the opposer would probably be damaged by the registration which it opposes."

6. SAME—SAME—PROBABLE DAMAGE EVIDENCED BY LIKELIHOOD OF CONFUSION.

"Likelihood of confusion affords sufficient evidence of probable damage, even though the opposer may not have used its mark as a technical trademark."

7. SAME—CONFUSING SIMILARITY—"SLIM" AND "VITA-SLIM" FOR FLUID MILK.

Held that concurrent use of "Slim" and "Vita-Slim" by the parties on identical merchandise, skim milk, would be likely to result in confusion in trade.

APPEAL from the Patent Office. Opposition No. 32,149.

REVERSED.

William G. MacKay (*Charles R. Allen, Jr.* of counsel) for Bellbrook Dairies, Inc.

Byron, Hume, Groen & Clement (*Samuel Lebowitz* and *Milton T. Miller* of counsel) for Hawthorn-Mellody Farms Dairy, Inc.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

O'CONNELL, *J.*, delivered the opinion of the court.

This in an appeal from the decision of the Assistant Commissioner of Patents, acting for the Commissioner, 110 USPQ 372, reversing the decision of the Examiner of Interferences and dismissing an opposition filed by appellant, Bellbrook Dairies, Inc. (Edlo, Inc., assignee, substituted) to the registration by appellee, Hawthorn-Mellody Farms Dairy, Inc., of the trademark "Vita-Slim" for fluid milk. The opposition was based on appellant's alleged prior use of "Slim" as a trademark for fluid milk.

The record shows continuing use of the word "slim," in large letters, on skim milk cartons by appellant and its licensees, beginning in July 1949. Such use antedates appellee's alleged date of first use, May 1950. Accordingly, no issue of priority is presented, and the only question to be determined is whether the concurrent use by the parties of their respective marks on identical merchandise would be likely to result in confusion or mistake or to deceive purchasers.

The Examiner of Interferences held that since "Vita-Slim" consists merely of "Slim" with the addition of the descriptive term "Vita," confusion in trade was likely to result from concurrent use of the respective marks.

The Assistant Commissioner held, however, that there was no likelihood of such confusion. She based that holding on "the highly suggestive significance of 'Slim'," and the fact that appellant and its licensees did not use that word alone, but in combination with other words indicating origin, such as "Bellbrook," "Mayflower," "Pages," or "Embassy," which practice "has probably led the purchasing public to think of 'Slim' as a skim milk product put on the market by a dairy in their area, rather than as a trademark identifying the skim milk of opposer and distinguishing it from the skim milk of others."

As we understand the decision of the Assistant Commissioner, she does not hold that appellant's use of "Slim" has not been a trademark use; and appellee could not well contend for such a proposition since, as correctly stated by the Assistant Commissioner, appellee "uses 'Vita-Slim' in substantially the same way as opposer and its 'franchisees' use 'Slim'—i. e. with the word mark 'Hawthorne Mellody' above the word 'Vita-Slim'." Apparently, it was the view of the Assistant Commissioner that "Slim" as used by appellant was a weak mark, and that the addition of the notation "Vita" to it was sufficient to avoid any likelihood of confusion.

As was pointed out by the Examiner of Interferences, [1] it is the general rule "that one may not appropriate the entire mark of another and avoid a likelihood of confusion by the addition thereto of descriptive or otherwise subordinate matter." This court has made holdings to that effect in each of the following cases: *Miller Becker Co.* v. *King of Clubs, Inc.*, 19 CCPA (Patents) 1024, 56 F.2d 883, 12 USPQ 480 (Ace and Ace-of-Clubs); *National Biscuit Co.* v. *Joseph W. Sheridan*, 18 CCPA (Patents) 720, 44 F.2d 987, 7 USPQ 117 (American Beauty and American Beauty Rose); *E–Z Mills, Inc.* v. *Martin Brothers Company*, 25 CCPA (Patents) 992, 95 F.2d 269, 37 USPQ 199 (E–Z and Klad-ezee); *In re Cohen, Goldman & Co., Inc.*, 28 CCPA (Patents) 1141, 119 F.2d 599, 49 USPQ 455 (Knockabout and British Knockabout Model); *Vi-Jon Laboratories, Inc.* v. *Lentheric*

Incorporated, 30 CCPA (Patents) 916, 133 F.2d 947, 56 USPQ 586 (Shanghai and Night in Shanghai): *In re Wings Publishing Co. Inc.*, 32 CCPA (Patents) 926, 148 F.2d 214, 65 USPQ 123 (Wings and Wings Comics); and *Penrith-Akers Manufacturing Co.* v. *Ju-C-Orange of America*, 37 CCPA (Patents) 1056, 182 F.2d 211, 86 USPQ 75 (Ju-See and Ju-C-Orange).

[2] As shown by appellee's evidence, its skim milk is fortified by the addition of vitamins, and the use of the notation "Vita" on such a product obviously has a descriptive connotation. The use of that notation on vitamins and products which contain them is conventional. *The Vitab Corporation* v. *Knox Company and Endo Products Inc.*, 31 CCPA (Patents) 1205, 143 F.2d 883, 62 USPQ 276; *Miles Laboratories, Inc.* v. *Foley & Co.*, 32 CCPA (Patents) 714, 144 F.2d 888, 63 USPQ 64; *Vital Foods Corporation* v. *Miles Laboratories Inc.*, 33 CCPA (Patents) 1136, 156 F.2d 77, 70 USPQ 191. Moreover, appellee's application contains a disclaimer of all rights to the expression "Vita" separate and apart from its combination with "Slim." [3] It seems evident, therefore, that "Vita" cannot properly be regarded as the principal or dominant part of appellee's mark.

While the word "Slim" is suggestive of the intended effect of skim milk on the purchaser, as indicated by the fact that both parties have used it in association with the notation "non-fattening," it would not be thought of as relating to the physical properties of the milk itself, and hence is not descriptive in the same sense as "Vita."

In our opinion "Slim," forms the dominant part of appellee's mark "Vita-Slim," and the concurrent use of those two marks on identical goods would be likely to lead to confusion in trade.

[4] The fact that each of the parties applies an additional name or trademark to its product is not sufficient to remove the likelihood of confusion. The right to register a trademark must be determined on the basis of what is set forth in the application rather than the manner in which the mark may be actually used. *Intercontinental Mfg. Co.* v. *Continental Motors Corp.*, 43 CCPA (Patents) 841, 230 F.2d 621, 109 USPQ 105; *Kiekhaefer Corp.* v. *Willys-Overland Motors, Inc.*, 43 CCPA (Patents) 1013, 236 F.2d 423, 111 USPQ 105.

Appellee notes that an application by appellant for registration of "Slim" as a trademark was dropped after the filing of an opposition based on the mark "Klim." However, [5] it is not necessary that an opposer shall be the registrant or exclusive owner of the mark on which it relies. It is sufficient to show that the opposer would probably be damaged by the registration which it opposes. *Vi-Jon Laboratories, Inc.* v. *Lentheric Inc.*, 30 CCPA (Patents) 916, 133 F.2d 947, 56 USPQ 586. [6] Likelihood of confusion affords sufficient evidence of probable damage, even though the opposer may not have used its mark as a technical trademark. *George H. Ruth Candy Co.* v. *The Curtiss Candy Co.*, 18 CCPA (Patents) 1471, 49 F.2d 1033, 9 USPQ 452; *Virginia Dare Extract Co. Inc.* v. *Adah Mae Dare*, 21 CCPA (Patents) 1086, 70 F.2d 118, 21 USPQ 334, and cases there cited.

Appellee contends that, in view of the suggestive nature of "Slim," appellant should not be allowed to prevent others from using that word, at least in its descriptive sense. However, the issue here is not whether appellee is entitled to use the mark "Vita-Slim," but whether it is entitled to register that mark. [7] Since we are of the opinion that concurrent use of "Slim" and "Vita-Slim" by the respective parties on identical merchandise would be likely to result in confusion in trade, we conclude that the latter mark is not registrable to appellee in view of appellant's prior use of the former, and the decision of the Assistant Commissioner is accordingly reversed.

REVERSED.

JACKSON, *J.*, retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

ROMEY A. GAISER *v.* CYRIL S. LINDER

No. 6314. Decided March 21, 1958

[— CCPA —; — F.2d —; 117 USPQ 209]

1. INTERFERENCE—BURDEN OF PROOF—PREPONDERANCE OF EVIDENCE WHERE APPLICATIONS WERE COPENDING.

Held that, since appellant's application was copending with the application for appellee's patent, appellant has "the burden of proving his case by a preponderance of the evidence only and not beyond a reasonable doubt."

2. SAME—REDUCTION TO PRACTICE—TESTS—EFFECT OF GENERALLY SIMILAR DEVICES BEING KNOWN IN THE ART.

On the question of the tests required for a reduction to practice of a windshield, designed for airplanes, having a variable-thickness, electroconductive coating to provide uniform heating, *Held* that the fact that generally similar devices having coatings of uniform thickness were known in the art is not, in itself, sufficient to establish, without proper tests, that the variable-thickness coating would stand up under service conditions and would continue to give uniform heating.

3. SAME—SAME—SAME.

"The general rule is well established that tests under actual working conditions are necessary to establish reduction to practice."

4. SAME—SAME—SAME.

With respect to a windshield for airplanes, *Held* that, assuming, without deciding, that the invention is of such nature that it could be reduced to practice without flight tests, the minimum testing required would involve conditions simulating those of actual use.

5. SAME—SAME—SAME—TEST SPECIFICATIONS OF CORPORATION AS CRITERION.

Held that it does not appear sound to hold that the specifications as to tests of one company can be arbitrarily used to establish a criterion for reduction to practice.

6. SAME—SAME—SAME—SIMULATED TESTS OF FLIGHT CONDITIONS.

On the question of the tests necessary to establish a reduction to practice of a windshield, designed for airplanes, having a variable-thickness, electroconductive coating to produce uniform heating, *Held* that "if the device * * * can be reduced to practice without flight tests, it must at least be subjected, inter alia, to conditions of vibration, temperature, pressure, moisture, and air flow, simulating those encountered in actual flight, and its ability to produce uniform heating under such conditions for a reasonable time must be demonstrated."

7. SAME—SAME—SAME—OBSERVATION INDICATING NEED FOR FURTHER TESTS.

The observation, in a report on laboratory tests of an electrically heated windshield, that "Many of the visible irregularities around the edge may be of little consequence and will have to be evaluated after further testing," *Held* to indicate "that further testing was required, and hence, that the results were not entirely satisfactory."

8. SAME—DILIGENCE—LACK OF CORROBORATION OF TESTIMONY THAT DEVICE CONFORMED TO COUNT.

Held that the work done on orders for certain windshields could not be considered as showing diligence with respect to the invention in issue in view of the lack of corroboration of the inventor's testimony that some of the windshields were so constructed as to conform to the requirements of the counts in issue.

9. SAME—REDUCTION TO PRACTICE—DILIGENCE—PRIORITY.

"We are in agreement with the Board that Gaiser did not reduce the invention in issue to practice until a time subsequent to Linder's filing date, and was not reasonably diligent for a time just prior to that date until his application was filed. It follows that priority was properly awarded to Linder, even if he be restricted for all purposes to his filing date, and it is accordingly unnecessary to consider the evidence offered on his behalf."

APPEAL from the Patent Office. Interference No. 85,848.

AFFIRMED.

John A. Blair and *Harness, Dickey & Pierce* (*C. Willard Hayes* of counsel) for Romey A. Gaiser.

Oscar L. Spencer (*George R. Jones* and *Beale and Jones* of counsel) for Cyril S. Linder.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Patent Interferences of the United States Patent Office awarding priority of invention of the subject matter to the senior party, Cyril S. Linder, appellee here. The interference involves Patent No. 2,557,983, granted to Linder on June 26, 1951, on an application filed March 22, 1949, and an application of the junior party, Romey A. Gaiser, appellant here, filed May 25, 1950. [1] Since Gaiser's application was copending with that of Linder he has the burden of proving his case by a preponderance of the evidence only and not beyond a reasonable doubt. *St. Pierre* v. *Harvey*, 43 CCPA (Patents) 918, 233 F.2d 337, 110 USPQ 47.

The issue is defined in two counts of which the following is representative:

2. An article of manufacture which comprises a transparent glass base having thereon a pair of laterally spaced electroconductive bus bars disposed in a nonparallel manner and an electroconductive transparent metal oxide coating which is less electroconductive than the bus bars, said coating being in electrical contact with the bus bars and having a surface resistivity which increases as the distance between the bus bars decreases, whereby the film resistance between the opposed sections of the bus bars is substantially the same throughout their entire length.

The invention in issue is a refractory base member, specifically an airplane windshield, provided with a transparent electroconductive film through which electric current may be passed to heat the windshield and prevent icing. Current is supplied to the coating by means of bus bars located at opposite sides or ends of the windshield. As recited in the counts, the bus bars are nonparallel, so that the coating between the bars varies in width and, in order to secure uniform heating, the coating is so formed that it has less surface resistivity where the bars are far apart than where they are close together. This result is accomplished by varying the thickness of the coating so that it is thickest where the bars are farthest apart and becomes gradually thinner as they approach each other.

The Board found that Gaiser conceived the subject matter of the counts in January 1947, and was prior to Linder in that respect, but that he had established no date of reduction to practice prior to his filing date, May 25, 1950, and was lacking in diligence between September 1948 and February 28, 1949, and for substantial periods thereafter to Gaiser's filing date, May 25, 1950.

The conception date accorded Gaiser is properly established by his evidence and does not appear to be controverted here by Linder. On the other hand, there is clearly no evidence which could support a holding that Gaiser was continuously exercising reasonable diligence over the period between Linder's filing date, March 22, 1949, and Gaiser's filing date, May 25, 1950, and it is not contended by Gaiser that his evidence establishes such diligence. In order to prevail, therefore, Gaiser must establish a reduction to practice prior to March 22, 1949.

Gaiser's claim to reduction to practice prior to his filing date is based upon two sets of tests of windshields, allegedly made in accordance with the counts, in the summer of 1948. One set of tests was made at the plant of Libby-Owens-Ford Company and the other at Boeing Airplane Company. Linder contends that the evidence as to such tests is insufficiently corroborated, but we find it unnecessary to consider that matter since, in our opinion, even if it be assumed that all the tests were made as alleged by Gaiser, they were not sufficient to establish reduction to practice.

The articles on which Gaiser relies for reduction to practice were designed for use in airplane windshields and it is not alleged that they were suitable for any other purpose. They were allegedly made and coated as required by the counts, and the tests to which they were subjected were directed primarily to determining whether there was a uniform heat distribution over the surface when current was applied. No flight tests were made and, in fact, there is no evidence that the articles tested were ever installed in airplanes. So far as appears, they were not subjected to deflection or pressure tests, nor to conditions of vibration or air flow simulating those encountered in actual use in airplanes.

It is urged by Gaiser that the only novel feature involved in this case is the use of a coating of varying resistivity to produce uniform temperatures and that the only tests necessary are those showing the temperature to be uniform. However, the purpose for which the articles tested were designed was not to give uniform temperatures in a laboratory, but under service conditions in an airplane. It is entirely possible that a coating which would operate satisfactorily under laboratory conditions might fail to do so under the varying conditions of sun, wind, precipitation, vibration, and pressure encountered in actual use. [2] The fact that generally similar devices having coatings of uniform thickness were known in the art is not, in itself, sufficient to establish, without proper tests, that Gaiser's variable-thickness coating would stand up under service conditions and would continue to give uniform heating.

[3] The general rule is well established that tests under actual working conditions are necessary to establish reduction to practice. *Kruger* v. *Resnick*, 39 CCPA (Patents) 904, 197 F.2d 348, 94 USPQ 65, and cases there cited. The Board was of the opinion that actual flight tests of the windshields were not necessary, apparently because it might be difficult in such tests to subject them to the extreme weather conditions which might sometimes be met with in practice, and because "Laboratory testing also comprehends testing to failure which cannot be done without hazard in flight." Those reasons certainly suggest the desirability of adequate laboratory tests before flight tests, but they are not convincing that flight tests are not necessary. Unless laboratory tests accurately duplicate flight conditions, there is a definite possibility that some factor not present in the laboratory may cause failure in actual use.

[4] However, assuming, without deciding, that the invention here is of such a nature that it could be reduced to practice without flight tests, we agree with the Board that the minimum testing required would involve conditions simulating those of actual use. In *Chandler* v. *Mock*, 40 CCPA (Patents) 846, 202 F.2d 755, 97 USPQ 135, it was held that an aircraft carburetor could not be reduced to practice without tests "under conditions of use, real or simulated, for which it was intended to function; namely, flight conditions." Similar holdings were made in *Balogh* v. *Crot*, 37 CCPA (Patents) 707, 176 F.2d 923, 83 USPQ 130, with respect to a fluid conducting joint which was intended to be used on airplanes, even though the interference count was not limited to such use, and in *Burns* v. *Curtis*, 36 CCPA (Patents) 860, 172 F.2d 588, 80 USPQ 587, with respect to a pump assembly designed for use in an airplane but not limited to such use in the count. No sound reason appears for applying a different standard in the instant case.

[5] Gaiser relies on certain specifications of the Boeing Company, adopted in January of 1949, as showing that "the only test required to establish a reduction to practice of the invention in issue is a test of heating uniformity." However, it does not appear sound to hold that the specifications of one company can be arbitrarily used to establish a criterion for reduction to practice. Moreover, the Boeing specifications in question call for a number of tests in addition to those relating to heating uniformity. It is further noted that although Gaiser argues that pressure tests are unnecessary, his own witness Ball, an engineer of the Boeing Company testified as follows:

XQ. According to your recollection was it the practice of Boeing Airplane Company to test for deflection and pressure tolerance of these lights that were intended for commercial use?

A. Very definitely.

[6] For the reasons given, we are of the opinion that if the device here can be reduced to practice without flight tests, it must at least be subjected, inter alia, to conditions of vibration, temperature, pressure, moisture, and air flow, simulating those encountered in actual flight, and its ability to produce uniform heating under such conditions for a reasonable time must be demonstrated.

As above indicated, it is not alleged that Gaiser tested the invention under actual flight conditions at any time prior to his filing date. The tests described by him and his assistant, McAuley, as having been carried out at Libby-Owens-Ford in the summer of 1948 appear to have consisted essentially, if not solely, in determining whether there was a uniform distribution of heat. As explained by McAuley, that was done by forming a layer of frost on the coated glass, applying current to the coating, and observing the manner in which the frost was dissipated. Clearly such a test does not meet the requirements for reduction to practice set forth above.

The tests principally relied on by Gaiser took place at the Boeing plant in Seattle in September 1948, and a report on such tests is in evidence. Assuming, without deciding, that it is sufficiently established that the windshields referred to in the report conformed to the requirements of the counts; that the results of the tests were as set forth in the report; and that such results show a sufficient uniformity of heating under the conditions of the test, we agree with the Board that those tests are still insufficient to establish reduction to practice.

[7] The report bears the heading: "Subject: Report of Tests to Date on L. O. F. Electropane Windows," and concludes with the general observation that "Many of the visible irregularities around the edge may be of little consequence and will have to be evaluated after further testing." Those statements seem to clearly indicate that further testing was required, and hence, that the results were not entirely satisfactory. Moreover, there is nothing to indicate that the tests were run under conditions of vibration, temperature, moisture, etc., which even approximated those encountered in actual service. We, accordingly, agree with the Board that neither the Boeing tests nor those at Libby-Owens-Ford were sufficient to establish a reduction to practice.

Gaiser's record contains testimony to the effect that shortly after the Boeing tests referred to above, Libby-Owens-Ford became an approved source of supply for windshields and made a number of them on order for Boeing in 1949. The mere fact that Boeing ordered such windshields would not be evidence that they had been reduced to practice, since they might well have been ordered for the purpose of further testing and, in fact, the first paper referring to such an order in 1949 states that the windshields "will be used for test purposes." Moreover, as noted by the Board, there is no corroboration of Gaiser's testimony that some of the windshields referred to in the 1949 orders were so constructed as to conform to the requirements of the counts. The orders in question, therefore, afford no evidence that the 1948 Boeing tests amounted to a reduction to practice, [8] and in view of the above-noted lack of corroboration of Gaiser's testimony, the work done on those orders cannot be considered as showing diligence with respect to the invention here in issue. *Kendall* v. *Searles*, 36 CCPA (Patents) 1045, 173 F.2d 986, 81 USPQ 363.

[9] We are in agreement with the Board that Gaiser did not reduce the invention in issue to practice until a time subsequent to Linder's filing date, and was not reasonably diligent for a time just prior to that date until his application was filed. It follows that priority was properly awarded to Linder, even if he be restricted for all purposes to his filing date, and it is accordingly unnecessary to consider the evidence offered on his behalf.

The decision of the Board of Patent Interferences is affirmed.

AFFIRMED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,163,638, S. P. Vaughn, Cleaning devices; **2,358,673**, same, Mops, **filed** Nov. 1, 1955, D. C., S. D. Calif. (San Diego), Doc. 1795–SD, *Sidney P. Vaughn and Sponge Products Corp.* v. *Longs Stores, doing business as Longs Drug.* Claims 8 and 9 of Pat. 2,163,638 held valid and not infringed; claim 5 of Pat. 2,358,673 held valid and infringed; defendants restrained Mar. 25, 1958.

2,202,220, A. A. Heath, Stencil film, **filed** Aug. 9, 1954, D. C., N. D. Ill. (Chicago), Doc. 54c1146, *Almon A. Heath* v. *A. B. Dick Co.* Complaint sustained; counterclaim dismissed Aug. 5, 1957 (received Apr. 15, 1958). **Same, appeal** filed Aug. 1, 1957, C. C. A., 7th Cir., Doc. 12122, *Almon A. Heath* v. *A. B. Dick Co.* Judgment of District Court affirmed Apr. 8, 1958.

2,254,259, W. F. Aller, Gauging device; **2,370,219**, same; **2,403,897**, same, Leakage gauging device; **2,503,957**, same, Fluid leakage gauging device, **filed** June 5, 1956, D. C., E. D. Mich. (Detroit), **2,748,742**, same, Pneumatic gauging device, **included** by supplemental complaint filed Sept. 4, 1957, Doc. 15752, *The Sheffield Corp.* v. *Dearborn Gage Co.* Consent judgment Apr. 14, 1958.

2,358,673. (See 2,163,638.)

2,370,219. (See 2,254,259.)

2,403,897. (See 2,254,259.)

2,503,957. (See 2,254,259.)

2,637,241, Webber and Erickson, Stud for explosive installation; **2,679,645**, Erickson and Bullwinkle, Safety pad for stud driving tools, **filed** Sept. 2, 1955; **2,713,166**, Erickson and Bullwinkle, Method of varying the effective force on a driven fastener by a powder charge of constant magnitude; **2,722,003**, same, Method of stud driving power control; **2,722,004**, Webber and Erickson, Method of explosive installation of studs, **included** by supplemental counterclaim filed Dec. 7, 1955, D. C., N. D. Ohio (Toledo), Doc. 7421, *Stemco Corp. et al.* v. *Powder Power Tool Corp.* Stipulation and order dismissing cause with prejudice June 8, 1956 (received Apr. 17, 1958).

2,645,804, H. Gantz et al., Brush and bristle formed therewith, **filed** Apr. 11, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16454, *Empire Brushes, Inc.* v. *Premier Products Co.* Order of discontinuance Apr. 15, 1958.

2,667,900, A. B. Mojonnier, Dispensing mechanism with time controlled flow, **filed** Apr. 10, 1958, D. C., N. D. Ind. (South Bend), Doc. 2372, *Mojonnier Dawson Co.* v. *Eby's Guernsey Dairy, Inc. et al.*

2,670,570, M. S. Gnaizda, Doll wig; **2,689,575**, H. Gerbaud, Wigmaking machines; **2,696,019**, B. Sotzky, Attachment for a post, chain-stitch sewing machine mechanism for injecting continuous hair into a doll's scalp, etc., **filed** Apr. 14, 1958, D. C., S. D. N. Y., Doc. 132/138, *Rooted Hair, Inc.* v. *Udeal Toy Corp. et al.*

2,679,645. (See 2,637,241.)

2,689,575. (See 2,670,570.)

2,696,019. (See 2,670,570.)

2,705,007, W. L. Inglett, Bagging method, **filed** Feb. 23, 1956, D. C., E. D. Va. (Norfolk), Doc. 2167, *Inglett & Corby, Inc.* v. *Baugh & Sons Co.* Patent held invalid; complaint dismissed Feb. 26, 1958.

2,710,461, N. Hack, Resilient shoe soles, **filed** Apr. 16, 1958, D. C. Mass. (Boston), Doc. 58/405–F, *Ripple Sole Corp.* v. *American Biltrite Rubber Co.*

2,713,166. (See 2,637,241.)

2,720,017, P. N. Youtz, Method of erecting buildings, **filed** Dec. 27, 1955, D. C., S. D. Calif. (Los Angeles), Doc. 19264–C, *Philip N. Youtz* v. *Western Concrete Structures Co.* Amended complaint dismissed with prejudice; defendants' counterclaims dismissed with prejudice; defendants may contest validity of patents or infringement of same (notice Apr. 8, 1958).

2,722,003. (See 2,637,241.)

2,722,004. (See 2,637,241.)

2,736,323, E. G. McDonough, Permanent waving solutions and methods, **included** by amended and supplemental complaint filed Jan. 9, 1957, D. C., S. D. N. Y., Doc. 76/376, *Sales Affiliates, Inc. et al.* v. *Southwestern Beauty Products.* Supplemental judgment; patent held invalid Apr. 4, 1958. **Same**, Doc. 71/280, same, *Helene Curtis Sales, Inc. et al.* v. *Sales Affiliates, Inc.* Decree as above. **Same**, Doc. 71/284, same, *Gillette Safety Razor Co. et al.* v. *Sales Affiliates, Inc.* Decree as above. **Same**, Doc. 76/375, *Sales Affiliates, Inc.* v. *Skillern & Sons, Inc. et al.* Decree as above.

2,737,668, Cressi and Ferraro, Fins for swimmers, **filed** July 18, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20217–BH, *Il Pescatore Subacqueo-Cressi et al.* v. *U. S. Divers Corp. et al.* Consent judgment; permanent injunction; defendants restrained (notice Apr. 8, 1958).

2,748,052, A. Rosner, Therapeutically active compositions containing amphetamine, **filed** Apr. 16, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. C–18626, *Rexar Pharmacal Corp.* v. *Medico Chemical Co.*

2,748,393, F. W. Andrews, Shape-retaining reinforcement of deposited rubber undergarment, **filed** Apr. 11, 1958, D. C. Conn. (New Haven), Doc. 7203, *International Latex Corp.* v. *Warner Brothers Co.*

2,749,742. (See 2,254,259.)

2,803,693, J. J. Kurland et al., Hermetically sealed terminal structure and method for making same, **filed** Apr. 10, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c651, *Illinois Condenser Co.* v. *Cal-Ros Industries, Inc. et al.*

2,809,673, A. W. McMurray, Non-slip or friction-surfaced extensible woven fabric, etc., **filed** Apr. 16, 1958, D. C., W. D. N. C. (Statesville), Doc. 371, *Ansonia Mills, Inc.* v. *Beaunit Mills, Inc.*

Des. 180,653, J. A. Higier, Glove, **filed** Dec. 3, 1957, D. C., S. D. N. Y., Doc. 127/230, *Crescendoe Gloves, Inc.* v. *Selecta, Inc.* Consent decree of dismissal Apr. 11, 1958.

Des. 181,193, J. A. Higier, Glove, **filed** Nov. 20, 1957, D. C., S. D. N. Y., Doc. 127/84, *Crescendoe Gloves, Inc.* v. *Selecta, Inc.* Consent decree of dismissal Apr. 11, 1958.

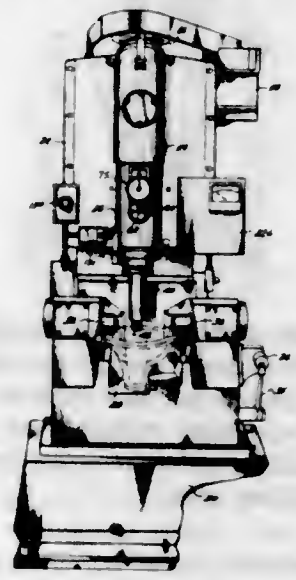
Des. 181,792, M. A. Greene, Collar or similar article, **filed** Apr. 14, 1958, D. C., S. D. N. Y., Doc. 132/139, *Jepco Corp., Inc.* v. *Michael A. Greene et al.*

REISSUES

MAY 20, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,472
BEARING QUALITY TESTING MACHINE
Horace E. Farmer, Howell, Mich.
Original No. 2,760,366, dated August 28, 1956, Serial No. 359,193, June 2, 1953. Application for reissue December 2, 1957, Serial No. 700,931
5 Claims. (Cl. 73—9)



1. Apparatus for testing the accuracy of contact between the rollers and races of a thrust roller bearing comprising, supporting means for the bearing, means operable to rotate one of the races relative to the other, thrust means operable to exert an increasing force urging the races into engagement with the rollers, power means to operate said thrust means, said force calculated to effect a predetermined torque applied to said rotating means for bearings having a passable measure of surface area of the races and rollers in contact, and a control responsive to said predetermined torque to discontinue operation of said thrust means by said power means indicating a passable bearing.

24,473
METHOD OF TREATING WATERS, INCLUDING BOILER WATERS, AND COMPOSITION THEREFOR
Wayne L. Denman, Oak Park, Ill., assignor to Dearborn Chemical Company, Chicago, Ill., a corporation of Illinois
No Drawing. Original No. 2,400,543, dated May 21, 1946, Serial No. 321,140, February 27, 1940. Reissue No. 23,614, dated January 13, 1953, Serial No. 274,520, March 1, 1952. This application for reissue October 25, 1957, Serial No. 692,963
31 Claims. (Cl. 210—59)

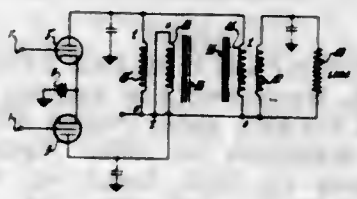
(Matter printed in bold face indicates the additions made by this reissue)

32. The process of treating water which includes adding to the water in an amount not in excess of 500 parts per million, a compound selected from the group consisting of substantially water-insoluble aliphatic primary and secondary amines and salts of such amines readily hydrolyzable into free amines, said compound having the formula

$$R-N-R''$$
$$|$$
$$R'$$

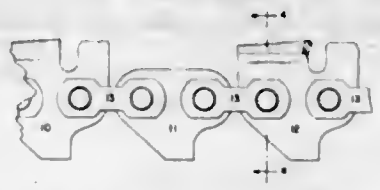
in which R is an unsubstituted alkyl group, R′ is a hydrogen atom, and R″ is selected from the group consisting of an unsubstituted alkyl group and a hydrogen atom, one of said unsubstituted alkyl groups having at least eleven carbon atoms per molecule.

24,474
PUSH-PULL TRANSFORMER
Wallace W. Wahlgren, Oakland, Calif., assignor to Electro Engineering Works, Oakland, Calif., a corporation of California
Original No. 2,798,202, dated July 2, 1957, Serial No. 487,837, February 14, 1955. Application for reissue December 9, 1957, Serial No. 701,692
7 Claims. (Cl. 332—43)



1. A push-pull [modulating] circuit comprising a first magnetic core member, a first primary winding and a closely coupled and electrically equivalent secondary winding disposed on said core member, a second magnetic core member, a second primary winding electrically equivalent to said first primary winding and connected in series therewith disposed on said second core member, an output circuit closely coupled with said second primary winding, means for completing the magnetic circuits of each of said core members, connections for exciting said first primary winding from one of a pair of push-pull connected amplifying elements, and connections for exciting said second primary winding from the other of said pair of amplifying elements and from said secondary winding in parallel.

24,475
CHAIN CONSTRUCTION
Harry E. Siverson, Portland, Oreg.
Original No. 2,798,381, dated July 9, 1957, Serial No. 431,682, May 24, 1954. Application for reissue December 9, 1957, Serial No. 701,691
1 Claim. (Cl. 74—252)



2. In a saw chain, a pair of longitudinally spaced center links of the same thickness, a pair of oppositely disposed side links joining said center links together, an aperture in each of said side links near each end, said apertures being identical in size and the respective apertures of said side links being in transverse axial alignment, said side links being deformed so as to provide an inwardly offset annular shoulder on the inside face surrounding and concentric with each aperture with a corresponding recessed portion on the outside face concentric with the aperture, said shoulder having an outer cylindrical wall, the axial length of said shoulder and the depth of said corresponding recessed portion being not more than half the thickness of the side link, said shoulder

and said recessed portion being approximately the same diameter, each center link having an aperture near each end with a diameter only slightly greater than the diameter of said cylindrical shoulder walls, said center links and said side links arranged in said chain with one pair of corresponding shoulders from said side links positioned in an aperture of one center link and the other pair of corresponding shoulders from said side links positioned in an aperture of the other of said center links, said cylindrical walls of said shoulders constituting the sole bearing surfaces for the circumferential walls of the respective apertures of said center links in the pivotal motion between said center links and said side links, the relative thickness of said center links and said side links being such that the axial length of each of said shoulders will be slightly greater than one half the thickness of said center links, and a rivet in each pair of aligned apertures of said side links holding said side links together with the corresponding shoulders pressed against each other, the headed ends of said rivets being seated within said recessed portions of said side links.

24,476
DEMOUNTABLE BRAKE LINING
Teofil L. Bonkowski, Los Angeles, Calif.
Original No. 2,631,697, dated March 17, 1953, Serial No. 51,160, September 25, 1948. Application for reissue November 15, 1954, Serial No. 469,067
2 Claims. (Cl. 188—234)

1. A demountable brake lining for brake shoes of arcuate form, comprising: an arcuate sheet metal backing plate having a radius of curvature substantially equal to that of the outer surface of the brake shoe, one margin only of said arcuate backing plate having a continuous circumferentially extending, radially inwardly directed flange, said flange terminating along its radially inner edge in a continuous arcuate lip extending away from



said flange to form with said backing plate an arcuate trough, the opposite arcuate margin of said backing plate having a plurality of spaced tabs extending axially away from said opposite arcuate margin, and a brake lining having a substantially rigid inherently arcuate shape cemented to said backing plate.

PLANT PATENTS

GRANTED MAY 20, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,709
ROSE PLANT
Dennison H. Morey, Jr., Pleasanton, Calif., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York
Application September 19, 1957, Serial No. 685,055
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its dense and bushy habit of plant growth, its dark and shiny foliage, its very large flower heads, and the sharp Scarlet Red general color tonality of its flowers.

1,710
DOGWOOD PLANT
Isaac J. Hawkersmith, Winchester, Tenn.
Application October 7, 1957, Serial No. 688,797
1 Claim. (Cl. 47—59)

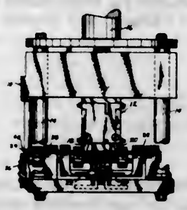
A new and distinct variety of dogwood plant substantially as herein shown and described, characterized particularly by its Spiraea Red bracts and Magenta Rose colored young leaves and with lower green leaves also distinctly suffused with Magenta Rose.

PATENTS

GRANTED MAY 20, 1958

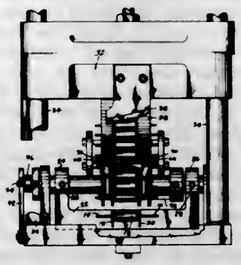
GENERAL AND MECHANICAL

2,834,963
ADJUSTABLE ANVIL CARRIAGE
Raymond S. Karinen, St. Paul, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application February 21, 1956, Serial No. 566,788
4 Claims. (Cl. 1—2)



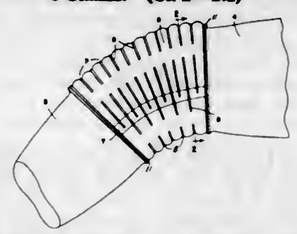
1. In a component forming and inserting machine having a forming head with fingers adapted to engage and bend the leads of an electrical component, including in combination an adjustable anvil carriage assembly to receive and support the components and guide the bending of said leads by said fingers, said anvil carriage assembly comprising a carriage block, first and second side anvil assemblies mounted at the respective sides of said block, each of said side assemblies including an anvil member having a top surface adapted to receive and support the leads of a component and an outer side surface defining the path around which the leads are to be bent, a wire guide plate mounted on said block and projecting below and between the anvil members, said plate having spaced lateral edges which limit the inward bending of said leads around the anvil members and thus determine the final spacing between said leads, and readily operable means removably mounting said plate on said block and thereby facilitating substitution of a guide plate of different width for components whose leads require a different final spacing.

2,834,964
COMPONENT FORMING AND INSERTING MACHINE
Hilbert L. Huso, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware
Application February 21, 1956, Serial No. 566,789
9 Claims. (Cl. 1—2)



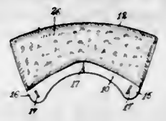
1. A component forming and inserting machine having an anvil member movable between a first position in which the anvil is adapted to receive and support a component to be formed and a second displaced position, supply means for the components including a guide member providing a passage through which components are adapted to be fed and discharged successively to said anvil, a stop member mounted on the machine for movement between a first position in which it constitutes the final barrier which holds the leading component in the passage and a second position in which the stop is out of said passage for free movement of the leading component to the anvil, and means operatively connecting the anvil and stop for automatically moving said stop to its second position in response to movement of the anvil to its first position.

2,834,965
FLEXIBLE JOINT FOR INFLATABLE GARMENTS
John E. Flagg, Worcester, and Justin E. Walsh, Brookline, Mass., assignors to David M. Clark, Worcester, Mass.
Application April 6, 1953, Serial No. 347,074
6 Claims. (Cl. 2—2.1)



1. A flexible joint for an inflatable garment comprising a tube of flexible gas-tight material for encircling a wearer's limb joint, a first plurality of circumferential corrugations on the upper portion of said tube, a second plurality of circumferential corrugations on the lower portion of said tube, and a pair of smooth longitudinal areas on opposite sides of said tube separating said upper corrugations from said lower corrugations, said upper portion of said tube having a greater number of corrugations than the lower portion thereof so as to permit a relatively greater expansion of said upper portion.

2,834,966
OVERCOLLAR FOR OVERCOAT
Herman L. Zimmerman, Brooklyn, N. Y.
Application March 9, 1956, Serial No. 570,595
7 Claims. (Cl. 2—84)



1. The combination of an overcoat having a permanently attached collar on which there is a free edge provided with separable fastening means, and having other separable fastening means inside its neck portion; a detachable overcollar for said overcoat, comprising a pair of segmental-shaped pieces of material disposed in superposed relation; means securing together one pair of corresponding edges of said pieces of material, along a fold line, the opposite edges of said pieces of material being

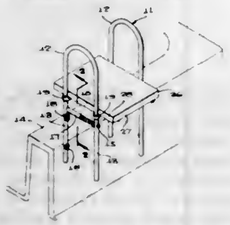
juxtaposed to each other; fastening means carried by one of said pieces of material, adjacent the said opposite edge thereof, for engagement with the said other fastening means in the overcoat neck portion or with the fastening means on the free edge of the collar, to secure said piece either inside of the regular collar of the overcoat or else to the said free edge of the regular collar; and separable, cooperable fastening means on the said opposite edge of the other piece of material, for detachably securing the two halves of said opposite edge together in coextensive relationship.

2,834,967
REVERSIBLE NECKTIE
Sam I. Takas, Pittsburgh, Pa.
Application October 14, 1955, Serial No. 540,467
1 Claim. (Cl. 2—155)



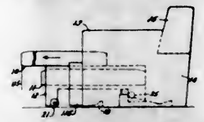
A four-in-hand necktie comprising a narrow fabric strip and a wide fabric strip disposed end to end with said ends located in a position where they will be concealed by the collar of the wearer, the narrow strip having only one finished face and the wide strip having two finished faces, and detachably connected connecting members fastened to said ends of the strips to form the strips into a necktie, the wide strip being formed from two layers of fabric with inturned side edges stitched together along their length and with a lining between the layers, the free end of the wide strip remote from said connecting members being open, one end of the lining being fastened to the adjoining connecting member, and stitching near only the opposite end of the lining connecting only a very short length of the lining to the inturned edges of said fabric layers, the rest of the lining being unattached to said fabric layers, whereby when said wide strip is turned inside out the major portion of the lining can be pulled away from the strip for pressing.

2,834,968
BATHTUB SEAT
David R. Hefley, Buckeye, Ariz.
Application August 30, 1957, Serial No. 681,347
3 Claims. (Cl. 4—185)



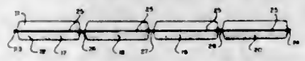
1. In a bathtub seat, a pair of vertical side frames shaped to fit over the wall of a bathtub, a seat board adapted to be disposed horizontally between said side frames, guide means on the side frames slidably engageable with opposite side marginal portions of said seat board and being formed and arranged to guide said seat board for horizontal adjustment between said frames, and pivoted locking means on the seat board lockingly engageable with said guide means to releasably secure said seat board in a horizontally adjusted position between said side frames.

2,834,969
CONVERTIBLE FURNITURE
William P. Wachsman, Chicago, Ill., assignor to Gene A. Gelbspan, Chicago, Ill.
Application January 14, 1955, Serial No. 481,790
27 Claims. (Cl. 5—21)



1. A convertible furniture piece comprising a seat forming frame and a bed forming frame arranged in superimposed relation, end support frames and mechanism connecting said seat and bed forming frames to said end support frames for sliding movement of said seat and bed forming frames relative to each other in horizontal and vertical planes to selectively interchange the seat and bed forming frames.

2,834,970
SEALED PAD
Moritz Nappe, Farmingdale, N. J.
Application August 7, 1957, Serial No. 676,810
4 Claims. (Cl. 5—344)



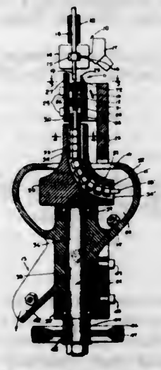
1. A body-supporting chaise or ground pad comprising a plurality of individual relatively thick substantially flat rectangular fibrous mats, said mats being individually self-supporting, said mats being disposed in aligned spaced relation to one another, each of said mats comprising a large plurality of fibers having air containing spaces therebetween, the thickness and external dimensions of each said mat being sufficiently large so that each said mat is adapted to individually and resiliently support a major portion of the body of a person reclining upon said alined plurality of mats, and a retaining cover for said mats comprising air-tight and water-tight thermoplastic sheet material, said sheet material having a thickness in the order of a small fraction of the thickness of said fibrous mats whereby the thickness of said sheet material is insignificant in contributing to the resiliency of said body-supporting pad, said sheet material including opposed portions disposed in covering relation adjacent the opposed sides of each of said mats, said opposed portions of said sheet material being heat-sealed to one another at a plurality of positions located respectively in the spaces between said spaced fibrous mats and also being heat-sealed to one another adjacent the exterior edges of said spaced fibrous mats whereby said sheet material forms a plurality of independent completely enclosed air and water-tight pockets respectively containing said fibrous mats, the air in said spaces between the fibers of said mats being permanently and completely trapped within said mats and envelopes whereby said permanently and completely trapped air imparts substantially permanent resiliency to each of said fibrous mats.

2,834,971
METHOD AND APPARATUS FOR MAKING PLASTIC BOATS
Robert E. W. Harrison, Washington, D. C.
Application May 12, 1954, Serial No. 429,409
7 Claims. (Cl. 9—6)
(Granted under Title 35, U. S. Code (1952), sec. 266)



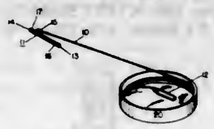
1. A plastic boat comprising a pair of symmetrical cast members which, when joined together along the keel line, form the shell of said boat, each of said symmetrical members comprising a combination of cast resinous and reinforcing materials, said members each having a keel portion integrally cast on the bottom thereof, an open-faced recess in said keel portion of each member adapted to mate with one another to thereby form a closed recess of predetermined contour when said symmetrical members are placed in position to form the shell of said boat, a rigid reinforcing member of substantially the same contour as that of the closed recess positioned in said closed recess along the length thereof for strengthening said keel, said reinforcing member being surrounded and waterproofed by the resinous material of the boat and fastening means rigidly affixing said members to one another along said keel portions thereby providing a watertight fit for said boat.

2,834,972
METHOD OF AND APPARATUS FOR CASTING, TRIMMING AND INTERNALLY THREADING A PRODUCT
Louis H. Morin, Bronx, N. Y.
Application February 1, 1956, Serial No. 562,716
3 Claims. (Cl. 10—86)



1. The method of producing products of the character described, which consists in providing, in associated relationship to each other, a casing station, a trimming station, a threading station and a delivery station, first forming a cast product blank at the casing station on a core pin extending from the casting station to a position beyond the trimming station and adjacent the threading station, then moving a delivery element longitudinally of the core to first deliver the cast product to the trimming station to trim the product, then delivering the product to the threading station and actuating said element to positively feed the product blank into operative position with threading means at said threading station, the rate of feed of said element being no greater than the rate of feed of said tap, guiding and retaining the product against rotation at the thread station and then discharging the finished threaded product to the delivery station for delivery to a suitable receiver.

2,834,973
POCKET GUN BARREL CLEANER
Henry C. Friesen, Dallas, Oreg.
Application October 12, 1956, Serial No. 615,586
4 Claims. (Cl. 15—104.165)



1. In a gun barrel cleaner of the character described, an element capable of being inserted through the bore of a gun barrel from one end to the other, a guide handle having an elongated main body portion having a length equal to several times the diameter of the bore of the gun barrel, means on said guide handle for attaching said element thereto, one end of said element pivotally connected with said means, said means located considerably nearer to one end of said main body portion than to the other and thereby dividing said main body portion into sections of unequal length, whereby, when said guide handle, with said element attached, is inserted into one end of said bore with the shorter of said sections of said main body portion preceding the other longer section and said guide handle is pushed along in said bore by said element, the forward end of said main body portion will be kept by the trailing longer section of said main body portion from engaging the wall of said bore along the side opposite from that engaged by said trailing section while said guide handle will prevent the attached end of said element from engaging the wall of said bore, and bore cleaning means attached to the other end of said element.

2,834,974
SPONGE MOP HAVING SPRING OPERATOR
Nathaniel B. Greenleaf, Toronto, Ontario, Canada, assignor to Sponge Products Corporation, Chicago, Ill.
Application October 15, 1954, Serial No. 462,493
8 Claims. (Cl. 15—119)



1. In a mop having a pair of oppositely disposed sponge carrying plates pivotally supported at the lower end of a handle structure to swing between a substantially aligned mopping position and a substantially parallel wringing position, means for actuating each of said plates comprising a link pivotally connected to and forming an angle with each plate, and means operating on said link, each link in moving its plate from mopping to wringing position moving first to decrease the contained angle formed between the inner end of each plate and link and subsequently to increase the said contained

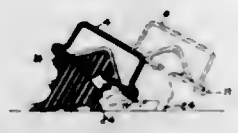
angle, and means conforming to the changing angle between and biasing each link and plate as some move from mopping to wringing position to increase the said contained angle therebetween, whereby said last-mentioned means acts to bias each plate in mopping and full wringing positions.

2,834,975
POCKET TOOTHBRUSH WITH REMOVABLE BRUSH HEAD
Ludwig F. Perwas, New York, N. Y.
Application July 3, 1953, Serial No. 365,896
2 Claims. (Cl. 15—176)



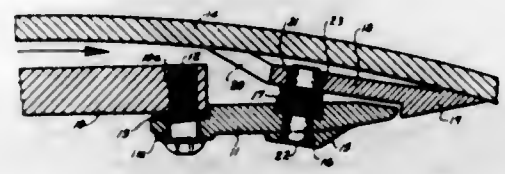
1. In a pocket toothbrush, the combination which comprises a tubular handle having an open extended end and having an outwardly tapering portion on the opposite end, said outwardly tapered portion having a bore therethrough with an internally threaded counterbore in the outer end, a lock nut having a circular bore, and a pair of grooves extending longitudinally of the lock nut and positioned in diametrically opposed sides of the circular bore, said lock nut being threaded in the counterbore, a compressible sealing washer positioned at the inner end of the lock nut, a retaining nut in the outwardly tapered portion and positioned to engage the sealing washer, and a brush head having an offset stem with oppositely disposed lugs on the outer surface positioned with the lugs in said retaining nut, the lower portion of said outwardly tapered portion having an inner sleeve providing limiting means being positioned to be engaged by said lugs, said handle having a closure in the extended end.

2,834,976
WINDSHIELD WIPER
John R. Oishei, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application May 28, 1954, Serial No. 433,002
2 Claims. (Cl. 15—245)



1. A windshield wiper comprising a blade and superstructure, said blade comprising a body having a relatively thick main portion defined in part by spaced side walls, the side walls being recessed for receiving a backing strip therein for connection with the superstructure, said body including a wiper portion having its side faces converging to terminate in a flexible wiping edge, skid knobs spaced generally medially along each converging side face for preventing cling of side wiping edges, and spaced elongate elevator means formed integral with and extending longitudinally of each side of the blade body at the junction of the converging faces and the side walls, said elevator means extending laterally of said knobs to lift the wiper and to hold its superstructure out of engagement with the surface being wiped.

2,834,977
SCRAPER BLADE ASSEMBLY FOR THE INTERIOR SIDE WALL OF A GREASE KETTLE
Joseph R. Wilson, Merriam, Kans., assignor to Stratford Engineering Corporation, Kansas City, Mo., a corporation of Delaware
Application July 11, 1955, Serial No. 521,082
9 Claims. (Cl. 15—246.5)



1. A scraper blade assembly for scraping the interior surfaces of grease kettles comprising a scraper blade having heel and toe contact portions whereby to contact the interior surface of the kettle on at least two portions thereof, a scraper frame, a scraper drive plate fixedly mounted on an end of said frame and at least partially overlying said blade, said plate having a lower face adjacent said blade and an upper face away therefrom, the upper face of the toe portion of said blade angled upwardly from the lower kettle contacting face of said toe portion, the forward edge of said plate approaching the toe area of the blade, and mounting means cooperating between the drive plate and blade so as to permit the blade tanslational motion relative the drive plate and driving scraper frame without changing the at least substantially flat abutment of the blade on the kettle wall independent of any eccentric motion of the scraper frame relative the kettle wall.

2,834,978
COORDINATED CONTROL MEANS FOR VEHICLE WINDSHIELD WIPER AND WASHER
Walter D. Harrison, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 11, 1955, Serial No. 521,177
11 Claims. (Cl. 15—250.4)

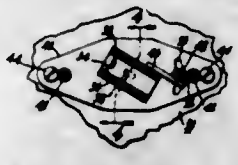


1. A joint control for a windshield wiper motor and a windshield washer pump motor, said washer pump motor having an intake stroke and a delivery stroke comprising, a housing, a control shaft rotatably journaled in said housing and capable of axial movement relative thereto, means operatively connected to the shaft and actuated by either rotation or axial movement thereof for controlling operation of the wiper motor, means operatively connected to said shaft and actuated only upon a predetermined axial movement thereof for controlling operation of the washer pump motor to effect the intake stroke thereof, resilient means operatively connected with said shaft so as to be stressed upon axial movement thereof in one direction for effecting axial movement of said shaft in the opposite direction, and means operatively connected with said shaft for retarding axial movement thereof by said resilient means to thereby time the operation of said wiper motor after completion of the delivery stroke of the washer pump motor.

2,834,979
WINDSHIELD WIPER TRANSMISSION

Charles P. Roth, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 25, 1954, Serial No. 439,261
6 Claims. (Cl. 15—253)

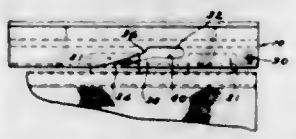


1. A windshield cleaning system including, a power unit, a wiper, a driven unit connected to said wiper, a wiper actuating transmission unit, auxiliary driving mechanism interconnecting said power unit and said transmission unit, said transmission unit interconnecting said auxiliary driving mechanism and said driven unit, said power unit being capable of imparting oscillation of a predetermined amplitude to said wiper, a stationary stop member, a complementary stop member attached to said auxiliary driving mechanism and engageable with said stationary stop member to positively limit the oscillation of the outboard stroke of said auxiliary driving mechanism to an amplitude less than the predetermined amplitude of said power unit whereby the oscillatory amplitude of said wiper will remain substantially constant under all conditions, and a resilent drive connection between said power unit and said auxiliary drive mechanism for absorbing the extra movement of said power unit.

2,834,980
HANGER SYSTEM FOR FLEXIBLE HANGINGS

Annette E. Fridolph, New York, N. Y.

Application October 14, 1954, Serial No. 462,182
3 Claims. (Cl. 16—95)



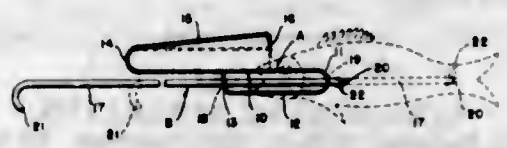
1. A track for supporting curtains, draperies and the like by means of sliders movable in a longitudinally extending groove formed in the bottom face of the track with drapery supporting tabs on the sliders extending through the groove characterized in that the groove has a narrow portion and an enlarged portion with the narrow portion of the groove disposed adjacent the bottom face of the track, the track having a side face extending longitudinally adjacent the groove, said side face having an aperture therethrough opening at its inner end in the enlarged portion of said groove, said bottom and side faces having a slot therein extending therethrough from the narrow portion of the groove to said aperture, said slot lying in a plane normal to the side face of the track and inclined at an acute angle, to the axis of the groove, whereby when a drapery is supported in said track as described and a pull exerted thereon in a direction longitudinally of the track and at an angle inclined to the plane of said side face, the tabs on the sliders automatically travel into said slot and the sliders pass out of said groove through said aperture.

2,834,981
FISH HOLDING DEVICE

Walter L. Willis, Detroit, Mich.

Application August 17, 1956, Serial No. 604,659
3 Claims. (Cl. 17—8)

1. A device for introduction into the mouth and body cavity of a fish whereby to maintain the carcass substantially stable for cleaning, comprising a strip of resilient material having a straight intermediate portion terminating at its ends in reverse bends which dispose the respective end portions of the strip adjacent said straight intermediate portion, one of such bend-connected end portions being arranged to engage and clamp the head of a fish against the intermediate strip portion when the other

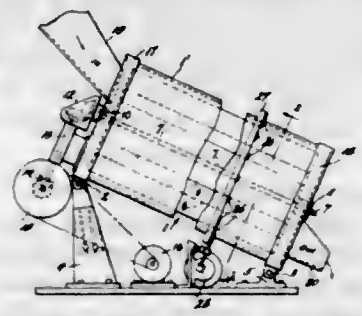


bend and the strip portions contiguous thereto have been introduced into the mouth of the fish; and a rod member slidably carried by the strip adjacent its said intermediate portion and movable forwardly thereof to project beyond the mouth-inserted portions and extend into the body cavity of the fish.

2,834,982
CONTINUOUS DEFEATHERING MACHINE

Andrew J. Toti, Modesto, Calif., assignor to Honolulu Oil Corporation, a corporation of Delaware

Application June 25, 1953, Serial No. 364,043
12 Claims. (Cl. 17—11.1)

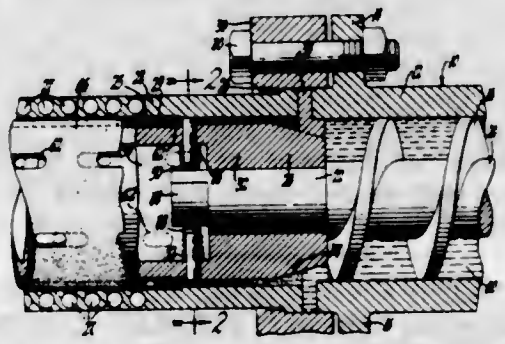


1. A continuous flow fowl picking apparatus comprising a downwardly extending substantially cylindrical rotor studded with soft flexible frictional feather engaging beaters projecting therefrom, means for rotating said rotor, means forming a tubular enclosure surrounding the outer side of said rotor with a fowl-passing opening at both ends but spaced sufficiently therefrom to receive a layer of fowls therebetween for descending therethrough by gravity, resilient friction members at the inner surface of said enclosure arranged to urge the fowl against said beaters substantially all around the rotor.

2,834,983
APPARATUS FOR FABRICATION OF PERFORATED TUBES

James A. Norton, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 30, 1955, Serial No. 550,045
2 Claims. (Cl. 18—14)



1. Apparatus for forming perforated tubes suitable to serve as shells for filter elements, said apparatus comprising an extruding nozzle, a discharge tube coaxial with and joined to said nozzle, a mandrel supported in spaced relation to and located within said discharge tube, pins radially located within said mandrel and with respect to

the axes of said mandrel and tube, means arranged intermittently to cause one end of each of said pins to traverse the space between said discharge tube and mandrel, and means associated with said discharge tube on the discharge side of said pins for setting material passed through the latter.

2,834,984

VULCANIZING APPARATUS

Edward S. Robbins, Killen, Ala., assignor, by mesne assignments, to Robbins Tire and Rubber Company, Inc., Tuscumbia, Ala., a corporation of Alabama

Application March 31, 1955, Serial No. 498,320
13 Claims. (Cl. 18—18)



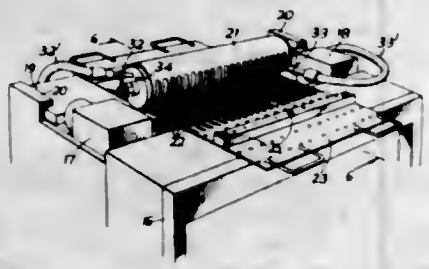
1. A molding apparatus for applying a new wearing surface to a tire carcass comprising a carcass-receiving mold, a cylindrical rim movable axially with respect to said mold and having an expansible resilient member disposed upon the exterior surface thereof in abutting disposition with a bead portion of the carcass, means to expand said resilient member into sealing contact against the abutting bead portions of the carcass, means to raise the mold and carcass to vulcanizing temperature, and means to apply fluid pressure to the interior of the carcass whereby the carcass is forced against the mold and the bead portions are forced into sealing engagement with the resilient member of the cylindrical rim.

2,834,985

MANUFACTURE OF PRINTING FORMS

Henry Cornelius Moog, Geisenheim, Germany, assignor to Leathley Publications Limited, London, England

Application June 27, 1955, Serial No. 518,174
4 Claims. (Cl. 18—19)



1. A method of manufacturing a cylindrical printing form comprising the steps of providing a hollow cylinder with an outer layer of material suitable for taking an imprint under the action of heat and pressure, wrapping a flexible die around the cylinder, wrapping around the die a pressure applying element in the form of a flexible rectangular sheet having fingers formed in two opposite ends thereof, drawing the fingers of one end of the sheet between the fingers of the other end to contact the sheet about said die and layer, and heating the cylinder from within.

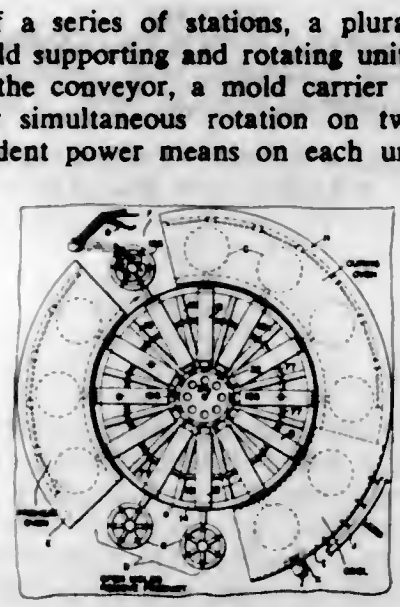
2,834,986

MACHINE FOR ROTATIONAL CASTING

Harold G. Bailey, Silver Lake, and Paul Rekettye, Akron, Ohio, assignors to The Sun Rubber Company, Barberton, Ohio, a corporation of Ohio

Application August 4, 1954, Serial No. 447,789
10 Claims. (Cl. 18—26)

1. Apparatus for rotational casting in molds comprising a conveyor, means to move the conveyor from one to another of a series of stations, a plurality of self-contained mold supporting and rotating units removably mounted on the conveyor, a mold carrier mounted on each unit for simultaneous rotation on two divergent axes, independent power means on each unit to rotate



said carriers on each of said axes, control means on each unit for each of said power means, and means on the conveyor to operate said control means of a selected unit for stopping the rotation of the mold carrier on said selected unit at a predetermined point in its cycle of rotation.

2,834,987

DIPPING LAST

Merwyn C. Teague, Sparta, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application September 21, 1953, Serial No. 381,362
3 Claims. (Cl. 18—41)



1. A dipping last for casting boots with pre-set folding uppers, said last having a circumferential dimension less than that normally required for the foot opening in the boot leg to be cast thereon, comprising a shank, said shank having a pair of fins extending therefrom, said fins being fixed to said last at their bases, the remainder of said fins being spaced a little distance from the surface of said shank and extending therearound, said fins extending from the portion of the last on which the upper rim of the boot forming the foot entrance opening in the boot leg is to be cast and downwardly therefrom a substantial distance, the shank of the last and said fins having a combined linear surface dimension measured circumferentially of said shank greater than said shank.

2,834,988

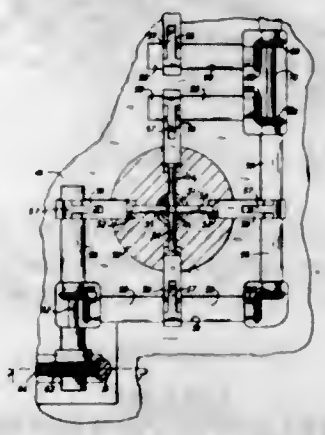
MOLD FOR 47-TYPE CONNECTOR BLOCK BODIES

Donald C. Morris, Indianapolis, Ind., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application March 24, 1954, Serial No. 418,251
4 Claims. (Cl. 18—42)

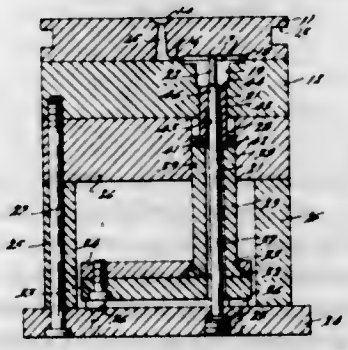
1. An apparatus for molding an article having apertures therein disposed at angles with respect to each other, the apparatus comprising a mold cavity, a main core having apertures therein, auxiliary cores having inner ends receivable in their respective apertures of the main core when disposed in the mold cavity, means to

move the main core into the mold cavity and hold the main core therein, a mechanism including rockable shafts operatively connected to each other so that rocking of one shaft will rock the other shafts like distances, means operatively connecting the auxiliary cores to their respective shafts to cause movement of the auxiliary cores during rocking of the shafts, a pinion mounted on one of the



shafts, a first rack actuable in timed relation with the main core to rock the pinion and shafts to move the auxiliary cores into the mold cavity and their apertures in the main core, and a second rack normally urged in one direction by a spring which is compressed when the second rack is moved in a reverse direction during rocking of the pinion by the first rack to reverse the rocking movements of the pinion and shafts to withdraw the auxiliary cores from the apertures and mold cavity.

2,834,989
CONSTRUCTION OF EJECTOR SLEEVES
Charles Kusnery, Hazel Park, Mich.
Application April 7, 1954, Serial No. 421,500
1 Claim. (Cl. 18—42)



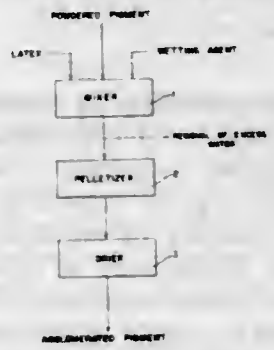
In a mold assembly of the type having a core pin, an ejector sleeve assembly comprising an ejector sleeve, the bore of said sleeve having a relatively small diameter adjacent the mold cavity and a relatively large diameter throughout its remaining extent, whereby the core pin will have a sliding fit with respect to the sleeve adjacent the mold cavity but will be permitted lateral movement with respect to the inner end of the sleeve, an outwardly extending annular shoulder at the inner end of said sleeve, a holder for said sleeve comprising a tubular member, the entire bore of said tubular member being of substantially larger diameter than said core pin, whereby relative lateral movement may take place between said core pin and holder, means for attaching the inner end of said holder to an ejector plate assembly, detachable connecting means between the outer end of said holder and said sleeve, said connecting means comprising an open-ended T-slot adjacent said outer end of the holder, said sleeve shoulder having a sliding fit with said T-slot to prevent relative axial movement between the sleeve and holder, the lateral dimensions of said T-slot being substantially larger than the diameter of said shoulder, and an apertured portion between said T-slot and the outer end of the holder, said apertured portion being of substantially larger diameter than said sleeve, whereby said detachable connecting means permits relative lateral movement between said sleeve and holder in any direction from a coaxial position.

2,834,990
INJECTION MOLD FOR MOLDING CLIPS
Robert H. Seer, Midland, Mich.
Application May 24, 1955, Serial No. 510,672
2 Claims. (Cl. 18—42)



1. A plastic injection mold of the class described comprising a pair of companion cavity blocks releasably secured together and forming a cavity therebetween, a core having a size and shape corresponding to the size and shape of said cavity interposed between said cavity blocks and occupying said cavity, said core having therein a recessed area of the shape and size of an article to be molded, a material opening in said core, a horizontally disposed passage communicating therewith, and a gate connecting said passage and said recessed area, said core and one of said cavity blocks having projecting pads thereon and said core and said one cavity block having roughened areas adjacent to said pads to form interlocking surfaces on opposite faces of the molded article.

2,834,991
METHOD OF PREPARING COMPOUNDING INGREDIENTS FOR RUBBER
Albert F. Hardman, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application January 15, 1954, Serial No. 404,395
5 Claims. (Cl. 18—47.5)

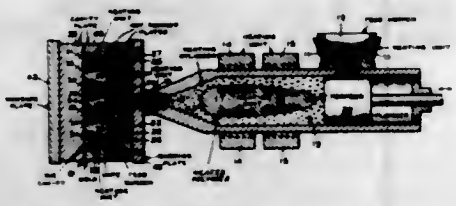


1. The method of preparing a pulverulent compounding ingredient for rubber which comprises mixing in an aqueous solution containing a solids content of between 60 and 80% by weight of the total mass, a powdered material with from 1 to 10% by weight of said powdered material of a latex, extruding the mixture as continuous strings or rods ranging in diameter from 1/16 to 5/16 inch, removing moisture from said continuous rods or strings while supporting the same along their length to dry the strings or rods and simultaneously reduce the continuous strings or rods to discontinuous lengths and collecting the discontinuous strings or rods in lengths varying from 1/4 to 1½ inches.

2,834,992
INJECTION MOLDING OF PERFLUOROCHLOROCARBON PLASTICS
Julius A. Jupa, Elizabeth, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application July 28, 1954, Serial No. 446,334
2 Claims. (Cl. 18—55)

1. In a process for the injection molding of a thermoplastic material comprising a polymer of trifluorochloro-

ethylene having an N. S. T. between about 200° C. and about 350° C. and a transition point of about 415° F. in which said material is injected from an injection chamber through a central main-runner and from said main-runner through a plurality of feed-runners extending into a



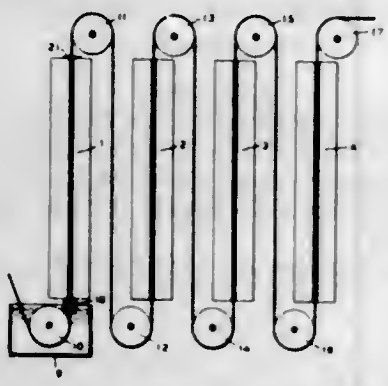
plurality of die cavities, the improvement which comprises heating said feed-runners to a temperature sufficient to maintain said material sufficiently above said transition point to avoid substantial orientation and below the temperature of substantial degradation.

2,834,993

METHOD OF FUSING HIGH MOLECULAR WEIGHT POLYMERS AT LOW TEMPERATURES

Charles D. Dipner, Cranford, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application September 18, 1953, Serial No. 380,981
9 Claims. (Cl. 18—57)



8. A method for preparing an unsupported film of a high molecular weight of a chlorofluoroethylenic compound which comprises preparing a suspension of said polymer in a liquid organic dispersing medium selected from the group consisting of an aromatic hydrocarbon liquid, the bulk of which boils at atmospheric pressure above 160° C. and having an evaporation rate such that less than 35 percent by weight of the liquid is lost during 120 hours at room temperature, and a high boiling chlorofluorocarbon having a boiling range such that the bulk of the material boils above 110° C. at 1 mm. of mercury absolute pressure, applying said dispersion to a supporting surface, rapidly raising the temperature of said suspension in a substantially non-circulating atmosphere to dissolve at least a portion of the polymer in a dispersing medium, volatilizing off a portion of the dispersing medium in a circulating atmosphere at an elevated temperature, maintaining the surrounding temperatures at all stages not higher than 300° C., removing the resulting soft partially dried film from the support before it has adhered firmly and then substantially completely driving off the dispersing medium.

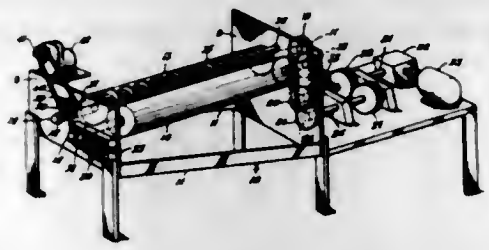
2,834,994

DEHAIRING APPARATUS AND METHOD

Eldon J. Strandine, Francis G. Connick, and Clifford T. Oldenburg, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

Application October 20, 1955, Serial No. 541,784
11 Claims. (Cl. 19—2)

1. Apparatus for stripping hair from relatively small pieces of skin comprising: means for gripping and applying a pulling force on the hair and simultaneously preventing movement of the skin codirectionally with the said pulling force; and means to maintain intimate contact between the said skin and the gripping and pulling



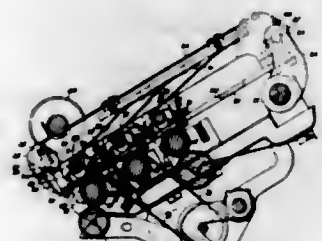
means and simultaneously therewith to tumble said skin whereby to insure contact of substantially the entire surface area of said skin with said gripping and pulling means.

2,834,995

DRAFTING APPARATUS OF TEXTILE SPINNING AND LIKE MACHINES

James Calvert, Clayton-le-Moors, near Accrington, and Reginald Mayman Blackburn, Accrington, England, assignors to T. M. M. (Research) Limited, Oldham, England

Application February 24, 1954, Serial No. 412,348
Claims priority, application Great Britain February 27, 1953
10 Claims. (Cl. 19—130)



1. Textile drafting apparatus comprising, in combination, a plurality of lower drafting elements, means for supporting said lower drafting elements in predetermined positions, a plurality of upper drafting elements each movable into and out of opposed relation to one of the lower drafting elements, an arm for supporting the upper drafting elements, bearings for said upper drafting elements, carried by said arm, said arm being mounted for pivotal movement about an axis parallel to the axes of the drafting elements, means associated with the bearings for the upper drafting elements engageable, when the arm is moved to operative position, with the corresponding lower element to insure the desired operational relationship between the upper and lower elements, and a single loading arm movable to and from an operative position in which it bears in common upon all the upper drafting elements.

2,834,996

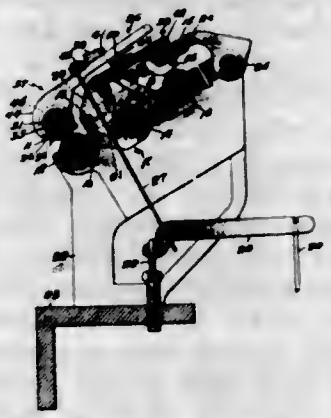
SADDLE FOR SPINNING FRAME OR THE LIKE

Robert Rulon-Miller and Warner H. Tabor, Bristol, R. I., assignors to Dixon Corporation, a corporation of Rhode Island

Application August 16, 1954, Serial No. 450,163
10 Claims. (Cl. 19—135)

1. In a spinning, roving, and like machines, front rolls including top and bottom rolls, pairs of rolls back of the front rolls including top and bottom rolls in each pair, guides for the ends of top rolls back of the front top roll to positively maintain their alignment, the said front top roll having an arbor and a pair of cots on said arbor spaced from each other, holding means for said front top

roll arbor engaging the same only in the space between said cots, and means for positioning said holding means



from a positively guided top roll back of the front top roll.

2,834,997
PANEL CONSTRUCTION
Cleitus E. Webb, Memphis, Tenn.
Application April 27, 1954, Serial No. 425,831
7 Claims. (Cl. 20—36)



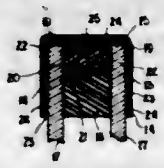
1. In a panel construction, a body portion having an opening formed therein, a window unit mounted in said opening, said window unit including a base frame member having a flange formed on the outer edge thereof and engaging said body portion and a recess formed on the inner edge thereof receiving a glass panel therein, an insert frame member positioned in said recess and engaging said glass panel to secure said glass panel in said window unit, said insert frame extending beyond the upper edge of said base frame member and defining a space with said body portion, a clamping frame member extending into the space and having a flange formed thereon for engaging said body portion, and means for securing said clamping frame member to said base frame member for moving said flanges into tight engagement with said body portion, thereby firmly positioning said window unit in said door opening.

2,834,998
MEANS FOR MOUNTING A FRANGIBLE EXPANSE TO A VIBRATILE SUPPORT
Vernon H. Wilder, Long Beach, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application January 25, 1954, Serial No. 406,042
3 Claims. (Cl. 20—56.4)



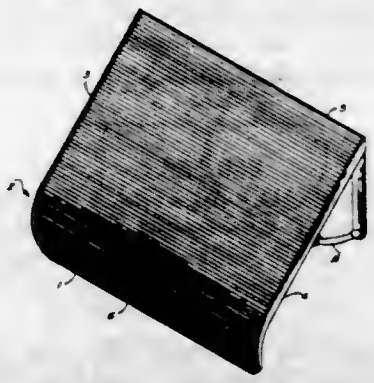
1. Means for mounting a frangible expanse to a vibratile support therefor, comprising: fastener means having a head and a shank; a frangible expanse having an aperture thru which the shank passes and in which the head seats; and a radially laminated insert interposed between the head and shank of the fastener and the wall of the aperture; the innermost one of said laminations being rigid and conformed to receive the fastener head therein in contact therewith and the outermost lamination being viscously-flowable and resiliently recuperative; the innermost, rigid lamination having, in longitudinal section, a substantial wedge-like shape; and an annular flange on the periphery of the broad end of the wedge-like lamination adapted to radially abut the adjacent end of the resiliently recuperative lamination; whereby tensioning of said fastener-means urges the abutted portion of said recuperative lamination outwardly gastightly against the outer end of the aperture's wall to establish a primary seal and the body of the rigid lamination concurrently urges the remainder of said recuperative lamination gastightly against the adjacent portion of the wall of said aperture.

2,834,999
SEALED MULTIPLE GLAZED UNIT
Richard H. Taylor and Douglas H. Fieldhouse, Winnipeg, Manitoba, Canada, assignors to Coldstream Refrigerator Mfg. Ltd., Winnipeg, Manitoba, Canada
Application November 17, 1955, Serial No. 547,573
1 Claim. (Cl. 20—56.5)



In a sealed multiple glazed unit, the combination of a frame channel including an outer wall and a pair of side flanges, a liner of moisture resistant tape covering the inner surfaces of said outer wall and side flanges, a gum-like vapor seal provided on said liner of tape covering the inner surface of said outer wall, at least two spaced transparent panels mounted in said channel in contact with the liner of tape covering the inner surfaces of the respective side flanges, marginal edges of said panels abutting said vapor seal, a spacing strip of rubber-like porous material provided between said panels and spaced inwardly from said vapor seal whereby to provide a chamber between the vapor seal and said spacing strip, and desiccant filler material provided in said chamber in contact with said panels and with said spacing strip, whereby the pores in the spacing strip maintain the space between said panels in communication with the desiccant filler in said chamber.

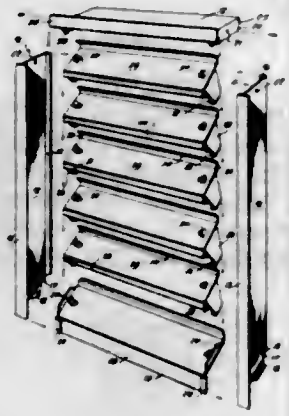
2,835,000
STRUCTURE FOR AWNINGS AND CANOPIES
Gregory F. Forsthoefel, Adrian, Mich.
Application November 14, 1955, Serial No. 546,368
6 Claims. (Cl. 20—57.5)



1. An awning structure comprising, in combination, a corrugated sheet flexible transversely of its corrugations, a frame having curved channeled side members which receive the corrugated edges of the sheet and act to curve the sheet into a roof panel with a curtain portion along its front edge, and function to support the said

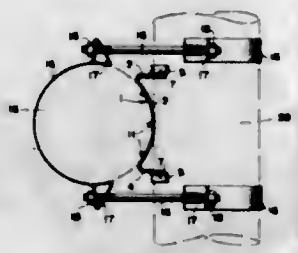
roof panel and curtain portion, and also serve as trim for the rough edges of the corrugated sheet, and a bracing strut bracket having a part fitting tightly within each of said channel side members and slidably adjustable therealong, said part having an open portion generally continuous with the sheet edge receiving portion of said channel side members and in noninterfering relationship to the sheet edge.

2,835,001
LOUVER CONSTRUCTION
Ralph W. Matthews, Dallas, Tex.
Application February 3, 1955, Serial No. 485,841
5 Claims. (Cl. 20—63)



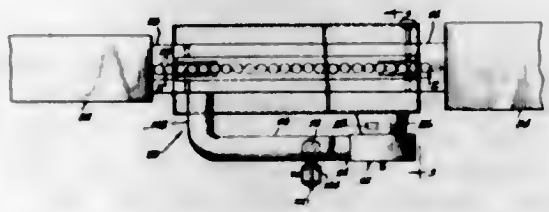
3. A louver in separable parts comprising a group of inclined slats and a pair of spaced apart vertical frame members forming confronting channels in which the ends of said slats are retained, a tab integrally formed on each end of each of said slats and at right angles thereto, adapted to bear against the confronting surfaces of said frame members, and resting upon the next lower slat for holding said slats in vertically spaced relationship, the rear edge of each of said slats having an upwardly and a forwardly extending portion, said forwardly extending portion being adapted to bear at its ends against the rear edges of the tabs of the next higher slat, said upwardly extending portion being adapted to bear against the rear flanges of the channels forming said frame members to hold said slats in vertically aligned relationship in said frame members and means for holding said frame members against relative outward displacement.

2,835,002
CONNECTOR AND JOINT FOR SPAR TYPE TIMBER CONSTRUCTION
John V. Majewski, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application August 26, 1954, Serial No. 452,401
1 Claim. (Cl. 20—92)



A joint between two angularly disposed members each having an arcuately contoured periphery at said joint, comprising in combination, a connector disposed between said members consisting of a stamping integrally formed of a rectangular blank of sheet metal including a base member having a concave surface engaging one of said angularly disposed members substantially coextensive the entire extent of said concave surface, a through bolt hole formed in the center of said base portion, said blank being upturned at opposed sides to provide substantially parallel flange portions extending outwardly of the base member in a direction away from and substantially normal to a chord subtended by the arc of said concave surface and intersecting said flange portions, each of said flange portions being further formed at their respective extremities to provide a flanged arcuate concave surface and engaging the other of said angularly disposed members substantially coextensive the entire extent of said concave surface, said flanged surfaces lying in a plane spaced from and angularly disposed relative to the plane of the concave surface of said base member, oppositely facing spur teeth formed from said blank of sheet metal and projecting from each arcuate surface and engaging the respective angularly disposed members, said spur teeth formed in said base portion being in two parallel rows disposed at right angle to said flange portions, said spur teeth formed in said flange portions being formed intermediate the end surfaces thereof, and two pair of half-bands, each pair being in spaced apart embracing engagement with a respective angularly disposed member, and double-arming bolt and nut assemblies releasably joining the respective half-bands and drawing the said angularly disposed members towards one another to complete the said joint between the members.

2,835,003
METHOD AND APPARATUS FOR STERILIZING CONTAINERS
Victor R. Abrams, Rockford, Ill.
Application April 14, 1955, Serial No. 501,390
15 Claims. (Cl. 21—78)

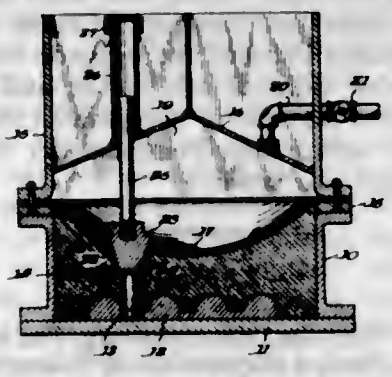


1. An apparatus for heating articles such as containers and the like to a predetermined sterilizing temperature comprising means providing a chamber around an elongated path of travel, means in said chamber for simultaneously conveying a plurality of containers to be sterilized through said chamber and along said path of travel, manifold means of relatively large cross sectional area associated with said chamber, means for continuously supplying a large mass of heated gas into said manifold means, and means providing restricted orifice means of substantially less cross sectional area than said manifold means and disposed along a substantial length of said path of travel and communicating directly with said manifold means for directing heated gas at high velocity substantially continuously against containers while said containers are being conveyed along a substantial length of said path of travel.

2,835,004
BULB GUIDE ON MOLDING DIAPHRAGM
John C. Whitesell, Chicago, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application August 29, 1955, Serial No. 531,203
14 Claims. (Cl. 22—38)

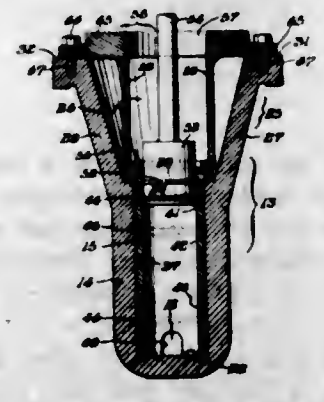
1. In apparatus for making molds, a pressure head, an expansible pressure-applying diaphragm secured in sealed relation to said head and defining therewith a fluid-tight chamber, a substantially straight guide tube extending exteriorly of said chamber from the head closed at its outer end, a guide rod extending in the

chamber reciprocably received in said tube, a substantially rigid bulb formed on the diaphragm exteriorly



of the chamber in substantial alignment with said tube, and means fixing said rod to the bulb.

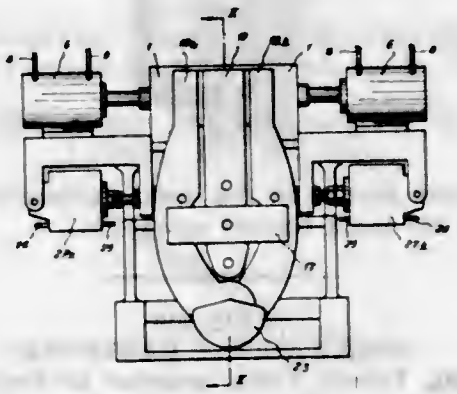
2,835,005
DIE CASTING APPARATUS
Charles F. Green, Trenton, N. J., assignor to Dodge Steel Co., Philadelphia, Pa., a corporation of Pennsylvania
Application March 14, 1956, Serial No. 571,573
7 Claims. (Cl. 22—70)



1. A gooseneck for delivering fluid material to a die casting machine, said gooseneck comprising a body having formed therein a cylinder and having a flared portion extending upwardly from the cylinder, a removable cylindrical insert positioned within the cylinder and arranged for being removed from said cylinder by a force exerted parallel to the central axis of said insert, a piston positioned within said insert in said cylinder, inlet means including inlet ports positioned in said insert and cylinder for admitting fluid material into the insert, a delivery passage including outlet ports positioned in said insert and cylinder through which the fluid material admitted to said insert is discharged from the insert on operation of the piston, insert holddown and removal means for holding said insert in place while delivering said material to the die casting machine and for removing said insert when not delivering said material, means detachably joining said hold-down and removal means to said insert and to said flared portion, and a plurality of resilient rings mounted in the outer wall of said insert and in contact with the inner surface of said cylinder for deterring travel of said fluid material between said outer wall of said insert and said inner surface of said cylinder for allowing removal of said insert, and wherein one of said rings is positioned above said inlet ports and one of said rings is positioned below said inlet ports.

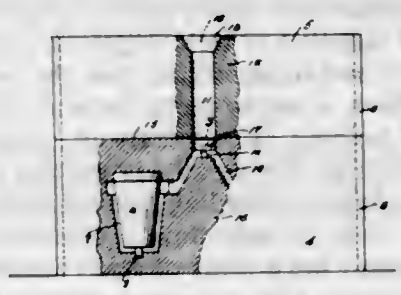
2,835,006
CASTING MACHINES
Pierre Fouron, Chatenay-Malabry, and Georges Bourret, Boulogne-sur-Seine, France, assignors to Societe Civile d'Etudes pour Materiel de Fonderie, Bagneux, France
Application August 26, 1955, Serial No. 530,684
Claims priority, application France September 29, 1954
4 Claims. (Cl. 22—93)

1. A machine for molding an article having an internal cavity with bosses within the later extending axially toward each other; said machine comprising a frame, a core for defining the internal cavity of an article to be molded and including a central key and two side pieces disposable at opposite sides of said central key and having recesses therein corresponding to the bosses to be formed, means mounting said central key on said frame and movable relative to the latter for moving said key to and from an operative position between said side pieces,



pivot means supporting said side pieces for swinging toward and away from each other with the axis of said pivot means lying in a plane that is perpendicular to the axes of the bosses to be formed and located midway between such bosses, and means movably supporting said pivot means on said frame for movement of said pivot means and the related side pieces of said core in directions parallel to the axis of said pivot means.

2,835,007
SCREEN FOR MOLDING FLASKS
William F. Hoefer, Pasadena, Calif.
Application March 12, 1954, Serial No. 415,929
2 Claims. (Cl. 22—134)

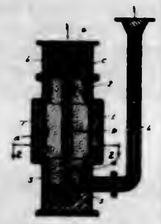


1. A flask having a drag and a cope rammed with sand and having a pouring reservoir extending down through the cope and into the drag, in combination with a perforated screen of plate form and composed of laminations of mica, said screen having an area considerably greater than the area of the horizontal cross section of the reservoir, and having its edge buried in the sand beyond the face of the pouring reservoir wall, so that the sand in the wall excludes the molten metal from penetrating between the laminations of the screen.

2,835,008
METHOD OF CASTING COMPOSITE ROLL
Kokichi Otani, Minato-ku, Tokyo, Japan
Application January 8, 1954, Serial No. 402,894
Claims priority, application Japan October 14, 1953
2 Claims. (Cl. 22—201)

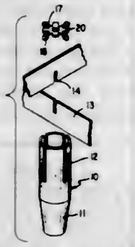
1. A method of casting rolls having an inner portion of tough metal and an outer portion of hard metal in a vertical mold comprising the steps of placing a separator in the form of a steel pipe going through the whole length of the mold and having its lower end closed by the mold into the same; completely surrounding said steel pipe with a plurality of steel rods having a length equal to the length of said pipe and axes parallel to the steel pipe axis;

and casting the inner portion in the steel pipe from the top of the steel pipe downwardly and simultaneously cast-



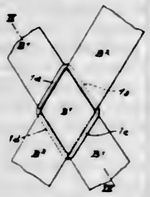
ing the outer portion in the mold surrounding the steel pipe from the mold bottom upwardly.

2,835,009
SHEET METAL FASTENER
John Balint, Toledo, Ohio, assignor to Prestole Corporation, Toledo, Ohio, a corporation of Michigan
Application December 23, 1957, Serial No. 704,699
5 Claims. (Cl. 24—73)



5. The combination of a cylindrical member provided with four equidistantly spaced slots, a pair of flat bars in said slots and disposed at right angles to each other, said bars being notched to interfit so that the outer edges of the bars are flush, a spring metal fastener to abut against said bars for holding same snugly in place and against rattles, said fastener having a body portion provided with four radiating fingers extending through said slots, prongs on the outer ends of said fingers extending rearwardly to impinge against the outside of said cylindrical member, said fingers integral with said body portion and arranged respectively between said long fingers, said last fingers impinging against the inside of said cylindrical member, said fastener being cambered so that when flattened against said crossed bars the prongs and the ends of the short fingers secure the fastener tightly in place.

2,835,010
ADJUSTABLE CROSSING PIECE FOR FLEXIBLE BANDS
Patrice M. Bayon, Avrille, France
Application March 18, 1955, Serial No. 495,233
Claims priority, application France May 20, 1954
2 Claims. (Cl. 24—74)



1. A crossing piece adapted to be applied on the crossing point of two adjustable flexible bands, comprising a buckle having the shape of a quadrilateral consisting solely of a peripheral frame having four sides disposed in opposite pairs, whose four sides are of equal length and in which the distance between the opposite sides is slightly greater than the width of said bands, and wherein said pairs of opposite sides lie in two parallel planes, the distance between said planes being smaller than the total thickness of said two bands.

2,835,011
CAM LOCK SLIDER
George S. Malcolm, Harmonsburg, Pa., assignor to Talon, Inc., a corporation of Pennsylvania
Application June 8, 1953, Serial No. 360,280
10 Claims. (Cl. 24—205.14)



1. In a slider for slide fasteners, a slider body comprising a pair of overlying spaced-apart wing portions connected at one end by a neck portion so as to provide substantially a Y-shaped fastener element guide channel therebetween, one of said wings having an aperture thereing substantially centrally thereof, a pair of pull tab retaining lugs arranged at opposite sides of said aperture laterally thereof, a locking pull tab member hingedly connected to said slider body comprising a plate-like member having a locking portion at one end adapted to project through said aperture into said channel and a pair of opposed trunnion portions extending inwardly and transversely and disposed beneath said lugs, and transversely extending means arranged integral with said lugs and bridging said aperture at a point directly opposite said locking portion, said locking portion positioned between said trunnion portions and being offset therefrom and adapted in one position of said pull member to extend around said transversely extending means whereby said locking portion is adapted to be supported and protected against destructive deformation upon application of destructive pressure to said locking portion and said pull tab.

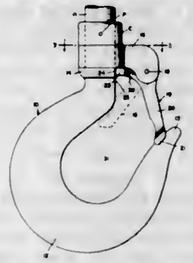
2,835,012
FASTENER FOR FLEXIBLE ELEMENTS
Daniel I. Reiter, New York, N. Y.
Application May 4, 1954, Serial No. 427,417
2 Claims. (Cl. 24—129)



1. A one-piece sheet metal clamp for securing a pair of side by side flexible elements of circular cross-sectional form together against relative lateral and axial movement, said clamp comprising a channel shaped body member having a bottom wall, said bottom wall being tapered toward one end and having opposing convergent side edges, a pair of arms perpendicularly extending in confronting relation from the side edges and being spaced apart sufficiently to receive the flexible elements axially therebetween, said arms converging toward said end of

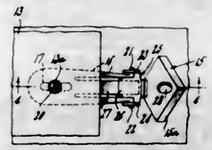
the bottom wall and being vertically tapered toward said end and having offset outer free ends which are turned inwardly toward each other and arranged at an obtuse angle to the arms, and a spring ridge integrally formed on the bottom wall and being upstruck therefrom and extending transversely between the arms, said ridge having a free side edge and free end edges and exerting an upward bias and having a rounded smooth top portion over which the elements are passed and which are biased upwardly thereby and said free ends of the arms having semi-circular recesses formed in their edges in lateral alignment with the ridge and adapted to receive the ridge when the arms are bent inwardly and downwardly onto the elements to clamp them on the bottom wall.

2,835,013
LOAD HOOK SAFETY CATCH
William S. Thompson, Watkins Glen, N. Y., assignor to Shepard Niles Crane and Hoist Corporation, Montour Falls, N. Y., a corporation of New York
Application March 21, 1957, Serial No. 647,603
5 Claims. (Cl. 24—241)



1. A safety load hook comprising a hook including a substantially vertical shank and a curved main body portion terminating in a bill, a swivel element pivotally attached at one end to said shank and disposed in a substantially horizontal position, and a latch element pivoted to the free end of said swivel element for movement of one portion thereof into and out of engagement with said bill in one position of said swivel element to close the throat of said hook, another portion of said latch element and said body portion having engageable means for preventing rotation of said swivel element, and resilient means normally urging said latch element into bill engaging position and said engageable means of said latch element into engagement with the engageable means of said body portion.

2,835,014
NAME PLATE ATTACHMENTS
Orestes Dioguardi, Jr., Brooklyn, N. Y.
Application October 14, 1953, Serial No. 385,915
2 Claims. (Cl. 24—253)



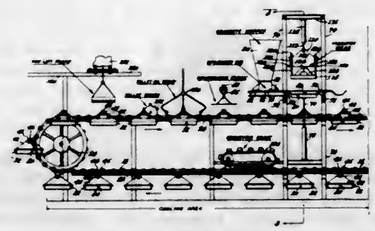
1. Means for removably securing a plate element with spaced apart perforations to a support; comprising a air of clip means each provided with an elongated base plate member and a top plate member hinged to and swingable for position on said base plate member, said base plate member being provided with an elongated slot for the insertion of a screw having a head projecting beyond said base plate member to thereby permit adjustment of the distance of said screw heads from each other commensurate with the distance of the perforations of said plate element, said top plate members being provided at their underfaces with respective elongated grooves for engagement with the screw heads, to thereby affix said plate element on said support between said base plate members and said top plate members.

2,835,015
TIE TENSIONING AND FASTENING DEVICE
Kingsley Leonard Emmins, Maryborough, Victoria, Australia
Application August 31, 1955, Serial No. 531,700
1 Claim. (Cl. 24—271)



A tie tensioning and fastening device comprising a channel member, means at one end to have a tie fixed thereto, teeth formed in the sides of said channel member, an elongated flat tie tensioning member having notches formed in the ends thereof for winding of the free end section of the tie lengthwise on the member about the section thereof between such end notches, a pair of lateral projections at each end of the tensioning member to selectively engage said teeth so that the member forms a lever with the points of engagement constituting fulcrum points, and with said tensioning member arranged to seat between the sides of the channel member so that when the tensioning member is operated as a lever to tension the tie about an article the tensional force of the tie is applied at the outer end of the tensioning member and below the fulcrum points whereby the tensioning member is held in an operative locked position by said tensional force.

2,835,016
CONCRETE MATTRESS MACHINE
George F. Dixon, Jr., United States Army, Vienna, Va.
Application November 6, 1953, Serial No. 390,764
6 Claims. (Cl. 25—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for producing flexible revetment mats composed of flexibly interconnected individual concrete slabs, which comprises, in combination, conveyor means, a plurality of stations consecutively arranged along the path of travel of said conveyor and in cooperating relation therewith including pallet preparing stations and a molding station, including a mold box, mat curing means following said molding station, mechanism for progressively moving the conveyor means through said plurality of stations and said curing means, pallet carrying means secured to the conveyor means at spaced intervals, a pallet removably mounted in each of the pallet-carrying means, said pallet having upstanding portions on a planar

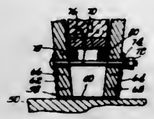
surface thereof to support slab reinforcing fabric a predetermined distance therefrom, means for raising and lowering said pallet between said pallet carrying means and said mold box to form a bottom therefor when each of said pallet carrying means is moved to said molding station, and pivotally-acting suspension means interconnecting the pallet-carrying means to the conveyor means, and freely suspending the pallet-carrying means from the conveyor means in a vertical plane throughout the entire course of travel of the conveyor means.

2,835,017
NAIL STAKE
Burkhardt R. Hoerr, Berkeley, Calif., assignor to C. & H. Specialties Co., Berkeley, Calif., a corporation of California
Application September 2, 1950, Serial No. 182,972
3 Claims. (Cl. 25—118)



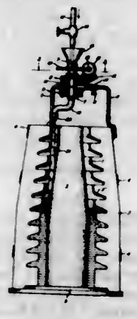
1. A nail stake comprising a solid metal post having at least three nail holes traversing through said post and spaced from one another longitudinally of said post, the axes of said nail holes being disposed substantially normal to the lengthwise axis of said post, the arrangement of said nail holes being such that at least two openings are presented for every sixty degrees (60°) of angular measure about the periphery of said post.

2,835,018
MOLD
Nelson J. Guimont, Chicago, Ill.
Application May 21, 1956, Serial No. 586,161
4 Claims. (Cl. 25—121)



1. In a mold structure of the type described comprising a plurality of separable generally parallel spaced apart and upstanding separator panels, a plurality of separate units removably disposed between and cooperable with the separate panels for defining a plurality of mold cavities, each of said units including a pair of upstanding spaced apart and generally upright and opposed cavity defining members disposed between and substantially abutting opposed faces of a pair of said panels, means connecting lower end portions of said members for permitting said members to be moved relatively away from each other and from a finished article therebetween, a cavity bottom member freely disposed between lower end portions of said upright members and limiting movement of the upright members toward each other, and means connected with said members beneath said bottom member and vertically spaced from said connecting means and yieldably restraining said members against relative movement away from each other.

2,835,019
METHOD FOR CASTING CERAMIC SHAPES
Ludwig E. Thiess, Baltimore, Md., assignor to General Electric Company, a corporation of New York
Application September 12, 1955, Serial No. 533,688
2 Claims. (Cl. 25—156)



2. In a method of forming large elongated cylindrical ceramic electrical insulating bushings by casting, the improvement of slowly filling an upright mold having a large elongated cylindrical casting cavity without the formation of slip meeting marks in the piece to be cast, said improvement comprising directing a downward stream of ceramic casting slip into the upper end of said mold at an acute angle against an interior surface of said mold and simultaneously slowly rotating said stream around said mold while said mold is stationary, said stream having a low rate of flow and requiring several passes around said mold to fill the same, and said stream being rotated around said mold at a slow speed to avoid centrifugal segregation of the ingredients of said casting slip.

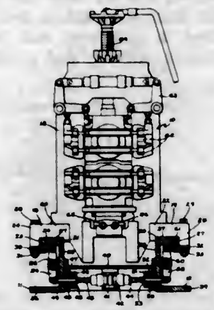
2,835,020
REINFORCED FELT FABRIC
Burton E. Doe, Shrewsbury, Mass., assignor to The Felters Company, Boston, Mass., a corporation of Massachusetts
Application April 18, 1955, Serial No. 501,896
7 Claims. (Cl. 28—79)



1. A felted apparel fabric which comprises felting fiber suitable for apparel felts, and a coarse mesh knitted fabric of small denier synthetic fiber stabilized with a thermosetting resin, said knitted fabric being embedded in the felting fiber and felted together with the felting fiber passing through said fabric and around the synthetic fiber in said knitted fabric.

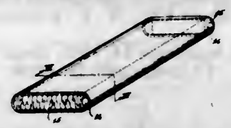
2,835,021
ROLL STAND LOCK
Joseph M. O'Malley, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application March 14, 1955, Serial No. 494,026
1 Claim. (Cl. 29—1)

A base, a plurality of parallel rails on which the base is supported, each rail having a flange extending laterally thereof, the base having at least one foot engaged with each rail in slidable relationship, each foot having a laterally-extending member underlying and spaced from the flange of its respective rail, a wedge associated with each foot and rail and movable laterally of the rail to lock the foot and rail selectively in fixed relationship, the space between the flange of the rail and the laterally-extending member being of wedge-shaped lateral cross-sectional shape to conform to the shape of the wedge, a hydraulic motor situated between the rails and having piston rods, a lever pivotally connected to each rod, the levers being pivotally connected at one end to a piston rod of the



motor and pivotally connected at the other end to a corresponding wedge whereby the wedge may be moved laterally of the rail and wedged tightly in locking relationship with the flange of the rail and the said laterally-extending member, and a spring normally urging the wedge into the said locking relationship.

2,835,022
PROCESS OF MAKING METAL PRODUCT
Edward J. Harris, Washington, Pa., assignor to Jessop Steel Company, Washington, Pa., a corporation of Pennsylvania
Application February 8, 1955, Serial No. 486,823
1 Claim. (Cl. 29—19)



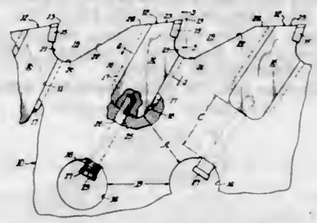
In a process of rolling metal strips, the steps of coating a strip to be treated with a refractory material, partially flattening a longitudinal metal tube, inserting the coated strip endwise and completely into the partially flattened protective metal tube, closing each of the ends of the tube to enclose substantially completely the inserted strip therein, providing the tube with gas vent openings beyond the edges of the strip inserted therein, heating the tube and strip assembly, hot rolling and flattening the assembly to reduce the inserted strip to a predetermined thickness while the strip is substantially out of contact with the atmosphere except at the aforesaid vent openings, and shearing at least one of the longitudinal edges of the flattened tube so that the inserted strip may be removed therefrom.

2,835,023
TOOL HOLDERS
Martin E. Steeves, Barberton, Ohio
Application August 31, 1954, Serial No. 453,367
10 Claims. (Cl. 29—96)



1. Tool holder for a cutting bit and extending from a tool post of a lathe or the like and subject to longitudinal flexing in use comprising in combination a rod and a sleeve coextensive in length with and encircling the rod, said sleeve having a tapered end to provide a differential length in the outer layers thereof, and means connecting said rod and said sleeve to each other for locking them in the plane of applied flexing in states of differential longitudinal strains of a substantial degree but short of their elastic limit.

2,835,024
SAW
Dewey E. Gommel, Indianapolis, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application September 23, 1953, Serial No. 381,803
2 Claims. (Cl. 29—105)

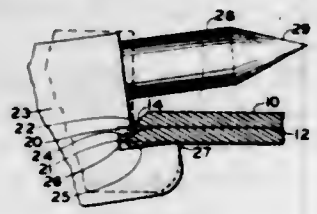


1. A circular saw comprising, in combination, a substantially circular disc having a predetermined thickness and including means defining a plurality of generally radially outwardly opening and uniformly spaced sockets disposed around the periphery of said disc, each of said socket defining means having leading and trailing grooved walls, a plurality of toothed elements having substantially the same thickness as said disc, each of said toothed elements respectively disposed in one of said spaced sockets, each of said toothed elements having leading and trailing edges formed with projections thereon complementary respectively to said socket grooved walls for maintaining alignment of the toothed elements in said sockets, said disc including means defining a plurality of apertures extending laterally through said disc and arranged in concentric relation with respect to said sockets, each of said apertures respectively corresponding with one of said sockets, said disc including means defining a plurality of generally radially outwardly directed cylindrical bores having a diameter less than the thickness of said disc, each of said bores extending between one of said apertures and one of said sockets, a plurality of studs disposed respectively in said bores, each of said studs respectively connected with one of said toothed elements and extending into one of said apertures, and a plurality of threaded nuts disposed in said apertures, each of said nuts and having threaded engagement with one of said studs for holding one of said toothed elements in the respective socket, the diameter of said nuts being less than the thickness of said disc whereby the nuts do not project beyond the sides of said disc.

2,835,025
SHEET METAL MAKING
Theron F. Pauls, Godfrey, Ill., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application June 11, 1954, Serial No. 436,021
7 Claims. (Cl. 29—157.3)

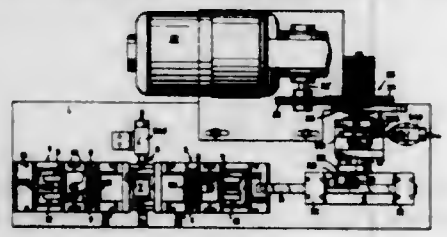
1. In the process of manufacturing hollow sheet units the steps comprising forming a sheet of material containing internally between non-bonded double-walled portions a predetermined pattern of separation and thereafter shearing said sheet at an angle to the dimension of its thickness through a section including an extension of said separation area thereby exposing part of said separation area between a resultant protuberant labium

and receding labium, and finally bending the protuberant labium in a direction away from the other labium to



establish an opening for injection of unit distending internal fluid pressure.

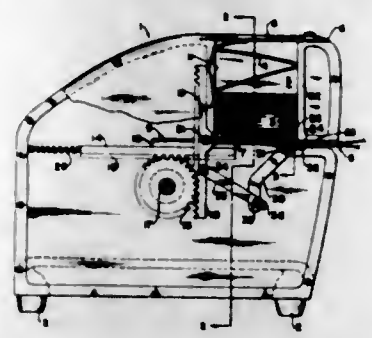
2,835,026
APPARATUS FOR ASSEMBLING LAMINATED ELECTROMAGNETIC DEVICES
Paul A. Saari, Golden Valley, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 28, 1954, Serial No. 439,810
12 Claims. (Cl. 29—203)



1. In a machine for assembling E and I shaped core lamination punchings with coil means for electromagnetic induction apparatus: the combination of a base; an assembly station centrally located on said base; magazines for E and I punchings on said base on opposite sides of said station; stacks of E and I punchings in said magazines; the magazines for the I punchings being intermediate the magazines for the E punchings and said station; means on said base below said magazines for supporting said stacks, said supporting means being so positioned so as to hold the bottom of the stacks of said I punchings at a higher elevation than the stacks of the E punchings; a plate slidably mounted on said base; means for reciprocating said plate longitudinally with respect to said base; a pair of punching pickup and transfer members on said plate, said transfer members being reciprocated between a zone adjacent to said station and a zone below said magazines; two sets of inclined planes on each of said members for elevating said stacks away from said supporting means when said members are moving outboard from said station; means secured to said base and positioned adjacent to said stacks of punchings to prevent said punchings from being moved outboard from said station when said stacks are being elevated; two sets of three coplanar, spaced, and triangularly located areas on each of said members with each of said sets of areas being adjacent to and at a lower elevation than the highest portions of said sets of said inclined planes, E and I pickup shoulders being defined between said highest portions and said areas, and one of the areas in each set of areas being closer to said station than the other areas in its respective set; and gauging means on said base adjacent to each of said magazines and in line with said ones of said areas.

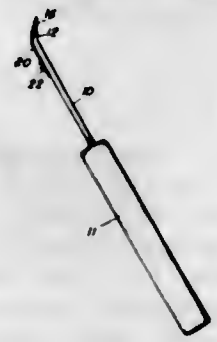
2,835,027
PAPER CLIP DISPENSER
Orville E. Phillips, New York, N. Y.
Application June 3, 1954, Serial No. 434,158
6 Claims. (Cl. 29—211)

1. A dispenser and applicator for coiled wire paper clips comprising a frame having a sheaf receiving slot therein, a paper clip magazine fixed to said frame and having a clip dispensing aperture adjacent said sheaf receiving slot, means for singly ejecting through said dispensing aperture and into said receiving slot paper clips contained in said magazine, a lip adjacent said dispensing aperture, a fixed tine adjacent said dispensing aperture and adapted to cooperate with said lip to maintain in the plane of the receiving slot an outer coil of a clip being ejected, a pivoted lever mounted in said frame, a coil spreading tine fixed to said lever and having a curved portion and a straight portion, said straight portion ex-



tending from said lever to be interposed between portions of the inner and outer coils of a clip being ejected, said curved portion being fixed to said straight portion at an angle thereto and constructed and arranged to intercept the inner coil of a clip being ejected during the initial portion of the ejection and before the lever is rotated and thereafter to be rotated by the lever into a plane substantially parallel to the outer coil during the latter portion of the ejection of a clip, operating means for actuating said ejector and rotating said lever.

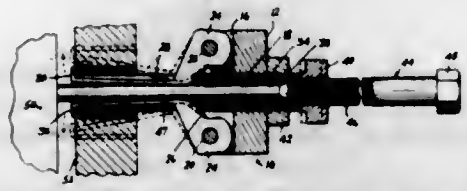
2,835,028
TOOLS FOR ASSEMBLING SPRING RETAINING RINGS
Hugo Wurzel, Bronx, N. Y., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application September 14, 1955, Serial No. 534,263
2 Claims. (Cl. 29—229)



1. A tool for gripping and holding vertically bowed open spring retaining rings during the operations involved in assembling them in the grooves of shafts, pins and the like, comprising a blade member of rigid construction throughout having a working end which is offset angularly from the blade proper and terminates in a transverse edge, said edge having a substantially semicircular notch-like opening formed in its central portion, the blade having a reduced thickness portion extending along said transverse edge and about said opening and forming an open-face recess defined by an arcuate shoulder set back from the opening edge, the diameter of said opening being greater than the diameter of the inner edge of the retaining rings being assembled and said shoulder extending along the arc of a circle of diameter corresponding substantially to the outer diameter of said ring and being set back from the opening edge a distance less than the radial width of said ring and also from said transverse edge a distance greater than the outer radius of said ring, whereby the inner edge of a ring positioned in said recess with its outer edge engaging said

shoulder overhangs said opening edge and the reduced thickness portions of the blade end to the side of said opening provide a backing for the side portions of the ring which ficilitates flattening thereof during assembly, and spring means carried by said blade overlying said recess for resiliently securing a ring received in said recess positioned as aforesaid.

2,835,029
PULLING TOOL
James F. Collins, Sr., Des Moines, Iowa
Application June 17, 1953, Serial No. 362,239
3 Claims. (Cl. 29—261)



1. In a pulling tool, a crosshead having a channel communicating with three sides and provided with a threaded opening in communication with said channel, a pair of jaw members oppositely disposed and pivotally connected at the respective end portions of said channel, said jaws formed to converge from their respective pivot points to a point within said channel in longitudinal alignment with said opening and then projecting from said channel in parallel relationship when in closed position, a claw on the outer end of each jaw, a shaft disposed in said opening and engageable at times with said converging jaw portions for separating said jaws, and said jaws pivotable at times in the same direction whereby the major length of one lies upon the major length of the other in juxtapostion with their outer ends in longitudinal spaced relationship so that the claw on one jaw precedes the claw on another in negotiating the bore of an article to be removed.

2,835,030
SPRING LOADED PUSH BUTTON SAFETY RAZOR
William Seiler, Long Island City, N. Y., assignor of one-half to L. Chester Glaser, Harold Herman, Albert A. Fisher, Herbert M. Feiner, and Edward Neubauer
Application December 2, 1954, Serial No. 472,657
2 Claims. (Cl. 30—60.5)



1. A safety razor of the type having the hollow handle and an operating rod slidable therewithin, that improvement which comprises said operating rod extending through the end of the handle remote from the head, spring means for retaining said rod in extending position through the handle whereby to retain the head in a closed position, and spring detent means carried by said rod and adapted to engage the interior of the handle when the head is drawn to a closed position whereby to augment the thrust of said spring means, said spring detent means comprising a transverse bore in said rod near the end of the handle remote from the head, a pair of balls at opposite ends of said bore, a spring intermediate said balls within said bore, the handle having an annular groove at the interior thereof adapted to receive said balls therewithin when the head is in a closed position.

2,835,031
ELECTRIC CABLE INSULATION CUTTER
Robert F. Cook, Jr., Tulsa, Okla.
Application October 29, 1956, Serial No. 618,756
3 Claims. (Cl. 30—91)



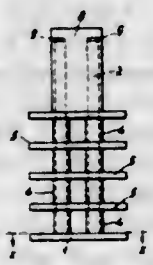
1. An implement for cutting electric cable insulation, comprising a flat cutting blade mounted on a support providing a handle, said support having a pair of partial cylindrical recesses therein of equal radii of curvature, said recesses intersecting each other and having axes which intersect each other at right angles, said blade extending into both said recesses, the plane of said blade including the axis of one said recess and being perpendicular to the axis of the other said recess.

2,835,032
INDEXING ATTACHMENT FOR CUTTING DEVICES
Alton Dorazio, Jr., East Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application April 18, 1957, Serial No. 653,569
3 Claims. (Cl. 30—179)



1. A hand cutting device attachment which provides indexing stops for cutting a first piece of stock to a desired length and a second piece of stock to a relative length comprising, a supporting bracket having a base portion and an attaching portion, an indexing stop member, said attaching portion extending in a first plane lateral to said base portion, said indexing stop member extending in a second plane lateral to said base portion, a plurality of aligned spaced index stops attendant with said stop member, slot means in said indexing stop member for admitting said first piece of stock to be cut, and means for adjustably fastening said indexing stop member along said longitudinal slot in said base portion.

2,835,033
HOLDING DEVICES FOR USE IN DENTISTRY
Ludwig Airöeser, Veit, near Muhldorf, Germany
Application March 6, 1956, Serial No. 569,729
Claims priority, application Germany March 11, 1955
6 Claims. (Cl. 32—5)



1. Holding device for use in dentistry, comprising a frame having a perforated base plate for insertion in the

socket of an extracted tooth, at least one post secured to said base plate and extending perpendicularly thereto, and at least one perforated plate carried transversely on said post, and means spacing said plates apart on said post.

2,835,034
REMOVABLE DENTURES
Irwin J. Plotnick, Philadelphia, Pa.
Application March 26, 1956, Serial No. 573,835
11 Claims. (Cl. 32—5)



1. In a removable denture construction, a base adapted to rest conformably on the gum of a wearer in adjacent relation with at least one permanent tooth, at least one false tooth secured on said base along side of said permanent tooth, holding means, secured to said base and extending laterally outward therefrom for engagement with said permanent tooth to prevent movement of said base against said gum, a laterally extensile and retractile retaining element mounted on said base for movement into and out of engagement with the adjacent undercut surface of said permanent tooth to releasably retain said base in position on said gum, and means for releasably locking said retaining element in engagement with the undercut surface of said permanent tooth to prevent inadvertent retraction of said retaining element and movement of said base away from said gum.

2,835,035
ARTIFICIAL TOOTH AND METHOD OF MAKING THE SAME
Wolfdietrich Rauscher, Berlin-Spandau, Germany
Application July 26, 1952, Serial No. 301,013
Claims priority, application Germany August 8, 1951
11 Claims. (Cl. 32—10)



3. An artificial tooth comprising, in combination, a crown; a solid hard ivory core embedded in said crown and extending out of the same; and an artificial root completely covering the portion of said core extending out of said crown, at least the entire surface layer of said root consisting of synthetic material which is well tolerated by the tissues of the human jaw, whereby upon insertion of said artificial tooth into a human jaw the tissues of the jaw grow around said root without inflammation of the tissues due to their tolerance for the synthetic material of which at least the entire surface layer of said root consists so that said root becomes firmly embedded in the tissues of the jaw.

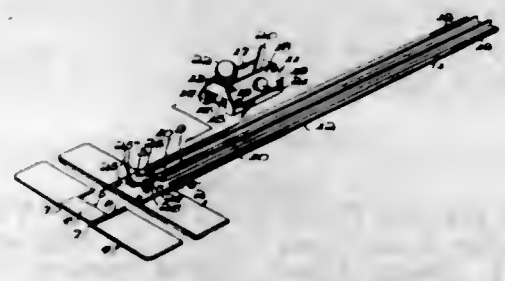
2,835,036
FOOTBALL YARDAGE TELESCOPE
Louis P. Peresenyi, Concord, Calif.
Application October 3, 1955, Serial No. 538,147
5 Claims. (Cl. 33—46)

1. A football yardage measuring telescope comprising: a telescoping supporting column; means for locking said column in adjusted lengths; a platform rotatably mounted on the upper end of said column, means for locking said platform relative to said column; a telescope mounting swivelly mounted on said platform coaxially with said column, adjustable means for limiting the swivel movement of said mounting to exactly 180°; means for locking said mounting at the mid-point of its permissible travel 90° from each end thereof; a telescope mounted in said mounting for swivel movement about an axis



parallel to said platform; a spirit level in said telescope mounted transversely to the axis thereof; and a mirror mounted within said telescope at 45° to the axis thereof above said spirit level to permit the reading of said spirit level while sighting through said telescope.

2,835,037
ADJUSTABLE T-SQUARE HEAD FOR MAT CUTTERS AND SIMILAR DEVICES
John R. Middents, Furth Bayern, Germany
Application June 27, 1956, Serial No. 594,332
5 Claims. (Cl. 33—76)
(Granted under Title 35, U. S. Code (1952), sec. 266)

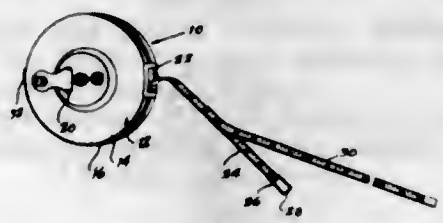


3. A T-square for mat cutters comprising a plate portion, a trackway mounted thereon, and a two-piece head portion comprising a flat bar rigidly secured to an end of the plate portion and having its inner edge terminating in substantially the vertical plane of the adjacent end of the trackway, and a detachable plate having a cut-out portion intermediate its ends of sufficient dimensions to permit the plate to straddle the blade, a pressed-up portion intermediate the ends of the plate having a width approximating that of the blade, a leaf spring secured to the flat bar and located adjacent the adjacent end of the trackway and extending vertically of the plane of the bar, a second leaf spring secured to the bar and having a portion spaced slightly therefrom, the pressed-up portion of the plate adapted to be inserted between the first-mentioned spring and the adjacent end of the trackway or between the second spring and the bar to maintain the plate in either its right angular position with respect to a flat bar or in superposed relation to the bar, respectively.

2,835,038
TAPE RULE AND EXTENSION
Everett C. Perrin, Alexandria, Va.
Application March 8, 1957, Serial No. 644,872
5 Claims. (Cl. 33—138)

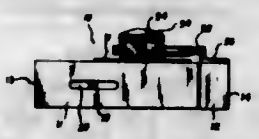
1. In combination with a flexible tape having a free end provided with a ring element, an extension comprising a length of tape affixed at one end to one side of the

tape inwardly of the ring element and overlying one side and extending axially to constitute an axial prolongation



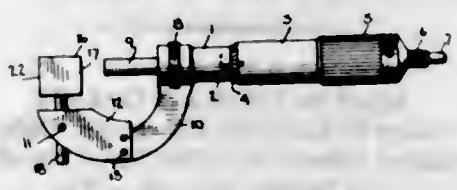
of the tape and define means for holding the tape with the ring element overlying a specified point.

2,835,039
MASTER GAGE
John J. Shutkufski, Lexington, Ky., assignor of one-fourth to William E. Sherwood, Lexington, Ky.
Application July 6, 1955, Serial No. 520,201
7 Claims. (Cl. 33—147)



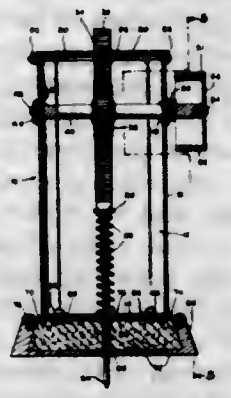
1. A gauge comprising an elongated frame member supporting at one end a first measuring element and having at a second end an apertured flat surface, said frame member having an axial bore extending through at least a part thereof and terminating at said flat surface, a gauge head having at one end a portion telescopically disposed in said bore and provided intermediate its ends with a flat ledge portion adapted to abut against said flat surface at the minimum measuring distance of said gauge, a second measuring element supported at the second end of said gauge head, resilient means mounted in said bore and arranged to move said measuring elements apart, means for adjusting the setting of said resilient means, means for limiting the maximum separation of said elements, means for indicating the extent of separation of said elements and means mounted upon said gauge head for actuating said indicating means and disposed in operative contact therewith at all times.

2,835,040
MICROMETER GAUGE
Joseph J. d'Elia, New Rochelle, N. Y.
Application May 29, 1956, Serial No. 588,082
4 Claims. (Cl. 33—167)



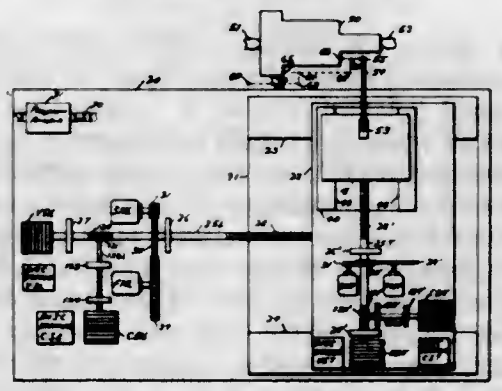
1. In a micrometer gauge having a yoke, an anvil, a barrel, a spindle, and means for advancing and retracting said spindle, the improvement which comprises the anvil mounted on the yoke so that it is slidable in the plane of the yoke and the spindle and transversely to the axis of said spindle, said anvil being adapted to receive and retain bolts and screws in a position wherein their length and the thickness of their heads may be measured, said anvil being provided with a slidable vertical mounting comprising at least one vertical pin projecting downward from said anvil, and an adapter affixed to the yoke, said adapter being provided with holes corresponding in number and cross-section to the vertical pins, and so proportioned as to engage said pins when the anvil is in operative position.

2,835,041
MEASURING DEVICE
George M. Vogel, Sligo, Pa.
Application October 31, 1956, Serial No. 619,625
5 Claims. (Cl. 33—172)



1. A measuring device comprising a housing, a base on which the housing is mounted, a pointed rod reciprocable through the housing and base, a rack connected to said rod, a pinion in mesh with said rack, said pinion being mounted on a shaft having an actuating wheel at one end outside the housing, a dial device on said wheel, handle means on said rack adapted to lift said rack and rod, said base being provided with a cleaning fluid, and dispensing means adapted to convey said cleaning fluid to the bottom of the base.

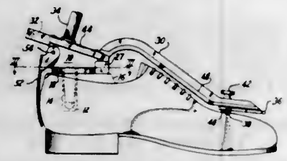
2,835,042
PROGRAMMING APPARATUS
William S. Tandler, New York, and Morris Grossman, Brooklyn, N. Y., assignors to The Warner & Swasey Research Corporation, Cleveland, Ohio, a corporation of Ohio
Application August 21, 1956, Serial No. 605,279
22 Claims. (Cl. 33—174)



1. Apparatus to effect operations which position a mechanical element in relation to a workpiece in accordance with a preselected program of positioning operations, said apparatus comprising, carriage means mounting said element in proximity to said workpiece, a plurality of selectively operable drive means respectively adapted to move said carriage means in a plurality of different coordinates defining dimensions of said workpiece, a plurality of contactor means each having variably separable electrical contacts and each being responsive to an input of motion originally developed by a respective one of said drive means to bring said contacts thereof together to closure by relative movement between said contacts which simulates the movement given to said carriage means by the associated drive means, said contacts of each contactor means being adjustable in separation to permit presetting before said relative movement of a relative displacement between said contacts which represents a corresponding programmed displacement of said carriage means, a plurality of selectively operable electric circuits respectively responsive to closure of said respective contacts in said plurality of contactor means to produce electric signals respectively indicating that

said carriage means has undergone programmed displacements represented by presettings of said contactor means, a programming member supplying at least part of the program in the form of successive digital indications on the member, said indications being coded to selectively designate respective movements of said carriage means in said different coordinates, code translator means adapted by relative step-by-step movement of said programming member therewith to have said digital indications on said member presented thereto seriatim, and to translate each presented indication into electric control signals serving to select for operation and to render operable the drive means and electric circuit corresponding to the movement designated by the presented digital indication, and means responsive to the electric indicating signal produced by the circuit so selected to relatively step said programming member and said code translator means to present the next digital indication to said translator means, said program of positioning operations being thereby carried out step by step by said apparatus.

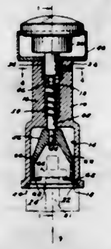
2,835,043
SHOE TESTING DEVICES
Charles K. Woodman, Beverly, and John W. Darrin, Reading, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application December 16, 1955, Serial No. 553,504
4 Claims. (Cl. 33—180)



1. In a device for testing a shoe upper upon a last having positioning indicia formed upon its heel part in a predetermined relation thereto a frame, last engaging means on said frame for fixedly positioning a last thereon in a predetermined position, said means comprising positioning elements cooperating with said indicia, and gaging means comprising a beam mounted upon said frame for adjustment lengthwise of said last, said beam having an index for indicating the position of the throat line of the shoe upper laterally of the last, and an index mounted upon said beam for angular adjustment for indicating the position of the tip line of the upper lengthwise and angularly of the upper.

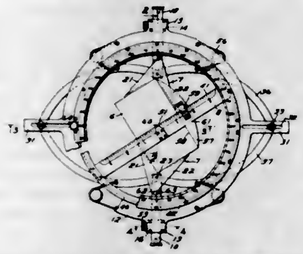
2,835,044
GAUGE FOR ROCKER ARM
Joseph G. Haunert, Detroit, Mich., assignor to Freeland Gauge Company, Detroit, Mich., a corporation of Michigan
Application January 31, 1955, Serial No. 485,148
5 Claims. (Cl. 33—181)

1. A gauge assembly for assisting an operator in setting a valve rocker arm of an internal combustion engine, which comprises a housing having at one end an axial bore and at the other end an enlarged recess for receiving the actuating end of the rocker arm, a second enlarged recess at the open end of said first enlarged recess adapted to receive a valve retainer washer, a dial indicator having a mounting shaft adjustably mounted within said bore, a plunger on said shaft extending into said bore, a second spring-biased plunger in said bore in contact with said first plunger and projecting from said bore into said first recess, a bifurcate feeler member operably associated with said second plunger for reciprocation in said second recess, said feeler member having inwardly turned contact fingers for direct positionment against the lower side of the rocker arm, and means on said feeler



member extending to one side of said first enlarged recess to permit manual operation of said feeler member for installation and removal of said gauge assembly.

2,835,045
LAYOUT TOOL
Bruno O. Buti, Castro Valley, Calif.
Application December 24, 1954, Serial No. 477,514
8 Claims. (Cl. 33—191)



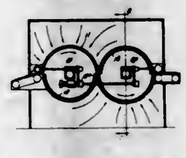
1. A layout tool comprising an annular support member, a pair of diametrically opposed clamp elements slidably engaged with said member and movable selectively from and towards each other, means interconnecting said elements whereby each of said elements will move inwardly and outwardly and to the same extent as the other of the elements, a straight edge constituting a diameter of said annular member rotatably carried by the latter, and means defining a center on said straight edge, said center always being positioned at the center of said annular member.

2,835,046
SCREW-THREAD GAUGE
John F. Gulyban, Cleveland, Ohio
Application March 18, 1955, Serial No. 495,186
2 Claims. (Cl. 33—199)



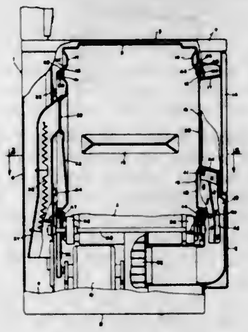
2. A screw-thread gauge comprising a rigid holder having a hollow end with uniform inside diameter throughout, a bushing of comparatively soft material with uniform outside diameter throughout removably and longitudinally adjustably mounted within the hollow end of said holder, a readily removable set screw for holding said bushing in position, a screw-threaded member of comparatively hard material having longitudinally adjustable screw-threaded engagement within said bushing, and a readily removable set screw for holding said screw-threaded member within said bushing.

2,835,047
METHOD AND APPARATUS FOR WILLOW DRYING
Hans Fleissner and Gerold Fleissner, Egelsbach, near Frankfurt am Main, Germany, assignors to Fleissner & Sohn, a corporation of Germany
Application January 25, 1956, Serial No. 561,323
Claims priority, application Germany January 29, 1955
9 Claims. (Cl. 34—25)



1. A method of treating a layer of fibrous material comprising the steps of applying a layer of fibers upon a rotating sieve drum, retaining said layer on said drum by suction, withdrawing said layer from said drum and passing it around a second drum, retaining said layer on said second drum by suction, and rotating said second drum at a speed lower than said first drum so as to bunch up and thus increase the thickness of said layer intermediate said drums.

2,835,048
BASKET SUPPORTING AND SEALING ARRANGEMENT FOR CLOTHES DRYERS
Eugene G. Olthuis, Louisville, Ky., and Robert L. Dunkelman, Shreveport, La., assignors to General Electric Company, a corporation of New York
Application April 4, 1957, Serial No. 650,598
3 Claims. (Cl. 34—132)



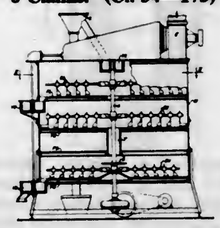
1. In a clothes dryer having an outer casing, a first bulkhead supported within said casing, a second bulkhead supported within said casing and spaced from said first bulkhead, a substantially cylindrical clothes basket having both ends open rotatable about a non-vertical axis and mounted between said bulkheads, a heater, means for circulating a stream of air over said heater and through said basket, said air passing through said first bulkhead and one of the open ends of said basket to enter said basket and through the other open end and said second bulkhead to leave said basket, roller means supporting said basket and frictionally engaging the cylindrical wall thereof for rotating said basket, and annular resilient stationary basket-positioning means supported upon each of said bulkheads, said basket positioning means continuously and slidably engaging the ends of said basket, said basket positioning means preventing air leakage between said basket and said bulkheads and holding said basket in position on said roller means.

2,835,049
COMBINED RACK AND DRIER
Edwin N. Jacobs, Louisville, Ky.
Application September 7, 1955, Serial No. 532,883
3 Claims. (Cl. 34—151)



1. A combined rack and drier comprising a housing, air heating means mounted in said housing, a plurality of tube-like elements mounted on said housing and communicating with the interior thereof, said elements each including telescoping, extensible portions, a blower mounted in said housing for blowing air over said heating means and through said elements, said elements each having a row of perforations extending longitudinally therealong for discharging a portion of the heated air, and flow-accelerating nozzle means formed on the end of each of said elements for discharging the remainder of the heated air back along said elements.

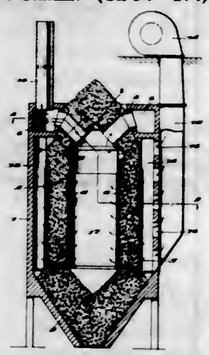
2,835,050
DRIER FOR GRANULAR MATERIALS
Pierfranco Bianchi Janetti, Milan, Italy
Application September 2, 1954, Serial No. 453,836
Claims priority, application Italy September 3, 1953
8 Claims. (Cl. 34—173)



1. A drier for granular materials comprising a casing having therein a plurality of generally horizontal, vertically spaced apart plates each provided with a number of air passages distributed over a major portion of the area of the plates so that the plates are permeable to air, means for introducing granular material to be dried into the top of said casing, means operative to convey the granular material successively from the uppermost plate to the lowermost plate and to discharge dried material from the latter, means including rotary, paddle-carrying arms associated with said permeable plates and operative to mix the granular material on the latter and to convey the granular material transversely across the related permeable plate, suction means connected to the top of said casing to produce an upward air flow through the latter, said suction means constituting the sole means for exhausting air from said drier, a source of hot air, a source of cold air opening into said casing below the lowermost permeable plate so that cool air passes through the granular material on the latter to cool the granular material before its discharge from the casing, conduit means connecting said hot air source to said casing below each of the permeable plates above said lowermost plate, and means operative to mix controlled amounts of relatively cool air with the hot air passing through said conduit means so that the amount, temperature and humidity of air supplied to said casing at levels below each of said permeable plates at successively increasing elevations are progressively increased to provide efficient drying conditions for the introduced granular material wherein each of said plates has a solid peripheral portion that is impermeable to the air passing upwardly through said casing;

and wherein said paddle carrying arms have paddles at the free ends thereof that are fixed and movable, respectively, relative to said arms, said movable paddles being shaped to retain the granular material on the solid peripheral portion of the related plate during the operation thereof, and means at a predetermined location in said casing for moving said movable paddles to inoperative positions as the latter pass said location so that the movable paddles then release the material for engagement by said paddles which are fixed with respect to said arms, said fixed paddles being formed to convey the material engaged thereby toward the center of the related plate.

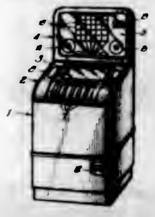
2,835,051
DRYING PLANT
Hans Folke Axel Rydin, Djursholm, Sweden, assignor to Stockholms Superfosfat Fabriks Aktiebolag, Stockholm, Sweden, a company of Sweden
Application March 28, 1955, Serial No. 497,320
4 Claims. (Cl. 34—174)



1. Drying apparatus for granular materials comprising an open-ended vertical cylindrical shaft, said shaft having a horizontally-arranged radially-inwardly directed annular conduit adjacent the upper end thereof defining a centrally-located substantially-circular inlet opening, and a conically-convergent portion at the lower end thereof defining an outlet opening; an upwardly-convergent feed cone in said shaft inlet opening and spaced from the inner wall of said annular conduit to form a feed passage therebetween; a plurality of gas exhaust tubes each connected at one end to and in communication with said annular conduit and at the other end to said feed cone to rigidly secure said feed cone in said inlet opening; two concentrically-arranged vertical cylindrical screens within said shaft, said screens being open to their full diameters at their lower ends above said outlet cone; means for suspending the inner one of said screens at its upper end from said feed cone; means for suspending the outer one of said screens at its upper end from said annular conduit; means for passing a drying gas stream radially inwardly through said outer and inner screens so that the granular material is dried as it passes downwardly between the screens from the inlet to the outlet of the shaft; and means in communication with said annular conduit for withdrawing the drying gases from the interior of the inner screen, through said gas exhaust tubes, and from said annular conduit.

2,835,052
QUESTION AND ANSWER GAME
Walter L. Raich and James P. Garrity, Chicago, and William O'Neill, Skokie, Ill.
Application December 22, 1955, Serial No. 554,826
13 Claims. (Cl. 35—9)

1. In a question and answer game, the combination of screen means, means for projecting on said screen means a plurality of different questions each having associated therewith a plurality of different answers, only one of which is correct, each of said answers bearing designating indicia, a plurality of manually operable keys each bearing indicia corresponding to the designating indicia of said answers, thereby enabling the player to signify what he regards to be the correct answer by depressing the key of corresponding indicia, time means



for measuring the time interval taken to answer the question, and scoring mechanism responsive to the key depressed and to said time means for scoring the ability of the player, said scoring mechanism comprising a series of lights, means for lighting different lights depending upon the scores made in answering different questions, and totalizing means for totalizing said scores for a plurality of questions.

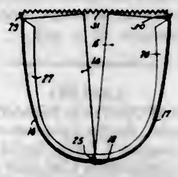
2,835,053
EDUCATIONAL DEVICE
Dolores B. Gales, Fresno, Calif.
Application October 18, 1954, Serial No. 462,756
9 Claims. (Cl. 35—73)

1. An educational device comprising a substantially erect base panel; a pivot pin mounted on the base panel in substantially normal relation thereto; a plurality of flat, substantially rectangular, congruent, tablet members having openings centrally of corresponding end portions thereof pendantly supported on the pivot pin by engagement of the pivot pin in the openings; and a support peg mounted on the base panel in substantially parallel relation to the pivot pin laterally adjacent and below said pin, the lateral spacing of the peg being less than the lengths of the tablet members and the vertical spacing of the peg being approximately one-half of the width of said tablet members from the pin whereby tablet members pivoted about the pin may be edgewardly rested on the peg in substantially horizontal position, the tablet members having visual indicia thereon displayed in upright position when their respective tablet members are in horizontal position.

2,835,054
DETACHABLE HEEL PLATE OR COVER
Robert J. Martin, Houston, Tex.
Application February 14, 1957, Serial No. 640,157
3 Claims. (Cl. 36—72)

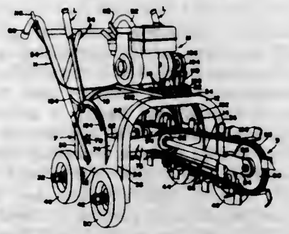
1. A removable heel plate adapted to be positioned over the heel of a shoe, comprising a pair of complementary bottom plates hingedly connected at one of their respective ends, the other ends of said plates being open to receive the heel of a shoe, extension members slidable within said complementary bottom plates for

contact with the shoe heel over which the heel plate is positioned, and a coiled spring connected between the



forward ends of said complementary bottom plates, biasing said plates towards each other in clamping relation around a shoe heel.

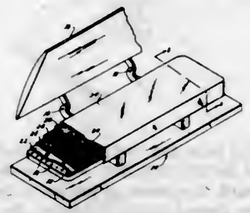
2,835,055
POWER TRENCHER
Dale J. Hermes, East Moline, Ill., assignor to Stampings, Inc., Davenport, Iowa, a corporation of Iowa
Application June 4, 1956, Serial No. 589,288
8 Claims. (Cl. 37—86)



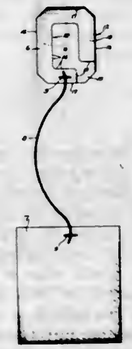
1. A mobile earth-working machine comprising: a fore-and-aft main frame of tunnel-like structure including front and rear arch members, opposite fore-and-aft side plates rigidly joined to the legs of the arch members, and a top element extending fore-and-aft and rigidly connected to the tops of the arch members; four stub axles, one joined to and projecting laterally outwardly from the lower end of each arch member leg; four ground wheels mounted respectively on the axles; handle means secured to the main frame and extending forwardly beyond the front arch member; a cross shaft supported at opposite ends in the side plates; a yoke between the side plates and having opposite fore-and-aft legs mounted on the cross shaft and further having a rigid transverse midportion behind the shaft; a rigid main arm joined to the midportion of the yoke and extending rearwardly therefrom; front and rear spockets rotatably carried respectively on the cross shaft and on the rear end of the main arm; earth-working means including a chain trained about the sprockets; a power source carried on the top element; and drive means interconnecting the power source and the front sprocket.

2,835,056
PADDING FOR GARMENT PRESSING MACHINES, HOME IRONERS, MANGLES OR THE LIKE
Robert E. Landers, Rego Park, Sol Moldovan, Brooklyn, and Paul Indyke, Jamaica, N. Y.
Application November 1, 1954, Serial No. 465,866
2 Claims. (Cl. 38—66)

1. In a pad for pressing machines, mangles, and home ironers, a laminated structure, comprising a first layer of asbestos fabric having an open weave, said layer having sufficient porosity to permit penetration of vapor while protecting the structure from excessive heat of said vapor, a first fiber glass layer supported on said first layer, said glass layer having sufficient flexibility, resiliency, and durability to resist repeated applications of heat, moisture, and pressure thereon, a thick layer of rubberized curled hair overlying said fiber glass layer, said thick layer being formed into a highly porous, resilient mass which retains uniform porosity, density, and freedom from caking under repeated applications of heat, moisture, and pressure thereon, a second layer of fiber glass overlying said layer of curled hair, said second layer having a higher degree of flexibility and resiliency than the first fiber glass layer while said first fiber glass layer possesses higher heat insulation qualities than the second glass layer, a close weave fabric cover over-lying second fiber glass layer, said cover having eyelets disposed along the marginal edge thereof.



2,835,057
TAG FOR TEA BAGS AND THE LIKE
Geraldine P. Mathews, Battle Creek, Mich.
Application April 20, 1956, Serial No. 579,466
7 Claims. (Cl. 40—2)

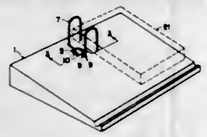


1. A tag for attachment to a string, such as the usual tea bag-immersing string, said tag having a line defining a tear-out portion, at least a portion of said line being weak and tearable with the ends of said tear-line extending to the perimeter of the tag, said line extending in such directions that the tag will be converted to hook-like form by removal of said tear-out portion, the hook-like tag being then adapted to engage the rim or other suitable portion of a cup, pot, or other article to connect the tag thereto.

2,835,058
MOUNTING FOR CALENDAR PADS
Henry Ray, New York, N. Y., assignor to Ever Ready Calendar Manufacturing Co., Jersey City, N. J., a corporation of New Jersey
Application August 17, 1956, Serial No. 604,799
5 Claims. (Cl. 40—120)

3. A calendar stand comprising a base, and a wire frame for supporting calendar leaves carried on the base and including a pair of inverted U-shaped arches and a generally horizontal loop connecting said arches, the base having a plurality of vertical openings into which the frame is downwardly moved to rigidly support the same in leaf-supporting position, two of said openings being

closed at their lower ends and forming sockets to receive the free ends of the arches, another aperture having narrow, opposed, radially extending slots which receive the loop ends of the arches, and means securing the frame on the base including a substantially U-shaped spring



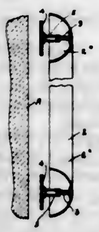
carried by the loop and extending upwardly through said aperture and having shoulders which underlie the base to prevent upward movement of the frame until the two legs of the U are moved together to free the shoulders, and stop means on the frame limiting downward travel thereof in the supporting openings.

2,835,059
DISPLAY CARD
Henry Groh, Oakville, Ontario, Canada, assignor to Groton Products, Limited, Oakville, Ontario, Canada, a corporation of Canada
Application November 23, 1953, Serial No. 393,864
3 Claims. (Cl. 40—124.1)



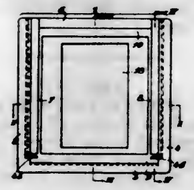
1. A display to be supported upright as on a counter behind and by an article placed to stand on the counter, comprising a card having a lower edge forming the base of the display and including an adjacent flat portion of a height less than that of the article and having upper and lower edges, said card further including a member extending from the lower edge of said flat portion and folded upwardly against the back side of said flat portion and having an end tab folded to extend over the upper edge of said flat portion and forwardly of the card, the end tab of said member having an opening to receive the article and to secure the card thereto so as to be supported behind the article on the counter.

2,835,060
MOUNT FOR DISPLAY LETTERS OR THE LIKE AND METHOD OF MOUNTING LETTERS
Werner I. Staaf, Carnegie, Pa.
Application July 12, 1955, Serial No. 521,461
2 Claims. (Cl. 40—140)



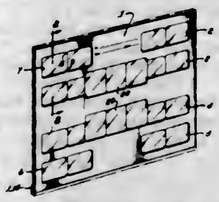
1. In a display, a letter having a concaved wall confronting face, a plurality of studs secured to the concaved face with the studs being of a height less than the depth of the concavity, and a mounting element on each stud comprising a semi-flexible plastic tube fitted over the stud and of less length than the depth of the concavity in the letter, the tube having a base at one end adapted to be cemented to the surface of a wall.

2,835,061
DIAPOSITIVE FRAMES
Herbert Riedel, Berlin-Zehlendorf, Germany
Application August 7, 1956, Serial No. 602,546
Claims priority, application Germany August 11, 1955
8 Claims. (Cl. 40—152)



1. A two-piece mounting device for projection film strips, said mounting device comprising a rectangular film-strip receiving frame and a retractable, slidably received, rectangular cover therein; said frame further comprising a bottom face having a substantially rectangular opening therein, first and second opposed inwardly grooved edge portions extending upwardly from said bottom face, and a third edge portion formed with an inwardly directed undercut face, and defining with said first and second edge portions a closed end of said frame and the upper face thereof, said frame having an open end opposite said closed end; first and second rib portions extending upwardly from said bottom face and disposed inwardly of said frame and spaced parallelly to said first and second edge portions; a third rib portion extending from said bottom face adjacent said open end of said frame, said first, second and third rib portions defining with the said inwardly directed undercut face of said third edge portion and with said bottom face, a rectangular compartment for receiving a pair of glass plates and a film strip therebetween; said cover being formed with opposed, undercut, tongue-like edges corresponding to said first and second grooved edge portions, and slidably engaging therewith, said cover having a substantially rectangular opening corresponding to said opening in said frame when said cover is inserted therein, whereby a pair of glass plates and a film strip may be secured between said frame and said cover, and the passage of dust to said film strip prevented.

2,835,062
X-RAY FILM MOUNT
Nathan Greene and Rose Greene, Encino, Calif.
Application May 28, 1956, Serial No. 587,702
2 Claims. (Cl. 40—158)



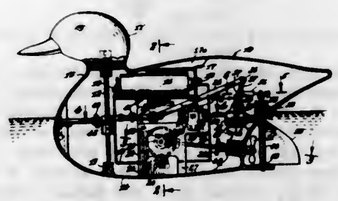
2. An X-ray film mount, including a sheet of material provided with interconnected and aligned light pervious portions adapted to have a group of X-ray film arranged to register with said light pervious portions with the contiguous edges of each X-ray film of the group slightly overlapped to thereby provide an enlarged uninterrupted area of view of the objects appearing on said X-ray film, and short length aligned tabs extending into said light pervious portions for indicating the division areas between each X-ray film of the group.

2,835,063
ORNAMENTAL COVER FOR SPECTACLE FRAMES
Robert R. Worthington, Houston, Tex.
Application January 19, 1956, Serial No. 560,150
4 Claims. (Cl. 41—10)



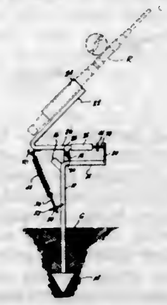
2. An ornamental frame in combination with a spectacle frame including lens rims, lenses held therein, a bridge piece connecting said lens rims, and temples pivotally connected to said lens rims, said ornamental frame conforming to the shape of the general curvature of the upper portion of said lens rims and bridge piece and comprising a plurality of sections including separable end sections and an inner separable bridge section, and additionally including a section for each temple, each section having an ornamented frontispiece thereon to extend substantially parallel to said frame to present an ornamental and protective appearance to said spectacle frame, support means extending laterally from each frontispiece and engageable with the upper surface of said spectacle frame to level each frontispiece relative to said spectacle frame, clip means connected to each frontispiece and positioned inwardly of said support means and including a spring clip and inwardly thereof a cushioning material urged by the inherent resiliency of said spring clip into gripping contact with said frame to prevent scratching it and to provide fitting tolerance and mold therearound and to cooperate with said spring clip in yieldably maintaining said frontispiece against inadvertent shifting on said spectacle frame.

2,835,064
TOY OR DECOY BIRD OR ANIMAL
James E. Webb, Houston, Tex.
Application July 24, 1956, Serial No. 599,886
5 Claims. (Cl. 43—3)



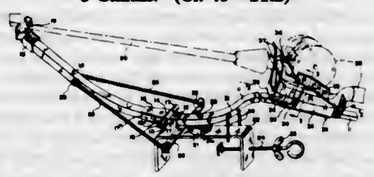
1. A floating hollow body having a motor therein, said body having a head loosely mounted thereon, a vertical rod rotatably mounted in the body and having said head secured to the upper end thereof, said rod having a crank thereon, a train of gears connected with the motor, one of said gears having an eccentric pin thereon, an arm pivoted at one end thereof to said crank and at the other end thereof to said pin for swinging said head during rotation of said gears by the motor, a propeller for propelling the body on water, and means operatively connecting one of said gears with said propeller for actuation of the propeller during operation of the motor.

2,835,065
FISHING ROD HOLDER
William Schwartzkopf, Torrington, Wyo.
Application August 10, 1956, Serial No. 603,308
4 Claims. (Cl. 43—15)



1. A fishing rod holder comprising a support including an upwardly projecting portion having an opening; a rod support arm including a rod-receiving socket; a rock bar rigid with said arm and fulcrumed upon said support; a spring connected between the rock bar and said support under tension effective to normally bias the rod support arm in one direction about its pivot axis; a plunger slidable in said rock bar and projecting beyond one end of the rock bar for engagement in said opening; a second spring associated with the plunger and tensioned to normally retract the plunger out of said opening, said opening being greater in diameter than that of the plunger, for permitting limited pivotal movement of the rock bar with the plunger engaged in said opening, under a pull exerted on a rod by a fish, said plunger being frictionally engaged with the wall of the opening responsive to pull exerted on the rock bar by the first named spring tending to swing the rock bar about the pivot axis in said one direction, the frictional engagement between the plunger and opening being reduced responsive to the exertion of pull upon a rod by a fish, to free the second spring for expansion, whereby to retract the plunger and free the rock bar and arm for movement about said pivot axis.

2,835,066
FISHING ROD HOLDER
George E. Spilker, Cleveland, Ohio
Application December 27, 1955, Serial No. 555,625
5 Claims. (Cl. 43—21.2)



3. A fishing rod holder comprising a clamp, an antifriction bearing mounted thereon, a bar mounted on said bearing for lateral swinging movement, a second bar disposed in coaxial relation with the first named bar, a hinge secured to said bars intermediate the contiguous ends thereof for folding said bars in overlapped relation, a cradle on the first named bar to support the reel and handle of a fishing rod, said cradle comprising a pair of sheet metal channels arranged in telescopic relation with the side flanges thereof disposed upwardly, shoulders in said channels to arrest forward and rearward movement of the handle and reel of a fishing rod mounted therein, and means in one of said channels permitting the axial adjustment thereof relative to the other.

2,835,067
STEPPED FISH LURE
Joel T. Tidwell, Lubbock, Tex.
Application December 22, 1955, Serial No. 554,680
1 Claim. (Cl. 43—42.5)



As a new article of manufacture, a fishing lure fabricated of a single rectangular piece of sheet material shaped to include an elongated bar having an inclined intermediate section providing leading and trailing sections, the intermediate section being of rectangular configuration in plan, said leading and trailing sections each having a circular opening spaced inwardly from the end thereof, the rear edge of the leading section being disposed forwardly of the front edge of the trailing section, the opening in the leading section being connected to a fishing line, and the opening in the trailing section being connected to a fish hook, said leading and trailing sections being positioned in spaced parallel horizontal planes, said leading section being provided on both upper and lower surfaces with a brightly colored area which extends from the leading end to a point contiguous to the inclined section, said colored areas also including a rearwardly disposed inclined edge, said leading and trailing sections being of the same size and each including spaced parallel side edges and spaced parallel end edges, the end edges being arranged at right angles to the longitudinal axis of the lure, the side edges of the leading and trailing sections being straight and lying in the same corresponding planes.

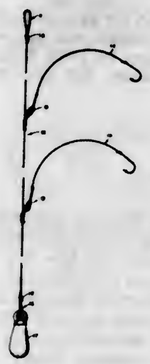
2,835,068
ARTIFICIAL FISH LURES
Howard M. Latham, Devils Lake, N. Dak.
Application October 25, 1957, Serial No. 692,439
2 Claims. (Cl. 43—42.16)



1. An artificial fish lure comprising a body component having an axial bore therethrough, a rod extending through said bore, said rod having first and second end portions projecting beyond related ends of the body component, a spinner component having an axial bore extending therethrough rotatably receiving one of said rod end portions, a single relatively long flexible blade having an inward end provided with a reduced width tab, said tab being compressingly extended through a fastening element extending laterally outwardly from the spinner component, and a trailing fish hook assembly secured on an end of said rod.

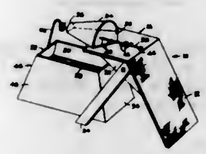
2,835,069
FISHING LEADERS
Arthur J. Flye, Sr., Washington, D. C.
Application August 8, 1955, Serial No. 526,803
2 Claims. (Cl. 43—44.84)

2. In a fishing leader comprising a length of flexible cord-like material having one end portion adapted for connection to a fishing line and its opposite end portion for connection to a sinker, an intermediate portion doubled upon itself to form a U-bend and sides extending from oppositely directed end portions of the material and the U-bend being bent backward around said sides and inserted through the loop formed by its backward turn to provide a knot at the base of the U-bend in the doubled portion thereof whereby the knot contains doubled portions of said U-bend throughout and leaves only a reduced loop beyond said knot, said reduced loop being formed to lie along said one end portion in a direc-



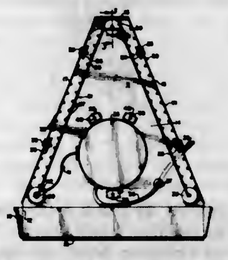
tion extending away from said knot and in close adjacency to said material, a length of wire tightly wound about the base of said reduced loop and the adjacent length of said one end portion immediately adjacent said knot to bind the base of said reduced loop to said one end portion and leave an end of the loop free and projecting along said material toward one end thereof for attachment of a snelled hook thereto.

2,835,070
RODENT TRAP
Pedro L. Gomez, Bronx, N. Y.
Application February 3, 1955, Serial No. 485,953
1 Claim. (Cl. 43—69)



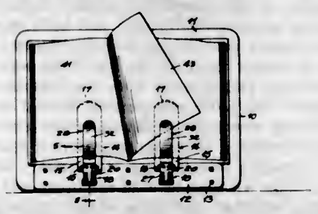
An animal trap adapted to be positioned above a pail of liquid comprising a plate positioned to extend partially across the top of the pail, means supporting said plate in horizontally fixed position, a tongue secured to said plate by horizontally extending transverse pivot means, a semi-conical tunnel member secured to said tongue and having a small open end thereof extending beyond the end of said plate and a large open end thereof positioned in overlying relation to said plate, a light wire of ferrous material secured to said tongue and extending out of the large open end of said tunnel, a permanent magnet secured to said plate and engaged by said wire when the tunnel is in a horizontal position to hold the tunnel in this position, the weight of the animal on the end of the tongue adjacent the small open end of said tunnel causing the tongue to break the connection of the wire with the magnet and precipitate the animal into the liquid, and a weight secured on the end of said wire adjacent said magnet to assist in restoring the tunnel to its horizontal position.

2,835,071
INSECT ELECTROCUTOR
Donald E. Partridge, Los Angeles, Calif., assignor to United Export Packers, Inc., Los Angeles, Calif., a corporation of California
Application June 18, 1954, Serial No. 437,709
1 Claim. (Cl. 43—112)



An electrical insect destroyer comprising an outer grid structure including a plurality of horizontally disposed substantially parallel wires, said outer grid structure defining generally angularly disposed straight side portions sloped to from a wide base and relatively narrow top portion, said top portion comprising parallel horizontal wires forming part of said outer grid; two end covers secured to and electrically and mechanically connected with said outer grid structure adjacent the ends of the side portions thereof, said outer grid structure and end covers thereby constituting a rigid, unitary structure; an inner grid structure including a plurality of horizontally disposed substantially parallel wires, said inner grid structure being spaced from said outer grid structure a predetermined and substantially constant distance with adjacent wires of said outer and inner grid structures disposed in slightly staggered relationship whereby a substantially unimpeded flight path for insects is provided from outside said outer grid to inside said inner grid structure, an insulating means comprising insulators provided with hollow bores at one end and secured to said end covers at the other end for securing said inner grid structure to said covers with ends of wires of said inner grid structure disposed within the bores and for insulating said inner grid structure from said end covers and thereby from said outer grid structure, said inner grid structure being adapted to be secured to one terminal of a source of high voltage having its other terminal connected to said outer grid structure.

2,835,072
BOOK SUPPORT WITH INDEPENDENT COVER HOLDER
William Gramacy, Bronx, N. Y.
Application April 30, 1957, Serial No. 656,145
2 Claims. (Cl. 45—61)



1. A book support comprising a rectangular-shaped, flat, solid, plate constituting a book rest, a narrow plate fixed on the front surface of the rest plate, along the bottom edge thereof, a pair of clamping units spaced along and disposed perpendicularly to the bottom long edge of the rest plate, on the front surface thereof, each unit consisting of an elongated flat finger fixed at one end to the narrow bottom plate and extending inwardly thereof closely spaced from the rest plate to receive the covers of an open supported book thereunder, a second finger hingedly secured at one end to the outer end of the elongated flat finger, said second finger being substantially inverted V-shaped with the free end thereof spring-pressed inwardly toward the other elongated flat finger and being adapted to press upon the leaves of an open supported book, and a bracing plate hingedly mounted on the rear surface of the rest plate along the opposite longitudinal edge thereof for supporting the book support in an inclined position, said bottom narrow plate having a straight upper edge serving as an abutment for the bottom edges of the covers of an open supported book to limit inward movement of the book.

2,835,073
ROTOR-TYPE FLYING DEVICE
Chester F. Dame, Roxbury, Mass.
Application August 20, 1956, Serial No. 604,964
4 Claims. (Cl. 46—76)

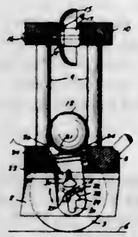


3. A rotor-type flying toy comprising a hollow body of the class having a double curved surface of revolution, an annular wing member located centrally and externally of the hollow body, air intake means located at one side of the hollow body for conducting streams of air into the hollow body when rotative movement is imparted thereto, air exhaust means located at an opposite side of the hollow body for releasing propelling jets of air, said air intake means including a pair of blade elements projecting outwardly from the top surface of the hollow body at opposite sides thereof, said blades being adapted to produce vertical travel of the body when rotated, said air intake means further including a second set of blade elements projecting outwardly from the surface of the hollow body at two opposite sides thereof and at points lying between the said first set of blades and the annular wing member, said second set of blades being arranged at 90° spacing to the said first pair adapted to produce horizontal travel when the body is rotated, said exhaust means including a set of blades projecting from the bottom surface of the body at two opposite sides thereof, said bottom set of blade elements being adapted to cooperate with the said top set of blade elements to release propelling jets of air and induce vertical displacement of the hollow body, and said air exhaust means further including blade members projecting from the bottom of the body at points between the annular wing and the said lowermost blade.

2,835,074
ACTION TOY
Ralph W. Crawford, Leslie W. Sly, and Herman G. Fisher, East Aurora, N. Y., assignors to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application June 25, 1956, Serial No. 593,533
10 Claims. (Cl. 46—114)

1. A wheeled action toy comprising, a base plate, normally generally upright ball confining means carried by said base plate, a ball loosely confined by said confining means for vertical movement therein, a musical sound producing device positioned adjacent the upper end of said confining means for being struck by said ball, said base plate having a socket therein at the lower end of

said confining means, a poppet member vertically movable in said socket, said poppet member having a disc-like head forming a ball supporting platform at the bottom of said confining means and a stem depending therefrom through the bottom of said socket, spring means carried in said socket and urging said poppet member vertically upwardly, bearing block means depending from said base plate, axle means journaled in said bearing block means, wheel means carried by said axle means



and supporting said toy for rolling movement along a supporting surface, a generally keyhole shaped opening in said poppet member stem, and crank means movable with said axle means and extending into said opening, said opening having a pair of generally horizontal shoulders against which said crank means bears to momentarily depress said poppet member against said spring means upon rolling said toy along a supporting surface both forwardly and rearwardly.

2,835,075
WALKING AND SITTING DOLL
Julius Weih, Ozone Park, N. Y., assignor to Ideal Toy Corporation, Hollis, N. Y., a corporation of New York
Application March 8, 1957, Serial No. 644,813
1 Claim. (Cl. 46—149)



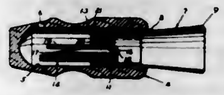
A combination walking and sitting doll comprising a resilient and flexible hollow torso having a vertical axis, leg receiving sockets in said body including openings defined in the leg portion of said torso, said openings being inclined at an angle directed upward relative to said vertical axis, a resilient leg for reception in each of said socket openings, each leg having a body and a top inclined relative to its respective body and to said vertical axis, said top part of each leg including a collar insertable through said socket openings and turnably abutting the inner wall of said torso to prevent the removal of said leg therefrom; an oscillating walking device in said torso comprising a channel-shaped web having front and rear flanges, said front and rear flanges each being fixed to the respective front and rear walls of said hollow torso, a plate pivoted to said web intermediate the channel legs thereof and having diametrically disposed upstanding flanges one on each side of said channel legs, said collars on each of said legs having an upwardly extending projection disposed at an angle relative to said collar, the proximate edges of said angular projections being upwardly divergent relative to each other when said legs are in a vertical position relative to the torso, said projections abutting a respective one of said flanges of said pivoted plate when said legs are in walking position, said legs being turnable in said sockets to a sitting position in which said projections are spaced from said flanges.

2,835,076
WALKING DOLL
Julius Weih, Ozone Park, N. Y., assignor to Ideal Toy Corporation, Hollis, N. Y., a corporation of New York
Application March 8, 1957, Serial No. 644,861
3 Claims. (Cl. 46—149)



1. In combination, in a doll a torso which has a hip-socket, a thigh member which has an extension at its upper end, said extension being inclined inwardly relative to the body of said thigh member towards the axis of the torso, said extension having a stop-collar at its end, said extension also having a circumferential groove therein spaced longitudinally therealong from said stop collar, said collar and extension being insertible into said torso through the opening of a hip-socket in a fully inserted position of said collar, said opening having an edge-wall which is seated in said groove when said collar is thus fully inserted, said extension being movable longitudinally along its length outwardly relative to said hip-socket to a position in which said groove is spaced outwardly from the edge-wall of said opening of said socket and said collar abuts the inner face of said edge wall; said thigh being forwardly turnable in said hip-socket to a forward sitting position, said thigh being thus movable outwardly relative to said hip-socket to a thigh-crossing position.

2,835,077
GOOSE CALLS
Glen L. Mittelstaedt, Waseca, Minn., assignor to Herter's, Inc., Waseca, Minn., a corporation of Minnesota
Application July 9, 1956, Serial No. 596,695
1 Claim. (Cl. 46—180)



A wind sounding device of the class described, comprising in combination, a body member, a longitudinally disposed chamber in said body member, one end portion of the chamber being open to atmosphere in the form of a relatively wide open mouth and the other end portion thereof being closed, a relatively small port affording a mouthpiece in the longitudinal side portion of the body member at the closed end portion thereof said port extending transversely through said body member to afford an air intake port having communication with said chamber, a stopper member, the inner end portion of which is cylindrical and extends into the chamber in said body member, the outer end portion of said stopper member extending outwardly of the wide open end portion of the body member, a relatively large bore in said stopper member extending therethrough, a relatively wide sleeve having a tight working fit with the inner end portion of the stopper member, adjustable means mounted in the inner end portion of the stopper member comprising a relatively long tongue-like member, the outer end portion of which is semicircular in cross-section, and the inner end portion thereof being downwardly inclined on its flat upper and its longitudinal edge portions being substantially parallel except at their extreme inner end portions which are in

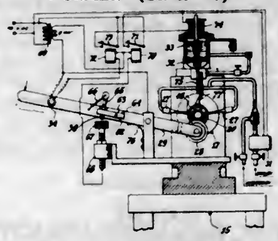
slightly converging relation outwardly of a point formed by a shoulder forming a part of the inner end portion of the tongue-like member to abruptly increase the downward inclination of the said flat upper side portion, a longitudinally disposed groove in said flat upper side portion of said tongue-like member said groove being closed at its inner end portion and open at its outer end, an inwardly tapered vibrating reed member mounted in the stopper and overlying the said tongue-like member and the groove formed therein, resilient means insertable between the tongue-like member and its mounted vibrating reed inside the inner end portion of the stopper member thus holding the tongue-like member and its mounted vibrating reed in properly adjusted and toned relation and restricting all passage of air to atmosphere through the said groove to activate the same, said stopper member and its mounted wind sounding components projecting into the said chamber in the body member to a point wherein the inner end portions of said sounding members are substantially in transverse alignment with the air intake port, whereby the turbulence set up in the chamber by air being forced through the intake port acts directly upon the inclined plane of the tongue-like member and its mounted vibrating reed in the direct airstream, produces a two-noted tone.

2,835,078
PROTECTIVE COVER FOR AGRICULTURAL CROPS
John F. Whitmore, Visalia, Calif.
Application June 6, 1955, Serial No. 513,283
13 Claims. (Cl. 47—21)



1. A cover for perishable crops comprising a canopy adapted to envelop such a crop so as to be downwardly sloped from the top of the crop having a drainage opening in the downwardly sloped portion thereof, and closure means connected to the canopy associated with the opening adapted normally to cover the opening and automatically operable by rain water descending on the canopy to uncover the opening and direct rain water therethrough.

2,835,079
TUBULAR LAMP BULB MACHINE
Frank J. Camarata and Charles Wiener, Bloomfield, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 30, 1953, Serial No. 365,002
4 Claims. (Cl. 49—7)

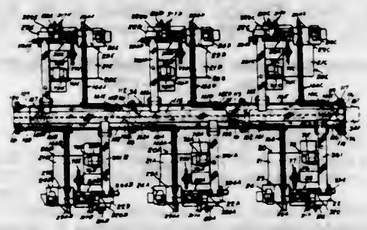


1. A machine for forming shoulders in a glass tube and severing the glass between contiguous shoulders, comprising receiving and rotating means for receiving and securing the glass tube and rotating the latter, a battery of burners connected to a source of combustible gases for applying heat to said glass tube sufficient to soften a predetermined portion thereof, a tool engageable with the predetermined heated portion of said glass tube, advancing means for moving said tool toward and away from the axis of the glass tube, said tool being operable during a first advancement toward said predetermined heated portion to form rounded shoulders therein with a depression of glass therebetween, valve means associated with said battery of burners for controlling the flow of combustible gases thereto, electrical circuit means comprising electrical means for operating the valve means and circuit closing means operable by movement of said advancing means toward said axis to cause energization of said electrical means and attendant operation of said valve means to thereby reduce the amount of heat applied to said predetermined portion and permit the cooling thereof, and said tool being operable during a second and further advancement toward said axis to score the depression in the cooled shouldered portion of said glass tube thereby severing the glass tube.

2,835,080
WITHDRAWN

2,835,081
WITHDRAWN

2,835,082
AUTOMATED PISTON GRINDING MACHINE
Clarence J. Green, Worcester, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application August 9, 1956, Serial No. 603,079
15 Claims. (Cl. 51—105)



1. A piston grinding apparatus comprising a plurality of spaced pistons grinding units, and a loading and unloading apparatus therefore including a longitudinally extending loading conveyor arranged parallel to such units, a transversely arranged loading unit between said conveyor and each of said grinding units, a deflector adjacent to each loading unit to deflect pistons to be ground from the loading conveyor onto each of said loading units, a loading arm on each of said grinding units arranged to transfer successive pistons to be ground from each of the loading units onto said grinding units, and an independent indexing mechanism independently to index each of said loading units to position successive pistons on said loading arms.

2,835,083
BELT SANDING MACHINE
Gene De Mambro and Linsly G. Brown, Jamestown, N. Y., assignors to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware
Application September 12, 1955, Serial No. 533,652
6 Claims. (Cl. 51—141)

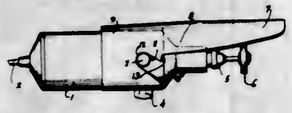
1. A belt sander comprising a base, a pair of spindles mounted on said base, a pair of pulleys mounted on said spindles, respectively, for rotation about their longitudinal axes, said longitudinal axes lying in one plane, means for rotating one of said pulleys, an endless backup belt mounted to travel around said pulleys, said pulleys

having substantially identical diameters whereby the two reaches of said backup belt are in parallelism, a third spindle supported from said base remote from said pair of spindles, a third pulley mounted on said third spindle for rotation about its longitudinal axis, the longitudinal axis of said third pulley lying in said one plane, an endless abrasive belt mounted to travel about one of said pair of pulleys in superposed engagement with said backup belt and about said third pulley, said third pulley having a diameter smaller than that of said pair of pulleys, whereby said abrasive belt is in continuous super-



posed engagement with said backup belt along both reaches of said backup belt between said pair of pulleys, means for inclining the axis of one pulley of said pair in said plane and independent means for inclining the axis of said third pulley in said plane to control tracking of the backup belt and of the abrasive belt respectively, means for moving one pulley of said pair and independent means for moving said third pulley toward and away from said remaining pulley respectively, to adjust the tension on the backup belt and on the abrasive belt respectively, and work tables mounted on said base on each side thereof adjacent the two reaches of said abrasive belt and between said pair of pulleys.

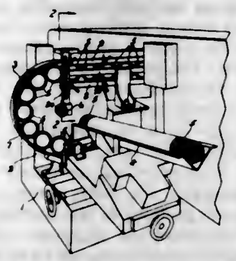
2,835,084
PROTECTIVE SHIELD FOR PORTABLE ABRADING DEVICE
Harold C. Fotre, Chicago, Ill., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York
Application September 22, 1955, Serial No. 535,977
1 Claim. (Cl. 51—170)



In a portable abrading device including a generally cylindrical housing having oppositely projecting studs thereon and a tool retaining member at one end with an abrading tool retained thereby, a protective shield comprising a sheet of flexible material formed with a generally tubular resilient housing-engaging socket portion and an integral open ended generally concavo-convex outwardly flaring generally fan-shaped shield portion extending from the socket portion to overlie the tool, said tubular socket portion having a longitudinal slot to permit a slip-on resilient engagement over said housing and said socket portion having oppositely disposed slots oblique to the longitudinal axis of said socket portion, the edges of said slots engaging said studs on said housing in snap-on fashion.

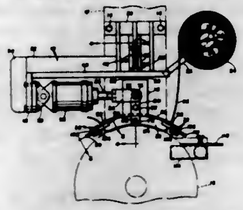
2,835,085
MAGNETIC DIAL FEEDER
Jack F. Manting, Big Rapids, Mich., assignor to Hauchett Magna-Lock Corporation, Big Rapids, Mich., a corporation of Michigan
Application November 21, 1955, Serial No. 548,002
8 Claims. (Cl. 51—215)

1. A circular magnetic chuck having an article carrying face, means for mounting said chuck for rotation about a central axis, means for continuously supplying articles to be held on said face of the chuck, one after another, to said chuck adjacent a peripheral face thereof, to be carried by the chuck through a circular arc of movement, means for removing in succession articles carried by the chuck at the end of said arc of movement, means for automatically varying the magnetic attraction force acting on said articles as they are moved from supplying to removing positions including electromagnets carried by the chuck face, collector ring means including a continuous feed ring and a sectored ring, contact means in



series with said electromagnets and rotatable with said chuck for engagement with said rings, and a plurality of resistance circuits each in series and connected with certain sectors of said sectored ring, for effecting variations in current through said electromagnets, wherein certain of the resistance circuits are alternately interrupted by relays actuated by current from the corresponding and other sectors of said sector ring.

2,835,086
OSCILLATING WHEEL DRESSER FOR RESISTANCE TYPE WELDERS
Gordon L. Longmire, El Cajon, and Benjamin E. Bailey and Martin S. Schlegel, San Diego, Calif.
Application November 4, 1954, Serial No. 466,758
3 Claims. (Cl. 51—241)

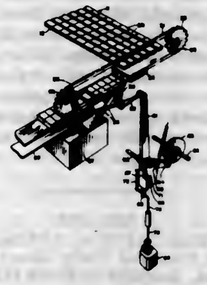


1. A cleaning device for a rotary welding electrode in a welding machine, comprising: a frame having attachment means; a guide block mounted on said frame for rectilinear sliding motion; a shoe having an arcuate face; means biasing said guide block toward the center of curvature of said arc; rocker arms pivotally mounted on said guide block and pivotally connected to said shoe; an oscillating mechanism mounted on said frame and operatively connected to said rocker arms to oscillate said shoe; a support extending from said frame; a storage roll to abrasive strip mounted on said support; a resilient pad fixed to said face; the end portion of said abrasive strip being disposed superficially on said pad; and clamps fixed to said shoe to retain said abrasive strip.

2,835,087
CONVEYING, PACKAGING, AND SLITTING MACHINE
Harry E. Engleson, Chicago, and Elmer Daniel Sramek, Cicero, Ill., assignors to F. B. Redington Co., Chicago, Ill., a corporation of Delaware
Application August 9, 1954, Serial No. 448,607
30 Claims. (Cl. 53—63)

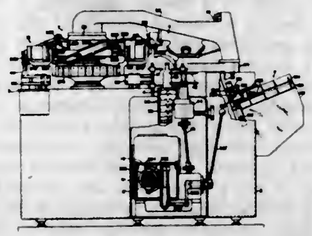
1. A machine comprising a support, a conveyer delivering a preselected number of articles from several rows on

said support, the articles of each row arranged in contacting relation, a converger conveyer conveying the preselected number of articles from each row and shifting them angularly along said support, a cartoner receiving



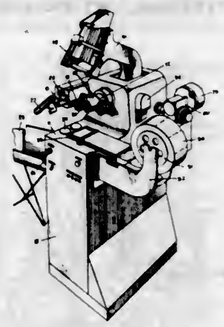
articles from the support, means to operate the cartoner, a trap door adjacent said support, and means to open said door by said last named means when said last named means is stopped.

2,835,088
MACHINE FOR APPLYING TUBULAR BANDS TO BOTTLE TOPS AND THE LIKE
William Barton Eddison, Ardsley-on-Hudson, N. Y., and Warren E. Erickson, Madison, Wis., assignors to Gisholt Machine Company, Madison, Wis., a corporation of Wisconsin
Application March 15, 1954, Serial No. 416,184
30 Claims. (Cl. 53—77)



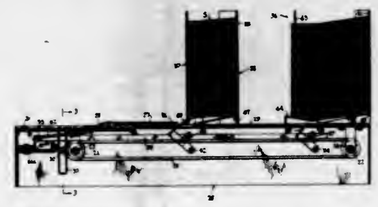
28. In combination in a machine of the class described for applying closures to bottles and the like, a bottle handling apparatus including a bottle conveyor, a rotary table adjacent the conveyor and having clamps thereon for locating successive bottles around the same, a pocket wheel disposed to sweep the bottles in succession from the intake end of said conveyor and onto said table, a pocket wheel to sweep the bottles in succession from said table and onto the discharge end of said conveyor, a metering wheel adjacent the intake pocket wheel to space the bottles as they pass down the conveyor toward the pocket wheel; closure handling apparatus including a magazine supply of closures, means to receive successive closures from said magazine supply and to transfer the same to a position above said table, and closure applying means above said table and indexed with the clamped bottles thereon to apply successive closures to corresponding bottles; and a drive for said apparatus comprising an electric motor, a main drive shaft driven by said motor and extending generally longitudinal of and beneath said conveyor, individual worm gears on said shaft connected to drive the corresponding metering wheel, pocket wheels, table, and closure handling apparatus, and safety clutches individually disposed between the corresponding worm gears and the respective parts of the machine driven thereby for disconnecting the corresponding drive in case of overload indicating bottle breakage.

2,835,089
CORDSET HANKING MACHINE
Maurice A. Schoos, Warwick, and John C. Burke, Cranston, R. I., assignors to General Electric Company, a corporation of New York
Application August 1, 1955, Serial No. 525,419
9 Claims. (Cl. 53—116)



1. A machine for hanking a cordset having a plug at one end and a connector at the other comprising a rotating spindle having a pair of winding arms, one end of the cordset being connected in a receptacle on one of said arms, reciprocating guide means for feeding the cord onto the winding arms as the spindle is driven, and a spring-biased cord tensioning mechanism for gripping the cord during the winding cycle, the said spring biasing means serving to absorb the shock of the connector device on the free end of the cord striking the tension mechanism, and brake means for engaging the rotating spindle to bring it to an abrupt stop with the winding arms arranged in a predetermined position.

2,835,090
WORKPIECE STRIPPING DEVICE
Joseph de Maine, Port Chester, N. Y., assignor to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware
Application August 25, 1953, Serial No. 376,297
5 Claims. (Cl. 53—189)



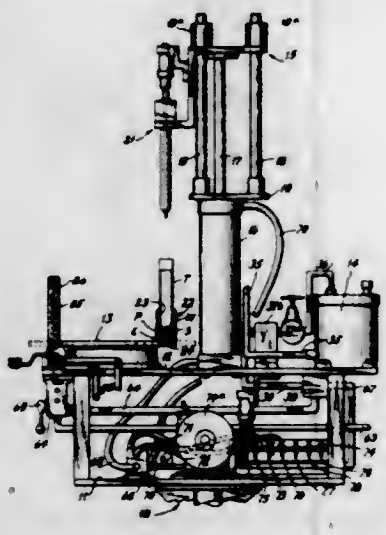
1. In combination in an envelope stuffing machine having a horizontally movable workpiece conveying member; means for supporting a stack of superimposed folded workpieces having one opened end and an opposite closed end, the open end of the lowermost workpiece being disposed in the path of the conveying member and the closed end thereof being supported above the path of the conveying member, means entering the open end to effect spreading and clamping of the lower portion of the workpiece, the conveying member upon entering the open end of the folded workpiece engaging the lowermost inner surface thereof to effect stripping of the closed end from its support and then effecting withdrawal of the workpiece from the clamping means during conveyance of the workpiece.

2,835,091

APPARATUS FOR ASSEMBLING COLLAPSIBLE TUBES AND FILLING SEMI-SOLID MATERIAL THEREIN

Gary G. Grant, Harrison, N. Y., assignor to Lever Brothers Company, New York, N. Y., a corporation of Maine

Application December 12, 1956, Serial No. 627,826
15 Claims. (Cl. 53—239)



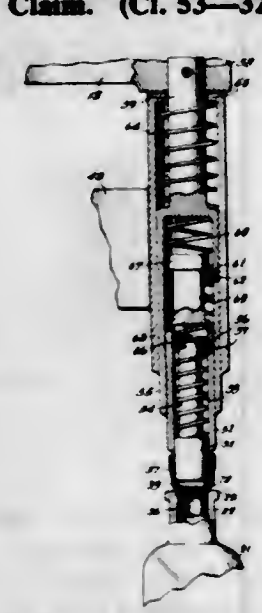
1. Apparatus for placing materials in containers comprising a first tubular member to enter the containers, a second tubular member coaxially mounted within the first to define a flow channel therebetween to pass a flowable substance for injection into the containers, a mandrel within the second tubular member and adapted to carry parts to be placed in the containers, first means to establish a flow of the substance through the channel, and second means operable in timed relation to the first means to detach from the mandrel the parts to be placed into the containers.

2,835,092

STOPPERING DEVICES

Arthur E. Schneider, Kankakee, Ill.

Application August 8, 1956, Serial No. 602,841
1 Claim. (Cl. 53—321)



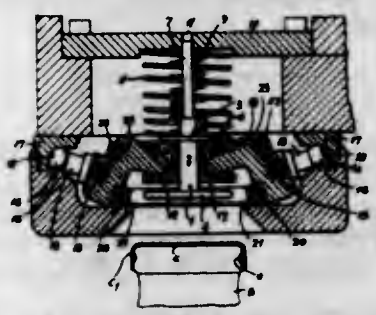
A device for stoppering an open-mouth, flanged-lip container having inserted therein a stopper with an upwardly extending sleeve adapted to be folded into engagement with the flanged lip of such container, comprising a cylinder axially disposed to said container and adapted to be inserted in said sleeve, a first hollow cylinder slidably received on the first-mentioned cylinder and into which said first-mentioned cylinder is adapted to be telescoped, said cylinders being spring-biased in the direction of said container, a second hollow cylinder slidably received on said first hollow cylinder and fixed in relation to said container, means for moving said container to obtain the insertion of said first-mentioned cylinder into said sleeve, and for further moving said container to obtain the insertion of said first and second hollow cylinders into said sleeve and to telescope at least said first-mentioned cylinder into said first hollow cylinder, whereby said sleeve is spread outwardly at least to the edge of said flanged lip, another hollow cylinder slidably received on the second of said hollow cylinders and spring-biased in the opposite direction from said container, and means for moving the last-mentioned hollow cylinder into contact with said sleeve to fold it into engagement with said flanged lip.

2,835,093

BOTTLE CAPPING APPARATUS

Geoffrey Ewart Ford and Philip Sidney Waite, Bedfordshire, England, assignors to Fords (Finsbury) Limited, Kempston, England, a British company

Application July 11, 1955, Serial No. 521,351
7 Claims. (Cl. 53—345)



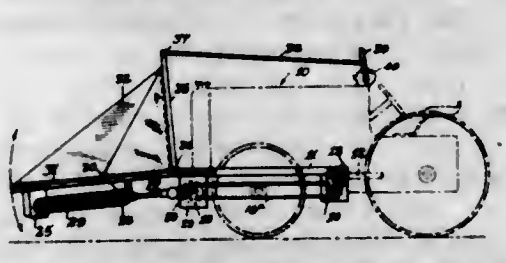
1. An apparatus for closing a lightweight foil cap over the mouth of a bottle, comprising a plurality of segments located to form a segmented ring assembly, a lever arm projecting outwardly from each of said segments, an annular fixed pivot bearing located for supporting said projecting lever arms, a pressure arm projecting inwardly from each of said segments, each of said pressure arms being substantially parallel to but laterally displaced from said outwardly projecting lever arm on its own segment, a pressure member engaging the inner ends of said pressure arms and mounted for movement in a vertical direction by the bottle to be capped, a longitudinal groove in the inner face of each of said segments, a ring of elastic material tightly accommodated in and by said grooves, a second longitudinal groove in each of said segments and located in the outer face thereof, and a rubber ring located in said grooves.

2,835,094

SCRUB TIMBER AND BRUSH CUTTER

Leonard Black, Prescott, Ariz.

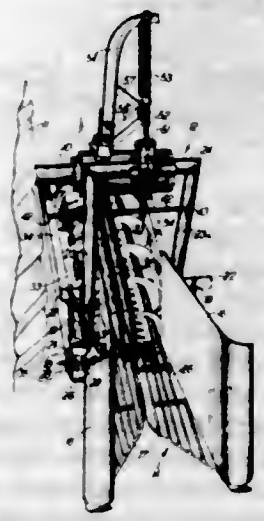
Application October 1, 1954, Serial No. 459,609
3 Claims. (Cl. 55—118)



1. A brush cutting device for attachment to a vehicle, comprising a substantially horizontal pusher attachment structure having an elongate front edge, the width of the pusher attachment structure being on the same order of magnitude as the width of the vehicle; means for mounting the pusher attachment structure on the front of the power vehicle; an elongate, rotary cutting means extending virtually for the full width of the pusher attachment structure, said means being carried closely ad-

jacent the front edge of said pusher attachment structure, said means having a length which is a large multiple of its diameter and comprising a single, heavy, rigid, rotary shaft extending substantially horizontally for the full width of the pusher attachment structure between the opposite sides thereof, said shaft having a plurality of small closely spaced rotary saw cutters provided with teeth constituting an elongate rotary saw element; means mounting the shaft on the pusher attachment structure for turning movement, comprising solely one pair of bearings for said shaft, a bearing being located at each side of the pusher attachment structure and said shaft being unsupported intermediate its ends; and drive means including a shaft extending rearward from the front edge of the pusher attachment structure at virtually the same level as the cutting means and rigid shaft therefor for effecting rotation of said rotary saw element.

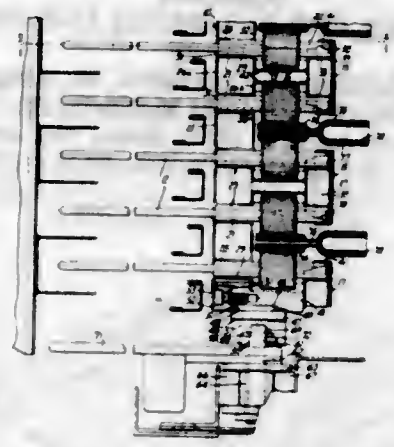
2,835,095
SPRING-LOADED BAIL FOR STRIPPER TYPE COTTON HARVESTERS
Neal W. Self, Weaver, Ala., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application June 14, 1955, Serial No. 515,375
5 Claims. (Cl. 56—33)



1. In a cotton harvester of the type including a cotton stripper unit, the combination comprising a pair of stripper rolls rotatably mounted at their rear ends on said harvester to be disposed longitudinally of said harvester, a bearing member disposed at the front end of each of said rolls to rotatably support the front ends of said rolls, a bail suspended from said harvester and including a pair of spaced apart and depending legs each separately connected to each said bearing member at the lower ends of said legs, said bail being hinged at the point of suspension from said harvester for lateral movement of said legs with respect to each other, and a spring associated with said bail for yieldingly urging said legs toward each other whereby cotton plants disposed between said rolls can spread the latter apart.

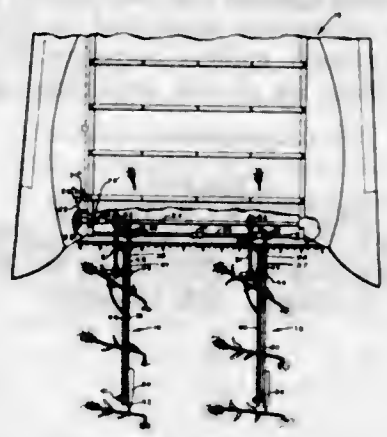
2,835,096
COTTON HARVESTER WITH SPECIFIC SPINDLE SLAT ASSEMBLY
Mack D. Rust, Coalinga, Calif.
Application August 17, 1954, Serial No. 450,370
4 Claims. (Cl. 56—42)

1. In a cotton picking machine of the type having vertically disposed spindle carrying slats, a slat assembly comprising a main elongated and hollow body part, a plurality of picking spindles, a driving roller mounted adjacent one end of each spindle, each spindle having a cotton picking portion and journal portions adjacent both ends of the driving roller, a pair of journal blocks on the journal portions of each spindle, vertically spaced rigid members secured cantilever fashion to one side of said main body part, means on the free ends of said members for releasably mounting the journal blocks on those extremities of the spindles that are remote from the picking portions thereof, said main body part having vertically spaced openings for accommodating said spindles for normal operating positions of the same, with the spindles in vertically spaced and parallel relationship and the other journal blocks within said main body part, and



means within the main body part for seating and releasably retaining said other journal blocks, said last means comprising a pair of horizontally disposed walls engaging the upper and lower surfaces of each of said other blocks, said walls being fixed within said main body part and being offset in the direction of the length of the associated spindle whereby the associated block can be retracted together with the spindle when the spindle is swung to a substantial angle with respect to its normal horizontal operating position.

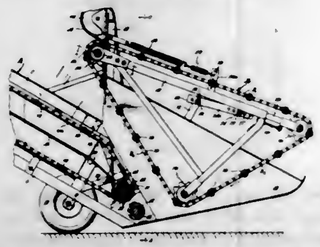
2,835,097
ROW CROP PICK-UP ATTACHMENT FOR COMBINES
Thomas P. Sullivan, Olney Springs, Colo.
Application November 25, 1955, Serial No. 548,942
1 Claim. (Cl. 56—98)



A pickup attachment for a combine including a transversely extending shaft, said attachment comprising a vertically extending frame, a horizontal ground-engaging base, a rearwardly and upwardly curved portion connected to the rear of said base, a bearing sleeve fixed to the rear end of said arcuate portion pivotally mounted upon said shaft of the combine, an upwardly and rearwardly extending shelf, an upwardly and forwardly extending member interconnecting the forward end of the base and the forward portion of said shelf, a rearwardly extending guide formed integrally with the rear end of said shelf and having a downwardly curved rear end terminating adjacent the forward end of said combine, a downwardly and rearwardly extending curved ground-engaging shoe formed integrally with the forward end of said shelf, brace members interconnecting the base and

the guide, sprockets carried by said frame forwardly and rearwardly of said shelf, a drive sprocket mounted on one of said brace members below one of said first-mentioned sprockets, an endless chain entrained over all of said sprockets and overlying said shelf, and an arcuate chain tightener carried by said frame and adjustably presenting its convex face to a portion of said chain.

2,835,098
HARVESTER FOR PUMPKINS AND SIMILAR CROPS
Earl L. Scheidenheim, Mendota, Ill., assignor to Horace D. Hume, Mendota, Ill.
Application April 4, 1955, Serial No. 499,047
3 Claims. (Cl. 56—327)



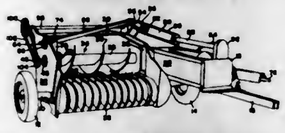
1. A harvester for pumpkins and similar crops comprising an inclined elevating trough having a front lower end, a frame supporting the trough, wheels supporting the frame for travel over the ground, an endless conveyor supported on said frame comprising spaced cross bars and endless flexible members connecting them, said conveyor having an upper flight moving upward over the trough, a roller rotatably mounted at the lower front end of the main frame and adjacent the lower front end of the trough, said roller being exposed at the front of the frame whereby to engage and lift crops contacted thereby, a second endless conveyor pivotally mounted on the frame and extending in front of and in part overlying the first named conveyor, said second conveyor having a lower flight moving upward and rearwardly, and a spring counterbalance mechanism supported on the frame and supporting the second endless conveyor for movement up and down about its pivotal mounting on the frame.

2,835,099
NUT PICKUP DEVICE
Hubert J. Touchberry, Summerton, S. C.
Application May 31, 1957, Serial No. 662,704
2 Claims. (Cl. 56—328)



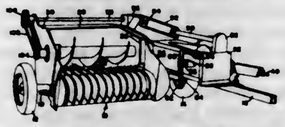
1. A pickup device for nuts and other similar small objects comprising a pair of elongated vertically spaced parallel and substantially open rectangular wire frames, each of said frames including a pair of laterally spaced substantially parallel side members and a pair of longitudinally spaced and substantially parallel end members, a plurality of substantially U-shaped wire members having laterally spaced and substantially parallel side arms and each pair of adjacent ends of said side arms being connected together by bights, said side arms adjacent points remote from said bights being fixedly secured to said sides of said frames in longitudinally spaced relation, a wire extending transversely across said device at each end thereof, each of said wires having a serpentine configuration including a bight portion and having portions of said wires fixedly secured to said frames, and one of said last named wires having the bight portion and portions of said last named wire adjacent thereto laterally and outwardly bent with respect to one end of said device to form a discharge opening.

2,835,100
RECIPROCATING AUGER FEEDER FOR BALERS
Marcus E. McClellan, Ottumwa, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application May 24, 1955, Serial No. 510,730
14 Claims. (Cl. 56—341)



1. A baler, comprising: a mobile frame including an elongated bale case having an upright side wall provided with a feed opening, and a baling plunger carried in the bale case for reciprocation on successive compression and retracting strokes to respectively cover and uncover the feed opening; crop pick-up means connected to the frame and having floor means extending laterally outwardly from and leading laterally inwardly to the feed opening; an outer support on the frame in laterally outwardly spaced relation to the feed opening; an auger positioned over the floor means with its axis transverse to and alined with the feed opening and having inner and outer ends respectively proximate to the feed opening and the outer support; a crank carried by the bale case above the feed opening for rotation about an axis transverse to the auger axis; a pitman having an inner end connected to the crank and an outer end proximate to the outer support; means on the outer support and carrying the outer end of the pitman for back and forth movement as the pitman is reciprocated by the crank; means connecting the auger to the pitman for reciprocation of the two in unison; drive means connected to the crank and operating in timed relationship with the plunger to shift the auger toward and away from the feed opening respectively in time with the retracting and compressing strokes of the plunger; and auger-rotating means for rotating the auger during reciprocation thereof.

2,835,101
RECIPROCATING AUGER FEEDER FOR BALERS
Charles S. Morrison, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application June 7, 1955, Serial No. 513,699
9 Claims. (Cl. 56—341)



1. A baler, comprising: a mobile frame including an elongated bale case having an upright side wall formed

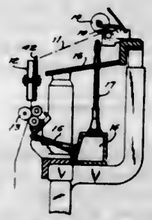
with a feed opening, and a baling plunger mounted in the bale case for reciprocation lengthwise thereof to alternately cover and uncover the feed opening; drive mechanism, including means for reciprocating the plunger; crop pick-up means connected to the frame and including floor means extending laterally outwardly from the upright side of the bale case and leading to the feed opening; an outer support on the frame spaced laterally outwardly from the feed opening; a rotatable auger positioned over the floor means with its axis transverse to the bale case and alined with the feed opening, said auger having inner and outer ends respectively proximate to the feed opening and the outer support; mounting means on the outer support and sustaining the auger for bodily movement thereof back and forth away from and toward the bale case to successively withdraw and project the inner end of said auger through the uncovered feed opening; drive means connected to the auger and to the aforesaid drive mechanism for shifting the auger bodily as aforesaid in timed relation with reciprocation of the plunger so as to project and withdraw the inner end of the auger through the feed opening respectively during uncovering and covering of said opening by the plunger; and auger-rotating means on the frame and connected to the auger for rotating the auger during back and forth movement thereof.

2,835,102
RAKE WITH CUTTER BLADE
George V. Blackburst, Cochranton, Pa.
Application October 26, 1954, Serial No. 464,809
1 Claim. (Cl. 56—400.07)



A garden implement comprising a head, wide pointed end and intermediate teeth extending from said head, a flange formed along the edge of one of said end teeth and disposed at right angles to the teeth, the forward edge of said flange being inwardly curved toward the pointed end of said tooth, the forward edge of said flange being beveled providing a forwardly extended cutting edge terminating adjacent to the point of said tooth, and a handle connected with said head.

2,835,103
SUCTION MEANS TO BE USED IN A TEXTILE DRAFTING ASSEMBLY
Heinrich Thoma, Zurich, Switzerland
Application November 22, 1955, Serial No. 548,469
6 Claims. (Cl. 57—34.5)



1. In a spinning machine in combination, delivery roll means located at the entrance to a drafting field; front roll means located at the end of the drafting field; false twist means located along the drafting field intermediate said delivery roll means and said front roll means for twisting a roping and pushing the twist back toward said delivery roll means; and suction means located adjacent that portion of the drafting field located between said delivery roll means and said false twist means for acting on ropings passing along said portion of said drafting field and for sucking a broken roping into said suction means, and said suction means having an inlet located closely adjacent to said delivery roll means, said delivery roll means, front roll means, false twist means, and suction means all forming part of the spinning machine.

2,835,104
SPINDLE ASSEMBLY FOR SPINNING FRAMES AND THE LIKE
William E. Guthrie, Bessemer City, N. C.
Application November 14, 1956, Serial No. 622,176
3 Claims. (Cl. 57—133)

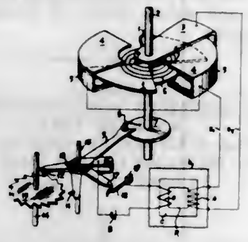


1. A spindle assembly for spinning frames or the like comprising a tubular base piece including means for mounting the same on a transversely apertured base rail, an oil reservoir engageable with the base piece for clamping the same on the base rail, a bearing assembly circumposed on the base piece, an elongated spindle shaft extending longitudinally in spaced relation through the base piece and reservoir, said shaft terminating in said reservoir, a tubular adapter sleeve secured in circumposed relation about the spindle shaft and including a lower annular cylindrical skirt pulley circumposed on the bearing assembly in spaced relation from the base piece, said bearing assembly including means permitting relative angular movement of the spindle shaft about the base piece for adjusting the spindle shaft normal to the base rail upon which the spindle assembly is mounted, bearing means in the reservoir rotatably supporting the terminal end of the spindle shaft and including means for applying axial pressure thereon and retaining the adjusted angular relationship of the spindle shaft relative to the base piece, said bearing means in said reservoir comprising an adjusting screw extending transversely of the lower end of said reservoir for longitudinal movement therein, said screw including a bearing insert receiving the terminal end of the spindle shaft, means communicating oil through the bearing insert to the terminal end of said shaft, an oil seal circumposed about said adjusting screw, a collar clampingly engageable with the lower edge of the reservoir and oil seal, and a lock nut on an intermediate portion of the adjusting screw engageable with the oil seal.

2,835,105
ELECTROSTATIC BALANCE CLOCK
Jacques Favey, Geneva, Switzerland, assignor to Ancienne Manufacture d'Horlogerie, Patek Philippe & Co. S. A., Geneva, Switzerland, a corporation of Switzerland
Application May 24, 1954, Serial No. 431,959
Claims priority, application Switzerland June 2, 1953
7 Claims. (Cl. 58—28)

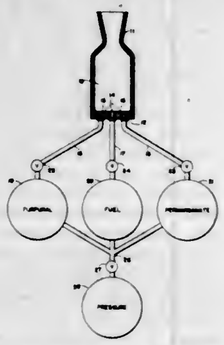
7. An apparatus for supplying energy to a clockwork comprising an oscillatable shaft, armatures symmetrically

fastened to said shaft for movement therewith, a spring acting on said shaft and tending to maintain said armatures in a rest position, fixed armatures disposed adjacent said shaft, said fixed armatures being symmetrically displaced from the rest position of said first-mentioned armatures, an actuating member fastened to said shaft, a lever mounted for oscillation by said actuating member,



a switch, actuating means operatively connected between said shaft and said switch for operation of said switch upon oscillation of said shaft, a high voltage generator controlled by said switch, and means connecting the high voltage output of said generator to said fixed and oscillatable armatures, whereby said high voltage generator emits electric impulses of short duration.

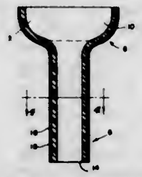
2,835,106
METHOD OF JET PROPULSION BY SPONTANEOUS COMBUSTION OF FURFURAL
James M. Carter, Hollywood, Calif., assignor, by mesne assignments, to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application July 20, 1946, Serial No. 685,047
4 Claims. (Cl. 60—35.4)



1. In jet propulsion involving the combustion of nitromethane to generate gas to form the jet, the improvement which comprises igniting the nitromethane by spontaneously combusting furfural with an aqueous solution of a permanganate selected from the group consisting of calcium, aluminum, sodium, magnesium and barium permanganate wherein the proportion of the permanganate to the furfural lies from one to three parts by weight of permanganate for each two parts by weight of furfural.

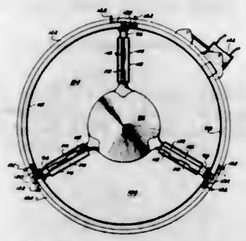
2,835,107
RESINS AND USE THEREOF
John M. Ward, Westfield, N. J., assignor to Haveg Industries, Inc., Wilmington, Del., a corporation of Delaware
Application December 21, 1956, Serial No. 629,991
18 Claims. (Cl. 60—35.6)

7. In a rocket of the type including a discharge end and an inner liner for said discharge end, the improvement comprising said liner being made of a composition comprising inorganic fibers and a thermosetting synthetic



resin, said inorganic fibers being substantially oriented in a direction circumferential of the liner.

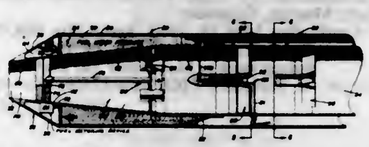
2,835,108
VARIABLE AREA FLAMEHOLDER FOR AFTERBURNER
H Peter Karen, San Diego, Calif., assignor to Solar Aircraft Company, San Diego, Calif., a corporation of California
Application July 17, 1951, Serial No. 237,213
5 Claims. (Cl. 60—39.72)



4. In a jet engine afterburner duct, a burner structure comprising pairs of concentric tube members in said duct generally transversely thereof, said pairs of tube members being substantially coplanar, means journalling all of said tube members in said duct for rotation about their longitudinal axes; a substantially flat plate-like side member carried by each of said tube members, the pairs of said side members attached to the respective pairs of tube members forming sheltered combustion zones in said duct; fuel supply pipes mounted in fixed positions in said duct a predetermined distance upstream of said tube members, said pipes extending transversely of said duct and being aligned axially of said duct with the respective pairs of side members and having fuel outlet openings spaced along their length to introduce fuel into said duct in regions upstream of each of said sheltered combustion zones; and means for rotating all of said tube members simultaneously in equal amounts about their longitudinal axes to thereby swing said side members equally about the axes of their associated tube members and thereby symmetrically vary the size of the sheltered combustion zones defined by each of said pairs of members while maintaining said predetermined spacing between each of said sheltered combustion zones and the adjacent fuel supply pipes.

2,835,109
IGNITER FOR RAM-JET
John P. Longwell, Westfield, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 17, 1952, Serial No. 299,442
10 Claims. (Cl. 60—39.72)

1. In combination, an aerial missile having a body in the form of an elongated tubular duct, a diffuser in said duct, a pressurized fuel source having a fuel chamber in said body, nozzle means connected with said fuel chamber and communicating with said duct, a venturi for said nozzle means and igniter means in said duct, said igniter means including at least an upstream flame holder and a downstream flame holder, with a source of ignition in said upstream flame holder, said nozzle means being



spaced upstream from said igniter means and arranged to inject fuel into an airstream passing through said venturi at the throat thereof in a direction contra to the flow of said airstream therethrough.

2,835,110
INJECTOR IGNITER PLUG
Fortunato F. Barberis, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 21, 1952, Serial No. 321,909
9 Claims. (Cl. 60—39.82)



7. In an injector igniter plug for use in continuous combustion apparatus having an inner wall surface and an outer wall surface spaced therefrom, said plug comprising in combination a main body shell having an upper body portion and a lower body portion, said lower body portion being adapted to project through suitable openings in said inner wall and outer walls, means on said upper body portion for admitting air, additional means on said upper body portion for admitting fuel, said additional means including a filter for said fuel, a plurality of nozzles on said lower body portion for discharging said fuel at high velocity, means secured in said lower body portion below said nozzles for atomizing and mixing said fuel with said air, and ignition means centrally disposed in said shell for initiating combustion of said fuel and air mixture, said means on said upper body portion for admitting air comprising a flange member having an aperture formed therein communicating with the interior of said main body shell, and said flange being adapted for coupling with an air supply conduit.

2,835,111
HYDRAULIC BRAKE ADJUSTER
Burlin W. Oswalt, Union, Ohio
Application September 30, 1954, Serial No. 459,374
12 Claims. (Cl. 60—54.5)

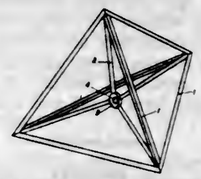
1. In a hydraulic cylinder, a piston slidable in said cylinder and defining at opposite ends thereof inlet and outlet chambers, said cylinder having corresponding openings communicating with said chambers, a port in said piston intercommunicating said chambers, a counterbore in said piston facing said inlet chamber and surrounding said port, an auxiliary cylinder having one end

open, said open end being received in said counterbore and rigidly connected to said piston, and a supplemental piston in said auxiliary cylinder movable in response to



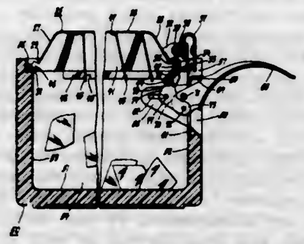
a predetermined pressure of fluid in either of said chambers thereof and having a portion to open and close said port in response to such movement.

2,835,112
TERRESTRIAL OR HYDRAULIC CONSTRUCTION CONSTITUTED BY APERTURED ELEMENTS
Pierre Mounet, Gap, France
Application January 21, 1953, Serial No. 334,208
5 Claims. (Cl. 61—3)



1. Apparatus of the class described comprising a plurality of skeleton tetrahedrons each having four triangular open faces defined by rigid bars permanently joined at the apices of the tetrahedron and each tetrahedron having a connecting element located approximately at the center of gravity of the tetrahedron, and four rigid brace bars extending inwardly from the four apices of the tetrahedron to the connecting element, the several tetrahedrons being disposed with their centers of gravity in alignment, a cable uniting the connecting elements of the several tetrahedrons and means anchoring the opposite ends of the cable thereby to maintain the tetrahedrons in alignment, the several tetrahedrons forming a line extending transversely across a stream bed, and a sole upon which each respective tetrahedron rests, each sole resting upon the stream bed and extending from its tetrahedron in the up-stream direction thereby to prevent the tetrahedron from upsetting in the upstream direction.

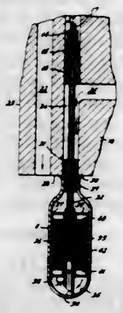
2,835,113
COMBINED ICE BLOCK RELEASING AND STORING BUCKET
Verlos G. Sharpe, Dayton, and Everett C. Armentrout, New Carlisle, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 18, 1956, Serial No. 616,849
7 Claims. (Cl. 62—106)



1. In combination, a combined portable ice bucket and freezing device support unit for selectively storing ice

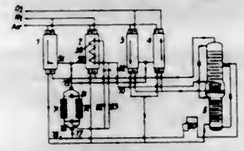
blocks in a refrigerator or for transporting ice blocks away from the refrigerator so as to dispense ice blocks from the unit at an ice block serving point remote from the refrigerator, a unitary freezing device comprising an elongated tray of a type unintended to be distorted and a grid locked therein against detachment therefrom having spaced apart substantially inflexible walls anchored in the tray for tilting movement relative thereto to loosen ice blocks frozen in compartments of the freezing device, said unitary freezing device being receivable in an inverted position on the support of said combined portable unit so as to allow loosened ice blocks to fall therefrom, mechanism separate from and independent of said freezing device carried by and transportable with said combined unit for applying force to said grid walls in a direction lengthwise of said elongated tray to tilt them whereby ice blocks are mechanically released from said freezing device into the bucket of said unit while the grid remains locked in the tray, said mechanism including a manually operable means accessible from exteriorly of said unit and said freezing device while said unitary freezing device is supported in its inverted position on the support of said combined portable unit when same is within and/or without the refrigerator, and means on the combined portable unit for holding the tray of said inverted unitary freezing device stationary on said support against sliding movement relative thereto during the application of said force to the grid walls by said mechanism.

2,835,114
REFRIGERATION APPARATUS
Malcolm G. Shoemaker, Doylestown, and Maurice A. Goff, Ambler, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 23, 1956, Serial No. 573,537
8 Claims. (Cl. 62—117.85)



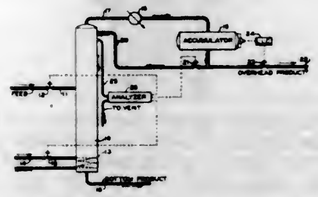
1. In a refrigerant circuit structure comprising a unitary sheet with a refrigerant passageway circuit therein and also comprising a refrigerant conditioner external to the sheet, the improvement which comprises a passageway section integrally formed in said sheet for connecting said circuit with said conditioner, said section providing a pair of ducts separated from one another but forming parts of said circuit, one of the ducts leading from one of the passageways within the sheet to an inlet of the external conditioner and the other leading from an outlet of the external conditioner to another of the passageways within the sheet; and means within the sheet for sealing said passageways one from the other except insofar as they are interconnected by said ducts, said unitary sheet with said ducts therein, as well as said sealing means within the sheet, substantially consisting of aluminum.

2,835,115
PROCESS FOR SEPARATING A COMPRESSED GAS MIXTURE
Ernst Karwat, Pullach, near Munich, Germany, assignor to Gesellschaft für Linde's Eismaschinen Aktiengesellschaft, Munich, Germany
Application May 20, 1955, Serial No. 509,730
Public Law 619, August 23, 1954
Patent expires November 10, 1969
7 Claims. (Cl. 62—175.5)



1. A process for purifying a compressed gas mixture comprising progressively cooling and purifying the compressed gas mixture, separating the processed gas mixture into first and second portions, continuing the cooling and purifying of the first portion to render the first portion colder than the second portion, purifying the second portion by adsorption, controllably mixing said portions to obtain a pure mixture at desired temperature, and using the mixture for a cold production process.

2,835,116
INFRARED ANALYZER AND PROCESS CONTROL
Elmer C. Miller, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 9, 1955, Serial No. 514,345
5 Claims. (Cl. 62—175.5)



1. A method of controlling a fractionation process wherein a stream containing ethane and ethylene is fractionated to produce an overhead product containing 0.1 to 3.0 mol percent ethane, 0.0 to 5.0 mol percent methane and the balance substantially all ethylene, wherein a process variable is adjustable to control the purity of said overhead product, the steps which comprise continuously withdrawing a sample from the fractionation zone, passing twin beams of infrared radiation continuously through the withdrawn sample, passing one of said beams but not the other of said beams through a body of ethane, producing an output voltage representative of the relative intensities of said beams after they have passed through said sample and said ethane, and controlling said process variable in accordance with said voltage to maintain a constant purity of said overhead stream.

2,835,117
GEM SETTING WITH GEM BIASED ORNAMENTAL SADDLE MEMBER
Raymond G. Lutrario, Providence, R. I., assignor to Uncas Manufacturing Company, a corporation of Rhode Island
Application May 18, 1954, Serial No. 430,608
4 Claims. (Cl. 63—27)

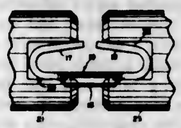
1. In a finger ring, a ring shank, an auxiliary ornamental unit including a strap, a gem setting having opposite side walls, each provided with a recess therein extending inwardly from the upper edge thereof, said strap

extending across said setting in said recesses, and a gem secured in said setting and engaging said strap to hold



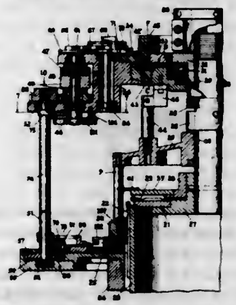
the same secured in position and means to secure said shank to said setting.

2,835,118
COUPLING
Horace M. Varner, Short Hills, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application December 28, 1955, Serial No. 555,839
2 Claims. (Cl. 64—15)



1. A device for drivably connecting two shafts having transverse slots therein and arranged in end-to-end relationship, comprising a coupling member extending axially between the two shafts, said coupling member including a sheet of material having end portions bent inwardly at an acute angle to form resilient members adapted to slidably engage in transverse slots in the adjacent ends of said two shafts and having end portions bent at an angle to form stops to prevent lateral disengagement of the coupling from the slots.

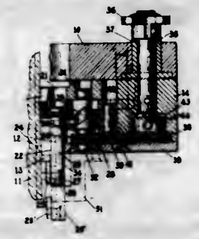
2,835,119
RACKING MEANS FOR KNITTING MACHINE
Frederick C. Wiesinger and Thomas C. Lyster, Philadelphia, Pa., assignors to Wildman Jacquard Co., Norristown, Pa., a corporation of Pennsylvania
Application July 5, 1955, Serial No. 519,984
18 Claims. (Cl. 66—26)



1. In a multi-bed knitting machine, means for racking one bed angularly in relation to the other bed, and means under the control of a knitting instrumentality for initiating said racking function.

2,835,120
CAM MEANS FOR KNITTING MACHINE
Frederick C. Wiesinger, Feasterville, Pa., assignor to Wildman Jacquard Co., Norristown, Pa., a corporation of Pennsylvania
Application July 10, 1956, Serial No. 596,870
6 Claims. (Cl. 66—50)

1. For a multifeed knitting machine having a slotted needle bed and a cam carrier one of which is relatively movable with respect to the other and instrumentalities having butts slidable in slots in said needle bed, a unitary cam means which comprises a mounting base for attachment to the cam carrier, a post slidably retained at one end of said base having a butt engaging cam fixed to its extending end, a track cam rotatably carried within said



base adjacent said post, a follower fixed to said post and engaged within said track cam, a shaft rotatably mounted in said base, a star wheel on said shaft, means for temporarily stopping said shaft at spaced angular points in its rotation, and gearing between said shaft and turning cam for imparting movements of the former to the latter.

2,835,121
SEALING ORIFICE FOR STEAM TUBES AND THE LIKE
Edward M. Dias, Sanford, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application October 26, 1955, Serial No. 542,862
15 Claims. (Cl. 68—6)

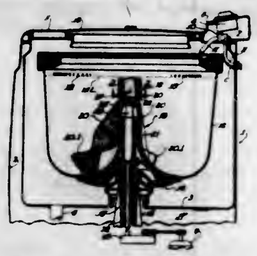


1. Sealing orifice for steam tubes and the like wherein a running length of a strandular material is subjected to a gaseous fluid under pressure, said orifice comprising a pair of elongate aperture forming members having leading and trailing edges with adjacent and facing surfaces extending between said edges, said surfaces being in contact on each of said members between their leading and trailing edges; a groove in the contacting surface of one of said members extending longitudinally from its leading edge towards its trailing edge to provide an internal passageway between said members; said members being positioned with the trailing edge of the ungrooved member over the groove in said grooved member to form an outlet throat for the passageway provided by said groove; means for maintaining a sealing contact between the adjacent and facing surfaces of said members; and means for mounting said members in sealing contact as a longitudinally extending closure on the open end of a steam tube.

2,835,122
AUTOMATIC SOAP DISPENSER FOR CLOTHES WASHING MACHINES
George D. Conlee, Ripon, Wis., assignor to General Electric Company, a corporation of New York
Application October 26, 1955, Serial No. 542,824
9 Claims. (Cl. 68—17)

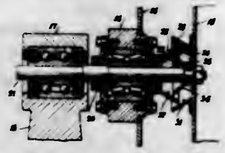
1. A detergent dispenser for a clothes washing machine having a tub to receive clothes to be washed and means for filling said tub with wash water to a normal operating level, said dispenser comprising an upstanding, cup-like, detergent container having an open top and a plurality of discharge ports at the base thereof, means for supporting said container within said tub with the opening of

said container below the wash water operating level, valve means in said tub to close or open said detergent container discharge ports, said valve means being manually operable to close said ports, and float means on said



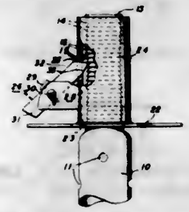
valve means and responsive to an increase in the water level during the filling of said tub to operate said valve means into port-opening position to permit the passage of detergent from the chamber to the tub.

2,835,123
WASHING APPARATUS WITH LIQUID SEAL FOR ROTATING SHAFT
Roman Galinski, New Britain, Conn.
Application June 28, 1954, Serial No. 439,513
1 Claim. (Cl. 68—140)



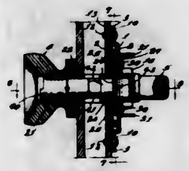
In a washing machine of the class wherein there is a liquid container, a perforated tumbling drum in the container, a fixed wall of the container spaced from the drum, a rotary drive shaft extending horizontally through the wall and across said space to the drum, and a bearing for the shaft where the shaft passes through the wall, the combination with said shaft of a first and outer shell surrounding the shaft and having a truncated conical portion extending axially across part of the space between the drum and the fixed wall, said first shell having the larger diameter end of the conical portion opening toward the fixed wall, and the periphery of said first shell being located directly above the liquid in the container and in position to be splashed by liquid when the liquid in the container is disturbed by the tumbling drum, said first shell being connected with the shaft so as to rotate therewith, a second shell connected to the fixed wall and having a truncated conical portion surrounding the shaft and facing in the opposite direction from the first shell and extending into the first shell, said second shell being open at the larger diameter end and with the peripheral edge of said larger diameter end close to but with clearance from the inner surface of the first shell at a mid portion along the axial length of the inner surface of said first shell, a part of the length of the truncated conical portion of the second shell extending beyond the larger diameter portion of the first shell at a location directly over the liquid in the container and in position to be splashed by the liquid when the liquid is disturbed by the drum, and a third shell within the second shell and connected with the shaft for rotation as a unit with the shaft and the first shell, said third shell having a truncated conical portion with its larger end opening toward the smaller end of the second shell, and with the periphery of its larger end close to a mid portion of the inner surface of the second shell.

2,835,124
YARN PACKAGE FASTENING AND TENSIONING MEANS FOR DYE SPINDLES
Pearce E. Jackson, Columbus, Ga.
Application July 13, 1956, Serial No. 597,821
2 Claims. (Cl. 68—198)



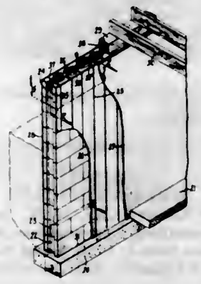
1. Means for fastening and tensioning yarn packages on a perforated dye spindle having at its top a cylindrical stem with a longitudinal series of annular ratchet teeth having horizontal bottom faces and inclined top faces, said means comprising a cap plate with a central hole to freely receive the stem, a tube rising centrally from said plate and surrounding said hole, the tube being guided by the stem and formed between its ends with a vertical slot, a pair of spaced ears projecting laterally from said tube beneath said slot, a straight latch bar disposed in an upwardly and inwardly inclined position between said ears with its upper end disposed in said slot, a transverse pivot passing through said ears and through said latch bar at a point closer to its lower end than its upper end, whereby said upper end will be biased into engagement with said teeth, and a cross bar connecting the outer end portions of said ears and disposed in spaced relation to the upper edge of said latch bar to limit the outward swinging movement of its upper end, the lower end of said latch bar projecting below said ears and adjacent the top of said plate for actuation by a digit of a hand grasping said tube.

2,835,125
LATCHING MECHANISM
Harry F. George, Chicago, Ill.
Application July 30, 1954, Serial No. 446,718
6 Claims. (Cl. 70—146)



6. Latching mechanism, comprising, a thin flat housing open at its front and rear side edges and adapted to be secured to the inside flat fact of a door, a latch bolt laterally slidable in said housing and having an enlarged opening therein, a tubular shaft extending through said enlarged opening in the latch bolt and having a turning member secured to its inner end and a turning member secured to its outer end, an actuator bar radially slidable through said shaft and rotatable therewith, said actuator bar being positioned in the enlarged opening in the latch bolt, said housing having an outer wall formed with a laterally extending slot and an intercommunicating notch extending in a direction radially of the shaft, a lock member on the outer face of the housing outer wall, a pin connecting the lock member and the actuator bar and movable in said slot and notch for sliding the actuator bar radially in the shaft in one direction for normal latching operation when the pin is in the laterally extending slot, and in the opposite direction for locking the shaft against rotation with relation to the housing when the pin is in said notch, and a lock cylinder mounted in said outer turning member and having an extension extending in the tubular shaft to the actuator bar and having connection therewith for sliding the actuator bar radially in the shaft for locking and unlocking the shaft against and for rotation by a key from the outside.

2,835,126
BUILDING WALLS
Alfred Paolella, Hamden, Conn., assignor to Plasticrete Corporation, Hamden, Conn., a corporation of Connecticut
Application May 22, 1953, Serial No. 356,656
4 Claims. (Cl. 72—32)



1. In a masonry wall suitable for use as a foundation wall of a building and subject to pressure of an outstanding body of soil, the combination of an elongated below-grade footing having a substantially level upper surface and having a layer of mortar applied to said surface, a first course of rectangular cellular blocks having their lower parts set in said mortar layer, said blocks having precisely ground planar upper surfaces positioned so that they are precisely level, the blocks of said course being abutted at their adjacent ends without interbonding, a second course of rectangular cellular blocks having precisely ground upper and lower surfaces precisely parallel to each other of which the lower surfaces are in bearing contact with the upper surfaces of the first course blocks, the blocks of said second course having adjacent ends in abutting relationship without interbonding, a third and additional courses of superimposed blocks reaching to a level substantially above said footing, the blocks of said third and additional courses being precisely ground blocks similar to those of said second course and laid in a similar manner, the blocks of the uppermost course being cut away at their upper faces to provide lengthwise channels, a lengthwise continuous bonding member anchored in said channels so that said uppermost course of blocks forms a beam at the upper boundary of the wall section extending through the width of the wall section, a cementitious coating on the exterior face of the wall section presented by said blocks, which exterior face is at that side or face of the wall disposed toward the interior of the building, and a plurality of laterally spaced rod-like elements extending substantially throughout the height of the wall section embedded in said cementitious coating, which rod-like elements are subject to tension when the wall section is subjected to tensioning lateral and inward pressure by an outstanding body of soil.

2,835,127
HARDNESS TESTER
Robert C. Scott, Belmont, Mass.
Application March 3, 1954, Serial No. 413,791
15 Claims. (Cl. 73—81)

1. Apparatus for testing the hardness of internal surfaces comprising a frame, a jam block carried by the frame and movable out of the frame to bear against an internal surface to be tested, a toggle controlling the position of the jam block, an eltromagnet for actuating the toggle, a penetrator carried by said frame, motor-actuated



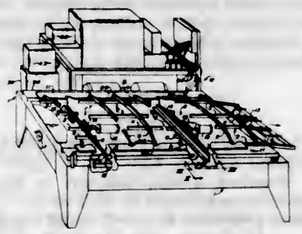
means for loading said penetrator to indent the surface to be tested, and means responsive to movement of the last-named means for measuring a load applied and the resulting indentation.

2,835,128
ANCHOR DEVICE PULL GAUGE
Rudolph E. Hernstrum, Rockford, Ill., assignor to Greenlee Bros. & Co., a corporation of Illinois
Application December 14, 1955, Serial No. 553,059
11 Claims. (Cl. 73—141)



1. An anchor device pull gauge comprising; a first cylinder and piston device of which one part is a pulling member and the other part is a pushing member, means on said pulling member for gripping an anchor device to be tested, means on said pushing member engageable with the anchoring material, a much smaller second cylinder and hollow piston device of which one part is formed on said pulling member and the other part is movably mounted thereon, movement of said other part of said smaller cylinder and piston device causing relative movement of said two parts of said first cylinder and piston device to exert a pull on the anchor device and a fluid pressure gauge mounted at the outer end of the hollow piston and in fluid communication with the smaller cylinder through the hollow piston for indicating the pull exerted on the anchor device.

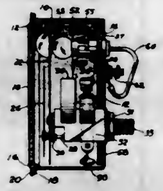
2,835,129
SPRING TESTING DEVICE
George C. Reiser and Kenneth F. Wetzel, Toledo, Ohio, assignors, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Application September 29, 1955, Serial No. 537,364
10 Claims. (Cl. 73—161)



1. A leaf spring testing device that comprises a conditioning station, a testing station, a conveyor for moving a leaf spring along a generally horizontal path to the conditioning station and from the conditioning station to the testing station, means for applying a load to the leaf spring when it is in the conditioning station causing deformation of the spring in excess of the deformation at which the leaf spring is to be tested, means for applying a horizontally directed force to the spring when it is in

the testing station sufficient to produce a predetermined deformation in the spring, and a force counterbalancing and indicating means for receiving and indicating the magnitude of the horizontally directed force exerted by the spring when it is being tested.

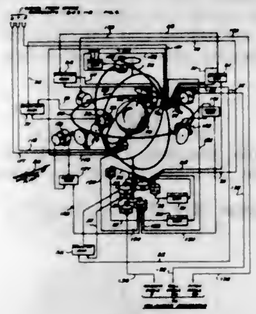
2,835,130
GAUGE AND SIGNAL COMBINATION
Harold S. Kachline, Perkasie, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application May 18, 1954, Serial No. 430,670
1 Claim. (Cl. 73—389)



In a gauge and signal combination, a casing, an indicating arm and a dial on said casing over which the indicating arm is movable, a socket mounted on said casing having a fluid connection with a pressure source to be measured, a pair of Bourdon tubes mounted on said socket and responsive to fluid under pressure from said source, one of said tubes being connected in driving relation to said indicating arm, the other of said tubes having an extension permanently attached to the free end thereof, a bracket mounted on said socket, an adjusting means on said bracket adjacent said extension, aperture means in said casing placed so that said adjusting means can be readily adjusted from the outside of the casing, electrically operated visual and audible signals mounted on said casing, a terminal mounted on said casing and insulated therefrom for connection to one side of a source of electrical energy, said terminal having parallel electrical connections with one side of each of said visual and audible signals respectively, said terminal also providing the means for supporting the audible signal on said casing, and a timer, said bracket having parallel electrical connections with the other side of said audible signal and with one side of the timer, the other side of said timer being connected to the other side of said visual signal so as to provide for an interrupted flow of electrical energy to said visual signal while an uninterrupted flow of electrical energy is provided to the audible signal when the circuit is closed, said extension being adapted to be moved against the bracket upon a predetermined movement of said other Bourdon tube in order to close the circuit for energizing the visual and audible signals.

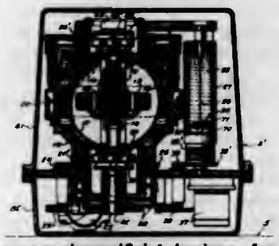
2,835,131
NAVIGATING SYSTEMS FOR DIRIGIBLE CRAFT
Victor Vacquier, Garden City, N. Y., and Robert B. Blizard, Stamford, Conn., assignors to Sperry Rand Corporation, a corporation of Delaware
Application December 23, 1952, Serial No. 327,547
21 Claims. (Cl. 74—5.37)

1. In a navigating system for dirigible craft, a frame mounted with freedom about a normally vertical and two, mutually perpendicular, normally horizontal Cartesian axes, four gyroscopes mounted on said frame for detecting rotation of the frame about equiangular tetrahedrally arranged space axes, a pick-off between the frame and each of the gyroscopes for measuring the rotations of the frame about the respective space axes, means responsive to said pick-offs for converting tetrahedral axis measurements to Cartesian axis measurements, and motive means for stabilizing said frame operable about each of the



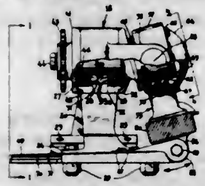
Cartesian axes of the frame responsive to the output of said converting means.

2,835,132
GYRO VERTICALS
Victor Vacquier, Garden City, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application June 4, 1952, Serial No. 291,670
11 Claims. (Cl. 74—5.47)



1. In a gyroscopic artificial horizon for moving vehicles, a gyroscope having a gravity reference device adapted to generate proportional signals upon relative tilt of said device and gyroscope, a gimbal mounting for said gyroscope, control torquers for applying torques on the gyro about selected horizontal axes, integrating networks between said signals and torquers so designed as to give the gyro a natural period of about 85 minutes whereby the resulting precession of the gyroscope is proportional to the change in geographic position of the vehicle in the direction of such change, and means for floating said gyroscope to eliminate load on the gimbal bearings, and means for continuously orienting said gimbal mounting.

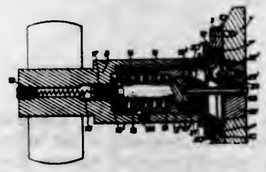
2,835,133
SICKLE DRIVE
Ivor C. Rogers and Leonard M. Krause, Toronto, Ontario, Canada, assignors to Massey-Harris-Ferguson Limited, Toronto, Ontario, Canada, a corporation of Canada
Application January 6, 1955, Serial No. 480,167
3 Claims. (Cl. 74—60)



1. A drive mechanism for a reciprocating type cutter comprising; a support frame, a housing rigidly mounted

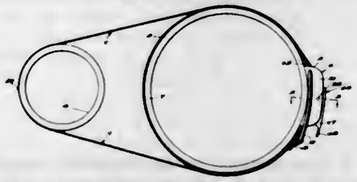
on said frame and having spaced bracket arms extending in one direction, wobble means rotatably mounted in said housing, means to drive said wobble means, a member rotatably mounted on said wobble means and having a downwardly extending arm, a yoke member having spaced arms pivotally secured to said bracket arms and having a downwardly extending portion operatively connected with said downwardly extending arm for oscillation therewith, said portion adapted to be pivotally connected with said cutter.

2,835,134
FRICTION-DRIVE SPEED REGULATORS
Felix Perruca, Saint-Etienne, France, assignor to Societe des Fabrications Unicum, Saint-Etienne, France
Application July 11, 1955, Serial No. 521,304
Claims priority, application France July 22, 1954
9 Claims. (Cl. 74—208)



1. A friction drive speed regulator, comprising a primary shaft, at least one driving plate, a driving connection between the primary shaft and the driving plate, a driven shaft, a driven plate having a different axis of rotation to that of the driving plate and slidably mounted on the periphery of the driven shaft, at least one friction drive transmitting roller located between and frictionally engaging the driving plate and the driven plate, a sleeve axially slidable on the driven shaft and constrained to rotate therewith, means urging the sleeve longitudinally of the driven shaft towards the roller, a coupling plate associated to the driven plate and connected to the sleeve to rotate therewith, a plurality of driving members associated with the driven and coupling plates for transmitting drive from the driven plate to the coupling plate and disposed around the axis of the driven shaft, a convex spherical surfaced portion on each driving member, there being a hollowed-out seating portion, one for each driving member, in one of the associated plates, the seating portion having a greater radius than that of the spherical surfaced portion in a direction transverse to the radius from the axis of rotation of said one plate, there being a concave spherical surfaced portion in each driving member and opposite to the convex portion thereof, and complementary seatings formed in the other of the associated plates, and co-operating one with each of the concave surfaced portions.

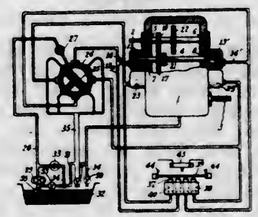
2,835,135
MOTION TRANSMITTING DEVICES
Robert G. Quick, Richmond, Va., assignor to Flight Research, Incorporated, a corporation of Virginia
Application June 6, 1956, Serial No. 589,626
10 Claims. (Cl. 74—222)



1. In a device of the type described, the combination of a rotary driving element, a rotary driven element to

be turned through part of one revolution, a drive tape extending about said elements, and adjusting means independent of the driving and driven elements for selectively tightening and slackening said tape, said means including a base member carried by the tape for movement therewith and in contact with one of said rotary elements, a tape tensioning element disposed in contact with the underside of said tape, and an adjusting member carried by said base member and operatively associated with said tape tensioning member to selectively adjust the same outwardly of said base member to tighten said tape or inwardly of said base member to release said tape.

2,835,136
HYDRAULICALLY CONTROLLED SPEED CHANGE APPARATUS
Frederick Charles Gilbert Berthiez, Lamoriaye, France, assignor to Societe Anonyme des Anciens Etablissements Charles Berthiez, Paris, France
Application July 20, 1955, Serial No. 523,336
Claims priority, application France July 21, 1954
13 Claims. (Cl. 74—335)

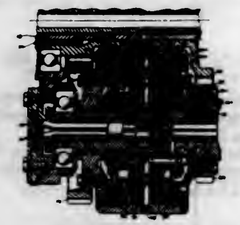


1. Hydraulically controlled speed change apparatus which comprises a shaft, means for supporting said shaft for rotation thereof on its axis and for movement thereof parallel to its axis between two predetermined axially spaced positions of said shaft, a gear mounted on said shaft for rotation therewith and for movement with said shaft parallel to said axis of said shaft between two transmission positions of said gear corresponding to said predetermined positions of said shaft, and means providing fluid pressure chambers adjacent the respective ends of said shaft in fluid pressure communication with surfaces of said shaft transverse to said axis of said shaft and disposed adjacent said respective ends of said shaft, said fluid pressure chamber means cooperating with said shaft supporting means to confine fluid pressure respectively on a given transverse surface and on the other transverse surface of said shaft for effecting movement of said shaft and gear parallel to said axis of said shaft to a selected one of said transmission positions and to the other transmission position of said gear upon development of fluid pressure in the fluid pressure chambers communicating respectively with said given and said other transverse surfaces of said shaft.

2,835,137
TRANSMISSION-FRICTION CLUTCH ARRANGEMENT
Walter F. Double, Willoughby, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 9, 1954, Serial No. 442,237
1 Claim. (Cl. 74—364)

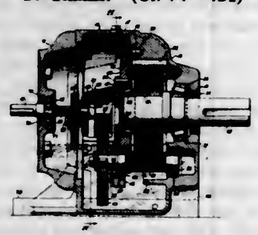
In combination, an input shaft having two input gears spaced axially along said shaft and drivingly connected therewith, an output shaft parallel to said input shaft and having two output gears spaced axially along said output shaft in positions to engage respectively said two input gears, said output gears being rotatively mounted on said output shaft, a common support member mounted in fixed

position on said output shaft between said output gears, said support member drivingly connected with said output shaft, a plurality of annular plates surrounding said output shaft and having mountings on said support member for rotation therewith and for movement axially along said support member, a radially extending partition fixed midway of said support member, annular cup-shape cylinder chambers in said support member extending axially away from said partition in opposite directions, separate annular pistons reciprocably mounted one in each of said cylinders, means preventing relative rotation between said pistons and their respective cylinders, second annular



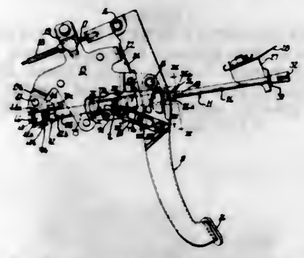
plates surrounding said output shaft and having mountings on said output gears respectively for rotation therewith and for movement axially thereof, abutments on said support member opposite said plates, portions of said plates being engageable between said pistons and said abutments, there being two separate fluid passageways in said partition, said passageways communicating respectively with said cylinder chambers on opposite sides of said partition, there being two separate passageways through said output shaft, and there being registering ports between each of said shaft passageways and its associated one only of said partition passageways.

2,835,138
SPEED REDUCER GEAR DRIVES
Charles F. Hey, Philadelphia, and Robert E. Richards, Abington, Pa., assignors to Link-Belt Company, a corporation of Illinois
Application October 19, 1955, Serial No. 541,369
16 Claims. (Cl. 74—421)



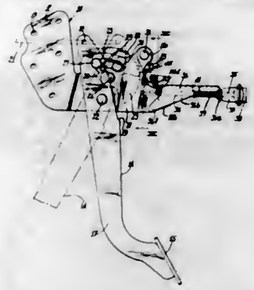
1. A speed reducer gear drive comprising a housing body having end walls formed with axially aligned shaft openings, a spider detachably mounted in the housing body intermediate said end walls, an attachment bracket detachably mounted on said spider, said spider and attachment bracket having shaft openings in axial alignment with each other and with the shaft openings in the two end walls of the housing body, antifriction bearings positioned in the shaft openings of said housing body end walls, said attachment bracket and said spider, a first shaft journalled in the bearings of one of said end walls and said attachment bracket, a second shaft journaled in the bearings of the other of said end walls and the spider, a pinion on the first of said shafts, a gear on the second of said shafts, and gearing means mounted in the housing body and drivingly interconnecting the pinion and the gear to effect a plurality of speed reductions in transmitting power from the first shaft having the pinion to the second shaft having the gear.

2,835,139
FOOT OPERATED PARKING BRAKE ASSEMBLY
Ray A. Sandberg, Waukegan, Ill., assignor, by mesne assignments, to The Bingham-Herbrand Corporation, a corporation of Ohio
Application November 25, 1955, Serial No. 549,053
6 Claims. (Cl. 74—539)



1. A brake lever construction comprising a first elongated member for mounting at the instrument panel of a vehicle, a second elongated member having a series of ratchet teeth therealong and generally axially aligned with said first elongated member, bracket means for mounting said first and second members for rotation on their longitudinal axes, coupling means connecting said first member to said second member for joint rotation, a brake lever arm pivotally mounted by said bracket means for applying the brakes of a vehicle by arcuate movement thereof relative to said first and second members, a sleeve member slidable along said second member and having pawl means cooperable with said ratchet teeth to hold said sleeve member in successive positions along said second member, and link means pivotally connected to said lever arm and to said sleeve member for moving said sleeve member along said second rod member as said brake lever arm is actuated to set the brakes, and said pawl means moving into locking engagement with successive teeth along said second member as the brakes are applied for holding said lever in successive attained positions through said link means.

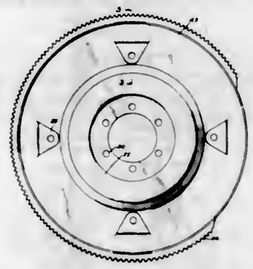
2,835,140
FOOT BRAKE LEVER RELEASE MECHANISM
Norman B. Cox, Dearborn, Mich., assignor, by mesne assignments, to The Bingham-Herbrand Corporation, a corporation of Ohio
Application June 25, 1954, Serial No. 439,278
15 Claims. (Cl. 74—542)



1. In a foot operated brake mechanism including a foot operated lever, a retaining mechanism operatively connected to said foot lever and operative in a brake setting position to retain the lever in incremental brake

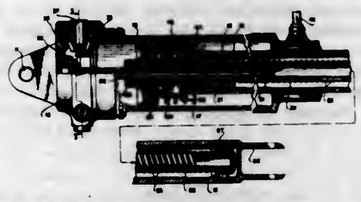
setting positions, and a hand operated release mechanism movable from a normal position to an actuated position in releasing said retaining mechanism, the improvement characterized by a spring operatively connected between said hand release mechanism and said retaining mechanism to urge said mechanism into brake setting position in normal position of said hand release mechanism and to urge said retaining mechanism out of brake setting position in actuated position of said hand release mechanism.

2,835,141
FLYWHEEL STRUCTURE
John Z. De Lorean, Detroit, Mich., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application March 31, 1955, Serial No. 498,401
8 Claims. (Cl. 74—572)



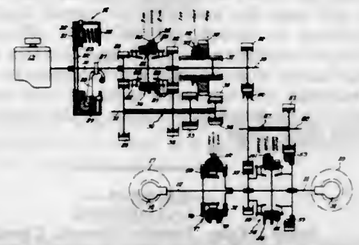
1. A flywheel stamped from sheet metal having a channel shaped section opening in an axial direction relative to the flywheel and defined in part by means of a radial mounting flange portion opposite to the open side of the channel, and springy mounting tabs sheared out of the channel section and disposed in freely relaxed position at an angle to the plane of the mounting flange portion.

2,835,142
EMERGENCY ACTUATOR FOR HYDRAULIC CYLINDERS
Curtis W. Foster, North Hollywood, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application May 19, 1954, Serial No. 430,762
10 Claims. (Cl. 74—625)



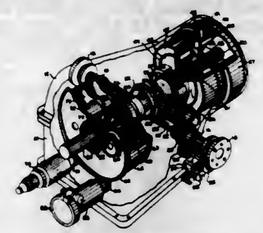
1. In a fluid actuator of the type described, means for mechanically operating the same upon failure of the actuator to operate in the normal manner, comprising in combination with an actuator having a cylinder, a piston and a tubular piston rod, means connecting the piston and piston rod for relative longitudinal motion including a a tubular lead screw axially journaled within the piston for rotation relative thereto, said read screw having a short length of power thread to engage the piston rod to the piston and a long length of thread to be engaged by balls, the two threads being coaxial and of equal and aligned pitch, a nut carried by the piston rod the nut having a power thread and a recirculating ball thread raceway balls for engaging in said long length of thread of the lead screw, an axially disposed shaft extending into the lead screw and having driving splines engaging the lead screw for rotation of the latter, and means for manually rotating said driving shaft whereby to advance said piston rod relative to the piston and lead screw.

2,835,143
TRANSMISSION
Donald W. Kelbel, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application August 30, 1950, Serial No. 182,213
5 Claims. (Cl. 74—665)



1. In transmission mechanism for an automotive vehicle having rear road wheels and front road wheels, the combination of a drive shaft, a first driven shaft adapted for driving the rear road wheels, a second driven shaft adapted for driving the front road wheels, change speed gearing for driving said first driven shaft from said drive shaft either in a forward drive or in a reverse drive, a selector for completing either said forward drive or said reverse drive, a one-way clutch for connecting said second driven shaft with said first driven shaft for transmitting a forward drive from said first driven shaft to said second driven shaft, a positive clutch in parallel with said one-way clutch for locking up the parts of said one-way clutch for unitary rotation and for transmitting a reverse drive from said first driven shaft to said second driven shaft, and a shift linkage interconnecting said selector and said positive clutch for engaging the positive clutch when said selector is moved to complete the reverse drive from said drive shaft to said first driven shaft.

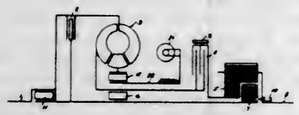
2,835,144
VARIABLE SPEED POWER TRANSMISSION FOR PAPER MACHINERY
Joseph Baxter, Jr., Franklin, and Stephen A. Staege, Hamilton, Ohio, assignors to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio
Application September 17, 1956, Serial No. 610,070
15 Claims. (Cl. 74—675)



13. An infinitely variable differential drive unit for a paper machine or the like having a rotating line shaft and a driven shaft to be rotated at a speed proportional to line shaft speed, comprising an input shaft, means for coupling said input shaft to the line shaft for driving said input shaft at a speed directly proportional to line shaft speed, an output shaft adapted for connection with the drive shaft, a transmission shaft, means driving said transmission shaft from said input shaft, an epicyclic gear train including input and output gear elements,

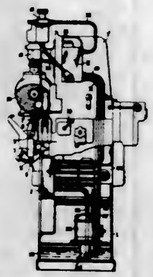
planetary gears providing a drive connection between said input and output gear elements, a cage supporting said plentary gears, means supporting said cage for rotative movement to revolve said planetary gears about said input and output gear elements and vary the overall difference in speed between said input and output gear elements, means coupling said input gear element to said transmission shaft, means coupling said output gear element to said output shaft, a reversible hydraulic motor operatively connected to rotate said cage, means sensing the speed differential between said input shaft and said cage for producing an output signal variable in relation to changes in said speed differential, and means for regulating the speed and direction of rotation of said motor in accordance with variations in said signal to maintain the rotational speed of said output gear element in predetermined relation to the rotational speed of said input shaft.

2,835,145
TRANSMISSION
Peter J. Carp, Toronto, Ontario, Canada
Application May 20, 1953, Serial No. 356,241
5 Claims. (Cl. 74—688)



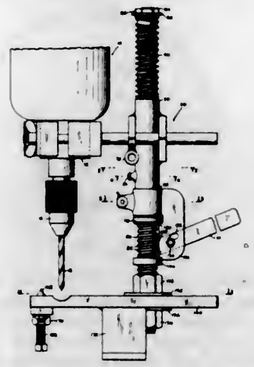
1. A transmission comprising a power input shaft, a hydrokinetic torque converter-coupling including impeller, turbine and reaction members, an output shaft, a planetary gear system located between said converter and said output shaft providing a plurality of gear ratios, said planetary gear system having at least two inner sun gears, a clutch selectivity coupling one of said inner sun gears to said input shaft, clutch means for selectively coupling the second of said inner sun gears to said turbine, a one-way clutch for coupling said turbine to said first inner sun gear, reaction lock means for locking said second inner sun gear against rotation when said clutch means is disengaged, planetary gears engaging said first and second inner sun gears, an element of said planetary gear system connected to said output shaft, said element being driven by said planetary gears.

2,835,146
SAW SHARPENING MACHINE
Heinrich Vollmer, Biberach (Riss), Germany
Application August 25, 1952, Serial No. 306,218
4 Claims. (Cl. 76—41)



1. A saw sharpening machine comprising a machine standard, a saw clamping carriage slidably mounted on the standard, a grinding disc and carrier mounted on the standard above the carriage, a pawl and setting rail cooperating with the pawl, said pawl being operatively connected with the carrier for the grinding disc, means to move the grinding disc away from and toward the carriage, a hydraulic system for operating the vertical movement of the grinding disc and the carriage controlled by the pawl and rail, and a mechanical control device for the hydraulic system mounted in the standard and comprising a control cam disc, corresponding to the required working conditions, a lever in contact with the cam disc, a spring-loaded control piston bearing against the lever, and means to intermittently rotate the cam disc.

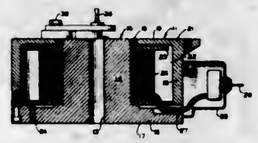
2,835,147
WORK FEEDING ATTACHMENT AND STAND FOR PORTABLE ELECTRIC POWER DRILLS
Andrew C. Balfour, Jr., Jamaica, N. Y.
Application June 29, 1954, Serial No. 440,018
1 Claim. (Cl. 77—7)



An attachment for a portable power drill, comprising a housing adapted to be secured to said drill, a cylindrical rack having a continuous spiral thread winding around it, said rack being supported by said housing and being longitudinally movable therein, a collar swivelly mounted on said housing coaxially with said rack and being swivelly movable angularly of said rack, clamp means on said collar adapted to clamp it in selected angular positions relative to said housing and said rack, a toothed lever pivotally supported on said collar for engagement with said spiral thread of the rack to move the rack longitudinally in either direction relative to the housing, said toothed lever being also slidably supported on said collar so as to be movable into and out of engagement with said spiral thread on the rack, and a work engaging member adjustably secured to said rack, said work engaging member comprising a generally J-shaped clamp having a relatively long, upper, bifurcated arm to which the rack is secured in perpendicular relation thereto, and a relatively short lower arm situated in generally parallel relation to said relatively long upper arm, said lower arm being provided with a clamp screw projecting therethrough and said upper arm and said clamp screw being adapted to engage a suitable support between them.

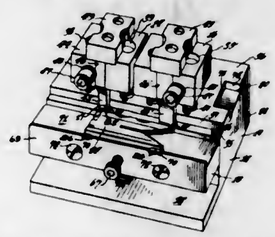
2,835,148
ELECTRO-MAGNETIC DRILL CHUCK
Eugene W. Buck, Campbell, Calif.
Application January 23, 1956, Serial No. 560,587
5 Claims. (Cl. 77—63)

1. An electro-magnetic drill chuck including a center pole member having an upper pole face and provided with a central aperture therein, said center pole member having a bottom flange projecting outwardly therefrom and providing a bottom planar supporting surface, a second pole member having a horizontally extending annular flange providing an upper pole surface lying in the same plane as the upper pole surface of said center pole member and also having a downwardly projecting annular flange seated at the bottom on the outwardly projecting bottom flange of said center pole member, means securing said pole members together, said pole



members when secured together defining an inner annular space, an electro-magnetic coil within said annular space, and a non-magnetic ring secured between said pole members at the pole faces thereof and providing a magnetic gap in the working face of the chuck.

2,835,149
MEANS FOR REPAIRING LINOTYPE MATRICES
Sol M. Cantor, New York, N. Y.
Application May 31, 1952, Serial No. 290,946
2 Claims. (Cl. 78—1)



1. A device for repairing linotype matrices, the matrices having a main body and an aligning projection normally lying within the plane of said main body, said device comprising: a base element having an upwardly disposed surface including cut-out portions forming die channels adapted to receive said aligning projection, a support element adjustably mounted upon said base element, said support element having a horizontally disposed surface and means for adjusting the plane of said surface with respect to said die channels, said surface being adapted to support said main body of said matrices, a die element mounted for substantially vertical reciprocation upon said base element; whereby upon adjusting said surface of said support member with respect to said cut-out portions, said aligning projections may be enlarged by said die members without bending the same out of the plane of said main body.

2,835,150
MULTIPLE RIVET SETTING TOOL
Arthur Marcoux, Hermosa Beach, Calif., assignor to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application December 14, 1953, Serial No. 398,125
15 Claims. (Cl. 78—49)

1. A portable rivet setting tool for setting rivets in nutplates or the like comprising: a power tool having reciprocatable piston means therein; a first rivet set disposed in said piston means and adapted to deliver blows to rivets; yoke means attached to said tool; and a second rivet set attached to the lower end of yoke means, said second rivet set comprising a stem portion adapted to be disposed in said yoke; a body portion having an anvil surface at the exposed end thereof, said body portion being adapted to coact with said first rivet set; an elongate hole in said body portion adapted to receive a nut plate retaining means; and a cylindrical, hollow, spring-biased nutplate receiving member disposed in said elongate hole, said receiving member being adapted to receive the nut portion of a nutplate therein



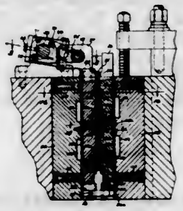
and to yieldingly urge and retain the nutplate snugly against the structure to which it is to be attached during the upsetting operation.

2,835,151
PUNCH AND DIE MECHANISM FOR FORMING SHARP CORNERS IN WAVE GUIDES
Francis J. Fuchs, Jr., and Ralph C. Taylor, Winston-Salem, N. C., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application June 28, 1955, Serial No. 518,524
11 Claims. (Cl. 78—60)



1. A punch and die mechanism for shearing and forming indentations in the walls of rectangular tubes comprising a punch for shearing and forming the exterior of an indentation in a wall of a tube, said punch having shearing edges and forming surfaces thereon, a die for forming the interior of said indentation, a mandrel for supporting said die and then extracting said die from said tube, and a lost motion connection between said punch and said mandrel for actuating said punch while the mandrel supports said die.

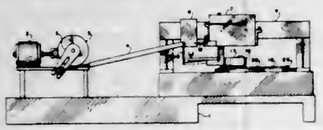
2,835,152
STOCK FEEDING DEVICE FOR FORGING MACHINE
Merle W. Lamprecht, Rocky River, Ohio, assignor to The Hill-Acme Company, Cleveland, Ohio, a corporation of Ohio
Application February 24, 1953, Serial No. 338,257
6 Claims. (Cl. 78—99)



1. Mechanism for transferring work pieces progressively along a series of work-operation stations located in a plane comprising a pair of dies having mutually engaging faces meeting in said plane, a pair of fingers having mutually engaging faces meeting in said plane,

a plurality of work-piece-embracing recesses in said mutually engaging faces of said pairs of dies and of said fingers, said recesses being spaced apart the same predetermined distance in each pair, the number of recesses in said fingers being one greater than the number of recesses in said dies, said dies being cut away at said predetermined distance below the associated lowest recess to a distance greater than the dimension of a work piece, means for releasably holding a work piece in said plane at said predetermined distance above the uppermost recess in said dies, each of said dies having an elongated slot extending at right angles to said plane, said slots opening toward said mutually engaging die faces, said fingers slidingly held in said slots, there being struts engageable between the backs of said slots and said fingers and separating said fingers by closing movement of said dies only when said fingers are at and near their lowermost position, resilient means urging said fingers toward work gripping position, means for causing alternate closing and opening movement of said dies, means for causing upward movement of said fingers while said dies are closed, means for causing downward movement of said fingers while said dies are open, there being pockets provided in the backs of said slots permitting movement of said struts away from said plane corresponding to work releasing position of said fingers, said pockets being positioned to receive said struts as said fingers move upwardly and shortly after said fingers leave their lowermost position, whereby said fingers grip a new work piece at the top at their every "up" excursion and said dies drop a completed piece at the bottom upon every "down" excursion of said fingers.

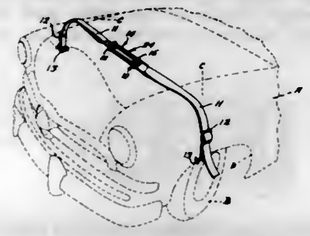
2,835,153
WIRE ROLLING APPARATUS
William G. Langton, Lincoln, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application January 26, 1955, Serial No. 484,325
6 Claims. (Cl. 80—19)



3. Apparatus for rolling wire into a thin strip comprising a stationary flat platen, a cylindrical roller mounted adjacent said platen, pulley means adjacent each end of and projecting above the surface of said platen adapted to position said wire between said platen and roller normally out of contact with said platen, a yoke assembly mounting said roller, means for adjusting said yoke assembly whereby the force exerted by said roller on said wire may be controlled, a first rider means supporting said yoke assembly and imparting reciprocating movement thereto, motor means for driving said rider, and an auxiliary rider positioned between said first rider and said motor means and connected to said former by means of a universal joint whereby variation in the angle at which driving forces from the motor are applied to the first rider are avoided.

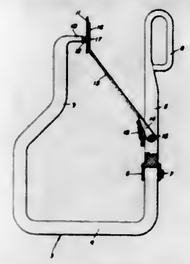
2,835,154
VEHICLE BODY STRAIGHTENING TOOL
James W. Geller, Nampa, Idaho
Application January 18, 1954, Serial No. 404,419
4 Claims. (Cl. 81—15)

2. A tool for repairing vehicle bodies by compression bending distorted sheet metal body members comprising a pair of looped straps adjustable in length; securing means carried at the outer ends of each strap loop; a constricting frame secured to the spaced inner ends of



said loops; and manually controlled means for constricting said frame and applying sheet metal forming tension to said straps.

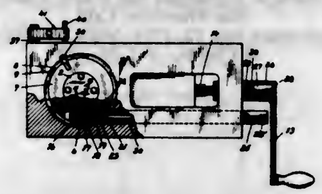
2,835,155
DENT-REMOVING BODY AND FENDER TOOL
Irvin L. Clark and Luther D. Shirah, Mobile, Ala.
Application July 20, 1956, Serial No. 599,148
1 Claim. (Cl. 81—15)



A body and fender tool comprising: a substantially U-shaped frame including separable sections, one of the sections comprising a socket on one end for the reception of one end portion of the other section, a setscrew threadedly mounted in the socket and engaged with said other section for detachably securing the frame sections together, an inturned pick on the free end of said other section engageable with the work on one side thereof, a handle on the free end of said one section, a swingable guide including a bifurcated end portion straddling said one frame section at an intermediate point and pivotally secured thereto, said guide further including an angularly extending free end portion engageable with the work on the other side thereof and having an opening therein aligned with the pick, and a coil spring having one end connected to said one frame section and its other end connected to the guide for yieldingly engaging same with the work.

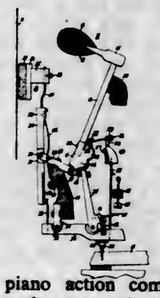
2,835,156
MACHINE-TOOL VISE HAVING WORKPIECE-CLAMPING SCREW IN PROXIMITY TO BASE-CLAMPING SCREW
Elias Napoleon Eklund, Stockholm, Sweden, assignor to AB. E. N. Eklunds Mekaniska Verkstad, Stockholm, Sweden, a corporation of Sweden
Application June 26, 1956, Serial No. 593,896
Claims priority, application Sweden June 30, 1955
5 Claims. (Cl. 81—41)

1. Improvements in a machine-tool vise, the body of which is provided with two jaws, one being fixed to the body and the other being by means of a screw spindle displaceable on the body toward and away from the fixed jaw, said body being turnable relatively to a bottom plate provided with a conical central part which is surrounded by a clamping ring provided with a transverse slot, the ring parts at both sides of said slot being capable of being pressed towards each other by means of a clamping screw which is turnable by means of a crank,



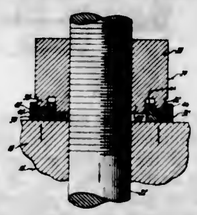
thereby clamping the body to the bottom plate, said clamping screw being journalled in the body, and the outer end of said clamping screw being situated adjacent the outer end of said screw spindle.

2,835,157
UPRIGHT PIANO ACTION
Wilbur W. Waters, Kirkville, N. Y.
Application April 18, 1956, Serial No. 579,074
7 Claims. (Cl. 84—240)



1. An upright piano action comprising a pivotally mounted hammer and an operatively associated wippen and jack, a back check mounted on said wippen, said back check having a block on its upper end, said block having a perforation therein, a spring attached to said hammer adjacent its pivot, said spring engaging in said perforation and being upwardly biased into engagement with the top of said perforation in all positions of said hammer and wippen.

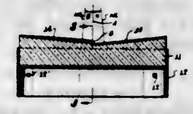
2,835,158
FUSIBLE WASHER WITH MEANS TO PROTECT THREADS FROM MOLTEN METAL
Emmett A. Bartlow, Columbus, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 1, 1956, Serial No. 562,753
2 Claims. (Cl. 85—50)



1. A tension nut assembly including threaded nut means receiving a threaded shaft and engaging a work surface for tensioning said shaft, washer means interposed between said nut means and said work surface, said nut means including an annular projection and said washer means being formed to include an annular recess

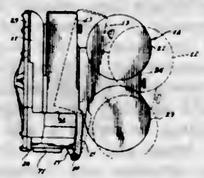
defined by inner and outer walls for receiving said projection with said inner wall interposed between said projection and said threaded shaft, a fusible insert within said recess for spacing said nut means apart from said work surface, said projection having a width substantially equal to the spacing between said inner and outer walls whereby said recess is closed off by said projection, and removable plug means provided within the outer wall of said washer means and communicating with said recess, said insert yielding upon removal of said plug means to the application of heat to reduce the spacing between said nut means and said work surface and to relieve the tension upon said shaft.

2,835,159
LIGHT DIVIDING OPTICAL DEVICE
Wallace C. Rhea, Los Angeles, Calif.
Application August 17, 1953, Serial No. 374,512
1 Claim. (Cl. 88—1)



An optical device adapted to be placed in front of a projector lens to split a beam of light from said projector lens into two beams to form images horizontally and vertically displaced with respect to each other, said optical device comprising: a transparent optical disc having a flat base surface and an opposite surface divided by a single diametric dividing line to form two optically flat surface portions inclined at different angles with respect to said base surface to form two optical wedge portions; the normals of said surface portions of said optical wedge portions, as a result of the inclination of the surface portions, forming equal acute angles with respect to the axis of said disc as viewed through a plane perpendicular to said dividing line; one of said normals as a result of the different inclination of its surface portion, also forming an acute angle with respect to said axis of said disc as viewed through a plane including said axis of said disc and said dividing line, said latter mentioned acute angle being less than either of said equal acute angles so that when said disc is oriented on said projector lens with its dividing line in a vertical direction, the vertical displacement of said images is less than the horizontal displacement thereof; and polarizing means provided on said two surface portions, the polarization of one surface portion being substantially at right angles to the polarization of the other surface portion, whereby said displaced images may be filtered.

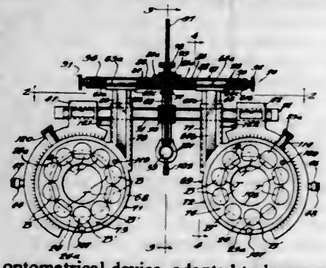
2,835,160
CAMERA WITH FILM HOLDERS FOR CONVENIENT LOADING
Fred Waller, Huntington, N. Y., assignor to The Vitarama Corporation, Huntington, N. Y., a corporation of New York
Application February 11, 1953, Serial No. 336,303
6 Claims. (Cl. 88—16.6)



1. In a camera having a plurality of lenses on a main camera body and a common shutter that controls the pas-

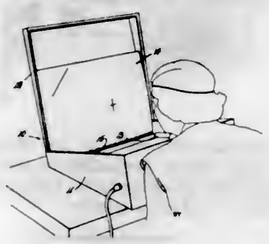
sage of light through said lenses to films at the focal planes of the lenses, the improvement which comprises separate film holders including spindles for film reel spools for the film behind each lens, a separate gate behind each lens and at the focal plane of the lens, film feeding means including a separate pull-down for moving the film past each gate, common supporting means for the film holders, gate and pull-down for the film behind each lens whereby said supporting means with its film holder, gate and film feeding means comprise a unitary assembly, a fulcrum bearing on the main camera body behind each of the lenses, and a bearing at one end of each unitary assembly and that fits the fulcrum bearing for supporting that end of the assembly from the main camera body for swinging movement toward and from the corresponding lens, and a light-tight frame on the main camera body against which each of the film-carrying assemblies fits when swung about its fulcrum bearing into a forward position, each assembly having an abutment thereon that contacts with the main camera body to stop further swinging movement of the film carrying assembly when the gate reaches the focal plane of the lens for that assembly.

2,835,161
OPTOMETRICAL APPARATUS
Frank J. Williams, Waukegan, Ill., assignor of one-half to Charles E. Jack, Waukegan, Ill.
Application April 30, 1954, Serial No. 426,755
5 Claims. (Cl. 88—20)



1. An optometrical device, adapted to be mounted upon a trial frame of the kind including a cross member and a pair of lens housings for supporting corrective lenses and mounted on said cross member in spaced relation to each other, and adapted to be used with said trial frame in demonstrating the use of bifocal and trifocal lenses, said device comprising: an elongated cross bar; means for mounting said cross bar in adjustably fixed vertical position relative to said cross member of said trial frame; a pair of auxiliary lens mounts each including a window and means for mounting an auxiliary lens adjacent said window; guide means, comprising a pair of guide members mounted on said cross bar for longitudinal movement with respect thereto and projecting from said cross bar into engagement with said auxiliary lens mounts, for maintaining said auxiliary lens mounts in predetermined vertical angular alignment with respect to said cross bar; biasing means urging said guide members and said auxiliary lens mounts outwardly toward the ends of said cross bar; means for engaging said trial frame cross member and said auxiliary lens mounts to maintain said auxiliary lens mounts in predetermined vertical position relative to said lens housings; and stop means on said auxiliary lens mounts for engaging said trial frame to limit outward movement of said auxiliary lens mounts and to align said auxiliary lens mounts with said trial frame lens housings to permit a user to look through said corrective lenses and said windows in a normal distance-looking direction and through said corrective and auxiliary lenses in a normal reading or intermediate direction.

2,835,162
APPARATUS FOR AND METHOD OF EXAMINING EYES
David O. Harrington and Milton Flocks, San Francisco, Calif.
Application July 12, 1954, Serial No. 442,754
15 Claims. (Cl. 88—20)

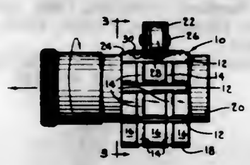


1. A method of testing for defects in the visual field of the eye which comprises constantly presenting a fixation point located a predetermined distance from the eye, presenting individually and successively a plurality of different patterns to the eye to determine how much is seen of each pattern, each pattern being completely presented for a fraction of a second while the eye is fixed on the fixation point, said pattern comprising a plurality of unconnected markings laterally spaced from the fixation point in more than one quadrant of the field of vision and being specifically designed to be partially invisible to an eye having a visual field defect therein in the quadrants in which the markings appear when the eye is fixed on the fixation point said successive patterns differing from one another in their relative locations and distances from the fixation point whereby any defect in the field of vision of the eye can be determined by said plurality of patterns.

2,835,163

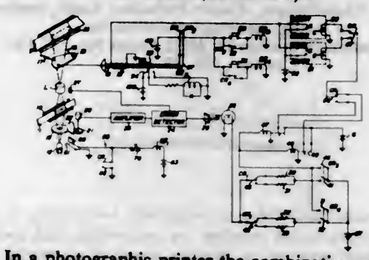
WITHDRAWN

2,835,164
FOCUSING LENS MOUNT
John W. Parmley, Oconomowoc, Wis., assignor to La Belle Industries, Inc., Oconomowoc, Wis., a corporation of Wisconsin
Application July 18, 1955, Serial No. 522,582
2 Claims. (Cl. 88—24)



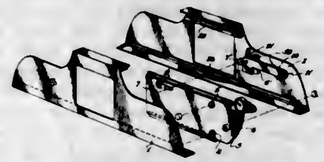
1. A focusing lens mount comprising, a tubular holder, a lens barrel mounted within the holder, an aperture within the wall of the holder, a wheel, an axle for the wheel set at an angle to the axis of the lens barrel, a bracket fixed on the holder and supporting the axle transversely of the axis of the barrel with the wheel extending through the aperture in the holder and bearing against the barrel through the aperture in the holder, said wheel being resilient and bearing against the barrel to impart a forward and rearward movement to the farrel as the barrel is turned within the holder and permitting non-rotatable linear movement of the barrel with respect to the holder.

2,835,165
EXPOSURE CONTROL FOR PHOTOGRAPHIC PRINTER
Homer A. Smith, Jr., Kodak Park, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 27, 1955, Serial No. 555,520
5 Claims. (Cl. 88—24)



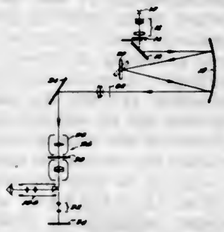
1. In a photographic printer the combination of means for supporting in superposed relation a transparent photographic record and a sensitized layer to be printed; means including a light source for directing light onto one side of said record and through the same and onto said layer; means for automatically varying the intensity of the light approaching said record until the intensity of the printing beam transmitted thereby reaches one or the other of two different preselected values; a shutter normally intercepting the printing beam transmitted by said record and cutting it off from said layer; means for opening said shutter and holding it open for one or the other of two different time intervals depending upon which of said preselected values the intensity of the printing beam is adjusted to; said last-mentioned means including a short timer and a long timer which are adapted to be selectively associated with said shutter opening means to hold the shutter open for a given time controlled thereby; and means including said intensity varying means and responsive to adjustment thereof for automatically connecting said short timer in control relation with said shutter opening means when the higher of said preselected values is used for balancing the intensity of said printing beam and for connecting said long timer in control relation with said shutter opening means when the lower of said preselected values is used for balancing the intensity of said printing beam.

2,835,166
SLIDE CARRIER
David Pollan, Jackson Heights, N. Y., assignor to Viewlex, Inc., a corporation of New York
Application December 31, 1953, Serial No. 401,517
5 Claims. (Cl. 88—28)



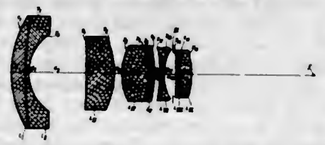
3. In a projector slide carrier of the type having a shell member, a sliding pusher member in said shell adapted to receive slides on one side of said shell when in retracted position and adapted to position said slides in viewing position and eject the preceding slide out the other side of said shell as a slide is placed in viewing position; a hook rotatably mounted on said shell member and adapted to engage said pusher member to position a slide in viewing position and means to eject the last slide comprising means to release said hook, to allow further travel of said pusher member.

2,835,167
PHOTOMICROGRAPHIC APPARATUS
Norton T. Pierce, Reading, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application January 20, 1954, Serial No. 405,123
11 Claims. (Cl. 88—40)



11. A device for preparing photomicrographs of improved quality comprising a source of radiation in at least an ultraviolet wavelength band, a plurality of optical elements arranged substantially in the following order in the optical path of said radiation between said source and a photosensitive film, said elements comprising, respectively, collimating means, an entrance aperture of given width, a first plane reflecting surface, a first area of a concave reflecting surface, a reflection diffraction grating adapted to diffract radiation of at least said wavelength band, a second area of said concave reflecting surface, an exit aperture of given width, a second plane reflecting means, condenser lens means, means for holding a specimen adapted to differentially absorb ultraviolet radiation and image-forming objective lens means, and means for rotating said reflection diffraction grating to a plurality of given angular positions to vary the diffraction of said radiation and to provide at least a beam composed of a selected given portion of said wavelength hand for transmittal to said specimen, the last-named means comprising a rotatably mounted arm to which said grating is attached adjacent its axis of rotation, a pair of converging cam surfaces formed at the free end of said arm, a plurality of levers such having a cam follower at an extremity for separately applying an actuating force to said cam surfaces and each being offset with respect to another so as to engage a portion of said cam surfaces at a relatively different distance from the line of convergence of said surfaces, means for selectively actuating said levers so that a given cam follower is predominantly urged against one of said cam surfaces to cause rotation of said arm and the attached grating by an amount which is determined by the distance of the cam follower from said line of convergence existing prior to movement of said cam follower in response to said actuating means.

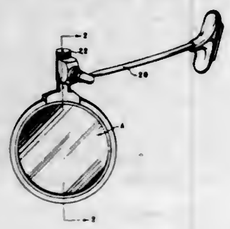
2,835,168
INTERCHANGEABLE LENS SYSTEM FOR PHOTOGRAPHIC PURPOSES
Gunther Lange, Konigsbronn, Wurttemberg, Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany
Application August 9, 1955, Serial No. 527,232
Claims priority, application Germany March 25, 1955
4 Claims. (Cl. 88—57)



1. An interchangeable lens system for photographic purposes, which can be put in the place of the front

member of a three-component photographic objective (basic objective) consisting of a collective front lens, of a biconcave middle lens and of a collective rear member, producing in this way in conjunction with the two remaining components of the basic objective (middle lens plus rear member) an objective showing an equal focal intercept but a shorter focal length (f) than the basic objective, and characterized by the following particulars and comprising a front-component formed as a cemented dispersive meniscus presenting its convex side to the object, and containing a collective lens made from a glass of high dispersion ($\nu<50$), the axial thickness of this first component lies between the limits $0.06\times f$ and $0.30\times f$, the radius of the anterior external surface of this front component lies between the limits of $0.50\times f$ and $2.00\times f$, the radius of the posterior external surface lies between the limits $0.2\times f$ and $0.8\times f$, an asymmetrical collective member positioned a distance at least $0.20\times f$, but at most $0.70\times f$ from the front member; the more deeply curved surface of said member is on the side further from the object, the radius of said deeply curved surface lies between the limits $-1.20\times f$ and $-0.6\times f$ and is simultaneously numerically smaller than ⅓ of the radius of the other external surface of said member, the axial thickness of said member lies between the limits $0.12\times f$ and $0.48\times f$, and positioned behind the last-mentioned said member, a collective surface convex towards the object with a radius of curvature within the limits $0.35\times f$ and $0.80\times f$ having an apical separation from the last surface of the system of at least $0.15\times f$ but at most $0.5\times f$, the last said surface of the system being a collective surface whose radius lies between the limits $-2.0\times f$ and $-1.0\times f$, and at least one dispersive surface lying between the two last-mentioned collective surfaces.

2,835,169
SIDE AND REAR VIEW MIRROR
Stanley Bilker, Havertown, Pa., and Harvey Barton, Greenlock, N. J., assignors to O & S Research, Inc., Philadelphia, Pa., a corporation of New Jersey
Application July 2, 1954, Serial No. 440,892
1 Claim. (Cl. 88—77)



A reversible side view mirror comprising a polished sheet of glass having one silvered side backed with an opaque coating, a second transparent sheet of glass having two polished surfaces, the relative angular inclination of which is not greater than 2 minutes of arc, abutting said opaque coating, a frame surrounding all of the edges of said sheets of glass, a bracket mounted upon said frame and having a pair of recesses spaced 180 degrees apart, a shaft secured to said bracket centrally located with respect to said recesses and rotatably supported within a single journal box, said journal box having an integrally formed, laterally located, socket extension engaging a ball affixed to a bracket arm for adjusting the mirror position, a spring within said socket extension resiliently pressing against said ball, and a spring pressed pin extending from said journal box and adapted to engage either of said spaced recesses, and a knurled thumb knob on said shaft whereby the mirror may be rotated 180 degrees by a twist of the fingers without disturbing its adjusted position.

2,835,170
ROCKET LAUNCHER
James H. Kindelberger, Pacific Palisades, Calif., assignor to North American Aviation, Inc.
Application December 20, 1952, Serial No. 327,135
4 Claims. (Cl. 89—1.7)



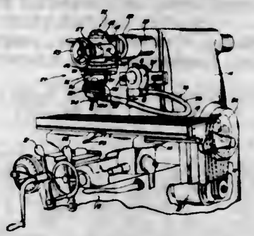
2. A rocket launching arrangement comprising a cylindrical, open-ended member for supporting said rocket in launching position, a bearing member connected to the rear of said supporting member, a hollow annular member rotatably mounted on said bearing member, said annular member being provided with a combustion chamber for an explosive charge and a gas outlet in said chamber arranged to cause said member to spin, clutch means releasably connecting said hollow member to said rocket whereby ignition of said explosive charge and exhaustion of the resulting gases from said gas outlet causes said rocket to spin, said bearing member being hollow whereby passage is provided for exhaust of the chamber gases and rocket exhaust.

2,835,171
ROTARY MAGAZINE GUN
George Albert Lyon, Detroit, Mich.
Application March 14, 1952, Serial No. 276,575
7 Claims. (Cl. 89—13)



7. In combination in a rotary barrel magazine gun, a support, a rotary magazine on said support, a forwardly reciprocable gun barrel carried by the support in forwardly projecting relation to the magazine, said magazine behind the gun barrel having a plurality of projectile chambers, and means for indexing the projectile chambers and the magazine in firing relation to the gun barrel in succession comprising an indexing pin operatively connected to and reciprocable with the gun barrel and an annular indexing band member secured about the periphery of and arranged to rotate with the magazine, said band having therein a continuous generally saw tooth indexing track with each saw tooth section corresponding to an increment of rotary advance of the magazine to register a projectile chamber thereof with the gun barrel, said pin riding in said track, each of said saw tooth sections being effective to effect a partial incremental rotary movement upon separational reciprocal movement of the barrel and magazine and a concluding portion operable during the approaching reciprocal movement of the magazine and gun barrel, there being a longitudinal track leg respectively leading rearwardly from the convergence of the concluding portion of each of said sections with the first portion of the next succeeding section for reception of the indexing pin to retain the indexing band and thereby the magazine in the indexed position.

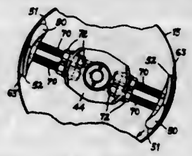
2,835,172
ROTARY HEAD MILLING ATTACHMENT
Orrin W. Barker, New Berlin, and Ralph E. Saving, Wauwatosa, Wis., and Lloyd D. Libby, Minneapolis, Minn., assignors to Kearney & Trecker Corporation, West Allis, Wis., a corporation of Wisconsin
Application January 13, 1955, Serial No. 481,676
4 Claims. (Cl. 90—15)



1. In combination with a milling machine of the knee and column type, said machine being provided with a vertically upstanding column, a power driven horizontal tool spindle rotatably journalled in said column, and a horizontal overarm structure slidably carried by said column for horizontal movement in parallelism with said tool spindle; a milling attachment removably secured to said overarm structure for bodily movement in a horizontal plane, said attachment comprising a frame, a main member rotatably journalled in said frame; means connected to effect selective rotational movement of said member relative to said frame, a cross slide movably carried by said member for radial adjustment, a tool spindle rotatably carried by said cross slide adapted to be rotatably driven irrespective of the radially adjusted position of said cross slide relative to said member; said attachment tool spindle being carried for bodily gyratory movement whenever said member is rotated with said cross slide in a radially offset position, a transmission mechanism pivotally associated with said cross slide being operatively connected to rotate said attachment spindle; and a reversibly positionable power transmitting apparatus connectable to transmit driving power from the said tool spindle of said machine to said transmission mechanism for rotating said attachment tool spindle, said power transmitting apparatus comprising a hollow power take-off bracket removably secured to said column of said machine, said bracket being provided with a horizontal bore perpendicular to the axis of said spindle and opening at its central part into the hollow central portion of said bracket, a helical driving gear journalled within said bracket and being maintained thereby in driven engagement with said spindle, a helical driven gear journalled in the horizontal bore formed in said bracket in a position to be engaged by said helical driving gear, an adapter coupling secured to one end of said helical driving gear, and a flexible power transmitting shaft operatively interconnected to transmit power from said coupling to said transmission mechanism for driving said attachment spindle.

2,835,173
PAPER MACHINERY
James H. Martindale, Middletown, Ohio, assignor to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio
Application March 3, 1955, Serial No. 491,831
11 Claims. (Cl. 92—34)

1. In a screening apparatus of the character described for screening fibrous material in liquid suspensions including a fixed vertically extending cylindrical perforate screen defining supply and discharge chambers respectively on the inner and outer sides thereof and having a rotary hub operable in said supply chamber, the combination of a bar having an airfoil configuration in cross section providing convex leading and trailing edge portions, means for mounting said bar in upwardly extending fixed relation with said hub for rotation therewith with respect to said screen, a portion of the outer surface of said bar adjacent said leading edge portion being cylindrically curved on substantially the same radius as said screen, the remainder of the outer surface of said bar being convexly curved about a shorter radius on a first center located to cause said convex surface to diverge from the rearward projection of said cylindrically curved surface, the inner surface of said bar being concavely curved about a second center located angularly to the rear of said first named center of curvature to impart to the trailing portion of said bar a progressively decreasing thickness, means for fixing



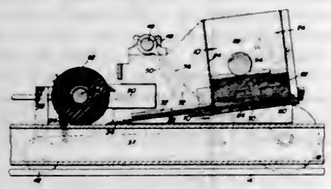
said bar on said hub with said cylindrically curved outer surface portion thereof spaced radially inwardly from said screen by a predetermined small distance providing a corresponding small radial clearance therebetween, means for rotating said hub with respect to said screen to create a positive pressure wave along said leading edge of said bar tending to force said material outwardly through said screen and followed by a negative pressure wave between said screen and said trailing edge portion of said bar tending to draw solid particles inwardly from the surface of said screen for downward movement along said trailing edge of said bar, and means forming a discharge outlet at the bottom of said supply chamber for receiving and discharging said rejected solid particles.

2,835,174
TRAY FORMING MACHINE
John F. Castner, Cicero, Ill., assignor to United Biscuit Company of America, a corporation of Delaware
Application October 25, 1955, Serial No. 542,696
10 Claims. (Cl. 93—37)



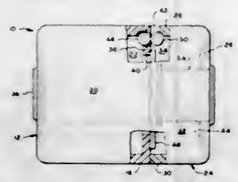
3. A machine for setting up trays from pre-cut and scored blanks, comprising a normally stationary die, a slide structure mounted for movement toward and from said die, a plunger mounted on said slide structure and movable therewith from a starting position clear of said die into and through the same and then back to starting position, a breaker structure having means for engaging a portion of a tray blank to cooperate with said die to preliminarily break predetermined scores in the blank, means connected to said slide for movement therewith and having a disengageable connection to said breaker structure for actuating the latter upon movement of said slide structure toward said die, and means for effecting disengagement of said last mentioned connection after predetermined movement of said slide structure so as to permit the latter to continue said predetermined movement independently of said breaker structure.

2,835,175
TILE LAYING MACHINE
Norman E. Frey, Marshfield, Wis., assignor to Rollohome Corporation, Marshfield, Wis., a corporation of Wisconsin
Application September 24, 1953, Serial No. 382,064
6 Claims. (Cl. 94—47)



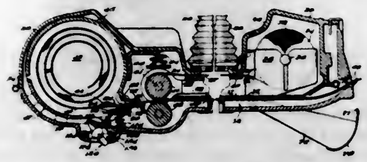
1. A tile laying machine comprising a carriage having a plurality of compartments for receiving tile, a drive shaft journalled on said carriage, means for actuating said drive shaft connected thereto, each of said compartments having an opening through the rear thereof through which the lowest of the tiles adapted to be positioned in that compartment can pass, a tray extending beneath and rearwardly beyond said compartments, slides in said compartments adapted to engage the lowermost of said tiles for urging the lowermost of said tiles outwardly from said compartments and onto said tray, a linkage connected to said drive shaft and to said slides for actuating said slides, a plurality of rollers mounted on a transverse shaft rearwardly of said tray, said transverse shaft being eccentrically journalled on said carriage, and means for rotating said transverse shaft to raise said machine so as to enable said rollers to apply pressure downwardly in a manner adapted to be directed upon previously dispensed tiles.

2,835,176
CARRYING CASE FOR PHOTOGRAPHIC APPARATUS
Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application September 29, 1955, Serial No. 537,423
7 Claims. (Cl. 95—12)



1. Photographic apparatus of the character described comprising, in combination, a camera including a housing, a taking lens mounted on one wall of said housing, a viewing lens mounted on a wall of said housing opposite said taking lens, guide means within said housing for predeterminedly positioning a photosensitive element with respect to said taking lens for exposure and means for processing an exposed photosensitive element to produce therefrom a visible photographic image, and a carrying case for said camera, said carrying case being so constructed as to support and enclose said camera and including a first section disposed adjacent the taking lens of said camera, a source of illumination mounted within said first section and so positioned with respect to said taking lens as to illuminate a visible photographic image positioned by said guide means within said camera and thereby convert said camera into a viewer for exhibiting visible photographic images produced thereby, said camera and said first section of said case being movable with respect to one another so as to permit said camera to be employed for exposing photosensitive elements, and a second section disposed adjacent said viewing lens, said second section being movable with respect to said camera to provide access to said viewing lens.

2,835,177
SHEET-ARRESTING MECHANISM FOR PHOTOGRAPHIC APPARATUS
Donald R. Bishop, Westwood, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application December 29, 1953, Serial No. 400,881
4 Claims. (Cl. 95—31)

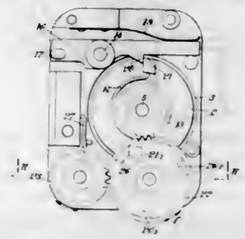


1. In photographic apparatus, means for arresting the movement of sheet material through said apparatus, said means including at least one stop member for engaging successive engageable portions of said sheet material to arrest its movement, resilient means for mounting said stop member for movement in a plurality of directions and for urging said stop member into contact with said sheet material and in a direction substantially opposite the direction of advancement of said sheet material, said stop member being displaceable in the direction of movement of said sheet material upon being engaged by one of said engageable portions of said sheet material, pivotal means for limiting the displacement of said stop member in the direction of advancement of said sheet material to arrest the movement of said sheet material and for moving said stop member in a direction substantially normal to the direction of advancement of said sheet material to withdraw said stop member from engagement with said sheet material and permit the displaced stop member to return under the bias of said resilient means to its normal position prior to displacement, said stop member in its normal position being in contact with said sheet material in readiness to be engaged by the next successive engageable portion of said sheet material as the latter is advanced into alignment with said stop member, and control means for causing said pivotal means to only momentarily withdraw said stop member from engagement with said sheet material, said control means comprising a manually engageable lever having an end portion extending exteriorly of said apparatus, a central portion at which it is mounted for limited pivotal movement within said apparatus and an actuating portion having a curved end section movable in an arcuate path, said pivotal means including a generally V-shaped section having a curved apex located in the arcuate path of said curved end section of said actuating portion for coacting with said curved end section during arcuate movement thereof in either direction for momentarily pivoting the last-mentioned means so as to move said stop member against the bias of said resilient means from engagement with said sheet material.

2,835,178
SHUTTER DEVICES FOR PHOTOGRAPHIC CAMERAS
Jean de Montremy, Paris, France
Application September 13, 1952, Serial No. 309,430
Claims priority, application France October 4, 1951
1 Claim. (Cl. 95—58)

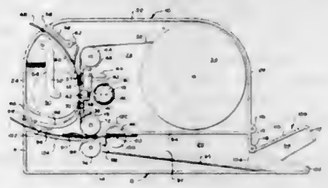
For use in a photographic camera including a casing and a lens mounted in said casing, a shutter device which

comprises, in combination, a shutter drum rotatable in said casing about an axis at right angles to the axis of said lens, said drum surrounding said lens and being provided with at least two apertures in the form of slots parallel to the axis thereof, a drum setting pinion journalled in said casing coaxially with said drum, spring means for resiliently coupling said drum with said pinion, said drum carrying, fixed to the peripheral portion thereof, two projections diametrically opposed to each other, a release member including a stop abutment for cooperating with either of said projections, said member being movable in said casing and operable from the outside thereof to retract said abutment from the path of said projections, a winding up pinion journalled in said casing and in mesh with said drum setting pinion, the ratio of the number of teeth of said winding up pinion to the number of teeth of said drum setting pinion being equal to 3/2, a portion of the periphery of said winding up pinion projecting from said casing so that it can be rotated from the out-



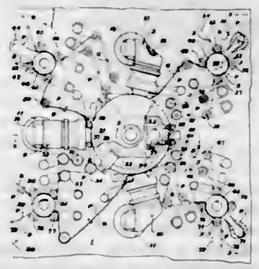
side thereof, means mounted in said casing for preventing rotation of said winding up pinion in one direction, and three identical abutments carried by said winding up pinion along respective radii thereof at 120° to one another, said last mentioned abutments being located on one flat circular face of said winding up pinion and having each one outer circumferential edge and two edges transverse to said circumferential edge the radius of said circumferential edge and the distance between said edges being sufficient to enable said abutments to cooperate with said projections so that the position in which one of said winding up pinion abutments is stopped by contact with one face of one of said projections when the other face of the other of said projections is itself stopped by contact with said release member stop abutment is such that said winding up pinion abutment will stop said second mentioned projection after it has been released by retraction of said release member stop abutment and has rotated through an angle slightly smaller than 180°.

2,835,179
PHOTOGRAPHIC APPARATUS
Murry N. Fairbank, Belmont, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application January 25, 1954, Serial No. 405,742
10 Claims. (Cl. 95—75)



1. Photographic apparatus for copying sheet subject matter and comprising, in combination, a housing defining a substantially lighttight chamber within which a supply of photosensitive sheet material is mounted and through which said sheet material is advanced, support means defining a guide surface across which said photosensitive sheet is advanced, guide means defining a curved passage in the upper section of said housing communicating with the exterior of said chamber for guiding a copy sheet through said passage into superposition with each of successive areas of said photosensitive sheet as the latter is advanced across said guide surface, closure means mounted within said passage for rendering said passage lighttight, means as mounting said closure means for pivotal movement that it may be deflected by a copy sheet to permit the movement thereof through said passage, means for holding said copy sheet in superposition with said photosensitive sheet and the latter in contact with said guide surface, the last-mentioned means including a pad roll at least the surface of which is formed of a substantially pliant material, means mounting said pad roll for movement toward and away from said guide surface and resilient means normally urging said pad roll toward said guide surface, means mounted within said chamber and including a source of illumination and shielding means for confining and so directing the light emanating from said source as to expose an area of said photosensitive sheet and the copy sheet superposed therewith to actinic light as said sheets are advanced across said guide surface and thereby form a record of said copy sheet in said area, a curved guide plate pivotally mounted adjacent said guide surface for thereafter separating said copy sheet from said photosensitive sheet during movement of said sheets across said guide surface and for guiding said copy sheet from said chamber, said guide plate providing one side of a curved passage communicating with the exterior of said chamber for guiding said copy sheet therefrom, and means located within said chamber closely adjacent said guide means for superposing a second sheet with said photosensitive sheet and so distributing a processing composition between the outer surfaces of said photosensitive and second sheets as to be capable of processing said sheets and producing a finished copy of said copy sheet, the last-mentioned means being so positioned within said chamber adjacent said guide surface that said photosensitive sheet is moved thereto from said guide surface in a light-free environment within said lighttight chamber.

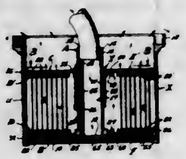
2,835,180
CONTINUOUS PRINTER FOR SOUND-COLOR FILM
John G. Capstaff, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application July 1, 1954, Serial No. 440,585
7 Claims. (Cl. 95—75)



1. A continuous printer for photographically exposing a sensitized film strip at each of a plurality of stations, comprising a drum mounted for rotation in a given plane, means located in the plane of rotation of said drum for guiding said strip into and out of driven engagement with said drum, and means at each of said stations for exposing said strip and including means offset to one side of the plane of rotation of said drum for projecting a beam

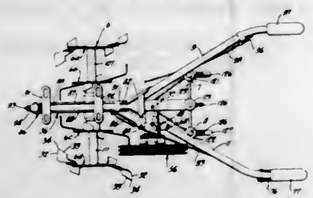
of light onto said strip, a shutter mounted coaxially with said drum and arranged upon rotation to periodically pass between each of said beam projecting means and the plane of rotation of said drum to control the period of exposure of said strip at each of said stations, a sprocket mounted coaxially with said drum to the other side of said plane of rotation, and guide means located between two adjacent stations for guiding said strip from the plane of said drum laterally into the plane of said sprocket, thence into driven engagement with said sprocket and thence laterally back into said first plane, and means mounted adjacent said sprocket for exposing a predetermined unexposed portion of said strip adjacent one edge thereof.

2,835,181
FLUID CIRCULATING FILM HANDLING REEL AND TANK
Albert R. Seeley, Los Angeles, Calif.
Application December 14, 1953, Serial No. 398,015
11 Claims. (Cl. 95—90.5)



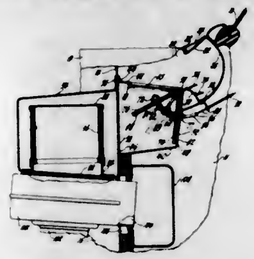
1. A fluid circulating film handling reel of the character described including, an elongate vertically disposed tubular hub having an inner wall defining a flow passage adapted to receive fluid under pressure from the upper end thereof, flanges projecting radially from the upper and lower ends of the hub, a plurality of fluid ports extending through the flanges and directing fluid axially of the reel, and a manifold plate carried by the lower flange and having a flat bottom spaced from the flange and defining a chamber in communication with the flow passage and directing the fluid under pressure to the ports and vertically through the flange.

2,835,182
GARDEN CULTIVATOR
George E. Smithburn, Berkeley, Calif.
Application April 28, 1954, Serial No. 426,079
4 Claims. (Cl. 97—40)



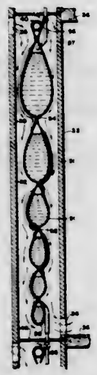
1. A walking garden cultivator comprising, a frame including a power transmission case, tiller shafts extending horizontally from opposite sides of said case, a plurality of ground tilling mills mounted on each of said shafts and being selectably removable to control the overall width of tillage, a pair of rods supported by said frame in vertical position behind said shafts and in equally spaced relation on opposite sides of said case and engaging the ground at their lower ends to resist forward travel of said mills over the ground to thereby effect tilling action, said mills and rods constituting the sole means of support of said cultivator on the ground, the mounting of said rods providing vertical adjustment thereof to aid in controlling the depth of tilling action and selective removal to balance the action of said mills, and rearwardly disposed handle means for directing said forward travel and for controlling the downward pressure on said rods, each of said mills including a plurality of circumferentially spaced tines each having a flat blade-like portion disposed substantially in the plane of rotation of said mill for cleaving the ground and an outer trailing end portion offset from said plane for tilling the ground adjacent thereto.

2,835,183
VEHICLE AIR CIRCULATING SYSTEM
Donald D. Miller, Pontiac, and Gilbert H. Wolf, Milford, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 9, 1956, Serial No. 577,018
7 Claims. (Cl. 98—2)



1. An air circulating system for a vehicle having a passenger compartment, said system comprising an outside air inlet duct, a blower and a housing connecting said inlet duct to the inlet of said blower, said blower being arranged to draw air through said duct and housing and discharge it into said said compartment, said housing having a first opening communicating with said duct and a second opening communicating with said compartment, a first valve and a second valve controlling said first and second openings respectively, and operating means connected to said valves including resilient means maintaining a predetermined maximum opening for said first valve when said second valve is open.

2,835,184
COOLING SYSTEM
Earl W. Leatherman, Akron, Ohio
Application April 20, 1955, Serial No. 502,560
6 Claims. (Cl. 98—30)



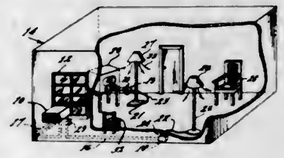
1. A cooling device which comprises a plurality of containers for water with water-permeable walls so that when the containers have water in them their outer surfaces are kept moist, means supporting one container above another, overflow means connected near the top of each for conveying overflow from each container to the container beneath it, means for introducing water into the top container, and means for conducting the air downwardly over the water-permeable walls of the container.

2,835,185
COOLING SYSTEM
Earl W. Leatherman, Akron, Ohio
Application July 30, 1956, Serial No. 600,942
4 Claims. (Cl. 98—30)



1. A cooling system which comprises an enclosure with an opening for the inflow of air near the top thereof and an opening for the outflow of air near the bottom thereof, having therein a plurality of closed evaporating units located substantially horizontally at different levels with a gooseneck overflow for liquid from each unit to the unit below it, at least a substantial portion of the containing wall of each unit being permeable to liquid, each gooseneck extending to a level above the top of the unit from which it conducts the overflow and having an opening near its top, and means for supplying evaporable liquid to the top unit.

2,835,186
AIR CONDITIONING SYSTEM
Alfred N. Goldsmith, New York, N. Y., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application June 1, 1954, Serial No. 433,615
5 Claims. (Cl. 98—33)



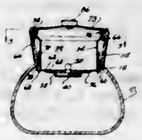
1. A spot air conditioning system comprising an air conditioning unit for cooling a room or the like and having means for cooling and dehumidifying the air and means for propelling the air from a housing for said unit, said housing having an air outlet and an air inlet, a plurality of air conduits extending from the outlet of said housing, the said conduits extending to predetermined connection outlets in said room, each of said outlets having an outlet fixture provided with a tubular body having an air closure therein, said tubular body having a bore and a counterbore containing a sealing ring projecting into said bore to form an air sealing seat for said closure, and resilient means for urging said closure to the closed position, and an air discharging outlet member for use in attachment to any one of said outlet fixtures to effect a local spot air conditioning at a point near the user without cooling substantially the balance of the room, said outlet member having a complementary connection fixture carried by the end of a flexible air hose, and said complementary fixture having a reduced portion fitting in said counterbore and engaging the other side of said sealing ring, the said complementary connection fixture having a closure engaging member projecting from its end to engage said closure and open it as the fixtures are joined.

2,835,187
AIR GRILL FOR REFRIGERATING APPARATUS
Carl M. Schell, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 2, 1953, Serial No. 395,698
3 Claims. (Cl. 98—40)



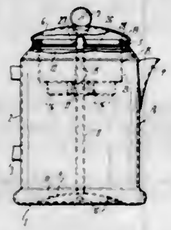
1. An air grill comprising an elastomeric element forming a plurality of elongated air passages extending from the rear face thereof to the front face thereof, said faces being shiftable relative to one another so as to vary the shape of said air passages, said air grill comprising a rigid reinforcing plate adjacent one face thereof.

2,835,188
AUTOMATIC TEA MAKER
Maurice H. Graham, deceased, late of Minneapolis, Minn., by Northwestern National Bank of Minneapolis and Maurice W. Graham, executors, Minneapolis, Minn., assignors to Maurice W. Graham and Elwood M. Graham, trustees
Application April 27, 1955, Serial No. 504,244
1 Claim. (Cl. 99—299)



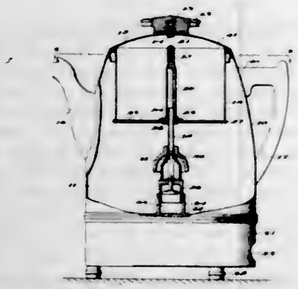
A tea maker comprising a bowl for holding a predeterminable quantity of hot water, said bowl having an enlarged body portion with a neck portion joined thereto and extending upwardly therefrom, the neck portion having a smaller diameter than the body portion whereby an internal annular ridge is effected at the juncture between the neck portion and the body portion, the neck portion being flared so as to widen toward the upper end thereof, the upper edge of the neck portion being provided with a pouring lip, a tea basket supportable within the neck portion of the basket for holding leaves and a quantity of hot water for brewing tea essence from said leaves, said basket having a perforation in its bottom wall providing egress of the essence to the bowl, the bottom wall of the basket having a circular recess strainer means adapted to fit snugly within said recess for frictional retention therein, said strainer means having a central projecting knob for manual insertion or removal of the strainer from the recess, said basket having a plurality of resilient clips connected at peripherally spaced points about the exterior thereof and extending downwardly from their points of connection to frictionally engage said ridge for removably securing the basket in the neck portion of the bowl, enabling the bowl to be tilted to completely drain the body portion of the essence over the ridge and pouring lip without displacement of the basket or the strainer means.

2,835,189
MEANS FOR BREWING COFFEE
Benjamin Becker, St. Louis, Mo.
Application April 2, 1953, Serial No. 346,397
2 Claims. (Cl. 99—310)



1. A coffee percolator comprising a pot having a removable lid, a percolator tube extending vertically through the pot, and a percolator basket mounted upon said tube, said percolator basket having a cylindrical circumferentially extending substantially vertical side wall provided with annularly spaced groups of apertures, said apertures in each group being arranged in a plurality of vertically spaced lines with the apertures of each line staggered in relation to the apertures of the other lines, said basket further having a flat bottom wall provided with a plurality of depending pockets having substantially vertical side walls which lie in planes extending radially from the center of said basket, said pockets also having side walls perpendicular to said planes so that the pockets are of trapezoidal cross-section, said pockets furthermore having substantially horizontal bottom walls, said side walls and bottom walls being provided with a plurality of apertures.

2,835,190
SELF-ELEVATING HOLDER FOR COFFE MAKER
Maurice H. Graham, Minneapolis, Minn.; Maurice W. Graham and Northwestern National Bank of Minneapolis, both of Hennepin County, Minn., executors of said Maurice H. Graham, deceased, assignors to Maurice W. Graham and Elwood M. Graham, trustees
Application February 8, 1955, Serial No. 486,916
2 Claims. (Cl. 99—310)



1. A coffee maker comprising a liquid holding vessel having a circular opening at the top, a fountain tube mounted to extend vertically upward within the vessel along the axis of the opening, a removable coffee basket within the vessel having a circular upper edge disposed concentric with the opening and having a central vertical support tube with an open upper end, said support tube being slidably mounted on the fountain tube and having an upper tube portion extending above the fountain tube, a cover for the vessel opening, means providing a detent engagement between the cover and vessel, a pump mounted on the fountain tube for pumping liquid in the vessel upwardly through the fountain tube and upper portion of the support tube to discharge the liquid under pressure from the open upper end of the support tube, a spiral spring confined in the upper portion of the support tube and acting between the fountain tube and support tube to yieldably support the basket in a normally protruding position through the vessel opening when the cover is removed and to urge the basket upper edge firmly against the cover when the cover is held in position by said detent means to provide a pressure chamber within the basket into which said liquid is discharged from the support tube.

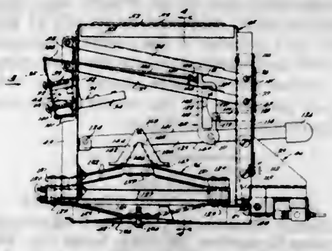
2,835,191
COFFEE BREWING DEVICE
Stanley P. Clurman, New York, N. Y.
Application February 24, 1956, Serial No. 567,627
4 Claims. (Cl. 99—322)



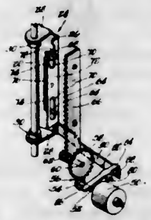
1. A device for brewing coffee in an individual cup having an annular rim, comprising a truncated, inverted hollow, imperforate conical funnel having an upper open wide end and a lower open narrow end, said funnel having a smooth inner wall, a disposable conical paper filter disposed in the funnel, said filter having a closed pointed end extending out of the narrow end of the funnel, the wide end of the funnel having integrally formed projecting clip means extending below the upper end of the filter and engaging said upper end of the filter and a plurality of flat webs integrally formed with said funnel and extending radially outward therefrom in spaced positions at the narrow open end thereof; each of said webs having a straight base portion tapering radially outwardly and upwardly from said narrow open end of the funnel to a point located radially and longitudinally between the ends of the funnel so that said narrow open end of the funnel and the closed end of the filter are both disposed below the outer end of said base portion, whereby the funnel is supported in a stable position on the annular rim of the cup and is adapted to be so supported on cups of various sizes with the narrow end of the funnel and the narrow end of the filter extending into the cup, and a foot integrally formed with said base portion and coplanar therewith, said foot flaring outwardly and downwardly and terminating with its free end beyond and below both the narrow open end of the funnel and the closed end of the filter, for supporting the funnel in an upright position above a flat surface with the feet resting on said surface.

2,835,192
AUTOMATIC TOASTER
Emil E. Sivacek, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan
Application January 7, 1955, Serial No. 480,398
29 Claims. (Cl. 99—329)

1. In a toaster, a toasting chamber, a bread carriage movable between an upper non-toasting position and a lower toasting position with respect to said toasting chamber, means for supporting said bread carriage in its non-toasting position, means for disengaging said supporting means from said bread carriage to permit the bread carriage to drop into its toasting position, a toasting interval controller, a thermal motor remote from said toasting chamber, means responsive to a signal from said controller for energizing said motor, means responsive to energization of said motor for causing re-engagement of said supporting means with said bread carriage, means responsive to said re-engagement for deenergizing said motor, and means responsive to deenergization of said motor for lifting said bread carriage into non-toasting position.



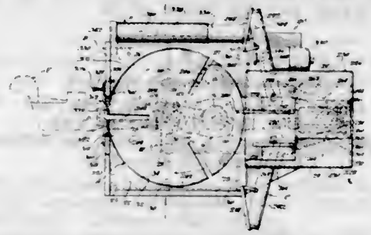
2,835,193
POWER DRIVE FOR AUTOMATIC TOASTER
Murray Ireland, Elgin, Ill., assignor to McGraw-Edison Company, a corporation of Delaware
Application July 1, 1953, Serial No. 365,425
2 Claims. (Cl. 99—391)



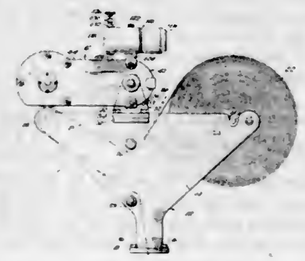
2. An automatic toaster comprising a casing providing therein a space to be heated and being apertured to receive bread slices on a support for toasting therein, a support carriage, means mounting said carriage in said casing for guided movement between toasting and non-toasting positions, means for moving said carriage between toasting and non-toasting positions and including a rotary motor having rotating shaft means including a resilient connection with said carriage for moving the said carriage in one direction, a stop member, means mounting said stop member on said carriage for movement therewith, and a brake lever pivoted on a fixed part of said casing with a first portion thereof positioned for engagement with said rotating shaft means between the motor and the carriage and having a further portion positioned in the path of movement of said stop member and operating as a positive abutment for said stop member with the resilient connection absorbing shock incident thereto whereby, upon mutual abutment between the stop member and the lever, the first portion of the lever will be urged into engagement with the rotating shaft means for frictionally stopping said motor.

2,835,194
INDEXING TURNTABLE
George A. Crosby, Park Ridge, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware
Application July 1, 1953, Serial No. 365,387
8 Claims. (Cl. 100—12)

1. Apparatus for positioning a coil of loose material such as tubing, wire, and the like for the application of a restraining band, comprising in combination a turntable adapted to support the coil during the application of the band, means rotatably supporting said turntable, drive means connected to said turntable for moving said turntable a predetermined angular distance, and power actuated means adapted to engage the coil and slide it on the surface of said turntable to properly locate it thereon for the application of the band.



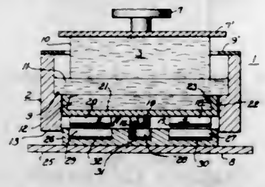
2,835,195
MARKING APPARATUS
John K. Jackson, Westfield, N. J., assignor, by mesne assignments, to Adolph Gottscho, Inc., Hillside, N. J., a corporation of New York
Original application June 21, 1950, Serial No. 169,369, now Patent No. 2,641,999, dated June 16, 1955. Divided and this application May 5, 1953, Serial No. 358,320
5 Claims. (Cl. 101—219)



1. A self-contained marking apparatus for applying repeated markings to a continuous web on any machine handling such a web and having a support over which the web is advanced; said marking apparatus comprising a stand adapted to be secured on the machine handling the web that is to be marked, a horizontal pivot pin rotatably mounted in said stand, a generally elongated frame mounted at one end on said pin to extend substantially horizontally from the latter to the location of the support over which the web is advanced, means releasably clamping said frame to said pin so that normally said frame and pin turn together relative to said stand and to permit rotational adjustment of said pin relative to said frame, a marking roller rotatably journalled in said frame adjacent the other end of the latter and having bearer rims to frictionally contact the advancing web and impart the movement of the latter to said marking roller, a helical torsion spring disposed around said pivot pin and having its opposite ends secured to said pin and stand, respectively, to yieldably urge said frame to pivot about the axis of said pin in the direction opposed to the effect of the force of gravity with a force that can be altered by rotational adjustment of said pin relative to said frame, an abutment fixed on said frame at a location that is spaced radially from the axis of said pivot pin, and an adjustable stop bolt threadably carried by said stand with the axis of said bolt extending normal to the radial plane from said abutment to said axis of the

pin and with said bolt being engageable, at one end, with said abutment to adjustably limit the angular movement of said frame under the resultant of the forces due to gravity and said torsion spring.

2,835,196
DESIGN PRINTING DEVICE
Jerome A. Herbert, Nashville, Tenn., and Joseph W. Herbert, Cincinnati, Ohio
Application February 3, 1954, Serial No. 407,903
5 Claims. (Cl. 101—333)



1. A device for printing designs and the like which comprises a frame having open ends and at least one inwardly facing wall surface between and outwardly of inwardly extending stop faces spaced from the open ends, a plunger in the frame, a rigid base member having printing pads mounted on said plunger, said plunger being movable in the frame and having a resilient compressible flexible body at least a portion of which is adapted to extend between the stop faces for reciprocation therebetween and to frictionally engage the inwardly facing wall surface of the frame to at all times frictionally resist movement of the plunger relative to the frame, said stop faces being adapted to co-operate with and limit movement of the portion of said body extending between the stop faces within said frame to provide additional resilient resistance to further plunger movement in a given direction, whereby said printing pads are advanceable into printing engagement with the surface to be decorated by actuation of said plunger and biased toward a position in which the printing pads are supported in spaced relation to said surface to be decorated, both before and after printing.

2,835,197
PRELOADERS FOR EXPLOSIVE CHARGES
Roy Douglas Ferguson, Edmonton, Alberta, Canada
Application February 9, 1955, Serial No. 487,124
2 Claims. (Cl. 102—22)



1. In a safety preloader for explosive charges set in pockets in the ground, a cylinder adapted to fit in the prepared charge pockets, said cylinder having a sealed plate dividing the cylinder into upper and lower compartments, a series of circumferential slots in the wall of the cylinder located immediately above said division plate, a removable rotatable plate of slightly less diameter than the inside of said cylinder located in the upper compartment of the cylinder and resting on the said division plate, removable handle means adapted to engage with and rotate said rotatable plate, retractable arms pivotally mounted on said rotatable plate adjacent the periphery thereof and on an axis parallel with the axis of said cylinder, said retractable arms adapted to be rotated about their pivots and be projected against one end of the circumferential slots in the wall of the cylinder and guided thereby to be projected outwardly of said cylinder to lock said cylinder in the surrounding earth when the said plate is rotated relative to the said cylinder and means to anchor the explosive charge wires below said cylinder and protected by the sealed plate closing the lower compartment of the cylinder.

2,835,198
AMMUNITION FOR FIREARMS
Heinrich Brombacher, Zurich, Switzerland
Application September 10, 1954, Serial No. 455,178
Claims priority, application Switzerland September 10, 1953
4 Claims. (Cl. 102—38)



1. A cartridge for firearms comprising a cartridge case, a plurality of projectiles and a propellant charge, said propellent charge having a plurality of adjacent portions of different burning velocity and said projectiles being arranged in end to end axial alignment of the cartridge case, at least one of said projectiles being spaced from said case by said propellent charge.

2,835,199
STABILIZED SELF-PROPELLED MISSILE
Albert L. Stanly, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application January 5, 1955, Serial No. 479,883
1 Claim. (Cl. 102—50)



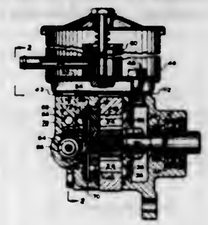
A missile assembly comprising, an airframe, a cylindrical wing detachably affixed to and cooperating with said airframe having its axis coincident with the axis of said airframe, said wing being supported by a plurality of circumferentially spaced radial struts, said struts being positioned symmetrically about and proximate to the outer surface of said airframe at a position forward of the center of gravity of the airframe, a plurality of rigid longitudinal members equal in number to the number of struts, said longitudinal members being affixed to said struts and extending proximate the surfase of said airframe substantially parallel to the longitudinal axis of said airframe, and a circular tail ring substantially equal in diameter to the diameter of the tail surface of said airframe abutting the tail surface of said airframe, said longitudinal members being affixed to said tail ring, and means for jettisoning said wing, struts, rails and tail ring from said airframe substantially as the ambient air flow past the airframe changes direction.

2,835,200
AIR CHARGING SYSTEM FOR SUBMERSIBLE PUMPS
John Mann and Allan F. Hancy, Seneca Falls, N. Y., assignors to Goulds Pumps, Inc., Seneca Falls, N. Y., a corporation of New York
Application June 30, 1953, Serial No. 365,194
2 Claims. (Cl. 103—6)



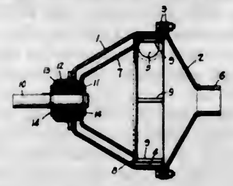
1. An air charging system for submersible type domestic water systems comprising, in combination, a pump and driving motor therefor submerged in the well, a pneumatic tank, a pressure line leading from the well to the pneumatic tank, an air measuring chamber in said pressure line located in a position accessible from the ground level, a check valve between said pneumatic tank and the air measuring chamber, means for admitting air to said air measuring chamber when the pump stops, said means including a valve independent of said check valve located adjacent the bottom of said air measuring chamber, and means extending from adjacent the top of said air measuring chamber toward the bottom thereof for supporting said independent valve and enabling removal of said valve therewith for inspection and repair, said last-mentioned means comprising a reach rod carrying said independent valve and removable cap at the top of the air measuring chamber which upon removal enables access to the reach rod.

2,835,201
POWER TRANSMISSION
Raymond B. Pettibone, Detroit, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application May 24, 1955, Serial No. 510,671
8 Claims. (Cl. 103—42)



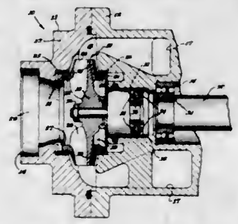
1. A fluid flow control system for delivering a controlled flow rate to a load from a variable flow rate source, comprising: a first chamber for receiving fluid from the source; a second chamber; delivery passage means extending from the second chamber and having flow restrictive means therein; baffle means separating the first and second chambers; means forming a by-pass passage opening into said second chamber to form an aperture to conduct excess flow from the source; means forming a nozzle in the baffle means establishing communication between the first and second chambers and directing flow into the by-pass passage aperture in said second chamber; valve means controlling the by-pass passage; and means for operating the valve means responsive to the pressure differential between a point in the delivery passage downstream of said flow restrictive means and a point in the by-pass passage downstream of said nozzle.

2,835,202
VORTEX PUMP
Francis W. Lauck, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application December 11, 1953, Serial No. 397,509
3 Claims. (Cl. 103—101)



1. A pump comprising a generally frusto-conical shaped casing, an axial liquid inlet in one end of said casing, a liquid outlet in the casing disposed adjacent said inlet but to one side thereof, a hollow generally conical member rotatably mounted within the casing with the open end of the conical member disposed toward the inlet opening and terminating inwardly adjacent said outlet opening with said member being free of any liquid flow restricting means on the hollow interior thereof, means extending axially outwardly from the open end of said conical member to prevent loss of velocity of the liquid in the vicinity of said outlet due to frictional resistance of said casing and means for rotating the conical member to accelerate the water within the chamber in a vortical motion and move the same in a generally helical path from the end of the member disposed farthest from said liquid inlet and toward the outlet opening, said vortical action drawing additional liquid axially into the open end of said member from said inlet and imparting a rotary motion to said additional liquid to gradually accelerate the same and produce a water flow through said pump substantially free of turbulence.

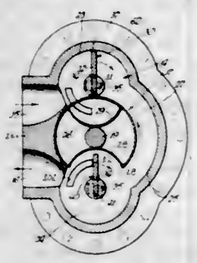
2,835,203
PUMP IMPELLER
Robert Cliborn, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application December 22, 1952, Serial No. 327,217
3 Claims. (Cl. 103—103)



1. In a pump, a housing having an inlet, a pumping chamber communicating with the inlet, a seal cavity axially inward of said pumping chamber on the side opposite said inlet, and an outlet communicating with the pumping chamber radially outward of the seal cavity, a

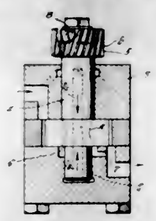
centrifugal impeller in said housing having oppositely extending axially disposed hub portions on said opposite sides thereof, said housing having axially spaced bearing means on opposite sides of said pumping chamber each engaging a corresponding hub portion of said impeller, one of said bearing means being disposed between said pumping chamber and said seal cavity, said impeller having a center inlet extending through one of said hub portions and registering with the housing inlet and an annular row of pumping passages communicating with said center inlet and extending outwardly therefrom to said outlet, said impeller having an annular row of circumferentially spaced bosses extending inwardly from its outer periphery and terminating at the other of said hub portions, each of said bosses having a pumping passage therein adjacent and independent of said annular row of pumping passages, said pumping passages in said bosses communicating with said outlet and extending radially inward from the periphery of the impeller and terminating in an annular axial recess formed in the impeller and extending through said other hub portion for communication with said seal cavity radially inward of said one bearing to evacuate the seal cavity, and said bosses having external surface portions coacting with adjoining portions of the housing to provide additional pumping means extending from adjacent said one bearing to prevent fluid from said outlet or pumping chamber entering said seal cavity.

2,835,204
ROTARY LIQUID DISPLACEMENT DEVICE
George B. Richards, Deerfield, Ill., assignor, by mesne assignments, to Liquid Controls Corporation, North Chicago, Ill., a corporation of Illinois
Application November 12, 1953, Serial No. 391,488
17 Claims. (Cl. 103—125)



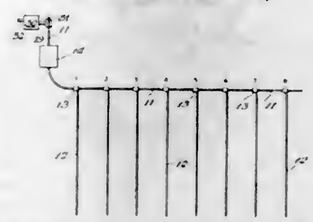
1. A rotary, positive displacement device for liquids comprising a hollow casing having two diametrically opposite wall portions defining semi-cylindrical inlet and outlet chambers respectively, inlet and outlet ports communicating with said chambers respectively, a blocking wall portion between said ports, and a wall portion connecting said chamber wall portions, a blocking rotor rotatably mounted in said casing in sealing relation to said blocking wall portion and spaced from said connecting wall portion to define therewith a passage connecting said chambers, inlet and outlet displacement rotors rotatably mounted in said chambers respectively, each having a hub positioned to pass in sealing relation to the periphery of said blocking rotor and a blade extending radially therefrom having a free edge positioned to sweep in sealing relation to the wall of the corresponding chamber, said blocking rotor having a recess in its periphery of sufficient size to allow each blade to sweep therethrough in spaced relation to said blocking rotor and of an angular extent not greater than said blocking wall portion, and means connecting all of said rotors for simultaneous rotation in predetermined angular relation, whereby said displacement rotors are successively and singly in sealing relation with said casing and each displacement rotor is in sealing relation with said blocking rotor at least while it is in sealing relation with said casing, said casing having an auxiliary port positioned to connect the portion of said recess behind said inlet rotor blade and said inlet port during movement of said inlet rotor blade out of said recess and into said inlet chamber.

2,835,205
ROTARY VANE-TYPE PUMP
Hans Erdmann, Frankfurt am Main, Germany, assignor to Alfred Teves, Maschinen- und Armaturenfabrik Komm. Ges., Frankfurt am Main, Germany
Application January 25, 1955, Serial No. 483,938
1 Claim. (Cl. 103—136)



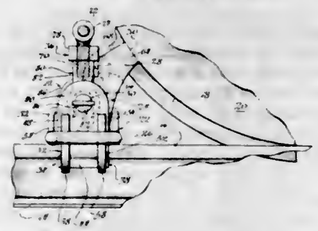
In a vane-type rotory fluid transmission pump, the combination comprising a pump stator structure, a rotor having a cylindrical shaft extending axially through said rotor, said shaft comprising a driven end portion extending from one side of said rotor and journalled in said stator structure, said shaft comprising an opposite end portion extending from the other side of said rotor and journalled in said stator structure, the opposite end portion of said shaft being of reduced diameter with respect to said driven end portion to provide an annular surface at said other side of said rotor, a channel in said stator structure for admission of pressure fluid to said annular surface, means to drive said driven end portion of said shaft comprising gears with inclined teeth that exert an axial thrust on said rotor, said pressure fluid being operative to subject said annular surface at said other side of said rotor to pump fluid pressure during starting, whereby any axial thrust imparted by said drive means during starting will be counter-acted by pump pressure exerted against said annular surface.

2,835,206
ARTICLE SORTING DEVICE
Roy C. Gordon, Oak Lawn, and Bertie S. Harrington, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
Application October 27, 1955, Serial No. 543,222
3 Claims. (Cl. 104—88)



1. An apparatus for sorting articles comprising a system of paths, said system having a main feed path and a plurality of discharge paths; a plurality of switches each positioned in said main feed path at the junction of each discharge path; means for actuating each of said switches; article supports; first means for moving said article supports; a control tape; second means for moving said control tape at a speed proportionate to the speed of said first means; a plurality of marking means corresponding in number to the number of switches and arranged in lateral placement across said control tape, each corresponding to a particular switch; and a plurality of sensing means responsive to the markings on said tape, each operatively connected with the actuating means of a switch, said sensing means being positioned laterally across said control tape in angular relationship with said marking means such that the linear distance between the marking and sensing means for any particular switch is proportionate to the actual distance of that switch in the main feed line from the point of marking, said first and second moving means being synchronized such that a chosen article support reaches its selected switch in the main feed line at the time the mark on the control tape corresponding to the chosen article support reaches the sensing means corresponding to said selected switch.

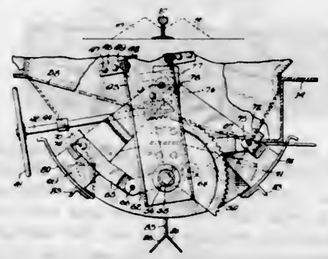
2,835,207
WHEEL RETAINER WITH SCREW ACTUATED CLAMPS
Stanley W. Hayes, Richmond, Ind., assignor to Hayes Track Appliance Company, Richmond, Ind., a corporation of Indiana
Application January 3, 1952, Serial No. 264,703
5 Claims. (Cl. 104—258)



1. A wheel retainer adapted to be mounted on a railway rail, comprising in combination, frame structure adapted to be seated on top of a rail head and including a central vertically slotted wheel abutment plate and means forming fulcrum surfaces at both sides thereof and spaced therefrom, movable clamping elements at either side of said plate with a clamping element between said plate and each of said furcrum surfaces, said clamping elements each having an aperture therein, a part engaging beneath the rail head, and an outwardly and downwardly extending cam surface engaging the adjacent fulcrum surface, a shaft extending through said slot and said clamping element apertures and being rotatable and movable vertically in said slot to move said clamping elements into and out of clamping position, a yoke having arms pivotally connected to said shaft, and a screw threaded through the closed end of said yoke and adapted to act against said central plate on a part thereof above said slot whereby when said screw is rotated in one direction said yoke raises said shaft to move said clamping elements into clamping position and when said screw is rotated in the opposite direction said yoke lowers said shaft to release said clamping elements from clamping position.

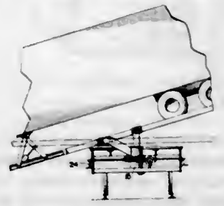
2,835,208
BALLAST CAR DOOR OPERATING MECHANISM
Clyde B. Faverty, Evanston, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application January 21, 1954, Serial No. 405,273
9 Claims. (Cl. 105—251)

9. In a ballast car adapted to run on rails and having a center sill and ballast discharge hoppers upon opposite sides of said sill, a pair of longitudinally disposed doors at the bottom of each of said hoppers, an abutment member between said doors and having deflection shields therebelow, said abutment member having a first longitudinal axis, mechanism for operating said doors including torque transmitting means along a second longitudinal axis above said first longitudinal axis, said torque transmitting means operatively connected to pendulum means pivoting about a third longitudinal axis



above said second longitudinal axis, said pendulum means operable to slide said doors in opposing transverse directions to said longitudinal axes to permit the flow of ballast through a resulting dischrage opening, said ballast being directed by said deflection shields to spread immediately adjacent a rail, said first, second and third longitudinal axes being in the same vertical plane.

2,835,209
RAILWAY CAR WITH TILTING TURNTABLE
Joseph G. Kavanaugh, Lakewood, Ohio
Application October 12, 1954, Serial No. 461,755
3 Claims. (Cl. 105—368)

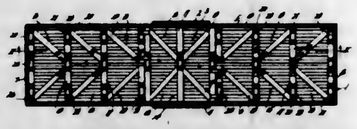


1. Apparatus for loading, unloading, and carrying a wheeled vehicle on an elevated structure, comprising, a longitudinal superstructure forming a ramp and platform, a carriage adapted to be mounted upon an elevated structure and rotatable about a substantially vertical axis, said carriage comprising a pivot and a vertically acting lift device with said pivot and lift device disposed in spaced relation to one another in a common vertical plane along the longitudinal axis of said superstructure, said superstructure being pivotally mounted on said pivot for tiltable pivoting about the pivot as a fulcrum, said lift device being interconnected to said superstructure at a distance from said pivot fulcrum, said superstructure being supported by said pivot and lift device free of any other support whereby said superstructure may be rotated in level position and tilted under fully controlled conditions at all times.

2,835,210
APPARATUS FOR SECURING CARGO AGAINST SHIFTING AND DAMAGE
Edgar F. Boyd, Adel, Ga.
Application May 19, 1954, Serial No. 430,815
5 Claims. (Cl. 105—369)

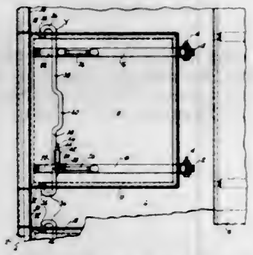
1. In apparatus for securing a cargo against shifting and damage in a transport vehicle, having a floor and walls extending upwardly from the edge portion thereof, a set of panels the bottom surface of said panels, which

engage the cargo to be held down is smooth and free from obstructions, providing a surface which will not damage cargo such as melons, arranged substantially horizontally resting upon a secured cargo, said panels having edge portions provided with substantially horizontal hinges, means for securing said hinges to some of said walls in vertically selectable position depending on the



height of the particular cargo being transported, and means for locking together the inner edges of said panels the bottom surfaces of said panels that rest upon the cargo to be held down are smooth and free from projections, providing surfaces that will not damage cargo, such as melons when folded down on same in cargo securing position.

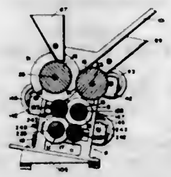
2,835,211
LATCH FOR RAILWAY CAR HATCH COVER
Joseph C. Abel, Westwood, N. J., assignor to ACF Industries, Incorporated, a corporation of New Jersey
Application May 7, 1952, Serial No. 286,563
1 Claim. (Cl. 105—377)



In a railway car construction the combination of, a car roof, a hatch frame surrounding an opening in the roof. a hatch cover member normally seated on the frame to cover the opening, hinge straps secured to the cover and pivotally mounted at one end on the car, a C shaped yoke member straddling the hatch cover when in closed position and having inturned ends pivoted to the hatch frame sides adjacent the free edge of the cover, said yoke member having a portion thereof intermediate the ends bent upwardly to provide a handle, portions of said yoke member between the handle and pivoted ends bearing on said cover member to retain the same seated on the frame, a tubular member secured to said yoke between said handle and one of said hinge straps and having its major axis in the plane of the major axes of said yoke and said handle, a bolt slidably carried by said tubular member and being of a length greater than the distance between said tubular member and said handle, and a bolt keeper secured to said cover adjacent the free edge thereof at a distance from said tubular member less than the distance between said tubular member and said handle whereby said bolt may engage and disengage said keeper and is prevented by said handle from disengaging said tubular member.

2,835,212
SHEETING APPARATUS FOR PLASTIC MATERIAL
Maurice F. Keathley, Sr., and Robert O. Manspeaker, Memphis, Tenn.
Application May 21, 1956, Serial No. 586,019
6 Claims. (Cl. 107—12)

1. In a dough sheeting machine, a plurality of roller pairs including an upper pair, an intermediate pair and a lower pair, means supporting said upper pair with their axial centers on a plane inclined from the horizontal, said upper rollers being of substantially equal circumference and disposed with one roller elevated relative to the other, additional means respectively supporting said intermediate pair and said lower pair with the axial centers of each pair lying in planes respectively substantially parallel to said inclined plane, said intermediate rollers and said lower rollers being of substantially equal circumference less than the circumference of said upper rollers, the rollers of each said pair being spaced apart, the spaces between the roller pairs being disposed along a plane inclined from the vertical to define a substantstantially diagonally disposed dough passage, a bin overlying said elevated upper roller, said bin including a substantially vertical wall extending upwardly from said

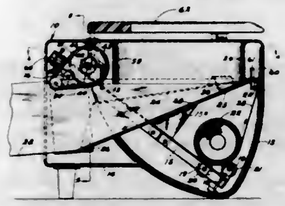


elevated upper roller and being positioned intermediate the axial center of said elevated roller and said passage, an elongated dough slab-receiving tray overlying the other of said upper rollers and extending outwardly a substantial distance beyond said other upper roller, said tray being inclined from the horizontal oppositely to the inclination of said inclined plane, disposed substantially in tangency to said other upper roller, and terminating at its inner end proximate to said passage and inwardly of the axial center of said other upper roller, means for driving said rollers at progressively increasing speeds downwardly along said passage for compressing the dough slab delivered along said tray to said passage into a sheet delivered from said lower rollers, the spacing between the successive pairs of rollers decreasing downwardly along said passage, and means for adjusting said spacings.

2,835,213
FLUXING PETROLEUM COKE SLAG
Davis A. Skinner, Fullerton, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application January 29, 1952
Serial No. 268,915
7 Claims. (Cl. 110—1)

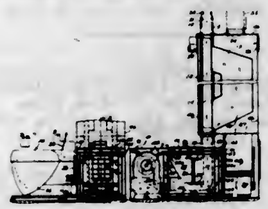
1. The method of lowering the flow temperature of petroleum coke slag which comprises admixing therewith an effective amount of sodium fluoride.

2,835,214
DRY CLOSETS
George O. Harm, Shaker Heights, Ohio
Application December 28, 1955, Serial No. 555,892
12 Claims. (Cl. 110—9)



1. Apparatus for the combustion of fecal matter comprising a closet having an opening in the top thereof, a roll of water repellent combustible film in said closet, a horizontal support for said film at the forward end of said closet and subjacent said opening, means at the forward end of said closet adjacent said horizontal support for guiding said film from said support towards the rear of said closet and beneath said opening, the portion of said film beneath and rearward said opening having the sides thereof folded upwardly and converging rearwardly towards each other constituting a trough for the reception of fecal matter, a pair of substantially vertical rollers in said closet rearward said support, spacing means between said rollers near the tops thereof, said spacing means compressively engaging said upwardly folded portion of said film against said rollers and forming it into a narrow U-shaped channel, means selectively actuatable for moving said spacing means rearwardly and rotating said rollers to pull said film beneath said opening and contemporaneously flatten the fecal matter within said U-shaped channel, an incinerator rearward said closet, a conduit constituting a passageway from said closet into said incinerator, said last named means advancing said U-shaped channel of film and the fecal matter therein through said conduit and into said incinerator.

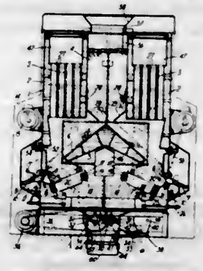
2,835,215
DRY CLOSET INCINERATOR
George O. Harm, Shaker Heights, Ohio
Application February 9, 1956, Serial No. 564,433
6 Claims. (Cl. 110—9)



1. An incinerator for the disposal of fecal matter enclosed in a strip of combustible paper comprising a firing chamber, a fuel nozzle in the side wall thereof adjacent the base of the chamber, a blower air passageway surrounding said nozzle, the wall of the firing chamber having a port therein at right angles to said nozzle for the admission of the strip of paper and fecal matter, means for feeding the strip of paper and fecal matter into the firing chamber and simultaneously igniting the fuel in said nozzle, an evaporating pan for the support of the paper strip and fecal matter during the combustion thereof disposed below said port and in horizontal aligned relation with said nozzle, an exhaust stack connected to said firing chamber below said pan, a casing around the walls of the firing chamber, and a conduit connected to said casing and enveloping the lower portion of said stack to carry off the heat in said firing chamber and to carry off the heat from said stack.

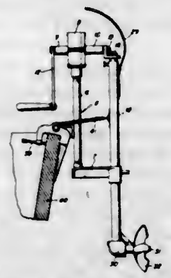
2,835,216
BOILERS
William Herbert Smith, East Molesey, England
Application January 25, 1955, Serial No. 483,919
Claims priority, application Great Britain January 25, 1954
7 Claims. (Cl. 110—165)

1. A boiler comprising a fire bed, a chamber below said fire bed, said chamber having an outlet in the bottom thereof, crusher rolls mounted in said chamber, power-operated means for intermittently ejecting clinker from said fire bed into said chamber, power-operated means for rotating said crusher rolls to crush the clinker whenever said clinker ejecting means are operated, a slide closing the outlet from said chamber, and means for operating said slide to open said outlet and allow the crushed



clinker to fall from the chamber whenever said crusher rolls are rotated.

2,835,217
MANUALLY OPERATED BOAT PROPULSION MEANS
Joseph C. Newberry, Geneva, Ala.
Application November 22, 1955, Serial No. 548,371
2 Claims. (Cl. 115—24)



1. A boat propulsion device comprising a vertical support adapted to be attached to a boat transom, attaching means on said support intermediate its ends, a horizontal arm fixed to and extending from the lower end of the support, a vertical shaft housing journaled intermediate its ends in said arm for rotation in laterally spaced relation to the support into different adjusted position, a propeller on the lower end of said shaft housing horizontally swingable into angular positions by rotation of the shaft housing, a vertical propeller shaft extending through said shaft housing and operatively connected to said propeller, a crank operative gear drive on the upper end of said support including a horizontal driven shaft, a pair of bevel gears operatively connecting the driven shaft to the propeller shaft including a bevel gear on the upper end of the propeller shaft, means suspended from the driven shaft journalling the upper end of the propeller shaft below the gear thereon to rotatably suspend the propeller shaft, and means on said suspended means and on said shaft housing rotatably supporting said shaft housing.

2,835,218
REMOTE ANGULAR POSITION INDICATOR
Richard T. Walsh, Glastonbury, Conn.
Application April 24, 1957, Serial No. 654,780
2 Claims. (Cl. 116—31)

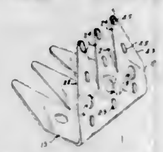
1. A position indicator for angularly adjustable members, comprising a housing adapted for mounting on the operating end of an obliquely disposed steering member for rotation with angular movements of the member, a pinion mounted in fixed position centrally of said housing, and a member freely movable about within said housing and having internal gear teeth adjacent its periphery

maintained in meshing relation with said pinion, whereby the body portion thereof will remain below said pinion



in any position of the steering wheel while being rotated by engagement with the pinion, and direction indicia on said movable member.

2,835,219
LINE MARKER
James Back, Dayton, Ohio
Application January 7, 1957, Serial No. 632,838
3 Claims. (Cl. 116—63)



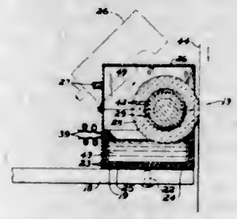
1. A line marker for streets and roads, comprising a unitary body of a resilient deformable material having a pair of planar portions at approximately right angles to one another and united at adjacent side edges, said planar portions each having upper surfaces merging at said side edges and lower surfaces merging at said adjacent side edges, said merging lower surfaces presenting a rounded contour so that the marker may readily be tilted to alternate positions in which first one and then the other of said planar portions is in an upright position, and means projecting from the lower surface of each of said portions holding elevated from the surface of the street or road the body proper comprising said line marker, said means having the character of laminations integral with said body and spaced apart over the lower surface of each of said planar portions.

2,835,220
BOOM ANGLE INDICATOR
Clarence J. Rardin, Compton, Calif.
Application September 14, 1956, Serial No. 609,880
5 Claims. (Cl. 116—124)



1. An angle indicator for the boom of a crane and the like, said indicator comprising frame structure defining a right dihedral angle, structure forming a semicylindrical surface having its axis perpendicular to one side of the angle, reference marks circumferentially spaced on the surface, an oblique bell crank pivoted on the cylindrical axis of said surface, an indicator finger on one arm of the bell crank arranged to move over the graduations, a pendulum pivoted on an axis parallel to said cylindrical axis and offset therefrom longitudinally of the dihedral angle, and a link between the pendulum and the other arm of the bell crank.

2,835,221
APPARATUS FOR COATING FIBROUS GLASS WITH MOLTEN METAL
Games Slayter, Newark, and Gerard de Piolenc, Granville, Ohio, assignors to Owens-Corning Fiberglas Corporation, a corporation of Delaware
Application May 28, 1953, Serial No. 358,048
4 Claims. (Cl. 118—202)

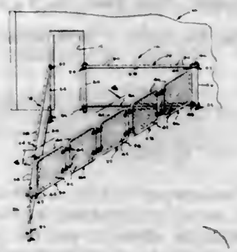


3. Apparatus for coating advancing fibers with metal comprising a receptacle for maintaining a bath of liquid metal, a hollow transfer member having a generally arcuate outer surface journalled in said receptacle and so disposed as to contact the liquid metal within said receptacle, means for rotating said transfer member with respect to said receptacle to coat said arcuate surface with a liquid metal, and stationary core means within said hollow transfer member, said stationary core means having a heating coil disposed therein for heating said hollow transfer member.

2,835,222
MASKING DEVICE FOR TIRE SIDE-WALLS
Charles N. Hall, Winfield, Kans.
Application May 28, 1954, Serial No. 433,069
4 Claims. (Cl. 118—505)

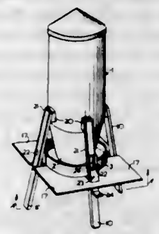
1. A device adapted for masking the tire sidewall of an automobile wheel and tire assembly during painting of the automobile comprising a disk-like, segmented annulus having an inner peripheral edge adapted to fit between the tire sidewall and the rim of said wheel in a manner to hold the annulus against the sidewall, each segment of the annulus having an arcuate transverse cross-sectional configuration substantially conforming to the sidewall of the tire, each of said segments having an end portion normally overlapping the proximal end portion of the next adjacent segment and each segment being shiftable inwardly and outwardly toward the center of said annulus whereby the diameter of the inner peripheral edge is variable, the amount of overlapping of said proximal portions of adjacent ends of the segments being substantially uniform irrespective of shifting of the segments inwardly and outwardly; yieldable means interconnecting proximal end portions of adjacent segments for urging the portions into said variable overlapping relationship; and guide means on one end portion of each segment respectively engaging the end portion of the next adjacent segment for holding the segments in a substantially common plane and preventing angular displacement of the same.

2,835,223
ENCLOSURE ASSEMBLY FOR LIVESTOCK
Lorena L. A. Erickson, Eau Claire, Wis.
Application November 9, 1956, Serial No. 621,307
2 Claims. (Cl. 119—20)



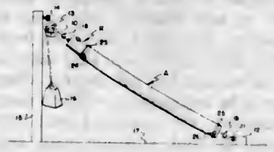
1. A three-sided structure for forming a livestock enclosure in cooperation with an existing wall having a passageway therethrough comprising a pair of side fence units each having two spaced posts vertically supportable from the ground and an upper and lower rail supported by said posts, said upper rail having spaced holes along its length, a ring encircling each of said rails and slidable along the length thereof, the rings encircling each of said top rails having an inwardly projecting lug for selective engagement with one of said holes, a gate assembly including a plurality of panels hingedly connected at the edge of adjacent panels with alternately reversed hinges to enable each of said panels to fold into face-to-face opposition with adjacent panels, and detachable connectors joining said rings to the end panels of said assembly for suspending said assembly in substantially vertical position between the selected positions of said rings on said rails.

2,835,224
ADJUSTABLE DRY-FEED HOPPER AND TROUGH
Leslie Newman, Mount Hutton, New South Wales, Australia
Application March 14, 1956, Serial No. 571,478
Claims priority, application Australia March 15, 1955
3 Claims. (Cl. 119—55)



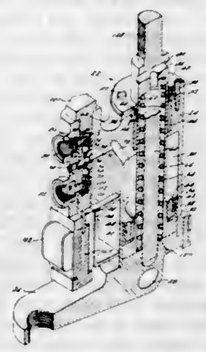
1. A dry-feed dispensing apparatus comprising supporting legs, cross-members defining an aperture at their junction, a cylindrical dry-feed bin secured to said supporting legs which in turn are connected by said cross-members to form a supporting framework, a feed tray, said dry-feed bin including a frustro-conical lower portion terminating in a gravity feed outlet defining a vertical axis and communicating with said feed tray, a cross-member within the dry-feed bin, a supporting rod suspended in the vertical axis of the feed outlet and supported by said cross-member, an adjustable screw threaded annular flange on said supporting rod, a conical feed flow control member including an apex secured to the feed tray and extending inwardly of the feed outlet and adjustably supported therewith by said adjustable screw threaded annular flange, said supporting rod extending downwardly through the aperture at the junction of the cross-members, a tiltable balanced feed platform defining a tilting axis, an upright member defining a vertical slot, a pin, feed flow actuating means consisting of a metal strip secured to the feed tray and extending upwardly therefrom, said metal strip bearing, adjacent its outer end, said pin transversely projecting and engaged in the vertical slot, said upright member being secured to a tiltable balanced feed platform at a point on its tilting axis and moveable therewith upon tilting movement of the feed platform in response to the weight of a feed-seeking entity thereon.

2,835,225
ANIMAL INSECTICIDE APPLICATOR
Robert H. Cline, Denver, Colo.
Application October 21, 1954, Serial No. 463,686
6 Claims. (Cl. 119—157)



1. An applicator for applying an insecticide solution or the like to animals, comprising an anchor and a post spaced therefrom, each embedded in the ground; a pulley on said post; a cable extending at an angle to the ground, attached at its lower end to said anchor and passing at its upper end through said pulley; a counterweight attached to the free end of said cable; an elongated roll of absorbent matting extending around said cable at a position between said anchor and said post; a clamp on said cable within said roll adjacent the upper end of the latter; a jacket for said roll formed of longer wearing material than said roll, said jacket extending beyond said roll at each end thereof; a cylindrical plug surrounding said cable and extending within the lower end of said jacket; a hollow cylindrical container extending within the upper end of said jacket and having a removable filling plug adjacent the upper end thereof; a pipe surrounding said cable and attached axially to said container, said pipe extending from each end of said container and having a hole within but adjacent the lower end of said container; and a clamp surrounding said jacket at each end and clamping said jacket respectively to said plug and to said container.

2,835,226
CONTROL UNIT
Harold F. Fehlberg, Detroit, Mich.
Application March 24, 1952, Serial No. 278,276
7 Claims. (Cl. 121—38)



1. A control for punch presses and the like comprising a cylinder, a piston mounted for reciprocation in

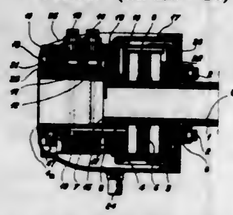
said cylinder and adapted to be operatively connected to the cycle-start mechanism of a machine tool, means forming an air passage to said cylinder at one side of the piston so that air admitted to the cylinder through said passage acts against the piston to advance the same, said passage having a bifurcated outer portion and said bifurcations forming an air inlet and an air outlet respectively, a spring coactive with the piston to retract the same when air pressure to the cylinder is shut off, a valve at the bifurcated portion of the passage for controlling the flow of air to and from said cylinder and having aligned bearings in respective bifurcations, valve seats at the outer sides of the bearings, valve members mounted to engage and movable relative to respective seats, springs behind and bearing against the valve members operative to engage the latter with said seats, a rod slidable on said bearings interposed between and mutually engaging said valve members, said rod being longer than the distance between said seats so as always to hold one valve member off its seat when the other valve member is in engagement with its seat, a solenoid having an armature for operating said valve, and an element carried by and movable with said armature forming a seat for one of said springs, the valve member associated with said spring being normally open when the solenoid is de-energized; and said solenoid, when energized, acting through the armature and the spring associated therewith to close said valve.

2,835,227

HYDRAULIC ROTARY DISTRIBUTOR AND ITS APPLICATION TO OPERATING JACKS FOR WORK-HOLDERS OF MACHINE-TOOLS

Louis J. M. Gamet, Bougival, France, assignor to La Precision Industrielle (Societe Anonyme), Rueil-Malmaison, Seine-et-Oise, France, a French company

Application March 3, 1954, Serial No. 413,891
Claims priority, application France March 9, 1953
2 Claims. (Cl. 121—38)



1. In an actuating jack associated with the work spindle of a machine, a hydraulic pressure distributor for connecting a stationary pressure liquid supply line with chambers formed in the jack cylinder on opposite sides of the jack piston; comprising a journal fast with and extending axially from the cylinder and having a cylindrical outer wall, said journal having separate axially extending passages formed therein and communicating with the chambers, said outer wall of the journal having axially spaced annular grooves formed therein and communicating with the passages, a stationary ring-like member surrounding the journal and having an inner cylindrical wall radially spaced from the outer wall of the journal to provide a thin annular duct therebetween and said inner wall and outer wall extending axially beyond the grooves, said ring-like member having radial ports in communication with the grooves, said inner wall and the outer wall at their extremities being formed with confronting annular pathways, roller bearings disposed in the pathways to support and center the journal and to maintain the annular duct in the shape of a regular annulus of uniform width, said roller bearings being in constant communication with the annular duct to be lubricated and cooled by the liquid therein.

2,835,228

PRESSURE COMPENSATOR FOR VARIABLE VOLUME PUMPS

James R. Parr and Edwin L. Shaw, Columbus, Ohio, assignors, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware

Application December 7, 1954, Serial No. 473,504
1 Claim. (Cl. 121—41)



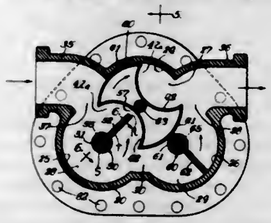
In a pressure compensator for a hydraulic pump of the type having a movable volume varying member and means tending to urge the same toward full volume position, means forming a piston and spring chambers; a piston disposed for movement in said piston chamber adapted to be operatively engaged by said volume varying member, said piston forming a valve chamber and passages extending from said valve chamber to the piston chamber and to exhaust; a valve element disposed for movement in said valve chamber, said valve element forming a passage extending between said valve chamber and said spring chamber; means forming a high pressure passage adapted to establish communication between the output port of said pump and said spring chamber, said valve element projecting into and including means exposed to fluid pressure in said spring chamber, said valve element blocking communication between said piston chamber and exhaust and between said spring chamber and said high pressure passage in one position and establishing communication between said piston chamber and exhaust through said piston passages in a second position, said valve element blocking said piston passages leading to exhaust and establishing communication between said piston and spring chambers in a third position; a relatively strong spring between said piston and valve element urging the latter toward said second position, a predetermined rise in fluid pressure in said spring chamber moving said valve element against the force of said strong spring toward said third position to admit fluid pressure from said spring chamber to said piston chamber to move said piston toward full volume position, said valve element remaining in said third position during such movement of said piston; a relatively weak spring between a wall of said spring chamber and a portion of said valve element, said second resilient means tending to oppose movement of said valve element by the fluid pressure in said spring chamber, and means for adjusting the spring effect of said relatively weak spring.

2,835,229

ROTARY POSITIVE DISPLACEMENT DEVICE FOR LIQUIDS

George B. Richards, Deerfield, Ill., assignor, by mesne assignments, to Liquid Controls Corporation, North Chicago, Ill., a corporation of Illinois

Application July 19, 1955, Serial No. 522,930
18 Claims. (Cl. 121—71)



2. A rotary positive displacement device for liquids comprising a hollow casing having inlet and outlet ports

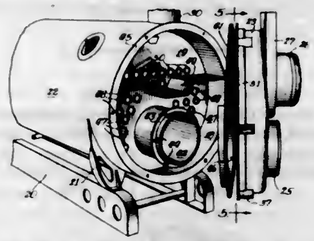
and a plurality of rotor-sealing wall portions intermediate said inlet and outlet ports, a pair of displacement rotors rotatably mounted in said casing in position to pass in sealing relation to two of said sealing wall portions respectively, each said displacement rotor being disposed to pass in sealing relation to its sealing wall portion for approximately 180° of its rotation, a blocking rotor rotatably mounted in said casing for rotation about an axis located at the intersection of perpendicular planes through the axes of said displacement rotors and having peripheral portions each of approximately 90° angular extent with alternate of said peripheral portions positioned to pass successively in sealing relation to a third of said sealing wall portions and said displacement rotors, and the remainder positioned to pass in spaced relation to said displacement rotors, and means interconnecting all of said rotors for simultaneous rotation in a fixed phase relation whereby first one and then the other of said displacement rotors is in sealing relation with said casing and with said blocking rotor, while the other displacement rotor is in spaced relation with said casing and said blocking rotor.

2,835,230

BOILER

John C. Cleaver, Frederick A. Loebel, and John F. Horvath, Milwaukee, Wis., assignors to Cleaver-Brooks Company, a corporation of Wisconsin

Application January 11, 1954, Serial No. 403,286
16 Claims. (Cl. 122—75)



1. A steam generator, comprising: a boiler shell having a large fire tube, a plurality of small fire tubes and spaced front and rear tube sheets with the tubes extending between and through the sheets, the front tube sheet being spaced inwardly of the front end of the shell; an inner door hinged to the front end of the shell and adapted to seal against means for diverting combustion products from some of the tubes into other tubes when the door is closed on the shell, said door having an opening aligned with said large fire tube; an outer front door also hinged to the boiler shell and having a burner housing and fan mounted therein, said outer front door being cup-shaped forming a plenum chamber between the inner and outer front doors for air discharged from said fan, and means for conducting air to the fan and fuel to the burner.

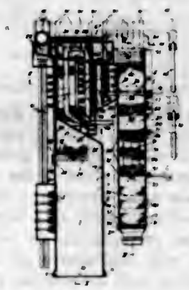
2,835,231

VAPOR GENERATING AND SUPERHEATING UNIT

Richard H. Evans, Surbiton, and Friedrich Beuthner, Hendon, England, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application May 19, 1953, Serial No. 355,994
6 Claims. (Cl. 122—478)

4. A vapor generating and superheating unit comprising walls defining a vertically elongated chamber having a heating gas outlet in the upper portion of said chamber, a laterally extending gas pass opening at one end to said gas outlet, an upright convection gas passage arranged laterally adjacent and opening to the opposite end of said gas pass, means for burning fuel in the lower portion of said chamber and producing a heating gas flow upwardly therein, a liquid and vapor drum structurally supported above said chamber, a radiant superheater located in the upper portion of said chamber adjacent said gas outlet, said radiant superheater comprising closely spaced tubes extending along a portion of said walls and having their inlet ends connected to said liquid and vapor drum, and a plurality of widely spaced tube platens distributed



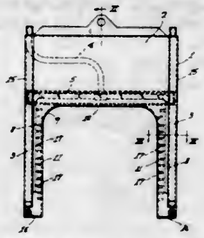
across said chamber, each of said tube platens comprising a plurality of upwardly extending horizontally spaced vapor heating tubes, means for connecting the outlet ends of said wall tubes to said tube platens for supplying vapor thereto, a primary superheater disposed in said convection gas passage and connected for series vapor flow from said tube platens, and a secondary superheater positioned in the gas entrance end of said laterally extending gas pass and connected for series vapor flow from said primary superheater.

2,835,232

FURNACE DOOR FRAME

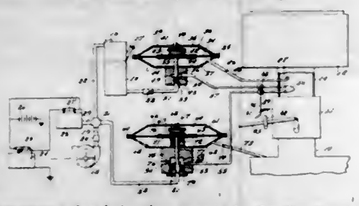
Ottwin L. Braun, Pittsburgh, Pa., assignor to Reliance Steel Products Company, McKeesport, Pa., a corporation of Pennsylvania

Application May 12, 1953, Serial No. 354,590
3 Claims. (Cl. 122—499)



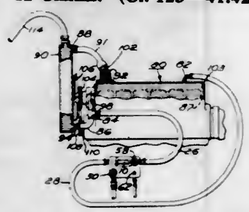
1. In a door frame for an open hearth furnace having an arch bar of inverted U-shape defining the furnace opening, front and rear plates respectively extending outwardly and upwardly from the laterally spaced edges of the arch bar and suitable connections between said plates providing connected hollow water receiving enclosures above and at each side of the arch bar, the combination of water inlets and outlets connected with the water receiving enclosures at each side of the arch bar providing continuous circulation of water therethrough, a plurality of metal heat conducting means secured to and spaced laterally and vertically of the inner face of the legs of said arch bar, said metal heat conducting means extending away from said arch bar across the path of circulation of water in said enclosures at each side of the arch bar imparting turbulence to the water and substantially uniform cooling of the face of the arch bar at the sides of the door frame opening.

2,835,233
WATER INJECTION SYSTEMS FOR INTERNAL COMBUSTION ENGINES
Jacob William Mellinger, New Holland, Pa.
Application January 6, 1956, Serial No. 557,710
16 Claims. (Cl. 123—25)



2. Apparatus for injecting water in finely divided form into the fuel system of an internal combustion engine having a carburetor with a throttle control linkage and connected to the intake manifold of the engine, comprising a source of water under pressure, a water supply connection in communication with said source of water, a source of air under pressure, an air supply connection in communication with said source of air, an attaching member at the inlet of said carburetor, a spray nozzle in said attaching member and with which said water supply connection and said air supply connection are in communication, a first pressure responsive member for controlling the delivery of water through said water supply connection to said spray nozzle, a pressure responsive detecting member in said attaching member and connected to said first pressure responsive member for positioning the same, a second pressure responsive member for controlling the delivery of air under pressure from said source of air, a fluid connection from said intake manifold to said second responsive member for controlling the positioning thereof and thereby controlling the delivery of air from said source.

2,835,234
DEVICE FOR IMPROVED CLEANING AND ANALYSIS OF ENGINE COOLING SYSTEMS
Carl H. Rasch, North Tonawanda, and Walter Swain, Colden, N. Y.
Application May 6, 1955, Serial No. 506,614
12 Claims. (Cl. 123—41.42)



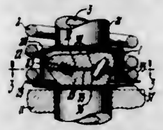
1. A unitary coupling device, in combination with an engine cooling system, a supply of pressurized air, and a supply of water under pressure, said device being arranged for detachable connection to the outer ends of a pair of hose members leading thereto from communication at their opposite ends at spaced points with the interior of said engine cooling system, a passageway provided through said device to establish communication between these outer ends of said hose members, first means at one end of said device communicating with said passageway therein for selective supply of said water under pressure therethrough, second means at the other end of said device also communicating with said passageway therein for selectively supplying said air under pressure therethrough, valve means interposed in said passageway at the juncture thereof with said second means for controlling the flow of fluid through the passageway, and a transparent wall portion being provided in the passageway so as to be integral therewith and being arranged to be visible from one side of said device for permitting visual inspection of the condition of the fluid flowing through said passageway after circulation through the engine cooling system.

2,835,235
INTAKE MANIFOLD FOR INTERNAL COMBUSTION ENGINES
Johannes Gassmann, Altbach, near Esslingen, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application June 20, 1955, Serial No. 516,741
16 Claims. (Cl. 123—52)



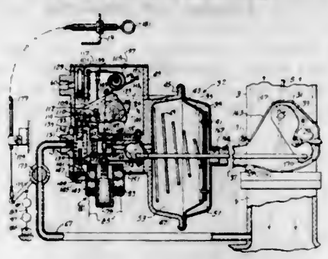
1. A conduit for internal combustion engines comprising an annular member having an inlet portion in direct communication with the atmosphere, an outlet portion, one of said portions being adjustable relative to the other portion in a peripheral direction of said annular member so as to permit an adjustment of the length of said annular member between said inlet and outlet portions, said portions being so constructed that the cross-sectional area of said annular member between said portions remains constant when said adjustable portion is adjusted.

2,835,236
VALVE ROTATOR
Morris V. Dadd, Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 16, 1954, Serial No. 416,529
8 Claims. (Cl. 123—90)



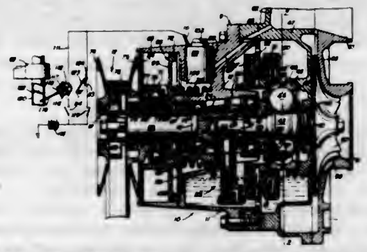
1. A device for insertion in thrust transmitting relation between two parts for inducing relative rotation of the parts about an axis in response to their relative movement toward each other along said axis, comprising a Belleville spring arranged for axial deflection about one of its marginal edges in response to said relative movement of the parts, first and second members opposite one end of the Belleville spring having surfaces in facing relation and other surfaces thrustably engageable with said end of the Belleville spring at relatively different distances laterally of said marginal edge, one of said facing surfaces being provided wtih a plurality of circumferentially spaced recesses, cams rockably seated in said recesses and normally spacing said facing surfaces apart, each said cam having freedom to rock in its recess and having a portion engaging the other of said facing surfaces in circumferentially offset relation to its recess seated portion, whereby during said Belleville spring deflection its thrust is transmitted through the member whose said other surface is laterally nearest said marginal edge and thence through said cams to the other of said members which by reason of the offset relation of the cam portions is caused to rotate relative to the Belleville spring, and resilient means reacting against one of the members and operative to rock the cams to their initial positions when said thrust is relieved.

2,835,237
GOVERNOR DEVICE
Robert H. Thorner, Detroit, Mich.
Application October 31, 1955, Serial No. 543,831
33 Claims. (Cl. 123—102)



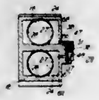
1. In a self-regulating control mechanism for automatically controlling the speed of a moving element of a machine having a magnetically permeable portion, the combination of control means to regulate the speed of movement of said moving element, a pressure responsive member connected to said control means for activation thereof, a fluid circuit connected to a source of fluid pressure and having a flow of fluid therethrough and communicating with said pressure responsive member, valve means in said fluid circuit for directing fluid therein to said pressure responsive member for effecting movements thereof, a sensing unit comprising a permanent magnet associated with a coil disposed to be mounted in operative relation to said magnetically permeable portion of said moving element for intermittent completion and interruption of the magnetic circuit through said sensing unit to generate a voltage varying as a function of the speed of said moving element, electro-magnetic means connected in a circuit with said sensing unit for producing force in said electro-magnetic means varying as a function of the speed of said movable element, a member responsive to changes in said force and connected to said valve means for actuation thereof for producing speed-restoring movements of said pressure responsive member and said control means with amplified forces acting thereon, said valve means and said force-responsive member being supported to be sufficiently sensitive to minute forces produced by small changes in the speed of said moving element to effect satisfactory automatic-speed-regulation thereof.

2,835,238
SUPERCHARGER SYSTEM FOR INTERNAL COMBUSTION ENGINES
John W. Oehrli, Los Angeles, Calif., assignor to McCulloch Motors Corporation, Los Angeles, Calif., a corporation of Wisconsin
Original application October 26, 1953, Serial No. 388,248. Divided and this application January 17, 1955, Serial No. 482,019
14 Claims. (Cl. 123—119)



1. In a supercharger system for internal combustion engines: a supercharger for delivering air to the engine; a variable ratio transmission connecting the engine shaft to the operative part of the supercharger; control means for said transmission operating in response to an increase in the pressure of received air to decrease the speed ratio of said transmission; duct means connecting said control means to the air outlet of said supercharger; valve means connected to said duct for controlling the flow of air therethrough to said control means; and means for operating said valve in accordance with changes in a condition of operation of said engine.

2,835,239
FUEL PUMP
Kenneth J. Dickrell, Chilton, Wis., assignor to Kiekhaefer Corporation, Cedarburg, Wis.
Application February 3, 1955, Serial No. 485,950
1 Claim. (Cl. 123—139)

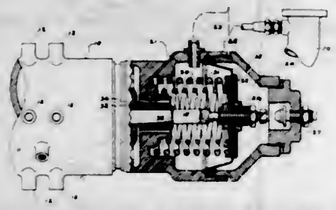


A fuel pump for supplying fuel from a fuel source to the carburetor of a two cycle internal combustion engine, said engine employing crankcase precompression and having adjacent crankcase chambers intermittently pressurized in alternate relation, comprising a first and a second chamber, a pressure responsive diaphragm extending across each of said chambers, conduit means connecting the portion of the first chamber on one side of the diaphragm to the fuel source, second conduit means connecting said portion of the first chamber with the second chamber and the carburetor, respectively, valve means controlling the flow of fuel into and out of said portion of the first chamber in response to actuation of the diaphragm therein, passage means connecting the portion of the first chamber on the opposite side of the diaphragm from the conduit means connections to one of the adjacent crankcase chambers whereby the intermittent crankcase pressures serve to flex the diaphragm to pump fuel from the fuel source into the second chamber and carburetor, respectively, and second passage means connecting the portion of the second chamber on the opposite side of the diaphragm from the conduit means connection to the other of the adjacent crankcase chambers whereby the diaphragm in said second chamber is flexed oppositely to the flexing of the diaphragm in said first chamber, said second conduit being open from said valve means to both the carburetor and one portion of said second chamber, and said second chamber being substantially smaller than said first chamber whereby only a part of the fuel discharge from said first chamber enters said second chamber and the remainder of the fuel is forced into the carburetor at a time when said second chamber is being expanded by the actuation of its diaphragm and the alternating pressures between said first and second chambers providing a relatively continuous flow of fuel to the carburetor at a relatively constant pressure.

2,835,240
CONTROL FOR FUEL INJECTION SYSTEM
Paul E. Braun, Birmingham, Mich., assignor to Studebaker-Packard Corporation, South Bend, Ind., a corporation of Michigan
Application November 29, 1956, Serial No. 625,089
4 Claims. (Cl. 123—140)

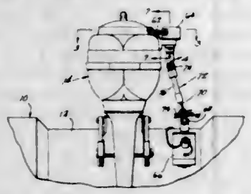
1. A control for an engine driven fuel injection distributor having regulating means for varying the quantities of the metered charges delivered by the distributor between limits corresponding to a closed position and a fully open position; said control comprising stationary structure and

a movable fluid pressure responsive element cooperable therewith to form an expansible chamber; said movable element being movable between limits corresponding to the limits of said distributor regulating means; said chamber having an opening to provide for fluid pressure communication between said chamber and an air intake manifold; connecting means operably attached between said movable element and said distributor regulating means; said movable element being responsive to a decrease in pressure in said chamber to move said connecting means in a direction to decrease the fuel delivered by said distributor; first, second and third resilient means operably disposed between said supporting structure and said movable element for biasing said movable element in



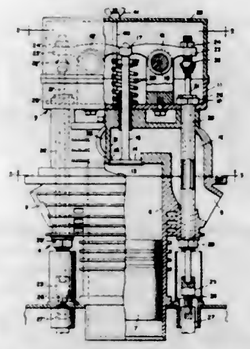
a direction to increase the fuel delivered by said distributor; said first resilient means being in operably biasing engagement with said movable element during the travel of the movable element from a closed position to a first intermediate position, said second resilient means being in operable biasing engagement with said movable element during the travel of the movable element from a closed position to a second intermediate position, said second intermediate position being between said first intermediate position and said fully open position, and said third resilient means being in operable biasing engagement with said movable element during the entire travel of said movable element between its closed and fully opened positions.

2,835,241
ENGINE STARTING DEVICE
Jerry R. Brooks, Gainesville, Tex.
Application September 16, 1955, Serial No. 534,747
2 Claims. (Cl. 123—179)



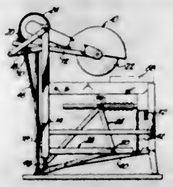
1. In an outboard motor assembly, an outboard motor having a head at its upper end and a shaft having an upper end projecting above the head and a transom bracket spaced below said head, a bracket secured to and projecting laterally from said head, a bearing block mounted on said bracket and adjustable toward and away from said head, a starter shaft having an upper end portion mounted in said bearing block, an over-running operative connection between the upper end portion of the starter shaft and the upper end of the motor shaft, said starter shaft having a lower end portion, a starter motor operatively secured to the lower end portion of the starter shaft, and a transom mounting bracket on said starter motor, said starter shaft comprising a vertically extensible intermediate portion between said upper and lower end portions of the starter shaft, said intermediate portion having upper and lower ends universally connected to the upper and lower end portions of the starter shaft.

2,835,242
VALVE IN HEAD FOR INTERNAL COMBUSTION ENGINE
Harold L. Jenkins, Charleston, W. Va.
Application July 3, 1956, Serial No. 595,794
1 Claim. (Cl. 123—191)



A process for converting a T-head engine to a valve-in-head engine which comprises removing the head, inlet and exhaust valves and valve guides from the engine, fitting on the block a valve-in-head to relocate the entire firing chamber of the engine directly above the piston, adding valve operating members for actuating the valves in predetermined sequence, and blocking off the exhaust port in the engine block and exhausting the products of combustion through a port in the engine head.

2,835,243
PRESSURE EQUALIZER ASSEMBLY FOR MASONRY SAWS
John R. Harclerode, Kansas City, Mo., assignor to Clipper Manufacturing Company, Kansas City, Mo., a corporation of Missouri
Application September 10, 1956, Serial No. 608,770
8 Claims. (Cl. 125—13)

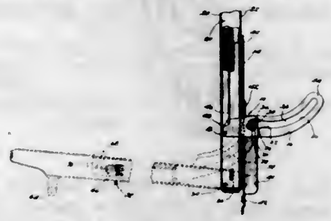


1. In a machine of the kind described, a swingable cutter assembly having an opening on one side of its axis of swinging movement; a reciprocable actuator for said assembly extending into said opening; a stop secured to the actuator on one side of the opening; a spring between the assembly and the actuator on the opposite side of the opening for yieldably holding the stop in engagement with the assembly; and releasable means engageable with the stop for locking the latter against the assembly.

2,835,244
DOOR MECHANISM
James O. Rop, Grandville, Mich., assignor to Jervis Corporation, Grandville, Mich., a corporation of Michigan
Application April 1, 1955, Serial No. 498,492
5 Claims. (Cl. 126—191)

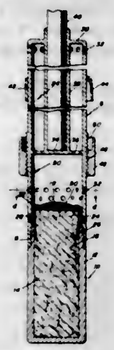
5. A cooking range comprising a cabinet defining an oven with a front opening therein, a hollow panel having spaced inner and outer walls and a peripheral interconnecting will, panel supports extending from said cabinet adjacent said opening, said panel being hingedly mounted

thereon for movement between a generally vertical closed position and a generally horizontal open position and position maintaining means for said panel comprising an arm pivotally mounted within said panel at a point removed from the hinge axis thereof and extending into said cabinet, a roller mounted within said cabinet, said arm having an arcuate slot and a contiguous generally straight slot portion formed therein through which said roller passes, said slot portion forming an acute angle with a line connecting the pivot point of said arm with the



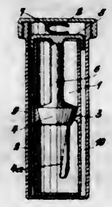
portion of said slot portion which joins said arcuate slot, and spring means within said panel having one end thereof secured to said arm at a point intermediate the pivot point thereof and said arcuate slot, said spring extending in said hollow panel away from said hinge axis, the other end of said spring being secured in said panel whereby said spring is normally under tension to produce frictional engagement between one edge of said arm adjacent the arcuate slot and the surface of said roller.

2,835,245
HEATED FISHING ROD HANDLE
Clyde A. Morgan, Helena, Calif.
Application May 25, 1956, Serial No. 587,255
2 Claims. (Cl. 126—208)



1. A handle for a fishing rod comprising a hollow body having an axial socket member at one end for reception of an end portion of a fishing rod and having an apertured partition transverse to and internally arranged to divide the body into a plurality of circulating chambers, the inner end of said socket being joined to the central portion of said partition, the wall portions of said chambers having a plurality of venting and circulating ports, said body being open and internally screw threaded at its opposite end, and a heater unit screwed into said screw threaded end, said unit being of cartridge-like construction and comprising an imperforate case closed at its bottom and open at its top and filled with cotton wadding, a screen seated atop said cotton wadding, a wick superimposed on said screen, an assembling and retaining cap for said screen and wick, said cap having a lower end portion telescopically and removably fitted into the upper end portion of said case and having an apertured upper portion encasing a portion of the cotton wadding and the marginal edge portions of the screen and wick, respectively, and also having a lateral turned-in lip overhanging the marginal edge portion of said wick and retaining said wick and screen in co-operating relation with each other as well as with said cotton wadding.

2,835,246
HANDLING MEDICAL SPECIMENS
Paul Boettger, Offenbach (Main), Germany
Application December 22, 1954, Serial No. 476,940
15 Claims. (Cl. 128—2)

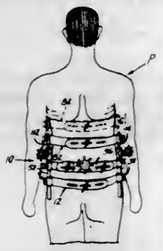


1. A container assembly for medical specimens, comprising, in combination, an inner container made of a plastic material and having an inside wall; means cooperating with said inner container for tightly closing the same and for introducing a medical specimen into the same, said means comprising a cover removably carried by said inner container for closing and tightly sealing the same, a projection carried by said cover and extending from the latter into the interior of said inner container, at least one sealing member carried by said projection in said inner container and spaced from said cover, said sealing member abutting against the entire length of an annular inner surface portion forming part of said inside wall of said inner container so as to tightly close an interior portion of said inner container located at the side of said sealing member opposite from said cover, said projection extending beyond said sealing member into the tightly closed interior portion of said inner container and terminating in said tightly closed interior portion in a free end portion which is adapted to receive a medical specimen, so that said cover together with a medical specimen on said free end portion of said projection may be mounted on said inner container to locate said medical specimen in said tightly closed interior portion of said inner container; an outer container removably receiving said inner container; and closure means removably carried by said outer container and engaging said cover for closing said outer container and for urging said cover of said inner container to a position closing said inner container.

2,835,247
LUMBAR TRACTION APPARATUS
Ludwik M. Stabholc, Nathania, Israel
Application August 28, 1956, Serial No. 606,592
5 Claims. (Cl. 128—78)

1. Lumbar traction apparatus comprising a lower support belt assembly including means for fixedly securing the same about the lower waist portion of a patient to be treated, an upper belt assembly including means for fixedly securing the same about the upper waist portion of the patient, traction control means extending between the belt assemblies on opposite sides thereof for urging the belts apart and applying traction to the patients lower lumbar region, and an intermediate lordosis pad assembly interposed between the belt assemblies for engagement of an intermediate portion of the patients back for controlling forward convexity of the patients spine, said traction control means comprising a

pair of spaced laterally extending sleeve elements on the outer surface of the lower belt assembly, a pair of tubular guides reciprocably retained in the sleeve elements, a pair of force transmitting rods telescopically received in the tubular guides, means on the tubular guides adjustably



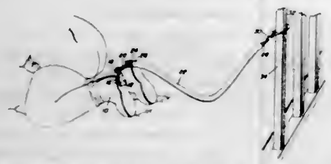
engaging said rods for extending and retracting the same, and a pair of spaced laterally extending sleeve elements on the outer surface of the upper belt assembly reciprocably retaining the upper end portions of the force transmitting rods therein.

2,835,248
CUSHIONING DEVICE AND METHOD OF MAKING THE SAME
Frank J. Scholl, Chicago, Ill., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York
Application January 13, 1954, Serial No. 403,724
6 Claims. (Cl. 128—80)



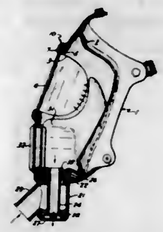
1. In a cushioning device, an integral blank cut from a sheet of cushioning material and comprising a pair of generally oval and non-aligned sections connected by a narrow curvate neck portion, wherein a single revolution rotation of one section to the other and the bonding of the sections in face to face relationship fashions the neck portion into a digit loop for fitting flatly around the digit of a user.

2,835,249
BABY TENDER
Benny Brandano, Mohawk, N. Y.
Application May 20, 1954, Serial No. 431,111
1 Claim. (Cl. 128—134)



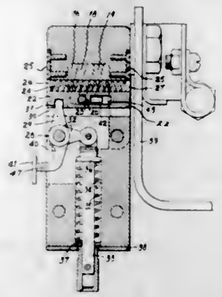
A restraining device for a baby for use in combination with a baby's shoe comprising a plate and shoe having a heel, said plate having a plurality of apertures therethrough, shoe nails extending through said apertures fastening said plate to said heel of said shoe, an eye member attached to said plate, a strap, and a snap fastener secured to one end of said strap detachably securing said strap to said eye member, said eye member extending outwardly beyond said shoe, said eye member being integrally formed with said plate and extending angularly upwardly with respect to said plate.

2,835,250
MASK FOR BREATHING APPARATUS
Harry W. Austin, Monroeville, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 30, 1956, Serial No. 600,825
11 Claims. (Cl. 128—141)



1. A mask comprising a flexible facepiece provided with a longitudinally curved ocular opening extending across it, a thick flexible bead joined to the facepiece and extending around the outside of the opening, a longitudinally curved lens surrounded by the bead, the bead being provided with a slot receiving the marginal portion of the lens and with a shoulder around the outer edge of the bead, there being a groove around the outside of the bead where it joins the facepiece, and clamping means surrounding the bead and pressing said shoulder and the base of said groove inwardly to hold the base of said slot tightly against the edge of the lens, the portion of said bead surrounding the edge of the lens being spaced from said clamping means, whereby said means exerts no pressure inwardly against the edge of the lens.

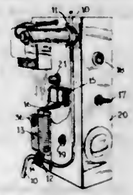
2,835,251
DISCONNECTS FOR ELECTRIC CIRCUITS AND AIR AND OXYGEN SUPPLY CONDUITS
John V. Oliveau, Greenwich, Conn., assignor to The Aerotec Corporation, Greenwich, Conn., a corporation of Connecticut
Application October 3, 1956, Serial No. 613,785
7 Claims. (Cl. 128—142)



1. A disconnect for a suit of aircraft personnel and for triggering an emergency oxygen supply to said suit which comprises a lower part and an upper part separable therefrom, said lower part having an upwardly extending locking blade having an upwardly opening U-shaped groove in one side face, said upper part having a slot extending upwardly from the bottom of said upper part to receive said locking blade, a horizontally slidable shuttle in said upper part having a pin extending from one side to move in said U-shaped groove to lock said parts together when said pin extends into the bight of said groove, a spring to hold said shuttle in midposition, manually operable means to move said shuttle forwardly against the action of said spring to bring the pin into

alignment with the forward branch of said groove, means to move said shuttle rearwardly upon upward movement of the disconnect to bring said pin into alignment with the rear branch of said groove, and a triggering mechanism having an operating element engaged by the shuttle on its rearward movement from central position to trigger an emergency oxygen supply and disengaged from said shuttle on movement forwardly from central position.

2,835,252
MONITOR APPARATUS FOR BLOOD TRANSFUSIONS
Sydney Bertram Mauchel, Saskatoon, Saskatchewan, Canada, assignor of one-half to James B. McFadyen, Monrovia, Calif.
Application June 6, 1955, Serial No. 513,419
5 Claims. (Cl. 128—214)



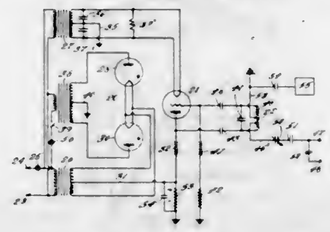
1. In a monitor of flow of fluid in a delivery tube, control apparatus responsive to detection of the presence of gas bubbles in the fluid and effective to arrest the flow thereupon, comprising an analyzer adapted to have a portion of the length of the tube passed therethrough, a source of light, a collimating aperture disposed adjacent said length of tube to direct incidence of light upon an exterior wall area thereof, a photocell disposed to receive such light as is transmitted through the fluid from said source, a spring-biassed clamp located downstream of the analyzer having a jaw actuatable between a cocked or open position and a tripped or closed position, said clamp being adapted to be held in the open position by a latch, a retaining finger associated with the clamp for positioning the tube in the line of action of the jaw, a solenoid having an armature, a detent carried thereby and cooperating with the latch to restrain closing of the jaw when the solenoid is de-energized, and means responsive to detection by said photocell of an increase in light transmitted through the fluid in the analyzer to energize the solenoid and tc trip the said latch.

2,835,253
SURGICAL APPLIANCE
Sidney E. Borgeson, deceased, late of Westfield, N. J., by Florence W. Borgeson, executrix, Westfield, N. J.
Application August 14, 1956, Serial No. 603,896
9 Claims. (Cl. 128—303)



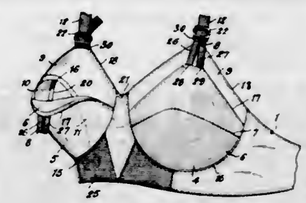
1. A cassion for surgical purposes comprising a ring-like member having a relatively flat end face adapted to engage the surface of the membranous tissue about the zone where a surgical operation is to be performed, a pliable tubular sleeve member secured at one end to said ring-like member, means at the other end of said tubular sleeve member for securing same about a finger of an operator, and means at said flat end face of the ring-like member for attaching the ring-like member to the tissue to anchor the ring-like member in place and to form a seal about the incision to be made by the cassioned finger of the operator.

2,835,254
DEVICE FOR PERFORMING SURGICAL INCISIONS BY ELECTRONIC ENERGY
William A. Coles, Upper Darby, Pa.
Application December 17, 1953, Serial No. 398,741
1 Claim. (Cl. 128—303.14)



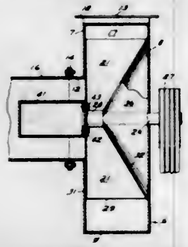
In a device for making an incision in live tissue without shock and without damage to tissue which will prevent normal healing, a full wave rectifier, circuit means connecting the full wave rectifier to a source of alternating current at normal frequency, a power vacuum tube connected to the output side of the full wave rectifier, a tank circuit having a capacitative reactance and an inductive reactance connected to the output side of the power vacuum tube and connected to be in resonance, auxiliary blocking condensers between the tank circuit at each side and the power vacuum tube, an electrode terminal connected to the inductive reactance, and adapted to receive an incision electrode, a dispersive electrode connected to a spaced point on the inductive reactance, and blocking capacitative reactance in series between the inductive reactance and the electrode terminal and between the inductive reactance and the dispersive electrode, and a variable capacitative reactance between the inductive reactance and the electrode terminal.

2,835,255
BRASSIERES
Victor I. Becker, Los Angeles, Calif.
Application March 6, 1956, Serial No. 569,822
2 Claims. (Cl. 128—484)



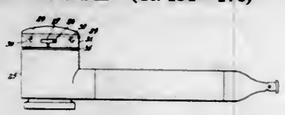
1. In a brassiere, a breast cup composed of inner and outer fabric sections, the outer section being of cupped shape, the inner section being of substantially inverted U-shape having a central gradually-widening opening extending downwardly from a point above the center of the cup to the lower end of the same, said opening being bordered by spaced parts at its lower end, which parts at the lower end define the widest part of the opening, a double loop connecting the top of the inner section to the top of the outer section, said double loop consisting of separate straps having their ends secured in overlying relation and at one point to the top of the inner section and having their opposite ends spread apart and secured in spaced relation to the top of the outer cupped section, a fastening element through which said double loop is slidable, and a shoulder strap adjustably secured to the fastening element.

2,835,256
THRESHING FAN
Robert E. Rogers, Sausalito, and Henry V. Lea and Frederick L. Hill, Rio Vista, Calif., assignors to Harvestaire, Inc., Oakland, Calif., a corporation of California
Application May 9, 1955, Serial No. 507,004
1 Claim. (Cl. 130—27)



Material moving and air threshing apparatus comprising a generally cylindrical casing having a substantially axially aligned inlet opening and a tangentially directed outlet opening disposed normal to said inlet opening, a rotatable fan disposed within said casing and including a plurality of equally spaced radially extending blades, each of said blades having a substantially straight leading edge disposed adjacent said inlet opening and a rear edge converging from the axis of rotation upwardly and outwardly towards the distal end thereof, a generally imperforate conical member fixedly positioned within said casing adjacent the trailing edges of said blades, and a cylindrical element secured to the leading edges of said blades and extending axially forwardly thereof.

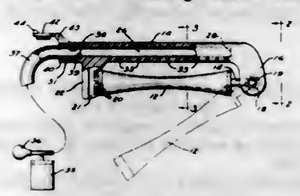
2,835,257
COVERS FOR SMOKING PIPES
Otto A. Kaparin, Little Ferry, and Ernest Kaparin, Clifton, N. J.
Original application April 6, 1954, Serial No. 421,412. Divided and this application November 29, 1954, Serial No. 471,706
1 Claim. (Cl. 131—176)



In a device of the class described, a pipe bowl formed with recesses at the top of its outer surface, a detachable cover mounted on said bowl, a pin protruding from the outer side of said bowl, a flange upon the cover, the inside of said flange having recesses adapted to register with the recesses of said bowl, and an annular shoulder formed within the cover and concentric with the flange of the latter and seating on the top of said bowl, said cover having a channel between the shoulder and said flange, the shoulder being formed with cut-away portions therethrough connecting the inner center of the cover with a channel; and said cover having a bayonet slot adapted to cooperate with said pin, whereby, when in adjusted position, to convey air to the interior of the pipe bowl.

2,835,258
MEANS FOR COLD PERMANENT WAVING OF HAIR
George F. Noel, South Euclid, Ohio
Application April 18, 1956, Serial No. 579,082
4 Claims. (Cl. 132—33)

1. A hair curler comprising a frame member having end legs and an interconnecting barrel part, a mandrel on which a coil of hair is adapted to be wound, said mandrel being pivotally connected to one of said legs and detachably connectable to the other leg to extend parallel to and spaced from said barrel part, said barrel part having a channel therein, said channel being closed at one end and open at the other and extending at least the length of the mandrel through said barrel part, said



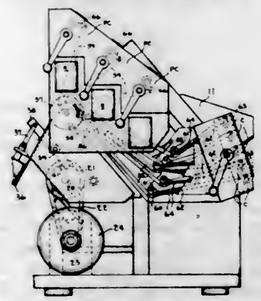
barrel part having a plurality of longitudinally spaced apertures in the side of the barrel part proximate to said mandrel, said apertures communicating with said channel and the exterior of said barrel part, and means for injecting a hair waving solution into said channel and through said opening whereby to direct the solution through said apertures into the exterior of the coil of hair on the mandrel.

2,835,259
ARTIFICIAL EYELASHES
Margaret Bertrand Goodman, New York, N. Y.
Application November 3, 1954, Serial No. 466,587
6 Claims. (Cl. 132—53)



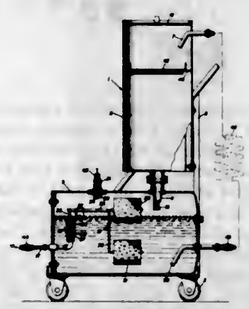
1. An integral one-piece artificial eyelash unit, formed by slitting and slotting a thin sheet of material with an adhesive border at one side and outwardly projecting eyelash colored thin narrow flat rectangular cross section strips at the other side, said strips and said border being integrally joined and being formed from the same thin sheet of material without separation of the strips and the border.

2,835,260
COIN SORTING AND COUNTING MACHINE
Arnold Richard Buchholz, Watertown, Wis., assignor to Brandt Automatic Cashier Company, Watertown, Wis., a corporation of Wisconsin
Application February 11, 1954, Serial No. 409,598
3 Claims. (Cl. 133—8)



1. In a coin sorting and counting machine including a rotatable sorting member and means for rotating said member, the combination of a counter, a continuously rotating shaft having a drive connection, counter drive mechanism including an oscillatory member operatively connected to said counter, a lever for oscillating said last named member, and an oscillatory and reciprocable spring returned clutch member for operating said lever, and means for connecting said clutch member with the drive connection of said shaft for operation of said lever including a lever and a solenoid operatively connected to said last named lever, a current supply circuit for said solenoid including a switch, and means operable by a sorted coin for controlling said switch.

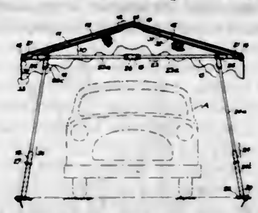
2,835,261
PORTABLE LIQUID LINE FLUSHING DEVICE
Selmer F. Wogan, Montevideo, Minn.
Application November 15, 1956, Serial No. 622,501
8 Claims. (Cl. 134—56)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A cleaning device for flushing line systems comprising a reservoir for storing cleaning solution; an inlet to said reservoir adapted for connection to one end of said line system; an air-tight flushing tank below said reservoir; an outlet from said flushing tank adapted for connection to the other end of said line system; a passageway from said reservoir to said flushing tank; a check valve in said passageway controlling the flow of said cleaning solution from said reservoir to said flushing tang, said check valve being adapted to close when pressure within said flushing tank exceeds atmospheric; an air conduit to said flushing tank for supplying high pressure air to said flushing tank; a valve in said conduit, said valve being normally closed by said high pressure air; a float mechanism in said flushing tank and controlling said air valve, said float mechanism being so adapted as to open said air valve against said air pressure when said solution is at its maximum level and to maintain said air valve open until said solution is at its minimum level so that said solution is forced by said air through said outlet and line system to said reservoir through said inlet.

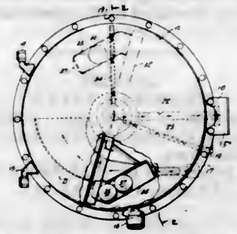
2,835,262
PORTABLE SHELTERS
Robert C. Collins, Waukesha, Wis.
Application August 26, 1954, Serial No. 452,337
2 Claims. (Cl. 135—3)

1. In a portable shelter frame structure, a roof frame including a ridge bar and parallel side bars and rafter bars connecting said ridge bar and side bars, said ridge bar and side bars each comprising a plurality of aligned tubular bar sections, connector fittings detachably joining the bar sections of the ridge bar and side bars and detachably joining the rafter bars to said ridge bar and side bars, a plurality of spaced cross beams connecting said side bars, each cross beam including a pair of aligned, detachably connected tubular bar sections and further including detachably connected terminal connector fittings, said last-named fittings each including a horizontal sleeve and a downwardly projecting leg socket, said sleeves being open at both ends and slidably receiving said side bars therethrough in detachably secured



relation, the ends of said roof frame side bars projecting from said sleeves, and supporting legs detachably secured to said leg sockets, each cross beam and connected supporting legs forming a leg frame shiftable to selected positions along said side bars.

2,835,263
LIQUID STORAGE TANK FOR VEHICLES
Walter C. Klank, Jr., Dayton, Ohio, assignor to United Aircraft Products, Inc., Dayton, Ohio, a corporation of Ohio
Application September 27, 1955, Serial No. 536,834
5 Claims. (Cl. 137—45)

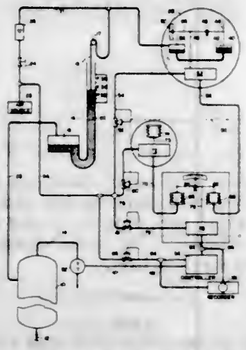


1. An oil tank, comprising a shell enclosure holding a body of oil, a stationary hub mounted on said shell in an intermediate transverse plane, said stationary hub being formed with separated chambers, means for separately communicating said chambers to the exterior of said tank shell, pendulum hub means rotatable on said stationary hub, oil pick-up means including an oil pick-up tube extending outward in the tank from said pendulum hub means, a venting tube extending outward in the tank from said pendulum hub means, said tubes separately communicating with respective chambers in said stationary hub and said venting tube being circumferentially spaced from the center of gravity of said oil pick-up means a distance of approximately 180°, and means locating the center of gravity of said oil pick-up means in circumferential offset relation to said oil pick-up tube.

2,835,264
APPARATUS FOR MEASURING OR CONTROLLING A PHYSICAL QUANTITY
Harold J. Woodley, Whitby, Ellesmere Port, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application October 22, 1956, Serial No. 617,341
Claims priority, application Great Britain November 1, 1955
8 Claims. (Cl. 137—81)

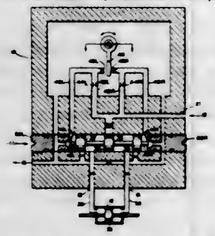
1. Apparatus for controlling the fluid pressure in a vessel having a fluid supply conduit and a fluid discharge conduit, said apparatus comprising a liquid manometer having a low level side closed to atmospheric pressure and a high level side open to atmospheric pressure, a fluid

pressure conduit connected between the vessel and the low level side whereby the liquid level in the high level side is proportional to the fluid pressure in the vessel, a continuous purge bubble-type liquid level transmitter in communication with the liquid level in the high level side of the manometer, said transmitter being adapted to generate and transmit a pneumatic signal proportional over a



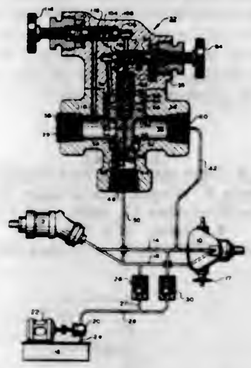
magnified pressure scale to variations in the fluid pressure in the vessel, and a pneumatically operated valve in one of said conduits for controlling the flow through said conduit, said valve being pneumatically connected to said transmitter for controlling the fluid pressure in the vessel in response to the value of the pneumatic signal from said transmitter.

2,835,265
TRANSFER VALVE
Jack M. Brandstadter, Royal Oak, Mich., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application November 16, 1955, Serial No. 547,097
2 Claims. (Cl. 137—82)



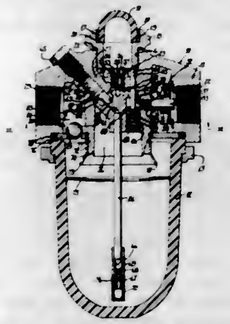
1. A transfer valve comprising two pairs of magnetic poles of opposite polarity, an armature, and a coil encircling said armature, the ends of said armature extending beyond said coil, whereby one end is in close proximity with one pair of said poles and the opposite end is in close proximity with the other pair of said poles, said coil magnetizing said armature whereby said armature swings toward one of said poles when magnetized by a signal of one sense and swings toward the opposite pole when magnetized by a signal of opposite sense, a housing, fluid operated means including a pair of fluid discharge nozzles in said housing, control means for differentially varying the flow through said nozzles, and means responsive to said difference in fluid flow for amplifying the power due to said difference, and means connecting said armature and fluid control means for actuating the latter by the former including a shaft connecting said armature and fluid control means, a torque tube connected at one end to said shaft and at the opposite end to said housing for isolating said electrically and fluid operated means and maintaining said armature and said control means in a position centered relative to said poles and nozzles for a no-signal condition.

2,835,266
POWER TRANSMISSION
George W. Morte, Odessa, Tex., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application March 24, 1955, Serial No. 496,486
8 Claims. (Cl. 137—108)



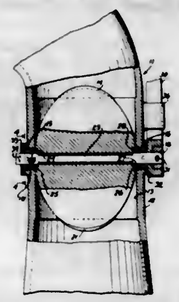
1. Pressure regulating mechanism comprising in combination means forming a flow passage having terminal connection ports either of which is adapted to be a high pressure inlet port while the other is a low pressure relief port, a main valve shiftably interposed in the passage resiliently biased to a position closing the passage and forming two control chambers, said control chambers being independently connected to the passage on opposite sides of the valve, means forming two pairs of opposed valve operating surfaces, one surface of each pair of surfaces being respectively exposed to pressure in the control chambers and the remaining opposed surface of each pair of surfaces being respectively exposed to pressure in the passage on opposite sides of the valve, and separate pilot control valves independently connected to the control chambers, each pilot valve being responsive at a predetermined pressure in its associated control chamber to vent said chamber to a low pressure source for unbalancing the pressures on the pair of operating surfaces associated therewith for causing the main valve to be operated and open the passage.

2,835,267
AIR LINE LUBRICATOR
Hilmar A. Andresen and Raymond H. Andresen, Barrington, Ill., assignors to Gits Bros. Mfg. Co., Chicago, Ill., a corporation of Illinois
Application December 31, 1953, Serial No. 401,636
1 Claim. (Cl. 137—110)



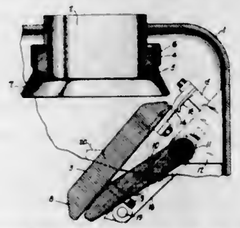
In a dual path fluid flow unit, a body having an inlet passage, a wall facing said inlet passage and a valve seat about said inlet passage facing said wall, a tubular member projecting from said wall centrally into said inlet passage, a valve member having a central aperture receiving said tubular member, and a helical compression spring disposed between said wall and said valve member, said tubular member providing communication with one of the fluid flow paths with the valve member movable away from said seat to establish communication between the inlet and the other of the fluid flow paths.

2,835,268
BUTTERFLY VALVE CONSTRUCTION
Raymond E. Dillberg, Temple City, and James R. Garner, Corona Del Mar, Calif., assignors to Clary Corporation, San Gabriel, Calif., a corporation of California
Application August 22, 1955, Serial No. 529,805
2 Claims. (Cl. 137—315)



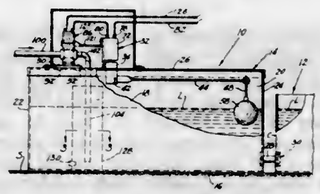
1. A valve comprising a tubular conduit member having opposed bearings therein, eccentric bushings rotatably adjustable in said bearings, said bushings having eccentrically located bearings therein, a valve shaft rotatably mounted in said last mentioned bearings, a disc-like valve element mounted on said shaft intermediate said bearings, said valve element being adapted to seat against the inner surface of said conduit member when in closed condition, sealing bushings slideably mounted in said first mentioned bearings intermediate said eccentric bushings and the adjacent sides of said valve element, said sealing bushings having openings therein through which said shaft extends, each of said openings being of a size sufficiently greater than the cross sectional size of said shaft to provide clearance therebetween in all adjusted positions of said eccentric bushings, and springs compressed between adjacent ones of said eccentric bushings and said sealing bushings urging said sealing bushings into fluid sealing engagement with the sides of said valve element.

2,835,269
VESSEL CLOSURE
Hale D. Seymour, Western Springs, Ill., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application April 10, 1953, Serial No. 347,982
3 Claims. (Cl. 137—467)



2. An internal closure device for a pressure vessel, comprising a generally cylindrical hollow closure valve body secured within an opening in the wall of said vessel with the inner end portion of the valve body projecting inside the vessel a substantial distance and the body being open to the atmosphere at the outer end and to the inside of the vessel at the inner end, an annular sealing member secured to the outer surface of the valve body adjacent the inner end thereof, a flexible lip projecting angularly outwardly to a normal position from said sealing member and free of said valve body, a frusto-conical disc member disposed inside the vessel and adapted to seal against the inner extremity of the valve body with the frusto-conical surface disposed outwardly beyond the periphery of the valve body and bearing against the inner surface of said lip, the frusto-conical surface of said disc member being provided with a sufficient degree of taper to expand the projecting lip when the disc member is moved into engagement with the lip and seats on the inner end of the valve body, flexible hinge members connected to the wall of the vessel and supporting the disc member, means to guide said hinge members, and means to actuate said disc member on said hinge members into engagement with said lip, said lip tending to contract and resume its normal position and thereby assist to effect disengagement between lip and disc member after the working load in the vessel is reduced below a given pressure.

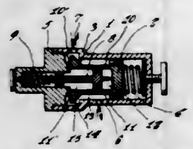
2,835,270
AUTOMATIC POULTRY WATERER
William W. York and Lee R. York, Clyde, Tex.
Application January 27, 1956, Serial No. 561,716
2 Claims. (Cl. 137—412)



1. An automatic liquid level control pilot tank for use in systems including a remote container in which liquid level is to be kept constant comprising a closed tank member, a liquid outlet portion in said tank member adjacent a bottom portion thereof and adapted to deliver liquid into the remote container at a level below that to be maintained in the remote container, a solenoid controlled valve assembly on said tank member, a pressure liquid inlet line in communication with the solenoid controlled valve assembly, a second liquid line in communication with said solenoid controlled valve assembly, said solenoid valve assembly controlling flow between the liquid lines, the interior of the tank member defining a constant level pilot chamber, the second liquid line terminating in said pilot chamber, liquid stabilizing means in communication with the second liquid line for preventing turbulence within the pilot chamber, float means disposed in the pilot chamber for movement with the liquid level in the pilot chamber, a float responsive switch assembly on the tank member, force transmitting means extending between the float means and switch assembly for activating and deactivating the switch assembly, and electrical conducting means between the switch and solenoid valve assemblies for transmitting current to the solenoid valve assembly and activating solenoid valve in response to a fall of the float means below a predetermined level in the pilot chamber, the float means comprising a hollow floatable ball element in the pilot chamber, the force transmitting means comprising an elongated lever member having one end portion secured to the floatable ball element, the float responsive switch assembly including a housing member extending into the pilot cham-

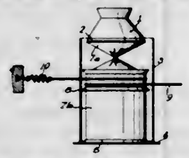
ber, said housing member including a horizontal pivot axis portion, the lever member having an intermediate portion pivotally connected to the pivot axis portion and a terminal end portion in the housing member, rising and falling of the floatable ball element resulting in corresponding oscillating movement of the terminal end portion of the lever member, a plunger element slidably extending through the housing member and including an end portion engageable with the terminal end portion of the lever member, spaced electrical contact means in the housing member for engagement by an upward movement of the plunger element, and spring biasing means extending between the plunger element and housing member for breaking a circuit between the electrical contact means upon a predetermined downward movement of the plunger element.

2,835,271
PRESSURE REGULATOR
Heinrich Oberthür, Offenbach (Main), Germany, assignor to Alfred Teves Maschinen- und Armaturenfabrik K. G., Frankfurt am Main, Germany
Application October 3, 1955, Serial No. 538,194
Claims priority, application Germany October 6, 1954
4 Claims. (Cl. 137—505.13)



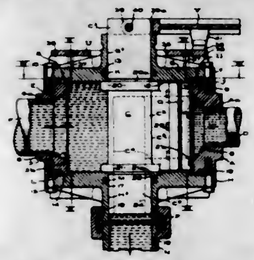
1. A pressure regulator, in particular for automotive brakes, comprising a housing, a control piston in said housing, said control piston having a first end and a second end spaced from the first end, the first end of said piston being slidably disposed in a bore in one end of said housing and the second end of said piston forming an annular valve head, the other end of said housing forming a seat for said valve head, a differential piston having one piston head displaceably mounted in a bore in said control piston and another piston head displaceably mounted in a bore in said other end of said housing, said differential piston being backed up by a spring operative against said other end of the housing, said first end of said control piston being backed up by a second spring operative against said one end of said housing, said housing and said control piston forming annular spaces of different diameter in said housing, inlet and outlet means in said housing, communicating said annular spaces respectively, said differential piston being subjected on the two sides thereof to different pressures prevailing in the annular spaces via openings in the control piston and the housing, in dependence upon the position of said control piston in said housing.

2,835,272
LOCK
André Taupin, Marseille-les-Aubigny, France
Application November 24, 1953, Serial No. 394,149
Claims priority, application France November 25, 1952
6 Claims. (Cl. 137—614.13)



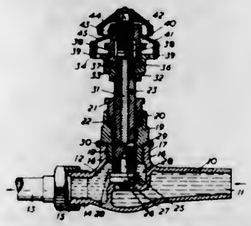
1. A lock comprising two flexible tubular hoses capable of being closed off by being twisted and arranged in substantially co-axial manner with adjacent and remote ends, a sleeve air-tightly secured to said two hoses at the adjacent ends, supports for fixedly supporting the remote ends of said hoses, the two hoses being provided with a reverse twist and means for rotating the adjacent ends and the sleeve, the rotation in one direction of said adjacent ends causing the closing of one of the hoses and the opening of the other hose and the rotation of said adjacent ends in the opposite direction causing the opening of said one hose and the closing of said other hose.

2,835,273
MANIFOLD VALVE WITH SELECTIVE BY-PASS ROTOR
Frank A. McDonald, San Francisco, Calif.
Application September 8, 1953, Serial No. 378,777
2 Claims. (Cl. 137—625.11)



1. A valve of the type described comprising: a stator having a closed interior with a cylindrical-shaped inner wall; the wall having a plurality of inlet ports rectangular in shape and all of the same height and width; the tops of the ports lying in one plane that extends at right angles to the axis of the cylindrical wall and the bottom of the ports lying in a second plane that parallels the first plane; said wall also having a rectangular outlet port whose upper and lower edges lie in said parallel planes; said outlet port having a width considerably wider than the width of the inlet ports so that the outlet port can receive all of the fluid from the inlet ports; and a selective by-pass rotor rotatably mounted in the stator and having a passageway with a rectangular opening of the same size and shape as the stator inlet ports; the upper and lower edges of the rotor entrance opening lying in the said upper and lower parallel planes; and the width of the rotor body at its entrance opening being slightly wider than the width of said opening; thereby a portion of the stator outlet port will always be exposed to the stator interior as the rotor entrance opening is moved past the stator outlet port during a portion of the rotation of the rotor.

2,835,274
VALVE MECHANISM FOR CONTROLLING THE FLOW OF LIQUIDS
Wilfred Javes, Derby, England
Application March 9, 1956, Serial No. 570,503
1 Claim. (Cl. 137—637.2)



A valve mechanism comprising a valve body, fluid inlet and outlet passageways in the valve body, a co-operating

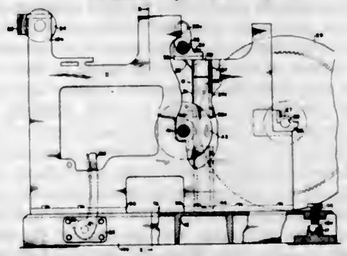
control valve and control valve seat in the body, a spindle associated with the control valve, a passage through the spindle, a fluid inlet to and fluid outlet from the spindle, screw-threads on the spindle and structure cooperating with the screw-threads to effect axial movement of the control valve, a bleeder valve controlling the outlet from the spindle, a washer carried by the bleeder valve, a seat for the bleeder valve washer surrounding the outlet from the spindle, a second spindle operatively associated with the bleeder valve, screw-threads on the second spindle and structure co-operating with these screw-threads to effect axial movement of the bleeder valve, thereby to press the washer on to its seat, two operating wheels, one attached to each spindle for opening and closing the control valve and the bleeder valve respectively, a boss on the operating wheel attached to the first spindle, a hollow plug fitted on to the end of the first spindle and engaging in the boss, cooperating screw-threads on the boss, the plug and the spindle, the plug having holes in it through which water passing through the spindle can escape, the plug having further screw-threads and the second spindle being screwed into the plug, a deflector carried by the plug, the deflector being positioned so that water emerging through the holes in the plug will impinge on the deflector, the operating wheel for the first spindle having holes in it through which such water after impinging on the deflector can run out.

2,835,275
TUBE WITH EXTERNAL LONGITUDINAL RIBS
Karl Ernst Scholten, Witten (Ruhr), Germany, assignor to Mannesmann Aktiengesellschaft, Dusseldorf, Germany, a German company
Application September 4, 1953, Serial No. 378,498
1 Claim. (Cl. 138—70)



A cold pilger rolled seamless tube having external longitudinal ribs thereon and grooves inside the tube opposite the ribs formed by step-by-step cold pilger rolling, the ribs having high consolidation of material, high strength and improved surface.

2,835,276
LOOM FRAMES
John O. Hunt, Greenville, S. C.; Yvonne B. Hunt and Paul E. Bruchon, executors of the estate of John O. Hunt, deceased, assignors to Yvonne B. Hunt, Greenville, S. C.
Application March 31, 1955, Serial No. 498,208
9 Claims. (Cl. 139—1)



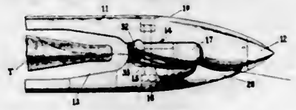
1. In a loom, the combination of a rigid base adapted to rest upon a supporting surface, a pair of sides resting on and secured to the base, and a cross frame of plate form seated directly on and secured to the base between the sides, the ends of the cross frame engaging and being secured to the sides from the top of the base substantially to the tops of the sides.

2,835,277
METHOD AND APPARATUS FOR WEAVING LOOP PILE FABRICS
Francis P. Groat, Bloomsburg, Pa., assignor, by mesne assignments, to Bigelow-Sanford Carpet Company, Inc., New York, N. Y., a corporation of Delaware
Application June 4, 1953, Serial No. 359,483
3 Claims. (Cl. 139—38)



1. A carpet loom including means for interweaving binder warps and pile warps with wefts to produce a pile fabric, in combination with a series of needle bars, each bar having a plurality of hooked needles depending from said bar to varying extents, a carrier chain on which said needle bars are removably mounted, a transfer mechanism for successively removing said needle bars from said carrier chain and moving said bar to a position so the hooked needles enter the spaces between the raised pile warps, means for laterally shifting the raised pile warps to engage the warps with the hooked ends of said needles whereby portions of the pile warps are held raised during the insertion of the weft shots to form loops of varying heights, said transfer mechanism being operable to disengage the hooked needles from the formed loops and return said needle bar to said carrier chain.

2,835,278
SHUTTLE AND THREADING BLOCK
Antonio Villani, Milford, Mass., assignor to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application December 19, 1955, Serial No. 553,799
5 Claims. (Cl. 139—223)

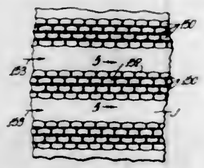


1. The combination of a shuttle and threading block said shuttle having a bobbin chamber and adjacent one end a recess in continuation of said chamber in which said threading block is held, said block comprising a body portion, a shield extending toward the end of the shuttle and an apron inclined toward the front of the shuttle and terminating at its lower end in a side eye having an upwardly directed, entrance slot, a thread channel in said body portion aligned substantially along the center line of the shuttle, a threading notch in the shuttle positioned wholly at the front of a plane taken on the vertical center line of the shuttle, and a theading slot in the block aligned with said notch and extending for substantially the length of the thread channel and apron defined as a parallel sided cut directed at a compound angle so that it inclines from the front of the shuttle rearwardly and also from the end of the shuttle adjacent said threading notch toward the bobbin chamber to intersect the thread channel at the rear of the channel, and a filling restraining lip comprised as a part of the apron and cooperating with the threading notch in the shuttle to restrain filling once threaded.

2,835,279
WOVEN FRICTION FABRICS
Harry Horowitz, Summit, N. J.
Application November 5, 1952, Serial No. 318,899
7 Claims. (Cl. 139—421)

1. An anti-slip friction fabric comprising a woven fabric base and a plurality of rectangular cross section

flat rubber strips woven in position in side by side relationship on the top thereof, said strands in each group being positioned in a single layer in side-by-side contacting relationship with their bottom faces flat against the base fabric and their upper faces and edges in a plane parallel to the woven fabric face with the upper side edges of the strands being free for gripping purposes,



said rubber strips being wider in dimension than in thickness and lying entirely upon the surface of the fabric face without penetrating therein or therethrough and said strips being compressed down against the fabric face at their bottom faces and against one another at their contacting side faces by spaced filler strands which extend over alternate rubber strips and then through and under the fabric base.

2,835,280
APPARATUS FOR ASSEMBLING SPRING UPHOLSTERY UNITS
Richard Eustace Probyn Miers, London, England, assignor to Pullman (Patent) Products Limited, London, England
Application February 10, 1954, Serial No. 409,468
Claims priority, application Great Britain February 16, 1953
6 Claims. (Cl. 140—3)

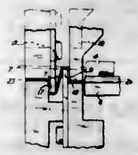
1. A clinching machine for use in the production of mattress and cushion spring assemblies of the type comprising a plurality of rows of helical or hour-glass coil springs connected together by tie wires each having equidistantly spaced hook-like projections inter-looped with the end convolutions of the springs and in which each tie wire is common to either the lower or the upper end convolutions of two closely related parallel lines of springs and also in which the hook-like projections are loosely interlooped with the spring ends of an assembly ready for clinching the hook-like projections comprising two opposed lines of clinching mechanisms both arranged for simultaneous operation on the said projections of an upper and a lower tie wire and spaced apart to receive the spring assembly between them, one mechanism being for the tops of the springs and the associated tie wires and the other for the bottoms of the springs and associated tie wires, a support for the loose assembly of springs and tie wires to be operated upon by the said mechanisms and along which support the loose assembly is displaced into said mechanisms, the number of mechanisms for each line corresponding to the number of springs in each row, a fixed jaw and a reciprocating jaw for each said mechanism between which the appropriate hook-like projection and pair of spring end convolutions interlooped by the projection are pinched to clinch the projection onto the spring ends, power actuated means actuating said reciprocating jaws in unison to impart a stroke thereto which at the terminal position of the reciprocating jaws remote from the fixed jaws brings such reciprocating jaws immediately behind the loosely inter-engaged tie wires and the two lines of springs to have the associated tie wires clinched thereto, a first ejector with each said fixed jaw to engage and eject the clinched work from the fixed jaw, means to actuate said first ejector in the work ejecting direction, means synchronising the ejection action with the initial separation of the reciprocating and fixed jaws, a second ejector member on to which the clinched work is delivered by the first ejector, and means to displace said second ejector transversely relatively to the plane of movement of the reciprocating jaw to free the clinched work from the fixed jaw.

2,835,281
PRODUCTION OF SPRING INTERIORS FOR MATTRESSES AND THE LIKE
Richard Eustace Probyn Miers, London, England, assignor to Pullman (Patent) Products Limited, London, England, a British company
Application January 17, 1955, Serial No. 482,308
Claims priority, application Great Britain January 22, 1954
15 Claims. (Cl. 140—3)



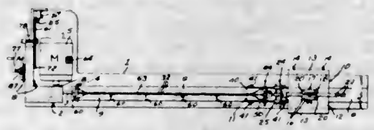
1. A method of producing spring assemblies so as to produce a complete assembly in which parallel lines of springs are obtained with the end convolutions of the springs coupled together by tie wires parallel and alternating with the lines of springs and interlaced with the springs by pre-formed substantially S-shaped hook-like parts of the tie wires inter-engaged with the said end convolutions, comprising locating and supporting a first row of springs at the desired spacing, locating adjacent to the end convolutions of the springs two tie wires parallel with the row of springs, deforming the top and bottom convolution of the furniture springs so that their planes, instead of being parallel, are inclined to each other, introducing the next to be assembled row of springs and deformed in a like but opposite manner to the first row so that the planes of the top convolutions of each pair of springs substantially intersect at a chord common to both, and likewise the same with the bottom convolutions, the common chord being of length such as to allow the S-shaped portions of the tie wires to rotate in the space between the arcs between the top and bottom convolutions that have the chord common to each, rotating the tie wires to engage the arcs of the second row of springs, then applying a pull to the springs so as to reduce the length of the common chord at the same time allowing the planes of the end convolutions to become substantially co-planar and rotating the tie wires so that the arcs of the first row of springs are engaged by the S-shaped portion of the tie wires thus locking the two rows of springs together on both top and bottom convolutions simultaneously, and moving the two rows of springs with their tie wires a distance such as to bring the second row of springs into the position formerly occupied by the first row of springs and repeating the cycle of operations with successive rows of springs and pairs of tie wires until the desired length of assembly is achieved.

2,835,282
RECIPROCATING WIRE-BENDING DEVICE FOR FORMING COMPLEX BENDS
Karl A. Schmuldt, Emmaus, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application May 7, 1953, Serial No. 353,506
6 Claims. (Cl. 140—105)



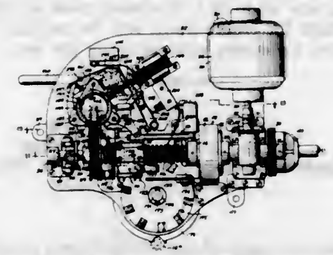
1. A device for forming bends in wire leads secured in a holder and extending therefrom comprising a base having fixed forming members mounted thereon, at least one of which protrudes therefrom and having means for resiliently supporting the holder whereby the wires extending from the holder are positioned over the fixed forming members, a forming tool slidably mounted above the fixed forming members, means for actuating the tool to form the wires on the fixed members and means attached to the tool actuating means for producing relative motion between the holder and the fixed forming members while the wire leads are being formed.

2,835,283
WIRE TWISTING MACHINE
Karl Thone, New York, Gerard Olsen, Mineola, John Karkheck, Rosedale, and Karl Samsonsen, Brooklyn, N. Y., assignors to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware
Application April 23, 1956, Serial No. 580,013
6 Claims. (Cl. 140—149)



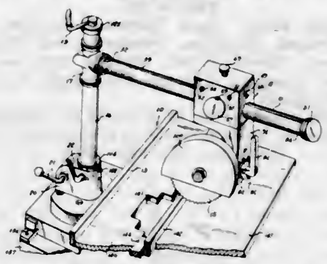
1. A wire twisting machine adapted for twisting a plurality of individual strands of wire into a single cable of predetermined length comprising, a base, a head stock secured to said base in fixed position, an elongated track secured to said base and extending outwardly from said head stock, a tail stock slidably mounted on said track for movement towards and away from said head stock, means by which said tail stock is clamped to said track in selected positions, a spindle rotatably mounted in said head stock, means by which said spindle is rotated, a chuck rigidly secured to said spindle for rotation therewith and adapted to have one end of each of a plurality of strands of wire to be twisted removably secured thereto in angularly spaced relation with respect to each other, retaining means attached to said tail stock for supporting said wires in angularly spaced relation with respect to each other, means associated with one of said stocks to compensate for the foreshortening of said wires as the wires are twisted by said chuck, a take-up carriage slidably mounted on said track between said head stock and said tail stock, and a wire guide through which said wires pass in angularly spaced relation to each other carried by said take-up carriage, said take-up carriage being adapted to be propelled along said track towards said tail stock by the power supplied by the twisting action of the several wires while being twisted.

2,835,284
DISPENSING APPARATUS
Samuel D. Polsen and Sven Herbert Nelson, Fairfield, Conn.
Application September 29, 1955, Serial No. 537,394
16 Claims. (Cl. 141—174)



15. In a dispensing apparatus, a reciprocating dispenser, dispenser operating means movable first in one direction and then in the opposite direction for reciprocating said dispenser, a motor connected to drive said dispenser operating means, an actuating part driven by said dispenser operating means having reciprocating movement simultaneously with and directly proportional to the reciprocating movement of said dispenser, and having a normal start and stop position at one end of its reciprocating movement and a direction reversing position at the other end of its reciprocating movement, a pawl carried by said actuating part, a rotatably mounted cup dispenser actuating ratchet plate having a series of circumferentially spaced ratchet teeth adapted through rotation of said plate to be successively brought into operative relation with the path of movement of said pawl, indexing means carried by said actuating part adapted to reverse the direction of movement of said actuating part at a point in its movement toward its said normal start and stop position short of said position, said pawl during such movement adapted to move one tooth in its path through a partial increment of movement and upon reverse movement to said direction reversing position to be positioned short of engaging relation with the successive tooth.

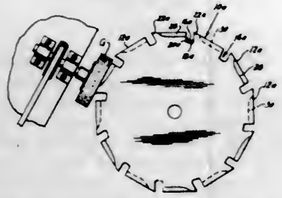
2,835,285
RADIAL ARM SAW
Wallace W. Gardner, Glen Rock, N. J.
Application June 6, 1955, Serial No. 513,255
4 Claims. (Cl. 143—6)



3. In a radial saw of the type in which a motor-driven saw blade is mounted on a carriage that is pierced by and reciprocatably supported, in a particular oriented position, on a cantilever arm with the saw blade in a plane for cross cutting, the improvement which comprises: the free end of the cantilever arm being provided with a removable stop and the carriage being additionally pierced at right angles to the aforesaid piercing and being provided at such additional piercing with guiding means to mate with the arm for movement of the carriage

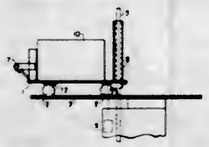
along the arm in an oriented position at right angles to the first oriented position, and the carriage having means to lock it in selected position along the arm when it is in the second oriented position; whereby the end stop and carriage may be removed from the arm, the carriage be replaced on the arm in the second oriented position with the saw blade in a rip-sawing plane at right angles to the plane for cross-cutting, and the carriage be locked in selected rip-sawing position along the arm.

2,835,286
CIRCULAR SAW BLADE
Bernard S. Weaver, Shelby, Ohio
Application June 15, 1956, Serial No. 591,638
3 Claims. (Cl. 143—133)



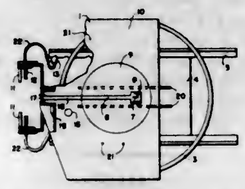
1. A gullet-type circular saw blade of polygonal configuration having gullets alternating with straight back edges, each gullet having a trailing edge angular to the next following back edge and extending into convergence with the next following back edge, at the point of intersection of said next following back edge with a straight line drawn in extension of the next preceding back edge, each trailing edge being angular to a line intersecting the same and drawn radially from the center of the blade, the outer end of each trailing edge being leading in the sense of direction of rotation of the saw blade in respect to the inner end of said trailing edge, the opposite faces of the blade having beveled surfaces extending along said back edges, the beveled surfaces of one face alternating circumferentially of the blade with the beveled surfaces of the other face, said beveled surfaces being progressively increased in width from the forward extremities thereof in a direction toward the rear ends of the beveled surfaces, for at least part of the length of the beveled surfaces.

2,835,287
CUTTING TOOLS INCORPORATING SAFETY DEVICES
Robert John Jones, Upper Norwood, London, Robert Henry Burnell Matthews, Upminster, and John Eaton Foy Perry, Chorley Wood, England, assignors to The Distillers Company Limited, Edinburgh, Scotland, a British company
Application May 29, 1956, Serial No. 588,027
Claims priority, application Great Britain June 17, 1955
7 Claims. (Cl. 143—159)



1. A cutting tool comprising a base, work-supporting table having a slot and horizontally movable on said base between a work-loading and -unloading and a work-cutting position, a cutting element supported by the base and extending through the slot and movable through a plane at substantially a right angle to the table for cutting action, a retractable guard movable on and with the table and partly surrounding the cutting element when the table is in the loading position, tracks on the base along which the table is movable towards and away from the cutting position, the guard retracting from the cutting element by the movement of the table towards the cutting position, locking means for preventing movement of the table along the tracks toward the cutting position, the locking means being provided with a releasing mechanism operable only by both hands of an operator and means for moving the table into the cutting position when the locking means are held released.

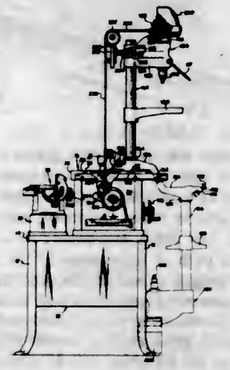
2,835,288
CUTTING TOOLS INCORPORATING SAFETY DEVICES
Robert John Jones, Upper Norwood, London, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
Application August 30, 1956, Serial No. 607,065
Claims priority, application Great Britain October 29, 1955
7 Claims. (Cl. 143—159)



1. A cutting tool comprising a base, work-supporting table having a slot and horizontally movable on said base between a work-loading and -unloading and a work-cutting position, a cutting element supported by the base and extending through the slot and movable through a plane at substantially a right angle to the table for cutting action, a retractable guard movable on and with the table and partly surrounding the cutting element when the table is in the loading position, tracks on the base along which the table is movable towards and away from the cutting position, the guard retracting from the cutting element by the movement of the table towards the cutting position, locking means for preventing movement of the table along the tracks toward the cutting position, the locking means being provided with a releasing mechanism operable only by both hands of an operator and means for moving the table into the cutting position when the locking means are held released, the table having an inner part of the surface movable only in a linear manner between the operator and the plane of the cutting element and coplanar with and accommodated within an outer portion of the surface of the table so that the outer portion can be turned with respect to the inner portion in the plane of the table surface.

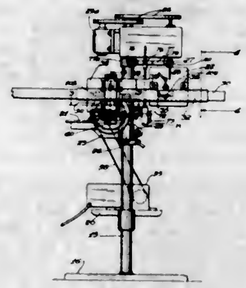
2,835,289
MULTI-TOOL POWER DRIVEN WOOD WORKING MACHINE
George E. Rockwell, Arlington, Mass.
Application March 31, 1953, Serial No. 346,002
5 Claims. (Cl. 144—1)

5. A combination power tool comprising a self contained motor powered circular saw unit including a stationary horizontal work table having an elongated aperture therein; a rotatable arbor mounted beneath said table, one end of said arbor being adapted to be drivingly connected to a source of rotary power, the other end of said arbor being adapted to selectively drivingly mount a rotary tool or pulley means in subjacent relation to said aperture; pulley means removably fixed to said other end of the arbor; a drill press, including a rotatable spindle and a base, removably supported by said table with said spindle in operative relation to said table aperture, said base being secured adjacent one edge of said work table for pivotal movement of said drill press between an upright operative position on said table and a



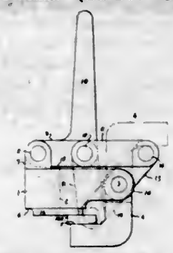
completely inoperative, inverted position off said table; belt drive means drivingly connecting said pulley means to said spindle; and means operable to raise and lower said arbor to tension said belt drive means adapting it to both drive said spindle and maintain said drill press in operative position.

2,835,290
PRESSES FOR DRILLING FLOORING STRIPS
William A. Boettcher, Chicago, Ill.
Application August 10, 1953, Serial No. 373,157
7 Claims. (Cl. 144—107)



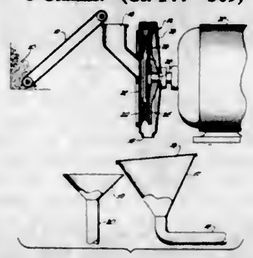
1. An attachment for upright drill presses for drilling flooring strips, wherein the drill press has a supporting post surmounted by a drilling unit, comprising a bed plate clamped to the supporting post in a tilted position, a guide for a flooring strip carried by said bed plate, a second bed plate clamped to said supporting post in a horizontal position below the first bed plate, means mounted on the second bed plate for feeding the flooring strip periodically through said guide, said drilling unit including a drill operable in respect to the flooring strip, said guide being a tube of a cross-section similar to that of the flooring strip, said means including a feed wheel for the flooring strip, a journal for the feed wheel, a frame extended from the journal to clamp on both sides of said tube for the support of the feed wheel from the same, and means for adjusting the frame crosswise of the tube for varying the spacing between the feed wheel and the strip.

2,835,291
TOGGLE CLAMP
Leland F. Blatt, Grosse Pointe Woods, and Arthur E. Sherman, Detroit, Mich.
Application December 22, 1955, Serial No. 554,710
5 Claims. (Cl. 144—302)



1. A toggle clamp comprising first and second coacting jaw members, the first member having opposed ends and a slot extending from one such end toward the opposite end, and the second member being received in said slot and having an actuating arm, means pivotally interconnecting said members affording a swinging of the second member alternatively to a clamping or a released position, a lever having a power arm and work arm, means pivotally mounting the lever on the first member at the end of such member remote from the slot, and a swinging link interconnecting said lever and actuating arm and having a toggle coaction with the work arm, whereby said link and work arm are substantially aligned, in effect, to establish said clamping position, the lever occupying the same limiting position thereof in establishing both the clamping and released positions of the jaws, and the link being received by the slot in said released position.

2,835,292
METHOD OF PROCESSING RAW WOOD
Julius F. T. Berliner, Chicago, Ill.
Application July 21, 1954, Serial No. 444,787
5 Claims. (Cl. 144—309)



1. The process of preparing the wood of a desert shrub for use in the production of a hardboard product, which process comprises the steps of severing the natural woody parts of the shrub into pieces of natural lateral shape and of a few inches in length, feeding the severed pieces into the midregion of a disc type mill having at least one revolving disc driven at a speed such that the pieces are thrown outwardly by centrifugal force so as to be battered together while being tumbled and contacted with impact force by the disc, whereby the bark is broken into particles and removed from the wood.

2,835,293
BORING TOOL
Bruce A. Mackey, Libertyville, Ill.
Application March 18, 1955, Serial No. 495,180
3 Claims. (Cl. 145—126)

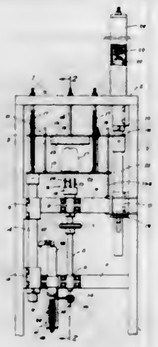
1. A boring tool, comprising: a shaft; a flat plate secured to the end of said shaft intermediate the ends of

said plate, the shaft being in the plane of the plate; a lead point extending from said plate in line with the shaft; a scarificator detachably mounted on the plate at the lead edge to one side of the line of the shaft to make a plurality of concentric cuts; a blade detachably mounted on the plate at the lead edge to the other side



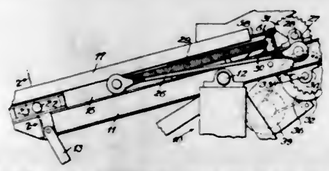
of the line of the shaft to remove the ridges left by the action of the scarificator; a guide ring coaxial with the shaft and mounted on the ends of the plate; and a removable peripheral scribing and dressing tang mounted on the plate and extending outwardly to the periphery of said guide ring.

2,835,294
VEGETABLE CORING DEVICE
Everett E. Rigney, Oxnard, Calif., assignor to Gentry Division, Consolidated Foods Corporation, a corporation of Maryland
Application January 12, 1956, Serial No. 558,711
9 Claims. (Cl. 146—52)



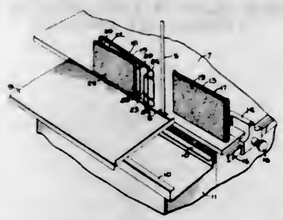
1. In a coring device, for vegetables or the like, which includes a frame, a driven coring unit journaled on the frame for rotation about an upstanding axis, a downwardly movable vegetable holding assembly initially disposed above the coring unit, said assembly being adapted to support a vegetable against upward movement relative thereto and with one end downwardly exposed relative to and in alinement with the coring unit, and means to cause relative lowering of the holding assembly to a position in which said unit cores the supported vegetable; the coring unit embodying a rotary head, a blade upstanding from the head in offset relation to its axis, a screw normally upstanding from the head centrally thereof, a driven spindle journaled on the frame, the head being on the upper end of the spindle, the latter having an axial bore therein and extending through the head, a shaft slidable in the bore but driven from the spindle, the screw being fixed on the upper end of the shaft, the upper end portion of the bore being of a diameter for retraction of the screw thereinto, and means to slide the shaft downward to an extent to retract the screw into said upper end portion of the bore.

2,835,295
STEMMING APPARATUS
Roy M. Magnuson, San Jose, Calif.; Genevieve I. Magnuson, executrix of said Roy M. Magnuson, deceased
Application April 6, 1954, Serial No. 421,266
3 Claims. (Cl. 146—55)



1. Apparatus for stemming articles such as grapes, comprising a bed of parallel adjacent stemming rolls, the diameters of said rolls being comparable to the diameters of the articles being stemmed, means mounting said bed for back and forth movement in a direction parallel to the desired path of movement of the articles and transverse to the length of said rolls, and means for effecting rotative movement of said rolls with adjacent rolls moving in opposite directions, each of said rolls having at least one flat surface presented in timed relation to a similar flat surface of an adjacent roll to provide a stem receiving space between rolls when said flats are opposite and parallel during rotative movement of said rolls, said stem receiving space being too narrow to receive the articles being stemmed so that said rolls cannot grip and damage said articles.

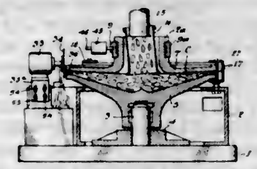
2,835,296
SMEAR REMOVER FOR MEAT SLICING MACHINE
Lloyd E. Harrison, Loves Park, Ill., assignor of one-half to Ernest J. Zimmerman
Application April 2, 1953, Serial No. 346,432
8 Claims. (Cl. 146—88)



1. A machine for sawing meat having, in combination, a base, a saw blade mounted on said base, a part movable relative to said base to support a piece of meat for movement into said blade to cut a slice from said piece, first and second cleaning members stationarily mounted on said base behind said blade in back to back relation and facing laterally of the blade in opposite directions, and a third cleaning member on said base spaced laterally away from said blade and facing generally toward the blade, said cleaning members engaging respectively, the cut end surface of said piece, the inner surface of said slice and the outer surface of the slice to clean the three surfaces simultaneously with the slicing of the meat.

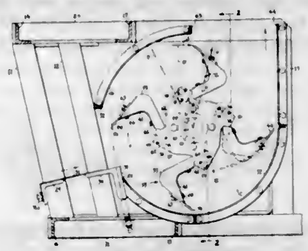
2,835,297
APPARATUS FOR CUTTING TOBACCO AND SIMILAR MATERIAL
Horst Kochalski, Schoenningstedt, Post Reinbek, Germany, assignor to Kurt Körber & Co. K. G., Hamburg-Bergedorf, Germany
Application January 9, 1956, Serial No. 558,870
Claims priority, application Germany February 4, 1955
8 Claims. (Cl. 146—106)

1. A machine for cutting leaf material comprising, a pair of axially spaced, substantially coaxial, simultaneously rotatable discs defining a cavity therebetween; an endless band engagaing a substantial portion of the rims of said discs and closing said cavity, curved guide means radially spaced from another portion of the rims of said



discs, a cutting knife disposed adjacent said rims for movement in said radial space between said guide means and said rims, one of said discs having a substantially central opening for admitting leaf material into said cavity.

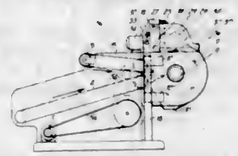
2,835,298
ROTARY CUTTING MECHANISM
Stanley H. Collins, Toronto, Ontario, Canada, assignor to Massey-Harris-Ferguson Inc.
Application October 28, 1955, Serial No. 543,548
3 Claims. (Cl. 146—117)



1. In a rotary chopping mechanism, a knife assembly comprising, in combination, a rotatable body adapted to be journaled for high speed rotation, an arm pivoted at its inner end to said body about an axis parallel to and spaced from the axis of said body, a knife blade secured to the outer end of said arm and having a cutting edge extending parallel to the axis of said body and facing forwardly of said arm, a stop member secured to said body in position for engaging said arm and limiting the latter's forward swinging movement to a point where the center of gravity of said arm and blade is spaced rearwardly of a radial line from the axis of said body through said pivotal axis of said arm, whereby rotation of said body will cause centrifugal force to urge said arm against said stop for positioning of the knife edge at a cutting position at a predetermined radial distance from the axis of said body while permitting the knife blade and arm to be free to swing rearwardly upon striking an obstruction.

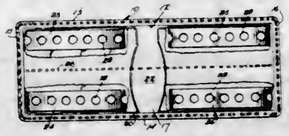
2,835,299
REMOVABLE DRUM TYPE TOBACCO CUTTING MACHINE WITH FIXED GRINDING MEANS
Max Pollmann, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany
Application February 5, 1954, Serial No. 408,525
Claims priority, application Germany February 16, 1953
3 Claims. (Cl. 146—119)

3. In a tobacco cutting machine, a frame having an elongated horizontal discharge opening forming a mouthpiece, means mounted in said frame for feeding tobacco to said mouthpiece, a rotary cutter drum frame hinged to said first named frame on one side of said mouthpiece to swing toward and away from said mouthpiece, a rotary cutter drum mounted in said cutter drum frame, motor means carried by said cutter drum frame drivingly connected to said cutter drum, latching means on the free swinging end of said rotary cutter drum frame for locking said frame to said first named frame so that the knives of the cutter drum will cooperate with said mouthpiece to cut tobacco fed therethrough, horizontal guideways on said first named frame arranged parallel to said mouthpiece, a horizontally movable carriage movable along said guideways a grinder having a rotary grinding wheel on said carriage whereby upon movement of said



carriage the grinding wheel of said grinder will sharpen the knives of said rotary cutter when the rotary cutter frame is in its locked position, means supported by said first mentioned frame for reciprocating said carriage to cause the grinder to traverse the knives of said rotary cutter, and means attached to said carriage for feeding said grinder downward toward the rotary cutter drum, said motor for driving the rotary cutter drum being mounted on the cutter drum frame and adapted to rock therewith when said cutter drum frame is moved toward and away from said mouthpiece.

2,835,300
CURVED WALLET
Elmer D. Silha, Chicago, Ill.
Application June 8, 1956, Serial No. 590,213
2 Claims. (Cl. 150—38)



1. A curved wallet comprising an outer cover, an inner cover attached at its top, bottom and spaced sides to like portions of said outer cover, a flap attached to the spaced sides and bottom of said inner cover and having an open top for the reception and withdrawal of bills, said wallet foldable inwardly upon itself at its middle for closed position, a pair of spaced convex metal members positioned within said covers and extending from one end to a point short of the middle and another pair of spaced concave metal members positioned within said covers and extending from the other end to a point short of the middle, said convex and said concave metal members adapted to nest upon the wallet being folded inwardly upon itself at its middle into closed position, so that when the closed wallet is positioned in the hip pocket of the user, its concave surface engages with and fits the convex curve of the hip of the user.

2,835,301
COVERED HOT WATER BOTTLE
William Simon Freeman, Barnsley, England
Application October 2, 1956, Serial No. 613,487
Claims priority, application Great Britain October 3, 1955
8 Claims. (Cl. 150—52)

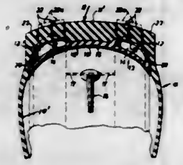
5. For a container having a round neck terminating in a mouth which is fitted with a detachable closure, a flexible cover comprising in combination a body portion

to envelope the container having a closable opening at its end adjacent to the mouth of the container to afford access to said mouth, an internal shroud of thin flexible sheet material attached at its periphery to the body portion of the cover and having an elastic ring to surround



and grip the neck of the container below the mouth, and pads attached to the surface of the shroud of such shape and disposition that, when the opening in the cover is closed, they fill out the spaces on both sides of the neck between shoulders on the container and that end of the cover in which the closable opening is situated.

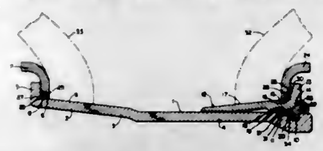
2,835,302
ADJUSTABLE PNEUMATIC TIRE
Thomas James Gedge, Toronto, Ontario, Canada
Application December 30, 1955, Serial No. 554,657
1 Claim. (Cl. 152—208)



In combination: an inflatable tire case having an inner surface defining a primary air chamber and outer surface having a plurality of laterally spaced apart circumferentially extending tread members forming a part of said case and comprising two outer tread members, at least two intermediate tread members and at least one substantially centrally located tread member between said intermediate tread members; two parallel laterally spaced apart continuous annular recesses extending radially into the inner surfaces of said case beneath said intermediate tread members; a supplementary tire tube having two expansible chambers the outward surfaces of which are seatable in said recesses and the inward surfaces thereof being disposed in said primary air chamber; web means extending between said expansible chambers and forming part of said supplementary tire tube; means in said web for communicating supplementary air to said expansible chambers; and means reinforcing the inward surfaces of said tube providing expansion of said expansible chambers upon inflation of the latter to effect radially outward positioning of the said intermediate tread members.

2,835,303
RIM STRUCTURE
Alva W. Woodward, Kent, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application October 31, 1955, Serial No. 543,683
1 Claim. (Cl. 152—410)

A separable rim assembly for tubeless tires comprising an endless annular rim base having a side ring retaining flange formed integrally with and extending radially outwardly from one side of the rim base; a cylindrical seat formed in said base adjacent said flange with an annular depressed portion in said cylindrical seat immediately adjacent said flange; a beveled annular bead seat formed laterally inwardly adjacent the cylindrical seat and decreasing in diameter in the direction away from the flange; an endless tire bead retaining side ring removably supported on the cylindrical seat against the retaining flange and adapted to be displaced laterally over the bead seat portion of the base when mounting and dismounting a tire, with an annular recess formed on the radially inner and laterally outer portion of said side ring forming an enclosed annular chamber with said depressed portion of said cylindrical seat and retaining flange of said rim base; a radially outwardly facing channel formed in the rim base along the opposite side thereof; a radially extending locking flange formed integrally with said opposite side and forming the outer side of said channel; a radially outwardly facing groove in said base adjacent to and laterally inwardly spaced from said channel; a demountable endless bead seat ring having the laterally inner portion of the radially inner surface thereof adapted to move laterally inwardly of the channel over the base, the laterally outer portion of the radially inner face being recessed radially outwardly to form an axially outwardly facing shoulder overlying the groove when in the assembled position and provide a space between the portion of the base between said groove and channel and the inner face of the bead seat ring when the rim is in the assembled position, said recessed portion of the bead



seat ring and groove cooperating to form an axially outwardly facing open-sided chamber; a beveled bead seat formed on the radially outer periphery of the bead seat ring with the bevel decreasing in diameter in a direction opposite to the bevel of the bead seat formed on the rim base and an integral side ring retaining flange extending radially outwardly along the axial outer edge thereof; and a cylindrical seat formed laterally outwardly intermediate the beveled seat and retaining flange of the bead seat ring with an annular depressed portion immediately adjacent said flange in said cylindrical seat; a second endless tire bead retaining side ring removably supported on the cylindrical seat of the bead seat ring and adapted to be displaced laterally over the bead seat portion of the bead seat ring when mounting and dismounting a tire with an annular recess formed on the radially inner and laterally outer portion of said side ring forming an enclosed annular chamber with said depressed portion of said cylindrical seat and retaining flange of said bead seat ring; a transversely split locking ring having a locking portion removably seated in the channel in the rim base and a portion in engagement with the bead seat ring to maintain the bead seat ring in position with respect to the base, the locking flange of said channel preventing laterally outward displacement of the locking ring and a resilient deformable sealing element in each of said chambers under axial and radial distortion to effect an airtight seal between the rim parts cooperating to form the chambers.

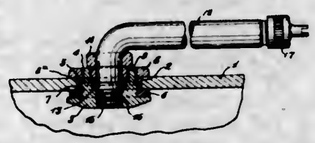
2,835,304
TUBELESS TIRE VALVE
Walter J. Lee, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application August 4, 1954, Serial No. 447,709
1 Claim. (Cl. 152—427)

A valve stem for a tubeless tire rim comprising a metal valve tube bonded to a rubber stem, said stem having a cylindrical body portion for engagement with the valve opening in the rim, said body portion being in a plane which intersects the tube and having a diameter in its unstressed condition 18 to 40% greater than the diameter of said rim opening so that the said body portion is highly compressed by the rim aperture and distorted over the radially outer surface of the rim, said stem having a base wider in diameter than said body and disposed outwardly of the rim in operation, said base having an annular surface for engagement with the radially outer surface of the rim, said rim engaging surface



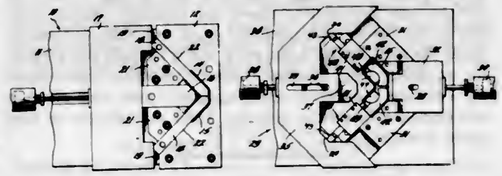
extending at an acute angle to the body portion of the stem, the bottom surface of said base having an annular slot therein extending concentrically with the axis of the valve from the bottom surface of the base of said stem to a depth of at least 50% of the thickness of said base but terminating within said base, said slot having a maximum diameter greater than the diameter of said valve tube but less than the diameter of said body portion, whereby the compression and effective seal of the body portion against the rim hole is maintained as permanent set of the body portion occurs.

2,835,305
TUBELESS TIRE VALVES FOR TRUCKS AND THE LIKE
Ralph K. Boyer, Cleveland, Ohio, assignor to The Dill Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application January 5, 1955, Serial No. 479,920
3 Claims. (Cl. 152—427)



1. A valve stem assembly adapted for mounting upon a rim for tubeless tires which rim is provided with a standard valve stem opening, comprising a hollow spud having a plurality of parts in adjustable threaded relationship and mounted in said valve stem opening, one of said parts having an enlarged head extending over the inside surface of the rim surrounding said valve stem opening and another of said parts having a diameter greater than the diameter of said valve stem opening and extending over the outside surface of the rim surrounding the latter, a washer essentially L-shaped in cross-section and having a portion thereof extending between an outer wall of the said one part of the spud and the inner peripheral wall of said valve stem opening, said washer having another portion interposed between the head on said one part and the surface of the rim adjacent the periphery of said valve stem opening, said spud being adjustable to clampingly engage with the washer to provide an airtight seal between said spud and rim in the valve stem opening and at said last named surface, a hollow valve stem having an end thereof forming a reentrant shoulder portion and projecting into said hollow spud from said outside surface of the rim, an O-ring embracing said reentrant shoulder portion and engaging with the wall of the interior of said hollow spud to provide an air-tight seal between the latter and said valve stem, a nut carried by said stem and in threaded engagement with said spud to retain the stem in assembled relation to the spud, and said stem having means to receive a valve inside.

2,835,306
METHOD AND APPARATUS FOR PRODUCING SEAMLESS SHARP BENDS IN WAVE GUIDE TUBING TO REPLACE MITERED SOLDERED BENDS
Francis Joseph Fuchs, Jr., Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 20, 1952, Serial No. 305,325
8 Claims. (Cl. 153—21)



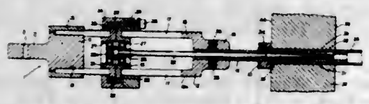
1. An apparatus for bending V-shaped wave guide tubes comprising a base, reciprocable dies slidably mounted on said base, means for moving said dies into engagement with the external walls of a wave guide tube, reciprocable arms extending into said wave guide tube; said arms having therein arcuate recesses located adjacent the portions of the wave guide tubing which are engaged by one of said reciprocable dies, cam means pivotally nested in said arcuate recesses, means actuated by said die moving means for forcing said reciprocable arms into contact with the internal walls of said wave guide tube, and operating means actuated by said die moving means for pivoting said cam means into engagement with an internal wall of the wave guide tube that is opposite the wall engaged by said reciprocable arms.

7. The method of producing a modified, generally V-shaped bend of substantially uniform internal cross section in rectangular wave guide tubing, which comprises preforming a generally arcuate-shaped bend of a desired angle in a section of the wave guide tubing, flattening a portion of the convex wall of the bent wave guide tubing, said flattened portion being disposed symmetrically with respect to the center of the initial bend, to produce an outer angular surface while supporting the tube externally and internally to prevent any other change in the configuration of the wave guide tube, and flattening a lesser portion of the concave wall of the wave guide tubing, said last-mentioned flattened portion being disposed symmetrically about the center of the initial bend and substantially parallel to said first-mentioned flattened portion to produce an inner angular surface while supporting the tube externally and internally to prevent any other change in the configuration of the wave guide tubing.

2,835,307
TUBE EXPANDER WITH ROTARY WORK ENGAGING MEMBERS
Jorgen A. Jorgensen, Massillon, Ohio, assignor to The Griscom-Russell Company, Massillon, Ohio, a corporation of Delaware
Application June 23, 1953, Serial No. 363,583
4 Claims. (Cl. 153—82)

1. In tube expander construction, a tubular driver cage, an expander cage connected to the driver cage for rotation therewith and having a tubular wall adapted

to be inserted and rotated in a tube to be expanded, the expander cage tubular wall having slots formed therein, a plurality of similar tapered expander rolls supported in said slots and revolved by said expander cage about the cage axis and movable radially of the cage axis, a mandrel journaled extending axially within and movable axially of the driver and expander cages and having a taper pin portion internally engagaing and radially supporting said rolls, means for rotating the driver and ex-



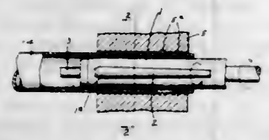
pander cages and rolls in one direction, means operably connected with the mandrel and selectively actuated by the rotating driver cage when the driver cage is rotated in said one direction to move the mandrel axially relative to the driver and expander cages and rolls to thereby move the rolls by the taper pin portion radially outward of the expander cage to a given desired position, and means for rotating the driver and expander cages and rolls in the opposite direction with the rolls maintained in said given position.

2,835,308

TUBE EXPANDING TOOL HAVING ROLLERS CONFINED IN CAGE SLOTS AND INCLINED WITHIN RANGE OF ONE-FOURTH TO TWO-THIRDS OF ONE DEGREE

Walter E. Stary, El Monte, Calif.

Application July 28, 1953, Serial No. 370,779
10 Claims. (Cl. 153—82)



1. A roller-type tube expanding tool having a rotatable tubular roll-cage, a tapered mandrel rotatable and axially movable through the bore of the roll-cage, and a plurality of tapered, angularly spaced, rolls confined in slots through the wall of said roll-cage so as to peripherally engage the mandrel, to be rotatable, and to be radially movable, wherein the axial movements of said mandrel are produced by a separate power source with said separate power source being controlled so as to control the tube-expanding actions of said tool assembly, and wherein said rolls are confined in said roll-cage so that their lines of contact with a circumscribing cylinder are at a longitudinal angle, said longitudinal angle being within the range of one-fourth to two-thirds of one degree, to thereby direct the tube-metal axial extrusion effects, as a lineal portion of a tube is expanded to bring it into tight engagement in its cooperating assembly member, so that a minimum amount of extrusion is produced with all of said extrusion being in one direction.

2,835,309

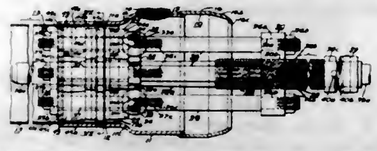
EXPANDERS FOR JOINING TUBULAR MEMBERS

Robert A. Wallace, Venetia, Pa., assignor to Walter O. Beyer

Original application June 28, 1949, Serial No. 101,771, now Patent No. 2,709,092, dated May 24, 1955. Divided and this application October 11, 1954, Serial No. 465,334

2 Claims. (Cl. 153—82)

1. In a device for in one operation forming a secure connection joint between a relatively thin wall inner tubing member and a substantially cylindrical wall of a surrounding heavier wall housing body member that has a radial groove portion of substantially rectangular section open to the inside of its cylindrical wall, wherein an end portion of the tubing member is inserted in a telescopic relationship within the housing body member and an annular wall band of the end portion of the tubing member is in one operation radially-outwardly deformed into the groove portion of the housing body member and is radially-offset for the full thickness of the wall of the tubing member, wherein annular radially-outwardly-rolled wall portions are simultaneously formed in the tubing member immediately adjacent to and along opposite sides of the annular wall band, and wherein an annular radially-outwardly-rolled wall band is simultaneously formed on the tubing member in a longitudinally-forwardly spaced position with respect to the annular wall band, the combination which comprises, a longitudinally-extending tool cage having front, intermediate, and back cross support portions; connecting portions mounting said support portions along the device; front and back groups of longitudinally-extending and peripherally-positioned expansion rollers; said cage having longitudinally-endwise aligned and radially-outwardly-open mounting means between said front and intermediate support portions and operatively carrying the front group of rollers in an end-to-end relationship with the back group of rollers within said cage for rotation and radial motion with respect to each other and said cage; the rollers of said back group each being a band-flanging roller that has a pair of end face portions that taper radially-outwardly into longitudinally-inner annular portions and has an intermediate radially-projecting annular rim portion



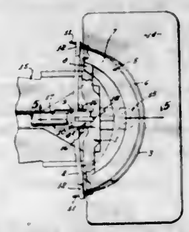
between the inner annular portions, the annular rim portion of each roller projecting radially-outwardly beyond the inner annular portions a distance at least corresponding to the full wall thickness of the tubing member; each roller engaging the inner surface of the tubing member to, with its annular rim portion, radially-outwardly deform an annular wall band in the tubing member for its full wall thickness into the groove portion of the housing body member and to, with its inner annular portions, roll adjacent wall portions of the tubing member into tight engagement with the housing body member along the annular wall band, so that the annular wall band will have a securely-joined offset relationship for the full thickness of the wall of the tubing member; the rollers of said front group each having a pair of end face portions that taper radially-outwardly into an intermediate guide banding portion that engages the inner surface of the tubing member longitudinally-forwardly of the rollers of said back group to roll the wall of the tubing member radially-outwardly into tight engagement with the wall of the housing body member; a group of radially-extending guide rollers mounted on said intermediate support portion in a peripherally-spaced relationship longitudinally-backwardly of said front and back roller groups to engage an end portion of one of the members and endwise-align the front and back groups of rollers within the tubing member; a wedge shaft, complementary thread means between said shaft and said back support portion rotatably-adjustably mounting said wedge shaft to operatively advance it through said intermediate support portion and within said cage, said wedge shaft having a tapered portion within said cage that decreases in taper forwardly from the back group of rollers towards the front group of rollers to frictionally engage the rollers of both groups and rotate them in a counter direction to the rotation of said shaft and move them radially-outwardly when said wedge shaft is rotated and relatively advanced within said cage by said thread means; said shaft being mounted to always, during the operation of the device, effect relative rotation between said cage and said front and back groups of rollers and between them and the tubing member after the front and back groups of rollers have been advanced radially-outwardly into tight engagement with the tubing member; said guide rollers being mounted to cooperate with said front group of rollers to align and guide said back group of rollers during the rotative advance of said wedge shaft; and said wedge shaft being free to rotatively advance within said cage by relative movement with respect thereto with increasing frictional resistance to rotation of said front and back groups of rollers and said cage with respect to the tubing member and to further radial-outward movement of said groups of rollers to effect a secure joining of the tubing member within the housing body member at longitudinally-spaced positions along the wall of the tubing member which positions correspond to operating positions on the tubing member of the guide banding portions of said front group and of the inner annular and annular rim portions of said back group of rollers.

2,835,310

DEVICE FOR HOLDING BRAKE LINING IN POSITION TO BE BONDED TO A BRAKE SHOE

Marvin E. Green, Los Angeles, Calif.

Application December 11, 1953, Serial No. 397,624
5 Claims. (Cl. 154—1)



1. A device for holding brake lining in position to be bonded to the convex side of an arcuate brake shoe comprising: a base; an elongated body adapted to be supported on said base so as to span the concave side of the brake shoe; means on the ends of said body for engaging the ends of the brake shoe to hold the shoe and body against relative movement; a resilient bar of greater length than said body; mounting means intermediate the ends of said body connecting said bar and body for limited relative bodily movement; stationary members on said base disposed between said bar and said body on opposite sides of said mounting means for engaging said bar and causing flexure of said bar responsive to relative bodily movement between said bar and said body; a flexible band for holding the brake lining on the shoe; means on the ends of said band for detachably connecting said band with the ends of said bar; and means engageable with said mounting means and said bar for locking said bar in variously flexed positions.

2,835,311

COMBINED BACK AND HEAD RESTS

James M. Reeves and Iris K. Reeves, Charleston, Mo.

Application May 16, 1957, Serial No. 659,579
3 Claims. (Cl. 155—174)

1. A combined back and head rest comprising a main frame including a pair of upright side members, and upper and lower end members and an intermediate member cross connecting the side members, a sub-frame including upright side members between the first side members connected to the lower end and intermediate members of the main frame and including an upright grill connected to said upper and intermediate members, said upper, lower and intermediate members spacing the side members of the main frame forwardly and outwardly of the side mem-



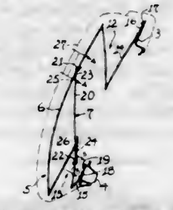
bers of the sub-frame, a hooked hanger frame attached to the intermediate member for hooking over the back of an automobile seat to suspend said frames in a position to extend above said back, and a cushion unit attached to said main frame and backed by said sub-frame.

2,835,312

WIRE SPRING STRUCTURE

William H. Neely, Cleveland, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio

Application February 16, 1956, Serial No. 565,972
6 Claims. (Cl. 155—179)



1. In the combination of a sinuously corrugated wire spring bent from a sinuously corrugated wire strip by twisting loop-connecting wire cross members thereof to form a wire spring with a resting portion and accordion fold-shaped supporting means, with an elongated straight wire member coupling the resting portion of the wire spring with the accordion fold-shaped supporting means thereof, said elongated straight wire member including an end portion extended through the resting portion of the wire spring between two adjacent cross members thereof and having a lateral extension on said end portion hooked over one of the two adjacent wire cross members to effect in a loaded condition of the wire spring contact of the end portion of the elongated straight wire member with the other one of the two adjacent wire cross members for cantilever-like coupling of the elongated straight wire member with the resting portion of the sinuously corrugated wire spring.

2,835,313

CELLULAR ELASTIC CUSHION

Howard M. Dodge, Marion, Ind., assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio

Application February 27, 1956, Serial No. 567,857
9 Claims. (Cl. 155—179)



1. A mattress or the like comprising generally horizontal top and bottom walls, said top wall being made of a flexible cellular elastic material, and a series of gener-

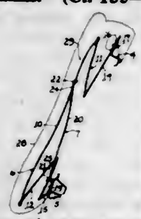
ally parallel spacers of a cellular elastic polyurethane rubber between said walls and bonded to the top wall, said spacers being laterally separated until they are compressed vertically an amount not substantially less than about 5 percent of their normal height and moving into engagement before they are compressible substantially more than about 25 percent of said height.

2,835,314
WIRE SPRING STRUCTURE
William H. Neely, Cleveland, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio
Application April 23, 1956, Serial No. 580,122
3 Claims. (Cl. 155—179)



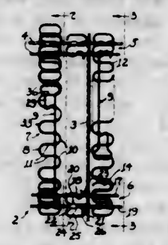
1. A wire spring structure embodying two laterally spaced zigzag wire springs with resting portions and supporting arms, and a single V-shaped wire element secured at longitudinally spaced areas to the bottom face of the resting portion of each of said zigzag wire springs to nonshiftably connect said two wire springs to each other and reenforce a longitudinally extended portion of the resting portion of each of said wire springs, said V-shaped wire element including two elongated supporting arms extended in symmetrical, laterally spaced relation to said wire springs toward supporting arms thereof.

2,835,315
WIRE SPRING STRUCTURE
William H. Neely, Cleveland, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio
Application September 24, 1956, Serial No. 611,593
5 Claims. (Cl. 155—179)



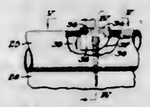
1. In a seat back spring construction having a frame mounting a plurality of wire springs formed with sinuously corrugated resting portions, sinuously corrugated, accordion fold-shaped supporting means at the top and bottom ends of the wire springs and reenforced by elongated straight wire members coupling their resting portions with accordion fold-shaped supporting means, wherein some wire springs have the resting portions coupled with accordion fold-shaped top supporting means, wherein other wire springs have the resting portions coupled with accordion fold-shaped bottom supporting means, and wherein the elongated straight wire members each include a hooked end portion extended through the resting portion of a wire spring between two adjacent cross members thereof and hooked over one of the two adjacent cross members to effect in a loaded condition of the wire spring contact of the end portion of the elongated straight wire member with the other one of the two adjacent wire cross members for cantilever-like coupling of the elongated straight wire member with the resting portion of the sinuously corrugated wire spring.

2,835,316
WIRE SPRING STRUCTURE
William H. Neely, Cleveland, Ohio, assignor to The Universal Wire Spring Company, Bedford, Ohio, a corporation of Ohio
Application February 18, 1957, Serial No. 640,687
5 Claims. (Cl. 155—179)



1. In a spring structure a corrugated wire spring comprising a resting portion and a supporting portion at each end thereof, one of the supporting portions being V-shaped and having angularly related sinuous arms connected to each other to form an inwardly disposed apex, and an auxiliary V-shaped reenforcing wire member including differentially sized laterally spaced straight lever arms connected by straight cross wire means forming the reenforcing member with a sharp-edged apex, the free ends of the straight lever arms being extended through the resting portion and supporting portion of the wire spring and secured thereto, said auxiliary V-shaped reenforcing member by its straight lever arms and their extension through said wire spring being coupled therewith in cantilever-like fashion and the sharp-edged apex of such auxiliary V-shaped reenforcing member being spaced from the resting portion of the corrugated wire spring.

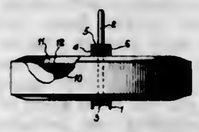
2,835,317
TUBULAR FURNITURE CONSTRUCTION
Frank J. Valtri, Philadelphia, Pa.
Application February 28, 1955, Serial No. 491,000
6 Claims. (Cl. 155—196)



1. In a knock down tubular chair, a seat, a plurality of contiguous tubular seat support members below the seat, each such member having a longitudinally disposed slot therein, a clip having integrally formed dependent prongs adapted to engage the slots, a notch formed in one side edge of each prong adapted to interlock with the tubular wall and provide a pivot about which the clip is inserted into the slots, the terminal end of each notch in each prong being spaced from the opposite side edge of the prong a distance substantially equal to the length of the slot in which the prong is engaged, and means for detachably securing the clip to the chair seat.

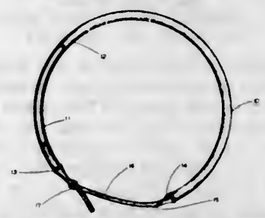
2,835,318
TIRE INFLATION GUARD
George Raymond Conger, Nixon, N. J.
Application August 12, 1954, Serial No. 449,401
2 Claims. (Cl. 157—1)

1. In a device for protecting a workman against injury during inflation of a tire which has been assembled with a rim and a locking ring, two orificed guard members one of which is adapted to underlie and the other of which is adapted to overlie said tire-rim-ring assembly while the latter lies horizontal, a headed post the head of which is so proportioned as to be restrained from passing through either of the orifices in said guard members, while the shank portion of said post is freely admissible through said orifices, and an orificed clutch plate one end of which is pivotally mounted on said overlying guard member, the pivotal axis being substantially at right angles to the axis of the orifice in said



guard member and at a distance therefrom which permits of canting the clutch plate axis with respect to the axis of the guard member orifice, the two said orifices being suitably aligned for passing the shank portion of said post through both orifices, said clutch plate being operable, when canted, to clutch said post and to restrain the same against slippage through the clutch plate's orifice, and a stop element affixed to said overlying guard member and so positioned that it restrains the free end of said clutch plate from being lifted appreciably above a de-clutching, that is, non-canting, position.

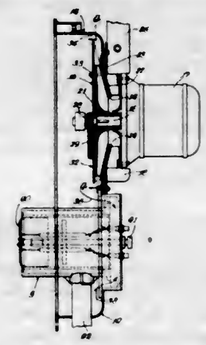
2,835,319
INFLATABLE SELF CONTRACTING TIRE BEAD SEATING DEVICE
Matthew J. Fleming, Jr., McConnelsville, Ohio, assignor to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application March 2, 1955, Serial No. 491,663
5 Claims. (Cl. 157—1.21)



1. A clamp for producing radial compression comprising an elongated expansible tube surrounded by a tubular braided sheath the individual strands of which form a series of interwoven helices, an end fitting attached to each end of said braided sheath and enclosed tube forming a fluid tight expansible tubular chamber which contracts lengthwise when expanded circumferentially, a conduit through at least one of said end fittings communicating with the interior of said chamber, a flexible member of adjustable length affixed between said end fittings, and a valve positioned in said conduit whereby fluid under pressure may be controllably introduced into the interior of said expansible chamber.

2,835,320
FAN STRUCTURE
Arthur W. McClure, Milwaukee, Wis., assignor to Cleaver-Brooks Company, a corporation of Wisconsin
Application July 21, 1954, Serial No. 444,806
1 Claim. (Cl. 158—2)

In a heating equipment burner structure having a burner and an air-tight, relatively large chamber adapted to contain combustion supporting air at superatmospheric pressure and having an air outlet connected with the burner, in combination, means for producing and maintaining an air supply in the chamber at superatmospheric pressure, comprising: an impeller mounted on the interior of a wall of the chamber, said chamber having an elongated wall having an opening in the upper portion thereof small in comparative size to the wall and forming an entrance for atmospheric air to the chamber; said impeller including a rotatably mounted wheel having a central portion generally coinciding with the opening; a shroud plate mounted in the upper portion of said chamber and spaced from said opening, said shroud plate having a substantial extent normal to the axis of rotation of the wheel and having its lower end terminating materially above the bottom of the chamber, the lower end of the shroud plate and the wall constituting an open downwardly directed passage, said chamber wall being inclined from said opening toward said shroud so that the wall and shroud form an elongated, narrow, tapered passage therebetween extending circumferentially of the opening; said wheel including a plurality of circumferentially spaced blades extending radially outwardly from the axis

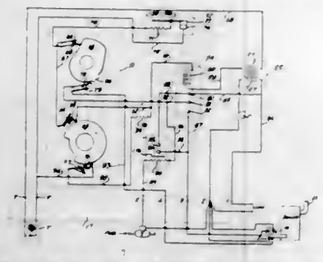


of rotation of the wheel and forming generally V-shaped spaces between the blades; the outer portions of the blades being tapered and free and generally coinciding with the shape of said tapered passage, said blades extending radially outwardly a distance only slightly less than the radial extent of the passage and said blades having side clearances with the wall and shroud only sufficient to avoid contact therewith, said shroud extending radially beyond the tips of the blades a short distance parallel to said wall so that said narrow elongated passage extends substantially unobstructedly all about the blade tip periphery and thereby creating a downwardly directed discharge of air, and a motor for rotating the fan wheel at speeds effectively drawing air from the atmosphere through the central opening and then forcing the air sufficiently rapidly outwardly therefrom along the blades between the shroud and said wall to provide the air with substantial kinetic energy so that it may pass into the elongated narrow passage between the shroud and wall beyond the blade tip periphery and thereby convert the kinetic energy of the air to static air pressure above atmospheric in the chamber.

2,835,321
ELECTRIC CONTROL SYSTEM FOR FUEL BURNING EQUIPMENT
Ralph W. De Lancey, Des Plaines, Ill., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application August 10, 1954, Serial No. 448,966
5 Claims. (Cl. 158—28)

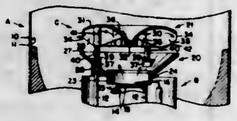
1. Apparatus for controlling the operation of heating equipment having an oil valve, ignition means and a motor, comprising a bimetallic element adapted to re-

spond to heat generated by said equipment, a sequence cam switch including a disk and at least three sets of contacts actuated by said disk with said disk coupled with said bimetallic element for mechanical actuation thereby, a relay including a coil and at least one set of normally open contacts, a plurality of terminals adapted for connection of said apparatus to a source of energy and said heating equipment including a pair of terminals for connection to external switch means for controlling said apparatus and in turn the heating equipment, a reset switch having normally closed contacts and including a bimetallic element and heater therefor to actuate said switch, a starting circuit including at least one normally closed set of said cam switch contacts, said relay coil, said external switch terminals, said power source terminals and said reset switch heater and contacts for energizing said relay in response to closure of said external switch, an ignition circuit including a second set of normally closed cam switch contacts, said relay contacts and said power source terminals to energize said ignition means, means including said power source terminals and



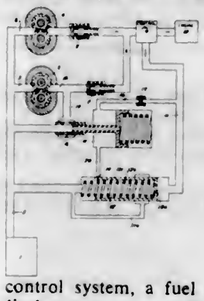
said relay contacts adapted for energizing said motor, a motor-after-run switch having normally open contacts including a bimetallic element and heater therefor, an oil valve circuit including said power source terminals, said motor-after-run heater, and said relay contacts for actuating said oil valve, a shunt circuit including a third normally open set of cam switch contacts, a resistor, said relay coil, said external switch terminals and said power source terminals for shunting said reset switch, and a motor-after-run circuit including said motor-after-run switch contacts and said power source terminals adapted for energizing said motor, said relay adapted to function on closure of said external switch to energize said motor and ignition means and open said oil valve whereupon generation of heat functions to actuate the cam switch to complete said shunt circuit and shunt said reset switch and open the ignition circuit, said relay further adapted to function on opening of said external switch to deenergize the circuit associated with the contacts of said relay, said motor continuing to operate until said motor-after-run heater cools allowing the motor-after-run heater contacts to open.

2,835,322
FIRING HEAD FOR FURNACES
Leonard Vignere, Sr., New Castle, Pa.
Original application September 4, 1952, Serial No. 307,860, now Patent No. 2,732,890, dated January 31, 1956. Divided and this application November 7, 1955, Serial No. 545,272
2 Claims. (Cl. 158—28)



1. A furnace firing head including a lower section provided with a dish-shaped body portion having an upper edge of greatest diameter, a centrally-disposed lower opening and a tubular flange extending downwardly from said body portion at said opening, an upper metallic section having means to promote gasification and ignition of fuel from said lower section when said upper metallic section is heated, and to guide the gasified and ignited fuel outwardly of said upper metallic section, including an inverted cone-shaped central body portion, an arched flange portion extending outwardly from said central body portion with the vertical plane of said upper edge extending beyond the outer edge of said central body portion and a plurality of spaced-apart baffles extending downwardly from said arched flange portion, each baffle having a major body portion with its longitudinal axis tangential to the vertical axis of said central body portion, and adjustable levelling means supporting said upper metallic section with the lower edges of all of said baffles substantially paralleling the horizontal plane of said upper edge and spaced from said lower section.

2,835,323
FUEL SYSTEMS FOR INTERNAL COMBUSTION ENGINES AND GAS TURBINES
Douglas Gerhard Booth, Ilford, England, assignor to The Plessey Company Limited, Ilford, England, a British company
Application October 14, 1954, Serial No. 462,284
2 Claims. (Cl. 158—36.3)



1. In a fluid control system, a fuel supply, first and second positive displacement pumps arranged in parallel and connected to said supply, a fuel system delivery connected to the outlet from said first and second pumps receiving fuel under pressure individually discharged by said pumps, a control unit metering the correct flow of fuel in said delivery and which is of the type that by-passes the excess fuel which is received by the same, a by-pass passage leading from said control unit to said supply returning such excess fuel from said control unit to the fuel supply, a branch passage leading from the outlet of the second pump and communicating with the fuel supply, a spring loaded servo-operated valve means arranged in said branch passage, a further passage including metering means for applying fuel from the by-pass passage to operate the servo-operated valve in opposition to its return spring loading, a single flow responsive valve means arranged in said by-pass passage beyond said further passage and a separate passage-way controlled by said flow-responsive valve means connecting the servo-operated valve means with the fuel supply in a manner such that increased flow in said by-pass passage causes an opening movement of the servo-operated valve.

2,835,324
RIGID MULTI-SECTION AWNING
Frank T. Taormina and John M. Molinaro, San Jose, Calif.
Application February 23, 1954, Serial No. 411,878
3 Claims. (Cl. 160—132)

1. In an awning of the rigid multi-section type including a plurality of U-shaped sections each adapted to be

received within the next larger section and to receive the next smallest section for opening and closing action about a common axis; the combination in each said section of a pair of side walls of wedge shape having an upper base edge of a length comparable to that of all other sections of said awning, an inturned flange on the upper base edge of each of said side walls, a top panel having its ends secured to the inturned flanges on the upper base edge of each of said side walls, said top panel having an upturned portion on its aft edge, an inwardly extending abutment on each said side wall adjacent its upper fore corner adapted to engage the upturned portion



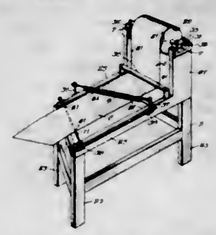
on the top panel of the next smallest section for limiting movement thereof to less than its full dimension beyond the fore edge of the top panel secured to said side wall, a resilient bumper press fitted into said upturned portion for cushioning engagement of the same with said abutment and a cam formed on each said side wall to the rear of and adjacent to said abutment for engaging the free end of the upturned portion at the aft end of said top panel of the next smallest of said U-shaped sections for guiding the same into centered relation between the side walls of the U-shaped section provided with said cams.

2,835,325
SCREEN DOOR
Alfred D. Gilbert and Harry W. Haythornewhite, Inglewood, Calif.
Application April 9, 1956, Serial No. 577,048
4 Claims. (Cl. 160—369)



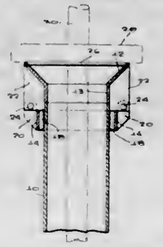
4. For use with a screen door comprising a rectangular frame having a pair of oppositely disposed side members, an expansion strip having a closed end and an open end adapted to adjustably receive and fit around one of the side members of said frame, said expansion strip extending for the entire length of said side member, said expansion strip having adjacent the closed end thereof a tubular portion having a substantially circular cross section, said tubular portion extending for the entire length of said expansion strip and having open upper and lower ends, a bottom hinge half adapted to be attached to the door jamb adjacent the bottom thereof, said bottom hinge half having an upwardly directed circular pin, an upper hinge half adapted to be attached to the door jamb adjacent the top thereof, said upper hinge half having a downwardly directed circular pin substantially aligned with the circular pin of said bottom hinge half, said pins adapted to fit into the open upper and lower ends of the tubular portion of said expansion strip to mount the screen door for pivotal movement with respect to the door jamb.

2,835,326
WRAPPER CUTTING APPARATUS
Lewis J. Hayhurst and Frank O. Coffey, Glenview, Ill., assignors to National Dairy Products Corporation, a corporation of Delaware
Application March 24, 1955, Serial No. 496,378
2 Claims. (Cl. 164—84.5)



1. Apparatus for cutting wrapping material for wedge shaped articles from a continuous strip of material comprising, in combination, an elongated frame, a roll on said frame providing a continuous strip of wrapping material longitudinally of said frame, brake means engaging said roll, a pair of spaced converging knives disposed in different planes on said frame, the cutting edge of the respective knives being positioned in cutting engagement against opposite faces of said strip said knives converging towards one another and intersecting the longitudinal axis of said frame on the same side of said axis at the same angle.

2,835,327
WIPER RUBBER PROTECTOR
Mark Bartlett, Great Bend, Kans.
Application July 15, 1955, Serial No. 522,207
3 Claims. (Cl. 166—75)

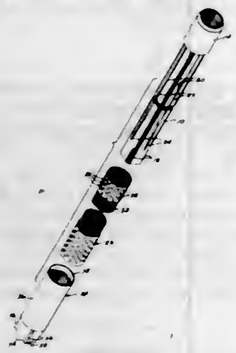


1. In a flare attachment for the upper end of an oil well surface pipe, a body comprising a neck of surface pipe diameter and having a lower end and an upper end, an upwardly flared flange on the upper end of the neck, arm means fixed to and depending from said flared flange and opposite sides of and extending below said neck, said arm means having lower ends below said neck, ears pivoted to and depending from the lower ends of said arm means, said ears having inner ends, semi-circular clamping ring sections fixed to the inner ends of ears at opposite sides of the said ring sections having ears on their ends, clamping bolts extending through the apertures formed in adjacent ears of the sections with nuts on said clamping bolts, said ring sections having inner sides, and slips fixed to the inner side of the ring sections, said slips having serrated inner ends for engaging a surface pipe.

2,835,328
WELL POINT
George A. Thompson, Daytona Beach, Fla.
Application December 10, 1954, Serial No. 474,324
2 Claims. (Cl. 166—157)

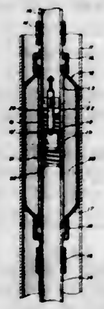
1. In a well point, an imperforate tube having upper and lower ends and having flat outer sides and corners between the flat sides, said flat sides extending lengthwise

of the imperforate tube and the said lower end, a socket secured on the upper end of said tube, said socket having a lower end acting as an upper stop shoulder, an annular flange depending from the lower end of the socket and concentrically spaced from the imperforate tube, the corners at the lower end of the imperforate tube having screw threads thereon, a tip comprising a cylindrical tubular body having upper and lower ends, screw threads in the upper end of the tip body engaged on the screw threads on the lower end of the imperforate tube, the flat sides of the imperforate tube at the lower end thereof being spaced from the interior of the tip body, an upstanding annular flange rising from the upper end of the tip body and concentrically spaced from the im-



perforate tube, the upper end of the tip body acting as a lower stop shoulder, a valve seat across the interior of the tip body below the imperforate tube, a ball valve supported in said tip body below and engageable at times with said seat, a cylindrical sleeve circumposed on said imperforate tube between said socket and said tip, the flat sides of the imperforate tube being spaced from the interior of said sleeve, said sleeve having an upper end engaged with said upper stop shoulder within the depending socket flange and a lower end engaged with said lower stop shoulder within the upstanding flange on the tip, said sleeve comprising an outer tube having perforations in the wall thereof, and an inner mesh screen tube secured to the interior of said outer tube.

2,835,329
REINFORCED PACKER
Martin E. True, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application June 23, 1955, Serial No. 517,474
1 Claim. (Cl. 166—187)

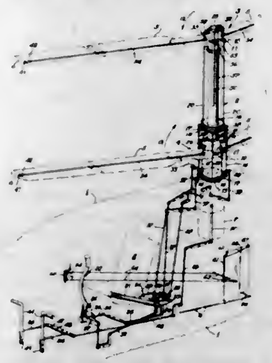


A packer adapted for use in a well bore which comprises an elongated tubular mandrel, an internally reinforced resilient member carried by said mandrel for sealing engagement with the wall of the well bore, the thickness of the resilient member being of substantially uniform cross-sectional thickness throughout its length, means for inflating the resilient member, said resilient member being internally reinforced circumferentially on each end with a plurality of longitudinally extending overlapping and contacting woven fiber ribbons, said ribbons being maintained in overlapping contact one with the other on expanding said resilient member, the ribbons on each end of the resilient member having one end arranged on a circumferentially extending member embedded in each end of said resilient member and said ribbons extending longitudinally only to a point adjacent the central portion of the resilient member, such that the central portion of the resilient member is free of reinforcement.

2,835,330
METHOD OF BLOCKING THE WAYS OF DAMPS IN MINES
Wilhelm Bauer, Essen, Germany
No Drawing. Application August 20, 1954
Serial No. 451,281
Claims priority, application Germany August 20, 1953
2 Claims. (Cl. 169—1)

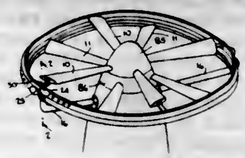
1. Method of blocking fire damp in mines, comprising adding phosphoric acid as a catalyst to the solution of a foam-forming material, simultaneously spraying the solution obtained and a solution of a preliminary condensate of a urea-formaldehyde resin into spaces where the blocking is intended, and allowing the foam formed to become firm by the solidifying action of said condensate and thus to form firm damp-blocking means maintaining its volume and foamy structure.

2,835,331
DIRECTIONAL CONTROL SYSTEM FOR ROTARY WING AIRCRAFT
James V. Ryan, Walter Bastedo, Jr., and Edward W. Strong, Stony Brook, and Arthur Marquis Losey, East Islip, N. Y., assignors to Gyrodyne Company of America, Inc., St. James, N. Y., a corporation of New York
Application October 20, 1954, Serial No. 463,582
15 Claims. (Cl. 170—135.28)



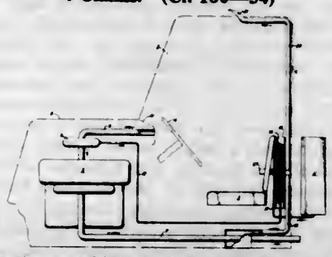
1. In a rotary wing aircraft having a fuselage and two load-carrying rotors turning in opposite directions at a predetermined speed ratio relative to one another and having rotor blades, means for controlling the directional heading of the fuselage comprising aerodynamic brakes at the tips of said rotor blades, and means for selectively actuating said tip brakes of a rotor turning in one direction while the tip brakes of a rotor turning in the opposite direction are inactive to produce a reaction torque differential tending to turn the fuselage about a vertical axis.

2,835,332
POWER DRIVE SUITABLE FOR AIRPLANES AND HELICOPTERS
Vera K. Fry, Logansport, Ind.
Application October 20, 1955, Serial No. 541,694
10 Claims. (Cl. 170—135.28)



9. The combination with a fixed ring, of two turbine rings lying side by side and rotating within the fixed ring, vanes on said turbine rings slanting in one direction on one ring and in the other direction on the other, bearings holding the turbine rings close to, but rotatively within the fixed ring to form an air passage, overlapping extensions of the turbine rings including perforations running nearly radially of the ring structure but slanting so that each ring as it rotates tends to force air outwardly, an air scoop device carried by one of said rotating rings and gathering air to feed to said perforations, two sets of feathering propeller blades turning in opposite directions, journal bearing tips on said propeller blades, a mounting carried by each journal bearing tip carrying its turbine ring with the rotating propeller blade, nozzles for driving the turbine vanes, a combustion chamber for each nozzle, air connections from said air passage delivering air to each combustion chamber.

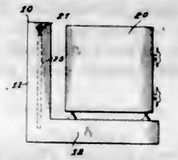
2,835,333
FUEL AND AIR TEMPERATURE CONTROL SYSTEM
Miles B. Hayes, Wichita Falls, Tex.
Application January 12, 1956, Serial No. 558,738
4 Claims. (Cl. 180—54)



1. In a motor vehicle having an engine, a carburetor connected therewith and an operator's compartment, the combination of an air pipe extending from the carburetor into open communication with the operator's compartment, a source of liquefied petroleum gas, conduit means connecting said source of liquefied petroleum gas with the carburetor, a heat exchanger in the operator's compartment in open communication with said connecting conduit means for effecting vaporization of the liquefied petroleum gas, outside air intake supply pipes having discharge opening means in the direction of and adjacent the heat exchanger in the operator's compartment, means for supplying heat to one of said intake air pipes, and valve means for controlling the discharge of air from said pipes through the opening onto the heat exchanger.

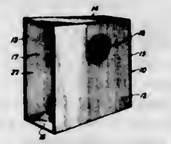
2,835,334
SPEAKER UNIT
James McDonald, Martinez, Calif.
Application May 6, 1954, Serial No. 427,960
1 Claim. (Cl. 181—31)

A sound modifier, particularly for table model radios and the like having small speakers, said modifier comprising an L-shaped housing defining a vertical and a horizontal chamber in open communication at their juncture, said horizontal chamber being of a size generally corresponding to that of the radio with which it is to be used and forming a support for such radio, said vertical cham-



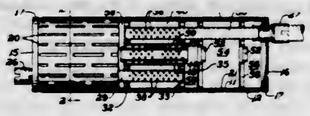
ber being of a height generally corresponding to that of such radio and having ports in the front wall thereof for confronting the back of the radio for the admission of sound waves into said housing, and a panel swingably suspended in said vertical chamber for intercepting and modifying the sound waves.

2,835,335
LOUDSPEAKER HOUSING USING AN OPEN SIDE AS A HORN MOUTH
Courtney Q. Glassey, Rochester, N. Y.
Application May 2, 1955, Serial No. 505,367
12 Claims. (Cl. 181—31)



5. A sound reproducing apparatus comprising in combination a housing having an open side for establishing communication between the interior of said housing and the atmosphere and an opening in a wall of said housing adjacent said open side, a vibrating-diaphragm type loud speaker arranged within said housing, one side of the speaker diaphragm communicating with said opening for emitting the higher frequencies thereof to the atmosphere through said opening, an enclosure for said speaker to form a chamber thereabouts and having an opening therein for establishing communication between the other side of the speaker diaphragm and the interior of said housing, and a relatively long, flared horn substantially encircling said enclosure for directing the lower frequencies of the speaker from the opening in said enclosure to the atmosphere, the exterior surface of said enclosure and succesive walls of said housing cooperating to provide the flare of said horn in one plane from the opening in said chamber to said open side.

2,835,336
SILENCER OR MUFFLER
Floyd E. Deremer, Detroit, Mich., assignor to Oldberg Manufacturing Company, Grand Haven, Mich., a corporation of Michigan
Application July 15, 1953, Serial No. 368,045
12 Claims. (Cl. 181—61)



1. A muffler for use with the exhaust system of an internal-combustion engine including a shell construction having a pair of spaced walls, one of said walls being

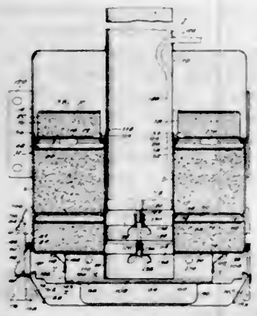
formed with spaced elongated ridges projecting toward and having rectilinear contact with the other of said walls at zones spaced longitudinally and circumferentially of the shell construction, closures secured at the ends of the walls of the shell construction, said ridges forming obstructions to oppose transmission of sound waves in the air contained between the walls of the shell construction, the space between said shell walls being out of communication with exhaust gases passing through the muffler.

2,835,337
PURGE CYCLES FOR PRECIPITATOR
Peter Hodson, Wellsville, N. Y., assignor to Apra Precipitator Corporation, New York, N. Y., a corporation of Delaware
Application August 3, 1955, Serial No. 526,260
9 Claims. (Cl. 183—7)



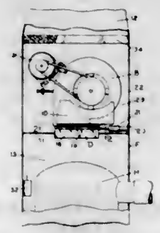
1. A purging system for an electrostatic precipitator having collecting elements between main inlet and outlet ducts comprising; purging gas inlet and outlet ducts connected to said precipitator to direct the flow of purging gas to and through the collecting elements thereof; a gas cleaning device arranged to receive dust laden purging gas from the purging gas outlet; and means returning relatively dust free gas from the gas cleaning device to the main gas inlet of said precipitator.

2,835,338
LIQUID BATH AIR CLEANER
Wilfred W. Lowther, Chicago, Ill., assignor to United Specialties Company, Chicago, Ill., a corporation of Delaware
Application January 6, 1955, Serial No. 480,154
6 Claims. (Cl. 183—15)



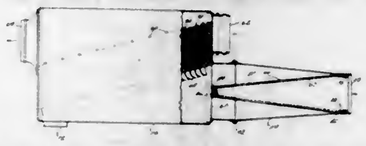
1. In a liquid bath air cleaner, a generally upright housing having an air path with a dirty air inlet and a clean air outlet, a filter element in the air path in the housing, a liquid sump cup removably attached to the lower end of the housing to provide a liquid sump and having a normal liquid level, a seat on the housing for the cup, manually operable attaching means for detachably connecting the sump cup to the housing in engagement with the seat, a bail-type mechanism associated with the sump cup and housing for supporting the cup in substantial spaced relation to the housing out of engagement with the seat, means on the cup to engage the said bail-type mechanism when the manually operable attaching means is detached so that the sump cup will be held in said substantial spaced relation to the housing, such bail-type mechanism being pivoted to the housing and movable between operative and inoperative positions and constructed so that when the attaching means is detached and the bail-type mechanism is in its operative position, it will support the cup in said substantial spaced relation to the housing so that liquid from the filter element and housing may drain back into the cup, but when the bail-type mechanism is in its inoperative position the sump cup may be completely detached and removed from the housing.

2,835,339
AUTOMATIC DAMPER FOR DOWNFLOW FURNACES
John Albert Barry, Salem, Oreg.; Alfrieda Frances Barry, administratrix of said John Albert Barry, deceased, assignor to Vern Reiman, Salem, Oreg.
Application December 12, 1955, Serial No. 552,433
1 Claim. (Cl. 183—32)



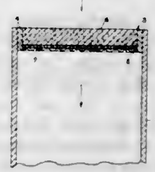
A downflow hot air furnace of the type having a heat exchanger, an air housing surrounding said heat exchanger and extending upwardly substantially thereabove, a horizontal partition positioned in said housing over said heat exchanger, a centrifugal blower mounted in said housing above said partition, said housing having an upwardly extending cold air inlet conduit communicating therewith above said partition and being adapted to communicate with a hot air outlet conduit adjacent the lower end of said housing, and a porous air filter positioned between said cold air inlet and said housing over said blower, a damper attachment comprising a generally rectangular passage-forming shell having spaced vertical side walls connected by spaced vertical end walls with said side and end walls extending perpendicularly through a rectangular opening in said partition, a plurality of parallel damper blades positioned in said shell for movement from a generally vertical position to an overlapping generally horizontal position, a spindle fixed to each end of each of said blades with the spindles on opposite ends of each blade arranged in axially aligned relation, said spindles having axes lying substantially in the same horizontal plane and the spindles of one blade being parallel to the spindles of the remaining blades, said spindles each extending through and journaled in one of said end walls whereby said blades may pivot from said overlapping generally horizontal position closing the passage formed by said shell to said generally vertical position opening said passage, a crank secured at one end thereof to each spindle adjacent one end of said shell, a link pivotally secured to the opposite ends of each of said cranks, and means controlled by the operation of said blower for pivoting said blades from closed position to open position and for pivoting said blades from open position to closed position when said blower becomes inoperative to prevent warm air flow through said shell over said blower and out said cold air inlet.

2,835,340
MOISTURE SEPARATOR
Thomas J. McGuff, Warehouse Point, and Albrecht E. Reinhardt, West Hartford, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application February 17, 1955, Serial No. 488,822
6 Claims. (Cl. 183—65)



1. In combination, in an air and liquid separator, a horizontal air duct, a coalescer comprising a hollow cone formed of a single porous layer of woven napped nylon cloth arranged across said duct and having the open base of said hollow cone facing upstream, an upwardly directed duct having a larger cross-section than said horizontal duct and receiving air from said horizontal duct, turning vanes in said larger duct downstream of said porous cloth directing air and entrained liquid upwardly toward a collector in said upwardly directed duct, said collector comprising multiple layers of a more open mesh corrugated metallic fabric arranged across said upwardly directed duct and forming an angle of less than 45° with the horizontal.

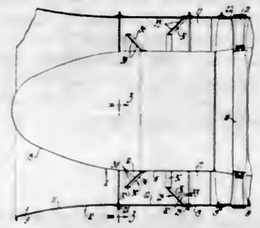
2,835,341
FILTER CONSTRUCTION
Rienzi B. Parker, Jr., Concord, Mass., assignor to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts
Application October 25, 1954, Serial No. 464,351
7 Claims. (Cl. 183—69)



1. A filter which comprises a layer of soft filtering medium of substantial depth and a non-filtering reinforcing layer in contact with the first layer throughout its area, the reinforcing layer being porous for relatively free flow of air therethrough as compared to said first named layer comprising a thin, relatively stiff, material, said reinforcing layer acting to protect said soft filtering medium from local compression when the filter bears against and is supported on a wire mesh base.

2,835,342
AIR INLET SCREENS
Chester E. Hockert, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 9, 1954, Serial No. 448,520
2 Claims. (Cl. 183—70)

1. In an air-breathing engine, in combination, opposed outer and inner walls defining an annular air intake duct for the engine through which air flows at high velocity during operation of the engine and a plurality of screens mounted in the duct, one of said screens extending into the duct from the outer wall and terminating short of the inner wall and the other of said screens extending into the duct from the inner wall and terminating short of the outer wall, so that each screen obstructs a part only of the area of the duct, and the screens overlapping on the cross-section of the duct and jointly covering the cross-section of the duct so that any streamline



through the duct under normal conditions with the screens unobstructed will pass through one of the screens, the screens being spaced longitudinally of the duct to provide a sinuous path for air flow between the screens in the event of obstruction of the screens.

2,835,343
GAS ADSORPTION WITH AN ALKALI METAL-ACTIVATED ADSORBENT
William F. Wolff, Park Forest, and Philip Hill, Lansing, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application September 20, 1956, Serial No. 610,961
8 Claims. (Cl. 183—114.2)

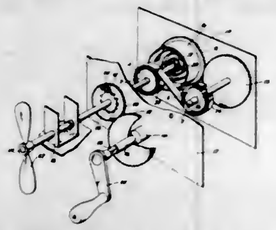


1. In an adsorption process wherein a gas selected from the group consisting of nitrogen, the gases of group zero of the periodic table, normally gaseous hydrocarbons, and mixtures of said gases are contacted with an activated carbon adsorbent under adsorption conditions, the improvement which comprises contacting said gas with an alkali metal-activated carbon adsorbent containing between about 0.05 to 0.2 parts by weight of an alkali metal selected from the group consisting of sodium, potassium, and mixtures thereof per part by weight of the activated carbon and which adsorbent is prepared by mixing said alkali metal in molten form with the activated carbon under an inert atmosphere to obtain a well dispersed alkali metal upon and within the activated carbon, the contacting of said alkali metal-activated carbon adsorbent with normally gaseous hydrocarbons being carried out at a temperature lower than room temperature.

2,835,344
SPRING ACTUATED MOTORS
Peter Stanley Allen, Ickenham, England, assignor to Hendrey Relays Limited, Slough, England
Application August 28, 1956, Serial No. 606,735
Claims priority, application Great Britain August 29, 1955
2 Claims. (Cl. 185—37)

1. A coiled spring motor for producing a constant torque output including a pair of substantially parallel shafts provided with power and storage drums respectively secured to one of said shafts, a spiral motor spring attached at each end to one of said drums and having a run tangential with and between alternate faces of said power

and storage drums, and tensioning means coupled to said power and storage drums for applying a torque to rotate



one of said drums relative to the other in the direction to produce a tightly wound coil of said motor spring when being wound from the power drum to the storage drum.

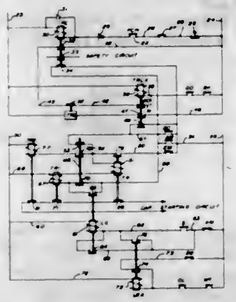
2,835,345
ELEVATOR
Walter Beck, Rock Island, Ill., assignor, by mesne assignments, to Montgomery Elevator Company, a corporation of Delaware
Application September 14, 1954, Serial No. 455,876
7 Claims. (Cl. 187—17)



1. In an elevator mechanism: a shaftway; idler sheave means at the top of the shaftway; cable means trained over said idler sheave means; an elevator cage to which the ends of said cable means are secured; a platform separate from the elevator cage having drive sheave means around which the lower end of said cable means is trained whereby said platform is suspended on said cable means; driving mechanism on the platform for driving said drive sheave means; and electric control means for controlling operation of the driving mechanism.

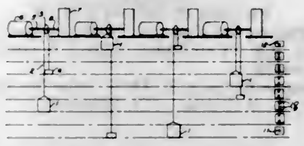
2,835,346
VARIABLE STANDING TIME CONTROL
Raymond A. Burgy, Maumee, Ohio, assignor to Toledo Scale Corporation, Washington Township, Ohio, a corporation of Ohio
Application August 30, 1956, Serial No. 607,129
17 Claims. (Cl. 187—29)

12. In an automatic elevator system, means for establishing different car standing times according to different calls for service comprising, in combination, a plurality of timing relays, a car starting circuit that includes contacts of each of the timing relays, a first relay that is operated when the car stops for a landing call, a second relay that is operated when the car stands at a terminal, a plurality of sets of interconnected contacts arranged to condition a circuit to a first condition when the car is running, the doors are opening, or a person is in the doorway and to a second condition when a door closing operation may be safely initiated, circuit means including said circuit conditioning contacts for initiating a timing operation of at least one of said timing relays when the circuit is in the second condition, contact means on the first relay cooperating with the second timing relay for



rendering the second timing relay effective to open said car starting circuit, and contact means on the second relay cooperating with a third timing relay for rendering the third timing relay effective to open said car starting circuit.

2,835,347
TERMINAL ZONE DISPATCHING
Maynard C. Yeasting, Elmore, Ohio, assignor to Toledo Scale Corporation, a corporation of Ohio
Application February 4, 1957, Serial No. 637,996
14 Claims. (Cl. 187—29)

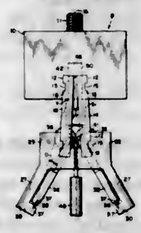


1. In an elevator control system, in combination, a car selection circuit arranged to select cars for dispatching, a dispatcher floor relay for each car arranged to operate the car selection circuit, means for energizing the dispatcher floor relay as the car reaches a preselected position during travel in a first direction, means arranged to maintain said relay energized until the car either starts in response to a dispatch signal or is removed from dispatcher control, call responsive control means for limiting the response of the car to calls in the first direction when said floor relay is energized, a fartherest call reverse circuit, dispatching means, and means responsive to the dispatching means arranged to place the fartherest call reverse circuit in effect and permit response of the car to calls in a second direction.

2,835,348
RETARDER DEVICE
Chester B. Sadtler, Oxnard, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application January 10, 1957, Serial No. 633,510
8 Claims. (Cl. 188—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

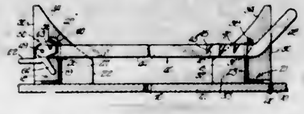
1. A retarder device which comprises a support member, means for fixedly securing said support member, an elongated deformable force-resisting member having one end mounted to said support member, a movable support member attached to the other end of said deformable member, a force-transmitting member hinged at one end to said movable support, a load member adapted to be secured to the object to be retarded, said force-transmitting member and the load member having disengageable cooperating bearing surfaces for swinging said force-

transmitting member laterally against the movable support, means for guiding the movement of the load member, said deformable member and force-transmitting member being so disposed as to form an angle greater than zero degrees and less than 180 degrees between the intersection of a plane passing through said hinge and the point of maximum bending of the deformable member and a second plane passing through the hinge and the point of



contact of said bearing surfaces, the force-transmitting member and the load member at the start of the retarding action being so disposed as to form an acute angle between the intersection of a plane containing the direction of force through the load member and said second plane, said load member being withdrawn from the device during the retarding action to increase said acute angle by flexing said deformable member until the bearing surfaces disengage to release the load member.

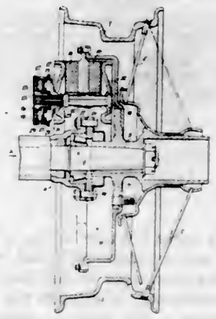
2,835,349
WHEEL BLOCK
Emil, Veselik, Chicago, Ill., and Marion C. Wilson and Walter F. Jicha, Hammond, Ind., assignors to Calumet Steel Castings Corporation, Hammond, Ind., a corporation of Indiana
Application May 3, 1955, Serial No. 505,794
21 Claims. (Cl. 188—32)



1. A wheel chock for dual tired wheels comprising a pair of blocks for engaging under the front portion of the pair of tires, a pair of blocks for engaging under the rear portion of the pair of tires, an upstanding flange fixed between the blocks of each pair of blocks, a vertical slot formed in each flange at the upper edge thereof, said flanges each having an outwardly facing bearing surface adjacent the said slots, and an elongate rigid member extending between said pairs of blocks and receivable in said slots, said member being adapted to pass between the tires of the wheel and carrying at least one lug at one end thereof for engaging said bearing surface of one of said pairs of blocks and a movable cam surface at the other end of said member for engaging said bearing surface of the other of said pairs of blocks, and means for actuating said cam surface for securing said pairs of blocks in tight wedging engagement with the tires of the wheel.

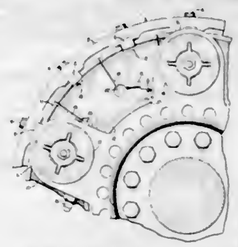
2,835,350
SPOT BRAKES
Henry James Butler, Sutton Coldfield, England, assignor to Dunlop Rubber Company Limited, London, England, a British company
Application August 31, 1953, Serial No. 377,579
Claims priority, application Great Britain September 4, 1952
8 Claims. (Cl. 188—73)

1. A wheel and disc brake assembly comprising a wheel, an annular disc, means connecting the wheel with the outer periphery of the disc, a non-rotatable member located adjacent the inner periphery of the disc, pressure plates located on each side of said disc and extending over a limited part of the path of rotation of the disc and having friction pads secured to said plates to frictionally engage the radially extending sides of said disc, a pair of pivotal supporting means for each of said pressure plates mounted on said non-rotatable member on opposite sides of the center of said disc and pivotally supporting said pressure plates to tilt in all directions, at least one of the supporting means of the pair being



movable axially of said disc and transversely of the axis of the disc to enable the pressure plates to tilt inwardly toward said disc and to also enable said pressure plates to tilt to a limited extent in other directions to accommodate themselves to lateral vibrations and oscillations of said disc, and a fluid pressure mechanism associated with one of said plates having an operating rod extending axially adjacent the inner periphery of said disc and secured to the other of said plates to tilt said pressure plates toward said disc and effect said frictional engagement.

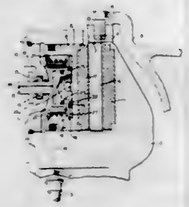
2,835,351
BRAKE CONSTRUCTION HAVING MINIMIZED TENDENCY TO VIBRATE
Edward T. Armstrong, Butler, N. J., and Frank H. Highley, Canton, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application September 14, 1955, Serial No. 534,359
2 Claims. (Cl. 188—73)



2. A brake characterized by its freedom from vibrations, said brake comprising a rotatable wheel, a brake disc having a plurality of slots equally spaced thereabout, a plurality of driving means on said wheel for engaging said slots to drive the disc while permitting axial movement of the disc, a plurality of braking units, means for supporting the braking units in equally spaced relation circumferentially of the disc, each braking unit having a shoe engageable with the disc, and means for advancing said shoes against the disc, there being an odd number greater than one of said braking units about the disc and

the number of said slots in the disc being greater than the number of braking units and not evenly divisible by the number of braking units.

2,835,352
PRESSURE SENSING AUTOMATIC CLEARANCE ADJUSTOR
Theodore Frayer, Canton, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 28, 1955, Serial No. 549,529
4 Claims. (Cl. 188—73)



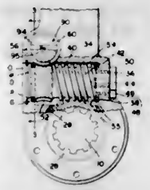
1. In a brake, a brake housing having a brake cylinder therein, a brake piston received in said brake cylinder, pressure fluid being receivable in said brake cylinder for brake action, an automatic adjustment pin having a cup-shaped head thereon, a lost motion connection between the pin and piston, resilient means holding the piston toward the pin, an auxiliary piston received within and closing the open end of the head of said automatic adjustment pin but extending slightly therefrom, said auxiliary piston having a tapered edge flange thereon, and a split resilient ring intermediate said edge flange and said head, said auxiliary piston being forced into said head and expanding said ring by such movement when sufficient pressure is exerted on said auxiliary piston by pressure fluid in said brake cylinder on brake action, said ring when expanded having bearing contact between and spacing said adjustment pin and said brake piston to transmit any deflection forces applied to said brake piston to said adjustment pin, said ring upon brake release contracting to permit bearing contact between said brake piston and the head on said adjustment pin.

2,835,353
POWER OPERATED EMERGENCY BRAKE
Alan D. Brundage, Birmingham, Mich., assignor, by mesne assignments, to The Bingham-Herbrand Corporation, a corporation of Ohio
Application March 23, 1954, Serial No. 418,047
18 Claims. (Cl. 188—106)



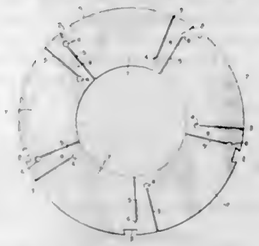
1. In combination, a straight pull brake lever assembly for actuating the emergency or parking brakes of a vehicle, and electrically operable power means mechanically connected to said straight pull brake lever assembly for moving said assembly toward brake setting position and thereby assisting operation of said assembly, and means responsive to the tension transmitted to the brake lever assembly when the brakes are in set position for automatically de-energizing said power means.

2,835,354
SLACK TAKE-UP MECHANISM
Kirkland B. MacDougall, Benton, Pa.
Application May 2, 1955, Serial No. 505,256
6 Claims. (Cl. 188—196)



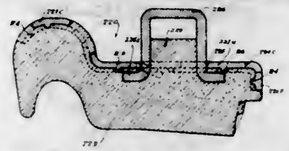
1. In a slack adjusting mechanism for vehicle brakes, an actuating arm assemblage comprising a body portion and an elongate actuating arm integral with the body portion, a first bore in the body portion, an internally splined worm gear rotatably mounted in said bore and adapted to receive therethrough a brake-actuating cam shaft, the actuating arm being adapted for connection with a means for rocking the housing and the associated brake-actuating cam shaft, a second bore in the body portion extending across the turning axis of the worm gear and opening into the upper part of the first bore, a third bore in the body portion above and extending across one end of the second bore and opening downwardly thereinto, a secondary worm shaft rotatably mounted in the second bore and carrying a worm spiral through the major part of its length having driving connection through the first named opening with the worm gear, a worm wheel constituting the remaining part of the length of the secondary worm shaft with the threads extending into the second named opening, a main worm shaft rotatably mounted in the third bore and having driving connection with the worm wheel through the second mentioned opening, ratchet teeth formed on one end of the main worm shaft, a driving ratchet in and turnable relative to the third bore and having operative connection with the ratchet teeth, and means for holding said ratchet against turning as the housing is rocked on the axis of the splined worm gear.

2,835,355
BRAKE DISC
Edward T. Armstrong, Butler, N. J., assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application January 4, 1956, Serial No. 557,291
4 Claims. (Cl. 188—218)



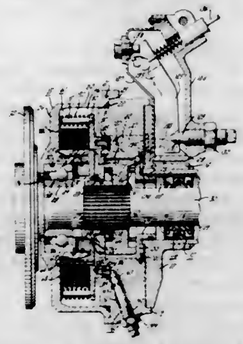
1. A brake disc including a plurality of circumferentially-aligned arcuate segments each of substantial arcuate extent, a radially-directed connecting neck portion positioned between and integrally joining each pair of adjacent segments and extending substantially between the outer periphery of one segment and substantially the inner periphery of the adjacent segment so as to provide relatively free movement between the segments in a tangential direction and relatively limited movement in a radial direction, said segments and necks being of substantially the same axial thickness and all formed from the same piece of metal and having radially-inward and radially-outward directed slots in the disc defining the sides of each neck, each segment having a key notch in its outer peripheral margin near the trailing end thereof in the direction of rotation of the disc in use.

2,835,356
BRAKE SHOES
Rosser L. Wilson, Mahwah, N. J., assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Original application January 12, 1950, Serial No. 138,188. Divided and this application June 7, 1955, Serial No. 513,739
2 Claims. (Cl. 188—252)



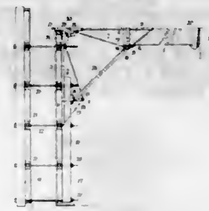
1. In a brake shoe for the flanged driver wheel of a locomotive, an elongated reinforcing back having a web portion with inner and outer faces, a depressed marginal flange along one edge of said web, an upwardly curved flange along the other edge of said web corresponding to the flange of said driver wheel, said inner face of said web having a plurality of integral ribs formed in projecting relation thereon and disposed at an acute angle to the longitudinal axis of said back, said ribs being extended entirely across said inner surface of said web portion, in an intersecting pattern and being continued along both said flanges at the edges of said web, and a cast iron body on said back into but one face of which the ribs of the web and of the upwardly curved flange extend to interlock said body to the back against displacing forces, the height of said ribs being equal to only a minor fractional portion of the thickness of said cast iron body.

2,835,357
LIQUID COOLED FRICTION BRAKE
Oliver K. Kelley, Bloomfield Hills, Gilbert K. Hause, Franklin, and Burnette Heck, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 22, 1955, Serial No. 529,671
8 Claims. (Cl. 188—264)



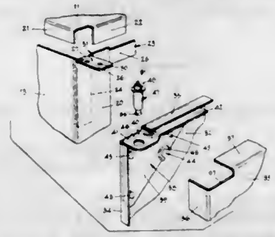
1. In a multiple disk liquid cooled friction brake, an axle housing having a radial flange, an annular wall member on said flange and having a centrally disposed pump cavity, axle means extending from said housing through said cavity, housing means on said wall and forming therewith a closed chamber, a multiple brake-disk assemblage in said housing with some of the disks connected to said axle for rotation therewith and others connected to said housing stationarily, pump means in said cavity driven by said axle means to circulate coolant through the assemblage, and an annular wheel cylinder recess and piston therein in said wall member encircling said pump cavity with the piston engaging said assemblage to actuate the same.

2,835,358
FORM CARRIER AND FORM SKELETON CONSTRUCTED THEREWITH
Hubert J. Lusum, Salzburg, Austria
Application August 28, 1952, Serial No. 306,811
5 Claims. (Cl. 189—36)



1. In a form skeleton having a horizontal member, a vertical member, each of said members having an end portion adjacent to an end portion of the other member, an extension piece connected to and protruding over each of said adjacent end portions with a jib portion defining a bore, the bores in the jib portions of extension pieces connected to adjacent end portions being in register, said extension piece comprising a channel rail extending along one side, and a strap fixed to said rail and embracing the other side of the end portion to which it is connected, and V-shaped bracing means connecting the strap to the rail, and means connecting the extension pieces connected to said adjacent end portions to form a rigid corner, said last-mentioned means comprising a connecting bolt extending through said registering bores and a diagonal member connected to said extension pieces.

2,835,359
DOOR AND HINGE STRUCTURE
Frank J. Boldt, Warren, and Frank M. Beauregard, Salem, Ohio, assignors, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application May 9, 1955, Serial No. 506,794
6 Claims. (Cl. 189—46)



1. In a cabinet assembly including a cabinet body and a door, the combination comprising a first bracket secured to the cabinet body, a second bracket secured to the door, said brackets being provided with overlapping flanges, each said flange being provided with an opening, said openings being in alignment, a removable pin assembly

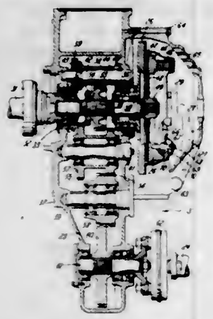
mounted in the opening in said flange on said second bracket, said pin assembly comprising a generally tubular body including a peripheral flange for mounting said tubular body in said opening in the flange of said second bracket with the axis thereof in alignment with the axis of said opening, said peripheral flange on said tubular body contacting the flange of the second bracket at the periphery of the opening in the flange and thereby preventing said tubular body from moving axially in said second flange in a direction away from said first flange, a plunger slidably mounted within said body, one end of said plunger being in the form of a pin engaging the opening in the flange on said first bracket, means for yieldingly urging said plunger in one direction toward the opening in said flange of the first bracket, and means for limiting the movement of said plunger in said one direction.

2,835,360
INSULATED NON-HEAT CONDUCTING METAL WINDOW FRAME
John Bernardoni and Frank E. Bernardoni, Ottawa, Ill.
Application April 3, 1956, Serial No. 575,907
2 Claims. (Cl. 189—75)



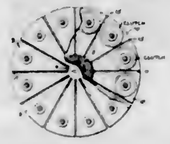
1. A window frame comprising a plurality of frame members joined together to form a lintel, jambs and a sill, each of said frame members including an inner section an an outer section, an insulating strip for each frame member, said sections being disposed in spaced relation and connected together by said insulating strips, said sections having opposed edges, oppositely directed slots in each insulating strip receiving said opposed edges, said opposed edges terminating in enlargements, said enlargements being interlocked with said insulating strip.

2,835,361
CLUTCH TRANSMISSION MECHANISMS
Alfred Erwin Reginald Arnot, Basingstoke, England, assignor to Emmanuel Kaye and John Reginald Sharp, Basingstoke, England
Application June 6, 1955, Serial No. 513,245
Claims priority, application Great Britain June 10, 1954
5 Claims. (Cl. 192—3.5)



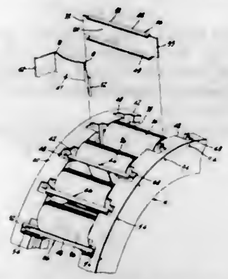
1. A transmission assembly for a vehicle comprising a gear box, an engine drive coupling on one side of the gear box, a friction clutch overhung from the gear box on the other side from the engine drive coupling, the clutch having a rotatable driving friction member and a rotatably-driven friction member, means to urge the two members into engagement with one another and means to move them apart, the driving friction member of the clutch being mounted on a hollow quill supported by the gear box and the driven member on a shaft which extends into the gear box through the quill, operative connections between the drive coupling and the quill to convey engine power to the quill and thence to the clutch member mounted thereon and gears in the gear box connecting the shaft on which the driven member of the clutch is mounted to a final gear box drive located on a different axis from the axis of the quill.

2,835,362
REDUCTION OF HYSTERESIS IN MAGNETIC CLUTCHES
Edward Gordon Perry, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application May 1, 1953, Serial No. 352,419
6 Claims. (Cl. 192—21.5)



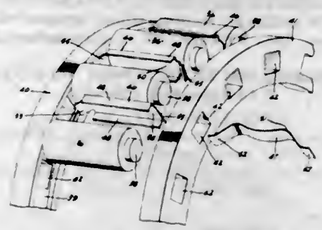
1. In a magnetic clutch arrangement including a pair of magnetic clutches of the fixed working gap type mounted in a stationary magnetic path formed by a pair of core plates, a core mounted between said core plates, and a coil wound on said core the improvement that comprises said core and core plates being split into two parts and high reluctance means separating the parts of said core and core plates.

2,835,363
OVERRUNNING CLUTCH
Spencer W. Long, Inglewood, Calif., assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 15, 1952, Serial No. 320,683
5 Claims. (Cl. 192—45)



1. In an overrunning clutch assembly, the combination of: a first member provided with a series of inclined surfaces, a second member having a cylindrical surface, one of the members encircling the other, a plurality of rollers interposed between said members, each roller engaging the cylindrical surface and engaging one of said inclined surfaces, a pair of roller retainer rings fixed to said first member, each retainer ring having a circumferentially extending groove, the rollers extending axially between said retainer rings, each roller having an integral trunnion projecting from each end thereof and extending into the said grooves, a plurality of outwardly extending slots in each of said retainer rings communicating with said grooves, the slots being sufficiently wide to permit passage of the roller trunnions therethrough, each retainer ring having a recess adjacent each of said slots intersecting the outer periphery of the ring, a shoe to engage each of said rollers, the ends of the shoe being received in opposed recesses in said retainer rings, and a leaf spring associated with each of said shoes for moving each roller circumferentially along said inclined surfaces, each leaf spring and associated shoe being radially insertable as a unit inwardly into the opposed recesses.

2,835,364
OVERRUNNING CLUTCH
John B. Picard, Los Angeles, Calif., assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application June 1, 1954, Serial No. 433,338
4 Claims. (Cl. 192—45)



1. In an overrunning clutch assembly the combination of: an inner member provided with a series of inclined surfaces on its periphery, an outer member encircling the inner member and having a cylindrical bore, a plurality of rollers interposed between said members, each roller engaging the cylindrical bore and engaging one of said inclined surfaces, a pair of roller retainer rings fixed to said inner member and each having an annular groove, the rollers extending axially between said retainer rings and having portions thereof extending into said annular grooves, the retainer rings having circumferentially spaced axially extending windows intersecting said grooves, each window being defined by walls on the ring extending axially completely through the ring, a shoe to engage each of said rollers, the ends of the shoe being loosely received in opposed windows in said retainer rings, and a leaf spring associated with each of said shoes for moving each roller circumferentially along said inclined surfaces, the ends of each leaf spring extending into said opposed windows and engaging a wall surface thereof.

2,835,365
TORQUE COMPENSATING APPARATUS FOR TIGHTENING THREADED FASTENING ELEMENTS
Henry T. M. Rice, San Gabriel, and Robert T. Stevens, Altadena, Calif., assignors, by decree of distribution, to Adele M. Stevens, executrix of the estate of Dillon Stevens, deceased
Application October 20, 1952, Serial No. 315,792
21 Claims. (Cl. 192—56)



1. In torque transmitting apparatus: driving and driven members; coengaging driving and driven clutch teeth on said members effecting a rotatable driving connection between said members, the teeth on at least one of said members being tapered, in order that the torque transmitted between said driving and driven teeth tends to disengage said teeth from each other; holding means exerting a holding force on said teeth tending to maintain them in engagement with each other; and yieldable means between said holding means and one of said members through which the holding force exerted by said holding means is transmitted, said yieldable means enabling said driving and driven clutch teeth to shift partially in a disengaged direction with respect to each other while said holding means continues to exert a holding force on said teeth; said yieldable means being incapable of yielding sufficiently to permit disengagement between said teeth before the holding force of said holding means is overcome by the torque being transmitted between said teeth.

2,835,366
FRICTION CLUTCH, ESPECIALLY FOR MOTOR VEHICLES
Kurt A. Häussermann, Stuttgart, Germany, assignor to Lamellen- und Kupplungsbau August Häussermann, Stuttgart-Oberturkheim, Germany
Application January 18, 1954, Serial No. 404,495
Claims priority, application Germany October 28, 1953
13 Claims. (Cl. 192—68)



1. In a clutch: a fly-wheel, a driven shaft substantially co-axially arranged with regard to said fly-wheel, friction disc means supported by said shaft for frictional engagement with said fly-wheel, a pressure plate operable to press said friction disc means against said fly-wheel, a Belleville type spring engaging said pressure plate and operable to actuate the same, a pair of annular members confining with each other an annular chamber and being supported by said fly-wheel, the inner edge portions of said annular members being bent toward each other so as to define passage means therebetween having a width slightly wider than the thickness of said Belleville type spring, the marginal portion of said spring extending through said passage means and having opposite sides engaged by tapered rounded ends of said bent inner edge portions, those marginal portions of said Belleville type spring which are engaged by said tapered rounded ends being grooved, and pressure exerting means operable to exert pressure upon the central portion of said spring to thereby cause the outer marginal portion of said spring to pivot about the inner edge of one of said annular members for moving said pressure plate away from said fly-wheel.

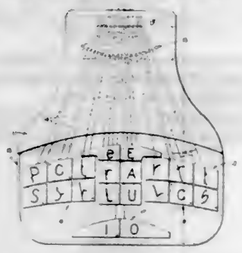
2,835,367
FRICTION BUTTON AND SECURING MEANS THEREFOR
Rudolph Edward Steck, Stratford, Conn., assignor to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey
Application April 25, 1955, Serial No. 503,404
5 Claims. (Cl. 192—107)



1. A friction assembly comprising a flat-bottomed metallic holder cup having an inwardly inclined conical side wall, a complementary frusto-conical friction mate-

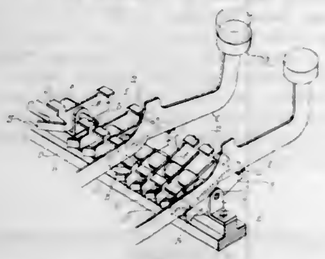
rial composition element disposed therein and peripherally contiguously embraced in interlocking reinforcing engagement thereby, said friction element being formed with an inverted frusto-conical axial aperture, and a flat-bottomed metallic conical rivet cup complementary to and disposed within said conical aperture and in abutting engagement with the bottom of the holder cup, the bottoms of said cups being formed with concentric axial apertures.

2,835,368
STENOGRAPHIC MACHINE
Nicholas T. Berkelmans, Santiago, Chile
Application October 31, 1955, Serial No. 543,813
10 Claims. (Cl. 197—9)



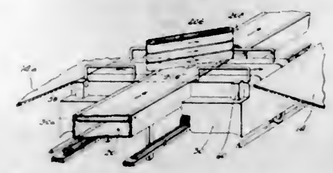
6. A machine for recording indicia including a single case keyboard consisting of a block of selectively operable keys bearing indicia, for initial consonants, arranged in three columns, a block of selectively operable keys bearing indicia, for vowels and liquid consonants, arranged in two columns, a block of selectively operable keys bearing indicia, for final consonants, arranged in three columns, and a set of types operatively connected to said keys, the types bearing indicia which correspond to the indicia of the keys, the keys being operable singly or in multiple, either in the same or different blocks to record a facsimile indicia of the key operated or a composite of two or more simultaneously operated keys.

2,835,369
KEY INTERLOCK
Charles Schroder, West Hartford, Conn., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application November 2, 1956, Serial No. 620,121
4 Claims. (Cl. 197—107)



1. The combination with a row of laterally adjacent key operable members, of a row of locking rockers of sheet material arranged in flatwise neighboring relations and pivoted intermediate two ends on a common axis, the right one of any considered pair of rockers being rockable by one key operable member in one direction and the left rocker of the same pair being rockable by the same key operable member in said other direction, each rocker which neighbors another to the right having an edge facing in said one rocking direction and each rocker which neighbors another to the left having an edge facing in said other rocking direction, the oppositely facing edges of any two neighboring rockers being overlapping laterally in respect to one another and the oppositely facing edges on each rocker being formed by shearing the rocker transversely of the sheet material of which the rocker is formed thereby to provide two sheared, laterally offset edges in exactly the same plane, operation of any key operable member, by rocking its two related rockers oppositely and acting through said overlapping rocker edges, causing the more leftwardly and rightwardly disposed rockers to stand similarly rocked oppositely, whereby the key operable members are operable only one at a time.

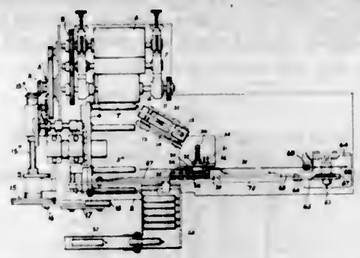
2,835,370
ARTICLE HANDLING APPARATUS
Harry C. Warrington, Aurora, Colo., assignor to United Air Lines, Inc., Chicago, Ill., a corporation of Delaware
Application July 23, 1957, Serial No. 673,628
7 Claims. (Cl. 198—21)



1. Article distributing means comprising an elongate pathway, an elongate receiving means in parallel spaced relationship with at least a portion of said pathway, drive means for moving articles along said pathway, and diverter means intermediate said pathway and said receiver means and movable longitudinally therebetween for diverting articles from said pathway onto said receiving means at predetermined, spaced intervals along the length of said receiving means, said diverter means comprising an angularly disposed diverter extending transversely over said pathway, a transverse carrier extending between said pathway and said receiving means, drive means for said diverter means, and control means on said diverter means for actuating said drive means and intermittently moving said diverter means parallel to said receiving means in response to the passage of articles whereby said articles are placed in longitudinally spaced relationship on said receiving means, said control means including starter means sensitive to the arrival of an article adjacent said transverse carrier to actuate said drive means and timer means responsive to said starter means to deactuate said drive means.

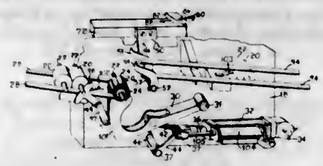
2,835,371
COLLAPSIBLE TUBE HANDLING MECHANISM
Walter T. Davis, Wheeling, W. Va., assignor to Wheeling Stamping Company, Wheeling, W. Va., a corporation of West Virginia
Application September 14, 1953, Serial No. 379,831
18 Claims. (Cl. 198—24)

1. A collapsible tube handling mechanism comprising a fixed rotatable transfer wheel having a plurality of fixed spindles thereon, means for intermittently rotating the wheel to successively present one of said spindles to tube receiving position and another to tube discharging position, tube-supporting elements at each of said positions axially aligned with the spindles at the respective positions and in confronting relation thereto, a reciprocable pusher synchronized with the wheel operating mechanism movable along the tube-supporting element at the receiving position for shoving a tube neck end first from the confronting tube-supporting element to the aligned spindle of said wheel, another reciprocable pusher movable along the spindle at the discharging position for removing a tube base end first from a spindle of said wheel at the



discharge position to the aligned tube supporting element at the discharge position, said second pusher being operatively connected with the first.

2,835,372
INSULATING MACHINE
John M. Biddison, Dayton, Ohio, assignor to Harry W. Moore, Dayton, Ohio
Application August 20, 1953, Serial No. 375,523
5 Claims. (Cl. 198—26)



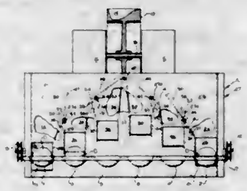
1. In a transfer assembly for movement of an article of manufacture, comprising receiving means for directing a supply of articles of manufacture to the transfer assembly, a clamp member disposed in spaced relation from the receiving means, a stop member attached to the receiving means for controlling movement of articles of manufacture upon the receiving means, a transfer arm movable to a position adjacent the receiving means, the transfer arm also being movable to a position adjacent the clamp member, the transfer arm being engageable with the stop member for operation thereof, guide means for directing an article of manufacture away from the transfer assembly, a catch finger movably disposed adjacent the guide means, the catch finger being in the path of movement of an article of manufacture carried by the transfer arm, the catch finger being movable to permit an article of manufacture to be moved by the transfer arm to the clamp member, the catch finger directing an article of manufacture to the guide means during movement of the article of manufacture from the clamp member.

2,835,373
ARTICLE ALIGNING CONVEYOR FOR COLOR SORTING MACHINE
Everett H. Bickley, Narberth, Pa.
Application May 10, 1954, Serial No. 428,748
3 Claims. (Cl. 198—29)



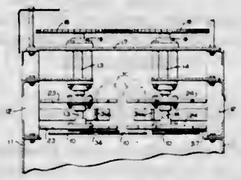
1. An object sorting unit of the type having a photoelectric mechanism for scanning objects at an inspection point, comprising a conveyor for feeding objects from a receiving point to the inspection point, means for driving said conveyor, guide members forming two sets of abutments projecting over said conveyor at opposite sides respectively and terminating in laterally spaced relation to the median line of said conveyor, said guide members being so spaced as to form a zigzag channel of a width at all points so substantially greater than the maximum size of any object being sorted as to permit free lateral movement thereof for positioning all objects medially of said conveyor, the spacing of the abutments of the set at one side of said conveyor from said medial line progressively increasing from the receiving end of said conveyor, whereby the abutment spacing medially of the conveyor increases to compensate for varying object sizes while guided into a single medial file.

2,835,374
AUTOMATIC LOADERS FOR PROOFERS
Eugene O. Engels and Harold J. Daley, Saginaw, Mich., assignors to Baker Perkins, Inc., Saginaw, Mich.
Application October 13, 1955, Serial No. 540,294
6 Claims. (Cl. 198—31)



1. Loading apparatus for proofers, adapted to load a plurality of doughpieces into an elongated tray moving upwardly in the rear of said apparatus, comprising a distributor housing having a plurality of vertically staggered, rearwardly extending chutes arranged abreast of the path of travel of said tray, a pair of downwardly pitched, diverging slideways extending laterally to said chutes and above the same, each slideway including flaps above each of said chutes except said endmost chutes pivotal with relation to said distributor out of the plane of said slideway to interrupt said slideway and providing an opening to said chutes below, means delivering said doughpieces alternately to the slideways near the adjacent ends thereof, and means pivoting flaps on alternate slideways successively in timed sequence with the travel of said tray to channel doughpieces sequentially to each of said chutes.

2,835,375
DISTRIBUTOR MECHANISM WITH CARRIER PLATES
Leonard McGihon, San Leandro, Calif., assignor to King Sales & Engineering Co., San Francisco, Calif.
Application November 16, 1955, Serial No. 547,269
3 Claims. (Cl. 198—31)



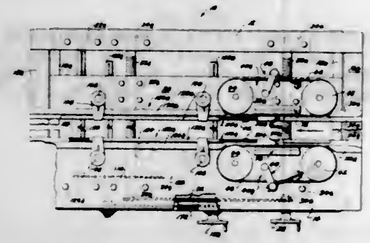
1. In a single to multiple file distributing mechanism, for articles such as containers, a pair of pocket units, each unit having an endless series of pockets therein and an endless series of article-engaging fingers alternating in position with respect to said pockets, means for mounting said pocket units for movement with a

portion of their peripheries in approximate tangency, and with a pocket of one unit mating with a finger of the other unit, means forming a single-file feed path leading to said units, whereby the fingers of one pocket unit place articles in the pockets of the other unit and vice versa, and platform means below certain of said pockets and carried by the associated pocket unit for bodily lifting and carrying a container therein to a discharge point.

2,835,376
ARTICLE CONVEYING APPARATUS

Andrew J. Alessi, Jr., Colonia, and Ira S. Gottscho, Millburn, N. J., and Malcolm Hirschey, Woodside, N. Y., assignors to Adolph Gottscho, Inc., Hillside, N. J., a corporation of New York

Application November 30, 1953, Serial No. 395,018
17 Claims. (Cl. 198—34)



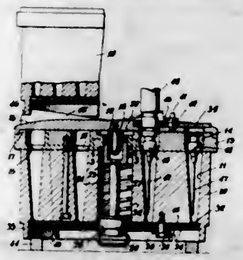
1. Article conveying apparatus of the described character comprising vertically fixed, stepped conveying surface defining means having an initial relatively low level portion and a following relatively high level portion separated by an upstanding lateral shoulder; belt conveyor means at the opposite sides of said conveying surface and having horizontally moving upstanding belt runs extending along said initial portion, past said upstanding lateral shoulder and along at least a part of said following portion extending from said shoulder for frictionally engaging the side surfaces of successive articles fed to the apparatus at said initial portion; lift means operative intermittently to raise each of the successive articles over said shoulder for continued movement onto said following portion under the influence of said belt conveyor means; chain conveyor means having spaced apart pushers thereon which move along and extend above said following portion of the conveying surface for engagement behind each of the successive articles moved onto said following portion thereby to propel the successive articles along said following portion in spaced apart relationship and past an operating station disposed adjacent said following portion; and hold down means disposed above said conveying surface defining means for limiting the vertical movement of successive articles during travel of the latter along said conveying surface defining means, and including vertically resilient means extending along at least the portion of said hold down means in proximity to said operating station to impose an increased and yieldable downward pressure on each of the successive articles during movement of the latter past said operating station.

2,835,377
STERILE HYPODERMIC NEEDLE AND SYRINGE HOLDER

Edwin A. May, Glen Rock, and Frederick J. Maltais, Hackensack, N. J., assignors to Becton Dickinson and Company, Rutherford, N. J., a corporation of New Jersey

Application December 30, 1954, Serial No. 478,786
7 Claims. (Cl. 206—17.5)

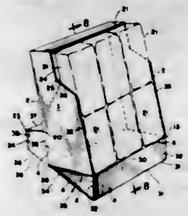
1. A sterile hypodermic needle and syringe holder including in combination a body assembly formed with a series of transverse bores extending completely through it from its upper to its lower face, a cover rotatably supported by said assembly, being common to all of the bores and obstructing the upper ends thereof, said cover being formed with an opening alignable with said bores—under rotation of said cover with respect to said assembly—whereby articles supported in individual bores are selectively withdrawable through the cover opening, a layer of filtering material disposed adjacent the lower face of said assembly and also common to all said bores, and means securing said layer against detachment from said assembly.



2,835,378
CONTAINER

Elmer D. Sramek, Cicero, Ill., assignor to F. B. Redington Co., Chicago, Ill., a corporation of Delaware

Application March 2, 1955, Serial No. 491,705
4 Claims. (Cl. 206—45.21)



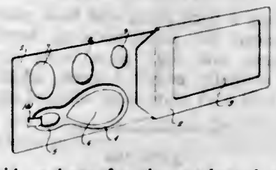
3. A carton formed from a single sheet of fibrous material comprising a front wall, a rear wall, connecting side walls, a top and a bottom, said top and bottom comprising side and end flaps arranged in overlapping position and fastened together to form a completely enclosed box-like carton, said carton having a perforated line across the top thereof, and a perforated line extending downwardly in three straight segments on each side wall, said perforated line on each side wall including a first perforated line segment extending vertically along the side wall and merging with the perforated line across the top, a second perforated line segment on each side wall extending diagonally downwardly from the first perforated line segment to the front wall of the carton, and a third perforated line segment extending downwardly along the front wall from the second perforated line segment to the bottom of the carton, said perforated lines defining a severable section adapted to form an easel to support the carton and thus form a display carton to display the contents within the carton, said severable section having a first score line at the juncture of the top with the top of the front wall, a second score line below the first score line and at a point where the second and third perforated line segments meet, a third score line below the second score line, a fourth score line at the juncture of the bottom of the section with the bottom of the carton hingedly connecting said severable section thereto, all of said score lines being mutually parallel to each other and extending transversely across the severable section, said section being adaptable to bend along the fourth score line to form a relatively upstanding part to support

the carton in a rearwardly tilted position, said section also being adaptable to bend along the third score line and being foldable rearwardly whereby that part of the section between the third score line and the second score line is substantially equal dimensionally to the carton bottom and forms a supporting bottom for said easel.

2,835,379
METATARSAL PAD AND PACKAGE

William M. Scholl, Chicago, Ill.

Application March 7, 1955, Serial No. 492,336
1 Claim. (Cl. 206—47)



A foot aid package for the graduated and extended treatment of a foot affliction, comprising a mounting element, a tab projecting from said element, a corrective appliance having a toe loop hooked over said tab to hold the appliance on the element pending use, a cushion lift having an adhesive surface by which it is removably attached to said appliance, a plurality of similar lifts of different sizes removably attached by their adhesive surfaces to said element pending selective use on said appliance, and a wrapper enclosing said mounting element.

2,835,380
PACKAGE AND METHOD OF FORMING

Harry E. Engleson, Chicago, and Elmer D. Sramek, Cicero, Ill., assignors to F. B. Redington Co., Chicago, Ill., a corporation of Delaware

Application March 16, 1955, Serial No. 494,593
1 Claim. (Cl. 206—47)



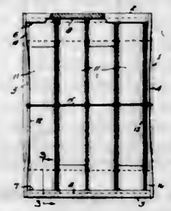
A package comprising a tubular liner made of a single sheet of material and containing a substance, said liner having front, back and side walls and top and bottom ends defining an enclosure, one end of said container having the front, back and side walls folded and sealed upon each other defining a flat projecting end, said front wall having an inclined portion extending upwardly toward said back wall and terminating at the inner end of said projection, said projecting end being bent toward said inclined portion and then reversely bent to define a shelf at one end of the liner, said shelf having a configuration which is substantially equal to the cross-section area of the liner, an outer carton of a cross section area similar to the cross section area of the liner and completely enclosing the filled liner and shelf, whereby said shelf defines a chamber with the corresponding end of the carton, and an article in said chamber supported on said shelf.

2,835,381
CRATES FOR PACKAGING AMMUNITION

Edward L. Ackermann, Sparta, and George R. Buck, Denville, N. J., Francis H. Miles, Jr., Washington, D. C., and Henry C. Will, Wharton, N. J., assignors to the United States of America as represented by the Secretary of the Army

Application June 29, 1954, Serial No. 440,302
4 Claims. (Cl. 206—65)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In combination with a packing crate having end walls and resilient side walls, a load supported by and extending between said end walls, said load comprising a plurality of parallel elongated containers arranged in side by side relation between said side walls, there being a narrow space provided between the vertical face of an end container and its corresponding side wall, a tensioned



band encircling said crate and said load intermediate said end walls, said tensioned band being drawn tight to force said end walls into intimate engagement with the ends of said containers and said side walls into abutting engagement with the vertical walls of said end containers in the vicinity of said tensioned band.

2,835,382
CARTON CARRIER

Wolfgang B. Fahrenbach, Oakland, Calif., assignor to Edlo, Incorporated

Original application October 14, 1954, Serial No. 462,347. Divided and this application December 19, 1955, Serial No. 553,998
3 Claims. (Cl. 206—65)



1. A carrier for a pair of rectangular milk cartons having peripherally extending flanges at their upper ends comprising: a handle formed from a planar sheet of semi-rigid sheet material and provided with top and bottom edges, first and second lines of weakness spaced from said bottom edge and parallel thereto, said sheet being folded on itself along said first line to provide a single thickness tab extending outwardly of one side of said sheet, a double thickness tab struck from said sheet and folded along said second line of weakness and along a third line spaced inwardly of said second line to provide a double thickness with said third line alongside said first line and with said double thickness tab on the opposite side of said section from said first tab whereby said handle is adapted to be positioned between said cartons with said tabs respectively engaging under the adjacent flanges of said pair, and a separate collar around said upper ends for holding said cartons together.

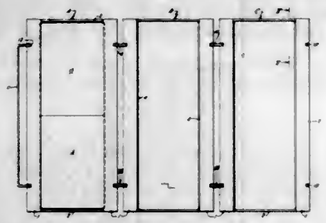
2,835,383
FOLDING DISPLAY DEVICE

John Phillip Johnson, Montrose, N. Y., assignor to Blue Ridge Glass Corporation, Kingsport, Tenn., a corporation of Tennessee

Application September 19, 1956, Serial No. 610,816
8 Claims. (Cl. 206—82)

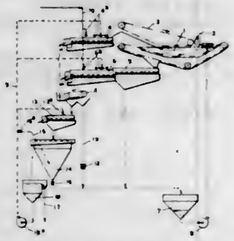
1. In a folding display device for flat glass samples, a plurality of rectangular frames disposed edge to edge, each frame comprising a pair of spaced parallel side bars having channels extending lengthwise of their inner sides, a stiff wire at each end of the pair of bars and secured rigidly thereto to form the ends of the frame, compressible material substantially filling each channel and adapted to be compressed far enough by one edge of a glass sample to permit the opposite edge of the sample to be inserted in the other channel, whereupon the com-

pressible material in both channels will be only partially compressed and will hold the sample in the channels,



and means hinging the frames together so that they can be folded face to face.

2,835,384
PROCESS FOR RECOVERY AND PURIFYING OF FINELY DIVIDED HEAVY MATERIALS
Klaas F. Tromp, Bilthoven, Netherlands
Application May 11, 1954, Serial No. 429,028
Claims priority, application Belgium June 13, 1953
2 Claims. (Cl. 209—12)



1. A process for recuperating and purifying high specific gravity solid particles present in the rinsing water of a washing plant for minerals such as raw coal, the washing plant operating by means of a suspension in which said high specific gravity solid particles form the discontinuous phase, the high specific gravity solid particles being constituted in part by magnetizable and in part by non-magnetizable materials, the process comprising the steps of magnetically separating the magnetizable high specific gravity solid particles from the rinsing water, removing particles having a size exceeding the maximum particle size of said high specific gravity solid particles from the remaining water with a fine screen, separating the non-magnetizable high specific gravity solid particles in the rinsing water hydraulically from low specific gravity solid particles still suspended therein, recycling only part of the rinsing water containing said low specific gravity solid particles, depositing the non-magnetizable high specific gravity solid particles, and returning the magnetizable and the non-magnetizable high specific gravity solid particles to the suspension of the washing plant.

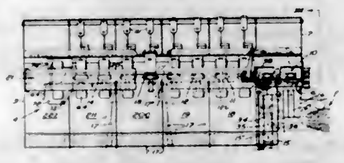
2,835,385
LUMBER SORTING CONVEYOR
Robert H. Eckart, Corydon, Ind., assignor to The Keller Manufacturing Company, Corydon, Ind., a corporation of Indiana
Application December 20, 1954, Serial No. 476,120
1 Claim. (Cl. 209—90)

A lumber sorter comprising an elongated conveyor for moving lumber in the direction of its length, an auxiliary conveyor disposed normal to said elongated conveyor and terminating closely adjacent said elongated conveyor, an ejector for selectively transferring lumber from said elongated conveyor to said auxiliary conveyor, said ejector including an ejecting arm mounted for movement into alignment with a length of lumber, electrical means for positioning said ejecting arm, said electrical means being controlled by a pair of switches actuated in response to movement of lumber thereby, said longitudinal



conveyor having a back plate, said back plate being adjustably mounted for accommodating lumber of different thickness, said back plate being carried by a plurality of pivotally mounted arms, adjusting means for retaining said back plate in an adjusted position.

2,835,386
EGG GRADER
Norbert F. Marzolf, Strykersville, N. Y., assignor to Marzolf Manufacturing Company, Strykersville, N. Y.
Application November 12, 1953, Serial No. 391,509
18 Claims. (Cl. 209—121)

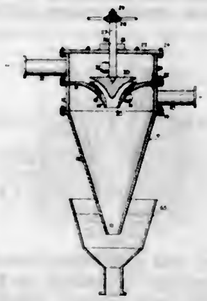


1. In a mechanism for grading articles by weight, a series of balances having article receiving platforms arranged in alinement with each other, article delivery means arranged adjacent one end of said series of platforms, and article transfer means for transferring articles from said delivery means to the adjacent balance platforms and then to succeeding balance platforms comprising carriage means mounted on said mechanism for movement with a predetermined stroke back and forth over said platforms and said delivery means, article engaging means carried by said carriage and movable relative thereto into and out of article engaging position, drive means for said carriage including a drive part selectively alternately engageable with said carriage for driving the same in either of two positions relative thereto, means automatically shifting said drive part between said positions at opposite ends of the carriage stroke, and means actuated by said drive part during such shifting thereof for alternately moving said article engaging means into and out of article engaging position.

2,835,387
CENTRIFUGAL METHOD AND MEANS FOR CONTINUOUSLY FRACTIONATING SOLID PARTICLES IN LIQUID SUSPENSION THEREOF
Freerk J. Fonteln, Heerlen, Netherlands, assignor to Maatschappij voor Kolenbewerking Stamicarbon N. V., Heerlen, Netherlands
Application March 11, 1949, Serial No. 80,885
Claims priority, application Netherlands March 25, 1948
16 Claims. (Cl. 209—211)

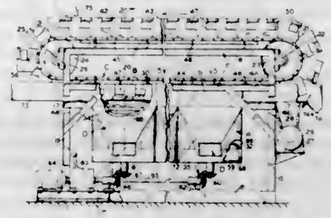
6. In apparatus for continuously fractionating solids in liquid suspension thereof a substantially conical separating chamber having a tangential inlet near the widest end thereof, a closure member with a central aperture at said end, a second aperture at the apex end of said chamber, which end is positioned in a liquid receiving vessel at a point substantially below the level of the liquid therein, the liquid in said vessel being in open communication

with atmospheric air, means for outwardly directing the discharge from the said central aperture in a thin circu-



lar stream and means for varying the distance in axial relation between said means and said closure member.

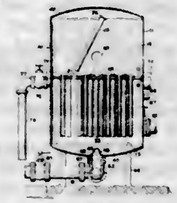
2,835,388
CONSTANT CURRENT AIR STRATIFIER
Lyle G. McLean, Warden, Wash.
Application May 17, 1956, Serial No. 585,432
8 Claims. (Cl. 209—474)



1. A separator or drier apparatus comprising a frame, a bed on said frame and having a foraminous portion, a series of aligned air ducts mounted on said frame beneath the foraminous portion of said bed, means for inducing an air stream upwardly through said ducts and the foraminous portion of said bed to dry or stratify by flotation materials on said bed, a series of aligned discharge chutes on said frame and adjacent at least one side of said bed, and an endless conveyor mounted on said frame longitudinally above said bed for moving the stratified materials along said bed and discharging the lower strata of the materials from said bed into said chutes, said air ducts each comprising a duct open at both ends with one of said ends being circular and the other end being rectangular with the walls of the duct blending between said ends and defining a cross-sectional area of uniform size throughout the length of said duct, the center lines of two opposed sides of said duct being parallel to facilitate mounting of adjacent ducts in side-by-side relation.

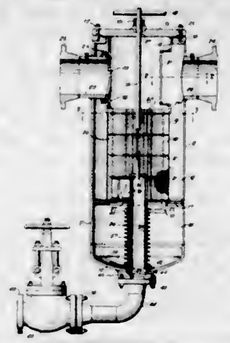
2,835,389
DIATOMITE FILTER UNIT
William C. Sharp, Memphis, Tenn.
Application June 22, 1955, Serial No. 517,201
4 Claims. (Cl. 210—323)

1. In a diatomite filter unit of the up-flow pressure type adapted to be used in the filtering of water or other liquids, in combination, a tank comprising a hollow cylinder, a dome fixed at the upper end of said cylinder and a dished bottom fixed at the lower end of said cylinder, a suspending plate transversely disposed internally of said tank and attached thereto whereby said tank is divided into an upper effluent chamber and a lower influent chamber, said suspending plate being bored to form a plurality of staggered apertures, a plurality of depending porous diatomite coated filter elements respectively depending through the apertures in said suspending plate, said filter elements each having a radially extending flange adjacent its upper end overlying said suspending plate whereby said filter elements are removably supported by said suspending plate, a plurality of holding means removably attached to said suspending plate intermediate said apertures, each said holding means overlying a plurality of said filter elements whereby said filter elements are removably secured in said suspending plate, each said filter element being of a length less than the distance between said suspending plate and said dome whereby said filter elements may be upwardly withdrawn into said effluent chamber from said



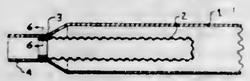
suspending plate, access means in the side of said cylinder communicating with said effluent chamber whereby said filter elements may be removed from said tank, said dished bottom being centrally bored to form an aperture for the introduction of liquid to be filtered into said influent chamber, a conical deflector overlying and spaced from the aperture in said dished bottom whereby liquid introduced through said aperture will be deflected away from said filter elements, means for introducing liquid to be filtered under pressure into said influent chamber through the aperture in said dished bottom whereby said liquid is forced through said filter elements into said effluent chamber, and means communicating with said effluent chamber for conducting filtered liquid to a point of use.

2,835,390
FLUID STRAINERS
William R. King, Longview, Tex.
Application September 27, 1954, Serial No. 458,545
16 Claims. (Cl. 210—411)



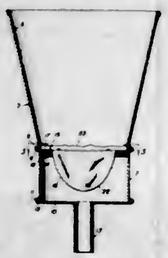
1. A fluid strainer including a closed vessel having an inlet and an outlet, a cylindrical strainer element in the vessel in direct communication with the inlet, cleaning means for reversing the flow through the strainer element comprising nozzle means communicating with and movable longitudinally and circumferentially over the inner surface of said element, means for imparting movement to the nozzle means, and guide means in said element and engageable by said nozzle means for directing the movement of said nozzle means.

2,835,391
SINGLE OPEN END TYPE FILTER CONSTRUCTION
Edward W. Bottum, Detroit, Mich.
Application July 12, 1954, Serial No. 442,803
1 Claim. (Cl. 210—448)



A strainer construction comprising a one piece conduit having an intermediate section and end sections; one of said end sections being of reduced diameter as compared with the intermediate section and having a cylindrical inner surface; a rigid ring within said reduced diameter end section and having a cylindrical outer face; and a sleeve-like screen having a cylindrical end portion thereof engaging the outer cylindrical surface of the ring and the inner cylindrical surface of the reduced diameter end section; the inner surface portions of said reduced diameter end section projecting into the screen spaces to securely lock the screen in the conduit; said sleeve-like screen extending from the ring into the intermediate conduit section in spaced relation with the intermediate section wall, whereby all of the screen portions within the intermediate section are enabled to act as strainer media.

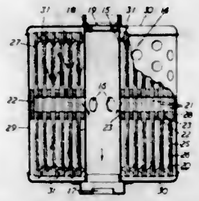
2,835,392
FILTER FUNNEL
Eugene B. Hamilton, Lexington, Mass.
Application April 4, 1955, Serial No. 498,584
1 Claim. (Cl. 210—477)



A filter comprising a cylindrical chamber having an open upper end attachable to the lower portion of an upwardly flaring mouth portion, an annular flat flange in the upper portion of said chamber, a pair of upper and lower flat rings fitting in said chamber above said flange with the lower ring seated on said flange, a flexible filtering element depending through the lower ring and said flange into the chamber and having a marginal edge lying between said wings, said upper ring having circumferentially spaced openings therein and said lower ring having bendable tongues thereon extending through the marginal edge of said element and through said openings and bent downwardly against the upper ring whereby to lockably clamp the marginal edge of said element between said rings, said flange being internally larger than said rings to facilitate extending the element through said flange.

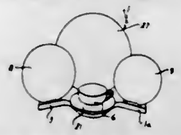
2,835,393
FILTER ELEMENTS
Kenneth Ernest Buckman, Redbridge, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 27, 1954, Serial No. 458,327
Claims priority, application Great Britain
October 12, 1953
5 Claims. (Cl. 210—487)

1. A filter element comprising a tube with an aperture in its wall, a sheet having contacting layers of filter medium sealed together at their edges, said sheet forming multiple convolutions about said tube, said convolutions defining open flow passages between them at each end of the element, spacing means interposed between



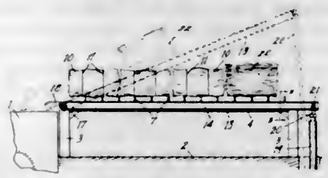
said convolutions, and said convolutions and spacing means having openings cooperating to form a passage communicating with said aperture and closed from the exterior of said element.

2,835,394
DISPLAY RACK
Philip M. Seymour, Ann Arbor, Mich.
Application May 3, 1955, Serial No. 505,578
5 Claims. (Cl. 211—41)



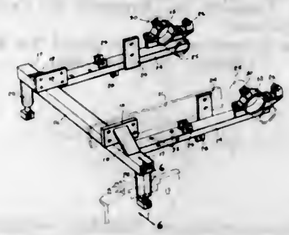
1. A dinnerware-supporting element comprising a base, a hollow projection extending upwardly therefrom to provide a dinnerware-supporting member, a plurality of arms extended upwardly from said base in front of said projection, and a plurality of cut-outs in said base between said projection and said arms, whereby when a plurality of the plate-supporting elements are positioned on one another one rack projection will telescope within another rack projection and the arms on one rack will project through the cut-outs on another rack.

2,835,395
BALE HANDLING APPARATUS
Frederick B. Curtenius, Kalamazoo, Mich.
Application January 7, 1957, Serial No. 632,726
7 Claims. (Cl. 214—130)



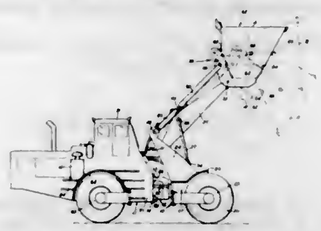
1. In a bale handling apparatus, the combination of a bed comprising a plurality of elongated laterally spaced bars provided with longitudinally spaced series of upwardly projecting stud-like bale supports, the bale supports being transversely aligned and spaced to receive the forks of a lifting truck between them, a chute pivotally mounted on said bed at one end thereof and comprising side rails and a plurality of laterally spaced longitudinal bars between said side rails, said longitudinal bars being spaced to lie between the bars of the bed when the chute is in retracted position with the side rails thereof at the outer sides of the bed, said chute side rails and longitudinal bars being below the plane of the upper ends of said bale support when the chute is in retracted position, and means for raising and lowering said chute on its pivotal mounting, said chute when raised clearing said bale supports so that bales on the chute may slide therefrom without engagement with said bale supports, said chute bars being provided with discharge extensions projecting beyond the end of the bed on which the chute is pivoted.

2,835,396
RIGID MOUNTING FOR EQUIPMENT ON TRACTOR
John S. Pilch, Ware, Mass.
Application November 16, 1955, Serial No. 547,064
8 Claims. (Cl. 214—131)



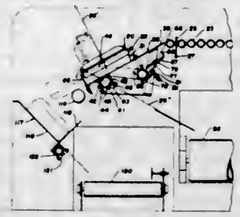
2. In an equipment mounting sub-frame assembly for connection to the frame of a crawler tractor, a pair of spaced parallel supports adapted to be positioned for connection to the tractor frame, a rigid connecting member rigidly connected to said supports, first connecting means carried by each of said supports for connection to the tractor axle and second connecting means spaced from said first connecting means for rigidly connecting said assembly to the tractor frame, said connecting member having end portions extending outwardly beyond said parallel supports and having their end portions overlying the tractor tracks and shock absorbing means connecting said end portions of said connecting member with said tractor tracks.

2,835,397
LOADER
Eddie B. Wagner, Portland, Oreg., assignor to Mixermobile Manufacturers, Inc., Portland, Oreg., a corporation of Oregon
Application June 27, 1955, Serial No. 517,998
8 Claims. (Cl. 214—140)



1. A loader comprising a vehicle having a frame, a boom pivotally connected to said frame to provide for raising and lowering said boom, a bucket supporting structure pivotally connected to the end of said boom remote from said vehicle for movement about an axis extending transversely of said boom, a bucket supported by said structure, said bucket having a load carrying position and having a rear wall, side walls and a front wall, said front wall and side walls forming a scoop portion of said bucket, said structure having a bottom portion extending forwardly from said axis under said bucket and a front portion extending upwardly from said bottom portion adjacent the front wall of said bucket when said bucket is in said position, said bucket being pivotally connected to said front portion adjacent said front wall and intermediate the height of said front wall for movement about an axis extending transversely of said boom and spaced from the first mentioned axis, and power means to raise and lower said boom and move said supporting structure and said bucket relative to each other and said boom about said axes, said supporting structure also having a rear portion extending upwardly, the power means for moving said supporting structure relative to said boom being connected between the upper portion of said rear portion and to said frame above the pivotal connection of said boom to said frame so as to form a parallelogram linkage with said boom when said bucket is in said load carrying position.

2,835,398
BREAD DEPANNER
Hiram E. Temple, New York, N. Y., and John C. Stafford, Alhambra, Calif., assignors, by mesne assignments, to Capital Products Corporation, a corporation of Pennsylvania
Application April 21, 1955, Serial No. 502,767
4 Claims. (Cl. 214—314)



1. In a device for dumping bread loaves from baking pans, a table normally disposed to receive and support baking pans to be dumped, said table being pivotally mounted for rotation about a substantially horizontal axis, actuating means including a reversing motor for rotating said table from said receiving and supporting position to an upwardly inclined partially inverted position for dumping the bread loaves from said baking pans and for subsequently rotating said table from said bread dumping position through said receiving and supporting position to a downwardly sloping pan discharging position, a receiver for bread loaves dumped from said baking pans, said receiver having a gate mounted for rotation about a substantially horizontal axis, actuating means for rotating said gate between a position retaining the bread loaves on said receiver and a position for releasing the bread loaves from said receiver, gripping means carried by said table movable between an extended pan engaging position and a retracted pan disengaging position, actuating means for said gripping means including reciprocative motive means, chain and sprocket means operatively connecting said motive means and said gripping means and biasing means associated with said chain and sprocket means biasing said gripping means toward pan releasing position, first control means responsive to rotation of said gate into its bread loaf retaining position for operating said reciprocative motive means in a direction to move said gripping means through the medium of said chain and sprocket means to pan gripping position against the tension of said biasing means, second control means including a switch in circuit with said table rotating reversing motor and means carried by said chain and sprocket means engageable with said switch upon said gripping means reaching pan gripping position for energizing said reversing motor to initiate operation of said table from its normal pan receiving position, and third control means responsive to rotation of said table into its pan releasing position for operating said reciprocative motive means in

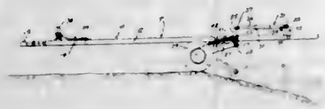
a direction to relieve the tension on said biasing means whereby said biasing means through the medium of said chain and sprocket means moves said gripping means to pan releasing position.

2,835,399
BOAT TRAILERS
Vincent Buchholz, Roggen, Colo.
Application June 14, 1955, Serial No. 515,419
1 Claim. (Cl. 214—506)



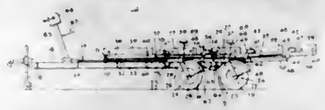
A wheel mounting means for boat trailers including a boat supporting frame having opposite side members; comprising a rotatable shaft extending transversely of said frame beneath same, a wheel supporting arm at each end of said shaft, corresponding ends of said arms being rotatably mounted on said shaft, a stub axle fixed to the oposite end of each of said supporting arms, a ground engaging wheel rotatably mounted on each stub axle, a relatively long arm and a laterally opposed relatively short arm disposed adjacent each end of said shaft and having corresponding ends thereof secured to said shaft and between which arms said wheel supporting arms are disposed, a spring seat pad secured to each of said wheel supporting arms intermediate the ends thereof, a spring cap member tiltably mounted on and between the relatively long arm and the relatively short arm of each pair thereof and which cap member is disposed at the outer end of the relatively short arm and intermediate the ends of the relatively long arm, a spiral compression spring disposed between each seat pad and its corresponding cap member, an actuating lever having one end thereof secured to said shaft, releasable means for holding said actuating lever in normal vertical position, a hydraulic cylinder supported on said frame and pivotally secured thereto, and a plunger projecting from said cylinder and having its free end pivotally connected to said actuating lever.

2,835,400
TRAILER FOR TRANSPORTING BOATS, ETC.
Benjamin C. Latzke, Oconomowoc, Wis.
Application September 8, 1955, Serial No. 533,073
1 Claim. (Cl. 214—506)



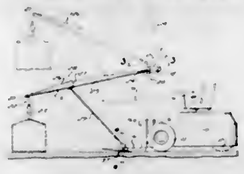
A trailer comprising a frame, a transversely extending torsion tube rigidly secured to the frame intermediate the ends thereof, a shaft rockably mounted in said tube and projecting beyond the opposite ends of the tube and the sides of the frame, outwardly extending wheel supporting arms rockably mounted at their inner ends on the shaft, ground wheels rotatably carried by the outer ends of the arms, upwardly extending saddle brackets rigidly secured to the shaft for rocking movement therewith, semi-elliptical springs anchored at their inner ends to the saddle brackets above said arms, and said springs extending outwardly in the same direction as the arms and lying above the arms, shackles pivotally connecting the outer ends of the springs to the outer ends of said arms, upwardly extending crank levers rigidly secured to the shaft and saddle brackets, means for operating said crank levers to rock said shaft and saddle brackets including hydraulic rams operatively connected to the frame and the crank levers, outwardly extending latch arms rigidly carried by the shaft at their inner ends and positioned between the arms and springs, said latch arms having keeper slots at their outer ends, and swinging latch plates carried by the frame movable into said keeper slots when said latch arms are in one position.

2,835,401
BOAT TRANSPORTING AND LAUNCHING DEVICE
George Byrd, Corpus Christi, Tex., assignor to E. L. Caldwell & Sons, Corpus Christi, Tex., a firm composed of Edward L. Caldwell, Jr., Frederick C. Caldwell and Mabel B. Caldwell
Application September 17, 1956, Serial No. 610,312
7 Claims. (Cl. 214—506)



1. A boat transporting and launching vehicle comprising a wheeled support, a boat supporting member pivoted to said support and swingable from a substantially horizontal to an inclined position, a plurality of bell crank elements pivoted to said member in spaced relation longitudinally of the member, rollers carried by the tops of the bell crank elements and adapted to be raised thereby above the level of said member and to be retracted below the top of said member, and linkage means interconnecting said bell crank elements so that they will turn in unison upon their pivots and connected with said wheeled support, whereby the turning of the boat supporting member upon its pivot will cause the linkage means to automatically turn the bell crank elements upon their pivots for raising or lowering said rollers.

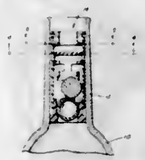
2,835,402
PORTABLE LIFTING BOOM
Gilbert K. Eggleston, Mansfield, Ohio, assignor to Pryor Manufacturing Co., Mansfield, Ohio, a corporation of Delaware
Application December 23, 1955, Serial No. 554,973
3 Claims. (Cl. 214—620)



1. A load lifting boom device for attachment to a lift truck of the type having a fixed vertically extending frame and having a forwardly extending lifting member movable vertically relative to said frame; said boom device comprising a main boom having means at one end for pivotal attachment to a vertically extending truck frame, a lifting strut pivotally attached at its one end to said main boom intermediate the ends thereof, detachable means for attaching the other end of said strut to a lifting member of a truck, a pivotal connection between said other end of said strut and said detachable means, said strut being bifurcated at its lower end providing two arms, and said detachable means comprising a shoe for each arm having a recess adapted to embrace a lift truck fork, said last named pivotal connection comprising aligned pivot pins, one in each shoe connecting its associated arm to the shoe, said main boom comprising two side members

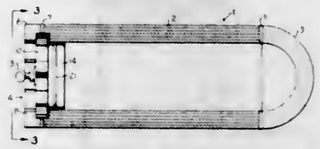
spaced apart horizontally, and said pivotal attachment of said strut to said main boom comprising a tube member rotatably embracing a pin member, one of said members rigidly attached to the upper end of said strut, and the other of said members rigidly connected between said side members to brace said boom.

2,835,403
INSERT FOR MAKING RECEPTACLE NON-REFILLABLE
John Scheminger, Jr., Providence, R. I.
Application January 26, 1955, Serial No. 484,261
1 Claim. (Cl. 215—22)



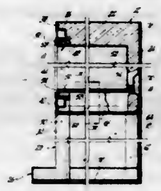
An insert for making a receptacle non-refillable, comprising a cylindrical shell, the outer surface of which has a plurality of spaced projections, whereby when said shell is inserted within the neck of a receptacle it will be in spaced relation thereto, said projections comprising longitudinal ribs of slightly greater length than said shell, a cage element carried by said shell at one extremity thereof and having a circular base disposed adjacent the ends of said ribs, said base being of larger diameter than said shell and having an aperture therein, a plurality of spaced longitudinally extending legs extending from said base and in abutting relation with the inner surface of said shell, movable means carried within said cage element and adapted to block said aperture to prevent fluid flow therethrough, said means being movable from a blocking to an unblocking position, and actuating means carried by said shell for automatically causing said movable means to move to blocking position when the shell is horizontally or upwardly disposed.

2,835,404
PRESSURE VESSEL
Orrin E. Andrus, Madison, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application August 13, 1956, Serial No. 603,658
2 Claims. (Cl. 220—3)



1. A closure stressed multi-layer pressure vessel, comprising a cylindrical inner wall and a cylindrical outer wall with each wall having a plurality of concentrically disposed laminations, at least one end portion of said inner wall being free floating relative to said outer wall; and closure means disposed at the free floating end of the inner wall of the vessel and comprising, an end ring secured to an end of the laminations of the outer wall with said ring having a flange extending radially inwardly therefrom, a circular member disposed between said flange and the end of the laminations of the inner wall, and means disposed axially inwardly from said member and inwardly from the end of the inner wall to seal the vessel against leakage at the closure, said closure means being substantially free from connection to the inner wall so that substantially all of the longitudinal stress is bypassed around at least a portion of said inner wall and transmitted to said outer wall, said inner wall withstanding the radial stress due to internal pressure and being compressed by said outer wall when the latter is under longitudinal stress during pressurization of the vessel.

2,835,405
REFRIGERATED CABINET STRUCTURE
Frank H. Gilbert, Leawood, Kans., and Jack C. Booher, Kansas City, Mo., assignors to Metalcraft Mfg. & Sales Corp., Kansas City, Mo., a corporation of Missouri
Application October 18, 1954, Serial No. 462,916
2 Claims. (Cl. 220—15)

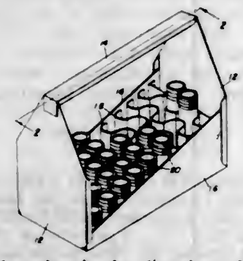


2. In a refrigeration cabinet, an open front outer shell and an open front inner tub housed within and spaced from the shell, the shell and tub each being provided with rectangular top, side and rear walls and the tub having a rectangular bottom wall; a rectangular, metallic, tubular frame disposed within the shell in spaced, surrounding relationship to said tub and secured to the marginal edges of the shell defining said open front thereof; a rectangular breaker strip of insulating material surrounding the tub adjacent said marginal edges of the shell and disposed between said frame and the tub; a rectangular door seal of flexible material at the open front of the tub and having a rectangular, integral, inwardly extending web disposed between the frame and said breaker strip; a plurality of fasteners extending through the tub, breaker strip, web and one side of the frame for securing the tub to the shell; a pair of elongated, spaced, L-shaped brackets within the shell and each disposed in supporting relationship to the bottom wall of the tub at respective edges of the tub formed by the intersection of corresponding side walls and said bottom wall thereof; means connected to the shell and the brackets for maintaining the latter in said supporting relationship; and a coating of nonconductive material on all portions of the brackets which would normally be in contacting relationship with the tub to thereby completely insulate the tub from the brackets and in turn the shell.

2,835,406
NIPPLE CONTAINER
Leo C. Dickerson, Houston, Tex., assignor of thirty-seven and one-half percent to Leo C. Dickerson, Jr., twelve and one-half percent to Fermon Tom Walton and twelve and one-half percent to Abe Gollob, all of Houston, Tex.
Application September 22, 1953, Serial No. 381,713
1 Claim. (Cl. 220—21)

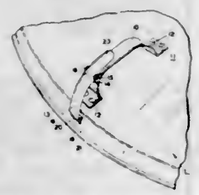
A nipple kit comprising a base, a pair of vertical end walls extending upwardly from said base, a longitudinal member connecting the upper edges of said end walls, a pair of side walls extending upwardly from said base, said side walls being higher at one end than the other end, and a plurality of transverse dividers of the same height relatively connected between said side walls, said dividers being corrugated in cross section with the corrugations of each divider being aligned with the corruga-

tions of the other dividers, said dividers being progressively elevated above and spaced from the base from one



end wall to the other in the direction of the change in height of the side walls.

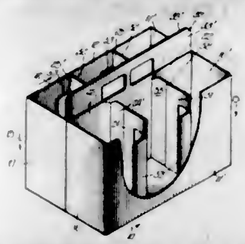
2,835,407
LATCHES FOR GARBAGE CAN LIDS
Glenn M. Chambers, Longview, Wash.
Application August 13, 1956, Serial No. 603,772
2 Claims. (Cl. 220—55.7)



1. In a garbage can of the type having an outwardly rolled upper rim and a cover having a depending circumferential flange thereon telescopically engaging over the upper edge portion of said can, a generally U-shaped handle, opposite end portions on said handle offset therefrom and engaging said cover, means rigidly securing said end portions to said cover, a pair of upstanding ears formed on said handle in spaced parallel relation, an elongated arcuate arm, depending ears formed on said arm medially thereof, means pivotally securing said depending ears to said upstanding ears whereby said arm is pivotally mounted to said handle, said arm having a handle portion overlying said handle, a latch hook integrally formed on the end of said arm opposite said handle portion, said covering having an aperture through which said latch hook extends to engage under said rolled rim, and means biasing said arm in a direction engaging said latch hook under said rim.

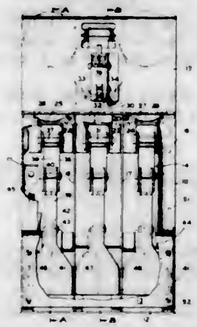
2,835,408
ARTICLE CARRIER
Edwin L. Arneson, Morris, Ill., assignor, by mesne assignments, to Federal Paper Board Company, Inc., Bogota, N. J., a corporation of New York
Application January 14, 1953, Serial No. 331,230
4 Claims. (Cl. 220—113)

1. A paperboard article carrier comprising, in completed and erected condition thereof, a bottom panel, a pair of upstanding side wall panels integrally hinged to opposite side margins of said bottom panel, an end wall and partition forming structure integrally hinged by an upright crease to each end margin of each of said side wall panels, each structure comprising at least three panels integrally hinged to one another by crease lines paralleling the crease hinging the same to the said side wall panel, said panels constituting, in order from said last named crease, an end wall panel, a longitudinal partition forming panel and a cross partition panel at a right angle to a side wall panel, a glue member integrally hinged along a vertical hinge line to the terminal edge of each of said cross partition forming panels and secured to a side wall panel, and a longitudinal partition member integrally hinged to the lower margin of each of two of said longitudinal partition forming panels, said longitudinal partition forming members each having an integral handle forming portion extending along the edge opposite the hinged connection thereof with said longitudinal partition forming panels and above the upper margins of the side and end wall panels, said longitudinal partition members overlapping one another over



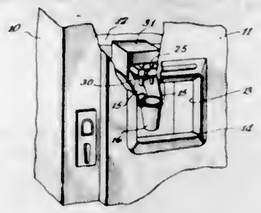
at least a major portion of the area thereof and being rigidly secured together in face-to-face relation to constitute a longitudinal partition unit of horizontal dimension coextensive with that of said erected carrier, said cross partition members having flaps integrally connected to the terminal edges thereof from which said glue members are excised, said last named flaps being folded and secured in face-to-face contact with the respective cross partition members and being of a size sufficient to cover a substantial area of said cross partition members and to provide a double thickness of material in the article separating zones thereof.

2,835,409
DISPENSING APPARATUS
Arthur L. Rankin, Jr., Chattanooga, Tenn., assignor to Cavalier Corporation, Chattanooga, Tenn., a corporation of Tennessee
Application July 25, 1955, Serial No. 523,958
9 Claims. (Cl. 221—67)



1. In dispensing apparatus for substantially cylindrical objects, means laterally supporting a plurailty of said objects arranged in at least two vertical stacks in interlocking relationship with their longitudinal axes substantially horizontal, a support beneath each stack extending parallel to the axis of the objects, means rotatably mounting said supports adjacent one end thereof and adjacent an end of the objects, a leg pivoted to each of said supports, a second leg pivoted to each of said first named legs and mounted on a fixed pivot at its opposite end, cam engaging means on each of said second legs, a cam shaft, a cam on said cam shaft engaging each of said cam engaging means rotating the adjacent of said second legs about its fixed pivot, said second leg rotating the adjacent of said first legs and the adjacent support, said cams being constructed and arranged to rotate said supports downwardly in sequence to dispense the objects in sequence from the stacks of objects.

2,835,410
BEVERAGE DISPENSING APPARATUS
Leslie Arnett and William G. Freise, Chicago, Ill., assignors to Square Manufacturing Company, a corporation of Illinois
Application May 9, 1955, Serial No. 506,732
4 Claims. (Cl. 222—129.1)



1. In a beverage dispensing apparatus including a cabinet with a door having a service opening wherein a cup is positioned for filling with one or more of a plurality of liquid beverage ingredients which are delivered through conduits to the cup wherein they mix forming a beverage, a nozzle unit of the character described, comprising: a nozzle support member mounted in the interior of the cabinet and projecting into said service opening; a plurality of nozzles one connected to each of said conduits; and securing means attaching said nozzles to said support member, said securing means permitting individual adjustment of said nozzles with respect to said cup.

2,835,411
NONREFILLABLE BOTTLE
John Scheminger, Jr., West Barrington, R. I.
Application December 31, 1956, Serial No. 631,617
2 Claims. (Cl. 222—147)



1. An unrefillable bottle closure comprising a hollow cylindrical plug adapted to be inserted into the neck of a bottle, said plug having an open top and a lower end wall with a substantially centrally located aperture, an upturned rim portion of said end wall surrounding said aperture and forming a valve seat within said plug, a disc-shaped valve member covering said aperture and resting on said seat, a plurality of ribs on the interior of said plug extending inwardly and maintaining said valve member centered over said valve seat, said valve member having a specific gravity of less than one, a heavy ball disposed above said valve member and resting thereon, a hollow dome-shaped ball-retaining cap disposed above said ball and having a rim portion outwardly of said ball, said rim portion being scalloped to form a plurality of downwardly extending legs, said plug comprising an annular, inwardly extending top shoulder portion and said legs resting on said shoulder portion, a hollow upper housing member comprising a circular top portion and a downwardly extending skirt portion attached peripherally to said circular portion, said skirt extending downwardly along and covering an area of the outer cylindrical surface of said plug and terminating above said lower end wall, said plug having an annular air storage chamber formed therein open at said surface area and closed by said skirt portion, said plug having an air passage formed therein opening at one end into said chamber, an extension tube portion extending from said lower end wall of said plug and having an internal passage opening therefrom spacedly from said lower wall, said internal passage connecting with said air passage, said skirt portion being joined to said plug and having a vent opening therethrough communicating with said chamber and opening outwardly of said cover member at a point above the lower terminal edge of said skirt, said air vent being several times smaller than said air passage and extension passage, a pour spout communicating through an opening in said circular top portion disposed substantially alignedly above said cap, said lower terminal edge of said skirt comprising an outwardly extending shoulder adapted and arranged to engage the upper edge of the bottle neck and thereby to limit the distance of insertion of said plug into said neck, and a spring lock member engaging the portion of said plug below said skirt and engageable with the inside of the neck of the bottle upon such insertion.

2,835,412
BEVERAGE BREWING DEVICE INCLUDING DENSITOMETER
Stanley P. Clurman, New York, N. Y.
Application February 4, 1953, Serial No. 334,996
3 Claims. (Cl. 222—158)

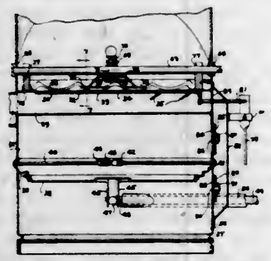


1. A beverage brewing device, comprising a cylindrical container for said beverage, said container having a lateral opening therein, a spout having transparent walls secured to said container and having a wedge shaped cavity communicating with said opening, said spout having an external wedge shape defined by opposite side walls tapering outwardly from bottom to top of the spout, there being an opening in the top of the spout to provide a passage for said beverage from said cavity to the exterior of the device, said spout having an extended end wall, a colored plate embedded in said end wall, said plate having one end juxtaposed to said cavity, said end wall having sides tapering the same as the taper of the side walls, and a scale indicative of color densities carried on one of said side walls.

2,835,413
GARDEN DUSTER
Vincent Santarelli, Detroit, Mich.
Application October 25, 1954, Serial No. 464,458
7 Claims. (Cl. 222—175)

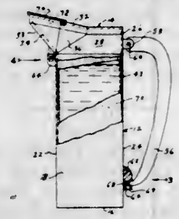
1. A garden duster of the class described comprising: a chamber for storing a dusting powder; means for feeding the powder at a steady predetermined rate from said chamber: a discharge passage for receiving the powder from said feeding means; a first air chamber; a second air chamber disposed adjacent said first air chamber; a conduit connecting said air chambers to said discharge passage; and a bellows forming a separating wall between said chambers, said bellows being operable whereby when

it is moved inwardly of one chamber, air will be expelled therefrom and into said conduit and drawn into the



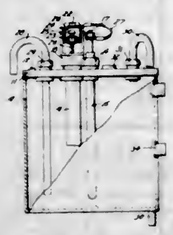
other chamber whereby a steady flow of air is provided to discharge powder for dusting plants.

2,835,414
MILK CARTON PITCHER
John T. Anderson, Detroit, Mich.
Application July 11, 1955, Serial No. 521,057
4 Claims. (Cl. 222—183)



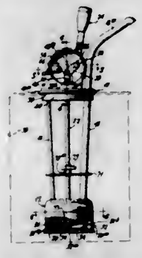
1. A milk carton pitcher of the class described, comprising: a box-like part which is substantially rectangular in shape and open on the upper end thereof; a cover hingedly mounted on said box-like part along the front side therof; said cover being formed with a pouring spout on the front side thereof; a handle on said pitcher; the upper end of said handle being hingedly connected to the rearward side of said cover; and, the lower end of said handle being releasably connected to the box-like part.

2,835,415
HOT FLUID DISPENSER
Herman W. Creager, Denver, Colo., assignor to Superior Manufacturing Corporation, Denver, Colo.
Application April 12, 1956, Serial No. 577,857
2 Claims. (Cl. 222—204)



1. A device for containing and dispensing a fluid comprising: a bowl-like container; a cap member closing the top of said container; a siphon tube having a long and a short leg, said short leg extending through said cap and downwardly into said container to the normal fluid level therein, said long leg extending downwardly alongside said container to a point below the fluid level therein; a continuously open breather port communicating through said cap; and an intake tube extending through and sealed to said cap member and terminating in close spaced relation to the bottom of said container, the cross-sectional area of said intake tube exceeding the cross-sectional area of said breather port so that fluid can be introduced into said container through said intake tube more rapidly than air can discharge through said breather port so as to create sufficient air pressure in said container to initiate a siphon action through said siphon tube.

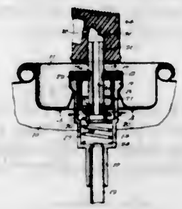
2,835,416
JUICE PUMP
Vernon P. Steele, Noroton, Conn., assignor to Kenco Products Corporation, New York, N. Y., a corporation of New York
Application December 12, 1951, Serial No. 261,280
2 Claims. (Cl. 222—341)



1. In a pump, in combination, pumping mechanism including a cup and a plunger, a plunger rod connected to said plunger, a support member, a delivery tube having one end opening into the interior of the cup, said tube being secured to said support member and to the cup, a generally cylindrical shaped housing fixedly secured to the support member, a pair of circular cover plates enclosing the sides of said housing, a radial lug attached to the housing and extending inwardly between said plates, means attached to one of the cover plates adapted to extend through said lug and through the other cover plate to secure the plates to said housing, a rocker shaft mounted for rotation in and between said plates, the axis of said shaft being parallel to the axis of said housing, a handle connected to said shaft, an arm connected to said shaft having an opening in the vicinity of its free end, the plunger rod having an opening in the upper end thereof, said rod passing through the support member and having its upper end enclosed by said plates, a removable U-shaped link unilaterally connecting said arm to the plunger rod, said link including a pair of cylindrical shaped legs positioned in said openings in the plunger rod and arm, the body portion of said U-shaped link being adjacent and parallel to one of said covers, the link being held in operative position with respect to said rod and said arm by bearing engagement of said cover thereagainst, whereby upon removal of said last mentioned cover, said arm and pump rod may be disconnected by removing said link.

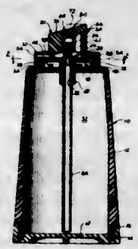
2,835,417
METERED DOSAGE VALVE
Joseph L. Kiraly, La Grange Park, Ill.
Application June 4, 1956, Serial No. 589,022
23 Claims. (Cl. 222—355)

1. A metered dosage valve adapted to be mounted in one wall of a container of fluid under pressure comprising: a supporting sleeve having a plurality of internal longitudinally extending ribs formed thereon so that spaces between the ribs provide fluid passages, a fluid intake tube leading to the inner end of the sleeve, a measuring cup movably mounted in said sleeve in sliding engagement with said ribs and having a depressed portion at the closed end, a resilient gasket having an opening therein and sealing against the open ends of said sleeve and said measuring cup, a spring disposed in said sleeve normally urging the lip of said cup against said sealing gasket to prevent fluid in said passages from filling said cup, a movable hollow stem having a spray cap secured to its upper end passing through the opening in said sealing gasket in sealing engagement therewith and having a reduced end portion loosely movable and guided in said depressed portion of the cup so as to provide a fluid passage between the cup and the spray cap, a valve surface on the stem engageable with a valve seat on



the edge of the reduced portion of the cup to control the fluid passage between the cup and the spray cap, movement of said stem into the sleeve successively sealing said fluid passage between said hollow stem and said measuring cup and then moving said measuring cup away from said gasket to permit the cup to be filled with fluid and movement of said stem out of the sleeve successively sealing said fluid passages to said cup and opening said fluid passage from said cup to the spray cap to permit the measured dosage of fluid to pass through the hollow stem to the spray cap.

2,835,418
DISPENSING CONTAINER
Mario J. Manetti, Oak Park, Ill.
Application May 23, 1956, Serial No. 586,725
11 Claims. (Cl. 222—394)



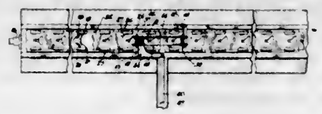
1. In a dispensing container, in combination, a receptacle adapted to contain a fluid under pressure, said receptacle having a top wall provided with a fixed upstanding hollow centerpost, there being a radial outlet port extending through the wall of said centerpost, a nozzle member mounted on the receptacle and overlying the centerpost, said top wall being formed with inner and outer concentric shelf surfaces surrounding the centerpost, a flat sealing ring formed of elastomeric material surrounding the centerpost and supported on said shelf surfaces, the inner peripheral edge of said sealing ring closely hugging the outer surface of said centerpost and normally closing said radial outlet port, said nozzle member including a body portion axially shiftable with respect to the receptacle and post and having a passage formed therein in register with said outlet port, there being a discharge port formed in said nozzle member in register with said passage and communicating with the atmosphere, a protuberance on said body portion in register with the medial regions of said sealing ring, said body portion being movable between a retracted position wherein said protuberance is out of flexing contact with the sealing ring to an advanced position wherein it engages the latter and flexes the same and causes the inner edge thereof to uncover said outlet port.

2,835,419
WATER CONTROL FOR TRANSPLANTER
Raymond G. Kolk, Holland, Mich.
Application September 29, 1954, Serial No. 459,033
6 Claims. (Cl. 222—442)



1. Structure comprising, a vertically mounted tubular water holder, a vertically movable normally closed closure valve at the lower end portion of said water holder, means for continuously supplying water at said valve to and through a side of said holder, a closure cap connected to the upper end of said water holder, a tubular sleeve connected to said cap extending downwardly therefrom a distance into the upper end portion of said water holder, said sleeve having communication with the air above said cap, and a valve freely movable in said tubular water holder and guided in its vertical movements by the sides thereof having an upper surface to sealingly press against the lower end of said sleeve, said valve floating in water and being elevated thereby to engage said sleeve.

2,835,420
SHUTTER BAR FOR FERTILIZER SPREADER
Russell W. Foley, Maywood, Ill.
Application February 17, 1955, Serial No. 488,941
8 Claims. (Cl. 222—485)



1. In combination, an elongated hopper having openings in the bottom thereof through which the contents of the hopper are adapted to flow, and shutter means movable across the openings to vary the effective size of the openings and thereby to vary the rate of flow of the contents of the hopper through said openings, said shutter means having openings therein adapted to be placed in various positions of registry with the openings in the hopper, ranging from a position corresponding to a completely closed condition of the hopper openings to a position corresponding to a fully open position, the openings in the shutter being smaller than the openings in the hopper and being progressively narrower from one end to a region near the other end and then substantially rectangular throughout said region to said other end whereby the rate of change of effective area of the openings in the hopper per uniform increment of movement of the shutter means is lower near the closed position than it is near the open position of the shutter.

2,835,421
WAISTBAND STRETCHER
Frank J. Marchese, Manchester, Conn.
Application March 23, 1956, Serial No. 573,411
6 Claims. (Cl. 223—61)



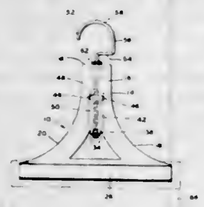
1. A waistband stretching device including a first elongated bar having a pair of opposed flanges extending therefrom along its opposite edges, a second elongated ber slidably connected to the first bar and having a pair of flanges extending from one side thereof and disposed between the said flanges of the first bar, the adjacent flanges of the said bars having a rib and groove connection therebetween slidably retaining the said bars together, abutment members upon the outer end of each of said bars overlapping the end portion of the opposite bar, a hook connected to each of said bars adjacent the outer end thereof, and a locking screw threaded to and extending through one of said bars and engaging the other bar for securing said device in different adjusted positions.

2,835,422
HANGER ACCESSORY
Truman W. Stuard, La Jolla, Calif.
Application March 30, 1955, Serial No. 497,914
5 Claims. (Cl. 223—92)



1. In combination, a garment hanger having a pair of slots forming hooks at each end in the edge thereof, one of each pair of said slots being a predetermined distance along the upper edge of said hanger from the end thereof, the other of each pair of said slots being a predetermined distance along the edge of said hanger from said first-named slot, and a strip of elastic material having at least one friction surface adapted to be stretched between the slots of each pair of said slots, said strip having holes at each end receiving said hooks, the unstretched distance between said holes being substantially less than the distance between the slots of each pair of said slots on said hanger.

2,835,423
CLOTHES HANGER
Marion C. Horne, Miami, Fla.
Application October 22, 1954, Serial No. 464,082
5 Claims. (Cl. 223—96)



1. A clamp type clothes hanger comprising an inverted U-shaped frame, the ends of the legs of which are provided with horizontal clamp bars, means attached between the legs of said U-shaped frame having a low mechanical advantage for flexing said legs to bring said clamp bars together or positively separate them through their full range, manual operating means therefore, said flexing means comprising a pair of toggle levers hinged to said legs and to each other by horizontal hinges, said operating means including a hanger hook having a threaded shank rotatably held against axial displacement in the top of said U-shaped frame and a threaded collar cooperating with said threaded shank and having hinge pins for said hinge between said toggle levers.

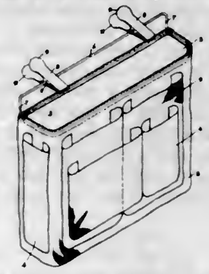
2,835,424
FISHING POLE CARRIER FOR AUTOMOBILES
Paul W. Pierce, Whittier, Calif.
Application November 15, 1954, Serial No. 468,711
6 Claims. (Cl. 224—42.03)



1. A fishing pole carrier for automobiles comprising an elongated body member formed of hollow tubing, said body member having a flattened portion adjacent the lower end thereof formed by pressing the sides of said tubing together, said flattened portion having a hook at the end thereof, said hook adapted to grip the bottom edge of the front bumper of an automobile, said flattened portion adapted to be bent to conform to the front contour of the bumper, a U-shaped member slidably mounted on said body member, said U-shaped member having a pair of arms projecting from said body member, a rod extending through openings in said arms, said rod having a nut screw threadedly mounted thereon adjacent one end thereof, said rod having a catch portion adjacent the opposite end thereof on the opposite side of said body member, said catch adapted to be attached to the grille of an automobile, a carrier plate attached to the top of said body member and extending at an angle with respect thereto, said carrier plate including a pair of elongated channels, a bolt upstanding from said plate between said channels, a knob screw threadedly mounted on said bolt, a washer disposed above said carrier plate and movable by manual rotation of said knob, each of said channels adapted to removably receive the handle of a fishing pole so that said poles extend rearwardly from above the front bumper of the automobile over the top of the automobile, said knob adapted to be manually tightened or loosened to move said washer toward or away from said channels to hold said fishing poles in said carrier plate.

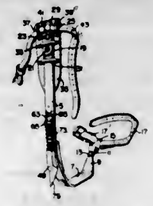
2,835,425
CONVENIENCE CARRIER FOR AUTOMOBILES
Kathryn J. Shultz, Upper St. Clair Township, Allegheny County, Pa.
Application December 2, 1955, Serial No. 550,557
1 Claim. (Cl. 224—42.46)

A convenience carrier for use in an automobile by suspension from the forwardly-turned ledge at the bottom of the automobile dash comprising a yoke-like frame having a cross bar, a pair of clips on the cross bar having pivoted jaws movable relatively to each other and spring biased to grip an object disposed between the jaws, the cross bar constituting the pivot for the jaws, the clips being slidable along the cross bar and positioned in use in a generally horizontal position to grip the aforesaid ledge of the dash, the yoke-like frame being vertical, said yoke-like frame having rigidly affixed to it a horizontally extending frame which is spaced below the clips and the area defined by the horizontal frame is



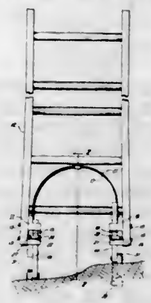
under the gripping jaws of the clips, so that in the automobile said horizontal frame extends toward the driver's seat, and a flexible bag suspended from said frame.

2,835,426
LEG SPIKE
Ray A. Terry, Columbus, Ohio, assignor of one-half to Bernard Nachtrab, Clark County, Ohio, a corporation of Ohio
Application May 12, 1955, Serial No. 507,807
9 Claims. (Cl. 227—27)



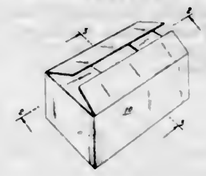
1. A climbing device having a spring to freely support the weight of a climber, a spur-carrying member engaged against one end of the spring, a leg bar engageable with the other end of the spring and freely ridable on the spring with respect to the spur-carrying member in the loaded condition of the spring.

2,835,427
LADDER LEVELLING MEANS
John A. Balcar, Cedar Rapids, Iowa
Application January 6, 1954, Serial No. 402,557
3 Claims. (Cl. 228—63)



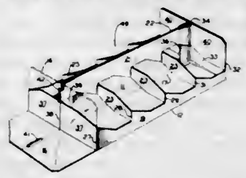
3. In a supporting device for ladders or the like having a pair of brackets fixedly mounted on the inner face of the sides thereof, spring loaded locking means slideably mounted internally of said brackets, an arched resilient strap adapted to interconnect said locking portions, linking means pivotally connecting said locking portions to said fixed brackets and adapted to cause said locking portions to move in an arcuate path, a pair of legs slideably mounted in said brackets within the path of arcuate movement of said locking portions, and a second resilient strap means interconnecting said leg members and slideably positioned in relation to said first strap member, whereby unequal pressure on said leg members will cause said first and second strap members to move longitudinally and slideably in relation to each other and further positioned in nested relation to said first strap, whereas simultaneous equal pressure on both leg members will cause simultaneous equal upward pressure on said first named strap and said locking portions.

2,835,428
CARTON LINER
Milton W. Herzog, Valley Stream, N. Y., assignor to Delamere Company, Inc., a corporation of Delaware
Application November 30, 1955, Serial No. 549,998
3 Claims. (Cl. 229—14)



1. In combination with a shipping carton, a one-piece liner for removable insertion into the carton, which liner comprises a flat horizontal bottom portion, vertical side and end portions, said side and end portions having integral projections that extend downwardly from their lower edges to provide legs for supporting the bottom portion of the liner upwardly from the bottom of the carton, and outwardly extending integral corner portions at the four corners of the liner between the side and end wall portions thereof to space said walls inwardly from the corresponding walls of the carton.

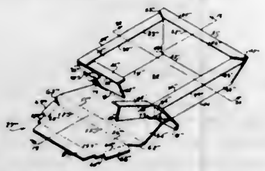
2,835,429
COLLAPSIBLE CONTAINER FOR BAKERY GOODS AND THE LIKE
Ernest C. Pellaton, Larkspur, Calif., assignor to Fibreboard Paper Products Corporation, a corporation of Delaware
Application February 13, 1956, Serial No. 564,932
11 Claims. (Cl. 229—30)



10. A multi-cell tray comprising a bottom, a pair of side walls hingedly connected to said bottom, opposite end walls hingedly secured to said side walls, a longitudinal divider positioned between said side walls, transverse cell forming dividers connected between each of said side walls and said longitudinal divider, said divider comprising two plies an end of each of which is formed from material cut off adjacent the top of one of said end walls, each ply at the other end of said divider having an integral extension hingedly connected thereto and providing a ply of the other of said end walls, said extension being formed entirely of material severed from above an end portion of a side wall adjacent said other end wall and extending substantially to the height of

said divider, and said other end wall including a pair of second plies each in face to face relationship to an extension ply and hingedly connected to such extension ply and to said last mentioned side wall, said pair of second plies also extending substantially to the height of said divider, whereby said one end wall is lower than the opposite other end wall, and a cover panel hingedly connected to the bottom at the end adjacent said one lower end wall, said cover panel being of height substantially equal to the height of said opposite other end wall and being turned upwardly adjacent said lower end wall to provide said tray with opposite ends of substantially equal height, the top of said longitudinal divider being substantially co-planar with the top of said cover panel and the top of said opposite end wall at the points of juncture of said divider with said cover panel and said opposite end wall.

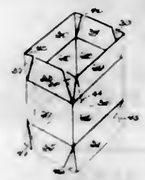
2,835,430
CARTONS
William G. Frankenstein, Cincinnati, Ohio, assignor to William P. Frankenstein, Roselawn, Ohio
Application August 26, 1950, Serial No. 181,677
2 Claims. (Cl. 229—34)



1. A carton of the class described formed from a single blank of foldable material comprising a bottom panel from the edges of which extend wall forming extensions, each extension being subdivided into panels to provide its wall with an inner wall member, a top wall member and an outer wall member with said inner and outer wall members of each wall spaced from one another by its top wall member, each inner and outer wall member panel in each extension being formed as an isosceles trapezoid, two opposed extensions forming side walls with the inner and outer wall member panels thereof each of a substantially equal area, which, upon erection, have their ends in alignment and the ends of their walls upwardly and outwardly extending, the said extensions forming the side walls, each, beyond its inner wall member, having additional panels to provide a bottom wall member and a glue flap beyond the bottom wall member with each of said glue flaps being adapted for attachment to the inner surface of its side wall outer wall member, the remaining opposed extensions forming end walls each having its outer wall member of an area greater than its inner wall member with said end walls outer wall members each of an area to cover the area between the side walls outer wall members and said end walls inner wall members each of an area to cover the area between the side walls inner wall members, said walls when erected extending at an upward, outward angle each from its edge of the base, and cooperating means on said side and end walls inner wall members for locking the same in erected positions.

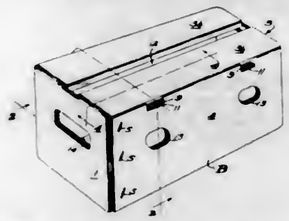
2,835,431
FIBREBOARD SHIPPING BOX
Leslie Frank Stone, Chicago, Ill., assignor to the United States of America as represented by the Secretary of the Army
Application February 21, 1956, Serial No. 567,039
1 Claim. (Cl. 229—38)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A box for shipping goods, formed from a single blank of fibreboard without waste of material, comprising, in combination, two identical side walls, two identical end walls integrally connected along three spaced parallel fold lines, one of said identical side walls terminating in a free edge, one of said end walls terminating in an elongated bendable setting-up flap, a top consisting of two identical flaps integral with the side walls and two identical flaps integral with the end walls, a bottom consisting of two identical flaps integral with the side walls and two identical flaps integral with the end walls, all four flaps which are integral with the end walls being trapezoidal and outside the other flaps at both the top and bottom to protect the top and bottom of the box against compressive



stresses, all four of the flaps which are integral with the side walls each having identical right-angled triangular flaps integral therewith at the ends thereof adjacent said fold lines and said elongated bendable setting-up flap having two like identical integral right angle triangular flaps, the said setting-up flap being stapled to the said free end of said identical side wall, the adjacent pairs of right angle triangular flaps being bent and fitting inside the two identical end walls at both the top and bottom of the box with their adjacent base portions in abutting relationship and lying directly in contact with the end walls whereby to reinforce the ends of the box at the top and bottom thereof.

2,835,432
PACKING BOX
George Wilmot, Monterrey, Nuevo Leon, Mexico, assignor to Empaques de Carton Titan, S. A., Monterrey, Nuevo Leon, Mexico, a corporation of Mexico
Application June 6, 1955, Serial No. 513,193
1 Claim. (Cl. 229—39)



A ventilated packing box comprising a pair of structurally duplicate mating telescopic sections one being slightly smaller than the other and wherein the box with the sections in telescoped position is provided with a vent of substantial width extending longitudinally of both the top and bottom walls and extending throughout the length of the box, a pair of holes in each side wall, said holes in one wall being laterally aligned with those in the opposite wall, and a relatively long rectangular hole in each end wall intermediate the top and bottom edges thereof and with the hole in one end wall longitudinally aligned with the hole in the opposite end wall; each section having side and end walls and a three-ply bottom wall, said three-ply bottom wall comprising first and second bottom portions defined by spaced parallel score lines, said respective first bottom portions each being connected respectively with a longitudinal edge of each side wall, spaced key openings in said side walls adjacent each of the respective connections of the said respective

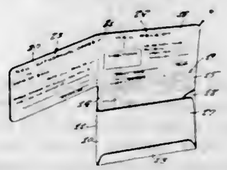
first bottom portions of the bottom wall, spaced tongue-like keys on the free edges of the said respective second bottom wall forming portions, a pair of flaps connected with the lower edge of each end wall with adjacent edges thereof in substantial spaced relation providing therebetween a slot disposed midway of the width of the end wall, said flaps being of a length substantially equal to one-half of the length of the side walls, one of said end walls having a laterally projecting ear secured to the inner side of one of the side walls, said flaps being disposed normal to said end walls and in parallel relation with said side walls, said respective first and second bottom wall portions of a respective bottom wall being folded along their respective fold lines intermediate the side walls and with the free edges of the folds along the score lines in engagement with the inner edges of said end wall flaps and in substantial spaced relation, said respective flaps being sandwiched between the folded first and second bottom wall forming portions respectively and said keys carried by said second bottom wall forming portions being interlocked with said key openings and providing said three-ply bottom wall and said longitudinally extending vent.

2,835,433
BAG CLOSURES
Ruby Jean Swartz and James E. Snyder, Akron, Ohio, assignors to Wingfoot Corporation, Akron, Ohio, a corporation of Delaware
Original application July 21, 1950, Serial No. 175,253. Divided and this application April 12, 1955, Serial No. 500,960
2 Claims. (Cl. 229—62)



1. A bag filled and sealed at both ends, the bag being formed form a tubular blank of oriented film, the film being folded in to form a tuck at each end of one seal and then flattened, the other seal being free from re-entrant folds, said latter seal being somewhat shorter than the width of the filled portion of the bag, and the film at the latter seal being thicker and less oriented than the film at both the other seal and at least most of the filled portion of the bag.

2,835,434
ENVELOPE
Charles S. Watson, Glen Ridge, N. J., assignor to Berlin & Jones Company, Incorporated, New York, N. Y.
Application December 9, 1954, Serial No. 474,071
1 Claim. (Cl. 229—70)



A self-contained banking envelope, including a laterally elongated rectangular front address panel with short vertical ends, a laterally elongated rear panel integrally connected at one end thereof to one short vertical end of the front address panel and having the upper longitudinal edge thereof cut a short distance down below and parallel to the upper longitudinal edge of said front address panel with a glue strip upon the other outer end of said rear panel, a short end flap on the other short vertical end of said front address panel adapted to be secured to said glue strip on the rear panel, a short flap also integrally connected to the lower edge of the same front address panel, a relatively large main closure flap integrally connected to the upper edge of the latter front address panel and having a longitudinal glue strip located within the upper edge thereof for securing said main flap down upon said rear panel below the cut down upper edge of the latter, an upwardly extending integral flap extension on the main flap having short vertical ends and a longitudinal weakened tear line upon the upper portion of said main flap allowing the upwardly extending flap extension to be torn off to serve as a mail receipt slip, and a laterally elongated end flap integrally connected to one short vertical end of said upwardly extending flap extension and having a vertical weakened tear line substantially alined with the vertical short end of the front address panel to which the rear panel is connected to allow independent removal of said laterally elongated end flap for the latter flap to serve as a deposit or withdrawal slip, the lower edge of said laterally elongated end flap being alined with the weakened tear line on the main closure flap when said elongated end flap is extended from the upwardly extending flap extension laterally, and the latter flap extension and said laterally elongated end flap being substantially equal in area and co-extensive when folded together one upon the other.

2,835,435
PACKAGING MEANS
Charles D. Mullinix, Cincinnati, Ohio
Application September 5, 1950, Serial No. 183,155
7 Claims. (Cl. 229—87)



1. A package blank comprising a rectangular laminated sheet-like form composed of at least one relatively heavy sheet and at least one relatively light sheet of tearable material, the heavy sheet being of less width than the light sheet but of the same length, the sheets being positioned with their ends coinciding and with their medial longitudinal lines substantially coinciding, the laminated central portion of the blank being relatively thick, the marginally extending side portions of the light sheet being relatively tearable, spaced, transverse, scored fold lines extending across said heavy sheet, four slits, two in each side portion of said light sheet in line with two adjacent fold lines and forming a separate flap at each side edge of the form, the remainder of said form being free of slits, said form having four notches, two in each end edge of the form disposed at the corners of said heavy sheet, a portion of each notch cutting off the corresponding corner of said heavy sheet.

2,835,436
REFRIGERATING APPARATUS
William K. Steinhagen, Royal Oak, John Dolza, Davisburg, and Philip L. Francis, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 8, 1953, Serial No. 347,556
4 Claims. (Cl. 230—186)

1. In a refrigerant compressor or the like, means forming a crankcase adapted to contain lubricant, a main drive

shaft projecting through one wall of said crankcase, bearing means for said shaft, a cylinder block having a plurality of compression chambers circumferentially arranged relative to said shaft, piston means operated by said shaft within said chambers, a cylinder head and valve plate assembly closing the ends of said compression chambers, said valve plate including a plurality of ports communicating with said chambers, valve means for said ports, said cylinder head cooperating with said valve

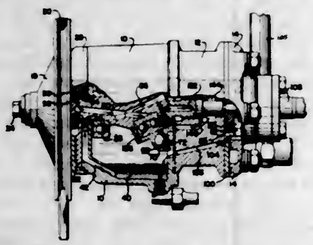
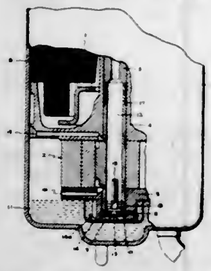


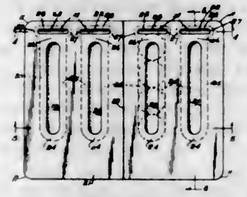
plate to form a discharge chamber and a suction chamber each communicating with each of said compression chambers through said ports, means forming a passage connecting said crankcase to said suction chamber whereby the pressure in said crankcase is substantially equal to the suction pressure, and pump means operated by said shaft and having an inlet communicating with lubricant in said crankcase, said pump having an outlet for discharging lubricant under pressure to said bearing means.

2,835,437
SHAFT BEARING LUBRICATION MEANS
Erwin R. Boynton, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application May 9, 1956, Serial No. 583,755
2 Claims. (Cl. 230—207)



1. A bearing lubricating arrangement for a hermetic compressor comprising a hermetic casing for containing a body of lubricating oil in its lower portion, a refrigerant compressor unit positioned within said casing and including a vertically disposed shaft having its lower end submerged in said body of lubricating oil, a bearing surface supporting said shaft and positioned above said body of lubricating oil, a centrifugal pumping arrangement for lubricating said bearing surface comprising an axial passage in said shaft, oil outlets connecting said passage with said bearing surfaces, and a paddle positioned across the lower end of said axial passage, said paddle comprising an S-shaped member formed from spring like material and being retained within said passage by compressive force between the wall of said passage and the curved portions of said S-shaped paddle whereby, upon rotation of said shaft, oil within said axial passage is forced by said paddle to assume the same rotational speed as said shaft and centrifugal forces cause said oil to flow upwardly along the side wall of said passage to said oil outlets.

2,835,438
SAVINGS COIN HOLDER
John W. Vehmeier, Chicago, Ill.
Application May 14, 1956, Serial No. 584,530
1 Claim. (Cl. 232—5)



A savings coin holder comprising a body member having a plurality of horizontally spaced cut out portions, each cut out portion providing a coin edge entering opening and a narrower coin holding portion directly therebelow communicating only with its opening for holding a plurality of coins in flat position, a back cover attached to the rear surface of said body member and covering the back of the cut out portions, a front cover attached to the front surface of said body member, said front cover having a plurality of horizontally spaced coin edge entering openings and spaced therebelow a plurality of horizontally spaced coin viewing slots registering respectively with but smaller than the coin edge entering openings and the coin holding portions of said body member so as to overlap the marginal portions of the coin edge entering openings and the coin holding portions of said body member throughout their extent, the registered coin edge entering openings of said body member and said front cover adapted to receive only the edge of one coin inserted at a time and permit it to be moved downwardly only to the coin holding portion directly therebelow and to be held flat therein, said front cover having a portion extending between each coin edge entering opening and its slot to prevent accidental removal of inserted coins, said front cover, said back cover and said body member closed at their peripheral tops, sides and bottoms so as to prevent a coin in the coin holder from leaving the coin holder at its outer edges.

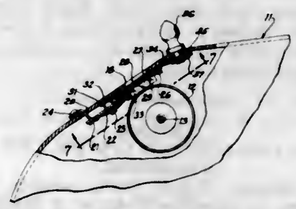
2,835,439
MULTIPLE THROW COIN RECEIVER
Richard L. Care, Rumford, R. I., assignor to Max L. Grant, Providence, R. I.
Application March 15, 1955, Serial No. 494,362
5 Claims. (Cl. 232—7)



1. A coin and ticket receiver for fare collection devices comprising a receiver base, a hollow body member mounted thereon, a relatively large drop inlet at the upper portion of said body member for receiving a plurality of fares simultaneously, an inspection channel in said receiver base comprising a pair of converging plates, said plates being spaced apart near their convergent end a distance less than the thickness of a small coin whereby the extent of movement of a coin within said inspection channel will be determined by the thickness of the coin, an inwardly extending, downwardly inclined bounce

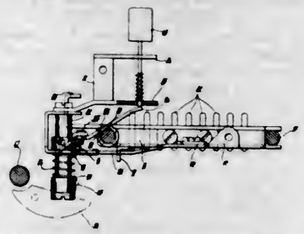
plate carried by the upper portion of said body member and extending partially thereacross, and a fixed oppositely inclined impact plate carried by said receiver base and underlying said body member, whereby inserted fares will be subjected to a double bounce thus causing them to separate for rapid visual inspection.

2,835,440
FLASH READING INDICATING MEANS FOR REGISTERS
Raymond J. Koch, Winnetka, Ill., assignors to Comptometer Corporation, a corporation of Illinois
Application September 1, 1953, Serial No. 377,896
10 Claims. (Cl. 235—1)



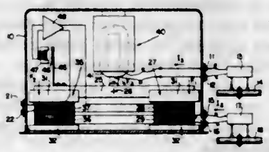
1. In a machine of the class described, a register comprising a plurality of denominational orders of identically colored numeral bearing elements, a casing housing said register and having sight aperture means associated with said elements, and flash reading indicating means cooperating with said numeral bearing elements to visually point off any registration thereon, comprising a colored strip of transparent material mounted in visual alignment with said sight aperture means in certain denominational orders to differentiate between the numeral bearing elements in said certain orders and those in the remaining orders of said register, said colored transparent material being dimensioned to overlie discrete groups of adjacent numeral bearing elements to visually group the same and distinguish adjacent groups of register elements from each other and mounted for movement transversely of said register elements, and manually operable means connected to said colored strip for selectively moving the same to denominationally transpose the visual grouping of said register elements effected thereby.

2,835,441
RESTORING MECHANISM FOR ADDING MACHINE INDEXING MEANS
Richard W. Pitman, Laverock-Hillcrest, Pa., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application November 3, 1954, Serial No. 466,645
6 Claims. (Cl. 235—60)



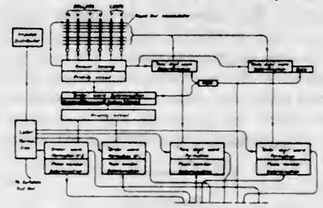
1. In an adding machine of the class described having a plurality of numeral keys, a shiftable pin carriage having settable pins therein to be indexed by said keys, a register, amount entering means controlled by said pin carriage and machine cycling mechanism, the combination of a restoring arm connected to said pin carriage, a swingable member driven by said cycling mechanism and engageable with said restoring arm to restore said pin carriage to a home position, an item repeat key, a lever operated by said repeat key and latchable in an operated position, said lever moving said swingable member to a non-engaging position with respect to said restoring arm, and engageable extensions on said swingable member and said lever to enable said swingable members to move said lever to an unlatching position during a machine cycle.

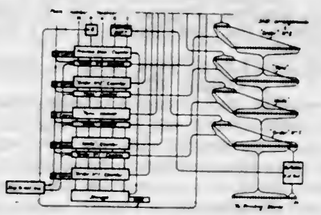
2,835,442
ELECTRICAL APPARATUS
John Parnell, Ambler, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 14, 1955, Serial No. 487,799
23 Claims. (Cl. 235—61)



3. Electrical apparatus comprising a mechanical balance, a first force producing means positioned to produce a resultant force on said balance which is proportional to the product of two electrical input signals, said means comprising a first pair of coil means positioned to produce a first force on said balance which varies as the square of the sum of the currents flowing in said coils and a second pair of coil means positioned to produce a second force on said balance in opposition to said first force which varies as the square of the difference of the currents flowing in said coils, and a second force producing means connected to said balance to exert a force opposing said resultant force, said last named force producing means comprising a movable coil means having a force output which varies as a first power of the net ampere turns of said coil means.

2,835,443
PRINTING CONTROL APPARATUS
Pierre Jacques Charles Chenus, Paris, France, assignor to Compagnie des Machines Bull (Societe Anonyme), Paris, France
Application February 19, 1953, Serial No. 337,843
Claims priority, application France April 23, 1952
46 Claims. (Cl. 235—61.9)

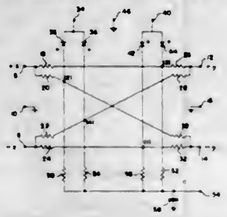




3. In a machine of the class described, an accumulator with a multi-denominational amount read-out

device, a sensing device coordinated with said read-out device for successively and separately sensing its denominational orders except two adjacent "Tens" and "Units" orders to be sensed concurrently, a first word forming device controlled by the sensing device to form a so-called "Order" word in accordance with the denominational order sensed, two "digit" forming devices controlled by the sensing device and said read-out device in accordance with the values of the digits registered in the orders sensed, the one forming device being effective to form a "Tens" digit word upon sensing of the read-out device "Tens" order, the other forming device being effective to form a word upon sensing of the other orders of said read-out device, number determining devices to determine printing place numbers in relation with the words formed, a place number totalizer comprising a plurality of cascaded counters in which the determined numbers are entered at each sensing operation, a printing mechanism of the electro-mechanical type, word transmitting arrangements included in circuit paths between said word forming devices and printing mechanism, said transmitting arrangements being separately controlled by adding circuits of the place number totalizer for transmitting the formed words in a predetermined disposition to the printing mechanism.

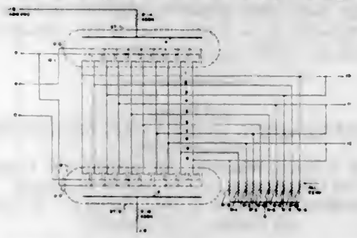
2,835,444
MULTIPLICATION CIRCUIT
Norman B. Blake and William H. Cox, Beaumont, Tex., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application March 18, 1955, Serial No. 495,264
4 Claims. (Cl. 235—61)



1. A multiplication circuit comprising a pair of carrier input terminals, means for applying a triangular carrier wave between said terminals, a pair of diodes having their anodes connected to one of said terminals, a second pair of diodes having their cathodes connected to the other of said terminals, the sides of said diodes opposite those connected to said terminals being connected to four individual biasing terminals, means for applying to said biasing terminals signals respectively equal to the positive and negative sums and differences of signals to be multiplied, and means for summing and averaging potentials appearing at said biasing terminals.

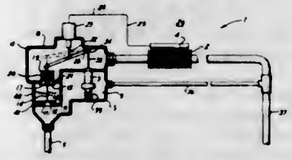
2,835,445
REVERSIBLE COUNTERS
Richard G. Stephens, Binghamton, N. Y., assignor to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application July 22, 1954, Serial No. 444,987
14 Claims. (Cl. 235—92)

1. A reversible direct coupled counting circuit comprising in combination a pair of multi-electrode gaseous discharge counting devices each having a plurality of numbered elements each operable to produce an output pulse upon receipt of a current translated successively to each of said numbered elements, and each device having a pair of translating means responsive to a pair of applied voltages phased in accordance with counting direction for translating said current, a tri-stable flip-flop connected to receive pulses from three groups of said elements to change state three times during a higher



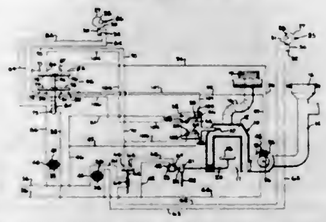
order counting cycle, and circuit means connected to said tri-stable flip-flop to apply voltages to operate similar pairs of translating means of a similar succeeding higher order counting circuit.

2,835,446
HEATING AND COOLING SYSTEM AND VALVE THEREFOR
Earnest J. Dillman, Detroit, Mich., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application November 22, 1955, Serial No. 548,457
3 Claims. (Cl. 236—1)



1. A valve comprising a valve housing; port means in said housing; valve means for opening and closing said port means; one of said means including two spaced wall elements; the other means including a wall member between said wall elements; lever means for reciprocally moving said valve means to open and close the port means; first power means responsive to an external temperature for operating said lever means: the spacing between the wall elements being greater than the valve means movement obtained from operation of the first power means; and second power means responsive to valve fluid temperature for varying the fulcrum point of the lever means so as to vary the operative valve means-port means registration.

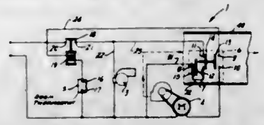
2,835,447
FURNACE CONTROL SYSTEM WITH DUAL SPEED BLOWER
William H. Calahan, Fort Thomas, Ky., assignor to The Williamson Company, a corporation of Ohio
Application November 6, 1953, Serial No. 390,505
2 Claims. (Cl. 236—9)



1. A control system for a furnace including a burner, electrically responsive means for supplying fuel to the

burner and a blower effective to force air through the furnace into a room, said blower being selectively operable at either a low speed or a high speed, said control system including a room thermostat in circuit controlling relationship with said fuel supply means, low limit switch means in circuit controlling relationship with said fuel supply means, said switch means being adapted to open at a predetermined furnace temperature and being adapted to reclose at a lower furnace temperature, an outdoor thermostat, means responsive to the condition of said outdoor thermostat for removing said low limit switch means from circuit controlling relationship with said fuel supply means when the outdoor temperature drops below a predetermined level, blower switch means in circuit controlling relationship with said blower, said blower switch means being adapted to close at a temperature lower than the temperature at which said low limit switch recloses, means responsive to the condition of said outdoor thermostat in circuit connection with said blower for conditioning said blower for operation at either a high speed or a low speed in response to the closing of said blower switch means.

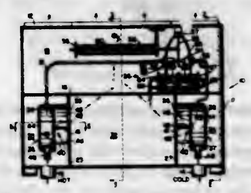
2,835,448
HEATING SYSTEM AND BLOWER CONTROL MEANS THEREFOR
Joseph French Page, Jr., Fairfield, Conn., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application October 20, 1955, Serial No. 541,707
5 Claims. (Cl. 236—9)



3. A room heating system comprising a heat producer; blower means for circulating the air heated by said heat producer; hot air duct means in communication with said blower means; a multi-metallic element in the hot air duct means; resistance heater means operable to expand said element; thermostat means operable in response to decrease in room temperature to start the heat producer and supply current to the heater means, and operable in response to increase in room temperature to stop the heat producer and interrupt current flow to the heater means; first switch means operable by expansive movement of the element to start the blower means; and second switch means operable by expansive movement of the element to deenergize the heater means; air in the duct means serving to maintain the element in an expanded condition until the temperature of said air falls below a predetermined value after stopping of the heat producer.

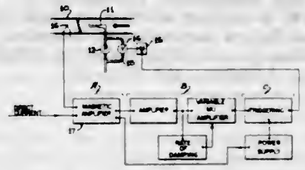
2,835,449
AIR BLENDER FOR AIR CONDITIONING HAVING TEMPERATURE AND PRESSURE CONTROL
Frederick D. Joesting, Oak Park, Ill., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 26, 1953, Serial No. 364,356
6 Claims. (Cl. 236—13)

1. In air conditioning apparatus, a device having a plenum chamber and a discharge opening from said chamber, first and second oppositely disposed passages opening into said plenum chamber, a valve means for controlling each of said first and second passages, each of said valve means including a pneumatic motor having a pressure chamber, individual conduit means for supplying air to each of said passages, restricted conduit means connecting the supply conduit means for the first passage to the pressure chamber of the motor for the first passage valve and a similar restricted conduit means connecting the supply conduit means for the second passage to the pressure chamber of the motor for the second passage valve, a control valve mechanism including a pair of spaced oppositely disposed nozzles, one of said nozzles being connected to one of said motor pressure chambers and the other of said nozzles being connected to the other of said motor pressure chambers, said nozzles being of greater flow capacity than said restricted conduit means, movable flapper means arranged between



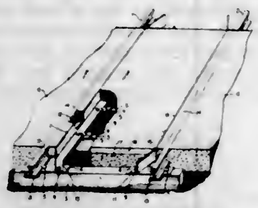
said nozzles to simultaneously and oppositely control air flow through both of said nozzles so that upon increasing the resistance to flow of one it decreases the flow resistance of the others, or vice versa, thereby controlling both of said valve motors in opposite directions, temperature responsive means for moving said flapper means, and means responsive to pressure in said plenum chamber for simultaneously and similarly varying the spacing between both of said nozzles to either increase or decrease the resistance to flow of both and thereby control both of said valve motors in a similar direction in accordance with pressure.

2,835,450
HIGH TEMPERATURE REGULATOR
Norman M. Brown, Jr., Los Angeles, Calif., and Clifford A. Shank, Phoenix, Ariz., assignors to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application May 24, 1952, Serial No. 289,916
11 Claims. (Cl. 236—78)



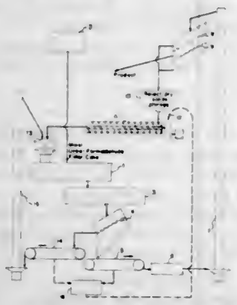
1. Apparatus for regulating the temperature of a fluid medium, comprising: signal emitting means having a signal output circuit variable in response to temperature changes in said fluid medium; means for amplifying the said signal including a variable mu tube having a control grid, and an output circuit; means controlled by the signal from said latter output circuit for correcting the temperature of said fluid medium by step-by-step pulses variable in proportion to the magnitude of the output signal; means normally biasing said grid; a potential source coupled with said signal output circuit and varied in accordance with the rate of change of temperature of said fluid medium; means combining said potential source with said normal biasing means to initially modify said pulses for rate of change of temperature; and resistor-capacitor bleeder means acting to restore said bias to normal after a time interval.

2,835,451
RAILROAD CROSSING STRUCTURE
Albert Goulding, Jr., Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application October 15, 1954, Serial No. 462,551
2 Claims. (Cl. 238—8)



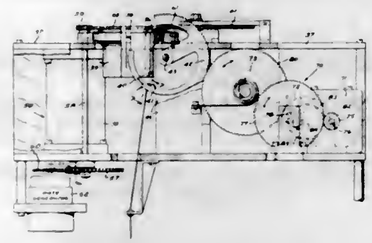
1. A railroad crossing wherein at least a pair of rails is mounted on spaced ties extending transverse thereto with the spaces between the rails and adjacent the outside of each rail being filled to form a traffic crossing surface across the rails characterized by the filling between the rails comprising a rigid retaining member adjacent to and spaced from the inside of each rail with the top of the retaining member substantially flush with the head of the adjacent rail, a supporting member extending between the retaining member and the rail with one edge firmly attached to said retaining member and the opposite edge resting on the top of the bottom flange of the rail, an elastic deformable resilient cushioning member on said supporting member with the top surface thereof substantially flush with the head of the rail and the top of the retaining member, the sides of said cushion element engaging the head of the rail and the retaining member to bridge substantially the entire space between the rail head and retaining member and filler material between and abutting the sides of the retaining members opposite the cushion elements and substantially flush with the top thereof whereby a substantially unbroken traffic crossing surface is formed between the rails.

2,835,452
PROCESS FOR GRANULATING UREA-FORMALDEHYDE FERTILIZER COMPOSITIONS
William Edward Cline, Merton Miles De Lancey, and Donald Allen Engelbrecht, Charleston, W. Va., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 28, 1954, Serial No. 439,596
3 Claims. (Cl. 241—23)



1. In a process for converting moist urea-formaldehyde to dried particles of a desired range of granule size the steps which comprise agitating, in a granulating means, moist urea-formaldehyde to produce granulation thereof, screening the resultant moist granular product, continuously forwarding the moist fines produced by the said screening to a drier by means of a weigh belt, drying the said fines in the said drier, continuously forwarding all of the moist coarse granules produced by said screening, by means of another weigh belt, to a crusher supplying additional moist solid to the said granulating means, while recycling a part of the said dried fines to the said granulating means, said recycled part being obtained by screening the dried fines to separate therefrom particles of the desired range of size and recycling the oversize and undersize dried fines, the rate of feeding said dried fines to the granulating means being controlled directly by the ratio of weight per unit time of material carried by the weigh belt for the said moist coarse granules, to the weight per unit time of material carried by the weigh belt for the moist fines.

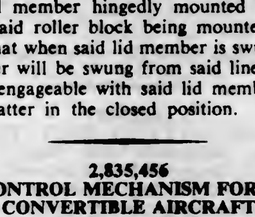
2,835,453
STATOR WINDER
John Young, Jr., Corona, N. Y., assignor to Sperry Rand Corporation, Ford Instrument Company Div., Long Island City, N. Y., a corporation of Delaware
Application January 23, 1957, Serial No. 635,756
17 Claims. (Cl. 242—1.1)



1. A winding mechanism for slotted shells of electrical apparatus by which coils comprising a plurality of loops of winding wire are automatically wound into selected pairs of shell slots, said mechanism comprising a rotatably mounted shell support adapted to hold and rotate a slotted shell back and forth during winding thereof, a winding finger disposed in operative relation to said shell support for back and forth rotation in an arcuate path about an axis perpendicular to the axis of said shell support, a threading nozzle through which winding wire is threaded into a pair of slots in a slotted shell being wound during the movement of said finger, said nozzle being carried by said finger, finger actuating means by which said finger is rotated back and forth between selected predetermined limits of movement in each direction with a dwell in the movement thereof at the limit of its movement in each direction, rotating means by which said shell support is rotated back and forth between selected predetermined limits of rotation in each direction with a dwell in the rotation thereof at the limit of its rotation in each direction, and control mechanism for said finger actuating means and said shell support rotating means by means of which said shell support and said finger are actuated in predetermined sequence with respect to each other.

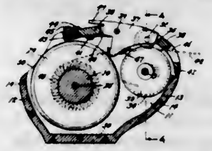
2,835,454
HYDRAULICALLY CONTROLLED DIFFERENTIAL WEB TENSIONING MECHANISM
Richard LeB. Bowen, Jr., Pawtucket, R. I.
Application February 4, 1954, Serial No. 408,217
13 Claims. (Cl. 242—75.53)

8. In a web tensioning mechanism, a pair of drag rollers, a pair of driven rollers, a differential gear train with three power transmitting shafts, a pump, a motor, a hydraulic system connecting said pump and motor, a driving connection between the first of said three shafts and said pump, a driving connection between the second of said three shafts and said motor, a driving connection between the third of said three shafts and said drag



rollers, and a driving connection from said driven rollers to the second of said three shafts.

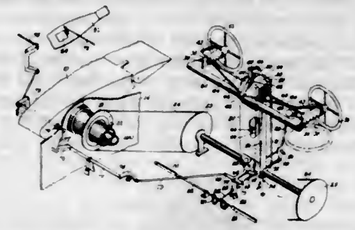
2,835,455
FISHING REEL
Aubrey D. Isbell, Loveland, Colo.
Application November 5, 1956, Serial No. 620,228
2 Claims. (Cl. 242—84.1)



1. A fishing reel comprising: a front side plate; a rear side plate; spacer means maintaining said side plates in parallel spaced relation; a gear cover plate supported from said front side plate in parallel relation thereto; a spool shaft; a disc shaft, said latter two shafts extending between and being journalled in said rear side plate and said gear cover plate; a line spool mounted on said spool shaft between said front and rear side plates; a traction disc having a peripheral line groove mounted on said disc shaft between said front and rear side plates; a crank shaft journalled in said gear cover plate; a drive gear mounted on said crank shaft between said gear cover plate and said front side plates; a spool pinion mounted on said spool shaft; a disc pinion mounted on said disc shaft, said pinions being in mesh with said drive gear; a roller block tiltably mounted between said side plates adjacent said traction disc; a pressure roller journalled in said roller block and positioned to travel in said line groove to maintain the line therein; spring means acting against said block to urge said roller into said groove; a lid member hingedly mounted between said side plates, said roller block being mounted in said lid member so that when said lid member is swung open said pressure roller will be swung from said line groove; and latch means engageable with said lid member for maintaining the latter in the closed position.

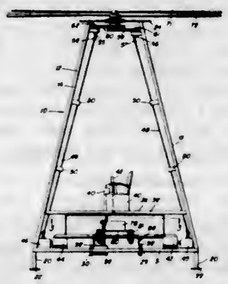
2,835,456
CONTROL MECHANISM FOR A CONVERTIBLE AIRCRAFT
David H. Kaplan, Levittown, N. Y., assignor to Convertawings, Inc., Amityville, N. Y., a corporation of New York
Application July 13, 1954, Serial No. 442,939
25 Claims. (Cl. 244—7)

1. A control mechanism for a convertible aircraft having a pivoted wing extending from each side of the fuselage thereof and carrying a thrust means, comprising a control post, pivot means carried by the control post for pivotally mounting the latter to the fuselage, a frame pivotally mounted upon the control post and movable through 90° relatively to the post, wing operating means for each wing connected with a wing to turn the latter, connecting means from the pivotally mounted frame to the wing operating means to operate the latter for a 90° movement whereby pivoting of the post collectively operates the wing operating means a limited amount in the same direction and turning of the frame relatively to said post collectively operates the wing operating



means for a 90° movement, and a hand wheel mounted on the frame, the hand wheel turning through 90° with the frame when the frame is turned through 90° relatively to said post whereby the pivotal movement of the control post controls collective operation of the wing operating means for helicopter and airplane operation.

2,835,457
HELICOPTER
Calvin G. K. Mills, Canon City, Colo.
Application December 14, 1956, Serial No. 628,318
3 Claims. (Cl. 244—17.19)

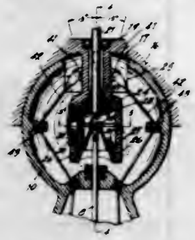


1. A helicopter comprising an airframe, said airframe having a base frame and an upper frame, posts which converge inwardly and rise upwardly from said base frame to said upper frame, counter rotating propellers at the top of said upper frame, means carried by said base frame but drivingly connecting said counter rotating propellers for rotation in opposite directions, a weight carried by said base frame, means for shifting said weight in four directions in order to achieve lateral control of the airframe and comprising an upper track, a carriage mounted on said upper track, means including upper and lower pairs of wheels preventing said carriage from separating from said upper track, a lower track having rails at right angles to said upper tracks, and means mounting said upper track and said carriage on said lower track.

2,835,458
MEANS FOR ADJUSTABLY MOUNTING AN ANNULAR WING ON AN AIRCRAFT
Harley A. Dorman, Detroit, Mich., and Bruce A. Dorman, Hondo, Tex.
Continuation of application Serial No. 716,580, December 16, 1946. This application December 19, 1955, Serial No. 553,833
5 Claims. (Cl. 244—17.27)

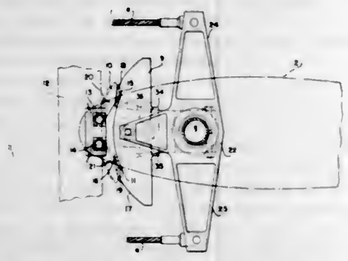
1. In a mounting mechanism for mounting on an aircraft an annular, cambered element with a propeller ro-

tatable therein; a hollow ball member mounted on said aircraft and formed with a slot extending longitudinally of the aircraft, a socket member adapted to be secured to the center of said annular, cambered element and engaging said ball member, a gear housing formed on said socket member, said housing extending through said slot into said ball member and having wall members on the end thereof positioned parallel to said slot in the center of said ball member, a propeller shaft extending through said housing and having a gear on the inner end thereof positioned between said housing walls, an intermediate gear rotatably mounted on one of said housing walls and meshing with said propeller shaft gear, a bearing



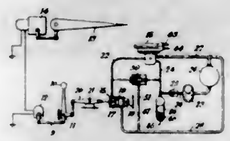
block positioned between said housing walls and having an arcuate lower surface, a retaining band secured to the edges of said walls for retaining said bearing block therebetween, a bearing mounted in said bearing block perpendicular to said walls, a driving gear mounted on said bearing and meshing with said intermediate gear, said driving gear having a pair of upstanding ears defining aligned apertures along a diameter of said ball member, a drive shaft extending upwardly through the bottom of said ball member and through said bearing block and driving gear, and a universal joint between said ears and said drive shaft, said slot being wide enough to permit tilting of said housing in said ball member.

2,835,459
AUTOMATIC LOCKING DEVICE
Charles D. Stewart, Glendale, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.
Application August 16, 1954, Serial No. 449,888
8 Claims. (Cl. 244—83)



1. An automatic control surface lock device for aircraft having a control surface swingable about a longitudinal hinge line and remote actuating means therefor comprising, cam means fixedly secured to said control surface, a roller lock arm swingably carried by the control surface supporting structure and arranged to engage said cam means for locking said control surface in the neutral position, lever means carried by the control surface supporting structure for swinging movement relative to the control surface about an axis generally parallel to said hinge line, said cam means having an opening formed therein, a pin carried by said lever means and projecting through said opening to allow only limited relative movement between said lever means and said cam means, piston 36 means carried by said cam means, and a bellcrank-like member swingably carried by said cam means responsive to said limited relative movement of said lever means in either direction for actuating said piston means and releasing said roller lock arm whereby said control surface may move about its hinge line in response to continued rotation of said lever means.

2,835,460
FEEL SIMULATORS FOR AIRCRAFT
Roy Westbury, Bridgnorth, Solop, England, and Charles Philip Smith, Ramsey, Isle of Man, assignors to H. M. Hobson Limited, London, England, a British company
Application November 29, 1955, Serial No. 549,764
Claims priority, application Great Britain December 7, 1954
3 Claims. (Cl. 244—83)

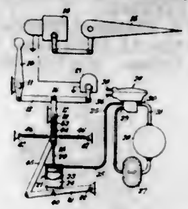


1. A feel simulator for an aircraft having a control surface actuable under power control by a pilot's control member, said feel simulator comprising, in combination with said control member, a piston, a housing for the piston having an outlet, means connected to the control member and effective on movement thereof in either direction from a neutral position to cause relative movement of said piston and housing and thereby to expel liquid through said outlet, valve mechanism normally closing said outlet, inlet and exhaust ports controlled by said valve mechanism, said valve mechanism operating to connect said outlet to said exhaust port on movement of said control member, a pump, a conduit for supplying liquid under pressure from said pump to said inlet port, a non-return valve in said conduit, a spring loaded pressure accumulator connected to said conduit at a point downstream of the non-return valve and normally held charged by the fluid pressure in said conduit, and a device responsive to changes in airspeed arranged to actuate said valve mechanism to connect said outlet alternatively to said inlet port and to said exhaust port in response respectively to increase and decrease in airspeed and thereby to establish in said housing a hydraulic pressure which increases with airspeed, said accumulator operating, on failure of pressure from said pump and on continued operation of said valve mechanism, to supply liquid to said housing under gradually diminishing pressure.

2,835,461
AIRCRAFT FEEL SIMULATOR
Roy Westbury, Bridgnorth, Salop, England, and Charles Philip Smith, Ramsey, Isle of Man, assignors to H. M. Hobson Limited, London, England, a British company
Application December 13, 1955, Serial No. 552,941
Claims priority, application Great Britain December 15, 1954
10 Claims. (Cl. 244—83)

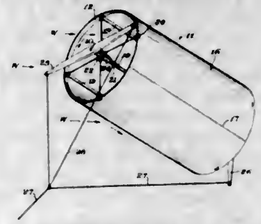
1. A feel simulator for an aircraft having a control surface, a pilot's control member and servo mechanism operable by said control member to impart movement to said control surface, said feel simulator comprising a hydraulic jack, constituted by a piston and a housing for said piston, means responsive to airspeed for establishing in said housing a hydraulic pressure which increases with airspeed, a linkage operable by said control member to effect relative movement of the piston and housing in opposition to the hydraulic pressure in the housing, a system of springs biased to an operative position in which

said springs offer resistance to movement of the control member and movable to a displaced position in which said springs are ineffective, and means responsive to the hy-



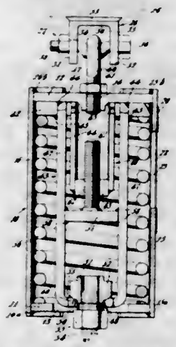
draulic pressure in the housing for maintaining said system of springs in ineffective position so long as hydraulic pressure prevails in said housing.

2,835,462
KNOCKDOWN ROTARY KITE
Henry J. Martin, Saginaw, Mich.
Application February 15, 1954, Serial No. 410,117
13 Claims. (Cl. 244—153)



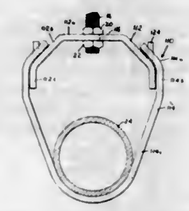
10. A kite construction comprising a hollow, cylindrical member; support means for said member including a first part located substantially axially within said member and other parts extending radially from said first part and connected to said member; stabilizing means on said first part and operable during flight of said member to maintain the latter in such position that its longitudinal axis lies substantially in the direction of a wind current, said stabilizing means including an elongated element arranged normally to said first part; and a line connected to said stabilizing means for permitting captive flight of said kite.

2,835,463
VARIABLE SUPPORT SPRING HANGER
Leonard S. Suozzo, Hackensack, N. J., assignor to Bergen Pipesupport Corp., New York, N. Y., a corporation of New York
Application May 3, 1955, Serial No. 505,666
9 Claims. (Cl. 248—54)



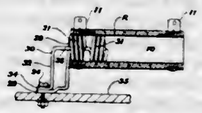
1. In a spring hanger for supporting pipes and the like, a housing including a top wall, a bottom wall and at least one substantially vertical side wall, said bottom wall having a central through aperture, a transverse plate movable within the housing, a U-shaped member registering with the aperture in the bottom wall and including a pair of substantially parallel upwardly projecting arms that are secured to the plate, said member and the parts of the bottom wall defining the aperture being so configured and arranged as to permit vertical movement of the member through the aperture and prevent rotation of the member relative to the housing, a compression spring within the housing and bearing against the plate, said spring normally and yieldingly urging the plate and member upwardly relative to the housing, an element disposed between and secured to the arms, said element cooperating with the bottom wall for limiting downward movement of the member relative to the housing, and vertically adjustable means within the housing secured to the member for limiting upward movement of the member relative to the housing and varying the loading on the spring.

2,835,464
PIPE HANGER
Samuel S. Kolodin, Brooklyn, N. Y.
Application December 15, 1954, Serial No. 475,492
5 Claims. (Cl. 248—62)



1. A pipe hanger which is adapted to be supported by a vertical rod or the like projecting downwardly from a ceiling or other structural support, said pipe hanger comprising a bridge adapted to be supported by said vertical rod and a strap supported by said bridge, said bridge having a flat horizontal yoke portion with a hole formed centrally thereof to receive said vertical rod and being provided with a pair of downwardly bent shoulders at the ends of said yoke diverging downwardly therefrom, said strap comprising a generally U-shaped member whose upper ends are bent inwardly converging in upward direction to conform to the bend of the shoulders of said bridge so as to be supported thereon, said shoulders being provided with upwardly projecting lugs and said inwardly bent upper ends of the strap being provided with openings to receive said lugs in order to lock the strap to said bridge.

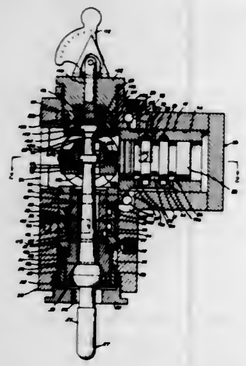
2,835,465
RESISTOR MOUNTING BRACKETS
Roger W. Patterson, Rochester, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 1, 1953, Serial No. 395,629
1 Claim. (Cl. 248—201)



The combination with a tubular member having an axial bore with a given diameter, of a first mounting mem-

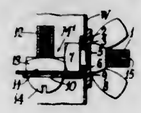
ber and a second mounting member, each said mounting member comprising a spring having a plurality of coils extending into said bore from the same end thereof, each of said coils of each said mounting member being radially compressed throughout the periphery thereof by the internal wall of said bore, said coils of said first mounting member and said coils of said second mounting member being wound in opposite directions whereby said coils of said first mounting member and of said second mounting member prevent rotation of said tubular member with respect to each said mounting member, and means for mounting each said mounting member to a surface.

2,835,466
TRACER MECHANISM
Roy Rosebrook, Monterey Park, Calif., assignor to True-Trace Corporation, El Monte, Calif., a corporation of California
Application October 5, 1953, Serial No. 384,274
9 Claims. (Cl. 251—3)



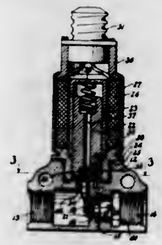
1. A tracer mechanism comprising a housing, a tracer stylus having a longitudinal axis and mounted within the housing, a first ball included in the stylus at an intermediate position of its longitudinal length, the stylus having a portion extending beyond the housing, the end of said portion being adapted to engage a pattern to be traced, a second ball included in the stylus at a position of its longitudinal length on the opposite side of the first ball from said portion, hydraulic fluid valve means comprising a first substantially vertical cylinder, second and third cylinders disposed horizontally, being mutually perpendicular to each other and to the first cylinder, and first, second and third reciprocating pistons respectively disposed in the first, second and third cylinders, movable axially therein, port means formed in the respective cylinders, said pistons arranged to register in different combinations with the port means at different piston positions, said port means having communication with respective fluid passages in the housing, means for mounting the first ball on the stylus to the first piston whereby the ball is possessed of universal rotation and the said portion of the stylus is thereby adapted for pendular motion, and movement of the stylus along its longitudinal axis shifts said first piston in the first cylinder, means for mounting the second and third pistons to said second ball whereby said second ball has universal rotation, tained. The rate of hunting is determined by the traverse and its lateral movement in response to movement of the stylus causes corresponding lateral movement of the second and third pistons, whereby the flow of fluid through the housing is controlled by the position of the pistons as determined by the stylus positions.

2,835,467
MOUNTING FEATURES OF SHEET METAL DAMPER BLADES USED IN AIR CONDITIONING SYSTEMS
Joseph R. Guildford, Buffalo, N. Y.
Application May 13, 1957, Serial No. 658,852
3 Claims. (Cl. 251—89)



1. The combination with a duct of an air conditioning system and a sheet metal damper blade having a determined angular position of use in the duct of a mounting feature for the support of the damper blade comprising a bracket of angular form having a vertical arm and a horizontal arm, the vertical arm extending between the edge of the blade and a supporting wall of the duct and having an opening for registry with an opening in the wall, a trunnion extending through the registering openings and have at its inner end a head which bears against the vertical arm and one face of the blade, the horizontal arm bearing against the opposite face of the blade and having an opening located inwardly of the head of the trunnion, the blade having an opening to register with the opening in the horizontal arm, a screw inserted through the registering openings in the horizontal arm and the blade with its head bearing against the horizontal arm and a nut fitted upon the screw for clamping the blade upon the horizontal arm, the nut being flat sided with one of its flat sides bearing against the inner face of the head of the trunnion.

2,835,468
VALVE CONSTRUCTION
Brian O. Sparks, Long Beach, Calif., assignor to Clary Corporation, San Gabriel, Calif., a corporation of California
Application February 13, 1956, Serial No. 565,175
3 Claims. (Cl. 251—129)



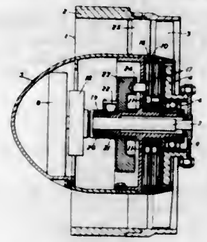
1. A fluid control valve comprising a valve casing having aligned inlet and outlet ports and an opening communicating said ports, means forming a valve seat surrounding said opening, a tubular guide supported by said casing, a plunger of magnetic material slideable in said guide and movable toward and away from said seat, a thin flexible valve member carried at one end thereof by said plunger and movable adjacent the opposite end thereof over said seat, said valve member being located up stream from said seat, a spring member supported wholly at one end thereof by said plunger and engaging at its opposite end said valve member whereby to urge said valve member against said seat, and an electromagnetic coil surrounding said guide and effective upon energization thereof to move said plunger whereby to move said valve member over said seat.

2,835,469
IRRIGATION DITCH GATE VALVE
Ellis F. Rothenberger, Fullerton, Calif.
Application July 22, 1957, Serial No. 673,184
6 Claims. (Cl. 251—147)



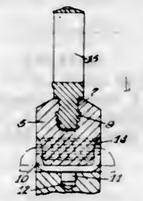
1. A manually operable mechanical valve construction for use in an irrigation ditch comprising a first stationary unit embodying a ring, one edge of which constitutes a valve seat, a pair of spaced parallel guide members joined rigidly to diametrically opposite portions of said ring; and a second unit movable relative to said first unit and embodying a valve disk normally covering the ring and seated atop said valve seat, a push-pull member serving as a handle and secured at one end to said disk, and a leaf spring tensioned to apply pressure to and effectually close and keep said valve disk closed, said spring being attached midway of its ends to the central portion of the disk and having free outer ends slidingly engaging the respective guide members, said outer ends projecting laterally beyond the guide members and being under tension and the terminals thereof being laterally bent and having retentive cooperation with said guide members.

2,835,470
FLUID TURBINES
David Roy Trowbridge, Ilford, and Norman Ross, London, England, assignors to The Plessey Company Limited, Ilford, England, a British company
Application February 17, 1956, Serial No. 566,320
1 Claim. (Cl. 253—59)



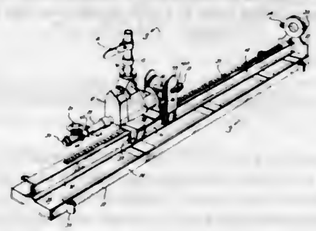
In an air driven turbine the combination of an air speed control means comprising a housing consisting essentially of an outer cylindrical wall and an inner housing with an annular air duct therebetween, a rotor fitted with turbine blades extending across the air duct, a set of baffle segments arranged in a plane in front of the inlet edges of said rotor; each of said baffle segments moving radially through a pin and slot connection, a centrifugal governor driven by the air turbine, and automatic means operatively connected to said baffle segments and centrifugal governor comprising stationary and rotary discs each having cam slots therein, and further comprising the pins of said cam and slot connections, each pin being fixed to a baffle segment and extending into a pair of said cam slots in said stationary and rotary discs, for moving the baffle segments radially across the air duct passage, said baffle segments normally accommodated within said inner housing thereby providing a clear passage to the air inlet duct in said housing.

2,835,471
SECURING OF BLADING TO TURBINE WHEELS AND OTHER HIGH SPEED ROTARY MEMBERS
Claude W. Hayes, Bedford, England, assignor to W. H. Allen Sons & Company Limited, Bedford, England
Application February 9, 1953, Serial No. 335,860
Claims priority, application Great Britain February 26, 1952
8 Claims. (Cl. 253—77)



1. In a bladed high speed rotary member having an undercut circumferential groove within which complementary root portions of the blades are engaged and having at least one gate opening laterally from said groove through which the blade root portions can be introduced, a blade securing means for the purpose described comprising a closing piece shaped for lateral insertion into the gate opening, undercut interengaging means on the said closing piece and on the sides of the gate opening to retain the closing piece radially in position therein, said interengaging means on the sides of the gate opening being disposed radially inwardly of the circumferential groove of the rotary member, said closing piece having an undercut blade receiving groove of the same cross sectional form as that of the circumferential groove of the rotary member and positioned to be in alignment with the latter groove, at least one blade member substantially identical to the blades in the aforesaid circumferential groove and having its root portion located in the closing piece groove and aligned with said blades in the circumferential groove, and means for retaining the closing piece in the gate, said means being constituted by parts engaged respectively with the closing piece and with the rotary member to prevent lateral movement of the closing piece in the said rotary member.

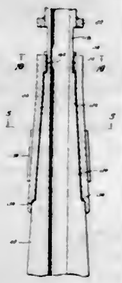
2,835,472
HORIZONTAL BORING MACHINE
John D. Osborn, Houston, Tex.
Application September 25, 1956, Serial No. 611,970
4 Claims. (Cl. 255—20)



2. In a horizontal boring machine, the combination of a frame, a single I-beam track having a rack thereon extending longitudinally centrally of said frame, a carriage having wheels thereon to ride on the lower flange of said I-beam on either side of the web thereof whereby said carriage is mounted for movement along said track, means to drive said carriage along said rack, drive means carried by said carriage and having a hollow spindle thereon extending above said track and parallel thereto and rotatably driven by said drive means, means co-axial with said spindle and non-rotatably connected

to said drive means to deliver water without leakage into the rear end of said spindle and including a pair of longitudinally spaced apart packings around said spindle and having fluid escape means therebetween, and a drill stem connectable to the forward end of said spindle and mounted to be extended by drive means rotation and carriage traverse along said track to drill a horizontal hole as water from said spindle is supplied to said drill stem in drilling.

2,835,473
GUIDE FOR DRILL COLLAR SUBS
Joseph J. Barris, Livingston, Tex.
Application October 13, 1953, Serial No. 385,784
5 Claims. (Cl. 255—28)



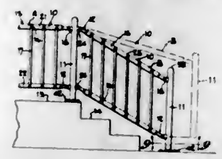
4. Well drilling equipment comprising a tubular drilling string, a drill collar sub connected to the string and a drill collar connected to said sub, said sub having an upwardly and inwardly tapering external surface, a tubular sleeve surrounding and longitudinally movable on said sub and having an internal surface corresponding to said external surface of the sub, and interengageable means on the sleeve and sub positioned to be disengaged upon relative longitudinal movement of the sleeve and sub in one direction to permit relative rotation of the sleeve and sub and to be interengaged upon relative longitudinal movement of the sleeve and sub in the other direction to cause the sleeve to rotate with the sub.

2,835,474
DRILL ATTACHMENT
Thomas J. O'Connor, Kansas City, and William J. Sullivan, Normandy, Mo., assignors to Unexcelled Die & Supply Co., St. Louis, Mo., a corporation of Missouri
Application May 5, 1955, Serial No. 506,236
7 Claims. (Cl. 255—37)



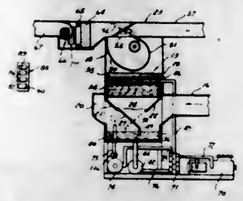
1. A double blow drill attachment comprising a casing member, a hammer member movable in said casing member, compressible means having a first end mounted on said casing member and a second end on said hammer member, a trigger mounted on one of said hammer and casing members and engageable on the other of said members to hold said compressible means energized, yieldable means for contacting and holding said trigger in engaged position on said other member, a third member movable relative to said casing and hammer members and having a projection adapted to move said yieldable means out of contact with said trigger whereby said compressible means is actuated to move said hammer member relative to said casing member, and an anvil member adapted to be contacted by said hammer member when said compressible means is actuated.

2,835,475
INTERCHANGEABLE FENCE OR GUARD RAIL STRUCTURE
Winford L. Enghauser, Cincinnati, Ohio, assignor to Enghauser Manufacturing Company, Inc., Lebanon, Ohio, a corporation of Ohio
Application October 22, 1956, Serial No. 617,389
5 Claims. (Cl. 256—22)



1. A rail section comprising, a pair of spaced vertical posts, a pair of connector studs for each post, each connector stud comprising a tube having an open slot extending longitudinally thereof, the wall of said tube opposite the open slot having a groove extending longitudinally thereof, said groove substantially reducing the wall thickness of the tube and imparting compressibility to the stud, said studs being spaced apart from one another and having end portions joined to said posts, said studs projecting angularly from said pair of posts toward one another and in axial alignment with one another, a pair of parallel stringers extending longitudinally between said posts and having a length less than the space between the posts, said stringers having tubular end portions telescopically interfitting said connector studs, a plurality of palings each having partially S-shaped opposite end portions offset outwardly, said off-set opposite end portions joined to the stringers along one side thereof, said off-set end portions locating the palings in a common plane which passes through the axes of the stringers, and attachment means on said stringers engaging said studs and locking the stringers to the studs in a selected longitudinal position between the posts.

2,835,476
AIR CONDITIONING APPARATUS
John Kohut, Jr., Boonton, N. J.
Application June 18, 1954, Serial No. 437,795
7 Claims. (Cl. 257—3)



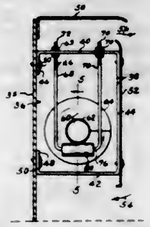
7. An air conditioning unit adapted to be located in a building, comprising: an elongated duct having an inlet end and an outlet end, a first inlet means providing for the inlet of air from the atmosphere outside the building to the inlet end of the duct, a second inlet means providing for the inlet of air from the interior of the building to the inlet end of the duct, air humidifying means having a recirculated supply of water in the duct between the inlet and outlet ends thereof, a first outlet means providing for the outlet of air to the atmosphere from the outlet end of the duct, a second outlet means providing for the outlet of air to the interior of the building, means at the inlet and outlet ends of the duct for selectively alternatively directing air through the duct in a first path from the first inlet means to the first outlet means and in a second path from the second inlet means to the second outlet means, a refrigerator coil through which the air travelling in the second path passes, means allowing the entry of air in the building into the second path in advance of the travel of the air through the refrigerator coil a refrigerator compressor for supplying compressed refrigerant to said coil, means providing for heat exchange between the compressed refrigerant delivered by the compressor and the supply of water circulated through the air humidifying means, an air damper in the second outlet means for by-passing the cooling coil, a room humidistat for controlling the by-pass damper, means for starting the compressor when the by-pass damper is opened, means to heat the air travelling in the second path, and a room thermostat controlling the heating means.

2,835,477
TEMPERATURE CONTROL APPARATUS AND METHOD
Theodore Tovrog, Chicago, and Arthur A. Krawetz, Evanston, Ill.
Application May 2, 1955, Serial No. 505,097
8 Claims. (Cl. 257—4)



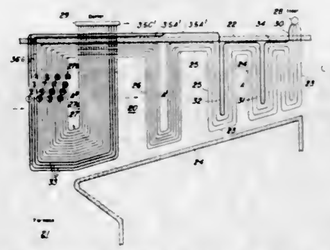
4. In apparatus for testing samples of material, a temperature-regulating bath comprising an open-top container, a heat exchanger, an open conduit for conducting heat exchange liquid from the bath to said exchanger and back to the bath, a closed conduit for heat exchange liquid disposed within the bath and communicating with said heat exchanger, said conduits communicating with each other, a pump for circulating liquid in said conduits, valve means disposed in said conduits whereby flow may be restricted solely to the open conduit or to the closed conduit, and thermo-responsive means in the bath for adjusting the temperature of the bath by means of a second heat exchanger disposed in the bath, one of said heat exchangers being a cooling means for cooling said liquid and the other of said heat exchangers being a heating means for heating said liquid.

2,835,478
FINNED TUBE RADIATOR SUPPORTING STRUCTURE
George R. Bemish, Rochester, N. Y.
Application January 6, 1955, Serial No. 480,091
1 Claim. (Cl. 257—163)



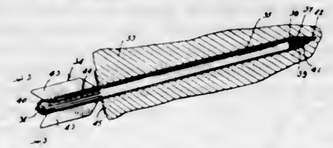
In a baseboard domestic hot water radiator construction, a support plate, a plurality of rectangular C-shaped brackets secured at spaced intervals along the plate and lying in vertical planes, a hot water radiator pipe having radial fins along its length extending through said brackets and having the fins removed in the region of each bracket, the open side of said C-shaped brackets having a dimension at least as great as the overall diameter of said pipe and fins, and a hanger suspended from the upper portion of each bracket, said hanger being composed of a section of stiff wire having a horizontal straight mid-section of a length greater than the pipe diameter and located beneath the pipe and parallel integral hanger portions extending at right angles to the mid-section to the upper portion of the bracket, means for securing said hanger portions of each hanger to the upper portion of a bracket, and a pair of telescopically disposed roller sleeves mounted on said mid-section with the outer sleeve in supporting engagement with the undersurface of said pipe, said sleeves being rotatable with respect to each other and the mid-section the diameter of the inner walls of the outer and inner sleeves, being substantially greater than the diameter of the outer wall of the inner sleeve, and the mid section respectively, and the wall thickness of the sleeves being substantially the same.

2,835,479
SUPERHEATER CONSTRUCTION AND ARRANGEMENT
Charles Guarraia, Hawthorne, N. J., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application August 18, 1953, Serial No. 375,005
8 Claims. (Cl. 257—240)



1. A superheater located in a gas passage opening directly out of a furnace comprising; a group of heat absorbing elements connected between a supply header and a collecting header having tubes spaced longitudinally of the gas passage and connected serially for flow of steam therethrough with parts of said elements exposed to direct radiation of heat from said furnace; and other tubular elements in said passage of shorter length extending from the supply header to the collecting header and including tubular parts which absorb less heat in the gas passage than said first elements with portions of said other elements interposed between the furnace and all tubular parts of said group of first mentioned elements exposed to radiation from the furnace, whereby the part of the superheater closest to the furnace includes tubular elements receiving steam at different temperatures with the tubular element portions receiving steam at the lowest temperatures being located closest to the furnace.

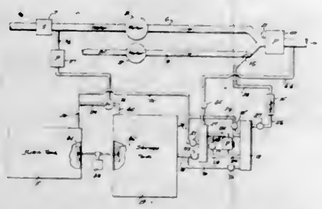
2,835,480
THERMAL PINS
William Perez, Williston Park, N. Y.
Application April 9, 1953, Serial No. 351,285
3 Claims. (Cl. 257—263)



1. A thermal pin for aiding the cooking of food mass comprising a hermetically sealed hollow tube of thermally

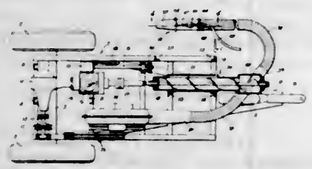
conductive material having a shaft portion, a handle portion, and being partly filled with a vaporizable liquid, said shaft portion being provided with a tapered end to facilitate introduction of the pin into the food mass, said handle portion being provided with radially extending fins for heat transmission on its outer surface from the surrounding air to the interior of the pin, whereby when such pin is inserted into a food mass and subjected to heat, the resulting vapors of the liquid flow toward the tapered end of the tube, condense, and return to the handle portion.

2,835,481
METHOD AND APPARATUS FOR MIXING AND METERING AN UNSTABLE SUSPENSION OF A SOLID IN A LIQUID
Willis T. Cox, Santa Ana, Calif.
Application December 13, 1955, Serial No. 552,745
2 Claims. (Cl. 259—1)



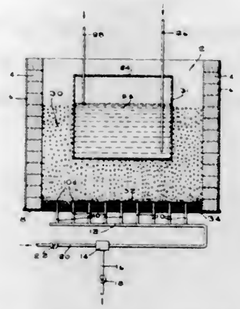
2. Apparatus for mixing and metering two liquids, one of which contains pulverized solid material in an unstable suspension, which comprises: a batch mixing tank for mixing said one liquid and said solid material; a first manifold, and valved pipe means connecting said batch mixing tank and said first manifold; a second manifold; means including a pump connecting said first manifold to said second manifold; a pipe line, including a meter, for said other liquid; pipe means connecting said second manifold to said pipe line at a position beyond said meter, said pipe means including a second meter and an injection nozzle, for injecting a metered quantity of said one liquid into said pipe line; a second tank; and valved pipe means connecting both of said manifolds to said second tank whereby said second tank may selectively be placed in communication with either of said manifolds.

2,835,482
CEMENT APPLYING MACHINE
Perry O. Stoughton, Jackson, Calif., assignor of one-half to Selina E. Treynor, Jackson, Calif.
Application May 7, 1956, Serial No. 583,319
2 Claims. (Cl. 259—151)



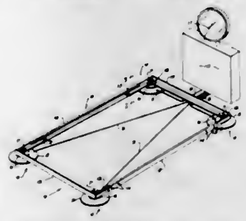
1. A cement applying machine including a low-pressure blower, a conduit leading from the blower and having a discharge nozzle on its outer end, means to feed a water spray into the nozzle, and means to feed dry cement mix into a conduit intermediate its ends; said means comprising a hopper and a conveyor to which the hopper feeds, said conveyor including a horizontal auger, and a housing enclosing the auger from end to end, the housing including a transfer box at the discharge end of the auger and into which the latter extends, the conduit leading to and from the box and intersecting said box in crossing relation on a downward slope relative to the box and away from the blower and at a level relative to the box such that air from the conduit enters the box on one side from adjacent the bottom of the box upwardly while leaving the box through the bottom and the opposite side thereof.

2,835,483
APPARATUS FOR HEATING FLUIDS
Wesley N. Lindsay, San Jose, Calif., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application February 3, 1954, Serial No. 407,967
1 Claim. (Cl. 263—41)



An apparatus for uniformly heating fluid, comprising a combustion chamber having side walls and a floor comprising a metal plate, a plurality of injection nozzles of relatively small diameter and having restricted tapered orifices for admitting fuel and an oxidizing medium into said chamber, said nozzles extending vertically through said metal plate and projecting a predetermined distance thereabove, a closed vessel for holding the fluid to be heated disposed within said chamber in vertically spaced relation to said nozzles, said vessel having conduit means for admitting thereto fluid to be heated and for discharging the heated fluid therefrom, and a bed of loose refractory particles disposed within said chamber surrounding the lower portion of said vessel, said refractory bed including a lower non-fluidized layer on said floor plate extending around the upwardly projecting ends of said nozzles, the injection of fuel and oxidizing agent through said nozzles serving to establish a fluidized mass above said nozzles and partially surrounding said vessel.

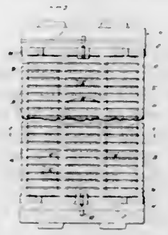
2,835,484
HYDRAULIC SCALE RECTANGULAR STABILIZING FRAME
Robert O. Bradley, Toledo, Ohio, assignor, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Application October 19, 1953, Serial No. 386,874
2 Claims. (Cl. 265—71)



1. In a hydraulic weighing scale, in combination, a plurality of hydraulic capsules, a load receiver including a rigid supporting frame rockably supported upon the

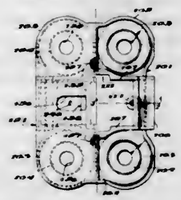
plurality of capsules, said capsules each comprising a tippable member, and a stabilizing frame independent of the load receiver for preventing tipping of the tippable members of the capsules, said stabilizing frame comprising a plurality of longitudinally stiff bars rigidly attached two to each tippable member of the capsules, each capsule being connected to at least two relatively adjacent capsules and there being an end of two bars adjacent each one of the tippable members.

2,835,485
GRATE BAR FOR SINTERING MACHINE
Fred C. Woody, Garfield Heights, Ohio, assignor to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio
Application December 15, 1955, Serial No. 553,323
7 Claims. (Cl. 266—21)



1. In a grate assembly, a pallet comprising a plurality of spaced supporting members, a grate bar having an elongate body portion adapted to extend across said supporting members and rest thereon by engagement of correspondingly spaced undersurfaces of said body portion with said members, said grate bar having longitudinally extending anti-warping ribs integral with the body portion and separated by said undersurfaces, said ribs projecting downwardly free of the members from the level of the undersurfaces for a distance substantially equal to the depth of the body portion to dispose the ribs below a work-heating zone of the grate assembly whereby they are maintained in a cooler and stronger state than said body portion.

2,835,486
SPRING GROUP AND DAMPING MECHANISM
James C. Settles, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Original application March 4, 1954, Serial No. 414,078. Divided and this application February 14, 1955, Serial No. 488,101
9 Claims. (Cl. 267—9)



1. In a spring group having a friction damping mechanism therein, a bottom member and a superimposed top member, helical load supporting springs having their lower ends seated on the bottom member with upper ends engaging an under surface of the top member, spaced transverse walls extending upwardly from the bottom member at an intermediate portion thereof, sloping webs extending between and joining said walls presenting upwardly converging under surfaces thereon, a stem depending from the top member at an intermediate portion thereof having substantially vertical outer surfaces, a pair of wedges each having a sloping surface for engaging one of said converging surfaces and one of said vertical surfaces, helical springs seated on the bottom member with their axes converging toward each other in proceeding upwardly urging the wedges into frictional engagement with said vertical surfaces and converging surfaces.

2,835,487
EMERGENCY MECHANISM FOR UNLOCKING COLD STORAGE DOOR AND THE LIKE
Henry B. Clark, Elizabeth, N. J.
Application May 16, 1956, Serial No. 585,337
6 Claims. (Cl. 268—30)



6. The combination of a door and means for opening and closing it including an electric motor and a circuit including said motor and a switch for said motor having an actuating stud, a lock construction for securing the door to a structure adjacent the door comprising a keeper element mounted on one side of said door and said structure, a plate mounted on the other of said door and said structure for movement into and out of engagement with said keeper element, said plate and said keeper element having portions to interlock when the plate is moved into engagement with the keeper element, and means actuated by and upon movement of said plate into and out of interlocking relation to said keeper element to engage said stud and control actuation of said switch to close and open the switch, respectively.

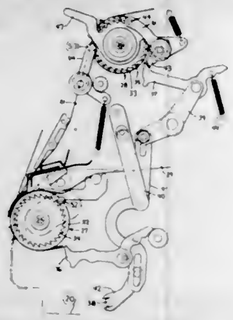
2,835,488
FLUID OPERATED DOOR ACTUATING MECHANISM
Harvey Hubbell, Long Hill, Conn.
Application January 23, 1956, Serial No. 560,597
4 Claims. (Cl. 268—34)



1. In combination with a door actuating mechanism, a movable door, a cylinder having a fluid operated piston connected to the door for shifting it to the open position, return means tending to shift it to the closed position, a master cylinder and means for operating it mountable as an assembled unit on a floor associated with the door, said unit comprising a base member adapted to rest on the floor, a pair of levers above the base member pivoted to the base member at their outer ends and pivotally connected at their inner ends, the master cylinder comprising a flexible bellows between the levers and the base member, and compression springs between the levers and the base member; a fluid conduit connection from the master cylinder to the first cylinder, said levers forming a treadle for operating the master cylinder to supply fluid under pressure to the first cylinder to open the door, and a control means in the connection from the master cylinder to the first cylinder comprising a check valve arranged to open to permit free flow of

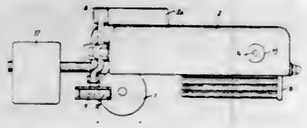
fluid to the first cylinder and close to prevent flow in the opposite direction, and a by-pass passage around the check valve provided with a control valve to control return of fluid from the first to the master cylinder and control speed of closing of the door.

2,835,489
STRIP FEEDING MECHANISM
John H. Kroemer, Dayton, and Doyle D. Tilton, Columbus, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application November 18, 1954, Serial No. 469,763
13 Claims. (Cl. 271—2.4)



1. Strip feeding apparatus having dual strip feed devices and operating means for advancing said devices in intermittent step by step movements; including toothed driving plates movable independently of one another and connected to respective devices for motion therewith, sweep feed means movable to and fro in actuating relation to said driving plates, and means rendering said sweep feed means effective and ineffective with respect to at least one of said driving plates according to a predetermined operational sequence.

2,835,490
WEB GUIDING HEAD
Julien Dungler, Basel, Switzerland
Application May 16, 1956, Serial No. 585,231
7 Claims. (Cl. 271—2.6)



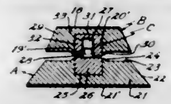
1. A web guiding head comprising in combination: a support, a frame pivotally mounted on said support on a tilting axis positioned substantially at right angles to the plane of said web, a pair of rolls journalled in said frame on parallel axes at right angles to said tilting axis and mounted for movement toward and away from each other, roll urging means carried by said frame for urging said rolls toward each other, said rolls being so positioned in said frame that the web may travel between said rolls, frame urging means operatively connected to said frame for pivotally urging said frame to a position in which the axes of said rolls extend angularly with respect to the marginal portions of the web, tensioning means carried by said frame and adapted to tilt said frame about said tilting axis against the action of said frame urging means as the marginal portion of the web departs laterally outwardly of its normal path of travel, and separating means operatively connected to said rolls and to said support and adapted to move said movable rolls away from each other as said frame is tilted toward the position in which the axes of said rolls extend at right angles to the marginal portion of the web.

2,835,491
MERRY-GO-ROUND
Roy J. Meyers, North Sacramento, Calif.
Application July 2, 1956, Serial No. 595,340
2 Claims. (Cl. 272—30)



1. A merry-go-round comprising a supporting base including an upstanding nonturnable spindle, an elongated bar unit arranged at its ends for occupant support, said unit comprising a pair of alined but spaced-apart bars of somewhat greater width than the diameter of the spindle, and straps rigidly connecting the bars at adjacent ends and defining an open elongated slot therebetween, the spindle projecting through the slot to a termination well above the same; means between the bar unit and spindle supporting the bar unit from the spindle for rocking of the unit in a vertical plane; the bars being hollow and open ended, and cushion pads initially separate from and removably mounted in the adjacent ends of the bars and projecting into a slot between the connecting straps for alternate engagement with the spindle upon rocking movement of the bar unit through a predetermined arc in a vertical plane.

2,835,492
PIROUETTE EXERCISER
Fred J. La Londe, Virginia, Minn.
Application April 15, 1955, Serial No. 501,519
1 Claim. (Cl. 272—57)



An exercising device comprising a frusto-conical circular base member having a large diameter bottom surface and a smaller diameter upper surface, an axial socket in the upper surface of said base member, a metal cylindrical supporting member secured in said socket and held from rotation relative to said base member, a pin projecting upwardly from said supporting member coaxial with said supporting member and secured from rotation relative thereto, said supporting member being of larger diameter than said pin and extending above the level of the upper surface of said base member, a bearing member encircling said pin and overlying said supporting member for support thereby, an annular groove in said pin above the level of said bearing member, a frusto-conical pivot block having a large diameter bottom surface and a smaller diameter upper surface, the under surface of pivot block being substantially equal in diameter to the upper surface of said base member, an axial socket in the under surface of said pivot block, a metal bearing block supported in said last named socket and secured from rotation relative to said pivot block, said bearing block projecting below the level of the under surface of said pivot block, an axial socket in the under surface of said bearing block of a diameter to

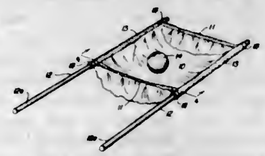
rotatably support the upper end of said pin, and a set screw supported for radial movement in the lower portion of said bearing block extending into said groove in said pin, said set screw holding said pivot block from separation from said base member while permitting relative rotation therebetween.

2,835,493
HYDRAULICALLY ADJUSTABLE STILTS
Robert P. Skaggs and Everett E. Skaggs, Phoenix, Ariz.
Application April 14, 1955, Serial No. 501,282
8 Claims. (Cl. 272—70.1)



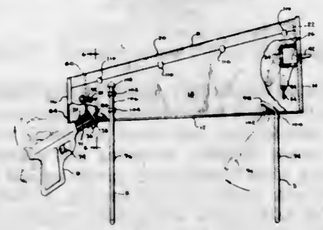
1. A hydraulically adjustable stilt, comprising a foot rest, a pair of telescopical tubes depending from the foot rest with the upper end of the inner tube supported within the foot rest with a fluid-tight connection and said outer tube being slidably mounted on said inner tube with a fluid-tight seal therebetween, ground-engaging means on the lower end of the outer tube, a coil spring supported within said tubes with the opposite ends thereof reacting on said foot rest and said outer tube, a fluid reservoir tube projecting upwardly from said foot rest and having its lower end supported therein, ports in said foot rest providing communication between said telescoping tubes and said fluid reservoir tube, valve means in said foot rest controlling said ports, and manually operable means supported by said fluid reservoir tube for operating said valve means.

2,835,494
THROW-AND-CATCH GAME RACQUET
Hilde V. Hull, Ogden, Utah
Application November 19, 1956, Serial No. 623,195
1 Claim. (Cl. 273—96)



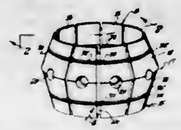
A throw-and-catch ball game device, comprising a sheet of drape material; a pair of elongate rods to and along corresponding end portions of the lengths of which respective mutually opposite margins of said drape sheet are attached and gathered, leaving the remainder of the lengths of said rods free as respective elongate handles; elasticized shirring extending along mutually opposite margins of said sheet, intermediate and transversely of the first-named margins, so as to normally draw said handle members toward each other and normally draw said sheet into basket-like, ball-retaining position, but permitting taut extension of such sheet by lateral spreading movement applied to said handles; and means attached to said rods for retaining said mutually opposite margins of the drape sheet in gathered condition.

2,835,495
TOY SHOOTING RANGE
Raymond J. Lohr and Daniel Sakuta, Erie, Pa., assignors to Louis Marx & Company, Inc., New York, N. Y., a corporation of New York
Application January 10, 1955, Serial No. 480,649
15 Claims. (Cl. 273—101)



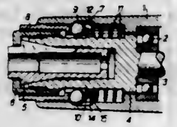
1. A toy shooting range comprising a bottom wall, end walls at the target end and at the firing end and side and top walls fully enclosing the shooting range, at least some of said walls being transparent, a magazine type gun affording rapid repeat shooting of small balls, said gun having its muzzle end pivotally secured at the firing end of the range whereby said gun may be aimed without appreciable transverse displacement of said pivoted muzzle end, and a substantial quantity of balls confined within said enclosed range, the magazine of said gun having a length approximately that of the simulated barrel portion of the gun and long enough to receive a substantial quantity of balls, said magazine being disposed longitudinally of and being movable with the barrel portion, and said magazine being open at a point near the muzzle end of the gun and within said range immediately adjacent one of the aforesaid walls enclosing the range and thereby adapted to be reloaded from the range by flowing the balls along said adjacent wall and directly into said magazine without opening the range.

2,835,496
COLLET CONSTRUCTION
Teller B. Hall, Los Angeles, Calif.
Application March 29, 1955, Serial No. 497,700
4 Claims. (Cl. 279—1)



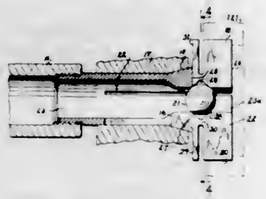
1. In a collet structure, the combination of: a plurality of similar separable rigid collet segments arranged in a circular series to receive work within the assemblage, each of said segments having plural external annularly disposed grooves; expansible spring means providing plural peripheral convolutions each of which is wrapped peripherally about the assembled segments and disposed in said grooves and normally retaining said segments in collapsed relation, the inner annular wall of the assembled structure being adapted to engage said work and the outer annular wall being adapted to be engaged and held by mounting means therefor; and a plurality of resilient expansible compressible flat spacers between opposed faces of the assembled segments, said spacers being separate spacers each of which is provided with spaces for expansion of the spacers upon compression thereof.

2,835,497
LOCKING DEVICE FOR SPINDLES
Willy Suhner, Brugg, Switzerland
Application June 14, 1955, Serial No. 515,493
Claims priority, application Switzerland June 18, 1954
2 Claims. (Cl. 279—42)



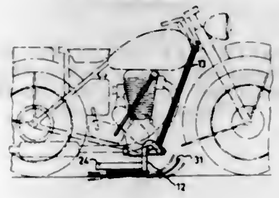
1. In combination with a spindle having a collet chuck at an end thereof, a non-rotatable housing accommodating said spindle with said chuck extending out of the housing, means rotatably mounting said spindle within said housing while holding said spindle against axial displacement with respect to said housing, a clamping nut threaded on said spindle and turnable relative to the latter for closing said chuck, an axially movable sleeve interposed radially between said spindle and said housing, spring means acting on said sleeve and urging the latter axially to an inoperative position wherein an end of said sleeve projects axially out of said housing and over said clamping nut, and locking means displaceable with said sleeve in the axial direction and effective to non-rotatably engage both said housing and said spindle only when said sleeve is displaced axially from said inoperative position in the direction opposed to the action of said spring means by the movement of a wrench axially onto said nut, thereby to lock said spindle against rotation with respect to said housing during turning of said nut by a wrench engaged on the latter.

2,835,498
COLLET
Jack L. Howes, La Puente, Calif.
Application May 7, 1957, Serial No. 657,611
7 Claims. (Cl. 279—51)



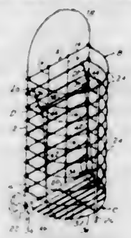
1. An expanding collet comprising a tubular body having a plurality of longitudinally extending slots therein extending from one end thereof to adjacent the opposite end to form resilient radially movable jaw members, an internal annular groove in said body, and a wedging element in said internal groove and engaging the opposite sides thereof, the portions of said jaw members adjacent said groove being weaker than the remaining portions thereof, said jaw members when pressed radially inward on the side of said wedging element nearest said opposite end causing the side of said internal groove nearest said opposite end to force said wedging element longitudinally toward said one end whereby said wedging element is effective to cam the portions of said jaw members nearest said one end radially outward about said weaker portions.

2,835,499
SKI STABILIZERS FOR MOTOR CYCLES
Claes Andrén and Curt Eskil Broberg, Malmo, Sweden, assignors to Aktiebolaget E. Fleron, Malmo, Sweden, a corporation of Sweden
Application February 16, 1955, Serial No. 488,674
5 Claims. (Cl. 280—8)



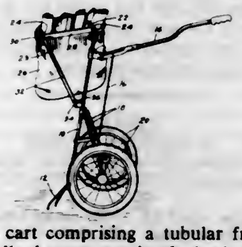
1. Ski stabilizers for motor cycles comprising for each side of the cycle one rigid arm, means for mounting the arm on the lowest part of the motor cycle frame for swinging movement about an axis parallel to the longitudinal axis of the motor cycle, a spring anchored between the frame and the arm and urging the arm upwards, a foot rest secured to the free end of the arm, a ski resiliently attached to the free end of the arm so as to be tiltable in all directions, first abutments on the frame and on the arm, respectively, for limiting upward swinging of the arm, and second abutments on the frame and on the arm, respectively, for limiting downward swinging of the arm.

2,835,500
COLLAPSIBLE SHOPPING CART
Dennis Berlin, Philadelphia, Pa.
Application May 3, 1956, Serial No. 582,582
2 Claims. (Cl. 280—36)



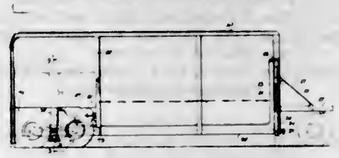
1. A collapsible cart comprising a rear section having a vertically disposed U-shaped wire frame and a plurality of horizontal struts secured to said frame, a center post, a plurality of spaced U-shaped ribs pivotally mounted at their intermediate portions to said post, each of said ribs having an eyelet integrally formed at each end thereof, each of said ribs engaging said rear section in fixed spaced relationship wherein each rib at the eyelets thereof pivotally engages the respective horizontal strut, an axle integral with the lower portion of said rear section and having wheel elements mounted thereon, the lowermost rib having a plurality of reticulated rods secured thereto to define a bottom, and releasable brace means permanently associated with said cart simultaneously locking each of said ribs in a plane perpendicular to said rear section, said brace means comprising a transverse rod from which a pair of integrally formed arms extend, said arms having pivotal means in operating engagement with said rear section, and a pair of legs, each being pivotally joined at one end to said transverse rod, the other end of each of said legs being pivotally connected to said bottom section, whereby disengagement of said brace means enables the simultaneous collapse of said ribs into a plane parallel and adjacent to said rear section.

2,835,501
MAIL BAG CART
Joseph F. Chamberlin and Robert A. Westphal, Chicago, Ill., said Westphal assignor to said Chamberlin
Application January 24, 1955, Serial No. 483,691
1 Claim. (Cl. 280—41)



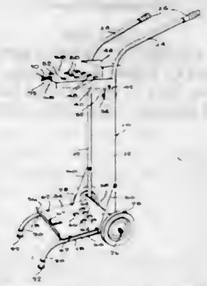
A mail bag cart comprising a tubular frame element, a foldable handle thereon, a pair of wheels for the frame, means connected to the handle for bringing the wheels together when the handle is folded, a collapsible rack on the frame for supporting a mail bag, the rack comprising a yard arm pivotally and removably connected to the frame and a link for the yard arm also pivotally and removably connected to the frame, the connection for the yard arm being adjacent the middle of the frame and the connection for the link being adjacent the top of the frame, a headed pin fitted into the free end of the yard arm, a slot in the free end of the link for releasable connection with the headed pin, the end of the main frame element and the end of the yard arm both projecting above the associated and respectively juxtaposed ends of the link and providing supports for the mail bag rings, the yard arm and link extending forwardly of the frame for selectively supporting one or two mail bags when desired, a forwardly extending bifurcated ground contacting support fastened to the lower end of the frame, the center of gravity of the load being over a point between the ground contacting portions of the wheels and the bifurcated support when the cart is at rest and the center of gravity of the weight being over a line connecting the ground contacting points of the wheels and the axle when the cart is in mobile position.

2,835,502
CARGO TRAILER WITH ADJUSTABLE FLOOR LEVEL
Elwood H. Willetts, Douglaston, N. Y.
Application June 15, 1954, Serial No. 436,856
1 Claim. (Cl. 280—44)



A cargo vehicle of the semi-trailer type cooperative to be drawn by a towing vehicle comprising a vehicle body structure, a king pin assembly operatively connected to the forward end of the body structure and cooperable to releasably engage a towing vehicle whereby the cargo vehicle may be towed, a floor deck forming part of the body structure and extending rearwardly from the king pin assembly, a downwardly facing channel member disposed transversely of the floor deck adjacent the trailing end of the vehicle, a resilient cushion disposed in the channel member, a wheel assembly adjacent the trailing end of the vehicle body structure, said assembly including a rigid supporting member extending transversely of the vehicle body structure and adapted to rest in the channel member in engagement with the resilient cushion, wheels rotatably supported by said rigid supporting member at opposite sides of the vehicle body structure, a hydraulic mechanism for uniformly raising and lowering the floor deck relative to the ground when the king pin assembly is disconnected from the towing vehicle, said mechanism comprising hydraulic jack means having rams for operatively engaging the ground, mounted at the forward end of the vehicle body structure and hydraulic jack means adjacent the trailing end of the vehicle body structure between such structure and the rigid supporting member.

2,835,503
GARDEN TOOL CART
William N. Humphries and Fannie H. Humphries, Decatur, Ga.
Application February 24, 1956, Serial No. 567,651
1 Claim. (Cl. 280—47.19)

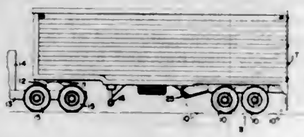


In a garden tool cart, a pair of laterally spaced, identically formed, side members each of which is rigid from end to end and includes an elongated, straight intermediate portion defining a standard, a handle projecting rearwardly from one end of the standard, and a side rail projecting forwardly from the other end of the standard, and terminating at its forward end in a downwardly extending support leg; an axle extending between and supported by said members at the juncture between the side rails and standards; ground wheels on the ends of said axle; an upper support plate projecting forwardly from and supported by the standards adjacent the handles, said plate having a plurality of openings; a lower support plate extending between and overlying the side rails, said lower plate having side edge portions supported upon the top surfaces of the side rails in direct contact therewith, the lower plate having a plurality of openings corresponding to the openings of the upper plate, for extension of tool handles through said corresponding openings of the respective plates; a bottom plate extending between and underlying the respective side rails, said bottom plate having side edge portions in direct contact with the undersides of the side rails for spacing of the bottom plate from the lower support plate by said side rails, said bottom plate having imperforate areas below the openings of the lower support plate to form abutments limiting downward movement of the tool handles through the openings of the upper and lower support plates; and fastening elements extending between the lower support plate and bottom plate for connecting the same to said side rails.

2,835,504
LOCKING AND ADJUSTING DEVICE FOR TRAILER BOGIES
Douglas Bilger Acker, Westminster, Colo., assignor to Timpte Bros., Inc., Denver, Colo., a corporation of Colorado
Application February 1, 1956, Serial No. 562,751
7 Claims. (Cl. 280—81)

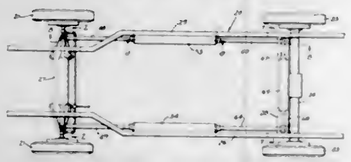
1. In an adjusting and locking device for a vehicle having a wheeled undercarriage and means connecting

said undercarriage and vehicle for sliding movement therebetween, the improvement comprising means for locking said undercarriage to said vehicle in a plurality of positions; electrically controlled, air actuated means for releasing said locking means to permit relative move-



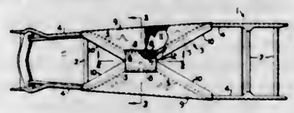
ment between said vehicle and undercarriage to a different selected position; and means for automatically rendering said releasing means inoperative when said selected position is reached, including a plurality of switches mounted on one of said vehicle and undercarriage.

2,835,505
VEHICLE LOAD DISTRIBUTION SYSTEM
Robert O. Fears, Fort Worth, Tex.
Application May 1, 1956, Serial No. 581,882
3 Claims. (Cl. 280—104)



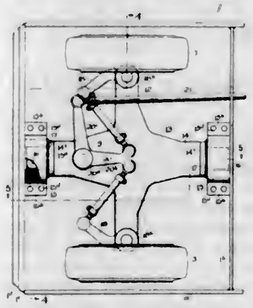
1. The combination with a vehicle frame including spaced side members, front and rear end members connecting said side members together, a front wheel assembly positioned below said front end member and operatively connected to said front end member, a rear axle housing positioned below said rear end member, an upstanding compression spring carried by said assembly adjacent each end thereof and by said housing adjacent each end thereof, of a load distributing system operatively connected to the compression springs carried by said assembly and said housing, said system comprising a support arranged longitudinally of each of said side members intermediate the ends thereof and connected at its midpoint to the adjacent side member for rocking movement about a horizontal axis, a lever positioned between said front end member and each of said supports and connected to the adjacent side member for rocking movement about a horizontal axis, each of said levers having one end connected to the adjacent support for movement with the latter and having the other end operatively connected to the adjacent front assembly compression spring, another support arranged longitudinally of said front end member intermediate the ends thereof and connected at its midpoint to said front end member for rocking movement about a horizontal axis, a lever positioned on each side and longitudinally of said front end member support and connected to said front end member for rocking movement about a horizontal axis, each of the levers of said front end member support having one end connected to said front end member support for movement with the latter and having the other end operatively connected to the adjacent front assembly compression spring, another lever positioned between said rear end member and each of said first named supports and connected to the adjacent side member for rocking movement about a horizontal axis, each of said last named levers having one end connected to the adjacent support for movement with the latter and having the other end operatively connected to the adjacent rear axle housing compression spring, another support arranged longitudinally of said rear end member intermediate the ends thereof and connected at its midpoint to said rear end member for rocking movement about a horizontal axis, and a lever positioned on each side and longitudinally of said rear end member support and connected to said rear end member for rocking movement about a horizontal axis, each of the levers of said rear end members support having one end connected to said rear end member support for movement with the latter and having the other end operatively connected to the adjacent rear axle housing compression spring.

2,835,506
X-MEMBER FRAME
Arnold G. Schilberg, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application April 26, 1956, Serial No. 580,886
10 Claims. (Cl. 280—106)



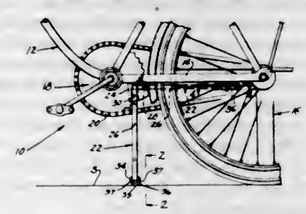
1. A vehicle frame, comprising spaced generally parallel side rail members joined by transversely extending front and rear cross members, each side rail member having at least one front or rear leg portion formed diagonally inwardly toward the center of the frame, the leg portions converging to the center to form an X-member with the leg portions being rigidly secured at their inner ends, a pair of large triangular generally horizontal plates with each plate being joined to and disposed between the upper portions of a pair of front and rear legs and the side rail adjacent thereto, the diagonal edges of said plates being substantially co-extensive with said legs to bridge the gap therebetween, and a second pair of triangular generally horizontal plates with each plate being joined to and disposed between the lower portions of a pair of front and rear legs and the side rail adjacent thereto, the diagonal edges of said second named plates being substantially coextensive with said legs to bridge the gap therebetween, said first and second named plates overlapping said side rails in an outward direction and with their longitudinal edges being flanged inwardly toward each other and joined together, said frame having high rigidity.

2,835,507
AXLE MOUNTING FOR A VEHICLE
Robert H. Davies, Kalamazoo, Mich., assignor, by mesne assignments, to Otis Elevator Company, New York, N. Y., a corporation of New Jersey
Application June 7, 1955, Serial No. 513,655
2 Claims. (Cl. 280—112)



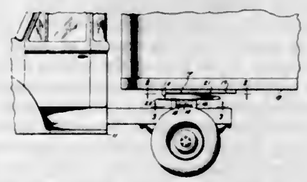
1. In an industrial truck, the combination of a frame assembly, a pair of wheels, a member extending transversely of said frame assembly and supporting said wheels at its opposite ends, said member having aligned forwardly and rearwardly extending elements intermediate its ends with the outer end portions of the elements being of non-circular cross section, and a resilient mounting for each of said portions connecting said member to said frame assembly and comprising a seat member of resilient material having an opening therein for receiving the corresponding end portion and a casing for the seat member comprised of first and second seperable parts, and means connecting one of said parts to said frame assembly, said seat member and said end portion being substantially non-rotatable with respect to each other and said seat members normally being compressed between said casings and said portions and rotation of said elements about their longitudinal axes further compressing portions of said resilient material between said casings and said end portions.

2,835,508
BICYCLE KICKSTAND SHOE
Arthur N. Wood and Gerald A. Wood, Flippin, Ark.
Application September 5, 1956, Serial No. 608,057
1 Claim. (Cl. 280—301)



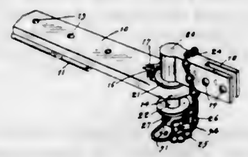
In a bicycle including a horizontally disposed rear wheel support fork, a vertically disposed support plate carried by said fork, and a kickstand rod member normally extending in horizontal spaced relation along said fork and having one end connected to said support plate for movement of said rod member from the horizontal position to a vertical position, the improvement consisting in a foot element embodying an elongated bar having a pair of upstanding legs and a convexly curved bight connecting the lower ends of the legs together positioned so that the bight is remote from the other end with the legs adjacent said other end and having the legs connected to the other end of said rod member for movement about an axis transverse of said rod member, the under face of the bight of said foot element when the rod member has been moved to the vertical position providing a bearing area engageable with a support surface upon which the bicycle is parked.

2,835,509
TRACTOR-TRAILER SAFETY COUPLING
Edwin C. Dorris, San Angelo, Tex.
Application June 17, 1957, Serial No. 665,951
7 Claims. (Cl. 280—432)



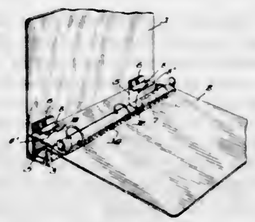
1. A tractor-trailer coupling including a fifth wheel having a slot, and a king pin adapted to be locked in the slot, the fifth wheel having a groove alined and communicating with said slot for receiving the king pin, the groove extending laterally from the inner end of said slot, said king pin having a frangible portion engaged in said slot whereby said pin is directed laterally by said groove upon shearing of the frangible portion due to inward movement of said pin relative to said slot.

2,835,510
DRAW BAR HITCHES
Ernest Schoneberg, Rolla, N. Dak.
Application November 28, 1955, Serial No. 549,417
2 Claims. (Cl. 280—504)



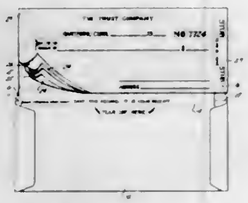
1. A draw bar hitch, comprising: an elongated plate unit having an eye at one end thereof and the opposite end thereof of a channel-shape in cross section, and with holes therethrough, for aligned reception and bolt securing of a tractor draw bar therein; an angle-shaped trailer unit having one leg thereof presenting a forked clevis with holes therethrough for bolt attachment to an implement; the shank of said clevis having a lower enlarged flange; a pin extending downwardly from the centre of said flange as the opposite leg of said angle-shape and at slightly less than a right angle from said clevis; said pin of considerable less diameter than the opening in the eye of said plate unit and receivable therethrough until said flange rests on said eye, for hinging and rocking movements of said units in relation to each other; a collar slidably receivable on said pin, below said eye; and a removable key means through said collar and said pin to lock same together and limit the vertical movement of said pin through said eye.

2,835,511
DISPLAY BINDER
Elmer W. Ericson, Chicago, Ill.
Application June 5, 1957, Serial No. 663,820
15 Claims. (Cl. 281—33)



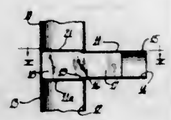
1. A display binder, consisting of front and back panels, a back between the panels adjacent certain and corresponding ends thereof, the front panel being fixedly connected to one side of the back, the back panel being hinged to an opposite side of said back, a stiff plate fixed to the back panel extended beyond that side hinged to the back, the extended portion of said plate substantially approximating the distance between the sides of the back, and means on the front panel engageable at times with a portion of the plate whereby to limit the extent of hinged movement between the back panel, the back, and the front panel.

2,835,512
BANKING ENVELOPE
Harlan M. Whitman, West Hartford, Conn., assignor to Curtis 1000, Incorporated, Hartford, Conn., a corporation of Minnesota
Application May 14, 1952, Serial No. 287,691
4 Claims. (Cl. 282—25)



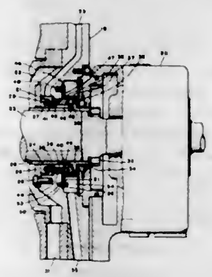
1. An envelope having a panel extending from one side thereof and a plurality of supperposed sheets of different widths attached to said panel along one side thereof, a sealing flap for said envelope, a line of perforations between the envelope and panel to separate said panel with the superposed sheets thereon from said envelope, lines of perforations along one side of said panel and along one side of some of said sheets whereby said perforated sheets may be separated one from the other, and means on said superposed sheets opposite said lines of perforations to retain said sheets in position on said panel.

2,835,513
MEANS FOR ANGULARLY JOINING RIGID METAL TUBING INCLUDING A FLAT KEY ELEMENT
William S. Pearson, Baltimore, Md.
Application December 13, 1954, Serial No. 474,699
2 Claims. (Cl. 285—222)



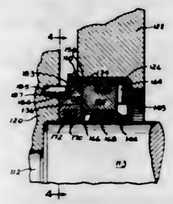
1. In a rigid hollow tubing construction including a first tube having an aperture formed in the wall thereof for receiving a second tube the improvement comprising, a key including a first part adapted to be carried by the axial bore of the second tube in an end portion thereof, and an integral larger substantially flat second part, said second part having a length slightly less than the inside diameter of the second tube, and an end remote from said first part defining a line transverse to the axis of said tube end portion, said second part adapted to project axially therefrom for joint disposition with said end portion via said aperture within the axial bore in the first tube with the end of said second part engaging the interior of said second tube along an axial line, said key parts being smoothly joined by a shoulder portion providing a camming surface adapted to react therein to axial pressure applied relative to said end portion radially inwardly toward the first tube to effect and guide an out-of-round expansive tube deformation of said end portion by said surface as said second tube is forced over said surface during movement of the said second tube past said surface to lock the tubes tightly against disengagement and relative rotation.

2,835,514
ROTARY SHAFT SEAL
Wallace A. McGahan, Phillipsburg, N. J., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey
Application March 3, 1954, Serial No. 413,932
4 Claims. (Cl. 286—9)



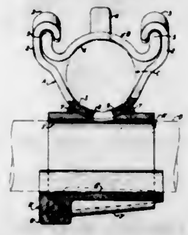
1. In a sealing device for a pump, the combination of a casing having a chamber therein for sealing fluid under pressure, a rotary shaft extending through the chamber, a collar rotatable with the shaft and having a sealing surface thereon, a non-rotatable member movable longitudinally with respect to the collar, a sealing surface on the non-rotatable member adapted to engage the sealing surface on the collar to effect a seal, said collar having impelling means for pumping the sealing fluid at increased pressure from the chamber, means on the collar for conducting such fluid from the impelling means to between the sealing surfaces for providing a fluid seal, and spring means constantly tending to force the non-rotatable member into engagement with the collar.

2,835,515
ROTARY MECHANICAL SEAL WITH SELF-LOCKING SEAT
Archie J. Solari, Chicago, Ill., assignor to Crane Packing Company, Chicago, Ill., a corporation of Illinois
Application December 5, 1955, Serial No. 551,057
2 Claims. (Cl. 286—11.15)



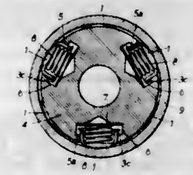
2. In a fluid seal for relatively rotatable elements one of which is in the form of a casing and the other of which is in the form of a shaft passing through said casing, in combination, a sealing member surrounding the shaft and effectively sealed thereto, and means for preventing relative rotation between the sealing member and shaft, said last mentioned means comprising an external surface on the sealing member having regions of differing eccentricity with respect to the axis of the sealing member, and a projection carried by said shaft and positioned in close proximity to that portion of the cylindrical surface which is least removed from the axis of the sealing member, said projection being designed for camming engagement with portions of the cylindrical surface which are more remote from said latter axis when limited relative turning movement between said sealing member and shaft takes place.

2,835,516
COUPLING FOR CONNECTING THE ELEMENTS OF DEMOUNTABLE STRUCTURES, AS FRAMEWORKS, SCAFFOLDING AND THE LIKE
Aroldo Ferri, Milan, Italy
Application January 9, 1953, Serial No. 330,402
Claims priority, application Italy January 19, 1952
4 Claims. (Cl. 287—49)



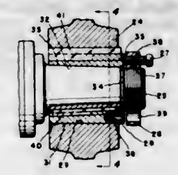
1. A coupling for connecting together rods making up a demountable structure, such as, a framework, scaffolding and the like; said coupling comprising at least one group of two elements, one of said elements including a substantially semi-cylindrical seat portion having extensions of the opposite side edges thereof bent over to form reverted semi-cylindrical guide parts, and the other of said elements including an arcuate seat portion having the same curvature as said semi-cylindrical seat portion to cooperate with the latter in embracing a rod, the longitudinal borders of said other element, at the opposite sides of the arcuate seat portion thereof, being bent in a radial direction with respect to the cylinder and slidably engageable in said semi-cylindrical guide parts of the latter, the generating axes of said guide parts and the edges of said bent longitudinal borders being inclined equally with respect to the axes of the seat portions of said elements so that relative axial displacement of said elements in one direction will draw the seat portions of the latter radially together for clamping a rod embraced by said seat portions, said semi-cylindrical guide parts having internal diameters exceeding the thickness of said bent longitudinal borders to provide a limited transverse play of the latter within said guide parts so that said seat portions can center themselves on an embraced rod without producing internal stresses within the coupling.

2,835,517
HOLDING DEVICE
Karl Beerli, Nieder-Uster, Switzerland, assignor to Spindel-, Motoren- und Maschinenfabrik A. G., Uster, Switzerland
Application February 18, 1954, Serial No. 411,040
Claims priority, application Switzerland September 25, 1953
1 Claim. (Cl. 287—52)



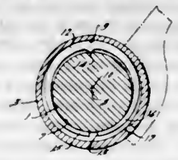
In a holding device for detachably holding a sleeve on a spindle which has a plurality of radial bores therein each with an inwardly overhanging shoulder, that improvement comprising a plurality of helical springs each in one of said bores, and a plurality of coupling caps each slidably arranged in one of said bores, said springs urging said caps out of said bores for engagement with said sleeve, each of said bores having an at least partly flat bottom and each of said caps having an outwardly flared lower inner edge and a peripheral groove bounded by opposite flanks in the peripheral surface of said cap, said groove and lower inner edge defining a neck, said cap being of permanently deformable material and said neck being permanently flanged outwardly at the inner end of the cap with said opposite flanks of the groove abutting each other whereby said neck provides an annular outer flange of the cap cooperating with said inwardly overhanging shoulder of the bore for limiting the outward movement of the cap under the action of said spring.

2,835,518
ROTARY SHAFT DRIVING CONNECTION
Julius Naab, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey
Application March 19, 1954, Serial No. 417,461
1 Claim. (Cl. 287—52.06)



In a shaft driving connection, the combination of a rotary member with a hub having a cylindrical bore, a shaft comprising a tapered portion and an end portion of reduced diameter adjacent the small end of the tapered portion, a longitudinally split sleeve member with a cylindrical outer shape of substantially constant diameter throughout its length slidably fittable in said hub bore and a tapered bore adapted to fit the tapered shaft portion, a collar adjustably secured against longitudinal movement on said end portion, said sleeve member having one end adjacent the collar, and screws mounted in the collar and wholly within the circular plane of the periphery of the sleeve member to engage said end of the sleeve member to force the sleeve member between the shaft and hub into clamping engagement to form a rigid driving connection, said sleeve member having threaded holes longitudinally disposed in the end adjacent the collar, said collar having holes in axial alignment with said sleeve member holes such that said screws may be selectively passed through the collar to threadedly engage said end of the sleeve member to ease the clamping engagement of the sleeve member between the shaft and the hub and to permit said rotary member to be completely withdrawn from the sleeve member while the sleeve member is disposed around the tapered shaft portion.

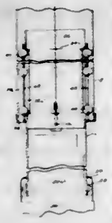
2,835,519
BEARING LOCKING DEVICE
Attilio R. Spicacci and Jarlath W. Brady, Lancaster, Pa., assignors to Federal-Mogul Corporation, Ann Arbor, Mich., a corporation of Michigan
Application July 7, 1954, Serial No. 441,706
2 Claims. (Cl. 287—52.09)



1. A device for locking a sleeve member to a shaft comprising an annular sleeve member having a portion

adapted to embrace said shaft, means forming an internal, eccentric groove within said sleeve member, a split ring eccentric member having a wedge shape therearound disposed within said groove and rotatively movable with respect to said sleeve, said ring member being resilient and being positioned to have the ends thereof resiliently embrace said shaft, inwardly directed pointed means disposed between the ends and integral with said ring member and adapted to engage said shaft to prevent relative rotation between said eccentric member and said shaft, the construction and arrangement of said eccentric member within said eccentric groove being such that upon relative rotation of said sleeve member and said eccentric member said sleeve member is bound to said shaft.

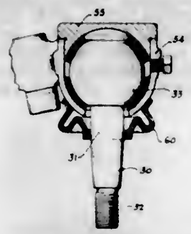
2,835,520
TUBULAR TELESCOPIC COLUMN
Ralph C. Schiring, Cleveland Heights, and Edgar J. Bastin, Chesterland, Ohio, assignors to Picker X-Ray Corporation, Cleveland, Ohio, a corporation of Ohio
Application July 8, 1954, Serial No. 441,994
2 Claims. (Cl. 287—58)



1. A telescopic structure comprising inner and outer slidably interfitted concentric generally cylindrical tubes of sheet material of substantially uniform thickness, the inside diameter of the outer tube being greater than the outside diameter of the inner tube thereby forming a generally annular chamber between said tubes, axially extending grooves formed in said sheet material, said grooves being spaced circumferentially about said tubes, said grooves on said inner tube being concave outwardly, said grooves on said outer tube being concave inwardly, said grooves on said tubes mutually facing each other, a plurality of ball bearings in said grooves, said bearings being of a diameter to fill snugly the space between each pair of mutually facing grooves and holding said tubes free of direct contact, an axially movable cage for said bearings disposed in said annular chamber between said tubes, and means preventing escape of said bearings endwise of said grooves, whereby said bearings hold said tubes concentric without appreciable play and reduce friction during relative telescoping movement between said tubes and prevent circumferential rotation between said tubes, while said grooves reinforce said tubes against bending under beam loading.

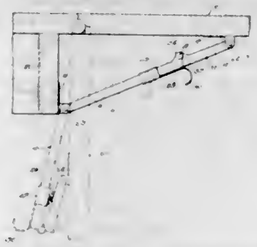
2,835,521
BALL JOINT BEARING STRUCTURE
Charles S. White, Dearborn, Mich.
Application December 8, 1953, Serial No. 396,893
10 Claims. (Cl. 287—90)

1. The method of forming a joint bearing structure, which includes the steps of, placing a member shaped to a desired form which is made from a material that will soften and then become cured when heated in the space between two truncated spherical surfaces of different radii, applying a pressure on said surfaces and the member to have one surface of the material accurately conform to a surface mated therewith, and applying heat to said assembly in the presence of said pressure for shaping said member exactly to said surface which shape



will be retained thereafter when the member is cured by said heat.

2,835,522
HINGED SUPPORT
Ferdinand N. Serto, Kenosha, Wis., assignor to Marshall, Serto & Company, a partnership
Application July 28, 1955, Serial No. 524,851
2 Claims. (Cl. 287—99)



1. A hinged support, comprising: a pair of channel-shaped hinge sections each having a central web and a pair of upstanding flanges, corresponding adjacent flanges at the adjacent ends of the hinge sections being swingably connected above the central webs to form a hinge joint, said hinge joint permitting swinging movement of the hinge sections between collapsed position and extended position in which the hinge sections form a continuous channel across the hinge joint and lie in substantially a straight line; a tension spring positioned between the flanges and adjacent the central webs of the pair of hinge sections in extended position, said spring having an end secured to each of the hinge sections so that movement of said hinge sections toward extended position will cause the tension spring to pass over center with respect to the hinge joint and will snap said hinge sections into said extended position; and a finger grip fixedly secured to the hinged end of one of the sections adjacent the central web thereof and extending into a position of overlapping relation with the central web of the other hinge section when the hinged support is in extended position so as to form a protective shield for the hinge joint during movement to extended position.

2,835,523
LATCHING MECHANISMS
George R. Chervenka, St. Louis, Mo., assignor, by mesne assignments, to Medart Lockers, Inc., a corporation of Mississippi
Application August 17, 1953, Serial No. 374,583
5 Claims. (Cl. 292—80)

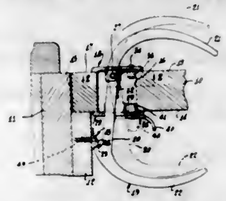
2. For use with a swingable door, a door latching mechanism including a longitudinally shiftable latch bar, a keeper represented toward the latch bar and a latch member mounted upon the latch bar, said latch member having a transversely extending pin, a spring consisting of two straight sections connected by a series of spring-

forming convolutions, which convolutions are disposed loosely around the pin, one of said straight portions projecting outwardly from the pin and being adapted for swinging movement about an axis which is substantially perpendicular to the keeper, said one straight portion being presented outwardly toward the keeper and being adapted for engagement at its free end against an edge



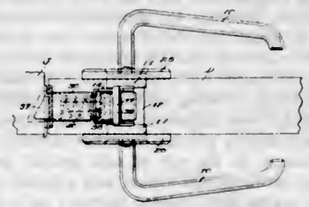
face of the keeper as the door swings toward closed position, said one straight portion being adapted upon continued swinging movement of the door to ride up along said edge face of the keeper and finally rock into locked engagement therewith, and stop means integral with said latch bar normally abutting said one straight portion.

2,835,524
TILTING DOOR LATCH
Fred J. Russell, Los Angeles, Calif.
Application April 2, 1956, Serial No. 575,581
4 Claims. (Cl. 292—128)



1. A latch for doors having a cylindrical hole extending from face to face of the door at a location removed from a vertical edge by a distance slightly exceeding the thickness of a stop comprising an outside escutcheon plate having inwardly extending spaced tabs and having a handle opening therebetween, a handle having elongated outside and inside handholds overlying the respective faces of the door and a bar connecting said handholds, said bar having one end extending through the handle opening and tiltably secured to said tabs, a leaf spring engaging a side of said bar remote from the stop, an attachment securing said spring to the outside escutcheon plate and an extension on said attachment, said extension and said tabs being spaced from each other and forming an indexing engagement with the wall of said hole whereby to index said outside escutcheon plate, and an inside escutcheon plate for the opposite face of the door having a handle opening therethrough, tabs at the sides of said opening, a lock arm and an attachment pivotally securing said lock arm to the inside escutcheon plate at a location adjacent said bar, and an extension on said last attachment at the inner face of the inside escutcheon plate spaced from said last identified tabs, said last identified extensions and tabs having positions extending into an indexing engagement with the wall of said hole.

2,835,525
DOOR LATCH AND HANDLE MECHANISM
Arvo Vahtra, Toronto, Ontario, Canada
Application February 14, 1956, Serial No. 565,501
4 Claims. (Cl. 292—169)



1. Door latch and handle mechanism comprising a pair of handles positionable at opposite sides of a door, means rigidly connecting said handles and being disposable in a lateral opening in the door and including a cam, means mounting the handles and said connecting means for simultaneous rotation, a casing positionable in an opening through the free edge of the door and in communication with said first opening, a bolt slidably disposed in said casing, means disposable in said first opening having a releasable connection with said bolt and an operative engagement with said cam, whereby said latch is retracted upon rotation of said handles, a casing retaining member positionable in said first opening and having screw receiving apertures therein, said means rigidly connecting said handles comprising a pair of journals, a pair of side plates securable to the door in covering relation to said first opening and having central openings receiving said journals and said side plates having screw receiving openings aligned with said opening in said retaining member.

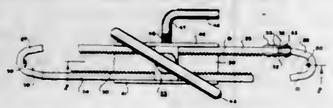
2,835,526
DOOR LATCH
Harold E. Van Voorhees, Grosse Pointe Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 30, 1952, Serial No. 328,720
2 Claims. (Cl. 292—216)



2. A door latch of the character described, including: a frame; a bolt housing on the frame, said bolt housing being open at one end; a latch bolt pivotally mounted on the frame in the bolt housing, said latch bolt having a plurality of latching teeth on one portion of its periphery projecting out of the open end of said housing and said latch bolt having a plurality of ratchet teeth on another portion of its periphery in the same plane as the latching teeth; a stop pin projecting axially from a face of said bolt; stop means in the housing adapted to abut said pin to limit pivotal movement of the bolt; a spring connected between said pin and the frame for yieldably urging said bolt toward unlatched position; a detent pivotally mounted in said housing, said detent having a foot adapted to be moved into engagement with the ratchet teeth of said bolt to hold the bolt against pivotal movement in an unlatching direction, said detent having an integral operating portion extending out of said housing and terminating in a turned ear; first operating means including a shiftable member mounted in a pivotal mem-

ber on said frame, said shiftable member being longitudinally shiftable between a retracted position and an extended position in which latter position it is adapted to engage the ear on the detent and swing the detent out of holding engagement with the bolt; means for pivoting said shiftable member for movement between a locked position in which the shiftable member is out of alignment with said ear and an unlocked position in which the shiftable member is in alignment with said ear; spring means yieldably holding said shiftable member in either of said locked and unlocked positions; second operating means including a pivoted member on the frame connected directly to the ear of said detent; spring means connected between said frame and pivoted member for yieldably urging said pivoted member in a direction to move said detent into engagement with the ratchet teeth on the bolt, said pivoted member having an integral arm adapted to engage the shiftable member and move it from locked to unlocked position when said pivoted member is moved and said shiftable member is in retracted position, said arm by-passing the shiftable member when the pivoted member is moved and the shiftable member is in extended position; and means for swinging said pivoted member.

2,835,527
DEVICE FOR CARRYING A STORAGE BATTERY
Frank O. Young, San Diego, Calif.
Application April 12, 1956, Serial No. 577,734
5 Claims. (Cl. 294—16)



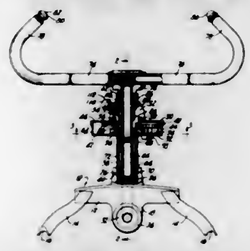
1. A battery carrier for a battery having spaced upright terminals, comprising two elongated and parallelly arranged elements, each having an end, said ends having pins adapted to engage and pierce spaced terminals of the battery; means on one of said elements electrically insulating said ends from one another; means for maintaining said elements in cooperative parallel relationship, at least one of said elements having a rack section; a pinion cooperating with the rack section for moving one element parallelly and longitudinally relative to the other of said elements; and means for preventing turning of said pinion for locking said elements relative to one another.

2,835,528
SLING CHAIN SHACKLE
Harry E. McCarthy and Wilhelm Pruente, York, Pa., assignors to The McKay Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 15, 1957, Serial No. 646,481
4 Claims. (Cl. 294—74)



1. The combination with a sling chain whose alternate links are normally in relatively right angular planes and, the mid-portion of the chain being of looped form and its end portions in normally dependent relation to the loop, of a yoke of inverted U-form, a cross bar carried by the lower ends of the yoke, a saddle disposed between the legs of the yoke and supported by the bar, the saddle having a pocket in its upper surface into which a mid-link of the chain fits, flatwise, the pocket having an opening into its upper side of approximately the same width and length as the link that is contained therein, there being downwardly-sloping grooves in the ends of the saddle, each in position to receive an adjacent link edgewise, in a plane at a right angle to the plane of the middle link, the grooves being widened to receive the next lower links flatwise in planes that are in generally right-angular relation to the planes of said adjacent links, and pairs of spaced shoulders at the sides of the grooves, between the said pocket and the widened groove areas at the ends of the saddle, the shoulders of each pair being spaced apart to receive between them, a said adjacent link in an edgewise direction, the shoulders having surfaces that serve as seats for the ends of the middle link and the said next lower links, the outer surfaces of the shoulders between the seating areas at each end of the saddle being of slightly greater length than the distance between the ends of the middle link and the said next lower link, the said surfaces that serve as seats for the ends of the middle link extending vertically to the uppermost plane of the link, and the inner longitudinal dimensions of the shoulders being of substantially shorter length than said distance.

2,835,529
PATTERN TYPE LAWN SPRINKLER
William D. Egly and Columbus W. Harris, South Bend, Ind., said Harris assignor to said Egly
Application July 19, 1954, Serial No. 444,062
12 Claims. (Cl. 299—18)

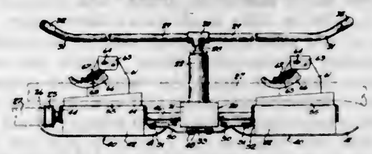


1. A lawn sprinkler comprising a housing adapted to be connected to a water conduit, a water reactance sprinkler unit rotatably mounted by said housing, a second sprinkler unit rotatably mounted by said housing substantially concentrically with said first unit, said sprinkler units discharging water simultaneously, and a driving connection between said sprinklers for intermittently and successively rotating the second sprinkler relative to four angularly displaced stations in a predetermined sequence, said second unit having a larger discharge range than said first unit to reach corner portions of a polygonal area to be sprinkled.

2,835,530
PROCESS FOR THE CONDENSATION OF ATMOSPHERIC HUMIDITY AND DISSOLUTION OF FOG
Karl Schneider, Basel, Switzerland
No Drawing. Application May 13, 1955
Serial No. 508,301
2 Claims. (Cl. 299—28)

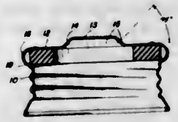
1. A method of producing precipitation of water droplets suspended in natural clouds and fog, comprising introducing into said clouds and fog a wetting agent and a peroxide compound in an amount sufficient to produce condensation of said suspended water droplets.

2,835,531
SELF-PROPELLED LAWN SPRINKLER
William D. Egly, South Bend, Ind.
Application December 26, 1956, Serial No. 630,666
12 Claims. (Cl. 299—49)



1. A sprinkler comprising a water reactance unit, a pair of spaced ground-engaging units supporting said water reactance unit, connecting means actuated by said water reactance unit and connected to said water reactance unit and to at least one of said ground-engaging units to move said ground-engaging units relative to each other in predetermined sequence and in a guided path, each ground-engaging unit including a bracket, a shoe pivoted to said bracket spaced above the associated ground-engaging unit and including downwardly and rearwardly from said pivot, and spring means carried by each ground-engaging unit urging the free end of said shoe downwardly to grip an elongated guide member bearing on said ground-engaging unit below said shoe, said shoe swinging freely rearwardly to release said guide when said connecting means moves said ground-engaging unit forwardly relative to said guide.

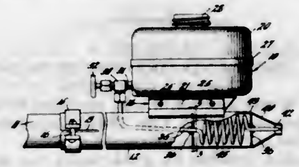
2,835,532
IRRIGATION SYSTEM AND APPARATUS THEREFOR
Frederick M. Galloway, Langhorne, Pa., assignor to H. K. Porter Company (Delaware), a corporation of Delaware
Application March 1, 1955, Serial No. 491,457
5 Claims. (Cl. 299—60)



1. In an irrigation system a plurality of spray heads disposed at spaced intervals, each comprising a plate positioned parallel to and substantially in a common plane and each head being disposed with the limit of its fluid distributing range extending within that of at least one adjacent head, each plate comprising a substantially circular boss and having a series of holes defining a circle at the base of the boss, the axes of said holes extending at substantially 45° to the axis thereof and the diameter of each hole being less than its axial length.

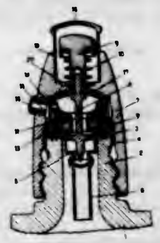
2,835,533
EXHAUST ATOMIZING DISTRIBUTOR
Gibbs L. Baker, Chevy Chase, Md.
Application March 30, 1956, Serial No. 575,187
2 Claims. (Cl. 299—86)

1. As an article of manufacture, a self-contained portable attachment for application to the discharge end of an exhaust pipe of an internal combustion engine such as that of an automotive vehicle for the atomization, vaporization, and distributing of liquid insecticides or the like, said attachment comprising, in combination, a tubular exhaust gas conduit having an open receiving end and a nozzle structure at the opposite end; quick detachable means for clamping the reeciving end of said conduit to said exhaust pipe; a tank for containing a quantity of liquid material to be distributed; means for fixedly supporting said tank upon said conduit for ready unitary portability therewith; a liquid conveying tube of substantially cylindrical configuration leading from said tank, entering said conduit at an intermediate point therealong, and terminating substantially axially thereof in a discharge end within the nozzle structure of the propellant gas conduit so as to be surrounded by the propellant exhaust



gases therein; said nozzle structure comprising a frusto-conical portion of the conduit which converges to a short cylindrical discharge tip portion of uniform cross-section throughout, the frusto-conical inner surface and the cylindrical inner surface of said nozzle tip portion merging at an obtuse angle to form a blunt annular shoulder, the tip of the axial inner liquid tube disposed within the said cylindrical tip portion of the gas conduit nozzle, said liquid tip terminating short of the extreme end of the conduit nozzle discharge tip portion and no further inwardly of the nozzle than the point of inter-section of the liquid tube with the forward projection of the frusto-conical inner surface of the gas conduit nozzle.

2,835,534
PUSH-BUTTON SPRAYING DEVICE WITH SAFETY CAP
Franco Galeazzi, Milan, Italy
Application July 20, 1954, Serial No. 444,567
Claims priority, application Italy July 24, 1953
1 Claim. (Cl. 299—95)



In a spraying device for dispensing material as a spray from a container adapted to hold such material in liquid form under pressure and including a cover member adapted to be fixed on the neck of the container and having an outlet means in communication with the interior of the neck of the container, a valve means controlling such communication and a push button actuator for the valve means; the improvement which comprises said cover member having an upper end formed with an axial cavity in which the push button actuator is slidably disposed, said cavity being of a cross-sectional area only slightly greater than the cross-sectional area of the push button actuator and a hollow transparent cup-shaped safety cap member having an open end and a closed end, said safety cap member being of an external cross-sectional area and configuration similar to the cross-sectional configuration and area of the cavity to fit snugly in the cavity and be frictionally retained therein and being of an internal cross-

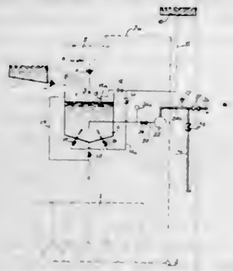
sectional area just slightly greater than the cross-sectional area of the push button actuator and said cavity having an inwardly extending shoulder at its lower end against which the edge of the open end of the safety cap member abuts to space the closed end thereof slightly above the push button actuator and locate the safety cap member around the push button actuator in slightly spaced relationship therewith so that the cap member assists in keeping the actuator in correct position to prevent canting of the valve means, and said closed end of the safety cap member having a peripheral outwardly protruding enlargement for gripping the cap member to pull it axially from the cavity.

2,835,535
WHEEL TRIM AND METHOD OF MANUFACTURING THE SAME
Edward L. Wood, Detroit, Mich., assignor, by direct and mesne assignments, to Gar Wood Industries, Inc., a corporation of Michigan
Application October 22, 1954, Serial No. 464,113
15 Claims. (Cl. 301—37)



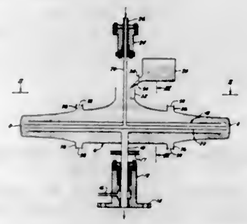
1. Wire wheel simulating wheel trim comprising a star shaped spring wire spoke element having its inner apices disposed in one plane transverse to the axis of the element and its outer apices disposed in a second transverse plane, an outer ring element, and a hub element, said wire spoke element being sprung in firm interlocked relationship with said outer ring and hub elements.

2,835,536
PLANT FOR CONVEYING GRANULAR OR SOLID PRODUCTS, NOTABLY COAL SLUDGES, THROUGH HYDRAULIC MEANS
Maurice Marius Christille, Saint-Avold, France, assignor to Houilleres du Bassin de Lorraine, Merlebach, Moselle, France, a public establishment
Application September 15, 1953, Serial No. 380,328
Claims priority, application France September 18, 1952
9 Claims. (Cl. 302—14)



1. A plant for conveying a granular or fragmentary substance, through hydraulic means, of the type comprising a mixing station for the substance to be conveyed and for the liquid vehicle, which mixing station is connected through a pumping station to a conveying pipeline, wherein the mixing station comprises means for thickening a mixture of the liquid vehicle and of sludge particles of the substance in their original shape and dimensions, without transformation or crushing, up to a concentration value greater than the optimum concentration value for preventing any sedimentation, and means for adding said thickened mixture with liquid vehicle and with particles of the substance in their original shape and dimensions but of dimensions greater than those of said sludge particles in order to obtain an homogeneous suspension of said substance through said liquid vehicle at said optimum concentration value, wherein the pumping station comprises means for varying the output of the mixture delivered thereto by said mixing station while maintaining the concentration of said mixture at said optimum value, and wherein the conveying pipe-line comprises means for avoiding risks of clogging in its sloped portions and means for avoiding substantial wear of the conveying line in its bent portions.

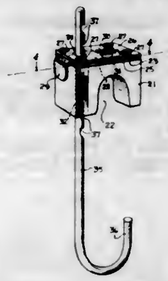
2,835,537
SOLID PARTICLE TRANSFER PROCESS AND APPARATUS
Damon A. Davis, Jr., Port Arthur, Tex., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 3, 1955, Serial No. 544,756
6 Claims. (Cl. 302—36)



1. The process for introducing solid particles into a high pressure system which comprises forming the solid particles into a compact column by centrifugal force, exposing that end of the compact column which is subjected to the highest centrifugal force to the high pressure existing in the high pressure system, adding solid particles to that end of the compact column which is subjected to the lowest centrifugal force, venting gas which leaks through the compact column from the high pressure system at a vent positioned intermediate the ends of the compact column, removing solid particles from the end of the compact column which is subjected to the highest centrifugal force and conveying the removed solid particles into the high pressure system.

2,835,538
SCAFFOLD CLAMP
Clarence C. Kornely, Chicago, Ill.
Application July 8, 1957, Serial No. 670,596
4 Claims. (Cl. 304—32)

1. A clamp for securing a scaffold to a supporting bail comprising a clamp means having a hooked end portion engageable with a portion of said support bail, a block member having a recessed bottom portion for engaging within the recess a portion of said scaffold, said member having an aperture formed therein through which a portion of said clamp means extends, latch means carried by said block and operative on said clamp means to latch said clamp means relative to said member to secure said scaffold and said bail between said member and the hooked end of said clamp means, and means for adjustably positioning said clamp means relative to said block member.

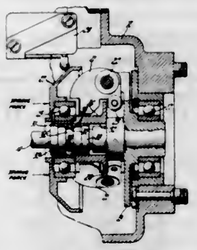


2,835,539
CONTINUOUS BEARING TRACK CONSTRUCTION
Winthrop B. Conrad, Franklin, Mich., assignor, by mesne assignments, to Polymer Processes, Inc., Reading, Pa., a corporation of Pennsylvania
Application November 23, 1953, Serial No. 393,801
15 Claims. (Cl. 308—3)



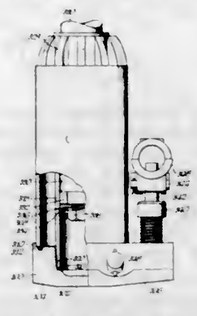
1. A continuous bearing track assembly comprising a uniformly thin, longitudinally extending synthetic linear condensation polyamide strip formed with a transverse contour having one surface conforming to a required bearing surface, and a uniformly thin metal track member formed to engage and support the opposite surface of said strip, said track member being formed to extend around and loosely over each marginal side edge of said strip to locate it transversely free to expand and contract longitudinally relative to said metal track member and a local connection between said strip and said track member to limit relative longitudinal movement between the entire strip and the entire track.

2,835,540
GUIDE BEARING
Clarence H. Jorgensen, Milwaukee, Wis., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 14, 1957, Serial No. 645,993
5 Claims. (Cl. 308—4)



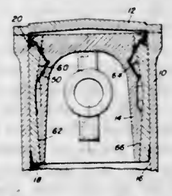
1. A guide bearing arrangement comprising, in combination, a first element defining a bearing surface, a second element defining a supporting surface, the elements being relatively reciprocable, the said surfaces being opposed and mutually spaced, and an intermediate member of a synthetic organic polymeric material having inner and outer faces, one of said faces being in sliding engagement with the said bearing surface, the other of said sleeve faces being in supporting engagement with the said supporting surface adjacent the ends of the member, the supporting surface having a groove therein and the member having a rib thereon received in the groove and spaced from the bottom of the groove, the rib and groove extending transversely to the direction of relative reciprocation of the elements to retain the member against movement relative to the supporting element.

2,835,541
HYDRAULIC JACK
Millard A. Rhoads, St. Joseph, Mich., assignor to Auto Specialties Manufacturing Co., St. Joseph, Mich., a corporation of Michigan
Application March 19, 1954, Serial No. 417,409
2 Claims. (Cl. 309—2)



1. For use in a hydraulic jack having a base plate and fluid confining cylinder, the provision of a recess in said base plate providing a cylindrical surface and a bottom surface against which the bottom of the cylinder abuts, means for securing said cylinder to said base plate an annular groove in said bottom surface spaced radially from said cylindrical surface, a resilient sealing ring positioned in said groove and projecting above said bottom surface, the inner annular corner of said cylinder overlying said groove within the edges thereof to dig into and become embedded in the portion of the sealing ring projecting above the bottom surface to an extent limited by the abutting engagement between the bottom of the cylinder and said bottom surface whereby to seal the substantially radial and vertical surfaces adjacent the said annular corner of the cylinder while protecting the sealing ring against excessive compression by the cylinder.

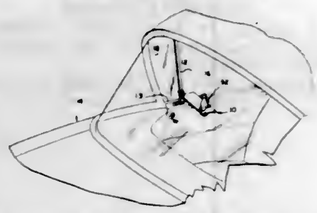
2,835,542
POSITIVE WEDGE SEALING PISTON AND SLEEVE
Ivan M. Holstein, East Hartford, Conn.
Application January 9, 1956, Serial No. 558,039
7 Claims. (Cl. 309—7)



1. A piston sealing construction comprising a piston body having upon the upper and lower portions respectively of its external surface upwardly and downwardly convergent conical tapered surfaces, a sleeve comprising a pair of semi-cylindrical sections mounted upon and embracing said piston, said sleeve having upon the upper

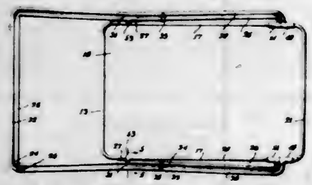
and lower portions respectively of its internal surface upwardly and downwardly convergent conical tapered surfaces complementary with those on the piston, a circumferentially extending sealing ring mounted upon the exterior of said sleeve.

2,835,543
SERVICE TRAY FOR AUTOMOBILES OR THE LIKE
Marion G. Maixner, Harlowton, Mont.
Application August 19, 1957, Serial No. 678,959
7 Claims. (Cl. 311—21)



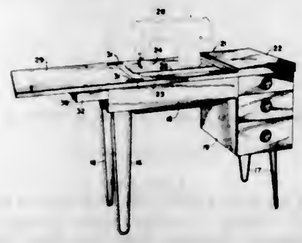
1. In a service tray combination for mounting on a mullion post of a pivoted ventilating window of an automobile: a bracket, said bracket including a substantially U-shaped clamp detachably secured to the mullion post and held in position by the pivoted ventilating window, a substantially flat lug extending outwardly of one leg of said clamp, a pair of posts, said posts extending from opposite sides of said lug in axial alignment with each other and being arranged on said lug so that one of said posts extends vertically upwardly when said clamp is secured to the mullion post; and a substantially rectangular tray, said tray having a hole therethrough adjacent one of its corners for receiving the post extending vertically upwardly from said lug, whereby said tray is detachably and pivotally supported on said bracket.

2,835,544
COLLAPSIBLE TABLE OF THE TYPE HAVING A TABLE TOP AND FOLDABLE LEGS
William J. Dobkin, Jackson Heights, N. Y.
Application August 19, 1955, Serial No. 529,492
5 Claims. (Cl. 311—83)



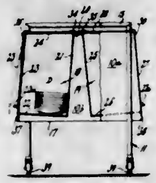
1. A table comprising a flat table top, rails along and beyond the opposite extreme sides of said table top, a pair of legs on each side of said table top pivotally connected together intermediate their ends permitting said legs to be folded into substantially the same plane or extended into crossed relationship, one of the legs of each pair being pivotally connected to the corresponding extreme side of the table top near one end of the table for pivotal movement about a fixed axis in relation to said table top, and a runner pivotally connected to the other leg of each pair at one end and engaging the rail on the corresponding side of the table top with a slide fit, permitting said runner to move from a position near said fixed axis near one end of the table top to a region near the opposite end of the table top, the two pairs of legs blanking the extreme sides of the table top, whereby the two legs on each side of the table top are permitted to extend in crossed relationship into table top supporting position or folded alongside of and beyond the corresponding extreme side of the table top substantially in the plane thereof.

2,835,545
SEWING MACHINE CABINETS
Elmer R. Peterson, Norway, Mich., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 19, 1956, Serial No. 592,426
1 Claim. (Cl. 312—21)



A sewing machine cabinet comprising a first compartment adapted to accommodate a plurality of drawers; a pair of relatively short metallic legs secured to the bottom of said first compartment; a second compartment adapted to house and store a sewing machine, said first and second compartments being joined together in side-by-side relation; a pair of relatively long metallic legs secured to the bottom of said second compartment; a table-top secured to the tops of said first and second compartments, said table-top having a thick portion which covers said first compartment and a thin portion which is half as thick as said thick portion, said thin portion and said thick portion merging into one another; a leaf which is the same thickness as said thin portion; a pair of hinges movably securing one end of said leaf to that end of the thin portion of said table-top which is remote from the end which merges into said thick portion, and parts of said hinges, even when the leaf is closed, protruding beyond the end of said thin portion and beyond the end of said leaf; a cover block, which is the same thickness as said thick portion of said table-top, said block being provided with recesses adapted to accommodate the protruding portions of said hinges; a piano-type hinge for hinging said block to the end of said second compartment which is remote from said first compartment; and a pair of spaced resilient bumpers carried on the surface of said block which is adjacent to the lower surface of said leaf when said leaf is in an open position, said bumpers engaging said leaf and thereby supporting the same.

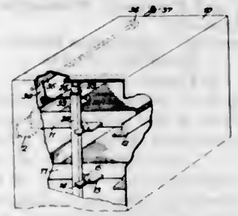
2,835,546
CARRIER FOR DISHWARE AND LIKE ARTICLES
Henry H. Rothschild, Secaucus, N. J., assignor to Universal Products Corporation, Secaucus, N. J.
Application October 19, 1956, Serial No. 617,013
3 Claims. (Cl. 312—117)



1. A carrier for dishware and like articles comprising two spaced-apart frame means, a casing positioned between said frame means and supported by the latter, said

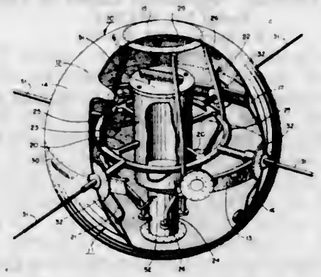
casing being provided with two compartments, each compartment having a fixed rear wall and a fixed bottom wall slanting downwardly towards said rear wall, said rear walls of said compartments being spaced from and interconnected with each other at the upper ends of said rear walls to thereby form a transverse connecting strip thereat, each compartment being further provided with a transparent front wall and a transparent top wall, first hinge means connecting said front walls at the upper ends thereof to said top walls, second hinge means connecting said top walls to said transverse connecting strip, whereby the respective front wall of one compartment may first be swung about said first hinge means relative to said top wall and further together with said top wall about said second hinge means, whereby the outer face of the top wall of said one compartment comes to lie on the outer face of the top wall of the other compartment, whereas the inner face of the top wall of said one compartment lies contiguous to the inner face of the front wall of said one compartment when the latter is completely open at its front wall, and respective bumper means on said casing and located adjacent the lower ends of said front walls.

2,835,547
DRAWER LOCKING DEVICE
Paul Erismann, Lucerne, Switzerland
Application April 22, 1955, Serial No. 503,194
Claims priority, application Switzerland April 23, 1954
1 Claim. (Cl. 312—219)



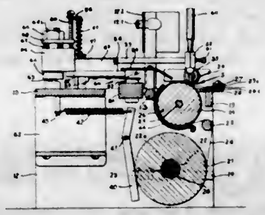
In a chest of drawers having parallel side walls, a plurality of drawers supported on the side walls and slidable in parallel directions, and top and bottom walls on the top and bottom edges of the side walls, a drawer locking device comprising a common locking member rotatably supported between said top and bottom walls and rotatable between a locking and an unlocking position about an axis perpendicular to the said parallel directions in which the drawers are slidable, a pair of fixed aligned pins on said top and bottom walls on which said common locking member is rotatably supported, one of said pins being longer than the other, the said common locking member having a pair of aligned end bearings into which said pins are respectively engaged, an axial abutment for said common locking member on the shorter one of said pins, and a removable locating means on the longer one of said pins for axially locating said common locking member against said axial abutment on the shorter pin, said common locking member having a locking surface extending at right angles to said parallel directions when said common locking member is in its said locking position and obliquely to said parallel directions when said member is in its said unlocking position, a plurality of locking hooks each swingably supported on one of said drawers for rotation about an axis parallel to the said axis of rotation of the said common locking member, each of said hooks having an abutment surface adapted to abut against said locking surface of said common locking member when the latter is in its said locking position, said common locking member being between the abutment surface and the axis of rotation of said hooks, whereby the drawer on which said hook is supported is prevented from forward motion, means biassing each of said hooks towards said common locking member, and each of said hooks being configurated to contact said locking surface of the common locking member, when the latter is in its said unlocking position with its locking surface extending obliquely, whereby forward motion of the drawer on which said hook is supported causes the latter to be swung out by said obliquely extending locking surface against the action of the said biassing means so as to disengage said abutment surface of the hook from said locking surface of the common locking member.

2,835,548
SATELLITE STRUCTURE
Robert C. Baumann, Alexandria, Va., assignor to the United States of America as represented by the Secretary of the Navy
Application August 1, 1957, Serial No. 675,787
9 Claims. (Cl. 312—352)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A satellite which comprises a thin shell spherical structure and an inner support structure, said inner support structure comprising a support column, a plurality of bow-shaped members and a first ring, all positioned concentrically about an axis through said spherical structure, said bow-shaped members being secured at one end to said support column and at the other end to said first ring, said support column and said first ring being secured to the inner surface of said spherical structure, a second ring secured to said bow-shaped members at the equator of said spherical structure and a plurality of radially extending members secured to said second ring and to the inner surface of said spherical structure at the equator.

2,835,549
GRAPHICAL RECORDING APPARATUS
Colin D. Murdoch, San Leandro, and Robert V. Johnson, San Lorenzo, Calif.; said Johnson assignor to said Murdoch
Application March 28, 1955, Serial No. 497,346
2 Claims. (Cl. 346—32)



2. A graphical recording apparatus comprising a reversible motor having a first and a second field winding and a vertically disposed output shaft, an arm mounted for pivotal movement about a horizontal axis supported from said shaft for rotation therewith about its vertical axis, a marking member supported from said arm, drive means arranged to support a band of paper for move-

ment underneath said marking member, spring means urging said marking member into marking engagement with the paper on said drive means, and means for energizing said motor in accordance with a signal voltage to be recorded, including means for applying a voltage to said first field winding, an electric circuit to which the signal voltage may be applied, a bridge circuit having means for applying a voltage thereto and a potentiometer whose contact arm is connected to said marking-member-supporting arm for movement therewith about the axis of said reversible motor shaft so that the output of said bridge circuit varies with movement of said supporting arm, and means for applying the varying output of said bridge circuit to said electric circuit in series with the applied signal voltage, and means for applying the differential voltage derived from the applied signal and the output of said bridge circuit at a phase difference to said second field winding.

CHEMICAL

2,835,550
PROCESS OF DYEING WOOL
Joseph F. Laucius, Wilmington, and Robert A. Pearson, Brandywine Hundred, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 24, 1954
Serial No. 451,954
4 Claims. (Cl. 8—43)

1. In the process of dyeing wool at a pH of 7.5 to 5.5 with neutral dyeing, metallized complexes of orthohydroxyazo dyes which are free of salt-forming acid substituents and whose structure embraces two molecules of a monoazo dye and one atom of a metal selected from the group consisting of chromium and cobalt, the improvement which consists of effecting the dyeing in the presence of an auxiliary agent and of a reagent adapted to generate acid at the dyeing temperature, said auxiliary agent being a poly-oxyalkylene glycol formed by condensing ethylene oxide and polyoxypropylene glycol, said agent having a molecular weight in the range of 7000 to 9000, and said polyoxy-ropylene component constituting from 10 to 22% by weight of the entire molecule, said auxiliary agent being present in quantity not exceeding 2% by weight of the fiber.

2,835,551
PROCESS FOR PRODUCING HOLLOW VISCOSE FILAMENTS
Ichiro Kosuge, Kitazono-ryo, Otsu-shi, Japan, assignor to Toyo Rayon Co., Ltd., Tokyo, Japan, a Japanese company
Application March 29, 1956, Serial No. 574,836
Claims priority, application Japan April 9, 1955
1 Claim. (Cl. 18—54)



Process for producing hollow viscose rayon filaments comprising adding 2–4% carbonates to viscose, and spinning said viscose in the range of Hottenroth value 9–11.5 in a spinning bath of the composition containing 9–11.5% sulphuric acid, 18–25% sodium sulfate, and 0.6–1.5% zinc sulfate at temperature of over 60° C.

2,835,552
SOLVENT EXTRACTION PROCESS FOR THE RECOVERY OF URANIUM VALUES FROM AQUEOUS SOLUTIONS
William J. McGinnis, Lakeland, Fla., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application December 8, 1952
Serial No. 324,829
14 Claims. (Cl. 23—14.5)

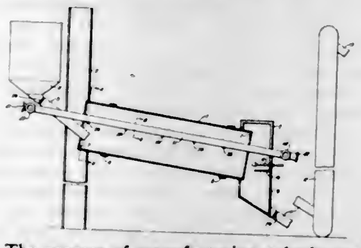
5. In a process of recovering uranium values from aqueous solution containing tetravalent uranium values by liquid-liquid extraction with an organic solvent containing an alkyl acid ester of a phosphoric acid selected from the group consisting of orthophosphoric acid and pyrophosphoric acid, the steps comprising separating the uranium-rich organic solvent from the contacted aqueous solution, treating the rich organic solvent with an aqueous mixture of phosphoric acid and hydrofluoric acid to precipitate the uranium, separating the aqueous acid phase from the organic phase, returning the organic phase to the extraction system and separately recovering the uranium precipitate and the aqueous acid mixture.

2,835,553
ALKALI METAL FERRATES
John Rufford Harrison, Niagara Falls, and Richard C. Toole, Grand Island, N. Y., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 31, 1955
Serial No. 512,296
10 Claims. (Cl. 23—50)

1. The method of preparing the ferrate (IV) of an alkali metal of the group consisting of sodium and potassium which comprises heating to a temperature of at least about 275° C. the ferrate (III) of an alkali metal of said group admixed with a member of the group consisting of the monoxide, peroxide, carbonate, bicarbonate, nitrate and nitrite of an alkali metal of the aforesaid group in the presence of gaseous oxygen.

10. The method of preparing the ferrate (VI) of an alkali metal of the group consisting of sodium and potassium which comprises dissolving in water the reaction mixture obtained by heating the ferrate (III) of the metal at a temperature of at least 275° C. with a member of the group consisting of the monoxide, peroxide, carbonate, bicarbonate, nitrate and nitrite of an alkali metal of the group consisting of sodium and potassium in the presence of gaseous oxygen.

2,835,554
UTILIZATION OF ANHYDROUS ALUMINUM CHLORIDE SLUDGE
William A. Pardee, Fox Chapel, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application December 23, 1954, Serial No. 477,247
10 Claims. (Cl. 23—93)



1. The process of manufacturing anhydrous aluminum chloride which comprises: charging aluminous ore to a heated horizontal rotary kiln; rotating the kiln and thereby tumbling the said ore and causing it to travel longitudinally through the said kiln; applying a small percentage of liquefied aluminum chloride sludge to the aluminous ore at a point near the charging end of the said kiln; maintaining the temperature in the said kiln within a range that will carbonize the applied sludge; carbonizing the applied small percentage of sludge; successively applying and carbonizing additional small percentages of aluminum chloride sludge with the said ore during its longitudinal passage through the said kiln; discharging from the kiln an aggregate of fully carbonized aluminum chloride sludge and aluminous material; charging the said aggregate to a retort at a temperature between 1000° F. and 1500° F. and there reacting the hot aggregate with chlorine gas, thereby producing vapors of anhydrous aluminum chloride; cooling and condensing the vapors of anhydrous aluminum chloride and so separately obtaining the same.

2,835,555
REDUCTION OF ACIDITY OF NITRIC ACID SOLUTIONS BY USE OF FORMALDEHYDE
Thomas Victor Healy, Harwell, England, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application November 17, 1954, Serial No. 469,354
7 Claims. (Cl. 23—102)

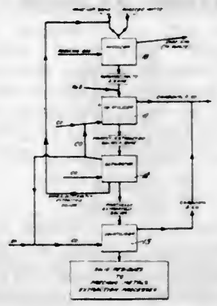


1. A continuous method of concentrating by evaporation an aqueous solution of metal salts containing nitric acid in amount not exceeding 8 N, which comprises heating the solution, passing formaldehyde into the heated solution to bring about decomposition of nitric acid with evolution of nitric oxide, counter-currently contacting a further aqueous solution of the metal salts containing nitric acid in amount greater than 8 N with said evolved nitric oxide to bring about decomposition of nitric acid and reduce the normality to below 8 N and passing the resultant solution into the body of heated solution and withdrawing therefrom aqueous solution with a nitric acid content less than that of the starting solution.

2,835,556
PARTIAL OXIDATION OF HCN
Leslie G. Boatright and William F. Marzluff, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application September 18, 1953
Serial No. 381,138
4 Claims. (Cl. 23—190)

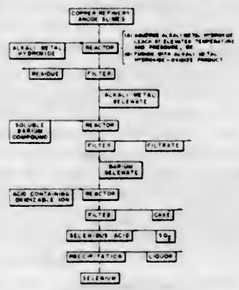
1. A method of preparing a reaction mass comprising cyanamide which comprises forming a vapor mixture containing HCN and oxygen and subjecting said mixture to the action of an activated metallic oxide gel catalyst maintained at a temperature of at least 450° C., whereby cyanamide is deposited on said gel and recovering resultant cyanamide.

2,835,557
METHOD OF PRODUCING NICKEL BY THE CARBONYL PROCESS
De Witt Henry West, Port Eynon, and Alexander Bowen Simpson, Brynmill, Swansea, Wales, assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application March 30, 1955, Serial No. 498,034
3 Claims. (Cl. 23—203)



1. The improved process for the extraction of nickel as nickel carbonyl from nickel oxide-containing materials comprising mixing finely-divided inert particles with finely-divided particles of nickel oxide-containing material, treating the resulting mixture in at least one fluid bed with a reducing gas at nickel oxide-reducing temperatures, subsequently partially volatilizing the nickel in the reduced material as nickel carbonyl by treatment of the mixed particles with carbon monoxide, separating and recirculating the finely-divided inert particles and any non-extracted particles, and then completing the volatilization of the nickel as nickel carbonyl by treating the partially-extracted, finely-divided solids with carbon monoxide.

2,835,558
RECOVERY OF SELENIUM
Luther E. Vaaler, Columbus, Ohio, assignor, by mesne assignments, to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware
Application August 9, 1955, Serial No. 527,287
19 Claims. (Cl. 23—209)



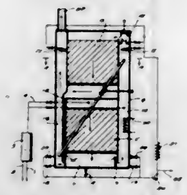
1. The method of separating selenium from a selenium-containing source material, said method comprising the successive steps of contacting said source material with an alkali metal hydroxide thereby to extract selenium from said source material as a soluble selenate, forming therefrom by the addition of a compound selected from the group of water soluble compounds of barium, strontium, and radium, an insoluble selenate, and separating soluble impurities, reducing the insoluble selenate by the addition of a solution containing an oxidizable ion and precipitating substantially pure selenium therefrom by the addition of sulfur dioxide.

2,835,559

APPARATUS FOR MANUFACTURE OF SULPHUR

Johannes Bähr, Herne, Westphalia, Germany; Elfriede Ella Baehr, Else Mathilde Elisabeth Anna Kroh nee Baehr, Wilhelm Friedrich Eugen Rudolf Karl Baehr, Elisabeth Jeni Bernhard nee Baehr, Anna Mathilde Veiten nee Baehr and Ernst Ludwig Baehr, heirs of said Johannes Bähr, deceased

Application January 28, 1954, Serial No. 406,723
6 Claims. (Cl. 23—288)



1. Treating apparatus comprising, in combination, first and second reaction chamber means; first and second discharge passage means respectively connected to, communicating with and respectively forming outlets for said first and second reaction chamber means; first and second liquid-seal means respectively located in said first and second discharge passage means; first and second control means respectively cooperating with said first and second liquid-seal means for changing the level of a liquid at said first and second liquid-seal means between an upper level where said first and second liquid-seal means are respectively closed for respectively closing said first and second discharge passage means and a lower level where said first and second liquid-seal means are respectively open for respectively opening said first and second discharge passage means, said first and second control means being individually operable for selectively opening or closing each discharge passage means; first conduit means leading from said first discharge passage means to said second reaction chamber means for connecting said second reaction chamber means in series with said first reaction chamber means; second conduit means communicating with and leading from said second discharge passage means; by-pass conduit means connected and communicating with said first and second conduit means for leading a fluid from said first to said second conduit means without passing through said second reaction chamber means and second discharge passage means; valve means in said first conduit means between said second reaction chamber means and the connection of said by-pass conduit means with said first conduit means for cutting off or opening communication between said first and second reaction chamber means; and supply means for selectively supplying materials to be treated either to said first or to said second reaction chamber means, whereby operations may be carried on with said first and second reaction chamber means in series or selectively with either of said reaction chamber means while the non-operating reaction chamber means is completely sealed off from the operations.

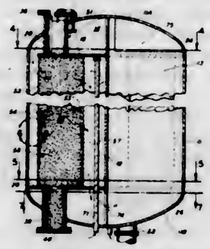
2,835,560

CATALYTIC REACTOR

Merrill M. Bason and Arnold M. Ames, Altadena, and Milton S. Nehis, Pasadena, Calif., assignors to C. F. Braun & Co., a corporation of California

Application February 23, 1954, Serial No. 411,902
4 Claims. (Cl. 23—288)

1. A reactor comprising a vessel having a first fluid inlet port and an outlet port, a plurality of walls radially disposed within the vessel dividing it into separate sector-shaped compartments, the walls being provided with openings adjacent their ends to form passageways interconnecting the compartments, a sector-shaped end plate secured between adjacent radial walls adjacent each end of each compartment and inwardly from said openings to form a catalyst chamber in each compartment between the respective end plates, the end plates defining with the walls openings from each catalyst compartment into opposite ends of the reactor, the openings in the end plates and in the walls being arranged to cause fluid introduced into the inlet port to flow radially and successively through



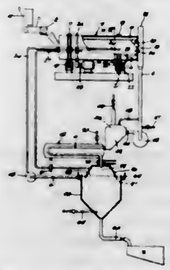
each compartment and out the outlet port, a second inlet port for introducing a second fluid independently of the fluid flow through the first inlet port and distribution means communicating with the second port and extending substantially the entire length of at least one of the compartments for introducing said second fluid substantially throughout the length of said compartment to the first fluid as the first fluid emerges from the catalyst in said compartment.

2,835,561

SEPARATION OF MOLTEN SULFUR FROM A SLURRY OF ITS ORE CONSTITUENTS

Cyril C. Benz, Los Angeles, Calif.

Application October 12, 1953, Serial No. 385,389
3 Claims. (Cl. 23—308)



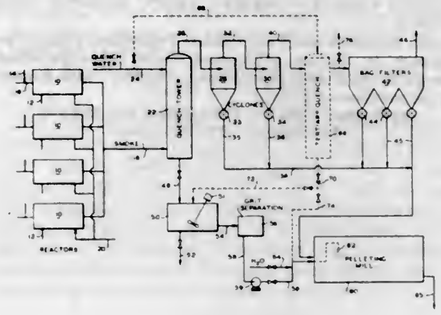
1. In a thermally economical method of recovering sulphur of high purity and in a finely divided state from ores containing sulphur, the steps of: coarsely crushing ore containing elemental sulphur and gangue, preheating the ore, pulping the ore with warm water in a pulping zone to wet the gangue while permitting evolved gases to escape to the atmosphere and to form a slurry containing between about 50% and 70% solids by weight; moving a stream of such slurry at a pressure of between about 20 and 80 p. s. i. g. through a heating zone; heating the slurry to above 240° F. in said zone; and passing the heated slurry through a restricted orifice into an enlarged flash zone including a body of water whereby the slurry is subjected to a virtually instantaneous drop in temperature and pressure with concurrent generation of steam while said slurry is moving at high velocity into contact with the body of water; supplying low temperature water to said body; withdrawing a pulp of finely divided sulphur and gangue in low temperature water from the lower portion of said body; conveying warm water and suspended fines from the upper portion of said body to the pulping zone and conveying steam generated in the flash zone for preheating incoming ore.

2,835,562

CARBON BLACK RECOVERY

Lyndon D. Boyer, Norman, and James Q. Wood, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application April 30, 1956, Serial No. 581,791
14 Claims. (Cl. 23—314)



1. A process for recovering and pelleting carbon black present in the effluent smoke from a carbon black reactor which comprises water-quenching said effluent in a quenching zone, whereby an aqueous slurry carrying grit and a portion of carbon black in said smoke flows from a lower section of said quench zone and a gaseous stream carrying most of the carbon black flows from the upper section thereof; recovering carbon black from said gaseous stream and passing same to a pelleting zone; separating grit from said slurry; and then passing said slurry to said pelleting zone to pellet the black therein with the black recovered from said gaseous stream.

9. Apparatus comprising in combination a carbon black reactor having a smoke effluent line and means for spraying water into the effluent end section of said reactor; a secondary quench tower in said effluent line having smoke outlet means in an upper section and slurry outlet means in a lower section; means for spraying water into said tower; at least one dry cyclone separator connected to the smoke outlet of said tower having smoke outlet means in an upper section and solids outlet means in a lower section; a pelleting mill having spray means therein; a line connecting said solids outlet means with said pelleting mill; a line leading from said slurry outlet means to said spray means; and grit separation means in last said line.

2,835,563

PROCESS FOR THE MANUFACTURE OF FUEL BRIQUETTES

Heinrich Dohmen, Deventer, Netherlands, assignor to N. V. Briko, The Hague, Netherlands, a Dutch limited liability company

No Drawing. Application May 7, 1956
Serial No. 582,928
Claims priority, application Netherlands May 12, 1955
19 Claims. (Cl. 44—15)

1. A process for the manufacture of fuel briquettes which comprises mixing comminuted lignite with a water-soluble lower aliphatic monocarboxylic acid at a temperature between about 55° C. and carbonization temperature of the mixture, whereby a considerable part of the water contained in the lignite is expelled in admixture with said acid, and enhanced binding properties are imparted to the resulting product, and thereafter pressing the resulting product into briquette form at elevated temperature.

2,835,564

PROCESS FOR SWEETENING AND STABILIZING CRACKED GASOLINES

Clarence S. Coe, Rolling Hills, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application June 25, 1956, Serial No. 593,631
2 Claims. (Cl. 44—78)

1. A method for stabilizing and sweetening a cracked gasoline which comprises first dissolving in said gasoline a minor proportion, less than about 0.2%, of 3,3',5,5',tetra(tert - butyl) - 4,4' - dihydroxy diphenyl, then subjecting said gasoline to caustic extraction with a caustic solution to extract mercaptans without extracting substantial proportions of said inhibitor, said caustic solution consisting of an alkali metal hydroxide dissolved in a solvent which is predominantly water.

2,835,565

AMINATION PRODUCTS OF CONJUGATED DIOLEFINS AS DEFOLIANT ACTIVATORS

Lyle D. Goodhue and Roy E. Stansbury, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application January 2, 1952
Serial No. 264,642
31 Claims. (Cl. 71—2.7)

3. The method for defoliating a plant which comprises applying to said plant an organic polysulfide having the general formula $RS_{(x)}R'$ wherein R and R' represent one of straight and branched-chain alkyl groups, cycloalkyl groups, aryl groups, and combinations thereof, (x) represents an integer from two to five and wherein R and R' each contain at least three and not more than 10 carbon atoms and are not necessarily identical, in admixture with a synergistic proportion of an alkenylamine product prepared by reacting a butadiene compound with a compound of the formula



wherein each R is selected from the group consisting of hydrogen, alkyl, aryl, aralkyl, alkaryl, cycloalkyl, heterocyclic, and hydrocarbon groups which together with the nitrogen form a heterocyclic ring, the number of carbon atoms in both R's not exceeding a total of 36; said reaction taking place in the presence of a catalyst selected from the group consisting of sodamide and the alkali metal hydrides; and recovering from said reaction alkenylamines and a nitrogen-containing material, the amount of the admixture applied being effective to cause a desired extent of defoliation.

2,835,566

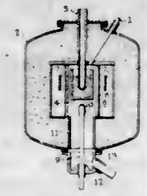
ALUMINUM MANUFACTURE

René Perieres, La Tronche, and Louis Ruelle, Grenoble, France, assignors to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France

Application November 1, 1956, Serial No. 619,771
Claims priority, application France November 4, 1955
9 Claims. (Cl. 75—68)

1. Process of producing aluminum by the dissociation of aluminum nitride in a vacuum at high temperatures into aluminum and nitrogen in the gaseous state, and whereby the aluminum is subsequently condensed in a condensation zone, and wherein the nitride is contaminated by carbon and aluminum oxide leading to the formation of detrimental carbonitride compounds by the reaction of the contaminants with the gaseous dissociation products, the improvement in said process which comprises the combination therewith the steps of: depositing the carbonitride compounds as sinters in a trap zone in

advance of the aluminum condensation zone, and thereafter condensing the aluminum in the liquid state in the



condensation zone, whereby the aluminum is recovered in a substantially pure condition.

2,835,567

METHOD OF PRODUCING GRANULAR REFRACTORY METAL

Oswin Burr Willcox, New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 22, 1954
Serial No. 470,540
6 Claims. (Cl. 75—84.1)

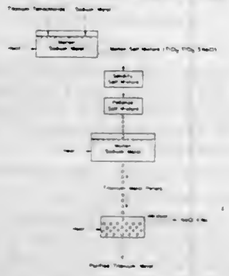
1. A process for preparing a loosely coherent granular mass of a group IV-A metal selected from the group consisting of titanium, zirconium, hafnium and thorium, which comprises reacting in a reaction vessel free of deleterious impurities, solid particles of an alkaline earth reducing metal with a non-volatile halide of said group IV-A metal dissolved in a molten salt composition having a melting point below that of said reducing metal and being selected from the group consisting of an alkali and alkaline earth metal halide and mixtures thereof, regulating the amounts of alkaline earth metal and group IV-A metal halide present so that substantially complete reduction of said group IV-A metal halide in a molten salt bath is obtained, throughout the reaction, maintaining a temperature of reaction above the melting point of said molten salt bath but below the melting point of said reducing metal, and recovering the resulting product from the reaction by-product salt.

2,835,568

METHOD OF PRODUCING TITANIUM

Franklin L. Kingsbury, New Brunswick, N. J., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

Application November 20, 1952, Serial No. 321,596
7 Claims. (Cl. 75—84.5)



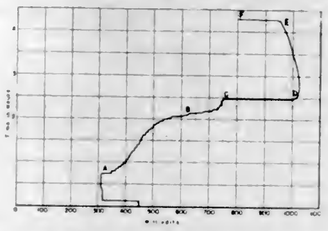
5. A method for producing a fused salt mixture which consists essentially of reacting titanium tetrachloride with a molten reducing metal selected from the group consisting of alkali metal, alkaline earth metal and magnesium, said titanium tetrachloride and said reducing metal introduced in stoichiometric proportions to produce a fused salt mixture containing reducing metal chloride and lower valent titanium chloride selected from the group consisting of titanium chloride, titanium dichloride and mixtures thereof, said reaction being carried out at a temperature above the melting point of said fused salt mixture.

2,835,569

PROCESS OF EXTRACTING GOLD AND OTHER METALS FROM ORES, CONCENTRATES, RESIDUES AND THE LIKE CONTAINING PRINCIPALLY COBALT, NICKEL, IRON, ARSENIC AND GOLD

Francis Reynaud and Paul Claraz, Pombliere, France, assignors to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine, Paris, France, a corporation of France

Application April 19, 1956, Serial No. 579,173
17 Claims. (Cl. 75—118)



1. A process of extracting gold from arseniureted and sulpharseniureted ores, concentrates, residues and the like containing small amounts of gold and substantial amounts of iron and arsenic, which comprises forming a slurry of the ore in a mineral acid, adding an oxidizing agent to the slurry at a given rate to cause a gradual rise in the oxidation potential of the slurry to dissolve the metal except gold, continuously measuring the oxidation potential of the slurry during the addition of the oxidizing agent, progressively adding a chlorinating agent until an excess of the agent over that required to oxidize the gold has been added to the slurry, maintaining said excess of the oxidizing agent, as revealed by an increase in the oxidation potential, in the slurry by addition of the agent at a reduced rate until substantially all of the gold has been dissolved, precipitating iron and arsenic compounds by reducing the acidity of the slurry, separating the precipitate together with insoluble residue from the solution and recovering gold from the last mentioned solution.

2,835,570

ZINC DIE CASTING STEELS

Leonard V. Klaybor, Dunkirk, N. Y., assignor to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

Application July 2, 1957, Serial No. 673,550
5 Claims. (Cl. 75—124)

1. A die steel for use in die casting molten zinc and alloys thereof consisting of, from about 0.25% to about 0.75% carbon, from about 1.10% to about 5.0% manganese, from about 0.10% to about 1.00% silicon, from about 0.10% to about 1.00% chromium, from about 2.0% to about 4.0% aluminum, and the balance substantially all iron with incidental impurities.

2,835,571

STEEL FOR USE AT ELEVATED TEMPERATURE

George V. Smith, Ithaca, N. Y., assignor to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application July 2, 1957
Serial No. 669,431
3 Claims. (Cl. 75—126)

1. A forgeable ferritic chromium steel of the 8% type characterized by a high 100-hour stress-rupture strength at 1100° F. in the quenched and tempered condition, said steel containing .25% maximum carbon, 7.50 to 8.25% chromium, 2.70 to 3.40% molybdenum, 3.00% maximum manganese, .75% maximum silicon with the balance iron and other elements in amounts which do not adversely affect the properties.

2,835,572

METHOD OF MAKING POROUS METAL MOLDS

Hrant Isbenjian, Leopold Hase, and Donald F. Othmer, Brooklyn, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

No Drawing. Application July 30, 1954
Serial No. 446,986
1 Claim. (Cl. 75—200)

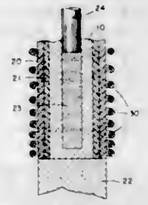
A process for making porous molds of metallic powder for use in vacuum forming comprising providing a plaster-starch pattern, mixing bronze powder with a solder powder having a ratio of 67% tin, 33% lead, and powdered aluminum chloride, casting said mixture onto said pattern, heating said casting to a temperature of approximately 400 degrees Fahrenheit for several hours until bonding is complete, cooling said casting, and disintegrating the plaster-starch mold in water.

2,835,573

HOT PRESSING WITH A TEMPERATURE GRADIENT

Henry H. Hausner, New York, N. Y., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application June 4, 1957, Serial No. 663,554
3 Claims. (Cl. 75—226)



1. The method of hot pressing to form an element having a length to width ratio greater than 2 to 1 and a uniform density throughout its length which comprises heating metallic powder within a die to a predetermined temperature gradient throughout its length and applying pressure thereto to compress and sinter the said metallic powder.

2,835,574

MODIFIED MECHANO-CHEMICAL PULPING

Samuel I. Aronovsky and Elbert C. Lathrop, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application July 13, 1954
Serial No. 443,179
3 Claims. (Cl. 92—6)
(Granted under Title 35, U. S. Code (1952), sec. 266)

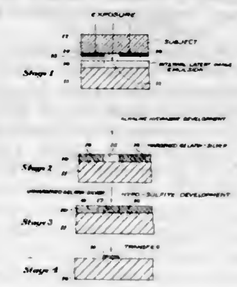
1. A mechano-chemical process for producing pulp comprising subjecting an undefibered non-woody fiber material to the action of a pulping liquor containing a chemical reagent in solution in a liquid medium, said reagent being capable of digesting said material by removing lignin and other encrustants therefrom, at a temperature of about from 90° to 100° C. and at about atmospheric pressure, said pulping liquor being essentially non-hydrolytic under said conditions of temperature and pressure, while simultaneously subjecting the individual pieces of said material to vigorous non-cutting impact blows while submerged in the pulping liquor and while they are in a relatively free state, said non-cutting impact blows comprising mechanically-induced cycles of expression and absorption, each cycle comprising compacting the pieces in an unconfined zone of impact to express liquid, immediately removing said pieces from the zone of impact to a zone of absorption of fresh liquid and returning said pieces containing absorbed liquid into another zone of impact, and continuing said blows for a period of from 5 to 20 minutes, permitting the reaction mixture to remain quiescent in situ for a period of 15 to 30 minutes to complete substantial delignification of the material, and then continuing said blows for a final period of 1 to 20 minutes to homogenize and defiber the material.

2,835,575

PHOTOGRAPHIC REPRODUCTION PROCESS

Herbert B. Cowden and Albert W. Wise, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application April 5, 1955, Serial No. 499,328
8 Claims. (Cl. 96—28)



1. A photographic reproduction process which comprises exposing to a two-tone subject an unhardened gelatino-silver halide emulsion layer a test portion of which upon exposure to a light intensity scale for a fixed time between $\frac{1}{100}$ and 1 second and development for 3 minutes at 20° C. in the following internal type developer (II):

	Grams
Hydroquinone	15
Monomethyl-p-aminophenol sulfate	15
Anhydrous sodium sulfite	50
Potassium bromide	10
Sodium hydroxide	25
Sodium thiosulfate	20

Water to 1 liter.

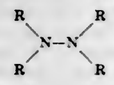
gives a maximum density at least 5 times the maximum density obtained when the equally exposed silver halide emulsion is developed for 4 minutes at 20° C. in the following surface developer (I):

	Grams
p-Hydroxyphenylglycine	10
Sodium carbonate	100

Water to 1 liter.

developing said exposed emulsion layer with an alkaline solution in the presence of a gelatin tanning silver halide developing agent under conditions of gelatin-tanning silver halide development until a hardened gelatin and silver image is obtained in the emulsion layer, thereafter developing said emulsion layer with an alkaline solution in the presence of a silver halide developing agent and a compound inhibiting gelatin tanning, until an unhardened gelatin and silver image is obtained in the remaining regions of the emulsion layer, pressing an absorbent sheet against said emulsion layer while the emulsion layer is moist to cause the unhardened gelatin

and silver image to adhere to said sheet, and separating said sheet and emulsion layer to transfer only a stratum of said unhardened gelatin and silver image to said sheet, only one of said alkaline solutions containing a silver halide solvent when the other contains a hydrazine compound having the general formula



in which at least 2 R's are hydrogen atoms and when less than 4 R's are hydrogen atoms, the remaining R's are selected from the class consisting of aryl, aralkyl, acyl and carboxylic acid amide groups, but not more than one R is any one of said aralkyl, acyl and carboxylic acid amide groups.

2,835,576

LIGHT-SENSITIVE POLYVALENT METAL ALGINATE PHOTOLITHOGRAPHIC ELEMENT

Anthony L. Ensink, Chicago, Ill.

No Drawing. Application December 6, 1951
Serial No. 260,327
10 Claims. (Cl. 96—33)

10. A planographic printing plate comprising a base sheet and a continuous coating on the surface of the base sheet having a water receptive, ink repellent, hydrophilic surface and consisting of an insoluble polyvalent metal alginate as the adhesive colloid, a finely divided inert filler present in an amount ranging from 5–8 parts by weight of filler to 1 part by weight of alginate and a light sensitizing metal salt which reacts further to harden the alginate upon exposure to light to make the alginate ink receptive and water repellent in the exposed areas, said light sensitizing metal salt being incorporated in the alginate coating.

2,835,577

PHOTOSENSITIVE SYSTEM

Marilyn Levy, Red Bank, N. J., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application July 29, 1955
Serial No. 525,402
3 Claims. (Cl. 96—50)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. The process of making photographic images which comprises using a photographic system composed of a polyvinyl chloride emulsion having dispersed therein a member of the group consisting of silver succindiamidoxime, silver p-toluene sulfinate and silver benzene sulfinate, forming a print-out image by exposure of said system to light and desensitizing said system to further action by light with the sole application of heat.

2,835,578

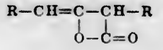
LIGHT-SENSITIVE PHOTOGRAPHIC PAPER CONTAINING AN ETHENONE MATERIAL

Thomas L. Davis, William T. Driscoll, and Kearney P. Griffin, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application October 31, 1955, Serial No. 543,892
4 Claims. (Cl. 96—85)



1. A photographic paper containing a coating from an aqueous solution comprising 0.5 to 4% gelatin and 0.6 to 3% of an ethenone material having the following formula



in which R is an alkyl group containing from 12 to 18 carbon atoms, a baryta-gelatin coating and a photographic emulsion containing light sensitive silver halide salts.

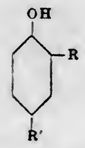
2,835,579

N-ALKYL AND ACYLPHENOL COUPLER SOLVENTS FOR COLOR PHOTOGRAPHY

John R. Thirtle and Arnold Weissberger, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 31, 1955
Serial No. 531,813
7 Claims. (Cl. 96—97)

1. A light-sensitive photographic emulsion for producing a colored image by color development, comprising finely-divided liquid particles of a mixture of a coupler compound capable of coupling with the oxidation product of a primary aromatic amino developing agent and a coupler solvent having the structure



where R and R′ are selected from the groups consisting of $-(CH_2)_nCH_3$ and $-CO(CH_2)_nCH_3$, n is from 0 to 17, $n+n$ being from 7 to 17, and not more than one of R and R′ being a $-CO(CH_2)_nCH_3$ group, said particles being dispersed in a light-sensitive silver halide-organic colloid emulsion.

2,835,580

PHOTOGRAPHIC EMULSION WITH VINYL ALCOHOL - N - ALLYLCYANOACETAMIDE COPOLYMER CONTINUOUS PHASE

Leopold Godowsky, Westport, Conn., and Arnold Weissberger and William F. Knechel, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 10, 1955
Serial No. 546,262
7 Claims. (Cl. 96—98)

1. A photographic emulsion capable of producing a dye image upon photographic processing, comprising a layer of a water-permeable polyvinyl alcohol-N-allylcyanoacetamide resin having dispersed therein packets or discrete particles each containing a gelatinous material selected from the group consisting of gelatin, cyanoethylated gelatin, phenylureido gelatin and the gelatin derivatives obtained by treatment of gelatin with aromatic sulfonyl chlorides, carboxylic acid and chlorides and carboxylic acid anhydrides, silver halide and a substance capable of forming a dye image during photographic processing.

2,835,581

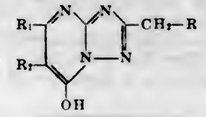
TETRAZAINDENES AND PHOTOGRAPHIC EMULSIONS CONTAINING THEM

John F. Tinker and John Sagal, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 15, 1955
Serial No. 515,785
9 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing a

compound selected from those represented by the following general formula:



wherein R represents a member selected from the group consisting of a hydroxyl group and a chlorine atom, R_1 represents a member selected from the group consisting of a methyl group and a mononuclear aromatic group of the benzene series, and R_2 represents a member selected from the group consisting of a hydrogen atom, an alkyl group containing from 1 to 2 carbon atoms, and a mononuclear aromatic group of the benzene series.

2,835,582

GELATIN-POLYMERIC HYDROSOL MIXTURES AND PHOTOGRAPHIC ARTICLES PREPARED THEREFROM

William F. Fowler, Jr., and Richard J. Hellmann, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 3, 1954
Serial No. 408,033
14 Claims. (Cl. 96—114)

8. Photographic film containing a silver halide and including as a layer thereof a compatible mixture of gelatin and a separately preformed polymeric material, said polymeric material being a hydrosol containing an ampholytic surface-active material and obtained by polymerizing monoolefinic material consisting of at least one monoethylenically unsaturated polymerizable monomer in aqueous emulsion and in the presence of an ampholytic surface-active material which is selected from the group consisting of betaines, glycines, and alkali metal salts of taurines, each of the members of said group containing an N-alkyl group of 12–18 carbon atoms.

2,835,583

FOOD PELLET AND METHOD OF MANUFACTURE

John E. Higgins and Oliver R. Newkirk, Richland Center, Wis.

Application March 21, 1956, Serial No. 572,862
7 Claims. (Cl. 99—2)

1. A method of pelleting whey which comprises mixing flour with concentrated whey to a dryness sufficient to coat sugar crystals in the whey and to render such crystals non-sticky, the forcible breaking down of the sugar crystals as thus coated by forcibly stirring the dry mix of flour and concentrated whey, and the re-moistening of the dry mix and subsequent pelleting thereof.

2,835,584

COMPOSITIONS OF MATTER

Adolf Rosenberg, Forest Hills, N. Y.

No Drawing. Application March 4, 1955
Serial No. 492,793
8 Claims. (Cl. 99—7)

1. As a supplement for feeds containing less than about 3 percent residual native vegetable oil, the combination of vegetable acid oil and particles of hydrogenated animal fat having a melting point of at least 52° C. and containing unprocessed raw hot well oil.

2,835,585

CHOCOLATE PRODUCT AND PROCESS THEREFOR

Irving I. Rusoff, Newark, N. J., assignor to General Foods Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 10, 1953
Serial No. 367,350
8 Claims. (Cl. 99—23)

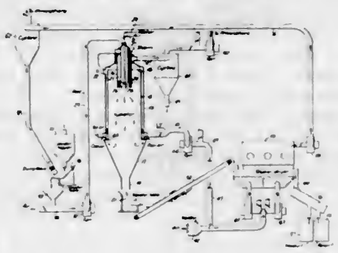
1. A process for preparing a chocolate flavoring material which comprises contacting fermented unroasted cacao material containing precursors of chocolate flavor and aroma with an aqueous extraction liquid whereby said precursors are extracted from said unroasted cacao material and pass into said liquid to form an aqueous extract, separating from the cacao material the said extract containing soluble precursors of chocolate flavor and aroma, evaporating the aqueous extract to form a semi-solid mass, and roasting this mass to develop chocolate flavor and aroma.

2,835,586

DRIED MILK PRODUCT AND METHOD OF MAKING SAME

David D. Peebles, Davis, Calif., assignor, by mesne assignments, to Instant Milk Company, Los Angeles, Calif., a corporation of Delaware

Application July 27, 1953, Serial No. 370,420
16 Claims. (Cl. 99—56)



14. A dry food product comprising porous aggregates, the aggregates consisting of smaller particles of milk powder firmly adhered together in random fashion to form a free-flowing, divided material, the milk solids present forming a stable milk when dispersed in water, the product being further characterized by high wettability and by its ability to quickly disperse in water by simple stirring to form a stable, reconstituted milk product, the major portion of the aggregates having a size greater than about 74 microns.

2,835,587

COFFEE BREWING PACKAGE

Louis Maggiore, Rockville Centre, N. Y.

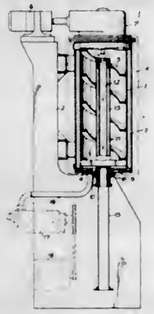
No Drawing. Application July 25, 1955
Serial No. 524,283
2 Claims. (Cl. 99—77.1)

1. A novel individual brewing package containing finely ground roasted coffee enclosed in a fibrous porous paper envelope, said paper being impregnated with mannitol, said paper envelope so impregnated serving to maintain and retain the fresh fragrant flavor and aroma of the freshly roasted coffee and when placed in hot water permitting ready penetration of the water into the interior of the envelope with dissolution of the mannitol.

2,835,588
METHOD OF MAKING A CULINARY MIX
Henry B. Alexander, Morristown, N. J., and Richard Laster, Forest Hills, N. Y., assignors to General Foods Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application March 4, 1953
Serial No. 340,398
3 Claims. (Cl. 99—94)

1. A method of making a culinary mix having ingredients comprising flour and shortening in proportions to form an edible culinary product when the mix is mixed with an aqueous edible liquid and baked, which comprises rapidly chilling shortening stock with agitation so as to develop crystal nuclei but with a substantial proportion in a super-cooled condition, so that the shortening is still liquid, atomizing discrete particles of the liquid supercooled shortening directly into said dry ingredients while the latter are being agitated and overturned to renew continually the surfaces on which said particles impinge so that the discrete particles of shortening are mixed and distributed throughout said dry ingredients.

2,835,589
PROCESSING AND MEANS FOR CARAMELIZING CARAMEL, TOFFEE AND SIMILAR SUBSTANCES
Bernard Whitefield, Cuffley, England
Application November 22, 1955, Serial No. 548,471
Claims priority, application Great Britain November 23, 1954
15 Claims. (Cl. 99—134)

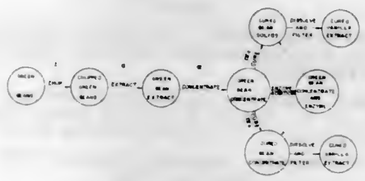


1. A method of maintaining substantially constant the time during which the last of a substance which is fed along a treating path of predetermined length at a substantially constant rate is treated after the feeding of the substance is terminated, comprising the step of shortening said path, when the feeding of the substance has terminated, at a rate substantially equal to that at which the substance was fed prior to termination of feeding, whereby the total treating time of each part of the substance is substantially the same.

2,835,590
PROCESS OF PRODUCING AN ARTIFICIAL CHOCOLATE FLAVOR AND THE RESULTING PRODUCT
Irving I. Rusoff, Newark, N. J., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware
No Drawing. Application September 21, 1954
Serial No. 457,550
12 Claims. (Cl. 99—140)

1. A process for producing an artificial chocolate flavor which comprises reacting a saccharide with a member of the group consisting of glycyl and alanyl peptides ranging in molecular complexity from di- to hexa-peptides, the reaction mixture being in a substantially anhydrous state before the end of the reaction and the reaction being carried out at a temperature within the range of 90°–130° C. where the saccharide is a pentose; 120°–150° C. where the saccharide is selected from the group of hexoses and reducing polysaccharides; and 140°–170° C. where the saccharide is a non-reducing polysaccharide which is a precursor of a reducing saccharide.

2,835,591
METHOD OF PRODUCING CURED VANILLA EXTRACT FROM GREEN VANILLA BEANS
Robert Edwin Graves and Richard Leland Hall, Baltimore, and Albert Joseph Karas, Catonsville, Md., assignors to McCormick & Company, Inc., Baltimore, Md., a corporation of Maryland
Application August 23, 1955, Serial No. 530,052
24 Claims. (Cl. 99—140)



1. The method of producing cured vanilla extract from green vanilla beans which comprises extracting green bean extract from green vanilla beans substantially in the absence of oxygen, then curing the green bean extract to thereby produce a cured vanilla extract of greatly enhanced flavor and aroma.

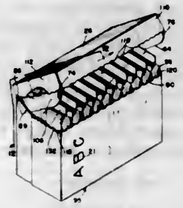
2,835,592
FLAVOR
Irving I. Rusoff, Newark, N. J., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware
No Drawing. Application April 26, 1957
Serial No. 655,200
51 Claims. (Cl. 99—140)

1. A process for producing a chocolate base flavor factor comprising reacting a partially hydrolyzed protein with a saccharide by the application of heat to a mixture of the reagents at a temperature and for a time sufficient to produce said base flavor factor in a substantially anhydrous condition at least at the end of the reaction, the reaction being carried out at a temperature of 90°–130° C. where the saccharide is a pentose; 120°–150° C. where the saccharide is selected from the group of hexoses and reducing polysaccharides; and 140°–170° C. where the saccharide is a non-reducing polysaccharide which is a precursor of a reducing saccharide.

2,835,593
FLAVOR PRODUCT AND PROCESS
Irving I. Rusoff, Park Ridge, N. J., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware
No Drawing. Application September 23, 1957
Serial No. 685,414
14 Claims. (Cl. 99—140)

1. A process for producing a chocolate base flavor factor having fragrant buttery notes comprising reacting partially hydrolyzed milk protein with milk sugar, the reaction mixture also containing hydrolyzed milk fat, said reaction being carried out by the application of heat to a mixture of the reagents at a temperature of 120°–150° C. and for a time sufficient to produce said base flavor factor in a substantially anhydrous condition at least at the end of the reaction.

2,835,594
CHEST-TYPE CONTAINER
Clarence E. Felt and Beatrice E. Matson, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application November 10, 1952, Serial No. 319,762
5 Claims. (Cl. 99—171)



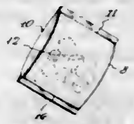
4. A carton comprised of front, rear, and connecting side walls with top and bottom end walls formed of flaps which are joined to the upper and lower ends of the front and rear walls and are folded in overlying relationship into the plane of the end walls and secured to each other, the grain of the carton material running vertically on the walls and continuing across the end flaps, a first line of severance positioned parallel to the direction of grain to extend vertically on the front wall of the carton, supplemental lines of severance lying in a plane parallel to the side walls and extending from the ends of the first line of severance across the end walls a portion of the total width and being parallel to the direction of the grain, a hinge line extending vertically across the rear wall, a slanted line of severance extending from each of the ends of the hinge line to said line of severance on the adjacent end wall and a portion of said slanted line adjacent the junction with said line of severance of the end wall being cut completely through the end wall material to avoid the necessity of tearing across the grain.

2,835,595
PACKAGING MATERIAL
Peter P. Salatiello, New Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application January 26, 1954
Serial No. 406,341
14 Claims. (Cl. 99—174)

1. A sheet especially adapted for packaging use, comprising a softened regenerated cellulose pellicle coated with a vinylidene chloride-methyl acrylate polymeric having a plasticizer selected from the group consisting of 2-ethyl hexyl diphenyl phosphate, tri-n-butyl aconitate and butyl phthalyl butyl glycolate incorporated therein.

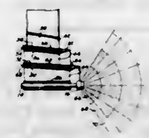
2,835,596
PACKAGING OF MARSHMALLOWS
Charles W. Kaufman, Glenview, Ill., assignor to Kraft Foods Company, Chicago, Ill., a corporation of Delaware
Application July 15, 1954, Serial No. 443,596
1 Claim. (Cl. 99—180)

A method for packaging marshmallows comprising the steps of placing a quantity of free flowing marshmallows in a bag made from a substantially gas impermeable and flexible material, said bag having a maximum volume substantially in excess of the volume of said quantity of marshmallows thereby allowing free flow of marshmallows in said bag, maintaining said bag distended by introducing sufficient gas into said bag to maintain the volume of sad bag substantially in excess of the volume of the marshmallows, and sealing the bag while so distended to thereby stabilize the volume of the bag and entrap sufficient gas to permit free flow of the marshmallows



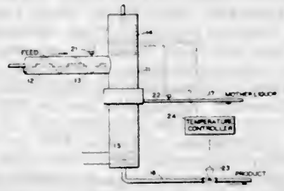
in said bag and to limit pressure on said marshmallows upon application of external forces to said bag whereby sticking of the marshmallows, one to another, is limited.

2,835,597
SPRAY DRYING PROCESS
Martin E. Barzelay, Syracuse, N. Y.
Application December 10, 1954, Serial No. 474,457
14 Claims. (Cl. 99—203)



1. The process of obtaining the solid constituent of liquid milk in the form of a dry powder, which process consists in concentrating the liquid milk by removing a large percentage of the water therefrom, converting within a drying chamber the concentrated milk into a fine divergent spray mist, generally having a pattern of revolution about an axis extending through the apex of the divergent spray mist, directing concentric annular streams of heated air into the drying chamber in a direction coaxial in respect to the axis of said spray pattern, and heating the air of the innermost annular stream of air to a higher temperature than the outermost streams of air, whereby to direct the higher temperature air on the portion of said spray mist where such mist is most dense and has the greatest moisture content, and collecting the dry powder deposited in the chamber.

2,835,598
SEPARATION BY CRYSTALLIZATION
Samuel J. Kolner, Phillips, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 30, 1954, Serial No. 478,688
10 Claims. (Cl. 99—205)



10. In a process for fractional crystallization wherein a crystal and mother liquor slurry is introduced into a purification zone and moved to a heated portion of said zone so that a first portion of resulting melt is caused to be displaced countercurrently through at least a portion of the crystal mass, a displaced liquid stream is removed from the purification zone and a second portion of the melt is removed from the purification zone as product,

the improvement which comprises increasing the rate of product removal when the temperature of the mother liquor removed from the purification zone reaches a predetermined maximum value and decreasing said rate when said temperature reaches a predetermined minimum value.

2,835,599
METHOD AND COMPOSITION FOR INHIBITING CORROSION

Rawson R. Snyder, Palos Verdes Estate, Calif., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application April 6, 1954
Serial No. 421,448
11 Claims. (Cl. 106—14)

1. A corrosion inhibiting composition for application to metal surfaces consisting essentially of 5–17% comminuted hydratable mineral cement selected from the group consisting of Portland cement and clay-mortar cement and 79–95% petrolatum base compound, by weight; said petrolatum base compound consisting essentially of 20–30% light petroleum solvent, 40–53% petrolatum, and 15–30% lubricating oil, all by volume.

2,835,600
COLORED CRAYONS FOR DECORATING CERAMIC WARE

Rosa Zgraggen, Dietikon, near Zurich, Switzerland

No Drawing. Application June 24, 1954
Serial No. 439,151
6 Claims. (Cl. 106—19)

2. A latent-colored crayon for decorating the ceramic surface of ceramic ware and being adherent in layer form to said surface upon application thereto prior to the firing of the ceramic ware, the definitive color of said layer being developed upon subsequent firing of said ware, said crayon being prepared by homogeneously admixing 73 parts by weight of lead nitrate, 33 parts by weight of antimony oxide, 12 parts by weight of aluminum oxide and 100 parts by weight of sodium chloride, forming a paste of 10 parts by weight of the resultant admixture and 3 parts by weight of calcium stannate with 1 part by weight of 10% dextrin, pressing the resultant paste into the form of a crayon and heating said crayon at a temperature between 400° and 1000° C., whereby upon directly applying said crayon to said ceramic surface a layer of pigment-forming material and carrier is deposited on said surface, which layer upon firing of the ceramic ware develops yellow colored pigment, whereby decoration of the surface of ceramic ware may be accomplished by marking with said crayon and without the necessity of using paint.

2,835,601
PRODUCTION OF CERAMIC WARE

Karl Turk, Baltimore, Md.; Union Trust Company of Maryland, Margaret McCauley Turk, Richard H. Turk, Herbert Turk, and Karl Turk, Jr., executors of said Karl Turk, deceased, assignors to Pemco Corporation, Baltimore, Md., a corporation of Maryland

No Drawing. Application June 24, 1953
Serial No. 363,925
21 Claims. (Cl. 106—48)

1. The method of producing ceramic ware provided with a decorative fired ceramic glaze comprising forming a mixture of finely divided pigment particles, finely divided inorganic flux, and an organic thermoplastic binder, said pigment particles and flux being substantially insoluble in said binder, said flux having a fluxing temperature lower than the maturing and firing temperature of said ceramic glaze, said thermoplastic binder being a solid at a temperature below 150° F. and having the property of being transformed into a viscous liquid on heating, converting said mixture into solid coarse composite conglomerate particles wherein a multiplicity of pigment particles are distributed through and held in said composite particles by the solid binder, mixing a small amount of the composite conglomerate particles with a ceramic glaze of a predetermined appearance while maintaining said conglomerate particles in a solid state, applying the resulting mixture to the ware and firing said mixture at the maturing temperature of the ceramic glaze, said composite conglomerate particles being converted from a solid to a liquid state at a temperature below the maturing temperature of the glaze to thereby release the finely divided pigment particles, the latter contrasting in appearance with the predetermined appearance of the fired glaze, said binder volatilizing with substantially no residue at a temperature below that at which the surface of the ceramic glaze begins to fuse over.

2,835,602
CEMENTITIOUS MIXES

Roland G. Benner, Summit, N. J.

No Drawing. Application November 22, 1957
Serial No. 698,027
4 Claims. (Cl. 106—76)

1. A free flowing composition of matter comprising aggregate, the individual particles of said aggregate carrying water-soluble silicate binder and a finely divided hydraulic cement carried by said binder and being present thereon as a substantially dry dust coat whereby excessive separation of said hydraulic cement from said aggregate will not occur in normal transportation and storage of said composition of matter when packaged as a premix, the ratio by weight of said cement to said silicate being 1 part of cement to 0.0015–0.30 part of silicate.

2,835,603
WATER-SOLUBLE THERMOPLASTIC CELLULOSE ETHER COMPOSITIONS

Richard W. Swinehart, Midland, Miles A. Weaver, Ithaca, and Albert B. Savage and Bernhard V. Moeller, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 25, 1953
Serial No. 394,484
6 Claims. (Cl. 106—189)

1. A thermoplastic composition consisting essentially of (*a*) from 2 to 90 percent by weight of a water-soluble alkyl hydroxyalkyl cellulose in which the hydroxy-alkyl group contains from 2 to 3 carbon atoms and the alkyl group contains from 1 to 3 carbon atoms and in which the O—H/C—H ratio is from 0.88 to 1.05 and the melting point is at least 10 centigrade degrees below the decomposition temperature, and (*b*) correspondingly from 98 to 10 percent of propylene glycol.

2,835,604
DYE STICK AND PROCESS OF MAKING IT

Lester Aronberg, Chicago, Ill.

No Drawing. Application September 28, 1953
Serial No. 382,829
16 Claims. (Cl. 106—243)

1. A method of preparing a coloring dye stick which, upon being moistened with water, can be used to color paper and other surfaces and which is adapted readily to be washed from fabrics with soap and water, which consists essentially in admixing a normally solid higher molecular weight fatty acid with a normally liquid aliphatic amine containing a minor proportion of a water-soluble non-toxic organic dye in solution or dispersion in said amine, whereby to form a normally solid soap of said amine and said fatty acid, maintaining said resulting composition in liquid form, and then solidifying said composition in the form of sticks.

10. A coloring dye stick, adapted upon moistening with water to be used to color paper and other surfaces and readily to be washed from fabrics with soap and water, consisting essentially of a normally solid water-soluble soap of an aliphatic amine with a higher molecular weight fatty acid, and a minor proportion of a water-soluble non-toxic organic dye substantially uniformly dispersed through said composition.

2,835,605
METHOD OF MAKING ELECTRODES FROM FLUID COKE BLENDS

Joseph F. Nelson, Westfield, and Brook I. Smith, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application November 29, 1954
Serial No. 471,881
2 Claims. (Cl. 106—284)

1. In a method of making a carbon electrode by baking coke particles with from 18 to 45 parts by weight of a carbonaceous binder at a temperature in the range of 1700° to 2400° F. the improvement which comprises utilizing as the coke charge to the baking a mixture of calcined fluid coke having a real density in the range of 1.83 to 1.93 and calcined delayed coke particles having a minimum real density of 2, the fluid coke particles being utilized in an amount of from 1 to 50 wt. percent based on the total coke charge and having been produced by contacting a heavy petroleum oil coking charge stock at a coking temperature with a body of fluidized coke particles in a reaction zone wherein the oil is converted to product vapors and carbonaceous solids are continuously deposited on the coke particles, removing product vapors from the coking zone, heating a portion of the coke particles from the coking zone in a heating zone to increase the temperature of said fluidized particles, returning a portion of the heated coke particles from the heating zone to the coking zone and withdrawing coke product particles.

2,835,606
METHOD OF PROTECTING THE SURFACES OF SOLUBLE SALT CRYSTALS

William A. Ladd, Roslyn Heights, N. Y., assignor to Columbian Carbon Company, New York, N. Y., a corporation of Delaware

No Drawing. Application June 9, 1955
Serial No. 514,398
8 Claims. (Cl. 117—6)

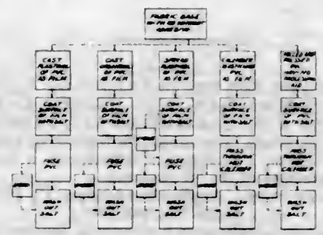
1. A method of protecting the surfaces of individual soluble salt crystals against the development of cracks and imperfections apparent on electron microscope examination, upon removing the crystal from a bath of liquid in which there is dissolved material the same as that constituting the crystal, said method comprising the following steps, immediately upon removing the crystal from the bath and while it still has liquid of the bath on its surface, washing the liquid solution from the crystal by submerging and agitating the crystal in a bath of a viscous film-forming solution in which the crystal is insoluble until the liquid of the bath has been removed from the crystal and the crystal surface to be preserved is uniformly wetted with the film-forming solution, removing the crystal from the bath of film-forming solution and slowly drying the adhering film-forming solution on the crystal surface.

2,835,607
POLYMERIC ARTICLE HAVING SUEDE-LIKE APPEARANCE AND PROCESS OF MAKING THE ARTICLE

Clyde D. Segner, Chagrin Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application August 4, 1954, Serial No. 447,879
16 Claims. (Cl. 117—10)

9. The method which comprises substantially fixedly embedding in the outer surface layers of a processable, nonaqueous polymeric composition without substantially penetrating the main body of said composition, the polymer of said composition being a polymer of a monomeric material in which each constituent contains a single carbon to carbon double bond and in which the predominant monomer is a haloethylene selected from the group consisting of vinyl chloride, vinyl bromide, vinyl fluoride, vinylidene chloride, vinylidene bromide, vinylidene fluoride and mixtures thereof, a relatively thin coating of a



powdered, non-hygroscopic, water soluble material, about 90% of the particles of said non-hygroscopic material passing through about a 65 mesh U. S. S. screen and a major amount of said particles being in the range of about −100 to −325 mesh U. S. S. screen, and treating said composition with water to remove said coating of said non-hygroscopic material from said layers to provide a polymeric composition having a plurality of minute cavities in its outer surface layers, exhibiting diffuse reflection and a sude-like appearance and feel, and being essentially vapor- and water-impermeable.

2,835,608
PROCESS OF PREPARING URANIUM-IMPREGNATED GRAPHITE BODY

Manuel A. Kanter, Park Forest, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 22, 1950
Serial No. 169,790
6 Claims. (Cl. 117—65)

1. A method of preparing a coherent body of graphite containing an oxide of uranium uniformly distributed in said body comprising impregnating a body of graphite having substantially uniform porosity and low density with an aqueous solution of uranyl nitrate hexahydrate, removing solvent water from said body under substantially normal atmospheric conditions of temperature and pressure, and thereafter heating said impregnated graphite body in the presence of inert gas at a temperature between 800 and 1400° C. to convert said uranyl nitrate hexahydrate to said oxide of uranium.

2,835,609
METHOD FOR COATING CELLULOSE ESTER FILMS

Clemens B. Starck, Gale F. Nadeau, and Carl F. Smith, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 24, 1954
Serial No. 439,142
5 Claims. (Cl. 117—73)

1. The method of manufacturing a laminated sheet at relatively high manufacturing speeds, which comprises providing a support of a thickness of about .005" which support consists of cellulose acetate butyrate containing triphenyl phosphate, applying to this support a coating consisting of gelatin 1.25–1.75%, cellulose nitrate .3–.5%, chromic chloride (based on the weight of gelatin) 1.5%,

contained in a solvent comprised of acetone 50–75%, and methyl alcohol 25–45%, setting up this coating by contact of the coated sheet with a heated surface at a temperature of about 50° F., further curing this coated sheet by passage through air heated from 160° F.–240° F., applying a second coating over this first coating, said second coating consisting of the solids polyvinyl alcohol, saponin and zirconium nitrate in an amount between .5 to 1.5%, deposited from a liquid environment consisting of about equal parts of methyl alcohol and water, subjecting this coated sheet to contact with a heated surface at a tempearture of 105° F., and winding up the finished laminated sheet.

2,835,610

PROCESS FOR THE PREPARATION OF A CONVERSION PRODUCT OF THE HIGHER CARBOHYDRATES AND CARBOHYDRATE ETHERS

Heinrich Dohmen, Deventer, Netherlands, assignor to N. V. Eldeka, The Hague, Netherlands, a limited-liability company of the Netherlands

No Drawing. Application January 17, 1955
Serial No. 482,400
Claims priority, application Netherlands January 19, 1954
4 Claims. (Cl. 127—36)

1. In a method for preparing a conversion product which is readily oxidizable by air to form a water-insoluble material, the step of reacting in an aqueous solution a member selected from the group consisting of potato starch, dextrin and water-soluble cellulose ether with (1) about 1 ml. of lower aliphatic monocarboxylic acid per gram of potato starch, (2) from about 0.5 to 5.0 ml. of a lower aliphatic monocarboxylic acid per gram of dextrin, and (3) from about 0.25 to 2.5 ml. of lower aliphatic monocarboxylic acid per gram of water-soluble cellulose ether.

2,835,611

PRODUCTION OF SUGARS FROM WOOD PRODUCTS

Francis H. Snyder, Newtown, Conn.

No Drawing. Application June 28, 1956
Serial No. 594,356
5 Claims. (Cl. 127—37)

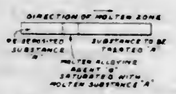
1. A process for the production of sugars from woody materials comprising impregnating the wood with a material of the class consisting of the hydroxides of the alkali and alkali-earth metals and ammonium and the weak acid salts thereof in an amount sufficient to obtain a pH of 3.1 to 3.4 in the subsequent reaction product, subjecting the drained wood, in the substantial absence of liquid, to the action of steam at pressures between 600 and 1250 p. s. i. for a time of 5 minutes to 1 minute and abruptly stopping the reaction.

2,835,612

SEMICONDUCTOR PURIFICATION PROCESS

William E. Taylor, Phoenix, Ariz., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application August 23, 1954, Serial No. 451,662
6 Claims. (Cl. 148—1.5)



1. A method of treating a substance to alter the concentrations of certain alloying impurities contained therein, which substance has a certain melting point and which impurities have melting points different from said substance and different from one another, which method includes the step of providing a solid charge of the substance to be treated, providing a liquid region of the substance in contact with said solid charge, with the substance and the alloying impurities existing in an equilibrium state between the liquid and the solid regions and with the impurities having different concentration ratios between said liquid and solid regions, providing a selected alloying agent which has the property of alloying with said impurities to alter the melting points thereof, introducing said alloying agent into said liquid region in sufficient quantity to alloy with said impurities and thereby alter their melting points, and causing said liquid region to sweep across the charge of the substance to be treated so that the substance is dissolved into the leading edge of the liquid region and is deposited from the trailing edge thereof with different concentrations of said impurities as compared with the original charge of the substance.

2,835,613

METHOD OF SURFACE-TREATING SEMI-CONDUCTORS

Pieter Willem Haayman, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application September 13, 1955
Serial No. 534,150
6 Claims. (Cl. 148—1.5)

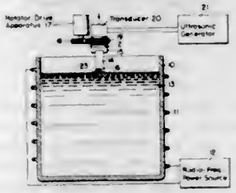
1. A method of treating a surface portion of the surface of a semi-conductive body, comprising bringing the semi-conductive body into contact with a quantity of a molten material containing a conductivity determining impurity and in which the material of the semi-conductive body is not soluble to any appreciable extent and for a time interval at which the conductivity of the contacted surface portion is altered due to diffusion of the impurity therein, and thereafter removing the molten material while in the molten state and before freezing thereof from the semi-conductive body.

2,835,614

METHOD OF MANUFACTURING CRYSTALLINE MATERIAL

Robert G. Pohl, Chicago, Ill., assignor to The Rauland Corporation, a corporation of Illinois

Application November 30, 1955, Serial No. 550,061
1 Claim. (Cl. 148—1.5)



The method of manufacturing ingot lengths of crystalline semi-conductor material having substantially uniform distribution, in the direction of ingot length, of a desired impurity, and without requiring controlled variation in the temperature pattern and rate of crystal growth, comprising: heating a mass of the semi-conductor material containing a minute quantity of the impurity, to liquefy at least a part of said mass; cooling a fractional portion only of said liquefied part to initiate crystallization of said material; progressively cooling additional increments of said liquefied part at the interface between the crystallized and liquefied material to progressively crystallize additional of said material by continuing accretion to the crystallized material; continuously cavitating the liquefied part of said mass in the region adjacent said interface by applying thereto cyclic ultrasonic pressure waves; and progressively increasing the intensity of such cavitation, during the continued crystallization of the material,

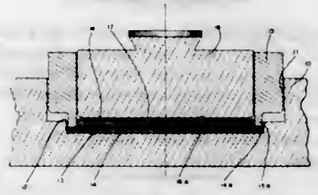
at such a rate as to maintain the impurity content of the crystallized material substantially constant throughout its length, without alteration of the temperature pattern and rate of crystal growth.

2,835,615

METHOD OF PRODUCING A SEMICONDUCTOR ALLOY JUNCTION

Bernhard A. Leinfelder, Jr., Newtonville, and Lawrence D. Favro, Cambridge, Mass., assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application January 23, 1956, Serial No. 560,755
3 Claims. (Cl. 148—1.5)



1. A method of making a semiconductor alloy junction which comprises the steps of positioning a piece of indium overlying a semiconductive N-type germanium body, heating the indium and germanium to cause the indium to go into solution with the adjacent portion of the germanium, during said heating providing aluminum at the interface between the indium and the germanium to combine with any oxygen thereat and form an aluminum-oxide precipitate which floats to the top of the indium, cooling the assembly of germanium, indium and aluminum to produce a semiconductive P-type indium-doped germanium region separated from the N-type germanium by a rectifying junction and to produce on the upper surface of the indium an aluminum oxide coating, and removing said aluminum oxide coating from the upper surface of the indium.

2,835,616

PROCEDURE FOR THE MANUFACTURE OF OXALATE COATINGS ON METALS

Werner Rausch and Franz Gonnert, Frankfurt am Main, Germany, assignors to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application March 17, 1954
Serial No. 416,962
7 Claims. (Cl. 148—6.14)

1. A method of producing oxalate coatings on stainless steels, which coatings greatly improve metal-drawing operations, which method comprises subjecting the surface of the metal to a series of treatments in the order: (1) an acid-pickling treatment to remove corrosion and scale, (2) an alkaline rinse in a solution containing from 5 to 25% of an alkali-metal hydroxide and from 0.02 to 1% of an activating ion selected from the class consisting of cyanide and thiocyanate, and (3) contacting the resulting acid-pickled, alkaline-rinsed metal surface with an oxalate coating solution until a uniform and tightly-adherent coating is formed thereon.

2,835,617

COMPOSITION AND METHOD FOR COATING METALLIC SURFACES

James I. Maurer, St. Clair Shores, Mich., assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application January 26, 1955
Serial No. 484,310
8 Claims. (Cl. 148—6.15)

1. An aqueous solution for coating a continuous hot-dipped, zinc-coated ferrous surface comprising as the essential coating-producing ingredients about 0.5% to 2.5% phosphate ion, a metal ion of the group consisting of the zinc ion and the manganese ion in a proportion at least sufficient to form dihydrogen phosphate with said phosphate ion, 0.01 to 0.4% nickel ion, at least one oxidizing ion from the group consisting of the nitrate ion and the nitrite ion in a concentration of about 0.2 to 1% nitrate ion and 0.0002% to 0.008% nitrite ion, and a silicon-containing ion in a proportion sufficient to produce at least 0.03% soluble silicon.

2,835,618

SOLUTION AND METHOD FOR PRODUCING HEAT RESISTANT ELECTRICAL INSULATION COATINGS ON FERROUS SURFACES

Heinz Keller, Karl Lampatzer, and Rudolf Brodt, Frankfurt am Main, Germany, assignors to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application March 9, 1955
Serial No. 493,308
Claims priority, application Germany March 9, 1954
6 Claims. (Cl. 148—6.16)

1. A composition of matter comprising a dispersion consisting essentially of 200–400 grams/liter of at least one thermally decomposable phosphate selected from the group consisting of ammonium phosphates, aliphatic substituted ammonium phosphates having less than 7 carbon atoms in any substituent group, monoesters, diesters and mixed mono and di-esters of phosphoric acid containing not more than 8 carbon atoms, 10–70 grams/liter of a heat resistant material selected from the group consisting of silicic acid, mica, hydrated aluminum silicate clays, magnesium oxide and aluminum oxide, 5–50 grams/liter of at least one thermally decomposable chromate selected from the group consisting of ammonium chromates and aliphatic substituted ammonium chromates having less than 7 carbon atoms in any substituent group, 12–26 grams/liter of an ion selected from the group consisting of the calcium ion and the barium ion, and a solvent selected from the group consisting of water, alcohol and mixtures thereof.

2,835,619

METHOD OF HEAT TREATING CAST IRON

Keith Dwight Millis, Rahway, Albert Paul Gagnebin, Fair Haven, and Norman Boden Pilling, Westfield, N. J., assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

Application January 8, 1954, Serial No. 402,886
Claims priority, application Great Britain March 22, 1947
4 Claims. (Cl. 148—21.7)



1. A method for producing a ferrous alloy having improved ductility in combination with substantial strength properties, which comprises subjecting a casting made of a ferrous alloy having a matrix containing combined carbon and having iron in the alpha form and said alloy containing carbon in excess of that required to form said matrix predominantly in the uncombined form and containing magnesium in at least a small but effective amount up to less than 0.5% to cause the occurrence of said uncombined carbon in the form of spheroidal particles dispersed in said matrix, the balance of said alloy being a gray cast iron composition, to a heat treatment for at least about one hour at an elevated temperature within about 75° F. below the alpha-gamma transformation temperature for said alloy to decompose said combined carbon and to provide an increase in the ductility of said alloy.

2,835,620

METHOD OF PREPARING VINYL RESIN GRANULES AND COVERING CONTAINING SAME

Francis John Woodford Bartlett, Pontypool, Mon, England, assignor to Francis John Woodford Bartlett, Pontypool, Mon, England, and William W. Prager, New York, N. Y., trustees

No Drawing. Application April 4, 1955
Serial No. 499,251
4 Claims. (Cl. 154—49)

1. A method for making a malleable granule having as the sole resinous component thereof a plasticized resin from the group consisting of polyvinyl chloride, copolymers of vinyl chloride and vinyl acetate and copolymers of vinyl chloride and vinylidene chloride and mixtures thereof, which comprises mixing a resin obtained by dispersion polymerization of the said group with a plasticizer, raising the viscosity of the said resin-plasticizer mixture by heating the same from 90° C. to 140° C., adding to the said mixture a quantity of a resin obtained by emulsion polymerization of the aforementioned group so that the entire mixture forms a thick paste, adding to the said pasty mixture, fillers so as to impart thereto a doughy texture and addding to the said doughy mixture more of the dispersion polymer so as to provide a material containing as its resinous constituents 45 to 90 percent polymer obtained by emulsion polymerization and 10 to 55 percent polymer obtained by dispersion polymerization of such consistency that it can be disintegrated into lumps or granules without recoagulation until subjected to pressure.

2. A covering material for floors, walls, and the like having a resinous layer and a backing layer, and in which the resinous layer is formed from malleable granules made in accordance with the method of claim 1.

2,835,621

COMPOSITE TAPE HAVING CONTROLLED BONDING AND RELEASE PROPERTIES

Philip N. Braun, Syracuse, N. Y., and Gerald I. Hermanson, Boston, Mass., assignors to Philip N. Braun, Inc., Syracuse, N. Y., a corporation of New York

Application October 17, 1955, Serial No. 540,813
6 Claims. (Cl. 154—53.5)



1. A laminated tape material comprising a cellulosic web of long fibers having wet strength obtained by regenerated viscose interlocking only the inter-fiber crossings of the web forming a sheet of low density and high porosity bonded on one surface by a thermoplastic film to a cellulosic web of high density and low porosity and having wet strength formed by incorporating melamine formaldehye resins and on the other surface to a thermoplastic film for bonding purposes to cloth and other fabrics.

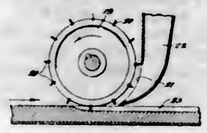
2,835,622

COMPOSITE MOLDED BOARD AND METHOD OF MANUFACTURE

James d'A. Clark, Longview, Wash., assignor to Changewood Corporation, Chicago, Ill., a corporation of Illinois

Continuation of abandoned application Serial No. 212,233, February 23, 1951. This application December 8, 1954, Serial No. 473,917
13 Claims. (Cl. 154—110)

1. The process of molding fibrous materials to produce composite boards which remain flat in varying ambient atmosphere comprising the steps of interfelting dry fibrous materials in combination with a thermosetting resinous binder in an intermediate stage of polymeric growth to form a mat, removing fibrous material from the surface portion of the mat in spaced parallel, lineal zones, superimposing a thin sheet of uniform thickness on the mat surface having the depleted lineal zones, and compressing the surfaced mat between heated, flat mold surfaces until



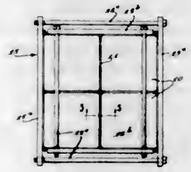
the thermosetting resinous material is advanced to a set stage and the thin sheet and fibrous material are consolidated into a rigid molded board of uniform thickness and in which the portions corresponding to the depleted lineal zones beneath the thin sheet laminated to the mat constitute lineal zones of lesser density than the remainder of the board.

2,835,623

METHOD OF FORMING A UNITARY PANEL OF GLASS BLOCKS

Harvard B. Vincent and Murray McDavitt, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio

Application August 24, 1955, Serial No. 530,298
4 Claims. (Cl. 154—118)



1. The method of forming a unitary panel of a plurality of glass blocks comprising the steps of coating the edges of each block with a layer of a primary resinous material having the properties of good adhesion to glass and a softening temperature substantially below the annealing point of the glass block, then peripherally wrapping the edges of each block with a tape formed of glass fibers impregnated with a second resinous material bondable with said primary resinous material, assembling said tape wrapped blocks in a panel, and simultaneously heating and pressing said assembled blocks together to unite said resinous materials.

2,835,624

METHOD OF ADHERING BUTYL RUBBER TO FABRIC

Edward Cousins, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application October 14, 1954
Serial No. 462,394
16 Claims. (Cl. 154—136)

1. The method of adhering a synthetic rubber formed by polymerizing a major proportion of a monoolefin with a minor proportion of a multiolefin to a fibrous reinforcing structure which comprises applying to the said fibrous reinforcing structure a portion of the synthetic rubber, an organic isocyanate and an organic nitrogen-bearing compound from the group consisting of aryl dinitroso compounds and aryl dioximes, associating the treated fibrous structure with a vulcanizable mass of said synthetic rubber and subjecting the composite mass to curing conditions.

15. A vulcanized rubber article comprising a synthetic rubber formed by polymerizing a major proportion of a monoolefin with a minor proportion of a multiolefin, a regenerated cellulose fibre reinforcement incorporated in said rubber and a dinitrosobenzene-organic isocyanate, said synthetic rubber induced bond between said synthetic rubber and said fibre reinforcement.

2,835,625

ISOPROPOXYCARBONYL DIMETHYLDITHIOCARBAMATE

Chien-Pen Lo and W E Craig, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 19, 1956
Serial No. 560,070
3 Claims. (Cl. 167—22)

1. As a new chemical compound, isopropoxycarbonyl dimethyldithiocarbamate.

2. A process for controlling fungi on living plants which comprises supplying to a fungus-infested environment thereof isopropoxycarbonyl dimethyldithiocarbamate.

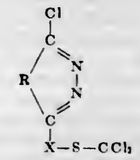
2,835,626

PROCESS FOR THE PRODUCTION OF NEW PYRIDAZINE DERIVATIVES AND THEIR USE AS FUNGICIDES

Alfred Margot and Hans Gysin, Basel, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application June 11, 1956
Serial No. 590,348
Claims priority, application Switzerland June 17, 1955
6 Claims. (Cl. 167—33)

1. A pyridazine derivative corresponding to the formula:



wherein R represents a member selected from the group consisting of a vinylene, o-phenylene, chloro-o-phenylene and nitro-o-phenylene radical, and X represents a member selected from the group consisting of oxygen and sulphur.

3. A fungicidal composition comprising as active ingredient a pyridazine derivative as claimed in claim 1, in an amount and concentration sufficient to inhibit the growth of fungi, and a fungicide adjuvant as a carrier.

2,835,627

STABLE VITAMIN B_{12} SOLUTIONS

James W. Conine and Donald A. Zack, Indianapolis, Ind., assignors to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application July 5, 1957
Serial No. 669,933
6 Claims. (Cl. 167—81)

1. A composition comprising an aqueous multivitamin preparation containing vitamin B_{12} and on a weight/volume basis about 0.005 to about 0.5 percent of a compound of the group consisting of an α-hydroxynitrile and its aliphatic and monocyclic aromatic O-acyl derivatives, said α-hydroxynitrile being represented by the following formula:



in which R represents a member of the group consisting of lower alkyl and monocyclic aryl radicals.

2,835,628

MEANS FOR TREATING TEETH

Jacob A. Saffir, Los Angeles, Calif.

Application April 1, 1957, Serial No. 649,957
3 Claims. (Cl. 167—84)



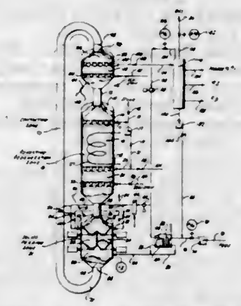
1. A device for sealing a medicament on a tooth surface so that it cannot be interfered with by saliva, air, food, or other substances common to the oral cavity comprising an easily removable inconspicuous laminated patch of tooth size, said patch consisting of an outer layer in the form of a thin sheath of transparent, water insoluble cellulosic film and a transparent inner layer in the form of a pressure sensitive adhesive containing a fluoride salt, in the amount of 1/10 of 1% to 18% by weight.

2,835,629

CONTACTING PROCESS AND APPARATUS

Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application April 21, 1952, Serial No. 283,464
20 Claims. (Cl. 196—28)



11. A process for the continuous catalytic desulfurization of hydrocarbons in the presence of a moving bed of solid granular hydrocarbon desulfurization catalyst which comprises establishing a vertically disposed elongated hydrocarbon desulfurization zone communicating at its lower inlet opening with an induction zone and at its upper outlet opening with an effluent disengaging zone disposed at a relatively high point, introducing into said induction zone a stream of said desulfurization catalyst to form and maintain therein a downwardly moving dense accumulation of said catalyst which submerges said lower inlet opening of said desulfurization zone, introducing the hydrocarbon to be desulfurized into said induction zone whereby it flows downwardly through at least part of said accumulation and into said inlet opening and upwardly through said desulfurization zone concurrently

with a continuous compact fluid-permeable moving mass of said catalyst through said desulfurization zone and into said effluent disengaging zone, maintaining the catalyst and the hydrocarbon within said desulfurization zone at temperatures between about 650° F. and about 900° F. and at pressures between about 500 p. s. i. g. and about 2500 p. s. i. g. to effect a substantial degree of hydrocarbon desulfurization forming a desulfurized hydrocarbon effluent and a spent catalyst therein and simultaneously delivering said spent catalyst to said relatively high point, applying a catalyst solids flow restricting force against the dense mass of spent catalyst discharging from said upper outlet opening of said desulfurization zone without substantially restricting the flow of said hydrocarbon effluent to maintain said catalyst at all points within said desulfurization zone as a dense moving mass having a bulk density substantially equal to the catalyst solids' static bulk density, maintaining a rate of said hydrocarbon flow through said desulfurization zone to establish and maintain a pressure gradient throughout said zone at least sufficient to exceed dp/dl given by:

$$\frac{dp}{dl} = \rho_s \cos\theta$$

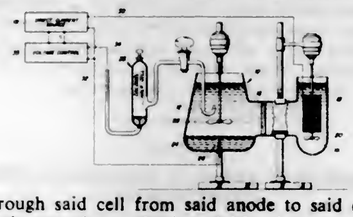
wherein dp/dl is the pressure gradient in pounds per square foot per foot of desulfurization zone length, ρ_s is the static at-rest bulk density of the compact solids in pounds per cubic foot of occupied volume, and θ is the angle of inclination of the desulfurization zone struck downwardly from a vertical upward reference axis, disengaging the desulfurized hydrocarbon effluent from the dense moving mass of spent catalyst within said effluent disengaging zone, removing said effluent from said disengaging zone, removing the spent catalyst from said disengaging zone, and controlling the residence time of said catalyst in said desulfurization zone by regulating the rate of removal of spent catalyst solids from the dense mass of spent catalyst adjacent said upper outlet opening independently of the control of the flow of said hydrocarbon through said desulfurization zone.

2,835,630
TREATMENT OF METALS PRIOR TO ELECTRO-PLATING
Roy Alfred Ulfketel Huddle and Oliver Flint, Strand, London, England, assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application May 6, 1952
Serial No. 286,444
4 Claims. (Cl. 204—1.5)

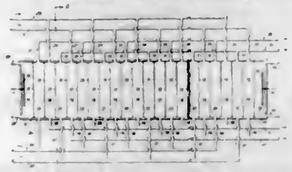
1. A method of treating the surface of a metal of the group consisting of uranium, zirconium, titanium, tantalum, niobium, molybdenum, tungsten and vanadium which consists in the steps of subjecting the surface to shot blasting using ferrous metal shot, coating the shot-blasted surface with copper, and electrodepositing upon the copper a protective metal.

2,835,631
ELECTRO-CHEMICAL PREPARATION OF NITROSOGUANIDINE
Harold F. Metcalf and Gerald C. Whitnack, China Lake, Calif.
Application March 21, 1952, Serial No. 277,888
1 Claim. (Cl. 204—74)
(Granted under Title 35, U. S. Code (1952), sec. 266)

In a process for the preparation of nitrosoguanidine in an electrolytic cell having a mercury cathode connected to a source of negative current and positioned in a cathode compartment which is separated by a porous member from an anode compartment containing a platinum anode connected to a source of positive current, the steps comprising adding a 2 molar solution of ammonium sulfate to the anode and cathode compartments of said cell, placing a calomel half cell junction in said solution in said cathode compartment, dissolving nitroguanidine in said solution in said cathode compartment, agitating the solutions in said compartments, passing an electric current through said cell from said anode to said cathode, maintaining a voltage of minus 1.05 volts to minus 0.95 volts on said cathode with reference to said calomel cell, and recovering the resulting nitrosoguanidine thereby produced.

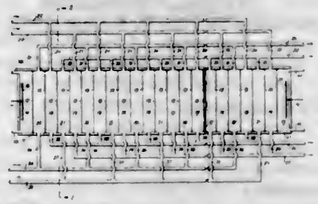


2,835,632
METHOD OF PRODUCING CHEMICAL COMPOUNDS BY ION TRANSFER
Paul Kollsman, New York, N. Y.
Application May 2, 1955, Serial No. 505,355
3 Claims. (Cl. 204—180)



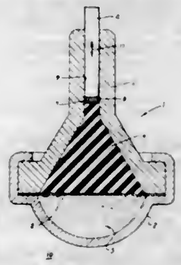
1. The process of forming two chemically dissimilar ionic product compounds in solvated electrically conductive form by selective transfer into other fluid volumes of ionic constituents of two chemically dissimilar source compounds in ionic solution form, the method comprising, disposing between an anode chamber and a cathode chamber a plurality of volumes of electrodialytic liquid in this order: a first source compound in ionic solution form, a liquid capable of maintaining a first product compound to be formed in solvated and electrically conductive form, a second source compound in ionic solution form, a liquid capable of maintaining a second product compound to be formed in solvated and electrically conductive form, and a further volume of said first source compound in ionic solution form, said first source compound being so selected as to comprise an ionic constituent of one polarity of said first product compound to be formed and an ionic constituent of the opposite polarity of said second product compound to be formed, said second source compound being so selected as to comprise an ionic constituent of said opposite polarity of said first product compound to be formed and an ionic constituent of said one polarity of said second product compound to be formed; establishing controlled ionic communication between said volumes by permselective barriers arranged in alternating order, each second barrier being permeable to ions of one polarity and passage resistant to ions of the opposite polarity, the remaining barriers being permeable to ions of said opposite polarity; applying an electrical direct potential to said anode and said cathode to drive the ionic constituents of said two source compounds through said barriers into said solution volumes to form two distinct product compounds, the first product compound comprising a constituent of one polarity of one source compound and a constituent of the opposite polarity of the other source compound, the other product compound comprising a constituent of said opposite polarity of said one source compound and a constituent of said one polarity of said other source compound.

2,835,633
APPARATUS FOR PRODUCING CHEMICAL COMPOUNDS BY ION TRANSFER
Paul Kollsman, New York, N. Y.
Application March 26, 1951, Serial No. 217,637
8 Claims. (Cl. 204—301)



1. An apparatus for producing ionic compounds in solution by ion transfer under the influence of an electric current, particularly for producing a product compound from source compounds of a different chemical composition than the product compound, the apparatus comprising means forming a plurality of liquid chambers, said chambers including terminal electrode chambers, and intermediate chambers lying between said terminal chambers; electrodes in said terminal chambers; liquid separating ion-passage-discriminating membranes between said chambers for establishing selectively restricted paths for ions from chamber to chamber, alternating membranes being permeable to ions of one sign, the remaining membranes lying between said alternating membranes being permeable to ions of the opposite sign and passage resistant to ions of the one sign; means for supplying liquid to said intermediate chambers, said means including four ducts, the first duct being manifolded to supply a certain chamber and every fourth chamber counting from, but not including, said certain chamber, the second duct being manifolded to supply the chamber next to said certain chamber and every fourth chamber counting from, but not including, said next chamber, the third duct being manifolded to supply the chamber adjacent said next chamber and every fourth chamber counting from, but not including said adjacent chamber, the fourth duct being manifolded to the remaining intermediate chambers; and means for withdrawing liquid from said chambers after passage therethrough.

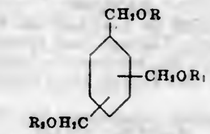
2,835,634
POLYETHYLENE EXPANSION MATERIAL
Sergius Vernet and George Asakawa, Yellow Springs, Ohio, assignors, by direct and mesne assignments, to Antioch College, Yellow Springs, Ohio, a corporation of Ohio
Application May 18, 1956, Serial No. 585,892
1 Claim. (Cl. 252—1)



A thermally expansible pellet consisting of discrete heat-conducting particles suspended in polyethylene expansion material; said polyethylene expansion material being a solid below its expansion temperature range and being transformed to a gel in its expansion temperature range, whereby to hold the heat-conducting particles in suspension at the expansion temperatures without need of a separate binder material.

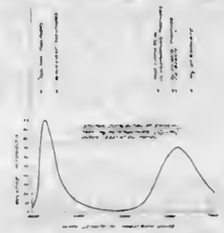
2,835,635
CORROSION INHIBITING COMPOSITIONS
Raymond L. Mayhew, Phillipsburg, N. J., and Charles F. Jelinek, Delmar, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application November 1, 1956
Serial No. 619,677
6 Claims. (Cl. 252—57)

1. A corrosion inhibiting composition comprising a major proportion of a liquid hydrocarbon having a boiling point of 50° to 500° C. and a corrosion inhibiting amount of at least one ester of tris-hydroxymethylbenzene having the following general formula:



wherein R, R_1 and R_2 are selected from the group consisting of hydrogen and acyl groups containing from 5 to 40 carbon atoms, and wherein at least one of the R's is an acyl group.

2,835,636
CERIUM-ACTIVATED MAGNESIUM METAPHOSPHATE PHOSPHOR, WITH AND WITHOUT MANGANESE
Henry W. Rimbach, Bloomfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 7, 1954, Serial No. 402,637
11 Claims. (Cl. 252—301.4)



1. A phosphor for fluorescent lamps consisting of the fired reaction product of following constituents in about the stated proportions by weight: magnesium carbonate, 202 parts; di-ammonium acid phosphate, from 745 to 871 parts; manganese pyrophosphate, from 0 to 110 parts; and cerium phosphate from 93 to 0 parts, and in which only one of the manganese and cerium compounds is zero, said phosphor having been fired in an oxygen-containing atmosphere at a temperature in the range of 700° C. to 800° C.

2,835,637
PRODUCTION OF ALUMINA/SILICA CATALYSTS
Dennis Albert Dowden, Leslie Victor Johnson, and George Clarkson Vincent, Norton-on-Tees, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application November 22, 1954
Serial No. 470,546
Claims priority, application Great Britain December 18, 1953
1 Claim. (Cl. 252—432)

A process for the production of a skeletal glass catalyst consisting essentially of silica and alumina which

comprises treating a glass substantially free from alkali metals and having the composition:

	Percent
Alumina	10–35
Silica	30–60
Magnesia	5–20
Boric oxide	12–22

by subjecting said glass to a temperature within the range of 650° to 950° C. for a period of at least 24 hours to cause a separation of phases, at least one of said phases being soluble in an extraction medium consisting essentially of a boiling aqueous solution of a strong mineral acid, and extracting with said extraction medium at least part of said soluble phase in an amount up to about 40% of the total weight of said glass, whereby said skeletal glass is obtained.

2,835,638

MANUFACTURE OF CATALYTIC MATERIALS

Herman S. Bloch, Chicago, and George L. Hervert, Downers Grove, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application July 27, 1953
Serial No. 370,621
16 Claims. (Cl. 252—442)

3. A method of preparing a catalyst which comprises reacting aluminum with liquid water in the presence of a mercury promoter in the amount of from about 0.05% to about 50% by weight of said aluminum and an acidic compound selected from the group consisting of inorganic acids, polyvalent organic acids and acid-acting salts in amount so that the amount of monovalent acid anion is below about 0.13 equivalent of acid anion per equivalent of aluminum, the amount of bivalent inorganic acid anion is below about 0.50, the amount of bivalent organic acid anion is below about 1.0 and the amount of trivalent acid anion is below about 1.0, continuing said reaction until an alumina gel is formed, separately recovering alumina therefrom, commingling sufficient halogen acid therewith to introduce halogen in an amount of from about 0.1% to about 8% by weight of said alumina on a dry basis, and combining platinum therewith in an amount of from about 0.01% to about 1% by weight of said alumina on a dry basis.

2,835,639

AQUEOUS EMULSIONS FOR THE PREPARATION OF WATER REPELLENT DRESSINGS AND PROCESS OF TREATING FIBROUS MATERIALS THEREWITH

Gustav Widmer, Basel, Willy Fatzer, Bottmingen, Wilhelm Geigy, Binningen, Wilhelm Kraus, Basel, and Armin Hiestand, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application June 28, 1954
Serial No. 439,894
Claims priority, application Switzerland August 11, 1949
14 Claims. (Cl. 260—21)

1. A concentrated aqueous emulsion of the oil-in-water type suitable for the preparation of an aqueous impregnating bath, which emulsion contains in the oily phase (*a*) a water-insoluble methylol compound of melamine in which the oxygen atom of at least one methylol group is linked to a non-aromatic acid radical having more than 8 carbon atoms and (*b*) a water repellent wax selected from the group consisting of paraffin wax and beeswax, said emulsion containing in the aqueous phase (*c*) an emulsifying agent consisting of a water soluble, synthetic, high molecular substance forming highly viscous solutions, the constituents of said emulsion being present in the relative proportions by weight between the ranges: aqueous phase to oily phase 55:45 to 80:20, component (*a*) to component (*b*) 5:1 to 1:19 and component (*c*) 0.5 to 6 percent of the total weight of the emulsion.

2,835,640

RESINOUS COMPOUND FOR POTTING ELECTRONIC COMPONENTS, ETC.

Edward Rolle, San Diego, Calif.

No Drawing. Application June 5, 1952
Serial No. 292,015
8 Claims. (Cl. 260—22)
(Granted under Title 35, U. S. Code (1952), sec. 266)

5. A plastic composition of matter comprising a polymerized mixture of a predominant proportion of from about 85 to 95 percent by weight of an unsaturated polyester formed by reacting polybasic acids and anhydrides thereof selected from the group consisting of succinic, phthalic, adipic, sebacic and maleic acids and anhydrides thereof with at least one polyhydric alcohol from the group consisting of ethylene glycol, diethylene glycol, triethylene glycol, glycerol, sorbitol and other higher glycols, and monomeric styrene; and minor proportions of less than about 3 percent by weight of benzyl alcohol, less than about 2 percent by weight of beta naphthol, less than about 3 percent by weight of a partially hydrogenated mixture of polyphenyls containing a predominant amount of hydrogenated isomeric terphenyls, less than about 3 percent by weight of a monobasic acid selected from the group consisting of oleic acid and dodecanoic acid, and less than about 4 percent by weight of at least one organic peroxide selected from the group consisting of benzoyl peroxide, acetyl peroxide, ditertiary butyl peroxide and methyl ethyl ketone peroxide.

2,835,641

AQUEOUS EMULSIONS FOR THE PREPARATION OF WATER REPELLENT DRESSINGS AND PROCESS OF TREATING FIBROUS MATERIALS THEREWITH

Gustav Widmer, Basel, Willy Fatzer, Bottmingen, Wilhelm Geigy, Binningen, Wilhelm Kraus, Basel, and Armin Hiestand, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application June 28, 1954
Serial No. 439,895
Claims priority, application Switzerland August 11, 1949
8 Claims. (Cl. 260—28)

1. A concentrated aqueous emulsion of the oil-in-water type suitable for the preparation of an aqueous impregnating bath, which emulsion contains in the oily phase (*a*) a water-insoluble methylol compound of melamine in which the oxygen atom of at least one methylol group is etherified with an aliphatic saturated alcohol containing more than 8 carbon atoms and (*b*) a water repellent wax selected from the group consisting of paraffin wax and beeswax, said emulsion containing in the aqueous phase (*c*) an emulsifying agent consisting of a water soluble, synthetic, high molecular substance forming highly viscous solutions, the constituents of said emulsion being present in the relative proportions by weight between the ranges: aqueous phase to oily phase 55:45 to 80:20, component (*a*) to component (*b*) 5:1 to 1:19 and component (*c*) 0.5 to 6 percent of the total weight of the emulsion.

2,835,642

POLYBUTADIENE COATED MICA FLAKES, PROCESS OF PREPARATION, AND CURED COMPOSITION

Moyer M. Safford, Schenectady, and Elizabeth Joy Smith, Cohoes, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application March 27, 1956
Serial No. 574,337
6 Claims. (Cl. 260—41.5)

1. A curable composition comprising comminuted mica flakes impregnated with 0.5–20% polybutadiene containtaining 0.1–10% di-α-cumyl peroxide, said polybutadiene containing at least 30% 1,2-polybutadiene.

2,835,643

AFTER TREATMENT OF A POLYVINYL CHLORIDE POLYMERIZATE CONTAINING HYDROPHILIC COLLOID

Hans Bauer, Joseph Heckmaier, and Herbert Reinecke, Burghausen, Upper Bavaria, Germany, assignors to Wacker-Chemie G. m. b. H., Munich, Germany, a corporation of Germany

No Drawing. Application July 1, 1953
Serial No. 365,552
Claims priority, application Germany September 8, 1952
10 Claims. (Cl. 260—45.5)

1. A process for the after-treatment of an aqueous dispersion of a material of the group consisting of polyvinyl chloride and copolymers of vinyl chloride with another comonomer prepared by polymerizing the appropriate monomers in a suspension in water containing a water-insoluble catalyst and hydrophilic colloids containing hydroxyl groups, which comprises treating said aqueous dispersion with a member selected from the group consisting of acetalizing agents and ketalizing agents and a member selected from the group consisting of perchloric acid and persulfuric acid and salts of such acids at a pH of about 1.

2,835,644

POLYISOBUTYLENE-PETROLEUM RESIN COMPOSITIONS

Joseph F. Nelson, Westfield, and John F. McKay, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 8, 1954
Serial No. 435,354
3 Claims. (Cl. 260—45.5)

1. A composition of matter having excellent film-forming characteristics comprising a mixture of 71.5 wt. percent to 87 wt. percent of polyisobutylene having a molecular weight of 100,000 to 250,000 Staudinger and 28.5 wt. percent to 13 wt. percent of a hydrogenated petroleum resin, said resin being prepared by catalytically polymerizing a feed stock boiling between 20° and 280° C. and having the following composition:

	Percent
Diolefins	10–25
Aromatic hydrocarbons	20–50
Olefins	66–24
Paraffins	4– 1

and hydrogenating the resin formed.

2,835,645

HIGH STYRENE-LOW DIENE RESINS OF HIGH HEAT SOFTENING POINT

James D. D'Ianni, Akron, and Harold S. Sell, Cuyahoga Falls, Ohio, assignors to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application January 5, 1955, Serial No. 479,928
6 Claims. (Cl. 260—45.5)

1. A tough, readily moldable thermoplastic resin having a heat distortion point of at least 170° F. comprising the polymerizate resulting from the aqueous emulsion polymerization of a mixture consisting of styrene monomer and butadiene monomer in the presence of a latex of polystyrene resulting from the aqueous emulsion polymerization of at least 40 parts by weight and not more than 90% by weight of the total styrene monomer used in preparing said resin, the total butadiene monomer and styrene monomer used ranging in proportion of styrene monomer to butadiene monomer of from 70/30 to 95/5.

2,835,646

THERMOPLASTIC IMPACT-RESISTANT COMPOSITION OF A STYRENE/ACRYLONITRILE RESIN AND A RUBBERY ETHYL ACRYLATE POLYMER

Harold S. Sell, Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 8, 1955
Serial No. 551,733
5 Claims. (Cl. 260—45.5)

1. A thermoplastic impact-resistant composition comprising a blend of 10 to 90 parts of a rubbery ethyl acrylate polymer resulting from the polymerization of a mixture containing at least 95% by weight of ethyl acrylate and up to 5% by weight of 2-chloroethyl vinyl ether, and 90 to 10 parts of a copolymer resulting from the polymerization of a mixture containing 50 to 85% by weight of styrene and from 50 to 15% by weight of acrylonitrile, said parts being by weight based on the sum of the weights of the acrylate polymer and the styrene/acrylonitrile copolymer.

2,835,647

STABILIZATION OF ACRYLIC NITRILE POLYMER COMPOSITIONS TO HEAT

Roger M. Schulken, Jr., and Ralph E. Boy, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 9, 1953
Serial No. 367,109
1 Claim. (Cl. 260—45.9)

In a method of molding at an elevated temperature a normally solid and rigid thermoplastic polymeric composition wherein its solid and rigid character results essentially from the presence therein of a polymeric material selected from the group consisting of (1) polyacrylonitrile, (2) polymethacrylonitrile, (3) a copolymer of acrylonitrile with α-methylstyrene, and (4) a copolymer of methacrylonitrile with ethyl acrylate, the improvement which consists of performing said molding at a temperature of from about 150° to about 250° C. upon said thermoplastic polymeric composition which contains from about 0.2 to about 1.5% by weight of a heat stabilizer selected from the group consisting of pyridine phosphate, β-naphthylamine sulfate and β-naphthylamine phosphate, whereby the molded solid and rigid polymeric composition produced as a result of said improved method is clear, free from haze and substantially free from discoloration.

2,835,648

LINEAR POLYESTER COMPOSITIONS CONTAINING A GENTISIC ACID DERIVATIVE AS A HEAT STABILIZER

Gerald R. Lappin and Louis D. Moore, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application September 21, 1956
Serial No. 611,371
4 Claims. (Cl. 260—45.9)

1. A linear polyester composition comprising a linear polyester stabilized against degradation by heat by a content of from 0.1 to 10 parts by weight of a gentisic acid derivative selected from the group consisting of gentishydrazide and gentisanilide per 100 parts by weight of polyester.

2,835,649

STABILIZATION OF AN UNSATURATED POLYESTER WITH A MIXTURE COMPRISING RESORCINOL MONOBENZOATE AND A MONO OR DIHYDROXY BENZOPHENONE

Albright M. Nicholson, Warrensville Heights, and Stanley B. Elliott, Bedford, Ohio, assignors to Ferro Chemical Corporation, Bedford, Ohio, a corporation of Ohio

No Drawing. Application March 15, 1957
Serial No. 646,221
5 Claims. (Cl. 260—45.85)

1. A composition of matter comprising an unsaturated polyester of a glycol and dicarboxylic acid at least a part of which is selected from the group consisting of maleic, fumaric and endomethylene tetrahydrophthalic acids and from about 0.01% to about 10% of an agent for inhibiting degradation of the polyester by ultra-violet light said agent comprising from about 10% to about 90% resorcinol monobenzoate and from about 90% to about 10% of a material selected from the group consisting of 2,4-dihydroxybenzophenone, 2-hydroxy-4-methoxybenzophenone, 2,2'-dihydroxybenzophenone and 4,4'-dihydroxybenzophenone.

2,835,650

HYDROCARBON RESINS ODOR STABILIZED WITH AN ALKYL-ALKOXY MONOPHENOL

Joseph F. Nelson, Westfield, and John F. McKay, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application July 29, 1954
Serial No. 446,668
3 Claims. (Cl. 260—45.95)

1. An odor stable composition comprising an unsaturated hydrocarbon resin prepared by the polymerization of a steam-cracked petroleum fraction boiling in the range between 20° and 280° C. in the presence of a Friedel-Crafts catalyst, and an odor stabilizing amount of 0.05 to 1.0 weight percent of 2-tertiary-butyl-4-methoxy monophenol, based on the resin.

2,835,651

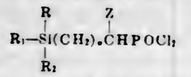
ORGANOSILICON COMPOSITIONS CONTAINING PHOSPHORUS AND THEIR PREPARATION

Alfred R. Gilbert and Frank M. Precopio, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application February 19, 1954
Serial No. 411,566
18 Claims. (Cl. 260—46.5)

1. The process of forming organosilicon compositions containing a phosphonyl dichloride radical attached to silicon through aliphatic carbon, which process comprises bringing into contact a mixture of ingredients comprising (1) phosphorus trichloride, (2) oxygen and (3) an organosilicon compound selected from the class consisting of (A) an organosilane containing at least one alkyl radical attached to silicon and a maximum of one member selected from the class consisting of hydrogen, halogen, alkoxy radicals, and aryloxy radicals attached to silicon, the remaining valences of silicon being satisfied by members selected from the class consisting of alkyl, aryl, alkaryl, aralkyl, and halogenated aryl radicals, and (B) an organopolysiloxane containing at least one alkyl radical attached to silicon, the remaining valences of silicon, other than the valences which make up the siloxane unit, being satisfied by members selected from the class consisting of alkyl, aryl, alkaryl, aralkyl, and halogenated aryl radicals.

11. A composition of matter comprising an organosilicon compound selected from the class consisting of (A) an organosilane having the general formula



where R and R_1 are members selected from the class consisting of alkyl, aryl, aralkyl, alkaryl, and halogenated aryl radicals, R_2 is a member selected from the class consisting of hydrogen, alkyl, aryl, alkaryl, aralkyl, alkoxy, aryloxy, radicals, and halogen, Z is a member selected from the class consisting of hydrogen and alkyl radicals, and n is a whole number equal to from 0 to 10, inclusive, and (B) an organopolysiloxane containing at least one phosphonyl dichloride radical attached to silicon through aliphatic carbon with the remaining valences of silicon, other than the valences which make up the siloxane chain, being satisfied by members selected from the class consisting of alkyl, aryl, alkaryl, aralkyl, and halogenated aryl radicals.

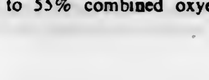
2,835,652

ORGANIC PHOSPHORUS CONTAINING ISOCYANATES AND POLYMERS

Alfred C. Haven, Jr., Hancocks Bridge, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 16, 1954
Serial No. 423,838
13 Claims. (Cl. 260—47)

1. A compound having the formula



in which R is an organic radical from the class consisting of hydrocarbo, halohydrocarbo, nitrohydrocarbo and hydrocarboxy radicals, n is an integer from 1 to 2, and x is an integer from 0 to 1.

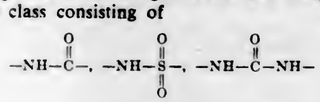
2,835,653

POLYOXYETHYLENE SUBSTITUTED POLYMERS AND THEIR PREPARATION

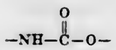
Howard C. Haas, Arlington, and Saul G. Cohen, Lexington, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

No Drawing. Application March 19, 1953
Serial No. 343,513
7 Claims. (Cl. 260—72)

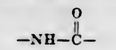
1. A self-supported structure composed of a solid, water-insoluble, N-polyoxyethylene substituted synthetic linear polymer comprising recurring functional groups containing functional nitrogen atoms and being selected from the class consisting of



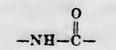
and



groups, wherein the hydrogen atoms of from 5 to 60% of said functional groups are replaced by polyoxyethylene branches, and when said polymer comprises



functional groups, the hydrogen atoms of a portion of the remaining



groups may be replaced by members of the group consisting of alkyl and alkoxymethyl groups, said polyoxyethylene branches containing an average of from 2 to 18 $-C_2H_4O-$ groups, said functional groups being joined together by divalent groups selected from the class consisting of divalent hydrocarbon groups and divalent hydrocarbon groups containing hetero atoms, said polymer containing about 5 to 55% combined oxyethylene by weight.

2,835,654

PROCESS FOR MAKING ELASTOMERS FROM POLYMERIC BIS-CHLOROFORMATES, PHOSGENE AND DIAMINES

Albert S. Carter, New Castle, and Maurice L. Ernsberger, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 11, 1954
Serial No. 461,657
11 Claims. (Cl. 260—75)

1. A process of making curable elastomeric condensation products which comprises agitating together in aqueous medium and in the presence of an acid acceptor a bis-chloroformate having a molecular weight of at least 875, a primary diamine, and phosgene, the molar ratio of the bis-chloroformate to phosgene being from 1:0.15 to 1:20 and the ratio of the moles of diamine to the sum of the moles of bis-chloroformate and phosgene being from 0.5:1 to 2.0:1.

2,835,655

PRODUCTION OF WATER-SOLUBLE AROMATIC RESIN SULFONATES BY SULFONATING WITH SO_3 IN LIQUID SO_2

William C. Bauman, Midland, and Harold H. Roth, Bay City, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 19, 1953
Serial No. 375,283
8 Claims. (Cl. 260—78.5)

1. A method for the production of water-soluble resin sulfonates which comprises admixing, with liquid sulfur dioxide, a solid thermoplastic polymer containing in chemically combined form a total of at least 60 percent by weight of at least one mono-alkenyl aromatic compound having from 2 to 3 carbon atoms in its alkenyl group, which alkenyl group comprises a vinylidene radical and is attached directly to a carbon atom of the aromatic nucleus, and containing in the polymer molecule radicals, selected from the class consisting of carbonyl, carbonyloxy and nitrile radicals, that are effective in solubilizing the polymer with respect to liquid sulfur dioxide as a medium, which polymer containing the solubilizing radicals is capable of being dispersed by stirring in 19 times its weight of liquid sulfur dioxide to form a true to colloidal solution that is clear to cloudy in appearance and is free of a distinct separate layer and is also free of a precipitate of resinous material, forming such solution of the polymer in the liquid sulfur dioxide, and mixing with the solution at least 0.7 molecular equivalent of sulfur trioxide per molecular equivalent of alkenyl aromatic compound chemically combined in the resin while maintaining the mixture at a reaction temperature not higher than 40° C.

2,835,656

LIGHT-SENSITIVE POLYMERS FOR PHOTOGRAPHY

Cornelius C. Unruh and Donald A. Smith, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 25, 1953
Serial No. 394,501
11 Claims. (Cl. 260—78.5)

10. A method for preparing a light-sensitive polymer which comprises heating a copolymer of styrene and maleic anhydride with a monoester of an acid of the class consisting of cinnamic acid, o-chloro cinnamic acid and m-nitro cinnamic acid and a glycol of the class consisting of ethylene glycol, propylene glycols, butylene glycols, diethylene glycol and triethylene glycol, in an inert organic solvent until a light-sensitive organic solvent soluble polymer has been obtained, and isolating the polymer from the reaction mixture.

2,835,657

ELASTIC GASOLINE-RESISTANT COPOLYMERS

Hans Fikentscher, Ludwigshafen (Rhine), Hans Peter Siebel, Ludwigshafen (Rhine), Oppau, and Walter Daniel and Fritz Rieder, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application July 26, 1955
Serial No. 524,586
Claims priority, application Germany August 3, 1954
10 Claims. (Cl. 260—80.5)

2. A gasoline-resistant elastic copolymer of from 3 to 40% of acrylonitrile, 9 to 47% of vinyl methyl ether, 1 to 5% of a diolefinic compound selected from the class consisting of 1,3-butadiene, isoprene and 2-chloro-1,3-butadiene and from 87 to 8% of an acrylic acid ester of a saturated aliphatic monohydric alcohol containing from 2 to 4 carbon atoms in its molecule, said percentages being by weight and the sum of said percentages totalling 100%.

2,835,658

PROCESS FOR PREPARING POLYSTYRENE BLOCK POLYMERS

John L. Lang, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 1, 1957
Serial No. 643,214
7 Claims. (Cl. 260—93.5)

1. A process for preparing polystyrene block polymers having specific end groups consisting of sequentially subjecting a mixture of styrene and beta-propiolactone to a free-radical bulk polymerization and hydrolyzing the so formed polymer with water.

3. A process for preparing polystyrene block polymers having the same specific end groups consisting of sequentially subjecting a mixture of styrene and beta-propiolactone to a free-radical polymerization, hydrolyzing the so-formed polymer with water and bringing the so-formed blocks into reactive contact with a polyfunctional compound capable of reacting with a group selected from hydroxyl and carboxyl with only one type of functional group present in the hydrolyzed product, to form a compound of the class consisting of polyesterpolyacids, polyesterpolyalcohols, and polyamidepolyalcohols.

2,835,659

POLYPROPYLENE WAXES AND METHOD OF MAKING

James E. Guillet, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 11, 1957
Serial No. 639,189
5 Claims. (Cl. 260—93.7)

1. The method of making a synthetic wax having low melt viscosity in combination with high hardness and high softening point which comprises heating, at a temperature of 300–450° C., crystalline polypropylene having a density of at least 0.90 and an average molecular weight of at least 20,000, until the molecular weight is reduced to a value within the range of 1000–8000.

3. A synthetic polypropylene wax which is readily flowable in molten form and which has an average molecular weight in the range of 1000–8000, a density of at least 0.90, an ASTM D36–26 ball and ring softening point of at least 130° C., an ASTM D5–52 penetration hardness value of 0 at 100 g. load for 5 seconds and below 2 at 250 g. load for 5 seconds, and an acid number of substantially zero.

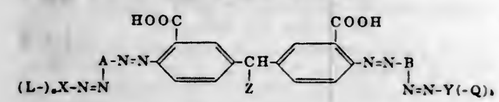
2,835,660

POLYAZO DYESTUFFS

Hans Baumann, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application August 30, 1955
Serial No. 531,574
6 Claims. (Cl. 260—144)

1. A member selected from the class consisting of a polyazo dyestuff of the general formula



a copper complex, a cobalt complex and a chromium complex of said polyazo dyestuff wherein Z represents a member selected from the group consisting of hydrogen, a lower alkyl group, and a phenyl group; A and B each represent a bivalent radical of a twice-coupling aromatic compound having 1–2 aromatic rings, said rings having at least one and not more than two substituents selected from the group consisting of hydroxy and amino groups, said rings further having 0–2 sulfonic acid groups, said rings being otherwise unsubstituted; X and Y represent a member selected from the group consisting of a benzene, a naphthalene, and a diphenyl nucleus; L and Q each represent at least one member from the group consisting of hydrogen, chloro, hydroxy, nitro, amino, lower alkyl, sulfonic acid, phenylazo, a naphthylazo group, lower alkyl N-substituted amino group, and a phenyl N-substituted amino group; *a* and *b* represent an integer of 1–3, inclusive; and A, B, X, and Y have a total of at least two sulfonic acid groups.

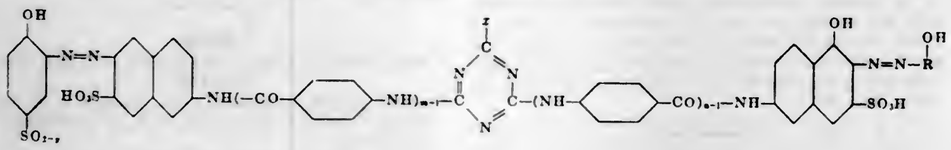
2,835,661

METALLIZED THIAZOLEAZOHYDROXYAMINE COMPOUNDS

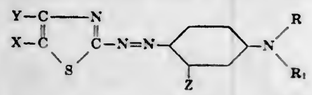
James M. Straley and John G. Fisher, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 19, 1956
Serial No. 579,169
8 Claims. (Cl. 260—146)

1. As a new composition of matter, a complex metal



compound which contains a metal selected from the group consisting of chromium, cobalt, copper, iron, manganese, nickel and vanadium in complex combination with a monoazo compound having the structural formula:



wherein R and R_1 are selected from the group consisting of hydrogen, alkyl and hydroxyalkyl, X and Y are selected from the group consisting of hydrogen, trifluoromethyl, trichloromethyl, nitro, and alkyl, and Z is hydroxyl, said alkyl and hydroxyalkyl radicals containing from 1 to 4 carbon atoms.

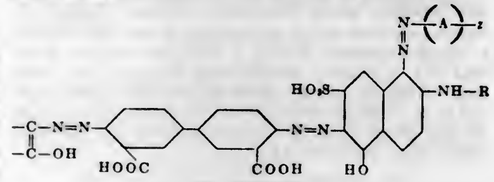
2,835,662

COPPERABLE POLYAZO DYESTUFFS

Hans-Rudolf Byland, Riehen, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application May 28, 1956
Serial No. 587,484
Claims priority, application Switzerland June 3, 1955
6 Claims. (Cl. 260—172)

1. Copperable polyazo dyestuffs which correspond to the formula



wherein R is a member selected from the group consisting of hydrogen, lower alkyl, cyclohexyl, benzyl and mononuclear carbocyclic aryl, *z* is selected from the group consisting of hydroxy and carboxy,



stands for the radical of a compound containing an enolizable keto group and capable of coupling in a position vicinal to the latter, and A is a phenyl group containing *z* in ortho-position to the adjacent —N=N— group.

2,835,663

COPPERABLE DISAZO DYESTUFFS

Jakob Benz, Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application May 19, 1955
Serial No. 509,673
Claims priority, application Switzerland May 21, 1954
6 Claims. (Cl. 260—153)

1. The copperable disazo dyestuffs which correspond to the formula

wherein *x* stands for a member selected from the group consisting of a chlorine atom, the hydroxy group and primary and secondary aliphatic and carbocyclic amine groups, *y* stands for a member selected from the group consisting of lower alkyl, amino, lower alkylamino, lower hydroxyalkylamino, lower alkoxyalkylamino, cyclohexylamino, benzylamino and arylamino groups of the benzene series, HO—R stands for a substituted residue of a hydroxybenzene, the hydroxy group of which is in ortho-position to the —N=N-group and the substituents of which being selected from the group consisting of a chlorine atom, nitro, lower alkyl, mononuclear carboxylic acid aryl amide, sulfonic acid, lower alkylsulfonyl, sulfonic acid amide, sulfonic acid lower alkylamide, sulfonic acid lower hydroxyalkylamide, sulfonic acid lower alkoxyalkylamide, sulfonic acid cyclohexylamide, sulfonic

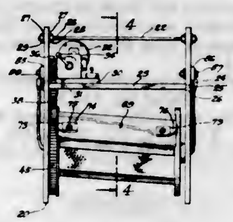
acid benzylamide and sulfonic acid arylamide groups of the benzene series, and *m* and *n* each stands for one of the numerals 1 and 2.

2,835,664

BARRELS FOR ELECTROPLATING ARTICLES

William E. Belke, Chicago, Ill., assignor to Belke Manufacturing Co., Chicago, Ill., a corporation of Illinois

Application May 25, 1955, Serial No. 510,922
1 Claim. (Cl. 204—213)



An electroplating barrel assembly adapted to improve plating quality and reduce plating time and cost by double oscillating action by moving the work parts up and down and back and forth and around the contacts, comprising a pair of insulating plates held in parallel spaced relation by threaded spacer rods and secured by nuts on both sides of each plate, each of said plates having one of a pair of aligned apertures serving as bearings, a trunnion plug of insulating material having a reduced cylindrical portion rotating in each of said apertures, a pair of parallel end discs of insulating material, each disc having an outer central cylindrical socket in which one of said plugs is cemented, each plug having a through bore with an insulated flexible electric conductor extending through each bore, and having a contact depending to the bottom of the barrel into the pieces of work to be plated at points spaced from the ends of the barrel, one of said parallel discs having a peripheral edge of reduced thickness, and an annular cylindrical edge portion, an insulating gear ring having an annular recess receiving said annular cylindrical edge portion which is cemented therein, a barrel wall, comprising a sheet of insulating plastic, said sheet being formed into polygonal form by bending the sheet at a plurality of parallel equally spaced easy bends to form a regular polygonal prism with one side open, said open side having a cover, the walls of said prism having a multiplicity of through apertures for passage of electrolyte, said prism having its ends beveled on two parallel planes which are at an angle of more than ninety degrees to the axis of the prism, making elongated end apertures in the prism, said end discs being circular and of a diameter greater than the longest dimension of said elongated end apertures, and the beveled ends being cemented to the parallel end discs, with the discs in axial alignment, to close the ends of the barrel and locate the beveled ends eccentrically upward and downwardly on the aligned end discs, giving the barrel an eccentric oscillating action between its parallel ends, and causing the work pieces to be plated more uniformly in shorter time and at less cost due to the movement of the pieces away from the ends into proximity to the electric contacts which depend into the work pieces, moving from end to end along the bottom of the barrel.

2,835,665

MANUFACTURE OF BUTYRIC ACID ESTERS OF CELLULOSE USING A SULFURIC ACID CATALYST

Carl J. Malm, Leo J. Tanghe, and Loring W. Blanchard, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 18, 1954
Serial No. 469,831
3 Claims. (Cl. 260—227)

1. A process for preparing an isobutyric acid ester of cellulose which comprises activating cellulose with water, displacing the water from the cellulose with acetic acid, treating the cellulose with a solution of sulfuric acid in acetic acid, the sulfuric acid being in sufficient amount to supply all of the sulfuric acid catalyst for the subsequent esterification, displacing substantially all of the acetic acid from the cellulose with a 4-carbon atom fatty acid the sulfuric acid being left uniformly distributed throughout the cellulose and, without the addition of further sulfuric acid, esterifying the cellulose with an esterification bath containing as the essential esterifying reagent therein isobutyric anhydride.

2,835,666

WATER-SOLUBLE THERMOPLASTIC CELLULOSE ETHER

Albert B. Savage, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 27, 1954
Serial No. 432,922
3 Claims. (Cl. 260—231)

1. The process which comprises subjecting an alkali cellulose initially having an alkali to cellulose ratio of from 0.7 to 1.5 to the action of from 0.15 to 0.8 part of butylene oxide per part of cellulose, until the olefin oxide is substantially fully reacted, and to the action of from 1.1 to 2.0 parts of methyl chloride per part of cellulose at a temperature from 40° C. to 80° C. until the etherification is substantially complete, to produce a hydroxybutyl methyl cellulose which is both cold water-soluble and thermoplastic.

2,835,667

PREPARATION OF ENOL-ETHERS AND KETALS OF KETOSTEROIDS

Alberto Ercoli and Pietro de Ruggieri, Milan, Italy; said de Ruggieri assignor to Francesco Vismara Societa per Azioni, a company of Italy

No Drawing. Application June 20, 1955
Serial No. 516,732
6 Claims. (Cl. 260—239.55)

1. A process for the preparation of derivatives of 3-ketosteroids, selected from the group consisting of 3-enol ethers and 3-cyclic ketals of the pregnane and androstane series wherein the 3-ketosteroid is reacted with an alcohol, selected from the group consisting of monovalent and divalent alcohols in the presence of an arylsulfonic acid as catalyst in boiling isooctane (2,2,4-trimethylpentane) which continuously removes, by distillation in azeotropic mixture, the water formed during the reaction.

2,835,668

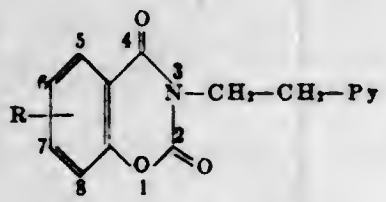
PYRIDYLETHYLATED BENZOXAZINEDIONES AND PROCESS FOR PREPARATION

Seymour L. Shapiro, Hastings-on-Hudson, Louis Freedman, Mount Vernon, and Ira M. Rose, Yonkers, N. Y., assignors to U. S. Vitamin Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 22, 1956
Serial No. 593,059
8 Claims. (Cl. 260—244)

1. As a composition of matter a member of the group

consisting of a pyridylethylated benzoxazinedione having the formula



wherein Py is a member of the group consisting of 2-pyridyl, alkyl-substituted-2-pyridyl, said alkyl having a carbon content of 1-2, and 4-pyridyl, and R is a member of the group consisting of hydrogen, halogen, hydroxyl, alkyl having a carbon content of 1-2, methoxyl and aryl containing not more than 6 carbon atoms, and pharmaceutically acceptable acid addition and quaternary ammonium salts thereof.

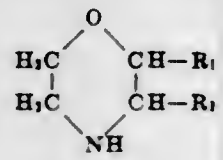
2,835,669

PROCESS FOR THE PRODUCTION OF SUBSTITUTED MORPHOLINES

Otto Thoma, Ingelheim am Rhine, Germany, assignor to C. H. Boehringer Sohn, Ingelheim am Rhine, Germany, a partnership

No Drawing. Application June 29, 1953
Serial No. 364,929
Claims priority, application Germany July 1, 1952
8 Claims. (Cl. 260—247)

1. A morpholine compound selected from the group consisting of a morpholine compound of the formula



wherein R_1 is a member selected from the group consisting of phenyl, hydroxy phenyl, lower alkyl phenyl, and lower alkoxy phenyl, and R_2 is a member selected from the group consisting of phenyl and lower alkyl, and its addition salts.

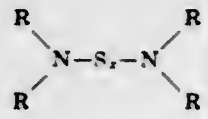
2,835,670

AMINOAZOLEDISULFIDES

Albert F. Hardman, Northampton Township, Summit County, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 23, 1954
Serial No. 458,028
9 Claims. (Cl. 260—247.1)

1. The method of preparing an amino azole disulfide which comprises reacting (*a*) an amine sulfide from the class consisting of amine monosulfides and amine disulfides of the general formula:



in which the nitrogen substituent, R's, are selected from the class consisting of aliphatic radicals, cycloaliphatic radicals, aralkyl radicals and cycloaliphatic rings formed by the joining together of the pair of R's on a nitrogen atom and *x* represents one of the integers 1 and 2, with (*b*) a mercapto azole selected from the class consisting of mercaptothiazoles, mercaptoimidazoles, and mercaptooxazoles, said amine sulfide being reacted in the ratio of one mole of said amine sulfide to from one to two moles of said mercaptoazole.

2,835,671

PYRIDAZINE DERIVATIVES

Alexander Staehelin, Basel, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application May 11, 1954
Serial No. 429,101
Claims priority, application Switzerland May 12, 1953
5 Claims. (Cl. 260—250)

1. Esters of 1,4-dihydro-4-oxo-1-R-6-lower alkyl-pyridazine-3-carboxylic acid with an alcohol selected from the group consisting of lower alkanols, 3-oxa-alkanols, 3-aza-alkanols and 4-aza-alkanols, said alcohols containing at most 10 carbon atoms, wherein R stands for a member selected from the group consisting of phenyl, lower alkylphenyl, lower alkoxy-phenyl, nitro-phenyl and lower carbalkoxy-phenyl.

2,835,672

MANUFACTURE OF NEW HYDROCINNOLONES

Jean Druey, Riehen, and Paul Schmidt, Therwil, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application September 19, 1955
Serial No. 535,308
Claims priority, application Switzerland April 30, 1953
2 Claims. (Cl. 260—250)

1. 2-(lower alkyl)-4-cyano-5,6,7,8-tetrahydrocinnolone-(3).

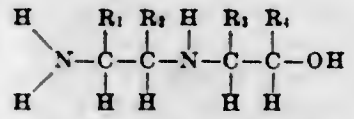
2,835,673

AQUEOUS FEED PROCESS FOR SYNTHESIZING CARBON-SUBSTITUTED PIPERAZINES

William K. Langdon, Grosse Ile, Mich., assignor to Wyandotte Chemicals Corporation, Wyandotte, Mich., a corporation of Michigan

No Drawing. Application February 21, 1957
Serial No. 641,495
9 Claims. (Cl. 260—268)

1. A continuous process for preparing carbon-substituted piperazines, which comprises, passing a liquid mixture of water and an N(β-hydroxyalkyl)-1,2-alkylenediamine, subsequently defined, over a heated nickel hydrogenation/dehydrogenation catalyst in an atmosphere of hydrogen gas, said mixture containing at least 5 weight percent of water based on the weight of said mixture, said N(β-hydroxyalkyl)-1,2-alkylenediamine corresponding to the formula



wherein R_1 and R_2 are members selected from the group consisting of hydrogen and alkyl radicals having from 1 to 3, inclusive, carbon atoms, the total number of carbon atoms in said alkyl radical substituents for R_1 and R_2 being not over 3, R_3 is a member selected from the group consisting of hydrogen and alkyl radicals having from 1 to 2 carbon atoms, inclusive, R_4 is an alkyl radical having from 1 to 3 carbon atoms, and the total number of carbon atoms in said alkyl substituents for R_3 and R_4 being not over 3.

2,835,674

PROCESS OF PREPARING DERIVATIVES OF 1.4.5.8-NAPHTHALENE-TETRACARBOXYLIC ACID

Wilhelm Eckert and Otto Fuchs, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application March 25, 1955
Serial No. 496,921
Claims priority, application Germany March 31, 1954
3 Claims. (Cl. 260—281)

1. A process of preparing derivatives of 1.4.5.8-naphthalene-tetracarboxylic acid which comprises condensing

at a temperature between about 50° C. and about 90° C. a compound selected from the group consisting of 1.4.5.8-naphthalene-tetracarboxylic acid and its anhydride in a pH-range of 5.0 to 5.8 in the presence of buffer substances selected from the group consisting of alkali phosphates, alkali acetates and alkali borates with an aromatic ortho-diamine selected from the group consisting of 1.2-diamino-benzene, 1.2-diamino-toluenes, 1.2-diamino-xylenes, 1.2-diamino-halogenbenzenes, 1.2-diamino-hydroxy- and alkoxybenzenes, 1.2-diamino-benzotrifluorides, 1.2-diamino-aceto- and benzophenones, 1.2- and 2.3-diamino-naphthalenes, 1.2- and 2.3-diamino-5.6.7.8-tetrahydro-naphthalenes, 1.2- and 2.3-diamino-anthraquinones in an aqueous solution which has such a high salt concentration that the resulting sparingly soluble mono-sodium salt can crystallize, and transforming the mono-sodium salts of N-substituted naphthalimide-1.8-dicarboxylic acids so obtained into compounds selected from the group consisting of naphthoylene-arylimidazole-1.8-dicarboxylic acids and their anhydrides by heating with mineral acids.

2,835,675

ELYMOCLAVINE AND MANUFACTURE OF ERGOT ALKALOIDS BY CULTURE

Matazo Abe, Nishinomiya, Hyogo, Togo Yamano, Yamatotakada, Nara, Yoshiharu Kozu, Nakagyoku, Kyoto, and Mitsugi Kusumoto, Nishiimazato, Higashinariku, Japan

No Drawing. Application October 24, 1952 Serial No. 316,814

Claims priority, application Japan November 2, 1951

14 Claims. (Cl. 260—285.5)

1. A method of preparing the ergot alkaloids: ergokryptinine, agroclavine and elymoclavine, which comprises surface growing ergot fungus which is parasitic to *Elymus mollis* Trin. in an aqueous medium having a pH between 3.2 and 8.4 and containing a soluble carbohydrate, a source of assimilable nitrogen and essential mineral salts at a temperature within the range 10° C. to 34° C., whereby the aqueous medium is fermented and the aforesaid alkaloids are produced.

2,835,676

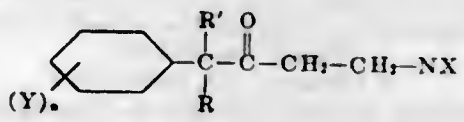
GAMMA-KETO-TERTIARY AMINES AND DERIVATIVES THEREOF

James M. Sprague, Gwynedd Valley, and Everett M. Schultz, Ambler, Pa., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 14, 1953 Serial No. 367,988

6 Claims. (Cl. 260—294.7)

1. A compound chosen from the class consisting of compounds of the formula



in which Y is selected from the group consisting of hydrogen, hydroxy, lower alkyl, chlorine, bromine and lower alkoxy radicals; *n* is a whole number selected from 1 and 2; R is chosen from the group consisting of lower alkyl, cycloalkyl, allyl, phenyl, halophenyl and benzyl; R′ is chosen from the group consisting of hydrogen, hydroxy, lower alkyl, and allyl; and NX is chosen from the class consisting of di-loweralkylamino, 1-piperidyl, and 4-morpholinyl, their non-toxic salts and quaternary ammonium derivatives thereof.

2,835,677

4-SUBSTITUTED 1.2-DIARYL-3.5-DIOXO-PYRAZOLIDINES

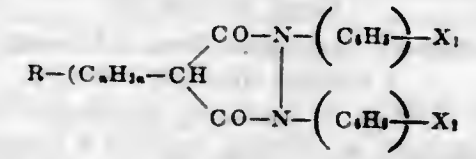
Franz Häfliger and Rudolf Pfister, Basel, Switzerland, assignors to Geigy Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 30, 1956 Serial No. 600,664

Claims priority, application Switzerland August 15, 1955

4 Claims. (Cl. 260—310)

1. A 4-substituted 1.2-diaryl-3.5-dioxo-pyrazolidine of the formula:



wherein each of X_1 and X_2 represents a member selected from the group consisting of hydrogen, methyl, methoxy and chlorine, R represents a member selected from the group consisting of pyridyl, thienyl and furyl radicals, and *n* represents one of the digits 1 and 2.

2,835,678

SOLUBLE ADRENOCHROME DERIVATIVES AND PROCESS OF PREPARATION THEREOF

Junichi Iwao, Tennoji-ku, Osaka-shi, Koichi Tomino, Senboku-gun, Osaka-fu, and Mitsutaka Kawazu, Higashiyodogawa-ku, Japan, assignors to Gohei Tanabe & Co., Ltd., a corporation of Japan

No Drawing. Application September 25, 1956 Serial No. 612,064

Claims priority, application Japan October 18, 1955

10 Claims. (Cl. 260—319)

1. Therapeutically valuable substances taken from the class consisting of 1-methyl-2,3,5,6-tetrahydro-5-semicarbazono-6-oxoindole-3-sulfonic acid, 1-methyl-2,3,5,6-tetrahydro-5-hydroxyimino - 6 - oxoindole-3-sulfonic acid, and the alkali metal salts of said acids.

2,835,679

CRYSTALLIZABLE COMPLEX OF VITAMIN A ALDEHYDE AND SESAMOL AND ITS METHOD OF PREPARATION

Charles H. Benton, Jr., and Charles D. Robeson, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 5, 1955 Serial No. 499,514

4 Claims. (Cl. 260—340.5)

1. A crystallizable complex consisting of two molar proportions of 2,6-trans,trans vitamin A aldehyde and one molar proportion of sesamol.

2. The process which comprises dissolving sesamol and 2,6-trans,trans vitamin A aldehyde in an inert organic solvent at an elevated temperature, cooling the resulting solution to crystallize therefrom the resulting complex consisting of two molar proportions of 2,6-trans,trans vitamin A aldehyde and one molar proportion of sesamol, and thereafter separating said complex from said solution.

2,835,680

$\Delta^{8(9)}$-STEROIDS AND THEIR PROCESS OF PREPARATION

Josef Fried, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application July 7, 1954
Serial No. 441,932
13 Claims. (Cl. 260—397.3)

13. $\Delta^{8(9)}$-dehydro-11-ketoprogesterone.

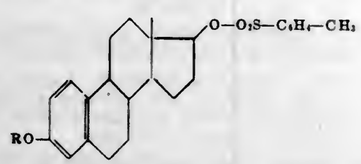
2,835,681

METHOD OF PREPARING α-ESTRADIOL

André Allais, Paris, and Charles Hoffmann, Noisy le Grand, France, assignors to Les Laboratoires Francais de Chimiotherapie, Paris, France, a French body corporate

No Drawing. Application February 26, 1957
Serial No. 642,334
Claims priority, application France February 28, 1956
7 Claims. (Cl. 260—397.5)

1. The method of preparing α-estradiol, which comprises dissolving as starting material a compound taken from the group consisting of β-estradiol and 3-acyl β-estradiols in anhydrous pyridine, adding p-toluene sulfochloride while stirring, heating, dissolving the reaction mixture in chloroform, washing with water and hydrochloric acid to remove pyridine, recovering from the purified chloroform solution an intermediary compound of the general formula



wherein R represents a member of the group consisting of hydrogen, acyl and tosyl, taking said intermediary compound up in dimethylformamide, adding an alkali acetate, heating to cause acetoxylation accompanied by inversion of the hydroxyl at the 17-position, cooling, pouring into water, extracting the resulting precipitate with chloroform, washing, neutralizing, filtering and evaporating the chloroform solution to dryness, dissolving the residue in alcohol, adding potassium hydroxide, heating while introducing a stream of nitrogen, evaporating to dryness, cooling, taking up with water, neutralizing with hydrochloric acid, separating and triturating the resulting precipitate with water, drying, dissolving in boiling benzene, concentrating the benzene solution and recovering the crystalline precipitate.

2,835,682

STEROL RECOVERY PROCESS

Charles S. Steiner, Homewood, Ill., and Earle Fritz, East Chicago, Ind., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application August 8, 1955
Serial No. 527,166
16 Claims. (Cl. 260—397.25)

1. In a process for isolation of sterols, the steps which comprise: fractionation of a sterol-containing composition in a liquid, normally gaseous hydrocarbon to obtain a sterol-enriched fraction; saponification of said sterol-enriched fraction in an alcoholic alkali solution; and crystallization of the sterols by adding about 10–30% water and cooling the mixture.

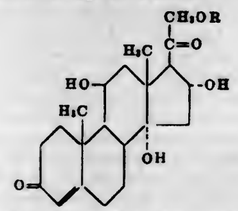
2,835,683

14α,16α-DIHYDROCORTICOSTERONE AND 21-ESTERS THEREOF

Eugene J. Agnello, Barry M. Bloom, and Gerald D. Laubach, Jackson Heights, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application April 1, 1957
Serial No. 649,662
5 Claims. (Cl. 260—397.45)

1. A compound having the formula



wherein R is selected from the class consisting of hydrogen and hydrocarbon acyl groups containing up to ten carbon atoms.

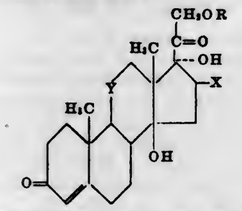
2,835,684

14α HYDROXY, 16 HALO-PREGNENE COMPOUNDS

Eugene J. Agnello, Barry M. Bloom, and Gerald D. Laubach, Jackson Heights, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application April 1, 1957
Serial No. 649,661
6 Claims. (Cl. 260—397.45)

1. A compound having the formula



wherein R is selected from the group consisting of hydrogen and hydrocarbon acyl radicals containing up to ten carbon atoms, Y is selected from the group consisting of



and



and X is halogen.

2,835,685

METAL TRIACYLATES OF UNSATURATED HIGHER MOLECULAR MONOCARBOXYLIC ACIDS

Jacobus Rinse, Bernardsville, N. J., assignor to J. W. Ayers & Co., Easton, Pa., a corporation of Delaware

No Drawing. Application March 17, 1955
Serial No. 495,061
5 Claims. (Cl. 260—414)

1. A process for the production of substantially pure aluminum triacylates of unsaturated higher molecular monocarboxylic acids comprising, mixing and reacting an aluminum R-oxide of a hydroxy hydrocarbon vaporizable at a temperature below the decomposition temperature of the triacylate being formed with a monobasic higher molecular unsaturated carboxylic acid in a mol ratio of approximately 1:3 in a reaction mass containing at least 3 mols of said acid per mol of said oxide during

substantially the whole of the reaction period, effecting said reaction by heating at elevated temperatures which cause vaporizing off from the reacting mass the hydroxy hydrocarbon being liberated by the reaction, continuing the heating and vaporization at gradually increasing temperatures until about three molecules of liberated hydroxy hydrocarbon and as well any solvent present have been removed, whereby an aluminum triacylate is obtained in a form substantially free of side reaction products.

2,835,686

ORGANOMETALLIC COMPOUNDS CONTAINING CYCLOPENTADIENYL NUCLEI BONDED DIRECTLY TO A GROUP VIII METAL AND TO A GROUP I OR A GROUP II METAL

Peter J. Graham, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 12, 1953
Serial No. 391,723
25 Claims. (Cl. 260—429)

1. An organometallic compound wherein a metal of group VIII of the periodic table is bonded directly to nuclear carbon of two five-membered carbocyclic radicals which are entirely hydrocarbon and each of which contains the cyclopentadiene ring as its nucleus and wherein at least one of said carbocyclic radicals also is bonded directly through nuclear carbon thereof to a metal selected from the class consisting of alkali metals and metals of group II having an atomic number not exceeding 80, and the remaining valence of said group II metal is bonded to an anion.

2,835,687

ISOTOPE FRACTIONATION PROCESS

Glenford H. Clewett and De Wayne A. Lee, Oak Ridge, Tenn., and Ward B. Schaap, Bloomington, Ind., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 25, 1952
Serial No. 278,482
20 Claims. (Cl. 260—429.1)

1. A new and improved process for enriching, with respect to at least one isotope, uranium initially isotopically comprising uranium-235 and uranium-238, which comprises intimately contacting an aqueous solution of said uranium in dissolved tetravalent cationic state, with a water-immiscible organic solvent containing dissolved therein a water-insoluble chelate inner complex of said uranium in tetravalent state derived from a corresponding chelate inner complexant selected from the group consisting of cupferron, benzohydroxamic acid, benzylhydroxamic acid, β-phenylpropanhydroxamic acid, benzoylformic acid, dibenzoyl methane, ethyl benzoylpyruvate, ethyl thioglycolic acid, sodium diethyldithiocarbamate, thenoyltrifluoracetone, trifluoroacetonate, and ammonium thiocyanate, while restricting the total cumulative amount of chelate inner complexant incorporated in the system to a substantially sub-stoichiometric quantity with respect to the total quantity of uranium present in the system, thereby concentrating uranium-235 in the aqueous solution and uranium-238 as chelate inner complex in the organic solvent, and thereupon separating the resulting aqueous phase from the resulting organic phase.

2,835,688

PREPARATION OF FLUID POLYVALENT METAL PHENATES

William M. Le Suer, Euclid, Ohio, assignor to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio

No Drawing. Application January 4, 1954
Serial No. 402,135
13 Claims. (Cl. 260—429.9)

1. A method for producing fluid, oil-soluble polyvalent metal salts of a phenolic compound, which phenolic compound contains a total of at least 10 carbon atoms and less than 60 aliphatic carbon atoms, which process comprises the steps of: (*a*) preparing a solution of at least one polyvalent metal salt of the phenolic compound in an organic solvent, said polyvalent metal salt selected from the class consisting of magnesium, zinc, barium, calcium, strontium, manganese, cadmium, aluminum, lead, iron, and cobalt salts; (*b*) evaporating substantially all of said organic solvent from such solution at a temperature below the decomposition temperature of said polyvalent metal salt; and (c) reacting with the resulting material from 0.1 to 2.5 moles of water per mole of polyvalent metal salt present.

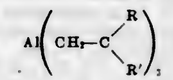
2,835,689

PRODUCTION OF ALUMINUM TRIALKYLS AND ALUMINUM ALKYL HYDRIDES

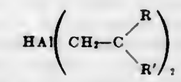
Karl Ziegler and Hans-Georg Gellert, Mulheim an der Ruhr, Germany; said Gellert assignor to said Ziegler

No Drawing. Application July 27, 1955
Serial No. 524,797
Claims priority, application Germany August 4, 1954
13 Claims. (Cl. 260—448)

1. In a process for the production of aluminum hydrocarbons the improvement which comprises contacting an aluminum hydrocarbon selected from the group consisting of compounds having the formula



and



in which R and R′ are aliphatic hydrocarbon radicals and further members thereof in which



form a hydrocarbon ring with an olefin differing from the olefin corresponding to the organic radical of said compound and selected from the group consisting of olefins having a terminal double bond and cyclo olefins having 4, 5, 7, and 8 carbon atoms and at least one C=CH group in the ring, at a temperature between about 50° and 150° C., and recovering the aluminum hydrocarbon formed.

2,835,690

BASE-CATALYZED ADDITION TO VINYL-SILICON COMPOSITIONS

Maurice Prober, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application December 31, 1953
Serial No. 401,703
13 Claims. (Cl. 260—448.2)

1. The process of adding an active hydrogen compound selected from the class consisting of alkanols, ammonia, monoalkyl amines, dialkyl amines, monoaryl amines, diaryl amines, alkyl mercaptans, phenol, alkyl-substituted phenol, alkyloximes, dialkyl oximes, dialkyl arsines, and dialkyl phosphines to vinyl-substituted organosilicon compounds which process comprises effecting reaction between said active hydrogen compound and a silicon-bonded vinyl-substituted organosilicon compound in the presence of a basic catalyst selected from the class consisting of alcoholates, mercaptides and sodamide.

2,835,691

PROCESS FOR PRODUCING WAX PRODUCTS DERIVED FROM OXIDATION PRODUCTS OF PARAFFIN WAX

Erwin R. Sauter, Sasolburg, Orange Free State, Union of South Africa, assignor to South African Coal, Oil and Gas Corporation Limited, Sasolburg, Orange Free State, Union of South Africa

No Drawing. Application June 6, 1955
Serial No. 513,593
11 Claims. (Cl. 260—452)

1. A process for the production of wax acid products, which comprises the catalytic oxidation in a molten state of a paraffin wax having a melting point exceeding 75° C. and a mean molecular weight exceeding 650 with a gas comprising free oxygen at an oxidizing temperature below 145° C. and for so short a time as to produce an intermediate oxidized wax product comprising carboxylic wax acids and wax esters, the said intermediate product having an acid number between 5 and 25 and a saponification number between 10 and 60, hydrolyzing the said wax esters to carboxylic wax acids and alcohols and oxidizing the said alcohols in the mixture by means of a chemical oxidizing agent to carboxylic wax acids.

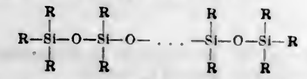
2,835,692

STABILIZATION OF ORGANIC ISOCYANATES

Albert Bloom, Summit, N. J., Harlan B. Freyermuth, Easton, Pa., and James B. Normington, Little Silver, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application July 9, 1956
Serial No. 596,396
10 Claims. (Cl. 260—453)

1. A method of retarding the polymerization and decomposition of organic isocyanates which comprises adding thereto a stabilizing amount of a polymeric organosiloxane having the general formula:



wherein R represents a member selected from the class consisting of alkyl and alkoxy groups of from 1 to 5 carbon atoms, said organosiloxane containing from 10 to 50



units in the polymer chain, and having a density below 1.18 at room temperature.

2,835,693

PREPARATION OF ESTERS OF BORONIC AND BORINIC ACIDS

Verno- W. Buls and Richard I. Thomas, Walnut Creek, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 19, 1955
Serial No. 553,736
6 Claims. (Cl. 260—462)

1. A process for the preparation of alkyl esters of oxygen acids of boron, said esters having the formula

$$(R)_aB(OR^1)_b$$

which process comprises heating together at a temperature of from about 150° C. to about 300° C., under anhydrous conditions and in the absence of molecular oxygen, a compound having the formula, $(R^1O)_3B$ and a compound having the formula $(R)_3B$, in the presence of a minor amount of a compound selected from the group consisting of the boron trihalides and compounds of the formula $(R)_cB(X)_d$ as catalyst, in said formulas, R^1 representing an alkyl group, R representing a hydrocarbon group containing up to 10 carbon atoms, free from aliphatic carbon-to-carbon multiple linkages selected from the class consisting of the alkyl groups, cycloalkyl groups, aryl groups, alkaryl groups and aralkyl groups, X representing a halogen atom, a and c each representing an integer of from 1 to 2, with the proviso that $a+b=3$, and $c+d=3$.

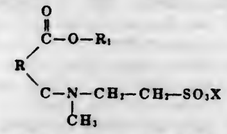
2,835,694

ALKYL N-METHYL-N-(2-SULFOETHYL) CARBAMOYL DERIVATIVES OF CARBOCYCLIC 1,2-CARBOXYLIC ACIDS

Alfred F. Steinhauer, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 28, 1955
Serial No. 525,068
8 Claims. (Cl. 260—468)

1. A water-soluble chemical compound comprising an alkyl N-methyl-N-(2-sulfoethyl)carbamoyl derivative of a carbocyclic 1,2-dicarboxylic acid, which compound has the general formula:



wherein R represents a carbocyclic ring containing 6 carbon atoms and is a nucleus of a carbocyclic 1,2-dicarboxylic acid selected from the group consisting of phthalic acid and hydrogenated phthalic acids containing from 8 to 10 hydrogen atoms on the benzene nucleus, R_1 represents an alkyl radical containing from 8 to 18 carbon atoms and X is a member of the group consisting of hydrogen and an alkali metal.

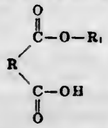
2,835,695

MIXED ESTER COMPOSITIONS OF CARBOCYCLIC 1,2-DICARBOXYLIC ACIDS

Alfred F. Steinhauer, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 28, 1955
Serial No. 525,069
9 Claims. (Cl. 260—468)

1. A water-soluble mixed ester composition consisting of the reaction product of (1) an alkyl monoester of a carbocyclic 1,2-dicarboxylic acid selected from the group consisting of phthalic acid and hydrogenated phthalic acids containing from 8 to 10 hydrogen atoms on the benzene nucleus and hexahydrophthalic acid, which alkyl monoester has the general formula:



wherein, R represents a carbocyclic nucleus containing six carbon atoms and R_1 represents an alkyl radical containing from 8 to 18 carbon atoms, and (2) a polyoxyalkylol amine having the general formula:

$$N[(RO)_n-H]_3$$

wherein RO represents an oxyalkylene radical containing from 2 to 4 carbon atoms and n is a whole number from 11 to 96, and in which polyoxyalkylol amine at least one-third of the total number of RO groups are oxyethylene radicals, in proportions corresponding to from 1 to 3 gram moles of the alkyl monoester per gram mole of the polyoxyalkylol amine, wherein the polyoxyalkylol amine has a molecular weight proportionate to the molar ratio of the alkyl monoester starting material defined by the equation:

$$\text{Mol. wt.}=1500x-1000$$

wherein x is the molar ratio of the alkyl monoester to the polyoxyalkylol amine starting material.

2,835,696

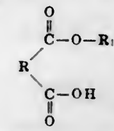
ESTERS OF CARBOCYCLIC 1,2-DICARBOXYLIC ACIDS AND METHOD OF MAKING THE SAME

Alfred F. Steinhauer, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 28, 1955
Serial No. 525,070
11 Claims. (Cl. 260—468)

1. A water-soluble composition comprising an unsymmetrical ester of a carbocyclic 1,2-dicarboxylic acid selected from the group consisting of phthalic acid and hydrogenated phthalic acids having from 8 to 10 hydrogen atoms on the benzene nucleus, wherein one of the carboxyl groups of said acid is esterified with a saturated aliphatic alcohol containing from 8 to 18 carbon atoms in the molecule and the other carboxyl group is esterified with a linear polyethylene glycol having a molecular weight between 300 and 5000.

11. A method of making a water-soluble ester composition which comprises condensing from 7 to 110 molecular proportions of ethylene oxide with one molecular proportion of a monoalkyl hydrogen ester of a carbocyclic 1,2-carboxylic acid which monoalkyl hydrogen ester has the general formula:



wherein R represents a carbocyclic ring containing 6 carbon atoms and is a nucleus of a carbocyclic 1,2-dicarboxylic acid selected from the group consisting of phthalic acid and hydrogenated phthalic acids having from 8 to 10 hydrogen atoms on the benzene nucleus, and R_1 represents an alkyl radical containing from 8 to 18 carbon atoms, at temperatures between 120° and 140° C. by feeding the ethylene oxide into admixture with the monoalkyl hydrogen ester in the presence of an alkaline catalyst under a superatmospheric pressure of from 5 to 50 pounds per square inch at approximately the rate at which the ethylene oxide is consumed in the reaction.

2,835,697

SALICYLIC ACID β-CYCLOPENTYLPROPIONATE

Maxton F. Murray, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application May 10, 1956
Serial No. 583,940
1 Claim. (Cl. 260—468)

Salicylic acid β-cyclopentylpropionate.

2,835,698

9//10-SECOSTEROIDS AND PROCESS FOR THEIR PREPARATION

Barney J. Magerlein, Kalamazoo, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application January 18, 1956
Serial No. 559,778
10 Claims. (Cl. 260—476)

1. A 9//10-secosteroid selected from the group consisting of 3-hydroxy-9//10-seco-1,3,5(10)-pregnatriene-11,20 - dione, 3 - hydroxy - 9//10 - seco - 1,3,5(10) - isopregnatriene - 11,20 - dione, 3 - acyloxy - 9//10 - seco-1,3,5(10) - pregnatriene - 11,20 - dione and 3 - acyloxy-9//10 - seco - 1,3,5(10) - isopregnatriene - 11,20 - dione wherein the acyl group is the acyl radical of a hydrocarbon carboxylic acid containing from one to eight carbon atoms, inclusive.

2,835,699

RADIOACTIVE TRACERS FOR PIPE LINES

Bernard A. Fries, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 29, 1955
Serial No. 497,800
9 Claims. (Cl. 260—504)

1. A radioactive tracer consisting essentially of an oil soluble sulfonate of an isotope of cesium selected from the group consisting of Cs^{134} and Cs^{137}.

2,835,700

PROCESS OF HALOGENATING ORGANIC COMPOUNDS

Albert J. Boyle, Detroit, Mich., and Albert Zlatkis, Houston, Tex., assignors to Basic, Incorporated, a corporation of Ohio

No Drawing. Application February 25, 1954
Serial No. 412,620
1 Claim. (Cl. 260—519)

The method of making iodo-tyrosine which comprises agitating a mixture of l-tyrosine and acetic acid at a temperature of approximately 45° C., gradually adding to such mixture while thus agitated a water solution of sodium iodate and iodide, and then separating the resulting 3,5-diodo-l-tyrosine from the reacting mixture.

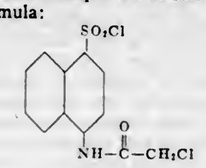
2,835,701

4-CHLOROACETAMIDO-1-NAPHTHALENE SULFONYL CHLORIDE

Arthur H. Weinstein, Akron, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application June 12, 1956
Serial No. 590,818
1 Claim. (Cl. 260—543)

4-chloroacetamido-1-naphthalene sulfonyl chloride, defined by the formula:



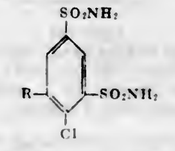
2,835,702

BENZENE 1,3 DISULFONAMIDES POSSESSING DIURETIC PROPERTIES

Everett M. Schultz, Ambler, Pa., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application May 2, 1956
Serial No. 582,072
7 Claims. (Cl. 260—556)

1. A 4-chloro-5-halobenzene-1,3-disulfonamide selected from the group consisting of compounds having the general structural formula



and non-toxic alkali metal salts thereof wherein R is selected from the group consisting of chlorine and bromine atoms.

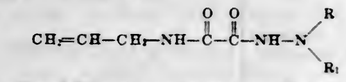
2,835,703

HYDRAZIDES OF ALLYLOXAMIC ACID

John R. Caldwell and Winston J. Jackson, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 18, 1956
Serial No. 578,898
6 Claims. (Cl. 260—561)

1. Allyloxamic acid hydrazides represented by the following general formula:



wherein R and R_1 each represents a member selected from the group consisting of a hydrogen atom, an alkyl group containing from 1 to 4 carbon atoms, a phenyl group and a tolyl group.

2,835,704

PANTETHEINE INTERMEDIATES

Edward Walton, Scotch Plains, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Original application January 6, 1953, Serial No. 329,928. Divided and this application March 21, 1955, Serial No. 495,750
1 Claim. (Cl. 260—562)

α,γ-Dihydroxy-β,β-dimethylbutyryl-β-alanyl-S-benzyl-β-aminoethanethiol.

2,835,705

PRODUCTION OF AMINES

Sidney Arthur Lamb and Stanley Ward, Norton-on-Tees, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application April 4, 1956
Serial No. 575,965
Claims priority, application Great Britain January 22, 1951
11 Claims. (Cl. 260—576)

1. In a continuous process for the production of an alkylated aromatic diamine selected from the group consisting of phenylenediamine and amino-diphenylamine by the reductive alkylation of an aromatic compound having two nitrogen-containing groups selected from the group consisting of amino-, nitro- and nitroso-radicles which is selected from benzene containing two such groups and diphenylamine containing one such group additional to the amino group, said nitrogen containing groups being the sole substituents of said aromatic compound at superatmospheric pressure and temperature with methyl ethyl ketone, the improvement comprising recycling from the product an aqueous distillation cut comprising the water/ketone azeotrope, dissolving in said aqueous distillation cut the nitrogen containing organic compound employed as starting material thereby obtaining a solution substantially free from water and returning said solution to the main reaction zone.

6. The process as claimed in claim 1 for the production of NN'-di-sec-butyl-meta-phenylene diamine by the reductive alkylation of meta-di-nitro-benzene with methyl ethyl ketone.

2,835,706

PROCESS FOR PREPARING METHYL ETHYL KETONE FROM SECONDARY BUTANOL

Charles E. Cordes, Roselle, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application May 4, 1956, Serial No. 582,835
5 Claims. (Cl. 260—596)

1. A continuous process of preparing methyl ethyl ketone which comprises first heating secondary butanol in a heating zone and passing the resultant hot butanol vapors through a first reaction zone packed with a metallic oxide dehydrogenation catalyst, maintaining the temperature within said reactor between about 650°–900° F. solely by introducing said vapors into said reactor at a temperature not above about 900° F. and removing the effluent gases at a temperature not substantially below 650° F., the residence time in said reactor being sufficient to effect conversion of at least 20% of the secondary butanol to methyl ethyl ketone, then heating the partially converted butanol product vapors and passing said vapors to at least one additional reaction zone under the same temperature conditions employed in the first said zone to permit the conversion of additional secondary butanol to methyl ethyl ketone, passing the effluent gases from a final catalyst packed reactor through a condensing zone and separating methyl ethyl ketone therefrom.

2,835,707

PROCESS FOR MAKING META-CHLOROPHENOL

Wesley C. Stoesser and Willard M. Gentry, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application April 23, 1956, Serial No. 579,936
9 Claims. (Cl. 260—623)



7. In a process for the production of dichlorobenzenes from chlorine and benzene wherein a mixture of isomeric ortho-, meta- and para-dichlorobenzenes is subjected to fractional distillation to obtain the meta- and para-dichlorobenzenes as distillate and separate them from the ortho-dichlorobenzene, and wherein the distillate comprising essentially a mixture of meta- and para-dichlorobenzenes is subjected to cooling at temperatures between 50° and −25° C., whereby at least a portion of the para-dichlorobenzene is crystallized and is separated from the liquid material, the steps which consist in treating the remaining liquid material at temperatures between 20° and 80° C. with a sulfonating agent selected from the group consisting of fuming sulfuric acid, chlorosulfonic acid and sulfur trioxide, in amount corresponding to from 0.6 to 1 gram molecular proportion of the sulfonating agent per gram molecular proportion of meta-dichlorobenzene in the liquid material to obtain meta-dichlorobenzene sulfonic acid, separating the meta-dichlorobenzene sulfonic acid from the unsulfonated dichlorobenzenes, purifying the latter and returning the recovered unsulfonated dichlorobenzenes to the cooling step, hydrolyzing the meta-dichlorobenzene sulfonic acid by heating an alkali metal salt of the meta-dichlorobenzene sulfonic acid in admixture with an aqueous alkali metal hydrovide solution in concentrations between 2 and 25 percent by weight and in amount corresponding to from 2 to 4 gram molecular proportions of the alkali metal hydroxide per gram molecular proportion of the meta-dichlorobenzene sulfonic acid alkali metal salt starting material at temperatures between 180° and 240° C. under a pressure at least as great as the autogenous pressure of the mixture of the

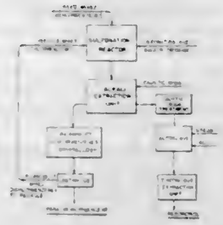
materials to obtain meta-chlorophenol sulfonate, heating the meta-chlorophenol sulfonate in admixture with a liquid aqueous solution containing sulfuric acid in concentrations between 5 and 70 percent by weight of the sulfuric acid and in amount corresponding to at least 0.5 gram molecular proportion of the sulfuric acid per gram molecular proportion of the meta-chlorophenol sulfonate at reaction temperatures between 120° and 250° C. and under an absolute pressure sufficient to maintain a major portion of the aqueous solution in liquid condition to produce meta-chlorophenol and separating the meta-chlorophenol from the aqueous acidic mixture.

2,835,708

PROCESS FOR THE MANUFACTURE OF RESORCINOL

Jonas Kamlet, New York, N. Y., assignor to The Goodyear Tire & Rubber Company, a corporation of Ohio

Application September 7, 1954, Serial No. 454,600
8 Claims. (Cl. 260—628)



2. A process for the manufacture of resorcinol which comprises the steps of: (*a*) sulfonating a mixture of meta- and para-dichlorobenzenes at a temperature between 35° and 100° C. with a quantity of sulfonating agent not in excess of that required to sulfonate solely the meta-dichlorobenzene, and separating the resultant 2,4-dichlorobenzenesulfonic acid by extraction with an aqueous medium from the insoluble residue containing para-dichlorobenzene; (*b*) converting the said 2,4-dichlorobenzenesulfonic acid to a water-soluble salt of said acid by reacting the said sulfonic acid with an alkali; (*c*) reacting the said water-soluble salt of 2,4-dichlorobenzenesulfonic acid with an alkali metal hydroxide in an aqueous medium at a temperature between 100° C. and 300° C. for a period sufficient to effect conversion of said salt to a water-soluble salt of 2,4-dihydroxybenzenesulfonic acid; (*d*) acidifying the solution of said salt to liberate the free 2,4-dihydroxybenzenesulfonic acid and heating at a temperature between 100° C. and 300° C. to hydrolyze the sulfonic acid; and (*e*) separating the resultant resorcinol from the reaction mixture by extracting with a water immiscible solvent and evaporating the solvent.

2,835,709

PROCESS FOR THE PRODUCTION OF PENTAERYTHRITOL TRICHLOROHYDRIN

Hans-Joachim Mann, Offenbach (Main), Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt, Germany

No Drawing. Application February 11, 1955
Serial No. 487,706
Claims priority, application Germany February 18, 1954
4 Claims. (Cl. 260—633)

1. In a process for the production of pentaerythritol trichlorohydrin from pentaerythritol and hydrogen chloride the step which comprises reacting pentaerythritol and hydrogen chloride in admixture with a catalytic compound selected from the group consisting of lower aliphatic monocarboxylic acids and their lower alkyl esters at a temperature between 150° and 200° C., under a pressure between 110 and 150 atmospheres, the proportion of the hydrogen chloride being at least 3 mols per mol of pentaerythritol and the proportion of the catalytic compound being at least $\frac{1}{10}$ mol per mol of pentaerythritol.

2,835,710

TETROLS CONTAINING AN UNINTERRUPTED EIGHT CARBON CHAIN WITH HYDROXYL GROUPS IN THE 1, 4, 5 AND 8-POSITIONS

Howard E. Holmquist, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 25, 1955
Serial No. 549,156
2 Claims. (Cl. 260—635)

1. A tetrol containing an uninterrupted eight carbon chain represented by the formula



wherein the free valences of one of the carbon atoms in each of the 2,3 and 6,7 positions is satisfied by R and the free valences of the other of the carbon atoms in each of said positions is satisfied by R', said R and R' being selected from the class consisting of hydrogen, alkoxyaryl wherein the alkoxy radical is of not more than 12 carbon atoms and the aryl radical is hydrocarbon of not more than 10 carbon atoms, haloaryl wherein the aryl radical is hydrocarbon of not more than 10 carbon atoms, and monovalent hydrocarbon radicals free from non-aromatic unsaturation of not more than 12 carbon atoms.

2,835,711

PREPARATION OF FLUOROCARBONS AND CHLOROFLUOROCARBONS

John K. Wolfe, Burnt Hills, and Newell C. Cook, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application July 18, 1955
Serial No. 522,878
8 Claims. (Cl. 260—653)

1. A method of preparing a material selected from the class consisting of fluorocarbons and chlorofluorocarbons which comprises reacting carbon at high temperature with a material selected from the class consisting of calcium fluoride and a mixture of calcium fluoride and calcium.

2,835,712

PROCESS FOR THE PRODUCTION OF CALCIUM COMPOUNDS OF CYCLOPENTADIENE AND ITS ALKYLATED, ARALKYLATED, AND ARYLATED DERIVATIVES

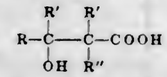
Karl Ziegler and Klaus Hafner, Mulheim an der Ruhr, Germany; said Hafner assignor to said Ziegler

No Drawing. Application July 11, 1955
Serial No. 521,423
10 Claims. (Cl. 260—665)

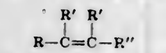
1. Process for the production of calcium compounds of cyclopentadiene and its alkylated, aralkylated and arylated derivatives, which comprises reacting a compound selected from the group consisting of cyclopentadiene, dicyclopentadiene and its alkyl, aralkyl, and aryl derivatives with calcium carbide at elevated temperatures in the presence of a compound selected from the group consisting of anhydrous ammonia and anhydrous materials having a strong basic reaction and containing anhydrous NH_2 groups.

2,835,713
PREPARATION OF UNSATURATED CYCLIC POLYENE COMPOUNDS BY DECARBOXYLATION USING AN ORGANIC ACID OR ACID ANHYDRIDE AS DEHYDRATING AGENT
Charles Donald Robeson, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application July 1, 1954
Serial No. 440,838
10 Claims. (Cl. 260—666)

1. The method which comprises treating a beta-hydroxy carboxylic acid of the formula

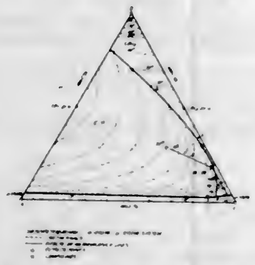


wherein R is a conjugated polyene radical terminating in a beta ionone ring, R′ is a member of the group consisting of hydrogen atoms and lower alkyl radicals and R″ is a member of the group consisting of lower alkyl radicals, conjugated polyene radicals and hydrogen atoms, with an organic acid anhydride under substantially anhydrous conditions and thereby forming a compound having a conjugated unsaturation of the formula



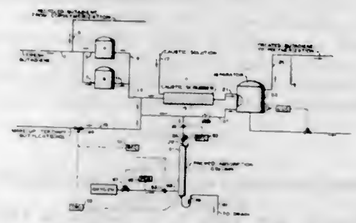
substantially free of the corresponding retro-isomer.

2,835,714
SEPARATION OF ORGANIC COMPOUNDS
Alan C. Nixon, Berkeley, Carl H. Deal, Jr., Orinda, and Raymond A. Wilson, Berkeley, Calif., assignors to Shell Development Company, San Francisco, Calif., a corporation of Delaware
Application March 31, 1950, Serial No. 153,253
2 Claims. (Cl. 260—674)



1. The method of separating components from a mixture consisting essentially of C_8 aromatic hydrocarbons containing para-xylene and meta-xylene, which method comprises (1) forming a first admixture of said mixture with an amount of carbon tetrabromide such that the composition of the admixture falls within that region of a temperature-composition, liquid-solid phase diagram of the resulting system in which a solid complex (A) consisting only of equimolar proportions of carbon tetrabromide and a first one of said xylenes is first produced on cooling; (2) cooling said first admixture to produce only said solid complex (A); (3) separating said solid complex (A) from a resulting first mother liquor; (4) altering the proportion of carbon tetrabromide in said first mother liquor to form a second admixture the composition of which falls within that region of a temperature-composition, liquid-solid phase diagram of the resulting system in which a second solid complex (B) consisting only of equimolar proportions of carbon tetrabromide and the other one of said xylenes is first produced on cooling; (5) cooling said second admixture to produce only said second solid complex (B); and (6) separating said second solid complex (B).

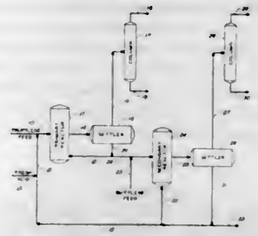
2,835,715
AUTOMATIC CONTROL OF OXYGEN REMOVAL FROM PROCESS STREAMS
Raymond A. Tiede, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application October 18, 1954, Serial No. 462,790
17 Claims. (Cl. 260—677)



1. An apparatus for measuring the oxygen absorbing capacity of a fluid stream which comprises an oxygen reaction chamber having a sample inlet in one end and a sample outlet in the other end, means for passing said fluid stream through said inlet, reaction chamber and outlet at a constant rate of flow, means for admitting a stream of oxygen at a constant pressure into said reaction chamber at a point near said outlet to react with said fluid stream therein, and means for measuring the quantity of oxygen admitted into said oxygen reaction chamber.

8. A method for automatically controlling the addition of fresh oxygen-absorbing material to an at least partially spent oxygen-absorbing material which comprises, contacting a sample of the at least partially spent oxygen-absorbing material with oxygen under conditions such that said sample is completely reacted with oxygen, measuring the amount of oxygen required for said complete reaction, and in accordance therewith, automatically controlling the addition of fresh oxygen absorbing material to the at least partially spent oxygen-absorbing material.

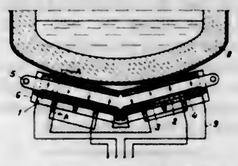
2,835,716
POLYMERIZATION PROCESS EMPLOYING A LIQUID PHOSPHORIC AND CATALYST
Gordon E. Langlois and Jacob D. Kemp, El Cerrito, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application December 6, 1954, Serial No. 473,398
11 Claims. (Cl. 260—683.15)



1. A cyclic process for the polymerization of normally gaseous olefins, which comprises contacting a propylene-containing feed with a liquid phosphoric acid catalyst of a concentration in the range of from about 95 to 115% H_3PO_4 in a primary polymerization zone at a temperature in the range of from about 150 to 350° F. and at a pressure in the range of from about 200 to 1800 p. s. i. g., continuously recovering from said zone a hydrocarbon phase and an acid phase, passing said hydrocarbon phase to propylene polymer product recovery facilities, contacting at least a portion of said acid phase with a butylene-containing feed in a secondary polymerization zone at a temperature in the range of from about 150 to 350° F. and at a pressure in the range of from about 200 to 1800 p. s. i. g., continuously recovering from said secondary zone a second hydrocarbon phase and a second acid phase, passing said second hydrocarbon phase to butylene polymer product recovery facilities, and continuously returning at least a portion of said second acid phase to said primary polymerization zone to contact further quantities of fresh propylene-containing feed.

ELECTRICAL

2,835,717
STIRRING WINDING SYSTEM FOR METALLURGICAL FURNACES
Tord Fredriksson, Vasteras, Sweden, assignor to Allmänna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application January 31, 1957, Serial No. 637,535
Claims priority, application Sweden February 2, 1956
3 Claims. (Cl. 13—26)



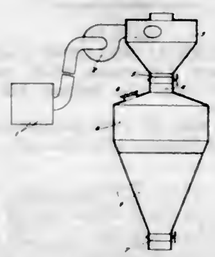
1. A polyphase stirring winding system for stirring the metallic charge in a container for molten metal, comprising a coarsely laminated magnetic yoke arranged substantially below the bottom of the container and substantially cylindric coils slid upon said magnetic yoke and supplied with poly-phase currents, damping means of non-magnetic material of low ohmic resistivity for minimizing the reactive power of the winding, said damping means being inserted between the lower surface of the yoke and the surface of the winding facing said lower surface as well as between the side surfaces of the yoke and the adjacent surfaces of the winding, and cooling means arranged in contact with the said damping means and said yoke.

2,835,718
SENSING ELEMENT FOR THERMOCOUPLE PROBES
Truman M. Stickney, Parma, and Francis C. Schwenk, Cleveland, Ohio
Application December 30, 1954, Serial No. 478,944
3 Claims. (Cl. 136—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



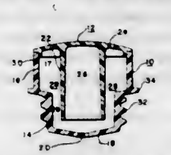
3. A probe for sensing temperature of a gas stream comprising: an open ended cylindrical shell with diametrically opposed slots of equal length and width, each defining an area extending longitudinally from the open end of said shell, the cross-sectional area of the cylinder bore being more than twice the total area defined by said slots; an insulating insert closing the other end of said cylinder at the ends of said slots opposite the open end of said cylinder; and thermocouple means axially mounted within said cylinder coextensive to said slots; said probe being oriented so that the gas stream will enter the open end of the cylinder and exit through the slots whereby a small portion of the gas stream is adiabatically stagnated.

2,835,719
MANUFACTURE OF STORAGE BATTERY PLATES
Guy Bazalgette, Paris, France
Application January 19, 1955, Serial No. 482,821
Claims priority, application France January 23, 1954
3 Claims. (Cl. 136—27)



1. A method for the manufacture of storage battery lead plates obtained by impasting lead alloy grids comprising the steps of providing a draft of air and entraining therein lead particles which are eroded from scraps of lead in the presence of that draught of air, thus producing an entrained powder containing a major proportion of lead suboxide, separating said powder from said draught of air which carries it away and directly and immediately without further oxidation immersing it under water, whereby a stabilized aqueous paste of lead suboxide is obtained, decanting said paste while eliminating the excess of remaining water, mixing said paste with sulfuric acid and impasting said grids with said paste.

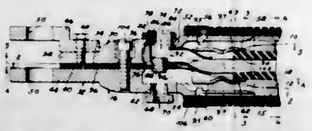
2,835,720
BATTERY VENT PLUG
John E. Buskirk, Muncie, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 9, 1955, Serial No. 506,870
1 Claim. (Cl. 136—177)



A unitary vent plug formed of a moldable acid-resistant material and adapted to be removably secured in an opening of a battery cell wall or the like, comprising, an upper inverted dish-shaped cap portion, a lower cup-like portion having an upper enlarged cylindrical portion rigidly secured to an outer radial periphery of said upper cap portion, a lower reduced diameter barrel portion of said lower cup-like portion formed extending integrally from a juncture downwardly and radially inwardly of said upper enlarged cylindrical portion, a lateral peripheral ridge formed extending radially outwardly of said upper enlarged cylindrical portion adjacent the juncture of said upper enlarged cylindrical portion and said lower barrel portion, said ridge providing an abutment limiting the depth to which the vent plug can be inserted in the cell wall, a base formed integrally with said lower barrel portion and extending radially inwardly from a lower periph-

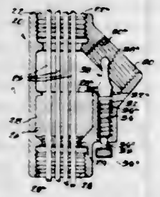
eral portion of said barrel portion while sloping downwardly to terminate in an aperture having a predetermined diameter provided for inlet of vapor and electrolyte drain-off in common, and a central tubular divider extending downwardly from said upper cap portion having an exhaust vent close to and radially outwardly of said divider, said divider forming first and second chambers each of substantial size with surface area concentrically above and radially outwardly of the vapor inlet and drain-off aperture so that passage of vapor upwardly must be reversed completely in direction to pass under a lower peripheral edge of said divider to pass from the first chamber inside said divider to the exhaust vent by way of the second chamber formed concentrically between said divider and said lower cup-like portion of the vent plug.

2,835,721
ELECTRICAL WELDING CABLE
Chester F. Leathers, Kalamazoo, Mich., assignor to Progressive Welder Sales Co., Detroit, Mich., a corporation of Michigan
Application May 27, 1954, Serial No. 432,682
12 Claims. (Cl. 174—15)



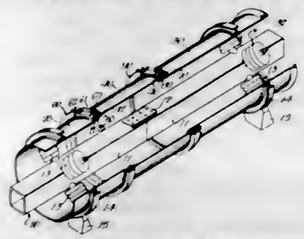
1. An electric welding cable comprising two groups of conductors spirally wound around a flexible conduit and insulated from each other, a cable head at opposite ends of said cable, at least one of said cable heads comprising a pair of longitudinally extending terminals in face-to-face relation having generally semi-cylindrical inner end portions, said terminals each having a generally semi-cylindrical cavity extending axially therein, the outer ends of said terminals being adapted for connecting the cable with an electrical welder, said cavities extending to at least adjacent the inner ends of said terminals, the flat side of said cavity being defined by a web portion which connects with the arcuate wall of the cavity along opposite edges, the ends of said groups of conductors extending one into each of said cavities, said web portions forming opposed inner faces of said terminals when the terminals are secured together in face-to-face relation and being staked towards the arcuate wall portions to mechanically lock the ends of the conductors in said terminals, said wall portions each being distorted into generally semi-circular shape, the semi-circular shaped portions of said web portions extending circumferentially around and engaging the end of said flexible conduit.

2,835,722
DRAINABLE ENCLOSURE FOR EXPLOSION-PROOF ELECTRICAL SYSTEMS
Arthur I. Appleton, Northbrook, Ill.
Application October 19, 1954, Serial No. 463,182
1 Claim. (Cl. 174—50)



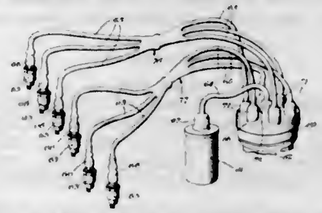
A fitting for explosion-proof electrical systems which comprises, in combination, a hollow body having entrance, exit, and filling openings defined therein; a closure member for said filling opening; means defining a sealing well within said body between said entrance and exit and in such location to permit sealing compound to be placed therein through said filling opening; said sealing well being adapted to hold such sealing compound so that the latter will mutually isolate said entrance and exit; means defining a vertical drain passage through said body; said drain passage having its upper, inner terminus disposed at a level no higher than the level to which sealing compound is to be filled in said well, and disposed immediately beneath said filling opening, the axis of said vertical drain passage being substantially in line with said filling opening; a baffle member permanently located in said drain passage for allowing the draining of moisture but preventing the escape of hot gases and flames therethrough; the upper end of said baffle member being spaced below the upper terminus of said drain passage; and a resilient plug in the upper end of said drain passage and adapted to be removed after filling the well with sealing compound and prior to use of the fitting to prevent blockage of the drain passage when sealing compound is being introduced into said sealing well by pulling the same from said drain passage out said filling opening after the sealing compound has been introduced.

2,835,723
TELESCOPIC INSPECTION SECTIONS FOR BUS ENCLOSURES
Stanley C. Killian, Glen Ellyn, and Nicholas Polgov, Chicago, Ill., assignors to H. K. Porter Company (Delaware), a corporation of Delaware
Application December 6, 1954, Serial No. 473,244
6 Claims. (Cl. 174—85)



1. A bus enclosure comprising a first stationary cylindrical section having a radially outwardly extending circumferential rib adjacent but spaced from one end thereof, a first annular seal rested on the one end of said section adjacent said rib, a second cylindrical stationary section disposed in axially aligned, longitudinally spaced relation to the first section, said second section being devoid of rib means at the end thereof adjacent said first section, a cylindrical section of an inner diameter slightly greater at the opposite ends thereof than the outer diameter of said first and second sections telescopically mounted on said second section, said telescopic section being of a length greater than the space between said stationary sections and having a radially outwardly extending circumferential rib at each end thereof, a second annular seal slidably mounted on said second section to the side of said telescopic section opposite said first section, a circumferentially ribbed ring telescopically mounted on said second section to the side of said second seal opposite said first section, said telescopic section being slidable on said second section toward said first section to dispose the rib at the end thereof adjacent the rib on said first section in engagement with said first seal, the said end of said telescopic section telescoping over and resting upon the adjacent end of said first section, said second seal being slidable on said second section toward said telescopic section to dispose said seal in engagement with the rib at the adjacent end of said telescopic section, said ribbed ring being slidable on said second section toward said telescopic section to dispose the rib thereof in engagement with said second seal, each adjacent pair of ribs having radially extending opposed end faces between which the respective seal is confined and inwardly divergent inclined opposite faces, and a pair of split locking rings one for each pair of ribs, one of said locking rings being telescopically mounted on said sections and being movable, when open, into a position encompassing the adjacent ribs on said first and telescopic sections, the other of said locking rings being telescopically mounted on said sections and being movable, when open, into a position encompassing the adjacent ribs on said telescopic section and said ribbed ring, each of said locking rings including means for decreasing the diameter thereof forcible to close the same upon the respective pair of ribs, each of said locking rings including inclined surfaces complemental to said divergent faces of the respective pair of ribs and defining between the said inclined surfaces a predetermined spacing of said ribs in the closed position of the locking ring necessitating compression of the respective seal between the respective pair of ribs, said one locking ring upon being closed camming said telescopic section toward said first section and compressing said first seal between the adjacent ribs on said first and telescopic sections, said other locking ring upon being closed camming said ribbed ring toward said telescopic section and compressing said second seal between the adjacent ribs on said telescopic section and said ribbed ring and compressing said second seal into engagement with the periphery of said second section, the space between said first and second sections being opened upon operation and movement of the various elements in the order reverse to that defined.

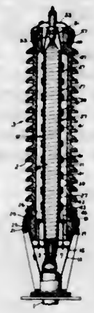
2,835,724
SHEATHED ELECTRICAL CABLES
Lee J. Colbert, Snyder, N. Y.
Application December 21, 1953, Serial No. 399,219
4 Claims. (Cl. 174—113)



1. In an electrical wiring harness, a plurality of flexible conductors, each of said conductors being covered with electrical insulation for substantially the entire distance between its ends and having a terminal element attached to each of said ends, and a single protective sheath of flexible, elastic, insulating material surrounding all of said conductors and insulation, the terminal element on at least one end of each of said conductors being covered by an independent and separate flexible hood unitary with said sheath and each of said hoods being adapted to be turned back into face to face contact with that portion of the sheath surrounding the adjacent end of the conductor to facilitate connection of said last-mentioned terminal elements to electrical apparatus.

2,835,725
HIGH VOLTAGE ELECTRIC TERMINATOR
James H. Nicholas, Chicago, Ill., assignor to G & W Electric Specialty Company, Chicago, Ill., a corporation of Illinois
Application February 1, 1954, Serial No. 407,255
6 Claims. (Cl. 174—142)

1. A high voltage terminator or joint structure having a high voltage conductor extending axially therein, and a plurality of resistance elements spaced axially within the structure and stacked one upon another and electrically connected in series between the conductor and ground,



said resistance elements having outer ends which are shaped to abut substantially the entire confronting end faces of the adjacent resistance elements to permit the close stacking of the resistance elements.

2,835,726
INSULATOR BUSHING AND ELECTRODE FOR SPARK PLUGS
Otto Beesch, Stuttgart-Zuffenhausen, Germany, assignor to Robert Bosch G. m. b. H., Stuttgart, Germany
Application July 17, 1953, Serial No. 368,576
Claims priority, application Germany July 26, 1952
7 Claims. (Cl. 313—136)

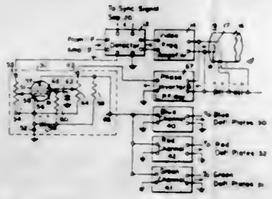


1. A sparking plug comprising an insulator having a stepped longitudinal passage therethrough, an electrode pin extending axially through the passage and including a connecting end part and a separate ignition end part, each of said parts having an outer end externally of the passage and an inner end internally of the passage, the inner end of one of the parts being axially bevelled and the inner end of the other part contacting said bevelled end with the inner ends in axially overlapping relation, and means securing said parts in the passage under axial pressure so that said overlapping and contacting inner ends by virtue of their side by side contacting engagement deflect and brace each other by the side component of the axial pressure, said passage having a transverse width, in the region of which the inner ends overlap and abut, that is wider than the greatest diameter of the overlapping ends.

2,835,727
APPARATUS FOR REPRODUCING IMAGES IN NATURAL COLOR
John L. Rennick, Elmwood Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application May 14, 1951, Serial No. 226,125
3 Claims. (Cl. 178—5.4)

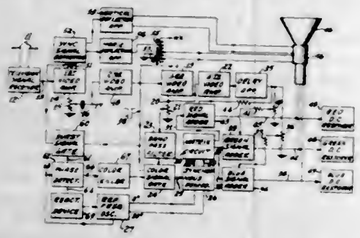
1. A television receiver for synthesizing an image in natural color in response to a video signal representing

brightness information derived by combining three primary color signals and in response to a plurality of control signals, collectively defining hue and color saturation and individually representing the amplitude difference between one of said primary color signals and a portion of said video signal, said receiver comprising: an image-reproducing device including a single electron gun for developing a single beam of electrons and a fluorescent screen target having a multiplicity of triangularly shaped clusters of three fluorescent elements individually emitting light of one of the primary colors in response to electron bombardment; a deflection system for controlling the position of said beam with respect to said



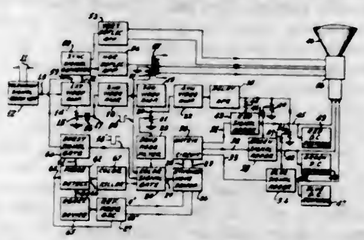
target; means for applying sweep signals to said deflection system to effect scanning of said target by said beam; means for continuously applying said brightness signal to said electron gun to modulate said beam as it scans said target; means for modifying the amplitude of said control signals inversely with respect to amplitude variations of said video signal to derive modified control signals; and means for concurrently applying said modified control signals to said deflection system to establish a resultant deflecting field for effecting angular and radial displacement of said beam relative to the central portion of each of said clusters to determine the color contribution of each such cluster to an image in natural color.

2,835,728
TELEVISION RECEIVER WITH COLOR SIGNAL GATE
Robert D. Flood and Loren R. Kirkwood, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application June 16, 1953, Serial No. 361,978
14 Claims. (Cl. 178—5.4)



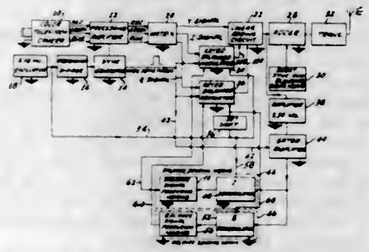
1. In a color television system employing a composite signal comprising, a luminance video signal, a chrominance video signal-modulated color subcarrier wave, and periodic color synchronizing signal bursts of unmodulated color subcarrier wave, a signal receiver comprising, means including a synchronous demodulator to recover said chrominance video signal from said color subcarrier wave for combination with said luminance video signal to represent the colors in which an image is to be reproduced, means normally effective to impress said composite signal upon said demodulator, and means coupled to said signal-impressing means and controlled by a signal during burst reception periods to render ineffective said signal-impressing means.

2,835,729
TELEVISION RECEIVER WITH COLOR SIGNAL GATE
Robert D. Flood, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 1, 1953, Serial No. 365,483
6 Claims. (Cl. 178—5.4)



1. In a color television system employing a composite signal comprising a subject-representative video signal component including a color video signal-modulated subcarrier wave and a synchronizing signal component including deflection control signals and burst of unmodulated color subcarrier wave following said deflection control signals, a signal receiver comprising, means to synchronously demodulate said color video signal-modulated subcarrier wave, means including a normally conductive color signal gate to impress said color video signal-modulated subcarrier wave upon said synchronous demodulating means, signal-controlled means operative during burst reception periods to render said color signal gate non-conductive, frequency control means responsive to said bursts to maintain synchronous operation of said demodulating means, means including a normally non-conductive burst signal gate operative to impress said bursts upon said frequency control means, and biasing means for said burst signal gate coupled to both of said signal gates and responsive to a conductive state of said color signal gate to render said burst signal gate non-conductive and responsive to a non-conductive state of said color signal gate to render said burst signal gate conductive.

2,835,730
AUTOMATIC BALANCING OF COLOR SUB-CARRIER BALANCED MODULATOR
Reuville H. McMann, Jr., New York, N. Y., and Kenneth D. Erhardt, North Hollywood, Calif., assignors to Radio Corporation of America, a corporation of Delaware
Application January 28, 1955, Serial No. 484,674
2 Claims. (Cl. 178—5.4)

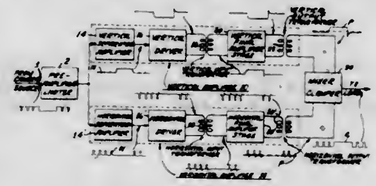


2. In a color television system for producing compatible dot sequential television signals, the combination of: the source of at least three variable amplitude direct color signals representing different complementary color aspects of a television scene, said signals having a periodically recurring picture scanning component; a matrix circuit operatively coupled with said source combining said signals in predetermined relationship with one another to

produce at least a first and second color difference signal; a source of color subcarrier signal bearing a substantially fixed time relationship to the periodically recurrent component of said direct color signals; a phase shifting means operatively coupled with said subcarrier signal source for shifting a phase of said subcarrier by a fixed amount; a first and a second modulation circuit for vectorially multiplying two electrical signals, each modulation circuit having balanced intelligence signal input terminals, carrier signal input terminals, and signal output terminals, each modulation circuit including signal responsive means for controlling the degree of cancellation of signals applied to said input terminals so that a substantially low amplitude of carrier signal appears at said output terminals along with a substantially large magnitude of modulation products; means operativel; coupled with each said modulation circuit intelligence signal input terminal for controllably and periodically clamping all of said balanced intelligence signal input terminals to a substantially fixed potential during which periods the degree of carrier signal cancellation in said modulation circuit is indicated by uncancelled carrier signal information appearing at said output terminals, a source of periodically recurrent clamping control pulses operatively coupled in controlling relation to said clamping means, said clamping pulses being synchronously related to the recurrent component of said direct color signals; signal coupling means operatively applying said first and second color difference signals to the intelligence signal input terminals of said first and second modulators respectively; signal coupling means operatively applying said color subcarrier and phase shifted color subcarrier signals to the carrier signal input terminals of said first and second modulators respectively; a linear signal adding circuit operatively coupled wtih the output terminals of both said modulators for linearally combining the modulation products produced by each modulator to form a composite signal; gated amplifier means operatively coupled with the output of said adding circuit for accepting said composite signal; a source of gating signals synchronously related to said clamping control pulses; means operatively applying said gating signals to said gated amplifier for gating said amplifier into a condition of signal amplification only during those periods in which said modulation circuits are clamped, so that said gated amplifier delivers substantially only those electrical variations corresponding to uncancelled carrier signal; a first and a second synchronous demodulator circuit each having an intelligence signal input terminal, a reference signal input terminal and an output signal terminal; means operatively applying the output of said gated amplifier to the intelligence signal input terminals of both of said demodulators; means operatively applying said color subcarrier and phase shift color subcarrier to the reference signal input terminals of said first and second demodulators respectively such that the amplitude and polarity of direct current signal delivered by said demodulators depict the characteristic and identity of any uncancelled carrier signal delivered by said gated amplifier; and means operatively applying the output signals of said first and second demodulators to said first and second modulators in controlling relation thereto in an electrical sense tending to correct for the development of any unbalanced circuit operation in said modulators.

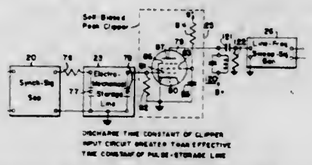
2,835,731
DOUBLE CHANNEL PULSE AMPLIFIER
Richard W. Allen, Moorestown, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application July 31, 1951, Serial No. 239,434
1 Claim. (Cl. 178—7.1)

In a television transmitter having a source of a synchronizing signal consisting of horizontal synchronizing pulses and vertical synchronizing pulses, the horizontal pulses having a shorter duration and a higher repetition rate than the vertical pulses, a first amplifier means coupled to said source, main amplifying means comprising two branches coupled to said first amplifier, a horizontal separator-amplifier including a differentiator in one of said branches and a vertical separator-amplifier including an integrator in the other branch, said differentiator comprising the input of said horizontal separator-amplifier and having a time constant to translate said horizontal pulses to pulses of substantially equal duration and to translate said vertical pulses to short duration pulses occurring at the leading edges of the respective ones of said vertical pulses, said integrator comprising the output of



said vertical separator-amplifier and having a time constant to translate said horizontal pulses to pulses of negligible amplitude and to translate said vertical pulses to long duration pulses of substantially the same initial amplitude, whereby the differentiator discriminates against the vertical pulses and the integrator discriminates against the horizontal pulses, separate driver stages coupled to the outputs of the horizontal separator-amplifier and the vertical separator-amplifier for amplifying said respective pulses, separate final amplifiers transformer coupled to the outputs of said driver stages for further amplifying said respective pulses, and mixer means connected to said final amplifiers to combine the outputs of said final amplifiers.

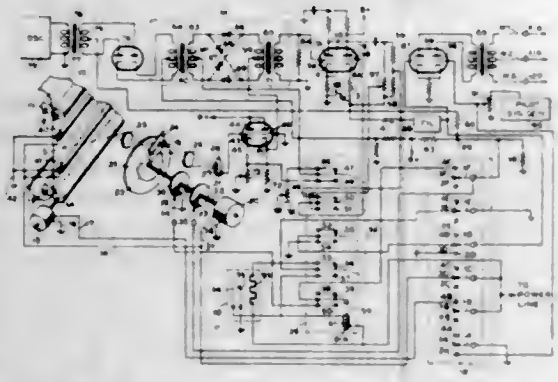
2,835,732
SYNC SEPARATOR COMPRISING ELECTRO-MECHANICAL RESONANT LINE
Robert Lee Price, Barrington, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application June 22, 1951, Serial No. 233,039
10 Claims. (Cl. 178—7.5)



9. Synchronizing apparatus comprising: a source of composite synchronizing signals of the type comprising line-frequency synchronizing pulses recurring at a predetermined nominal repetition rate, field-frequency pedestal pulses recurring at a nominal repetition rate which is low with respect to said predetermined rate and individually comprising first and second time-contiguous intervals each of a duration substantially equal to a predetermined number of line-frequency synchronizing-pulse periods, and equalizing pulses periodically recurring throughout the first said interval of each of said field-frequency pedestal pulses at a rate equal to twice said predetermined rate; an electromechanical pulse-storage line having piezo-electric input and output transducers, having a fundamental natural resonant frequency harmonically related to said predetermined nominal repetition rate and responsive only to odd harmonics of said fundamental resonant frequency, and having an effective

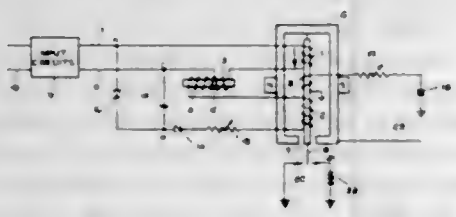
time constant of the same order of magnitude as the duration of one said second interval; means coupling said input transducer to said source, whereby said pulse-storage line functions effectively to expand the amplitude of said line-frequency synchronizing pulses selectively with respect to that of undesired noise pulses; a self-biased peak clipper, including an input circuit comprising a resistor and the inherent capacity of said output transducer and having an effective discharge time constant longer than said first-mentioned time constant, coupled to said output transducer for discriminating between said expanded line-frequency synchronizing pulses and said noise pulses; and means for utilizing the output of said peak clipper to control the scansions of a cathode-ray beam.

2,835,733
FACSIMILE APPARATUS
John W. Smith, Whitestone, N. Y., assignor to Faximile, Inc., New York, N. Y., a corporation of Delaware
Application June 17, 1955, Serial No. 516,296
6 Claims. (Cl. 178—69.5)



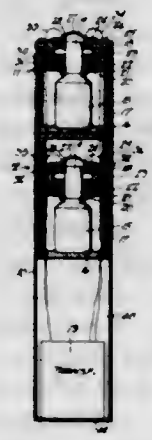
1. A control system for facsimile apparatus, comprising in circuit: means for generating a pilot signal combined respectively with phasing signals and with facsimile signals representative of graphic copy, a thermal delay relay in circuit with said means and operative to prevent generation of said facsimile signals prior to generation of said phasing signals for a predetermined time interval, a quick acting relay having a coil in circuit with said thermal delay relay and arranged to be energized at the end of said time interval, said quick acting relay being operative to permit generation of said facsimile signals when said coil is energized, a synchronous motor controllable in phase by said phasing signals, a power supply circuit for said motor, means responsive to receipt of said pilot signal for initiating a period of cyclic interruption of said power supply circuit by the phasing signals, and means responsive to termination of said pilot signals for interrupting said circuit after a predetermined time interval.

2,835,734
TELEGRAPH RECEIVERS
Charles B. Fisher, Montreal, Quebec, Canada
Application February 14, 1956, Serial No. 565,481
10 Claims. (Cl. 178—70)



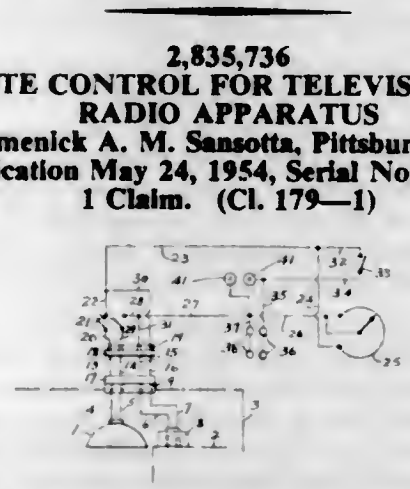
1. A receiver for direct current telegraph signals comprising a polar relay, an operating winding and a differential winding thereon, an input circuit for telegraph signals including said operating winding, a branch circuit including said differential winding, rectifying means in said branch circuit poled to transmit received pulses, and filtering means in said branch circuit for producing a substantially steady current from the received signal pulses, the said differential winding having a number of turns such that the steady current therein derived from the received pulses produces a magneto-active force of magnitude substantially equal to one half that produced by the full amplitude of the current pulses in the operating winding.

2,835,735
ANTI-SHOCK TRANSDUCER
Carl J. Moen, Buchanan, Mich., assignor to Electro Voice, Inc., Buchanan, Mich., a corporation of Indiana
Application December 4, 1953, Serial No. 396,290
11 Claims. (Cl. 179—1)



1. A microphone comprising a support, a transducer carried by said support and responsive to a sound signal and to vibrations of said support, a second transducer carried by said support and responsive to vibrations of said support, means for shielding said second transducer to render it substantially non-responsive to a sound signal, and means for connecting said transducers electrically and in opposition whereby the responses thereof to vibrations of said support are substantially cancelled.

2,835,736
REMOTE CONTROL FOR TELEVISION AND RADIO APPARATUS
Domenick A. M. Sansotta, Pittsburgh, Pa.
Application May 24, 1954, Serial No. 431,713
1 Claim. (Cl. 179—1)



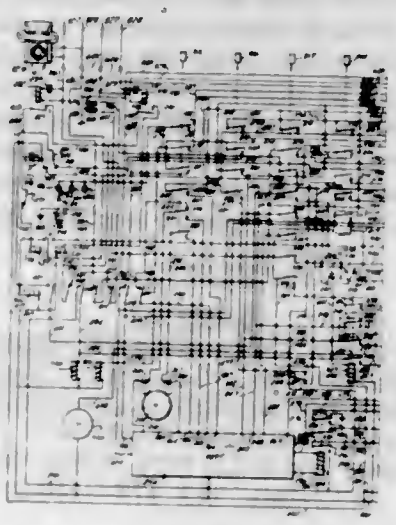
A remote control device for an electrically-operated sound reproducing apparatus including a speaker circuit and an audio output circuit, comprising, in combination, a four socket element carried by the apparatus and being connected respectively in the speaker circuit and in the audio output circuit of the apparatus, a control box apart from the apparatus, a four socket member carried by said control box, a speaker control circuit housed in said box and being connected with one pair of sockets of said socket member, an audio output control circuit housed in said box and connected with the other pair of sockets of said socket member, a double pole switch connected in said speaker control circuit, a rheostat connected in both the speaker control circuit and in said audio output control circuit in said box, a headphone circuit housed in said box, a single pole switch connected in said headphone circuit, a pair of headphone sockets carried by said box and being connected in said headphone circuit, a

flexible four-conductor extension cable, a four plug element attached to one end of said cable for contacting engagement in said socket element of the apparatus, a four plug member attached to the other end of said cable for contacting engagement in said socket member of said box, the engagement of said plug element in said socket element and the engagement of said plug member with said socket member simultaneously connecting the speaker circuit of the apparatus with the speaker control circuit of said box and the audio output control circuit of the apparatus with the audio output control circuit in said box.

2,835,737
TELEPHONE ANSWERING AND RECORDING DEVICES

John J. Shively, New York, N. Y., assignor to Telephone Answering and Recording Corporation, New York, N. Y., a corporation of Delaware

Application February 11, 1953, Serial No. 336,279
21 Claims. (Cl. 179—6)



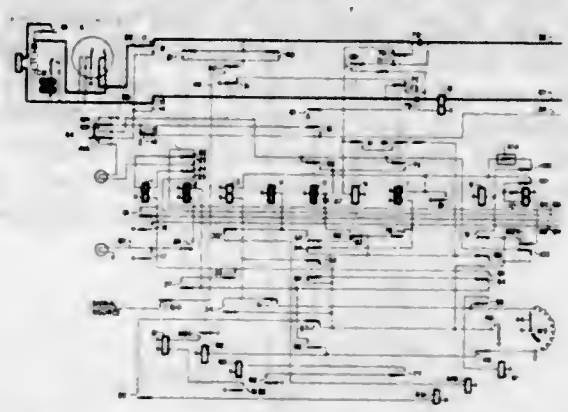
1. In telephone answering apparatus, in combination, a phonograph including means to reproduce a prerecorded talk-out message, a second phonograph including means to effect recordings thereon and means to reproduce the same, a telephone line, means responsive to ringing current on said line to actuate said first phonograph and to operatively connect said first reproducing means to said line whereby said talk-out message may be transmitted thereover, switching means controllable by said first phonograph upon completion thereby of said talk-out message to actuate said second phonograph, said switching means including means to disconnect said first reproducing means from said telephone line and to operatively connect said recording means thereto whereby messages received over said line may be recorded on said second phonograph, a second telephone line, and means responsive to ringing current on said second line to actuate said second phonograph and to operatively connect said second reproducing means to said second line whereby said recorded received messages may be transmitted over said second line, said last-named actuating means including means to disable said first-named actuating means.

2,835,738
PAYSTATION LINE EQUIPMENT

George B. Quatman, Lima, Ohio, assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application February 16, 1955, Serial No. 488,635
15 Claims. (Cl. 179—6.3)

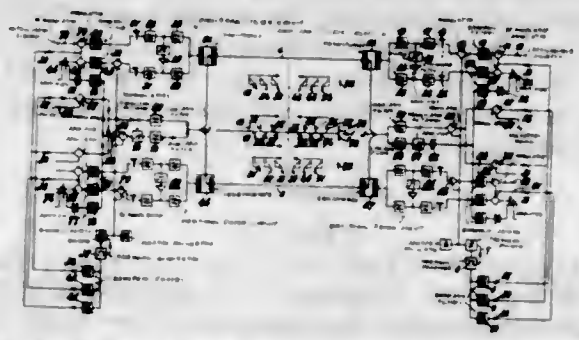
1. In a telephone system, a paystation, a plurality of other telephone stations certain of which are operators' positions, means for completing a talking connection between said paystation and any one of said other stations, a source of signalling current, means for applying said signalling current to said connection on all incoming calls to said paystation and on outgoing calls to an operator's position for notifying the party at said other station that said other station is connected to a paystation.



2,835,739
SINGLE-SIDEBAND CARRIER-WAVE TELEPHONE SYSTEM

Johannes Ensink, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 14, 1952, Serial No. 276,471
Claims priority, application Netherlands April 12, 1951
2 Claims. (Cl. 179—15)



1. A single-sideband carrier-wave telephone system comprising two adjacent pairs of conductors, a phantom circuit for said two pairs of conductors, means to transmit a first group of channels in a given direction via one pair of conductors, means to transmit a second group of channels in the same direction via the other pair of conductors, said first and second groups of channels lying within the same group frequency band, the channels of one group having a frequency shift with respect to the channels of the other group, an intelligence signal carrier-wave source associated with each channel of said two groups, a signaling carrier-wave source associated with each channel of said two groups, a plurality of signaling carrier-wave frequencies in the channels of one of said groups being equal to the intelligence signal carrier-wave frequencies in the channels of the other group and conversely, and means to transmit the intelligence signal carrier-waves and signaling carrier-waves through said phantom circuit of said two pairs.

2,835,740
ARRANGEMENT OF SUBSCRIBER'S LINE CIRCUITS

Alphonsus Heetman, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application February 18, 1955, Serial No. 489,123
Claims priority, application Netherlands February 26, 1954
2 Claims. (Cl. 179—18)

1. A telephone system comprising a two-wire subscriber's line, a subscriber station connected to close said line by short-circuiting it when placing a call, a two-

terminal first source of voltage, two resistors connected respectively between said wires and said terminals, a three-section line finder having outlet contacts of two sections connected respectively to said wires, the third said section having a marking contact, a line detector circuit for actuating said line finder, a transistor having a base connected to one of said wires, an emitter connected to said marking contact, and a collector connected to said line detector circuit, a second source of voltage, a resistor connected between said collector and



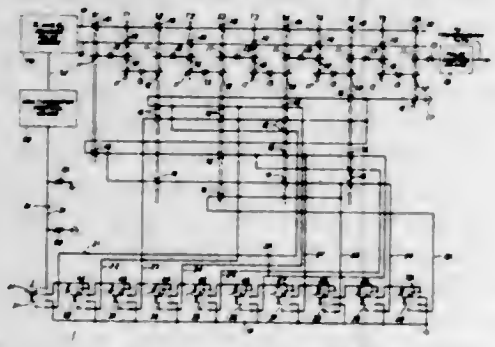
second source of voltage, a third source of voltage, a resistor connected between said emitter and said third source of voltage, and a fourth source of voltage connected to the wiper arm of said third line-finder section, said first, second and third sources of voltage having relative voltage values to render said transistor normally non-conducting when said line is open and conducting when said line is closed to place a call, and said fourth source of voltage having a value to render said transistor non-conducting when said wiper arm connects with said marketing contact.

2,835,741

MAGNETIC CORE SIGNAL GENERATOR

Henry E. Vaughan, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 1, 1956, Serial No. 619,810
21 Claims. (Cl. 179—90)



1. An electrical circuit comprising a first and a second plurality of magnetic cores having two magnetic conditions, input, output, and advance windings for each of said cores, means for individually coupling the output windings of said first plurality of cores and the input windings of said second plurality of cores, first circuit means for serially connecting the advance windings of said first plurality of cores, means for setting a particular combination of cores of said first plurality of cores in one of said magnetic conditions in accordance with a predetermined code comprising a setting winding on each core of said particular combination of cores, second circuit means for serially connecting said setting windings, and means for applying a setting current to said second circuit means; and means for applying an advance current to said first circuit means to switch said cores of said particular combination of cores to the other of said magnetic conditions.

2,835,742

MAGNETIC HEAD FOR RECORDER AND REPRODUCER

William D. Moehring, Kalamazoo, and Charles F. Murphy, Vermontville, Mich., assignors to Michigan Magnetics, Inc., Vermontville, Mich., a corporation

Application November 8, 1954, Serial No. 467,449
9 Claims. (Cl. 179—100.2)



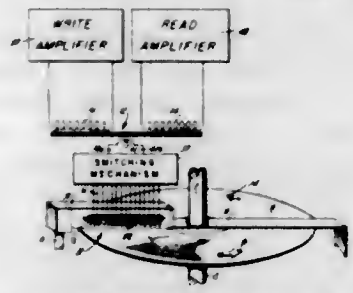
7. A magnet pick-up head for tape recorders comprising, a case formed of two parts engaged along a parting plane, one of said parts having a coil receiving recess formed therein and opening to said plane, a generally U-shaped magnet core fixedly secured in said recess with an inner arm projecting in spaced relation into said recess and with its other arm extending to said plane, a magnet coil in said recess disposed around said inner arm, and a magnetic return element fixedly secured in the parting face of the other of said parts with its ends in opposed relation to the ends of said magnet core, the parting faces of said parts and the ends of said magnet core and the ends of said return element secured therein being ground in flat opposing surfaces at said parting plane.

2,835,743

MAGNETIC TRANSDUCER ASSEMBLY

Robert V. Muffley, Los Altos, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application March 22, 1956, Serial No. 573,300
4 Claims. (Cl. 179—100.2)



1. A magnetic transducing apparatus adapted to coact with a magnetic record member having a plurality of spaced recording tracks, said apparatus comprising a plurality of core members, each of which is disposable adjacent a different one of said tracks, winding means comprising a main conductor disposed to extend through each of said core members, and a plurality of auxiliary conductors connected to said main conductor at points intermediate of said core members to cause successive pairs of said auxiliary conductors together with the respective portions of said main conductor connected therebetween to define a plurality of coils each of which is linked with a different one of said core members, first and second terminals, and switch means operable to selectively connect any two of said conductors respectively to said terminals to effect operation of each core member linked by the portion of said main conductor interconnecting said two selected auxiliary conductors.

2,835,744

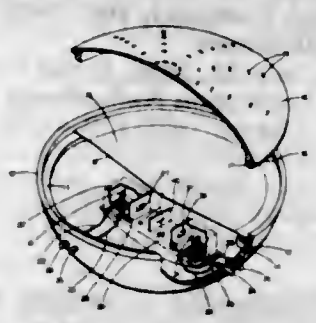
MICROPHONE

Francis S. Harris, Burton, Ohio, assignor to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application February 19, 1954, Serial No. 411,359
8 Claims. (Cl. 179—121)

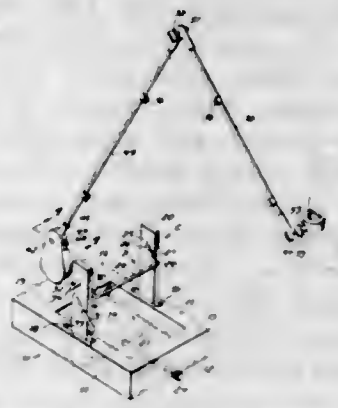
1. A microphone comprising a housing, a light source in said housing, an opaque enclosure for the light source

formed with an opening for passing a light beam from the light source, a photoelectric cell in said housing, an opaque enclosure for the photoelectric cell formed with an opening in alignment with said opening in the enclosure for the light source to pass the light beam from the light source to the photoelectric cell, a reciprocatory opaque shutter interposed between said enclosure openings to control the transmission of light from the light



source to the photoelectric cell, said shutter being formed with an opening which is smaller in the direction in which the shutter reciprocates than either of said enclosure openings, whereby the size of said shutter opening determines the maximum amount of light which may be transmitted from the light source to the photoelectric cell, and a sound responsive diaphragm connected to the shutter to move the shutter in response to sound impinging on the diaphragm.

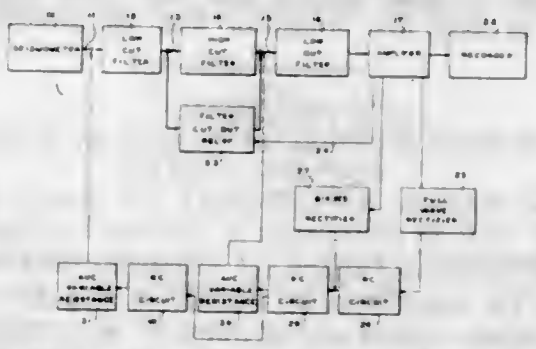
2,835,745
TELEPHONE SUPPORT
James V. Romano, Collingswood, N. J.
Application April 7, 1955, Serial No. 499,881
9 Claims. (Cl. 179—149)



1. In a telephone support, a pedestal formed with a well adapted to snugly receive the base of a telephone set, and arm structure upstanding from said pedestal having a clamp at its free end for grippingly engaging the handpiece of said telephone set; and upright carried by said pedestal at one side of said well, and a compound crank pivotally mounted in said upright and operable to depress or permit the raising of the circuit controlling plungers in said base.

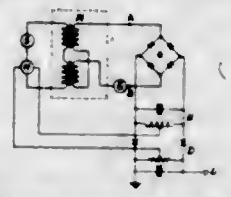
2,835,746
AMPLIFIER WITH AUTOMATIC VOLUME CONTROL
Orin C. Montgomery, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application April 7, 1952, Serial No. 280,932
16 Claims. (Cl. 179—171)

1. A multistage amplifier including a tube having a control electrode for regulating its gain, a voltage divider unit including a fixed resistance connecting said control electrode to one terminal of an input impedance, a pair of electronic discharge devices each having an anode, a cathode, and a control grid, means connecting the anode of one device and the cathode of the other device to said control electrode, and means connecting the cathode of said one device and the anode of said other device to an other terminal of said input impedance, a pair of output terminals, means for deriving a direct current volume



control voltage from the signal output voltage of said amplifier and applying it to said pair of output terminals, means connecting one output terminal to said other terminal of said input impedance, and a single lead connecting the other output terminal to both of said control grids.

2,835,747
MAGNETIC OR DIELECTRIC AMPLIFIER
Johannes Meijer Cluwen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 12, 1954, Serial No. 415,939
Claims priority, application Netherlands March 23, 1953
4 Claims. (Cl. 179—171)



1. An amplifier circuit comprising an amplifier device containing a material having a region of non-linear electrical polarization characteristic, a source of supply oscillations having a given frequency, means connected to apply said supply oscillations to said material to polarize said material at said non-linear region, a source of signal oscillations having a frequency lower than said given frequency, means connected to apply said signal oscillations to said material to modulate the degree of polarization of said material, a source of auxiliary oscillations having a frequency which lies between that of said signal oscillations and said supply oscillations, means connected to apply said auxiliary oscillations to said material to modulate the degree of polarization of said material, a first detector circuit connected to said amplifier device to receive the signals amplified by the action of said material in said amplifier device, a selective network connected to the output of said detector circuit and tuned to the frequency of said auxiliary oscillations, a second detector circuit connected to the output of said selective network, whereby the output signal of said selective network constitutes a first input signal to said second detector and means connecting said source of auxiliary oscillations to provide a second input signal to said second detector circuit.

2,835,748
NEGATIVE FEED-BACK TRANSISTOR AMPLIFIER
Johannes Ensink and Jan Verhagen, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 7, 1954, Serial No. 434,914
Claims priority, application Netherlands June 9, 1953
5 Claims. (Cl. 179—171)

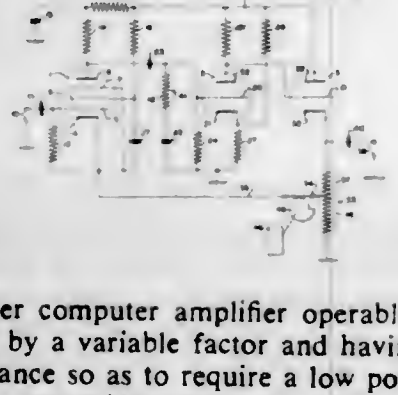
1. A negative feedback transistor amplifier system comprising a first transistor of the non-current amplify-

ing type and comprising a base, an emitter and a collector, a second transistor of the current amplifying type and comprising a base, an emitter and a collector, means for applying an input signal to the base of said first transistor, a direct current path interconnecting the collector of said first transistor and the emitter of said



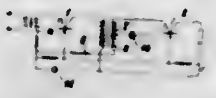
second transistor, means for energizing said transistors, means for connecting the emitter of said first transistor and the base of said second transistor in a common direct current circuit, a negative feedback impedance connected between a point on said common circuit and a terminal of said energizing means, and output circuit means coupled to the collector electrode of said second transistor.

2,835,749
FEEDBACK AMPLIFIERS
William H. McCormack, Torrance, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application June 17, 1954, Serial No. 437,405
2 Claims. (Cl. 179—171)



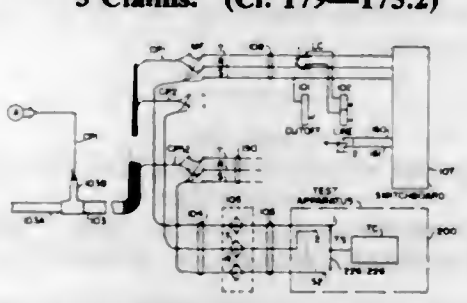
1. A buffer computer amplifier operable to divide an input signal by a variable factor and having a very high input impedance so as to require a low power signal and having a low output impedance, comprising a first vacuum tube having a cathode, a plurality of grid electrodes and an anode, a second vacuum tube having at least a cathode, a control grid and an anode electrode, a third vacuum tube having a cathode, a control grid and an anode, means supplying operating potentials to said tubes, an input circuit connected between the control grid of the first tube and a point of reference potential so as to supply an input signal to the control grid, a high resistance of the order of megohms connected directly between control grid and cathode of said first tube, the cathode and control grid of said second tube being connected to the anode of the first tube and said point of reference potential, respectively, the anode and cathode of said second tube being connected to the control grid of said third tube and said point of reference potential, respectively, an impedance connected between the cathode of said third tube and said point of reference potential, an output circuit coupled across said impedance, means for supplying a variable portion β of the voltage across said impedance between the cathode of said first tube and said point of reference potential in the same phase as that of the input signal so as to furnish degenerative feedback, said first tube having an amplification factor of at least about 1,000 so that the gain of the input signal through the first tube is substantially equal to the gain of the feedback signal therethrough, and the open loop gain of said amplifier as a whole being sufficiently large that its reciprocal is very much smaller than β and can be neglected, whereby the amplitude of the output signal is dependent substantially only on the portion of the output signal which is fed back and on the ampliude of the input signal and the input impedance of the amplifier is of the order of hundreds of megohms.

2,835,750
TRANSISTOR AMPLIFIER
Hendrik Volkers and Gerardus Rosier, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 13, 1955, Serial No. 521,868
Claims priority, application Netherlands August 6, 1954
8 Claims. (Cl. 179—171)



7. A circuit arrangement comprising first and second transistors each having emitter and base electrodes defining an input electrode system and a collector electrode defining with said base electrode an output electrode system, means for applying a biasing potential to said transistors comprising a source of voltage supply, a transformer having a magnetic core and an input winding and an output winding in magnetic relation to said core, said output winding having two end terminals and a tapping point positioned thereon intermediate said end terminals to provide two winding sections, means for connecting said input winding in said output electrode system of said first transistor, means for applying a signal current to said input electrode system of said first transistor thereby normally producing a flux in a given direction in said core, a stabilizing resistor element, means for connecting said resistor element in series circuit arrangement with one of said output winding sections between one of said end terminals and said source of voltage supply, means for connecting said other of said end terminals to said emitter electrode of said second transistor whereby emitter direct current from said second transistor flows through said series circuit arrangement, said one of said output winding sections being poled with respect to said last-mentioned current flow so as to substantially prevent direct current premagnetization of said core by said flux, a coupling capacitor connected between said tapping point and said base electrode of said second transistor, and means for deriving an output signal from said output electrode system of said second transistor.

2,835,751
AUTOMATIC ROUTINE TEST APPARATUS
Robert V. Judy, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application January 26, 1955, Serial No. 484,278
3 Claims. (Cl. 179—175.2)



1. In combination, distribution cables which may comprise respective remote branches of the same main cable, each distribution cable including a separate group of cable pairs, terminal groups, jumper conductors for connecting desired cable pairs of each distribution cable to a separate terminal group for each pair, insulation test apparatus, a selecting switch and means for operating it to bring the insulation-test apparatus into specific association with the

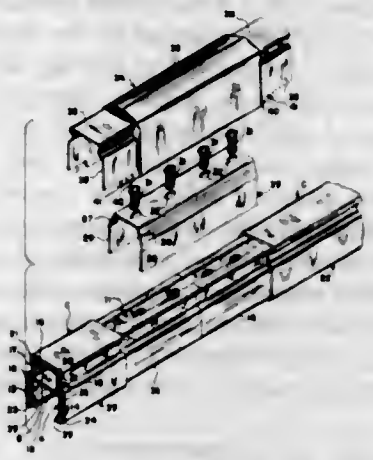
terminal groups in succession in recurring cycles, the selecting switch including means for busy-testing each connected cable pair thereby encountered, the busy-testing means including means for withholding connection of the insulation-test means with any cable pair found to be in use, the test apparatus including means for applying an insulation test to the connection established to any idle cable pair, means controlled by the insulation-test apparatus for marking the identity of any tested idle cable pair whose insulation is found to be sub-standard.

2,835,752

INSULATED COUPLED TROLLEY CONDUIT

Alphonse F. Anjeskey, Cleveland, and Harry A. Cotesworth, Cleveland Heights, Ohio, assignors to The Cleveland Crane & Engineering Company, Wickliffe, Ohio, a corporation of Ohio

Application August 18, 1954, Serial No. 450,734
1 Claim. (Cl. 191—23)



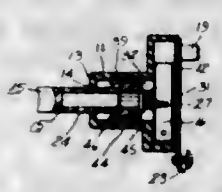
A shockproof trolley conductor for electrified mobile equipment, said trolley conductor comprising a plurality of lengths of conductor bar arranged in end to end abutting relation with one length forming a continuation of the other, each of said lengths comprising a rigid rod-like member substantially uniform in transverse cross section made of material of high electrical conductivity and having a longitudinally extending current collector receiving channel in one side extending from end to end of the member, at least one surface of which channel is adapted to be engaged by a current collector carried by the mobile equipment, said rod-like member also having a longitudinally extending dowel bar receiving aperture and a slotted opening communicating between the dowel bar receiving aperture and the external surface of the rod-like member opposite said current collector receiving channel, the width of said slotted opening being less than the width of said dowel bar receiving aperture, a dowel bar opposite end portions of which are inserted into the dowel bar receiving apertures in abutting end portions of said rod-like member, a generally U-shaped conductor bar clamp of uniform transverse cross section, the bottom internal surface of which is adapted to abut the surface of the rod-like member containing the slotted opening and the internal side surfaces of which are adapted to abut opposite external surfaces of the rod-like member intermediate the side containing the slotted opening and the current collector receiving channel to provide a rigid coupling structure between the conductor bars, means attaching said dowel bar and said clamp to the abutting end portions of adjacent lengths of rod-like member, each of said lengths of conductor bar also having a channel-like member substantially uniform in transverse cross section made of electrical insulating material and enclosing the external surfaces of said rod-like member excepting for the inner surfaces of said current collector receiving channel and the portions covered by said clamp, and a channel-like coupling cover made from insulating material and having a main body portion covering the conductor bar clamp and end portions inserted under the ends of the channel-like members, said coupling cover having generally spaced parallel side walls and each of said side walls terminating in a locking flange for engaging and locking over the outer edges of the side wall of the side walls of said current collector receiving channel.

2,835,753

MULTIPLE PUSHBUTTON SWITCH WITH SNAP ACTION SPRINGS

Walter E. Lewis, Jr., Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application March 1, 1957, Serial No. 643,444
5 Claims. (Cl. 200—5)



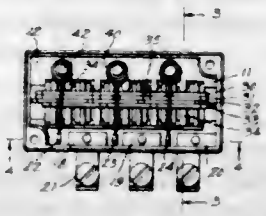
1. A multiple pushbutton switch comprising an insulating housing and a series of parallel slides, each slider having diagonal cam surfaces, a plurality of pushbuttons slidably mounted through one wall of the housing, the inner end of each button having means for engaging the cam surfaces of one or more of the sliders to affect the shifting of the sliders, the sliders cooperating with a series of movable contact members for opening and closing the circuits through the switch, and a U-shaped detent spring carried over the inner end of each button in planes transversely of the sliders, the spring having an outwardly divergent resilient arm at each side of the button with an inwardly-turned hook end in locking engagement with the button for holding the spring in place, the opposite walls of the housing adjacent the resilient arms being undercut to form shoulders which oppose the hook ends of the arms of the detent spring, whereby the switch is provided with a snap action since a button may not be fully depressed until the resilient arms of the detent spring of a previously depressed button are deflected to slide by the shoulders.

2,835,754

MULTIPLE PUSHBUTTON SWITCH WITH TORSION SPRING CONTACTS

Walter E. Lewis, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application March 20, 1957, Serial No. 647,338
7 Claims. (Cl. 200—5)



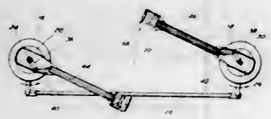
1. An electrical switch comprising a recessed housing with at least two fixed contacts and a movable contact, the movable contact being in the form of a torsion spring that is fixed at one end and has a free end for alternate engagement with the fixed contacts, a fixed cam member of insulating material mounted in the housing between the fixed contacts so that the free end of the movable contact will be deflected out of a straight line path as it is shifted from one fixed contact to the other to increase the length of travel of the movable contact and, hence, the effective time it takes for it to move from one fixed contact to the other.

2,835,755
ADJUSTABLE CONTACT ASSEMBLY
John Filko, Chicago, Ill.
Application October 25, 1956, Serial No. 618,222
8 Claims. (Cl. 200—30)



1. An adjustable contact assembly comprising a lower supporting plate, a post on said plate and extending upwardly therefrom, an upper bracket plate arranged on top of said supporting plate, said bracket plate having one end mounted on said post, opposed ears on said bracket plate and extending upwardly therefrom, a contact on one of said ears, a contact carrying arm mounted on said post and arranged between said ears and adapted for engagement with said first contact, a lug struck up from said supporting plate and engaging a slot formed in the bracket plate between said ears, a spring member mounted on said lug and engaging the bracket plate, and a cotter-pin-like locking member passing through said lug and engaging said spring to create a friction against the bracket plate and consequently creating a friction between said bracket plate and the supporting plate, an ear struck up from the supporting plate, a screw member freely rotatable in said latter ear and threadedly engaging one of said first ears to translate the bracket plate on the supporting plate.

2,835,756
SWITCH MECHANISM
Achille Bagnagatti, Milan, Italy
Application May 11, 1955, Serial No. 507,707
6 Claims. (Cl. 200—48)



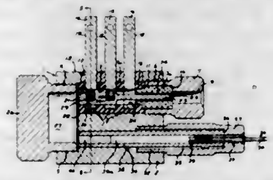
1. A switch mechanism comprising, in combination, a base member; a pair of spaced insulating mountings rotatably mounted on said base member and having free end portions; a first toggle arm fixedly mounted at one of the ends thereof on said free end portion of one of said insulating mountings and being rotatable therewith between a circuit opening position and a circuit closing position; a second toggle arm fixedly mounted at one of the ends thereof on said free end portion of said other insulating mounting and being rotatable therewith between a circuit opening and a circuit closing position; at least one contact mounted on the other end of said first toggle arm; at least a second contact mounted on the other end of said second toggle arm, said contacts engaging one another when said first and second toggle arms are in their circuit closing positions; first switch holding means mounted at said other end of said first toggle member and adapted to be moved into engagement with said other end of said second toggle arm when said arms are in their respective circuit closing positions; first resilient means for resiliently urging said first switch holding means out of engagement with said other end of said second toggle arm; a second switching holding means mounted at said other end of said second toggle arm and adapted to move into engagement with said other end of said first toggle arm when said arms are in their respective circuit closing positions; and means for moving said first and second switch holding means into engagement with their respective ends of said toggle arms against the action of said resilient means, whenever desired.

2,835,757
WORN BRAKE LINING BUZZER
James Ciselleni, Brooklyn, and Anthony V. Padrone, Forest Hills, N. Y.
Application May 9, 1955, Serial No. 506,882
1 Claim. (Cl. 200—61.4)



In combination with a brake shoe having an outwardly disposed convex surface adapted to be mounted adjacent to a brake drum, a brake lining having an inwardly disposed concave surface in mating engagement with said convex surface of said brake shoe, an opening extending through said brake shoe, portions of said lining defining a recess in said concave surface in communication with said opening through said brake shoe and extending only partially through said lining, an electrical contact extending through said opening and into said recess in freely spaced relationship thereto, said contact upon the outer surface of said lining being worn down, being adapted to engage said brake drum to close an electrical circuit therethrough.

2,835,758
EXPLOSIVE TIME DELAY SWITCH
Leroy M. Atkins, Snyder, N. Y., assignor to the United States of America as represented by the Secretary of the Air Force
Application December 18, 1956, Serial No. 629,206
10 Claims. (Cl. 200—61.06)

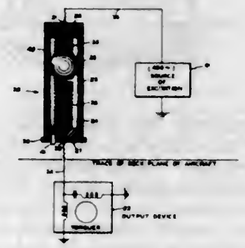


1. In an electrical switch device, a casing having a guide passage formed therein, a plurality of stationary electrical contacts exposed in the wall of said guide passage, a contact member movable axially in said passage, an electrical contact carried by said contact member for electrical contacting relation with said stationary electrical contacts when said movable contact member is moved axially in one direction in said guide passage and movable out of contacting relation with one of said stationary contacts when said movable contact member is moved axially in the opposite direction, and explosive pressure means for moving said movable contact means in one of said directions.

2,835,759
ACCELEROMETER APPARATUS
Sheldon M. Waldow, Fort Lee, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application December 2, 1955, Serial No. 550,621
3 Claims. (Cl. 200—61.53)

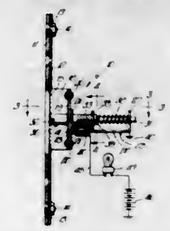
1. Accelerometer apparatus comprising a housing including a cylindrical element of an electrical conductive

material having an opening at opposite ends thereof, closure means of an electrical insulation material for each opening at the opposite ends of the element and disposed adjacent end areas thereof, resilient electrical conductive means carried by said closure means and extending axially in said cylindrical element in spaced relation to the inner surface thereof, a spherical electrical conductive member located within said cylindrical element in contacting relation with the inner surface thereof and disposed intermediate portions of said resilient means and in contact therewith when said spherical member is in substantially a static condition relative to said housing,



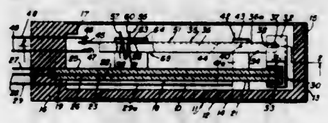
one of said portions of the resilient means being of a relatively shorter axial length than the other portion so as to prevent said one portion from making electrical contact with the inner surface of said cylindrical element upon accelerational forces being applied to the spherical member sufficient to bias the member out of contacting relation with said one portion so as to thereby open a control circuit, and means for adjusting said resilient means to provide a predetermined amount of pressure against said spherical member to close said control circuit when said member is in substantially said static condition.

2,835,760
DOOR SWITCH
Clarence Ringwald, Springfield, Ohio
Application March 9, 1956, Serial No. 570,474
3 Claims. (Cl. 200—61.62)



1. A switch of the class described, comprising, a body member, means on said body member for attaching the same to a support, a stationary contact means carried by said body member, plunger means reciprocal within said body member over said stationary contact means, one end of said plunger protruding outwardly of said body member for engagement by actuating means, movable contact means mounted on said plunger means, spring means normally biasing said plunger in a direction appropriate to bring said two-named contact means into engagement, and means at said protruding one end of said plunger for adjusting the position of said movable contact means on said plunger thereby to regulate the opening and closing of said contact means.

2,835,761
ELECTROSTRICTIVE CERAMIC ACTUATOR
Joseph W. Crownover, Sherman Oaks, Calif., assignor to Electric Machinery Mfg. Company, Minneapolis, Minn., a corporation of Minnesota
Application April 1, 1955, Serial No. 498,473
13 Claims. (Cl. 200—87)



1. An improved relay including: a pair of fixed electrical contacts spaced from one another; a swingable arm carrying a movable electrical contact between said fixed contacts; pivot means for said arm; over center spring means for urging said swingable arm toward either of said fixed contacts; a bending transducer unit including an elongated member comprising a polycrystalline electrostrictive material, said member having opposite electroded surfaces, and a reaction member joined to said electrostrictive member, said bending transducer unit having a fixed and a free end; means connecting the free end of said unit to said swingable arm, and means for impressing a relay actuating potential difference between said surfaces.

2,835,762
ANTI-CHATTER SWITCH
Howard E. Corbitt, Monrovia, Calif., assignor to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application March 28, 1955, Serial No. 497,050
5 Claims. (Cl. 200—88)

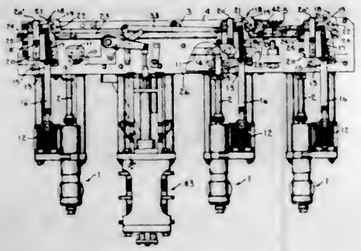


4. A thermal relay comprising a strip of magnetic material, said strip being a bi-metal strip whereby the application of heat to it causes it to curl in one direction and a drop of temperatures causes it to curl in the opposite direction, a heater coil related to said strip, a contact on said strip, a second contact in proximity to the first mentioned contact, and an anti-chatter coil having a magnetic field, said strip being located in said magnetic field so that current through said anti-chatter coil produces a tendency of said strip to move in said magnetic field and thereby tends to cause said contacts to move relatively to each other, and means altering the energization of the anti-chatter coil when the contacts are made or broken.

2,835,763
REPEATING POLYPHASE CIRCUIT INTERRUPTER
Anthony van Ryan and Kazuo Henry Date, South Milwaukee, Wis., assignors to McGraw-Edison Company, a corporation of Delaware
Application July 12, 1954, Serial No. 442,572
5 Claims. (Cl. 200—98)

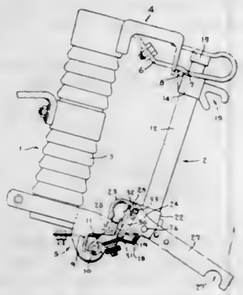
1. A polyphase circuit interrupter comprising a plurality of switch means, power means biasing said switch means towards open position for causing simultaneous opening of all of said switch means, latch means restraining said switch means from opening, a plurality of overload responsive means for releasing said latch means upon the occurrence of an overload in any phase, delay means for each overload responsive means, each overload responsive means being free of the remaining overload re-

sponsive means whereby upon simultaneous operation of two or more overload responsive means the overload re-



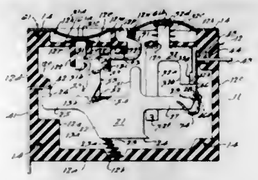
sponsive means responding to the heaviest overload will cause opening of the circuit interrupter.

2,835,764
FUSE CONSTRUCTION
Ralph H. Earle, Wauwatosa, Wis., assignor to McGraw-Edison Company, Milwaukee, Wis., a corporation of Delaware
Application April 1, 1957, Serial No. 649,770
6 Claims. (Cl. 200—114)



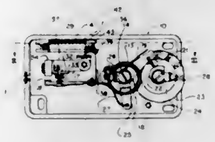
1. A drop out expulsion fuse tube construction comprising a support assembly having upper and lower stationary contacts; a fuse tube assembly comprising a fuse tube closed at its upper end and open at its lower end and having upper and lower movable contacts normally engaging said upper and lower stationary contacts, a fuse link extracting member pivoted at a fixed point on the lower portion of said fuse tube assembly and having a rearwardly located trunnions pivotally supported from said support assembly, a fuse link within said fuse tube and extending outward from the lower open end thereof and electrically connecting said upper and lower movable contacts, an operating arm pivoted at a fixed point on said fuse tube assembly and having cam means engaging said fuse link extracting member for moving said fuse link extracting member through a predetermined distance upon motion of said operating arm, gear means initially having two disconnected gears one of which is carried by said fuse link extracting member and the other of which is carried by said operating arm, said two members of said gear means coming into mesh upon further motion of said operating arm after said cam portion has finished its motion in operating said fuse link extracting member, whereby an initially heavy pull is imparted to said fuse link and is followed by an extended and lesser pull.

2,835,765
CIRCUIT BREAKER
William H. Frank, Elwood T. Platz, and Joseph A. Messing, Detroit, Mich., assignors, by mesne assignments, to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 22, 1954, Serial No. 470,364
14 Claims. (Cl. 200—116)



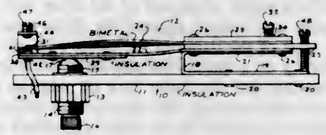
1. In a manually and automatically operable circuit breaker having a housing, a cover means for said housing, said cover means having portions comprising manual operators, actuating means disposed beneath said cover, a contactor disposed in said housing having a portion engaging said housing, means secured to said contactor and arranged to be engaged by said actuating means for movement of said contactor to the closed circuit position, a fault responsive means engageable with said contactor upon manual actuation of the contactor to circuit closed position to thereby hold said contactor in the closed circuit position and automatically and manually releasable from said contactor to permit said contactor to move to the open circuit position, said actuation means including a first and second actuators, said first actuator being engageable with said contactor means to move said contactor to the circuit closed position, said second actuator being engageable with said fault responsive means to thereby release said fault responsive means from engagement with said contactor to permit said contactor to move to the open circuit position.

2,835,766
THERMOSTAT
William Few, Goshen, Ind., assignor to Penn Controls Incorporated, Goshen, Ind., a corporation of Indiana
Application November 15, 1955, Serial No. 547,007
7 Claims. (Cl. 200—122)



1. A thermostat adapted to control the temperature of an enclosure comprising a base, a main thermally responsive element mounted on the base and adapted to move in one direction upon an increase in the temperature of said enclosure, an auxiliary thermally responsive element mechanically linked to said main responsive element and moveable upon an increase in its ambient temperature to oppose movement of said main responsive element in said one direction, electrical contacts operable by said main responsive element and adapted to be separated upon a predetermined movement of said main responsive element in said one direction, an electric heater mounted on said base adjacent said auxiliary responsive element and connected in parellel with said contacts, and shielding means adapted to confine substantially all the thermal output of said heater to said auxiliary responsive member.

2,835,767
THERMOSTATIC SWITCH
Robert D. Graf, Flora, and Leo L. Weber, Logansport, Ind., assignors to Essex Wire Corporation
Application May 16, 1957, Serial No. 659,706
12 Claims. (Cl. 200—139)



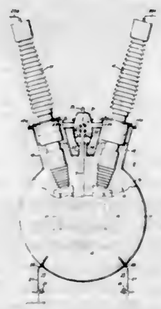
1. In a thermostatic switch, the combination of a base of insulating material; a substantially U-shaped supporting bracket having first and second legs, said first leg being secured to said base; a flexible spring arm, a backing plate, a bimetallic member, and a clamping plate carried in that order on the second leg of said supporting bracket; said bimetallic member having two substantially parallel longitudinal slots defining a central strip portion separated from exterior strip portions intermediate the ends of said bimetallic member; a first contact carried by the free end of said bimetallic member; a second contact carried by the free end of said spring arm for cooperation with said first contact; a stop bracket carried by the free end of said spring arm for limiting movement of the bimetallic member away from the spring arm; said clamping plate carrying a first screw opposite an opening in said backing plate, said first screw bearing at substantially a right angle against said central strip to produce a tension stress in said central strip portion, said tension stress applying a compressive stress in said exterior strip portions to bow said exterior strip portions for producing a snap movement of said bimetallic member; a second screw for moving said second leg relative to said base to adjust the position of said supported ends of said bimetallic member and said spring arm relative to said base; and manually adjustable means carried by said base for adjustably varying the position of the free end of said spring arm relative to said base to adjust the operation of said switch in response to changes in temperature thereof.

2,835,768
LOAD BREAK INTERRUPTER
Walter E. Mittelstadt, Racine, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application March 12, 1956, Serial No. 571,097
4 Claims. (Cl. 200—146)



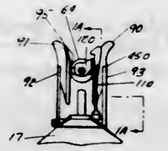
4. In a circuit breaker including an elongated current carrying element, the combination with an arc interrupter pivotally mounted on said element intermediate the ends thereof, of manually operable means movably mounted on said element operatively engaging said interrupter to effect pivotal movement thereof independently of movement of said element.

2,835,769
ELECTRIC CIRCUIT BREAKER
James M. Milne, Swarthmore, and Harold N. Schneider, Springfield, Pa., assignors to General Electric Company, a corporation of New York
Application June 23, 1954, Serial No. 438,786
9 Claims. (Cl. 200—150)



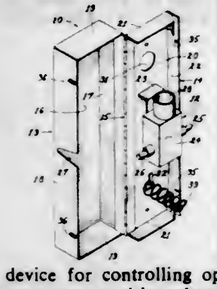
1. In a circuit breaker, a lenticular tank comprising a pair of domes of ellipsoidal configuration having generally circular rims joined together along a generally circular peripheral seam, a pair of tubular, spaced-apart housings mounted at opposite sides of the uppermost portion of the generally circular periphery of said tank and arranged to communicate with the interior of the tank, and a supply of insulating liquid within said tank having its minimum level during circuit breaker operation disposed within said tubular housings and above said uppermost peripheral portion.

2,835,770
BLADE LATCH FOR DISCONNECT SWITCHES
Arem Foti, Greensburg, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application September 10, 1954, Serial No. 455,227
6 Claims. (Cl. 200—169)



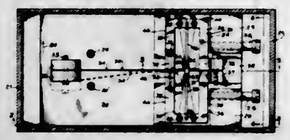
1. In a disconnecting switch having a hinge end, a jaw end and a movable blade; said movable blade pivotally mounted at said hinge end and having an engaged and disengaged position with respect to said jaw end; said blade rotated about its hinge end and about its longitudinal axis when moved from said disengaged to said engaged position; latch means secured at the jaw end of said movable blade; said latch means being operatively positioned and constructed for resolving forces which tend to move said movable blade from said engaged position to said disengaged position into a torsional force which is in the same direction as the motion of said movable blade about its longitudinal axis when said movable blade is moved from said disengaged position to said engaged position; said latch means being comprised of a jaw latch and a blade latch; said jaw latch being mounted on jaw end of said disconnect switch; said blade latch being mounted on said movable blade of said disconnect switch; said jaw latch being spaced from said blade latch when said movable blade is in said engaged position.

2,835,771
SAFETY SWITCH
Samuel A. Rausch, Warren, Ohio
Application September 20, 1955, Serial No. 535,429
4 Claims. (Cl. 200—172)



1. A safety device for controlling operation of work performing apparatus, comprising electric switch means shiftable to one position wherein it closes an electric circuit in which it is connected and to another position wherein it opens such circuit, a pair of actuators adapted to be moved by an operator of the apparatus to shift said switch means to each of said positions, said switch means being shifted from one position to another position solely by movement of one of said actuators in one direction and said switch means being shifted from said other position to said one position solely by movement of the other of said actuators in one direction, and means providing a housing totally enclosing said switch means and having a wall at least in part forming one of said actuators and movable generally flatwise, said movable housing wall being readily accessible to the operator of the apparatus and being relatively large to insure ease of operation in case of emergency and said other actuator being spaced from said wall and movable in a direction transversely of the direction of movement of said wall to reduce the possibility of inadvertent movement of the wrong actuator by the operator.

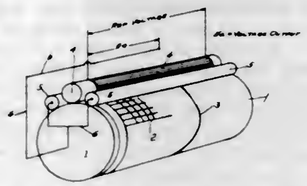
2,835,772
MOTION SENSING DEVICE
Mario M. De Giovanni, Pacific Palisades, Calif., assignor to Statham Instruments, Inc., a corporation of California
Application July 2, 1956, Serial No. 595,447
10 Claims. (Cl. 201—48)



1. A motion sensing device which comprises a frame, a flexible beam, said beam having a movable end and a stationary section spaced from said movable end, a pivot member connected to said beam and positioned intermediate said movable end and said stationary section of said beam, a mounting for said pivot member, said mounting being connected to said frame, a force summing member connected to the movable end of said beam, and a motion sensing means connected to said beam between said pivot member and said stationary section of said beam.

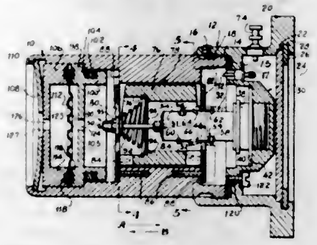
2,835,773
ARBITRARY FUNCTION GENERATOR
James T. Sawyer and John Kellis Flora, Huntsville, Ala.
Application April 29, 1957, Serial No. 655,640
3 Claims. (Cl. 201—48)

1. An arbitrary function generator of the class described comprising, a main supporting base, upward extending portions as sides attached opposite each other on the edge of the base, a shaft, said shaft supported by bearings in said sides, a metal drum mounted on said shaft, a sheet of paper attached removably around on the circumference face of said drum, a line of electric conductive ink upon said paper, said line of ink starting at an edge of the paper at an end of the drum and extending on the paper and curved around the drum and ending at the other edge of the paper at the other edge of the drum, said ink being of a quality to cause electric current to be transmitted thereby, the outer face of said ink line being slightly extended beyond the face of the paper; a roller potentiometer mounted by its ends supported in slots in said sides with its circumference face in contact with said ink line on said paper, springs attached to the ends of said



roller potentiometer adapted to retain it in close contact with said ink line and paper, two contact rollers mounted by their ends in slots in said sides, said contact rollers being positioned one along and near each side of said potentiometer, the circumference faces of said contact rollers being in contact with said ink line and paper, springs attached to the ends of said contact rollers adapted to retain them in close contact with said ink line and paper; electric transmitting wires attached to said contact rollers; an electric motor mounted on said base and connected by variable chains and gears driving means to said drum for revolving same; said conductive ink being adapted to complete an electric circuit between said roller potentiometer and said contact rollers when the drum is being revolved and the ink line surface is in contact with said rollers.

2,835,774
ELECTRICAL ACCELEROMETER
Louis D. Statham, Beverly Hills, Calif., assignor to Statham Instruments, Inc., a corporation of California
Application May 17, 1954, Serial No. 430,226
10 Claims. (Cl. 201—63)



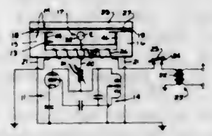
1. A linear accelerometer, which comprises a case, an inertial mass disposed for longitudinal movement in said case, a resilient connection between said mass and the inner wall of said case, a relatively fixed member, a member movable with respect to said first member, an unbonded electrical strain wire, connections between said strain wire and said fixed and movable members, said strain wire being stretched in tension, and a resilient connection between said mass and said movable member.

2,835,775
SCREENING APPARATUS
Ludwig Schlebusch, Palsenberg, Germany
Application May 24, 1955, Serial No. 510,789
Claims priority, application Germany May 26, 1954
8 Claims. (Cl. 219—10.51)



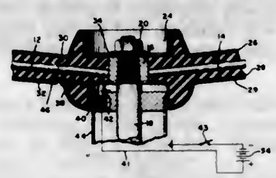
1. In pneumatic screening apparatus for treating wet small products, such as raw coal and the like, an electrically heated screen assembly across the upper separating surface of which the products to be treated pass while a blast of air is directed upwardly therethrough to effect the desired separation, said screen assembly comprising a perforated supporting plate made of material having poor heat conductivity; and electrical heating means for heating the separating surface including a metal member adapted to be heated electrically carried by said plate and positioned above the lower surface thereof, said metal member having openings formed therein aligned with the perforations in said supporting plate, the construction and arrangement being such that heat losses due to radiation and conduction will be substantially reduced and the screening surface and the metal member will be protected against the cooling effect of the currents of air passing upwardly through the screen assembly.

2,835,776
APPARATUS FOR HEAT SEALING PLASTIC FILMS
Gregory W. Blessing, Los Altos, Calif., assignor to Electronics Process Corporation
Application January 18, 1954, Serial No. 404,493
9 Claims. (Cl. 219—10.53)



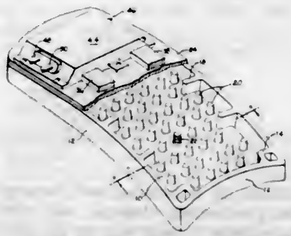
1. Apparatus for heat sealing plastic films and the like comprising a press bed disposed in a common plane for supporting separate sheets of plastic film thereon incident to welding of the same together, a pair of magnetic bars extending across said press bed in spaced parallel relation with their upper faces disposed in said common plane, a press blade disposed between and in parallel relation to said magnetic bars with its upper surface congruent to said common plane for supporting the edges of separate sheets of plastic film in overlapped relation between said magnetic bars, a movable platten overlying said spaced magnetic bars magnetically attractable toward the same for compressing the overlapped edges of said plastic film against said press blade, a high frequency generator circuit having direct connection with said press blade and ground connection with said magnetic bars for completing said high frequency circuit upon magnetic attraction of said platten against said press blade, said overlapped edges of said plastic film providing a dielectric resistance between said press blade and platten for creating high frequency heat in said plastic film at the line of compression thereof between said press blade and platten for welding said sheets together along said line of compression thereof.

2,835,777
HEATED STEERING WHEEL
John H. Gates, Dayton, and Vernon B. Burden, Clayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 28, 1956, Serial No. 594,611
7 Claims. (Cl. 219—19)



2. An electrically heated steering wheel comprising a wheel member having a rim, a hub-like support member and at least two spoke members extending therebetween, said hub-like support member including an electrically grounded metal portion, the outer surfaces of said rim and spokes being formed of a relatively rigid insulating material, a metal film disposed over said wheel member in electrical contact with said metal portion, the continuity of said metal film being broken about the entire circumference of one of said spokes, a source of electrical energy, said source being connected to ground and the metal film of said spoke outwardly of the broken portion of said film.

2,835,778
PRESSURE DISTRIBUTING PAD
Irwin F. Proaps, Wichita, Kans., assignor to Center Line Manufacturing Co., Inc., Wichita, Kans., a corporation of Kansas
Application October 19, 1956, Serial No. 617,094
10 Claims. (Cl. 219—19)

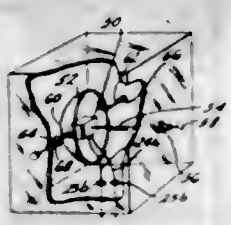


1. A pressure distributing pad comprising: a molded rubber pad provided with a plurality of upstanding integral protuberances on its upper surface; a metallic coil spring surrounding each protuberance; a rigid metallic pressure plate bearing against the upper ends of said protuberances and said springs; a plurality of upstanding rod elements having their lower ends embedded in said rubber pad and their upper ends passing freely through said plate so that said plate may be moved toward and away from said rubber pad; and a pair of electrical strip heaters confronting the upper surface of said plate.

2,835,779
AUTOMATIC HEATING AND COOLING CONTROL
Benjamin Kazan, Princeton, N. J., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application June 3, 1954, Serial No. 434,295
4 Claims. (Cl. 219—20)

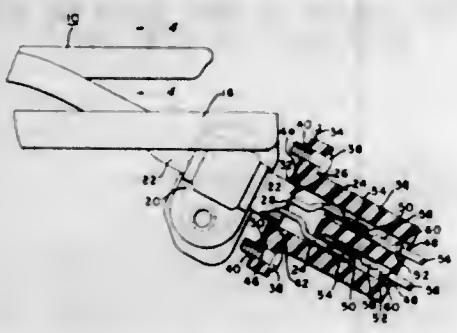
4. An automatic control for heating and cooling systems in an enclosure having walls, comprising a housing transparent to heat radiation, a heat conducting metal plate supported by a heat insulator in said housing and

having a blackened surface to increase its radiation absorption, a thermostatic element in heat conduction with said plate, and having electric switch means adapted to be closed at a predetermined temperature of said plate, the temperature of the plate varying according to radiation absorbed by it on the walls of said enclosure, to control said system responsive to outside temperature as indicated by wall radiation, said housing being evacuated to make the thermostat on said plate responsive only to



radiation impinging on the plate, said plate also having an electrical heating unit in heat conducting engagement with said plate and controlled by a thermostatic switch to maintain a plate temperature at one point substantially equal to human body temperature, said first-mentioned thermostatic element being spaced on said plate from said point and adjusted to maintain body comfort in said enclosure at various outside temperatures.

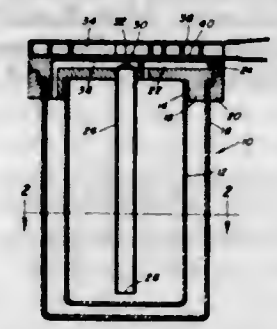
2,835,780
DOMESTIC APPLIANCE
Robert D. Bremer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 2, 1956, Serial No. 595,351
8 Claims. (Cl. 219—37)



2. In combination, a heating unit having a tubular sheath enclosing a heating element, said tubular sheath having an end portion formed with an integral outwardly directed circumferentially extending flange, an electrical conductor connected to said heating element and extending from said end portion, and an insulator enclosing said electrical conductor and said flange, and means for removably securing said insulator to said tubular sheath, said insulator having an internal shoulder that abuts a face of said flange when said insulator is secured to said tubular sheath.

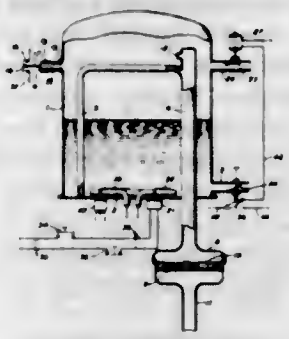
2,835,781
ELECTRICAL STEAM SPRAYER
Peter Bashuk, Peabody, Mass.
Application March 21, 1957, Serial No. 647,618
6 Claims. (Cl. 219—39)

5. An electrical steam sprayer comprising a reservoir, a feed tube having an open lower end extending into said reservoir, a cap on said reservoir, said feed tube being suspended from said cap, a heating unit secured to said cap, a passage in said cap communicating said tube with said heating unit, said heating unit having a steam delivery end, said heating unit comprising a pair of spaced electrical resistance elements, and means connecting said elements to a source of electrical current, said resistance elements being spirally coiled, a flexible outer container secured to said cap, a conduit communicating said feed tube with said container, said cap having



an opening communicating said reservoir with the atmosphere.

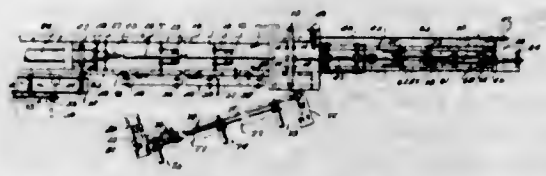
2,835,782
APPARATUS FOR PREPARING COFFEE BEVERAGES
Theodor H. Stiebel, Holzminden (Weser), Germany
Application April 23, 1957, Serial No. 654,527
5 Claims. (Cl. 219—44)



1. Apparatus for preparing hot beverage coffee comprising a closed container, an electric heating coil within the container adjacent to the bottom thereof, a main electric line adapted to connect the heating coil to a source of electrical potential, a water inlet means connected to a lower region of the container, a vertical riser tube within the container having its open end adjacent to but spaced from the bottom of the container, an outflow tube vertically within the container having a closed top in a horizontal plane above the top of the riser tube and of which the lower open end region extends through the bottom region of the container, a connecting tube interconnecting the top of the riser tube with the region of the outflow tube below the top thereof, the outflow tube having an aperture in the region between its top and the region thereof connected to the connecting tube and above the level of the water to be filled into the container, a vent valve connected to the container at a region thereof above the level to which water is filled, a plunger controlled by a solenoid coil normally closing the vent valve, a closure valve in the water inlet means, a first thermally responsive switch means controlled by the temperature of the heating coil, a second thermally responsive switch means controlled by the temperature of the heating coil, a second thermally responsive switch means controlled by the temperature of the heating coil and serially connected in the main line, a first branch line shunted across the main line, a relay of which the coil is in the first branch line in series with the first thermally responsive switch means, a first pair of spaced contacts in the main line adapted to be bridged by the relay armature on energization of the relay coil, each the first and second thermally responsive switch means being normally in circuit closing position and the first switch means opening the first branch line and by way of the relay the main line when the heating coil reaches a first predetermined temperature and the second switch means opening the main line when the heating coil reaches a second predetermined temperature higher than the first predetermined temperature, a two-position switch, a sec-

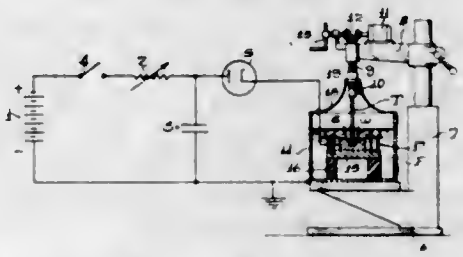
ond branch line connected between the terminal of one position of the two-position switch and one side of the main line, an electric water pump in the second branch line, a third branch line connected between the terminal of the other position of the two-position switch and such one side of the main line, the armature of the two-position switch being connected to the other side of the main line, the solenoid coil being in the third branch circuit, and a mechanical interconnection between the closure valve and the two-position switch such that on opening the closure valve the two-position switch armature opens the third branch circuit, deenergizing the solenoid coil to release the plunger to the vent valve opening position, and closes the second branch circuit actuating the water pump, and on closing the closure valve the two-position switch armature closes the third branch circuit, energizing the solenoid coil to actuate the plunger to the vent valve closing position, and opens the second branch circuit to stop the water pump.

2,835,783
TUBE WELDING MACHINE
Charles G. Watson, Youngstown, Ohio, assignor to The Youngstown Welding & Engineering Company, Youngstown, Ohio, a corporation of Ohio
Application August 31, 1954, Serial No. 453,182
8 Claims. (Cl. 219—60)



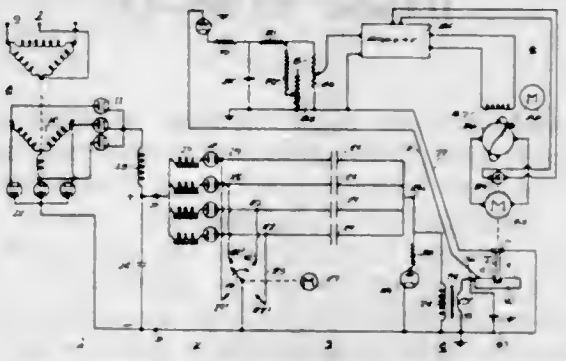
1. In an apparatus for welding a tube, an elongated welding head support member of a size to fit within the tube to be welded and of a length as great as the length of the tube portion to be operated upon, means for axially advancing the tube to be welded along a path to telescope the tube about said support member from one end thereof, a welding head connected to said one end of said support member for welding said tube, and means connected to the other end of said support member for mounting the latter and for supporting the latter and the tube telescoped thereover for swinging movement to a discharge position defining an angle with said path.

2,835,784
SPARK MACHINING APPARATUS
Everard M. Williams, Pittsburgh, Pa., assignor, by mesne assignments, to Firth Sterling Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application July 21, 1954, Serial No. 444,837
2 Claims. (Cl. 219—69)



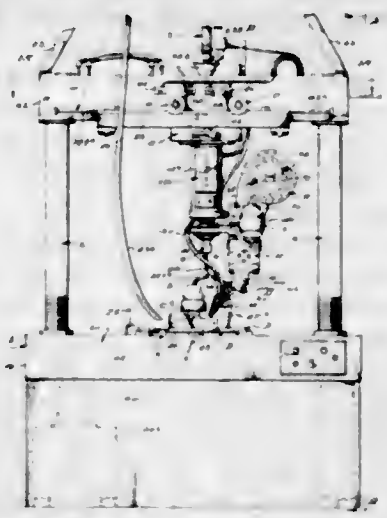
1. An apparatus for electrically spark machining a conductive workpiece with an electrode tool comprising means for supporting a tool with respect to a workpiece to define a spark gap therewith, means for inundating the spark gap thus defined with dielectric fluid, a spark-powering capacitor, means for connecting the capacitor to a source of direct current voltage, said source voltage having a sufficiently high level to cause over-voltage breakdown of the dielectric liquid in the spark gap, and circuit means connecting said gap across the capacitor in polarity to provide a positive spark current discharge flow from the workpiece to the tool when the capacitor has been charged to a voltage sufficient to cause said over-voltage breakdown of the dielectric liquid, said circuit means including a rectifier diode in series with said gap polarized to permit said positive current flow and to block oscillatory reverse currents.

2,835,785
APPARATUS FOR SPARK MACHINING
Everard M. Williams, Pittsburgh, Pa., assignor, by mesne assignments, to Firth Sterling Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application January 3, 1955, Serial No. 479,472
17 Claims. (Cl. 219—69)



4. In an apparatus for machining a conductive workpiece by a series of spark discharges through a liquid dielectric in the spark gap defined between the workpiece and an electrode tool, a pulse transformer with a ferromagnetic core having a multi-turn primary winding and a single turn secondary winding, low impedance conductors connecting said secondary winding across said gap, means for supplying a series of short, time-spaced pulses of given time duration to said primary winding, and a resistive impedance having a conductance which increases with applied voltage connected across said secondary winding in parallel with said gap to close the secondary circuit when the spark gap spacing is too large for sparkover at the secondary pulse voltage.

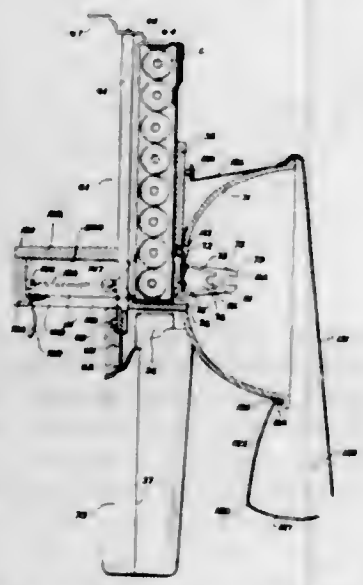
2,835,786
WORK FABRICATING MACHINE
Ernie L. Launder, Montebello, Allen W. Loudon, Downey, and Max Frederick, Jr., Whittier, Calif., assignors, by mesne assignments, to H. & L. Tooth Company, Montebello, Calif., a corporation of California
Application February 24, 1953, Serial No. 338,292
28 Claims. (Cl. 219—124)



1. A machine for welding around rectangular work parts having vertically disposed peripheral walls projecting from a horizontally disposed base, including, a table mounted to reciprocate, means adapted to hold a work part on the table, an electrode mounted to turn on a vertical axis and to reciprocate relative to the table and

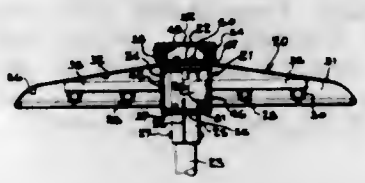
adapted to angularly carry a welding rod with the terminal end thereof at and intersecting said vertical axis and adjacent the peripheral wall of the work part, welding means whereby an arc is established and the rod fed so the work part is welded, and means operating the table and electrode relative to each other in predetermined timed relation whereby the work part and arc move relative to each other establishing straight predetermined lines of welding at the periphery of the work part.

2,835,787
MAGAZINE-LOADING FLASH HOLDER
Joseph Mihalyi, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application June 24, 1953, Serial No. 363,863
11 Claims. (Cl. 240—1.3)



1. In a flash holder the combination of a hollow casing adapted to contain an electrical power supply and to serve as a handle; an open-ended flash lamp receptacle atop said casing; a box containing a plurality of flash lamps in stacked relation inserted into the open end of said receptacle and extending to the bottom thereof, the front wall of said receptacle and the adjoining wall of said box provided with alined openings through which the lowermost lamp in the box is adapted to be ejected, lamp gripping means extending from said receptacle adjacent said opening and adapted to guide a lamp to, and frictionally retain it in, a firing position as it is moved from said box, and including contacts for engaging the lamp terminals when the lamp is in firing position; means connecting said contacts into said power supply and including a normally open circuit; a frangible seal covering the opening in said box to retain the lamps therein; a manually operated pusher member mounted on said receptacle to slide from a normally inoperative position to an operative position wherein it engages the lowermost lamp in said stack and pushes it through said openings into firing position and whereupon any lamp already in firing position will be forced therefrom by movement of the succeeding lamp into such position; a door in the rear wall of said box to permit movement of the pusher member transversely of the stack of lamps; a reflector fixed to the front wall of said receptacle in embracing relation with said lamp gripping means and provided with an aperture on its axis alined with said opening in the receptacle wall; a door having a reflecting surface for closing said aperture in the reflector and hinged to move between a normally closed position, wherein its reflecting surface completes the surface of the reflector and the door prevents sympathetic firing of the lamps in said box upon firing of the lamp in firing position, and an open position, to which it is pushed by a lamp being shoved into firing position, a spring-loaded plunger extending up the rear wall of said receptacle, a presser member atop said plunger movable between an operative position, wherein it engages the uppermost lamp in the stack to press downwardly thereon, and an inoperative position, wherein it leaves the open end of said receptacle unobstructed to permit the insertion of a box of lamps therein, the rear wall of said box provided with an elongated slot to permit downward movement of said presser member, and a transparent flash guard detachably connected to and covering the open end of said reflector, said guard including a pocket portion extending below the reflector proper and adapted to catch and retain a plurality of burned lamps as they are ejected from firing position.

2,835,788
FLUORESCENT ISLAND LIGHT FIXTURE
Hyman Phillips, Cincinnati, Ohio, assignor to Oscar Phillips Company, Cincinnati, Ohio, a corporation of Ohio
Application August 25, 1952, Serial No. 306,152
17 Claims. (Cl. 240—3)

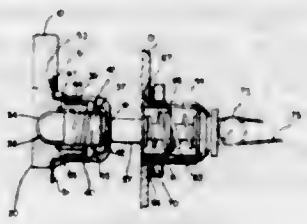


1. A fluorescent lighting fixture adapted to be mounted in a horizontal position with its opposite ends supported on a pair of spaced, generally vertical mounting posts, said fixture comprising a body formed of sheet metal, said body being of relatively narrow oblong configuration in the horizontal plane and having a substantial lineal extent, the body including a series of vertical separator walls extending transversely of the body and spaced from one another longitudinally of the body, said body having a relatively narrow opening extending longitudinally along its central axis, a pair of spaced vertical side walls joined to said body along the side edges of said opening and extending longitudinally of the opening, said side walls providing a trough adapted to enclose the electrical components and wiring of the fixture, respective wire conduits secured upon said separator walls and extending transversely from the side walls of the trough outwardly in opposite directions, said side walls including openings providing communication from the interior of said trough to said wire conduits, a series of fluorescent tube sockets mounted upon said wire conduits whereby the electrical wiring is adapted to extend from the said trough through said wire conduits to said sockets, said sockets adapting a series of fluorescent tubes to be mounted longitudinally between said spaced separator walls and within said housing, an elongated stiffening beam mounted in said trough substantially coextensive with the body, and a plurality of fastening elements passing through said side walls into said stiffening beam at opposite sides, whereby the longitudinal stiffness of the beam is imparted to the trough and body, said vertical mounting posts being adapted to engage the opposite ends of said beam and thereby support the fixture in spanned relationship across said posts without intermediate support.

2,835,789
INSTRUMENT PANEL LIGHTING ASSEMBLY
John M. Roper, Springfield, Md.
Application September 11, 1957, Serial No. 683,300
6 Claims. (Cl. 240—8.16)

1. The combination of a translucent panel having a translucent lamp supporting member secured thereto substantially flush with the forward surface of said panel,

a cap member for said supporting member and having a lamp therein, said lamp being secured to said cap member, a first annular metallic ring mounted on the outer periphery of said lamp support, a second annular metallic ring mounted on the inner periphery of said lamp support, conductors connected to each of said annular



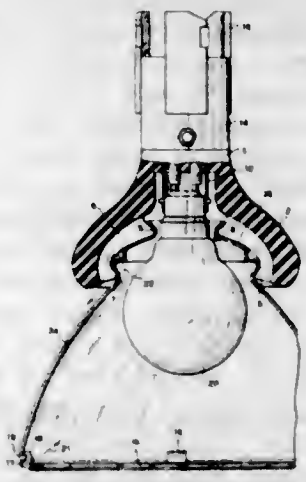
metallic rings, a plastic annular ring encircling said lamp and secured to said cap member, a helical spring surrounding the base of said lamp and engaging one of said annular metallic rings and said annular plastic ring, conductor means connected to said conductors and resiliently mounted pin means for defining an electrical contact with the said cap member.

2,835,790

LIGHTING FITTING ADAPTED FOR SUSPENSION

Albertus Divendal, Amsterdam, Netherlands, assignor to N. V. Hollandsche Draad- en Kabelfabriek, Amsterdam, Netherlands, a limited-liability company of the Netherlands

Application August 11, 1954, Serial No. 449,234
Claims priority, application Netherlands March 25, 1954
4 Claims. (Cl. 240—46.59)



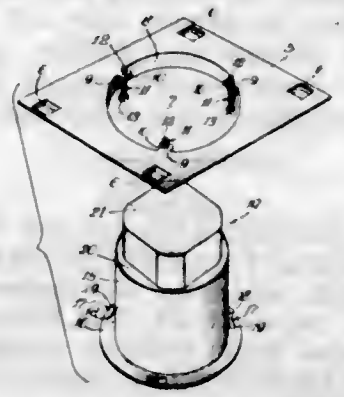
3. A substantially closed lighting fitting comprising a central upper part constructed as a socket for an electric source of light and having an enlarged lower portion consisting of a resilient material provided at its inner surface with two coaxial ring-shaped rims, a reflector consisting of two coaxial parts with rims, both of said parts being held in said enlarged lower portion by the cooperation of said coaxial ring-shaped rims with the rims on the parts of the reflector, said reflector extending downwardly around said source of light, said coaxial parts defining a ring-shaped air exhaust aperture located within the said enlarged lower portion, the said inner surface being further provided with substantially radially disposed recesses extending in the said surface in opposite directions beyond the said ring-shaped rims, a window having a red light filter in the form of a flat circular disc, a ring-shaped hollow rim of resilient material of U-shaped cross-section supporting said window, and rim locking lugs on said hollow rim for supporting the hollow rim on the reflector.

2,835,791

RECESSED LIGHTING FIXTURE ASSEMBLY

Marvin A. Horwitz, Highland Park, Ill., assignor to Markstone Manufacturing Company, a corporation of Illinois

Application May 9, 1957, Serial No. 658,123
2 Claims. (Cl. 240—78)



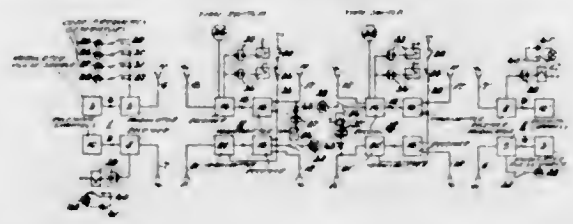
1. A recessed lighting fixture assembly comprising: a supporting plate to overlie a ceiling, said plate having a perpendicular plaster flange adapted to extend into a ceiling opening; a plurality of tabs extending inwardly from the flange and perpendicular thereto, said tabs having threaded holes; screws with their shanks threaded into the holes in said tabs and their heads down, the heads of said screws being positioned in a plane below the bottom of the plaster flange; a fixture housing having a sidewall which occupies the space bounded by the inner ends of the tabs; a top plate surmounting the sidewall; a junction box supported on the top plate and a mounting flange on the bottom of said housing which has a keyhole slot engaged with the head of each screw, each of said keyhole slots having a portion adapted to clear the screw head and a portion adapted to clear the screw shank and engage the screwhead, whereby the supporting plate may be mounted in a ceiling with the screws threaded into the holes, and the keyhole slots in the fixture housing may thereafter be engaged with said screw heads and the screws tightened to clamp the mounting flange against the ceiling.

2,835,792

TRANSMISSION SYSTEM COMPRISING A TERMINAL STATION AND A RELAY STATION

Hendrik Cornelis Bennebroek Evertsz, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 20, 1951, Serial No. 216,484
Claims priority, application Netherlands May 2, 1950
5 Claims. (Cl. 250—6)



1. A transmission system comprising a terminal station and a relay station for the transmission of intelligence signals by means of intelligence-modulated carrier wave pulses, said terminal station comprising a carrier wave source and modulator means for producing said intelligence-modulated carrier wave pulses, the durations of said pulses being short as compared to the time intervals between successive pulses, a code frequency generator for producing a switching signal comprising said code frequency and having a relatively long time duration which is at least as great as said time intervals between successive pulses, means connected to amplitude-

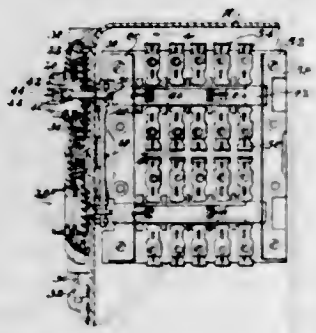
modulate said carrier wave with said switching signal so as to generate a continuously occurring code-frequency modulated carrier wave during the occurrence of said switching signal and hence continuously during the time intervals between pulses, said relay station comprising a switching relay to be actuated by said switching signal, receiver means for receiving said modulated carrier wave, and a filter for passing only said code frequency and connected between said receiver means and said switching relay whereby said switching relay is actuated upon the occurrence of said switching signal.

2,835,793

LOCKING SWITCH AND RELIEF VALVE FOR COMPACT RADIO EQUIPMENT

John W. Daniels, Alhambra, and Ingemar R. V. Taegtstroem, Los Angeles, Calif.; said Taegtstroem, now by change of name Ralph Textrom, assignors to Hoffman Electronics Corporation, Los Angeles, Calif., a corporation of California

Application June 20, 1952, Serial No. 294,748
4 Claims. (Cl. 250—16)



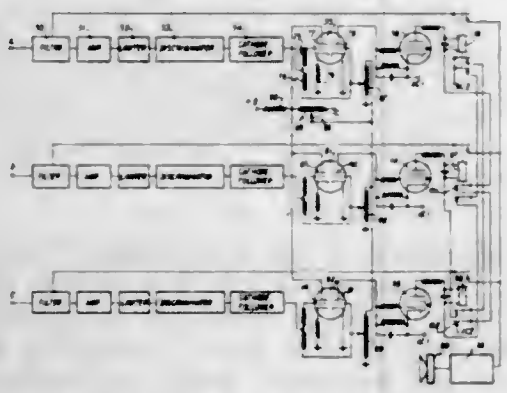
1. In a portable radio apparatus, a sealed housing, an audio transducer element carried by a wall of said housing and including a moving member, said transducer element having inner and outer faces respectively in pressure communication with the interior and exterior of said housing, mechanically operable controls sealed to said housing but movable with respect thereto to control said apparatus, a locking member movable on said housing for locking and unlocking said controls, and a pressure relief valve in said housing disposed to be momentarily opened during each movement of said locking member in either direction whereby to equalize the pressure on the two faces of said transducer element.

2,835,794

DIVERSITY RECEIVING SYSTEM

John A. Doremus, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 22, 1952, Serial No. 278,068
13 Claims. (Cl. 250—20)



1. A signal receiving system including a plurality of physically separated receiving stations and a central station, receiving means at each of said stations for receiving modulated carrier waves and for deriving modulating signals of a predetermined band of frequencies therefrom, means at each station for producing a control signal having a frequency which varies with the strength of said received carrier wave, said control signal varying in a frequency range outside said band of frequencies of said modulating signals, with the control signals produced by the various stations in response to received carrier waves of a given strength having substantially the same frequency, a single communication channel connecting each receiving station with said central station, means for applying said modulating signals and said control signals from said receiving stations to said central station through the communication channels, means at said central station for separating the control signals from the modulating signals, and means responsive to the frequency of said control signals for selecting said modulating signal from the station which receives a strong carrier wave.

2,835,795

AMPLIFIED AUTOMATIC GAIN CONTROL FOR TELEVISION RECEIVER

Marlin G. Kroger, Oak Park, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 17, 1953, Serial No. 342,930
2 Claims. (Cl. 250—20)



1. A gain control system for a wave signal receiver adapted to utilize a modulated signal having alternating current and direct current components, including in combination demodulating means for deriving a demodulated signal representing the alternating current and direct current components with negative polarity, an electron discharge device for amplifying the demodulated signal and including cathode, control and anode electrodes, passive direct current coupling means for applying the demodulated signal to said control electrode, direct current impedance means coupled between said cathode electrode and a reference point, means for energizing said anode electrode with respect to said reference point so that a bias potential and the demodulated signal appears across said impedance means, circuit means for producing an amplified control potential related to the intensity of the demodulated signal, said circuit means including filter means to form a gain control potential related to the direct current level of the demodulated signal, said circuit means also including a transistor coupled to said filter means and having first, second and third electrodes, said first and second electrodes being coupled across said direct current impedance means for driving said transistor and biasing the same by means of said bias potential, a load impedance coupled to said third electrode and to a source of further bias potential for said transistor, and utilization means coupled to said circuit means for utilizing the gain control potential to regulate the level of signals applied to said demodulating means.

2,835,796

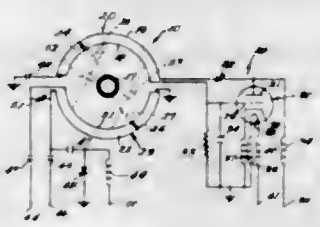
TELEVISION TUNER WITH LOCAL OSCILLATOR VARIABLY COUPLED TO MIXER THROUGH TUNABLE LONG LINES

Bernard B. King, Indianapolis, Ind.

Application February 9, 1954, Serial No. 409,227
1 Claim. (Cl. 250—20)

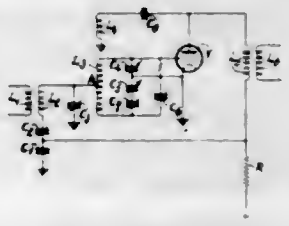
In a high frequency tuner, a first transmission line section comprising a first pair of conductors extending arcuately in general parallel relation about a common axis, a second transmission line section comprising a second pair of conductors extending arcuately in generally parallel relation about said axis, a signal input and mixer circuit

coupled to one end of said first transmission line section, an oscillator circuit coupled to one end of said second transmission line section, said transmission line sections being disposed generally on opposite sides of said axis and being located generally in the same plane to serve as a means coupling said circuits together, and a pair of shorting means engaged with said pairs of conductors



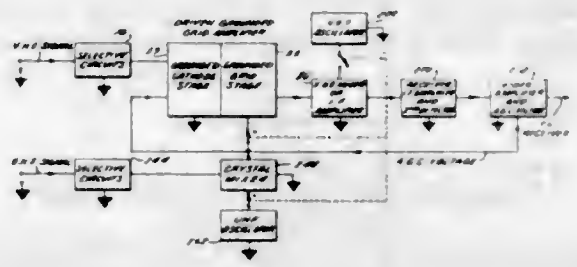
and conjointly rotatable about said axis to simultaneously change the effective lengths of said transmission line sections and maintain a fixed difference in the frequencies of tuning of said sections, the coupling between said sections being automatically varied by the variations in the effective lengths of said transmission line sections to maintain a substantially constant intensity of the oscillator current applied to said input and mixer circuit.

2,835,797
CIRCUIT-ARRANGEMENT FOR FREQUENCY-TRANSFORMATION OF OSCILLATIONS OF VERY HIGH FREQUENCY
Antonius Boekhorst, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 25, 1954, Serial No. 464,579
Claims priority, application Netherlands November 28, 1953
1 Claim. (Cl. 250—20)



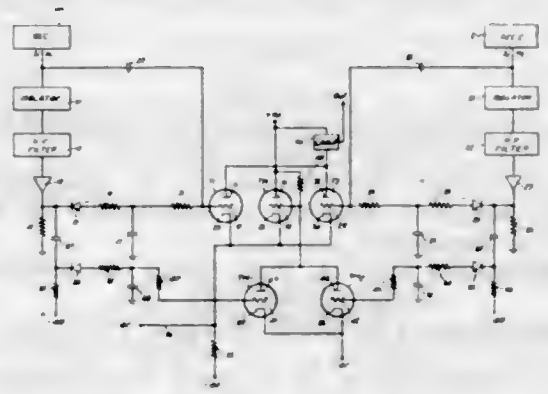
A circuit arrangement for frequency transformation of oscillations of very high frequency, comprising an electron discharge device containing a cathode, a control grid and an anode, an oscillatory circuit connected between said cathode and said grid and comprising two variable capacitors connected in series combination and an inductance, said series combination being connected electrically in parallel with said inductance and said variable capacitors having substantially equal values of capacitance and being simultaneously variable in the same sense, an electrical connection between said cathode and the junction of said variable capacitors, a feedback circuit connected between said anode and said grid to cause a local oscillation to occur at the frequency to which said oscillatory circuit is tuned, a second inductance connected at an end thereof to a point on the first-named inductance, two additional capacitors connected in series between said cathode and the remaining end of said second inductance, a source of incoming oscillations coupled to said second inductance, means connected to derive from said anode an intermediate-frequency signal which is produced by said circuit arrangement, and means connected to apply said intermediate-frequency signal to the junction of said two additional capacitors.

2,835,798
V. H. F.-U. H. F.-TUNER SYSTEM
Gilbert C. Hermeling, Jr., and Seymour Lynn, Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application March 9, 1955, Serial No. 493,239
8 Claims. (Cl. 250—20)



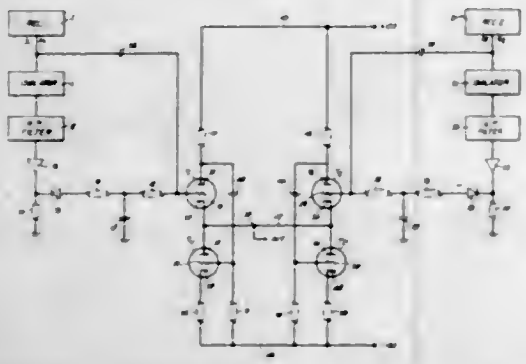
1. A V. H. F.–U. H. F. television tuning system comprising a V. H. F. tuner including a dual purpose signal translating stage, said signal translating stage including a grounded cathode stage and a grounded-grid stage, means providing first circuit connections for causing said signal translating stage to operate as a driven grounded-grid amplifier for V. H. F. signals, means providing second circuit connections for causing said signal translating stage to operate as a grounded grid intermediate frequency amplifier for intermediate frequency signals to be derived from a preceding U. H. F. converter, said last named means including intermediate frequency signal input means connected with said grounded grid stage, and switch means for selectively establishing said first or second circuit connections.

2,835,799
DIVERSITY RECEIVING SYSTEM
James R. Day, Peconic, N. Y.
Application June 24, 1955, Serial No. 517,851
11 Claims. (Cl. 250—20)



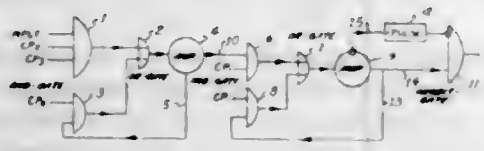
1. A diversity reception system comprising a plurality of radio frequency receiving means for normally producing substantially equal modulation frequency signal outputs and noise outputs which vary inversely with the amplitudes of the respective radio frequency inputs, a noise channel including frequency selective means connected to the output of each receiving means for selecting noise voltages only, means in each channel for rectifying said noise voltages to produce a biasing voltage, combining means including a plurality of combining electron tubes each having a control electrode and a single load impedance connected to said tubes, means for impressing the biasing voltage and the signal output from each receiving means on one of said control electrodes respectively and means for obtaining an output signal voltage from said load impedance, said electron tubes being connected as a plurality of cathode followers and said load impedance being a resistance connected to the cathodes of all said cathode followers to form a common cathode load resistor therefor.

2,835,800
DIVERSITY RECEIVING SYSTEM
James R. Day, Peconic, N. Y.
Application November 14, 1955, Serial No. 546,618
15 Claims. (Cl. 250—20)



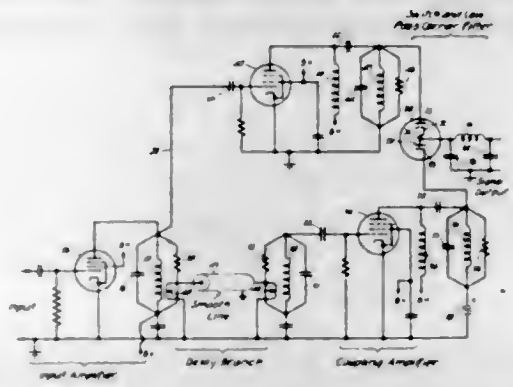
1. A diversity receiving system comprising a plurality of radio frequency receiving means for normally producing substantially equal demodulated signal outputs and demodulated noise outputs which vary inversely with the amplitudes of the respective radio frequency inputs, a noise channel connected to the output of each receiving means, each noise channel including means for selecting noise voltages only, means in each channel for rectifying said noise voltages to produce a biasing voltage, a combining circuit comprising a plurality of first electron tubes each having control electrode means and a load impedance connected to said electron tubes, said load impedance comprising a plurality of second electron tubes connected in series with said first electron tubes, means for impressing a portion of the output of each of said first electron tubes on the control electrode of one of said second electron tubes, means for impressing the biasing voltage and the signal and noise outputs of each receiving means on the control electrode means of one of the first electron tubes and means for obtaining an output signal voltage from said load impedance.

2,835,801
ASYNCHRONOUS-TO-SYNCHRONOUS CONVERSION DEVICE
Ruth C. Haueter, Washington, D. C., assignor to the United States of America as represented by the Secretary of Commerce
Application May 21, 1953, Serial No. 356,612
8 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



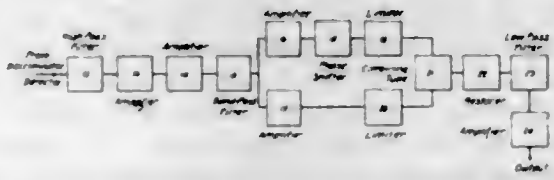
1. A device for producing electric pulses of a controlled shape, phase, and duration, comprising a first and a second mixer gate; each of said mixer gates having a plurality of signal input leads and a signal output lead, a regenerative feedback circuit from the signal output lead of each mixer gate to one signal input lead of each mixer gate, control means connected in series within said feedback circuit for rendering said circuit operative, input means connected to one of the other of said signal input leads, said input means energizing said mixer gate for predetermined intervals upon receiving an input pulse; the said input means connected to said second mixer gate being connected to receive a portion of the signal developed in the feedback circuit of said first mixer gate.

2,835,802
LINEAR FREQUENCY MODULATION DETECTOR
James R. Day, Peconic, N. Y.
Application October 12, 1953, Serial No. 385,368
4 Claims. (Cl. 250—27)



1. A detector for demodulating a frequency modulated wave, said detector comprising: means defining an input for the wave to be demodulated; means defining two transmission paths having their inputs both concurrently coupled to said detector input; time delay phase shifting means included in at least one of said paths, said delay means causing a shift in the phase of the wave transmitted through one of said paths relative to the wave transmitted through the other path, the magnitude of said relative phase shift varying linearly with respect to the frequency of said modulated wave; and phase comparator switching means having two inputs and an output adapted for connection to signal utilization means, one of said switch inputs being coupled to the output of one of said paths and the other switch input being coupled to the output of the other of said paths, said switching means comprising means for producing a wave of rectangular wave form and including means for maintaining the amplitude of said rectangular wave constant, said rectangular wave producing means including means responsive to one of said switch inputs for initiating each element of said rectangular wave and means responsive to the other switch input for terminating each element of said rectangular wave, said rectangular wave being delivered to said switch output, whereby said utilization means may receive from said switch output a wave having an average amplitude which follows the modulations of said frequency modulated wave.

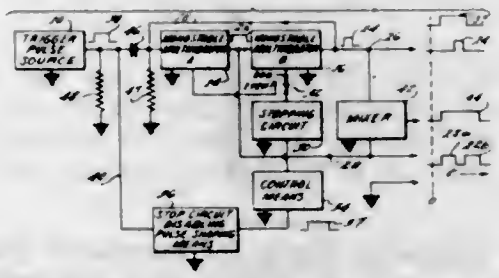
2,835,803
LINEAR DETECTOR FOR SUBCARRIER FREQUENCY MODULATED WAVES
John H. Bose, New York, N. Y., assignor to Esther Marion Armstrong, executrix of the estate of Edwin H. Armstrong, New York, N. Y.
Application October 12, 1953, Serial No. 385,482
6 Claims. (Cl. 250—27)



1. A frequency modulation detector for subcarrier waves comprising: two amplifier chains to which the frequency modulated signal to be detected is simultaneously applied; a phase shifting network serially included in one of said chains for causing the phase of its output to vary substantially linearly with respect to frequency; individual limiting means coupled to each chain, the output of each limiting means producing an output wave of rectangular wave form, the phase of one of said rectangular waves being controlled by said network so as to be shifted with respect to the other; and com-

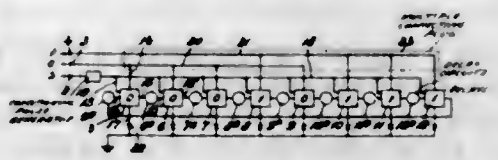
bining means comprising an electron tube having two control electrodes each individually coupled to one of said limiting means, the output of said combining means being controlled jointly by said two rectangular waves.

2,835,804
WAVE GENERATING SYSTEMS
Arch C. Luther, Jr., Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 16, 1953, Serial No. 392,391
12 Claims. (Cl. 250—27)



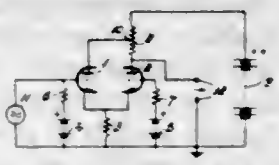
1. In a multivibrator system the combination of: a first multivibrator having an input trigger circuit and an output circuit; a second multivibrator having an input trigger circuit and an output circuit; signal coupling means connected from said first multivibrator output circuit to said second multivibrator input trigger circuit; signal coupling means connected from said second multivibrator output circuit to said first multivibrator input trigger circuit; means coupled with said first multivibrator input trigger circuit for triggering said first multivibrator with trigger signals; stopping means coupled with one of said multivibrators for normally disabling the multivibrator to which it is coupled; and control means coupled with said triggering means and said last named means for disabling said stopping means in response to trigger signals applied to said first multivibrator input trigger circuit.

2,835,805
CIRCUIT ARRANGEMENT FOR DECODING PULSE CODE MODULATION ACCORDING TO A P_n-CYCLE CODE
Klaas Posthumus, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 14, 1953, Serial No. 398,158
Claims priority, application Netherlands December 13, 1952
12 Claims. (Cl. 250—27)



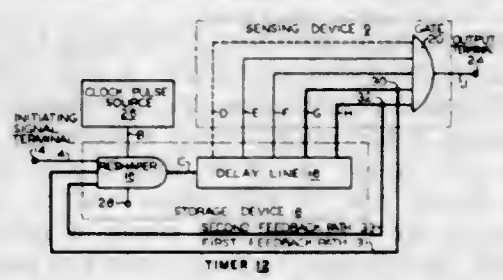
1. A circuit arrangement for decoding pulse-code-modulation according to a P_n-cycle code in which each n successive code pulses of a coding series including 0-pulses and 1-pulses mutually form different code groups representing different signal values and wherein the code groups are proceded by starting pulses, said circuit arrangement comprising a chain of 0-relays and 1-relays, said relays having a number and sequence corresponding to the number and sequence of said 0- and 1-pulses of said coding series, a conditioning pulse generator having an output coupled to the input of the first to 2^n relay of said chain and applying thereto conditioning pulses during the instant of the first code pulse of a code group, means for applying said starting pulses to the input of said generator, means to apply said 0-pulses and said 1-pulses to the corresponding relays of said chain, delay circuits interposed between the output and input respectively of each two successive relays and applying upon response of a preceding relay to a code pulse an additional conditioning pulse to the next following relay of said chain at the instant of the next code pulse, each of said relays including means for rendering each said relay responsive only upon the coincident occurrence of a conditioning pulse and a code pulse and resuming its initial position prior to the appearance of the next succeeding code pulse, and a load coupled to the outputs of said relays.

2,835,806
FREQUENCY DOUBLING CIRCUIT ARRANGEMENT
Nico Frederick Verster, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application August 29, 1955, Serial No. 530,977
Claims priority, application Netherlands September 9, 1954
1 Claim. (Cl. 250—27)



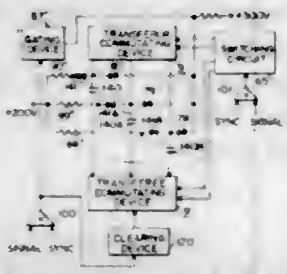
A frequency-doubling circuit comprising first and second electron tubes each having a cathode, a grid and an anode, a cathode resistor connected at an end thereof to the cathode of both of said tubes, an anode resistor having a tap thereon and connected at an end thereof to the anode of said second tube, a source of operating voltage connected between the remaining ends of said anode and cathode resistors, an unbypassed connection between said tap and the anode of said first tube whereby the entirety of said anode resistor comprises a load impedance for said second tube and only a portion of said anode resistor comprises a load impedance for said first tube, a source of an alternating input signal connected to the grid of said first tube, and means connected to bias the grids of said tubes at different values so that the output voltage at the anode of said second tube decreases both when the input signal voltage increases and when the input signal voltage decreases.

2,835,807
TIMING DEVICE
Samuel Lubkin, Bayside, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application September 20, 1955, Serial No. 535,379
13 Claims. (Cl. 250—27)



1. A timing device for indicating a time interval comprising a storage means responsive to a signal indicating the initiation of said time interval, and two feedback means for feeding back to said storage means two signals for each stored signal, and sensing means responsive to said storage means to detect for predetermined combinations of signals stored in said storage means for indicating the termination of the time interval.

2,835,808
TRANSFER-STORAGE CIRCUITS
John R. Bethke, Paoli, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application October 19, 1955, Serial No. 541,340
9 Claims. (Cl. 250—27)

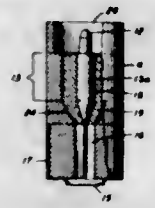


2. A multi-position gating circuit comprising in combination, a commutating device having a plurality of output positions, means for stepping the device from position to position, a first potential terminal, a diode coupling each said output position to said first potential terminal, a load circuit coupled to each output position, a second potential terminal for providing a potential lower than the first terminal, a unilateral device coupling all the said load circuits commonly to said second terminal, a gating discharge device coupled to lower the potential at said first terminal below that of the second terminal, and means for selectively operating said discharge device at discrete periods in synchronism with the means for stepping the commutating device, wherein said commutating device is a multi-position transferor magnetron beam switching tube, a further multi-position transferee magnetron beam switching tube is provided with input circuits coupled in complementary relationship with the load circuits of said transferor tube for selectively receiving the contents of the transferor tube in response to operation of said gating discharge device, means for switching both tubes from position to position, and means is provided responsive in synchronism with the operation of the gating discharge device for clearing the transferee tube before transfer.

2,835,809
LINEAR SAWTOOTH WAVE GENERATOR
John W. Taylor, Jr., Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 15, 1955, Serial No. 547,056
3 Claims. (Cl. 250—27)

3. A sawtooth pulse generator comprising a first triode having a grid connected to receive a gate pulse, said pulse controlling the conduction and nonconduction states of said triode; a capacitor; means connecting said capacitor to said triode so as to enable said capacitor to charge during one of said states and to discharge quickly during the other of said states; a cathode follower circuit comprising a second triode and cathode resistor, said triode having a plate connected to a high potential as compared to potentials at other points of said generator; means connecting said first capacitor across said resistor for charging said capacitor in accordance with the voltage drop across said resistor; means for controlling conduction current of said cathode follower circuit, the last said means comprising a diode, a second capacitor having one end connected to the grid of said second triode and to an electrode of said diode, a resistor across said second capacitor, the other end of said second capacitor being electrically connected to an end of said first capacitor; and an output connection from said cathode resistor.

2,835,810
CRYSTAL RECTIFIER
Maynard C. Waltz, Maplewood, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 20, 1955, Serial No. 541,640
7 Claims. (Cl. 250—31)



1. In a translating device for microwave energy including inner and outer coaxial conductors forming at the one end of said device an open coaxial line portion, insulator means supporting said inner conductor within said outer conductor to form a solid coaxial line portion, spaced parallel conductive side members on the opposite end of said outer conductor defining a slot transverse to an axis of said device, a semiconductive wafer making electrical contact with said side members, and a spring wire supported by the end of said inner conductor within said slot and making rectifying contact with said semiconductive wafer, said spring wire being formed with a curved portion lying in one plane only, the plane of said curved portion being mutually parallel with said parallel side members, and said spring wire and said side members forming together a transmission line of characteristic impedance matching that of said solid coaxial line portion.

2,835,811
PULSE GENERATOR
Hugo Georg Bruyning, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 11, 1953, Serial No. 360,876
Claims priority, application Netherlands July 3, 1952
4 Claims. (Cl. 250—36)

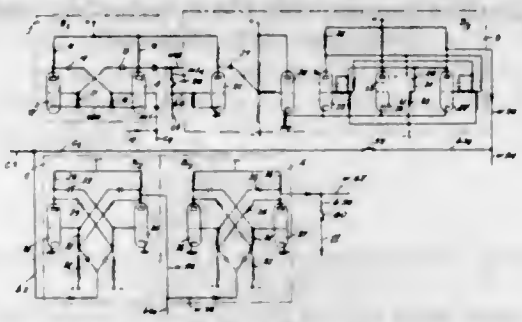


1. A device comprising a magnetron, a pulse generator having a delay line providing excitation pulses, and means in the pulsing circuit of said magnetron comprising a resistor and an inductor connected in parallel combination, said inductor having a ferromagnetic core which is saturable by each of said excitation pulses, and a pulse transformer coupling said generator to said magnetron through said parallel combination.

2,835,812
ELECTRON FREQUENCY DIVIDER
Pierre Albert Kieffert, Neuilly-sur-Seine, France, assignor to Etablissements Ed. Jaeger, Levallois-Perret, France, a company
Application June 9, 1954, Serial No. 435,510
Claims priority, application France June 10, 1953
9 Claims. (Cl. 250—36)

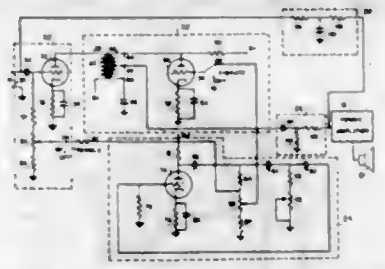
1. An electron frequency divider comprising an input path, an output path, a plurality of electron scaling circuits each one of which has a constant scaling ratio, means for selecting amongst said scaling circuits those having

scaling ratios the product of which corresponds to a required submultiple of the frequency delivered to the input path, and means for connecting in series only said selected scaling circuits and for simultaneously connecting



the first one and the last one of said series-connected scaling circuits to said input and output paths, respectively, whereby the frequency delivered by the output path is the required submultiple of the input frequency.

taneously shift the phase of said audio signals at a subaudible rate, whereby said signals exhibit both tremolo and vibrato simultaneously, a high pass filter connected to said output circuit to filter out the subaudible fre-

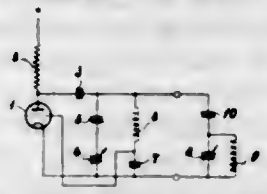


quencies introduced in said signals by said source of subaudible frequency, and a low pass filter connected between the input of said amplifier and output of said high pass filter to by-pass low frequency tone signals around said amplifier circuits.

2,835,813
DEVICE FOR FINE TUNING OF A RESONANT CIRCUIT

Jan Wijtsma, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 17, 1955, Serial No. 494,896
Claims priority, application Netherlands April 26, 1954
2 Claims. (Cl. 250—36)



1. A resonant circuit arrangement having input terminals, comprising means for applying input oscillations to said input terminals, a first variable capacitor and a first inductor connected in parallel relationship between said input terminals for adjusting the frequency of said circuit arrangement in relatively broad increments, a second variable capacitor for adjusting the frequency of said circuit arrangement in relatively narrow increments independently of said first variable capacitor, said second variable capacitor having a relatively low maximum capacitance, a second inductor connected in parallel circuit arrangement with said second variable capacitor, said second inductor having an inductance value at which the resonant frequency of said last-mentioned parallel circuit arrangement exceeds the resonant frequency of said resonant circuit arrangement, a reactive impedance connected in series circuit arrangement with said last-mentioned parallel circuit arrangement, said reactive impedance having a reactance value at which the resonant frequency of said series circuit arrangement is less than the resonant frequency of said resonant circuit arrangement, and means for connecting said series circuit arrangement in parallel with said resonant circuit arrangement.

2,835,814
ELECTRICAL MUSICAL INSTRUMENTS

Richard H. Dorf, New York, N. Y.

Application March 15, 1956, Serial No. 571,780
10 Claims. (Cl. 250—36)

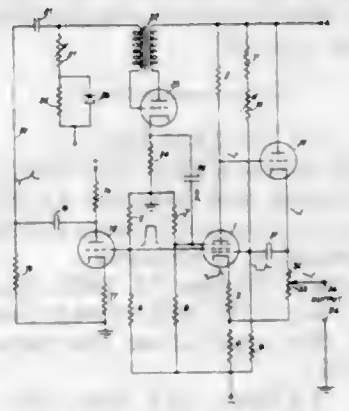
1. In an electrical musical instrument, means for producing audio frequency tone signals, an amplifier for amplifying said signals, said amplifier having input and output circuits, means connected to said output circuit for shifting the phase of signals amplified by said amplifier, means connected to the input circuit of said amplifier for modulating said audio signals, a subaudible frequency source in connection with said phase shifting means and said modulating means operative to modulate and simul-

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2,835,815
SELF-TRIGGERED SAWTOOTH WAVE GENERATOR

Van Buren Cones, Indianapolis, Ind.

Application July 23, 1956, Serial No. 599,667
8 Claims. (Cl. 250—36)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A self-triggered sawtooth wave generator comprising; a pentode vacuum tube having five electrodes with the cathode and anode electrodes coupled across a voltage supply circuit; a blocking oscillator including a triode vacuum tube having its cathode connected through a coupling capacitor to the suppressor electrode of said pentode; a voltage dividing network coupled one each to each suppressor and screen grid electrodes of said pentode for establishing a predetermined voltage level on each of these grids; a cathode follower triode tube having its grid coupling the anode electrode and its cathode coupling the control grid electrode through a capacitor of said pentode, said cathode also coupled through a capacitor of said pentode, said cathode also coupled through a potentiometer with the movable tap thereof providing an output circuit; and means coupling one of said pentode electrodes to the grid of said blocking oscillator tube for unblocking said blocking oscillator tube in accordance with each conduction period of said pentode to initiate a succeeding conduction period, the voltage waveforms produced by these conduction periods being impressed on said potentiometer movable tap.

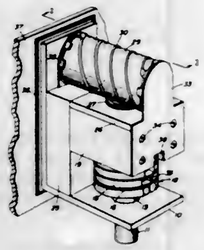
2,835,816
ADJUSTABLE LOW INDUCTANCE CAPACITOR WITH SEPARATELY ROTATABLE SLOTTED DISCS FOR TRACKING ADJUSTMENT

Gustave Shapiro and James R. Feller, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Navy

Application July 24, 1953, Serial No. 370,237
6 Claims. (Cl. 250—40)
(Granted under Title 35, U. S. Code (1952), sec. 266)

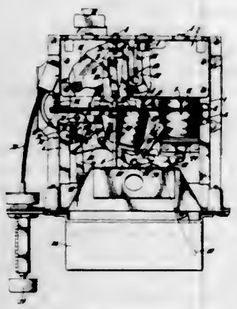
1. A variable capacitor having a fixed stator and a movable core, said stator comprising a conductive block

having a bore of circular cross section therein, said stator having a slot connecting said bore and the outer surface of said stator; said core comprising a cylindrical support member, a plurality of aligned rotatable conductive discs stacked on said support member, each of said conductive



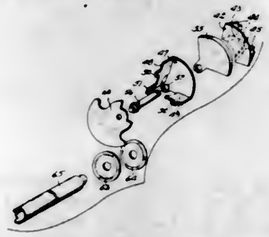
discs having at least one recessed portion in its peripheral region in juxtaposition with said slot whereby said discs may be individually rotated to change the local slope of the capacitance versus longitudinal motion characteristics, and means for moving said core in said bore along the longitudinal axis thereof.

2,835,817
MOTOR OPERATED TUNING MEANS
Bertram A. Schwarz and Manfred G. Wright, Kokomo, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application October 31, 1950, Serial No. 193,148, now Patent No. 2,701,330, dated February 1, 1955. Divided and this application December 23, 1954, Serial No. 477,291
1 Claim. (Cl. 250—40)



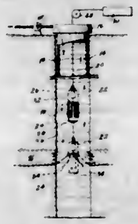
In means for tuning a radio receiver over a predetermined band having a movable tuning member mounted in a frame, indicating means mounted for scanning movement on the frame, permanently affixed linkage means interconnecting the tuning means and the indicating means, screw threaded adjustable abutment means on the movable tuning member engaging said linkage means to change the relative position of the tuning member and indicating means to provide for properly setting the indicating means with respect to the tuning member by movement of the adjustable means, and spring biasing means to urge a portion of the linkage means against said abutment means and to urge the indicator in one direction to eliminate play in the linkage means.

2,835,818
TELEVISION TUNER
Rudolf Wm. Selbmann, Jamaica, Morris L. Tucci, Brooklyn, and Walter Piwinski, Westbury, N. Y., assignors to Oak Mfg. Co., a corporation of Illinois
Application January 10, 1955, Serial No. 480,918
3 Claims. (Cl. 250—40)



1. In a rotary switch type tuner for high frequencies, said tuner including a rigid metal housing having parallel front and rear metal panels, a shaft rotatively secured in said front and rear metal panels and passing through the housing, a plurality of switch sections within said housing, each switch section including an insulating stator, means for rigidly supporting each stator in said housing, each stator having a cooperating rotor engaged by the shaft passing through the same, the end stator nearest the front panel carrying a fixed condenser plate having an electrode portion lying in a plane generally parallel to said panel, a cooperating fixed condenser plate carried by said front panel and having an electrode portion disposed parallel to and spaced from said first named condenser plate, a stub shaft journaled for rotation in the front panel and in the cooperating condenser plate, a dielectric plate carried by said stub shaft and movable thereby between the condenser plates for varying the capacitance thereof, the entire condenser lying within the metal housing, means disposed on the outside of the front panel for turning the stub shaft to vary the capacitance, said end insulating stator adjacent the front panel having oppositely disposed extensions secured to said housing and having a third extension secured to said housing with said fixed condenser plate secured to said third extension so that the same is retained rigidly in position.

2,835,819
APPARATUS FOR LOCATING A ZONE OF LOST CIRCULATION
Gerhard Herzog, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application November 18, 1953, Serial No. 392,880
6 Claims. (Cl. 250—43.5)



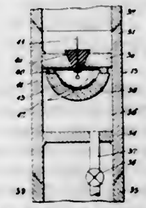
2. An apparatus for locating a permeable formation traversed by a well bore hole containing fluid and into which formation fluid from the bore hole is passing, comprising a radiation detector adapted to be passed through the bore hole suspended from a conductor cable, means for indicating the depth of said detector in the bore hole, means for indicating the output of the detector, and at least one flexible, radioactive streamer normally disposed close to said detector in movable relation therewith, the arrangement being such that as the detector passes through the bore hole said streamer will remain close to the detector until the detector reaches the proximity of said formation when the flow of fluid into the formation will cause the streamer to move away from the detector, thus providing a sudden decrease in the output of the detector and thereby an indication of the depth of said formation.

2,835,820
CURVED CRYSTAL FLUORESCENT X-RAY SPECTROGRAPH
La Verne S. Birks, Jr., Takoma Park, Md.
Application March 7, 1955, Serial No. 492,814
5 Claims. (Cl. 250—53)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An X-ray spectroscope for determining the elements of a material which comprises a source of X-rays, means for holding a specimen to be irradiated in the path of a beam of X-rays, a stationary curved diffracting crystal positioned to receive emergent radiation from the irradiated specimen on its convex surface at angles, such that the wavelengths of an incident narrow polychromatic beam of said radiation which corresponds in width to a beam derived from a line source parallel to the generatrix of said curved diffracting crystal are divergently diffracted by reflection from said convex surface toward a recording means positioned opposite said convex surface, said recording means individually recording said divergently diffracted wavelengths of radiation.

2,835,821
METHOD OF OBSERVING AND CLASSIFYING THE SPECTRUM OF GAMMA RAYS
Robert E. Fearon, Tulsa, Okla., assignor to Well Surveys, Incorporated, Tulsa, Okla., a corporation of Delaware
Application June 22, 1951, Serial No. 233,004
17 Claims. (Cl. 250—71)



10. A detector of radioactivity comprising in combination means defining a chamber, a non-radioactive monatomic gas confined within said chamber, photoelectric means for deriving electrical signals systematically related to light impinging thereon, said photoelectric means being optically connected to all portions of the chamber, and means for measuring said electrical signals.

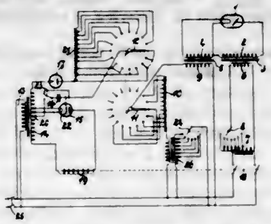
2,835,822
X-RAY FLUOROSCOPIC SCREEN
Ferd E. Williams, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application September 12, 1955, Serial No. 533,544
9 Claims. (Cl. 250—80)

2. An image intensifying X-ray fluoroscopic screen comprising a layer of X-ray sensitive light emitting material which emits visible light within the range of 4000 to 5500 Angstrom units when excited by incident X-rays, a visible light amplifying cell contiguous with said X-ray sensitive material, said light amplifying cell having a peak



sensitivity to substantially the same wavelength light as is emitted by said X-ray sensitive material, and means for impressing an electrical potential difference between opposite surfaces of said light amplifying cell.

2,835,823
DIAGNOSTIC X-RAY APPARATUS
Jacobus Fransen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 15, 1954, Serial No. 416,056
Claims priority, application Netherlands March 21, 1953
2 Claims. (Cl. 250—95)

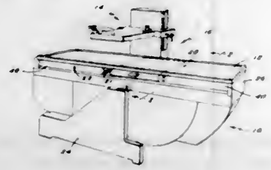


2. X-ray apparatus comprising an X-ray tube having a cathode, means for supplying energy to said tube from a source of alternating current, means including a time switch for varying the time intervals during which energy is supplied to said tube from said source, said time switch having a plurality of contacts, the time intervals in the range of only a few periods of the voltage from the source of alternating current having successive values differing by an integral number of one-half periods of said voltage, a switching device comprising a plurality of contact points and a resistor having a plurality of taps thereon connected to the said contact points to apply voltages having different values across said cathode, means for coupling said time switch to said switching device to produce simultaneous adjustment thereof, and means for interconnecting several of the contact points of said time switch in a manner whereby when said switching device is in one of a plurality of selected positions the time of application of the voltage across said cathode through the said switching device is the same as the time of application of a different voltage across the said cathode when the said switching device is in another of said selected positions, the said time of application approximating a few periods of said alternating current voltage.

2,835,824
X-RAY APPARATUS
Paul F. Schepker, Covington, Ky., assignor to Keleket X-Ray Corporation, Boston, Mass., a corporation of Ohio
Application June 26, 1956, Serial No. 593,934
4 Claims. (Cl. 250—108)

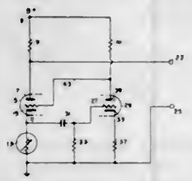
1. In an X-ray table including a generally rectangular frame and a top panel, an under-panel carriage movable

on said frame longitudinally of and beneath said panel between opposite ends of said table, and an X-ray source disposed beneath said panel and movable on said frame longitudinally between the ends of said table, wherein the table is formed with an elongated opening beneath the panel affording access to said under-panel carriage in



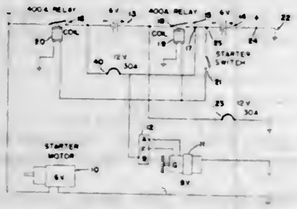
any adjusted position thereof, shielding means comprising X-ray opaque continuous tape means connected at its free ends to said carriage, and tape guiding means secured at the corners of said frame, said tape extending over said tape-guiding means and movable thereover in response to movement of said carriage into position to shield the said opening.

2,835,825
PHOTOCURRENT AMPLIFIERS
Bradford T. Joyce, Concord, Mass., assignor to Electronics Corporation of America, a corporation of Massachusetts
Application April 5, 1956, Serial No. 576,458
4 Claims. (Cl. 250—214)



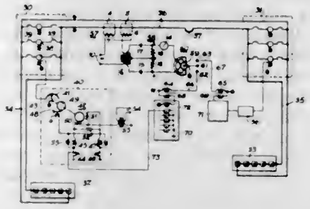
1. A photocurrent amplifier comprising: a power supply having positive and negative terminals, an electron tube having an anode, a cathode and a control electrode, a photoconductor connected between said cathode and the negative terminal of said power supply, a resistor connected from said anode to the positive terminal of said power supply, means to maintain the potential at said control electrode substantially fixed with respect to the negative terminal of said power supply, a first output terminal connected to said anode, and a second output terminal connected to said power supply.

2,835,826
SERIES PARALLEL STARTING CIRCUIT
Kenneth G. Vadas, Cleveland, Ohio
Application December 11, 1956, Serial No. 627,642
3 Claims. (Cl. 290—36)



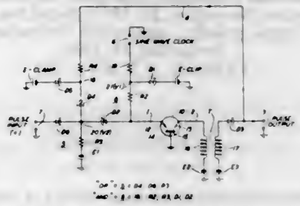
1. A series parallel starting circuit for vehicular equipment which comprises a plurality of storage batteries, a generator and a starter motor, said circuit comprising a generator sub-circuit comprising at least two batteries in parallel with a generator, circuit breaker means in each of the lines from one of the batteries which are quick acting, normally closed circuit breakers, a starter motor sub-circuit having each of the batteries in series with a solenoid-operated relay for connecting said batteries in series through the starter motor, a control sub-circuit through the starter switch connected to each of the relays for connecting said batteries to the starter motor, energizing said relays, whereby action of the control sub-circuit through the starter switch changes the batteries from parallel to series causing a heavy surge of current in the generator sub-circuit and opening the normally closed circuit breakers, whereby said current through the solenoid switches and batteries in series operates the starter motor.

2,835,827
DIRECTIONAL TRANSDUCTOR SYSTEM
Max J. Kramer, Parma, Ohio, assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Delaware
Application February 20, 1957, Serial No. 641,327
6 Claims. (Cl. 307—57)



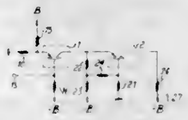
5. In combination, a first and a second D. C. power station, each having a plurality of power units supplying power to a main bus for delivering power to its own load, regulating means for each of said stations cooperative with said power units thereof to control the station voltage, a tie bus of lower capacity than and interconnecting said main power buses for flow of current from either of said stations to the load of the other station, a circuit breaker for opening and closing said tie bus, a pair of closed magnetic cores disposed in inductive relation to one side of said tie bus and provided with unbalanced windings thereon of at least a two to one turn ratio with respect to each other, means connecting said windings for energization in reverse polarity relation from an A. C. supply source, a current transformer connected in series with said windings, two circuits disposed to be energized from said transformer, a metallic half-wave rectifier and a circuit element connected in each of said two circuits, said rectifiers being electrically opposed to pass positive current pulses in one and negative current pulses in the other of said two circuits so as to polarize said circuits by the difference in average value of the pulse current flow through them, polarity responsive electromagnetic means connected across said circuit elements in said two circuits for actuation responsively to the difference in average current flow through them, said difference current varying in magnitude proportionally to the current flow in said tie bus and of selectively reversible polarity in dependence on the direction of current flow through said tie bus, and means connected to be selectively actuated by said electromagnetic means for operating said regulating means of either of said power stations to decrease the station voltage responsively to tie bus current flow in excess of a preselected value.

2,835,828
REGENERATIVE TRANSISTOR AMPLIFIERS
James H. Vogelsong, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 7, 1953, Serial No. 372,897
10 Claims. (Cl. 307—88.5)



1. Amplifier apparatus for producing regenerated output pulses comprising a transistor source of gain having emitter input and collector output circuits, an external feedback path connecting said collector output circuit with said emitter input circuit, a diode circuit comprising a plurality of crystal diodes connected with said feedback path leading to said emitter input circuit, means including a source of input pulses connected to said emitter input circuit through said diode circuit, and circuit means connected to a point in said feedback path leading to said emitter input circuit and comprising means including an alternating current wave source for timing said regenerated output pulses synchronously in accordance with the frequency of said wave source and means adapted to supply sufficient current to said emitter input circuit for operatively overdriving said transistor source beyond the linear range thereof.

2,835,829
CIRCUIT FOR SWITCHING HIGH VOLTAGE USING CASCADE CONNECTED LOW VOLTAGE TRANSISTORS
Roger P. Sourgens, Bellevue, and Raymond A. Chollet, Boissy-Saint-Leger, France
Application February 21, 1957, Serial No. 641,701
Claims priority, application France February 29, 1956
2 Claims. (Cl. 307—88.5)

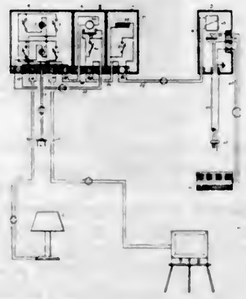


1. A transistor switching device adapted to switch on and off, through a load, a current produced by a source having a voltage greater than that which may be applied between the emitter and the collector of the transistors of said device, comprising a plurality of N cascade-connected transistors, the emitter of a transistor being directly coupled to the collector of the preceding one, the first of said transistors being triggered by pulses applied between its emitter and base, the last of said transistors having the load inserted betwen its collector and said source, the collector of the $(p-1)^{th}$ transistor and the emitter of the pth transistor, which are directly coupled, being connected to a pole of the source through a first resistance and a second resistance in series and to the other pole of the source through a third resistance in parallel with the second one and which is also connected to the base of the pth transistor, the ratio of the values of the second and third resistances being equal to

$$\frac{N-p+1}{p-1}$$

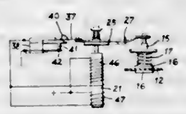
for the transistor of the order p.

2,835,830
REMOTE CONTROL DEVICES FOR ELECTRIC APPLIANCES
Hans W. Rathenau, New York, N. Y.
Application March 9, 1956, Serial No. 570,643
14 Claims. (Cl. 307—114)



14. A control system for centralized remote control of electric appliances, comprising a control apparatus having a current supply cord, a plurality of branch circuits connected with said supply cord in said apparatus, said apparatus having a plurality of outlets and having manually controllable switch means selectively connecting said outlets with said respective branch circuits, said apparatus having an automatic thermostatic switching means and an automatic timing device each electrically connected to and deenergizable by the manually controllable switch means, a relay box separate from said control apparatus and having a connecting cord extending to one of said outlets thereof, said outlet being connected to and under control of the manually controllable and thermostatic switching means and the automatic timing device, said relay box comprising an electromagnetic contact device having a coil circuit connected with said latter connecting cord, a power supply cable extending out of said relay box and having a plug for insertion into a power-supply utility outlet, said relay box having a power outlet for attachment of a room air conditioner, and said contact device having switch means connecting said cable with said power outlet.

2,835,831
ELECTROMAGNETIC POWER DEVICE
Lester B. Harrington, North Muskegon, Mich.
Application November 23, 1953, Serial No. 393,710
12 Claims. (Cl. 310—18)



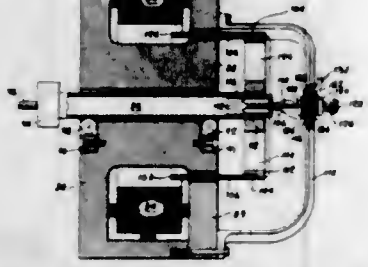
1. An electromagnetic motor for operating a reciprocating fluid pump, said motor comprising an electromagnet having a core and an armature movable in translation for actuation of said pump, a pair of windings on said core including a main and auxiliary winding connected in parallel and having a substantially different number of turns, switch means for controlling the supply of current to said windings for cumulative magnetizing action when energized and for opposing each other when deenergized with the effect of said main winding predominating over that of said auxiliary winding, and operating connections between said armature and said switch means providing for actuation of said switch means only after substantial movement of said armature in each direction.

2,835,832

VIBRATION GENERATING APPARATUS

Philip C. Efronson, Winchester, Mass., assignor, by mesne assignments, to The Calidyne Company, Inc., a corporation of Massachusetts

Application May 3, 1954, Serial No. 427,131
13 Claims. (Cl. 310—27)



1. In apparatus of the type wherein a reciprocating axial motion is imparted to an armature assembly carrying an electrical coil, conducting means for connecting the coil with an alternating current power supply, said means including two spaced flexible ribbons of a resilient electrically conducting material, each ribbon being bent back upon itself at a position intermediate its ends so that the ends thereof lie in spaced parallel relationship, one end of each ribbon being attached to the armature assembly and electrically connected with the coil, the other end of each ribbon having means for electrically connecting the ribbon with the power supply, and a spacing member having planar portions for engaging the other ends of the ribbons to act as a support therefor which member is relatively stationary with respect to axial movements of the armature assembly so that, as the assembly is moved axially, the bend in the ribbon progressively takes place at successive intermediate positions of the ribbon.

2,835,833

STATOR MOUNTING FOR FLYWHEEL MAGNETO

Alfred L. Hofmann, Cedarburg, Wis., assignor to Kiekhaefer Corporation, Cedarburg, Wis., a corporation of Wisconsin

Application September 16, 1955, Serial No. 534,768
4 Claims. (Cl. 310—153)



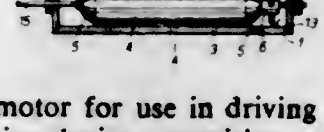
1. Fastening means for adjustably holding the stator plate of a flywheel magneto to the pilot flange of an engine crankcase, comprising in combination, a clamp means having outwardly projecting arms provided with cam ends at one end thereof and the other end of said clamp means forming a substatially circular spring loop, said clamp means having an elongated slot intermediate said ends, said stator plate having along a radial line thereof a tapped opening and a substantially V-shaped groove adjacent the periphery thereof, a screw insertable through said slot adapted to threadingly engage said tapped opening to adjustably mount said clamp means on said stator plate in an operative position with said cam ends engaging said pilot flange and said loop seating within said groove, said screw being threadingly adjusted in said operative position so that said cam ends exert a desired frictional pressure against said pilot flange and the spring loop against said stator plate to adjustably hold said stator plate to said pilot flange, lock means for immovably securing said screw in said operative position, and said clamp means adapted to be radially moved into an inoperative position with said cam ends out of engagement with said pilot flange and said loop unseated from said groove in the stator plate and extending radially outwardly past said periphery of said stator plate whereby said stator plate may be removed from said pilot flange.

2,835,834

ELECTROMOTOR

Giovanni Steinegger, Aurigeno, Switzerland

Application November 23, 1955, Serial No. 548,686
Claims priority, application Switzerland November 24, 1954
4 Claims. (Cl. 310—154)



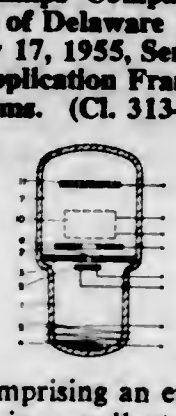
1. An electromotor for use in driving a sound recording and reproducing device comprising, an elongated armature, a magnetic system of permanent magnetic steel enclosing said armature and having poles protruding in axial direction beyond the axial length thereof to produce, an inner stray path for lines of force at each front face of the magnetic system between said poles, said inner stray path being parallel to any outer stray path of lines of force magnetically conductive material bridging said poles at the front sides of the magnetic system to decrease the magnetic resistance of said inner stray path substantially below the magnetic resistance of the outer stray path in order to attain that the greatest part of the stray field flow is closed from pole to pole over the inner stray parallel paths and only a small part follows the outer stray path.

2,835,835

ION SOURCE

Georges Albert Boutry, Villecresne, and Georges Pietri, Asnieres, France, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 17, 1955, Serial No. 509,024
Claims priority, application France May 25, 1954
3 Claims. (Cl. 313—63)



2. An ion source comprising an enclosure having walls and a single aperture in a wall at one end of said enclosure, an ion-producing substance selected from the group consisting of alkali and alkaline-earth metals disposed within said enclosure at an end remote from said one end, an anode member mounted within said enclosure in proximity to but spaced from said aperture and between the latter and the ion-producing substance, means for heating the ion-producing substance to generate unionized particles in said enclosure, and means for heating the anode at a temperature at which unionized particles of said substance impinging thereon are ionized, said anode member being located in a position at which said unionized particles cannot reach the aperture without first impinging on said heated anode.

2,835,836

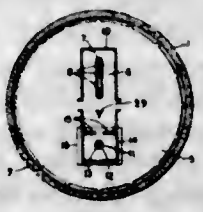
GAS DISCHARGE DEVICE

Hsiung Hsu, Liverpool, N. Y., assignor to General Electric Company, a corporation of New York

Application June 20, 1955, Serial No. 516,532
13 Claims. (Cl. 313—71)

1. A gas discharge device comprising; a sealed envelope containing an ionizable medium, a main cathode

and an anode in cooperative spaced relation within said envelope, means including an auxiliary cathode in laterally spaced relation to said main cathode for producing an ionizing discharge to provide a conductive plasma be-

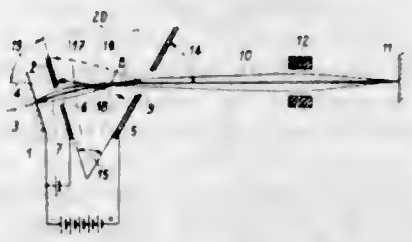


tween said main cathode and anode, and means for diverting said ionizing discharge from said main cathode and directing said ionizing discharge into the region between said main cathode and anode.

2,835,837
ELECTRON GUN FOR PRODUCING AN ELECTRON BEAM

Enis Bas-Taymaz, Zurich, Switzerland, assignor to Gesellschaft zur Forderung der Forschung an der Eidg. Techn. Hochschule, Zurich, Switzerland

Application February 11, 1954, Serial No. 409,626
Claims priority, application Switzerland February 13, 1953
2 Claims. (Cl. 313—82)



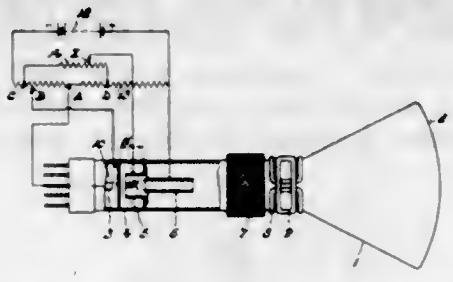
1. In a cathode-ray tube, an electron gun of the triode type for producing an electron beam, said gun consisting of a cathode having a planar electron emitting portion, an anode spaced from said cathode and a control electrode located intermediate said cathode and anode, both said control electrode and said anode including a planar portion for producing directly therebetween an electrostatic electron accelerating field and said planar portions being provided with apertures for the passage of the electron beam, the planar portion of said control electrode being parallel to said electron emitting portion of said cathode, and the planar portions of said control electrode and said anode being inclined in opposite directions to the axis of the electron beam established subsequent to passage through the aperture in said anode whereby said electrostatic accelerating field exhibits equipotential planes inclined with respect to said planar electron emitting portion of said cathode.

2,835,838
CATHODE-RAY TUBE

Johannes De Gier, Eindhoven, Netherlands, Wilfrid Franz Konrad Johann Niklas, Milwaukee, Wis., and Alphonsus Petrus Van Rooy and Willem Fokko Nienhuis, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 12, 1954, Serial No. 442,724
Claims priority, application Netherlands July 18, 1953
4 Claims. (Cl. 313—82)

1. In a cathode-ray tube, a pre-concentrating triode electrode system comprising a cathode, an apertured control grid, and an apertured anode arranged in that order and aligned with one another, the aperture in the anode facing the cathode being spaced from the grid surface a distance at least equal to 1.5 times the diameter of the aperture in the anode, an additional electrode having a diameter exceeding that of the anode and substantially surrounding the space between the grid and anode, means for supplying potentials to said cathode, grid and anode, said potential applied to said anode having a value at which at least half of the resultant field gradient at the

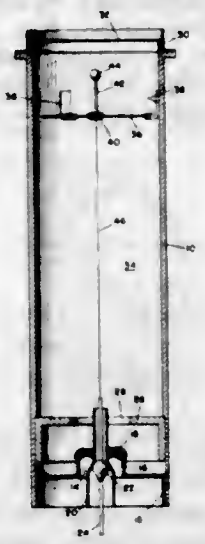


cathode surface is determined by said anode, and means for supplying a potential to said additional electrode in the range between a negative potential which when applied to the grid would cut-off the tube and a positive potential equal to twice the cut-off potential.

2,835,839
WIDE RANGE PROPORTIONAL COUNTER TUBE

John J. Borzin, Newark, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 31, 1955, Serial No. 512,340
6 Claims. (Cl. 313—93)



1. A proportional counter tube comprising a hermetically sealed chamber, a portion of the walls of said chamber being formed from a material that has low absorption characteristics for beta radiation, a first short wire anode, means for mounting the first anode near the portion of the wall of the chamber having low absorption characteristics for beta radiation, a second relatively long thin wire anode the diameter of the second anode being substantially ⅕ that of the first anode, and means for supporting both ends of the second anode within the chamber, whereby said counter tube can measure beta and gamma radiation intensity levels of from .05 Roentgen per hour to 500 Roentgens per hour.

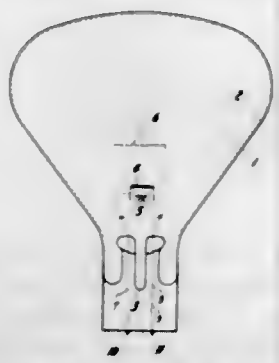
2,835,840
RESONANCE LAMPS FOR VERY LOW VOLTAGES

Marcel Laporte, Paris, France, assignor to Centre National de la Recherche Scientifique, Paris, France, a corporation of France

Application December 7, 1956, Serial No. 626,876
Claims priority, application France December 9, 1955
2 Claims. (Cl. 313—109)

1. In a resonance lamp for producing fluorescent illumination and adapted to operate from both alternating current and direct current sources at potentials less than 15 volts, the combination including an external envelope at least a portion of which is transparent, fluorescent material on the internal wall of said envelope, said mate-

rial having a continuous spectral base, mercury vapour and at least one of the rare gases within said envelope, the pressure thereof being about one millimeter of mercury, at least one thermionic emission sintered cathode in said envelope, indirect heating means for said cathode operable during the entire operating period of said lamp,



and at least one grid-like anode in said envelope located adjacent said cathode at a distance of not more than a few centimeters therefrom, said fluorescent material being excited by the ultra-violet radiation and particularly the radiation of resonance of mercury having a wave length of 2.537 Angstrom units, the ignition voltage of the cold lamp being about 12 volts.

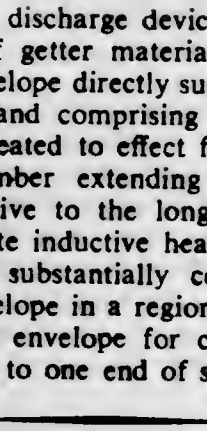
2,835,841

GETTER SUPPORT STRUCTURE

Harold L. Dodson, Owensboro, Ky., assignor to General Electric Company, a corporation of New York

Application September 8, 1955, Serial No. 533,055

9 Claims. (Cl. 313—181)



1. In an electric discharge device, a cylindrical envelope, a quantity of getter material in said envelope, a member in said envelope directly supporting said quantity of getter material and comprising material adapted for being inductively heated to effect flashing of said getter material, said member extending at a predetermined oblique angle relative to the longitudinal axis of said envelope to facilitate inductive heating thereof and said member extending substantially completely across the interior of said envelope in a region spaced from the opposite ends of said envelope for confining the flash of said getter material to one end of said envelope.

2,835,842

ELECTRIC DISCHARGE TUBE

Herman Adam Witteveen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 18, 1952, Serial No. 277,103

Claims priority, application Netherlands April 13, 1951

2 Claims. (Cl. 313—239)



1. An electric discharge tube comprising an electrode assembly including a cathode which evaporates a conductive material and at least one other electrode, a housing enclosing said electrode assembly and including a substantially flat base portion, a plurality of connector pins arranged in a circular arc on and sealed-in said base portion and connected to said cathode and said other electrode, respectively, to provide external circuit connections therefor, and at least two solid insulated strip-like members each supported by a different pair of substantially diametrically-opposed connector pins between said base portion and said electrode assembly and overlying each other and the inner surface of said base portion to prevent leakage current between said connector pins, the strip-like member remote from the inner surface of said base portion being supported by two pins between which leakage current has only a slight effect on the operation of the tube.

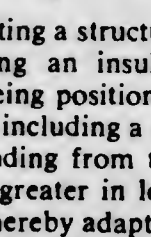
2,835,843

TUBE MOUNT SUPPORT

Walter Townsend Millis, Owensboro, Ky., assignor to General Electric Company, a corporation of New York

Application July 26, 1955, Serial No. 524,563

8 Claims. (Cl. 313—292)



1. Means for supporting a structure in an envelope having an axis, comprising an insulative planar disk-like member adapted for being positioned transversely in said envelope, said member including a plurality of projections integral with and extending from the outer edge thereof, said projections being greater in length than in width at the bases thereof and thereby adapted for bending engagement with said envelope without fracture of said projections when said member is positioned in said envelope.

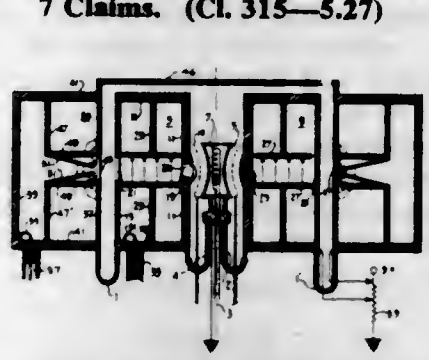
2,835,844

ELECTRON BEAM DEFLECTION TUBE

William J. McBride, Jr., San Francisco, Calif., assignor to the Regents of the University of California, a corporation of California

Application February 25, 1953, Serial No. 338,705

7 Claims. (Cl. 315—5.27)



1. A vacuum tube amplifier comprising means for developing a stream of electrons concentrated in at least one dimension so that the constituent electrons of said stream travel in paths substantially parallel to a median plane, means for deflecting said electrons into paths substantially parallel to and displaced from their original paths comprising a cavity resonator positioned in the path of said stream and apertured to permit its passage therethrough, a pair of deflecting plates within said cavity and extending a major portion of the distance thereacross on opposite sides of said stream, supporting means for said plates connected electrically with said cavity and dividing said cavity into two electrically equivalent halves with said plates at the electrical center thereof whereby said cavity can be resonated at a mode wherein a relatively high electrical field is established between said plates, and

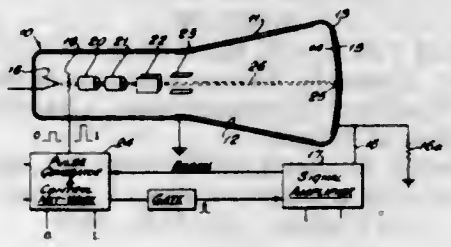
anode structure comprising a pair of adjacent electron-receiving areas symmetrically positioned on each side of said median plane so as to receive respectively substantially all of the electrons of said stream when the electrons thereof are deflected to one side or the other of said median plane into paths parallel to their original paths.

2,835,845

ELECTRO-STATIC METHODS OF STORING AND RECOVERING INFORMATION

George F. Bland, New York, N. Y., assignor to International Business Machines Corporation, a corporation of New York

Application April 9, 1954, Serial No. 422,056
2 Claims. (Cl. 315—12)



1. Electro-static differential data storage technique for use with a cathode-ray tube having a dielectric target surface and a signal plate in capacitative relation to said surface, said tube having a characteristic critical time rate of space charge formation

$$\frac{dI}{dt}$$

when said target surface is bombarded with a cathode ray beam of currelnt density value I, which includes the steps of sharply establishing at a time rate greater than said critical rate a cathode ray bombardment with a predetermined fixed beam density of relatively low current value I on an individual spot on said target surface, maintaining said bombardment in stationary relation and fixed focus on said spot throughout a predetermined short interval of time, sharply terminating said bombardment at a time rate greater than said critical rate, whereby a characteristic informational static charge of positive potential with respect to a ground potential associated with said plate may be deposited on said spot in capacitative coupling relation with said plate, sharply establishing at a time rate greater than said critical rate a cathode ray bombardment with a second predetermined fixed beam density of relatively high current value I on a second individual spot on said target surface, maintaining said second bombardment in stationary relation and said fixed focus on said second spot throughout a second predetermined short interval of time substantially equal to said first time interval and sharply terminating said second bombardment at a time rate greater than said critical rate, whereby a second characteristic informational static charge of negative potential with respect to said ground potential may be deposited on said second spot in capacitative coupling with said plate.

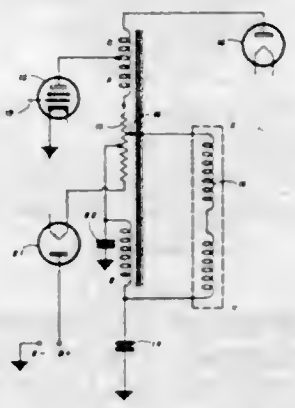
2,835,846

CONTROLLED BEAM CENTERING DEFLECTION CIRCUIT

Thomas S. Teetor, Cincinnati, Ohio, assignor to Avco Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware

Application September 2, 1954, Serial No. 453,780
4 Claims. (Cl. 315—27)

1. In a television receiver reaction scanning circuit, the combination comprising an autotransformer having a first coil portion and a separate second coil portion, both coil portions being wound on a common magnetic core, potentiometer means having two end terminals and two intermediate taps, one fixed and the other variable, means connecting one potentiometer end terminal to said first coil portion, means connecting said second coil portion to the fixed tap on said potentiometer means, a direct current source having positive and negative terminals, diode rectifier means having an anode direct current coupled to the positive terminal of said direct current source and a cathode direct current coupled to the remaining end terminal on said potentiometer means, deflection



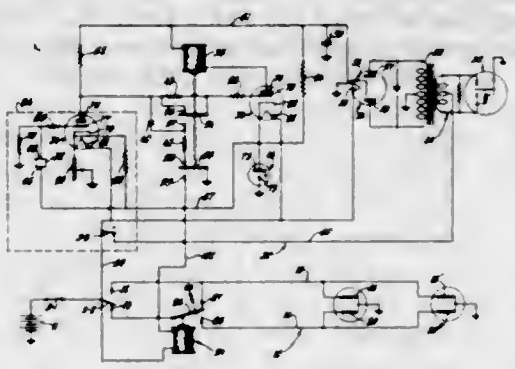
coils direct current coupled between the variable tap on said potentiometer means and said second coil portion, a B-boost capacitance connected between said second coil portion and the negative terminal of said direct current source, and a driver tube electron conduction path coupled between said first coil portion and the negative terminal of said direct current source, the space relationship between the two potentiometer taps being adjustable to vary the amount and direction of direct current flow through said deflection coils.

2,835,847

AUTOMATIC HEADLAMP DIMMER SYSTEM

James H. Guyton, Kokomo, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 13, 1951, Serial No. 251,158
11 Claims. (Cl. 315—83)

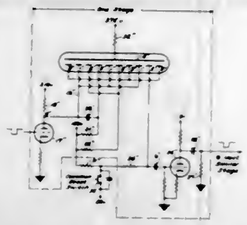


1. A headlight dimmer system for vehicles comprising, in combination, a headlight operable in a normal condition and in a passing condition, a light sensitive pick-up device responsive to incident illumination, vacuum tube signal amplifying means controlled by said pick-up device, control means actuated by said amplifying means in response to incident illumination on said pick-up device above a predetermined threshold value and changing said headlight from normal to passing condition, and means actuated by said amplifying means concurrently with said control means and lowering the threshold of sensitivity of said system to incident light for a predetermined time interval, said means including time delay biasing means connected in circuit with said amplifying means only when said headlight has been changed by said control means from normal to passing condition.

2,835,848
MULTI-ELECTRODE TUBE PULSE MEMORY CIRCUIT

Joseph C. Gundlach, Loudon County, Tenn., and James B. Reeves, Milwaukee, Wis., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application February 15, 1954, Serial No. 410,465
5 Claims. (Cl. 315—84.6)

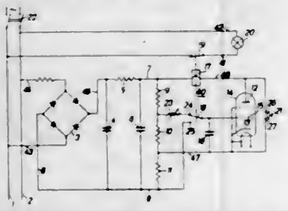


1. A system for storing and indicating the number of pulses stored comprising a poly-cathode tube of the gaseous discharge type having an anode and a continuous series of separate groups of at least three cathodes, a transfer electrode interposed between two of said groups of cathodes for transferring signals, means for coupling the corresponding cathodes of each of said groups of cathodes together to provide separate circuits, means for applying potentials to each of the separate circuits, means for normally maintaining one of said separate circuits at a lower potential than the others to sustain a discharge between a cathode thereof and the anode, and an eletcric discharge device coupled through low time constant means to the separate circuits and responsive to signals to be counted to progressively alter the potentials thereof to cause the discharge to move sequentially across the cathodes of a group of said cathodes in response to each of said signals.

2,835,849
TIMER

Friedrich Biedermann, Unterhaching, near Munich, and Richard Wick, Munich, Germany, assignors to Agfa Aktiengesellschaft, Leverkusen-Bayerwerk, Germany

Application May 15, 1957, Serial No. 659,358
Claims priority, application Germany May 19, 1956
14 Claims. (Cl. 315—151)

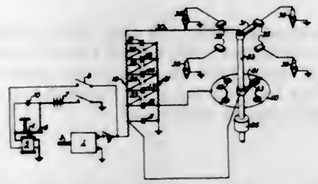


1. In a timing apparatus for controlling the operation of a control member, in combination, a control tube having at least a control electrode, a cathode and an anode and being operable between conductive and non-conductive conditions; energizing means connected to said control tube; a capacitor connected to said energizing means and to said control electrode of said control tube and being adapted to be charged by said energizing means to a preselected potential for rendering said control tube conductive; first switch means connected in circuit with said capacitor and movable between at least first and second positions for changing the charging circuit of said capacitor upon movement between said first and second positions thereof; relay means connected in circuit with said control tube and being energized when said control tube is rendered conductive, said relay means being connected to said control member and to said first switch means for changing the relative positions thereof upon energization and de-energization of said relay means; and second switch means connected in parallel with said control tube, said switch means being movable between circuit closing position wherein said control tube is non-conductive and circuit opening position, whereby when said second switch means is moved into circuit opening position, said relay means is de-energized to simultaneously change the position of said control member and said first switch means, said capacitor thereupon being charged by said energizing means until said preselected potential is reached to render said control tube conductive and thereby energize said relay means.

2,835,850
HIGH VOLTAGE IGNITION SYSTEM

Roger Morel, Grenoble, France, assignor to Societe Anonyme de Machines Electrostatiques, Grenoble, France, a corporation of France

Application August 5, 1954, Serial No. 448,085
Claims priority, application France August 5, 1953
20 Claims. (Cl. 315—180)



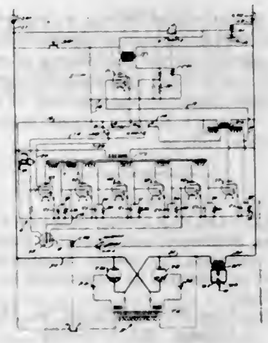
1. In an ignition system, the combination with a source of given potential and an ignition device operable at a substantially higher potential, of a plurality of capacitors connected in parallel across said source of given potential for charging said capacitors at said given potential, said parallely connected capacitors as a group being connected in series with said ignition device, a plurality of elements respectively connected between terminals of adjacent capacitors that respectively are connected to a given and to the other side of said source and connecting said capacitors in series with each other, said elements being operable to effect discharge of said capacitors in series with each other and in series with said ignition device to develop said higher potential across said ignition device, and means connected to said parallely connected capacitors and to said elements for limiting flow of charge short circuiting said series discharge of said capacitors through said elements to said ignition device.

2,835,851
ELECTRICAL CONTROL SYSTEM

Cletus J. Collom, Southfield Township, Oakland County, Mich., assignor to Weltronic Company, Detroit, Mich., a corporation of Michigan

Application September 13, 1946, Serial No. 696,950
28 Claims. (Cl. 315—252)

28. In a timing system adapted to be energized from a source of alternating electrical energy, a first valve having a pair of main electrodes and a control electrode, means for connecting said main electrodes across said source including switch means controlling energization thereof, switch means controlled in accordance with a conductive condition of said valve and operable upon initial conduction of said valve to maintain said valve energized, a second valve means having a pair of main electrode means and controlling electrode means and having a plurality of controlling functions, means connecting said second valve means across said source, a first dischargeable source of potential bias voltage connected between said second valve means controlling electrode means and one of said second valve means main electrode means and of such polarity that when applied between said second valve means controlling electrode means and said second valve means one main electrode means said second valve means is held against conduction, means actuated as a consequence of the conduction of said first valve for initiating the discharge of said potential bias voltage whereby said second valve means is rendered conductive subsequent to a predetermined time interval subsequent to conduction of said first valve, a third valve having main electrodes and a control electrode, a second means normally maintaining a blocking bias voltage between said third valve control electrode and one of said third valve main electrodes whereby conduction of said third valve is prevented, said second bias voltage means being dischargeable to permit conduction of said third valve, the discharge of said second bias voltage means being one of the functions of said



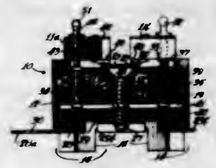
second valve means plural functions, another of said second valve means plural functions being to energize a control circuit, a third source of potential bias operable to render said second valve means ineffective to perform said other plural function, said third potential bias source being normally maintained ineffective and rendered effective as a consequence of conduction of said third valve, a fourth valve and a fifth valve, a fourth dischargeable bias voltage means normally maintaining a blocking bias voltage on said fifth valve and controlled by said fourth valve, means controlling said fourth valve to permit said fourth dischargeable means to discharge and permit said fifth valve to conduct, and a fifth dischargeable bias voltage means controlled by said fifth valve and operable upon conduction thereof to establish a potential thereacross, and circuit means for applying said last-named established potential between one said first valve main electrodes and said first valve controlling electrode to block conduction of said first valve.

2,835,852
LIGHTNING ARRESTOR AND ATTACHMENT THEREFOR

Raymond E. Crotty, Jr., Homewood, and Elmer Guy Hills, Des Plaines, Ill., assignors, by direct and mesne assignments, of one-half to Radion Corporation, Chicago, Ill., a corporation of Illinois, and one-half to said Hills

Application September 22, 1954, Serial No. 457,646
14 Claims. (Cl. 317—69)

1. In combination with a lightning arrestor of the type having a pair of terminals adapted to be connected across a two conductor transmission line leading from an antenna to an electromagnetic wave receiver; means mounted on said lightning arrestor for electrically connecting each of said terminals with a different one of the conductors of said transmission line, said means comprising a pair of spaced contacts penetrating said transmission line and each contacting one of said conductors, and a pair of isolating circuits respectively connected between each of said contacts and a different one of said terminals, said circuits each including an inductor and being

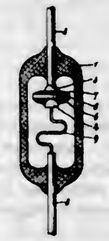


so proportioned that they cooperate with the distributed impedances between said terminals to effectively isolate the conductors of said transmission line and prevent a mismatch between the antenna and the transmission line.

2,835,853
SEMI-CONDUCTOR ELECTRODE SYSTEM

Wilhelmus Antonius Roovers, Emmasingel, Eindhoven, Netherlands, and Otto Louis Van Steenis, deceased, late of Emmasingel, Eindhoven, Netherlands, by Joris Daniel Heijligers, executor, Emmasingel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 7, 1954, Serial No. 473,680
Claims priority, application Netherlands
December 19, 1953
3 Claims. (Cl. 317—236)



1. A semi-conductor electrode system comprising a tubular vitreous envelope having a central axis, a conductor substantially extending along the axis of the envelope and sealed in and through an end wall of said envelope, a metallic disc-like member disposed within the envelope and extending substantially in a plane at right angles to the envelope axis, a semi-conductor body, first solder means securing one side of said disc-like member to the end of said conductor, second solder means securing said semi-conductor body to the other side of said disc-like member, said second solder means having a substantially higher melting point than said first solder means, and means sealed in the other end of the envelope and coupled to said semi-conductor body for providing together with said conductor external terminals for said system.

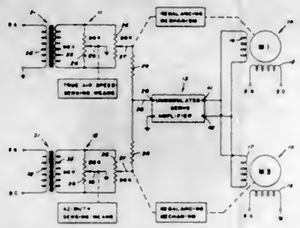
2,835,854
TWO CHANNEL SERVO SYSTEM

Edward O. Uhrig, Euclid, Ohio, assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application January 16, 1956, Serial No. 559,499
13 Claims. (Cl. 318—19)

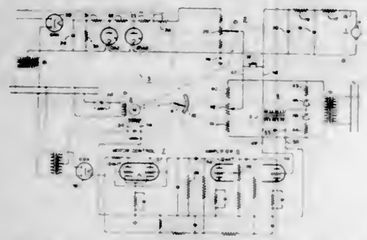
1. A two channel servo system comprising: means to generate a first voltage in response to variation of a first parameter, means to generate a second voltage in response to variation of a second parameter, means combining said first and second voltages, and electroresponsive means connected to said combining means selectively

responsive to said first and second voltages, said electroresponsive means including feed back means operable in



response to actuation of said electroresponsive means to diminish said first and second voltages.

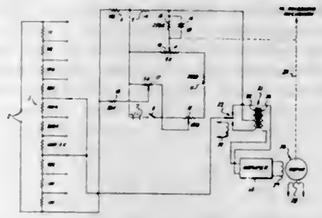
2,835,855
SELF-BALANCING POTENTIOMETER SYSTEM
Harold H. Koppel, South Euclid, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application October 7, 1955, Serial No. 539,060
4 Claims. (Cl. 318—28)



1. A self-balancing potentiometer system including, a device developing a unidirectional E. M. F. in accordance with the magnitude of a condition, a source of unidirectional E. M. F. of constant magnitude, an electric network for opposing the first mentioned E. M. F. and a portion of the E. M. F. of constant magnitude to produce a differential unidirectional E. M. F. having a polarity dependent upon which of the opposed E. M. F.'s is greater, a slide-wire assembly in the electric network arranged to reduce the differential E. M. F. to substantially zero, a transformer primary in circuit with the slide-wire assembly, a bridge network in series with the transformer primary and slide-wire assembly with a pair of conjugate points to which a source of A.-C. voltage is applied and between which a pair of unidirectional conductors are connected aiding, a phase-responsive means for amplifying the output of a transformer secondary associated with the transformer primary, and a reversing motor controlled by the amplified E. M. F. for adjusting the slide-wire assembly.

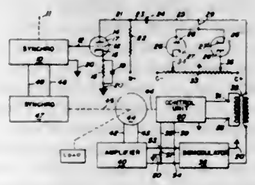
2,835,856
SERVO SYSTEM INPUT AND BALANCING CIRCUIT
Francis L. Moseley, Pasadena, Calif., assignor to F. L. Moseley Co., a corporation of California
Application May 3, 1956, Serial No. 582,434
6 Claims. (Cl. 318—28)

1. In a servo system an improved input and balancing circuit including in combination a pair of input terminals to which may be applied a unidirectional electrical signal representing variations in a condition, a first resistor across which a balancing voltage may be impressed, a second resistor across which an offset voltage may be impressed, means connecting said first resistor and said second resistor serially between said input terminals, a constant source of unidirectional voltage, a first potentiometer including a resistance element and a contactor, a linearity resistor, means connecting said first potentiometer resistance element and said linearity resistor serially across said source of voltage, means applying the voltage appearing between the contactor and one end of the resistance element of said first potentiometer across said first resistor as a balancing volt-



age, a second potentiometer having a resistance element and a contactor, means connecting said second potentiometer resistance element across said source of voltage, and means applying the voltage appearing between said second potentiometer contactor and one end of said second potentiometer resistance element across said second resistor as an offset voltage.

2,835,857
LIMITED OUTPUT RANGE SERVOSYSTEM
Harry C. Moses, Baltimore, and Robert S. Raven, Catonsville, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 29, 1953, Serial No. 358,366
7 Claims. (Cl. 318—30)

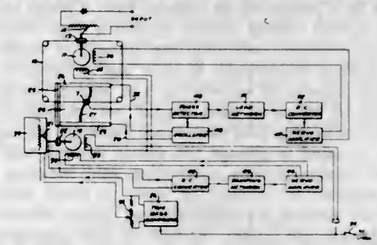


1. Apparatus for limiting the angular output movement of a servomotor to predetermined limits comprising an input shaft, an input synchro device connected thereto, an output shaft, a servomotor connected to said output shaft for angular movement thereon, an output synchro device connected to said servomotor, feed back connections from said output synchro device to said input synchro device, circuit connections from said input synchro device to said servomotor for producing a lag error signal voltage therein, and control means for nullifying the servomotor error signal voltage and stopping the servomotor at predetermined limits of angular output movement of said servomotor.

2,835,858
CURVE OR LINE FOLLOWER APPARATUS
Francis L. Moseley, Pasadena, Calif., assignor to F. L. Moseley Company, Pasadena, Calif., a corporation of California
Application May 24, 1955, Serial No. 510,746
20 Claims. (Cl. 318—31)

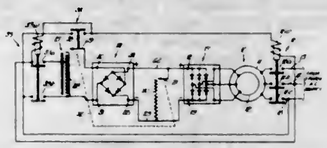
1. In combination, a transmission line arranged to carry an alternating current, a pick-up means associated with the line in which a signal is adapted to be produced due to the current flow in the line, the phase and magnitude of the signal being determined by the position of the pick-up means relative to the transmission line, servo

means for moving the pick-up means relative to the line, and means for controlling the servo means operated re-



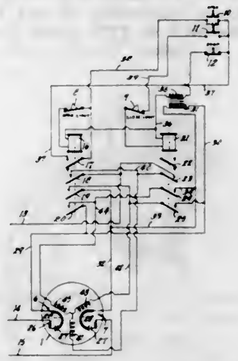
sponsive to the signals produced in the pick-up means for centering the latter on the transmission line.

2,835,859
VARIABLE SPEED ALTERNATING CURRENT MOTOR SYSTEM
John R. Burns, Delaware, Ohio
Application October 17, 1957, Serial No. 690,721
20 Claims. (Cl. 318—232)



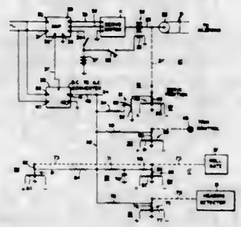
1. A variable speed alternating current motor system comprising, in combination, an induction motor having a stator energized by alternating current and a wound rotor, rectifier means connected for energization to said wound rotor, a load device connected to said rectifier for energization by a unidirectional voltage therefrom, means for applying a second unidirectional voltage to said load device of the same polarity as applied thereto by said rectifier means, and means for varying one of said unidirectional voltages to vary the speed of said motor.

2,835,860
OVERLOAD PROTECTION CIRCUIT FOR ELECTRIC MOTORS
Charles Edward Delaney, Hartford City, Ind., assignor to Overhead Door Corporation, Hartford City, Ind.
Application November 13, 1956, Serial No. 621,816
10 Claims. (Cl. 318—473)



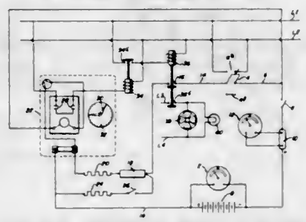
1. A motor control system comprising a motor having running windings, a thermal switch having a heater associated therewith and positioned in said motor to be subject to the heat of the motor and the heater, a relay including power switches connected to energize said motor and a holding circuit arranged to hold the relay in actuated motor energizing position, power leads connected through said heater and said thermal switch and said power switches to said windings, and a circuit for energizing the solenoid of said relay and said holding circuit connected to said power leads through said heater and said thermal switch ahead of said power switch, and manually operable start and stop switches in said holding circuit that may be located remotely from said motor, said thermal switch being automatically closable on temperature drop to a predetermined valve.

2,835,861
AUTOMATIC PILOT MOTOR CONTROL SYSTEM
Homer D. Eckhardt, Cambridge, Mass., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 14, 1955, Serial No. 481,850
8 Claims. (Cl. 318—489)



1. Control apparatus for an aircraft having roll axis and having aileron control surfaces variably displaceable from a normal position to determine the rate of angular movement of the craft about its roll axis, said apparatus comprising; a servo motor for positioning said surfaces, a balanceable network means for effecting operation of said motor on unbalance of said network, follow up means driven by said servo motor, means responsive to the angular rate of movement of the craft about said roll axis, further means responsive to departure of the direction of the roll axis of the craft from a predetermined given or like direction, a first signal providing means driven by the follow-up means, a second signal providing means, including a lag device, driven by the angular rate means, a third signal providing means driven by the further means, and means for supplying all of said signals to said network, the signals from the first and second providing means opposing the signal from the third providing means.

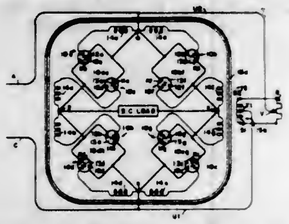
2,835,862
APPARATUS FOR CHARGING AND TESTING BATTERIES
John W. McNutt, Dravosburg, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application November 23, 1955, Serial No. 548,634
3 Claims. (Cl. 320—14)



1. Apparatus for charging and testing a battery comprising a variable rheostat, an ampere hour meter and a

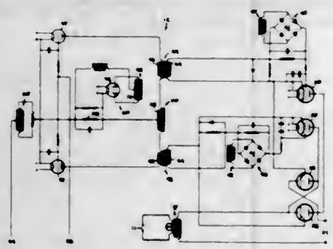
normally open contact connected in series, a circuit including a relay coil for operating said contact, said ampere hour meter including means for energizing said circuit to close said contact when said meter is out of zero position, means for completing a circuit from said battery through said variable rheostat, ampere hour meter and said normally open contact to discharge said battery, and means for connecting said battery, variable rheostat, ampere hour meter and said normally open contact to a D. C. power source to charge said battery.

2,835,863
ELECTROMAGNETRONIC VALVE APPARATUS
Ervin G. Johnson, Oakland, Calif., assignor to Eleanor de Haas Johnson, Oakland, Calif.
Application March 27, 1951, Serial No. 217,730
10 Claims. (Cl. 321—38)



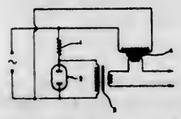
1. In combination: a valve having an anode and a cathode and a grid, a source of alternating current, a transformer having electroconductively distinct primary and secondary inductively related windings with the primary winding having end and mid-point terminals; a potentiometer including a resistor having two end terminals, and including a slide contactor having a contact arranged for sliding over the resistor between the two end terminals thereof and having a slide contactor terminal; means electroconductively directly connecting the end terminals of the potentiometer resistor to the end terminals of the primary winding; means electroconductively connecting two points of different voltage of the source of current respectively to the terminal of the slide contactor and the midpoint of the transformer primary winding; means connecting substantially the same points of the source of current to the anode and the cathode, and means connecting the secondary winding of the transformer to the cathode and grid.

2,835,864
WELDING CONTROL APPARATUS
Andrew H. Decker and Arthur A. Meyer, Beloit, Wis., assignors to Warner Electric Brake & Clutch Company, South Beloit, Ill., a corporation of Illinois
Application September 14, 1953, Serial No. 379,925
13 Claims. (Cl. 323—36)



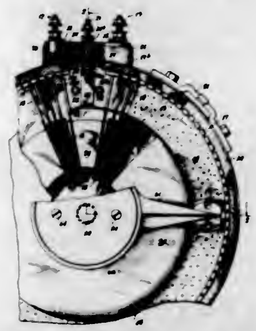
1. In welding control apparatus, the combination of, timing circuits controlling the flow of welding current to a load circuit and operable to cause said welding current to flow in a succession of current "on" periods and each comprising a succession of pulsations and each followed by a period of no current flow, a phase shift network in said timing circuits having a first variable impedance element controlling the amount of welding current flowing during each of said "on" periods, a second variable impedance element in said timing circuits controlling the length of each of said "on" periods, indexing means controlling said impedance elements and operable when actuated to change the values thereof, and means in said timing circuits controlling said indexing means and operable to actuate the latter in timed relation to said "on" periods to render effective during different "on" periods different values of each of said impedance elements thereby varying both the lengths of the "on" periods and the amount of current flow during the same.

2,835,865
A. C.-MAINS-OPERATED HIGH-GAIN LOW FREQUENCY ELECTRONIC AMPLIFIERS
Edward Samuel McCallister, Grove Park, Chiswick, London, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 7, 1955, Serial No. 545,501
Claims priority, application Great Britain November 19, 1954
2 Claims. (Cl. 323—45)



1. A stabilized voltage circuit comprising a source of alternating voltage which is subject to having voltage variations, a gas-filled stabilizing tube and a ballast impedance connected in series across said source of voltage, a first transformer having a primary winding connected in parallel with said tube and having a secondary winding, and a second transformer having a primary winding connected across said source of voltage and having a secondary winding, said secondary windings being connected in series opposition thereby providing a stabilized output voltage.

2,835,866
VARIABLE TRANSFORMER
Robert Vradenburgh, Yonkers, and Justin J. Naviski, White Plains, N. Y., assignors to Ward Leonard Electric Company, a corporation of New York
Application June 10, 1954, Serial No. 435,818
15 Claims. (Cl. 323—47)



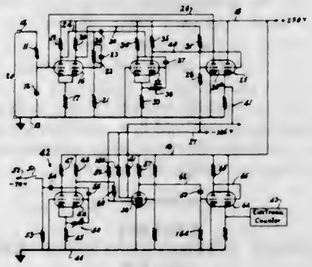
1. An electrical control apparatus comprising mounting means having a metallic heat conductive plate with a lateral rim, a core, a winding on said core, contact surfaces separate from said winding and arranged adjacent to said rim and in a row facing said winding, said contact surfaces spaced therefrom to form a channel for a contact assembly, and conductive members extending in a plane generally parallel to the conductive plate from said stationary contact surfaces to turns of said winding to interconnect said winding and said contact surfaces for successively tapping incrementally different voltages from said contact surfaces.

2,835,867
SIGNAL ATTENUATOR
Daniel Golden, Bronx, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application November 25, 1953, Serial No. 394,284
4 Claims. (Cl. 323—66)



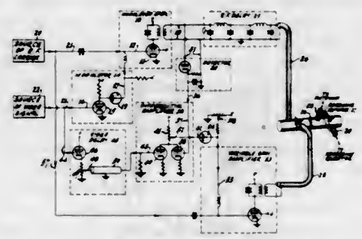
1. A signal attenuator comprising a plurality of input signal terminals, a plurality of corresponding output signal terminals, impedance means coupling said input terminals to said output terminals and said output teminals to each other, and said impedance coupling means including at least a pair of unbiased crystal diodes connected across said output terminals, said diodes being connected in parallel but oppositely poled, each diode having constant resistance characteristics over an applied voltage range in the order of minus ten to plus ten millivolts irrespective of the polarity of the applied voltage and variable resistance characteristics when said range is exceeded, said impedance coupling means using said unbiased crystal diode resistance characteristics to discriminate against negative and positive voltages in excess of said applied voltage range, whereby a constant impedance is presented between input signals of varying polarity within said range and corresponding output signals, while input signals of magnitudes outside said range are attenuated at the output terminals.

2,835,868
VOLTAGE TO DIGITAL MEASURING CIRCUIT
John L. Lindesmith, Sierra Madre, Calif., assignor to Clary Corporation, a corporation of California
Application September 16, 1952, Serial No. 309,783
2 Claims. (Cl. 324—111)



1. A voltage measuring system comprising the combination of a gate circuit, input and output circuits for said gate circuit, a pulse registering device connected to said output circuit, means for controlling said gate circuit to remain open for a predetermined length of time, an electrical impedance device, a condenser connected in series with said impedance device, means for applying a voltage to be measured across said impedance device and said condenser, a variable resistance device having one terminal connected to the side of said condenser opposite said impedance device, said resistance device having another terminal connected to the side of said condenser adjacent said impedance device, a control element for varying the resistance of said resistance device, means normally biasing said control element to cause said resistance device to present a relatively large resistance whereby to prevent discharge of said condenser, a flip-flop circuit alternatively adjustable between two conditions, means normally biasing said flip-flop circuit into a first one of said conditions thereof, means responsive to accumulation of a charge of a predetermined voltage across said condenser for biasing said flip-flop circuit into the second one of said conditions thereof, and means controlled by said flip-flop circuit upon said change thereof from said first to said second condition for applying a pulse to said input circuit and for activating said control element to cause said resistance device to present a relatively low resistance whereby to discharge said condenser.

2,835,869
TELEVISION TRANSMITTER WITH IMPROVED AMPLITUDE LINEARITY
Wendell C. Morrison, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 21, 1955, Serial No. 517,009
11 Claims. (Cl. 332—37)

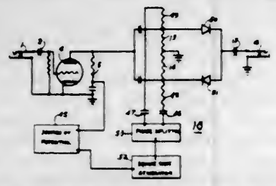


1. A television transmitter comprising a modulated amplifier, a source of radio frequency carrier waves coupled to an input of said modulated amplifier, a modulator having an output coupled to an input of said modulated amplifier, a source of video modulating signals coupled to the input of said modulator, a differential amplifier having a pair of inputs, means to apply a video signal from said modulating signal source to one input of said differential amplifier, a detector having an input coupled to the output of said modulated amplifier and having an output coupled to another input of said differential amplifier, a variable gain amplifier, means to apply a radio frequency carrier wave from said carrier wave source to said variable gain amplifier, means to apply the output of said differential amplifier to said variable gain amplifier as a gain control voltage therefor, and means to combine the outputs of said modulated amplifier and said variable gain amplifier.

2,835,870
TREMOLO-FREQUENCY MODULATOR
Ora G. Fretz, Fort Worth, Tex.
Application September 18, 1956, Serial No. 610,694
4 Claims. (Cl. 332—52)
(Granted under Title 35, U. S. Code (1952), sec. 266)

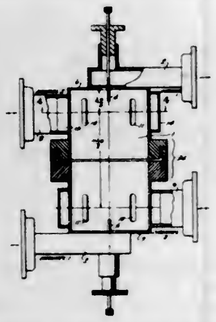
1. A tremolo frequency modulator unit for insertion between a musical instrument and an amplifier comprising, a pair of circuits connected in parallel having coupling capacitors at one end and means at the other end to render said circuits conductive in one direction opposite to each other and capable of varying the conductivity thereof, resistance means of equal value connecting each

said circuits intermediate their ends to ground, input means including a jack, and an amplifier connecting said jack to said coupling capacitors, output means including a jack and a coupling capacitor connecting said jack



to said first named means, and means for producing modulating voltages of tremolo frequency, equal amplitude and of opposite phase upon each said circuit intermediate the ends thereof for cyclically varying the conductivity of said first named means.

2,835,871
TWO-CHANNEL ROTARY WAVE GUIDE JOINT
Herbert P. Raabe, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application August 7, 1953, Serial No. 373,069
11 Claims. (Cl. 333—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)



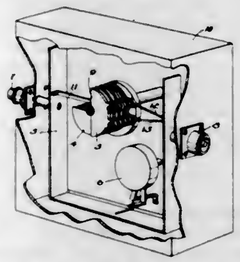
1. A two-channel rotary wave guide joint assembly comprising a circular wave guide having a rotary joint intermediate its ends and means for coupling each of said channels to said circular wave guide on opposite sides of said rotary joint, the coupling means for one channel providing a transition between the energy in the channel and the circular E_{01} mode and the coupling means for the other channel providing a transition between the energy in the channel and the circular H_{01} mode.

2,835,872
INTERSTAGE COUPLING NETWORK
John R. Pierce, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 1, 1953, Serial No. 377,815
3 Claims. (Cl. 333—32)



3. An interstage network for coupling the output of the first amplifying stage having a low output capacitance to a second amplifier stage having a high input capacitance comprising an exponentially tapered ladder network of series inductive elements and shunt capacitive elements, and a terminating network having a characteristic impedance of an infinite continuation of the exponentially tapered ladder network, and characterized in that the output capacitance of the first amplifying stage and the input capacitance of the second amplifying stage serve as the first and last shunt capacitances respectively of the ladder network, said terminating network comprising a series arm including an inductance in parallel with a capacitance which arm is inductive throughout the operating band and a first shunt arm including an inductance in series with the capacitance which arm is resonant at substantially the upper limit of the operating range and a second shunt arm comprising an inductance in series with a capacitance which arm is resonant at substantially the lower limit of the operating range.

2,835,873
FILTER
Frank W. Yeagley, Dallas, Tex., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 27, 1954, Serial No. 477,867
1 Claim. (Cl. 333—73)

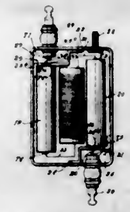


A filter circuit comprising a coaxial input connection, said connection including a center conductor and an external ground connection, an inductive element comprising a U-shaped strap of flat conductive material, said center conductor of said coaxial input connected to one side of said U-shaped strap, a ground reference potential means comprising a casing for said filter circuit, a variable resistive element having one side connected to the closed side of said U-shaped strap and the other side connected to ground, a second coaxial connection means connected to the other side of said U-shaped strap, said coaxial connection means comprising a center conductor and an external ground connection, a tunable rotary condenser having its rotary plates electrically connected to one side of said U-shaped strap and having its fixed plates connected to the opposite side of said U-shaped strap, said rotary plates connected by a single means and said fixed plates connected by a plurality of means, said U-shaped strap physically related to said casing so as to match the impedances of said first and said second coaxial connections, whereby the maximum attenuation of said circuit may occur at varied frequencies.

2,835,874
ELECTRICAL INTERFERENCE SUPPRESSION FILTER
Mervin H. First, Brooklyn, and Leonard Milton, Jackson Heights, N. Y., assignors, by direct and mesne assignments, to J. & G. Development Corporation, Culver City, Calif., a corporation of California
Application February 17, 1954, Serial No. 410,952
16 Claims. (Cl. 333—79)

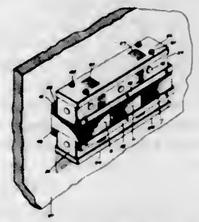
1. A filter comprising a metallic housing having first and second openings, first and second terminals mounted at said first and second openings respectively in insulated

relationship with said housing, said first and second terminals being located to avoid coupling of radio frequency energy between said first and second terminals on the outside of said metallic housing, a shield wall connected in permanent electrical contact with the inside of said metallic housing between said first and second openings, said shield wall forming a radio frequency shielding compartment about one of said openings to shield said one of said openings from the other of said openings, said shield wall having an opening, a feed-thru capacitor positioned within said metallic housing and outside of said radio frequency shielding compartment, said feed-thru capacitor comprising a pair of electrodes



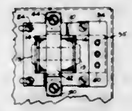
and a lead which feeds through the capacitor and is connected to one of the electrodes, the lead at one end of said feed-thru capacitor passing through the opening in said shield wall into said radio frequency shielding compartment and connecting to said one of said terminals, shield means comprising the other electrode for shielding the opening in said shield wall and the lead between said shield wall on the outside of said radio frequency shielding compartment and the other end of said feed-thru capacitor, said shield means being electrically connected to said shield wall, and means connecting the lead at said other end of said feed-thru capacitor to said second terminal.

2,835,875
THREE-PHASE TRANSFORMER CONSTRUCTION
Raymond Bistany, Des Plaines, Ill., assignor to General Electric Company, a corporation of New York
Application May 6, 1957, Serial No. 657,283
4 Claims. (Cl. 336—5)



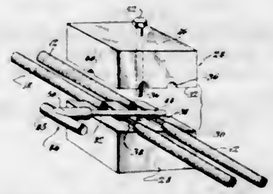
1. A unitary three-phase, dry-type transformer construction comprising: a plurality of identical spaced-apart transformer core and coil assemblies each having a laminated core with a coil positioned thereon, each of said coils having primary and secondary windings with electrical leads respectively connected thereto and further having portions respectively projecting beyond the opposite faces of its core, said cores being arranged in longitudinal alignment; a pair of sleeve members having side and end walls, said sleeve members being respectively arranged on opposite sides of said core and coil assemblies respectively enclosing said projecting portions of said coils forming a pair of wiring compartments for making external electrical connections to said leads, said leads of said primary windings being located in one of said compartments and said leads of said secondary windings being located in the other of said compartments, said sleeve members having means communicating with the interior thereof for admitting external electrical leads thereto, each of said side walls having an outwardly extending flange portion formed thereon; mounting means for said transformer extending from at least some of said flange portions; clamping means respectively engaging said flange portions on opposite sides of said core and coil assemblies clamping said core laminations and holding said transformer in assembled relation; and a pair of cover members respectively removably secured to said sleeve members closing the same and providing access to said wiring compartments.

2,835,876
ADJUSTABLE INDUCTANCE
Laurens Hammond, Chicago, Ill., assignor to Hammond Organ Company, a corporation of Delaware
Application August 18, 1950, Serial No. 180,289
1 Claim. (Cl. 336—134)



In combination, a mounting plate, an inductance element for use in tuning a circuit resonant at an audio-frequency comprising a coil, a core associated with the coil and having at least two groups of laminations providing an air gap therebetween, each group having portions of the laminations thereof interleaved with portions of the laminations of the other group, means for firmly securing together the laminations of each group, and means for maintaining the interleaved portions of the two groups in tight frictional engagement with each other comprising a clamping strap bridging the coil and having portions engaging the outermost laminations at a place where the laminations are interleaved, a spring washer, and a screw extending through the washer, strap, and mounting plate, and holding the inductance element on the plate, whereby one of the group of laminations may be moved minute distances with respect to the other group by sharply tapping one group with a hard implement in a direction to change the size of the air gap between the two groups of laminations.

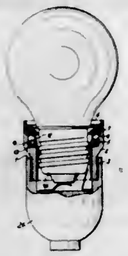
2,835,877
SAFETY DEVICE FOR ELECTRICAL DETONATORS
Richard V. Walker, Glen Ellyn, Ill.
Application May 31, 1955, Serial No. 511,925
4 Claims. (Cl. 339—19)



2. A safety device for repeated use with electrical detonators wired for remote control, comprising, in combination, an insulating block formed in two sections of insulating material each defining a face thereon opposing a generally similar face on the other section for separable engagement therewith, at least one of said sections defining in said face thereon a spaced pair of grooves extending thereacross, said grooves providing upon placement of said sections together spaces therebetween for the reception of two detonator lead wires, at least one of said sections defining a transverse groove therein extending

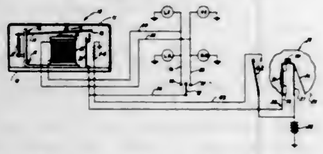
substantially across the face thereof from one side thereof in crossing relation to said first mentioned grooves, a safety element including an insulated handle portion and a shank portion extending from said handle portion, said shank portion including a bare metal stem adapted to extend extractably along said transverse groove into said block between said sections thereof for engagement with detonator lead wires disposed in said first mentioned grooves, and means separably securing said block sections together.

2,835,878
PUSH-IN TYPE LAMP HOLDER
Heinz Bauer, Essen, and Heinrich Eul and Helmut Günther, Emmerich, Germany
Application September 30, 1954, Serial No. 459,404
Claims priority, application Germany October 5, 1953
3 Claims. (Cl. 339—72)



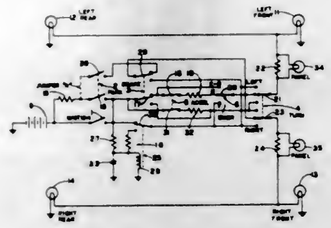
1. In a push type lamp socket of the class described, a socket body having an inlet opening, current carrying parts located therein, a lamp base to be inserted therein having peripheral abutments, at least four blades terminating in free ends and connecting ends, the latter being mounted on the inside of the socket body, connecting means between said socket body and said connecting ends adapted to enable the free ends to be swung in an arc, a projection at the under side of each blade between its free end and its connecting end, an annular spring simultaneously engaging all said projections adapted to draw the blades towards the axis of the socket body into a radial plane of the socket body, when no lamp is inserted, and to return the free ends of the blades behind said abutments, after said blades have been swung outwards by an angle of about 90 degrees on inserting the lamp, whereby said blades serve as a protection against touching said current carrying parts and hold the lamp in its inserted position in such a manner that it cannot be drawn out of the socket body without an increased power of traction.

2,835,879
DIRECTIONAL TURN SIGNAL
Gideon A. Du Rocher, Grosse Pointe, Mich., and George L. Webb, Logansport, Ind., assignors to Essex Wire Corporation
Application May 4, 1955, Serial No. 505,882
8 Claims. (Cl. 340—74)



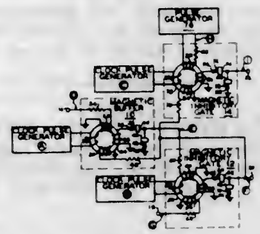
1. A sounder comprising: in combination, a metal cover having a coil supported therein; an armature movable between magnetically attracted and unattracted positions; spring means biasing said armature to cause a portion thereof to engage said cover in said unattracted position; a bimetal stop member limiting movement of said armature to a first attracted position upon energization of said coil and which upon being sufficiently heated moves to permit said armature to move beyond said first attracted position; and a fixed stop member limiting movement of said armature to a second attracted position located at a greater distance from said cover than said first attracted position when movement of said armature is not limited by said bimetal stop member.

2,835,880
DIRECTION SIGNAL CIRCUIT FOR MOTOR VEHICLES
Charles R. Daws, Lancaster, Calif.
Application September 14, 1956, Serial No. 610,018
8 Claims. (Cl. 340—81)



3. A direction signal circuit for motor vehicles comprising a right front lamp, a left front lamp, a right rear lamp and a left rear lamp; a current source; a two-position, foot-brake-operated switch having an actuated position and an unactuated position; a manually operated turn switch having a neutral position and two selectively settable "left" and "right" positions; a normally-closed accelerator switch; a two-position emergency switch having a neutral position and an emergency position; a normally-open ignition switch; means responsive to the closing of said ignition switch and said accelerator switch when said foot-brake-operated switch is in said unactuated position and said turn switch is in said neutral position to constantly energize all of said lamps from said current source; intermittent current interrupter means for intermittently opening and closing an electric circuit; means responsive to the actuation of said foot-brake-operated switch and to the closing of said ignition switch when said turn switch is in the neutral position for energizing all of said lamps from said current source through said current interrupter means; means responsive to the closing of said ignition switch and to the setting of said turn switch in said "right" position when said foot-brake-operated switch is in the unactuated position for energizing both right lamps from said current source through said current interrupter means; means responsive to the closing of said ignition switch and to the setting of said turn switch in said "left" position when said foot-brake-operated switch is in the unactuated position for energizing both left lamps from said current source through said current interrupter means; means responsive to the closing of said ignition switch and the actuation of said foot-brake-operated switch and to the selective setting of said turn switch in said "right" position for energizing both right lamps from said current source through said current interrupter means while simultaneously constantly energizing both left lamps from said current source; means responsive to the closing of said ignition switch and the actuation of said foot-brake-operated switch and to the setting of said turn switch in said "left" position for energizing both left lamps from said source through said current interrupter means while simultaneously constantly energizing both right lamps from said current source; and means responsive to the closing of said ignition switch and the positioning of said emergency switch in said emergency position while said turn switch is in the neutral position for energizing all of said lamps from said source through said current interrupter means.

2,835,881
MAGNETIC BI-STABLE DEVICE
George A. Wulfing, Bay Shore, N. Y., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Application December 14, 1953, Serial No. 397,940
10 Claims. (Cl. 340—174)



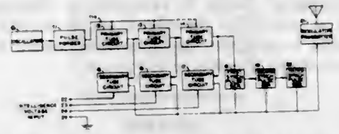
1. A bi-stable device responsive to electrical signals for performing a series of cycles of operation, said bi-stable device comprising first, second, and third means each including a single magnetic core with associated windings, said first means responsive to certain of the electrical signals for initiating a cycle of operation, said second means responsive to said first means for terminating the cycle of operation, said second means being regeneratively coupled to said first means for initiating successive cycles of operation to form a series of cycles of operation, said second means being responsive to other of the electrical signals for terminating the series of cycles of operation, said third means being normally operative to generate a signal and responsive to said second means to become inoperative during said series of cycles of operation.

2,835,882
MAGNETIZABLE RECORD READING SYSTEM
Joseph Allan Beek, Jr., Pasadena, Paul R. Gilson, West Covina, and Philip R. Westlake, Pasadena, Calif., assignors, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application January 27, 1955, Serial No. 484,404
8 Claims. (Cl. 340—174)



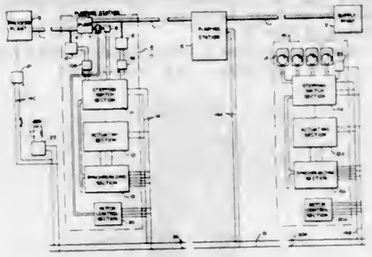
1. Apparatus for reading information from a magnetizable record bearing digital signals, including in combination a transducer; means moving the magnetizable record relative to the transducer; a first integrating circuit coupled to the transducer for providing a rectangular wave; a second integrating circuit coupled to the first integrating circuit for providing a triangular wave in response to the rectangular waves; and a circuit coupled to the second integrating circuit, having a first condition of operation which represents one digital value and a second condition of operation which represents a second digital value; and means coupled between the second integrating circuit and said last-named circuit for inducing the last-named circuit to assume a condition of operation corresponding to a recorded digital signal when the triangular wave has a predetermined value.

2,835,883
PULSE MULTIPLEX COMMUNICATION SYSTEM
Samuel W. Lichtman and Daniel G. Mazur, Washington, D. C.
Application December 29, 1948, Serial No. 67,904
14 Claims. (Cl. 340—183)
(Granted under Title 35, U. S. Code (1952), sec. 266)



8. A pulse multiplex communication system comprising means for cyclically transmitting a plurality of time spaced pulses equal to the number of intelligence quantities to be transmitted, means separately controlling the time displacement of each pulse in the plurality from a corresponding reference time position in accordance with a different intelligence quantity, means transmitting a synchronizing signal at least once during each cycle of pulse transmission; a receiver comprising a time marker generator operative to produce a series of time reference pulses for establishing a reference time position for each of said time spaced transmitted pulses, means for applying said synchronizing signals to said time marker generator to synchronize it in phase with the transmitter, separate means producing a control voltage in response to the receiver synchronizing signal and time reference pulses and applying said control voltage to said time marker generator to control its frequency, a cathode ray tube indicator having at least a pair of symmetrically disposed deflecting elements and a beam control electrode, sweep generator means connected to the deflecting elements of said cathode ray tube indicator for deflecting its electron beam, a selector control circuit connected to said sweep generator operable in response to one of said time reference marker pulses for initiating the sweep on said cathode ray tube and operable in response to a selectable one of the succeeding time reference marker pulses for terminating the sweep on said cathode ray tube; said selector control circuit including means for selecting the pulse for terminating the sweep; means for connecting said time reference marker pulses and said intelligence pulses to said beam control electrode for displaying the time relation of the intelligence pulses and their corresponding time reference markers.

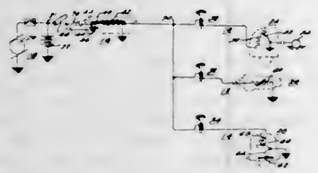
2,835,884
TELEMETERING SYSTEM
George R. Markow, Cleveland Heights, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application December 1, 1954, Serial No. 472,315
10 Claims. (Cl. 340—183)



1. A telemetering system for a plurality of variables represented by voltages, including, a first stepping switch for connecting each of the variable voltages in turn to a transmission line, a receiving recorder for each of the

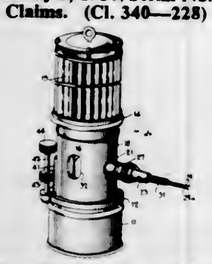
variable voltages, a second stepping switch for connecting each recorder in turn to the transmission lines, an actuating circuit for each stepping switch, means for regularly energizing the actuating circuit of the second stepping switch, a first source of voltage with a fixed predetermined frequency, means for connecting the first voltage source to the transmission line as the actuating circuit of the second stepping switch is energized, a relay-controlled completion switch for the circuit of the second stepping switch, and a relay for the completion switch selectively responsive to the first source of voltage.

2,835,885
THERMAL RESPONSIVE GAUGING SYSTEM
Leonard Boddy, Ann Arbor, Mich., assignor to King-Seeley Corporation, Ann Arbor, Mich., a corporation of Michigan
Application August 5, 1949, Serial No. 108,773
7 Claims. (Cl. 340—210)



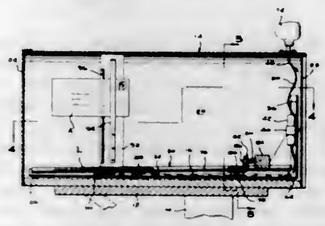
1. In an electric gauging system for association with a source of electric energy having a variable voltage, a thermally responsive gauging element integratingly responsive to a variable current therethrough, means for causing the current requirements of said element to vary in a controlled manner in response to changes in ambient temperature conditions, a current modulating device responsive to a variable physical condition to be gauged and coupled to said element and effective to vary the current therethrough in response to changes in said physical condition, and a thermally responsive regulator coupled to said element and device so as to control the supply of energy from said source to said device and element, said regulator including means operable to cause said energy to be delivered to said device and element as a succession of pulsations the effective voltage whereof is substantially independent of variations in voltage of said source and means for varying in a controlled manner the voltage applied to said gauging element substantially as a direct function of said changing current requirements of said gauging element in response to changes in ambient temperature conditions.

2,835,886
OXYGEN DEFICIENCY ALARM
John W. Bogdanowski, Flushing, and Charles Kiuttu, New York, N. Y., assignors to Consolidated Edison Company of New York, Inc., New York, N. Y., a corporation of New York
Application May 2, 1956, Serial No. 582,160
2 Claims. (Cl. 340—228)



1. In a safety lamp for detecting a deficiency of oxygen in the atmosphere surrounding the lamp flame sufficiently great to impair mental processes and endanger human life, means for audibly detecting slight reductions in flame size resulting from reduction in the oxygen content of the atmosphere, consisting of a vertically slidable, infra-red impermeable shade enclosing said flame, said shade having a perforation in its side, a crystal photo-cell responsive to and conducting in the presence of the infra-red radiations, including radiations of a wave length of about 5200 to 7500 Angstrom units emitted by the flame burning in air positioned at said perforation and directed at the axis of the flame, means surrounding said crystal photo-cell and detachably engaging said shade for retaining the cell in the aforementioned position, an amplifying circuit for said cell, audible alarm means in said circuit which when said cell is conducting are inoperative, and means associated with the lamp body and shade for adjusting the shade in a direction substantially parallel to the axis of the flame.

2,835,887
MAILBOX WITH MAIL-ACTUATED SIGNAL
Ivan L. Seeley and Belle G. Seeley, Sedona, Ariz.
Application December 30, 1955, Serial No. 556,592
2 Claims. (Cl. 340—281)

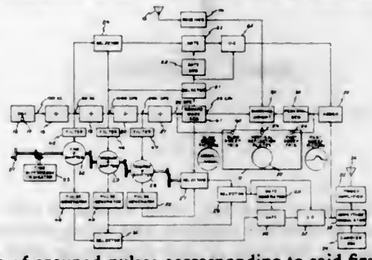


1. A mail box signal comprising: a base plate insertable in a mail box and including an upstanding back wall; a mail support plate pivoted on the base plate and arranged to normally remain in one position and to swing to a second position under the weight of an article of mail placed thereon; and signal means actuated exteriorly of the mail box responsive to swinging of the mail support plate to the second position thereof, including an electrical signalling device mountable exteriorly of the mail box, a source of electricity mounted on said back wall, said source being connected at one side thereof with one side of the signal device, a contact on the base plate having an electrical connection to the other side of the signal device and engageable by the mail support plate in the second position of the mail support plate, said mail support plate being of electrically conductive material, and a lead providing an electrical connection between the mail support plate and the other side of the source of electricity.

2,835,888
MULTIPLE PULSED NAVIGATION SYSTEM
Robert L. Frank, Great Neck, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application September 27, 1956, Serial No. 612,425
14 Claims. (Cl. 343—103)

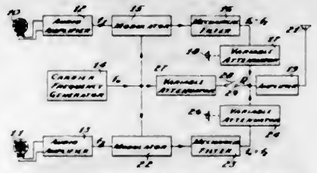
1. A multiple-pulsed loran navigation system comprising at least a master station, slave station and receiver-indicator; said master station including means for generating and transmitting a first series of grouped pulses wherein the time separation betwen corresponding pulses of the successive groups define the system repetition interval and wherein the time separation between successive pulses in each group is at least equal to the time required for sky-waves to diminish within the service area of the system; said slave station including means to receive said first pulses, means to generate a second

series of grouped pulses corresponding to said first pulses, means for controllably delaying said second pulses a predetermined amount following the reception of said first pusles and means to transmit said delayed second pulses, and said receiver-indicator including means to receive said first and said delayed second pulses, means for integrating said received pulses, means to generate a third



series of grouped pulses corresponding to said first pulses, means for synchronizing said third pulses with said integrated first pulses, means for controllably delaying said third pulses to produce a fourth series of grouped pulses, means for indicating synchronism between said fourth pulses and said integrated second pulses, and means for measuring the time delay between said third pulses and said fourth pulses.

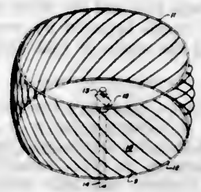
2,835,889
SINGLE SIDE BAND COMMUNICATION SYSTEM USING MECHANICAL FILTERS
Franklin C. Dyer and Fletcher J. Maclary, Dallas, Tex., assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application March 4, 1953, Serial No. 340,250
2 Claims. (Cl. 343—200)



1. In a communication system a transmitter having a carrier frequency generator, a first modulator receiving an input from the carrier frequency generator, a first source of intelligence supplying an input to the first modulator, a second modulator receiving an input from the carrier frequency generator, a second source of intelligence supplying an input to the second modulator, a first mechanical filter receiving the output of the first modulator and with a response characteristic such that it passes the lower side band of the carrier which carries the first intelligence source, a second mechanical filter connected to the output of the second modulator and with a response characteristic such that it passes the upper side band of the carrier which carries the second intelligence, a variable attenuator connected to said carrier frequency generator, a switch connectible to said attenuator, and an antenna connected to said first and second mechanical filters and said switch.

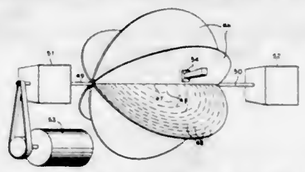
2,835,890
DIRECTIONAL ANTENNA
Burt J. Bittner, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application October 10, 1951, Serial No. 250,645
2 Claims. (Cl. 343—754)

1. An antenna comprising the combination of a reflector having an plurality of parallel metallic elements in the form of an annular cage having the shape of a zone of revolution and in which the said elements are inclined at 45 degrees to the axis of the cage, a rotatable scanning mechanism, and a rotatable directional radiating element operatively connected and rotatable with the



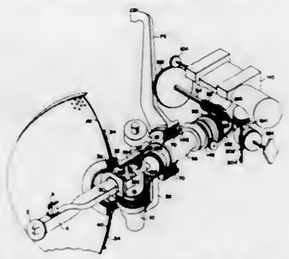
scanning mechanism within the confines of said zone of revolution disposed generally parallel to the metal elements which it faces and having a plane of electrical polarization generally parallel to the metallic elements which it faces and generally normal to oppositely disposed metallic elements.

2,835,891
VIRTUAL IMAGE LUNEBERG LENS
George D. M. Peeler, Hyattsville, Md., and Kenneth S. Kelleher, Alexandria, Va., assignors to the United States of America as represented by the Secretary of the Navy
Application November 12, 1953, Serial No. 391,774
14 Claims. (Cl. 343—754)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. An electromagnetic microwave scanning lens comprising at least one sector shaped portion of a Luneberg lens, each sector shaped portion being defined by two planes intersecting along a common axis of said Luneberg lens, the angle of intersection of the plane surfaces of each sector shaped portion being equal to 180° divided by an integer, and a pair of electromagnetic wave reflecting members abutting each portion along the surfaces defined by said planes.

2,835,892
ANTENNA USING SINGLE MOTOR FOR ROTATION AND NOD
Otto E. Szekely, Philadelphia, Pa., assignor to O. E. Szekely & Associates, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application May 29, 1951, Serial No. 228,951
4 Claims. (Cl. 343—766)

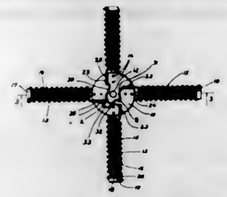


1. A radar antenna comprising a rotatable spindle, means mounting a wave guide and reflector on said

rotatable spindle, said mounting means being pivotable on an axis substantially perpendicular to the axis of said spindle, a reversible motor, drive means connecting said motor to said spindle to rotate said spindle, means connecting said motor to said mounting means to oscillate said mounting means and nod the wave guide and reflector and including means actuated by reversing the drive motor for varying the angle of said oscillation.

2,835,893
ANTENNA
John J. Braund, Washington, D. C.
Application January 25, 1956, Serial No. 561,254
10 Claims. (Cl. 343—895)

1. Antenna structure comprising a supporting disk of insulating material, a plurality of arms of insulating material radiating from the disk and secured thereto, a pair of main electrical terminals secured to the disk and adapted for connection with lead wires of a cable leading to a television receiver, a pair of conducting spirally wound elements associated with each arm and supported thereby and arranged in interfitting spaced substantially concentric relation and being free of electrical contact with each other, one spirally wound element of each pair being of smaller diameter than the other spirally wound element of the pair, corresponding ends of the spirally



wound elements in each pair being secured to said disk and serving as electrical terminals, and wiring electrically connecting the terminals of said elements in each pair with the main terminals and with the terminals of the elements of another pair.

DESIGNS

MAY 20, 1958

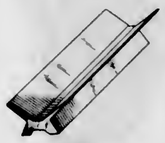
182,782
TONGS OR SIMILAR ARTICLE
Albert Edward Allen, Utica, N. Y.
Application August 30, 1956, Serial No. 42,788
Term of patent 14 years
(Cl. D44—4)



182,783
VEHICLE LICENSE PLATE HOLDER
Benjamin J. Audette, Los Angeles, Calif.
Application September 9, 1955, Serial No. 37,862
Term of patent 3½ years
(Cl. D14—6)



182,784
WEATHERSTRIPPING UNIT
Joseph C. Bancroft, Jamestown, N. Y.
Application February 5, 1957, Serial No. 44,764
Term of patent 14 years
(Cl. D13—6)



182,785
FLOWER POT SUPPORT
Otto E. Belknap, La Habra, Calif.
Application October 29, 1956, Serial No. 43,560
Term of patent 14 years
(Cl. D35—3)



182,786
ELECTRIC COOKING VESSEL
Melvin H. Boldt, Glenview, Ill., assignor to National Presto Industries, Inc., Eau Claire, Wis., a corporation of Wisconsin
Application August 6, 1956, Serial No. 42,502
Term of patent 14 years
(Cl. D81—10)



182,787
LEG FOR AN ELECTRIC COOKER OR SIMILAR ARTICLE
Melvin H. Boldt, Glenview, Ill., assignor to National Presto Industries, Inc., Eau Claire, Wis., a corporation of Wisconsin
Application September 26, 1956, Serial No. 43,097
Term of patent 14 years
(Cl. D81—10)



182,788
COMBINATION RAZOR AND BLADE HOLDER OR SIMILAR ARTICLE
Melvin Franklin Bourne, Ravenswood, W. Va.
Application April 10, 1957, Serial No. 45,670
Term of patent 14 years
(Cl. D4—3)



182,789
COMBINED HAIR CURLER AND COMB
Joseph Lloyd Chiariello, Los Angeles, Calif.
Application June 26, 1956, Serial No. 42,048
Term of patent 14 years
(Cl. D86—8)



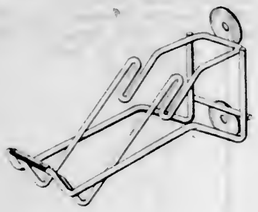
182,790
CHAIR
Morton R. Cohen, Chicago, Ill.
Application September 25, 1957, Serial No. 47,855
Term of patent 14 years
(Cl. D15—1)



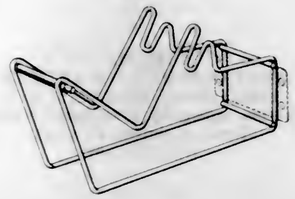
182,791
PUSH TOY
Ralph W. Crawford, East Aurora, N. Y., assignor to Fisher-Price Toys, Inc., East Aurora, N. Y.
Application November 12, 1957, Serial No. 48,416
Term of patent 14 years
(Cl. D34—15)



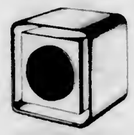
182,792
TAPE DISPENSER
John F. Cullen, Old Bridge, N. J., assignor to Permacel Tape Corporation, a corporation of New Jersey
Application October 10, 1956, Serial No. 43,290
Term of patent 14 years
(Cl. D74—1)



182,793
TAPE DISPENSER
John F. Cullen, Old Bridge, N. J., assignor to Permacel-Lepage's Inc., a corporation of New Jersey
Application November 26, 1957, Serial No. 48,669
Term of patent 14 years
(Cl. D74—1)



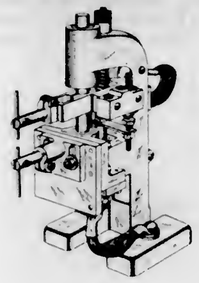
182,794
LOUD-SPEAKER ENCLOSURE
Charles Eames, Pacific Palisades, Calif., assignor to Stephens Tru-Sonic Inc., Culver City, Calif., a corporation of California
Application February 13, 1957, Serial No. 44,862
Term of patent 14 years
(Cl. D26—14)



182,795
HELMET
John M. Egly, Tonawanda, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application December 27, 1957, Serial No. 49,044
Term of patent 14 years
(Cl. D3—13)



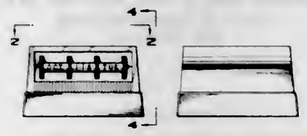
182,796
WELDER
Charles Eisler, South Orange, N. J.
Application January 31, 1957, Serial No. 44,682
Term of patent 14 years
(Cl. D26—5)



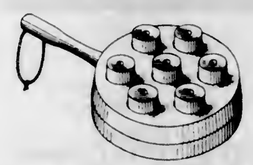
182,797
DECK CHAIR FRAME
Robert H. Ensign, Bronxville, N. Y., assignor to Blair Aluminum Furniture Company, Marietta, Ga., a corporation of Georgia
Application September 23, 1957, Serial No. 47,807
Term of patent 14 years
(Cl. D15—11)



182,798
PERPETUAL CALENDAR
Jack Fairchild Fleming, Summit, N. J., assignor to Sterling Plastics Co., Union, N. J., a corporation of New Jersey
Application June 13, 1957, Serial No. 46,576
Term of patent 14 years
(Cl. D74—5)



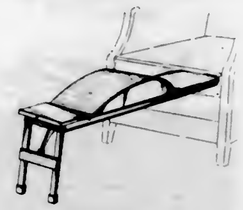
182,799
TOY FRYING PAN
Silas M. Ford, St. Paul, Minn.
Application February 18, 1957, Serial No. 44,906
Term of patent 14 years
(Cl. D34—15)



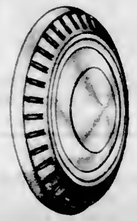
182,800
WALL CLOCK OR SIMILAR ARTICLE
John A. Gait, Larchmont, N. Y., assignor to Turner Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 28, 1957, Serial No. 47,532
Term of patent 14 years
(Cl. D42—7)



182,801
FOOT REST
Nathan Garshof, Los Angeles, Calif.
Application July 26, 1957, Serial No. 47,097
Term of patent 7 years
(Cl. D15—8)



182,802
WHEEL COVER
Paul W. Gillan, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 20, 1957, Serial No. 48,971
Term of patent 7 years
(Cl. D14—30)



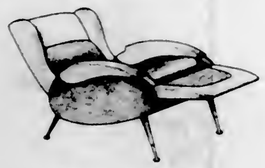
182,803
CORSELETTE OR THE LIKE
Irving Gimble and Daniel Musano, Corona, N. Y.
Application December 4, 1957, Serial No. 48,775
Term of patent 7 years
(Cl. D20—2)



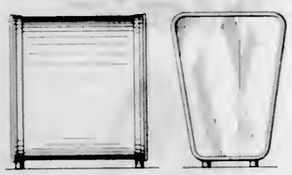
182,804
RECLINING CHAIR
Henry P. Glass, Chicago, Ill.
Application October 18, 1957, Serial No. 48,157
Term of patent 7 years
(Cl. D15—1)



182,805
RECLINING CHAIR
Henry P. Glass, Chicago, Ill.
Application October 24, 1957, Serial No. 48,233
Term of patent 7 years
(Cl. D15—1)



182,806
WASTE RECEPTACLE OR SIMILAR ARTICLE
Harold Gleitsman, New Rochelle, and Carl Fuerst, Bronx, N. Y., assignors to Gleitsman's, Inc., Long Island City, N. Y., a corporation of New York
Application July 22, 1957, Serial No. 47,024
Term of patent 14 years
(Cl. D58—17)



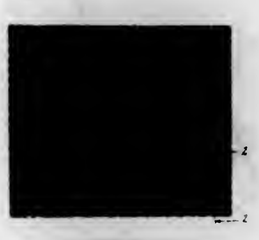
182,807
WHEEL COVER
Edward E. Glowacke, Birmingham, and David R. Holls, Warren, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 20, 1957, Serial No. 48,970
Term of patent 7 years
(Cl. D14—30)



182,808
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,976
Term of patent 14 years
(Cl. D92—1)

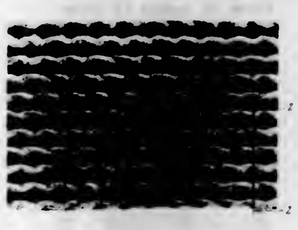


182,809
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 12, 1957, Serial No. 45,224
Term of patent 14 years
(Cl. D92—1)



182,810
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 8, 1957, Serial No. 45,620
Term of patent 14 years
(Cl. D92—1)

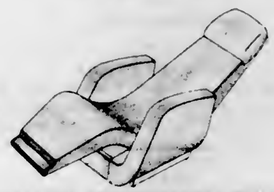
182,811
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 8, 1957, Serial No. 45,621
Term of patent 14 years
(Cl. D92—1)



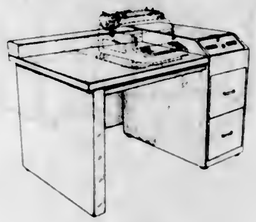
182,812
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application May 13, 1957, Serial No. 46,143
Term of patent 14 years
(Cl. D92—1)



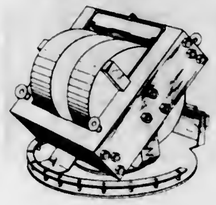
182,813
TRANSPORTATION SEAT OR SIMILAR ARTICLE
Sanford S. Golden, West Los Angeles, and Nick G. Stasinos, El Segundo, Calif.; said Stasinos assignor to said Golden
Application April 10, 1957, Serial No. 45,676
Term of patent 14 years
(Cl. D15—11)



182,814
NARROW TAPE ROBOTYPER
Janice S. Grant, South Glastonbury, Conn., assignor to Royal McBee Corporation, Port Chester, N. Y., a corporation of New York
Application December 10, 1957, Serial No. 48,853
Term of patent 7 years
(Cl. D26—5)



182,815
LABORATORY ELECTROMAGNET
Hugh J. Hall, Los Altos, Calif., assignor to Varian Associates, San Carlos, Calif., a corporation of California
Application June 5, 1957, Serial No. 46,496
Term of patent 14 years
(Cl. D26—1)



182,816
PUFFED TEXTILE FABRIC
Ralph L. Hobbs, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 8, 1957, Serial No. 45,642
Term of patent 14 years
(Cl. D92—1)



182,817
PUFFED TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., and James F. Fulton, Birmingham, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,948
Term of patent 14 years
(Cl. D92—1)

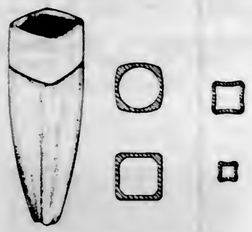
182,818
PUFFED TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application May 9, 1957, Serial No. 46,088
Term of patent 14 years
(Cl. D92—1)



182,819
CHIME SIGNAL
John G. Jolly, Cincinnati, Ohio, assignor to Nu Tone, Inc., Cincinnati, Ohio, a corporation of New York
Application November 20, 1956, Serial No. 43,845
Term of patent 14 years
(Cl. D72—1)



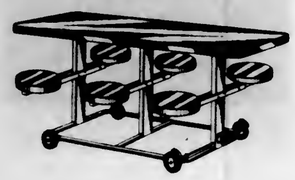
182,820
MICROPHONE CASING
Bruce Kamp, Springfield, Pa., assignor to The Astatic Corporation, Conneaut, Ohio, a corporation of Ohio
Application November 6, 1956, Serial No. 43,682
Term of patent 7 years
(Cl. D26—14)



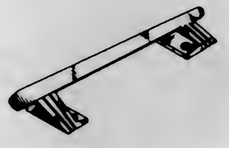
182,821
SHOCK ABSORBER ASSEMBLY FOR A BICYCLE OR THE LIKE
George Hocking Kelley, Dearborn, Mich., assignor to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Application January 30, 1957, Serial No. 44,672
Term of patent 14 years
(Cl. D90—9)



182,822
COMBINED TABLE AND SEAT UNIT
Alan H. Kempner, Jr., Purchase, N. Y.
Application May 29, 1957, Serial No. 46,400
Term of patent 14 years
(Cl. D33—14)



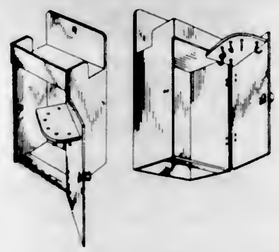
182,823
BOAT HANDLE OR SIMILAR ARTICLE
Elizabeth S. Kent, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application June 17, 1957, Serial No. 46,608
Term of patent 3½ years
(Cl. D71—1)



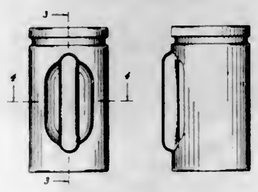
182,824
BOAT CLEAT OR SIMILAR ARTICLE
Elizabeth S. Kent, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application June 17, 1957, Serial No. 46,609
Term of patent 3½ years
(Cl. D71—1)



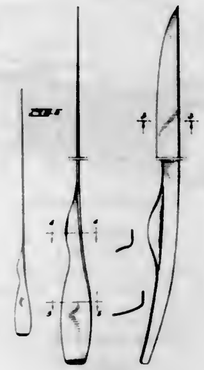
182,825
COMBINATION TOOTHBRUSH, TOOTHPASTE AND CUP HOLDER
Edward L. Kimerer, Marysville, Calif.
Application March 20, 1957, Serial No. 45,364
Term of patent 14 years
(Cl. D4—3)



182,826
DRINKING MUG OR SIMILAR ARTICLE
William C. Klenk III, Philadelphia, Pa.
Application July 30, 1956, Serial No. 42,460
Term of patent 3½ years
(Cl. D44—9)



182,827
CARVING KNIFE
Peter A. Latham, Huntington, N. Y.
Application January 23, 1956, Serial No. 39,881
Term of patent 7 years
(Cl. D22—3)



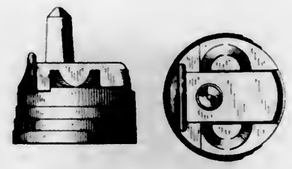
182,828
COFFEE SERVER
Michael S. Lax, New York, N. Y., assignor to Kromex Corporation, Cleveland, Ohio, a corporation of Ohio
Application September 9, 1957, Serial No. 47,681
Term of patent 14 years
(Cl. D44—26)



182,829
COFFEE SERVER
Michael S. Lax, New York, N. Y., assignor to Kromex Corporation, Cleveland, Ohio, a corporation of Ohio
Application September 30, 1957, Serial No. 48,351
Term of patent 14 years
(Cl. D44—26)



182,830
COMBINATION CLOSURE CAP AND DISPENSER
Sidney M. Libit, Glencoe, Ill.
Application May 14, 1957, Serial No. 46,165
Term of patent 14 years
(Cl. D58—26)



182,831
TABLE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 8, 1957, Serial No. 45,149
Term of patent 14 years
(Cl. D33—14)



182,832
COMMODE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 8, 1957, Serial No. 45,151
Term of patent 14 years
(Cl. D33—19)



182,833
CHEST
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 8, 1957, Serial No. 45,154
Term of patent 14 years
(Cl. D33—19)



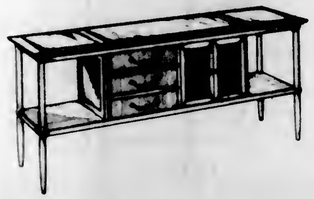
182,834
COMMODE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 15, 1957, Serial No. 45,272
Term of patent 14 years
(Cl. D33—19)



182,835
CHEST
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 15, 1957, Serial No. 45,274
Term of patent 14 years
(Cl. D33—6)



182,836
CABINET
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 20, 1957, Serial No. 45,347
Term of patent 14 years
(Cl. D33—19)



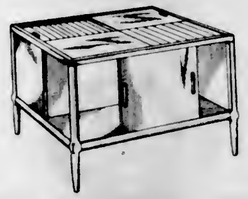
182,837
SIDEBOARD
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 20, 1957, Serial No. 45,348
Term of patent 14 years
(Cl. D33—13)



182,838
COMMODE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 20, 1957, Serial No. 45,349
Term of patent 14 years
(Cl. D33—19)



182,839
COMMODE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 20, 1957, Serial No. 45,351
Term of patent 14 years
(Cl. D33—19)



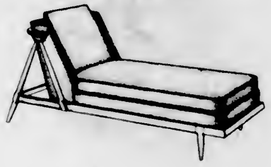
182,840
DRESSER
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 20, 1957, Serial No. 45,376
Term of patent 14 years
(Cl. D33—13)



182,841
CHEST
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 27, 1957, Serial No. 45,452
Term of patent 14 years
(Cl. D33—6)



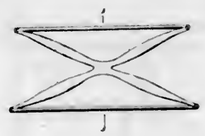
182,842
CHAISE LONGUE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application April 8, 1957, Serial No. 45,631
Term of patent 14 years
(Cl. D15—11)



182,843
COMBINATION HOLDER AND PROTECTOR FOR EYEGLASSES
Paul D. McGee and Thomas W. Alles, Chicago, Ill., assignors to Dencor, Incorporated, Chicago, Ill., a corporation of Illinois
Application October 21, 1957, Serial No. 48,167
Term of patent 7 years
(Cl. D57—1)



182,844
BACK REST FOR FURNITURE
Robert H. Monroe, East Orange, N. J., and Marvin K. Culbreth, Wilton, Conn., assignors to Molla Incorporated, Westbury, N. Y., a corporation of New York
Application November 21, 1957, Serial No. 48,597
Term of patent 14 years
(Cl. D15—11)



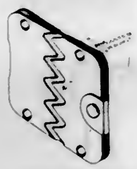
182,845
DOUBLE-CLIP CLOTHES PIN
Veronica P. Murinka, Riverside, Calif.
Application April 23, 1956, Serial No. 41,170
Term of patent 14 years
(Cl. D17—6)



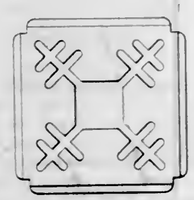
182,846
SPACE CONDITION RESPONSIVE INSTRUMENT
Leonard B. Olsen, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 12, 1957, Serial No. 46,561
Term of patent 14 years
(Cl. D52—7)



182,847
KEY CASE
Theodore R. Patrick, El Cajon, Calif.
Application November 15, 1956, Serial No. 43,780
Term of patent 14 years
(Cl. D87—3)



182,848
RAZOR BLADE
Hyman I. Pressman and Donald Pressman, Cleveland, Ohio
Application November 4, 1957, Serial No. 48,344
Term of patent 14 years
(Cl. D22—3)



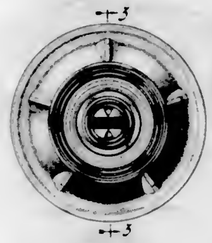
182,849
CEMETERY MEMORIAL PLAQUE OR THE LIKE
Robert J. Rettman, Pittsburgh, Pa., assignor to Jas. H. Matthews & Co., Pittsburgh, Pa., a corporation of Pennsylvania
Application December 3, 1956, Serial No. 44,041
Term of patent 14 years
(Cl. D79—2)



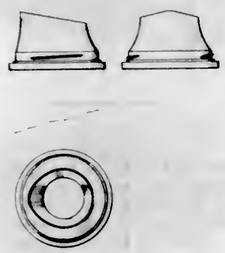
182,850
SURGICAL CHISEL OR THE LIKE
Edward H. Reymann, Bronxville, N. Y., assignor to Austenal, Inc., a corporation of New York
Application October 4, 1957, Serial No. 47,968
Term of patent 14 years
(Cl. D83—1)



182,851
WHEEL COVER
Arthur Ross, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 30, 1957, Serial No. 49,060
Term of patent 7 years
(Cl. D14—30)



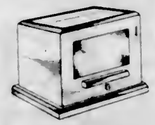
182,852
VACUUM BOTTLE
William J. Russell, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a corporation of Connecticut
Application October 29, 1956, Serial No. 43,558
Term of patent 14 years
(Cl. D58—8)



182,853
COFFEE MAKER OR SIMILAR ARTICLE
Emidio Salati, Milan, Italy
Application October 18, 1956, Serial No. 43,402
Claims priority, application Italy April 23, 1956
Term of patent 14 years
(Cl. D44—26)



182,854
COMBINED SPEAKER AND NAPKIN DISPENSING CABINET
William W. Sallust, Long Beach, Calif.
Application December 10, 1956, Serial No. 44,134
Term of patent 14 years
(Cl. D26—14)



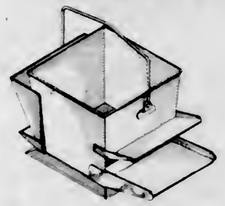
182,855
BOTTLE
Lyle F. Sampson, Piedmont, Calif., assignor to Owens-Illinois Glass Company, Toledo, Ohio, a corporation of Ohio
Application August 22, 1957, Serial No. 47,474
Term of patent 14 years
(Cl. D58—8)



182,856
PUFFED TEXTILE FABRIC
John C. Shell, Jr., Winnsboro, S. C., and Jack L. Larsen, New York, N. Y., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 15, 1957, Serial No. 44,880
Term of patent 14 years
(Cl. D92—1)



182,857
PAINT PAIL
Garth A. Showers, Tannersville, N. Y., assignor of one-half to Minnie K. Cole, Tannersville, N. Y.
Application August 2, 1957, Serial No. 47,204
Term of patent 14 years
(Cl. D58—17)



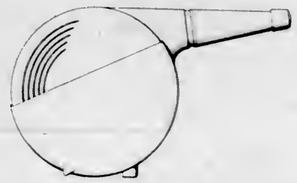
182,858
FONT OF TYPE
Edward W. Spector, Newark, and Oscar Lunden, East Orange, N. J., assignors to Beneficial Finance Co., Wilmington, Del., a corporation of Delaware
Application August 8, 1957, Serial No. 47,265
Term of patent 14 years
(Cl. D64—12)



182,859
AUTOMOBILE
Charles A. Stebbins, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 11, 1957, Serial No. 44,828
Term of patent 7 years
(Cl. D14—3)



182,860
FLEXIBLE DISPENSER BOTTLE
John L. Szajna, Norridge Park, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application July 3, 1957, Serial No. 46,826
Term of patent 14 years
(Cl. D58—6)



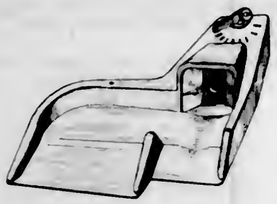
182,861
ELECTRIC HAIR CLIPPER
John F. Wahl, Sterling, Ill., assignor to Wahl Clipper Corporation, Sterling, Ill., a corporation of Illinois
Application December 30, 1957, Serial No. 49,055
Term of patent 14 years
(Cl. D22—5)



182,862
TAPE CUTTER
Bernard M. Wax, Sharon, Mass., assignor to Plymouth Rubber Company, Inc., Canton, Mass., a corporation of Massachusetts
Application October 7, 1957, Serial No. 47,987
Term of patent 14 years
(Cl. D74—1)



182,863
GOLF PUTTING PRACTICE DEVICE
Leonard M. Wells, Wilmette, Ill.
Application June 7, 1957, Serial No. 46,514
Term of patent 14 years
(Cl. D34—5)



182,864
AUTOMOBILE
Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz, Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application May 4, 1956, Serial No. 41,355
Claims priority, application Germany November 14, 1955
Term of patent 7 years
(Cl. D14—3)



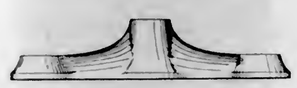
182,865
SIGN BOARD
Charles D. Winters, Sr., Belmar, N. J., assignor to Gertrude P. Winters, Belmar, N. J.
Application February 17, 1956, Serial No. 40,208
Term of patent 14 years
(Cl. D1—12)



182,866
WRITING INSTRUMENT
Steven G. Yates, Lake Hiawatha, N. J., assignor to David Kahn, Inc., North Bergen Township, Hudson County, N. J., a corporation of New Jersey
Application May 29, 1953, Serial No. 25,240
Term of patent 14 years
(Cl. D74—17)



182,867
FAUCET SHELL
Stephen A. Young, Delphi, Ind.
Application May 27, 1954, Serial No. 30,683
Term of patent 14 years
(Cl. D91—3)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 20TH DAY OF MAY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Bonkowski, Teofil L. Demountable brake lining. Re. 24,476, 5–20–58, Cl. 188—234.
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Denman, Wayne L. Re. 24,473.
Denman, Wayne L., to Dearborn Chemical Co. Method of treating waters, including boiler waters, and composition therefor. Re. 24,473, 5–20–58, Cl. 210—59.
Electro Engineering Works: *See*—
Wahlgren, Wallace W. Re. 24,474.
Farmer, Horace E. Bearing testing machines. Re. 24,472, 5–20–58, Cl. 73—9.
Siverson, Harry E. Chain construction. Re. 24,475, 5–20–58, Cl. 74—252.
Wahlgren, Wallace W., to Electro Engineering Works. Push-pull transformer. Re. 24,474, 5–20–58, Cl. 332—43.

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Hawkersmith, Isaac J. Dogwood plant. 1,710, 5–20–58, Cl. 47—59.
Jackson & Perkins Co.: *See*—
Morey, Dennison H., Jr. 1,709.
Morey, Dennison H., Jr., to Jackson & Perkins Co. Rose plant. 1,709, 5–20–58, Cl. 47—61.

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Allen, Albert E. Tongs or similar article. 182,782, 5–20–58, Cl. D44—4.
Alles, Thomas W.: *See*—
McGee, Paul D., and Alles. 182,843.
Astatic Corporation, The: *See*—
Kamp, Bruce. 182,820.
Audette, Benjamin J. Vehicle license plate holder. 182,783, 5–20–58, Cl. D14—6.
Austenal, Inc.: *See*—
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Bancroft, Joseph C. Weatherstripping unit. 182,784, 5–20–58, Cl. D13—6.
Belknap, Otto E. Flower pot support. 182,785, 5–20–58, Cl. D35—3.
Beneficial Finance Co.: *See*—
Spector, Edward W., and Lunden. 182,858.
Blair Aluminum Furniture Co.: *See*—
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Boldt, Melvin H., to National Presto Industries, Inc. Leg for an electric cooker or similar article. 182,787, 5–20–58, Cl. D81—10.
Bourne, Melvin F. Combination razor and blade holder or similar article. 182,788, 5–20–58, Cl. D4—3.
Chiariello, Joseph L. Combined hair curler and comb. 182,789, 5–20–58, Cl. D86—8.
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Cullen, John F. Tape dispenser. 182,793, 5–20–58, Cl. D74—1.
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Eames, Charles, to Stephens Tru-Sonic Inc. Loud-speaker enclosure. 182,794, 5–20–58, Cl. D26—14.
Egly, John M., to United States of America, Army. Helmet. 182,795, 5–20–58, Cl. D3—13.
Eisler, Charles. Welder. 182,796, 5–20–58, Cl. D26—5.
Ensign, Robert H., to Blair Aluminum Furniture Co. Deck chair frame. 182,797, 5–20–58, Cl. D15—11.
Evans Products Co.: *See*—
Kelley, George H. 182,821.
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Fleming, Jack F., to Sterling Plastics Co. Perpetual calendar. 182,798, 5–20–58, Cl. D74—5.
Ford, Silas M. Toy frying pan. 182,799, 5–20–58, Cl. D34—15.
Fuerst, Carl: *See*—
Gleitsman, Harold, and Fuerst. 182,806.
Fulton, James F.: *See*—
Howell, Clement R., and Fulton. 182,817.
Gait, John A., to Turner Mfg. Co. Wall clock or similar article. 182,800, 5–20–58, Cl. D42—7.
Garshof, Nathan. Foot rest. 182,801, 5–20–58, Cl. D15—8.
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Gillan, Paul W. 182,802.
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Stebbins, Charles A. 182,859.
Gillan, Paul W., to General Motors Corp. Wheel cover. 182,802, 5–20–58, Cl. D14—30.
Gimble, Irving, and D. Musano. Corselette or the like. 182,803, 5–20–58, Cl. D20—2.
Glass, Henry P. Reclining chair. 182,804, 5–20–58, Cl. D15—1.
Glass, Henry P. Reclining chair. 182,805, 5–20–58, Cl. D15—1.
Gleitsman, Harold, and C. Fuerst, to Gleitsman's, Inc. Waste receptacle or similar article. 182,806, 5–20–58, Cl. D58—17.
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Gleitsman, Harold, and Fuerst. 182,806.
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Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 182,809, 5–20–58, Cl. 92—1.
Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 182,810, 5–20–58, Cl. D92—1.
Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 182,811, 5–20–58, Cl. 92—1.
Goforth, Henry E., to United States Rubber Co. Puffed textile fabric. 182,812, 5–20–58, Cl. D92—1.
Golden, Sanford S., and N. G. Stasinos; said Stasinos assor. to said Golden. Transportation seat or similar article. 182,813, 5–20–58, Cl. D15—11.
Grant, Janice S., to Royal McBee Corp. Narrow tape robotyper. 182,814, 5–20–58, Cl. D26—5.
Hall, Hugh J., to Varian Associates. Laboratory electromagnet. 182,815, 5–20–58, Cl. D26—1.
Hobbs, Ralph L., to United States Rubber Co. Puffed textile fabric. 182,816, 5–20–58, Cl. D92—1.
Holls, David R.: *See*—
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Howell, Clement R., to United States Rubber Co. Puffed textile fabric. 182,818, 5–20–58, Cl. D92—1.
Howell, Clement R., and J. F. Fulton, to United States Rubber Co. Puffed textile fabric. 182,817, 5–20–58, Cl. D92—1.
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Kamp, Bruce, to The Astatic Corp. Microphone casing. 182,820, 5–20–58, Cl. D26—14.
Kelley, George H., to Evans Products Co. Shock absorber assembly for a bicycle or the like. 182,821, 5–20–58, Cl. D90—9.
Kempner, Alan H., Jr. Combined table and seat unit. 182,822, 5–20–58, Cl. D33—14.
Kent, Elizabeth S., to Scovill Mfg. Co. Boat handle or similar article. 182,823, 5–20–58, Cl. D71—1.
Kent, Elizabeth S., to Scovill Mfg. Co. Boat cleat or similar article. 182,824, 5–20–58, Cl. D71—1.
Kimerer, Edward L. Combination toothbrush, toothpaste, and cup holder. 182,825, 5–20–58, Cl. D4—3.
Klenk, William C., III. Drinking mug or similar article. 182,826, 5–20–58, Cl. D44—9.
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Libit, Sidney M. Combination closure cap and dispenser. 182,830, 5–20–58, Cl. D58—26.
Lubberts, John J., and L. J. Mulder, to Tomlinson of High Point. Table. 182,831, 5–20–58, Cl. D33—14.
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Young, Stephen A. Faucet shell. 182,867, 5–20–58, Cl. D91—1.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 20TH DAY OF MAY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

A. B. E. N. Eklunds Mekaniska Verkstad: *See*—
Eklund, Elias N. 2,835,156.
ACF Industries, Inc.: *See*—
Abel, Joseph C. 2,835,211.
Abe, Matazo, T. Yamano, Y. Kozu, and M. Kusumoto. Elymoclavine and manufacture of ergot alkaloids by culture. 2,835,675, 5–20–58, Cl. 260—285.5.
Abel, Joseph C., to ACF Industries, Inc. Latch for railway car hatch cover. 2,835,211, 5–20–58, Cl. 105—377.
Abrams, Victor R. Method and apparatus for sterilizing containers. 2,835,003, 5–20–58, Cl. 21—78.
Acker, Douglas B., to Timpte Bros., Inc. Locking and adjusting device for trailer bogies. 2,835,504, 5–20–58, Cl. 280—81.
Ackermann, Edward L., G. R. Buck, F. H. Miles, Jr., and H. C. Will, to United States of America, Army. Crates for packaging ammunition. 2,835,381, 5–20–58, Cl. 206—65.
Aerojet-General Corp.: *See*—
Carter, James M. 2,835,106.
Corbitt, Howard E. 2,835,762.
Aerotec Corp., The: *See*—
Oliveau, John V. 2,835,251.
Agfa Akt.: *See*—
Biedermann, Friedrich, and Wick. 2,835,849.
Agnello, Eugene J., B. M. Bloom, and G. D. Laubach, to Chas. Pfizer & Co., Inc. 14α,16α-dihydrocorticosterone and 21-esters thereof. 2,835,683, 5–20–58, Cl. 260—397.45.
Agnello, Eugene J., B. M. Bloom, and G. D. Laubach, to Chas. Pfizer & Co., Inc. 14α hydroxy, 16 halo-pregnene compounds. 2,835,684, 5–20–58, Cl. 260—397.45.
Airosser, Ludwig. Holding devices for use in dentistry. 2,835,033, 5–20–58, Cl. 32—5.
Aktiebolaget E. Fieron: *See*—
Andrén, Claes, and Broberg. 2,835,499.
Alessi, Andrew J., Jr., I. S. Gottscho, and M. Hirschey, to Adolph Gottscho, Inc. Article conveying apparatus. 2,835,376, 5–20–58, Cl. 198—34.
Alexander, Henry B., and R. Laster, to General Foods Corp. Method of making a culinary mix. 2,835,588, 5–20–58, Cl. 99—94.
Allais, André and C. Hoffmann, to Les Laboratoires Francais de Chimiotherapie. Method of preparing α-estradiol. 2,835,681, 5–20–58, Cl. 260—397.5.
Allegheny Ludlum Steel Corp.: *See*—
Klaybor, Leonard V. 2,835,570.
Allen, Peter S., to Hendrey Relays Ltd. Spring actuated motors. 2,835,344, 5–20–58, Cl. 185—37.
Allen, Richard W., to United States of America, Air Force. Double channel pulse amplifier. 2,835,731, 5–20–58, Cl. 178—7.1.
Allen, W. H., Sons & Co. Ltd.: *See*—
Hayes, Claude W. 2,835,471.
Allmanna Svenska Elektriska Aktiebolaget: *See*—
Fredriksson, Tord. 2,835,717.
Aluminum Co. of America: *See*—
Kramer, Max J. 2,835,827.
American Brake Shoe Co.: *See*—
Parr, James R., and Shaw. 2,835,228.
Wilson, Rosser L. 2,835,356.
American Cyanamid Co.: *See*—
Boatright, Leslie G., and Marziuff. 2,835,556.
American Machine and Metals, Inc.: *See*—
Kachline, Harold S. 2,835,130.
American Radiator & Standard Sanitary Corp.: *See*—
Boldt, Frank J., and Beauregard. 2,835,359.
Dillman, Earnest J. 2,835,446.
Page, Joseph F., Jr. 2,835,448.
Ames, Arnold M.: *See*—
Bason, Merrill M., Ames, and Nehls. 2,835,560.
Ancienne Manufacture d'Horlogerie, Patek, Philippe & Co. S. A.: *See*—
Favey, Jacques. 2,835,105.
Anderson, John T. Milk carton pitcher. 2,835,414, 5–20–58, Cl. 222—183.
Andrén, Claes, and C. E. Broberg, to Aktiebolaget E. Fieron. Ski stabilizers for motor cycles. 2,835,499, 5–20–58, Cl. 280—8.
Andresen, Hilmar A. and R. H., to Gits Bros. Mfg. Co. Air line lubricator. 2,835,267, 5–20–58, Cl. 137—110.
Andresen, Raymond H.: *See*—
Andresen, Hilmar A. and R. H. 2,835,267.
Andrus, Orrin E., to A. O. Smith Corp. Pressure vessel. 2,835,404, 5–20–58, Cl. 220—3.
Anjeskey, Alphonse F., and H. A. Cotesworth, to The Cleveland Crane & Engineering Co. Insulated coupled trolley conduit. 2,835,752, 5–20–58, Cl. 191—23.
Antioch College: *See*—
Vernet, Sergius, and Asakawa. 2,835,634.
Appleton, Arthur I. Drainable enclosure for explosion-proof electrical systems. 2,835,722, 5–20–58, Cl. 174—50.
Apra Precipitator Corp.: *See*—
Hodson, Peter. 2,835,337.
Armentrout, Everett C.: *See*—
Sharpe, Verlos G., and Armentrout. 2,835,113.
Armour and Co.: *See*—
Gordon, Roy C., and Harrington. 2,835,206.
Armstrong, Edward T., and F. H. Highley, to The Goodyear Tire & Rubber Co. Brake construction having minimized tendency to vibrate. 2,835,351, 5–20–58, Cl. 188—73.
Armstrong, Edward T., to The Goodyear Tire & Rubber Co. Brake disc. 2,835,355, 5–20–58, Cl. 188—218.
Armstrong, Edwin H.: *See*—
Bose, John H. 2,835,803.
Armstrong, Esther M.: *See*—
Bose, John H. 2,835,803.
Arneson, Edwin L., to Federal Paper Board Co., Inc. Article carrier. 2,835,408, 5–20–58, Cl. 220—113.
Arnett, Leslie, and W. G. Preise, to Square Mfg. Co. Beverage dispensing apparatus. 2,835,410, 5–20–58, Cl. 222—129.1.
Arnot, Alfred E. R., to E. Kaye and J. R. Sharp. Clutch transmission mechanisms. 2,835,361, 5–20–58, Cl. 192—3.5.
Aronberg, Lester. Dye stick and process of making it. 2,835,604, 5–20–58, Cl. 106—243.
Aronovsky, Samuel I., and E. C. Lathrop, to United States of America, Agriculture. Modified mechano-chemical pulping. 2,835,574, 5–20–58, Cl. 92—6.
Asakawa, George: *See*—
Vernet, Sergius, and Asakawa. 2,835,634.
Atkins, Leroy M., to United States of America, Air Force. Explosive time delay switch. 2,835,758, 5–20–58, Cl. 200—61.08.
Austin, Harry W., to Mine Safety Appliances Co. Mask for breathing apparatus. 2,835,250, 5–20–58, Cl. 128—141.
Auto Specialties Mfg. Co.: *See*—
Rhoads, Millard A. 2,835,541.
Avco Mfg. Corp.: *See*—
Teetor, Thomas S. 2,835,846.
Ayers, J. W., & Co.: *See*—
Rinse, Jacobus. 2,835,685.
Babcock & Wilcox Co., The: *See*—
Evans, Richard H., and Beuthner. 2,835,231.
Back, James. Line marker. 2,835,219, 5–20–58, Cl. 116—63.
Badische Anilin- & Soda-Fabrik Akt.: *See*—
Baumann, Hans. 2,835,660.
Fikentscher, Hans, Siebel, Daniel, and Rieder. 2,835,657.
Baehr, Elfriede E.: *See*—
Bähr, Johannes, and Baehr. 2,835,559.
Baehr, Ernst L.: *See*—
Bähr, Johannes. 2,835,559.
Baehr, Wilhelm F. E. R. K.: *See*—
Bähr, Johannes. 2,835,559.
Bagnagatti, Achille. Switch mechanism. 2,835,756, 5–20–58, Cl. 200—48.
Bähr, Johannes, deceased; **E. E. Baehr, E. M. E. A. Kroh**, nee Baehr, W. F. E. R. K. Baehr, E. J. Bernhard, nee Baehr, A. M. Velten, nee Baehr, and E. L. Baehr, heirs. Apparatus for manufacture of sulphur. 2,835,559, 5–20–58, Cl. 23—288.
Bailey, Benjamin E.: *See*—
Longmire, Gordon L., Bailey, and Schlegel. 2,835,086.
Bailey, Harold G., and P. Rekettye, to The Sun Rubber Co. Machine for rotational casting. 2,834,986, 5–20–58, Cl. 18—26.
Bailey Meter Co.: *See*—
Koppel, Harold H. 2,835,855.
Markow, George R. 2,835,884.
Baker, Gibbs L. Exhaust atomizing distributor. 2,835,533, 5–20–58, Cl. 299—86.
Baker Perkins, Inc.: *See*—
Engels, Eugene O., and Daley. 2,835,374.
Balcar, John A. Ladder levelling means. 2,835,427, 5–20–58, Cl. 228—63.
Balfour, Andrew C., Jr. Work feeding attachment and stand for portable electric power drills. 2,835,147, 5–20–58, Cl. 77—7.
Balint, John, to Prestole Corp. Sheet metal fastener. 2,835,009, 5–20–58, Cl. 24—73.
Barberis, Fortunato F., to General Motors Corp. Injector igniter plug. 2,835,110, 5–20–58, Cl. 60—39.82.
Barker, Orrin W., R. E. Saving, and L. D. Libby, to Kearney & Trecker Corp. Rotary head milling attachment. 2,835,172, 5–20–58, Cl. 90—15.
Barry, Alfrieda F.: *See*—
Barry, John A. 2,835,339.
Barry, John A., deceased; A. F. Barry, administratrix, to V. Reiman. Automatic damper for downflow furnaces. 2,835,339, 5–20–58, Cl. 183—32.
Bartlett, Francis J. W., to F. J. W. Bartlett and W. W. Prager. Method of preparing vinyl resin granules and covering containing same. 2,835,620, 5–20–58, Cl. 154—49.
Bartlett, Mark. Wiper rubber protector. 2,835,327, 5–20–58, Cl. 166—75.
Bartlow, Emmett A., to General Motors Corp. Fusible washer with means to protect threads from molten metal. 2,835,158, 5–20–58, Cl. 85—50.
Barton, Harvey: *See*—
Bliker, Stanley, and Barton. 2,835,169.
Barzelay, Martin E. Spray drying process. 2,835,597, 5–20–58, Cl. 99—203.

Bas-Taymas, Enis, to Gesellschaft zur Forderung der Forschung an der Eidg. Techn. Hochschule. Electron gun for producing an electron beam. 2,835,837, 5–20–58, Cl. 313—82.

Bashuk, Peter. Electrical steam sprayer. 2,835,781, 5–20–58, Cl. 219—39.

Basic, Inc.: *See*—
Boyle, Albert J., and Zlatkis. 2,835,700.

Bason, Merrill M., A. M. Ames, and M. S. Nehls, to C. F. Braun & Co. Catalytic reactor. 2,835,560, 5–20–58, Cl. 23—288.

Bastedo, Walter Jr.: *See*—
Ryan, James V., Bastedo, Strong, and Losey. 2,835,331.

Bastin, Edgar J.: *See*—
Schiring, Ralph C., and Bastin. 2,835,520.

Bauer, Hans, J. Heckmaier, and H. Reinecke, to Wacker-Chemie G. m. b. H. After treatment of a polyvinyl chloride polymerizate containing hydrophilic colloid. 2,835,643, 5–20–58, Cl. 260—45.5.

Bauer, Heinz, H. Enl, and H. Günther. Push-in type lamp holder. 2,835,878, 5–20–58, Cl. 339—72.

Bauer, Wilhelm. Method of blocking the ways of damps in mines. 2,835,330, 5–20–58, Cl. 169—1.

Bauman, William C., and H. H. Roth, to The Dow Chemical Co. Production of water-soluble aromatic resin sulfonates by sulfonating with SO_3 in liquid SO_2. 2,835,655, 5–20–58, Cl. 260—78.5.

Baumann, Hans, to Badische Anilin- & Soda-Fabrik Akt. Polyazo dyestuffs. 2,835,660, 5–20–58, Cl. 260—144.

Baumann, Robert C., to United States of America, Navy. Satellite structure. 2,835,548, 5–20–58, Cl. 312—352.

Bayon, Patrice M. Adjustable crossing piece for flexible bands. 2,835,010, 5–20–58, Cl. 24—74.

Bazaigette, Guy. Manufacture of storage battery plates. 2,835,719, 5–20–58, Cl. 136—27.

Bazter, Joseph, J., and S. A. Staege, to the Black-Clawson Co. Variable speed power transmission for paper machinery. 2,835,144, 5–20–58, Cl. 74—67.5.

Beauregard, Frank M.: *See*—
Boldt, Frank J., and Beauregard. 2,835,359.

Beck, Walter, to Montgomery Elevator Co. Elevator. 2,835,345, 5–20–58, Cl. 187—17.

Becker, Victor I. Brassieres. 2,835,255, 5–20–58, Cl. 128—484.

Becton Dickinson and Co.: *See*—
May, Edwin A., and Maltais. 2,835,377.

Beek, Joseph A., Jr., P. R. Gilson, and P. R. Westlake, to Burroughs Corp. Magnetizable record reading system. 2,835,882, 5–20–58, Cl. 340—174.

Beerli, Karl, to Spindel-, Motoren- und Maschinenfabrik A. G. Holding device. 2,835,517, 5–20–58, Cl. 287—52.

Beesch, Otto, to Robert Bosch G. m. b. H. Insulator bushing and electrode for spark plugs. 2,835,726, 5–20–58, Cl. 313—136.

Behmeler, John W. Savings coin holder. 2,835,438, 5–20–58, Cl. 232—5.

Belke Mfg. Co.: *See*—
Belke, William E. 2,835,664.

Belke, William E., to Belke Mfg. Co. Barrels for electroplating articles. 2,835,664, 5–20–58, Cl. 204—213.

Bell Telephone Laboratories, Inc.: *See*—
Pierce, John R. 2,835,872.
Vaughan, Henry E. 2,835,741.
Vogelsong, James H. 2,835,828.
Waltz, Maynard C. 2,835,810.

Bemish, George R. Finned tube radiator supporting structure. 2,835,478, 5–20–58, Cl. 257—113.

Bendix Aviation Corp.: *See*—
Brandstadter, Jack M. 2,835,265.
Varner, Horace M. 2,835,118.
Waldow, Sheldon M. 2,835,759.

Benner, Roland G. Cementitious mixes. 2,835,602, 5–20–58, Cl. 106—76.

Benton, Charles H., Jr., and C. D. Robeson, to Eastman Kodak Co. Crystallizable complex of vitamin A aldehyde and sesamol and its method of preparation. 2,835,679, 5–20–58, Cl. 260—340.5.

Benz, Cyril C. Separation of molten sulfur from a slurry of its ore constituents. 2,835,561, 5–20–58, Cl. 23—308.

Benz, Jakob, to Saul & Co., as nominee of Fidelity Union Trust Co., executive Trustee under Sandoz Trust. Copperable disazo dyestuffs. 2,835,663, 5–20–58, Cl. 260—153.

Berg, Clyde H. O., to Union Oil Co. of California. Contacting process and apparatus. 2,835,629, 5–20–58, Cl. 196—28.

Berkelmans, Nicholas T. Stenographic machine. 2,835,368, 5–20–58, Cl. 197—9.

Berlin, Dennis. Collapsible shopping cart. 2,835,500, 5–20–58, Cl. 280—36.

Berlin & Jones Co., Inc.: *See*—
Watson, Charles S. 2,835,434.

Berliner, Julius F. T. Method of processing raw wood. 2,835,292, 5–20–58, Cl. 144—309.

Bernardoni, Frank E.: *See*—
Bernardoni, John and F. E. 2,835,360.

Bernardoni, John, and F. E. Insulated non-heat conducting metal window frame. 2,835,360, 5–20–58, Cl. 189—75.

Bernhard, Elisabeth J. (nee Baehr): *See*—
Bähr, Johannes. 2,835,559.

Berthiez, Frederick C. G., to Societe Anonyme des Anciens Etablissements Charles Berthiez. Hydraulically controlled speed change apparatus. 2,835,136, 5–20–58, Cl. 74—335.

Bethke, John R., to Burroughs Corp. Transfer-storage circuits. 2,835,808, 5–20–58, Cl. 250—27.

Beuthner, Friedrich: *See*—
Evans, Richard H., and Beuthner. 2,835,231.

Beye, Walter O.: *See*—
Wallace, Robert A. 2,835,309.

Bickley, Everett H. Article aligning conveyor for color sorting machine. 2,835,373, 5–20–58, Cl. 198—29.

Biddison, John M., to H. W. Moore. Insulating machine. 2,835,372, 5–20–58, Cl. 198—26.

Biedermann, Friedrich, and R. Wick, to Agfa Akt. Timer. 2,835,849, 5–20–58, Cl. 315—151.

Bigelow-Sanford Carpet Co., Inc.: *See*—
Groat, Francis P. 2,835,277.

Bilker, Stanley, and H. Barton, to O & S Research, Inc. Side and rear view mirror. 2,835,169, 5–20–58, Cl. 88—77.

Bingham-Herbrand Corp., The: *See*—
Brundage, Alan D. 2,835,353.
Cox, Norman B. 2,835,140.
Sandberg, Ray A. 2,835,139.

Birks, La Verne S., Jr. Curved crystal fluorescent X-ray spectrograph. 2,835,820, 5–20–58, Cl. 250—53.

Bishop, Donald R., to Polaroid Corp. Sheet-arresting mechanism for photographic apparatus. 2,835,177, 5–20–58, Cl. 95—31.

Bistany, Raymond, to General Electric Co. Three-phase transformer construction. 2,835,875, 5–20–58, Cl. 336—5.

Bittner, Burt J., to United States of America, Atomic Energy Commission. Directional antenna. 2,835,890, 5–20–58, Cl. 343—754.

Black-Clawson Co., The: *See*—
Bazter, Joseph, Jr., and Staege. 2,835,144.
Martindale, James H. 2,835,173.

Black, Leonard. Scrub timer and brush cutter. 2,835,094, 5–20–58, Cl. 55—118.

Blackburn, Reginald M.: *See*—
Calbert, James, and Blackburn. 2,834,995.

Blackhurst, George V. Rake with cutter blade. 2,835,102, 5–20–58, Cl. 56—400.07.

Blake, Norman B., and W. H. Cox, to Sun Oil Co. Multiplication circuit. 2,835,444, 5–20–58, Cl. 235—61.

Blanchard, Loring W., Jr.: *See*—
Malm, Carl J., Tanghe, and Blanchard. 2,835,665.

Bland, George F., to International Business Machines Corp. Electro-static methods of storing and recovering information. 2,835,845, 5–20–58, Cl. 315—12.

Blatt, Leland F., and A. E. Sherman. Toggle clamp. 2,835,291, 5–20–58, Cl. 144—302.

Blessing, Gregory W., to Electronics Process Corp. Apparatus for heat sealing plastic films. 2,835,776, 5–20–58, Cl. 219—10.53.

Blizard, Robert B.: *See*—
Vacquier, Victor, and Blizard. 2,835,131.

Bloch, Herman S., and G. L. Hervert, to Universal Oil Products Co. Manufacture of catalytic materials. 2,835,638, 5–20–58, Cl. 252—442.

Bloom, Albert, H. B. Freyermuth, and J. R. Normington, to General Aniline & Film Corp. Stabilization of organic isocyanates. 2,835,692, 5–20–58, Cl. 260—453.

Bloom, Barry M.: *See*—
Agnello, Eugene J., Bloom, and Laubach. 2,835,683.
Agnello, Eugene J., Bloom, and Laubach. 2,835,684.

Blue Ridge Glass Corp.: *See*—
Johnson, John P. 2,835,383.

Boatright, Lealie G., and W. F. Marzluff, to American Cyanamid Co. Partial oxidation of HCN. 2,835,556, 5–20–58, Cl. 23—190.

Boddy, Leonard, to King-Seeley Corp. Thermal responsive gauging system. 2,835,885, 5–20–58, Cl. 340—210.

Boehringer, C. H., Sohn: *See*—
Thoma, Otto. 2,835,669.

Boekhorst, Antonius, to North American Philips Co., Inc. Circuit-arrangement for frequency-transformation of oscillations of very high frequency. 2,835,797, 5–20–58, Cl. 250—20.

Boettcher, William A. Presses for drilling flooring strips. 2,835,290, 5–20–58, Cl. 144—107.

Boettger, Paul. Handling medical specimens. 2,835,246, 5–20–58, Cl. 128—2.

Bogdanowski, John W., and C. Kiuttu, to Consolidated Edison Co. of New York, Inc. Oxygen deficiency alarm. 2,835,886, 5–20–58, Cl. 340—228.

Boldt, Frank J., and F. M. Beauregard, to American Radiator & Standard Sanitary Corp. Door and hinge structure. 2,835,359, 5–20–58, Cl. 189—46.

Bonz, Jakob, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. Copperable disazo dyestuffs. 2,835,663, 5–20–58, Cl. 260—153.

Booher, Jack C.: *See*—
Gilbert, Frank H., and Booher. 2,835,405.

Booth, Douglas G., to The Plessey Co. Ltd. Fuel systems for internal combustion engines and gas turbines. 2,835,323, 5–20–58, Cl. 158—36.3.

Borg-Warner Corp.: *See*—
Gommel, Dewey E. 2,835,024.
Kelbel, Donald W. 2,835,143.

Borgeson, Florence W.: *See*—
Borgeson, Sidney E. and F. W. 2,835,253.

Borgeson, Sidney E., deceased, by F. W. Borgeson, executrix. Surgical appliance. 2,835,253, 5–20–58, Cl. 128—303.

Borzin, John J., to United States of America, Navy. Wide range proportional counter tube. 2,835,839, 5–20–58, Cl. 313—93.

Bosch, Robert, G. m. b. H.: *See*—
Beesch, Otto. 2,835,726.

Bose, John H., to E. M. Armstrong, executrix of the estate of E. H. Armstrong. Linear detector for subcarrier frequency modulated waves. 2,835,803, 5–20–58, Cl. 250—27.

Bottum, Edward W. Single open end type filter construction. 2,835,391, 5–20–58, Cl. 210—448.

Bourret, Georges: *See*—
Fouron, Pierre, and Bourret. 2,835,006.

Boutry, Georges A., and G. Pietri, to North American Philips Co., Inc. Ion source. 2,835,835, 5–20–58, Cl. 313—63.

Bowen, Richard L., Jr. Hydraulically controlled differential web tensioning mechanism. 2,835,454, 5–20–58, Cl. 242—75.53.

Boy, Ralph E., Jr.: *See*—
Schulken, Roger M., Jr., and Boy. 2,835,647.

Boyd, Edgar F. Apparatus for securing cargo against shifting and damage. 2,835,210, 5–20–58, Cl. 105—369.

Boyer, Lyndon D., and J. Q. Wood, to Phillips Petroleum Co. Carbon black recovery. 2,835,562, 5–20–58, Cl. 23—314.

Boyer, Ralph K., to The Dill Mfg. Co. Tubeless tire valves for trucks and the like. 2,835,305, 5–20–58, Cl. 152—427.

Boyle, Albert J., and A. Zlatkis, to Basic, Inc. Process of halogenating organic compounds. 2,835,700, 5–20–58, Cl. 260—519.

Boynton, Erwin R., to General Electric Co. Shaft bearing lubrication means. 2,835,437, 5–20–58, Cl. 230—207.

Bradley, Robert O., to Toledo Scale Corp. Hydraulic scale rectangular stabilizing frame. 2,835,484, 5–20–58, Cl. 265—71.

Brady, Jarlath W.: *See*—
Spicacci, Attilio R., and Brady. 2,835,519.

Brandano, Benny. Baby tender. 2,835,249, 5–20–58, Cl. 128—134.

Brandstadter, Jack M., to Bendix Aviation Corp. Transfer valve. 2,835,265, 5–20–58, Cl. 137—82.

Brandt Automatic Cashier Co.: *See*—
Buchholz, Arnold R. 2,835,260.

Braun, C. F., & Co.: *See*—
Bason, Merrill M., Ames, and Nehls. 2,835,560.

Braun, Ottwin L., to Reliance Steel Products Co. Furnace door frame. 2,835,232, 5–20–58, Cl. 122—499.

Braun, Paul E., to Studebaker-Packard Corp. Control for fuel injection system. 2,835,240, 5–20–58, Cl. 123—140.

Braun, Philip N., and G. I. Hermanson, to Philip N. Braun, Inc. Composite tape having controlled bonding and release properties. 2,835,621, 5–20–58, Cl. 154—53.5.

Braun, Philip N., Inc.: *See*—
Braun, Philip N., and Hermanson. 2,835,621.

Braund, John J. Antenna. 2,835,893, 5–20–58, Cl. 343—895.

Bremer, Robert D., to General Motors Corp. Domestic appliance. 2,835,780, 5–20–58, Cl. 219—37.

Broberg, Curt E.: *See*—
Andrén, Claes, and Broberg. 2,835,499.

Brodt, Rudolf: *See*—
Keller, Heinz, Lampatzer, and Brodt. 2,835,618.

Brombacher, Heinrich. Ammunition for firearms. 2,835,198, 5–20–58, Cl. 102—38.

Brooks, Jerry R. Engine starting device. 2,835,241, 5–20–58, Cl. 123—179.

Brown, Linsly G.: *See*—
De Mambro, Gene, and Brown. 2,835,083.

Brown, Norman M., Jr., and C. A. Shank, to The Garrett Corp. High temperature regulator. 2,835,450, 5–20–58, Cl. 236—78.

Brundage, Alan D., to The Bingham-Herbrand Corp. Power operated emergency brake. 2,835,353, 5–20–58, Cl. 188—106.

Bruyning, Hugo G., to North American Philips Co., Inc. Pulse generator. 2,835,811, 5–20–58, Cl. 250—36.

Buchholz, Arnold R., to Brandt Automatic Cashier Co. Coin sorting and counting machine. 2,835,260, 5–20–58, Cl. 133—8.

Buchholz, Vincent. Boat trailers. 2,835,399, 5–20–58, Cl. 214—506.

Buck, Eugene W. Electro-magnetic drill chuck. 2,835,148, 5–20–58, Cl. 77—63.

Buck, George R.: *See*—
Ackermann, Edward L., Buck, Miles, and Will. 2,835,381.

Buckeye Steel Castings Co. The: *See*—
Settles, James C. 2,835,486.

Buckman, Kenneth E., to General Motors Corp. Filter elements. 2,835,393, 5–20–58, Cl. 210—487.

Buls, Vernon W., and R. I. Thomas, to Shell Development Co. Preparation of esters of boronic and borinic acids. 2,835,693, 5–20–58, Cl. 260—462.

Burden, Vernon B.: *See*—
Gates, John H., and Burden. 2,835,777.

Burgy, Raymond A., to Toledo Scale Corp. Variable standing time control. 2,835,346, 5–20–58, Cl. 187—29.

Burke, John C.: *See*—
Schoos, Maurice A., and Burke. 2,835,089.

Burns, John R. Variable speed alternating current motor system. 2,835,859, 5–20–58, Cl. 318—232.

Burris, Joseph J. Guide for drill collar subs. 2,835,473, 5–20–58, Cl. 255—28.

Burroughs Corp.: *See*—
Beek, Joseph A., Jr., Gilson, and Westlake. 2,835,882.
Bethke, John R. 2,835,808.

Buskirk, John E., to General Motors Corp. Battery vent plug. 2,835,720, 5–20–58, Cl. 136—177.

Buti, Bruno O. Layout tool. 2,835,045, 5–20–58, Cl. 33—191.

Butler, Henry J., to Dunlop Rubber Co. Ltd. Spot brakes. 2,835,350, 5–20–58 Cl. 188—73.

Byland, Hans-Rudolf, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. Copperable polyazo dyestuffs. 2,835,662, 5–20–58, Cl. 260—172.

Byrd, George, to E. L. Caldwell & Sons. Boat transporting and launching device. 2,835,401, 5–20–58, Cl. 214—506.

C. & H. Specialties Co.: *See*—
Hoerr, Burkhardt R. 2,835,017.

Calahan, William H., to The Williamson Co. Furnace control system with dual speed blower. 2,835,447, 5–20–58, Cl. 236—9.

Calbert, James, and R. M. Blackburn, to T. M. M. (Research) Ltd. Drafting apparatus of textile spinning and like machines. 2,834,995, 5–20–58, Cl. 19—130.

Caldwell, E. L., & Sons: *See*—
Byrd, George. 2,835,401.

Caldwell, John R., and W. J. Jackson, Jr., to Eastman Kodak Co. Hydrazides of allyloxamic acid. 2,835,703, 5–20–58, Cl. 260—561.

Calidyne Co., Inc., The: *See*—
Efromson, Philip C. 2,835,832.

California Research Corp.: *See*—
Fries, Bernard A. 2,835,699.
Langlois, Gordon E., and Kemp. 2,835,716.

Calumet Steel Castings Corp.: *See*—
Veselik, Emil, Wilson, and Jicha. 2,835,349.

Camarata, Frank J., and C. Wiener, to Westinghouse Electric Corp. Tubular lamp bulb machine. 2,835,079, 5–20–58, Cl. 49—7.

Cantor, Sol M. Means for repairing linotype matrices. 2,835,149, 5–20–58, Cl. 78—1.

Capitol Products Corp.: *See*—
Temple, Hiram E., and Stafford. 2,835,398.

Capstaff, John G., to Eastman Kodak Co. Continuous printer for sound-color film. 2,835,180, 5–20–58, Cl. 95—75.

Carborundum Co., The: *See*—
De Mambro, Gene, and Brown. 2,835,083.

Care, Richard L., to M. L. Grant. Multiple throw coin receiver. 2,835,439, 5–20–58, Cl. 232—7.

Carp, Peter J. Transmission. 2,835,145, 5–20–58, Cl. 74—688.

Carter, Albert S., and M. L. Ernsberger, to E. I. du Pont de Nemours and Co. Process for making elastomers from polymeric bis-chloroformates, phosgene and diamines. 2,835,654, 5–20–58, Cl. 260—75.

Carter, James M., to Aerojet-General Corp. Method of jet propulsion by spontaneous combustion of furfural. 2,835,106, 5–20–58, Cl. 60—35.4.

Case, J. I., Co.: *See*—
Self, Neal W. 2,835,095.

Castner, John F., to United Biscuit Co. Tray forming machine. 2,835,174, 5–20–58, Cl. 93—37.

Cavalier Corp.: *See*—
Rankin, Arthur L., Jr. 2,835,409.

Center Line Mfg. Co., Inc.: *See*—
Proaps, Irwin F. 2,835,778.

Centre National de la Recherche Scientifique: *See*—
Laporte, Marcel. 2,835,840.

Chamberlin, Joseph F., and R. A. Westphal, said Westphal assor. to said Chamberlin. Mail bag cart. 2,835,501, 5–20–58, Cl. 280—41.

Chambers, Glenn M. Latches for garbage can lids. 2,835,407, 5–20–58, Cl. 220—55.7.

Changewood Corp.: *See*—
Clark, James D. 2,835,622.

Chellemi, James, and A. V. Padrone. Worn brake lining buzzer. 2,835,757, 5–20–58, Cl. 200—61.4.

Chenus, Pierre J. C., to Compagnie des Machines Bull (Societe Anonyme). Printing control apparatus. 2,835,443, 5–20–58, Cl. 235—61.9.

Chervenka, George R., to Medart Lockers, Inc. Latching mechanisms. 2,835,523, 5–20–58, Cl. 292—80.

Chollet, Raymond A.: *See*—
Sourgens, Roger P., and Chollet. 2,835,829.

Christille, Maurice M., to Houilleres du Bassin de Lorraine. Plant for conveying granular or solid products, notably coal sludges, through hydraulic means. 2,835,536, 5–20–58, Cl. 302—14.

Ciba Ltd.: *See*—
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,639.
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,641.

Ciba Pharmaceutical Products, Inc.: *See*—
Druey, Jean, and Schmidt. 2,835,672.
Staehelin, Alexander. 2,835,671.

Claraz, Paul: *See*—
Reynaud, Francis, and Claraz. 2,835,569.

Clark, David M.: *See*—
Flagg, John E., and Walsh. 2,834,965.

Clark, Henry B. Emergency mechanism for unlocking cold storage door and the like. 2,835,487, 5–20–58, Cl. 268—30.

Clark, Irvin L., and L. D. Shirah. Dent-removing body and fender tool. 2,835,155, 5–20–58, Cl. 81—15.

Clark, James D., to Changewood Corp. Composite molded board and method of manufacture. 2,835,622, 5–20–58, Cl. 154—110.

Clary Corp.: *See*—
Dillberg, Raymond E., and Garner. 2,835,268.
Lindesmith, John L. 2,835,868.
Sparks, Brian O. 2,835,468.

Cleaver-Brooks Co.: *See*—
Cleaver, John C., Loebel, and Horvath. 2,835,230.
McClure, Arthur W. 2,835,320.

Cleaver, John C., F. A. Loebel, and J. F. Horvath, to Cleaver-Brooks Co. Boiler. 2,835,230, 5–20–58, Cl. 122—75.

Cleveland Crane & Engineering Co., The: *See*—
Anjeskey, Alphonse F., and Cotesworth. 2,835,752.

Clevite Corp.: *See*—
Fleming, Matthew J., Jr. 2,835,319.
Harris, Francis S. 2,835,744.
Leinfelder, Bernhard A., Jr., and Favro. 2,835,615.

Clewett, Glenford H., D. W. A. Lee, and W. B. Schaap, to United States of America, Atomic Energy Commission. Isotope fractionation process. 2,835,687, 5–20–58, Cl. 260—429.1.

Cliborn, Robert, to Thompson Products, Inc. Pump impeller. 2,835,203, 5–20–58, Cl. 103—103.

Cline, Robert H. Animal insecticide applicator. 2,835,225, 5–20–58, Cl. 119—157.

Cline, William E., M. M. De Lancey, and D. A. Engelbrecht, to E. I. du Pont de Nemours and Co. Process for granulating urea-formaldehyde fertilizer compositions. 2,835,452, 5–20–58, Cl. 241—23.

Clipper Mfg. Co.: *See*—
Harclerode, John R. 2,835,243.
Clurman, Stanley P. Coffee brewing device. 2,835,191, 5–20–58, Cl. 99—322.
Clurman, Stanley P. Beverage brewing device including densitometer. 2,835,412, 5–20–58, Cl. 222—158.
Cluwen, Johannes M., to North American Philips Co., Inc. Magnetic or dielectric amplifier. 2,835,747, 5–20–58, Cl. 179—171.
Coe, Clarence S., to Union Oil Co. of California. Process for sweetening and stabilizing cracked gasolines. 2,835,564, 5–20–58, Cl. 44—78.
Coffey, Frank O.: *See*—
Hayhurst, Lewis J., and Coffey. 2,835,326.
Cohen, Saul G.: *See*—
Haas, Howard C., and Cohen. 2,835,653.
Colbert, Lee J. Sheathed electrical cables. 2,835,724, 5–20–58, Cl. 174—113.
Coldstream Refrigerator Mfg. Ltd.: *See*—
Taylor, Richard H., and Fieldhouse. 2,834,999.
Coles, William A. Device for performing surgical incisions by electronic energy. 2,835,254, 5–20–58, Cl. 128—303.14.
Collins, James F., Sr. Pulling tool. 2,835,029, 5–20–58, Cl. 29—261.
Collins Radio Co.: *See*—
Dyer, Franklin C., and Maclary. 2,835,889.
Yeagley, Frank W. 2,835,873.
Collins, Robert C. Portable shelters. 2,835,262, 5–20–58, Cl. 135—3.
Collins, Stanley H., to Massey-Harris-Ferguson Inc. Rotary cuting mechanism. 2,835,298, 5–20–58, Cl. 146—117.
Collom, Cletus J., to Weltronic Co. Electrical control system. 2,835,851, 5–20–58, Cl. 315—252.
Columbian Carbon Co.: *See*—
Ladd, William A. 2,835,606.
Combustion Engineering, Inc.: *See*—
Guarraia, Charles. 2,835,479.
Compagnie des Machines Bull (Societe Anonyme): *See*—
Chenus, Pierre J. C. 2,835,443.
Comptometer Corp.: *See*—
Koch, Raymond J. 2,835,440.
Cones, Van B. Self-triggered sawtooth wave generator. 2,835,815, 5–20–58, Cl. 250—36.
Conger, George R. Tire inflation guard. 2,835,318, 5–20–58, Cl. 157—1.
Conine, James W., and D. A. Zuck, to Eli Lilly and Co. Stable vitamin B12 solutions. 2,835,627, 5–20–58, Cl. 167—81.
Conlee, George D., to General Electric Co. Automatic soap dispenser for clothes washing machines. 2,835,122, 5–20–58, Cl. 68—17.
Connick, Francis G.: *See*—
Strandine Eldon J., Connick, and Oldenburg. 2,834,994.
Conrad, Winthrop B., to Polymer Processes, Inc. Continuous bearing track construction. 2,835,539, 5–20–58, Cl. 308—3.
Consolidated Edison Co. of New York, Inc.: *See*—
Bogdanowski, John W., and Kiuttu. 2,835,886.
Controls Co. of America: *See*—
De Lancey, Ralph W. 2,835,321.
Convertawings, Inc.: *See*—
Kaplan, David H. 2,835,456.
Cook, Newell C.: *See*—
Wolfe, John K., and Cook. 2,835,711.
Cook, Robert F., Jr. Electric cable insulation cutter. 2,835,031. 5–20–58, Cl. 30—91.
Corbitt, Howard E., to Aerojet-General Corp. Anti-chatter switch. 2,835,762. 5–20–58, Cl. 200—88.
Cordes, Charles E., to Esso Research and Engineering Co. Process for preparing methyl ethyl ketone from secondary butanol. 2,835,706, 5–20–58, Cl. 260—596.
Cotesworth, Harry A.: *See*—
Anjeskey, Alphonse F., and Cotesworth. 2,835,752.
Cousins, Edward, to The Goodyear Tire & Rubber Co. Method of adhering butyl rubber to fabric. 2,835,624, 5–20–58, Cl. 154—136.
Cowden Herbert B. and A. W. Wise, to Eastman Kodak Co. Photographic reproduction process. 2,835,575, 5–20–58, Cl. 96—28.
Cox, Norman B., to The Bingham-Herbrand Corp. Foot brake lever release mechanism. 2,835,140, 5–20–58, Cl. 74—542.
Cox, William H.: *See*—
Blake Norman B., and Cox. 2,835,444.
Cox, Willis T Method and apparatus for mixing and metering an unstable suspension of a solid in a liquid. 2,835,481, 5–20–58, Cl. 259—1.
Craig, W E: *See*—
Lo, Chien-Pen, and Craig. 2,835,625.
Crane Co.: *See*—
Whitesell, John C. 2,835,004.
Crane Packing Co.: *See*—
Solari, Archie J. 2,835,515.
Crawford, Ralph W., L. W. Siv, and H. G. Fisher, to Fisher-Price Toys, Inc. Action toy. 2,835,074, 5–20–58, Cl. 46—114.
Creager, Herman W., to Superior Mfg. Corp. Hot fluid dispenser. 2,835,415, 5–20–58, Cl. 222—204.
Crosby, George A., to Signode Steel Strapping Co. Indexing turntable. 2,835,194, 5–20–58, Cl. 100—12.
Crotty, Raymond E., and E. G. Hills, ½ to Radion Corp. and ½ to said Hills. Lightning arrestor and attachment therefor. 2,835,852, 5–20–58, Cl. 317—69.
Crownover, Joseph W., to Electric Machinery Mfg. Co. Electrostrictive ceramic actuator. 2,835,761, 5–20–58, Cl. 200—87.
Curtenius, Frederick B. Bale handling apparatus. 2,835,395, 5–20–58, Cl. 214—130.
Curtis 1000, Inc.: *See*—
Whitman, Harlan M. 2,835,512.
Dadd, Morris V., to General Motors Corp. Valve rotator 2,835,236, 5–2–58, Cl. 123—90.
Daimler-Benz Akt.: *See*—
Gassmann, Johannes. 2,835,235.
Daley, Harold J.: *See*—
Engels, Eugene O., and Daley. 2,835,374.
Dame, Chester F. Rotor-type flying device. 2,835,073, 5–20–58, Cl. 46—76.
Daniel, Walter: *See*—
Fikentscher, Hans, Siebel, Daniel, and Rieder. 2,835,657.
Daniels, John W., and I. R. V. Taegtstroem; said Taegtstrom now by change of name Ralph Textrom, to Hoffman Electronics Corp. Locking switch and relief valve for compact radio equipment. 2,835,793, 5–20–58, Cl. 250—16.
Darrin, John W.: *See*—
Woodman, Charles K., and Darrin. 2,835,043.
Date, Kazuo H.: *See*—
Van Ryan, Anthony and Date. 2,835,763.
Davies, Robert H., to Otis Elevator Co. Axle mounting for a vehicle. 2,835,507. 5–20–58, Cl. 280—112.
Davis, Damon A., Jr., to Gulf Oil Corp. Solid particle transfer process and apparatus. 2,835,537, 5–20–58, Cl. 302—36.
Davis, Thomas L., W. T. Driscoll, and K. P. Griffin, to Eastman Kodak Co. Light-sensitive photographic paper containing an ethenone material. 2,835,578, 5–20–58, Cl. 96—85.
Davis, Walter T., to Wheeling Stamping Co. Collapsible tube handling mechanism. 2,835,371, 5–20–58, Cl. 198—24.
Dawe, Charles R. Direction signal circuit for motor vehicles. 2,835,880, 5–20–58, Cl. 340—81.
Day, James R. Diversity receiving system. 2,835,799, 5–20–58, Cl. 250—20.
Day, James R. Diversity receiving system. 2,835,800, 5–20–58, Cl. 250—20.
Day, James R. Linear frequency modulation detector. 2,835,802, 5–20–58, Cl. 250—27.
Deal, Carl H., Jr.: *See*—
Nixon, Alan C., Deal, and Wilson. 2,835,714.
Decker, Andrew H., and A. A. Meyer, to Warner Electric Brake & Clutch Co. Welding control apparatus. 2,235,864, 5–20–58, Cl. 323—36.
Deere & Co.: *See*—
Morrison, Charles S. 2,835,101.
Deere Mfg. Co.: *See*—
McClellan, Marcus E. 2,835,100.
De Gier, Johannes, W. F. K. J. Niklas, A. P. Van Rooy and W. F. Nienhuis, to North American Philips Co., Inc. Cathode-Ray Tube. 2,835,838, 5–20–58, Cl. 313—82.
Delamere Co., Inc.: *See*—
Herzog, Milton W. 2,835,428.
De Lancey, Merton M.: *See*—
Cline, William E., De Lancey, and Engelbrecht. 2,835,452.
De Lancey, Ralph W., to Controls Co. of America. Electric control system for fuel burning equipment. 2,835,321, 5–20–58, Cl. 158—28.
Delaney, Charles E., to Overhead Door Corp. Overload protection circuit for electric motors. 2,835,860, 5–20–58, Cl. 318—473.
D'Ella, Joseph J. Micrometer gauge. 2,835,040, 5–20–58, Cl. 33—167.
De Lorean, John Z., to Studebaker-Packard Corp. Flywheel structure. 2,835,141, 5–20–58, Cl. 74—572.
De Maine, Joseph, to Pitney-Bowers, Inc. Workpiece stripping device. 2,835,090, 5–20–58, Cl. 53—189.
De Mambro, Gene, and L. G. Brown, to The Carborundum Co. Belt sanding machine. 2,835,083, 5–20–58, Cl. 51—141.
De Montremy, Jean. Shutter devices for photographic cameras. 2,835,178. 5–20–58, Cl. 95—58.
De Piolenc, Gerard: *See*—
Slayter, Games, and De Piolenc. 2,835,221.
Deremer, Floyd E., to Oldberg Mfg. Co. Silencer or muffler. 2,835,336, 5–20–58, Cl. 181—61.
De Ruggieri Pietro: *See*—
Ercoli, Alberto, and de Ruggieri. 2,835,667.
Deutsche Gold- und Silber-Scheideanstalt vormals Roessler: *See*—
Mann, Hans-J. 2,835,709.
Diamond Alkali Co.: *See*—
Vaaler, Luther E. 2,835,558.
D'Ianni, James D., and H. S. Sell, to The Goodyear Tire & Rubber Co. High styrene-low diene resins of high heat softening point. 2,835,645, 5–20–58, Cl. 260—45.5.
Dickerson, Leo C., 37½% to L. C. Dickerson, Jr., 12½% to F. T. Walton, and 12½% to A. Gollob. Nipple container. 2,835,406, 520–58, Cl. 220—21.
Dickerson, Leo C., Jr.: *See*—
Dickerson, Leo C. 2,835,406.
Dickrell, Kenneth J., to Kiekhaefer Corp. Fuel pump. 2,835,239, 5–20–58, Cl. 123—139.
Di Giovanni, Mario M. to Statham Instruments, Inc. Motion sensing device. 2,835,772, 5–20–58, Cl. 201—48.
Dill Mfg. Co., The: *See*—
Boyer, Ralph K., 2,835,305.
Dillberg Raymond E., and J. R. Garner, to Clary Corp. Butterfly valve construction. 2,835,268, 5–20–58, Cl. 137—315.
Dillman, Earnest J., to American Radiator & Standard Sanitary Corp. Heating and cooling system and valve therefor. 2,835,446, 5–20–58, Cl. 236—1.
Diognardi, Orestes Jr. Name plate attachments. 2,835,014, 5–20–58, Cl. 24—253.
Dipner, Charles D., to Minnesota Mining and Mfg. Co. Method of fusing high molecular weight polymers at low temperatures. 2,834,993, 5–20–58, Cl. 18—57.
Diss, Edward M., to The Dow Chemical Co. Sealing orifice for steam tubes and the like. 2,835,121, 5–20–58, Cl. 68—6.

Distillers Co. Ltd., The: *See*—
Jones, Robert J. 2,835,288.
Jones, Robert J., Matthews, and Perry. 2,835,287.

Divendal, Albertus, to N. V. Hollandsche Draad-En Kabelfabriek. Lighting fitting adapted for suspension. 2,835,790, 5–20–58, Cl. 240—46.59.

Dixon Corp.: *See*—
Rulon-Miller, Robert, and Tabor. 2,834,996.

Dixon, George F., Jr. Concrete mattress machine. 2,835,016, 5–20–58, Cl. 25—2.

Dobkin, William J. Collapsible table of the type having a table top and foldable legs. 2,835,544, 5–20–58, Cl. 311—83.

Dodge, Howard M., to The General Tire and Rubber Co. Cellular elastic cushion. 2,835,313, 5–20–58, Cl. 155—179.

Dodge Steel Co.: *See*—
Green, Charles F. 2,835,005.

Dodson, Harold L., to General Electric Co. Getter support structure. 2,835,841, 5–20–58, Cl. 313—181.

Doe, Burton E., to The Felters Co. Reinforced felt fabric. 2,835,020, 5–20–58, Cl. 28—79.

Dohmen, Heinrich, to N. V. Briko. Process for the manufacture of fuel briquettes. 2,835,563, 5–20–58, Cl. 44—15.

Dohmen, Heinrich, to N. V. Eldeka. Process for the preparation of a conversion product of the higher carbohydrates and carbohydrate ethers. 2,835,610, 5–20–58, Cl. 127—36.

Dolza, John: *See*—
Steinhagen, William K., Dolza, and Francis. 2,835,436.

Dorazio, Alton, Jr., to General Dynamics Corp. Indexing attachment for cutting devices. 2,835,032, 5–20–58, Cl. 30—179.

Doremus, John A., to Motorola, Inc. Diversity receiving system. 2,835,794, 5–20–58, Cl. 250—20.

Dorf, Richard H. Electrical musical instruments. 2,835,814, 5–20–58, Cl. 250—36.

Dorman, Bruce A.: *See*—
Dorman, Harley A. and B. A. 2,835,458.

Dorman, Harley A. and B. A. Means for adjustably mounting an annular wing on an aircraft. 2,835,458, 5–20–58, Cl. 244—17.27.

Dorris, Edwin C. Tractor-trailer safety coupling. 2,835,509, 5–20–58, Cl. 280—432.

Double, Walter F., to General Motors Corp. Transmission-friction clutch arrangement. 2,835,137, 5–20–58, Cl. 74—364.

Douglas Aircraft Co., Inc.: *See*—
Marcoux, Arthur. 2,835,150.
Wilder, Vernon H. 2,834,998.

Dow Chemical Co., The: *See*—
Bauman, William C., and Roth. 2,835,655.
Diss, Edward M. 2,835,121.
Lang, John L. 2,835,658.
Savage, Albert B. 2,835,666.
Steinhauer, Alfred F. 2,835,694.
Steinhauer, Alfred F. 2,835,695.
Steinhauer, Alfred F. 2,835,696.
Stoesser, Wesley C., and Gentry. 2,835,707.
Swinehart, Richard W., Weaver, Savage, and Moeller. 2,835,603.

Dowden, Dennis A., L. V. Johnson, and G. C. Vincent, to Imperial Chemical Industries Ltd. Production of alumina/silica catalysts. 2,835,637, 5–20–58, Cl. 252—432.

Draper Corp.: *See*—
Villani, Antonio. 2,835,278.

Driscoll, William T.: *See*—
Davis, Thomas L., Driscoll, and Griffin. 2,835,578.

Druey, Jean, and P. Schmidt, to Ciba Pharmaceutical Products, Inc. Manufacture of new hydrocinnolones. 2,835,672, 5–20–58, Cl. 260—250.

Dungler, Julian. Web guiding head. 2,835,490, 5–20–58, Cl. 271—2.6.

Dunkelman, Robert L.: *See*—
Olthuis, Eugene G., and Dunkelman. 2,835,048.

Dunlop Rubber Co. Ltd.: *See*—
Butler, Henry J. 2,835,350.

Du Pont de Nemours, E. I., and Co.: *See*—
Carter, Albert S., and Ernsberger. 2,835,654.
Cline, William E., De Lancey, and Engelbrecht. 2,835,452.
Graham, Peter J. 2,835,686.
Harrison, John R., and Toole. 2,835,553.
Haven, Alfred C., Jr. 2,835,652.
Holmquist, Howard E. 2,835,710.
Lanctius, Joseph F., and Pearson. 2,835,550.
Willcox, Oswin B. 2,835,567.

Du Rocher, Gideon A., and G. L. Webb, to Essex Wire Corp. Directional turn signal. 2,835,879, 5–20–58, Cl. 340—74.

Dyer, Franklin C., and F. J. Maclary, to Collins Radio Co. Single side band communication system using mechanical filters. 2,835,889, 5–20–58, Cl. 343—200.

Earle, Ralph H., to McGraw-Edison Co. Fuse construction. 2,835,764, 5–20–58, Cl. 200—114.

Eastman Kodak Co.: *See*—
Benton, Charles H., Jr., and Robeson. 2,835,679.
Caldwell, John R., and Jackson. 2,835,703.
Capstaff, John G. 2,835,180.
Cowden, Herbert B., and Wise. 2,835,575.
Davis, Thomas L., Driscoll, and Griffin. 2,835,578.
Fowler, William F., Jr., and Hellmann. 2,835,582.
Godowsky, Leopold, Weissberger, and Knechel. 2,835,580.
Guillet, James E. 2,835,659.
Lappin, Gerald R., and Moore. 2,835,648.
Malm, Carl J., Tanghe, and Blanchard. 2,835,665.
Mihalyi, Joseph. 2,835,787.
Robeson, Charles D. 2,835,713.
Schulken, Roger M., Jr., and Boy. 2,835,647.
Smith, Homer A., Jr. 2,835,165.
Starck, Clemens B., Nadeau, and Smith. 2,835,609.

Eastman Kodak Co.—Continued
Straley, James M., and Fisher. 2,835,661.
Thirtle, John R., and Weissberger. 2,835,579.
Tinker, John F., and Sagal. 2,835,581.
Unruh, Cornelius C., and Smith. 2,835,656.

Eckart, Robert H., to The Keller Mfg. Co. Lumber sorting conveyor. 2,835,385, 5–20–58, Cl. 209—90.

Eckert, Wilhelm, and O. Fuchs, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Process of preparing derivatives of 1.4.5.8-naphthalene-tetracarboxylic acid. 2,835,674, 5–20–58, Cl. 260—281.

Eckhardt, Homer D., to Minneapolis-Honeywell Regulator Co. Automatic pilot motor control system. 2,835,861, 5–20–58, Cl. 318—489.

Eddison, William B., and W. E. Erickson, to Gisbolt Machine Co. Machine for applying tubular bands to bottle tops and the like. 2,835,088, 5–20–58, Cl. 53—77.

Edlo, Inc.: *See*—
Fahrenbach, Wolfgang B. 2,835,382.

Efromson, Philip C., to The Calidyne Co., Inc. Vibration generating apparatus. 2,835,832, 5–20–58, Cl. 310—27.

Eggleston, Gilbert K., to Pryor Mfg. Co. Portable lifting boom. 2,835,402, 5–20–58, Cl. 214—620.

Egly, William D. Self-propelled lawn sprinkler. 2,835,531, 5–20–58, Cl. 299—49.

Egly, William D., and C. W. Harris; said Harris assor. to said Egly. Pattern type lawn sprinkler. 2,835,529, 5–20–58, Cl. 299—18.

Eklund, Elias N., to A. B. E. N. Eklunds Mekaniska Verkstad. Machine-tool vise having workpiece-clamping screw in proximity to base-clamping screw. 2,835,156, 5–20–58, Cl. 81—41.

Electric Machinery Mfg. Co.: *See*—
Crownover, Joseph W. 2,835,761.

Electro Voice, Inc.: *See*—
Moen, Carl J. 2,835,735.

Electronics Corp. of America: *See*—
Joyce, Bradford T. 2,835,825.

Electronics Process Corp.: *See*—
Blessing, Gregory W. 2,835,776.

Elliott, Stanley B.: *See*—
Nicholson, Albright M., and Elliott. 2,835,649.

Emmins, Kingsley L. Tie tensioning and fastening device. 2,835,015, 5–20–58, Cl. 24—271.

Empaques de Carton Titan, S. A.: *See*—
Wilmot, George. 2,835,432.

Engelbrecht, Donald A.: *See*—
Cline, William E., De Lancey, and Engelbrecht. 2,835,452.

Engels, Eugene O., and H. J. Daley, to Baker Perkins Inc. Automatic loaders for proofers. 2,835,374, 5–20–58, Cl. 198—31.

Enghauser Mfg. Co., Inc.: *See*—
Enghauser, Winford L. 2,835,475.

Enghauser, Winford L., to Enghauser Mfg. Co., Inc. Interchangeable fence or guard rail structure. 2,835,475, 5–20–58, Cl. 256—22.

Engleson, Harry E., and E. D. Sramek, to F. B. Redington Co. Conveying, packaging and slitting machine. 2,835,087, 5–20–58, Cl. 53—63.

Engleson, Harry E., and E. D. Sramek, to F. B. Redington Co. Package and method of forming. 2,835,380, 5–20–58, Cl. 206—47.

Ensink, Anthony L. Light-sensitive polyvalent metal alginate photolithographic element. 2,835,576, 5–20–58, Cl. 96—33.

Ensink, Johannes, to North American Philips Co., Inc. Single-sideband carrier-wave telephone system. 2,835,739, 5–20–58, Cl. 179—15.

Ensink, Johannes, and J. Verhagen, to North American Philips Co., Inc. Negative feed-back transistor amplifier. 2,835,748, 5–20–58, Cl. 179—171.

Ercoli, Alberto, and P. de Ruggieri; said de Ruggieri assor. to Francesco Vismara Societa per Azioni. Preparation of enol-ethers and ketals of ketosteroids. 2,835,667, 5–20–58, Cl. 260—239.55.

Erdmann, Hans, to Alfred Teves Maschinen- und Armaturenfabrik Komm-Ges. Rotary vane-type pump. 2,835,205, 5–20–58, Cl. 103—136.

Erhardt, Kenneth D.: *See*—
McMann, Renville H., Jr., and Erhardt. 2,835,730.

Erickson, Lorena L. A. Enclosure assembly for livestock. 2,835,223, 5–20–58, Cl. 119—20.

Erickson, Warren E.: *See*—
Eddison, William B., and Erickson. 2,835,088.

Ericson, Elmer W. Display binder. 2,835,511, 5–20–58, Cl. 281—33.

Erismann, Paul. Drawer locking device. 2,835,547, 5–20–58, Cl. 312—219.

Ernsberger, Maurice L.: *See*—
Carter, Albert S., and Ernsberger. 2,835,654.

Essex Wire Corp.: *See*—
Du Rocher, Gideon A., and Webb. 2,835,879.
Graf, Robert D., and Weber. 2,835,767.

Esso Research and Engineering Co.: *See*—
Cordes, Charles E. 2,835,706.
Nelson, Joseph F., and McKay. 2,835,644.
Nelson, Joseph F., and McKay. 2,835,650.
Nelson, Joseph F., and Smith. 2,835,605.
True, Martin E. 2,835,329.

Etablissements Ed. Jaeger:: *See*—
Kieffert, Pierre A. 2,835,812.

Eul, Heinrich: *See*—
Bauer, Heinz, Eul, and Günther. 2,835,878.

Evans, Richard H., and F. Beuthner, to The Babcock & Wilcox Co. Vapor generating and superheating unit. 2,835,231, 5–20–58, Cl. 122—478.

Ever Ready Calendar Mfg. Co.: *See*—
Ray, Henry. 2,835,058.

Evertsz, Hendrik C. B., to North American Philips Co., Inc. Transmission system comprising a terminal station and a relay station. 2,835,792, 5–20–58, Cl. 250—6.

Fahrenbach, Wolfgang B., to Edlo, Inc. Carton carrier. 2,835,382, 5–20–58, Cl. 206—65.

Fairbank, Murry N., to Polaroid Corp. Photographic apparatus. 2,835,179, 5–20–58, Cl. 95—75.

Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning: *See*—
Eckert, Wilhelm, and Fuchs. 2,835,674.

Fatzer, Willy: *See*—
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,639.
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,641.

Faverty, Clyde B., to Pullman-Standard Car Mfg. Co. Ballast car door operating mechanism. 2,835,208, 5–20–58, Cl. 105—251.

Favey, Jacques, to Ancienne Manufacture d'Horlogerie, Patek, Philippe & Co, S. A. Electrostatic balance clock. 2,835,105, 5–20–58, Cl. 58—28.

Favro, Lawrence D.: *See*—
Leinfelder, Bernhard A., Jr., and Favro. 2,835,615.

Faximile, Inc.: *See*—
Smith, John W. 2,835,733.

Fearon, Robert E., to Well Surveys, Inc. Method of observing and classifying the spectrum of gamma rays. 2,835,821, 5–20–58, Cl. 250—71.

Fears, Robert O. Vehicle load distribution system. 2,835,505, 5–20–58, Cl. 280—104.

Federal-Mogul Corp.: *See*—
Spicacci, Attilio R., and Brady. 2,835,519.

Federal Paper Board Co., Inc.: *See*—
Arneson, Edwin L. 2,835,408.

Fehlberg, Harold F. Control unit. 2,835,226, 5–20–58, Cl. 121—38.

Feller, James R.: *See*—
Shapiro, Gustave, and Feller. 2,835,816.

Felner, Dr. Herbert M.: *See*—
Seller, William. 2,835,030.

Felt, Clarence E., and B. E. Matson, to General Mills, Inc. Cheat-type container. 2,835,594, 5–20–58, Cl. 99—171.

Feltera Co., The: *See*—
Doe, Burton E. 2,835,020.

Ferguson, Roy D. Preloaders for explosive charges. 2,835,197, 5–20–58, Cl. 102—22.

Ferri, Aroldo. Coupling for connecting the elements of demountable structures, as frameworks, scaffolding and the like. 2,835,516, 5–20–58, Cl. 287—49.

Ferro Chemical Corp.: *See*—
Nicholson, Albright M., and Elliott. 2,835,649.

Few, William, to Penn Controls Inc. Thermostat. 2,835,766, 5–20–58, Cl. 200—122.

Fibreboard Paper Products Corp.: *See*—
Pellaton, Ernest C. 2,835,429.

Fidelity Union Trust Co.: *See*—
Benz, Jakob. 2,835,663.
Byland, Hans-Rudolf. 2,835,662.

Fieldhouse, Douglas H.: *See*—
Taylor, Richard H., and Fieldhouse. 2,834,999.

Fikentscher, Hans, H. P. Siebel, W. Daniel, and F. Rieder, to Badische Anilin- & Soda-Fabrik Akt. Elastic gasoline-resistant copolymers. 2,835,657, 5–20–58, Cl. 260—80.5.

Filko, John. Adjustable contact assembly. 2,835,755, 5–20–58, Cl. 200—30.

First, Mervin H., and L. Milton, to J. & G. Development Corp. Electrical interference suppression filter. 2,835,874, 5–20–58, Cl. 333—79.

Firth Sterling Inc.: *See*—
Williams, Everard M. 2,835,784.
Williams, Everard M. 2,835,785.

Fisher, Albert A.: *See*—
Seller, William. 2,835,030.

Fisher, Charles B. Telegraph receivers. 2,835,734, 5–20–58, Cl. 178—70.

Fisher, Herman G.: *See*—
Crawford, Ralph W., Sly, and Fisher. 2,835,074.

Fisher, John G.: *See*—
Straley, James M., and Fisher. 2,835,661.

Fisher-Price Toys, Inc.: *See*—
Crawford, Ralph W., Sly, and Fisher. 2,835,074.

Flagg, John E., and J. E. Walsh, to D. M. Clark. Flexible joint for inflatable garments. 2,834,965, 5–20–58, Cl. 2—2.1.

Fleissner, Gerold: *See*—
Fleissner, Hans and G. 2,835,047.

Fleissner, Hans and G., to Fleissner & Sohn. Method and apparatus for willow drying. 2,835,047. 5–20–58, Cl. 34—25.

Fleissner & Sohn: *See*—
Fleissner, Hans and G. 2,835,047.

Fleming, Matthew J., Jr., to Clevite Corp. Inflatable self-contracting tire bead seating device. 2,835,319, 5–20–58, Cl. 157—1.21.

Flight Research, Inc.: *See*—
Quick, Robert G. 2,835,135.

Flint, Oliver: *See*—
Huddle, Roy A. U., and Flint. 2,835,630.

Flocks, Milton: *See*—
Harrington, David O., and Flocks. 2,835,162.

Flood, Robert D., to Radio Corp. of America. Television receiver with color signal gate. 2,835,729, 5–20–58, Cl. 178—5.4.

Flood, Robert D., and L. R. Kirkwood, to Radio Corp. of America. Television receiver with color signal gate. 2,835,728, 5–20–58, Cl. 178—5.4.

Flora, John K.: *See*—
Sawyer, James T., and Flora. 2,835,773.

Flye, Arthur J., Sr., Fishing leaders. 2,835,069, 5–20–58, Cl. 43—44.84.

Foley, Russell W. Shutter bar for fertilizer spreader. 2,835,420, 5–20–58, Cl. 222—485.

Fontein, Freerk J., to Maatschappij voor Kolenbewerking Stamicarbon N. V. Centrifugal method and means for continuously fractionating solid particles in liquid suspension thereof. 2,835,387, 5–20–58, Cl. 209—211.

Food Machinery and Chemical Corp.: *See*—
Lindsay, Wesley N. 2,835,483.

Ford, Geoffrey E., and P. S. Waite, to Fords (Finsbury) Ltd. Bottle capping apparatus. 2,835,093, 5–20–58, Cl. 53—345.

Fords (Finsbury) Ltd.: *See*—
Ford, Geoffrey E., and Waite. 2,835,093.

Forsthoefel, Gregory F. Structure for awnings and canopies. 2,835,000, 5–20–58, Cl. 20—57.5.

Foster, Curtis W., to Lockheed Aircraft Corp. Emergency actuator for hydraulic cylinders. 2,835,142, 5–20–58, Cl. 74—625.

Foti, Arem, to I-T-E Circuit Breaker Co. Blade latch for disconnect switches. 2,835,770, 5–20–58, Cl. 200—169.

Fotre, Harold C., to The Scholl Mfg. Co., Inc. Protective shield for portable abrading device. 2,835,084, 5–20–58, Cl. 51—170.

Fouron, Pierre, and G. Bourret, to Societe Civile d'Etudes Pour Material de Fonderie, Casting machines. 2,835,006, 5–20–58, Cl. 22—93.

Fowler, William F., Jr., and R. J. Hellmann, to Eastman Kodak Co. Gelatin-polymeric hydrosol mixtures and photographic articles prepared therefrom. 2,835,582, 5–20–58, Cl. 96—114.

Francesco Vismara Societa per Azioni: *See*—
Ercoli, Alberto, and de Ruggieri. 2,835,667.

Frank, Robert L., to Sperry Rand Corp. Multiple pulsed navigation system. 2,835,888, 5–20–58, Cl. 343—103.

Frank, William H., E. T. Platz, and J. A. Messing, to I-T-E Circuit Breaker Co. Circuit breaker. 2,835,765, 5–20–58, Cl. 200—116.

Frankenstein, William G., to W. P. Frankenstein. Cartons. 2,835,430, 5–20–58, Cl. 229—34.

Frankenstein, William P.: *See*—
Frankenstein, William G. 2,835,430.

Fransen, Jacobus, to North American Philips Co., Inc. Diagnostic X-ray apparatus. 2,835,823, 5–20–58, Cl. 250—95.

Frayer, Theodore, to The Goodyear Tire & Rubber Co. Pressure sensing automatic clearance adjustor. 2,835,352, 5–20–58, Cl. 188—73.

Frederick, Max, Jr.: *See*—
Launder, Ernie L., Loudon, and Frederick. 2,835,786.

Fredriksson, Tord, to Allmanna Svenska Elektriska Aktiebolaget. Stirring winding system for metallurgical furnaces. 2,835,717, 5–20–58, Cl. 13—26.

Freedman, Louis: *See*—
Shapiro, Seymour L., Freedman, and Rose. 2,835,668.

Freeland Gauge Co.: *See*—
Haunert, Joseph G. 2,835,044.

Freeman, William S. Covered hot water bottle. 2,835,301, 5–20–58, Cl. 150—52.

Freise, William G.: *See*—
Arnett, Leslie, and Freise. 2,835,410.

Fretz, Ora G. Tremolo-frequency modulator. 2,835,870, 5–20–58, Cl. 332—52.

Frey, Norman E., to Rollohome Corp. Tile laying machine. 2,835,175, 5–20–58, Cl. 94—47.

Freyermuth, Harlan B.: *See*—
Bloom, Albert, Freyermuth, and Normington. 2,835,692.

Fridolph, Annette E. Hanger system for flexible hangings. 2,834,980, 3–20–58, Cl. 16—95.

Fried, Josef, to Olin Mathieson Chemical Corp. $\Delta^{5(6)}$-sterolds and their process of preparation. 2,835,680, 5–20–58, Cl. 260—397.3.

Fries, Bernard A., to California Research Corp. Radioactive tracers for pipe lines. 2,835,699, 5–20–58, Cl. 260—504.

Friesen, Henry C. Packet gun barrel cleaner. 2,834,973, 5–20–58, Cl. 15—104.165.

Fritz, Earle: *See*—
Steiner, Charles S., and Fritz. 2,835,682.

Fry, Vern K. Power drive suitable for airplanes and helicopters. 2,835,332, 5–20–58, Cl. 170—135.28.

Fuchs, Francis J., Jr., to Western Electric Co., Inc. Method and apparatus for producing seamless sharp bends in wave guide tubing to replace mitered soldered bends. 2,835,306, 5–20–58, Cl. 153—21.

Fuchs, Francis J., Jr., and R. C. Taylor, to Western Electric Co., Inc. Punch and die mechanism for forming sharp corners in wave guides. 2,835,151, 5–20–58, Cl. 78—60.

Fuchs, Otto: *See*—
Eckert, Wilhelm, and Fuchs. 2,835,674.

G & W Electric Specialty Co.: *See*—
Nicholas, James H. 2,835,725.

Gagnebin, Albert P.: *See*—
Millis, Keith D., Gagnebin, and Pilling. 2,835,619.

Galeazzi, Franco. Push-button spraying device with safety cap. 2,835,534, 5–20–58, Cl. 299—95.

Gales, Dolores B. Educational device. 2,835,053, 5–20–58, Cl. 35—73.

Galinski, Roman. Washing apparatus with liquid seal for rotating shaft. 2,835,123, 5–20–58, Cl. 68—140.

Galloway, Frederick M., to H. K. Porter Co. (Delaware). Irrigation system and apparatus therefor. 2,835,532, 5–20–58, Cl. 299—60.

Gamet, Louis J. M., to La Precision Industrielle (Societe Anonyme). Hydraulic rotary distributor and its application to operating jacks for work-holders of machine-tools. 2,835,227, 5–20–58, Cl. 121—38.

Gardner, Wallace W. Radial arm saw. 2,835,285, 5–20–58, Cl. 143—6.

Garner, James R.: *See*—
Dillberg, Raymond E., and Garner. 2,835,268.

Garrett Corp., The: *See*—
Brown, Norman M., Jr., and Shank. 2,835,450.
McCormack, William H. 2,835,749.

Garrity, James P.: *See*—
Raich, Walter L., Garrity, and O'Neill. 2,835,052.

Gassmann, Johannes, to Daimler-Benz Akt. Intake manifold, for internal combustion engines. 2,835,235, 5–20–58, Cl. 123—52.

Gates, John H., and V. B. Burden, to General Motors Corp. Heated steering wheel. 2,835,777, 5–20–58, Cl. 219—19.

Gedge, Thomas J. Adjustable pneumatic tire. 2,835,302, 5–20–58, Cl. 152—208.

Geigy Chemical Corp.: *See*—
Hafliger, Franz, and Pfister. 2,835,677.

Geigy, J. R., A.-G.: *See*—
Margot, Alfred, and Gysin. 2,835,626.

Geigy, Wilhelm: *See*—
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,639.
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,641.

Gelbspan, Gene A.: *See*—
Wachaman, William P. 2,834,969.

Geller, James W. Vehicle body straightening tool. 2,835,154, 5–20–58, Cl. 81—15.

Gellert, Hans-Georg: *See*—
Ziegler, Karl, and Gellert. 2,835,689.

General Aniline & Film Corp.: *See*—
Bloom, Albert, Freyermuth, and Normington. 2,835,692
Mayhew, Raymond L., and Jelinek. 2,835,635.

General Dynamics Corp.: *See*—
Dorazio, Alton, Jr. 2,835,032.

General Electric Co.: *See*—
Bistany, Raymond. 2,835,875.
Boynton, Erwin R. 2,835,437.
Conlee, George D. 2,835,122.
Dodson, Harold L. 2,835,841.
Gilbert, Alfred R., and Precopio. 2,835,651.
Hsu, Haiung. 2,835,836.
Lewis, Walter E. 2,835,754.
Lewis, Walter E., Jr. 2,835,753.
Millis, Walter T. 2,835,843.
Milne, James M., and Schneider. 2,835,769.
Olthuis, Eugene G., and Dunkelman. 2,835,048.
Prober, Maurice. 2,835,690.
Safford, Moyer M., and Smith. 2,835,642.
Schoos, Maurice A., and Burke. 2,835,089.
Thiess, Ludwig E. 2,835,019.
Williams, Ferd E. 2,835,822.
Wolfe, John K., and Cook. 2,835,711.

General Foods Corp.: *See*—
Alexander, Henry B., and Laster. 2,835,588.
Rusoff, Irving I. 2,835,585.
Rusoff, Irving I. 2,835,590.
Rusoff, Irving I. 2,835,592.
Rusoff, Irving I. 2,835,593.

General Mills, Inc.: *See*—
Felt, Clarence E., and Matson. 2,835,594.
Huso, Hilbert L. 2,834,964.
Karinen, Raymond S. 2,834,963.

General Motors Corp.: *See*—
Barberis, Fortunato F. 2,835,110.
Bartlow, Emmett A. 2,835,158.
Bremer, Robert D. 2,835,780.
Buckman, Kenneth E. 2,835,393.
Buskirk, John E. 2,835,720.
Dadd, Morris V. 2,835,236.
Double, Walter F. 2,835,137.
Gates, John H., and Burden. 2,835,777.
Guyton, James H. 2,835,847.
Harrison, Walter D. 2,834,978.
Hockert, Chester E. 2,835,342.
Jorgensen, Clarence H. 2,835,540.
Kelley, Oliver K., Hause, and Heck. 2,835,357.
Miller, Donald D., and Wolf. 2,835,183.
Norton, James A. 2,834,983.
Roth, Charles P. 2,834,979.
Schell, Carl M. 2,835,187.
Schwarz, Bertram A., and Wright. 2,835,817.
Sharpe, Verlos G., and Armentrout. 2,835,113.
Steinhagen, William K., Dolza, and Francis. 2,835,436.
Van Voorhees, Harold E. 2,835,526.

General Telephone Laboratories, Inc.: *See*—
Quatman, George B. 2,835,738.

General Tire and Rubber Co., The: *See*—
Dodge, Howard M. 2,835,313.

Gentry Division, Consolidated Foods Corp.: *See*—
Rigney, Everett E. 2,835,294.

Gentry, Willard M.: *See*—
Stoesser, Wesley C., and Gentry. 2,835,707.

George, Harry F. Latching mechanism. 2,835,125, 5–20–58, Cl. 70—146.

Gesellschaft für Linde's Eismaschinen Akt.: *See*—
Karwat, Ernst. 2,835,115.

Gesellschaft zur Forderung der Forschung an der Eidg. Techn. Hochschule: *See*—
Bas-Taymas, Enis. 2,835,837.

Gilbert, Alfred D., and H. W. Hawthornewhite. Screen door. 2,835,325, 5–20–58, Cl. 160—369.

Gilbert, Alfred R., and F. M. Precopio, to General Electric Co. Organosilicon compositions containing phosphorus and their preparation. 2,835,651, 5–20–58, Cl. 260—46.5.

Gilbert, Frank H., and J. C. Booher, to Metalcraft Mfg. & Sales Corp. Refrigerated cabinet structure. 2,835,405, 5–20–58, Cl. 220—15.

Gilson, Paul R.: *See*—
Beek, Joseph A., Jr., Gilson, and Westlake. 2,835,882.

Gisholt Machine Co.: *See*—
Eddison, William B., and Erickson. 2,835,088.

Gits Bros. Mfg. Co.: *See*—
Andresen, Hilmar A. and R. H. 2,835,267.

Glaser, L. Chester: *See*—
Seiler, William. 2,835,030.

Glassey, Courtney Q. Loudspeaker housing using an open side as a horn mouth. 2,835,335, 5–20–58, Cl. 181—31.

Godowsky, Leopold, A. Weissberger, and W. F. Knechel, to Eastman Kodak Co. Photographic emulsion with vinyl alcohol-N-allylcyanoacetamide copolymer continuous phase. 2,835,580, 5–20–58, Cl. 96—98.

Goff, Maurice A.: *See*—
Shoemaker, Malcolm G., and Goff. 2,835,114.

Gohei Tanabe & Co., Ltd.: *See*—
Iwao, Junichi, Tomino, and Kawazu. 2,835,678.

Golden, Daniel, to Underwood Corp. Signal attenuator. 2,835,867, 5–20–58, Cl. 323—66.

Goldsmith, Alfred N., to Whirlpool Corp. Air conditioning system. 2,835,186, 5–20–58, Cl. 98—33.

Gollob, Abe: *See*—
Dickerson, Leo C. 2,835,406.

Gomez, Pedro L. Rodent trap. 2,835,070, 5–20–58, Cl. 43—69.

Gominel, Dewey E., to Borg-Warner Corp. Saw. 2,835,024, 5–20–58, Cl. 29—105.

Gonnert, Franz: *See*—
Rausch, Werner, and Gonnert. 2,835,616.

Goodhue, Lyle D., and R. E. Stansbury, to Phillips Petroleum Co. Amination products of conjugated diolefins as defoliant activators. 2,835,565, 5–20–58, Cl. 71—2.7.

Goodman, Margaret B. Artificial eyelashes. 2,835,259, 5–20–58, Cl. 132—53.

Goodrich, B. F., Co., The: *See*—
Senger, Clyde D. 2,835,607.

Goodyear Tire & Rubber Co., The: *See*—
Armstrong, Edward T. 2,835,355.
Armstrong, Edward T., and Highley. 2,835,351.
Cousins, Edward. 2,835,624.
D'Ianni, James D., and Sell. 2,835,645.
Frayer, Theodore. 2,835,352.
Goulding, Albert, Jr. 2,835,451.
Hardman, Albert F. 2,834,991.
Hardman, Albert F. 2,835,670.
Kamlet, Jonas. 2,835,708.
Lee, Walter J. 2,835,304.
Sell, Harold S. 2,835,646.
Weinstein, Arthur H. 2,835,701.
Woodward, Alva W. 2,835,303.

Gordon, Roy C., and B. S. Harrington, to Armour and Co. Article sorting device. 2,835,206, 5–20–58, Cl. 104—88.

Gottscho, Adolph, Inc.: *See*—
Alessi, Andrew J., Jr., Gottscho, and Hirschey. 2,835,376.
Jackson, John K. 2,835,195.

Gottscho, Ira S.: *See*—
Alessi, Andrew J., Jr., Gottscho, and Hirschey. 2,835,376.

Goulding, Albert, Jr., to The Goodyear Tire & Rubber Co. Railroad crossing structure. 2,835,451, 5–20–58, Cl. 238—8.

Gould Pumps, Inc.: *See*—
Mann, John, and Hancy. 2,835,200.

Graf, Robert D., and L. L. Weber, to Essex Wire Corp. Thermostatic switch. 2,835,767, 5–20–58, Cl. 200—139.

Graham, Elwood M.: *See*—
Graham, Maurice H. 2,835,188.
Graham, Maurice H. 2,835,190.

Graham, Maurice H., deceased, by Northwestern National Bank of Minneapolis and M. W. Graham, executors, to M. W. and E. M. Graham, trustees. Automatic tea maker. 2,835,188, 5–20–58, Cl. 99—299.

Graham, Maurice H., deceased, by M. W. Graham and Northwestern National Bank of Minneapolis, executors, to M. W. and E. M. Graham, trustees. Self-elevating holder for coffee maker. 2,835,190, 5–20–58, Cl. 99—310.

Graham, Maurice W.: *See*—
Graham, Maurice H. 2,835,188.
Graham, Maurice H. 2,835,190.

Graham, Peter J., to E. I. du Pont de Nemours and Co. Organometallic compounds containing cyclopentadienyl nuclei bonded directly to a group VIII metal and to a group I or a group II metal. 2,835,686, 5–20–58, Cl. 260—429.

Gramacy, William. Book support with independent cover holder. 2,835,072, 5–20–58, Cl. 45—61.

Grant, Gary G., to Lever Brothers Co. Apparatus for assembling collapsible tubes and filling semi-solid material therein. 2,835,091, 5–20–58, Cl. 53—239.

Grant, Max L.: *See*—
Care, Richard L. 2,835,439.

Graves, Robert E., R. L. Hall, and A. J. Karas, to McCormick & Co., Inc. Method of producing cured vanilla extract from green vanilla beans. 2,835,591, 5–20–58, Cl. 99—140.

Green, Charles F., to Dodge Steel Co. Die casting apparatus. 2,835,005, 5–20–58, Cl. 22—70.

Green, Clarence J., to Norton Co. Automated piston grinding machine. 2,835,082, 5–20–58, Cl. 51—105.

Green, Marvin E. Device for holding brake lining in position to be bonded to a brake shoe. 2,835,310, 5–20–58, Cl. 154—1.

Greene, Nathan and R. X-ray film mount. 2,835,062, 5–20–58, Cl. 40—158.

Greene, Rose: *See*—
Greene, Nathan and R. 2,835,062.

Greenleaf, Nathaniel B., to Sponge Products Corp. Sponge mop having spring operator. 2,834,974, 5–20–58, Cl. 15—119.

Greenlee Bros. & Co.: *See*—
Herrstrum, Rudolph E. 2,835,128.

Griffin, Kearney P.: *See*—
Davis, Thomas L., Driscoll, and Griffin. 2,835,578.

Griscom-Russell Co., The: *See*—
Jorgensen, Jorgen A. 2,835,307.

Groat, Francis P., to Bigelow-Sanford Carpet Co., Inc. Method and apparatus for weaving loop pile fabrics. 2,835,277, 5–20–58, Cl. 139—38.

Groh, Henry, to Groton Products, Ltd. Display card. 2,835,059, 5–20–58, Cl. 40—124.1.

Grossman, Morris: *See*—
Tandler, William S., and Grossman. 2,835,042.

Groton Products, Ltd.: *See*—
Groh, Henry. 2,835,059.

Guarrala, Charles, to Combustion Engineering, Inc. Superheater construction and arrangement. 2,835,479, 5–20–58, Cl. 257—240.

Guilford, Joseph R. Mounting features of sheet metal damper blades used in air conditioning systems. 2,835,467, 5–20–58, Cl. 251—89.

Guillet, James E., to Eastman Kodak Co. Polypropylene waxes and method of making. 2,835,659, 5–20–58, Cl. 260—93.7.

Guimont, Nelson J. Mold. 2,835,018, 5–20–58, Cl. 25—121.

Gulf Oil Corp.: *See*—
Davis, Damon A., Jr. 2,835,537.

Gulf Research & Development Co.: *See*—
Pardee, William A. 2,835,554.

Gulyban, John F. Screw-thread gauge. 2,835,046, 5–20–58, Cl. 33—199.

Gundlach, Joseph C., and J. B. Reeves, to United States of America, Atomic Energy Commission. Multi-electrode tube pulse memory circuit. 2,835,848, 5–20–58, Cl. 315—84.6.

Günther, Helmut: *See*—
Bauer, Heinz, Eul, and Günther. 2,835,878.

Guthrie, William E. Spindle assembly for spinning frames and the like. 2,835,104, 5–20–58, Cl. 57—133.

Guyton, James H., to General Motors Corp. Automatic headlamp dimmer system. 2,835,847, 5–20–58, Cl. 315—83.

Gyrodyne Co. of America, Inc.: *See*—
Ryan, James V., Bastedo and Strong. 2,835,331.

Gysin, Hans: *See*—
Margot, Alfred, and Gysin. 2,835,626.

H. & L. Tooth Co.: *See*—
Launder, Ernie L., Loudon, and Frederick. 2,835,786.

Haas, Howard C., and S. G. Cohen, to Polaroid Corp. Polyoxyethylene substituted polymers and their preparation. 2,835,653, 5–20–58, Cl. 260—72.

Haayman, Pieter W., to North American Philips Co., Inc. Method of surface-treating semi conductors. 2,835,613, 5–20–58, Cl. 148—1.5.

Häfinger, Franz, and R. Pfister, to Geigy Chemical Corp. 4-substituted 1.2-diaryl-3.5-dioxo-pyrazolidines. 2,835,677, 5–20–58, Cl. 260—310.

Hafner, Klaus: *See*—
Ziegler, Karl, and Hafner. 2,835,712.

Hall, Charles N. Masking device for tire side-walls. 2,835,222, 5–20–58, Cl. 118—505.

Hall, Richard L.: *See*—
Graves, Robert E., Hall, and Karas. 2,835,591.

Hall, Teller B. Collet construction. 2,835,496, 5–20–58, Cl. 279—1.

Hamilton, Eugene B. Filter funnel. 2,835,392, 5–20–58, Cl. 210—477.

Hammond, Laurens, to Hammond Organ Co. Adjustable inductance. 2,835,876, 5–20–58, Cl. 336—134.

Hammond Organ Co.: *See*—
Hammond, Laurens. 2,835,876.

Hanchett Magna-Lock Corp.: *See*—
Manting, Jack F. 2,835,085.

Hancy, Allan F.: *See*—
Mann, John, and Hancy. 2,835,200.

Harclerode, John R., to Clipper Mfg. Co. Pressure equalizer assembly for masonry saws. 2,835,243, 5–20–58, Cl. 125—13.

Hardman, Albert F., to The Goodyear Tire & Rubber Co. Method of preparing compounding ingredients for rubber. 2,834,991, 5–20–58, Cl. 18—47.5.

Hardman, Albert F., to The Goodyear Tire & Rubber Co. Aminoazoledisulfides. 2,835,670, 5–20–58, Cl. 260—247.1.

Harm, George O. Dry closets. 2,835,214, 5–20–58, Cl. 110—9.

Harm, George O. Dry closet incinerator. 2,835,215, 5–20–58, Cl. 110—9.

Harrington, Bertie S.: *See*—
Gordon, Roy C., and Harrington. 2,835,206.

Harrington, David O., and M. Flocks. Apparatus for and method of examining eyes. 2,835,162, 5–20–58, Cl. 88—20.

Harrington, Lester B. Electromagnetic power device. 2,835,831, 5–20–58, Cl. 310—18.

Harris, Columbus W.: *See*—
Egly, William D., and Harris. 2,835,529.

Harris, Edward J., to Jessop Steel Co. Process of making metal product. 2,835,022, 5–20–58, Cl. 29—19.

Harris, Francis S., to Clevite Corp. Microphone. 2,835,744, 5–20–58, Cl. 179—121.

Harrison, John R., and R. C. Toole, to E. I. du Pont de Nemours and Co. Alkali metal ferrates. 2,835,553, 5–20–58, Cl. 23—50.

Harrison, Lloyd E., ½ to E. J. Zimmerman. Smear remover for meat slicing machine. 2,835,296, 5–20–58, Cl. 146—88.

Harrison, Robert E. W. Method and apparatus for making plastic boats. 2,834,971, 5–20–58, Cl. 9—6.

Harrison, Walter D., General Motors Corp. Coordinated control means for vehicle windshield wiper and washer. 2,834,978, 5–20–58, Cl. 15—250.4.

Harvestaire, Inc.: *See*—
Rogers, Robert E., Lea, and Hill. 2,835,256.

Hase, Leopold: *See*—
Isbenjian, Hrant, Hase, and Othmer. 2,835,572.

Haueter, Ruth C., to United States of America, Commerce. Asynchronous-to-synchronous conversion device. 2,835,081, 5–20–58, Cl. 250—27.

Haunert, Joseph G., to Freeland Gauge Co. Gauge for rocker arm. 2,835,044, 5–20–58, Cl. 33—181.

Hause, Gilbert K.: *See*—
Kelley, Oliver K., Hause, and Heck. 2,835,357.

Hausner, Henry H., to United States of America, Atomic Energy Commission. Hot pressing with a temperature gradient. 2,835,573, 5–20–58, Cl. 75—226.

Haussermann, Kurt A., to Lamellin-und Kupplungsbau August Haussermann. Friction clutch, especially for motor vehicles. 2,835,366, 5–20–58, Cl. 192—68.

Haveg Industries, Inc.: *See*—
Ward, John M. 2,835,107.

Haven, Alfred C., Jr., to E. I. du Pont de Nemours and Co. Organic phosphorus containing isocyanates and polymers. 2,835,652, 5–20–58, Cl. 260—47.

Hayes, Claude W., to W. H. Allen, Sons & Co. Ltd. Securing of blading to turbine wheels and other high speed rotary members. 2,835,471, 5–20–58, Cl. 253—77.

Hayes, Miles B. Fuel and air temperature control system. 2,835,333, 5–20–58, Cl. 180—54.

Hayes, Stanley W., to Hayes Track Appliance Co. Wheel retainer with screw actuated clamps. 2,835,207, 5–20–58, Cl. 104—258.

Hayes Track Appliance Co.: *See*—
Hayes, Stanley W. 2,835,207.

Hayhurst, Lewis J., and F. O. Coffey, to National Dairy Products Corp. Wrapper cutting apparatus. 2,835,326, 5–20–58, Cl. 164—84.5.

Haythornewhite, Harry W.: *See*—
Gilbert, Alfred D., and Haythornewhite. 2,835,325.

Healy, Thomas V., to United States of America, Atomic Energy Commission. Reduction of acidity of nitric acid solutions by use of formaldehyde. 2,835,555, 5–20–58, Cl. 23—102.

Heck, Burnette: *See*—
Kelley, Oliver K., Hause, and Heck. 2,835,357.

Heckmaier, Joseph: *See*—
Bauer, Hans, Heckmaier, and Reinecke. 2,835,643.

Heetman, Alphonsus, to North American Philips Co., Inc. Arrangement of subscriber's line circuits. 2,835,740, 5–20–58, Cl. 179—18.

Hefley, David R. Bathtub seat. 2,834,968, 5–20–58, Cl. 4—185.

Heijligers, Joris D.: *See*—
Roovers, Wilhelmus A., and Van Steenis. 2,835,853.

Hellmann, Richard J.: *See*—
Fowler, William F., Jr., and Hellmann. 2,835,582.

Hendrey Relays Ltd.: *See*—
Allen, Peter S. 2,835,344.

Herbert, Jerome A. and J. W. Design printing device. 2,835,196, 5–20–58, Cl. 101—333.

Herbert, Joseph W.: *See*—
Herbert, Jerome A. and J. W. 2,835,196.

Herman, Harold: *See*—
Seiler, William. 2,835,030.

Hermanson, Gerald I.: *See*—
Braun, Philip N., and Hermanson. 2,835,621.

Hermeling, Gilbert C., Jr., and S. Lynn, to Radio Corp. of America. VHF UHF-tuner system. 2,835,798, 5–20–58, Cl. 250—20.

Hermes, Dale J., to Stampings, Inc. Power trencher. 2,835,055, 5–20–58, Cl. 37—86.

Herrstrum, Rudolph E., to Greenlee Bros. & Co. Anchor device pull gauge. 2,835,128, 5–20–58, Cl. 73—141.

Herter's, Inc.: *See*—
Mittlesteadt, Glen L. 2,835,077.

Hervert, George L.: *See*—
Bloch, Herman S., and Hervert. 2,835,638.

Herzog, Gerhard, to The Texas Co. Apparatus for locating a zone of lost circulation. 2,835,819, 5–20–58, Cl. 250—43.5.

Herzog, Milton W., to Delamere Co., Inc. Carton liner. 2,835,428, 5–20–58, Cl. 229—14.

Hey, Charles F., and R. E. Richards, to Link-Belt Co. Speed reducer gear drives. 2,835,138, 5–20–58, Cl. 74—421.

Hiestand, Armin: *See*—
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,639.
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,641.

Higgins, John E., and O. R. Newkirk. Food pellet and method of manufacture. 2,835,583, 5–20–58, Cl. 99—2.

Highley, Frank H.: *See*—
Armstrong, Edward T., and Highley. 2,835,351.

Hill-Acme Co., The: *See*—
Lamprecht, Merle W. 2,835,152.

Hill, Frederick L.: *See*—
Rogers, Robert E., Lea, and Hill. 2,835,256.

Hill, Philip: *See*—
Wolff, William F., and Hill. 2,835,343.

Hills, Elmer G.: *See*—
Crotty, Raymond E., and Hills. 2,835,852.

Hirschey, Malcolm: *See*—
Alessi, Andrew J., Jr., Gottscho, and Hirschey. 2,835,376.

Hobson, H. M., Ltd.: *See*—
Westbury, Roy, and Smith. 2,835,460.
Westbury, Roy, and Smith. 2,835,461.

Hockert, Chester E., to General Motors Corp. Air inlet screens. 2,835,342, 5–20–58, Cl. 183—70.

Hodson, Peter, to Apra Precipitator Corp. Purge cycles for precipitator. 2,835,337, 5–20–58, Cl. 183—7.

Hoefer, William F. Screen for molding flasks. 2,835,007, 5–20–58, Cl. 22—134.

Hoerr, Burkhardt R., to C. & H. Specialties Co. Nail stake. 2,835,017, 5–20–58, Cl. 25—118.

Hoffman Electronics Corp.: *See*—
Daniels, John W., and Taegtstroem. 2,835,793.

Hoffmann, Charles: *See*—
Allais, André, and Hoffmann. 2,835,661.

Hofmann, Alfred L., to Kiekhaefer Corp. Stator mounting for flywheel magneto. 2,835,833, 5–20–58, Cl. 310—153.

Hogg, John A.: *See*—
Magerlein, Barney J., and Hogg. 2,835,698.

Holmquist, Howard E., to E. I. du Pont de Nemours and Co. Tetrols containing an uninterrupted eight carbon chain with hydroxyl groups in the 1,4,5 and 8-positions. 2,835,710, 5–20–58, Cl. 260—635.

Holstein, Ivan M. Positive wedge sealing piston and sleeve. 2,835,542, 5–20–58, Cl. 309—7.

Honolulu Oil Corp.: *See*—
Totl, Andrew J. 2,834,982.

Horowitz, Harry. Woven friction fabrics. 2,835,279, 5–20–58, Cl. 139—421.

Horne, Marion C. Clothes hanger. 2,835,423, 5–20–58, Cl. 223—96.

Horvath, John F.: *See*—
Cleaver, John C., Loebel, and Horvath. 2,835,230.

Horwitz, Marvin A., to Markstone Mfg. Co. Recessed lighting fixture assembly. 2,835,791, 5–20–58, Cl. 240—78.

Houilleres du Bassin de Lorraine: *See*—
Christille, Maurice M. 2,835,536.

Howes, Jack L. Collet. 2,835,498, 5–20–58, Cl. 279—51.

Hsu, Hsiung, to General Electric Co. Gas discharge device. 2,835,836, 5–20–58, Cl. 313—71.

Hubbell, Harvey. Fluid operated door actuating mechanism. 2,835,488, 5–20–58, Cl. 268—34.

Huddle, Roy A. U., and O. Flint, to United States of America, Atomic Energy Commission. Treatment of metals prior to electro-plating. 2,835,630, 5–20–58, Cl. 204—1.5.

Hughes Aircraft Co.: *See*—
Stanly, Albert L. 2,835,199.

Hull, Hilde V. Throw-and-catch game racquet. 2,835,494, 5–20–58, Cl. 273—96.

Hume, Horace D.: *See*—
Scheidenhelm, Earl L. 2,835,098.

Humphries, Fannie H.: *See*—
Humphries, William N. and F. H. 2,835,503.

Humphries, William N. and F. H. Garden tool cart. 2,835,503, 5–20–58, Cl. 280—47.19.

Hunt, John O., deceased; Y. B. Hunt and P. E. Bruchon, executors, to Y. B. Hunt. Loom frames. 2,835,276. 5–20–58, Cl. 139—1.

Hunt, Yvonne B.: *See*—
Hunt, John O. 2,835,276.

Huso, Hilbert L., to General Mills, Inc. Component forming and inserting machine. 2,834,964, 5–20–58, Cl. 1—2.

I-T-E Circuit-Breaker Co.: *See*—
Foti, Arem. 2,835,770.
Frank, William H., Platz, and Messing. 2,835,765.

Ideal Toy Corp.: *See*—
Weih, Julius. 2,835,075.
Weih, Julius. 2,835,076.

Imperial Chemical Industries Ltd.: *See*—
Dowden, Dennis A., Johnson, and Vincent. 2,835,637.
Lamb, Sidney A., and Ward. 2,835,705.

Indyke, Paul: *See*—
Landers, Robert E., Moldovan, and Indyke. 2,835,056.

Ingersoll-Rand Co.: *See*—
McGahan, Wallace A. 2,835,514.
Naab, Julius. 2,835,518.

Instant Milk Co.: *See*—
Peebles, David D. 2,835,586.

International Business Machines Corp.: *See*—
Bland, George F. 2,835,845.
Muffey, Robert V. 2,835,743.

International Nickel Co., Inc., The: *See*—
Millis, Keith D., Gagnebin, and Pilling. 2,835,619.
West, De Witt H., and Simpson. 2,835,557.

International Telephone and Telegraph Corp.: *See*—
Judy, Robert V. 2,835,751.

Ireland, Murray, to McGraw-Edison Co. Power drive for automatic toaster. 2,835,193, 5–20–58, Cl. 99—391.

Isbell, Aubrey D. Fishing reel. 2,835,455, 5–20–58, Cl. 242—84.1.

Isbenjian, Hrant, L. Hase, and D. F. Othmer, to United States of America, Navy. Method of making porous metal molds. 2,835,572, 5–20–58, Cl. 75—200.

Iwao, Junichi, K. Tomino, and M. Kawazu, to Gohei Tanabe & Co., Ltd. Soluble adrenochrome derivatives and process of preparation thereof. 2,835,678, 5–20–58, Cl. 260—319.

J. & G. Development Corp.: *See*—
First, Mervin H., and Milton. 2,835,874.

Jack, Charles E.: *See*—
Williams, Frank J. 2,835,161.

Jackson, John K., to Adolph Gottscho, Inc. Marking apparatus. 2,835,195, 5–20–58, Cl. 101—219.

Jackson, Pearce E. Yarn package fastening and tensioning means for dye spindles. 2,835,124, 5–20–58, Cl. 68—198.

Jackson, Winston J., Jr.: *See*—
Caldwell, John R., and Jackson. 2,835,703.

Jacobs, Edwin N. Combined rack and drier. 2,835,049, 5–20–58, Cl. 34—151.

Janetti, Pierfranco B. Drier for granular materials. 2,835,050, 5–20–58, Cl. 34—173.

Javes, Wilfred. Valve mechanism for controlling the flow of liquids. 2,835,274, 5–20–58, Cl. 137—637.2.

Jelinek, Charles F.: *See*—
Mayhew, Raymond L., and Jelinek. 2,835,635.

Jenkins, Harold L. Valve in head for internal combustion engine. 2,835,242, 5–20–58, Cl. 123—191.

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Jessop Steel Co.: *See*—
Harris, Edward J. 2,835,022.

Jicha, Walter F.: *See*—
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Joeating, Frederick D., to Minneapolis-Honeywell Regulator Co. Air blender for air conditioning having temperature and pressure control. 2,835,449, 5–20–58, Cl. 236—13.

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Johnson, Ervin G. 2,835,863.

Johnson, Ervin G., to Eleanor D. Johnson. Electromagnetronic valve apparatus. 2,835,863, 5–20–58, Cl. 321—38.

Johnson, John P., to Blue Ridge Glass Corp. Folding display device. 2,835,383, 5–20–58, Cl. 206—82.

Johnson, Leslie V.: *See*—
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Johnson, Robert V.: *See*—
Murdoch, Colin D., and Johnson. 2,835,549.

Jones, Robert J., to The Distillers Co. Ltd. Cutting tools incorporating safety devices. 2,835,288, 5–20–58, Cl. 143—159.

Jones, Robert J., R. H. B. Matthews, and J. E. F. Perry, to The Distillers Co. Ltd. Cutting tools incorporating safety devices. 2,835,287, 5–20–58, Cl. 143—159.

Jorgensen, Clarence H., to General Motors Corp. Guide bearing. 2,835,540, 5–20–58, Cl. 308—4.

Jorgensen, Jorgen A., to The Griscom-Russell Co. Tube expander with rotary work engaging members. 2,835,307, 5–20–58, Cl. 153—82.

Joyce, Bradford T., to Electronics Corp. of America. Photocurrent amplifiers. 2,835,825, 5–20–58, Cl. 250—214.

Judy, Robert V., to International Telephone and Telegraph Corp. Automatic routine test apparatus. 2,835,751, 5–20–58, Cl. 179—175.2.

Jupa, Julius A., to Minnesota Mining and Mfg. Co. Injection molding of perfluorochlorocarbon plastics. 2,834,992, 5–20–58, Cl. 18—55.

Kachline, Harold S., to American Machine and Metals, Inc. Gauge and signal combination. 2,835,130, 5–20–58, Cl. 73—389.

Kamlet, Jonas, to The Goodyear Tire & Rubber Co. Process for the manufacture of resorcinol. 2,835,708, 5–20–58, Cl. 260—628.

Kanter, Manuel A., to United States of America, Atomic Energy Commission. Process of preparing uranium-impregnated graphite body. 2,835,608, 5–20–58, Cl. 117—65.

Kaparin, Ernest: *See*—
Kaparin, Otto A. and E. 2,835,257.

Kaparin, Otto A. and E. Covers for smoking pipes. 2,835,257, 5–20–58, 113—176.

Kaplan, David H., to Convertawings, Inc. Control mechanism for a convertible aircraft. 2,835,456, 5–20–58, Cl. 244—7.

Karas, Albert J.: *See*—
Graves, Robert E., Hall, and Karas. 2,835,591.

Karen, H Peter, to Solar Aircraft Co. Variable flameholder for afterburner. 2,835,108, 5–20–58, Cl. 60—39.72.

Karinen, Raymond S., to General Mills, Inc. Adjustable anvil carriage. 2,834,963, 5–20–58, Cl. 1—2.

Karkheck, John: *See*—
Thone, Karl, Olsen, Karkheck, and Samsonsen. 2,835,283.

Karwat, Ernst, to Gesellschaft fur Linde's Eismaschinen Akt. Process for separating a compressed gas mixture. 2,835,115, 5–20–58, Cl. 62—175.5.

Kaufman, Charles W., to Kraft Foods Co. Packaging of marshmallows. 2,835,596, 5–20–58, Cl. 99—180.

Kavanaugh, Joseph G. Railway car with tilting turntable. 2,835,209, 5–20–58, Cl. 105—368.

Kawazu, Mitsutaka: *See*—
Iwao, Junichi, Tomino, and Kawazu. 2,835,678.

Kaye, Emmanuel: *See*—
Arnet, Alfred E. R. 2,835,361.

Kazan, Benjamin, to Whirlpool Corp. Automatic heating and cooling control. 2,835,779, 5–20–58, Cl. 219—20.

Kearney & Trecker Corp.: *See*—
Barker, Orrin W., Saving, and Libby. 2,835,172.

Keathley, Maurice F., Sr., and R. O. Manspeaker. Sheeting apparatus for plastic material. 2,835,212, 5–20–58, Cl. 107—12.

Kelbel, Donald W., to Borg-Warner Corp. Transmission. 2,835,143, 5–20–58, Cl. 74—665.

Keleket X-Ray Corp.: *See*—
Schepker, Paul F. 2,835,824.

Kelleher, Kenneth S.: *See*—
Peeler, George D. M., and Kelleher. 2,835,891.

Keller, Heinz, K. Lampatzer, and R. Brodt, to Parker Rust Proof Co. Solution and method for producing heat resistant electrical insulation coatings on ferrous surfaces. 2,835,618, 5–20–58, Cl. 148—6.16.

Keller Mfg. Co., The: *See*—
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Kelley, Oliver K., G. K. Hause, and B. Heck, to General Motors Corp. Liquid cooled friction brake. 2,835,357, 5–20–58, Cl. 188—264.

Kemp, Jacob D.: *See*—
Langlois, Gordon E., and Kemp. 2,835,716.

Kenco Products Corp.: *See*—
Steele, Vernon P. 2,835,416.

Kieffert, Pierre A., to Etablissements Ed. Jaeger. Electron frequency divider. 2,835,812, 5–20–58, Cl. 250—36.

Kiekhaefer Corp.: *See*—
Dickrell, Kenneth J. 2,835,239.
Hofmann, Alfred L. 2,835,833.

Killian, Stanley C., and N. Polgov, to H. K. Porter Co. Telescopic inspection sections for bus enclosures. 2,835,723, 5–20–58, Cl. 174—85.

Kindelberger, James H., to North American Aviation, Inc. Rocket launcher. 2,835,170, 5–20–58, Cl. 89—1.7.

King, Bernard B. Television tuner with local oscillator variably coupled to mixer through tunable long lines. 2,835,796, 5–20–58, Cl. 250—20.

King Sales & Engineering Co.: *See*—
McGihon, Leonard. 2,835,375.

King-Seeley Corp.: *See*—
Boddy, Leonard. 2,835,885.
Sivacek, Emil E. 2,835,192.

King, William R. Fluid strainers. 2,835,390, 5–20–58, Cl. 210—411.

Kingsbury, Franklin L., to National Lead Co. Method of producing titanium. 2,835,568, 5–20–58, Cl. 75—84.5.

Kiraly, Joseph L. Metered dosage valve. 2,835,417, 5–20–58, Cl. 222—355.

Kirkwood, Loren R.: *See*—
Flood, Robert D., and Kirkwood. 2,835,728.

Kiuttu, Charles: *See*—
Bogdanowski, John W., and Kiuttu. 2,835,886.

Klauk, Walter C., Jr., to United Aircraft Products, Inc. Liquid storage tank for vehicles. 2,835,263, 5–20–58, Cl. 137—45.

Klaybor, Leonard V., to Allegheny Ludlum Steel Corp. Zinc die casting steels. 2,835,570, 5–20–58, Cl. 75—124.

Knechel, William F.: *See*—
Godowsky, Leopold, Weisaberger, and Knechel. 2,835,580.

Koch, Raymond J., to Comptometer Corp. Flash reading indicating means for registers. 2,835,440, 5–20–58, Cl. 235—1.

Kochalski, Horst, to Kurt Körber & Co. K. G. Apparatus for cutting tobacco and similar material. 2,835,297, 5–20–58, Cl. 146—106.

Kohut, John, Jr. Air conditioning apparatus. 2,835,576, 5–20–58, Cl. 257—3.

Kolk, Raymond G. Water control for transplanter. 2,835,419, 5–20–58, Cl. 222—442.

Kollsman, Paul. Method of producing chemical compounds by ion transfer. 2,835,632, 5–20–58, Cl. 204—180.

Kollsman, Paul. Apparatus for producing chemical compounds by ion transfer. 2,835,633, 5–20–58, Cl. 204—301.

Kolner, Samuel J., to Phillips Petroleum Co. Separation by crystallization. 2,835,598, 5–20–58, Cl. 99—205.

Kolodin, Samuel S. Pipe hanger. 2,835,464, 5–20–58, Cl. 248—d2.

Koppel, Harold H., to Bailey Meter Co. Self-balancing potentiometer system. 2,835,855, 5–20–58, Cl. 318—28.

Körber, Kurt, & Co. K. G.: *See*—
Kochalski, Horst. 2,835,297.
Pollmann, Max. 2,835,299.

Kornely, Clarence C. Scaffold clamp. 2,835,538, 5–20–58, Cl. 304—32.

Kosuge, Ichiro, to Toyo Rayon Co., Ltd. Process for producing hollow viscose filaments. 2,835,551, 5–20–58, Cl. 18—54.

Kozu, Yoshiharu: *See*—
Abe, Matazo, Yamano, Kozu, and Kusumoto. 2,835,675.

Kraft Foods Co.: *See*—
Kaufmann, Charles W. 2,835,596.

Kramer, Max J., to Aluminum Co. of America. Directional transductor system. 2,835,827, 5–20–58, Cl. 307—57.

Kraus, Wilhelm: *See*—
Widmer, Gustav, Fatzer, Geigy, Kraus, and Hiestand. 2,835,639.
Widmer, Gustav, Fatzer, Geigy, Krus, and Hiestand. 2,835,641.

Krause, Leonard M.: *See*—
Rogers, Ivor C., and Krause. 2,835,133.

Krawetz, Arthur A.: *See*—
Tovrog, Theodore, and Krawetz. 2,835,477.

Kroemer John H., and D. D. Tilton, to The Standard Register Co. Strip feeding mechanism. 2,835,489, 5–20–58, Cl. 271—2.4.

Kroger, Marlin G., to Motorola, Inc. Amplified automatic gain control for television receiver. 2,835,795, 5–20–58, Cl. 250—20.

Kroh, Else M. E. A. (nee Baehr): *See*—
Bähr, Johannes. 2,835,559.

Kusnery, Charles. Construction of ejector sleeves. 2,834,989, 5–20–58, Cl. 18—42.

Kusumoto Mitsugi: *See*—
Abe, Matazo, Famano, Kozu, and Kusumoto. 2,835,675.

La Belle Industries, Inc.: *See*—
Parmley, John W. 2,835,164.

Ladd, William A., to Columbian Carbon Co. Method of protecting the surfaces of soluble salt crystals. 2,835,606, 5–20–58, Cl. 117—6.

La Londe, Fred J. Pirouette exerciser. 2,835,492, 5–20–58, Cl. 272—57.

Lamb, Sidney A., and S. Ward, to Imperial Chemical Industries Ltd. Production of amines. 2,835,705, 5–20–58, Cl. 260—576.

Lamellin- und Kupplungsbau August Haussermann: *See*—
Haussermann, Kurt A. 2,835,366.

Lampatzer Karl: *See*—
Keller, Heinz, Lampatzer, and Brodt. 2,835,618.

Lamprecht, Merle W., to The Hill-Acme Co. Stock feeding device for forging machine. 2,835,152, 5–20–58, Cl. 78—99.

Land, Edwin H., to Polaroid Corp. Carrying case for photographic apparatus. 2,835,176, 5–20–58, Cl. 95—12.

Landers, Robert E., S. Moldovan, and P. Indyke. Padding for garment pressing machines, home ironers, mangles or the like. 2,835,056, 5–20–58, Cl. 38—66.

Lang, John L. to The Dow Chemical Co. Process for preparing polystyrene block polymers. 2,835,658, 5–20–58, Cl. 260—93.5.

Langdon, William K., to Wyandotte Chemicals Corp. Aqueous feed process for synthesizing carbon-substituted piperazines. 2,835,673, 5–20–58, Cl. 260—268.

Lange, Gunther, to Carl Zeiss. Interchangeable lens system for photographic purposes. 2,835,168, 5–20–58, Cl. 88—57.

Langlois, Gordon E., and J. D. Kemp, to California Research Corp. Polymerization process employing a liquid phosphoric and catalyst. 2,835,716, 5–20–58, Cl. 260—683.15.

Langton, William G., to United States of America, Navy. Wire rolling apparatus. 2,835,153, 5–20–58, Cl. 80—19.

Laporte, Marcel, to Centre National de la Recherche Scientifique. Resonance lamps for very low voltages. 2,835,840, 5–20–58, Cl. 313—109.

Lappin, Gerald R., and L. D. Moore, Jr., to Eastman Kodak Co. Linear polyester compositions containing a gentisic acid derivative as a heat stabilizer. 2,835,648, 5–20–58, Cl. 260—45.9.

La Precision Industrielle (Societe Anonyme): *See*—
Gamet, Louis J. M. 2,835,227.

Laster, Richard: *See*—
Alexander Henry B., and Laster. 2,835,588.

Latham, Howard M. Artificial fish lures. 2,835,068, 5–20–58 Cl. 43—42.16.

Lathrop, Elbert C.: *See*—
Aronovsky, Samuel I., and Lathrop. 2,835,574.

Latzke, Benjamin C. Trailer for transporting boats, etc. 2,835,400, 5–20–58 Cl. 214—506.

Laubach, Gerald D.: *See*—
Agnello, Eugene J., Bloom, and Laubach. 2,835,683.
Agnello, Eugene J., Bloom, and Laubach. 2,835,684.

Laucius, Joseph F., and R. A. Pearson, to E. I. du Pont de Nemours and Co. Process of dyeing wool. 2,835,550, 5–20–58, Cl. 8—43.

Lauck, Francis W., to A. O. Smith Corp. Vortex pump. 2,835,202, 5–20–58, Cl. 103—101.

Launder, Ernie L., A. W. Loudon, and M. Frederick, Jr., to H. & L. Tooth Co. Work fabricating machine. 2,835,786, 5–20–58, Cl. 219—124.

Lea, Henry V.: *See*—
Rogers, Robert E. Lea and Hill. 2,835,256.

Leatherman, Earl W. Cooling system. 2,835,184, 5–20–58, Cl. 98—30.

Leatherman, Earl W. Cooling system. 2,835,185, 5–20–58, Cl. 98—30

Leathers, Chester F., to Progressive Welder Sales Co. Electrical welding cable. 2,835,721, 5–20–58, Cl. 174—15.

Leathley Publications Ltd.: *See*—
Moog, Henry C. 2,834,985.

Lee, De Wayne A.: *See*—
Clewett Glenford H., Lee, and Schaap. 2,835,687.

Lee, Walter J., to The Goodyear Tire & Rubber Co. Tubeless tire valve. 2,835,304, 5–20–58, Cl. 152—427.

Leinfelder, Bernhard A., Jr., and L. D. Favro, to Clevite Corp. Method of producing a semiconductor alloy junction. 2,835,615, 5–20–58, Cl. 148—1.5.

Le Suer, William M., to The Lubrizol Corp. Preparation of fluid polyvalent metal phenates. 2,835,688, 5–20–58, Cl. 260—429.9.

Les Laboratoires Francais de Chimiotherapie: *See*—
Allais, André, and Hoffmann. 2,835,681.

Lever Brothers Co.: *See*—
Grant, Gary G. 2,835,091.

Levy, Marilyn, to United States of America, Army. Photosensitive system. 2,835,577, 5–20–58, Cl. 96—50.

Lewis, Walter E., to General Electric Co. Multiple pushbutton switch with torsion spring contacts. 2,835,754, 5–20–58, Cl. 200—5.

Lewis, Walter E., Jr., to General Electric Co. Multiple pushbutton switch with snap action springs. 2,835,753, 5–20–58, Cl. 200—5.

Libby, Lloyd D.: *See*—
Barker, Orrin W., Saving, and Libby. 2,835,172.

Lichtman, Samuel W., and D. G. Mazur. Pulse multiplex communication system. 2,835,883, 5–20–58, Cl. 340—183.

Lily, Ell, and Co.: *See*—
Conine, James W. and Zuck. 2,835,627.

Lindesmith John L., to Clary Corp. Voltage to digital measuring circuit. 2,835,868, 5–20–58, Cl. 324—111.

Lindsay, Wesley N., to Food Machinery and Chemical Corp. Apparatus for heating fluids. 2,835,483, 5–20–58, Cl. 263—41.

Link Aviation, Inc.: *See*—
Stephens, Richard G. 2,835,445.

Link-Belt Co.: *See*—
Hey, Charles F., and Richards. 2,835,138.

Liquid Controls Corp.: *See*—
Richards, George B. 2,835,204.
Richards, George B. 2,835,229.

Little, Arthur D., Inc.: *See*—
Parker, Rienzi B., Jr. 2,835,341.

Lo, Chien-Pen. and W E Craig, to Rohm & Haas Co. Isopropoxycarbonyl dimethyldithiocarbamate. 2,835,625, 5–20–58, Cl. 167—22.

Lockheed Aircraft Corp.: *See*—
Foster, Curtis W. 2,835,142.
Stewart, Charles D. 2,835,459.

Loebel, Frederick A.: *See*—
Cleaver, John C., Loebel, and Horvath. 2,835,230.

Lohr, Raymond J., and D. Sakuta, to Louis Marx & Co., Inc. Toy shooting range. 2,835,495, 5–20–58, Cl. 273—101.

Long, Spencer W., to The National Supply Co. Overrunning clutch. 2,835,363, 5–20–58, Cl. 192—45.

Longmire, Gordon L., B. E. Bailey, and M. S. Schlegel. Oscillating wheel dresser for resistance type welders. 2,835,086, 5–20–58, Cl. 51—241.

Longwell, John P., to United States of America, Navy. Igniter for ram-jet. 2,835,109, 5–20–58, Cl. 60—38.72.

Losey, Arthur M.: *See*—
Ryan, James V., Bastedo, Strong, and Losey. 2,835,331.

Loudon, Allen W.: *See*—
Launder, Ernie L., Loudon, and Frederick. 2,835,786.

Lowther, Wilfred W., to United Specialties Co. Liquid bath air cleaner. 2,835,338 5–20–58, Cl. 183—15.

Luhkin, Samuel to Underwood Corp. Timing device. 2,835,807, 5–20–58 Cl. 250—27.

Lubrizol Corp. The: *See*—
Le Suer, William M. 2,835,688.

Lusum, Hubert J. Form carrier and form skeleton constructed therewith. 2,835,358, 5–20–58, Cl. 189—36.

Luther, Arch C., Jr., to Radio Corp. of America. Wave generating systems. 2,835,804, 5–20–58, Cl. 250—27.

Lutrario, Raymond G., to Uncas Mfg. Co. Gem setting with gem biased ornamental saddle member. 2,835,117, 5–20–58, Cl. 63—27.

Lynn, Seymour: *See*—
Hermeling, Gilbert C., Jr., and Lynn. 2,835,798.

Lyon, George A. Rotary magazine gun. 2,835,171, 5–20–58, Cl. 89—13.

Lyster, Thomas C.: *See*—
Wiesinger, Frederick C., and Lyster. 2,835,119.

Maatschapolj voor Kolenbewerking Stamicarbon N. V.: *See*—
Fontein, Freerk J. 2,835,387.

MacDougall, Kirkland B. Slack take-up mechanism. 2,835,354, 5–28–58 Cl. 188—196.

Mackey, Bruce A. Boring tool. 2,835,293, 5–20–58, Cl. 145—126.

Maclary, Fletcher J.: *See*—
Dyer, Franklin C., and Maclary. 2,835,889.

Magerlein, Barney J., and J. A. Hogg, to The Upjohn Co. 9//10-secosteroids and process for their preparation. 2,835,698, 5–20–58. Cl. 260—476.

Maggiore, Louis. Coffee brewing package. 2,835,587, 5–20–58, Cl. 99—77.1.

Magnuson, Genevieve I.: *See*—
Magnuson, Roy M. 2,835,295.

Magnuson, Roy M., deceased; G. I. Magnuson, executrix. Stemming apparatus. 2,835,295, 5–20–58, Cl. 146—55.

Malxner, Marion G. Service tray for automobiles or the like. 2,835,543, 5–20–58, Cl. 311—21.

Majewski, John V., to McGraw-Edison Co. Connector and joint for spar type timber construction. 2,835,002, 5–20–58, Cl. 20—92.

Malcolm, George S., to Talon, Inc. Cam lock slider. 2,835,011, 5–20–58, Cl. 24—205.14.

Malm, Carl J., L. J. Tanghe, and L. W. Blanchard, Jr., to Eastman Kodak Co. Manufacture of butyric acid esters of cellulose using a sulfuric acid catalyst. 2,835,665, 5–20–58, Cl. 260—227.

Maltais, Frederick J.: *See*—
May, Edwin A., and Maltais. 2,835,377.

Manetti, Mario J. Dispensing container. 2,835,418, 5–20–58, Cl. 222—394.

Mann, Hans-Joachim, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the production of pentaerythritol trichlorohydrin. 2,835,709, 5–20–58, Cl. 260—633.

Mann, John, and A. F. Hancy, to Goulds Pumps, Inc. Air charging system for submersible pumps. 2,835,200, 5–20–58, Cl. 103—6.

Mannesmann Aktiengesellschaft: *See*—
Scholten, Karl E. 2,835,275.

Manspeaker, Robert O.: *See*—
Keathley, Maurice F., Sr., and Manspeaker. 2,835,212.

Manting, Jack F., to Hanchett Magna-Lock Corp. Magnetic dial feeder. 2,835,085, 5–20–58, Cl. 51—215.

Marchese, Frank J. Waistband stretcher. 2,835,421, 5–20–58, Cl. 223—61.

Marceaux, Arthur, to Douglas Aircraft Co., Inc. Multiple rivet setting tool. 2,835,150, 5–20–58, Cl. 78—49.

Margot, Alfred, and H. Gysin, to J. R. Geigy, A.-G. Process for the production of new pyridazine derivatives and their use as fungicides. 2,835,626, 5–20–58, Cl. 167—33.

Markow, George R., to Bailey Meter Co. Telemetering system. 2,835,884, 5–20–58, Cl. 340—183.

Markstone Mfg. Co.: *See*—
Horwitz, Marvin A. 2,835,791.

Marshall, Serto & Co.: *See*—
Serto, Ferdinand N. 2,835,522.

Martin, Henry J. Knockdown rotary kite. 2,835,462, 5–20–58, Cl. 244—153.

Martin, Robert J. Detachable heel plate or cover. 2,835,054, 5–20–58, Cl. 36—72.

Martindale, James H., to The Black-Clawson Co. Paper machinery. 2,835,173, 5–20–58, Cl. 92—34.

Marx, Louis, & Co., Inc.: *See*—
Lohr, Raymond J., and Sakuta. 2,835,495.

Marzluff, William F.: *See*—
Boatright, Leslie G., and Marzluff. 2,835,556.

Marzolf Mfg. Co.: *See*—
Marzolf, Norbert F. 2,835,386.

Marzolf, Norbert F., to Marzolf Mfg. Co. Egg grader. 2,835,386, 5–20–58, Cl. 209—121.

Massey-Harris-Ferguson Inc.: *See*—
Collins, Stanley H. 2,835,298.

Massey-Harris-Ferguson Ltd.: *See*—
Rogers, Ivor C., and Krause. 2,835,133.

Mathews, Geraldine P. Tag for tea bags and the like. 2,835,057, 5–20–58, Cl. 40—2.

Matson, Beatrice E.: *See*—
Felt, Clarence E., and Matson. 2,835,594.

Matthews, Ralph W. Louver construction. 2,835,001, 5–20–58, Cl. 20—63.

Matthews, Robert H. B.: *See*—
Jones, Robert J., Matthews, and Perry. 2,835,287.

Mauchel, Sydney B., ½ to J. B. McFadyen. Monitor apparatus for blood transfusions. 2,835,252, 5–20–58, Cl. 128—214.

Maurer, James I., to Parker Rust Proof Co. Composition and method for coating metallic surfaces. 2,835,617, 5–20–58, Cl. 148—6.15.

May, Edwin A., and F. J. Maltais, to Becton Dickinson and Co. Sterile hypodermic needle and syringe holder. 2,835,377, 5–20–58, Cl. 206—17.5.

Mayhew, Raymond L., and C. F. Jelinek, to General Aniline & Film Corp. Corrosion inhibiting compositions. 2,835,635, 5–20–58, Cl. 252—57.

Mazur, Daniel G.: *See*—
Lichtman, Samuel W., and Mazur. 2,835,883.

McBride, William J., Jr., to The Regents of the University of California. Electron beam deflection tube. 2,835,844, 5–20–58, Cl. 315—5.27.

McCallister, Edward S., to North American Philips Co., Inc. A. C.-mains-operated high-gain low frequency electronic amplifiers. 2,835,865, 5–20–58, Cl. 323—45.

McCarthy, Harry E., and W. Pruente, to The McKay Co. Sling chain shackle. 2,835,528, 5–20–58, Cl. 294—74.

McClellan, Marcus E., to Deere Mfg. Co. Reciprocating auger feeder for balers. 2,835,100, 5–20–58, Cl. 56—341.

McClure, Arthur W., to Cleaver-Brooks Co. Fan structure. 2,835,320, 5–20–58, Cl. 158—2.

McCormack, William H., to The Garrett Corp. Feedback amplifiers. 2,835,749, 5–20–58, Cl. 179—171.

McCormick & Co., Inc.: *See*—
Graves, Robert E., Hall, and Karas. 2,835,591.

McCulloch Motors Corp.: *See*—
Oehrli, John W. 2,835,238.

McDavitt, Murray: *See*—
Vincent, Harvard B., and McDavitt. 2,835,623.

McDonald, Frank A. Manifold valve with selective by-pass rotor. 2,835,273, 5–20–58, Cl. 137—625.11.

McDonald, James. Speaker unit. 2,835,334, 5–20–58, Cl. 181—31.

McFadyen, James B.: *See*—
Manchel, Sydney B. 2,835,252.

McGahan, Wallace A., to Ingersoll-Rand Co. Rotary shaft seal. 2,835,514, 5–20–58, Cl. 286—9.

McGihon, Leonard, to King Sales & Engineering Co. Distributor mechanism with carrier plates. 2,835,375, 5–20–58, Cl. 198—31.

McGinnis, William J., to United States of America, Atomic Energy Commission. Solvent extraction process for the recovery of uranium values from aqueous solutions. 2,835,552, 5–20–58, Cl. 23—14.5.

McGraw-Edison Co.: *See*—
Earle, Ralph H. 2,835,764.
Ireland, Murray. 2,835,193.
Majewski, John V. 2,835,002.
Mittelstadt, Walter E. 2,835,768.
Van Ryan, Anthony, and Date. 2,835,763.

McGuff, Thomas J., and A. E. Reinhardt, to United Aircraft Corp. Moisture separator. 2,835,340, 5–20–58, Cl. 183—65.

McKay Co., The: *See*—
McCarthy, Harry E., and Pruente. 2,835,528.

McKay, John F.: *See*—
Nelson, Joseph F., and McKay. 2,835,644.
Nelson, Joseph F., and McKay. 2,835,650.

McLean, Lyle G. Constant current air stratifier. 2,835,388, 5–20–58, Cl. 209—474.

McMann, Renville H., Jr., and K. D. Erhardt, to Radio Corp. of America. Automatic balancing of color subcarrier balanced modulator. 2,835,730, 5–20–58, Cl. 178—5.4.

McNutt, John W., to United States Steel Corp. Apparatus for charging and testing batteries. 2,835,862, 5–20–58, Cl. 320—14.

Medart Lockers, Inc.: *See*—
Chervenka, George R. 2,835,523.

Mellinger, Jacob W. Water injection systems for internal combustion engines. 2,835,233, 5–20–58, Cl. 123—25.

Merck & Co., Inc.: *See*—
Schultz, Everett M. 2,835,702.
Sprague, James M., and Schultz. 2,835,676.
Walton, Edward. 2,835,704.

Messing, Joseph A.: *See*—
Frank, William H., Platz, and Messing. 2,835,765.

Metalcraft Mfg. & Sales Corp.: *See*—
Gilbert, Frank H., and Booher. 2,835,405.

Metcalf, Harold F., and G. C. Whitnack. Electro-chemical preparation of nitrosoguanidine. 2,835,631, 5–20–58, Cl. 204—74.

Meyer, Arthur A.: *See*—
Decker, Andrew H., and Meyer. 2,835,864.

Meyers, Roy J. Merry-go-round. 2,835,491, 5–20–58, Cl. 272—30.

Michigan Magnetics, Inc.: *See*—
Moehring, William D., and Murphy. 2,835,742.

Middents, John R. Adjustable T-square head for mat cutters and similar devices. 2,835,037, 5–20–58, Cl. 33—76.

Miers, Richard E. P., to Pullman (Patent) Products Ltd. Apparatus for assembling spring upholstery units. 2,835,280, 5–20–58, Cl. 140—3.

Miers, Richard E. P., to Pullman (Patent) Products Ltd. Production of spring interiors for mattresses and the like. 2,835,281, 5–20–58, Cl. 140—3.

Mihalyi, Joseph, to Eastman Kodak Co. Magazine-loading flash holder. 2,835,787, 5–20–58, Cl. 240—1.3.

Miles, Francis H., Jr.: *See*—
Ackermann, Edward L., Buck, Miles, and Will. 2,835,381.

Miller, Donald D., and G. H. Wolf, to General Motors Corp. Vehicle air circulating system. 2,835,183, 5–20–58, Cl. 98—2.

Miller, Elmer C., to Phillips Petroleum Co. Infrared analyzer and process control. 2,835,116, 5–20–58 Cl. 62—175.5.

Millis, Keith D., A. P. Gagnebin, and N. B. Pilling, to The International Nickel Co., Inc. Method of heat treating cast iron. 2,835,619, 5–20–58, Cl. 148—21.7.

Millis, Walter T., to General Electric Co. Tube mount support. 2,835,843, 5–20–58, Cl. 313—292.
Mills, Calvin G. K. Helicopter. 2,835,457, 5–20–58. Cl. 244—17.19.
Milne, James M., and H. N. Schneider, to General Electric Co. Electric circuit breaker. 2,835,769, 5–20–58, Cl. 200—150.
Milton, Leonard: *See*—
First, Mervin H., and Milton. 2,835,874.
Mine Safety Appliances Co.: *See*—
Austin, Harry W. 2,835,250.
Minneapolis-Honeywell Regulator Co.: *See*—
Eckhardt, Homer D. 2,835,861.
Joesting, Frederick D. 2,835,449.
Parnell, John. 2,835,442.
Saari, Paul A. 2,835,026.
Minnesota Mining and Mfg. Co.: *See*—
Dipner, Charles D. 2,834,993.
Jupa, Julius A. 2,834,992.
Mittelstadt, Walter E., to McGraw-Edison Co. 2,835,768, 5–20–58, Cl. 200—146.
Mittlesteadt, Glen L., to Herter's, Inc. Goose calls. 2,835,077, 5–20–58, Cl. 46—180.
Mixermobile Manufacturers, Inc.: *See*—
Wagner, Eddie B. 2,835,397.
Moehring, William D., and C. F. Murphy, to Michigan Magnetics, Inc. Magnetic head for recorder and reproducer. 2,835,742, 5–20–58, Cl. 179—100.2.
Moeller, Bernhard V.: *See*—
Swinehart, Richard W., Weaver, Savage, and Moeller. 2,835,603.
Moen, Carl J., to Electro Voice, Inc. Anti-shock transducer. 2,835,735, 5–20–58, Cl. 179—1.
Moldovan, Sol: *See*—
Landers, Robert E., Moldovan, and Indyke. 2,835,056.
Molinaro, John M.: *See*—
Taormina, Frant T., and Molinaro. 2,835,324.
Monnet, Pierre. Terrestrial or hydraulic construction constituted by apertured elements. 2,835,112, 5–20–58, Cl. 61—3.
Montgomery Elevator Co.: *See*—
Beck, Walter. 2,835,345.
Montgomery, Orin C. to Phillips Petroleum Co. Amplifier with automatic volume control. 2,835,746, 5–20–58, Cl. 179—171.
Moog, Henry C., to Leathley Publications Ltd. Manufacture of printing forms. 2,834,985, 5–20–58, Cl. 18—19.
Moore, Harry W.: *See*—
Biddison, John M. 2,835,372.
Moore, Louis D., Jr.: *See*—
Lappin, Gerald R., and Moore. 2,835,648.
Morel, Roger, to Societe Anonyme de Machines Electrostatiques. High voltage ignition system. 2,835,850, 5–20–58, Cl. 315—180.
Morgan, Clyde A. Heated fishing rod handle. 2,835,245, 5–20–58, Cl. 126—208.
Morgan Construction Co.: *See*—
O'Malley, Joseph M. 2,835,021.
Morin, Louis H. Method of and apparatus for casting, trimming and internally threading a product. 2,834,972, 5–20–58, Cl. 10—86.
Morris, Donald C., to Western Electric Co., Inc. Mold for 47-type connector block bodies. 2,834,988, 5–20–58, Cl. 18—42.
Morrison, Charles S., to Deere & Co. Reciprocating auger feeder for balers. 2,835,101, 5–20–58, Cl. 56—34.
Morrison, Wendell C., to Radio Corp. of America. Television transmitter with improved amplitude linearity. 2,835,869, 5–20–58, Cl. 332—37.
Morte, George W., to Vickers Inc. Power transmission. 2,835,266, 5–20–58, Cl. 137—108.
Moseley, F. L., Co.: *See*—
Moseley, Francis L. 2,835,856.
Moseley, Francis L. 2,835,858.
Moseley, Francis L., to F. L. Moseley Co. Servo system input and balancing circuit. 2,835,856, 5–20–58, Cl. 318—28.
Moseley, Francis L., to F. L. Moseley Co. Curve or line follower apparatus. 2,835,858, 5–20–58, Cl. 318—31.
Moses, Harry C., and R. S. Raven, to United States of America, Navy. Limited output range servosystem. 2,835,857, 5–20–58, Cl. 318—30.
Moss, Norman: *See*—
Trowbridge, David R., and Moss. 2,835,470.
Motorola, Inc.: *See*—
Doremus, John A. 2,835,794.
Kroger, Marlin G. 2,835,795.
Taylor, William E. 2,835,612.
Muffley, Robert V., to International Business Machines Corp. Magnetic transducer assembly. 2,835,743, 5–20–58, Cl. 179—100.2.
Mullinix, Charles D. Packaging means. 2,835,435, 5–20–58, Cl. 229—87.
Murdoch, Colin D., and R. V. Johnson; said Johnson assor. to said Murdoch. Graphical recording apparatus. 2,835,549, 5–20–58, Cl. 346—32.
Murphy, Charles F.: *See*—
Moehring, William D., and Murphy. 2,835,742.
Murray, Maxton F., to The Upjohn Co. Salicyclic acid β-cyclopentylproplonate. 2,835,697, 5–20–58, Cl. 260—468.
N. V. Briko: *See*—
Dohmen, Heinrich. 2,835,563.
N. V. Eldka: *See*—
Dohmen, Heinrich. 2,835,610.
N. V. Hollandsche Draad-En Kabelfabriek: *See*—
Divendal, Albertus. 2,835,790.
Naab, Julius, to Ingersoll-Rand Co. Rotary shaft driving connection. 2,835,518, 5–20–58, Cl. 287—52.06.
Nachtrab, Bernard: *See*—
Terry, Ray A. 2,835,426.
Nadeau, Gale F.: *See*—
Starck, Clemens B., Nadeau, and Smith. 2,835,609.
Nappe, Moritz. Sealed pad. 2,834,970, 5–20–58, Cl. 5—344.
National Dairy Products Corp.: *See*—
Hayhurst, Lewis J., and Coffey. 2,835,326.
National Lead Co.: *See*—
Kingsbury, Franklin L. 2,835,568.
National Malleable and Steel Castings Co.: *See*—
Woody, Fred C. 2,835,485.
National Supply Co., The: *See*—
Long, Spencer W. 2,835,363.
Picard, John B. 2,835,364.
Naviski, Justin J.: *See*—
Vradenburgh, Robert, and Naviski. 2,835,866.
Neely, William H., to The Universal Wire Spring Co. Wire spring structure. 2,835,312, 5–20–58, Cl. 155—179.
Neely, William H., to The Universal Wire Spring Co. Wire spring structure. 2,835,314, 5–20–58, Cl. 155—179.
Neely, William H., to The Universal Wire Spring Co. Wire spring structure. 2,835,315, 5–20–58, Cl. 155—179.
Neely, William H., to The Universal Wire Spring Co. Wire spring structure. 2,835,316, 5–20–58, Cl. 155—179.
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Nelson, Joseph F., and B. I. Smith, to Esso Research and Engineering Co. Method of making electrodes from fluid coke blends. 2,835,605, 5–20–58, Cl. 106—284.
Nelson, Joseph F., and J. F. McKay, to Esso Research and Engineering Co. Polyisobutylene-petroleum resin compositions. 2,835,644, 5–20–58, Cl. 260—45.5.
Nelson, Joseph F., and J. F. McKay, to Esso Research and Engineering Co. Hydrocarbon resins odor stabilized with an alkyl-alkoxy monophenol. 2,835,650, 5–20–58, Cl. 260—45.95.
Nenbaier, Edward: *See*—
Seller, William. 2,835,030.
Newberry, Joseph C. Manually operated boat propulsion means. 2,835,217, 5–20–58, Cl. 115—24.
Newkirk, Oliver R.: *See*—
Higgins, John E., and Newkirk. 2,835,583.
Newman, Leslie. Adjustable dry-feed hopper and trough. 2,835,224, 5–20–58, Cl. 119—55.
Nicholas, James H., to G & W Electric Specialty Co. High voltage electric terminator. 2,835,725, 5–20–58, Cl. 174—142.
Nicholson, Albright M., and S. B. Elliott, to Ferro Chemical Corp. Stabilization of an unsaturated polyester with a mixture comprising resorcinol monobenzoate and a mono or dihydroxy benzophenone. 2,835,649, 5–20–58, Cl. 260—45.85.
Nienhuis, Willem F.: *See*—
De Gier, Johannes, Niklas, Van Rooy, and Nienhuis. 2,835,838.
Niklas, Wilfrid F. K. J.: *See*—
De Gier, Johannes, Niklas, Van Rooy, and Nienhuis. 2,835,838.
Nixon, Alan C., C. H. Deal, Jr., and R. A. Wilson, to Shell Development Co. Separation of organic compounds. 2,835,714, 5–20–58, Cl. 260—674.
Noel, George F. Means for cold permanent waving of hair. 2,835,258, 5–20–58, Cl. 132—33.
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Bloom, Albert, Freyermuth, and Normington. 2,835,692.
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North American Philips Co., Inc.: *See*—
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Boutry, Georges A., and Pietri. 2,835,835.
Bruyning, Hugo G. 2,835,811.
Chwen, Johannes M. 2,835,747.
De Gier, Johannes, Niklas, Van Rooy, and Nienhuis. 2,835,838.
Ensink, Johannes. 2,835,739.
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Evertsz, Hendrik C. B. 2,835,792.
Fransen, Jacobus. 2,835,823.
Haayman, Pieter W. 2,835,613.
Heetman, Alphonsus. 2,835,740.
McCallister, Edward S. 2,835,865.
Posthumus, Klaas. 2,835,805.
Roovers, Wilhelmus A., and Van Steenis. 2,835,853.
Verster, Nico F. 2,835,806.
Volkers, Hendrik, and Rosier. 2,835,750.
Wijtsma, Jan. 2,835,813.
Witteveen, Herman A. 2,835,842.
Northwestern National Bank of Minneapolis: *See*—
Graham, Maurice H. 2,835,188.
Graham, Maurice H. 2,835,190.
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Green, Clarence J. 2,835,082.
Norton, James A., to General Motors Corp. Apparatus for fabrication of perforated tubes. 2,834,983, 5–20–58, Cl. 18—14.
O & S Research, Inc.: *See*—
Bilker, Stanley, and Barton. 2,835,169.
Oak Mfg. Co.: *See*—
Selbmann, Rudolf W., Tucci, and Piwinski. 2,835,818.
Oberthur, Heinrich, to Alfred Teves Maschinen- und Armaturenfabrik K. G. Pressure regulator. 2,835,271, 5–20–58, Cl. 137—505.13.
O'Connor, Thomas J., and W. J. Sullivan, to Unexcelled Die & Supply Co. Drill attachment. 2,835,474, 5–20–58, Cl. 255—37.
Odrill, John W., to McCulloch Motors Co. Supercharger system for internal combustion engines. 2,2,835,238, 5–20–58, Cl. 123—119.
Olshei, John R., to Trico Products Corp. Windshield wiper. 2,834,976, 5–20–58, Cl. 15—245.

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Deremer, Floyd E. 2,835,336.
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Strandine, Eldon J., Connick, and Oldenburg. 2,834,994.
Olin Mathieson Chemical Corp.: *See*—
Fried, Josef. 2,835,680.
Pauls, Theron F. 2,835,025.
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Oliveau, John V., to The Aerotec Corp. Disconnects for electric circuits and air and oxygen supply conduits. 2,835,251, 5–20–58, Cl. 128—142.
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Olthuis, Eugene G., and R. L. Dunkelman, to General Electric Co. Basket supporting and sealing arrangement for clothes dryers. 2,835,048, 5–20–58, Cl. 34—132.
O'Malley, Joseph M., to Morgan Construction Co. Roll stand lock. 2,835,021, 5–20–58, Cl. 29—1.
O'Neill, William: *See*—
Ralch, Walter L., Garrity, and O'Neill. 2,835,052.
Osborn, John D. Horizontal boring machine. 2,835,472, 5–20–58, Cl. 255—20.
Oswalt, Burlin W. Hydraulic brake adjuster. 2,835,111, 5–20–58, Cl. 60—54.5.
Otani, Kokichi. Method of casting composite roll. 2,835,008, 5–20–58, Cl. 22—201.
Othmer, Donald F.: *See*—
Isbenjian, Hrant, Hase, and Othmer. 2,835,572.
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Davies, Robert H. 2,835,507.
Overhead Door Corp.: *See*—
Delaney, Charles E. 2,835,860.
Owens-Corning Fiberglas Corp.: *See*—
Slayter, Games, and De Piolenc. 2,835,221.
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Vincent, Harvard B., and McDavitt. 2,835,623.
Padrone, Anthony V.: *See*—
Chellemi, James, and Padrone. 2,835,757.
Page, Joseph F., Jr., to American Radiator & Standard Sanitary Corp. Heating system and blower control means therefor. 2,835,448, 5–20–58, Cl. 236—9.
Paolella, Alfred, to Plasticrete Corp. Building walls. 2,835,126, 5–20–58, Cl. 72—32.
Pardee, William A., to Gulf Research & Development Co. Utilization of anhydrous aluminum chloride sludge. 2,835,554. 5–20–58, Cl. 23—93.
Parker, Rienzi B., Jr., to Arthur D. Little, Inc. Filter construction. 2,835,341, 5–20–58, Cl. 183—69.
Parker Rust Proof Co.: *See*—
Keller, Heinz, Lampatzer, and Brodt. 2,835,618.
Maurer, James I. 2,835,617.
Rausch, Werner, Gonnert, and Brodt. 2,835,616.
Parmley, John W., to La Belle Industries, Inc. Focusing lens mount. 2,835,164, 5–20–58, Cl. 88—24.
Parnell, John, to Minneapolis-Honeywell Regulator Co. Electrical apparatus. 2,835,442, 5–20–58, Cl. 235—61.
Parr, James R., and E. L. Shaw, to American Brake Shoe Co. Pressure compensator for variable volume pumps. 2,835,228, 5–20–58, Cl. 121—41.
Partridge, Donald E., to United Export Packers, Inc. Insect electrocutor. 2,835,071, 5–20–58, Cl. 43—112.
Patterson, Roger W., to United States of America, Navy. Resistor mounting brackets. 2,835,465, 5–20–58, Cl. 248—201.
Pauls, Theron F., to Olin Mathieson Chemical Corp. Sheet metal making. 2,835,025, 5–20–58, Cl. 29—157.3.
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Laucins, Joseph F., and Pearson. 2,835,550.
Pearson, William S. Means for angularly joining rigid metal tubing including a flat key element. 2,835,513, 5–20–58, Cl. 285—222.
Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques: *See*—
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Peebles, David D., to Instant Milk Co. Dried milk product and method of making same. 2,835,586, 5–20–58, Cl. 99—56.
Peeler, George D. M., and K. S. Kelleher, to United States of America, Navy. Virtual image Luneberg lens. 2,835,891, 5–20–58, Cl. 343—754.
Pellaton, Ernest C., to Fibreboard Paper Products Corp. Collapsible container for bakery goods and the like. 2,835,429, 5–20–58, Cl. 229—30.
Pemco Corp.: *See*—
Turk, Karl. 2,835,601.
Penn Controls Inc.: *See*—
Few, William. 2,835,766.
Peresenyi, Lonis P. Football yardage telescope. 2,835,036, 5–20–58, Cl. 33—46.
Perez, William. Thermal pins. 2,835,480, 5–20–58, Cl. 247—263.
Perieres, René, and L. Ruelle, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Aluminum manufacture. 2,835,566, 5–20–58, Cl. 75—68.
Perrin, Everett C. Tape rule and extension. 2,835,038, 5–20–58, Cl. 33—138.
Perruca, Felix, to Societe des Fabrications Unicum. Friction-drive speed regulators. 2,835,134, 5–20–58, Cl. 74—208.
Perry, Edward G., to Texas Instruments Inc. Reduction of hysteresis in magnetic clutches. 2,835,362, 5–20–58, Cl. 192—21.5.
Perry, John E. F.: *See*—
Jones, Robert J., Matthews, and Perry. 2,835,287.
Perwas, Ludwig F. Pocket toothbrush with removable brush head. 2,834,975, 5–20–58, Cl. 15—176.
Peterson, Elmer R., to The Singer Mfg. Co. Sewing machine cabinets. 2,835,545, 5–20–58, Cl. 312—21.
Pettibone, Raymond B., to Vickers Inc. Power transmission. 2,835,201, 5–20–58, Cl. 103—42.
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Agnello, Eugene J., Bloom, and Laubach. 2,835,683.
Agnello, Eugene J., Bloom, and Laubach. 2,835,684.
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Shoemaker, Malcolm G., and Goff. 2,835,114.
Phillips, Hyman, to Oscar Phillips Co. Fluorescent island light fixture. 2,835,788, 5–20–58, Cl. 204—3.
Phillips, Orville E. Paper clip dispenser. 2,835,027, 5–20–58, Cl. 29—211.
Phillips, Oscar, Co.: *See*—
Phillips, Hyman. 2,835,788.
Phillips Petroleum Co.: *See*—
Boyer, Lyndon D., and Wood. 2,835,562.
Goodhue, Lyle D., and Stansbury. 2,835,565.
Kolner, Samuel J. 2,835,598.
Miller, Elmer C. 2,835,116.
Montgomery, Orin C. 2,835,746.
Tiede, Raymond A. 2,835,715.
Picard, John B., to The National Supply Co. Overrunning clutch. 2,835,364, 5–20–58, Cl. 192—45.
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Schiring Ralph C., and Bastin. 2,835,520.
Pierce, John R., to Bell Telephone Laboratories, Inc. Interstage coupling network. 2,835,872, 5–20–58, Cl. 333—32.
Pierce, Norton T., to Polaroid Corp. Photomicrographic apparatus. 2,835,167, 5–20–58, Cl. 88—40.
Pierce Paul W. Fishing pole carrier for automobiles. 2,835,424, 5–20–58, Cl. 224—42.03.
Pietri, Georges: *See*—
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Pilch, John S. Rigid mounting for equipment on tractor. 2,835,396, 5–20–58, Cl. 214—131.
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Pitman, Richard W., to Underwood Corp. Restoring mechanism for adding machine indexing means. 2,835,441, 5–20–58, Cl. 235—60.
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Piwinski, Walter: *See*—
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Plasticrete Corp.: *See*—
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Platz, Elwood T.: *See*—
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Plessey Co. Ltd., The: *See*—
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Trowbridge, David R., and Moss. 2,835,470.
Plotnick, Irwin J. Removable dentures. 2,835,034, 5–20–58, Cl. 32—5.
Pohl, Robert G., to The Rauland Corp. Method of manufacturing crystalline material. 2,835,614, 5–20–58, Cl. 148—1.5.
Polaroid Corp.: *See*—
Bishop, Donald R. 2,835,177.
Fairbank, Murry N. 2,835,179.
Haas, Howard C., and Cohen. 2,835,653.
Land, Edwin H. 2,835,176.
Pierce, Norton T. 2,835,167.
Polgov, Nicholas: *See*—
Killian, Stanley C., and Polgov. 2,835,723.
Pollan, David, to Viewlex, Inc. Slide carrier. 2,835,166, 5–20–58, Cl. 88—28.
Pollmann, Max, to Kurt Körber, & Co. K. G. Removable drum type tobacco cutting machine with fixed grinding machine. 2,835,299, 5–20–58, Cl. 146—119.
Polsen, Samuel D., and S. H. Nelson. Dispensing apparatus. 2,835,284, 5–20–58 Cl. 141—174.
Polymer Processes, Inc.: *See*—
Conrad, Winthrop B. 2,835,539.
Porter, H. K., Co.: *See*—
Killian, Stanley C., and Polgov. 2,835,723.
Porter, H. K., Co. (Delaware): *See*—
Galloway Frederick M. 2,835,532.
Posthumus, Klaas, to North American Philips Co., Inc. Circuit-arrangement for decoding pulse code modulation according to a Pa-cycle code. 2,835,805, 5–20–58, Cl. 250—27.
Prager, William W.: *See*—
Bartlett, Francis J. W. 2,835,620.
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Balint, John. 2 835,009.
Price, Robert L., to Zenith Radio Corp. Sync separator comprising electro-mechanical resonant line. 2,835,732, 5–20–58, Cl. 178—7.5.
Proaps, Irwin F., to Center Line Mfg. Co., Inc. Pressure distributing pad. 2,835,778, 5–20–58, Cl. 219—19.
Prober, Maurice, to General Electric Co. Base-catalyzed addition to vinyl-silicon compositions. 2,835,690, 5–20–58, Cl. 260—448.2.
Progressive Welder Sales Co.: *See*—
Leathers, Chester F. 2,835,721.
Pruente, Wilhelm: *See*—
McCarthy, Harry E. and Pruente. 2,835,528.
Pryor Mfg. Co.: *See*—
Eggleston, Gilbert K. 2,835,402.
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Miers, Richard E. P. 2,835,281.
Pullman-Standard Car Mfg. Co.: *See*—
Faverty, Clyde B. 2,835,208.
Quatman, George B., to General Telephone Laboratories, Inc. Paystation line equipment. 2,835,738, 5–20–58, Cl. 179—6.3.

Onick, Robert G., to Flight Research, Inc. Motion transmitting devices. 2,835,135, 5–20–58, Cl. 74—222.

Raabe, Herbert P., to United States of America, Air Force. Two-channel rotary wave guide joint. 2,835,871, 5–20–58, Cl. 333—9

Radio Corp. of America: *See*—
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Flood, Robert D., and Kirkwood. 2,835,728.
Herneling, Gilbert C., Jr., and Lynn. 2,835,798.
Luther, Arch C., Jr. 2,835,864.
McMann, Renville H., Jr., and Erhardt. 2,835,730.
Morrison, Wendell C. 2,835,869.

Radion Corp.: *See*—
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Raich, Walter L., J. P. Garrity, and W. O'Neill. Question and answer game. 2,835,052, 5–20–58, Cl. 35—9.

Rankin, Arthur L., Jr., to Cavalier Corp. Dispensing apparatus. 2,835,409, 5–20–58, Cl. 221—67.

Ratdin, Clarence J. Boom angle indicator. 2,835,220, 5–20–58, Cl. 116—124.

Rasch, Carl H., and W. Swain. Device for improved cleaning and analysis of engine cooling systems. 2,835,234, 5–20–58, Cl. 123—41.42.

Rathenau, Hans W. Remote control devices for electric appliances. 2,835,830 5–20–58, Cl. 307—114.

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Rausch, Samuel A. Safety switch. 2,835,771, 5–20–58, Cl. 200—172.

Rausch, Werner, and F. Gonnert, to Parker Rust Proof Co. Procedure for the manufacture of oxalate coatings on metals. 2,835,616, 5–20–58, Cl. 148—6.14.

Rauscher, Wolfdietrich. Artificial tooth and method of making the same. 2,835,035, 5–20–58, Cl. 32—10.

Raven, Robert S.: *See*—
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Ray, Henry, to Ever Ready Calendar Mfg. Co. Mounting for calendar pads. 2,835,058, 5–20–58, Cl. 40—120.

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Engleson Harry E. and Sramek. 2,835,380.
Sramek, Elmer D. 2,835,378.

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Reeves, James B.: *See*—
Gundlach, Joseph C., and Reeves. 2,835,848.

Reeves, James M. and I. K. Combined back and head rests. 2,835,311, 5–20–58, Cl. 155—174.

Reiman, Vern: *See*—
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Reinecke, Herbert: *See*—
Bauer, Hans, Heckmaier, and Reinecke. 2,835,643.

Reinhardt, Albrecht E.: *See*—
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Reiser, George C., and K. F. Wetzel, to Toledo Scale Corp. Spring testing device. 2,835,129, 5–20–58, Cl. 73—161.

Reiter, Daniel I. Fastener for flexible elements. 2,835,012, 5–20–58, Cl. 24—129.

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Reliance Steel Products Co.: *See*—
Braun, Ottwin L. 2,835,232.

Rennick, John L., to Zenith Radio Corp. Apparatus for reproducing images in natural color. 2,835,727, 5–20–58, Cl. 178—5.4.

Reynaud, Francis, and P. Claraz, to Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine. Process of extracting gold and other metals from ores, concentrates, residues and the like containing principally cobalt, nickel, iron, arsenic and gold. 2,835,569, 5–20–58, Cl. 75—118.

Rhea, Wallace C. Light dividing optical device. 2,835,159, 5–20–58, Cl. 88—1.

Rhoads, Millard A., to Auto Specialties Mfg. Co. Hydraulic jack. 2,835,541, 5–20–58, Cl. 309—2.

Rice, Henry T. M., and R. T. Stevens, by decree of distribution to A. M. Stevens, executrix of D. Stevens, deceased. Torque compensating apparatus for tightening threaded fastening elements. 2,835,365, 5–20–58, Cl. 192—56.

Richards, George B., to Liquids Controls Corp. Rotary liquid displacement device. 2,835,204, 5–20–58, Cl. 103—125.

Richards, George B., to Liquid Controls Corp. Rotary positive displacement device for liquids. 2,835,229, 5–20–58, Cl. 121—71.

Richards, Robert E.: *See*—
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Riedel, Herbert. Diapositive frames. 2,835,061, 5–20–58, Cl. 40—152.

Rieder, Fritz: *See*—
Fikentscher, Hans, Siebel, Daniel, and Rieder. 2,835,657.

Rigney, Everett E., to Gentry Division, Consolidated Foods Corp. Vegetable coring device. 2,835,294, 5–20–58, Cl. 146—52.

Rimbach, Henry W., to Westinghouse Electric Corp. Cerium-activated magnesium metaphosphate phosphor, with and without manganese. 2,835,636, 5–20–58, Cl. 252—301.4.

Ringwald, Clarence. Door switch. 2,835,760, 5–20–58, Cl. 200—61.82.

Rinse, Jacobus, to J. W. Ayers & Co. Metal triacylates of unsaturated higher molecular monocarboxylic acids. 2,835,685, 5–20–58, Cl. 260—414.

Robbins, Edward S., to Robbins Tire and Rubber Co. Vulcanizing apparatus. 2,834,984, 5–20–58, Cl. 18—18.

Robbins Tire and Rubber Co.: *See*—
Robbins, Edward S. 2,834,984.

Robeson, Charles D.: *See*—
Benton, Charles H., Jr., and Robeson. 2,835,679.

Robeson, Charles D., to Eastman Kodak Co. Preparation of unsaturated cyclic polyene compounds by decarboxylation using an organic acid or acid anhydride as dehydrating agent. 2,835,713, 5–20–58, Cl. 260—666.

Rockwell, George E. Multi-tool power driven wood working machine. 2,835,289, 5–20–58, Cl. 144—1.

Rogers, Ivor C., and L. M. Krause, to Massey-Harris-Ferguson Ltd. Sickle drive. 2,835,133, 5–20–58, Cl. 74—60.

Rogers, Robert E., H. V. Lea and F. L. Hill, to Harvestaire, Inc. Threshing fan. 2,835,256, 5–20–58, Cl. 130—27.

Rohm & Haas Co.: *See*—
Lo, Chien-Pen, and Craig. 2,835,625.

Rolle, Edward. Resinous compound for potting electronic components, etc. 2,835,640, 5–20–58, Cl. 260—22.

Rollohome Corp.: *See*—
Frey, Norman E. 2,835,175.

Romano, James V. Telephone support. 2,835,745, 5–20–58, Cl. 179—149.

Roovers, Wilhelmus A., and O. L. Van Steenis, deceased (by J. D. Heijligers, executor), to North American Philips Co., Inc. Semiconductor electrode system. 2,835,853, 5–20–58, Cl. 317—236.

Rop, James O., to Jervis Corp. Door mechanism. 2,835,244, 5–20–58 Cl. 126—191.

Roper, John M. Instrument panel lighting assembly. 2,835,789, 5–20–58, Cl. 240—8.16.

Rose, Ira M.: *See*—
Shapiro, Seymour L., Freedman, and Rose. 2,835,668.

Rosebrook, Roy, to True-Trace Corp. Tracer mechanism. 2,835,466, 5–20–58, Cl. 251—3.

Rosenberg, Adolf. Compositions of matter. 2,835,584, 5–20–58, Cl. 99—7.

Rosier, Gerardus: *See*—
Volkers, Hendrik, and Rosier. 2,835,750.

Roth, Charles P., to General Motors Corp. Windshield wiper tranamission. 2,834,979, 5–20–58, Cl. 15—253.

Roth, Harold H.: *See*—
Bauman, William C., and Roth. 2,835,655.

Rothenberger, Ellis F. Irrigation ditch gate valve. 2,835,469, 5–20–58, Cl. 251—147.

Rothschild, Henry H., to Universal Produces Corp. Carrier for dishware and like articles. 2,835,546, 5–20–58, Cl. 312—117.

Ruelle, Louis: *See*—
Perieres, René, and Ruelle. 2,835,566.

Rulon-Miller, Robert, and W. H. Tabor, to Dixon Corp. Saddle for spinning frame or the like. 2,834,996, 5–20–58, Cl. 19—135.

Rusoff, Irving I., to General Foods Corp. Chocolate product and process therefor. 2,835,585, 5–20–58, Cl. 99—23.

Rusoff, Irving I., to General Foods Corp. Process of producing an artificial chocolate flavor and the resulting product. 2,835,590, 5–20–58, Cl. 99—140.

Rusoff, Irving I., to General Foods Corp. Flavor. 2,835,592, 5–20–58, Cl. 99—140.

Rusoff, Irving I., to General Foods Corp. Flavor product and process. 2,835,593, 5–20–58, Cl. 99—140.

Russell, Fred J. Tilting door latch. 2,835,524, 5–20–58, Cl. 292—128.

Rust, Mack D. Cotton harvester with specific spindle slat assembly. 2,835,096, 5–20–58, Cl. 56—42.

Ryan, James V., W. Bastedo, Jr., E. W. Strong, and A. M. Losey, to Gyrodyne Co. of America, Inc. Directional control system for rotary wing aircraft. 2,835,331, 5–20–58, Cl. 170—135.28.

Rydin, Hans F. A., to Stockholms Superfosfat Fabriks Aktiebolag. Drying plant. 2,835,051, 5–20–58, Cl. 34—174.

Saari, Paul A., to Minneapolis-Honeywell Regulator Co. Apparatus for assembling laminated electromagnetic devices. 2,835,026, 5–20–58, Cl. 29—203.

Sadtler, Chester B., to United States of America, Navy. Retarder device. 2,835,348, 5–20–58, Cl. 188—1.

Saffir, Jacob A. Means for treating teeth. 2,835,628, 5–20–58, Cl. 167—84.

Safford, Moyer M., and E. J. Smith, to General Electric Co. Polybutadiene coated mica flakes, process of preparation, and cured composition. 2,835,642, 5–20–58, Cl. 260—41.5.

Sagal, John, Jr.: *See*—
Tinker, John F., and Sagal. 2,835,581.

Sakuta, Daniel: *See*—
Lohr, Raymond J., and Sakuta. 2,835,495.

Salatiello, Peter P., to Olin Mathieson Chemical Corp. Packaging material. 2,835,595, 5–20–58, Cl. 99—174.

Samsonsen, Karl: *See*—
Thone, Kari, Olsen, Karheck, and Samsonsen. 2,835,283.

Sandberg, Ray A., to The Bingham-Herbrand Corp. Foot operated parking brake assembly. 2,835,139, 5–20–58, Cl. 74—539.

Sandoz Trust: *See*—
Benz, Jako. 2,835,663.
Byland, Hans-Rudolf. 2,835,662.

Sansotta, Domenick A. M. Remote control for television and radio apparatus. 2,835,736, 5–20–58, Cl. 179—1.

Santarelli, Vincent. Garden duster. 2,835,413, 5–20–58, Cl. 222—175.

Saul & Co.: *See*—
Bonz, Jakob. 2,835,663.
Byland, Hans-Rudolf. 2,835,662.

Sauter, Erwin R., to South African Coal, Oil and Gas Corp. Ltd. Process for producing wax products derived from oxidation products of paraffin wax. 2,835,691, 5–20–58, Cl. 260—452.

Savage, Albert B.: *See*—
Swinehart, Richard W., Weaver, Savage, and Moeller. 2,835,603.

Savage, Albert B., to The Dow Chemical Co. Water-soluble thermoplastic cellulose ether. 2,835, 666, 5–20–58, Cl. 260—231.

Saving, Ralph E.: *See*—
Barker, Orrin W., and Libby. 2,835,172.

Sawyer, James T., and J. K. Flora. Arbitrary function generator. 2,835,773, 5–20–58, Cl. 201—48.

Schaap, Ward B.: *See*—
Glewett, Glenford H., Lee, and Schaap. 2,835,687.

Scheidenhelm, Earl L., to Horace D. Hume. Harvester for pumpkins and similar crops. 2,835,098, 5–20–58, Cl. 56—327.

Schell, Carl M., to General Motors Corp. Air grill for refrigerating apparatus. 2,835,187, 5–20–58, Cl. 98—40.

Scheminger, John, Jr. Insert for making receptacle nonrefillable. 2,835,403, 5–20–58, Cl. 215—22.

Scheminger, John, Jr. Nonrefillable bottle. 2,835,411, 5–20–58, Cl. 222—147.

Schepker, Paul F., to Keleket X-Ray Corp. X-ray apparatus. 2,835,824, 5–20–58, Cl. 250—108.

Schilberg, Arnold G., to A. O. Smith Corp. X-member frame. 2,835,506, 5–20–58, Cl. 280—106.

Schiring, Ralph C., and E. J. Bastin, to Picker X-Ray Corp. Tubular telescopic column. 2,835,520, 5–20–58, Cl. 287—58.

Schlebusch, Ludwig. Screening apparatus. 2,835,775, 5–20–58, Cl. 219—10.51.

Schlegel, Martin S.: *See*—
Longmire, Gordon L., Bailey, and Schlegel. 2,835,086.

Schmidt, Paul: *See*—
Druey, Jean, and Schmidt. 2,835,672.

Schmuldt, Karl A., to Western Electric Co., Inc. Reciprocating wire-bending device for forming complex bends. 2,835,282, 5–20–58, Cl. 140—105.

Schneider, Arthur E. Stoppering devices. 2,835,092, 5–20–58, Cl. 53—321.

Schneider, Harold N.: *See*—
Milne, James M., and Schneider. 2,835,769.

Schneider, Karl. Process for the condensation of atmospheric humidity and dissolution of fog. 2,835,530, 5–20–58, Cl. 299—28.

Scholl, Frank J., to The Scholl Mfg. Co., Inc. Cushioning device and method of making the same. 2,835,248, 5–20–58, Cl. 128—80.

Scholl Mfg. Co., Inc., The: *See*—
Fotre, Harold C. 2,835,084.
Scholl, Frank J. 2,835,248.

Scholl, William M. Metatarsal pad and package. 2,835,379, 5–20–58, Cl. 206—47.

Scholten, Karl E., to Mannesmann Aktiengesellschaft. Tube with external longitudinal ribs. 2,835,275, 5–20–58, Cl. 138—70.

Schoneberg, Ernest. Draw bar hitches. 2,835,510, 5–20–58, Cl. 280—504.

Schoos, Maurice A., and J. C. Burke, to General Electric Co. Cordset hanking machine. 2,835,089, 5–20–58, Cl. 53—116.

Schroder, Charles, to Underwood Corp. Key interlock. 2,835,369, 5–20–58, Cl. 197—107.

Schulken, Roger M., Jr., and R. E. Boy, Jr., to Eastman Kodak Co. Stabilization of acrylic nitrile polymer compositions to heat. 2,835,647, 5–20–58, Cl. 260—45.9.

Schultz, Everett M.: *See*—
Sprague, James M., and Schultz. 2,835,676.

Schultz, Everett M., to Merck & Co., Inc. Benzene 1,3 disulfonamides possessing diuretic properties. 2,835,702, 5–20–58, Cl. 260—556.

Schwartzkopf, William. Fishing rod holder. 2,835,065, 5–20–58, Cl. 43—15.

Schwarz, Bertram A., and M. G. Wright, to General Motors Corp. Motor operated tuning means. 2,835,817, 5–20–58, Cl. 250—40.

Schwenk, Francis C.: *See*—
Stickney, Truman M., and Schwenk. 2,835,718.

Scott, Robert C. Hardness tester. 2,835,127, 5–20–58, Cl. 73—81.

Seeley, Albert R. Fluid circulating film handling reel and tank. 2,835,181, 5–20–58, Cl. 95—90.5.

Seeley, Belle G.: *See*—
Seeley, Ivan L. and B. G. 2,835,887.

Seeley, Ivan L. and B. G. Mailbox with mail-actuated signal. 2,835,887, 5–20–58, Cl. 340—281.

Seer, Robert H. Injection mold for molding clips. 2,834,990, 5–20–58, Cl. 18—42.

Segner, Clyde D., to The B. F. Goodrich Co. Polymeric article having suede-like appearance and process of making the article. 2,835,607, 5–20–58, Cl. 117—10.

Seiler, William: ½ to L. C. Glaser, H. Herman, A. A. Fisher, Dr. H. M. Feiner, and E. Neubauer. Spring loaded push button safety razor. 2,835,030, 5–20–58, Cl. 30—60.5.

Selhmann, Rudolf W., M. L. Tucci, and W. Piwinski, to Ofk Mfg. Co. Television tuner. 2,835,818, 5–20–58, Cl. 250—40.

Self, Neal W., to J. I. Case Co. Spring-loaded bail for stripper type cotton harvesters. 2,835,095, 5–20–58, Cl. 56—33.

Sell, Harold S.: *See*—
D'Iannl, James D., and Sell. 2,835,645.

Sell, Harold S., to The Goodyear Tire & Rubber Co. Thermoplastic impact-resistant composition of a styrene/acrylonitrile resin and a rubbery ethyl acrylate polymer. 2,835,646, 5–20–58, Cl. 260—45.5.

Serto, Ferdinand N., to Marshall, Serto & Co. Hinged support. 2,835,522, 5–20–58, Cl. 287—99.

Settles, James C., to The Buckeye Steel Castings Co. Spring group and damping mechanism. 2,835,486, 5–20–58, Cl. 267—9.

Seymour, Hale D., to A. O. Smith Corp. Vessel closure. 2,835,269, 5–20–58, Cl. 137—467.

Seymour, Philip M. Display rack. 2,835,394, 5–20–58, Cl. 211—41.

Shank, Clifford A.: *See*—
Brown, Norman M., Jr., and Shank. 2,835,450.

Shapiro, Gustave, and J. R. Feller, to United States of America, Navy. Adjustable low inductance capacitor with separately rotatable slotted discs for tracking adjustment. 2,835,816, 5–20–58, Cl. 250—40.

Shapiro, Seymour L., L. Freedman, and I. M. Rose, to U. S. Vitamin Corp. Pyridylethylated benzoxazinediones and process for preparation. 2,835,668, 5–20–58, Cl. 260—244.

Sharp, John R.: *See*—
Arnot, Alfred E. R. 2,835,361.

Sharp, William C. Diatomite filter unit. 2,835,389, 5–20–58, Cl. 210—323.

Sharpe, Verlos G., and E. C. Armentrout, to General Motors Corp. Combined ice block releasing and storing bucket. 2,835,113, 5–20–58, Cl. 62—106.

Shaw, Edwin L.: *See*—
Parr, James R., and Shaw. 2,835,228.

Shell Development Co.: *See*—
Buls, Vernon W., and Thomas. 2,835,693.
Nixon, Alan C., Deal, and Wilson. 2,835,714.
Woodley, Harold J. 2,835,264.

Shepard Niles Crane and Hoist Corp.: *See*—
Thompson, William S. 2,835,013.

Sherman, Arthur E.: *See*—
Blatt, Leland F., and Sherman. 2,835,291.

Sherwood, William G.: *See*—
Shutkufski, John J. 2,835,039.

Shirah, Luther D.: *See*—
Clark, Irvin L., and Shirah. 2,835,155.

Shively, John J., to Telephone Answering and Recording Corp. Telephone answering and recording devices. 2,835,737, 5–20–58, Cl. 179—6.

Shoemaker, Malcolm G., and M. A. Goff, to Philco Corp. Refrigeration apparatus. 2,835,114, 5–20–58, Cl. 62—117.85.

Shultz, Kathryn J. Convenience carrier for automobiles. 2,835,425, 5–20–58, Cl. 224—42.46.

Shutkufski, John J., ¼ to W. G. Sherwood. Master gage. 2,835,039, 5–20–58, Cl. 33—147.

Siebel, Hans P.: *See*—
Fikentscher, Hans, Siebel, Daniel, and Rieder. 2,835,657.

Signode Steel Strapping Co.: *See*—
Crosby, George A. 2,835,194.

Silha, Elmer D. Curved wallet. 2,835,300, 5–20–58, Cl. 150—38.

Simpson, Alexander B.: *See*—
West, De Witt H., and Simpson. 2,835,557.

Singer Mfg. Co., The: *See*—
Peterson, Elmer R. 2,835,545.

Sivacek, Emil E., to King-Seeley Corp. Automatic toaster. 2,835,192, 5–20–58, Cl. 99—329.

Skaggs, Everett E.: *See*—
Skaggs, Robert P. and E. E. 2,835,493.

Skaggs, Robert P. and E. E. Hydraulically adjustable stilts. 2,835,493, 5–20–58, Cl. 272—70.1.

Skinner, Davis A., to Union Oil Co. of California. Fluxing petroleum coke slag. 2,835,213, 5–20–58, Cl. 110—1.

Slayter, Games, and G. De Piolenc, to Owens-Corning Fiberglas Corp. Apparatus for coating fibrous glass with molten metal. 2,835,221, 5–20–58, Cl. 118—202.

Sly, Leslie W.: *See*—
Crawford, Ralph W., Sly, and Fisher. 2,835,074.

Smith, A. O., Corp.: *See*—
Andrus, Orrin E. 2,835,404.
Lauck, Francis W. 2,835,202.
Schilberg, Arnold G. 2,835,506.
Seymour, Hale D. 2,835,369.

Smith, Brook I.: *See*—
Nelson, Joseph F., and Smith. 2,835,605.

Smith, Carl F.: *See*—
Starck, Clemens B., Nadeau, and Smith. 2,835,609.

Smith, Charles P.: *See*—
Westbury, Roy, and Smith. 2,835,460.
Westbury, Roy, and Smith. 2,835,461.

Smith, Donald A.: *See*—
Unruh, Cornelius C., and Smith. 2,835,656.

Smith, Elizabeth J.: *See*—
Safford, Moyer M., and Smith. 2,835,642.

Smith, George V., to United States Steel Corp. Steel for use at elevated temperature. 2,835,571, 5–20–58, Cl. 75—126.

Smith, Homer A., Jr., to Eastman Kodak Co. Exposure control for photographic printer. 2,835,165, 5–20–58, Cl. 88—24.

Smith, John W., to Faximile, Inc. Facsimile apparatus. 2,835,733, 5–20–58, Cl. 178—69.5.

Smith, William H. Boilers. 2,835,216, 5–20–58, Cl. 110—165.

Smithburn, George E. Garden cultivator. 2,835,182, 5–20–58, Cl. 97—40.

Snyder, Francis H. Production of sugars from wood products. 2,835,611, 5–20–58, Cl. 127—37.

Snyder, James E.: *See*—
Swartz, Ruby J., and Snyder. 2,835,433.

Snyder, Rawson R., to The Texas Co. Method and composition for inhibiting corrosion. 2,835,599, 5–20–58, Cl. 106—141.

Societe Anonyme de Machines Electrostatiques: *See*—
Morel, Roger. 2,835,850.

Societe Anonyme des Anciens Etablissements Charles Berthiez: *See*—
Berthiez, Frederick C. G. 2,835,136.

Societe Civile d'Etudes Pour Material de Fonderie: *See*—
Fouron, Pierre, and Bourret. 2,835,006.

Societe d'Electro-Chimie d'Electro-Metallurgie et des Acieries Electriques d'Ugine: *See*—
Reynaud, Francis, and Claraz. 2,835,569.

Societe des Fabrications Unicum: *See*—
Perruca, Felix. 2,835,134.

Solar Aircraft Co.: *See*—
Karen, H Peter. 2,835,108.
Solari, Archie J., to Crane Packing Co. Rotary mechanical seal with self-locking seat. 2,835,515, 5–20–58, Cl. 286—11.15.
Sourgens, Roger P., and R. A. Chollet. Circuit for switching high voltage using cascade connected low voltage transistors. 2,835,829, 5–20–58, Cl. 307—88.5.
South African Coal, Oil and Gas Corp. Ltd.: *See*—
Sauter, Erwin R. 2,835,091.
Sparks, Brian O., to Clary Corp. Valve construction. 2,835,468, 5–20–58, Cl. 251—129.
Sperry Rand Corp.: *See*—
Frank, Robert L. 2,835,888.
Thone, Karl, Olsen, Karkheck, and Samsonsen. 2,835,283.
Vacquier, Victor. 2,835,132.
Vacquier, Victor, and Blizard. 2,835,131.
Sperry Rand Corp., Ford Instrument Co. Div.: *See*—
Young, John, Jr. 2,835,453.
Spicacci, Attilio R., and J. W. Brady, to Federal-Mogul Corp. Bearing locking device. 2,835,519, 5–20–58, Cl. 287—52.09.
Spilker, George E. Fishing rod holder. 2,835,066, 5–20–58, Cl. 43—21.2.
Spindel-, Motoren- und Maschinenfabrik A. G.: *See*—
Beerli, Karl. 2,835,517.
Sponge Products Corp.: *See*—
Greenleaf, Nathaniel B. 2,834,974.
Sprague, James M., and E. M. Schultz, to Merck & Co., Inc. Gamma-keto-tertiary amines and derivatives thereof. 2,835,676, 5–20–58, Cl. 260—294.7.
Square Mfg. Co.: *See*—
Arnett, Leslie, and Freise. 2,835,410.
Sramek, Elmer D.: *See*—
Engleson, Harry E., and Sramek. 2,835,087.
Engleson, Harry E., and Sramek. 2,835,380.
Sramek, Elmer D., to F. B. Redington Co. Container 2,835,378, 5–20–58, Cl. 206—45.21.
Staaf, Werner I. Mount for display letters or the like and method of mounting letters. 2,835,060, 5–20–58, Cl. 40—140.
Stabholc, Ludwik M. Lumbar traction apparatus. 2,835,247, 5–20–58, Cl. 128—78.
Staege, Stephen A.: *See*—
Baxter, Joseph, Jr., and Staege. 2,835,144.
Staehelin, Alexander, to Ciba Pharmaceutical Products, Inc. Pyridazine derivatives. 2,835,671, 5–20–58, Cl. 260—250.
Stafford, John C.: *See*—
Temple, Hiram E., and Stafford. 2,835,398.
Stampings, Inc.: *See*—
Hermes, Dale J. 2,835,055.
Standard Oil Co. (Indiana): *See*—
Wolff, William F., and Hill. 2,835,343.
Standard Register Co., The: *See*—
Kroemer, John H., and Tilton. 2,835,489.
Stanly, Albert L., to Hughes Aircraft Co. Stabilized self-propelled missile. 2,835,199, 5–20–58, Cl. 102—50.
Stansbury, Roy E.: *See*—
Goodhue, Lyle D., and Stansbury. 2,835,565.
Starck, Clemens B., G. F. Nadeau, and C. F. Smith, to Eastman Kodak Co. Method for coating cellulose ester films. 2,835,609, 5–20–58, Cl. 117—73.
Stary, Walter E. Tube expanding tool having rollers confined in cage slots and inclined within range of one-fourth to two-thirds of one degree. 2,835,308, 5–20–58, Cl. 153—82.
Statham Instruments, Inc.: *See*—
Di Giovanni, Mario M. 2,835,772.
Statham, Louis D. 2,835,774.
Statham, Louis D., to Statham Instruments, Inc. Electrical accelerometer. 2,835,774, 5–20–58, Cl. 201—63.
Steck, Rudolph E., to Raybestos-Manhattan, Inc. Friction button and securing means therefor. 2,835,367, 5–20–58, Cl. 192—107.
Steele, Vernon P., to Kenco Products Corp. Juice pump. 2,835,416, 5–20–58, Cl. 222—341.
Steeves, Martin E. Tool holders. 2,835,023, 5–20–58, Cl. 29—96.
Steinegger, Giovanni. Electromotor. 2,835,834, 5–20–58, Cl. 310—154.
Steiner, Charles S., and E. Fritz, to Swift & Co. Sterol recovery process. 2,835,682, 5–20–58, Cl. 260—397.25.
Steinhagen, William K., J. Dolza, and P. L. Francis, to General Motors Corp. Refrigerating apparatus. 2,835,436, 5–20–58, Cl. 230—186.
Steinhauer, Alfred F., to The Dow Chemical Co. Alkyl N-methyl-N-(2-sulfoethyl) carbamoyl derivatives of carbocyclic 1,2-carboxylic acids. 2,835,694, 5–20–58, Cl. 260—468.
Steinhauer, Alfred F., to The Dow Chemical Co. Mixed ester compositions of carbocyclic 1,2-dicarboxylic acids. 2,835,695, 5–20–58, Cl. 260—468.
Steinhauer, Alfred F., to The Dow Chemical Co. Esters of carbocyclic 1,2-dicarboxylic acids and method of making the same. 2,835,696, 5–20–58, Cl. 260—468.
Stephens, Richard G., to Link Aviation, Inc. Reversible counters. 2,835,445, 5–20–58, Cl. 235—92.
Stevens, Adele M.: *See*—
Rice, Henry T. M., and Stevens. 2,835,365.
Stevens, Dilion: *See*—
Rice, Henry T. M., and Stevens. 2,835,365.
Stevens, Robert T.: *See*—
Rice, Henry T. M., and Stevens. 2,835,365.
Stewart, Charles D., to Lockheed Aircraft Corp. Automatic locking device. 2,835,459, 5–20–58, Cl. 244—83.
Stickney, Truman M., and F. C. Schwenk. Sensing element for thermocouple probes. 2,835,718, 5–20–58, Cl. 136—4.
Stiebel, Theodor H. Apparatus for preparing coffee beverages. 2,835,782, 5–20–58, Cl. 219—44.
Stockholms Superfosfat Fabriks Aktiebolag: *See*—
Rydin, Hans F. A. 2,835,051.
Stoesser, Wesley C., and W. M. Gentry, to The Dow Chemical Co. Process for making meta-chlorophenol. 2,835,707, 5–20–58, Cl. 260—623.
Stone, Leslie F., to United States of America, Army. Fibreboard shipping box. 2,835,431, 5–20–58, Cl. 229—38.
Stoughton, Perry O., ½ to S. E. Treynor. Cement applying machine. 2,835,482, 5–20–58, Cl. 259—151.
Straley, James M., and J. G. Fisher, to Eastman Kodak Co. Metallized thiazolenazohydroxyamine compounds. 2,835,661, 5–20–58, Cl. 260—146.
Strandine, Eldon J., F. G. Connick, and C. T. Oldenburg, to Swift & Co. Dehairing apparatus and method. 2,834,994, 5–20–58, Cl. 19—2.
Stratford Engineering Corp.: *See*—
Wilson, Joseph R. 2,834,977.
Strong, Edward W.: *See*—
Ryan, James V., Bastedo, Strong, and Losey. 2,835,331.
Stuard, Truman W. Hanger accessory. 2,835,422, 5–20–58, Cl. 223—92.
Studebaker-Packard Corp.: *See*—
Braun, Paul E. 2,835,240.
De Lorean, John Z. 2,835,141.
Suhner, Willy. Locking device for spindles. 2,835,497, 5–20–58, Cl. 279—42.
Sullivan, Thomas P. Row crop pick-up attachment for combines. 2,835,097, 5–20–58, Cl. 56—98.
Sullivan, William J.: *See*—
O'Connor, Thomas J., and Sullivan. 2,835,474.
Sun Oil Co.: *See*—
Blake, Norman B., and Cox. 2,835,444.
Sun Rubber Co., The: *See*—
Bailey, Harold G., and Rekettye. 2,834,986.
Suozzo, Leonard S., to Bergen Pipesupport Corp. Variable support spring hanger. 2,835,463, 5–20–58, Cl. 248—54.
Superior Mfg. Corp.: *See*—
Creager, Herman W. 2,835,415.
Swain, Walter: *See*—
Rasch, Carl H., and Swain. 2,835,234.
Swartz, Ruby J., and J. E. Snyder, to Wingfoot Corp. Bag closures. 2,835,433, 5–20–58, Cl. 229—62.
Swift & Co.: *See*—
Steiner, Charles S., and Fritz. 2,835,682.
Strandine, Eldon J., Connick, and Oldenburg. 2,834,994.
Swinehart, Richard W., M. A. Weaver, A. B. Savage, and B. V. Moeller, to The Dow Chemical Co. Water-soluble thermoplastic cellulose ether compositions. 2,835,603, 5–20–58, Cl. 106—189.
Szekely, O. E., & Associates, Inc.: *See*—
Szekely, Otto E. 2,835,892.
Szekely, Otto E., to O. E. Szekely & Associates, Inc. Antenna using single motor for rotation and nod. 2,835,892, 5–20–58, Cl. 343—766.
T. M. M. (Research) Ltd.: *See*—
Calbert, James, and Blackburn. 2,834,995.
Tabor, Warner H.: *See*—
Knton-Miller, Robert, and Tabor. 2,834,996.
Taegtstroem, Ingemar R. V.: *See*—
Daniels, John W., and Taegtstroem. 2,835,793.
Taksa, Sam I. Reversible necktie. 2,834,967, 5–20–58, Cl. 2—155.
Talon, Inc.: *See*—
Malcolm, George S. 2,835,011.
Tandler, William S., and M. Grossman, to The Warner & Swasey Research Corp. Programming apparatus. 2,835,042, 5–20–58, Cl. 33—172.
Tanghe, Leo J.: *See*—
Malm, Carl J., Tanghe, and Blanchard. 2,835,665.
Taormina, Frank T., and J. M. Molinaro. Rigid multi-section awning. 2,835,324, 5–20–58, Cl. 160—132.
Taupin, André. Lock. 2,835,272, 5–20–58, Cl. 137—614.13.
Taylor, John W., Jr., to United States of America, Navy. Linear sawtooth wave generator. 2,835,809, 5–20–58, Cl. 250—27.
Taylor, Ralph C.: *See*—
Fuchs, Francis J., Jr., and Taylor. 2,835,151.
Taylor, Richard H., and D. H. Fieldhouse, to Coldstream Refrigerator Mfg. Ltd. Sealed multiple glazed unit. 2,834,999, 5–20–58, Cl. 20—56.5.
Taylor, William E., to Motorola, Inc. Semiconductor purification process. 2,835,612, 5–20–58, Cl. 148—1.5.
Teague, Merwyn C., to United States Rubber Co. Dipping last. 2,834,987, 5–20–58, Cl. 18—41.
Teetor, Thomas S., to Avco Mfg. Corp. Controlled beam centering deflection circuit. 2,835,846, 5–20–58, Cl. 315—27.
Telephone Answering and Recording Corp: *See*—
Shively, John J. 2,835,737.
Temple, Hiram E., and J. C. Stafford, to Capitol Products Corp. Bread depanner. 2,835,398, 5–20–58, Cl. 214—314.
Terry, Ray A., ½ to B. Nachtrab. Leg spike. 2,835,426, 5–20–58, Cl. 227—27.
Teves, Alfred, Maschinen- und Armaturenfabrik Komm-Ges.: *See*—
Erdmann, Hans. 2,835,205.
Teves, Alfred, Maschinen- und Armaturenfabrik K. G.: *See*—
Oberthür, Heinrich. 2,835,271.
Texas Co., The: *See*—
Herzog, Gerhard. 2,835,819.
Snyder, Rawson R. 2,835,599.
Texas Instruments Inc.: *See*—
Perry, Edward G. 2,835,362.
Textrom, Ralph: *See*—
Daniels, John W., and Taegtstroem. 2,835,793.
Thiess, Ludwig E., to General Electric Co. Method for casting ceramic shapes. 2,835,019, 5–20–58, Cl. 25—156.

Thirtle, John R., and A. Weissberger, to Eastman Kodak Co. N-alkyl and acylphenol coupler solvents for color photography. 2,835,579, 5–20–58, Cl. 96—97.
Thoma, Heinrich. Suction means to be used in a textile drafting assembly. 2,835,103, 5–20–58, Cl. 57—34.5.
Thoma, Otto, to C. H. Boehringer Sohn. Process for the production of substituted morpholines. 2,835,669, 5–20–58, Cl. 260—247.
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Thompson, George A. Well point. 2,835,328, 5–20–58, Cl. 166—157.
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Thompson, William S. Shepard Niles Crane and Hoist Corp. Load hook safety catch. 2,835,013, 5–20–58, Cl. 24—241.
Thone, Karl, G. Olsen, J. Karkheck, and K. Samsonsen, to Sperry Rand Corp., Ford Instrument Co. Division. Wire twisting machine. 2,835,283, 5–20–58, Cl. 140—149.
Thorner, Robert H. Governor device. 2,835,237, 5–20–58, Cl. 123—102.
Tidwell, Juel T. Stepped fish lure. 2,835,067, 5–20–58, Cl. 43—42.5.
Tiede, Raymond A., to Phillips Petroleum Co. Automatic control of oxygen removal from process streams. 2,835,715, 5–20–58, Cl. 260—677.
Tilton, Doyle D.: *See*—
Kroemer, John H., and Tilton. 2,835,489.
Timpte Bros., Inc.: *See*—
Acker, Douglas B. 2,835,504.
Tinker, John F., and J. Sagal, Jr., to Eastman Kodak Co. Tetrazaindenes and photographic emulsions containing them. 2,835,581, 5–20–58, Cl. 96—109.
Toledo Scale Corp.: *See*—
Bradley, Robert O. 2,835,484.
Burgy, Raymond A. 2,835,346.
Reiser, George C., and Wetzel. 2,835,129.
Yensting, Maynard C. 2,835,347.
Tomino, Koichi: *See*—
Iwao, Junichi, Tomino, and Kawazu. 2,835,678.
Toole, Richard C.: *See*—
Harrison, John R., and Toole. 2,835,553.
Toti, Andrew J., to Honolulu Oil Corp. Continuous defeathering machine. 2,834,982, 5–20–58, Cl. 17—11.1.
Touchberry, Hubert J. Nut pickup device. 2,835,099, 5–20–58, Cl. 56—328.
Tovrog, Theodore, and A. A. Krawetz. Temperature control apparatus and method. 2,835,477, 5–20–58, Cl. 257—4.
Toyo Rayon Co., Ltd.: *See*—
Kosuge, Ichiro. 2,835,551.
Treynor, Selina E.: *See*—
Stoughton, Perry O. 2,835,482.
Trico Products Corp.: *See*—
Oishei, John R. 2,834,976.
Tromp, Klaas F. Process for recovery and purifying of finely divided heavy material. 2,835,384, 5–20–58, Cl. 209—12.
Trowbridge, David R., and N. Moss., to The Plessey Co. Ltd. Fluid turbines. 2,835,470, 5–20–58, Cl. 253—59.
True, Martin E., to Esso Research and Engineering Co. Reinforced packer. 2,835,329, 5–20–58, Cl. 166—187.
True-Trace Corp.: *See*—
Rosebrook, Roy. 2,835,466.
Tucci, Morris L.: *See*—
Selbmann, Rudolf W., Tucci, and Piwinski. 2,835,818.
Turk, Herbert: *See*—
Turk, Karl. 2,835,601.
Turk, Karl, deceased, by Union Trust Co. of Maryland, M. M., R. H., H., and Karl Turk, Jr., executors, to Pemco Corp. Production of ceramic ware. 2,835,601, 5–20–58, Cl. 106—48.
Turk, Karl, Jr.: *See*—
Turk, Karl. 2,835,601.
Turk, Margaret M.: *See*—
Turk, Karl. 2,835,601.
Turk, Richard H.: *See*—
Turk, Karl. 2,835,601.
Uhrig, Edward O., to United States of America, Navy. Two channel servo system. 2,835,854, 5–20–58, Cl. 318—19.
Uncas Mfg. Co.: *See*—
Lutrario, Raymond G. 2,835,117.
Underwood Corp.: *See*—
Golden, Daniel. 2,835,867.
Lubkin, Samuel. 2,835,807.
Pitman, Richard W. 2,835,441.
Schroder, Charles. 2,835,369.
Wulfing, George A. 2,835,881.
Unexcelled Die & Supply Co.: *See*—
O'Connor, Thomas J., and Sullivan. 2,835,474.
Union Oil Co. of California: *See*—
Berg, Clyde H. O. 2,835,629.
Coe, Clarence S. 2,835,564.
Skinner, Davis A. 2,835,213.
Union Trust Co. of Maryland: *See*—
Turk, Karl. 2,835,601.
United Aircraft Corp.: *See*—
McGuff, Thomas J., and Reinhardt. 2,835,340.
United Aircraft Products, Inc.: *See*—
Klank, Walter C., Jr. 2,835,263.
United Air Lines Inc.: *See*—
Warrington, Harry C. 2,835,370.
United Biscuit Co.: *See*—
Castner, John F. 2,835,174.
United Export Packers, Inc.: *See*—
Partridge, Donald E. 2,835,071.
United Shoe Machinery Corp.: *See*—
Woodman, Charles K., and Darrin. 2,835,043.
United Specialties Co.: *See*—
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United States of America
Agriculture: *See*—
Aronovsky, Samuel I., and Lathrop. 2,835,574.
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Allen, Richard W. 2,835,731.
Atkins, Leroy M. 2,835,758.
Raabe, Herbert P. 2,835,871.
Army: *See*—
Ackermann, Edward L., Buck, Miles, and Will. 2,835,381.
Levy, Marilyn. 2,835,577.
Stone, Leslie F. 2,835,431.
Atomic Energy Commission: *See*—
Hittner, Burt J. 2,835,890.
Clewett, Glenford H., Lee, and Schaap. 2,835,687.
Gundlach, Joseph C., and Reeves. 2,835,848.
Hausner, Henry H. 2,835,573.
Healy, Thomas V. 2,835,555.
Huddle, Roy A. U., and Flint. 2,835,630.
Kanter, Manuel A. 2,835,608.
McGinnis, William J. 2,835,552.
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Hauster, Ruth C. 2,835,801.
Navy: *See*—
Baumann, Robert C. 2,835,548.
Borzin, John J. 2,835,839.
Isbenjian, Hrant, Hase, and Othmer. 2,835,572.
Langton, William G. 2,835,153.
Longwell, John P. 2,835,109.
Moses, Harry C., and Raven. 2,835,857.
Patterson, Roger W. 2,835,465.
Peeler, George D. M., and Kelleher. 2,835,891.
Sadtler, Chester B. 2,835,348.
Shapiro, Gustave, and Feller. 2,835,816.
Taylor, John W., Jr. 2,835,809.
Uhrig, Edward O. 2,835,854.
United States Rubber Co.: *See*—
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United States Steel Corp.: *See*—
McNutt, John W. 2,835,862.
Smith, George V. 2,835,571.
U. S. Vitamin Corp.: *See*—
Shapiro, Seymour L., Freedman, and Rose. 2,835,668.
Universal Oil Products Co.: *See*—
Bloch, Herman S., and Hervert. 2,835,638.
Universal Products Corp.: *See*—
Rothschild, Henry H. 2,835,546.
Universal Wire Spring Co., The: *See*—
Neely, William H. 2,835,312.
Neely, William H. 2,835,314.
Neely, William H. 2,835,315.
Neely, William H. 2,835,316.
University of California, The Regents of the: *See*—
McBride, William J., Jr. 2,835,844.
Unruh, Cornelius C., and D. A. Smith, to Eastman Kodak Co. Light-sensitive polymers for photography. 2,835,656, 5–20–58, Cl. 260—78.5.
Upjohn Co., The: *See*—
Magerlein, Barney J., and Hogg. 2,835,698.
Murray, Maxton F. 2,835,697.
Vaaler, Luther E., to Diamond Alkali Co. Recovery of selenium. 2,835,558, 5–20–58, Cl. 23—209.
Vacquier, Victor, to Sperry Rand Corp. Gyro verticals. 2,835,132, 5–20–58, Cl. 74—5.47.
Vacquier, Victor, and R. B. Blizard, to Sperry Rand Corp. Navigating systems for dirigible craft. 2,835,131, 5–20–58, Cl. 74—5.37.
Vadas, Kenneth G. Series parallel starting circuit. 2,835,826, 5–20–58, Cl. 290—36.
Vahtra, Arvo. Door latch and handle mechanism. 2,835,525, 5–20–58, Cl. 292—169.
Valtri, Frank J. Tubular furniture construction. 2,835,317, 5–20–58, Cl. 155—196.
Van Rooy, Alphonsus P.: *See*—
De Gier, Johannes, Niklas, Van Rooy, and Nienhuis. 2,835,838.
Van Ryan, Anthony, and K. H. Date, to McGraw-Edison Co. Repeating polyphase circuit interrupter. 2,835,763, 5–20–58, Cl. 200—98.
Van Steenis, Otto L.: *See*—
Rooyers, Wilhelmus A., and Van Steenis. 2,835,853.
Van Voorhees, Harold E., to General Motors Corp. Door latch. 2,835,526, 5–20–58, Cl. 292—216.
Varner, Horace M., to Bendix Aviation Corp. Coupling. 2,835,118, 5–20–58, Cl. 64—15.
Vaughan, Henry E., to Bell Telephone Laboratories, Inc. Magnetic core signal generator. 2,835,741, 5–20–58, Cl. 179—90.
Velten, Anna M. (nee Baehr): *See*—
Bähr, Johannes. 2,835,559.
Verhagen, Jan: *See*—
Ensink, Johannes, and Verhagen. 2,835,748.
Vernet, Sergius, and G. Asakawa, to Antioch College. Polyethylene expansion material. 2,835,634, 5–20–58, Cl. 252—1.
Verster, Nico F., to North American Philips Co., Inc. Frequency doubling circuit arrangement. 2,835,806, 5–20–58, Cl. 250—27.
Veselik, Emil, M. C. Wilson, and W. F. Jicha, to Calumet Steel Castings Corp. Wheel block. 2,835,349, 5–20–58, Cl. 188—32.
Vickers Inc.: *See*—
Morte, George W. 2,835,266.
Pettibone, Raymond B. 2,835,201.
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Pollan, David. 2,835,166.
Vignere, Leonard, Sr. Firing head for furnaces. 2,835,322, 5–20–58, Cl. 158—28.
Villani, Antonio, to Draper Corp. Shuttle and threading block. 2,835,278, 5–20–58, Cl. 139—223.

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Dowden, Dennis A., Johnson, and Vincent. 2,835,637.
Vincent, Harvard B., and M. McDavitt, to Owens-Illinois Glass Co. Method of forming a unitary panel of glass blocks. 2,835,623, 5–20–58, Cl. 154—118.
Vitarama Corp., The: *See*—
Waller, Fred. 2,835,160.
Vogel, George M. Mensuring device. 2,835,041, 5–20–58, Cl. 33—172.
Vogelsang James H., to Bell Telephone Laboratories, Inc. Regenerative transistor amplifiers. 2,835,828, 5–20–58, Cl. 307—88.5.
Volkers, Hendrik, and G. Rosier, to North American Philips Co., Inc. Transistor amplifier. 2,835,750, 5–20–58, Cl. 179—171.
Vollmer, Heinrich. Saw sharpening machine. 2,835,146, 5–20–58, Cl. 76—41.
Vradenburgh, Robert and J. J. Naviski, to Ward Leonard Electric Co. Variable transformer. 2,835,866, 5–20–58, Cl. 323—47.
Wachsman, William P., to G. A. Gelbspan. Convertible furniture. 2,834,969 5–20–58, Cl. 5—21.
Wacker-Chemie G. m. b. H.: *See*—
Bauer, Hans, Heckmaier, and Reinecke. 2,835,643.
Wagner, Eddie B., to Mixermobile Manufacturers, Inc. Loader. 2,835,397, 5–20–58, Cl. 214—140.
Waite, Phillip S.: *See*—
Ford, Geoffrey E., and Waite. 2,835,093.
Waldes Kohinoor, Inc.: *See*—
Wurzel, Hugo. 2,835,028.
Waldow, Sheldon M., to Bendix Aviation Corp. Accelerometer apparatus. 2,835,759, 5–20–58, Cl. 200—61.53.
Walker, Richard V. Safety device for electrical detonators. 2,835,877. 5–20–58. Cl. 339—19.
Wallace, Robert A., to W. O. Beye. Expanders for joining tubular members. 2,835,309, 5–20–58, Cl. 153—82.
Waller Fred. to The Vitrama Corp. Camera with film holders for convenient loading. 2,835,160, 5–20–58, Cl. 88—16.6.
Walsh, Justin E.: *See*—
Flagg, John E. and Walsh. 2,834,965.
Walsh, Richard T. Remote angular position indicator. 2,835,218, 5–20–58 Cl. 116—31.
Walton, Edward, to Merck & Co., Inc. Pantetheine intermediates. 2,835,704, 5–20–58, Cl. 260—562.
Walton, Fermon T.: *See*—
Dickerson, Leo C. 2,835,406.
Waltz, Maynard C., to Bell Telephone Laboratories, Inc. Crystal rectifier. 2,835,810, 5–20–58, Cl. 250—31.
Ward, John M., to Haveg Industries, Inc. Resins and use thereof. 2,835,107, 5–20–58, Cl. 60—35.6.
Ward Leonard Electric Co.: *See*—
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Ward, Stanley: *See*—
Lamb, Sidney A., and Ward. 2,835,705.
Warner Electric Brake & Clutch Co.: *See*—
Decker, Andrew H. and Meyer. 2,835,864.
Warner & Swasey Research Corp., The: *See*—
Tandler, William S., and Grossman. 2,835,042.
Warrington, Harry, Co., to United Air Lines Inc. Article handling apparatus. 2,835,370, 5–20–58, Cl. 198—21.
Waters, Wilbur W. Upright piano action. 2,835,157, 5–20–58, Cl. 84—240.
Watson, Charles G., to The Youngstown Welding & Engineering Co. Tube welding machine. 2,835,783, 5–20–58, Cl. 219—60.
Watson, Charles S., to Berlin & Jones Co., Inc. Envelope. 2,835,434, 5–20–58. Cl. 229—70.
Weaver, Bernard S. Circular saw blade. 2,835,286, 5–20–58, Cl. 143—133.
Weaver, Miles A.: *See*—
Swinehart, Richard W., Weaver, Savage, and Moeller. 2,835,603.
Webb, Cleitus E. Panel construction. 2,834,997, 5–20–58, Cl. 20—36.
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Du Rocher, Gideon A., and Webb. 2,835,879.
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Welh, Julius, to Ideal Toy Corp. Walking doll. 2,835,076, 5–20–58. Cl. 46—149.
Weinstein, Arthur H., to The Goodyear Tire & Rubber Co. 4 - chloroacetamido - 1 - naphthalene sulfonyl chloride. 2,835,701, 5–20–58. Cl. 260—543.
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Godowsky, Leopold, Weissberger, and Knechel. 2,835,580.
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Collom, Cletus J. 2,835,851.
West, De Witt H., and A. B. Simpson, to The International Nickel Co. Inc. Method of producing nickel by the carbonyl process. 2,835,557, 5–20–58, Cl. 23—203.
Westbury, Roy, and C. P. Smith, to H. M. Hobson, Ltd. Feel simulators for aircraft. 2,835,460, 5–20–58, Cl. 244—83.
Westbury Roy, and C. P. Smith, to H. M. Hobson, Ltd. Aircraft feel simulator. 2,835,461, 5–20–58, Cl. 244—83.
Western Electric Co., Inc.: *See*—
Fuchs, Francis J., Jr. 2,835,306.
Fuchs, Francis J. Jr., and Taylor. 2,835,151.
Morris, Donald C. 2,834,988.
Schmuldt Karl A. 2,835,282.
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Whirlpool Corp.: *See*—
Goldsmith Alfred N. 2,835,186.
Kazan, Benjamin. 2,835,779.
White, Charles S. Ball joint bearing structure. 2,835,521, 5–20–58. Cl. 287—90.
Whitefield, Bernard. Processing and means for caramelizing caramel, toffee and similar substances. 2,835,589, 5–20–58, Cl. 99—134.
Whiteseil, John C., to Crane Co. Bulb guide on molding diaphragm. 2,835,004, 5–20–58, Cl. 22—38.
Whitman, Harlan M., to Curtis 1000, Inc. Banking envelope. 2,835,512, 5–20–58, Cl. 282—25.
Whitmore, John F. Protective cover for agricultural crops. 2,835,078. 5–20–58, Cl. 47—21.
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Widmer, Gustav, W. Fatzer, W. Geigy, W. Kraus, and A. Hiestand, to Ciba Ltd. Aqueous emulsions for the preparation of water repellent dressings and process of treating fibrous materials therewith. 2,835,639, 5–20–58, Cl. 260—21.
Widmer, Gustav, W. Fatzer, W. Geigy, W. Kraus, and A. Hiestand, to Ciba Ltd. Aqueous emulsions for the preparation of water repellent dressings and process of treating fibrous materials therewith. 2,835,641, 5–20–58, Cl. 260—28.
Wiener, Charles: *See*—
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Wiesinger, Frederick C., and T. C. Lyster, to Wildman Jacquard Co. Racking means for knitting machine. 2,835,119, 5–20–58, Cl. 66—26.
Wiesinger, Frederick C., to Wildman Jacquard Co. Cam means for knitting machine. 2,835,120, 5–20–58, Cl. 66—50.
Wijtsma, Jan, to North American Philips Co., Inc. Device for fine tuning of a resonant circuit. 2,835,813, 5–20–58, Cl. 250—36.
Wilder Vernon H., to Douglas Aircraft Co., Inc. Means for mounting a frangible expanse to a vibratile support. 2,835,998, 5–20–58, Cl. 20—56.4.
Wildman Jacquard Co.: *See*—
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Wiesinger, Frederick C., and Lyster. 2,835,119.
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Willcox, Oswin B., to E. I. du Pont de Nemours and Co. Method of producing granular refractory metal. 2,835,567, 5–20–58, Cl. 75—84.1.
Willetts, Elwood H. Cargo trailer with adjustable floor level. 2,835,502, 5–20–58 Cl. 280—44.
Williams, Everard M., to Firth Sterling Inc. Spark machining apparatus. 2,835,784, 5–20–58, Cl. 219—69.
Williams, Everard M., to Firth Sterling Inc. Apparatus for spark machining. 2,835,785, 5–20–58, Cl. 219—69.
Williams, Ferd E., to General Electric Co. X-ray fluoroscopic screen. 2,835,822, 5–20–58, Cl. 250—80.
Williams, Frank J., ½ to C. E. Jack. Optometrical apparatus. 2,835,161, 5–20–58, Cl. 88—20.
Williamson Co., The: *See*—
Calahan, William H. 2,835,447.
Willis, Walter L. Fish holding device. 2,834,981, 5–20–58, Cl. 17—8.
Wilmot, George, to Empaques de Carton Titan, S. A. Packing box. 2,835,432, 5–20–58, Cl. 229—39.
Wilson, Joseph R., to Stratford Engineering Corp. Scraper blade assembly for the interior side wall of a grease kettle. 2,834,977, 5–20–58, Cl. 15—246.5.
Wilson, Marion C.: *See*—
Veselik, Emil, Wilson, and Jicha. 2,835,349.
Wilson, Raymond A.: *See*—
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61.9: 2,835,443
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2,835,804
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2,835,806
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2,835,808
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2,835,812
2,835,813
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95: 2,835,823
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214: 2,835,825
251— 3: 2,835,466
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147: 2,835,469
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239.55: 2,835,667
244: 2,835,668
247: 2,835,669
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294.7: 2,835,676
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340.5: 2,835,679
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397.3: 2,835,680
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397.5: 2,835,681
414: 2,835,685
429: 2,835,686
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561: 2,835,703
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596: 2,835,706
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628: 2,835,708
633: 2,835,709
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653: 2,835,711
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267— 9: 2,835,486
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2.6: 2,835,490
272— 30: 2,835,491
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70.1: 2,835,493
273— 96: 2,835,494
101: 2,835,495
279— 1: 2,835,496
42: 2,835,497
51: 2,835,498
280— 8: 2,835,499
36: 2,835,500
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44: 2,835,502
47.19: 2,835,503
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281— 33: 2,835,511
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285— 222: 2,835,513
286— 9: 2,835,514
11.15: 2,835,515
287— 49: 2,835,516
52: 2,835,517
52.06: 2,835,518
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99: 2,835,522
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28: 2,835,530
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60: 2,835,532
86: 2,835,533
95: 2,835,534
301— 37: 2,835,535
302— 14: 2,835,536
36: 2,835,537
304— 32: 2,835,538
307— 57: 2,835,827
88.5: 2,835,828
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308— 3: 2,835,539
4: 2,835,540
309— 2: 2,835,541
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310— 18: 2,835,831
27: 2,835,832
153: 2,835,833
154: 2,835,834
311— 21: 2,835,543
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312— 21: 2,835,545
117: 2,835,546
219: 2,835,547
352: 2,835,548
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82: 2,835,837
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181: 2,835,841
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292: 2,835,843
315— 5.27: 2,835,844
12: 2,835,845
27: 2,835,846
83: 2,835,847
84.6: 2,835,848
151: 2,835,849
180: 2,835,850
252: 2,835,851
317— 69: 2,835,852
236: 2,835,853
318— 19: 2,835,854
28: 2,835,855
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30: 2,835,857
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232: 2,835,859
473: 2,835,860
489: 2,835,861
320— 14: 2,835,862
321— 38: 2,835,863
323— 36: 2,835,864
45: 2,835,865
47: 2,835,866
66: 2,835,867
324— 111: 2,835,868
332— 37: 2,835,869
43: Re.24,474
52: 2,835,870
333— 9: 2,835,871
32: 2,835,872
73: 2,835,873
79: 2,835,874
336— 5: 2,835,875
134: 2,835,876
339— 19: 2,835,877
72: 2,835,878
340— 74: 2,835,879
174: 2,835,881
2,835,882
183: 2,835,883
2,835,884
210: 2,835,885
228: 2,835,886
281: 2,835,887
343— 103: 2,835,888
200: 2,835,889
754: 2,835,890
2,835,891
766: 2,835,892
895: 2,835,893
346— 32: 2,835,549

CLASSIFICATION OF DESIGNS

D 1—12: Des. 182,865
D 3—13: Des. 182,795
D 4— 3: Des. 182,788
Des. 182,825
D13— 6: Des. 182,784
D14— 3: Des. 182,859
Des. 182,864
6: Des. 182,783
30: Des. 182,802
Des. 182,807
Des. 182,851
D15— 1: Des. 182,790
Des. 182,804
Des. 182,805
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D17— 6: Des. 182,845
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D34—15: Des. 182,799
D35— 3: Des. 182,785
D42— 7: Des. 182,800
D44— 4: Des. 182,782
9: Des. 182,826
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D57— 1: Des. 182,843
D58— 6: Des. 182,860
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D64—12: Des. 182,858
D71— 1: Des. 182,823
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D72— 1: Des. 182,819
D74— 1: Des. 182,792
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5: Des. 182,798
17: Des. 182,866
D79— 2: Des. 182,849
D81—10: Des. 182,786
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D83— 1: Des. 182,850
D86— 8: Des. 182,789
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D90— 9: Des. 182,821
D91— 3: Des. 182,867
D92— 1: Des. 182,808
Des. 182,809
Des. 182,811
Des. 182,812
Des. 182,816
Des. 182,817
Des. 182,818
Des. 182,856
10: Des. 182,810

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
May 20, 1958 Volume 730 Number 3

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 320,981 (J. W. DANT AND DESIGN), The Dant Distillery Co., Inc., published by Schenley Distillers, Inc., Whiskey; **TM 376,057** (J. W. DANT), same, **filed** Nov. 21, 1955, D. C., W. D. Ky. (Louisville), Doc. 3044, *John P. Dant Distillery Co.* v. *Schenley Distillers, Inc.* (notice received Apr. 16, 1958).

TM 355,664 (INSTITUTIONS), Domestic Engineering Co., Periodical, **appeal filed** June 18, 1957, C. C. A., 7th Cir., Doc. 12133, *Domestic Engineering Co.* v. *Conover-Mast Publications, Inc.* Appeal dismissed Feb. 14, 1958.

TM 376,057. (See TM 320,981.)

TM 381,468 (AMEROCK), American Cabinet Hardware Corp., Drawer and door pulls, knobs, and hinges; **TM 381,714**, same, Door catches; **TM 524,364**, same, **filed** Apr. 17, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18630, *Amerock Corporation* v. *Irving Rosenblum et al.*

TM 381,714. (See TM 381,468.)

TM 524,364. (See TM 381,468.)

TM 547,321 (AAA AND DESIGN), American Automobile Assn., Services rendered to motor vehicle owners, etc., **filed** June 11, 1957, D. C., W. D. Ky. (Paducah), Doc. 952, *American Automobile Assn.* v. *Jeff'n Motel.* Action dismissed by order Sept. 19, 1957.

TM 576,575 (ANAHIST), Anahist Co., Inc., Preparation for symptomatic relief of colds and allergies, **filed** Apr. 14, 1958, D. C., N. D. Calif. (San Francisco), Doc. 37224, *Warner-Lambert Pharmaceutical Co.* v. *Amerio Drug Co. et al.*

TM 592,753 (MILEMASTER), Cities Service Oil Co., Pneumatic tires for automotive vehicles, **filed** Nov. 30, 1956, D. C., S. D. Fla. (Tampa), Doc. 2991–T, *Cities Service Oil Co. et al.* v. *J. C. Weidner Co., Inc. et al.* Final judgment; defendants restrained from use of trade name "MILEMASTER" (notice Apr. 17, 1958.)

TM 605,229 (MINKLAM), M. K. M. Hosiery Mills, Inc., Yarn; **TM 614,529** (MINKMIST), same; **TM 650,555** (MINKLON), same, Sweaters, **filed** Apr. 11, 1958, D. C. N. H. (Concord), Doc. 1919, *Mutation Mink Breeders Assn. et al.* v. *M. K. M. Knitting Mills, Inc. et al.*

TM 614,482 (PERSONALIZED SINGING STAR), Jack Kreiss Hosiery, Inc., Ladies' and misses' hosiery, **filed** Mar. 13, 1958, D. C., S. D. N. Y., Doc. 131/23, *Jack Kreiss Hosiery, Inc.* v. *Three B's Hosiery Mills.* Final consent judgment; defendants enjoined Apr. 10, 1958.

TM 614,529. (See TM 605,229.)

TM 628,471 (POLYFOAM), Whitehouse Distributors, Inc., Sheet stock or yard goods made of polyurethane foam, **filed** Apr. 9, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 314/58–PH, *General Tire & Rubber Co.* v. *Polyfoam Products.*

TM 643,101 (STACK-O-MATIC), Nu-Dell Plastics Corp., Plastic self-supporting silverware and cutlery trays, **filed**

CONDITION OF TRADEMARK APPLICATIONS AS OF MARCH 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,234
Date of oldest new application	Aug. 7, 1957
Date of oldest amended application	Aug. 12, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 44, 50	8-26-57	8-12-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	8-13-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	8-7-57	10-23-57
Renewals (All Classes)	2-25-58	3-14-58
Sec. 12 (c) Publications (All Classes)	2-6-58	3-17-58

Applications Filed During the Month of March 1958—1,966

Registrations Issued	281—No. 661,784 to No. 662,064
Renewals Issued	48

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

Apr. 17, 1958, D. C., S. D. N. Y., Doc. 132/209, *Nu-Dell Plastics Corp. v. Rona Plastic Corp.*

TM 648,367 (DESIGN IN DIAMOND SHAPED FRAME), Duquesne Brewing Co. of Pittsburg, Beer, filed Nov. 21, 1957, D. C. Md. (Baltimore), Doc. 10180, *Duquesne Brewing Co. of Pittsburgh v. American Brewing, Inc.*

TM 650,555. (See TM 605,229.)

TM 657,575 (WOOLTONE), The Boss Co., Textile rugs made in substantial part of wool, filed Apr. 11, 1958, D. C., S. D. N. Y., Doc. 132/120, *Homemaker Rugs Inc. v. The Boss Co.*

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 11,193. William G. Scarlett and Company, Baltimore, Md., from William G. Scarlett & Company. Filed June 28, 1956. Sec. 2(f).

Lawn Park

For Lawn Seed.
First use August 1925.

SN 22,787. Babbitrite Products Company, Milwaukee, Wis. Filed Jan. 18, 1957.

Babbitrite

For Compound Having the Appearance of Putty and Used To Retain Molten Metal While Pouring Bearings.
First use July 1, 1922.

SN 27,085. W. Atlee Burpee Co., Philadelphia, Pa. Filed Mar. 28, 1957.

LUTHER BURBANK



For Flower and Vegetable Seeds and Bulbs.
First use Dec. 20, 1956; Jan. 6, 1913, in other than present form.

SN 27,422. Corning Glass Works, Corning, N. Y. Filed Apr. 3, 1957.

PYROCERAM

For Crystalline Materials Made From Glass for Use as Raw Materials in the Industrial Arts.
First use Feb. 7, 1957.

SN 28,430. Carolina Charcoal & Chemical Co., Asheville, N. C. Filed Apr. 18, 1957.

PICNIC



For Charcoal in Bulk and Briquette Form, and Hickory Chips.
First use on or about June 1, 1955.

SN 28,496. Dawbarn Brothers, Incorporated, Waynesboro, Va. Filed Apr. 19, 1957.

DLP

For Extruded Polyolefin Ribbons, Monofilaments, and Multifilaments.
First use Apr. 25, 1956.

SN 28,871. Masterseal Company, Ventura, Calif. Filed Apr. 25, 1957.

MASTERBRIDGE

For Fibrous Material Added to Oil Well Drilling Muds To Avoid or Terminate Lost Circulation.
First use Apr. 5, 1956.

SN 29,717. The Gilman Brothers Company, Gilman, Conn. Filed May 9, 1957.

STYLOUR

For Synthetic Plastic Material Provided With a Velour Coating in Sheet and Roll Form.
First use Mar. 14, 1957.

SN 35,128. Seton Leather Company, Newark, N. J. Filed Aug. 7, 1957.

CHATHAM

For Leather.
First use Jan. 24, 1956.

SN 37,467. Whittaker, Clark & Daniels, Inc., New York, N. Y. Filed Sept. 18, 1957.

MICALITE

For Pulverized Micaceous Aluminum Silicate Useful in the Industrial Arts.
First use May 23, 1957.

SN 37,543. Armour and Company, Chicago, Ill. Filed Sept. 20, 1957.

LAREDO

For Upper Leather.
First use July 25, 1957.

SN 37,772. Blanchard Bro. & Lane, Inc., Newark, N. J. Filed Sept. 25, 1957.

Camellia

For Tanned and Finished Leather.
First use Apr. 5, 1957.

SN 37,932. American Colloid Company, Chicago, Ill. Filed Sept. 27, 1957.

PELBRITE

For Bentonite.
First use Aug. 27, 1957.

SN 38,480. Metropolitan Seed Corporation, Jersey City, N. J. Filed Oct. 7, 1957.

CAMBRIDGE PARK

For Lawn Grass Seed.
First use in 1930.

Class 2—Receptacles

SN 23,219. Continental Can Company, Inc., New York, N. Y. Filed Jan. 25, 1957.

SAV-A-PAN

For Paperboard Containers Lined With Aluminum or Other Metal Foil and Suitable as a Container for Heating or Reheating Food or Food Products.
First use Aug. 31, 1956.

SN SN 27,107. Kingsboro Mills, Inc., Chattanooga, Tenn. Filed Mar. 28, 1957.

KINGTEX NETS

Owner of Reg. No. 428,181.
For Laundry Bags or Nets.
First use Mar. 3, 1955.

SN 38,345. R. D. Cole Manufacturing Company, Newnan, Ga. Filed Oct. 4, 1957. Sec. 2(f).

COLE

For Steel Plate and Alloy Fabrication—Namely, Pressure Vessels, Storage Tanks, Elevated Tanks and Towers, and Gas Holders.
First use Jan. 1, 1925.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 39,161. A. J. Siris Products Corp., New York, N. Y. Filed Oct. 18, 1957.

SPUTNIK

For Wallets and Clutch Bags.
First use Oct. 15, 1957.

Class 4—Abrasives and Polishing Materials

SN 33,579. Texize Chemicals, Inc., Greenville, S. C. Filed July 11, 1957.

TEXIZE

Owner of Reg. Nos. 444,672, 642,423, and others.
For Wax for Commercial Use, Heavy Duty Wax, and Floor Dressing for Commercial Use, All of These Products Being Polishing Waxes for Use on Surfaces Where the Use of Such Wax Is Indicated.
First use in May 1949, on wax for commercial use.

SN 37,356. Industri-Aktiebolaget Viking, Orebro, Sweden. Filed Sept. 17, 1957.

VIKING

Owner of Swedish Reg. No. 44,082, dated Oct. 8, 1934.
For Shoe Polish and Leather-Blacking.

Class 5—Adhesives

SN 13,905. Borne, Scrymser Company, Elizabeth, N. J., now by change of name to Borne Chemical Company, Inc. Filed Aug. 14, 1956. Sec. 2(f).

BORNE SCRYMSER

For Adhesives, Specifically, Adhesives Based Largely on Natural and Synthetic Organic Compounds for General Industrial Purposes.
First use August 1953.

SN 21,929. Miller Dial and Name Plate Co., El Monte, Calif. Filed Dec. 31, 1956.

TRIAC

For Liquid Adhesive Applied to Labels or Foil Plates.
First use on or about Nov. 21, 1956.

SN 30,054. Arno Adhesive Tapes, Inc., Michigan City, Ind. Filed May 15, 1957.

ARNO

For Industrial Adhesive Tapes.
First use Mar. 12, 1957.

SN 35,973. P. Beiersdorf & Co. A. G., Hamburg, Germany. Filed Aug. 22, 1957.

TESABORDE

Owner of German Reg. No. 627,828, dated Oct. 8, 1952; and U. S. Reg. Nos. 608,169 and 600,590.
For Adhesive Tapes Recommended for Industrial, Commercial, Office, and Household Purposes, Particularly Tapes for Edging, Reinforcing, Masking, Identifying, Binding, as Well as for Protective Purposes.
First use 1949; in commerce April 1955.

SN 35,974. P. Beiersdorf & Co. A. G., Hamburg, Germany. Filed Aug. 22, 1957.

TESAFILM

Owner of German Reg. No. 640,336, dated June 22, 1953; and U. S. Reg. Nos. 600,590 and 608,169.
For Adhesive Tapes Recommended for Industrial, Commercial, Office, and Household Purposes, Particularly Tapes for Sealing, Masking, Packing, Reinforcing, Repairing, Mending, Identifying, as Well as for Protective Purposes.
First use in 1941; in commerce December 1954.

SN 35,975. P. Beiersdorf & Co. A. G., Hamburg, Germany. Filed Aug. 22, 1957.

TESAFLEX

Owner of German Reg. No. 519,098, dated Feb. 3, 1940; and U. S. Reg. Nos. 600,590 and 608,169.
For Adhesive Tapes Recommended for Industrial, Commercial, Office, and Household Purposes, Particularly Tapes for Sealing, Masking, Packing, Insulating, Identifying, as Well as for Protective Purposes.
First use in 1949; in commerce in March 1955.

SN 36,841. P. Beiersdorf & Co. A. G., Hamburg, Germany. Filed Sept. 9, 1957.

TESAMOLL

Owner of German Reg. No. 662,391, dated Sept. 9, 1954; and U. S. Reg. Nos. 600,590 and 608,169.
For Adhesive Tapes Recommended for Industrial, Commercial, Office, and Household Purposes, Particularly Tape for Insulating Against Temperatures, Drafts, Odor, and Dust, for the Elimination of Noise and Vibration, for Shock Absorbing and for Use Wherever Resilient Cushioning Is Desired.
First use in 1955; in commerce in January 1956.

Class 6—Chemicals and Chemical Compositions

SN 27,397. Georges C. St. Laurent and Marian H. St. Laurent, d. b. a. Hotel Research Laboratories, Closter, N. J. Filed Apr. 2, 1957.

JEL-LITE

For Solid Alcohol for Starting Charcoal and Wood Fires and as Chafing Dish Fuel.
First use Mar. 20, 1957.

SN 28,713. Kylan Corporation, Spartanburg, S. C. Filed Apr. 23, 1957.

KYLAN

For Natural Polymeric Compositions Derived From Chitin and Chitinous Materials.
First use Jan. 27, 1955.

SN 30,138. Ben P. Arnold, d. b. a. Arnold Leather Products Company and Arnold Leather Products Co., South Euclid, Ohio. Filed May 16, 1957.

RE-TĀN-ER

For Leather Preservative.
First use Mar. 23, 1957.

SN 32,173. Dynam Electrolyte Company, Miami, Fla. Filed June 18, 1957.

Dynam Electrolyte

The word "Electrolyte" is disclaimed apart from the mark as shown.
For Electrolyte Useful in Batteries.
First use in January 1957.

SN 33,125. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

SHEROSOPE

Owner of Reg. No. 176,315.
For Petroleum Sulfonates.
First use June 16, 1934.

SN 33,333. Commercial Solvents Corporation, New York, N. Y. Filed July 8, 1957.

PEAK

Owner of Reg. Nos. 389,040, 389,041, and 653,294.
For Methanol Racing Fuel Base.
First use Mar. 30, 1957.

SN 35,073. Wilson & Toomer Fertilizer Co., Jacksonville, Fla. Filed Aug. 6, 1957.

PUR-GAM

For Insecticidal Dust for Use in Agriculture.
First use July 1949.

SN 35,752. The Dow Chemical Company, Midland, Mich. Filed Aug. 19, 1957.

ARBAN

For Fire Retardant Compositions Sold for Industrial Use for Incorporation Into Wood Impregnating Compositions.
First use Apr. 23, 1957.

SN 35,755. The Dow Chemical Company, Midland, Mich. Filed Aug. 19, 1957.

DYNAWET

For Emulsifier and Wetting Agent for Use With Herbicides, Fungicides, Insecticides, Defoliants, Nutrient Sprays, and the Like.
First use May 30, 1955.

SN 35,979. Orville P. Brink, d. b. a. Price Chemical Company, West Palm Beach, Fla. Filed Aug. 22, 1957.

Sporty

For Fungicides and Insecticides for Domestic Animals.
First use July 5, 1957.

SN 36,490. Thomas Wilson & Co., Inc., New York, N. Y. Filed Aug. 29, 1957.

LANO-FAB

For Textile Finish Preparation, i. e., a Chemical Preparation To Be Made Into an Aqueous Solution in Which Textile Yard Goods Are Treated To Impart a Desired Surface Finish Which Improves the Feel or "Hand" of the Fabric and Its Appearance.
First use Feb. 1, 1957.

SN 36,533. Prairie States Oil & Grease Company, Danville, Ill. Filed Aug. 30, 1957.

WEATHER-MATE

Owner of Reg. No. 653,659.
For Antifreeze.
First use Aug. 9, 1957.

SN 37,537. Allied Chemical & Dye Corporation, New York, N. Y. Filed Sept. 20, 1957.

NAXOL

For Cyclic Alcohol for General Industrial Use.
First use Feb. 21, 1957.

SN 37,538. Allied Chemical & Dye Corporation, New York, N. Y. Filed Sept. 20, 1957.

LANAMID

For Dyestuffs.
First use July 25, 1957.

SN 38,402. Union Carbide Corporation, New York, N. Y. Filed Oct. 4, 1957.

UNION CARBIDE

Owner of Reg. Nos. 119,405 and 643,460.
For Fluorinated Hydrocarbons for Use as Refrigerants and Propellants and for Other Uses in the Industrial Arts.
First use July 16, 1957.

SN 38,867. C. P. Stephenson, d. b. a. Stephenson Chemical Company, College Park, Ga. Filed Oct. 14, 1957.



Applicant disclaims the words "Bug Killer" apart from the mark as shown.
For Insecticides.
First use Apr. 15, 1957.

SN 38,946. H. H. Robertson Company, Pittsburgh, Pa. Filed Oct. 15, 1957.

CAPSULON

For Modified Epoxy Resins for Use in Impregnating, Potting, Casting, and Encapsulating Electrical and Electronic Equipment.
First use Sept. 14, 1956.

SN 38,947. H. H. Robertson Company, Pittsburgh, Pa. Filed Oct. 15, 1957.

CAPSUFLEX

For Coreactive Plasticisers for Epoxy Resins.
First use Aug. 6, 1957.

SN 39,047. The Cromwell Paper Company, Chicago, Ill. Filed Oct. 17, 1957.

FERRO-PAK

Owner of Reg. No. 544,064.
For Corrosion Inhibitor.
First use Nov. 10, 1954.

SN 39,095. Rust Master Chemical Corporation, Cambridge, Mass. Filed Oct. 17, 1957.

GAS MASTER

Owner of Reg. Nos. 374,898, 552,778, and others.
For Preparation for Preventing Freezing of Water in Gasoline Tanks and for Conditioning Fuel Lines.
First use Sept. 20, 1957.

SN 39,115. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Oct. 17, 1957.

RAYLENE

For Laundry Brightener and Sour.
First use Jan. 28, 1957.

SN 39,387. The Dow Chemical Company, Midland, Mich. Filed Oct. 23, 1957.

STYROBEADS

For Expandable Synthetic Resin.
First use Dec. 10, 1956.

SN 39,414. Sel-Rex Corporation, Nutley, N. J. Filed Oct. 23, 1957.

KARATCLAD

For Electrolyte for Use in Gold Plating Process.
First use Aug. 30, 1956.

SN 39,455. Diamond Alkali Company, Cleveland, Ohio. Filed Oct. 24, 1957.

CARBIUM

Owner of Reg. No. 378,091.
For Calcium Carbonate.
First use Oct. 16, 1957.

SN 39,574. Atlas Powder Company, Wilmington, Del. Filed Oct. 28, 1957.

AFROX

For Foaming Agents for Use in Oil and Gas Well Drilling.
First use July 12, 1957.

Class 7 — Cordage

SN 33,996. Olson Company of Sarasota, Inc., Sarasota, Fla. Filed July 18, 1957.

"LAVAN"

For Rope.
First use Jan. 5, 1955.

SN 38,053. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Sept. 30, 1957.



Owner of Reg. Nos. 500,168 and 500,169.
For Wire Rope.
First use about Aug. 3, 1956.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 18,499. Cory Corporation, Chicago, Ill. Filed Oct. 31, 1956.

AUTOLITER

For Cigarette and Cigar Pocket Lighters.
First use Oct. 22, 1956.

SN 37,964. Larus & Brother Company, Richmond, Va. Filed Sept. 27, 1957.

Executive

Owner of Reg. Nos. 422,820, 643,488, and 643,489.
For Pyrophoric Lighters and Smokers' Pipes.
First use Aug. 10, 1941, on lighters.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 37,875. Hercules Powder Company, Wilmington, Del. Filed Sept. 26, 1957.

HERCOL

Owner of Reg. No. 371,839.
For Dynamite.
First use July 30, 1957.

Class 10 — Fertilizers

SN 38,862. Goldwyn Smith, d. b. a. Goldwyn Smith Co., Tampa, Fla. Filed Oct. 14, 1957.

GEE BEE

For Plant Growth Substance.
First use June 8, 1957.

Class 12 — Construction Materials

SN 5,822. The Celotex Corporation, Chicago, Ill. Filed Apr. 5, 1956.

S-C

For Rock Wool Insulation in Loose and Granulated Form.
First use Oct. 10, 1955.

SN 27,263. Amco Steel Fence Company, Houston, Tex. Filed Apr. 1, 1957.

AMCO

Owner of Reg. No. 649,552.
For Wooden Fences.
First use Mar. 15, 1952.

SN 30,037. Republic Industries, Inc., Chicago, Ill. Filed May 14, 1957.

DOR-GARDS

For Safety Device for Swinging Doors To Close the Gap Between the Casement and the Door at the Hinge Side.
First use Mar. 10, 1957.

SN 34,940. Michael P. Glime, Detroit, Mich. Filed Aug. 5, 1957.

HOLIDAY

For Swimming Pools of Permanent Concrete Construction Complete With Filtration Plant, Ladders, Safety Buoys, Sold as a Complete Unit.
First use Jan. 3, 1957.

SN 35,005. Russell Reinforced Plastics Corporation, Lindenhurst, N. Y. Filed Aug. 5, 1957.

HONEYCOMB TROPIGLAS

The word "Honeycomb" is disclaimed apart from the mark as shown. Owner of Reg. No. 608,186.
For Tinted, Glass Fiber Reinforced, Plastic Panels and Slats Utilized in Wall Openings of Buildings and Wall Sections or Partitions.
First use Apr. 26, 1956.

SN 35,982. Caloric Appliance Corporation, Philadelphia, Pa. Filed Aug. 22, 1957.

CALCORE

For Enamel and Porcelain Covered Panels.
First use on or about July 2, 1957.

SN 39,120. American Vermiculite Corporation, New York, N. Y. Filed Oct. 18, 1957.

VERBLOX

For Blocks or Billets Composed of Exfoliated Vermiculite Combined With a Binder and Molded and Heat Treated To Be Used as Refractory Insulating Bricks, Acoustical Tile and High and Low Temperature Insulating Slabs, and So Forth.
First use Apr. 1, 1957.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 21,359. Coralware Company, Inc., Chicago, Ill. Filed Dec. 20, 1956.



CORALWARE

For Plumbing Fixtures Such as Lavatories, Wash Tubs, Sinks, and Bathtubs.
First use Nov. 16, 1956.

SN 38,468. Lakeview Manufacturing Corporation, Milwaukee, Wis. Filed Oct. 7, 1957.

KEVLOK

For Fastening Device or Buckle To Connect and Tighten Webbing, Straps, Belts, and Other Similar Material.
First use Aug. 22, 1957.

SN 38,683. Fox Products Company, Philadelphia, Pa. Filed Oct. 10, 1957.

FOX

For Automatic Valves for Filling Watering Troughs.
First use at least as early as June 1, 1948.

SN 38,729. Buckingham Manufacturing Co., Inc., Binghamton, N. Y. Filed Oct. 11, 1957.

NYBUCK

For Safety Straps for Utility Linemen and Others Working on Poles, Aerial Structures, and the Like.
First use on or about July 1, 1947.

SN 38,730. Buckingham Manufacturing Co., Inc., Binghamton, N. Y. Filed Oct. 11, 1957.

FABUCK

For Safety Straps for Utility Linemen and Others Working on Poles, Aerial Structures, and the Like.
First use on or about Jan. 1, 1945.

SN 39,173. Aluminum Tubing Company, Jacksonville, Fla. Filed Oct. 21, 1957.



The drawing is lined for blue and silver.
For Aluminum Tubing.
First use July 10, 1956.

SN 39,794. H. J. Dowd Company Inc., Cambridge, Mass. Filed Oct. 30, 1957.

SNAC-PIC

Owner of Reg. No. 550,570.
For Hors d'Oeuvre and Sandwich Picks.
First use during January 1941.

Class 14 — Metals and Metal Castings and Forgings

SN 28,082. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed Apr. 12, 1957.



For Tool Steel in the Form of Drill Rod, Ground Rod or Wire, Ground and Polished Rod or Wire, Cold Drawn or Hot Drawn Standard Drill Rod Shapes Such as Squares, Flats, Hexagons, and Octagons, and Cold or Hot Drawn Special Shapes of Various Cross Sectional Configurations for Use in Drills, Taps, Reamers, Punches, Awls, Bits, End Mills, Spindles, Bearings, Special Tools, Dies, Cores, and the Like.
First use Nov. 7, 1923.

SN 28,083. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed Apr. 12, 1957.



For Tool Steel in the Form of Drill Rod, Ground Rod or Wire, Ground and Polished Rod or Wire, Cold Drawn or Hot Drawn Standard Drill Rod Shapes Such as Squares, Flats, Hexagons, and Octagons, and Cold or Hot Drawn Special Shapes of Various Cross Sectional Configurations for Use in Drills, Taps, Reamers, Punches, Awls, Bits, End Mills, Spindles, Bearings, Special Tools, Dies, Cores, and the Like.
First use Nov. 7, 1923.

SN 28,362. P. R. Mallory & Co. Inc., Indianapolis, Ind. Filed Apr. 17, 1957.

PENDULOY

For Metal Alloys.
First use Feb. 11, 1957.

SN 31,425. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed June 5, 1957.

SPEED-CUT

For Tool Steel in the Form of Billets, Bars, Sheets, and Plates, Circles Stamped or Cut From Plates or Sheets, and Disk and Ring Forgings Forged on a Steam Hammer, Drop Hammer, or Press From Rolled or Preforged Stock for Use in Fabricating Into Machinery Parts and Machine Tool Parts, Molds, Cavity Plates, Spacer Blocks, Die Casting Dies, Ejector Plates, Press Brake Dies, Tool Shanks, Rolls, Punches, Blanking, Stamping and Forming Dies, Springs, and Plastic Dies.
First use Aug. 19, 1946.

SN 36,822. Welding Equipment & Supply Co., Detroit, Mich. Filed Sept. 6, 1957.

EUREKALLOY

For Hardfacing Alloy Electrodes and Rods.
First use June 15, 1957.

SN 36,824. Welding Equipment & Supply Co., Detroit, Mich. Filed Sept. 6, 1957.

DRAWALLOY

For Alloy Welding Electrodes and Tool and Die Welding Electrodes.
First use Mar. 1, 1937.

SN 36,988. All-State Welding Alloys Co., Inc., White Plains, N. Y. Filed Sept. 11, 1957.



No claim is made to the words "Alloys" and "Fluxes" apart from the mark as shown. Owner of Reg. No. 435,246.
For Welding Alloys.
First use in July 1952; January 1946 as to "All-State."

SN 37,031. Monarch Governor Company, Willow Run, Mich. Filed Sept. 11, 1957.

SONICAST

For Die and Permanent Mold Castings for Use in Toilet and Household Accessories.
First use on or about June 26, 1957.

SN 37,256. Green River Steel Corporation, Owensboro, Ky. Filed Sept. 16, 1957.

MACRO-CLEAN

For Billets, Bars, and Slabs of Aircraft and Commercial Grade Alloy Steel; Billets, Bars and Slabs of Aircraft and Commercial Grade Stainless Steel; and Billets, Bars and Slabs of Aircraft and Commercial Grade Forging Quality Carbon Steel.
First use July 25, 1957.

Class 16—Protective and Decorative Coatings

SN 33,913. W. J. Ruscoe Company, Akron, Ohio. Filed July 17, 1957.

FLEXCOTE

For Flexible Paints and Colored Coatings.
First use July 1, 1948.

SN 39,362. Caloric Appliance Corporation, Philadelphia, Pa. Filed Sept. 24, 1957.

THERMO-JET

For High Temperature Porcelain Enamel Finish of Household Appliances.
First use in September 1953.

SN 43,368. American-Marietta Company, Chicago, Ill. Filed Jan. 3, 1958.

AMSHIELD

For Protective Coatings for Pipe.
First use on or about Nov. 21, 1957.

SN 43,401. The Reardon Company, St. Louis County, Mo. Filed Jan. 3, 1958.

TRAX

For Paint.
First use prior to Sept. 1, 1942.

Class 17—Tobacco Products

SN 37,511. Mid-West Tobacco Co., Cincinnati, Ohio. Filed Sept. 19, 1957.

MID-WEST

Owner of Reg. No. 360,007.
For Chewing Tobacco and Smoking Tobacco.
First use on or about Aug. 20, 1930.

SN 37,582. M. Marsh and Son, Wheeling, W. Va. Filed Sept. 20, 1957.

MARSH WHEELING

Owner of Reg. No. 47,045.
For Cigars and Stogies Prepared for Smoking.
First use 1900.

SN 37,657. Hijos de J. Cano y Compania, Havana, Cuba. Filed Sept. 23, 1957.

TROCADERO

For Cigars.
First use Jan. 26, 1939; in commerce April 1948.

SN 37,804. Philip Morris, Incorporated, New York, N. Y. Filed Sept. 25, 1957.

DIGEST

For Cigarettes.
First use Sept. 19, 1957.

Class 18—Medicines and Pharmaceutical Preparations

SN 18,687. Graham Chemical Corp., Springfield Gardens, N. Y. Filed Oct. 19, 1956.

SoluCones

The word "Cones" is disclaimed apart from the mark as shown. Owner of Reg. No. 425,572.
For Dental Medicament Used To Fill Gum Cavities Following Tooth Extraction To Prevent Infection and Relieve Pain.
First use Oct. 25, 1945.

SN 22,649. The Amburgo Company Inc., Philadelphia, Pa. Filed Jan. 16, 1957.

AMBURGO

For Soluble Phosphates Concentrate With Trace Minerals, and Trace Mineral Concentrates, for Mixing in Livestock and Poultry Feeds.
First use May 1937.

SN 29,082. Lionel Kent (S. A.) (Proprietary) Limited, Benoni, Transvaal, Union of South Africa. Filed Apr. 29, 1957.

BRIANBEL

Owner of Union of South African Reg. No. 1027/43, dated Sept. 2, 1943.
For Preparation for the Treatment of Simple Coughs, Bronchial Conditions, Colds, Croup, and Whooping Cough.

SN 29,910. Internationale Verbandstoff-Fabrik Schaffhausen, Schaffhausen, Switzerland. Filed May 13, 1957.

RHENA
Varidress

Owner of Swiss Reg. No. 163,852, dated Dec. 19, 1956.
For Ointment Compresses, Medicinal Plasters, Medicated Antiseptic Bandages, Medicated Compresses.

SN 31,945. Primus Produktion, Pharmazeutische und Kosmetische Präparate Mutter & Co., Munich, Germany. Filed June 13, 1957.

CRUZYLAN

Owner of German Reg. No. 635,460, dated Mar. 10, 1953.
For Chemical Products for Medicinal Purposes.

SN 32,320. The Kendall Company, Boston, Mass. Filed June 20, 1957.

BIKE

Owner of Reg. Nos. 401,712 and 526,897.
For Medicinal Preparations—Namely, Analgesic Balm, Skin Toughener, Foot and Body Powder for the Treatment of Fungus Infections and Similar Ailments, Fungicide, Athletic Liniment, Athletic Ointment, Tape and Bandage Adherent, Tape Remover, Salt Tablets, Aspirin Tablets, Ammonia Capsules, Dextrose Tablets, and Germicide for Personal Use.
First use Mar. 27, 1957, on foot and body powder, salt tablets, and dextrose tablets.

SN 34,231. Herman Fels, d. b. a. Rumeidine Co., Brooklyn, N. Y. Filed July 23, 1957.

TruOdine

For Antiseptic for Personal Use for Treatment of Athlete's Foot, Poison Oak, Poison Ivy, Minor Wounds, Scratches, and Other Similar Skin Troubles.
First use in 1905.

SN 34,232. Herman Fels, d. b. a. Rumeidine Co., Brooklyn, N. Y. Filed July 23, 1957.

TriOdine

For Antiseptic for Personal Use for Treatment of Athlete's Foot, Poison Oak, Poison Ivy, Minor Wounds, Scratches, and Other Similar Skin Troubles.
First use in 1905.

SN 35,969. American Home Products Corporation, d. b. a. Wyeth Laboratories, Division of American Home Products Corporation, New York, N. Y. Filed Aug. 22, 1957.

RONDAR

For Tranquillizing Agent.
First use July 12, 1957.

SN 36,732. Murphy Products Company, Burlington, Wis. Filed Sept. 5, 1957.

W-R-MIN

For Medicated Mineral Feed for Cattle and Sheep Used as an Aid in Controlling Certain Species of Worms.
First use Aug. 8, 1957.

SN 37,783. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Sept. 25, 1957.

STAPENOR

Owner of German Reg. No. 655,574, dated Mar. 29, 1954.
For Chemotherapeutic Agents, Chemical Products for Healing Purposes and Cultivation of Health, and Pharmaceutical Drugs.

SN 38,493. Smith Kline & French Laboratories, Philadelphia, Pa. Filed Oct. 7, 1957.

SUL-SPANTAB

Owner of Reg. Nos. 562,210, 658,989, and others.
For Sulfonamide Preparation.
First use Sept. 25, 1957.

SN 39,549. Reed & Carnrick, Jersey City, N. J. Filed Oct. 25, 1957.

ANALEPTONE

Owner of Reg. No. 503,098.
For Medicinal Preparation To Be Used as a Geriatric Tonic.
First use Feb. 15, 1955.

SN 40,694. Parke, Davis & Company, Detroit, Mich. Filed Nov. 14, 1957.

HUMATIN

For Antibiotic Preparation.
First use Aug. 1, 1957.

SN 40,695. Parke, Davis & Company, Detroit, Mich. Filed Nov. 14, 1957.

HUMEVAC

For Fecal Softener.
First use Mar. 1, 1957.

Class 19 — Vehicles

SN 24,408. L. B. White, d. b. a. L. B. White Co., Onalaska, Wis. Filed Feb. 14, 1957.

Motor-Tator

For Device for Carrying Outboard Motors on Automobiles.
First use Nov. 15, 1955.

SN 27,755. Universal Air Lift, Inc., Lansing, Mich. Filed Apr. 8, 1957.

AIR LIFT

Owner of Reg. No. 567,598.
For Spring Controls and Spring Control Assemblies, Also Known as Spring Boosters.
First use June 1, 1950.

SN 30,599. Parachutes, Incorporated, Bedford, N. Y. Filed May 23, 1957.

THE SKY DIVER

For Parachutes and Parts Thereof.
First use on or about Mar. 8, 1957.

SN 31,985. Bruce Nodwell Ltd., Calgary, Alberta, Canada. Filed June 14, 1957.

SCOUT

Owner of Canadian Reg. No. 106,840, dated May 31, 1957.
For Power Driven, Truck Tractor Type Vehicles and Trailers.

SN 36,930. Elmer J. Selden, d. b. a. Burlington Manufacturing Company, Burlington, Iowa. Filed Sept. 9, 1957.

BUCKEROO

For House Trailers—Namely, Rolling Cabins.
First use July 27, 1957.

SN 37,598. Saf-T-Fend Mfg. Co., Chicago, Ill. Filed Sept. 20, 1957.

Saftfend

For Fenders for Motor Vehicles and Trailers.
First use July 9, 1957.

SN 39,232. Independent Iron Works, Inc., Oakland, Calif. Filed Oct. 21, 1957.

BAKER Towking

For Trailer Hitches.
First use June 20, 1957.

SN 39,550. Rex Applegate, Mexico City, Mexico. Filed Oct. 25, 1957.

PAK-PAL

For Sectional Boats.
First use May 24, 1957; in commerce June 4, 1957.

SN 39,619. General Motors Corporation, Detroit, Mich. Filed Oct. 28, 1957.



For Automobiles.
First use in January 1956.

SN 39,651. Lewis-Shepard Products, Inc., Watertown, Mass. Filed Oct. 28, 1957.

FLORLIFE

For Vehicle Wheels and Parts Thereof.
First use May 8, 1956.

SN 39,817. Lynebilt Corporation, Norfolk, Va. Filed Oct. 30, 1957.

CANARY

For Hand Propelled Cart for Trash Receptacles.
First use Aug. 6, 1957.

SN 39,899. Richmond Cedar Works Mfg. Corp., Richmond, Va. Filed Oct. 31, 1957.

HUCK FINN

For Pontoon Pleasure Boats.
First use June 13, 1957.

SN 40,005. Wagemaker Company, Grand Rapids, Mich. Filed Nov. 1, 1957.

CATALINA

For Boats.
First use Oct. 14, 1957.

SN 40,061. Roy E. Lowe, d. b. a. Autoteria, Detroit, Mich. Filed Nov. 4, 1957.

AUTOTERIA

For Mobile Trucks, Vehicles, and Special Equipment Therefor Comprising an Attached Extendable Load Platform, and Extendable Structures Supported by the Truck and/or Vehicle Especially Designed To Serve Food and Drink.
First use Mar. 10, 1957.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 19,332. Societa Anonima per la Costruzione di Macchine, Minusio, Switzerland. Filed Nov. 15, 1956.

AGEMA

Owner of Swiss Reg. No. 157,778, dated Aug. 19, 1955.
For Sparking Machine Tools.

SN 23,471. Infratrol Oven Corporation, Milwaukee, Wis. Filed Jan. 30, 1957.

INFRATROL

For Electric Controls and Ovens.
First use July 26, 1950.

SN 23,854. Sears, Roebuck and Co., Chicago, Ill. Filed Feb. 5, 1957.

THERMO CHANNEL

For Guides Which Act as Belt Loops for Heating Elements of Electric Water Heaters.
First use on or about Jan. 4, 1955.

SN 27,483. Airtron, Inc., Linden, N. J. Filed Apr. 4, 1957.

FERROLINE

Owner of Reg. No. 603,543.
For Waveguides for Microwave Systems.
First use Feb. 22, 1957.

SN 29,841. Thomas and Skinner, Inc., Indianapolis, Ind. Filed May 10, 1957.

SIFEMAG

For Transformer Core Stock.
First use Feb. 1, 1957.

SN 31,287. U. S. Industries, Inc., Goleta, Calif. Filed June 3, 1957.



Owner of Reg. No. 619,833.

For Electrical Power Supplies, as Apparatus for Receiving Electrical Power in One Form and Converting Such Power to Another Form.

First use Dec. 3, 1956.

SN 31,677. Marconi's Wireless Telegraph Company Limited, Great Baddow, England. Filed June 10, 1957.



Owner of British Reg. No. 702,915, dated Nov. 26, 1951; and U. S. Reg. No. 626,852.

For Wireless, Telephonic, Telegraphic, and Television Transmitting Apparatus; Apparatus for Controlling and Producing Audio-Frequency and Video-Frequency Signals in All the Aforesaid Apparatus; Radio Locating, Transmitting and Receiving Apparatus, Wireless Telegraphic, Telephonic, and Television Receiving Apparatus and Relay Apparatus for Use Therewith; Parts of All the Aforesaid Goods; and Thermionic Valves and Piezo-Electric Crystals.

SN 36,341. Aeroprojects Inc., West Chester, Pa. Filed Aug. 28, 1957.

SONOSOLDER

For Vibratory Soldering Apparatus Including Electrical Energizing Means.

First use Aug. 16, 1957.

SN 36,456. Keasbey & Mattison Company, Ambler, Pa. Filed Aug. 29, 1957.

"K & M"

For Asbestos Cement Conduit and Duct and Asbestos Cement Couplings and Fittings Used in Connection With Conduit and Duct for Use in Electrical Wiring and Cable Installations.

First use in June 1938.

SN 37,738. David Kahn, Inc., North Bergen, N. J. Filed Sept. 24, 1957.



For Flashlights.

First use May 27, 1955.

SN 37,975. Ray-O-Vac Company, Madison, Wis., to The Electric Storage Battery Company, Philadelphia, Pa. Filed Sept. 27, 1957.

Celebrity

For Flashlights and Flashlight Cases.

First use Aug. 6, 1957.

SN 37,976. Ray-O-Vac Company, Madison, Wis., to The Electric Storage Battery Company, Philadelphia, Pa. Filed Sept. 27, 1957.

cub

For Flashlights and Flashlight Cases.

First use Aug. 6, 1957.

SN 38,101. **Thermo Electric Manufacturing Co.**, Dubuque, Iowa. Filed Sept. 30, 1957.

THERMOLYNE

Owner of Reg. No. 650,033.

For Laboratory, Small Unit Production, Tool and Die Hardening, and Tempering Electric Furnaces; Hot Plates; Combination Hot Plates and Magnetic Stirrers; and Flask Heaters.

First use Aug. 27, 1957.

SN 38,108. Wells Manufacturing Co., San Francisco, Calif. Filed Sept. 30, 1957.

COUNTER-MATE

For Commercial Electric Cooking Appliances—Namely, Fry Kettles, Waffle Irons and Food Warmers, and Parts and Accessories Therefor.

First use Jan. 18, 1954.

SN 38,321. Aerovox Corporation, New Bedford, Mass. Filed Oct. 4, 1957.

"WHITECAP"

For Paper Cased Tubular Capacitor.

First use July 16, 1957.

SN 38,533. General Bronze Corporation, Garden City, N. Y. Filed Oct. 8, 1957.



For Television Antennas.

First use Feb. 3, 1956.

SN 38,596. Day-Brite Lighting, Inc., St. Louis, Mo. Filed Oct. 9, 1957.

PARAFLO

For Fluorescent Lighting Fixtures and Parts Thereof.

First use Sept. 26, 1957.

SN 38,618. Walter G. Legge Company, Inc., New York, N. Y. Filed Oct. 9, 1957.

LEGSTAT

For Grounding Devices for Conducting Static Electric Charges From Individuals to the Ground.
First use Aug. 15, 1957.

SN 38,640. Simon Sound Service Limited, London, England. Filed Oct. 9, 1957.

CADENZA

Owner of British Reg. No. 762,513, dated Feb. 15, 1957.
For Microphones, Sound Amplifiers, Apparatus for Recording and Reproducing Sound by Means of Magnetic Tape, Loud Speakers, and Dictating Machines for Office Use and Parts and Fittings for the Aforesaid Goods.

SN 38,678. Excel Trading Corporation, New York, N. Y. Filed Oct. 10, 1957.

EXCEL

For Radio Receivers and Transmitters.
First use Dec. 4, 1956.

SN 38,680. Fox Products Company, Philadelphia, Pa. Filed Oct. 10, 1957.

SAFETRONIC

For Battery Chargers With Electrical Safety Systems.
First use at least as early as July 1, 1956.

SN 38,740. The Electric Auto-Lite Company, Toledo, Ohio. Filed Oct. 11, 1957.

AUTO-LITE

Owner of Reg. Nos. 110,818, 648,915, and others.
For Electrical Conductors, Terminals, and Accessories Therefor.
First use Aug. 10, 1939.

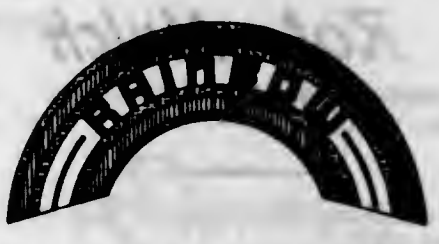
SN 39,026. Harry A. Dewentar, South Pasadena, Calif. Filed Oct. 4, 1957.

Blendal

For Electrical Food Mixer and Blender.
First use Jan. 12, 1957.

Class 22—Games, Toys, and Sporting Goods

SN 9,450. Donald F. Duncan, Incorporated, Chicago, Ill. Filed June 1, 1956.



The drawing is lined for red and yellow, the colors not being claimed as a feature of the mark.
For Tops of the Bandalore Return Type.
First use March 1937.

SN 34,004. Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. Filed July 18, 1957.



Owner of German Reg. No. 608,901, dated July 9, 1951.
For Air Filled Rubber Mattresses for Campers and Outdoor Use.

SN 37,585. Moline Pressed Steel Corporation, East Moline, Ill. Filed Sept. 20, 1957.

Buddy L

Owner of Reg. No. 615,274.
For Toy Vehicles.
First use Apr. 15, 1957; in 1921 in a modified form.

SN 39,557. Herbert A. Stuart, d. b. a. Al's Goldfish Lure Co., Indian Orchard, Mass. Filed Oct. 25, 1957.

SPUTNIK

For Artificial Fishing Lures.
First use Oct. 10, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 6,092. Browning Manufacturing Co., San Antonio, Tex. Filed Apr. 10, 1956.

ROCK BUSTER

For Mobile Rock Crushing Machines.
First use Mar. 31, 1956.

SN 24,214. Thorsen Manufacturing Company, Oakland, Calif. Filed Feb. 11, 1957.



The words "Oakland, California, U. S. A." and "Hot Forged Tools" are disclaimed apart from the mark as shown.
For Mechanics' Hand Tools.
First use Mar. 1, 1953.

SN 27,088. Clark Equipment Company, Buchanan, Mich. Filed Mar. 28, 1957. Sec. 2(f).

TRUCLOADER

Owner of Reg. Nos. 408,937 and 600,156.
For Power Operated Industrial Lift Trucks.
First use July 26, 1943.

SN 27,486. John W. Bolton & Sons, Inc., Lawrence, Mass. Filed Apr. 4, 1957.

Microlyzed

For Jordan Fillings (Bodily Transportable, Truncated Conical, Assemblies of Knives and Spacers Fitting Outside the Plug or Inside the Shell of a Jordan Paper Refining Engine).
First use Mar. 8, 1957.

SN 31,133. Moore-Handley Hardware Co., Inc., d. b. a. Moore-Handley, Birmingham, Ala. Filed May 31, 1957.

MORHAUL

For Hydraulically Actuated Lifting Mechanisms for Elevating Detachable Cargo Bodies From Transport Position on Vehicles to Unloading Position, Retractable Stands for Supporting Detachable Cargo Bodies When Removed From a Vehicle.
First use Feb. 25, 1957.

SN 31,142. Ormig Organisationsmittel G. m. b. H., Berlin-Tempelhof, Germany. Filed May 31, 1957.

LITHOSET

Owner of German Reg. No. 700,586, dated Feb. 28, 1957.
For Duplicating Machines.

SN 31,246. Pacific Coast Engineering Company, Alameda, Calif. Filed June 3, 1957.

DUAL TORQUE

For Control Equipment for Hoists.
First use June 1, 1956.

SN 32,481. Feinprüf, Feinmess- und Prüfgeräte Gesellschaft mit Beschränkter Haftung, Gottingen, Germany. Filed June 24, 1957.

Feinprüf

Owner of German Reg. Nos. 672,370 and 685,192, dated Mar. 3, 1955, and Dec. 6, 1955, respectively; and U. S. Reg. No. 638,758.
For Drill Blocks, Milling Machines, Bore Machines, Lathes, Lathe Converters, Bench Lathes, Spindle Lathes, Releathing Lathes, Grinding and Polishing Machines, Hob-Sharpening Machines, Blocks, Chucking Devices, Clamping Sleeves, Clamp Dogs, Chuck Closing Devices, Standard Die Sets for Cutting and Punching Machines, Cutting and Punching Tools, Adjusting Tools, Supply Pumps for Spinneret, Punching Machines.

SN 32,628. Powdercraft Corporation, Spartanburg, S. C. Filed June 25, 1957.

P

For Machine Parts and Bearings.
First use Apr. 8, 1953.

SN 33,104. Vits Elektro G. m. b. H., Duesseldorf, Germany. Filed July 2, 1957.

VITS

For Drying and Finishing Machines for Use in the Production of Textiles, Paper, and Plastics.
First use in January 1954; in commerce in January 1954.

SN 33,249. Kilham Engineering, Inc., Plainville, Mass. Filed July 5, 1957.

CURVIT

For Machinery of the Following Kinds: Tube, Rod, and Bar Bending and Forming Machinery.
First use Apr. 9, 1952.

SN 37,697. Velvet Soft, Inc., Holland, Mich. Filed Sept. 23, 1957.

TRI-TEMP

For Soft Water Systems.
First use May 6, 1957.

SN 38,013. Brill Equipment Company, New York, N. Y. Filed Sept. 30, 1957.

BRILL RE-BILT

No claim is made to the word "Re-bilt" apart from the mark as shown.
For Re-Built Machinery.
First use 1950.

SN 38,306. Jack W. Steindorf, Corvallis, Oreg. Filed Oct. 3, 1957.

ZIP-SPAT

For Blade Cleaning Devices for Cleaning Flat Tools Such as Spatulas and Knives, Comprising a Pair of Scraping Blades Through Which the Tools Are Drawn and a Drip Pan for Catching the Scrapings Removed From the Tools.
First use June 10, 1957.

SN 39,205. Dresser Industries, Inc., Dallas, Tex. Filed Oct. 21, 1957.

ROOTS-CONNERSVILLE

Owner of Reg. Nos. 153,840, 617,425, and 632,648.
For Gas and Liquid Pumps, Vacuum Pumps, and Air and Gas Compressors.
First use at least as early as 1935.

SN 39,226. Herminghausen-Werke G. m. b. H., Hannover-Wolfel, Germany. Filed Oct. 21, 1957.

PRECIFILM

Owner of German Reg. No. 701,867, dated Apr. 12, 1957.
For Precision Friction Bearings.

SN 39,429. Harry A. Tessler, d. b. a. Tessler Sewing Machine Co., Cleveland, Ohio. Filed Oct. 23, 1957.

StyleMaster

For Sewing Machines.
First use Oct. 1, 1957.

SN 39,493. Popeil Bros., Inc., Chicago, Ill. Filed Oct. 24, 1957.

HASTY-TASTY

For Juicer and Cookie Cutter.
First use Oct. 14, 1957.

SN 39,600. Phil E. Davis, d. b. a. Phil Davis Rota-Mulch, Mesa, Ariz. Filed Oct. 28, 1957.

Rota-Mulch

For Soil Mulching Machine.
First use Mar. 14, 1957.

SN 39,785. Continental Can Company, Inc., New York, N. Y. Filed Oct. 30, 1957.

JAK-ET-PAK

For Machines for Fabricating Cartons From Paperboard.
First use Oct. 30, 1956.

SN 41,335. United States Steel Corporation, Pittsburgh, Pa. Filed Nov. 25, 1957.

KROM-I-DEE

For Subsurface Pump Barrels.
First use Jan. 5, 1956.

SN 41,620. Clauss Cutlery Company, Fremont, Ohio. Filed Dec. 2, 1957.

"BOX TOPPER"

For Box Opener.
First use Oct. 2, 1957.

SN 42,740. Swingline, Inc., Long Island City, N. Y. Filed Dec. 19, 1957.

TOT

Owner of Reg. Nos. 367,388 and 368,988.
For Stapling Machines.
First use May 4, 1938.

SN 43,110. Pioneer Gen-E-Motor Corporation, Chicago, Ill. Filed Dec. 27, 1957.

PINCOR

For Portable Power Drills and Parts and Supplies Therefor.
First use Aug. 1, 1953.

SN 43,295. Albert Bloom, New York, N. Y. Filed Jan. 2, 1958.

TIPY-TASTER

For Safety Feeding Spoons for Infants.
First use on or about Nov. 15, 1956.

SN 43,306. Fastener Corporation, Franklin Park, Ill. Filed Jan. 2, 1958.

DUO-FAST

Owner of Reg. Nos. 402,567 and 516,900.
For Printer's Saws, Printer's Trimmers, and Associated Equipment.
First use Nov. 21, 1957.

SN 43,410. Vapor Heating Corporation, Chicago, Ill. Filed Jan. 3, 1958.

VAPOR

Owner of Reg. Nos. 576,567 and 647,802.
For Feed Water Pumps for Boilers and Steam Generators.
First use May 1, 1936.

Class 26—Measuring and Scientific Appliances

SN 26,555. The Opticase Company, Newark, N. J. Filed Mar. 20, 1957.

OPTICASE

Owner of Reg. No. 402,182.
For Spectacle Cases.
First use June 1940.

SN 35,651. Robertshaw-Fulton Controls Company, Richmond, Va. Filed Aug. 16, 1957.

β-TROL

For Apparatus for Detecting, Measuring, and Indicating the Presence, Change of State, Position, or Level of Fluid, Solid, and Gaseous Material.
First use Apr. 25, 1957.

SN 39,206. Dresser Industries, Inc., Dallas, Tex. Filed Oct. 21, 1957.

ROOTS-CONNERSVILLE

Owner of Reg. Nos. 153,840, 617,425, and 632,648.
For Rotary Positive Gas Displacement Meters.
First use at least as early as 1935.

Class 28—Jewelry and Precious-Metal Ware

SN 30,286. Wallace Silversmiths, Inc., Wallingford, Conn. Filed May 17, 1957.

JULIANA

For Flatware and Hollowware Composed Wholly or in Part of Silver.
First use Feb. 8, 1937.

SN 36,376. The International Silver Company, Meriden, Conn. Filed Aug. 28, 1957.

MINUET

For Sterling Silver Flatware—Namely, Knives, Forks, and Spoons.
First use during the year 1926.

SN 37,320. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Sept. 16, 1957.

TPS

For Sterling Silver and Silver Plated Flatware, i. e., Knives, Forks, and Spoons, and Sterling Silver and Silver Plated Table Hollowware.
First use Aug. 19, 1957.

SN 37,780. Coro, Inc., New York, N. Y. Filed Sept. 25, 1957.

TRAVELOGUE

For Necklaces, Bracelets, Earrings, Jewelry Clips, Brooches, Lockets, Finger Rings, Charm Bracelets, Charms, Pearls for Personal Wear, and the Following Goods Made in Whole or in Part of Precious Metals or Plated With the Same: Beads, Pins, and Jewelry Initials.
First use Aug. 30, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 39,340. The Peerless Manufacturing Company, New Durham, N. H. Filed S. R. Oct. 22, 1957; am. P. R. Mar. 20, 1958.

PEERLESS

For Domestic and Industrial Hand Operated Cleaning Brushes.
First use Dec. 1, 1919.

Class 31—Filters and Refrigerators

SN 30,701. Whirlpool Corporation, St. Joseph, Mich. Filed May 24, 1957.

FSP

For Replacement Parts for Filters, Refrigerators, Freezers, and Combination Freezer-Refrigerators.
First use Apr. 18, 1957.

SN 38,223. Modern Maid Associates, Inc., Gary, Ind. Filed Oct. 2, 1957.

MODERN MAID

For Food Freezers.
First use Mar. 25, 1957.

SN 41,858. Tokyo Shibaura Electric Company Limited, Kawasaki-shi, Japan. Filed Dec. 5, 1957.

Toshiba

Owner of Japanese Reg. No. 404,029, dated Oct. 13, 1951.
For Electric Household Refrigerators.

Class 32—Furniture and Upholstery

SN 658,116. Schnadig Corporation, Chicago, Ill., by merger from International Furniture Company. Filed Dec. 17, 1953. Sec. 2(f).



KONVERTABLE

For Furniture—Namely, Wood and Upholstered Furniture, Specifically Davenports, Settees, and Chairs, Which May Be Changed From Seat to Bed Structures and Vice Versa.
First use in 1884.

SN 682,153. Schnadig Corporation, Chicago, Ill., from S. Karpen & Bros. Incorporated. Filed Feb. 23, 1955. Sec. 2(f) as to "Karpen."

karpen-chairs

Owner of Reg. Nos. 514,420, 576,887, and others.
For Upholstered Chairs and Sofas.
First use Dec. 1, 1953; in 1884 as to "Karpen."

SN 33,808. William Fetner, Inc., Hamlet, N. C. Filed July 16, 1957.

William Fetner, Inc.



For Furniture and Upholstered Furniture—Namely, Tables, Chairs, Beds, Desks, Benches, Chests, Shelves, and Similar Articles of Furniture.
First use Mar. 15, 1953.

SN 35,390. Philip M. Rose, Bradford, Pa. Filed Aug. 12, 1957.

ROSEART

For Coffee Tables, Dining Tables, Outdoor Tables, Dressers, and Dressing Tables.
First use Dec. 12, 1956.

SN 41,671. Relax-A-Bed Corporation, New York, N. Y. Filed Dec. 2, 1957.

RELAX-A-BED

For Electronic Powered, Finger-Tip Controlled Beds and Couches; Mattresses for Use Therewith.
First use Oct. 9, 1957.

SN 42,031. Kenmore Products Corp., New York, N. Y. Filed Dec. 9, 1957.



The word "Products" is disclaimed apart from the mark as shown.
For Brass, Metal, and Wood Book Shelves, Book Stands, Smoking Stands, Ashtray Stands, Telephone Book Racks, Telephone Stands, Side and End Tables, and Umbrella Stands.
First use May 10, 1955.

SN 42,611. Supreme Steel Equipment Corp., Brooklyn, N. Y. Filed Dec. 17, 1957.

Conserv-a-File by SUPREME

For Office Filing Cabinets.
First use Aug. 16, 1957.

SN 43,117. The Steadley Company, Carthage, Mo. Filed Dec. 27, 1957.

S-ARC

For Springs for Use in Furniture and Bedding.
First use Dec. 6, 1957.

SN 45,078. Storage Products Corporation, Skokie, Ill. Filed Jan. 31, 1958.

SPEEDRACK

For Storage Racks.
First use July 26, 1956.

SN 45,283. The Spring-Air Company, Chicago, Ill. Filed Feb. 4, 1958.

RESTLANE

For Mattresses and Box Springs.
First use during December 1956.

SN 45,347. Pullman Couch Company, Chicago, Ill. Filed Feb. 5, 1958.

UNI-MOTION

For Sleepers.
First use Feb. 11, 1957.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 27,930. Carrier Corporation, Syracuse, N. Y. Filed Apr. 11, 1957.

ROTASPRAY

For Air Washers To Humidify or To Dehumidify an Air Stream.
First use Feb. 14, 1957.

SN 28,264. National Heating & Cooling Manufacturing Corporation, Columbus, Ohio. Filed Apr. 16, 1957.



For Steam and Hot Water Heating Boilers, Warm Air Furnaces, Tubular Baseboard and Convector Radiators, Oil Burners, Unit Heaters, Furnace Blowers, Stokers, Draft Controls, Furnace Humidifiers, Automatic Water Heaters, Indirect Water Heaters, Registers, and Grilles.
First use Oct. 11, 1955.

SN 29,509. The Workman Phillifant Company, Ottawa Lake, Mich. Filed May 6, 1957.

HOMERCAMP

For Portable Cooking Grills.
First use Mar. 20, 1957.

SN 35,084. Warren Webster & Company, Camden, N. J. Filed Aug. 7, 1957.

HYDRO-HEAT

For System for Circulating Hot Water for Heating Living and Other Spaces, and Water Accumulators Therefor, and Other Parts Thereof (Exclusive of Boilers).
First use Jan. 1, 1955.

SN 37,206. American Air Filter Company, Inc., Louisville, Ky. Filed Sept. 16, 1957.

AAF

For Forced Draft Portable Liquid Fuel Heaters for Temporary Indoor and Outdoor Heating, Thawing, and Drying Purposes.
First use May 28, 1957.

SN 38,634. Progressive Bronze Works, Inc., Chicago, Ill. Filed Oct. 9, 1957.



For Religious and Church Bronzeware—Namely, Candelabra, Candle Holders, Candlesticks, Reading Lamps, Sanctuary Lamp Accessories, Sanctuary Lamps, Sanctuary Lite Stands, Sanctuary Lites, Torches, Votive Lite Stand Accessories, Votive Lite Stands.
First use Dec. 21, 1956.

SN 39,204. Dresser Industries, Inc., Dallas, Tex. Filed Oct. 21, 1957.

ROOTS-CONNERSVILLE

Owner of Reg. Nos. 153,840, 617,425, and 632,648.
For Centrifugal Air and Gas Blowers and Exhausters, and Rotary Positive Air and Gas Blowers and Exhausters.
First use at least as early as 1935.

SN 39,699. American Concrete Corporation, Chicago, Ill. Filed Oct. 29, 1957.

STRESS-SPUN

For Lighting Standards.
First use March 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 39,489. Patch Rubber Company, Akron, Ohio. Filed Oct. 24, 1957.

LIFETIME

For Pneumatic Tire and Tube Repair Patches.
First use Sept. 15, 1957.

SN 39,575. The Atlas Rubber Products Company, Stamford, Conn. Filed Oct. 28, 1957.

BOND-SEAL

For Tire Retreading Material.
First use Mar. 8, 1957.

Class 36—Musical Instruments and Supplies

SN 26,387. Remington Records, Inc., New York, N. Y. Filed Mar. 18, 1957.



Applicant disclaims the words "The ultimate in High Fidelity" and "Hi Fi" apart from the mark.
For Grooved Phonograph Records.
First use June 1, 1951.

SN 37,166. Jensen Industries, Inc., Forest Park, Ill. Filed Sept. 13, 1957. Sec. 2(f).

JENSEN

For Phonographic Needles.
First use Aug. 31, 1942.

SN 37,168. Jensen Industries, Inc., Forest Park, Ill. Filed Sept. 13, 1957.

SILCLOTH

For Silicone Treated Cloth for Cleaning Phonograph Records.
First use Oct. 31, 1953.

Class 37 — Paper and Stationery

SN 10,214. Cory Corporation, Chicago, Ill. Filed June 14, 1956.

DOodlebug

For Ball Point Pens and Mechanical Pencils.
First use June 1, 1956.

SN 15,266. Cory Corporation, Chicago, Ill. Filed Sept. 7, 1956.

3X

For Ball Point Pens.
First use Aug. 24, 1956.

SN 16,359. McLaurin-Angier Co., Brookfield, Mass., now by change of name to Ludlow Papers, Inc. Filed Sept. 25, 1956.

POLY-PAK

For Laminated Paper.
First use Sept. 12, 1956.

SN 28,892. The Star Publications, Inc., St. Paul, Minn. Filed Apr. 25, 1957.



For Score Books.
First use Feb. 26, 1955.

SN 31,957. Samuel Taubman, d. b. a. M. M. Co., New York, N. Y. Filed June 13, 1957.

COPY-FAX

For Fountain Pens, Ball Point Pens, and Pencils.
First use Jan. 3, 1957.
Subj. to Intf. with SN 34,718.

SN 33,212. Nationwide Products Company, Brooklyn, N. Y. Filed July 5, 1957.

NATIONWIDE

For Pens and Pencils.
First use Aug. 12, 1953.

SN 33,804. Joseph Dixon Crucible Company, Jersey City, N. J. Filed July 16, 1957.

ETHAN ALLEN

For Pencils.
First use Mar. 22, 1957.

SN 34,718. Micropoint, Incorporated, Sunnyvale, Calif. Filed July 31, 1957.

COPY-FAX

For Ball Point Pens, Cartridge Refills, and Inks for Said Pens and Refills.
First use June 22, 1956.
Subj. to Intf. with SN 31,957.

SN 35,548. William D. Winders, d. b. a. The Columbus Office Supply Co., Columbus, Ohio. Filed Aug. 14, 1957.

COSCO

For Printed Business Forms and Printed Labels.
First use Jan. 1, 1926.

SN 35,604. The Sorg Paper Company, Middletown, Ohio. Filed Aug. 15, 1957.

GRANITEX

For Mimeograph Bond Paper.
First use Mar. 16, 1957.

SN 35,837. William D. Winders, d. b. a. The Columbus Office Supply Co., Columbus, Ohio. Filed Aug. 19, 1957.

COSCOGRAPH

For Printed Business Forms and Pencils.
First use Jan. 1, 1926.

SN 35,863. The Grand Union Company, East Paterson, N. J. Filed Aug. 20, 1957.

GRAND

Owner of Reg. Nos. 422,568, 638,790, and others.
For Toilet Tissues.
First use on or about July 3, 1957.

Class 38 — Prints and Publications

SN 28,125. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed Apr. 15, 1957.

SUPERKLEEN SELLAGRAM

For House Publication Published at Regular Intervals.
First use January 1955.

SN 29,813. Michigan Lithographing Company, Grand Rapids, Mich. Filed May 10, 1957.



For Greeting Cards, Tags, Seals.
First use Feb. 5, 1957.

SN 30,184. Northern Virginia Broadcasters, Inc., Arlington, Va. Filed May 16, 1957.

FABULOUS FIFTY

For Weekly Bulletin.
First use Jan. 10, 1957.

SN 35,601. United Printers and Publishers (Incorporated), Dedham, Mass. Filed Aug. 15, 1957.

Fun 'n' Frolic

For Greeting Cards.
First use July 10, 1957.

SN 36,998. Construction Publishing Co., Inc., Roanoke, Va. Filed Sept. 11, 1957. Sec. 2(f).

CONSTRUCTION
SOUTH CAROLINA · VIRGINIA · WEST VIRGINIA

For Bi-Weekly News Magazine.
First use Nov. 1, 1937.

SN 40,836. Hearst Publishing Company, Inc., Wilmington, Del. Filed Nov. 18, 1957.

THEY'LL DO IT EVERY TIME

For Series of Cartoons or Comic Strips.
First use on or about January 1929.

SN 40,841. Illustrated Humor, Inc., New York, N. Y. Filed Nov. 18, 1957.

HOT STUFF

For Periodical and a Comic Strip.
First use June 27, 1957.

SN 40,975. United Newspapers Magazine Corporation, New York, N. Y. Filed Nov. 19, 1957.

Making Your Money Grow

For Syndicated Magazine or Newspaper Column or Section.
First use Oct. 27, 1957.

SN 41,083. Eagle-Tribune Publishing Company, Lawrence, Mass. Filed Nov. 21, 1957.

THE EVENING TRIBUNE

For Daily Newspaper.
First use Apr. 12, 1890.

Class 39 — Clothing

SN 9,115. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Société à Responsabilité Limitée, Paris, France. Filed May 28, 1956.



Owner of French Reg. No. 394,922, dated June 13, 1949 (Seine); Natl. Inst. No. 452,696.
For Rainwear—Namely, Impregnated Coats, Jackets, Capes, Wind Jackets, Hoods Attached and Separate.

SN 12,748. San Remo Mills, Inc., Wyoming, Del. Filed July 24, 1956.

la fête

For Women's Hosiery.
First use July 17, 1956.

SN 14,114. Lois H. Zagri, Chicago, Ill. Filed Aug. 16, 1956. Sec. 2(f).

Zägri

For Women's Coats, Suits, and Dresses.
First use October 1946.

SN 30,436. Nannette Manufacturing Company, Inc., Philadelphia, Pa. Filed May 21, 1957.

FAYETTE

For Infants' and Children's Dresses.
First use Apr. 12, 1957.

SN 31,409. Jack Meltzer, Hollywood, Calif. Filed June 5, 1957.

SOFT-O-HEELS

For Shoes.
First use May 1, 1957.

SN 33,330. J. L. Brandeis & Sons, Inc., Omaha, Nebr. Filed July 8, 1957.

LITTLE BRANDSONS

Owner of Reg. No. 322,955.
For Leather Shoes, Canvas Shoes, and House Slippers for Boys and Girls.
First use Feb. 22, 1957.

SN 33,675. Associated Lerner Shops of America, Inc., New York, N. Y. Filed July 15, 1957.

A'Lanno

For Ladies' and Misses' Outerwear—Namely, Coats.
First use July 10, 1957.

SN 33,988. The Nocona Boot Co., Inc., Nocona, Tex. Filed S. R. July 18, 1957; am. P. R. Mar. 21, 1958.

NOCONA

Owner of Reg. No. 350,634.
For Leather Boots and Shoes.
First use Apr. 2, 1926.

SN 34,341. W. Kotkes & Son, Inc., New York, N. Y. Filed July 29, 1957.

WIL-KO

For Women's and Misses' Dresses, Smocks, and Uniforms; Hoover Aprons; and Women's, Misses', and Children's Pyjamas.
First use in January 1931.

SN 36,600. Loblaw, Inc., Buffalo, N. Y. Filed Sept. 3, 1957.

FAMILY FAIR

For Ladies' and Girls' Skirts, Blouses, Slacks, Pajamas, Panties, Sweaters, Shorts, Slips, Brassieres, and Anklets; Boys' Socks, Pajamas, Sport Shirts, Underwear, T-Shirts, Swim Trunks, Denim Trousers; and Men's Trousers, Denim Trousers, Shirts, Socks, Under Shorts, T-Shirts, and Caps; Infants' Coveralls, Training Panties, Undershirts, Polo Shirts, Anklets, and Pajamas.
First use June 27, 1957.

SN 36,624. Rocky Mountain Textile Mills, Inc., Denver, Colo. Filed Sept. 3, 1957.

Rocko

For Men's and Women's Hosiery.
First use on or about Aug. 20, 1957.

SN 36,640. F. W. Woolworth Co., New York, N. Y. Filed Sept. 3, 1957.

PRIMSTYLE

For Women's Lingerie—Namely, Slips, Brassieres, and Panties.
First use June 6, 1957.

SN 36,717. Lane Bryant, Inc., New York, N. Y. Filed Sept. 5, 1957.

Lane-Flex

For Women's Shoes.
First use June 17, 1957.

SN 36,758. Sally Victor, Inc., New York, N. Y. Filed Sept. 5, 1957.

Sally V

For Women's Hats and Scarves.
First use on or about Jan. 2, 1951, on hats.

SN 36,842. Bertlyn Corporation, New York, N. Y. Filed Sept. 9, 1957.

Bertlyn

For Ladies' and Children's Shoes and Slippers.
First use May 29, 1953.

SN 37,117. Roscoe E. Winkley, Rochester, N. H. Filed Sept. 12, 1957.

THE BRIDESMAID

For Women's Shoes.
First use July 8, 1957.

SN 37,333. Acme Boot Company, Inc., Clarksville, Tenn. Filed Sept. 17, 1957.

STOCK SHOW

For Leather Cowboy Boots.
First use Jan. 2, 1957.

SN 37,662. S. S. Kresge Company, Detroit, Mich. Filed Sept. 23, 1957.

Courtship

For Hosiery.
First use on or about Nov. 15, 1936.

SN 37,985. Tru-Step Hosiery Company, Milwaukee, Wis. Filed Sept. 27, 1957.

MARSHMALLOWS

For Men's, Women's, and Children's Hosiery.
First use Sept. 24, 1957.

SN 38,432. M. M. Cohn Company, Little Rock, Ark. Filed Oct. 7, 1957.

LANGDALE

For Men's and Boys' Suits, Sport Coats, Jackets, and Topcoats.
First use August 1931.

SN 39,148. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed Oct. 18, 1957.

OVERTONE

For Brassieres.
First use Oct. 3, 1957.

SN 39,234. Levin & Co. Inc., New York, N. Y. Filed Oct. 21, 1957.

PLAYAFORE

For Ladies' and Girls' Aprons, Smocks, Housecoats, Playsuits, and Dresses.
First use May 25, 1940.

Class 40—Fancy Goods, Furnishings, and Notions

SN 18,487. Appliques Incorporated, Manila, Republic of the Philippines. Filed Oct. 31, 1956.



For Printed and Plain, Cut and Uncut Fabric Designs for Transfer, Sewing or Direct Application to Apparel, Other Textile Articles, or to the Surface of Any Other Article.
First use July 19, 1956; in commerce July 19, 1956.

SN 38,291. Bolta Comb Company, New York, N. Y. Filed Oct. 3, 1957. Sec. 2(f).

Wave Forraine Set

For Hair Combs.
First use February 1932.

SN 39,025. Bolta Comb Company, New York, N. Y. Filed Oct. 3, 1957. Sec. 2(f).

Forraine Professional

For Hair Combs.
First use June 10, 1929.

Class 41—Canes, Parasols, and Umbrellas

SN 34,526. Frankford Umbrella Mfg. Co., Philadelphia, Pa. Filed July 29, 1957.

BUTTERFLY

For Umbrellas.
First use June 15, 1937.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 23,026. Burlington Industries, Inc., New York, N. Y. Filed Jan. 23, 1957.

BURMISEAL

For Fabric Finish Used by Applicant To Treat Its Textile Fabrics To Be Made Into Men's Outer Garments so That Said Fabrics Will Be Water Repellent, and Stain and Wrinkle Resistant.
First use Nov. 30, 1951.

SN 27,919. Allgemeine Holzimpragnierung, Dr. Wolman G. m. b. H., Sinzheim near Baden-Baden, Germany. Filed Apr. 11, 1957.

Thanalith-reform

Owner of German Reg. No. 679,896, dated Aug. 2, 1953.
For Fabrics of Glass and Synthetic Fibers and Plastic Film, All Being for Making Into Tarpaulins, Protective Coverings, and the Like.

SN 28,006. Anglo Fabrics Company, Inc., New York, N. Y. Filed Apr. 12, 1957.

ANGLONIZED

Owner of Reg. No. 636,015.
For Woolen and Worsted Piece Goods Which Have Undergone a Particular Treatment for Enhancing Fabric Life and Color.
First use Feb. 21, 1957.

SN 36,484. J. P. Stevens & Co., Inc., New York, N. Y. Filed Aug. 29, 1957.



Owner of Reg. Nos. 602,463 and 602,464.
For Cotton Twill Fabrics.
First use June 12, 1957.

SN 36,821. The Vanta Company, Inc., Brockton, Mass. Filed Sept. 6, 1957.



Owner of Reg. No. 257,346.
For Children's and Infants' Fabrics—Namely, Knitted Sheets, Textile Bath Blankets, Knitted and Woven Towels and Wash Cloths.
First use on Aug. 20, 1957; 1911 as to "Vanta."

SN 38,686. D. B. Fuller & Co., Inc., New York, N. Y. Filed Oct. 10, 1957.

SOFT MUSIC

For Textile Fabrics in the Piece of Cotton.
First use Feb. 18, 1957.

SN 38,687. D. B. Fuller & Co., Inc., New York, N. Y. Filed Oct. 10, 1957.

BOTILLA

For Textile Fabrics in the Piece of Cotton.
First use Jan. 30, 1957.

SN 38,689. D. B. Fuller & Co., Inc., New York, N. Y. Filed Oct. 10, 1957.

CLIP-TOP

For Textile Fabrics in the Piece of Cotton.
First use Jan. 23, 1957.

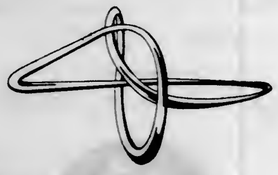
SN 38,690. D. B. Fuller & Co., Inc., New York, N. Y. Filed Oct. 10, 1957.

JOTTO

For Textile Fabrics in the Piece of Cotton.
First use Jan. 23, 1957.

Class 43—Thread and Yarn

SN 38,413. American Enka Corporation, Enka, N. C. Filed Oct. 7, 1957.



For Yarn.
First use Sept. 5, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 7,575. The Dahlberg Company, Minneapolis, Minn. Filed May 3, 1956.

Magic-ear

For Electronic Hearing Aids.
First use Feb. 22, 1956.

SN 22,772. Protek-Bak Corporation, Baltimore, Md. Filed Jan. 17, 1957.

PROTEK-BAK

For Orthopedic Correct Posture Back Support Cushions.
First use Apr. 16, 1954.

SN 27,135. Relax-It Vibrator Company, Incorporated, North Hollywood, Calif. Filed Mar. 28, 1957.

RELAX-IT

For Vibrating Mechanisms Used for Therapeutic Massage of All Parts of the Human Body.
First use May 1, 1951.

Class 45—Soft Drinks and Carbonated Waters

SN 36,526. The Nestlé Company, Inc., White Plains, N. Y. Filed Aug. 30, 1957. Sec. 2(f).

NESTLÉ'S

Owner of Reg. Nos. 74,832, 648,666, and others.
For Powdered Preparation for Making Soft Drinks.
First use June 28, 1957.

Class 46—Foods and Ingredients of Foods

SN 695,453. Joseph Souza, Atwater, Calif. Filed Sept. 27, 1955.

CANDY CANE

For Fresh Yams and Sweet Potatoes.
First use Sept. 15, 1951.

SN 12,272. Gold Seal Dairy Products Corp., Remsen, N. Y. Filed July 17, 1956.

GOLD SEAL

For Milk Powder.
First use Feb. 16, 1954.

SN 14,476. Reddi-Wip, Inc., Los Angeles, Calif. Filed Aug. 23, 1956.

RIVIERA

For Whipped Food Dressing of a Vegetable Fat Nature, Packaged in Aerosol Containers for Use on Salads.
First use July 31, 1956.

SN 17,663. Pulakos, Incorporated, Erie, Pa. Filed Oct. 17, 1956. Sec. 2(f).

Pulakos 926

For Cakes, Cup Cakes, Doughnuts, Rolls, Buns, Cookies, Candies, Fountain Syrups for Use on Ice Cream Sundaes and the Like, Salad Dressing, Jams, Jellies, and Frostings.
First use July 11, 1917.

SN 20,948. Mead Johnson & Company, Evansville, Ind. Filed Dec. 12, 1956.

Dextro-Malto

Owner of Reg. Nos. 173,340, 506,147, and others.
For Specially Prepared Food for Infants—Namely, a Refined Product of Enzymic Hydrolysis of Starch.
First use 1910.

SN 21,973. Lipman Bros., Inc., Augusta, Maine. Filed Dec. 6, 1956.



The drawing is lined for red and blue. The word "Poultry" and the phrase "Grown for Good Eating" are disclaimed apart from the mark as shown.
For Processed Fresh-Dressed and Frozen Poultry.
First use Sept. 15, 1955.

SN 22,335. David Rasky, d. b. a. Fre-Zeg Corp., Burbank, Calif. Filed Jan. 9, 1957.



The drawing is lined for yellow and blue.
For Frozen Shelled Eggs.
First use Aug. 3, 1953.

SN 26,608. Brownberry Ovens, Inc., Oconomowoc, Wis. Filed Mar. 21, 1957.



The words "Country Baked" are disclaimed apart from the mark as shown.
For Bread, Rolls, and Biscuits.
First use June 1954; 1951 as to "Catherine Clark's Brownberry Ovens."

SN 26,670. Joseph Amendola, Hamden, by mesne assignments to Timely Brands, Inc., Newton, Mass. Filed Mar. 22, 1957.

CAKE-MATE

For Jelly for Decorating and Writing Names on Iced Cakes.
First use Mar. 1, 1957.

SN 28,891. Société Anonyme des Laiteries de la Vallee de la Vire et du Cotentin Anciens Etablissements H. Claudel, Paris, Seine, France. Filed Apr. 25, 1957.

LES PRINCES

The English translation of the French words "Les Princes" is "The Princes." Owner of French Reg. No. 461,978, dated Jan. 10, 1957 (Paris); Natl. Inst. No. 83,718.
For Cheese, Butter, and Canned, Dried, and Fluid Milk and Cream.

SN 29,311. John H. Sunley, New York, N. Y. Filed May 2, 1957.

CAPT. KITT

For Cat Food.
First use Apr. 29, 1957.

SN 31,061. Your Cupboard, Glenview, Ill. Filed May 29, 1957.

WHY COOK

For Pinwheel Hors d'Ouevres, Lobster a la Newburg, Boston Baked Beans, Macaroni and Cheese, Potatoes au Gratin, Shrimp, Spaghetti Creole, Spiced Beets, Cole Slaw, Kidney Bean Salad, Macaroni Salad, "German" Potato Salad, Party Salads, and Gelatin Salads.
First use Apr. 15, 1957.

SN 31,239. Leo Marino, Del Rey, Calif. Filed June 3, 1957.

FRESNO BELLA

The word "Bella" may be translated from the Italian to mean "beautiful" or "handsome."
For Fresh Grapes.
First use in September 1956.

SN 34,538. Robert A. Johnston Company, Milwaukee, Wis. Filed July 29, 1957.

PICK 'N' PLEASE

For Candies.
First use June 26, 1957.

SN 34,865. Penick & Ford, Ltd., Incorporated, New York, N. Y. Filed Aug. 2, 1957.

VELTOSE

For Corn Syrup for Use as an Ingredient of Foodstuff.
First use July 22, 1957.

SN 35,524. Louis Milani Foods, Inc., Los Angeles, Calif. Filed Aug. 14, 1957.

VINTNER

For French Dressing.
First use July 1, 1957.

SN 36,754. Swift & Company, Chicago, Ill. Filed Sept. 5, 1957.

OLD MILL

For Sausage.
First use Feb. 15, 1956.

SN 37,110. E. Rosen Company, Providence, R. I. Filed Sept. 12, 1957.



Applicant disclaims the words "Kandy" and "Brand" apart from the mark as shown.
For Candies.
First use on or about Aug. 27, 1957.

SN 37,175. Norton & McElroy Produce, Inc., also d. b. a. Norton & McElroy Produce Co., Phoenix, Ariz. Filed Sept. 13, 1957.

AGUILA QUEEN

For Fresh Lettuce.
First use Apr. 27, 1957.

SN 37,238. Dirigo Sales Corporation, Boston, Mass. Filed Sept. 16, 1957.

ELAN

For Spices, Seasonings, Meat-Curing Compounds, Preservatives Which Comprise Sorbic Acid, Sodium Benzoate and the Like, Antioxidants Which Comprise Butylated Hydroxy Anisole (BHA), Butylated Hydroxy Toluene (BHT), Dimethoxy Phenol (DMP), Ascorbic Acid, Propyl Gallate and the Like, Edible Colloids, Milk Solids, Soy Flour, Gelatine, Cereals, Starches, Gums, Gelose, Albumen and Chemicals Used in the Processing of Foods; Blends Compounded From the Foregoing Items, With and Without a Carrier Base, Forming Dry Pulverulent Mass or Liquid Sold in Bulk or Packages in Bags or Drums as Ingredients, Processing Aids or Additives for Prepared Meat and Poultry Food Products and Accessory Items Including Gravies, Soups, and Stews.
First use Nov. 30, 1955.

SN 37,239. Dirigo Sales Corporation, Boston, Mass. Filed Sept. 16, 1957.



For Spices, Seasonings, Meat-Curing Compounds, Preservatives Which Comprise Sorbic Acid, Sodium Benzoate and the Like, Antioxidants Which Comprise Butylated Hydroxy Anisole (BHA), Butylated Hydroxy Toluene (BHT), Dimethoxy Phenol (DMP), Ascorbic Acid, Propyl Gallate and the Like, Edible Colloids, Milk Solids, Soy Flour, Gelatine, Cereals, Starches, Gums, Gelose, Albumen and Chemicals Used in the Processing of Foods; Blends Compounded From the Foregoing Items, With and Without a Carrier Base, Forming a Dry Pulverulent Mass or Liquid Sold in Bulk or Packages in Bags or Drums as Ingredients, Processing Aids or Additives for Prepared Meat and Poultry Food Products and Accessory Items Including Gravies, Soups, and Stews.
First use January 1949.

SN 37,240. Dirigo Sales Corporation, Boston, Mass. Filed Sept. 16, 1957.

PROTOSOL

For Blend of Especially Processed Dry Milk Solids, Soy Flour, and Lecithin Forming a Dry Pulverulent Mass Sold in Bulk in Bags and Drums as an Additive Emulsifier-Stabilizer-Binder for Combining With All Types of Cooked and Smoked Meat Products and Accessory Items Including Gravies, Soups, and Stews.
First use May 22, 1953.

SN 37,778. Hans Brinker Inc., Rye, N. Y. Filed Sept. 25, 1957.

HANS BRINKER

For Shredded Cocoanut.
First use Apr. 6, 1955.

SN 38,337. Pacific Mercantile Company, San Francisco, Calif. Filed Oct. 8, 1957.

SURE GOLD

For Margarine.
First use Sept. 26, 1957.

SN 38,602. Geo. A. Fox Products Co., Inc., Kansas City, Mo. Filed Oct. 9, 1957.

HOLIDAY BRAND

The word "Brand" is disclaimed apart from the mark as shown.
For Egg Nog Base Flavoring for Ice Cream and Fruit Flavoring for Soda Fountain Use.
First use Aug. 8, 1957.

SN 40,074. Lewis Nielsen, d. b. a. Nielsen Packing Co., Salinas, Calif. Filed Nov. 4, 1957.



For Fresh Potatoes.
First use Oct. 13, 1955.

SN 40,083. Safeway Stores, Incorporated, Oakland, Calif. Filed Nov. 4, 1957.

TWO-TEN

For Modified Skim Milk.
First use Oct. 20, 1957.

SN 40,453. Golden Pick Foods, Inc., Los Angeles, Calif. Filed Nov. 12, 1957.

CORSAIR

For Salad Dressing.
First use Oct. 16, 1957.

SN 40,475. Marshal Smoked Fish Co. Inc., Brooklyn, N. Y. Filed Nov. 12, 1957.

SMOKEY DELITE

For Smoked Fish—Namely, White Fish, Salmon, and Carp.
First use Sept. 25, 1957.

SN 40,604. Piggly Wiggly Corporation, Jacksonville, Fla. Filed Nov. 13, 1957.

Plymouth

Owner of Reg. Nos. 623,201 and 629,665.
For Ice Cream.
First use Aug. 26, 1957.

SN 40,827. General Mills, Inc., Minneapolis, Minn. Filed Nov. 18, 1957.

PRIME

For Ready-to-Eat Cereal.
First use Oct. 25, 1957.

Class 47—Wines

SN 23,687. Distillers Corporation (S. A.) Limited, Stellenbosch, Cape Province, Union of South Africa. Filed Feb. 4, 1957.

JOHAN VAN RIEBEECK

Owner of South African Reg. No. 3791/55, dated Nov. 21, 1955.
For Wines.

Class 49—Distilled Alcoholic Liquors

SN 38,482. Old Samuels Distillery, Inc., d. b. a. Burks Spring Distillery, Bardstown, Ky. Filed Oct. 7, 1957.

STAR HILL

For Whiskey.
First use Dec. 8, 1954.

Class 50—Merchandise Not Otherwise Classified

SN 27,365. Posterloid Corporation, New York, N. Y. Filed Apr. 1, 1957.

POSTERLOID PIN-UPS

For Lapel Badges.
First use Mar. 1, 1957.

SN 29,656. Plastic Fashions, Inc., East Cleveland, Ohio. Filed May 8, 1957.

POUR-A-PLANT

For "Do-It-Yourself" Kit for Making Plastic Plants, Comprising Liquid Plastic Material, Wires for Leaf Stems, Mold for the Plant Leaves, Wrapping Tape and Foam Plastic Base Materials.
First use Mar. 4, 1957.

SN 30,381. The Wayne Pump Company, Salisbury, Md. Filed May 20, 1957.

RAIL-O-MATIC

For Hydraulically Operated Portable Dock Ramps and Parts Thereof.
First use Apr. 23, 1957.

SN 30,740. Columbia Plastics Corporation, New York, N. Y. Filed May 27, 1957.

Luxutron

For Virgin Vinyl Fabric Materials Which May Be Used as a Leather Substitute.
First use Sept. 15, 1955.

SN 32,920. Continental Can Company, Inc., New York, N. Y. Filed July 1, 1957.



For Container Closures.
First use May 27, 1957.

SN 35,768. The General Tire & Rubber Company, Akron, Ohio. Filed Aug. 19, 1957.

SATIN STEP

For Rubber Fatigue Mats.
First use about Dec. 1, 1956.

SN 38,010. American Cutting and Binding Company, Chicago, Ill. Filed Sept. 30, 1957.

AMERAP

For Plastic Floral Wreath Wrapping.
First use Sept. 12, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 16,828. Esther Irene Pestaner, d. b. a. Pilon Company, San Francisco, Calif. Filed Oct. 2, 1956.

PILON

For Hair and Scalp Preparation for Falling Hair, Dandruff, Itchy Scalp, and Other Common Hair and Scalp Troubles.
First use Feb. 6, 1931.

SN 23,680. Jean d'Albret, S. A. R. L., Paris, France. Filed Feb. 4, 1957.

CASAQUE

The translation of "Casaque" is defined as a tight jacket from the shoulder to the waist.
For Perfumes and Toilet Waters.
First use March 1951; in commerce March 1951.

SN 26,710. Lehn & Fink Products Corporation, Bloomfield, N. J. Filed Mar. 22, 1957.

OUTLINE

For Liquid Preparation for Toning Skin and Firming Facial Contour.
First use Jan. 21, 1957.

SN 27,560. Angelique and Company, Inc., Wilton, Conn. Filed Apr. 5, 1957.

Angelique

For Perfume, Cologne, Bath Powder, and Bath Oil.
First use on or about Oct. 31, 1946, on perfume and cologne.

SN 27,579. Dixie Sports, Inc., Miami, Fla. Filed Apr. 5, 1957.

SCENT-SATION

For Cologne for Dogs.
First use Nov. 1, 1956.

SN 27,581. Dixie Sports, Inc., Miami, Fla. Filed Apr. 5, 1957.

WAG-NOLIA

For Cologne for Dogs.
First use Nov. 1, 1956.

SN 27,694. Richard Hudnut, Morris Plains, N. J. Filed Apr. 8, 1957.

CLOUDSILK

Owner of Reg. No. 416,228.
For Compressed Powder.
First use Mar. 14, 1957.

SN 29,628. G. H. G. Products, Inc., Bristol, Pa. Filed May 8, 1957.

AQUA-PED

For Anti-Perspirant and Deodorant Spray for the Feet.
First use August 1955.

SN 29,832. Joseph E. Seagram & Sons, Inc., New York, N. Y. Filed May 10, 1957.

Fresh

Owner of Reg. Nos. 164,478, 621,438, and others.
For Deodorant and Nonperspirant.
First use 1930.

SN 33,732. Myrurgia, S. A., Barcelona, Spain. Filed July 15, 1957.

TOISON

Owner of Spanish Reg. No. 82,090, dated Dec. 29, 1930.
For Perfume Extracts, Cosmetic Creams, Toilet Powders, Nail Lacquers, Tooth Pastes, Eau de Cologne, Lotions.

SN 33,916. Joseph E. Seagram & Sons, Inc., New York, N. Y. Filed July 17, 1957.

Mr. Fresh

Owner of Reg. Nos. 164,478, 621,438, and others.
For Deodorant and Nonperspirant.
First use May 28, 1957; in 1930 as to "Fresh."

SN 35,736. Samuel Bonat & Bro. Inc., West Paterson, N. J. Filed Aug. 19, 1957.

PROTOID

For Chemical Compound of a Protein in an Alkaline Base Incorporated as an Ingredient in a Hair Conditioner To Be Used Before Applying the Permanent Waving Lotion to the Hair.
First use Apr. 5, 1957.

SN 36,566. Ciba Limited, Basel, Switzerland. Filed Sept. 3, 1957.

BINELLA

Owner of Swiss Reg. No. 118,826, dated Jan. 6, 1947; and U. S. Reg. No. 301,633.
For Cosmetics and Toilet Preparations—Namely, Cosmetic Skin Creams and Lotions, Face and Toilet Powders.

SN 37,357. The Andrew Jergens Company, Cincinnati, Ohio. Filed Sept. 17, 1957.

DEEP DEW

For Cosmetic Cleansing Cream.
First use Aug. 16, 1957.

SN 38,542. Richard Hudnut, Morris Plains, N. J. Filed Oct. 8, 1957.

MELADIN

For Hand Lotion.
First use Sept. 26, 1957.

Class 52—Detergents and Soaps

SN 2,582. Siegel & Co., Koln-Braunsfeld, Germany. Filed Feb. 13, 1956.

SIDOLIN

Owner of German Reg. No. 83,546, dated Dec. 9, 1905; and U. S. Reg. No. 621,522.
For Cleaning Agents for Metal Glass, Sheet Metal, Enamelled Sheet Metal, Leather, Chinaware and Wood.

SN 24,356. Kaldar, Inc., Gloversville, N. Y. Filed Feb. 13, 1957.

KALDAR-SEE

For Glass Cleaner.
First use Jan. 3, 1956.

SN 24,358. Korkay, Inc., Gloversville, N. Y. Filed Feb. 13, 1957.

KORK KLEEN

For Upholstery Cleaner.
First use Apr. 16, 1954.

SN 24,359. Korkay, Inc., Gloversville, N. Y. Filed Feb. 13, 1957.

KORK RUB

For Rubber Cleaner.
First use Apr. 1, 1954.

SN 24,361. Korkay, Inc., Gloversville, N. Y. Filed Feb. 13, 1957.

KORK BUFF

For Cleaner for Automobiles.
First use June 11, 1956.

SN 31,158. Silicone Industries Inc., Boston, Mass. Filed May 31, 1957.

GLASSHEEN

For Liquid Multi-Purpose Cleaning Preparation.
First use Apr. 1, 1954.

SN 33,236. General Foods Corporation, White Plains, N. Y. Filed July 5, 1957.

Lady LaFrance

For Detergents for Fabrics.
First use Mar. 15, 1957.

SN 36,536. Sanitek Products, Inc., Los Angeles, Calif. Filed Aug. 30, 1957.

SANI-KEM

For Synthetic Liquid Cleaner for Use on Rubber, Asphalt Tile, Linoleum, Vinyl, Marble, Terrazzo, Cement, Wood Floors, and the Like.
First use in January 1953.

SN 37,416. Chesebrough-Pond's Inc., New York, N. Y. Filed Sept. 18, 1957.

ANGEL CURL

Owner of Reg. No. 658,336.
For Shampoo for the Hair.
First use Aug. 6, 1957.

SN 37,633. Chesebrough-Pond's Inc., New York, N. Y. Filed Sept. 23, 1957.

ANGEL WAVE

Owner of Reg. No. 658,336.
For Shampoo for the Hair.
First use Aug. 6, 1957.

SN 38,853. The John Puhl Products Company, Chicago, Ill. Filed Oct. 14, 1957.

Syn-brite

For Detergent Preparation With Whitening and Brightening Properties.
First use Sept. 4, 1957.

SN 39,195. Dare Products, Incorporated, Battle Creek, Mich. Filed Oct. 21, 1957.

SANEGG

For Egg Cleaning Detergent.
First use June 25, 1957.

SERVICE MARKS

Class 101 — Advertising and Business

SN 7,619. Names Unlimited, Inc., New York, N. Y. Filed May 3, 1956.

NAMES UNLIMITED

Owner of Reg. No. 528,168.
For Brokerage Services in Arranging Sales and Rentals of Mailing Lists.
First use Jan. 23, 1943.

Class 103 — Construction and Repair

SN 31,140. Orkin Exterminating Company, Inc., Atlanta, Ga. Filed May 31, 1957. Sec. 2(f) as to "Orkin."



Owner of Reg. Nos. 289,510, 615,208, and others.
For Ridding Property and Structures of Termites, Pests, and Rodents and Controlling and Protecting Such Property and Structures Against Infestation and Reinfestation by Termites, Pests, and Rodents by the Use of Various Chemicals, Gases, Traps, and Other Devices; Fumigating; and Horticultural Spraying Services.
First use Jan. 20, 1951; in 1901 as to "Orkin."

Class 104 — Communication

SN 31,606. Tri-City Broadcasting Company, Wheeling, W. Va. Filed June 7, 1957.



For Television Communication Service.
First use Apr. 10, 1957.

Class 105 — Transportation and Storage

SN 23,438. Zieman Manufacturing Company, Whittier, Calif. Filed Jan. 29, 1957.

ZIEMAN



For Steel Fabricating and Trailer Chassis Maintenance Services.
First use June 28, 1954.

Class 107 — Education and Entertainment

SN 25,544. David Karroll Kline, Little Rock, Ark. Filed Mar. 5, 1957.

ECHOES FROM CALVARY

For Title of a Daily Religious Broadcast.
First use approximately Jan. 1, 1952.

SN 36,625. The Roses, Odessa, Tex. Filed Sept. 3, 1957.

THE ROSES

For Variety Singing Rendered Through the Media of Radio and Television.
First use on or about Mar. 15, 1957.

CERTIFICATION MARKS

Class A — Goods

SN 20,375. Florida Flower Association, Bradenton, Fla. Filed Dec. 4, 1956.



The mark certifies that the flowers have been produced by a member of the applicant association and conform to minimum standard specifications of quality adopted by the membership of the association.
For Cut Flowers.
First use Nov. 1, 1956.

SN 27,290. Farm Equipment Manufacturers Association, St. Louis, Mo. Filed Apr. 1, 1957.



The mark certifies that the products to which the certification mark is attached are produced and distributed according to standards set up by applicant association.
For Farm Equipment and Machinery.
First use Dec. 18, 1956.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

661,784. LUTHER BURBANK. W. Atlee Burpee Co. SN 623,748. Pub. 7–27–54. Filed 1–18–52.

661,785. LIHO. Badische Anilin- & Soda-Fabrik Aktiengesellschaft. SN 15,855. Pub. 3–4–58. Filed 9–18–56.

661,786. LEATHEROMA. A. F. Gallun & Sons Corporation. SN 25,694. Pub. 3–4–58. Filed 3–7–57.

661,787. LUSTREL. The Scholl Mfg. Co., Inc. SN 27,900. Pub. 1–7–58. Filed 4–10–57.

661,788. LAMINOL. The Scholl Mfg. Co., Inc. SN 32,778. Pub. 3–4–58. Filed 6–27–57.

661,789. RIALTO. Armour and Company. SN 32,873. Pub. 3–4–58. Filed 7–1–57.

661,790. CHUCK WAGON. The Quaker Oats Company. SN 33,745. Pub. 3–4–58. Filed 7–15–57.

661,791. STAR-STYX. Paul J. Starcevic, d. b. a. Star-Styx Company. SN 34,086. Pub. 3–4–58. Filed 7–19–57.

661,792. SPORT. The Lawn Seed Corporation. SN 35,361. Pub. 3–4–58. Filed 8–12–57.

661,793. GARDEN PRIDE. C. E. Wilson Nurseries. SN 35,470. Pub. 3–4–58. Filed 8–13–57.

Class 2 — Receptacles

661,794. FOOD BAR. Fashioncraft Products. SN 19,238. Pub. 3–4–58. Filed 11–14–56.

661,795. CAPRI COOLER. Nappe-Smith Manufacturing Co. SN 32,767. Pub. 3–4–58. Filed 6–27–57.

661,796. PARATECT. Bruce Carton Company. SN 33,682. Pub. 3–4–58. Filed 7–15–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

661,797. SWING-VU. Nash Inc. SN 19,168. Pub. 3–4–58. Filed 11–13–56.

661,798. MEDALLION. Hickok Manufacturing Co. Inc. SN 34,798. Pub. 3–4–58. Filed 8–1–57.

Class 5 — Adhesives

661,799. DOUBLE-FACE AND DESIGN. Angier Products, Inc., to Interchemical Corporation. SN 5,966. Pub. 10–2–56. Filed 4–9–56.

661,800. PER-BON. Mid-States Gummed Paper Co., to Minnesota Mining and Manufacturing Company. SN 27,451. Pub. 3–4–58. Filed 4–3–57.

661,801. UNION CAMP AND DESIGN. Union Bag-Camp Paper Corporation. SN 28,665. Pub. 3–4–58. Filed 4–22–57.

661,802. UNION CAMP. Union Bag-Camp Paper Corporation. SN 28,667. Pub. 3–4–58. Filed 4–22–57.

661,803. R. T. 847. Frank Mottola. SN 32,617. Pub. 3–4–58. Filed 6–25–57.

Class 6 — Chemicals and Chemical Compositions

661,804. DIAMOND DESIGN. Diamond Alkali Company. SN 27,019. Pub. 3–4–58. Filed 3–27–57.

661,805. HEXAMIC ACID. Abbott Laboratories. SN 29,578. Pub. 3–4–58. Filed 5–8–57.

661,806. ECONOVAT. United Merchants and Manufacturers, Inc. SN 32,427. Pub. 3–4–58. Filed 6–21–57.

661,807. HARDALL. Eutectic Welding Alloys Corporation. SN 32,744. Pub. 3–4–58. Filed 6–27–57.

661,808. PHOSPHATABS. Warner-Lambert Pharmaceutical Company. SN 34,879. Pub. 3–4–58. Filed 8–2–57.

661,809. HALOID. The Haloid Company. SN 35,192. Pub. 3–4–58. Filed 8–8–57.

661,810. VAPYR-X. Superior Products, Inc. SN 35,212. Pub. 3–4–58. Filed 8–8–57.

661,811. ORONITE. Oronite Chemical Company. SN 37,972. Pub. 3–4–58. Filed 9–27–57.

Class 7 — Cordage

661,812. NYCOT. The Fish Net and Twine Company. SN 31,100. Pub. 3–4–58. Filed 5–31–57.

Class 8 — Smokers' Articles, Not Including Tobacco Products

661,813. BAN-O-TRAY. Plymouth Products Co. SN 32,627. Pub. 3–4–58. Filed 6–25–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

661,814. ARMALITE. Fairchild Engine and Airplane Corporation. SN 34,348. Pub. 3–4–58. Filed 7–25–57.

Class 10 — Fertilizers

661,815. NW. Northwest Nitro-Chemicals Ltd. SN 20,209. Pub. 3–4–58. Filed 11–30–56.

Class 12 — Construction Materials

661,816. ORSAN. Sparta Ceramic Company. SN 15,073. Pub. 11–26–57. Filed 9–4–56.

661,817. ADJUSTA DOOR AND DESIGN. National Shower Door Co. SN 22,942. Pub. 3–4–58. Filed 1–22–57.

661,818. CID AND DESIGN. Cid Air Structures Company, d. b. a. Cid Air Structures Co. SN 30,064. Pub. 3–4–58. Filed 5–15–57.

661,819. CHEVRON. Standard Oil Company of California. SN 30,850. Pub. 3–4–58. Filed 5–27–57.

661,820. MIRATILE. Miratile Manufacturing Company, Inc. SN 31,020. Pub. 3–4–58. Filed 5–29–57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

661,821. SHOWERETTE. A. J. Geiger, d. b. a. Showerette Co. SN 14,396. Pub. 3-4-58. Filed 8-22-56.

661,822. CROSS SHOE LINE AND DESIGN. Plymouth Cordage Industries, Inc. SN 22,953. Pub. 3-4-58. Filed 1-22-57.

661,823. LIQUI-MED. The Liquid Carbonic Corporation. SN 27,441. Pub. 3-4-58. Filed 4-3-57.

661,824. JIFFY. Campbell Chain Company. SN 31,192. Pub. 3-4-58. Filed 6-3-57.

661,825. SEABLUE. Paddock of Texas, Inc. SN 31,248. Pub. 3-4-58. Filed 6-3-57.

661,826. MAGIC-ZIP. Talon, Inc. SN 31,275. Pub. 3-4-58. Filed 6-3-57.

661,827. MIDAS. Midas, Inc. SN 31,576. Pub. 3-4-58. Filed 6-7-57.

Class 15—Oils and Greases

661,828. SUREFIRE. Wilco Company. SN 17,603. Pub. 3-4-58. Filed 10-16-56.

661,829. DI-ZOLV-IT. Farmers Union Central Exchange, Incorporated. SN 25,603. Pub. 3-4-58. Filed 3-6-57.

661,830. HUSH AND DESIGN. Garry Laboratories, Inc. SN 27,685. Pub. 3-4-58. Filed 4-8-57.

661,831. MICRO-PLATE. Imperial Distributors. SN 32,495. Pub. 3-4-58. Filed 6-24-57.

Class 16—Protective and Decorative Coatings

661,832. POLY-SHEEN. U. S. Polychemical Corporation. SN 26,655. Pub. 3-4-58. Filed 3-21-57.

661,833. UNDER-SHELL. Devoe & Raynolds Company, Inc. SN 26,786. Pub. 3-4-58. Filed 3-25-57.

661,834. PERMACEM. Permacem Paint Company Limited. SN 33,833. Pub. 3-4-58. Filed 7-16-57.

661,835. ARTONEX. Fabriek van Compositieverven C. V. SN 38,982. Pub. 3-4-58. Filed 10-16-57.

Class 18—Medicines and Pharmaceutical Preparations

661,836. R. T. VAC. American Cyanamid Company. SN 10,743. Pub. 3-4-58. Filed 11-20-57.

661,837. NUTRITION SQUARE AND DESIGN. Nutrition Square, Inc. SN 18,650. Pub. 3-4-58. Filed 11-2-56.

661,838. RECORDIL. Dr. Recordati-Laboratorio Farmacologico S. p. A. SN 21,946. Pub. 3-4-58. Filed 12-31-56.

661,839. S-MOP. Paul B. Elder Company. SN 22,522. Pub. 3-4-58. Filed 1-14-57.

661,840. ETHANION. Roger Bellon. SN 22,871. Pub. 3-4-58. Filed 1-22-57.

661,841. FREESCRIPTION. Ames Company, Inc. SN 24,107. Pub. 3-4-58. Filed 2-11-57.

661,842. LIPOSTABIL. A. Nattermann & Cie. SN 25,629. Pub. 3-4-58. Filed 3-6-57.

661,843. FRENOPAX. Bristol Laboratories Inc. SN 31,460. Pub. 3-4-58. Filed 6-6-57.

661,844. SIN-AID 25. Ralph Lamonaca, d. b. a. Sinaid Co. SN 31,848. Pub. 3-4-58. Filed 6-12-57.

661,845. OVESTINE. Organon Inc. SN 32,842. Pub. 3-4-58. Filed 6-28-57.

661,846. ACRYSORB. White Laboratories, Inc. SN 33,931. Pub. 3-4-58. Filed 7-17-57.

661,847. SORBOGEL. White Laboratories, Inc. SN 33,933. Pub. 3-4-58. Filed 7-17-57.

661,848. IODOTOPE. Olin Mathieson Chemical Corporation. SN 34,073. Pub. 3-4-58. Filed 7-19-57.

661,849. PHOSPHOTOPE. Olin Mathieson Chemical Corporation. SN 34,074. Pub. 3-4-58. Filed 7-19-57.

661,850. AUREOTOPE. Olin Mathieson Chemical Corporation. SN 34,075. Pub. 3-4-58. Filed 7-19-57.

661,851. LOOK-RITE. Model-Etts Corp. SN 34,163. Pub. 3-4-58. Filed 7-22-57.

661,852. EFLOG. The Upjohn Company. SN 34,191. Pub. 3-4-58. Filed 7-22-57.

661,853. SOLUTOID. The Upjohn Company. SN 34,382. Pub. 3-4-58. Filed 7-25-57.

661,854. SPRAYAID. Cheesebrough-Pond's Inc. SN 35,239. Pub. 3-4-58. Filed 8-9-57.

661,855. DELTEF. The Upjohn Company. SN 35,400. Pub. 3-4-58. Filed 8-12-57.

661,856. DELTA ALBAPLEX. The Upjohn Company. SN 35,401. Pub. 3-4-58. Filed 8-12-57.

661,857. ACTROGEN. The Upjohn Company. SN 35,402. Pub. 3-4-58. Filed 8-12-57.

661,858. HYDRASTON. Dr. F. M. Houston, d. b. a. F. M. Houston Company. SN 35,773. Pub. 3-4-58. Filed 8-19-57.

661,859. LIPO-HEPIN. Darwin Laboratories. SN 35,858. Pub. 3-4-58. Filed 8-20-57.

661,860. CAPILL-AID AND DESIGN. Richard Fine, d. b. a. Belmoore Pharmacal Co. SN 35,924. Pub. 3-4-58. Filed 8-20-57.

661,861. UNISTAT. Dr. Salsbury's Laboratories. SN 35,949. Pub. 3-4-58. Filed 8-21-57.

661,862. HERCULIN. The Upjohn Company. SN 35,958. Pub. 3-4-58. Filed 8-21-57.

661,863. COMBID. Smith Kline & French Laboratories. SN 36,114. Pub. 3-4-58. Filed 8-23-57.

661,864. ATHEROXIN. Gray Pharmaceutical Co., Inc. SN 36,181. Pub. 3-4-58. Filed 8-26-57.

661,865. DYN-R-GY AND DESIGN. Jensen Laboratories, Incorporated. SN 36,377. Pub. 3-4-58. Filed 8-28-57.

Class 19—Vehicles

661,866. AMERICAN AND DESIGN. The American Steel Scraper Company. SN 4,927. Pub. 3-4-58. Filed 7-29-57.

661,867. AUTO MORE PARTS THIRTEEN. Andrew C. Chappie, d. b. a. The A. C. Chappie Replacement Parts. SN 9,339. Pub. 3-4-58. Filed 5-31-56.

661,868. AIR LOG AND DESIGN. Air Logistics Corporation. SN 15,749. Pub. 3-4-58. Filed 9-17-56.

661,869. HALLMARK. New Moon Homes, Inc. SN 20,044. Pub. 3-4-58. Filed 11-28-56.

661,870. REEL-SAFE. Pacific Scientific Company. SN 23,501. Pub. 3-4-58. Filed 1-30-57.

661,871. SNO-KITTEN. Tucker & Sons. SN 26,736. Pub. 3-4-58. Filed 3-22-57.

661,872. HILL HOLDER. Studebaker-Packard Corporation. SN 27,908. Pub. 3-4-58. Filed 4-10-57.

661,873. DS 19. Societe Anonyme Andre Citroen. SN 29,664. Pub. 3-4-58. Filed 5-8-57.

661,874. NORTH AMERICAN ETC. AND DESIGN. Luther Corporation. SN 30,437. Pub. 3-4-58. Filed 5-21-57.

661,875. SUNBEAM. Sunbeam Corporation. SN 33,651. Pub. 3-4-58. Filed 7-12-57.

661,876. SCOOTMOBILE. Duramatic Clutch Company. SN 33,663. Pub. 3-4-58. Filed 7-12-57.

Class 21—Electrical Apparatus, Machines, and Supplies

661,877. COMFORTAIRE AND DESIGN. Comfortaire Corporation, to W. W. McMillan, d. b. a. W. W. McMillan & Co. SN 671,307. Pub. 9-18-56. Filed 8-9-54.

661,878. USECO AND DESIGN. U. S. Engineering Co. Inc. SN 7,128. Pub. 3-4-58. Filed 4-25-56.

661,879. POLY-SYN. The Electric Auto-Lite Company. SN 19,751. Pub. 3-4-58. Filed 11-21-56.

661,880. KROSSGARD AND DESIGN. The Tru-Fit Products Corporation. SN 29,843. Pub. 3-4-58. Filed 5-10-57.

661,881. UNIDRIVE. Utah Radio Products Corporation. SN 31,879. Pub. 3-4-58. Filed 6-12-57.

661,882. ERICOFONE. Telefonaktiebolaget LM Ericsson. SN 33,300. Pub. 3-4-58. Filed 7-5-57.

661,883. FI-CORD. Kenneth Roy Gough. SN 33,615. Pub. 3-4-58. Filed 7-12-57.

661,884. RE TANDBERG AND DESIGN. Reeves Equipment Corp. SN 34,010. Pub. 3-4-58. Filed 7-18-57.

661,885. HELCO AND DESIGN. Vaino A. Hoover, d. b. a. Hoover Electric Company. SN 34,611. Pub. 3-4-58. Filed 7-30-57.

Class 22—Games, Toys, and Sporting Goods

661,886. NEMROD. Juan y Pedro Villarrubia Ferrando. SN 13,146. Pub. 3-4-58. Filed 7-31-56.

661,887. FASHIONETTE OF ARIZONA AND DESIGN. Robb & Robb. SN 20,302. Pub. 3-4-58. Filed 12-3-56.

661,888. STORYTOWN U. S. A. Storytown, U. S. A. Inc. SN 23,179. Pub. 3-4-58. Filed 1-24-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

661,889. VULCAN SUPERKUT. Vulcan Tool Manufacturing Company. SN 1,551. Pub. 3-4-58. Filed 1-26-56.

661,890. BLU STRIKE AND DESIGN. Blu-Strike Blade Company. SN 23,892. Pub. 3-4-58. Filed 2-6-57.

661,891. TEALE AND DESIGN. Teale Machine Company, Inc. SN 27,824. Pub. 3-4-58. Filed 4-9-57.

661,892. DEUTSCH. Pearlduck, Inc. SN 30,827. Pub. 3-4-58. Filed 5-27-57.

661,893. DART. Ace Fastener Corporation, to Ace Fastener Corporation (new company). SN 35,149. Pub. 3-4-58. Filed 8-8-57.

661,894. CAMBION. Cambridge Thermionic Corporation. SN 35,628. Pub. 3-4-58. Filed 8-16-57.

661,895. HI LOY. Geo. T. Schmidt, Inc. SN 35,687. Pub. 3-4-58. Filed 8-16-57.

661,896. GTS AND DESIGN. Geo. T. Schmidt, Inc. SN 35,689. Pub. 3-4-58. Filed 8-16-57.

661,897. STRATOPOWER. The New York Air Brake Company. SN 39,005. Pub. 3-4-58. Filed 10-16-57.

Class 26—Measuring and Scientific Appliances

661,898. ROBOT-EYE. Standard Instrument Corporation. SN 9,749. Pub. 3-4-58. Filed 6-6-56.

661,899. SHUR-TEMP. The Bryant Electric Company. SN 28,237. Pub. 3-4-58. Filed 4-16-57.

661,900. WIRE MIKE. Burndy Corporation. SN 29,012. Pub. 3-4-58. Filed 4-29-57.

661,901. HANDISCOPE. American Gage & Machine Company. SN 30,707. Pub. 3-4-58. Filed 5-27-57.

661,902. MULTIPOT. Ford Engineering Company, Incorporated. SN 31,101. Pub. 3-4-58. Filed 5-31-57.

661,903. TIRE-LITE. Tire Service Company, now by change of name Tire Service Inc. SN 31,281. Pub. 3-4-58. Filed 6-3-57.

661,904. UNIVEL. Albert Wullschleger. SN 31,369. Pub. 3-4-58. Filed 6-4-57.

661,905. SHOP-BLOCKS. The DoAll Company. SN 31,475. Pub. 3-4-58. Filed 6-6-57.

661,906. ENLARGE-A-LITE. Aluminum Houseware Corp. SN 31,620. Pub. 3-4-58. Filed 6-10-57.

661,907. MAGNELINE. Epsco, Incorporated. SN 31,646. Pub. 3-4-58. Filed 6-10-57.

661,908. HYSCAN. General Aniline & Film Corporation. SN 31,921. Pub. 3-4-58. Filed 6-13-57.

Class 28—Jewelry and Precious-Metal Ware

661,909. COLUMBIA. Axel Bros., Inc. SN 695,265. Pub. 11-13-56. Filed 9-26-55.

661,910. PHILCO. Philco Corporation. SN 32,847. Pub. 3-4-58. Filed 6-28-57.

661,911. VERI-THIN. Gruen Industries, Inc., d. b. a. Gruen Watch Company. SN 35,480. Pub. 3-4-58. Filed 6-20-57.

Class 29—Brooms, Brushes, and Dusters

661,912. SWEEP QUEEN. American-Marietta Company, O-Cedar Division. SN 29,583. Pub. 3-4-58. Filed 5-8-57.

Class 31—Filters and Refrigerators

661,913. DESIGN OF GREEK LETTER OMEGA. B-I-F Industries, Inc. SN 32,454. Pub. 3-4-58. Filed 6-24-57.

661,914. NO FLASH. Gibbs Limited. SN 33,237. Pub. 3-4-58. Filed 7-5-57.

Class 32—Furniture and Upholstery

661,915. EVERGOOD. The Waterbury Mattress Company. SN 38,653. Pub. 3-4-58. Filed 10-9-57.

661,916. LITCHFIELD. Drexel Furniture Company. SN 38,980. Pub. 3-4-58. Filed 10-16-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

661,917. SEABLUE. Paddock of Texas, Inc. SN 31,249. Pub. 3-4-58. Filed 6-3-57.

661,918. YOUNG BROTHERS ETC. AND DESIGN. Young Brothers Company. SN 31,443. Pub. 3-4-58. Filed 6-5-57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

661,919. "VINALAWN." The Goodyear Tire & Rubber Company. SN 33,070. Pub. 3-4-58. Filed 7-2-57.

661,920. TYTON. United States Pipe and Foundry Company. SN 33,303. Pub. 3-4-58. Filed 7-5-57.

661,921. CLIPPER. Johns-Manville Corporation. SN 33,623. Pub. 3-4-58. Filed 7-12-57.

Class 36—Musical Instruments and Supplies

661,922. CORAL AND DESIGN. Coral Records, Inc. SN 23,034. Pub. 3-4-58. Filed 1-23-57.

661,923. BLUE-CHIP AND DESIGN. Harold L. Reeves, d. b. a. Blue Chip Records. SN 29,680. Pub. 3-4-58. Filed 4-25-57.

661,924. TIP TALLY. Herbert C. Agnew. SN 13,266. Pub. 2-4-58. Filed 8-2-56.

Class 37 — Paper and Stationery

661,925. SEP-TEX. The Fox Paper Company. SN 23,138. Pub. 3-4-58. Filed 1-24-57.

661,926. WEBER. Weber Addressing Machine Co. Inc. SN 26,220. Pub. 3-4-58. Filed 3-14-57.

661,927. INDEXOGRAPH. Elliott Addressing Machine Company. SN 33,609. Pub. 3-4-58. Filed 7-12-57.

661,928. KRANILA. Crown Zellerbach Corporation. SN 33,694. Pub. 3-4-58. Filed 7-15-57.

Class 38 — Prints and Publications

661,929. QUIP AND DESIGN. Maxwell Droke, d. b. a. Droke House. SN 24,137. Pub. 3-4-58. Filed 2-11-57.

661,930. CHRISTIANITY TODAY. Christianity Today, Inc. SN 27,281. Pub. 3-4-58. Filed 4-1-57.

661,931. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION ETC. AND DESIGN. American Institute of Timber Construction. SN 29,188. Pub. 3-4-58. Filed 5-1-57.

661,932. BABY TALK. Leam Corporation. SN 31,404. Pub. 3-4-58. Filed 6-5-57.

Class 39 — Clothing

661,933. COVER GIRL. Cover Girl of Miami, Inc. SN 697,967. Pub. 3-4-58. Filed 11-9-55.

661,934. STORYTOWN U. S. A. Storytown, U. S. A. Inc. SN 24,645. Pub. 3-4-58. Filed 2-18-57.

661,935. ROGERS GLOW-SKIN. Kingsboro Mills, Inc. SN 25,003. Pub. 3-4-58. Filed 2-25-57.

661,936. EN GARDE. The Pioneer Rubber Company. SN 26,017. Pub. 3-4-58. Filed 3-12-57.

661,937. RAIN-EZE. U. S. Plastisol, Inc. SN 26,988. Pub. 3-4-58. Filed 3-26-57.

661,938. CUMFY. The Newman Company. SN 27,965. Pub. 3-4-58. Filed 4-11-57.

661,939. 10-X AND DESIGN. 10-X Manufacturing Company. SN 28,073. Pub. 3-4-58. Filed 4-12-57.

661,940. BORATTI. F & M Shoe Corp. SN 30,012. Pub. 3-4-58. Filed 5-14-57.

661,941. 5-STAR. General Sportwear Co., Inc. SN 30,327. Pub. 3-4-58. Filed 5-20-57.

661,942. CENTURY. Century Handkerchief Corp. SN 30,728. Pub. 3-4-58. Filed 5-27-57.

661,943. DESIGNETTE. Nettie Rosenstein Stockings, Inc. SN 32,538. Pub. 3-4-58. Filed 6-24-57.

661,944. PANCHO BLINKY. Davids Gloves, Inc. SN 32,587. Pub. 3-4-58. Filed 6-25-57.

661,945. SLEEPY TIME. Davids Gloves, Inc. SN 32,588. Pub. 3-4-58. Filed 6-25-57.

661,946. MEDALLION. Hickok Manufacturing Co. Inc. SN 34,796. Pub. 3-4-58. Filed 8-1-57.

661,947. QUADLEY. Finchley Inc. SN 35,254. Pub. 3-4-58. Filed 8-9-57.

661,948. WINDWARD. Rose Brothers Inc. SN 35,297. Pub. 3-4-58. Filed 8-9-57.

Class 40 — Fancy Goods, Furnishings, and Notions

661,949. MARTHA MADISON. General Features Corporation. SN 32,303. Pub. 3-4-58. Filed 6-20-57.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

661,950. TREND OF THE TIMES. Jean Helen Metsler, d. b. a. R. Stein & Company. SN 677,668. Pub. 3-4-58. Filed 12-2-54.

661,951. TEMPO-TWEED. The Boas Company. SN 12,142. Pub. 3-4-58. Filed 7-16-56.

661,952. TEMPO-TUFT. The Boas Company. SN 12,143. Pub. 3-4-58. Filed 7-16-56.

661,953. HONEYBLEND. United Mills Corporation, d. b. a. Gilead and Realcraft. SN 27,995. Pub. 3-4-58. Filed 4-11-57.

661,954. TUFTON. American Viscose Corporation. SN 29,336. Pub. 3-4-58. Filed 5-3-57.

661,955. CROMPTON, ETC. AND DESIGN. Crompton Company. SN 31,468. Pub. 3-4-58. Filed 6-6-57.

661,956. CROSS PATCH. Shirley Fabrics Corporation. SN 32,996. Pub. 3-4-58. Filed 7-1-57.

661,957. MOLTEN GOLD. Bigelow-Sanford Carpet Company, Inc. SN 33,046. Pub. 3-4-58. Filed 7-2-57.

661,958. GRAND SALON. Bigelow-Sanford Carpet Company, Inc. SN 33,119. Pub. 3-4-58. Filed 7-3-57.

661,959. ABSTRUSE. K & K Textile Co., Inc. SN 33,248. Pub. 3-4-58. Filed 7-5-57.

661,960. FLUFFEE. Milham Products Co., Inc. SN 33,269. Pub. 3-4-58. Filed 7-5-57.

661,961. PIN-NO-MOR. Auburn Curtain Co., Inc. SN 33,453. Pub. 3-4-58. Filed 7-10-57.

661,962. SIAMESE. Mount Vernon Mills, Inc. SN 33,630. Pub. 3-4-58. Filed 7-12-57.

661,963. TOUR BOSS. Mount Vernon Mills, Inc. SN 33,631. Pub. 3-4-58. Filed 7-12-57.

661,964. SKYDRIFT. I. A. Wyner & Company, Inc. SN 33,659. Pub. 3-4-58. Filed 7-12-57.

Class 44 — Dental, Medical, and Surgical Appliances

661,965. PLASTIBELL. Plastibells. SN 33,743. Pub. 3-4-58. Filed 7-15-57.

661,966. CHIX. Chicopee Mills, Inc. SN 34,039. Pub. 3-4-58. Filed 7-19-57.

661,967. FEMS. Kimberly-Clark Corporation. SN 34,057. Pub. 3-4-58. Filed 7-19-57.

661,968. MISTOMETER. Sterling Drug Inc. SN 35,136. Pub. 3-4-58. Filed 8-7-57.

661,969. ACMIX. American Cystoscope Makers, Inc. SN 35,154. Pub. 3-4-58. Filed 8-8-57.

661,970. ALKATH. American Cystoscope Makers, Inc. SN 35,155. Pub. 3-4-58. Filed 8-8-57.

661,971. ACMITEX. American Cystoscope Makers, Inc. SN 35,156. Pub. 3-4-58. Filed 8-8-57.

661,972. VYN-ACRYL 77. Vyn-Acryl, Inc. SN 35,547. Pub. 3-4-58. Filed 8-14-57.

661,973. DIA-PUMP. Air-Shields, Inc. SN 35,963. Pub. 3-4-58. Filed 8-22-57.

Class 45 — Soft Drinks and Carbonated Waters

661,974. DOUBLY BUBBLY-DOUBLY GOOD ETC. AND DESIGN. Kirsch's Beverages, Inc. SN 695,006. Pub. 3-4-58. Filed 9-20-55.

661,975. FUN. McCormick & Company, Incorporated. SN 25,346. Pub. 3-4-58. Filed 3-1-57.

Class 46 — Foods and Ingredients of Foods

661,976. BAK-A-PIE AND DESIGN. Monroe Boston Strause. SN 610,290. Pub. 3-4-58. Filed 2-19-51.

661,977. BAK-A-PIE. Monroe Boston Strause. SN 611,200. Pub. 3-4-58. Filed 3-12-51.

661,978. DESIGN OF WAGONS AND MULES. United States Borax & Chemical Corporation, from Borax Consolidated, Limited, d. b. a. Pacific Coast Borax Co., Division of Borax Consolidated, Limited. SN 4,424. Pub. 3-4-58. Filed 3-13-56.

661,979. MARCA DOS PUERQUITOS. John Engelhorn & Sons. SN 9,129. Pub. 3-4-58. Filed 5-28-56.

661,980. MEDOGREEN. Bremco Alfalfa Mills, Inc. SN 12,254. Pub. 3-4-58. Filed 7-17-56.

661,981. SCOOPY ETC. AND DESIGN. Safe-T Pacific Baking Co. SN 13,249. Pub. 3-4-58. Filed 8-1-56.

661,982. CAL-BEST. Hershel California Fruit Products Co. SN 14,400. Pub. 3-4-58. Filed 8-22-56.

661,983. RICH-RIPE. Hawaiian Pineapple Company, Limited. SN 16,216. Pub. 3-4-58. Filed 9-24-56.

661,984. TEXSUN. Texsun Corporation. SN 18,675. Pub. 3-4-58. Filed 11-1-56.

661,985. ATLASTA. Stocker-Hausmann Co. SN 20,415. Pub. 3-4-58. Filed 12-4-56.

661,986. MEAL MASTER ETC. AND DESIGN. Delaware Produce Growers, Inc. SN 21,361. Pub. 3-4-58. Filed 12-20-56.

661,987. NATCO AND DESIGN. National Tea Co. SN 23,338. Pub. 3-4-58. Filed 1-28-57.

661,988. GAROZZO. St. Louis Macaroni Mfg. Co., Inc. SN 25,793. Pub. 3-4-58. Filed 3-8-57.

661,989. BRENNER'S 3 CHEFS' ETC. AND DESIGN. The J. J. Brenner Oyster Company. SN 26,917. Pub. 3-4-58. Filed 3-26-57.

661,990. V AND DESIGN. Vienna Sausage Manufacturing Co. SN 28,398. Pub. 3-4-58. Filed 4-17-57.

661,991. BRETTIN. London Oil Corporation Ltd. SN 30,505. Pub. 3-4-58. Filed 5-22-57.

661,992. SCATTER. Frank Spenger Company, d. b. a. Frank Spenger Co. SN 31,272. Pub. 3-4-58. Filed 6-3-57.

661,993. FRI-DAHOS. The Holly House. SN 31,978. Pub. 3-4-58. Filed 6-14-57.

661,994. CANDY ANN. Hill's Merchandise Distributors, Inc., d. b. a. Candy Ann Products Co. SN 33,479. Pub. 3-4-58. Filed 7-10-57.

661,995. TROPHY. The Dayton Nut Products Company. SN 26,061. Pub. 3-4-58. Filed 8-23-57.

661,996. NEW LOOK. Rogay Food Supply, Inc. SN 36,231. Pub. 3-4-58. Filed 8-26-57.

661,997. MUSCLES. Oelerich & Berry Company. SN 36,466. Pub. 3-4-58. Filed 8-29-57.

661,998. WATER WONDERLAND. Robert B. Huxtable, d. b. a. Sugar Bush Supplies Co. SN 36,588. Pub. 3-4-58. Filed 9-3-57.

661,999. ROYAL AND DESIGN. Standard Brands Incorporated. SN 36,984. Pub. 3-4-58. Filed 9-10-57.

662,000. VERMILION. Kaplan Rice Mill, Inc. SN 37,270. Pub. 3-4-58. Filed 9-16-57.

662,001. KEGS. Mason Au Magenheimer Conf. Mfg. Co. SN 37,279. Pub. 3-4-58. Filed 9-16-57.

662,002. WASHINGTON FARMS AND DESIGN. Washington Farms Corp. SN 37,463. Pub. 3-4-58. Filed 9-18-57.

662,003. PARTI-NOG. Gerald G. Balch, d. b. a. Balch Flavor Co. SN 37,935. Pub. 3-4-58. Filed 9-27-57.

662,004. IDA'S. Inland Service Corporation, d. b. a. Piedmont Apple Products Company. SN 38,048. Pub. 3-4-58. Filed 9-30-57.

662,005. TWISTERS. National Licorice Company. SN 38,069. Pub. 3-4-58. Filed 9-30-57.

662,006. CINDY LOU AND DESIGN. Osceola Foods, Inc. SN 39,662. Pub. 3-4-58. Filed 10-28-57.

Class 48 — Malt Beverages and Liquors

662,007. HOFBRAUHAUS MUNCHEN. Staatliches Hofbräuhaus in München. SN 28,650. Pub. 3-4-58. Filed 4-22-57.

Class 49 — Distilled Alcoholic Liquors

662,008. MY FAVORITE. Joseph S. Finch and Company. SN 30,241. Pub. 3-4-58. Filed 5-17-57.

Class 50 — Merchandise Not Otherwise Classified

662,009. FLEXI-TROL. Methods Research Corporation. SN 25,016. Pub. 3-4-58. Filed 2-25-57.

662,010. KERALA. Christopher Smiles & Co., Inc. SN 30,842. Pub. 3-4-58. Filed 5-27-57.

662,011. CHINTROL. Chinchilla Sales & Supply, Inc. SN 32,055. Pub. 3-4-58. Filed 6-17-57.

Class 51 — Cosmetics and Toilet Preparations

662,012. COLLEGIATE ETC. AND DESIGN. Quartet Chemical Co. SN 697,993. Pub. 3-4-58. Filed 11-9-55.

662,013. SIGNET. Helene Curtis Industries, Inc. SN 8,634. Pub. 3-4-58. Filed 5-21-56.

662,014. PEELING-ECLAIR. Marie Madeleine Dugenie, née Guery. SN 18,849. Pub. 3-4-58. Filed 11-6-56.

662,015. VIRGINIA FARRELL. Virginia Farrell, Inc. SN 19,851. Pub. 3-11-58. Filed 11-19-56.

662,016. REVE D'OR. Société Anonyme Parfumerie L. T. Piver, d. b. a. L. T. Piver. SN 22,635. Pub. 3-4-58. Filed 1-15-57.

662,017. ROUX AND DESIGN. Roux Laboratories, Inc. SN 24,086. Pub. 3-4-58. Filed 2-8-57.

662,018. CHARLES BLAIR. Charles Blair-Scherick Société Anonyme. SN 26,676. Pub. 3-4-58. Filed 3-22-57.

662,019. CHLORAQUETT. Block Drug Company, Inc., d. b. a. Hudson Products. SN 27,841. Pub. 3-4-58. Filed 4-10-57.

662,020. ENHANCE. Samuel Bonat & Bro. Inc., d. b. a. Samuel Bonat & Bro. SN 29,008. Pub. 3-4-58. Filed 4-29-57.

662,021. INCLINATION. Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver. SN 31,783. Pub. 3-4-58. Filed 6-11-57.

662,022. ILKA. Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver. SN 31,784. Pub. 3-4-58. Filed 6-11-57.

662,023. RED TULLE AND DESIGN. Baritz, Inc. SN 35,846. Pub. 3-4-58. Filed 8-20-57.

662,024. CELESTIAL. Campana Sales Company, d. b. a. Anjou. SN 36,053. Pub. 3-4-58. Filed 8-23-57.

662,025. MINITOR. Clark-Cleveland, Incorporated. SN 36,500. Pub. 3-4-58. Filed 8-30-57.

Class 52—Detergents and Soaps

662,026. SASPIN'S. Saspin Chemicals Incorporated. SN 1,014. Pub. 3–4–58. Filed 1–18–56.

662,027. IMPERIAL. Helene Curtis Industries, Inc. SN 7,424. Pub. 2–25–58. Filed 5–1–56.

662,028. CHARG-AID AND DESIGN. Eaton Chemical and Dyestuff Company. SN 24,841. Pub. 3–4–58. Filed 2–21–57.

662,029. CONDUSOL. R. R. Street & Co., Inc. SN 35,888. Pub. 3–4–58. Filed 8–20–57.

Service Marks

Class 100—Miscellaneous

662,030. RPS AND DESIGN. Paul Aubert Rider. SN 6,469. Pub. 3–4–58. Filed 4–16–56.

Class 101—Advertising and Business

662,031. GAS AND DESIGN. Speedy Therm Service Company. SN 13,699. Pub. 3–4–58. Filed 8–9–56.

662,032. FIESTA EN TAMPA ETC. AND DESIGN. Ruben Fabelo, d. b. a. Fiesta en Tampa. SN 28,041. Pub. 3–4–58. Filed 4–12–57.

Class 102—Insurance and Financial

662,033. AUTO-GRAPHIC. Nationwide Mutual Insurance Company. SN 695,930. Pub. 3–4–58. Filed 10–5–55.

Class 103—Construction and Repair

662,034. AUTO FLOAT. O. K. Ko-Op Rubber Welding System. SN 697,393. Pub. 3–4–58. Filed 10–31–55.

662,035. TBS. O. K. Ko-Op Rubber Welding System. SN 697,395. Pub. 3–4–58. Filed 10–31–55.

Class 105—Transportation and Storage

662,036. HELIX AND DESIGN. Helix Air Transports, Inc. SN 32,953. Pub. 3–4–58. Filed 7–1–57.

Class 107—Education and Entertainment

662,037. "CASEY AT THE MIKE." Storer Broadcasting Company. SN 33,293. Pub. 3–4–58. Filed 7–5–57.

662,038. "MORNING EXPRESS." Storer Broadcasting Company. SN 33,294. Pub. 3–4–58. Filed 7–5–57.

662,039. "COFFEE BREAK." Storer Broadcasting Company. SN 33,295. Pub. 3–4–58. Filed 7–5–57.

662,040. "McLEODSVILLE U. S. A." Storer Broadcasting Company. SN 33,296. Pub. 3–4–58. Filed 7–5–57.

662,041. WHIZZO'S WONDERLAND AND DESIGN. KMBC Broadcasting Company. SN 33,716. Pub. 3–4–58. Filed 7–15–57.

Certification Mark

Class B—Services

662,042. APPROVED AMERICAN SPORTEL AND DESIGN. American Motel Association, Inc. SN 671,876. Pub. 3–4–58. Filed 8–18–54.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 2—Receptacles

662,043. Burlington Molding Corporation, Burlington, N. C. SN 21,294. Filed P. R. 12–19–56. Am. S. R. 3–28–58.

Sav-food
THE MODERN WAY

For Plastic Food Storage Boxes.
First use Dec. 8, 1956.

Class 4—Abrasives and Polishing Materials

662,044. John Anastos, d. b. a. The Anton Company, New York, N. Y. SN 29,413. Filed P. R. 5–6–57. Am. S. R. 3–17–58.

MET-ALL

For Polish for Precious and Non-Precious Metals.
First use Dec. 16, 1956.

Class 9—Explosives, Firearms, Equipments, and Projectiles

662,045. The Whitney Firearms Company, Hartford, Conn. SN 40,295. Filed 11–7–57.

WHITNEY

For Pistols.
First use Oct. 1, 1955.

Class 12—Construction Materials

662,046. The Armstrong Company, Chicago, Ill., to Dicks-Armstrong-Pontius, Inc., Dayton, Ohio. SN 18,697. Filed P. R. 11–5–56. Am. S. R. 3–26–58.

"FLOW-CONTROL"

For Packaged Caulking Compound.
First use Sept. 21, 1956.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

662,047. General Logistics, Pasadena, Calif., to Aeroquip Corporation, Jackson Mich. SN 24,157. Filed P. R. 2–11–57. Am. S. R. 3–17–58.

ROPELOCK

For Releasable Locking Buckles for Ropes Particularly for Industrial Purposes.
First use July 23, 1956.

662,048. Folcutt Manufacturing Co., Portland, Maine. SN 38,139. Filed 10–1–57.

KANT-LOSE

For Key Rings and Key Holders.
First use Nov. 19, 1946.

Class 26—Measuring and Scientific Appliances

662,049. Richard B. Taylor, d. b. a. R. B. Taylor Company and Taylor Optical Company, Seattle, Wash. SN 35,466. Filed 8–13–57.

TAYLOR
OPTICAL

For Binoculars.
First use Dec. 5, 1955.

Class 30—Crockery, Earthenware, and Porcelain

662,050. Harlem Crockery Company, New York, N. Y. SN 28,350. Filed P. R. 4–17–57. Am. S. R. 1–21–58.

ARLEN



No claim is made to the words "Fine China" apart from the mark as shown. The drawing is lined for red or pink.
For Crockery—Namely, China Dinnerware and Earthenware Dinnerware.
First use Oct. 18, 1955.

Class 38—Prints and Publications

662,051. Herbert H. Kirschner, d. b. a. Kirschner and Company, San Francisco, Calif. SN 40,467. Filed 11–12–57.

INSURANCE ADJUSTER

For Magazine (Published Monthly).
First use July 15, 1956.

Class 45—Soft Drinks and Carbonated Waters

662,052. The Frostie Company, Baltimore, Md. SN 31,757. Filed P. R. 6–11–57. Am. S. R. 3–11–58.



For Root Beer.
First use in June 1942.

Class 46—Foods and Ingredients of Foods

662,053. E. Cherry Sons & Co., Inc., d. b. a. Cherrydale Farms, Philadelphia, Pa. SN 8,747. Filed P. R. 5–22–56. Am. S. R. 1–21–58.

TOASTED NUT-MELS

For Confection Composed Principally of Candies and Nuts.
First use Jan. 1, 1956.

662,054. Edward J. Baker, Newark, N. J. SN 25,225. Filed P. R. 2–6–57. Am. S. R. 2–11–58.

BETTA BATTA

For Prepared Pancake Batter.
First use Jan. 21, 1956.

662,055. S. & S. Cone Corporation, New York, N. Y. SN 26,392. Filed P. R. 3–18–57. Am. S. R. 3–10–58.

KOLOR KUPS

For Empty Ice Cream Cones.
First use Feb. 20, 1957.

662,056. E. W. Kneip, Incorporated, Chicago, Ill. SN 36,897. Filed P. R. 9–9–57. Am. S. R. 3–31–58.

KNEIP

For Corned Beef; Fresh-Frozen Meats—Namely, Beef, Pork, and Veal, in the Form of: Steaks, Chops, Ground, Diced, and Sliced Beef Liver; Fresh Pork—Namely, Loins, Spareribs, Boston Butts, Neckbones, Tails, Feet, Skins, Ears, Hearts, Kidneys, Lips, Livers, Snouts, Tongues, and Stomachs.
First use Apr. 23, 1956.

662,057. Perk Foods Co., d. b. a. Pooch Dog Food Co., Chicago, Ill. SN 41,041. Filed 11–20–57.

Pooch

For Canned Dog Food.
First use Mar. 7, 1949.

Class 47—Wines

662,058. Ellena Brothers, Etiwanda, Calif. SN 20,736. Filed P. R. 12–10–56. Am. S. R. 10–7–57.

QUEEN OF FLAVOR

For Wines.
First use July 28, 1956.

Class 49—Distilled Alcoholic Liquors

662,059. Davide Campari-Milano, S. p. A., Milan, Italy. SN 5,982. Filed P. R. 4–9–56. Am. S. R. 3–18–58.

CAMPARI



The drawing is lined for blue and gold. Owner of U. S. Reg. Nos. 262,694 and 276,979.
For Alcoholic Beverage Bitters.
First use Oct. 12, 1912; in commerce Oct. 12, 1912.

662,060. Robert McNish and Company Limited, Glasgow, Scotland. SN 30,802. Filed 5–27–57.



Priority is claimed under Sec. 44(d) on British Reg. No. 760,866, dated Dec. 29, 1956. Owner of U. S. Reg. Nos. 411,761, 537,660, and others.
For Whisky.

Class 51—Cosmetics and Toilet Preparations

662,061. Golden Glint Company, d. b. a. Wittwer-Lome Company, Seattle, Wash. SN 698,973. Filed P. R. 11–28–55. Am. S. R. 7–18–57.

COLOR-COTE

For Hair Coloring Cream.
First use May 31, 1955.

Class 52—Detergents and Soaps

662,062. Bostwick Laboratories Inc., Bridgeport, Conn. SN 670,652. Filed P. R. 7–27–54. Am. S. R. 2–6–58.

5-way



For Shampoo for Animals.
First use May 15, 1953.

662,063. Multi-Clean Products, Incorporated, St. Paul, Minn. SN 11,389. Filed P. R. 7–2–56. Am. S. R. 3–18–58.

KARPETREET

For Carpet, Rug, and Upholstery Shampoo.
First use Apr. 10, 1956.

662,064. Fast Chemical Products Corp., Yonkers, N. Y. SN 26,345. Filed P. R. 3–18–57. Am. S. R. 3–24–58.

WOOL TREAT

For Cold Water Detergent.
First use Jan. 28, 1957.

TRADEMARK REGISTRATIONS RENEWED

121,786. KINGNUT. Cl. 46. 5–28–18.
122,136. FAFNIR. Cl. 23. 7–2–18.
122,335. TUNGARD AND DESIGN. Cl. 3. 7–23–18.
122,446. JACK SPRAT. Cl. 46. 8–20–18.
352,207. STONE ETERNAL. Cl. 1. 11–23–37.
352,208. STONE ETERNAL. Cl. 50. 11–23–37.
352,462. BEACHCOMBER. Cl. 51. 11–30–37.
352,597. TUXEDO PARK ETC. AND DESIGN. Cl. 39. 12–7–37.
352,611. PLEASE DADDY MARBERT AND DESIGN. Cl. 45. 12–7–37.
353,210. A JOURNAL FOR NURSES R. N. Cl. 38. 12–28–37.
353,341. SUNI-CITRUS. Cl. 46. 1–4–38.
353,414. CHARGER. Cl. 45. 1–4–38.
353,552. STERLING GENUINE NORSELAND AND DESIGN. Cl. 28. 1–11–38.

353,778. BRANDT BILTMORE AND DESIGN. Cl. 39. 1–18–38.
354,138. HER ROYAL HIGHNESS. Cl. 42. 2–1–38.
354,251. BYRRH ETC. AND DESIGN. Cl. 47. 2–8–38.
354,591. WEAVERTON. Cl. 39. 2–15–38.
354,652. PRE-VUE PRINTS. Cl. 42. 2–15–38.
354,891. GUITAR AND DESIGN. Cl. 47. 3–1–38.
355,099. SUN FUN. Cl. 39. 3–8–38.
355,110. PANEL-ART. Cl. 39. 3–8–38.
355,195. PARAMOUNT AND DESIGN. Cl. 21. 3–8–38.
355,720. PLYLOCK. Cl. 35. 3–29–38.
356,329. SAXETTE. Cl. 36. 4–26–38.
356,577. OILDEX. Cl. 31. 5–3–38.
356,629. SEASIDE. Cl. 46. 5–3–38.
356,867. RIVOLI AND DESIGN. Cl. 49. 5–17–38.
356,954. UNIONMELT. Cl. 21. 5–17–38.
357,058. CROMALOY. Cl. 6. 5–24–38.
357,164. DESIGN OF LABEL. Cl. 42. 5–24–38.
357,522. FUNK FARMS ETC. Cl. 1. 6–7–38.
357,533. INTRIGUE. Cl. 39. 6–7–38.
357,814. SUPER PIQUE. Cl. 42. 6–14–38.
358,102. UNIONMELT. Cl. 6. 6–28–38.
358,462. PLAYMATE. Cl. 42. 7–12–38.
358,536. JULIUS WILE SONS & CO., INC. AND DESIGN. Cl. 49. 7–19–38.
358,537. JULIUS WILE SONS & CO. INC. AND DESIGN. Cl. 47. 7–19–38.
358,800. DESIGN OF CIRCLE (WHIRLWIND). Cl. 21. 7–26–38.
359,023. TAPERED-WEAVE. Cl. 42. 8–2–38.
359,028. ARTOS. Cl. 23. 8–2–38.
359,072. SNOWOOL. Cl. 39. 8–2–38.
359,296. SHANGRI-LA. Cl. 42. 8–9–38.
359,381. L AND DESIGN. Cl. 50. 8–16–38.
359,491. ARISTOCRAT. Cl. 34. 8–23–38.
359,524. SOLVIN. Cl. 52. 8–23–38.
359,568. WHITSON'S AND DESIGN. Cl. 46. 8–23–38.
359,706. MALLINCKRODT. Cl. 6. 8–30–38.
359,745. GLEANER. Cl. 21. 8–30–38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

37,375. PHOSFERINE. Cl. 18. 11–26–01.
108,987. PORTRAIT AND DESIGN. Cl. 46. 3–14–16.
287,399. COPRAL. Cl. 18. 9–22–31.
291,220. CHUBBY. Cl. 51. 2–2–32.
364,870. SATAN. Cl. 1. 2–14–39.
366,124. SUB-TROPICAL. Cl. 46. 3–28–39.
366,569. HORIZON. Cl. 46. 4–18–39.
366,571. SOU'EAST. Cl. 46. 4–18–39.
371,157. ATLANTIC AND DESIGN. Cl. 1. 9–19–39.

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556,818. DEMO-KIT. Cl. 36.
556,819. FRANCES WILLARD. Cl. 46.
556,842. RUBY-GLOW AND DESIGN. Cl. 1.
556,844. VELAINE PARIS AND DESIGN. Cl. 36.
556,846. PURGE. Cl. 51.
556,853. S WITHIN A DESIGN. Cl. 51.
556,856. ALIZIRCON. Cl. 30.
556,857. HEAD REPRESENTATION. Cl. 39.
556,866. FASHION FIVE. Cl. 39.
556,867. FASHION FIVE ETC. Cl. 39.
556,870. PRESTO. Cl. 13.
556,874. CANASTA. Cl. 30.
556,879. PENN. Cl. 25.
556,880. PENN IN DOUBLE CIRCLE. Cl. 25.
556,883. MODERNTIME. Cl. 27.
556,886. VIP. Cl. 50.
556,889. LIQUIDRIVE. Cl. 15.
556,891. LOAD LIMIT. Cl. 23.
556,893. ADHERENCE TO SPRING AND DESIGN. Cl. 51.
556,895. BLUE RAND AND LINE DESIGN. Cl. 12.
556,897. STADLER'S RED ARROW AND DESIGN. Cl. 10.
556,898. EL CABELLERO. Cl. 42.
556,915. MESH-MOVE. Cl. 23.
556,919. TEL-E-PEN. Cl. 28.
556,920. TEL-E-PENCIL. Cl. 28.
556,924. PORAY. Cl. 39.
556,928. HAR MAR AND DESIGN. Cl. 1.
556,933. HESTADIN. Cl. 18.
556,934. HOMETOWN. Cl. 22.
556,943. ONE-TWO. Cl. 51.
556,944. ORGANYL. Cl. 28.
556,946. BUBBLE-O-BILL AND DESIGN. Cl. 22.
556,947. GOLF. Cl. 6.
556,950. HEMOTRON. Cl. 44.
556,959. BUCKINGSHIRE. Cl. 28.
556,960. PITCH-O-MATIC. Cl. 22.
556,964. DESIGN OF NUMERALS 4444. Cl. 42.
556,965. CHEVI TWIST. Cl. 42.
556,968. HONORA. Cl. 27.
556,970. REPO. Cl. 18.
556,971. SWANEE SUE. Cl. 46.
556,972. CORALITE. Cl. 51.
556,974. ARISTOPAC. Cl. 42.
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556,976. 7–11. Cl. 18.
556,985. SEPTOE. Cl. 44.
556,987. NICHOLS. Cl. 44.
556,993. WONDER. Cl. 40.
556,997. TEGO. Cl. 44.
557,001. NATTAN. Cl. 6.
557,003. COLORA. Cl. 44.
557,014. RADIO RING O AND DESIGN. Cl. 101.
557,017. COAT OF ARMS DESIGN. Cl. 107.
557,028. RICHARD DIAMOND PRIVATE DETECTIVE. Cl. 101.
557,029. NERI ETC. AND DESIGN. Cl. 101.
557,031. THE BUNK HOUSE. Cl. 107.
557,032. DC INC AND DESIGN. Cl. 101.
557,036. UNITED MOTOR COURTS. Cl. 100.
557,042. TACH-A-TOY. Cl. 22.
557,045. SEA-STEAKS AND DESIGN. Cl. 46.
557,053. TAYLOR'S. Cl. 18.
557,055. GRUENOIL. Cl. 15.
557,056. FLANDERS POULTRY FARMS AND DESIGN. Cl. 1.
557,059. MILLER AND DESIGN. Cl. 13.
557,068. NEO-VITA. Cl. 10.
557,071. REEVES. Cl. 18.
557,074. METAL MELT. Cl. 44.
557,075. SCHMOLL PASTA AND DESIGN. Cl. 4.
557,076. PICK OF THE CROP. Cl. 46.
557,082. WAFFLEBURGER. Cl. 46.
557,083. PACKETTE. Cl. 2.
557,084. ROHRMANN'S FAMOUS BRAT LINKS AND DESIGN. Cl. 46.
557,088. CHEEZ-KRISP AND DESIGN. Cl. 46.
557,093. GRAHAM AND DESIGN. Cl. 102.

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Abbott Laboratories, North Chicago, Ill. 661,805, pub. 3–4–58. Cl. 6.
Ace Fastener Corp., Chicago, Ill., to Ace Fastener Corp. 661,893, pub. 3–4–58. Cl. 23.
Ace Specialty Mfg. Co., Minneapolis, Minn. 556,870, canc. Cl. 13.
Acme Chemical Co., Milwaukee, Wis. 359,524, ren. 8–23–58. Cl. 52.
Aeroquip Corp. : *See*—
General Logistics.
Agnew, Herbert C., Pittsburgh, Pa. 661,924, pub. 2–4–58. Cl. 37.
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Air-Shields, Inc., Hatboro, Pa. 661,973, pub. 3–4–58. Cl. 44.
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Aluminum Housewares Corp., St. Louis, Mo. 661,906, pub. 3–4–58. Cl. 26.
American Cyanamid Co., New York, N. Y. 661,836, pub. 3–4–58. Cl. 18.
American Cystoscope Makers, Inc., New York, N. Y. 661,969–71, pub. 3–4–58. Cl. 44.
American Gage & Machine Co., Chicago, Ill. 661,901, pub. 3–4–58. Cl. 26.
American Institute of Timber Construction, Washington, D. C. 661,931, pub. 3–4–58. Cl. 38.
American Lava Corp., Chattanooga, Tenn. 556,856, canc. Cl. 30.
American-Marietta Co., O-Cedar Division, Chicago, Ill. 661,912, pub. 3–4–58. Cl. 29.
American Motel Association, Inc., Ridgewood, N. J. 662,042, pub. 3–4–58. Cl. B.
American Steel Scraper Co., The, Sidney, Ohio. 661,866, pub. 3–4–58. Cl. 19.
American Viscose Corp., Philadelphia, Pa. 661,954, pub. 3–4–58. Cl. 42.
Ames Co., Inc., Elkhart, Ind. 661,841, pub. 3–4–58. Cl. 18.
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Axel Bros., Inc., Long Island City, N. Y. 661,909, pub. 11–13–56. Cl. 28.
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Bonat, Samuel, & Bro., Inc., d. b. a. Samuel Bonat & Bro., West Paterson, N. J. 662,020, pub. 3–4–58. Cl. 51.
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Kaatz, Alexander.
Bostwick Laboratories Inc., Bridgeport, Conn. 662,062. Cl. 52.
Boulevard Employment Service, Inc., Chicago, Ill. 557,029, canc. Cl. 101.
Brandt, Irving, & Co., to E. Aling, d. b. a. Irving Brandt & Co., Chicago, Ill. 353,778, ren. 1–18–58. Cl. 39.
Bremco Alfala Mills, Inc., New Bremen, Ohio. 661,980, pub. 3–4–58. Cl. 46.
Brenner, J. J., Oyster Co., The, Shelton, Wash. 661,989, pub. 3–4–58. Cl. 46.
Brewer & Co., Inc., Worcester, Mass. 287,399, canc. Cl. 18.
Bristol Laboratories Inc., Syracuse, N. Y. 661,843, pub. 3–4–58. Cl. 18.
Broad Brook Co., Broad Brook and East Windsor, Conn. 556,965, canc. Cl. 42.
Bruce Carton Co., Memphis, Tenn. 661,796, pub. 3–4–58. Cl. 2.
Bryant Electric Co., The, Bridgeport, Conn. 661,899, pub. 3–4–58. Cl. 26.
Bubble-O-Bill Co. : *See*—
Corcoran, Robert J.
Bubble-O-Bill Corp. : *See*—
Corcoran, Robert J.
Buffalo Evening News : *See*—
Butler, Edward H.
Buffalo Evening News, Inc. : *See*—
Butler, Edward H.
Burlington Molding Corp., Burlington, N. C. 662,043. Cl. 2.
Burndy Corp., Norwalk, Conn. 661,900, pub. 3–4–58. Cl. 26.
Burpee, W. Atlee, Co., Philadelphia, Pa. 661,784, pub. 7–27–54. Cl. 1.
Butler, Edward H., individually and as trustee under the last will and testament of Edward H. Butler, deceased, d. b. a. Buffalo Evening News, to Buffalo Evening News, Inc., Buffalo, N. Y. 557,017, canc. Cl. 107.
Calico Printers' Association Ltd., The, Manchester, England. 556,964, canc. Cl. 42.
Cambridge Thermionic Corp., Cambridge, Mass. 661,894, pub. 3–4–58. Cl. 23.
Campana Sales Co., d. b. a. Anjon, Batavia, Ill. 662,024, pub. 3–4–58. Cl. 51.
Campbell Chain Co., York, Pa. 661,824, pub. 3–4–58. Cl. 13.
Candy Ann Products Co. : *See*—
Hill's Merchandise Distributors, Inc.
Capital City Products Co., The : *See*—
Kellogg Products Inc.
Carter, H. W., & Sons, Lebanon, N. H. 359,072, ren. 8–2–58. Cl. 39.
Century Handkerchief Corp., New York, N. Y. 661,942, pub. 3–4–58. Cl. 39.
Chamberlain Laboratories, Inc., Des Moines, Iowa. 556,972, canc. Cl. 51.
Chappie, A. C., Replacement Parts, The : *See*—
Chappie, Andrew C.
Chappie, Andrew C., d. b. a. The A. C. Chappie Replacement Parts, Canton, Ohio. 661,867, pub. 3–4–58. Cl. 19.
Cherrydale Farms : *See*—
Cherry, E., Sons & Co., Inc.
Cherry, E., Sons & Co., Inc., d. b. a. Cherrydale Farms, Philadelphia, Pa. 662,053 Cl. 46.
Chesebrough-Pond's Inc., New York, N. Y. 661,854, pub. 3–4–58. Cl. 18.
Chicopee Mills, Inc., New York, N. Y. 661,966, pub. 3–4–58. Cl. 44.
Chinchilla Sales & Supply, Inc., Harbor City, Calif. 662,011, pub. 3–4–58. Cl. 50.
Christianity Today, Inc., Washington, D. C. 661,930, pub. 3–4–58. Cl. 38.
Cid Air Structures Co., d. b. a. Cid Air Structures Co., Chicago, Ill. 661,818, pub. 3–4–58. Cl. 12.
Cimarron Drug Co. : *See*—
Tuggle, Lloyd W.
Clark-Cleveland, Inc., Binghamton, N. Y. 662,025, pub. 3–4–58. Cl. 51.
Coggins Granite and Marble Industries Inc. : *See*—
Georgia Granite Corp., The.
Cohn & Rosenberger, Inc., to Coro, Inc., New York, N. Y. 353,552, ren. 1–11–58. Cl. 28.
Columbia River Packers Association, Astoria, Oreg. 108,987, canc. Cl. 46.
Comex Trading Co., Inc., New York, N. Y., to Pedro Domecq S. A., Jerez de la Frontera, Cadiz, Spain. 354,891, ren. 3–1–58. Cl. 47.

Comfortaire Corp., Washington, D. C., to W. W. McMillan, d. b. a. W. W. McMillan & Co., Jacksonville, Fla. 661,877, pub. 9–18–58. Cl. 21.
Conlon-Moore Corp., Conlon Division, Joliet and Chicago, Ill. 556,818, canc. Cl. 36.
Consolidated Cosmetics, Chicago, Ill. 556,846, canc. Cl. 51.
Copley Fabrics, Inc., New York, N. Y. 556,898, canc. Cl. 42.
Coral Records, Inc., New York, N. Y. 661,922, pub. 3–4–58. Cl. 36.
Corcoran, Robert J., d. b. a. Bubble-O-Bill Co., Beverly Hills, to Bubble-O-Bill Corp., Los Angeles, Calif. 556,946, canc. Cl. 22.
Coro, Inc.: *See*— Cohn & Rosenberger, Inc.
Corset Specialties, Inc., New York, N. Y. 556,924, canc. Cl. 39.
Cover Girl of Miami, Inc., Miami, Fla. 661,933, pub. 3–4–58. Cl. 39.
Crompton Co., New York, N. Y. 357,814, ren. 6–14–58. Cl. 42.
Crompton Co., West Warwick, R. I., to Crompton Co., New York, N. Y. 358,462, ren. 7–12–58. Cl. 42.
Crompton Co., New York, N. Y. 661,955, pub. 3–4–58. Cl. 42.
Crown Zellerbach Corp., San Francisco, Calif. 661,928, pub. 3–4–58. Cl. 37.
Cudahy Brothers Co., to Patrick Cudahy Inc., Cudahy, Wis. 122,446, ren. 8–20–58. Cl. 46.
Cudahy, Patrick, Inc.: *See*— Cudahy Brothers Co.
Curtis, Helene, Industries, Inc., Chicago, Ill. 662,013, pub. 3–4–58. Cl. 51.
Curtis, Helene, Industries, Inc., Chicago, Ill. 662,027, pub. 2–25–58. Cl. 52.
Cussons, Sons & Co., Ltd., Kersal, England. 291,220, canc. Cl. 51.
Darwin Laboratories, Los Angeles, Calif. 661,859, pub. 3–4–58. Cl. 18.
Davide Campari-Milano, S. p. A., Milano, Italy. 662,059. Cl. 49.
Davida Gloves, Inc., Springfield, Ohio. 661,944–5, pub. 3–4–58. Cl. 39.
Dayton Nut Products Co., The, Dayton, Ohio. 661,995, pub. 3–4–58. Cl. 46.
Deakers, Thorpe, to Thorpe Deakers, Los Angeles, Calif. 352,462, ren. 11–30–57. Cl. 51.
Delaware Produce Growers, Inc., Dover, Del. 661,986, pub. 3–4–58. Cl. 46.
Devoe & Raynolds Co., Inc., New York, N. Y. 661,833, pub. 3–4–58. Cl. 16.
Diamond Alkali Co., Cleveland, Ohio. 661,804, pub. 3–4–58. Cl. 6.
Dicks-Armstrong-Pontuis, Inc.: *See*— Armstrong Co., The.
Disney Color-Ad Inc., Chicago, Ill. 557,032, canc. Cl. 101.
DoAll Co., The, Des Plaines, Ill. 661,905, pub. 3–4–58. Cl. 26.
Domecq S. A., Pedro: *See*— Comex Trading Co., Inc.
Drexel Furniture Co., Drexel, N. C. 661,916, pub. 3–4–58. Cl. 32.
Droke House: *See*— Droke, Maxwell.
Droke, Maxwell, d. b. a. Droke House, Indianapolis, Ind. 661,929, pub. 3–4–58. Cl. 38.
Dugenie, Marie M., nee Guery, Paris (Seine), France. 662,014. Cl. 51.
Duramtic Clutch Co., Berkley, Mich. 661,876, pub. 3–4–58. Cl. 19.
Eagle Electric Mfg. Co. Inc., Long Island City, N. Y. 358,800, ren. 7–26–58. Cl. 21.
Eaton Chemical and Dyestuff Co., Detroit, Mich. 662,028, pub. 3–4–58. Cl. 52.
Edouard Perfume Co., Inc., Cleveland, Ohio. 556,853, canc. Cl. 51.
Ehle, Robert W., Syracuse, N. Y. 557,031, canc. Cl. 107.
Elder, Paul B., Co., Bryan, Ohio. 661,839, pub. 3–4–58. Cl. 18.
Electric Auto-Lite Co., The, Toledo, Ohio. 661,879, pub. 3–4–58. Cl. 21.
Electrolux Corp.: *See*— Electrolux, Inc.
Electrolux, Inc., to Electrolux Corp., to Electrolux Corp., New York, N. Y. 359,745, ren. 8–30–58. Cl. 21.
Eliena Brothers, Etiwanda, Calif. 662,058. Cl. 47.
Elliott Addressing Machine Co., Cambridge, Mass. 661,927, pub. 3–4–58. Cl. 37.
Engelhorn, John, & Sons, Newark, N. J. 661,979, pub. 3–4–58. Cl. 46.
Epsco, Inc., Boston, Mass. 661,907, pub. 3–4–58. Cl. 26.
Eutectic Welding Alloys Corp., Flushing, N. Y. 661,807, pub. 3–4–58. Cl. 6.
F & M Shoe Corp., New York, N. Y. 661,940, pub. 3–4–58. Cl. 39.
Fabelo, Ruben, d. b. a. Fiesta en Tampa, Tampa, Fla. 662,032, pub. 3–4–58. Cl. 101.
Fabriek van Compositieverven C. V., Delft, Netherlands. 661,835, pub. 3–4–58. Cl. 16.
Fafnir Bearing Co., The, New Britain, Conn. 122,136, ren. 7–2–58. Cl. 23.
Fairchild Engine and Airplane Corp., Hagerstown, Md. 661,814, pub. 3–4–58. Cl. 9.
Farmers Union Central Exchange, Inc., St. Paul, Minn. 661,829, pub. 3–4–58. Cl. 15.
Farrell, Virginia, Inc., Detroit, Mich. 662,015, pub. 3–11–58. Cl. 51.
Fashioncraft Products, Brooklyn, N. Y. 661,794, pub. 3–4–58. Cl. 2.
Fast Chemical Products Corp., Yonkers, N. Y. 662,064. Cl. 52.
Fiesta en Tampa: *See*— Fabelo, Ruben.
Finch, Joseph S., and Co., New York, N. Y. 662,008, pub. 3–4–58. Cl. 49.
Finchley Inc., New York, N. Y. 661,947, pub. 3–4–58. Cl. 39.
Fine, Richard, d. b. a. Belmoore Pharmacal Co., Newark, N. J. 661,860, pub. 3–4–58. Cl. 18.
Fish Net and Twine Co., The, Menominee, Mich. 661,812, pub. 3–4–58. Cl. 7.
Fitchhorn, Elver J., d. b. a. Saxette Co., Delaware, Ohio. 356,329, ren. 4–26–58. Cl. 36.
Flanders, Harold V., d. b. a. Flanders Poultry Farm, North Weare, N. H. 577,056, canc. Cl. 1.
Flanders Poultry Farm: *See*— Flanders, Harold V.
Folcutt Mfg. Co., Portland, Maine. 662,048. Cl. 13.
Ford Engineering Co., Inc., Santa Monica, Calif. 661,902, pub. 3–4–58. Cl. 26.
Formfit Co., The, Chicago, Ill. 355,110, ren. 3–8–58. Cl. 39.
Fox Candy Co.: *See*— Fox, Harvey C.
Fox, Harvey C., d. b. a. Fox Candy Co., Cleveland, Ohio. 556,819, canc. Cl. 46.
Fox Paper Co., The, Cincinnati, Ohio. 661,925, pub. 3–4–58. Cl. 37.
Frostie Co., The, Baltimore, Md. 662,052. Cl. 45.
Funk Bros. Seed Co.: *See*— Funk Bros. Seed Co., Inc.
Funk Bros. Seed Co., Inc., to Funk Bros. Seed Co., Bloomington, Ill. 357,522, ren. 6–7–58. Cl. 1.
G & W Leather Goods Supply Co., Inc., New York, N. Y. 556,993, canc. Cl. 40.
Gallun, A. F., & Sons Corp., Milwaukee, Wis. 661,786, pub. 3–4–58. Cl. 1.
Garry Laboratories, Inc., Buffalo, N. Y. 661,830, pub. 3–4–58. Cl. 15.
Geiger, A. J., d. b. a. Showerette Co., Denver, Colo. 661,821, pub. 3–4–58. Cl. 13.
General Aniline & Film Corp., New York, N. Y. 661,908, pub. 3–4–58. Cl. 26.
General Features Corp., New York, N. Y. 661,949, pub. 3–4–58. Cl. 40.
General Logistics, Pasadena, Calif., to Aeroquip Corp., Jackson, Mich. 662,047, Cl. 13.
General Sportwear Co., Inc., Ellenville, N. Y. 661,941, pub. 3–4–58. Cl. 39.
Georgia Granite Corp., The, to Coggins Granite and Marble Industries Inc., Elberton, Ga. 352,207, ren. 11–23–57. Cl. 1.
Georgia Granite Corp., The, to Coggins Granite and Marble Industries Inc., Elberton, Ga. 352,208, ren. 11–23–57. Cl. 50.
Gibbs Ltd., Boston, Mass. 661,914, pub. 3–4–58. Cl. 31.
Gilead and Realcraft: *See*— United Mills Corp.
Gloversville Knitting Co., Gloversville, N. Y. 556,974, canc. Cl. 42.
Golden Glint Co., d. b. a. Wittwer-Lome Co., Seattle, Wash. 662,061. Cl. 51.
Goodrich, B. F., Co., The, Akron, Ohio. 355,720, ren. 3–29–58. Cl. 35.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 661,919, pub. 3–4–58. Cl. 35.
Gotham Hosiery Co., Inc., New York, N. Y. 556,866, canc. Cl. 39.
Gotham Hosiery Co., Inc., New York, N. Y. 556,867, canc. Cl. 39.
Gough, Kenneth R., Neuchatel, Switzerland. 661,883, pub. 3–4–58. Cl. 21.
Graham, Marshall D., Corp., Los Angeles, Calif. 557,093, canc. Cl. 102.
Gray Pharmaceutical Co., Inc., Newton, Mass. 661,864, pub. 3–4–58. Cl. 18.
Gruen Industries, Inc., d. b. a. Gruen Watch Co., Cincinnati, Ohio. 661,911, pub. 3–4–58. Cl. 28.
Gruen Watch Co.: *See*— Gruen Industries, Inc.
Gruen Watch Co., The, Cincinnati, Ohio. 557,055, canc. Cl. 15.
Gullick, Robert L., Jr., d. b. a. International Foods, Berkeley, Calif. 557,045, canc. Cl. 46.
Haas, Robert A., Philadelphia, Pa. 556,886, canc. Cl. 50.
Haloid Co., The, Rochester, N. Y. 661,809, pub. 3–4–58. Cl. 6.
Happé Products Ltd., London, England. 556,944, canc. Cl. 28.
Harlem Crockery Co., New York, N. Y. 662,050. Cl. 30.
Har-Mar Seed Service: *See*— Harper & Martin.
Harper & Martin, also d. b. a. Har-Mar Seed Service, Cromwell, Ind. 556,928, canc. Cl. 1.
Hawaiian Pineapple Co., Ltd., Honolulu, Hawaii. 661,983, pub. 3–4–58. Cl. 46.
Helix Air Transports, Inc., Dallas, Tex. 662,036, pub. 3–4–58. Cl. 105.
Hershel California Fruit Products Co., San Jose, Calif. 661,982, pub. 3–4–58. Cl. 46.
Hickok Mfg. Co. Inc., Rochester, N. Y. 661,798, pub. 3–4–58. Cl. 3.
Hickok Mfg. Co. Inc., Rochester, N. Y. 661,946, pub. 3–4–58. Cl. 39.
Hillman, W. L. and O. L., Madden, Miss. 556,975, canc. Cl. 46.
Hill's Merchandise Distributors, Inc., d. b. a. Candy Ann Products Co., Springfield, Mass. 661,994, pub. 3–4–58. Cl. 46.
Holly House, The, Richland, N. J. 661,993, pub. 3–4–58. Cl. 46.
Honig, Jack, d. b. a. Honig Watch Co., Los Angeles, Calif. 556,968, canc. Cl. 27.

Honig Watch Co.: *See*— Honig, Jack.
Hoover Electric: *See*— Hoover, Vaino A.
Hoover, Vaino A., d. b. a. Hoover Electric, Los Angeles, Calif. 661,885, pub. 3–4–58. Cl. 21.
Houston, Dr. F. M., d. b. a. F. M. Houston Co., Long Beach, Calif. 661,858, pub. 3–4–58. Cl. 18.
Houston, F. M., Co.: *See*— Houston, Dr. F. M.
Hudson Products: *See*— Block Drug Co., Inc.
Huxtable, Robert B., d. b. a. Sugar Bush Supplies Co., Lansing, Mich. 661,998, pub. 3–4–58. Cl. 46.
Imperial Distributors, Minneapolis, Minn. 661,831, pub. 3–4–58. Cl. 15.
Inland Service Corp., d. b. a. Piedmont Apple Products Co., Charlottesville, Va. 662,004, pub. 3–4–58. Cl. 46.
Interchemical Corp.: *See*— Angier Products, Inc.
International Foods: *See*— Gulick, Robert L., Jr.
Janalyn Laboratories, Inc., The, Worcester, Mass. 556,893, canc. Cl. 51.
Jaxton Mfg. Corp., Glens Falls, N. Y. 556,934, canc. Cl. 22.
Jelenko, J. F., & Co., Inc., New York, N. Y. 557,003, canc. Cl. 44.
Jensen Laboratories, Inc., Boston, Mass. 661,865, pub. 3–4–58. Cl. 18.
Johns-Manville Corp., New York, N. Y. 661,921, pub. 3–4–58. Cl. 35.
K & K Textile Co., Inc., New York, N. Y. 661,959, pub. 3–4–58. Cl. 42.
KMBC Broadcasting Co., Kansas City, Mo. 662,041, pub. 3–4–58. Cl. 107.
K & S Motor Products, Inc., The, Hillside, N. J., to J. H. Krieck, Westport, Conn. 356,577, ren. 5–3–58. Cl. 31.
Kaatz, Alexander, d. b. a. Boston Clock Service, Boston, Mass. 556,883, canc. Cl. 27.
Kaplan Rice Mill, Inc., Kaplan, La. 662,000, pub. 3–4–58. Cl. 46.
Karmen, B. H., d. b. a. Palm Springs Ceramics, Banning, Calif. 556,874, canc. Cl. 30.
Kaufmann Department Stores, Inc., Pittsburgh, Pa., to The May Department Stores Co., St. Louis, Mo. 354,591, ren. 2–15–58. Cl. 39.
Kellogg Products Inc., Buffalo, N. Y., to The Capital City Products Co., Columbus, Ohio. 121,786, ren. 5–28–58. Cl. 46.
Kimberly-Clark Corp., Neenah, Wis. 661,967, pub. 3–4–58. Cl. 44.
Kingsboro Mills, Inc., Gloversville, N. Y. 661,935, pub. 3–4–58. Cl. 39.
Kirschner and Co.: *See*— Kirschner, Herbert H.
Kirschner, Herbert H., d. b. a. Kirschner and Co., San Francisco, Calif. 662,051. Cl. 38.
Kirsch's Beverages, Inc., Brooklyn, N. Y. 661,974, pub. 3–4–58. Cl. 45.
Klik Enterprises, Inc., New York, N. Y. 556,919, canc. Cl. 28.
Klik Enterprises, Inc., New York, N. Y. 556,920, canc. Cl. 28.
Knelp, E. W., Inc., Chicago, Ill. 662,056. Cl. 46.
Knott, Wm. T., Co., Inc., New York, N. Y., to Mercantile Stores Co., Inc., Wilmington, Del. 355,099, ren. 3–8–58. Cl. 39.
Krieck, James H.: *See*— K & S Motor Products, Inc., The.
Lamonaca, Ralph, d. b. a. Sinald Co., Brooklyn, N. Y. 661,844, pub. 3–4–58. Cl. 18.
Lawn Seed Corp., The, Milwaukee, Wis. 661,792, pub. 3–4–58. Cl. 1.
Leam Corp., New York, N. Y. 661,932, pub. 3–4–58. Cl. 38.
Lenox, Inc., Trenton, N. J. 359,381, ren. 8–16–58. Cl. 50.
Linde Air Products Co., The, to Union Carbide Corp., New York, N. Y. 356,954, ren. 5–17–58. Cl. 21.
Linde Air Products Co., The, to Union Carbide Corp., New York, N. Y. 358,102, ren. 6–28–58. Cl. 6.
Liquid Carbonic Corp., The, Chicago, Ill. 661,823, pub. 3–4–58. Cl. 13.
London Oil Corp. Ltd., London S. E., England. 661,991, pub. 3–4–58. Cl. 46.
Luria, L., & Son, Inc., New York, N. Y. 556,959, canc. Cl. 28.
Luther Corp., Warsaw, Ind. 661,874, pub. 3–4–58. Cl. 19.
Mallinckrodt Chemical Works, St. Louis, Mo. 359,706, ren. 8–30–58. Cl. 6.
Marbert Products, Inc., Baltimore, Md. 352,611, ren. 12–7–57. Cl. 45.
Marin, Allan, Chicago, Ill. 556,943, canc. Cl. 51.
Mason Au Magenheimer Conf. Mfg. Co., Carle Place, N. Y. 662,001, pub. 3–4–58. Cl. 46.
May Department Stores Co., The: *See*— Kaufmann Department Stores, Inc.
McCormick & Co., Inc., Baltimore, Md. 661,975, pub. 3–4–58. Cl. 45.
McMillan, W. W.: *See*— Comfortaire Corp.
McMillan, W. W., & Co.: *See*— Comfortaire Corp.
McNish, Robert, and Co. Ltd., Glasgow, Scotland. 662,060. Cl. 49.
Mercantile Stores Co., Inc.: *See*— Knott, Wm. T., Co., Inc.
Methods Research Corp., Staten Island, N. Y. 662,009, pub. 3–4–58. Cl. 50.
Metzler, Jean H., d. b. a. R. Stein & Co., Los Angeles, Calif. 661,950, pub. 3–4–58. Cl. 42.
Midas, Inc., Chicago, Ill. 661,827, pub. 3–4–58. Cl. 13.
Mid-States Gummed Paper Co., Bedford Park, Ill., to Minnesota Mining nad Mfg. Co., St. Paul, Minn. 661,800, pub. 3–4–58. Cl. 5.
Milham Products Co., Inc., Quincy, Mass. 661,960, pub. 3–4–58. Cl. 42.
Miller Hardware Co., The, Philadelphia, Pa. 557,059, canc. Cl. 13.
Minnesota Mining and Mfg. Co.: *See*— Mid-States Gummed Paper Co.
Miratile Mfg. Co., Inc., Chicago, Ill. 661,820, pub. 3–4–58. Cl. 12.
Mission of Calif., Inc.: *See*— Mission Dry Corp.
Mission Dry Corp., Los Angeles, Calif., to Mission of Calif., Inc., New Haven, Conn. 353,414, ren. 1–4–58. Cl. 45.
Model-Etts Corp., New York, N. Y. 661,851, pub. 3–4–58. Cl. 18.
Mottola, Frank, Los Angeles, Calif. 661,803, pub. 3–4–58. Cl. 5.
Mount Vernon Mills, Inc., Baltimore, Md. 661,962–3, pub. 3–4–58. Cl. 42.
Multi-Clean Products, Inc., St. Paul, Minn. 662,063. Cl. 52.
Murchison, Alvin, to B. F. Murchison, Brooklyn, N. Y. 556,915, canc. Cl. 23.
Murchison, Bessie F.: *See*— Murchison, Alvin.
Nappe-Smith Mfg. Co., Farmingdale, N. J. 661,795, pub. 3–4–58. Cl. 2.
Nash Inc., Jersey City, N. J. 661,797, pub. 3–4–58. Cl. 3.
National Licorice Co., Brooklyn, N. Y. 662,005, pub. 3–4–58. Cl. 46.
National Shower Door Co., Los Angeles, Calif. 661,817, pub. 3–4–58. Cl. 12.
National Tea Co., Chicago, Ill. 661,987, pub. 3–4–58. Cl. 46.
Nationwide Mutual Insurance Co., Columbus, Ohio. 662,033, pub. 3–4–58. Cl. 102.
Nattermann, A., & Cie., Koln-Braunsfeld, Germany. 661,842, pub. 3–4–58. Cl. 18.
Newman Co., The, New York, N. Y. 661,938, pub. 3–4–58. Cl. 39.
New Moon Homes, Inc., Alma, Mich. 661,869, pub. 3–4–58. Cl. 19.
New York Air Brake Co., The, New York, N. Y. 661,897, pub. 3–4–58. Cl. 23.
Nichols Nasal Syphon, Inc., Montclair, N. J. 556,987, canc. Cl. 44.
Nightingale Press, Inc., The, New York, N. Y., to The Nightingale Press, Inc., Oradell, N. J. 353,210, ren. 12–28–57. Cl. 38.
North & Judd Mfg. Co., New Britain, Conn. 122,335, ren. 7–23–58. Cl. 3.
Northrup, King & Co., Minneapolis, Minn. 556,947, canc. Cl. 6.
Northwest Nitro-Chemicals Ltd., Medicine Hat, Alberta, Canada. 661,815, pub. 3–4–58. Cl. 10.
Nutrition Square, Inc., Pittsburgh, Pa. 661,837, pub. 3–4–58. Cl. 18.
O. K. Ko-Op Rubber Welding System, Littleton, Colo. 662,034–5, pub. 3–4–58. Cl. 103.
Oelerich & Berry Co., Chicago, Ill. 661,997, pub. 3–4–58. Cl. 46.
Olin Mathieson Chemical Corp., New York, N. Y. 661,848–50, pub. 3–4–58. Cl. 18.
Organon Inc., Orange, N. J. 661,845, pub. 3–4–58. Cl. 18.
Oronite Chemical Co., San Francisco, Calif. 661,811, pub. 3–4–58. Cl. 6.
Osceola Foods, Inc., Osceola, Ark. 662,006, pub. 3–4–58. Cl. 46.
Oxweld Acetylene Co., to Union Carbide Corp., New York, N. Y. 357,058, ren. 5–24–58. Cl. 6.
Pacific Coast Borax Co., Division of Borax Consolidated Ltd.: *See*— United States Borax & Chemical Corp.
Pacific Scientific Co., San Francisco, Calif. 661,870, pub. 3–4–58. Cl. 19.
Paddock of Texas., Inc., Dallas, Tex. 661,825, pub. 3–4–58. Cl. 13.
Paddock of Texas, Inc., Dallas, Tex. 661,917, pub. 3–4–58. Cl. 34.
Palm Springs Ceramics: *See*— Karmen, B. H.
Paramount Paper Tube Co., to Paramount Paper Tube Corp., Fort Wayne, Ind. 355,195, ren. 3–8–58. Cl. 21.
Paramount Paper Tube Corp.: *See*— Paramount Paper Tube Co.
Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver, Paris, France. 662,021–2, pub. 3–4–58. Cl. 51.
Parke, Davis & Co., Detroit, Mich. 556,933, canc. Cl. 18.
Pearlduck, Inc., New York, N. Y. 661,892, pub. 3–4–58. Cl. 23.
Penn Hardware Co., Reading, Pa. 356,879, canc. Cl. 25.
Penn Hardware Co., Reading, Pa. 556,880, canc. Cl. 25.
Pepperell Mfg. Co., Boston, Mass. 354,138, ren. 2–1–58. Cl. 42.
Pepperell Mfg. Co., Boston, Mass. 354,652, ren. 2–15–58. Cl. 42.
Pepperell Mfg. Co., Boston, Mass. 357,164, ren. 5–24–58. Cl. 42.
Pepperell Mfg. Co., Boston, Mass. 359,023, ren. 8–2–58. Cl. 42.
Pepperell Mfg. Co., Boston, Mass. 359,296, ren. 8–9–58. Cl. 42.
Perk Foods Co., d. b. a. Pooch Dog Food Co., Chicago, Ill. 662,057. Cl. 46.
Permacem Paint Co. Ltd., Reading, England. 661,834, pub. 3–4–58. Cl. 16.
Peters, F. C., Inc., Goulds, Fla. 366,124, canc. Cl. 46.

Peters, F. C., Inc., Goulds, Fla. 366,569, canc. Cl. 46.
Peters, F. C., Inc., Goulds, Fla. 366,571, canc. Cl. 46.
Philco Corp., Philadelphia, Pa. 661,910, pub. 3–4–58. Cl. 28.
Piedmont Apple Products Co.: *See*—
Inland Service Corp.
Pioneer Rubber Co., The, Willard, Ohio. 661,936, pub. 3–4–58. Cl. 39.
Pitch-O-Matic Baseball Corp., Hackensack and Lodi, N. J. 556,960, canc. Cl. 22.
Piver, L. T.: *See*—
Parfumerie L. T. Piver S. A.
Societe Anonyme Parfumerie L. T. Piver.
Plastibells, Rochester, N. Y. 661,965, pub. 3–4–58. Cl. 44.
Plymouth Cordage Industries, Inc., Boston, Mass. 661,822, pub. 3–4–58. Cl. 13.
Plymouth Products Co., Philadelphia, Pa. 661,813, pub. 3–4–58. Cl. 8.
Pooch Dog Food Co.: *See*—
Perk Foods Co.
Portis Bros. Hat Co., to Portis Style Industries Co., Chicago, Ill. 352,597, ren. 12–7–57. Cl. 39.
Portis Style Industries Co.: *See*—
Portis Bros. Hat Co.
Powell, Dick, d. b. a. Powell Enterprises, Hollywood, Calif. 557,028, canc. Cl. 101.
Powell Enterprises: *See*—
Powell, Dick.
Quaker Oats Co., The, Chicago, Ill. 661,790, pub. 3–4–58. Cl. 1.
Quartet Chemical Co., Chicago, Ill. 662,012, pub. 3–4–58. Cl. 51.
Quicast Crown, Inc., New York, N. Y. 557,074, canc. Cl. 44.
Reeves Equipment Corp., New York, N. Y. 661,884, pub. 3–4–58. Cl. 21.
Reeves, Harold L., d. b. a. Blue Chip Records, Lansing, Mich. 661,923, pub. 3–4–58. Cl. 36.
Reeves, O. A., & Co.: *See*—
Reeves, Oda A.
Reeves, Oda A., d. b. a. O. A. Reeves & Co., Charleston, Mo. 557,071, canc. Cl. 18.
Recordati, Dr., Laboratorio Farmacologico S. p. A., Milan, Italy. 661,838, pub. 3–4–58. Cl. 18.
Re-Mark Chemical Co., Inc., Miami, Fla. 557,068, canc. Cl. 16.
Rider, Paul A., Boulder, Colo. 662,030, pub. 3–4–58. Cl. 100.
Robb & Robb, Phoenix, Ariz. 661,887, pub. 3–4–58. Cl. 22.
Robinson, R. & G., Visalia, Calif. 556,976, canc. Cl. 18.
Rogay Food Supply, Inc., Los Angeles, Calif. 661,996, pub. 3–4–58. Cl. 46.
Rohrmann, Elizabeth, West Bend, Wis. 557,084, canc. Cl. 46.
Rose Brothers Inc., New York, N. Y. 661,948, pub. 3–4–58. Cl. 39.
Rosenstein, Nettie, Stockings, Inc., Valdese, N. C. 661,943, pub. 3–4–58. Cl. 39.
Roux Laboratories, Inc., New York, N. Y. 662,017, pub. 3–4–58. Cl. 51.
S. & S. Cone Corp., New York, N. Y. 662,055. Cl. 46.
Safe-T Pacific Baking Co., San Francisco, Calif. 661,981, pub. 3–4–58. Cl. 46.
St. Louis Macaroni Mfg. Co., Inc., St. Louis, Mo. 661,988, pub. 3–4–58. Cl. 46.
Salmanson & Co. Inc., New York, N. Y. 359,491, ren. 8–23–58. Cl. 34.
Salsbury's, Dr., Laboratories, Charles City, Iowa. 661,861, pub. 3–4–58. Cl. 18.
Saspin Chemicals Inc., Chicago, Ill. 662,026, pub. 3–4–58. Cl. 52.
Saxette Co.: *See*—
Fitchhorn, Elver J.
Schmidt, Geo. T., Inc., Chicago, Ill. 661,895–6, pub. 3–4–58. Cl. 23.
Schmoll, Karl, Vienna, Austria. 557,075, canc. Cl. 4.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 661,787, pub. 1–7–58. Cl. 1.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 661,788, pub. 3–4–58. Cl. 1.
Sewell, John G., d. b. a. Sewell Selected Citrus Co., Fort Lauderdale, Fla. 557,076, canc. Cl. 46.
Sewell Selected Citrus Co.: *See*—
Sewell, John G.
Shirley Fabrics Corp., New York, N. Y. 661,956, pub. 3–4–58. Cl. 42.
Showerette Co.: *See*—
Geiger, A. J.
Sinaid Co.: *See*—
Lamonaca, Ralph.
Skanska Cementaktiebolaget, Malmo, Sweden. 556,895, canc. Cl. 12.
Smiles, Christopher, & Co., Inc., New York, N. Y. 662,010, pub. 3–4–58. Cl. 50.
Smith, Kline & French Laboratories, Philadelphia, Pa. 661,863, pub. 3–4–58. Cl. 18.
Smith, T. L., Co., The, Milwaukee, Wis. 556,891, canc. Cl. 23.
Smith, Thomas L., Charleston, S. C. 557,014, canc. Cl. 101.
Societe Anonyme Andre Citroen, Paris, France. 661,873, pub. 3–4–58. Cl. 19.
Société Anonyme Parfumerie L. T. Piver, d. b. a. L. T. Piver, Paris, France. 662,016, pub. 3–4–58. Cl. 51.
Societe de Faconnage et de Commerce, Velaines, France. 556,844, canc. Cl. 36.
Sparta Ceramic Co., East Sparta, Ohio. 661,816, pub. 11–26–57. Cl. 12.
Speedy Therm Service Co., Meadowbrook, Pa. 662,031, pub. 3–4–58. Cl. 101.
Spenger, Frank, Co., d. b. a. Frank Spenger Co., Berkeley, Calif. 661,992, pub. 3–4–58. Cl. 46.
Staatliches Hofbranhaus in Munchen, Munchen, Germany. 662,007, pub. 3–4–58. Cl. 48.
Stadler Fertilizer Co., The, Cleveland, Ohio. 556,897, canc. Cl. 10.
Standard Brands Inc., New York, N. Y. 661,999, pub. 3–4–58. Cl. 46.
Standard Dyewood Co., Medford, Mass. 557,001, canc. Cl. 6.
Standard Instrument Corp., New York, N. Y. 661,898, pub. 3–4–58. Cl. 26.
Standard Oil Co. of California, San Francisco, Calif. 661,819, pub. 3–4–58. Cl. 12.
Starcevic, Paul J., d. b. a. Star-Styx Co., Chicago, Ill. 661,791, pub. 3–4–58. Cl. 1.
Star-Styx Co.: *See*—
Starcevic, Paul J.
Stein, R., & Co.: *See*—
Metsler, Jean H.
Sterling Drug Inc., New York, N. Y. 661,968, pub. 3–4–58. Cl. 44.
Stocker-Hausmann Co., St. Louis, Mo. 661,985, pub. 3–4–58. Cl. 46.
Storer Broadcasting Co., Miami Beach, Fla. 662,037–40, pub. 3–4–58. Cl. 107.
Storytown, U. S. A. Inc., Lake George, N. Y. 661,888, pub. 3–4–58. Cl. 22.
Storytown, U. S. A. Inc., Lake George, N. Y. 661,934, pub. 3–4–58. Cl. 39.
Strause, Monroe B., San Diego, Calif. 661,976–7, pub. 3–4–58. Cl. 46.
Street, R. R., & Co., Inc., Chicago, Ill. 662,029, pub. 3–4–58. Cl. 52.
Studebaker-Packard Corp., South Bend, Ind. 661,872, pub. 3–4–58. Cl. 19.
Sugar Bush Supplies Co.: *See*—
Huxtable, Robert B.
Sunbeam Corp., Chicago, Ill. 661,875, pub. 3–4–58. Cl. 19.
Sunl-Citrus Products Co., Haines City, Fla. 353,341, ren. 1–4–58. Cl. 46.
Superior Products, Inc., Kansas City, Mo. 661,810, pub. 3–4–58. Cl. 6.
Tach-A-Toy, Inc., Seattle, Wash. 557,042, canc. Cl. 22.
Talon, Inc., Meadville, Pa. 661,826, pub. 3–4–58. Cl. 13.
Tasty-Krisp Products, Inc., Detroit, Mich. 557,088, canc. Cl. 46.
Taylor Optical Co.: *See*—
Taylor, Richard B.
Taylor, R. B.: *See*—
Taylor, Richard B.
Taylor, Richard B., d. b. a. R. B. Taylor Co. and Taylor Optical Co., Seattle, Wash. 662,049. Cl. 26.
Teale Machine Co., Inc., Rochester, N. Y. 661,891, pub. 3–4–58. Cl. 23.
Tego Products Co., Greenville, S. C. 556,997, canc. Cl. 44.
Telefonaktiebolaget LM Ericsson, Stockholm, Sweden. 661,882, pub. 3–4–58. Cl. 21.
10-X Mfg. Co., Des Moines, Iowa. 661,939, pub. 3–4–58. Cl. 39.
Texsun Corp., Weslaco, Tex. 661,984, pub. 3–4–58. Cl. 46.
Tire Service Co., now by change of name Tire Service Inc., Dallas, Tex. 661,903, pub. 3–4–58. Cl. 26.
Tire Service Inc.: *See*—
Tire Service Co.
Tru-Fit Products Corp., The, Lakewood, Ohio. 661,880, pub. 3–4–58. Cl. 21.
Tucker & Sons, Grass Valley, Calif. 661,871, pub. 3–4–58. Cl. 19.
Tuggle, Lloyd W., d. b. a. Cimarron Drug Co., Cimarron, Kans. 557,053, canc. Cl. 18.
Union Bag-Camp Paper Corp., New York, N. Y. 661,801–2, pub. 3–4–58. Cl. 5.
Union Carbide Corp.: *See*—
Linde Air Products Co., The.
Oxweld Acetylene Co.
United Merchants and Manufacturers, Inc., New York, N. Y. 661,806, pub. 3–4–58. Cl. 6.
United Mills Corp., d. b. a. Gilead and Realcraft, Mt. Gilead, N. C. 661,953, pub. 3–4–58. Cl. 42.
United Motor Courts, Inc., Pasadena, Calif., and Denver, Colo. 557,036, canc. Cl. 100.
United States Borax & Chemical Corp., Los Angeles, Calif., from Borax Consolidated, Ltd., d. b. a. Pacific Coast Borax Co., Division of Borax Consolidated Ltd. 661,978, pub. 3–4–58. Cl. 46.
U. S. Engineering Co. Inc., Glendale, Calif. 661,878, pub. 3–4–58. Cl. 21.
United States Pipe and Foundry Co., Birmingham, Ala. 661,920, pub. 3–4–58. Cl. 35.
U. S. Plastisol, Inc., Cleveland, Ohio. 661,937, pub. 3–4–58. Cl. 39.
U. S. Polychemical Corp., Newburgh, N. Y. 661,832, pub. 3–4–58. Cl. 16.
Upjohn Co., The, Kalamazoo, Mich. 661,852–3, pub. 3–4–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 661,855–7, pub. 3–4–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 661,862, pub. 3–4–58. Cl. 18.
Upjohn Co., The, Kalamzoo, Mich. 556,970, canc. Cl. 18.
Utah Radio Products Corp., Huntington, Ind. 661,881, pub. 3–4–58. Cl. 21.
Vienna Sausage Mfg. Co., Chicago, Ill. 661,990, pub. 3–4–58. Cl. 46.
Villarrubia Ferrando, Juan y Pedro, Barcelona, Spain. 661,886, pub. 3–4–58. Cl. 22.
Violet, J. & S., Freres, Thuir, France. 354,251, ren. 2–8–58. Cl. 47.
Vulcan Tool Mfg. Co., Quincy, Mass. 661,889, pub. 3–4–58. Cl. 23.
Vyn-Acryl, Inc., Genoa City, Wis. 661,972, pub. 3–4–58. Cl. 44.

Walker, J. C., Bros., Inc., Wills Wharf, Va. 356,629, ren. 5–3–58. Cl. 46.
Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 661,808, pub. 3–4–58. Cl. 6.
Washington Farms Corp., Davisboro, Ga. 662,002, pub. 3–4–58. Cl. 46.
Waterbury Mattress Co., The, Waterbury, Conn. 661,915, pub. 3–4–58. Cl. 32.
Weber Addressing Machine Co. Inc., Mount Prospect, Ill. 661,926, pub. 3–4–58. Cl. 37.
Wells Lamont Corp., Chicago, Ill. 556,857, canc. Cl. 39.
Wheeler, Paul J., d. b. a. Associated Foods Co., East Boston, Mass. 556,971, canc. Cl. 46.
White Laboratories, Inc., Kenilworth, N. J. 661,846–7, pub. 3–4–58. Cl. 18.
Whitney Firearms Co., The, Hartford, Conn. 662,045. Cl. 9.
Whitson Products Co., Inc., Brooklyn, to The Borden Co., New York, N. Y. 359,568, ren. 8–23–58. Cl. 46.
Wilco Co., Los Angeles, Calif. 661,828, pub. 3–4–58. Cl. 15.
Wile, Julius, Sons & Co., Inc., New York, N. Y. 356,867, ren. 5–17–58. Cl. 49.
Wile, Julius, Sons & Co., Inc., New York, N. Y. 358,536, ren. 7–19–58. Cl. 49.
Wile, Julius, Sons & Co., Inc., New York, N. Y. 358,537, ren. 7–19–58. Cl. 47.
Wilson, C. E., Nurseries, Jacksonville, Tex. 661,793, pub. 3–4–58. Cl. 1.
Wittwer-Lome Co.: *See*—
Golden Glint Co.
Wolff, Barry S., Newark, N. J. 557,083, canc. Cl. 2.
Wullschleger, Albert, Weiningen, Switzerland. 661,904, pub. 3–4–58. Cl. 26.
Wyner, I. A., & Co., Inc., New York, N. Y. 661,964, pub. 3–4–58. Cl. 42.
Young Brothers Co., Cleveland, Ohio. 661,918, pub. 3–4–58. Cl. 34.
Zeca Corp., New York, N. Y. 556,985, canc. Cl. 44.

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May 27, 1958 Volume 730 Number 4

PATENTS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Haiti to the London 1934 revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective July 1, 1958, of Haiti to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
May 1, 1958. *Commissioner of Patents.*

Preparing Notices of Allowance

Effective May 1, 1958, the function of preparing Notices of Allowance in allowed patent applications was transferred from Patent Examining Divisions to the Issue and Gazette Branch. Accordingly, inquiries concerning Notices of Allowance should be directed to the Issue and Gazette Branch.

This change in procedure makes possible the use of automatic and semi-automatic equipment to facilitate performance of functions relating to patent issuance.

M. C. ROSA,
May 6, 1958. *Director, Patent Examining Operation.*

Adjudicated Patents

(C. A. Calif.) Stearns Patent No. 2,332,182 (324—54), for insulating testing device. Claim 1 *Held* infringed and claim 7 *Held* not infringed. *Stearns* v. *Tinker & Rasor*, 252 F.2d 589; 116 USPQ 223.

(C. A. Tex.) Losey Patent No. 2,711,939 (309—33), for adjustable well swab, *Held* valid and infringed. *Guiberson Corp.* v. *Equipment Engineers, Inc.*, 252 F.2d 431; 116 USPQ 425.

(Ct. Cls.) Chesterfield Patent No. 1,698,934 (75—171), for alloy and method of making same. Claim 5 *Held* invalid and not infringed. *Chesterfield* v. *United States*, 159 F. Supp. 371; 116 USPQ 445.

(Ct. Cls.) Chesterfield Patent No. 1,698,935 (75—171), for high speed alloy. Claim 4 *Held* invalid and not infringed. *Id.*

(D. C. Pa.) Going Patent No. 2,292,438 (30—34), for electric dry shaver, *Held* invalid. *Sperry Rand Corp.* v. *Ronson Service Inc.*, 159 F. Supp. 3; 116 USPQ 126.

(D. C. Pa.) Streng Patent No. 2,561,241 (30—41), for electric dry shaver. Claims 1, 2, and 5 *Held* invalid. *Id.*

(D. C. N. J.) Messing Patent No. 2,621,138 (154—106), for method for forming laminated quilted material. Claim 2 *Held* invalid. *Messing* v. *Quiltmaster Corporation*, 159 F. Supp. 181; 116 USPQ 378.

(D. C. Ill.) Wilm Patent No. 2,641,793 (16—116), for pot holder. Claims 1 to 3 *Held* invalid. *Magnex Inc.* v. *Duro Mfg. Co.*, 159 F. Supp. 322; 116 USPQ 88.

(D. C. Ill.) Kiler Patent No. 2,645,776 (2—20), for magnetic pot holder. Claim 1 *Held* invalid. *Id.*

(D. C. Md.) Head Patent No. 2,694,580 (280—11.13), for composite wood and metal ski having plastic running surface, *Held* valid and infringed. *Head Ski Company, Inc.* v. *Kam Ski Company, Inc. et al.*, 158 F. Supp. 919; 116 USPQ 242.

Disclaimer

2,715,698.—*Joseph J. Riley* and *William S. Dustman*, Warren, Ohio. POWER CONTROL CIRCUIT PARTICULARLY FOR ELECTRIC RESISTANCE WELDERS. Patent dated Aug. 16, 1955. Disclaimer filed Apr. 22, 1958, by the assignee, *The Taylor-Winfield Corporation.*

Hereby enters this disclaimer to claim 2 of said patent.

Classification Order No. 249

Classification Order No. 249, dated April 30, 1958, incorporates changes in the following classes:

Classes 40, 73, 260, 285

The above changes will be incorporated in the Manual of Classification replacement pages dated July 1958.

M. C. ROSA,
Director, Patent Examining Operation.

Patents Available for Licensing or Sale

Whirlpool Corporation is prepared to grant non-exclusive licenses under the following 200 patents upon reasonable terms to domestic manufacturers.

Absorption Refrigeration

2,248,178.	Refrigeration.
2,250,288.	Refrigeration.
2,251,314.	Refrigeration.
2,252,791.	Refrigeration.
2,253,056.	Liquid Fuel Burner.
2,256,519.	Refrigeration.
2,257,874.	Refrigeration.
2,257,983.	Refrigeration.
2,257,986.	Refrigeration.
2,260,939.	Refrigeration.
2,261,681.	Refrigeration.
2,261,682.	Refrigeration.

New Applications Received During March 1958

Patents	7,056
Designs	412
Plant Pats	13
Reissues	19
Total	7,500

Issue

Patents	932—No.	2,835,894 to No.	2,836,825, incl.
Designs	75—No.	182,868 to No.	182,942, incl.
Plant Pats	3—No.	1,711 to No.	1,713, incl.
Reissues	2—No.	24,477 to No.	24,478, incl.
Total	1,012		

2,261,683. Refrigeration.
2,263,270. Refrigeration.
2,266,584. Refrigeration.
2,266,783. Refrigeration.
2,267,278. Refrigeration.
2,267,283. Refrigeration.
2,267,893. Refrigeration.
2,269,099. Heat Transfer System.
2,269,100. Refrigeration.
2,269,101. Heat Transfer System.
2,269,701. Refrigeration.
2,273,226. Refrigeration.
2,275,677. Refrigeration.
2,276,434. Refrigeration.
2,278,661. Refrigeration.
2,279,017. Refrigeration.
2,279,059. Refrigeration.
2,279,080. Refrigeration.
2,279,082. Refrigeration.
2,280,051. Refrigeration.
2,280,273. Refrigeration.
2,282,684. Refrigeration.
2,284,691. Refrigeration.
2,285,131. Refrigeration.
2,285,884. Refrigeration.
2,286,025. Refrigeration.
2,286,205. Heat Transfer System.
2,289,078. Refrigeration.
2,289,809. Refrigeration.
2,290,509. Refrigeration.
2,290,532. Refrigeration.
2,293,522. Refrigeration.
2,295,064. Refrigeration.
2,297,761. Refrigeration.
2,298,029. Refrigeration.
2,300,579. Refrigeration.
2,300,899. Thermostatic Water Valve.
2,302,091. Refrigeration.
2,304,068. Refrigeration.
2,306,149. Refrigeration.
2,306,199. Refrigeration.
2,306,704. Refrigeration.
2,311,512. Refrigeration.
2,312,144. Refrigeration.
2,313,250. Refrigeration.
2,314,064. Refrigeration.
2,317,283. Refrigeration.
2,319,601. Refrigeration.
2,320,500. Refrigeration.
2,320,501. Refrigeration.
2,320,502. Refrigeration.
2,321,060. Refrigeration.
2,321,113. Refrigeration.
2,323,212. Refrigeration.
2,323,249. Refrigerator.
2,324,810. Refrigeration.
2,330,943. Welding.
2,332,820. Refrigeration.
2,334,803. Refrigeration.
2,336,411. Refrigeration.
2,337,653. Refrigeration.
2,338,265. Refrigeration.
2,338,277. Evaporator.
2,338,284. Refrigerator.
2,344,400. Gas Burner.
2,352,798. Refrigeration.
2,354,884. Refrigeration.
2,357,340. Refrigeration.
2,357,431. Refrigeration.
2,357,612. Refrigeration.
2,360,310. Gas Burner.
2,360,834. Absorption Refrigerating Apparatus.
2,363,443. Wick Type Oil Burner Control.
2,363,771. Refrigeration.
2,366,955. Refrigeration.
2,368,438. Refrigeration.
2,369,235. Gas Burner.
2,369,236. Gas Burner.
2,375,359. Refrigeration.
2,377,782. Refrigeration.
2,377,926. Refrigeration.
2,380,029. Refrigeration.
2,382,123. Refrigeration.
2,384,313. Evaporator for Absorption Refrigerating Apparatus.
2,386,041. Remote Burner Lighter.
2,402,413. Absorption Refrigerating Apparatus.
2,402,414. Refrigeration.
2,402,415. Absorption Refrigerating Apparatus.
2,402,416. Refrigeration.
2,402,417. Refrigeration.
2,407,733. Two Temperature Evaporator for Inert Gas Type Absorption Refrigerators.
2,462,671. Flue Connector Assembly for Absorption Refrigerators.
2,487,001. Ammonia Refrigerating Apparatus.
2,512,752. Ribbon Burner.
2,524,983. Absorption Refrigerator.
2,525,350. Gas Burner With Crimped Ribbon Port Structure.
2,532,179. Vapor Generator Assembly.
2,533,031. Absorption Refrigerating System of the Uniform Pressure Type.
2,536,342. Gas Heat Exchanger and Condensate Precooler.
2,566,655. Thermostatic Control.
2,598,035. Absorption Refrigeration.
2,603,955. Means for and Method of Circulating Inert Gas in a Refrigerating System.
2,615,235. Method of Making Fittings for Coupling the Ends of Tubes.
2,617,268. Refrigerator Drip Disposal.
2,629,234. Absorption Refrigeration.
2,634,108. Heat Exchanger.
2,645,006. Method and Means for Applying Brittle Brazing Material.
2,645,954. Thread Forming Method and Apparatus.
2,661,282. Iron-Phosphorus Brazing Compact.
2,670,607. Multiple Temperature Evaporator.
2,670,608. Multiple Temperature Evaporator.
2,715,818. Absorption Refrigeration.
2,715,819. Absorption Refrigeration.

Air Conditioners

2,613,514. Condensate Disposal Means.
2,629,235. Air Conditioner Evacuation Damper.
2,630,691. Dehumidifying Air-Conditioning Apparatus.
2,638,755. Means for Securing Cooling Units in Window Boxes.
2,638,756. Condensate Removal Means.
2,638,757. Ceiling Mounted Air Conditioning Apparatus.
2,644,321. Wall Mounted Air Conditioning Unit.

Laundry Apparatus

2,350,108. Washing Machine and Drier.
2,372,790. Drier.
2,385,623. Means for Transmitting Oscillatory Motion.
2,386,788. Suspension Means for Automatic Washers.
2,391,561. Drain Mechanism.
2,401,476. Fluid Responsive Control Mechanism for Automatic Washers.

2,414,196. Drain Mechanism.
2,441,053. Means for Transmitting Oscillatory Motion to Washing Machine Agitator.
2,444,645. Fluid Handling System for Automatic Cleansing Apparatus.
2,444,955. Time Switch.
2,471,778. Fluid Responsive Control Apparatus.
2,498,885. Automatic Clothes Cleaning Apparatus
2,503,329. Clothes Drier.
2,517,421. Gas Drier.
2,521,159. Automatic Washing, Rinsing and Drying Machine.
2,521,712. Tumbler Type Hot Air Drier Having a Casing Bulkhead.
2,526,344. Washing Machine.
2,535,748. Wringer Head Mechanism.
2,540,725. Lint Screen and Assembly for Clothes Driers.
2,540,749. Ironer.
2,540,750. Self-Adjusting Leg.
2,546,925. Clothes Drier.
2,554,573. Clutch and Brake Mechanism.
2,604,497. Washing Machine Control Circuit.
2,619,734. Electrically Heated Drier.
2,619,736. Bulkhead Drier.
2,619,737. Clothes Drier.
2,624,464. Safety Switch Cutout for Automatic Laundry Machines.
2,625,030. Washing Machine and Control Therefor.
2,627,741. Washing Machine Provided With Planetary Drive Means.
2,628,432. Delicate Goods Drier.
2,630,197. Electrically Controlled Clutch.
2,635,354. Gas Heated Drier.
2,642,085. Fluid Control Means.
2,645,111. Wobble Plate Laundry Machine.
2,656,042. Centrifugal Washing and Drying Machine.
2,662,384. Washing Machine Control Mechanism.
2,726,558. Washing Machine Drive Mechanism.
2,741,925. Alternately Operating Actuating Mechanism.
2,775,047. Drier Control.
2,793,518. Combination Washing and Drying Machine.
2,800,176. Automatic Gas Ignition and Burner Control System.
2,808,783. Self-Priming Pump for Automatic Laundering Machines.
2,812,189. Caster Jack Assembly for Automatic Washing Machines.
2,812,806. Electrically Controlled Safety Igniter Circuit for Gas Burners.
2,818,720. Anti-Syphoning Fluid Inlet System for Washing Machines.
2,826,367. Automatic Fluid Mixing Valve.
Re. 24,235 (Original Pat. 2,678,814). Clothes Drier and Electrical Control Therefor.

General Refrigeration

2,504,267. Refrigerator Cabinet.
2,512,395. Liquid Dispensing Apparatus.
2,517,385. Fold-Away Shelf for Refrigerators or the Like.
2,518,254. Two Temperature Household Refrigerator.
2,518,284. Multiple Compressor Truck Refrigeration Unit.
2,518,673. Breaker Strip Construction.
2,527,790. Refrigeration Apparatus Control.
2,527,932. Refrigerator Cabinet Breaker Strip Construction.
2,544,321. Refrigerator Cabinet Breaker Strip.
2,546,718. Milk Cooler.
2,546,723. Automotive Truck Refrigeration Apparatus Defrosting Mechanism.
2,546,737. Sheet Metal Evaporator.
2,553,832. Refrigerator Door.
2,564,943. Insulation Seal for Refrigerated Cabinets.
2,741,341. Sectional Walk-In Cooler.
2,749,720. Dual Purpose Lamp for Refrigerator.
2,778,000. Conductive Hinge for Refrigerator Door.
2,797,553. Household Refrigerator Assembly.
2,800,742. Upholstered Refrigerator Cabinet.
2,825,617. Variable Drawer Accessory for Household Refrigerators.

Applications for license may be addressed to: Whirlpool Corporation, Director, Patent Section, 300 Broad Street, St. Joseph, Mich.

CONDITION OF PATENT APPLICATIONS AS OF MARCH 31, 1958

Total number of pending applications (excluding Designs)	210,227
Total number of pending Design applications	6,592
Total number of applications awaiting action (excluding Designs)	88,284
Total number of Design applications awaiting action	2,926
Date of oldest new application	Mar. 8, 1957
Date of oldest amended application	Feb. 13, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	7-10-57	7-30-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	7-8-57	7-2-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	9-19-57	7-9-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	7-1-57	7-5-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	7-1-57	7-1-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	8-29-57	8-5-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	7-1-57	7-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-5-57	5-31-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	7-11-57	7-8-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	7-17-57	7-2-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	8-22-57	8-7-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	7-5-57	4-15-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	7-11-57	7-15-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	7-1-57	7-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	7-15-57	7-3-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	5-21-57	5-22-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	7-1-57	7-1-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	7-1-57	7-1-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	7-1-57	7-1-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	7-1-57	7-1-57
21. (III) MADER, R. C., Textiles	5-13-57	5-9-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	7-1-57	7-1-57
23. (VI) SMILOW, L., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	4-4-57	4-1-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	8-13-57	8-19-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	4-30-57	4-4-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	9-3-57	7-1-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	8-14-57	8-13-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	7-1-57	7-1-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	6-20-57	4-30-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	7-9-57	7-1-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	7-10-57	7-12-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-16-57	7-10-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	8-19-57	7-12-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	8-30-57	8-20-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	10-11-57	10-1-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales	6-3-57	6-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	7-8-57	7-2-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	9-4-57	9-9-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	9-5-57	9-3-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	9-4-57	9-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	6-20-57	5-2-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	4-5-57	4-2-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	7-5-57	7-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	7-1-57	7-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	7-15-57	7-3-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	7-1-57	7-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	7-1-57	7-2-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	6-12-57	2-25-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	7-19-57	7-17-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	8-30-57	8-29-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	7-5-57	7-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-5-57	7-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	9-3-57	9-3-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	8-12-57	8-12-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	3-8-57	2-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	8-5-57	7-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	8-19-57	8-12-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	8-5-57	8-1-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-5-57	7-1-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	9-17-57	8-7-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	7-5-57	7-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	8-13-57	8-5-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	5-14-57	5-3-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	7-8-57	4-22-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	6-7-57	7-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	7-1-57	7-3-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators	8-2-57	8-1-57
70. (II) BREWRINK, J. L., Security Laws Administration.		
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	8-5-57	8-1-57
CLASS. DIVS. II—LADY, J. E., Oscillators; Amplifiers	9-12-57	9-4-57
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	7-1-57	7-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	7-8-57	7-1-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	7-1-57	7-1-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	5-15-57	5-28-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	9-3-57	10-18-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	7-26-57	9-20-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during May 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents	Numbers 2,240,477, to 2,243,828, inclusive
Plant Patents	Numbers 466 to 469, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE ATTWOOD

No. 6322. Decided March 14, 1958

[— CCPA —; — F.2d —: 117 USPQ 184]

1. PATENTABILITY—COMBINING REFERENCES—TEACHINGS OF ONE REFERENCE NEED NOT BE INCORPORATED BODILY INTO ANOTHER.

The "age-old argument that for a reference to be applied against a claim in combination with another, the teaching of the former must be incorporated bodily into those of the latter," *Held* to have been rejected before.

2. SAME—ARTICLE OF MANUFACTURE—PATENT SHOWING ARTICLE IS VALID REFERENCE EVEN THOUGH METHOD OF MAKING IS INOPERATIVE, NOT DISCLOSED, OR NOT DISCERNED BY APPLICANT.

"• • •, it is well settled that where the article claimed is disclosed in a prior patent, the claim may be rejected on that patent notwithstanding the fact that the process by which the patentee claimed the product could be produced is inoperative. • • •. Clearly, appellant can stand in no better position where the patentee discloses no process for making the article claimed or where appellant can not discern from the patent disclosure how to construct the article as disclosed."

3. SAME—COMBINING REFERENCES—SELECTION OF A PLURALITY OF FEATURES FROM PRIOR ART.

In finding a claim unpatentable over a combination of references, *Held* that appellant "has done no more than to select a plurality of individual features from the prior art and incorporate them into a unitary structure without materially altering the structure or function of each individual feature and without producing any new or unexpected result."

4. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—DECISION—HOLDING A CLAIMED FEATURE OBVIOUS AFTER REJECTING A REFERENCE RELIED ON BY THE BOARD OF APPEALS.

"Claim 11 is essentially drawn to the same device as is recited in claim 10 with the additional limitation that separate means close the ends of the channel member. This claim was rejected by the Board over the references cited against claim 10 in view of Attwood. We disagree with the Board that Attwood is a good reference to be combined with the others cited against this claim. • • •. We feel, nevertheless, that it would be obvious to the skilled artisan, • • •, to provide an end closure to seal off the channel member • • •. For these reasons, we agree with the Board's rejection of claim 11."

5. PATENTABILITY—PARTICULAR SUBJECT MATTER—CONCRETE INSERT.

Claims to a concrete insert *Held* unpatentable over the cited prior art.

APPEAL from Patent Office. Serial No. 143,760.

AFFIRMED.

Hauke & Hardesty (*Francis D. Hardesty* and *Byron B. Collings* of counsel) for Attwood.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from a decision of the Patent Office Board of Appeals, rejecting claims 8 to 13, inclusive, of appellant's application No. 143,760, filed February 11, 1950, for "Improvements in Concrete Inserts," as unpatentable over the prior art. No claims have been allowed.

Claims 8 and 9 are representative of the appealed claims and read as follows:

8. A concrete insert comprising a metallic channel member having pairs of longitudinally spaced anchor tongues projecting outwardly from the back wall thereof, said tongues consisting of portions of the wall material displaced angularly from the wall whereby openings result in the latter; and cover plates fitted over said openings and having portions extending thereinto to prevent displacement of the plates.

9. A concrete insert comprising a channel member and an end closure member, said closure member consisting of a strip of metal provided adjacent one of its ends with angularly disposed wings fitting into the end of said channel member, said strip having an angular flange at its other end extending in a direction opposite to said wings to provide an anchor for the channel.

The invention relates to concrete inserts of the type used to facilitate attachment of objects to concrete ceilings, walls or the like. In essence, it consists of a U-shaped channel member with pairs of tongues punched out of the back wall of the channel, said tongues serving as anchors to secure the channel member in the concrete. Each tongue of a pair is so punched out of the back face of the channel member that it lies in a plane perpendicular to the plane of the back face. The openings in the back face, formed by the punching out of the tongues, are closed by means of cover plates having extensions which fit into said openings to prevent displacement of the plates. The cover plates are disclosed as being forcibly fitted between each pair of tongues and as serving to prevent loose concrete from entering the channel member. End closures are provided for the channel member, said closures fitting into the ends of said channel member by means of wing extensions. These closures also serve to prevent loose concrete from migrating into the channel member. In one embodiment, a flange extension with notches therein is provided at the portion of the end closure which is flush with the front face of the channel member (viz.—the open end of the channel), said extension and its notches serving to receive nails for securing the closure to the concrete forms. In another embodiment, the end closure is extended in the direction of the back face of the channel member to provide additional anchoring means to secure the channel in the concrete. The alleged advantage of the disclosed insert is that it provides for adjustability of the position of the element secured in the insert and "that the channel, without modification, may be rolled and cut off to any desired length and subsequently provided with anchor tongues, cover plates, etc."

The references relied upon are:

Brown, 827,613, July 31, 1906.
Chase, 1,409,524, Mar. 14, 1922.
Tomkinson et al., 1,491,571, Apr. 22, 1924.
Timm, 1,561,126, Nov. 10, 1925.
Attwood, 2,345,650, Apr. 4, 1944.
German Patent 480,624, 1929.

The Brown patent, insofar as pertinent, discloses a concrete insert consisting of an elongated, square tube with struck-up portions from its rear surface serving as anchors. The tube is slotted at the opposite face so that objects to be received may be inserted therein.

The Chase patent discloses a concrete insert consisting of a trough whose sides flare outwardly on the concrete side of the insert and which is provided with a cover plate containing projections at each end thereof to aid in securing the cover on the trough.

The Tomkinson patent, insofar as pertinent, discloses a concrete insert in the form of a box having closed ends. Flush with the front of the box, on each end, is a flange having a notch therein for receiving a fastener to anchor the insert to the form prior to pouring the concrete.

The Timm patent discloses a concrete insert consisting of a U-shaped channel member with a fin extending perpendicularly from the back side thereof. Struck out of the fin are tongues used to anchor the channel member in the concrete. End closures (caps) fit over the ends of the channel member to prevent concrete from entering the ends of said member.

The Attwood patent discloses a supporting structure (viz.—for scaffolding, ladders, etc.) comprising a channel member identical to appellant's with end closure means for said member.

The German patent discloses a concrete insert consisting of a slotted face plate with tongues struck up from said plate in such a manner that they are secured to said plate at the ends thereof and are perpendicular thereto. A U-shaped cap is inverted and press-fitted between the turned-up sides of the face plate. Cleats are provided on the tongues to urge against the inverted cap and secure it in place.

Claim 8 was rejected by the Board as unpatentable over Brown in view of Chase. The Board was of the opinion that, though Brown makes no provision for preventing entrance of soft concrete into the channel through the openings left when the tongues are struck therefrom, this feature was suggested by Chase. We agree with the Board that claim 8 does not define invention over these two references. In our opinion, the "tube" of Brown, with its "struck-up" portions, is the full equivalent of appellant's channel and tongue element. As urged in the Solicitor's brief, the distinction is semantic only. If it were discovered that the loose concrete tended to migrate into the channel through the openings formed by striking up the tongue elements, it would be obvious to cover the openings, as suggested by Chase. The projections on the cover plate of Chase are equivalent to those claimed by appellant. Appellant urges that the cover plate of Chase is not equivalent to his since it is part of the box portion which has no anchor tongues as in appellant's element; that Chase relies on the shape of his box to prevent it from being pulled out of the concrete. [1] This appears to be a repetition of the age-old argument that for a reference to be applied against a claim in combination with another, the teachings of the former must be incorporated bodily into those of the latter. This argument has been rejected before. *In re Henley*, 44 CCPA (Patents) 701, 239 F.2d 399, 112 USPQ 56. The Chase reference was relied upon by the Board not for its overall teaching as to concrete inserts but for its teaching broadly the use of a plate to cover an aperture through which the passage of soft concrete is to be prevented. For this purpose it is sufficient.

Appellant further urges that Brown must fail as a reference since the embodiment applied against appellant's claims was the tubular structure disclosed by Brown; that "if, as Brown states, he uses a *tube*, neither he nor the Examiner discloses how the 'stirrup' may be 'struck up.'" It would suffice to say that it is obvious to us how the "stirrup" (the tongue) could be "struck up," for one could simply strike up the tongues from a flat plate, fold the plate to form a square tube (Brown discloses the use of a square tube) and then weld the edges of the plate together. Doubtless, there are other ways to accomplish the result. Be this as it may, [2] it is well settled that where the article claimed is disclosed in a prior patent, the claim may be rejected on that patent notwithstanding the fact that the process by which the patentee claimed the product could be produced is inoperative. *In re Marden and Rentschler*, 18 CCPA (Patents) 1119, 48 F.2d 428, 8 USPQ 515; *In re Von Bramer et al.*, 29 CCPA (Patents) 1018, 1024, 127 F.2d 149, 53 USPQ 345. Clearly, appellant can stand in no better position where the patentee discloses no process for making the article claimed or where appellant can not discern from the patent disclosure how to construct the article as disclosed.

Claim 10 was rejected by the Board as unpatentable over the references cited in connection with the rejection of claim 8 in view of the German patent. The language of claim 10 adds to claim 8 the provisions that the openings formed by striking up the tongues are "between" each pair of tongues and that the cover plates are "forcibly fitted" between the tongues of each pair. We are of the opinion that the Board was correct in rejecting this claim over the cited references. It is true, as appellant urges, that Brown's tube is disclosed as having tongues struck up so that the openings formed in the back face of said tube are not between the tongues. On the contrary, the tongues are at adjacent ends of each opening, the opening being on the outer side of each tongue. We do not deem this difference to be significant. Chase discloses the use of a cover plate on a concrete insert, one of whose purposes is obviously to keep loose concrete from entering the main body of the insert, and the German patent discloses the press-fitting of a cover plate into the face plate of a concrete insert. To rearrange the slotted and struckup portions of Brown so that a cover plate can be force-fitted between the tongues would, in our opinion, be a common expedient. And though the cover disclosed by the German patent is not a "plate" as in appellant's device, the same problem of retaining a cover is presented in each case and is solved in the same manner. [3] Appellant has done no more than to select a plurality of individual features from the prior art and incorporate them into a unitary structure without materially altering the structure or function of each individual feature and without producing any new or unexpected result.

[4] Claim 11 is essentially drawn to the same device as is recited in claim 10 with the additional limitation that separate means close the ends of the channel member. This claim was rejected by the Board over the references cited against claim 10 in view of Attwood. We disagree with the Board that Attwood is a good reference to be combined with the others cited against this claim. Attwood is related to an entirely non-analogous art (supporting structures for use in scaffolding, ladders, etc.) and the end closure

of Attwood is used for a purpose entirely different from that of appellant (the former is used to conceal the channels from view). It would be as appropriate, in our opinion, to cite a reference from the container art, showing a cap on a bottle, as it would be to cite the Attwood reference. We feel, nevertheless, that it would be obvious to the skilled artisan, with the Brown, Chase and German patent disclosures before him, to provide an end closure to seal off the channel member from ingress of loose cement, if the problem presented itself. For these reasons, we agree with the Board's rejection of claim 11.

Claim 12 is dependent upon claim 11 and adds thereto the provision that the end closure means "is itself provided with an anchor portion." The Board rejected this claim as unpatentable over Brown in view of Chase, the German patent and Attwood. Again, we feel that the Attwood disclosure was not properly combined with the other cited references. But again, we feel constrained to agree with the Board's rejection of this claim. The German patent shows the use of anchor elements located at the ends of a concrete insert. While those anchor portions are not attached to an end closure, it is not seen that it would be more than a matter of choice to so provide such anchor portions if it were desired to more firmly anchor the end portions of the insert. No new or unexpected results would accrue therefrom. We have already noted, in connection with claim 11, that it would not rise to invention to provide the insert of Brown with such end closures.

Claim 9, which has heretofore been reproduced, was rejected by the Board as unpatentable over Timm in view of the German patent. It was the Board's opinion that the latter patent suggested the use of anchor portions on the end closures of Timm and that "to provide an anchor on the closure for securing it also to the concrete seems to us to be but an obvious extension of the idea of anchoring the channel itself." It regarded the distinction between the end closure of Timm (which fits over the end of his channel as a "cap") and that of appellant (which fits *into* the channel) as a mere matter of choice in design. We agree with the Board's rejection of this claim. That the German patent discloses no end closure as such is immaterial, as discussed in connection with claim 12.

Claim 13 is similar to claim 9 but adds the limitation thereto that the end closure has an edge provided at the end of the end portion (at the edge opposite to the anchor extension of claim 9), said edge "being provided with notches for receiving fastening means." This notched edge, as disclosed, is flush with the face of the insert and is used to secure the insert to the concrete form prior to the pouring of the concrete. The Board rejected this claim as unpatentable over the references cited in connection with claim 9, in view of Tomkinson. It was of the opinion that Tomkinson disclosed the idea of a notched extension for the same purposes as disclosed by appellant. We are constrained to agree with the Board's decision on this claim. Appellant urges that Tomkinson shows no end closure in the "patent sense"; that Tomkinson's anchors are integral with the slotted face of the insert; etc. Again, appellant seems to be pressing the "bodily incorporation" argument which we rejected in connection with claim 8. Tomkinson was not relied upon by the Board for his overall teachings of a concrete insert, but merely for the broad idea of providing a notched extension at the end of a concrete insert for securing the insert to the concrete forms prior to pouring the concrete. This, we feel, Tomkinson discloses. Claim 13 is not deemed patentable over the cited references.

Lastly, appellant argues that:

> If the present device is a collection of old elements, which is not admitted, it still is patentable in that it provides a function—adjustability—which does not appear in the prior art. • • •

Appellant's contention in this regard is directed to the fact that since his insert can be of indefinite length, the item to be attached in the insert can be so attached at any point along its length. It is unnecessary to consider the legal merits of appellant's argument, for this function of adjustability is not only expressly disclosed in Brown, but in Chase, as well.

[5] For the foregoing reasons, the decision of the Board is affirmed.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE LUNDBERG

No. 6330. Decided March 14, 1958

[— CCPA —; — F.2d —; 117 USPQ 190]

1. PATENTABILITY—ADVANTAGE NOT DISCLOSED IN SPECIFICATION.

"Appellant argues that his diamond-shaped ports produce a new and unexpected result in that the valve can be opened by movement in either direction, thus facilitating its use in locations where an obstruction might be encountered when it is moved in one direction. However, that advantage is not disclosed in appellant's application and he is, therefore, not in a favorable position to urge it as a basis for the allowance of claims • • •."

2. SAME—PARTICULAR SUBJECT MATTER—CONTROL VALVE FOR GASEOUS FLUIDS.

Certain claims to a flow control valve for gaseous fluids *Held* unpatentable as failing to define invention over a combination of references, but another claim *Held* patentable over the cited prior art.

APPEAL from Patent Office. Serial No. 230,885.

MODIFIED.

Wenderoth, Lind & Ponack (*Vincent M. Creedon* of counsel) for Lundberg.

Clarence W. Moore (*George C. Roeming* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of claims 1 to 5, inclusive, which are the only claims of appellant's application for a patent on a flow control valve.

Claims 1 and 5 are representative and read:

1. A flow-control valve comprising a valve body having a flow passage through it and a cylindrical chamber formed transversely across it, and a rectangular plate valve member disposed diametrically in and rockable about the axis of said chamber, the flow-obstructing portions of the cylindrical wall of said cylindrical chamber being formed with ports or windows situated in the line of flow and shaped to produce a predetermined flow control effect as the plate valve member is angularly adjusted, the said ports or windows in the cylindrical wall of the cylindrical chamber being each substantially diamond in shape with one diagonal of the diamond parallel with the axis of the cylindrical chamber.

5. A flow-control valve comprising a valve body having a flow passage through it and a cylindrical chamber formed transversely across it, and a rectangular plate valve member disposed diametrically in and rockable about the axis of said chamber, the flow-obstructing portions of the cylindrical wall of said cylindrical chamber being formed with ports or windows situated in the line of flow and shaped to produce a predetermined flow control effect as the plate valve member is angularly adjusted, in combination with an end wall liner to one of the end walls of the cylindrical chamber, and means for resiliently pressing one face of said liner against the adjacent flank edge of the plate valve member.

The references relied on are:

Lynch, 799,394, September 12, 1905.
Rieth et al., 824,585, June 26, 1906.
Dalzell, 1,588,315, June 8, 1926.
Le Bozec (French), 796,613, January 12, 1936.
Bailey, 2,174,547, October 3, 1939.
Long, 2,554,040, May 22, 1951.

Appellant's device is particularly designed for the control of gaseous fluids. His application discloses a flow control valve of the butterfly type having a cylindrical chamber positioned transversely of the direction of flow. The cylindrical wall of the chamber is provided with oppositely disposed inlet and outlet ports which are of diamond shape with one diagonal of the diamond extending parallel to the axis of the chamber. A rectangular valve plate, closely fitting against the cylindrical wall, is journaled for rotation about the axis of the chamber.

Because of the diamond shape of the valve ports, the valve, when it first moves out of a closed position, uncovers the narrow portion of each port adjacent a corner of the diamond, so that a greater amount of rotation is necessary to produce any given initial area of opening than is required to add the same area of opening to the flow passage when the valve is near its wide-open position. Consequently, it is possible to obtain a more accurate regulation of the small initial opening than is obtainable when rectangular ports are used.

The valve plate is mounted on trunnions located at opposite ends of the chamber and slotted to receive opposite corners of the plate. To insure a proper fit between the valve and chamber, a circular disk is fitted into the chamber at one end of the valve plate, and is provided with an opening through which the trunnion passes. A washer having radially disposed bent spring fingers is located between the disk and the adjacent end of the chamber, so that the disk is resiliently urged against the valve plate. The latter-mentioned trunnion extends through the end wall of the chamber and carries a graduated quadrant which cooperates with a fixed stop on the wall for limiting the movement of the valve and indicating its position.

The reference principally relied on below is the French patent to Le Bozec. That patent discloses a butterfly valve similar to appellant's, and similarly mounted in a cylindrical chamber, but instead of appellant's diamond-shaped ports, the reference discloses ports of circular shape, so that the initial opening cannot be as closely regulated as in appellant's valve. Le Bozec's valve is integral with a stem which is rotatably mounted in bearings at opposite ends of the cylindrical chamber.

The Bailey patent shows a butterfly valve having ports of substantially triangular shape. The patent specification states that "A valve having ports such as described above, provided accurate control of flow for all positions of the butterfly or disc • • • and particularly at low rates of flow, i. e., at the flows occurring when the disc is operating near its closed position." Since there is only one triangular port at each side of the valve it must always be turned in the same direction to open, and in the opposite direction to close.

The Long patent discloses a rotary plug valve having an opening in the plug in the form of an elongated rectangle terminating at each end in a triangular portion. The specification points out that with such an arrangement it is possible "to effect a pin-point opening at the ends of the slot." Since the ends of the slot are duplicates the valve can be opened or closed by movement in either direction.

The Rieth et al. and Dalzell patents, which also show valve openings of triangular configuration, are merely cumulative with Bailey and Long and do not require detailed consideration.

The Lynch patent shows a plug valve provided with a disk-like portion at one end and mounted in a cylindrical chamber. Located between the disk-like part of the valve and the adjacent end of the chamber is a washer having a series of concentric corrugations "so as to give a plurality of circular lines of close bearing against the top of the valve to prevent leakage."

Claims 1 to 3 were rejected on Le Bozec in view of Bailey or Long. Le Bozec clearly shows everything called for by claim 1 except that his valve ports are circular rather than diamond-shaped. It was the opinion of the Patent Office tribunals that since the advantages of triangular ports are recognized by Bailey and Long, there would be no invention in substituting ports of that shape for the circular ports of Le Bozec.

It is clear that both Bailey and Long disclose the desirability of triangular ports for effecting accurate control near the closed position of a valve and, accordingly, there would be no invention in the broad idea of employing such ports where that type of control is important. This is not seriously disputed by appellant who states in his brief that "if all that was accomplished by the change in the shape of the apertures in the wall of the cylinder in the Le Bozec valve was the achieving of fine control of flow through the valve, the basis of the rejection might be sound." Appellant contends, however, that the most suggested by Bailey and Long is the provision of a triangular port on each side of Le Bozec's valve chamber, and not the combination of two such ports to form a diamond, as called for in appealed claims 1 to 4.

It is true that none of the references shows a diamond-shaped valve port. However, in adapting the triangular form to the Le Bozec valve it is evident that each triangle would replace one half of a circular port, and it would appear to be obvious to one skilled in this particular art to modify the other half of each port in a similar manner, and that would necessarily result in a diamond shape. This is especially true in view of the Long patent which shows a triangular portion at each end of a valve port.

[1] Appellant argues that his diamond-shaped ports produce a new and unexpected result in that the valve can be opened by movement in either direction, thus facilitating its use in locations where an obstruction might be encountered when it is moved in one direction. However, that advantage is not disclosed in

appellant's application and he is, therefore, not in a favorable position to urge it as a basis for the allowance of claims. *Abbott et al.* v. *Coe*, 71 App. D. C. 195, 109 F.2d 449, 43 USPQ 267; *In re Dalzell et al.*, 35 CCPA (Patents) 1024, 166 F.2d 834, 77 USPQ 164; and *In re Pollack et al.*, 36 CCPA (Patents) 1156, 175 F.2d 587, 82 USPQ 209. Moreover, appellant's valve has a scale which is readable only in one direction, and a stop which permits it to move in only one direction for opening. Accordingly, as noted in the brief for the Commissioner of Patents, the reversible operation now proposed by appellant would require modifications which are not disclosed in the application.

We are in agreement with the Board that there would be no invention, in view of Bailey and Long, in substituting diamond-shaped valve ports for the circular ports of Le Bozec and, since such a substitution would fully satisfy the requirements of claim 1, it follows that that claim was properly rejected.

Claim 2, which is dependent on claim 1, includes the further limitation that the valve is mounted in diametrical slots in the trunnions, while claim 3, which also depends upon claim 1, states that one end wall of the valve chamber is detachable. The latter feature is shown by Le Bozec, and we agree with the Board that the mounting of the valve in slots as recited in claim 2 would not be inventive.

Claim 4 is similar to claim 3 with the addition of a quadrant for indicating the position of the valve, and was rejected on the same references as claim 3, in view of the showing of such a quadrant in the Long patent. We are of the opinion that the addition of a quadrant to the valve of Le Bozec would be an obvious expedient.

We have given full consideration to appellant's arguments but are not persuaded that the Board erred in holding that claims 2, 3, and 4, as well as claim 1, fail to define invention over Le Bozec in view of Bailey or Long.

While we agree with the correctness of the Board with respect to the claims previously discussed, there is a substantial doubt in ous minds as to the correctness of the rejection of claim 5.

Claim 5 is broader than claims 1 to 4, in that it does not specify diamond-shaped ports. It does, however, recite a liner at one end wall of the chamber and resilient means for pressing it against the adjacent edge of the valve plate. That claim was rejected on Lynch on the ground that it would not require invention to replace the plug valve of that patent by a plate valve such as is shown by Le Bozec. While Lynch shows a corrugated plate between the top of his valve and the end of the chamber, he does not state that it is resilient, and there appears to be no reason why it should be since the valve plug extends axially beyond the ports at each end so that it is not necessary that it should fit tightly at the ends of the chamber in order to effect a seal. In our opinion, the claimed combination of plate valve, end plate, and resilient means, together with the other elements recited in claim 5, is not fairly suggested by the references, and that claim should have been allowed.

[2] The decision of the Board of Appeals is modified, being affirmed as to claims 1 to 4, inclusive, and reversed as to claim 5.

MODIFIED.

U. S. Court of Customs and Patent Appeals

IN RE RAU

No. 6345. Decided March 21, 1958

[— CCPA —; — F.2d —; 117 USPQ 215]

1. PATENTABILITY—INVENTION—DISCOVERY OF A RESULT.
"It is true there is an affidavit of record indicating that exceptionally good results are obtained by the use of dry stainless steel particles, and that the references do not suggest that such results would be attained. However, the references do fairly suggest trying such particles, and it is well settled that a patent cannot be granted for an applicant's discovery of a result, even though it may be unexpectedly good, which would flow logically from the teaching of the prior art."

2. SAME—PARTICULAR SUBJECT MATTER—ELECTROMAGNETIC CLUTCH.
Claims to an electromagnetic clutch *Held* unpatentable over the cited prior art.

APPEAL from Patent Office. Serial No. 218,409.

AFFIRMED.

Ralph L. Tweedale for Rau.

Clarence W. Moore (*George C. Roeming* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

WORLEY, *Judge*, delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of all the claims in appellant's application for a patent on a power transmission device.

Claims 3 and 6 are representative of the appealed claims and read:

3. Means for causing mechanical force to be imparted from one to the other of a pair of spaced relatively movable coupling members, said means comprising dry ferromagnetic stainless steel particles disposed in the space between the coupling members, and means for magnetically exciting the stainless steel particles to form a force-transmitting connection between said members.

6. Means for causing mechanical force to be imparted from one to the other of a pair of spaced relatively rotatable coupling members, said means comprising dry ferromagnetic stainless steel particles disposed in the space between the coupling members, and means for magnetically exciting the stainless steel particles to form a force-transmitting connection between said members.

The references relied on are:

Technical Report 1213, National Bureau of Standards, Washington, D. C.

Rabinow, 2,622,713, December 23, 1952.

Appellant's application discloses an electromagnetic clutch comprising two spaced clutch members, the space between which is filled with dry ferromagnetic stainless steel particles. One of the clutch members contains a magnetizing coil which, when energized, establishes a magnetic field between adjacent surfaces of the clutch members, thus causing the particles to become magnetized and to bind the members together by a force dependent upon the strength of the magnetic field. The specific structure of the clutch is not set forth in the claims and need not be considered here.

Both the Rabinow patent and the Bureau of Standards publication, which relates largely to work done by Rabinow, disclose magnetic clutches comprising spaced members, one of which may be electrically magnetized by a coil, the space between the members containing ferromagnetic particles mixed with oil. The energization of the coil creates a magnetic field and couples the clutch members together in the same manner as in appellant's device.

The appealed claims are all quite similar and have not been considered individually either in the decisions below or in the briefs here. The sole feature relied on as distinguishing each of them from the prior art is found in the statement that the material between the clutch members comprises dry or unlubricated ferromagnetic stainless steel particles. If that feature involves patentable novelty, all of the appealed claims are allowable; if not, all of them were properly rejected.

The Bureau of Standards publication relates primarily to the use of mixtures of oil and magnetic metal particles between the opposing members of a clutch. One such mixture proposed comprises "stainless steel flakes" with "light machine oil." That mixture is listed in a table with a number of others and, with respect to the torque, it appears to be better than some, but not as good as others, of the listed mixtures. However, the listing definitely shows that stainless steel flakes may be used for transmitting torque in a magnetic clutch. We think the Board correctly held that the so-called flakes are fully equivalent to the particles recited in the appealed claims.

As a basis for disclosing that such flakes may be used dry or unlubricated, the Board relied principally on the following statement which appears in the publication following a description of the use of oil and "carbonyl E Iron" between the plates of a clutch:

When dry powder is used in the clutch, the torques are of the same order of magnitude as when mixed with oil and eccentricity or misalignment of plates results in erratic operation.

Appellant argues that the quoted statement points away from the use of dry powder, but we agree with the Board that the "erratic operation" described is limited to the particular form of clutch referred to, and is found in that clutch only when eccentricity or misalignment is present. In our opinion, that statement would not discourage the use of dry powder in other clutches or under proper conditions of adjustment.

Moreover, the use of dry, unlubricated ferromagnetic particles in magnetic clutches is clearly disclosed in the Rabinow patent which contains the following statements with respect to such clutches:

This mixture will be referred to hereinafter as iron-oil for convenience, but it will be understood that any paramagnetic powder is contemplated, and any suitable fluid may be used. It will be further understood that the *paramagnetic material may be used without the fluid.* [Italic ours.]

• • • • • • • •

Dry paramagnetic particles alone have been successfully used.

• • • • • • • •

The mixture is so proportioned that only enough powder 15 to fill the cylindrical gap or minimum peripheral space between member 10 and cup 4 is used, the rest of the space including the radially extending gap joining into the cylindrical gap being occupied by light oil 16, *or the oil may be omitted in its entirety.* [Italics ours.]

• • • • • • • •

When dry paramagnetic particles alone are used the oil leakage problem does not arise.

From the foregoing it is clear the prior art definitely contemplates the use of dry paramagnetic particles alone and that any paramagnetic powder may be used. In view of that fact, and since stainless steel flakes or particles, being magnetic, are known to be suitable for use in magnetic clutches when mixed with oil, we are of the opinion no invention would be involved in using such stainless steel particles in dry form in the manner set forth in the appealed claims.

[1] It is true there is an affidavit of record indicating that exceptionally good results are obtained by the use of dry stainless steel particles, and that the references do not suggest that such results would be attained. However, the references do fairly suggest trying such particles, and it is well settled that a patent cannot be granted for an applicant's discovery of a result, even though it may be unexpectedly good, which would flow logically from the teaching of the prior art. *In re Inman*, 43 CCPA (Patents) 706, 228 F.2d 226, 108 USPQ 138; *In re Kelley*, 43 CCPA (Patents) 816, 230 F.2d 435, 109 USPQ 42; *In re Eisenhut*, 44 CCPA (Patents) 974, 245 F.2d 481, 114 USPQ 287, and cases there cited.

[2] We have given full consideration to the contentions advanced by appellant and to the cases cited in support thereof. However, since we find no error in the decision appealed from, it is hereby affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

IN RE GLABERSON

No. 6362. Decided March 21, 1958

[— CCPA —; — F.2d —; 117 USPQ 217]

APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—REMANDED.
Where it became apparent at the oral argument that a patent reference could not legally be used to show prior art, and it was evident that both the examiner and the Board of Appeals proceeded under a misunderstanding, *Held* that the decision of the Board should be reversed, without an expression of opinion on the merits, and the case remanded to the Patent Office with instructions to reexamine the application without regard to such patent.

APPEAL from Patent Office. Serial No. D–26,605.

REVERSED AND REMANDED.

Cromwell, Greist & Warden (*Raymond L. Greist* of counsel) for Glaberson.

Clarence W. Moore (*D. Kreider* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Board of Appeals affirming the Examiner's rejection of appellant's claim in application Serial No. D–26,605, filed August 27, 1953, for a design for a safety razor case.

The references relied upon are:

Schladermundt et al., D–165,346, Dec. 4, 1951.
Wark et al., D–172,912, Aug. 24, 1954.
Becken Book, 1942, page 301, Item 301 H 4.
National Carbon Co., May 1, 1926, pages 1 and 2.

It became belatedly apparent at the oral argument in this court that the Wark et al. reference may not legally be used as a reference to show prior art since the application for that patent was not filed until November 20, 1953, nearly three months *after* the filing of appellant's application. 35 U. S. C. 102. The Patent Office Solicitor conceded at the argument that this legal error had been made.

Since it is evident that both the Examiner and the Board of Appeals proceeded under a misunderstanding, the Examiner definitely relying on Wark et al. and the Board finding that "the Examiner's action is without reversible error," and the parties having briefed the case on the same misunderstanding, we are reversing the decision of the Board and remanding the case to

the Patent Office with instructions to reexamine the application without regard to the Wark et al. patent. We express no opinion on the merits at this time.

REVERSED AND REMANDED.

JACKSON, *J.*, retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

MEYER CHEMICAL CO. *v.* ANAHIST CO., INC. (WARNER-LAMBERT PHARMACEUTICAL CO., ASSIGNEE, SUBSTITUTED)

No. 6415. Decided February 18, 1958

[— CCPA —: — F.2d —; — USPQ —]

1. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS—TRADEMARKS—CONDITIONS, RULES AND PROCEDURE OF PATENT APPEALS APPLICABLE—TRADEMARK ACT OF 1946, SEC. 21.

Held, in an appeal from the Commissioner's decision in a trademark opposition, that "Section 21 of the Trademark Act of 1946 makes the conditions, rules and procedure prescribed for patent appeals applicable."

2. SAME—DIMINUTION OF RECORD—RULES 25 (3) (e) AND 13.

Held that Rule 25 (3) (e) of the "Rules of the United States Court of Customs and Patent Appeals" is not authority "for the ex parte omission by appellant of parts of the record, for the purpose of reducing costs or otherwise, on the mere belief that they are unnecessary or irrelevant" and that, if appellant omits anything, the appellee has the right to move that it be included and that, in doing so, appellee is subject to the rules of the court and must comply with Rule 13, entitled "Diminution of Record."

3. SAME—SAME—ASSERTION THAT OMITTED PART IS RELEVANT IS REASON ENOUGH FOR ITS INCLUSION.

"* * *. The shortening of records and the reduction of what must be printed is highly desirable and is perhaps best effected by agreement of counsel. * * *. On the other hand it is not for one party to say that testimony shall be left out because *he thinks* it is irrelevant or because he does not contest what it proves. It is reason enough to include it that the other party asserts that it is relevant. Otherwise the appellant could expurgate the record to suit his strategy."

4. SAME—SAME—TESTIMONY OMITTED ON THEORY IT IS IRRELEVANT.

"Appellant's stated objections to the additions requested indicate that it is omitting appellee's testimony * * * on the theory it is irrelevant. Without prejudging that evidentiary point, it is clear that if this testimony were deleted we would be considering the issue before the Patent Office on a record quite different from the record before it, yet we are to determine the appeal on the evidence produced before the Patent Office."

5. SAME—SAME—COST OF APPELLEE'S ADDITIONS TO BE ASSESSED ON FINAL DECISION.

"Appellee's motion to correct diminution of the record is granted, the cost of printing appellee's additions to be assessed on final decision."

MOTION to correct diminution of record. Opposition No. 33,052.

MOTION GRANTED.

Margaret Laurence and *Dean Laurence* for Meyer Chemical Co.

Albert H. Graddis for Anahist Co., Inc.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, and RICH, *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

In this appeal by the applicant from the Commissioner's decision (114 USPQ 354) in a trademark opposition appellee has moved, pursuant to Rule 13 of this court, to correct diminution of the record.

It appears from the affidavit of appellee's attorney in support of the motion that appellant has omitted from the transcript of the Patent Office record filed in this court substantial parts of the testimony of three witnesses and two exhibits, which appellee desires to have certified to us by the Patent Office for inclusion in the record on appeal. It is made to appear that of 16 pages of the testimony of one witness only 3 have been included by appellant; only 1 out of 11 pages of the testimony of a second witness; and only 1 out of 6 pages of the testimony of a third. Appellee asserts that the omitted matter is material and necessary to the fair trial of this appeal on the merits and that the matter included is out of context and thereby misleading in its import.

Appellant, who omitted the foregoing evidence in having the record prepared, opposes the motion except as to 3 pages of testimony, asserting as to the various other items (a total of about 25 pages and two exhibits) that the testimony is either not necessary or irrelevant. We can see that if we are to give proper consideration to the issues on appeal it may be necessary for us to pass on these assertions of irrelevancy or lack of necessity and this we cannot do unless the evidence is before us. Furthermore, we have serious doubts that much of the omitted testimony is truly irrelevant.

[1] Section 21 of the Trademark Act of 1946 makes the conditions, rules and procedure prescribed for patent appeals applicable. 35 U. S. C. 144 says that we shall determine appeals "on the evidence produced before the Patent Office." 35 U. S. C. 143 provides that:

> The Commissioner shall transmit to the court certified copies of all the necessary original papers and evidence in the case specified by the appellant *and any additional papers and evidence specified by the appellee* * * *. [Emphasis ours.]

The duty is on the appellant in the first instance to file in this court with its petition of appeal what our Rule 25 refers to as "a certified copy *of the record* in the proceeding." Part (3) of said rule provides for the omission of certain formal headings and the like *by the Patent Office*, in making up the transcript, and in paragraph (e) says, in part:

> Further to reduce the costs of appeals, it shall be permissible for counsel for the respective parties * * * to agree upon a statement of the facts of the case, setting forth the questions raised on appeal and *so much only of the evidence as may be necessary to a decision of such question*. [Emphasis added.]

[2] This is not authority, however, for the ex parte omission by appellant of parts of the record, for the purpose of reducing costs or otherwise, on the mere belief that they are unnecessary or irrelevant. If appellant omits anything, the appellee has the right to move that it be included. In doing so, an appeal having been taken, appellee is subject to the rules of this court and must comply with Rule 13, entitled "Diminution of Record." This rule requires the making of a motion in writing and a showing by affidavit (1) of the facts on which the motion is founded, (2) that "the omitted matter is material and necessary to the fair trial of the case on its merits and (3) that the suggestion [i. e. request for addition] is not made for delay * * *." Appellee has complied with the rule and is therefore entitled to the addition. [3] The shortening of records and the reduction of what must be printed is highly desirable and is perhaps best effected by agreement of counsel. Issues often drop out of a case by the time it reaches this court on which testimony has been taken which need not be considered and can beneficially be omitted. On the other hand it is not for one party to say that testimony shall be left out because *he thinks* it is irrelevant or because he does not contest what it proves. It is reason enough to include it that the other party asserts that it is relevant. Otherwise the appellant could expurgate the record to suit his strategy. For example, this is an opposition to the registration of "Almehist" by the admitted owner of the mark "Anahist." [4] Appellant's stated objections to the additions requested indicate that it is omitting appellee's testimony relating to "Super-Anahist" on the theory it is irrelevant. Without prejudging that evidentiary point, it is clear that if this testimony were deleted we would be considering the issue before the Patent Office on a record quite different from the record before it, yet we are to determine the appeal on the evidence produced before the Patent Office.

Rule 13, however, contains this further provision:

> The costs for printing such additional matter when inserted upon motion of appellee, may, in the discretion of the court, be assessed on final decision.

In answer to appellant's arguments that we need not consider the omitted testimony to decide the issues, we note that Rule 13 leaves open to it the right to try to establish the truth of that contention to our satisfaction with a consequent possible assessment of the cost of printing the added matter against the appellee.

[5] Appellee's motion to correct diminution of the record is granted, the cost of printing appellee's additions to be assessed on final decision.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,104,032, Re. 21,514, C. H. Green, Automatic phonograph; **2,697,607**, Vanderzee and McCallum, assignors to A. M. I., Inc., Record transfer mechanism; **2,697,606**, same, Phonograph tone arm control, **filed** July 8, 1955, D. C., N. D. Ill. (Chicago), Doc. 55c1019, *A. M. I., Inc. v. Rock-Ola Mfg. Corp.* Cause dismissed with prejudice Apr. 3, 1958.

2,230,486, L. A. Durant, Selector mechanism, **filed** Sept. 24, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c1577, *Rock-Ola Mfg. Corp. v. A. M. I., Inc.* Cause dismissed with prejudice Apr. 3, 1958.

2,283,273, E. F. Pawsat, Steering post; **2,505,648**, same, Steering post and method of manufacture; **Des. 146,119**, same, Bicycle steering post, **filed** Apr. 18, 1958, D. C., W. D. N. Y. (Buffalo), Doc. 7816, *Ruben L. Pawsat v. McCauley Metal Products, Inc.*

2,462,706, F. Alberich, Blouse with variable neckline effect; **Des. 162,953**, J. Hayward, Knitted slipover adjustable neckline blouse, **filed** Feb. 3, 1956, D. C., S. D. N. Y., Doc. 106/388, *Jiffy Sales Co., Inc. et al. v. Michael A. Greene et al.* Stipulation and order of discontinuance Apr. 18, 1958.

2,491,646, H. M. Coleman et al., Process for treating animal materials, **filed** Apr. 16, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c687, *B. Heller & Co. v. First Spice Mfg. Co., et al.*

2,492,870, H. T. Kelsh, Stereoscopic projection map-making instrument; **2,552,975**, same, Photogrammetric projection machines, **filed** Apr. 21, 1958, D. C. Md. (Baltimore), Doc. 10516, *Kelsh Instrument Co., Inc. v. The Instruments Corp.*

2,493,119, T. R. Duncan, Musical instrument having pluckable teeth; **2,504,666**, same, Melody combs; **2,630,655**, same, Musical toy vehicle; **2,649,652**, same, Method of making melody comb, **filed** Apr. 16, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 348/58–HW, *Ted Duncan, Inc. v. Mattel, Inc.*

2,504,666. (See 2,493,119.)

2,505,648. (See 2,283,273.)

2,518,429, W. H. Moorhead, Percussive tool appliance, **filed** Feb. 12, 1958, D. C., N. D. Ohio (Cleveland), Doc. 34260, *Samuel J. Forbes et al. v. L. W. Maxwell et al.* Consent decree; defendants enjoined Apr. 17, 1958.

2,552,975. (See 2,492,870.)

2,555,607, J. W. Robinson, Separation of immiscible liquids, **filed** May 4, 1956, D. C. N. J. (Newark), Doc. 382/56, *Selas Corp. of America et al. v. Purolator Products, Inc.* Claims 1, 3, and 10 held invalid; complaint dismissed (notice Apr. 21, 1958).

2,561,520, Lemmens and Dorgelo, Vacuumtight seal for electrical apparatus and method of forming such seals, **filed** Apr. 23, 1958, D. C. R. I. (Providence), Doc. 2334, *North American Philips Co., Inc. v. Glasstite Industries, Inc.* **Same, filed** Apr. 24, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18656, *North American Philips Co., Inc. v. General Transistor Corp.*

2,630,655. (See 2,493,119.)

2,635,717, H. P. Albrecht et al., Connecting structure, **filed** Nov. 10, 1955, D. C., E. D. Wis. (Milwaukee), Doc. 55c804, *Waco Mfg. Co. v. The Patent Scaffolding Co.* Stipulation and order dismissing action with prejudice Apr. 16, 1958.

2,649,652. (See 2,493,119.)

2,697,607. (See 2,104,032.)

2,697,606. (See 2,104,032.)

2,702,415, W. Wagner, Replacement gasket for refrigerator doors, **filed** June 13, 1955, D. C., E. D. N. Y. (Brooklyn), Doc. 15638, *Wagner Tool & Supply Corp. v. Halsey Supply Co.* Consent judgment Apr. 24, 1958.

2,745,641, W. H. Jacobs, Beverage dispenser, **filed** Aug. 10, 1956, D. C., W. D. N. Y. (Buffalo), Doc. 7135, *Jet Spray Cooler, Inc. et al. v. Buffalo Merchandise Exchange.* Stipulation of dismissal Apr. 22, 1953.

2,767,807, W. K. McGinty et al., Recessed lighting fixture box, **filed** Feb. 7, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18454, *Thomas Industries, Inc. v. Sam Pearlman et al.* Dismissed by plaintiff by stipulation Apr. 18, 1958.

2,816,437, Hornberger and Lewis, Moisture meter, **filed** Apr. 21, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c705, *Central Scientific Co. v. Moore-Milford Corp.*

Re. 21,514. (See 2,104,032.)

Des. 146,119. (See 2,283,273.)

Des. 162,953. (See 2,462,706.)

Des. 162,953 (a), J. Hayward, Knitted slipover adjustable neckline blouse, **filed** Dec. 29, 1955, D. C., S. D. N. Y., Doc. 106/31, *Miami Beach Novelties, Inc. et al. v. Jiffy Fashions, Inc., et al.* Stipulation and order of discontinuance Apr. 18, 1958. **Same, filed** Oct. 4, 1955, same, Doc. 103/397, *Miami Beach Novelties, Inc. v. R. A. F. Distributing Co.* Decree as above.

REISSUES

MAY 27, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,477

BEACH AND GARDEN UMBRELLA AND MECHANISM FOR OPENING AND CLOSING SAME

Samuel N. Small, Valley Stream, N. Y., assignor to Alfred G. Cohen and Paul Weiss, both of Flushing, N. Y.

Original No. 2,782,795, dated February 26, 1957, Serial No. 494,084, March 14, 1955. Application for reissue May 27, 1957, Serial No. 663,569

11 Claims. (Cl. 135—20)



10. In a collapsible umbrella having a collapsible canopy, a tubular post and a canopy opening runner slidable along said tubular post, an elongated latch piece movably mounted in the tubular post, said latch piece having, at end portions thereof, spaced runner engaging means, one means of said latch piece being actuated by the runner to automatically move the other means into runner engaging position in upward movement of the runner on the tubular post, to released runner then engaging said last named means to support the canopy in open position, and means actuating the latch piece upon disengagement of the runner with the second named means, in limited upward movement of the runner from its canopy supporting open position, to automatically move said disengaged second named means into inoperative position to free the runner for downward movement of the post in collapsing the canopy.

24,478

FLEXIBLE GASKETS

Frederick L. Kilbourne, Jr., Woodmont, Conn., assignor to The Connecticut Hard Rubber Company, New Haven, Conn., a corporation of Connecticut

Original No. 2,774,621, dated December 18, 1956, Serial No. 407,525, February 1, 1954. Application for reissue November 13, 1957, Serial No. 697,301

7 Claims. (Cl. 288—23)



5. A gasket constructed principally of cured polydimethylsiloxane elastomer and having around the elastomer a sheathing of a nonelastic macromolecular organic structural material more resistant to liquid chemicals than the polydimethylsiloxane and selected from the class consisting of polytrifluorochloroethylene, polytetrafluoroethylene, a linear fibre forming polyamide containing carboxamide as integral units of the polymer chain polyvinylchloride, polyethylene and polyglycol terephthalate plastic said gasket having closed path grooves and closed path ridges on substantially all extended surfaces of the gasket to provide corrugated surfaces longitudinal of the gasket, whereby deformation of the gasket under normal compressive forces flexes portions of the corrugated nonelastic sheathing into a projected area different from that covered by the undeformed gasket.

PLANT PATENTS

GRANTED MAY 27, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,711

ROSE PLANT

Walter E. Lammerts, Livermore, Calif., assignor, by mesne assignments, to Germain's, Inc., Van Nuys, Calif., a corporation of California

Application September 19, 1957, Serial No. 685,054

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its tall, vigorous and compact habit of plant growth, its habit of branching very freely from the base of the plant, its large and glossy dark green foliage, its long, pointed buds which open readily even in cool weather into flowers of good form, its habit of flowering both singly and in clusters of candelabra form, with both the single and cluster flowers borne on long stems suitable for cut flower use, and the distinctive Rose Red general color tonality of its flowers.

1,712

ROSE PLANT

Maurice Combe, La Galochere par St. Martin d'Heres, France, assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application October 7, 1957, Serial No. 688,796

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid tea class, substantially as herein shown and described, characterized particularly as to novelty by its dark colored Van Dyke Red young growth, the attractiveness of its buds, the large size of its flowers, the distinctive Geranium Pink general color tonality of its flowers, with their petal centers lightly overcast with Scarlet Red, and the firm retention of the flower color.

1,713

PEACH TREE

Albert W. Maffey, Modesto, Calif.

Application October 11, 1957, Serial No. 689,739

1 Claim. (Cl. 47—62)

A new and distinct variety of peach tree, as illustrated and described, characterized by medium to large sized freestone fruit having generally white flesh streaked with red next to the stone, and of fine texture and flavor; further characterized by skin having scant down and a light green color overspread adjacent the base with rose; additionally characterized—as compared to the Nectar peach—by general resemblance in size, flavor, and color, but having a later harvest season, occurring on the average in the latter part of August and the early part of September; and still further characterized—as compared to the freestone Strawberry peach—by such later harvest season, a more austere flavor, and a greener skin color.

PATENTS

GRANTED MAY 27, 1958

GENERAL AND MECHANICAL

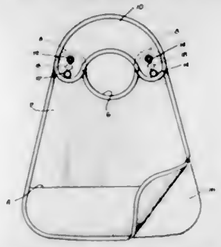
2,835,894
EXPLOSION-OPERATED TOOL
Herbert Behrend, Duesseldorf-Unterath, Germany
Application November 20, 1952, Serial No. 321,626
Claims priority, application Germany November 21, 1951
9 Claims. (Cl. 1—44.5)



1. A tool for driving a steel pin, bolt, and like object into a construction part; comprising an elongated barrel having a front end and a rear end, said front end of said barrel abutting against said construction part during driving of said object thereagainst, said barrel being provided with a bore extending longitudinally therethrough to form a passageway for a cartridge and for said object to be driven, a hollow, elongated casing surrounding said barrel and movable longitudinally relative to said barrel toward and away from said front end of the latter, respectively, a firing pin disposed within said casing rearwardly of said barrel and in alignment with said bore and movable longitudinally thereof, resilient means in said casing and operatively connected to said firing pin for exerting a forward biasing force on said firing pin, releasing means in said casing and manually actuatable from without the latter for releasably restraining said firing pin against longitudinal movement toward said barrel bore under the force of said resilient means, a splinter-guard sleeve slidably disposed within said casing and surrounding one portion of said barrel adjacent said front end thereof and having a front part and a rear part, sleeve means disposed within said casing and surrounding another portion of said barrel positioned rearwardly of said splinter-guard sleeve, said sleeve means having its forward extremity abutting against said rear part of said splinter-guard sleeve, and means releasably connecting said sleeve means with said casing for forward movement therewith toward said front end of said barrel, whereby said splinter-guard sleeve may be moved by said casing and said sleeve means toward and for abutment against said construction part, said splinter-guard sleeve being operable, upon abutment against said construction part, to impede said forward movement of said sleeve means and to disconnect the latter from said casing to thereby permit said casing to move further toward said front end of said barrel and cause said resilient means to exert said forward biasing force on said firing pin, whereby, upon actuation of said releasing means, said firing pin is forced toward said barrel for contact with said cartridge.

2,835,895
CHILD'S BIB
Florence Ceil Wells, New York, N. Y.
Application September 5, 1956, Serial No. 608,054
1 Claim. (Cl. 2—49)

As an article of manufacture, a baby's bib comprising, in combination, a bib body member the upper end of which is shaped to provide an upwardly projecting flap at each side of the bib; an intermediate concaved area which is adapted to conform to the front portion of a baby's neck, said flaps projecting upwardly beyond the lower end of said concaved area; a neckpiece for the bib shaped to conform to the back of the baby's neck; a snap fastener element fixedly secured to the front face of each of said flaps; a plurality of snap fastener elements fixedly secured to the ends of said neckpiece and disposed in aligned relation lengthwise of the neckpiece, said last-named snap fastener elements being selectively engageable with the first-mentioned snap fastener elements for attaching the neckpiece to the bib body member, to provide a neck opening capable of being varied in size; a moisture-



absorbent, protective backing for the bib body member, the upper end of said backing conforming to the shape of the upper end of said body member; a snap fastener element fixedly secured to the two upper corners of the said protective backing; and cooperating snap fastener elements secured to the rear face of each of said flaps of the body member to provide for removably attaching the said backing to said body member with the upper end of the body member and of the backing in register with each other.

2,835,896
HAND-WARMING MUFF
Alfred F. Giese, Boy River, Minn.
Application August 10, 1954, Serial No. 448,812
1 Claim. (Cl. 2—66)



A hand-warming muff for use by a person engaged in outdoor activity in cold weather, said muff comprising a pocket having a water repellent exterior cover and having an insulating interior lining defining a hand-warming interior chamber, said pocket being of somewhat elongated shape and having open end portions defining a pair of enlarged openings to the interior of the pocket, said openings each having an upper portion and a lower portion, said pocket having a plurality of lacing apertures adjacent the lower portions of said openings, and a pair of lacings each removably carried in the apertures of a respective end portion of the bag and normally maintaining the lower portion of the corresponding opening in closed relation, said upper portions of said enlarged opening being normally maintained in open relation to permit insertion of the hands of such a person

into the interior of the pocket, whereby the end portions of said muff may be substantially completely opened to permit easy and ready access to the interior of said pocket for cleaning the same.

2,835,897
COMBINATION OUTER AND UNDER GARMENT
Anna T. Scruggs, Enid, Okla., assignor to Karoll's, Inc., Chicago, Ill., a corporation of Illinois
Application October 12, 1954, Serial No. 461,739
1 Claim. (Cl. 2—71)



A combination outer and under garment for females, comprising a bodice section, a skirt section, a panty inside of said skirt section, the lower margin of said bodice section and the upper margins of said skirt section and panty being sewed together entirely around the waistline of the garment, the bodice section having a neck opening and arm openings, the bottom margins of the skirt section and panty, and the surrounding margins of the neck opening and arm openings being constituted by closed seams, and the bodice section, skirt section and panty, except for the arm openings, being continuous and unbroken completely around the garment, said panty including a hip enveloping portion, a rear strap portion integral with and extending from the lower end of the hip enveloping portion at the rear of the panty, a front strap portion integral with and extending from the lower end of the hip enveloping portion at the front of the panty, and means respectively on the rear and front strap portions for releasably fastening the portions together at one location to provide a crotch strap between leg openings through the lower end of the hip enveloping portion, and the closed seam in the bottom marginal edge of the panty being continued around the marginal edges of the strap portions.

2,835,898
METHOD OF MAKING SHIRTS AND THE LIKE
Alexander Haberman, New York, N. Y.
Application December 21, 1954, Serial No. 476,778
2 Claims. (Cl. 2—115)



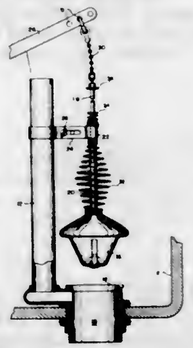
1. The method of manufacturing open front shirts which comprises, accordion folding transversely to its length, an indefinite length of fabric of uniform width to provide a multiplicity of superposed registering plies and simultaneously cutting from said superposed plies primary blanks including the unitary body portion of an open front shirt consisting of two front sections, a back section and a neck section, the combined widths of the two front sections and the back section being equal to the full width of the fabric and the length of the body portion being substantially equal to the length of the accordion folded fabric between consecutive folds, the cutting of said blanks leaving in the areas of the plies outside of the body portion secondary blanks including the lines of fold in the accordion folded fabric and having double the area symmetrical with the lines of fold which are sufficiently large when unfolded to form the collar band, the collar and the cuffs for the shirt, and cutting from said double areas of plies of the secondary blanks while retaining the lines of folds therein, the collar band, the collar and the cuffs for the shirt.

2,835,899
COMBINATION HOOD AND CARRIER POCKET
Randolph Monro, Mountain Village, and Pearl Elizabeth Lackey, Edgewood, Md.
Application May 12, 1952, Serial No. 287,408
2 Claims. (Cl. 2—202)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A flexible, foldable gas mask hood having an open neck portion which can be closed about the head of the wearer, said hood having lens and air openings and comprising a foldable main body section having a small attached flap, said flap being secured on three of its sides to the body portion of the hood to form a pocket, the fourth side of said flap constituting a lapel equipped with a fastener element, a second complementary fastener element attached to the body portion of the hood within said pocket such that when the pocket is turned inside out over the folded hood the fastener elements are in position to engage and to form a closed package for the hood.

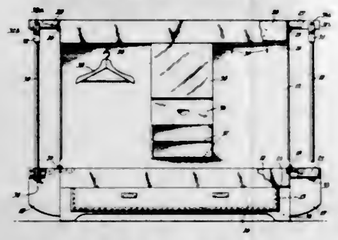
2,835,900
OPERATING MECHANISM FOR TOILET FLUSH TANK VALVE
Stanley F. Gleason, Philadelphia, Pa.
Application September 13, 1955, Serial No. 534,132
6 Claims. (Cl. 4—67)



1. A valve mechanism for use with a toilet bowl flush tank of the type which includes a discharge pipe leading from the bottom thereof to a toilet bowl, a valve seat between said discharge pipe and said tank, said mechanism including a ball valve for engaging said seat to stop the flow of water from said tank to said pipe, an actuating lever operative to raise said ball valve off said seat and a compression spring operable, when said ball valve is

raised off said seat, to bias said ball valve back toward its seat, the force of said spring being sufficient to overcome the buoyancy of the ball valve to force the latter toward its seat in the presence of water in said tank, and the range of action of said spring being such that when the spring is fully distended, said ball valve does not fully engage said seat, whereby said ball valve moves to full seating position independently of said spring, and means for preventing the movement of the ball valve toward its seat beyond the extent necessary to insure full engagement of the ball valve with said seat.

2,835,901
CONVERTIBLE SOFA OR PASSENGER SEAT
Edward K. Mills, Jr., Morristown, N. J.
Application April 6, 1955, Serial No. 499,678
6 Claims. (Cl. 5—9)



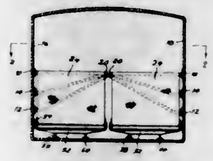
1. A convertible sofa comprising a base, a built-in lower berth mattress mounted in said base, side arms pivotally connected to said base and resting on either end of said mattress, said arms being foldable downwardly to provide cushioned extensions for said mattress, said base further including a back wall, a back rest cushion hingedly secured to the upper end of said back wall, said back rest cushion when elevated forming an upper berth mattress, a pair of extension flaps pivotally connected to either end of said back rest cushion and foldable thereagainst, said flaps when extended outwardly forming an extension of said upper berth mattress, and removable rods extending upwardly from said downwardly folded side arms to said outwardly extended flaps to support said upper berth mattress.

2,835,902
LIFTING SHEET
Bernice Fash, Hillside, Ill.
Application May 24, 1955, Serial No. 510,691
1 Claim. (Cl. 5—82)



A lifting sheet formed of a sheet of fabric substantially rectangular in plan view and folded upon itself to provide confronting layers with the edges of the layers over-lapping, stitches securing said over-lapping edges together, said folded sheet having an integral seat and a back, said back having parallelly extending slits formed therein in a direction from a transverse edge thereof and providing together with the back an elongated arm sleeve extending along said transverse edge of the back and opening through said slits from the opposite side edges of the back, said sheet on the side edge portions of said seat providing spaced parallelly extending slits providing therebetween an arm sleeve extending toward the forward edge portion of the seat, and a hand strap formed in each of said side edge portions of the seat at the forward end of said last named arm sleeve.

2,835,903
MEANS FOR CONVERTING A STATION WAGON TO SLEEPING ACCOMMODATION
Gerard Eugene Roy, Encinitas, Calif.
Application October 4, 1955, Serial No. 538,455
2 Claims. (Cl. 5—118)



1. Means for readily converting the interior of a motor vehicle of the type known as a station wagon and which includes a floor and at least one vertical side wall extending from the front to the rear of the vehicle, into a bedchamber comprising a readily mountable and demountable sleeping cot, said means including a first set of spaced, angularly arranged brackets secured to said side wall near the front end thereof, a second set of angularly arranged brackets secured to said side wall near the rear end thereof, a first threaded member carried by one of the first set of brackets, a second threaded member carried by one of the brackets of the second set of brackets, studs carried by the other brackets of each of said sets of brackets, a first arm having one end thereof tapped for engagement with said first threaded member, a second arm having an end thereof tapped for engagement with said second threaded member, a first set of arms having hollow ends for receiving the studs of the first set of brackets, a second set of arms having their ends hollow for receiving the studs of the second set of brackets, a first finial engaging the other ends of all of the arms associated with the first set of brackets to form a first tripod projecting inwardly from said side wall, a second finial for engaging the other ends of all of the arms associated with said second set of brackets respectively to form a second tripod projecting inwardly from said side wall and spaced from said first tripod, means for detachably securing said first and second finials to the ends of their respective arms, and a horizontal support carried by said first and second tripods.

2,835,904
CABINET BEDS
Jack C. Von Ehr, Chicago, Ill., assignor to Craft Way, Inc., a corporation of Illinois
Application March 28, 1955, Serial No. 497,140
3 Claims. (Cl. 5—136)

1. A cabinet having a front opening and a recess rearwardly of said opening, a folding bed structure in said recess comprising a bed frame pivoted in the recess on a horizontal axis near the lower end of said opening so that the bed frame when swung down and outwardly through about a right angle will move into a substantially horizontal sleeping position, a front board pivoted to the bed frame on a horizontal axis and hanging from said frame so as to form a leg for supporting the outer edge of the frame when the frame is in sleeping position, and a link connecting a point on said front board spaced from the board pivot with a point within the recess so spaced from the frame pivot that the board will assume a substantially vertically hanging position when the bed frame is folded, and in such position will form a panel

section closing the upper part of said opening and will also control the movement of the board into leg position when the frame is extended into sleeping position, a panel section for closing the lower part of said opening, hinged to the front of the cabinet on a horizontal axis near the lower end of the opening, and means connecting



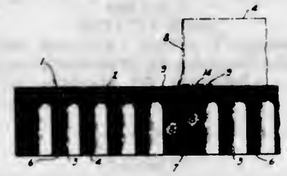
said lower panel section to said link so as to swing the said lower panel section from a position under the bed structure, which said lower panel occupies when the frame is in sleeping position to a substantially vertical front position closing the lower part of said opening when the frame is folded.

2,835,905
PILLOW
Helgi Tómasson, Reykjavik, Iceland
Application June 8, 1954, Serial No. 435,259
Claims priority, application Denmark October 21, 1953
2 Claims. (Cl. 5—338)



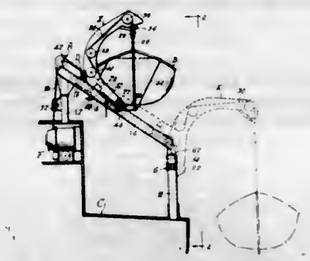
1. A pillow which will support the upper arms, the shoulders, the uppermost part of the back, the neck and the head of a person lying down, said pillow having a substantially flat under side, a smoothly curved, continuous top surface, a substantially straight posterior edge portion of substantial thickness, an anterior edge portion of substantially lesser thickness than said posterior edge portion, two lateral edge portions each having a maximum thickness at a distance from the posterior edge portion and tapering down to substantially less thickness at the anterior edge portion of the pillow, said anterior edge portion of the pillow being interrupted by a central semicircular recess, the pillow edge of the innermost portion of said semicircular recess extending abruptly upwardly and inclining backwardly in the direction of said posterior edge portion and continuing into a broad convex area of thickening of the central half of the portion of the pillow between said anterior edge portion and said posterior edge portion, the top surface extending from said posterior edge portion to said anterior edge portion of the pillow being continuously curved to define a shallow depressed portion in the center of the top surface between the two lateral edge portions, the lateral portions of the top surface of the pillow adjacent said recess and on each side of said center of the top surface tapering in the direction of said anterior edge portion from a maximum thickness corresponding to the thickness at substantially said center to a substantially lesser thickness at the anterior edge portion.

2,835,906
FOAM RUBBER MATTRESS
Ralph Robbins, Jamaica, N. Y.
Application May 7, 1954, Serial No. 428,164
2 Claims. (Cl. 5—351)



1. A rectangular shaped sponge rubber mattress having unbroken top and side surfaces and a multiplicity of core holes in its bottom surface, means including an incision having a width that is a small fraction of an inch extending substantially across the width of the mattress in the middle portion thereof and terminating within about two inches from each of said side surfaces providing a hinge portion for the mattress so that the top surfaces of the mattress can be readily folded against one another through 180 degrees, and means for reinforcing said hinge portion comprising a pair of narrow woven strips molded integral with the mattress, one of said strips extending substantially the full length of said groove and having its opposite side edges at the marginal edges of said groove and the other of said strips being integrally joined to the mattress on opposite sides of said groove and having end edges adjacent the top marginal side edges of said mattress.

2,835,907
GRAVITY DAVIT AND SHOCK ABSORBER THEREFOR
John P. Harkrader, Mantoloking, N. J.
Application November 21, 1955, Serial No. 548,089
3 Claims. (Cl. 9—38)



1. A ship's davit comprising a supporting frame, a davit arm pivotally mounted on said frame for inboard and outboard rotation, means for suspending a boat on the davit arm and for controlling inboard and outboard movement of the davit arm, yieldable means interposed between said frame and the davit arm when the latter approaches the limit of its outboard movement, said yieldable means possessing a yielding resistance in excess of the pressure exerted thereon through the davit arm by the peak load on the davit arm when the davit arm is at the limit of its outboard movement, thereby providing yielding restraint of such outboard movement and relief of the "hump" load on the davit arm at the start of the inboard movement of the davit arm, a track on said frame, a carriage mounted on said track for inboard and outboard movement and to which said davit arm is pivotally connected intermediate the ends of the davit arm, the first-mentioned means being connected to one end portion of said davit arm at one side of said pivotal connection, and said yieldable means being interposed

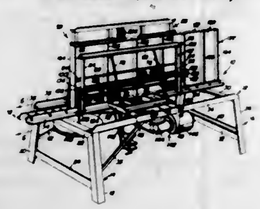
between said frame and the other end portion of said davit arm at the other side of said pivotal connection when the davit arm is in its outboard position.

2,835,908
SHOE FITTING
Howard V. S. Mott, La Grange, Mo.
Application December 21, 1953, Serial No. 399,490
2 Claims. (Cl. 12—142)



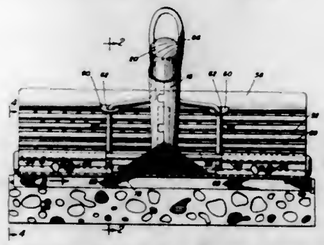
1. The method of making a shoe to fit a particular foot which comprises placing the foot in the angle of a square so that the rear of the heel is tangent with one leg of the square and both the inside of the heel and the medial aspect of the distal end of the first metatarsal bone are tangent with the second leg of the square, measuring the distance between the locus of tangence with said medial aspect and the vertex of said angle, measuring the distance between said medial aspect and the lateral aspect of the distal end of the fifth metatarsal, measuring the displacement parallel with said second leg of the square between said medial aspect and said lateral aspect, determining the dimensions of a last in the three respects aforesaid, and constructing the shoe on said last, whereby said three dimensions correspond substantially with the aforesaid three foot meaurements.

2,835,909
CONCRETE FORM CLEANING MACHINE
Sumner E. Carlstrom, Mankato, Minn.
Application September 9, 1957, Serial No. 682,835
2 Claims. (Cl. 15—77)



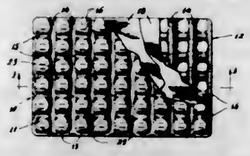
1. A machine for cleaning panel type forms, comprising a support assembly, a pair of vertical guide structures fixed to said support and disposed in horizontally spaced relation to each other to define a passageway therebetween, each of said guide structures including an elongate base member having a vertical leg, said legs being disposed in spaced parallel relation and each journalling a series of supporting rollers thereon for supporting a panel type form for movement through said passageway, one of said guide structures carrying a plurality of fixed brushes facing the other guide structure for engaging the face of a form moving through said passageway, drive means mounted on said other guide structure for imparting movement to a form, said drive means including a pair of sprockets mounted at opposite ends of said other guide structure for rotation about vertical axes and an endless chain trained about said sprockets in encircling relation to said other guide structure, means for rotating one of said sprockets, and said chain having a plurality of lugs projecting therefrom for engaging and moving a panel type form through said passageway.

2,835,910
WRINGER MOP HINGING CONSTRUCTION
William E. Kautenberg, Freeport, Ill., assignor to W. E. Kautenberg Co., Freeport, Ill., a corporation of Illinois
Substituted for abandoned application Serial No. 261,445, December 13, 1951. This application April 20, 1953, Serial No. 349,725
11 Claims. (Cl. 15—119)



1. In a hinging construction for a wringer mop having a mop head plate extending transversely, and a wringer plate of substantially the same length as the head plate; the head plate and the wringer plate each having hinging means along one edge thereof except at a recess centrally of the edge, U-shaped hinging wires inserted in the hinging means at each end of the head plate and wringer plate and extending inwardly thereof, and a hinging plate having opposite hinging means engaging the inner ends of the hinging wires in said reecss for connecting the head plate and wringer plate and spacing them apart and providing a double hinging connection therefor, the ends of each wire extending into said hinging plate, and means at one end of each wire for locking the wire into engagement with the head plate, the wringer plate, and the hinging plate.

2,835,911
DETERGENT CONTAINING CLEANSING PAD
Richard S. Mahmarian, New York, N. Y.
Application April 22, 1953, Serial No. 350,495
11 Claims. (Cl. 15—131)



11. A cleansing pad comprising a soft, pliant, body formed of whipped foam rubber impervious to liquids, having a waffle-like wrinkled surface, an enclosed pocket, and capillary passages leading from the pocket to the outer surfaces of the pad and a quantity of liquid detergent composition within said pocket adapted to be expressed therefrom through said capillary passages upon the application of pressure to the pad.

2,835,912
TOOTHBRUSH HANDLES
Mollie Pensky, Brooklyn, N. Y.
Application November 2, 1953, Serial No. 389,595
1 Claim. (Cl. 15—143)

A toothbrush comprising a head, an elongated handle formed integrally with the head, said handle being a substantial flattened oval in cross-section, bristles depending from one face of the head, and a finger gripping extension on the handle, said extension constituting opposed wedge-shaped wings extending laterally of the side edges



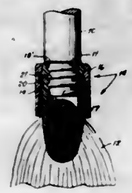
of the handle midway the ends of the toothbrush, said wings being integral with the handle and having flat outer edges terminating in straight end edges, the surfaces of said wings being concaved constituting concaved seats for the fingers of the hand of the user.

2,835,913
ADJUSTABLE PAINT BRUSH
Salvatore Di Giacomo, Chicago, Ill.
Application April 4, 1955, Serial No. 498,899
2 Claims. (Cl. 15—172)



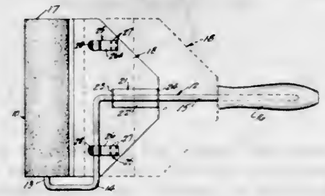
1. An adjustable brush comprising a handle having a relatively long narrow handle portion and a relatively short wide head portion, a brush head of substantially the same width as the head portion of said handle pivotally mounted on said head portion at the free end and to one side thereof, a thin sheet metal band secured at one end to the side of said brush head opposite the pivotal mounting thereof, said band being of a width and length less than the corresponding dimensions of said head portion, and means slidably connecting said band to said head portion at the side thereof opposite said pivotal mounting of said brush head, said band being flexible transversely of the plane thereof and slidable with respect to said handle to accommodate pivotal adjustment of said brush head to various angular positions relative to said handle, said band in all positions thereof being confined within the area defined generally by the margins of said brush head and said head portion, said means at least frictionally engaging said band for retaining said band in various positions of adjustment with respect to said head portion, said band being sufficiently rigid and being retained in adjusted position on said head portion by said means to retain said brush head in adjusted angular position.

2,835,914
MOP HAVING DETACHABLE HEAD
Louis A. Littleton, Point Pleasant, N. J.
Application March 21, 1956, Serial No. 572,910
2 Claims. (Cl. 15—229)



1. A mop comprising a handle formed with a threaded end portion, a mop bundle, an elongate element constructed of bendable plastic material having an intermediate strap section folded about said bundle and having a hollow substantially semi-cylindrical section with a flat, facing edge at each end of said strap section constructed and arranged to provide a hollow substantially cylindrical section, said facing edges having complementary pins and recesses for interlocking the semi-cylindrical sections into a cylindrical section, and a ferrule having said cylindrical section secured therein, said cylindrical section being internally threaded and said handle portion being threadedly secured therein.

2,835,915
ROLLER BRUSH SPLASH GUARD
Oscar Pearson, Minneapolis, Minn., assignor of one-half to Vincent C. Hermstad, Minneapolis, Minn.
Application November 14, 1952, Serial No. 320,410
4 Claims. (Cl. 15—248)



3. A splash guard for a roller paint brush of the type having an elongated rearward handle substantially normal to the axis of the roller element and attached to an elongated interconnecting member lying substantially parallel to and rearwardly of the axis of said roller element, said splash guard comprising a fender member for overlying in spaced clearance the transverse length of the roller and having a rigid rearwardly formed extension, and mounting means for securing the splash guard to the roller brush, said mounting means consisting of a latch positioned medially of the extension for gripping the elongated rearward handle, a first laterally positioned latch adjacent one side edge of the splash guard for gripping the elongated interconnecting member, and a second lateral latch member positioned adjacent the opposite side edge for gripping said interconnecting member when the roller paint brush is inverted side-for-side with respect to the splash guard.

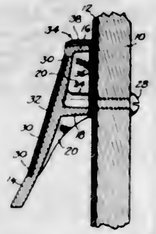
2,835,916
COMBINATION SPRAY AND WIPER ARRANGEMENT FOR WINDSHIELDS AND THE LIKE
Hermann Mittag, Stuttgart-Botnang, and Gottlob Bacher, Stuttgart-Wellimdorf, Germany, assignors to Robert Bosch G. m. b. H., Stuttgart, Germany
Application June 27, 1955, Serial No. 518,212
Claims priority, application Germany June 29, 1954
5 Claims. (Cl. 15—250.4)



1. A combination spray and wiper arrangement for windshields and the like, comprising, in combination, a shaft; bearing means supporting said shaft for angular oscillation about its axis; wiper means for wiping a windshield or the like, said wiper means being fixed to said shaft for oscillation therewith; nozzle means for directing liquid onto the windshield or the like; connecting means frictionally connecting said nozzle means to said shaft for turning movement therewith except when said nozzle

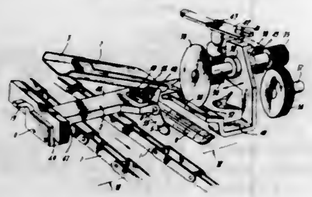
means is held against turning movement; and stop means engaging said nozzle means shortly before the end of each stroke of said wiper means for preventing said nozzle means from turning with said shaft as said wiper means approaches the end of each of its strokes.

2,835,917
DOOR AND DRAWER PULL
Edwin T. Smythe and Stewart F. Murphy, Tacoma, Wash., assignors to Washington Steel Products, Inc., Tacoma, Wash., a corporation of Washington
Application October 30, 1956, Serial No. 619,244
2 Claims. (Cl. 16—124)



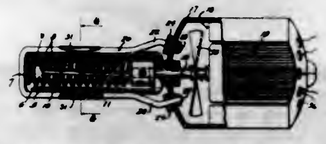
1. A door and drawer pull comprising a pull body, a base projecting from the upper portion of the body and dimensioned to maintain the lower portion of the body spaced from a supporting panel, the base having at least two spaced threaded apertures therein adapted to receive threaded fastening means for securing the pull to a panel, an angled plate having a back section and a top section, the back section having spaced openings therethrough registering with the apertures in the said base, the top section extending forwardly from the upper end of the base section a spaced distance above the pull body, and the top section having a downwardly offset forward section engaging the top of the pull body and forming a seal therebetween.

2,835,918
FISH HEAD AND TAIL CUTTER
Karl Friedrich Schlichting, Lubeck, Germany, assignor to Nordischer Maschinenbau Rud. Baader, Lubeck, Germany
Application November 22, 1955, Serial No. 548,447
3 Claims. (Cl. 17—4)



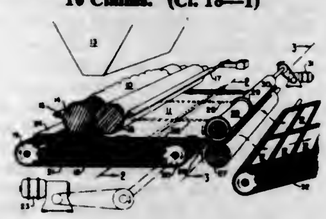
1. In a fish-dressing machine in combination with an endless conveyor and a cutter located adjacent thereto; a bar carried upon said conveyor and extending transversely to the direction thereof, said bar having a forked end, a fish holder located above said bar and having end projections extending into said forked end, a pin extending through said forked end and said projections, whereby said fish holder is swingable about said pin, and a cover located above said fish holder and connected to one side thereof, said cover being spaced from said fish holder to permit a fish to slide upon said fish holder, said cover having an end extending toward said fish holder and spaced therefrom to provide a slot sufficient for the passage of the tail fins of the fish, but not for the body thereof.

2,835,919
POWER OPERATED FISH SCALER
Bearl E. Colburn and Lee Colburn, Green Bay, Wis., assignors, by mesne assignments, to Homeward Products, Inc., a corporation of Wisconsin
Application April 16, 1956, Serial No. 578,329
9 Claims. (Cl. 17—5)



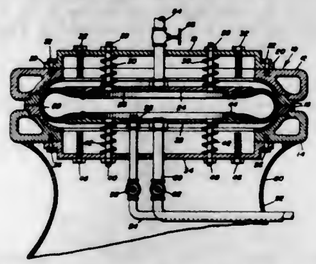
2. A fish scaler including a cylindrical rotor provided peripherally with alternating channels and lands extending circumferentially and lengthwise thereof, said lands being interrupted by at least one longitudinally extending groove, said groove forming the lands with longitudinally disposed cutting surfaces and the channels between the lands forming the confronting sides of the lands with circumferentially disposed cutting surfaces, said cutting surfaces coacting to provide scaling teeth having cutting edges.

2,835,920
PROCESS AND APPARATUS FOR FORMING PLASTIC MATERIALS
Merrill M. Smith, Yardley, Pa., and William C. Bleher, West Roxbury, Mass., assignors, by mesne assignments, to American Biltrite Rubber Company, Inc., a corporation of Delaware
Application January 9, 1957, Serial No. 633,362
10 Claims. (Cl. 18—1)



7. Apparatus for feeding hot flexible plastic sheets, comprising a wire mesh conveyor, and a series of stationary transversely spaced rods extending longitudinally above the conveyor and in close proximity to its upper surface and acting to support a sheet in partial contact with the conveyor.

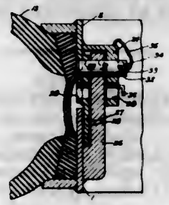
2,835,921
MOLD CONSTRUCTION
Eldridge S. White, Florence, Ala., assignor to Robbins Tire & Rubber Company, Inc., Tuscumbia, Ala., a corporation of Alabama
Application August 27, 1953, Serial No. 376,864
7 Claims. (Cl. 18—18)



1. A device for use with a tire retreading mold of the type having two relatively movable annular mold

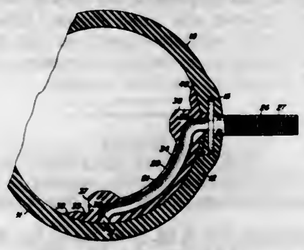
sections with a central opening through each section whereby to receive within said sections a tire to be retreaded with the beads of the tire projecting into the central openings of said section; said device comprising a pair of supports, means rigidly securing each support to a mold section in a position overlying the central opening thereof, a tire engaging plate of less diameter than the central opening in said sections and adjustably carried by each support, means on each plate for sealing engagement with the exterior surface only of the bead of a tire, means carried by each support urging the associated plate into a tire engaging position, stop means carried by each support for limiting outward movement of the associated plate whereby to maintain the shape of an inflated tire in said mold.

2,835,922
CURING RIMS FOR TUBELESS TIRES
Anthony T. Fassero and James R. Maddox, Oakland, Calif.
Application August 3, 1956, Serial No. 601,914
7 Claims. (Cl. 18—18)



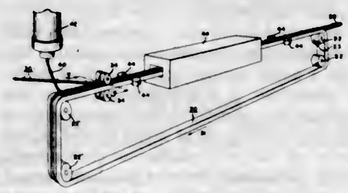
4. A curing rim comprising a pair of generally cylindrical rim sections, a cylindrical flange extended at right angle from each rim section so as to confine a bead holding space therebetween, a ring pad on each rim section adjacent to the said flange, a connecting flap pad between the said ring pad to cover the intermediate portion of the rim and means to releasably lock the rim sections together, each of said ring pads having frustoconical face inclined toward the middle of the rim at an angle generally corresponding to the angle of the respective periphery of the bead of the respective beads, and said center flap being tapered at its edges and a socket formed under the inner edges of said pads to receive said tapered edges respectively, said center flap being transversely dished so that its convex side faces outwardly of the rim and receives sealing pressure from air pressure in the tire on said rim.

2,835,923
CURING BAG DRAINER ASSEMBLY
Edward Stanley Robbins, Killen, Ala., assignor, by mesne assignments, to Robbins Tire and Rubber Company, Inc., Tuscumbia, Ala., a corporation of Alabama
Application June 26, 1956, Serial No. 593,933
5 Claims. (Cl. 18—45)



1. A drain device for a curing bag having inlet and outlet stems, comprising an elongated pliable body member having an opening extending therethrough and a longitudinally extending planar face at one side thereof, said body member having a groove adjacent one end thereof in said planar face communicating with said opening and disposed transversely of said opening and open at opposite ends, whereby said drain device when disposed in a curing bag with said planar face secured to the inside of said bag, serves to remove liquid accumulated in said bag when said groove is positioned with the ends thereof at the lowest interior portion of said bag.

2,835,924
METHOD OF MOLDING RUBBER FOAM LATEX STRIPS AND THE LIKE
William H. Schmeling, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 18, 1954, Serial No. 404,576
5 Claims. (Cl. 18—53)



1. In a method for continuously forming a composite elastomeric strip wherein one of the portions thereof is formed of a molded fluid foamy material, the steps comprising in combination; sequentially moving a plurality of individual segments each having an open cavity along one surface into aligned abutting relation for forming an extending mold part having an open cavity of predetermined length therealong, moving an indeterminate length of a preformed strip portion from a separated to an engaging position with said mold part to form a closed elongated mold cavity, filling said elongated mold cavity progressively with a fluid foamy compound by continuously flowing said compound into said cavity through a filling nozzle extending directly into said cavity while moving said mold cavity lengthwise relative to said nozzle, maintaining said mold cavity closed while the foamy material therein sets and integrally attaches to the preformed portion of said strip and forms a composite strip having a portion thereof having the shape of said cavity, and progressively removing said composite strip consisting of a portion of said preformed portion and the formed portion of foamy material from said cavity while said cavity contiues to travel in a reusable form.

2,835,925
NYLON EXTRUSION
Donald D. Proctor, Seaford, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 10, 1955
Serial No. 507,471
3 Claims. (Cl. 18—55)

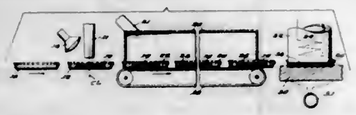
1. In operation of an extrusion system to extrude discontinuously molten polymer susceptible to forming a gel, the improvement comprising replacing the said gel-susceptible polymer in the system with polymer not susceptible to gelling before discontinuing operation of the system and maintaining the gel-in-susceptible polymer in the system during cessation of extrusion operations.

2,835,926

ART OF MAKING CLOSURE MEMBERS BY DEPOSITING AND CURING A COMPOUND IN THE CLOSURE SHELL AND THEREAFTER MOLDING

Curtis E. Maier, Riverside, Halford E. Brockett, Lombard, and Ralph A. Larson, Chicago, Ill., assignors to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application November 8, 1950, Serial No. 194,686
3 Claims. (Cl. 18—59)



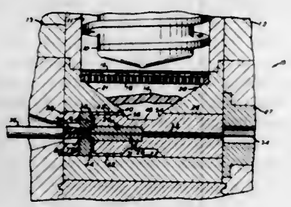
1. The method of forming sealing pads for closure seals, which comprises depositing in a closure shell to form a mass substantially at the center of the shell a quantity of a semi-liquid paste composition consisting for essential components thereof of a normally liquid plasticizer and a finely divided resin which is paste-forming with the plasticizer at a temperature below the fluxing temperature of the resin-plasticizer components, said composition being capable upon being heated to the fluxing temperature of the resin-plasticizer components thereof of forming a permanent rubbery gel, heating and thereby effecting adhesion of the mass and until the resin particles have completely dissolved into the plasticizer, and thereafter pressing a heated forming plunger against the mass while the closure shell is on a heated support for producing radial outward flow and thereby shaping the same into a sealing pad of the desired contour.

2,835,927

METHODS OF PRODUCING CELLULAR PLASTICS

George E. Henning, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application May 7, 1953, Serial No. 353,548
4 Claims. (Cl. 18—59)



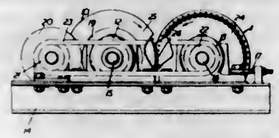
1. The method of extruding a covering of expanded plastic onto a continuously advancing filamentary core, which comprises the steps of forcing a mixture of plastic compound and an expanding agent around the advancing core and through an orifice having a longitudinal cross-section of a conic section and being so highly restricted circumferentially at a portion therein as to cause the ratio of the linear speed of the extruded compound as it is extruded to the linear speed of the advancing core to be approximately 1.67 or greater, and abruptly subjecting the covered core to a pressure drop after passing through the most highly restricted portion of the orifice to cause the agent to expand the mixture into a cellular form having a high percentage of occluded gas therein.

2,835,928

REMOVING THE OUTER SKIN FROM BARK CONTAINING FIBRES

Philip Henry Johnson, Hounslow, England, assignor to The Sudan Gezira Board, Barakat, Sudan, a Sudanese body corporate

Application October 31, 1955, Serial No. 543,775
3 Claims. (Cl. 19—31)



1. Crimping apparatus for producing cracks in the skin of dried bark in which said skin is in a brittle crackable condition, comprising two crimping rolls disposed with their axes parallel and means for rotating said rolls in opposite directions, said rolls each comprising two spaced end discs, wires extending between said end discs parallel with the axis of said roll and spaced from one another and means for maintaining the said wires in tension.

2,835,929

CARDING DEVICES

Roger Taine, Wasquehal, and Jacques Pelissier, Castres, France

Application April 8, 1954, Serial No. 421,804
Claims priority, application France June 12, 1953
4 Claims. (Cl. 19—99)



1. In carding apparatus for fibrous material, a carding unit comprising, in combination, a first running roll member of high speed positioned to receive the fibrous material to be carded from a feeding means, a second running roll member adjacent to and cooperating with said first member to receive fibrous material therefrom and to provide a first carding point between said first member and said second member, said first member being provided with card-clothing means having a low retaining power for fibrous material whereby said first member supplies directly to said second member all of the fibrous material received by it from said feeding means, said second member being of a relatively low speed in relation to the speed of said first member, a third running roll member adjacent to and cooperating with said second member to provide a second carding point and of a relatively high speed, and a fourth running roll member of a relatively high speed and positioned adjacent to said third member and disposed to act as a delivery member, said fourth member also being disposed adjacent to and cooperating with said low-speed second member for directly receiving from the second member fibrous material left thereon by the third member.

2,835,930

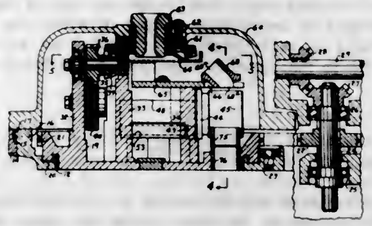
COILER FOR GILL BOX

Jack H. Selby, Twinsburg, Ohio, assignor to The Warner & Swasey Company, Cleveland, Ohio, a corporation of Ohio

Application March 24, 1955, Serial No. 496,485
14 Claims. (Cl. 19—159)

1. In a coiler for coiling a sliver into a sliver can, a rotatable head through which the sliver passes, a support

for said head provided with a central opening and having an annular groove surrounding said opening and forming a bearing and lubricant well, said head having a portion rotatable in said opening and an annular supporting bearing rib spaced radially outwardly from said portion



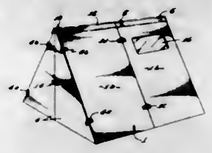
and extending into said groove and rotatably supported by the bottom wall thereof but spaced from the side walls thereof, and antifritcion radial thrust means carried by said support and engagaing the periphery of the head above said rib and maintaining the spaced relationship between said rib and the side walls of said groove.

2,835,931

FOLDABLE SHELTER

Albert Sterkin, Pacific Palisades, Calif.

Application July 6, 1954, Serial No. 441,247
10 Claims. (Cl. 20—2)



5. A foldable tent-like shelter including: opposed side walls; each of said walls including a pair of form-retaining panels hingedly connected for movement between a side-by-side on-edge position and a folded position in which one panel lies over and in substantially parallel relation to the other panel; means hingedly connecting edges of said walls for movement between an erected on-edge position in which the walls converge from the lower edges thereof toward said hinge means and a collapsed position in which said walls lie one over the other; the hinge means connecting said walls being free from connection with one pair of opposed panels of said walls whereby said one pair may be folded back upon the outer sides of the other pair of panels of said walls while said other panels are in said erected position; means releasably holding said one pair of panels against being folded back upon said other pair of panels; a pair of rear panels for closing the rear end of the shelter hingedly connected with one another and with said other pair of panels of said walls, to fold inwardly between the latter; and a pair of front panels for closing the front of the shelter, each front panel being hinged to a panel of said one pair for movement between a closing position and a folded back position.

2,835,932

BEVELED PLYWOOD SIDING

Richard E. Walton, Everett, Wash., assignor to Walton Plywood Company, Inc., a corporation

Application March 23, 1954, Serial No. 418,017
4 Claims. (Cl. 20—5)

1. A bevel siding made from a laminate of at least three plies of substantially equal thickness wherein the grain of each ply runs at right angle to the next adjacent plies, said siding having a butt edge of substantial thickness extending longitudinally thereof and a feather edge, the thickness of which is greater than one ply, extending parallel to said butt edge and spaced therefrom, an outer surface ply of uniform thickness throughout its length and width, an undersurface ply of tapered



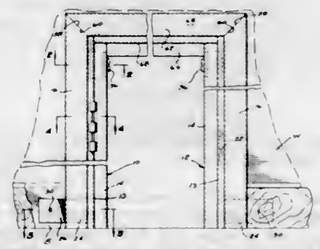
thickness extending from the butt edge toward said feather edge and terminating intermediate the parallel edges, a plastic skin bonded to said outer ply and providing a uniformly smooth surface and sealing the face of said outer ply.

2,835,933

DOOR FRAME

Rupert L. Evans, Kewanee, Ill., assignor to Kewanee Manufacturing Company, Kewanee, Ill., a corporation of Illinois

Application January 21, 1955, Serial No. 483,289
4 Claims. (Cl. 20—12)



1. In a frame for framing an opening in a wall comprising a pair of spaced stiles and a header bridging the stiles, the improvement comprising adjustable means mounted on at least one of said stiles adjacent the top thereof for reacting against the adjacent wall surface and thereby moving said stile outwardly toward the opposite stile and thus determining the spacing of the first named stile from the wall, the abutting ends of the header and stiles being mitered and engaged for relative sliding movement of the mitered surfaces resulting in raising of the header responsive to said adjustable means being actuated to move said first named stile outwardly from said wall surface toward said opposite stile, and abutment means providing overlapping surfaces on said header and stiles connecting said header to said stiles, said overlapping surfaces on said stiles being engageable by said overlapping surfaces on said header to limit sliding movement of said mitered surfaces and lock said header to said stiles with said mitered surfaces in predetermined relationship.

2,835,934

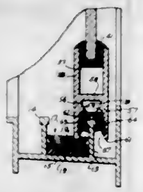
SLIDING WINDOW CONSTRUCTION

Abraham Franzblau and Robert M. Franzblau, Hillsborough County, Fla.

Application June 1, 1955, Serial No. 512,482
7 Claims. (Cl. 20—52.2)

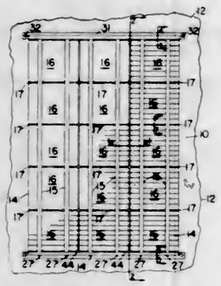
6. A window construction comprising a frame having at least a sill and a header, said sill having two longitudinally-extending, transversely-spaced tracks, a weather

strip unit extending longitudinally of said sill between said tracks, two sashes each including a channel shaped lower sash member having side walls and a bottom wall



and each receiving one of said tracks between said side walls when said sash is positioned in said frame, the edges of the side walls positioned between said tracks contacting said weather strip unit.

2,835,935
HURRICANE SHIELD
Thomas P. Housley, Miami, Fla.
Application December 5, 1955, Serial No. 550,930
2 Claims. (Cl. 20—58)



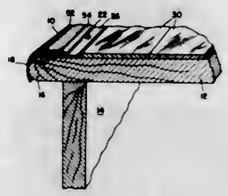
1. A hurricane shield structure for external disposition with respect to window and door openings comprising a head rail having a depending channel portion and a sill rail, means securing said head rail and said sill rail exteriorly above and below the opening respectively, a plurality of removable shield units disposed across said opening and extending between said channel portion and said sill rail, each of said shield units comprising a pair of vertically disposed elongated brace members, a plurality of plates secured to said elongated members in vertically spaced relation with each other to form horizontally disposed air and light admission slots therebetween, each of said plates having horizontally disposed alternate ridge and groove portions with innermost parts of successive groove portions bounding each of said slots, each of said slots being smaller in width than one of said groove portions, each of said shield units being mounted in spaced relation to an adjacent unit to form vertically disposed slots therebetween, a resilient member mounted on the upper end of said elongated members and frictionally engaging said channel portion of said head rail, and fastening means removably securing said sill rail and said lower portion of said elongated members.

2,835,936
FLEXIBLE WOOD FLOOR TILES
Armin Elmendorf, Winnetka, Ill.
Application October 29, 1953, Serial No. 389,116
10 Claims. (Cl. 20—75)

1. A flexible floor tile consisting of a layer of wood, the capacity of which for expansion across the width thereof upon an increase of its moisture from a comparatively dry state to a state of fiber saturation is about one half that of a similar piece of wood of the same species in its natural state, and a moisture resistant, flexible backing bonded to the wood: the wood layer being from .1" to .2" thick and being separated throughout at least substantially its entire thickness into blocks by gaps extending down through the top face of the tile and arranged in two groups in each of which the gaps are parallel to each other and extend from an edge of the tile to the opposite edge, one group being positioned crosswise of and the second group paralleling the general direction of the wood grain, the gaps in the second group, at their narrowest points, having a width while the wood is in such comparatively dry state, slightly less than the maximum expansion of the blocks upon becoming saturated, in use, with moisture, and the backing having a thickness sufficient to allow the face of the wood in contact with one face of the backing to expand and contract without injury to the backing while the other face of the backing is constrained against contraction and expansion.

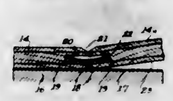


2,835,937
ABRASIVE STAIR TREAD EDGE MOLDING
Frank Hobbs, Seattle, Wash., assignor to Colotrym Company, Seattle, Wash., a corporation of Washington
Application April 5, 1954, Serial No. 421,013
4 Claims. (Cl. 20—79)



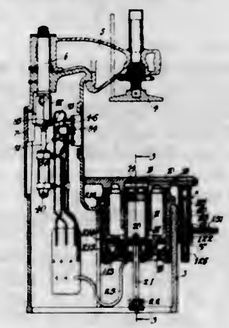
2. A molding for the exposed edge portion of a stair tread, comprising: a flanged body having a tread section to be secured on the upper surface of a stair tread in bordering relation to the nosing edge of the tread and having a lip section depending from the forward edge of the tread section and to cover the exposed nosing edge; said tread section having a concave-convex ridge, intermediate forward and rear portions thereof, extending from end to end; said concave surface being disposed on the under side of said tread section and having an intermediate buttress wall extending longitudinally of the molding and depending from the concave surface to abut the top surface of a stair tread in supporting relation to said concave-convex ridge; the forward and rear portions of the tread section each having an oppositely directed, finger-like flange extending in overlying parallel relation to marginal portions of said convex ridge to thereby form a U-shaped groove open in the direction of the convex ridge at each edge thereof, the crest of said convex ridge being disposed substantially co-planar with the upper faces of said flanges; and a removable strip of thin, non-resilient tape sheet positioned on and conforming to said convex ridge with its side edges wholly positioned in said U-shaped grooves, said tape strip having a pressure-sensitive undercoating bonded to said convex surface and having an exposed upper abrasive surface at the crest of said ridge in anti-skid relation to the forward and rear portions of said flanged body and forming the high point of the molding.

2,835,938
WALL PANEL CONSTRUCTION
Clifford T. McElroy, Temple City, Calif.
Application March 15, 1956, Serial No. 571,640
8 Claims. (Cl. 20—92)



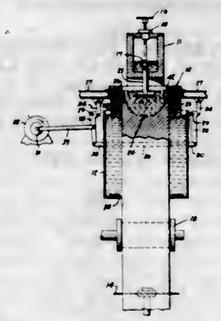
1. A wall panel construction comprising a plurality of panels in edge-to-edge abutment, the abutting edges of the panels having longitudinal grooves therein, and a transversely curved resilient longitudinal key strip disposed wholly within the adjacent grooves of adjacent edges of said panels, the strip normally having a substantially arcuate section with altitude of the arc normally greater than the groove width, the longitudinal edges of the strip being engaged with the walls of said groove and tensioned thereby to a more flattened transverse curvature of the strip than the initial curvature.

2,835,939
FOUNDRY MOULDING MACHINES
Austin Sidney Beech, Leighton Buzzard, England, assignor to Foundry Equipment Limited, Leighton Buzzard, England, a British company
Application November 8, 1954, Serial No. 467,547
10 Claims. (Cl. 22—29)



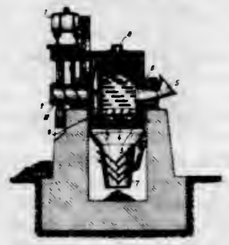
1. A mould-producing machine having a fluid-pressure operated table arranged to support a pattern, a head against which the mould is squeezed by a pattern on the table, which head is swingably mounted so as to be capable of being positioned in the "closed" position over the mould, for the squeezing operation, or in the "open" position clear of the mould, jolting mechanism for imparting an up and down small adjustable amplitude movement to the table, vibrating gear for vibrating the pattern in the mould, stripping gear for removing the completed mould from the pattern, fluid-pressure-operated units for operating each of the head-swinging, squeezing, jolting, vibrating and stripping movements, a squeeze-timing device, valve means for controlling each unit, fluid-pressure operated means responsive to the swinging-head unit for starting the squeezing operation and the squeeze-timing device, means initiated by the said timing device to stop the squeezing action and to start returning the swinging head to the "open" position, fluid-pressure-operated means responsive to the returning of the head for starting the vibrating gear, the stripping gear and the vibrator timing device, and means actuated by the vibrator timing device to stop the vibrator.

2,835,940
MOLD AND METHOD FOR CONTINUOUSLY CASTING CAKES
Hans C. P. Wieland, Ulm, Danube, Germany, assignor to Wieland-Werke A. G., Ulm, Danube, Germany, a corporation of Germany
Application July 18, 1956, Serial No. 598,646
6 Claims. (Cl. 22—57.2)



1. A mold for continuously casting metal, said mold having an open top into which molten metal is fed, and an open bottom from which the cast product is continuously withdrawn, said mold having a casting space polygonal in cross-section, said mold comprising a metal jacket and a graphite liner, said jacket having walls, said liner comprising plates, at least one for each jacket wall, means for mounting the liner plates against their respective jacket walls to permit the liner plates to adjust independently of each other so as to maintain substantial surface contact with their respective jacket walls.

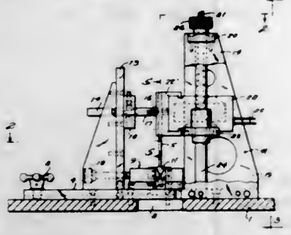
2,835,941
APPARATUS FOR RECOVERING, RECONDITIONING AND REUSING THE USED CORE SAND EMPLOYED IN CASTING
Karl Müller, Koblenz-Metternich, Germany, assignor to Steinlein & Kunze G. m. b. H., Koblenz-Metternich, Germany, a firm
Application October 9, 1956, Serial No. 614,927
Claims priority, application Germany April 18, 1956
1 Claim. (Cl. 22—89)



In apparatus for recovering used core sand in its original granular state, comprising a rotary drum including circumposed inner and outer shells, a plurality of loosely disposed impact elements in said inner shell insufficient in number to grind the core sand disposed therein, means for introducing used sand cores axially of said inner shell, a discharge chute depending beneath said outer shell for conducting separated core sand therefrom, said inner shell including a plurality of longitudinally disposed slotted portions therethrough through which used core sand may pass and defining a friction surface on the inner periphery of said inner shell, said slotted portions and impact elements serving to only break up used sand cores, said outer shell comprising an annular sieve surrounding said inner shell and having a mesh size equal to the

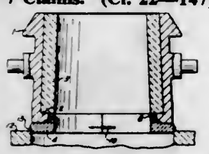
original grain size of the core sand being separated, said discharge chute including an intermediate baffle portion for impeding the fall of the separated core sand, and suction means communicating peripherally of said outer shell and at the baffle portion of said chute for drawing off material mixed with the core sand of a size less than that of the separated core sand.

2,835,942
INSPECTION DEVICE FOR IRREGULAR MECHANICAL PARTS OR THE LIKE
Adolph Razdow, Montclair, N. J.
Original application April 28, 1954, Serial No. 426,200. Divided and this application August 17, 1956, Serial No. 604,802
3 Claims. (Cl. 22—113)



1. A box comprising a housing; two sets of a plurality of axially movable fingers disposed in the said housing in parallel arrangement, each pair of adjacent fingers in each of said sets being close to each other, a laterally adjustable member disposed at each side of said sets of fingers and movable into engagement with one side of a workpiece, said sets being spaced apart from each other and defining a compartment therebetween, one end of each of the said fingers projecting through one wall of the said housing, the said fingers being adapted to engage with their projecting ends the contour of a workpiece.

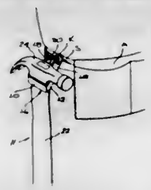
2,835,943
INGOT MOLD HOT TOP
Robert E. Daley, Cleveland, Ohio
Application July 10, 1956, Serial No. 596,876
7 Claims. (Cl. 22—147)



1. A hot top for partial insertion in the top of an ingot mold, comprising a metal casing, a refractory lining therefor, and a molded non-metallic bottom ring detachably connected to the lower end of the casing, said ring being made principally of refractory material and projecting laterally outward beyond the casing, the laterally projecting portion of the ring having a downwardly and inwardly inclined surface adapted to engage the inner edge of the mold when the ring is lowered into it, the outermost area of the ring being made of compressible material displaceable by the mold to permit the ring to slide downward in engagement with the inside of the mold.

2,835,944
HAMMER HOLDER
Eli S. Johnston, Fort Myers, Fla.
Application November 5, 1954, Serial No. 466,988
4 Claims. (Cl. 24—3)

1. In a hammer holder, a body comprising a bight portion terminating at its ends in upwardly curved legs having free upper ends, and means on the upper ends of the legs for suspending the holder, said legs extending in a downward and outward direction with respect to



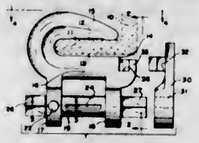
the upper ends of the legs, said legs having downwardly and laterally outwardly declining hammer head engaging edges.

2,835,945
ELASTIC MEANS FOR ATTACHING THE ENDS OF A FLEXIBLE MEMBER TO A SPECTACLE FRAME
Arthur R. Hilsinger, Mount Tabor, N. J., assignor to The Hilsinger Corporation, a corporation of Massachusetts
Application April 29, 1957, Serial No. 655,716
2 Claims. (Cl. 24—3)



1. A removable spectacle retainer having means to detachably secure the ends of an elongated flexible member to temple bars of spectacles, each attachment means comprising an elastic loop of a size to frictionally engage a temple bar, both ends of said loop bound in a securing device, said device having a hollow general spherical body with at least one opening to the hollow thereof to receive the ends of said loop, said body having a corrugated surface with the corrugations extending on great circles of the body passing substantially through the center of said opening to form an undulated edge which grips the ends of said loop at an angle to the general extent thereof, said body having additional means to attach said flexible member thereto.

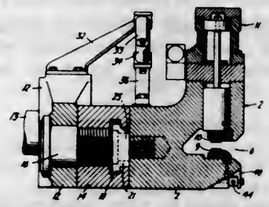
2,835,946
TENSIONING SHORING CLAMP
Tirey L. Hume, Portland, Oreg.
Application October 26, 1953, Serial No. 388,249
7 Claims. (Cl. 24—68)



1. In a device of the class described, a body comprising a clamp portion for engaging an anchoring element and a clevis portion, including a pair of spaced arms, a mandrel rotatably mounted in said arms for rotation about a fixed axis, said mandrel comprising a non-circular end portion extending outwardly of said clevis portion, a keeper element having a non-circular aperture complementary to said end portion, and slidably receiving the same, said keeper element comprising a stop portion engaging said body to prevent rotation of said mandrel, and a catch portion protruding from said stop portion

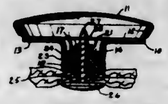
and operatively engaged in a complementary notch in said body whereby said keeper element is secured against movement relative to said mandrel in a direction axially thereof.

2,835,947
SHEET AND PLATE WORK GRIPPING APPARATUS HAVING ANGULARLY ADJUSTABLE GRIPPERS
Landon R. Gray, Palos Verdes Estates, Calif., and Thomas Blair Hawkes, Champlain, N. Y., assignors to T. W. & C. B. Sheridan Co., New York, N. Y., a corporation of New York
Application June 8, 1954, Serial No. 435,297
4 Claims. (Cl. 24—81)



1. Apparatus for connecting sheet and plate work to a tensioning device, said apparatus including at least four jaws arranged as a transversely extending series of jaws which open forwardly so as to receive and grip the same piece of work, a mount located behind said jaws and adapted for connection to said device, and means for connecting said jaws to said mount so that with respect thereto the jaws are each pivotal on its own longitudinally extending axis permitting the jaws to transversely align and angularly misalign with respect to each other, each outermost two of said axes being shiftable in each instance transversely towards and away from each other and arcuately about a longitudinally extending axis which is fixed, said fixed axes being transversely spaced outwardly from the central two of said shiftable axes when all of the latter are transversely aligned.

2,835,948
REMOVABLE BUTTON
John T. Blake, Waterbury, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application July 15, 1955, Serial No. 522,269
3 Claims. (Cl. 24—108)



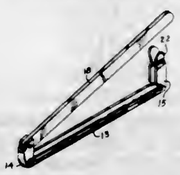
1. A button back in which is incorporated a device for removably securing the threaded shank of a tack member, said button back having a cylindrical hub with a bottom wall having a central opening large enough to permit the tack shank to pass freely therethrough, a washer of elastically resilient material arranged inside said hub and provided with a central axial opening which is of a size a little smaller than said tack shank so as to grip the same, a casing for said washer, which casing is an inverted cup-shaped member interposed between the washer and cylindrical wall of said hub, the top wall of said casing having an upwardly drifted central neck with a central hole large enough to permit passage of the tack shank therethrough with a space between the neck and the tack shank to permit the resilient material of the washer to expand into such space, said drifted neck preventing excessive lateral movement of the tack shank, and means for preventing relative rotative movement of said washer, said casing and said hub.

2,835,949
ANCHORING DEVICE
Henry R. Wengen and Frank T. Hampe, Poughkeepsie, N. Y., assignors to Fargo Mfg. Company, Inc., Poughkeepsie, N. Y., a corporation of New York
Application July 26, 1955, Serial No. 524,443
6 Claims. (Cl. 24—126)



1. A cable-anchoring device including in combination sleeve and wedge elements both tapered in only one direction, said sleeve element being U-shaped in cross section, inwardly extending portions at the ends of its arms having their opposed edges spaced from each other, said wedge element being disposed for free sliding movement with respect to and between the arms of said sleeve element and comprising a body portion having a width greater than the space between said opposed edges, longitudinal ledges extending outwardly from the upper and lower edges of said wedge element, said ledges each having a width less than the space between such opposed edges, one of said ledges lying adjacent the base of the sleeve element and substantially parallel thereto and the other ledge riding between the opposed edges of the inwardly extending portion.

2,835,950
PASS CASE BINDER
Karl F. Sonntag, Watertown, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application September 16, 1953, Serial No. 380,391
1 Claim. (Cl. 24—153)

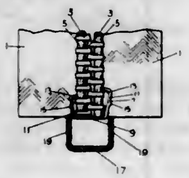


A releasable binder comprising a U-shaped bar providing a relatively stiff base where the concave side of the bar faces upwardly, the ends of said bar being bent upwardly at right angles to said base to provide end standards where the concave side of each standard faces inwardly toward the other standard, a clamping bar pivotally mounted to the upper end of one standard and being of sufficient length to extend beyond the other standard, said other standard having wings constituting extensions of the sides of the U-shaped section which wings are sufficiently close together as to frictionally grip the clamping bar, that portion of the clamping bar which extends beyond said wings serving as a handle to effect its release from the clamping member.

2,835,951
SLIDE FASTENERS
Francis Paul Sutton, Sutton Coldfield, and Claude Laurence Buckenham, Erdington, Birmingham, England, assignors, by mesne assignments, to Lightning Fasteners Limited, London, England, a corporation of Great Britain
Application April 9, 1954, Serial No. 422,203
Claims priority, application Great Britain April 13, 1953
6 Claims. (Cl. 24—205.11)

1. A stop for a slide fastener having stringer tapes with interlocking members thereon comprising an inner member having a pair of interconnected legs resiliently

urged apart, said inner member comprising a U-shaped wire having the free ends of its legs extending inwardly for respectively entering the space between adjacent interlocking members on the end portion of each of said stringers, an outer member having a pair of interconnected legs rigidly spaced apart, said outer members being movable into surrounding engagement with said inner member with the legs of said outer member engaging the



legs of said inner member so as to move the latter toward each other against their resilient urging and hence to move each of the inwardly extending free ends of said inner member legs into the space between adjacent interlocking member on the associated stringers, and interengaging means between the legs of said members cooperable due to the resilient urging of said inner member legs to secure said outer member in surrounding engagement with said inner member.

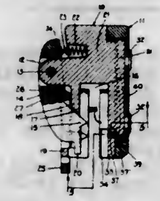
2,835,952
OPENING AND CLOSING DEVICE FOR SLIDE FASTENERS
Helen Minsinberg, Brooklyn, N. Y.
Application April 27, 1955, Serial No. 504,264
4 Claims. (Cl. 24—205.15)



1. A device for closing a slide fastener having a slide handle formed with an opening, comprising a flexible member for exerting a pull thereupon, and means carried by said member including an element extending through the opening of said handle to connect the handle to the flexible member for shifting the handle in a fastener-closing direction responsive to the exertion of pull upon the flexible member, said means including an elongated block adapted for disposition transversely of the slide fastener, the block being formed with transverse openings at opposite ends thereof, the opposite ends of said flexible member being extended through said block openings and being engaged therein against removal from the block openings, the block being formed medially between opposite ends thereof with a slot in which the slide handle is inserted, the block further having medially between its ends a second slot intersecting with the first slot, said element extending within the second slot for engagement in the slide handle opening following insertion of the slide handle in the first slot.

2,835,953
JAM-FREE SLIDER WITH CONTROL THROAT
Louis H. Morin, Bronx, N. Y.
Application June 2, 1955, Serial No. 512,610
13 Claims. (Cl. 24—205.15)

1. In jam-free sliders employing relatively movable top and bottom wall parts having flanged end portions at the contracted end of the slider, spring means adapted to resiliently bias one wall part toward the other wall part, and means integral with one wall part at the contracted end of the slider forming a control element for maintaining a fixed non-yielding double flanged throat at said contracted end of the slider independently of yieldability of the wall parts of the slider body, said double flanged



throat comprising on one side of the throat a pair of flanges on said control element cooperable with, and disposed oppositely to, a pair of flanges on the wall part on the other side of the throat.

2,835,954
HOSE CLAMP
Philip J. Dahl, Tampa, Fla.
Application March 28, 1955, Serial No. 497,205
1 Claim. (Cl. 24—279)



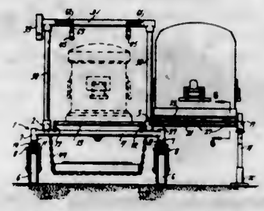
A hose clamp comprising a main generally circular section embodying a band having spaced apart ends, said ends each terminating in a return bend and the two return bends being directed to define outwardly disposed open-ended assembling and retaining hooks, a first auxiliary section comprising an arcuate strap bent upon itself intermediate its ends to provide a lateral lug and said lug being bifurcated, said first auxiliary section having a bend at one end to provide a hook which is releasably interlocked with an adjacent one of the first named hooks, the other end of said strap being directed toward and terminating in close spaced parallelism in respect to the remaining one of the first named hooks, and a second auxiliary section also in the form of a strap bent upon itself intermediate its ends to provide a lug and said lug being bifurcated, said second auxiliary section having a bend at an outer end providing an inwardly bent hook which is releasably engaged with the adjacent one of the first named hooks, said strap being relatively short compared to the first named strap and overlapping the same, said lugs being thus disposed in spaced apart relationship and adapted to accommodate a bolt and nut assembly.

2,835,955
BURIAL CAPSULE
William Newton Snyder, Mansfield, Ohio
Application June 8, 1954, Serial No. 435,124
3 Claims. (Cl. 27—17)



1. In a burial device, the combination which comprises a housing including a base having a lower panel with upwardly extended side and end walls and having a continuous female rail with grooves in the upper surface secured to the inner surfaces of the side and end walls, said base also having spaced ribs therein, an inner container having a base with upwardly extended side and end walls positioned within the female rail of the housing and mounted upon said ribs, a cover having a depending flange positioned upon the inner container and having a continuous sealing tongue extended into a groove in said female rail, a cover also having a continuous panel with depending side and end walls having a male rail with tongues positioned to coact with grooves of the female rail of the base of the housing and adapted to coact with a sealing compound in the female rail of the base for sealing the housing, and a fastening means for securing said second mentioned cover to the outer housing base.

2,835,956
VAULT LOWERING DEVICE
Jacob Hal Moore and Charles T. Wooten, Aurora, Mo.
Application November 5, 1954, Serial No. 467,004
8 Claims. (Cl. 27—32)



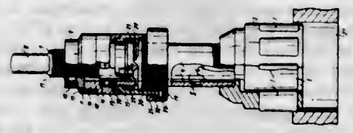
8. A device for handling burial vaults at the graveside, comprising, a frame including side and end bars and ground supports for supporting said frame above the grave, removable bridge members spanning said frame and each having a track thereon, a ground-supported off-grave frame positioned along one of said side bars but spaced therefrom, removable track sections mountable between said one of said bars and said off-grave frame each in alignment with one of said bridge members, and carrier means having track followers engaging said tracks and track sections adapted to receive the vault dome.

2,835,957
PNEUMATIC POWER FILE
Claudio Sito Lacson, Honolulu, Territory of Hawaii
Application November 9, 1956, Serial No. 621,431
5 Claims. (Cl. 29—76)



1. A pneumatically operated power file comprising an elongated tubular barrel including an internal longitudinal bore, longitudinally spaced handle means extending laterally from one side of the barrel to be grasped in the hands of a person using the file, a reciprocatory piston assembly in the bore defining forward and rear variable volume chambers in the barrel, said barrel including a closed forward end, compression spring means in the forward variable volume chamber between said forward end of the barrel and said piston assembly for storing energy due to longitudinal forward movement of said piston assembly, a pneumatic pressure line connection in communication with the rear variable volume chamber, means on said pressure line connection for controlling the entrance of pneumatic pressure into the rear chamber, pressure-relief passage means extending transversely through, an intermediate portion of the barrel for exteriorly relieving pneumatic pressure on the piston assembly as it is urged forward past the passage means, a longitudinally extending slot in said barrel, guide track means extending longitudinally on the outer surface of the barrel in longitudinal alignment with the slot, and an elongated file-carriage assembly including means on one end slidingly received on the guide track means and means on the other end extending through said slot and operatively connected to the piston assembly whereby the piston assembly and file-carriage are simultaneously reciprocated rectilinearly due to pneumatic pressure and said compression spring means, said guide track means comprising an elongated support secured longitudinally on the outer surface of the barrel, a longitudinally extending slot extending transversely through the support in spaced normal relationship relative to the longitudinal axis of the barrel, the means on the one end of the file-carriage comprising roller bearings disposed transversely in the last-mentioned longitudinally extending slot.

2,835,958
ROLLER BURNISHING TOOL
Luther Roy Mock and Eldo K. Koppelmann, Moberly, Mo., assignors to Madison-Faessler Tool Co., a corporation of Missouri
Application March 18, 1954, Serial No. 417,088
3 Claims. (Cl. 29—90)



1. In an expanding tool of the character described having a mandrel element and a roller-cage assembly element, said elements being rotatable relatively for the expanding operation of the tool, a holder having threaded engagement with ine of said elements and engageable with the other to shift the same relatively by movement in its thread, and means actuated upon operation of the tool to rotate said holder in its thread to return the same to its disengaged relation.

2,835,959
METHOD OF FORMING A PLUG FOR ELECTRICAL CONDUCTORS
Rene Martines, Warwick, R. I.
Continuation of applications Serial No. 52,357, October 1, 1948, and Serial No. 196,901, November 21, 1950. This application August 20, 1954, Serial No. 451,166
2 Claims. (Cl. 29—155.55)



2. The method of forming a plug for electrical conductors comprising cutting from sheet metal stock a strip of spaced parallel blades having a shank portion for each blade and separated from said blade by a web portion which also joins adjacent blades, forming wire receiving means on said shank portion, bending each blade at one end to form substantially at right angle and further bending each blade to form a two-ply blade, bending said wire receiving means to receive a wire, severing each web

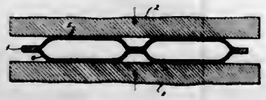
along a single line to form individual terminals with a protruding web portion, and providing a plug body about the blades in such a manner that said plug body covers the angle ends, the shank portions, and the severed webs leaving the other portions of the blade extending from the plug body, said web being frictionally held in the plug body.

2,835,960
METHOD OF FORGING BALANCED TURBINE IMPELLERS AND THE LIKE
Elwood C. Rork, Pacific Palisades, Calif., assignor to Arcturus Manufacturing Co., Inc., Los Angeles, Calif., a corporation of California
Application December 12, 1955, Serial No. 552,493
10 Claims. (Cl. 29—156.8)



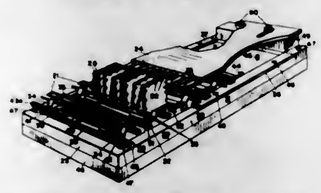
1. In the art of forging an article of high density alloy metal and of intricate, thin-walled cross-section in a die cavity having a relatively unrestricted central chamber and a plurality of outward chambers of relatively narrow, deep cross-section extending radially outwardly from said central chamber, an improved method of controlling flow of hot, plastic work metal to remote crevices of said outward chambers, including the following steps: preforming a work blank having generally the proportions of the cavity, but smaller radius than the cavity; heating said blank to a temperature near a permissible maximum to attain maximum plasticity in the peripheral region of the blank intended to fill said outward chambers; spot cooling the central area of the blank to a temperature substantially lower than that of said peripheral region, whereby to increase the flow resistance of said central area over that of said peripheral region; and hammering said blank into said cavity so as to cause said peripheral region of the blank to flow radially outwardly in said outward chambers; maintaining vents for escape of gas from said remote crevices under the pressure exerted by the advancing work metal, so as to provide for escape of gas from said remote crevices under the pressure exerted by the advancing work metal, to reduce the back pressure in said crevices so as to accelerate the work metal flow sufficiently to avoid blocking of said crevices by congealing work metal prior to attainment of full definition of the size of said vents so as to regulate surface contour in the work metal conforming to said crevices; and utilizing salt coatings on the walls of said vents for controlling said escape so as to maintain sufficient back pressure to arrest the metal flow at the point of arrival at the remote walls of said crevices.

2,835,961
INFLATION METHOD
Robert Milton Neel, New Douglas, Ill., and Arnold P. Litman, Moline Acres, Mo., assignors to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia
Application January 5, 1956, Serial No. 557,512
2 Claims. (Cl. 29—157.3)



1. The process of forming hollow articles having a flattened tubular portion from a panel of ductile metal having an expandable unjoined interior portion continuously disposed within the panel periphery, said process comprising inserting the panel between oppositely opposed platens spaced apart by a distance substantially in excess of the final expanded heighth desired in said unjoined portion and inflating the unjoined portion of the panel by injecting into said unjoined portion a fluid pressure below the unrestrained rupture pressure of the panel until a continuous part of the unjoined portion engages both platens and then maintaining a fluid pressure below rupturing pressure within the inflated portion of the panel while subsequently decreasing the distance between the platens to compress the inflated portion to the desired heighth of expansion and provide a flat outer surface on said tubular portion, whereby all flat portions of the hollows are flattened simultaneously and the thickness of the flattened portion and adjacent side walls is substantially the same.

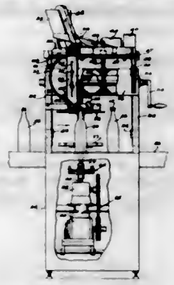
2,835,962
APPARATUS FOR ASSEMBLING MODULES
Sidney K. Tally, Nashua, and Victor F. Dahlgren, West Windham, N. H.
Application December 21, 1955, Serial No. 554,464
8 Claims. (Cl. 29—203)



1. An apparatus for assembling modules having a plurality of stacked wafers in spaced relation and having riser conductor means attached to said wafers, said wafers having a plurality of points of junction perimetrically disposed, comprising: a planar mounting table; means affixed to said table having a plurality of spacer elements so arranged as to space said wafers in said spaced relation; a plurality of trussing members slidably mounted on said table and successively pivotally connected to each other and adapted to rotate about a pivotal axis associated with each corner of said wafers, one of said members being adapted to support said wafers substantially perpendicularly to said table; means affixed to each of said members for supporting said riser conductor means; guide means affixed to said table for guiding the sliding motion of said trussing members along a predetermined path whereby said wafers engage said spacer elements and are accurately aligned in said spaced relation; and a clamping means affixed to said trussing members and adapted to engage said wafers and to link the first of said members and the last of said members together when said members are successively rotated to surround said wafers and fix their positions relative to said riser conductor means whereby the points of junction of said riser conductors are caused to register with said points of junction of said wafers in a predetermined connection pattern.

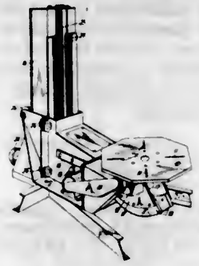
2,835,963
APPARATUS FOR FEEDING, SORTING, AND APPLYING RING FITMENTS TO CONTAINERS
James G. Drennan, San Mateo, and John W. Thomson, Jr., Menlo Park, Calif., assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application July 7, 1955, Serial No. 520,449
14 Claims. (Cl. 29—211)

1. Apparatus for applying circular articles to containers, comprising a holder for a supply of the articles, means for transferring the articles from the holder to an application station, the transfer means including a supporting surface on which the articles are supported at an intermediate position during the transfer to the application station, guiding means extending along said supporting surface for guiding the articles on said surface and forming with said surface a grooved guideway, and automatic means for segregating articles which are in an inverted position on said supporting surface from those in a normal position and directing those in normal



position to the application station, said segregating means comprising a blower arranged to direct a blast of air against the articles moving along said guiding means, a chute through which the inverted articles are blown from said surface back to the holder while those in said normal position are retained on said surface by interengagement with the grooved guideway, and means at said station for applying the articles to the containers.

2,835,964
MANIPULATORS FOR SUPPORTING WORK FOR WELDING OR OTHER OPERATIONS
Henry Yarwood, Durham, England, assignor to Fusarc Limited, a British company
Application July 27, 1956, Serial No. 600,578
2 Claims. (Cl. 29—288)

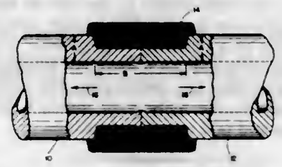


1. A manipulator for supporting work during the performance of welding or other operations, comprising a base, a pillar on said base, a carrier vertically movable on said pillar, a work support mounted on said carrier for tilting movement about a substantially horizontal axis, a motor operatively coupled to said carrier to cause vertical movement of said carrier on said pillar, and means coupling said work support to said motor to cause simultaneous tilting of said work support during vertical movement of said carrier, said tilting being in a sense tending to reduce vertical movement of the centre of gravity of said work support and work mounted thereon during raising of said work support.

2,835,965
METHOD OF WELDING
Wilbur H. Armacost, Scarsdale, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application August 24, 1956, Serial No. 606,164
2 Claims. (Cl. 29—470.5)

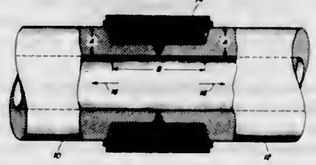
1. The method of butt joining a pair of metallic tubes having a wall thickness between about 1½ inches and

less than 3 inches, comprising reducing the wall thickness thereof adjacent the ends to be joined to less than 1½ inches, positioning said ends in coaxial juxtaposed relation, pressure welding the end surfaces of these reduced end portions together, winding wire under predetermined tension about said reduced portion of said ends throughout



the axial length thereof and to a radial extent sufficient so that weakening in hoop strength occasioned by the reduction in wall thickness is offset with the wires being wound in helical fashion with axially adjacent windings being juxtaposed, said wire having a coefficient of thermal expansion that is the same as that of the elements.

2,835,966
METHOD OF WELDING
Edward Corbin Chapman, Chattanooga, Tenn., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application October 1, 1956, Serial No. 613,240
2 Claims. (Cl. 29—470.5)



1. The method of butt joining a pair of tubes at least one of which is an austenitic steel alloy high in chromium-nickel content and having a wall thickness of one inch or more so that a butt welded joint formed by a multi-layer weld is likely to crack in service along the effected zone, comprising reducing the wall thickness thereof adjacent the ends to be joined as near as possible to a thickness such that this cracking in service will not occur but not more than one half of the original wall thickness, positioning said ends in coaxial juxtaposed relation, welding the end surfaces of these reduced end portions together by a process involving building the weld up of multi-layers, winding wire under predetermined tension about said reduced portion of said ends throughout the axial length thereof and to a radial extent sufficient so that weakening in hoop strength occasioned by the reduction in wall thickness is substantially more than offset with the wire being wound in helical fashion with axially adjacent windings being juxtaposed said wire having a coefficient of thermal expansion that is substantially the same as that of the elements.

2,835,967
METHOD OF PRODUCING A SOLDERABLE METALLIC COATING ON A CERAMIC BODY AND OF SOLDERING TO THE COATING
Elmar Johannes Umblia, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
No Drawing. Application October 8, 1953
Serial No. 385,023
Claims priority, application Sweden November 5, 1952
8 Claims. (Cl. 29—472.7)

1. The method which comprises applying to the surface of a ceramic member a layer of a powdered mixture

consisting essentially of 60–95 percent of a refractory metal selected from the class consisting of molybdenum, tungsten and rhenium, 5–40 percent of an easily deoxizable metal selected from the class consisting of nickel and cobalt and 0.05–0.5 percent of an oxide of a metal of the aforesaid classes, heating said member and layer to a temperature of 1200–1350° C. for 30–60 minutes in an inert atmosphere to sinter said powders, and then cooling after sintering in a reducing atmosphere.

5. Method of bonding a solderable element to a ceramic body which comprises metallizing the surface of the ceramic body by the method of claim 1, and soldering said element and said metallized surface.

2,835,968
CAN OPENER WITH PIVOTED LEVER MEMBERS
Horace D. Munday, Schenectady, N. Y.
Application April 7, 1955, Serial No. 499,919
4 Claims. (Cl. 30—3)



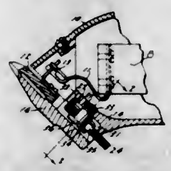
1. A lever type opener including a pair of lever members pivotally joined intermediate their respective ends to provide handles and jaws, a knife attached to one jaw, a fulcrum member mounted on the other jaw, said knife and fulcrum member pivotally gripping between them a spot on the side of a container when in operative position on the container and pressed together by pressure on the handles, and means coupled to one of said jaws and extending beyond said fulcrum and adjacent said knife.

2,835,969
APPARATUS FOR SEVERING CAST IRON PIPE AND THE LIKE
Charles J. Wheeler, Mentor, Ohio, assignor to Wheeler Manufacturing Corporation, Ashtabula, Ohio, a corporation of Ohio
Original application November 9, 1956, Serial No. 621,408. Divided and this application October 29, 1957, Serial No. 693,152
6 Claims. (Cl. 30—92)



1. Apparatus for cutting a hollow article, said apparatus including at least one cutter having a cutting edge capable of cutting said article while disposed thereabout and stationary with respect thereto, via radially-directed pressure, and a compound leverage pressure clamp for applying said pressure, said clamp comprising, in combination, a pair of power levers pivotally joined at a first common pivot, a first clamp jaw pivotally secured at one end to one of said power levers adjacent said first common pivot and at its opposite end to said cutter, an adjustable second clamp jaw, comprising, in combination, a first rigid element pivotally secured at one end to the other power arm adjacent said first common pivot and at its opposite end about a second common pivot to a second rigid element having means thereon to engage said cutter, said first and second rigid elements having lateral extensions thereon and means to lock said first rigid element and said second rigid element into a rigid clamp jaw, said first and second clamp jaws being pivotally connected at a third common pivot intermediate their ends.

2,835,970
HAIR CLIPPERS HAVING INTERCHANGEABLE COMB PLATES
Mathew Andis, Racine, Wis., assignor to Andis Clipper Co., Racine, Wis., a corporation of Wisconsin
Application September 12, 1956, Serial No. 609,458
7 Claims. (Cl. 30—200)



1. In a hair clipper having interchangeable comb plates, the combination with a clipper case having a bed portion with laterally spaced post sockets therein, of a removable comb plate having means for mounting it on said clipper case in position for operative engagement with a shear blade and comprising correspondingly spaced posts projecting therefrom, said posts having headed ends, a locking slide mounted on said bed between said sockets for sliding movement longitudinally of said bed, said locking slide having side margins with notches therein which align with said sockets in one position of slide adjustment to pass the headed ends of said comb plate posts into said sockets and which are misaligned with said sockets in another position of locking slide adjustment to interlock unnotched slide portions beneath the headed ends of said posts to lock said comb plate to said bed.

2,835,971
FORK
Frank W. Neuman, Lansdale, Pa.
Application March 22, 1956, Serial No. 573,207
2 Claims. (Cl. 30—322)



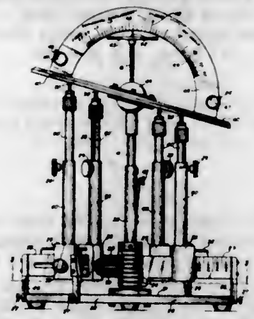
2. In a fork, a main arm of metal, a handle of heat-insulating material carried by said arm at one end thereof, a set of tines projecting from the other end of said arm and secured thereto, said set of tines lying in a single generally cylindrical surface having its axis of curvature transverse of the tines, an auxiliary arm of metal having one end fixedly secured to said main arm intermediate the ends thereof, said auxiliary arm extending from said main arm in oblique longitudinal outward relation thereto, a second set of tines secured to the free end of said auxiliary arm, said second set of tines lying in a second generally cylindrical surface having its axis of curvature transverse of said first and second sets of tines, the cylindrical surfaces of said first and second sets of tines converging in the direction toward said handle.

2,835,972
DENTAL INSTRUMENT
Joseph A. Sheldon, Union City, N. J.
Application May 29, 1956, Serial No. 587,979
2 Claims. (Cl. 32—66)



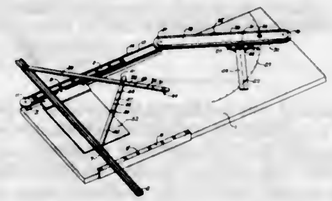
1. A band pusher for use in conjunction with tooth straightening devices, said band pusher having a handle, a longitudially curved stem having one end connected with said handle, a blunt tip connected transverse upon the other end of said stem, two transverse members extending perpendicularly to said blunt tip and adjacent thereto, said transverse members being equidistantly disposed from the said blunt tip and opposing each other on the same axis.

2,835,973
THREE DIMENSIONAL SEISMIC COMPUTER
Rudolph H. Schmuck, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application August 15, 1955, Serial No. 528,164
4 Claims. (Cl. 33—1)



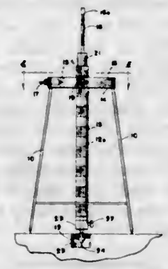
1. In an apparatus for determining the spatial location of a three dimensional body with respect to a particular horizontal plane and a particular vertical line: a base having an azimuth scale thereon; a shaft on said base and perpendicular thereto representing a vertical line through a point on said horizontal plane; a plurality of means rotatably connected to said shaft for representing other vertical lines of known azimuth and distance from said vertical line, each of said rotatable means being rotatable relative to each other whereby desired azimuthal positions of each of said rotatable means may be assumed; vertically extensible radially movable means carried by each of said rotatable means for representing points on said three dimensional body which are spaced vertically from a reference horizontal plane to thus establish the tilt from the horizontal of said three dimensional body and means mounted on said vertically extensible means representing said body and including scale means for indicating the angle of tilt of said body and for determining the horizontal distance of a point on said body from said vertical line and the vertical distance of said point from said particular horizontal plane.

2,835,974
AXONOMETRIC DRAFTING MACHINE
Walter G. Wilkinson, Baltimore County, and John Walter Wilkinson, Anne Arundel County, Md.
Application June 14, 1952, Serial No. 293,508
7 Claims. (Cl. 33—23)



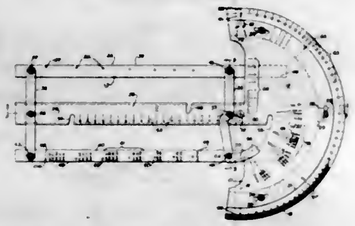
7. A mechanism for drawing axonometric projections from orthographic projections comprising track means, a lever system comprising a plurality of lever arm means pivotally interconnected and adapted to slidably engage said track means whereby said lever arm means may be moved bodily in a direction parallel to said track means, portions of said lever arm means engaging said track means forming therewith an isosceles triangle, a pointer means for tracing an orthographic projection mounted on a portion of said lever arm means remote from said track means, a marker means for scribing an axonometric projection mounted on a portion of said lever arm means located on a line extending parallel to the altitude of said isosceles triangle through said pointer means at a different distance from said track means than said pointer means, said marker means located on said lever arm means at a point so that motion of said pointer means produces motion of said marker means along said line perpendicular to said track means, said marker means being positioned on said lever system with respect to said pointer means so that motion of said pointer means produces motion of said marker means proportionate to the sine of the angle of slant of the axonometric projection.

2,835,975
RANGE ROD
Neil J. Zimmerman, Fullerton, Calif.
Application April 21, 1955, Serial No. 502,781
3 Claims. (Cl. 33—74)



1. A range rod combination comprising a first tube, a support, means to gimbal mount said tube on said support, an extension member extending concentrically within and from the ends of said first tube, a tip portion attached to one end of said member, and a second tube adapted to extend from said first tube and to telescope over the other end of said member.

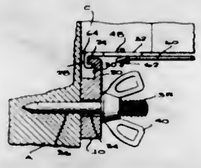
2,835,976
PARALLEL RULE PROTRACTOR
Richard F. Wittenmyer, Cleveland, Ohio, assignor to The Austin Company, a corporation of Ohio
Application August 16, 1956, Serial No. 604,386
10 Claims. (Cl. 33—76)



8. A parallel rule protractor comprising, a protractor head and a parallel rule section, said protractor head having a generally semi-circular outer periphery, an arcuate semi-circular ring member located partially outboard of said head, arcuate slots in said protractor head, bolts fastened in said ring member and extending through said arcuate slots, first thumb nut means threadably engaging at least some of said bolts to adjustably secure said protractor head to said ring member, an integral arm having root and outboard ends as a part of said parallel rule section and integral with and extending generally at right angles to said semi-circular protractor head, first and second parallelogram links pivoted to said integral arm near the root and outboard ends, respectively, first and second parallel blades pivoted to said parallelogram links in a parallelogram manner for coordinated pivoted movement of said parallelogram links to swing said two parallel blades closer together and farther apart, second thumb nut means on at least one of said pivots to selectively fix said parallel blades at a desired lateral spacing relative to said integral arm, a first index mark on one of said first parallelogram link and said parallel blades, calibration marks on said protractor head cooperating with said first index mark to aid in establishing the desired lateral spacing of said parallel blades, a series of holes in each of said blades each having different spacing relative to the outer edges of said blades, calibration marks adjacent said holes corresponding to said first calibration marks to indicate the spacing of two additional lines for each calibrated spacing of the outer edges of said blades, a reference hole at the intersection of the center line of said integral arm and the base line of a one hundred eighty degree semi-circle on said protractor head, a pin cooperating with said parallel rule protractor at said referance hole to provide a pivot point of the entire parallel rule protractor relative to a support, third calibration marks extending from said reference hole along the center line of said integral arm as a linear scale, fourth calibration marks extending at right angles from said integral arm center line along one side of the base of said protractor head as a linear scale, fifth calibration marks extending around the semi-circular periphery of said ring member and calibrated in angular pitch, a second index mark on said ring member, and sixth calibration marks on said protractor head cooperating with said second index mark upon said first thumb nut means being loosened and said ring member being movable relative to said protractor head.

2,835,977
BRICK MASON'S LINE GUIDE
Max W. Lacis, Cheyenne, Wyo.
Application April 13, 1956, Serial No. 578,087
1 Claim. (Cl. 33—85)

A brick mason's line guide for use in erecting a new wall extending between existing walls in a plane perpendicular to the planes of the existing walls, comprising: a pair of elongated, vertical, flat, identical but opposite guide members each of which includes a wide body portion having flat back and front surfaces lying in parallel planes for face to face contact of the back surface with an existing wall with the front surface faced outwardly from said existing wall, said body portion of each guide member being formed with a continuous longitudinal flange extending outwardly from one longitudinal edge of the body portion substantially in the plane of the front surface, said flange terminating at its outer edge in a lip extending longitudinally of the flange and lying in a plane normal to that of the flange, said lip, flange, and the adjacent longitudinal edge of the body portion defining a



rearwardly opening, longitudinal recess in the guide member, the lip extending rearwardly from the plane of the flange and terminating at its back edge short of the plane of the back surface, defining a side opening communicating with the recess between the existing wall and lip; opposite but identical slide plates slidable longitudinally of the respective guide members on the lips thereof, each plate including a flat body portion and a hook-shaped flange thereon extending into the associated recess through the side opening thereof, the body portions of the slide plates lying in a common plane normal to the planes of the body portions of the guide members; and a line connected at its ends to and extending between the slide plates in the plane of the body portions of the slide plates.

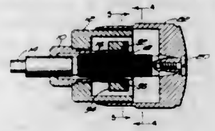
2,835,978
DOUBLE FACE ANGLE AND SET UP PLATE
Frank Krisel, Detroit, Mich.
Application August 19, 1953, Serial No. 375,269
2 Claims. (Cl. 33—90)



1. An angle support plate for tool room and machine shop use comprising a generally flat L-shaped base having a top face and an accurately machined bottom face, the thickness of said base between said top and bottom faces being substantially smaller than the lateral dimensions thereof, the opposite edge faces of said base being accurately machined and parallel, the inner edge faces of the L forming an accurate inside right angle and the outer edge faces of the L forming an accurate outside right angle, said base having a pair of rigidly fixed upright side walls formed integrally therewith and projecting perpendicularly upwardly from the top face of the base, said side walls being perpendicularly related to one another and having accurately machined inner planar faces coplanar with said inner edge faces of the base forming said inside right angle, said inner planar faces of said side walls each terminating at one end in vertical end edges spaced closely adjacent one another at the apex of said inside right angle of the L-shaped base, the outer faces of said side walls being spaced laterally inwardly from the outer edge faces of the base forming said outside right angle, the upper edge faces of said side walls being machined accurately parallel to the bottom face of said base

and rigid reinforcing members extending outwardly from said outer faces of said side walls and downwardly to the top face of and within the confines of said base, each of said last mentioned members having an end face which is parallel to the inner face of the side wall to which it is connected and coplanar with the adjacent outer edge face of the base.

2,835,979
MICROMETER NUT AND BINDER RING ASSEMBLY
William P. Metevia, Athol, Mass., assignor to The L. S. Starrett Company, Athol, Mass., a corporation of Massachusetts
Application December 3, 1956, Serial No. 625,780
3 Claims. (Cl. 33—164)



1. In a micrometer, the combination of a tubular body, a threaded spindle disposed coaxially through the body, a tubular nut on the spindle carried coaxially within and by the body and having an end portion extending outwardly thereof, said end portion being slotted radially and embodying a plurality of segments in threaded engagement with the spindle, a portion of the segments tapering outwardly in one direction axially of the spindle, means including a spring resiliently compressible axially of the spindle disposed about and in contact with the tapering portion of the segments, and an adjusting nut threaded to said body and having an abutment face for engaging and compressing the spring in said one direction when the adjusting nut is rotated in one direction, the axial resiliency of the spring being adapted to function through said means and tapering portion of the segments to maintain the segments resiliently in uniform pressure engagement with the threads of the spindle.

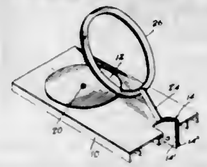
2,835,980
DIAL INDICATORS
Charles M. Rose, Westfield, N. J.
Application December 13, 1956, Serial No. 628,020
8 Claims. (Cl. 33—172)



1. In a dial indicator, an outer housing, an inner casing containing operable parts of the indicator, means for retaining the casing and its contents within the outer housing comprising a plurality of pivoted latches pivotally secured to the housing and movable to engage parts of the casing to retain the same immovably in place in the casing.

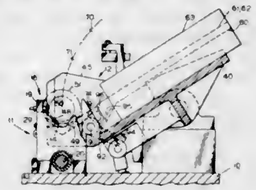
5. In a dial indicator, a gauging member in the form of a stem, a slide consisting of a fixed groove guide member and a pair of slidable elements connected thereto, the first of said slide elements having a part fitting into the groove in the guide member and being slidable in said groove, the second slide element being slidably connected to the first slide element, the first slide element being provided with a pair of racks, gearing engaging one of the racks and coupled to an indicating pointer whereby movement of the rack will actuate the pointer, a spring-biased gear meshed with the second rack and operative to urge the first slide element in one direction, the second slide element having a rack, a spring-biased gear meshed therewith and tending to urge the second slide element in a direction opposite to that in which the first slide element is urged, and coupling means between the two slide elements by which the first slide element is caused to be a follower to the second slide element in both the advance and retractive movements of the first slide element, and means by which the stem is detachably coupled to the second slide element.

2,835,981
PIPE-MARKING DEVICE
Frank N. Kaufman, Lebec, Calif.
Application July 18, 1955, Serial No. 522,630
2 Claims. (Cl. 33—174)



1. A mechanism for enabling the marking of angles on curved pipe and the like comprising a base plate, a pipe-positioning plate removably attached to said base plate, said pipe-positioning plate being adapted to fit inside a curved pipe to be marked, an angle scale mounted at one end of said base plate, at right angles thereto and on a line parallel to a diameter of said pipe-positioning plate, and a marking member including a marking ring adapted to fit over a curved pipe to be marked, and rod means to pivotally support said ring from the vertex of the angles on said angle scale and at a distance therefrom to have the center of said ring describe a curve with the distance between the center of said pipe-positioning plate and said vertex as a radius.

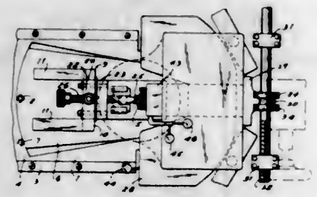
2,835,982
GAGING DEVICE
Henry L. Boppel, Dayton, Ohio, assignor, by mesne assignments, to The Sheffield Corporation, a corporation of Delaware
Application October 14, 1955, Serial No. 540,524
11 Claims. (Cl. 33—174)



1. A gaging apparatus comprising a base, a gaging station on said base including means for gaging dimensional characteristics of an article placed therein, locating means fixedly mounted in said station to engage and support an article in association with said gaging means during gaging, article handling means carried on said base for up and down movement from and toward the gaging station, actuating means connected to said handling means from a loading position above the locating means for actuation of said handling means downward beyond said

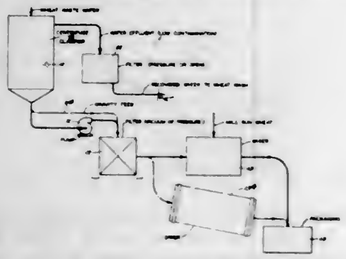
locating means to lower an article by gravity onto said locating means and clear the article during gaging, said locating means being disposed on said base to the sides of said handling means and in the path of article movement, whereby said article is solely supported and located by said locating means during gaging, said actuating means including means to raise said handling means upward past said locating means to lift an article therefrom to a predetermined vertical position following gaging.

2,835,983
APPARATUS FOR INSPECTING MECHANICAL PARTS
Adolph Razdow, Montclair, N. J.
Application March 28, 1955, Serial No. 497,180
2 Claims. (Cl. 33—175)



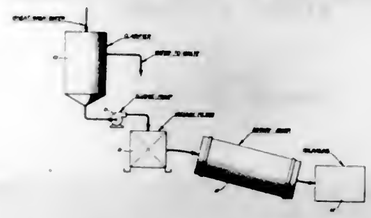
1. An apparatus for testing a plurality of cross-sections of a workpiece, comprising at least one base, a first bracket mounted on said base, means for moving said first bracket on said base from a predetermined operative position into inoperative position, a second bracket disposed opposite said first bracket, a box mounted on said second bracket, said box comprising a hollow body to form a compartment therein, a plurality of parallel disposed fingers reciprocable in said compartment, said fingers having projections extending beyond said body in operative position and disposed inside said body in inoperative position, so that the front end of all said fingers form a line, when in the advanced position, and said line forming a reproduction of a selective cross-section of said workpiece, and fluid pressure means for advancing and withdrawing, respectively, said fingers.

2,835,984
SEPARATION AND RECOVERY OF SOLIDS AND LIQUID FROM FLOUR MILL WASTES
Frank R. Ofner, Spokane, Wash., assignor to Industrial Processes, Incorporated, Spokane, Wash., a corporation of Washington
Application September 28, 1953, Serial No. 382,806
5 Claims. (Cl. 34—12)



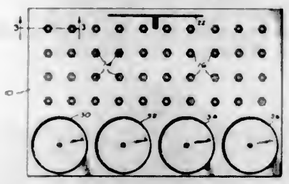
1. In a process for treating flour mill wastes which consist substantially of wheat solids and wash water to recover both the wash water and a relatively dry nutrient from the solids, the steps of thickening said wastes within at least about sixteen hours after their formation to concentrate the solids and produce also a relatively low contaminant water effluent, filtering said effluent to recover a reusable wash water and filtering the concentrated solids to reduce further the moisture content thereof both within about 20 minutes following the initiation of the thickening thereof, and drying the solids to produce a relatively dry feed nutrient.

2,835,985
RECOVERY OF FLOUR MILL WASTES
Frank R. Ofner, Spokane, Wash., assignor to Industrial Processes, Incorporated, Spokane, Wash., a corporation of Washington
Application December 13, 1952, Serial No. 325,773
3 Claims. (Cl. 34—14)



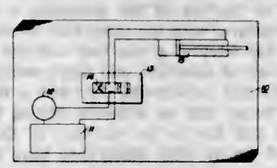
1. In a process for treating flour mill wastes, consisting primarily of wheat wash water and wheat solids, to recover an animal nutrient that is relatively high in fat and protein content, the steps of thickening said wastes within about 16 hours after their formation, whereby the fats and proteins have not dissipated to an appreciable extent into the wash water and an extensive formation of a thick paste is not present, filtering the thickened wastes to further reduce the moisture content thereof, and thereafter drying the wastes.

2,835,986
MANIPULATIVE APTITUDE TEST APPARATUS
Wesley S. Roeder, Portland, Oreg.
Application January 16, 1953, Serial No. 331,575
2 Claims. (Cl. 35—13)



1. Manipulative aptitude test apparatus comprising a board having transversely therethrough a plurality of perforations arranged in a predetermined pattern, a plurality of bolts seated one in each of the perforations with their threaded sections extending outwardly from the top surface of the board, a plurality of nuts threaded one on each of the bolts and having threaded openings dimensioned to provide threaded sockets when fully mounted on the bolts, a plurality of rods threaded on both ends and adapted to be screwed one in each of the sockets, a plurality of cap nuts adapted to be screwed one one each of the rods, a horizontal bar, a standard attached centrally to the bar for supporting the same on the board, a plurality of washers adapted to be strung on the bar, a plurality of perforated members adapted to be strung on the bar together with the washers in a preselected pattern, and a plurality of receptacles fastened to the board for the separate reception of the rods, the cap nuts, the washers and the perforated members.

2,835,987
MECHANICAL DRAWING COMPONENT
Elmer F. Heiser, Parma Heights, Cleveland, Ohio
Application January 12, 1955, Serial No. 481,364
4 Claims. (Cl. 35—28)



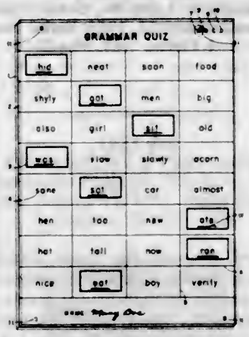
2. In a circuit drawing representative of an operative circuit, the provision of a label having at least a portion of a circuit component printed thereon, label holder means attachable to the surface of a circuit layout sheet, said label holder means comprising a member having first and second edges adhesively securable to the surface of said sheet, a nonadhesive viewing area between said first and second side edges, said label being insertable between said side edges under said viewing area and thereby being removably securable upon the said surface of the circuit layout sheet, whereby said label may be employed to represent a component part of changeable character in a representation of a circuit and thereby permit accurate testing of such representation under conditions simulating actual operating conditions of a physical embodiment of the circuit.

2,835,988
VISUAL AID FOR ARITHMETIC COMPUTATION
Henry Hilkene, Belleville, N. J.
Application December 20, 1955, Serial No. 554,258
3 Claims. (Cl. 35—31)



1. A device of the kind described comprising at least two sets of pieces, the pieces of each set respectively bearing consecutive numbers beginning with 2 on the shortest piece, said pieces being of various lengths, a holder comprising an elongated body having an outwardly open longitudinally extending channel therein closed at one end by an end wall, said channel being adapted to receive selected pieces disposed in end to end relation to abut and extend from the end wall thereof, and marginal portions of the top face of the holder body bordering the piece receiving channel thereof having a graduated scale thereon, the graduations of which are respectively denoted by numbers within the range of 1 to 100 or more, with the number 1 graduation aligned with the piece engageable inner face of the end wall of said receiving channel, the lengths of respective pieces of each set thereof and the spacing of the graduations of said scale of the holder body being both determined with reference to a selected unit of linear measurement by the logarithms to the base ten of the numbers borne by said pieces and the logarithms of the numbers denoting said graduations.

2,835,989
DEVICE FOR CORRECTING QUIZ PAPERS AND WORK BOOKS IN SCHOOL CLASSROOMS
Jessie M. Arrowsmith and Robert K. Arrowsmith, Sherwood, Oreg.
Application July 27, 1956, Serial No. 600,549
2 Claims. (Cl. 35—48)



1. A corrector device for correcting quiz papers, or similar papers bound into work books, a quiz paper faced with multiple-choice response indicia within printed rectangular spaces symmetrically disposed about the central horizontal and vertical axes of said paper, there being a plurality of horizontal rows of said rectangular spaces divided by vertical ruling into four columns, two on each side of the central vertical axis, and as many rows of four rectangular spaces below the central horizontal axis as above said axis; in combination, a corrector device comprised of a sheet of stiff, transparent plastic, or other material, substantially identical in outline to the quiz paper, its complement, said corrector device being unbound and capable of being placed in outline register with the quiz paper, and where said corrector device bears printed rectangles registering with one-fourth of the rectangular spaces upon the quiz paper and encompassing the response indicia thereupon together with the student's markings adjacent to said response indicia; and where said corrector device may be raised from close contact with the quiz paper, rotated one hundred eighty degrees about its vertical axis and again placed in outline register with the quiz paper, the aforesaid printed rectangles of the corrector device registering with another group of rectangular spaces upon the quiz paper together with another group of response indicia, this second group of quiz paper rectangular spaces being entirely different from those mentioned in the first position of the corrector device; and where said corrector device may be raised from closed contact with the quiz paper, rotated one hundred eighty degrees about its central horizontal axis and again placed in outline register with the quiz paper, the aforesaid printed rectangles of the corrector device registering with another group of rectangular spaces upon the quiz paper, this third group of quiz paper rectangular spaces being entirely different from those mentioned in the first and second positions of the corrector device; and where said corrector device may be raised from close contact with the quiz paper, rotated one hundred eighty degrees about its central vertical axis and again placed in outline register with the quiz paper, the aforesaid printed rectangles of the corrector device registering with another group of rectangular spaces upon the quiz paper, this fourth group of quiz paper rectangular spaces being entirely different from those mentioned in the first, second, and third posi-

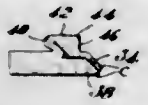
tions of the corrector device; whereby the foregoing acts of manipulating the corrector device through the four useful positions upon the quiz paper, its complement, has caused the set of printed rectangles of the corrector device to have been placed in register with all of the rectangular spaces bearing the response indicia, and the student's markings adjacent to same, upon said quiz paper without repetition or omission.

2,835,990
LEG GARMENT
Samuel V. Lang, Sr., Boise, Idaho
Application January 21, 1955, Serial No. 483,188
1 Claim. (Cl. 36—2)



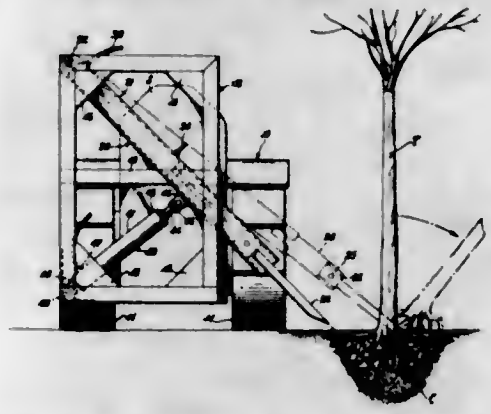
A protective garment for quick attachment to or detachment from the leg of a wearer comprising a tubular length of flexible warm cloth having a side slit extending all the way from its open upper end to a point adjacent and spaced from its open lower end, a slide fastener assembly disposed along said slit for opening and closing said slit, and a leg gripping and suspending portion about the upper end of said garment adapted for surrounding and directly gripping the wearer's leg just above the knee only so as to suspend said garment freely from above the knee and permit walking freedom while at the same time affording a loose warm enclosure for the wearer's knee and the lower part of the leg, said portion comprising a band-like elastic section extending around a major part of the circumference of the top of said garment, a non-elastic section in series between one end of said elastic section and one side of said slit, and adjustable means in said non-elastic section for circumferentially gathering it to provide and maintain a desired circumferential adjustment to adequately fit the leg of the wearer so as to be sufficiently tight to stay in place but not tight enough to be uncomfortable, said adjustment being undisturbed when the slide fastener is actuated to open the slit for removing the garment.

2,835,991
FLAT TOP BEAD WELT
Leon H. Gemme, Worcester, Mass., assignor to L. Farber Welting Company, Worcester, Mass., a corporation of Massachusetts
Application July 27, 1955, Serial No. 524,670
2 Claims. (Cl. 36—78)



1. Shoe welting comprising a single ply extension at its outer margin, a horizontal shoulder at its inner margin, said horizontal shoulder having a top surface which is below the top surface of the extension and a thickness which is greater than one-half the thickness of the extension, a bead, having flat top and bottom surfaces and corresponding in thickness to the thickness of the extension, seated on the horizontal shoulder with its bottom surface in contact with the top of the shoulder and with its top surface above and parallel to the top surface of the extension, a hinge element corresponding in thickness to the difference between the thickness of the extension and the shoulder, integral at one end with the extension and at its other end with the top of the bead, said hinge element providing a continuous grain surface which extends upwardly from the top of the extension to and across the top of the bead, a perpendicular shoulder at the inner side of the bead which extends vertically down to the level of the top of the extension, a downwardly beveled lip integral with the inner side of the horizontal shoulder, a flap integral at one end with the bead at the base of its vertical shoulder, said flap covering the upper side of the lip and constituting therewith a tapering two-ply inseam flange and an adhesive uniting the surfaces of the bead and flap to the surfaces of the horizontal shoulder and the lip with which they have contact.

2,835,992
PLANT DIGGING MACHINE
William Flemer III, Princeton, N. J., assignor to Princeton Nurserymen's Research Associates, Princeton, N. J., a partnership
Application March 25, 1955, Serial No. 496,675
8 Claims. (Cl. 37—2)



1. A machine for digging trees comprising a vehicle having means for propelling it in a path generally parallel to a row of trees to be transplanted, a frame mounted on said vehicle and having a pocket opening in a direction transversely to the normal direction of movement of said vehicle, an axially elongatable arm received within said pocket and extending laterally outwardly and downwardly relative to said vehicle, said arm having the inner end thereof connected to said frame to pivot about a fixed axis on said frame, a digging fork carried at the outer end of said arm, means for moving said fork outwardly to insert said fork into the earth at the base of a tree to be dug, and means for pivoting said arm about said pivotal connection to swing said fork in an arc for lifting the tree being removed from the ground.

2,835,993
IDENTIFICATION CARD
Ned Whitehead, San Juan, Puerto Rico
Application March 31, 1954, Serial No. 419,961
5 Claims. (Cl. 40—2.2)



1. An identification card formed of layers of sheet material laminated together under heat and pressure comprising a backing member of rigid magnetizable sheet

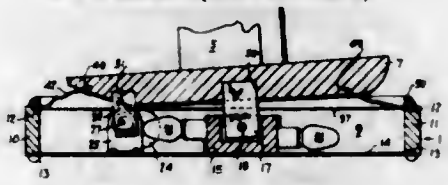
metal having a plurality of integral sheet metal securing tabs projecting from one face of the backing member to receive a photograph, a photographic carrier panel having a photographic reproduction formed thereon disposed in contact with one face of said backing member with said securing tabs lapping over opposite edges of said photographic carrier panel and clasping the same intimately against said backing member to hold the same against removal, and a plurality of transparent thermoplastic sheets positioned over each of the front and back faces of the assembled backing member and photograph to encase the same on both sides, at least some of said thermoplastic sheets having printed matter constituting identification information inked on inwardly disposed surfaces thereof.

2,835,994
MARKER
Herbert H. Kuefner, Des Moines, Iowa, assignor to The Herbert Company, Des Moines, Iowa
Application November 15, 1954, Serial No. 468,632
3 Claims. (Cl. 40—10)



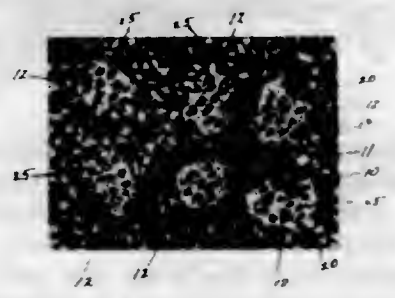
1. A marker, comprising, an elongated transparent body member having a top and bottom edge, said body member provided with a recess closed on all sides but the bottom, a pair of spaced bearing ears integrally formed on one side of said body member, oppositely disposed sides of said bearing ears each having a groove extending in a direction between the top and bottom edge of said body member, an elongated hairpin shaped resilient rod support member having its closed end portion bent at an angle to its main length, said bent closed end portion yieldingly frictionally disposed in said respective grooves to support said body member with the open ends of said rod support member designed for insertion in the ground or the like, and the bend in said rod support member serving as the only stop means against the downward movement of said body member.

2,835,995
ANIMATED DEVICE
Ludwig Eickemeyer, Union, N. J., assignor to Gibraltar Manufacturing Co., Inc., Jersey City, N. J., a corporation of New Jersey
Application March 12, 1956, Serial No. 570,924
2 Claims. (Cl. 40—126)



1. An animated device comprising, in combination, a base and a boat replica mounted thereon, said base comprising a frame having spaced sides, said boat being mounted for oscillating pivotal movement on said base and between said spaced sides, motor means operatively connected between said base and said boat to effect said pivotal movement of said boat, a flexible masking element disposed between said base and said boat, the periphery of said element being secured to said frame and the center of said element being secured to said boat, whereby the pivotal movement of said boat relative to said base is operative to distort said element to produce a wave-like water effect, said base comprising a trunnion block and said boat comprising a connecting element, a pivot pin disposed within the interior of said base frame and connecting said boat to said base, and an access opening in said base affording access to the interior of said base frame to facilitate assembly of said pivot pin with said boat and said base.

2,835,996
ORNAMENTAL TERRAZZO
Romano De Paoli, Sr., Roxbury, Mass.
Application August 24, 1956, Serial No. 606,038
2 Claims. (Cl. 41—23)



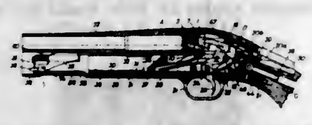
1. Ornamental smooth-surfaced terrazzo comprising a terrazzo base layer comprising a cement matrix and colored aggregates of contrasting colors and inserts of preformed terrazzo spatters, said spatters being formed of a cement matrix and aggregates of different colors than the base layer and having a predetermined design, said terrazzo spatters being located in the base layer to provide an ornamental design.

2,835,997
ART OF FORMING FLAKES
Norman Steinhilber, Flushing, N. Y., assignor, by mesne assignments, to American Home Products Corporation, New York, N. Y., a corporation of Delaware
Application April 7, 1952, Serial No. 280,920
1 Claim. (Cl. 41—34)

The method of applying to a surface to be decorated a dry, flaky, slightly adherent substance of crystalline appearance which, when present on said surface, simulates flakes of natural snow, said method comprising directing against said surface a spray of a solution of a synthetic resin in a solvent therefor, said synthetic resin being present therein in a concentration of about 7 percent by weight, based on the total weight of said solution, and said solvent being selected from the group which consists of: a mixture of 55 percent trichloromonofluoromethane, 35 percent dichlorodifluoromethane and 10 percent difluorochloromethane; and a mixture of 47.5 percent trichloromonofluoromethane, 47.5 percent dichlorodifluoromethane and 5 percent difluorochloromethane; said solvent being characterized by a relatively high vapor pressure at normal room temperature such as to result in the expulsion of droplets of said solution when a closed container containing said solution is opened thereby permitting contact between said solution and the outer atmosphere through an opening of restricted cross-sectional area; the vapor pressure of said solvent, at normal room temperature, being such that rapid evaporation thereof occurs leaving behind on said surface a solid residue of said synthetic resin; and said synthetic resin consisting

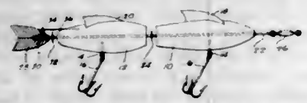
of a copolymer of a mixture of methyl acrylate and ethyl methacrylate, said synthetic resin being capable of forming water white, transparent films of specific gravity (25° C.) 1.15; refractive index 1.482; and softening temperature 35–55° C.; said resin being further characterized by the following properties when dissolved in 40 percent solids concentration in tolуol: specific gravity (25° C.) 0.97; refractive index (25° C.) 1.489; viscosity (30° C.) 480–640 centipoises; and flash point as determined in a closed cup (Tag), 39° F.

2,835,998
SLIDABLE BARREL GUN WITH A COMBINED SEAR AND COCKING MEMBER
Mikkel Maerk, Lokken Verk, Norway
Original application April 22, 1952, Serial No. 283,710, now Patent No. 2,699,007, dated January 11, 1955. Divided and this application November 1, 1954, Serial No. 466,123
Claims priority, application Norway May 13, 1947
7 Claims. (Cl. 42—10)



1. In a repeater gun of the type in which loading and cocking are brought about by manually moving a slidable barrel axially from its rearmost breech-closing position in the gun, first forwardly and then rearwardly back into its rearmost position ready for firing, the combination of a breech casing, on which the barrel is slidably mounted; a breech block rearwardly slidable in said casing; a hammer pivoted on a stationary part of said casing; a combined sear and cocking member to cock and to engage said hammer to hold same in cocked position, said member being slidable longitudinally in said breech casing, and having its forward end attached to said breech block, so that the rearward movement of said breech block causes the sear to engage said hammer and move same into cocked position for firing; and a trigger pivoted in said casing and adapted to engage said member to move same from engagement with said hammer to bring about firing of the gun.

2,835,999
REVOLVING FISH LURE
Earl S. Gillilan, Needles, Calif.
Application August 23, 1957, Serial No. 679,903
2 Claims. (Cl. 43—26.2)



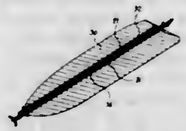
1. A fish lure comprising a shaft connectable at one end to a line; leading and trailing body sections freely rotating on said shaft; means on the respective sections for causing the same to rotate in opposite directions on movement of the lure through the water; hooks carried by said sections; a flexible tail secured to the trailing end of the shaft; and means on the trailing section for imparting a vibratory motion to the tail on each rotation of the trailing section through 360 degrees, comprising a flexible, spring wire finger fixedly anchored at one end to the trailing section and extending substantially parallel to the axis of rotation of the trailing section, thus to rotate with the trailing section about said axis, the tail including a laterally projecting pin disposed to be struck by the finger on each full rotation of the trailing section to impart said fluttering motion to the tail.

2,836,000
FISH CATCHING DEVICE
James P. Millikan, Vandergrift, Pa.
Application December 18, 1956, Serial No. 629,136
3 Claims. (Cl. 43—36)



1. A fish catching device comprising a base adapted to be fixedly attached to a fishing line to provide complete and direct control thereof through the fishing line, a plurality of fish hooks having base ends pivotally mounted on said base in side-by-side relation, each of said fish hook having an elognated shank extending from its base end and an outer U-shaped hook portion, the shanks under normal conditions extending longitudinally forward in side-by-side relation, the U-shaped hook portions under normal conditions extending transversely outwardly and then rearwardly from the central core formed by the shanks at predetermined transverse angular relationship to each other, a flutter control plate having bearing holes for each of said fish hooks and transversely mounted on said hooks for free longitudinal sliding movement from a normal forward position on said U-shaped hook portions to a set rearward position on said shanks, said flutter control plate contacting only said fish hooks, the bearing holes of said flutter control plate having a transverse angular relationship conforming to said transverse angular relationship of said U-shaped hook portions whereby under normal conditions the shanks are held side by side and, on movement of the flutter control plate to said set rearward position by force on said plate created by a fish, the shanks are pivoted outwardly.

2,836,001
FISH LURE
Melvin L. Silen, Seattle, Wash.
Application March 10, 1955, Serial No. 493,408
1 Claim. (Cl. 43—42.06)



A fish lure comprising an elongated body equipped with means whereby it is adapted to be supported in and drawn through the water, said body being of fish plug configuration and being pointed at its rearward end, a channel formed therethrough and terminating at the point, an absorbent material in the channel impregnated with a substance that is attractive to fish and which will be dissipated from said material into the water, a wire movable endwise in the channel, a piston fixed on the wire medially of its ends, to act against said absorbent material, end means on the ends of the wire to limit the movement thereof, and the distance between the end means being greater than the length of the channel.

2,836,002
AUTOMATIC SINKER
Fred J. Miller, San Francisco, Calif.
Application October 1, 1956, Serial No. 613,015
1 Claim. (Cl. 43—43.13)

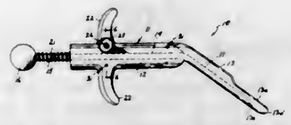
In an automatic sinker, an elongated casing having line connecting means at one end, an opening in its other end and a second opening through the side thereof, a

reciprocating rod extending through the end opening in the casing and having line connecting means located exteriorly of the casing, the plate having an opening through which the casing extends and a plate pivotally supported on the casing, the said plate being adapted to swing from a forwardly inclined position to a rearwardly inclined position, a projecting member carried by the plate and arranged to engage with the casing when the plate swings to a rearwardly inclined position, a restraining member secured to the plate and having an apertured end portion arranged to extend into the casing



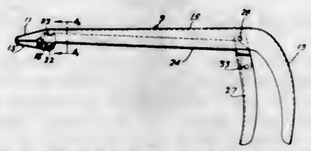
through the second opening when the plate is in its forwardly inclined position, the said rod when in one extreme of its reciprocatory movement being arranged to extend through the aperture of the restraining member when the said apertured end is positioned in the casing, and means carried in the casing for releasably holding the rod in a position extending through the aperture of the restraining member, the said means being releasable from the rod when a predetermined pull is exerted thereon, whereby the restraining member is released from the rod and the plate is free to swing to a rearwardly inclined position.

2,836,003
FISH HOOK EXTRACTORS
Robert V. Schumacker, Kansas City, Kans.
Application October 7, 1955, Serial No. 539,074
2 Claims. (Cl. 43—53.5)



1. A fish hook extractor comprising in combination, an elongated body including a handle member and a bifurcated probe member offset angularly from the axis of said handle member, a plunger slidable in the handle member between retracted and projected positions, and an angularly offset extension bar provided on said plunger and disposed between the furcations of said probe member when the plunger is retracted, said extension bar having a free end provided with a fish hook receiving kerf and being projectable laterally from between the furcations of the probe member in a direction parallel to the axis of said handle member when said plunger is projected.

2,836,004
DEVICE FOR REMOVING FISH HOOKS
Otto Stader, Ardmore, Pa.
Application June 27, 1956, Serial No. 594,156
1 Claim. (Cl. 43—53.5)



A device for removing fish hooks comprising a base member having a shank of U-shaped cross-section ter-

minating at one end in a hollow jaw element and terminating at the other end in a handle, a movable hollow jaw element, a pivot pin pivotally mounting said second jaw element on said base member adjacent said first jaw element, said jaw elements cooperating to define a substantially closed housing for the barbed point of a fish hook, said movable jaw element having a base portion comprising spaced face plates and a cross-piece therebetween, a slide element slidable on said pivot pin and mounted between said face plates and interiorly of said shank portion for longitudinal movement therein, means defining a notch in said slide element adjacent the first jaw element engaging said cross-piece of the movable jaw element, said cross piece being spaced apart from said pivot a distance less than the normal height of said slide, and said slide being positioned intermediate said pivot pin and said cross piece with the notch engaging the latter whereby said pivot pin retains said notch in engagement with said cross piece, and operable upon longitudinal displacement of said slide element to pivotally displace said movable jaw element into and away from engagement with said first jaw element, and an operator for said slide element mounted adjacent the handle portion of said base member.

2,836,005
FISHHOOK HOLDER
Eugene M. Jerdee, New Brighton, Minn.
Application July 15, 1957, Serial No. 671,874
5 Claims. (Cl. 43—57.5)



1. In a holder for a plurality of snelled fishhooks, a rectangular flat faced panel, an arm extending upwardly from each side of the panel at one end providing a rectangular opening in the panel, a pair of spaced apart nails fastened to the upper edge of the panel at the bottom of the opening, a bar slidably mounted on the pair of nails, coiled springs mounted on the said pair of nails for biasing the bar upwardly in the opening, the bar having a portion projecting beyond one face of the panel, the bar provided with a plurality of spaced apertures, and a plurality of spaced apart anchoring means on said one face of the panel.

2,836,006
HOUSING FOR ANIMAL TRAPS
Raymond Beck, Knox, Pa.
Application February 28, 1952, Serial No. 273,870
4 Claims. (Cl. 43—96)



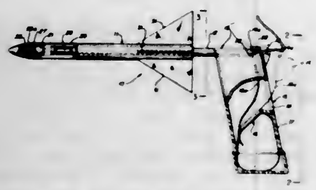
1. The combination with an animal trap of the steel jaw type having a trip pan and adapted to be set on a ground surface, of a rigid and self-supporting frangible enclosure for completely housing the sides and top of said trap comprising an inverted, shallow, dish-like receptacle having the bottom edge of its peripheral flange resting on the ground surface beyond the sides of the trap, said receptacle having a relatively thin and brittle, frangible horizontal top closely overlying the trip pan of the trap and abruptly shattering when stepped on by an animal with sufficient pressure to permit sudden engagement of the animal's foot with the trip pan.

2,836,007
BASE CONSTRUCTION FOR FURNITURE, SUCH AS TABLES AND CHAIRS
Paul L. Dodds, Pasadena, Calif.
Application May 21, 1956, Serial No. 586,004
2 Claims. (Cl. 45—139)



1. In base construction for furniture, a base member provided with equidistantly spaced apart fixed cross pieces, all of said fixed cross pieces provided with an interconnecting marginal flange, the marginal flange at the ends of at least three of said fixed cross pieces being reduced in width, the fourth of said fixed cross pieces having its end flange formed with a cam surface, extensible parts for each cross piece and extending through the reduced width end flanges, a swing lever carried by the fourth fixed cross piece engaging the cam surface and positioned between the latter and, the extensible part for said fixed cross piece, and movement of said lever along said cam surface raising or lowering the said fixed cross piece relative tc said extensible part.

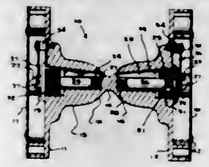
2,836,008
TOY ROCKET
Robert P. Nichols, Akron, Ohio
Application August 2, 1954, Serial No. 447,270
5 Claims. (Cl. 46—74)



1. A projectile toy of the character described, comprising; a rocket support having a tubular extension; a non-resilient cylindrical impact member received interiorly of said tubular extension; a striker head shiftably carried by said support and being movable into and out of engagement with one axial end of said impact head; a tubular rocket body telescoped over said tubular extension and said impact head in relatively axial movable relationship therewith; said rocket body having an internal axial wall of non-resilient material engageable with one exposed axial end surface of said impact head when said tubular extension and said rocket body are telescoped.

2,836,009
DIABOLO GAME TOP
Wensan Wang, Tokyo, Japan
Application November 14, 1956, Serial No. 622,195
3 Claims. (Cl. 46—228)

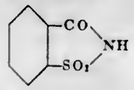
1. A diabolo game top comprising a hollow cylindrical body having one end closed, a cylindrical stem positioned on the side of said body adjacent the closed end thereof and having one end secured to said closed end, there being a groove in the midportion of said stem for receiving the intermediate portion of a spinning cord, a translucent end plate closing the other end of said body, a socket in the closed end of said body and facing toward the translucent end plate, a light bulb having a base contact and a shell contact mounted in said socket so that the base contact is remote from the closed end of said body and the bulb is facing toward the end plate with a portion of the shell contact exteriorly of said socket, a source of current connected in circuit with said base contact, a terminal post fixedly positioned in said body and extending parallel to said



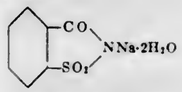
socket, and a contact arm in said body and having one end carried by said post and having the other end normally out of contacting engagement with the exterior portion of said shell contact, said contact arm being operable in response to rotary movement of said body to move it into contact with the exterior portion of said shell contact and energize and illuminate said light bulb.

2,836,010
PALATABILITY OF VEGETABLE FOODS
Eli Seifter, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application April 5, 1956
Serial No. 576,232
4 Claims. (Cl. 47—58)

1. Method of improving the palatability of crops which comprises growing the said crops in soil containing from 0.5 lb. to 200 lbs. per acre of a compound selected from the group consisting of saccharin



and sodium saccharin

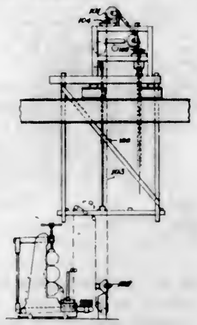


2,836,011
GLASS ENVELOPE FORMING AND SEALING APPARATUS
Erwin F. Hutchins, Waldoboro, Maine, assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application February 3, 1956, Serial No. 563,211
1 Claim. (Cl. 49—2)



In a head for forming a glass envelope from a glass tube and sealing an electrode assembly therein, the combination of: a seat for said electrode assembly; a clamp, disposed in register with said seat, for gripping said glass tube adjacent one end thereof, said clamp being reciprocable to move said glass tube axially with respect to said seat to effect encompassment of the electrode assembly disposed thereon; and a pair of jaws pivotally mounted on said head and movable into and out of operative relationship with respect to said glass tube, said jaws comprising a pair of coacting tube-grippers for engaging said glass envelope intermediate the ends thereof and a pair of coacting press fingers for engaging said glass envelope at the other end thereof.

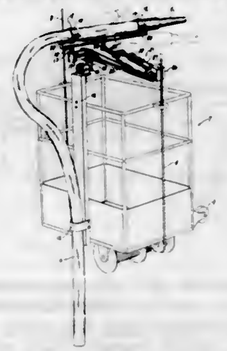
2,836,012
APPARATUS FOR UNTWISTING MATERIAL IN TWISTED ROPE FORM
William Joseph Moorhouse, Nab Wood, Shipley, and Ernest Wilford, Great Horton, Bradford, England, assignors to The Bradford Dyers' Association Limited, Yorkshire, England, a British company
Application June 18, 1956, Serial No. 591,951
8 Claims. (Cl. 57—1)



1. An apparatus for taking the twist out of roped material comprising an untwisting unit, a twist detector, and a cloth guider arranged in series so that roped material may pass from said untwisting unit to said twist detector and then to said cloth guider, said untwisting unit being operable to untwist said roped material, said twist detector being operable to detect twists in said roped material, and said cloth guider being operable to open said roped material to full width after said material leaves the twist detector, means connecting said twist detector to said untwisting unit to actuate said untwisting unit in response to actuation of said twist detector, and means connected to said twist detector to disable said twist detector from actuating said untwisting unit even though said twist detector detects twists in roped material passing through the twist detector, said last named means being located between the twist detector and the cloth guider and being responsive to the width of the material passing from the twist detector to the cloth guider at said location.

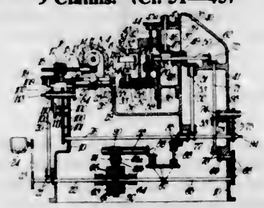
2,836,013
SAND BLASTING APPARATUS
William C. Koenig, Milwaukee, Wis., assignor to Brant and Nielsen Company, Milwaukee, Wis., a corporation of Wisconsin
Application January 24, 1957, Serial No. 636,153
1 Claim. (Cl. 51—8)

A mechanically manipulated sand blasting device adapted to be attached to an elevatable carriage to sand blast such surfaces as the sides of large oil tanks, comprising a hose connected to a source of air under pressure and to a supply of sand to be entrained in the air flowing through the hose; a nozzle on the end of the hose; a supporting member having means to secure the same to a carriage; a bracket; hinge means connecting the bracket to said supporting member; an arm; means pivotally connecting the arm to the bracket for bodily movement therewith and for swinging movement of the arm relative to the bracket about an axis transverse to that of the hinge; means securing the nozzle and the adjacent portion of the hose to the arm so that the nozzle partakes of all motion of the arm; a motor mounted on the bracket; and a driving connection be-



tween the motor and the arm through which the motor acts to swing the arm back and forth about the axis of its pivotal connection with the bracket without interferring with movement of the bracket and all of the structure mounted thereon about the axis of the hinge connection between the bracket and the supporting structure, so that the entire apparatus may be swung to an out-of-the-way position on a carriage on which it is mounted without in anywise disturbing the operative relationship of the various parts of the apparatus.

2,836,014
MACHINES FOR GRINDING GEAR TOOTH AND LIKE PROFILES
Thomas Ethelred Calderwood, Staines, England, assignor to W. E. Sykes Limited, Staines, England
Application June 18, 1953, Serial No. 362,451
Claims priority, application Great Britain June 18, 1952
9 Claims. (Cl. 51—45)

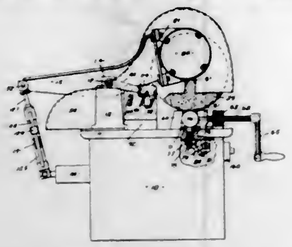


1. In a machine of the type described, a helical-profile grinding tool, means for rotatably supporting said grinding tool, means for rotatably supporting a workpiece, means for rotatably driving said grinding tool and workpiece in timed relation, means for reciprocating said grinding tool in a direction perpendicular to the axis of rotation of the workpiece, and means for moving the workpiece in the direction of its axis of rotation in timed relation to the reciprocation of said grinding tool.

2,836,015
CUT-OFF MACHINE
Arthur R. Stone, Fayetteville, N. Y.
Application July 24, 1957, Serial No. 673,899
5 Claims. (Cl. 51—98)

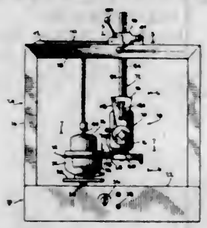
1. A cut-off machine comprising a frame, a work piece support, an arm pivotally mounted in the frame, a rotary

cutting tool carried by said arm, power means for moving said arm about its pivot to move said cutting tool toward and from a work piece on said support, a switch operating member frictionally coupled to said arm for movement therewith, a switch mounted on the frame for engagement by said switch operating member when said cutting tool is positioned in proximity to the work piece upon movement of said arm toward the work piece support, a control means associated with said arm and operable



upon engagement of said operating member with said switch to slow the speed of further movement of the arm toward the work support while said cutting tool is cutting the work piece, means operable upon contact by said cutting tool upon completion of the cutting operation to effect reversal of said power means to cause movement of said arm and cutting tool away from said work support, and a stop fixedly mounted on the frame for engagement by said switch operating member during the latter part of the cutting operation.

2,836,016
APPARATUS FOR OPENING HERMETICALLY SEALED CASINGS
Frank Lowitz, Bronx, N. Y.
Application August 2, 1956, Serial No. 601,719
16 Claims. (Cl. 51—105)



5. In a grinder for opening a unit having a casing including at least two parts joined by an endless welded joint, a grinding head and a work holder, said work holder comprising a table, means to secure a unit to the table, means to mount said table for rotation about an axis and to turn the table about said axis, said grinding head including a grinding wheel, power actuated means for rotating said wheel about an axis, a horizontal track, a truck riding on said track, means biasing said truck in a direction toward the work table, and means supporting the wheel from the truck, whereby the wheel is arranged to apply a yielding operative pressure against the welded joint.

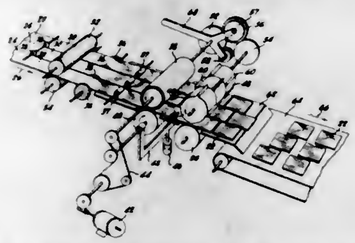
2,836,017
INSERT FOR GRINDING WHEELS
Robert L. Tygh, Jackson, Mich.
Application August 26, 1955, Serial No. 530,820
4 Claims. (Cl. 51—209)

2. An insert for a grinding wheel comprising a channel member having a web portion and a pair of parallel edge flanges, said web portion having a hole centrally thereof, said edge flanges extending from said web portion perpendicular thereto and thereafter diverging away from each other, and a boss on the same side of said web portion as said flanges, said boss having a pair of side edges



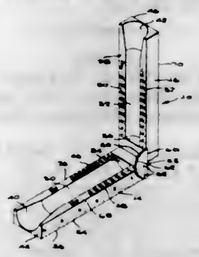
perpendicular to said web portion and parallel to said edge flanges held snugly between the perpendicular portions of said flanges, said boss also having a screw-threaded opening therethrough in registry with said hole.

2,836,018
MANUFACTURING DEVICE
Don E. Key, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 25, 1956, Serial No. 611,841
5 Claims. (Cl. 51—281)



1. In a method for making battery plate separators from relatively brittle strip material of indeterminate length and of a breadth equal to at least two times the width of a single separator wherein said strip material is embossed on one side and is smooth on the other side, the steps comprising; pulling the strip material from a source of supply to move the strip at a constant rate of travel while simultaneously resiliently supporting the embossed side thereof, slitting the moving strip longitudinally into a plurality of individual strips each having a width equal to the width of a single separator, sizing the strip both as to width and thickness, pushing said slit strips into a rotating severing device for cutting said strip into a plurality of individual separators and conveying the individual separators from said separating device.

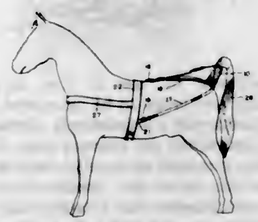
2,836,019
COMBINED COIN COUNTING AND WRAPPING AND MEASURING DEVICE
Edward S. Oltarzewski, Bayonne, N. J.
Application May 4, 1956, Serial No. 582,873
2 Claims. (Cl. 53—254)



1. Measuring apparatus comprising an elongated rectangularly conformed member including a pair of juxtapositionable body members having an external rectangular

configuration, hinge means extending between adjacent transverse end portions of the body members providing pivotally related juxta-positionable mating surface portions between said body members, each of said mating surface portions including longitudinally extending overlying semi-cylindrical blind bore portions defining a longitudinal blind bore opening into adjacent end portions of the body members opposite the hinge means when the body members are juxtaposed, coin-counting indicia means linearly disposed on the mating surface portions of the body members in a linear alignment along the semi-cylindrical blind bore portion, one of said body members including an external straight edge portion opposite the mating surface portion thereof, linear scale means contained on an outer surface portion of the one body member along the straight edge portion, and a protractor member mounted on said one body member, said protractor member including an angular scale along a semi-circular edge portion thereof, said protractor member including a linear base edge portion disposed at right angles to the straight edge portion of said one body member for providing a square on the apparatus.

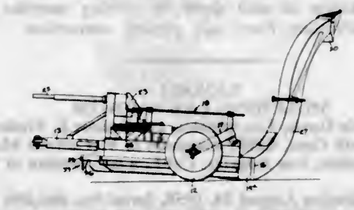
2,836,020
CRUPPER
Thomas D. Linscott, Fiddletown, Calif.
Application July 26, 1954, Serial No. 445,660
1 Claim. (Cl. 54—22)



A crupper comprising a vertically upstanding flexible body portion of arcuate cross section having a top edge of greater extent than its lower edge, stiffening stays secured along the side edges of said body portion, straps secured to each end of said top edge, buckles at the ends of said straps, a body strap secured to and extending forwardly from each end of the lower edge of said body portion, said body straps being connected together at their forward ends, a buckle adapted for connection of said body straps to the top center of a surcingle, a butt strap secured to and extending forwardly and downwardly from each end of the lower edge of said arcuate body portion, a buckle at the free end of each body strap adapted for connection to the side portion of a surcingle, and a pair of crossed adjusting straps, each adjusting strap being secured at one end to one of said body straps at a point spaced rearwardly from their point of connection, said adjusting straps each engaging, at its unsecured end, to one of said buckles at the ends of said first mentioned straps.

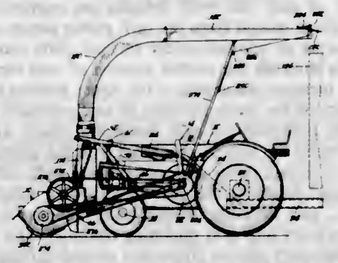
2,836,021
APPARATUS FOR CUTTING AND SHREDDING MATERIALS
Keith S. Wood, Leonard W. Wood, and Mervel E. Wood, Oregon, Ill., assignors to Wood Brothers Manufacturing Company, Oregon, Ill., a corporation of Illinois
Application March 16, 1955, Serial No. 494,716
3 Claims. (Cl. 55—62)

1. A cutter having, in combination, a generally horizontal housing having a top wall and side and rear walls depending from said top wall, a partial bottom wall spanning said side walls and extending forwardly from said rear wall toward but short of the center of said housing, said bottom wall cooperating with the other walls to define a chamber across the rear of said housing, an elongated blade disposed in a plane parallel to to and between said top and bottom walls and mounted to turn about an axis normal to said plane, and in front of said bottom wall, said blade as it turns projecting into



said chamber, a vane secured to the top of said blade near the outer end thereof to turn with the blade and operable to blow the material cut by the blade tangentially into said chamber, and a conduit opening into said chamber and extending outwardly from said housing to define an outlet passage through which the material is blown upon leaving the chamber.

2,836,022
SPECIFIC DRIVE AND MOUNTING MEANS FOR A FORAGE HARVESTER
Walter Dwight Caldwell, Prairie City, Iowa
Application June 30, 1953, Serial No. 365,113
5 Claims. (Cl. 56—10)



1. An apparatus for working material on or above the ground, comprising frame means adapted to be mounted on a vehicle such as a tractor, a pair of boom structures comprising pipe sections pivotally mounted to said frame means, material working means carried by said boom structures, and means mounting the material working means on said boom structures, said last mentioned means including pipe sections attached to the material working means and telescoping with the pipe sections of the boom structures, some of said pipe sections having means for adjusting the cross sectional dimensions thereof, whereby the pipe sections of the boom structures and the pipe sections of the mounting means grip each other.

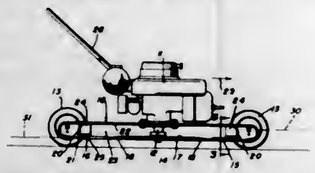
2,836,023
FORAGE HARVESTER CUTTING MECHANISM
Walter Dwight Caldwell, Prairie City, Iowa
Application June 30, 1953, Serial No. 365,109
8 Claims. (Cl. 56—24)



1. For use with a forage harvester, a cutting mechanism comprising a rotatable shaft, mounting means on said shaft, at least one cutting member having a loose

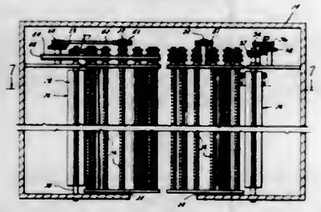
pivotal connection with said mounting means, said cutting member having an attaching portion adjacent said mounting means, an intermediate shank portion extending diagonally from said attaching portion and an outer cutting portion extending reversely diagonally from said shank portion, the center of gravity of said cutting member being in line with said attaching portion, whereby during rotation of said shaft the cutting member will lie in equilibrium from said pivotal connection.

2,836,024
MULCHING LAWNMOWER
Ray Francis Davis, Los Angeles, and Robert E. Frederickson, South Gate, Calif., assignors to McCulloch Motors Corporation, Los Angeles, Calif., a corporation of Wisconsin
Application August 24, 1956, Serial No. 606,095
3 Claims. (Cl. 56—25.4)



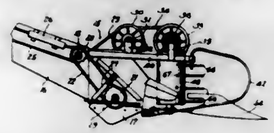
1. In a mulching lawnmower: a carriage adapted to be moved along the turf, said carriage having a top wall and a side wall extending down from the periphery thereof so as to define a mulching chamber open at the bottom, the lower edge of said side wall defining an approximately horizontal plane spaced from the turf; power means on the carriage having an approximately vertical shaft extending downwardly through the central portion of said top wall; a rotatable member connected to the lower portion of said shaft; cutters on the outer portions of said rotatable member in close proximity to said horizontal plane and revolvable around the axis of said shaft with the extremities thereof close to said lower edge of said side wall; deflector means on said rotatable member in following relation to said cutters, said deflector means being adapted to urge cuttings upwardly into said mulching chamber; and a plurality of stationary cutters connected to said carriage in a circle within the peripheral portion of said mulching chamber and consisting of upright walls extending inwardly from said side wall with the lower edges thereof above and in close proximity to said deflector means.

2,836,025
COTTON PICKING UNIT
Ivan P. Haring, Crosby, Tex., assignor of twenty-five percent to E. A. Kruse, twenty-five percent to Howard T. Tellepsen, and fifteen percent to H. C. Donahoe, all of Houston, Tex.
Application June 30, 1955, Serial No. 519,129
6 Claims. (Cl. 56—40)



1. In a cotton-picking machine, a drum rotatable about a vertical axis and having a cylindrical face, a plurality of vertical picking spindles carried by the drum and arranged circumferentially about the face thereof, said picking spindles having picking teeth and being independently rotatable about vertical axes and disposed in closely-spaced relation to the face of the drum, a tensioning roller yieldingly mounted on the cotton-picking machine adjacent the drum yieldingly urging cotton plants against the drum and the picking spindles whereby cotton engaged by the picking spindles is wound thereabout and held thereon by means of tension created by the cotton bearing against the face of the drum, the winding action of the picking spindles and the tensioning rollers, driving means connected to the drum and to the picking spindles to rotate the drum and the picking spindles about a common axis and to rotate the picking spindles independently of the drum, and doffing means carried by said picking machine and mounted thereon adjacent the picking spindles to engage and remove the picked cotton therefrom.

2,836,026
VERTICAL CYLINDER ATTACHMENT FOR COMBINES
William C. Gray and Bennie C. Pendarvis, Allendale, S. C.
Application October 14, 1955, Serial No. 540,505
1 Claim. (Cl. 56—119)

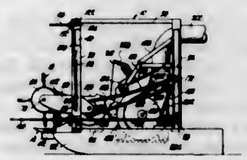


In an attachment for use in row crop combining of corn and like row crops to be associated with a combine of the type having a transversely disposed, horizontal cutter bar for cutting the crops, a pair of transversely spaced cylinders arranged on parallel vertical axes spaced in advance of the cutter bar, means operatively associated with said cylinders for rotating said cylinders in opposite directions, one of said cylinders having a group of peripheral guide openings spaced uniformly circumferentially about the cylinder and lying in a single plane disposed normal to the axis of the cylinder, a fixed, eccentric vertical shaft in said one cylinder offset forwardly from the cylinder axis and toward the other cylinder, a sleeve rotatably journaled on said eccentric shaft aligned horizontally with said group of guide openings, said sleeve having a harvesting rod rigidly fixed at its inner end to said sleeve and projecting radially therefrom and a plurality of harvesting rods of similar length to said radially projecting rod pivoted at their inner ends to said sleeve at spaced positions about the periphery of said sleeve, said harvesting rods projecting through said guide openings to be guided to various angular positions relative to said shaft by the bounding walls of said guide openings upon rotation of said one cylinder, the length of said harvesting rods being such that the major portions of the harvesting rods are projected from the cylinder during a portion of a cycle of rotation of the cylinder and are withdrawn into the cylinder during another portion of the cycle of rotation thereof.

2,836,027
GRASS HEADER
Yates Pearson, Liberty, Mo.
Application April 16, 1956, Serial No. 578,303
1 Claim. (Cl. 56—158)

In a grass header implement provided with a mobile frame assembly having ground engaging supporting structure and adapted to be coupled with independent means for pulling the same, the combination with said mobile frame of a pair of upright, horizontally spaced channel posts secured to the same and disposed with the

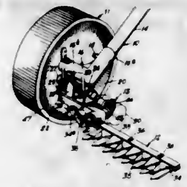
concave sides thereof in facing relationship, each of said posts having an elongated, relatively narrow slot therein; an elongated, longitudinally horizontal mounting plate disposed adjacent the concave side of each of the posts at the lower end thereof, said plates being positioned in longitudinal parallel relationship and each having a runner portion reciprocably disposed in the channel of a corresponding post, there being a pair of vertically spaced, laterally extending pins on each of the runner portions and projecting through the slot in a respective post; an elongated, horizontal windlass shaft rotatably carried by the posts at the upper end thereof and having a windlass drum on each end of the same; an elongated flexible cable wound around each of the windlass drums and having one end thereof secured to a corresponding pin on respective runner portions of the plates; rotatable, manually operable means carried by the frame and coupled with said windlass shaft and operable from a remote position on said independent means for shifting the plates in a vertical plane as said manually operable means is rotated; an elongated sickle bar assembly mounted on and spanning the distance between said plates and provided with a longitudinally



reciprocable blade; a reel assembly spanning the distrance between and mounted on the plates and having a reel positioned above the sickle assembly and rotatable with respect to the plates; an elongated transfer assembly mounted on the plates rearwardly of the sickle bar assembly with respect to the reel and provided with a rotatable conveyor spanning the distance between the plates. there being first and second pulleys attached to the conveyor and said reel respectively; a power shaft rotatably carried by the frame and adapted to be operably coupled with power take-off means on said independent means; pulley means operably coupled with said power shaft and rotatably mounted on the frame in fixed positions with the axes of rotation thereof in parallel, horizontally spaced relationship to the axes of rotation of said first and second pulleys; flexible belt means interconnecting said pulley means and the first and second pulleys; and mechanism operably coupling the blade with said shaft for reciprocating the blade including eccentric structure rotatable on an axis parallel with said power shaft and a pitman rod coupled with the eccentric structure and said blade in longitudinal parallelism with the latter whereby the reel and conveyor may be rotated irrespective of the vertical position of said plates.

2,836,028
GRASS TRIMMER
Robert A. Trom, Broomall, Pa.
Application April 13, 1956, Serial No. 578,023
4 Claims. (Cl. 56—264)

1. A grass trimmer comprising an L-shaped frame member, one leg of the L serving as an axle, a single wheel on the axle, said wheel being adapted to roll on the ground and being provided with a concentric internal gear near its periphery, a cutter support supported on the frame to rotate about an axis parallel to the axle and between the axle and the internal gear, a pair of generally horizontally disposed cutter blades one of which is fixed to the cutter support and the other of which is held relative to said support to slide relative thereto, a gear coupling rotatably supported on the cutter support such that in one position of the support a pinion of the coupling meshes with the internal gear of the wheel and coupled to drive the movable cutter blade in reciprocating



fashion in response to the rolling of the wheel, stop means limiting removal of the cutter support from the position in which the pinion meshes with the internal gear in one direction and spring means urging the cutter support into the position in which the pinion meshes with the internal gear.

2,836,029
LAWN MOWER CUTTING BLADE
Alexander John Johnson, Eugene, Oreg.
Application October 25, 1956, Serial No. 618,349
1 Claim. (Cl. 56—295)



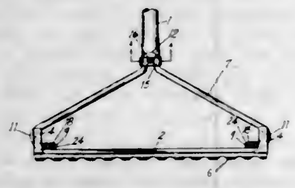
A blade for a power mower of the rotary type comprising a horizontal elongated flat plate, said plate having longitudinally extending partially flat opposite side edges and transversely extending opposite end edges, said plate having a vertical bore extending therethrough intermediate the opposite end edges thereof, a cutting edge formed on the end portion of one of said side edges adjacent one of said end edges, a second cutting edge formed on the end portion of the other of said side edges adjacent the other of said end edges, an arcuately upwardly offset fan blade integrally formed on the end portion of said one side edge adjacent said other end edge, an arcuately upwardly offset fan blade integrally formed on the end portion of said other side edge adjacent said one end edge, said fan blades each extending parallel to the cutting edge adjacent thereto, an upwardly offset flared portion integrally formed on said other side edge and integrally extending at an angle from the fan blade thereon, an upwardly offset flared portion integrally formed on said one side edge and integrally extending at an angle from the fan blade thereon, said flared portions serving as additional fan blades to move air radially outwardly of said flat plate, an integral upwardly offset portion formed on said other side edge integrally extending from the flared portion thereon parallel to said one side edge, an integral upwardly offset portion formed on said one side edge integrally extending from the flared portion thereon parallel to said other side edge, a tapered offset stiffening member integrally formed on said other side edge integrally extending from the offset portion thereon to the flat portion of said other side edge, and a tapered offset stiffening member integrally formed on said one side edge integrally extending from the offset portion thereon to the flat portion of said one side edge, said flat plate on rotation producing upwardly and outwardly flowing air streams and providing a vacuum beneath said plate.

2,836,030
RAKING DEVICE
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to Cornelis van der Lely, Maasland, Netherlands
Application May 18, 1953, Serial No. 355,595
Claims priority, application Netherlands May 20, 1952
16 Claims. (Cl. 56—377)



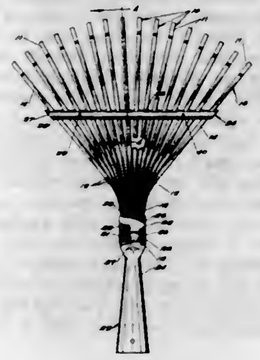
1. A raking device comprising in combination a frame, a plurality of rake wheels borne by said frame and mounted for free rotation in parallel erect planes arranged at an acute angle to the line of travel of said frame, and ground engaging spring-mounted supports located behind rake wheels and constituting the principal means for supporting said frame on the ground during travelling, said frame being located with its principal elements at a lower elevation above the ground than the top portions of said rake wheels and said frame having certain frame elements extending through the hub of at least one of the rake wheels and being connected to one of the spring-mounted supports.

2,836,031
SELF CLEANING RAKE AND HANDLE STRUCTURE
Frank S. Antozak, Grand Rapids, Mich.
Application November 3, 1954, Serial No. 466,549
4 Claims. (Cl. 56—400.2)



1. A rake comprising a handle provided with outwardly diverging springable rake head yoke arms terminating at their outer ends in inwardly directed rake head pintles, the pintles having longitudinally disposed slots in their inner ends, a rake head having rearwardly projecting arms at its ends provided with bearing openings through which said pintles are disposed with the pintles projecting inwardly of the arms, the arms having outwardly projecting stops overhanging and engaging the yoke arms when the rake head is in erected position, coil springs supportedly sleeved upon said spindles at the inner sides of said arms and terminating at their outer ends with hooked arms engaged with bottom edges of said rake head arms and at their inner ends with lugs engaged in said slots in said pintles with the springs tensioned to yieldingly urge said rake head to erected position with its said stops in supported engagement with said yoke arms, and spring retaining collars disposed and retained on said pintles at the inner ends of said springs.

2,836,032
BROOM RAKE TINE MOUNTING
James M. Melvin, Elwood, Ind., assignor to Monticello Manufacturing Corporation, Elwood, Ind.
Application May 14, 1957, Serial No. 659,099
2 Claims. (Cl. 56—400.17)



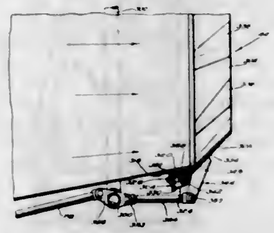
1. A broom rake tine anchoring means comprising a plurality of tines each having a notch entering it from opposite sides, one side notch opposite the other side notch, adjacent an end of the tine defining a head by said end; a cylindrical capsule having a slit along one side with spaced apart marginal edges; said tines being stacked one against the other; said capsule surrounding the heads of said tines and said capsule edges entering said notches, one capsule edge across the notches on one side, and the other capsule edge across the notches on the other side of the respective tines, retaining the tines against longitudinal travel one in respect to the other; capsule end closures retaining the tine heads within said capsule against travel longitudinally of the capsule; a handle ferrule carrying said tines; a sheath carried by said ferrule and engaging said capsule, fixing it in position within the sheath crosswise of the ferrule.

2,836,033
HEAT-CONTROLLED ACOUSTIC WAVE SYSTEM
Warren A. Marrison, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 15, 1953, Serial No. 368,185
23 Claims. (Cl. 60—24)



1. An acoustic wave system which comprises a vessel having fixed side walls and at least one fixed end wall and thus defining a constant volume, an elastic fluid wave-supporting medium contained within said vessel, a pair of closely spaced heat exchangers disposed within said vessel, means for applying heat to one of said exchangers, means for withdrawing heat from the other of said exchangers, and means for abstracting oscillatory energy from acoustic oscillations of said medium.

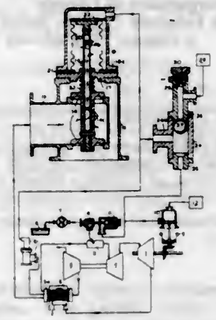
2,836,034
VARIABLE AREA NOZZLE
Frederick L. Geary, Springfield, Mass., and William Granville Taylor, Jr., South Glastonbury, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Original application June 29, 1951, Serial No. 234,228, now Patent No. 2,815,643, dated December 10, 1957. Divided and this application August 20, 1954, Serial No. 451,154
3 Claims. (Cl. 60—35.6)



1. A variable area nozzle including a duct having an outlet, a ring surrounding said duct adjacent to the outlet, said ring including a radially extending flange, said ring including a channel formed around the outlet of said duct having parallel radially extending flanges, a plurality of flaps pivotally mounted on said radially extending flange around said fluid outlet, each flap including a curved plate, a similarly curved hinge plate secured to one side of the flap plate, and a curved sealing plate secured to said flap plate on the opposite face thereof from said hinge plate and extending beyond one side edge of said flap plate beneath the next adjacent flap plate, a sealing member positioned in said channel, each of said flaps having a curved part adjacent its pivot engaging with said sealing member to form a seal, each flap having an arm secured to its hinge plate and projecting therefrom, means for pivoting said flaps to vary the effective area of said outlet including a hoop located around said fluid outlet, links connecting each flap arm to the hoop, tracks fixed in relation to said outlet, a wheel mounted on said hoop for engagement with each track to guide the movement of said hoop, a first bracket fixed to said hoop, a second bracket fixed to said ring, and means for biasing said hoop in a direction to restrict said nozzle area comprising a spring connected between said first and second brackets.

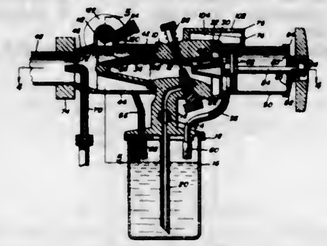
2,836,035
GOVERNING SYSTEM FOR GAS TURBINE PLANT
Herbert Edgar Chappell, Spalding, and Humphrey Gerald Waldock and Ronald Thomas Max Forman, Farnborough, England, assignors to Power Jets (Research and Development) Limited, London, England, a British company
Application March 7, 1955, Serial No. 492,714
Claims priority, application Great Britain March 15, 1954
6 Claims. (Cl. 60—39.27)

1. Gas turbine power plant of the kind comprising a power-output turbine, a heating system connected to supply hot working gas to said turbine, an independently rotatable compressor connected to supply compressed air to said heating system, and a blow-off valve in the air connection between said compressor and said heating system, said plant being characterised by the combination therewith of a speed governor on said turbine, actuating means for said blow-off valve, means for applying a fluid pressure to said actuating means in a valve-closing direction, means operable by said governor for reducing said fluid pressure in response to overspeed of said turbine and further means affording a communication to said actuating means for air compressed in said compressor for applying to said actuating means, in opposition to said



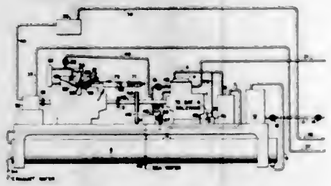
fluid pressure, a force directly dependent on the pressure of said compressed air.

2,836,036
FUEL FEEDING AND IGNITION MEANS FOR PULSE JET TYPE HOT GAS OR STEAM GENERATOR
Sergey S. Drage, Elmhurst, N. Y., assignor of fifty percent to Star Co., New York Mills, N. Y., a corporation
Application October 27, 1953, Serial No. 388,581
3 Claims. (Cl. 60—39.55)



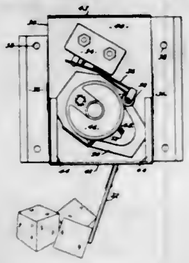
1. A jet heat gun comprising a Venturi-shaped mixing chamber, air inlet ports opening into said chamber, valves associated with said air inlet ports, a combustion chamber, a valve plate between said mixing chamber and said combustion chamber, said plate having a port therein, a flat spring biased into closing relation with said port, a fuel reservoir, a fuel conduit communicating said reservoir with said mixing chamber, an air pump including a pump operator, an air duct communicating said pump with said reservoir, a check valve in said air duct for inhibiting return flow from said reservoir to said pump, an air nozzle communicating said pump with said mixing chamber, a fuel nozzle on said fuel conduit, said air nozzle extending into the throat of said Venturi-shaped mixing chamber, an igniting device, means operatively connecting said igniting device with said pump operator for actuation of said device in response to actuation of said pump, said means including a rod movable with said pump operator, a flint holder having a flint, a sparking wheel engaging said flint, a sheave connected to said sparking wheel, a flexible member connected to said rod and entrained over said sheave to drive said sheave, and a longitudinally resilient member constituting a portion of said flexible member so as to establish a drive connection between said sheave and member when said member is moved in one direction.

2,836,037
REFRIGERATION SYSTEM
Walter H. Carpenter and Walter L. Mingledorff, Jr., Savannah, Ga., assignors to Mingledorff's, Inc., Savannah, Ga., a corporation of Georgia
Application February 7, 1955, Serial No. 486,483
5 Claims. (Cl. 62—4)



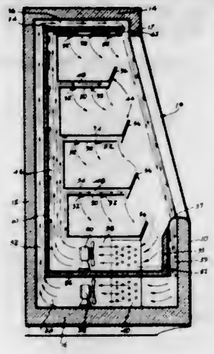
1. A refrigeration system comprising a refrigerant compressor, a motor driving said compressor, a condenser connected to the output side of the compressor for cooling and condensing the compressed refrigerant, a single pump operated by said motor connected to and supplying cooling water to both said compressor and said condenser, a tank containing a cooling medium, heat exchange means carrying refrigerant immersed in said cooling medium and connected to said condenser and said compressor, and means for circulating the cooling medium in the tank in contact with the immersed heat exchange means.

2,836,038
ICE MAKING APPARATUS
Robert Dayton Morgan, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application March 1, 1954, Serial No. 413,273
2 Claims. (Cl. 62—7)



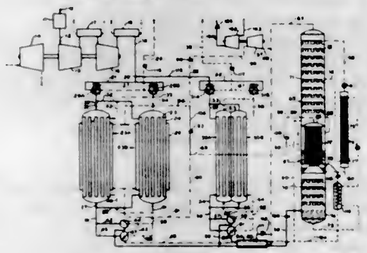
1. In an ice making machine, the combination of means for forming ice, means for harvesting the formed ice, a storage bin placed below the ice forming means for receiving and collecting the harvested ice, and means responsive to the collection of a predetermined supply of ice in the storage bin for discontinuing operation of the machine, said last mentioned means comprising a supporting bracket, motor means normally supported in a first position and pivotally mounted for movement in a substantially vertical direction on said bracket, an arm connected to the motor means for movement in a substantially vertical direction, a switch in the control circuit of the machine mounted in operative relation to the motor means, obstruction of the movement of said arm by a predetermined accumulation of ice in said storage bin pivotally moving said motor means in said substantially vertical direction from the first position to a second position to actuate the switch to discontinue operation of the machine, removal of said obstruction returning the motor means by forces of gravity from said second position to said first position to re-initiate said ice making operation.

2,836,039
REFRIGERATED SELF-SERVICE SHOWCASE
Karl A. Weber, Los Angeles, Calif., assignor to Weber Showcase & Fixture Co., Inc., Los Angeles, Calif., a corporation of California
Application September 19, 1955, Serial No. 535,123
4 Claims. (Cl. 62—89.5)



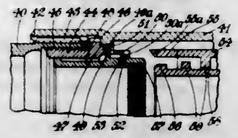
1. A refrigerated showcase comprising a housing having an access opening, a plurality of open display bins positioned one above the other in said housing, means forming air passages on three sides of said display bins, air moving means circulating air through said passages directing air flow in a curtain across said access opening, and means for diverting a portion of the air moved by said air moving means into said last-mentioned air passages, and refrigerating means in the path of air moved by said air moving means.

2,836,040
METHOD FOR THE FRACTIONATION OF AIR
Clarence J. Schilling, Allentown, Pa., assignor to Air Products, Incorporated, a corporation of Michigan
Continuation of application Serial No. 231,221, June 12, 1951. This application August 19, 1954, Serial No. 450,927
14 Claims. (Cl. 62—175.5)



1. In the continuous fractionating of air into components in which compressed air including congealable impurities is refrigerated by heat interchange with cold product gas and supplied to a fractionating operation including a high pressure separation zone and a low pressure separation zone, during one period of the heat interchange compressed air near ambient temperature being passed in one direction through a first path in heat exchange effecting relationship with cold product gas to cool the compressed air to a temperature below the solidification temperature of the congealable impurities so that congealable impurities are removed from the compressed air and deposited in the colder portion of the first path, during another period of the heat interchange the compressed air being passed in the one direction through a second path and a stream of sweeping cold product gas being passed in the opposite direction through the first path, the difference in the specific heat of the compressed air and the specific heat of product gas in heat exchange effecting relationship therewith progressively increasing along the heat interchange in the direction of air flow so that with equal masses of compressed air and cold product in heat exchange effecting relationship therewith the congealable impurities deposited in the first path would not be completely sublimed by the stream of sweeping cold product gas flowing through the first path, the method comprising withdrawing cold high pressure nitrogen component gas from the high pressure separation zone, passing withdrawn high pressure nitrogen component gas substantially at the high pressure through a supplemental path in an opposite direction to that of the compressed air in the first path, the supplemental path being in heat exchange effecting relationship with at least the colder portion of the first path, expanding warmed high pressure nitrogen component gas from the supplemental path, and adding expanded nitrogen gas to cold nitrogen component gas flowing to the heat interchange, the mass of the high pressure nitrogen component gas passing through the supplemental path being controlled so as to constitute the sole medium for compensating for said difference in specific heats to the extent necessary to reduce the temperature difference of the compressed air and the stream of sweeping cold product gas at the cold end of the heat interchange to 5° C. or less, whereby the stream of sweeping cold product gas flowing through the first path substantially completely sublimes the deposited congealable impurities.

2,836,041
LOCKING MEANS FOR PARTS HAVING THREADED ENGAGEMENT
James Alexander Petrie, Littleover, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application November 14, 1955, Serial No. 546,695
Claims priority, application Great Britain November 22, 1954
4 Claims. (Cl. 64—9)



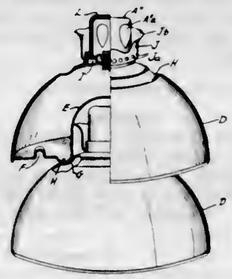
1. In combination, a first hollow shaft, a second shaft projecting within said first shaft, interengaging spline formations on said first and second shafts, said second shaft being hollow at least in the region of said spline formations, an adjusting sleeve accommodated within said shafts and having threaded engagement with one of said shafts and having thereon an annular axially-facing part-spherical face, an annular axially-facing part-spherical face on the other of said shafts, said faces co-operating to transmit axial thrust between the shafts and permitting misalignment of said shafts, said spline formations on the shafts being adapted to permit such misalignment, said adjusting sleeve being formed with a plurality of circumferentially-spaced slots which are open at one end, internal circumferentially-spaced axially-extending formations on one of said shafts adjacent said slots, a locking sleeve extending within said adjusting sleeve, radially-extending formations on said locking sleeve projecting into said slots and engaging between said internal circumferentially-spaced formations to lock said shafts and adjusting sleeve against relative rotation, an axially-facing abutment surface on the adjusting sleeve at a position adjacent said slots and facing away from the open ends of the slots, a substantially oppositely-facing abutment surface on said locking sleeve, and radially and resiliently deformable means positioned between and axially abutting said abutment surfaces on said adjusting sleeve and said locking sleeve thereby to restrain said locking sleeve from axial displacement in one sense at least.

2,836,042
YARN CARRIER OF CIRCULAR HOSIERY KNITTING MACHINES
Karl Ernest Hoefer, Rivervale, N. J., assignor to Ernest A. Feustel, Hasbrouck Heights, N. J.
Application March 18, 1955, Serial No. 495,240
2 Claims. (Cl. 66—125)



1. In a circular hosiery knitting machine, the combination of a yarn carrier and a thread-guiding tube supported thereby, said tube having a circumferentially extending flange intermediate its ends, said yarn carrier comprising an elongated flat body having an outwardly projecting arm integral with said body, said arm having formed at the outer end thereof a longitudinal slot and a transverse slot, said slots intersecting each other at substantially right angles and forming a pair of upper jaws and a pair of lower jaws, said arm further having opposed aligned recesses forming a part of said longitudinal slot and located in said upper and lower jaws for receiving the body of said thread-guiding tube, the transverse slot receiving the flange of the thread-guiding tube, said lower jaws extending beyond said upper jaws, each of the recesses of the upper jaws having substantially the outline of a quarter of a circle, each of the recesses of the lower jaws having substantially the outline of a half of a circle.

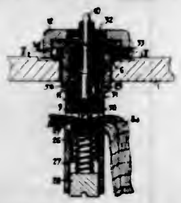
2,836,043
LIGHTING TORCHES
Otto Spethmann, Hamburg-Altona, Germany
Application December 6, 1954, Serial No. 473,328
10 Claims. (Cl. 67—55)



3. A warning torch operated by liquid fuel, comprising a fuel reservoir tank having an opening through which a wick is adapted to extend from the interior of the tank, a storm hood over said opening for housing the lighted end of the wick, said storm hood being in the form of an inverted cup having on its peripheral wall a number of flame outlet openings distributed thereabout, and a storm collar surrounding said hood and spaced radially therefrom to form an annular channel around said hood, the maximum diametrical width of said storm collar being substantially less than the maxi-

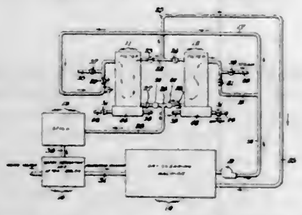
mum width of said tank and being small enough to cause said channel to confine the flame emitted from said flame outlet openings close to said storm hood and to elongate said flame.

2,836,044
LIQUEFIED GAS LIGHTERS
Conrad Zellweger, Chene-Bougeries, Switzerland, assignor to La Nationale S. A., Geneva, Switzerland, a corporation of Switzerland
Application July 26, 1956, Serial No. 600,330
Claims priority, application Switzerland August 4, 1955
4 Claims. (Cl. 67—87)



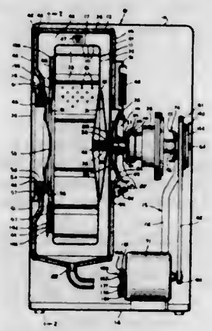
1. A liquefied gas fueled lighter of the character described, comprising a casing having a reservoir therein constructed to receive liquefied gas fuel, a burner structure carried by said casing and having therewith a fuel conducting passage leading outwardly to the mouth of the burner, a porous fuel conducting body having one portion thereof which lies across the inner end of such passage to provide a fuel evaporation zone at the surface of such portion which faces said passage, clamping means including opposed members compressing between them portions of said body which surround said evaporation zone to provide a compression zone surrounding said evaporation zone, said porous body also having portions which are disposed on the peripherally outward side of said compression zone and which are exposed to said reservoir to provide a liquid fuel conducting zone surrounding said compression zone, whereby liquid fuel passing from said reservoir to said evaporation zone enters said body through said portions which are exposed to said reservoir on the peripherally outward side of said compression zone, and then passes through said compression zone to said evaporation zone in paths of flow which are transverse to the compressive forces applied by said clamping members, said clamping means being adjustable to regulate said compressive forces and thereby alter the rate of flow of fuel through said compression zone to said evaporation zone.

2,836,045
DRY CLEANING APPARATUS
Jack C. Smith, Detroit, Mich., assignor to Detrex Chemical Industries, Inc., a corporation of Michigan
Application June 4, 1954, Serial No. 434,381
4 Claims. (Cl. 68—18)



1. In a filter for filtering contaminated chlorinated hydrocarbon solvents such as perchlorethylene or the like, a closed casing with a crosswise partition therein setting apart an upper chamber and a lower chamber; a filter bag suspended in the upper chamber; a nozzle through which the contaminated solvent is normally introduced into the filter bag; an inlet conduit through which the contaminated solvent is normally conducted to the nozzle, having a normally-open valve interposed therein; a steam pipe connected into said conduit beyond the aforesaid valve and having a normally closed interposed valve therein; an outlet conduit at the top of the upper chamber through which the filtered solvent is normally conducted from the filter, having a normally-open valve interposed therein; a drain conduit at the bottom of the upper chamber having a normally closed valve interposed therein; and means operable, upon closing the first mentioned valve and the outlet valve and opening the steam and drain valves, to circulate coolant through the lower chamber for condensation of the steam and the stripped solvent vapor and discharge of the condensates in liquid form through the drain conduit.

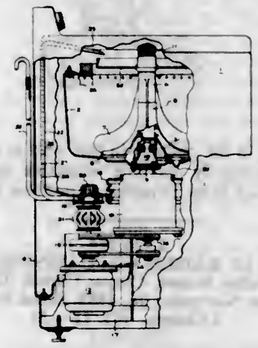
2,836,046
TUMBLER TYPE WASHING MACHINES
Thomas R. Smith, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware
Application May 8, 1952, Serial No. 286,660
5 Claims. (Cl. 68—24)



4. In combination, a driven element, a drive element, a speed change mechanism disposed between said elements whereby said driven element is driven by said drive element at a relatively slow speed and a relatively high speed, said speed change mechanism including planetary gearing, a housing for said gearing, means for holding said housing stationary to provide for low speed rotation of said driven element through said speed change mechanism and for releasing said housing for rotation to provide for high speed rotation of said driven element through said housing, said speed change mechanism including a torque limiting clutch disposed between said housing and driven element, and means for rendering said last named means inoperative for driving said driven element through said housing until said driven element has been initially rotated through said speed change mechanism.

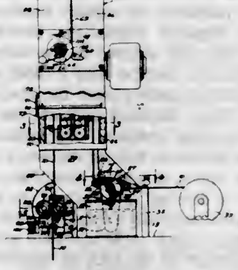
2,836,047
WASHING MACHINE HOSE
Robert E. Condit, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application June 7, 1956, Serial No. 589,897
3 Claims. (Cl. 68—184)

1. In a clothes washing machine, a clothes basket, an outer imperforate tub enclosing said basket and catching the overflow from said basket, and a recirculation system for circulating a flow of liquid through said basket and said tub during the washing operation, said system including a pump and a hose for withdrawing said liquid from said tub and conducting said liquid to said basket, said hose including a plurality of spaced apart reduced diameter sections for restricting and controlling the rate of the liquid flow through said system, said reduced diameter



sections being spaced apart a distance greater than the individual lengths of said sections, and each of said sections having a smooth curved cross section so that no sharp edges are presented to the flow, thereby to minimize lint clogging.

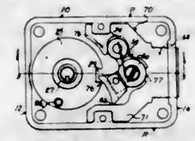
2,836,048
APPARATUS FOR DYEING LEATHER LACING
Ray W. Scott, Los Angeles, Calif.
Application July 22, 1955, Serial No. 523,668
18 Claims. (Cl. 69—1)



7. In apparatus for applying a liquid to the unfinished side and the edges of flexible material such as leather lacing, the other side of said material having been previously dyed and finished, comprising: means operable by passage of the lacing for applying liquid to the unfinished side and the edges of the lacing; means forming a drying chamber; guide means in the chamber about which the lacing passes; a pair of driving rollers engaging the lacing at the end of the chamber for advancing the lacing, and having oppositely curved surfaces of revolution for imparting a convex curvature to the finished side of the lacing.

2,836,049
PIVOTED SHOE FENCE COMBINATION LOCK
Anthony Papini, Ridgefield, N. J.
Application May 16, 1956, Serial No. 585,272
4 Claims. (Cl. 70—133)

1. In a combination lock, an axle member; a plurality of tumbler disks having alinable gates in the peripheral portions thereof and rotatable about the axis of the member; a fence member having a shoe pivoted to turn about an axis parallel with that of the member, the shoe normally engaging all the disks at the peripheral portions thereof for a chordal distance greater than the



width of the gates, the gates being wide enough so that, when they are alined, an edge portion of the shoe may turn about the second mentioned axis and enter into the gates when the latter are alined.

2,836,050
AUTOMOBILE DOOR LATCH
Harold E. Van Voorhees, Grosse Pointe Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 16, 1953, Serial No. 392,268
10 Claims. (Cl. 70—149)



9. Apparatus of the character described for latching a door to a body, including: a latch mounted on the door, said latch including a pivoted bolt and detent means for holding the bolt in door latching position; a striker pivotally mounted on the body and engageable with said bolt for holding said door latched; releasable means for holding said striker against movement; first operating means on the door adapted to engage said detent means and move the detent means out of holding relation to the bolt for releasing the bolt to unlatch the door; second operating means on the body operable on said releasable means to free the striker and unlatch the door; and means for moving said first operating means out of position to engage said detent means.

2,836,051
LOCK FOR NARROW STILE DOORS
Russell W. Walters, Valley Forge, Pa., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application April 25, 1955, Serial No. 503,638
19 Claims. (Cl. 70—151)

18. In a lock of the class described, a latchbolt movable between projected and retracted positions, a tumbler plate formed with a slot, a latchbolt part movable in said slot as the latchbolt is moved between projected and retracted positions, said tumbler slot formed with a surface for deadlocking the latchbolt, a spring pressed cam coacting with the tumbler when the latchbolt is in projected position, a portion on the tumbler plate through which said spring pressed cam by its coaction presses the tumbler plate whereby to place its deadlocking surface in dogging relation to the said latchbolt part, said tumbler plate having a surface with which said cam coacts for moving the tumbler plate out of dogging position when the cam

is depressed, a manually operated member for depressing the cam and tumbler plate and for retracting the latchbolt, a trigger normally spring projected and adapted to move to a retracted position through engagement with a strike, a part on said trigger coacting with the tumbler

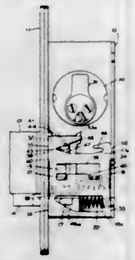
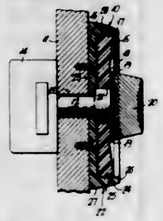


plate when the trigger is in projected position, and a surface on the tumbler plate through which said trigger part by its coaction applies the spring pressure of the trigger to overcome the spring pressure of the cam whereby to hold said plate with its deadlocking surface out of dogging relation to the latchbolt.

2,836,052
PROTECTIVE DIAL ASSEMBLY FOR PERMUTATION LOCKS
Harry C. Miller, Rochester, N. Y.
Application November 17, 1955, Serial No. 547,461
5 Claims. (Cl. 70—332)



1. In a dial assembly for permutation locks, a rotatable circular dial having a cylindrical periphery and dial markings on said periphery, a circular dial ring of transparent material adapted to be fixed to a supporting surface in coaxial underlying relation to said dial and having an uninterrupted annular peripheral flange projecting in encircling concentric slightly spaced relation with the periphery of said dial, said dial ring flange terminating forwardly in a planar annular surface lying in a plane normal to the axis of said dial and to said cylindrical periphery and spaced outwardly of said dial periphery and arranged to prevent transmission through said annular surface of distinguishable images of said dial markings along axes lying forwardly of the plane of said dial and means rendering said dial markings distinguishable through only a limited arcuate segment of said flange.

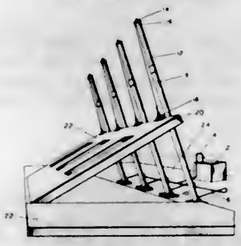
2,836,053
KEY CONTAINER
Rupert M. Starrett, Bridgeport, Conn.
Application March 15, 1955, Serial No. 494,520
5 Claims. (Cl. 70—456)

5. A key container comprising a casing having spaced side walls and a top wall provided with a rectangular opening, a plurality of key holders arranged side by side in the casing and each pivoted at one end to swing through the opening from a retracted position in the casing to a position extending outwardly therefrom, each holder provided with means for pivotally mounting a key in the holder to swing from an inoperative position therein to an extended operative position, said holders including walls at one edge to lie in substantially the plane of the top wall



of the casing in the opening in this wall to fill this opening, and a manually operable releasable catch for each holder to retain it in its retracted position in the casing.

2,836,054
SYSTEM OF RAISED WALL CONSTRUCTION
Walter Brauer, Corpus Christi, Tex.
Application November 16, 1953, Serial No. 392,211
2 Claims. (Cl. 72—.5)



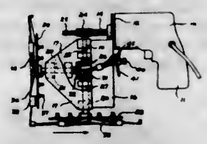
1. In combination with a horizontally disposed concrete wall section, a plurality of hydraulic jacks arranged in spaced relation adjacent one marginal edge of the wall section, a clamp on said marginal edge opposite each of said jacks, each of said jacks comprising a stationary base member, a lower tubular member pivotally secured to the base member, an upper extensible member telescopically disposed within the lower tubular member, a sheave rotatably secured to the outer extremity of the upper extensible member and a cable secured to the base member and extending over the sheave into connection with the clamp disposed opposite the jack, and conduit means providing common communication between the interior of the lower tubular members of each of the jacks below the upper extensible members whereby hydraulic fluid may be directed into each of the lower tubular members for simultaneously extending each of the upper extensible members, each cable movable with its respective extensible portion of the jack to uniformly pivot the wall section to a vertical position.

2,836,055
TILE WITH SPACER LUGS
Harry N. Shuman, East Sparta, Ohio, assignor to United States Ceramic Tile Company, a corporation of Delaware
Application March 23, 1953, Serial No. 343,903
4 Claims. (Cl. 72—18)



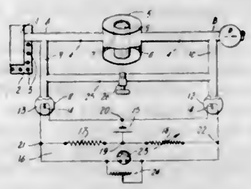
1. A tile unit having substantially square back and top faces, flat side faces extending between the back and top faces and terminating in corners between side faces, each side face having protruding therefrom a plurality of similar lugs on each side of the center line between the corners thereof, the spacing between all adjacent lugs being substantially identical, said lugs extending from said back face towards said top face but terminating short of said top face, said lugs having such a width along said side faces as to leave between adjacent lugs a space at least as great as the combined width of a plurality of said lugs, the lugs along the length thereof on each side face being located at substantially the same relative positions, each lug on any one side face being spaced from any corner common to an adjacent side face a distance different from the spacing of any lug on said adjacent side face from said common corner, and with each lug nearest each corner of each side face being farther from the center line of its respective side face than from said corner to which it is nearest, whereby a plurality of said tile units are positionable any side by any side with the corners thereof aligned or staggered so that the lugs on any side face of any tile unit abut the flat side faces of any adjacent tile unit.

2,836,056
POWER OPERATED PLASTERING TROWELS
John D. Drummond, North Burnaby, British Columbia, Canada
Application October 24, 1955, Serial No. 542,421
1 Claim. (Cl. 72—136)



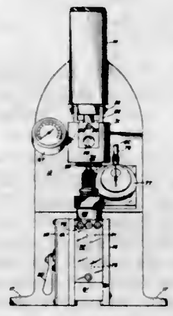
Power operated trowel comprising a prime mover having a pair of driven shafts disposed at right angles to each other, a rotatable troweling member on each shaft, said members each consisting of a disk having radial work surface contacting blades, said members being mounted with their work surfaces at an angle of substantially ninety degrees to each other to trowel adjoining wall areas forming an inside angle, the blades of one member being staggered with respect to those of the other member, each blade having an upturned rim portion at its outer end, the rim portions of the blades of one member being adapted to alternate with the blades of the other member to trowel the intersecting angle of the two adjoining wall areas.

2,836,057
APPARATUS FOR MEASURING HIGH DEGREES OF DRYNESS
Kenneth Ian Johnson, Moss Bank, near St. Helens, and Derek Howard Page, Sheffield, England, assignors to British Insulated Callender's Cables Limited, London, England, a British company
Application March 31, 1955, Serial No. 498,411
Claims priority, application Great Britain April 8, 1954
3 Claims. (Cl. 73—29)



1. Apparatus for ascertaining the progress of a drying operation in a chamber under vacuum, comprising an exhaust pump, a pipe line for connecting the drying chamber and pump, a condensing chamber inserted in the pipe line, low pressure gauges connected on the upstream side of the condensing chamber with the interior of the pipe line to measure the pressure gradient over a section thereof and similar low pressure gauges connected on the downstream side of the condensing chamber with the interior of the pipe line to measure the pressure gradient over a section having a resistance to flow equal to that of the first-mentioned section.

2,836,058
SPARK PLUG BOMB AND LEAK TESTER
Lewis M. Oden, Sr., and Francis T. Etheredge, Norfolk, Va.
Application January 6, 1953, Serial No. 329,936
3 Claims. (Cl. 73—40)
(Granted under Title 35, U. S. Code (1952), sec. 266)

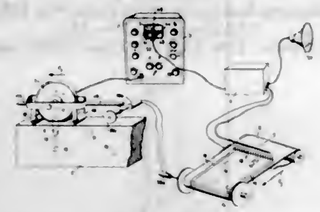


1. In combination with a spark plug testing machine having an arbor and a bomb block movable thereon to encompass the gap end of a spark plug held on said arbor, said bomb block having a conduit connection to a source of gas under pressure, means for making visible any gas leaking through the core of the spark plug from its gap and positioned in said bomb block comprising: a plate on said arbor, a substantially cylindrical spark plug holder secured to said plate, sealing means at each end of said holder adapted to coact with the end surfaces of a spark plug held therein to form a gas-tight chamber around the shell of the spark plug, a first transparent plate piece secured to said plate in face to face relationship, a second similar transparent piece cemented to said first piece, said second piece having formed on the cemented face thereof an upwardly extending U-shaped chamber, one arm of which is open to the atmosphere and the other arm of which is connected by a passage through said first piece, said plate, and said holder to said first chamber, and a bubble-revealing liquid in said U-shaped chamber between said arms.

2,836,059
ARRANGEMENT FOR RECORDING THE RESULTS OF THE SUPERSONIC EXAMINATION OF METAL PARTS
Louis Beaujard, Saint-Germain-en-Laye, Vladimir Husarek, Paris, and Andre Vasset, Bois-Colombes, France, assignors to Institut de Recherches de la Siderurgie, Saint-Germain-en-Laye, France
Application October 20, 1954, Serial No. 463,443
Claims priority, application Germany October 28, 1953
1 Claim. (Cl. 73—67.8)

A supersonic arrangement for detecting and indicating defects in a metal object, comprising means for generating electrical pulses, testing means including an electro-acoustic transducer adapted to be moved over the object, means for applying the generated pulses to the transducer, said pulses being converted in the transducer into mechanical vibrations, supersonic waves produced by said

vibrations being reflected from the object and being reconverted in the transducer to electrical pulses, means controlled by said transducer and including a cathode ray oscillograph with a screen, a diagram being formed on the screen under the action of said pulses, said diagram including highly illuminated dots formed by any pulse reflected from a defect in the object, at least one photo-cell engaging the surface of the screen, said cell being adapted to be illuminated by a screen portion registering therewith and to produce current when said screen portion carries one of said highly illuminated dots, an amplifier, a transformer having a primary and a secondary winding for each cell, each cell being electrically connected to said amplifier and the amplifier being connected to said transformer primary, a sheet of conductive material, an insulating layer covering said sheet, a plate in supporting contact with said sheet and connected to one lead of said secondary, means for unwinding the sheet, and a stylus for each cell in contact with said insulating layer and connected to the other lead of the secondary, whereby a spark due to current flowing out of the secondary of the transformer corresponding to the respective stylus and cell breaks through the insulating layer to make the underlying conductive sheet visible and thus to form a record of the current passing out of the photo-cell.

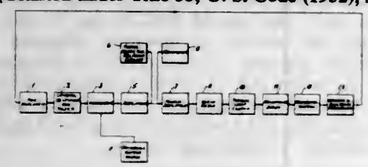


2,836,060

TORSIONAL FATIGUE TESTING APPARATUS

Joseph L. Ciringione, Bellmore, and Julius Intraub, Martin O. Kalb, Howard M. Strobel, and Aaron Wolotkin, New York, N. Y., assignors to the United States of America as represented by the Secretary of the Navy

Application December 22, 1954, Serial No. 477,142
17 Claims. (Cl. 73—99)
(Granted under Title 35, U. S. Code (1952), sec. 266)



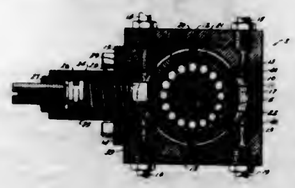
1. An automatic strain control system adapted for use with a machine for testing the torsional fatigue of a test specimen comprising means adapted to be secured to said test specimen for producing an electrical signal proportional to the torsional strain in said specimen, means for producing an electrical reference signal proportional to a predetermined strain, electronic control means electrically connected to the output of said electrical signal means and electrically connected to the output of said reference signal means for receiving, amplifying, rectifying and filtering said electrical signal and then comparing said electrical signal with said reference signal to produce a difference signal therefrom and converting and amplifying said difference signal, means electrically connected to the output of said electronic control means for receiving and amplifying the electrical power of said amplified difference signal, means including a movable element electrically connected to the output of said power amplifying means driven by said power amplified difference signal for converting said power amplified difference signal into a mechanical displacement of said movable element, mechanical control means mechanically coupled to said movable element for controllably adjusting the strain in said test specimen in such manner as to reduce said difference signal to substantially zero, means mechanically coupled to said mechanical control means for interrupting the line circuit when said difference signal reaches a maximum or a minimum value, means mechanically connected in the output of said converting means for disconnecting said converting means from said system upon failure of said line interrupting means to operate when said difference signal reaches a maximum or a minimum value, means electrically connected to the output of said electronic control means for effecting a precise balance between said electrical signal and said reference signal, means electrically connected to the output of said electronic control means for recording the magnitude of said difference signal and means mechanically coupled to said converting means for producing a signal proportional to the relative force applied to said test specimen.

2,836,061

TORQUE SENSING DEVICE

Clyde Jerome Deavers, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application March 31, 1955, Serial No. 498,328
7 Claims. (Cl. 73—136)



1. A device for measuring the radial loading on a bearing comprising a casing surrounding said bearing, said casing having a limited area cut out to form in cooperation with said bearing a pair of diametrically opposed recesses, fluid conduit means for supplying pressurized fluid to said recesses through separate restricted passages from a common source, fluid pressure bleed means forming an opening between said casing and said bearing at least at one end of each of said recesses through which fluid is bled from said recesses, means for sensing a pressure differential, and fluid conduit means providing fluid communication between each of said recesses and said differential pressure sensing means.

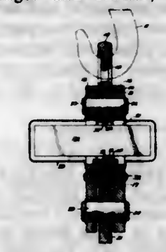
2,836,062

TENSION WEIGHING SYSTEM

Theodore A. Wells, Wichita, Kans., assignor to Central Engineering Corporation, Wichita, Kans., a corporation of Kansas

Application December 29, 1954, Serial No. 478,341
8 Claims. (Cl. 73—141)

1. In a weighing system of the character described, a hanger equipped with an upwardly oriented platform, a carrier positioned in facing parallel relation therewith and being equipped with a load transfer member, said platform and load transfer member being spaced apart in substantially vertical alignment and being adapted to receive a weighing device therebetween, said hanger and carrier being vertically movable relative to each other whereby a load in tension applied therebetween results in a compressive load being applied to a weighing device interposed between said platform and transfer member, there being elongated channels in the hanger and carrier of greater length than the distance between said platform and load transfer member and defining bearing races in the hanger and carrier, and bearings within



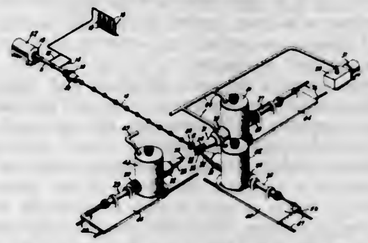
those races to constrain relative pivotal movement between the hanger and carrier while affording free vertical movement therebetween.

2,836,063

APPARATUS FOR GENERATING FLUID AT HYPERSONIC SPEED

Yusuf A. Yoler and Henry T. Nagamatsu, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application February 28, 1956, Serial No. 568,947
16 Claims. (Cl. 73—147)



1. In a device for generating fluid over a plurality of paths at hypersonic speed, a first container having an inlet and outlet, a second container having an inlet and outlet, the inlet of the second container being connected to the outlet of said first container, connected, rupturable means sealing the contents of the first container from the second container, second rupture means sealing the outlet of the second container, said second container being filled with air at predetermined temperature and pressure, means for generating a shock wave within said first container to move down the length of the first container and burst said rupturable means and pass down said second container, thereby compressing and heating the air within said second container and moving this air down the length of the second container as it passes therethrough, a plurality of energy converting nozzles opening from the outlet of the second container, said second container including means proximate the outlet thereof for reflecting the shock wave therefrom to further heat and compress said fluid and render said fluid non-moving as the reflected shock wave again passes therethrough, whereby the energy contained in the compressed and heated non-moving fluid is converted into flow of said fluid at hypersonic speeds along a plurality of separate paths through said nozzles.

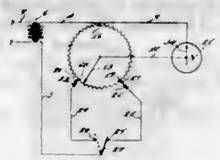
2,836,064

REMOTE ROTATIONAL DISPLACEMENT INDICATORS

Edward P. York, Stonington, Conn.

Application April 24, 1957, Serial No. 654,712
11 Claims. (Cl. 73—188)

11. In a remote wind direction indicator, the combination with a weather vane, of a shaft rotatable in either direction on which said vane is rigidly mounted, a circular potentiometer, a wiper arm carried by said shaft and engaging said potentiometer, a center zero type of voltmeter connected to said arm and to a fixed point on said potentiometer, means for supplying unidirectional current to said potentiometer between said fixed point and either one of two spaced feed points, and means operated by said shaft when said wiper arm passes a feed point for changing the connection from one feed point to the other and for simultaneously reversing the direction of the current supplied to the meter and



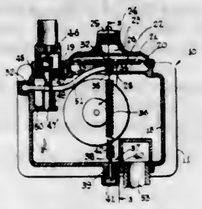
reducing its voltage, said meter having a scale with "North" at the central zero position and "South" adjacent each end thereof, and with "Southwest" beyond "South" at one extreme end and "Southeast" beyond "South" at the other extreme end thereof, whereby, when the feed point is changed and the current reversed when the pointer approaches "Southwest" the pointer will swing from that end of the scale to the "Southwest" position at the other side of the scale, and when the pointer approaches "Southeast" at the opposite end of the scale, it will swing from that end to the "Southeast" position at the other side of the scale.

2,836,065

COMBINATION METER TOP AND REGULATOR

Charles W. Stewart, Fairfield, Conn., assignor to The Sprague Meter Company, Bridgeport, Conn., a corporation of Connecticut

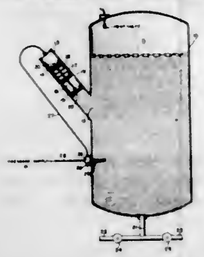
Application August 17, 1954, Serial No. 450,497
2 Claims. (Cl. 73—199)



1. In a gas meter top having a body comprising a top face portion provided with integral enclosing walls depending therefrom forming a housing for a register means and a gas-receiving chamber, an inlet control valve within said chamber, a pressure regulator mounted on a wall portion of said body for controlling said valve and having a diaphragm separating a pressure chamber from a vent chamber, the register being mounted on the top face and said regulator being mounted on a portion of the enclosing wall off to one side of the register, the improvement wherein said enclosing wall portion supporting the regulator is provided with an opening therein disposed on the pressure side of the diaphragm, said opening interconnecting said gas-receiving chamber and pressure chamber, a spring means extending through said opening and into said gas-receiving chamber and having one end connected to the center of the diaphragm, and threaded adjusting means carried by the wall of the body opposite said opening and connected to the other end of said spring, said adjusting means having a portion extending to the exterior of the body whereby the tension in the spring and the

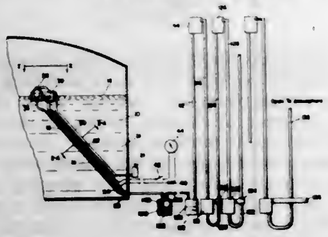
load on the diaphragm may be controlled by said adjusting means with said spring means being completely disposed within said gas-receiving chamber free from interference with the register means.

2,836,066
VOLUME COMPENSATOR FOR MEASURING TANKS
Stephen S. Brown, La Porte, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application December 17, 1956, Serial No. 628,587
3 Claims. (Cl. 73—223)



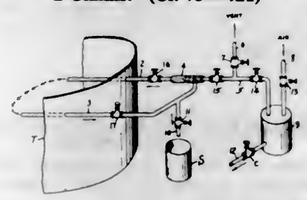
1. A device for varying the volume of a liquid metering vessel to compensate for liquid temperature variations comprising a tank having a cylindrical member connected thereto and fluidly communicating therewith, spaced apart pistons slidably arranged in said cylinder, a piston rod interconnecting said pistons, biasing means supportingly arranged between said pistons adapted to urge said pistons in one direction and means responsive to temperature change in said vessel adapted to supply fluid pressure to one of said pistons, the force of said pressure acting against the urging of said biasing means.

2,836,067
U-TUBE MANOMETER
Harold A. Quist, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Original application December 24, 1952, Serial No. 327,726, now Patent No. 2,760,373, dated August 28, 1956. Divided and this application September 21, 1955, Serial No. 535,571
3 Claims. (Cl. 73—401)



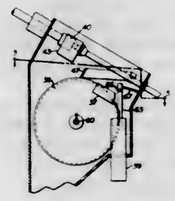
1. A manometer comprising a plurality of vertical reading legs of limited height, reading liquid supply receptacles at the bottom of each of said reading legs the initial receptacle adapted to receive pressure, separate volumes of a reading liquid in each of said supply receptacles successively visible in the reading legs, a plurality of overflow receptacles, one of said overflow receptacles disposed at the top of each of the reading legs, said reading legs extending between the bottoms of the supply and overflow receptacles respectively, pressure transmitting legs connecting the top of the overflow receptacle with the top of the next succeeding supply receptacle, pressuring liquid volumes in said pressure transmitting legs between the separate volumes of reading liquid, said pressuring liquid and reading liquid being of different specific gravities and non-miscible, and rectifier receptacles between the successive supply receptacles and the attended reading leg to absorb the accumulating volumes of pressuring liquid before transmitting pressures to cause movement of the reading liquid in the affected reading leg.

2,836,068
TANK SAMPLING APPARATUS
Therlis L. Clift, Erlanger, Ky., assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application May 21, 1954, Serial No. 431,555
2 Claims. (Cl. 73—421)



1. Apparatus for sampling liquid in a bulk container comprising an inlet pipe connected to the side wall of the container at a point spaced beneath the surface of the liquid therein, an outlet pipe similarly connected to the container wall in spaced relation to said inlet pipe and at approximately the same elevation, such pipes extending horizontally and being interconnected substantially directly externally of the container, the pipes and connection thereof forming a normally closed system for the withdrawal and substantially immediate return in continuous flow of a portion of the liquid in the container, flow inducing means in such system operative to create a considerable pressure differential therein and uninterrupted flow of the liquid therethrough, a branch line connected to an external portion of such system at the inlet side of said flow inducing means, and valve means in said branch line operative to draw off a sample of the liquid without interrupting the continuous flow thereof in such system.

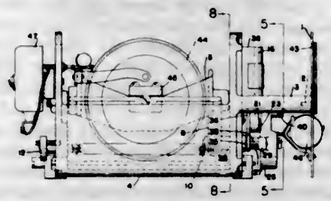
2,836,069
SAMPLING AND METERING DEVICE FOR FLUENT SOLID MATERIALS
Stanley E. Shields, Whiting, and Philip W. Dewey and William A. Shire, Jr., Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application September 1, 1955, Serial No. 532,073
6 Claims. (Cl. 73—424)



1. A sampling and metering device for fluent solid materials comprising in combination a sampling tube discharging within a metering chamber, an aeration gas supply line entering said tube through a wall thereof, an adjustable and rotatable rod extending longitudinally within said tube, a tapered section on said rod adjacent the outlet of said tube forming an adjustable annular orifice at the end of said tube, a driven metering wheel

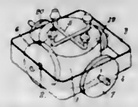
mounted to rotate in subjacent alignment with said orifice, a continuous peripheral recess in said wheel adapted to receive a quantity of finely divided solids therein, a tubular scraper arranged to scrape the bottom of said wheel recess to discharge a metered amount of solids from said recess into said chamber, and gravity means for transferring the metered amount of solids from said chamber.

2,836,070
DAMPING MECHANISM
Jeffrey R. Stokes, Delmar, and Fred M. Springer, Solana Beach, Calif., assignors to Bill Jack Scientific Instrument Co., Solana Beach, Calif., a corporation of California
Application May 9, 1956, Serial No. 583,692
3 Claims. (Cl. 74—5.5)



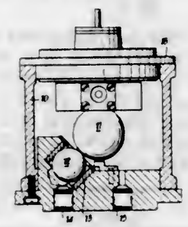
1. A damping mechanism for damping the movements of a member mounted in a frame for limited orbital movement relative thereto, said damping mechanism comprising a cylinder having a permanently closed head and carried by said frame, drive means including an arm carried by said member and a lever connected to said arm to be oscillated thereby, a pin secured to said frame and upon which said lever is mounted, said pin constituting a stop to limit orbital movement of said member in both directions, a piston slidably mounted in said cylinder and a piston rod rigidly secured to said piston against relative movement, said piston being spherical in form in so far as that portion of the peripheral surface of said piston which engages the inner surface of said cylinder is concerned to afford universal movement of said piston in said cylinder, said piston rod being directly connected to said lever to be actuated thereby to damp the movements of said member.

2,836,071
APPARATUS FOR INDICATING A DIRECTION HAVING A DEFINITE RELATION TO THE DIRECTION OF GRAVITY, AND IN PARTICULAR APPARATUS FOR DETECTING THE TRUE VERTICAL ON BOARD OF A VEHICLE
Henri Marcel Edmond Pasquet, Neuilly-sur-Seine, France, assignor to Societe d'Applications Generales d'Electricite et de Mecanique, S. A. G. E. M., Paris, France, a French society
Application July 19, 1956, Serial No. 598,823
Claims priority, application France July 29, 1955
10 Claims. (Cl. 74—5.47)



1. An apparatus of the type described which comprises, in combination, a gyroscope, said gyroscope including a frame and a rotor journalled in said frame, a support, means interposed between said frame and said support for freely suspending said frame to said support about the center of gravity of said rotor, torque-motor means inserted in said suspending means capable, when energized, of imparting a precession movement to said frame, an aperiodic vertical detector operatively connected with said frame, and means operative by said detector, for energizing said torque-motor means in a manner to keep horizontal a reference line fixed with respect to said frame, said vertical detector having a time constant adjustable to a value higher than one fourth of the time of response of the system constituted by said gyroscope and said torque-motor.

2,836,072
MECHANICAL RESOLVING MECHANISMS
John Tindale, West Kingsdowne, England, assignor to Elliott Brothers (London) Limited, London, England, a company of Great Britain
Application August 29, 1955, Serial No. 531,005
Claims priority, application Great Britain September 1, 1954
16 Claims. (Cl. 74—198)

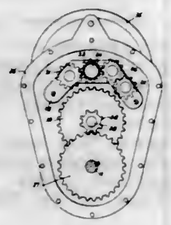


1. A resolving mechanism comprising a spherical ball rotatable about its centre, an input roller bearing upon the surface of the ball and capable of rotating about an axis which is parallel to a tangent at the point of contact of said input roller and said surface of said ball and which is angularly adjustable in accordance with the value of the function to be resolved, rotation of said input roller producing a corresponding rotation of said ball about its centre, two output rollers each bearing upon said surface of said ball and each by rotation of said ball capable of being rotated about an axis which is parallel to a tangent to the ball at the respective points of contact of said output rollers with said surface of said ball, the point of contact of said input roller and the points of contact of said output rollers with said surface of said ball being so disposed that lines drawn from the centre of said ball to said points of contact are mutually perpendicular, and force exerting means for exerting a force on said ball having a line of action passing through the centre of said ball and intersecting a line joining said point of contact of said input roller to the centre of a line joining said points of contact of said output rollers, said force exerting means exerting only a minimum frictional drag on said ball whatever the orientation of the plane of rotation of the latter.

2,836,073
TRACTOR POWER TRANSMISSION
John H. Masters, Bainbridge, Ohio, assignor to Bready Tractor & Implement Company, Solon, Ohio, a corporation of Ohio
Application September 20, 1955, Serial No. 535,472
4 Claims. (Cl. 74—355)

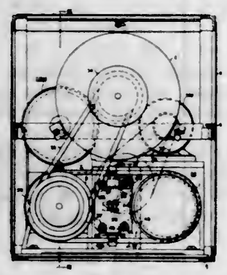
1. A power transmission for a wheeled tractor frame having a power unit and a wheel axle and comprising in combination, a gear wheel keyed on the wheel axle at one side of the tractor frame, a housing enclosing said gear wheel and having an extended portion secured to the tractor frame, a shaft drivingly coupled to the power unit and journaled in the extended portion of the housing, a speed reducing gear wheel and a pinion journaled on a shaft in the housing between said power driven shaft and said first gear wheel with the pinion meshing

with the first gear wheel, a second gear wheel keyed on the shaft within the housing, a rocker arm journaled intermediate its ends on the shaft within the housing, a third and a fourth gear wheel rotatably carried on each end of the rocker arm for independent driving coaction with the second gear wheel respectively, a follower gear wheel rotatably mounted on the rocker arm between



said second and fourth gear wheels and adapted to coact to rotate the fourth gear wheel in a direction opposite to that of the third gear wheel, and means for selectively tilting the rocker arm in either direction to cause either the third or the fourth gear wheel to mesh with said speed reducing gear wheel to drive the tractor wheels in a forward or reverse direction respectively.

2,836,074
CONTROL APPARATUS
Walter Schaelchlin and Clarence E. Gary, Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Original application June 18, 1952, Serial No. 294,149. Divided and this application September 15, 1953, Serial No. 380,194
15 Claims. (Cl. 74—395)



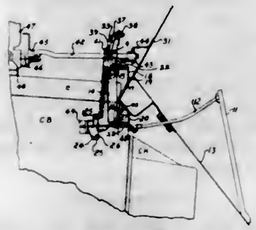
1. A variable speed differential comprising, a support, a driving cone pulley rotatably mounted on said support, motor means for driving said driving cone pulley, a hollow shaft fixed on said support with the axis thereof parallel to the axis of the first cone pulley, a driven cone pulley, said driven cone pulley having a hollew end, bearing means rotatably mounting said driven cone pulley about said hollow shaft, a belt connecting said cone pulleys, a drive shaft rotatably mounted on said hollow shaft and projecting at one end out of said hollow shaft into the hollow end of said second cone pulley, means for driving said drive shaft, a spur gear secured to said one end of said drive shaft, an internally toothed ring gear secured within the hollow end of said second cone pulley in a plane defined by said spur gear, a rotatably mounted planet gear carrier, at least one planet gear meshing with both said ring gear and said spur gear and rotatably mounted on said planet gear carrier, and means responsive to angular movement of said planet gear carrier for indicating the difference in speed between said driven pulley and said drive shaft.

2,836,075
ONE-WAY BALL NUT
David A. Galonska, Saginaw, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application June 8, 1949, Serial No. 97,895. Divided and this application February 10, 1955, Serial No. 487,400
9 Claims. (Cl. 74—459)



5. In a ball nut, a helical passage for the circulation of balls, a transfer passage connecting the ends of said helical passage, said transfer passage being connected to said helical passage and having the portion which first engages the balls to transfer them from the helical passage to the transfer passage located substantially tangentially to the helical passage at one end, said transfer passage being connected to said helical passage and having the portion which first engages the balls to transfer them from the helical passage to the transfer passage located substantially radially to the helical passage at the other end to retard movement of the balls in one direction.

2,836,076
ACCELERATOR THROTTLE CONTROL
Raymond V. Koehler and Michael Batenburg, Kenosha, Wis., assignors to American Motors Corporation, a corporation of Maryland
Application November 24, 1953, Serial No. 394,165
4 Claims. (Cl. 74—472)



1. In an automotive vehicle having an engine compartment and a passenger compartment separated by a dash panel and having a carburetor and a valve therein controlled by a rotatable shaft and also having an electrical switching mechanism, apparatus for effecting rotation of the valve shaft and for actuating the switching mechanism comprising: a bracket including a base portion secured to the dash panel on the engine compartment side thereof and upper and lower extensions spaced from each other and extending outwardly from the base portion; a bell crank including arm portions pivotally connected to the upper and lower bracket extensions respectively and a bridge portion interconnecting the arm portions; a foot pedal on the passenger compartment side of the dash panel and a link extending through the dash panel so as to interconnect the foot pedal to the lower arm portion of the bell crank; a switching mechanism secured to the lower extension of the bracket and arranged in the path of movement of the lower arm portion of the bell crank; an accelerator shaft having connection to the carburetor valve shaft for effecting rotation of same; an actuating rod having connection to the accelerator shaft at one of its ends and connection to the upper extension of the bell crank at the other of its ends whereby rotation of the bell crank effects rotation of the accelerator shaft about an

axis which is not concentric with the axis of rotation of the bell crank and spring means connected to the accelerator shaft and normally urging rotation of the accelerator shaft in one direction of rotation.

2,836,077
DOOR HANDLE OPERATING MECHANISM
Narcisse Belanger, Detroit, Mich.
Application May 8, 1956, Serial No. 583,411
3 Claims. (Cl. 74—479)



1. In a handle operating mechanism for a door of a taxicab, a bracket secured to the inner surface of said door, a horizontally disposed hollow open ended casing secured to said bracket, a rod slidably mounted in said casing, a body member secured to each end of said rod and including an eyelet, one of said eyelets engaging said handle, a support member including a first flat portion secured to the inner surface of said door, a second portion extending outwardly from said first portion and terminating in a third portion, said third portion being arranged parallel to said first portion, a lever having a flat section on its lower end pivotally connected to the third portion of said support member, said lever engaging the eyelet on the adjacent body member.

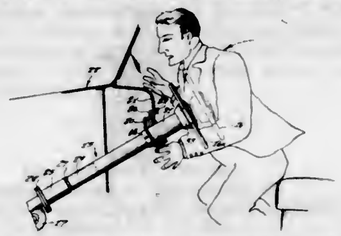
2,836,078
SAFETY STEERING COLUMN
William M. Yonkers, Danbury, Conn., assignor of one-half to Florence Yonkers, Danbury, Conn.
Application June 29, 1956, Serial No. 594,975
1 Claim. (Cl. 74—493)



A safety steering column of the character described comprising: a tubular housing including telescopic male and female sections, a steering shaft rotatable in said housing and including splined, telescopic male and female sections, said female shaft section having a longitudinal bore therein slidably accommodating said male shaft section, a coil spring in the bore yieldingly urging said male shaft section toward extended position, the wall of the bore of said female shaft section having a plurality of circumferentially spaced notches therein, flat springs mounted on the male shaft section, and blocks on said springs engageable in the notches for arresting the male shaft section in extended position.

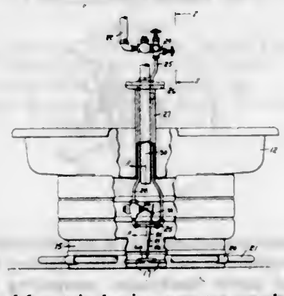
2,836,079
SAFETY STEERING SHAFT
Anton J. Salch, Jersey City, N. J.
Application July 30, 1956, Serial No. 601,076
3 Claims. (Cl. 74—493)

1. A collapsible steering column assembly for automotive vehicles adapted to transmit rotational movement from an upper manually operated steering wheel to a lower driven steering gear carried within a steering gear housing comprising, in combination, an outer longitudinally telescoped housing fixedly secured at one end to said steering gear housing and rotatably supported at the opposite end with respect to said steering wheel, an inner multi-section telescoping drive shaft having a lower section drivingly engaged with said steering gear and an upper section drivingly engaged with said steering wheel, block bearing means adapted to be secured to the vehicle structure for longitudinally slidably supporting said outer housing, adjustable abutment means secured to said outer housing in engagement with said block bearing means to limit the outward telescoping movement of said housing, said outer housing comprising ratchet means said block bearing comprising a spring biased pawl adapted to engage said ratchet means for permitting telescoping movement of said steering column toward the collapsed position and releasably preventing the return



of said steering column toward an extended position, spring means normally resisting the movement of said outer housing and said upper and lower sections of said inner shaft toward a collapsed position, the lower section of said inner drive shaft comprising a splined portion at its upper extremity, said upper section comprising a hollow housing having a pair of spaced inwardly splined torque blocks secured adjacent to the lower end thereof and slidably receiving said lower section, whereby rotational movement is transmitted from said upper section to said lower section, the lower end of said upper section further comprising an outwardly extending webbed guide plate in rotatable engagement with the interior of said hollow housing for maintaining the axis of said inner drive shaft concentric with the axis of said housing, and a ball bearing assembly carried by said upper and lower sections of said inner drive shaft for further maintaining said concentric relationship between said inner drive shaft of said outer housing.

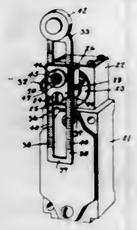
2,836,080
FOOT CONTROL VALVE MECHANISM FOR WASHFOUNTAINS
Howard G. Mallett, Whitefish Bay, Wis., assignor to Bradley Washfountain Co., Milwaukee, Wis., a corporation of Wisconsin
Application May 12, 1955, Serial No. 507,814
4 Claims. (Cl. 74—512)



1. In a washfountain having a water supply valve and a tiltable operating lever therefor, the combination of a

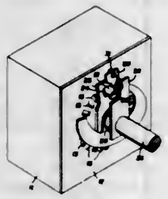
foot rail, an intermediately pivoted treadle lever operatively connected at one end with said foot rail, a spring, a link having a direct thrust connection at one end with said tiltable lever and slidably guided at its other end relative to said treadle lever, a thrust transmitting connection between said treadle lever and one end of said spring, and a direct connection between the other end of said spring and said link spaced from the slidably guided end of said link.

2,836,081
ADJUSTABLE ACTUATING LEVER
William F. Dehn, Wauwatosa, Wis., assignor to Allen-Bradley Company, Milwaukee, Wis., a corporation of Wisconsin
Application September 8, 1955, Serial No. 533,072
4 Claims. (Cl. 74—522)



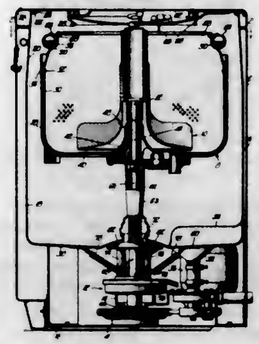
1. In a lever-actuated control mechanism having a rotatable shaft, the combination with said shaft, of: a block for rotation with the shaft; means for securing the block rigidly to the shaft; an actuating contact-arm carried by the block projecting therefrom radially with respect to the shaft, and adjustable radially with respect thereto; a clamp-plate overlying the face of the block; and means for clamping the clamp-plate to the block, to secure the arm rigidly between the plate and the block; wherein the block includes parallel guide-channels for the arm to slide in, and for preventing lateral movement of the arm with respect to the block; and wherein the block has a hole, in which the shaft is secured and through which the shaft projects beyond the face of the block; and wherein the clamping means is offset from the shaft; and wherein the plate has an opening for engaging the projecting end of the shaft, thereby steadying the plate; and wherein the arm is bifurcated into two parallel branches, which straddle the clamping means and the projecting end of the shaft.

2,836,082
LOW-TORQUE DETENT MECHANISM
Carroll R. Miner, Liverpool, N. Y., assignor to General Electric Company, a corporation of New York
Application April 16, 1957, Serial No. 653,205
12 Claims. (Cl. 74—527)



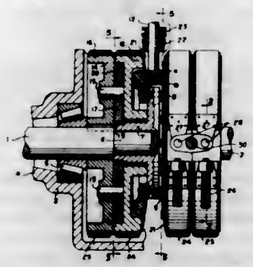
1. A detent mechanism that is movable with less torque from one position to another while retaining strong detent action, said detent mechanism comprising in combination: a plate having holes therein, a load shaft extending through said plate, means secured to said load shaft for resiliently engaging said holes, a drive shaft, and means secured to said drive shaft for reducing the force with which said means engages said holes when said drive shaft is rotated with respect to said load shaft.

2,836,083
BALANCING RING SYSTEM FOR ROTATABLE RECEPTACLES
Thomas R. Smith, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a corporation of Delaware
Application August 25, 1951, Serial No. 243,647
4 Claims. (Cl. 74—573)



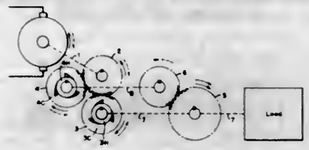
1. A balancing system for a rotatable container mounted on a vertical axis and adapted to hold articles to be rotated with said container, a closed annular duct carried by said container concentric to the geometric axis of said container, a thixotropic substance partially filling said duct and remaining immobile below the critical speed of said container, and means for rotating said container above said critical speed to flow said substance within said duct and minimize possible unbalanced conditions resulting from the presence of said articles within said container.

2,836,084
TRACTOR TRANSMISSION
Hubert L. Lance, Petersburg, Tex.
Application February 1, 1957, Serial No. 637,672
18 Claims. (Cl. 74—710.5)



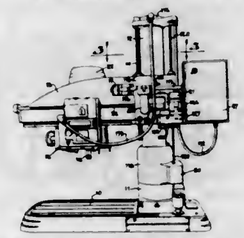
1. In a tractor transmission having two co-axial axle shafts, a first brake drum attached to each shaft, planet gears rotatably attached to each first brake drum, an internal gear mounted for rotation on each shaft, said planet gears meshing both with a sun gear and the internal gears, second drums attached to each internal gear, brake band means for engaging each brake drum, said sun gears being attached together so that they rotate about the shafts as a unit, and means for rotating the sun gears; the improvement comprising: second gears on each second drum, a pinion mounted for movement in a radial direction to the axle shafts, and means for selectively meshing the pinion with the second gears or disengaging it from the second gears.

2,836,085
TWO-SPEED OUTPUT GEARMOTOR
Frederick D. Snyder, Milton, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 14, 1955, Serial No. 515,420
4 Claims. (Cl. 74—812)



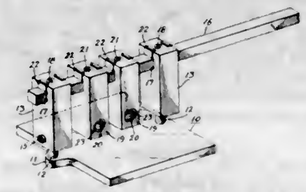
1. In a mechanical transmission for driving a load shaft at two selected different speeds in the same direction from a reversible motor operating at a selected constant speed either in a forward direction or a reverse direction, in combination, a motor, a gear case mounted on the motor frame and comprising a motor end bell and a bearing support, a jack-shaft mounted in suitable bearings in the end bell and bearing support, a first one-way clutch having a hub portion, clutch elements, and an outer ring, a second similar one-way clutch, a first gear keyed to the jack-shaft and the hub of the first clutch being also keyed to the jack-shaft, gear teeth on each of the outer rings of the clutches, a load shaft mounted in suitable bearings in the end bell and bearing support and projecting from the gear case so that a load may be coupled to the load shaft, a second gear, said second gear being keyed to the load shaft and meshing with the first gear, said second gear being larger than the first gear and thus has more gear teeth than the first gear, said second clutch having its hub keyed to the load shaft, the motor shaft projecting through the end bell and having a pinion keyed thereto, said pinion being disposed to mesh with the gear teeth on the rings of the clutches, the first clutch being so disposed on the jack-shaft that counterclockwise rotation of its ring will transmit torque to its hub and the second clutch being so mounted on the load shaft that clockwise rotation of its ring will transmit torque to the load shaft.

2,836,086
CLAMPING AND ELEVATING APPARATUS FOR MACHINE TOOLS
William G. Hoelscher, Cincinnati, Ohio, assignor to The American Tool Works Company, Cincinnati, Ohio, a corporation of Ohio
Application August 9, 1956, Serial No. 603,001
14 Claims. (Cl. 77—28)



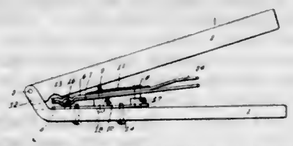
3. A control apparatus for a radial drill having a column, an arm, a shiftable power-driven arm elevating mechanism, and an arm clamp engageable with the column, said control apparatus comprising, a reversible arm control motor, a manually actuated arm control switch electrically connected to said motor, said switch normally residing in a neutral position and deenergizing said arm control motor, said switch energizing said motor in forward or reverse directions in response to actuation of the switch in either direction from said neutral position, driving means connecting said motor to said arm elevating mechanism and to said arm clamp, said driving means normally residing in a neutral position, said driving means engaging said arm clamp in said neutral position, said driving means disengaging said arm clamp and driving the said elevating mechanism in arm raising or lowering direction upon being shifted in respective directions from said neutral position by operation of said reversible arm control motor, a pair of limit switches in electrical connection with said motor, switch actuating means in driving connection with the motor and engageable with said limit switches at the limit of motion of said driving means in arm raising or lowering direction, said limit switches deenergizing said arm control motor at said limits of motion of the elevating mechanism in arm raising or lowering position, whereby the mechanism continues raising or lowering the arm with the arm control motor deenergized.

2,836,087
DOWEL DRILLING JIG
Charles Ehresmann, Philadelphia, Pa.
Application September 11, 1957, Serial No. 683,306
6 Claims. (Cl. 77—62)



1. A dowel drilling jig comprising a substantially rectangular base plate, a pair of posts located on opposite edges of the base plate, a shaft carried by the post members spaced upwardly from said base plate and extending substantially parallel thereto, said shaft extending through said post members for longitudinal movement with respect to the post members, a plurality of arms spaced parallel to one another carried by the shaft projecting downwardly toward the base plate and substantially perpendicular thereto, means defining a drill guide opening extending transversely of the lower end of each arm, and locking means extending through the post members operable to engage the shaft to restrict movement of the shaft with respect to the post members when placed in engagement with said shaft and to permit longitudinal movement of the shaft when out of engagement with the shaft.

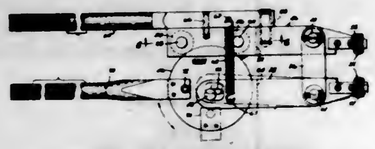
2,836,088
TERMINAL CONNECTING TOOL WITH TERMINAL DISTORTING PROJECTION
Kenneth L. Wells, Angola, Ind.
Application January 11, 1954, Serial No. 403,105
9 Claims. (Cl. 81—15)



1. A tool for attaching a terminal to a conductor comprising a pair of levers pivotally connected together, an

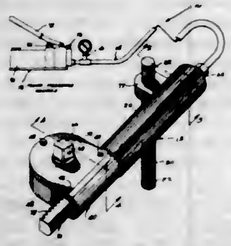
elongated first member having a jaw, an elongated second member having a jaw cooperable with the jaw of the first member, means for securing the members to one lever for movement with respect to one another between said levers, the other lever being engageable with the second member at a location adjacent the pivotal connection for forcing the jaws together, and a projection disposed between the jaws for distorting a portion of a terminal while it is being clamped between the jaws.

2,836,089
PLIER-TYPE CRIMPING TOOL FOR ASSEMBLING TEETH ON EXCAVATOR BUCKETS
Lester F. Davies, Windsor, Vt., assignor to Cone Automatic Machine Company, Inc., Windsor, Vt., a corporation of Vermont
Application July 20, 1956, Serial No. 599,266
3 Claims. (Cl. 81—15)



1. A tool for assembling fixed and removable teeth of an excavator bucket comprising a pair of spaced apart substantially parallel arms, means pivotally connecting said arms adjacent one end thereof, one of said arms having a handle at its end opposite said one end thereof, a cam rotatably mounted on the other of said arms, said cam being engageable with said one arm to control the spacing of said one end of the arms, and means to rotate the cam to provide relative movement of said arms.

2,836,090
FLUID PRESSURE OPERATED TORQUE WRENCH
Frank R. Ray, Ashland, Oreg.
Application February 21, 1957, Serial No. 641,687
3 Claims. (Cl. 81—54)



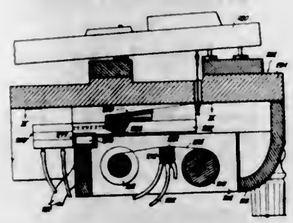
1. In a fluid pressure operated wrench, an elongated cylinder having a forward end and a rear end and an axial bore, closure means closing the rear end of the cylinder bore, a reduced portion on the forward end of the cylinder having therein a reduced bore portion aligned with and opening into the cylinder bore, a piston working in the cylinder bore having thereon a forwardly extending rack bar smaller in diameter than the piston and sliding in said reduced bore portion, said rack bar having therealong rack teeth facing one side of said reduced cylinder portion, means precluding rotation of said rack bar relative to said reduced cylinder portion and the cylinder, a housing fixed on said one side of said reduced cylinder portion and projecting laterally therefrom, said housing having a bottom wall and an open side facing said bottom wall, a cover plate secured to said one side, said cover plate and said bottom wall having aligned axial bores, a pinion gear in said housing between said bottom wall and said cover plate having stub shafts on opposite sides thereof journaled in related ones of said axial bores, said pinion gear having teeth meshed with said rack teeth, polygonal wrench socket receiving bosses on said stub shafts, and means for admitting and releasing fluid pressure to the cylinder between the piston and the rear end of the cylinder.

2,836,091
AUTOMATIC LUG WRENCH
Frederick W. Mann, Waterville, Kans.
Application September 17, 1956, Serial No. 610,309
4 Claims. (Cl. 81—125)



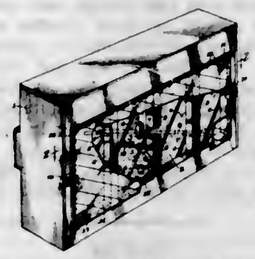
1. An automatic lug wrench comprising an elongated barrel having an angular exterior surface, said barrel having at one end an inwardly extending nut-turning socket of angular cross section, said barrel being adapted to slidably receive therewithin and to dispense therefrom, a plurality of nuts of angular cross section, and said barrel having an elongated through slot communicating with the interior of said socket; spring means disposed within said barrel and compressible by nuts entering through said socket; a substantially M-shaped leaf spring having an outer rectangular leaf secured within the outer portion of said slot, a fulcrum portion and an inner arm, an inner face of said arm having protrusions at opposite ends, whereby the outermost of said protrusions will engage the outer end of an outermost nut, and whereby outward movement of such outermost nut will depress said outermost protrusion and thereby rock said inner arm about said fulcrum portion so as to bring the innermost of said protrusions into said bore and into the path of a following nut, so that said innermost protrusion will engage the outer end of such following nut and thus prevent its outward movement into said socket until such outermost nut has entirely passed said first protrusion; and means for rotating said barrel about its longitudinal axis for either screwing an outermost nut onto a stud or unscrewing a nut for storage within the barrel.

2,836,092
PNEUMATIC ACTION FOR PLAYER PIANO
Dwight L. Gribble, Kansas City, Mo., assignor to Dwight L. Gribble Music Company, Kansas City, Mo., a corporation of Missouri
Application July 12, 1954, Serial No. 442,474
2 Claims. (Cl. 84—25)



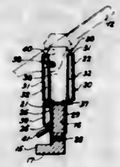
1. In a piano having a key bed and a horizontal series of depressible keys overlying the key bed, an elongated bar disposed beneath the bed and substantially coextensive in length therewith; a single bank of side-by-side, elongated collapsible pneumatics mounted on the uppermost face of the bar, there being a pneumatic for each key respectively; suction production means for the pneumatics; means adapted to interconnect each of said pneumatics with a corresponding key for depressing the latter upon deflation and collapsing of a respective pneumatic; a horizontal support adapted to be slidably mounted on the piano below said bar and movable to a position substantially clearing the bar; control mechanism carried by said support and adapted to receive a perforated program strip, said mechanism including a hollow tracker bar for said strip; a series of side-by-side valve assemblies mounted on one edge of the bar, each having a pair of spaced, elongated, valve chambers, there being a chamber for each pneumatic respectively, and vents in the assemblies communicating one end of the chambers respectively with the atmosphere; flexible conduit means placing the opposite ends of each of the chambers in communication with the tracker bar; a flexible diaphragm secured in and spanning each chamber respectively intermediate the ends thereof, there being passage means in the bar and the assemblies placing each pneumatic into communication with a corresponding chamber at a point intermediate the vent and a respective diaphragm; a valve reciprocable in the chamber carried by the diaphragm and movable from a position closing said passage means to a location closing a corresponding vent upon movement of the diaphragm; a wind chest mounted on the opposite face of the bar and communicating with all of the chambers between said passage means and said opposite ends thereof; and a conduit interconnecting the wind chest and said suction means whereby upon communication of said opposite ends of the chambers with the atmospbere through the perforations in the strip, the suction means moves the valves to close the vents and collapse the pneumatics and thereby depress the keys.

2,836,093
PIANO
Herbert O. Crippen, Sr., Chicago, Ill.
Application September 15, 1954, Serial No. 456,134
5 Claims. (Cl. 84—196)



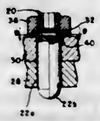
5. A piano comprising a case having a crowned sound board mounted therein, bass and treble bridges secured to the convex side of said sound board and against which the strings of the piano exert pressure which tends to flatten the crown of the sound board, said case having a sturdy frame structure opposite the concave side of said sound board in spaced relation thereto, and a plurality of support-tone bars interposed under compression between said sturdy frame structure and the concave side of said sound board, there being two of said bars respectively located opposite to portions of said treble and bass bridges to transmit the vibrations of said sound board from its most strongly vibrated portions to said frame structure and case and to support the crown in said sound board against the pressure of said strings, and other of said plurality of bars being located in spaced relation to said two bars and serving to assist the latter to support the crown in said sound board against the pressure exerted thereon by the strings of the piano.

2,836,094
MOUNTING FOR ACCORDION KEYS
Harry Amberg, Rochester, N. Y.
Application February 6, 1956, Serial No. 563,460
5 Claims. (Cl. 84—434)



4. In a device for individually mounting a plurality of keys of the type described comprising a support common to all of said keys, said support having extending portions spaced in accordance with the spacing of said keys, a pintle secured in each of said keys, guide means including a mounting section for engaging said extending portion and a track section arranged along opposite sides of said mounting section and extending therefrom, means slidably mounted in said track section and having aligned open-end slots for engaging said pintle on opposite sides of said key when in a release position beyond said track section and for retaining said key in a pivotal relation to said support when said slidable means is moved to a position in which said pintle is retained between said track section by said slots, and means pivotally mounted on said mounting section and coupled to said slidable means for normally engaging said support to hold said slidable means in said retaining position and for moving said slidable means between said retaining and release positions when released from said support.

2,836,095
SPLIT BOLT WITH PROTRUDING PIVOT PIN TO PROVIDE A STOP SHOULDER
James H. Devine, Washington, D. C.
Application September 28, 1954, Serial No. 458,804
3 Claims. (Cl. 85—1)

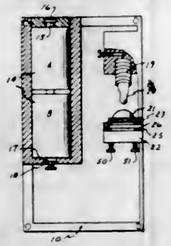


1. A bolt for engaging an exposed surface and a blind surface and having a pair of component parts, each part having a threaded end and a tapered shank extending axially from said end, each of said shanks having a laterally extending toe adapted to engage said blind surface, and a pivot pin engaging said parts substantially in the plane common to said ends and said shanks and having at least one of its ends extending beyond said parts, whereby said bolt engages the rim of a hole in said exposed surface and is prevented from passing through said hole.

2,836,096
HEMOGLOBINOMETER
David A. Korman, Forest Hills, N. Y.
Application April 15, 1953, Serial No. 348,943
4 Claims. (Cl. 88—14)

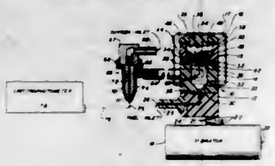
1. A hemoglobinometer comprising a casing, a light source that includes the complete light spectrum within the casing, a specimen holder mounted adjacent to said light source, a plurality of diffraction gratings mounted in adjacent relationship along a slide so that any one of the gratings may be positioned between the light source and the selenium cell, a lens mounted between said light source and said specimen holder, and cooperating with

one of the diffraction gratings, said diffraction grating designed to allow the radiant energy from said light source to pass through said grating to form a wave band in a predetermined portion of the light spectrum, a selenium cell mounted adjacent to said specimen holder, a battery mounted in said casing, a cover for said casing, a microammeter with a hemoglobin scale mounted in said cover, a variable resistance and a switch also mounted in said



cover, means to connect the light source to said battery and said battery to said switch and said switch to said variable resistance and said variable resistance to said light source to permit adjusting the intensity of said light source, means to connect the terminals of said selenium cell to the terminals of said microammeter to produce a reading on said microammeter when said selenium cell is energized by a light beam.

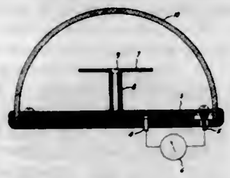
2,836,097
APPARATUS FOR INTRODUCING A SAMPLE INTO A FLUID
Victor F. Garman, Whittier, Calif., assignor, by mesne assignments, to Florent H. Bailly, Pasadena, Calif.
Application February 7, 1955, Serial No. 486,405
3 Claims. (Cl. 88—14)



2. Apparatus for introducing a sample into a fluid comprising a mixing chamber having a fluid outlet and an inlet below the outlet, a sample chamber disposed above the mixing chamber and opening through an orifice into the mixing chamber above the inlet, a movable disc disposed over the orifice, a guide rod attached to the disc and extending down into the orifice, means for vibrating the apparatus to cause the disc and rod to stir the sample and cause it to flow down into the mixing chamber where it is mixed with the fluid, a burner, and a conduit connecting the fluid outlet to the burner so that the sample and fluid mixture is burned to produce a flame.

2,836,098
COSINE-CORRECTED LIGHT METERS
Allen G. Stimson, Lynnfield, and Guy H. Wayne, Jr., Swampscott, Mass., assignors to General Electric Company, a corporation of New York
Application July 6, 1953, Serial No. 366,152
9 Claims. (Cl. 88—23)

1. A cosine-corrected light meter for measuring illumination from a diffuse source of light having light rays directed to the meter from all directions, comprising a cell having a disk-shaped light-sensitive surface, and a circular opaque mask positioned over the center of said surface and separated therefrom, the diameter of said mask being no less than ½ and no more than ¾ the diameter of said surface, the distance of said mask over said surface being no less than ⅛ and no more than ¼ the diameter of said surface, whereby said surface is partially shielded from light rays at small angles of



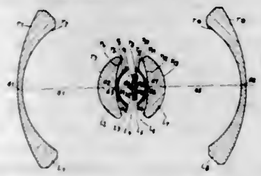
incidence, while rays at large angles of incidence pass under said mask and illuminate a larger area of said surface, said cell having a response proportional to the cosine of the angle of incidence of said illumination.

2,836,099
COPYING DEVICE FOR PHOTOGRAPHIC WORK
Paul Weishaupt, Oberburg, Burgdorf, Switzerland
Application October 12, 1954, Serial No. 461,807
Claims priority, application Switzerland February 26, 1954
1 Claim. (Cl. 88—24)



A copying device for photographic work comprising a bearing plate having a central working area and a peripheral border area, said working area having a roughened surface in the shape of channels engraved therein, a peripheral air suction channel disposed between said working area and said border area, an air exhausting device connected to said engraved channels and to said peripheral channel, and a lid consisting of a transparent frameless film sheet covering said bearing plate, means provided on said bearing plate for punching the photomaterial, said means comprising punching pins fixed to said bearing plate, a carrier and a stamping ledge connected with said carrier, said stamping ledge provided with sockets in which punches corresponding with said punching pins are guided, springs lifting up said punches, and side bearings and bolts extending therethrough to operate as pivots for said stamping ledge, adapted to be turned by a handle, said transparent frameless film sheet having a plurality of holes complementary to the arrangement of said punching pins, and caps of resilient material disposed over said respective holes of said lid, in order to render the device airtight.

2,836,100
WIDE ANGLE ANASTIGMATIC OBJECTIVE
Robert Richter, Aalen, and Friedrich Koch, Heidenheim (Brenz), Germany, assignors to Carl Zeiss, Heidenheim (Brenz), Wurttemberg, Germany
Application May 4, 1955, Serial No. 505,892
Claims priority, application Germany February 25, 1955
1 Claim. (Cl. 88—57)



A wide angle anastigmatic objective for aerial photography and projection purposes of the basic form containing at least two negative meniscus inner components

concave toward each other and enclosing a central inner air space and a diaphragm therein, and two positive meniscus outer components concave toward the negative components and all axially aligned and airspaced apart, said four components being corrected especially for spherical aberration the objective being characterized by two further simple dispersive meniscus lenses, each of said dispersive meniscus lenses being operatively positioned as exterior elements enclosing the said four meniscus components and axially aligned with respect to the whole objective, and turning their concave inner surfaces toward said positive components and having air separations from said positive components of between $0.2 \cdot f$ and $0.8 \cdot f$, the radius of the outer convex surface of each of said dispersive exterior lenses lying between $1.0 \cdot f$ and $2.5 \cdot f$ and the radius of its inner concave surface lying between $0.45 \cdot f$ and $1.5 \cdot f$, and by the said inner central air space of the objective being greater than 80% and smaller than 200% of the arithmetic mean of the radii of curvature of the inner concave surfaces of said negative components bounding said air space, and by a substantially afocal correcting component located substantially at the diaphragm position for correcting for residual astigmatic zonal aberration of the objective, said correcting component having spherical outer surfaces the radii of which lie between $-1.5 \cdot f$ and $+1.5 \cdot f$, and the mean refractive index of said correcting component in combination with said radii being such that its refractive power lies between zero power and $+0.5/f$, f being the focal length and $1/f$ the focal power of the objective.

2,836,101
OPTICAL ELEMENTS
Jan de Swart, Los Angeles, Calif., assignor to De Swart Development Company, Los Angeles, Calif., a limited partnership
Application September 1, 1955, Serial No. 531,864
1 Claim. (Cl. 88—57)



An optical element forming random abstract patterns comprising a frame having a transparent portion and an opening opposite the transparent portion, the opening having an irregularly shaped boundary, a flexible, transparent diaphragm affixed to the frame at its irregular boundary over the opening to form a compartment within the frame adapted to hold a fluid, and means for varying the pressure of a fluid within the compartment to change the curvature of the surface of the transparent diaphragm.

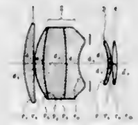
2,836,102
HIGH APERTURE PHOTOGRAPHIC LENS
Hiroshi Ito, Setagayaku, Tokyo, Japan, assignor to Canon Camera Company, Inc., Tokyo, Japan, a corporation of Japan
Application June 14, 1956, Serial No. 591,394
Claims priority, application Japan August 16, 1955
4 Claims. (Cl. 88—57)



1. A high aperture photographic objective of an improved Gauss-type comprising five components consisting of seven elements, the first component L_1 and the second component L_2 being spaced single meniscus positive lenses having substantially equal focal lengths, the third component being a negative meniscus cemented lens having a first front biconvex element L_3 and a first rear biconcave element L_4 of which the convex outer surface faces the object side, the fourth component being a positive cemented lens having a second front biconcave element L_5 and a second rear biconvex element L_6 of which the convex outer surface faces the image side, the fifth component being a spaced third biconvex element L_7, and the object fulfills the following conditions, where $n_{\text{subscript}}$ is the index of refraction of the lens element, $\nu_{\text{subscript}}$ the index of dispersion of the d-line of the lens element, and $r_{\text{subscript}}$ the radius of curvature of the refracting surface, the subscript in each case increasing from the object to the image side:

$0.15 > n_4 - n_3 > 0.05 \quad \nu_3 > \nu_4$
$1.83 > n_4 > 1.63$
$\infty > |r_6| > 150$
$0.25 > n_6 - n_5 > 0.05 \quad 1.83 > n_6 > 1.60$
$61 > \nu_6 > 49$
$70 > |r_8| > 38$
$100 > r_9 > 40$
$60 > r_5 > 45 \quad 30 > r_7 > 22$

2,836,103
HIGH APERTURE TELEPHOTOGRAPHIC OBJECTIVE OF THE GAUSS TYPE
Hiroshi Ito, Tokyo, Japan, assignor to Canon Camera Company, Inc., Tokyo, Japan, a corporation of Japan
Application January 3, 1957, Serial No. 632,283
Claims priority, application Japan January 20, 1956
3 Claims. (Cl. 88—57)



1. A high aperture telephotographic objective of the Gauss type comprising six lens elements grouped into four air-spaced components, of which objective the total length is substantially equal to the total focal length f thereof, the first component being a meniscus-shaped convex single lens with its convex surface towards the object, the second component is of a concave meniscus shape and consists of three lens elements cemented successively to each other and being in order from the object side, a second meniscus-shaped convex lens, a biconvex lens and a biconcave lens, the convex surface of the second component facing towards the object, the third component is a meniscus-shaped concave single lens with its convex surface towards the image side, and the fourth component is a second biconvex single lens, and a diaphragm is interposed between the second component and the third component, the objective meeting following conditions:

Condition 1: $0.18 f < (d_3 + d_4 + d_5) < 0.36 f$
Condition 2: $0.02 < (n_2 - n_3) < 0.15$, $0.05 < (n_4 - n_3) < 0.20$
Condition 3: $0.15 f < d_6 < 0.26 f$
Condition 4: $0.21 f < |r_7| < 0.38 f$, $0.01 f < d_7 < 0.06 f$
Condition 5: $1 < \left|\frac{r_9}{r_{10}}\right| < 8$

where the radii of curvature of the lens surfaces are denoted by r_1, $r_2 \ldots r_{10}$, the axial distances between adjacent surfaces by d_1, $d_2 \ldots d_9$, and the refractive indices on the d-line of the spectrum by n_1, $n_2 \ldots n_6$, in the order respectively from the object side.

2,836,104
REAR VISION MIRROR MOUNTING
Paul Bertell, Kenmore, Lynn C. Meade, Buffalo, and Gerald A. Weingartner, Kenmore, N. Y., assignors, by mesne assignments, to Standard Mirror Company, Inc., Buffalo, N. Y., a corporation of New York
Application December 13, 1954, Serial No. 474,852
9 Claims. (Cl. 88—98)



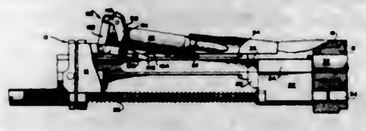
1. A mounting for a rear vision mirror panel for an automobile, comprising an upwardly extending supporting rod member having a longitudinally slidable upwardly extending upper part and having a lower end arranged at an angle to said upper part to project horizontally toward the rear of the automobile, universal joint means movably securing said mirror panel to the rear part of said lower end of said supporting rod member, an attaching member adapted to be secured to an automobile body and having a downwardly extending bore open at its lower end and slidingly receiving said upper part of said supporting rod member, said supporting rod member being provided with a longitudinal through bore, an adjusting shaft journalled in said last bore, a worm having a helical thread fast to the upper end of said adjusting shaft and housed within said bore in said attaching member, an external adjusting knob fast to the lower end of said adjusting shaft, and a longitudinal row of teeth provided within and fast to said attaching member and meshing with said helical thread to move said upper part of said supporting rod member lengthwise of said bore in said attaching member when said knob and rod are manually turned.

2,836,105
CONTACT TYPE LATCH AND FIRING MECHANISM FOR ROCKET LAUNCHER
Robert A. Doak, Jr., Cromwell, Conn., and Luis R. Garza, San Antonio, Tex., assignors to the United States of America as represented by the Secretary of the Army
Application September 1, 1953, Serial No. 385,723
5 Claims. (Cl. 89—1.7)



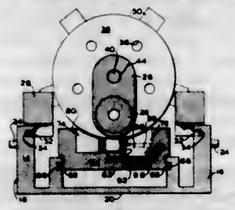
1. The combination comprising a hollow tube of the type used as a launcher, a rocket adapted to be loaded through the rear end of said tube and discharged from the front end, a shroud ring on the said rocket, a contact ring on the said rocket, at least two longitudinally movable radially spaced bell cranks pivotally mounted for independent rotation on said tube and extending in part within the same to interfere with the said shroud ring and arrest forward motion of said rocket after a limited forward motion thereof, an operating lever to rotate both said bell cranks simultaneously to remove the said engagement with the said shroud ring, resilient means to urge the said bell cranks rearwardly to engage the said contact ring and a circuit connected to the said bell cranks to arm the said rocket upon the said engagement between the said bell cranks and the said contact ring.

2,836,106
RAMMER
Robert G. Nutting, Glenview, and Robert F. Windstrup, Chicago, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Original application October 13, 1955, Serial No. 540,362. Divided and this application January 11, 1957, Serial No. 633,810
1 Claim. (Cl. 89—33)



For a machine gun including a receiver with a bolt mounted therein for reciprocation between a battery and a recoil position responsive to operation of the gun and a barrel provided with a bore and fixed to the front end of the receiver, a ramming device including a housing fixed to the outside of the receiver, a cylindrical feed throat in said housing for passing a cartridge into the receiver from the outside thereof, said feed throat being disposed so that the axis thereof intersects the axis of the bore at the breech end of the barrel and cartridges propelled along said feed throat are directed into the bore after passing through the receiver for final chambering of the bolt, a mouth portion in said feed throat for receiving the cartridge, and a rammer including a lever pivotally actuated through engagement by the bolt during flight to recoil position and a bell crank including an arm portion connected to said lever for actuation thereby and another arm portion extending into said feed throat for engagement by the cartridge when positioned in said mouth portion and for actuation against the cartridge for the propulsion thereof along said feed throat and into the bore when said lever is pivotally actuated by the bolt during flight to recoil position.

2,836,107
SINGLE BLOCK ACTUATOR FOR A REVOLVER-TYPE GUN
Earl R. Butler, Dayton, Ohio, and Kenneth A. Main, Ridgewood, N. J., assignors to the United States of America as represented by the Secretary of the Army
Application October 15, 1953, Serial No. 386,413
1 Claim. (Cl. 89—156)
(Granted under Title 35, U. S. Code (1952), sec. 266)



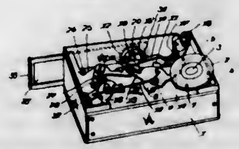
In a revolver-type gun, a receiver, a recoil unit slidable in said receiver including a cradle, a barrel having a bore therein secured to said cradle and a drum having a plurality of cartridge receiving chambers therein rotatably mounted in said recoil unit, there being a plurality of peripherally spaced rollers mounted on said drum, means indexing a said cartridge successively to a firing position in alignment with said bore in said barrel and to accelerate and decelerate said drum during said indexing comprising an actuator slidably mounted in said receiver, spring means normally biasing said actuator towards a battery position in said receiver, there being a rearwardly extending straight groove in the floor of said actuator, said straight groove branching at its forward portion into outwardly curved acceleration and deceleration grooves, said straight groove and said curved grooves adapted to receive one of said rollers on said drum during said cartridge chamber indexing, there being a recess in the floor of said decelerating groove adjacent the forward portion of said straight groove and a spring biased block slidably received in said recess, said block defining first and second opposed portions forming a curved bearing surface along one of its sides adjacent said straight groove, said surface adapted to extend between said straight groove and said acceleration groove to form a continuous wall therewith when said block is in said normal biased position, there being a ramped bearing surface on its upper side adjacent said curved bearing surface and a concave bearing surface on the upper side of said portion extending into said deceleration groove, said curved surface adapted to engage one of said rollers on said drum to rotate same and said ramped surfaces and said concave surfaces to depress said block whereby said acceleration and deceleration of said drum is facilitated.

2,836,108
PREFABRICATED PATIO
Nicholas Monick, Astoria, N. Y.
Application December 16, 1955, Serial No. 553,634
7 Claims. (Cl. 94—4)



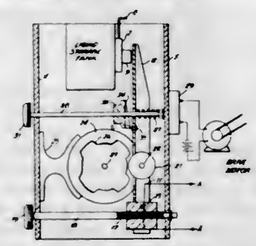
1. A patio comprising a plurality of like sections each including a base, blocks overlying the base, said blocks having upstanding portions, a cover plate lying on the blocks and having apertures receiving the upstanding portions of the blocks, means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, and means for connecting the cover plate to the base plate.

2,836,109
FILM WINDING AND SHUTTER SETTING MECHANISM FOR A CAMERA
Seiichi Mamiya, Bunkyo-ku, Tokyo-to, Japan
Application May 12, 1955, Serial No. 507,947
In Japan April 16, 1949
Public Law 619, August 23, 1954
Patent expires April 16, 1969
4 Claims. (Cl. 95—31)



1. In a camera provided with a case, a film-feeding spool, an objective, a shutter, resilient means biasing the shutter in a closed position, said shutter having a projection adapted to be actuated so as to open the shutter, an improved shutter mechanism comprising in combination a rotatable shutter operating plate, means for feeding film from said film-feeding spool to the focal plane of the objective and for simultaneously rotating the shutter operating plate into a ready position for operating and opening the shutter, means biasing the shutter operating plate in a direction away from said ready position and in a shutter operating direction, a hooking lever cooperating with said plate adapted to engage and hold said plate in a ready position, means biasing said hooking lever into engagement with said plate so as to hold it in a ready position, a push-button to release said hooking lever so as to release said shutter operating plate from said ready position, said plate being provided with a plurality of projections including a setting-arm adapted to cooperate with said means for feeding the film and rotating the plate so as to rotate the plate, a first stop-arm adapted to cooperate with said means for feeding the film and rotating the plate so as to stop said last mentioned means and determine the length of film being fed, a second stop-arm cooperating with said hooking lever so as to hold said plate in a ready position, a shutter-operating-arm adapted to engage said shutter projection so as to open the shutter when said push-button releases the plate and said biasing means move the plate away from said ready position to operate the shutter, said means for feeding the film and simultaneously rotating the shutter operating plate comprising a rotatable-film-feeding disc engaging said film spool, said disc being provided with a plurality of fixed pins positioned on said disc at points equal distance one from the other, said pins being adapted to engage said plate, whereby when said film feeding disc is rotated to feed the film for an exposure a first pin carried by the disc engages said setting-arm of said plate and said plate is rotated in a direction for setting it in a position for operating the shutter to take an exposure, and when said plate is in a ready position said hooking lever immediately hooks said second stop-arm of the plate to hold the plate in ready position and continued rotation of said disc disengages said first pin from said setting-arm and a second pin carried by said disc engages and abuts against said first stop-arm of the plate to stop rotation of the film feeding disc.

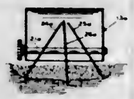
2,836,110
LIQUID DISPENSING APPARATUS FOR PRINT DEVELOPING MACHINES
Frederick H. Frantz, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application December 8, 1955, Serial No. 551,805
5 Claims. (Cl. 95—89)



1. In an apparatus for dispensing developing liquid in discrete amounts at recurring intervals, particularly for use in diazotype copying machines of variable processing speed which is proportional to the demand of liquid to be used in said machines, a liquid storage tank, a pump connected therewith having an outlet, a lever for actuating said pump, the stroke of said lever being proportional to the amount of liquid being expelled through said outlet, a rotary cam means for moving said lever at a substantially uniformly recurrent rate, a first manual control means for effecting a change in

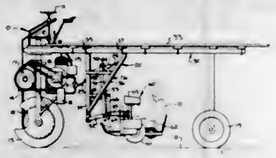
the processing speed of said machine, and simultaneously varying the distance of said lever from said rotary cam means and thereby determining the effective stroke of said lever and a second manual control means for varying the extent of its stroke independently from said first control means.

2,836,111
CULTIVATOR
Cecil B. Hobson, Marysville, Ohio
Application January 30, 1956, Serial No. 562,049
2 Claims. (Cl. 97—40)



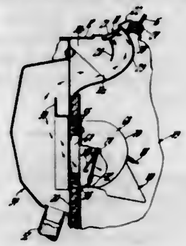
1. A cultivator comprising a frame carried by traction wheels for movement along the earth to be cultivated, a shaft carried by said frame, a pair of earth-working blades of serrated disk-like form, said blades being disposed on said shaft in angular relationship to the axis thereof so that they wobble as they rotate, and produce parallel grooves in the earth as the frame is moved along on said wheels, said blades being disposed in reverse angular relationship relative to the shaft axis so that they substantially converge at one peripheral point and gradually diverge to a maximum amount at a diametrically opposed point, a serrated earth-working blade disposed between said pair of blades substantially normal to the axis of said shaft but at a slight angle thereto and of larger diameter than said pair of blades so that it extends radially between the converging portions of said pair of blades beyond the outer edges thereof to prevent lodging of objects between said blades and to work the earth in the space between said blades as the frame is moved along on said wheels to create a moisture collecting deeper trough between the adjacent troughs created by said pair of blades, and means for driving all the blades about the axis of said shaft as the frame is moved along.

2,836,112
HITCH ATTACHMENT FOR A POWERED VEHICLE
Joseph Curtis Griffin, Branford, Fla.
Application August 24, 1955, Serial No. 530,277
9 Claims. (Cl. 97—47.43)



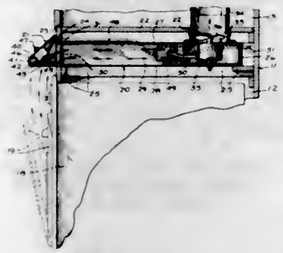
1. In a tobacco harvester device having power means for propelling the same, a pair of spaced frame members positioned a substantial distance above the ground, and having means for building up a fluid pressure, in combination therewith; a hitch assembly for pulling and elevating a farm implement, said hitch assembly comprising a pair of spaced A-frame side members, means connecting said side members to said pair of frame members, a plurality of cross members connecting said side members together, one of said cross members being pivotally mounted to said side members and connecting rear portions of said side members, a pair of connecting levers pivotally secured to the lower ends of said side members for attaching a farm implement thereto, a boom comprising pivotally connected parts, the free end of one of the parts being fixedly secured to said pivotally mounted cross member and the free end of another part being pivotally connected to said connecting levers, and hydraulic means operably connected to said pivotally mounted cross member to pivot the same whereby upon said hydraulic means being actuated, said pivotally mounted cross member will be pivoted to elevate said boom to elevate said connecting levers and the farm implement connected thereto.

2,836,113
HEATING AND VENTILATING SYSTEM OR APPARATUS FOR VEHICLES
Robert Seyfarth, Mason, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 18, 1953, Serial No. 392,823
5 Claims. (Cl. 98—2)



1. Heating and ventilating apparatus for a motor vehicle having a windshield, said apparatus including S-shaped duct means extending downwardly for the admission of outside air, an inlet transverse to the upper end of said duct means and forward of said windshield, an outlet transverse to the lower end of said duct means and leading into a compartment of said vehicle, a valve positioned to control said outlet, said valve being in the form of a pivoted flat member, an opening leading through said flat member, a yielding flap element mounted on the duct means side of said flat member to control said opening, and means independent of said outlet for forcing air from said duct means into said compartment.

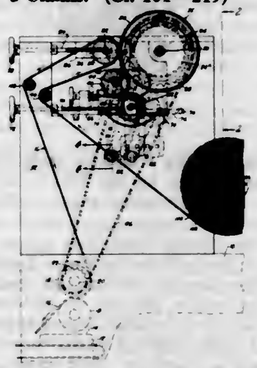
2,836,114
BUILT-IN VENTILATOR FOR BUILT-IN OVENS
Wesley W. Weaver and Robert E. Dake, Flint, Mich.
Application May 4, 1955, Serial No. 505,897
5 Claims. (Cl. 98—115)



1. A ventilator in combination with an oven recessed in a building wall structure and with the door to said oven substantially flush with the facing of the building wall structure and hinged at its lower portion to swing forwardly and downwardly to an open position, said ventilator comprising a duct unit also recessed in the building wall structure and positioned directly above and adjacent said oven and open through said facing, a venting stack in said building wall structure and leading from said duct unit, a hood member, and means mounting said hood member forwardly of the facing of the building wall structure and in communication with said duct unit, said hood member overhanging substantially the

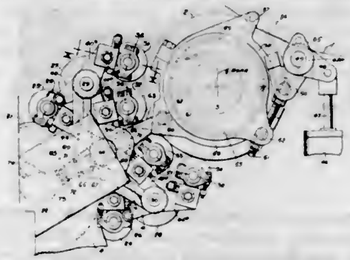
entire width of said door so as to receive heated fumes directed upwardly by said door upon partial opening of said door.

2,836,115
ROTARY WEB ANILINE PRESS
Donald J. Page, Green Bay, Wis.
Application May 24, 1955, Serial No. 510,737
5 Claims. (Cl. 101—219)



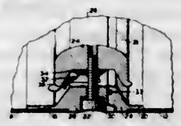
1. A printing press for use with aniline ink comprising a pair of vertical side supports, a pair of ink roll frame members mounted therebetween, an ink fountain and a pair of ink rolls carried by said frame members, a pair of bearings mounted in said side supports above said ink rolls, a tympan roll carried thereby, a plate roll mounted in said side supports in peripheral engagement with and adapted to receive ink from said ink rolls, said ink rolls being mounted generally below and to one side of said plate roll, the tympan roll being mounted above said ink rolls and on one side of said plate roll, whereby the exposure of ink during a printing operation is confined between portions of the ink roll, plate roll and tympan roll, brackets for supporting a roll of paper on one edge of said side supports, idler rollers for the web of paper adjacent said tympan roll, said ink rolls and said plate roll having a train of gears on one side of the same, a sprocket on one of said ink rolls, a motor and a pulley and belt drive from said motor to one of said ink rolls, said plate roll also having a sprocket on one side of the same and an independent drive thereto for use during a printing operation, said drive being faster than said motor drive, and said plate roll gear being in free-wheel engagement therewith.

2,836,116
THROW-OFFS FOR ROTARY PRINTING PRESSES
Hans J. Luehrs, Westerly, R. I., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a corporation of Delaware
Application June 28, 1954, Serial No. 439,562
9 Claims. (Cl. 101—182)



1. In a rotary typographical web printing press, a fixedly mounted impression cylinder, a coacting throw-off plate cylinder, form rolls therefor, a ductor roll, and a common power means operatively connected to the plate cylinder, the form rolls and ductor roll and operable to simultaneously throw "off" or "on" the plate cylinder and its form rolls and to inactivate or activate the ductor roll.

2,836,117
CLAMP MEANS
Harry G. Lankford, Wichita, Kans.
Application July 6, 1954, Serial No. 441,610
3 Claims. (Cl. 102—2)



1. Clamp means for joining together end to end hollow, aerial bomb case members, comprising, in combination, circumferential raised portions around the inside of the end portions of said case members to be joined, one of said raised portions having a longitudinal groove therein and a plurality of spaced holes therethrough and the other of said raised portions having a plurality of notches coinciding with said holes and adapted to receive a bolt, a clamp body adapted to be disposed longitudinal to and inside said case members, said clamp body having projecting end portions adapted to overlap said raised portions to hold said case members together and having a threaded hole, bolt means adapted to pass through one of said holes in said raised portion and into said threaded hole in said clamp body to threadedly and adjustably mount same, and leaf spring means slidably mountable on said last-named raised portion, said spring means having end portions projecting therefrom to extend into said groove in said raised portion and a recessed middle portion with a hole therethrough to receive said bolt means and said middle portion adapted to receive and cradle said clamp body, said spring means adapted to urge said clamp body out of clamping postion and to maintain said clamp body longitudinal to said case members, and said clamp means adapted to hold together said case members when same are positioned together with said bolt means in one of said notches in said raised portion and said bolt means is tightened.

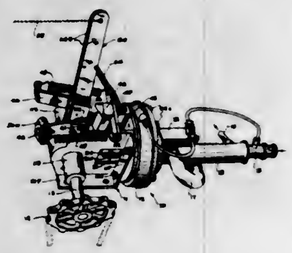
2,836,118
FUSE FOR AN EXPLOSIVE PROJECTILE
Karl Erik Waldemar Hjelm, Bofors, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation
Application September 13, 1954, Serial No. 455,627
Claims priority, application Sweden September 25, 1953
7 Claims. (Cl. 102—71)



1. A striker operated and time controlled fuse for an explosive projectile comprising, in combination, a fuse

housing, a movable striker, a charge containing detonator slide coacting with the striker for setting off said charge by the striker and movable between a safety position and an armed position, a first control slide movable between a first position retaining the detonator slide in the safety position thereof and a second position releasing said detonator slide for movement into the armed position thereof, a second movable control slide, said striker and said first and second control slides being axially displaceable within said housing and said detonating slide being axially displaceable transversely thereto, the force of inertia acting upon a fuse mounted on a projectile in flight effecting an axial displacement of said first and second control slides in one direction, the axial displacement of said first control slide causing movement of the same into the second position releasing the detonator slide, striker actuating means engageable and movable by said second control slide, axial movement of the second control slide in the direction opposite to the aforesaid one direction operating said striker actuating means, means biasing the second control slide towards said opposite direction for operating the striker actuating means, and timing means controlling the rate of axial movement of the second control slide into said opposite direction whereby the striker is actuated a predetermined period of time after movement of said detonator slide into its armed position and the first control slide into said second position.

2,836,119
PUMPS
Keith Kugler, Culbertson, Nebr.
Application October 29, 1954, Serial No. 465,669
1 Claim. (Cl. 103—23)



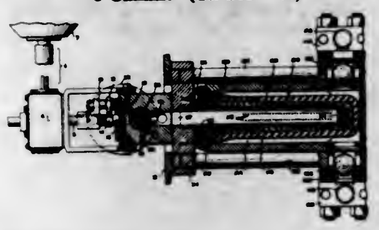
In a metering pump for use in applying liquefied gaseous fertilizer, a frame, a housing mounted on said frame and having reciprocable means mounted therein to provide a pump, an operating rod slidably extended into said housing and connected to said reciprocable means, a pivotal operating lever operatively connected to said rod for moving said reciprocable means through suction and discharge stroke, spring means acting on said lever for moving the reciprocable means through its suction stroke, an adjustable abutment in the path of said lever for limiting and varying said suction stroke, a drive shaft having eccentric means thereon engageable with said operating lever for actuating the reciprocable means through its discharge stroke, inlet and outlet check valves, means engageable by said reciprocable means when moved beyond the end of its discharge stroke for opening said outlet check valve, and a control lever normally disposed in an ineffective position and pivotable to an effective position wherein it engages said actuating lever to hold said actuating lever out of the range of said eccentric means, and said control lever being movable beyond said effective position to move said reciprocable means beyond the end of its discharge stroke.

2,836,120
VARIABLE CAPACITY PUMP
Miguel Navarro, Buenos Aires, Argentina
Application September 14, 1954, Serial No. 455,868
2 Claims. (Cl. 103—38)



1. In a pump having a circular body defining a central admission chamber for the fluid to be pumped and at least one group of radial pump cylinders opening from the admission chamber into a distribution chamber surrounding the circular body with pistons reciprocable in the radial pump cylinders to pump fluid from the admission chamber into the distribution chamber, a drive shaft extending axially through the admission chamber, an eccentric on the drive shaft for each group of pump cylinders, and connecting rod means between the pistons and the related eccentric to cause reciprocation of the pistons in response to rotation of the drive shaft with the length of stroke of the pistons being determined by the eccentricity of the related eccentric with respect to the axis of the drive shaft; means for adjusting the eccentricity of each eccentric relative to the axis of the drive shaft comprising a radially directed tubular member extending from the drive shaft for each eccentric, each eccentric having a radially inward opening cylinder therein receiving the related tubular member of the drive shaft, the drive shaft having an axial bore opening at one end of the drive shaft and communicating with each radially directed tubular member, the open end portion of said axial bore having internal threads, an externally threaded spindle screwed into said internally threaded open end portion of the axial bore, and a plunger slidable in said axial bore and extending from said spindle so that said plunger is operative to vary the pressure on an hydraulic fluid filling said axial bore, each tubular member and the corresponding cylinder of the related eccentric in response to turning of said spindle relative to the drive shaft, thereby to radially displace each eccentric relative to the axis of the drive shaft for varying the length of stroke of the pump pistons.

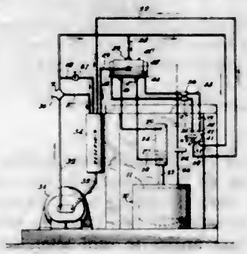
2,836,121
PUMPS
Lindsay H. Browne, Westport, Conn.
Application June 12, 1953, Serial No. 361,225
6 Claims. (Cl. 103—44)



1. Pumping means comprising a plurality of expandible and contractible members, means providing with said members individual chambers of which said members form wall portions, inlet and outlet valves controlling flow to and from said chambers, and means for supplying driving liquid to said members on their sides opposite their chambers

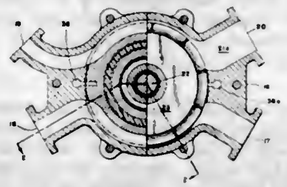
for expanding them and for releasing liquid therefrom for their contraction, the last named means comprising a pump supplying the driving liquid at a substantially constant rate over the period of a plurality of complete cycles of operation of the pumping means, a movable driving liquid distributing valve receiving driving liquid from said pump, driving means for said valve, means providing a plurality of ported passages connected to the respective members and controlled by said distributing valve to receive driving liquid for passage to the respective members, the distributing valve controlling flow of driving liquid into said passages so that, at times, flow occurs simultaneously thereinto, check valves in said passages, and means providing ported passages connected to the respective members and controlled by said distributing valve and through which last mentioned passages driving liquid is released from said members.

2,836,122
SLUDGE PUMPING ASSEMBLY
Carl Roy Johnson, Chicago, Ill., assignor to Yeomans Brothers Company, Melrose Park, Ill., a corporation of Delaware
Application November 25, 1953, Serial No. 394,264
2 Claims. (Cl. 103—45)



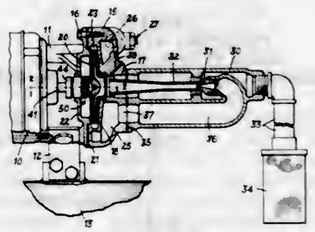
1. A sludge pumping system comprising a receiver including an inlet, an outlet, and a plunger slidable within said receiver to effect an intake of material through said inlet and a discharge of such material through said outlet, a ram of the double acting type including a cylinder, a piston slidable within said cylinder, and a piston rod extending from said cylinder and inter-connected with said plunger, a constant delivery fluid pump, a reservoir supplying fluid to said pump, and means for adjustably controlling the operation of said plunger including a pressure relief valve, a by-pass valve, a reversing valve, a pilot valve, a pair of flow regulating valves, and means associated with said plunger for actuating said pilot valve and for controlling the length of stroke of said plunger, said reversing valve having individual communication with said pump, said reservoir, and with each of the ends of said piston whereby a first pressure fluid flow may be alternately directed from said pump through said reversing valve to one end and then to the other end of said piston and whereby a simultaneous withdrawal of pressure fluid may be afforded from the opposing end of said piston through said reversing valve to said reservoir, said by-pass valve and said pressure relief valve being intermediate of said pump and said reversing valve whereby the speed of the stroke of said plunger may be controlled and whereby overload protection may be secured, said pilot valve having individual communication with said pump, said reservoir, and with each of the ends of said reversing valve whereby, through cooperation of said pilot valve actuating means, a second pressure fluid flow is alternately directed from said pump through said pilot valve to one end and then to the other end of said reversing valve and a simultaneous withdrawal of pressure fluid is afforded from the opposing end of said reversing valve through said pilot valve to said reservoir, said second pressure fluid flow and said simultaneous withdrawal of pressure fluid from said reversing valve effecting reciprocation of said plunger by causing said first pressure fluid flow to be alternately directed to one end and then the other of said piston and by affording simultaneous withdrawal of pressure fluid from the opposing end of said piston, said second pressure fluid flow and said withdrawal of pressure fluid between said pilot valve and said reversing valve each being through said flow regulating valves for cushioning the ends of the stroke of said plunger by controlling the acceleration and deceleration thereof.

2,836,123
TURBO-PUMP
Gordon Banerian, Monrovia, Calif., assignor to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application February 4, 1955, Serial No. 486,119
4 Claims. (Cl. 103—87)



1. A turbulence turbo-pump for operation by high temperature motive fluids which comprises in combination a pump housing, a turbine rotor within said housing whose periphery comprises a number of buckets, fixed with respect to said rotor and adapted to both impel and be impelled, at least two inlet and outlet ports in said housing and arcuate passages between said inlet and outlet ports in said housing forming a circular race for said rotor.

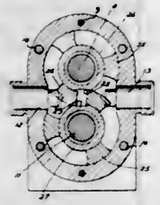
2,836,124
PUMPS
Kenneth R. Lung, Dayton, Ohio, assignor to The Tait Manufacturing Company, a corporation of Ohio
Application January 18, 1955, Serial No. 482,605
2 Claims. (Cl. 103—103)



1. An impeller for use in a centrifugal pump in combination with a drive shaft having a slot therein, comprising a cast impeller body including a portion defining an inlet on one side of said body, a sleeve cast integrally with said body and projecting therefrom on the opposite side thereof from said inlet to be received over said drive shaft, said sleeve being of relatively small radial section and having a radial bore therein spaced from said body, a collar received over said sleeve in overlying relation with said bore, said collar having a tapped radial through bore of sufficiently larger diameter than said tapped bore to receive freely therethrough a screw threaded in said tapped bore, a set screw threaded in said tapped bore and extending freely through said through bore for seated engagement in said slot to draw said

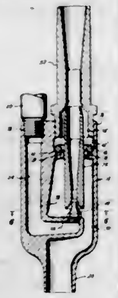
sleeve into clamped relation with said shaft on the opposite side of said shaft from said slot, and said slot being dimensioned to provide cooperating action between the side walls thereof and said set screw preventing rotational movement of said sleeve on said shaft.

2,836,125
ROTARY PUMP WITH INTERACTING TRI-LOBED IMPELLERS
Gilbert R. Funk, Waukesha, Wis., assignor to Waukesha Foundry Company, Waukesha, Wis., a corporation of Wisconsin
Application March 18, 1955, Serial No. 495,230
3 Claims. (Cl. 103—126)



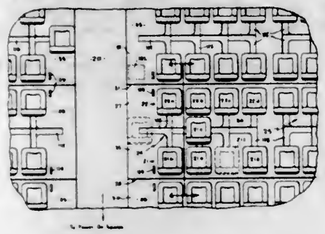
1. A pump comprising gear connected shafts in spaced relation, means including a sleeve and a housing having cylindrical wall surfaces concentric with the respective shafts to define pump chambers of generally annular form, and tri-lobed rotors, each including a hub and equally spaced lobes having their centers 120 degrees apart carried by the hub and having bearing surfaces engaging cylindrical wall portions of the housing and the respective sleeves, opposite sides of the housing having inlet and outlet ports between the generally annular chambers aforesaid, each of said sleeves having a concave arcuate bearing surface engaged by the outer peripheries of the lobes of the rotor connected with the shaft other than that encircled by said sleeve, said bearing surface being located between the sides of an equilateral triangle having an outside diameter of one of said sleeves as its base and having its altitude extending toward the axis of the other of said sleeves, the chord of said bearing surface being perpendicular to the altitude of the triangle and about one-third the length of the base thereof.

2,836,126
PUMPING APPARATUS
Arthur P. Ruth, Houston, Tex.
Application August 20, 1954, Serial No. 451,203
2 Claims. (Cl. 103—260)



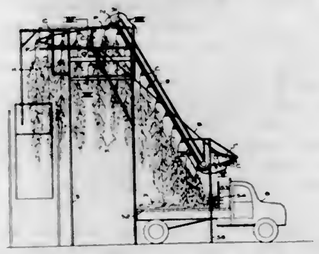
1. Pumping apparatus comprising a casing having an inlet and an outlet, a first venturi tube in the casing positioned to receive fluid from said inlet and to discharge the same toward said outlet, nozzle means in the casing having an inlet end in communication with a source of fluid under pressure and positioned to discharge such fluid in a direction to cause fluid to flow through said first venturi tube from said inlet toward said outlet, said casing having a portion forming a passageway in communication with said inlet and said outlet exteriorly of said first venturi tube, valve means in the casing operable to close said passageway against the flow of fluid from said outlet toward said inlet, and a second venturi tube positioned to receive fluid from said outlet and whose inlet end extends into said passageway in position for engagement by said valve means to limit opening movement of said valve means.

2,836,127
APPARATUS FOR SELECTIVELY MOVING SUPPORT MEMBERS
Elmore W. Hagadorn, Solvay, N. Y., assignor to Finishine Laboratories, Inc., Syracuse, N. Y., a corporation of New York
Application December 27, 1954, Serial No. 477,893
8 Claims. (Cl. 104—25)



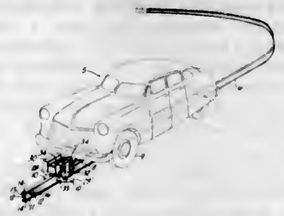
1. In a theatre or like auditorium having a main aisle, the combination of a substantially horizontal platform adjacent said aisle, a group of individually movable theatre seats arranged in two rows on said platform at substantially right angles to said aisle, said rows being spaced apart to form a passageway therebetween which passageway terminates in a seat loading and unloading zone adjacent said aisle, a separate drive member for each seat positioned below said platform to move the seat out of its position in its row and along said passageway to said loading and unloading zone, and a single prime mover for each row of seats selectively engageable with any of the drive members for the seats in the row to actuate the drive member.

2,836,128
VINE CARRIER AND STORAGE APPARATUS FOR HOP-PICKING MACHINES
Florian F. Dauenhauer, Santa Rosa, Calif.
Application December 22, 1954, Serial No. 477,020
3 Claims. (Cl. 104—91)



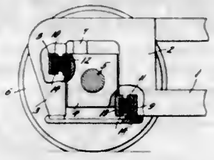
1. In a device of the type described: a downwardly inclined track portion; individual vine carriers each having wheels designed to travel along the track by gravity and be guided and supported thereby; an elevator having a lower sprocket positioned near the track; an endless chain having a portion passed around the lower sprocket and a lower reach extending from the lower sprocket; an upper sprocket supporting the upper end of the chain; carrier moving dogs mounted on the chain; said track having an upwardly inclined portion paralleling the lower reach of the chain and having a hinged section disposed adjacent to the lower sprocket; spring means for yieldingly holding the hinged section in operative position where it will interconnect the downwardly and upwardly inclined track portions so that the wheels of the carriers can travel from the downwardly inclined portion, across the hinged section, and up the upwardly inclined portion; said carriers including bars that depend from a point between the wheels; the dogs on the chain being positioned for engaging with the backs of the bars for moving the carriers along the hinged section and onto the upwardly inclined section; the springs permitting the hinged section to swing downwardly should a dog engage with the top of the carrier bar rather than at its back; whereby the dog would be able to move out of contact with the bar without damaging it; the spring means returning the hinge section to normal position immediately upon the freeing of the dog from the carrier.

2,836,129
MONORAIL TOY WITH CURRENT CARRYING TRACK
Clemens O. Jaeger, Milwaukee, Wis.
Application November 10, 1955, Serial No. 546,245
1 Claim. (Cl. 104—120)



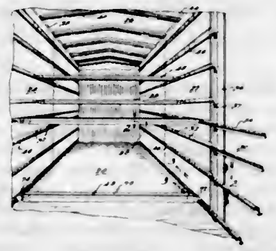
In a toy of the type comprising a wheeled electric motor driven vehicle having steerable wheels, means for steering the wheels and for conducting current from a source thereof to an electric motor in the vehicle, said means comprising: a laterally swingable guide arm on the vehicle extending forwardly from the steerable wheels and connected with the same to actuate them for steering motion; means on the front of said guide arm providing a pair of opposing conductive collectors, insulated from one another and having limited movement toward and from one another; conductor means connecting each of said collectors with the electric motor in the vehicle; an elongated band of insulative flexible material having an upright web and flanges at its top and bottom projecting laterally beyond the web, which flanges have slots adjacent to the web and opening toward one another; a pair of flexible metal strips, each flatwise overlying a face of the web and having its longitudinal edge portions snugly though freely endwise movably engaged in said slots in the flanges to be thereby confined against lateral motion while free for longitudinal motion relative to the insulative band to permit flexure thereof, said metal strips being connectable with a source of current and engageable between said collectors; and means biasing the collectors toward one another and into engagement with the metal strips so as to have good electrical contact therewith and to afford guidance to the guide arm whereby the steerable wheels are actuated to cause the vehicle to follow the sinuousities of the flexible band, the upper flanges on the band coacting with the collectors to hold the vehicle on the track provided by the flexible band.

2,836,130
JOURNAL BEARING ASSEMBLY
William T. Rossell, New York, N. Y., assignor to Transit Research Corporation, New York, N. Y., a corporation of New York
Application November 13, 1956, Serial No. 621,756
4 Claims. (Cl. 105—224)



1. The combination of pedestal guides, a journal bearing positioned between said guides, a spring supporting said guides directly from said bearing, the center line of said spring being offset with respect to and parallel to a vertical plane through the axis of said journal bearing thereby setting up a rotative force about the axis of said bearing, and pads inserted between the pedestal guides and said journal bearing at diagonally opposite corners of said journal bearing jointly opposing said rotative force.

2,836,131
FREIGHT LOADING APPARATUS
Sulo Michael Nampa, Detroit, and Henry L. Dunlap, Dearborn, Mich., assignors to Evans Products Company, Plymouth, Mich., a corporation of Delaware
Original applications September 25, 1948, Serial No. 51,272, now Patent No. 2,497,683, dated February 14, 1950, and October 6, 1949, Serial No. 119,942, now Patent No. 2,725,826, dated December 6, 1955. Divided and this application November 7, 1955, Serial No. 545,196
15 Claims. (Cl. 105—369)

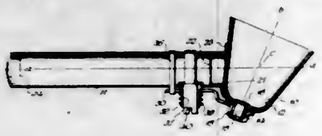


1. A freight holding member adapted to span a freight chamber and detachably connect to either of two different types of securing means either of which may be positioned along the inner walls of said chamber, one of said means comprising perforations in the walls and the other rail means on the walls, said member having a head at each end, each head having a wall engaging means adapted to enter said perforations and engaging means adapted for operative connection to the rail means, one of said engaging means being movable between an operative position and an inoperative position, and means embodied in each head for selectively holding said engaging means in said inoperative position.

2,836,132
ICE CREAM DISHER WITH ANGULAR HANDLE
Louis Myers, Rockford, Ill.
Application February 17, 1956, Serial No. 566,181
1 Claim. (Cl. 107—48)

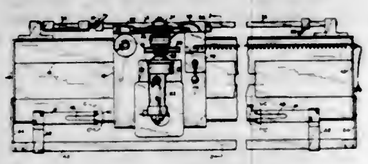
An ice cream disher comprising: a bowl having an open mouth at one end and a bottom at its other end,

said mouth and bottom being coaxial, the mouth having a rim extending in a plane substantially at a right angle to said axis, a handle projecting rectilinearlly from one side of the bowl on an axis in a transverse plane at an obtuse angle to the plane of the rim of the bowl, a sleeve secured in the bottom end of and coaxial with the bowl, a scraper provided with a stud journalled in and extending through said sleeve, a pinion having a tubular hub concentrically



surrounding the side and abutting the outer end of said sleeve and secured to the outer end of said stud, a lever, a stud on the handle on which the lever is pivoted to swing transversely in a plane at an obtuse angle to the plane of the rim, and an offset on the lever provided with teeth meshing with the pinion to swing transversely in a plane at a right angle to the axis of the pinion and the bowl.

2,836,133
RAILWAY TYPE SEWING MACHINE
Ralph S. Gamble, Oxford, and Leland F. Remington, Worcester, Mass., assignors to Curtis & Marble Machine Company, Worcester, Mass., a corporation of Massachusetts
Application December 20, 1954, Serial No. 476,144
2 Claims. (Cl. 112—2)



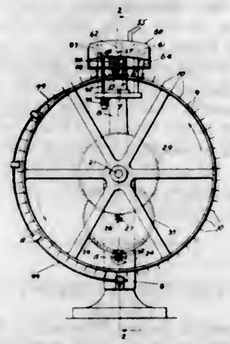
1. In a railway sewing machine, a base frame, a stitching carriage mounted to be moved along said frame, a head provided with stitching mechanism and mounted on said carriage, means to move said carriage between predetermined limits on said frame, separate clutch-controlled driving mechanism for said stitching mechanism, and automatic means to render the clutch of said stitching driving mechanism operative to drive said stitching mechanism at a predetermined intermediate point between the ends of the operative run only of said carriage and during the continued travel of the stitching carriage.

2,836,134
LOOP GUARD FOR TUFTING MACHINE
John B. Harrison, Rising Fawn, Ga.
Application September 12, 1955, Serial No. 533,792
7 Claims. (Cl. 112—79)



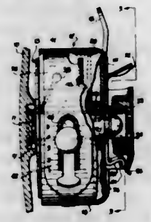
1. In combination a needle plate having needle passages therethrough and a loop guard secured to the under side thereof, said loop guard comprising a strip of resilient material secured to the needle plate in cantilever fashion with a free edge portion thereof facing in the direction of movement of work across the plate and normally tending to obstruct normal loop forming movement of the needles through the passages in said needle plate, said loop guard yielding downwardly to clear said needle passages when contacted by a needle moving through the plate.

2,836,135
SEWING MACHINE
Richard Briggs, Reading, Mass., assignor to Birch Bros., Inc., Somerville, Mass., a corporation of Massachusetts
Application March 22, 1956, Serial No. 573,168
16 Claims. (Cl. 112—214)



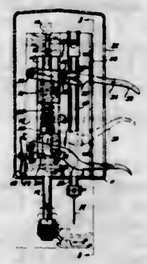
1. A sewing machine comprising stitch-forming mechanism, means for operating the same, a cloth-feeding member, actuating means capable of operating the cloth-feeding member at either one of two different speeds, control means rendered operative for a first time by the leading edge of the cloth as it reaches the stitching point of the stitch-forming mechanism thereby to set the actuating means to operate the cloth-feeding member at the slower of the two speeds whereby a series of fine stitches is formed at the beginning of the seam, and also rendered operative for a second time after a predetermined number of fine stitches have been formed thereby to set the actuating means again to operate the cloth-feeding member at the faster of the two speeds whereby coarser stitches are formed.

2,836,136
THREAD TENSIONING MEANS FOR SEWING MACHINE BOBBIN CASE
Waldemar A. Ayres, Lakewood, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Original application September 13, 1951, Serial No. 246,437, now Patent No. 2,728,315, dated December 27, 1955. Divided and this application October 28, 1955, Serial No. 543,539
8 Claims. (Cl. 112—229)



1. In combination with a bobbin case for a sewing machine, which case is adapted to receive a thread bobbin and has a substantially cylindrical side wall provided with an opening therethrough for passage of thread from the bobbin exteriorly of the case, an arcuate resilient thread tension member having a radius of curvature different from that of the said side wall and extending about a portion of the external periphery of the latter and directly connected thereto, means on said tension member adapted to engage the thread from the bobbin externally of said side wall and cooperate with the latter to exert therewith a direct frictional tensioning force on the thread, the said tension member and the adjacent portion of the side wall of the bobbin case having aligned longitudinal slots therethrough in a location where the tension member is spaced from the side wall, and means slidably positioned in said slots and engaging the inner surface of the said side wall and the outer surface of the tension member to alter the radius of curvature of said tension member and thereby vary the frictional force on said thread.

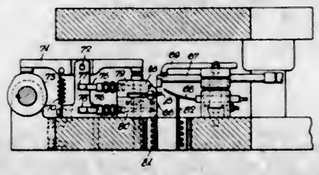
2,836,137
PRESSER FOOT LIFTER AND SPRING TENSIONING MECHANISM FOR A SEWING MACHINE
Waldemar A. Ayres, Lakewood, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application July 21, 1955, Serial No. 523,458
8 Claims. (Cl. 112—237)



1. A presser foot lifter mechanism for a sewing machine comprising a supporting structure forming part of the sewing machine head, a presser foot rod vertically slidably mounted in said structure, abutment means fixed to said rod, spring means acting on said abutment means and urging said rod in a downward direction, a block slidable on said rod and in said structure being operatively associated with said abutment means and movable in an upward direction to lift said rod against the action of said spring means, a presser foot rod control member movably connected to said structure and operatively associated with said lifting means to move the same, means for maintaining said lifting means and said rod in an intermediate or low lifted position, and means for maintaining said lifting means and said rod in a maximum or high lifted position including a recess formed in said block and a spring pressed detent carried by said structure and slidably engaging said block and arranged to be seated in said recess.

2,836,138
MACHINE FOR BRAZING SEAMS
Irving F. Matthysse, Norwalk, and Christian V. Pellier, Westport, Conn., assignors to Burndy Engineering Co. Inc., a corporation of New York
Original application August 5, 1947, Serial No. 766,150, now Patent No. 2,643,446, dated June 30, 1953. Divided and this application April 16, 1953, Serial No. 349,284
4 Claims. (Cl. 113—1)

1. A machine for manufacturing brazed articles having a tubular body and a non-tubular body and a non-tubular portion from a piece of sheet metal which comprises a press having blanking and forming dies positioned therein for stamping the articles and rounding the sheet metal to form the tubular body containing an open slot of predetermined length, means on said press for moving the stamped articles from the blanking to the forming dies, means on said press to support brazing material in an inserting position; said forming dies positioned away from said blanking dies in the direction the stamped articles are moved and between said blanking dies and the brazing supporting means, means on said press to move the tubular body from the forming die to an inserting position adjacent the brazing material; said supporting means having a feed mechanism to feed a predetermined length of flat sided ribbon made of brazing



material in a longitudinal direction between the adjacent edges of the slot; compression means on said press movable in the inserting position of the tubular body to close the entire slot simultaneously throughout its length until the ribbon is pinched on its flat sides and supported therein; means on said press to move the article away from the inserting position to permit another article to be moved into position, said brazing material inserting means so positioned and constructed that the brazing material is fed and supported while the closing means is actuated.

2,836,139
UNIVERSALLY ADJUSTABLE TWIN CLAMPING MEANS
Carl A. Holmberg, Bellevue, Wash.
Application May 14, 1956, Serial No. 584,510
1 Claim. (Cl. 113—104)

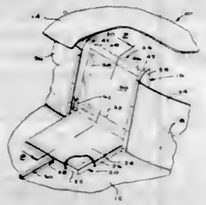


A universally adjustable multiple clamping means, comprising: a plurality of self-locking clamping devices of the type adapted to be held in a workman's hand, U-shaped clamps adapted to engage said clamping devices within the U-shaped opening provided in fixed clamping relationship, a laterally projecting arm formed as part of each of said U-shaped clamps, a spherical clamping member in the form of a spherical zone fixedly secured to each of said arms, coacting and resilient clamp bars having a cup of different sizes at each end adapted to cover only a portion of said spherical zone of each clamp, said clamp bars of identical construction but employed in a reversed disposition placing a small and a large cup in contact with the same spherical zone, a tensioning element disposed intermediate the ends of said clamp bars, and stop means serving to limit the application of tension that may be applied to said clamp bars.

2,836,140
WINDSHIELD HATCHWAY FOR A BOAT
Charles M. Hunt, Jr., Lake Wales, Fla.
Application March 2, 1956, Serial No. 569,015
10 Claims. (Cl. 114—.5)

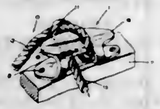
1. For use in combination with a boat having a forward deck and a vertically extending windshield, a windshield

hatchway assembly comprising a hatch opening portion in the deck communicating with the interior of the boat and opening into the windshield, a windshield passage portion extending vertically through the windshield in alignment and in communication with the hatch opening portion defining a passageway through the windshield and forward deck of the boat, and displaceable cover mem-



bers supported in closing relationship to the hatch opening portion and windshield passage portions permitting ready accessibility from the interior of the boat to the forward deck of the boat, said displaceable cover members including overlapping edge portions at the intersection of the lower portion of the windshield and the upper surface of the forward deck of the boat.

2,836,141
CLEAT
Edward W. Brydon, Weston, Toronto, Ontario, Canada
Application March 26, 1956, Serial No. 573,782
7 Claims. (Cl. 114—218)



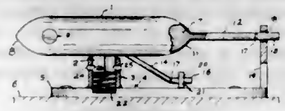
2. A cleat structure comprising an elongated mounting base having at one side thereof an upstanding waist portion, and an elongated head portion supported by said waist portion above and disposed over and extending longitudinally of said base to define an elongated channel therebetween open at one side opposite to said waist portion, said waist portion having a slot therethrough.

2,836,142
VISIBLE FLOW INDICATOR
Freedom H. Ainsworth, Salisbury, Md., assignor to The Wayne Pump Company, Salisbury, Md., a corporation of Maryland
Application March 4, 1957, Serial No. 643,658
7 Claims. (Cl. 116—117)



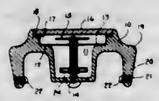
1. A visible flow indicator for use in liquid dispensing apparatus comprising a casing having a chamber provided with an inlet and an outlet adapted for connection respectively to a conduit in the apparatus through which liquid to be dispensed is to be passed under pressure at points where during the normal dispensing operation the pressure is relatively higher and lower, said chamber having a transparent panel and visible means therein actuated by flow of liquid therethrough, said outlet having a check valve adapted to close upon initiation of backward flow of liquid through said chamber.

2,836,143
DISTRESS SIGNAL DISCHARGE DEVICE
William Shoff, Bellerose, N. Y.
Application February 20, 1957, Serial No. 641,354
11 Claims. (Cl. 116—124)



1. A distress signal discharge device in combination with a supporting outer surface of an aircraft, comprising a mount fixed to the said surface and having an upwardly extending portion, a shell engaged to the said portion, the shell containing a pressurized mixture of a gas and a brightly colored fluid material, and the shell having one or more rupturable discharge tubes projecting therefrom, whereby upon rupture thereof the pressurized contents of the shell is adapted to forcefully issue from the ruptured tubes, wherein the upwardly extending portion of the mount is a socket and the shell has a depending male portion releasably engaged in the socket.

2,836,144
GAUGE HEAD
Jehu Morphis, Garland, Tex., assignor to Leta S. Taylor, individually and as trustee for Douglas C. Taylor and Leta E. Taylor, a partnership
Application June 21, 1957, Serial No. 667,254
2 Claims. (Cl. 116—129)

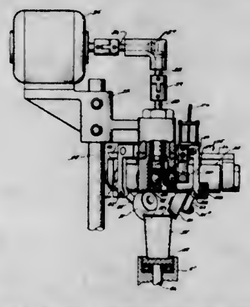


1. An indicator assemblage for a magnetic liquid level gauge comprising, a housing having a central stepped depression, an annular scale in the upper portion of said depression, a pivoted pointer in said depression above said scale, a pivot for said pointer in the lower portion of said depression, a magnet operatively connected to said pointer adjacent the bottom of said depression and a depending peripheral means spaced from said depression of said housing and adapted to embrace the upper end of a head of a gauge, said peripheral means comprising a plurality of spaced fingers and means for securing said fingers to the head of a gauge comprising a plurality of spaced set screws extending through said fingers and adapted to engage the head of the gauge on which the indicator assemblage is positioned.

2,836,145
APPARATUS FOR APPLYING A BEAD TO GLASS TUMBLERS
Perry A. Becker, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application January 4, 1955, Serial No. 479,720
12 Claims. (Cl. 118—218)

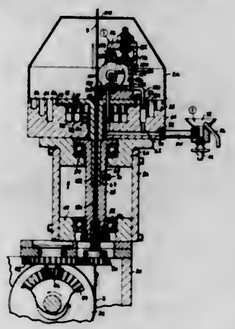
6. Apparatus for decorating the circular rim surface of a tumbler or other article, said apparatus comprising a pad for supporting the article for free rotation about the axis of said rim surface, at least three frusto-conical decorating rolls symmetrically arranged with respect to the axis of rotation of the article and equally spaced circumferentially of said axis, the rolls having their axes inclined

to the axis of the said surface and positioned with the peripheral surfaces of the rolls in contact with the said rim surface of the article, means for applying a decorating material to the surfaces of the rolls, and means for rotat-



ing the rolls and thereby rotating the article and applying the decorating material to said rim surface, the said pad being free for rotation by and with the said article during the rotation of the article.

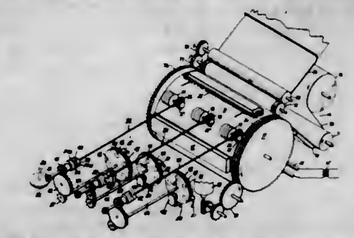
2,836,146
WIRE STRIPING DEVICE
Karl H. Weber, Toledo, Ohio
Application February 7, 1955, Serial No. 486,340
8 Claims. (Cl. 118—221)



1. In a device of the class described, means to move an elongated substantially cylindrical object through a zone to contact the periphery of rotatably mounted wheels whose axes are on the skew to apply ink in spiral paths to the surface of the object, a plate rotatably mounting the wheels adapted to rotate about the object in a transverse plane in timed relation thereto, a stationary ink storage member having ink retaining pockets therein, there being a pocket for each wheel, ink-conveying means including a scoop cooperating with each wheel and its corresponding ink pocket to carry ink from the pocket and apply it to the periphery of the wheels as they are being rotated about the object so that the ink is applied to the surface of the object by the wheels as they are rotated by the peripheral contactual relation between the object and the wheels.

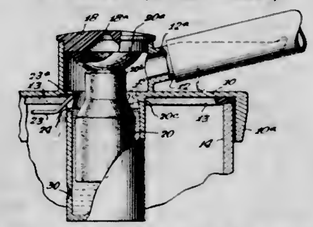
2,836,147
RECORDING AND PORTRAYING APPARATUS
Robert D. McComb, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application October 27, 1954, Serial No. 464,921
19 Claims. (Cl. 118—620)

8. A magnetic recording and portraying apparatus comprising a movable ferromagnetic member, at least one wheel supported in substantially tangential relationship with said ferromagnetic member, a plurality of magnetically permeable characters formed about the peripheral surface of said wheel, means for rotating said wheel, coil means mounted to substantially surround and to lie in the same plane as successive ones of said magnetically permeable characters as said wheel rotates, said coil means when energized being in flux linking relationship



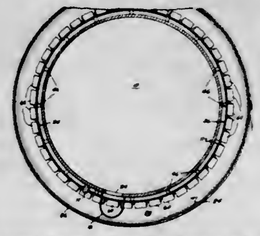
with said ferromagnetic member and successive ones of said characters during rotation of said wheel, means for momentarily energizing said coil means to impress a magnetic image upon said ferromagnetic member, and means for bringing minute magnetic particles into the attracting influence of said impressed magnetic image to render said image visible.

2,836,148
MILKING APPARATUS
Marion K. Eades, Pasadena, Calif.
Application July 18, 1955, Serial No. 522,685
15 Claims. (Cl. 119—14.08)



1. In a milker, apparatus of the character described, comprising: means defining a milk flow passage for connecting an animal's teat with a source of vacuum; said passage having a portion with an axis and a float valve in said passage adjacent said portion, to open the passage in the presence of milk and to close the passage in the absence of milk, the axis of said portion of the passage adjacent said valve being directed toward the side of said float valve whereby milk flowing through said passage impinges on the side of the float valve.

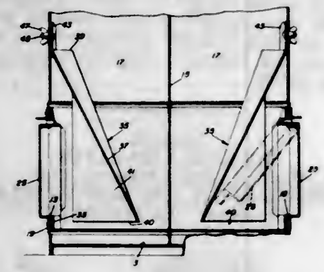
2,836,149
SILAGE DISTRIBUTOR
Donald Rutten, Plainfield, Ill., assignor to Railoc Company, Inc., Plainfield, Ill., a corporation of Illinois
Application April 4, 1957, Serial No. 650,603
7 Claims. (Cl. 119—52)



1. The combination with a silo having a vertical chute along one wall of the same, vertically aligned doors open-

ing into said chute and a shallow stationary trough around the periphery of said silo at the base thereof, of a pair of hoops encircling said silo above said trough, a plurality of vertical support members carried by said hoops at spaced points around said silo, a roller mounted in each of said support members, all of said rollers being in horizontal alignment about said silo, a ring member encircling said silo and carried by said rollers, a plurality of scoops pivotally connected to said ring member and extending downwardly therefrom in said trough and means for rotating said ring member.

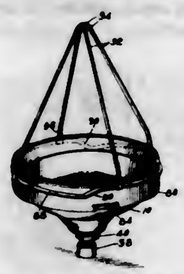
2,836,150
LIVESTOCK FEEDER
Thomas I. Robinson, Levelland, Tex., assignor of one-fourth to Thomas N. Robinson and one-fourth to Dayton B. Robertson, both of Levelland, Tex.
Application March 18, 1957, Serial No. 646,614
1 Claim. (Cl. 119—53)



A gravity feed livestock feeder having a vertical cylindrical wall and a bottom, a pair of doors at opposite sides of the wall above said bottom hingedly suspended from the wall for opening inwardly, a pair of baffles in said feeder opposite said doors and each comprising a rectangular plate inclining downwardly and inwardly from the wall and having an upper curved end fitting against the wall, said plates having a pair of triangular side flanges fitting against said wall at opposite sides of the doors and acting with said plates to deflect feed away from the doors, said plates and flanges having lower ends equidistantly spaced above said bottom and below the doors to provide for feed accumulating under said lower ends in front of the doors at a level below the doors, and means vertically adjustably suspending the plates from said wall for variably spacing said lower ends from the floor to provide for accumulating feed under said lower ends at different levels and including slotted upright tabs on said upper ends, and fasteners extending through said slotted tabs and securing the same to said wall.

2,836,151
AUTOMATIC DRINKING FOUNTAIN
Earl B. Johnson, Freehold, N. J.
Application August 6, 1954, Serial No. 448,351
10 Claims. (Cl. 119—81)

1. In combination, an upwardly open container having a substantially vertical cylindrical outer wall portion and an inwardly inclined shoulder face under said portion; an upwardly open reservoir loosely disposed for up and down movement within the container; a sealing disk on the lower part of the reservoir; a water supply jet projecting upwardly into the container and adapted to be engaged by said disk; and a cover over the container having a substantially cylindrical vertical downturned rim loosely surrounding the outer periphery of the container and having a lug engageable under the shoulder face, said cover having an intramarginal downpressed portion forming a drinking space and having an inlet

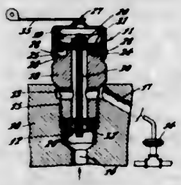


opening at its lower part on the side of the cover adjacent to said lug.

2,836,152
MEANS FOR CORRECTING HECTOGRAPHIC MASTER SHEETS
Carl Rosenblum, West Orange, N. J., assignor to Rose Ribbon & Carbon Mfg. Co., Inc., Harrison, N. J., a corporation of New York
No Drawing. Application January 19, 1955
Serial No. 482,893
3 Claims. (Cl. 120—36)

1. A correction sheet for the removal, without rubbing or abrasion, of an unwanted spirit duplicating ink mark from a hectographic master sheet composed essentially of paper, comprising a backing sheet coated with a film of material which is only slightly tacky under moderate pressure, said material being more tacky than conventional spirit duplicating inks whereby it will remove ink from said unwanted ink mark when firmly pressed against it, but insufficiently tacky to pick fiber from the paper of which the master sheet is composed, said material comprising a major portion of wax and 10% to 20% of a filler which is an absorbent for spirit duplicating inks.

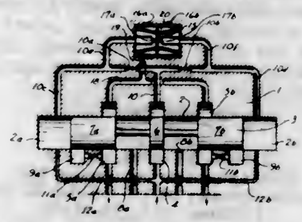
2,836,153
PILOT VALVE
Ernest F. Dyson, Meriden, Conn., assignor to The Bristol Company, Waterbury, Conn., a corporation of Connecticut
Application August 24, 1954, Serial No. 451,808
7 Claims. (Cl. 121—46.5)



1. A pilot valve for controlling the flow of a fluid from a pressure source to a control element in response to variations in the flow of a relatively small volume of fluid initiated by independent control means, comprising a body having an inlet adapted to be coupled to said source and an outlet adapted to be coupled to said control element, said body having two seating surfaces spaced a predetermined distance with one of said seating surfaces being associated with said inlet and the other seating surface being on the side of said outlet away from said one seating surface, a tubular member longer than said distance and axially extending in said body, a piston element connected to said tubular member adjacent to one end thereof and engaging interior surfaces of said body, one side of said piston element forming with said body a

variable volume chamber, said body having an orifice formed therethrough communicating with said chamber and at least one opening communicating through said other seating surface with said outlet, the other end of said tubular member extending through said inlet, a plug element connected to said tubular member adjacent to the other end thereof and adapted to seat on said one seating surface for sealing said inlet, said other side of said piston element being adapted to seat on the other seating surface for interrupting communication between said opening and outlet, said piston element, tubular member and plug element being free for limited axial displacement in said body between two extreme positions of alternatively engaging said piston element and plug element with their respective seating surfaces, and the internal bore of said tubular member being an axial capillary bore formed therethrough one end of which communicates with said chamber and providing restricted communication thereto.

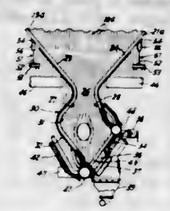
2,836,154
SELF-CENTERING SPOOL VALVE
Glen B. Lantz, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application June 13, 1955, Serial No. 514,968
5 Claims. (Cl. 121—46.5)



1. A self-centering spool valve comprising a casing having a bore closed at both its ends, and having pressure supply, return, and service ports communicating with the bore, a valve spool axially slidable within said bore between a centralized closed position and respective open positions at each side of such centralized position, the bore space beyond each end of the spool constituting a centralizing chamber, a pressure passage including a restricted orifice connecting each centralizing chamber with the pressure port, a relief chamber separate from the remaining chambers and ports, admitting to said bore in the vicinity of each centralizing chamber, the spool having a land at each end blocking communication between the corresponding centralizing chamber and the relief chamber when the spool is in its centralized position, and other lands which are located to block communication at the same time between the pressure port and either return port or either service port, but the centralizing chamber and the relief chamber coming into communication upon such axial shift of the spool as will afford communication between the pressure port and either service port or either return port, and a relief passage including a restricted orifice connecting such relief chamber with a return port.

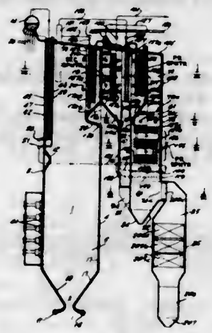
2,836,155
FLUID COOLED FURNACE
Raymond J. Boyer, Westfield, and Charles L. Marquez, Jr., Jersey City, N. J., assignors to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey
Application December 5, 1950, Serial No. 199,265
10 Claims. (Cl. 122—235)

7. In combination, a furnace arranged for burning ash-bearing fuel and having an ash discharge opening formed in the bottom thereof, said furnace having walls converging downwardly toward said opening and defining opposite sides of said opening, and an ash collecting receptacle arranged subjacent said furnace and suspended therefrom in a position to receive ash discharged through said opening, said receptacle having a pair of opposing walls formed as integral continuations of said converging furnace walls and defining an ash receiving space of maximum horizontal cross section at an elevation intermediate the height of the receptacle, said opposing receptacle walls having upper portions diverging downwardly from



said opposite sides of said furnace opening toward said intermediate elevation, whereas lower portions of said opposing receptacle walls converge downwardly from said intermediate elevation to form a juncture of said opposing receptacle walls at the bottom of said receptacle, said opposing receptacle walls being formed with fluid conducting tubes continuing upwardly along said converging walls of said furnace, with a header adjacent said juncture of said opposing walls from which fluid is supplied to said tubes.

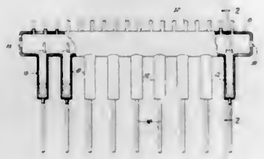
2,836,156
TUBULAR VAPOR GENERATING AND VAPOR SUPERHEATING UNITS
Willem F. C. Schaap, London, England, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application December 18, 1953, Serial No. 399,115
6 Claims. (Cl. 122—392)



1. In a vapor generating and superheating unit, a furnace having its walls lined with vapor generating tubes, means firing the furnace with a fuel resulting in solid particles in suspension in the furnace gases, means forming a gas pass leading from the furnace, a secondary vapor superheater in an upper part of the gas pass, a primary superheater in a lower part of the gas pass and at least partly disposed beneath the secondary superheater, means periodically dislodging solids accumulations on the secondary superheater, means forming a disposal zone for dislodged solids beyond the primary superheater relative to gas flow, means forming a primary superheater gas by-pass leading from a position beneath the secondary superheater to said disposal zone whereby accumulations dislodged from the secondary superheater pass to the disposal zone without contacting

the primary superheater, and gas flow regulating means for controlling the amount of gas flow through the bypass.

2,836,157
FORCED FLOW VAPOR GENERATOR WITH MULTIPLE VAPOR AND LIQUID SEPARATORS
Ernst Gauger, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application August 3, 1954, Serial No. 447,530
8 Claims. (Cl. 122—491)



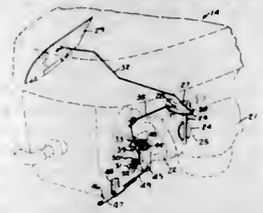
1. In a vapor and liquid separating unit, a pressure vessel normally having therein a liquid level between its liquid space and its vapor space, an upright unobstructed separator element mainly in the form of a hollow cylindrical shell of uniform circular horizontal cross section throughout at least the major portion of its height, said element being disposed within the pressure vessel and open throughout its top to the vapor space of the pressure vessel and open at its bottom to the liquid space of the pressure vessel, a separate inlet tube having a downwardly inclined discharge end portion arranged to discharge substantially tangentially and downwardly into the open top of the separator element and normally conducting a high velocity vapor and liquid mixture stream into the separator element, vapor offtake means leading from the vapor space of the vessel and separated liquid offtake means leading from the liquid space of the pressure vessel, the longitudinal axis of the inlet tube being substantially tangential to a circle concentric with the shell but of smaller diameter than said shell.

2,836,158
FUEL FEED SYSTEM FOR SOLID FUEL BURNING ENGINE
Russell E. Harvey, Roanoke, Va.
Application July 23, 1956, Serial No. 599,657
10 Claims. (Cl. 123—23)



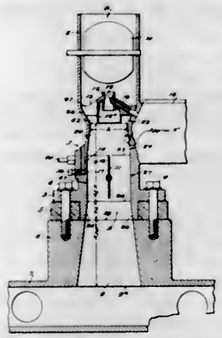
1. A fuel feeding system for solid fuel burning engines having a fuel intake comprising, means to contain a supply of solid pulverulent fuel and having an outlet, conveyor means having one end adjacent said outlet and having a discharge outlet adjacent its other end adapted to be connected to said engine intake to receive fuel from said supply and convey it to said discharge outlet, means to control the amount of fuel admitted to said discharge outlet from said conveyor means, and means to return to said supply quantities of fuel on said conveyor means in excess of the quantity admitted to said discharge outlet, said conveyor means comprising two stages, a first stage adjacent said supply outlet having a feeding rate of predetermined amount and a second stage adjacent said discharge outlet having a more rapid feeding rate than said first stage.

2,836,159
GOVERNOR FOR LAWN MOWER ENGINES
Russell L. Morden, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application March 26, 1956, Serial No. 573,920
18 Claims. (Cl. 123—103)



1. In a governor for an internal combustion engine having a throttle valve, and a fan operating in accordance with the speed of engine rotation, a vane mounted for pivotal movement in the path of air circulated by said fan, said vane being operatively connected to said throttle valve whereby when the vane responds to air flow from said fan the said throttle valve is moved in a closing direction, a post, and a torsion spring operatively connected to said throttle valve and opposing the closing action of said vane, said spring having a central portion comprising a plurality of coils wound around said post, one end of said spring being operatively connected to said throttle valve and the other end of said spring being anchored.

2,836,160
CARBURETING MEANS
Cecil Lynn Akers, Anderson, Ind.
Application February 28, 1955, Serial No. 490,861
2 Claims. (Cl. 123—117)

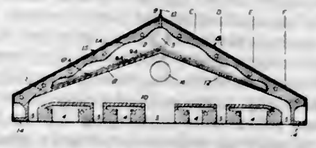


1. In a down-draft carbureter for supplying a horizontal intake manifold with an efficient fuel-air mixture, a substantially vertical conduit having a choke valve at its upper end, a Venturi below it, followed by a cylindrical throttle chamber, and a flaring passage extending downwardly therefrom to said horizontal manifold, the angle of flare being substantially the same as that of the downstream portion of said Venturi.

2,836,161
INTERNAL COMBUSTION ENGINES
Gregory Gavrillovich Primakoff, Bombay, India
Application October 2, 1956, Serial No. 613,404
6 Claims. (Cl. 123—122)

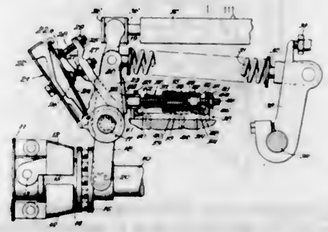
1. In combination with internal combustion engines a device for supplying the combustible mixture from the carburettor to the cylinders of the engine which comprises

a composite body including three chambers viz: a first fuel inlet chamber having an opening in its wall for receiving the fuel mixture from the carburettor, a second fuel inlet chamber communicating with the first chamber through a narrow outlet passage or slit, a third chamber



housed with the second chamber and placed adjacent to the said slit, said third chamber being adapted to communicate with the exhaust ports of the cylinders and having an outlet for exhaust gases, the second chamber having inlet ports communicating with the inlet ports of the cylinders.

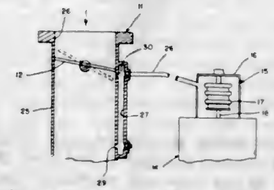
2,836,162
GOVERNING MECHANISM FOR FUEL INJECTION PUMPS OF DIESEL ENGINES
Thomas M. Dressler, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application September 19, 1956, Serial No. 610,813
9 Claims. (Cl. 123—140)



1. In a governing mechanism for a diesel engine, a first rotating shaft, a sleeve slidably mounted on the shaft, a pair of opposed weights pivotally mounted on the first shaft, a second shaft arranged transversely of and spaced above the first shaft, a member fixedly secured on the second shaft and pivotally connected to the sleeve, a member pivotally mounted on the second shaft, resilient means carried by the second named member, a member fixedly secured on the second shaft, resilient means pivotally mounted on the second named member and pivotally mounted in the engine, a member pivotally connected to the first named member and operatively connected to a fuel injection pump, and a resilient stop mechanism mounted on the engine and engaging the second named member when the engine is not running and the third named member compressing the first named resilient means after the engine is started and the second named resilient means being under tension when the engine is not running and after the engine is started.

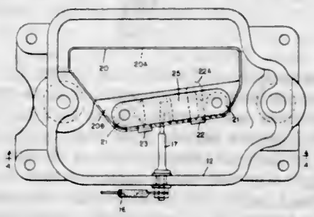
2,836,163
CONTROL FOR INTERNAL COMBUSTION ENGINE
Walter F. Isley, Grosse Pointe, Mich., assignor to Continental Aviation & Engineering Corporation, Detroit, Mich., a corporation of Virginia
Application February 18, 1957, Serial No. 640,639
3 Claims. (Cl. 123—140)

1. In an internal combustion engine having an air induction system including an intake manifold having an air intake, and a throttle valve operable therein, a fuel injection system including a pressure responsive control means, pressure sensing means operatively connecting said manifold, and said control means to actuate said control in response to variable pressures, and a second speed control means progressively modifying the pressure in said sensing means during a predetermined range of said throttle valve operation, said speed control means comprising a pressure sensing port open to said manifold downstream of said throttle valve and a second



pressure sensing port open to said manifold approximately at said throttle valve and disposed to be positioned downstream of said throttle valve when same is closed and to be positioned upstream of said throttle valve when same is opened beyond a predetermined position, and means openly connecting said parts to said pressure responsive control means.

2,836,164
PROTECTIVE DEVICE FOR INTERNAL COMBUSTION ENGINES
David C. Kinney, East Detroit, Mich., assignor to Continental Motors Corporation, Detroit and Muskegon, Mich., a corporation of Virginia
Application March 3, 1955, Serial No. 491,881
4 Claims. (Cl. 123—196)



1. In an internal combustion engine having magneto ignition, a crankcase containing a supply of oil, a dip pan supported in said crankcase, means communicating the interior of said dip pan with the oil in said crankcase, an electrically conductive float in said crankcase and exterior of said dip pan, said dip pan constructed and arranged to substantially overlie said float to shield same from oil splash disturbances, means guiding said float in vertical movement caused by a change of oil level in said crankcase, a pair of electrical conductor elements submerged in said oil exteriorly of said dip pan and arranged to be simultaneously contacted by said float at a predetermined oil level, one of said conductor elements being grounded and the other of said conductor elements being connected with the primary winding of the magneto and operable to electrically ground same when the oil level drops to the predetermined level aforesaid.

2,836,165
ARCHERY BOW
Fred B. Bear, Grayling, Mich., assignor to Bear Archery Company, Grayling, Mich., a corporation of Michigan
Application August 13, 1956, Serial No. 603,591
5 Claims. (Cl. 124—23)

1. An archery bow characterized in that the string has a head on one end which is wider than the string, the bow has a recess in one end to receive the head and a groove leading from the recess toward the other

end of the bow along the face of the bow to receive the string when the bow is braced, the groove being narrower than the head so that the head cannot pull out through the groove when the bow is braced, the recess having an outlet larger than the head through which the head may be removed from the recess to unbrace the bow when



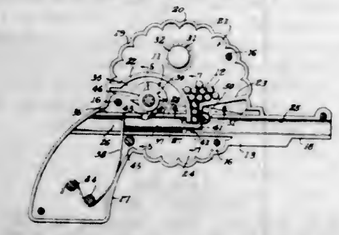
tension on the string is relieved, and elongate elastic means having one end attached to said head and the other end attached to the bow and extending from the head toward the adjacent end of the bow in alignment with said groove and thence over a guide at the end of the bow along the back of the bow to maintain the string taut when the bow is unbraced.

2,836,166
ARCHERY BOW
Fred B. Bear, Grayling, Mich., assignor to Bear Archery Company, Grayling, Mich., a corporation of Michigan
Application August 13, 1956, Serial No. 603,592
11 Claims. (Cl. 124—23)



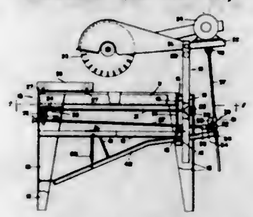
1. An archery bow characterized in that the string has a head on one end which is wider than the string, one end of the bow has a recess in its face to receive the head and a groove leading from the recess toward the other end of the bow along the face of the bow to receive the string, the groove being narrower than the head so that the head cannot pull out through the groove when the bow is braced, the mouth of the recess being larger than the head, and means to eject the head from the recess when tension in the string is relieved.

2,836,167
NOVELTY GUN
Haruzo Saito, Tokyo, Japan, assignor to Astra Merchandise Company, Inc., Los Angeles, Calif., a corporation of California
Application October 8, 1956, Serial No. 614,740
3 Claims. (Cl. 124—27)



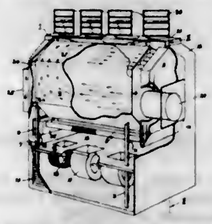
1. In a toy gun having a body formed of complementary halves joined at an edge seam, said halves between them defining a pellet-storing magazine chamber, an exit throat for said chamber of a size to allow passage therethrough of pellets from the chamber one at a time and a barrel passage for pellets leaving said throat, a rigid lateral projection extending from one body half across said seam and terminating in spaced relation to the other body half, said projection being disposed adjacent to said throat within said barrel passage, a member pendently hung on said projection and, when pendent, partly encroaching on the throat to restrict the size of the same against egress of pellets from the throat and partly encroaching on the barrel passage to restrict the same against egress of a pellet discharged through the throat and lodged in the portion of the barrel passage that is directly beneath the throat, a pellet-projecting element normally in the path of pellets in the throat to restrain said pellets from discharging into the barrel passage and in projected position to swing the pendent member to throat-opening and barrel passage-opening position, means to retract said element while a pellet is supported thereon to release the pellet to fall into the mentioned portion of the barrel passage, and rapid-acting means to project the element to propel the pellet thus released outwardly from the barrel passage while the depending member is swung out of its normally pendent position.

2,836,168
MASONRY SAW
Edward A. Zazzelo, Narberth, Pa.
Application April 17, 1956, Serial No. 578,687
8 Claims. (Cl. 125—13)



1. In a masonry saw, a base, guiding means affixed at constant level to the base, and a frame adapted to support a saw-carrying platform pivotally about a horizontal axis above the base and having a plurality of substantially vertically disposed cylindrical members located in engagement with the guiding means for slidable adjustment substantially vertically therealong to support the platform at any desired height throughout the entire range of adjustment of the platform above the base.

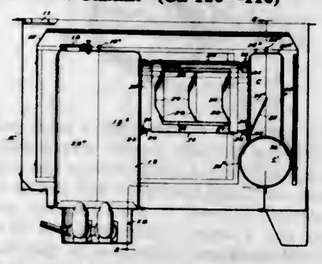
2,836,169
DIRECT FIRED HOT AIR HEATING APPARATUS
Bertram B. Reilly, Pittsburgh, Pa., assignor to Dravo Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 27, 1956, Serial No. 568,042
1 Claim. (Cl. 126—110)



In a space heater having an enclosing casing, a combustion chamber disposed within said casing with the walls thereof in spaced relation to the casing walls, means forming an air outlet in the top of said casing, and a blower disposed beneath said chamber for forcing air upwardly and about said chamber in passage through said

casing to said outlet, the combination of a vertically disposed front wall on said chamber extending in spaced relation to an adjacent casing wall, a manifold disposed between said chamber and casing wall in spaced relation to both and extending from beneath to the vertical height of the chamber, a plurality of conduits spaced transversely of the manifold adjacent the top thereof connecting the interior of the said chamber with the interior of the manifold providing passage of combustion gases from the combustion chamber to the manifold, a plurality of conduits disposed beneath the combustion chamber and connected with the manifold for carrying combustion gases from the manifold rearwardly beneath the combustion chamber in the path of the entering air from the blower, and a burner tube extending through said casing wall, manifold, and said front wall of the combustion chamber for housing a burner for injection of combustible fuel into the combustion chamber.

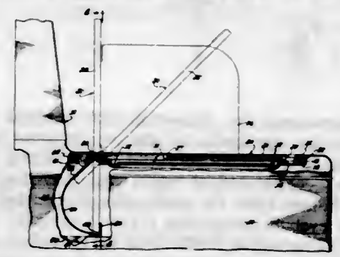
2,836,170
FLOOR FURNACE
Ralph Elroy Solomon, Chattanooga, Tenn., assignor to Samuel Stamping & Enameling Company, Chattanooga, Tenn., a corporation of Tennessee
Application August 8, 1955, Serial No. 526,821
4 Claims. (Cl. 126—116)



1. A floor furnace comprising a rectangular housing provided with a top grid, a secondary open top and bottom housing disposed within the first housing, opposed sheet metal sections within one end of said second housing providing a combustion chamber having an open bottom, a burner box disposed beneath said sections and communicating with said combustion chamber through said open bottom thereof, opposed sheet metal sections within the opposite end of said secondary housing formed to provide an upper radiator chamber and a lower combined radiator and draft diverter chamber, adjacent sections of said combustion chamber and said upper radiator chamber having horizontally alined openings, a cylinder having opposite ends thereof in communication with said openings and providing a tubular radiator, a tubular portion at the bottom of said last sheet metal sections with the axis thereof normal to the axis of said cylinder, said last sheet metal sections providing an upper radiator chamber and said tubular portion providing a lower combined radiator and draft diverter chamber in communication with said upper radiator chamber, a flue outlet collar removably disposed in one end of said tubular portion and an outlet deflector removably disposed in the opposite end of said tubular portion for diffusing the gases already diverted by back draft from the flue.

2,836,171
GRIDDLE COVER SHIELD
Gene H. Cripe, North Hollywood, Calif., assignor to Utility Appliance Corporation, Los Angeles, Calif., a corporation of California
Application September 21, 1953, Serial No. 381,398
4 Claims. (Cl. 126—214)

1. In combination: a stove having a top portion; means defining ledge elements upon said top portion; a griddle positioned upon said ledge elements; a lid of a size to cover said griddle, said lid resting on said top portion and covering said griddle, said lid being capable of being lifted from the top of said stove; means defining an opening in said top portion of said stove back of said griddle and parallel to one edge thereof; a curved back wall portion positioned within said stove beneath said top portion behind said opening, said curved back wall portion serving as a guide when said lid is lifted from said griddle and slid into said opening; means defining a socket within said stove beneath said top adjacent the bottom of said back wall portion, said socket being designed to hold said lid in an upright position partially beneath said top portion when said lid is lifted from said griddle and slid into said openng, said socket being so positioned as to normally receive said lid as said lid is



slid along said curved back wall portion, said curved back wall portion substantially covering the vertical distance between said socket and said opening in said top portion; side walls and pivot means for respectively pivotally connecting same to opposed side edges of said lid to swing from a folded position in which they are parallel and adjoining to an open position in which they extend forwardly in spaced parallel relationship along opposite sides of said griddle when said lid is slid into said opening, said side walls forming with said lid a shield adjacent three sides of said griddle so as to prevent unwanted splashing from said griddle onto adjacent portions of said stove; and latch means for holding said side walls in said folded position adjacent said lid whereby said side walls are held between said lid and said griddle when said lid is positioned over said griddle.

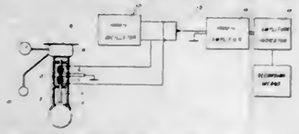
2,836,172
TORCH
Allen S. Ginsburgh, Glendora, and Francis J. Climent, Los Angeles, Calif., assignors to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application May 2, 1955, Serial No. 505,169
3 Claims. (Cl. 126—263)



1. A torch, producing a high temperature flame, usable in welding, brazing and like operations, adapted to be hand held, which comprises, in combination, a solid self-sustaining combustible grain comprising an intimate mixture of a solid oxidizing salt dispersed in a solid combustible fuel enclosed in a casing; a convergent nozzle

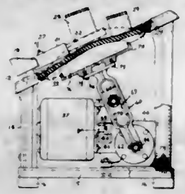
attached at one end of said casing; pyrotechnic material enclosed within said nozzle; and a hollow handle attached at the opposite end of said casing enclosing means abutting against the end of said grain adapted to maintain the opposite end of said grain in contact with said nozzle as the length of said grain is shortened during operation of the torch.

2,836,173
APPARATUS TO MEASURE INTRA-CEREBRAL BLOOD PRESSURE
Misao Uemura and Yoshio Ogino, Tokyo, Japan
Application November 25, 1952, Serial No. 322,442
Claims priority, application Japan November 30, 1951
7 Claims. (Cl. 128—2.05)



1. An instrument for measuring intra-cerebral blood pressure by the application of external pressure to the eyeball of the eye which detects the characteristic pulsations of the central retinal artery and the changes in corneal pulsation upon the application of external pressure to the eyeball, comprising pressure applying means positionable over and in contact with the eyeball in spaced relation to the cornea, pressure sensing means connected to said pressure applying means, pressure displaceable means arranged to coact with the pulsations of the cornea, electrical pulsation sensing means to which said pressure displaceable means is connected, and indicating means connected to said electrical sensing means for indicating the degree of displacement of said pressure displaceable means.

2,836,174
FOOT MASSAGE MACHINE
Arthur W. Infanger, Cayuga, N. Y., assignor to Auburn Machine and Tool Co., Inc., Auburn, N. Y., a corporation of New York
Application August 31, 1955, Serial No. 531,723
6 Claims. (Cl. 128—25)



1. In combination, a motor, a shaft, means connected to said motor for rotating said shaft, a stub shaft, coupling means for coupling said stub shaft eccentrically to said first named shaft, a crank arm mounted on said stub shaft, a ring positioned on said stub shaft for locking said crank arm to said stub shaft, a fixed roller associated with said crank arm whereby said crank arm reciprocates about said fixed roller when driven by said shaft, a diaphragm associated with said shaft whereby the rotating, pulsating motion of said crank arm is transmitted to said diaphragm.

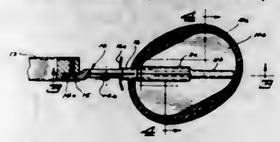
2,836,175
TOOL FOR FINGER-PRESSURE TREATMENT AND MASSAGE
Takeo Nakayama, Tokyo, Japan
Application October 2, 1956, Serial No. 613,484
1 Claim. (Cl. 128—60)

An improved massage device comprising a base board, a plurality of retaining collars mounted on said base board and having inwardly directed flanges along the forward edges thereof, a massage element registering with each of said collars and having a front cylindrical portion of smaller diameter than the inner diameter of said flange and a forwardly directed curved working face



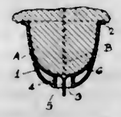
and a rear portion of greater diameter than the inner diameter of said flange and having a rearwardly directed curved face, and a bearing block located in each of said collars and having a curved recess engaging said rearwardly directed curved face whereby to permit free angular movement of said massage elements.

2,836,176
TRUSS PAD STRUCTURE
Henry L. Hoffmann, Minneapolis, Minn.
Application November 29, 1954, Serial No. 471,791
3 Claims. (Cl. 128—106)



1. A truss having in combination, a band and a pad, said pad having a passage therein substantially thereacross having an enlarged outer portion and a threaded inner portion, said band having an end section having a threaded potrion disposed in said threaded portion of said passage, and a sleeve slidably disposed on said end section of said band and disposed into said band passage to hold said enlarged portion of said pad from rotation about said end section of said band.

2,836,177
CERVICAL CAP
Robert L. Sells, San Francisco, Calif.
Application February 6, 1956, Serial No. 563,648
2 Claims. (Cl. 128—127)



1. In a device of the kind characterized, a concave cap adapted to fit snugly over a cervix and having a bottom opening in alignment with a cervical canal of the cervix, an upstanding tubular flange secured to the bottom of the cap and having its opening in registry with the opening of the cap, a flexible tubular valve member secured at one end to the upper edges of the tubular flange and arranged with its lower portion extending through the tubular flange and the opening of the cap, said tubular valve member having an end opening in communication with the cervical canal, and said tubular valve having yieldable sides arranged in normally closed contacting relationship.

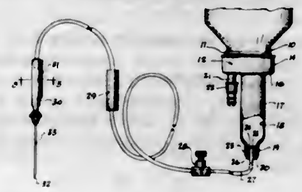
2,836,178
SURGICAL DRESSING
Arthur C. Barr, Madison, Wis.
Application August 11, 1955, Serial No. 527,730
5 Claims. (Cl. 128—155)

4. A surgical dressing comprising a first pad portion and tape portions having a tacky adhesive surface on one side thereof and extending from opposite ends of the first pad portion, a second pad portion overlying the side of said first pad portion opposite the tacky surface on said tape portions, a tape section having a tacky adhesive



surface on one side thereof affixed to said second pad portion and to the other side of said tape portions, and a protective sheet adhered to the adhesive surface on said tape portions.

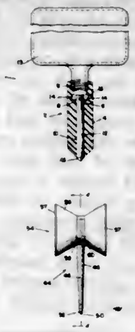
2,836,179
CLOSURE CONNECTING MEANS
George R. Ryan, Waukegan, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
Application January 10, 1955, Serial No. 480,663
3 Claims. (Cl. 128—214)



1. An article of manufacture comprising in combination, a main body section with an end wall adapted for detachably engaging with the discharge outlet of a fluid container, said body section having a lower end section apertured to provide a fluid outlet passage adapted to receive the end of a small diameter flexible plastic tubing, said apertured portion of the body section having disposed therein a plastic ring member the outer walls of which form a fluid-tight engagement with the said body section, said ring member being formed of a plastic material which is sealable with the surface of a length of flexible plastic tubing, and a length of said plastic tubing having an external diameter approximately that of the internal diameter of the said ring member inserted into the said ring member and having the outer walls thereof sealed to the said ring member forming a fluid-tight sealing engagement therewith.

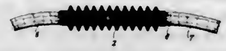
2,836,180
FLUID CONDUIT AND FLOW CONTROL APPARATUS
William A. Strauss, Jr., Flourtown, Pa., assignor of one-half to Charles C. Chapple, Flourtown, Pa.
Application August 31, 1954, Serial No. 453,211
16 Claims. (Cl. 128—215)

12. A hypodermic needle comprising a distensible needle forming member, a passage within said member, one end of said passage connecting with the exterior of said member, and support means extending within said passage for supporting said needle forming member and blocking off said passage, said support means extending beyond the end of said passage exteriorly of said member, an enclosed flexible reservoir for an injectable connecting with the other end of said passage, the exposed end of said support means and the end of the needle forming member adjacent thereto being formed to provide a point facilitating penetration by the hypodermic needle, said support means supporting the distensible needle forming member during the penetration and said distensible needle forming member distending in response to the increased



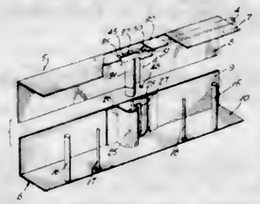
pressure exerted therein by the injectable when pressure is applied on the flexible reservoir and providing space for flow of the injectable between the needle forming member and support means into the body penetrated by the hypodermic needle.

2,836,181
FLEXIBLE NYLON TUBE AND METHOD FOR PREPARING SAME
James S. Tapp, Decatur, Ala., assignor to The Chemstrand Corporation, Decatur, Ala., a corporation of Delaware
Application January 17, 1955, Serial No. 482,191
9 Claims. (Cl. 128—334)



1. A flexible device for blood vessel replacement not subject to kinking or collapse which comprises a braided nylon tube stiffened by treatment with a concentrated formic acid solution, having a regular, circular crimp mechanically induced and rendered permanent by heat treatment, and having the said crimp relaxed by a treatment in hot water and dried.

2,836,182
LOOSE LEAF BINDER
William Gramacy, New York, N. Y., assignor to Sloves Mechanical Binding Co., Inc., New York, N. Y., a corporation of New York
Application June 6, 1956, Serial No. 589,823
6 Claims. (Cl. 129—8)



1. A loose leaf binder having a pair of telescoping back sections, each section comprising a back and side portion, binder posts on at least one of said sections, a one-way ball clutch on one section and a cooperating clutch post on the opopsite section adapted to enter said clutch and be engaged thereby and a catch comprising a member on one section and an interengageable member

on the other section and adapted to permit limited relative movement between said telescoping back sections when said members are in engaging position relative to each other and complete disengagement of said sections when said catch members are disengaged, a control lever extending from a point adjacent said clutch to a point near one end of the back sections, said lever being loosely pivoted on said clutch and capable of movement toward and away from the back portion of the section it is mounted on and also capable of motion toward and away from the side portion of said section, means for attaching said lever to said clutch and one catch member so that movement of said lever toward and away from the side of said section is adapted to selectively operate said clutch to release or hold said cooperating clutch post and so that movement toward and away from the back of said section is adapted to selectively release and engage one catch member from the other catch member in the opposite section to permit complete disengagement of one back section from the other.

2,836,183
CIGARETTE
Harold C. Fay, Floral Park, and Leonard C. Cartwright, New York, N. Y.
Application November 19, 1954, Serial No. 469,992
9 Claims. (Cl. 131—4)



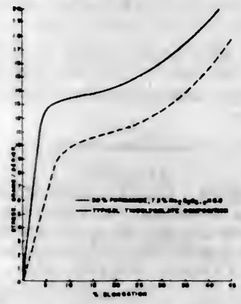
1. A cigarette having a paper wrapper carrying a warning marker consisting of a longitudinally extending area of the said wrapper which carries a material which renders that area of the said wrapper more inflammable than the remainder of the wrapper, the said area being positioned in an optimum zone along the length of the cigarette at which smoking of the cigarette should be discontinued to avoid any substantial resuspension of toxic components of the tobacco smoke which have been deposited in the unburned portion of the tobacco and being adapted to cause a temporary diminution in the concentration of the smoke from the cigarette when it is reached by the burning end of the cigarette by reducing the volume of air passing through the burning end and by admitting air into the body of the cigarette behind the burning end, without extinguishing the burning end, and thereby reminding the smoker to stop smoking the cigarette without forcing him to do so.

2,836,184
CIGARETTE HOLDER
William A. Rice, San Marino, Calif.
Application April 28, 1953, Serial No. 351,767
1 Claim. (Cl. 131—182)
(Granted under Title 35, U. S. Code (1952), sec. 266)

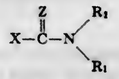


A cigarette holder comprising a mouthpiece including a forwardly directed projection, said mouthpiece having a bore therethrough and including a cylindrical shell having a socket communicating with said bore, a tube telescopically engaging said shell and adapted to receive a filter cigarette having one end thereof engaging said mouthpiece projection, the forward end of said tube being adapted to receive one end of another cigarette, and a ring longitudinally slidable in said tube and adapted to eject said other cigarette and provided at its rear edge with a tapered annular flange terminating in a serrated gas-passing annulus adapted to enter the forward end of the filter cigarette when the ring is moved rearwardly.

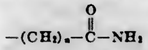
2,836,185
PROCESS OF PERMANENTLY SETTING HAIR WITH A HAIR-SWELLING SOLUTION OF A BISULFITE AND A NITROGEN-CONTAINING COMPONENT
Laurence R. B. Hervey, West Concord, Mass., assignor to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts
Application May 27, 1954, Serial No. 432,705
4 Claims. (Cl. 132—7)



1. The process of permanently setting hair in a predetermined configuration which comprises adjusting said hair to the desired configuration, imparting a controlled swelling to said hair by contacting said hair at a temperature not higher than 40° C. with a hair-swelling solution of a soluble bisulfite and a nitrogen-containing component having the formula



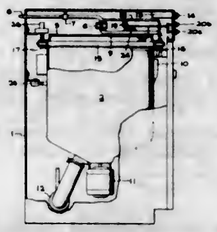
wherein X is a member selected from the group consisting of hydrogen, alkanol, and alkyl radicals containing not more than three carbon atoms, the radical



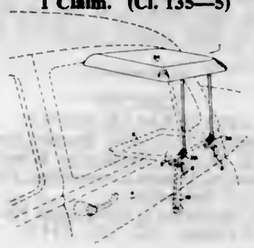
wherein n is an integer selected from 1 and 2, —OR wherein R is an alkyl radical containing not more than three carbon atoms, and $—NR_3R_4$, R_1, R_2, R_3, and R_4 being members of the class consisting of hydrogen, alkyl and alkanol radicals which when taken together shall contain not more than four carbon atoms, and Z is a member selected from the class consisting of oxygen and =NH, said soluble bisulfite being present in an amount equal to from about 2 to 10% by weight of said solution, and said nitrogen-containing component being present in an amount equal to from about 15 to 40% by weight of said solution, the combined solubility of said soluble bisulfite and said nitrogen-containing component being such that no appreciable salting out of components will occur on said hair at temperatures above about 20° C., said solution causing hair to swell at least 18% but not more than 80%, thereby not causing any substantial degree of hair damage at 40° C.; treating said hair with a mild oxidizing agent, and washing said hair with water.

2,836,186
WASHING APPARATUS WITH TUB SEALING SYSTEM
Lauren W. Guth, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application December 14, 1955, Serial No. 553,687
4 Claims. (Cl. 134—57)

1. In a dishwasher of the type including a tub having a top access opening, a cover for said opening, motor-driven means for circulating fluid in said tub, electrically energized means for draining said tub, and timer means for sequentially controlling the energization of said fluid circulating means and said drain means; means for sealing said opening comprising an inflatable gasket on said cover adapted to sealingly engage said tub, a fluid inlet conduit communicating with said gasket, a solenoid valve in said inlet conduit, a circuit for energizing said solenoid valve including a manually operable switch and a pressure switch responsive to the pressure in said gasket, said pressure switch having a movable contact normally engaged with a first contact connected in circuit with said solenoid valve but movable in response to a predetermined pressure in said gasket into engagement with a second contact connected in a circuit for energizing said timer means, and manually controlled means for draining said gasket.



2,836,187
CANOPY STRUCTURE FOR TRAYS
Harry D. Dunnagan, Wilmington, N. C.
Application March 15, 1956, Serial No. 571,807
1 Claim. (Cl. 135—5)



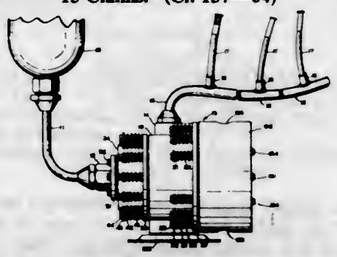
A canopy structure for a tray adapted to be horizontally mounted on an automobile window frame and provided with an upstanding shoulder, said structure including a canopy element, a pair of spaced supporting bars depending from said element, each of said bars having its lower end bifurcated to include spaced legs which are substantially parallel and separated from each other by a distance greater than the width of the upstanding shoulder of the tray, said legs being disposed at an acute angle to their respective bar and being so arranged with respect to each other as to loosely fit the tray shoulder so that the canopy element may be swung between a first position wherein the end portion of one leg of each of said bifurcated ends abuts one surface of the tray shoulder, and a second position wherein the end portion of the other leg of each of said bifurcated ends abuts the other surface of the tray shoulder.

2,836,188
UTILITY CANE FOR HANDICAPPED PERSONS
Lee Jordan, Dayton, Ohio
Application February 14, 1955, Serial No. 487,885
5 Claims. (Cl. 135—47)

5. A utility cane for handicapped persons comprising a hollow cylindrical housing including a handle at the upper end thereof, said housing having an opening adjacent to and spaced from said handle, a unitary rod structure extending longitudinally within said housing to have one end projecting through said opening and the other end have a driving means pinned thereto forming an axial extension thereof, normally reaching to the lower extremity of said housing, an opening in the wall of said housing adjacent the lower extremity thereof, a bearing for said rod and connected driving means nesting and containing them to the inner wall of said housing, a pick-up arm pivoted to the lower extremity of said bearing within a bifurcation for guided pivoting relative thereto, gear means connecting said arm to said driving means, said arm being disposed thereby in a vertical open position whereby on direct line movement of said rod said arm will be moved to a closing and engaging position relative the lower extremity of said housing.



2,836,189
OXYGEN REGULATOR
Bradford B. Holmes, New York, N. Y., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application July 17, 1952, Serial No. 299,352
15 Claims. (Cl. 137—64)

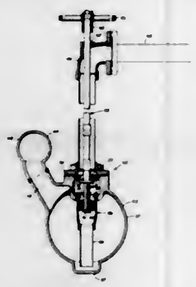


1. A continuous flow oxygen regulator comprising a casing having inlet and outlet sections, valve means controlling flow between said inlet and outlet sections, means responsive to increasing altitude to adjust said valve means to increase flow therethrough as a function of increasing altitude, and flow responsive means, having a response produced only by flow above a predetermined value, for further adjusting said valve means to increase flow therethrough in accordance with such response.

2,836,190
MULTIPLE VALVE
Cleo A. Elsey, Bartlesville, Okla.
Application December 8, 1952, Serial No. 324,792
8 Claims. (Cl. 137—156)

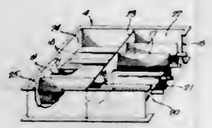
2. A multiple valve comprising a valve body, a pair of spaced confronting valve seats in said body, a pair of

valves between and each seatable in one of said seats, an actuating member common to said valves, said actuating member including an externally threaded inner end portion and a sleeve portion partly overlapping and separable from said end portion, said valves being removably mounted on said end portion in axially fixed positions and alternately seatable thereby in their respective seats,



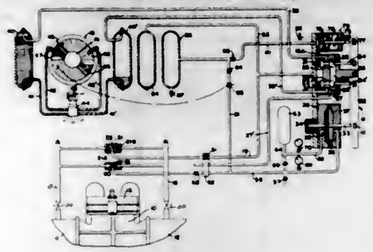
at least one of said valves having a sliding fit with said end portion and being releasably locked thereto by said sleeve portion, said valve body being separable downstream of one of said valves for exposure of the other of said valves and its seat, and means threadedly engaging said end portion for holding said one valve seated and cutting off flow through said body during separation thereof.

2,836,191
DAMPER DEVICE
Sven Wallin and Erik Uppvall, Jonkoping, Sweden, assignors to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden
Application January 28, 1955, Serial No. 484,707
3 Claims. (Cl. 137—311)



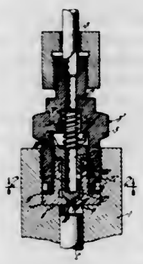
1. In a damper assembly, means defining a rectangular duct, a first medial partition in one part of said duct defining a first pair of channels in said duct, a second medial partition in an adjacent second part of said duct disposed perpendicular to said partition of said first duct to define a second pair of channels in said duct, each of said second channels communicating with both of the first channels of said duct, said partitions meeting at the junction of said first and second duct parts to form four passages each disposed in one corner of said duct and affording fluid communication between one of said first pair of channels with one of said second pair of channels, at least one damper in each passage reversible between an open position affording flow through said passage and a closed position interrupting flow through said passage, and operating means for said dampers operable at one limit to dispose the dampers in two opposite corner passages in their open position and the dampers in the other opposite corner passage in the closed position, and operable at the other limit to dispose said dampers respectively in their reverse position.

2,836,192
AUTOMATIC REOPENING SYSTEM FOR PIPE LINE VALVE
Homer J. Shafer, Mansfield, Ohio, assignor to Shafer Valve Company, Mansfield, Ohio, a corporation of Ohio
Application October 17, 1956, Serial No. 616,563
4 Claims. (Cl. 137—488)



3. In a fluid operator control system for a valve in a pipe line including a fluid pressure responsive valve operator operatively connected to said valve, and a fluid pressure responsive control valve having fluid communication with said valve operator and said pipe line for actuating said operator to close the main valve automatically in response to a pressure drop in the line; pressure-responsive pilot means operatively connected to said control valve for operating said control valve to reopen the main valve, conduit means connecting said pilot means to the pipe line, a pressure relief valve in said conduit means, orifice means in said conduit means regulating the rate of flow from said pipe line to said pressure relief valve, and a shut-off valve in said conduit means between said pipe line and said orifice means having an operative connection with said main valve for operation of said shut-off valve by final closing movement of said main valve.

2,836,193
CHECK VALVE DEVICE
Vincent E. Giuliano, Aberdeen Proving Grounds, Md., and Robert D. Harvey, Huntington Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 8, 1954, Serial No. 473,975
2 Claims. (Cl. 137—514.7)



1. In a check valve device, a valve body having an inlet, a bore connected at one end to said inlet and terminating at its opposite end in an enlargement, and an outlet connected to said bore by said enlargement, a valve seat at the inlet end of said bore, a piston valve slidably fitting said bore and provided at its respective ends with a head engageable with said seat and a flange extending laterally of said bore into relatively close spaced relation with the side walls of said enlargement, a spring thrustably interposed between said flange and the body acting to bias the valve toward its seat, said valve having an axial passage open at its flanged end and closed at its head end, a

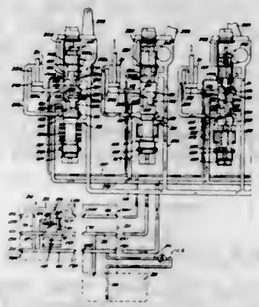
transverse port connecting said passage with the bore of said body, and an external passageway extending longitudinally from the head end thereof and terminating in spaced upstream relation thereon from said port, said bore having a recess spaced downstream from said port when the valve is seated and of sufficient extent longitudinally of the bore to interconnect said external passageway and port when the valve is displaced sufficiently from its seat to effect registry between said external passageway and said recess.

2,836,194
VALVE
James S. Tjaden, Niles, Mich., assignor to Koontz-Wagner Electric Co., Inc., South Bend, Ind., a corporation of Indiana
Application January 18, 1957, Serial No. 634,889
6 Claims. (Cl. 137—599.2)



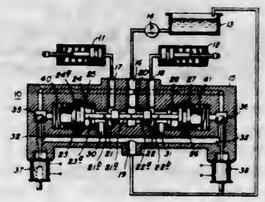
5. A valve comprising a body having a fluid inlet passage and a fluid outlet passage, means defining a port connecting said passages, a main valve element for closing said port, a means for opening said valve element, yieldable means for closing said valve element, a by-pass conduit connecting said passages, a valve element for closing said conduit, a manually movable means for opening said last mentioned valve element, a permanent magnetic means for holding said last mentioned valve element only in fully open position, spring means for urging said last mentioned valve element toward closed position, and means operated by said first mentioned valve element operating means for moving said last mentioned valve element toward closed position.

2,836,195
MULTIPLE CONTROL VALVE MEANS ASSEMBLY
Joseph F. Ziskal, Brookfield, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application August 2, 1955, Serial No. 526,050
13 Claims. (Cl. 137—621)



1. In a hydraulic control system for a hydraulic ram; the combination of a manifold structure containing a fluid delivery passage, a control passage, and an exhaust passage; a fluid pressure controlling unit mounted on said manifold structure, said pressure controlling unit having a control passage of restricted flow capacity communicating between the fluid delivery and control passages of the manifold structure and also having a by-pass passage communicating between the fluid delivery and exhaust passages of the manifold structure, and such unit comprising a fluid blocking valve in the by-pass passage, and a blocking valve controlling device communicated with by the control passage and operable responsively to pressure change of fluid in such control passage to open the blocking valve when the control passage is closed and to cause closing of the blocking valve when the control passage is vented; and a control valve unit including a casing having obverse and reverse faces containing respective sets of ports of which each set includes a control port, an exhaust port and a fluid delivery port, the unit being mounted on a side of the manifold structure to place the reverse face toward such structure and to expose the obverse face, the ports being arranged in such a pattern of relative position that should the reverse face of an identical casing be placed opposedly against the exposed obverse face the corresponding ports of these opposed faces would communicatively register, the valve casing also having a control passage communicating between its control ports and communicating through the reverse face control port and the manifold structure control passage with the control passage of the pressure controlling unit, an exhaust passage communicating between such valve casing exhaust ports and communicating through the reverse face exhaust port with the manifold structure exhaust passage, a fluid delivery passage communicating between such valve casing delivery ports and communicating through the reverse face delivery port with the manifold structure delivery passage, and reversible flow passages, respectively communicable with opposite ends of the hydraulic ram, means replaceably closing the obverse face ports, and said control valve also including a control element selectively adjustable oppositely from a "neutral" position wherein it blocks the reversible flow passages and the control passage of the valve to respective opposite "on" positions in each of which the control element establishes a drain communication between the control passages and the exhaust passages, the valve control element being operable in one of the "on" positions to establish communication between the delivery passages and one of the reversible flow passages while establishing communication between the exhaust passages and the other reversible flow passage, and being operable in the other "on" position to transpose said communications of the reversible flow passages.

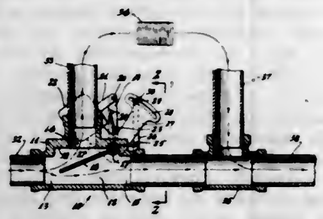
2,836,196
HYDRAULICALLY-ACTUATED 4-WAY VALVE
Joseph B. Gunn, Van Nuys, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application August 25, 1955, Serial No. 530,489
4 Claims. (Cl. 137—622)



1. In combination: a shuttle valve comprising a valve cylinder and a valve piston assembly therein; said cylinder having a pair of longitudinally-spaced load ports, a pressure port intermediate said load ports, and a pair of return ports on opposite sides of said respective load ports from said pressure port; said valve piston assembly comprising a pair of separate spaced-apart valve pistons having cooperating abutting means normally spacing said pistons from each other a minimum distance such that when said assembly is centrally disposed with respect to said cylinder ports, a portion at least of each valve piston is interposed

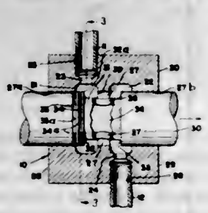
between said pressure port and its associated respective load port; a pair of selectively energizable hydraulic motors coupled to said respective valve pistons for independently urging said valve pistons inwardly; means for selectively connecting said motors to said pressure port to energize them; each motor comprising a motor cylinder and a motor piston assembly therein of larger area than said valve cylinder whereby the inward force exerted by the energized motor exceeds the outward force exerted on the associated valve piston by the pressure in said pressure port; means for centering said valve piston assembly in response to equal energization of both said motors; and means limiting outward movement of each valve piston to a retracted position connecting the associated load port to said pressure port and disconnecting it from the associated return port.

2,836,197
ZONE-CONTROLLED HEATING SYSTEM
Arthur W. Johnson, Watertown, Conn.
Application August 26, 1955, Serial No. 530,677
1 Claim. (Cl. 137—625.18)



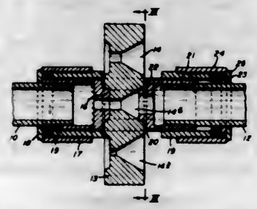
In an adjustable positioning means for an automatic electrically actuated fluid control valve for a heating system, said valve being mounted on a shaft and swingable in a chamber between a closed position to prevent flow through one outlet while permitting flow through a second outlet, and to a second open position to divert proportional amounts of fluid to both of said outlets, an electrically actuated armature rigidly secured to said shaft and operatably connected so as to swing said valve in one direction between said two positions, biasing means to urge movement of said valve and armature in the reverse direction, a coil surrounding said armature, a supporting bracket for said armature also mounted on said shaft, and means to manually swing said bracket about its axis to adjust the position of said armature with respect to said coil.

2,836,198
CONTROL VALVE
Robert M. McNeill, Jacksonville, Tex.
Application November 7, 1952, Serial No. 319,257
11 Claims. (Cl. 137—625.39)



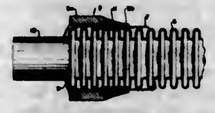
6. A valve mechanism of the character described, comprising; a valve body having an axial bore therein that includes an enlarged axial recess divided by a land area, inlet and outlet ports leading into said enlarged recess on opposite sides of said land area; a cylindrical shaft receivable in said bore in axially shiftable relationship therewith; means on said shaft for progressively diminishing the amount of fluid flowing between said inlet and outlet ports of said valve body to the point where said flow through said valve body is terminated; said means including a primary passage and a secondary passage, each interconnecting said inlet and outlet ports of said valve body; a cut-off point defined by said land area; said cut-off point successively blocking off fluid flow through said primary and secondary passages upon unidirectional axial movement of said shaft, whereby said fluid first flows through said primary passage until said unidirectional movement of said shaft blocks said fluid flow through said primary passage, at which time fluid will be diverted into said secondary passage for flow therethrough until such time as continuation of said unidirectional movement causes flow through said secondary passage to be blocked; said shaft having a radially reduced axially extending length; at least one disc provided on said radially reduced length of said shaft and having the peripheral portion thereof concentric with the external surface of said shaft; said secondary passage being defined by an axially extending bore interconnecting opposed radial faces of said disc.

2,836,199
ORIFICE PLATE MOUNTING
William W. Wilson, Dravosburg, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application May 9, 1955, Serial No. 506,833
3 Claims. (Cl. 138—45)



1. The combination, with an exit pipe, an entry pipe aligned therewith, and an orifice plate between said pipes having an opening aligned therewith, of a mounting for said plate comprising seating nozzles attached to the ends of the respective pipes and having protuberances positively engaging said plate, a nipple receiving said nozzles in its opposite end portions and having opposed slots in its walls receiving said plate, the length of said slots exceeding the width of said plate, locking sleeves threadedly engaged with the respective end portions of said nipple and having flanges, and means carried by the respective pipes abutting the inner faces of said flanges, said plate being removable through said slots on loosening of one of said sleeves and springing back of the corresponding pipe.

2,836,200
FLEXIBLE CORRUGATED METAL HOSE ASSEMBLY
Charles E. Webbe, Waterbury, Conn., assignor to The American Brass Company, Waterbury, Conn., a corporation of Connecticut
Application February 26, 1954, Serial No. 412,699
2 Claims. (Cl. 138—61)



1. A hose end assembly comprising a flexible corrugated metal hose, a fitting welded to one end of the hose, and a ferrule surrounding said end of the hose and welded thereto, the ferrule being of sufficient length to extend over a multiplicity of the corrugations of the hose, the inside diameter of the forward end portion of the ferrule being substantially equal to the outside diameter of the hose and the inside diameter of the rearward end portion thereof being substantially greater than the outside diameter of the hose to provide an annular bore between the hose and the rearward end portion of the ferrule, the rearward end portion of the ferrule having the larger inside diameter extending over a plurality of the corrugations of the hose, several corrugations of the hose at said one end, including corrugations lying within said rearward end portion of the ferrule, being in a soft annealed condition relative to the remainder of the hose, and a resilient sleeve disposed in said annular bore and surrounding the soft annealed corrugations of the hose therein, the rearward portion of the ferrule being swaged down on said resilient sleeve and compressing it tightly against the corrugations of the hose to resiliently restrain said corrugations, so that upon flexure of the hose only a limited degree of movement of the hose corrugations so restrained may occur.

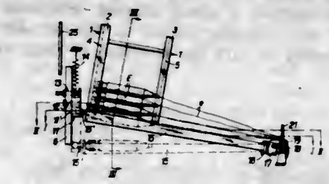
2,836,201
WEAVING PILE FABRIC
Frank W. E. Hoeselbarth, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Original application February 4, 1954, Serial No. 408,079. Divided and this application March 14, 1955, Serial No. 493,853
13 Claims. (Cl. 139—39)



1. The process of weaving a pile fabric, using pile warp ends, binder warp ends, stuffer warp ends and wefts, which comprises interweaving the pile warp ends, binder warp ends, stuffer warp ends and wefts, while inserting two wefts between reversals of binder warp ends, inserting a wire with each weft, selectively as a pattern requires raising some pile warp ends over a wire inserted with one weft at one pair, selectively as the pattern requires carrying all pile warp ends in a particular pattern area beneath the wire inserted with the other weft of the pair, selectively as the pattern requires raising other pile warp ends over a wire inserted with the one weft of the next pair, and selectively as the pattern requires carrying all pile warp ends in the particular pattern area beneath the wire inserted with the other weft of said next pair.

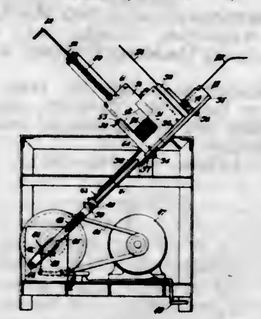
2,836,202
PIRN CHANGING DEVICE
Georg Wiget and Gustav Dubs, Arbon, Switzerland, assignors to Societe Anonyme Adolphe Saurer, Arbon, Switzerland
Application September 2, 1955, Serial No. 532,221
Claims priority, application Switzerland October 6, 1954
5 Claims. (Cl. 139—232)

1. A pirn changer for use in looms and the like for transferring from a multi-compartment magazine storing various series of pirns, a pirn from any one of the compartments to a shuttle, comprising in combination, a number of distinct pirn guards each correlated with one of said compartments and normally disposed there-below whereby to be in a state of preparedness to intercept a pirn from the respective compartment, and means for automatically displacing only the pirn guard actively engaged in a pirn change, into a transfer position common



to all said pirn guards and located above the shuttle to which the pirn is to be transferred.

2,836,203
MACHINE FOR INSERTING AND COILING THE WIRE IN BINDER RING FORMATION
Arthur F. Brook, Poughkeepsie, N. Y., assignor to Mechan-O Corporation, Poughkeepsie, N. Y., a corporation of New York
Application November 12, 1952, Serial No. 319,894
2 Claims. (Cl. 140—71)

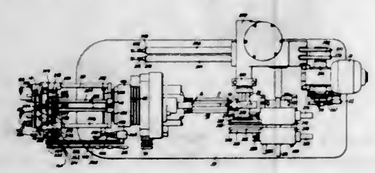


1. A machine for coiling binding wires through perforated sheets, comprising angularly related sheet supports in V-shaped relation for supporting two stacks of perforated sheets in separated, angularly related position and having means for positioning the perforated ends of the two sheet stacks in closely adjoining relation with the centers of the perforations in the two separated stacks aligned in arcs forming one a continuation of the other, and said arcs substantially corresponding in curvature and position to the outline of a complete ring for binding the two stacks together, means for feeding binding wires having straight parallel side portions connected by transverse back portions toward one of said inclined sheet supports and curling dies adjoining said inclined sheet support constructed and arranged to curl the advancing ends of said straight parallel side portions of the wires into circular conformation substantially in line with said arcuate disposition of the perforations in the two stacks of sheets and whereby the curling ends of the wires will advance first through a stack of sheets supported on the nearest inclined sheet support and then continue through the second stack of sheets supported in separated relation on the other relatively inclined sheet support and thereby connect said separated stacks of sheets into a book of the thickness of the two stacks.

2,836,204
COIL WINDING MACHINE
Lowell M. Mason, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application November 12, 1953, Serial No. 391,496
39 Claims. (Cl. 140—92.1)

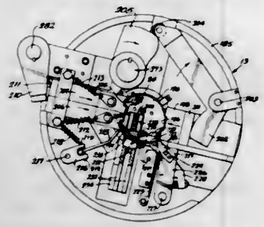
1. In a machine for winding electric motor coils a coil form, a pair of electric motors operating in opposite

directions, wire carrying means adapted to be rotated by said motor means alternately about said form to thereby form coils thereon, a clutch adapted selectively to connect said wire carrying means to one of said electric motors thereby to vary the direction of rotation of said



wire carrying means, counter means for determining the number of rotations of said wire carrying means about said form during a single coil forming operation, means for removing the formed coils from said form, and means for subsequently inserting the formed coils into the slots of a stator.

2,836,205
COIL SPRING PRODUCING MACHINE
William E. Wunderlich, Muncie, Ind., assignor to Wunderlich Spring Machinery Company, a corporation of Illinois
Original application September 30, 1946, Serial No. 700,197, now Patent No. 2,604,202, dated July 22, 1952. Divided and this application June 12, 1952, Serial No. 293,100
1 Claim. (Cl. 140—101)



In a machine for producing wire coil springs having a knotting mechanism including a head, a die mounted on the head for receiving one end of a wire coil spring applied thereto by a transfer mechanism and having an annular shoulder engaged by the end turn of the coil spring and a knotter accommodating opening, a plurality of slides slidably mounted on the head on opposite sides of the die and slidable toward the die for clamping the coil spring against the die, a knotter movably carried by the head and movable toward the die into the knotter accommodating opening thereof for wrapping the end of the wire about the adjacent portion of the coil spring, and power operated means carried by the head and operatively connected to the slides and knotter for operating the same in sequence for clamping the coil spring and then knotting the same, the improvement comprising a stop finger pivotally mounted on the head adjacent the die and having a flat engaging surface for engaging the end of the wire of the coil spring after the coil spring has been applied to the die by the transfer mechanism, and means for operatively connecting the stop finger to the power operated means for pivotally advancing the stop finger toward and contacting the flat engaging surface thereof with the end of the wire of the coil spring before the slides are moved to clamping position for rotating the coil spring to a predetermined rotative position with respect to the die and knotter for assuring proper knotting, said movable knotter including a carriage pivotally mounted upon a fixed axis within the head, a slotted knotter gear rotatably carried by the carriage and movable into and out of the knotter accommodating opening of the die as the carriage is pivotally moved, an interconnected driving gear and driven gear rotatably mounted upon an axis which is fixed with respect to the carriage, said driven gear meshing with the slotted knotter gear to rotate the latter as the driven gear is rotated, an interconnected cam and segmental gear rotatably mounted upon a fixed axis in the head and operatively connected to the power operated means to be driven by said power operated means, said cam engaging the carriage to pivotally move the carriage, and said segmental gear intermittently meshing with the driving gear to rotate the slotted knotter gear when the latter is moved by pivotal movement of the carriage ino the knotter accommodating opening of the die to wrap the positioned end of the wire about the adjacent portion of the positioned coil spring.

2,836,206
BIT ANCHORAGE MEANS FOR A CYLINDRICAL CUTTER HEAD
Walter L. Gaskell, Ypsilanti, Mich., assignor to King-Seeley Corporation, Ypsilanti, Mich., a corporation
Application August 15, 1956, Serial No. 604,112
9 Claims. (Cl. 144—230)



9. In a cutter head, a body, a radial cutter blade slot in the body having a side surface defining the plane of the blade, a threaded aperture opening into the bottom of said slot and located at an acute angle to the plane of said surface, a micro adjustment screw threaded in said aperture, and a cutter blade with a flat bottom in said slot supported by said surface and having a central section of the bottom thereof in line engagement with an edge of an end of said screw.

2,836,207
AVIATION FUELING HYDRANT VALVE
Donald G. Griswold, San Marino, Calif.
Application June 13, 1955, Serial No. 514,932
15 Claims. (Cl. 141—346)



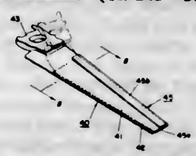
6. An aviation fueling and defueling hydrant valve, comprising: a valve body structure adapted for connection between a fuel pipe and a fuel hose; a valve device in said body structure adapted when open to permit flow of liquid in either direction between said fuel pipe and fuel hose; a float valve means disposed between said valve device and said fuel pipe, and a seat engageable thereby to prevent back flow of gaseous fluid into said fuel pipe; and means shielding said float valve means from the forces incidental to back flow of liquid fuel from said fuel hose and fuel pipe through said valve body structure, whereby the buoyancy of said float valve means remains effective to maintain said float valve means clear of its seat until the liquid fuel is depleted in said valve body structure.

2,836,208
ARROW FLETCHING DEVICE
Earl H. Hoyt, Jr., Edmundson, Mo.
Application April 15, 1955, Serial No. 501,490
10 Claims. (Cl. 144—289)



1. In a multiple feather, arrow fletching jig, an elongated frame member including means mounted thereon for positioning and holding the end portion of an arrow to be fletched on the longitudinal axis of the frame, and means for slidably mounting a plurality of feather clamps in spaced angular relationship about the frame axis comprising a member at each end of said frame, each of which has formed thereon a plurality of radially extending guide surfaces angularly spaced about the frame axis, and a resilient member mounted adjacent each of said guide surfaces and having a portion thereof bearing against the adjacent guide surface.

2,836,209
SAW WITH GAUGE SUPPORT
Warren B. Zern, near Pottstown, Pa.
Application May 9, 1955, Serial No. 506,693
15 Claims. (Cl. 145—35)



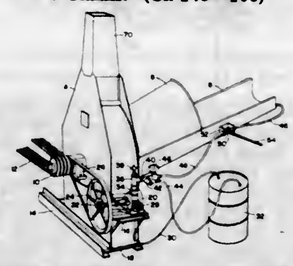
1. A hand saw suited for trimming the end of a work member supported against a flat surface such as the end of a table leg while supported in its normal position on a floor comprising blade structure having a cutting section with a cutting edge extending longitudinally thereof, a gauge section movable with said cutting section, said gauge section having a smooth outer surface for supporting said cutting section for operation in a plane parallel to and above the flat surface a distance controlled by the thickness of said gauge section in avoidance of scratching the flat surface and without disturbing the normal position of the work member, and a handle connected to said blade structure.

2,836,210
SCREWDRIVER
Carmine Garofalo, Port Arthur, Ontario, Canada
Application October 12, 1956, Serial No. 615,541
1 Claim. (Cl. 145—50)



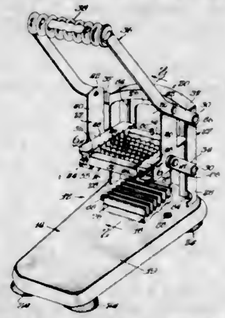
A screwdriver including a shank, an open handle extending from one end of said shank, and a blade formed on the other end of said shank; a further shank pivotally secured by one end thereof to said handle, said further shank adjustable to be nested within said handle and extended therefrom as desired, said open handle comprising a pair of arms diverging upwardly from said shank, the upper ends of said arms being inturned towards each other to form a transverse cross bar, and a bearing hub formed on said one end of said further shank around said ends of the arms forming the cross bar.

2,836,211
SYSTEM FOR MIXING MOLASSES WITH FEED
Earnest M. Wetmore, Tonkawa, Okla.
Application February 27, 1956, Serial No. 567,936
5 Claims. (Cl. 146—106)



1. A system for mixing molasses with cattle feed, comprising a hammer mill having rotating knife means for comminuting the feed, said knife means being operable at a speed to create a zone of turbulent air therearound, a spray nozzle secured to the mill on a level with the rotating knife means with its outlet in proximity with the rotating knife means, a molasses supply, and pressure means for conducting the molasses under pressure from the molasses supply to the nozzle, whereby the molasses is sprayed into the zone of turbulent air to mix with the feed as the feed is being comminuted.

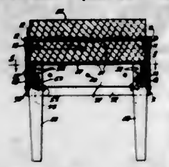
2,836,212
VEGETABLE CUTTER
Albert Edward Shaw, Chicago, Ill.
Application March 1, 1956, Serial No. 568,916
7 Claims. (Cl. 146—160)



1. A vegetable cutter comprising a supporting frame structure, a cutter assembly including a vegetable supporting block and a knife blade unit which are mounted on said frame structure, means carried by said frame structure to afford relative movement between said supporting block and said knife blade unit, said means comprising a pantograph linkage system pivotally mounted on said frame structure, said linkage system including a force transmitting member movable toward and away from said supporting block, said knife blade unit being slidably supported by said force transmitting member in a direction generally parallel to the upper surface of said supporting block, and guide means attached to said frame

structure slidably engaging said knife blade unit during movement relative to said supporting block for restricting movement of said knife blade unit to a direction along an axis generally normal to the upper surface of said supporting block.

2,836,213
REVERSIBLE ADJUSTABLE MEAT CUTTING BLOCK
David R. Stevens, Dallas, Tex.
Application July 3, 1956, Serial No. 595,753
2 Claims. (Cl. 146—215)



1. A cutting block having a pair of substantially parallel opposed cutting surfaces lying in spaced parallel planes, a continuous flange extending about and outwardly of the cutting block and disposed in a plane parallel to said first planes and therebetween, a bed providing an upwardly opening recess for receiving said cutting block, said bed having upwardly facing shoulders for engaging said flange to support said cutting block thereby, said block being composed of a plurality of sections; and means cooperating with said flange to hold said sections rigidly together.

2,836,214
PLASTIC SCREW ANCHOR WITH SLOTTED HEAD
George M. Rapata, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application July 31, 1953, Serial No. 371,613
3 Claims. (Cl. 151—41.75)



1. A one-piece plastic rivet type fastener including a four-sided shank adapted for axial insertion within a complementary work aperture, and a head extending radially outwardly from one extremity of said shank, said shank being bifurcated by a longitudinal recess which bisects the opposed peripheral sides of the shank so as to present a pair of laterally spaced, transversely yieldable shank sections having opposed longitudinal grooves along their inner surfaces defining axial continuations of a central substantially cylindrical aperture in the head for accommodating a rotary thread-forming screw, the bisected opposed peripheral sides of the shank being sufficiently flat to join adjacent sides of the shank at relatively sharp angles to provide relatively sharp meeting edges whereby to counteract tendency of the fastener to rotate in the work, said shank sections being separated by said longitudinal recess a distance less than the diameter of said central aperture whereby to provide opposed peripheral shank sides of substantial width adjacent said recess, the peripheral surfaces of said shank sections oppositely disposed from each of said longitudinal grooves also having substantial width and tapered at their ends opposite said head to facilitate initial insertion of the shank within a complemental work aperture, shoulders intermediate the head and the entering extremities of said yieldable shank sections cooperating with the head to secure the fastener within the work after the shank has been snapped into position within a work aperture, the peripheral surfaces defined by said opposed sides of each shank section in the vicinity of the head which intersects the shank bifurcation and the other peripheral shank surfaces being cooperatively disposed for engagement with complemental work surfaces which define a work aperture to prevent rotation of the fastener in the work when a thread-forming screw is rotatably applied thereto, said bifurcation presenting a portion extending axially through the head and transversely of the head to an extent sufficient to enhance lateral yieldability of the head, the entering extremities of said shank sections being integrally joined by a transverse shank portion having a screw accommodating aperture defined by a circumferentially continuous axially extending wall.

2,836,215
PLASTIC NUT-LIKE FASTENER WITH RESILIENT WINGS
George M. Rapata, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application August 11, 1954, Serial No. 449,092
3 Claims. (Cl. 151—41.75)

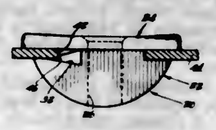


1. A one-piece plastic fastener for application to an apertured workpiece comprising an apertured head, and a shank portion depending therefrom and of polygonal shape and having an aperture forming a continuation of the head aperture for accommodating a complementary screw member, said head having portions projecting laterally outwardly of said shank portion for overlying and engaging one side of the workpiece, a pair of resilient wings joined to the terminal end of said shank portion away from said head on opposite sides thereof and extending toward said head, the said opposite sides of said shank portion presenting continuous uninterrupted wall surfaces for the aperture beneath said wings and said wings being substantially coextensive in width with said opposite sides of the shank portion, said wings extending in laterally spaced relationship from said opposite sides of the shank portion to permit lateral flexing of the wings relative to said sides and into embracing position relative to said shank portion as an incident to insertion of the fastener into a complementary workpiece aperture, each of said wings having at its free end an outwardly extending shoulder adapted for engagement with the surface of the workpiece remote from said head and an abutment portion at the inner edge of the adjacent shoulder and extending toward said head for projecting between the shank portion and a wall of the workpiece aperture and for engagement with the wall of the workpiece aperture to restrain lateral shifting of the wings as the complementary screw member is mounted in the screw accommodating aperture, each said abutment portion being spaced laterally from said shank portion sufficiently to enable the wings to be flexed laterally inwardly during insertion of the fastener into a complementary workpiece aperture.

2,836,216
PLASTIC SLIP-ON NUT WITH RESILIENT FLANGES
George M. Rapata, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application October 15, 1954, Serial No. 462,545
5 Claims. (Cl. 151—41.75)

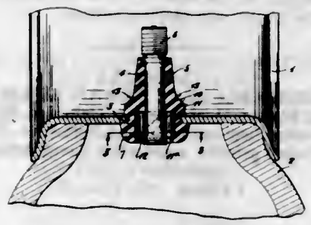
1. A one-piece resilient plastic nut member adapted to be assembled with an apertured workpiece from one side thereof including a plastic body, a shank extending axially from said body, a head joined with the opposite

extremity of said shank, adjacent sections of said body and head on opposite sides of said shank being disposed in superposed relation and separated from each other by work accommodating recesses extending radially inwardly from the outer periphery of the nut member, the head, shank and body being traversed by a screw accommodating aperture positioned substantially centrally of the nut member, the axial thickness of the body adjacent said recess being sufficient to accommodate multiple thread convolutions, the recess separating the body and head on one side of the shank extending toward said screw accommodating aperture to a greater depth than the opposite recess with the distance between the inner edge of the said recess of greater depth and the remote



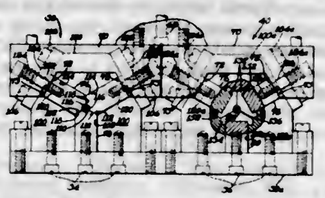
outermost surface of the body being not substantially greater than the corresponding dimension of the workpiece aperture whereby to facilitate initial insertion of the nut to the apertured workpiece, the section of the head in the vicinity of said recess of greater depth being axially yieldable and provided with an abutment extending toward the adjacent superimposed portion of said body and adapted to snap into adjacent relation with the work material defining the work aperture upon final positioning of the nut in said aperture, said shank being noncircular in cross-section so as to cooperate with a complementary aperture in the work in counteracting rotation of the nut member when a screw is rotatably applied thereto.

2,836,217
VALVE STEM FOR TUBELESS TIRES
Ralph K. Boyer, Cleveland, Ohio, assignor to The Dill Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application May 10, 1954, Serial No. 428,454
3 Claims. (Cl. 152—427)



1. A valve stem for mounting upon a standard rim adapted to mount a tubeless tire, said valve stem comprising a rubber body portion having a central axial opening, a hollow cylindrical insert extending through the said opening and being bonded to the rubber stem, said insert being adapted to interiorly mount a valve insides, the said body of the stem being provided with a chambered portion adjacent an end thereof of greater diameter than the central axial opening and said body also being provided upon the outer surface, but adjacent to the chambered portion, with a groove which is adapted to engage with the valve stem opening in a rim, a spring means within the said chamber, said spring means being biased to produce an outward pressure against the wall of said chamber.

2,836,218
MACHINES FOR EMBEDDING METAL JACKETS INTO WOOD CORES OF DOWELS
Frank B. Perri, Groveland, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., and Boston, Mass., a corporation of New Jersey
Application June 14, 1956, Serial No. 591,386
4 Claims. (Cl. 153—1)

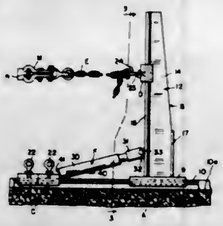


1. In a machine for use in the manufacture of dowels, a primary swaging unit comprising a fixed die having a concave cylindrical operating face and a plurality of dies movable respectively between retracted and projected positions and having concave cylindrical operating faces which, when the dies are in their projected positions, form with the operating face of the fixed die a cylindrical cavity, a secondary swaging unit comprising a fixed die having a concave cylindrical operating face and a plurality of dies movable respectively between retracted and projected positions and having concave cylindrical operating faces which, when the movable dies of this unit are in their projected positions, form with the operating face of the fixed die a cylindrical cavity, said fixed and movable dies of the secondary swaging unit having crimping portions which, when the movable dies of this unit are in their projected positions, project into said cylindrical cavity, said swaging units being arranged adjacent to each other with axes of their operating faces of their dies arranged in substantially parallel relation, a magazine for holding dowels each of which comprises a wood core and a thin metal jacket wrapped around a lengthwise median portion of the core, a transfer tray which is adapted to receive successively dowels operated upon by said primary swaging unit and from which the dowels are transferred to said secondary swaging unit, said tray comprising a dowel receiving passage which is substantially of the same width as the lengths of the dowels and which has a trough-shaped end and has at an opposite end a spring for forcing a leading dowel in said passage against said trough-shaped end, mechanism for successively transferring the dowels from the magazine into the primary swaging unit and for causing dowels which have been acted upon by said primary swaging unit to be forced against the action of the spring of said transfer tray into the passage of the tray behind a trailing dowel in said tray, mechanism for successively transferring leading dowels at the trough-shaped end of the tray into the secondary swaging unit and for causing dowels which have been acted upon by said secondary swaging unit to be ejected from this unit, power operated means for operating the movable dies of said units, and means operative in timed relation with said power operated means for simultaneously operating the dowel transferring mechanisms.

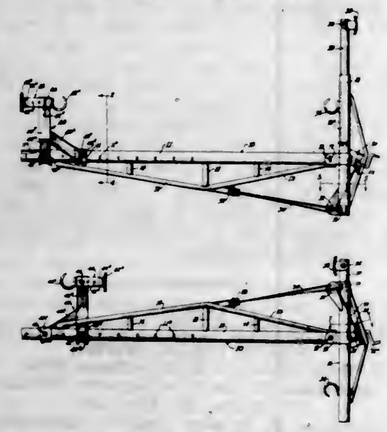
2,836,219
JACK-OPERATED VEHICLE BODY AND/OR FRAME STRAIGHTENER
Harry A. Pertner, St. Clair Shores, Mich.
Application May 28, 1956, Serial No. 587,828
2 Claims. (Cl. 153—32)

1. Apparatus of the class described comprising two track members, one being fixed and extending substantially horizontally, the second track member being movable and extending substantially vertically, said vertically extending track member having a base portion fixed there-

to and slidable lengthwise of said fixed track member, said base portion having means cooperating with said fixed track member for maintaining said vertically extending track member in upright position in all positions of adjustment thereof lengthwise of said fixed track member, two interchangeable anchorage members respectively interengaging said horizontal and vertical track members and slidable lengthwise thereof, two interchangeable adjustable securing elements respectively carried by said anchorage members and engageable with said horizontal and vertical track members to hold the respective anchorage members in all positions of adjustment thereof lengthwise of said track members, the anchorage member interengaging said horizontally extending track member being spaced from said vertically extending track member, a fixed lateral projection on a side of said vertically extending track member in opposed relation to the anchorage member interengaging said horizontally extending track member, a jack having a casing and a plunger respectively engaging the anchorage member on said horizontally extending track member and the projection aforesaid on said vertically extending track member, and draft means connected to the adjustable securing element carried by the anchorage member on said vertically extending track member, said draft means being attachable to a portion of a vehicle to be straightened and operable when said jack is actuated to draw said vehicle portion outwardly to straighten the same.

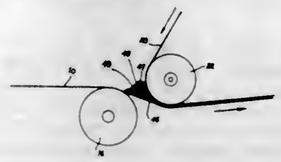


2,836,220
PORTABLE MANUALLY OPERABLE AUTOMOBILE BODY AND FENDER SHAPE RESTORING TOOL
John M. Johnson, Lindsborg, Kans.
Application December 6, 1956, Serial No. 626,732
14 Claims. (Cl. 153—39)



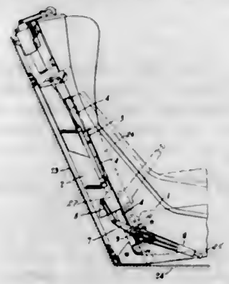
1. A portable automobile body and fender straightening tool comprising: a trussed beam composed of members forming an isosceles triangle the base of which has a length many times the height of the triangle; a lever pivotally connected to one end of the beam for rocking movements in the plane of the triangle about a point remote from both ends of the lever; adjustable lever-operating means connecting one end of the lever to the beam at the apex of the triangle for forcibly rocking the lever; and elements at the opposite end of the beam and at one end of the lever for respectively engaging spaced parts on the work, at least one of which parts is to be reshaped through pressure exerted by the lever.

2,836,221
APPARATUS FOR MANUFACTURING WATERPROOF COVERINGS
Pierre Bove, Blanc-Mesnil, France, assignor of one-half to Société Francaise de Materiaux et Produits Hydrofuges "La Callendrite," Paris (Seine), France, a corporation of France
Application September 4, 1956, Serial No. 607,811
Claims priority, application France September 24, 1955
3 Claims. (Cl. 154—1)



1. An installation for the manufacture of waterproof coverings formed by successive layers of a waterproof base, and sheets of synthetic thermoplastic resin alternating with the said layers of waterproof base, comprising an endless metallic strip, means for driving the said strip in continuous movement, a plurality of winding rollers spaced apart in the direction of forward movement of the endless band, each roller receiving a sheet of synthetic resin, and a plurality of support rollers arranged under the endless band, a support roller being located opposite each of the said winding rollers, each support roller being displaced towards the rear with respect to the winding roller in the direction of forward movement of the endless band, and also in height, the combination of the two said rollers producing a local sloping portion of the endless band, the waterproof base being added in the said sloping portion.

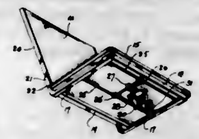
2,836,222
ADJUSTABLE SEAT FOR AN AIRCRAFT
James Martin, Denham, near Uxbridge, England
Application September 1, 1954, Serial No. 453,515
Claims priority, application Great Britain September 4, 1953
1 Claim. (Cl. 155—5)



In an aircraft, the combination of, an aircraft seat having a pan and a back, a main frame mounted on the aircraft, spaced parallel runners on said main frame,

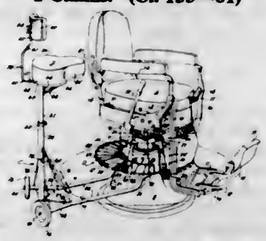
spaced sleeves on said seat back positioned to slide on said runners, locking means on said seat back to lock said seat at spaced points along said main frame said locking means comprising a vertical member fixed to said main frame and having a plurality of spaced holes therein and a spring-loaded locking pin transversely mounted on said seat back and positioned to seat in one of said holes, a hollow hand lever pivoted to said vertical seat back and having one end also pivoted to said main frame, a spring loaded plunger disposed in said lever and normally having one end extending from the free end of said lever, a bell crank positioned on said seat back between said pin and the other end of said plunger so that when the plunger is depressed it will turn said crank to force said pin from its hole in said vertical member whereupon said hand lever may be moved to another position and the plunger released to seat said pin in another hole in said vertical member.

2,836,223
BOAT SEAT
Alvey B. Kent, Chelan, Wash.
Application April 15, 1957, Serial No. 652,719
1 Claim. (Cl. 155—133)



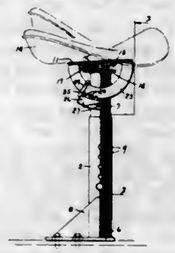
An auxiliary seat of the character described having a seat bottom equipped about its bounding edges with supporting rails whereby it may be supported for sliding and turning movement upon the top of a flat board seat, a pair of cross-rods fixed at their opposite ends in the supporting rails at opposite sides of the seat bottom and extended therebetween in parallel spaced relationship, a link extended between said cross-rods and formed at its ends with loops through which said cross-rods pass for easy endwise sliding in opposite directions, a C-clamp applicable to the edge of said board seat, a swivel pin mounted vertically therein and formed at its top end with a loop slidably receiving said link therethrough.

2,836,224
SEATING AND CONTROLLING ATTACHMENTS FOR BARBER CHAIRS
Pinckney C. Hicks, Los Angeles, Calif.
Application August 25, 1954, Serial No. 452,105
2 Claims. (Cl. 155—81)



1. An attachment for a chair having a stem rotationally engaged in a pedestal and provided with a release lock which, when released, frees the chair for rotation around the axis of the pedestal, said attachment comprising an anti-friction bearing around said stem above said pedestal; a radial bracket connected to said bearing and rotationally movable about the axis of the pedestal independently of the rotational movement of the chair; a wheel-supported seat on the outer end of said radial bracket and adapted to track around the chair upon rotational movement of the bracket; and a foot-engageable support connected to and rotationally movable with the chair and adapted to be engaged by the feet of a person on said seat to effect rotational movement of the seat and the person thereon around the chair while the chair is held stationary by the lock and, upon release of the chair lock, said foot-engageable support being adapted to be moved by the feet of a person on the seat to rotationally move the chair and its occupant relative to the seat and to the person thereon.

2,836,225
SEAT PEDESTAL
Carl T. Swenson, Milwaukee, Wis., assignor to Milsco Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 4, 1955, Serial No. 498,977
1 Claim. (Cl. 155—90)



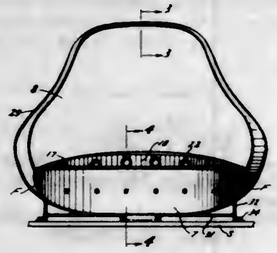
In a seat pedestal, the combination of a post, a post mounted for lengthwise vertical adjustment relative to said first named post, a seat mounting plate, a hinge connection between said plate and the top of the vertically adjustable post, a pair of sector members secured to said mounting plate and provided with alined sets of circumferentially spaced radially disposed notches, said sector members straddling the adjustable post and depending below said mounting plate, a U-shaped dog member pivotally mounted on said vertically adjustable post and adapted to engage any one set of said notches to hold said mounting plate in the desired angular position relative to the posts and having a rod secured to its transverse portion and extending outwardly to form an operating handle, and spring means urging said dog to a notch engaging position.

2,836,226
VEHICLE SEAT
John S. Fridolph, Middletown, Ohio
Application April 23, 1953, Serial No. 350,543
9 Claims. (Cl. 155—179)



1. A seat for supporting a person in a comfortably seated position comprising a back member and a bottom member arranged to present generally vertically and horizontally disposed supporting surfaces, said horizontally disposed supporting surface being fashioned to provide a relatively firm support over that portion thereof which extends forwardly from a transverse line on the bottom member extending slightly forwardly from the hip line of a person seated normally on said seat, and a relatively negligible support over the remaining portion of said seat supporting surface between said transverse line and the rear edge of said bottom cushion member.

2,836,227
CUSHIONED SEAT
Carl T. Swenson, Milwaukee, Wis., assignor to Milsco Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 12, 1956, Serial No. 577,717
4 Claims. (Cl. 155—179)



1. In a cushioned seat, the combination of a sheet metal frame having a bottom back, and sides, a cushion mounted on the bottom portion of the frame, a cushion for the back and side portions of the frame, protective strips of flexible material at the edge portion of said frame on opposite sides thereof and extending beyond said edge portion, said cushions having coverings, covering material secured to the back of the frame adjacent its edge, and means for uniting said last named covering material with the coverings for said cushions and with the extended portions of said protective strips, said strips being covered by said cushion coverings and said covering material.

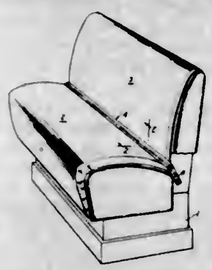
2,836,228
FOAM CUSHION
Donald E. Dahle, High Point, N. C., assignor to Wood Conversion Company, St. Paul, Minn., a corporation of Delaware
Application June 15, 1956, Serial No. 591,636
8 Claims. (Cl. 155—179)



1. A laminated upholstery cushion comprising at least two layers of resilient foam, said layers having faces opposing each other, said faces being contoured and presenting hills and valleys, hilltops of one layer being connected to hilltops of the other layer, means connecting the two layers together at said hilltops, at least one layer having in said valleys additional hills with hilltops located with a space above them in the uncompressed state of the cushion, and of such height that in compressing the cushion said additional hills are compressed, thereby increasing the resistance of the cushion to further compression.

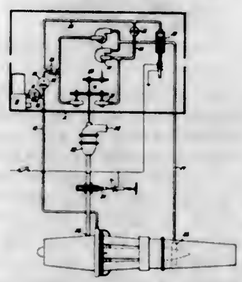
2,836,229
SANITARY ATTACHMENT FOR SETTEE
Norman Spetner, University City, Mo., assignor to Bianco Manufacturing Company, St. Louis, Mo., a corporation of Missouri
Application March 7, 1956, Serial No. 570,176
1 Claim. (Cl. 155—182)

In combination with a seat structure having a seat cushion and a back cushion, said cushions closely adjoining one another at their adjacent edges, a sealing strip of stiff but resilient material having a cross web bridging the gap between said cushions and in close contact with both and a rear web extending downward between said cushions, the end portions of said rear web being cut away and the end portions of said cross web being bent rearwardly, and means securing the end portions of said



cross web to the ends of the seat structure, said resilient strip being pulled down between said cushions and maintained under tension by said means.

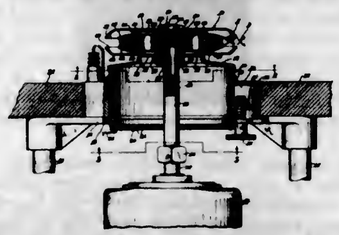
2,836,230
EMERGENCY FUEL PUMPING SYSTEM
Ira G. Cruckshank, Malden, Mass., assignor to General Electric Company, a corporation of New York
Application January 7, 1953, Serial No. 330,037
7 Claims. (Cl. 158—36.4)



1. In a combination adapted to supply fuel under pressure, a main booster pump having a check-valved discharge conduit, a staged reheat fuel pump having a check-valved discharge conduit at an interstage connection with said discharge conduit from said main booster pump and a discharge conduit from a higher stage of said reheat fuel pump also connected to said main booster pump conduit, said check-valved discharge conduits being interconnected by a pressure sensing control valve regulated by the flow in said discharge conduit of said main booster pump, said control valve varying the discharge to the reheat and main fuel systems.

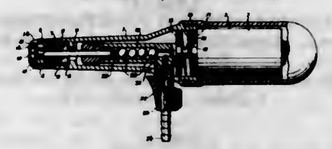
2,836,231
ROTARY OIL BURNERS
John J. McGillis and Hugh D. McGillis, Brockton, Mass.
Application April 12, 1956, Serial No. 577,731
4 Claims. (Cl. 158—77)

2. In a rotary oil burner having a rotary head for discharging oil, undiluted by air, annularly around the head, substantially in a horizontal plane, said head including spaced generally circular elements having their peripheral edges at a fixed radial distance outward from the axis of the head, and said oil being discharged from between said elements at the said peripheral edges thereof, the combination therewith of upper and lower air propelling means fixed on said head for inducing radially outward flow of air at an upper region and at a lower region of said head, means defining passages for entrance of air to said upper and lower regions of the head, said propelling means being arranged and adapted to propel substantial volumes of said outwardly flowing air in annular streams which intersect each other and said horizontal plane relatively close to said peripheral edges of said elements, and generally circular upper and lower air guiding and air directing elements on said head having diameter substantially greater than that of the first men-



tioned elements whereby the said intersection of air streams occurs between said larger diameter elements, said larger diameter elements having peripheral margins disposed for directing substantial volumes of said air in annular streams which intersect each other and said horizontal plane radially outward of the peripheral edges of said larger diameter elements.

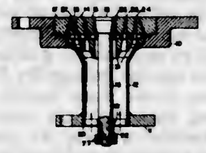
2,836,232
HAND IGNITERS FOR GAS BURNERS
Bevan Graham Horstmann, Bath, England
Application September 28, 1953, Serial No. 382,509
9 Claims. (Cl. 158—115)



1. An igniting appliance for a gas burner constructed as a portable device for use as a hand torch comprising in combination and outer casing, a valve housing body within said casing having a valve seating and a gas inlet branch, a burner nozzle located at one end of said casing, a gas burner housed within said nozzle, a gas burner feed tube leading from the valve body to the burner and fixed relatively to the casing and terminating within the valve housing body, the said valve housing body being axially slidable within the outer casing on the gas burner feed tube, a loose valve member housed in the valve body and co-operating with said valve seating, said valve member being normally held immovable in the closed position on the valve seating, and manually operable means to free the valve member and permit it to move by gravity within the valve housing away from and off said seating into a valve open position when the end of the casing containing the burner nozzle is pointed downwardly.

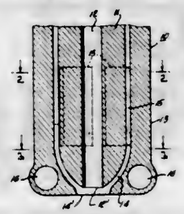
2,836,233
NOZZLE FOR GAS BURNERS AND THE LIKE HAVING CIRCUMFERENTIAL SLOTS
Pieter Jan Schoenmakers and Willem Lodewijk van de Putte, Delft, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application October 25, 1954, Serial No. 464,572
Claims priority, application Netherlands October 30, 1953
3 Claims. (Cl. 158—116)

1. A burner for the external combustion of gaseous mixtures comprising: a burner housing having an open substantially planar front face, a central plate member located in and arranged along the plane of said front face and having downwardly facing abutments, concentric rings having downwardly facing abutments located between said central plate and said housing and arranged to form narrow slits for the emission of combustible gas mixture therebetween, said rings and said plate extending over the whole area of the front face of said housing except for the area of said slots, said rings extending in a rearward axial direction increasing in length



toward the center of the burner to effect cooling of the rings of the gaseous mixture so that self-ignition of the gaseous mixture is avoided, and means holding the outer one of said rings in the housing and spaced lugs projecting radially from the rings and slidably contacting said abutments on the adjacent rings and on said central plate member whereby the rings may undergo individual deformation as a result of temperature difference.

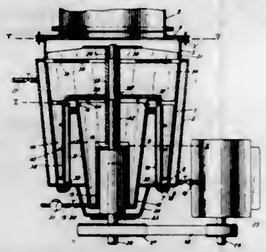
2,836,234
ANNULUS TYPE BURNER FOR THE PRODUCTION OF SYNTHESIS GAS
Bruce H. Sage, Altadena, Calif., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application November 25, 1955, Serial No. 549,073
2 Claims. (Cl. 158—116)



1. An apparatus for the production of carbon monoxide and hydrogen from the partial combustion of a gasiform hydrocarbon comprising a burner structure for discharging and mixing separate streams of a gasiform hydrocarbon and an oxygen-containing gas which comprises a substantially cylindrical inner conduit member having an unobstructed central passageway of uniform diameter extending axially thereof and ending in an inner discharge orifice for the passage therethrough and discharge therefrom of one of said streams, the outer surface of said inner conduit member at its discharge end having a convexly curved section of gradually reduced diameter merging into said orifice, the cross section of said curved section in a plane through the cylindrical axis of said inner conduit member showing as a circular arc extending from the outer cylindrical surface to said orifice, a substantially cylindrical outer conduit member coaxially surrounding said inner member and spaced therefrom in permanently fixed relationship to form an annular passageway of uniform width for the passage therethrough of the other of said streams, said outer conduit member extending beyond the discharge end of said inner conduit member and terminating in a circular outer discharge orifice having a diameter equal to twice the sum of the radius and width respectively of the central and annular passageways, the inner surface of said outer conduit member adjacent said convexly curved portion of said inner conduit member being concentric therewith and

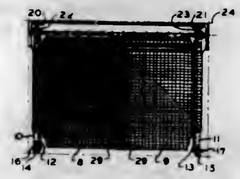
curving and converging toward the axis of said conduit members in uniformly spaced relationship to said outer surface of said inner conduit member up to the plane normal to said axis and through said inner discharge orifice and then reversely curving up to the plane perpendicular to said axis at which said inner surface of said outer conduit member becomes parallel to said axis, a cross section of the reversely curving inner surface in a plane through the cylindrical axis of said members showing as a circular arc whereby the exterior surface of the stream provided by said annular passageway is relatively undisturbed, said annular passageway being reduced uniformly beginning at the plane through the start of the convexly curving section of said outer surface of said inner conduit member whereby the rate of flow of the stream provided thereby is increased uniformly and said streams are merged through fine grain turbulence from from diffusion of small eddies along the interface of said streams and discharged into an appropriate reaction zone, said central passageway having a diameter not more than ½ inch, and said annular passageway having a width not greater than one-fourth the diameter of said central passageway.

2,836,235
VACUUM CONCENTRATOR FOR JUICES OR THE LIKE
Maximilian M. Koffler, Tel Aviv, Israel
Application January 10, 1956, Serial No. 558,377
Claims priority, application Israel July 15, 1955
1 Claim. (Cl. 159—6)



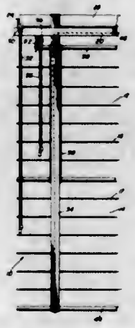
A vacuum concentrator for liquids, comprising in combination: three upright coaxial heat exchanging surfaces of circular cross-section, of which the outermost and innermost ones are inverted-conical, the outermost one forms the inner wall of an outer heat exchanger, the two others form the outer and inner wall, respectively, of an inner heat exchanger; means for substantially uniformly distributing liquid to be concentrated over the top zone of the outermost heat exchanging surface; an annular trough in the bottom region between the two heat exchangers for collecting the liquid flowing off the outermost heat exchanging surface, a trough for collecting the concentrate flowing off the innermost heat exchanging surface, and means for withdrawing the concentrate from this collecting trough; substantially radial blades mounted on a rotary shaft disposed in the axis of the heat exchangers with their outer edges parallel to the inner surfaces of both heat exchangers, respectively, at a small distance therefrom, and being adapted to move peripherally and to reduce to a thin film the liquid layer flowing down along these surfaces; a cylindrical sleeve secured to said shaft, said sleeve being rimmed inwards and open at its top and surrounding the inner heat exchanger at a small distance therefrom and having on its inner surface, within said annular trough, vanes adapted to take up the liquid from the trough and to deliver it upwards on to the top of the inner heat exchanger; and baffles in the annular trough the heat exchangers and on top of the inner heat exchanger for rectifying the flow of the liquid and suppressing peripheral movement thereof.

2,836,236
EMBER STOP, FIRE PLACE SCREEN
Richard L. Weir, Dayton, Ohio
Application May 18, 1956, Serial No. 585,838
4 Claims. (Cl. 160—19)



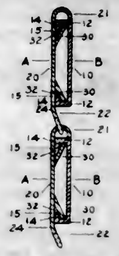
2. A fireplace screen structure comprising: two vertical tubes at each end of said structure adapted to be placed between the fireplace lintel and hearth; upper and lower adjusting bolts in each end of said vertical tubes and bearing toward the bottom of said lintel and top of said hearth respectively; lower adjusting nuts threaded on said lower adjusting bolts and having faces supporting the lower ends of said tubes; upper adjusting nuts threaded on said upper adjusting bolts and exerting an upward force reaction on said bolts between the bottom of the lintel of the fireplace and the tops of said vertical tubes to lock said tubes in place; a screen supporting rod structure locked around said upper adjusting bolts between the upper ends of said tubes and said upper adjusting nuts; and screening supported from said supporting rod structure.

2,836,237
VENETIAN BLIND CONSTRUCTION
Robert A. Hogin, Montgomery, and Seth S. Belcher, Tallahassee, Ala.
Application January 30, 1956, Serial No. 562,065
1 Claim. (Cl. 160—115)



A Venetian blind comprising a header box, an upper tilt bar mounted for rotation in said box, means connected to said tilt bar for adjusting said tilt bar, a pair of tape ladders, each ladder comprising a front and a rear tape secured to said tilt bar, cross tapes secured to and extending between the front and rear tapes and at only the lower part of said front and rear tapes, apertured slats disposed on said cross tapes and forming the lower section of the Venetial blind which is adjustable in response to actuation of said tilt bar, the upper section of the Venetian blind comprising a second pair of tape ladders, each tape ladder of said second pair comprising a front and rear tape between which there are cross tapes, apertured slats on the last mentioned cross tapes, a second tilt bar for said second section, the upper ends of both of the tapes of each of said second pairs of ladder tapes being secured to said second tilt bar, means independent of the first mentioned tilt bar actuating means for tilting said second bar in order to independently operate said second section of the Venetian blind, said second section being disposed between the upper part of the first mentioned front and rear tapes which have no cross tapes, means passed through the apertures in all of said slats and carried by said header box for elevating the entire Venetian blind from the lower end thereof upwardly, the second tilt bar located beneath said header box and shorter than said header box and the slats which it supports, said actuating means for said second tilt bar located at one end of said second tilt bar, and said actuating means for said first tilt bar disposed near one end of said first mentioned tilt bar and on the same side of the Venetian blind as said actuating means for said second tilt bar.

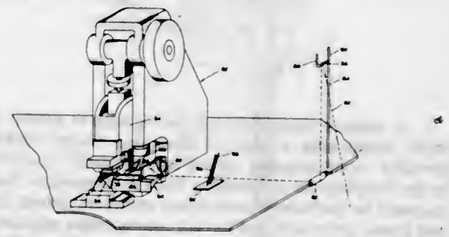
2,836,238
LINKS FOR SLAT SHADES
Harry Baldwin, Mamaroneck, N. Y.
Application January 26, 1956, Serial No. 561,522
2 Claims. (Cl. 160—229)



1. A connecting link for slat shades formed of metal slats of channel cross-section reinforced along their longitudinal edges by inwardly turned lips, comprising a metal strap extending transversely of said slat underneath said inwardly turned lips, having a loop at one end of said strap and a transverse slot at the other end thereof receiving the corresponding loop of the adjacent link, said strap protruding from the sides of said slat, and means for fastening said link to said slat comprising a pair of opposed tongues integral with said strap respectively extending from positions relatively intermediate of said inwardly turned lips of said slat, outwardly towards said inwardly turned lips, respectively, at an upward inclination to said strap, said inclination and the length of said tongues being such as to enable said tongues to pass over said inwardly turned lips in engagement therewith to thereby secure said inwardly turned lips between said tongues and said strap, when said link is applied to said slat.

2,836,239
APPARATUS FOR THE PROCESSING OF SLIDE FASTENERS
Max F. Johns, Newark, and La Moine E. Johns, Westfield, N. J., assignors to Conmar Products Corporation, Newark, N. J., a corporation of New Jersey
Application June 2, 1955, Serial No. 512,789
17 Claims. (Cl. 164—12)

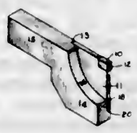
1. Apparatus for processing continuous slide fastener chain having meshed scoops and both left and right trouser flies stitched to the chain to form a so-called "sausage," said apparatus comprising a die including a guide track for receiving and guiding the meshed scoops of the chain, upper and lower plows disposed in predetermined relation with respect to said die in advance of the latter, the upper plow being disposed over the sausage and serving to turn back the upper fly away from the scoops, the lower plow being disposed beneath the sausage and serving to turn back the lower fly away from the scoops, a press having a ram disposed over said die, said ram carrying a yieldable pad, and a punch, said pad having spaced collateral parts dimensioned to bear against the jaws of the meshed scoops at the lower end of the fly front, said punch being disposed between the spaced parts of said yieldable pad and being dimensioned to punch away the heads of the scoops as far as the jaws, whereby the latter fall free from the tapes to provide a desired length of tape ends.



8. Apparatus as defined in claim 1, in which there is a twist guide disposed ahead of the plows, said twist guide comprising a pair of generally upright supports disposed on opposite sides of the sausage to hold the sausage generally edgewise, and in which a feed finger is disposed over the guide between the plows and the punch, said feed finger and ram being operatively connected in such manner that lifting of the ram is accompanied by forward movement of the feed finger sufficient to provide a free sausage end beyond the die, which end may be gripped and moved forward to bring the next fly end to the punch.

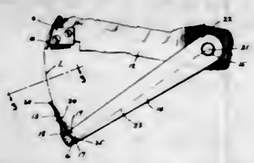
10. Apparatus as defined in claim 1, in which there is a tangle prevention mast followed by a horizontal guide roller well ahead of the plows, and a twist guide disposed between the roller and the plows, said twist guide comprising a pair of generally upright supports disposed on opposite sides of the sausage to hold the sausage generally edgewise, and in which a feed finger is disposed over the guide between the plows and the punch, said feed finger and ram being operatively connected in such manner that lifting of the ram is accompanied by forward movement of the feed finger sufficient to provide a free sausage end beyond the die, which end may be gripped and moved forward to bring the next fly end to the punch.

2,836,240
CUT-OFF TOOL
Anton Nuding, Emmaus, Pa., assignor to General Machine Company, Inc., Emmaus, Pa., a corporation of Pennsylvania
Application June 9, 1955, Serial No. 514,269
7 Claims. (Cl. 164—36)



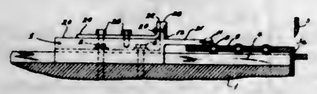
1. A cut-off tool comprising a cutting bit, a blade having two edges forming a notched corner for seating said bit in supported cutting position, said blade also having an angular edge opposite to said corner, a base having a recess in one side complemental to the contour of the said angular edges of said blade as a seat therefor, means to removably attach said blade to said base, said base also having an arcuate face terminating at one end in alinement with the cutting edge of said bit as a clearance for work being cut, and a shank for said base for attachment to a lathe post.

2,836,241
SCISSORS CUTTERS
George H. Fritzinger, West Orange, N. J.
Application May 18, 1953, Serial No. 355,680
7 Claims. (Cl. 164—43)



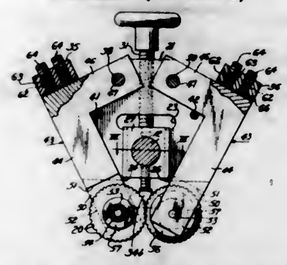
1. A scissors mechanism for cutting tape or similar material, comprising a pair of elongated frame members pivotally interconnected on an axis generally transverse to the longitudinal dimensions thereof, transverse blades mounted on portions of said frame members remote from said frame pivot axis and having cutting edges engageable therealong as said frame members are turned towards one another, one of said blades being rigidly secured to its respective frame member, means pivotally connecting the other of said blades to its respective frame member on an axis generally transverse thereto, means biasing said pivoted blade about its pivot axis for providing a contact pressure between the blades, the edges of said blades being inclined to each other as viewed along a radius line of said frame pivot axis at right angles to the surface path generated by said edges as the blades are progressively engaged, said edges being also inclined relative to each other as viewed in the direction of said path for causing said pivoted blade to be progressively moved about its pivot axis against the force of said biasing means as the blades are progressively engaged, and the pivot axis of said pivoted blade being positioned relative to said blades that at each point of contact between the blades along the length of their cutting edges the radius line of said pivot axis through said point is at substantially the same angle to the tangent line of said surface path at said point.

2,836,242
LOCATOR
Ovid L. Ervin, Bunker Hill, Ill., assignor to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia
Application October 7, 1955, Serial No. 539,113
12 Claims. (Cl. 164—59)



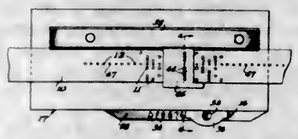
3. In a shear machine having a cutting blade, means fixed to said machine to locate and gauge a sheet to be sheared by the machine, said means comprising an L-shaped bed, one leg of said L-shaped bed being parallel to the cutting plane of said blade, locator means mounted on the said parallel leg for positioning a side edge of the sheet to facilitate accurate trimming of said side edge, a second locator means mounted on the other leg of the bed for positioning an end edge of the sheet to facilitate accurate trimming of said end edge, the first said locator means comprising a pair of abutment members, each member having first abutment means on an end adjacent said cutting plane for locating the sheet to facilitate accurate trimming of said side edge, a second abutment means on said member to receive said trimmed side edge to facilitate accurate trimming of a second side of said sheet, said second locator means having a body portion fixed to the second leg of said bed and substantially transverse to said cutting plane, an arm hinged to said body portion having work abutting means, the free end of said arm being nearer to the first said locator means than the hinged end to facilitate insertion of said sheet in said end locator by raising the hinged arm and abutting a trimmed side of said sheet against said body portion whereupon the arm may be lowered, and a preselected portion of said sheet abutted against the abutting means on said arm to facilitate accurate trimming of an end of the sheet.

2,836,243
PERFORATING DEVICE
William H. Bedinghaus, Cincinnati, Ohio
Application July 16, 1956, Serial No. 598,015
2 Claims. (Cl. 23—65)



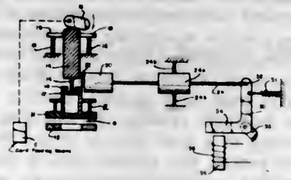
1. A device for forming a plurality of lines of weakening in a web which comprises a back-up roll, a perforator support rod adjacent, spaced from, and substantially parallel to the back-up roll, a pair of slide members mounted on said perforator support rod, an end plate mounted on each slide member for sliding toward and away from the back-up roll, means for holding each end plate in selected position, rigid bar members linking the end plates to hold the end plates substantially perpendicular to the back-up roll, a pair of spaced pivot rods spanning the end plates and substantially parallel to the back-up roll, a plurality of flat swinging plates pivotally mounted on each of the pivot rods between the end plates, faces of each swinging plate engaging flatwise against faces of adjacent plates, a stub shaft mounted in each swinging plate spaced from the pivot thereof and substantially parallel to the pivot rods, a perforator wheel rotatably mounted on each stub shaft, each of said bar members having a plurality of bores directed substantially toward the back-up roll, there being a bore for each swinging plate, a compression spring mounted in each of the said bores, each of said swinging plates having a shoulder opposed to one of the bores, and spring back-up means in each of said bores, the spring means urging the swinging plates to pivot in a direction to bring the perforator wheels into co-operative relation with the back-up roll, the perforator wheels being arranged in two groups gripping the web against the back-up roll on opposite sides of a plane through the back-up roll and the perforator support rod.

2,836,244
CODE TAPE PUNCH
Flavius A. Dodge, Los Angeles, Calif.
Application November 15, 1954, Serial No. 468,712
5 Claims. (Cl. 164—111)



1. A code tape punching device, comprising a base having a top recess therein and provided with a longitudinal slot and with a front opening, a code plate slidably disposed in said recess whereby the same can be moved to a code selected position, said plate being provided with studs engaged in said slot to guide adjustment of the plate in the recess, a front projection on said plate extending forwardly through said base opening and having an opening therein, plate-locating indicia provided on the base and viewable through said opening in the code plate extension, a cover plate hingedly connected to the base and adapted to be moved into juxtaposition with said base, means to locate a perforated tape on the outer face of the cover plate, and a set of in-line normally-retracted punch elements carried by said cover plate said elements being movable by the selected position of the code plate to projected tape-piercing position when said cover plate is moved on its hinge toward juxtaposed position with the base.

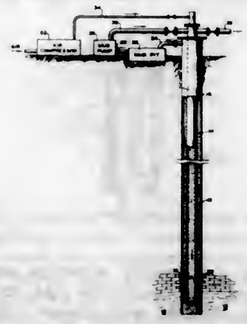
2,836,245
CARD PUNCHING DEVICE
Herbert Frazer Welsh, Philadelphia, Pa., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application November 18, 1955, Serial No. 547,793
14 Claims. (Cl. 164—111)



2. A punching device comprising, a punch, resilient supporting means for said punch, an interposer, reciprocating driving means, said punch and driving means being spaced so that when the interposer is between them the driving means will operate the punch but when the interposer is not between them the punch is not operated by the driving means, control means operable to move the interposer between said driving means said punch and to withdraw the interposer from between said driving means and punch, and means which biases the interposer in a direction away from the driving means and punch when the control means tends to withdraw the interposer from between the driving means and the punch while the interposer is being held between the driving means and the punch by reason of the pressure exerted thereon by said resilient punch supporting means and by said driving means, and which biases the interposer toward a position between the driving means and the punch when the driving means and punch are so close together that the interposer will not fit between them and the control means is tending to move the interposer to a position between the driving means and the punch.

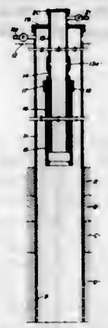
2,836,246
METHOD OF REMOVING LIQUID FROM WELL BORE HOLE
Robert S. Hoch, Houston, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application August 30, 1956, Serial No. 607,025
8 Claims. (Cl. 166—3)

8. A method of testing a formation during drilling operations in a well bore therein without removal of the drill string which comprises running a packer in a hollow drill string above but relatively close to a bit on the bottom thereof; drilling said formation while flowing non-compressible drilling liquid thru the drill string and out through an annulus between said string and the wall of said well bore; when a formation is to be tested, setting said packer so as to pack off said annulus without removing said drill string; displacing said non-compressible drilling liquid from said drill string into said annulus above said packer by forcing compressible fluid into said string from its upper end; when the major portion of said non-compressible drilling



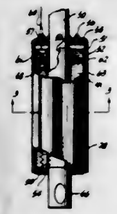
liquid has been displaced, opening the upper end of said string so as to vent compressed fluid therefrom while preventing flow back into said string from said annulus so as to reduce the effective pressure on formation fluid at the lower end of said string, thereby effecting flow of formation fluid up said string.

2,836,247
EXTENSION OF EFFECTIVE LENGTH OF TUBING
Thomas B. McCulloch, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application May 17, 1954, Serial No. 430,101
23 Claims. (Cl. 166—46)



1. Apparatus for use in well completion operations and the like which comprises a tubular mandrel member adapted to be connected to a tubing string, a tubular extension member slidably mounted on and extensible below said tubular mandrel member, releasable latching means on one of said tubular members cooperating with latching means on said other tubular member and supporting said tubular extension member in retracted position on said tubular mandrel member, and means on one of said tubular members cooperating with means on said other tubular member for maintaining the tubular extension member and tubular mandrel member in coupled relationship when the tubular extension member is in an extended position relative to said tubular mandrel member, said tubular extension member being movable slidably from retracted to extended position on release of said releasable latching means.

2,836,248
WELL HEATER
James M. Covington, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application November 13, 1951, Serial No. 255,961
7 Claims. (Cl. 166—61)



1. A unitary well heating apparatus comprising an imperforate central oil-conducting pipe, an outer heat-radiating tubular shell, an upper closure, a lower closure, said upper and lower closures providing a fluid-tight seal between said pipe and said tubular shell, an electrical resistance heating coil disposed between said pipe and said tubular shell and in heat exchange relationship with said pipe and said tubular shell, a body of liquid consisting essentially of the eutectic mixture of diphenyl and diphenyl ether disposed between said pipe and said tubular shell, means for grounding one terminal of said heating coil, an insulated conductor attached to the other terminal of said heating coil, and sealing means for passing said insulated conductor through one of said closures.

2,836,249
APPARATUS FOR HYDRAULIC FRACTURING
Gearld I. Freeze, Pauls Valley, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 26, 1954, Serial No. 471,348
7 Claims. (Cl. 166—115)



1. A sealing sleeve adapted to form a sealed passageway from a tubing in a well bore and through a pump cavity attached to said tubing, said pump cavity being adapted to receive a pump and having power fluid supply ports in the wall thereof, which comprises: a tube adapted to be inserted through said tubing and into said pump cavity; a first sealing means comprising a resilient packing material attached to the upper portion of said tube and adapted to form a seal with said tubing at a point above said pump cavity; and a second sealing means comprising a tapered end on the lower extremity of said tube adapted to seat in a standing valve seating shoe attached to the bottom of said pump cavity.

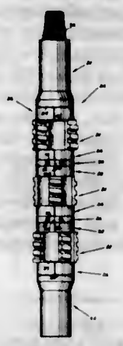
2,836,250
HOLD-DOWN DEVICES FOR WELL PACKERS
Cicero C. Brown, Houston, Tex.
Application December 24, 1952, Serial No. 327,736
3 Claims. (Cl. 166—134)



1. A hold-down device for maintaining a well packer which has been previously set in position in a well casing in such set position, comprising a hollow tubular support member longitudinally axially disposed with respect to said well casing, a hollow tubular housing suspended downwardly from said support member and secured thereto in fluid-tight relation and extending downwardly in said casing to a point therein spaced from said previously set packer, said tubular housing having an axial bore extending completely therethrough and a tubular mandrel, the bore of said tubular housing being formed with counter-bore portions which receive said mandrel and being provided with fluid seals whereby said mandrel is disposed in fluid tight relation with the walls of the counterbore portions, the bore of said tubular housing being provided further with a piston chamber within which a piston secured to said mandrel is movable, said mandrel being secured at its lower end to said packer and telescoping with said housing, fluid pressure operated gripping means in the upper portion of said housing which when under influence of fluid pressure conducted thereto by said hollow tubular support and said axially disposed bore are adapted for radially outwardly projection from said housing for engagement with the inner wall of the well casing for steadying and suspending said housing in said casing, said tubular mandrel being provided with a lateral fluid port above said piston and said housing being provided with a lateral fluid port below said piston, whereby application of fluid pressure downwardly through said support member and said hollow mandrel and above said piston will cause the same to move downwardly within said piston chamber thereby causing said mandrel to move downwardly to exert a holding force upon said previously set packer.

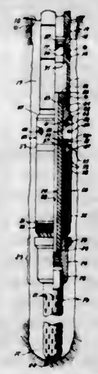
2,836,251
CASING SCRAPER
Robbins M. Claypool, Bellaire, and David M. Best, Houston, Tex.; said Best assignor to said Claypool
Application November 22, 1954, Serial No. 470,342
16 Claims. (Cl. 166—173)

1. In a casing scraper, an elongate support member, connecting means on said elongate support member for attachment to a pipe string, a plurality of slots in said support member for removably receiving a plurality of scraper elements, a plurality of scraper elements, for scraping the inner walls of tubular members, removably mounted in said slots, and a plurality of pairs of retention means non-removably mounted on said member and each of said pairs being cooperative with the adjacent ends of said scraper elements for fixedly securing said



scraper elements in mounted position on said support member.

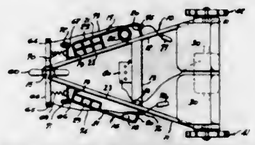
2,836,252
ANNULUS PACKER
John J. Lane, Dallas, Tex., assignor, by mesne assignments, to The Guiberson Corporation, Dallas, Tex., a corporation of Texas
Application October 30, 1953, Serial No. 389,407
11 Claims. (Cl. 166—204)



1. In a packer assembly, a mandrel; an elastic sleeve slideably disposed on the mandrel; a supporting base carried by the mandrel said base having a horizontal upper face thereon; a plurality of levered arms carried about the mandrel and having a supporting ring portion resting on said base, said arms being initially inclined and adapted to support the said elastic sleeve; and means to force said elastic sleeve against the arms to lower and extend them outwardly to a position of horizontal support on the base; the extended arms being greater in diameter than the base whereby the arms extend beyond the base to provide a cantilever support for the elastic sleeve.

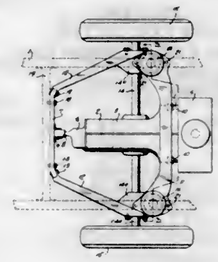
2,836,253
AUTOMATIC GOLF CADDY VEHICLE
Jac M. Lovell, New York, N. Y.
Application April 12, 1954, Serial No. 422,516
2 Claims. (Cl. 180—27)

1. An automatic golf caddy vehicle, comprising an A-shaped chassis having forwardly converging side members and a cross member connected to said side members; a bushing connected to the forward ends of the two side members, two equipment compartments, each equipment compartment comprising two spaced side members extending vertically outside of the chassis side members and connected to a separate chassis side member, the equipment side members having lower ends located below the chassis and upper ends located above the chassis, a floor member connected to said lower ends, and a horizontal retaining member connected to the equipment side members adjacent the upper ends thereof;



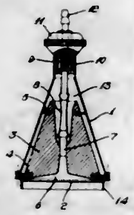
article holding elements connected with said horizontal retaining members, bearing means connected to the rear ends of the chassis side members, an axle supported by said bearing means, rear wheels carried by said axle, a steering bar carried by said bushing, an axle connected with said steering bar, and a steering wheel carried by the last-mentioned axle.

2,836,254
COMBINED MOTOR AND AXLE SUSPENSION
Ludwig G. Boehner, Braunschweig Querum, Germany
Application July 22, 1954, Serial No. 445,117
3 Claims. (Cl. 180—64)



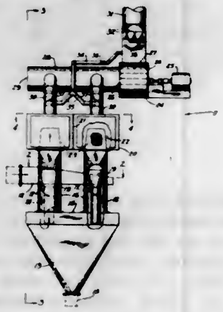
1. In a motor vehicle, a single unitary suspension system for the combined purpose of vehicle suspension, including a support for the motor aggregate, and transmitting vehicle propelling force from the motor aggregate to the drive wheels and from the drive wheels to the vehicle frame comprising, a vehicle frame, forward and rearward transverse members, means suspending said transverse members from said frame, a motor aggregate suspended from and between said transverse members, a pair of independently propelled road wheels, a pair of road wheel axles, each of which has a wheel mounted at its outer end, said axles having inner ends mechanically connected to said motor aggregate to transmit vehicle propelling force from the latter to said wheels, a pair of substantially longitudinal guide members pivotally suspended at the forward ends thereof to said forward transverse member, bearing members formed on said guide members for journaling respective axles adjacent the rearward ends of said guide members, said rearward ends of said guide members projecting rearwardly and beyond said axle bearing members, means resiliently connecting said rearward ends of said guide members and said rearward transverse member and providing yieldingly resisting action against upward vertical travel of respective wheels in response to road irregularities, whereby the vehicle suspension including support for the motor aggregate provided by said system does not interfere with the transmission of vehicle propelling force.

2,836,255
MEDICAL ACOUSTIC DEVICE
Pierre Reichardt, Brussels, Belgium, assignor to Societe Belge d'Optique et d'Instruments de Precision, Societe Anonyme, Ghent, Belgium
Application December 23, 1955, Serial No. 555,142
Claims priority, application Belgium December 28, 1954
6 Claims. (Cl. 181—24)



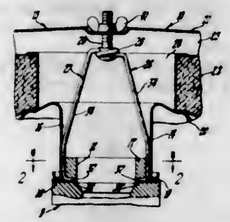
1. A medical acoustic device comprising in combination a housing, a plane diaphragm closing the bottom of the housing, an element resiliently supported in said housing above said plane diaphragm and forming a first chamber therebetween, a tubular diaphragm fixed to the top of said element to communicate between the said first chamber and the top of the housing, and a second chamber formed between the said element and the top and side walls of said housing.

2,836,256
DUST COLLECTOR
Eddie K. Caskey, Satanta, Kans.
Application November 22, 1955, Serial No. 548,359
3 Claims. (Cl. 183—34)



1. A dust collection system comprising an intake conduit, a collection camber disposed below said intake conduit, said collection chamber having a top wall, a plurality of ducts connected between said intake conduit and said top wall and communicatively connecting said intake conduit and the top portion of said collection chamber, respective return ducts depending into said collection chamber and secured within said first-named ducts, said return ducts having their top ends located above the first-named ducts, respective filter chambers sealed from each other and communicatively connected to the top ends of said return ducts, respective flexible porous filter bags secured in said filter chambers over the top ends of said return ducts, a blower having an intake port and a discharge port, a discharge flue communicatively connected to the discharge port of said blower, flow-restricting means in said discharge flue, a blower intake duct communicatively connected to the intake port of said blower, respective conduits communicatively connecting said filter chambers to said intake duct, a relatively small recirculation duct communicatively connected to said discharge flue between said flow-restricting means and said blower discharge port, respective branch ducts substantially similar in size to said recirculation duct and communicatively connecting said recirculation duct to said last-named conduits, and respective independently controlled valves in said last-named conduits between the connections thereto of the branch ducts and the blower intake duct, whereby a reverse air flow will be developed in a selected filter chamber by closing the valve in the conduit communicatively connected to the selected filter chamber, whereby the filter bag in the selected chamber will be relieved of accumulated dust therein, and whereby said accumulated dust will be discharged into the collection chamber through the associated return duct.

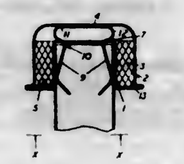
2,836,257
AIR INTAKE DEVICE
Lloyd E. Muller, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 19, 1956, Serial No. 572,534
8 Claims. (Cl. 183—43)



1. An air intake for an internal combustion engine having an induction system for supplying air to said engine and comprising, an air inlet formed on said induction system, a separable device associated with said induction system for supplying air to said inlet, said air inlet being adapted to be received telescopically within said device, an outlet formed on said device for so receiving said inlet, said device being formed to provide a bail disposed in said outlet and having ends disposed between said inlet and said outlet, said ends being formed to provide abutment means adapted to engage shoulder means on said inlet to prevent the removal of said bail from between said inlet and said outlet when said outlet is projected over said inlet, said device being provided with means accessible from the exterior of said device for removably securing said bail to said device and said device to said inlet, and shoulder means formed on said inlet and engaging said abutment means and being engaged by said outlet when said securing means is operated to secure said device to said inlet, said ends of said bail being engaged by and clamped between said inlet and said outlet to prevent said ends from disengaging said shoulder means when said device is operatively disposed on said inlet.

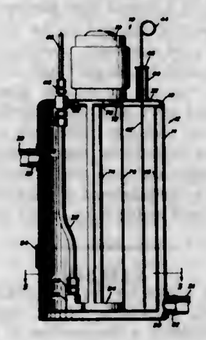
2,836,258
CAP FOR LIQUID RECEPTACLES
Clifford Leonard Price, Bitterne, Southampton, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 21, 1955, Serial No. 542,039
10 Claims. (Cl. 183—73)

1. A breather for a liquid receptacle such as a crankcase, comprising two inverted cup members arranged one within and spaced from the other and between the walls of which is arranged an annular mass of filter material through which air can pass to and from perforations in the top and the flanged rim of the inner cup member, said cup members being formed to provide flanged rims extending across the space between said members and by which said members are secured together, the inner of said cup members being perforated at the top and around the flanged rim of said cup member, and a U-shaped spring member the arms of which extend



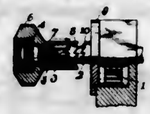
through the perforated top of the inner cup member and the middle portion of which is disposed between the tops of the inner and outer cup members, the material of one of the members in this region being so deformed that when the cup members are secured together at their rims the spring member is resiliently gripped between the inner and outer cup members.

2,836,259
AUTOMATIC CRANKCASE OIL LEVEL MAINTAINER PUMP
Harlan K. Norton, Texarkana, Tex.
Application June 10, 1954, Serial No. 435,893
1 Claim. (Cl. 184—103)



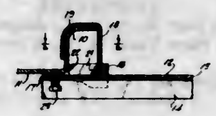
In a device of the class described, an internal combustion engine having a cooling water system, an oil crank case for lubrication, a source of electrical current, in combination with a switch disposed in the crank case and being closed when the oil level recedes below a predetermined elevation, a reserve oil supply container, an oil pump disposed within said container, a conduit communicating the discharge of the pump with the crankcase, said container having an oil refill spout in the wall thereof, an oil dipstick in said container for measuring the reserve oil supply, said pump being of the centrifugal type and being disposed adjacent the bottom of the container, a drive shaft extending upwardly from the pump through the top of the container, a motor mounted on the top of the container and connected with said drive shaft, a water jacket surrounding the wall and bottom of the container in spaced relation, a water inlet conduit and a water outlet conduit intercommunicating the cooling water system of the engine with the water jacket for heating oil in the container, an electrical circuit connected with said motor, said switch being connected with said circuit whereby the circuit will remain open until the switch is closed when the oil level recedes to the predetermined elevation.

2,836,260
STOPPING MECHANISM FOR A MUSIC-BOX
Yoshikuni Nozawa, Suwa-shi, Nagano-ken, Japan, assignor to Kabushiki Kaisha Sankyo Seiki Seisakusho, Nagano-ken, Japan
Application November 14, 1956, Serial No. 622,182
2 Claims. (Cl. 185—39)



1. In a clock spring actuated manually wound motor, a stopping mechanism comprising a drive shaft, said spring mounted with one end attached to said shaft, a plug fixed axially on the winding end of said shaft, a knob slidably mounted over said plug, means preventing rotation of said knob relative to said plug, a knob extension provided with a circular saw-toothed rim, a fixed cover mounted over said clock-spring and attached to one end thereof, a cover extension over said shaft provided with a circular saw-toothed rim, said rims of said knob extension and of said cover extension each provided with matable saw teeth, forming a one way ratchet means, said teeth of said knob extension each having a leading edge parallel to the axis of said shaft and a trailing edge at an angle thereto, said teeth of said cover extension cut to the opposite hand matable with said teeth of said knob extension.

2,836,261
DETACHABLE SUPPORT PLATFORM FOR VEHICLE HOISTS
William Andrew Nellson, Northport, N. Y.
Application June 26, 1957, Serial No. 668,132
3 Claims. (Cl. 187—8.43)

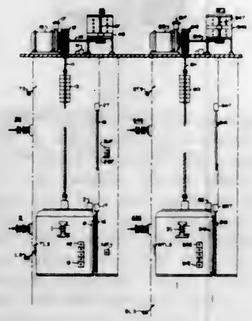


1. A detachable supporting platform for an automobile hoist having a wheel support track with substantially vertical, upwardly extending side edges, said detachable supporting platform comprising a base plate, an inverted U-shaped hanging arm adapted to engage said side edges of the wheel support track and hingedly secured to said base plate at a point remote from either extreme edge of said base plate; said hanging arm extending upwardly and inwardly from its hinged connection with said base plate; said base plate having an inwardly extending portion adapted to engage the under surface of the said wheel support track and an outwardly extending portion forming a platform; a locking arm rigidly secured to said base plate and having its inner end adapted to engage the outer surface of the side edge of the wheel support track.

2,836,262
ELEVATOR SYSTEMS
Alfred R. Hockstein and John F. Hegarty, Linden, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 4, 1957, Serial No. 650,732
10 Claims. (Cl. 187—29)

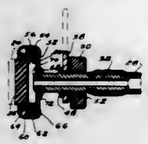
10. In an elevator system, a structure having a plurality of vertically-spaced floors, an elevator car, means mounting the elevator car for vertical movement relative to the structure to serve the floors, and control

means for moving the elevator car and stopping the elevator car at selected floors, said control means comprising call registering means for registering calls for floors at which the elevator car is desired to stop, means responsive to call registration for moving and stopping the elevator car to serve the call registration, said structure providing first and second parking stations for the elevator car, first means responsive to a first traffic con-



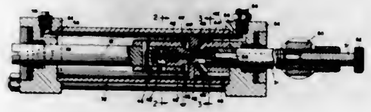
dition for rendering effective the first parking station and maintaining said first parking station effective despite subsequent elimination of said traffic condition, means responsive to a second traffic condition for rendering the second parking station effective and terminating the effectiveness of the first parking station, and means responsive to absence of call registration for parking the elevator car in the effective parking station.

2,836,263
REMOTE CONTROL BRAKE FOR PHONOGRAPH TURNTABLE
Otto L. Spaeth, New York, N. Y., assignor to The Spaeth Foundation, New York, N. Y., a corporation of New York
Application May 21, 1954, Serial No. 431,386
2 Claims. (Cl. 188—74)



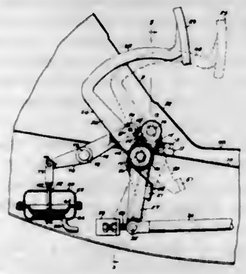
1. A light-weight pocketable remote control brake for a phonograph for momentary or intermittent stopping of the rotatable element, said brake comprising a rubber suction cup acting as a support and adapted to be readily temporarily positioned on substantially all types of phonographs immediately adjacent the periphery of the rotatable element, an enclosed air chamber, a friction brake shoe movable radially of the rotatable element toward and away from the periphery of the rotatable element and acting as one end of the air chamber, a metal bracket secured to said suction cup, means including a manually operable screw element on said bracket for raising or lowering the air chamber and shoe relative to the suction cup in order to fit the height of the rotatable element, a remote control manually squeezable means to compress air, and a flexible tube extending between the last said means and said air chamber, whereby squeezing of said means forces the brake shoe against the rotatable element for only so long as the said means is squeezed, without shaking or jarring the phonograph.

2,836,264
DASH-POT
Willem Groen, Chicago, Ill., assignor to Onsrud Machine Works, Inc., Niles, Ill., a corporation of Illinois
Original application January 14, 1953, Serial No. 331,233, now Patent No. 2,745,320, dated May 15, 1956. Divided and this application March 6, 1956, Serial No. 569,721
3 Claims. (Cl. 188—96)



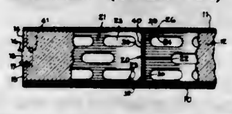
1. A dashpot comprising a cylinder, a fluid in said cylinder, a piston slidably mounted in said cylinder and having a central port therethrough, said piston having a coaxial cylindrical hub extension on each side thereof, one of said hub extensions having a cylindrical bore therein, a cylindrical check valve slidably received in the bore of said one hub extension and having a conical valving tip, said valve being coaxially biased into seating engagement with the adjacent end of said central port, said one hub extension having lateral branch ports leading from said central port to said cylinder, said check valve normally closing off communication between said central port and said branch ports, said check valve having a bleed port extending coaxially therethrough, said one extension having a closure for said bore at its free end and having a lateral inlet passage communicating with said bleed port at the end of the valve opposite said tip, said central port normally communicating with the cylinder through said bleed port and inlet passage, said piston having a passage providing communication between said central port and the cylinder on the other side of said piston, and the other hub extension of said piston having an adjustable needle member extending axially therethrough and into said central port for regulating the effective opening area of said check valve bleed port when said check valve is in seated position.

2,836,265
BRAKE OPERATING MECHANISM
Jeannot G. Ingres, Dearborn, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application August 3, 1953, Serial No. 372,109
20 Claims. (Cl. 188—152)



1. A brake operating mechanism comprising a lever structure having a pedal arm and a brake operating arm, means providing a normal pivot axis for said lever structure, power means having mechanical engagement with said first named means for changing said pivot axis to increase the effective length of said pedal arm, and means controlling energization of said power means.

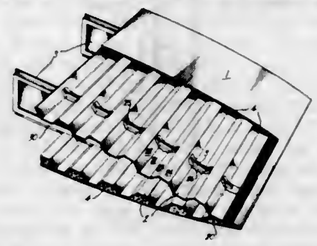
2,836,266
SHEET METAL WALL PANEL STRUCTURE
Werner M. Leeser, Cincinnati, Ohio, assignor to The Steelcraft Manufacturing Company, Rossmoyne, Ohio, a corporation of Ohio
Application December 23, 1953, Serial No. 400,026
3 Claims. (Cl. 189—34)



1. A heat insulating sectional building wall formed of rectangular, prefabricated panel units, said panel units having adjoining side edges secured to one another, each of said prefabricated panel units comprising a pair of spaced, parallel sheet metal panels, a plurality of elongated sheet metal spacer strips residing between said panels and extending longitudinally and transversely thereof, each of said spacer strips being generally Z-shaped in cross section providing a web having a pair of flanges along opposite sides thereof, one of said flanges having a series of spaced convex dimples projecting outwardly therefrom into contact with the internal surface of one of said panels and welded thereto, said dimples spacing the flange outwardly from the panel and thereby providing an air gap obstructing the flow of heat from the said panel to the flange and spacer, the other of said flanges residing against the adjacent internal surface of the other panel and attached thereto, said spacer strips securing the panels in spaced relationship and resisting displacement of the panels relative to one another longitudinally and transversely, each of said panels having a pair of companion flanges along opposite side edges, said flanges projecting inwardly toward one another generally at right angles to the plane of the panels and in plane with one another, the pairs of flanges forming partial closures along opposite side edges of the panel unit, the inner edges of each pair of companion flanges being spaced apart from one another, heat insulating material confined between said spaced panels and having side edges partially confined by said companion flanges, the unconfined edge of the heat insulating material being exposed across said air gap at opposite sides of the panel unit, the companion flanges of adjoining panel units of the building wall being in facial contact, one flange of each panel unit having an open recess therein, the facially contacting flange of the other panel unit having a tongue element projecting outwardly parallel to the plane of the panel unit and interfitting said recess, the interfitting recess and tongue element being spaced from the inner edges of the companion contacting flanges a distance less than one-third the total spacing of said sheet metal panels, said spacing providing an air gap which obstructs the flow of heat across said companion flanges from one panel to the other, the exposed insulating material at the side edges of adjoining panels being in contact and providing a continuous heat insulating sheet extending across the panel units of the sectional wall structure.

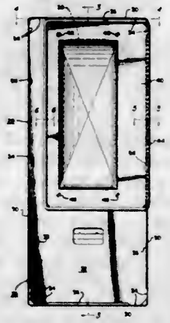
2,836,267
LIGHTWEIGHT STRUCTURAL BODY AND PROCESS OF FABRICATING THE SAME
Richard S. Reinhold, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application July 26, 1955, Serial No. 524,402
6 Claims. (Cl. 189—34)

1. A lightweight structural body comprising an external skin, a sheet having stiffening corrugations, disposed immediately beneath and contiguous to the skin, and extending in one direction to define cells intermediate the skin and each corrugation, planar stiffener sheets located at intervals in the length of the corrugations, and each disposed in a plane at an angle to the skin and transversely of the corrugations, the edge of each stiffener sheet intersecting the several corrugations, and the latter having slots admitting such planar stiffener sheet edge



into the cells to a predetermined depth, less than the depth of the corrugations, and a hardened filler of foamed plastic material filling the cells and bonded to the skin, the corrugated sheet, and the inserted edges of the stiffener sheets, and constituting the primary means to consolidate them into a unitary assembly.

2,836,268
DOOR CONSTRUCTION
Jesse L. Evans, Tipp City, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 2, 1953, Serial No. 389,741
2 Claims. (Cl. 189—46)

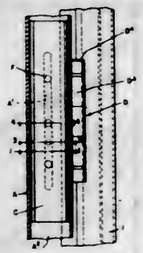


1. A door construction including two flanged generally rectangular sheet metal members having their flanges extending toward each other and nesting together, one of said members having an aperture therein with an integral flange surrounding the aperture, and a removable rectangular sheet metal cover extending over said aperture and being fastened to said one member, said cover having diagonal creases and having curled edges outside and overlapping the edges of said aperture in said one member.

2,836,269
METALLIC DOOR AND HINGE ASSEMBLY
Victor E. Anderson, Bradenton, Fla., assignor to V. E. Anderson Manufacturing Company, Bradenton, Fla., a corporation of Kentucky
Application February 20, 1956, Serial No. 566,636
4 Claims. (Cl. 189—46)

4. In a metal door structure, an upright stile having an edge portion provided with a longitudinally extending slot, a reinforcing member upon the inner side of and extending longitudinally of the edge portion of said stile and bridging the inner side of said slot, a hinge plate having surface-to-surface engagement with and adjustable

lengthwise of the outer surface of the edge portion of said stile, said hinge plate bridging the outer side of said slot, a permanent loose connection between said hinge plate, stile and reinforcing member engaging said



slot and permitting adjustment of said hinge plate lengthwise of said stile, and an adjustable connection between said hinge plate, stile and reinforcing member engaging said slot and operable to hold said hinge plate in adjusted position.

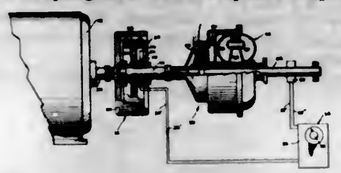
2,836,270
FLUID PRESSURE CONTROLLED CLUTCH AND BRAKE APPARATUS FOR HOISTING DRUMS
Alfred-R. Leopold, Neustadt am Rubenberge, Germany, assignor to Westinghouse-Bremsen-Gesellschaft m. b. H., Hannover, Germany
Application May 31, 1956, Serial No. 588,561
Claims priority, application Germany June 28, 1955
12 Claims. (Cl. 192—12)



1. Clutch and brake apparatus of the type having a clutch device for controlling connection between a driving member and a driven member and a brake device for braking the driven member, said apparatus comprising, in combination, a brake operating piston member, a clutch operating piston member, first bias means for biasing said brake operating piston member in a direction to effect application of the brake device, second bias means interposed between said brake operating piston member and clutch operating piston member such that the force of said first bias means acts through said second bias means for shifting the clutch operating piston member in a direction for causing disengagement of the clutch device, and means defining a normally vented chamber which is chargeable with fluid under pressure for causing said clutch operating piston member to shift against resistance of said second bias means for effecting engagement of the clutch device and thereafter, through the medium of said second bias means, to shift said brake operating piston member against resistance of said first bias means for effecting release of the brake device, whereby the clutch device will be engaged before the brake device releases.

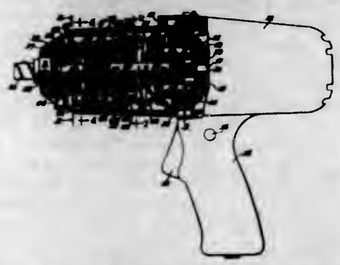
2,836,271
CONSTANT HORSEPOWER CONTROLLED SPEED VARIABLE SPEED DRIVE
Ralph L. Jaeschke, Kenosha, Wis., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application June 24, 1954, Serial No. 439,115
16 Claims. (Cl. 192—3.2)

1. A drive comprising a constant speed prime mover, a speed controlled coupling having its input connected to the output of the prime mover and an automatic torque converter having its input connected to the output of the coupling and wherein upon the speed con-



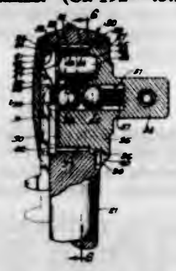
trolled setting of the output of the coupling, to a proportionate speed of the prime mover, a constant horsepower output of the drive is maintained.

2,836,272
IMPACT CLUTCH
Frank A. Kaman, Aurora, Ill., assignor to Thor Power Tool Company, Aurora, Ill., a corporation of Delaware
Application January 13, 1955, Serial No. 481,540
18 Claims. (Cl. 192—30.5)



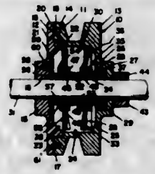
1. In a rotary impact tool having rotatable hammer and anvil members and impact means carried by the hammer member and normally engaging the anvil member but being disengageable therefrom, cam means for effecting disengagement of the impact means comprising an anti-friction bearing unit having relatively rotatable portions mounted with the axis of rotation thereof intersecting the axis of rotation of the hammer member at an angle thereto, and a cooperating shiftable cam member operatively engageable with the impact means and having an angular cam surface coacting with said bearing unit for effecting disengaging movement of the impact means in response to relative rotational movement imparted to said bearing unit with respect to said cam member.

2,836,273
REVERSIBLE ONE-WAY DRIVE MECHANISM
William H. Odlum, Wilmette, and William F. Hosford, Chicago, Ill., assignors to Duro Metal Products Co., Chicago, Ill., a corporation of Illinois
Application June 10, 1953, Serial No. 360,668
5 Claims. (Cl. 192—43.1)



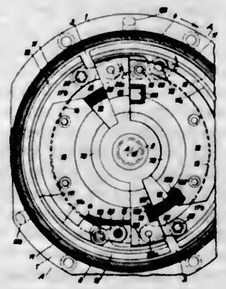
1. A controllable one-way drive device comprising a head, a lever secured to and extending from said head, a drive member mounted in said head and rotatable therein, internal teeth in said head, a pair of pawls pivotally mounted on said drive member about the same axis in overlying relation to one another, one of said pawls being adapted to contact the teeth in said head to establish a one-way drive between the head and member in one direction and the other of said pawls being adapted to contact the teeth in said head to establish a one-way drive between the head and member in the opposite direction, spring means normally biasing each pawl into engagement with said teeth, and means mounted on the head independently of the drive member for mutually exclusively disengaging said pawls from said teeth to establish a one-way drive in one direction only between the head and drive member.

2,836,274
SPEED LIMITING COUPLING DEVICE
Blake S. Newell, Washington, D. C.
Application July 19, 1955, Serial No. 522,945
10 Claims. (Cl. 192—104)



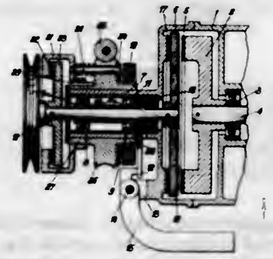
1. A speed-limiting coupling comprising, a hollow driving body having a fluid-receiving chamber therein, a driven shaft projecting concentrically into said chamber and rotatable with respect to said body, first impeller means within said chamber fixed to said shaft for rotation therewith, second impeller means within said chamber journaled on said shaft and axially shiftable therealong, means constanly connecting the second impeller means with said body for rotation therewith while permitting axial shifting of said second impeller means along the drive shaft toward and away from said first impeller means, means drivingly coupling the first and second impeller means when the latter is shifted axially along the shaft toward the first impeller means, and said chamber being filled with a viscous fluid so that when the body is rotated above a predetermined speed, the second impeller will be shifted away from the first impeller to interrupt the drive from the body to the shaft.

2,836,275
CENTRIFUGALLY OPERATED CLUTCH
August Grassmuck, Hamburg-Rahlstedt, Germany
Application August 4, 1953, Serial No. 372,331
19 Claims. (Cl. 192—105)



1. Automatic clutch apparatus comprising, in combination, a substantially cylindrical hollow housing adapted to be connected to a driving member to be rotated thereby; a substantially cylindrical drum turnably mounted for free rotation about its axis in said housing and being adapted to be connected to a driven member, said drum having an inner cylindrical clutch face; a pair of substantially semicircular clutch members located next to each other within said drum and extending substantially about the axis thereof, each of said clutch members having an outer clutch face directed toward said inner clutch face of said drum; a pair of links pivotally connected at one end to each of said clutch members respectively adjacent the opposite ends thereof and being of different lengths; first support means located in said housing and connecting the shorter of each pair of links at the opposite end thereof to said housing for rotation therewith, second support means supporting the longer of each pair of links at the opposite end thereof for movement about the drum axis, the longer of each pair of links having the pivotal connection of said opposite end thereof to said second support means located at a lesser radial distance from said drum axis than the pivotal connection of said one end thereof; and spring means acting on said second support means for urging said clutch members away from said clutch face.

2,836,276
ELECTRIC SEWING MACHINE DRIVES
Max Schwab, Schwetzingen, Baden, and Karl Willi Heimann, Kaiserslautern, Pfalz, Germany; Olga Brunhilde Schwab, administratrix of said Max Schwab, deceased
Application September 28, 1953, Serial No. 382,809
12 Claims. (Cl. 192—145)



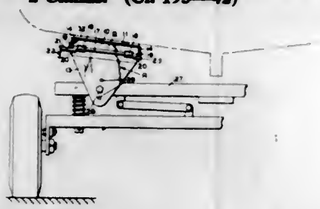
1. In a sewing machine of the type having its functioning parts driven from a common rotating shaft, driving means for said shaft comprising an electric motor having an output shaft adapted to supply a primary source of rotative power; a first clutch element fixed to said output shaft and rotatable therewith; an intermediate shaft extending endwise of said output shaft and rotatably mounted for operation independent of said motor output shaft, said intermediate shaft having a second clutch element fixed adjacent one of its ends and rotatable with the intermediate shaft; means for engaging and means for disengaging said first and second clutch elements whereby said intermediate shaft may selectively rotate with, remain at rest, or be rotated independently of said motor output shaft; a brake associated with said intermediate shaft to retard the rotation thereof, said brake being operable to apply braking effort to the intermediate shaft when the aforesaid first and second clutch elements are disengaged; means operable to release said brake when the rotative inertia of said intermediate shaft has been arrested; an auxiliary drive including a rotatable member engageable with a member fixed to said intermediate shaft and operable to rotate the same when both the aforesaid first and second clutch elements are disengaged and the aforesaid brake is inoperative; means operative upon disengagement of said intermediate shaft by said rotatable auxiliary drive member to restore the braking effect of said brake; and means coupling said intermediate shaft to the common rotating shaft of the sewing machine.

2,836,277
SKID FOR LOADING VEHICLE TRANSPORTS
Clarence C. Stuart, Dearborn, Mich., assignor to Traffic Transport Engineering, Inc., Dearborn, Mich., a corporation of Michigan
Application May 10, 1957, Serial No. 658,466
15 Claims. (Cl. 193—41)



1. In a skid for loading vehicles on vehicle transports, the combination comprising a pair of sections, each said section having a longitudinally extending track portion, means hinging said sections to each other along adjacent longitudinal edges for folding movement from a position wherein said track portions lie in substantially the same plane to a position wherein said track portions are in overlying relationship, means on each of said sections interengageable when said sections are in such a position that the track portions lie in substantially the same plane.

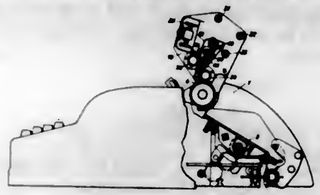
2,836,278
RETRACTABLE ROLLERS FOR TRUCK BEDS AND BUNKS
Garold Kindell, Eugene, Oreg.
Application December 10, 1956, Serial No. 627,448
2 Claims. (Cl. 193—42)



1. A load support comprising a channel member including a pair of upright spaced parallel legs integrally connected at their lower ends, a pair of flanges integrally connected to the upper ends of said legs and extending perpendicularly outwardly therefrom, a resilient load engaging pad fixed to each of said flanges, a pair of spaced parallel arms arranged at opposite ends of said channel member, means pivotally securing one end of said arms to one of said legs, a shaft journalled on the other of said legs, eccentric extensions integrally formed on each end of said shaft, said eccentric extensions supporting the other ends of said arms, a lever fixed to said shaft for rotating said shaft to raise and lower said arms supported on said eccentric extensions, a resilient roller positioned between said legs, and a roller shaft fixed to said roller and having its opposite ends journalled in said arms whereby said roller is selectively raised above said pads to support a load for movement thereon and retracted below said pads to deposit a load on said pads.

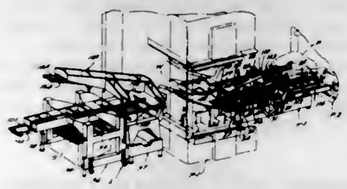
2,836,279
SHEET HOLDING AND TRANSPORTING DEVICE FOR BUSINESS MACHINES
Felix Fischer, Oberndorf (Neckar), Germany, assignor to Olympia Werke A. G., Wilhelmshaven, Germany
Application September 12, 1955, Serial No. 533,552
Claims priority, application Germany April 21, 1955
50 Claims. (Cl. 197—128)

1. In a business machine, in combination, supporting means; a sheet holding device mounted on said supporting means for movement between a normal position and a sheet handling position, said sheet holding device including guide means for guiding sheets between a first position in which the sheets are inserted and removed in said sheet handling position of said sheet holding device and a second position in which the sheets are adapted to be printed in said normal position of said sheet holding device; actuating means located on said supporting means; movable sheet transporting means located in the region of said sheet holding device for transporting in opposite directions sheets guided by said guide means between said first and second positions; and motion transmitting means connected to said sheet transporting means and



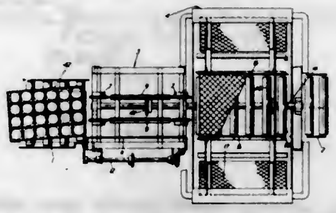
mounted on said sheet holding device for movement therewith, said motion transmitting means including a member controlled by said actuating means in such a manner that movement of said sheet holding device from said sheet handling position to said normal position effects transport of the sheets inserted in said guide means from said first position to said second position, and that movement of said sheet holding device from said normal position to said sheet handling position effects transport of the sheets from said second position to said first position for removal from said sheet holding device.

2,836,280
AUTOMATION ORGANIZATION
Gerald B. Hallaham, Southfield Township, Oakland County, Mich., assignor to Modern Engineering Service Co., Berkley, Mich., a corporation of Michigan
Application February 13, 1956, Serial No. 565,140
18 Claims. (Cl. 198—19)



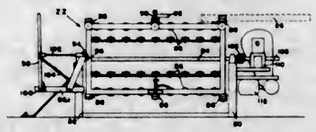
5. Transfer mechanism for moving a workpiece from a first work station to a second work station comprising a base structure, means carried by said base structure providing at least one idle station to receive said workpiece while in transit between said work stations, carriage means movably mounted on said base structure, a first power means effective to move said carriage means in directions toward and from said work stations, workpiece supporting means comprising rail members, means comprising a straight line motion linkage system mounting said rail members on said carriage means for raising and lowering movements thereon, said rail members extending over the opposite ends of the carriage means so as to project beyond the respective ends of the base structure when said carriage means is at one or the other end thereof, a second power means for operating said linkage system to raise and lower said rail members and means sequentially controlling the actuation of said first and second power means whereby one end of said rail members are cyclically positioned relative to a workpiece in said first work station, raised to lift the workpiece from said first station, transported with the workpiece and lowered in placement of the workpiece at said idle station and retracted.

2,836,281
CONVEYOR SYSTEM
Joseph Cookson, Buckhurst Hill, England
Application July 8, 1954, Serial No. 442,036
11 Claims. (Cl. 198—33)



1. A conveyor system comprising a conveyor run, a shaft rotatable about an axis parallel to the length of the conveyor run, said shaft having an article container carried thereby, first stop means for stopping articles entering said container, means for rotating said shaft after an article has been stopped in said container by said first stop means, a chain conveyor for feeding articles from said conveyor run to said container, means to drive said chain conveyor, second stop means at the entrance to the chain conveyor from the conveyor run for stopping articles on said conveyor run, and means for simultaneously releasing an article from said second stop means and driving said chain conveyor.

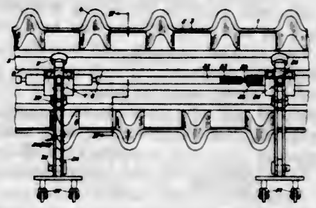
2,836,282
ROOF DECK FABRICATING MECHANISM
Elmer J. Rompre, International Falls, Minn., assignor to Minnesota and Ontario Paper Company, Minneapolis, Minn.
Application February 18, 1957, Serial No. 640,774
2 Claims. (Cl. 198—33)



2. A board turner of the drum type having four board receiving surfaces, means along the edges of each board receiving surface to assist in positioning board on the receiving surfaces, a shaft supported by the turner, means for turning the shaft, locking means for holding a board receiving surface in position to receive a board, a lever for releasing the locking means, said lever engageable by a board on the turner, and means for locking second board receiving surface in position upon the turning of the drum.

2,836,283
BELT CONVEYOR SYSTEM
Robert Hörth, Vlotho-Kalldorf, Germany, assignor to Friedrich K. H. Stübbe, Vlotho (Weser), Germany
Application May 17, 1955, Serial No. 509,010
Claims priority, application Germany June 2, 1954
3 Claims. (Cl. 198—109)

1. In a belt conveyor system including a conveyor belt adapted to pass through curves, the combination of: a plurality of supporting stands arranged in spaced relationship to each other for supporting said belt, means associated with said stands to allow displacement of said stands at least in a direction perpendicular to the conveying direction of said belt, each of said stands having at least one side thereof provided with a longitudinal socket fixedly connected to the respective stand, a plurality of thrust members respectively interposed between each two adjacent stands, each end of said thrust members being provided with a threaded bore, and connecting members having a threaded shaft respectively threadedly engaging the threaded bores in said thrust members and



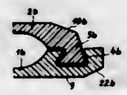
also provided with a ball-shaped head respectively movably engaging the adjacent socket of the respective adjacent supporting stand within certain limits to thereby limit the angular relative displacement of each two adjacent stands, said thrust members when in axial alignment with each other being located in a vertical plane extending substantially through the longitudinal central axis of said belt.

2,836,284
LIVE ROLL CONVEYOR
Ira F. Gilliatt, Milton, Mass., assignor to Conveyor Specialty Company, Inc., a corporation of Massachusetts
Application April 29, 1955, Serial No. 504,870
9 Claims. (Cl. 198—127)



1. A flat conveyor for objects having a flat surface comprising a roll supporting framework having a bend therein and a plurality of cylindrical rollers mounted on the bend of said framework with their axes arranged generally radially of said bend and their upper surfaces generally tangential to a common horizontal plane, said rollers including inner and outer groups of rollers, said inner group being mounted on said framework radially inwardly of said outer group, and said outer group being mounted on said framework radially outwardly of said inner group and means for driving one of said groups at a rotational speed different from the other of said groups.

2,836,285
BELT CONVEYER APPARATUS
Wilhelm Müller, Neuss (Rhine), Germany, assignor to Firma Continental Gummi-Werke Aktiengesellschaft, Hannover, Germany
Application July 16, 1953, Serial No. 368,470
Claims priority, application Germany November 27, 1952
6 Claims. (Cl. 198—162)



1. Conveyer apparatus comprising, in combination, a bottom belt having a web of rectangular cross section provided with a top face and said belt having a pair of opposite side wall portions extending upwardly from said top face of said web, each having a top face located

above said top face of said belt, and said opposite side wall portions respectively extending along opposite side edges of said belt and having a height considerably shorter than the length of said web; a top belt having a web of rectangular cross section provided with a bottom face located over and spaced from said top face of said web of said bottom belt and said top belt having a pair of opposite side wall portions extending downwardly from bottom face of said web of said top belt, each having a bottom face located beneath said bottom face of said top belt, and said opposite side wall portions of said top belt extending along opposite side edges thereof, said bottom faces of said opposite side wall portions of said top belt engaging and being located over said top faces of said opposite side wall portions of said bottom belt, and said belts defining an elongated chamber of substantially rectangular cross section when said side wall portions of said top belt engage said side wall portions of said bottom belt; and releasable lock means releasably holding said top and bottom belts together at said opposite side wall portions thereof and permitting lengthwise movement of said top and bottom belts with respect to each other.

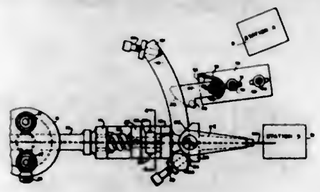
2,836,286
CONVEYOR TROLLEY
John M. Delaney, Detroit, Mich.
Application August 12, 1955, Serial No. 528,057
2 Claims. (Cl. 198—177)



1. In a conveyer system a conveyer trolley comprising a pair of mating half sections, each half section comprising an integral member having a conveyer cable receiving body section adapted to receive a conveyer cable having at least one driving lug secured thereto, each body section having two longitudinally spaced lug receiving recesses therein, one of said recesses being longer than the other, and an upwardly extending arm portion, said body section and arm portion being interposed by an integral connecting section, said connecting section carrying at one vertical edge thereof a tongue element and at the opposite vertical edge a groove element, said tongue coacting with the groove element and said groove element coacting with the tongue element respectively of the mating half section to interlock the two half sections, the interlocking action being caused by moving the two half sections laterally one relative to the other when in face to face contact, said recesses being in the relationship of a long recess opposite a short one when said face sections are in face to face contact, each short recess being adapted to contain a cable lug with a minimum of end clearance thereby preventing any substantial longitudinal movement of said trolley relative to said cable, means projecting through said connecting sections to hold said half sections interlocked, and means carried by said arm portions adapted to movably carry said trolley on a rail.

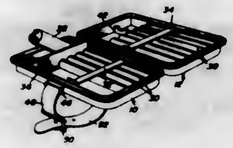
2,836,287
WIRE FEEDING AND POSITIONING APPARATUS
Charles P. Cady, Canastota, N. Y., assignor to Westlake Manufacturing Corporation, Canastota, N. Y., a corporation of New York
Application November 12, 1953, Serial No. 391,581
4 Claims. (Cl. 203—150)

1. A device of the character described including a plurality of work stations comprising a base, a support shaft journalled in the base, a frame mounted on said shaft and extending radially therefrom, said frame being movable back and forth over an arcuate path between said work stations upon oscillation of said shaft, said frame being provided with alined wire guiding apertures for guiding the wire radially from said support shaft, a gripper support slidably mounted in the frame for movement parallel to the axis of said guiding apertures, a wire gripper mounted on said gripper support and having portions movable into and out of engagement with



the wire, actuating means operable upon initial movement of the frame toward one of said work stations to move said portions of the gripper out of engagement with the wire and to move said gripper support toward the axis of said support shaft and, upon further movement of the frame toward said station, to move said portions of the gripper into engagement with the wire and to move said gripper support radially outwardly from said support shaft a predetermined distance.

2,836,288
WATERPROOF CIGARETTE CASE AND LIGHTER
Charles Thomas Atchison, Dateland, Ariz.
Application July 30, 1954, Serial No. 446,776
1 Claim. (Cl. 206—41.4)



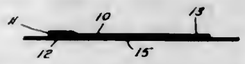
A waterproof cigarette case comprising a housing and a cover, an arcuate cross-sectional recessed peripheral flange on said housing, a tubular flexible sealing strip partially seated in said recessed peripheral flange and projecting therefrom above the confines of the housing, said peripheral flange being disposed outwardly of the general confines of said housing, an outwardly projecting arcuate cross-sectional peripheral flange on said cover, said projecting peripheral flange on said cover extending down below the confines of the cover, mating with said flange on said housing and compressibly engaging said sealing strip when said cover is in a closed position to form a waterproof joint between said housing and said cover, hinge members extending between and secured to adjacent portions of said peripheral flanges to hingedly connect said cover to said housing, a latch member carried by said projecting peripheral flange on said cover remote from said hinge members, said latch member being resiliently engaged over an adjacent portion of said recessed peripheral flange on said housing to releasably retain said cover in a closed position, a partition in said housing dividing said housing into a cigarette receiving compartment and a lighter compartment, a reversely bent spring having first and second portions, said first portion being directly secured to said housing within said lighter compartment, a lighter, said lighter being directly secured to said second portion with said spring normally urging said lighter out of said lighter compartment to an operative position, a retaining plate carried by said cover and normally engaging said lighter to hold said lighter in a retracted position, and means carried by said housing and said cover for retaining cigarettes within both said housing and said cover.

2,836,289
PRE-INSTALLATION ASSEMBLY FOR SWING-UP DOORS
David M. Robinson, New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut
Application January 16, 1956, Serial No. 559,299
5 Claims. (Cl. 206—46)



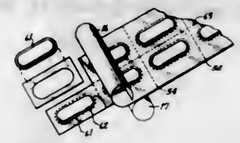
5. A pre-installation assembly of the mounting means for a swing-up door comprising an elongated channel-shaped steel track, a mounting bracket for the track pivotally connected to one end thereof, an elongated door plate having an inwardly turned flange at one end for engagement with the top of a door and longitudinally spaced projections for engagement with the side of a door, said door plate extending parallel to the track with said one end adjacent the said mounting bracket, a wheel and support therefor mounted on said one end of the door plate with the wheel engaged in the track, an elongated jamb plate extending parallel to the track having one end abutting the lower end of the door plate and offset laterally therefrom, said jamb plate having longitudinally spaced projections for engagement with the side of a jamb, detachable means forming a temporary connection between the abutting ends of the plates, a jamb bracket fixed to the jamb plate, a temporary rigid connection between the jamb bracket and the track comprising a removable spacer block and a removable bolt, a door arm pivotally attached at one end to the jamb bracket and extending parallel to the track, an elongated counterbalance spring attached at one end to the jamb bracket and extending parallel to the track, and means for retaining the door arm and counterbalance spring in parallel relationship with the end of the track comprising a removable spacer block between the arm and the track and a removable tape encircling the track, spacer block, door arm and spring.

2,836,290
IDENTIFICATION TAGS
Philip N. Brann, Syracuse, N. Y.
Application June 19, 1956, Serial No. 592,316
1 Claim. (Cl. 206—56)



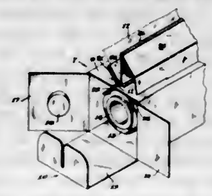
A tape in the form of a series of connected identification tags of rectangular shape for attachment to garments and the like by the application of heat and pressure, said tape being entirely coated on one side with a thermoplastic adhesive material, separate seal barrier strips of sheet material positioned on the coated side of said tape at spaced intervals therealong and extending crosswise of the tape, said strips being permanently adhered to the tape by said thermoplastic material and being uncoated on their exposed surfaces.

2,836,291
EDIBLE STRIP PACKAGE AND METHOD OF MAKING SAME
John H. Stroop, New York, N. Y., assignor to The Pad-Y-Wax Company, Inc., New York, N. Y., a corporation of New York
Application August 13, 1956, Serial No. 603,777
9 Claims. (Cl. 206—56)



1. A multiply strip package, formed by a single continuous operation, having an inner pair of edible plies containing spaced measured quantities of a medicinal or food substance, strongly sealed by the application of heat entirely around each quantity and outer protective plies lightly sealed by the application of pressure to the inner plies for ready removal therefrom.

2,836,292
BOX FOR DISPENSING SHEET WRAPPING MATERIAL
Walter A. Klein, Albert J. Mason, and John Holzschu, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application April 10, 1957, Serial No. 652,054
7 Claims. (Cl. 206—58)



1. A dispensing box for packaging a hollow wound supply roll of sheet wrapping material which comprises a plurality of side walls and a pair of enclosing end walls between which said side walls extend longitudinally to accommodate the width of said supply of sheet wrapping material that is adapted to be contained therein; roll supporting means integral with said end walls that conform at least approximately to the interior of said hollow wound supply roll and that are adapted to be inserted within the ends of the roll when it is contained in said container in order to maintain and position the supply roll therein; means in one of said side walls forming an elongate, linear, slit-like outlet for said sheet wrapping material when it is contained in said container, said outlet extending longitudinally in said side wall in the direction of the width of said sheet wrapping material when it is contained in said container and parallel to the width-accommodating length of said container; a contiguous pair of bendable, lip-like flaps, formed by means tending to urge one against the other, extending upwardly from said

above said top face of said belt, and said opposite side wall portions respectively extending along opposite side edges of said belt and having a height considerably shorter than the length of said web; a top belt having a web of rectangular cross section provided with a bottom face located over and spaced from said top face of said web of said bottom belt and said top belt having a pair of opposite side wall portions extending downwardly from bottom face of said web of said top belt, each having a bottom face located beneath said bottom face of said top belt, and said opposite side wall portions of said top belt extending along opposite side edges thereof, said bottom faces of said opposite side wall portions of said top belt engaging and being located over said top faces of said opposite side wall portions of said bottom belt, and said belts defining an elongated chamber of substantially rectangular cross section when said side wall portions of said top belt engage said side wall portions of said bottom belt; and releasable lock means releasably holding said top and bottom belts together at said opposite side wall portions thereof and permitting lengthwise movement of said top and bottom belts with respect to each other.

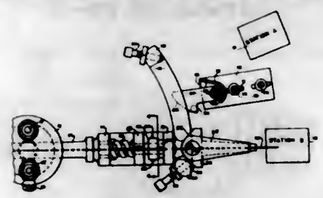
2,836,286
CONVEYOR TROLLEY
John M. Delaney, Detroit, Mich.
Application August 12, 1955, Serial No. 528,057
2 Claims. (Cl. 198—177)



1. In a conveyer system a conveyer trolley comprising a pair of mating half sections, each half section comprising an integral member having a conveyer cable receiving body section adapted to receive a conveyer cable having at least one driving lug secured thereto, each body section having two longitudinally spaced lug receiving recesses therein, one of said recesses being longer than the other, and an upwardly extending arm portion, said body section and arm portion being interposed by an integral connecting section, said connecting section carrying at one vertical edge thereof a tongue element and at the opposite vertical edge a groove element, said tongue coacting with the groove element and said groove element coacting with the tongue element respectively of the mating half section to interlock the two half sections, the interlocking action being caused by moving the two half sections laterally one relative to the other when in face to face contact, said recesses being in the relationship of a long recess opposite a short one when said face sections are in face to face contact, each short recess being adapted to contain a cable lug with a minimum of end clearance thereby preventing any substantial longitudinal movement of said trolley relative to said cable, means projecting through said connecting sections to hold said half sections interlocked, and means carried by said arm portions adapted to movably carry said trolley on a rail.

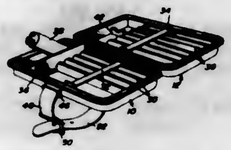
2,836,287
WIRE FEEDING AND POSITIONING APPARATUS
Charles P. Cady, Canastota, N. Y., assignor to Westlake Manufacturing Corporation, Canastota, N. Y., a corporation of New York
Application November 12, 1953, Serial No. 391,581
4 Claims. (Cl. 203—150)

1. A device of the character described including a plurality of work stations comprising a base, a support shaft journalled in the base, a frame mounted on said shaft and extending radially therefrom, said frame being movable back and forth over an arcuate path between said work stations upon oscillation of said shaft, said frame being provided with alined wire guiding apertures for guiding the wire radially from said support shaft, a gripper support slidably mounted in the frame for movement parallel to the axis of said guiding apertures, a wire gripper mounted on said gripper support and having portions movable into and out of engagement with



the wire, actuating means operable upon initial movement of the frame toward one of said work stations to move said portions of the gripper out of engagement with the wire and to move said gripper support toward the axis of said support shaft and, upon further movement of the frame toward said station, to move said portions of the gripper into engagement with the wire and to move said gripper support radially outwardly from said support shaft a predetermined distance.

2,836,288
WATERPROOF CIGARETTE CASE AND LIGHTER
Charles Thomas Atchison, Dateland, Ariz.
Application July 30, 1954, Serial No. 446,776
1 Claim. (Cl. 206—41.4)



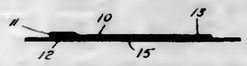
A waterproof cigarette case comprising a housing and a cover, an arcuate cross-sectional recessed peripheral flange on said housing, a tubular flexible sealing strip partially seated in said recessed peripheral flange and projecting therefrom above the confines of the housing, said peripheral flange being disposed outwardly of the general confines of said housing, an outwardly projecting arcuate cross-sectional peripheral flange on said cover, said projecting peripheral flange on said cover extending down below the confines of the cover, mating with said flange on said housing and compressibly engaging said sealing strip when said cover is in a closed position to form a waterproof joint between said housing and said cover, hinge members extending between and secured to adjacent portions of said peripheral flanges to hingedly connect said cover to said housing, a latch member carried by said projecting peripheral flange on said cover remote from said hinge members, said latch member being resiliently engaged over an adjacent portion of said recessed peripheral flange on said housing to releasably retain said cover in a closed position, a partition in said housing dividing said housing into a cigarette receiving compartment and a lighter compartment, a reversely bent spring having first and second portions, said first portion being directly secured to said housing within said lighter compartment, a lighter, said lighter being directly secured to said second portion with said spring normally urging said lighter out of said lighter compartment to an operative position, a retaining plate carried by said cover and normally engaging said lighter to hold said lighter in a retracted position, and means carried by said housing and said cover for retaining cigarettes within both said housing and said cover.

2,836,289
PRE-INSTALLATION ASSEMBLY FOR SWING-UP DOORS
David M. Robinson, New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut
Application January 16, 1956, Serial No. 559,299
5 Claims. (Cl. 206—46)



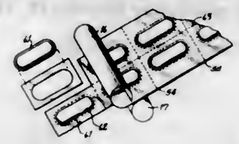
5. A pre-installation assembly of the mounting means for a swing-up door comprising an elongated channel-shaped steel track, a mounting bracket for the track pivotally connected to one end thereof, an elongated door plate having an inwardly turned flange at one end for engagement with the top of a door and longitudinally spaced projections for engagement with the side of a door, said door plate extending parallel to the track with said one end adjacent the said mounting bracket, a wheel and support therefor mounted on said one end of the door plate with the wheel engaged in the track, an elongated jamb plate extending parallel to the track having one end abutting the lower end of the door plate and offset laterally therefrom, said jamb plate having longitudinally spaced projections for engagement with the side of a jamb, detachable means forming a temporary connection between the abutting ends of the plates, a jamb bracket fixed to the jamb plate, a temporary rigid connection between the jamb bracket and the track comprising a removable spacer block and a removable bolt, a door arm pivotally attached at one end to the jamb bracket and extending parallel to the track, an elongated counterbalance spring attached at one end to the jamb bracket and extending parallel to the track, and means for retaining the door arm and counterbalance spring in parallel relationship with the end of the track comprising a removable spacer block between the arm and the track and a removable tape encircling the track, spacer block, door arm and spring.

2,836,290
IDENTIFICATION TAGS
Philip N. Brann, Syracuse, N. Y.
Application June 19, 1956, Serial No. 592,316
1 Claim. (Cl. 206—56)



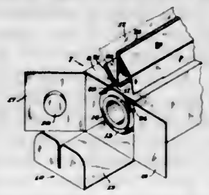
A tape in the form of a series of connected identification tags of rectangular shape for attachment to garments and the like by the application of heat and pressure, said tape being entirely coated on one side with a thermoplastic adhesive material, separate seal barrier strips of sheet material positioned on the coated side of said tape at spaced intervals therealong and extending crosswise of the tape, said strips being permanently adhered to the tape by said thermoplastic material and being uncoated on their exposed surfaces.

2,836,291
EDIBLE STRIP PACKAGE AND METHOD OF MAKING SAME
John H. Stroop, New York, N. Y., assignor to The Pad-Y-Wax Company, Inc., New York, N. Y., a corporation of New York
Application August 13, 1956, Serial No. 603,777
9 Claims. (Cl. 206—56)



1. A multiply strip package, formed by a single continuous operation, having an inner pair of edible plies containing spaced measured quantities of a medicinal or food substance, strongly sealed by the application of heat entirely around each quantity and outer protective plies lightly sealed by the application of pressure to the inner plies for ready removal therefrom.

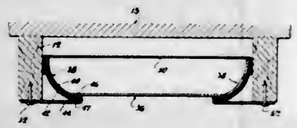
2,836,292
BOX FOR DISPENSING SHEET WRAPPING MATERIAL
Walter A. Klein, Albert J. Mason, and John Holzschu, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application April 10, 1957, Serial No. 652,054
7 Claims. (Cl. 206—58)



1. A dispensing box for packaging a hollow wound supply roll of sheet wrapping material which comprises a plurality of side walls and a pair of enclosing end walls between which said side walls extend longitudinally to accommodate the width of said supply of sheet wrapping material that is adapted to be contained therein; roll supporting means integral with said end walls that conform at least approximately to the interior of said hollow wound supply roll and that are adapted to be inserted within the ends of the roll when it is contained in said container in order to maintain and position the supply roll therein; means in one of said side walls forming an elongate, linear, slit-like outlet for said sheet wrapping material when it is contained in said container, said outlet extending longitudinally in said side wall in the direction of the width of said sheet wrapping material when it is contained in said container and parallel to the width-accommodating length of said container; a contiguous pair of bendable, lip-like flaps, formed by means tending to urge one against the other, extending upwardly from said

side wall along said outlet, one of said flaps being positioned on each side of and adjacent to said outlet, said flaps being adapted to frictionally engage and grasp said sheet wrapping material when it is emerging through said outlet; and a cutting means mounted by means on said box in spaced, parallel relationship with said outlet positioned over said outlet at a greater distance therefrom than the height of said flaps and being situated in a plane that extends between said outlet and said cutting means which is substantially at a right angle to the side wall in which said outlet is formed.

2,836,293
HEAT INSULATION STRUCTURE
Jeremiah D. Giles, Litchfield, Conn.
Original application August 9, 1955, Serial No. 527,243, now Patent No. 2,782,914, dated February 26, 1957. Divided and this application October 12, 1956, Serial No. 615,552
1 Claim. (Cl. 206—59)



A roll of thermal insulation adapted to be opened up to form an insulating structure comprising spaced layers of material to resist the flow of heat, which structure will be held so as to run from the inner face of one stud of a building to the inner face of an adjacent stud, such roll comprising a sheet of paper having symmetrical zigzag folds adjacent each side in which the paper is folded inwardly over against the bottom of the body of the sheet and then folded again outwardly over against the bottom of the infolded portion, each of the folded lines being sharply pressed by the rolling to hold the three layers of paper in face-to-face contact in the zigzag fold, means for holding the said layers against relative movement in face-to-face contact to form a pair of stiffened support members, a thin sheet of aluminum foil attached to the middle layer of paper in the zigzag fold and an expansible pleat positioned in the body of the sheet of paper between the zigzag folds which is adapted to expand when lateral force is applied across the paper sheet by pulling outwardly on the two bottom layers of paper in the zigzag folds, whereby the sheet of foil will cause the stiffened support members to lift and stand up along the length of the paper sheet near its edge when the body of the sheet of paper is expanded whereby the insulation structure may be installed between adjacent studs in a building by attaching the bottom layer of paper in the zigzag fold to the outer faces of adjacent studs of a building to hold said upright support members and the sheet of foil carried by them pressed against the inner faces of such studs.

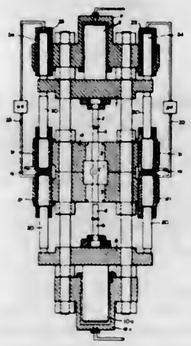
2,836,294
PITCH CARTRIDGE FOR ELECTRODE JOINT
Harry V. Johnson and Neal J. Johnson, Niagara Falls, N. Y., assignors to Union Carbide Corporation, a corporation of New York
Original application October 12, 1954, Serial No. 461,714, now Patent No. 2,735,705, dated February 21, 1956. Divided and this application November 16, 1955, Serial No. 547,237
1 Claim. (Cl. 206—84)

A generally elongated, substantially cylindrical cartridge of pitch adapted to be inserted into a nipple of a furnace electrode joint wherein temperatures well above the melting point of said pitch are encountered, said pitch having a melting temperature between about 75° C. and 200° C., said cartridge being provided with a fibrous, thermally insulating jacket to defer the time of melting said pitch for over a minute, despite the fact



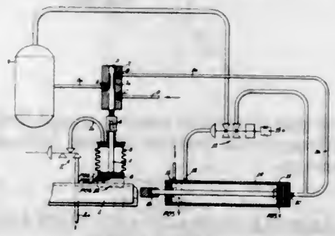
that said nipple is at a temperature above the melting point of said pitch, said jacket being consumable at a temperature well above that at which said pitch melts and having an outer wrapping of heat-reflective foil.

2,836,295
CABLE PRESS WITH STATIONARY PRESS-HEAD
Ernst Müller and August Grohmann, Duisburg, Germany, assignors to Hydraulik G. m. b. H., Duisburg, Germany, a German company
Application November 18, 1952, Serial No. 321,244
1 Claim. (Cl. 207—2)



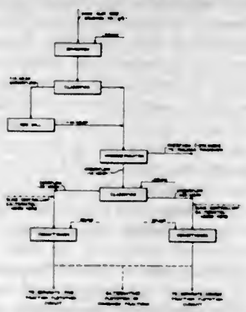
A press for the sheathing of cables and the like, particularly for pressing light metal and metal alloys, comprising a frame, a stationary press-head to hold the metal to be pressed, oppositely acting rams mounted on movable cross-heads to press the metal in the press-head from two sides, main cylinders mounted on the frame, one of said cylinders having a diameter larger than the other, pressure fluid actuated pistons of different diameter in the main cyinders secured to the ram cross-heads to move the rams in a metal-pressing direction, secondary cylinders mounted on opposite sides of the press-head, pressure fluid actuated pistons in the secondary cylinders secured to opposite sides of each ram cross-head for retracting said rams and said cross-heads, further secondary cylinders mounted on the frame, pressure fluid actuated pistons therein secured to one of said ram cross-heads, which is actuated by said main piston of smaller diameter, to move in metal-pressing direction, connection means between said last secondary cylinders and said secondary cylinders mounted on the press-head for retracting the other ram cross-head which is actuated by said main piston of greater diameter, thus balancing the press head on the ram cross-head of the smaller main piston, and valve means for selectively valving the pressure fluid to or between the secondary cylinders to cause the pistons to alternately balance or move the ram cross-heads independently.

2,836,296
DETECTOR APPARATUS
Edward F. Lewis, Alexander v. d. Luft, and William F. Schmauss, Martinsburg, W. Va., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application March 28, 1955, Serial No. 497,232
3 Claims. (Cl. 209—88)



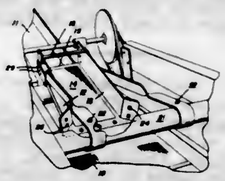
1. In a mass-production manufacturing process, a device for detecting and ejecting a partially filled container comprising a head member operatively supported on one end of an expandable member having an internal cavity, a control arm fixed to said head member and extending longitudinally through said expandable member, a source of a fluid control medium selectively connected to the interior of said expandable member to actuate same and thereby move said head member into contact with a wall of said container to shift said control arm, a fluid control system actuable only upon shifting of said control arm a distance at least as great as the displacement of said head member when said head member depresses the wall of said container beyond a predetermined extent, and a plunger actuated by said control system to eject the container which has been depressed as aforesaid by said head member.

2,836,297
SPLIT CIRCUIT POTASH ORE FLOTATION CONCENTRATION
William Aubrey Smith, Carlsbad, N. Mex., Vernon L. Mattson, Wheat Ridge, Colo., and Gene Meyer, Shiprock, N. Mex., assignors to The American Metal Company, Limited, a corporation of New York
Application December 24, 1956, Serial No. 630,250
8 Claims. (Cl. 209—166)



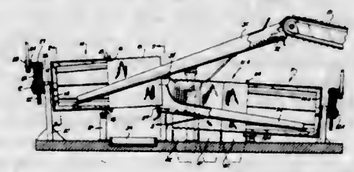
1. The improvement in the recovery of sylvite from potash ores which comprises subjecting a potash ore containing sylvite, and previously reduced to a degree of sub-division within the particle size limits for a froth flotation concentration, to a sizing treatment to provide at least two fractions, one composed principally of finer particles of said ore and the other composed of coarser particles of said ore, pulping said fractions with a saturated aqueous solution of the soluble ore constituents, separately conditioning said fractions for froth flotation concentration by adding to the finer fraction a cationic collecting agent of relatively low molecular weight and adding to the coarser fraction a cationic collecting agent of relatively high molecular weight, agitating the pulp to effect thorough distribution of the collecting agent added to each fraction, and thereafter subjecting the conditioned pulp to froth flotation concentration.

2,836,298
DISCHARGE CHUTE ATTACHMENT FOR SYMON VIBRATOR SCREEN
Francis John Tobin, Yakima, Wash.
Application November 8, 1955, Serial No. 545,616
2 Claims. (Cl. 209—257)



1. For use with a vibratory screen having a discharge end with a vibratory motion device adjacent such discharge end and a brace at the discharge end portion of the screen, a chute comprising an inclined bottom for rising over the device, means at the lower end of the bottom for attaching the same to the discharge end of the screen, side walls erected on the bottom having outturned wings at their lower ends for receiving material from the screen and directing the same to the chute, straps affixed to the side walls of the chute and having portions shaped to engage the screen brace, and an apron extending downwardly from the high discharge end of the chute.

2,836,299
GRAVEL SEPARATOR AND SCRUBBER
Ellis Johnson, Long Branch, N. J.
Application May 16, 1955, Serial No. 508,713
9 Claims. (Cl. 209—270)

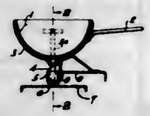


1. An apparatus for separating gravel from its natural clay and sand formation which includes an inclined feeding chute with a water jet at the upper end of said chute to assist in washing and pushing said gravel formation through the chute, a rotatable drum into which the chute extends, said rotatable drum being closed at one end and provided with a separating screen at the opposite end, said drum supported on rollers and said drum provided with means to rotate said drum, the closed end and inner periphery of said drum provided with a plurality of blades, said chute extending to a point adjacent to the lower portion of said drum and adjacent to the closed end.

2,836,300
COMBINED STRAINER AND DRIP CATCHER
Wilhelm F. Serr, Neustadt, Germany
Application June 3, 1954, Serial No. 434,196
Claims priority, application Germany June 6, 1953
7 Claims. (Cl. 210—248)

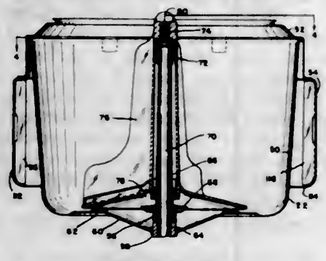
1. A straining device for a container, said device comprising a strainer, a drip catcher, swingable means con-

necting said strainer with said drip catcher and selectively swinging said drip catcher from an operative position under the strainer to an inoperative position alongside said strainer, and means connected with the first mentioned



means and selectively engaging said container and holding said drip catcher in said inoperative position when said strainer is placed upon the container, said drip catcher swingably moving by gravity to said operative position when said strainer is raised from the container.

2,836,301
TUB STRUCTURE
William C. Bruckman, Newton, Iowa, assignor, by mesne assignments, to The Easy Washing Maching Company, Limited, Toronto, Ontario, Canada, a corporation
Application August 26, 1953, Serial No. 376,643
6 Claims. (Cl. 210—360)



1. In a washing machine of the nature described; a tub structure comprising an imperforate tub open at the top for receiving clothes and having its side walls tapering outwardly toward the top, an annular balancing ring coaxial with said tub and surrounding the tub in the region of the level of a load in the tub, said balancing ring having a vertical outer wall and flanges extending radially inwardly at the top and bottom of said wall, a crown ring mounted about the top of the tub and having a wall extending inwardly above said tub and a skirt encircling said tub and dependent therefrom, means securing said crown ring to said tub substantially at the top thereof, said crown ring skirt and said balancing ring being rigidly interconnected, said balancing ring and said crown ring being supported solely by the attachment of said crown ring to said tub and depending from the top of said tub, and said crown ring and tub being formed to provide a plurality of openings between the tub and crown ring to provide for the controlled discharge of fluid from the tub into said balancing ring during rotation of the tub structure.

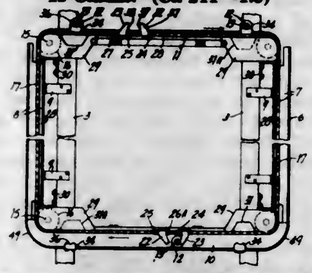
2,836,302
FLUID FILTERS
Kenneth Ernest Buckman, Redbridge, Southampton, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 28, 1955, Serial No. 497,271
Claims priority, application Great Britain April 22, 1954
8 Claims. (Cl. 210—493)

1. A fluid filter unit formed of a continuous strip of filter material folded into sections, the latter being in a zigzag arrangement forming a stack, each of said sections having a central aperture, adjacent sections of successive pairs of said sections being in sealed relation at their peripheries, identations in said sections defining flow passages for filtrate between said pairs, ridges determined by said indentations spacing the sections of each pair, and means associated with said sections to



seal each pair of sections together around their apertures and defining radial passages leading from said filtrate flow passages.

2,836,303
ARTICLE STORAGE AND DISPLAYING MECHANISM
William B. Lyon, Kalamazoo, Mich.
Application March 1, 1955, Serial No. 491,484
13 Claims. (Cl. 211—1.5)



13. In an article storage and display device, a pair of spaced conveyor loops having upper and lower reaches connected at their ends by upright reaches, two pairs of pawls mounted at symmetrically opposite points on each conveyor with each pawl pivoted at one end to its associated conveyor, followers on the other ends of said pawls to control the movement of the pawls about their pivots, the followers of the two pawls of each pair of pawls lying in different positions with respect to their associated conveyor, the positions of the followers of the pairs of pawls on each chain being reversed, spaced support means extending along each conveyor and engaged with the followers thereon to support the pawls in projecting relationship to the conveyors, three article carrying bars extending between said conveyors in the path of said pawls to be selectively moved around said conveyors by the pawls, cam means at two diagonally opposite corners of each of said support means opposite the front and rear ends of said upper and lower reaches adapted to permit movement of followers engaged with the cam means to retract the pawls from bar engaging position, the cam means on one of the support means of each pair of support means being located at the opposite corners from the cam means of the other support means of the pair, holding means located opposite each of said cam means to support the ends of said bars and restrain the bars against horizontal movement, and means for simultaneously advancing said conveyors.

2,836,304
RACK CONSTRUCTION
Werner H. Fürrer, Kusnacht-Zurich, Switzerland
Application November 27, 1953, Serial No. 394,830
Claims priority, application Switzerland September 15, 1953
5 Claims. (Cl. 211—46)

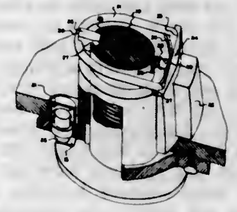
1. In a storing device composed of a plurality of superposed independent units, a rack unit comprising two

parallel top frame sides having bent ends, corner arms connected with said bent ends, each corner arm extending downwardly in two oblique directions, namely, in the direction toward the corner arm of the same top frame side and in the direction away from the opposite corner arm of the other top frame side, and two parallel bottom frame sides, each bottom frame side joining the



ends of two opposed corner arms and extending transversely to said top frame sides, each top frame side with the corner arms connected therewith having substantially the shape of an inverted U and being located in an obliquely extending plane, each bottom frame side with the corner arms connected therewith having substantially the shape of a U and being located in an obliquely extending plane.

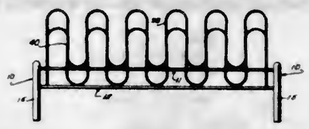
2,836,305
ADJUSTABLE SHELF STRUCTURE
Peter E. Davey and Le Roy R. Patterson, Jr., Erie, Pa., assignors to General Electric Company, a corporation of New York
Application December 21, 1953, Serial No. 399,384
1 Claim. (Cl. 211—146)



An adjustable shelf structure including a fixed, vertically-extending, threaded shaft having a longitudinally extending keyway, a flanged collar in threaded engagement with said shaft, a shelf rotatably supported on said collar, said shelf including a hub supported by the flange on said collar, locking means engaging said collar and said shaft for preventing relative rotation thereof, said locking means including a key slidably mounted in an opening in said collar above said hub engaging said keyway, a plate overlapping said hub on the opposite side of said collar from said key, a yoke above said hub connecting said plate and said key, spring means anchored to said plate and engaging a recess in said collar for maintaining said key in engagement with said shaft, said spring means and said key supporting said yoke on said collar in spaced relation with said hub, and a button on said plate to release said key from said keyway.

2,836,306
RACK CONSTRUCTION
Harry E. Einborn, Brooklyn, N. Y., assignor to Wilco Metal Products, Inc., New York, N. Y., a corporation of New York
Application June 6, 1955, Serial No. 513,197
4 Claims. (Cl. 211—177)

1. In a rack construction, a pair of inverted generally U-shaped side members disposed in laterally spaced, facing relation and adapted to rest in upstanding condition on a supporting surface, a pair of generally horizontally disposed open-ended sleeves each extending longitudinally along and fixedly secured to the underside of the bight portion of a respective one of said side members, said sleeves each being formed with a longitudinal internal groove opening through opposite sleeve ends, an elongate connector member extending between a sleeve on one side member and a corresponding sleeve on the other side member, said connector member having transversely angulated end portions each removably inserted into the adjacent one of said sleeves, a lateral protuberance on each of said connector end portions shaped for movement through and beyond the groove of the respective sleeve upon insertion of said connector end por-



tions in said sleeves, said protuberances each being disposed for abutting engagement with an edge of the respective sleeve when said side members are in said upstanding condition to prevent withdrawal of said connector end portions from said sleeves, and a stay member extending laterally between and having its opposite ends each connected to a leg of said opposed side members, to prevent movement of said side members out of said upstanding condition and retain said connector end portions in said sleeves.

2,836,307
COUPLER OPERATING MECHANISM
Harry H. Wolfe, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio
Application November 19, 1953, Serial No. 393,193
7 Claims. (Cl. 213—159)

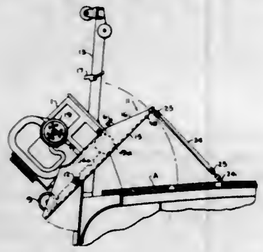


1. In a coupler operating mechanism, a coupler head, a lock mounted for substantially vertical movements within the coupler head, means for operating said lock including a rotor lever mounted on a lower portion of the coupler head for forward and upward pivoting movement with respect thereto during initiation of a lock lifting operation, a lug carried by the rotor lever depending therefrom and having a flat rear substantially vertical face in the inactive position of the rotor lever, a coupler operating rod, means supporting the coupler operating rod for rotation, a depending portion on the coupler operating rod arranged in a substantially vertical plane in the inactive position thereof, an inner end portion on the coupler operating rod unattached to the lock operating means and movable generally horizontally forward during initial rotation of the operating rod into engagement with said flat face of the lug to initially move the lug forwardly and turn the rotor lever.

2,836,308
APPARATUS FOR HANDLING SHIP'S ELEVATOR CAR
John Lamb, Great St. Helen's, London, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 22, 1954, Serial No. 445,077
Claims priority, application Great Britain July 27, 1953
6 Claims. (Cl. 214—15)

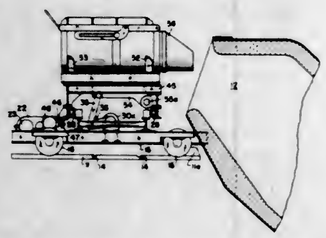
1. In a ship's overside elevator system on a ship having a deck and a side providing a generally vertical wheel-engaging surface below said deck facing outboard,

said system including an elevator car having running wheels at one side thereof for engagement with said wheel-engaging surface when the car is in operative, upright position, the improvement of apparatus for launching said car from a position on its side with said running wheels in supporting engagement with said deck, comprising: an open ended platform including track elements relatively aligned for supporting said running wheels, said platform being pivotally secured to the ship at said side above and adjacent said deck, said platform thereby pivoting from a lowered position on deck to a raised, generally



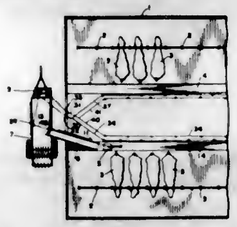
vertical position in substantial alignment with said wheel-engaging surface, a vertical frame having uprights fixedly attached to the side of the ship and having a horizontal crossbar which surrounds said platform when the car is in operative upright position, cables depending from the crossbar of said frame and attached to the car for controlling the position thereof, means for releasably securing the car to the platform and supporting the car thereon and means to permit the car to run off from said platform onto said vertical wheel engaging surface when the platform is in said raised position.

2,836,309
SCRAP CAR
Harry L. McFeaters, New Castle, Pa., assignor to Pennsylvania Engineering Corporation, New Castle, Pa., a corporation of Pennsylvania
Application January 5, 1956, Serial No. 557,499
14 Claims. (Cl. 214—18)



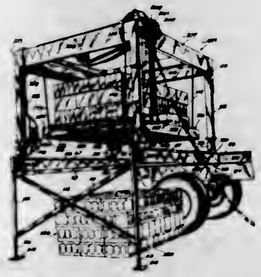
1. An improved scrap car apparatus for furnace and converter utilization which comprises, a cart for moving the apparatus between scrap-receiving and delivering positions, a group assembly of scrap boxes, a traverse frame operatively mounted on said cart for movement thereon, a group of swing cradles operatively mounted on said traverse frame for raising and lowering movement with respect thereto and for carrying the scrap boxes, swing mechanism mounted on said cart and constructed to cooperate with a selected individual one of said cradles when said traverse frame is moved to substantially align the one cradle and its scrap box with a charging opening of the furnace, and said swing mechanism having actuating means to only raise the aligned cradle and its associated scrap box to discharge scrap into the charging opening.

2,836,310
BARN LITTER COLLECTING AND LOADING APPARATUS
Leonard S. Schmitz and Mathias L. Schmitz, Chicago, Ill.
Application November 4, 1953, Serial No. 390,119
2 Claims. (Cl. 214—41)



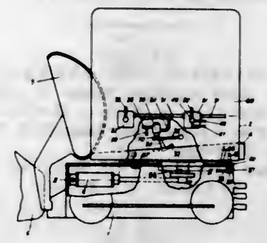
1. A barn litter loading means comprising a load carrying vehicle having a pair of side boards, a winch mounted on said vehicle, means at one side of said vehicle for mounting a pulley block, a pulley block on said means in proximate substantially vertical registration with the side board for said one side, a cable connected to said winch and leading through said pulley block and thence laterally outboard from the opposite side of said vehicle, a chute resting on a sideboard of said opposite side of the vehicle and extending downwardly therefrom to ground level, a scoop having connection with the outboard end of said cable and adapted to be pulled toward the vehicle and onto said chute lengthwise thereof; drive means for said winch, a clutch for connecting and disconnecting said drive means and said winch, a shiftable operating lever for selectively actuating said clutch, manually operable pull lines connected to said operating lever for moving said lever in opposite directions, said pull lines leading to a common location remote from said vehicle and along the path of said scoop, and means having connection with said operating lever and disposed in the path of said scoop adjacent the upper end of said chute for moving said lever in the direction to release said clutch when said scoop reaches a predetermined position along the chute.

2,836,311
APPARATUS FOR HANDLING BLOCK MATERIAL
John Foster Oury, Northlake, Ill.
Application September 10, 1956, Serial No. 608,763
7 Claims. (Cl. 214—75)



1. Block transporting and handling apparatus comprising in combination, a vehicle, a platform on the said vehicle, sets of track rails extending longitudinally of the said platform, each set of longitudinal track rails comprising a plurality of rails in aligned relation with each other, with the adjacent ends of each set of rails being spaced from each other, transverse rails on the said platform in spaced relation with each other, a plurality of housings secured to the frame of the platform at the point of intersection of the transverse rails and the sets of side rails, axles mounted in the said housings, connections between he said axles whereby all of said axles may be simultaneously rotated, spaced outrigger beams detachably connected to one pair of housings at one of their ends, supports for said beams at their ends opposite the ones secured to the housings, track rails on the said housings, track sections on the said axles of sufficient length to span the distance between adjacent ends of the side rails and also the transverse rails and the rails on the outrigger beams, means to rotate the said axles and track sections mounted thereon to align the said track sections with the said side rails or the transverse rails and the rails on the outrigger beams, a movable carriage movable on the said rails, a squeeze frame, flexible connections between the carriage and squeeze frame and power operated rams operatively connected with the flexible connections between the carriage and squeeze frame whereby the said squeeze frame is raised and lowered.

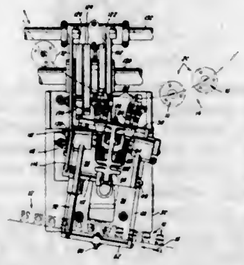
2,836,312
LOADERS
David Gustavsson, Orebro, Sweden, assignor to Atlas Copco Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application April 14, 1952, Serial No. 282,222
Claims priority, application Sweden April 16, 1951
7 Claims. (Cl. 214—132)



5. A loader comprising a mobile base, a superstructure mounted to turn in a horizontal plane on said base to lateral positions at either side of a center position, a loading element, a rocker structure carrying said element and movably mounted on said superstructure to swing said element in a vertical plane between loading and discharge positions, a power cylinder and piston operatively connected between said base and said superstructure for turning the latter from any of its lateral positions to said center position, means for admitting pressure fluid to said cylinder to actuate said piston, said means including a control valve responsive to the position of said superstructure for admitting fluid to the cylinder to cause the superstructure to be moved from any lateral position to said center position and to vent the cylinder when the latter position is reached, and separate means operable independently of said cylinder for turning said superstructure from said center position to selected lateral positions on either side of said center position.

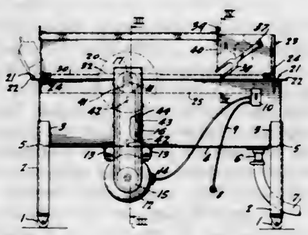
2,836,313
LAMP MOUNT TRANSFER APPARATUS
Ernest E. Yeo, Wenham, and David Patterson Drown and James P. O'Brien, Beverly, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application May 1, 1956, Serial No. 581,982
2 Claims. (Cl. 214—148)

1. Lamp mount transfer and inverting apparatus comprising: a horizontally reciprocable carriage; a pair of generally horizontal shafts journalled in said carriage with their axes angularly oriented with respect to one another; a mount clamping assembly on each of said shafts, each said assembly including an elongated body, having one end secured to one of said shafts, and a pair of opposed jaws spring loaded into closed mount gripping relation, pivotally mounted on the other end of said body, each assembly being pivotable about the axis of its related shaft in a generally vertical plane angularly disposed with relation to the plane in which the other assembly is pivotable, each assembly being movable between a pick-up station and a delivery station, said assemblies being spaced apart a different distance in each



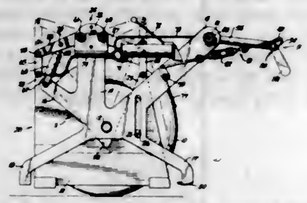
said station; means for reciprocating said carriage between said stations; means for oscillating said assemblies through about 180 degrees in timed relation with the reciprocation of said carriage whereby each said assembly is in the pick-up station at one extreme of said reciprocation and of said oscillation and in the delivery station at the other extreme of said motions; and means for actuating said jaws to close about a mount received in each assembly at the pick-up stations and to open at the delivery stations to release said mounts, whereby spacing between the two mounts is altered and each mount is inverted in transit.

2,836,314
CONTAINER OPENING
Lawrence A. Mueller, Toledo, Ohio, assignor to The Fred Christen & Sons Co., Toledo, Ohio, a corporation of Ohio
Application June 13, 1955, Serial No. 515,083
8 Claims. (Cl. 214—305)



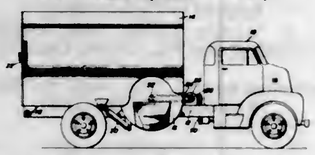
1. A commodity bulking equipment comprising: a linear trough having an approximate right angled V-shaped cross section to define a course for the lower corner edges of commodity charged containers of various sizes, said trough having apertures along its bottom, container splitting means comprising a vertical rotating knife edged disc situated in a slot in the bottom and between the ends of said trough, whereby a lower corner edge of each container is successively slit open so that the commodity therein is drained from said containers and passes through said slot and said apertures, and a bulk collection receptacle situated below said apertures for receiving the discharged commodity.

2,836,315
MATERIAL CONVEYING LIFT TRUCK
John Fuhrmann, West Seneca, and John B. Staus, Buffalo, N. Y.
Application March 5, 1956, Serial No. 569,539
6 Claims. (Cl. 214—390)



1. A material conveying lift truck, comprising a pair of spaced, parallel ground-engaging side wheels, a pair of spaced, parallel side frame members disposed inwardly of and close to each respective wheel, means supporting each side frame member on its associated side wheel, means connecting the side frame members, load supporting mechanism disposed between the side frame members for movement vertically with respect thereto, a lifting mechanism supported on each side frame member above and at least partially within the projected sides of its respective wheel, common drive means connecting the two lifting mechanisms, each lifting mechanism having a forwardly and a rearwardly directed arm, generally vertically disposed links connecting the ends of the arms to the forward and rear ends of the respective sides of the load supporting mechanism, and means for guiding the load supporting mechanism for generally vertical movement with respect to the side frame members.

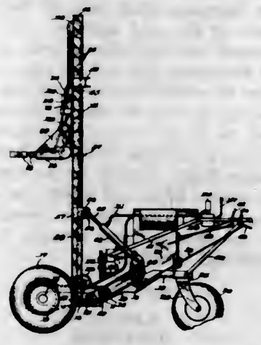
2,836,316
BULK MATERIAL COMPACTOR FOR REFUSE TRUCKS
Edwin A. Schonrock, San Angelo, Tex.
Application May 12, 1955, Serial No. 507,886
18 Claims. (Cl. 214—501)



1. A bulk material compacting dump truck comprising a supporting frame, a body pivoted to said frame and tiltable from a generally horizontal lowered position for receiving and transporting bulk material into a sharply inclined raised position for dumping, means for supporting at least one end of said body upon the frame when the body is in its lowered position, a relatively stationary bulk material compactor mounted upon said frame, said compactor having inlet means for receiving loose bulk material and outlet means for discharging compacted bulk material, means for receiving said outlet means in said body and establishing communication between said outlet means and the interior of the body when the latter is in its lowered position and for discontinuing said communication when the body is in its raised position.

2,836,317
BRICK HANDLING APPARATUS
John Foster Oury, Northlake, Ill.
Application September 10, 1956, Serial No. 608,762
6 Claims. (Cl. 214—653)

1. Brick handling and transporting apparatus comprising in combination a power driven vehicle, a vertically extending mast pivotally mounted on the said vehicle, a squeeze frame carriage movably mounted on the said mast, hydraulic means whereby the said squeeze frame carriage is raised and lowered on the said mast, a squeeze frame loosely connected to the said squeeze frame carriage, gripping fingers mounted on the squeeze frame, hydraulic means whereby the said gripping fingers are actuated to engage a cube of brick and be disengaged



therefrom and a guide on the said squeeze frame adapted to engage the topmost layer of bricks forming a cube whereby the position of the squeeze frame relative to the cube of bricks is controlled and the gripping fingers are positioned in the same plane as is the lowermost course of bricks forming a cube.

2,836,318
COATED PLASTIC ARTICLES
Jules Pinsky, West Hartford, Albert E. Adakonis, East Hartford, and Alvin R. Nielsen, Hartford, Conn., assignors to Plax Corporation, Bloomfield, Conn., a corporation of Delaware
Application August 13, 1957, Serial No. 677,999
20 Claims. (Cl. 215—1)



1. A synthetic resin article having a surface characterized by enhanced resistance to permeation by fluids, said surface having a coating of the cured mixture of:

A. an epoxy resin composition containing from about 90% to about 10% by weight of the reaction product of epichlorhydrin, p,p'dihydroxy - diphenyldimethylmethane and epihydric alcohol and from about 10% to about 90% of the reaction product of epichlorhydrin and dimethyl, p-hydroxydiphenyl, p-hydroxy-o-(p-hydroxybenzyl) phenyl methane; and

B. 3,4-epoxy-6-methyl cyclohexylmethyl - 3,4 - epoxy - 6 - methylcyclohexane carboxylate.

said A and B being admixed in a weight ratio of between about 1:1 and about 75:1.

2,836,319
COATED PLASTIC ARTICLES
Jules Pinsky, West Hartford, Albert E. Adakonis, East Hartford, and Alvin R. Nielsen, Hartford, Conn., assignors to Plax Corporation, Bloomfield, Conn., a corporation of Delaware
Application August 13, 1957, Serial No. 678,000
20 Claims. (Cl. 215—1)

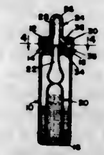
5. A polyethylene container having a surface characterized by enhanced resistance to permeation by organic

fluids, said surface having a coating of the cured mixture of: (A) an epoxy resin composition containing by weight from about 90% to about 10% of the reaction product of epichlorhydrin, p,p'dihydroxy-diphenyldimethyl methane and epihydric alcohol and from about 10% to about 90%



of the reaction product of epichlorhydrin and dimethyl, p-hydroxyphenyl, p-hydroxy-o-(p-hydroxybenzyl)phenyl methane, and (B) the reaction product of epichlorhydrin and p,p'dihydroxy-diphenyldimethyl methane; said A and B being admixed in a ratio of between about 1:1 and about 50:1.

2,836,320
STERILE AMPULE PACKAGE
Richard H. Carroll, Old Chatham, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware
Application September 13, 1956, Serial No. 609,673
6 Claims. (Cl. 215—6)



6. A sterile ampule package comprising an outer container having a closed and an open end, a lip surrounding the open end, an ampule within the container, a plug for closing the outer container and holding and engaging the ampule, an extension on said plug provided with a hollow, central elongated chamber receiving the neck of the ampule, said chamber being otherwise closed so that the outer container is completely closed with the plug inserted in position at the open end of the container, said extension being located exteriorly of the container, and a sterilizing medium in the outer container.

2,836,321
APPLIANCE FOR USE WITH AN INFANT'S FEEDING BOTTLE
Pablo Soltesz and Nicolas Tannenbaum, Montevideo, Uruguay
Application April 30, 1957, Serial No. 656,084
Claims priority, application Switzerland November 21, 1956
14 Claims. (Cl. 215—11)

1. An infant's pacifier for use with an infant's feeding bottle, comprising a bag-shaped teat of soft resilient material, a container having a connecting piece at one end and an opening at the other end, the said teat being attached to the said connecting piece of the container, the said container having a place of greatest diameter adjacent the said opening and an external screw thread at the said place of greatest diameter, a cover having an internal screw thread adapted to be engaged with the said external thread of the container for covering and closing the said container and the said cover being removable from the said container for filling a substance into the said container when the pacifier is to be used as a fillable pacifier, the said feeding bottle having a mouth with an internal screw thread, the external screw thread of the said container being engageable in two opposite positions with the internal screw thread of the mouth of the feeding bottle, a flow canal interconnecting the said container and the said teat, the said teat being directed outwardly from the said mouth of the feeding



bottle for one of the said positions of the fixing member thereby allowing flow of the bottle contents through the said flow canal into the teat and the teat being directed into the bottle for the other of the said positions of the fixing member thereby constituting a closure for the said bottle when the said container is closed by the said cover.

2,836,322
DEVICE FOR CATCHING RIVET HEADS
Marcus E. Barnes, South Holland, Ill.
Application December 14, 1956, Serial No. 628,402
2 Claims. (Cl. 220—1)

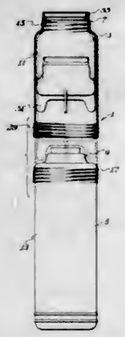


1. A device for catching flying rivet heads or the like comprising a portable container having a cylindrical portion, a flat bottom wall portion extending tangentially from said cylindrical portion, a downwardly inclined bottom wall portion extending from the end of said flat bottom wall portion remote from said cylindrical portion, a top wall extending from said cylindrical portion in spaced relation from said bottom wall portions and diverging therefrom in a direction away from said cylindrical portion, and side walls joined to said bottom wall portion and said top wall, there being a narrow entrance throat to said cylindrical portion between said flat bottom wall portion and said top wall, said top wall extending outwardly of said bottom wall portion to provide an overhang, said flat bottom wall portion being adapted to rest on a row of rivet heads, said inclined bottom wall portion to contact a surface from which the rivet heads project, and said overhang to overlie the rivet whose head is being severed.

2,836,323
TANDEM CONTAINER ASSEMBLIES
Sarah L. Robinson, Sapulpa, Okla.
Application June 22, 1956, Serial No. 593,106
3 Claims. (Cl. 220—4)

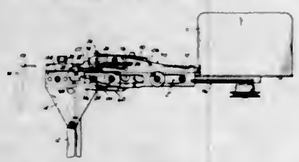
1. A tandem container assembly comprising in combination a pair of generally cylindrical containers having a reduced throat portion and an enlarged body portion, one of said containers having screw threads on its throat portion and the other of said containers having screw

threads on its body portion, and a generally cylindrical unitary cover having a closed, reduced inner end and an enlarged body portion terminating in an open outer end, said cover having internal screw threads on its reduced inner end complementary to the screw threads on the throat of said one container whereby said one container



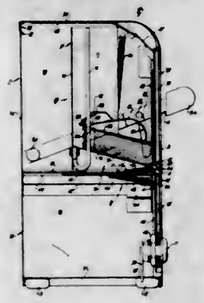
is detachably retained entirely within said cover, and said cover having internal screw threads on its outer end disposed beyond the bottom of said one container and complementary to the screw threads on the body portion of said other container whereby said other container is detachably retained within the open end of said cover, said containers and cover being coaxial.

2,836,324
ARTICLE ORIENTING APPARATUS
Grant N. Willis and Frank A. Clary, Jr., Bristol, Conn., assignors, by mesne assignments, to A. J. Mitchell Co., Boston, Mass., a corporation of Massachusetts
Application June 10, 1955, Serial No. 514,590
15 Claims. (Cl. 221—13)



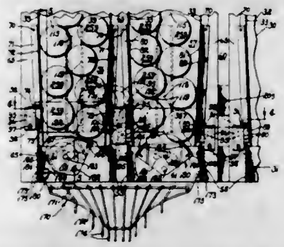
1. In an apparatus for uniformly orienting articles having opposite surfaces differentiated by a difference in contour, a first chute adapted to accommodate a succession of articles arranged at random either right side up or right side down relative to the first chute, a second chute angularly disposed relative to the first chute and having its entrance end adjacent the exit end of the first chute, article transfer means disposed between the exit end of the first chute and the entrance end of the second chute, said transfer means having a passage extending therethrough and being movable between an article receiving position wherein an end of the passage registers with the first chute and an article discharging position wherein an end of the passage registers with the second chute, sensing means located at the first chute for engaging one of said opposite surfaces of the leading article in the first chute to determine whether its relative position is right side up or right side down, driving means engageable with the transfer means for moving the transfer means between article receiving position and article discharging position selectively in one direction or the other, and means responsive to the sensing means for conditioning the driving means to drive the transfer means in a direction according to the relative position of the article in the first chute.

2,836,325
DISPENSING DEVICE
Fred E. Erickson and Loyal K. Roe, North Sacramento, Calif.
Application April 13, 1953, Serial No. 348,324
4 Claims. (Cl. 221—26)



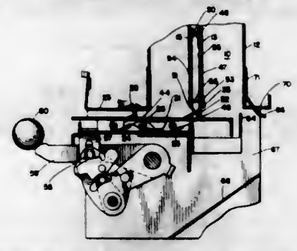
1. An ejection mechanism for one-by-one ejection of sheets of paper from a stack of like sheets which comprises a frame, a magazine for holding such stack with the bottom sheet exposed, a slide slidable in said frame beneath said stack between a forward position and a retracted position, a spring fixed at one end to said frame and at the other end to said slide to normally hold the slide in its forward position and capable of returning the slide from its retracted position to its forward position with a rapid snap action, a pawl carried by the slide and rotatable between an inactive position spaced from the stack and an active position wherein the pawl frictionally engages the bottom sheet of the stack, a weight so located with reference to the fulcrum of said pawl as normally to hold said pawl in its inactive position, a spring connected at one end to said pawl and connected at its other end to said frame in such manner as normally not to oppose said weight but to rock said pawl to its active position during the last increment of retraction of the slide.

2,836,326
MAGAZINE FOR THE STORAGE OF ARTICLES
Spencer L. Childers, Fresno, Calif., assignor, by direct and mesne assignments, to The Vendo Company, Kansas City, Mo., a corporation of Missouri
Application February 21, 1955, Serial No. 489,319
6 Claims. (Cl. 221—67)



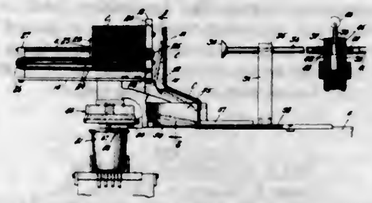
1. A magazine for elongated rollable articles of substantially uniform size and shape comprising substantially erect walls for confining the articles in a stack therebetween with the articles horizontally disposed and in vertically overlapping relation, said walls defining a downwardly disposed opening, a pair of panel members connected to said walls on opposite sides of the opening and downwardly convergently extended therefrom, the panel members having lower ends defining a discharge opening therebetween and upwardly adjacent to said opening being spaced a distance less than twice the maximum transverse dimensions of the articles and more than said transverse dimensions whereby the articles are supported adjacent to the discharge opening in two substantially erect downwardly convergent stacks of alternately overlapping articles, a pair of substantially parallel bars individual to the columns positioned beneath their respective columns, movable means interconnecting the bars in fixed spaced relation sufficient for the passage of articles to be vended therebetween, and control means connected to the movable means for oscillating the movable means and carrying the bars alternately and oppositely between positions in supporting relation to their respective columns and positions laterally retracted therefrom for the passage of articles therebetween.

2,836,327
SELECTIVE ARTICLE VENDING MACHINE
Ernest H. Thompson, Glenview, Ill., assignor to Automatic Canteen Company of America, Chicago, Ill., a corporation of Delaware
Application November 20, 1951, Serial No. 257,295
8 Claims. (Cl. 221—116)



5. A dispensing machine for articles comprising means to hold said articles in stacked relation in a plurality of aligned stacks, a reciprocal operating means common to all of said aligned stacks operative upon each movement thereof from an initial position to an advanced position in one direction to dispense said articles one at a time alternately from said stacks, said operating means including a plurality of pusher members mounted thereon, means for moving certain of said pushers to dispensing and non-dispensing positions during alternate movements of said operating means for dispensing an article from said machine, and means for moving one of said pushers to operative and non-operative positions during alternate movements of said operating means for advancing an article in one stack against an aligned article in another stack.

2,836,328
CAP FEEDING AND POSITIONING MEANS
Alfred W. Kinney, Washington, N. J., assignor, by mesne assignments, to American Can Company, New York, N. Y., a corporation of New Jersey
Application November 4, 1955, Serial No. 545,076
2 Claims. (Cl. 221—211)



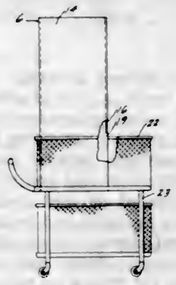
1. Mechanism for feeding and positioning container caps comprising a horizontal hopper having a vertical outlet for supporting a supply of caps on edge, withdrawing means engageable with the forward cap in the hopper for withdrawing the caps, one at a time, fixed vertical means engageable with the outer surface of the withdrawn cap adjacent opposite edges thereof for releasing the cap from the withdrawing means, means beneath the hopper outlet engageable with the inner edge of the withdrawn cap for turning and guiding the released cap downwardly, a cap supporting and feeding member positioned below the falling cap and in direct communication with the hopper, and means for moving the feeding member to feed the cap into capping position above a container, said cap withdrawing means and cap supporting and feeding means being carried by a common supporting member and fixedly connected to said supporting member and being movable in unison in parallel relation with each other and in a horizontal plane.

2,836,329
MEASURING DISPENSER FOR MEDICINE DROPPER
Joseph C. Chenette, West Hollywood, Fla.
Application November 26, 1956, Serial No. 624,397
6 Claims. (Cl. 222—207)



6. A feed and measuring bulb device for medicine droppers, the bulb device being flexible and compressible, the bulb including a pair of flat closely adjacent and opposed wall sections whereby to define a main chamber, the bulb being provided with a cylindrical and tubular hub portion for connection to one end of a tubular medicine dropper, each of the flat side walls being provided with at least one semi-spherical protuberance and with the protuberances of the opposed wall sections being in opposed relation whereby to form a spherical chamber that communicates with the main chamber, the protuberances being jointly compressible to control a predetermined measured quantity of fluid to enter or be ejected from the medicine dropper.

2,836,330
ARTICLE DISPLAY AND DISPENSING STRUCTURE
Carlyle L. Bease, Memphis, Tenn., assignor to Kellogg Company, Battle Creek, Mich., a corporation of Delaware
Application August 18, 1954, Serial No. 450,696
2 Claims. (Cl. 222—457)



1. In an article displaying and dispensing structure, a trough-shape base having side and end walls and a bottom, a separate tubular open-end housing endwise disposed within said base and mounted on and projecting upwardly from said bottom between said side walls, adjacent one end wall and spaced from the remote end wall to define a chamber at one end of the base to receive articles from said housing, said housing having an open-

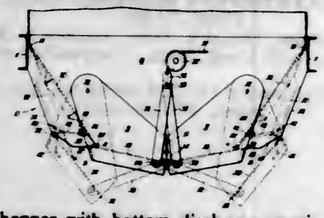
ing in the plane of its defining wall facing said remote end wall of said base and adjacent the lower end of said housing through which articles may pass by gravity from the interior of the housing laterally into said chamber, said housing being removable with respect to the trough-shaped base.

2,836,331
DISPENSING APPARATUS FOR PAINT, LACQUER OR THE LIKE
Paul A. O'Neill, San Francisco, Calif., assignor to Union Machine Company, San Francisco, Calif., a corporation of California
Original application October 5, 1953, Serial No. 385,387, now Patent No. 2,757,910, dated May 14, 1956. Divided and this application May 14, 1956, Serial No. 588,939
6 Claims. (Cl. 222—484)



1. In apparatus of the character described: a container cover having an exterior portion; said cover having a valve seat on the exterior portion and a port that opens in said seat; a closure member slidable on said seat between open and closed positions; a manually operable lever supported on the cover and carrying said closure member; said cover having a vent opening; a movable closure on the exterior portion of the cover cooperating with the vent opening; and a link connecting the lever and the vent closure for opening the vent when the port is opened.

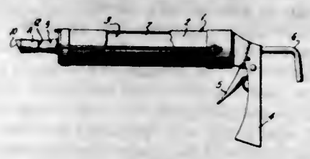
2,836,332
HOPPER
Myles Standish, Omaha, Nebr., and William D. Shadwick, Council Bluffs, Iowa, assignors to Omaha Standard, Inc., Council Bluffs, Iowa, a corporation of Iowa
Application November 8, 1955, Serial No. 545,754
2 Claims. (Cl. 222—502)



1. A hopper with bottom discharge opening comprising, a pair of end walls, a pair of side walls pivotally mounted for lateral swinging movements, said end walls having lower outer portions extending beyond said side walls, connecting members fastened between the opposite lower outer portions of said end walls on each side, brace members journaled on said connecting members, means for removably fastening said braces to said pivoted side walls to prevent lateral movements thereof, and a pair of laterally swinging doors, said side walls having lower foot members for resting on said doors.

2,836,333
FERRULE FOR EXTRUSION NOZZLES
Leonard F. Woodel, Hollis, N. Y.
Application November 18, 1955, Serial No. 547,798
1 Claim. (Cl. 222—575)

A ferrule for tapered extrusion nozzles of deformable material which are round in cross-section comprising, a tubular member of rigid material having a leading end of round cross-section of such inside diameter as to have a snug fit around said nozzle when the ferrule is com-



pletely on the nozzle, and a trailing end of oval cross-section with the inside length of the short axis being less than the diameter of the nozzle at the trailing end when the ferrule is in place on the nozzle.

2,836,334
INDIVIDUAL CARRYING PACK
Budd I. Davis, Seattle, Wash.
Application April 9, 1956, Serial No. 577,071
7 Claims. (Cl. 224—25)

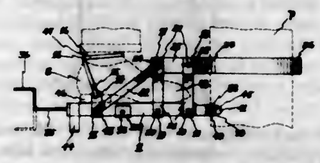


1. An individual carrying pack, comprising: a light tube main frame having an inverted U-shaped portion providing spaced, parallel side bars and a bead-protecting top bar, the side bar lower ends being joined by a transverse bottom bar with lateral extensions beyond said side bars having carrying strap-attaching eyes, a plurality of intermediate transverse frame members between said top and bottom bars and a vertically adjustable strap-attaching cross member having tubular members at its ends slidably mounted on said side bars and manually adjustable securing means between said tubular members and said side bars, said intermediate frame members and said strap-attaching cross member being bowed backwardly away from the body of the user, a pair of adjustable length shoulder straps each having a loop on its upper end slidable on said stray-attaching cross member and having a snap at its lower end attached to the corresponding strap-attaching eye, a wrap-around cover having a central portion covering the major portion of said frame at the side facing the user's back and having grommeted side flaps extending around said side bars and cords lacing the same together and said wrap-around cover having a grommeted bottom flap for lashing loads on said main frame, and said main frame having at spaced intervals therealong loops to receive cords in lashing loads thereon and said wrap-around cover in the area of said loops having bound slits to pass said loops.

2,836,335
POLE CLIMBING DEVICE
Gunnar B. Schuman, Chicago, Ill.
Application November 18, 1955, Serial No. 547,771
3 Claims. (Cl. 227—26)

1. A pole climbing device comprising a foot support; a first pole-engaging element, said element having an end portion vertically spaced above said foot support and horizontally spaced from one end of said foot support;

means for fixedly connecting said first element to said foot support; a second pole-engaging element mounted on said foot support for horizontal sliding movement with respect to said foot support, said second element having an end portion lying generally in the plane of said foot support and being horizontally spaced between the said end portion of said first element and the said



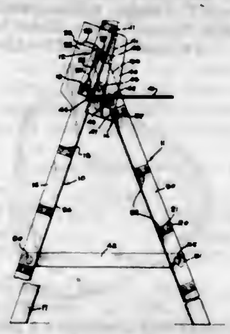
one end of said foot support; and adjusting means interconnecting said foot support and said second element for sliding said second element horizontally with respect to said foot support to vary the horizontal spacing between the said end portions of said first and second elements and the horizontal spacing between said end portion of said second element and the said end of said foot support.

2,836,336
EXTENSIBLE LADDER
Kenneth G. Hansen, Sacramento, Calif.
Application June 29, 1955, Serial No. 518,741
3 Claims. (Cl. 228—20)



1. An extensible ladder comprising: a top section mounted on a fire escape balcony, said top section including a pair of spaced longitudinal channels facing toward each other, a plurality of transverse rungs extending between said channels, a pair of gusset plates mounted on the upper ends of said channels, a pair of coaxially disposed sleeve bearings on said gusset plates, a shaft journaled in said bearings and terminating at each end in a lug square in section, a circular plate mounted on one of said lugs, said plate having a radially adjustable weight eccentrically mounted thereon, a crank detachably mounted on the other of said lugs adapted to rotate said shaft and said plate, a tripping bar pivotally mounted on one of said sleeve bearings adjacent said plate, said tripping bar having a tripping pin normally disposed thereon to engage one of a plurality of circumferential apertures in said circular plate and to hold said plate and said shaft in predetermined position, a flexible cable secured at one end to the central portion of said shaft, a pair of cable confining flanges adjacent said sleeve bearings to maintain the windings of said cable in the central portion of said shaft, and a lower stop plate mounted on the outer surface of one leg of each of said channels near the lower end thereof; a lower section comprising a pair of channels, the corresponding legs of each of said lower section channels lying in overlapping and sliding relation with the adjacent legs of each of said top section channels, a pair of lower stop blocks mounted at the lower ends of said channels, a pair of upper stop blocks mounted adjacent the upper ends of said channels, a plurality of transverse rungs extending between said pair of channels, said rungs of said lower section being in register with said rungs of said top section as said lower of said stop plates are in abutment with said lower of said stop blocks, and means for securing the other end of said cable to said lower section, said lower section being movable from a first position wherein said lower stop plate and said lower stop block are in abutment to a second position wherein said lower stop plate and said upper stop block are in abutment, said cable being unwound from said shaft first position to said second position, said shaft concurrently being rotated as said cable unreels therefrom, said lower section being also movable from said second position to said first position as said crank is rotated to wind said cable on said shaft; and means for securing said top section to the fire escape balcony.

2,836,337
LADDER
Robert L. Thomas, Brawley, Calif., assignor of forty-nine percent to Keigi Asamoto, Brawley, Calif.
Application August 2, 1954, Serial No. 447,065
3 Claims. (Cl. 228—23)

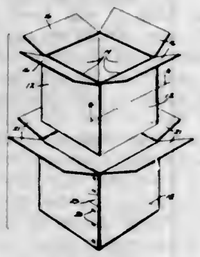


1. A composite jointed ladder comprising a pair of ladder members having side rails and steps, said side rails and steps being formed of angle members having two sides, pivot means interconnecting said ladder members, said pivot means being formed to comprise a sliding connection between the ladder members and located in oppositely facing sides of said side rails, latch means to hold said ladder members in an extended position and formed to hold the pivot means in non-sliding condition, said latch means being located in the other sides of said side rails, and a pair of transversely spaced plates fixedly mounted on one of said ladder members adjacent said pivot means, said plates being each formed with a notch to engage with one of the steps of the other ladder member to hold said ladder members in an angular position, the mentioned sliding connection of the pivot means enabling relative displacement of the ladder members and engagement of the plate notches with said ladder step.

2,836,338
TELESCOPIC SHIPPING CARTON
Wilbert P. Daniels, Green Bay, Wis., assignor to Green Bay Box Company, Green Bay, Wis., a corporation of Wisconsin
Application March 25, 1955, Serial No. 496,837
3 Claims. (Cl. 229—14)

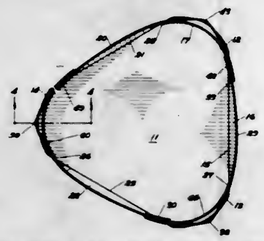
1. A telescopic shipping carton comprising a liner having a bottom panel, side panels hingedly connected to

the margins of the bottom panel, and panel flaps hingedly connected to side panel margins which are at right angles to the hinged margins of the bottom panel, whereby said panel flaps interleave with next adjacent side panels but are unconnected thereto to form double-ply side walls



in the assembled liner, in combination with an outer carton in which said inner liner is telescopically enclosed, said outer carton constituting the sole means for holding the panels of the liner in interleaved relation and having walls fixedly connected and in support relationship to the otherwise unfastened panels of the inner liner.

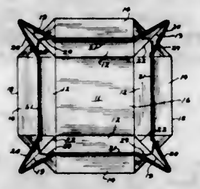
2,836,339
PRODUCE DISPLAY TRAY
Virgil T. Pringle, Indianapolis, Ind.
Application March 7, 1956, Serial No. 570,069
2 Claims. (Cl. 229—22)



1. A paperboard tray comprising a generally triangular base; a generally straight wall hinged to each side of said base for a distance therealong and extending upwardly therefrom; each wall having a free length extending from each end thereof; one of said lengths of one wall being free of scoring and extending arcuately and unsecured throughout its extent around inside of the next adjacent wall length with its end edge in free, frictional, sliding engagement with the inner surface of said adjacent wall; said adjacent wall length having a vertical score line approximately equi-distant between the proximate ends of the hinge connections of said one and said adjacent walls, and about which line that adjacent wall length angularly bends; an open space between said arcuate length and said adjacent wall length of a maximum width at said score line; and means securing a portion of said adjacent wall length to said one wall over its said hinge connection whereby the arcuate lengths are resiliently supported in the corners to provide a cushion for articles carried in the tray.

2,836,340
DISPOSABLE ASH TRAY
John D. Crowley, Minneapolis, Minn.
Application November 5, 1956, Serial No. 620,305
7 Claims. (Cl. 229—30)

1. An ash tray formed from a blank of relative stiff foldable material comprising a bottom wall, upstanding side walls, and supporting elements extending downwardly from upper edges of said upstanding side walls exteriorly thereof, there being portions of the blank providing upwardly and inwardly facing depressions of said ash tray



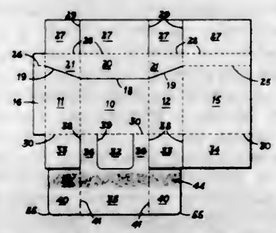
between and contiguous with ends of side walls and supporting elements, respectively, which are adjacent to each other.

2,836,341
BOX
George C. Nydegger, Sunland, Calif., assignor of one-sixth each to Collins Mason, Los Angeles, and William R. Graham, Palos Verdes, Calif.
Application September 13, 1954, Serial No. 455,410
2 Claims. (Cl. 229—34)



1. A box comprised of a blank of flexible material and having a bottom wall, a pair of upright side walls each having at its top edge portion a longitudinal inturned flange disposed at an acute angle thereto, and a pair of upright end walls each having at each of its side edge portions an inturned flange disposed substantially parallel with the contiguous side walls; each of said inturned flanges having at its outer edge portion an inwardly folded extension separated therefrom from its bottom end to a point spaced upwardly from its bottom end, and each of said extensions having a laterally projecting ear portion at its bottom end engaging beneath the bottom edge portion of the contiguous one of said inturned side wall flanges to retain the contiguous side wall in upright position, that portion of each of said inturned end wall flanges at and adjacent to its bottom edge portion engaging the outer surface of the contiguous side wall.

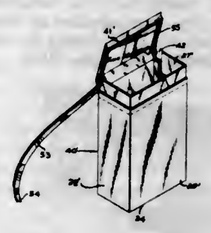
2,836,342
CARTON
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to Diamond Gardner Corporation, a corporation of Delaware
Application May 11, 1955, Serial No. 507,619
7 Claims. (Cl. 229—37)



1. A carton formed from a single blank of sheet material and including a lid as an integral part thereof, comprising a blank scored to provide outer front, rear, and side panels, a glue flap for retaining said outer panels

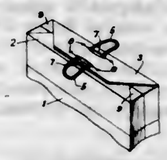
in generally tubular form, top end flaps extending from one free edge of said outer panels for forming a top wall on said carton, said outer front and side panels having a continuous transverse slit therethrough adjacent said top edge panels, said blank also including inner front and side panels connected side by side to provide an inner member, bottom end flaps extending from the other free edge of said outer side and rear panels, a partial bottom end flap extending from the central bottom edge portion of said outer front panel, connecting portions integral with the remainder of the bottom edge of said outer front panel and also integral with said inner front panel providing a hinged connection between said outer panels and said inner member, the total length of said inner front panel and said connecting portions being such that the upper edge of said inner front panel extends across said slit when folded into superposition upon said outer front panel, and a hinged connection between said outer rear panel and the severed upper portions of said outer front and side panels to provide a hinged lid for said carton.

2,836,343
TEAR STRIP MEANS FOR OPENING CARTONS AND THE LIKE
Theodore Will, Syosset, N. Y., assignor to Fund-Del Inc., Syosset, N. Y., a corporation of New York
Application May 28, 1956, Serial No. 587,576
2 Claims. (Cl. 229—51)



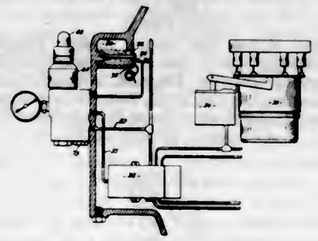
1. A carton or the like formed of flexible fibrous or like sheet material having an enclosed hollow body with a front wall, rear wall, side walls, top walls and bottom wall, said body having an opening between the rear wall and one of said side walls, said front and side walls being formed with a pair of parallel weakened continuous lines forming a weakened zone thereacross, a stiff liner member positioned along the inner surface of the material of said front and side walls and extending above and below said parallel weakened lines, the edge of said liner member below the lowercost line being secured to the material of said front and side walls, the remainder of said liner member being unattached, and a tear tape secured to the inner surface of the material of said front and side walls and overlapping said liner member, said tear tape being formed with spaced parallel slits therealong from a point adjacent one end thereof to and through its opposite end, in line with the weakened lines in the walls of the carton, said slits forming a tear strip for opening the carton and providing a body section and a hinged cover section, one end of said strip being unattached and protruding outwardly of the opening in the body for grasping by the fingers, the portions of said tear tape above and below the slits serving to reinforce the slitted marginal edges of the cover section and body section, respectively, upon tearing of the tear strip to open the carton.

2,836,344
CARRIER BAGS
Harry Frederick Gatward, East Grinstead, England
Application February 16, 1956, Serial No. 566,020
Claims priority, application Great Britain September 21, 1955
5 Claims. (Cl. 229—54)



1. A collapsible carrier or container comprising an open top bag formed of relatively thin flexible sheet material and of rectangular transverse section when open for use and foldable flat for storage, a pair of relatively stiff sheets secured across the opposed wider sides of said bag at the tops thereof, said sheets having a length substantially equal to the width of said wider bag sides and a width substantially equal to the width of the narrower sides of the bag, said sheets and bag portions secured thereto being foldable inwardly into superimposed relation transversely of said bag to retain the bag in open rectangular condition, one of said sheets and bag portions secured thereto being the upper of said sheets when in superimposed relation and having a slot extending longitudinally of said sheet, and a flexible handle having its ends anchored to the other of said sheets substantially in registration with the ends of said slot when said sheets are folded into superimposition and adapted to be inserted through said slot to retain said sheets and bag portions in folded superimposed relation closing the bag in a watertight manner and evenly supporting all sides of the bag.

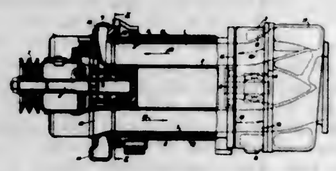
2,836,345
CAPACITY CONTROL FOR COMPRESSORS
Karl M. Gerteis, Syracuse, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application February 26, 1954, Serial No. 412,793
15 Claims. (Cl. 230—31)



10. In a system of capacity control for reciprocating compressors, a combination of oil pressure actuated elements for holding compressor valves in inoperative position, an oil pressure actuated valve permitting or discontinuing the passage of oil to said elements, and a second valve for varying the oil pressure imposed on the first valve, said first valve including a chamber having a series of outlets connected to said elements, said chamber being provided with an opening in one end permitting passage of oil from the lubrication system of the compressor thereto, a piston movable in said chamber, said piston being provided with a head portion adapted to snugly fit the sides of said chamber, and a socketed shank portion depending therefrom, yieldable means, extending within said socket having one end bearing against said piston head and the other end seated at the end of said chamber, said yieldable means adapted to force said

piston toward one end of said chamber in opposition to the pressure of the oil in the lubrication system, and annular ring embracing said shank portion of said piston adjacent one end thereof so as to provide a radial projection, a circular sleeve, surrounding said piston shank between said head portion and said ring, having enlarged end portions adapted to engage the side of said chamber, said sleeve being of shorter length than the distance on said piston shank between the head and ring, and movable within said chamber in response to movement of the piston therein, said sleeve movement being delayed when a change in the direction of movement of said piston occurs.

2,836,346
PRESSURE EXCHANGERS
George Jendrassik, deceased, late of London, England, by Andre G. T. Bonnormenyi and Clara Jendrassik, executors, London, England, assignors to Jendrassik Developments Limited, Mayfair, London, England
Application June 15, 1954, Serial No. 591,761
Claims priority, application Great Britain June 17, 1955
12 Claims. (Cl. 230—69)



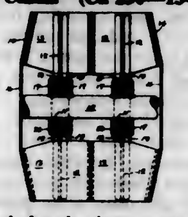
1. A rotary pressure exchanger comprising a ring of cells for the compression and expansion of gas, ducting for leading gas to and from the cells, means for effecting relative rotation between the cells and the ducting, a ported annular plate positioned between the ducting and the cells at one end of the cells at least, said ported plate being movable circumferentially relatively to the ducting at the opposite end of the cells and means for circumferentially moving the ported plate.

2,836,347
DIFFUSER
John C. Barr, Ascot, and James Hodge, Farnborough, England, assignors to Power Jets (Research & Development) Limited, London, England, a British company
Application July 28, 1952, Serial No. 301,342
Claims priority, application Great Britain August 2, 1951
4 Claims. (Cl. 23—127)



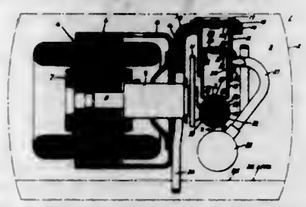
1. A vaneless walled diffuser at the exit from an elastic-fluid flow centrifugal compressor in which the diffuser walls define a passage having an equivalent cone angle over any small element of the whole length of the passage divergent to no greater extent than 12° in the median direction of flow, said equivalent cone angle being considered, over said small element of length, as the angle subtended by straight lines joining the extremities of parallel diameters of two coaxial circles, of areas respectively equal to the entry and exit cross-sectional areas of the element of the passage and separated by a distance equal to the length of said element, whereby the whirl velocity of the fluid at entry to the diffuser is substantially reduced during flow through the diffuser whilst the median velocity undergoes no alteration of comparable order.

2,836,348
CENTRIFUGAL FAN WHEELS
John E. McDonald, Newton, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 2, 1954, Serial No. 466,397
1 Claim. (Cl. 230—134)



In a centrifugal fan having a rotary shaft, a hub secured to said shaft, a blade supporting member attached to said hub, and blades attached to said supporting member, the combination of a pair of sheet metal casings around said hub on opposite sides of said supporting member, said casings having inner ends attached to opposite sides of said member, having cylindrical portions extending from said member to beyond the ends of said hub, and having outer end portions extending inwardly towards said shaft, said end portions having clearance openings around said shaft, and heat insulating material within said casings around said hub.

2,836,349
COMPRESSION ARRANGEMENT
Owen H. Scheldorf, North East, Pa., assignor to General Electric Company, a corporation of New York
Application July 13, 1953, Serial No. 367,471
4 Claims. (Cl. 230—206)

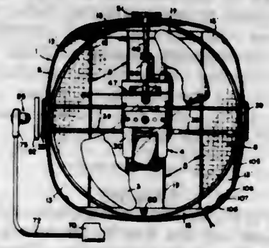


1. In a refrigerating unit, a gas containing case, a compressor disposed in said case for operating therein, said compressor comprising a cylinder, a hollow piston for cooperating with said cylinder to provide a compression chamber, means for operating said piston in said cylinder in a reciprocating motion to provide compression of said gas on the forward stroke of said piston and suction on the return stroke of said piston, means for admitting gas to be compressed into said piston during said suction stroke of said piston, means for admitting said gas into said compression chamber from said piston during said suction stroke of said piston, an orifice in said piston, means in said operating means for metering oil into said orifice, and means in said operating means providing communcation between said piston and said case through said orifice in said piston whereby during the suction stroke of said piston when the pressure therein is less than the pressure of said gas in said case said oil in said orifice is sprayed into said piston.

2,836,350
CONTROL DEVICE FOR A RECIPROCATING ELECTRIC FAN
Arthur K. Tatnall, Toronto, Ontario, Canada
Application September 21, 1956, Serial No. 611,142
6 Claims. (Cl. 230—259)

1. A control device for controlling the operation of an electric fan of the kind including impeller blades rotat-

ably mounted on the intake side of the wind tunnel for producing an airflow therethrough, a louver assembly including several parallel louver slats disposed at the delivery side of the tunnel, motor means drivingly connected with said blades for rotating the same; driving means for drivingly connecting said motor means with said louver assembly to impart to the slats thereof a reciprocatory movement through a predetermined constant angle, said drive means including an input wheel frictionally engageable with the drive shaft of said motor means, an intermediate wheel mounted for rotation in unison with the input wheel, an output wheel frictionally engageable with said intermediate wheel, coupling means connecting said output wheel with said louver means for imparting said reciprocatory movement to the louver slats upon rotation of said output wheel, and control



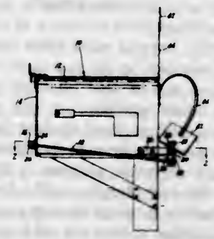
means for moving the said wheels into and out of rotation transmitting frictional engagement with each other and said motor drive shaft for coupling the motor means with the louver means, said control means comprising a regulating means included in said drive means, said regulating means including means for axially displacing said intermediate wheel to vary the radial distance between the point of engagement of the intermediate wheel with the output wheel and the rotational axis of the output wheel for regulating the ratio of transmission between the rotational speed of the motor means and the speed of the reciprocatory movement of the louver assembly, thereby regulating the rate of speed of the reciprocatory movements of the louver slats while maintaining constant the rotational speed of the motor means and the angle of the slat movements.

2,836,351
COMBINATION BELT BUCKLE AND COIN RECEPTACLE
Hyman Epstein, Brooklyn, N. Y.
Application April 21, 1955, Serial No. 502,977
1 Claim. (Cl. 232—6)



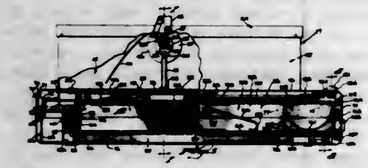
A combination belt buckle and coin receptacle comprising an elongated, generally rectangular body having a substantially flat back plate, a loop at one end of said plate and a hooked-shaped tab at the opposite end for attaching said body to a belt, upper and lower flanges extending forwardly from the side edges of said plate, the forward edge of each flange being curved, a cover comprising a curved plate substantially co-extensive with said back plate and having a curvature substantially corresponding with the curvature of the front edges of said flanges, tabs extending from the upper and lower side edges of said curved plate adjacent one end thereof, said flanges having apertures adjacent one end pivotally receiving said tabs whereby said curved plate may be moved to closed position between said flanges to provide a coin receptacle having a flat rear wall, a curved front wall and upper and lower sidewalls formed by said flanges, a forwardly extending locking tab on said back plate for frictionally engaging an edge of said curved plate to releasably hold said curved plate in closed position, a finger engaging tab on said curved plate transversely spaced from and adjacent said locking tab to cooperate with said locking tab and facilitate release of said curved plate from said locking tab, a plurality of dimples extending forwardly from said back plate substantially into contact with said curved plate when said curved plate is closed, said dimples being adjacent to but inwardly of the pivoted end of said curved plate said dimples being spaced apart a distance less than the diameter of a coin to be deposited in said receptacle to prevent passage of coins between said back plate and the pivoted end of said curved plate and a slot in said upper flange to facilitate introduction of coins into said receptacle.

2,836,352
SIGNAL ATTACHMENT FOR MAIL BOXES
Edwin R. Morrow, Milford, Mich.
Application March 30, 1956, Serial No. 575,194
1 Claim. (Cl. 232—35)



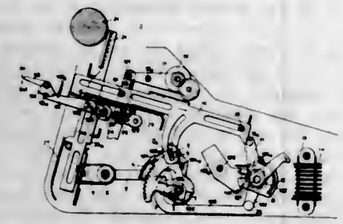
A signal attachment for a mail box of the type including a container having a hinged door at one end swinging on a horizontal axis extending transversely of said one end between closed and open positions, and an end wall closing the container at the other end thereof, said attachment comprising: an elongated connecting rod extending alongside the container beyond said ends thereof; a pivotal connection between the door and one end of the rod spaced from and paralleling the axis of swinging movement of the door, for longitudinal movement of the rod in one direction from a normal position responsive to swinging of the door to an open position; a trigger support bar fixedly mounted on the container at the other end thereof; a trigger in the form of a short bar pivoted intermediate its ends on the trigger support bar for rocking movement in a vertical plane about an axis parallel to the axis of the pivotal connection of the door and connecting rod, said trigger being pivotally attached at one end to the other end of the rod for rocking of the trigger by the rod on said movement of the rod, the trigger being normally in an upright position and being rocked from said position by the rod; a spring strip anchored at one end to said end wall and flexible to a substantially inverted J-shape from a normally straight, upwardly projecting position on said end wall; and a flag affixed to said strip and having a large opening, the trigger having an arcuate hook extendable through said opening on said flexure of the strip, the flag being twisted obliquely to the plane of rocking movement of the trigger against the spring tension of the strip to exert a continuous pressure on the trigger in a direction having both a horizontal and a vertical component tending to firmly yet releasably engage the trigger with the flag.

2,836,353
RELEASE MECHANISM FOR CASH DRAWERS
Harry J. Waechter, Mount Healthy, Ohio, assignor to Paul Bennighofen and F. B. Diesbach, Hamilton, Ohio, as trustees
Application August 30, 1952, Serial No. 307,343
2 Claims. (Cl. 235—22)



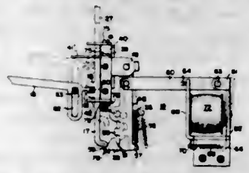
1. A cash drawer unit comprising a drawer housing having a top panel and an open end, a cash drawer slidably mounted within said housing and movable in a horizontal plane outwardly with respect to the open end of the housing, a tiltable latching plate mounted upon a pivot line, the latching plate being disposed within said housing beneath the top panel thereof and above said drawer, the latching plate having a release area of substantial extent projecting forwardly from said pivot line toward the open end of the housing and transversely of the housing substantially for the full width of the housing, said release area residing in a plane substantially parallel with the top panel. the latching plate having a latching portion extending rearwardly beyond said pivot line, said drawer having a cross member at its rearward end adapted to abut the rearward end of said latching portion to latch the drawer in closed position, spring means mounted within the housing and engaged against the cross member of the drawer to urge the drawer into abutment with said latching portion, a shiftable plunger, a plunger tube slidably supporting the said plunger, said tube having a lower end portion projecting through the top panel of the drawer housing, and clamping means on said tube engaging the top panel and supporting the tube and plunger in vertical position with the lower end of the plunger projecting from the tube and resting upon the release area of the latching plate, the substantial extent of the release area providing selective location of the plunger within the confines of the release area, whereby a business machine may be mounted upon the top panel of the housing and interconnected with said plunger to shift the same and cause the drawer to spring open upon operation of the business machine.

2,836,354
DIFFERENTIAL ACTUATING MECHANISM
Arno Uhlig and Werner Uhlig, Oberndorf (Neckar), Germany
Application October 27, 1953, Serial No. 388,497
Claims priority, application Germany November 3, 1952
8 Claims. (Cl. 235—60)



1. In a calculating machine, in combination, a pair of stationary pivots spaced from each other and located along a predetermined stationary axis; a pair of links turnably mounted on said pivots, respectively, for movement about said axis; a pivot bar parallel to said axis and carried by said links to form a bail for movement about said axis; a plurality of digit transferring levers denominationally distributed along said pivot bar and being turnably carried thereby; a plurality of digit transferring members respectively fixed to said levers and being located along said axis when said members are in their zero positions; a plurality of reversible moving means respectively engaging said digit transferring members to be moved thereby and for turning the same about said pivot bar respectively to positions spaced from said axis by radial distances directly proportional to particular digits, respectively; releasable lock means operatively connected to said levers for locking the same and said members therewith in said positions; drive means operatively connected to at least one of said links for turning the latter through a predetermined angle about said axis so that said digit transferring members also turn about said axis to describe arcs having lengths respectively proportional to said particular digits, so that said members move said moving means through distances respectively corresponding to said particular digits; and means for connecting organs of the calculating machine to said plurality of moving means during operation of said drive means so that said moving means transfer said particular digits to said organs.

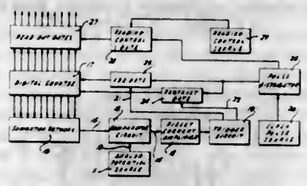
2,836,355
REMOTE FUNCTION CONTROL SYSTEM
Oscar W. Banik and Du Ray E. Stromback, Paoli, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application March 4, 1955, Serial No. 492,266
11 Claims. (Cl. 235—60.47)



1. A function control system of the class described comprising, movable means for controlling the operation of an associated machine, movement of said control means by preselected amounts from a given position resulting in corresponding predetermined changes in the sequence of operations performed by said associated machine, movable sensing means operatively connected to the control means so that any movement of said sensing means of less than a predetermined distance will result in a movement by said control means from the above mentioned given position, the magnitude of the movement of the control means being dependent upon and determined by the magnitude of the movement of the sensing means, a plurality of abutments of selected lengths movable into alignment with the sensing means in accordance with a predetermined schedule, means for yieldingly moving the sensing means into contact with the then aligned abutment, the length of the aligned abutment limiting the distance which the sensing means may move, and additional means for selectively arresting the movement of the sensing means prior to the engagement of said sensing means with the then aligned abutment.

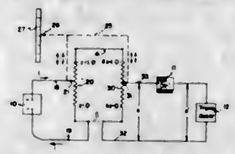
2,836,356
ANALOG-TO-DIGITAL CONVERTER
Cameron B. Forrest and Sidney S. Green, Los Angeles, Calif., assignors, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application February 21, 1952, Serial No. 272,784
7 Claims. (Cl. 235—61)

1. An electronic analog-to-digital converter responsive to applied count pulses for continuously converting the instantaneous amplitude of a variable electrical signal into digital form, said converter comprising: an electronic digit counting circuit operable to count up or count down in response to the applied count pulses; an electrical summation network electrically coupled to said counting circuit for continuously converting the digital count in said counting circuit into an electrical analog signal of an amplitude equivalent to the digital count; first means electrically coupled to said network for combining said electrical analog signal with the variable electrical signal to produce a first output signal having one of two levels according to the sense of the difference between the amplitudes of the combined signals; second means for



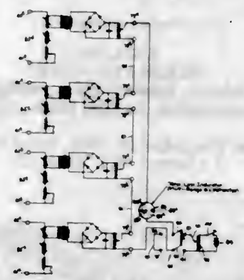
periodically sampling the instantaneous level of said first output signal prior to the application of each of the count pulses to said counting circuit to produce a corresponding second output signal; third means responsive to said second output signal for producing, during each sampling period, a third output signal having a level corresponding to the sampled level of said first output signal; and fourth means electrically coupled between said third means and said counting circuit and responsive to said third output signal for rendering said counting circuit operable to count in a direction determined by the corresponding sampled level of said first output signal.

2,836,357
COMPUTING MEASURING APPARATUS
Paul C. Hoell, Concordville, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application January 26, 1953, Serial No. 333,307
8 Claims. (Cl. 235—61)



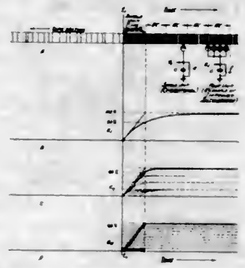
1. An electrical computing measuring apparatus comprising in combination a resistance network consisting of first and second linear slidewires each provided with a tap, the physically adjustable elements of said slidewires being ganged by a linear mechanical coupling, first conductive means connected between one end of said first slidewire and one end of said second slidewire, and second conductive means connected between the other ends of said slidewires, a current source connected to said resistance network through two junctions, one junction being the tap of said first slidewire the other junction being any location in said resistance network other than the slidewire taps and said second slidewire, the current supplied by said source being substantially independent in magnitude for all variations of resistance of said resistance network, and a transducer connected in series with a voltage-null detector in electrical opposition to said resistance network at two points, one point being the tap of said second slidewire, the other point being any location in said resistance network other than the slidewire taps and said first slidewire, said transducer developing an output E. M. F. as a quadratic function of a phenomenon under determination.

2,836,358
CALCULATING TABLES AND THE LIKE
James H. Starr, La Grange, and Robert A. Clark, Jr., River Forest, Ill.
Application April 6, 1953, Serial No. 346,978
20 Claims. (Cl. 235—61)



1. A calculating table including in combination a plurality of sections to simulate real network sections, and means to connect said simulating sections together to simulate the real network, together with means to determine and give a direct indication of power loss occurring in at least one network section due to current flow through said network section, at least said network section including a resistance element, simulating network connections to said resistance element, current supply connections to said network for flow of current through the network sections including said section which includes a resistance element, said simulating network connections being constituted for flow of substantially the full current of such section through said resistance element to cause potential drop across said resistance element substantially proportionate to the full current flow through such network section, together with means to translate the drop of potential across said resistance element into a difference of D. C. potential which is proportional to the squared value of said drop of potential across said resistance element, and means to give an indication of power loss proportional to said difference of D. C. potential.

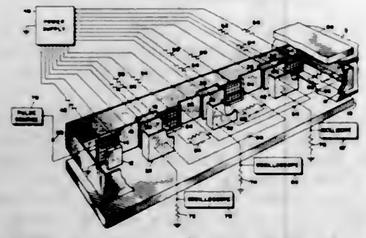
2,836,359
INTEGRATION OF ELECTRICAL SIGNALS
Roy P. Mazzagatti, Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application November 1, 1954, Serial No. 465,810
8 Claims. (Cl. 235—61)



5. In geophysical prospecting involving obtaining a log of randomly occurring events in pulse form, the combination comprising means for continuously obtaining on a recordng medium a log of said events occurring in succession, means for continuously scanning said medium with a plurality of separate scanning means substantially equally spaced apart in sequence such that the time delay between scanning of any given point on said medium by each pair of immediately adjacent scanning means is

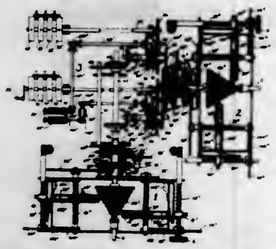
substantially equal to a selected integrating time constant, means for obtaining from each of said scanning means an output of intelligence in the form of an electrical current, and means for feeding said output to an integrating circuit having said selected time constant and thereby producing a final log of the average rate of occurrence of said events.

2,836,360
PULSE COUNTER
Franklin L. Adams, Inkster, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application December 20, 1954, Serial No. 476,262
5 Claims. (Cl. 235—92)



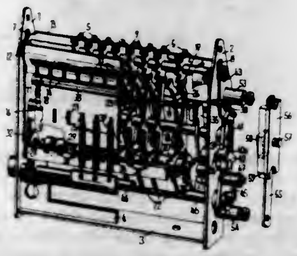
1. In combination, means for providing a flow of electrons, an electrode disposed to pass the electrons, a plurality of gates, each gate being operative to pass electrons upon an opening of the gate and to block the passage of electrons upon a closure of the gate, the first gate in the plurality being normally open and disposed to pass electrons passed by the electrode, the other gates in the plurality being normally closed and disposed to receive electrons blocked by the preceding gates in the plurality, means for introducing a series of pulses to the electrode to interrupt the passage of electrons by the electrode upon the introduction of each pulse, and means operative upon each interruption of the passage of electrons by the electrode to close the open gate in the plurality and to open the succeeding gate in the plurality for the passage of electrons blocked by the preceding gates.

2,836,361
COMPUTING AND INDICATING MECHANISM FOR FLUID METERING DEVICES
Wilhelm Haupt, Villingen, Schwarzwald, Germany, assignor to Kienzle Apparate G. m. b. H., Villingen, Germany
Application December 19, 1952, Serial No. 326,955
Claims priority, application Germany December 21, 1951
3 Claims. (Cl. 235—94)



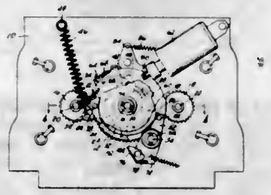
1. A computing and indicating device for the dispensing of one or several types of metered fluids, particularly for filling station pumps, which indicates the total volume dispensed and the price therefor, comprising at least two input shafts, each input shaft being rotated through an angle indicative of the amount of one type of metered fluid, at least two computers, each input shaft being connected to one of said computers, at least two price setting registers, each of said registers being adapted to be set for different unit prices and connected to one of said computers, two totalizing mechanisms, the first of said totalizing mechanisms being connected to said input shafts, the second of said totalizing mechanisms being connected to said computers, and two indicators connected to said two totalizing mechanisms, respectively.

2,836,362
COUNTING MECHANISM WITH A TENS-TRANSFER DEVICE FOR CALCULATING MACHINES
Harry Ewald, Elserfeld-Sieg, Germany
Application June 3, 1953, Serial No. 498,316
Claims priority, application Germany June 6, 1952
15 Claims. (Cl. 235—137)



1. A tens-transfer device for a calculating machine and comprising, in combination, a supporting frame including two side plates spaced in longitudinal direction, each of said side plates being elongated in one direction and narrow in a transverse direction; a tens-transfer shaft extending between said side plates and being mounted on the same; a set of tens-transfer members turnably mounted on said tens-transfer shaft for movement between two end positions; means urging said tens-transfer members to turn to one of said end positions; a set of locking members respectively associated with said tens-transfer members and located between said side plates, each locking member being turnable about a longitudinal axis between a releasing position and a locking position locking the associated tens-transfer member in the other end position of the same; return means for moving said tens-transfer members to said other end position; a blocking bar extending between said side plates and being mounted on the same for movement in said one direction between a releasing position and a blocking position for blocking in an intermediate position tens-transfer members released by the associated locking members; a movable support mounted on said supporting frame for movement in said one direction between a first position and a second position and being located within the spaced bounded by said supporting frame; a first shaft mounted on said movable support and extending in said one direction; a set of counting wheels mounted on said first shaft for independent turning movement, said counting wheels having a diameter substantially corresponding to the transverse extension of said side plates; a tens-transfer cam projecting from each of said counting wheels; a second shaft mounted on said movable support and extending in longitudinal direction; a set of presetting pawls mounted on said second shaft for independent turning movement, each of said presetting pawls having a portion extending in said transverse direction between two adjacent tens-transfer members and through a plane defined by the axes of said tens-transfer shaft and of said first shaft, each presetting pawl cooperating with one of said tens-transfer cams and engaging one of said locking members so that the respective locking member is turned from said locking position to said releasing position when the respective tens-transfer cam turns the respective presetting pawl during passage of the associated counting wheel through a tens-transfer position; shifting means for simultaneously moving in said one direction said blocking bar to said blocking position, and said movable support to said first position in which said counting wheels are adapted to be turned by a computing mechanism and in which said tens-transfer members are spaced from said counting wheels, and for simultaneously moving said blocking bar to said releasing position and said movable support to a second position in which said counting wheels engage the associated tens-transfer member so that tens-transfer members released by said locking members and engaging said blocking bar are released by the same to move to said one end position and shift the associated counting wheel through an angle corresponding to a tens-transfer, the tens-transfer cam of a shifted counting wheel shifting the associated presetting pawl during passage of said shifted counting wheel through a tens-transfer position to turn the locking member of the next higher denominational order into said releasing position thereof whereby the respective associated tens-transfer member turns the counting wheel of the next higher denominational order.

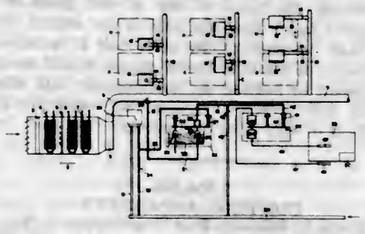
2,836,363
COUNTER RESETTING MEANS
Otto Wild, Jr., West Hartford, Conn., assignor to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut
Application January 19, 1955, Serial No. 482,695
12 Claims. (Cl. 235—144)



1. In a resetting mechanism for counters, the combination comprising a control member, a reset spring connected to the control member, a manually operable actuating member for driving the control member in a spring loading direction, a latch pawl for holding the mechanism in spring loaded position, means for transferring movement from the control member to the reset means of a counter in a resetting direction including a drive pawl, and means interconnecting the pawls for simultaneous engaging movement.

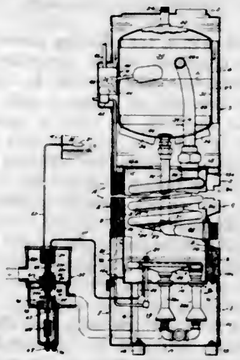
2,836,364
AIR CONDITIONING SYSTEM INCLUDING COMPENSATING MECHANISM FOR THE EFFECTS OF SOLAR RADIATION
Carlyle Martin Ashley, Fayetteville, N. Y., assignor to Carrier Corporation, Syracuse, N. Y., a corporation of Delaware
Application April 27, 1953, Serial No. 351,165
3 Claims. (Cl. 236—1)

1. In an air conditioning system for building structures, the combination of a central station for treating air for supply to areas to be conditioned, units in at least some of the areas being conditioned to supply conditioned air to the areas, duct work connecting the central station and the units, means to supply treated air to the units through the duct work, mechanism for varying the volume of air supplied to the units and a solar compensating system to actuate said mechanism to compensate for the effects of solar radiation in the areas being treated, said solar compensating system comprising a responsive member connected to said mechanism a box having a window therein through which the heat of solar radiation enters the box, a thermal system including a bulb exposed in the box, said responsive member being connected to said bulb, said bulb being responsive to a temperature produced by the



heating effect of solar radiation and exterior air, a second thermal system including a second bulb exposed to the temperature of exterior air and connected to the responsive member, said member responding to the difference between the temperatures reflected by said bulbs.

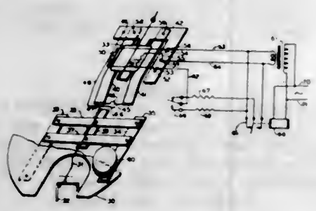
2,836,365
BURNER CONTROLLER WITH SAFETY CUT-OFF
Paul F. Swenson, Cleveland Heights, and Myron T. Cooperrider, East Cleveland, Ohio, assignors to Swenson Thermal Research, Inc., Cleveland, Ohio
Application April 6, 1953, Serial No. 347,048
7 Claims. (Cl. 236—21)



1. In equipment of the character described, a heating apparatus adapted to contain a liquid to be heated, a main fluid fuel burner for supplying heat thereto, a fuel valve adapted to be moved to open and closed positions to control flow of fuel to the burner, a pilot burner, means normally tending to close the valve, a sealed vapor generator system including fluid motor means having a movable wall connected to the valve, said generator system including separate thermoresponsive bulb elements in heat association, respectively, with the pilot burner and with a varying temperature portion of said heating apparatus, respectively, said elements being operatingly connected continuously to the fluid motor means by confined fluid columns, respectively, so that the vapor pressure developed in both of the bulb elements is transmitted by the confined fluid to said fluid motor means from said bulb elements and is applied directly against the same side of said wall, the element associated with the pilot burner acting through the motor means on the valve in the direction to open the valve upon increase in pilot burner temperature and the element associated with said apparatus portion acting on the valve through the motor means in a manner to restrict flow of fuel to the main burner upon increase in temperature of said portion, said fuel valve comprising means forming valve port

means having a pair of axially spaced seats, valve plug means having a pair of seats respective to those of the valve port means, said valve plug means being connected for simultaneous movement in one direction by the fluid motor means, the seats of one of said pairs of seats being spaced apart along the axis of the seats a distance greater than the seats of the other pair of seats, so that the operation of the fluid motor means in said one direction pursuant to heating the thermostatic bulb elements can cause full opening and then fuel restrictive closing or throttling of said valve port means.

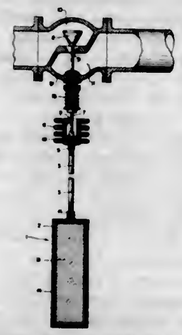
2,836,366
CONTROL APPARATUS
Curtis R. Eckberg, Port Washington, N. Y.
Application February 9, 1954, Serial No. 409,018
14 Claims. (Cl. 236—68)



1. A control system for effecting automatic regulation of a variable condition, which comprises a pair of bimetallic elements disposed parallel to each other fixed in position at one pair of adjacent ends, a circuit controlling device operated by relative movement of the opposite pair of adjacent ends of said bimetallic elements, a controlling agency for affecting the magnitude of said variable condition actuated by an electrical circuit including said circuit controlling device, means separately radiating heat to each of said bimetallic elements, means responsive to the magnitude of said variable condition differentially affecting the heat radiated to said bimetallic elements such that the heat radiated to the bimetallic elements is balanced with the magnitude of the variable condition at a set value and such that the heat radiated to the bimetallic elements is differentially unbalanced as a function of the departure of the magnitude of said variable condition from said set value and second means separate from said means responsive to the magnitude of said variable condition differentially affecting the heat radiated to each of the bimetallic elements generating a periodic differential unbalance in the heat radiated to the bimetallic elements.

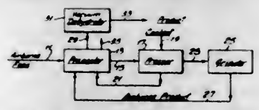
2,836,367
CONTROLLER
William F. Stahl, Elkins Park, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 6, 1955, Serial No. 551,283
4 Claims. (Cl. 236—98)

1. Means for compensating a thermometer for changes in ambient temperature, including, a relatively rigid, hollow bulb; a capillary tube communicating with the interior of said bulb; a cylinder communicating at its interior with said capillary tube; a bellows forming a relatively movable wall of said cylinders; mercury filling said bulb and said tube and said cylinder and said bellows; said bulb, said tube, said cylinder, said bellows, and said mercury each having a positive coefficient of expansion when heated; and a body of material having a negative coefficient of expansion when heated and enclosed in said cylinder adjacent said bellows, the changes in volume of said body, when heated, being adapted to compensate



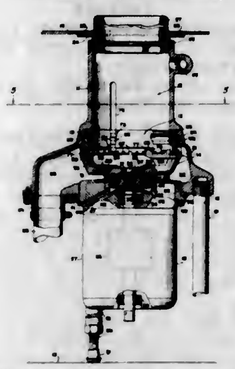
for the changes in volume of said bulb, said tube, said cylinder, and said bellows when heated.

2,836,368
PULVERIZING METHOD AND APPARATUS
Frederic C. McCoy, Beacon, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application June 25, 1954, Serial No. 439,327
15 Claims. (Cl. 244—17)



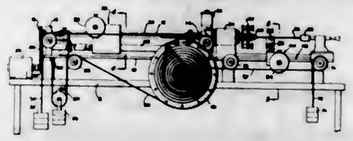
1. A method for preparing fine particles from much coarser particles of a substance impregnated with a liquid material characterized by the ability to freeze to a solid material, said method comprising freezing said liquid material to a solid, thereafter pulverizing said substance to form fine particles at a low temperature, and passing said fine particles in heat exchange relationship with said coarse particles ahead of said freezing step to precool said coarse particles.

2,836,369
FOOD WASTE GRINDER
Robert W. Strehlow, New Berlin, and Gilbert W. Quast, Milwaukee, Wis., assignors to Chain Belt Company, Milwaukee, Wis., a corporation of Wisconsin
Application March 23, 1954, Serial No. 418,014
17 Claims. (Cl. 241—46)



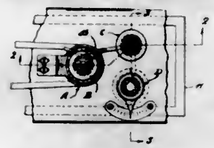
12. In a grinder for food waste and like materials, a housing forming a vertically disposed generally cylindrical feed stack merging at its lower end into a grinding chamber presenting inwardly projecting cutting teeth and presenting in its lower edge radially disposed discharge slots together with downwardly projecting outer cutting teeth spaced outwardly from the outer ends of said slots, and a rotary bowl impeller disposed below and operating in conjunction with said grinding chamber of said housing, said rotary bowl impeller having upwardly projecting peripheral teeth overlapping the outer ends of said discharge slots and disposed inwardly of said downwardly projecting outer teeth, whereby material fed through said feed stack is whirled in said bowl and thrown by centrifugal force outwardly and upwardly into grinding engagement with said inwardly projecting cutting teeth, the ground particles thereof being forced outwardly through said discharge slots into shearing relationship with said upwardly projecting bowl teeth operating in conjunction with said downwardly projecting outer cutting teeth.

2,836,370
COIL WINDER
Joseph M. Drees, Sunnyvale, and Kenneth L. Jones, Pacific Palisades, Calif., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application December 20, 1956, Serial No. 629,608
8 Claims. (Cl. 242—9)



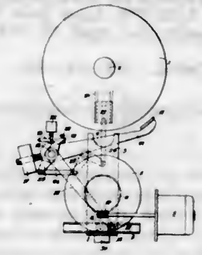
1. Winding apparatus for winding wire on a mandrel to form a coil or helix with a predetermined spacing between turns comprising, in combination, a lathe including a lead screw and a chuck for holding said mandrel, means for driving said lead screw and said chuck in rotation, a lead screw nut threaded on said lead screw arranged for longitudinal movement therealong in response to rotation of said screw, a wire-feeding carriage arranged for longitudinal movement along a path adjacent and parallel to the rotational axis of the mandrel, and means including a differential pulley and first and second cables passing over said pulley and respectively connected to said lead screw nut and to said carriage arranged to drive said carriage in response to and as a predetermined function of the movement of said lead screw nut.

2,836,371
BOBBIN WINDING MECHANISM
Waldemar A. Ayres, Lakewood, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application January 25, 1955, Serial No. 483,908
19 Claims. (Cl. 242—22)



1. A bobbin winder for a sewing machine comprising, a stationary support member, a first shaft rotatably mounted in said stationary support member, said shaft being adapted to receive a bobbin in a first position wherein the bobbin is rotated by said shaft and in a second position spaced axially from said first position and wherein the bobbin is not rotated by said shaft, a second shaft supported by said stationary support member in a position generally parallel to said first shaft, a thread sensing element rotatably mounted on said second shaft and adapted for movement axially of said second shaft, said element having a feeler arm adapted to extend between the flanges of a bobbin mounted on said first shaft and having an abutment surface which projects in the axial direction that said second bobbin position is spaced from said first bobbin position, spring means biasing said feeler arm of said thread sensing element towards said first shaft and axially of said shafts in the direction that said second bobbin position is spaced from said first bobbin position, an adjustable stop member supported by said stationary support member and having an abutment surface against which the abutment surface of said thread sensing element is adapted to bear, said abutment surfaces being shaped to permit said spring means to move said thread sensing element axially to a position wherein a bobbin engaged by its feeler arm will be moved to its second position when the feeler arm is rotated away from said first shaft a predetermined distance.

2,836,372
WINDING MANDREL MOUNTING
George Richard Roberts, New Barn, Longfield, and Ronald Thomas Heathcote, Dartford, England, assignors to The Bowater Research and Development Company Limited, a company of Great Britain
Application July 6, 1954, Serial No. 441,495
Claims priority, application Great Britain July 14, 1953
7 Claims. (Cl. 242—55)

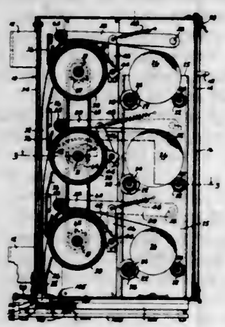


1. In combination, a fixed support for a winding mandrel, one end of said support being free and unsupported, a movable supporting member engageable beneath the free end of said support, means mounting and guiding said movable supporting member for vertical reciprocating movement from an upper position in which it is engaged with said free end of said support and a lower position in which it is disengaged from said free end of said support and arranged radially beyond the mandrel and the material thereon to provide for the endwise removal of the material on the mandrel, a slideway fixed to said movable supporting member, a block slidable in said slideway, a rotary member, and means connecting said block to a point on said rotary member whereby said movable supporting member is reciprocated upon rotation of said rotary member.

2,836,373
ROLL FILM SHEET DISPENSER
Andrew K. Anander, Glen Cove, N. Y., assignor to Powers Chemco, Inc., Glen Cove, N. Y., a corporation of New York
Application November 4, 1954, Serial No. 466,802
14 Claims. (Cl. 242—55.4)

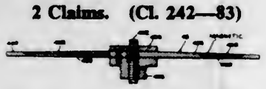
1. A roll film sheet dispenser comprising in combination a light-tight container having a passageway, a plurality of film rolls rotatably mounted in the container, individual feed rollers for feeding film from the film

rolls into the passageway, means for simultaneously driving the feed rollers, means for maintaining the film on the rolls out of engagement with the feed rollers, means



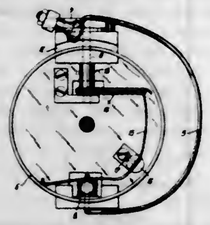
for selectively positioning the film of one roll on its feed roller, and cutting means to cut the film into sheets of predetermined sizes.

2,836,374
WINDING REEL FOR A SHARPENING MACHINE
Charles Delafontaine, North Hollywood, Calif., assignor to The Bank of America National Trust and Savings Association, Los Angeles, Calif., a national banking corporation of the United States of America
Original application March 12, 1951, Serial No. 215,127, now Patent No. 2,709,874, dated June 7, 1955. Divided and this application April 29, 1955, Serial No. 504,821
2 Claims. (Cl. 242—83)



1. In apparatus of the character described, a take-up reel for a sharpened strip, said reel including a plate having a central hub about which the strip may be coiled, and a plurality of permanent magnets mounted in spaced recesses in said plate to hold the coiled strip thereagainst.

2,836,375
FISHING REEL
André Meunart, Saint Cloud, France
Application March 26, 1956, Serial No. 573,688
Claims priority, application France January 11, 1956
4 Claims. (Cl. 242—84.2)



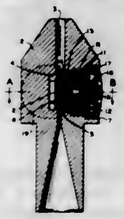
1. In a fishing reel, in combination, a non-rotary line-receiving drum, a rotary drum coaxial therewith and spaced slightly axially therefrom to define a shallow chamber, accessible by separation of said drums, a shaft journalled in and directed chordwise of said rotary drum, within said chamber, a line pick-up loop formed with two substantially coaxial ends, and with an intervening portion of a shape to encircle a portion of said drums, one loop end being secured rigidly to and coaxially of said shaft, and the other being journalled in the opposite side of said rotary drum, coaxially of said shaft, spring means within said chamber mounted upon and rotatable with said rotary drum, and located distantly from said shaft, and a flexible, non-elastic tension member within said chamber releasably interconnected between said spring means and said shaft, and wound partially about the latter in the sense to urge the loop into a plane transverse of the shaft, and to further stress the spring upon departure of said loop from the plane.

2,836,376
BOBBIN HANGER
Albert E. Winslow, Greenville, S. C., assignor to Standard Screw Company, a corporation of New Jersey
Application June 27, 1956, Serial No. 594,146
8 Claims. (Cl. 242—130.2)



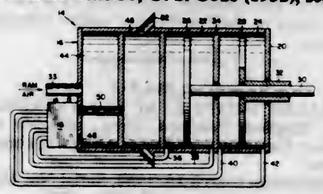
2. A bobbin hanger of the type arranged for penetrating the tip bore of a roving bobbin to engage and suspend said bobbin at the usual counterbore shoulder therein, said bobbin hanger incorporating a pair of latching arms pivotally mounted thereon for alternative projection and retraction to engage and release said counterbore shoulder, a cam block rotatably mounted thereon and formed with major and minor axes proportioned for determining the projected and retracted positions of said latching arms, means biasing said latching arms to follow the positioning action of said cam block, and means displaceable by the tip of said bobbin when the tip bore thereof is penetrated by said bobbin hanger for causing rotation of said cam block by successive quarter turns and thereby rendering said cam block active alternately at the major and minor axes thereof.

2,836,377
THREAD TENSIONING DEVICE FOR A SPINDLE
Hermann Otto Gustav Kubler and Otto Bochmann, Remscheid-Lennep, Germany, assignors to Barmer Maschinenfabrik Aktiengesellschaft, Wuppertal-Oberbarmen, Germany, a corporation of Germany
Application August 11, 1955, Serial No. 527,718
Claims priority, application Germany October 9, 1954
11 Claims. (Cl. 242—150)



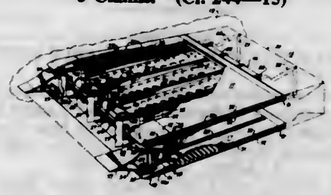
1. A tensioning device for a thread spindle comprising a run-in member having a bore for the passage of thread and a recess disposed transversely and eccentrically relative to the axis of said bore and issuing into the same; and a brake means fitted in said recess, said brake means including two friction members rotatable relative to each other and having coacting friction surfaces extending in the direction of the axis of the bore and situated within the bore for guiding a thread therebetween in a substantially straight line, one of said friction members being made of magnetic material and movable toward the other by magnetic attraction, a mounting for each friction member, said mountings having rotational resistances different one from the other whereby the draw of the thread causes differential relative rotation of the friction members, a permanent magnet attracting the magnetic friction member to bias the friction members toward each other, and spacers selectively insertable between the magnet and the friction members to vary the frictional pressure effected between the friction members by the attraction of the magnetic friction member by the magnet.

2,836,378
SERVOMECHANISM
Lyle E. Matthews, Oxnard, Calif.
Application February 29, 1956, Serial No. 568,687
4 Claims. (Cl. 244—14)
(Granted under Title 35, U. S. Code (1952), sec. 266)



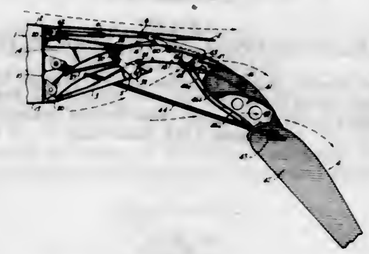
1. In a guided missile having at least two direction control members for steering the missile along a flight path in accordance with guidance signals, a servomechanism for driving the control members comprising at least two independent cylinders, a piston disposed in each cylinder and adapted to be operatively connected to a corresponding control member, means for admitting ram air to one side of said pistons, means for exhausting to atmosphere the other side of each piston, and a valve device for selectively controlling the admission and exhaust of air to the respective sides of the pistons to move said control members and to steer the missile along the predetermined flight path.

2,836,379
RAMJET WING SYSTEM FOR JET PROPELLED AIRCRAFT
Benjamin T. Salmon, San Diego, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application May 18, 1954, Serial No. 430,521
3 Claims. (Cl. 244—15)



1. In an airborne vehicle, aerodynamic sustaining and propulsion means operatively associated with said vehicle, said means comprising a pair of spanwise extending panel members arranged in spaced superposed relationship, a spanwise extending air diffusing body located between and spaced from said pair of panel members at the forward edges thereof, said air diffusing body having a forwardly extending wedge portion whereby it is adapted to effect two dimensional supersonic external compression of the air flow, a spanwise extending combustion chamber located between said pair of panel members, said combustion chamber having apertured walls forming a faired rearward continuation of said air diffusing body and diverging rearwardly to form converging air passages with said pair of panel members, and nozzle means located between said pair of panel members and forming a rearward continuation of the walls of said combustion chamber.

2,836,380
AIRPLANE WING WITH SLOTTED FLAP, COVE LIP DOOR, AND SPOILER
Raymond E. Pearson, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application April 25, 1955, Serial No. 503,683
11 Claims. (Cl. 244—42)

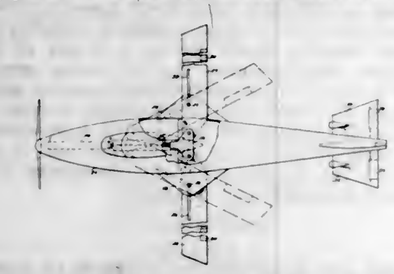


1. In combination with an airplane wing the trailing edge contour whereof is indented to define a rearwardly open cove intermediate its upper and lower skin contours, a slotted flap the nose whereof is receivable within such cove, means guiding and supporting said flap for movement between its up position, wherein its nose is received within said cove, and it constitutes a general continuation of the wing's contour, and a down position displaced rearwardly and deflected downwardly from its up position, an actuator to shift the flap between the up and down positions, a spoiler door hingedly mounted by its forward edge upon the wing, in rearward continuation of the wing's upper skin, and defining the upper boundary of said cove a cove lip door hingedly mounted by its forward edge upon the wing, in rearward continuation of the wing's lower skin, and defining the lower boundary of said cove, said doors being of a length to overlap and close the exit and the entrance, respectively, of the flap's slot when the flap is in its up position, but to uncover the same by rearward shifting of the flap, means operatively connecting said flap to said doors, to tilt each door upwardly as the flap shifts rearwardly and downwardly, to define in the flap's full down position a slot directed generally upwardly and rearwardly over the nose of the flap, and intermediate such nose and the doors, the uptilted spoiler door constituting a spoiler for airflow over the wing's upper skin.

2,836,381
AIRPLANE WITH VARIABLE SWEEPBACK AIRFOILS
George Carrillo Z, Bristol, Colo., assignor of one-half to P. Jess Rink
Application August 16, 1955, Serial No. 528,785
1 Claim. (Cl. 244—43)

In an aircraft, the combination which comprises a fuselage, sets of spaced supports extended laterally from

each side of the fuselage, wings provided with spanwise slots in the inner sections thereof, the inner end of each wing being disposed between the supports of one of said sets, pins fixed on said supports and extending through



said slots in pivotal and sliding relation to said wings, a crosshead pivotally connected to the inner ends of the wings, and means for displacing said crosshead longitudinally of the aircraft for retraction and extension of said wings.

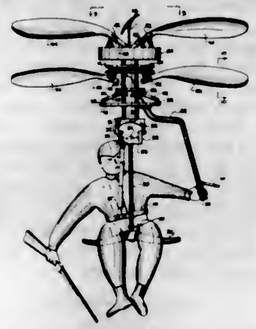
2,836,382
LEG RESTRAINING MEANS FOR EJECTION SEATS FOR AIRCRAFT
James Martin, Higher Denham, near Uxbridge, England
Application November 18, 1953, Serial No. 392,977
Claims priority, application Great Britain March 4, 1953
1 Claim. (Cl. 244—122)



In a pilot's ejection seat for an aircraft cockpit, the combination of a seat having a seat pan, harness for securing the pilot to said seat, a releasable catch on said harness for releasing the pilot from said seat, leg restraining means for the pilot's legs comprising a pair of lines having their upper ends releasably attached to said harness catch, a pair of releasable catches adapted to be positioned on the floor of the cockpit below the pilot, the lower ends of each of said lines attached to one of said floor catches, means positioned between the pilot's legs and attached to said seat for holding each of said lines in leg restraining position whereby when said seat is ejected said lines are first drawn taut to restrain movement of the legs away from the seat until the lower ends of said lines are released by said floor catches and thereafter the upper ends of said lines are released when said harness catch is released.

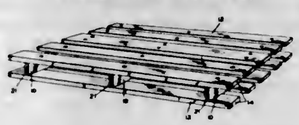
2,836,383
DESCENDING PARACHUTE DEVICE
Dimitrij Olekaj, East Orange, N. J.
Application December 3, 1956, Serial No. 625,853
7 Claims. (Cl. 244—138)

1. A descent-slowing device comprising a stator, a support for a user carried thereby, and a pair of rotors on the stator each including a set of blades, the blades of one set being pitched oppositely to the blades of the other set, for contrarotation of the rotors to neutralize the effect of torque developed by the rotors and exerted on the stator tending to rotate the stator, said device further including means on the support controllable by a user to reduce the speed of one rotor relative to the speed of the other rotor, thus to develop to a selected,



adjusted extent torque on the stator tending to rotate the same in a correspondingly selected direction, comprising brake shoes pivoted upon the stator adjacent the respective rotors, and cables extending from the respective brake shoes and operable selectively by a user for applying the shoes to their associated rotors independently of each other.

2,836,384
PALLET WITH METAL CLAD STRINGERS
Nels T. Haglind, Portland, Oreg., assignor to Haglind Lumber Company, Portland, Oreg., a corporation of Oregon
Application March 15, 1954, Serial No. 416,208
1 Claim. (Cl. 248—120)



A pallet comprising a plurality of spaced apart wooden stringers, upper and lower faces formed of wooden planks extending transversely of said stringers, a metal band-like sheath encompassing the sides and ends of each of said stringers, said sheaths being of greater width than the height of said stringers and extending above and below the top and bottom stringer surfaces, respectively, and a plurality of bolts extending vertically through said stringers and planks and securing the same together, said bolts being adapted to draw said planks into contact with said stringers during the assembly of said pallets, whereby the portions of said sheaths extending above and below said stringers are forced into said planks, thereby to bind the sheaths in position.

2,836,385
FOLDABLE STAND FOR PORTABLE STREET SIGNS
John H. Knapp, Jr., and Burleigh M. Names, Elmira, N. Y., assignors to Eastern Metal of Elmira Inc., Elmira Heights, N. Y., a corporation of New York
Application January 27, 1954, Serial No. 406,533
3 Claims. (Cl. 248—166)

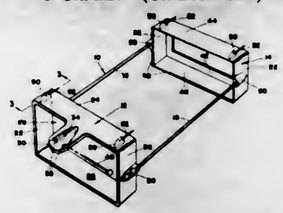
1. In a folding stand for portable street signs, a rectangular frame, a U-shaped frame pivoted to the first frame near one end, the ends of the U-shaped frame extending beyond the pivotal connection, and a latch bar pivoted at one end to a horizontal member of the first frame, having a sliding bearing permitting vertical move-

ment in a vertical member thereof, and so located as to be movable in said sliding bearing to a position to engage said extended portion of the U-frame and hold the U-frame in angular relation to the rectangular frame; in which the pivoted ends of the U-frame are bevelled to provide surfaces adapted to engage opposed surfaces of



the rectangular frame and limit the relative angular movement of the frames; in which further the bevelled surface of the end of the U-frame adjacent the latch serves to move the latch out of locking position during the opening of the stand, and permits the latch to fall into locking position back of said end when the stand is fully opened.

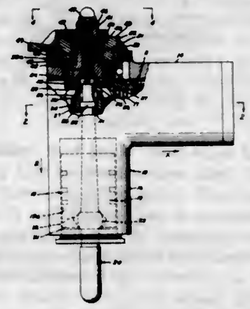
2,836,386
BOX HOLDER
Nels J. Iverson, Williston, N. Dak.
Application September 9, 1955, Serial No. 533,363
3 Claims. (Cl. 248—311)



3. A box holder comprising spaced front and rear box supporting frames; said front frame being adapted to receive and slidably contain a box; a tongue extending forwardly at right angles to the front frame; a raised boss on said tongue forming a restriction to the opening of said frame whereby movements of a box therethrough is governed; said tongue having a laterally extending aperture therein for receiving a fastening member to selectively secure said tongue to the headliner of a vehicle; the rear frame having an end wall at its marginal edge opposed to said first named frame and constituting a stop to limit movement of a box through said frame; flexible bars having their ends secured to said frames and supporting said frames in yieldably fixed relative axial alignment; and securing needles carried by said frames for fastening the holder to the headliner of a vehicle.

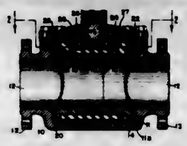
2,836,387
TRACER MECHANISM
Roy Rosebrook, Montebello, Calif., assignor to True-Trace Corporation, El Monte, Calif., a corporation of California
Application November 14, 1955, Serial No. 546,327
4 Claims. (Cl. 251—3)

1. In a tracer mechanism having a housing and three mutually perpendicular spool valves in said housing, said valves being actuated by a stylus mounted to a first of said spool valves for vertical movement with said spool valve, said vertical movement being at substantially right angles to the lines of movement of the other two of said three valves, said stylus being mounted to said first spool valve for pivotal movement therein, vertical movement of the stylus actuating the first valve, and said pivotal movement of the stylus actuating the other two valves, means for restricting both the vertical and pivotal movement of said stylus, comprising: a rate adjustment screw threadedly mounted in the housing, a vertical adjustment screw threadedly mounted through the rate adjustment screw, both of said screws being substantially collinear with the stylus, a non-planar surface on the said rate adjustment screw and a non-planar surface on the said stylus, one of said surfaces being convex and the other being concave, the convex surface being so disposed and arranged that it is adapted to make contact with said con-



cave surface when the stylus is pivotally moved, the rate adjustment screw and the vertical adjustment screw being longitudinally moveable by their respective threaded mounting for varying the spacing between said surfaces, whereby the pivotal movement of the stylus is adjustably limited by engagement of the said surfaces, and whereby the vertical movement of the stylus is adjustably limited by the contact of the stylus with said vertical adjustment screw.

2,836,388
VALVE
Jozef M. Rakus, Plainfield, N. J.
Application September 6, 1957, Serial No. 682,509
13 Claims. (Cl. 251—182)

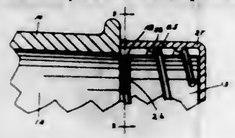


1. A valve comprising a body provided with a cylindrical chamber and having a plurality of ports, a rotatable plug disposed in said chamber for opening and closing said ports, said plug including telescoping tubular members, arcuate flanges on the outer ends of said members, and resilient means between said flanges for urging said members into contact with the cylindrical wall of said chamber.

2,836,389
ROTARY PLUG VALVE RETAINING MEANS
Harry Benjamin, Cleveland, Ohio, assignor to The Harshaw Chemical Company, Elyria, Ohio, a corporation of Ohio
Original application June 5, 1952, Serial No. 291,877, now Patent No. 2,741,452, dated April 10, 1956. Divided and this application September 6, 1955, Serial No. 532,699
2 Claims. (Cl. 251—183)

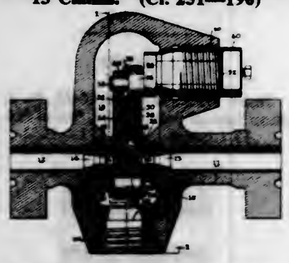
1. In a device of the class described, a valve body having a conical opening, a tapered valve rotor, said rotor being received in said conical opening and being rotatable therein about its axis between open and closed positions, said rotor having at its smaller end a cylindrical projection extending beyond said valve body, said projection being provided with an annular groove extending

therearound at a point adjacent to said valve body, a rotor holding device including a resilient, helical member mounted upon said projection and a sleeve engaging against said valve body, said sleeve having an internal thread and said resilient, helical member comprising a resilient wire helix having a portion surrounding said projection, received in said thread and slidable upon said projection when flexed, the terminal portion of said helix



nearest said valve body being bent inwardly toward the axis of said helix and received in said groove, said portions of said helix being continuous with each other, the internal diameter of said helix being at least as great as the external diameter of said projection whereby to be slidable thereon and the internal diameter of said sleeve being such as to confine the inwardly bent portion of said helix against escape from said groove when said sleeve is in contact with said valve body.

2,836,390
QUICK OPENING VALVE
Charles R. Shumate, Houston, Tex., assignor, by mesne assignments, to ACF Industries, Incorporated, a corporation of New Jersey
Application February 8, 1955, Serial No. 486,830
13 Claims. (Cl. 251—196)



1. A gate valve comprising in combination a housing enclosing a chamber and having inlet and outlet passages leading to and from the chamber, a valve seat carried by the housing at the inner ends of said inlet and outlet passages and having the inner face thereof providing a valve seat surface, a multipart gate reciprocable within the chamber transversely of said passages between open and closed positions and having the surfaces adjacent the passages formed to provide seating surfaces cooperable with said valve seat surfaces, separate gate passages extending through each gate part and having their axes offset to either side of a vertical plane extending longitudinally through the housing passages in the closed position of the valve, and means carried by said housing to cause reciprocation of said gate parts within the housing chamber to simultaneously bring said gate passages into alignment with each other and with the inlet and outlet passages in the open position of the valve.

2,836,391
TURBINE BUCKET WITH CAST-IN INSERT
John R. Hayes, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 10, 1951, Serial No. 250,663
4 Claims. (Cl. 253—39.15)

1. As an article of manufacture, a turbine bucket or the like comprising a liner of flattened tubular form with heat radiating fins defined by a corrugated strip extending between the walls thereof and a body disposed around the liner, the body comprising a blade portion



and a base portion, the liner extending through the blade portion and base portion, and the outer surface of the liner being in intimate engagement with the inner surface of the body.

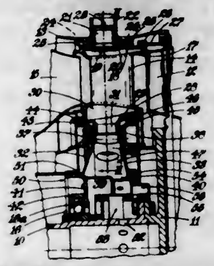
2,836,392
DISC VIBRATION DAMPING MEANS
Charles E. Spaeth, East Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application June 3, 1953, Serial No. 359,314
7 Claims. (Cl. 253—77)



1. A rotor assembly rotatable about an axis and comprising a relatively small disc having axially directed shoulders with common outer diameters projecting from its periphery at each side thereof, a plurality of elongated flexural members substantially equally spaced circumferentially about the periphery of said disc and extending substantially radially therefrom, each of said flexural members having a slotted platform section at its outer end spaced circumferentially from the platform sections of adjacent flexural members, a plurality of blades each having a root section engaging a slot in one of said flexural member slotted platforms such that said flexural members join said blades to said disc, said blade root sections and said slotted platform sections being of equal axial dimension at their radially inner ends and having radially inwardly facing shoulders at their leading and trailing edges which form substantially cylindrical but interrupted surfaces at said leading and trailing edges, a cover plate in the form of an annular flat plate ring located adjacent each of said edges of said radially inner ends of said blade root sections and said platform sections and directed inwardly to cover said flexural members to prevent aerodynamic windage losses due to the rotation thereof and culminating in an inner diameter slightly larger than said common outer diameter of said shoulders, a clamping ring attached to each of said cover plates and each clamping ring having a first portion spaced axially from said cover plate to which it is attached and further having a second portion spaced radially inwardly from said slotted platform section and blade root section shoulders so that said clamping ring first and second portion, said slotted platform section

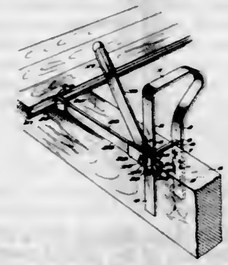
and blade root section shoulders, and said cover plate define an annular chamber at each of said edges of said blade root sections and said flexural member platform sections, a resilient vibration damper in the form of an annular ring carried in each of said annular chambers and bearing against said slotted platform section and blade root section shoulders and clamping ring, and axially extending connecting and spacing means having greater axial dimension than said equal axial dimension of said inner radial ends of said blade root sections and said slotted platform sections and the maximum axial dimension of said elongated flexural members joining said cover plates to each other and axially spacing said cover plates apart a distance greater than said equal axial dimension of said inner radial ends of said blade root sections and said slotted platform sections and the maximum axial dimension of said elongated flexural members and cooperating with said dampers to support said cover plates out of contact with said disc, blades, and flexural members.

2,836,393
STATOR CONSTRUCTION FOR AXIAL-FLOW FLUID MACHINE
Nigel Edward Payne, Burton-on-Trent, and Frederick Freeman, Derby, England, assignors to Rolls-Royce Limited, Derby, England, a British company
Application July 19, 1956, Serial No. 598,909
Claims priority, application Great Britain August 5, 1955
7 Claims. (Cl. 253—78)



1. An axial-flow fluid machine comprising a stator casing, an annular structure coaxially within the casing and defining an annular chamber, said structure having an outer annular part radially spaced from the stator casing, a ring of stator blades extending radially between said annular structure and said stator casing, each of said stator blades having a passage extending through it and opening through each end of the blade, means connecting the stator blades with the annular structure, said means comprising a series of part-annular inner hollow structures between the inner ends of the blades and said annular structure, each of said part-annular inner hollow structures subtending at the axis of the machine an angle equal to the angle subtended at the axis by a plurality of said stator blades, each of said part-annular inner hollow structures having radially-spaced inner and outer walls, the outer wall having in it a number of slots equal in number to said plurality of the stator blades and each of said slots having the inner end of a corresponding one of the plurality of stator blades rigidly secured therein whereby the passages in said plurality of the stator blades open to the space between said inner and outer walls, each of said inner hollow structures having a single duct connection extending radially-inwardly from its inner wall to the outer annular part and connecting said space between the inner and outer walls of the inner hollow structure and the annular chamber, and said series of inner hollow structures together defining a complete annulus, and means connecting the stator blades with the stator casing, said means comprising a second series of outer hollow structures which together form a complete annulus radially between the stator casing and the radially-outer ends of the ring of blades, each of said outer hollow structures comprising radially-spaced inner and outer walls, the inner walls of the outer hollow structures having blade-receiving slots therein, the radially outer ends of the stator blades being rigidly secured in said slots whereby the outer ends of the passages in the stator blades open into the spaces between the walls of the outer hollow structures, a plurality of angularly-spaced pressure fluid connections externally of said stator casing, the number of said pressure fluid connections being equal to the number of outer hollow structures, and a single duct connection extending radially outwards from the outer wall of each of said outer hollow structures to a corresponding one of said pressure fluid connnections.

2,836,394
FLOOR-JACK
James A. Kehoe, Maysville, Ky.
Application August 10, 1956, Serial No. 603,261
11 Claims. (Cl. 254—12)



1. A jack including a member for securing the jack in operative position, said member comprising a pair of jaws pivotally connected together, a tightening rod extending between said jaws, means including a spur gear operatively engaging said tightening rod for drawing said jaws toward each other in clamping engagement against an external element arranged therebetween, a pressure member comprising a pressure bar for engaging another external element against which pressure is to be exerted by an end of said pressure bar, a longitudinally extending rack on said pressure bar arranged in mesh with said spur gear, and an operating handle member comprising a handle with an internal gear therein with teeth complementary to said spur gear and arranged in mesh therewith for turning said spur gear by turning said handle whereby said spur gear is longitudinally movable relative to said tightening rod toward and away from said jaws for correspondingly moving said jaws relative to each other and correspondingly operating said pressure bar rack for moving said pressure bar end transversely relative to said tightening rod for thereby respectively exerting and releasing pressure on said other external element.

2,836,395
ROTARY PERCUSSION DRILLING DEVICE
Walter J. Bielstein, Corpus Christi, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Original application May 23, 1952, Serial No. 289,531, now Patent No. 2,738,956, dated March 20, 1956. Divided and this application June 17, 1955, Serial No. 516,171
6 Claims. (Cl. 255—3)

1. A device for drilling wells which comprises, in combination, a tubular member adapted to be attached at its upper end to a hollow drill stem, an anvil slidably ar-

ranged in said tubular member at the lower end thereof, a drill bit connected to said anvil projecting outwardly from and below the lower end of tubular member, said anvil and said drill bit having fluidly connecting passageways for drilling fluid, a hammer arranged longitudinally within said tubular member for downward movement against said anvil having a passage therethrough for drilling fluid, means normally biasing said hammer upwardly, a valve housing comprising a piston member slidably arranged in said tubular member above and attached to said hammer having ports for passage of drilling fluid and provided with a cavity therein, the passage through the hammer communicating fluidly with the ports of said valve housing and with the passage through said anvil a rotatable valve element rotatably arranged in said



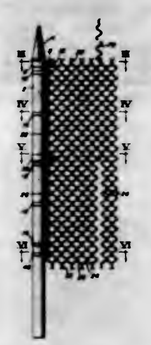
cavity, said rotatable valve element being provided with ports inclined to the axis of the tubular member for passage of drilling fluid and opposed surfaces also inclined to the axis of the tubular member, said rotatable valve element being of general cylindrical shape having opposite segmental recesses providing said opposed inclined surfaces, flow of drilling fluid impinging on said inclined surfaces rotating said rotatable valve element relative to the ports of said valve housing to restrict said flow of drilling fluid to flow through the ports in the rotatable valve element when said rotatable valve element is rotated into position to close the ports in the valve housing whereby rotation of said rotatable valve element is maintained and a jar is transmitted to said drill bit by said piston member compressing said biasing means to cause said hammer to strike said anvil.

2,836,396
COMBINATION EARTH AUGERS AND UNDERREAMERS
Charles D. Rawlinson, Sr., Dallas, Tex.
Application April 5, 1956, Serial No. 576,383
2 Claims. (Cl. 255—69)



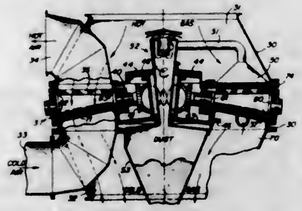
1. In a combined earth auger and underreamer, a rotatable vertically movable driving bar, a hollow shank slidably sleeved onto the lower end of said bar and rotatable thereby, a pilot spud on the lower end of said shank, said shank being slidable downwardly on said bar under the influence of gravity, said bar being slidable downwardly in said shank, an underreamer blade, means pivotally mounting said blade on said spud for projection and retraction relative to said shank into operative and inoperative positions respectively, means pivotally connecting said blade to said bar for retraction in response to downward sliding of said shank and projection in response to downward sliding of said bar, a helical blade on said shank for displacing earth upwardly away from said first named blade to prevent clogging thereof, said second named means comprising a link pivoted to said blade and to said bar, and a flange on said shank backing said link to prevent pivoting of the link on said blade when said blade is projected.

2,836,397
CHAIN LINK FENCING
Joseph V. Morrissey, Waukegan, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application March 11, 1954, Serial No. 415,518
2 Claims. (Cl. 256—40)



1. A terminal fence assembly comprising a post, a short section of chain link fence, a stretcher bar extending through the links at one end of said section, and means spaced along said post interconnecting said post and said bar, the opposite end of said section being connectable to a loose fence end by means of an insertable spiral picket.

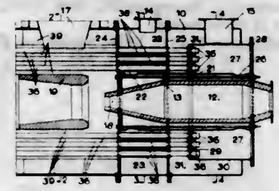
2,836,398
REGENERATIVE HEAT EXCHANGER FOR GAS TURBINES
Erik Torvald Linderoth, Stockholm, Sweden
Application September 10, 1953, Serial No. 379,362
12 Claims. (Cl. 257—1)



1. A regenerative heat exchanger for the exchange of heat between two gaseous media at different temperatures comprising first inlet conduit means for the hot medium, first outlet conduit means for the cooled medium, second inlet conduit means for the cold medium to be heated,

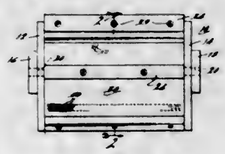
second outlet conduit means for the heated medium, heat transfer means in flat sheet form flexible transversely of its plane, a plurality of frusto-conical rollers rotatably mounted beneath said heat transfer means and having their top surface portions extending substantially radially across the entire width of and being supportingly located substantially in the plane of said heat transfer means, means supporting said frusto-conical rollers in positions to support said heat transfer means between the inlet conduit means and the outlet conduit means for said media for rotary movement of the heat transfer means around an axis perpendicular to said plane, means rotating said heat transfer means so that portions of the transfer means alternately pass between the first and second conduit means, whereby the transfer means alternately absorbs heat from the hot medium and yields the absorbed heat to the cold medium, the said transfer means being formed with a multitude of narrow passageways extending generally in the direction of the flow of the media through the transfer means, and sealing means extending substantially transversely of the direction of movement of the heat transfer means across the width thereof comprising coacting members disposed on opposite sides of the heat transfer means and being in direct, closely sealing position therewith between the first and second conduit means for impeding leakage of the media between the first conduit means and the second conduit means.

2,836,399
CONTINUOUS-FLOW AIR OR/AND GAS HEATERS
John Thomas Fallon, Olton, Birmingham, England
Application August 19, 1954, Serial No. 451,011
Claims priority, application Great Britain August 21, 1953
6 Claims. (Cl. 257—236)



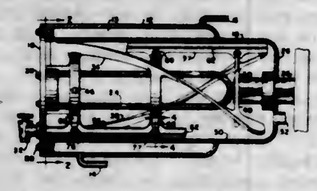
1. Apparatus for heating a gaseous fluid by non-mixing heat-exchange with a hot gas comprising a tubular heat exchanger, said exchanger comprising a number of parallel tubes and having an axial space therein surrounded by said tubes, means for causing the heat-receiving fluid to traverse said tubes, means independent of said heat exchanger for introducing hot heat-yielding gas into said space comprising a chamber having a hot gas discharge nozzle extending into said axial space and a venturi open at both ends to said axial space and having an annular entry at one end surrounding said nozzle and a discharge outlet at its opposite end for discharging the hot gas into said axial space, said heat exchanger having means including a tubular extension of the venturi discharge outlet for causing said hot gas to traverse the major portion of said axial space and return outside said tubular extension in scrubbing contact with the tubes of said tubular heat exchanger to that portion of said axial space surrounding the nozzle and venturi entry, said hot gas introducing means being adapted to supply the hot gas to the nozzle at a pressure exceeding the ambient pressure of the returned gas surrounding the nozzle and venturi entry so as to produce expansion of the hot gas issuing from the nozzle sufficient to sustain its injector action and thereby entrain into the venturi entry a surrounding layer of hot gas that has traversed the major portion of the heat exchanger in scrubbing contact with the tubes thereof and has thereby parted with some of its heat and become partially cooled, said apparatus further including an outlet for spent hot gas, a cylindrical casing, in which the hot gas-introducing chamber and nozzle, the venturi tube and its tubular extension are disposed coaxially and which includes an inlet opening and an outlet opening for the heat-receiving gaseous fluid, and within said casing two header plates defining between them an inlet collector space surrounding said nozzle, said space communicating with said inlet opening, a third header plate defining between it and one end of the casing an intermediate collector space surrounding the end remote from the injector nozzle of the hot gas-introducing chamber, a jacket surrounding the nozzle and hot gas-introducing chamber and communicating with both said collector spaces, a fourth header plate disposed between the open end of said venturi tubular extension and the end of the casing remote from the hot gas-introducing chamber and defining with the last-named casing end an outlet collector space communicating with said outlet opening for gaseous fluid; and in which the tubes of the tubular heat-exchanger traversed by the heat-receiving gaseous fluid extend from said third header plate to said fourth header plate and convey the heat-receiving gaseous fluid from said intermediate collector space to said outlet collector space; said apparatus further comprising other tubes extending from one to the other of said two first-named header plates for conveying partially spent hot gas from the space between said fourth header plate and one of said two first-named header plates to the space between said third header plate and the other of said two first-named header plates, said last-named space communicating with the outlet for spent hot gas.

2,836,400
PLATING BARREL
William H. Jackson, Birmingham, Mich., assignor to The Udylite Corporation, Detroit, Mich., a corporation of Delaware
Application June 4, 1954, Serial No. 434,565
8 Claims. (Cl. 259—89)



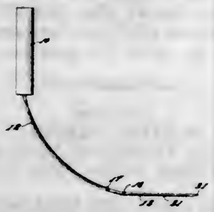
1. In an electroplating cylinder for carrying articles through an electroplating operation, a pair of spaced end walls, a pair of circumferentially spaced external spacer members extending between and secured at their ends to said end walls, a pair of elongated securing members each removably fastened to a different one of said spacer members and disposed exteriorly of said cylinder, said securing members being shaped to conform to surfaces of said spacer members, a unitary perforated membrane extending circumferentially from one of said spacer members to the other one thereof and having its ends secured between said spacer members and said securing members, a plurality of corner supports circumferentially spaced around said cylinder between said spacer members, each one of said corner supports including an outer member disposed exteriorly of said cylinder and extending between and secured to said end walls, and an inner member disposed within said cylinder and removably secured to said outer member, said membrane extending between the inner and outer members of each one of said corner supports and being retained thereby in a predetermined position.

2,836,401
FREEZER SCRAPER BLADE AND MOUNTING THEREFOR
Louis A. M. Phelan, Rockton, Ill.
Application August 16, 1956, Serial No. 604,482
6 Claims. (Cl. 259—109)



5. In combination with a cylindrical freezer, a beater rotatably mounted in said freezer, said beater having mounting brackets secured thereto; an elongated scraper blade having a beveled scraping edge portion of relatively hard metal as compared to said freezer so as to prevent galling, a base portion of softer metal which permits flexing of said blade within limits and without fracture; said base portion having means for loosely mounting said blade to said brackets.

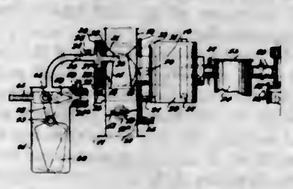
2,836,402
STIRRER
Almon J. Barnes and Millicent Barnes, Wilkes-Barre, Pa.
Application October 11, 1954, Serial No. 461,552
4 Claims. (Cl. 259—144)



1. A multi-purpose kitchen utensil intended especially for stirring food while the food is being cooked, comprising a handle having a longitudinal axis, a metal portion having an approximately arcuate portion forming a shank and then at the end beyond the arcuate portion from the handle a substantially planar portion which is substantially perpendicular to the axis of the handle, said metal portion having at the end away from the handle and including at least most of the said planar portion a convoluted figure which has an approximate overall perimetral outline, excluding gaps, of an isosceles trapezoid with its base at the end away from the handle and an altitude greater than its base, which convoluted figure includes a plurality of interior end loops having narrow mouths open at the end away from the handle and sides gradually widening back from the mouths, there being between and on either side of the mouths edges straight along the base of said trapezoid which collectively include the greater part of said base, and which convoluted figure includes also at least one interior side loop adapted to pick up frankfurters.

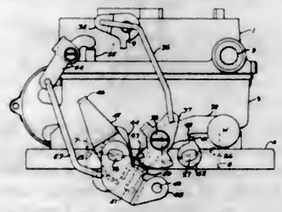
2,836,403
CARBURETOR
Roger Volcher, St. Servais-Namur, Belgium, assignor to Forgaz Aktiengesellschaft, Vaduz, Liechtenstein
Application December 16, 1955, Serial No. 553,606
Claims priority, application Belgium January 3, 1955
3 Claims. (Cl. 261—18)

1. A carburetor for an internal combustion engine comprising in combination with a source of moisture and a constant level bowl for fuel a first suction pipe for connection to the engine; a throttle valve in said suction pipe; a mixing tube in said suction pipe; a circular chamber disposed around said mixing tube between the outer wall of the latter and the inner wall of the aforesaid suction pipe, the chamber opening into said suction pipe downstream with respect to the mixing tube; a second suction pipe communicating laterally with the first suction pipe and opening into the aforesaid circular chamber; a mixing tube and a throttle valve in the second



suction pipe; means for producing a mixture of air and atomized fuel, said means operatively communicating with ducts opening axially in each of said mixing tubes for introducing air and atomized fuel into the mixing tubes; a duct connecting the source of moisture to said second suction pipe at a point downstream from the throttle valve therein; and means for operating the throttle valves in succession whereby the throttle valve in the second suction pipe is opened after the total opening of the throttle valve in the first suction pipe.

2,836,404
SECONDARY-STAGE THROTTLE CONTROL FOR A MULTI-STAGE CARBURETOR
Harold A. Carlson, Brentwood, and Otis J. Eickmann, Normandy, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application May 3, 1956, Serial No. 582,421
8 Claims. (Cl. 261—23)

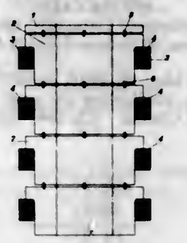


1. In a multi-stage carburetor, the combination of primary and secondary mixture conduits, a manually controlled primary throttle in said primary mixture conduit, a secondary throttle in said secondary mixture conduit unbalanced to close by engine suction, latch means releasable by said primary throttle to retain said secondary throttle closed within the initial range of opening movement of said primary throttle, and biasing means instantly urging said secondary throttle in an opening direction upon release of said latch.

2,836,405
COOLING OF LIQUIDS
Maurice Hamon, Brussels, Belgium
Application October 10, 1956, Serial No. 615,192
2 Claims. (Cl. 261—112)

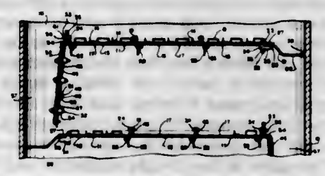
1. A plate assembly for liquid cooling installations comprising a plurality of horizontally extending substantially flat plates grouped in superposed and spaced relation in each of several vertical parallel planes; adjacent

plates in said vertical planes forming horizontal rows; stationary supports freely engaging the ends of the plates of each row to hold the plates in suspended position; distancing connectors extending perpendicularly to said planes between each pair of an upper and a lower row of plates; an upper and a lower series of spaced vertical slots in each connector, said slots adapted to receive the



border portions of the plates of said upper and lower rows respectively; the border portions of the plates of each upper row resting loosely in their respective slots having a width exceeding the thickness of said border portions and the border portion of the plates of each lower row being frictionally held in their respective slots having a width substantially equal to the thickness of said border portions.

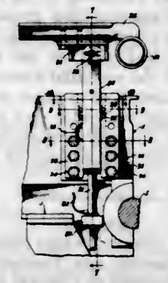
2,836,406
TRUSSES FOR SUPPORTING SECTIONAL REMOVABLE TRAYS USED IN REFINING TOWERS AND THE LIKE
Irvin E. Nutter, Amarillo, Tex.
Application March 28, 1955, Serial No. 497,165
6 Claims. (Cl. 261—114)



1. In a gas and liquid contact apparatus of the class described, a tray including separate transversely disposed deck plates, means supporting the ends of the plates within the apparatus, the side plates of each tray being spaced from the adjacent inner wall of the apparatus, adjacent deck plates having edge flanges extending vertically in opposite directions, a vertically disposed offset truss member between adjacent plates and in contact with the adjacent flanges thereon, one of each of the adjacent plates and its flanged edge being positioned on one side of the truss member and the other adjacent plate and its flanged edge being positioned on the opposite side of the truss member, said truss members having an intermediate offset shoulder portion above the supporting means, a fixed support member extending inwardly from the apparatus adjacent one side of the tray, means for detachably connecting each side plate to an adjacent fixed support member, a depending downcomer plate at the opposite side of the tray, said downcomer plate having an intermediate offset shoulder portion resting on said supporting member and having an upwardly extending edge portion in contact with the side of an adjacent truss member, and means connecting the truss member to said overlapped edge portion.

2,836,407
CONTINUOUS MINING MACHINE OF THE BORING TYPE HAVING ADJUSTABLE CUTTER CHAINS
Benjamin F. Tracy and James O. Ends, Point Pleasant, W. Va., assignors, by mesne assignments, to National Mine Service Company, a corporation of West Virginia
Application September 24, 1953, Serial No. 382,092
4 Claims. (Cl. 262—7)

1. A mining machine comprising a main frame, a crawler track frame having a pair of propelling crawler tracks, means supporting said main frame on said crawler track frame to permit relative adjustment therebetween, a pair of parallel horizontal shafts carried by said main frame, rotary cutters respectively mounted on the forward ends of said shafts to cut parallel horizontal bores during operation of said mining machine, a cutter chain having an effective cutting portion normally extending tangent to said parallel bores, a chain guide engaging and supporting the effective cutting portion of said cutter chain, a pair of elongatable hydraulic actuators each having a cylinder and a plunger telescopically engaging said cylinder, said cylinders being secured to the opposite ends of said chain guide respectively to move therewith during raising and lowering of said chain guide and the plungers cooperating respectively with said cylinders being supportingly engaged with said main frame to be stationary with respect thereto, means for coupling a



controlling hydraulic fluid to said cylinders to effect raising and lowering of said chain guide relative to said main frame, and guide members secured to said main frame each having a slot extending longitudinally thereof, one of said cylinders being slidably received in each of said guide members, said guide members guiding the movement of said cylinders in positioning said chain guide relative to said main frame to restrain said chain guide to move in a vertical plane during raising and lowering thereof under control of said actuators and resist rearward thrusts imparted to said chain guide in use of the mining machine.

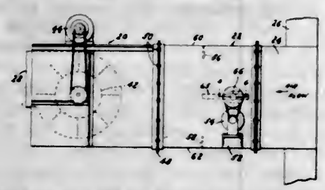
2,836,408
ROTARY CUTTING, CORE BREAKING AND CONVEYING MEANS
Arthur Lee Barrett, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 28, 1956, Serial No. 574,528
9 Claims. (Cl. 262—9)



1. In combination, a rotary boring head having face and peripheral cutters for penetrating and cutting a kerf in the mineral of a solid mine vein to form a core, and a core breaker mounted to revolve about the axis of head

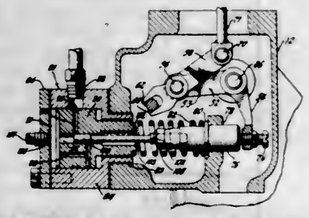
rotation rearwardly of said head for engaging and dislodging fragments of the core, said core breaker embodying means for conveying the dislodged core-fragments rearwardly away from said rotary head and for discharging the same outwardly from the face.

2,836,409
MAKE-UP AIR HEATER
James A. Harrison, Detroit, Mich.
Application July 27, 1956, Serial No. 600,470
8 Claims. (Cl. 263—19)



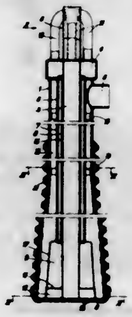
5. A gas burner for an air fan comprising: a heater shell for connection to one side of the fan, a burner housing disposed within the shell and provided with a plurality of fuel and air passages opening at opposite ends upstream and downstream of air flow through the shell, a fuel manifold extending along adjacent the upstream ends of the passages and provided with longitudinally spaced-apart perforations for discharging fuel into the passages, a fuel inlet for the manifold, and a piston reciprocable in the manifold between the inlet and the perforations to admit fuel to those perforations lying between the piston and fuel inlet, and means for reciprocating the piston to a variety of positions longitudinally of the manifold to vary the volume of fuel discharging therefrom.

2,836,410
SERVO CONTROL MECHANISM FOR GOVERNOR
Charles H. Frick, Pontiac, and Vernon E. Schafer, Jr., Livonia, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 2, 1953, Serial No. 395,797
5 Claims. (Cl. 264—7)



1. In a governor for controlling an operating condition of a device associated therewith, a casing including a cylinder closed at one end, said cylinder having an inlet for pressure fluid intermediate its ends, a piston reciprocable within said cylinder and forming an expansible chamber therebetween, said piston having an axial bore therethrough, a metering valve reciprocable within the bore of said piston, a part drivably connected to said valve and movable within said casing in response to change in said operating condition, linkage means associated with said part and operable to control said operating condition in accordance with the movement thereof, a spring reacting between said piston and said valve and biasing said piston away from said part toward the closed end of said cylinder, and means including passages in said piston connecting said inlet and said chamber to opposite ends of said bore and controlled by the relative positions of the valve and piston to alternatively connect said inlet to said chamber and said chamber to the interior of said casing whereby the piston is actuated in accordance with the position of said part to control the biasing force of said spring on said part.

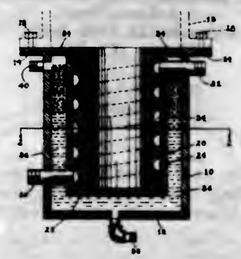
2,836,411
BLOWING NOZZLE FOR THE REFINING OF METALS
Josef Auer, Oberhausen, Germany, assignor to Hüttenwerk Oberhausen Aktiengesellschaft, Oberhausen, Germany
Application May 19, 1955, Serial No. 509,670
Claims priority, application Germany May 28, 1954
4 Claims. (Cl. 266—34)



1. A twyer for delivering a gaseous blast into contact with a relatively large body of molten metal, which comprises in combination: first tubular means, a bottom member connected to one end of said tubular means and having an inner surface substantially perpendicular to the longitudinal axis of said tubular means, said tubular means having an outlet at the other end thereof, second tubular means coaxial with but in spaced relationship to said first tubular means, said second tubular means having one end connected to said bottom member in liquid-tight condition and having the other end thereof arranged for connection with a source of cooling liquid, third tubular means interposed between said first and second tubular means and arranged in spaced relationship thereto, said third tubular means having one end connected to said bottom member in liquid-tight condition and having the other end thereof arranged for connection with a source of gaseous fluid, and tunnel-like passage means partly formed by the inner surface of said bottom member and comprising top and side walls extending in a straight direction substantially perpendicular to the longitudinal axis of said second tubular means through the walls of said second and third tubular means and establishing communication between the interior of said second tubular means and the annular chamber confined by the interior wall of said first tubular means and the exterior wall of said third tubular means, those areas of said bottom member which are confined by said second and third tubular means and located outside said tunnel-like passage means being provided with passages extending through said bottom member and having their axes substantially perpendicular thereto.

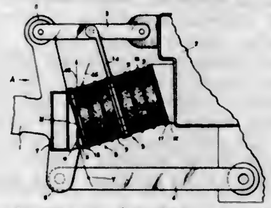
2,836,412
ARC MELTING CRUCIBLE
Robert J. Krieger, Las Vegas, Nev., assignor to Titanium Metals Corporation of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 22, 1955, Serial No. 529,629
4 Claims. (Cl. 266—39)

1. A crucible for containing metals being melted in an arc furnace comprising; an inner shell, inert gas containing means adapted to underlie a portion of the inside surface of said inner shell, an outer shell surrounding



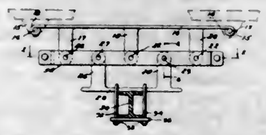
said inner shell, and liquid cooling means between said inner and outer shells to cool said inner shell.

2,836,413
INDEPENDENT WHEEL SUSPENSION
Archie John Hirst, Leicester, England, assignor to Metalastik Limited, Leicester, England, a British company
Application March 27, 1953, Serial No. 345,131
7 Claims. (Cl. 267—21)



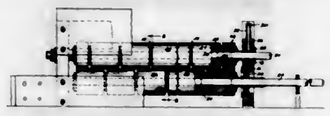
1. Independent suspension for connecting a vehicle wheel to a vehicle superstructure comprising a wheel hub carrying member, linkage means including said wheel hub carrying member and connecting means hinged to the wheel hub carrying member and to the superstructure and adapted to permit and guide deflection of the wheel hub carrying member relative to the superstructure of the vehicle, mounting abutments on the superstructure and on a part of the linkage means movable with respect to the superstructure, a rubber sandwich interposed between the mounting abutments, and having rubber blocks separated by and bonded to interleaves, and at least one constraining arm secured to one of the interleaves, and anchored at its outer end to the linkage so as to remain substantially parallel to the mounting abutment on the superstructure, the end plates of the rubber sandwich being rigidly secured to the respective mounting abutments and the plane of the mounting abutment on the vehicle superstructure being inclined at a small angle to the vertical.

2,836,414
SPRING ASSEMBLY
James Matthew MacLean, Windsor, Ontario, Canada; Florence Butler MacLean, executrix of said James M. MacLean, deceased
Application April 12, 1954, Serial No. 422,621
6 Claims. (Cl. 267—63)



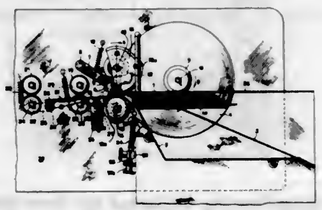
1. A spring structure for vehicles having a frame and an axle comprising, in combination: an upper support adapted to be coupled with the frame of the vehicle, a lower support disposed in spaced-apart relation below the upper support and adapted to be coupled with the axle of the vehicle, one of said supports provided with a stub extending toward the opposite support, the other one of said supports provided with a pair of spaced apart stubs extending toward the opposite support and disposed on opposite sides of the stub thereof, a rubber block secured to the end of the opposite sides of each stub, a floating compression assembly spaced between the supports and including a pair of members disposed on opposite sides of the stubs and coupled with said blocks, and releasable tensioning means extending between said members and coupled therewith and operable to adjustably and releasably tension the members toward each other and pre-compress the blocks between the stubs and the members of said floating member.

2,836,415
FEED ROLLS FOR BAG MAKING AND LIKE MACHINES
Howard Arrid Robdin, Glen Ridge, N. J.
Application April 6, 1955, Serial No. 499,674
6 Claims. (Cl. 271—2.3)



1. Means for feeding a web comprising an opposed pair of sets of coaxially mounted rolls, the rolls of each set forming an elongated, effectively continuous roll of small diameter; a set of supporting means between the rolls affording support at the end of each roll against separation of the pairs of sets of rolls of each set of coaxially mounted rolls, and fluid pressure means engaging at least one set of supporting means to press said means and the set of rolls supported thereby toward the other set of rolls.

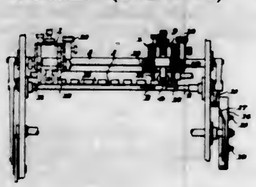
2,836,416
FEEDER FOR MAIL PIECES
Frederick van Marle, The Hague, Netherlands, assignor to N. V. Technische Maatschappij Marchand-Andriessen, The Hague, Netherlands, a limited-liability company of the Netherlands
Application April 5, 1955, Serial No. 499,483
11 Claims. (Cl. 271—39)



1. A feeder for mail pieces comprising a platform having a vertical wall against which mail pieces are stacked, a friction device operable directly upon the mail piece adjacent said wall transporting it in a direction parallel to said wall, stop means in the path of said piece momentarily halting its progress, a driven friction roller immediately above said stop means rotating in a direction opposite to the direction of travel of said piece and with which said piece has free contact when halted, a second driven roller having a portion of its periphery removed

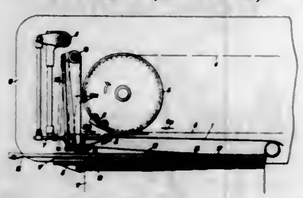
to form a cam, said cam having its periphery made of friction material of greater width than the width of the first named roller and rotating in opposite direction thereto, said cam during its rotation finding contact with the halted mail piece and pressing said piece against the first roller thereby causing a resumption of the movement of said mail piece, and timed means removing said stop means from the path of said mail piece as contact of said piece by said cam occurs, said timed means moving said stop means into the path of the next on-coming mail piece with loss of contact of the first named mail piece by said cam.

2,836,417
FLAT-BED PRINTING MACHINES
Erich Gericke, Berlin-Steglitz, Germany
Original application April 24, 1952, Serial No. 284,055, now Patent No. 2,807,466, dated September 24, 1957. Divided and this application August 27, 1956, Serial No. 606,378
Claims priority, application Germany April 26, 1951
8 Claims. (Cl. 271—59)



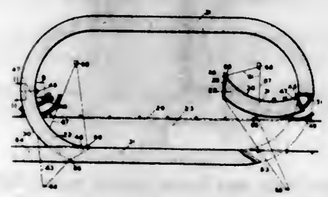
1. A sheet register for flat-bed printing machines comprising a cross bar, a pulling head mounted upon said cross bar, a pulling rail located below said head, means for reciprocating said pulling rail, a castor mounted in said pulling head, means for moving said castor periodically for pressing a paper sheet to be registered against said rail, a stop mounted upon said pulling head and means for adjusting said stop in said pulling head to either side of said castor for registering either side of a sheet.

2,836,418
STACKING DEVICE FOR PRINTING MACHINES
Karl Blättner and Werner Paul Koch, Offenbach (Main), Germany, assignors to Faber & Schleicher Aktiengesellschaft, Offenbach (Main), Germany, a firm
Application May 10, 1954, Serial No. 428,629
Claims priority, application Germany May 22, 1953
18 Claims. (Cl. 271—68)



9. A sheet stacking apparatus for sheet printing machines having a main stack support, a gripper arranged adjacent to said support, a conveyor for delivering individual sheets to said gripper, said gripper having means for depositing said sheets upon said main stack support, selectively actuated means for temporarily suspending one end of delivered sheets above said stack and an auxiliary sheet support supported for reciprocating movement to a position between said selectively actuated means and said stack, said auxiliary sheet support when in said position being operative to receive said suspended sheets from said selectively actuated means and said gripper.

2,836,419
RACE TRACKS
Ivan J. White, Portland, Oreg., and Charles S. Harriman, Auburn, Wash.
Application October 20, 1955, Serial No. 541,730
1 Claim. (Cl. 272—5)



In a race course including primary and secondary race tracks positioned in vertically separated planes with portions of said secondary track overlying said primary track when said secondary track is in operative position, means for operatively connecting said secondary track over said primary track comprising a pair of generally horizontal platforms, means mounting one end of each of said platforms for pivotal movement into and out of bridging relation to said primary track, a plurality of track-laying trucks positioned beneath each of said platform remote from said one end of said platforms, hydraulic means supporting said platforms on said respective trucks for vertical adjustment thereon for leveling said platforms with relation to said secondary track, and means including a motor wound cable for moving each of said platforms about their respective pivots.

2,836,420
HANDLE GRIPS AND METHOD OF MAKING THEM
Robert E. Lamkin and Elver B. Lamkin, Chicago, Ill., assignors to Lamkin Leather Co., Chicago, Ill., a corporation of Illinois
Application August 19, 1954, Serial No. 450,945
4 Claims. (Cl. 273—81.6)



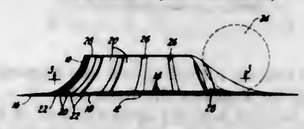
1. A duplex handle grip for playing clubs, implements and the like, comprising a pair of similar narrow strips of flexible grip material stitched together along one edge of each strip and jointly wrapped spirally around the handle in a continuous abutting relation with the stitched edges turned inwardly against the handle to provide an outer rounded V-groove, and the outer edge of each strip curled inwardly to provide with the adjacent spiral abutting edge another outer rounded V-groove for each portion of the applied grip.

2,836,421
MULTIPLE PUZZLE DEVICES
William D. Turner, New York, N. Y.
Application December 20, 1954, Serial No. 476,173
5 Claims. (Cl. 273—160)



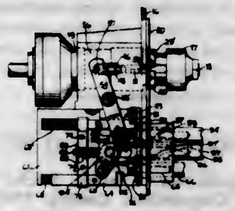
1. A multiple solution Chinese cross puzzle consisting of the ten structurally different puzzle pieces as illustrated in Fig. 6 of the drawing, and characterized as providing eight different solution groups.

2,836,422
GOLF PRACTICE CUP
John E. Borah, Mishawaka, Ind.
Application July 21, 1955, Serial No. 523,547
6 Claims. (Cl. 273—178)



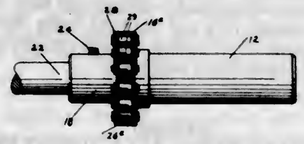
1. A game device adapted to receive and entrap a ball, comprising an integral flexible body of resilient material having a base sheet including a thin marginal flange portion and a thin cup wall portion attached to said base sheet and tapering upwardly and inwardly in spaced substantially centered relation to the edge of said flange portion, said cup wall portion normally retaining its shape but yieldable under the weight of a rolling game member to substantially flat position in a limited area in and adjacent to the path of said game member, said cup wall portion including a plurality of circumferentially spaced thickened rib portions extending substantially full height thereof, the cup wall portions between and below said rib portions being thinner than said base at the junction of said cup with said base, the outer surface of said cup portion being substantially smooth throughout its circumference and said ribs projecting at the inner surface of said cup portion spaced from said base, said base being of lesser thickness inwardly of said cup wall portion than at the junction of said cup wall portion therewith.

2,836,423
SOUND HEAD UNIT OF A MOTION PICTURE PROJECTING AND SOUND REPRODUCING APPARATUS
Ellis Wellington D'Arcy and George F. Krtous, Chicago, Ill., assignors to De Vry Corporation, Chicago, Ill., a corporation of Illinois
Application July 13, 1953, Serial No. 367,482
4 Claims. (Cl. 274—4)



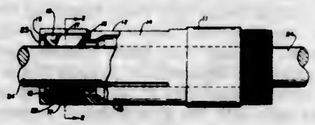
1. In a mechanism of the class described, the combination with a sound drum, a shaft therefor, a circular bearing structure for the shaft and a film passing over the sound drum and having on one longitudinal edge a paramagnetic material, of a pair of spaced apart arms on opposite sides of the bearing structure in concentric relation with respect thereto and adjacent the periphery of the drum, means for supporting each of said arms on said bearing structure for rocking movement radially with respect to the drum, means common to said arms for selectively rocking one or both of said arms in said radial direction to vary the position of corresponding adjacent end portions of the arms with respect to the track, an eraser electromagnet carried by one of said corresponding end portions of one of said arms, a recorder electromagnet carried by the other corresponding end portion of the other of said arms, means for releasably latching one or both of said arms in an adjusted position in said radial direction, and manually operated means for effecting operation of said means for rocking said arms and for releasing said arms for rocking movement in a direction to space said corresponding end portions of said arms from said track.

2,836,424
AUTOMATIC CENTERING TOOL HOLDER MECHANISM
Joseph L. Guidi, Somerville, Mass.
Application November 4, 1955, Serial No. 544,985
4 Claims. (Cl. 279—16)



1. Tool holder mechanism comprising a first holding element and a second element, each said element embodying a sprocket member having teeth, said teeth of one sprocket member matching the teeth of the other sprocket member, the faces of said sprocket members being in sliding contact with each other, a roller chain embodying rollers spaced apart and encircling both said sprocket members to thereby hold said elements together, said teeth extending into the spaces between said rollers and being of such size relative to said spaces that they are movably retained therein; but so that the axes of rotation of said elements are parallel at all distances from each other.

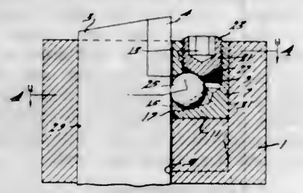
2,836,425
PUSHER HAVING MOVABLE PADS
John R. Cox, Cleveland, Ohio
Application October 4, 1954, Serial No. 460,035
4 Claims. (Cl. 279—55)



1. A pusher having a plurality of resilient fingers at its forward end, each of said fingers having axially spaced internal shoulders extending radially inward of the cylindrical pusher bore for receiving a pad therebetween within the said bore, each of said fingers having an internal rib extending radially inward of said bore and intermediate of said spaced shoulders, said rib extending radially inward less than the inward radial extent of said spaced shoulders to provide a fulcrum support for a said pad, the internal wall of said pusher bore on opposite sides of said rib being greater in diameter than the internal diameter of the pusher at said rib and being

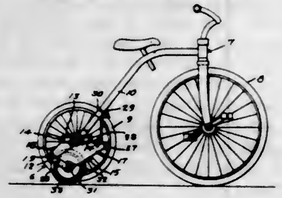
of such diameter as to permit a pad between the shoulders of a said finger to tilt relative to the pusher axis while intermediate said shoulders for accommodating the position of the pads to stock engaged by the said pads.

2,836,426
TOOL HOLDER
John W. Crawford, Flint, Mich.
Application March 15, 1956, Serial No. 571,787
17 Claims. (Cl. 279—76)



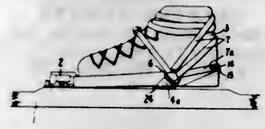
1. In a tool holder having an aperture to receive a tool and a cavity opening into said aperture, a tool clamping device in said cavity comprising a body having a passage opening into said aperture, a rolling element in said passage and adapted to engage a tool in said aperture, and means in said device for forcing said ball outwardly through said passage to engage said tool, the opening of said passage into said aperture being slightly less than the diameter of the rolling element whereby said rolling element is held within said body.

2,836,427
AUXILIARY WHEEL ATTACHMENT FOR TRICYCLE
Robert T. Anderson, Valley Springs, Calif.
Application December 17, 1956, Serial No. 628,720
2 Claims. (Cl. 280—7.1)



1. The combination with a conventional tricycle including a front wheel, laterally spaced rear wheels, a rear axle on which said rear wheels are journaled, and a rear frame portion secured to said rear axle; of an auxiliary wheel attachment for the tricycle comprising a frame of rigid construction including an elongated top wall and corresponding side walls extending downwardly from said top wall and disposed longitudinally thereof, a portion of said top wall being disposed beneath and bearing against the intermediate portion of the rear axle, clamping means detachably securing said top wall rigidly to the rear axle with the axle disposed crosswise of the top wall and said frame disposed in alignment with the front wheel, an auxiliary axle having end portions extending through and mounted in said side walls, and an auxiliary wheel journaled on said auxiliary axle between said side walls and supported thereby below the level of said top wall and the rear axle and in alignment with the front wheel, said auxiliary wheel being supported by the auxiliary axle and frame with the lowermost portion thereof disposed below the level of the lowermost portions of the tricycle rear wheels, said side walls being provided with a plurality of corresponding openings spaced different distances below the level of said top wall and in aligned openings of which said axle is selectively mounted for positioning the auxilary axle and auxiliary wheel at different levels beneath said top wall and rear axle for accommodating the tricycle attachment to tricycles of different sizes having rear wheels of different diameters, said side wall openings being longitudinally spaced relative to the frame and at an incline downwardly and forwardly such that the lowermost side wall openings are disposed in forwardmost positions and most nearly in the vertical plane of the rear axle.

2,836,428
SKI BINDING HAVING SWIVELABLE HEEL SECURING MEANS
Hannes Marker, Garmisch-Partenkirchen, Germany
Application April 19, 1956, Serial No. 579,319
Claims priority, application Germany April 21, 1955
14 Claims. (Cl. 280—11.35)



9. In a ski binding for racing and like purposes having a front cheek for engaging the front edge of a ski boot and adapted to pivot laterally upon exertion of excessive torsional stress on said boot; a first member fixed to and extending across the surface of the ski at a location substantially below the ankle of the skier's foot, when said boot is applied to the ski, a second member located substantially centrally above said first member and constructed to provide marginal spaces between said first member and said second member, angular plate-shaped means positioned for adjustment to each other within said marginal spaces between said first and second members and extending laterally beyond said second member and at substantially right angles, thereto, to form lateral cheeks for engaging the heel of said boot, securing means nested in said second member and retaining the latter with said angular plate-shaped means for rotational movement relative to said ski, and bearing means in engagement with said securing means facilitating said rotational movement.

2,836,429
TRAILER FRAME
Francis A. Kurka, Wauconda, Ill.
Application February 19, 1957, Serial No. 641,092
6 Claims. (Cl. 280—29)

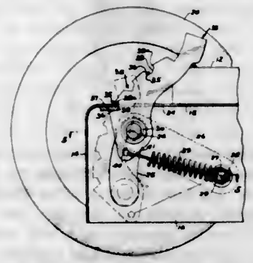


1. A trailer frame comprising a metal A-shaped unit having a forwardly projecting tongue at the apex thereof, wheel axles extending outwardly from the diverging ends of the unit each carried by the rear end of a side leg of the unit, a transverse spring overlying the crossmember of the unit, a stud projecting upwardly from the apex of the unit, and a swing stand on the tongue adapted to support the front end of the frame.

2,836,430
WHEEL HEIGHT ADJUSTMENT FOR LAWN MOWERS
Robert S. Langenbacher, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application October 29, 1956, Serial No. 618,835
3 Claims. (Cl. 280—43)

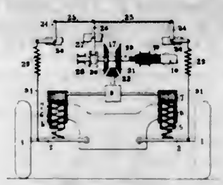
1. In a lawn mower, the combination comprising a housing having a top wall and side walls projecting

downwardly from said top wall, an arm pivotally mounted on each said side wall adjacent one end thereof and extending forwardly, said arms pivotally moving about a common horizontal axis, each said side wall being formed with an arcuate vertically extending slot, an axle carried by the free ends of said arms and extending through said slots in said side walls, said top wall being formed with a slot adjacent each side wall, the portion of the housing adjacent the forward edge of each slot having a substantially horizontal undersur-



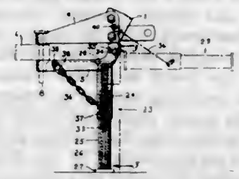
face, a ratchet arm pivoted on said axle adjacent each side wall and extending upwardly through said slot, each said ratchet arm having an arcuate forward edge formed with notches, each said notch having an upper surface and a lower surface, said lower surface of each notch being generally horizontally disposed when engaging the undersurface of the portion of said housing adjacent the forward edge of said slot, and a spring pivotally urging the forward edge of each ratchet arm in a direction toward the forward edge of the slot in the top wall.

2,836,431
CONSTANT HEIGHT SUSPENSION DEVICE FOR VEHICLE FRAME
Antoine Brueder, Paris, France, assignor to Societe Anonyme Andre Citroen, Paris, France
Application February 1, 1957, Serial No. 637,820
Claims priority, application France December 21, 1953
4 Claims. (Cl. 280—112)



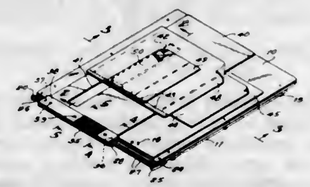
1. A device for maintaining at a constant height the frame of a vehicle relative to the vehicle wheels irrespective of the load distribution, which comprises for each wheel a support pivoted on the frame and a fixed hydroelastic suspension cylinder, a constant-volume fluid connection between the two cylinders of each train of wheels, a pump interposed in said fluid connection, a mechanical linkage between the two wheel supports, a driving shaft, a coupling gear constantly driven from said driving shaft, the driven pinion of said coupling gear controlling the rotation of said pump in one or the other direction, pinions mounted on said driving shaft, and means connected to said mechanical linkage connecting the wheel supports for controlling the meshing engagement of one of said pinions with said driven pinion for rotating said pump in one or the other direction and thus load the cylinder of the unloaded suspension while unloading the loaded suspension.

2,836,432
SUPPORT JACK FOR FORWARD END OF SEMI-TRAILER
Elmer Z. Delp and John William Dughi, New Holland, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application March 28, 1955, Serial No. 497,122
4 Claims. (Cl. 280—475)



1. In a semi-trailer, a rigid chassis having a forward end and a rear end, ground wheels supporting said rear end and providing generally horizontal axes about which the chassis is pivotal, a hitch element affixed to said forward end for connection to a vehicle drawbar spaced from it, the center of gravity of said chassis being forwardly of said axes, and vertically oscillatable support means connected to said forward end and projecting downwardly therefrom to the ground, said oscillatable support means comprising a spring extensively deflectable vertically and extending between said forward end and the ground, spring engaging means limiting lateral deflection of the spring while permitting relatively free vertical deflection thereof, said spring having an upper end and a lower end, means pivotally connecting said upper end to said forward end of said chassis for pivotal movement relative thereto upon bodily movement of said chassis, and fixed means at said lower end of said spring resting on the ground and rockable on the ground upon said bodily movement of the chassis, said oscillatable support means being manually operable to position said hitch element at the same height as the height of said drawbar to permit the space between the hitch element and drawbar to be closed and the hitch readily connected to the drawbar upon bodily movement of said chassis.

2,836,433
RECORDS POSTING DEVICE
Thomas G. Dolan, Brooklyn, N. Y., assignor to Mercury Printing Company, New York, N. Y., a copartnership
Application December 30, 1953, Serial No. 401,130
2 Claims. (Cl. 282—29)



2. A posting device for use in making entries simultaneously on selected portions of a plurality of superposed sheets having writing transferring means between each two of them, which device comprises a base board having a top surface adapted to support a master sheet, means on that surface of the base board for holding the master sheet in a selected fixed position, a pair of spaced apart hinge rod holding brackets secured one at each of the ends of one side of the base board and extending sidewardly outwardly beyond the edge of that side; a hinge rod extending along and spaced away sidewardly

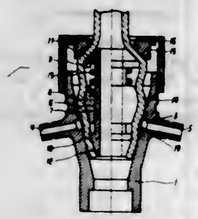
outwardly from that side edge of the base board and having its opposite ends secured to those brackets, the top surface of the base board thereby being unimpeded by the hinge rod; collar members rotatable around and slidable longitudinally on the hinge rod; fixed to the collar members for movement with them a pair of gripping plates facing one another; an entry location guiding mask having entry location openings in it and adapted to overlie the board's top surface and a master sheet and having one end portion clamped between the gripping plates for movement with the latter, said guide mask thus being swingable into and out of the overlying relation to the base board and slidable along the hinge rod when in said overlying relation to expose a desired entry portion of the master sheet; and means on the outer surface of the guide mask for holding auxiliary individual record sheets on that surface of the overlying one entry location opening for entry of particular records simultaneously on the individual record and master sheets; and abutment means for limiting the extent of swinging movement of the guiding means and holding it in a position swung away at an obtuse angle from the top surface of the base board, said means being positioned to extend sidewardly outwardly from the same side of the base board from which the hinge rod is spaced away, and being adapted for engagement with the under one of the gripping plates when the guide mask is disposed at an obtuse angle with respect to the top surface of the base board to support the mask in a position swung away from the top surface of the base board at an obtuse angle with respect to it to permit placement and removal of a master sheet on it.

2,836,434

ARRANGEMENT FOR STERILE INTERCONNECTION AND SEALING OF APPARATUSES IN A PLANT FOR INSTANCE FOR CULTIVATION OF BACTERIA

Carl Göran Hedén, Stockholm, Sweden, assignor to Aktiebolaget Separator, Stockholm, Sweden

Application August 20, 1953, Serial No. 375,348
Claims priority, application Sweden August 21, 1952
4 Claims. (Cl. 285—41)



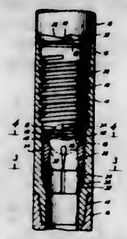
1. In a sterile sealing device of the character described, the combination of a casing having an interior space and at least one opening forming a fluid passage communicating with said space, the casing having a conical inner surface surrounding said space, an elastic tube in said space, means movable within said tube for pressing the elastic tube outward against said conical surface along two closed peripheral zones which are spaced from each other, the elastic tube partly defining an annular interspace between said zones, and means forming a separate passage leading through the casing to said interspace for introducing a sterilizing agent into the interspace, said conical surface and elastic tube forming said interspace including an annular groove surrounding the elastic tube, the casing having another separate passage leading from said groove for withdrawing the sterilizing agent from the interspace.

2,836,435

SAFETY JOINT WITH SPLIT CAM SPRING

Jesse A. Briley, Luling, Tex., assignor to Texas Delta Development Corporation, Lockhart, Tex., a corporation of Texas

Application January 24, 1955, Serial No. 483,742
7 Claims. (Cl. 285—84)



1. A coupling comprising a tubular box member, a tubular pin member, a tubular extension on the pin member received by the box member when the joint is made up, interengaging threads on the box and extension, a lock member, means securing said lock member in the inner end of said box member and against rotation relative thereto but for axial sliding movement therein, said extension of the pin and said lock member having engaging surfaces provided with engaging jaws preventing relative rotation of the extension and box member in a direction for disconnecting the safety joint, a spring band disposed about an inner wall of the inner end of the box member and provided with a generally-axially-extending divided portion, an inwardly tapered seat disposed in the inner end of the box member, said spring band seating on said seat and bearing against the lock member, and lock operating means on the lock member engageable by means movable through the pin member for moving the lock member away from the extension and out of locking engagement therewith.

2,836,436

COUPLING JOINED BY FLUID-PRESSURE-DEFORMED PACKING

Costanzo Bianchi, Milan, Italy, assignor to Società r. l. A. P. L, Milan, Italy

Application December 27, 1955, Serial No. 555,722
Claims priority, application Italy January 24, 1955
2 Claims. (Cl. 285—113)



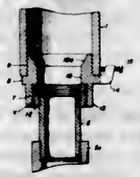
1. A pipe coupling for coupling of two pipes carrying a fluid at pressures above atmospheric comprising a rapid and self-locking ball joint, a spherical socket integrally connected with the end of one of said two pipes to be coupled, and a movable, elastic ring being disposed inside said socket to receive the end of the other of said two pipes, the outer surface of said ring conforming only partly to the inner surface of said socket and a substantial portion of the outer surface of said ring being of cylindrical shape and slightly spaced apart from the inner surface of said socket and the outer face of the inner end portion of said ring being slightly apart from the inner surface of said socket, to allow the fluid pressure to exert on said outer cylindrical surface an inwardly directed thrust sufficient to anchor the end of said other of said two pipes therein, said ring having a radial inner end face and a cylindrical inner face surrounding tightly the outer surface of said other of said two pipes, the outer face of the latter having a plurality of protuberances peripherally disposed thereon opposite the said outer cylindrical surface of said ring, whereby an axial movement of said ring resulting from fluid pressure during fluid flow causes said ring to wedge between and, thereby, to lock said pipes together, and a first annular lip formation located on the outside face of said ring and engaging and sealing said ring relative to the inner surface of said socket and a second annular lip formation arranged on the inside face adjacent to said radial inner end face of said ring and engaging and sealing said ring relative to the outer face of the other of said two pipes, so that fluid-tight sealing engagement with the said socket and with said pipe end received therein is achieved.

2,836,437

ECCENTRIC COUPLER FOR ATTACHING SERVICE ENTRANCE MASTS TO METERS

Albert J. Wayman, East Palestine, Ohio

Continuation of application Serial No. 440,045, June 29, 1954. This application August 16, 1957, Serial No. 678,730
4 Claims. (Cl. 285—158)



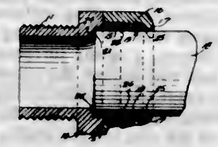
1. A service entrance mast comprising, a meter base mounted upon a supporting surface, a large conduit clamped against said surface above said meter base, a smaller conduit mounted on said meter base below the lower end of said large conduit and spaced from said surface, and a coupling member connecting said large conduit and said smaller conduit, said coupling member comprising a sleeve having an external flange intermediate of its ends, said flange having an external diameter substantially equal to the outside diameter of said large conduit, the upper end portion having a smooth external wall concentric with said flange and having close sliding engagement with the inside wall of said large conduit, said coupling member further having an internally threaded bore formed in the lower end portion thereof and being eccentric with said flange, the outer wall of said lower end portion being concentric with said threaded bore and being substantially flush with the outer edge of said flange at one point about the periphery of said flange, said coupling member being rotatable in said large conduit to align said threaded bore with said smaller conduit and thereby to permit threaded engagement between said threaded bore and said smaller conduit, means for clamping said coupling member to said large conduit comprising a lug formed integrally with the flange on said coupling member and extending into overlapping relation with the wall of said large conduit, and a set-screw threaded through said lug and engaging said large conduit, said lug being positioned on said flange at a point substantially 90° from the axis of symmetry of said fitting, whereby said fitting may be rotated throughout the full range of eccentric adjustment without interference between said lug and said supporting surface.

2,836,438

COMPRESSION COUPLING WITH CONVEX SPLIT RING LOCKING MEANS

Thomas P. Turnipseed, Ope-Locka, Fla.

Application December 6, 1956, Serial No. 626,710
1 Claim. (Cl. 285—161)



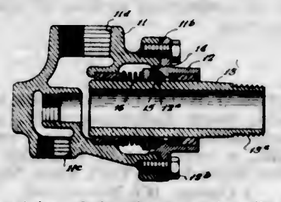
A coupling, comprising a body member having an externally threaded neck on one end, a lock nut arranged in threaded engagement with said neck, an enlarged shoulder on said body member intermediate the ends thereof, said shoulder having a plurality of angularly arranged tool engaging faces, an externally threaded sleeve extending outwardly from the body member and arranged on the opposite end of the body member from said neck, a support member arranged in threaded engagement with said sleeve and provided with an inwardly extending flange having a central opening, said shoulder being of sufficient width so that the flat faces can be engaged or gripped whereby the body member can be tightened without tightening the support member, a compressible ring arranged within said support member and positioned between said flange and the outer end of said sleeve, an electrical metallic tube extending through the opening in said support member and into the sleeve of said body member, said ring being in cross-section slightly convex towards the inside of the ring, said ring having a split whereby when sufficient pressure is exerted on the ring, the ends of the ring adjacent the split can be moved towards each other, there being a coacting tongue and groove in said ring adjacent said split to insure that the end portions of the ring adjacent the split will be maintained in their proper aligned position, said neck being of greater length than said sleeve, there being a shoulder arranged within said body member and said last named shoulder having a tapered surface to prevent skinning of the wire, said sleeve and support member having opposed inwardly tapered surfaces for engagement with the ends of the compression ring to force them inwardly so that there is provided an increased amount of holding area due to the provision of the tapered surfaces.

2,836,439

SWIVEL JOINT WITH SEALING MEANS PERMITTING PIVOTAL MOVEMENT

Frank M. Moore, Evanston, Ill., assignor to Francis N. Bard

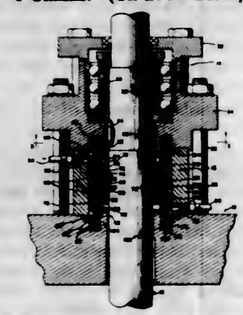
Application April 23, 1956, Serial No. 579,997
1 Claim. (Cl. 285—279)



A revolving joint of the character described comprising: a housing having a chamber therein and an opening into the chamber; a first carbon bearing adjacent the opening and a second carbon bearing fixed in the chamber and spaced from the first bearing; a sleeve extending through the opening and into the chamber and rotatably carried in said bearings; a collar sealingly engaging the

outer surface of the sleeve intermediate said bearings and having a first sealing surface lying in a plane normal to the axis of the sleeve; means formed in the housing defining an annular segmentally spherical second sealing surface surrounding said sleeve intermediate said bearings and facing the collar; an annular sealing ring disposed between and engaging the sealing surfaces, the portions of the ring engaging each of said sealing surfaces being complementary thereto; a spring surrounding the sleeve and bearing at one end against the second bearing and at its other end against the collar to urge said sealing surfaces into sealing engagement with the ring, the contacting surfaces of the ring and the sealing surfaces being smooth and free of discontinuities to permit both rotational and pivotal movement of the sleeve relative to the housing without disengaging the contacting surfaces from said sealing surfaces, said housing having an annular chamber portion therein surrounding the spring, collar and ring, with the ring having an inner diameter greater than the outer diameter of the sleeve and having an outer diameter less than the diameter of said annular chamber portion.

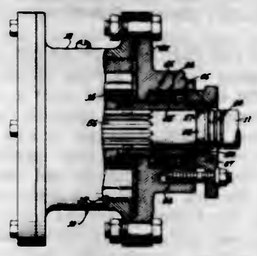
2,836,440
SHAFT SEAL
Ivan S. Brumagim, Warren, Pa.
Application January 20, 1955, Serial No. 483,064
6 Claims. (Cl. 286—11.15)



1. A seal for a rotary shaft comprising a housing disposed about said shaft, a rotor ring having a sealing surface supported by and for rotation with said shaft, a stator ring disposed within said housing, said stator ring having at least two surfaces of different projected areas transverse to the longitudinal axis of said shaft, the smaller of said stator ring surfaces cooperating in sealing relationship with the sealing surface of said rotor ring, and a source of pressure sealing fluid having communication with the cooperating surfaces of said rotor ring and said stator ring and also with the larger surface of said stator ring whereby the effective face on said stator ring created by the pressure sealing fluid is in the direction of the cooperating surfaces of said rotor ring and said stator ring.

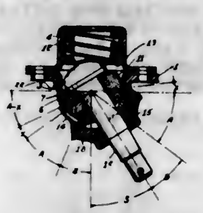
2,836,441
SHAFT SEAL WITH TAKE-UP FOR WEAR
Warren Doble, North Hollywood, Calif., assignor, by mesne assignments, to Jabsco Pump Company, Burbank, Calif., a corporation of California
Application September 28, 1953, Serial No. 382,715
2 Claims. (Cl. 286—11.16)

1. In combination: a supporting member; a shaft extending into and rotatable relative to said supporting member; a sleeve on and slidable axially of said shaft; means for keying said sleeve to said shaft to transmit rotation of said shaft to said sleeve; adjustable means engaging said sleeve and engageable with said shaft in any one of a plurality of axially spaced positions for preventing movement of said sleeve axially of said shaft in any one of a plurality of axially spaced positions of said sleeve on



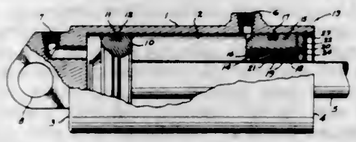
said shaft; and a seal carried by said supporting member and encircling and engaging said sleeve.

2,836,442
DUST SEALS FOR BALL JOINTS
Milton A. Moskovitz, Richmond Heights, Mo.
Application July 19, 1955, Serial No. 522,919
6 Claims. (Cl. 286—15)



1. The combination with a joint of the type that includes a hollow socket member having an opening therethrough and with an angularly tiltable stud therein, the shank of said stud projecting outwardly through said opening, and wherein said socket member has a convex exterior surface, of a dust seal to cover said opening at all degrees of stud tilt and be tiltably actuated by said stud and comprising a pair of nested slidably interengageable inner and outer seal members, the outer seal member bored for mounting on said stud shank, and said inner seal member provided with an opening therethrough larger than that through said outer seal member but which is smaller than said opening through said socket member, and stop means independent of said stud and fixedly associated with said socket member to limit advance of tilt in all directions of said inner seal member.

2,836,443
PRESSURE OPERATED SEALING MEANS FOR HYDRAULIC ACTUATORS
Stanley E. Farmer, Portland, Oreg., assignor to Cascade Manufacturing Company, Portland, Oreg., a corporation of Oregon
Application December 3, 1954, Serial No. 472,992
6 Claims. (Cl. 286—26)



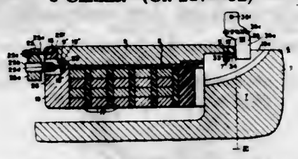
1. In a hollow cylinder comprising a shell and piston rod and head combination and involving the movement of one cylindrical surface relative to another, said cylindrical surfaces being substantially concentric, an improved sealing structure between said cylindrical surfaces comprising in combination a longitudinally slidable sleeve bushing surrounding snugly one of said cylindrical surfaces, said sleeve bushing being so constructed that one end portion has a thicker wall than its remaining portion, said remaining portion of smaller wall thickness being co-extensive with a side of said thicker portion and forming with said thicker portion an annular shelf, a body of compressible non-fluid packing material carried in and filling said shelf and having an end portion projecting outwardly from said shelf beyond the edge of said remaining portion in one longitudinal direction, said packing material being held in sealing engagement against one of said cylindrical surfaces, the other of said cylindrical surfaces being in sealing engagement with the thicker portion of the bushing, means associated with the bushing to restrain the movement of said bushing in the other longitudinal direction, the bushing being free to move in said one longitudinal direction, and means associated with the confined packing material to restrain its movement in said one longitudinal direction, whereby when fluid pressure is applied to said hollow cylinder, the sleeve bushing is caused to move against the restrained packing material in said one direction, thereby pressing the packing material up against the cylindrical surface in contact therewith, said sleeve bushing sliding over said end portion of said packing material upon a dimunition in size of said packing material under compression.

2,836,444
STRUCTURAL POST-ATTACHMENT MECHANISM
Garland Arnold, Warrington, Pa., assignor to Eastern Rotorcraft Corporation, Doylestown, Pa., a corporation of Pennsylvania
Application October 4, 1954, Serial No. 459,923
3 Claims. (Cl. 287—20.5)



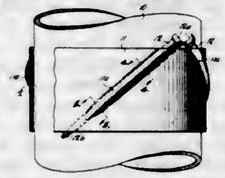
1. The combination of a slotted fitting and a detachable support, said fitting having a slot of generally keyhole shape, a flush spring-loaded plug to fit the enlarged portion of the slot, said support being in the form of a tubular member and including a latch structure to engage said slot, said latch structure having a part with a projecting toe portion rigidly attached to said support and having a flattened heel surface, a movable latch plate mounted adjacent said heel surface, said latch part and plate being proportioned to enter the reduced part of the keyhole slot by depressing said spring-loaded plug and being held in the reduced portion of said slot with the toe portion engaging said fitting when said plug returns to flush position, said latch plate being movable to allow release of the support from the fitting with the plug in flush position.

2,836,445
LOCKING-KEYS FOR TURBINE-GENERATOR RETAINING RINGS
René André Baudry, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 5, 1954, Serial No. 427,823
8 Claims. (Cl. 287—52)



1. The combination including a cylindrical body-part, a ring-part which extends beyond one end of said cylindrical body-part, the inner end of said ring-part having a cylindrical bore which fits telescopically over said end of the cylindrical body-part, the engaging surfaces of the two telescoping parts having opposite annular grooves which are complementary to form a substantially closed annular chamber, and a locking-key means fitting within and between said opposite grooves to retain said parts together, said locking-key means having one or more pairs of nearly abutting ends, said locking-key means being provided, at each of a plurality of points spaced therealong, with a conformation suitable for accommodating an axially extending tool for applying a radial force on said locking-key means, so as to depress the locking-key radially and thus reduce its diameter to permit disassembly of the parts, the groove of the inner telescoping part having sufficient depth to permit the locking-key to be moved completely out of the groove of the outer telescoping part so as to permit said disassembly, and the inner one of said cylindrical parts being provided, at each of said plurality of points, with an axially extending opening for accommodating such a tool.

2,836,446
STOP COLLAR
Jesse E. Hall, Sr., Weatherford, Tex.
Application June 9, 1954, Serial No. 435,436
1 Claim. (Cl. 287—52)

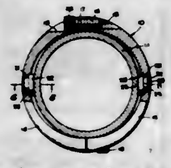


Apparatus of the character described, comprising a well casing or pipe having a smooth cylindrical exterior, a generally cylindrical collar encircling said casing intermediate its ends, the bore of said collar containing a plurality of separate grooves, each extending part way around said casing along a path oriented spirally relative to the axis thereof, said paths having a left-hand spiral pitch in the case of some of said grooves and a right-hand spiral pitch in the case of the remainder of said grooves, and a plurality of spirally oriented wedge pins, each received in one of said grooves with a longitudinal portion of the pin bearing tightly against the exterior of the casing.

2,836,447
CLAMP RING FOR PIPE
Kenneth A. Wright, Los Angeles, Calif.
Application March 21, 1952, Serial No. 277,755
13 Claims. (Cl. 287—52.03)

1. A sectional clamp ring adapted to be secured upon a well pipe, comprising in combination: a plurality of

arcuate sections cooperable to encircle the pipe, adjustable means at the adjacent ends of the sections for clamping them together, each section having a radial bore extending therethrough and located intermediate the ends of the section, a button member having a shank portion loosely mounted in each of said bores, each button member having a pipe-engaging flange portion provided with a serrated face, each section having a



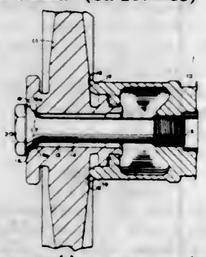
counterbore end surface engaging the flange portion of the button member, each shank portion having an exposed portion accessible exteriorly of its respective section to which a series of hammer blows may be applied to drive the serrated face into the surface of the pipe, whereby the clamp means may be tightened, the button members and said clamp means cooperating to maintain the clamp ring in fixed position on the pipe.

2,836,448

MEANS FOR SECURING A ROTOR ON A SHAFT

Charles S. King, Solihull, England, assignor to The Rover Company Limited, Solihull, England

Application May 9, 1955, Serial No. 506,993
Claims priority, application Great Britain May 11, 1954
1 Claim. (Cl. 287—53)



A high-speed gas turbine rotor, a shaft, a bolt, the bolt extending with clearance through a bore extending axially through the rotor and threadedly engaging in a threaded bore in the shaft to hold the rotor on the shaft so that one side of the rotor abuts an end face of the shaft, the bolt having a head and the inner side of the head being coned inwardly of the bolt, the angle of conicity being 90°, the rotor bore having an entrance at the end of the bore remote from said one side of the rotor, the entrance being countersunk to form a first coned surface making an angle of 45° with the axis of the bore, said first coned surface being in contact with the coned part of the bolt head, said entrance being further countersunk to form a second coned surface axially inward of but adjacent the first coned surface, the second coned surface making an angle less than 45°, about 30°, with the axis of the bore to provide clearance from the remainder of the bolt head, whereby the coned surfaces engage only in the region of their bases and in a non-jamming manner.

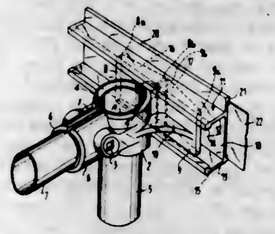
2,836,449

CLAMPING ARRANGEMENT

Giovanni Varlonga, Milan, Italy, assignor to F. E. A. L. Societa, Milan, Italy

Application April 14, 1954, Serial No. 423,179
Claims priority, application Italy April 24, 1953
4 Claims. (Cl. 287—54)

1. A clamping arrangement comprising, in combination, a channel-shaped member having a web and a pair of opposite spaced legs extending transverse to said web, each of said legs having an inwardly directed flange; and a clamping device engaging said channel-shaped member, said clamping device being composed of a pair of elongated parallel jaw members extending transverse to said channel-shaped member, each of said jaw members being formed at that end thereof at which it engages said channel-shaped member with an elongated wedge-like acting clamping portion extending substantially transverse to the respective jaw member and therefore in the direction of said channel-shaped member, the clamping portions of said jaw members being so shaped that when they are spread apart each engages the inner face of said web as well as the inner faces of said flanges of said channel-shaped member, each of said jaw members being



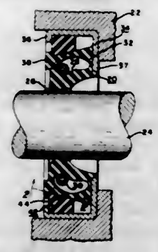
further formed in a region spaced from its clamping portion with a recess so shaped that when an element is placed into a space formed by the recesses of both jaw members the jaw members may be pivoted relative to each other about a pivot axis which passes through said space and which is substantially normal to said jaw members as well as to the planes of said legs of said channel-shaped member, said clamping device further including means engaging said jaw members outwardly of said recesses thereof for pivoting said jaw members about said axis, with the element placed in said space acting as a fulcrum, in such a direction that said clamping portions of said jaw members are spread apart, whereby said clamping portions are clamped to said channel-shaped member at any point along its length.

2,836,450

FLUID SEAL

Ellwood F. Riesing, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Original application December 5, 1952, Serial No. 324,326, now Patent No. 2,768,849, dated October 30, 1956. Divided and this application February 8, 1956, Serial No. 564,182
4 Claims. (Cl. 288—3)



1. A fluid seal of the radial type adapted to seal a rotatable member from a non-rotatable member, the combination comprising: a supporting cup having an annular side wall and an annular base portion adapted to be supported by the non-rotatable member; an annular elastomeric body member bonded to the base of said supporting cup; an elastomeric annular, axially elongated flexible portion carrying a sealing lip adapted to sealingly engage said rotatable member and having an external annular groove for supporting a garter spring, integrally attached to said body portion and extending axially within said supporting cup; an axially elongated guard ring concentric with said sealing lip portion and spaced therefrom and said supporting cup wall, integrally attached to the said body member; a locking ring interposed between said supporting cup wall and said guard ring whereby the guard ring is radially compressed into engagement with said sealing lip carrying portion providing an enclosed annular space therebetween enclosing said annular groove; and a garter spring within said annular groove encircling said sealing lip carrying portion adapted to urge said sealing lip into sealing engagement with the rotatable member.

2,836,451

DOOR LATCH MECHANISM

Walter Leonard Clifton, Jr., Atlanta, Ga., assignor to American Art Metals Company, Atlanta, Ga., a corporation of Delaware

Application March 13, 1956, Serial No. 571,173
1 Claim. (Cl. 292—21)



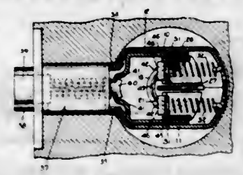
A dogging-down construction for use with a latch mounted on a panic door or the like comprising a support bracket member fixedly mounted on said door, said bracket member including a pair of transversely spaced bracket portions and a transversely extending shaft, a lever member supported on said shaft for pivotal movement between said bracket portions, means operatively connecting a portion of said lever member remote from said shaft to said latch, said lever member being movable to an actuated position to move the latch to an unlatched position, said lever member having a threaded bore, said bore being interposed between said shaft and said remote portion and said bore lying between said bracket portions at all positions of said lever member, a set screw threadedly adjustable in said bore and having a reduced end portion projecting axially thereof, one of said bracket portions having a recess of reduced diameter for receiving the reduced end portion only of said set screw, the other of said bracket portions having a passage therethru of smaller diameter than said set screw and axially aligned with said reduced recess for receiving an operating tool engageable with said set screw, said threaded bore of said lever being aligned with both said other bore and said passage to define an elongated aperture extending through said other bracket when said lever is in said actuated portion and said lever and terminating interiorly of said one bracket portion when said lever is in said actuated position, said set screw being engageable by an operating tool for threaded adjustment into said recess to hold said lever in said actuated position and said set screw being entirely concealed at all times.

2,836,452

ANTI-RAP CYLINDRICAL LOCK

Paul P. Kubik, Germantown, and Raymond W. Schmid, Philadelphia, Pa., assignors to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut

Application April 27, 1953, Serial No. 351,124
10 Claims. (Cl. 292—169)



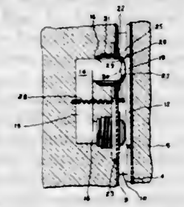
9. In a lock having inner and outer axially spaced apart knob spindles provided with rollbacks, a retractor connected with the bolt of said lock and slidably supported for translation from an outer position with said bolt projected, to an inner position with said bolt retracted, a pair of springs urging said retractor to said outer position at all times, a pair of slide elements independently supported in said retractor for translation relative thereto and respectively engaged by said springs for urging the same outwardly of said retractor into engagement with the rollback of said outer spindle whereby movement of said outer spindle relative to said retractor shifts one or the other of said elements inwardly of said retractor without moving said retractor.

2,836,453

ADJUSTABLE MAGNETIC DOOR LATCH

Thomas P. Foley, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application June 10, 1957, Serial No. 664,534
4 Claims. (Cl. 292—251.5)



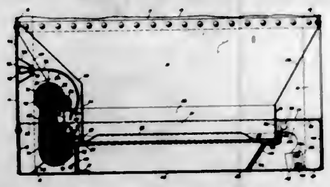
1. An adjustable magnetic latch for holding a door member in a closed position relative to a cabinet member comprising a generally U-shaped magnet having substantially parallel legs with shoulders adjacent the ends thereof and a mounting assembly for adjustably mounting said magnet behind a wall portion of one of said members with the legs thereof extending forwardly through spaced apertures provided in said wall portion, said mounting assembly including an outer sleeve adapted to be positioned in each aperture, means for securing said sleeve to said wall portion, means for resiliently biasing said magnet in a forward direction, an inner sleeve threaded into each of said outer sleeves around the leg of the magnet extending therethrough and having an inwardly extending flange on the forward end thereof for engaging said shoulders, said inner sleeve flanges and said magnet shoulders having cooperating releasable locking means for preventing rotation of said inner sleeves when engaged by said shoulders.

2,836,454
TRANSPORTATION CONTAINERS FOR BULK MATERIALS

Carl E. Johansson, Cleveland, Ohio, assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio

Original application October 18, 1949, Serial No. 121,986, now Patent No. 2,697,002, dated December 14, 1954. Divided and this application May 4, 1954, Serial No. 427,566

6 Claims. (Cl. 294—69)



6. A transportation container for bulk materials comprising side and end walls terminating above the bottom of said container, a horizontal rectangular base including side and end members, means securing adjacent ends of said members together to define a discharge opening for said container, each of said members having a downwardly extending substantially vertical flange terminating above the bottom of said container, side and end slope sheets secured to the lower margins of the respective walls and extending downwardly and inwardly therefrom and secured to said base members above said vertical flanges, corner angles secured to the marginal portions of said side and end walls which are adjacent to one another, said corner angles extending downwardly from said side and end walls to said rectangular base, means securing said corner angles to said rectangular base at the corners thereof, a door hinged to said container for closing the discharge opening, said door lying within the perimeter of the container when closing the discharge opening, said door having upstanding perimetrical flanges, said latter flanges being spaced outwardly of and overlapping said vertical flanges of said base members when said door is closed, an outwardly opening latch housing secured to and extending inwardly of one of said side walls, said housing overlapping the swinging end of said door and lying adjacent to the upper surface thereof when said door is closed, said downwardly extending vertical flange of said side member of said base adjacent to said swinging end of said door when said door is closed and said upstanding flange on said swinging end of said door being interrupted at said latch housing, an upstanding substantially channel-shaped member secured to the upper surface of said door at said interrupted portion of said upstanding flange, said channel-shaped member extending into said latch housing and having outwardly spaced overlapping relationship therewith when said door is closed.

2,836,455
CONVERTIBLE CARRYING BOX FOR VEHICLE BEDS

John D. Hathaway, Spokane, Wash.

Application July 11, 1955, Serial No. 521,193

2 Claims. (Cl. 296—10)



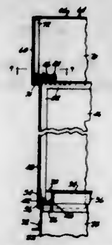
1. In a device of the class described, a convertible body comprising a bed; a plurality of slats, groups of which are interconnected at their ends to form circumferentially continuous bands disposed in vertical succession and constituting side walls supported upon said bed; said bands being interconnected by lost motion linkage, fluid pressure expansion motors carried by said bed outside of said walls and spaced circumferentially thereabout and operably connected to alternately raise and lower the upper one of said bands, whereby the bands may be alternately raised to a position wherein they are spaced apart and lowered to a position wherein they are disposed in contiguity; and a manually operable gate in one said wall having segments releasably interconnected as portions of said bands and mounted for movements therewith.

2,836,456
COLLAPSIBLE CAMPING TRAILER

Harold B. Schultz, South Bend, Ind.

Application March 18, 1954, Serial No. 417,051

9 Claims. (Cl. 296—23)



1. A collapsible trailer comprising a wheeled vehicle having a rigid open-topped box-like body including fixedly connected side and end panels, each panel having an inwardly projecting ledge at its upper end, said ledges lying in a common horizontal plane, a pair of rigid end wall units, a pair of rigid side wall units, one pair of wall units having vertical end wings projecting therefrom and lapping the other wall units when erected means pivotally connecting each wall unit to said body at said ledge spaced above the lower edge of the wall unit and adjacent the inner edges of said ledges, said pivot axes lying in a common horizontal plane but spaced differently relative to said body panels, whereby said wall units lap the upper portion of said body when erected and lie spaced above the ledges and some panels lie at different levels than others when swung to collapsed substantially horizontal position, a rigid top having depending marginal walls, lapping the upper margins of said pivoted wall units when erected and fitting thereabout when said pivoted wall units are collapsed and a shiftable connection between said top and two of said wall units accommodating conjoint shifting of said top and connected wall units.

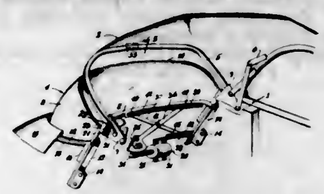
2,836,457
LET-DOWN TYPE VEHICLE CLOSURE

Eugene Berman, Belle Harbor, and Aaron Eisenberg, Brooklyn, N. Y.; said Eugene Berman, now by change of name Eugene Beerman

Application June 16, 1955, Serial No. 515,954

7 Claims. (Cl. 296—44)

1. A let-down rear window assembly for a convertible-type automobile having a pivotally mounted rear top bow supporting the rear end of a flexible top covering when in its raised position and having the rear edge of the covering terminating at said bow, comprising stop means for fixing the raised position of said bow, a transparent pane adapted to fill the area between the rear top bow and the automobile rear deck, a movable frame for supporting said window and adapted to fit said transparent pane to the space substantially defined by the rear top bow and extending to the opposite ends thereof and the edge of the vehicle rear deck therebelow, rigid guide means on the automobile independent of said bow and the covering attached thereto connected to said frame to direct its move-



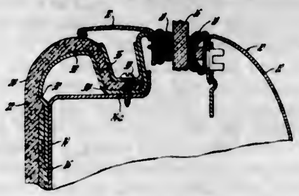
ment, and a regulator operatively connected to said frame to move said pane and frame from a closed position adjacent said rear top bow to an open position in the vehicle body.

2,836,458
RETAINING MEANS FOR DOOR TRIM PANEL

Engelbert A. Meyer, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 14, 1955, Serial No. 534,238

4 Claims. (Cl. 296—44)



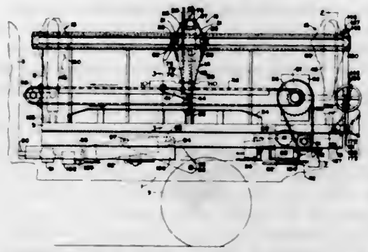
1. In combination in an automobile door construction, a vertically disposed door panel having a longitudinally extending upper edge portion; a trim support member having a vertical portion secured to the upper vertical part of said panel and a generally horizontal portion with a trough formed therein above the horizontal portion of said door panel; a trim panel having its edge overlying said trough; a U-shaped trim retainer for clamping the edge of said trim panel in the trough; fastening means clamping the retainer, the trim panel, the support member and the horizontal portion of the door panel together; and a garnish molding strip overlying the trim retainer.

2,836,459
DUMP TRUCK

Lino Alessio, Akron, Ohio

Application May 28, 1952, Serial No. 290,603

13 Claims. (Cl. 298—22)



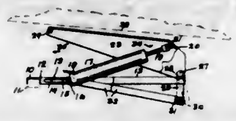
1. A truck with a body for hauling mixed concrete, a rig supported by the side panels of the body, and means for reciprocating the rig backward and forward of the body, a portion of the rig extending substantially vertically down into the body to serve as an agitator for concrete therein, spikes on the bottom of the rig extending vertically downwardly therefrom with their lower extremities close to the bottom of said body, said portion being open to permit the concrete to pass therethrough as the rig is reciprocated.

2,836,460
HOIST

Vernon J. Landell, Cherokee, Iowa

Application October 14, 1955, Serial No. 540,384

2 Claims. (Cl. 298—22)



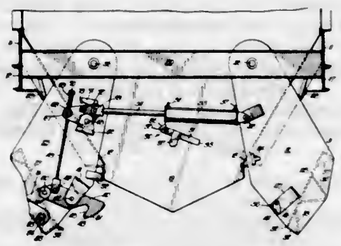
1. A hoist comprising a pivotal member adapted to be pivotally attached to a framework portion of a wagon, a hydraulic cylinder, said pivoting member having slots, a transverse pin attached to the base of said hydraulic cylinder and received in said slots, bearings attached to said pivoting member, a shaft journalled in said bearings, lifting arms rigidly attached to said shaft, a piston in said hydraulic cylinder, a piston rod attached to said piston, the end of said piston being pivoted to said lifting arms, levers rigidly attached to said shaft, longitudinally extending bars pivotally attached to the ends of said levers and pivotally attached to said transverse pin, the forward ends of said lifting arms being pivotally secured to a forward portion of a wagon box, expanding movement of said piston rod causing said lifting arms to raise, and said transverse pin to move in said slots.

2,836,461
TRAILER HOPPER

William D. Shadwick, Council Bluffs, Iowa, and Myles Standish, Omaha, Nebr., assignors to Omaha Standard, Inc., Council Bluffs, Iowa, a corporation of Iowa

Application August 16, 1954, Serial No. 449,982

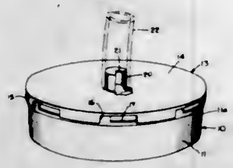
13 Claims. (Cl. 298—35)



1. In a hopper means for a load receptacle having a main frame, the combination which comprises a pair of laterally swinging doors for opening and closing movements, said doors inclined upwardly and outwardly from their meeting edge, suspension links connected to the ends of said doors and pivotally mounted on the lower portion of said main frame for swinging movement, a double action hydraulic piston and cylinder mounted between a pair of a said suspension links for opening and closing said doors and for operating a latch mechanism, said piston operatively connected to one link in said pair, said cylinder operatively connected to the other link in said pair, a latch mechanism including a latch lever mounted on one suspension link and a catch mounted on another sus-

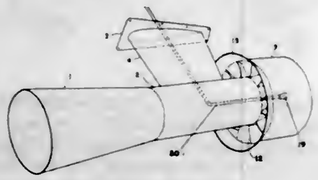
pension link, said latch mechanism disposed below said hydraulic piston and cylinder at the lower portions of said suspension links for holding said doors in closed, latched hydraulic piston for latching and unlatching said position, and means connected to said hydraulic piston for latching an unlatching said latch mechanism.

2,836,462
MULTI-PURPOSE CONTAINER AND DIFFUSER DEVICE
Charles B. Wenner, Darien, Conn., assignor to Airkem, Inc., New York, N. Y., a corporation of New York
Application November 13, 1956, Serial No. 621,586
5 Claims. (Cl. 299—24)



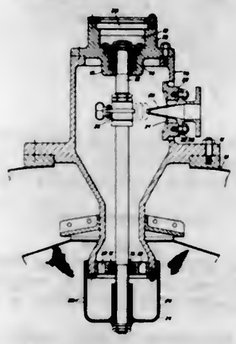
1. A combination container and diffuser device comprising an open top cylindrical container part having a substantially greater diameter than height, the upper peripheral edge of said container part including a narrow band of cylindrical exterior curvature, a cover part having a peripheral flange of cylindrical internal curvature rotatably and telescopically interfitting with said narrow band of the container part the narrow band portion of said container and the flange of said cover having a plurality of circumferentially spaced cut-outs adapted to be rotatably moved from fully registering to fully non-registering alignment in providing for the circulation and non-circulation respectively of air through said container, cooperating means on an inner side wall of said container and on the inner top surface of said cover stopping relative movement therebetween when said cut-outs are in fully non-registering position, and means comprising a restricted area of thin walled rupturable structure in at least one of said container and cover parts adapting said device to a secondary manner of use.

2,836,463
PROCESS FOR AIRCRAFT SPRAYING AND APPARATUS THEREFOR
Archie C. Wilson, West Palm Beach, Fla.
Application June 1, 1955, Serial No. 512,465
5 Claims. (Cl. 299—30)



1. An air craft spraying device comprising a hollow cone nozzle incased in a hollow shroud having an hermetically sealed bottom, a cyclone generator surrounding said shroud and secured thereto, and comprising a plurality of helical conduits of decreasing longitudinal cross-section towards intake of said conduits, and said conduits creating a circular motion at high velocity to air emanating therefrom when moved through the air.

2,836,464
APPARATUS FOR ATOMIZING A LIQUID IN A VACUUM
Thomas S. Dickinson, Radcliffe, England, assignor to The General Engineering Company (Radcliffe) Limited, Radcliffe, England, a British company
Application October 26, 1954, Serial No. 464,820
2 Claims. (Cl. 299—63)



1. Apparatus for atomizing a liquid in a vacuum comprising an elongated vertical casing, bearings at the ends of said casing, a shaft mounted axially in said casing and held in said bearings, an impeller fixed on an intermediate portion of said shaft, a nozzle in the side of said casing adjacent to said impeller and adapted to cause fluid to impinge on said impeller to rotate said shaft, a seal at the upper end of said casing, a transverse flange extending from an intermediate portion of said casing, a vacuum vessel, said flange being secured to said vessel with the lower portion of said casing being within said vessel, the lower end of said shaft extending below the lower end of said casing, a cup-shaped sprayer fixed on the lower end of said shaft, and an opening between said cup and casing to permit fluid from said casing to enter said cup by gravity flow.

2,836,465
SOLIDS CONVEYANCE PROCESS AND APPARATUS
Clyde H. O. Berg, Long Beach, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
Application November 3, 1955, Serial No. 544,679
12 Claims. (Cl. 302—53)

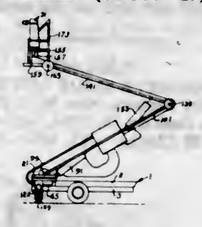


1. A method for conveyance of granular solids which comprises establishing an intermediate pressuring zone communicating through a first conveyance zone with an induction zone and through a second conveyance zone with a solids receiving zone, introducing solids to be conveyed into said induction zone forming therein a dense accumulation of solids submerging the inlet to said first conveyance zone, introducing a conveyance fluid into said induction zone, passing it therein through a manifold zone into and through each of a plurality of superimposed engaging spaces surrounding said accumulation and into said accumulation; alternately flowing conveyance fluid from an accumulation of solids in said intermediate pressuring zone through a plurality of superimposed solids-free spaces surrounding said last named accumulation and through a manifold zone therein to lower the pressure in said intermediate pressuring zone below that of said induction zone to cause conveyance fluid flow through said first conveyance zone at a rate sufficient to convey said solids concurrently therethrough, and then flowing conveyance fluid through said last named manifold zone and said solids free spaces into said accumulation of solids in said intermediate pressuring zone to raise the pressure therein to a value above that in said solids receiving zone sufficient to cause concurrent flow of fluid and solids through said second conveyance zone; restricting the discharge of solids from said first and second conveyance zones to maintain said solids therein as a compact mass having substantially the solids' static bulk density, removing conveying solids from said solids receiving zone, and flowing conveyance fluid through a plurality of superimposed disengaging spaces surrounding the solids accumulation therein and through a manifold zone from said solids receiving zone.

2,836,466
GRADUATED RELEASE TYPE BRAKE CONTROLLING VALVE WITH IMPROVED CONTROL RESERVOIR CHARGING CONTROL
Earle S. Cook, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application August 15, 1955, Serial No. 528,471
6 Claims. (Cl. 303—35)

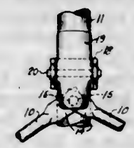
1. In a fluid pressure brake apparatus, the combination of a normally charged brake pipe, a normally charged auxiliary reservoir, a normally charged control reservoir, a normally open charging communication connecting said control reservoir with said brake pipe, a brake cylinder, charging valve means having a normally vented chamber and responsive to pressure of fluid supplied to said chamber to move to a cut-off position for closing said charging communication, service valve means responsive to a chosen reduction in brake pipe pressure below control reservoir pressure to supply fluid under pressure from said auxiliary reservoir to said brake cylinder, and quick service reduction insuring valve means normally establishing a substantially unrestricted flow connection between the chamber and said brake cylinder for causing said charging valve means to be operated by brake cylinder pressure to its cut-off position, said reduction insuring valve means being responsive to a preselected reduction in brake pipe pressure, greater than said chosen reduction, to close off the chamber of said charging valve means from said brake cylinder and open said chamber to said auxiliary reservoir for maintaining said charging valve means in its cut-off position.

2,836,467
CRANE CONTROL MECHANISM
Lester L. Myers, Fort Wayne, Ind., assignor to Mobile Aerial Towers, Inc., Fort Wayne, Ind., a corporation of Indiana
Application March 10, 1953, Serial No. 341,420
13 Claims. (Cl. 304—29)



1. In a crane having a first member movable in right and left directions, a second member mounted on the first and movable in fore and aft directions, and a third member mounted on the second member and movable in up and down directions, first, second and third hydraulic motors connected to actuate the first, second and third members respectively, an exhaust means and a source of fluid under pressure, first, second and third valves connected to said exhaust means and said source, and controlling connection thereof to said motors, a control cylinder and piston for each valve, a control mechanism located remotely from said motors and comprising a base, a pair of links pivotally mounted on coaxial pivots, on the base and extending substantially vertically therefrom, a cap pivotally mounted theron on coaxial pivots, whereby said cap is capable of fore and aft movement, a lever projecting from one of said links, a first piston connected to the lever, a cylinder for the piston communicating with the control cylinder on the second motor to produce a corresponding fore and aft motion of the second member, said cap being capable of up and down pivotal motion about said pivots, a third link connected to the cap to be raised and depressed thereby, a second piston connected for operation by said third link, a cylinder for the piston communicating with the control cylinder of said third valve, to produce corresponding up and down motion of said third member, a shaft rotatably mounted on the cap having its longitudinal axis planar with the axis of the link pivots in the cap, a lever extending laterally from the shaft, a third piston connected for operation by said shaft as the latter is rotated right and left, a cylinder for the piston connected in communication with the control cylinder of the first valve to produce corresponding right and left rotation of said first member.

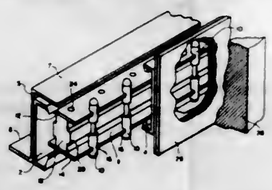
2,836,468
BRACE ROD HOLDING MEANS FOR SCAFFOLD FRAMES OR THE LIKE
Zigmund J. Jagiel, Toledo, Ohio, assignor of one-tenth to John W. Bebout, Toledo, Ohio
Application November 29, 1954, Serial No. 471,617
5 Claims. (Cl. 304—40)



1. In a structure of the class described having a frame member with an upright post, a laterally projecting stud on the post, and a brace rod for the post having an end with an opening therein for receiving the stud, the provision on the post at one side of the stud of a

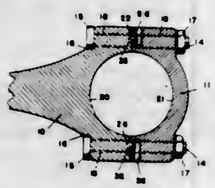
member encircling and guided for sliding movements on the post lengthwise thereof, and a locking dog pivotally carried by said last member for limited rocking movements in a plane lengthwise thereof, said rocking being such that the end of the dog adjacent to the stud may engage the outer end portion of the stud and serve to hold an engaged rod end on the stud.

2,836,469
PROGRESSIVE SLIDE MECHANISM
Alexander Yorinks, New Hyde Park, N. Y.
Application January 13, 1954, Serial No. 403,819
20 Claims. (Cl. 308—3.8)



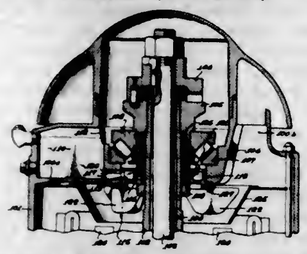
1. A slide mechanism comprising a progressive member having a plurality of rollers provided with a reduced portion intermediate their ends, a substantially I-shaped member consisting of a web portion adapted to mate with said reduced portions and a pair of flange members affixed at substantially right angles to said web portion, said flanges being perforated to receive said rollers in two parallel rows so as to provide exposed bearing surfaces, a load member having a groove adapted to slidably receive one of said rows of rollers and a fixed member having a groove adapted to slidably receive the other of said rows and means to retain said rollers in said grooves.

2,836,470
BEARING STRUCTURE CAP LOCATOR
Richard H. Sheppard, Hanover, Pa.
Application December 8, 1953, Serial No. 396,846
11 Claims. (Cl. 308—74)



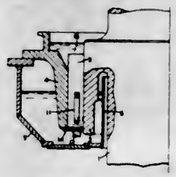
1. A bearing assembly comprising two bearing members each having a pair of plane faces on opposite sides of a surface of revolution forming a portion of a bearing surface, releasable means for securing the two bearing members together with the bearing surfaces in registry, a pair of solid steel balls partially imbedded in one bearing member, one ball to project beyond each of said two faces, the other bearing member having a spherical depression in each of its two faces corresponding exactly to the projecting portion of a ball and lying in registry with the cooperating ball, each depression having a thin wall indented by the mating ball as the two bearing members are forced together so that each ball deforms the thin wall in forming the corresponding depression whereby when the two bearing members are separated they may readily be asesmbled with great precision as the spaced balls will guide the two bearing members into accurate position as the four plane faces are brought together by movement of the releasable securing means.

2,836,471
SYSTEM FOR COOLING LUBRICANT
Frederick O. Luenberger, Los Angeles, Calif., assignor to U. S. Electrical Motors, Inc., Los Angeles, Calif., a corporation of California
Application July 16, 1954, Serial No. 443,756
7 Claims. (Cl. 308—77)



1. In apparatus of the character described: a casing for rotary apparatus; a cup supported in the casing and having means for supporting a bearing structure intermediate its length; means forming a lubricant well communicating with the cup for receiving lubricant passing upwardly through a bearing structure mounted therein; and a heat conducting member received in the cup and forming the bottom wall thereof; said heat conducting member having means forming a passage communicating at opposite ends with the well and the cup beneath said bearing structure, the member having integrally formed fins for enhancing the transfer of heat from the member to a medium to which the fins are exposed.

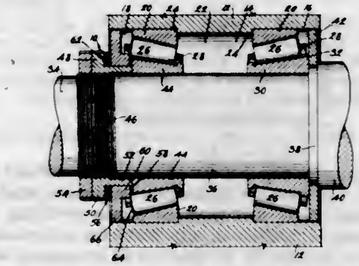
2,836,472
GUIDE BEARINGS
John William Smith, Rugby, England, assignor to The English Electric Company Limited, London, England, a British company
Application April 27, 1956, Serial No. 581,040
Claims priority, application Great Britain May 10, 1955
3 Claims. (Cl. 308—134.1)



1. A self-lubricating viscosity vertical shaft bearing comprising in combination: a bearing casing in operation containing an upper oil level, spaced bearing pads mounted in the said casing the spaces between said pads being in communication with the said casing, an oil sump enclosing the said casing and pads from outside, from underneath and from inside and in operation containing a lower oil level, peripheral oil grooves being provided at the bearing faces of the said pads adjacent the lower ends thereof and bores being provided in the said pads connecting both ends of the said peripheral grooves to the said bearing casing as well as to the said sump, non-return valves outwardly opening from the said bores towards the said casing and non-return valves inwardly opening from the said sump towards the said bores.

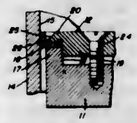
2,836,473
MOUNTING FOR PRELOADING TAPERED ROLLER BEARINGS
Clarence W. Tydeman, Redwood City, Calif.
Application July 26, 1957, Serial No. 674,383
8 Claims. (Cl. 308—207)

1. In a shaft bearing, a hub having a cylindrical bore, first and second outer conical races mounted within the bore, first and second abutments depending from the bore in engagement with the adjacent faces of the first and second outer races respectively maintaining an axially spaced relation therebetween, first and second sets of rollers journaled for rotation within the first and second outer races respectively, first and second inner conical races journaled within the first and second sets of rollers respectively, the first inner race including an annular shoulder in engagement with the outer ends of the first



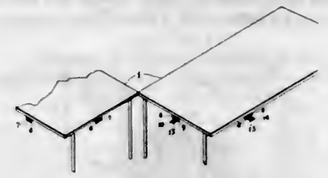
set of rollers, the second inner race terminating short of the outer ends of the second set of rollers, a shaft mounted within the inner races, first and second retaining means depending from the shaft and lapping the opposite faces of the first and second inner races respectively, the second retaining means being axially movable relative to the first retaining means, and resilient means operatively interconnecting the second retaining means and the outer ends of the second set of rollers.

2,836,474
SEALING STRUCTURE FOR RECIPROCATING ELEMENTS
James K. Mosher, Pasadena, Calif., assignor to Schulz Tool and Manufacturing Co., Gabriel, Calif., a corporation of California
Application March 19, 1956, Serial No. 572,249
4 Claims. (Cl. 309—33)



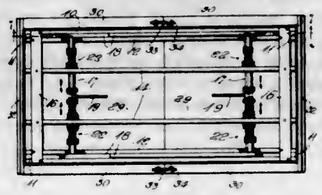
1. A sealing structure for use intermediate a piston and a cylinder wall comprising, in combination: an annular support forming part of said piston; an axially extending peripheral flange formed on said support and defining a recess in said support, said flange having a diameter to form an annular space between the flange and the cylinder wall; an annular flexible sealing member having a radially extending portion engaging with an axial end of said flange and an axially extending portion, the junction between said portions being about a radius, said axially extending portion being disposed radially outwardly from said flange; an annular retainer adapted for reception in said recess; means for securing said retainer in position; and a radially extending annular flange on said retainer, said flange being bevelled and having a sharp outer periphery in axial alignment with the periphery of said support flange, spaced axially from said axial surface of said support flange and adapted for engagement with said radially extending portion of said sealing member, said sharp periphery being adapted for engagement with said junction of portions of said sealing member, thereby to deform said sealing member about a reduced radius and force said axially extending portion radially outwardly into tight engagement with said cylinder wall, the thickness of said sealing member being less than the radial dimension of said annular space and said sealing member presenting a rounded configuration at said junction.

2,836,475
CONNECTED TABLES
Elton L. Sapp, West Palm Beach, Fla.
Application June 20, 1956, Serial No. 592,635
2 Claims. (Cl. 311—4)



1. An interlocking class room table comprising a rectangular top member having front and back edges longer than its end edges and having interlocking means adjacent its back and end edges for connecting said table with like tables in end to end, back edge to back edge, and end to back edge arrangement, said interlocking means comprising interlockable male and female elements, a first of said female elements being positioned at the midpoint of one end edge, a first of said male elements being positioned at the midpoint of the opposite end edge, a second female element and a second male element being positioned along said back edge, each equally distant from opposite table ends and spaced apart a distance equal to the length of said end edge, said second female element being adjacent said first female element and said second male element adjacent said first male element; whereby a pair of said tables may be connected in abutting back edge to back edge relationship, a second pair of said tables may be connected to said first pair in abutting end edge to end edge arrangement, and a fifth like table may be connected across the exposed ends of one of said pairs of tables with the back edge of said fifth table abutting the end edges of said last-named pair of tables.

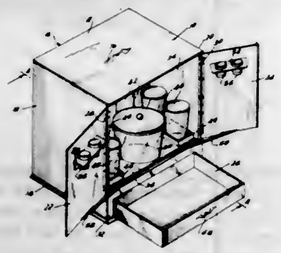
2,836,476
COLLAPSIBLE AND EXTENSIBLE TABLE
George Carter and Lester J. Carter, Plains, Mont.
Application March 6, 1957, Serial No. 644,304
1 Claim. (Cl. 311—84)



A device of the character described comprising a horizontally extending frame having a horizontally extending vertical pocket formed adjacent each side thereof, a pair of transversely extending rotatable axles each mounted in said frame adjacent each end thereof, a table leg affixed to each end of each of said axles within said pockets, and latch means for maintaining said legs in vertical relation to said frame, said means including a pair of opposed spring pressed rods for each pair of legs, said legs each having openings for receiving one of said rods when said leg is in vertical relation to the frame, said springs normally urging said rods to latched position, and said frame having sockets for receiving said rods when the latter are extended through said legs, each of said rods being

provided at its inner end with a handle, and each of said axles being provided with a centrally disposed radially extending operating handle.

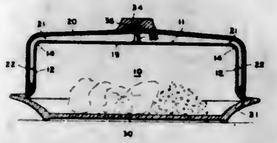
2,836,477
LIQUOR BAR CABINET STRUCTURE
Robert Karoff, New York, N. Y., assignor to Karoff Originals, Ltd., New York, N. Y., a corporation of New York
Application September 18, 1957, Serial No. 684,785
1 Claim. (Cl. 312—271)



A liquor bar cabinet structure comprising a casing provided with top, bottom, rear and side walls, a horizontal partition dividing the casing interior into an upper bar compartment and a lower drawer receiving compartment, a pair of oppositely swinging doors hingedly mounted at the cabinet front and forming closures for the bar compartment, a drawer slidable in the drawer compartment and movable from and into the cabinet front, and linkage means interconnecting the drawer and the swinging doors for simultaneously opening and closing the swinging doors upon opening and closing sliding moving of the drawer, said linkage means comprising a pair of links located below said partition and between the partition and the drawer, each link being pivoted at its opposite ends to the rear of the drawer and to the bottom of a swinging door.

2,836,478
HEAT RETAINING COVER
Grace Miller, Tallahassee, Fla.
Application August 9, 1955, Serial No. 527,220
1 Claim. (Cl. 312—284)

A double-walled heat retaining cover for food served on a plate in which the two walls are normally secured together to form a single unit, said cover having an outer wall of a heat insulating plastic having the general shape of a dome with a roof and a skirt, the outer surface of said cover being a smoothly curved surface of revolution ending in a circular lower edge, and the inner wall of the cover comprises a metal member fitting the outer dome in a zone of contact bounded by a surface of revolution and having a mirrored surface parallel to the plane of the open lower circular edge of the cover to reflect heat back to the food on the plate, said metal inner wall having a peripheral edge which underlies the circular lower edge of the plastic outer wall, whereby when the walls are assembled, the plastic outer wall is protected against breakage from a blow on the lower outside edge of the cover by the underlying metal edge, and readily separable threaded



means for securing together the plastic outer wall and the metal inner wall in an air-tight manner to form a dead air space between them, said threaded means providing for ready manual separation of the parts for independent cleaning, the surface of the inner wall in contact with vapor from hot food within the cover being smooth and unbroken, thus avoiding any possibility of crevices that might collect bacteria, so that the cover is particularly suitable for hospital service.

2,836,479
ELECTRICAL RECORDING APPARATUS
Eberhardt Traub and Alfred Ortlieb, Stuttgart, Germany
Application July 16, 1952, Serial No. 299,152
19 Claims. (Cl. 346—74)



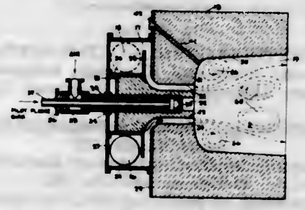
1. In an electrical recording apparatus, in combination, a record carrying element consisting of a dielectric base and a metal coating thereon having a specific surface resistance of 2–10 ohms per square centimeter; a recording element having an electrically conductive recording point; means for moving at least one of said elements with said recording point of said recording element permanently in close proximity to said metal coating of said record carrying element; and means for imparting a potential difference not exceeding 36 volts between said electrically conductive recording point and said metal coating whereby any electric discharge between said recording point and said metal coating caused by said potential difference produces a trace of the relative motion between said recording element and said record carrying element on said metal coating.

CHEMICAL

2,836,480
PROCESS AND PRODUCT OF TANNING WITH CONDENSATION PRODUCTS OF POLYHYDRIC PHENOLS WITH METHYLOL DICYANDIAMIDE OR METHYLOL DICYANDIAMIDINE COMPOUNDS
Ernst Honold and Arthur Miekeley, Frankfurt am Main, Fechenheim, Germany, assignors to Cassella Farbwerke Mainkur Aktiengesellschaft, Frankfurt am Main, Fechenheim, Germany, a company of Germany
No Drawing. Application January 12, 1954
Serial No. 403,662
Claims priority, application Germany January 19, 1953
6 Claims. (Cl. 8—94.24)

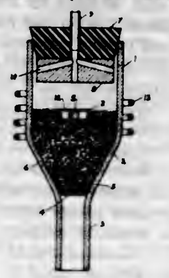
1. In the process of tanning a skin, the steps which comprise adding, at a temperature range between 20 and 50° C., 0.5–1 mole of a polyhydroxy benzene selected from the group consisting of dihydroxy benzene and trihydroxy benzene to an aqueous solution of 1 mole of a compound selected from the group consisting of monomethylol dicyandiamide and monomethylol dicyandiamidine, condensing at said temperature range the compound and the polyhydroxy benzene in an acid medium and tanning a skin with the resultant solution.

2,836,481
METHOD AND APPARATUS FOR THE COMBUSTION OF HYDROGEN SULFIDE AND THE PRODUCTION OF SULFUR
Marinus J. Hofstede, Delft, Netherlands, assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application March 3, 1952, Serial No. 274,632
Claims priority, application Netherlands March 6, 1951
6 Claims. (Cl. 23—225)



1. A process for the production of sulfur from a gaseous mixture containing hydrogen sulfide as the major combustible and containing not more than about 10% by volume of said gaseous mixture of hydrocarbon materials, said process comprising the steps of continuously mixing said gaseous mixture with an oxygen-containing gas in such proportions that there is produced a gaseous mixture containing from about 0.30 to about 0.70 volumes of oxygen per volume of hydrogen sulfide therein; continuously flowing the oxygen-containing gaseous mixture as a stabilized annular current into and through a free-space, peripherally confined, elongate combustion zone with a sufficient forward velocity to prevent flashback; maintaining in said combustion zone, at the end of said zone at which said oxygen-containing mixture enters, a pilot flame directed in the same direction as the oxygen-containing mixture is flowing, said pilot flame being situated substantially at the longitudinal axis of said combustion zone, said pilot flame being maintained by burning a mixture of a gaseous fuel with a small excess of oxygen, said excess being from about 0.02% to about 3% by volume of the hydrogen-sulfide supplied to said combustion zone; igniting the oxygen-containing mixture upon entry thereof into the combustion zone and continuously discharging the resulting combustion products from the combustion zone.

2,836,482
COMBUSTION ANALYSIS METHOD AND APPARATUS
George M. Dreher, Pittsburgh, Pa.
Application July 13, 1955, Serial No. 521,753
4 Claims. (Cl. 23—230)



1. A method of combustion analysis of ferrous metals comprising the steps of supporting a non-ferrous non-carbon bearing electrically conducting thin metal crucible having a melting point below 1500° F. upon a bed of granular ceramic material within a closed ceramic housing, mounting a ferrous metal sample in the crucible, and heating the sample to about 2000° F. by induction coils surrounding the housing, flowing oxygen gas into the housing into contact with the heated sample for combustion thereof, and removing the gaseous products of combustion from the housing for collection and analysis in the usual manner.

2,836,483
RED LEAD COMPOSITION HAVING IMPROVED FLOW PROPERTIES
William Earle Schulz, Wenonah, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 6, 1953
Serial No. 390,751
5 Claims. (Cl. 52—2)

1. A red lead composition of improved flowing properties consisting essentially of red lead and a thiuram disulfide-stabilized chloroprene polymer obtained by polymerization at 10° C. in an aqueous emulsion in the presence of an aliphatic mercaptan, said chloroprene polymer being present in the amount of 0.2–1.0% by weight based on the red lead.

2,836,484
AQUEOUS METAL POWDER EXPLOSIVE
Alex G. Streng and Abraham D. Kirshenbaum, Philadelphia, Pa., assignors to Reynolds Metals Company, Louisville, Ky., a corporation of Delaware
No Drawing. Application May 4, 1955
Serial No. 506,066
6 Claims. (Cl. 52—15)

1. An aqueous explosive mixture comprising: 38 to 49% by weight of finely divided aluminum; 20 to 43% by weight of a stable salt selected from the group composed of nitrates, nitrites and perchlorates; and a quantity of water to provide an aluminum to water ratio by weight which is in the range of 1.4 to 1.5.

2,836,485
HYDROMETALLURGICAL PRECIPITATION OF METAL POWDER
Felix A. Schaufelberger, Rye, N. Y., and Walter R. McCormick, Fredericktown, Mo., assignors to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application March 16, 1956
Serial No. 571,893
10 Claims. (Cl. 75—5)

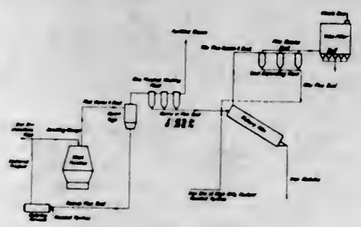
1. In the hydrometallurgical precipitation of metal powder by treating a solution of metal salts with hydrogen at elevated temperature and superatmospheric pressure, said metal being selected from the group consisting of nickel and cobalt, the improved self-nucleating reduction which comprises: before initiating the reducing reaction, adjusting said solution to contain a preselected amount of ammonium salt in the range of from about 0.2 to about 0.6 mol thereof per mol of dissolved nickel plus cobalt, that selected content of ammonia which, at a temperature of from about 125° C. to about 250° C., will provide that corresponding mol ratio of ammonia to dissolved metal at which from about 1 to about 10 grams per liter of dissolved metal becomes insoluble, and additional ammonia sufficient to provide at least an excess above said selected ammonia content; treating adjusted solution to remove said excess ammonia; increasing the temperature of the resultant solution to within the range of from about 125° C. to about 250° C., whereby said 1 to 10 grams per liter of metal is precipitated in situ as a finely-divided suspended basic compound to form a slurry; then, reacting the slurry with sufficient hydrogen gas to produce and maintain, at reduction temperature, a positive partial pressure of hydrogen gas and a total pressure at least sufficient to prevent boiling; and with agitation, maintaining resultant heated slurry at a reduction temperature above about 125° C., under said partial pressure of hydrogen until precipitation of metal substantially ceases.

2,836,486
EXOTHERMIC ALLOY ADDITION AGENT
Joseph H. Brennan, Niagara Falls, and Earle R. Saunders, Grand Island, N. Y., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application March 26, 1954
Serial No. 419,096
2 Claims. (Cl. 75—27)

1. A ferroalloy mixture for addition to molten steel comprising 5 to 15% sodium nitrate, 2 to 8% aluminum, up to 10% of at least one accelerator material selected from the group consisting of lime, cryolite, calcium fluoride, sodium carbonate, sodium silicate and calcium aluminate, the remainder ferroalloy, and characterized by relatively high exothermicity and fast solution rate, said mixture components being intimately associated in homogeneous relationship.

2,836,487
PROCESS FOR THE SEPARATION OF IRON FROM OTHER METALS ACCOMPANYING IRON IN ORES OR WASTE MATERIALS
Dietrich H. Fastje, Hannover, and Rudolph H. Gerlach and Otto K. Vorwerk, Rheinhausen, Germany, assignors to Aktiengesellschaft für Unternehmungen der Eisen- und Stahlindustrie, Essen, Germany
Application January 31, 1956, Serial No. 562,544
Claims priority, application Germany January 31, 1955
9 Claims. (Cl. 75—41)

1. A process for separating iron from metals accompanying iron in ores and waste materials, which accompanying metals are volatilizable during the reduction of iron, comprising a first step of smelting the ores and waste material in a blast furnace to form pig iron, and a second step of reducing a charge comprising the flue dusts from said blast furnace step and sludge obtained from said flue dusts, in a rotary kiln, said flue dusts and sludge containing compounds of iron as well as of said volatilizable metals, which iron compounds are reduced to iron during said second step, and recovering volatilizable metals from the waste gases.



2,836,488
METALLURGICAL COMPOSITIONS
George L. Martin, Webster Groves, and Allan D. Gott, St. Louis, Mo., assignors to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri
No Drawing. Application July 21, 1955
Serial No. 523,630
4 Claims. (Cl. 75—27)

3. The method of preparing an alkali metal ferrate primer comprising heating a mixture of ilmenite and an alkali metal carbonate under oxidizing conditions at a temperature below the fusion temperature of the alkali metal carbonate and then gradually increasing the temperature to not more than 1100° C. to complete the calcination of the iron oxide portion of the ilmenite, the amount of alkali metal carbonate in said mixture being equivalent to the iron content of said mixture.

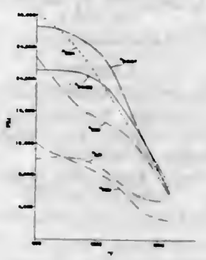
2,836,489
METHOD OF PRODUCING STEEL
Georg Henke, Dortmund, Germany, assignor to Westfalenhutte Aktiengesellschaft, Dortmund, Germany, a firm
No Drawing. Application January 25, 1955
Serial No. 484,058
Claims priority, application Germany January 26, 1954
10 Claims. (Cl. 75—58)

1. In a method of producing steel, the deoxidation of the steel comprising the step of contacting molten steel containing oxygen with a pig iron containing carbon and containing a maximum of 0.01% by weight of silicon, whereby said molten steel is deoxidized by reaction of the oxygen contained therein with the carbon of said pig iron producing gas which agitates the mixture and thereby results in rapid and homogeneous deoxidation of said steel.

2,836,490
METHOD OF TREATING SOLUTIONS CONTAINING METAL VALUES
Vladimir Nicolaus Mackiw and Vasyl Kunda, Ottawa, Ontario, and Wei Cheng Lin, Hull, Quebec, Canada, assignors to Sherritt Gordon Mines Limited, Toronto, Ontario, Canada, a corporation of Canada
No Drawing. Application September 17, 1952
Serial No. 310,126
6 Claims. (Cl. 75—115)

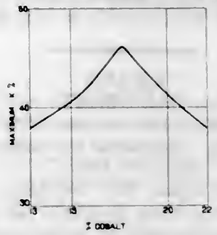
3. The method of treating a clarified aqueous ammoniacal solution substantially free from solids and containing in solution dissolved values of at least one metal selected from the group consisting of nickel, copper and cobalt, ammonium sulphamate and at least one oxidizable sulphur compound selected from the group consisting of thiosulphate and polythionates, which comprises the steps of maintaining the temperature of the solution in a reaction vessel above about 350° F. and at a partial pressure of oxygen of at least about 10 pounds per square inch, agitating the solution, feeding an oxygen-bearing, oxidizing gas into the solution, and continuing the treatment for a period of time sufficient to obtain substantially complete conversion of oxidizable sulphur compounds to sulphates and the hydrolysis of sulphamate to sulphate.

2,836,491
TUNGSTEN-TITANIUM-NICKEL CATHODES
Ardrey M. Bounds, Laverock, and Richard L. Hoff, Norristown, Pa., assignors to Superior Tube Company, Norristown, Pa., a corporation of Pennsylvania
Application June 17, 1957, Serial No. 666,053
4 Claims. (Cl. 75—170)



2. An indirectly-heated cathode structure characterized by high strength at cathode-operating temperatures, sustained high level of emission, and negligible sublimation and composed of an alloy containing 1% to 5% tungsten, 0.05% to 3% titanium; at least one of the activating agents aluminum, magnesium and silicon in the range of not more than about 0.07% magnesium, 0.15% aluminum, 0.05% silicon; and the balance essentially nickel with not more than about 0.2% iron, 0.20% manganese, 0.08% carbon, and 0.20% copper as residuals.

2,836,492
NICKEL-COBALT ALLOY MAGNETOSTRICTIVE ELEMENT
Charles Alfred Clark, Edgbaston, Birmingham, England, assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application December 20, 1955, Serial No. 554,295
Claims priority, application Great Britain December 23, 1954
7 Claims. (Cl. 75—170)



1. A magnetostrictive element made of a binary alloy consisting of nickel and cobalt containing from about 16.8% to about 18.8% cobalt whereby a magnetostrictive element is provided having high efficiency in the conversion of electrical energy into mechanical energy or vice versa at field strengths insufficient to bring the magnetostrictive element into a condition of magnetic saturation.

2,836,493
PHOTOGRAPHIC SHORTSTOP CONCENTRATES
Shuji Kimura, Crystal Lake, and Jules N. Stich, Woodstock, Ill., assignors to Morton Chemical Company, Woodstock, Ill., a corporation of Delaware
No Drawing. Application July 2, 1956
Serial No. 595,053
6 Claims. (Cl. 96—62)

6. A shortstop concentrate consisting essentially of water having dissolved therein ammonium bisulfate and sodium bisulfate in the ratio between about 2.33 moles and about 5.67 moles of ammonium bisulfate per mole of sodium bisulfate, the sulfuric acid equivalent of said concentrate being at least 100 grams per liter.

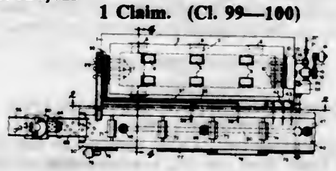
2,836,494
PHOTOGRAPHIC EMULSIONS AND ELEMENTS
Joseph De Witt Overman, Eatontown, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 14, 1957
Serial No. 633,837
14 Claims. (Cl. 96—87)

1. A photographic water-permeable protein colloid-silver halide emulsion wherein 40 to 70% by weight of the binding agent for the silver halide grains is a butadiene/acrylonitrile copolymer containing 30 to 40% by weight of the latter component.

2,836,495
PRODUCTION OF READY-TO-EAT COMPOSITE FLAKED CEREAL PRODUCTS
Joseph John Thompson and Morris M. Raymer, Jr., Battle Creek, Mich., assignors to Kellogg Company, Battle Creek, Mich., a corporation of Delaware
No Drawing. Application April 18, 1955
Serial No. 502,194
7 Claims. (Cl. 99—81)

1. The method of forming a composite palatable food product of the breakfast cereal type, which comprises admixing and coating cooked and dried flexible particles of the class consisting of rice and corn with uncooked relatively high protein content flour composed in major amount of wheat gluten, with the aid of a limited amount of moisture applied to the cooked particles just prior to the addition of the flour and before absorption of the moisture by said cooked particles, to provide the individual particles with adherent coatings of said flour, promptly rolling said coated particles to the form of flakes to further cohere and imbed the flour coating into the surfaces of the resulting flaked particle material, and then baking the composite flakes to a slightly puffed and light golden condition.

2,836,496
METHOD OF COOKING POTATO CHIPS
Anthony Salvo, Fall River, Mass.
Original application December 7, 1951, Serial No. 260,376, now Patent No. 2,715,869, dated August 23, 1955. Divided and this application July 7, 1955, Serial No. 520,413
1 Claim. (Cl. 99—100)



In the continuous cooking of potato chips, the steps of heating a body of oil to a cooking temperature in a zone remote from a cooking zone, continuously delivering said heated oil to said cooking zone at a plurality of points spaced along the upper portion of said cooking

zone, continuously advancing potato chips through said heated oil in said cooking zone to be cooked solely by contact with said pre-heated oil, while continuously recirculating said oil from the cooking zone to the heating zone remote from said cooking zone and back to said cooking zone.

2,836,497

EDIBLE COMPOSITION OF VEGETABLE OIL EMULSION AND BUTTER FAT EMULSION CONVERTIBLE BY AERATION INTO A STIFF MASS

Harry M. Levin, Philadelphia, Pa.

No Drawing. Application December 21, 1954
Serial No. 476,831
9 Claims. (Cl. 99—118)

2. A liquid composition having as its major components an intimately mixed stabilized edible vegetable oil emulsion having an aqueous continuous phase and a stabilized edible butter fat emulsion having an aqueous continuous phase, and milk solids in excess of the amounts requisite for the stabilization of said emulsions, said composition being free flowing and convertible by aeration into a dense mass of minuscule bubbles.

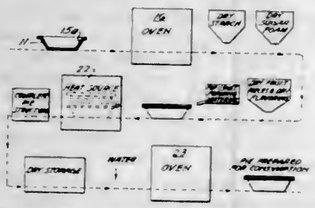
3. In a method of making a dense, foamy food dressing, the steps which include intimately combining a stabilized semi-plastic, acidulous, edible vegetable oil emulsion having water as its continuous phase and an edible, liquid butter fat emulsion having an aqueous continuous phase to form a free flowing mix, and confining such mix and an edible gas under high pressure.

2,836,498

DRIED PIE PRODUCT AND METHOD OF PRODUCING THE SAME

Owen R. Fennema, Minneapolis, Minn., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware

Application October 29, 1956, Serial No. 619,043
13 Claims. (Cl. 99—199)



1. A substantially ready-to-bake and complete edible pie structure comprising a dried lower crust having a peripheral edge portion, a dried and liquid pervious, material-confining upper crust secured to the peripheral edge portion of said lower crust and defining a material chamber therebetween, and a quantity of substantially dry and readily hydratable filling material within the chamber, the crust and filling material containing not more than 5% moisture, whereby the pie may be easily stored and moisture may be subsequently added through the upper crust in the preparation for consumption.

2,836,499

CORROSION INHIBITING METHOD AND COMPOSITION

John F. Lyons, Rolling Hills, Calif., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application May 28, 1954
Serial No. 433,257
2 Claims. (Cl. 106—14)

1. A rust inhibiting coating composition characterized by the ability to prevent rusting of areas on salt quenched steel articles which are encrusted with residual salt, said composition consisting essentially of 44–58% by weight of light volatile petroleum solvent, the balance being a mixture of a rust inhibiting compound, petrolatum and soluble oil, said mixture consisting essentially of a corrosion inhibiting amount up to 3% by weight of at least one rust inhibiting compound selected from the group consisting of butyl stearate, aluminum stearate and sodium chromate decahydrate, 27–39% by weight of petrolatum and 60–72% by weight of a soluble oil, said soluble oil having as essential components 60–75% by weight of lubricating oil, 14–18% by weight of sodium sulfonate derived from treating mineral lubricating oil with sulfuric acid and caustic soda, rosin soap derived from treating with caustic soda 3–5% by weight of gum rosin based on said soluble oil, sodium naphthenate derived from treating with caustic soda 6–8% by weight of naphthenic acid based on said soluble oil and an effective amount up to about 1% by weight of ethylene glycol monobutyl ether.

2,836,500

PLASTIC COMPOSITION

Verne Wesley Weidman, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 17, 1955
Serial No. 495,035
10 Claims. (Cl. 106—38.9)

1. A mixture composed essentially of 4% to 50% by weight of a substance from the group consisting of $NaF:B_2O_3$ and $NaF:B_2O_3\cdot 5H_2O$ in which the mole ratio of NaF to B_2O_3 varies between 4:4.68 and 4:5.80, and 50% to 96% by weight of a finely divided heat conductive refractory material, with sufficient added water to induce in the mixture the desired plasticity.

2,836,501

ELECTROSTRICTIVE CERAMIC MATERIALS

Joseph W. Crownover, Sherman Oaks, Calif., assignor to Electric Machinery Mfg. Company, Minneapolis, Minn., a corporation of Minnesota

No Drawing. Application November 4, 1955
Serial No. 545,130
6 Claims. (Cl. 106—39)

6. A barium titanate electrostrictive material composed of a composition expressed as BaO, TiO_2, SnO_2 and CaO and including traces of Al_2O_3, CuO, Fe_2O_3, MgO, PbO, SiO_2, SrO and ZrO_3 totalling not more than 4.26% by weight, the CaO and SnO_2 being combined to give a calcium stannate content of 2% to 8%; and there being sufficient TiO_2 to combine with all of the BaO to leave an excess of TiO_2 of 0.9% to 1.5% by weight.

2,836,502

TILE GROUT

Julius John Bartoli and John Antonio Bartoli, Dallas, Tex.

No Drawing. Application November 6, 1956
Serial No. 620,577
1 Claim. (Cl. 106—98)

A tile grout consisting essentially of the following ingredients in approximately the proportions indicated:

	Percent
A member chosen from the group consisting of silica, clay or limestone	30 to 50
A member chosen from the group consisting of titanium oxide, lithopone, zinc, magnesium oxide, barium sulphate and calcium oxide	1 to 5
Portland cement	40 to 60
Barium chloride	1 to 5

2,836,503

CELLULOSIC SPONGE PROCESS

Robert Otto Osborn, Snyder, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 22, 1954
Serial No. 417,961
3 Claims. (Cl. 106—122)

1. A process for the production of cellulosic sponges which comprises mixing together viscose, fibers, Glauber's salt crystals, and aluminum powder having a particle size within the range of from 40 mesh to 325 mesh, to form a sponge mixture, placing said mixture in a mold, permitting said mixture to expand to maximum volume and set, and thereafter removing said Glauber's salt crystals, heating the resulting expanded mixture to coagulate and regenerate said mixture, whereby to form a cellulosic sponge structure.

2,836,504

PLASTIC COMPOSITIONS CONTAINING DIALKYL MONOCHLOROPHOSPHONATE ESTERS

Arthur Dock Fou Toy, Park Forest, and Kenneth H. Rattenbury, South Chicago Heights, Ill., assignors to Victor Chemical Works, a corporation of Illinois

No Drawing. Original application August 23, 1954, Serial No. 458,004. Divided and this application November 21, 1955, Serial No. 548,276
6 Claims. (Cl. 106—177)

1. A plasticized material comprising a plastic of the class consisting of vinyl chloride-vinyl acetate copolymer, cellulose acetate, nitrocellulose and ethyl cellulose, and a plasticizing proportion of a dialkyl monochloromethanephosphonate in which the alkyl radicals contain from 3 to 10 carbon atoms.

2,836,505

THERMOPLASTIC COMPOSITIONS OF WATER-SOLUBLE CELLULOSE ETHERS

Earle L. Kropscott and George K. Greminger, Jr., Midland, and Miles A. Weaver, Ithaca, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 25, 1953
Serial No. 394,506
8 Claims. (Cl. 106—182)

1. A thermoplastic composition consisting essentially of from 5 to 80 percent of a water-soluble cellulose ether selected from the group of alkyl cellulose, hydroxyalkyl cellulose, and alkyl hydroxyalkyl cellulose in which the alkyl group contains from 1 to 3 carbon atoms and the hydroxyalkyl group contains from 2 to 3 carbon atoms, and correspondingly from 95 to 20 percent of an alkyl lactate in which the alkyl group contains from 1 to 4 carbon atoms as a permanent plasticizer for said water-soluble cellulose ether.

2,836,506

THERMOPLASTIC COMPOSITIONS OF WATER-SOLUBLE CELLULOSE ETHERS

Lloyd H. Silvernail and George K. Greminger, Jr., Midland, and Miles A. Weaver, Ithaca, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 25, 1953
Serial No. 394,482
7 Claims. (Cl. 106—188)

1. A thermoplastic composition consisting of from 5 to 80 percent of a water-soluble cellulose ether selected from the group of alkyl cellulose, hydroxyalkyl cellulose, and alkyl hydroxyalkyl cellulose in which the alkyl group contains from 1 to 3 carbon atoms and the hydroxyalkyl group contains from 2 to 3 carbon atoms, and correspondingly from 95 to 20 percent of a monoalkyl ether of an alkylene glycol selected from the group consisting of ethylene, diethylene and propylene glycols in which the alkyl group contains from 1 to 3 carbon atoms.

2,836,507

NON-BRITTLE, NON-LUSTROUS, OXIDATION RESISTANT ASPHALT

Edwin J. Barth, New York, N. Y.

No Drawing. Application March 5, 1957
Serial No. 643,950
2 Claims. (Cl. 106—232)

1. A non-brittle, non-lustrous, oxidation resistant asphalt composition of matter for road paving capable of solubilizing asphaltenes as they are formed comprising asphalt and 0.1 to 5.0 percent by weight of alcohol soluble pine tar containing substantially no free carbon.

2,836,508

DRYING OIL POLYMER CONTAINING AN ACIDIC PHOSPHORUS COMPOUND

Thomas L. Cannliff and Alfred E. Balocca, Wheaton, Ill., assignors to American Can Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application July 9, 1954
Serial No. 442,428
6 Claims. (Cl. 106—285)

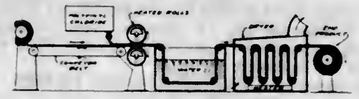
1. A coating composition comprising an oily liquid conjugated diolefin polymer synthetic drying oil formed using a boron trifluoride polymerization catalyst, and from 0.5% to 4.0% by weight of said drying oil polymer of a phosphorus compound having at least one replaceable acidic hydrogen atom, said diolefin containing 4 to 6 carbon atoms, and said polymer having a molecular weight of about from 1600 to 1800 and a relative viscosity of about from 1.15 to 1.25.

2,836,509

STRETCHABLE PLASTIC-COATED FABRIC AND METHOD OF MAKING THE SAME

Kenneth Ollerenshaw Berry, Caernarvon, Wales

Application September 13, 1955, Serial No. 534,164
Claims priority, application Great Britain October 8, 1954
7 Claims. (Cl. 117—7)



1. The method of producing a plastic coated fabric capable of being stretched comprising coating one side of a fabric woven from cellulosic yarn with plasticized polyvinyl chloride, heating the coated fabric, subjecting the heated fabric free of longitudinal tension to hot moisture approximating boiling temperature, and then drying the fabric while substantially free of longitudinal tension.

2,836,510

NICKEL PLATING BY CHEMICAL REDUCTION

Edward L. Bolin, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application May 21, 1953
Serial No. 356,579
1 Claim. (Cl. 117—65)

A process for plating nickel on a metal article which comprises the steps of providing an aqueous chemical reduction plating bath comprising 5 to 50 grams per liter of a soluble nickel salt, 5 to 100 grams per liter of a hypophosphite reducing agent, 15 to 100 grams per liter of a compound selected from the group consisting of glycollic acid, lactic acid, and acetic acid and .01 to .05 gram per liter of a material selected from the group

consisting of glue and gelatin, adjusting the pH of said bath to within the range of 3 to 6.5, heating said bath to a temperature within the range of about 170° F. to 200° F., and while said bath is maintained at a temperature within this range, immersing the metal article to be plated in the bath until the desired thickness of nickel plate is deposited thereon, and thereafter subjecting the plated article to a heat treatment at a temperature within the range of about 350° F. to 800° F. for a time of at least one hour to improve the ductility and corrosion resistance of the nickel plate.

2,836,511
COLLOIDAL SYSTEMS OF CYANOETHYLATED STARCH AND THEIR USE
Thomas E. Sample, Jr., La Marque, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 17, 1956
Serial No. 616,385
19 Claims. (Cl. 117—65)

1. A composition comprising a colloidal dispersion of a cyanoethyl ether of starch containing from about 1.5 to about 2 cyanoethyl ether groups per glucose unit in a mixture of water and acetonitrile, water being present in a minimum amount in the range from about 2% by weight of said water-acetonitrile mixture for a starch containing about 2.0 cyanoethyl ether groups per glucose unit to a minimum amount of about 12% by weight of said mixture for a starch containing about 1.5 cyanoethyl ether groups per glucose unit and in a maximum amount in the range from about 48% by weight of said water-acetonitrile mixture for a starch containing 2.0 cyanoethyl ether groups per glucose unit to a maximum amount of about 54% by weight of said mixture for a starch containing about 1.5 cyanoethyl groups per glucose unit.

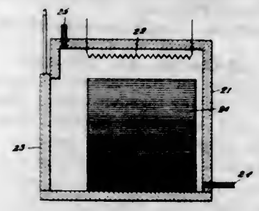
5. A process for the preparation of improved cellulosic materials which comprises impregnating a cellulosic material with a colloidal dispersion as defined in claim 1, drying said impregnated cellulosic material, and then calendering said cellulosic material.

2,836,512
CYANOETHYLATED STARCH SOLUTIONS
Thomas E. Sample, Jr., La Marque, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 18, 1956
Serial No. 616,616
18 Claims. (Cl. 117—65)

2. A composition comprising a colloidal solution of a cyanoethyl ether of starch containing from about 1.5 to about 2.0 cyanoethyl ether groups per glucose unit in a mixture of dimethyl sulfoxide and water, water being present in any amount below a maximum of 25% by weight of said mixture for a starch containing about 2.0 cyanoethyl ether groups per glucose unit and in any amount below a maximum of 30% by weight of said mixture for a starch containing about 1.5 cyanoethyl ether groups per glucose unit.

2,836,513
CHROMIZING, ADHERING COATING
George A. Samuel, White Plains, N. Y., assignor to Metal Diffusions, Inc., Philadelphia, Pa., a corporation of New Jersey
Application April 10, 1956, Serial No. 577,297
1 Claim. (Cl. 117—103)

The method of chromizing ferrous metal articles, which comprises coating the articles with a watery dispersion of chromium, the complex fluoride of ammonium and chromium and an inert bodying agent, to form an adhesive bonded chromizing layer on the ferrous metal articles, and heating the ferrous metal articles to a temperature of 1600 to 2200 degrees F. and maintaining the articles in a closed space at that temperature while exposed to and protected by the gas atmosphere evolved



from the complex fluoride to diffuse chromium into the articles and render the coating friable so that it can be easily removed.

2,836,514
HARD SURFACE COATED GEAR MEMBER
Arnold Münster and Richard Weber, Frankfurt am Main, Germany, assignors to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany
Application November 15, 1954, Serial No. 468,934
Claims priority, application Germany November 16, 1953
4 Claims. (Cl. 117—106)

1. A gear member having a hard coating on its mating surface portions consisting of a coating comprising at least one compound selected from the group consisting of titanium nitride, titanium silicide and titanium boride deposited by a gas phase reaction.

2,836,515
GOLD IMMERSION SOLUTION FOR TREATING SILVER AND METHOD OF APPLYING SAME
Frank X. McNally, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application April 30, 1953
Serial No. 352,305
2 Claims. (Cl. 117—130)

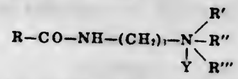
1. In the method of depositing a gold coating on a metallic member having a silver surface, without the use of externally applied electrical curernt, the steps comprising immersing the member in a solution comprising a mixture of gold chloride and water, with an acid present in an amount sufficient to maintain the pH of the solution at about 1.0 to 0.3, the acid being selected from the group consisting of hydrochloric and sulfuric acids, and removing the member from the solution after a period of time of at least one minute whereby gold is immersion plated on the silver surface.

2,836,516
METHOD OF TREATING NYLON BRISTLES AND PRODUCTS PRODUCED THEREBY
W Kedzie Teller and Euphemia Marchuk, Chicago, Ill., assignors to Weco Products Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application May 2, 1955
Serial No. 505,527
5 Claims. (Cl. 117—138.5)

1. The method of rendering nylon filaments bacteriostatic for use in tooth brushes which comprises dipping said filaments into an aqueous solution containing, for every 100 milliliters of water, from 80 to 120 milliliters of a water soluble alcohol, from 4 to 10 grams of a phenyl mercuric compound selected from the group consisting of phenyl mercuric acetate, phenyl mercuric nitrate, phenyl mercuric lactate and phenyl mercuric hydroxide, dissolved in said solution, and at least 2.0 grams of boric acid, and thereafter drying said filaments.

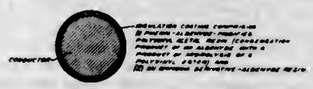
2,836,517
TREATMENT OF MATERIALS TO IMPART ANTISTATIC PROPERTIES AND PRODUCTS
Arnold H. Gruber, Stamford, Conn., and William J. van Loo, Jr., Rye, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application April 9, 1954
Serial No. 422,262
16 Claims. (Cl. 117—138.8)

1. A water-insoluble, organic article which in a dry state normally has a tendency to accumulate static charges of electricity thereon, said article having deposited at least on outer surfaces thereof an antistatic composition comprising a quaternary ammonium compound represented by the general formula



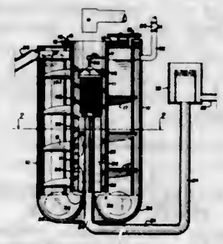
wherein R represents a member of the group consisting of aliphatic hydrocarbon and alicyclic hydrocarbon radicals containing at least 7 carbon atoms, R′ designates a radical represented by the formula $-(C_nH_{2n}O)_mH$ where n represents a positive integer from 2 to 4, inclusive, and m is a positive integer and is at least 6, R″ represents a member of the group consisting of alkyl and hydroxyalkyl radicals containing from 1 to 5 carbon atoms, inclusive, and radicals having the same meaning as R′, R‴ represents a member of the group consisting of hydrogen and radicals having the same meaning as R″, and Y represents an anion, the amount of the said quaternary ammonium compound which is associated with the said article corresponding to from 0.2% to 15% of the weight of the dry, untreated article, and said quaternary ammonium compound lessening the tendency of the said article to accumulate static charges of electricity thereon.

2,836,518
MODIFIED POLYVINYL ACETAL INSULATED CONDUCTORS
John A. Loritsch and Edward W. Daszewski, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application December 7, 1953, Serial No. 396,582
6 Claims. (Cl. 117—232)



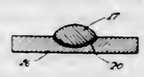
1. An insulated copper conductor in which the outer insulation therefor comprises essentially a hard, flexible, tough, abrasion-resistant and Freon-resistant coating, said coating being the heat-treated product of a mixture of ingredients consisting essentially, by weight, of (1) from 95 to 50 percent of a polyvinyl formal resin obtained by condensing formaldehyde with a product of hydrolysis of polyvinyl acetate, (2) from 5 to 50 percent of a heat-hardenable resin obtained by condensing a phenol selected from the class consisting of phenol, cresol, xylenol and mixtures thereof, with formaldehyde in the ratio of one mol of the phenol to 0.7 to 2 mols of the formaldehyde in the presence of an alkaline catalyst, (3) from 0.3 to 1.2 percent, based on the weight of resin solids represented by the polyvinyl formal resin, of a condensation product selected from the group consisting of urea-aldehyde, alkylated urea aldehyde, pyrrole-aldehyde, aromatic amine aldehyde, and thiourea-aldehyde condensates, and (4) a solvent in which (1), (2) and (3) are soluble composed of a mixture of cresol and naphtha, the solids content of the treating solution for the conductor being composed, by weight, of from 5 to 25 parts of the above-described resinous ingredients to about 75 to 95 parts of the cresol naphtha solvent.

2,836,519
SUGAR DIFFUSING APPARATUS
Joseph P. Ruth, Denver, Colo.
Application January 16, 1956, Serial No. 559,479
18 Claims. (Cl. 127—7)



1. In sugar diffusing apparatus having a tank adapted to contain liquid, an open-ended, tubular well rotatable about its vertically-disposed axis in a spacing of its lower end above the tank floor and an upward extension beyond the tank, means for the infeed of sugar-bearing material through the upper end and to the interior of said well, a continuous spiral flight fixed exteriorly about and rotatable for elevating effect with said well, means for the continuous removal of elevated material from the tank area exterior to the well, means for supply of water to upper regions of the tank area exterior to the well, an outflow line fixed through the floor of the tank and centrally of the well with its intake end in an upper zone of the well interior, a trap in said line exteriorly of the tank determinative of a normal tank liquid level above the intake end of said line, and means for rotating said well, means for inhibiting congestion of infed material about and entrainment of such material with the outflow through the intake end of said line, said latter means comprising a tubular, circularly-slotted screen assembly fixed coaxially to, about, and rising above the intake end of said line, a conical upper end closure on said screen assembly intersecting the liquid level plane determined by said trap, a shaft coaxially journaled in and rotatably traversing the length of said screen assembly in upward projection through said upper end closure, an arm connecting the upper end of said shaft and said well for simultaneous rotation, fingers fixed to said shaft in rotatable engagement within the circular slots of the screen assembly, and eccentric outer margins on said fingers adapted to project at their ends trailing in the direction of rotation radially beyond the screen assembly.

2,836,520
METHOD OF MAKING JUNCTION TRANSISTORS
Richard L. Longini, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 17, 1953, Serial No. 374,547
11 Claims. (Cl. 148—1.5)



1. In the method of making junction transistors the steps comprising: placing a pellet comprising a doping impurity material selected from the group consisting of donors and acceptors on a body of a semiconductor material selected from the group consisting of silicon, germanium and silicon-germanium alloys, to form an assembly, heating the assembly to a first temperature above the melting point of the pellet material but below the melting point of the semiconductor material, whereby the pellet material melts, dissolves some of the semiconductor material and forms a button of a molten alloy of the two

materials, and then cooling the assembly to a mean temperature of the order of 15° C. to 30° C. below said first temperature and maintaining a gradient so that the body of semiconductor material is at a lower temperature than the button of the molten alloy, the assembly being maintained at said mean temperature which is below the liquidus temperature of the alloy for a period of time thereby causing the semiconductor material to redeposit from the molten alloy upon the body of semiconductor material and for the doping material to diffuse into the semiconductor material.

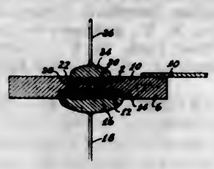
2,836,521
HOOK COLLECTOR AND METHOD OF PRODUCING SAME
Richard L. Longini, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 4, 1953, Serial No. 378,567
7 Claims. (Cl. 148—1.5)



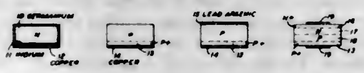
1. In the method of producing a hook collector, the steps comprising applying a solid member comprising a slow diffusing P-type impurity and a fast diffusing N-type impurity to a solid body of a semi-conductor material having P-type semi-conductivity, the semi-conductor material being selected from the group consisting of silicon, germanium and silicon-germanium alloys, the solid member containing the P-type impurity in such amounts as compared to the N-type impurity that when both are present in their respective amounts in the semi-conductor material the material will have P-type semi-conductivity, heating the assembly of the solid member and the solid body to a first temperature to cause the member to fuse and alloy with a part of the body of semi-conductor material, cooling the assembly to a mean temperature of the order of 20° C. below said first temperature and maintaining the assembly at the lower temperature so that the body of semiconductor material is slightly cooler than the molten alloy for a period of time to redeposit a thin layer of the semi-conductor material from the molten alloy upon the semi-conductor body and to diffuse the P-type and N-type impurities into the body of semiconductor material thereby producing a uniformly thin first diffusion layer adjacent the member wherein the P-type impurity predominates and imparts P-type semiconductivity to said first diffusion layer, and producing immediately beyond the first diffusion layer a second uniform and extremely thin second diffusion layer wherein the N-type impurity predominates and imparts N-type semi-conductivity to said second layer, and cooling the assembly to room temperature whereby a unitary hook collector results.

2,836,522
JUNCTION TYPE SEMICONDUCTOR DEVICE AND METHOD OF ITS MANUFACTURE
Charles W. Mueller, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 29, 1955, Serial No. 537,385
11 Claims. (Cl. 148—1.5)

1. An electrical device comprising a body of semiconducting material selected from the group consisting of germanium and silicon, said body including a P-type region containing alloy impurity material composed of indium and above 0.5 to about 12 atomic percent aluminum, and also including an N-type region separated from said P-type region by a rectifying barrier.

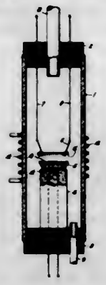


2,836,523
MANUFACTURE OF SEMICONDUCTIVE DEVICES
Calvin S. Fuller, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 2, 1956, Serial No. 601,758
8 Claims. (Cl. 148—1.5)



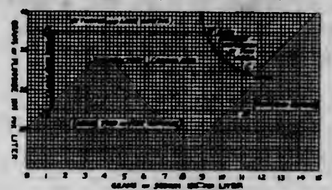
1. A method for forming a rectifying junction in a crystalline semiconductive body comprising the steps of including in said body a rapidly diffusing significant impurity characteristic of one conductivity type and a relatively lower concentration of a slowly diffusing significant impurity characteristic of the opposite conductivity type, contacting with one surface of said body a layer of a metal capable of gettering the rapidly diffusing impurity from the body, and heating the body for a time and to a temperature for gettering enough of the rapidly diffusing impurity to convert a portion of the body contiguous to the said layer to the opposite conductivity type for forming a rectifying junction within said body.

2,836,524
METHOD AND APPARATUS FOR THE PRODUCTION OF SINGLE CRYSTALS
Siegfried Sidney Brenner, Schenectady, and Charles R. Morelock, Ballston Spa, N. Y., assignors to General Electric Company, a corporation of New York
Application December 21, 1955, Serial No. 554,487
8 Claims. (Cl. 148—1.6)



1. A method for making high strength rod-like single crystals of tungsten comprising the steps of melting a tungstate of an element selected from the group consisting of alkali metal tungstates, alkaline earth tungstates and mixtures thereof in hydrogen at or near atmospheric pressure thereby producing an atmosphere comprised of hydrogen and tungsten-bearing vapor and passing said atmosphere over and around the surface of tungsten substrate maintained at a temperature between about 1800° and 2200° C. upon which high strength rod-like single crystals of tungsten are caused to be formed.

2,836,525
METHOD OF AND COMPOSITION FOR COATING ZIRCONIUM
George F. Otto, Oreland, Pa., assignor to American Chemical Paint Company, Ambler, Pa., a corporation of Delaware
Application May 18, 1956, Serial No. 585,659
1 Claim. (Cl. 148—6.14)



The method of coating zirconium which comprises treating the surface with an aqueous acid solution consisting essentially of sodium ion and fluoride ion as its coating-producing ingredients, the quantities of said ions per liter being as follows:

	Grams
Sodium	1.25 to 11
Fluoride	15. to 35

and the relative amounts of the said ions lying within the region bounded by the lines AB, BC, CD, DE and AE on the accompanying graph, the pH of the solution being from about 3.5 to 4.8 after a nearly steady reading as measured by an electrical pH meter using conventional glass electrodes, the temperature of the bath being less than 150° F. and the treatment being continued until a visible coating has been obtained.

2,836,526
ALUMINUM SURFACING
Michael N. Marosi, Los Angeles, Calif.
No Drawing. Application July 5, 1956
Serial No. 595,868
14 Claims. (Cl. 148—6.24)

1. The process of coating aluminum products with a thin layer of adhering material formed by the chemical action upon aluminum oxide of a formulated water solution of sulfamic acid, citric acid, sodium acid fluoride and an anionic type wetting agent in the approximate effective ratio of 1:1:.33:.05 respectively.

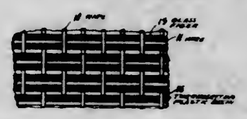
2,836,527
METHOD FOR PRODUCING FLAT SOLUTION HEAT TREATED TITANIUM AND ZIRCONIUM ALLOY SHEETS
Harold D. Kessler, Las Vegas, and Raymond S. Richards, Henderson, Nev., assignors to Titanium Metals Corporation of America, New York, N. Y., a corporation of Pennsylvania
No Drawing. Application February 7, 1956
Serial No. 563,836
3 Claims. (Cl. 148—10)

1. A method for producing flat, solution heat treated sheets of a metal selected from the group consisting of titanium and zirconium base alloys which comprises: heating said sheet by passage of an electric current therethrough until the temperature thereof reaches between 1300° F. and 1800° F., maintaining said sheet at said temperature of a period not exceeding ten minutes, stretching said sheet to provide an elongation thereof of not more than 5% in one direction during the time that said sheet is maintained at said temperature and quenching said sheet while maintaining it under tension.

2,836,528
FLOOR COVERINGS COMPRISING POLYETHYLENE TEREPHTHALATE FILM
Carlton Dudley Ford, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 25, 1955
Serial No. 503,833
1 Claim. (Cl. 154—49)

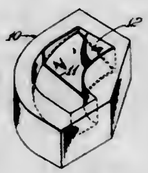
A composite sheet structure suitable as a floor covering consisting of a top layer of reverse printed, biaxially oriented, balanced, heat-set polyethylene terephthalate film, an intermediate adhesive layer of a butadiene/acrylonitrile copolymer, and a bottom layer of asphalt-impregnated felt.

2,836,529
REINFORCED PLASTIC
Harold H. Morris, Chicago, Ill., assignor of one-tenth to Hugh Adam Kirk, Toledo, Ohio
Application May 3, 1954, Serial No. 427,258
10 Claims. (Cl. 154—53)



1. A reinforced plastic product having embedded therein substantially parallelly aligned reinforcing interwoven metal wires and glass fibers, said glass fibers having lower coefficients of thermal expansion than said wires, and a polymerized thermosetting resinous material completely surrounding said fibers and wires, said resin having the property of contracting at its heat of polymerization to hold said wires under stress in said product.

2,836,530
METHOD OF MAKING FORMING TOOLS
John Rees, Bristol, England, assignor, by mesne assignments, to Bristol Aircraft Limited, Bristol, England, a British company
Application April 19, 1954, Serial No. 424,167
Claims priority, application Great Britain April 28, 1953
5 Claims. (Cl. 154—110)



3. A method of making a forming tool for use in manufacturing components from sheet metal, which method comprises the steps of, (*a*) coating the moulding surface of a mould which is a negative counterpart of the shape of the tool to be produced with a thin spacing layer of an easily removable material to which settable resin substance will not adhere strongly, (*b*) casting a core in the mould by packing onto the coated mould surface a plastic mass composed of loose filler material mixed with a settable resin substance which is thermally stable after setting, and allowing or causing the resin to set, (*c*) withdrawing the core from the mould, (*d*) removing all the material of the spacing layer remaining

on the moulding surface from the moulding surface, (*e*) removing from the core all the material, if any, of the spacing layer adhering to the core, (*f*) lining the mould with a surface layer of surfacing material of a thickness substantially equal to that of the spacing layer, but sufficient to take up any additional space in the mould resulting from shrinkage of the core during setting, at least part of said surface layer being composed of flexible fibrous sheet material impregnated with a resin substance which after setting is thermally stable, and the remainder of the surface layer, if any, being composed of loose filler material mixed with a settable resin substance which is thermally stable after setting, and then (*g*) replacing the core in the mould, and allowing or causing the resin substance of the surface layer to set.

2,836,531

PROCESSING OF REGENERATED CELLULOSE TUBING

Ellis Irving Lichtblau, Kenmore, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application March 30, 1956, Serial No. 575,128

4 Claims. (Cl. 154—116)

1. A process for mending two ends of gel regenerated cellulose tubing which comprises wetting one end of the gel regenerated cellulose tubing with aqueous liquid, and placing said wet end around the other end of the tubing for a distance of at least about 10 inches.

2,836,532

NEMATODE CONTROL

Eli Seifter, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 28, 1955
Serial No. 555,747

2 Claims. (Cl. 167—14)

1. The method of controlling nematodes which comprises subjecting said nematodes to a toxic quantity of a nematocidal composition comprising as the essential active ingredient sodium trithiocarbonate.

2,836,533

NEMATOCIDE

Eli Seifter, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 28, 1955
Serial No. 555,790

2 Claims. (Cl. 167—14)

1. The method of controlling nematodes which comprises exposing said nematodes to a toxic quantity of a nematocidal composition comprising as the essential active ingredient an alkaline tetrathioperoxycarbonate salt.

2,836,534

PHOSPHORUS-SULFUR COMPOUNDS

Gail H. Birum, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 11, 1954
Serial No. 409,773

4 Claims. (Cl. 167—22)

1. The method of preparing compounds having the formula:

$$(RS)_xP(S)Cl_y$$

in which R is selected from the class consisting of alkyl radicals having from one to four carbon atoms, aryl radicals, and heterocyclic radicals, x is a number from one to three, inclusive, y is a number from zero to two, inclusive, and x plus y equals three, which comprises reacting a phosphorus sulfide with a sulfenyl chloride, RSCl, in which R is selected from the class consisting of alkyl radicals having from one to four carbon atoms, aryl radicals, and heterocyclic radicals.

2,836,535

PHOSPHORUS-SULFUR COMPOUNDS

Gail H. Birum, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 11, 1954
Serial No. 409,774

5 Claims. (Cl. 167—22)

1. The method of preparing compounds having the formula:

$$(RS)_xPCl_y$$

in which R is selected from the class consisting of alkyl radicals having from one to four carbon atoms, aryl radicals and heterocyclic radicals, x is a number from one to three, inclusive, y is a number from zero to two, inclusive and x plus y equals three, which comprises reacting elemental phosphorus with a sulfenyl chloride, RSCl, in which R is selected from the class consisting of alkyl radicals having from one to four carbon atoms, aryl radicals, and heterocyclic radicals.

2,836,536

FUNGICIDAL COMPOSITIONS CONTAINING 1,4-DIBROMO-2-BUTYNE AND METHODS OF DESTROYING FUNGI

Lloyd J. Meuli, Long Beach, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 2, 1954
Serial No. 447,376

10 Claims. (Cl. 167—22)

1. An agronomical practice which comprises impregnating fungus infected soil with a fungicidal amount of 1,4-dibromo-2-butyne and thereafter planting the treated soil.

2,836,537

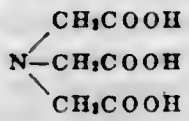
METHOD OF TREATING PLANTS TO PROTECT AGAINST RUST

Joseph B. Skaptason, Wedford, Pa., assignor to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application May 4, 1955
Serial No. 506,073

20 Claims. (Cl. 167—22)

1. A method of treating cereal grain plants to protect them against rust comprising applying to the plant a metal salt of an aminocarboxylic acid selected from the group consisting of ethylene diamine tetraacetic acid, hydroxyethyl ethylene diamine triacetic acid, cyanomethyl ethylene diamine triacetic acid



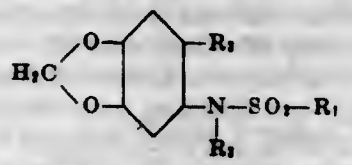
1,2-cyclohexane diamine N,N,N′,N′ tetra-acetic acid, diethylene triamine penta-acetic acid and triethylene tetramine hexa-acetic acid, the metal being selected from the group consisting of iron, copper, zinc, magnesium, aluminum, sodium, potassium, manganese, nickel, lead, cobalt, barium and calcium.

2,836,538
ALKYLSULFONYL AND ARYLSULFONYL DERIVATIVES OF METHYLENEDIOXYANILINE

Edward A. Prill, Yonkers, N. Y., assignor to Boyce Thompson Institute for Plant Research, Inc., a corporation of New York

No Drawing. Application November 29, 1954
Serial No. 471,880
7 Claims. (Cl. 167—33)

1. The compounds represented by the formula



wherein R_1 is a hydrocarbon radical containing from 1–10 carbon atoms, R_2 is a member of the group consisting of the hydrogen atom and alkyl, alkenyl, and aralkyl radicals containing not more than 10 carbon atoms attached through a saturated non-tertiary carbon atom, and R_3 is a member of the group consisting of the hydrogen atom and acyclic hydrocarbon radicals containing not more than 4 carbon atoms.

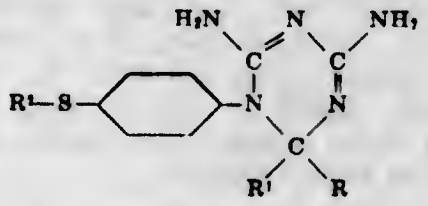
5. An insecticidal composition comprising a compound of claim 1 and an insecticide of the pyrethrins type together with an inert carrier capable of solvating said composition.

2,836,539
4,6-DIAMINO-1-(4-LOWER ALKYLMERCAPTOPHENYL)-1,2 - DIHYDRO - 1,3,5 - TRIAZINES AND PREPARATION THEREOF

Royal A. Cutler, West Sand Lake, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 29, 1956
Serial No. 568,432
14 Claims. (Cl. 167—53.1)

12. An anticoccidial composition comprising a mixture of a 4,6-diamino-1-(4-lower alkylmercaptophenyl)-1,2-dihydro-2-(lower alkyl)-2-(R)-1,3,5-triazine having the formula



where R^1 and R^2 are lower alkyl radicals and R is a member of the class consisting of hydrogen and lower alkyl radicals, and 2,2'-thiobis(2,4-dichlorophenol).

2,836,540
PHARMACEUTICAL ANTACID COMPOSITION

Leo L. Hardt, Chicago, Ill., assignor to The Hardt Foundation, a corporation not for profit of Illinois

No Drawing. Application March 19, 1952
Serial No. 277,535
1 Claim. (Cl. 167—55)

A pharmaceutical composition comprising a mixture of an alkali metal alginate, alkaline earth carbonate, aluminum hydroxide, magnesium trisilicate, and that fraction of oats consisting essentially of all the proteins of the oat grain, the alkali metal alginate being present in from 10% to 90% of the weight of the oat grain protein.

2,836,541
MANNITOL STABILIZED MORPHINE-PAPAVERINE COMPOSITION

Roger K. Lager, East Greenbush, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 4, 1953
Serial No. 396,329
1 Claim. (Cl. 167—67)

An aqueous solution containing morphine and papaverine, suitable for injection and stabilized against deterioration and discoloration, comprising morphine, papaverine and mannitol in the proportions by weight of about 1:2:2, the said solution being excluded from contact with atmospheric oxygen.

2,836,542
PROCESS OF PRODUCTION OF CRYSTALLINE INSULIN

Karl Petersen, Copenhagen, and Jörgen Schlichtkrull, Holte, Denmark, assignors to Novo Terapeutisk Laboratorium A/S, Copenhagen, Denmark, a company of Denmark

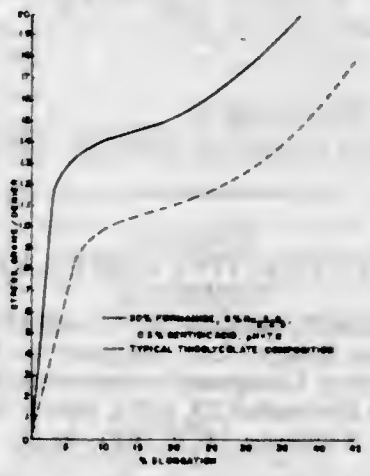
No Drawing. Application February 9, 1953
Serial No. 336,017
Claims priority, application Denmark February 13, 1952
4 Claims. (Cl. 167—75)

1. A process of producing insulin crystals which consists essentially of preparing an aqueous medium containing insulin in non-crystalline form and divalent ions of at least one of the metals selected from the group consisting of copper, manganese and iron, and adjusting the pH of said medium to a valve within the range of 5 to 7, said divalent ions being present in said aqueous medium in an amount above 0.5% by weight of the insulin such that insulin crystals containing said metals are precipitated upon the adjustment of said pH of said medium to said valve.

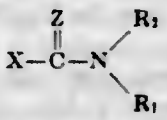
2,836,543
SULFITE HAIR WAVING COMPOSITION COMPRISING A NITROGEN-CONTAINING COMPOUND AND A SUBSTITUTED AROMATIC COMPOUND AS ADDITIVE, AND METHOD OF USE

Paul C. Watson, North Quincy, Mass., assignor to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts

Application May 27, 1954, Serial No. 432,710
7 Claims. (Cl. 167—87.1)



1. A liquid composition for setting hair in a predetermined configuration at temperatures between 20 and 40° C. without effecting any appreciable injurious swelling of said hair, consisting essentially of a water solution maintained at a pH between about 6 and 7.5 of a sulfite, a nitrogen-containing component and an additive, the combined solubility of which is such that no appreciable salting out of the components will occur on said hair at temperatures above about 20° C., said sulfite being present in a concentration equivalent to from about 2 to 10% by weight SO_2 of said solution, said nitrogen-containing component being present in a concentration equivalent to from about 15 to 40% by weight of said solution and having the formula



wherein X is a member selected from the group con-

sisting of hydrogen, alkanol and alkyl radicals containing not more than 3 carbon atoms, the radical

$$-(CH_2)_n-\overset{O}{\overset{\|}{C}}-NH_2$$

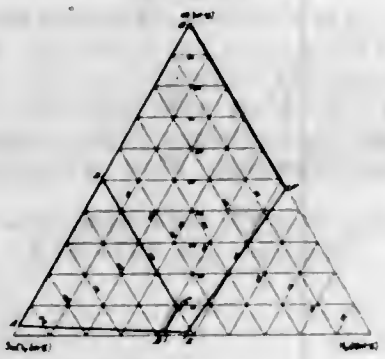
wherein n is the integer selected from 1 and 2, —OR, wherein R is an alkyl radical containing not more than 3 carbon atoms, and $—NR_3R_4$, R_1, R_2, R_3 and R_4 being members of the class consisting of hydrogen, alkyl and alkanol radicals which when taken together shall contain not more than 4 carbon atoms, and Z is a member selected from the class consisting of oxygen and =NH; said additive being present in a concentration equivalent to from about 0.5 to 6% by weight of said solution and being selected from the group consisting of substituted aromatic hydrocarbons and acid salts thereof, said substituted aromatic hydrocarbons having no more than two benzene rings and containing not less than two substituents taken from the group of OH, COOH, NH_2, substituted NH_2, C_6H_5, and substituted C_6H_5.

2,836,544

STANNOUS CHLOROFLUORIDE, METHOD OF PREPARING SAME, AND DENTIFRICE COMPOSITIONS THEREWITH

William H. Nebergall, Bloomington, Ind., assignor to Indiana University Foundation, Bloomington, Ind., a corporation of Indiana

Application February 7, 1955, Serial No. 486,385
9 Claims. (Cl. 167—93)



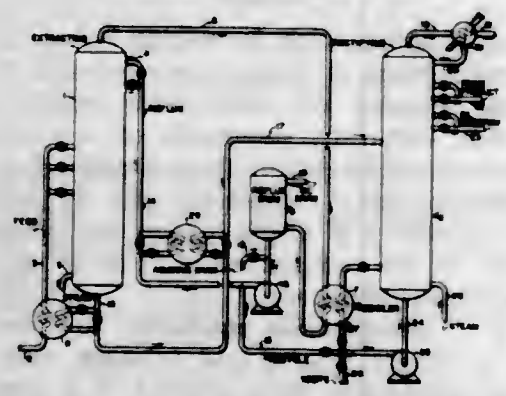
1. Stannous chlorofluoride.
6. A dentifrice containing stannous chlorofluoride.

2,836,545

WATER EXTRACTIVE DISTILLATION OF ETHANOL

William E. Catterall, Summit, N. J., and Mack Castleman Fuqua, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 23, 1954, Serial No. 477,314
4 Claims. (Cl. 202—39.5)



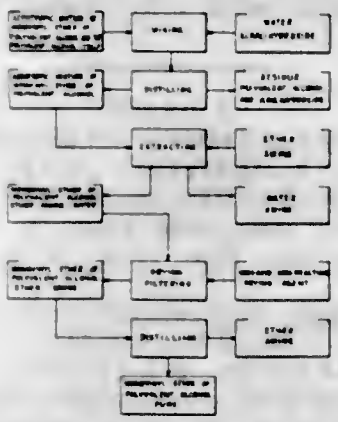
1. In a process of using water extractive distillation for purifying crude ethanol contaminated by small amounts of impurities including higher boiling hydrocarbon oils and oxygenated organic compounds but substantially freed of diethyl ether, the improvement which comprises distilling said impurities and their decomposition products with some of the ethanol and water in a water extractive distillation zone at temperatures substantially above the range of 172° F. to 212° F. throughout said zone by maintaining superatmospheric pressures of 60–150 p. s. i. g. therein, maintaining bottoms temperatures of said zone in the range of 280°–350° F. to decompose unstable higher boiling impurities present in the bottoms, thus forming volatile acidic decomposition products which are removed overhead with distilled vapors, thus given a pH in the range of 5 to 7 while the residual bottoms is thus made alkaline with a pH in the range of 7.5 to 9, passing the resulting dilute alkaline aqueous ethanol residue of the bottoms from the extractive distillation zone to a rectifying zone, and distilling from said rectifying zone a substantially neutral, purified, aqueous ethanol fraction at lowered pressures close to one atmosphere.

2,836,546

SEPARATION OF POLYHYDRIC ALCOHOLS AND MONOVINYL ETHERS THEREOF

Gerhard Faerber, Moers, Germany, assignor to Deutsche Solvay-Werke G. m. b. H., Solingen-Ohligs, Germany

Application November 8, 1954, Serial No. 467,662
Claims priority, application Germany November 25, 1953
1 Claim. (Cl. 202—42)



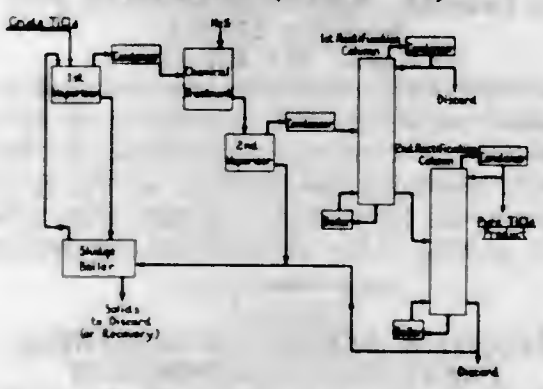
A process for the separation of a mixture consisting of a monovinyl ether of a polyhydric alcohol and the polyhydric alcohol itself, comprising distilling the mixture with water, thereby distilling off an azeotropic mixture of the monovinyl ether and water, the residue being the polyhydric alcohol in approximately quantitative yield, adding to the mixture to be distilled 0.1 to 0.5% by weight of an alkali hydroxide.

2,836,547

PURIFICATION OF TITANIUM TETRACHLORIDE

Carl Kerby Stoddard, Henderson, and Phillip J. Maddex, Las Vegas, Nev., assignors to Titanium Metals Corporation of America, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 21, 1954, Serial No. 437,914
6 Claims. (Cl. 202—57)



1. A process for the purification of crude titanium tetrachloride ($TiCl_4$) which comprises evaporating said crude $TiCl_4$ to separate solid and non-volatile materials therefrom, precipitating vanadium and other impurities from said evaporated $TiCl_4$ by means of a chemical treating agent, evaporating said treated $TiCl_4$ to separate non-

volatile precipitates therefrom, removing low boiling point impurities from said treated and evaporated $TiCl_4$ by a first fractional distillation and removing high boiling point impurities therefrom by a second fractional distillation, thereby to produce purified $TiCl_4$.

2,836,548

SURFACE TREATMENT OF METALLIC URANIUM

Allen G. Gray, Rocky River, and Ernest W. Schweikher, Shaker Heights, Ohio, assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application October 25, 1944
Serial No. 560,340
4 Claims. (Cl. 204—1.5)

1. The method of preparing metallic uranium for electroplating, which comprises treating the surface of the uranium for about one minute in aqueous 40% to 55% nitric acid solution to remove foreign material and expose a clean metal surface, treating the cleaned surface with aqueous 30% to 40% hydrochloric acid until it is etched black, promptly withdrawing it from the hydrochloric acid and treating it with aqueous 40% to 55% nitric acid for a few seconds to remove the black coloration and provide a gray etched metal surface.

2,836,549

NICKEL PLATING BATH CONTAINING ACETYLENIC POLYAMINES

Fred I. Nobel, North Valley Stream, and Barnet D. Ostrow, North Bellmore, N. Y., assignors to Elechem Corp., Jersey City, N. J., a corporation of New Jersey

No Drawing. Application January 21, 1955
Serial No. 483,419
8 Claims. (Cl. 204—49)

1. In a nickel plating bath comprising an aqueous solution of a compound taken from the class consisting of nickel sulfate and nickel chloride, the improvement which comprises the addition of the reaction product of a soluble acetylenic compound having from 2 to 15 carbon atoms and taken from the class consisting of acetylenic halides and acetylenic alcohol halides, with an alkylene polyamine having 2 to 12 amino groups, the alkylene groups having 2 to 3 carbon atoms, said soluble acetylenic compound being present in an amount of from .001 g./l. to 1.0 g./l., said product containing at least one carbon-to-carbon triple bond and being an acetylenic polyamine.

2,836,550

METHOD OF CHROMIUM PLATING ALUMINUM

William Donald MacLean, Oakville, Ontario, Canada, assignor to Chemical Research Corporation, Miami Beach, Fla., a corporation of Delaware

No Drawing. Application October 24, 1955
Serial No. 542,516
13 Claims. (Cl. 204—51)

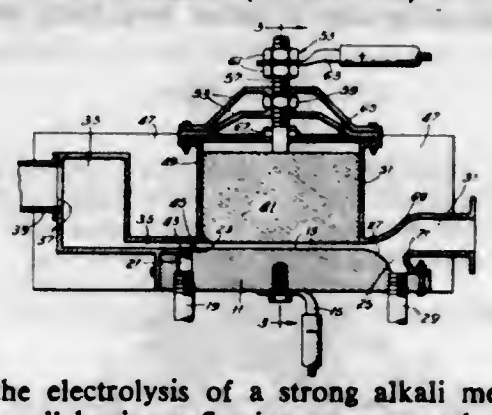
5. The method of electrodepositing chromium directly upon a metal selected from the group consisting of aluminum and aluminum base alloy products to deposit a continuous, consistent, highly ductile and easily buffed plate and one that remains crack free upon bending of the finished products; which comprises providing an electrolytic bath consisting essentially of chromic acid and the sulphate radical, immersing the articles to be plated in said aqueous solution of chromic acid and the sulphate radical, electrolyzing the solution under a current density of 0.4 to 0.9 ampere per square inch of surface to be plated and maintaining said solution at a maximum temperature not over 50° F. through controlled cooling means and throughout the entire cycle used to chromium plate said aluminum and aluminum base alloy products.

2,836,551

MERCURY CELL ELECTROLYSIS OF BRINE

Harold H. Heller and George H. Saunders, Appleton, Wis., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application March 27, 1953, Serial No. 344,932
6 Claims. (Cl. 204—99)



1. In the electrolysis of a strong alkali metal halide brine in a cell having a flowing mercury cathode and an anode parallel thereto and spaced therefrom, the space between the anode and cathode forming a brine passageway through the cell, the improvement which comprises propelling a stream of the brine through the passageway at a weight rate of flow relative to the anode such that the Reynolds number of the brine in the passageway is at least 4000 and supplying sufficient electric current to the cell to provide an electrode current density of at least 500 amperes per square foot.

2,836,552

TREATMENT OF NICKEL FOR ELECTROPLATING CHROMIUM THEREON

James D. Patrick, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

No Drawing. Application October 6, 1955
Serial No. 539,000
2 Claims. (Cl. 204—140)

1. A method of activating a surface of nickel for the electrodeposition of chromium thereon which comprises providing an aqueous solution consisting essentially of chromic acid within the range of 2 to 6 ounces per gallon and sulfate within the range of .05 to .30 ounce per gallon, immersing the nickel in said solution, said solution being at a temperature within the range of about 60° to 160° F., and passing an electric current through said solution with the nickel as the cathode at a current density of about 2 to 12 amperes per square foot for a time within the range of about 30 seconds to three minutes.

2,836,553

IRRADIATED RESINS

Donald A. Guthrie, Cranford, N. J., and David W. Young, Homewood, Ill., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application September 27, 1955
Serial No. 537,064
11 Claims. (Cl. 204—158)

1. A method which comprises subjecting a sulfonated polystyrene-divinyl benzene resin to high energy ionizing radiation of an intensity and duration sufficient to insure stability to hydrolysis.

2,836,554

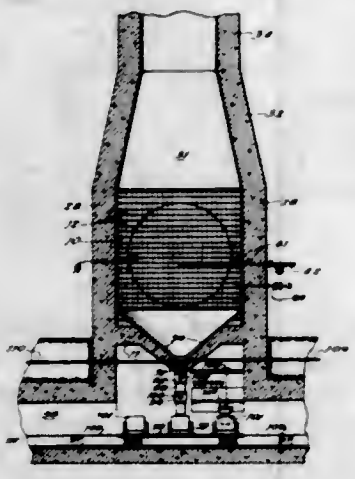
AIR COOLED NEUTRONIC REACTOR

Enrico Fermi, Santa Fe, N. Mex., and Leo Szilard, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application May 29, 1945, Serial No. 596,465
3 Claims. (Cl. 204—193.2)

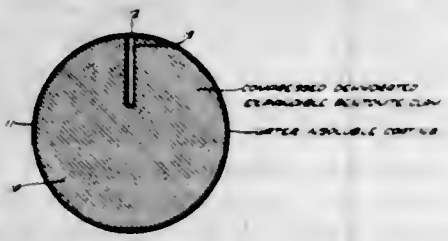
1. A neutronic reactor comprising a cubical mass of graphite approximately 25 feet in each dimension, hori-

zontal air channels of approximately 1.75 inches square cross-section extending between opposite faces of said mass in a repetitive square pattern with approximately 7 inches between centers of adjacent channels each of said channels having one of its corners extending downward, 68 cylindrical uranium slugs approximately 1.1 inches in diameter and 4 inches long lying end-to-end



centrally of each of the central 700 to 1000 channels in the downwardly extending corner thereof, at least one movable body of cadmium extending inwardly from one of the outer faces, means for selectively positioning said body of cadmium, means for forcing air through said channels from one of said faces to the other of said faces, and a shield of concrete from five to ten feet in thickness surrounding said mass.

2,836,555
MATERIAL FOR RECOVERING LOST CIRCULATION IN WELLS
Arthur L. Armentrout, Long Beach, Calif.
Application July 30, 1956, Serial No. 600,855
7 Claims. (Cl. 252—8.5)



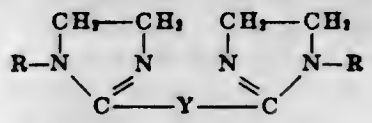
1. As a new article of manufacture, a pellet containing compressed, dehydrated, expandable bentonite clay coated with a water insoluble coating which is impervious to the ingress of water except at a restricted entrance, whereby the pellet may be introduced into a water containing mixture, pumped into a well, and ingress of water to the clay within the coating to an extent which will cause the clay to expand and rupture the pellet will be delayed until the pellet has had an adequate opportunity to be carried by the mixture to the desired locality after which the clay may absorb water, swell, and rupture the pellet exposing more of the clay to water absorption and swelling.

2,836,556
DRILLING MUD
William E. Thompson, Wallingford, and Chester N. White, Ridley Park, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application January 18, 1957
Serial No. 634,826
10 Claims. (Cl. 252—8.5)

7. An aqueous drilling mud comprising a hydratable alkaline earth metal clay, excess alkaline earth metal hydroxide and an organically derived clay dispersant, said drilling mud having added thereto finely divided silica mainly finer than 300 mesh in amount of at least 5% based on the clay solids content and sufficient to inhibit thickening of the composition when subjected to high temperature conditions.

2,836,557
METHOD OF INHIBITING CORROSION OF METALS
William B. Hughes, Tulsa, Okla., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 17, 1954
Serial No. 430,448
6 Claims. (Cl. 252—8.55)

1. The method of protecting metal equipment which is subject to the corrosive action of oil well fluids which comprises adding to the fluids a minor quantity effective to substantially inhibit the corrosion of the metal equipment of a compound having the generic formula



in which one R is selected from the group consisting of

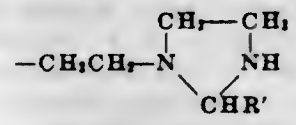
(1) $-CH_2CH_2-NH_2$

(2) $-CH_2CH_2-NH-CH_2CH_2-NH_2$

(3) $-CH_2CH_2-NH-CH_2CH_2-NH-CH_2CH_2NH_2$

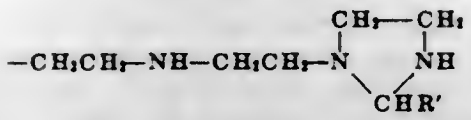
(4) $-CH_2CH_2-N=CHR'$

(5)



and

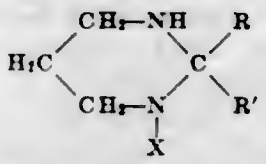
(6)



in which R′ is selected from the group consisting of hydrogen atoms and hydrocarbon radicals, and the other R is selected from the group consisting of (4), (5), and (6), and Y is a hydrocarbon radical containing at least 2 carbon atoms, and thereafter causing the well fluids to come in contact with the metal to be protected.

2,836,558
METHOD OF INHIBITING CORROSION OF METALS
William B. Hughes, Tulsa, Okla., assignor to Cities Service Research and Development Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 17, 1954
Serial No. 430,451
6 Claims. (Cl. 252—8.55)

1. The process of reducing corrosion of metals when exposed to corrosive oil well brines which comprises incorporating into corrosive oil well fluids a small but sufficient quantity of a compound selected from the group consisting of hexahydropyrimidines having the generic formula



in which X and R are selected from the group consisting of hydrogen atoms and hydrocarbon radicals, and R′ is a hydrocarbon radical, and oleate salts thereof, and thereafter causing the well fluids to flow in contact with the metal to be protected.

2,836,559

PROCESS FOR CONTROLLING WAX DEPOSITION

Morris Bock and James C. Spalding, Jr., Dallas, Tex., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application July 29, 1954
Serial No. 446,680
15 Claims. (Cl. 252—8.55)

1. Process for inhibiting the accumulation of wax from crude petroleum upon surfaces of a system through which the crude petroleum is transported which comprises introducing into the system, in the presence of the crude petroleum and prior to the accumulation of substantial amounts of wax therein, an inhibiting amount of an inhibitor the essential active ingredient of which is a polyoxyethylene ether of a hexitan partial ester of an organic carboxylic acid having 12–22 carbon atoms and selected from the group consisting of fatty, naphthenic and resin acids, said ether containing 4–30 oxyethylene groups per acid radical.

2,836,560

WATER- AND CORROSION-RESISTANT LUBRICATING GREASES GELLED WITH INORGANIC COLLOIDS

Ronald Sowerby Teale, Beaconsfield, England, and Hans Seeles, Hamburg, and Helmut Richard Karl Ferdinand Rolf Konau, Hamburg-Ohlsdorf, Germany, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 29, 1956
Serial No. 568,431
Claims priority, application Great Britain May 2, 1955
7 Claims. (Cl. 252—28)

1. A grease composition consisting essentially of a hydrocarbon lubricating oil, a grease-forming proportion of an inorganic hydrophilic colloidal gelling agent of the group consisting of inorganic oxides, hydroxides, sulfides, sulfates, silicates and carbonates, and from about 0.01% to about 3% by weight of an aliphatic compound having 3–10 carbon atoms per molecule and containing a halogen atom and an epoxy-oxygen atom, the amount of said compound being sufficient to improve the water resistant characteristic of the grease.

2,836,561

LUBRICATING OILS

John Scotchford Elliott and Eric Descamp Edwards, London, England, assignors to C. C. Wakefield & Company Limited, London, England, a British company

No Drawing. Application May 9, 1955
Serial No. 507,147
Claims priority, application Great Britain May 17, 1954
7 Claims. (Cl. 252—33.6)

1. A turbine oil comprising mineral oil containing from 0.5 to 2.0 percent of a compound selected from the group consisting of di(n-butyl) dithiodiacetate and di(n-butyl) trithiodiacetate, together with from 0.05 to 0.2 percent of benzothiazole disulphide and from 0.05 to 0.2 percent of an organic dithiocarbamate selected from the group consisting of zinc, cadmium and iron dithiocarbamates.

2,836,562

PETROLEUM LUBRICATING JELLY CONTAINING AN ALUMINUM SOAP, TRICRESYLPHOSPHATE AND TRIBUTYLPHOSPHITE

Henry A. Ambrose, Penn Township, Allegheny County, and Paul R. McCarthy, Allison Park, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application October 18, 1955
Serial No. 541,301
6 Claims. (Cl. 252—37.2)

1. A thixotropic petroleum lubricating jelly comprising a major amount of a petroleum lubricating oil having a viscosity of at least about 145 SUS at 100° F., about 4 to about 28 percent by weight of a wax having a wax melting point above about 120° F.; an aluminum soap in an amount such that the ratio of the soap to wax by weight is between about 1:1 and about 1:15; and about 0.1 to about 1.0 percent by weight of a mixture of tricresylphosphate and tributylphosphite, wherein the ratio of tricresylphosphate to tributylphosphite by weight is between about 1:1 and about 8:1.

2,836,563

LUBRICATING GREASE THICKENED WITH SODIUM MYRISTATE AND A PHTHALOCYANINE

John P. Dilworth, Fishkill, and James R. Roach, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application May 7, 1954
Serial No. 428,366
9 Claims. (Cl. 252—42.1)

1. A lubricating grease consisting essentially of an oleaginous liquid lubricating base thickened to a grease consistency with about 5 to 20 percent by weight based on the weight of the composition of sodium myristate and about 5 to 20 percent by weight based on the weight of the composition of copper phthalocyanine.

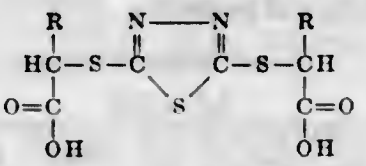
2,836,564

CORROSION INHIBITORS AND COMPOSITIONS CONTAINING THE SAME

Edward N. Roberts, Los Altos, Calif., and Ellis K. Fields, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application October 28, 1954
Serial No. 465,438
6 Claims. (Cl. 252—47.5)

4. A lubricant composition comprising a major proportion of a hydrocarbon oil and from about 0.001% to about 1% of a compound having the general formula



in which R is an alkyl radical having from about 10 to about 25 carbon atoms.

2,836,565

LUBRICATING COMPOSITIONS

John Scotchford Elliott and Eric Descamp Edwards, London, England, assignors to C. C. Wakefield & Company Limited, London, England, a British company

No Drawing. Application September 14, 1954
Serial No. 456,063
Claims priority, application Great Britain September 17, 1953
3 Claims. (Cl. 252—48.4)

1. A lubricating composition comprising a major proportion of at least one ester selected from the group consisting of di(2-ethyl hexyl) azelate, di(2-ethyl hexyl) sebacate, di(3:5:5-trimethylhexyl) azelate and di(3:5:5-trimethyl hexyl) sebacate and from 0.05% to 2.0% of pp'-dihydroxydiphenyl thioether.

2,836,566

CLEANING COMPOSITION AND METHOD

Ira J. Duncan, Detroit, Mich., assignor to Detrex Chemical Industries, Inc., a corporation of Michigan

No Drawing. Application January 27, 1954
Serial No. 406,595
3 Claims. (Cl. 252—137)

3. An alkaline metal cleaning composition for removing bakery incrustations from bakery containers consist-

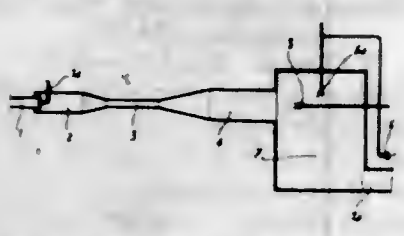
ing essentially by weight of about 50% sodium metasilicate, 39% soda ash, 5% copper sulfate, and 6% monoethanolamine.

2,836,567

APPARATUS FOR GENERATING SMOKE, FOG, AEROSOLS AND LAYERS OF GAS OR DISPERSIONS

Germain M. R. Reure, Vert-le-Petit, and François G. Paris, Chaville, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company and Etat Francais, Ministere de la Defense Nationale, represented by the Directeur Central des Poudres, Paris, France

Application July 6, 1953, Serial No. 366,325
Claims priority, application France July 25, 1952
5 Claims. (Cl. 252—359)



1. Apparatus for generating smoke, artificial fogs, aerosols and like dispersions comprising, in combination, a pulse jet unit having an air intake, a generator of pulses of hot combustion gases and an exhaust duct designed for imparting velocity to said pulses, in series flow arrangement, an accumulator chamber having an inlet connected wtih said duct and an outlet opening to the atmosphere and being otherwise substantially sealed from the atmosphere, the volume of said accumulator chamber being at least equal to the volume required for transforming the pulsating flow of gas entering said chamber into a substantially continuous flow issuing from said outlet, and means for injecting a substance to be dispersed into said accumulation chamber at a point upstream of and remote from said outlet.

2,836,568

STABILIZED FUEL ANTIKNOCK

George G. Ecke, Ferndale, and Alfred J. Kolka, Birmingham, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application December 2, 1955, Serial No. 550,520
4 Claims. (Cl. 252—386)

1. An antiknock composition consisting essentially of an alkyllead antiknock compound and, as a stabilizer therefor, a small stabilizing amount of a 4-methoxy-2,6-di-tert-alkyl phenol in which the alkyl groups contain from 4 to 8 carbon atoms.

2,836,569

ACTIVATABLE COKE FROM CARBONACEOUS RESIDUES

Ernest G. Doying, Pittsburgh, Pa., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application May 12, 1955
Serial No. 507,979
3 Claims. (Cl. 252—422)

1. A method of preparing activated carbon from tarry, pitch-like carbonaceous residues comprising pulverizing such residues; mixing therewith a sulfur-containing carbonizing agent selected from the group consisting of sulfur, potassium thiocyanate, potassium sulfide and sulfuric acid in an amount of about 40% by weight thereof; coking the resultant mixture at a temperature of 400 to 500° C.; admixing with the thus-formed coke limestone in an amount equivalent to between 8 and 10 times the fixed carbon content of said coke and heating the resultant mixture up to 950° C. to decompose said limestone and activate said coke.

2,836,570

CATALYST STONES FOR THE DECOMPOSITION OF CONCENTRATED HYDROGEN PEROXIDE

Charles Hargrave Peers, Enfield, England, assignor to the Minister of Supply in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, London, England

No Drawing. Application May 22, 1953
Serial No. 356,875
7 Claims. (Cl. 252—441)

1. Process for production of robust abrasion-resistant catalyst stones for the decomposition of hydrogen peroxide which comprises forming a paste from a mixture comprising substantially equal proportions of at least one substance selected from the group consisting of potassium iodide, potassium permanganate, potassium chromate and potassium dichromate, and lesser proportions of lead peroxide, lead monoxide and an inert refractory cement and water, shaping the paste into pellets, allowing the pellets to dry and harden, and finally consolidating the pellets by heat treatment to sinter the lead oxides to form a catalytically active binder.

2,836,571

PRODUCTION OF p-METHYL BENZYL CHLORIDE POLYMERS BY PYROLYSIS

Luther A. R. Hall, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 10, 1956
Serial No. 558,184
2 Claims. (Cl. 260—2)

1. A process for the preparation of a polymer having recurring units of the structure:

$$—(CH_2—Ar—CH_2)—$$

wherein —Ar— is a divalent carbocyclic aromatic radical which comprises pyrolyzing a monomer of the formula:

$$H_3C—Ar—CH_2Cl$$

and thereafter cooling the pyrolyzed vapors.

2,836,572

VINYL RESIN CONTAINING POLYNITROSO DIURETHANE BLOWING AGENT AND METHOD OF BLOWING

Lawrence Clark and Algirdas C. Poshkus, Lancaster, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application May 18, 1955
Serial No. 509,401
8 Claims. (Cl. 260—2.5)

1. The process of forming cellular products which comprises admixing a diurethane having the formula

$$ROOCN(NO)(CH_2)_nN(NO)COOR'$$

wherein R and R' are alkyl radicals containing from 1 to 4 carbon atoms, *n* is a whole number from 2 to 3 inclusive, and *m* is a whole number at least equal to 2, with a polymerized vinyl chloride, and heating said mixture to a temperature above the decomposition point of said N-nitrosoaminic urethane.

8. A high polymeric synthetic plastic comprising polymeric vinyl chloride and containing as a blowing agent an N,N'-substituted polynitroso diurethane having the formula

$$ROOCN(NO)(CH_2)_nN(NO)COOR'$$

wherein R and R' are alkyl radicals containing from 1 to 4 carbon atoms, *n* is a whole number from 2 to 3 inclusive, and *m* is a whole number at least equal to 2.

2,836,573

MARKING INKS CONTAINING GLYCIDYL POLYETHERS, ROSIN, AND ALUMINUM NITRATE

Kenneth L. Rohrer, Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application October 31, 1956
Serial No. 619,413
2 Claims. (Cl. 260—24)

1. A printing ink comprising from 15% to 50% by weight of a finely divided insoluble pigment dispersed in from 85% to 50% by weight of a vehicle, said vehicle comprising a solution of a glycidyl polyether derived from a dihydric phenol and an epihalohydrin and aluminum nitrate in a volatile organic solvent, said solvent comprising from 40% to 70% by weight of the vehicle, and the glycidyl polyether and the aluminum nitrate comprising from 60% to 30% by weight of the vehicle, said glycidyl polyether comprising from 1 to 2 parts by weight for each part by weight of the aluminum nitrate.

2,836,574

AQUEOUS UREA FORMALDEHYDE AND MELAMINE FORMALDEHYDE WATER-RESISTANT HOT-SETTING ADHESIVES

Gordon E. Brown, Seattle, Wash., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 11, 1954
Serial No. 409,759
4 Claims. (Cl. 260—29.4)

1. An adhesive comprising an aqueous solution of 100 parts of a water-soluble urea-formaldehyde condensate, from 75–200 parts of a melamine-formaldehyde condensate and an acidic curing catalyst, said urea condensate having been prepared by heating at reflux temperature and atmospheric pressure 1 mol of urea with from 2–2.5 mols of formalydehyde starting at a pH of 7–8 and continuing said heating until the pH drops to 5–6 whereby a condensate is produced containing a preponderance of methylol groups as compared to methylene bridges, said melamine condensate having been prepared by reacting 1 mol of melamine with 2.3–2.7 mols of formaldehyde at a pH of 8–9 at reflux temperature and atmospheric pressure whereby a condensate is produced which is soluble in water only in concentrations above 25% solids by weight.

2,836,575

COMPOSITION COMPRISING A POLYESTER-DIISOCYANATE REACTION PRODUCT AND AN ALKYL ACID PHOSPHATE AND PROCESS OF PREPARATION

Frederick Arthur Jones, Castle Bromwich, Wilfrid Cooper, Erdington, Birmingham, Daniel Owen Bowen, Kings Heath, Birmingham, and William Alun Griffiths, Erdington, Birmingham, England, assignors to Dunlop Rubber Company Limited, County of London, England, a British company

No Drawing. Application June 21, 1955
Serial No. 517,052
Claims priority, application Great Britain June 21, 1954
15 Claims. (Cl. 260—30.6)

1. A composition for the preparation of synthetic elastomers which comprises a reaction product of a polyester and an organic diisocyanate in admixture with from 0.1 percent to 1.0 percent by weight of an alkyl acid phosphate.

2,836,576

FIBROUS PELLICLE COMPRISING ORIENTED ETHYLENE TEREPHTHALATE POLYMER AND AMORPHOUS ETHYLENE TEREPHTHALATE BINDER AND PROCESS FOR MAKING SAME

John A. Piccard, Swarthmore, Pa., and Frank K. Signaigo, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 31, 1954
Serial No. 479,250
4 Claims. (Cl. 260—45.4)

1. A fibrous pellicle comprising a bonded mass of a fiber of a molecularly-oriented ethylene terephthalate polymer and an unoriented ethylene terephthalate polymer binder; the said ethylene terephthalate polymer of both the fiber and binder being a linear polyester containing a preponderance of ethylene terephthalate in the polymer chain.

2,836,577

STABILIZED POLYMERIC COMPOSITIONS

Alfred J. Kolka, Birmingham, and George G. Ecke, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 23, 1955
Serial No. 536,313
4 Claims. (Cl. 260—45.95)

1. A solid hydrocarbon polymer having a molecular weight of at least about 10,000 and being normally susceptible of oxidative deterioration containing, in amount sufficient to inhibit such deterioration, a small antioxidant quantity of a 2,6-dialkyl phenol in which the position para to the hydroxyl group is unsubstituted, there is a total of from 5 to 12 carbon atoms in the alkyl groups, and at least one of said alkyl groups is branched on the alpha carbon atom.

2,836,578

METHOD FOR POLYMERIZING AND SULFONATING VINYLIDENE AROMATIC COMPOUNDS

Arthur S. Teot, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 20, 1953
Serial No. 369,229
13 Claims. (Cl. 260—49)

1. A method of making a water-soluble sulfonated polymeric composition, which comprises feeding a solution of sulfur trioxide in an inert diluent into admixture with a monomeric vinylidene aromatic compound dissolved in a liquid reaction medium composed of at least one aliphatic polychlorohydrocarbon selected from the group consisting of carbon tetrachloride, chloroform, methylene chloride, 1,1,2-trichloroethane, tetrachloroethane and perchloroethylene, at a reaction temperature between —70° and 0° C. in proportions corresponding to from 3 to 5 moles of the sulfur trioxide per mole of the vinylidene aromatic compound and subjecting the mixture to said reaction temperature with resultant formation of an insoluble sulfonated polymeric product, then neutralizing the reaction mixture with an alkali selected from the group consisting of ammonia, sodium hydroxide and potassium hydroxide at a temperature below 0° C. and separating the product from the mixture.

2,836,579

POLYCARBONAMIDE FROM HEXAMETHYLENE DIAMINE AND 2,2-BIS-(CARBOXYPHENYL) PROPANE

Carl E. Schweitzer, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 10, 1953
Serial No. 373,432
11 Claims. (Cl. 260—78)

1. A tough, amorphous polycarbonamide of hexameth-

ylene diamine with a member of the class consisting of 2,2-bis-(p-carboxyphenyl)propane and 2,2-bis(m-carboxyphenyl)propane, having alternating units of the structure

$$—CO—C_6H_4—C(CH_3)_2—C_6H_4—CO—$$

and

$$—NH—(CH_2)_6—NH—$$

respectively along the main polymer chain, said polycarbonamide being further characterized in that it fails to crystallize upon being heated for 300 hours in air at 150° C.

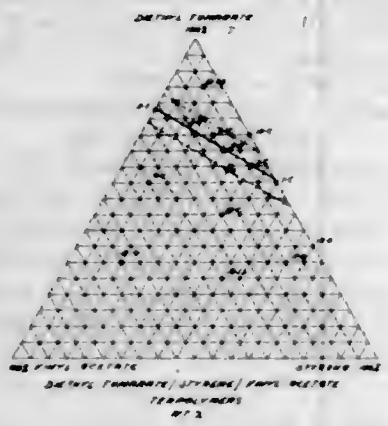
2,836,580

CLEAR TERPOLYMERS

George L. Wesp, Englewood, and Robert J. Slocombe, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

Application December 7, 1953, Serial No. 396,487

19 Claims. (Cl. 260—78.5)



1. A clear terpolymer prepared by free-radical-initiated batch polymerization of a monomeric mixture consisting of (*a*) a dialkyl fumarate, (*b*) a monomer selected from the group consisting of styrene, vinyltoluene, vinylxylene, vinyl acetate, vinyl chloride, and (*c*) a different monomer selected from said group, the proportions of the three monomers in said monomeric mixture being limited to those in the area of mixtures that produce solid clear terpolymer products, said area encompassing the line joining the polymerization azeotrope composition of said dialkyl fumarate and the particular (*b*) on the one hand and said dialkyl fumarate and the particular (*c*) on the other hand as plotted on an equilateral triangular coordinate graph.

2,836,581

PROCESS FOR MAKING RESINS

Leon B. Gordon, Texas City, Tex., assignor to The American Oil Company

No Drawing. Application March 1, 1955
Serial No. 491,508
7 Claims. (Cl. 260—82)

1. A process for making a resin from a fraction of dripolene which boils within the range of about 200° to 400° F., said dripolene consisting of the normally liquid mixture of hydrocarbons obtained in the pyrolysis of a normally gaseous hydrocarbon having at least two carbon atoms in the molecule at a temperature between about 1200° and 1800° F. and a contact time between about 0.05 and 5 seconds, thermally polymerizing said dripolene fraction at a temperature between about 400° and 500° F. whereby a portion of said dripolene fraction is converted into a thermal resin, contacting said thermal resin while dissolved in a hydrocarbon solvent with between about 0.01 and 0.2% by weight of BF_3 at a temperature above about 300° F. but not higher than about 600° F., and removing low-boiling components from the reaction products whereby an improved resin is obtained.

2,836,582

COPOLYMERS OF TRIFLUOROETHYLENE AND VINYL CARBOXYLATES

John M. Hoyt, Woodside, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application December 14, 1954
Serial No. 475,313
6 Claims. (Cl. 260—87.1)

1. A copolymer of about 5 to about 99 mole percent trifluoroethylene and correspondingly about 95 to about 1 mole percent of a vinyl carboxylate having at least 5 carbon atoms.

2,836,583

FLUOROPRENE COPOLYMERS

George H. Crawford, Jr., Staten Island, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application June 1, 1956
Serial No. 588,609
18 Claims. (Cl. 260—82.1)

15. A process which comprises polymerizing a monomeric mixture of fluoroprene and 2-trifluoromethyl-1,3-butadiene, said mixture containing between about 25 mole percent and about 75 mole percent fluoroprene and the remaining major constituent being the 2-trifluoromethyl-1,3-butadiene in the presence of a polymerization promoter comprising an organic peroxy compound at a temperature between about −20° C. and about 100° C.

16. A copolymer of fluoroprene and 2-trifluoromethyl-1,3-butadiene.

2,836,584

SUSPENSION POLYMERIZATION SYSTEM FOR ALKENYL AROMATIC POLYMERS

George L. Wheelock, Akron, and John R. Smith, Massillon, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application October 4, 1955
Serial No. 538,513
10 Claims. (Cl. 260—84.3)

1. A method for polymerizing a monomer mixture comprising a major proportion of an alkenyl aromatic compound and a minor proportion of a polyolefin to produce discrete particles of an interpolymer thereof which comprises suspending 100 weight parts of said monomer mixture in about 300 to about 500 weight parts of water with from about 0.01 to 1.0 weight part of an 8 to 18 carbon atom mercaptan modifier, from about 0.003 to about 0.006 mol per liter of water of a surface-active agent selected from the class consisting of alkali metal alkyl sulfates and alkylaryl sulfonates, wherein said alkyl groups contain from 8 to 14 carbon atoms, from about 0.2 to 1 weight part of polyvinyl alcohol and a redox initiator comprising an oil-soluble organic oxidant selected from the class consisting of aryl peroxides and hydroperoxides and a water-soluble reductant selected from the class consisting of alkali metal salts of sulfur dioxide and polyalkylene polyamines.

2,836,585

PROCESS FOR POLYMERIZING A VINYL HALIDE POLYMER IN THE PRESENCE OF GELATIN

Archie Hill, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application March 26, 1954
Serial No. 419,111
9 Claims. (Cl. 260—92.8)

1. The process for producing high quality polymer which comprises suspending in water an ethylenically-unsaturated monomer containing at least 85% by weight vinyl chloride with the aid of about 0.10% to 0.45% of gelatin based on the weight of said monomer, adding

an acid to lower the pH of the aqueous polymerization medium below the isoelectric point of the said gelatin and polymerizing said monomer with the aid of heat and a polymerization catalyst while maintaining the pH of the thus-formed suspension below the isoelectric point of the said gelatin and within the range from about 2 to 5, inclusive.

2,836,586

POLYBUTADIENE-CROTONIC ADDUCTS

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 27, 1953
Serial No. 357,929

8 Claims. (Cl. 260—94.7)

1. An adduct of (1) a polymer derived only from an aliphatic dienic hydrocarbon of from 4 to 8 carbon atoms with (2) a carboxy compound selected from the class consisting of crotonic anhydride, crotonic acid, and an ester of crotonic acid having the formula

$$CH_3CH{:}CHCOOR$$

in which R is selected from the class consisting of alkyl radicals of from 1 to 8 carbon atoms, alkoxyalkyl radicals of from 2 to 8 carbon atoms, alkylmercaptoalkyl radicals of from 4 to 8 carbon atoms, alicyclic radicals of from 3 to 6 carbon atoms, aryl radicals of from 1 to 12 carbon atoms and aralkyl radicals of from 4 to 14 carbon atoms and the furfuryl and tetrahydrofurfuryl radicals, one mole of said carboxy compound being combined at each of at least 5 percent of the olefinic units of said polymeric hydrocarbon, said adduct having been prepared by heating the polymer with the carboxy compound at a temperature of from 160° C. to 300° C.

2,836,587

METALLIZABLE MONOAZO-DYESTUFFS AND COMPLEX METAL COMPOUNDS

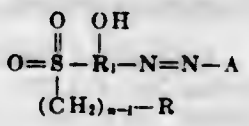
Arthur Buehler, Rheinfelden, and Christian Zickendraht, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application October 17, 1955
Serial No. 541,043

Claims priority, application Switzerland December 7, 1951

19 Claims. (Cl. 260—147)

1. A dyestuff selected from the class consisting of a monoazo dyestuff free from sulfonic and carboxylic acid groups and corresponding to the formula



wherein R represents a benzene radical, *n* represents a whole number which is at most 2, R_1 represents a benzene radical bound to the azo linkage in ortho-position relatively to the hydroxyl group and A represents the radical of a coupling component bound to the azo linkage in a position vicinal to a hydroxyl group, a chromium and a cobalt complex of said monoazo-dyestuff.

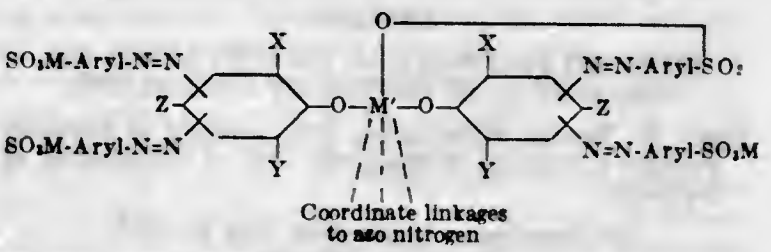
2,836,588

PIGMENT AND COMPOSITIONS THEREOF

Robert E. Fearon, Tulsa, Okla., assignor to Electro Chemical Laboratories Corporation, Tulsa, Okla., a corporation of Delaware

No Drawing. Application April 29, 1953
Serial No. 352,039
14 Claims. (Cl. 260—149)

7. A reaction product having the probable structural formula:



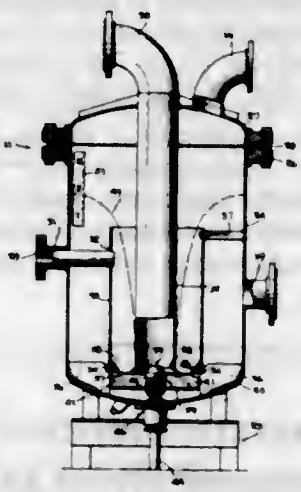
wherein Aryl is a phenyl group, X is a member of the group consisting of H and OH, M is a member selected from the group consisting of NH_4 and an alkali metal, M′ is a metal of the iron family, Y is a member selected from the group consisting of OH and —COOM″, and Z is a member of the group consisting of H and —COOM″, wherein M″ represents a member of the group consisting of H and an alkali metal, said product having been prepared by coupling a diazotized phenyl sulfonic acid salt with a phenolic compound selected from the group consisting of catechol, pyrogallol, gallic acid, salicylic acid and an alkali metal derivative of said acids, complexing the resulting product with a water soluble trivalent metal of the iron family, thereafter adjusting the pH of the resulting mixture to a value of from about 4.5 to about 9, precipitating said reaction product from said mixture by adding thereto a water-soluble organic nonelectrolite and recovering said reaction product.

2,836,589

VISCOSE HEATING

Lyman H. Allen, Jr., and Robert R. James, Charlotte, N. C., and William H. Bradshaw, New Rochelle, N. Y., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application May 17, 1954, Serial No. 430,368
22 Claims. (Cl. 260—218)



1. Process for the heating of viscose to raise its temperature, which comprises supplying a continuous stream of a viscose solution to a zone maintained at subatmospheric pressure, supplying a continuous stream of steam at subatmospheric pressure to said zone, mixing said viscose solution and said steam in said zone and condensing said steam in said viscose solution whereby the latent heat of vaporization of said steam is transferred to said viscose solution, and continuously discharging a stream of heated viscose solution from said zone.

10. Apparatus for heating a liquid, said apparatus comprising a container for liquid, a duct for heating fluid extending into said container for bringing said heating fluid

into contact with said liquid, and means, independent of said duct for establishing a vortex in the liquid in said container around said duct whereby said liquid is maintained substantially out of contact with said duct for a major portion of the length of said duct, said duct having an outlet, disposed substantially centrally of said vortex, for introducing said heating fluid into said liquid.

2,836,590

METHOD FOR PARTIAL DEACYLATION OF ORGANIC ACID ESTERS OF CELLULOSE

Harry W. Turner, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 5, 1955
Serial No. 506,361

11 Claims. (Cl. 260—230)

1. In a process for the partial deacylation of an organic acid ester of cellulose by alcoholysis, the improvement which comprises heating said cellulose ester in particulate form with a liquid consisting of an alcohol in the substantial initial absence of free acid to a temperature of at least about 180° C. and sufficient to cause said ester to dissolve in said alcohol, maintaining the cellulose ester in solution in the alcohol at a temperature of at least about 180° C. until the desired degree of partial deacylation is attained, and recovering the partially deacylated cellulose ester from the alcohol solution.

2,836,591

TREATMENT OF STARCH HYDROLYZATES WITH FORMALDEHYDE UNDER CAREFULLY CONTROLLED CONDITIONS

Harry W. Durand, Glenshaw, Pa., assignor to Corn Products Refining Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application October 19, 1953
Serial No. 387,039

3 Claims. (Cl. 260—233.3)

1. A process for producing a carbohydrate material which comprises dehydrating a starch hydrolysis liquor having a D. E. value from about 5 to about 40 to a moisture content below about 10 percent, heating the dried product in contact with formaldehyde and in the presence of an acid catalyst at a pH of from about 1.5 to about 4.5 and at a temperature between about 90° C. and 200° C. to polymerize components of said product; the amount of formaldehyde not exceeding about 2 percent calculated as anhydrous aldehyde based on the dehydrated substance.

2,836,592

CHLORINATION PROCEDURE

Constantine E. Anagnostopoulos and Eu-Phang T. Hsu, St. Louis, Mo., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application November 25, 1955
Serial No. 549,187

15 Claims. (Cl. 260—239.3)

1. The method of preparing 3,3-dihalo-2-ketohexamethyleneimine which comprises reacting ε-caprolactam with a halogenating reagent which has the ability to convert carboxylic acids into the corresponding acid halides, thereafter treating the reaction product with elemental halogen having an atomic weight between 30 and 90, contacting the reaction mixture with water, and separating the precipitated product from the aqueous medium.

2,836,593

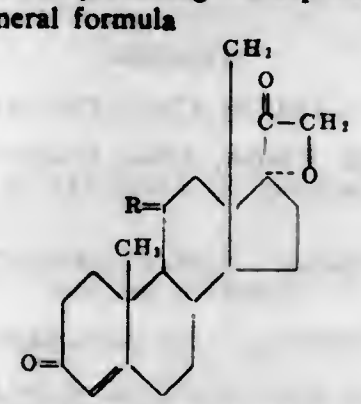
17α,21-OXIDO DERIVATIVES OF CORTISONE AND HYDROCORTISONE

Roger E. Beyler, Westfield, and Frances Hoffman, Newark, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

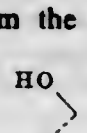
No Drawing. Application April 29, 1957
Serial No. 655,526

5 Claims. (Cl. 260—239.55)

1. A process for producing a compound of the group having the general formula



where R is selected from the group consisting of O= and



which comprises combining the corresponding 20-keto-17α,21-dihydroxy compound with methanesulfonyl chloride, thereby forming the corresponding 20-keto-17α-hydroxy-21-methanesulfonate, combining the 20-keto-17α-hydroxy-21-methanesulfonate at elevated temperature with an alkali metal fluoride, and separating the resulting 17α,21-oxido compound from the reaction mixture.

2,836,594

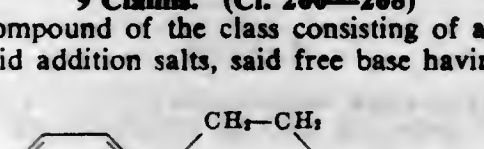
PIPERAZINE DERIVATIVES AND PROCESS FOR PRODUCING THE SAME

Robert F. Parcell, St. Clair Shores, Mich., assignor to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application June 29, 1955
Serial No. 518,999

9 Claims. (Cl. 260—268)

1. A compound of the class consisting of a free base and its acid addition salts, said free base having the formula



where R is a member of the class consisting of an allyl group and alkyl groups containing not more than four carbon atoms, Z is a member of the class consisting of hydrogen and lower aliphatic carboxylic acid acyl groups and *n* is an integer from 3 to 6 inclusive.

2,836,595

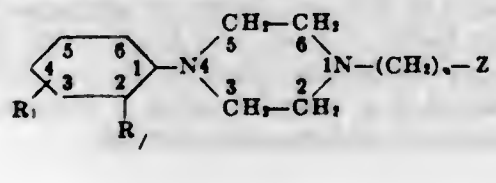
PIPERAZINE DERIVATIVES AND PROCESS FOR PRODUCING THE SAME

Robert F. Parcell, St. Clair Shores, Mich., assignor to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application October 22, 1956
Serial No. 617,254

12 Claims. (Cl. 260—268)

1. A member of the class consisting of 4-phenyl-1-piperazinealkyl carbamates and acid salts thereof having in free base form the formula



in which Z is a member of the class consisting of



and



where R is a member of the class consisting of chlorine and bromine radicals and alkoxy, alkenyloxy, alkenylmercapto and alkylmercapto groups having from 1 to 5 carbon atoms, R_1 is a member of the class consisting of hydrogen, 3-substituted and 5-substituted chlorine and bromine radicals and 3-substituted and 5-substituted alkyl, alkoxy and alkylmercapto groups having from 1 to 5 carbon atoms, each of R_2 and R_3 is a member of the class consisting of hydrogen and alkyl radicals having from 1 to 4 carbon atoms, R_4 is an alkyl radical having from 1 to 4 carbon atoms, and *n* is an integer from 2 to 6.

2,836,596

PROCESS FOR THE PRODUCTION OF 4-AMINO-5'-BROMO-ANTHRAQUINONE-2,1-(N)-1',2'-(N)-BENZENE-ACRIDONE

Fritz Baumann, Leverkusen-Bayerwerk, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application June 1, 1955
Serial No. 512,559

Claims priority, application Germany June 5, 1954

1 Claim. (Cl. 260—277)

A process for the production of 4-amino-5'-bromo-anthraquinone 2,1-(N)-1',2'-(N)-benzene-acridone which comprises reacting 1 mole of 1-anilido-4-amino-2'-carboxy-anthraquinone-3-sulphonic acid in a member selected from the group consisting of concentrated sulphuric acid, weak oleum and chlorosulphonic acid at a temperature of about 0 to 30° C. with 1 gram-atom of bromine, and converting the 1-anilido-4-amino-2'-carboxy-4'-bromo-anthraquinone-3-sulphonic acid formed by heating with a member selected from the group consisting of concentrated sulphuric acid, weak oleum and chlorosulphonic acid into 4-amino-5'-bromo-anthraquinone-2,1-(N)-1',2'-(N)-benzene-acridone and recovering the latter.

2,836,597

AMIDES OF N-ALKYL TETRAHYDRO-QUINALDINIC ACID

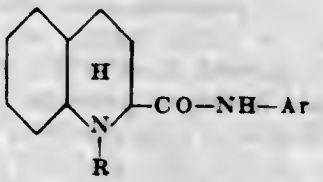
Bo Thuresson af Ekenstam and Borje Per Harald Egner, Bofors, and Bror Gosta Petterson, Karlskoga, Sweden, assignors to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden

No Drawing. Application January 18, 1957
Serial No. 634,807

Claims priority, application Sweden January 18, 1956

6 Claims. (Cl. 260—286)

1. Members of the group consisting of N-alkyl 1,2,3,4 tetrahydroquinaldinic acid amides and the pharmaceutically useful acid addition salts thereof wherein the free base form has the general formula:



Wherein R designates an alkyl radical and the symbol Ar designates a member of the group consisting of 2-alkyl and 2,6-dialkylbenzene.

2,836,598

TERTIARY-AMINO-SUBSTITUTED 1,5-IMINO-CYCLOALKANES AND PREPARATION THEREOF

Sydney Archer, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application August 24, 1954
Serial No. 451,963
26 Claims. (Cl. 260—292)

1. A cycloalkane having a 1,5-imino bridge and having a hydrocarbon radical attached to the imino nitrogen and a tertiary-amino-lower-alkylene group attached through an atom of an element from the group consisting of oxygen and sulfur to the cycloalkane carbon atom in the 3-position, wherein the cycloalkane is a member of the group consisting of cycloheptane and cyclooctane, and the tertiary-amino radical is a member of the group consisting of di-lower-alkylamino, 1-piperidyl, 1-pyrrolidyl, 4-morpholinyl, and monocarbocyclic aryl-lower-alkylamino radicals, the monocarbocyclic aryl moiety in the last named radical being selected from the group consisting of phenyl and phenyl substituted by from one to three substituents selected from the group consisting of lower-alkyl, lower-alkoxy and halogen radicals.

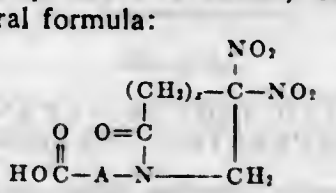
2,836,599

N-(CARBOXYALKYL) DINITRO LACTAMS

Milton B. Frankel, Pasadena, and Karl Klager, Monrovia, Calif., assignors to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio

No Drawing. Application March 7, 1957
Serial No. 644,693
19 Claims. (Cl. 260—294)

1. As new compositions of matter, the cyclic amides having the general formula:



wherein A is a lower alkylene radical and *x* is a whole number from 1 to 2 inclusive.

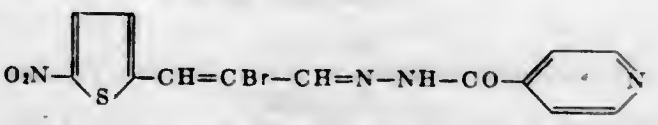
2,836,600

ALPHA-BROMO,BETA(5-NITRO-2-THIENYL)-ACROLEIN ISONICOTINYL HYDRAZONE

Gino Carrara and Emilio Testa, Milan, Italy, assignors to Lepetit S. p. A., Milan, Italy

No Drawing. Application October 19, 1954
Serial No. 463,311
Claims priority, application Great Britain
October 30, 1953
1 Claim. (Cl. 260—294.8)

α-Bromo-β-(5-nitro-2-thienyl)-acrolein isonicotinylhydrazone of the formula



2,836,601

DECARBOXYLATION TREATMENT

Godfrey Wilbert, Carmel, N. Y., Leo Reich, North Arlington, N. J., and Wesley Swigert, Central Valley, N. Y., assignors, by mesne assignments, to Warner-Lambert Pharmaceutical Company, Morris Plains, N. J., a corporation of Delaware

No Drawing. Application February 9, 1956
Serial No. 564,580
1 Claim. (Cl. 260—295.5)

Process for the production of n-butyl nicotinate, which comprises heating isocinchomeronic acid under autogenous pressure to a decarboxylating temperature of 180 to 250° C. in a reaction medium comprising n-butanol and containing from 12 to 25% by weight of water on the weight of the n-butanol.

2,836,602

PROCESS FOR THE PRODUCTION OF 2-AMINO-5-IMINO-PYRROLENINES

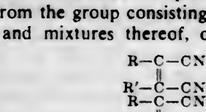
Georg Rösch, Leverkusen, Helmut Klappert, Koln-Stammheim, and Walther Wolf, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application January 6, 1955
Serial No. 480,298

Claims priority, application Germany January 7, 1954

5 Claims. (Cl. 260—313)

1. Process for the production of 2-amino-5-imino-pyrrolenine salts, which comprises reacting a member selected from the group consisting of maleic and fumaric dinitriles and mixtures thereof, of the general formula



wherein R stands for a member of the group consisting of alkyl, cycloalkyl, aralkyl, phenyl, halogen and H, R′ stands for a member of the group consisting of alkyl, cycloalkyl, aralkyl and halogen, and R+R′ may be ring members of a cycloalkylene ring in the case of the maleic dinitrile, with alcohol and a member of the group consisting of dry hydrogen chloride and dry hydrogen bromide in an inert organic diluent, treating the imino ether formed with ammonia, and recovering the pyrrolenine salt thus obtained.

2,836,603

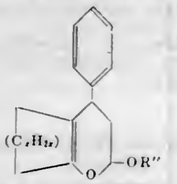
POLYCYCLIC DIHYDROPYRANS AND PREPARATION THEREOF

William S. Emerson, Dayton, Ohio, and Raymond I. Longley, Jr., Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 9, 1953
Serial No. 341,376

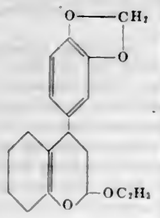
17 Claims. (Cl. 260—340.5)

2. The 2 - alkoxy - 3,4 - dihydro - 4 - phenyl - 5,6-polymethylene - 2H - pyrans having the formula



wherein R″ is an alkyl radical containing up to 4 carbon atoms and x is an integer from 3 to 5.

5. The compound 2 - ethoxy - 3,4,5,6,7,8 - hexahydro-4 - (3,4 - methylenedioxyphenyl) - 2H - benzopyran having the formula



2,836,604

PREPARATION OF RACEMIC SANTONIN

Yasuo Abe, Ikeda, Osaka, Tadatsugu Harukawa, Sakyo-ku, Kyoto, Hisashi Ishikawa, Higashinada-ku, Kobe, Takuichi Miki, Amagasaki, Hyogo, Masao Sumi, Ikeda, Osaka, and Tadashi Toga, Ashiya, Hyogo, Japan, assignors to Takeda Pharmaceutical Industries, Ltd., Higashi-ku, Osaka, Japan

No Drawing. Application April 19, 1954
Serial No. 424,284

Claims priority, application Japan September 30, 1953

6 Claims. (Cl. 260—343.3)

2. A method for the manufacture of a racemic santonin having a melting point of 190° C. (uncorr.), which comprises subjecting racemic α-(3-keto-4,9-dimethyl-1,2,3,5,-6,7,8,9-octahydro-6-naphthyl)-propionic acid to the action of two equivalents of free halogen whereby the halogen is introduced at each of the 2- and 5-positions, and subjecting the product to the action of a dehydrohalogenating agent selected from the group consisting of bases of the pyridine series and metal halides whereby the halogen at C_5 and the hydrogen of the carboxyl radical at C_{11} split off as hydrogen halide forming a lactone ring, and the halogen is split off at C_2 forming a double bond between C_1 and C_2.

3. A method for the manufacture of a racemic santonin having a melting point of 190° C. (uncorr.), which comprises subjecting racemic α-(3-keto-4,9-dimethyl-1,2,3,5,-6,7,8,9-octahydro-6-naphthyl)-propionic acid to the action of one equivalent of free halogen whereby the halogen is introduced at the 5-position, subjecting the product to the action of a dehydrohalogenating agent selected from the group consisting of bases of the pyridine series and metal halides whereby the halogen at C_5 and the hydrogen of the carboxyl radical at C_{11} split off as hydrogen halide forming a lactone ring, subjecting the product to the action of one equivalent of free halogen whereby the halogen is introduced at C_2, and subjecting the product to the action of a dehydrohalogenating agent selected from the group consisting of bases of the pyridine series and metal halides whereby the halogen at C_2 is split off and a double bond is formed between C_1 and C_2.

2,836,605

IN SITU EPOXIDATION USING ACETIC ANHYDRIDE AND A BASIC SALT

Stanley P. Rowland and Ralph G. White, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 9, 1954
Serial No. 435,612

18 Claims. (Cl. 260—348.5)

1. A process for the in situ epoxidation of an ester of a water-insoluble unsaturated aliphatic acid which comprises reacting by mixing together at a temperature from about 10° C. to the boiling point of the reaction mixture said ester with an aqueous mixture having a pH from about 0.5 to about 4.0 and said aqueous mixture being formed from hydrogen peroxide, acetic anhydride and as a catalyst a salt of the alkali metals and alkaline earth metals which when present in water imparts thereto a pH of at least 6.0, said hydrogen peroxide being present in an amount equivalent to at least one mole for each double bond in each mole of said ester, and said acetic anhydride being present in an amount equivalent to about 0.6 to 2 moles for each double bond in each mole of said ester and said salt being present in an amount equal to at least 0.5% based on the weight of said hydrogen peroxide.

2,836,606

SALTS OF 1,1,2,5,6,6-HEXACYANO-3,4-DIAZAHEXADIENE

William J. Middleton, Claymont, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 4, 1956
Serial No. 607,569

7 Claims. (Cl. 260—391)

1. A salt of 1,1,2,5,6,6-hexacyano-3,4-diazahexadiene.

5. A salt of 1,1,2,5,6,6-hexacyano-3,4-diazahexadiene with a basic dye.

6. Process of preparing a salt of 1,1,2,5,6,6-hexacyano-3,4-diazahexadiene which comprises reacting tetracyanoethylene with one mole of hydrazine and at least two molar equivalents of a base.

2,836,607

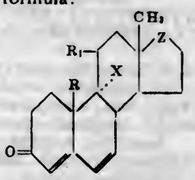
$\Delta^{4,6}$-ANDROSTADIENE-9 HALO COMPOUNDS

Eugene J. Agnello and Gerald D. Laubach, Jackson Heights, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

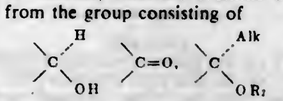
No Drawing. Application April 1, 1957
Serial No. 649,657

2 Claims. (Cl. 260—397.3)

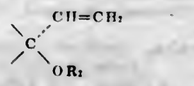
1. A compound selected from the group consisting of those having the formula:



wherein R is selected from the group consisting of hydrogen and CH_3; R_1 is selected from the group consisting of β-hydroxyl and keto; X is selected from the group consisting of fluorine, chlorine, bromine and iodine; Z is selected from the group consisting of



and



R_2 is selected from the group consisting of hydrogen and acyl hydrocarbon containing up to ten carbon atoms; and Alk is selected from the group consisting of alkyl groups containing up to four carbon atoms.

2,836,608

SYNTHESIS OF STEROIDS

Josef Fried, New Brunswick, Richard W. Thoma, Somerville, David Perlman, Princeton, and John R. Gerke, Franklin Township, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application May 27, 1955
Serial No. 511,784

12 Claims. (Cl. 260—397.4)

1. A steroid selected from the group consisting of 7α-hydroxyprogesterone and hydrocarbon carboxylic acid esters thereof, wherein the acid moiety contains less than ten carbon atoms.

2,836,609

STABILIZED FUEL ANTIKNOCK

Alfred J. Kolka, Birmingham, and George G. Ecke, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 21, 1955
Serial No. 495,800

3 Claims. (Cl. 260—437)

1. An antiknock composition wherein the principal antiknock ingredient is a tetraalkyllead antiknock compound and, as a stabilizer therefor, a small amount of 2-isopropyl-6-t-butylphenol.

2,836,610

STABILIZED FUEL ANTIKNOCK

Alfred J. Kolka, Birmingham, and George G. Ecke, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 21, 1955
Serial No. 495,801

3 Claims. (Cl. 260—437)

1. An antiknock composition wherein the principal antiknock ingredient is a tetraalkyllead antiknock compound and a small amount of 2,6-di-t-butyl phenol sufficient to effectively stabilize the composition, said amount not exceeding about 2.0 percent by weight of said compound.

2,836,611

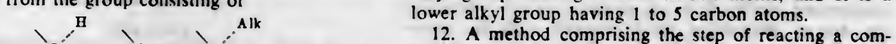
END-BLOCKED LINEAR POLYSILOXANES

Lawrence J. Exner and Peter L. De Benneville, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application March 30, 1955
Serial No. 498,110

15 Claims. (Cl. 260—448.8)

1. A composition comprising a compound having the general formula



in which m is an integer having a value of 1 to 3, n is a positive number having an average value from 2 to 9, A is selected from the group consisting of —CN and —$COOR^0$ where R^0 is selected from the group consisting of cyclohexyl and alkyl groups of 1 to 18 carbon atoms, R′ is selected from the group consisting of H and alkyl groups having 1 to 8 carbon atoms, and R is a lower alkyl group having 1 to 5 carbon atoms.

12. A method comprising the step of reacting a compound of Formula III following with a compound of Formula IV following:



in which m is an integer having a value of 1 to 3, n is a positive number having an average value from 2 to 9, A is selected from the group consisting of —CN and —$COOR^0$ where R^0 is selected from the group consisting of cyclohexyl and alkyl groups having 1 to 18 carbon atoms, R′ is selected from the group consisting of H and alkyl groups having 1 to 8 carbon atoms, and R is a lower alkyl group having 1 to 5 carbons.

2,836,612

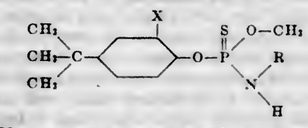
O-ARYL O-METHYL PHOSPHOROAMIDOTHIOATES

Kenneth C. Kauer and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 2, 1956
Serial No. 580,427

6 Claims. (Cl. 260—461)

1. An O-aryl O-methyl phosphoroamidothioate of the formula



wherein X represents a member of the group consisting of chlorine and bromine and R represents a member of the group consisting of hydrogen, methyl and ethyl.

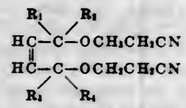
2,836,613

3,3'-(ALKYLENEDIOXY)DIPROPIONITRILES

Samuel Allen Heininger, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 14, 1956
Serial No. 571,384
6 Claims. (Cl. 260—465.6)

1. 3,3'-(alkenylenedioxy)dipropionitriles of the formula



wherein R_1, R_2, R_3, and R_4 taken separately are selected from the class consisting of hydrogen and hydrocarbon radicals free of non-benzenoid unsaturation and containing from 1 to 16 carbon atoms, and wherein R_1 and R_2 taken together and R_3 and R_4 taken together represent, together with the carbon atom to which they are attached, a saturated carbocyclic radical containing from 5 to 10 carbon atoms.

2,836,614

PROCESS FOR PRODUCING UNSATURATED NITRILES

Thomas Bewley, Epsom, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

Application August 13, 1953, Serial No. 374,127
Claims priority, application Great Britain August 13, 1952
17 Claims. (Cl. 260—465.9)

1. The process for the production of substantially pure unsaturated nitriles from an impure mixture containing the desired unsaturated nitrile together with the corresponding unsaturated aldehyde and hydrogen cyanide as impurities, which comprises reacting the unsaturated aldehyde and the hydrogen cyanide together to form a condensation product so that substantially the whole of one reactant is converted, and separating by distillation the resulting condensation product from the mixture containing the unsaturated nitrile and any remaining unconverted reactant before fractionating the mixture to recover the unsaturated nitrile.

2,836,615

METHYLENE BLUE REMOVAL FROM ACRYLIC MONOMERS

Samuel Allen Heininger and Edward L. Doerr, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 21, 1956
Serial No. 572,800
7 Claims. (Cl. 260—465.9)

1. The method for the removal of methylene blue inhibitor from a substantially anhydrous acrylic monomer selected from the class consisting of acrylonitrile, acrylic acid, and alkyl esters of acrylic acid wherein the ester alkyl radical is derived from an alcohol containing from one to eighteen carbon atoms, which comprises contacting the said acrylic monomer, containing a polymerization-inhibiting amount of methylene blue, with an actively adsorbent magnesium silicate clay, and isolating therefrom the said acrylic monomer in a form having a decreased content of methylene blue, substantially colorless, and adapted for polymerization.

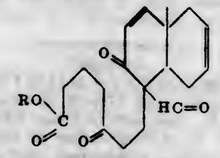
2,836,616

1 - FORMYL - 1 - (3 - KETO - 6 - CARBOALKOXYHEXYL) - 2 - KETO - 10 - METHYL - 1,2,5,8,9,10-HEXAHYDRONAPHTHALENE

Martin W. Farrar, Webster Groves, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 14, 1954
Serial No. 436,721
2 Claims. (Cl. 260—468)

1. As a new compound the levo-rotatory isomer of trans - 1 - formyl - 1 - (3 - keto - 6 - carboalkoxy - hexyl) - 2 - keto - 10 - methyl - 1,2,5,8,9,10 - hexahydronaphthalene of the structural formula



where R is a short chain alkyl radical.

2,836,617

1 - (β - CARBOXYETHYL) - 2 - KETO - 14 - METHYL-$\Delta^{6,9,11(1)}$ - OCTAHYDROPHENANTHRENE AND ESTERS

Harold Raffelson, St. Louis, Mo., and Quentin E. Thompson, Belleville, Ill., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 14, 1954
Serial No. 436,718
3 Claims. (Cl. 260—468.5)

1. A member of the class consisting of a free acid and its short chain alkyl esters, said free acid being the levo-rotatory isomer of anti-trans-1-(β-carboxyethyl)-2-keto-14-methyl-$\Delta^{6,9,11(1)}$-octahydrophenanthrene.

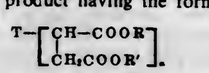
2,836,618

ADDUCTS OF HYDROGENATED TERPHENYL AND DIALKYL FUMARATES

Joachim Dazzi, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

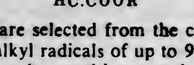
No Drawing. Application September 24, 1953
Serial No. 382,192
4 Claims. (Cl. 260—475)

1. An addition product having the formula

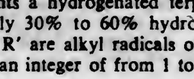


in which T represents a hydrogenated terphenyl radical which is substantially 30% to 60% hydrogenated on a molar basis, R and R' are alkyl radicals of up to 9 carbon atoms, and *n* is an integer of from 1 to 4.

3. The method which comprises heating at a temperature of 180° C. to 300° C. hydrogenated terphenyl which is substantially 30% to 60% hydrogenated on a molar basis with a fumarate having the formula



in which R and R' are selected from the class consisting of alkyl and alkoxyalkyl radicals of up to 9 carbon atoms and recovering from the resulting reaction mixture an addition product of the formula



in which T represents a hydrogenated terphenyl radical which is substantially 30% to 60% hydrogenated on a molar basis, R and R' are alkyl radicals of up to 9 carbon atoms and *n* is an integer of from 1 to 4.

2,836,619

PURIFICATION OF ALKARYL SULFONATES

James C. Kirk and Warren W. Woods, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application November 15, 1954, Serial No. 468,613
12 Claims. (Cl. 260—505)

1. The process of producing an alkaryl sulfonate substantially free of inorganic sulfates and sulfites which comprises diluting a crude alkaryl sulfonic acid prepared by sulfonating an alkaryl hydrocarbon with a sulfonating agent selected from the group consisting of oleum and sulfuric acid with an organic solvent having a boiling point within the range of about 25 to about 250° C., neutralizing said sulfonic acid by adding thereto an alkali metal hydroxide, contacting the mixture with an aqueous alkali metal carbonate solution, allowing the mixture to separate into at least two layers, a non-aqueous layer comprising the organic solvent, the alkali metal alkaryl sulfonate, and a minor amount of water, an aqueous layer comprising water and inorganic salts, separating said non-aqueous layer from said aqueous layer, and then obtaining the purified sulfonate from said non-aqueous layer by removing therefrom said organic solvent and water.

2,836,620

AMINO SULFONIC ACIDS AND SALTS THEREOF

Frederick C. Bersworth, Verona, N. J., and Arthur E. Martell, Northboro, and Roger G. Lacoste, Worcester, Mass., assignors, by direct and mesne assignments, to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 17, 1954
Serial No. 416,953
4 Claims. (Cl. 260—507)

1. Amino sulfonic acid compounds in accordance with the following generic formula:



wherein X is selected from the group consisting of methylene sulfonic acid and alkali metal, ammonium and amine salts thereof; Y is selected from the group consisting of X and ortho substituted phenyl radicals in which the substituent is selected from the group consisting of —COOH, —OH, sulfonic acid and phosphonic acid, alkali metal, ammonium and amine salts thereof; and Z is selected from the group consisting of X and Y, wherein at most only two of said X, Y, Z positions on the nitrogen atom may be occupied by identical sulfonic acid groups.

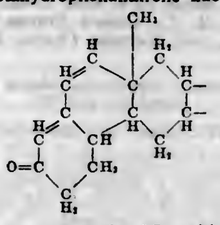
2,836,621

STEROID INTERMEDIATES AND PROCESS

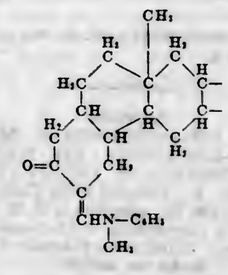
Virgil W. Gash and Bernard S. Wildi, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 24, 1956
Serial No. 605,930
8 Claims. (Cl. 260—514.5)

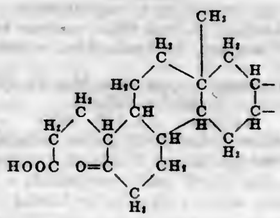
7. A method of preparing a carbocyclic keto acid which comprises formylating a tricyclic ketone having the 8a-methyl-2-keto-octahydrophenanthrene nucleus,



the incomplete structure at the 6,7 positions here and in the formulae below representing structure selected from the group consisting of a $\Delta^{6(7)}$ structure, acyloxy groups of 1 to 8 carbon atoms attached at each of the 6 and 7 positions, and a ketonide attached across the 6 and 7 positions, the said ketonide having 3 to 6 carbon atoms and being hydrocarbon except for the oxygen linkages to the 6 and 7 positions, in an organic solvent, converting the resulting 3-hydroxymethylene compound to a 3-(N-methylanilino)methylene compound by treatment with methylaniline, hydrogenating the latter compound over a hydrogenation catalyst to a 3-(N-methylanilino)methylene-8a-methyldodecahydrophenanthrene,



and cyanoethylating by treatment with acrylonitrile, and hydrolizing to give a carbocyclic tricyclic keto-acid having the 1-(beta-carboxyethyl)-8a-methyldodecahydrophenanthrene-2-one nucleus,



2,836,622

PREPARATION OF CARBONYL FLUORIDE

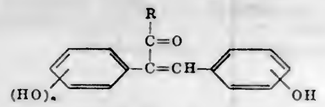
Charles W. Tullock, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 18, 1955
Serial No. 489,294
10 Claims. (Cl. 260—544)

1. The process for the preparation of carbonyl fluoride, COF_2, wherein phosgene is reacted with at least one mole, per mole of phosgene, of hydrogen fluoride at a temperature of at least 50° C.; the reaction product, containing carbonyl fluoride and hydrogen chloride, is brought into contact at temperatures above about 0° C. with at least a stoichiometric amount, based on the hydrogen chloride and residual hydrogen fluoride therein, of an inorganic chemical compound of the group consisting of alkali metal fluorides, sulfur trioxide and phosphorus pentoxide, said compound being unreactive with carbonyl fluoride but reactive with hydrogen chloride to form stable products; and the reaction products are maintained in contact with said inorganic chemical compound until substantially all of the hydrogen chloride formed in the phosgene-hydrogen fluoride reaction is absorbed.

2,836,623
BIS (HYDROXYPHENYL) ALKENONES AND PROCESS
Kurt J. Rorig, Glenview, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware
No Drawing. Application March 1, 1956
Serial No. 568,716
7 Claims. (Cl. 260—590)

1. A compound of the formula



wherein R is a lower alkyl radical, and *n* is a positive integer less than 3.

2,836,624
3,4-DIHYDRO - 2-(3',4'-DIHYDRO - 6' - METHOXY-1'-NAPHTHYL)-6-METHOXY - 1(2) - NAPHTHALENONE AND PROCESS OF PREPARATION
Robert E. Gentry, Jr., Pleasant Hills, Calif., and Robert R. Burtner, Skokie, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware
No Drawing. Application February 25, 1957
Serial No. 642,317
2 Claims. (Cl. 260—590)

1. 3,4-dihydro-2-(3',4'-dihydro-6'-methoxy-1'-napthyl)-6-methoxy-1(2)-naphthalenone.

2,836,625
SULFONIUM COMPOUNDS
William E. Weesner, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application May 18, 1956
Serial No. 585,611
8 Claims. (Cl. 260—607)

1. (Chlorophenyl)dialkylsulfonium triiodides having from 1 to 8 carbon atoms in the alkyl radical.

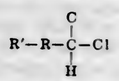
3. The method which comprises heating a bis(chlorophenyl)disulfide with an alkyl iodide having from 1 to 8 carbon atoms in the alkyl radical and recovering from the resulting reaction product a bis(chlorophenyl)dialkylsulfonium triiodide having from 1 to 8 carbon atoms in the alkyl radical.

6. A bacteriostatic composition comprising an inert carrier and the compound defined in claim 1 as the effective ingredient.

7. A nematocidal composition comprising an inert carrier and the compound defined in claim 1 as the active ingredient.

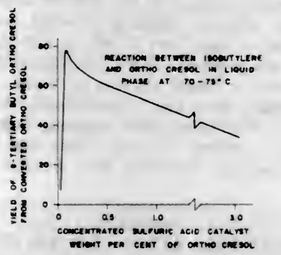
2,836,626
METHOD OF PREPARING NON-IONIC EMULSIFIERS
Elbert L. Hatleld, Ponca City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
No Drawing. Application March 14, 1955
Serial No. 494,243
7 Claims. (Cl. 260—611)

1. The method of preparing a non-ionic emulsifier which comprises reacting on a molar basis one mole of a mono alkali metal derivative of a polyoxyalkylene diol wherein said diol has a molecular weight within the range of 200 to 400 with a mole of a chloroalkaryl hydrocarbon having a general formula



wherein R is a phenyl and R' is selected from the group consisting of hydrogen and alkyl radicals at a temperature within the range of about 50 to 150° C.

2,836,627
PREPARATION OF 6-TERTIARY BUTYL ORTHOCRESOL
Martin B. Neuworth, Eric B. Hotelling, and Elizabeth A. Depp, Pittsburgh, Pa., assignors to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application January 5, 1956, Serial No. 557,544
2 Claims. (Cl. 260—624)



1. The method of preparing 6-tertiary butyl ortho-cresol which comprises passing up to one molar equivalent of isobutylene into contact with ortho-cresol containing from about 0.08 to about 1.0 percent by weight of concentrated sulfuric acid at temperatures in the range of 70 to 100° C., the amount of sulfuric acid being varied depending upon the temperature employed, smaller amounts of the sulfuric acid being used at higher temperatures, and thereafter neutralizing the sulfuric acid, thereby stabilizing the resulting alkylate containing 6-tertiary butyl orthocresol against rearrangement to form 4-tertiary butyl ortho-cresol, and recovering at least one-half mol of 6-tertiary butyl ortho-cresol for each mol of ortho-cresol consumed in the process.

2,836,628
UNSATURATED BRANCHED-CHAIN ALCOHOLS AND METHODS OF PREPARING SAME
Robert E. Miller, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application October 17, 1955
Serial No. 541,053
1 Claim. (Cl. 260—632)

As a new compound, 2-(1',5'-dimethyl-5'-hexenyl)-5,9-dimethyl-9-decene-1-ol.

2,836,629
METHODS OF PREPARATION OF CYCLOHEXADIENES
Alfred Viola, College Park, Md., Herman Fleischacker, Washington, D. C., Gilbert Forrest Woods, Silver Spring, Md., and Nicholas Charles Bolgiano, Pittsburgh, Pa.
No Drawing. Application March 10, 1955
Serial No. 493,575
10 Claims. (Cl. 260—666)

1. The method of preparation of a cyclohexadiene comprising cyclizing a conjugated triene selected from the group consisting of hexatriene and hydrocarbon substituted hexatrienes at a temperature in excess of 300° C. in the vapor phase.

2,836,630
METHODS OF PREPARATION OF CYCLOHEXADIENES
Alfred Viola, College Park, Md., Herman Fleischacker, Washington, D. C., Gilbert Forrest Woods, Silver Spring, Md., and Nicholas Charles Bolgiano, Pittsburgh, Pa.
No Drawing. Application March 10, 1955
Serial No. 493,576
4 Claims. (Cl. 260—666)

1. The method of preparation of cyclohexadienes comprising cyclizing, with loss of water, a dienol having at least six carbon atoms at a temperature in excess of 300° C. in the vapor phase in the presence of an inorganic solid catalyst.

2,836,631
METHODS OF PREPARATION OF CYCLOHEXADIENES
Alfred Viola, College Park, and Gilbert Forrest Woods, Silver Spring, Md., and Nicholas Charles Bolgiano, Pittsburgh, Pa.
No Drawing. Application March 10, 1955
Serial No. 493,577
5 Claims. (Cl. 260—666)

1. The method of preparation of cyclohexadienes comprising cyclizing, with loss of water, an ene-diol having at least 6 carbon atoms, at a temperature in excess of 300° C. in the vapor phase in the presence of an inorganic solid catalyst.

2,836,632
PRODUCTION OF AROMATIC HYDROCARBONS FROM DIARYLALKANES
Lloyd C. Fetterly, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application December 21, 1953
Serial No. 399,569
20 Claims. (Cl. 260—668)

1. A process for the production of C_2 substituted aromatic hydrocarbons which comprises the catalytic cracking of 1,1-diarylalkane hydrocarbons containing two aryl-substituents on the same carbon atom of an alkane hydrocarbon containing at least two carbon atoms, in the presence of at least one mole of hydrogen per mole of diarylalkane hydrocarbon and a composite catalyst of a high-melting inorganic substance having acidic properties and a dehydrogenation catalyst at a temperature of at least 300° C. and a pressure between 0 p. s. i. g. and about 700 p. s. i. g.

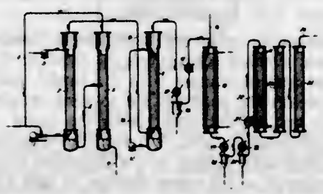
2,836,633
NUCLEAR ALKYLATION OF CERTAIN AROMATIC HYDROCARBONS WITH ALKALI METALS AS CATALYSTS
Donald L. Esmay, Munster, Peter Fotis, Jr., Highland, and Carl E. Johnson, Griffith, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application September 30, 1954
Serial No. 459,554
17 Claims. (Cl. 260—671)

1. A process for the nuclear alkylation of an aromatic hydrocarbon selected from the class consisting of benzene and benzene substituted only by at least one tertiary saturated hydrocarbon radical and containing an alkylatable nuclear carbon atom, which process comprises contacting a hydrocarbon feed stock whose reactive components initially consist essentially of said aromatic hydrocarbon and ethylene with a catalyst consisting essentially of a material selected from the group consisting of alkali metals and alkali metals in conjunction with a solid supporting material selected from the class consisting of activated carbon and an activated alumina-type adsorbent, effecting said contacting under nuclear alkylation conditions, and recovering an alkylated aromatic hydrocarbon thus produced from the reaction mixture.

2,836,634
P-T-BUTYLALKYLBENZENE PROCESS
Robert J. Lee, La Marque, Joe T. Kelly, Galveston, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
No Drawing. Application October 14, 1955
Serial No. 540,612
10 Claims. (Cl. 260—671)

1. A process which comprises depolyalkylating a monoalkylbenzene, where the alkyl group contains from 1 to 4 carbon atoms, with a polyisobutylene having from 2 to 4 "iso-C_4" groups at a temperature between about 20° C. and 50° C. for a time between about 5 minutes and 2 hours, in the presence of a liquid modified BF_3-hydrate catalyst, the volume ratio of total hydrocarbon charge to liquid catalyst being between about 3 and 15, and separating catalyst from a reaction product mixture containing a t-butylalkylbenzene product consisting substantially of the para isomer, wherein said catalyst consists essentially of BF_3-monohydrate and a modifier selected from the class consisting of alkanols, alkenols, alkandiols, alkendiols, alkanones and alkenones having not more than 7 carbon atoms, respectively, polyolefins, and, cyclic polyolefins, said modified catalyst having a BF_3 content between about 66 and 74 weight percent.

2,836,635
PROCESS FOR THE TREATMENT OF GASES CONTAINING ETHYLENE
Herbert Göthel, Oberhausen-Sterkrade, Helmut Kolling, Duisburg-Hamborn, and Otto Roelen and Nikolaus Geiser, Oberhausen-Holten, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany
Application June 1, 1955, Serial No. 512,432
Claims priority, application Germany June 16, 1954
6 Claims. (Cl. 260—677)

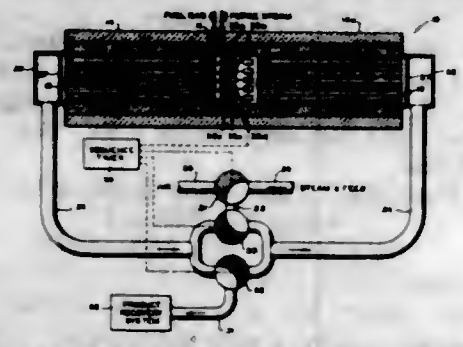


1. A process for the purification of an ethylene-containing gas which comprises subjecting said gas to the following sequence of steps: washing the gas with water under pressure; thereafter washing the gas with alkali solution, then selectively hydrogenating the gas in the presence of a catalyst containing metals of the 8th group of the periodic table to remove acetylene from the gas; and lastly drying the gas, said sequence also including: depressurizing the used wash water and adding the dissolved gases released thereby to gas entering said purification sequence.

2,836,636
REACTOR AND METHOD OF OPERATING SAME
Robert R. Goins, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 7, 1954, Serial No. 434,955
17 Claims. (Cl. 260—679)

1. In combination, a reactor vessel having a shell, said shell having an opening formed therein communicating with the interior of said reactor, a perforated nozzle slid-

able within said opening and movable between an extended position where the nozzle is positioned within the reactor and a retracted position wherein the nozzle is positioned within said opening, means sealing the outer

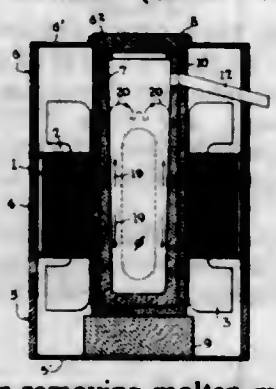


end of said opening, a bearing formed in said sealing means, an actuating member extending through said bearing and connected to said nozzle, means for effecting longitudinal movement, with respect to said opening, of said actuating member thereby to extend and retract said nozzle, means for feeding material through said nozzle, and means for passing a purging fluid through said sealing means and said opening into the reactor.

14. A process for effecting a high temperature reaction which comprises passing air in a longitudinal path through a combustion zone and then through a refractory checkerwork, discharging a fuel gas to said combustion zone at a multiplicity of locations arranged uniformly across the cross-sectional area of the combustion zone to form a combustible mixture of substantially uniform composition throughout its cross section, burning the thus produced combustible mixture in said refractory checkerwork to heat same, interrupting the described flow of fuel gas and air, passing material to be converted through the thus heated refractory checkerwork and thence, in an unobstructed path, through the combustion zone to effect the desired reaction, and withdrawing converted material from said combustion zone.

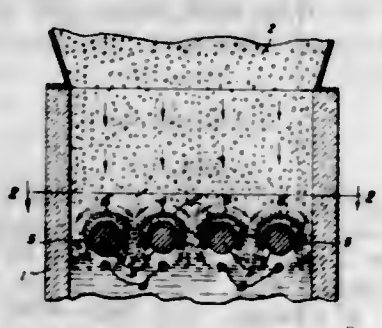
ELECTRICAL

2,836,637
APPARATUS FOR REMOVING LIQUID METAL FROM FURNACES
Félix Spagnoletti, Echirolles, France, assignor to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques, Paris, France, a corporation of France
Application June 3, 1955, Serial No. 513,011
Claims priority, application France June 10, 1954
3 Claims. (Cl. 13—33)



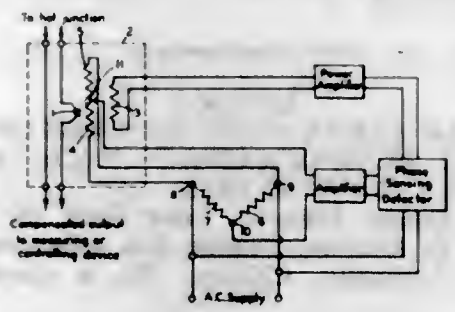
1. Apparatus for removing molten metal comprising in combination: a vessel constituting the crucible of an electric furnace and in contact with the liquid metal to be removed; means for generating a rotating magnetic field adjacent to but out of contact with the metal to be removed; a refractory casing disposed between the vessel and said generating means; and a discharge opening for the molten metal in the upper portion of said vessel.

2,836,638
ELECTRIC RESISTANCE MELTING FURNACES
Eduard Steinhoff and Martin Grossmann, Wiesbaden, Germany, assignors to Didier-Werke A. G., Wiesbaden, Germany
Application May 21, 1956, Serial No. 586,142
9 Claims. (Cl. 13—33)



1. An electrically heated melting furnace for the continuous conversion of quartz sand into fused quartz comprising a plurality of heating rods arranged in spaced relationship, means for supplying quartz sand to said furnace at a point above said rods whereby the quartz sand continuously passes by gravity downwardly between said rods and is heated thereby and converted into fused quartz which may be continuously withdrawn from the bottom of the furnace, and an individual cover for screening each heating rod from direct contact with material being melted and with molten material, said cover extending over the entire length of the rod and being substantially throughout in spaced relationship with respect to said rod, said cover being downwardly open so that substantially the entire surface of the heating rod is exposed, whereby maximum heat transmission from said rod may be effected, each said cover being provided with means for insuring that its respective heating rod is maintained out of contact with the fused quartz therebeneath.

2,836,639
CONSTANT TEMPERATURE DEVICE
Jackson R. Templin, Marblehead, Mass., assignor to General Electric Company, a corporation of New York
Application June 2, 1955, Serial No. 512,643
5 Claims. (Cl. 136—4)



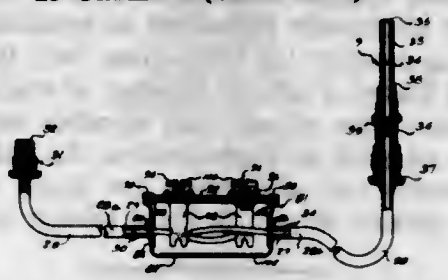
1. In a temperature measuring apparatus the combination comprising a thermocouple cold junction, an insulated enclosure for said cold junction, electric heater means in said enclosure in intimate thermal contact with said cold junction, means for supplying current to said electric heater means, control means for regulating the supply of current to said heater means so as to maintain said cold junction at a constant temperature and including an A. C. bridge, and a temperature sensitive impedance in one arm of said bridge in said enclosure in intimate thermal contact with said cold junction and said heater means, and a second impedance in another arm of said bridge in said enclosure in intimate thermal contact with said temperature sensitive impedance.

2,836,640

UNITARY THERMOELECTRIC GENERATOR, LEAD AND JUNCTION BLOCK ASSEMBLIES

Robert W. Mueller, Milwaukee, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin

Continuation of applications Serial Nos. 397,896, December 14, 1953 and 484,290, January 26, 1955. This application July 17, 1957, Serial No. 674,267
13 Claims. (Cl. 136—4)



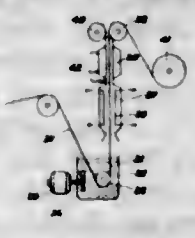
1. A unitary thermoelectric generator and lead assembly comprising a thermoelectric generator coaxial lead of predetermined length fixed to said generator and having a tubular outer conductor and an insulated inner conductor, said lead being formed in two sections to provide a pair of inner end portions intermediate the length of said lead, a metallic connecting member to which the inner end portions of said outer lead conductor are fixed by fused connections to provide electrical connection of predetermined low resistance therebetween, and terminal means electrically connected to the inner end portions of said inner lead conductor by a predetermined low resistance fused connection and insulatably mounted on said connecting member, whereby low resistance electrical connection between said inner end portions of said inner conductors may be effected through said terminal means.

2,836,641

PROCESS FOR THE PRODUCTION OF ELECTRODES FOR ELECTRO-CHEMICAL PURPOSES

Hans Vogt, Erlau, Germany

Original application April 25, 1949, Serial No. 89,416, now Patent No. 2,681,375, dated June 15, 1954. Divided and this application April 26, 1954, Serial No. 425,624
Claims priority, application Sweden May 4, 1948
6 Claims. (Cl. 136—20)



1. The process of producing electrodes for electrochemical purposes in a continuous operation which comprises depositing iron group metal powder in a continuous process onto both faces of an iron group metallic carrier strip to form a thin coating on each face thereof, passing the strip thus coated through a sintering zone maintained at a sintering temperature for the metal deposited on the carrier simultaneously to transform each metal powder coating into a micro-porous metal layer and sinter it onto said carrier strip, subsequently impregnating the layer bearing strip with electrochemically active hydroxides and cutting the strip into portions of appropriate length.

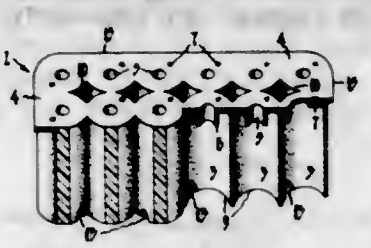
2,836,642

DRY BATTERY ASSEMBLY

Rudolf Erich Bauer, Hawthorn, Victoria, Australia

Application October 22, 1956, Serial No. 617,575
6 Claims. (Cl. 136—90)

1. A dry battery assembly comprising a web of elastic insulating material, a series of containers formed in the said web, a series of individual cells inserted in the containers and having a frictional fit therein, each cell having a central electrode the internal cross-section of each container in its unstretched condition being slightly smaller than the external cross-section of the cell to be



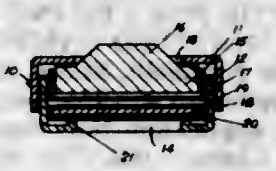
inserted in it, and each container having one closed end for seating one end of the respective cell and one open end through which the cell is inserted in the container, the closed end of each container having an opening therein to accommodate said central electrode.

2,836,643

GALVANIC BATTERY

Johann Sindel, Ellwangen, Jagst, Germany, assignor to Pertrix-Union G. m. b. H., Ellwangen, Jagst, Germany

Application August 30, 1955, Serial No. 531,332
Claims priority, application Germany August 30, 1954
1 Claim. (Cl. 136—111)



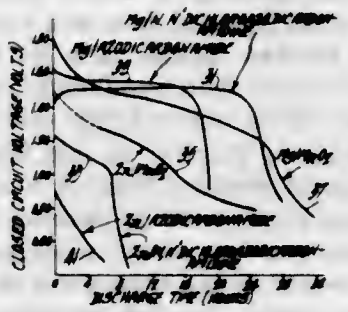
In a galvanic battery, a plate-like cell comprising a lower casing, an upper casing over said lower casing, an electrode within said casings, and a conducting foil firmly connected with the underside of said electrode, said lower casing having formed therein a central opening and an annular ridge enclosing said opening and pressing against said conducting foil.

2,836,644

PRIMARY CELLS

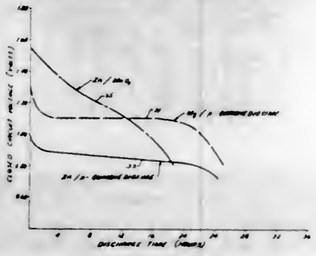
Clarence K. Morehouse, Princeton, and Richard Glicksman, Highland Park, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application June 13, 1956, Serial No. 591,122
15 Claims. (Cl. 136—137)



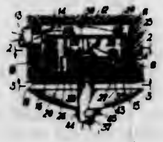
1. In a primary cell, an anode selected from the group consisting of magnesium and magnesium base alloys in combination with a cathode including a depolarizer consisting of an organic oxidizing compound in which the oxidizing properties of said compound are due at least in part to aliphatic azo groups chemically combined in said compound.

2,836,645
PRIMARY CELL
Clarence K. Morehouse, Princeton, and Richard Glicksman, Highland Park, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application June 13, 1956, Serial No. 591,241
15 Claims. (Cl. 136—137)



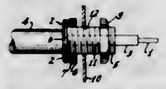
1. In a primary cell, an anode selected from the group consisting of magnesium and magnesium base alloys, in combination with a cathode including a depolarizer consisting of an organic oxidizing substance in which the oxidizing properties of said substance are due at least in part to the presence of a quinoid structure in said substance.

2,836,646
CONNECTOR FOR CEILING OR WALL MOUNTED LAMPS
Elio Paolinelli, Milan, Italy
Application September 4, 1956, Serial No. 607,886
Claims priority, application Italy September 21, 1955
1 Claim. (Cl. 174—61)



In a connector device for detachably securing an electric lighting fixture including a suspension rod, to a wall surface at a location where end portions of installed wires are available for connection, in combination, a box-shaped member having a front open face and an edge thereabout formed with an inwardly open groove therein, and a side passage for introducing said wire end portions into said box-shaped member, and being adapted to be secured to by plastering in said wall so as to have said edge flush with said surface; a receptacle member of insulating material, having a front face portion and a rear face portion defining a cavity therebetween, and being adapted to be inserted into said box-shaped member and to be secured therein with its said front face portion flush with said edges; a resiliently expanding securing ring adapted to be inserted into said groove and to secure said receptacle member in said box-shaped member; said receptacle member having a shaped opening in said front face portion which opening includes a center round portion and four radial passageways extending therefrom and evenly spaced thereabout so as to define in said front face portion spacing portions therebetween; first metallic sleeve-shaped electrical contact means arranged in and supported by said spacing portions and electrically connected to terminals located on and supported by said rear face portion of said receptacle member for connection to said wire end portions; a plug member of insulating material, including a center round portion and four arm portions made integral therewith and radially extending therefrom, shaped to pass through said center portion of said shaped opening and said radial passageways, said plug member being further dimensioned for rotation inside said cavity of said receptacle member into an angularly turned position wherein said arm portions abut from inside against said spacing portions, for locking said plug member in said receptacle member; second metallic pin shaped electrical contact means arranged on and supported by said arm portions, adapted to frictionally engage internally said first sleeve contact means and electrically connected to terminals supported by said plug member for connections with the inner wiring of said fixture; a tubular member of resilient material fitted in the center of said plug member and having an axial bore adapted to accommodate the end portion of said suspension rod; and means for firmly securing the latter end portion in said resilient tubular member.

2,836,647
COAXIAL TRANSMISSION LINE CONNECTING OR TERMINATION DEVICE
Herbert E. Strauss, Philadelphia, Pa., and Daniel T. Rockwell, Merchantville, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application October 1, 1954, Serial No. 459,664
The terminal 15 years of the term of the patent to be granted has been disclaimed
2 Claims. (Cl. 174—75)



1. A lead-through connector for a coaxial cable of the type having an inner conductor, dielectric means surrounding said inner conductor, and an outer conductor surrounding said dielectric means formed of a material which is capable of being deformed from its original cross-sectional configuration to one of substantially greater circumference comprising, in combination, an elongated cylindrical member having an aperture therethrough and being formed with an outwardly-extending flange at one end thereof and with external threads at the other end thereof; a pair of conductive washers which, when in operative position, are located on said elongated member, an end portion of said inner conductor and said dielectric means thereabout being adapted to pass through said aperture in said cylindrical member, and the corresponding end portion of said outer conductor of said cable being adapted to fit over said flange, through the aperture in the washer adjacent said flange, and between adjacent faces of said two washers; and a nut having internal threads engageable with the external threads on said elongated member.

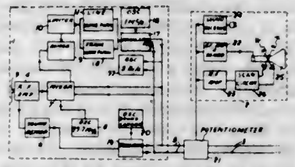
2,836,648
ANTENNA
Joseph B. Cejka, Highland Park, N. J., assignor to General Bronze Corporation, Garden City, N. Y., a corporation of New York
Application November 20, 1953, Serial No. 393,333
3 Claims. (Cl. 174—139)

1. A radio antenna for use on an automobile, comprising a telescoping tube and rod signal receiving assembly, an insulating bushing surrounding the lowermost section of said signal receiving assembly and having an internal upwardly facing annular shoulder against which the lower end of said lowermost section bears, a metal sleeve secured to and surrounding said insulating bushing, said sleeve being adapted to extend through an opening in an automobile body and having means for attachment of said antenna to said body, a screw member threaded into the lower end of said lowermost section and having a head portion engaging a downwardly facing annular shoulder on said bushing to secure said signal receiving member to said bushing, said screw member having an



axial bore for receiving a plug for making electrical connection to said signal receiving member.

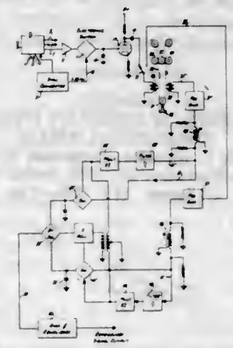
2,836,649
TELEVISION SIGNAL DISTRIBUTION APPARATUS UTILIZING LINE SCANNING PULSES MODULATED ON THE FRAME SCANNING PULSE
Eric John Gargini, Yiewsley, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain
Application June 20, 1951, Serial No. 232,577
Claims priority, application Great Britain June 28, 1950
7 Claims. (Cl. 178—5.6)



1. Television relay apparatus comprising means for receiving broadcast television signals including line synchronising signals and frame synchronising signals, a waveform generator for generating a composite scanning waveform timed by said synchronising signals and comprising a line frequency waveform superimposed on a pulse waveform of frame frequency in which there are intervals between successive pulses corresponding to frame return intervals, at least one terminal unit remote from said receiving means and said generator, means for feeding vision signals received by said receiving means to said unit and simultaneously feeding said composite scanning waveform to said unit, said unit comprising a cathode ray image reproducing tube, means for modulating the beam of said tube in response to said vision signals, means for producing line deflections of the beam in said tube in response to said line frequency waveform, integrating means for integrating said composite waveform, and means for producing frame deflections of the beam in said tube in response to the output of said integrating means.

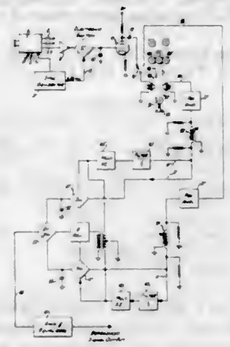
2,836,650
SINGLE CHANNEL MULTIPLEX FOR WIDEBAND REPRODUCTION
Wayne R. Johnson, Los Angeles, Calif., assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application October 31, 1956, Serial No. 619,458
9 Claims. (Cl. 178—6.6)

1. In the recording on and reproduction from a moving recording medium of electrical signals produced by scanning a field of view in two directions at frame and line repetition rates, respectively, wherein a bandsplitting method is used whereby the signals recorded on a single track represent samplings of alternate elements of said field of view containing half of the information as to the field of view scanned in each frame period, the method of reproducing substantially the entire information as to said field of view from such a single track that comprises the steps designated as steps (*a*) to (*d*) and defined as follows: step (*a*) sampling the signals resulting from



scanning said field of view at a sampling rate that is an odd multiple of one-half of said frame rate; (*b*) recording signals resulting from step (*a*) on a single track; (*c*) simultaneously playing back the signals recorded in step (*b*) from two separated points along said tracks to develop two signal trains representative of signals recorded at the same epochs in the scanning of two successive frames; and (*d*) combining the information carried by said two signal trains to provide substantially all of the information comprised in the original signals from each frame.

2,836,651
METHOD OF RECORDING AND REPRODUCING WIDE-BAND SIGNALS
Wayne R. Johnson, Los Angeles, Calif., assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application October 31, 1956, Serial No. 619,459
3 Claims. (Cl. 178—6.6)



1. The method of recording and reproducing, from a moving medium, wide-band signals including signals of higher frequency than the cutoff frequency of the apparatus employed, which comprises the steps designated as steps (*a*) (*e*) and defined as follows: to step (*a*) sampling the signals to be reproduced at intervals equal to one period of the highest frequency to be reproduced to pro-

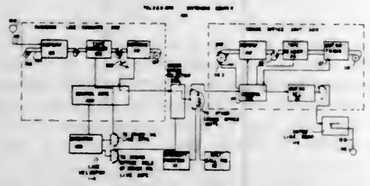
duce a series of pulses of the same polarity as that of the signals sample; step (*b*) storing the energy of each pulse for the interval between pulses to produce a stepped voltage wave; step (*c*) recording the wave produced in step (*b*) on said moving recording medium to produce a record track carrying one-half of the information of the signal sampled in step (*a*); step (*d*) playing back the record produced in step (*c*); and step (*e*) resampling the resultant wave from step (*d*) at intervals equal to the sampling intervals of step (*a*) to produce a train of pulses of short duration as compared to said intervals and proportional in magnitude to the magnitude of the original signals at the instants of sampling in step (*a*).

2,836,652
DEVIATION OF LIGHT BY UTILIZING ELECTRICAL FIELD
Gale C. Sprague, Rochester, N. Y.
Application December 28, 1954, Serial No. 477,998
2 Claims. (Cl. 178—7.6)



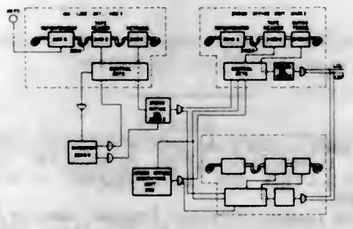
1. A light refractive device comprising in combination, a source for emitting a non-polarized beam of light, a pair of electrodes for producing an electrostatic field therebetween, a transparent birefringent medium disposed within said field through which said beam passes, one of said electrodes having a sharp edge portion extending in a direction transverse to said beam, the other electrode of said pair having a planar surface disposed substantially perpendicular to and facing said edge portion, said edge portion being positioned adjacent said medium for producing an electrostatic field of parabolic outline in a plane perpendicular to both said planar surface and said edge portion with the vertex thereof being formed adjacent said edge portion whereby light normal to said medium at all points intermediate said electrodes is refracted.

2,836,653
TAPE MOVEMENT CHECK IN A TELEGRAPH SYSTEM
Robert A. Kolpek, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application October 30, 1953, Serial No. 389,237
7 Claims. (Cl. 178—17)



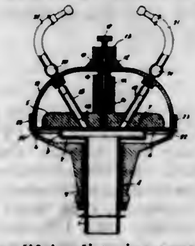
4. For use in a telegraph system having a transmitter, a reperforator and a transmission circuit together with means for connecting the reperforator to the transmitter by way of the transmission circuit and for controlling the transmitter to send signals of a telegraph message to the reperforator to cause said reperforator to record the message on a tape fed thereto from a tape reel, means associated with said reel for originating pulses at predetermined intervals as long as tape-reel is rotating, an alarm system comprising a timing circuit receiving said pulses, said timing circuit comprising a pulsing relay intermittently operated by said pulses, an alarm relay, contacts associated with said pulsing relay intermittently operating and thereby maintaining said alarm relay inoperative during said time intervals after said pulsing relay has restored, said contacts thereafter releasing and causing an operation of said alarm relay to thereby cause said transmitter to stop sending.

2,836,654
TRANSMITTER IDENTIFYING UNIT FOR USE IN A TELEGRAPH SYSTEM
Robert A. Kolpek, Waukegan, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application March 1, 1955, Serial No. 491,284
6 Claims. (Cl. 178—17)



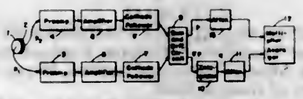
4. A circuit arrangement for transmitting coded intelligence, said circuit arrangement comprising a marking switch, a selector switch and a cyclically operated pulse transmitter, said marking switch including a set of wipers having a plurality of positions and including bank contacts accessible to the wipers, the bank contacts accessible in each of certain of said wiper positions being marked in a manner corresponding to a certain character of a telegraph code, a plurality of contact sets in said pulse transmitter mechanism sequentially operated during each cycle of operation of said mechanism, said selector switch having a plurality of wipers, means for operating the wipers of said selector switch to connect the wipers of the marking switch to the contact sets of the pulse transmitter, means controlled by one of said contact sets for advancing wipers of said marking switch from contacts accessible in one of said positions to contacts accessible in the next succeeding position, a signal circuit, the sequential operation of said remaining ones of said transmitter contact sets connecting the wipers of the marking switch by way of the wipers of the selector switch to said signal circuit, whereby said signal circuit is controlled by the coded information recorded on the bank contacts of said marking switch.

2,836,655
LISTENING DEVICE FOR DETECTING FLUID FLOWS
Jean Plochet, Soleines, France
Application November 10, 1954, Serial No. 468,083
Claims priority, application France November 16, 1953
10 Claims. (Cl. 179—1)



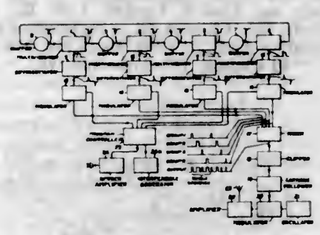
1. A sound-amplifying listening apparatus for detecting the flow of fluids by audible sound waves, comprising a casing, a tubular metal member mounted with one end in said casing, the other end being adapted to collect sound waves caused by a flow of fluid to be detected, a metal diaphragm disposed within the casing in sound transmitting relationship with the diaphragm, said tubular member engaging one face of said diaphragm a bearing mass in pressure engagement with the opposite face of the diaphragm for tensioning the same, said tubular member and said bearing mass respectively engaging the opposite faces of said diaphragm through circular edges of different diameters, and adjustment means coacting with said bearing mass for varying the pressure exerted by the mass upon said diaphragm to vary the tension of said diaphragm.

2,836,656
ACOUSTIC WATTMETER
Theodore J. Schultz, Santa Monica, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application October 31, 1955, Serial No. 544,098
3 Claims. (Cl. 179—1)



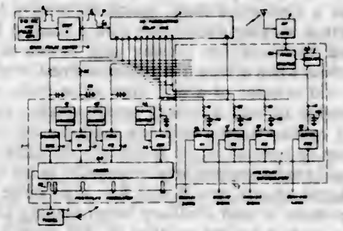
1. An acoustic wattmeter for measuring acoustic intensity comprising, a pair of tiny pressure-sensitive transducers separated in space by a short distance for obtaining electrical signals proportional to the instantaneous pressure on each of said transducers, means coupled to said transducers deriving a first output signal representing the summation of said electrical signals and deriving a second output signal representing the difference of said electrical signals, means for integrating said second output signal to derive a velocity signal, and multiplier averager means for multiplying and averaging said velocity signal and said first output signal whereby a measure of the acoustic intensity is obtained.

2,836,657
SECRECY COMMUNICATION SYSTEM
Everhard H. B. Bartelink, West Milton, N. Y., assignor to General Electric Company, a corporation of New York
Application November 20, 1944, Serial No. 564,301
15 Claims. (Cl. 179—1.5)



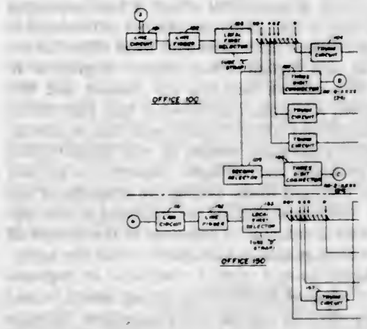
13. A secrecy communication system comprising means for supplying a desired intelligence-bearing signal wave, means for generating a train of recurrent pulses, means for frequency-modulating the repetition frequency of said pulses as a function of the amplitude of said signal wave thereby to provide a masking wave, and means for sampling and transmitting portions of said desired wave and of said masking wave in prearranged time division multiplex sequence.

2,836,658
MULTICHANNEL COMMUNICATION SYSTEMS
Nelson Weintraub, Irvington, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application April 30, 1952, Serial No. 285,143
8 Claims. (Cl. 179—15)



5. In a multichannel pulse communication system, a source of complex gate pulses recurrent at a given repetition frequency each having a second pulse portion delayed with respect to a first pulse portion, a delay line coupled to said source, said delay line having a plurality of output connections for different delay timing of said complex gate pulses, a plurality of channel pulse modulators, a signal source for each of said modulators, means coupling said modulators in sequence to each of said output connections for interleaving the channel pulses of said modulators in a time relation according to the first pulse portion of said complex gate pulses for transmission as a train of channel pulses, a plurality of channel pulse separators for a received train of channel pulses, and means coupling said separators in sequence to each of said output connections for effecting separation of the channel pulses of said received train in accordance with the time relation of the second pulse portion of said complex gate pulses, the sequential connection of said demodulators starting at an output connection spaced a given number of said output connections from the start of the sequential connection of said modulators.

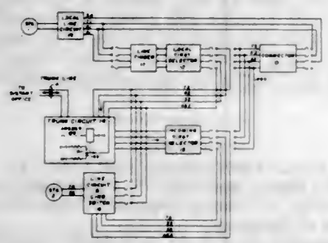
2,836,659
LOCAL FIRST SELECTOR CIRCUIT
William W. Pharis, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application April 5, 1954, Serial No. 420,778
8 Claims. (Cl. 179—18)



1. In a telephone system, a local first selector comprising a switch including a first set of brushes carrying talking conductors, a plurality of contacts terminating in a bank arranged in ten levels of ten contacts each ac-

cessible to said brushes, auxiliary brushes and a bank of auxiliary contacts, each of said auxiliary contacts corresponding to one of said levels, means for selectively marking said auxiliary contacts according to desired switch operations, means for simultaneously driving said first set of brushes in a primary direction and said auxiliary brushes to one of said auxiliary level contacts under the influence of a digit pulse train, means responsive to said auxiliary brush making connection with a contact having one of said markings for causing said switch to drop back to normal when driven to a predetermined level upon receipt in said selector of a first digit pulse train, means also responsive to said auxiliary brush making connection with a contact having said one marking for causing said selector to operate in its secondary direction when driven to said predetermined level responsive to the receipt in said selector of any except said first digit pulse train, means responsive to said auxiliary brush making connection with a contact having another of said markings for causing said switch to operate in its secondary direction when driven to another of said levels responsive to the first digit pulse train received by said selector, and means also responsive to said auxiliary brush making connection with said contact having said other marking for causing said switch to drop back when driven to said other level responsive to a digit pulse train which is other than the first digit pulse train that may be received by said selector during any given call.

2,836,660
INTEROFFICE TRUNKING IN TELEPHONE SYSTEMS
Ernest H. Gatzert, Rochester, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware
Application July 29, 1955, Serial No. 525,202
6 Claims. (Cl. 179—18)



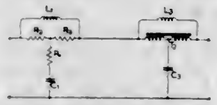
1. In a telephone system, a local office and a distant office, a line circuit in said local office, a line connected to said line circuit, a line switch associated with said line circuit, a group of trunk circuits in said local office for extending calls to said distant office, means responsive to the initiation of a call on said line for causing said line switch to establish a connection between said line circuit and an idle one of said trunk circuits, said connection including a control conductor, means in said distant office for returning on-hook and off-hook supervision to said trunk circuit at different times during the progress of the call, means in said trunk circuit for applying a first signal to said control conductor in response to the receipt of on-hook supervision, means in said trunk circuit for applying a second signal to said control conductor in response to the receipt of off-hook supervision, timing means in said line circuit operative to release the connection between said line circuit and said trunk circuit a predetermined time interval after the timing cycle of said timing means is initiated, and means in said line circuit for initiating the timing cycle of said timing means in response to the sequential application of said second and first signals to said control conductor.

2,836,661
LUMINOUS TELEPHONE DIAL INDICATOR
Theodore Will, Hollis, N. Y., assignor to Fund-Del Inc., Syosset, N. Y., a corporation of New York
Application July 18, 1955, Serial No. 522,717
7 Claims. (Cl. 179—90)



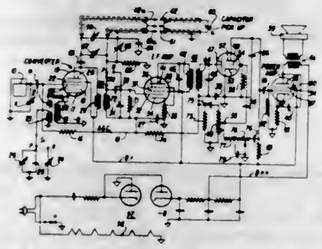
1. A telephone dial device comprising a clip having an arcuate-shaped body portion adapted to overlie at least a part of a telephone dial, said body portion having a finger opening adapted to coincide with one of the finger openings on a telephone dial, means to secure the body portion to a telephone dial, and a finger hook extending from said body portion of the clip for disposal outwardly of a telephone dial when the body portion is secured to the dial, the upper surface of said hook being coated with luminous material.

2,836,662
ELECTRICAL SOUND TRANSMISSION SYSTEMS
Philip Barnet Vanderlyn, Ickenham, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application August 16, 1955, Serial No. 528,583
Claims priority, application Great Britain August 18, 1954
5 Claims. (Cl. 179—100.1)



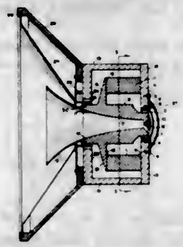
1. In a binaural sound transmission system including means for deriving two sets of in-phase signals with such relative amplitude differences that on applying said sets of in-phase signals to spaced sound reproducers a binaural effect is produced, the provision of frequency selective means to effect modification of the relative amplitudes of the high and low frequency components of said sets of in-phase signals thereby to produce a frequency sensitive angular magnification or reduction so as to reduce inaccuracies in said binaural effect.

2,836,663
RADIO-PHONOGRAPH COMBINATION
William Blinoff, Prospect Heights, Leonard E. Pearson, La Grange, and Fred P. Venditti, Lisle, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application April 21, 1953, Serial No. 350,022
11 Claims. (Cl. 179—100.11)



1. A signal modulating system including in combination, a circuit for producing a signal having a selected frequency, a circuit for utilizing said signal, a coupling transformer for coupling said first-mentioned circuit to said second-mentioned circuit, said coupling transformer having a given mutual inductance providing inductive coupling thereacross, and a capacitive modulating element bridged across said coupling transformer to vary the coupling coefficient thereof and control the amplitude of the aforesaid signal as applied to said second-mentioned circuit in accordance with capacity variations of said element, said capacitive modulating element providing capacitive coupling across said transformer, with the same one of said capacitive and inductive couplings predominating at said selected frequency throughout all of said capacity variations.

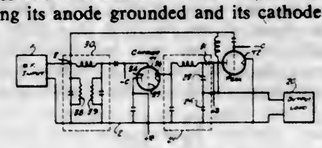
2,836,664
LOUDSPEAKER
Fred A. Manley and Frank H. Slaymaker, Rochester, N. Y., assignors, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application January 12, 1953, Serial No. 330,692
4 Claims. (Cl. 179—115.5)



1. In a loudspeaker, the combination of a flux source magnetic member of generally tubular configuration having first and second ends; a central magnetic member extending substantially coaxially through said magnetic member and having first and second ends extending beyond said first and second ends, respectively, of said flux source member; a flange of magnetic material surrounding said central magnetic member and extending radially outward for magnetically connecting said first end of said flux source member to said central magnetic member; said flange being intermediate said first and second ends of said central magnetic member; means magnetically extending radially inward from said second end of said flux source member toward said second end of said second magnetic member but spaced therefrom to define a first airgap therebetween; means extending magnetically outward from said second end of said flux source member, around the outside of said flux source member, and inwardly toward said first end of said central magnetic member, said last-named means having its inwardly extending portion spaced from said first end of said central magnetic member to define a second airgap therebetween; first and second voice coils, respectively, disposed within said first and second airgaps; first and second diaphragms respectively arranged to radiate sound over first and second ranges of frequency and respectively coupled to said first and second voice coils; means for supporting said first and second diaphragms for vibratile motion relative to said flux source member.

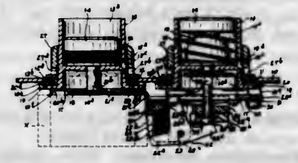
2,836,665
AMPLIFIERS
James O. Weldon, Dallas, Tex.
Application August 29, 1957, Serial No. 681,081
19 Claims. (Cl. 179—171)

17. A modulated carrier wave amplifier comprising a source of amplitude modulated carrier waves, an electron tube carrier amplifier and an electron tube peak amplifier having input and output circuits, a load connected to both output circuits, both input circuits being connected to said source, the input and output circuits connected to the carrier tube including networks for producing a quadrature phase shift of the same sign, means for biasing the carrier tube substantially to cut-off and biasing the peak tube beyond cut-off so that it does not conduct until the carrier wave rises above its unmodulated level, the carrier amplifier having its anode grounded and its cathode connected



to the carrier amplifier output circuit, the carrier amplifier input circuit connecting said source to the carrier amplifier control grid and having a voltage step-up characteristic for impressing a carrier wave voltage on said control grid which is greater than the input voltage supplied to the peak amplifier.

2,836,666
PUSHBUTTON OPERATING MEANS FOR ELECTRIC SWITCHES
William F. Nolden and Clyde F. Robbins, Milwaukee, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application May 7, 1956, Serial No. 583,177
12 Claims. (Cl. 200—5)



1. Pushbutton operating means for electric switches comprising, in combination, a cast metal member comprising a flange portion and a portion projecting therefrom, said last mentioned portion having an outwardly opening recess and an inwardly opening recess formed therein with an integral wall portion interposed therebetween, of a flat punched metal plate partially overlying the inner surface of said flange portion and said inwardly opening recess, a second cast metal member overlying the major portion of the inner surface of said flange portion and of said plate, a punched and stamped sheet metal slide member interposed between and slidably movable relatively to said first and second cast metal members and said plate and guided thereby jointly, said second cast metal member having an integral inward extension, said extension having a slot formed therein and at least partially opening to all sides thereof, a one-piece, triple-armed lever positioned within said slot and pivotally supported with respect thereto, spring means engaging one arm of said lever to continuously bias the same for movement in one direction, another arm of said lever having a driving connection with said slide member to normally bias the latter for movement toward one extreme position, and a push-rod reciprocatably movable relatively to said second cast metal member and affording both a driving and a driven connection thereof with the third arm of said lever.

2,836,667
ELECTRIC SWITCH
Wayne A. Barden, Elkhart, and Donald A. Pierce, South Bend, Ind., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana
Application October 29, 1956, Serial No. 618,747
13 Claims. (Cl. 200—16)

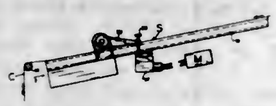
1. An electric switch of the character described comprising: a body of insulating material having a cavity

opening to its front and defined by a back wall and a side wall of substantially uniform height projecting forwardly from the back wall; a rib integral with the back wall and projecting into the cavity, said rib dividing the cavity into two compartments one at each side of the rib, the front of the rib lying in a plane substantially parallel to the rear wall but rearwardly of the front edge of the side wall and providing a guideway; a pair of stationary switch contacts in each of said com-



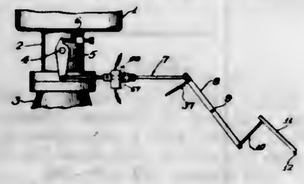
partments of the cavity; a movable contactor carrier slidably seated on the guideway provided by the front of the rib and slidable lengthwise therealong, said carrier having no part thereof forwardly of the front edge of the side wall; movable contactors on said carrier, one inside each of said compartments, said contactors being insulated from one another and movable by the carrier into positions at which each bridges one pair of stationary contacts; and means for sliding the contactor carrier along the rib.

2,836,668
SEAM-OPERATED STOPPING MECHANISM FOR A TEXTILE MACHINE
Leland F. Remington, Worcester, Mass., assignor to Curtis & Marble Machine Company, Worcester, Mass., a corporation of Massachusetts
Application February 21, 1957, Serial No. 641,674
1 Claim. (Cl. 200—61.13)



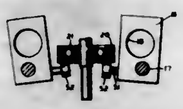
Seam-operated stopping mechanism for a textile machine in which cloth is drawn over a supporting surface, said mechanism comprising a shaft overlying the cloth, an eccentric collar, means to secure said collar in angularly-adjusted position on said shaft, a control switch, a switch-closing means fixed on said shaft and rendered operative by angular displacement of said shaft by engagement of said collar by a seam in the cloth, and a device to adjust said switch-closing means.

2,836,669
ELECTRIC SWITCH FOR LINKAGES
Max Rosenberg, Chicago, Ill., assignor to Gaylord Products, Incorporated, Chicago, Ill., a corporation of Delaware
Application May 9, 1955, Serial No. 506,871
1 Claim. (Cl. 200—61.89)



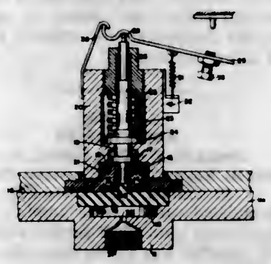
An electric switch member comprising a portion of a linkage which comprises, a link comprising a portion of the linkage, a housing rigidly secured to said link, a snap switch having a resiliently biased actuating arm carried in said housing, a second link comprising a portion of said linkage disposed in substantially axial alignment with said first-mentioned link, a plunger carried at an end of said second link, a sleeve carried by said housing for the slidable reception of said plunger whereby the end portion of said plunger may move through said sleeve, a pin and slot engagement between said sleeve and plunger limiting movement of said plunger through said sleeve in and out of said housing, the actuating arm of said switch being disposed in resilient contact with the end of said plunger whereby movement of said plunger in said sleeve relative to said housing controls movement of said actuating arm to actuate said switch.

2,836,670
GOVERNOR WITH SWITCH CONTROL
Eugene Lass, West Hartford, Conn., assignor to Kahn and Company, Inc., Hartford, Conn., a corporation of Connecticut
Application April 26, 1957, Serial No. 655,276
6 Claims. (Cl. 200—80)



1. The combination of a governor housing; a driven shaft mounted therein; said shaft engaging a spider which is driven thereby; a plurality of fly weights pivotally fastened to said spider to swing radially outwardly in response to rotation of said shaft and spider; each of said fly weights equipped with an antifriction bearing mounted so that the axes of rotation of said bearings intersect the axis of rotation of said spider; a sleeve cap mounted for rotation about the rotational axis of said shaft and spider and being engaged by said antifriction bearings which are in rolling contact with said sleeve cap when said spider rotates; one end of an axially floating plunger extending through said cap and being urged in axial movement in response to the rotation of said fly weights; the other end of said plunger adapted to engage the actuating mechanism of an electrical circuit switch and causing operation thereof as a result of the plunger's axial movement; a helical compression spring surrounding a portion of said plunger and supported to oppose the axial motion of said plunger toward said switch and thereby opposing also the outward motion of said fly weights.

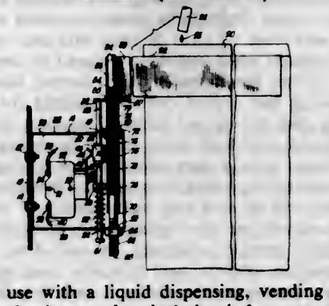
2,836,671
FLUID ACTUATED SWITCH
Hall Langstroth, Riverside, Conn.
Application November 18, 1954, Serial No. 469,812
2 Claims. (Cl. 200—83)



1. A pressure sensitive switch comprising a chamber having bounding walls, a piston having a square end extending into a first opening in the bounding walls and

snugly accommodated within the first opening so that its end nearest the chamber is always recessed within the first opening away from the general surface level of the bounding walls and the smooth contoured region of the first opening at said bounding wall, opposed stops on the piston and on said walls to limit movement in the direction of extension through the opening, a second opening in the bounding walls of the chamber permitting the entry of fluid, a deformable, resilient, non-compressible diaphragm arranged in the chamber across the first opening held in place against the chamber bounding walls adjacent said first opening to form a fluid tight barrier and extending into the opening in the wall into contact with the bottom of the piston, a smooth and essentially continuous surface being presented at all positions of the piston to that surface of the diaphragm which is adjacent the piston.

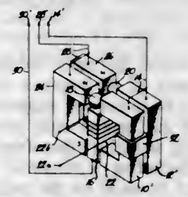
2,836,672
SAFETY DEVICE FOR WASTE TANK
Herman R. Craven, Jr., Overland Park, Kans., and Leonard Bieri, Jr., Lee's Summit, Mo., assignors to The Vendo Company, Kansas City, Mo., a corporation of Missouri
Application April 18, 1956, Serial No. 578,997
18 Claims. (Cl. 200—85)



1. For use with a liquid dispensing, vending machine or the like having an electrical circuit for controlling dispensing operation of the machine and liquid drain means for collecting and carrying waste liquid spilled during dispensing to a point of discharge, apparatus for normally receiving and temporarily storing waste liquid discharged from said drain means and for automatically controlling said circuit to prevent further dispensing under conditions when the apparatus is precluded from safely receiving further waste liquid, said apparatus comprising a support; an electrical switch mounted on the support and adapted for coupling with said circuit, said switch having a reciprocable actuating member; a liquid receiving tank; means for releasably mounting the tank on the support in disposition for receiving liquid discharged from said point; cam structure shiftably mounted on the support for reciprocation perpendicularly to the path of reciprocation of the member and engageable with the member for reciprocating the latter to actuate the switch when the structure is reciprocated into a certain position thereof; means yieldably biasing the structure away from said certain position thereof; and means for operably coupling the tank with the structure, when the tank is mounted on the support, for reciprocating the structure to said certain position thereof under the influence of the weight of the tank.

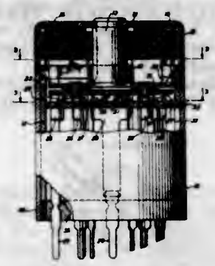
2,836,673
MAKE-BEFORE-BREAK RELAYS
Francis D. Reynolds, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application October 28, 1954, Serial No. 465,204
10 Claims. (Cl. 200—87)

1. A relay device comprising electromagnet means including a ferromagnetic core structure having ferro-



magnetic means forming two separately defined magnetic flux paths of relatively low magnetic retentivity each with a pair of mutually opposed magnetic pole face surfaces spaced apart relatively to form an air gap interposed in each such flux path, a pair of ferromagnetic relay armature balls movably received in the respective air gaps to permit movement of such balls between normal positions thereof displaced from immediate proximity with at least one of the associated gap-defining surfaces and relay-actuated position thereof magnetically bridging across their respective air gaps more directly between the associated pole face surfaces relatively than in said normal position, relay coil means arranged and electrically energizable to magnetize said core structure and thereby attract said armature balls into such relay-actuated position, permanent magnet means having mutually opposed magnetic pole face surfaces disposed respectively adjacent said air gaps and setting up magnetic flux in said air gaps to attract said relay armature balls into said normal positions thereof in the absence of magnetization of said ferromagnetic core structure, said magnetic core structure having therewith means relaying the increase of armature-ball-attracting magnetic flux in one of said flux paths relative to the increase of such magnetic flux in the other of said flux paths upon energization of said relay coil means, whereby one of said armature balls is moved into its relay actuated position before the other of said balls leaves its normal position, and at least two sets of electrical switch contact means for each of said armature balls, the respective sets being alternately engageable and disengageable by interpositional movement of said armature balls.

2,836,674
ROTARY RELAY
Hubert K. Krantz, Rockville Centre, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 26, 1954, Serial No. 471,267
8 Claims. (Cl. 200—87)



1. An electromagnetic relay comprising a core, a magnetic circuit including fixed elements having pole-pieces, means comprising a coil carried by said core for establishing a difference of magnetic potential between said core and said pole-pieces, a rotatable armature controllable by the established magnetic potential, and means physically independent of said core for mounting said armature for rotation about its center axis in spaced

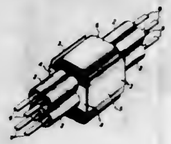
relation to said core and to said pole-pieces comprising a plurality of spring members interconnecting said armature and said pole pieces and radially disposed with respect to the axis of rotation of said core.

2,836,675
ELECTRIC SWITCH
Edmund A. Kathe, Columbus, Ohio
Application September 28, 1955, Serial No. 537,125
4 Claims. (Cl. 200—87)



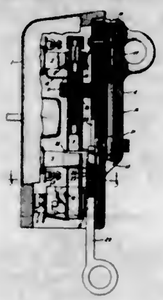
1. An electric switch having a receptacle box, a pin located adjacent each of the opposite ends of said box, each pin having a body portion supported in a wall of the said box, and an integral axle portion of reduced diameter projecting inwardly therefrom, a switch operating member including a magnetic block pivotally mounted at one of its ends on the axle portion of one of said pins, a strip of conductive metal affixed to one side of the magnetic block in surface contact with the body portion of the said pin, means connecting said first pin to one side of an electric circuit, a second electric circuit source mounted in a second wall of the box and adapted to be engaged by the free end of the switch operating member, a switch actuating member including a magnetic block pivotally mounted at one of its ends on the axle portion of the second of said pins and disposed in alignment with the magnetic block of the switch operating member, resilient means engageable with the switch actuating member for normally urging it into a position to hold the conductive strip of said switch operating member in engagement with the said second circuit source during repulsion of magnetic forces between the magnetic blocks of the said switch actuating and switch operating members, separate control means operable to cause said switch actuating member to move against the normal action of the resilient means whereby said switch operating member is moved from a circuit closed to a circuit open position, and means limiting movement of the said switch operating member from a circuit closed position.

2,836,676
SEALED MAGNETIC RELAY
Henry J. Wirth, Jr., Millington, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 17, 1955, Serial No. 488,773
9 Claims. (Cl. 200—104)



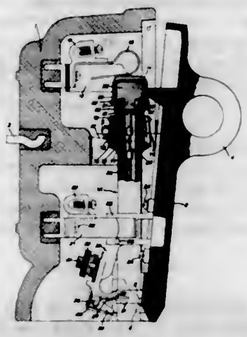
1. In a relay having an energizing coil with an opening therein, a magnetic circuit for said coil including magnetic structure and a switch unit arranged serially in said circuit and projecting through said coil opening, said magnetic structure comprising a metallic member having at two extremities cylindrically shaped members surrounding and engaging both ends of said switch unit.

2,836,677
ENCLOSED CUTOUT HAVING A FUSED LOAD BREAK DEVICE
Roy Nakata, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application June 28, 1954, Serial No. 439,621
4 Claims. (Cl. 200—114)



1. An enclosed cutout having a fused load break device, said cutout comprising a pair of spaced terminal contacts positioned in a housing, said housing closed by a door, a current interrupting means mounted on an interior of said door adapted to span said pair of spaced terminal contacts when said door is closed to complete an electrical circuit therebetween, said current interrupting means having two spaced contacts adapted for engagement with said two spaced terminal contacts when said door is closed, said load break device comprising a fuse link positioned on said door, said fuse link having a lower current interrupting rating than said current interrupting means, one end of said fuse link electrically connected to one of said current interrupting means contacts, a movable bridging contact positioned on said door movable from a position whereby said movable bridging contact electrically isolates another end of said fuse link from the other of said current interrupting means contacts to another position wherein said another end is in electrical contact with said other contact and said fuse link displaces said current interrupting means in said electrical circuit.

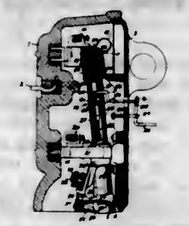
2,836,678
FUSE CUTOUT CONSTRUCTION
Alton G. Bale, Jr., South Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application June 21, 1955, Serial No. 516,917
8 Claims. (Cl. 200—114)



1. In combination with a fuse cutout having spaced line terminals, a movable fuse cartridge assembly arranged to mechanically bridge said line terminals and containing a fusible element adapted to electrically bridge said terminals comprising auxiliary contacts normally spaced

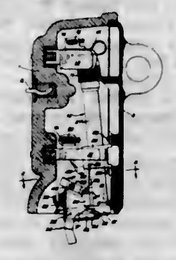
from each other and arranged for relative movement towards one another to complete the electrical bridging circuit through said fusible element, biasing means urging said contacts toward said relative movement, latch means normally restraining said contacts in spaced relation prior to mechanical bridging of said terminals by said fuse cartridge, and means cooperating with said latch means for releasing said contacts into conductive relation to complete said current path through said fusible element after said terminals have been positively mechanically bridged by said fuse cartridge.

2,836,679
FUSE CUTOUT CONSTRUCTION
Edward L. Sankey, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application June 22, 1955, Serial No. 517,248
6 Claims. (Cl. 200—114)



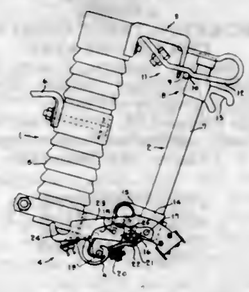
1. In combination with a circuit maker having spaced terminals, a fuse cartridge assembly electrically bridging said terminals, said fuse cartridge having interiorly there of a fusible element and a fixed and a movable contact normally maintained in spaced relation, spring means biasing said contacts toward each other, latch means normally restraining said movable contact in spaced relation with said fixed contact in opposition to the action of said spring means before said spaced terminals are mechanically bridged, manually operable means for rendering said latch means ineffective to restrain said movable contact, whereby said movable contact may be released to contact relation with said fixed contact by operating said manual means after the terminals are positively mechanically bridged by said fuse cartridge.

2,836,680
FUSE CUTOUT CONSTRUCTION
Alton G. Bale, Jr., South Milwaukee, and Edward L. Sankey, Milwaukee, Wis., assignors to McGraw-Edison Company, a corporation of Delaware
Application August 8, 1955, Serial No. 527,084
3 Claims. (Cl. 200—114)



1. In an enclosed fuse cutout having spaced apart line terminals, a closure assembly for said enclosed cutout including a fuse cartridge assembly arranged to mechanically bridge said terminals, pivot means pivotally supporting one end of said cartridge assembly for rotative movement in to and out of bridging engagement with said terminals, and a fuse link contained within said cartridge assembly and normally electrically connecting said line terminals; auxiliary switch means interposed between said fuse link and one of said terminals and comprising a pair of auxiliary contacts externally of said fuse cartridge assembly and biased for normal electrical engagement with one another, restraining means normally preventing said electrical engagement, and a manually operable trigger adapted for releasing said restraining means to permit said electrical engagement of said auxiliary contacts after said fuse cartridge assembly has been pivotally rocked into mechanically secure bridging relationship with said line terminals.

2,836,681
EXPULSION FUSE CONSTRUCTION
William E. Bracey, Dallas, Tex., assignor to McGraw-Edison Company, a corporation of Delaware
Application September 17, 1956, Serial No. 610,171
4 Claims. (Cl. 200—114)

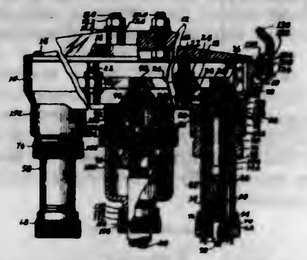


1. An expulsion fuse construction comprising a support assembly having an upper and a lower stationary contact; and a fuse tube assembly having pivot means pivoted on said support assembly for rocking motion of said fuse tube assembly outwardly from said support assembly, said fuse tube assembly including a fuse tube having an open lower end and an upper movable contact normally engaging the upper stationary contact, a fuse link in said fuse tube electrically connecting the upper movable contact with the lower stationary contact, said pivot means including a supporting lever pivoted at spaced pivot points on said fuse tube and on said support assembly and constituting a fuse link extracting lever, an operating lever pivoted at a fixed point on said fuse tube assembly, and a link joining the end portion of said operating lever with the end portion of said fuse link extracting lever, said link being located between the pivot points of said operating lever and said fuse link extracting lever, said link and said operating lever and fuse link extracting lever jointly constituting a motion multiplying means, whereby a large angular travel of said fuse link extracting lever is obtained when said operating lever is rocked through a predetermined angle and whereby a long pull is imparted to said fuse link.

2,836,682
SEPARABLE MULTIPLE TAP CONNECTOR
Irving F. Matthysse, Stamford, Conn., assignor to Burndy Engineering Co. Inc., a corporation of New York
Application July 8, 1955, Serial No. 520,645
2 Claims. (Cl. 200—133)

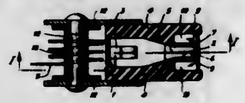
1. A portable, multiple cable connector comprising a bus bar, a metal housing therefor, a cover for said housing, means for providing an insulated support between the bus bar and said housing, said bus bar provided with a plurality of connections for electrically securing the bared ends of insulated main and a plurality of feeder cables thereto, wherein a cable connection is provided with self-aligning contact spring to assure full electrical contact, said housing provided with a plurality of outlets

for said cables, threaded sealing means for forming a readily attachable enclosure between said cables and said



housing, and means for manually making an electrical disconnection of the feeder cables to the bus bar within the closed metal housing.

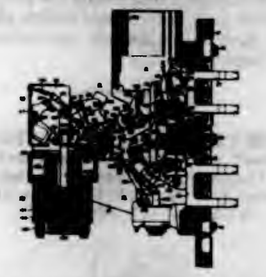
2,836,683
ARC-EXTINCTION CASING FOR CIRCUIT-BREAKER
André A. H. Souchet, Nanterre, France, assignor to La Telemecanique Electrique (Societe Anonyme), Nanterre, France, a company of France
Application February 28, 1956, Serial No. 568,311
Claims priority, application France August 29, 1955
1 Claim. (Cl. 200—144)



In combination with a circuit-breaker having separable contact members liable to give rise to an arc upon separation thereof, an arc-extinction device comprising a flattened chamber in which said contact members are housed, a flat convergent nozzle communicating with said chamber and forming an extension thereof, and a wall extending opposite the discharge end of said nozzle at a distance therefrom to provide a lateral restricted passage between said wall and said nozzle end, whereby any hot gases generated in said chamber upon formation therein of an arc, expand through said nozzle and issue therefrom in the form of a jet striking said wall and diverted thereby into said lateral restricted passage, said flattened chamber being in the general shape of a sector of a circle, said flat nozzle extending along the periphery of said sector over a generally circular arc, and said wall extending over an arc of a circle substantially concentric with the former-mentioned arc, said device further comprising two elongated and flattened expansion chambers extending on both sides of the nozzle and communicating therewith, and said expansion chambers extending over arcs of a circle and having, at one end thereof, an outlet aperture opening to the atmosphere.

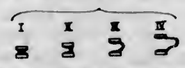
2,836,684
CIRCUIT INTERRUPTER
Harry J. Lingal, Bernard G. Tremblay, and Richard Hauser, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 16, 1955, Serial No. 508,395
5 Claims. (Cl. 200—146)

1. In a circuit interrupter, a plurality of stationary contacts, a plurality of cooperating movable contacts, separate movable switch arms supporting said movable contacts, operating means operable to move one of said switch arms to open and closed positions comprising a pair of toggle links, a knee pivot connecting said toggle links together, one of said toggle links being mounted on a fixed pivot, a pin pivotally connecting the other of said toggle links to one of said switch arms and disposed to engage the other of said switch arms after a predetermined movement of said one switch arm in opening direction, a separate cam member rigidly secured to the other of said switch arms, a cam surface on said cam member concentric with said fixed pivot, a roller on said knee pivot engaging said cam surface to permit said toggle to move said one switch arm in opening direction until



said pin engages said other switch arm while holding said other switch arm in closed position, a second cam surface on said cam member concentric with said pin when said pin is in engagement with said other switch arm, said second cam surface being engageable by said roller when said pin engages said other switch arm to permit collapse of said toggle while locking said switch arms between said roller and said pin for movement in unison to the open position.

2,836,685
MAGNETIC BLOWOUT SWITCH
Dora L. Pettit, Wauwatosa, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application May 26, 1955, Serial No. 511,183
13 Claims. (Cl. 200—147)

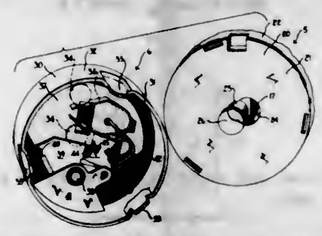


1. In an electric circuit interrupting device, a stationary contact, a movable contact normally in engagement with said stationary contact, a contact operating means movable to separate said contacts whereby an arc is formed, and a magnet carried by and movable with said means into juxtaposed spaced relation to said contacts for positioning a magnetic field for opposing the normal path of said arc to lengthen the path thereof.

2,836,686
PUSH-PULL SWITCH AND VARIABLE RESISTOR COMBINATION
Wayne A. Barden and Sidney W. Gallay, Elkhart, Ind., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana
Application July 30, 1956, Serial No. 601,057
3 Claims. (Cl. 200—153)

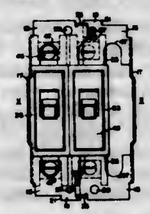
1. An electrical control instrumentality of the type having housing means and an operating shaft carried by the front portion of the housing means for axial back and forth motion with the inner end of the shaft projecting into the rear portion of the housing means, said instrumentality comprising: a contact carrying switch arm in the rear portion of the housing means, behind the inner end of the operating shaft; means mounting the switch arm on the housing means for pivotal motion in opposite directions between switch open and switch closed positions about an axis parallel to but spaced from the axis of the operating shaft; means biasing said switch arm to one of said positions; and means providing a motion translating driving connection between the shaft and the switch arm operable to effect pivotal motion

of the arm toward the other of said positions thereof as a consequence of inward axial actuation of the operating shaft, said motion translating connection comprising a member fixed to the switch arm to move back and forth therewith and having a cam part thereon which projects forwardly toward the rear end of the shaft,



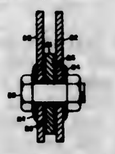
said cam part having an inclined cam surface thereon disposed to be engaged by the inner end of the shaft upon rearward actuation thereof, said cam surface facing in the direction toward which the switch arm is biased, and the foremost portion of said cam surface lying to one side of a plane containing the shaft and switch arm axes.

2,836,687
MOUNTING MEANS FOR CIRCUIT BREAKERS
Francis L. Gelzheiser, Brighton Township, Beaver County, and Hiller D. Dorfmann, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 18, 1956, Serial No. 585,808
10 Claims. (Cl. 200—168)



1. A circuit breaker mounting device comprising a pair of separate rigid members positioned on opposite sides of said circuit breaker, end portions on each of said members, a rigid side portion on each of said separate members joining said end portions, said side portions, when said rigid members are in position, engaging behind lateral projections on opposite sides of said circuit breaker to hold said breaker in place, and locking means on each of said end portions interlocking to hold said separate members together when said members are placed in position on said circuit breaker.

2,836,688
ELECTRIC DEVICE
Fritz E. Florschutz, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 10, 1956, Serial No. 564,732
7 Claims. (Cl. 200—170)



1. In an electric switch, in combination, a hinge tongue, a pair of switch blades disposed on opposite sides of the tongue, and a flat square washer composed of a metal having a different degree of hardness than said blades disposed between each blade and the tongue, each washer being in direct contact with the tongue and a blade.

2,836,689
VARIABLE RESISTANCE ASSEMBLY
George J. Mucher, Rochester, N. H., assignor to Clarostat Mfg. Co., Inc., Dover, N. H., a corporation of New York
Application September 16, 1955, Serial No. 534,834
4 Claims. (Cl. 201—48)



1. In a variable resistance assembly in combination a body, a resistance element mounted by said body for traversal by a contact, a contact ring concentrically disposed with respect to said resistance and mounted by said body, a rotor movably connected to said body, a contact connected to said rotor and bridging said ring and said resistance for traversal thereof, means between said contact and contact ring providing, upon said rotor being turned, an operator-perceptible impediment to rotor movement and means forming part of the connection between said rotor and said contact whereby the latter remains in electrical association with said resistance over the entire operative length thereof.

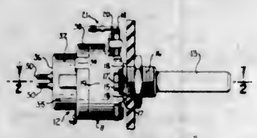
2,836,690
VARIABLE POTENTIAL DIVIDERS
Elliott M. Barr, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a corporation of New York
Application March 8, 1956, Serial No. 570,337
3 Claims. (Cl. 201—48)



3. A precision resistor comprising a pair of supports of insulating material, one of said supports being rotatable with respect to the other, a pair of coarse resistances mounted in spaced and parallel relationship on said other support, a terminal mounted on said other support and electrically connected to an end of one of said coarse resistances, a second terminal mounted on said other support and electrically connected to an end of said other coarse resistance adjacent the end of said one coarse resistance opposite the terminal connected end thereof, a shaft of electric conducting material rotatable with respect to said one support, a third terminal mounted on said other support and electrically connected to said shaft, a fine resistance mounted on said one support of insulating material, a contact slidably engageable with said fine resistance, a support arm for said contact electrically connected to said shaft and rotatable therewith, a pair of adjacently positioned contacts slidably engageable respectively with said coarse resistances and respectively electrically connected to the opposite ends of said

fine resistance, separate mounting means for said pair of contacts fixedly mounted in spaced relation on said one support of insulating material, each of said separate contact mounting means having an abutment portion positioned in the path of rotation of said contact support arm, said shaft being operative for rotation of said contact arm between said abutments to cause slidable adjustment of the contact supported on said arm over said fine resistance and operative to cause engagement of said contact arm with either one of said abutments whereby further rotation of said shaft causes rotation of said one support with respect to said other support of insulating material and slidable movement of said pair of contacts with respect to said coarse resistances.

2,836,691
COMBINATION VARIABLE RESISTOR AND SWITCH
Joseph Di Girolamo, Mishawaka, and Mervin B. Arisman, Elkhart, Ind., assignors to Chicago Telephone Supply Corporation, Elkhart, Ind., a corporation of Indiana
Application June 18, 1956, Serial No. 591,990
7 Claims. (Cl. 201—55)



1. A combination variable resistor and electric switch wherein the variable resistor has a housing including front and rear walls, and contains a rotary contact carrier adjacent to the rear wall of the housing, and wherein the switch is mounted on the back of the resistor housing and has a rotary contactor and an axially movable non-rotatable driver which is yieldingly biased forwardly, characterized by: the provision of a rotatable elongated switch actuator for translating rearward axial motion of the driver into rotary motion of the contactor; the fact that the contact carrier of the resistor has a well therein opening rearwardly to the interior of the switch housing through a hole in the rear wall of the resistor housing, and in which well a substantial portion of the switch driver is received; by the provision of a control shaft for the combination variable resistor and switch rotatably and axially slidably carried by the front wall of the resistor housing, the inner end portion of said shaft having a slidably splined driving connection with the contact carrier of the resistor and projecting rearwardly through the carrier to have its rear extremity contiguous to the switch driver so as to transmit rearward switch operating motion to the driver as a consequence of depression of the shaft; and by the provision of cooperating means on the switch and the resistor supporting the switch actuator for rotation coaxially of the control shaft.

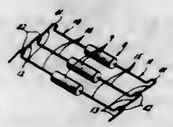
2,836,692
TEMPERATURE DETECTORS
Rupert Griffiths, London, England, assignor of one-half to Graviner Manufacturing Company Limited, London, England, a British company, and one-half to Wilkinson Sword Limited, London, England, a British company
Application April 28, 1955, Serial No. 504,630
3 Claims. (Cl. 201—63)

1. A temperature detector comprising an electrically conductive sheath, an inner electrical conductor located coaxially within said sheath, a non-porous glass filling within said sheath, said glass having an electrical resistance which falls with rising temperature, and discrete non-colloidal particles of a refractory material which remain solid at the softening temperature of said glass, said particles being fused in said glass and interposed between said



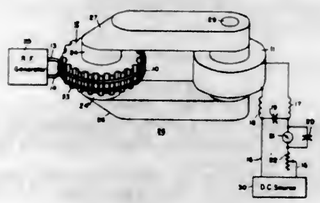
conductor and said sheath in the vicinity of said inner conductor only.

2,836,693
COMPONENTS FOR USE IN AUTOMATIC MACHINERY
Stanton L. Yarbrough, Glenside, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 17, 1955, Serial No. 547,384
5 Claims. (Cl. 201—63)



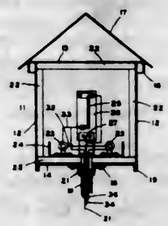
4. An articulated chain of components, comprising a plurality of components arranged in generally parallel alignment, each of said components having oppositely extending individual connector wires including inner and outer portions, each of said outer portions being bent in a generally crook shape and extending in a direction substantially normal to said inner portion and having its terminal end pivotally engaging the individual crook portion of an adjacent component.

2,836,694
INDUCTION HEATING UNIT
William A. Emerson, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 25, 1954, Serial No. 432,235
5 Claims. (Cl. 219—10.41)



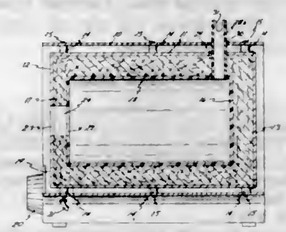
4. The method of heating a magnetic material which comprises heating said material to approximately the Curie point of said material by subjecting said material to the action of a unidirectional magnetic field and an alternating magnetic field, the alternating magnetic field being used to heat the material to a predetermined temperature above the Curie point of said material after said material reaches said Curie point.

2,836,695
DEVICE FOR INTEGRATING HEAT-ABSORBING CAPACITY
Mensal Lee Johnson, Kalamazoo, Mich.; Margaret O. Lamb, executrix of said Mensal Lee Johnson, deceased, assignor to herself, individually
Application January 11, 1955, Serial No. 481,137
6 Claims. (Cl. 219—20)



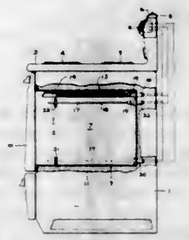
1. In apparatus for integrating over a period of time the heat-absorbing capacity of an environment, the combination including: a reference chamber having a heat conducting wall adapted to have its exterior surface in heat-exchange relationship with an environment the heat-absorbing capacity of which it is desired to integrate over a period of time; thermostatically controlled electric heating means within the reference chamber adapted to maintain the temperature therein substantially constant at a predetermined value over the period of integration; means outside the reference chamber adapted to supply a constant voltage electric current for energizing the heating means; and electrically operated clock means outside the reference chamber controlled by the same thermostat which controls the heating means whereby the total time of energizing of the heating means during the period of integration is registered by the clock means.

2,836,696
WARMING OVEN FOR PLASTIC EYE GLASS FRAMES
Ottwell W. Ratchford, Kennewick, Wash.
Application October 3, 1955, Serial No. 538,155
5 Claims. (Cl. 219—35)



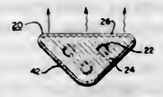
1. A warming oven for plastic eye glass frames comprising an outer shell having its opposite ends open to allow air passage therethrough, a housing mounted within said outer shell, said housing being substantially smaller than the shell and being spaced inwardly therefrom, a heating chamber within said housing, insulating material surrounding said chamber, a heating element within said housing for heating the interior of the chamber, temperature regulating means connected to said element, an opening in one end of said housing, the insulating material adjacent the opening having a slot therein, said insulating material being of a resilient nature whereby to allow the slot to be widened for insertion of eye glass frames therethrough, and a chimney extending upwardly from the chamber through the housing and the outer shell for heating small selected portions of eye glass frames held thereover.

2,836,697
ELECTRIC RANGE
Samuel C. Jordan, Lyndon, Ky., assignor to General Electric Company, a corporation of New York
Application December 23, 1955, Serial No. 555,220
2 Claims. (Cl. 219—35)



1. An electric oven comprising an enclosed oven compartment including top, bottom and rear walls, a first heating unit in the upper portion of said compartment primarily adapted to supply heat for broiling operations, a second heating unit in the lower portion of said compartment primarily adapted to supply heat for baking operations, said first heating unit and said second heating unit each including an elongated resistance heating element formed in a generally looped configuration lying in a plane substantially parallel to said top wall, substantially all heating portions of the heating element of said first heating unit being in vertical mis-alignment with the heating element of said second heating unit, connector means for supplying electrical energy to said first heating unit, a first electrical receptacle for supplying energy to said second heating unit, a second electrical receptacle on said rear wall adjacent said connector means adapted to supply energy to said second heating unit when the second heating unit is transferred to the upper portion of said compartment so as to supply supplementary heat for broiling operations, and a connector plug on said second heating unit adapted to engage said first and said second receptacles, said second receptacle being in parallel circuit relation with said connector means so as to be energized concurrently therewith.

2,836,698
DOMESTIC APPLIANCE
Millard E. Fry, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 14, 1953, Serial No. 354,952
4 Claims. (Cl. 219—37)



1. An electric surface heater including a sheathed tubular heating unit having an electrical resistance embedded in solid electrical insulation enclosed in a metal sheath, said sheath having a top surface for supporting a cooking vessel, the bottom surfaces of said sheath being provided with an external coating of a low emissivity slag enamel.

2,836,699
INSTANTANEOUS WATER HEATER
Robert E. Mullin, Independence, Mo., assignor to Mullin Gomel Company, Independence, Mo., a corporation of Missouri
Application July 20, 1956, Serial No. 599,210
17 Claims. (Cl. 219—40)

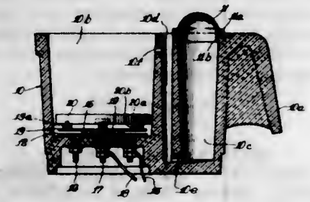
3. In an electrically energized heating device of the character described, an elongate bus, a plurality of axial-

ly spaced tubular electrodes encircling the bus, insulator disks at the opposite ends of each electrode supporting the same on the bus in radially spaced relation thereto, each electrode and its end disks forming with the bus an annular chamber encircling the bus, a passageway



through the bus from each chamber to the next, a support, and a plurality of brackets on said support, each of said brackets having opposed members engaging opposite sides of one of said electrodes under inwardly directed pressure to clamp the electrode therebetween.

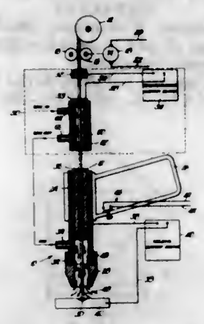
2,836,700
BOTTLE WARMER
David Chapman, Chicago, Ill., assignor to Hankscraft Company, Reedsburg, Wis., a corporation of Wisconsin
Application November 2, 1955, Serial No. 544,484
5 Claims. (Cl. 219—43)



4. A bottle warmer comprising a vessel having a heating chamber therein and a water storage chamber therein and an upright channel therein, the upper ends of said heating chamber and said channel being open to the atmosphere, a first port interconnecting said storage chamber and said channel adjacent the lower ends thereof, a second port interconnecting said heating chamber and said channel adjacent the upper ends thereof, means in said storage chamber for discharging water by increments therefrom through said ports and said channel into said heating chamber, and means comprising spaced electrodes for heating the water in said heating chamber.

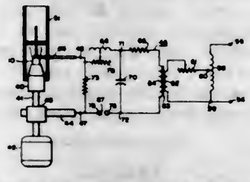
2,836,701
METHOD AND APPARATUS FOR GAS-SHIELDED METAL ARC WELDING
Arthur A. Bernard, Chicago Heights, Ill.
Application August 28, 1956, Serial No. 606,746
6 Claims. (Cl. 219—74)

1. The method of gas-shielded metal arc welding including the steps of heating the electrode at a zone separated from the arc zone sufficiently to dehydrogenate same and at the same time within said separated zone directing the shielding gas over the surface of the electrode



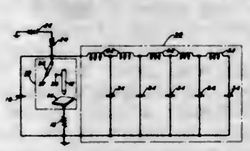
axially thereof in a turbulent flow to disperse the hydrogen into the shielding gas.

2,836,702
HERMETICALLY SEALED ELECTRICAL DISCHARGE DEVICE
John P. Stelmak, David L. Moore, and Walter O. Mansfield, Jr., Horseheads, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 15, 1954, Serial No. 443,614
7 Claims. (Cl. 219—85)



1. In the method of making permanent vacuum type joints between metallic parts of electrical discharge devices, the steps comprising pre-tinning the surface of the parts to be placed in contact, pressing said surfaces together so as to form a rigid union, applying local heating of short duration near the zone of contact of said parts so that the solder flows around the zone of contact so as to make a permanent vacuum seal.

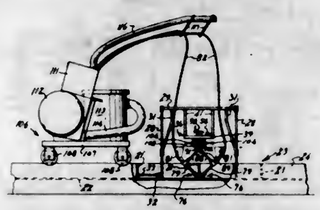
2,836,703
LOW VOLTAGE ARC WELDING CIRCUIT FOR USE WITH PERCUSSION HAND WELDER
Willard S. Boyle, Berkeley Heights, and James L. Smith, Basking Ridge, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 19, 1956, Serial No. 592,366
6 Claims. (Cl. 219—95)



1. An arc welding system for welding an electrode, comprising a conductor, to an electrode, comprising an apparatus terminal, said electrodes having a known heat conduction loss characteristic, said system including a first electrical energy storage means characterized by a high power, rapid discharge, a second electrical energy storage means characterized by a predetermined, substantially constant, power discharge over a predetermined

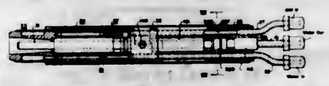
time interval, means having negligible inductance connecting said first storage means to said electrodes, means connecting said second storage means to said electrodes, means for charging both of said storage means and means for bringing said electrodes together with a predetermined velocity to produce an arc discharge between said electrodes over a major portion of said predetermined time interval, the sum of said rapid and said constant power discharges exceeding the conduction loss of said electrodes over said predetermined time interval whereby the electrical energy applied to said electrodes will become substantially zero shortly after closure of said electrodes and said electrodes will become welded upon cooling.

2,836,704
ARC WELDING MACHINE
William Mason, Oakland, Calif., assignor to Independent Iron Works, Inc., Oakland, Calif., a corporation of California
Application October 8, 1956, Serial No. 614,498
5 Claims. (Cl. 219—125)



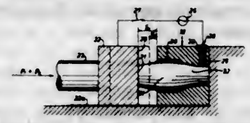
1. In combination, a portable carriage support, legs depending from said carriage support spaced to rest directly upon work to be welded, a carriage movable along said support directly above the welds to be performed on said work, drive means for driving said carriage on said support, a pair of welding heads each disposed in working position to extend downwardly and inwardly toward each other, and suspending means pivotally suspending said welding heads from said carriage, said suspending means being adjustable to adjust the angle of said heads relative to the work, each said welding head having a flux cone, a welding rod extending through said flux cone, and a conductor for electric current connected to said welding rod.

2,836,705
WELDING GUN
George H. Cotter, Springville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 27, 1956, Serial No. 574,172
4 Claims. (Cl. 219—130)



1. A welding gun for welding with a consumable electrode in a gas shield including a nozzle through which said electrode and said gas are passed, an electrode guide tube extending through said gun to said nozzle for guiding said electrode, another tube enclosing at least a portion of said electrode guide tube near the end thereof remote from said nozzle, a gas tube adjacent said other tube and a gas communication connection between said gas tube and said other tube whereby gas from said gas tube flows into said other tube and through it to the region behind said electrode guide tube where the electrode enters the guide tube saturating said region and suppressing the flow of atmospheric gas into said nozzle.

2,836,706
PRECISION FORGING METHOD AND APPARATUS
Daniel Alfred Cavanagh, Willowdale, Ontario, Canada
Application November 22, 1955, Serial No. 548,483
9 Claims. (Cl. 219—150)



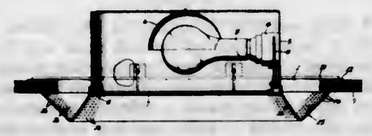
1. The method of forging a workpiece comprising the steps in combination of: applying pressure to said workpiece; heating said workpiece while under pressure; controlling said pressure to a value insufficient to cause said workpiece to deform thereunder until the workpiece attains a desired forging temperature, thereby to control the temperature at which the deformation of the workpiece occurs; and immediately forging said workpiece into a die at said forging temperature.

2,836,707
LIGHT FILTER
Charles Monroe Stitt, Los Angeles, Calif.
Application October 1, 1954, Serial No. 459,789
4 Claims. (Cl. 240—1.1)



1. A light filter designed for a fluorescent light to convert light rays from said fluorescent light into rays of different wave length characteristics, which when comingled and blended in said filter produce a sensory perception of white light, said filter comprising a large number of relatively very small individual contiguously disposed cohesively assembled particles, each being a homogeneous body of light permeable material for one and only one of three predetermined spectral bands of angstrom unit wave lengths corresponding to blue-green, violet, and red, so that a first number of said particles are all identically characterized by being filteringly capable of producing only blue-green; a second number of said particles are all identically characterized by being filteringly capable of producing only violet; and a third number of said particles are all identically characterized by being filteringly capable of producing only red; each of the particles of one number being randomly interspersed with each of the particles of the other numbers, there being a substantially uniform and even distribution of the particles with respect to their color characteristics in all directions throughout the mass of the filter.

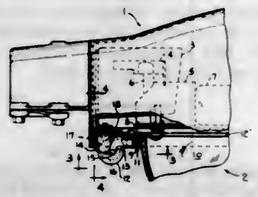
2,836,708
LIGHT FIXTURE
Mitchell Bobrick, Pacific Palisades, Calif., assignor to Marvin Electric Manufacturing Company, Los Angeles, Calif., a corporation of California
Application June 18, 1956, Serial No. 592,163
1 Claim. (Cl. 240—2)



A recess lighting and ventilating device comprising a light housing positioned in a hole in the ceiling of a room, said hole being larger in size than said housing,

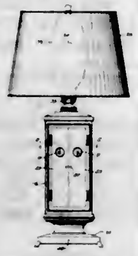
means to attach said housing to the upper side of said ceiling, a bezel to support a light diffusing lens attached to the bottom of said housing, a grill attached to said bezel and extending outwardly from said housing to cover the hole not closed by said housing, said grill being perforated to permit passage of air from above said ceiling into said room.

2,836,709
LUMINAIRES
Harold A. Van Dusen, Jr., South Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application May 3, 1955, Serial No. 505,679
6 Claims. (Cl. 240—25)



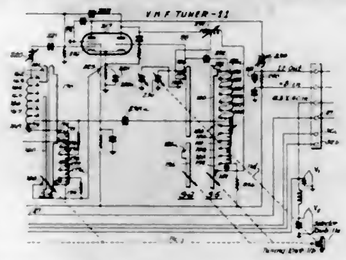
1. In a luminaire construction, a stationary housing assembly and a movable globe assembly hingedly connected to said stationary housing assembly, said globe assembly including a glode, and a lamp socket, said housing assembly having an open lower portion and having a shoulder projecting from the marginal portion of the housing assembly, inwardly over a part of the open lower portion adjacent the hingedly connecting part of the housing and globe assemblies and said globe assembly having a detachment-preventing member provided with a projecting portion arranged to rock beneath said shoulder when said globe assembly is being rocked upwardly during closing motion, said shoulder overhanging said detachment-preventing member when said globe assembly is hanging downwardly and after said globe assembly has been rocked upwardly, whereby said globe assembly is prevented from detachment from said stationary housing assembly during upwardly rocking motion.

2,836,710
LAMP ASSEMBLY
Wanda L. Paul, New York, N. Y.
Application May 15, 1952, Serial No. 287,986
17 Claims. (Cl. 240—81)



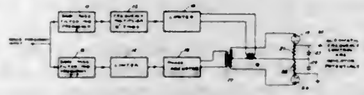
1. A lamp assembly comprising a base having a floor thereon; a housing secured on said floor and having a door opening; a door for the door opening; a cap on the housing walls and cooperating therewith and with said floor to form a lamp stand; a reflector mounted in said housing and having a reflecting face toward the door opening; a lighting means mounted in the housing in front of the reflector; a light shade having its upper margin yieldably hinged in the housing above the door opening and adapted to be projected at an angle from the door opening; wings hinged to the side edges of the main shade and movable to a position behind the main shade and to an obtuse angle relative to the shade when the latter is projected from the housing; said door and shade being provided with small windows, registering when the main shade is housed, and closure plates adjustably slidable to cover the windows of the shade.

2,836,711
UNIVERSAL TUNING SYSTEM FOR TELEVISION RECEIVERS
James Edgar Krepps, Jr., Bloomington, Ind., assignor to Sarkes Tarzian, Inc., Bloomington, Ind., a corporation of Indiana
Original application December 20, 1951, Serial No. 262,619, now Patent No. 2,665,377, dated January 5, 1954. Divided and this application December 23, 1953, Serial No. 399,928
7 Claims. (Cl. 250—20)



7. In a television tuner, the combination of a discharge device including an energizing electrode, a plurality of tuned circuits, a first variable tuning condenser, a second condenser, and station selector switch means having a plurality of V. H. F. station selecting positions and a position for a preceding U. H. F. tuner, said switch means being operable to connect successive ones of said tuned circuits in circuit relationship with said energizing electrode in successive V. H. F. station selecting positions to vary, by relatively large increments, the frequency of oscillation of a local oscillator stage including said discharge device and to connect said variable tuning condenser to said discharge device to vary the frequency of oscillation of said oscillator by relatively small increments in each V. H. F. station selecting position, said switch means being operable in said U. H. F. tuner position to render said variable tuning condenser inoperative to control the operation of said discharge device and associated circuit and to connect said second condenser into operative circuit relationship with said discharge device, thereby to alter the mode of operation of said discharge device and associated circuit.

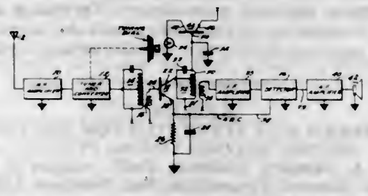
2,836,712
AUTOMATIC FREQUENCY CONTROL AND TUNING INDICATOR
Murray G. Crosby, Riverhead, N. Y.
Application June 29, 1956, Serial No. 594,984
15 Claims. (Cl. 250—20)



1. Apparatus for automatic frequency control for a receiver for intelligence made up of harmonically related audio frequencies, said apparatus comprising a receiver for reproducing the audio frequency intelligence, a filter

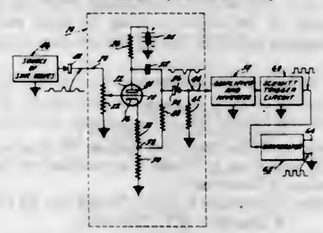
to select one frequency component or band, another filter arranged in parallel to simultaneously select another frequency component or band "*n*" times the first, a frequency multiplier for multiplying the output of the first filter by "*n*" times, means for comparing the resulting frequencies to see if they are alike as they should be, and means responsive to any departure in one direction or the other to alter the tuning of the receiver in that direction which reduces the departure.

2,836,713
TRANSISTOR RADIO RECEIVER TUNING INDICATOR
Thomas M. Scott, Princeton, and Larry A. Freedman, New Brunswick, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application August 17, 1956, Serial No. 604,733
7 Claims. (Cl. 250—20)



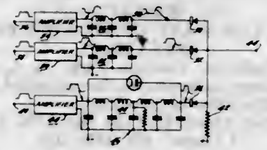
1. In a signal receiving system, the combination with a tuning indicator lamp, automatic gain control means adapted to provide an automatic gain control signal in response to an applied signal, and a transistor signal amplifier having a base, an emitter, and a collector electrode, of an auxiliary transistor having a base, an emitter, and a collector electrode, means connecting the collector electrode of said transistor amplifier with the base electrode of said auxiliary transistor to vary the direct collector current flow of said auxiliary transistor in response to direct collector current variation of said transistor amplifier, means connecting said tuning indicator lamp with the collector of said auxiliary transistor to illuminate said lamp in response to collector current flow of said auxiliary transistor in the absence of an applied signal, and means connecting said automatic gain control means with said transistor amplifier to reduce the gain and the direct collector current thereof and the direct collector current of said auxiliary transistor to extinguish said dial lamp in the presence of an applied signal.

2,836,714
ELECTRONIC LIMITER CIRCUIT
Dallas R. Andrews, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 30, 1953, Serial No. 345,421
9 Claims. (Cl. 250—27)



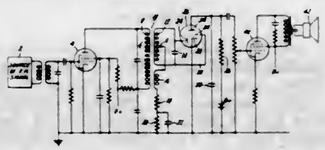
1. An electronic limiter circuit comprising a unilateral impedance element having anode and cathode electrodes, an input terminal for receiving input pulses of a certain polarity, means coupled to said input terminal and responsive to said input pulses for producing voltage pulses and for producing a variable bias potential of smaller amplitude than said voltage pulses both in accordance with amplitude variations in said input pulses, means for applying said voltage pulses to one of said electrodes, means for applying said variable bias potential to one of said electrodes in a manner tending to bias said impedance element in the reverse direction and to oppose the passage through said unilateral element of a portion of the one of said voltage pulses produced simultaneously with the applied bias potential, and an output load impedance element connected to the other of said electrodes.

2,836,715
SIGNAL SHAPING CIRCUIT
Arnold Spielberg, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 8, 1953, Serial No. 347,496
6 Claims. (Cl. 250—27)



6. A circuit for reducing the duration of a signal impulse of predetermined duration and polarity comprising an electrical delay line having an input and an output terminal and a common connection and having a delay characteristic less than the predetermined duration of said signal impulse, a pulse transformer for applying said signal impulse between said input terminal and said common connection, a unilateral impedance element, and means coupling said unilateral impedance element between said terminals for passing signals of said predetermined polarity from said output terminal to said input terminal to produce an output impulse at said output terminal in response to said input signal impulse after said timel corresponding to said delay characteristic and of a duration reduced by an amount corresponding to said delay characteristic, said delay line being formed of capacitances and inductances connected in networks between said terminals and said common connection, and said delay line being terminated by a resistance element substantially equal to twice the characteristic impedance of said delay line and connected between said common connection and a point intermediate said input and output terminal.

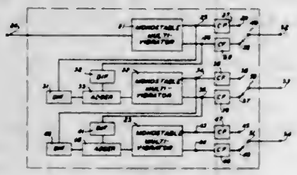
2,836,716
ANGLE MODULATION DETECTOR
Robert B. Dome, Geddes Township, Onondaga County, N. Y., assignor to General Electric Company, a corporation of New York
Application September 23, 1953, Serial No. 381,882
2 Claims. (Cl. 250—27)



1. A detector for frequency modulated waves comprising, in combination, a limiter amplifier, a transformer having primary, secondary and tertiary windings, means for energizing said primary winding with the output of said amplifier, a condenser connected in parallel with said primary winding so as to tune it to parallel resonance at the central frequency of said carrier wave, a condenser connected in parallel with said secondary winding so as

to tune it to parallel resonance at the central frequency of said carrier wave, a tube having a diode section comprised of a plate and cathode, and a triode section comprised of a control grid, a plate and said cathode, a connection between one end of said secondary winding and the plate of said diode section, a load circuit having a high impedance for modulation frequencies and a low impedance for carrier frequencies, said load circuit being connected in series with said tertiary winding between a tap on said secondary winding and said cathode, a connection between the other end of said secondary winding and said grid, a source of fixed positive potential, a load impedance connected between said source and said plate of said triode section, and a bypass condenser for carrier wave frequencies connected in parallel with the series combination of said load impedance and said source of fixed potential.

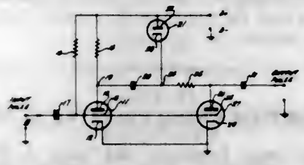
2,836,717
RECTANGULAR WAVE GENERATOR FOR COLOR TELEVISION
Michael V. Sullivan, Florham Park, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 16, 1954, Serial No. 416,651
1 Claim. (Cl. 250—27)



A rectangular wave generator comprising a plurality of monostable multivibrators connected in series relationship, each of said multivibrators including an input terminal and a pair of output terminals and being adapted to produce at said output terminals a pair of rectangular waves of simultaneous occurrence and opposite phase, means for applying constant frequency triggering pulses to the input terminal of the first multivibrator in said series, means for coupling the output terminals of each multivibrator to a pair of external terminals, means coupled between the output terminals of a preceding multivibrator and the input terminal of the succeeding multivibrator for generating triggering pulses occurring at twice the frequency of the triggering pulses applied to the preceding multivibrator whereby the frequency of each of the output rectangular waves of the succeeding multivibrator is of twice the frequency of the output waves of the preceding multivibrator, means for deriving from all of said external output terminals, together, a time sequence of selected ones of said rectangular waves.

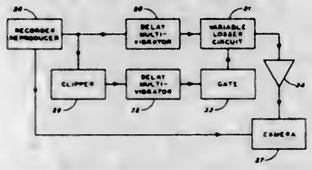
2,836,718
PULSE AMPLITUDE MULTIPLIER
Edwin H. Meier, Los Angeles, and Robert G. Hester, Pacoima, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application May 12, 1954, Serial No. 429,280
6 Claims. (Cl. 250—27)

2. A pulse generator for producing an output pulse in response to an input pulse, comprising a source of positive voltage, a first switching means, said first switching means being coupled to said source and adapted to be controllably operated by said input pulse to produce an increased output potential; a capacitor having a first and a second terminal, said first terminal being coupled to said first switching means and responsive to the output potential thereof; a second switching means, said second switching means being connected between said voltage source and said second terminal and adapted to prevent the voltage at said second terminal from going below a predetermined voltage amplitude; a third switching means, said third



switching means being coupled to said second terminal and providing an output thereto and also adapted to be controllably operated simultaneously with said first switching means by said input pulse to permit the voltage at said second terminal to increase along with the increase in voltage amplitude on the first terminal of said capacitor.

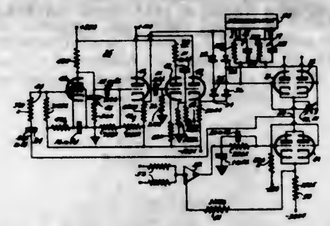
2,836,719
METHODS AND APPARATUS FOR SHIFTING SEISMIC RECORD TIMING PULSES
Robert A. Manhart, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application August 23, 1955, Serial No. 530,047
9 Claims. (Cl. 250—27)



1. Apparatus for producing an effective time shift in a train of timing signals which consists of a periodic series of substantially identical spaced signals separated at regular intervals by signals of distinctive character, comprising a first delay network for delaying all of said signals by a first predetermined amount, a second delay network connected in parallel with said first network for separately delaying said distinctive signals by a second predetermined amount, a characteristic-changing network connected to the output of said first delay network, a gating network, means connecting said second delay network to said gating network to generate a gating impulse upon occurrence of each of said delayed signals from said second delay network, and means connecting said gating network to said characteristic-changing network to vary a characteristic of the signal passing through said characteristic-changing network during occurrence of said gating impulse.

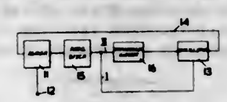
2,836,720
BALANCING CIRCUIT
Sidney Sternberg, Princeton, and Arthur W. Vance, Cranbury, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application September 6, 1955, Serial No. 532,542
6 Claims. (Cl. 250—27)

1. A switching circuit comprising a plurality of electron control devices having anode, cathode, and control electrodes, means for applying switching voltages to said control electrodes to render said devices alternately conductive, an impedance connected in common to said cathode electrodes, and amplifier means connected between said cathode electrodes and said control electrodes for reducing the voltages at said control electrodes in



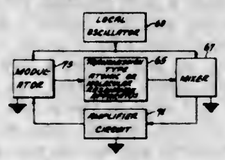
accordance with increasing and decreasing variations in voltage at said cathode electrodes.

2,836,721
SERVO SYSTEMS
Stanley Ratcliffe, Great Malvern, England, assignor to National Research Development Corporation, London, England, a corporation of Great Britain
Application September 22, 1952, Serial No. 310,891
Claims priority, application Great Britain September 29, 1951
9 Claims. (Cl. 250—36)



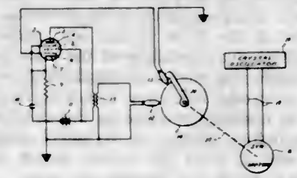
1. An automatic frequency control system for maintaining the frequency of a frequency source constant relative to the frequency of a datum reference source of oscillations, comprising said frequency source adapted to be adjusted in frequency by two separate adjustment means, measuring means comprising a mixer circuit and a frequency discriminator circuit, said mixer circuit being connected to said frequency source and the reference source to mix the frequency thereof, said discriminator being connected to the mixer circuit to derive from the output of the mixer circuit a signal characteristic of the degree of mistune of the frequency source, a first adjustment means associated with said frequency source and connected to the discriminator for adjusting the frequency of the frequency source by one adjustment according to the signal from the discriminator, a threshold means connected to receive the signal from the discriminator and to introduce a positive and negative threshold, and a second adjustment means associated with the frequency source and connected to the threshold means for adjusting the frequency of the frequency source accordingly as part of the signal from the discriminator exceeds a predetermined setting of the threshold means whereby said second adjustment means does not operate in a zone of frequencies around the desired frequency of the frequency source.

2,836,722
ATOMIC OR MOLECULAR OSCILLATOR CIRCUIT
Robert H. Dicke and Thomas R. Carver, Princeton, N. J.
Application October 24, 1955, Serial No. 542,420
23 Claims. (Cl. 250—36)



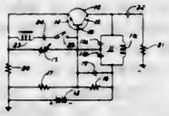
1. A microwave oscillator circuit comprising a hollow wave energy structure containing a microwave resonant medium capable of producing an instantaneous oscillatory output at a frequency at which said medium is resonant, an oscillator for producing an output wave at a frequency different from said resonant frequency, a mixer coupled to said hollow wave energy structure and said oscillator for producing a modulation frequency wave, an amplifier circuit having its input circuit connected to the output of said mixer, a modulator, and means for applying the output of said amplifier circuit and the output of said oscillator to said modulator to produce an output wave at said resonant frequency for application to said hollow wave energy structure to sustain said oscillatory output.

2,836,723
SYNCHRONIZED PHASE SHIFT OSCILLATOR
Louis W. Erath, Houston, Tex., assignor, by mesne assignments, to Southwestern Industrial Electronics Company, Houston, Tex., a corporation of Delaware
Application November 28, 1955, Serial No. 549,289
6 Claims. (Cl. 250—36)



4. An oscillator comprising an amplifier having an input and an output, recording means including a record, a recording member, a pickup member, and means for moving said record past the recording member and the pickup member, said recording member being connected to the output of said amplifier and operable to record that output on the record, said pickup member being spaced from the recording member in the direction of travel of the record and being connected to the input of said amplifier so as to impress the amplifier output on its input after a time delay determined by the speed of travel of the record and the spacing between the recording member and the pickup member, the input of said amplifier being sufficiently large that the amplifier oscillates at a frequency determined by said time delay.

2,836,724
SELF-QUENCHING OSCILLATOR
Ivan P. Kaminow, Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 15, 1955, Serial No. 553,329
6 Claims. (Cl. 250—36)



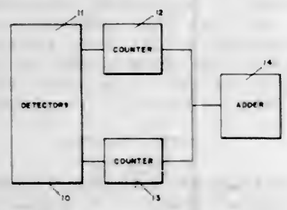
1. In a circuit for generating oscillations, a transistor having base, emitter and collector electrodes, a parallel resonant circuit connected between said base electrode and one of the remaining ones of said electrodes, a feedback connection from said parallel resonant circuit to a second one of said remaining electrodes, an inductor, a capacitor, means for connecting said inductor and said capacitor in series, between said base electrode and said second electrode, and quenching means including said inductor and said capacitor and connected to said resonant circuit for intermittently quenching the generation of said oscillations, said quenching means having a time constant much greater than the resonant period of said resonant circuit.

2,836,725
CORONA CHARGING DEVICE
Robert G. Vyverberg, Pittsford, N. Y., assignor to The Haloid Company, Rochester, N. Y., a corporation of New York
Application November 19, 1956, Serial No. 623,245
4 Claims. (Cl. 250—49.5)



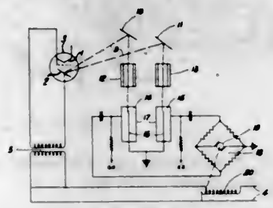
1. In the art of xerography wherein the photoconductive surface of a xerographic plate is sensitized by the application of a uniform electrostatic charge from an ion generating device arranged in closely spaced relation to the xerographic plate and wherein the ion generating device and the xerographic plate are arranged for relative movement, a corona generating device for applying such charge comprising a single corona discharge electrode of substantially uniform circular cross-section, said single electrode being arranged for mounting parallel to the plate surface and perpendicular to the path of relative movement of the plate and the electrode, a conductive shield substantially surrounding the discharge electrode, insulating means for supporting the electrode in insulated relation to the conductive shield, and a longitudinal opening in the shield oriented to permit ions emitted from the corona sheath of the electrode to be directed to a xerographic plate.

2,836,726
RADIATION SURVEY SYSTEM
Theodore A. Rich, Schenectady, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 2, 1954, Serial No. 453,978
5 Claims. (Cl. 250—83.6)



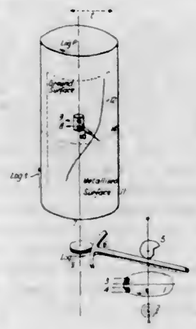
3. An airborne radiation survey system for measuring radioactivity of predetermined areas on the ground, said system comprising: a pair of ion chambers, shielding means located between one of said chambers, and the ground so that said one chamber will detect all radiation except that emanating from a volume defined by a first cone whose apex is said one chamber and whose sides are determined by lines passing through the apex and touching the periphery of said shielding means and the ground, second shielding means mounted above the other chamber whereby said other chamber will detect all radiation except that emanating from a volume defined by a second cone whose apex is said other chamber and whose sides are defined by line passing through said apex and touching the periphery of said second shielding means, one cone opening in a direction opposite than that in which the other opens and the small ends thereof overlapping each other; means for measuring the radioactivity detected by the chambers and adding the measured quantities in a bucking sense with the final result representing the radiation from the radioactivity material on the ground within the area of the base of said first cone.

2,836,727
VOLTAGE REGULATOR
Herbert Friedman, Arlington, Va.
Application August 4, 1955, Serial No. 526,420
5 Claims. (Cl. 250—103)



1. A device for controlling the potential of a source comprising an X-ray tube coupled to said source, a secondary radiator containing at least one element of the periodic series which when exposed to X-radiation produced by said tube generates its characteristic X-ray spectra, means to detect the characteristic X-ray radiation produced by said secondary radiator, and means coupled to said detection means and responsive to the intensity of the characteristic radiation produced by said element for controlling the potential of said source.

2,836,728
PROTECTIVE ARRANGEMENTS FOR X-RAY APPARATUS
Louis Maurice, Paris, France, assignor to Compagnie Generale de Radiologie, Paris, France, a French body corporate
Application October 18, 1955, Serial No. 541,257
3 Claims. (Cl. 250—103)



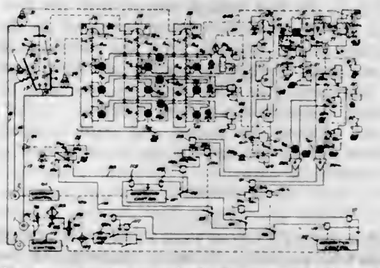
1. In combination with an X-ray tube and a source of anode current, a device for preventing overloading of said anode comprising a cylinder having its interior surface divided between light reflecting and non-reflecting areas by a curve representative of the permitted load as a function of time, a shaft mounted axially within said cylinder and having mounted thereon a source of radially projecting columnated light, a photo cell disposed on said shaft axially of said source, a watt-hour meter in the anode circuit, means associated with said meter for the rotation of said shaft to sweep said light beam circumferentially of said cylinder, and means associated with said photoelectric cell to interrupt the tube anode current upon passage of said beam from a reflective to a non-reflective area of said cylindrical surface.

2,836,729
BEAM THERAPY DIAPHRAGM
James L. Snarr and Mervyn G. Brown, Ottawa, Ontario, Canada, assignors to Atomic Energy of Canada, Limited, Ottawa, Ontario, Canada, a corporation of Canada
Application September 24, 1956, Serial No. 611,656
Claims priority, application Canada July 18, 1956
5 Claims. (Cl. 250—105)



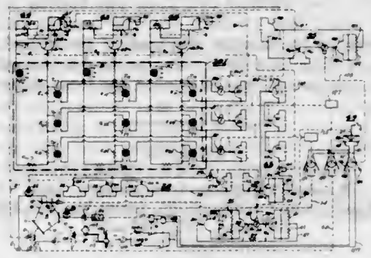
1. In a collimator for defining a beam of radiation, blocks movable in a unitary plane substantially perpendicular to the axis of the beam of radiation to define an aperture for the emission of the beam, said blocks comprising two pairs of blocks, the blocks of each of said pairs being on opposite sides of said aperture, each of said blocks having one end abutted against the side of one block of the other pair of blocks and having its inner face abutted by the other block of the other pair of blocks, means for maintaining the blocks in abutment as aforesaid, mounting means for said blocks permitting movement of said blocks within said unitary plane both in the direction of and in a lateral direction with respect to said aperture, means for increasing or decreasing the distance between one of said pairs of blocks, means for increasing or decreasing the distance between the other of said pairs of blocks, at least one of said blocks being obliquely divided along a line extending to the inner face of the last mentioned block at a point adjacent to the abutment of an end of said block with the side of another block to separate said last mentioned block into two segments, means maintaining said segments in slidable engagement and means for advancing or retracting one of said segments with respect to the other of said segments to change the shape of said aperture.

2,836,730
ECONOMIC LOADING OF POWER SYSTEMS
Edwards Donald Early, Birmingham, Ala.
Application June 1, 1954, Serial No. 433,511
69 Claims. (Cl. 290—4)



1. In a power system including a plurality of interconnected transmission lines to which there are connected a plurality of power sources, means for determining the loading of said power sources comprising a plurality of series-circuits, each including a plurality of circuit components, a plurality of energizing means, each said energizing means providing an energizing medium for one only of said components of each of said series-circuits, the impedances of said circuit components having values for collectively inter-relating values of power generation of said sources and incremental transmission losses of said sources for determination of one of them by each of said series-circuits upon magnitudes of energization of said components by said energizing means representative of the magnitudes of the other of them, and means operable with change in loading of said power system for changing the outputs of said energizing means.

2,836,731
GENERATION CONTROL SYSTEM
William G. Miller, Jr., Green Lane, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania
Application August 16, 1954, Serial No. 450,025
34 Claims. (Cl. 290—4)

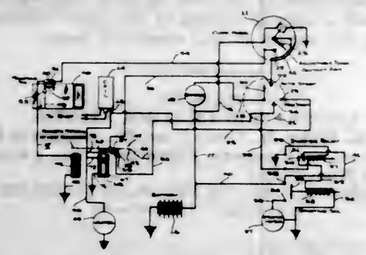


1. A system for controlling the levels of generation of a plurality of power sources interconnected to form a power distribution system in manner to maintain a system condition at a predetermined value while meeting the load requirements of said power system, comprising a balanceable electrical circuit having at least one adjustable circuit component for producing an electrical unbalance of said circuit in accordance with the required total change in generation level of said sources needed to maintain said system condition at its said predetermined value and to meet said load requirements, computing means operable in accordance with said unbalance of said circuit for producing output quantities respectively representative of a computed level of generation for each of said sources which will maintain the computed generation levels of all said sources in predetermined relationship and with the total change in said computed levels of generation matching said required total change in generation level of said sources, means for producing other quantities respectively representative of actual generation levels at each of said sources, means responsive to both said quantities for each said source for changing the actual generation level of each said source until it corresponds to its said computed level of generation, and means operable in accordance with said output quantities for rebalancing said electrical circuit when said computed levels of generation meet said load requirements and said required total change in generation level.

2,836,732
AUTOMATIC CAR STARTER
Monty G. Newlin, Paoli, Ind.
Application March 22, 1957, Serial No. 647,897
4 Claims. (Cl. 290—38)

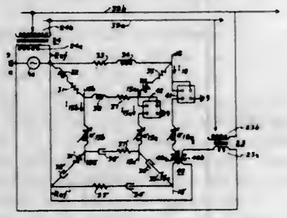
1. In an automatic timed starting and prewarming system for a motor vehicle having an internal combustion engine, a starting motor, an exhaust conduit, an ignition circuit, and a heater, a source of current, an adjustable clock switch, a normally closed, fluid flow-responsive switch in said exhaust conduit, first relay means connected to said source through said clock switch and normally closed fluid flow-responsive switch and being formed and arranged to connect said starting motor, ignition circuit and heater to said source responsive to closure

of said clock switch, second relay means formed and arranged to be energized responsive to energization of said first relay means, and normally open contact means controlled jointly by said first and second relay means



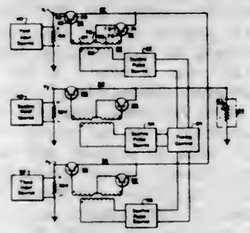
and arranged to maintain said ignition circuit and heater energized after said first relay means becomes deenergized responsive to flow of exhaust gas from said exhaust conduit.

2,836,733
ELECTRICAL LOAD DISPATCHER
Randall B. Shipley, Chattanooga, Tenn.
Application April 12, 1957, Serial No. 652,402
8 Claims. (Cl. 307—57)



4. The electrical load dispatcher for a power system for minimum-cost power generation and delivery by said system, said system comprising a plurality of generators and loads interconnected by a transmission network and forming a plurality of junction points; said system having a predetermined operating frequency; said generators having different predetermined operating voltages to neutral and different costs of power generation per unit of incremental power, one of said generators being regulated for said frequency as a reference generator, and each one of the other generators being controlled as to its share in said loads; said transmission network being characterized by a set of self and mutual impedances with reference to said reference generator among said junction points of said network and constituting a square matrix Z with resistive part R and reactive part X; said dispatcher comprising two networks, one of said two networks being a scale reproduction of said transmission network and the second one of said two networks being the conjugate of the first network, and a conductive cross connection between corresponding junction points on said two networks; a source of voltage to neutral representing said reference voltage to a voltage scale and connected to said network at a junction point corresponding to the junction point of said reference generator with said transmission network; a variable source of voltage inserted within and in series with each cross connection of a pair of load junction points and adapted to force in each one of said cross connections a current representing vectorially, to a current scale, the current of the corresponding load on said system; a variable source of quadrature voltage sufficient to raise the voltage to neutral of said generator junction point to said predetermined value to said voltage scale; resistance and transformer means associated with said two networks to develop to appropriate scale the voltage matrix $2RI_r$ characteristic of said transmission network and organized to subtract said voltage from said reference voltage e_{Ref} to yield the matrix $(E_{Ref}-2RI_r)$ corresponding to the generators, and transformer means to multiply this latter voltage by the appropriate diagonal elements of the diagonal matrix C each different element thereof representing said cost of bus power for a different one of said buses to develop the resultant voltage matrix $C(E_{Ref}-2RI_r)$ for those elements corresponding to the generator buses; transformer means associated with said reference voltage source to multiply said reference voltage by said cost of generation of said reference generator to develop the resultant voltage $C_{Ref}e_{Ref}$; and conductive connections between the circuits of said two resultant voltages to oppose each other to establish said minimum cost generating condition for said system, the appropriate load for each generator being measurable by a wattmeter and varmeter tapping for voltage said voltage to neutral at said generator junction point and for current the current in said cross connection of said pair of corresponding generator junction points of said two networks.

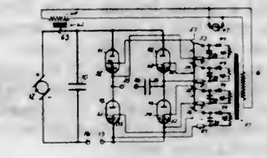
2,836,734
VOLTAGE CONTROL APPARATUS
Henry J. Cichanowicz, Baltimore, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 9, 1957, Serial No. 651,601
6 Claims. (Cl. 307—81)



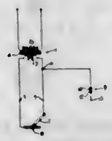
1. In voltage control apparatus for switching a voltage responsive load between a source of a first input voltage and a source of a second input voltage, the combination of a first electrically conductive device having first, second and third electrodes, a second electrically conductive device having first, second and third electrodes, with the first electrode of the first device being connected to the first voltage source, with the first electrode of the second device being connected to the second voltage source, a source of a first switching control pulse connected between the second and third electrodes of the first device for controlling the operation of said first device, a source of a second switching control pulse connected between the second and third electrodes of the second device for controlling the operation of the second device.

2,836,735
IMPULSE GENERATOR FOR ELECTRIC FISHING
Conradin Otto Kreutzer, Goteborg, Ekedalagatan, Sweden, assignor to Fish Products Company, Lewes, Del., a corporation of Delaware
Application March 24, 1954, Serial No. 418,377
15 Claims. (Cl. 307—110)

10. A fishing device of the class described, comprising: a direct current source; a pulsing capacitor; periodically actuated reversing switch means connected to charge said pulsing capacitor from said source alternately in opposite directions; a first pair of load terminals connected intermediate said source and said switching means; a second pair of load terminals connected intermediate said switching means and said pulsing capacitor, one of said pairs of load terminals being short circuited when the other pair is in use; and a pair of fishing electrodes connected to said other pair of load terminals.

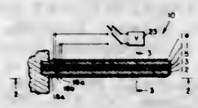


2,836,736
ARC WELDING AND BATTERY CHARGING APPARATUS
Arthur E. Johnson, Elkhorn, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application August 2, 1956, Serial No. 601,784
4 Claims. (Cl. 307—155)



2. In combination, an alternating current welding source having a drooping voltage characteristic to provide arc welding current, a dry plate rectifier assembly having an inverse peak voltage limitation below the open circuit voltage of the source, and a series circuit including the output of said welding source and said rectifier assembly and adapted to have a battery connected in series in said series circuit to provide a source of charging current to the battery and to thereby prevent the application of the open circuit voltage to said rectifier.

2,836,737
PIEZOELECTRIC TRANSDUCER
Joseph W. Crownover, Sherman Oaks, Calif., assignor, by mesne assignments, to Electric Machinery Mfg. Company, a corporation of Minnesota
Application July 20, 1953, Serial No. 369,123
11 Claims. (Cl. 310—8.1)



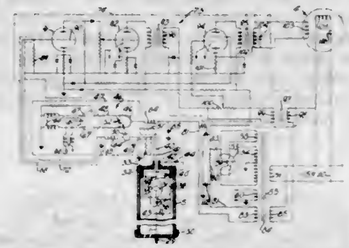
1. In a bender type transducer: a pair of elongated electrostrictive dielectric strips, each of said strips having a pair of major faces defined by the length and width dimensions thereof, said strips being rigidly joined together and insulated from one another; a pair of spaced electrodes each one of which is disposed longitudinally in intimate physical contact with one of the major faces of one of said elongated strips; means for establishing a potential difference between said electrodes; a plurality of electrodes disposed in intimate physical contact with one of the major faces of the other of said strips, said electrodes lying transversely to the length axis of said strip and being spaced from one another; and means for establishing a potential difference between adjacent transversely lying electrodes.

2,836,738
PRESTRESSED PIEZO CRYSTAL
Joseph W. Crownover, Sherman Oaks, Calif.
Application May 2, 1956, Serial No. 582,132
12 Claims. (Cl. 310—8.5)



1. A mechano-electric transducer, including a relatively thin metal sheet, a relatively thin substantially annular electrostrictive ceramic rigidly bonded to a side of said sheet and forming an open space opposite a sheet intermediate portion said sheet and ceramic each being substantially thinner than the width of said bond, said ceramic and sheet having different thermal coefficients of expansion and holding one another in strained condition at normal operating temperatures of the transducer, and electrodes connected with opposite faces of the ceramic accommodating application of voltage across the ceramic between said faces, whereby said ceramic may be caused to contract in radial and circular dimensions thereof thereby distorting the sheet to displace said sheet intermediate portion relative to said space.

2,836,739
ELECTRONIC LEVEL SENSITIVE APPARATUS
Theodore J. Mesh, Easthampton, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts
Application April 10, 1956, Serial No. 577,237
3 Claims. (Cl. 318—28)



1. In an electronic level-sensitive control, adapted for use with containers of immiscible liquids of different specific gravity for measuring the level of the interface between the liquids, the heavier liquid being a relatively good conductor of electricity and the lighter liquid being a relatively poor conductor of electricity, such control being of the type wherein the level-sensing element consists of an upright wire mounted inside and spaced a substantial distance from the peripheral wall of a tubular metallic shield and having its lower end prevented from contact with the liquid by a relatively thin wall of insulation, such wire being electrically resonant at a predetermined frequency, a high-frequency low-power oscillator coupled to said wire near its other end and tuned to electrical resonance with the wire while the latter is out of contact with either liquid for producing in the wire a high-frequency low-voltage signal, and wherein the lower end of said wire is maintained within close limits immersed to a predetermined depth in the heavier and relatively conducting liquid, and a differential variation in the level of the heavier liquid causes a change in the amplitude of the signal to effect a corrective movement of the wire to restore the predetermined degree of immersion of its lower end in the heavier liquid; that improvement which comprises a means for completely ex-

cluding said liquids from the interior of said shield to maintain invariable the dielectric between the wire and shield during their passage from the tuning position in air into and through the lighter liquid into the position wherein the lower end of the wire is immersed in the heavier liquid.

2,836,740

WATER PROOF VARNISH AND ELECTRICAL MACHINES AND MEMBERS TREATED THEREWITH

Gordon P. Gibson, Orchard Park, and William R. Moore, Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 28, 1954, Serial No. 446,198
5 Claims. (Cl. 310—45)



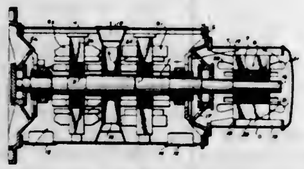
1. In an insulated electrical member, an electrical winding, a coating of cured resinous insulation applied to the winding, and an additional exterior coating of a thickness of at least 0.0005 inch superimposed on and covering the cured resinous insulation to render the insulated member permanently highly moisture resistant, at least the exterior coating comprising an alkyd resin modified phenolic resin combined with from 0.05% to 0.5% of the weight thereof of a methyl phenyl polysiloxane containing from 15 to 40 mole percent of methyl siloxane ($CH_3SiO_{1.5}$) units, from 25 to 55 mole percent of phenyl siloxane ($C_6H_5SiO_{1.5}$) units and from 30 to 50 mole percent of methyl phenyl siloxane ($CH_3C_6H_5SiO$) units, the alkyd resin modified phenolic resin and the methyl phenyl polysiloxane being thoroughly admixed, and the coating thereof being cured to a thermoset condition on the electrical member.

2,836,741

DYNAMO-ELECTRIC AMPLIFIER

Werner Falck, Ernst Röder, and Siegfried Voll, Nurnberg, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt and Erlangen, Germany, a corporation of Germany

Application September 8, 1955, Serial No. 533,169
Claims priority, application Germany September 9, 1954
11 Claims. (Cl. 310—59)



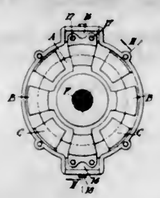
1. A two-stage amplifying machine, comprising two direct-current generators having a common armature shaft and being connected in cascade with each other to form first and second amplifying stages respectively, a field winding of the second stage generator being energized by the armature current of the first stage generator, a drive motor for rotating said common armature shaft, the armature of said drive motor being secured to the end of said common armature shaft which is adjacent the first stage generator, a housing structure surrounding said generators and said drive motor, a ventilating blower secured to said shaft at a position between the armatures of said generators, an air outlet opening in said housing structure for said blower, said housing structure having air inlets, one leading to the second stage generator, and a second leading to the drive motor, said blower being operative to induct air through said inlets and discharge it through said air outlet opening, the first stage generator being cooled by air inducted through the second inlet, baffle means being provided to impede a direct path of flow of air from the second inlet to the first stage generator and to deflect air entering said second inlet about the drive motor.

2,836,742

FOUCAULT CURRENT BRAKING DEVICES

Pierre Etienne Beaviere, Paris, France, assignor to Compagnie Telma, Paris, France

Application October 5, 1954, Serial No. 460,463
Claims priority, application France October 16, 1953
13 Claims. (Cl. 310—93)



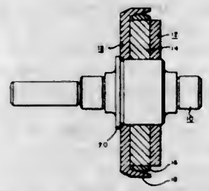
1. A Foucault current device for braking a shaft, which comprises, in combination, a stator extending around the axis of said shaft and including at least one annular electric coil coaxial with said shaft and a plurality of U-shaped magnetic circuit members disposed radially with respect to said shaft and having their respective branches, which constitute pole pieces, located on opposite sides of the middle plane of symmetry of said stator which is at right angles to said axis, said U-shaped members having their respective middle portions located alternately on the inside and on the outside of said coil, the pole pieces of two consecutive U-shaped members which are located on the same side of said plane being of opposed polarities, a rotor fixed to said shaft and including two eddy current discs placed in the magnetic field bridging said pole pieces and located respectively on either side of said stator, and a thrust bearing for journalling said shaft in said stator located substantially in said transverse plane of symmetry.

2,836,743

PERMANENT MAGNET ROTOR

Herman J. Braun, Shawnee Township, Allen County, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 25, 1956, Serial No. 561,290
5 Claims. (Cl. 310—156)



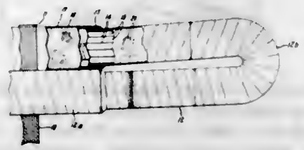
1. A permanent magnet rotor comprising, a shaft, a pair of axially spaced pole pieces mounted on said shaft, a disc-shaped permanent magnet mounted on said shaft between said pole pieces, and a supporting and compensating ring mounted on the outer periphery of said permanent magnet, said compensating ring being formed of a metal the permeability of which varies inversely with temperature.

2,836,744

INSULATED COIL

John H. Clawson, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application June 1, 1954, Serial No. 433,497
9 Claims. (Cl. 310—208)



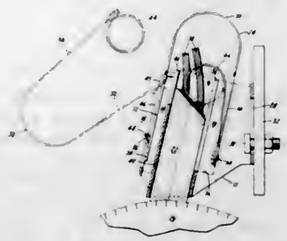
1. A form wound coil having a portion adapted to be positioned in a winding slot of a dynamoelectric machine and a covering for said portion of said coil, said covering comprising a plurality of continuous superimposed unimpregnated layers of oriented polyethylene terephthalate sheet material heated after assembly to cause said material to shrink around said coil portion to compact the layers and thereby to eliminate any air therebetween, a fibrous covering surrounding said sheet material and a sealant impregnating said fibrous covering to interlock the sealant to the remainder of said insulation.

2,836,745

BRUSH HOLDER FOR DYNAMOELECTRIC MACHINES

Harmon A. Gillie, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application October 12, 1956, Serial No. 615,721
3 Claims. (Cl. 310—246)



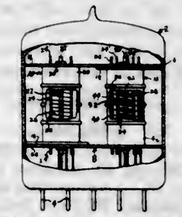
1. A brush holder for use with a dynamoelectric machine comprising a box of generally rectangular configuration having sides and open ends, a spring assembly, a plurality of channels formed by partitions in said box for respectively receiving a carbon brush and the legs of said spring assembly utilized in urging the brush into firm contact with a commutator, a coiled spring attached to one of said legs and a cut out portion in one of said walls of a size sufficient to permit said spring to extend therethrough and thereby follow the brush as it wears during use, a stop in one of said channels for preventing said spring assembly from accidentally contacting said commutator, retaining means in the other of said channels arranged for coaction with said spring assembly for holding the latter in said box against the action of said spring, and captive means on said box effective in retaining said spring assembly on said box when moved to an inoperative position.

2,836,746

ELECTRON TUBE MOUNT

Roy K. Wolke, Maplewood, and Frank J. Pilas, Lyndhurst, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application January 4, 1956, Serial No. 557,288
11 Claims. (Cl. 313—6)



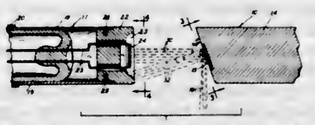
1. An electron tube mount comprising two electrode cages each including two spacer plates, one of the plates of each of said cages extending substantially only across one of said cages and the other of the plates of each of said cages spanning both of said cages, whereby each of said cages is adapted to be separately assembled between said one of said plates and said other of said plates to form a separate self-supporting structure, and two of said structures are adapted to be fixed into a composite two-cage structure.

2,836,747

X-RAY TUBE CATHODE

Zed J. Atlee, Chicago, Ill., assignor to Dunlee Corp., Chicago, Ill., a corporation of Illinois

Application March 28, 1955, Serial No. 497,151
1 Claim. (Cl. 313—57)



An X-ray tube for self-rectified operation comprising an envelope having an anode unit and cathode unit mounted therein in facing relation, said cathode comprising a body of copper on the end thereof adjacent said anode having an electron focusing cup formed therein, and an electron generating filament mounted in said cup, said body being massive whereby heat generated at the focal point thereon of the inverse electron flow from said anode unit is dispersed through said body to prevent over heating and excessive vaporization of said body at said focal point.

2,836,748

ELECTRON DISCHARGE DEVICE

Zed J. Atlee, Chicago, Ill., assignor to Dunlee Corp., Chicago, Ill., a corporation of Illinois

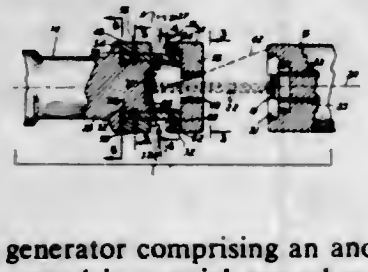
Application April 20, 1956, Serial No. 579,631
6 Claims. (Cl. 313—58)



1. An electron discharge device comprising an elongate tubular envelope formed of material of a high electrical resistance, an electron emissive electrode unit mounted in one end of said envelope and an electron receptive electrode unit mounted at the other end of the envelope, the portion of said envelope intermediate said electrodes being of substantially uniform thickness and undulating inwardly and outwardly to define, relative to the interior

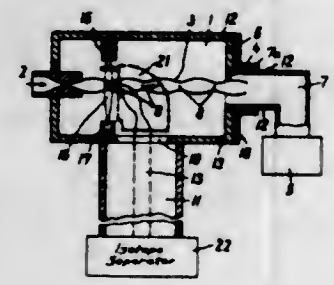
of said envelope, an alternate groove and a ridge spiralling lengthwise of the envelope, a thin, narrow film of a material having high electrical resistance but an electrical conductivity greater than that of said envelope material coated on the interior surface of said envelope in the bottom of said groove throughout the length thereof, said groove being of a depth substantially greater than the thickness of said film so that said film will be protected from electron bombardment, and means electrically connecting each of the ends of said film to the electrode unit at the corresponding end of the envelope.

2,836,749
360° X-RAY GENERATOR
Zed J. Atlee, Chicago, Ill., assignor to Dunlee Corp., Chicago, Ill., a corporation of Illinois
Application February 28, 1955, Serial No. 490,895
9 Claims. (Cl. 313—59)



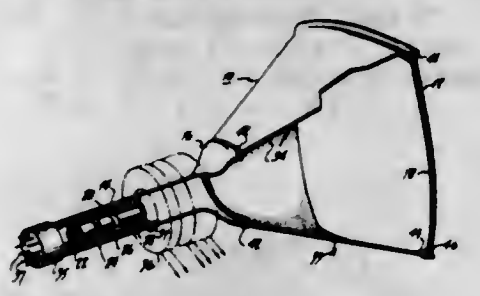
1. An X-ray generator comprising an anode unit and a cathode unit mounted in coaxial spaced apart facing relation, said anode unit comprising a cuprous body having a planar face extending perpendicularly to the axis of said anode unit and a target element embedded in said face, a tubular X-ray impervious hood member spaced between said anode and cathode units defining a passage for the electron beam from said cathode unit to said target element, said hood member being spaced wholly from the plane of said body face in the direction of said cathode unit, and means composed of X-ray pervious material extending between said anode body and hood member and supporting said hood member from said body, whereby an annularly extending opening is provided between said anode body and said hood member for the passage of X-rays generated at said target in a beam extending radially from the axis of said anode unit in an arc of 360 degrees.

2,836,750
ION SOURCE
Karl Weimer, Gottingen, Germany, assignor to Licentia-Patent-Verwaltungs G. m. b. H., Hamburg, Germany
Application January 6, 1956, Serial No. 557,778
Claims priority, application Germany January 7, 1955
12 Claims. (Cl. 313—63)



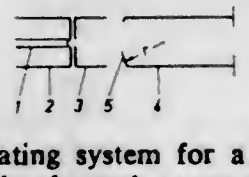
1. In an ion source comprising an evacuated chamber, pumping means connected with said evacuated chamber, means for introducing a stream of gaseous particles in said evacuated chamber at supersonic speed, means for ionizing a portion of said gaseous particles, means for separating the ionized portion of said particles from said stream of gaseous particles, and outlet means for said ionized particles.

2,836,751
CATHODE RAY TUBE MANUFACTURE
John C. Turnbull and Richard D. Faulkner, Lancaster, Pa., assignors to Radio Corporation of America, a corporation of Delaware
Application August 2, 1954, Serial No. 447,250
10 Claims. (Cl. 313—64)



1. The method of applying a mat black, rust-resistant, non-scaling, electrically conductive coating to the interior of a low carbon steel envelope portion for an electron discharge device, said method comprising removing sufficient metal from the interior surface of said envelope portion to impart a dull metallic finish thereto, sealing a glass face plate and a glass funnel portion to said steel envelope portion to form a composite sealed assembly, annealing said sealed assembly in an oxidizing atmosphere and in the temperature range of about 425–575° C. to form a tightly adherent iron oxide coating on the interior of said steel envelope portion, and cooling said sealed assembly to the ambient temperature, said iron oxide coating being mat black, rust-resistant, non-scaling, and electrically conductive.

2,836,752
BEAM GENERATING SYSTEM FOR CATHODE-RAY TUBES EMPLOYING AN ION TRAP
Wolfgang Berthold, Stuttgart-Weil im Dorf, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application February 9, 1954, Serial No. 409,195
Claims priority, application Germany February 19, 1953
3 Claims. (Cl. 313—76)

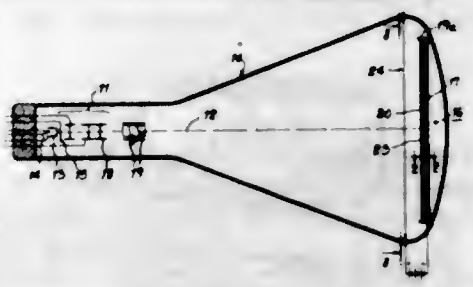


1. A beam generating system for a cathode ray tube comprising a cathode electrode, a control electrode adjacent said cathode electrode, a first accelerating electrode adjacent said control electrode and an anode electrode, said control, accelerating, and anode electrodes being mounted serially along a given longitudinal axis and symmetrically disposed thereabout, said accelerating electrode and anode electrode each having an electron lens aperture through which the beam passes, one of said lenses being concentric with the longitudinal axis, the other of said lenses being eccentric with respect thereto, the lens of the anode electrode being arched towards the accelerating electrode, the aperture of the arched anode lens being elliptical.

2,836,753
DARK TRACE CATHODE-RAY TUBES AND SCREENS THEREFOR
Gregory Hodowanec, East Orange, N. J., assignor to National Union Electric Corporation, a corporation of Delaware
Application March 25, 1954, Serial No. 418,624
8 Claims. (Cl. 313—92)

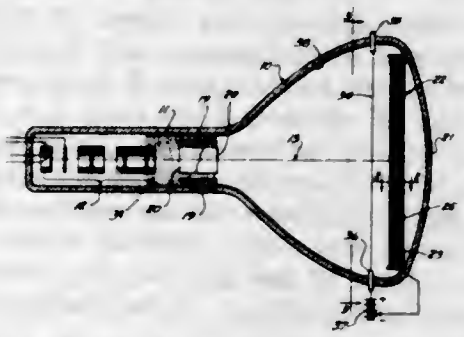
1. Cathode-ray tube apparatus comprising in combination, an enclosing evacuated envelope, means to develop a beam of electrons, a screen upon which said beam impinges to make a record, said screen

comprising a scotophor material which develops opacity centers when said beam impinges thereon, and means to erase said centers, the last-mentioned means including a heatable filament within said envelope for emitting a substantial amount of short wavelength infra-red radiation on to said screen, and means forming part of said



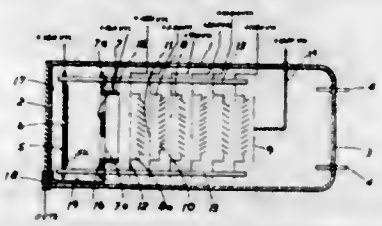
screen to convert said incident short wavelength infra-red radiation into long wavelength infra-red radiation and including a layer of amorphous particles of an element chosen from the group consisting of aluminum, beryllium, magnesium and carbon in direct surface contact with said scotophor, said layer being of a thinness which is substantially transparent to said electron beam.

2,836,754
DARK TRACE CATHODE-RAY TUBE AND METHOD OF MANUFACTURE
Frederick Holborn, deceased, late of Cedar Grove, N. J., by Kate Holborn, executrix, Cedar Grove, and Gregory Hodowanec, East Orange, N. J., assignors to National Union Electric Corporation, Hatboro, Pa., a corporation of Delaware
Application October 6, 1954, Serial No. 460,624
10 Claims. (Cl. 313—92)



6. A screen for dark trace cathode-ray tubes, comprising a transparent thin backing support, a coating of scotophor material on said support, and means to convert incident short wavelength infra-red radiation into long wavelength infra-red radiation for record erasure, said means comprising a layer of amorphous carbon, and a layer of a metal from the group consisting of aluminum, beryllium and magnesium the last-mentioned layer being located between the scotophor and the first-mentioned layer.

2,836,755
ELECTRON MULTIPLIERS
Alfred Hermann Sommer, Princeton, N. J., assignor to Electric & Musical Industries Limited, Hayes, England, a British company
Application May 11, 1953, Serial No. 354,112
Claims priority, application Great Britain May 27, 1952
6 Claims. (Cl. 313—95)



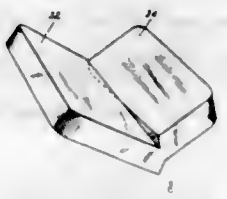
1. An electron multiplier comprising an envelope having a translucent window, an apertured dynode electrode mounted in said envelope to face said window, an electron emitting layer on the surface of said dynode remote from said window, a further electrode spaced from said dynode, and an opaque photo-electric cathode, means mounting said cathode between said dynode and further electrode with the active surface of said cathode facing said aperture in said dynode, said cathode having an area small in relation to said dynode and said further electrode so as to provide an open space surrounding said cathode, to allow electrons released from said dynode to pass said cathode to said further electrode, and electrostatic focussing means arranged co-axially with the centre of said cathode so as to lie between said dynode and said further electrode but spaced from said cathode to direct electrons from said dynode past said cathode onto said further electrode.

2,836,756
SURFACE DISCHARGE SPARK PLUG
Wytze Beye Smits, Voorburg, Netherlands
Application December 30, 1953, Serial No. 401,271
3 Claims. (Cl. 313—131)



1. A low tension surface discharge spark plug comprising, two electrodes, a mass of glassy material separating said electrodes and forming at the surface thereof a path over which a spark travels, and a heat resistant insulating material penetrating said glassy mass from the location remote from said surface and having at least a portion thereof lying between said electrodes.

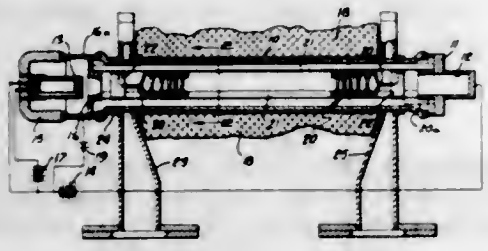
2,836,757
X-RAY GENERATOR TARGET CONSTRUCTION
Zed J. Atlee, Chicago, Ill., assignor to Dunlee Corp., Chicago, Ill., a corporation of Illinois
Application February 11, 1957, Serial No. 639,350
5 Claims. (Cl. 313—330)



1. An X-ray generator comprising cooperating anode and cathode units facing each other in spaced apart relation, said cathode unit having a pair of laterally spaced apart electron generating means for generating and focussing a pair of substantially parallel beams of electrons upon the facing end of said anode unit with said beams each having a rectangular cross section but being of different cross sectional length with the longer cross sectional axes of the beams substantially parallel to one another, said anode unit having a unitary target element having two planar face portions each defining a separate target area for one of said electron beams, the face portion upon which the beam of shorter cross sectional length is focussed being inclined at an angle of about 12 degrees with respect to the longer cross sectional axis of the beam

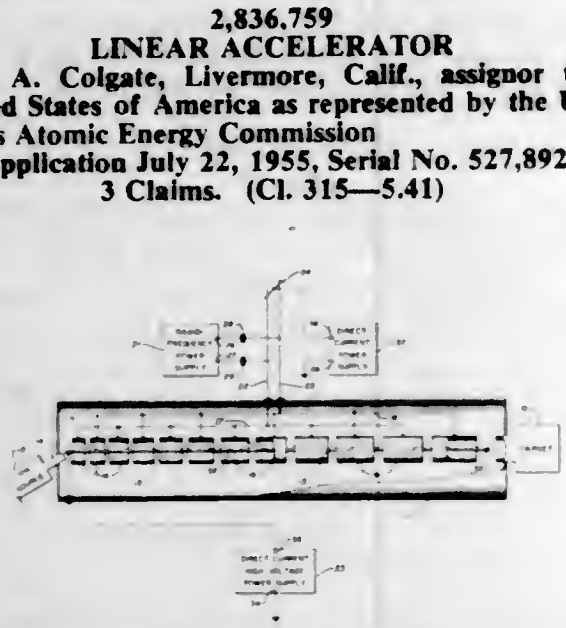
focussed thereon, the other of said face portions being inclined at an angle of about 17 degrees with respect to the longer cross sectional axis of the beam focussed thereon.

2,836,758
ELECTRON DISCHARGE DEVICE
Marvin Chodorow, Menlo Park, Calif., assignor to Varian Associates, San Carlos, Calif., a corporation of California
Application October 12, 1953, Serial No. 385,357
7 Claims. (Cl. 315—3.6)



1. In an electron discharge device wherein energy is exchanged between an electron beam and the field of a radio frequency wave, apparatus for propagating the radio frequency wave comprising a contra-wound slow wave structure having but two contra-wound helices presenting two electrically parallel paths for the propagation of the wave, an energy translating device for interchanging energy with said apparatus, said slow wave structure having a common end termination interconnecting said two helices, a single antenna conductor connected to said common termination and coupled to said translating device such that the currents in said helices are in phase, equal and in parallel, whereby longitudinal field components of the wave are additive along such structure.

2,836,759
LINEAR ACCELERATOR
Stirling A. Colgate, Livermore, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application July 22, 1955, Serial No. 527,892
3 Claims. (Cl. 315—5.41)



1. In a linear accelerator, the combination comprising a vacuum-tight tank, a plurality of drift tubes mounted in coaxial spaced-apart relation along a linear path in said tank, means connected to said drift tubes to provide a plurality of radio frequency accelerating electric fields along said linear path, an elongated electrode extended through said drift tubes, direct current power supply means connected between said electrode and said drift tubes to provide a radial electric field, and means disposed at one end of said tank for injecting particles having an angular momentum into said radial electric field and said particles having a charge attracting same toward said electrode, whereby said particles are accelerated in a substantially constant spiral about said electrode.

2,836,760
ELECTRON MULTIPLIER
Erno Winter, Budapest, Hungary, assignor to Egyesult Izzolampa es Villamossagi Reszvenytarsasag, Budapest, Hungary, a Hungarian enterprise
Application February 28, 1956, Serial No. 568,326
Claims priority, application Hungary March 8, 1955
4 Claims. (Cl. 315—12)

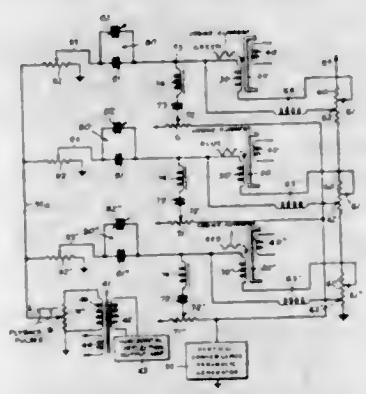


1. A grid-controlled electron multiplier tube for voltage amplification, comprising a thermionic or field emission cathode, a set of secondary emitting target electrodes, a collector electrode, a control electrode having an aperture and disposed between said cathode and said target electrodes, means coacting with said cathode for establishing a space charge having predetermined properties in the region of said aperture, said means comprising a set of focusing electrodes disposed between said cathode and said control electrode for concentrating the electrons emitted by said cathode on said aperture in said control electrode, and the physical and electrical parameters of said means and their interrelation being determined by the formula:

$$I_{Kr}=\frac{KF}{D^2}\left(\sqrt{V_{g2_{eff}}}+\sqrt{V_{a_{eff}}}\right)^3$$

where I_{Kr} is the electron beam current to said control electrode expressed in milliamperes and is of the order of magnitude of one microampere; K is a constant, the numerical value of which is 2.33×10^{-3}; F is the cross-sectional area in cm.^{2} of the electron beam leaving the focusing electrode closest to said control electrode, D denotes the distance between the last-mentioned focusing electrode and said first target electrode in cm., V_{g2eff} is the effective voltage of the last focusing electrode and $V_{a_{eff}}$ is the effective voltage of the control electrode, both in volts.

2,836,761
DYNAMIC CONVERGENCE APPARATUS FOR COLOR TELEVISION RECEIVER
George L. Howitt, River Edge, and Abraham A. Goldberg, Teaneck, N. J., assignors to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York
Application December 10, 1954, Serial No. 474,508
9 Claims. (Cl. 315—13)



1. Dynamic convergence apparatus for a color television tube operable by multiple electron beams converging to a common point, said apparatus comprising, an electromagnet responsive to current in a circuit for deflecting one of said electron beams as a concomitant to shift-

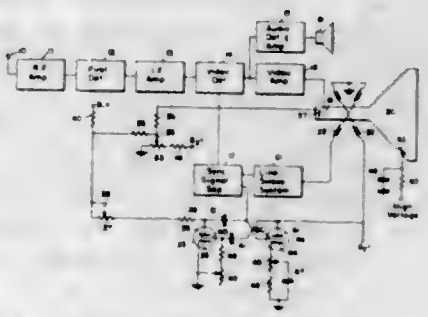
ing said convergence point in the tube axis direction, a capacitance coupled with said electromagnet in tuned relation with the inductance of said circuit to render said circuit oscillatory at horizontal scanning frequency, and a source of fly back pulses coupled with said capacitance and electromagnet in series for shock exciting said circuit into generating oscillations in the form of cosine current through said electromagnet during horizontal scanning periods.

2,836,762

VERTICAL SIZE COMPENSATION

Donald W. Ruby, Maywood, and Emanuel Saudinaitis, Chicago, Ill., assignors to Zenith Radio Corporation, a corporation of Illinois

Application September 2, 1955, Serial No. 532,197
6 Claims. (Cl. 315—22)



1. A television receiver comprising: a cathode-ray tube including a fluorescent screen, an electron gun for projecting an electron beam toward said fluorescent screen, means included in said electron gun for varyng the instantaneous intensity of said electron beam in accordance with an applied video signal, a deflection system responsive to an applied deflection signal for causing said electron beam to scan said fluorescent screen, and a final anode for determining the velocity of impact of said electron beam on said fluorescent screen, means including a series coupling impedance for impressing a predetermined positive operating potential on said final anode; a deflection-signal generator coupled to said deflection system for impressing thereon a deflection signal to cause said beam to scan said fluorescent screen in a co-ordinate direction with a predetermined nominal amplitude; means including a variable brightness-control circuit coupled to said electron gun for controlling the average intensity of said electron beam, variation of said brightness-control circuit resulting in corresponding variations in the voltage drop across said series coupling impedance and in the scanning amplitude of said electron beam in said co-ordinate direction; and means coupling said brightness-control circuit to said deflection-signal generator to vary said deflection-signal amplitude concomitantly with said voltage drop and maintain said scanning amplitude substantially constant with variation of said brightness-control circuit.

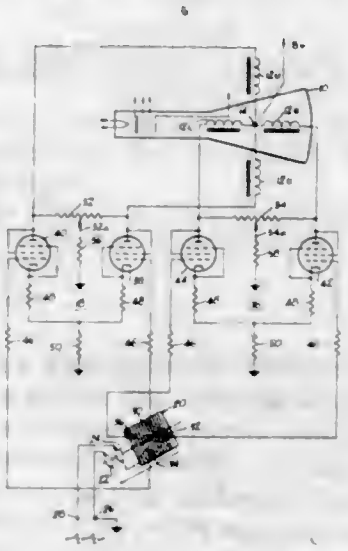
2,836,763

MAGNETIC CATHODE RAY TUBE SWEEP AMPLIFIER CENTERING CIRCUITS

William E. Currie, Seattle, Wash., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application September 7, 1954, Serial No. 454,564
4 Claims. (Cl. 315—24)

1. Cathode ray tube indicator magnetic deflection control apparatus comprising in combination with a pair of mutually opposed magnetic deflection coils, a push-pull sweep deflection amplifier circuit including a pair of amplifiers having anodes directly coupled to corresponding ends of the respective deflection coils, input elements arranged for energization by dynamic sweep control signals, and means for passing amplifier plate currents through said deflection coils and the respective amplifiers in series therewith, said means including relatively positive and negative circuit conductors arranged for connection to the relatively positive and negative terminals of an amplifier plate voltage source; magnetic deflection static adjusting means including electrical resistance means connected as an amplifier by-pass between said negative circuit conductor and a circuit point between



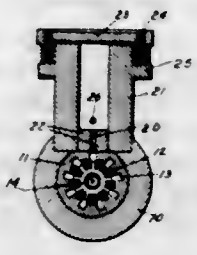
one of said deflection coils and the associated amplifier anode, and means manually adjustable to vary the resistance value of said by-pass resistance means and thereby vary the steady-state component of current flowing through such deflection coils and said by-pass resistance means, said resistance means having a minimum value of resistance which is high in relation to the dynamic plate resistance of such amplifier and in relation to the ohmic resistance of such deflection coil.

2,836,764

MAGNETRON OUTPUT COUPLING DEVICES

Albert D. LaRue, Lexington, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware

Application January 29, 1952, Serial No. 268,706
6 Claims. (Cl. 315—39)

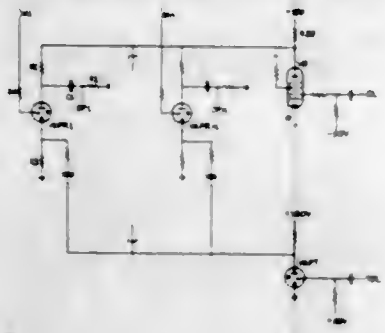


1. An electron discharge device for producing high frequency radiant energy comprising an evacuated envelope, an anode structure including an outer member forming a portion of said envelope and a plurality of anode elements extending inwardly from said outer member, said anode elements combining with the outer member to form within said envelope a plurality of cavity resonators, a cathode spaced from said anode elements, an output waveguide having one end connected to said anode structure, an electrically-insulating seal transparent to said radiant energy disposed in the other end of said waveguide, said waveguide being coupled to one only of said cavity resonators by means of an iris extending from within said envelope through said outer member and a masking element substantially opaque to said radiant energy disposed within said waveguide in substantial alignment with said iris between said iris and said seal.

2,836,765
CONTROL CIRCUITS FOR GAS FILLED COLD CATHODE TUBES

Barrie Brightman, Liverpool, England, assignor to Automatic Telephone & Electric Company Limited, Liverpool, England

Application February 20, 1956, Serial No. 566,641
Claims priority, application Great Britain March 11, 1955
2 Claims. (Cl. 315—84.5)

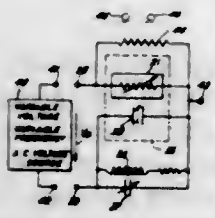


1. Circuit arrangements comprising a plurality of cold cathode gas discharge tubes each having an anode, a cathode and an ignition electrode, means for simultaneously applying an ignition potential difference between the cathodes and corresponding ignition electrodes of at least two of said gas discharge tubes, an individual cathode load resistor for each of said gas discharge tubes, an individual anode load resistor for each of said gas discharge tubes, a common anode load resistor for all said gas discharge tubes, a source of high potential, means connecting said source of high potential to said common anode load resistor and connecting said common anode load resistor to all said individual anode load resistors and a resistance/capacity circuit for each of said gas discharge tubes comprising a resistor and a capacitor in series and connected in parallel with the associated gas discharge tube and the cathode load resistor thereof, the resistor in each said resistance/capacity circuit having such a value compared with the value of the individual anode load resistor that the reduction of anode potential resulting from one gas discharge tube igniting in response to an ignition potential difference applied simultaneously between the cathodes and ignition electrodes of at least two of the gas discharge tubes is not immediately effective in reducing the anode potential applied to the second of the gas discharge tubes.

2,836,766
ELECTROLUMINESCENT DEVICES AND CIRCUITS

Richard E. Halsted, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York

Application May 15, 1956, Serial No. 585,054
22 Claims. (Cl. 315—151)

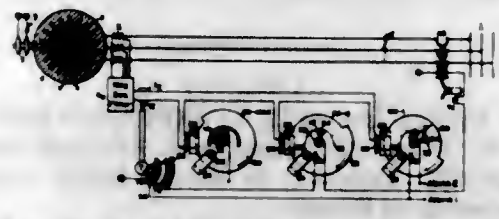


1. A frequency sensitive electroluminescent circuit comprising a pair of input terminals, an inductive circuit element and a capacitive network including an electroluminescent cell connected in electrical circuit relationship between said terminals and having reactance values adjustable for resonance at a first frequency, a source of alternating voltage connected to said input terminals and impressing an alternating voltage having a second variable frequency across said inductive circuit element and said capacitive network, and means for varying one of said frequencies relative to the other of said frequencies.

2,836,767
UNBALANCED-FAULT GENERATOR-PROTECTION

William E. Glassburn, Bloomfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 10, 1953, Serial No. 336,101
22 Claims. (Cl. 317—13)

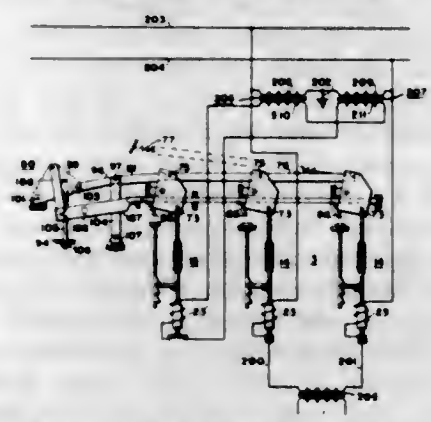


1. Mechanism which is useful in the protection of a polyphase synchronous machine against harmful effects of negative-sequence armature-current I_2, said mechanism comprising a negative-sequence means for substantially segregating and responding to the negative-sequence armature-current I_2 of the machine, and an integrating relaying-means, energized from said negative-sequence means, for responding to the integrated product of the two factors I_2^2 and t, where t is time in seconds, said integrating relaying-means including a circuit-controlling means for altering the conductivity of a circuit which is operative at an integrated value which is so related to the machine-capability as to be useful in affording protection against the harmful effects of sustained negative-sequence armature-current I_2 in the machine.

2,836,768
RECLOSING CIRCUIT BREAKERS

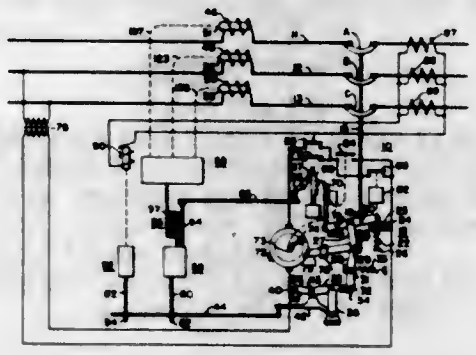
Andrew W. Edwards, East McKeesport, Pa., and William G. Meyer, Portland, Oreg., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 4, 1953, Serial No. 378,586
4 Claims. (Cl. 317—18)



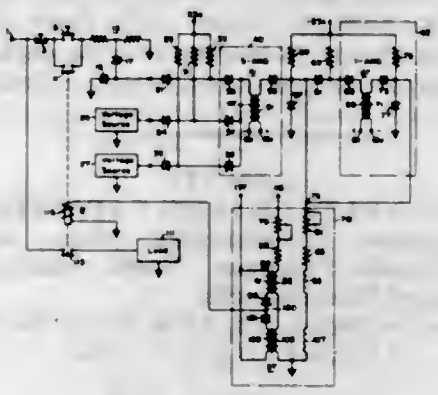
2. Circuit interrupting apparatus for protecting an ungrounded circuit comprising; a plurality of pairs of separable contacts; electroresponsive means individual to each pair of contacts for effecting separation thereof, the electroresponsive means for two of said pairs having a rating in excess of twenty-five amperes for connection directly in circuit with the line conductors of the ungrounded circuit, and the electroresponsive means for the other pair having a rating on the order of less than twenty-five amperes; lockout means common to all of said pairs of contacts for locking them open; counting means individual to each pair for rendering the lockout means operative in response to a predetermined number of separations of its pair of contacts, and circuit means including a pair of potential transformers connecting the electroresponsive means of the other pair of contacts in a normally balanced voltage-divider circuit between the line conductors and ground for effecting operation of said other electroresponsive means in response to an unbalance between the voltages of said conductors and ground.

2,836,769
RECLOSING CIRCUIT BREAKER
Jerome Sandin, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 8, 1956, Serial No. 590,135
8 Claims. (Cl. 317—22)



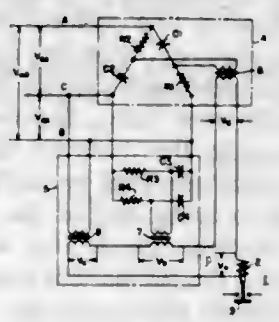
6. The combination in a circuit interrupter, of a plurality of pairs of separable contacts, operating means for said pairs of contacts including a spring biasing the operating means to separate said pairs of contacts simultaneously, releasable means normally holding said operating means with the contacts closed, means actuating said operating means to reclose said pairs of contacts after separation, means including a time delay device operable to release said releasable means, an overcurrent actuated device individual to each pair of contacts, a plurality of levers pivotally mounted on a shaft in side-by-side relation, means including an additional lever pivotally mounted on each of said levers providing a releasable operable connection with an adjacent one of said levers, means connecting the time delay device to one of said levers, and additional means providing a lost-motion connection between the overcurrent actuated means and said additional levers associated therewith.

2,836,770
ELECTRICAL CONTROL CIRCUIT
George Samios, Tonawanda, and George E. King, Eggertsville, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 29, 1956, Serial No. 606,859
4 Claims. (Cl. 317—31)



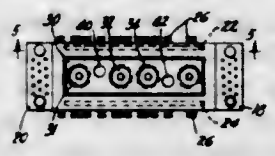
1. In a system of control for actuating a relay having an actuating coil and at least one normally open contact means in response to closure of manually actuated switch means and simultaneous application of the output signals of a predetermined number of control signal sources; first magnetic amplifier means operatively connected to said switch means for generating a full-wave rectified output signal responsive to closure of said switch means and the simultaneous application of said output signals from said predetermined number of control signal sources; second magnetic amplifier means operatively connected to said relay for energizing said actuating coil in response to said full-wave rectified output signal from said first magnetic amplifier means; with said contact means being connected to short circuit said manually-actuable switch means upon energization of said actuating coil; and with said second magnetic amplifier means being coupled to an alternating current source for supplying energizing power to said actuating coil, and being further adapted to drop out said relay to deenergize said coil when the voltage of said alternating current source drops lower than a predetermined magnitude.

2,836,771
NEGATIVE SEQUENCE VOLTAGE SENSING NETWORK
Ralph D. Jessee, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 8, 1956, Serial No. 602,836
11 Claims. (Cl. 317—47)



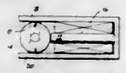
1. A negative sequence voltage sensing network for a three-phase alternating current line, said network comprising a filter circuit for producing an output voltage in response to negative sequence components of the line voltage, said filter circuit also producing an output voltage in response to positive sequence components of the line voltage when the frequency varies from a nominal value, a frequency compensating circuit adapted to provide a voltage substantially equal and opposite to the output voltage of the filter circuit due to positive sequence components, and means for vectorially combining the voltage provided by the frequency compensating circuit and the output voltage of the filter circuit.

2,836,772
ELECTRONIC COMPONENT MOUNTING ASSEMBLY
Warner C. Wintrode and Leon H. Bishop, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application May 12, 1955, Serial No. 507,844
6 Claims. (Cl. 317—101)



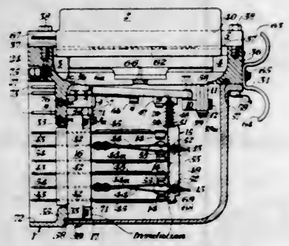
1. In a multi-stage electron tube assembly, a hollow molded plastic member having a hollow interior, at least one printed circuit and external connecting means embedded in said plastic member, connecting pins attached to said printed circuit and extending externally of said plastic member, circuit components connected to said connecting pins, a metal block adapted to fit into the hollow interior of said plastic member, a plurality of passageways in said metal block, a like plurality of electron tubes positioned respectively in said passageways, and means connecting said electron tubes to said connecting pins, and a support member made of heat conducting material positioned within each of said passageways for supporting the electron tube positioned in said passageway.

2,836,773
ELECTRICALLY CONTROLLED MAGNETIC MOVEMENT
Alfred Skrobisch, New York, N. Y., assignor to Allard Instrument Corp., New York, N. Y., a corporation of New York
Application April 29, 1955, Serial No. 504,979
21 Claims. (Cl. 317—171)



1. An electrically controlled magnetic movement comprising a permanent magnet, means mounting the same for rotation, the poles of said magnet being diametrically related to the axis of rotation, and a stationary electromagnet having a core made of material which may be temporarily but not permanently magnetized, said core when magnetized having two spaced poles of like polarity and a single pole of opposite polarity, said like poles being disposed diametrically of the axis of rotation and said opposite pole being disposed at one end of a diameter transverse to the diameter of the like poles, whereby when the electromagnet is energized the permanent magnet rotates to bring one of its poles toward the single pole of the electromagnet, and when the electromagnet is de-energized the permanent magnet moves back to a rest position with its poles adjacent the like poles.

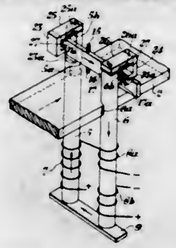
2,836,774
MAGNETIC HOLD-DOWN DEVICES
Harry E. Ashworth, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Original application October 4, 1954, Serial No. 459,970. Divided and this application December 19, 1955, Serial No. 553,897
4 Claims. (Cl. 317—171)



1. In a relay, a pole piece, an armature movable between an energized and a deenergized position, a hold-down means for said armature, said hold-down means comprising a permanent magnet secured to said pole piece, a hold-down pole piece secured to said permanent magnet in a position to cooperate with said armature in its de-energized position, said securing means comprising magnetizable bolts for preventing demagnetization of said permanent magnet due to a stray current surge.

2,836,775
BUS BAR RELAYS
Russell M. Adkins, Wilkinsburg, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application February 29, 1956, Serial No. 568,520
14 Claims. (Cl. 317—172)

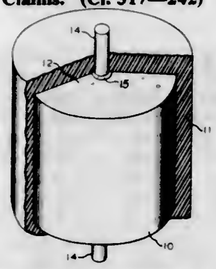
1. In an electrical relay operable in response to current flowing in an electrical conductor, the combination comprising, a magnetic circuit forming a substantially closed loop transversely about a single cross section of said conductor and including a magnetizable armature movable from a first extreme position to a second extreme position by the operating flux of a first polarity created in the circuit by a current of a predetermined magnitude flowing through the conductor, means including biasing windings for said magnetic circuit to provide a biasing flux in the circuit to combine with the operating flux, the resultant flux moving said armature to its second extreme position at a conductor current magnitude other than the predetermined magnitude; and polarizing flux means for said magnetic circuit preventing said armature from being moved from its first extreme position when the polarity of the resultant flux is the opposite of said first polarity.



2,836,776
CAPACITOR
Yoshioki Ishikawa, Yozo Sasaki, and Ichiro Sato, Minato-ku, Tokyo, Japan, assignors to Nippon Electric Company Limited, Minato-ku, Tokyo, Japan, a corporation of Japan
Application May 4, 1956, Serial No. 582,720
Claims priority, application Japan May 7, 1955
6 Claims. (Cl. 317—242)

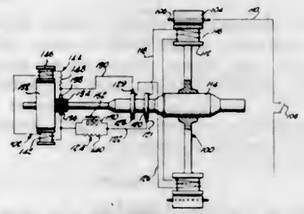
1. A capacitor comprising a sheet of metal oxydizable to form an anodic oxydation film, an anodic oxydation film of said metal on the surface of said sheet, said film being divided into a layer of N-type semiconductor next to said sheet and a layer of intrinsic semiconductor upon said layer of N-type semiconductor, and a layer of a solid semiconductor substance upon said layer of intrinsic semiconductor of such character that the surface of said oxydation film is changed to the P-type surface state.

2,836,777
HIGH VOLTAGE SLUG CAPACITOR
Preston Robinson, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application September 10, 1956, Serial No. 608,908
3 Claims. (Cl. 317—242)



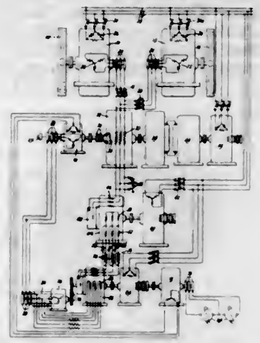
1. An electrical capacitor comprising a substantially rigid body of high dielectric constant material having opposed end faces, opposed conductive electrodes positioned on and substantially completely covering said end faces, electrode leads connected to the electrodes and extending away from the dielectric body, a casing enveloping said body and electrodes and having a dielectric constant lower than said body and having a higher conductivity than said body and having a coefficient of linear expansion substantially equal to that of said body.

2,836,778
APPARATUS FOR CONVERTING ELECTRICAL ENERGY INTO MECHANICAL ENERGY
Alfred Frey, Stuttgart, and Kurt Peschel, Halle (Saale), Germany, assignors to VEB Leuna-Werke "Walter Ulbricht," Leuna, Germany
Application November 17, 1955, Serial No. 547,580
2 Claims. (Cl. 318—190)



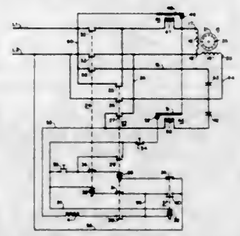
1. In an apparatus for converting electrical energy into mechanical energy, including a synchronous motor having a stator and a rotor, an A. C. winding arranged on said stator, a field winding arranged on said rotor, a shaft connected with said rotor, a D. C. generator having a rotor driven by said shaft, excitation circuit means interconnecting the output of said generator with said field winding, and a parallel connection including a starting resistor and a reactor coil having an iron core connected in series in said excitation circuit means; an improvement for exciting said D. C. generator, said improvement comprising self excitation circuit means for exciting said D. C. generator, and a resistor having a negative current-voltage characteristic connected in series in said self excitation circuit means.

2,836,779
REGULATING MACHINES FOR CONTROLLING THE SPEED OF INDUCTION MOTORS
Erwin R. Summers, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application April 18, 1956, Serial No. 578,974
6 Claims. (Cl. 318—197)



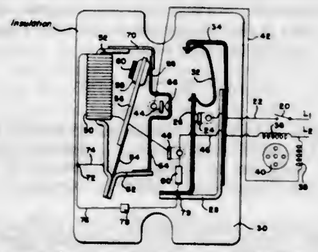
1. A speed control system for an induction motor comprising means for energizing the stator thereof from a source of voltage supply, a first dynamoelectric machine electrically connected with said induction motor for facilitating starting of the latter and for absorbing slip frequency energy of the motor when it is running below synchronous speed, a second machine having main and interpole field windings and being electrically connected with said first machine and said motor for providing the rotor of the latter with a slip frequency voltage of a magnitude and phase angle for obtaining operation of the motor below, through, and above synchronism, and means connected with said second machine for manipulating the main field and interpole field excitation thereof over a predetermined pattern to obtain said slip frequency voltage through a specified range of speed of the induction motor.

2,836,780
SINGLE-PHASE ELECTRIC MOTOR
Frederick A. List, Jr., Buffalo, and Robert W. Egglestone, Checktowaga, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 14, 1955, Serial No. 515,416
5 Claims. (Cl. 318—220)



1. A single-phase induction motor having relatively rotatable primary and secondary members, a main primary winding and an auxiliary primary winding physically displaced from each other on the primary member, means for connecting said main and auxiliary windings in series to a single-phase line and for connecting a first capacitor across the auxiliary winding for starting, a second capacitor being connected across both windings, and means for disconnecting the first capacitor and connecting the second capacitor in series with the auxiliary winding and for connecting the main and auxiliary windings to the line in parallel for running.

2,836,781
ELECTRICAL APPARATUS
Harry F. Clark, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 8, 1957, Serial No. 651,322
3 Claims. (Cl. 318—221)



1. A control for an electric motor having main and phase windings and supply conductors, an electromagnetic starting relay having its contacts connecting one of the supply conductors and one terminal of the phase winding and having its operating coil connecting one of the supply conductors and one terminal of the main winding.

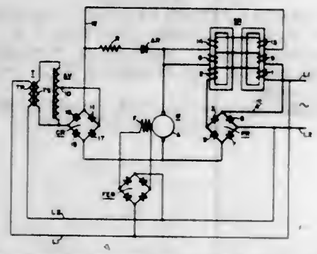
the second supply conductor being connected to the second terminals of the main and phase windings, a small resistance connected in series with both the main and phase windings between said operating coil and said one supply conductor, and a higher resistance connected in shunt with both said small resistance and said operating coil.

2,836,782

ADJUSTABLE SPEED MOTOR CONTROL CIRCUIT

Victor N. Mazur, Tonawanda Township, Erie County, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 16, 1955, Serial No. 508,412
5 Claims. (Cl. 318—331)



1. In an electric system of control, in combination, a pair of supply terminals in use energized with alternating current, a full-wave power rectifier having a pair of alternating current terminals and a pair of direct current terminals, a saturable core reactor having a main winding and a pair of control windings, a direct current motor having a field winding, in use energized with direct current at any selected constant value, and having an armature winding, the main winding of the saturable core reactor being connected across one of the alternating current supply terminals and one of the alternating current terminals of the power rectifier and the other alternating current terminal of the power rectifier being connected to the other alternating current supply terminal, the motor armature winding being connected in a loop circuit including one of the control windings of the reactor and the direct current terminals of the power rectifier, an autotransformer having a plurality of taps for supplying a variable alternating voltage, said autotransformer being energized from said alternating current supply terminals, a full-wave control rectifier having its alternating current terminals connected across any selected pair of taps on the autotransformer and having its direct current terminals connected in a loop circuit including the other control winding of the reactor and the motor armature winding, and means, including a rectifier and an impedance, connected across said other control winding for eliminating the alternating current components, of the differential voltage appearing across said control winding, of a polarity opposite to the direct current component of said differential voltage.

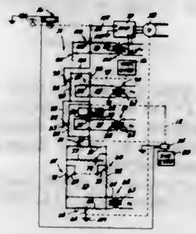
2,836,783

AIRCRAFT CONTROL SERVOSYSTEM

George L. Borell and Daniel G. Taylor, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Original application February 24, 1945, Serial No. 579,586. Divided and this application April 12, 1948, Serial No. 20,526
18 Claims. (Cl. 318—489)

18. In an automatic pilot for aircraft having a control surface for controlling the movement of said aircraft about a control axis, position-maintaining means for detecting angular movement of said aircraft about said control axis, rate-responsive means for detecting rate of angular movement of said aircraft about said control axis, servo means for actuating said control surface, a turn controller, signal generating means actuated by said position-maintaining means, said rate responsive means, said turn controller, and said servo means, for generating four separate control signals, means connected to the generating



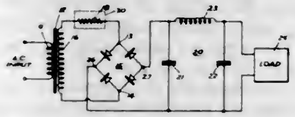
means for algebraically adding control signals and controlling said servo means in accordance with the resultant thereof, and means responsive to displacement of said turn controller from a neutral position for rendering said rate responsive means ineffective to alter the means generating control signals and thereby ineffective to control said servo means.

2,836,784

POWER SUPPLY

Thomas A. O. Gross, South Lincoln, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware

Application May 26, 1953, Serial No. 357,479
4 Claims. (Cl. 321—16)



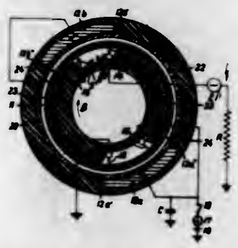
1. In combination, a rectifier having an input circuit connected across a source of alternating current voltage and an output circuit connected to a load, said rectifier having a negative temperature coefficient of resistance, a resistor connected in said input circuit of said rectifier, said resistor having a positive temperature coefficient of resistance and a thermal inertia substantially equal to that of said rectifier.

2,836,785

ELECTROSTATIC MACHINE

Ulrich Neubert, Kassel, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany

Application February 2, 1956, Serial No. 563,129
Claims priority, application Germany June 24, 1955
17 Claims. (Cl. 322—2)



1. In an electrostatic charging system, having a low voltage region and a high voltage region, the combination with at least one rotatable charge-transporting member bearing at least one surface of insulating material, of influence electrode means on one side of said surface in the low voltage region and in the high voltage region, respectively, main corona point means and auxiliary corona point means being located opposite said influence electrode means on the other side of said surface, said auxiliary corona point means preceding said main corona point means in the direction of movement of said surface so as to remove a portion of the charge transported on said surface, said auxiliary means being connected to said influence electrode means to impress upon the latter said charge portion, a voltage potential being set up between said main corona point means and said auxiliary corona point means, and simultaneously between said main corona point means and said influence electrode means in the low voltage region and in the high voltage region, respectively, which potentials represent the exciting voltages.

2,836,786

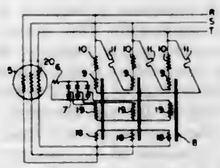
VOLTAGE REGULATING APPARATUS, PARTICULARLY FOR SYNCHRONOUS MACHINES

Ernst Scharstein, Erich Schwab, and Karlheinz Lutz, Nurnberg, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany

Application July 21, 1954, Serial No. 444,692

Claims priority, application Germany July 21, 1953

10 Claims. (Cl. 322—25)



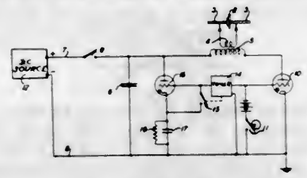
1. With a multi-phase synchronous dynamoelectric machine having multi-phase stator windings and having a direct-current excitation winding, in combination, a terminal-voltage regulating apparatus comprising alternating-current buses connected to said respective stator windings, transformer means having two mutually isolated sets of primary windings and having secondary windings, a rectifier connected between said excitation winding and said secondary windings for energizing said excitation winding, the primary windings of one of said sets being connected with said respective stator windings to be energized by the load current of the machine, said other primary windings being multi-phase connected across said buses, impedance members series-connected with said respective other primary windings and having impedance values independent of the load current of said machine, said impedance members being electrically interconnected and said impedance values having a magnitude corresponding to a predetermined angle of phase displacement between the terminal voltage and the no-load excitation component of said excitation winding, said phase-displacement angle being determined by the amount of phase difference of the load-dependent ampere turns of said excitation winding between loads of two different selected power factors and by the ratio of the excitation currents to the no-load excitation current obtaining with said respective power factors for a given load current.

2,836,787

CONDENSER DISCHARGE WELDING SYSTEM

John P. Selder, Rockford, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application May 10, 1956, Serial No. 583,965
2 Claims. (Cl. 323—18)



2. In a condenser discharge welding system the combination with a first condenser, means for charging the condenser, a transformer having primary and secondary windings, means for connecting a load across the secondary winding, a first gaseous discharge tube connected in series with the condenser and the primary winding, and means for igniting the tube to discharge the condenser through the transformer when a load is connected across the secondary winding, of means for controlling the quantity of electrical energy discharged from the condenser to the transformer comprising a second, normally uncharged condenser having a high capacitance compared to that of the first condenser, a second gaseous discharge tube serially connected to the second condenser, means connecting the second condenser and second tube in parallel with the first condenser, means including a timer for igniting the second tube to provide a conductive path between the condensers and means responsive to the igniting means for the first tube for triggering the timer to operate at a predetermined time during the discharge of the first condenser.

2,836,788

INDUCTION APPARATUS

Guglielmo Camilli and William P. Tootill, Pittsfield, Mass., assignors to General Electric Company, a corporation of New York

Application April 19, 1954, Serial No. 424,092
5 Claims. (Cl. 323—61)



1. An induction apparatus cooling system comprising a current transformer connected in the circuit of said apparatus, at least one electric motor driven fan for cooling said apparatus, a circuit connecting said fan motor to said current transformer, and a saturable reactor connected in shunt with said fan motor, said reactor and said current transformer being designed to saturate when the current in said apparatus slightly exceeds the fan-cooled rating thereof, said reactor and said current transformer serving to limit the voltage available from said current transformer to operate said fan.

2,836,789

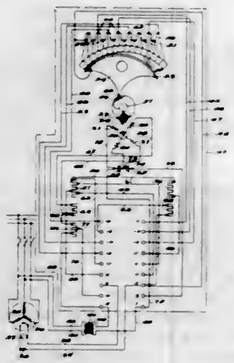
UNIVERSAL VOLTAGE REGULATOR

Claude M. Maly, New York, N. Y., assignor to Brown, Boveri Corporation, New York, N. Y., a corporation of New York

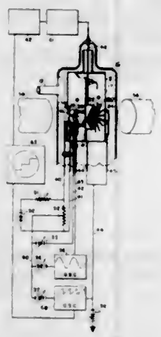
Application December 6, 1954, Serial No. 473,211
5 Claims. (Cl. 323—66)

1. In a voltage regulator, the combination comprising a casing, said casing containing a variable regulating

resistor having a plurality of taps therealong, means responsive to the voltage to be regulated for varying the resistance of said regulating resistor, a supplementary resistor disposed within said casing and constituting a permanent component of said regulator, external terminals on said casing, and electrical connections between said resistors and external terminals and between said taps and external terminals arranged such that said supplementary resistor may be connected in parallel with selected sections of said regulating resistor by jumpering between said external terminals.

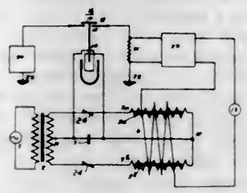


2,836,790
IONIZATION TUBE
William M. Hickam and Russell E. Fox, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 25, 1953, Serial No. 356,936
11 Claims. (Cl. 324—33)



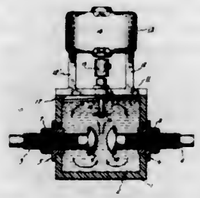
5. An electrical apparatus for use in determining the property of a gas comprising an envelope having an opening through which a sample of gas is introduced, means within said envelope for producing an electron beam for bombarding the gas in said envelope to produce ionization of molecules of the gas, said means including a retarding electrode and an electron emitting source, means of applying an alternating current potential to said retarding electrode so as to vary the kinetic energy distribution of the electrons from said source in a uniform manner, a target for said electron beam, an ion collector positioned between said electron producing means and said target for collecting the ions formed, and means for measuring the difference in varying ion current due to the alternating current potential applied to said retarding electrode of said electron producing means.

2,836,791
MAGNETOMETERS
Charles Heiman Kaplan, Montrouge, France, assignor to Compagnie pour la Fabrication des Compteurs et Materiel d'Usines à Gaz, Montrouge, Seine, France, a joint-stock company of France
Application July 29, 1953, Serial No. 370,968
Claims priority, application France July 31, 1952
6 Claims. (Cl. 324—43)



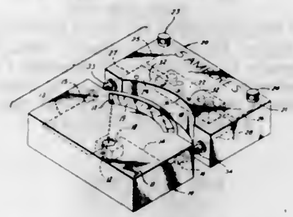
2. A magnetometer comprising a circuit sensitive to a magnetic field constituted by two identical solenoids arranged in parallel, each containing a core of high initial permeability, the circuit which includes them being supplied from a source of alternating current, the amplitude of which produces saturation of the said cores, the said source of alternating current comprising a generator and a transformer, one of the ends of each of the two solenoids being respectively connected to one of the extreme terminals of the secondary winding of the transformer, the two other extremities being joined together and connected to the centre point of the said secondary winding, a galvanometer the moving coil of which without counter-couple is included in the connection which joins the centre point of the secondary of the transformer to the common point of the extremities of the two solenoids, and a compensating arrangement constituted by a compensating solenoid surrounding the two solenoids of the element which is sensitive to the magnetic field, an oscillator generating a potential at high frequency, a variable member, the moving part of which is rigidly associated with the moving coil of the galvanometer, an impedance, an amplifier-detector, the input terminals of which are connected to the terminals of the said impedance and the output terminals of which supply the said compensating solenoid and an apparatus which measures the output current, a variable condenser which has a set of moving plates associated with a spindle of the moving coil of the galvanometer and two sets of fixed plates, one connected to the oscillator, the other connected to one of the terminals of the said impedance.

2,836,792
DIELECTRIC TESTING DEVICE
Kurt H. Weber, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application January 30, 1956, Serial No. 562,192
11 Claims. (Cl. 324—61)



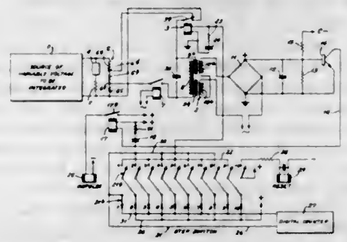
1. Apparatus for testing the dielectric strength of insulating liquids comprising, in combination, a vessel for containing a predetermined amount of the insulating liquid, a pair of effectively spherical electrodes in said vessel spaced a predetermined distance from each other to provide a gap therebetween, and means for circulating the entire predetermined amount of the insulating liquid in said vessel through said gap.

2,836,793
METER ASSEMBLY
John D. Kelly, San Antonio, Tex.
Application January 25, 1954, Serial No. 405,842
8 Claims. (Cl. 324—115)



1. A meter assembly readily adaptable to a plurality of different uses which comprises, in combination, a first case, current measuring means in said first case including pointing means movable responsive to a change in current flow through the measuring means, an adapter case separable from said first case and mountable in a predetermined position thereon to form a part of the meter assembly, a current determining element in said adapter case, said adapter case having a portion with the adapter case mounted on the first case adjacent said pointing means and extending along the path of movement of the pointing means, a plurality of indicia on said portion and spaced along the path of movement of the pointing means whereby a reading can be taken, and terminals rigidly but detachably connecting said adapter case to said first case in said predetermined position and connecting said element into the circuit of said measuring means so as to determine the magnitude of current flow through said measuring means to thereby provide an integral self-contained meter assembly and yet permitting a plurality of adapter cases each containing a different current determining element and having different indicia on said portion thereof to be interchangeably and successively connected to a single one of said first cases to determine the use of the resulting meter assembly.

2,836,794
PULSE REPRESENTATION OF VARIABLE VOLTAGE
Billy E. Davis and Robert B. Allen, Houston, Tex., assignors to Southwestern Industrial Electronics Company, Houston, Tex., a corporation of Delaware
Application March 26, 1957, Serial No. 648,698
6 Claims. (Cl. 324—117)



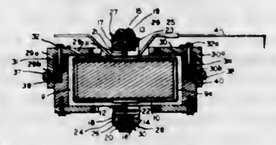
1. Apparatus for furnishing a train of voltage pulses of repetition rate proportional to the amplitude of a D.-C. input voltage comprising a magnetic amplifier including a saturable core, a control coil and a power coil, switch means operable in one condition to connect the input voltage across the control coil in one sense and operable in another condition to connect the input voltage across the control coil in the opposite sense, means connected to the power coil operable to furnish a voltage pulse each time the core of the magnetic amplifier saturates, and means responsive to the output of said last-named means for changing the condition of said switch means each time a pulse is furnished.

2,836,795
ADJUSTABLE LAG COMPENSATOR
Floyd H. Busch, Rochester, N. H., assignor to General Electric Company, a corporation of New York
Application December 21, 1956, Serial No. 629,808
4 Claims. (Cl. 324—138)



1. In an electric watthour meter of the induction type having a rotatably mounted disc armature, a voltage electromagnet, and a current electromagnet, a lag compensator therefor, comprising: a closed electrically conducting metallic loop fixedly secured to one of said electromagnets and located thereon in a position at which the flux of the electromagnet links said loop to induce a current therein, said loop having an elongated portion which is adjustably to vary the effective length of the loop to thereby vary its resistance, said elongated portion being formed initially with a separable tear strip integral therewith, said tear strip being located substantially centrally in said elongated portion and extending along its direction of elongation between points adjacent the inner and outer extremities of said portion, said tear strip having its inner extremity in the form of a tab separated from said elongated portion, said separated tab dividing said portion into a pair of parallel conducting edge portions which with a portion of the unseparated tear strip forms the path for said induced current to flow through said elongated portion, said path becoming gradually longer as said tear strip is gradually separated from said portion.

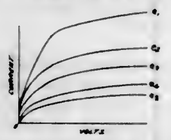
2,836,796
ADJUSTABLE ELECTRICAL MEASURING AND INDICATING INSTRUMENT
Norval P. Millar, Danvers, and Earl W. Clark, East Lynn, Mass., assignors to General Electric Company, a corporation of New York
Application August 27, 1954, Serial No. 452,682
4 Claims. (Cl. 324—151)



1. A measuring and indicating instrument comprising a permanent magnet, an annular ring extending around said permanent magnet in spaced relationship thereto, a pivotable coil concentrically mounted within said ring and extending around said magnet with the end portions of said coil extending into the air gap formed between said magnet and said ring, a plate of magnetic material mounted on said ring and having a portion thereon extending adjacent a portion of a side of said coil over the full normal sweep of said coil side portion, said plate being positioned so as to be equidistant from said permanent magnet at any point within the normal full sweep of said coil, and adjusting means for allowing said plate

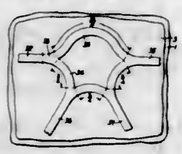
to be adjusted toward and away from said permanent magnet in a direction parallel to the axis about which said coil pivots including means for maintaining said plate in a relationship wherein said plate is equidistant from said permanent magnet at any point within the normal full sweep of said coil, whereby said plate may be adjusted to vary the flux density in the air gap between said plate and said permanent magnet simultaneously across the full sweep of said coil side portion.

2,836,797
MULTI-ELECTRODE FIELD CONTROLLED GERMANIUM DEVICES
Vernon Ozarow, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application March 23, 1953, Serial No. 344,079
13 Claims. (Cl. 332—52)



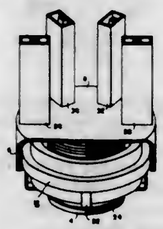
1. A semiconductor device comprising a body of semiconductor material of one carrier type, a band of semiconductor material of the opposite carrier type in intimate contact with said body, said band extending around at least a portion of the periphery of a cross section of said body so as to include a predetermined portion of the cross sectional area between the sides of said band, a first electrode electrically connected to said body at a point on one side of said band and a second electrode electrically connected to said body on the other side of said band.

2,836,798
MICROWAVE TRANSMISSION LINES
Donald J. LeVine, New York, N. Y., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application February 13, 1953, Serial No. 336,671
3 Claims. (Cl. 333—9)



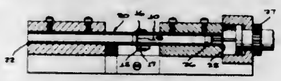
1. A hybrid radio frequency network comprising a planar conductor, first, second, third and fourth line conductors, a loop conductor, means maintaining said line and loop conductors in dielectrically spaced substantially parallel relation to said planar conductor to form therewith a plurality of waveguides, each of said conductors being of flat strip configuration, the space between said planar conductor and said line conductors and said loop conductors being conductively open along the lateral edges of said conductors and therefore subject to radiation losses due to discontinuities such as sharp bends in said conductors, impedance transformers coupling the line waveguides to the looped waveguide at spaced points so selected that wave energy propagated along one of said line waveguides splits in said looped waveguide for flow out of two of the other line waveguides to the exclusion of the fourth line waveguide, each said impedance transformer having a conductor section with one end coupled to one of said line conductors and matching the characteristic impedance of the line waveguide thereof, and another end having portions coupled to adjacent conductor legs of said looped waveguide and matching respectively the characteristic impedances thereof, the width of said conductor section being varied gradually between the ends thereof, said looped conductor, when viewed from the inside of said loop, having at least three convex portions and a fourth portion, said fourth portion having two convex sections connected by a concave section, said spaced points defining the junctions of said portions.

2,836,799
RIDGED WAVEGUIDE HYBRID RING CIRCUIT
Clyde E. Vogeley, Jr., and Thaddeus A. Osial, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 28, 1951, Serial No. 248,808
4 Claims. (Cl. 333—11)



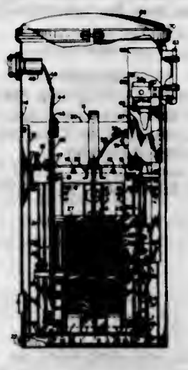
1. A waveguide hybrid ring circuit comprising a ridged waveguide extending in a circle, said waveguide having a ridge member which is adjustable, said waveguide having a top plate having four openings therein, and four branch waveguides coupled to said circular ridged waveguide through said openings.

2,836,800
METHOD FOR MAKING A BOLOMETER
John H. Rohrbaugh, Kew Gardens, N. Y., and Charles Pine, Kearny, and William G. Zoellner, East Orange, N. J.
Application December 19, 1955, Serial No. 554,057
2 Claims. (Cl. 333—22)



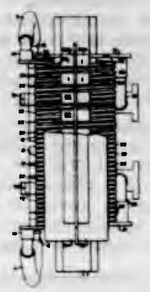
1. A method for making a bolometer which comprises providing a wave guide section having opposed walls each provided with a hole, the holes being in registry with each other and adjacent to one end of said section, threading a piece of Wollaston wire consisting of a platinum core encased in a silver sleeve through said registering holes with one end portion exteriorly of one of said opposed walls and with the other end portion exteriorly of the other of said opposed walls, insulatingly anchoring said wire to the respective holes so that the wire is held in strain free condition, electrically connecting the end of said one wire portion to the exterior face of said one opposed wall of said section, electrically connecting the end of said other wire portion to an anchor insulatingly attached to the exterior face of said other opposed wall of said section, treating the part of said wire held in strain free condition between said holes so as to remove the silver sleeve and expose the platinum core, arranging another wave guide section so that one end is in longitudinal alignment with and adjacent to said one end of said first named section, and joining together said one ends of said first named and said another wave sections, the location of said wire in said first named section being such that it is at an antinode with respect to the other end of said another wave section.

2,836,801
REGULATING DEVICE FOR ELECTRIC INDUCTION APPARATUS
Arthur E. Foulds, Revere, Mass., assignor to General Electric Company, a corporation of New York
Application September 3, 1954, Serial No. 454,121
6 Claims. (Cl. 336—41)



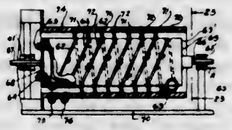
1. A regulating device comprising a magnetic core, two windings supported for movement relative to one another along said core, said windings having a mechanical bias towards one another and being movable relatively to one another against said bias in response to the magnetic repulsion existing between said windings as a result of current flow therethrough, a magnetic member connected for movement with one of said windings, and a pair of spaced magnets each of which is positioned on a different side of said magnetic member and poled to exert a force of attraction thereon to control the resultant effect on said one of said windings of said mechanical bias and said magnetic repulsion, said magnets each having pole pieces shaped to provide a space therebetween within which said magnetic member passes at a terminal portion of its travel relative to said magnets.

2,836,802
FLUID COOLED TRANSFORMERS
Maurice J. Gelpi and William D. Wilkinson, Catonsville, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 23, 1956, Serial No. 605,838
6 Claims. (Cl. 336—62)



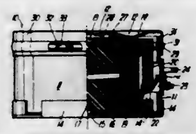
1. In an electric transformer a winding having a longitudinal axis, said winding comprising a continuous hollow conductor member forming a plurality of turns, each of said turns having a first end and a second end with all said first ends being aligned in a first peripheral location and being electrically connected together and with all said second ends being aligned with each other in a second peripheral location and being electrically connected together, with portions of said hollow conductor member extending from the first end of a first turn to the first end of a second turn and from the second end of said second turn to the second end of a third turn, in such a way that a cooling fluid may be caused to flow serially through said first, second and third turns in circumferentially reversed directions through each serially successive turn.

2,836,803
INDUCTIVE TRANSDUCER
Gifford E. White, Austin, Tex., and Earl W. Grant, Los Angeles, Calif., assignors to Statham Instruments, Inc., a corporation of California
Application March 30, 1953, Serial No. 345,352
3 Claims. (Cl. 336—119)



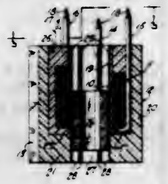
1. A transducer comprising a transformer, said transformer having a primary bifilar winding in a form of a double helix of conductive wire connected together at one end thereof, said helix being of uniform pitch throughout its length, a secondary bifilar winding in the form of a double helix of conductive wire connected together at one end thereof, said second named helix being of uniform pitch throughout the length of said second helix, the pitch of said helixes being the same, said helical windings being coaxial and spaced from each other and means for displacing said helixes from each other in a direction axially of said helixes.

2,836,804
INDUCTORS
William Frank Glover and Douglas Hiley Owen, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application February 16, 1955, Serial No. 488,632
Claims priority, application Great Britain
February 23, 1954
7 Claims. (Cl. 336—135)



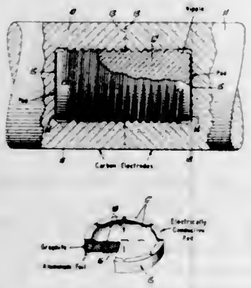
1. An adjustable inductor unit comprising a metal casing formed of two cooperating parts of circular cross section, spring means for releasably attaching said parts together while permitting relative rotation thereof, a magnetic core formed of two parts positioned coaxially within said casing, each part having an extended flange at one end and a substantially flat surface at the other end which is at an angle with respect to a plane perpendicular to the axis of said casing, said parts being positioned in said casing with said surfaces facing each other but separated to form an air gap, an induction coil surrounding said magnetic core and between said flanges, a sleeve of magnetic material surrounding said coil and between said flanges, said sleeve acting to maintain said gap when said core parts are urged towards each other, means between each core part and its adjacent casing part for causing rotation of said casing part to cause rotation of said core part, and resilient means for urging said core parts towards each other.

2,836,805
ELECTRICAL WINDING CONSTRUCTION
Bernard M. Goldsmith, Westfield, N. J., assignor to Essex Electronics, Berkeley Heights, N. J., a corporation of New Jersey
Application December 4, 1956, Serial No. 626,175
10 Claims. (Cl. 336—136)



10. In combination, a generally cup-shaped container open at one end and including an upstanding inner tubular member of electrically insulating material defining an annular space between inner and outer walls, a first electrical winding having a single layer of turns of relatively heavy and stiff insulated wire deriving concentric support directly from the outer surface of said inner wall, one end of said first winding being straight and integrally formed to project axially beyond the open end of said container, a second electrical winding having a single layer of turns of relatively heavy and stiff insulated wire deriving concentric support directly from the turns of said first winding, the axially inner ends of both windings being straight and radially offset and running alongside the outer limit of said second winding and projecting axially beyond the open end of said container, the other end of said second winding being straight and integrally formed to project axially beyond the open end of said container, and plastic means substantially closing the open end of said container and holding the straight projecting ends of both said wires in angularly-spaced relation.

2,836,806
CONDUCTIVE PAD FOR ELECTRODE JOINT
Robert C. Stroup, Lewiston, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application June 2, 1955, Serial No. 512,611
7 Claims. (Cl. 339—263)



1. In a joint between sections of an electric-furnace electrode having a threaded nipple received within sockets in adjacent ends of the connected sections, the improvement comprising a pad of compressible graphite between an end of said nipple and the bottom of the socket in which said end of the nipple is received, said pad having an area approximately as large as said nipple end, whereby said pad is electrically conductive at temperatures above the melting point of steel wool and affords improved electrical conductivity in said joint under high-temperature operating conditions, said electrode being graphite and said pad being at least one of skeletal and natural graphite capable of being compressed to about half its former thickness.

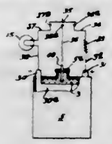
5. A compressible pad of cylindrical shape comprising a graphitic core, a wrapper capable of being consumed at high temperatures and enclosing said graphitic core, and means for retaining said core and wrapper in assembled relation, whereby the application of compressive forces to said pad may be substantially uniformly distributed.

2,836,807
CERAMIC TERMINAL MOUNT
Marion T. Goodfellow, Beaverton, and Robert J. Davis, Portland, Oreg., assignors to Tektronix, Inc., Portland, Oreg., a corporation of Oregon
Application April 20, 1953, Serial No. 349,768
2 Claims. (Cl. 339—275)



1. A terminal mount comprising an integral body of ceramic electrical insulating material having a portion provided with a wire-receiving notch extending transversely therethrough, said notch being of uniform width and of substantially greater depth than width whereby a wire positioned in said notch will be positioned wholly beneath the top edges thereof, and a laminated metallic lining covering the surface of said material within said notch, said lining comprising a thin coating of silver on said surface and an outer adherent coating of soft solder on the first-mentioned coating.

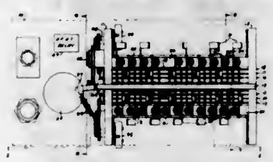
2,836,808
BATTERY TESTER
Brooks Walker, Piedmont, Calif.
Application April 11, 1955, Serial No. 500,366
3 Claims. (Cl. 340—249)



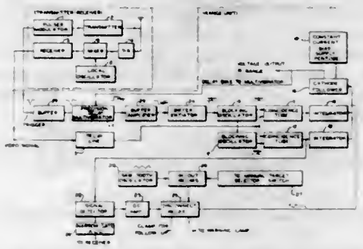
1. A wet battery, multiple cells in said battery, a negative battery terminal, a positive battery terminal, an indicator element, a probe, said probe being in said negative cell, a resistance, a three pole switch, one switch pole connecting a circuit to said negative pole through said indicator, a second switch pole connecting to said probe in the cell with the said negative terminal, the third switch terminal connected to the said positive terminal through said resistance when said three pole switch is open, when said three pole switch is closed each of said poles being electrically connected to provide an indication when said probe is above the liquid in the cell containing said probe regardless of which battery terminal is grounded.

2,836,809
CODED KEYBOARD
John H. MacNeill, Melbourne, Fla., assignor to the United States of America as represented by the Secretary of the Air Force
Application February 24, 1955, Serial No. 490,442
2 Claims. (Cl. 340—365)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A coded keyboard comprising: a plurality of actuator bars each attached to one of the keys of said keyboard; a plurality of code bars; means supporting said code bars and providing for longitudinal movement of said bars between first and second positions; a plurality of slots in each of said code bars, each of said slots having one of two widths in accordance with a predetermined coding scheme, the narrower of said slots being only slightly greater than the thickness of said actuator bars and the wider of said slots exceeding in width the thickness of said actuator bars by an amount greater than the distance between the first and second positions of said code bars; means supporting said actuator bars transversely of said code bars and providing for movement of each of said bars manually through its associated key from a normal position in which said selector bar is wholly outside the slots of said code bars to a depressed position in which, with said code bars in their first positions, said actuator bar is inside one slot of each code bar; means associated with said code bars for constantly urging said bars toward their second positions; a two-position code bar restraining and actuator bar locking means operating in a first position to hold said code bars in their first positions and to free said actuator bars for movement to either of their first and second positions, and operating in a second position to free said code bars for movement to their second positions and to lock said actuator bars in either of their first and second positions; means constantly urging said restraining and locking means toward its first position; electrical means associated with said restraining and locking means and acting upon energization to move said restraining and locking means to its second position; first switching means actuated by any actuator bar in its depressed position for closing an electrical energizing circuit to said electrical means; and second switching means located in said energizing circuit and associated with said first switching means and operative when said first switching means is closed to break said energizing circuit and to hold said break until said first switching means opens.

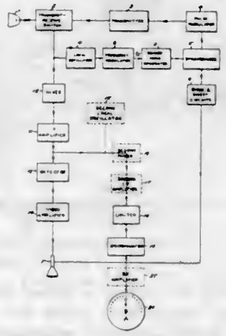


2,836,810
RANGE UNIT
Edward F. MacNichol, Jr., Hamilton, Clarence M. Connelly, Belmont, and Job Robert Rogers, Cambridge, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 10, 1945, Serial No. 604,270
12 Claims. (Cl. 343—7.3)



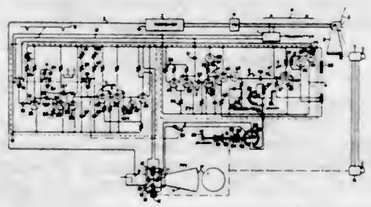
1. In combination, means for radio echo detection of target signals, means for automatically and periodically searching for target signals over the range of said radio echo detection means, means for automatically discontinuing such search upon detection of a target signal, means for automatically range tracking the target signal so detected, means for producing an output voltage directly proportional to the range of a target signal being tracked, means for causing periodic search to resume automatically upon loss of such detected signal and manually controlled means for causing search to proceed in the direction either of lesser range or greater range as desired for the purpose of detecting another target.

2,836,811
RADAR SYSTEM FOR DETECTING OBJECT MOVEMENT AND VELOCITY
Elmer D. McArthur, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application January 18, 1951, Serial No. 206,564
6 Claims. (Cl. 343—8)



1. A radar system comprising means for periodically generating and radiating pulses of high constant-frequency energy, means for receiving echo pulses resulting from the reflection of said energy from an object, means for generating local oscillations, means for varying the frequency of said local oscillations in symmetrical square wave manner synchronized with and having a repetition period equal to twice the period between successive radiated pulses, means for combining said echo pulses and said local oscillations to produce pulses of frequency dependent upon the instantaneous frequency of said local oscillations and any Doppler shift to the transmitted frequency present in said echo pulses, and means for producing a D.-C. voltage of polarity dependent upon the direction of said Doppler shift in frequency and of magnitude proportional to the magnitude of said Doppler shift in frequency.

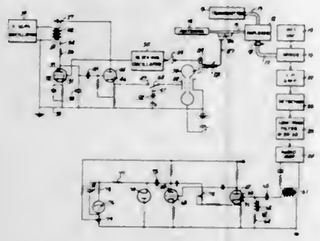
2,836,812
EXPANDED DISPLAY FOR CATHODE RAY TUBES
George W. Fyler, Stratford, Conn., assignor to General Electric Company, a corporation of New York
Application November 2, 1945, Serial No. 626,372
8 Claims. (Cl. 343—11)



1. In a circuit for a cathode ray tube of the type including means for producing a cathode ray, a control

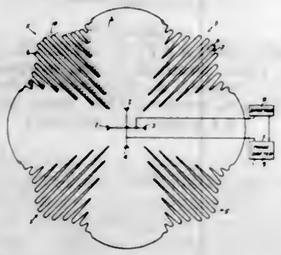
electrode, ray deflecting means, and a viewing screen, means for supplying successive sawtooth waves of current to said deflecting means to move said ray across said screen repeatedly in a radial direction, means for controlling the time occurrence and size of the display on said screen comprising means for varying the time occurrence and duration of said sawtooth waves, and means for supplying a unidirectional current to said ray deflecting means to move said ray across said screen in a tangential direction.

2,836,813
MICROWAVE DOPPLER TEST INSTRUMENT
Robert A. Flower, White Plains, Everett B. Hales, Hawthorne, and Solomon Sherr, Tuckahoe, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application August 6, 1953, Serial No. 372,754
4 Claims. (Cl. 343—17.7)



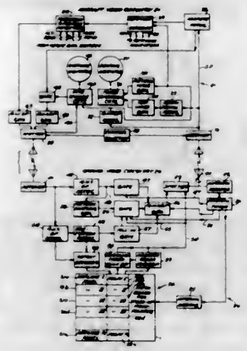
1. An instrument for testing a pulsed Doppler radio transmitter-receiver comprising, means for generating a microwave test signal, sawtooth generator means for sweeping said microwave test signal past the frequency band to which the receiver of said pulsed Doppler transmitter-receiver is tuned, whereby said test signal is introduced to the receiver, means for triggering said sawtooth generator means synchronously and in phase with the pulses of said Doppler radio transmitter receiver, means for modulating said sawtooth generator means at a rate in the Doppler band, and indicating means energized by the output signals derived from said receiver.

2,836,814
R-F PHASE SHIFTER
James J. Nail, Basking Ridge, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application June 25, 1952, Serial No. 295,502
12 Claims. (Cl. 343—100)



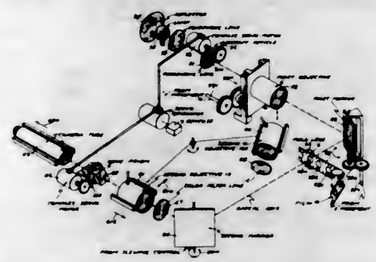
1. A phase shifter type device comprising a coaxial transmission line having the inner conductor thereof with a gap therein, a coaxial inductive stub disposed adjacent said gap with the outer and inner conductors thereof coupled to the inner and outer conductors, respectively, of said line, the outer conductor of said line having a slot in alignment with said gap, a shaft disposed for rotation about an axis parallel to said coaxial line, means including a body carried on said shaft for movement during a rotation movement of said shaft through said slot and said gap, said body varying in dielectric-affecting material in a direction circumferential along the path of movement of said body to thereby continuously change the total value of the dielectric across said gap, thus giving rise to a continuously varying capacitance.

2,836,815
AIRCRAFT RADIO NAVIGATION SYSTEM
Paul R. Adams, Montclair, and Robert I. Colin, Nutley, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application October 16, 1953, Serial No. 386,574
20 Claims. (Cl. 343—106)



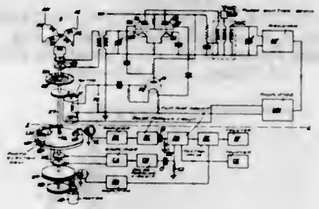
1. A beacon system for mobile units, comprising an antenna having a directional radiation pattern, means to effect rotation of the radiation pattern of said antenna, a source of reference and bearing signal pulses, a source of mobile unit identifying signal pulses, a source of message signal pulses, and means to apply the reference, bearing, unit identifying and message signal pulses to said antenna in a given sequential order for amplitude modulation of said pulses in accordance with said rotating directional radiation pattern.

2,836,816
AIRBORNE PICTORIAL NAVIGATION COMPUTER
John L. Allison and Ben Alexander, Nutley, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application May 11, 1954, Serial No. 428,886
16 Claims. (Cl. 343—112)



1. A display system for displaying the position and movement of a craft with respect to a given area comprising a camera tube, means for producing a representation of said area, means for producing an optical representation of said craft, means for projecting said area representation and said craft representation onto said camera tube, navigation system means for determining the location of said craft, means responsive to the output of said navigation system for controlling said projection means for moving said craft representation on said camera tube to depict the movement of said craft relative said area, a television display unit and means to couple to said unit the images projected onto said camera tube.

2,836,817
SELF-ORIENTING RADIO DIRECTION FINDERS
Dennis Byatt, Chelmsford, and James Frederick Hatch, Hutton, England, assignors to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application June 24, 1955, Serial No. 517,844
Claims priority, application Great Britain July 19, 1954
5 Claims. (Cl. 343—117)

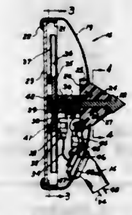


1. A self-orienting radio direction finder having a member whose position is automatically controlled in dependence upon incoming signal direction comprising means for repeatedly producing a series of pulses of number dependent upon the position of said member in relation to a fixed member, means for counting the total count of said pulses over a number of repetitions and means for counting the number of repetitions.

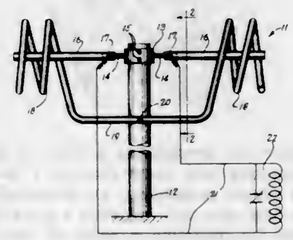
5. A self-orienting radio direction finder comprising a member whose position is automatically controlled in dependence upon incoming signal direction, a continuously driven rotary member, means for generating a datum signal once per revolution of said rotary member, co-operating signal generating means driven one by said automatically controlled member and the other by said rotary member and adapted to produce a direction signal each time said one and other co-operation signal generating means are in a predetermined relative position, an alternating current generator drives with said rotary member, means for producing a pulse from each datum signal, means for producing a pulse from each direction signal, a gate valve, means jointly controlled by the pulses derived from the datum and directional signals for opening said gate valve during intervals between each datum and direction signals, means for applying the alternating current output from said generator to said gate valve, a counter fed with output from the gate valve and a second counter connected to count the number of times the gate valve is opened.

2,836,818
REAR VIEW MIRROR AND RADIO ANTENNA ASSEMBLY
Richard De Virgilis, Detroit, Mich.
Application December 27, 1955, Serial No. 555,525
4 Claims. (Cl. 343—720)

1. An assembly including a casing consisting of a circular concave shell having a central aperture, a cone shaped member of dielectric material fitting into said aperture, the member being provided with an annular frame disposed within and secured to the peripheral portion of the shell in co-axial relation thereto, a metal bolt axially disposed within the casing and extending outwardly through the bore in said member of dielectric material, a disk of dielectric material axially mounted upon said bolt, a flat, spirally wound coil of insulated wire mounted on said disk in parallel relation thereto one end of the wire being attached to said bolt, the other end of the wire extending from the casing for connection to a radio apparatus within the automobile, and bracket means supporting the casing and adapted to be affixed to the body of the automobile.



2,836,819
ULTRA-HIGH FREQUENCY TELEVISION ANTENNA
John Arvay, Jr., Plant City, Fla.
Application August 27, 1954, Serial No. 452,612
3 Claims. (Cl. 343—802)

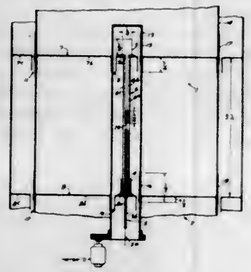


1. An ultra-high frequency antenna comprising a vertical support, a pair of opposed horizontal di-pole elements secured to said support and having respective terminals at their inner end portions, a straight conductive rod secured to said vertical support adjacent and parallel to both said di-pole elements, and respective director coils supportingly secured on the end portions of said conductive rod surrounding the outer end portions of the respective di-pole elements, said straight rod member being in capacitive coupling relation to both of said dipole elements and the director coils being in inductive coupling relation to the outer end portions of the respective di-pole elements, said straight rod member and director coils defining a resonant array with respect to said dipole elements.

2,836,820
OMNIRANGE BEACON ANTENNA
Sidney B. Pickles, Monterey, Calif., Paul R. Adams, Montclair, N. J., and Constantino Lucanera, White Plains, N. Y., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application January 4, 1955, Serial No. 479,816
6 Claims. (Cl. 343—839)

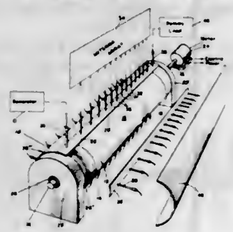
5. An antenna system comprising a plurality of independent radiating units vertically disposed one above the

other and each of said radiator units comprising means presenting a conductive surface, a radiator vertically dis-



posed centrally of said surface and a plurality of parasitic elements disposed for rotation about said radiator.

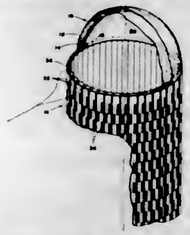
2,836,821
MECHANICAL PHASE SHIFTER
Robert Stratman Elliott, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application August 19, 1955, Serial No. 529,557
13 Claims. (Cl. 343—854)



5. A system for propagating a beam of wave energy and for directing said beam through a predetermined angle, said system comprising: an elongated electrically conductive strip, said strip including a plurality of radiating portions for providing a beam of wave energy; a rotatable member adjacent said strip, said strip and said member forming a parallel plate transmission line, said member including a plurality of grooves, each in a different plane substantially perpendicular to the direction of elongation of said strip, the depth of said grooves being a function of the position on said member; and means for applying wave energy to said transmission line, whereby rotation of said member alters the phase of the wave energy between adjacent radiating portions in a predetermined manner and thereby directs said beam through a predetermined angle.

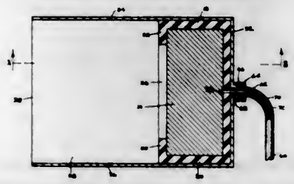
2,836,822
METHOD OF FEEDING AND SCANNING A CIRCULARLY DISPOSED ANTENNA ARRAY
Morris J. Ehrlich, Manhattan Beach, and Irving K. Williams, Hermosa Beach, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application August 10, 1955, Serial No. 527,450
13 Claims. (Cl. 343—754)

1. An antenna array comprising: a lens composed of two conducting shells defining a figure of revolution about the lens axis, the opposite surfaces of said shells being equispaced from the mean geodesic surface of said lens; two coaxial conducting cylinders forming a cylindrical shell, each cylinder being coupled to a different one of the shells of said lens and forming a coaxial system therewith, the outer surface of said cylindrical shell including a plurality of radiating apertures and separation members forming equispaced radial septa and dividing said cylin-



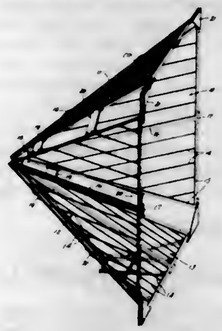
drical shell into longitudinal waveguides conducting wave energy along said cylindrical shell in a direction parallel to the axis of said system, and wave energy feed means coupled to said waveguides.

2,836,823
WAVE GUIDE TRANSMITTING ANTENNA
Paul A. Kennebeck, Grand Prairie, Tex.
Application December 19, 1952, Serial No. 326,884
13 Claims. (Cl. 343—782)



1. An antenna comprising a radiating element, spaced wave guides between which the radiating element is positioned, and insulating material filling the space between the radiating element and wave guides for insulating said radiating element from the wave guides on four sides and also on the back thereof, there being no insulation on the front of said radiating element.

2,836,824
ANTENNA
Richard C. Raymond, Pacific Palisades, Calif., assignor to Haller, Raymond and Brown, Inc., State College, Pa., a corporation of Pennsylvania
Application April 13, 1954, Serial No. 422,812
18 Claims. (Cl. 343—795)

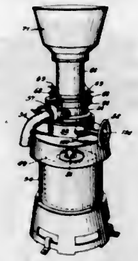


9. A broadband antenna, comprising two opposed diverging generally triangular wings, each of said wings diverging at an acute angle with respect to and on opposite sides of a longitudinally extending axis and converging

with their apices in insulated relation and substantially on said axis, each wing comprising a plurality of substantially parallel, transversely spaced, longitudinally extending conductors insulated from each other for the substantial length thereof, and means conductively connecting the ends of said conductors in parallel.

2,836,825
METHOD OF COMMINUTING MEAT
Carl Schnell, Winterbach, near Schorndorf, Wurttemberg, Germany, assignor to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
Application August 2, 1957, Serial No. 675,997
Claims priority, application Germany June 15, 1956
2 Claims. (Cl. 99—108)

1. The method of processing meat which comprises continuously feeding meat under its own weight into a supply chamber and therefrom through an unobstructed space into a cutting chamber adjacent a foraminous exit, sealing the cutting chamber from the atmosphere by maintaining in said supply chamber a hydraulic head of raw meat to be comminuted, centrifugally moving the meat about an axis in the cutting chamber, subjecting the so moving meat to impact-cutting and draw-cutting, passing that portion of the meat having a predetermined fineness through the foramens of the exit and deflecting the remaining centrifugally flowing meat to move spirally in an axial direction away from said exit, obstructing the deflected flow of said meat and thereby mixing the same with incoming meat,



shearing the meat entering said foramens at the edges of the foramens, propelling the meat in said cutting chamber toward said foramens as said meat is moved centrifugally, applying suction to the exit side of said foramens whereby to assist in moving material through said foramens, and discharging the resulting material.

DESIGNS

MAY 27, 1958

182,868
SKI-BOOT BAG
William B. Arnold, Camas, Wash.
Application March 5, 1957, Serial No. 45,119
Term of patent 7 years
(Cl. D87—5)



182,869
CLOCK OR SIMILAR ARTICLE
Samuel Ayres, Jr., Marblehead, Mass., assignor to General Electric Company, a corporation of New York
Application July 9, 1957, Serial No. 46,873
Term of patent 14 years
(Cl. D42—7)



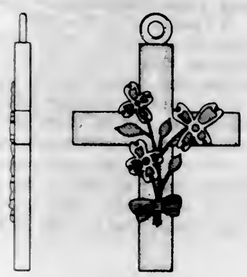
182,870
REAR VISION MIRROR FOR VEHICLES
George N. Barney, Toledo, Ohio
Application January 31, 1956, Serial No. 39,984
Term of patent 14 years
(Cl. D14—6)



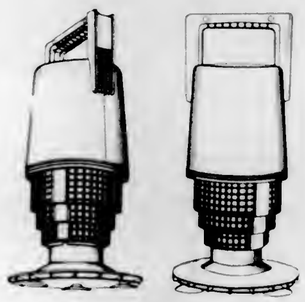
182,871
AUTOMOBILE DOOR HANDLE
Fedele Bianco, Grosse Pointe Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 19, 1956, Serial No. 44,251
Term of patent 7 years
(Cl. D10—8)



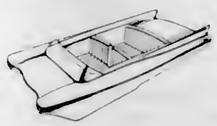
182,872
PENDANT OR SIMILAR ARTICLE
Stanley Blumstein, Scarsdale, N. Y.
Application August 16, 1957, Serial No. 47,384
Term of patent 14 years
(Cl. D45—15)



182,873
PORTABLE WASHING MACHINE
Melvin H. Boldt, Glenview, Ill.
Application December 24, 1956, Serial No. 44,320
Term of patent 14 years
(Cl. D49—1)



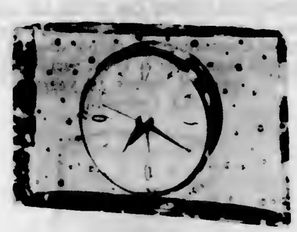
182,874
BOAT
Richard C. Bradley, Fort Lauderdale, Fla.
Application September 30, 1957, Serial No. 47,923
Term of patent 14 years
(Cl. D71—1)



182,875
PORTABLE COMFORT KIT
Alan W. Brownlie, Towson, Edward J. Guard, Fallston, and Donald A. Robertson, Towson, Md.
Application December 28, 1956, Serial No. 44,347
Term of patent 14 years
(Cl. D4—3)



182,876
CLOCK
Leo Ivan Bruce, Jr., Framingham Centre, Mass., assignor to General Tire Corporation, New York, N. Y., a corporation of Delaware
Application October 31, 1957, Serial No. 48,286
Term of patent 14 years
(Cl. D42—7)



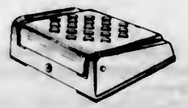
182,877
INDUSTRIAL TRUCK
Nelson E. Cole, Reading, Pa., assignor to Dana Corporation, Toledo, Ohio, a corporation of Virginia
Application December 31, 1956, Serial No. 44,360
Term of patent 14 years
Cl. D14—3)



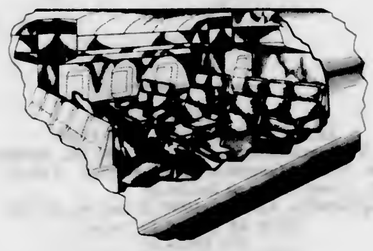
182,878
FLOUR SIFTER
William W. Cunningham, Chicago, and Peter H. Ross, Winnetka, Ill.
Application September 27, 1957, Serial No. 47,906
Term of patent 14 years
(Cl. D44—29)



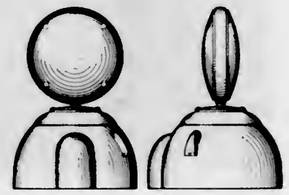
182,879
FOOT TREADLE ELECTRICAL SWITCH
Harry De Jur, New York, N. Y., assignor to De Jur Amsco Corporation, Long Island City, N. Y., a corporation of New York
Application June 20, 1957, Serial No. 46,664
Term of patent 14 years
(Cl. D26—13)



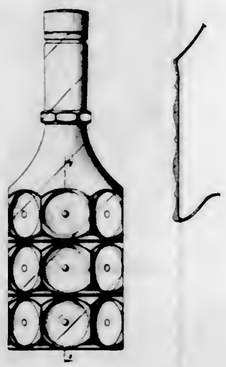
182,880
AIRPLANE
Niels Diffrient, Glendale, Calif., assignor, by mesne assignments, to Lockheed Aircraft Corporation, a corporation of California
Application September 20, 1956, Serial No. 43,012
Term of patent 14 years
(Cl. D71—1)



182,881
EMERGENCY WARNING LAMP
Herbert R. Dover, Chicago, Ill.
Application October 22, 1956, Serial No. 43,437
Term of patent 14 years
(Cl. D72—1)



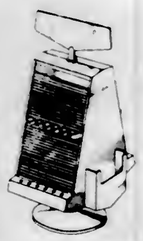
182,882
BOTTLE
Ernest L. Du Pree, Weston, Conn.
Application September 19, 1957, Serial No. 47,778
Term of patent 14 years
(Cl. D58—6)



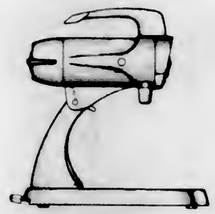
182,883
AUTOMOBILE
Harley J. Earl, Grosse Pointe Farms, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 28, 1956, Serial No. 44,351
Term of patent 7 years
(Cl. D14—3)



182,884
DISPLAY RACK OR THE LIKE
James A. Engelmann, Highland Park, Ill., assignor to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application April 16, 1957, Serial No. 45,748
Term of patent 14 years
(Cl. D80—9)



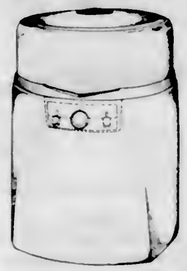
182,885
FOOD MIXER OR THE LIKE
Robert O. Ernest, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application September 6, 1957, Serial No. 47,642
Term of patent 14 years
(Cl. D44—1)



182,886
CONTROL PANEL FOR A WASHING MACHINE OR SIMILAR ARTICLE
Montgomery Ferar, Huntington Woods, Mich., assignor to Whirlpool Corporation, a corporation of Delaware
Application August 24, 1956, Serial No. 42,718
Term of patent 7 years
(Cl. D49—1)



182,887
WASHING MACHINE OR SIMILAR ARTICLE
Montgomery Ferar, Huntington Woods, Mich., assignor to Whirlpool Corporation, a corporation of Delaware
Application September 6, 1956, Serial No. 42,844
Term of patent 14 years
(Cl. D49—1)



182,888
LOUNGE CHAIR
Eleanor M. Forbes, San Francisco, Calif.
Application September 30, 1957, Serial No. 47,928
Term of patent 14 years
(Cl. D15—1)



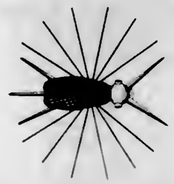
182,889
HINGE OR SIMILAR ARTICLE
Viles K. Fremstad, Van Nuys, Calif., assignor to Ajax Hardware Manufacturing Corp., Los Angeles, Calif., a corporation of California
Application November 19, 1956, Serial No. 43,828
Term of patent 14 years
(Cl. D10—9)



182,890
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application May 13, 1957, Serial No. 46,117
Term of patent 14 years
(Cl. D92—1)



182,891
FISH LURE
James F. Gondeck, Niles, Mich.
Application December 3, 1956, Serial No. 44,019
Term of patent 14 years
(Cl. D31—4)



182,892
COMBINED BALL HOLDER, AND UPPER PLATE FOR A TENNIS RACKET PRESS
Richard J. Gould, Vassar, Mich.
Application April 22, 1957, Serial No. 45,827
Term of patent 14 years
(Cl. D34—5)



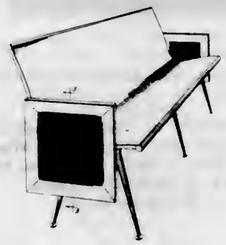
182,893
CORNICE HEADER FOR WINDOW DRAPES
Opal B. Haley, Amarillo, Tex.
Application July 22, 1957, Serial No. 47,043
Term of patent 14 years
(Cl. D13—4)



182,894
DISPLAY RACK OR THE LIKE
Norman Holtzman, Los Angeles, Calif., assignor to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware
Application January 7, 1957, Serial No. 44,417
Term of patent 14 years
(Cl. D80—9)



182,895
PEW OR THE LIKE
Alfred C. Hoven, William S. Lindberg, and Walter E. Nordmark, Grand Rapids, Mich., assignors to American Seating Company, Grand Rapids, Mich., a corporation of New Jersey
Application May 23, 1957, Serial No. 46,308
Term of patent 14 years
(Cl. D15—11)



182,896
PUFFED TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 23, 1957, Serial No. 45,862
Term of patent 14 years
(Cl. D92—1)



182,897
PUFFED TEXTILE FABRIC,
Clement R. Howell, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application July 29, 1957, Serial No. 47,131
Term of patent 14 years
(Cl. D92—1)



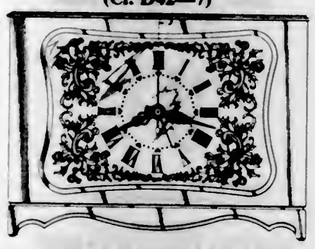
182,898
PUFFED TEXTILE FABRIC
Clement R. Howell, Winnsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application July 29, 1957, Serial No. 47,141
Term of patent 14 years
(Cl. D92—1)



182,899
PILLOW COVER OR SIMILAR ARTICLE
Jadwiga Jablonska, Swampscott, Mass.
Application June 21, 1957, Serial No. 46,685
Term of patent 3½ years
(Cl. D3—9)



182,900
CLOCK OR SIMILAR ARTICLE
William V. Judson, Dover, Mass., assignor to General Electric Company, a corporation of New York
Application May 2, 1957, Serial No. 45,978
Term of patent 14 years
(Cl. D42—7)



182,901
CHAIR
Frank E. Kaehn, Miami, Fla., assignor to Sharmal of Miami, Hialeah, Fla., a corporation of Florida
Application June 10, 1957, Serial No. 46,532
Term of patent 14 years
(Cl. D15—11)



182,902
COMBINATION IRONING BOARD AND STEPSTOOL
James E. Kemph, Woodstock, Ga.
Application December 11, 1957, Serial No. 48,869
Term of patent 14 years
(Cl. D15—8)



182,903
PUFFED TEXTILE FABRIC
Ruth Kerkovius, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application May 29, 1957, Serial No. 46,401
Term of patent 14 years
(Cl. D92—1)



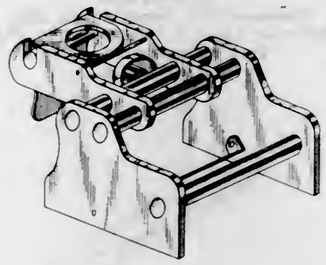
182,904
PUFFED TEXTILE FABRIC
Ruth Kerkovius, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application May 29, 1957, Serial No. 46,402
Term of patent 14 years
(Cl. D92—1)



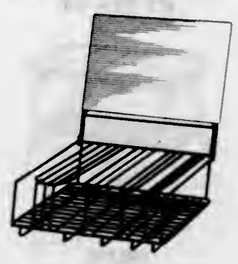
182,905
PUFFED TEXTILE FABRIC
Ruth Kerkovius, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application May 29, 1957, Serial No. 46,407
Term of patent 14 years
(Cl. D92—1)



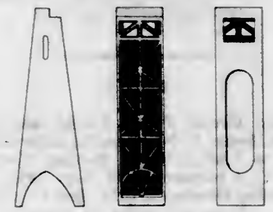
182,906
TARGET UNIT FOR A BALL GAME
Frederick H. King, Ferndale, Mich.
Application June 25, 1957, Serial No. 46,727
Term of patent 14 years
(Cl. D34—5)



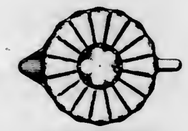
182,907
DISPLAY RACK FOR TOOLS AND SIMILAR ARTICLES
George P. Lewis, Mineola, N. Y.
Application January 2, 1957, Serial No. 44,374
Term of patent 14 years
(Cl. D80—10)



182,908
RADIANT FOR A GAS HEATER OR SIMILAR ARTICLE
Albert Edwin Lindblom, Dallas, Tex., assignor to Dearborn Stove Company, Dallas, Tex., a corporation of Texas
Application May 27, 1957, Serial No. 46,365
Term of patent 14 years
(Cl. D81—10)



182,909
TEA BAG HOLDER
Victor A. Lindell, North Bellmore, N. Y.
Application September 19, 1957, Serial No. 47,784
Term of patent 14 years
(Cl. D44—9)



182,910
TABLE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 27, 1957, Serial No. 45,453
Term of patent 14 years
(Cl. D33—14)



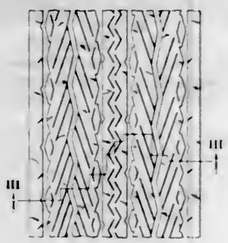
182,911
TABLE
John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application March 27, 1957, Serial No. 45,468
Term of patent 14 years
(Cl. D33—14)



182,912
RELIGIOUS PLAQUE
Louis F. Mancini, Baltimore, Md.
Application May 31, 1957, Serial No. 46,427
Term of patent 14 years
(Cl. D29—23)



182,913
TIRE
Louis Marick, Grosse Pointe Farms, and Norman G. Sprock and James F. Newman, St. Clair Shores, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application October 4, 1957, Serial No. 47,976
Term of patent 14 years
(Cl. D90—20)



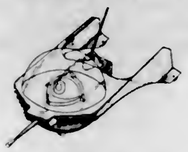
182,914
PUFFED TEXTILE FABRIC
Gerald D. Martin, Maulden, Mo., assignor to United States Rubber Company, New York, N. Y., a corporation of New York
Application August 23, 1957, Serial No. 47,491
Term of patent 14 years
(Cl. D92—1)



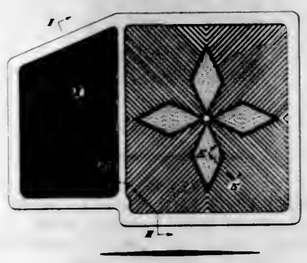
182,915
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application May 29, 1957, Serial No. 46,405
Term of patent 14 years
(Cl. D92—1)



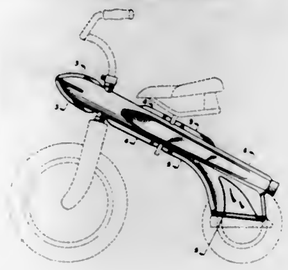
182,916
MOBILE TOY
Norman T. McFarland, North Aurora, Ill., assignor to Marvin I. Glass, Chicago, Ill.
Application July 17, 1957, Serial No. 46,972
Term of patent 14 years
(Cl. D34—15)



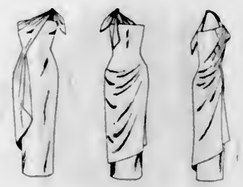
182,917
AUTOMOBILE MAT
Emanuel Meyer, Philadelphia, Pa.
Application December 23, 1957, Serial No. 48,983
Term of patent 14 years
(Cl. D9—6)



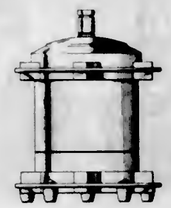
182,918
VELOCIPEDE
Theodore Moll, Fairview Park, Ohio
Application August 2, 1957, Serial No. 47,198
Term of patent 14 years
(Cl. D34—15)



182,919
SARI-TYPE DRESS
Janice C. Moran, San Bernardino, Calif.
Application November 13, 1956, Serial No. 43,734
Term of patent 14 years
(Cl. D3—26)



182,920
FOUNTAIN
Tadashi Nakamura, Takasaki-City, and Tometaro Sueki, also known as Yoshihisa Sueki, Sumida-ku, Tokyo, Japan, assignors to Fred Roberts Company, San Francisco, Calif., a corporation of California
Application October 9, 1957, Serial No. 48,020
Term of patent 7 years
(Cl. D91—4)



182,921
CUP
Jules Rafalow, New York, N. Y., assignor to Standard Electronics Corporation, Newark, N. J., a corporation of Delaware
Application October 29, 1957, Serial No. 48,262
Term of patent 14 years
(Cl. D44—9)



182,922
FLATIRON
Paul O. Rawson, Jr., Trumbull, and John C. Shalvoy, Fairfield, Conn., assignors to General Electric Company, a corporation of New York
Application November 15, 1956, Serial No. 43,784
Term of patent 14 years
(Cl. D49—6)



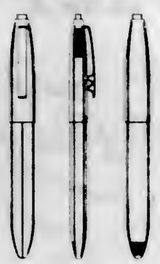
182,923
SPOON OR THE LIKE
Joseph Rector, New York, N. Y., assignor to Amerex Trading Corporation, New York, N. Y., a corporation of New York
Application May 29, 1957, Serial No. 46,399
Term of patent 7 years
(Cl. D54—12)



182,924
HANDLE FOR TOOLS
Edward H. Reymann, Bronxville, N. Y., assignor to Austenal, Inc., a corporation of New York
Application October 4, 1957, Serial No. 47,980
Term of patent 14 years
(Cl. D83—1)



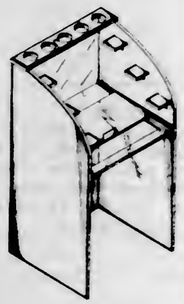
182,925
FOUNTAIN PEN
Manuel Portus Ribas, Torello, Spain
Application June 8, 1956, Serial No. 41,821
Term of patent 14 years
Claims priority, application Spain March 16, 1956
(Cl. D74—17)



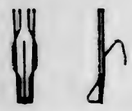
182,926
SERVING TABLE
Laurence B. Roeder, Los Angeles, Calif.
Application March 7, 1955, Serial No. 34,919
Term of patent 14 years
(Cl. D33—14)



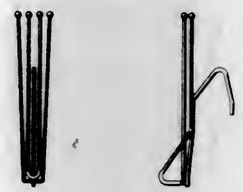
182,927
SNOW BALL DISPENSING CABINET
Kurt A. Rose, Meridian, Miss.
Application December 13, 1956, Serial No. 44,179
Term of patent 14 years
(Cl. D2—3)



182,928
DRAPERY PLEATER HOOK
Philip Rosenzweig, Detroit, Mich.
Application November 13, 1957, Serial No. 48,428
Term of patent 7 years
(Cl. D21—1)



182,929
DRAPERY PLEATER HOOK
Philip Rosenzweig, Detroit, Mich.
Application November 13, 1957, Serial No. 48,470
Term of patent 7 years
(Cl. D21—1)



182,930
PERFUME BOTTLE
Elsa Schiaparelli, Paris, France
Application September 18, 1957, Serial No. 47,775
Term of patent 14 years
(Cl. D58—8)



182,931
HOUSING FOR A WINDOW MOUNTED VENTILATING FAN
Viktor Schreckengost, Cleveland Heights, Ohio, assignor to The Murray Ohio Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application November 20, 1956, Serial No. 43,858
Term of patent 14 years
(Cl. D26—7)



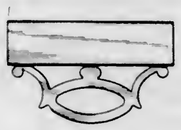
182,932
WHEEL COVER
Bernard N. Smith, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 1, 1957, Serial No. 45,521
Term of patent 7 years
(Cl. D14—30)



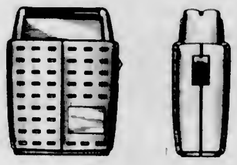
182,933
SHADE PULL
Jerome S. Smith, Chicago, Ill.
Application August 16, 1957, Serial No. 47,391
Term of patent 14 years
(Cl. D21—1)



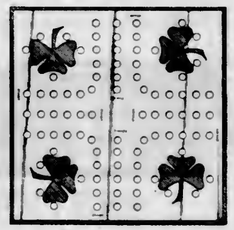
182,934
SHADE PULL
Jerome S. Smith, Chicago, Ill.
Application August 16, 1957, Serial No. 47,392
Term of patent 14 years
(Cl. D21—1)



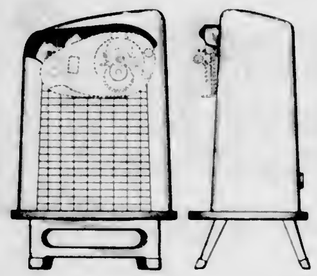
182,935
ELECTRIC SHAVER
Raymond A. Smith, Bradfordwoods, and Roger I. Protas, Pittsburgh, Pa., assignors to Schick Incorporated, Lancaster, Pa., a corporation of Delaware
Application October 17, 1957, Serial No. 48,193
Term of patent 14 years
(Cl. D22—3)



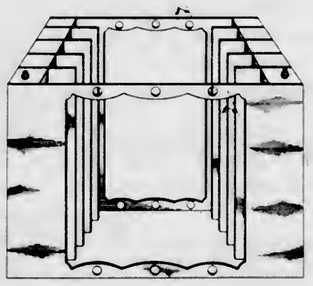
182,936
GAME BOARD
Eugene F. Sullins, Galesburg, Ill.
Application February 24, 1956, Serial No. 40,325
Term of patent 14 years
(Cl. D34—5)



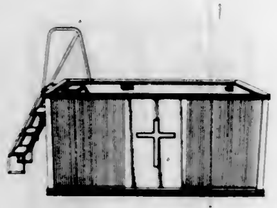
182,937
CAN OPENER
Henry J. Talge, Kansas City, Mo., and Frank E. Aberer, Kansas City, Kans., assignors to John C. Hockery, Kansas City, Mo., trustee
Application September 13, 1957, Serial No. 47,733
Term of patent 14 years
(Cl. D22—2)



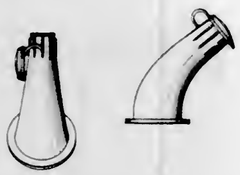
182,938
COMBINED RADIANT COOKER AND DISPLAY UNIT
Henry A. Walden, Yonkers, N. Y., assignor to Hotel Corporation of America, New York, N. Y., a corporation of New York
Application November 8, 1957, Serial No. 48,381
Term of patent 7 years
(Cl. D81—10)



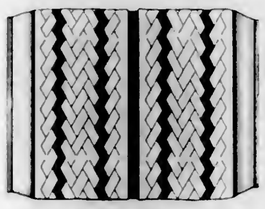
182,939
BAPTISTRY
Martin F. Wiedemann, Jr., Muscatine, Iowa
Application June 3, 1957, Serial No. 46,438
Term of patent 14 years
(Cl. D29—23)



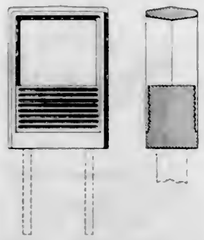
182,940
BOTTLE POURER FOR LIQUIDS
William D. Williams, Toledo, Ohio, assignor, by mesne assignments, to National Laboratories, Inc., a corporation of Delaware
Application June 19, 1957, Serial No. 46,652
Term of patent 14 years
(Cl. D58—26)



182,941
TIRE
Melvin A. Wilson, Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application February 6, 1956, Serial No. 40,036
Term of patent 14 years
(Cl. D90—20)



182,942
HANDLE CAP
Benjamin T. Wrubel, Providence, R. I., assignor to Miller Electric Co., Pawtucket, R. I., a corporation of Rhode Island
Application September 13, 1956, Serial No. 42,918
Term of patent 14 years
(Cl. D26—1)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 27TH DAY OF MAY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Cohen, Alfred G.: *See*—
Small, Samuel N. Re. 24,477.
Connecticut Hard Rubber Co., The: *See*—
Kilbourne, Frederick L., Jr. Re. 24,478.
Kilbourne, Frederick L., Jr., to The Connecticut Hard Rubber Co. Flexible gaskets. Re. 24,478, 5-27-58, Cl. 288—23.
Small, Samuel N., to A. G. Cohen and P. Weiss. Beach and garden umbrella and mechanism for opening and closing same. Re. 24,477, 5-27-58, Cl. 135—20.
Weiss, Paul: *See*—
Small, Samuel N. Re. 24,477.

LIST OF PLANT PATENTEES

Combe, Maurice, to Jackson & Perkins Co. Rose plant. 1,712, 5-27-58, Cl. 47—61.
Germain's, Inc.: *See*—
Lammerts, Walter E. 1,711.
Jackson & Perkins Co.: *See*—
Combe, Maurice. 1,712.
Lammerts, Walter E., to Germain's, Inc. Rose plant. 1,711, 5-27-58, Cl. 47—61.
Maffey, Albert W. Peach tree. 1,713, 5-27-58, Cl. 47—62.

LIST OF DESIGN PATENTEES

Aberer, Frank E.: *See*—
Talge, Henry J., and Aberer. 182,937.
Ajax Hardware Mfg. Corp.: *See*—
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Bianco, Fedele, to General Motors Corp. Automobile door handle. 182,871, 5-27-58, Cl. D10—8.
Blumstein, Stanley. Pendant or similar article. 182,872, 5-27-58, Cl. D45—15.
Boldt, Melvin H. Portable washing machine. 182,873, 5-27-58, Cl. D49—1.
Bradley, Richard C. Boat. 182,874, 5-27-58, Cl. D71—1.
Brownlie, Alan W., E. J. Guard, and D. A. Robertson. Portable comfort kit. 182,875, 5-27-58, Cl. D4—3.
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Du Pree, Ernest L. Bottle. 182,882, 5-27-58, Cl. D58—6.
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Ernest, Robert O., to Sunbeam Corp. Food mixer or the like. 182,885, 5-27-58, Cl. D44—1.
Ferar, Montgomery, to Whirlpool Corp. Control panel for a washing machine or similar article. 182,886, 5-27-58, Cl. D49—1.
Ferar, Montgomery, to Whirlpool Corp. Washing machine, or similar article. 182,887, 5-27-58, Cl. D49—1.
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Hoven, Alfred C., W. S. Lindberg, and W. E. Nordmark, to American Seating Co. Pew or the like. 182,895, 5-27-58, Cl. D15—11.
Howell, Clement R., to United States Rubber Co. Puffed textile fabric. 182,896, 5-27-58, Cl. D92—1.
Howell, Clement R., to United States Rubber Co. Puffed textile fabric. 182,897, 5-27-58, Cl. D92—1.
Howell, Clement R., to United States Rubber Co. Puffed textile fabric. 182,898, 5-27-58, Cl. D92—1.
Jablonska, Jadwiga. Pillow cover or similar article. 182,899, 5-27-58, Cl. D3—9.
Judson, William V., to General Electric Co. Clock or similar article. 182,900, 5-27-58, Cl. D42—7.
Kaehn, Frank E., to Sharmal of Miami. Chair. 182,901, 5-27-58, Cl. D15—11.
Kemph, James E. Combination ironing board and stepstool. 182,902, 5-27-58, Cl. D15—8.
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Kerkovius, Ruth, to Chicopee Mills, Inc. Puffed textile fabric. 182,905, 5-27-58, Cl. D92—1.
King, Frederick H. Target unit for a ball game. 182,906, 5-27-58, Cl. D34—5.
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Marick, Louis, N. G. Sprock, and J. F. Newman, to United States Rubber Co. Tire. 182,913, 5–27–58, Cl. D90—20.
Martin, Gerald D., to United States Rubber Co. Puffed textile fabric. 182,914, 5–27–58, Cl. D92—1.
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Rawson, Paul O., Jr., and J. C. Shalvoy, to General Electric Co. Flatiron. 182,922, 5–27–58, Cl. D49—6.
Rector, Joseph, to Amerex Trading Corp. Spoon or the like. 182,923, 5–27–58, Cl. D54—12.
Reymann, Edward H., to Austenal, Inc. Handle for tools. 182,924, 5–27–58, Cl. D83—1.
Ribas, Manuel P. Fountain pen. 182,925, 5–27–58, Cl. D74—17.
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Rose, Kurt A. Snow ball dispensing cabinet. 182,927, 5–27–58, Cl. D2—3.
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Smith, Jerome S. Shade pull. 182,933, 5–27–58, Cl. D21—1.
Smith, Jerome S. Shade pull. 182,934, 5–27–58, Cl. D21—1.
Smith, Raymond A., and R. I. Protas, to Schick Inc. Electric shaver. 182,935, 5–27–58, Cl. D22—3.
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TO WHOM

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Ryan, George R. 2,836,179.
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Pinsky, Jules, Adakonis, and Nielsen. 2,836,319.
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Adams, Paul R., and R. I. Colin, to International Telephone and Telegraph Corp. Aircraft radio navigation system. 2,836,815, 5–27–58, Cl. 343—106.
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Agnello, Eugene J., and G. D. Laubach to Chas. Pfizer & Co., Inc. Δ4,6-androstadiene-9 halo compounds. 2,836,607, 5–27–58, Cl. 260—397.3.
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Schilling, Clarence J. 2,836,040.
Akers, Cecil L. Carbureting means. 2,836,160, 5–27–58, Cl. 123—117.
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Fastje, Dietrich H., Gerlach, and Vorwerk. 2,836,487.
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Hjelm, Karl E. W. 2,836,118.
Aktiebolaget Separator: *See*—
Heden, Carl G. 2,836,434.
Aktiebolaget Svenska Flaktfabriken: *See*—
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Alessio, Lino. Dump truck. 2,836,459, 5–27–58, Cl. 298—22.
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Allard Instrument Corp.: *See*—
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Allen-Bradley Co.: *See*—
Dehn, William F. 2,836,081.
Allen, Lyman H., Jr., R. R. James, and W. H. Bradshaw, to Celanese Corp. of America. Viscose heating. 2,836,589, 5–27–58, Cl. 260—218.
Allen, Robert B.: *See*—
Davis, Billy E., and Allen. 2,836,794.
Allison, John L., and B. Alexander, to International Telephone and Telegraph Corp. Airborne pictorial navigation computer. 2,836,816, 5–27–58, Cl. 343—112.
Amberg, Harry. Mounting for accordion keys. 2,836,094, 5–27–58, Cl. 84—434.
Ambrose, Henry A., and P. R. McCarthy, to Gulf Research & Development Co. Petroleum lubricating jelly containing an aluminum soap, tricresylphosphate and tributylphosphite. 2,836,562, 5–27–58, Cl. 252—37.2.
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Kinney, Alfred W. 2,836,328.
American Chemical Paint Co.: *See*—
Otto, George F. 2,836,525.
American Cyanamid Co.: *See*—
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American Home Products Corp.: *See*—
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Anagnostopoulos, Constantine E., and E. T. Hau, to Monsanto Chemical Co. Chlorination procedure. 2,836,592, 5–27–58, Cl. 260—239.3.
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Antosak, Frank S. Self cleaning rake and handle structure. 2,836,031, 5–27–58, Cl. 56—400.2.
Archer, Sydney, to Sterling Drug Inc. Tertiary-amino-substituted 1,5-iminocyclo-alkanes and preparation thereof. 2,836,598, 5–27–58, Cl. 260—292.
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Armacost, Wilbur H., to Combustion Engineering, Inc. Method of welding. 2,835,965, 5–27–58, Cl. 29—470.5.
Armentrout, Arthur L. Material for recovering lost circulation in wells. 2,836,555, 5–27–58, Cl. 252—8.5.
Armstrong Cork Co.: *See*—
Clark, Lawrence, and Poshkus. 2,836,572.
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Atchison, Charles T. Waterproof cigarette case and lighter. 2,836,288, 5–27–58, Cl. 206—41.4.
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Atlee, Zed J., to Dunlee Corp. Electron discharge device. 2,836,748, 5–27–58, Cl. 313—58.
Atlee, Zed J., to Dunlee Corp. 360° X-ray generator. 2,836,749, 5–27–58, Cl. 313—59.
Atlee, Zed J., to Dunlee Corp. X-ray generator target construction. 2,836,757, 5–27–58, Cl. 313—330.
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Ayres, Waldemar A., to White Sewing Machine Corp. Presser foot lifter and spring tensioning mechanism for a sewing machine. 2,836,137, 5–27–58, Cl. 112—237.
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Barr, John C., and J. Hodge, to Power Jets (Research & Development) Ltd. Diffuser. 2,836,347, 5–27–58, Cl. 230—127.

Barrett, Arthur L., to Joy Mfg. Co. Rotary cutting, core breaking and conveying means. 2,836,408, 5–27–58, Cl. 262—9.

Bartelink, Everhard H. B., to General Electric Co. Secrecy communication system. 2,836,657, 5–27–58, Cl. 179—1.5.

Barth, Edwin J. Non-brittle, non-lustrous, oxidation resistant asphalt. 2,836,507, 5–27–58, Cl. 106—232.

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Batenburg, Michael: *See*—
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Baudry, René A., to Westinghouse Electric Corp. Locking-keys for turbine-generator retaining rings. 2,836,445, 5–27–58, Cl. 287—52.

Bauer, Rudolf E. Dry battery assembly. 2,836,642, 5–27–58, Cl. 136—90.

Baumann, Fritz, to Farbenfabriken Bayer Akt. Process for the production of 4-amino-5'-bromoanthraquinone-2,1-(N)-1',2'-(N)-benzene-acridone. 2,836,596, 5–27–58, Cl. 260—277.

Bear Archery Co.: *See*—
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Bear, Fred B. 2,836,166.

Bear, Fred B., to Bear Archery Co. Archery bow. 2,836,165, 5–27–58, Cl. 124—23.

Bear, Fred B., to Bear Archery Co. Archery bow. 2,836,166, 5–27–58, Cl. 124—23.

Beaujard, Louis, V. Husarek, and A. Vasset, to Institut de Recherches de la Siderurgie. Arrangement for recording the results of the supersonic examination of metal parts. 2,836,059, 5–27–58, Cl. 73—67.8.

Bebout, John W.: *See*—
Jagiel, Zigmund J. 2,836,468.

Beck, Raymond. Housing for animal traps. 2,836,006, 5–27–58, Cl. 43—96.

Becker, Perry A., to Owens-Illinois Glass Co. Apparatus for applying a bead to glass tumblers. 2,836,145, 5–27–58, Cl. 118—218.

Bedingbaus, William H. Perforating device. 2,836,243, 5–27–58, Cl. 23—65.

Beech, Austin S., to Foundry Equipment Ltd. Foundry moulding machines. 2,835,939, 5–27–58, Cl. 22—29.

Beerman, Eugene: *See*—
Berman, Eugene, and Eisenberg. 2,836,457.

Behrend, Herbert. Explosion-operated tool. 2,835,894, 5–27–58, Cl. 1—44.5.

Belanger, Narcisse. Door handle operating mechanism. 2,836,077, 5–27–58, Cl. 74—479.

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Boyle, Willard S., and Smith. 2,836,703.
Fuller, Calvin S. 2,836,523.
Kaminow, Ivan P. 2,836,724.
Krantz, Hubert K. 2,836,674.
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Benjamin, Harry, to The Harshaw Chemical Co. Rotary plug valve retaining means. 2,836,389, 5–27–58, Cl. 251—183.

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Berg, Clyde H. O., to Union Oil Co. of California. Solids conveyance process and apparatus. 2,836,465, 5–27–58, Cl. 302—53.

Berman, Eugene, and A. Eisenberg; said E. Berman, now by change of name, E. Beerman. Let-down type vehicle closure. 2,836,457, 5–27–58, Cl. 296—44.

Bernard, Arthur A. Method and apparatus for gas-shielded metal arc welding. 2,836,701, 5–27–58, Cl. 219—74.

Berry, Kenneth O. Stretchable plastic-coated fabric and method of making the same. 2,836,509, 5–27–58, Cl. 117—7.

Bersworth, Frederick C., A. E. Martell, and R. G. Lacoste, to The Dow Chemical Co. Amino sulfonic acids and salts thereof. 2,836,620, 5–27–58, Cl. 260—507.

Bertell, Paul, L. C. Meade, and G. A. Weingartner, to Standard Mirror Co., Inc. Rear vision mirror mounting. 2,836,104, 5–27–58, Cl. 88—98.

Berthold, Wolfgang, to International Standard Electric Corp. Beam generating system for cathode-ray tubes employing an ion trap. 2,836,752, 5–27–58, Cl. 313—76.

Besse, Carlyle L., to Kellogg Co. Article display and dispensing structure. 2,836,330, 5–27–58, Cl. 222—457.

Bessiere, Pierre E., to Compagnie Telma. Foucault current braking devices. 2,836,742, 5–27–58, Cl. 310—93.

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Beyler, Roger E., and F. Hoffman, to Merck & Co., Inc. 17α, 21-oxido derivatives of cortisone and hydrocortisone. 2,836,593, 5–27–58, Cl. 260—239.55.

Bianchi, Costanzo, to Societa r. l. A. P. I. Coupling joined by fluid-pressure-deformed packing. 2,836,436, 5–27–58, Cl. 285—113.

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Stokes, Jeffrey R., and Springer. 2,836,070.

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Birum, Gail H., to Monsanto Chemical Co. Phosphorus-sulfur compounds. 2,836,535, 5–27–58, Cl. 167—22.

Bishop, Leon H.: *See*—
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Blättner, Karl, and W. P. Koch, to Faber & Schleicher Akt. Stacking device for printing machines. 2,836,418, 5–27–58, Cl. 271—68.

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Blinoff, William, L. E. Pearson, and F. P. Venditti, to Motorola, Inc. Radio-phonograph combination. 2,836,663, 5–27–58, Cl. 179—100.11.

Bobrick, Mitchell, to Marvin Electric Mfg. Co. Light fixture. 2,836,708, 5–27–58, Cl. 240—2.

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Bock, Morris, and J. C. Spalding, Jr., to Sun Oil Co. Process for controlling wax deposition. 2,836,559, 5–27–58, Cl. 252—8.55.

Boehner, Ludwig G. Combined motor and axle suspension. 2,836,254, 5–27–58, Cl. 180—64.

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Viola, Alfred, Fleischacker, Woods, and Bolgiano. 2,836,630.
Viola, Alfred, Woods, and Bolgiano. 2,836,631.

Bolin, Edward L., to General Motors Corp. Nickel plating by chemical reduction. 2,836,510, 5–27–58, Cl. 117—65.

Boppel, Henry L., to The Sheffield Corp. Gaging device. 2,835,982, 5–27–58, Cl. 33—174.

Borah, John E. Golf practice cup. 2,836,422, 5–27–58, Cl. 273—178.

Borell, George L., and D. G. Taylor, to Minneapolis-Honeywell Regulator Co. Aircraft control servosystem. 2,836,783, 5–27–58, Cl. 318—489.

Bosch, Robert, G. m. b. H.: *See*—
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Bounds, Ardrey M., and R. L. Hoff, to Superior Tube Co. Tungsten-titanium-nickel cathode. 2,836,491, 5–27–58, Cl. 75—170.

Bove, Pierre, ½ to Societe Francaise de Materiaux et Produits Hydrofuges "La Callendrite." Apparatus for manufacturing waterproof coverings. 2,836,221, 5–27–58, Cl. 154—1.

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Boyer, Raymond J., and C. L. Marquez, Jr., to The Babcock & Wilcox Co. Fluid cooled furnace. 2,836,155, 5–27–58, Cl. 122—235.

Boyle, Willard S., and J. L. Smith, to Bell Telephone Laboratories, Inc. Low voltage arc welding circuit for use with percussion hand welder. 2,836,703, 5–27–58, Cl. 219—95.

Bracey, William E., to McGraw-Edison Co. Expulsion fuse construction. 2,836,681, 5–27–58, Cl. 200—114.

Bradford Dyers' Association Ltd., The: *See*—
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Bradley Washfountain Co.: *See*—
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Bradshaw, William H.: *See*—
Allen, Lyman H., Jr., James, and Bradshaw. 2,836,589.

Brant and Nielsen Co.: *See*—
Koenig, William C. 2,836,013.

Brauer, Walter. System of raised wall construction. 2,836,054, 5–27–58, Cl. 72—0.5.

Braun, Herman J., to Westinghouse Electric Corp. Permanent magnet rotor. 2,836,743, 5–27–58, Cl. 310—156.

Braun, Philip N. Identification tags. 2,836,290, 5–27–58, Cl. 206—56.

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Masters, John H. 2,836,073.

Brennan, Joseph H., and E. R. Saunders, to Union Carbide Corp. Exothermic alloy addition agent. 2,836,486, 5–27–58, Cl. 75—27.

Brenner, Siegfried S., and C. R. Morelock, to General Electric Co. Method and apparatus for the production of single crystals. 2,836,524, 5–27–58, Cl. 148—1.6.

Briggs, Richard, to Birch Bros., Inc. Sewing machine. 2,836,135, 5–27–58, Cl. 112—214.

Brightman, Barrie, to Automatic Telephone & Electric Co. Control circuits for gas filled cold cathode tubes. 2,836,765, 5–27–58, Cl. 315—84.5.

Briley, Jesse A., to Texas Delta Development Corp. Safety joint with split cam spring. 2,836,435, 5–27–58, Cl. 285—84.

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Brown, Cicero C. Hold-down devices for well packers. 2,836,250. 5–27–58, Cl. 166—134.

Brown, Gordon E., to Monsanto Chemical Co. Aqueous urea formaldehye and melamine formaldehyde water-resistant hot-setting adhesives. 2,836,574, 5–27–58, Cl. 260—29.4.

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Brown, Stephen S., to Esso Research and Engineering Co. Volume compensator for measuring tanks. 2,836,066, 5–27–58, Cl. 73—223.

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Bruckman, William C., to Easy Washing Machine Co., Ltd. Tub structure. 2,836,301, 5–27–58, Cl. 210—360.

Brueder, Antoine, to Societe Anonyme Andre Citroen. Constant height suspension device for vehicle frame. 2,836,431, 5–27–58, Cl. 280—112.

Brumagim, Ivan S. Shaft seal. 2,836,440, 5–27–58, Cl. 286—11.15.

Brydon, Edward W. Cleat. 2,836,141, 5–27–58, Cl. 114—218.

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Buckman, Kenneth E., to General Motors Corp. Fluid filters. 2,836,302, 5–27–58, Cl. 210—493.

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Matthysse, Irving F., and Pellier. 2,836,138.

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Busch, Floyd H., to General Electric Co. Adjustable lag compensator. 2,836,795, 5–27–58, Cl. 324—138.

Butler, Earl R., and K. A. Main, to United States of America, Army. Single block actuator for a revolver-type gun. 2,836,107, 5–27–58, Cl. 89—156.

Byatt, Dennis, and J. F. Hatch, to Marconi's Wireless Telegraph Co. Ltd. Self-orienting radio direction finders. 2,836,817, 5–27–58, Cl. 343—117.

Cady, Charles P., to Westlake Mfg. Corp. Wire feeding and positioning apparatus. 2,836,287, 5–27–58, Cl. 203—150.

Calderwood, Thomas E., to W. E. Sykes, Ltd. Machines for grinding gear tooth and like profiles. 2,836,014, 5–27–58, Cl. 51—45.

Caldwell, Walter D. Specific drive and mounting means for a forage harvester. 2,836,022, 5–27–58, Cl. 56—10.

Caldwell, Wright D. Forage harvester cutting mechanism. 2,836,023, 5–27–58, Cl. 56—24.

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Camilli, Guglielmo, and W. P. Tootill, to General Electric Co. Induction apparatus. 2,836,788, 5–27–58, Cl. 323—61.

Canniff, Thomas L., and A. E. Balocca, to American Can Co. Drying oil polymer containing an acidic phosphorus compound. 2,836,508, 5–27–58, Cl. 106—285.

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Carlstrom, Sumner E. Concrete form cleaning machine. 2,835,909, 5–27–58, Cl. 15—77.

Carpenter, Walter H., and W. L. Mingledorff, Jr., to Mingledorff's, Inc. Refrigeration system. 2,836,037, 5–27–58, Cl. 62—4.

Carrara, Gino, and E. Testa, to Lepetit S. p. A. Alpha-bromo, beta (5-nitro-2-thienyl)-acrolein isonicotinyl hydrazone. 2,836,600, 5–27–58, Cl. 260—294.8.

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Morgan, Robert D. 2,836,038.

Carrillo Z., George, ½ to P. J. Rink. Airplane with variable sweepback airfoils. 2,836,381, 5–27–58, Cl. 244—43.

Carroll, Richard H., to Sterling Drug Inc. Sterile ampule package. 2,836,320, 5–27–58, Cl. 215—6.

Carter, George and L. J. Collapsible and extensible table. 2,836,476, 5–27–58, Cl. 311—84.

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Carter, George and L. J. 2,836,476.

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Catterall, William E., and M. C. Fuqua, to Esso Research and Engineering Co. Water extractive distillation of ethanol. 2,836,545, 5–27–58, Cl. 202—39.5.

Cavanagh, Daniel A. Precision forging method and apparatus. 2,836,706, 5–27–58, Cl. 219—150.

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Chapman, Edward C., to Combustion Engineering, Inc. Method of welding. 2,835,966, 5–27–58, Cl. 29—470.5.

Chappel, Herbert E., H. G. Waldock, and R. T. M. Forman, to Power Jets (Research and Development) Ltd. Governing system for gas turbine plant. 2,836,035, 5–27–58, Cl. 60—39.27.

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Chemical Research Corp.: *See*—
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Barden, Wayne A., and Pierce. 2,836,667.
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Chodorow, Marvin, to Varian Associates. Electron discharge device. 2,836,758, 5–27–58, Cl. 315—3.6.

Christen, Fred, & Sons Co., The: *See*—
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Cichanowicz, Henry J., to Westinghouse Electric Corp. Voltage control apparatus. 2,836,734, 5–27–58, Cl. 307—81.

Ciringione, Joseph L., J. Intraub, M. O. Kalb, H. M. Strobe, and A. Wolotkin, to United States of America, Navy. Torsional fatigue testing apparatus. 2,836,060, 5–27–58, Cl. 73—99.

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Hughes, William B. 2,836,558.

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Clark, Harry F., to General Motors Corp. Electrical apparatus. 2,836,781, 5–27–58, Cl. 318—221.
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Clift, Therlis L., to The Standard Oil Co. Tank sampling apparatus. 2,836,068, 5–27–58, Cl. 73—421.
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Colgate, Stirling A., to United States of America, Atomic Energy Commission. Linear accelerator. 2,836,759, 5–27–58, Cl. 315—5.41.
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Compagnie pour la Fabrication des Competeurs et Materiel d'Usines a Gaz: *See*—
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Cook, Earle S., to Westinghouse Air Brake Co. Graduated release type brake controlling valve with improved control reservoir charging control. 2,836,466, 5–27–58, Cl. 303—35.
Cookson, Joseph. Conveyor system. 2,836,281, 5–27–58, Cl. 198—33
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Cox, John R. Pusher having movable pads. 2,836,425, 5–27–58, Cl. 279—55.
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Von Ehr, Jack C. 2,835,904.
Craven, Herman R., Jr., and L. Bieri, Jr., to The Vendo Co. Safety device for waste tank. 2,836,672, 5–27–58, Cl. 200—83.
Crawford, George H., Jr., to Minnesota Mining and Mfg. Co. Fluoroprene copolymers. 2,836,583, 5–27–58, Cl. 260—82.1.
Crawford, John W. Tool holder. 2,836,426, 5–27–58, Cl. 279—76.
Cripe, Gene H., to Utility Appliance Corp. Griddle cover shield. 2,836,171, 5–27–58, Cl. 126—2.4.
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Crosby, Murray G. Automatic frequency control and tuning indicator. 2,836,712, 5–27–58, Cl. 250—20.
Crowley, John D. Disposable ash tray. 2,836,340, 5–27–58, Cl. 229—30.
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Crownover, Joseph W., to Electric Machinery Mfg. Co. Piezoelectric transducer. 2,836,737, 5–27–58, Cl. 310—8.1.
Crownover, Joseph W. Prestressed piezo crystal. 2,836,738, 5–27–58, Cl. 310—8.5.
Cruckshank, Ira G., to General Electric Co. Emergency fuel pumping system. 2,836,230, 5–27–58, Cl. 158—36.4.
Currie, William E., to Minneapolis-Honeywell Regulator Co. Magnetic cathode ray tube sweep amplifier centering circuits. 2,836,763, 5–27–58, Cl. 315—24.
Curtis & Marble Machine Co.: *See*—
Gamble, Ralph S., and Remington. 2,836,133.
Remington, Leland F. 2,836,668.
Cutler-Hammer, Inc.: *See*—
Nolden, William F., and Robbins. 2,836,666.
Cutler, Royal A., to Sterling Drug Inc. 4,6-diamino-1-(4-lower alkylmercaptophenyl)-1,2-dihydro-1,3,5-triazines and preparation thereof. 2,836,539, 5–27–58, Cl. 167—54.1.
Dahl, Philip J. Hose clamp. 2,835,954, 5–27–58, Cl. 24—279.
Dahle, Donald E., to Wood Conversion Co. Foam cushion. 2,836,228, 5–27–58, Cl. 155—179.
Dahlgren, Victor F.: *See*—
Tally, Sidney K., and Dahlgren. 2,835,962.
Dake, Robert E.: *See*—
Weaver, Wesley W., and Dake. 2,836,114.
Daley, Robert E. Ingot mold hot top. 2,835,943, 5–27–58, Cl. 22—147.
Daniels, Wilbert P., to Green Bay Box Co. Telescopic shipping carton. 2,836,338, 5–27–58, Cl. 229—14.
Dauenhauer, Florian F. Vine carrier and storage apparatus for hop-picking machines. 2,836,128, 5–27–58, Cl. 104—91.
D'Arcy, Ellis W. and G. F. Krtous, to De Vry Corp. Sound head unit of a motion picture projecting and sound reproducing apparatus. 2,836,423, 5–27–58, Cl. 274—4.
Dassewski, Edward W.: *See*—
Loritsch, John A., and Dassewski. 2,836,518.
Davey, Peter E., and L. R. Patterson, Jr., to General Electric Co. Adjustable shelf structure. 2,836,305, 5–27–58, Cl. 211—146.
Davies, Lester F., to Cone Automatic Machine Co., Inc. Plier-type crimping tool for assembling teeth on excavator buckets. 2,836,089, 5–27–58, Cl. 81—15.
Davis, Billy E., and R. B. Allen, to Southwestern Industrial Electronics Co. Pulse representation of variable voltage. 2,836,794, 5–27–58, Cl. 324—117.
Davis, Budd I. Individual carrying pack. 2,836,334, 5–27–58, Cl. 224—25.
Davis, Ray F., and R. E. Frederickson, to McCulloch Motors Corp. Mulching lawnmower. 2,836,024, 5–27–58, Cl. 56—25.4.
Davis, Robert J.: *See*—
Goodfellow, Marion T., and Davis. 2,836,807.
Dazzi, Joachim, to Monsanto Chemical Co. Polybutadiene-crotonic adducts. 2,836,586, 5–27–58, Cl. 260—94.7.
Dazzi, Joachim, to Monsanto Chemical Co. Adducts of hydrogenated terphenyl and dialkyl fumarates. 2,836,618, 5–27–58, Cl. 260—475.
Deavers, Clyde J., to General Electric Co. Torque sensing device. 2,836,061, 5–27–58, Cl. 73—136.
De Benneville, Peter L.: *See*—
Ezner, Lawrence J., and De Benneville. 2,836,611.
Dehn, William F., to Allen-Bradley Co. Adjustable actuating lever. 2,836,081, 5–27–58, Cl. 74—522.
Delafontaine, Charles, to The Bank of America National Trust and Savings Association. Winding reel for a sharpening machine. 2,836,374, 5–27–58, Cl. 242—83.
Delaney, John M. Conveyor trolley. 2,836,286, 5–27–58, Cl. 198—177.
Delp, Elmer Z., and J. W. Dughi, to Sperry Rand Corp. Support jack for forward end of semi-trailer. 2,836,432, 5–27–58, Cl. 280—475.
De Paoli, Romano, Sr. Ornamental terrazzo. 2,835,996, 5–27–58, Cl. 41—23.
Depp, Elizabeth A.: *See*—
Nenworth, Martin B., Hotelling, and Depp. 2,836,627.
De Swart Development Co.: *See*—
De Swart, Jan. 2,836,101.
De Swart, Jan, to de Swart Development Co. Optical elements. 2,836,101, 5–27–58, Cl. 88—57.
Detrex Chemical Industries, Inc.: *See*—
Duncan, Ira J. 2,836,566.
Smith, Jack C. 2,836,045.
Deutsche Solvay-Werke G. m. b. H.: *See*—
Faerber, Gerhard. 2,836,546.
Devine, James H. Bolt with protruding pivot pin to provide a stop shoulder. 2,833,095, 5–27–58, Cl. 85—1.
De Virgilis, Richard. Rear view mirror and radio antenna assembly. 2,836,818, 5–27–58, Cl. 343—720.
De Vry Corp.: *See*—
D'Arcy, Ellis W., and Krtous. 2,836,423.
Dewey, Philip W.: *See*—
Shields, Stanley E., Dewey, and Shire. 2,836,069.
Diamond Alkali Co.: *See*—
Hill, Archie. 2,836,585.
Diamond Gardner Corp.: *See*—
Ringler, William A. 2,836,342.
Dicke, Robert H., and T. R. Carver. Atomic or molecular oscillator circuit. 2,836,722, 5–27–58, Cl. 250—36.
Dickinson, Thomas S., to The General Engineering Co. (Radcliffe) Ltd. Apparatus for atomizing a liquid in a vacuum. 2,836,464, 5–27–58, Cl. 299—63.
Didier-Werke A. G.: *See*—
Steinhoff, Eduard, and Grossmann. 2,836,638.
Diesbach, F. B.: *See*—
Waechter, Harry J. 2,836,353.
Di Giacomo, Salvatore. Adjustable paint brush. 2,835,913, 5–27–58, Cl. 15—172.

Di Girolamo, Joseph, and M. B. Arisman, to Chicago Telephone Supply Corp. Combination variable resistor and switch. 2,836,691, 5–27–58, Cl. 201—55.
Dill Mfg. Co., The: *See*—
Boyer, Ralph K. 2,836,217.
Dilworth, John P., and J. R. Roach, to The Texas Co. Lubricating grease thickened with sodium myristate and a phthalocyanine. 2,836,563, 5–27–58, Cl. 252—42.1.
Distillers Co. Ltd., The: *See*—
Bewley, Thomas. 2,836,614.
Doak, Robert A., Jr., and L. R. Garza, to United States of America, Army. Contact type latch and firing mechanism for rocket launcher. 2,836,105, 5–27–58, Cl. 89—1.7.
Doble, Warren, to Jabsco Pump Co. Shaft seal with take-up for wear. 2,836,441, 5–27–58, Cl. 286—11.16.
Dodds, Paul L. Base construction for furniture, such as tables and chairs. 2,836,007, 5–27–58, Cl. 45—139.
Dodge, Flavius A. Code tape punch. 2,836,244, 5–27–58, Cl. 164—111.
Doerr, Edward L.: *See*—
Heininger, Samuel A., and Doerr. 2,836,615.
Dolan, Thomas G., to Mercury Printing Co. Record posting device. 2,836,433, 5–27–58, Cl. 282—29.
Dome, Robert B., to General Electric Co. Angle modulation detector. 2,836,716, 5–27–58, Cl. 250—27.
Donahoe, H. C.: *See*—
Haring, Ivan P. 2,836,025.
Dorfman, Hillel D.: *See*—
Gelsheiser, Francis L., and Dorfman. 2,836,687.
Dow Chemical Co., The: *See*—
Bersworth, Frederick C., Martell, and Lacoste. 2,836,620.
Heller, Harold H., and Saunders. 2,836,551.
Kauer, Kenneth C., and Britton. 2,836,612.
Klein, Walter A., Mason, and Holsschu. 2,836,292.
Kronecott, Earle L., Greminger, and Weaver. 2,836,505.
Meuli, Lloyd J. 2,836,536.
Silvernail, Lloyd H., Greminger, and Weaver. 2,836,506.
Teot, Arthur S. 2,836,578.
Doying, Ernest G., to Union Carbide Corp. Activatable coke from carbonaceous residues. 2,836,569, 5–27–58, Cl. 252—422.
Drage, Sergey S., 50% to Star Co. Fuel feeding and ignition means for pulse jet type hot gas or steam generator. 2,836,036, 5–27–58, Cl. 60—39.55.
Dravo Corp.: *See*—
Reilly, Bertram B. 2,836,169.
Drees, Joseph M., and K. L. Jones, to Sylvania Electric Products Inc. Coil winder. 2,836,370, 5–27–58, Cl. 242—9.
Dreher, George M. Combustion analysis method and apparatus. 2,836,482, 5–27–58, Cl. 23—230.
Drennan, James G., and J. W. Thomson, Jr., to Owens-Illinois Glass Co. Apparatus for feeding, sorting, and applying ring fitments to containers. 2,835,963, 5–27–58, Cl. 29—211.
Dressler, Thomas M., to International Harvester Co. Governing mechanism for fuel injection pumps of Diesel engines. 2,836,162, 5–27–58, Cl. 123—140.
Drown, David P.: *See*—
Yeo, Ernest E., Drown, and O'Brien. 2,836,313.
Drummond, John D. Power operated plastering trowels. 2,836,056, 5–27–58, Cl. 72—136.
Dube, Gustav: *See*—
Wiget, Georg, and Dube. 2,836,202.
Dughi, John W.: *See*—
Delp, Elmer Z., and Dughi. 2,836,432.
Duncan, Ira J., to Detrex Chemical Industries, Inc. Cleaning composition and method. 2,836,566, 5–27–58, Cl. 252—137.
Dunlap, Henry L.: *See*—
Nampa, Sulo M., and Dunlap. 2,836,131.
Dunlee Corp.: *See*—
Atlee, Zed J. 2,836,747.
Atlee, Zed J. 2,836,748.
Atlee, Zed J. 2,836,749.
Atlee, Zed J. 2,836,757.
Dunlop Rubber Co. Ltd.: *See*—
Jones, Frederick A., Cooper, Bowen, and Griffiths. 2,836,575.
Dunnagan, Harry D. Canopy structure for trays. 2,836,187, 5–27–58, Cl. 135—5.
Du Pont de Nemours, E. I., and Co.: *See*—
Ford, Carlton D. 2,836,528.
Hall, Luther A. R. 2,836,571.
Hoell, Paul C. 2,836,357.
Lewis, Edward F., Luft, and Schmauss. 2,836,296.
Lichtblau, Ellis I. 2,836,531.
Middleton, William J. 2,836,606.
Osborn, Robert O. 2,836,503.
Overman, Joseph D. 2,836,494.
Piccard, John A., and Signaigo. 2,836,576.
Proctor, Donald D. 2,835,925.
Schuls, William E. 2,836,483.
Schweitzer, Carl E. 2,836,579.
Tullock, Charles W. 2,836,622.
Weidman, Verne W. 2,836,500.
Durand, Harry W., to Corn Products Refining Co. Treatment of starch hydroysates with formaldehyde under carefully controlled conditions. 2,836,591, 5–27–58, Cl. 260—233.3.
Duro Metal Products Co.: *See*—
Odlum, William H., and Hosford. 2,836,273.
Dyson, Ernest F., to The Bristol Co. Pilot valve. 2,836,153, 5–27–58, Cl. 121—46.5.
Eades, Marion K. Milking apparatus. 2,836,148, 5–27–58, Cl. 119—14.08.
Eads, James O.: *See*—
Tracy, Benjamin F., and Eads. 2,836,407.
Early, Edwards D. Economic loading of power systems. 2,836,730, 5–27–58, Cl. 290—4.
Eastern Metal of Elmira Inc.: *See*—
Knapp, John H., Jr., and Names. 2,836,385.
Eastern Rotocraft Corp.: *See*—
Arnold, Garland. 2,836,444.
Easy Washing Machine Co., Ltd.: *See*—
Bruckman, William C. 2,836,301.
Eaton Mfg. Co.: *See*—
Jaeschke, Ralph L. 2,836,271.
Eckber, Curtis R. Control apparatus. 2,836,366, 5–27–58, Cl. 236—68.
Ecke, George G.: *See*—
Kolka, Alfred J., and Ecke. 2,836,577.
Kolka, Alfred J., and Ecke. 2,836,609.
Kolka, Alfred J., and Ecke. 2,836,610.
Ecke, George G., and A. J. Kolka, to Ethyl Corp. Stabilized fuel antiknock. 2,836,568, 5–27–58, Cl. 252—386.
Edwards, Andrew W., and W. G. Meyer, to Westinghouse Electric Corp. Reclosing circuit breakers. 2,836,768, 5–27–58, Cl. 317—18.
Edwards, Eric D.: *See*—
Elliott, John S., and Edwards. 2,836,561.
Elliott, John S., and Edwards. 2,836,565.
Egglestone, Robert W.: *See*—
List, Frederick A., Jr., and Egglestone. 2,836,780.
Egner, Borje P. H.: *See*—
Af Ekenstam, Bo T., Egner, and Petterson. 2,836,597.
Egyesult Izsolampa es Villamossagi Reszvenytarsasag: *See*—
Winter, Erno. 2,836,760.
Ehresmann, Charles. Dowel drilling jig. 2,836,087, 5–27–58, Cl. 77—62.
Ehrlich, Morris J., and I. K. Williams, to Hughes Aircraft Co. Method of feeding and scanning a circularly disposed antenna array. 2,836,822, 5–27–58, Cl. 343—754.
Eickemeyer, Ludwig, to Gibraltar Mfg. Co., Inc. Animated device. 2,835,995, 5–27–58, Cl. 40—126.
Eickmann, Olin J.: *See*—
Carlson, Harold A., and Eickmann. 2,836,404.
Elnhorn, Harry E., to Wilco Metal Products, Inc. Rack construction. 2,836,306, 5–27–58, Cl. 211—177.
Elsenberg, Aaron: *See*—
Berman, Eugene, and Eisenberg. 2,836,457.
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Nobel, Fred I., and Ostrow. 2,836,549.
Electric Machinery Mfg. Co.: *See*—
Crownover, Joseph W. 2,836,501.
Crownover, Joseph W. 2,836,737.
Electric & Musical Industries Ltd.: *See*—
Gargini, Eric J. 2,836,649.
Sommer, Alfred H. 2,836,755.
Vanderlyn, Philip B. 2,836,662.
Electro Chemical Laboratories Corp.: *See*—
Fearon, Robert E. 2,836,588.
Elliott Brothers (London) Ltd.: *See*—
Tindale, John. 2,836,072.
Elliott, John S., and E. D. Edwards, to C. C. Wakefield & Co., Ltd. Lubricating oils. 2,836,561, 5–27–58, Cl. 252—33.6.
Elliott, John S., and E. D. Edwards, to C. C. Wakefield & Co., Ltd. Lubricating compositions. 2,836,565, 5–27–58, Cl. 252—48.4.
Elliott, Robert S., to Hughes Aircraft Co. Mechanical phase shifter. 2,836,821, 5–27–58, Cl. 343—854.
Elmendorf, Armin. Flexible wood floor tiles. 2,835,936, 5–27–58, Cl. 20—75.
Elsey, Cleo A. Multiple valve. 2,836,190, 5–27–58, Cl. 137—156.
Emerson, William A., to Westinghouse Electric Corp. Induction heating unit. 2,836,694, 5–27–58, Cl. 219—10.41.
Emerson, William S., and R. I. Longley, Jr., to Monsanto Chemical Co. Polycyclic dihydropyrans and preparation thereof. 2,836,603, 5–27–58, Cl. 260—340.5.
English Electric Co. Ltd., The: *See*—
Smith, John W. 2,836,472.
Epstein, Hyman. Combination belt buckle and coin receptacle. 2,836,351, 5–27–58, Cl. 232—6.
Erath, Louis W., to Southwestern Industrial Electronics Co. Synchronized phase shift oscillator. 2,836,723, 5–27–58, Cl. 250—36.
Erickson, Fred E., and L. K. Roe. Dispensing device. 2,836,325, 5–27–58, Cl. 221—26.
Ervin, Ovid L., to Olin Mathieson Chemical Corp. Locator. 2,836,242, 5–27–58, Cl. 164—59.
Esmay, Donald L., P. Fotis, Jr., and C. E. Johnson, to Standard Oil Co. Nuclear alkylation of certain aromatic hydrocarbons with alkali metals as catalysts. 2,836,633, 5–27–58, Cl. 260—671.
Essex Electronics: *See*—
Goldsmith, Bernard M. 2,836,805.
Esso Research and Engineering Co.: *See*—
Bielstein, Walter J. 2,836,395.
Brown, Stephen S. 2,836,066.
Catterall, William E., and Fuqua. 2,836,545.
Guthrie, Donald A., and Young. 2,836,553.
McCulloch, Thomas B. 2,836,247.
Schmuck, Rudolph H. 2,835,973.
Etat Francais Ministere de la Defense Nationale, represented by the Directeur Central des Poudres: *See*—
Reure, Germain M. R., and Paris. 2,836,567.
Etheredge, Francis T.: *See*—
Oden, Lewis M., Sr., and Etheredge. 2,836,058.
Ethyl Corp.: *See*—
Ecke, George G., and Kolka. 2,836,568.
Kolka, Alfred J., and Ecke. 2,836,577.
Kolka, Alfred J., and Ecke. 2,836,609.
Kolka, Alfred J., and Ecke. 2,836,610.
Evans, Jesse L., to General Motors Corp. Door construction. 2,836,268, 5–27–58, Cl. 189—46.
Evans Products Co.: *See*—
Nampa, Sulo M., and Dunlap. 2,836,131.

Evans, Rupert L., to Kewanee Mfg. Co. Door frame. 2,835,933, 5–27–58, Cl. 20—12.

Ewald, Harry. Counting mechanism with a tens-transfer device for calculating machines. 2,836,362, 5–27–58, Cl. 235—137.

Exner, Lawrence J., and P. L. De Benneville, to Rohm & Haas Co. End-blocked linear polysiloxanes. 2,836,611, 5–27–58, Cl. 260—448.8.

F. E. A. L. Societa: *See*—
Varlonga, Giovanni. 2,836,449.

Faber & Schleicher Akt.: *See*—
Blättner, Karl, and Koch. 2,836,418.

Faerber, Gerhard, to Deutsche Solvay-Werke G. m. b. H. Separation of polyhyuric alcohols and monovinyl ethers thereof. 2,836,546, 5–27–58, Cl. 202—42.

Falck, Werner, E. Roder, and S. Voll, to Siemens-Schuckertwerke Akt. Dynamo-electric amplifier. 2,836,741, 5–27–58, Cl. 310—59.

Fallon, John T. Continuous-flow air or/and gas heaters. 2,836,399, 5–27–58, Cl. 257—236.

Farbenfabriken Bayer Akt.: *See*—
Baumann, Fritz. 2,836,596.
Rösch, Georg, Klappert, and Wolf. 2,836,602.

Farber, L., Welting Co.: *See*—
Gemme, Leon H. 2,835,991.

Fargo Mfg. Co., Inc.: *See*—
Wengen, Henry R., and Hampe. 2,835,949.

Farmer, Stanley E., to Cascade Mfg. Co. Pressure operated sealing means for hydraulic actuators. 2,836,443, 5–27–58, Cl. 286—26.

Farrar, Martin W., to Monsanto Chemical Co. 1-formyl-1-(3 - keto - 6 - carboalkoxyhexyl) - 2 - keto - 10 - methyl-1,2,5,8,9,10-hexahydronaphthalene. 2,836,616, 5–27–58, Cl. 260—468.

Fash, Bernice. Lifting sheet. 2,835,902, 5–27–58, Cl. 5—82.

Fassero, Anthony T., and J. R. Maddox. Curing rims for tubeless tires. 2,835,922, 5–27–58, Cl. 18—18.

Fastje, Dietrich H., R. H. Gerlach, and O. K. Vorwerk, to Akt. fur Unternehmungen der Eisen- und Stahlindustrie. Process for the separation of iron from other metals accompanying iron in ores or waste materials. 2,836,487, 5–27–58, Cl. 75—41.

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Fay, Harold C., and L. C. Cartwright. Cigarette. 2,836,183, 5–27–58, Cl. 131—4.

Fearon, Robert E., to Electro Chemical Laboratories Corp. Pigment and compositions thereof. 2,836,588, 5–27–58, Cl. 260—149.

Fennema, Owen R., to Pillsbury Mills, Inc. Dried pie product and method of producing the same. 2,836,498, 5–27–58, Cl. 99—199.

Fermi, Enrico, and L. Szilard, to United States of America, Atomic Energy Commission. Air cooled neutronic reactor. 2,836,554, 5–27–58, Cl. 204—193.2.

Fetterly, Lloyd C., to Shell Development Co. Production of aromatic hydrocarbons from diarylalkanes. 2,836,632, 5–27–58, Cl. 260—668.

Feustel, Ernest A.: *See*—
Hoefer, Karl E. 2,836,042.

Fields, Ellis K.: *See*—
Roberts, Edward N., and Fields. 2,836,564.

Finishine Laboratories, Inc.: *See*—
Hagadorn, Elmore W. 2,836,127.

Firma Continental Gummi Werke Akt.: *See*—
Müller, Wilhelm. 2,836,285.

Firma Westfalenhutte Akt.: *See*—
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Fischer, Felix, to Olympia Werke A. G. Sheet holding and transporting device for business machines. 2,836,279, 5–27–58, Cl. 197—128.

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Fleischacker, Herman: *See*—
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Viola, Alfred, Fleischacker, Woods, and Bolgiano. 2,836,630.

Fleiner, William, 3rd, to Princeton Nurserymen's Research Associates. Plant digging machine. 2,835,992, 5–27–58, Cl. 37—2.

Florschutz, Frita E., to Westinghouse Electric Corp. Electric device. 2,836,688, 5–27–58 Cl. 200—170.

Flower, Robert A., E. B. Hales, and S. Sherr, to General Precision Laboratory Inc. Microwave doppler test instrument. 2,836,813, 5–27–58, Cl. 343—17.7.

Foley, Thomas P., to General Electric Co. Adjustable magnetic door latch. 2,836,453, 5–27–58, Cl. 292—251.5.

Ford, Carlton D., to E. I. du Pont de Nemours and Co. Floor coverings comprising polyethylene terephthalate film. 2,836,528, 5–27–58, Cl. 154—49.

Forgas Akt.: *See*—
Volcher, Roger. 2,836,403.

Forman, Ronald T. M.: *See*—
Chappell, Herbert E., Waldock, and Forman. 2,836,035.

Forrest, Cameron B., and S. S. Green, to Hughes Aircraft Co. Analog-to-digital converter. 2,836,356, 5–27–58, Cl. 235—61.

Fotis, Peter, Jr.: *See*—
Esmay, Donald L., Fotis, and Johnson. 2,836,633.

Foulds, Arthur E., to General Electric Co. Regulating device for electric induction apparatus. 2,836,801, 5–27–58, Cl. 336—41.

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Fox, Russell E.: *See*—
Hickam, William M., and Fox. 2,836,790.

Frankel, Milton B., and K. Klager, to Aerojet-General Corp. N-(carboxyalkyl) dinitro lactams. 2,836,599, 5–27–58, Cl. 260—294.

Frantz, Frederick H., to General Aniline & Film Corp. Liquid dispensing apparatus for print developing machines. 2,836,110, 5–27–58, Cl. 95—89.

Fransblau, Abraham and R. M. Sliding window construction. 2,835,934, 5–27–58, Cl. 20—52.2.

Fransblau, Robert M.: *See*—
Fransblau, Abraham and R. M. 2,835,934.

Frederickson, Robert E.: *See*—
Davis, Ray F., and Frederickson. 2,836,024.

Freedman, Larry A.: *See*—
Scott, Thomas M., and Freedman. 2,836,713.

Freeman, Frederick: *See*—
Payne, Nigel E., and Freeman. 2,836,393.

Freese, Gearid I., to Phillips Petroleum Co. Apparatus for hydraulic fracturing. 2,836,249, 5–27–58, Cl. 166—115.

Frey, Alfred, and K. Peschel, to VEB Leuna-Werke "Walter Ulbricht." Apparatus for converting electrical energy into mechanical energy. 2,836 778. 5–27–58, Cl. 318—190.

Frick, Charles H., and V. E. Schafer, Jr., to General Motors Corp. Servo control mechanism for governor. 2,836,410, 5–27–58, Cl. 264—7.

Fridolph, John S. Vehicle seat. 2,836,226, 5–27–58, Cl. 155—179.

Fried, Josef, B. W. Thoma, D. Perlman, and J. B. Gerke, to Olin Mathieson Chemical Corp. Synthesis of sterolds. 2,836,608, 5–27–58, Cl. 260—397.4.

Friedman, Herbert. Voltage regulator. 2,836,727, 5–27–58, Cl. 250—103.

Fritzinger, George H. Scissors cutters. 2,836,241, 5–27–58, Cl. 164—43.

Fry, Millard E., to General Motors Corp. Domestic appliance. 2,836,698, 5–27–58, Cl. 219—37.

Fuhrmann, John, and J. B. Stauss. Material conveying lift truck. 2,836,315, 5–27–58, Cl. 214—390.

Fuller, Calvin S., to Bell Telephone Laboratories, Inc. Manufacture of semiconductive devices. 2,836,523, 5–27–58, Cl. 148—1.5.

Fund-Del Inc.: *See*—
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Will, Theodore. 2,836,661.

Funk, Gilbert R., to Waukesha Foundry Co. Rotary pump with interacting tri-lobed impellers. 2,836,125, 5–27–58, Cl. 103—126.

Fuqua, Mack C.: *See*—
Catterall, William E., and Fuqua. 2,836,545.

Fürrer, Werner H. Rack construction. 2,836,304, 5–27–58, Cl. 211—46.

Fusarc Ltd.: *See*—
Yarwood, Henry. 2,835,964.

Fyler, George W., to General Electric Co. Expanded display for cathode ray tubes. 2,836,812, 5–27–58, Cl. 343,11.

Gallay, Sidney W.: *See*—
Barden, Wayne A., and Gallay. 2,836,686.

Galonska, David A., to General Motors Corp. One-way ball nut. 2,836,075, 5–27–58, Cl. 74—459.

Gamble, Ralph S., and L. F. Remington, to Curtis & Marble Machine Co. Railway type sewing machine. 2,836,133, 5–27–58, Cl. 112—2.

Gargini, Eric J., to Electric & Musical Industries Ltd. Television signal distribution apparatus utilising line scanning pulses modulated on the frame scanning pulse. 2,836,649, 5–27–58, Cl. 178—5.6.

Garman, Victor F., to F. H. Bailly. Apparatus for introducing a sample into a fluid. 2,836,097, 5–27–58, Cl. 88—14.

Garofalo, Carmine. Screwdriver. 2,836,210, 5–27–58, Cl. 145—50.

Gary, Clarence E.: *See*—
Schaelchlin, Walter, and Gary. 2,836,074.

Garza, Luis R.: *See*—
Doak, Robert A., Jr., and Garza. 2,836,105.

Gash, Virgil W., and B. S. Wildi, to Monsanto Chemical Co. Steroid intermediates and process. 2,836,621, 5–27–58, Cl. 260—514.5.

Gaskell, Walter L., to King-Seeley Corp. Bit anchorage means for a cylindrical cutter head. 2,836,206, 5–27–58, Cl. 144—230.

Gatward, Harry F. Carrier bags. 2,836,344, 5–27–58, Cl. 229—54.

Gatzert, Ernest H., to General Dynamics Corp. Interoffice trunking in telephone systems. 2,836,660, 5–27–58, Cl. 179—18.

Gauger, Ernst, to The Babcock & Wilcox Co. Forced flow vapor generator with multiple vapor and liquid separators. 2,836,157, 5–27–58, Cl. 122—491.

Gaylord Products, Inc.: *See*—
Rosenberg, Max. 2,836,669.

Geary, Frederick L., and W. G. Taylor, Jr., to United Aircraft Corp. Variable area nozzle. 2,836,034, 5–27–58, Cl. 60—35.6.

Geiser, Nikolaus: *See*—
Gothel, Herbert, Kolling, Roelen, and Geiser. 2,836,635.

Gelpi, Maurice J., and W. D. Wilkinson, to Westinghouse Electric Corp. Fluid cooled transformers. 2,836,802, 5–27–58, Cl. 336—62.

Gelzheiser, Francis L., and H. D. Dorfman, to Westinghouse Electric Corp. Mounting means for circuit breakers. 2,836,687, 5–27–58, Cl. 200—168.

Gemme, Leon H., to L. Farber Welting Co. Flat top bead welt. 2,835,991, 5–27–58, Cl. 36—78.

General Aniline & Film Corp.: *See*—
Frantz, Frederick H. 2,836,110.

General Bronze Corp.: *See*—
Cejka, Joseph B. 2,836,648.

General Dynamics Corp.: *See*—
Gatzert, Ernest H. 2,836,660.
Manley, Fred A., and Slaymaker. 2,836,664.
Pharis, William W. 2,836,659.
Salmon, Benjamin T. 2,836,379.

General Electric Co.: *See*—
Bartelink, Everhard H. B. 2,836,657.
Brenner, Siegfried S., and Morelock. 2,836,524.
Busch, Floyd H. 2,836,795.
Camilli, Guglielmo, and Tootill. 2,836,788.
Clawson, John H. 2,836,744.
Condit, Robert E. 2,836,047.
Cruckshank, Ira G. 2,836,230.
Davey, Peter E., and Patterson. 2,836,305.
Deavers, Clyde J. 2,836,061.
Dome, Robert B. 2,836,716.
Foley, Thomas P. 2,836,453.
Foulds, Arthur E. 2,836,801.
Fyler, George W. 2,836,812.
Gillie, Harmon A. 2,836,745.
Guth, Lauren W. 2,836,186.
Halsted, Richard E. 2,836,766.
Jordan, Samuel C. 2,836,697.
Loritsch, John A., and Daszewski. 2,836,518.
Mason, Lowell M. 2,836,204.
McArthur, Elmer D. 2,836,811.
McComb, Robert D. 2,836,147.
Millar, Norval P., and Clark. 2,836,796.
Miner, Carroll R. 2,836,082.
Nakata, Roy. 2,836,677.
Ozarow, Vernon. 2,836,797.
Scheldorf, Owen H. 2,836,349.
Stimson, Allen G., and Wayne. 2,836,098.
Summers, Erwin R. 2,836,779.
Templin, Jackson R. 2,836,639.
Weber, Kurt H. 2,837,792.
Yoler, Yusuf A., and Nagamatsu. 2,836,063.

General Engineering Co. (Radcliffe) Ltd., The: *See*—
Dickinson, Thomas S. 2,836,464.

General Machine Co., Inc.: *See*—
Nuding, Anton. 2,836,240.

General Motors Corp.: *See*—
Bolin, Edward L. 2,836,510.
Buckman, Kenneth E. 2,836,302.
Clark, Harry F. 2,836,781.
Evans, Jesse L. 2,836,268.
Frick, Charles H., and Schafer. 2,836,410.
Fry, Millard E. 2,836,698.
Galonska, David A. 2,836,075.
Giuliano, Vincent E., and Harvey. 2,836,193.
Hayes, John R. 2,836,391.
Key, Don E. 2,836,018.
Meyer, Engelbert A. 2,836,458.
Muller, Lloyd E. 2,836,257.
Patrick, James D. 2,836,552.
Price, Clifford L. 2,836,258.
Riesing, Ellwood F. 2,836,450.
Schmeling, William H. 2,835,924.
Seyfarth, Robert. 2,836,113.
Van Voorhees, Harold E. 2,836,050.

General Precision Laboratory Inc.: *See*—
Flower, Robert A., Hales, and Sherr. 2,836,813.

General Telephone Laboratories, Inc.: *See*—
Kolpek, Robert A. 2,836,653.
Kolpek, Robert A. 2,836,654.

Gentry, Robert E., Jr., and R. R. Burtner, to G. D. Searle & Co. 3,4-dihydro-2-(3',4'-dihydro-6'-methoxy-1'-naphthyl)-6-methoxy-1(2)-naphthalenone and process of preparation. 2,836,624. 5–27–58, Cl. 260—590.

Gericke, Erich. Flat-bed printing machines. 2,836,417, 5–27–58, Cl. 271—59.

Gerke, John R.: *See*—
Fried, Josef, Thoma, Perlman, and Gerke. 2,836,608.

Gerlach, Rudolph H.: *See*—
Fastje, Dietrich H., Gerlach, and Vorwerk. 2,836,487.

Gerteis, Karl M., to Carrier Corp. Cacapity control for compressors. 2,836,345, 5–27–58, Cl. 230—31.

Gibraltar Mfg. Co., Inc.: *See*—
Eickemeyer, Ludwig. 2,835,995.

Gibson, Gordon P., and W. R. Moore, to Westinghouse Electric Corp. Water proof varnish and electrical machines and members treated therewith. 2,836,740, 5–27–58, Cl. 310—45.

Giese, Alfred F. Hand-warming muff. 2,835,896, 5–27–58, Cl. 2—66.

Gilbert & Barker Mfg. Co.: *See*—
Mesh, Theodore J. 2,836,739.

Giles, Jeremiah D. Heat insulation structure. 2,836,293, 5–27–58, Cl. 206—59.

Gilliatt, Ira F., to Conveyor Specialty Co., Inc. Live roll conveyor. 2,836,284, 5–27–58, Cl. 198—127.

Gillie, Harmon A., to General Electric Co. Brush holder for dynamoelectric machines. 2,836,745, 5–27–58, Cl. 310—246.

Gillilan, Earl S. Revolving fish lure. 2,835,999, 5–27–58, Cl. 43—26.2.

Ginsburgh, Allen S., and F. J. Climent, to Aerojet-General Corp. Torch. 2,836,172, 5–27–58, Cl. 126—263.

Giuliano, Vincent E., and R. D. Harvey, to General Motors Corp. Check valve device. 2,836,193, 5–27–58, Cl. 137—514.7.

Glassburn, William E., to Westinghouse Electric Corp. Unbalanced-fault generator-protection. 2,836,767, 5–27–58, Cl. 317—13.

Gleason, Stanley F. Operating mechanism for toilet flush tank valve. 2,835,900, 5–27–58, Cl. 4—67.

Glicksman, Richard: *See*—
Morehouse, Clarence K., and Glicksman. 2,836,644.
Morehouse, Clarence K., and Glicksman. 2,836,645.

Glover, William F., and D. H. Owen, to International Standard Electric Corp. Inductors. 2,836,804, 5–27–58, Cl. 336—135.

Goins, Robert R., to Phillips Petroleum Co. Reactor and method of operating same. 2,836,636, 5–27–58, Cl. 260—679.

Goldberg, Abraham A.: *See*—
Howitt, George L., and Goldberg. 2,836,761.

Goldsmith, Bernard M., to Essex Electronics. Electrical winding construction. 2,836,805, 5–27–58, Cl. 336—136.

Goodfellow, Marion T., and R. J. Davis, to Tektronic, Inc. Ceramic terminal mount. 2,836,807, 5–27–58, Cl. 339—275.

Goodrich, B. F., Co., The: *See*—
Wheelock, George L., and Smith. 2,836,584.

Gordon, Leon B., to The American Oil Co. Process for making resins. 2,836,581, 5–27–58, Cl. 260—82.

Göthel, Herbert, H. Kolling, O. Roelen, and N. Geiser, to Ruhrchemie Akt. Process for the treatment of gases containing ethylene. 2,836,635, 5–27–58, Cl. 260—677.

Gott, Allan D.: *See*—
Martin, George L., and Gott. 2,836,488.

Graham, William R.: *See*—
Nydegger, George C. 2,836,341.

Gramacy, William, to Sloves Mechanical Binding Co., Inc. Loose leaf binder. 2,836,182, 5–27–58, Cl. 129—8.

Grant, Earl W.: *See*—
White, Gifford E., and Grant. 2,836,803.

Grassmuck, August. Centrifugally operated clutch. 2,836,275, 5–27–58, Cl. 192—105.

Graviner Mfg. Co. Ltd.: *See*—
Griffiths, Rupert. 2,836,692.

Gray, Allen G., and E. W. Schweikher, to United States of America, Atomic Energy Commission. Surface treatment of metallic uranium. 2,836,548, 5–27–58, Cl. 204—1.5.

Gray, Landon R., and T. B. Hawkes, to T. W. & C. B. Sheridan Co. Sheet and plate work gripping apparatus having angularly adjustable grippers. 2,835,947, 5–27–58, Cl. 24—81.

Gray, William C., and B. C. Pendarvis. Vertical cylinder attachment for combines. 2,836,026, 5–27–58, Cl. 56—119.

Green, Sidney S.: *See*—
Forrest, Cameron B., and Green. 2,836,356.

Green Bay Box Co.: *See*—
Daniels, Wilbert P. 2,836,338.

Greminger, George K., Jr.: *See*—
Kropscott, Earle L., Greminger, and Weaver. 2,836,505.
Silvernail, Lloyd H., Greminger, and Weaver. 2,836,506.

Gribble, Dwight L., to Dwight L. Gribble Music Co. Pneumatic action for player piano. 2,836,092, 5–27–58, Cl. 84—25.

Gribble, Dwight L., Music Co.: *See*—
Gribble, Dwight L. 2,836,092.

Griffin, Joseph C. Hitch attachment for a powered vehicle. 2,836,112, 5–27–58, Cl. 97—47.43.

Griffith Laboratories, Inc., The: *See*—
Schnell, Carl. 2,836,825.

Griffiths, Rupert, ½ to Graviner Mfg. Co. Ltd., and ½ to Wilkinson Sword Ltd. Temperature detectors. 2,836,692, 5–27–58, Cl. 201—63.

Griffiths, William A.: *See*—
Jones, Frederick A., Cooper, Bowen, and Griffiths. 2,836,575.

Griswold, Donald G. Aviation fueling hydrant valve. 2,836,207, 5–27–58, Cl. 141—346.

Groen, Willem, to Onsrud Machine Works, Inc. Dash-pot. 2,836,264, 5–27–58, Cl. 188—96.

Grohmann, August: *See*—
Müller, Ernst, and Grohmann. 2,836,295.

Gross, Thomas A. O., to Raytheon Mfg. Co. Power supply. 2,836,784, 5–27–58, Cl. 321—16.

Grossmann, Martin: *See*—
Steinhoff, Eduard, and Grossmann. 2,836,638.

Gruber, Arnold H., and W. J. van Loo, Jr., to American Cyanamid Co. Treatment of materials to impart antistatic properties and products. 2,835,517, 5–27–58, Cl. 117—138.8.

Guiberson Corp., The: *See*—
Lane, John J. 2,836,252.

Guidi, Joseph L. Automatic centering tool holder mechanism. 2,836,424, 5–27–58, Cl. 279—16.

Gulf Research & Development Co.: *See*—
Ambrose, Henry A., and McCarthy. 2,836,562.

Gunn, Joseph B., to Bendix Aviation Corp. Hydraulically-actuated 4-way valve. 2,836,196, 5–27–58, Cl. 137—622.

Gustavsson, David, to Atlas Copco Aktiebolag. Loaders. 2,836,312, 5–27–58, Cl. 214—132.

Guth, Lauren W., to General Electric Co. Washing apparatus with tub sealing system. 2,836,186, 5–27–58, Cl. 134—57.

Guthrie, Donald A., and D. W. Young, to Esso Research and Engineering Co. Irradiated resins. 2,836,553, 5–27–58, Cl. 204—158.

Haberman, Alexander. Method of making shirts and the like. 2,835,898, 5–27–58, Cl. 2—115.

Hagadorn, Elmore W., to Finishine Laboratories, Inc. Apparatus for selectively moving support members. 2,836,127, 5–27–58, Cl. 104—25.

Haglind Lumber Co.: *See*—
Haglind, Nels T. 2,836,384.

Haglind, Nels T., to Haglind Lumber Co. Pallet with metal clad stringers. 2,836,384, 5–27–58, Cl. 248—120.

Hales, Everett B.: *See*—
Flower, Robert A., Hales, and Sherr. 2,836,813.

Hall, Jesse E., Sr. Stop collar. 2,836,446, 5–27–58, Cl. 287—52.

Hall, Luther A. R., to E. I. du Pont de Nemours and Co. Production of p-methyl benzyl chloride polymers by pyrolysis. 2,836,571, 5–27–58, Cl. 260—2.

Hallahan, Gerald B., to Modern Engineering Service Co. Automation organization. 2,836,280, 5–27–58, Cl. 198—19.

Haller, Raymond and Brown, Inc.: *See*—
Raymond, Richard C. 2,836,824.

Haloid Co., The: *See*—
Vyverberg, Robert G. 2,836,725.

Halsted, Richard E., to General Electric Co. Electroluminescent devices and circuits. 2,836,766, 5–27–58, Cl. 315—151.

Hamon, Maurice. Cooling of liquids. 2,836,405, 5–27–58, Cl. 261—112.

Hampe, Frank T.: *See*—
Wengen, Henry R., and Hampe. 2,835,949.

Hankscraft Co.: *See*—
Chapman, David. 2,836,700.

Hansen, Kenneth G. Extensible ladder. 2,836,336, 5–27–58, Cl. 228—20.

Hardt Foundation, The: *See*—
Hardt, Leo L. 2,836,540.

Hardt, Leo L., to The Hardt Foundation. Pharmaceutical antacid composition. 2,836,540, 5–27–58, Cl. 167—55.

Haring, Ivan P., 25% to E. A. Kruse, 25% to H. T. Tellepsen, and 15% to H. C. Donahoe. Cotton picking unit. 2,836,025, 5–27–58, Cl. 56—40.

Harkrader, John P. Gravity davit and shock absorber therefor. 2,835,907, 5–27–58, Cl. 9—38.

Harriman, Charles S.: *See*—
White, Ivan J., and Harriman. 2,836,419.

Harrison, James A. Make-up air heater. 2,836,409, 5–27–58, Cl. 263—19.

Harrison, John B. Loop guard for tufting machine. 2,836,134, 5–27–58, Cl. 112—79.

Harshaw Chemical Co., The: *See*—
Benjamin, Harry. 2,836,389.

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Abe, Yasuo, Harukawa, Ishikawa, Miki, Sumi, and Toga. 2,836,604.

Harvey, Robert D.: *See*—
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Harvey, Russell E. Fuel feed system for solid fuel burning engine. 2,836,158, 5–27–58, Cl. 123—23.

Hatch, James F.: *See*—
Bratt, Dennis, and Hatch. 2,836,817.

Hathaway, John D. Convertible carrying box for vehicle beds. 2,836,455, 5–27–58, Cl. 296—10.

Hatield, Elbert L., to Continental Oil Co. Method of preparing non-ionic emulsifiers. 2,836,626, 5–27–58, Cl. 260—611.

Haupt, Wilhelm, to Kienzle Apparate G. m. b. H. Computing and indicating mechanism for fluid metering devices. 2,836,361, 5–27–58, Cl. 235—94.

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Lingal, Harry J., Tremblay, and Hauser. 2,836,684.

Hawkes, Thomas B.: *See*—
Gray, Landon R., and Hawkes. 2,835,947.

Hayes John R., to General Motors Corp. Turbine bucket with cast-in insert. 2,836,391, 5–27–58, Cl. 253—39.15.

Heathcote, Ronald T.: *See*—
Roberts, George R., and Heathcote. 2,836,372.

Hedén, Carl G., to Aktiebolaget Separator. Arrangement for sterile interconnection and sealing of apparatuses in a plant for instance for cultivation of bacteria. 2,836,434, 5–27–58, Cl. 285—41.

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Heininger, Samuel A., to Monsanto Chemical Co. 3,3'-(alkylenedioxy) dipropionitriles. 2,836,613, 5–27–58, Cl. 260—465.6.

Heininger, Samuel A., and E. L. Doerr, to Monsanto Chemical Co. Methylene blue removal from acrylic monomers. 2,836,615, 5–27–58, Cl. 260—465.9.

Heiser, Elmer F. Mechanical drawing component. 2,835,987, 5–27–58, Cl. 35—28.

Heller, Harold H., and G. H. Saunders, to The Dow Chemical Co. Mercury cell electrolysis of brine. 2,836,551, 5–27–58 Cl. 204—99.

Henke, Georg, to Firma Westfalenhutte Akt. Method of producing steel. 2,836,489, 5–27–58, Cl. 75—58.

Henning, George E., to Western Electric Co., Inc. Methods of producing cellular plastics. 2,835,927, 5–27–58, Cl. 18—59.

Herbert Co., The: *See*—
Kuefner, Herbert H. 2,835,994.

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Hermstad, Vincent C.: *See*—
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Hervey, Laurence R. B., to Arthur D. Little, Inc. Process of permanently setting hair with a hair-swelling solution of a bisulfite and a nitrogen-containing component. 2,836,185, 5–27–58, Cl. 132—7.

Hester, Robert G.: *See*—
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Hickam, William M., and R. E. Fox, to Westinghouse Electric Corp. Ionization tube. 2,836,790, 5–27–58, Cl. 324—33.

Hicks, Pinckney C. Seating and controlling attachments for barber chairs. 2,836,224, 5–27–58, Cl. 155—81.

Hilkene, Henry. Visual aid for arithmetic computation. 2,835,988, 5–27–58, Cl. 35—31.

Hill, Archie, to Diamond Alkali Co. Process for polymerizing a vinyl halide polymer in the presence of gelatin. 2,836,585, 5–27–58, Cl. 260—92.8.

Hilsinger, Arthur R., to The Hilsinger Corp. Elastic means for attaching the ends of a flexible member to a spectacle frame. 2,835,945, 5–27–58, Cl. 24—3.

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Hirst, Archie J., to Metalastik Ltd. Independent wheel suspension. 2,836,413, 5–27–58, Cl. 267—21.

Hjelm, Karl E. W., to Aktiebolaget Bofors. Fuse for an explosive projectile. 2,836,118, 5–27–58, Cl. 102—71.

Hobbs, Frank, to Colotrym Co. Abrasive stair tread edge molding. 2,835,937 5–27–58, Cl. 20—79.

Hobson, Cecil B. Cultivator. 2,836,111, 5–27–58, Cl. 97—40.

Hoch, Robert S., to Phillips Petroleum Co. Method of removing liquid from well bore hole. 2,836,246, 5–27–58, Cl. 166—3.

Hockstein, Alfred R., and J. F. Hegarty, to Westinghouse Electric Corp. Elevator systems. 2,836,262, 5–27–58, Cl. 187—29.

Hodge, James: *See*—
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Hodowanec, Gregory, to National Union Electric Corp. Dark trace cathode-ray tubes and screens therefor. 2,836,753, 5–27–58, Cl. 313—92.

Hoefer, Karl E., to E. A. Feustel. Yarn carrier of circular hosiery knitting machines. 2,836,042, 5–27–58, Cl. 66—125.

Hoell, Paul C., to E. I. du Pont de Nemours and Co. Computing measuring apparatus. 2,836,357, 5–27–58, Cl. 235—61.

Hoelscher, William G., to The American Tool Works Co. Clamping and elevating apparatus for machine tools. 2,836,086, 5–27–58, Cl. 77—28.

Hoeselbarth, Frank W. E., to C. H. Masland & Sons. Weaving pile fabric. 2,836,201, 5–27–58, Cl. 139—39.

Hoff, Richard L.: *See*—
Bounds, Ardrey M., and Hoff. 2,836,491.

Hoffman, Frances: *See*—
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Hoffman, Henry L. Truss pad structure. 2,836,176, 5–27–58, Cl. 128—106.

Hofstede, Marinus J., to Shell Development Co. Method and apparatus for the combustion of hydrogen sulfide and the production of sulfur. 2,836,481, 5–27–58, Cl. 23—225.

Hogin, Robert A., and S. S. Belcher. Venetian blind construction. 2,836,237. 5–27–58, Cl. 160—115.

Holborn, Frederick, deceased; K. Holborn, executrix, and G. Hodowanec, to National Union Electric Corp. Dark trace cathode-ray tube and method of manufacture. 2,836,754, 5–27–58, Cl. 313—92.

Holborn, Kate: *See*—
Holborn, Frederick and K., and Hodowanec. 2,836,754.

Holmberg, Carl A. Universally adjustable twin clamping means. 2,836,139, 5–27–58, Cl. 113—104.

Holmes, Bradford B., to Bendix Aviation Corp. Oxygen regulator. 2,836,189, 5–27–58, Cl. 137—64.

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Homeward Products, Inc.: *See*—
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Honold, Ernst, and A. Miekeley, to Cassella Farbwerke Mainkur Aktiengesellschaft. Process and product of tanning with condensation products and polyhydric phenols with methylol dicyandiamide or methylol dicyandiamidine compounds. 2,836,480, 5–27–58, Cl. 8—94.24.

Horstmann, Beavan. Hand igniters for gas burners. 2,836,232 5–27–58, Cl. 158—115.

Hörth, Robert, to F. K. H. Stubbe. Belt conveyor system. 2,836,283, 5–27–58, Cl. 198—109.

Hosford, William F.: *See*—
Odium, William H., and Hosford. 2,836,273.

Hotelling, Eric B.: *See*—
Neuworth, Martin B., Hotelling, and Depp. 2,836,627.

Housley, Thomas P. Hurricane shield. 2,835,935, 5–27–58, Cl. 20—58.

Howitt, George L., and A. A. Goldberg, to Columbia Broadcasting System, Inc. Dynamic convergence apparatus for color television receiver. 2,836,781, 5–27–58, Cl. 315—13.

Hoyt, Earl H., Jr. Arrow fletching device. 2,836,208, 5–27–58, Cl. 144—289.

Hoyt, John M., to Minnesota Mining and Mfg. Co. Copolymers of trifluoroethylene and vinyl carboxylates. 2,836,582, 5–27–58, Cl. 260—87.1.

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Meier, Edwin H., and Heater. 2,836,718.

Hughes, William B., to Cities Service Research and Development Co. Method of inhibiting corrosion of metals. 2,836,557, 5–27–58, Cl. 252—8.55.

Hughes, William B., to Cities Service Research and Development Co. Method of inhibiting corrosion of metals. 2,836,558, 5–27–58, Cl. 252—8.55.

Hume, Tirey L. Tensioning shoring clamp. 2,835,946, 5–27–58, Cl. 24—68.

Hunt, Charles M., Jr. Windshield hatchway for a boat. 2,836,140, 5–27–58, Cl. 114—0.5.

Husarek, Vladimir: *See*—
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Hutchins, Erwin F., to Sylvania Electric Products Inc. Glass envelope forming and sealing apparatus. 2,836,011, 5–27–58, Cl. 49—2.

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Hydraulik G. m. b. H.: *See*—
Muller, Ernst, and Grohmann. 2,836,295.

Illinois Tool Works: *See*—
Rapata, George M. 2,836,214.
Rapata, George M. 2,836,215.
Rapata, George M. 2,836,216.

Independent Iron Works, Inc.: *See*—
Mason, William. 2,836,704.

Indiana University Foundation: *See*—
Nebergall, William H. 2,836,544.

Industrial Processes, Inc.: *See*—
Ofner, Frank R. 2,835,984.
Ofner, Frank R. 2,835,985.

Infanger, Arthur W., to Auburn Machine and Tool Co., Inc. Foot massage machine. 2,836,174, 5–27–58, Cl. 128—25.

Ingres, Jeannot G., to Kelsey-Hayes Co. Brake operating mechanism. 2,836,265, 5–27–58, Cl. 188—152.

Institut de Recherches de la Siderurgie: *See*—
Beaujard, Louis, Husarek, and Vasset. 2,836,059.

International Harvester Co.: *See*—
Dressler, Thomas M. 2,836,162.
Ziskal, Joseph F. 2,836,195.

International Nickel Co., Inc., The: *See*—
Clark, Charles A. 2,836,492.

International Standard Electric Corp.: *See*—
Berthold, Wolfgang. 2,836,752.
Glover, William F., and Owen. 2,836,804.

International Telephone and Telegraph Corp.: *See*—
Adams, Paul R., and Colin. 2,836,815.
Allison, John L., and Alexander. 2,836,816.
Le Vine, Donald J. 2,836,798.
Nail, James J. 2,836,814.
Pickles, Sidney B., Adams, and Lucanera. 2,836,820.
Weintraub, Nelson. 2,836,658.

Intraub, Julius: *See*—
Ciringione, Joseph L., Intraub, Kalb, Strobe, and Wolotkin. 2,836,060.

Ishikawa, Hisashi: *See*—
Abe, Yasuo, Harukawa, Ishikawa, Miki, Sumi, and Toga. 2,836,604.

Ishikawa, Yoshioki, Y. Sasaki, and I. Sato, to Nippon Electric Co. Ltd. Capacitor. 2,836,776, 5–27–58, Cl. 317—242.

Isley, Walter F., to Continental Aviation & Engineering Corp. Control for internal combustion engine. 2,836,163, 5–27–58, Cl. 123—140.

Ito, Hiroshi, to Canon Camera Co., Inc. High aperture photographic lens. 2,836,102, 5–27–58, Cl. 88—57.

Ito, Hiroshi, to Canon Camera Co., Inc. High aperture telephotographic objective of the Gauss type. 2,836,103, 5–27–58, Cl. 88—57.

Iverson, Nels J. Box holder. 2,836,386, 5–27–58, Cl. 248—311.

Jabsco Pump Co.: *See*—
Doble, Warren. 2,836,441.

Jackson, William H., to The Udylite Corp. Plating barrel. 2,836,400, 5–27–58, Cl. 259—89.

Jaeger, Clemens O. Monorail toy with current carrying track. 2,836,129, 5–27–58, Cl. 104—120.

Jaeschke, Ralph L., to Eaton Mfg. Co. Constant horsepower controlled speed variable speed drive. 2,836,271, 5–27–58, Cl. 192—3.2.

Jagiel, Zigmund J., $\frac{1}{2}$ to J. W. Bebout. Brace rod holding means for scaffold frames or the like. 2,836,468, 5–27–58, Cl. 304—40.

James, Robert R.: *See*—
Allen, Lyman H., Jr., James, and Bradshaw. 2,836,589.

Jendrassik, Clara: *See*—
Jendrassik, George. 2,836,346.

Jendrassik Developmenta Ltd.: *See*—
Jendrassik, George. 2,836,346.

Jendrassik, George, deceased, by A. G. T. Boszormenyi, and C. Jendrassik, executors, to Jendrassik Developments Ltd. Pressure exchangers. 2,836,346, 5–27–58, Cl. 230—69.

Jerdee, Eugene M. Fishhook holder. 2,836,005, 5–27–58, Cl. 43—57.5.

Jessee, Ralph D., to Westinghouse Electric Corp. Negative sequence voltage sensing network. 2,836,771, 5–27–58, Cl. 317—47.

Johansson, Carl E., to The Youngstown Steel Door Co. Transportation containers for bulk materials. 2,836,454, 5–27–58, Cl. 294—69.

Johns, La Moine E.: *See*—
Johns, Max F. and L. E. 2,836,239.

Johns, Max F. and L. E., to Conmar Products Corp. Apparatus for the processing of slide fasteners. 2,836,239, 5–27–58, Cl. 164—12.

Johnson, Alexander J. Lawn mower cutting blade. 2,836,029, 5–27–58, Cl. 56—295.

Johnson, Arthur E., to A. O. Smith Corp. Arc welding and battery charging apparatus. 2,836,736, 5–27–58, Cl. 307—155.

Johnson, Arthur W. Zone-controlled heating system. 2,836,197, 5–27–58, Cl. 137—625.18.

Johnson, Carl E.: *See*—
Esmay, Donald L., Fotis, and Johnson. 2,836,633.

Johnson, Carl R., to Yeomans Brothers Co. Sludge pumping assembly. 2,836,122, 5–27–58, Cl. 103—45.

Johnson, Earl B. Automatic drinking fountain. 2,836,151, 5–27–58, Cl. 119—81.

Johnson, Ellis. Gravel separator and scrubber. 2,836,299, 5–27–58. Cl. 209—270.

Johnson, Harry V. and N. J., to Union Carbide Corp. Pitch cartridge for electrode joint. 2,836,294, 5–27–58, Cl. 206—84.

Johnson, John M. Portable manually operable automobile body and fender shape restoring tool. 2,836,220, 5–27–58, Cl. 153—39.

Johnson, Kenneth I., and D. H. Page, to British Insulated Callender's Cables Ltd. Apparatus for measuring high degrees of dryness. 2,836,057, 5–27–58, Cl. 73—29.

Johnson, Mensal L., deceased; M. O. Lamb, executrix, assor. to herself individually. Device for integrating heat-absorbing capacity. 2,836,895, 5–27–58, Cl. 219—20.

Johnson, Neal J.: *See*—
Johnson, Harry V. and N. J. 2,836,294.

Johnson, Philip H., to The Sudan Gezira Board. Removing the outer skin from bark containing fibres. 2,835,928, 5–27–58, Cl. 19—31.

Johnson, Wayne R., to Minnesota Mining and Mfg. Co. Single channel multiplex for wideband reproduction. 2,836,650, 5–27–58, Cl. 178—6.6.

Johnson, Wayne R., to Minnesota Mining and Mfg. Co. Method of recording and reproducing wide-band sigals. 2,836,651, 5–27–58, Cl. 178—6.6.

Johnston, Eli S. Hammer holder. 2,835,944, 5–27–58, Cl. 24—3.

Jones, Frederick A., W. Cooper, D. O. Bowen, and W. A. Griffiths, to Dunlop Rubber Co. Ltd. Composition comprising a polyester-diisocyanate reaction product and an alkyl acid phosphate and process of preparation. 2,836,575, 5–27–58, Cl. 260—30.6.

Jones, Kenneth L.: *See*—
Drees, Joseph M., and Jones. 2,836,370.

Jordan, Lee. Utility cane for handicapped persons. 2,836,188, 5–27–58, Cl. 135—47.

Jordan, Samuel C., to General Electric Co. Electric range. 2,836,697, 5–27–58, Cl. 219—35.

Joy Mfg. Co.: *See*—
Barrett, Arthur L. 2,836,408.

Kabushiki Kaisha Sankyo Seiki Seisakusho: *See*—
Nozawa, Yoshikuni. 2,836,260.

Kahn and Co., Inc.: *See*—
Laas, Eugene. 2,836,670.

Kalb, Martin O.: *See*—
Ciringione, Joseph L., Intraub, Kalb, Strobe, and Wolotkin. 2,836,060.

Kaman, Frank A., to Thor Power Tool Co. Impact clutch. 2,836,272, 5–27–58, Cl. 192—30.3.

Kaminow, Ivan P., to Bell Telephone Laboratories, Inc. Self-quenching oscillator. 2,836,724, 5–27–58, Cl. 250—36.

Kaplan, Charles H., to Compagnie pour la Fabrication des Competeurs et Material d'Usines a Gaz. Magnetometers. 2,836,791, 5–27–58, Cl. 324—43.

Karoff Originals, Ltd.: *See*—
Karoff, Robert. 2,836,477.

Karoff, Robert, to Karoff Originals, Ltd. Liquor bar cabinet structure. 2,836,477, 5–27–58, Cl. 312—271.

Karoll's, Inc.: *See*—
Scruggs, Anna T. 2,835,897.

Kathe, Edmund A. Electric switch. 2,836,675, 5–27–58, Cl. 200—87.

Kauer, Kenneth C., and E. C. Britton, to The Dow Chemical Co. O-aryl O-methyl phosphoroamidothioates. 2,836,612, 5–27–58, Cl. 260—461.

Kaufman, Frank N. Pipe-marking device. 2,835,981, 5–27–58, Cl. 33—174.

Kautenberg, W. E., Co.: *See*—
Kautenberg, William E. 2,835,910.

Kautenberg, William E., to W. E. Kautenberg Co. Wringer mop binging construction. 2,835,910, 5–27–58, Cl. 15—119.

Kehoe, James A. Floor-jack. 2,836,394, 5–27–58, Cl. 254—12.

Kellogg Co.: *See*—
Besse, Carlyle L. 2,836,330.
Thompson, Joseph J., and Raymer. 2,836,495.

Kelly, Joe T.: *See*—
Lee, Robert J., Kelly, and Knight. 2,836,634.

Kelly, John D. Meter assembly. 2,836,793, 5–27–58, Cl. 324—115.

Kelsey-Hayes Co.: *See*—
Ingres, Jeannot G. 2,836,265.

Kennebeck, Paul A. Wave guide transmitting antenna. 2,836,823, 5–27–58, Cl. 343—782.

Kent, Alvey B. Boat seat. 2,836,223, 5–27–58, Cl. 155—133.

Kessler, Harold D., and R. S. Richards, to Titanium Metals Corp. of America. Method for producing flat solution heat treated titanium and zirconium alloy sheets. 2,836,527, 5–27–58, Cl. 148—10.

Kewanee Mfg. Co.: *See*—
Evans, Rupert L. 2,835,933.

Key, Don E., to General Motors Corp. Manufacturing device. 2,836,018, 5–27–58, Cl. 51—281.

Kienzle Apparate G. m. b. H.: *See*—
Haupt, Wilhelm. 2,836,361.

Kimura, Shuji, and J. N. Stich, to Morton Chemical Co. Photographic shortstop concentrates. 2,836,493, 5–27–58, Cl. 96—62.

Kindell, Garold. Retractable rollers for truck beds. 2,836,278, 5–27–58, Cl. 193—42.

King, Charles S., to The Rover Co. Ltd. Means for securing a rotor on a shaft. 2,836,448, 5–27–58, Cl. 287—53.

King, George E.: *See*—
Samios, George, and King. 2,836,770.

King-Seeley Corp.: *See*—
Gaskell, Walter L. 2,836,206.

Kinney, Alfred W., to American Can Co. Cap feeding and positioning means. 2,836,328, 5–27–58, Cl. 221—211.

Kinney, David C., to Continental Motors Corp. Protective device for internal combustion engines. 2,836,104, 5–27–58, Cl. 123—196.

Kirk, Hugh A.: *See*—
Morris, Harold H. 2,836,529.

Kirk, James C., and W. W. Woods, to Continental Oil Co. Purification of alkaryl sulfonates. 2,836,619, 5–27–58, Cl. 260—505.

Kirshenbaum, Abraham D.: *See*—
Streng, Alex G., and Kirshenbaum. 2,836,484.
Klager, Karl: *See*—
Frankel, Milton B., and Klager. 2,836,599.
Klappert, Helmut: *See*—
Rösch, Georg, Klappert, and Wolf. 2,836,602.
Klein, Walter A., A. J. Mason, and J. Holzschu, to the Dow Chemical Co. Box for dispensing sheet wrapping material. 2,836,292, 5–27–58, Cl. 206—58.
Knapp, John H., Jr., and B. M. Names, to Eastern Metal of Elmira Inc. Foldable stand for portable street signs. 2,836,385, 5–27–58, Cl. 248—166.
Knight, Harmon M.: *See*—
Lee, Robert J., Kelly, and Knight. 2,836,634.
Koch, Friedrich: *See*—
Richter, Robert, and Koch. 2,836,100.
Koch, Werner P.: *See*—
Blättner, Karl, and Koch. 2,836,418.
Koehler, Raymond V., and M. Batenburg, to American Motors Corp. Accelerator throttle control. 2,836,076, 5–27–58, Cl. 74—472.
Koenig, William C., to Brant and Nielsen Co. Sand blasting apparatus. 2,836,013, 5–27–58, Cl. 51—8.
Koffer, Maximilian M. Vacuum concentrator for juices or the like. 2,836,235, 5–27–58, Cl. 159—6.
Kolka, Alfred J.: *See*—
Ecke, George G., and Kolka. 2,836,568.
Kolka, Alfred J., and G. G. Ecke, to Ethyl Corp. Stabilized polymeric compositions. 2,836,577, 5–27–58, Cl. 260—45.95.
Kolka, Alfred J., and G. G. Ecke, to Ethyl Corp. Stabilized fuel antiknock. 2,836,609, 5–27–58, Cl. 260—437.
Kolka, Alfred J., and G. G. Ecke, to Ethyl Corp. Stabilized fuel antiknock. 2,836,610, 5–27–58, Cl. 260—437.
Kolling, Helmut: *See*—
Göthel, Herbert, Kolling, and Roelen. 2,836,635.
Kolpek, Robert A., to General Telephone Laboratories, Inc. Tape movement check in a telegraph system. 2,836,653, 5–27–58, Cl. 178—17.
Kolpek, Robert A., to General Telephone Laboratories, Inc. Transmitter identifying unit for use in a telegraph system. 2,836,654, 5–27–58, Cl. 178—17.
Konau, Helmut R. K. F. R.: *See*—
Teale, Ronald S., Seeles, and Konau. 2,836,560.
Koontz-Wagner Electric Co., Inc.: *See*—
Tjaden, James S. 2,836,194.
Koppelman, Eldo K.: *See*—
Mock, Luther R., and Koppelmann. 2,835,958.
Korman, David A. Hemoglobinometer. 2,836,096, 5–27–58, Cl. 88—14.
Krantz, Hubert K., to Bell Telephone Laboratories, Inc. Rotary relay. 2,836,674, 5–27–58, Cl. 200—87.
Krepps, James E., Jr., to Sarkes Tarzian, Inc. Universal tuning system for television receivers. 2,836,711, 5–27–58, Cl. 250—20.
Kreutzer, Conradin O., to Fish Products Co. Impulse generator for electric fishing. 2,836,735, 5–27–58, Cl. 307—110.
Krieger, Robert J., to Titanium Metals Corp. of America. Arc melting crucible. 2,836,412, 5–27–58, Cl. 266—39.
Krisel, Frank. Double face angle and set up plate. 2,835,978, 5–27–58, Cl. 33—90.
Kropscott, Earle L., G. K. Greminger, Jr., and M. A. Weaver, to The Dow Chemical Co. Thermoplastic compositions of water-soluble cellulose ethers. 2,836,505, 5–27–58, Cl. 106—182.
Krtous, George F.: *See*—
D'Arcy, Ellis, and Krtous. 2,836,423.
Kruse, E. A.: *See*—
Haring, Ivan P. 2,836,025.
Kubik, Paul P., and R. W. Schmid, to The Yale & Towne Mfg. Co. Anti-rap cylindrical lock. 2,836,452, 5–27–58, Cl. 292—169.
Kubler, Hermann O. G., and O. Bochmann, to Barmer Maschinenfabrik Akt. Thread tensioning device for a spindle. 2,836,377, 5–27–58, Cl. 242—150.
Kuefner, Herbert H., to The Herbert Co. Marker. 2,835,994, 5–27–58, Cl. 40—10.
Kugler, Keith. Pumps. 2,836,119, 5–27–58, Cl. 103—23.
Kunda, Vasyl: *See*—
Mackiw, Vladimir N., Kunda, and Lin. 2,836,490.
Kurka, Francis A. Trailer frame. 2,836,429, 5–27–58, Cl. 280—29.
Laas, Eugene, to Kahn and Co., Inc. Governor with switch control. 2,836,670, 5–27–58, Cl. 200—80.
Lacis, Max W. Brick mason's line guide. 2,835,977, 5–27–58, Cl. 33—85.
Lackey, Pearl E.: *See*—
Monro, Randolph, and Lackey. 2,835,899.
Lacoste, Roger G.: *See*—
Bersworth, Frederick C., Martell, and Lacoste. 2,836,620.
Lacson, Claudio S. Pneumatic power file. 2,835,957, 5–27–58, Cl. 29—76.
Lager, Roger K., to Sterling Drug Inc. Mannitol stabilized morphine-papaverine composition. 2,836,541, 5–27–58, Cl. 167—67.
Lamb, John, to Shell Development Co. Apparatus for handling ship's elevator car. 2,836,308, 5–27–58, Cl. 214—15.
Lamb, Margaret O.: *See*—
Johnson, Mensal L., and Lamb. 2,836,695.
Lamkin, Elver B.: *See*—
Lamkin, Robert E. 2,836,420.
Lamkin Leather Co.: *See*—
Lamkin, Robert E. and E. B. 2,836,420.
Lamkin, Robert E. and E. B., to Lamkin Leather Co. Handle grips and method of making them. 2,836,420, 5–27–58, Cl. 273—81.6.
La Nationale S. A.: *See*—
Zellweger, Conrad. 2,836,044.
Lance, Hubert L. Tractor transmission. 2,836,084, 5–27–58, Cl. 74—710.5.
Lane, John J., to The Gulberson Corp. Annulus packer. 2,836,252, 5–27–58, Cl. 166—204.
Lang, Samuel V., Sr. Leg garment. 2,835,990, 5–27–58, Cl. 36—2.
Langenbacher, Robert S., to Motor Wheel Corp. Wheel height adjustment for lawn mowers. 2,836,430, 5–27–58, Cl. 280—43.
Langstroth, Hal. Fluid actuated switch. 2,836,671, 5–27–58, Cl. 200—83.
Lankford, Harry G. Clamp means. 2,836,117, 5–27–58, Cl. 102—2.
Lantz, Glen B., to Boeing Airplane Co. Self-centering spool valve. 2,836,154, 5–27–58, Cl. 121—46.5.
Larson, Ralph A.: *See*—
Maier, Curtis E., Brockett, and Larson. 2,835,926.
La Rue, Albert D., to Raytheon Mfg. Co. Magnetron output coupling devices. 2,836,764, 5–27–58, Cl. 315—39.
La Telemecanique Electrique (Societe Anonyme): *See*—
Souchét, Andre A. H. 2,836,683.
Laubach, Gerald D.: *See*—
Agnello, Eugene J., and Laubach. 2,836,607.
Lee, Robert J., J. T. Kelly, and H. M. Knight, to The American Oil Co. P-T-butylalkylbenzene process. 2,836,634, 5–27–58, Cl. 260—671.
Leeds and Northup Co.: *See*—
Miller, William G., Jr. 2,836,731.
Leeser, Werner M., to The Steelcraft Mfg. Co. Sheet metal wall panel structure. 2,836,266, 5–27–58, Cl. 189—34.
Leopold, Alfred R., to Westinghouse-Bremsen-Gesellschaft. m. b. H. Fluid pressure controlled clutch and brake apparatus for hoisting drums. 2,836,270, 5–27–58, Cl. 192—12.
Lepetit S. p. A.: *See*—
Carrara, Gino, and Testa. 2,836,600.
Leta, Taylor E.: *See*—
Morphis, Jehu. 2,836,144.
Levin, Harry M. Edible composition of vegetable oil emulsion and butter fat emulsion convertible by aeration into a stiff mass. 2,836,497, 5–27–58, Cl. 99—118.
Le Vine, Donald J., to International Telephone and Telegraph Corp. Microwave transmission lines. 2,836,798, 5–27–58, Cl. 333—9.
Lewis, Edward F., A. v. d. Luft, and W. F. Schmauss, to E. I. du Pont de Nemours, and Co. Detector apparatus. 2,836,296, 5–27–58, Cl. 209—88.
Licentia Patent-Verwaltungs-G. m. b. H.: *See*—
Neubert, Ulrich. 2,836,785.
Weimer, Karl. 2,836,750.
Lichtblau, Ellis I., to E. I. du Pont de Nemours, and Co. Processing of regenerated cellulose tubing. 2,836,531, 5–27–58, Cl. 154—116.
Lightning Fasteners Ltd.: *See*—
Sutton, Francis P., and Buckenham. 2,835,951.
Lin, Wei C.: *See*—
Mackiw, Vladimir N., Kunda, and Lin. 2,836,490.
Linderoth, Erik T. Regenerative heat exchanger for gas turbines. 2,836,398, 5–27–58, Cl. 257—1.
Lingal, Harry J., B. G. Tremblay, and R. Hauser, to Westinghouse Electric Corp. Circuit interrupter. 2,836,684, 5–27–58, Cl. 200—146.
Linscott, Thomas D. Crupper. 2,836,020, 5–27–58, Cl. 54—22.
List, Frederick A., Jr., and R. W. Eggiestone, to Westinghouse Electric Corp. Single-phase electric motor. 2,836,780, 5–27–58, Cl. 318—220.
Litman, Arnold P.: *See*—
Neel, Robert M., and Litman. 2,835,961.
Little, Arthur D., Inc.: *See*—
Hervey, Laurence R. B. 2,836,185.
Watson, Paul C. 2,836,543.
Littleton, Louis A. Mop having detachable head. 2,835,914, 5–27–58, Cl. 15—229.
Longini, Richard L., to Westinghouse Electric Corp. Method of making junction transistors. 2,836,520, 5–27–58, Cl. 148—1.5.
Longini, Richard L., to Westinghouse Electric Corp. Hook collector and method of producing same. 2,836,521, 5–27–58, Cl. 148—1.5.
Longley, Raymond I., Jr.: *See*—
Emerson, William S., and Longley. 2,836,603.
Loritsch, John A., and E. W. Daszewski, to General Electric Co. Modified polyvinyl acetal insulated conductors. 2,836,518, 5–27–58, Cl. 117—232.
Lovell, Jac M. Automatic golf caddy vehicle. 2,836,253, 5–27–58, Cl. 180—27.
Lowitz, Frank. Apparatus for opening hermetically sealed casings. 2,836,016, 5–27–58, Cl. 51—105.
Lucanera, Constantino: *See*—
Pickles, Adams, and Lucanera. 2,836,820.
Luehrs, Hans J., to C. B. Cottrell & Sons Co. Throw-offs for rotary printing presses. 2,836,116, 5–27–58, Cl. 101—182.
Luenberger, Frederick O., to U. S. Electrical Motors, Inc. System for cooling lubricant. 2,836,471, 5–27–58, Cl. 308—77.
Lundell, Vernon J. Hoist. 2,836,460, 5–27–58, Cl. 298—22.
Lung, Kenneth R., to The Talt Mfg. Co. Pumps. 2,836,124, 5–27–58, Cl. 103—103.
Lutz, Karlheinz: *See*—
Scharstein, Ernst, Schwab, and Lutz. 2,836,786.
Lyon, William B. Article storage and displaying mechanism. 2,836,303, 5–27–58, Cl. 211—1.5.
Lyons, John F., to The Texas Co. Corrosion inhibiting method and composition. 2,836,499, 5–27–58, Cl. 106—14.
Mackiw, Vladimir N., V. Kunda, and Wei C. Lin, to Sherritt Gordon Mines Ltd. Method of treating solutions containing metal values. 2,836,490, 5–27–58, Cl. 75—115.

MacLean, Florence B.: *See*—
MacLean, James M. and F. B. 2,836,414.
MacLean, James M., deceased, by F. B. MacLean, executrix. Spring assembly. 2,836,414, 5–27–58, Cl. 267—63.
MacLean, William D., to Chemical Research Corp. Method of chromium plating aluminum. 2,836,550, 5–27–58, Cl. 204—51.
MacNeill, John H., to United States of America, Air Force. Coded keyboard. 2,836,809, 5–27–58, Cl. 240—365.
MacNichol, Edward F., Jr., C. M. Connelly, and J. R. Rogers, to United States of America, Navy. Range unit. 2,836,810. 5–27–58. Cl. 343—7.3.
Maddex, Phillip J.: *See*—
Stoddard, Carl K., and Maddex. 2,836,547.
Maddox, James R.: *See*—
Fassero, Anthony T., and Maddox. 2,835,922.
Madison-Faessler Tool Co.: *See*—
Mock, Luther R., and Koppelmann. 2,835,958.
Maerk, Mikkel. Slidable barrel gun with a combined sear and cocking member. 2,835,998, 5–27–58, Cl. 42—10.
Mahmarian, Richard S. Detergent containing cleaning pad. 2,835,911, 5–27–58, Cl. 15—131.
Maier, Curtis E., L. Brockett, and R. A. Larson, to Continental Can Co., Inc. Art of making closure members by depositing and curing a compound in the closure shell and thereafter molding. 2,835,926, 5–27–58, Cl. 18—57.
Main, Kenneth A.: *See*—
Butler Earl R. and Main. 2,836,107.
Mallinckrodt Chemical Works: *See*—
Martin, George L., and Gott. 2,836,488.
Maly, Claude M., to Brown, Boveri Corp. Universal voltage regulator. 2,836,789, 5–27–58, Cl. 323—66.
Mamiya, Seiichi. Film winding and shutter setting mechanism for a camera. 2,836,109, 5–27–58, Cl. 95—31.
Manhard, Robert A., to California Research Corp. Methods and apparatus for shifting seismic record timing pulses. 2,836,717, 5–27–58, Cl. 250—27.
Manley, Fred A., and F. H. Slaymaker, to General Dynamics Corp. Loudspeaker. 2,836,664, 5–27–58, Cl. 179—115.5.
Mann, Frederick W. Automatic lug wrench. 2,836,091, 5–27–58, Cl. 81—125.
Mansfield, Walter O., Jr.: *See*—
Stelmak, John P., Moore, and Mansfield. 2,836,702.
Marchuk, Euphemia: *See*—
Teller W. Kedzie, and Marchuk. 2,836,516.
Marconi's Wireless Telegraph Co. Ltd.: *See*—
Byatt, Dennis, and Hatch. 2,836,817.
Marker, Hannes. Ski binding having swivelable heel securing means. 2,836,428, 5–27–58, Cl. 280—11.35.
Maroni, Michael N. Aluminum surfacing. 2,836,526, 5–27–58 Cl. 148—6.24.
Marquez, Charles L., Jr.: *See*—
Boyer, Raymond J., and Marquez. 2,836,155.
Marrison, Warrent A., to Bell Telephone Laboratories, Inc. Heat-controlled acoustic wave system. 2,836,033, 5–27–58, Cl. 60—24.
Martell, Arthur E.: *See*—
Bersworth, Frederick C., Martell, and Lacoste. 2,836,620.
Martin, George L., and A. D. Gott, to Mallinckrodt Chemical Works. Metallurgical compositions. 2,836,488, 5–27–58, Cl. 75—27.
Martin, James. Adjustable seat for an aircraft. 2,836,222, 5–27–58, Cl. 155—5.
Martin, James. Leg restraining means for ejection seats for aircraft. 2,836,382, 5–27–58, Cl. 244—122.
Martines, Rene. Method of forming a plug for electrical conductors. 2,835,959, 5–27–58, Cl. 29—155.55.
Marvin Electric Mfg. Co.: *See*—
Bobrick, Mitchell. 2,836,708.
Masland, C. H., & Sons: *See*—
Hoeselbarth, Frank W. E. 2,836,201.
Mason, Albert J.: *See*—
Klein, Walter A., Mason, and Holzschu. 2,836,292.
Mason, Collins: *See*—
Nydegger, George C. 2,836,341.
Mason, Lowell M., to General Electric Co. Coil winding machine. 2,836,204, 5–27–58, Cl. 140—92.1
Mason, William, to Independent Iron Works, Inc. Arc welding machine. 2,836,704, 5–27–58, Cl. 219—125.
Masters, John H., to Bready Tractor & Implement Co. Tractor power transmission. 2,836,073, 5–27–58, Cl. 74—355.
Matthews, Lyle E. Servomechanism. 2,836,378, 5–27–58, Cl. 244—14.
Matthysse, Irving F., and C. V. Pellier, to Burndy Engineering Co. Inc. Machine for brazing seams. 2,836,138, 5–27–58. Cl. 113—1.
Matthysse, Irving F., to Burndy Engineering Co. Inc. Separable multiple tap connector. 2,836,682, 5–27–58, Cl. 200—133.
Mattson, Vernon L.: *See*—
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Maurice, Louis, to Compagnie Generale de Radiologie. Protective arrangements for X-ray apparatus. 2,836,728, 5–27–58. Cl. 250—103.
Maytag Co., The: *See*—
Smith, Thomas R. 2,836,046.
Smith, Thomas R. 2,836,083.
Mazur, Victor N., to Westinghouse Electric Corp. Adjustable speed motor control circuit. 2,836,782, 5–27–58, Cl. 318—331.
Mazzagatti, Roy P., to The Texas Co. Integration of electrical signals. 2,836,359. 5–27–58, Cl. 235—61.
McArthur, Elmer D., to General Electric Co. Radar system for detecting object movement and velocity. 2,836,811, 5–27–58, Cl. 343—8.
McCarthy, Paul R.: *See*—
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McCormick, Walter R.: *See*—
Schaufelberger, Felix A., and McCormick. 2,836,485.
McComb, Robert D., to General Electric Co. Recording and portraying apparatus. 2,836,147, 5–27–58, Cl. 118—620.
McCoy, Frederic C., to The Texas Co. Pulverizing method and apparatus. 2,836,368, 5–27–58, Cl. 241—17.
McCulloch Motors Corp.: *See*—
Davis, Ray F., and Frederickson. 2,836,024.
McCulloch, Thomas B., to Esso Research and Engineering Co. Extension of effective length of tubing. 2,836,247, 5–27–58, Cl. 166—46.
McDonald, John E., to Westinghouse Electric Corp. Centrifugal fan wheels. 2,836,348, 5–27–58, Cl. 230—134.
McElroy, Clifford T. Wall panel construction. 2,835,938, 5–27–58, Cl. 20—92.
McFeaters, Harry L., to Pennsylvania Engineering Corp. Scrap car. 2,836,309, 5–27–58, Cl. 214—18.
McGillis, Hugh D.: *See*—
McGillis, John J. and H. D. 2,836,231.
McGillis, John J. and H. D. Rotary oil burners. 2,836,231, 5–27–58, Cl. 158—77.
McGraw-Edison Co.: *See*—
Bale, Alton G., Jr. 2,836,678.
Bale, Alton G., Jr., and Sankey. 2,836,680.
Bracey, William E. 2,836,681.
Sankey, Edward L. 2,836,679.
Van Dusen, Harold A., Jr. 2,836,709.
McNally, Frank X., to Westinghouse Electric Corp. Gold immersion solution for treating silver and method of applying same. 2,836,515, 5–27–58, Cl. 117—130.
McNeill, Robert M. Control valve. 2,836,198, 5–27–58, Cl. 137—625.39.
Meade, Lynn C.: *See*—
Bertell, Paul, Meade, and Weingartner. 2,836,104.
Mechan-O Corp.: *See*—
Brook, Arthur F. 2,836,203.
Meier, Edwin H., and R. G. Hester, to Hughes Aircraft Co. Pulse amplitude multiplier. 2,836,718, 5–27–58, Cl. 250—27.
Melvin, James M., to Monticello Mfg. Corp. Broom rake tine mounting. 2,836,032, 5–27–58, Cl. 56—400.17.
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Beyler, Roger E., and Hoffman. 2,836,593.
Mercury Printing Co.: *See*—
Dolan, Thomas G. 2,836,433.
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Metalastik Ltd.: *See*—
Hirst, Archie J. 2,836,413.
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Metevia, William P., to The L. S. Starrett Co. Micrometer nut and binder ring assembly. 2,835,979, 5–27–58, Cl. 33—164.
Meuli, Lloyd J., to The Dow Chemical Co. Fungicidal compositions containing 1,4-dibromo-2-butyne and methods of destroying fungi. 2,836,536, 5–27–58. Cl. 167—22.
Meulnart, André. Fishing reel. 2,836,375, 5–27–58, Cl. 242—84.2.
Meyer, Engelbert A., to General Motors Corp. Retaining means for door trim panel. 2,836,458, 5–27–58, Cl. 296—44.
Meyer, Gene: *See*—
Smith, William A., Mattson, and Meyer. 2,836,297.
Meyer, William G.: *See*—
Edwards, Andrew W., and Meyer. 2,836,768.
Middleton, William J., to E. I. du Pont de Nemours and Co. Salts of 1,1,2,5,6,6-hexacyano-3,4-diazahexadiene. 2,836,606, 5–27–58, Cl. 260—391.
Miekeley, Arthur: *See*—
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Miki, Takuichi: *See*—
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Millar, Norval P., and E. W. Clark, to General Electric Co. Adjustable electrical measuring and indicating instrument. 2,836,796, 5–27–58, Cl. 324—151.
Miller, Fred J. Automatic sinker. 2,836,002, 5–27–58, Cl. 43—43.13.
Miller, Grace. Heat retaining cover. 2,836,478, 5–27–58, Cl. 312—284.
Miller, Harry C. Protective dial assembly for permutation locks. 2,836,052, 5–27–58, Cl. 70—332.
Miller, Robert E., to Monsanto Chemical Co. Unsaturated branched-chain alcohols and methods of preparing same. 2,836,628, 5–27–58. Cl. 260—632.
Miller, William G., Jr., to Leeds and Northrop Co. Generation control system. 2,836,731, 5–27–58, Cl. 290—4.
Milliron, James P. Fish catching device. 2,836,000, 5–27–58, Cl. 43—36.
Mills, Edward K., Jr. Convertible sofa or passenger seat. 2,835,901, 5–27–58, Cl. 5—9.
Milsco Mfg. Co.: *See*—
Swenson, Carl T. 2,836,225.
Swenson, Carl T. 2,836,227.
Miner, Carroll R., to General Electric Co. Low-torque detent mechanism. 2,836,082, 5–27–58, Cl. 74—527.
Mingledorff, Walter L., Jr.: *See*—
Carpenter, Walter H., and Mingledorff. 2,836,037.
Mingledorff's, Inc.: *See*—
Carpenter, Walter H., and Mingledorff. 2,836,037.
Mininberg, Helen. Opening and closing device for slide fasteners. 2,835,952. 5–27–58, Cl. 24—205.15.
Minister of Supply, Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland: *See*—
Peers, Charles H. 2,836,570.
Minneapolis-Honeywell Regulator Co.: *See*—
Borell, George L., and Taylor. 2,836,783.
Currie, William E. 2,836,763.
Stahl, William F. 2,836,367.

Minnesota Mining and Mfg. Co.: *See*—
Crawford, George H., Jr. 2,836,583.
Hoyt, John M. 2,836,582.
Johnson, Wayne R. 2,836,650.
Johnson, Wayne R. 2,836,651.

Minnesota and Ontario Paper Co.: *See*—
Rompre, Elmer J. 2,836,282.

Mitchell, A. J., Co.: *See*—
Willis, Grant N., and Clary. 2,836,324.

Mittag, Hermann, and G. Bacher, to Robert Bosch, G. m. b. H. Combination spray and wiper arrangement for windshields and the like. 2,835,916, 5–27–58, Cl. 15—250.4.

Mobile Aerial Towers, Inc.: *See*—
Myers, Lester L. 2,836,467.

Mock, Luther R., and E. K. Koppelmann, to Madison-Paessler Tool Co. Roller burnishing tool. 2,835,958, 5–27–58, Cl. 29—90.

Modern Engineering Service Co.: *See*—
Hallahan, Gerald B. 2,836,280.

Monick, Nicholas. Prefabricated patio. 2,836,108, 5–27–58, Cl. 94—4.

Monro, Randolph, and P. E. Lackey. Combination hood and carrier pocket. 2,835,899, 5–27–58, Cl. 2—202.

Monsanto Chemical Co.: *See*—
Anagnostopoulos, Constantine E., and Hsu. 2,836,592.
Birum, Gail H. 2,836,534.
Birum, Gail H. 2,836,535.
Brown, Gordon E. 2,836,574.
Dassi, Joachim. 2,836,566.
Dassi, Joachim. 2,836,618.
Emerson, William S., and Longley. 2,836,603.
Farrar, Martin W. 2,836,616.
Gash, Virgil W., and Wildi. 2,836,621.
Heininger, Samuel A. 2,836,613.
Heininger, Samuel A., and Doerr. 2,836,615.
Miller, Robert E. 2,836,628.
Raffelson, Harold, and Thompson. 2,836,617.
Sample, Thomas E., Jr. 2,836,511.
Sample, Thomas E., Jr. 2,836,512.
Seifter, Eli. 2,836,010.
Seifter, Eli. 2,836,532.
Seifter, Eli. 2,836,533.
Weesner, William E. 2,836,625.
Wesp, George L., and Slocombe. 2,836,580.

Monticello Mfg. Corp.: *See*—
Melvin, James M. 2,836,032.

Moore, David L.: *See*—
Stelmak, John P., Moore, and Mansfield. 2,836,702.

Moore, Frank M., to F. N. Bard. Swivel joint with sealing means permitting pivotal movement. 2,836,439, 5–27–58, Cl. 285—279.

Moore, Jacob H., and C. T. Wooten. Vault lowering device. 2,835,956, 5–27–58, Cl. 27—32.

Moore, William R.: *See*—
Gibson, Gordon P., and Moore. 2,836,740.

Moorhouse, William J., and E. Wilford, to The Bradford Dyers' Association Ltd. Apparatus for untwisting material in twisted rope form. 2,836,012, 5–27–58, Cl. 57—1.

Morden, Russell L., to Motor Wheel Corp. Governor for lawnmower engines. 2,836,159, 5–27–58, Cl. 123—103.

Morehouse, Clarence K., and R. Glicksman, to Radio Corp. of America. Primary cells. 2,836,644, 5–27–58, Cl. 136—137.

Morehouse, Clarence K., and R. Glicksman, to Radio Corp. of America. Primary cell. 2,836,645, 5–27–58, Cl. 136—137.

Morelock, Charles R.: *See*—
Brenner, Siegfried S., and Morelock. 2,836,524.

Morgan, Robert D., to Carrier Corp. Ice making apparatus. 2,836,038, 5–27–58, Cl. 62—7.

Morin, Louis H. Jam-free slider with control throat. 2,835,953, 5–27–58, Cl. 24—205.15.

Morphis, Jehu, to L. S. Taylor, individually and as trustee for D. C. and L. E. Taylor. Gauge head. 2,836,144, 5–27–58, Cl. 116—129.

Morris, Harold H., ½ to H. A. Kirk. Reinforced plastic. 2,836,529, 5–27–58, Cl. 154—53.

Morrissey, Joseph V., to United States Steel Corp. Chain link fencing. 2,836,397, 5–27–58, Cl. 256—40.

Morrow, Edwin R. Signal attachment for mail boxes. 2,836,352, 5–27–58, Cl. 232—35.

Morton Chemical Co.: *See*—
Kimura, Shuji, and Stich. 2,836,493.

Mosher, James K., to Schuls Tool and Mfg. Co. Sealing structure for reciprocating elements. 2,836,474, 5–27–58, Cl. 309—33.

Moskovits, Milton A. Dust seals for ball joints. 2,836,442, 5–27–58, Cl. 286—15.

Motor Wheel Corp.: *See*—
Langenbacher, Robert S. 2,836,430.
Morden, Russell L. 2,836,159.

Motorola, Inc.: *See*—
Blinoff, William, Pearson, and Venditti. 2,836,663.

Mott, Howard V. S. Shoe fitting. 2,835,908, 5–27–58, Cl. 12—142.

Mucher, George J., to Clarostat Mfg. Co., Inc. Variable resistance assembly. 2,836,689, 5–27–58, Cl. 201—48.

Mueller, Charles W., to Radio Corp. of America. Junction type semiconductor device and method of its manufacture. 2,836,522, 5–27–58, Cl. 148—1.5.

Mueller, Lawrence A., to The Fred Christen & Sons Co. Container opening. 2,836,314, 5–27–58, Cl. 214—305.

Mueller, Robert W., to Baso Inc. Unitary thermoelectric generator, lead and junction block assemblies. 2,836,640, 5–27–58, Cl. 136—4.

Müller, Ernst, and A. Grohmann, to Hydraulik G. m. b. H. Cable press with stationary press-head. 2,836,295, 5–27–58, Cl. 207—2.

Muller, Karl, to Steinlein & Kunse G. m. b. H. Apparatus for recovering, reconditioning and reusing the used core sand employed in casting. 2,835,941, 5–27–58, Cl. 22—89.

Muller, Lloyd E., to General Motors Corp. Air intake device. 2,836,257, 5–27–58, Cl. 183—43.

Müller, Wilhelm, to Firma Continental Gummi Werke Akt. Belt conveyer apparatus. 2,836,285, 5–27–58, Cl. 198—162.

Mullett, Howard G., to Bradley Washfountain Co. Foot control valve mechanism for washfountains. 2,836,080, 5–7–58, Cl. 74—512.

Mullin Gomel Co.: *See*—
Mullin, Robert E. 2,836,699.

Mullin, Robert E., to Mullin Gomel Co. Instantaneous water heater. 2,836,699, 5–27–58, Cl. 219—40.

Munday, Horace D. Can opener with pivoted lever members. 2,835,968, 5–27–58, Cl. 30—3.

Münster, Arnold, and R. Weber, to Metallgesellschaft Akt. Hard surface coated gear member. 2,836,514, 5–27–58, Cl. 117—106.

Murphy, Stewart F.: *See*—
Smythe, Edwin T., and Murphy. 2,835,917.

Myers, Lester L., to Mobile Aerial Towers, Inc. Crane control mechanism. 2,836,467, 5–27–58, Cl. 304—29.

Myers, Louis. Ice cream disher with angular handle. 2,836,132, 5–27–58, Cl. 107—48.

N. V. Technische Maatschappij Marchand-Andriessen: *See*—
Van Marle, Frederick. 2,836,416.

Nagamatsu, Henry T.: *See*—
Yoler, Yusuf A., and Nagamatsu. 2,836,063.

Nail, James J., to International Telephone and Telegraph Corp. R-F phase shifter. 2,836,814, 5–27–58, Cl. 343—100.

Nakata, Roy, to General Electric Co. Enclosed cutout having a fused load break device. 2,836,677, 5–27–58, Cl. 200—114.

Nakayama, Takeo. Tool for finger-pressure treatment and massage. 2,836,175, 5–27–58, Cl. 128—60.

Names, Burleigh M.: *See*—
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Nampa, Sulo M., and H. L. Dunlap, to Evans Products Co. Freight loading apparatus. 2,836,131, 5–27–58, Cl. 105—369.

National Mine Service Co.: *See*—
Tracy, Benjamin F., and Eads. 2,836,407.

National Research Development Corp.: *See*—
Ratcliffe, Stanley. 2,836,721.

National Union Electric Corp.: *See*—
Hodowanec, Gregory. 2,836,753.

National Union Electric Corp.: *See*—
Holborn, Frederick, and Hodowanec. 2,836,754.

Navarro, Miguel. Variable capacity pump. 2,836,120, 5–27–58, Cl. 103—38.

Nebergall, William H., to Indiana University Foundation. Stannous chlorofluoride, method of preparing same, and dentifrice compositions therewith. 2,836,544, 5–27–58, Cl. 167—93.

Neel, Robert M., and A. P. Litman, to Olin Mathieson Chemical Corp. Inflation method. 2,835,961, 5–27–58, Cl. 29—157.3.

Neilson, William A. Detachable support platform for vehicle hoists. 2,836,261, 5–27–58, Cl. 187—8.43.

Neubert, Ulrich, to Licentia Patent- Verwaltungs-G. m. b. H. Electrostatic machine. 2,836,785, 5–27–58, Cl. 322—2.

Newell, Blake S. Speed limiting coupling device. 2,836,274, 5–27–58, Cl. 192—104.

Newlin, Monty G. Automatic car starter. 2,836,732, 5–27–58, Cl. 290—38.

Neuman, Frank W. Fork. 2,835,971, 5–27–58, Cl. 30—322.

Neuworth, Martin B., E. B. Hotelling, and E. A. Depp, to Pittsburgh Consolidation Coal Co. Preparation of 6-tertiary butyl orthocresol. 2,836,627, 5–27–58, Cl. 260—624.

Nichols, Robert P. Toy rocket. 2,836,008, 5–27–58, Cl. 46—74.

Nielsen, Alvin R.: *See*—
Pinsky, Jules, Adakonis, and Nielsen. 2,836,318.
Pinsky, Jules, Adakonis, and Nielsen. 2,836,319.

Nippon Electric Co. Ltd.: *See*—
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Nobel, Fred I., and B. D. Ostrow, to Elechem Corp. Nickel plating bath containing acetylenic polyamines. 2,836,549, 5–27–58, Cl. 204—49.

Nolden, William F., and C. F. Robbins, to Cutler-Hammer, Inc. Pushbutton operating means for electric switches. 2,836,666, 5–27–58, Cl. 200—5.

Nordlicher Maschinenbau Rud. Baader: *See*—
Schlichting, Karl F. 2,835,918.

Norton, Harlan K. Automatic crankcase oil level maintainer pump. 2,836,259, 5–27–58, Cl. 184—103.

Novo Teropeutisk Laboratorium A/S: *See*—
Petersen, Karl, and Schlichtkrull. 2,836,542.

Nozawa, Yoshikuni, to Kabushiki Kaisha Sankyo Seiki Seisakusho. Stopping mechanism for a music-box. 2,836,260, 5–27–58, Cl. 185—39.

Nuding, Anton, to General Machine Co., Inc. Cut-off tool. 2,836,240, 5–27–58, Cl. 164—36.

Nutter, Irvin E. Trusses for supporting section removable trays used in refining towers and the like. 2,836,406, 5–27–58, Cl. 261—114.

Nutting, Robert G., and R. F. Windstrup, to United States of America, Army. Rammer. 2,836,106, 5–27–58, Cl. 89—33.

Nydegger, George C., ⅓ each to C. Mason and W. R. Graham, Box. 2,836,341, 5–27–58, Cl. 229—34.

O'Brien, James P.: *See*—
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Oden, Lewis M., Sr., and F. T. Etheredge. Spark plug bomb and leak tester. 2,836,058, 5–27–58, Cl. 73—40.

Odlum, William H., and W. F. Hosford, to Duro Metal Products Co. Reversible one-way drive mechanism. 2,836,273, 5–27–58, Cl. 192—43.1.

Ofner, Frank R., to Industrial Processes, Inc. Separation and recovery of solids and liquid from flour mill wastes. 2,835,984, 5–27–58, Cl. 34—12.

Ofner, Frank R., to Industrial Processes, Inc. Recovery of flour mill wastes. 2,835,985, 5–27–58, Cl. 34—14.

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Oleksij, Dimitrij. Descending parachute device. 2,836,383, 5–27–58, Cl. 244—138.

Olin Mathieson Chemical Corp.: *See*—
Ervin, Ovid L. 2,836,242.
Fried, Josef, Thoma, Periman, and Gerke. 2,836,608.
Neel, Robert M., and Litman. 2,835,961.

Oltarzewski, Edward S. Combined coin counting and wrapping and measuring device. 2,836,019, 5–27–58, Cl. 53—254.

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Shadwick, William D., and Standish. 2,836,461.
Standish, Myles, and Shadwick. 2,836,332.

O'Neill, Paul A., to Union Machine Co. Dispensing apparatus for paint, lacquer or the like. 2,836,331, 5–27–58, Cl. 222—484.

Onsrud Machine Works, Inc.: *See*—
Groen, Willem. 2,836,264.

Ortlieb, Alfred: *See*—
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Osborn, Robert O., to E. I. du Pont de Nemours and Co. Cellulosic sponge process. 2,836,503, 5–27–58, Cl. 106—122.

Osial, Thaddeus A.: *See*—
Vogeley, Clyde E., Jr., and Osial. 2,836,799.

Ostrow, Barnet D.: *See*—
Nobel, Fred I., and Ostrow. 2,836,549.

Otto, George F., to American Chemical Paint Co. Method of and composition for coating zirconium. 2,836,525, 5–27–58, Cl. 148—6.14.

Oury, John F. Apparatus for handling block material. 2,836,311, 5–27–58, Cl. 214—75.

Oury, John F. Brick handling apparatus. 2,836,317, 5–27–58, Cl. 214—653.

Overman, Joseph D., to E. I. du Pont de Nemours and Co. Photographic emulsions and elements. 2,836,494, 5–27–58, Cl. 96—87.

Owen, Douglas H.: *See*—
Glover, William F., and Owen. 2,836,804.

Owens-Illinois Glass Co.: *See*—
Becker, Perry A. 2,836,145.
Drennan, James G., and Thomson. 2,835,963.

Ozarow, Vernon, to General Electric Co. Multi-electrode field controlled germanium devices. 2,836,797, 5–27–58, Cl. 332—52.

Pad-Y-Wax Co., Inc.: *See*—
Stroop, John H. 2,836,291.

Page, Derek H.: *See*—
Johnson, Kenneth I., and Page. 2,836,057.

Page, Donald J. Rotary web aniline press. 2,836,115, 5–27–58, Cl. 101—219.

Paolinelli, Elio. Connector for ceiling or wall mounted lamps. 2,836,646, 5–27–58, Cl. 174—61.

Papini, Anthony. Pivoted shoe fence combination lock. 2,836,049, 5–27–58, Cl. 70—133.

Parcell, Robert F., to Parke, Davis & Co. Piperazine derivatives and process for producing the same. 2,836,594, 5–27–58, Cl. 260—268.

Parcell, Robert F., to Parke, Davis & Co. Piperazine derivatives and process for producing the same. 2,836,595, 5–27–58, Cl. 260—268.

Parke, Davis & Co.: *See*—
Parcell, Robert F. 2,836,594.
Parcell, Robert F. 2,836,595.

Paris Francois G.: *See*—
Reure, Germain M. R., and Paris. 2,836,567.

Parquet, Henri M. E., to Societe d'Applications Generales d'Electricite et de Mecanique, S. A. G. E. M. Apparatus for indicating a direction having a definite relation to the direction of gravity, and in particular apparatus for detecting the true vertical on board of a vehicle. 2,836,071, 5–27–58, Cl. 74—5.47.

Patrick, James D., to General Motors Corp. Treatment of nickel for electroplating chromium thereon. 2,836,552, 5–27–58, Cl. 204—140.

Patterson, Le Roy R., Jr.: *See*—
Davey, Peter E., and Patterson. 2,836,305.

Paul, Wanda L. Lamp assembly. 2,836,710, 5–27–58, Cl. 240—81.

Payne, Nigel E., and F. Freeman, to Rolls-Royce Ltd. Stator construction for axial-flow fluid machine. 2,836,393, 5–27–58, Cl. 253—78.

Pearson, Leonard E.: *See*—
Blinoff, William, Pearson, and Venditti. 2,836,663.

Pearson, Oscar, ¼ to V. C. Hermstad. Roller brush splash guard. 2,835,915, 5–27–58, Cl. 15—248.

Pearson, Raymond E., to Boeing Airplane Co. Airplane wing with slotted flap, cove lip door, and spoiler. 2,836,380, 5–27–58, Cl. 244—42.

Pearson, Yates. Grass header. 2,836,027, 5–27–58, Cl. 56—158.

Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques: *See*—
Spagnoletti, Felix. 2,836,637.

Peers, Charles H., to Minister of Supply, Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland. Catalyst stones for the decomposition of concentrated hydrogen peroxide. 2,836,570, 5–27–58, Cl. 252—441.

Pelissier, Jacques: *See*—
Taine, Roger, and Pelissier. 2,835,929.

Pellier, Christian V.: *See*—
Matthysse, Irving F., and Pellier. 2,836,138.

Pendarvis, Bennie C.: *See*—
Gray, William C., and Pendarvis. 2,836,026.

Pennsylvania Engineering Corp.: *See*—
McFeaters, Harry L. 2,836,309.

Pensky, Mollie. Toothbrush handles. 2,835,912, 5–27–58, Cl. 15—143.

Periman, David: *See*—
Fried, Josef, Thoma, Periman, and Gerke. 2,836,608.

Perri, Frank B., to United Shoe Machinery Corp. Machines for embedding metal jackets into wood cores of dowels. 2,836,218, 5–27–58, Cl. 153—1.

Pertner, Harry A. Jack-operated vehicle body and/or frame straightener. 2,836,219, 5–27–58, Cl. 153—32.

Pertrix-Union G. m. b. H.: *See*—
Sindel, Johann. 2,836,643.

Peschel, Kurt: *See*—
Frey, Alfred, and Peschel. 2,836,778.

Petersen, Karl, and J. Schlichtkrull, to Novo Teropeutisk Laboratorium A/S. Process of production of crystalline insulin. 2,836,542, 5–27–58, Cl. 167—75.

Petrie, James A., to Rolls-Royce Ltd. Locking means for parts having threaded engagement. 2,836,041, 5–27–58, Cl. 64—9.

Petterson, Bror G.: *See*—
Af Ekenstam, Bo T., Egner, and Petterson. 2,836,597.

Pettit, Dorn L., to Square D Co. Magnetic blowout switch. 2,836,685, 5–27–58, Cl. 200—147.

Pfizer, Chas., & Co., Inc.: *See*—
Agnello, Eugene J., and Laubach. 2,836,607.

Pharis, William W., to General Dynamics Corp. Local first selector circuit. 2,836,659, 5–27–58, Cl. 179—18.

Phelan, Louis A. M. Freezer scraper blade and mounting therefor. 2,836,401, 5–27–58, Cl. 259—109.

Philco Corp.: *See*—
Yarbrough, Stanton L. 2,836,693.

Phillips Petroleum Co.: *See*—
Freese, Gearld I. 2,836,249.
Goins, Robert R. 2,836,636.
Hoch, Robert S. 2,836,246.

Piccard, John A., and F. K. Signaigo, to E. I. du Pont de Nemours & Co. Fibrous pellice comprising oriented ethylene terephthalate polymer and amorphous ethylene terephthalate binder and process for making same. 2,836,576, 5–27–58, Cl. 260—45.4.

Pickles, Sidney B., P. R. Adams, and C. Lucanera, to International Telephone and Telegraph Corp. Omnirange beacon antenna. 2,836,820, 5–27–58, Cl. 343—839.

Pierce, Donald A.: *See*—
Barden, Wayne A., and Pierce. 2,836,667.

Pilas, Frank J.: *See*—
Wolke, Roy K., and Pilas. 2,836,746.

Pillsbury Mills, Inc.: *See*—
Fennema, Owen R. 2,836,498.

Pine, Charles: *See*—
Rohrbaugh, John H., Pine, and Zoellner. 2,836,800.

Pinsky, Jules, A. E. Adakonis, and A. R. Nielsen, to Plax Corp. Coated plastic articles. 2,836,318, 5–27–58, Cl. 215—1.

Pinsky, Jules, A. E. Adakonis, and A. R. Nielsen, to Plax Corp. Coated plastic articles. 2,836,319, 5–27–58, Cl. 215—1.

Piochet, Jean. Listening device for detecting fluid flows. 2,836,655, 5–27–58, Cl. 179—1.

Pittsburgh Coke & Chemical Co.: *See*—
Skaptason, Joseph B. 2,836,537.

Pittsburgh Consolidation Coal Co.: *See*—
Neuworth, Martin B., Hotelling, and Depp. 2,836,627.

Plax Corp.: *See*—
Pinsky, Jules, Adakonis, and Nielsen. 2,836,318.
Pinsky, Jules, Adakonis, and Nielsen. 2,836,319.

Poshkus Algirdas C.: *See*—
Clark, Lawrence, and Poshkus. 2,836,572.

Power Jets (Research & Development) Ltd.: *See*—
Barr, John C., and Hodge. 2,836,347.
Chappel, Herbert E., Waldock, and Forman. 2,836,035.

Powers Chemco, Inc.: *See*—
Anander, Andrew K. 2,836,373.

Price, Clifford L., to General Motors Corp. Cap for liquid receptacles. 2,836,258, 5–27–58, Cl. 183—73.

Prill, Edward A., to Boyce Thompson Institute for Plant Research, Inc. Alkylsulfonyl and arylsulfonyl derivatives of methylenedioxyaniline. 2,836,538, 5–27–58, Cl. 167—33.

Primakoff, Gregory G. Internal combustion engines. 2,836,161, 5–27–58, Cl. 123—122.

Princeton Nurserymen's Research Associates: *See*—
Flemer, William 3rd. 2,835,992.

Pringle, Virgil T. Produce display tray. 2,836,339, 5–27–58, Cl. 229—22.

Proctor, Donald D., to E. I. du Pont de Nemours and Co. Nylon extrusion. 2,835,925, 5–27–58, Cl. 18—55.

Quast, Gilbert W.: *See*—
Strehlow, Robert W., and Quast. 2,836,369.

Quist, Harold A., to Sun Oil Co. U-tube manometer. 2,836,067, 5–27–58, Cl. 73—401.

Radio Corp. of America: *See*—
Andrews, Dallas R. 2,836,714.
Morehouse, Clarence K., and Glicksman. 2,836,644.
Morehouse, Clarence K., and Glicksman. 2,836,645.
Mueller, Charles W. 2,836,522.
Scott, Thomas M., and Freedman. 2,836,713.
Spielberg, Arnold. 2,836,715.
Sternberg, Sidney, and Vance. 2,836,720.
Strauss, Herbert E., and Rockwell. 2,836,647.
Turnbull, John C., and Faulkner. 2,836,751.
Wolke, Roy K., and Pilas. 2,836,746.

Raffelson, Harold, and O. E. Thompson, to Monsanto Chemical Co. 1-(β-carboxyethyl)-2-keto-14-methyl-$\Delta^{8,9(10)}$-octahydrophenanthrene and esters. 2,836,617, 5–27–58, Cl. 260—468.5.

Railoc Co., Inc.: *See*—
Rutten, Donald. 2,836,149.

Rakus, Josef M. Valve. 2,836,388, 5–27–58, Cl. 251—182.

Rapata, George M., to Illinois Tool Works. Plastic screw anchor with slotted head. 2,836,214, 5–27–58, Cl. 151—41.75.

Rapata, George M., to Illinois Tool Works. Plastic nut-like fastener with resilient wings. 2,836,215, 5–27–58, Cl. 151—41.75.

Rapata, George M., to Illinois Tool Works. Plastic slip-on nut with resilient flanges. 2,836,216, 5–27–58, Cl. 151—41.75.

Ratchford, Ottwell W. Warming oven for plastic eye glass frames. 2,836,696, 5–27–58, Cl. 219—35.

Ratcliffe, Stanley, to National Research Development Corp. Servo systems. 2,836,721, 5–27–58, Cl. 250—36.

Rattenbury, Kenneth H.: *See*—
Toy, Arthur D. F., and Rattenbury. 2,836,504.

Rawlinson, Charles D. Sr. Combination earth augers and underreamers. 2,836,398, 5–27–58, Cl. 255—69.

Ray, Frank R. Fluid pressure operated torque wrench. 2,836,090, 5–27–58, Cl. 81—54.

Raymer, Morris M., Jr.: *See*—
Thompson, Joseph J., and Raymer. 2,836,495.

Raymond, Richard C., to Haller, Raymond and Brown, Inc. Antenna. 2,836,824, 5–27–58, Cl. 343—795.

Raytheon Mfg. Co.: *See*—
Gross, Thomas A. O. 2,836,784.
La Rue, Albert D. 2,836,764.

Razdow, Adolph. Inspection device for irregular mechanical parts or the like. 2,835,942, 5–27–58, Cl. 22—113.

Razdow, Adolph. Apparatus for inspecting mechanical parts. 2,835,983, 5–27–58, Cl. 33—175.

Rees, John, to Bristol Aircraft Ltd. Method of making forming tools. 2,836,530, 5–27–58, Cl. 154—110.

Reich, Leo: *See*—
Wilbert Godfrey, Reich, and Swigert. 2,836,601.

Reichardt, Pierre, to Societe Belge d'Optique et d'Instruments de Precision Societe Anonyme. Medical acoustic device. 2,836,255, 5–27–58. Cl. 181—24.

Reilly, Bertram B., to Dravo Corp. Direct fired hot air heating apparatus. 2,836,169, 5–27–58, Cl. 126—110.

Reinhold, Richard S. to Boeing Airplane Co. Lightweight structural body and process of fabricating the same. 2,836,267, 5–27–58. Cl. 189—34.

Remington Leland F.: *See*—
Gamble, Ralph S., and Remington. 2,836,133.

Remington, Leland F., to Curtis & Marble Machine Co. Steam-operated stopping mechanism for a textile machine. 2,836,668. 5–27–58, Cl. 200—61.13.

Reure, Germain M. R. and F. G. Paris, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, and Etat Francais, Ministere de la Defense Nationale, represented by the Directeur Central des Pondres. Apparatus for generating smoke, fog, aerosols and layers of gas or dispersions. 2,836,567, 5–27–58, Cl. 252—359.

Reynolds, Francis D., to Boeing Airplane Co. Make-before-break relays. 2,836,673. 5–27–58, Cl. 200—87.

Reynolds Metals Co.: *See*—
Streng, Alex G., and Kirshenbaum. 2,836,484.

Rice, William A. Cigarette holder. 2,836,184, 5–27–58, Cl. 131—182.

Rich, Theodore A., to United States of America, Navy. Radiation survey system. 2,836,726, 5–27–58, Cl. 250—83.6.

Richards, Raymond S.: *See*—
Kessler, Harold D., and Richards. 2,836,527.

Richter, Robert, and F. Koch, to C. Zeiss. Wide angle anastigmatic objective. 2,836,100, 5–27–58, Cl. 88—58.

Riesing, Ellwood F., to General Motors Corp. Fluid seal. 2,836,450. 5–27–58, Cl. 288—3.

Ringler, William A., to Diamond Gardner Corp. Carton. 2,836,342. 5–27–58, Cl. 229—37.

Rink, P. Jess: *See*—
Carrillo, Z. George. 2,836,381.

Roach, James R.: *See*—
Dilworth, John P., and Roach. 2,836,563.

Robbins, Clyde F.: *See*—
Nolden, William F. and Robbins. 2,836,666.

Robbins, Edward S., to Robbins Tire and Rubber Co., Inc. Curing bag drainer assembly. 2,835,923, 5–27–58, Cl. 18—45.

Robbins, Ralph. Foam rubber mattress. 2,835,906, 5–27–58, Cl. 5—351.

Robbins Tire and Rubber Co., Inc.: *See*—
Robbins, Edward S. 2,835,923.

Robbins Tire & Rubber Co., Inc.: *See*—
White, Eldridge S. 2,835,921.

Roberts, Edward N., and E. K. Fieds, to Standard Oil Co. Corrosion inhibitors and compositions containing the same. 2,836,564, 5–27–58, Cl. 252—47.5.

Roberts, George R., and R. T. Heathcote, to The Bowater Research and Development Co. Ltd. Winding mandrel mounting. 2,836,372, 5–27–58, Cl. 242—55.

Robertson, Dayton B.: *See*—
Robinson, Thomas I. 2,836,150.

Robinson, David M., to The Staley Works. Pre-installation assembly for swing-up doors. 2,836,289, 5–27–58, Cl. 206—46.

Robinson, Preston, to Sprague Electric Co. High voltage slug capacitor. 2,836,777, 5–27–58, Cl. 317—242.

Robinson, Sarah L. Tandem container assemblies. 2,836,323, 5–27–58, Cl. 220—4.

Robinson, Thomas I., ¼, to T. N. Robinson, and ¼ to D. B. Robertson. Livestock feeder. 2,836,150, 5–27–58, Cl. 119—52.

Robinson, Thomas N.: *See*—
Robinson, Thomas I. 2,836,150.

Rockwell, Daniel T.: *See*—
Strauss, Herbert E., and Rockwell. 2,836,647.

Roder, Ernst: *See*—
Falck, Werner, Roder, and Voll. 2,836,741.

Roe, Loyal K.: *See*—
Erickson, Fred E., and Roe. 2,836,325.

Roeder, Wesley S. Manipulative aptitude test apparatus. 2,835,986, 5–27–58, Cl. 35—13.

Roelen, Otto: *See*—
Gothel, Herbert, Kolling, Roelen, and Geiser. 2,836,635.

Rogers, Job R.: *See*—
MacNichol, Edward F., Jr., Connelly, and Rogers. 2,836,810.

Rohdin, Howard A. Feed rolls for bag making and like machines. 2,836,415, 5–27–58, Cl. 271—2.3.

Rohm & Haas Co.: *See*—
Exner, Lawrence J., and De Benneville. 2,836,611.
Rowland, Stanley P., and White. 2,836,605.

Rohrbaugh, John H., C. Pine, and W. G. Zoellner. Method for making a bolometer 2,836,800, 5–27–58, Cl. 333—22.

Rohrer, Kenneth L., to Westinghouse Electric Corp. Marking inks containing glycidyl polyethers, rosin, and aluminum nitrate. 2,836,573, 5–27–58, Cl. 260—24.

Rolls-Royce Ltd.: *See*—
Payne, Nigel E., and Freeman. 2,836,393.
Petrie, James A. 2,836,041.

Rompre, Elmer J., to Minnesota and Ontario Paper Co. Roof deck fabricating mechanism. 2,836,282, 5–27–58, Cl. 198—33.

Rorig, Kurt J., to G. D. Searle & Co. Bis (hydroxyphenyl) alkenones and process. 2,836,623, 5–27–58, Cl. 260—590.

Rork, Elwood C., to Arcturus Mfg. Co., Inc. Method of forging balanced turbine impellers and the like. 2,835,960, 5–27–58, Cl. 29—156.8.

Rösch, Georg, H. Klappert, and W. Wolf, to Farbenfabriken Bayer Akt. Process for the production of 2-amino-5-iminopyrrolenines. 2,836,602, 5–27–58, Cl. 260—313.

Rose, Charles M. Dial indicators. 2,835,980, 5–27–58, Cl. 33—172.

Rose Ribbon & Carbon Mfg. Co., Inc.: *See*—
Rosenblum, Carl. 2,836,152.

Rosebrook, Roy, to True-Trace Corp. Tracer mechanism. 2,836,387, 5–27–58, Cl. 251—3.

Rosenberg, Max, to Gaylord Products, Inc. Electric switch for linkages. 2,836,669, 5–27–58, Cl. 200—61.89.

Rosenblum, Carl, to Rose Ribbon & Carbon Mfg. Co., Inc. Means for correcting hectographic master sheets. 2,836,152, 5–27–58, Cl. 120—36.

Rossell, William T., to Transit Research Corp. Journal bearing assembly. 2,836,130, 5–27–58, Cl. 105—224.

Rover Co. Ltd., The: *See*—
King, Charles S. 2,836,448.

Rowland, Stanley P., and R. G. White, to Rohm & Haas Co. In situ epoxidation using acetic anhydride and a basic salt. 2,836,605, 5–27–58, Cl. 260—348.5.

Roy, Gerard E. Means for converting a station wagon to sleeping accommodation. 2,835,903, 5–27–58, Cl. 5—118.

Ruby, Donald W., and E. Saudinaitis, to Zenith Radio Corp. Vertical size compensation. 2,836,762, 5–27–58, Cl. 315—22.

Ruhrchemie Akt.: *See*—
Gothel, Herbert, Kölling, Roelen, and Geiser. 2,836,635.

Ruth, Arthur P. Pumping apparatus. 2,836,126, 5–27–58, Cl. 103—260.

Ruth, Joseph P. Sugar diffusing apparatus. 2,836,519, 5–27–58, Cl. 127—7.

Rutten, Donald, to Railoc Co., Inc. Silage distributor. 2,836 149 5–27–58, Cl. 119—52.

Ryan, George R., to Abbott Laboratories. Closure connecting means. 2,836,179, 5–27–58, Cl. 128—214.

Sage, Bruce H., to Texaco Development Corp. Annulus type burner for the production of synthesis gas. 2,836,234, 5–27–58, Cl. 158—116.

Saito, Haruso, to Astra Merchandise Co., Inc. Novelty gun. 2,836,167, 5–27–58, Cl. 124—27.

Salch, Anton J. Safety steering shaft. 2,836,079, 5–27–58, Cl. 74—493.

Salmon, Benjamin T., to General Dynamics Corp. Ramjet wing system for jet propelled aircraft. 2,836,379, 5–27–58, Cl. 244—15.

Salvo, Anthony. Method of cooking potato chips. 2,836,486, 5–27–58, Cl. 99—100.

Samios, George, and G. E. King, to Westinghouse Electric Corp. Electrical control circuit. 2,836,770, 5–27–58, Cl. 317—31.

Sample, Thomas E., Jr., to Monsanto Chemical Co. Colloidal systems of cyanoethylated starch and their use. 2,836,511, 5–27–58, Cl. 117—65.

Sample Thomas E., Jr., to Monsanto Chemical Co. Cyanoethylated starch solutions. 2,836,512, 5–27–58, Cl. 117—65.

Samuel, George A., to Metal Diffusions, Inc. Chromizing, adhering coating. 2,836,513. 5–27–58, Cl. 117—103.

Samuel Stamping & Enameling Co.: *See*—
Solomon, Ralph E. 2,836,170.

Sandin, Jerome, to Westinghouse Electric Corp. Reclosing circuit breaker. 2,836,769, 5–27–58, Cl. 317—22.

Sankey, Edward L.: *See*—
Bale, Alton G., Jr., and Sankey. 2,836,680.

Sankey, Edward L., to McGraw-Edison Co. Fuse cutout construction. 2,836,679, 5–27–58, Cl. 200—114.

Sapp, Elton L. Connected tables. 2,836,475, 5–27–58, Cl. 311—4.

Sarkes Tarzian, Inc.: *See*—
Kreppe, James E., Jr. 2,836,711.

Sasaki, Yoso: *See*—
Ishikawa, Yoshioki, Sasaki, and Sato. 2,836,776.

Sato, Ichior: *See*—
Ishikawa, Yoshioki, Sasaki, and Sato. 2,836,776.

Saudinaitis, Emanuel: *See*—
Ruby, Donald W., and Saudinaitis. 2,836,762.

Saunders, Earle R.: *See*—
Brennan, Joseph H., and Saunders. 2,836,486.

Saunders, George H.: *See*—
Heller, Harold H., and Saunders. 2,836,551.

Schaap, Willem F. C., to The Babcock & Wilcox Co. Tubular vapor generating and vapor superheating units. 2,836,156, 5–27–58, Cl. 122—392.

Schaelchlin, Walter, and C. E. Gary, to Westinghouse Electric Corp. Control apparatus. 2,836,074, 5–27–58, Cl. 74—395.

Schafer, Vernon E., Jr.: *See*—
Frick, Charles H., and Schafer. 2,836,410.

Scharstein, Ernst, E. Schwab, and K. Luts, to Siemens-Schuckertwerke Akt. Voltage regulating apparatus, particularly for synchronous machines. 2,836,786, 5–27–58, Cl. 322—25.

Schaufelberger, Felix A., and W. R. McCormick, to Chemical Construction Corp. Hydrometallurgical precipitation of metal powder. 2,836,485, 5–27–58, Cl. 75—0.5.

Scheldorf, Owen H., to General Electric Co. Compression arrangement. 2,836,349. 5–27–58. Cl. 230—206.

Schilling, Clarence J., to Air Products, Inc. Method for the fractionation of air. 2,836,040, 5–27–58, Cl. 62—175.5.

Schlichting, Karl F., to Nordischer Maschinenbau Rud. Baader. Fish head and tail cutter. 2,835,918, 5–27–58, Cl. 17—4.

Schlichtkrull, Jörgen: *See*—
Petersen, Karl, and Schlichtkrull. 2,836,542.

Schmauss, William F.: *See*—
Lewis, Edward F., v. d. Luft, and Schmauss. 2,836,296.

Schmeling, William H., to General Motors Corp. Method of molding rubber foam latex strips and the like. 2,835,924. 5–27–58, Cl. 18—53.

Schmid, Raymond W.: *See*—
Kubik, Paul P., and Schmid. 2,836 452.

Schmits, Leonard S. and M. L. Barn litter collecting and loading apparatus. 2,836,310, 5–27–58, Cl. 214—41.

Schmits, Mathias L.: *See*—
Schmits, Leonard S. and M. L. 2,836,310.

Schmuck, Rudolph H., to Esso Research and Engineering Co. Three dimensional seimic computer. 2,835,973, 5–27–58. Cl. 33—1.

Schoenmakers, Pieter J., and W. L. van de Putte, to Shell Development Co. Nozzle for gas burners and the like having circumferential slots. 2,836,233, 5–27–58, Cl. 158—116.

Schonrock, Edwin A. Bulk material compactor for refuse trucks. 2 836,316, 5–27–58, Cl. 214—501.

Schultz, Harold B. Collapsible camping trailer. 2,836,456, 5–27–58, Cl. 296—23.

Schultz, Theodore J., to United States of America, Navy. Acoustic wattmeter. 2,836,656, 5–27–58, Cl. 179—1.

Schulz Tool and Mfg. Co.: *See*—
Mosher, James K. 2,836,474.

Schulz, William E., to E. I. du Pont de Nemours and Co. Red lead composition having improved flow properties. 2,836,483, 5–27–58, Cl. 52—2.

Schumacker, Robert V. Fish hook extractors. 2,836,003, 5–27–58, Cl. 43—53.5.

Schuman, Gunnar B. Pole climbing device. 2,836,335, 5–27–58. Cl. 227—26.

Schwab, Erich: *See*—
Scharstein, Ernst, Schwab, and Lutz. 2,836,786.

Schwab, Max, deceased; O. B. Schwab, administratrix of said M. Schwab, and K. W. Heimann. Electric sewing machine drives. 2,836,276. 5–27–58, Cl. 192—145.

Schweikher, Ernest W.: *See*—
Gray, Allen G., and Schweikher. 2,836,548.

Schweitzer, Carl E., to E. I. du Pont de Nemours and Co. Polycarbonamide from hexamethylene diamine and 2,2-bis-(carboxyphenyl) propane. 2,836,579, 5–27–58, Cl. 260—78.

Scott, Ray W. Apparatus for dyeing leather lacing. 2,836,048, 5–27–58, Cl. 69—1.

Scott, Thomas M., and L. A. Freedman, to Radio Corp. of America. Transistor radio receiver tuning indicator. 2,836,713, 5–27–58, Cl. 250—20.

Scovill Mfg. Co.: *See*—
Blake, John T. 2,835,948.
Sonntag, Karl F. 2,835,950.

Scrugge, Anna T., to Karoll's, Inc. Combination outer and under garment. 2,835,897, 5–27–58, Cl. 2—71.

Searle, G. D., & Co.: *See*—
Gentry, Robert E., Jr., and Burtner. 2,836,624.
Rorig, Kurt J. 2,836,623.

Seeles, Hans: *See*—
Teale, Ronald S., Seeles, and Konau. 2,836,560.

Seider, John P., to Western Electric Co., Inc. Condenser discharge welding system. 2,836,787, 5–27–58, Cl. 323—18.

Seifter, Eli, to Monsanto Chemical Co. Palatability of vegetable foods. 2,836,010, 5–27–58, Cl. 47—58.

Seifter, Eli, to Monsanto Chemical Co. Nematode control. 2,836,532. 5–27–58, Cl. 167—14.

Seifter, Eli, to Monsanto Chemical Co. Nematocide. 2,836,533, 5–27–58, Cl. 167—14.

Selby, Jack H., to The Warner & Swasey Co. Collar for gill box. 2,835,930, 5–27–58, Cl. 19—159.

Sells, Robert L. Cervical cap. 2,836,177, 5–27–58, Cl. 128—127.

Serr, Wilhelm F. Combined strainer and drip catcher. 2,836,300, 5–27–58, Cl. 210—248.

Seyfarth, Robert, to General Motors Corp. Heating and ventilating system or apparatus for vehicles. 2,836,113, 5–27–58, Cl. 98—2.

Shadwick, William D.: *See*—
Standish, Myles, and Shadwick. 2,836,332.

Shadwick, William D., and M. Standish, to Omaha Standard, Inc. Trailer hopper. 2,836,461, 5–27–58, Cl. 298—35.

Shafer, Homer J., to Shafer Valve Co. Automatic reopening system for pipe line valve. 2,836,192, 5–27–58, Cl. 137—488.

Shafer Valve Co.: *See*—
Shafer, Homer J. 2,836,192.

Shaw, Albert E. Vegetable cutter. 2,836,212, 5–27–58, Cl. 146—160.

Sheffield Corp., The: *See*—
Boppel, Henry L. 2,835,982.

Sheldon, Joseph A. Dental instrument. 2,835,972, 5–27–58, Cl. 32—66.

Shell Development Co.: *See*—
Fetterly, Lloyd C. 2,836,632.
Hofstede, Marinus J. 2,836,481.
Lamb, John. 2,836,308.
Schoenmakers, Pieter J., and van de Putte. 2,836,233.

Teale, Ronald S., Seeles, and Konau. 2,836,560.

Sheppard, Richard H. Bearing structure cap locator. 2,836,470, 5–27–58, Cl. 308—74.

Sheridan, T. W. & C. B., Co.: *See*—
Gray, Landon R., and Hawkes. 2,835,947.

Sherr, Solomon: *See*—
Flower, Robert A., Hales, and Sherr. 2,836,813.

Sherritt Gordon Mines Ltd.: *See*—
Mackiw, Vladimir N., Kunda, and Lin. 2,836,490.

Shields, Stanley E., P. W. Dewey, and W. A. Shire, Jr., to Standard Oil Co. Sampling and metering device for fluent solid materials. 2,836,069, 5–27–58, Cl. 73—424.

Shipley, Randall B. Electrical load dispatcher. 2,836,733, 5–27–58, Cl. 307—57.

Shire, William A., Jr.: *See*—
Shields, Stanley E., Dewey, and Shire. 2,836,069.

Shofi, William. Distress signal discharge device. 2,836,143, 5–27–58, Cl. 116—124.

Shuman, Harry N., to United States Ceramic Tile Co. Tile with spacer lugs. 2,836,055. 5–27–58, Cl. 72—18.

Shumate, Charles R., to ACF Industries, Inc. Quick opening valve. 2,836,390, 5–27–58, Cl. 251—196.

Siemens-Shuckertwerke Akt.: *See*—
Falck, Werner, Roder, and Voll. 2,836,741.
Scharstein, Ernst, Schwab, and Lutz. 2,836,786.

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Piccard, John A., and Signalgo. 2,836,576.

Slaymaker, Frank H.: *See*—
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Silen, Melvin L. Fish lure. 2,836,001, 5–27–58, Cl. 43—42.06.

Silvernail, Lloyd H., G. K. Greminger, Jr., and M. A. Weaver, to The Dow Chemical Co. Thermoplastic compositions of water-soluble cellulose ethers. 2,836,506, 5–27–58, Cl. 106—188.

Sindel, Johann, to Pertrix-Union G. m. b. H. Galvanic battery. 2,836,643, 5–27–58, Cl. 136—111.

Skaptason, Joseph B., to Pittsburgh Coke & Chemical Co. Method of treating plants to protect against rust. 2,836,537, 5–27–58, Cl. 167—22.

Skrobisch, Alfred, to Allard Instrument Corp. Electrically controlled magnetic movement. 2,836,773, 5–27–58, Cl. 317—171.

Slocombe, Robert J.: *See*—
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Smith, Jack C., to Detrex Chemical Industries, Inc. Dry cleaning apparatus. 2,836,045, 5–27–58, Cl. 68—18.

Smith, James L.: *See*—
Boyle, Willard S., and Smith. 2,836,703.

Smith, John R.: *See*—
Wheelock, George L., and Smith. 2,836,584.

Smith, John W., to The English Electric Co. Ltd. Guide bearings. 2,836,472, 5–27–58, Cl. 308—134.1.

Smith, Merrill M., and W. C. Bleher, to American Biltrite Rubber Co., Inc. Process and apparatus for forming plastic materials. 2,835,920. 5–27–58, Cl. 18—1.

Smith, Thomas R., to The Maytag Co. Tumbler type washing machines. 2,836,046, 5–27–58, Cl. 68—24.

Smith, Thomas R., to The Maytag Co. Balancing ring system for rotatable receptacles. 2,836,083, 5–27–58, Cl. 74—573.

Smith, William A., V. L. Mattson, and G. Meyer, to The American Metal Co., Ltd. Split circuit potash ore flotation concentration. 2,836,297, 5–27–58, Cl. 209—166.

Smits, Wytze B. Surface discharge spark plug. 2,836,756, 5–27–58, Cl. 313—131.

Smythe, Edwin T., and S. F. Murphy, to Washington Steel Products, Inc. Door and drawer pull. 2,835,917, 5–27–58, Cl. 16—124.

Snarr, James L., and M. G. Brown, to Atomic Energy of Canada, Ltd. Beam therapy diaphragm. 2,836,729, 5–27–58, Cl. 250—105.

Snyder, Frederick D., to Westinghouse Electric Corp. Two-speed output gearmotor. 2,836,085, 5–27–58, Cl. 74—812.

Snyder, William N. Burial capsule. 2,835,955, 5–27–58, Cl. 27—17.

Societa r. l. A. P. I.: *See*—
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Societe Anonyme Adolphe Saurer: *See*—
Wiget, Georg, and Dubs. 2,836,202.

Societe Anonyme Andre Citroen: *See*—
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Societe Belge d'Optique et d'Instruments de Precision Societe Anonyme: *See*—
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Societe d'Applications Generales d'Electricite et de Mecanique, S. A. G. E. M.: *See*—
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Societe Francaise de Materiaux et Produits Hydrofuges "La Callendrite": *See*—
Bove, Pierre. 2,836,221.

Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, and Etat Francais, Ministers de la Defense Nationale: *See*—
Renure, Germain M. R., and Paris. 2,836,567.

Solomon, Ralph E., to Samuel Stamping & Enameling Co. Floor furnace. 2,836,170, 5–27–58, Cl. 126—116.

Soltess, Pablo, and N. Tannenbaum. Appliance for use with an infant's feeding bottle. 2,836,321, 5–27–58, Cl. 215—11.

Sommer, Alfred H., to Electric & Musical Industries Ltd. Electron multipliers. 2,836,735, 5–27–58, Cl. 313—95.

Sonntag, Karl F., to Scovill Mfg. Co. Pass case binder. 2,835,950, 5–27–58, Cl. 24—153.

Souchét, Andre A. H., to La Telemecanique Electrique (Societe Anonyme). Arc-extinction casing for circuit-breaker. 2,836,683, 5–27–58, Cl. 200—144.

Southwestern Industrial Electronics Co.: *See*—
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Erath, Louis W. 2,836,723.

Spaeth, Charles E., to United Aircraft Corp. Disc vibration damping means. 2,836,392, 5–27–58, Cl. 253—77.

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Spaeth, Otto L., to The Spaeth Foundation. Remote control brake for phonograph turntable. 2,836,263, 5–27–58, Cl. 188—74.

Spagnoletti, Félix, to Pechiney, Compagnie de Produits Chimiques et Electrometallurgiques. Apparatus for removing liquid metal from furnaces. 2,836,637, 5–27–58, Cl. 13—33.

Spalding, James C., Jr.: *See*—
Bock, Morris, and Spalding. 2,836,559.

Sperry Rand Corp.: *See*—
Delp, Elmer Z., and Dughi. 2,836,432.
Welsh, Herbert F. 2,836,245.

Spethmann, Otto. Lighting torches. 2,836,043, 5–27–58, Cl. 67—55.

Spetner, Norman, to Blanco Mfg. Co. Sanitary attachment for settee. 2,836,229, 5–27–58, Cl. 155—182.

Spielberg, Arnold, to Radio Corp. of America. Signal shaping circuit. 2,836,715, 5–27–58, Cl. 250—27.

Sprague Electric Co.: *See*—
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Sprague, Gale C. Deviation of light by utilizing electrical field. 2,836,652, 5–27–58, Cl. 178—7.6.

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Standish, Myles: *See*—
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Square D Co.: *See*—
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Stader, Otto. Device for removing fish hooks. 2,836,004, 5–27–58, Cl. 43—53.5.

Stahl, William F., to Minneapolis-Honeywell Regulator Co. Controller. 2,836,367, 5–27–58, Cl. 236—98.

Standard Mirror Co., Inc.: *See*—
Bertell, Paul, Meade, and Weingartner. 2,836,104.

Standard Oil Co. (Indiana): *See*—
Esmay, Donald L., Fotis, and Johnson. 2,836,633.
Roberts, Edward N., and Fields. 2,836,564.
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Standard Oil Co. (Ohio), The: *See*—
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Standard Screw Co.: *See*—
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Standish, Myles, and W. D. Shadwick, to Omaha Standard, Inc. Hopper. 2,836,332, 5–27–58, Cl. 222—502.

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Starr, James H., and R. A. Clark, Jr. Calculating tables, and the like. 2,836,858, 5–27–58, Cl. 235—61.

Starrett L. S., Co. The: *See*—
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Starrett, Rupert M. Key container. 2,836,053, 5–27–58, Cl. 70—456.

Statham Instruments, Inc.: *See*—
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Stauss, John B.: *See*—
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Steelcraft Mfg. Co., The: *See*—
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Steinhoff, Eduard, and M. Grossmann, to Didier-Werke A. G. Electric resistance melting furnaces. 2,836,638, 5–27–58, Cl. 13—33.

Steinlein & Kunze G. m. b. H.: *See*—
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Steimak, John P., D. L. Moore, and W. O. Mansfield, Jr., to Westinghouse Electric Corp. Hermetically sealed electrical discharge device. 2,836,702, 5–27–58, Cl. 219—85.

Sterkin, Albert. Foldable shelter. 2,835,931, 5–27–58, Cl. 20—2.

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Carroll, Richard H. 2,836,320.
Cutler, Royal A. 2,836,539.
Lager, Roger K. 2,836,541.

Sternberg, Sidney, and A. W. Vance, to Radio Corp. of America. Balancing circuit. 2,836,720, 5–27–58, Cl. 250—27.

Stevens, David R. Reversible adjustable meat cutting block. 2,836,213, 5–27–58, Cl. 146—215.

Stewart, Charles W., to The Sprague Meter Co. Combination meter top and regulator. 2,836,065, 5–27–58, Cl. 73—199.

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Stitt, Charles M. Light filter. 2,836,707, 5–27–58, Cl. 240—1.1.

Stoddard, Carl K., and P. J. Maddex, to Titanium Metals Corp. of America. Purification of titanium tetrachloride. 2,836,547, 5–27–58, Cl. 202—57.

Stokes, Jeffrey R., and F. M. Springer, to Bill Jack Scientific Instrument Co. Damping mechanism. 2,836,070, 5[27–58, Cl. 74—5.5.

Stone, Arthur R. Cut-off machine. 2,836,015, 5–27–58, Cl. 51—98.

Strauss, Herbert E., and D. T. Rockwell, to Radio Corp. of America. Coaxial transmission line connecting or termination device. 2,836,647, 5–27–58, Cl. 174—75.

Strauss, William A., Jr., ½ to C. C. Chapple. Fluid conduit and flow control apparatus. 2,836,180, 5–27–58, Cl. 128—215.

Strehlow, Robert W., and G. W. Quast, to Chain Belt Co. Food waste grinder. 2,836,369, 5–27–58, Cl. 241—46.

Streng, Alex G., and A. D. Kirshenbaum, to Reynolds Metals Co. Aqueous metal powder explosive. 2,836,484, 5–27–58, Cl. 52—15.

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Stroop, John H., to Pad-Y-Wax Co., Inc. Edible strip package and method of making same. 2,836,291, 5–27–58, Cl. 206—56.

Stroup, Robert C., to Union Carbide Corp. Conductive pad for electrode joint. 2,836,806, 5–27–58, Cl. 339—263.

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Sumi, Masao: *See*—
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Summers, Erwin R., to General Electric Co. Regulating machines for controlling the speed of induction motors. 2,836,779, 5–27–58, Cl. 318—197.

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Sutton, Francis P., and C. L. Buckenham, to Lightning Fasteners Ltd. Slide fasteners. 2,835,951, 5–27–58, Cl. 24—205.11.

Swenson, Carl T., to Milsco Mfg. Co. Seat pedestal. 2,836,225, 5–27–58, Cl. 155—90.

Swenson, Carl T., to Milsco Mfg. Co. Cushioned seat. 2,836,227, 5–27–58, Cl. 155—179.

Swenson, Paul F., and M. T. Cooperrider, to Swenson Thermal Research, Inc. Burner controller with safety cut-off. 2,836,365, 5–27–58, Cl. 236—21.

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Tally, Sidney K., and V. F. Dahlgren. Apparatus for assembling modules. 2,835,962, 5–27–58, Cl. 29—203.

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Taylor, Douglas C.: *See*—
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Taylor, Leta S.: *See*—
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Teller, W. K., and E. Marchuk, to Weco Products Co. Method of treating nylon bristles and products produced thereby. 2,836,516, 5–27–58, Cl. 117—138.5.

Templin, Jackson R., to General Electric Co. Constant temperature device. 2,836,639, 5–27–58, Cl. 136—4.

Teot, Arthur S., to The Dow Chemical Co. Method for polymerising and sulfonating vinylidene aromatic compounds. 2,836,578, 5–27–58, Cl. 260—49.

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Thompson, Joseph J., and M. M. Raymer, Jr., to Kellogg Co. Production of ready-to-eat composite flaked cereal products. 2,836,495, 5–27–58. Cl. 99—81.

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Tracy, Benjamin F., and J. O. Eads, to National Mine Service Co. Continuous mining machine of the boring type having adjustable cutter chains. 2,836,407, 5–27–58, Cl. 262—7.

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Turner, William D. Multiple puzzle devices. 2,836,421, 5–27–58, Cl. 273—160.

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Tydeman, Clarence W. Mounting for preloading tapered roller bearings. 2,836,473, 5–27–58, Cl. 308—207.

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Uhlig, Arno and W. Differential actuating mechanism. 2,836,354, 5–27–58, Cl. 235—60.

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Van der Lely, Cornelis and A., to C. van der Lely. Raking device. 2,836 030, 5–27–58, Cl. 56—377.

Vanderlyn, Philip B., to Electric & Musical Industries Ltd. Electrical sound transmission systems. 2,836,662, 5–27–58, Cl. 179—100.1.

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D 3— 9: Des. 182,899
26: Des. 182,919
D 4— 3: Des. 182,875
D 9— 6: Des. 182,917
D10— 8: Des. 182,871
9: Des. 182,889
D13— 4: Des. 182,893
D14— 3: Des. 182,877
Des. 182,883
6: Des. 182,870
30: Des. 182,932
D15— 1: Des. 182,888
D15— 8: Des. 182,902
11: Des. 182,895
Des. 182,901
D21— 1: Des. 182,928
Des. 182,929
Des. 182,933
Des. 182,934
D22— 2: Des. 182,937
3: Des. 182,935
D26— 1: Des. 182,942
7: Des. 182,931
13: Des. 182,879
D29—23: Des. 182,912
D29—23: Des. 182,939
D31— 4: Des. 182,891
D33—14: Des. 182,910
Des. 182,911
Des. 182,926
D34— 5: Des. 182,892
Des. 182,906
Des. 182,936
15: Des. 182,916
Des. 182,918
D42— 7: Des. 182,869
Des. 182,876
Des. 182,900
D44— 1: Des. 182,885
9: Des. 182,909
Des. 182,921
29: Des. 182,878
D45—15: Des. 182,872
D49— 1: Des. 182,873
Des. 182,886
Des. 182,887
6: Des. 182,922
D54—12: Des. 182,923
D58— 6: Des. 182,882
8: Des. 182,930
D58—26: Des. 182,940
D71— 1: Des. 182,874
Des. 182,880
D72— 1: Des. 182,881
D74—17: Des. 182,925
D80— 9: Des. 182,884
Des. 182,894
10: Des. 182,907
D81—10: Des. 182,908
Des. 182,938
D83— 1: Des. 182,924
D87— 5: Des. 182,868
D90—20: Des. 182,913
Des. 182,941
D91— 4: Des. 182,920
D92— 1: Des. 182,890
Des. 182,896
Des. 182,897
Des. 182,898
Des. 182,903
Des. 182,904
Des. 182,905
Des. 182,914
Des. 182,915

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

May 27, 1958 Volume 730 Number 4

TRADEMARKS

NOTICES

Service by Publication

A petition to cancel the registration identified below having been filed, and the notice of such proceeding sent by registered mail to the registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrant listed herein, his assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

Booker McClay, Washington, D. C., Reg. No. 560,823, Canc. No. 7081.

MAURICE A. CREWS,
Assistant Commissioner of Patents.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 276,868 (SCOTT'S TURF BUILDER), O. M. Scott & Sons Co., Fertilizers; **TM 340,485** (SCOTT'S AND DESIGN), same, Field, garden and grass seeds; **TM 341,690**, same; **TM 562,404** (SCOTT'S), same, Fertilizers for the farm, golf courses and lawns; **TM 563,454**, same, Mechanical wheeled spreaders for seeding, weeding, and feeding; **TM 563,909**, same, Chemical preparation designed for controlling and destroying weeds and controlling pests; **TM 614,782** (SCOTTS WAND), same, Hand applicator for a dry weed control compound, **filed** June 24, 1957, D. C. Minn. (Minneapolis), Doc. 5822, *O. M. Scott & Sons Co.* v. *Foley Manufacturing Co.* Stipulation of dismissal without prejudice; defendant agrees not to use "SCOTSMAN," "SCOTT," or "SCOTT'S," Nov. 5, 1957 (received Apr. 22, 1958).

TM 340,485. (See No. 276,868.)

TM 341,690. (See No. 276,868.)

TM 397,412 (JULIANELLI), Mabel Winkel & Co., Boots, shoes and slippers of leather, etc., **filed** Feb. 20, 1958, D. C., S. D. N. Y., Doc. 130/89, *Mabel Winkel & Co. et al.* v. *Juliano Italian Room Shoes.* Consent judgment; defendants enjoined Apr. 21, 1958.

TM 541,195 (STAUFFER SYSTEM), B. H. Stauffer, Weight reducing treatment etc.; **TM 592,792** (HOME PLAN STAUFFER), Stauffer System, Electric motor driven vibrators used for posture correction; **TM 597,442** (STAUFFER), Stauffer System, Electrically operated table with mechanical motion for passive exercise, etc., **filed** Mar. 13, 1958, D. C., E. D. Mich. (Detroit), Doc. 17803, *Stauffer Laboratories* v. *Automatic Controls Corp.* Judgment for plaintiff Apr. 17, 1958.

TM 550,211 (CIRCULAR BLUE DOT FOR LIGHT BULBS), Sylvania Electric Products, Inc., Incandescent lamps or bulbs used in photography, **filed** Jan. 21, 1955, D. C. Del. (Wilmington), Doc. 1679, *Sylvania Electric Products, Inc.* v. *Solar Electric Corp.* Order of approval by both parties making Certified Electric Corp. a party defendant Feb. 29, 1956; stipulation of dismissal Apr. 18, 1958.

TM 562,404. (See TM 276,868.)

TM 563,454. (See TM 276,868.)

TM 563,909. (See TM 276,868.)

TM 568,635 (LITTLE LEAGUE BASEBALL AND DESIGN), Little League Baseball, Inc., Juvenile baseball; **TM 590,251**, same, Tee shirts and sweatshirts; **TM 606,748** (LIT-

CONDITION OF TRADEMARK APPLICATIONS AS OF MARCH 31, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,234
Date of oldest new application	Aug. 7, 1957
Date of oldest amended application	Aug. 12, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION

	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 44, 50	8-26-57	8-12-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	8-13-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks	8-7-57	10-23-57
Renewals (All Classes)	2-25-58	3-14-58
Sec. 12 (c) Publications (All Classes)	2-6-58	3-17-58

Applications Filed During the Month of March 1958—1,966

Registrations Issued 322—No. 662,065 to No. 662,386
Renewals Issued 69

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

TLE LEAGUER), same, Magazines; **TM 621,433** (LITTLE LEAGUE BASEBALL), same, Planned program of baseball for young boys, **filed** Aug. 6, 1957, D. C. N. J. (Trenton), Doc. 809/57, *Little League Baseball, Inc.* v. *Hamilton Little League Assn.* Consent judgment for permanent injunction Apr. 21, 1958.

TM 590,251. (See TM 568,635.)

TM 592,792. (See TM 541,195.)

TM 597,442. (See TM 541,195.)

TM 601,500 (THE FISHER), Fisher Radio Corp., Radio receivers, television receivers, phonographs, etc., **filed** Apr. 18, 1958, D. C., S. D. N. Y., Doc. 132/222, *Fisher Radio Corp.* v. *Fisher Cabinet Corp.*

TM 606,748. (See TM 568,635.)

TM 614,782. (See TM 276,868.)

TM 617,601 (BALMEX), Macsil, Inc., Baby lotion, baby cream and baby powder, **filed** July 10, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 852/57-TC, *Macsil, Inc.* v. *Irwin A. Title.* Consent judgment; cross-complaint dismissed with prejudice; defendants enjoined from use of word "BALMEX" (notice Apr. 16, 1958).

TM 621,335. (See TM 568,635.)

TM 636,790 (GRAND), The Grand Union Co., Facial tissues, **filed** Mar. 17, 1958, D. C. N. J. (Newark), Doc. 427/58, *The Grand Union Co.* v. *Grand Union Furniture Co., Inc.*

TM 642,433. (See TM 568,635.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 689,828. Farmers Chinchilla Cooperative of America, Inc., Middletown, N. Y. Filed June 20, 1955.

EMPRESS
CHINCHILLA

For Processed Chinchilla Pelts.
First use Feb. 4, 1954.

SN 20,084. Barrett & Company, Inc., Newark, N. J. Filed Nov. 29, 1956.

NORDICALF

For Leather.
First use June 7, 1956.

SN 20,086. Barrett & Company, Inc., Newark, N. J. Filed Nov. 29, 1956.

RUSTICALF

For Leather.
First use June 7, 1956.

SN 24,461. H. C. Spinks Clay Co., Inc., Paris, Tenn. Filed Feb. 14, 1957.

HC

The mark consists of the fanciful representation of the letters "H C."
For Livestock—Namely, Horses and Cattle.
First use at least as early as March 1949.

SN 35,118. Pennsylvania Fluorocarbon Company, Inc., Philadelphia, Pa. Filed Aug. 7, 1957.



For Extruded Rods, Tubing and Sleeving From Polytetrafluoroethylene Resin.
First use Apr. 1, 1955.

SN 37,545. Armour and Company, Chicago, Ill. Filed Sept. 20, 1957.

SAMOA

For Upper Leather.
First use Aug. 16, 1957.

SN 37,843. Agrashell, Inc., Los Angeles, Calif. Filed Sept. 26, 1957.

EZE

For Mold Parting Material for Foundry and Like Uses.
First use July 30, 1957.

SN 39,296. A. W. Thompson Hatchery, Inc., Hoschton, Ga. Filed Oct. 21, 1957. Sec. 2(f) as to "Thompson's."

Thompson's
WHITE ROCKS

No claim is made to the words "White Rocks" apart from the mark.
For Live White Rock Baby Chicks and White Rock Breeding Chickens.
First use 1949.

Class 2—Receptades

SN 680,776. Milprint, Inc., Milwaukee, Wis. Filed Jan. 31, 1955.

Tite-Vac Process
Mil-O-Film by Milprint

Owner of Reg. Nos. 442,593, 506,807, and 523,283.
For Bag-Like Commodity Containers.
First use Jan. 19, 1955.

SN 16,499. Robert F. Stearn, Elizabethtown, N. Y. Filed Sept. 26, 1956.

CRYSTALWOOD

For Woodenware—Namely, Trays, Bowls, and "Lazy Susans."
First use June 18, 1953.

SN 27,625. Plastic Packaging Company, Chicago, Ill. Filed Apr. 5, 1957.

"COLOR-VUE"

For Plastic Film Bags.
First use Mar. 19, 1957.

SN 27,766. Atlas Plywood Corporation, Boston, Mass. Filed Apr. 9, 1957.

MARVIL

For Shipping Containers for Food—Namely, Boxes, Cartons and the Like.
First use in October 1903.

SN 29,202. Elgin American, Inc., Elgin, Ill. Filed May 1, 1957.

EA

Owner of Reg. No. 338,723.
For Carrying Case for Cosmetics and Accessories, Compact, Lipstick Case, and Musical Compact.
First use in November 1932 on compacts.

SN 29,552. Plastomatic Corporation, Malvern, Pa. Filed May 7, 1957.

TRIM MAID

For Bathroom Accessories, Such as Plastic Waste Baskets and Plastic Brush and Tool Holders.
First use Feb. 16, 1957.

SN 30,485. Edward Greeman, New York, N. Y. Filed May 22, 1957.

MEASUR-IT

For Jigger for Beverages.
First use Mar. 21, 1957.

SN 37,735. Injection Molding Company, Kansas City, Mo. Filed Sept. 24, 1957.

IMCO

For Flexible Walled Containers—Namely, Squeeze Bottles and Jars.
First use Aug. 30, 1949.

SN 38,789. The Apollo Company, Inc., Detroit, Mich. Filed Oct. 14, 1957.



For Fiberglass Insulated Baby Food Carrying Bag.
First use July 18, 1957.

SN 38,898. Chicago Molded Products Corporation, Chicago, Ill. Filed Oct. 15, 1957.

MESS HAUL

For Molded Plastic Trays.
First use July 10, 1957.

SN 39,394. Wilbert W. Haase Co., Forest Park, Ill. Filed Oct. 23, 1957.

MONARCH WHI-TEX

Owner of Reg. Nos. 420,694, 601,483, and others.
For Burial Vaults.
First use on or about Aug. 12, 1957.

SN 39,395. Wilbert W. Haase Co., Forest Park, Ill. Filed Oct. 23, 1957.

MONARCH TITIAN

Owner of Reg. Nos. 420,694, 601,483, and others.
For Burial Vaults.
First use on or about Aug. 12, 1957.

SN 39,396. Wilbert W. Haase Co., Forest Park, Ill. Filed Oct. 23, 1957.

MONARCH PREMIER

Owner of Reg. Nos. 524,416, 601,483, and others.
For Burial Vaults.
First use on or about Aug. 12, 1957.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 33,030. Aristocrat Leather Products, Inc., New York, N. Y. Filed July 2, 1957.

TEEN-TOTE

For Purses, Wallets, Pocketbooks, and Ladies' Handbags.
First use May 28, 1957.

SN 34,838. The Baltimore Luggage Co., Baltimore, Md. Filed Aug. 2, 1957.

Marlite

Owner of Reg. No. 595,362.
For Luggage—Namely, Week-End Cases, Overnight Cases, Pullman Cases, Train Cases, and Wardrobe Cases.
First use May 20, 1957.

SN 34,839. The Baltimore Luggage Co., Baltimore, Md. Filed Aug. 2, 1957.

PLASMOLD

For Luggage—Namely, Week-End Cases, Overnight Cases, Pullman Cases, Train Cases, and Wardrobe Cases.
First use July 1, 1957.

SN 34,840. The Baltimore Luggage Co., Baltimore, Md. Filed Aug. 2, 1957.

STARBRITE

For Luggage—Namely, Week-End Cases, Overnight Cases, Pullman Cases, Train Cases, and Wardrobe Cases.
First use July 1, 1957.

SN 40,988. Acme Pet Products Corp., New York, N. Y. Filed Nov. 20, 1957.

Acme

For Equipments for Dogs, Birds, and Other Pets—Namely, Pet Toys, Combs, Brushes, Feeding Dishes, Harnesses, Leashes, Bells, Mirrors, and Bird Perch Cleaners.
First use in June 1947.

Class 4 — Abrasives and Polishing Materials

SN 37,420. Enterprise Paint Manufacturing Company, Chicago, Ill. Filed Sept. 18, 1957.

MAGICOLOR

Owner of Reg. Nos. 562,216 and 552,132.
For Floor, Furniture, Trim, and Wall Polishes.
First use Oct. 10, 1952.

SN 37,897. Norton Company, Troy, N. Y. Filed Sept. 26, 1957.

SUPERBAK

For Coated Abrasives.
First use Aug. 21, 1957.

SN 37,936. James R. Barnet, d. b. a. James R. Barnet Co., Wellesley Hills, Mass. Filed Sept. 27, 1957.

AERO-SHINE

For Spray Shoe Polish.
First use Aug. 29, 1957.

SN 38,423. James R. Barnet, d. b. a. Jim Richards Shoe Co. and Skill Built Tool Co., Wellesley Hills, Mass. Filed Oct. 7, 1957.

Quickie

For Liquid Shoe Polish.
First use Feb. 2, 1957.

Class 5 — Adhesives

SN 34,512. Coloramic Tile Co., Inc., Chicago, Ill. Filed July 29, 1957.

COLORAMIC

Owner of Reg. No. 636,692.
For Materials for Attaching Decorative and Protective Coverings Such as Floor and Wall Tile, Linoleum and Plastic Sheeting on a Surface Comprising, Tile Cement, Adhesive and Mastic, Linoleum Paste, Plastic Adhesive.
First use August 1955.

SN 37,099. Penick & Ford, Ltd., Incorporated, New York, N. Y. Filed Sept. 12, 1957.

Penick P&F

For Adhesive Binder Used in the Manufacture of Paper and Fibreboard Products.
First use July 31, 1957.

Class 6 — Chemicals and Chemical Compositions

SN 16,565. The Southwestern Petroleum Company, d. b. a. The Zone Company, Fort Worth, Tex. Filed Sept. 27, 1956.

ZONE D-ICER

No claim is made to the term "D-Icer" apart from the mark shown in the drawing. Owner of Reg. Nos. 370,201, 616,042, and 600,648.
For Chemical in Pellet Form for Melting Snow and Thawing Ice.
First use Aug. 14, 1956.

SN 23,322. Intrusion-Prepakt, Inc., Cleveland, Ohio. Filed Jan. 28, 1957. Sec. 2(f).

INTRUSION-AID

For Admixes for Cement and Grouting Compounds.
First use July 1946.

SN 23,945. Servo Corporation of America, New Hyde Park, N. Y. Filed Feb. 6, 1957.

SERVO

Owner of Reg. Nos. 338,806, 647,377, and others.
For Raw and Partially Prepared Material Used in the Preparation of Molded and Unmolded Heat-Responsive Products—Namely, Mixtures of Metal Oxides for Bolometers, and Mixtures Including a Substantial Proportion of Arsenic Trisulfide for Heat-Transmitting Glass.
First use Dec. 4, 1952.

SN 29,654. Pitt-Consol Chemical Company, Newark, N. J. Filed May 8, 1957.

PITT-CONSOL

The drawing is lined for red.
For Phenolic Molding Compounds.
First use Feb. 29, 1956.

SN 29,849. West Chemical Products, Inc., Long Island City, N. Y. Filed May 10, 1957.

WEST CHEMICAL PRODUCTS INC.

Owner of Reg. Nos. 535,422, 563,376, and others.
For Disinfectants; Deodorants; Sink, Kitchen, and Bathroom Antiseptics; Insecticides; Chemical Preparations for Air Purifying Purposes.
First use Mar. 13, 1957.

SN 33,744. The Quaker Oats Company, Chicago, Ill. Filed July 15, 1957.

QO

Owner of Reg. Nos. 511,914 and 586,336.
For Levulinic Acid.
First use Oct. 29, 1956.

SN 34,585. Godfrey L. Cabot, Inc., Boston, Mass. Filed July 30, 1957.

REGAL

For Carbon Black.
First use July 8, 1957.

SN 39,786. Continental Oil Company, Ponca City, Okla. Filed Oct. 30, 1957.

CONOCO

The drawing is lined to represent the color red. Owner of Reg. Nos. 186,698, 649,172, and others.
For Automobile Radiator Antifreeze Compositions.
First use in September 1952.

SN 39,787. Continental Oil Company, Ponca City, Okla. Filed Oct. 30, 1957.

CONOCO

Owner of Reg. No. 521,617.
For Automobile Radiator Antifreeze Compositions.
First use in September 1952.

SN 39,926. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed Oct. 31, 1957.

Sol-Paks

For Enzyme Used in Converting Starch.
First use Oct. 21, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 10,825. Mershon Co., Inc., Glendale, Calif. Filed June 20, 1956.



No claim is made to the representation of the goods, which is shown in dotted lines for the purpose of showing the location of the white line which extends around the goods and forms a part of the mark.
For Gun Recoil Pads and Gun Butt Plates.
First use February 1937.

SN 25,467. Roberts Manufacturing Co., Los Angeles, Calif. Filed Mar. 4, 1957.

ANKRETE

For Explosive Cartridges for Use in Driving Pins Into Concrete.
First use Jan. 21, 1957.

SN 38,560. The Poly Choke Company, Incorporated, East Hartford, Conn. Filed Oct. 8, 1957.

SUNSPOT

For Sights for Firearms.
First use Aug. 1, 1957.

SN 41,126. Aerial Products, Inc., Elkton, Md. Filed Nov. 22, 1957.

SKYLITER

For Flare Rockets.
First use Oct. 4, 1956.

Class 10 — Fertilizers

SN 32,989. Reynolds Soil Development Corporation (of Chuckawalla Valley), Monrovia, Calif. Filed July 1, 1957.

R S C

For Fertilizers, Plant Foods, and Soil Conditioners.
First use Mar. 15, 1957.

SN 39,259. Northrup, King & Co., Minneapolis, Minn. Filed Oct. 21, 1957.

TRIPLE TONIC

For Lawn Treating and Fertilizing Material.
First use in January 1957.

Class 12 — Construction Materials

SN 19,273. Tibbals Flooring Company, Oneida, Tenn. Filed Nov. 14, 1956. Sec. 2(f).

FLOR-BLOX

Owner of Reg. Nos. 604,946, 604,947, and 604,948.
For Wood Parquet Blocks for Flooring Purposes.
First use September 1950.

SN 27,872. Midwest Perlite Products, Inc., West Des Moines, Iowa. Filed Apr. 10, 1957.

NEW FORMULA Perlmix

Applicant disclaims the words "New Formula" except when used with "Perlmix."
For Plaster Mixes.
First use Mar. 6, 1957.

SN 28,062. R. H. Olson Company, Incorporated, Milwaukee, Wis. Filed Apr. 12, 1957.

VITROCEM

For Portland Cement.
First use Dec. 11, 1956.

SN 29,090. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Apr. 29, 1957.

WEATHERBAN

For Putty-Like Compound for Sealing Joints and Openings and Mixture for Priming Surfaces To Which Said Compound Is To Be Applied.
First use Mar. 15, 1957.

SN 30,785. Kane Manufacturing Corporation, Kane, Pa. Filed May 27, 1957. Sec. 2(f).

WEATHERSHIELD

Owner of Reg. No. 562,080.
For Storm Windows and Window Screens and Combinations Thereof, Storm Doors and Door Screens and Combination Thereof.
First use June 8, 1949.

SN 33,449. American Biltrite Rubber Company, Inc., Trenton, N. J. Filed July 10, 1957.

RENAISSANCE

For Marbled Vinyl Flooring.
First use June 7, 1957.

SN 34,617. Kochton Plywood & Veneer Co., Inc., d. b. a. Kochton Plywood and Veneer Co., Inc., Chicago, Ill. Filed July 30, 1957.

BEAUTY-GLO

For Plywood.
First use June 19, 1957.

SN 34,928. Dallas Iron & Wire Works, Inc., Dallas, Tex. Filed Aug. 30, 1957.

KOVER-KING

For Metal Carports, Awnings, and the Like, and Parts Therefor.
First use on or about June 15, 1957.

SN 35,002. Russell Reinforced Plastics Corporation, Lindenhurst, N. Y. Filed Aug. 5, 1957.

MOSAIC TROPIGLAS

Owner of Reg. No. 608,186.
For Tinted, Glass Fiber Reinforced, Plastic Panels and Slats Utilized in Wall Openings of Buildings and Wall Sections or Partitions.
First use June 27, 1957.

SN 35,565. Clad-Rex Corporation, Denver, Colo. Filed Aug. 15, 1957.

CLAD REX

For Vinyl-Metal Laminate.
First use on or before May 22, 1957.

SN 36,648. The Diamond Match Company, New York, N. Y., now by change of name to Diamond Gardner Corporation. Filed Sept. 4, 1957.

quality millwork

The phrase "Quality Millwork" is hereby disclaimed except as used in connection with the mark. Owner of Reg. Nos. 646,613 and 28,498.
For Millwork—Namely, Window and Door Frames, Trims, Jambs, and Like Goods.
First use June 28, 1957.

SN 37,306. Tilo Roofing Company, Inc., Stratford, Conn. Filed Sept. 16, 1957.

DUOTONE

For Asbestos-Cement Siding Used in Building Construction and Repair.
First use Mar. 15, 1955.

SN 39,218. The General Tire & Rubber Company, Akron, Ohio. Filed Oct. 21, 1957.

TUFLEX

Owner of Reg. No. 281,130.
For Rubber Floor Tile.
First use May 13, 1957.

SN 40,590. Modiglass Fibers, Inc., Bremen, Ohio. Filed Nov. 13, 1957.

MODIGLASS

For Glass Fiber Products—Namely, Insulation; and for the Same Products When Made From Glass Fibers in Combination With Natural and Synthetic Fibers.
First use Feb. 7, 1957.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 24,826. Aluma-Ware, Inc., Cleveland, Ohio. Filed Feb. 21, 1957.

ALUMA-WARE

For Dishes and Kitchen Ware Made From Thin Aluminum Sheets.
First use Aug. 11, 1956.

SN 30,942. René Pollet, Paris, France. Filed May 28, 1957.

SAFCA

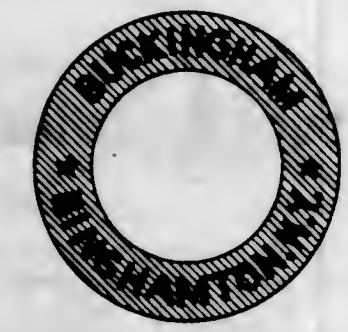
Priority claimed under Sec. 44(d) on French Reg. No. 463,463, dated Mar. 11, 1957; Natl. Inst. No. 87,009.
For Valves for Atomizers and Vaporizers of Aerosol Type.

SN 37,325. Whitford Drain Co., Louisville, Ky. Filed Sept. 16, 1957.

WHITFORD

For Floor Drains.
First use July 23, 1957.

SN 38,731. Buckingham Manufacturing Co., Inc., Binghamton, N. Y. Filed Oct. 11, 1957.



The drawing is lined for green, but no claim is made to color.
For Safety Straps for Utility Linemen and Others Working on Poles, Aerial Structures, and the Like.
First use July 1, 1947.

SN 38,746. Grill-Well Products, Inc., Kettering, Ohio. Filed Oct. 11, 1957.

GRILL-WELL

For Aluminum Foil Grill Pans.
First use Aug. 3, 1957.

SN 39,013. Shore-Calnevar, Inc., Los Angeles, Calif. Filed Oct. 16, 1957.

SHORELINE

For Towel Cabinet, Toilet Tissue Cabinet, Toilet Paper Roll Holder, Deodorant Block Holders, Industrial Dust Pans, and Napkin Holder.
First use during February 1953; during February 1942 as to "Shoreline."

SN 39,089. Pioneer Iron Works, Sioux City, Iowa. Filed Oct. 17, 1957.

TUBALITE

For Farm Gates.
First use June 1, 1950.

SN 39,152. Norris-Thermador Corporation, Los Angeles, Calif. Filed Oct. 18, 1957.

PYRO PLY

For Stainless Steel Cooking Utensils.
First use Sept. 25, 1957.

SN 39,200. Joseph T. Di Bianca, d. b. a. DB Enterprises, Flemington, N. J. Filed Oct. 21, 1957.

PARK-O-MATE

For Aluminum Car Stop Bracket for Parking Areas.
First use on or about Aug. 1, 1956.

SN 39,443. Atlas Tack Corporation, Fairhaven, Mass. Filed Oct. 24, 1957.

NO SEE

For Nails.
First use Aug. 15, 1957.

SN 39,562. Western Foundry Company, Tyler, Tex. Filed Oct. 25, 1957.

SPUN-O-MATIC

For Cast Iron Pipe.
First use Oct. 9, 1957.

SN 39,676. Stockham Valves & Fittings, Inc., Birmingham, Ala. Filed Oct. 28, 1957.

BESTALOY

For Corrosion Resisting Valve Stems Made of Alloys of Copper, Aluminum, and Bronze.
First use Mar. 1, 1956.

SN 39,751. Scully Signal Company, Melrose, Mass. Filed Oct. 29, 1957.

VENTAFIL

For Filling Device for Attachment to a Fluid Delivery Hose and for Insertion in the Filling Opening of a Tank To Facilitate the Passage of Fluid Into the Tank, To Vent Gas From the Tank and To Provide a Signal When the Tank Is Filled to a Point When the Flow of Gas Through the Signal Is Altered.
First use May 1, 1957.

SN 39,811. Josam Manufacturing Co., Michigan City, Ind. Filed Oct. 30, 1957.

UNITRON

For Plumbing Supplies Including Chair Carriers and Fittings for Wall Hung Fixtures, Closet Fittings, Closet Carriers, Urinal Carriers, Lavatory Carriers, Hospital Carriers, Sink and Slab Carriers, and Other Parts and Fittings of or Used in Conjunction With Such Carriers, for Mounting Fixtures and Connecting Fixtures to Soil Lines.
First use June 21, 1957.

SN 39,855. Appleton Wire Works, Inc., Appleton, Wis. Filed Oct. 31, 1957.

MANGALOY

Owner of Reg. No. 310,632.
For Fourdrinier Wires.
First use Aug. 1, 1957.

SN 40,111. Aluminum Goods Manufacturing Company, Manitowoc, Wis. Filed Nov. 5, 1957.

MIRRO

Owner of Reg. No. 122,123.

For Aluminum Cooking Utensils and Household Goods—Namely, Coffee-Pots, Percolating Coffee-Pots, Tea Kettles, Teapots, Double Boilers, Pots and Pans, Pie Pans, Frying Pans, Cake Pans, Baking Pans, Cookie Tins, Roasters, Broilers, Pressure Cookers; Pudding, Fruit and Cake Molds; Waterless Cookers, Dutch Ovens, Strainer Pans, Sauce Pans, Stew Pots, Sauce Pots, French Fryers, Egg Poachers, Griddles, Cup Cake Pans, Mixing Bowls, Colanders, Strainers, Dish Pans, Bread Boxes, Canister and Range Sets, Salt and Pepper Shakers, Cake Carriers, Bun Warmers, Bun Trays, Chafing Dishes, Casseroles, Drinking Cups, Plates, Serving Trays, Cocktail Shakers, Pastry Presses, Ice Cube Trays.

First use Aug. 20, 1917.

SN 40,920. Childlore Co., Inc., d. b. a. Childlore Corporation, Kansas City, Mo. Filed Nov. 19, 1957.

"FLOORMATES"

For Disc-Type Support for Furniture Bases.

First use on or about July 19, 1957.

SN 43,515. Sea Lawn Products Company, Long Beach, N. Y. Filed Jan. 3, 1958.



For Rod Holders, Glass and Beer-Can Holders, Metal Foot Rest for Fishing Chairs, Outriggers, Gimbals, Aluminum or Chrome-Brass Ship Wheels.

First use June 1955.

SN 47,701. Cedar Falls Drapery Company, Cedar Falls, Iowa. Filed Mar. 7, 1958.

BEAUTI PLEAT

For Drapery Hardware and Particularly Rods, Runners, and Pleaters.

First use Jan. 3, 1955.

Subj. to Intf. with SN 6,211 and SN 5,891.

Class 15—Oils and Greases

SN 38,319. Septimus Adams, Brooklyn, N. Y. Filed Oct. 4, 1957.

ASTRAL WIZARD

For Candles.

First use Sept. 6, 1957.

Class 16—Protective and Decorative Coatings

SN 27,612. Los Angeles Water Softener Co., Inc., Glendale, Calif. Filed Apr. 5, 1957.

'PROTECTO-GLAZE'

For Corrosion-Resistant Protective Coatings Forming the Linings of Tanks Suitable for Water Softening Units.

First use June 19, 1956.

SN 33,346. Glaze-On Co., Inc., Boston, Mass. Filed July 8, 1957.

GLAZIT

For Porcelain Patch Similar to White Enamel Having Adhesive Qualities.

First use June 12, 1957.

SN 38,897. H. A. Calahan, Inc., Mamaroneck, N. Y. Filed Oct. 15, 1957.

SEAPRESE

For Protective Synthetic Rubber Coating for Application to the Hulls of Vessels.

First use Oct. 8, 1957.

SN 41,950. Three Mountaineers, Inc., Asheville, N. C. Filed Dec. 6, 1957.

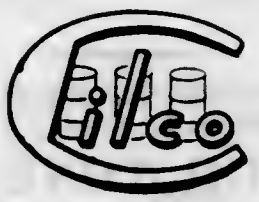


The word "Finish" is disclaimed apart from the mark as shown.

For Decorative Finish for Accessories, Gifts, Novelties, Etc.

First use about July 1, 1950.

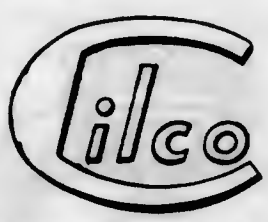
SN 43,073. Commercial Ink & Lacquer Co. Inc., Fair Lawn, N. J. Filed Dec. 27, 1957.



For Lacquers, Varnishes, Paints, and Coating Materials for the Reproduction of Decorative Finishes and Wood Grains and Marbles.

First use Apr. 1, 1955.

SN 43,074. Commercial Ink & Lacquer Co. Inc., Fair Lawn, N. J. Filed Dec. 27, 1957.



For Lacquers, Varnishes, Paints, and Coating Materials for the Reproduction of Decorative Finishes and Wood Grains and Marbles.

First use Apr. 1, 1955.

SN 43,367. American Machine & Foundry Company, New York, N. Y. Filed Jan. 3, 1958.



Owner of Reg. Nos. 168,740, 594,128, and others.

For Paints, Base Coats, Finishers, Conditioners, Thinners, Retarders, Undercoats, Lacquers, Shellacs, Varnishes, Cleaners, and Oils.

First use on or about November 1956.

SN 43,673. James K. Harbinson & Co., Inc., New York, N. Y. Filed Jan. 9, 1958.

HARBINSEAL

For Colloidal Lead Composition Used for Protective Coating on Closed Surfaces.
First use Oct. 14, 1957.

SN 43,759. Hurlox Sales Company, Abington, Pa. Filed Jan. 10, 1958.

HURLOX

For Industrial Coatings.
First use Apr. 1, 1957.

SN 43,760. Hurlox Sales Company, Abington, Pa. Filed Jan. 10, 1958.



For Industrial Coatings.
First use Apr. 1, 1957.

SN 43,833. T. C. Esser Company, Milwaukee, Wis. Filed Jan. 13, 1958.

SOF-SATIN

For Enamel Finish for Use on Walls and Woodwork.
First use in March 1951.

SN 43,731. Gilman Paint and Varnish Company, Chattanooga, Tenn. Filed Feb. 12, 1958.

GIL-TONE

For Wood Stain.
First use Jan. 17, 1957.

Class 17 — Tobacco Products

SN 34,498. David Forry Tobacco Company, York, Pa. Filed July 11, 1957.



Owner of Reg. No. 350,245.
For Manufactured Chewing and Smoking Tobacco.
First use Aug. 1, 1917.

SN 37,387. United States Tobacco Company, New York, N. Y. Filed Sept. 17, 1957.



For Chewing Tobacco.
First use Aug. 16, 1956.

SN 37,803. Philip Morris Incorporated, New York, N. Y. Filed Sept. 25, 1957.

HI-FI

For Cigarettes.
First use Sept. 11, 1957.

Class 18 — Medicines and Pharmaceutical Preparations

SN 25,297. American Cyanamid Company, New York, N. Y. Filed Mar. 1, 1957.

NOVOCORT

For Steroid Preparation.
First use Nov. 16, 1956.

SN 25,654. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"PARAPHARM"

Owner of Liechtenstein Reg. No. 673, dated Dec. 31, 1956.
For Pharmaceutical Drugs and Preparations.

SN 25,655. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"VASOSAPHIR"

Owner of Liechtenstein Reg. No. 669, dated Dec. 22, 1956.
For Pharmaceutical Drugs and Preparations.

SN 25,656. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"ATMASAPHIR"

Owner of Liechtenstein Reg. No. 668, dated Dec. 22, 1956.
For Pharmaceutical Drugs and Preparations.

SN 25,657. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"POLYSAPHIR"

Owner of Liechtenstein Reg. No. 667, dated Dec. 22, 1956.
For Pharmaceutical Drugs and Preparations.

SN 25,658. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"PARASAPHIR"

Owner of Liechtenstein Reg. No. 666, dated Dec. 22, 1956.
For Pharmaceutical Drugs and Preparations.

SN 25,659. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"MONOSAPHIR"

Owner of Liechtenstein Reg. No. 665, dated Dec. 22, 1956.
For Pharmaceutical Drugs and Preparations.

SN 25,660. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"SAPHIR"

Owner of Liechtenstein Reg. No. 664, dated Dec. 22, 1956. For Pharmaceutical Drugs and Preparations.

SN 25,663. Dr. Bernhard-Alfons Makiola, d. b. a. Dr. Bernhard A. Makiola, Institut für Arzneimittelforschung, Vaduz, Liechtenstein. Filed Mar. 7, 1957.

"NEOSAPHIR"

Owner of Liechtenstein Reg. No. 670, dated Dec. 22, 1956. For Pharmaceutical Drugs and Preparations.

SN 30,412. Michel Delalande, Paris, France. Filed May 21, 1957.

ETOPHYLATE

Owner of French Reg. No. 461,105, dated Nov. 23, 1956 (Paris); Natl. Inst. No. 81,763.
For Antalgic and Antispasmodic Cardiorenal and Respiratory Regulator Preparations.

SN 33,942. Arrow Medical Co., Inc., Coral Gables, Fla. Filed July 18, 1957.

POLYCAINE

For Local Topically Applied Anesthetic Ointment.
First use July 3, 1957.

SN 34,168. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 22, 1957.

MIRAMYCIN

For Antibiotic Preparation.
First use Oct. 23, 1956.

SN 35,449. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 13, 1957.

CARTRAX

For Tranquilizer-Vasodilator Preparation.
First use July 29, 1957.

SN 39,861. Cutter Laboratories, Berkeley, Calif. Filed Oct. 31, 1957.

PLASMANATE

For Human Blood Fraction Used in Intravenous Therapy.
First use Sept. 24, 1956.

SN 39,982. The National Drug Company, Philadelphia, Pa. Filed Nov. 1, 1957.

CERVILAXIN

For Intravenous Uterine Relaxation Factor for the Facilitation of Full-Term Delivery in Childbirth.
First use Sept. 27, 1957.

SN 40,357. Chalmers Dow McKinney, d. b. a. McKinney's Laboratory, Georgetown, S. C. Filed Nov. 8, 1957. Sec. 2(f) as to "McKinney's."

McKINNEY'S MIXTURE

No claim is made to the word "Mixture" apart from the mark. Owner of Reg. No. 584,740.
For Laxative.
First use in 1913.

SN 40,814. Carter Products, Inc., New York, N. Y. Filed Nov. 18, 1957.

MILPIRIN

For Pharmaceutical Preparation for the Treatment of Pain and Tension.
First use Oct. 4, 1957.

SN 41,109. Minerals & Chemicals Corporation of America, Menlo Park, N. J. Filed Nov. 21, 1957.

PHARMASORB

For Processed Clay for Use in Medicines and Pharmaceutical Preparations.
First use July 26, 1957.

Class 19 — Vehicles

SN 30,250. James M. Hicks, d. b. a. Marin-E-Products, Sausalito, Calif. Filed May 17, 1957.

POWER SKI

Applicant disclaims the term "Power Ski" apart from the mark as a whole without waiving any of his common law rights.
For Power Driven Water Ski.
First use Jan. 19, 1957.

SN 30,389. Rudolph Aloise, d. b. a. Fit-Rite Metal Products Company, Pittsburgh, Pa. Filed May 21, 1957. Sec. 2(f).

Fit-Rite

For Auto Body Replacement Parts.
First use Sept. 22, 1946.

SN 35,404. VEB Motorradwerk Zschopau, Zschopau, Germany. Filed Aug. 12, 1957.



For Vehicles—Namely, Motorcars, Motorcycles, Scooters, and Bicycles, Fitted With Auxiliary Motors, and Parts for All These Goods.
First use in February 1956; in commerce Apr. 28, 1956.

SN 35,695. Società Applicazioni Gomma Antivibranti "Saga" S. p. A., Milan, Italy. Filed Aug. 16, 1957.

ELIGO

Owner of Italian Reg. No. 121,559, dated Feb. 23, 1955.
For Springs for Vehicles.

SN 35,698. Società Applicazioni Gomma Antivibranti, "Saga" S. p. A., Milan, Italy. Filed Aug. 16, 1957.

BATRASTELLA

Owner of Italian Reg. No. 132,048, dated Apr. 12, 1957.
For Springs for Vehicles.

SN 35,738. Breckenridge Sales, Inc., Norwalk, Calif., now by change of name Breckenridge Corporation, to Hydraflex Corporation, Dallas, Tex. Filed Aug. 19, 1957.

HYDRAFLEX

For Hydraulic Power Brake Boosters.
First use Sept. 10, 1956.

SN 40,035. Dormi Industries, Inc., Moline, Ill. Filed Nov. 4, 1957.

TRAIL-A-WAY

For Wheeled Trailers Adapted To Be Drawn by Trucks or Other Automobiles.
First use on or about Apr. 1, 1957.

SN 40,328. Disogrin Industries, Inc., Jamaica, N. Y. Filed Nov. 8, 1957.

AEROTHANE

For Wheels and Casters for Industrial and Material Handling Trucks.
First use May 14, 1957.

SN 40,341. Guardian Mobile Homes Corporation, Omaha, Nebr. Filed Nov. 8, 1957.

Guardian

For Automobile House Trailers.
First use on or about July 30, 1957.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 652,238. Square D Company, Detroit, Mich. Filed Aug. 24, 1953. Sec. 2(f).

SQUARE-Duct

For Electrical Conduits, Parts Thereof, and Fittings Therefor.
First use May 1927.

SN 19,333. Società Anonima per la Costruzione di Macchine, Minusio, Switzerland. Filed Nov. 15, 1956.

AGEMASPARK

Owner of Swiss Reg. No. 157,779, dated Aug. 19, 1955.
For Sparking Machine Tools.

SN 21,354. Adler Electronics, Inc., New Rochelle, N. Y. Filed Dec. 20, 1956.

AEL

For Magnetic Amplifier, Television Transmitter and Antenna Equipment.
First use Aug. 15, 1956.

SN 22,980. Stephens Tru-Sonic Inc., Culver City, Calif. Filed S. R. Jan. 22, 1957. Am. P. R. Sept. 20, 1957.

For Loudspeakers, Loudspeaker Enclosures, Microphones, and Associated Electronic Apparatus.
First use Aug. 27, 1956.

Class 22 — Games, Toys, and Sporting Goods

SN 16,758. A. G. Spalding & Bros. Inc., Chicopee, Mass. Filed Oct. 1, 1956.

CORKORE

For Softballs.
First use Aug. 13, 1956.

SN 28,546. Schaper Manufacturing Co., Inc., Minneapolis, Minn. Filed Apr. 19, 1957.

Chicken

For Game and Game Apparatus Consisting in a Game Board With Defined Spaces or Positions and a Chance Element To Determine Positional Moves of Pieces.
First use Jan. 1, 1957.

SN 35,843. Aluminum Goods Manufacturing Company, Manitowoc, Wis. Filed Aug. 20, 1957.

SNO BRONCO

For Sleds.
First use July 15, 1957.

SN 35,899. Bantam-U. S. Toys, Inc., New York, N. Y. Filed Aug. 21, 1957.

"AMY"

For Toy Lambs.
First use July 1, 1957.

SN 36,753. The Strathmore Company, Aurora, Ill. Filed Sept. 5, 1957.

SCOTCH RITER

For Toy Writing Pads and Amusement Apparatus for Temporarily Receiving Written Impressions.
First use Aug. 1, 1957.

SN 37,313. Tri G Company, Santa Monica, Calif. Filed Sept. 16, 1957.

ODD·BALL

For Game Played by Spinning Different Colored Marbles in a Bowl Having Depressions Therein for Receiving and Retaining the Marbles.
First use July 5, 1957.

SN 37,626. Henry Bjorkman, Barton, Vt. Filed Sept. 23, 1957.

EDSEL

For Baseball Bats.
First use May 29, 1957.

SN 39,928. Walter R. Warner, Jr., Millville, N. J. Filed Oct. 31, 1957.

Sonic Flite

For Arrows.
First use on or about Feb. 15, 1953.

SN 39,942. Bruck Tackle & Manufacturing Company, Portland, Oreg. Filed Nov. 1, 1957.

LUCKY BARB

No claim is made to exclusive use of the word "Barb" apart from the mark shown.
For Fish Hooks.
First use Oct. 1, 1952.

SN 40,537. Paul F. Henning, d. b. a. T. T. Products Co., Brooklyn, N. Y. Filed Apr. 12, 1957.

The STOCK MARKET Trader... ...his Wits and Markets

For Board Game Played With Movable Pieces.
First use Mar. 14, 1957.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 25,042. Clarence R. Taylor, d. b. a. Ferance Construction Co., Penfield, N. Y. Filed Feb. 25, 1957.

Universal

For Electrically Operated Pointer for Sharpening the Leads of Pencils and Compasses.
First use Oct. 1, 1956.

SN 27,089. Clark Equipment Company, Buchanan, Mich. Filed Mar. 28, 1957.

CARLOADER

Owner of Reg. Nos. 366,295 and 600,155.
For Power Operated Industrial Lift Trucks.
First use Feb. 28, 1938.

SN 30,575. David Douglas & Co., Inc., Manitowoc, Wis. Filed May 23, 1957.

FORM'N FRY

For Hamburger Presses.
First use Jan. 5, 1956.

SN 30,812. Luther Corporation, Warsaw, Ind. Filed May 27, 1957.

NORTH AMERICAN MARINE American WARSAW INDIANA

Owner of Reg. No. 657,385.
For Boat Winches.
First use July 10, 1956.

SN 31,393. Gebr. Weyersberg, Solingen-Ohligs, Germany. Filed June 5, 1957.

CORNETA

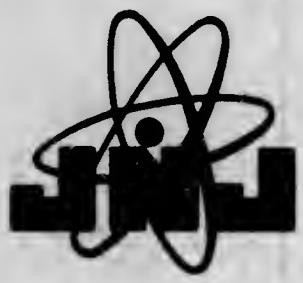
Owner of German Reg. No. 294,931, dated Nov. 28, 1922.
For Mechanic's Hand Tools; Kitchen, Household, Agricultural, and Garden Tools; Table Flatware Made of Base Metal, Knives, Scissors, Razors, Pocket Knives, and Sewing Machine Needles.

SN 32,578. Bettis Rubber Company, Whittier, Calif. Filed June 25, 1957.

RED CENTER

For Pipe Wipers.
First use on or about Feb. 15, 1957.

SN 33,246. Johns-Nigrelli-Johns, Chicago, Ill. Filed July 5, 1957.



The drawing is lined for gold.

For Carton Forming and Loading Machines, and Carton and Shipping Container Conveying, Handling, and Forming Machines.

First use Aug. 1, 1954.

SN 34,982. No-Joint Concrete Pipe Co., Yuba City, Calif. Filed Aug. 5, 1957.

NO-JOINT

For Machine for Making Pipe.
First use on or about June 3, 1957.

SN 37,388. Vulcan-Hart Manufacturing Company, Baltimore, Md. Filed Sept. 17, 1957.

AUTO LIFT

For Commercial Kitchen Equipment—Namely, Automatic Self-Levelling Dispensers Comprising a Calibrated Spring Mechanism Within a Cylindrical Container for Positioning Plates, Saucers, and the Like.
First use Aug. 14, 1957.

SN 38,071. Necchi Società per Azioni, Pavia, Italy. Filed Sept. 30, 1957.

esperia

Owner of Italian Reg. No. 126,363, dated Jan. 17, 1956.
For Sewing Machines and Parts Thereof.

SN 38,578. The Falk Corporation, Milwaukee, Wis. Filed Sept. 23, 1957.

STEELFLEX

For Couplings for Shafts, Machinery and the Like.
First use March 1937.

SN 39,969. Andrew Kux, d. b. a. Occidental Electric Company, Nogales, Ariz. Filed Nov. 1, 1957.

OCELCO

Owner of Reg. No. 441,426.
For Centrifugal Pumps and Air Compressors.
First use May 21, 1947.

SN 40,030. Robert R. Chater, d. b. a. Detroit Power Coupling Company, Detroit, Mich. Filed Nov. 4, 1957.

MAGNALOY

For Flexible Shaft Couplings.
First use Feb. 9, 1956.

SN 40,127. Emhart Manufacturing Company, Hartford, Conn. Filed Nov. 5, 1957.

TELE-KING

For Power-Operated Boom Structures Having at Their Outer Ends a Worker's Support for Carrying Workmen Aloft in the Installation and Maintenance of Overhead Telephone Lines and Associated Equipment.
First use May 31, 1957.

SN 40,152. Saco-Lowell Shops, Boston, Mass. Filed Nov. 5, 1957.

TRU-SET

For Textile Drafting Machines.
First use Oct. 18, 1957.

SN 40,234. The International Silver Company, Meriden, Conn. Filed Nov. 7, 1957.

MONITOR

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons.
First use Nov. 4, 1957.

SN 40,326. Detrex Chemical Industries, Inc., Detroit, Mich. Filed Nov. 8, 1957.

HYDRASONIC

For Machines for Cleaning and Degreasing Metal Parts by Ultrasonic Agitation.
First use Dec. 14, 1956.

SN 42,533. Rival Manufacturing Company, Kansas City, Mo. Filed Dec. 16, 1957.

PROTECT-O-MATIC

For Food Slicing Machines.
First use Nov. 30, 1957.

SN 42,629. Berg Equipment Company, Marshfield, Wis. Filed Dec. 18, 1957.



Applicant disclaims all wording, except the word "Berg." The lining is intended to indicate red and gold, in addition to black and white.

For Line of Barn Equipment Including Animal Stalls and Pens, Barn Cleaners, Mangers and Water Bowls, Ventilators, Floor and Feed Trucks and Carriers, Door and Window Fittings and Tracks, Lighting Equipment and Miscellaneous Fittings.

First use Apr. 1, 1950.

SN 43,026. Heller Brothers Company, Newark, N. J. Filed Dec. 26, 1957.

MULTI-KUT

For Files.
First use in January 1949.

SN 43,116. The Star Porcelain Company, Trenton, N. J. Filed Dec. 27, 1957.

STRAINRITE

For Porcelain Strainer Cores for Use in the Foundry Industry for Controlling the Flow of Molten Metal.
First use Oct. 22, 1956.

SN 43,355. Tuthill Pump Company, Chicago, Ill. Filed Jan. 2, 1958.

POWERMAX

For Positive Displacement Pumps for Pumping Oil, Water, and the Like.
First use Dec. 6, 1957.

SN 43,477. The Pine Sewing Machine Manufacturing Co., Ltd., Utsunomiya, Japan. Filed Jan. 6, 1958.

PINE

Owner of Japanese Reg. No. 271,711, dated Dec. 11, 1935.
For Sewing Machines.

SN 43,684. The Great Lakes Tractor Company, Rock Creek, Ohio. Filed Jan. 9, 1958.

WARRIOR

For Power Lawn Mowers.
First use Nov. 27, 1957.

SN 43,776. Nicholson File Company, Providence, R. I. Filed Jan. 10, 1958. Sec. 2(f).

NICHOLSON

Owner of Reg. Nos. 50,137 and 50,882.
For Nylon Faced Hammers.
First use Nov. 20, 1957; January 1899 on related goods.

SN 43,826. DeLuxe Saw and Tool Company, Louisville, Ky. Filed Jan. 13, 1958.

KROME KING

Owner of Reg. Nos. 629,459, 629,461, and 629,462.
For Circular Saw Blades and Dado Heads.
First use Aug. 13, 1957.

Class 24 — Laundry Appliances and Machines

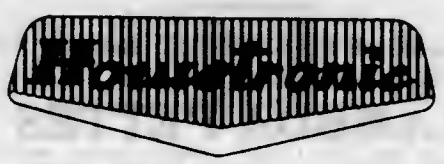
SN 38,051. Jones & Laughlin Steel Corporation, Pittsburgh, Pa. Filed Sept. 30, 1957.

J&L WARE

Applicant disclaims the word "Ware" apart from the mark as shown. Owner of Reg. No. 560,925.
For Portable Wash Tubs Made of Sheet Metal.
First use on or about Jan. 2, 1957.

Class 26—Measuring and Scientific Appliances

SN 38,921. The Howe Scale Company, Rutland, Vt. Filed Oct. 15, 1957.



Owner of Reg. No. 87,997.
For Load Sensitive Signalling Systems Responsive to Variations in Applied Weight Loads.
First use May 14, 1957.

SN 39,084. Optics Manufacturing Corporation, Philadelphia, Pa. Filed Oct. 17, 1957.

CYCLOPS

For Photographic Slide Viewer.
First use Oct. 8, 1957.

SN 39,256. Motorola Inc., Chicago, Ill. Filed Oct. 21, 1957.
Owner of Reg. Nos. 275,837, 612,191, and others.

MOTOROLA

For Voltmeters, Ammeters, Decibelmeters, Wattmeters, Frequency Monitors, Modulation Meters, Frequency Meters, Subcarrier Test Equipment for Microwave Signals, Test Meter Assemblies, Kits for Aligning Communication Equipment, Calibration Oscillators With Receivers for Standard Station WWV, Monitors for Frequency Modulation Radio Stations and Monitors for Conelrad Alert Operations.
First use in 1942 on voltmeters and ammeters.

SN 39,721. General Aniline & Film Corporation, New York, N. Y. Filed Oct. 29, 1957.

REPRORECORD

For Light-Sensitive Photographic Material, Particularly Film and Paper.
First use Oct. 2, 1957.

SN 40,087. Schroeder Brothers Corporation, McKees Rocks, Pa. Filed Nov. 4, 1957.

SPINDICATOR

For Hydraulic Pressure Drop Indicators.
First use Oct. 2, 1957.

SN 40,215. Eugene Dietzgen Co., Chicago, Ill. Filed Nov. 7, 1957.

MICROMATIC

For Calculating Devices—Namely, Slide Rules.
First use on or about Oct. 17, 1956.

SN 40,316. Calcoin Corporation, Los Angeles, Calif. Filed Nov. 8, 1957.

design pak

For Drafting Tables.
First use Aug. 15, 1957.

SN 40,457. Hellpot Corporation, Newport Beach, Calif. Filed Nov. 12, 1957.

DIGIDIAL

For Digital Turns-Counting Dials.
First use in May 1957.

SN 40,617. Research Specialties Co., Berkeley, Calif. Filed Nov. 13, 1957.

LAMBDA-PETTES

For Pipettes.
First use on or about Dec. 15, 1953.

SN 40,967. Radio Frequency Laboratories, Inc., Boonton, N. J. Filed Nov. 19, 1957.

Cram

For Electronic Apparatus for Receiving, Amplifying, and Mixing Electrical Signals and for Comparing the Frequency of Electrical Signals.
First use Nov. 17, 1955.

SN 41,033. Magna Products Incorporated, Santa Fe Springs, Calif. Filed Nov. 20, 1957.

CORROSOMETER

For Electrical Instrument To Measure in Millionths of an Inch the Progress of Corrosion on Tested Specimens.
First use Feb. 16, 1956.

SN 41,061. Harold K. Adams, d. b. a. Universal Instrument Co., Brentwood, Md. Filed Nov. 21, 1957.

UNI-GRAVER

For Hand-Manipulated Engraving Instruments Used in Map Making.
First use April 1954.

SN 41,062. Ald, Inc., Chicago, Ill. Filed Nov. 21, 1957.
Owner of Reg. Nos. 539,267, 643,241, and others.

ALDCOIN

For Coin Meters.
First use Nov. 1, 1956.

SN 41,262. The FR Corporation, New York, N. Y. Filed Nov. 25, 1957.

FR

Owner of Reg. Nos. 332,559, 619,899, and others.
For Photographic Film.
First use Sept. 27, 1957.

SN 41,303. Optics Manufacturing Corporation, Philadelphia, Pa. Filed Nov. 25, 1957.

NEWLO

For Anti-Newton Ring Glass Plates for Optical and Photographic Purposes.
First use Oct. 15, 1957.

SN 41,536. General Controls Co., Glendale, Calif. Filed Nov. 29, 1957.

CHECKTROL

For Gauges for Indicating Transformer and Circuit Voltages.
First use in October 1950.

SN 41,566. Philadelphia Thermometer Company, Philadelphia, Pa. Filed Nov. 29, 1957.

ROTO-STAT

For Thermoregulators for Use in Laboratories and Industrial Installations.
First use in January 1946.

SN 41,567. Philadelphia Thermometer Company, Philadelphia, Pa. Filed Nov. 29, 1957.

MICRO-SET

For Thermoregulators for Use in Laboratories and Industrial Installations.
First use Dec. 11, 1945.

Class 29—Brooms, Brushes, and Dusters

SN 35,746. Crown 400 Corporation, Chicago, Ill. Filed Aug. 19, 1957.

CROWN
400 SPONGE MOP

The words "Sponge Mop" are disclaimed apart from the mark as shown.
For Floor Mops Such as Cellulose Sponge Mops, Woolen and Nylon Dust Mops and the Like.
First use July 29, 1957.

Class 31—Filters and Refrigerators

SN 40,588. Modiglass Fibers, Inc., Bremen, Ohio. Filed Nov. 13, 1957.

MODIGLASS

For Glass Fiber Products—Namely, Filter Media, and for the Same Products When Made From Glass Fibers in Combination With Natural and Synthetic Fibers.
First use Feb. 7, 1957.

SN 42,002. Donaldson Company, Inc., St. Paul, Minn. Filed Dec. 9, 1957.

DONACLONE

For Air Cleaners and Separators for Internal Combustion Engines and Industrial Grinding Machines.
First use May 8, 1957.

SN 42,003. Donaldson Company, Inc., St. Paul, Minn. Filed Dec. 9, 1957.

Donaclone

For Air Cleaners and Separators for Internal Combustion Engines and Industrial Grinding Machines.
First use Oct. 25, 1957.

Class 32—Furniture and Upholstery

SN 15,047. Mechanical Mirror Works, Inc., New York, N. Y. Filed Sept. 4, 1956.

BRYTONE

For Mirrors.
First use Dec. 10, 1949.

SN 34,571. Walrus Manufacturing Company, Decatur, Ill. Filed July 29, 1957.

WALRUS

For Furniture—Namely, Cupboards; Floor and Wall Cabinets; Recessed Cabinets for Built-In Installation; Shelves; Base Unit Cabinet Structures; Wardrobe Cabinets and Built-In Wardrobe Structures; Bookcases; Tables; Table Tops; Desks; Chairs; Stools; Benches; Storage Bins; Floor and Wall Mounted Racks; Peg Boards; Key Cabinets; Filing Cabinets; Exhibition Cases; Magazine and Newspaper Racks; Book Stands; Drafting Tables; Combined Stool and Drawing Board Support; Kitchen Table Assembly Including Cabinets, Drawers, Shelves, and Sink; Homemaking Unit Including a Table, Cabinets and Mounts for Sewing Machine and Ironing Board.
First use in or about 1910.

SN 39,201. Display Studios, Inc., Kansas City, Mo. Filed Oct. 21, 1957.

ADD-A-UNIT

For Enclosures in the Nature of Cabinets Which Fit Around Vending Machines.
First use during July 1955.

SN 42,519. Monteverdi-Young Co., also d. b. a. Monteverdi-Young, Los Angeles, Calif. Filed Dec. 16, 1957.

THE SIGNATURE LINE

Applicant disclaims the word "Line" apart from the mark as shown.
For Office, Home, and Institutional Furniture—Namely, Desks, Chairs, Tables, Chests, Sofas, Beds, and Dressers.
First use Oct. 18, 1957, on chairs.

SN 42,564. Wichita Precision Tool Company, Inc., Wichita, Kans. Filed Dec. 16, 1957.

SERVLINE

For Food Serving and Display Counters for Use in Cafeterias and Restaurants, and Parts Thereof.
First use Sept. 20, 1957.

SN 43,514. Sea Lawn Products Company, Long Beach, N. Y. Filed Jan. 3, 1958.



For Outdoor Furniture—Namely, Chairs, Seats, Park Benches, Umbrellas, and Lounge Pads for Use on Boats, Parks, Playgrounds, Patios, Lawns.
First use June 1955.

SN 45,117. Carolina Mirror Corporation, North Wilkesboro, N. C. Filed Feb. 3, 1958.

SIGNET

For Mirrors and Mirror Assemblies.
First use Nov. 29, 1957.

SN 45,500. Sterling-Freeland Industries, Inc., Chicago, Ill. Filed Feb. 7, 1958.

STERLING

Owner of Reg. No. 562,939.
For Kitchen Cabinets.
First use in February 1956.

SN 45,527. Bunny Bear Inc., Everett, Mass. Filed Feb. 10, 1958. Sec. 2(f).

NEVAWET

Owner of Reg. No. 558,588.
For Crib and Youth Bed Mattresses.
First use February 1947.

SN 45,528. Burton-Dixie Corporation, Chicago, Ill. Filed Feb. 10, 1958.

SLEEPCART

For Beds.
First use Jan. 8, 1958.

SN 45,644. Kolcraft Products, Inc., Chicago, Ill. Filed Feb. 10, 1958.

BABY DRI

For Crib Mattresses.
First use Dec. 26, 1957.

SN 45,716. Burton-Dixie Corporation, Chicago, Ill. Filed Feb. 12, 1958.

SLUMBERCART

For Beds.
First use Feb. 10, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 40,217. The Electro-Temp Corporation, Springfield, Mass. Filed Nov. 7, 1957.

ELECTRO SAFETEMP

For Electrically Operated Space Heating and Cooling Apparatus.
First use Oct. 7, 1957.

SN 40,346. Holophane Company, Inc., New York, N. Y. Filed Nov. 8, 1957. Sec. 2(f).

MODELITE

Owner of Reg. No. 382,716.
For Glass and Combination Glass and Metal Globes and Reflectors.
First use Sept. 16, 1938.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 32,656. American Brake Shoe Company, New York, N. Y. Filed June 26, 1957. Sec. 2(f).

AMERICAN BRAKEBLOK

Owner of Reg. Nos. 362,651, 537,560, and others.
For Friction Elements for Brakes and Clutches.
First use July 1, 1951.

SN 35,298. Robbins Tire and Rubber Company, Inc., Tuscumbia, Ala. Filed Aug. 9, 1957. Sec. 2(f).

Robbins

For Inner Tubes and Tread Rubber (Camelback).
First use Dec. 21, 1950.

SN 37,126. Bearings, Inc., Cleveland, Ohio. Filed Sept. 13, 1957.

SELECT ○ RING

No claim is made to the term "O Ring" apart from the mark as shown.
For Packing Rings and Gaskets.
First use Aug. 31, 1957.

SN 40,300. Acme-Hamilton Mfg. Corp., Trenton, N. J. Filed Nov. 8, 1957.

PIGGY BACK VAC

For Industrial Vacuum Hose.
First use Sept. 20, 1957.

Class 36—Musical Instruments and Supplies

SN 25,218. Vincent Castiglione, d. b. a. Castiglione Accordion Co., Detroit, Mich. Filed Apr. 8, 1957.



The term "Detroit" and the representation of an accordion are disclaimed apart from the mark as shown.
For Accordions.
First use September 1953.

SN 36,720. Ludwig Drum Co., Chicago, Ill. Filed Sept. 5, 1957.

LUDWIG

For Percussion Musical Instruments—Namely, Drums, Cymbals, Bell Lyra, and Accessories Therefor; Bugles; and Batons.
First use in 1908.

SN 38,656. Harry Newcorn & Son, Inc., New York, N. Y. Filed Oct. 9, 1957.

ALLEGRO

For Accordions and Musical Instrument Strings.
First use Nov. 15, 1948.
Subj. to Intf. with Reg. No. 656,838.

Class 37—Paper and Stationery

SN 17,396. Office Products, Inc., Detroit, Mich. Filed Oct. 12, 1956.

PREMIER

For Label Holder Made From Transparent Material Folded Upon Itself and Provided With an Adhesive on One Face by Which the Holder Is Applied to the Edge of Shelving, the Backs of Books and the Like.
First use June 10, 1956.

SN 33,733. National Blank Book Company, Holyoke, Mass. Filed July 15, 1957.

20/20 BUFF

No registration rights are being claimed for the word "Buff" separate and apart from the mark as a whole.
For Blank Sheets for Bookkeeping Records and Paper Sheet Fillers for Loose Leaf Binders.
First use Feb. 18, 1957.

SN 34,545. Le Febure Corporation, Cedar Rapids, Iowa. Filed July 29, 1957.

ARANS

For Account Cards, Ledger Sheets, and Similar Forms Having Indicia Thereon for Alphabetical Classification Thereof.
First use Dec. 13, 1956.

SN 35,590. W. C. Horn, Bro. & Co., Newark, N. J. Filed Aug. 15, 1957.

CHECKRETARY

For Desk Folders for Holding a Check Book, Correspondence, Bills, Etc.
First use July 10, 1957.

SN 36,266. Zephyr American Corporation, New York, N. Y. Filed Aug. 26, 1957.

INITIALIST

For Memorandum Pads and List Finders.
First use May 1, 1957.

SN 36,267. Zephyr American Corporation, New York, N. Y. Filed Aug. 26, 1957.

AUTOMEMO

For Memorandum Pads.
First use May 1, 1957.

SN 36,360. Crown Zellerbach Corporation, San Francisco, Calif. Filed Aug. 28, 1957.

CARDINAL

Owner of Reg. No. 353,878.
For Paper Bags.
First use Sept. 1, 1937.

SN 36,605. Marathon Corporation, Menasha, Wis., to American Can Company, New York, N. Y. Filed Sept. 3, 1957.

DORSETTE

For Toilet Tissue.
First use Aug. 21, 1957.

SN 37,327. F. W. Woolworth Co., New York, N. Y. Filed Sept. 16, 1957.

FIFTH AVENUE

Owner of Reg. No. 531,795.
For Paper Gift Wrapping.
First use Aug. 27, 1957.

SN 38,341. The Champion Paper and Fibre Company, Hamilton, Ohio. Filed Oct. 4, 1957.

SABRE

For Index Paper.
First use May 27, 1957.

SN 38,342. The Champion Paper and Fibre Company, Hamilton, Ohio. Filed Oct. 4, 1957.

CAMELOT

For Bristol Paper.
First use May 28, 1957.

SN 39,658. New York & Pennsylvania Co., Inc., New York, N. Y. Filed Oct. 28, 1957.

PENN/PRINT

For Printing and Lithographing Paper.
First use on or about Sept. 30, 1957.

Class 38—Prints and Publications

SN 36,970. Loffland Brothers Company, Tulsa, Okla. Filed Sept. 10, 1957.



For Trade Publications, Including Periodicals, for the Dissemination of Information of Interest to the Oil Well Business.
First use May 15, 1957.

SN 38,889. American Telephone and Telegraph Company, New York, N. Y. Filed Oct. 15, 1957.



Owner of Reg. No. 649,454.
For Directories and Information Booklets.
First use on or about Dec. 14, 1931.

SN 38,989. General Aniline & Film Corporation, New York, N. Y. Filed Oct. 16, 1957.

PRINTON

Owner of Reg. No. 266,994.
For Photographic Prints.
First use Sept. 13, 1957.

SN 39,257. Motorola Inc., Chicago, Ill. Filed Oct. 21, 1957.

MOTOROLA NEWSGRAM

Owner of Reg. Nos. 275,837, 612,191, and others.
For Magazine Published Periodically and Pertaining to the Communication Industry.
First use in 1941.

SN 39,321. H. S. Crocker Co., Inc., San Francisco, Calif. Filed Oct. 22, 1957.

MOTOUR

For Scenic Travel Cards.
First use Sept. 4, 1957.

Class 39—Clothing

SN 11,153. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 28, 1956.

SURF SHIRT

Applicant disclaims the word "Shirt."
For Outer Shirts.
First use Apr. 12, 1956.

SN 15,800. Lykens Hosiery Mills, Inc., Marion, N. C. Filed Sept. 17, 1956.

LYKENS

For Hosiery, Socks, and Stockings.
First use Oct. 10, 1939.

SN 15,801. Lykens Hosiery Mills, Inc., Marion, N. C. Filed Sept. 17, 1956.

Lykens

For Hosiery, Socks, and Stockings.
First use Mar. 25, 1948.

SN 15,804. Lykens Hosiery Mills, Inc., Marion, N. C. Filed Sept. 17, 1956.

Lykens Thrift-Pak

For Hosiery, Socks, and Stockings.
First use Aug. 2, 1950.

SN 16,547. La Vigna, Inc., New York, N. Y. Filed Sept. 27, 1956.

CONNOISSEUR

For Women's and Misses' Coats and Suits.
First use Feb. 13, 1956.

SN 17,277. Julius Goldstein & Sons Co., Boston, Mass. Filed Oct. 11, 1956.

Nite Glo Slippercraft

Owner of Reg. Nos. 530,863 and 648,337.
For Men's and Women's Shoes.
First use June 1, 1947.

SN 22,279. Sunbeam Corporation, Chicago, Ill. Filed Jan. 8, 1957.

STEWART

For Clothing—Namely, Pants, Overalls, and Gloves.
First use at least as early as Jan. 2, 1936.

SN 22,983. Superba Cravats, Inc., Rochester, N. Y. Filed Jan. 22, 1957.

AIR-LOOM

For Neckwear.
First use Dec. 29, 1956.

SN 24,179. Mark-Fore & Strike, Inc., Delray Beach, Fla. Filed Feb. 11, 1957.

MARK · FORE & STRIKE INC.

For Men's, Women's, and Children's Clothing Comprising Sweaters, Shirts, Jackets, Pants Both Long and Short, Footwear, Swim Suits, Neckties, Dresses, and Skirts.
First use May 15, 1950.

SN 25,691. Firma Carl Freudenberg Kommanditgesellschaft auf Aktien, Weinheim an der Bergstrasse, Germany. Filed Mar. 7, 1957.

CARESSA

For Shoe Uppers Made of Leather, Fabric, Plastic, Rubber, and Any Combination Thereof.
First use in August 1955.

SN 26,796. Dundee Mills, Inc., Griffin, Ga. Filed Mar. 25, 1957.

Red Diamond
Made By Dundee

The lining represents the color red.
For Diapers.
First use 1900.

SN 28,070. John B. Stetson Company, Philadelphia, Pa. Filed Apr. 12, 1957. Sec. 2(f).

KENSINGTON

Owner of Reg. Nos. 335,598, 624,106, and others.
For Hats and Caps for Men, Women, and Children, Men's and Boys' Outer Shirts, Ties, Scarves, Pajamas, Underwear, Hosiery, Gloves, Belts, and Handkerchiefs.
First use 1909 on hats.

SN 28,295. Swan Shoe Company, Incorporated, Baltimore, Md. Filed Apr. 16, 1957.

SWAN

Owner of Reg. No. 115,467.
For Shoes and Slippers for Men, Women, Children, and Infants.
First use June 10, 1916.

SN 28,553. Sleep-Ease, Inc., New York, N. Y. Filed Apr. 19, 1957.

Sleep-Ease

For Ladies' Sleeping Pajamas, Night-Briefs, Nightgowns, Dusters, and Peignoirs, and Ladies' Loungewear—Namely, Ladies' Pajamas and Ladies' Dusters, Made of Woven Fabrics.
First use in May 1940.

SN 28,719. The McKay Products Corp., New York, N. Y. Filed Apr. 23, 1957.

BLUE SWAN

For Ladies' Lingerie Including Undies, Slips, Gowns, and Pajamas.
First use on or about Feb. 24, 1937.

SN 29,195. Edward R. Bergstein, Charleroi, Pa. Filed May 1, 1957.

SHOE ZOO

"Shoe" is disclaimed apart from the mark as shown.
For Footwear Such as Shoes and Socks.
First use Apr. 11, 1957.

SN 30,204. Stevenson & Son Limited, Dungannon, County Tyrone, Northern Ireland. Filed May 16, 1957.

STEEGAN

Owner of British Reg. No. 691,956, dated Aug. 31, 1950.
For Men's Clothing—Namely, Suits, Waistcoats, Jackets, Shirts, Trousers, Shorts, and Tuxedos Including Tuxedo Jackets and Tuxedo Shirts.

SN 30,227. Burlington Industries, Inc., Greensboro, N. C. Filed May 17, 1957.

Argyll
THE DUKE OF ARGYLL

For Men's Hosiery.
First use Apr. 18, 1957; Nov. 16, 1956, as to "The Duke of Argyle."

SN 30,988. Brown Durrell Co., Cambridge, Mass. Filed May 29, 1957.

GORDON

Owner of Reg. Nos. 189,188 and 439,805.
For Sweaters for Men, Women, and Children.
First use in 1943.

SN 31,632. Capitol Manufacturing Co., Jackson, Miss. Filed June 10, 1957.

Norman

For Men's Shirts Made of Cotton and Rayon and Combinations Thereof.
First use Mar. 1, 1956.

SN 32,493. Jack L. Honig, Inc., New York, N. Y. Filed June 24, 1957.

Bobby Teen

For Children's and Misses' Dresses.
First use Feb. 14, 1946.

SN 32,950. The Guida Wood Heel Company, Brooklyn, N. Y. Filed July 1, 1957.

NI-HEELS

For Heels for Shoes.
First use May 1, 1957.

SN 35,633. Craddock-Terry Shoe Corporation, Lynchburg, Va. Filed Aug. 16, 1957.

LION

For Shoes.
First use 1906.

SN 36,759. Sally Victor, Inc., New York, N. Y. Filed Sept. 5, 1957.

Sally Victor

For Women's Hats, Scarves, Gloves, and Stockings.
First use on or about Sept. 1, 1934, on hats.

SN 37,044. Chester H. Roth Co., Inc., New York, N. Y. Filed Sept. 11, 1957.

SUPP-HOSE

For Women's Hosiery.
First use Aug. 12, 1957.

SN 37,211. Battelstein's, Inc., Houston, Tex. Filed Sept. 16, 1957.

STRATFORD

For Men's and Boys' Dress and Sport Shirts.
First use in August 1957.

SN 37,234. Jacques de Loux, Inc., Sellersville, Pa. Filed Sept. 16, 1957.

THE BUCKS COUNTIAN

For Sweaters.
First use Aug. 14, 1957.

SN 37,243. Dunham Brothers Company, Brattleboro, Vt. Filed Sept. 16, 1957.

SILV-A-LINE

For Men's Shoes.
First use June 28, 1957.

SN 37,349. Gallenkamp Stores Co., Los Angeles, Calif. Filed Sept. 17, 1957. Sec. 2(f).

GALLENKAMPS OF CALIFORNIA

Owner of Reg. Nos. 290,495, 505,515, and others.
For Shoes Made of Leather or Partly of Leather for Men, Women, and Children.
First use Mar. 15, 1946.

SN 37,351. Gallenkamp Stores Co., Los Angeles, Calif. Filed Sept. 17, 1957. Sec. 2(f).

CUSHION TRED BY Gallen Kamp's

Owner of Reg. Nos. 290,495, 553,266, and others.
For Shoes Made of Leather or Partly of Leather for Men, Women, and Children.
First use Aug. 18, 1948.

SN 37,432. The S. E. Hyman Company, Fremont, Ohio. Filed Sept. 18, 1957.

ZERÓWEAR

For Insulated Underwear Suits.
First use on or about Aug. 1, 1957.

SN 37,433. The S. E. Hyman Company, Fremont, Ohio. Filed Sept. 18, 1957.

ZERÓ WEAR

No exclusive right to the word "Wear" is claimed other than in the association shown.
For Insulated Underwear Suits.
First use on or about Aug. 1, 1957.

SN 37,445. Meshtone Manufacturing Company, Inc., New York, N. Y. Filed Sept. 18, 1957.

MESHTONE

For Men's, Women's, and Children's Belts.
First use Aug. 1, 1957.

SN 37,834. Weber and Heilbroner, Inc., New York, N. Y. Filed Sept. 25, 1957. Sec. 2(f).

GOSSAMERE

Owner of Reg. No. 360,418.
For Men's and Boys' Overcoats, Top Coats, Trousers, Jackets, Coats, Knitted Jackets, Sport Coats, Vests, Sweaters, Pullovers.
First use June 1, 1937.

SN 38,748. Honey Togs, Inc., Gladewater, Tex. Filed Oct. 11, 1957.

SMITTY'S OF TEXAS

For Outerwear for Girls and Young Women—Namely, Dresses, Suits, and Coats.
First use Sept. 25, 1957.

SN 38,910. Famous-Sternberg, Inc., New Orleans, La. Filed Oct. 15, 1957.

Deansgate

Owner of Reg. No. 645,137.
For Suits and Pants.
First use Feb. 27, 1956.

SN 39,063. Halper Brothers, Inc., New York, N. Y. Filed Oct. 17, 1957.

MONTARA

For Hats and Hat Bodies.
First use Apr. 16, 1956.

SN 39,130. Claybar of California, Inc., Los Angeles, Calif. Filed Oct. 18, 1957.

Claybar
OF CALIFORNIA

The right to the use of the words "Of California," except in conjunction with the name "Claybar," is hereby disclaimed.
For Men's and Boys' Sportswear—Namely, Men's and Boys' Knitted Sport Shirts, Woven Sport Shirts, and Sweaters.
First use May 9, 1951.

SN 39,149. Malden Form Brassiere Company, Inc., New York, N. Y. Filed Oct. 18, 1957.

UNDERTONE

For Brassieres.
First use Oct. 3, 1957.

SN 39,240. M. K. M. Knitting Mills, Inc., Manchester, N. H. Filed Oct. 21, 1957.

LOVERIA

For Hosiery.
First use Aug. 8, 1957.

SN 39,372. Bali Brassiere Co., Inc., New York, N. Y. Filed Oct. 23, 1957.

BALINEASE

Owner of Reg. No. 553,151.
For Brassieres and Bandeaux.
First use Feb. 19, 1954.

SN 39,377. Boyce-Lazarus Company, Johnstown, N. Y. Filed Oct. 23, 1957.

DRIVE MASTER

For Gloves.
First use July 10, 1957.

SN 39,456. Nelly Don, Inc., Kansas City, Mo. Filed Oct. 24, 1957.

DON-ABOUT

For Women's Dresses—Namely, Leisure Wear Dresses, Wrap-Around Dresses, and Uniform Type Dresses.
First use Oct. 1, 1957.

SN 39,501. Jack Spiro & Co. Inc., New York, N. Y. Filed Oct. 24, 1957.

MARA

For Children's and Youths' Dresses.
First use Aug. 15, 1957.

SN 39,815. The Lovable Brassiere Co., Atlanta, Ga. Filed Oct. 30, 1957.

Lovable Lady

Owner of Reg. Nos. 378,181, 636,849, and others.
For Brassieres.
First use Oct. 14, 1957.

Class 40—Fancy Goods, Furnishings, and Notions

SN 36,240. Sheltex Manufacturing Co., Inc., Brooklyn, N. Y. Filed Aug. 26, 1957.

LeeAnn

For Seambinding.
First use July 21, 1947.

SN 38,178. United States Rubber Company, New York, N. Y. Filed Oct. 1, 1957.

LAYTAPE

For Elastic Ribbon Formed of Elastic Threads Placed Side by Side and Adhered to Each Other.
First use Aug. 29, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 23,395. William Heller, Incorporated, New York, N. Y. Filed Jan. 29, 1957.

COUNTRY VELVET

The word "Velvet" is disclaimed apart from the mark as shown.
For Knitted Cotton Velvet Fabrics.
First use Jan. 4, 1957.

SN 27,801. Interchemical Corporation, New York, N. Y. Filed May 17, 1957.

TARPOLITE

For Coated Fabrics for Making Tarpaulins, Awnings, and the Like.
First use Jan. 16, 1957.

SN 27,855. Einiger Mills, Inc., New York, N. Y. Filed Apr. 10, 1957.

RUFFSPUN

For Piece Goods of Wool.
First use Feb. 5, 1957.

SN 36,031. United Merchants and Manufacturers, Inc., New York, N. Y. Filed Aug. 22, 1957.

"THE MURRAY HILL COLLECTION"

For Piece Goods of Cotton, Wool, Silk, Synthetic Fibers, and/or Combinations Thereof Adapted for Use as Upholstery and Drapery Fabrics.
First use on or about Aug. 8, 1957.

SN 36,633. J. P. Stevens & Co., Inc., New York, N. Y. Filed Sept. 3, 1957.

Surfcast

For Cotton Piece Goods.
First use June 25, 1957.

SN 36,973. McCampbell & Company, Inc., New York, N. Y. Filed Sept. 10, 1957.

Royal Smoothie

Owner of Reg. No. 649,005.
For All-Cotton Combed Sateen.
First use May 27, 1957.

SN 38,026. Dan River Mills, Incorporated, Danville, Va. Filed Sept. 30, 1957.

DESIGNER COTTONS

Applicant hereby disclaims the word "Cottons" from the mark as a whole.
For Textile Fabrics in the Piece of Cotton To Be Used in the Manufacture of Shirts and Dresses.
First use in April 1951.

SN 38,726. E. T. Barwick Mills, Inc., Chamblee, Ga. Filed Oct. 11, 1957.

MATADOR

For Fine Textured Carpets.
First use Aug. 15, 1957.

SN 39,282. Cecil Saydah, Los Angeles, Calif. Filed Oct. 21, 1957.

SAYCO

For Hand Screened Printed Terry Towels and Terrycloth.
First use Jan. 1, 1947.

SN 40,222. D. B. Fuller & Co. Inc., New York, N. Y. Filed Nov. 7, 1957.

ATLANTIS

For Drapery Fabrics.
First use Mar. 26, 1957.

SN 40,225. D. B. Fuller & Co. Inc., New York, N. Y. Filed Nov. 7, 1957.

BOXER

For Drapery Fabrics.
First use Feb. 19, 1957.

Class 43—Thread and Yarn

SN 36,249. J. P. Stevens & Co., Inc., New York, N. Y. Filed Aug. 26, 1957.

SATIN-SPUN

For Yarn Composed of Combed Cotton Blended With Synthetic Fibers.
First use May 16, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 38,645. Sunbeam Corporation, Chicago, Ill. Filed Oct. 9, 1957.

SUNBEAM

For Nail Files.
First use Aug. 7, 1957.

SN 38,758. Lewis and Matthews Corporation, Los Angeles, Calif. Filed Oct. 11, 1957.

SEAT-O-MATIC

For Wheel Chairs.
First use June 25, 1956.

Class 45—Soft Drinks and Carbonated Waters

SN 29,550. O-So Grape Co., Peoria, Ill. Filed May 7, 1957. Sec. 2(f).

DR. SWETT'S

Owner of Reg. Nos. 349,752, 548,040, and others.
For Root Beer.
First use 1890.

Class 46—Foods and Ingredients of Foods

SN 15,631. Reuben Sandwich Co., Omaha, Nebr. Filed Sept. 13, 1956.

Reuben's Reuben

No claim is made to the Star of David apart from the mark as shown.
For Fresh Frozen Sandwiches.
First use June 1, 1956.

SN 28,120. H. S. Davies, Inc., Chicago, Ill. Filed Apr. 15, 1957.

SCOT LAD

For Canned Foods—Namely, Vegetables, Fruits, Prepared Spaghetti, Fruit Juices; Catsup, Mayonnaise, Salad Dressings, Peanut Butter, Coffee, Pickles, Fruit Preserves and Jellies; Butter, Oleomargarine, and Vegetable Shortening.
First use Feb. 5, 1957.

SN 28,583. Edy's Character Candies of Northern California, Oakland, Calif. Filed Apr. 22, 1957.

SCRAMBLE

For Candy.
First use Mar. 1, 1957.

SN 29,546. National Queen's Kitchens, Inc., d. b. a. The National Queen's Kitchen, Inc., Mount Prospect, Ill. Filed May 7, 1957.

QUEEN'S KITCHEN

For Hamburger Improver Consisting of Wheat Flour, Hydrolyzed Vegetable Protein, Vegetable Shortening, Monosodium Glutamate, Dehydrated Egg Albumen, Salt, and U. S. Certified Color.
First use Apr. 12, 1957.

SN 29,645. Megs Macaroni Company, Harrisburg, Pa. Filed May 8, 1957.

PENNSYLVANIA DUTCH MEGS

Owner of Reg. Nos. 584,726 and 260,405.
For Egg Elbow Macaroni.
First use Feb. 1, 1957.

SN 34,547. Long View Farms, Inc., Middleport, N. Y. Filed July 29, 1957.

LONGVIEW FARMS

For Canned Vegetables and Tomato Juice and Frozen Berries.
First use the year 1952.

SN 35,921. Dodge & Olcott, Inc., New York, N. Y. Filed Aug. 21, 1957.

COCOA-VAN

For Powdered Chocolate-Vanilla Flavor Used in Synthetic Coatings.
First use June 21, 1957.

SN 36,342. American Breddo Corp., New York, N. Y. Filed Aug. 28, 1957.

SLYDDO

For Powdered Pan Release Agent Consisting of Vegetable Shortening and Flour.
First use Aug. 21, 1957.

SN 36,958. The Creasey Company, Louisville, Ky. Filed Sept. 10, 1957.

TEEN QUEEN

Owner of Reg. No. 553,856.
For Canned Fruits, Vegetables, and Fish; Hominy, Tomato Catsup, Puree, Juice, Paste and Sauce; Package Coffee, Package Condiments—Namely, Salad Dressing, Mayonnaise and Salad Products—Namely, French Dressing, Thousand Island Dressing, Roquefort Dressing, Sandwich Spread, and Tartar Sauce; Evaporated Milk, Jelly, Margarine, Peanut Butter, Pickles, Preserves, Salt, Spices, and Table Syrup.
First use Oct. 15, 1949.

SN 37,174. Martori Bros., Distributors, Phoenix, Ariz. Filed Sept. 13, 1957.

BIMBO

For Fresh Vegetables and Fresh Melons.
First use Dec. 31, 1955; July 14, 1955, as to "Bimbo."

SN 37,604. Sun-Vi Products, Inc., Chicago, Ill. Filed Sept. 20, 1957.

VITA-SUN

For Fruit Bases for Use in Making Food Drinks.
First use Mar. 28, 1957.

SN 37,656. Hershey Creamery Company, Harrisburg, Pa. Filed Sept. 23, 1957. Sec. 2(f).

HERSHEY'S

For Ice Cream and Butter.
First use May 1, 1910.

SN 40,522. Western Tomato Growers and Shippers, Inc., Oxnard, Calif. Filed Nov. 12, 1957.

3 ANGELS

For Fresh Tomatoes.
First use Sept. 5, 1957.

Class 48—Malt Beverages and Liquors

SN 31,074. Bavarian Brewing Company, Covington, Ky. Filed May 31, 1957. Sec. 2(f) as to "Bavarian's."

BAVARIANS SELECT BEER

The drawing is lined for gold, yellow, blue, red, and green, but no claim is made to color. Applicant disclaims the words "Select Beer" apart from the mark as shown. Owner of Reg. Nos. 583,028 and 609,692.
For Beer.
First use about May 15, 1957.

SN 39,943. C. Wilbroes Bryggeri, Helse m. fl. A/S, Helsingor, Denmark. Filed Nov. 1, 1957.

WIBRO

Priority claims under Sec. 44(d) on Danish application filed Oct. 3, 1957; Reg. No. 1782—1957, dated Nov. 2, 1957.
For Beverages, Especially Beer.

Class 49—Distilled Alcoholic Liquors

SN 22,500. Barton Distilling Company, Chicago, Ill. Filed Jan. 14, 1957.

COLONEL LEE

For Whiskey.
First use Sept. 11, 1945.

SN 32,930. Distillers Corporation Limited, Montreal, Quebec, Canada, to Canadian Distillers, Ltd., Montreal, Quebec, Canada. Filed July 1, 1957.

CANADIAN TEN

Owner of U. S. Reg. No. 622,427.
For Whisky.
First use June 10, 1957; in commerce June 10, 1957.

SN 35,586. Glenmore Distilleries Company, Louisville, Ky. Filed Aug. 15, 1957.



The drawing is lined for brown and gold but applicant disclaims the brown background shown on the drawing. Owner of Reg. Nos. 599,463, 310,855, and others.
For Whiskey.
First use Sept. 5, 1956.

SN 38,495. Standard Brands Incorporated, New York, N. Y. Filed Oct. 7, 1957. Sec. 2(f).

FLEISCHMANN'S

Owner of Reg. No. 308,439.
For Whiskies, Gins, and Vodka.
First use May 26, 1908, on whiskies and gins.

Class 50—Merchandise Not Otherwise Classified

SN 1,196. J. H. Benecke, Hannover-Vinnhorst, Germany. Filed Jan. 9, 1956.

AMERACELLA

Priority claimed under Sec. 44(d) on German application filed July 11, 1955; Reg. No. 681,628, dated Sept. 14, 1955.
For Synthetic Leather; Place Mats, Bookbinding Material, Banners, Flags, Pennants, Placards, Tents, Greenhouse Coverings, Tarpaulins for Machines, Motor-Cars, Trucks, Pieces of Artillery, and Other Stationary and Movable Objects, All Made of Plastic Foils and Sheets.

SN 3,071. J. H. Benecke, Hannover-Vinnhorst, Germany. Filed Feb. 21, 1956.

Acella

Owner of German Reg. No. 636,204, dated Mar. 26, 1953.
For Felt Impregnated or Coated With Plastics; Artificial Leather; Banners; Flags; Pennants; Placards; Tents; Place Mats; Blackboards for Classrooms or the Like, To Be Secured to Walls; Educational Models; Terrestrial Globes; Tarpaulins for Covering Motorcars, Trucks, Machines, Pieces of Artillery, and Other Stationary and Movable Objects, All Made of Base Sheeting Coated on One or Both Sides or Impregnated With Plastics.

SN 35,530. Prismo Safety Corporation, Huntingdon, Pa. Filed Aug. 14, 1957.

PRISMO

Owner of Reg. Nos. 566,232, 581,756, and 644,056.
For Signs—Namely, Reflecting Signs.
First use in 1935.

SN 36,934. E. H. Teasley & Co., Inc., Dallas, Tex. Filed Sept. 9, 1957.

RAINBOW

The drawing is lined for shading purposes only.
For Canvas Products—Namely, Tarpaulins, Tents, Truck Covers, Irrigation Dams, Cot Covers Made of Canvas and Arranged To Be Attached to Cot Frames, Painters' Drop Cloths, Air Conditioner Covers.
First use April 1946.

Class 51 — Cosmetics and Toilet Preparations

SN 676,663. Rayette, Inc., St. Paul, Minn. Filed Nov. 15, 1954.

PEN-RAY

For Super-Penetrating Agent—Namely, a Lanolin Derivative, Incorporated as an Ingredient in Hair Waving Neutralizers.
First use Dec. 14, 1953.

SN 682,146. Hope Hilliary Cosmetics Ltd., d. b. a. Hope Hilliary, New York, N. Y. Filed Feb. 23, 1955.

HALDINE

For Cosmetic Preparation—Namely, an Externally Applied Facial Tonic.
First use Aug. 15, 1954.

SN 685,276. Erica Jenis, Inc., New York, N. Y. Filed Apr. 11, 1955.

Erica Jenis

For Cosmetic Skin Cream.
First use Dec. 7, 1954.

SN 15,794. L'Argene Products Co., Inc., d. b. a. L'Argene, New York, N. Y. Filed Sept. 17, 1956.

Your Grace

For Perfume, Toilet Water, and Eau de Cologne.
First use Apr. 11, 1955.

SN 15,796. L'Argene Products Co., Inc., d. b. a. L'Argene, New York, N. Y. Filed Sept. 17, 1956.

Le Couturier

"Le Couturier" means "the ladies' tailor," when translated into English.
For Perfume, Toilet Water, and Eau de Cologne.
First use Mar. 19, 1951.

SN 18,905. International Laboratories, Inc., Rochester, N. Y. Filed Nov. 7, 1956.

Secura

The Spanish word "Secura" means "coolness," "dryness," "indifference," and "droughtiness."
For Denture Adhesive.
First use Mar. 1, 1956.

SN 20,017. Augusta Clayton, d. b. a. Madam Augusta and as Top-Soil Hair Products Mfg. Co., San Diego, Calif. Filed Nov. 28, 1956.

TOP-SOIL

For Scalp Cream for Stimulating the Growth of Hair.
First use Apr. 15, 1956.

SN 23,763. Weco Products Company, Chicago, Ill. Filed Feb. 4, 1957.

INSTA-CLEAN

For Denture Cleaner.
First use Jan. 7, 1957.

SN 26,861. Panzyma Laboratories, Inc., New York, N. Y. Filed Mar. 25, 1957.

Panzyma

For Cosmetic Skin Cream.
First use November 1956.

SN 27,180. Carter Products, Inc., New York, N. Y. Filed Mar. 29, 1957.

FIRST

For After Shave Lotion.
First use Mar. 5, 1957.

SN 30,444. Raphael Parfums, Société Anonyme, Paris, France. Filed May 21, 1957.

WHISKY

Owner of French Reg. No. 464,173, dated Apr. 11, 1957 (Seine); Natl. Inst. No. 88,587.
For Perfumes, Face Powder, Talcum Powder, Cosmetic Skin Creams, Bath Salts, Face Lotions, Brilliantines, Lipstick, Rouge, Toilet Water.

SN 34,748. Hand-A-Cura Co., Fort Wayne, Ind. Filed July 31, 1957.

HAND-A-CURA

For Medicated Hand Lotion.
First use September 1907.

SN 35,729. The Barbasol Company, Indianapolis, Ind. Filed Aug. 19, 1957.

GRIN

For After Shave Lotion.
First use July 30, 1957.

SN 35,801. Natone Company, Los Angeles, Calif. Filed Aug. 19, 1957.

Hilation

For Preparation for Making Hair Soft and Brilliant.
First use May 22, 1957.

SN 35,953. Societe Monsavon-L'Oreal, Paris, France. Filed Aug. 21, 1957.

FAIR AND COOLER

For Hair Bleach.
First use May 29, 1957.

SN 37,147. Alexandra de Markoff Sales Corporation, New York, N. Y. Filed Sept. 13, 1957.

Owner of Reg. No. 406,113.
For Cologne; Cosmetic Skin Lotions; Face Powder; Facial, Skin, Hand, and Eye Creams; and Cosmetic Facial Astringents.
First use Nov. 1, 1956.

SN 37,172. Lentheric, Inc., Chicago, Ill., to Helene Curtis Industries, Inc., Chicago, Ill. Filed Sept. 13, 1957.

TWEEDIE

Owner of Reg. Nos. 317,298, 334,333, and 379,206.
For Bath Soap, Toilet Water, Dusting Powder, Bubble Bath Powder, Bubble Bath Liquid, and Sets Containing Combinations of Such Goods.
First use on or about June 12, 1957.

Class 52 — Detergents and Soaps

SN 691,914. Waverly Petroleum Products Company, Philadelphia, Pa., now by change of name to The Johnson-March Corporation, Philadelphia, Pa. Filed July 25, 1955. Sec. 2(f).

DRI-ZIT

For Granular Floor Cleaning Compound Having Oil- and Water-Absorbent and Incidental Fire Prevention Properties.
First use Oct. 26, 1949.

SN 31,781. Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver, Paris, France. Filed June 11, 1957.

Rêve d'or

For Soaps.
First use November 1927; in commerce 1928.

SN 33,467. Diamond Alkali Company, Cleveland, Ohio. Filed July 10, 1957.

SUSPENSOIL

For Detergent for Use in Industrial and Commercial Laundries.
First use Feb. 29, 1956.

SN 35,894. Everett Wollman, d. b. a. Injectorall Co., Brooklyn, N. Y. Filed Aug. 20, 1957.

INJECTORALL

For Cleaner and Lubricant for Tuner and Volume Control Equipment.
First use Nov. 25, 1955.

SN 37,090. G. H. Linton & Company Limited, London, England. Filed Sept. 12, 1957.

DRIVETTE

Owner of British Reg. No. 758,306, dated Oct. 8, 1956.
For Impregnated Cleansing Cloths.

SN 38,384. The Procter & Gamble Company, Cincinnati, Ohio. Filed Oct. 4, 1957.



For Sudsing Cleaner, Cleanser, and Detergent.
First use Sept. 18, 1957.

SN 40,349. J. Webster Jones, trustee (in trust for P. McNeill Garrod, William H. Laudensiager, and J. Webster Jones), Philadelphia, Pa. Filed Nov. 8, 1957.

B-EX

For Chemical Detergents Used in the Dairy Industry.
First use Sept. 13, 1955.

SERVICE MARKS

Class 107 — Education and Entertainment

SN 37,284. National Orchestra Service, Inc., Omaha, Nebr. Filed Sept. 16, 1957.



For Entertainment Booking Service.
First use Jan. 15, 1956.

CERTIFICATION MARKS

Class A — Goods

SN 47,543. Association of Petroleum Re-Refiners, Inc., Arlington, Va. Filed Mar. 12, 1958.



The certification mark is used by persons authorized by applicant to certify that they meet minimum specifications set by applicant. The words "Permit No." are, in use, followed by the number of one of applicant's members, each member being issued a different number by applicant.

For Motor Oil.
First use Jan. 27, 1958.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

662,065. ACMETITE. Acme Backing Corporation. SN 27,071. Pub. 3–11–58. Filed 3–27–57.

662,066. VYNACEL. The Goodyear Tire & Rubber Company. SN 27,692. Pub. 3–11–58. Filed 4–8–57.

662,067. STYRA-SOIL. Florian N. Nelson, d. b. a. Styra-Soil. SN 30,518. Pub. 3–11–58. Filed 5–22–57.

662,068. VIVATEX AND DESIGN. George Koch Sons, Inc. SN 31,233. Pub. 3–11–58. Filed 6–3–57.

662,069. GOZZI'S GUILFORD WHITE'S AND DESIGN. Gozzi's Turkey Farm. SN 31,485. Pub. 3–11–58. Filed 6–6–57.

662,070. REYNOLON. Reynolds Metals Company. SN 32,126. Pub. 3–11–58. Filed 6–17–57.

662,071. VUE. Vue Plastics, Inc. SN 33,774. Pub. 3–11–58. Filed 7–15–57.

Class 2 — Receptacles

662,072. TWEED-COTE. Landers, Frary & Clark. SN 29,457. Pub. 3–11–58. Filed 5–6–57.

662,073. CZ AND DESIGN. Crown Zellerbach Corporation. SN 31,637. Pub. 3–11–58. Filed 6–10–57.

662,074. VACATION. Atlanta Stove Works, Inc., d. b. a. Birmingham Stove & Range Co. SN 32,896. Pub. 3–11–58. Filed 7–1–57.

662,075. HUDSON H ETC. AND DESIGN. H. D. Hudson Manufacturing Company. SN 33,076. Pub. 3–11–58. Filed 7–2–57.

662,076. POR-N-STOR. Develco. SN 33,537. Pub. 3–11–58. Filed 7–11–57.

Class 5 — Adhesives

662,077. STICK WITH LE PAGE'S. Le Page's Inc. SN 28,869. Pub. 3–11–58. Filed 4–25–57.

662,078. TANAMER. American Cyanamid Company. SN 33,323. Pub. 3–11–58. Filed 7–8–57.

Class 6 — Chemicals and Chemical Compositions

662,079. P. H. Port Huron Chemicals, to Port Huron Chemicals, Inc. SN 695,488. Pub. 1–7–58. Filed 9–28–55.

662,080. DYSTRIP. Ulano Products Company. SN 8,368. Pub. 3–11–58. Filed 5–15–56.

662,081. BETASOL. American Cyanamid Company. SN 10,380. Pub. 3–11–58. Filed 12–18–57.

662,082. WILL. Will Corporation. SN 12,395. Pub. 3–11–58. Filed 7–18–56.

662,083. LINEN AND LACE. John H. Breck, Inc. SN 21,982. Pub. 3–11–58. Filed 1–2–57.

662,084. SYNTHROWITE. Organic Chemical Corporation. SN 26,586. Pub. 3–11–58. Filed 4–8–57.

662,085. STEROXCIDE. Wilmot Castle Company. SN 28,218. Pub. 3–11–58. Filed 4–15–57.

662,086. FLOTITE. MacAndrews & Forbes Company. SN 30,097. Pub. 3–11–58. Filed 5–15–57.

662,087. HYDROTHERM. American Hydrotherm Corp. SN 30,295. Pub. 3–11–58. Filed 5–20–57.

662,088. DESIGN OF LION'S HEAD AND CROSSED KEYS. Trinity Trading Corporation. SN 32,785. Pub. 3–11–58. Filed 6–27–57.

662,089. EXŌMOLD. Exomet, Incorporated. SN 32,935. Pub. 3–11–58. Filed 7–1–57.

662,090. LAVISH. Reefer-Galler, Inc. SN 32,986. Pub. 3–11–58. Filed 7–1–57.

662,091. PRO-FAX. Hercules Powder Company. SN 33,964. Pub. 3–11–58. Filed 7–18–57.

662,092. DELNAV. Hercules Powder Company. SN 33,965. Pub. 3–11–58. Filed 7–18–57.

662,093. COLTON AND DESIGN. Air Reduction Company, Incorporated. SN 35,021. Pub. 3–11–58. Filed 8–6–57.

662,094. ADECANE. Archer-Daniels-Midland Company. SN 35,077. Pub. 3–11–58. Filed 8–7–57.

662,095. BAFER. Monsanto Chemical Company. SN 35,111. Pub. 3–11–58. Filed 8–7–57.

662,096. RESTORIT. Franklin Research Company. SN 35,258. Pub. 3–11–58. Filed 8–9–57.

662,097. H-I-S. Hercules Powder Company. SN 35,260. Pub. 3–11–58. Filed 8–9–57.

662,098. "JET-FLUX." All-State Welding Alloys Co., Inc. SN 35,487. Pub. 3–11–58. Filed 8–14–57.

Class 7 — Cordage

662,099. GOLDLINE. Plymouth Cordage Company. SN 33,835. Pub. 3–11–58. Filed 7–16–57.

662,100. POWERSTEEL. Broderick & Bascom Rope Company. SN 33,945. Pub. 3–11–58. Filed 7–18–57.

662,101. "SILVER STRAND." Olson Company of Sarasota, Inc. SN 33,995. Pub. 3–11–58. Filed 7–18–57.

Class 10 — Fertilizers

662,102. RELIGRO. The Reliance Fertilizer Company. SN 37,520. Pub. 3–11–58. Filed 9–19–57.

Class 12 — Construction Materials

662,103. MICROFINE. L. O. F Glass Fibers Company. SN 24,177. Pub. 3–11–58. Filed 2–11–57.

662,104. PARBOARD AND DESIGN. American Parboard Corporation. SN 28,317. Pub. 3–11–58. Filed 4–17–57.

662,105. KING OF FLOORS. The Danbury Rubber Company, Inc. SN 30,235. Pub. 3–11–58. Filed 5–17–57.

662,106. "K & M." Keasbey & Mattison Company. SN 34,436. Pub. 3–11–58. Filed 7–26–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

662,107. BEKA AND DESIGN. Braun & Kemmler. SN 10,980. Pub. 1–7–58. Filed 6–26–56.

662,108. MM AND DESIGN. McDonnell & Miller, Inc. SN 11,649. Pub. 10–2–56. Filed 7–18–56.

662,109. "DORFAST." Amerock Corporation. SN 13,719. Pub. 3–11–58. Filed 8–10–56.

662,110. POWERS CONTROL AND DESIGN. The Powers Regulator Company. SN 26,486. Pub. 3–11–58. Filed 3–19–57.

662,111. REDDI-WIPE. Reddi-Wipe, Inc. SN 31,726. Pub. 3–11–58. Filed 6–3–57.

662,112. NU-LITE. Clarke L. Wilcox. SN 31,802. Pub. 3–11–58. Filed 6–11–57.

662,113. STA-PUT. Brass and Copper Supply Company, Inc. SN 31,894. Pub. 3–11–58. Filed 6–3–57.

662,114. KWIKSET. Kwikset Locks, Inc. SN 32,503. Pub. 3–11–58. Filed 6–24–57.

662,115. BAL-O-MATIC AND DESIGN. Rich-Troy Manufacturing Corporation. SN 32,536. Pub. 3–11–58. Filed 6–24–57.

662,116. MR. HEADS N. THREADS AND DESIGN. Heads and Threads, Inc. SN 32,686. Pub. 3–11–58. Filed 6–26–57.

662,117. PURITAN. Century Products, Inc. SN 32,733. Pub. 3–11–58. Filed 6–27–57.

Class 14 — Metals and Metal Castings and Forgings

662,118. HESCO. The Hartford Electric Steel Corporation. SN 28,412. Pub. 3–11–58. Filed 4–3–57.

662,119. ARVINYL. Arvin Industries, Inc. SN 29,689. Pub. 3–11–58. Filed 5–9–57.

662,120. JET FORGE. Vanadium-Alloys Steel Company. SN 31,965. Pub. 3–11–58. Filed 6–13–57.

662,121. LACLEDE AND DESIGN. Laclede Steel Company. SN 32,093. Pub. 3–11–58. Filed 6–17–57.

Class 15 — Oils and Greases

662,122. GARRY'S HUSH AND DESIGN. Garry Laboratories, Inc. SN 27,686. Pub. 3–11–58. Filed 4–8–57.

Class 16 — Protective and Decorative Coatings

662,123. KADMOID. Universal Paint & Varnish, Inc., d. b. a. Universal Paint & Varnish Company. SN 26,426. Pub. 3–11–58. Filed 3–18–57.

662,124. KOLOR BRITE. The Martin-Senour Company. SN 32,329. Pub. 3–11–58. Filed 6–20–57.

662,125. SILIFILM. Société Anonyme Dite: Etablissements L. Van Malderen. SN 32,567. Pub. 3–11–58. Filed 6–21–57.

662,126. KRA-LITE. John T. Riddell, Inc. SN 37,293. Pub. 3–11–58. Filed 9–16–57.

662,127. BORNE ETC. AND DESIGN. Borne Chemical Company, Inc. SN 38,894. Pub. 3–11–58. Filed 10–15–57.

662,128. PALLETLIFE. Protection Products Manufacturing Company. SN 39,494. Pub. 3–11–58. Filed 10–24–57.

Class 18 — Medicines and Pharmaceutical Preparations

662,129. PYRONE PLUS. Samuel R. Stephens, d. b. a. Stephens Pharmacal Co. SN 687,902. Pub. 12–13–55. Filed 5–19–55.

662,130. NEO-SOL. Taylor Pharmacal Company, to Chas. Pfizer & Co., Inc. SN 15,076. Pub. 5–14–57. Filed 9–4–56.

662,131. DELIFEC. Vitaminerals, Inc., to Ortho Pharmaceutical Corporation. SN 16,851. Pub. 9–3–57. Filed 10–2–56.

662,132. ROERI-PACK. Chas. Pfizer & Co., Inc. SN 18,914. Pub. 3–11–58. Filed 11–7–56.

662,133. R DR. RECORDATI AND DESIGN. "Dr. Recordati-Laboratorio Farmacologico" S. p. A. SN 22,251. Pub. 3–11–58. Filed 1–8–57.

662,134. PERISTIM. Mead Johnson & Company. SN 24,057. Pub. 3–11–58. Filed 2–8–57.

662,135. RUTINSOL. Meer Corporation. SN 24,271. Pub. 3–11–58. Filed 2–12–57.

662,136. POND'S ANGEL. Chesebrough-Pond's Inc. SN 27,183. Pub. 3–11–58. Filed 3–29–57.

662,137. SULPHO-LAC. Morgan Products Corp. SN 27,511. Pub. 3–11–58. Filed 4–4–57.

662,138. FUNGACETIN. The G. F. Harvey Company. SN 28,783. Pub. 3–11–58. Filed 4–24–57.

662,139. CEPACOL. The Wm. S. Merrell Company. SN 29,539. Pub. 3–11–58. Filed 5–7–57.

662,140. PHRENOPAX. Bristol Laboratories Inc. SN 31,461. Pub. 3–11–58. Filed 6–6–57.

662,141. INOSITHIN. American Lecithin Company, Inc. SN 33,198. Pub. 3–11–58. Filed 7–5–57.

662,142. ERY-STREP. Armour and Company. SN 33,597. Pub. 3–11–58. Filed 7–12–57.

662,143. AERODUST. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories. SN 34,071. Pub. 3–11–58. Filed 7–19–57.

662,144. ERATOL. Joseph E. Seagram & Sons, Inc. SN 34,561. Pub. 3–11–58. Filed 7–29–57.

662,145. FLUORITAB. Fluoritab Corporation. SN 34,946. Pub. 3–11–58. Filed 8–5–57.

662,146. BENACORTOL. Parke, Davis & Company. SN 34,989. Pub. 3–11–58. Filed 8–5–57.

662,147. CO-ALBA. The Upjohn Company. SN 35,015. Pub. 3–11–58. Filed 8–5–57.

662,148. PROTEF. The Upjohn Company. SN 35,139. Pub. 3–11–58. Filed 8–7–57.

662,149. PREDNIS. U. S. Vitamin Corporation. SN 35,542. Pub. 3–11–58. Filed 8–14–57.

662,150. NEOMERCAZOLE. British Schering Limited. SN 35,264. Pub. 3–11–58. Filed 8–16–57.

662,151. ERGOPHETAMINE. Edgar A. Ferguson Research Developments Inc. SN 35,764. Pub. 3–11–58. Filed 8–19–57.

662,152. DOXDAN. Lloyd Brothers, Inc. SN 36,006. Pub. 3–11–58. Filed 8–22–57.

662,153. BALDRIAN. Vitaminerals, Inc. SN 36,329. Pub. 3–11–58. Filed 8–27–57.

662,154. CHRONOSULES. White Laboratories, Inc. SN 36,409. Pub. 3–11–58. Filed 8–28–57.

662,155. PIONEER. Stanley Drug Products, Inc., d. b. a. Pioneer Chemical Co. SN 36,482. Pub. 3–11–58. Filed 8–29–57.

662,156. CYPIP. American Cyanamid Company. SN 36,766. Pub. 3–11–58. Filed 9–6–57.

662,157. CYVERM. American Cyanamid Company. SN 36,767. Pub. 3–11–58. Filed 9–6–57.

662,158. DIREXIN. Sleep-Eze Company, Inc. SN 36,933. Pub. 3–11–58. Filed 9–9–57.

662,159. MILPOND. Carter Products, Inc. SN 36,951. Pub. 3–11–58. Filed 9–10–57.

662,160. TORAKTOS. Carter Products, Inc. SN 36,952. Pub. 3–11–58. Filed 9–10–57.

662,161. URBIMYCIN. Chas. Pfizer & Co., Inc. SN 37,101. Pub. 3–11–58. Filed 9–12–57.

Class 19 — Vehicles

662,162. HEHR AND DESIGN. Hehr Manufacturing Company. SN 4,954. Pub. 3–11–58. Filed 3–21–56.

662,163. JET-A-WAY. Monark Silver King, Inc. SN 8,424. Pub. 3–11–58. Filed 5–16–56.

662,164. JET-STREAM. Monark Silver King, Inc. SN 8,425. Pub. 3–11–58. Filed 5–16–56.

662,165. AIR LOG. Air Logistics Corporation. SN 15,748. Pub. 3–11–58. Filed 9–17–56.

662,166. HAULETTE. Fayette Manufacturing Company. SN 24,582. Pub. 3–11–58. Filed 2–18–57.

662,167. LOCKWELD. The Fairbanks Company. SN 31,098. Pub. 3–11–58. Filed 5–31–57.

662,168. FLYIN FLIVVER. Dean E. Hanson. SN 34,356. Pub. 3–11–58. Filed 7–25–57.

662,169. NORTHROP INTERNATIONAL. Northrop Aircraft, Inc. SN 34,983. Pub. 3–11–58. Filed 8–5–57.

Class 21 — Electrical Apparatus, Machines, and Supplies

662,170. USECO AND DESIGN. U. S. Engineering Co., Inc. SN 7,129. Pub. 3–11–58. Filed 4–25–56.

662,171. VOLTA FURNACES AND DESIGN. Volta Manufacturing Company, Limited. SN 21,095. Pub. 3–11–58. Filed 12–14–56.

662,172. FLEETWOOD. National Presto Industries, Inc. SN 29,931. Pub. 3–11–58. Filed 5–13–57.

662,173. TRUDY TV AND DESIGN. Mosley Electronics, Inc. SN 32,519. Pub. 3–11–58. Filed 6–24–57.

662,174. STANFONE. Telefonaktiebolaget LM Ericsson. SN 33,653. Pub. 3–11–58. Filed 7–12–57.

662,175. MAGIC GRIP. Hipwell Manufacturing Company. SN 34,428. Pub. 3–11–58. Filed 7–26–57.

662,176. BULLDOG AND DESIGN. BullDog Electric Products Company, to I-T-E Circuit Breaker Company. SN 35,741. Pub. 3–11–58. Filed 8–19–57.

Class 22 — Games, Toys, and Sporting Goods

662,177. LIL 'N-GINEER AND DESIGN. "Peppy" M. Sloane. SN 693,939. Pub. 3–11–58. Filed 8–30–55.

662,178. HOTBUGS. Elizabeth Paster, d. b. a. B. J. Products Co. SN 25,352. Pub. 3–11–58. Filed 3–1–57.

662,179. BEAT THE CLOCK. Beat the Clock, Inc. SN 28,996. Pub. 3–11–58. Filed 4–29–57.

662,180. DREAM PETS AND DESIGN. R. Dakin & Co. SN 30,004. Pub. 3–11–58. Filed 5–14–57.

662,181. PINSHOT. Royal of St. Petersburg. SN 32,340. Pub. 3–11–58. Filed 6–20–57.

662,182. .Y. Y Industries Inc. SN 32,362. Pub. 3–11–58. Filed 6–20–57.

662,183. AQUABELT. Stearns Manufacturing Co. SN 32,424. Pub. 3–11–58. Filed 6–21–57.

662,184. SYNCRO-STROKE. A. G. Spalding & Bros. Inc. SN 35,132. Pub. 3–11–58. Filed 8–7–57.

662,185. FLITE-LINE. A. G. Spalding & Bros. Inc. SN 35,133. Pub. 3–11–58. Filed 8–7–57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

662,186. DIXIE AND DESIGN. Beck & Gregg Hardware Company. SN 8,313. Pub. 3–11–58. Filed 5–15–56.

662,187. ROCKETCLAD. Clarence N. Hopkins, d. b. a. American Metal Products Company. SN 12,723. Pub. 4–23–57. Filed 7–24–56.

662,188. SECO. Steel Equipment Company. SN 14,501. Pub. 4–16–57. Filed 8–23–56.

662,189. GARDEN PRIDE. The Southland Mower Company, Inc. SN 17,127. Pub. 3–11–58. Filed 10–8–56.

662,190. MAX. John W. Roby, d. b. a. John W. Roby and Company. SN 20,120. Pub. 3–11–58. Filed 11–29–56.

662,191. ECONOPLANT. The C. S. Johnson Company. SN 27,863. Pub. 3–11–58. Filed 4–10–57.

662,192. STANPART. The Standard Motor Company Limited. SN 30,956. Pub. 3–11–58. Filed 5–28–57.

662,193. WESTERN. Western Sewing Machines Distributors. SN 31,295. Pub. 3–11–58. Filed 6–3–57.

662,194. TREE KING. Emhart Manufacturing Company. SN 32,299. Pub. 3–11–58. Filed 6–20–57.

662,195. FIGURE RESEMBLING GREEK LETTER MU. Microdot Inc. SN 33,361. Pub. 3–11–58. Filed 7–8–57.

662,196. SETOMATIC. Standard Pressed Steel Co. SN 34,085. Pub. 3–11–58. Filed 7–19–57.

662,197. HI DUTY. Geo. T. Schmidt, Inc. SN 35,688. Pub. 3–11–58. Filed 8–16–57.

662,198. DESIGN OF WINDING MACHINE. VEB Spinn- und Zwirnereimaschinenbau Karl-Marx-Stadt. SN 35,828. Pub. 3–11–58. Filed 8–19–57.

662,199. TRANSORMA MA. Naamlooze Vennootschap Technische Maatschappij Marchand-Andriessen. SN 37,093. Pub. 3–11–58. Filed 9–12–57.

662,200. TURMAC. Tuerck-Mackenzie Company. SN 39,298. Pub. 3–11–58. Filed 10–21–57.

662,201. ROLLERHEAD. Waterman Industries, Inc. SN 39,352. Pub. 3–11–58. Filed 10–22–57.

662,202. HEKTOWRITER. International Business Machines Corporation. SN 39,530. Pub. 3–11–58. Filed 10–25–57.

662,203. SUBURBAN LOGGER. Portable Electric Tools, Inc. SN 39,547. Pub. 3–11–58. Filed 10–25–57.

662,204. SAF-DRIVE. Fastening Devices, Inc. SN 39,796. Pub. 3–11–58. Filed 10–30–57.

662,205. PAYMOVER. The Frank G. Hough Co. SN 39,878. Pub. 3–11–58. Filed 10–31–57.

Class 26 — Measuring and Scientific Appliances

662,206. COLINAR. Photographic Importing & Distributing Corporation. SN 660,961. Pub. 3–11–58. Filed 2–11–54.

662,207. MIMOSA. Mimosa G. m. b. H. SN 691,497. Pub. 7–31–56. Filed 7–18–55.

662,208. BENDIX. Bendix Aviation Corporation. SN 20,695. Pub. 8–13–57. Filed 12–10–56.

662,209. DIGNETTE. Bernhard Dangelmaier, d. b. a. Dangelmaier & Co. SN 21,119. Pub. 3–11–58. Filed 12–17–56.

662,210. ROL-A-LAB. W. M. Welch Manufacturing Company. SN 21,346. Pub. 3–11–58. Filed 12–19–56.

662,211. DATA-MASTER. Hanson-Gorrill-Brian, Inc. SN 21,537. Pub. 3–11–58. Filed 12–24–56.

662,212. DATA-LINER. Hanson-Gorrill-Brian, Inc. SN 21,540. Pub. 3–11–58. Filed 12–24–56.

662,213. DESIGN OF SKUNK. Specialties, Inc. SN 22,390. Pub. 3–11–58. Filed 1–10–57.

662,214. KALLOFLEX. Kofuku Sangyo Co., Ltd. SN 24,604. Pub. 3–11–58. Filed 2–18–57.

662,215. AMERICAN REDDI-LARM. American Dryer Corporation. SN 28,828. Pub. 3–11–58. Filed 4–25–57.

662,216. DEVIL LEVEL. Pickett Products, Inc. SN 31,258. Pub. 3–11–58. Filed 6–3–57.

662,217. AMOT. Amot Controls Corporation. SN 31,621. Pub. 3–11–58. Filed 6–10–57.

662,218. SHADO-SCREEN. Smith System Heating Co., d. b. a. Smith System Manufacturing Company. SN 31,951. Pub. 3–11–58. Filed 6–13–57.

662,219. RAM. Potter Instrument Co., Inc. SN 32,119. Pub. 3–11–58. Filed 6–17–57.

662,220. COLOROBOT AND DESIGN. The Martin-Senour Company. SN 32,328. Pub. 3–11–58. Filed 6–20–57.

Class 27 — Horological Instruments

662,221. PAUL VERMOT. Societe Anonyme Paul Vermot et Cie, Fabrique d'Horlogerie Mondia. SN 33,918. Pub. 3–11–58. Filed 7–17–57.

Class 28 — Jewelry and Precious-Metal Ware

662,222. OMNIA AMOR VINCIT. Feature Ring Company, Inc. SN 25,978. Pub. 3–11–58. Filed 3–12–57.

662,223. PRELUDE. The International Silver Company. SN 26,275. Pub. 3–11–58. Filed 3–15–57.

662,224. CONCEPT. The International Silver Company. SN 28,521. Pub. 3–11–58. Filed 4–19–57.

662,225. RHYTHMIC. The International Silver Company. SN 33,079. Pub. 3–11–58. Filed 7–2–57.

662,226. NATURA "95." Marvella Pearls, Inc. SN 33,256. Pub. 3–11–58. Filed 7–5–57.

662,227. SPERRY. Heller-Sperry, Inc. SN 33,963. Pub. 3–11–58. Filed 7–18–57.

Class 29 — Brooms, Brushes, and Dusters

662,228. LEODENT. Leo-Werke G. m. b. H. SN 4,032. Pub. 3–11–58. Filed 3–7–56.

662,229. LADY SUE. Devoe & Raynolds Company, Inc. SN 26,785. Pub. 3–11–58. Filed 3–25–57.

662,230. QUIK CLOTH. E. W. Labertew, d. b. a. Quik-Cloth Co. SN 33,086. Pub. 3–11–58. Filed 7–2–57.

662,231. CAVALIER. S. H. Kress and Company. SN 34,439. Pub. 3–11–58. Filed 7–26–57.

662,232. E-Z-MISTO. Acme Chemical Company. SN 34,897. Pub. 3–11–58. Filed 8–5–57.

Class 30 — Crockery, Earthenware, and Porcelain

662,233. NORDIC POINT. Shenango China, Inc. SN 20,561. Pub. 3–11–58. Filed 12–6–56.

Class 31 — Filters and Refrigerators

662,234. EASY-POP. A. C. Martinelli Rogers Plastic Corporation. SN 14,678. Pub. 3–11–58. Filed 8–27–56.

662,235. DRY-EX. Acme Industries, Inc. SN 25,295. Pub. 3–11–58. Filed 3–1–57.

662,236. SHERER FLEXICOLD. Sherer-Gillett Company. SN 34,084. Pub. 3–11–58. Filed 7–19–57.

662,237. KRAISSL AND DESIGN. The Kraissl Company, Incorporated. SN 39,334. Pub. 3–11–58. Filed 10–22–57.

662,238. DESIGN OF BEAR. Erwin Behr. SN 28,097. Pub. 2–4–58. Filed 4–15–57.

Class 32 — Furniture and Upholstery

662,239. I AND DESIGN OF GLOBE. Schnadig Corporation. SN 31,268. Pub. 3–11–58. Filed 6–3–57.

662,240. ORTHO-RESTIVE. Jackson Mattress Co., Inc. SN 39,732. Pub. 3–11–58. Filed 10–29–57.

662,241. KITCH-N-EZE. Ed Averdieck, d. b. a. Kitch-N-Eze Company. SN 40,418. Pub. 3–11–58. Filed 11–12–57.

Class 33 — Glassware

662,242. DURAX. Jenaer Glaswerk Schott & Gen. SN 17,369. Pub. 3–11–58. Filed 10–12–56.

662,243. JENAER NORMALGLAS. Jenaer Glaswerk Schott & Gen. SN 17,377. Pub. 3–11–58. Filed 10–12–56.

662,244. OWL HOLLOW AND DESIGN. Carl Forslund, Inc. SN 23,311. Pub. 3–11–58. Filed 1–28–57.

662,245. ULTRA PANE. Ultrapane, Inc. SN 25,803. Pub. 3–11–58. Filed 3–8–57.

662,246. STANPART. The Standard Motor Company Limited. SN 31,038. Pub. 11–26–57. Filed 5–29–57.

662,247. MICRO BEADS AND DESIGN. Micro Beads, Inc. SN 33,728. Pub. 3–11–58. Filed 7–15–57.

Class 34 — Heating, Lighting, and Ventilating Apparatus

662,248. JETGLAS STARFIRE. Carrier Corporation. SN 25,827. Pub. 3–11–58. Filed 3–11–57.

662,249. WARM-AIREA. Bell & Gossett Company. SN 26,239. Pub. 3–11–58. Filed 3–15–57.

662,250. B & G. Bell & Gossett Company. SN 29,002. Pub. 3–11–58. Filed 4–29–57.

662,251. AIR-CEL. Dole Refrigerating Company. SN 32,238. Pub. 3–11–58. Filed 6–19–57.

662,252. MICROFILM. Baker Perkins Limited. SN 32,255. Pub. 3–11–58. Filed 6–19–57.

662,253. TERRALUX. Holophane Company, Inc. SN 32,599. Pub. 3–11–58. Filed 6–25–57.

662,254. EVECTAIRE. Preway, Inc. SN 33,836. Pub. 3–11–58. Filed 7–16–57.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

662,255. FLEET SERVICE. W. J. Voit Rubber Corp. SN 24,652. Pub. 3–11–58. Filed 2–18–57.

662,256. CORIAMID. Hope Rubber Company, Inc. SN 33,711. Pub. 3–11–58. Filed 7–15–57.

662,257. V–T. Ridbo Laboratories, Inc. SN 34,555. Pub. 3–11–58. Filed 7–29–57.

662,258. TIMBER KING AND DESIGN. Raybestos-Manhattan, Inc. SN 34,737. Pub. 3–11–58. Filed 7–31–57.

Class 36 — Musical Instruments and Supplies

662,259. CONRAD HEBERLEIN. St. Louis Music Supply Co., Inc. SN 22,338. Pub. 3–11–58. Filed 1–9–57.

662,260. STEGER AND DESIGN. Steger Products Mfg. Corp. SN 33,843. Pub. 3–11–58. Filed 7–16–57.

Class 37 — Paper and Stationery

662,261. WIGWAM. Western Tablet & Stationery Corporation. SN 466. Pub. 3–11–58. Filed 1–10–56.

662,262. GRAYLINE. Wilson Jones Company. SN 30,871. Pub. 3–11–58. Filed 5–27–57.

662,263. SUPPER CLUB. National Paper Napkin Manufacturing Company. SN 31,342. Pub. 3–11–58. Filed 6–4–57.

662,264. BONUS. Crown Zellerbach Corporation. SN 33,693. Pub. 3–11–58. Filed 7–15–57.

Class 38 — Prints and Publications

662,265. ADGLOW. H. J. Chapman & Company Limited. SN 17,433. Pub. 3–11–58. Filed 5–13–57.

662,266. RECORD HOUSES. F. W. Dodge Corporation. SN 18,235. Pub. 3–11–58. Filed 10–26–56.

662,267. STYLELINE. Autrey Brothers, Inc. SN 20,082. Pub. 3–11–58. Filed 11–29–56.

662,268. STORYTOWN U. S. A. Storytown, U. S. A. Inc. SN 24,644. Pub. 3–11–58. Filed 2–18–57.

662,269. AMERICAN BREEDERS. John Rockefeller Prentice, d. b. a. American Breeders Service. SN 27,722. Pub. 3–11–58. Filed 4–8–57.

662,270. PACE SETTER. The Hopp Press, Inc. SN 28,449. Pub. 3–11–58. Filed 4–18–57.

662,271. ELECTRONIC ENGINEERS MASTER EEM. United Catalog Publishers, Inc. SN 31,799. Pub. 3–11–58. Filed 6–11–57.

662,272. BARTH'S THERE IS NOTHING NEW ETC. AND DESIGN. Ruvin Barth. SN 36,151. Pub. 3–11–58. Filed 8–26–57.

662,273. THRIFTY NIFTY. General Features Corporation. SN 36,175. Pub. 3–11–58. Filed 8–26–57.

662,274. A MILLENNIAL KINGDOM. The International Millennial Kingdom Movement. SN 36,190. Pub. 3–11–58. Filed 8–26–57.

662,275. TATTETTES. Harry A. Adams, Jr. SN 36,414. Pub. 3–11–58. Filed 8–29–57.

Class 39 — Clothing

662,276. DAJOLIE. Luxor Hat Co., Inc. SN 10,440. Pub. 3–11–58. Filed 6–18–56.

662,277. DEBBY DARE ETC. AND DESIGN. Debby Dare, Inc. SN 11,350. Pub. 3–11–58. Filed 7–2–56.

662,278. BY SHEPPARD OF NEW YORK AND DESIGN. Brae-Burn Hat Co. Inc. SN 21,295. Pub. 3–11–58. Filed 12–19–56.

662,279. MACKEY STARR ETC. AND DESIGN. Riviera Shoes, Inc. SN 24,085. Pub. 3–11–58. Filed 2–8–57.

662,280. CAPEZIO. Capezio, Inc. SN 29,995. Pub. 3–11–58. Filed 5–14–57.

662,281. GOLD TONE AND DESIGN. Daniel Silverman, d. b. a. Jameco Metal Products Company. SN 31,029. Pub. 3–11–58. Filed 5–29–57.

662,282. BLUE RIDGE. Cambridge Rubber Company. SN 32,169. Pub. 3–11–58. Filed 6–18–57.

662,283. 21 VENDOME. Knit Products Corporation. SN 32,187. Pub. 3–11–58. Filed 6–18–57.

662,284. CLIMATICOAT. Climatic Inc. SN 32,585. Pub. 3–11–58. Filed 6–25–57.

662,285. CUP-MATE. Seamprufe Incorporated. SN 32,995. Pub. 3–11–58. Filed 7–1–57.

662,286. BADGE OF COURAGE. David Crystal, Inc. SN 34,120. Pub. 3–11–58. Filed 7–22–57.

662,287. LASSO. Circle 8 Manufacturing Company. SN 34,221. Pub. 3–11–58. Filed 7–23–57.

662,288. LIDO. Cluett, Peabody & Co., Inc. SN 34,284. Pub. 3–11–58. Filed 7–24–57.

662,289. WEST POINT. Union Shirt Co., Inc. SN 35,552. Pub. 3–11–58. Filed 8–6–57.

Class 40 — Fancy Goods, Furnishings, and Notions

662,290. A-KAY. Akim Engineering Company, Incorporated. SN 29,026. Pub. 3–11–58. Filed 4–29–57.

Class 41 — Canes, Parasols, and Umbrellas

662,291. PK AND DESIGN. Polan, Katz & Company, Inc. SN 12,973. Pub. 3–11–58. Filed 7–27–56.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

662,292. SCRUB PUP. Homefield Associated, Inc. SN 25,427. Pub. 3–11–58. Filed 3–4–57.

662,293. UNIFAB. Ferro Corporation. SN 26,079. Pub. 3–11–58. Filed 3–13–57.

662,294. AIR-LITE. Plastic Woven Products Inc. SN 30,830. Pub. 3–11–58. Filed 5–27–57.

662,295. CLARINELLA. William Skinner & Sons. SN 30,877. Pub. 3–11–58. Filed 5–13–57.

662,296. TIMKOTE. E. F. Timme & Son, Inc. SN 31,707. Pub. 3–11–58. Filed 6–10–57.

662,297. WARM-FLUF. Simon Kunst & Co. Inc. SN 33,881. Pub. 3–11–58. Filed 7–17–57.

662,298. TOPIC. Monarch Rug Mills, Inc. SN 33,983. Pub. 3–11–58. Filed 7–18–57.

662,299. MEADOWLANE. Monarch Rug Mills, Inc. SN 33,984. Pub. 3–11–58. Filed 7–18–57.

662,300. FORMAT. Fiber Glass Industries, Inc. SN 34,127. Pub. 3–11–58. Filed 7–22–57.

662,301. ROVMAT. Fiber Glass Industries, Inc. SN 34,128. Pub. 3–11–58. Filed 7–22–57.

662,302. RELCOTRON. Reliable Luggage, Inc. SN 34,175. Pub. 3–11–58. Filed 7–22–57.

662,303. BONNIE BABY. Arkwright Merchandising Corporation. SN 34,208. Pub. 3–11–58. Filed 7–23–57.

662,304. EXQUISITE LADY. Normandie Bedspread Co. SN 34,450. Pub. 3–11–58. Filed 7–26–57.

Class 43 — Thread and Yarn

662,305. NARCO ETC. AND DESIGN. North American Rayon Corporation. SN 30,440. Pub. 3–11–58. Filed 5–21–57.

662,306. CAROLINA. Standard Thread Co., Inc. SN 32,860. Pub. 3–11–58. Filed 6–28–57.

662,307. THERMYLON. The Robinson Thread Company. SN 34,371. Pub. 3–11–58. Filed 7–25–57.

662,308. "K & M." Keasbey & Mattison Company. SN 34,435. Pub. 3–11–58. Filed 7–26–57.

Class 44 — Dental, Medical, and Surgical Appliances

662,309. SAFE-T-GUARD. Floyd E. Barnett, d. b. a. The Barnett Distributing Co. SN 30,393. Pub. 3–11–58. Filed 5–21–57.

Class 45 — Soft Drinks and Carbonated Waters

662,310. KREEMO. Cherry Blossoms Manufacturing Company, d. b. a. The Cherry Blossoms Company. SN 25,830. Pub. 3–11–58. Filed 3–11–57.

Class 46 — Foods and Ingredients of Foods

662,311. FROSTEE AND DESIGN. Thomas J. Lipton, Inc. SN 682,028. Pub. 11–29–55. Filed 2–21–55.

662,312. FROSTEE. Thomas J. Lipton, Inc. SN 682,029. Pub. 11–29–55. Filed 2–21–55.

662,313. SLENDERELLA. Slenderella Systems, Inc. SN 694,922. Pub. 3–11–58. Filed 9–19–55.

662,314. TENDER GREEN J. H. M. AND DESIGN. John H. Marble. SN 6,441. Pub. 3–11–58. Filed 4–16–56.

662,315. WAGERIZED. Liana Incorporated. SN 16,232. Pub. 3–11–58. Filed 9–24–56.

662,316. B-MINE. Orchard Products Co. SN 18,523. Pub. 3–11–58. Filed 10–31–56.

662,317. ODP. William Guttman, d. b. a. Oriental Dairy Products Co. SN 18,747. Pub. 3–11–58. Filed 11–5–56.

662,318. ORANGE SUZIE. Orange Suzie Co. Inc. SN 19,614. Pub. 3–11–58. Filed 11–20–56.

662,319. GREAT OAKS FARMS. B. J. D. L. Corp. SN 20,241. Pub. 3–11–58. Filed 12–3–56.

662,320. FOR THE UNITED TASTES OF AMERICA. Cambridge Coffee Company, Inc. SN 20,246. Pub. 3–11–58. Filed 12–3–56.

662,321. NEW-CHURNED BUTTERMILK BREAD AND DESIGN. Hansen Baking Co., Inc. SN 21,256. Pub. 3–11–58. Filed 12–18–56.

662,322. REAL GOLD. Real Gold Company. SN 21,575. Pub. 3–11–58. Filed 12–24–56.

662,323. CARMEL KOSHER. Carmel Kosher Food Products, Inc. SN 24,754. Pub. 3–11–58. Filed 2–20–57.

662,324. VB. Van Brode Milling Co., Inc. SN 25,055. Pub. 3–11–58. Filed 2–25–57.

662,325. DESIGN OF DEER. Showerings Limited. SN 25,470. Pub. 3–11–58. Filed 3–4–57.

662,326. BOTAN. Daiichi Bussan Kaisha, Ltd. SN 25,599. Pub. 3–11–58. Filed 3–6–57.

662,327. BIG 8. Kellogg Company. SN 25,863. Pub. 3–11–58. Filed 3–11–57.

662,328. DOUBLES. Bernhardt Stahmer, d. b. a. Industrial Electrical Works. SN 25,901. Pub. 3–11–58. Filed 3–11–57.

662,329. PILLSBURY BEST XXXX AND DESIGN. Pillsbury Mills, Inc. SN 27,886. Pub. 3–11–58. Filed 4–10–57.

662,330. NU-BRU. Corn Products Refining Company. SN 28,029. Pub. 3–11–58. Filed 4–12–57.

662,331. MILITARY. Oulliber Coffee Company, Inc. SN 28,267. Pub. 3–11–58. Filed 4–16–57.

662,332. DEBORAH. Sun Best Fruit Distributors. SN 28,657. Pub. 3–11–58. Filed 4–22–57.

662,333. UNCLE GEORGE'S. George W. S. Pulford, d. b. a. Chanticleer Food Products. SN 29,302. Pub. 3–11–58. Filed 5–2–57.

662,334. K & K AND DESIGN. Kind & Knox Gelatin Co. SN 29,369. Pub. 10–15–57. Filed 5–3–57.

662,335. GOLDEN PICK. Golden Pick Foods, Inc. SN 30,583. Pub. 3–11–58. Filed 5–23–57.

662,336. SEA-FARE. Sea Fare Restaurant, Inc., d. b. a. Sea Fare. SN 31,513. Pub. 3–11–58. Filed 6–6–57.

662,337. LA PERLA. B. Filippone & Co., d. b. a. La Perla Quality Food Products Co. SN 33,227. Pub. 3–11–58. Filed 7–5–57.

662,338. FRYING MAGIC. Golden Mix, Inc. SN 35,187. Pub. 3–11–58. Filed 8–8–57.

662,339. KID-BITS. Dayton Candy Co. SN 37,482. Pub. 3–11–58. Filed 9–19–57.

662,340. HAWAIIAN SWISH. A. E. Iles Company. SN 37,502. Pub. 3–11–58. Filed 9–19–57.

662,341. OXFORD AND DESIGN. Orange Belt Fruit Distributors, Inc. SN 37,588. Pub. 3–11–58. Filed 9–20–57.

662,342. CORONA BEAUTY. Corona Foothill Lemon Company. SN 37,636. Pub. 3–11–58. Filed 9–23–57.

Class 47 — Wines

662,343. CRISTAL CHAMPAGNE AND DESIGN. Societe Anonyme Champagne Louis Roederer, d. b. a. Louis Roederer. SN 18,358. Pub. 3–11–58. Filed 10–29–56.

662,344. OLD SANTA FE. Di Giorgio Wine Company, d. b. a. Santa Fe Vintage Co., and Santa Fe Wine Company. SN 28,689. Pub. 3–11–58. Filed 4–23–57.

662,345. ELEGANCE. Schenley Industries, Inc. SN 32,343. Pub. 3–11–58. Filed 6–20–57.

Class 48 — Malt Beverages and Liquors

662,346. GOLDCREST 51. James A. Martin, Jr., d. b. a. Gulf Coast Distributing Company. SN 7,686. Pub. 3–11–58. Filed 5–4–56.

662,347. CORONA CERVEZA AND DESIGN. Cerveceria Corona, Inc. SN 33,799. Pub. 3–11–58. Filed 7–16–57.

662,348. CORONA CERVEZA BANDA BLANCA AND DESIGN. Cerveceria Corona, Inc. SN 33,800. Pub. 3–11–58. Filed 7–16–57.

Class 49 — Distilled Alcoholic Liquors

662,349. OLD SANTA FE. Di Giorgio Wine Company, d. b. a. Santa Fe Vintage Co., and Santa Fe Wine Company. SN 28,688. Pub. 3–11–58. Filed 4–23–57.

662,350. THE BIG KANSAN. Glenmore Distilleries Company. SN 34,263. Pub. 3–11–58. Filed 7–23–57.

Class 50 — Merchandise Not Otherwise Classified

662,351. SALESMOBILE. Continental Lithographers, Inc. SN 23,294. Pub. 3–11–58. Filed 1–28–57.

662,352. SALES SENTRY. Continental Lithographers, Inc. SN 23,295. Pub. 3–11–58. Filed 1–28–57.

662,353. PERMA-PLATE. The Lawrence Process Company, Inc. SN 23,997. Pub. 3–11–58. Filed 2–7–57.

662,354. TECHNA CRAFT AND DESIGN. Cook, Watkins & Patch, Inc. SN 25,239. Pub. 3–11–58. Filed 2–28–57.

662,355. STANPART. The Standard Motor Company Limited. SN 31,040. Pub. 3–11–58. Filed 5–29–57.

Class 51 — Cosmetics and Toilet Preparations

662,356. INCANTO. Simonetta Inc. SN 688,863. Pub. 3–11–58. Filed 6–3–55.

662,357. BIORENE. Eugene-Gallia S. A. SN 7,084. Pub. 3–11–58. Filed 4–25–56.

662,358. MAGIC ILLUSION. Helena Rubinstein, Inc. SN 24,633. Pub. 3–11–58. Filed 2–18–57.

662,359. SPRAY TAN. Aktiengesellschaft fur Lizenzverwertungen "Alvex." SN 27,004. Pub. 3–11–58. Filed 3–27–57.

662,360. NICE-CLEAN. Nice-Pak Products, Inc. SN 31,244. Pub. 3–11–58. Filed 6–3–57.

662,361. BAUME MAGIQUE. Germaine Monteil Cosmetiques Corporation. SN 31,653. Pub. 3–11–58. Filed 6–10–57.

662,362. PAUSE. Chesebrough-Pond's Inc. SN 34,919. Pub. 3–11–58. Filed 8–5–57.

Class 52 — Detergents and Soaps

662,363. OLD AND NEW. Corina Ruiz de Lahoud. SN 24,835. Pub. 3–11–58. Filed 2–21–57.

662,364. IVORY. The Procter & Gamble Company. SN 36,227. Pub. 3–11–58. Filed 8–26–57.

Service Marks

Class 100 — Miscellaneous

662,365. HUNT BREAKFAST. Western Airlines, Inc. SN 28,309. Pub. 3–11–58. Filed 4–16–57.

Class 102 — Insurance and Financial

662,366. MAILWAY. Crocker-Anglo National Bank. SN 35,423. Pub. 3–11–58. Filed 8–13–57.

Class 103 — Construction and Repair

662,367. VAROCO AND DESIGN. Valley Roofing Corporation. SN 26,133. Pub. 3–11–58. Filed 3–13–57.

662,368. PACKAGED INTERIORS. Duffy's, Inc. SN 36,432. Pub. 3–11–58. Filed 8–29–57.

Class 105 — Transportation and Storage

662,369. AACON AND DESIGN. Aacon Contracting Co., Inc. SN 16,575. Pub. 3–11–58. Filed 9–28–56.

Class 106 — Material Treatment

662,370. ORCHID SERVICE ETC. AND DESIGN. Prosperity Service Stores, Inc. SN 695,993. Pub. 3–11–58. Filed 10–6–55.

662,371. CRAN-GLOW. Cranston Print Works Company. SN 32,923. Pub. 3–11–58. Filed 7–1–57.

Class 107 — Education and Entertainment

662,372. MAGICIANS OF BASKETBALL. A. M. Saperstein, d. b. a. Abe Saperstein Enterprises. SN 20,966. Pub. 3–11–58. Filed 12–12–56.

662,373. SODA POP HOP. Patroon Broadcasting Company, Inc. SN 26,010. Pub. 3–11–58. Filed 3–12–57.

662,374. FREE TO SPEAK. Storer Broadcasting Company. SN 35,395. Pub. 3–11–58. Filed 8–12–57.

Collective Membership Marks

Class 200

662,375. DESIGN OF GREEK LETTERS. Delta Phi Fraternity, Inc. SN 23,685. Pub. 3–11–58. Filed 2–4–57.

662,376. WRSFA AND DESIGN. Western Reinforcing Steel Fabricators Association. SN 28,085. Pub. 3–11–58. Filed 4–12–57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 10 — Fertilizers

662,377. Kenneth J. Anderson, d. b. a. Kenneth J. Anderson & Sons, Imlay City, Mich. SN 32,034. Filed P. R. 6–17–57. Am. S. R. 12–13–57.



The drawing is lined for red and green.
For Peat Humus.
First use in 1954.

662,378. Kenneth J. Anderson, d. b. a. Kenneth J. Anderson & Sons, Imlay City, Mich. SN 32,035. Filed P. R. 6–17–57. Am. S. R. 12–13–57.

ANDERSON'S

For Peat Humus.
First use in 1954.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

662,379. Fairchild Engine and Airplane Corporation, Bay Shore, N. Y. SN 22,170. Filed 1–7–57.

KENDALL

For Pressure Fluid Regulators for Application in Industrial Plants and Laboratories for the Precise Controlling of the Flow or Pressure of Air, Gases, and Liquids.
First use Dec. 28, 1951.

Class 24 — Laundry Appliances and Machines

662,380. The Penga Company, Des Moines, Iowa, to Penga Company, Des Moines, Iowa. SN 23,244. Filed P. R. 1–25–57. Am. S. R. 4–3–58.

suds tub

For Laundry Tubs.
First use Apr. 10, 1956.

Class 46—Foods and Ingredients of Foods

662,381. Reddi-Wip, Inc., Los Angeles, Calif. SN 671,587. Filed 8–12–54.



The drawing is lined for red. The mark consists of the distinctive configuration of a molded plastic closure cap having tapering sides, a shallow skirt and a break-out tab extending upward and outward from the skirt.

For Cream Containing Vanilla, Sugar and Stabilizer in Which Cream Whipping Gas Is Dissolved Under Pressure, for Use as a Food Topping.

First use Jan. 31, 1951.

662,382. National Licorice Company, Brooklyn, N. Y. SN 38,070. Filed 2–28–58.

Chocolate FLEXO-BARS

For Candy.

First use January 1957; about 1904 as to "Flexo."

Class 51—Cosmetics and Toilet Preparations

662,383. Nethercutt Laboratories, Los Angeles, Calif. SN 10,457. Filed P. R. 6–18–56. Am. S. R. 2–3–58.

TEMPO

For Powder Base.

First use on or about Sept. 16, 1954.

662,384. Helen Neushaefer, Inc., College Point, N. Y. SN 24,449. Filed P. R. 2–14–57. Am. S. R. 2–24–58.

LADY IN RED

For Nail Polish.

First use Feb. 6, 1957.

662,385. Juliette Margien Inc., Ridgefield, N. J. (California corporation), now by change of name to Juliette Margien, Inc. (Delaware corporation). SN 26,288. Filed P. R. 3–15–57. Am. S. R. 2–24–58.

OVALLIPTIC

For Lipsticks.

First use July 16, 1955.

Service Mark

Class 105—Transportation and Storage

662,386. Unibox Corporation, Inc., New York, N. Y. SN 22,282. Filed P. R. 1–8–57. Am. S. R. 3–31–58.

RAIL-DOR SERVICE

For Transportation Services.

First use Nov. 12, 1956.

TRADEMARK REGISTRATIONS RENEWED

15,321. JENKINS DISC AND DESIGN. Cl. 35. 3–27–1888.
120,955. WATERCRESS. Cl. 52. 3–19–18.
121,000. RUFFLES. Cl. 51. 3–19–18.
121,185. KALO. Cl. 28. 4–16–18.
121,190. SOLAR. Cl. 6. 4–16–18.
121,210. COLONEL. Cl. 22. 4–16–18.
121,425. KEEPWELL. Cl. 44. 4–30–18.
121,426. GOODHEALTH. Cl. 44. 4–30–18.
122,438. THE TRANSMITTER. Cl. 38. 8–20–18.
122,470. SYLVAN. Cl. 46. 8–20–18.
122,606. HOLIDAY. Cl. 46. 8–27–18.
352,946. PURITAN. Cl. 46. 12–21–37.
352,969. ARIDWAY DRI-PERMANENT AND DESIGN. Cl. 44. 12–21–37.
353,606. EZ-FIRE. Cl. 1. 1–11–38.
354,909. TOM'S SILVER-SEAL USED-CARS AND DESIGN. Cl. 19. 3–1–38.
355,029. OVER SEER. Cl. 39. 3–8–38.
355,197. TORRIDEX. Cl. 6. 3–8–38.
355,278. LONSHIRE. Cl. 49. 3–8–38.
355,380. LADY CHARLES. Cl. 39. 3–15–38.
355,389. SPIL-PRUF. Cl. 16. 3–15–38.
355,395. BOTAN AND DESIGN. Cl. 46. 3–15–38.
355,441. CHALLENGER. Cl. 37. 3–15–38.
355,515. IT'S GRACE FUL AND DESIGN. Cl. 39. 3–22–38.
355,549. COLONIST CRAFT. Cl. 32. 3–22–38.
355,597. TRIQUETTE. Cl. 28. 3–22–38.
355,699. TUF-TEX. Cl. 32. 3–29–38.
355,773. ZEROL. Cl. 23. 3–29–38.
355,967. TOOTAVIS. Cl. 42. 4–5–38.
355,989. HAMPDEN. Cl. 48. 4–5–38.
356,204. COLONIAL. Cl. 43. 4–19–38.
356,361. PRODUCERS' MASTER COPY. Cl. 37. 4–26–38.
356,411. FUREUR. Cl. 51. 4–26–38.
356,672. TRUE POLICE CASES. Cl. 38. 5–10–38.
358,092. METCO AND DESIGN. Cl. 14. 6–28–38.
358,095. TECOR AND DESIGN. Cl. 51. 6–28–38.
358,338. CAMEO. Cl. 6. 7–5–38.
358,422. MINI-POSITIVE. Cl. 26. 7–12–38.
358,463. PARKELLA. Cl. 42. 7–12–38.
358,623. THE TOPPER AND DESIGN. Cl. 41. 7–19–38.
358,659. COLGATE. Cl. 6. 7–19–38.
358,747. DONALD DUCK AND DESIGN. Cl. 38. 7–26–38.
358,781. SAFARI. Cl. 39. 7–26–38.
358,782. MIST AND DESIGN. Cl. 39. 7–26–38.
358,854. THE PERFECT HOME. Cl. 38. 7–26–38.
358,861. CONOGA. Cl. 15. 7–26–38.
358,864. NEAX. Cl. 15. 7–26–38.
359,053. METCO AND DESIGN. Cl. 23. 8–2–38.
359,150. PATRICIA COLLIER. Cl. 38. 8–9–38.
359,204. KELTONE. Cl. 16. 8–9–38.
359,219. THE ARCADIAN GROWER. Cl. 38. 8–9–38.
359,338. JIM DANDY AND DESIGN. Cl. 46. 8–16–38.

359,340. BARRETT HANDLING EQUIPMENT AND DESIGN. Cl. 23. 8–16–38.
359,345. INVINCIBLE ROOFING AND DESIGN. Cl. 12. 8–16–38.
359,350. BOMB SHELL. Cl. 46. 8–16–38.
359,367. HAIG & HAIG. Cl. 49. 8–16–38.
359,379. BONIFIED. Cl. 23. 8–16–38.
359,398. JACK RABBIT AND DESIGN. Cl. 46. 8–16–38.
359,464. BARRETT HANDLING EQUIPMENT AND DESIGN. Cl. 32. 8–23–38.
359,468. WHITIN SYSTEM LONG-DRAFT AND DESIGN. Cl. 23. 8–23–38.
359,586. WHIZ AND DESIGN. Cl. 5. 8–23–38.
359,658. FASCINATION AND DESIGN. Cl. 51. 8–30–38.
359,733. WHITE SWAN. Cl. 49. 8–30–38.
359,848. DEXTRAMIN. Cl. 6. 8–30–38.
359,998. STANLEY AND DESIGN. Cl. 13. 9–6–38.
360,006. SANS-MARB. Cl. 38. 9–6–38.
360,030. ROYALE. Cl. 22. 9–6–38.
360,120. WHIZ AND DESIGN. Cl. 15. 9–6–38.
360,150. HAMSWITCH. Cl. 21. 9–6–38.
360,161. BEMBELLA. Cl. 43. 9–6–38.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

645,985. ABA. Cl. 18. 5–28–57.

Section 8

21,940. MINKOTA. Cl. 46. 11–8–1892.
194,129. PARADISE SHOES AND DESIGN. Cl. 39. 1–13–25.
289,642. VIGOROUS. Cl. 39. 12–1–31.
290,590. BABY. Cl. 21. 1–12–32.
290,591. BABY BEN. Cl. 21. 1–12–32.
290,592. BEN. Cl. 21. 1–12–32.
290,594. BIG BEN. Cl. 21. 1–12–32.
362,219. AZOANTHRENE. Cl. 6. 11–15–38.
385,128. HAZALL. Cl. 46. 2–18–41.
551,938. OZARKA AND DESIGN. Cl. 19. 12–11–51.

The following registrations issued Apr. 8, 1952

557,098. FELIX EYDOUX LAVIERGE AND DESIGN. Cl. 52.
557,109. MARYLAND. Cl. 46.
557,110. RICO. Cl. 46.
557,121. JERRIES. Cl. 39.
557,131. RELIANCE. Cl. 34.
557,135. OUR SELECTION. Cl. 46.
557,138. VARI-TROL. Cl. 34.
557,140. PREMIUM PRINTS. Cl. 46.
557,144. MOBO TOY-TOISE. Cl. 22.
557,148. FIRST CUT. Cl. 46.
557,151. VAL VAULIC. Cl. 23.
557,155. BOLIVIA. Cl. 51.
557,156. HORSESHOE. Cl. 6.
557,162. SPATTER SPATS AND DESIGN. Cl. 39.
557,169. BEAUTY BUTTERFLY. Cl. 51.
557,170. XONX AND DESIGN. Cl. 51.
557,172. REPRESENTATION OF COWBOY. Cl. 46.
557,174. THE HOUSE OF YEARS AND DESIGN. Cl. 21.
557,175. GLAZOL AND DESIGN. Cl. 6.
557,177. NUODIZE. Cl. 6.
557,181. VELVEX "BEAUTY BY VAPOR." Cl. 44.
557,186. TOMIC TATERS AND DESIGN. Cl. 46.
557,191. "MY WORD WHEEL" AND DESIGN. Cl. 38.
557,195. GRID-EASE. Cl. 46.
557,200. NEWS VIEWS AND DESIGN. Cl. 38.
557,202. LADYBUG. Cl. 39.
557,206. SPEED FLEX. Cl. 24.
557,207. MAJESTIC BRAND AND DESIGN. Cl. 46.
557,212. MEYERS TRUMP AND DESIGN. Cl. 52.
557,214. MULTIPLAY. Cl. 22.
557,217. PARK O'LUCK. Cl. 22.
557,221. CHLORO-ZOL. Cl. 18.
557,223. YOU BET . . . KOOCHOOK! AND DESIGN. Cl. 23.
557,232. FEED ME. Cl. 22.
557,233. SINTOMICETINA. Cl. 18.
557,234. CLORFENICINA. Cl. 18.
557,235. STREAM-EZE AND DESIGN. Cl. 22.
557,236. ZOO-GO-ROUND. Cl. 22.
557,239. STORMTOP. Cl. 8.
557,241. NO. 615. Cl. 52.
557,244. BMP ETC. AND DESIGN. Cl. 52.
557,245. GRO-CHEM. Cl. 10.
557,247. CALIFORNIA BREEZE AND DESIGN. Cl. 39.
557,248. LAUNDRO•SUDS. Cl. 52.
557,251. HI-LIGHT. Cl. 6.
557,252. CANASTA. Cl. 22.
557,259. AUTOCRAFT WITHIN DESIGN. Cl. 19.
557,260. BARRETT AND DESIGN. Cl. 10.
557,263. FEATHERS ON PARADE AND DESIGN. Cl. 38.
557,277. LA SERRANITA AND DESIGN. Cl. 46.
557,283. REDY RIGID AND DESIGN. Cl. 23.
557,285. TEXAS TOM. Cl. 22.
557,292. A LEEPCO PRODUCT AND DESIGN. Cl. 21.
557,298. THE MODERN MIRACLE IN WOOD. Cl. 38.
557,300. THE NEW TELEVEX CLOVER AND DESIGN. Cl. 21.
557,304. FASHION FOUR. Cl. 39.
557,309. ALCATRON. Cl. 21.
557,310. RENOWN. Cl. 19.
557,312. JUVELITE. Cl. 21.
557,313. SCOTT AND DESIGN. Cl. 21.
557,322. GODEFROY AND DESIGN. Cl. 46.
557,325. PRIMROSE AND DESIGN. Cl. 46.
557,328. HICKOK. Cl. 39.
557,333. LABOR LIBRARY ETC. AND DESIGN. Cl. 38.
557,336. FYDE. Cl. 6.
557,338. COPPERLITH. Cl. 6.
557,347. JET. Cl. 19.
557,363. PATHWAY TO PROFIT. Cl. 38.
557,370. STIGMONENE. Cl. 18.
557,375. PANAMARVEL. Cl. 46.
557,383. BEL-DOE. Cl. 39.
557,386. EL-BRO ORIGINAL. Cl. 39.
557,389. BIG GONG AND DESIGN. Cl. 39.
557,392. YOUR EXTRA HAND AND DESIGN. Cl. 8.
557,395. DIAMOND TONE AND DESIGN. Cl. 21.
557,397. VIVE. Cl. 38.
557,402. FLORENCE. Cl. 21.
557,404. DIATEX. Cl. 21.
557,406. Y-TEX "POWDERED SUNSHINE IN A CAN." Cl. 6.
557,407. THE CRACKER BARREL. Cl. 38.
557,415. VALUE CHEST. Cl. 38.
557,416. PRIVATE LIFE OF BUCK. Cl. 38.
557,417. H–2. Cl. 6.
557,429. FOODSAFE. Cl. 6.
557,430. MONTE CARLO. Cl. 22.
557,431. REEL-RITE. Cl. 23.
557,433. FIX-O-STRIP AND DESIGN. Cl. 13.
557,434. DIVIDED TOP AND DESIGN. Cl. 21.
557,435. LELAND-TERRA-TILLER. Cl. 23.
557,436. FLEX-STAFF. Cl. 36.
557,438. PORT CITY. Cl. 46.

Section 18

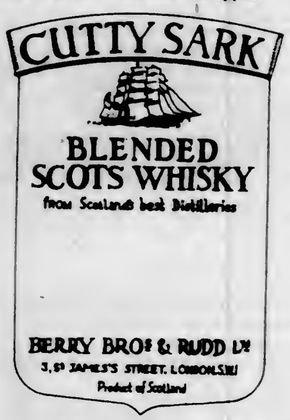
395,742. CONNOISSEUR. Cl. 39. 6–9–42.
524,833. RUBINS STEAK AND SHAKE AND DESIGN. Cl. 46. 5–2–50.
562,090. NICHOLSON'S FLAVOR FED AND DESIGN. Cl. 46. 7–22–52.
614,457. SORRENTO. Cl. 39. 10–18–55.
630,213. MUSICAL TAPES ETC. AND DESIGN. Cl. 107. 7–3–56.
634,517. MM AND DESIGN. Cl. 13. 9–18–56.
644,925. SOFTOES AND DESIGN. Cl. 39. 4–30–57.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

301,328. TUNG SOL. Cl. 21. 2–28–33. Tung-Sol Lamp Works, Inc. Tung-Sol Electric Inc., Newark, N. J. Amended to appear:

TUNG-SOL

353,590. CUTTY SARK ETC. AND DESIGN. Cl. 49. 1–11–38. Berry Bros. & Co. Berry Bros. & Rudd, Limited, London, England. Amended to appear:



570,541. NOPCO XX AND DESIGN. Cl. 18. 2–17–53. Nopco Chemical Company, Harrison, N. J. Amended: In the statement, column 2, lines 1 through 5 are deleted, and the drawing is amended to appear:

NOPCO XX

570,542. NOPCO XXX AND DESIGN. Cl. 18. 2–17–53. Nopco Chemical Company, Harrison, N. J. Amended: In the statement, column 2, lines 1 through 5 are deleted, and the drawing is amended to appear:

NOPCO XXX

570,543. NOPCO SPECIAL AND DESIGN. Cl. 18. 2–17–53. Nopco Chemical Company, Harrison, N. J. Amended: In the statement, column 1, lines 17 and 18, and column 2, lines 1 through 3, are deleted, and the drawing is amended to appear:

NOPCO SPECIAL

625,785. VOITH. Cl. 23. 4–24–56. J. M. Voith, G. m. b. H., Heidenheim/Brenz, Germany. Corrected: In the statement, column 2, line 1 through "missions" in line 6 should be deleted and *For Hydraulic Motors—Namely, Turbines; Sluice Weirs; Falling Sluices; Sluice Shuttles; Sliding Sluice Valves and the Like for Use With Sluice Weirs, Flood Gates, Lock Gates and the Like; Trash-Rakes for Use With Sluice Weirs, Flood Gates, Lock Gates and the Like; Trash-Rake Cleaners; Pipes; Pipe Closing Devices Such as Stop Cocks, Valves, Sealing Covers, Closing Flaps and the Like; Regulator Valves and Governors, All of Which Are To Be Used in Hydraulic Structures, Hydraulic Motors and the Like; Machines for Manufacturing Paper, Card Board, Cellulose and Wood Pulp; Radiators for Tractors; Transmissions and Couplings—Namely, Fluid Transmissions and Fluid Couplings and Hydraulic-Mechanical Compound Transmissions* should be inserted.

644,823. DICA. Cl. 44. 4–30–57. Dr. Ing. Hans O. Scheid, Vienna, Austria. Corrected: In the statement, column 2, line 3, "10,771" should be *10,711* and "Apr. 12" should be *Apr. 22*.

646,952. GARLOCK. Cl. 1. 6–18–57. The Garlock Packing Company, Palmyra, N. Y. Corrected: In the statement, column 1, line 1, "The Garlock Company" should be *The Garlock Packing Company*.

647,754. PUSH-PENNIES. Cl. 21. 7–2–57. The Thomas & Betts Co., Elizabeth, N. J. Amended to appear:

PUSH-PENNY

654,126. NOBL-OHM. Cl. 26. 11–5–57. Fairchild Controls Corporation, Hicksville, N. Y. Corrected: In the statement, column 1, line 1, "Delaware" should be *New York*.

654,915. DELTA. Cl. 105. 11–19–57. Delta Air Lines, Inc., Atlanta, Ga. Corrected: In the statement, column 2, line 2, "and express" should be *express, freight and cargo*.

655,099. DC–7 AND DESIGN. Cl. 105. 11–26–57. Delta Air Lines, Inc., Atlanta, Ga. Corrected: In the statement, column 2, line 2 "and express" should be *express, freight and cargo*.

658,118. DERMATEX. Cl. 44. 2–4–58. John D. Reese, assignor to Mountain Ash Research Corporation, Philadelphia, Pa. Corrected: In the statement, column 2, last line, "400,452" should be *500,452*.

659,936. ABM. Cl. 103. 3–25–58. American Building Maintenance Co. of California, San Francisco, Calif. Corrected: In the statement, column 2, last line "612,343" should be *612,342*.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

123,483. ENOZ. Cl. 6. The Phenol Chemical Company. 11–12–18. New Cert. Sec. 7(c), to Enoz Corporation, Chicago, Ill., 5–27–58.

440,760. ENOZONE. Cl. 6. Enoz Chemical Company. 9–28–48. New Cert. Sec. 7(c), to Enoz Corporation, Chicago, Ill., 5–27–58.

443,854. BEAUTY-FOLD. Cl. 13. The Bradley Rotor Traverse Co., Inc. 3–21–50. New Cert. Sec. 7(c), to American Beauti Pleat, Inc., Whittier, Calif., 5–27–58.

505,438. ENOZ. Cl. 6. The Diversey Corporation. 1–4–49. New Cert. Sec. 7(c), to Enoz Corporation, Chicago, Ill., 5–27–58.

536,994. MARYDEL. Cl. 46. L. A. Covell Co. 1–30–51. New Cert. Sec. 7(c), to H. P. Cannen & Son, Inc., Bridgeville, Del., 5–27–58.

576,507. VITA-BITE. Cl. 18. Robert W. Stabler. 6–23–53. New Cert. Sec. 7(c), to The Rapp-Ramsey Company, Shenandoah, Iowa, 5–27–58.

580,667. PARA PACK. Cl. 6. The Diversey Corporation. 10–6–53. New Cert. Sec. 7(c), to Enoz Corporation, Chicago, Ill., 5–27–58.

INDEX OF REGISTRANTS

MAY 27, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected, etc.; New Certificates; 12c Publications.)

ABA Pharmaceuticals, Inc., New York, N. Y. 645,985, canc. Cl. 18.
Acon Contracting Co., Inc., Brooklyn, N. Y. 662,369, pub. 3–11–58. Cl. 105.
Abercrombie & Fitch Co., New York, N. Y. 358,781, ren. 7–26–58. Cl. 39.
Acme Backing Corp., Stamford, Conn. 662,065, pub. 3–11–58. Cl. 1.
Acme Chemical Co., Milwaukee, Wis. 662,232, pub. 3–11–58. Cl. 29.
Acme Industries, Inc., Jackson, Mich. 662,235, pub. 3–11–58. Cl. 31.
Adams, Harry A., Jr., Washington, D. C. 662,275, pub. 3–11–58. Cl. 38.
Advance Coatings Co., Fitchburg, to Advance Coatings Co., Westminster, Mass. 355,389, ren. 3–15–58. Cl. 16.
Agfa Ansco Corp., Binghamton, to General Aniline & Film Corp., New York, N. Y. 358,422, ren. 7–12–58. Cl. 26.
Air Logistics Corp., Pasadena, Calif. 662,165, pub. 3–11–58. Cl. 19.
Air Reduction Co., Inc., New York, N. Y. 662,093, pub. 3–11–58. Cl. 6.
Akim Engineering Co., Inc., Williamantic, Conn. 662,290, pub. 3–11–58. Cl. 40.
Aktiengesellschaft fur Lizenzverwertungen, Coire, Switzerland. 662,359, pub. 3–11–58. Cl. 51.
Alabama Cafeteria: *See*—
Rubin, Irving.
Aldridge, E. A., d. b. a. Chemco Products Co., to R. W. Bruce, Los Angeles, Calif. 557,429, canc. Cl. 6.
Allied Chemical & Dye Corp: *See*—
Barrett Co., The.
Allied Chemical & Dye Corp., New York, N. Y. 557,241, canc. Cl. 52.
Allied Chemical & Dye Corp., New York, N. Y. 557,260, canc. Cl. 10.
All-State Welding Alloys Co., Inc., White Plains, N. Y. 662,098, pub. 3–11–58. Cl. 6.
Althouse, Charles C., d. b. a. Althouse Chemical Co., Reading, Pa. 362,219, canc. Cl. 6.
Althouse Chemical Co.: *See*—
Althouse, Charles S.
American Beauti Pleat, Inc.: *See*—
Bradley Rotor Traverse Co., Inc., The.
American Bemberg Corp., to Beaunit Mills, Inc., New York, N. Y. 360,161, ren. 9–6–58. Cl. 43.
American Breeders Service: *See*—
Prentice, John R.
American Building Maintenance Co. of California, San Francisco, Calif. 659,936, cor. Cl. 103.
American Cyanamid Co., New York, N. Y. 662,078, pub. 3–11–58. Cl. 5.
American Cyanamid Co., New York, N. Y. 662,081, pub. 3–11–58. Cl. 6.
American Cyanamid Co., New York, N. Y. 662,156–7, pub. 3–11–58. Cl. 18.
American Die & Tool Co., Inc., Reading, Pa., to Quentin C. Sternbergh and Solon A. Sternbergh Co., d. b. a. West Shore Machine Co. 557,283, canc. Cl. 23.
American Drug & Chemical Co., Minneapolis, Minn. 557,221, canc. Cl. 18.
American Dryer Corp., Philadelphia, Pa. 662,215, pub. 3–11–58. Cl. 26.
American Hydrotherm Corp., Long Island City, N. Y. 662,087, pub. 3–11–58. Cl. 6.
American Lecithin Co., Inc., Woodside, N. Y. 662,141, pub. 3–11–58. Cl. 18.
American Metal Products Co.: *See*—
Hopkins, Clarence N.
American Parboard Corp., Black Mountain, N. C. 662,104, pub. 3–11–58. Cl. 12.
Amerock Corp., Rockford, Ill. 662,109, pub. 3–11–58. Cl. 13.
Amot Controls Corp., Richmond, Calif. 662,217, pub. 3–11–58. Cl. 26.
Anderson, Kenneth J., d. b. a. Kenneth J. Anderson & Sons, Imlay City, Mich. 662,377–8. Cl. 10.
Anderson, Kenneth J., & Sons: *See*—
Anderson, Kenneth J.
Archer-Daniels-Midland Co., Minneapolis, Minn. 662,094, pub. 3–11–58. Cl. 6.
Arkwright Merchandising Corp., New York, N. Y. 662,303, pub. 3–11–58. Cl. 42.
Armour and Co., Chicago, Ill. 557,110, canc. Cl. 46.
Armour and Co., Chicago, Ill. 662,142, pub. 3–11–58. Cl. 18.
Arnold, Schwinn & Co., Chicago, Ill. 557,347, canc. Cl. 19.
Arvin Industries, Inc., Columbus, Ind. 662,119, pub. 3–11–58. Cl. 14.
Atlanta Stove Works, Inc., d. b. a. Birmingham Stove & Range Co., Birmingham, Ala. 662,074, pub. 3–11–58. Cl. 2.
Atlantic Packing Co., The, Baltimore, Md. 557,207, canc. Cl. 46.
Automatic Range Co., Inc., Brooklyn, and New York, N. Y. 557,138, canc. Cl. 34.
Autrey Brothers, Inc., Denver, Colo. 662,267, pub. 3–11–58. Cl. 38.
Averdieck, Ed., d. b. a. Kitch-N-Eze Co., Houston, Tex. 662,241, pub. 3–11–58. Cl. 32.
B. J. D. L. Corp., Chicago, Ill. 662,319, pub. 3–11–58. Cl. 46.
B. J. Products Co.: *See*—
Paster, Elizabeth.
Baker Perkins Ltd., Peterborough, Northamptonshire, England. 662,252, pub. 3–11–58. Cl. 34.
Barnett Distributing Co., The: *See*—
Barnett, Floyd E.
Barnett, Floyd E., d. b. a. The Barnett Distributing Co., Durham, N. C. 662,309, pub. 3–11–58. Cl. 44.
Barrett Co., The, to Allied Chemical & Dye Corp., New York, N. Y. 359,219, ren. 8–9–58. Cl. 38.
Barrett-Cravens Co., Northbrook, Ill. 359,340, ren. 8–16–58. Cl. 23.
Barrett-Cravens Co., Northbrook, Ill. 359,464, ren. 8–23–58. Cl. 32.
Barteldes Seed Co., The, to T-N-T Food Products, Inc., Lawrence, Kans. 359,350, ren. 8–16–58. Cl. 46.
Barth, Ruvin, Los Angeles, Calif. 662,272, pub. 3–11–58. Cl. 38.
Baumann, Marcia Pruitt, & Sons, Los Angeles, Calif. 557,170, canc. Cl. 51.
Baxter, H. C., & Bro., Brunswick, Maine. 352,946, ren. 12–21–57. Cl. 46.
Baxter Laboratories, Inc., Morton Grove, Ill. 359,848, ren. 8–30–58. Cl. 6.
Bealer, William F., d. b. a. My Word Wheel Co., Belvidere, Ill. 557,191, canc. Cl. 38.
Beat the Clock, Inc., New York, N. Y. 662,179, pub. 3–11–58. Cl. 22.
Beaunit Mills, Inc.: *See*—
American Bemberg Corp.
Beck & Gregg Hardware Co., Atlanta, Ga. 662,186, pub. 3–11–58. Cl. 23.
Behr, Erwin, Wendlingen, Germany. 662,238, pub. 2–4–58. Cl. 32.
Bell & Gossett Co., Morton Grove, Ill. 662,249–50, pub. 3–11–58. Cl. 34.
Bendix Aviation Corp., Detroit, Mich. 662,208, pub. 8–13–57. Cl. 26.
Berning, Herbert C.: *See*—
Hall, William R., Herbert C. Berning, and Harvey R. Collins.
Berry Bros. & Co. Berry Bros. & Rudd, Ltd., London, England. 353,590. Am. 7(d). Cl. 18.
Berry Bros. & Rudd, Ltd.: *See*—
Berry Bros. & Co.
Best Foods, Inc., The: *See*—
Northern Cocoanut-Butter Co.
Birmingham Stove & Range Co.: *See*—
Atlanta Stove Works, Inc.
Black Panther: *See*—
Ez-Fire Co.
Borne Chemical Co., Inc., Elizabeth, N. J. 662,127, pub. 3–11–58. Cl. 16.
Botany Mills, Inc., Passaic, N. J. 557,244, canc. Cl. 52.
Bradley Rotor Traverse Co., Inc., The, to American Beauti Pleat, Inc., Whittier, Calif. 443,854, new certificate. Cl. 13.
Brae-Burn Hat Co. Inc., New York, N. Y. 662,278, pub. 3–11–58. Cl. 39.
Brass and Copper Supply Co., Inc., Baltimore, Md. 662,113, pub. 3–11–58. Cl. 13.
Brauer Bros. Shoe Co., St. Louis, Mo. 194,129, canc. Cl. 39.
Braun & Kemmler, Reutlingen-Betzingen, Germany. 662,107, pub. 1–7–58. Cl. 13.
Breck, John H., Inc., Springfield, Mass. 662,083, pub. 3–11–58. Cl. 6.
Bristol Laboratories Inc., Syracuse, N. Y. 662,140, pub. 3–11–58. Cl. 18.
British Schering Ltd., London, England. 662,150, pub. 3–11–58. Cl. 18.
Brod L., Co., Philadelphia, Pa. 557,386, canc. Cl. 39.
Broderick & Bascom Rope Co., St. Louis, Mo. 662,100, pub. 3–11–58. Cl. 7.
Bruce, Robert W.: *See*—
Aldridge, E. A.
Bulldog Electric Products Co., Detroit, Mich., to I-T-E Circuit Breaker Co., Philadelphia, Pa. 662,176, pub. 3–11–58. Cl. 21.
Cambridge Coffee Co., Inc., Chicago, Ill. 662,320, pub. 3–11–58. Cl. 46.
Cambridge Rubber Co., Cambridge, Mass. 662,282, pub. 3–11–58. Cl. 39.
Cannen, H. P., & Son, Inc.: *See*—
Covell, L. A., Co.
Capezio, Inc., New York, N. Y. 662,280, pub. 3–11–58. Cl. 39.
Caris-Art Inc.: *See*—
Sirac, Inc.
Carmel Kosher Food Products, Inc., Chicago, Ill. 662,323, pub. 3–11–58. Cl. 46.
Carrier Corp., Syracuse, N. Y. 662,248, pub. 3–11–58. Cl. 34.

Carter Products, Inc., New York, N. Y. 662,159–60, pub. 3–11–58. Cl. 18.
Century Products, Inc., Cleveland, Ohio. 662,117, pub. 3–11–58. Cl. 13.
Cerveceria Corona, Inc., New York, N. Y. 662,347–48, pub. 3–11–58. Cl. 48.
Chanticleer Food Products: *See*—
Pulford, George W. S.
Chapman, H. J., & Co. Ltd., Ledbury, England. 662,265, pub. 3–11–58. Cl. 38.
Charles Stores Co. Inc., New York, N. Y. 355,380, ren. 3–15–58. Cl. 39.
Charlestan Mfg. Co., The, Independence, Kans. 557,214, canc. Cl. 22.
Chemco Products Co.: *See*—
Aldridge, E. A.
Cherry Blossoms Co., The: *See*—
Cherry Blossoms Mfg. Co.
Cherry Blossoms Mfg. Co., d. b. a. The Cherry Blossoms Co., St. Louis, Mo. 662,310, pub. 3–11–58. Cl. 45.
Chesapeake and Potomac Telephone Co., The, Washington, D. C. 122,438, ren 8–20–58. Cl. 38.
Chesebrough-Pond's Inc., New York, N. Y. 662,136, pub. 3–11–58, Cl. 18.
Chesebrough-Pond's Inc., New York, N. Y. 662,362, pub. 3–11–58. Cl. 51.
Circle 8 Mfg. Co., San Antonio, Tex. 662,287, pub. 3–11–58. Cl. 39.
Claridge Publishing Corp., New York, N. Y. 557,333, canc. Cl. 38.
Climatic Inc., New York, N. Y. 662,284, pub. 3–11–58. Cl. 39.
Clett, Peabody & Co., Inc., New York, N. Y. 662,288, pub. 3–11–58. Cl. 39.
Cohn & Rosenberger, Inc., to Coro, Inc., New York, N. Y. 355,597, ren. 3–22–58. Cl. 28.
Colgate & Co., Jersey City, N. J. & New York, to Colgate Palmolive Co., New York, N. Y. 120,955, ren. 3–19–58 Cl. 52.
Colgate-Palmolive Co.: *See*—
Colgate & Co.
Colgate-Palmolive-Peet Co.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 358,659, ren. 7–19–58. Cl. 6.
Collins, Harvey R.: *See*—
Hall, William R., Herbert C. Berning, and Harvey R. Collins.
Colyer, J. L., Yuma, Ariz. 557,148, canc. Cl. 46.
Consolidated Cosmetics, Chicago, Ill. 557,155, canc. Cl. 51.
Continental Lithographers, Inc., St. Louis, Mo. 662,351–52, pub. 3–11–58. Cl. 50.
Continental Oil Co., Ponca City, Okla. 358,861, ren. 7–26–58. Cl. 15.
Continental Oil Co., Ponca City, Okla. 358,864, ren. 7–26–58. Cl. 15.
Cook, Watkins & Patch, Inc., Boston, Mass. 662,354, pub. 3–11–58. Cl. 50.
Cooke, Chetwin S., Haddonfield, N. J. 557,195, canc. Cl. 46.
Corn Products Refining Co., New York, N. Y. 662,330, pub. 3–11–58. Cl. 46.
Coro, Inc.: *See*—
Cohn & Rosenberger, Inc.
Corona Foothill Lemon Co., Corona, Calif. 662,342, pub. 3–11–58. Cl. 46.
Conntry Press, Inc., to Fawcett Publications, Inc., Greenwich, Conn. 356,672, ren. 5–10–58. Cl. 38.
Covell, L. A., Co., to H. P. Cannen & Son, Inc., Bridgeville, Del. 536,994, new certificate. Cl. 46.
Cranston Print Works Co., New York, N. Y. 662,371, pub. 3–11–58. Cl. 106.
Crewett, Margaret W., Philadelphia, Pa. 557,169, canc. Cl. 51.
Crocker-Anglo National Bank, San Francisco, Calif. 662,366, pub. 3–11–58. Cl. 102.
Crown Zellerbach Corp., San Francisco, Calif. 662,073, pub. 3–11–58. Cl. 2.
Crown Zellerbach Corp., San Francisco, Calif. 662,264, pub. 3–11–58. Cl. 37.
Crystal, David, Inc., New York, N. Y. 662,286, pub. 3–11–58. Cl. 39.
Daggett & Ramsdell Inc.: *See*—
Richter, F. Ad., & Co.
Dalichi Bussan Kaisha, Ltd., New York, N. Y. 662,326, pub. 3–11–58. Cl. 46.
Dakin, R., & Co., San Francisco, Calif. 662,180, pub. 3–11–58. Cl. 22.
D'Alesandro, Nancy, Baltimore, Md. 557,181, canc. Cl. 44.
Danbury Rubber Co., Inc., The, Danbury, Conn. 662,105, pub. 3–11–58. Cl. 12.
Dangelmaier, Bernhard, d. b. a. Dangelmaier & Co., Reutlingen/Wurttemberg, Germany. 662,209, pub. 3–11–58. Cl. 26.
Dangelmaier & Co.: *See*—
Dangelmaier, Bernhard.
Dawnelie, Inc., New York, N. Y. 557,383, canc. Cl. 39.
Dayton Candy Co., Atchison, Kans. 662,339, pub. 3–11–58. Cl. 46.
Debby Dare, Inc., Kansas City, Mo . 662,277, pub. 3–11–58. Cl. 39.
De Lahoud, Corina R., Madrid, Spain. 662,363, pub. 3–11–58. Cl. 52.
Delta Air Lines, Inc., Atlanta, Ga. 654,915, cor. Cl. 105.
Delta Air Lines, Inc., Atlanta, Ga. 655,099, cor. Cl. 105.
Delta Phi Fraternity, Inc., Philadelphia, Pa. 662,375, pub. 3–11–58. Cl. 200.
Develco, Windom, Minn. 662,076, pub. 3–11–58. Cl. 2.
Devoe & Raynolds Co., Inc., New York, N. Y. 662,229, pub. 3–11–58. Cl. 29.
Dexheimer & Becker Co., to Mound City Products Co., St. Louis, Mo. 355,278, ren. 3–8–58. Cl. 49.
Disney, Walt, Productions: *See*—
Disney, Walt, Productions, Ltd.
Disney, Walt, Productions, Ltd., Los Angeles, Calif., to Walt Disney Productions, Burbank, Calif. 358,747, ren. 7–26–58. Cl. 38.
Di Giorgio Wine Co., d. b. a. Santa Fe Vintage Co., and Santa Fe Wine Co., Los Angeles, Calif. 662,344, pub. 3–11–58. Cl. 47.
Di Giorgio Wine Co., d. b. a. Santa Fe Vintage Co., and Santa Fe Wine Co., Los Angeles, Calif. 662,349, pub. 3–11–58. Cl. 49.
Diversey Corp., The, to Enoz Corp., Chicago, Ill. 505,438, new cert. Cl. 6.
Diversey Corp., The, to Enoz Corp., Chicago, Ill. 580,667, new cert. Cl. 6.
Dixie-Portland Flour Co., Memphis, Tenn. 557,140, canc. Cl. 46.
Dodge, F. W., Corp., New York, N. Y. 662,266, pub. 3–11–58. Cl. 38.
Dole Refrigerating Co., Chicago, Ill. 662,251, pub. 3–11–58. Cl. 34.
Dombrower, Ralph L., to Sorbtex Foundation, Inc., Richmond, Va. 352,969, ren. 12–21–57. Cl. 44.
Douglas Fir Plywood Association, Tacoma, Wash. 557,298, canc. Cl. 38.
Duffy's, Inc., New York, N. Y. 662,368, pub. 3–11–58. Cl. 103.
Eastern Banana Corp., New York, N. Y. 557,375, canc. Cl. 46.
Eaton Laboratories: *See*—
Norwich Pharmacal Co., The.
Emery Food Co.: *See*—
Hammond, G. H., Co., The.
Emhart Mfg. Co., Hartford, Conn. 662,194, pub. 3–11–58. Cl. 23.
Enoz Chemical Co., to Enoz Corp., Chicago, Ill. 440,760, new cert. Cl. 6.
Enoz Corp.: *See*—
Diversey Corp., The.
Enoz Chemical Co.
Phenol Chemical Co., The.
Epstein, Sol, d. b. a. Televex Co., Los Angeles, Calif. 557,300, canc. Cl. 21.
Etablissements Godefroy, Société Anonyme, Calvados, France. 557,322, canc. Cl. 46.
Eugene-Galilia S. A., Paris, France. 662,357, pub. 3–11–58. Cl. 51.
Eves, M. Z., and Co., New York, N. Y. 557,162, canc. Cl. 39.
Exhibit Supply Co., Chicago, Ill. 557,252, canc. Cl. 22.
Exomet, Inc., Conneaut, Ohio. 662,089, pub. 3–11–58. Cl. 6.
Ez-Fire Co., Ludowici, Ga., to Black Panther Co., Inc., Sanford, N. C. 353,606, ren. 1–11–58. Cl. 1.
FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Thurgau, Switzerland. 557,309, canc. Cl. 21.
Fairbanks Co., The, New York, N. Y. 662,167, pub. 3–11–58. Cl. 19.
Fairchild Controls Corp., Hicksville, N. Y. 654,126, cor. Cl. 26.
Fairchild Engine and Airplane Corp., Bay Shore, N. Y. 662,379. Cl. 13.
Fastening Devices, Inc., Brooklyn, N. Y. 662,204, pub. 3–11–58. Cl. 23.
Faultless Rubber Co., The, Ashland, Ohio. 121,425, ren. 4–30–58. Cl. 44.
Faultless Rubber Co., The, Ashland, Ohio. 121,426, ren. 4–30–58. Cl. 44.
Fawcett Publications, Inc.: *See*—
Country Press, Inc.
Fayette Mfg. Co., Fayette, Ohio. 662,166, pub. 3–11–58. Cl. 19.
Feature Ring Co., Inc., New York, N. Y. 662,222, pub. 3–11–58. Cl. 28.
Ferguson, Edgar A., Research Developments Inc., Brooklyn, N. Y. 662,151, pub. 3–11–58. Cl. 18.
Ferro Corp., Cleveland, Ohio. 662,293, pub. 3–11–58. Cl. 42.
Fiber Glass Industries, Inc., Amaterdam, N. Y. 662,300–1, pub. 3–11–58. Cl. 42.
Filippone, B., & Co., d. b. a. La Perla Quality Food Products Co., Garfield, N. J. 662,337, pub. 3–11–58. Cl. 46.
Florence Stove Co., Gardner, Mass. 557,402, canc. Cl. 21.
Fluoritab Corp., Flint, Mich. 662,145, pub. 3–11–58. Cl. 18.
Forslund, Carl, Inc., Grand Rapids, Mich. 662,244, pub. 3–11–58. Cl. 33.
Franklin Research Co., Philadelphia, Pa. 662,096, pub. 3–11–58. Cl. 6.
French-Stamats Co., to Stamats Publishing Co., Cedar Rapids, Iowa. 358,854, ren. 7–26–58. Cl. 38.
Fry, Lloyd A., Roofing Co., Summit, Ill. 359,345, ren. 8–16–58. Cl. 12.
Gallenkamp Stores Co., San Francisco, Calif. 289,642, canc. Cl. 39.
Garden Grove Citrus Association, Garden Grove, Calif. 557,135, canc. Cl. 46.
Garlock Packing Co., The, Palmyra, N. Y. 646,952, cor. Cl. 1.
Garry Laboratories, Inc., Buffalo, N. Y. 662,122, pub. 3–11–58. Cl. 15.
General Aniline & Film Corp.: *See*—
Kuttroff, Pickhardt & Co. Inc.
Agfa Ansco Corp.
General Features Corp., New York, N. Y. 662,273, pub. 3–11–58. Cl. 38.
Germaine Monteil Cosmetiques Corp., New York, N. Y. 662,361, pub. 3–11–58. Cl. 51.
Gla-Zol Corp., Dallas, Tex. 557,175, canc. Cl. 6.
Gleason Works, The, Rochester, N. Y. 355,773, ren. 3–29–58. Cl. 23.

Glenmore Distilleries Co., Louisville, Ky. 662,350, pub. 3–11–58. Cl. 49.
Golden Mix, Inc., Warsaw, Ind. 662,338, pub. 3–11–58. Cl. 46.
Golden Pick Foods, Inc., Los Angeles, Calif. 662,335, pub. 3–11–58. Cl. 46.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 662,066, pub. 3–11–58. Cl. 1.
Gotham Hosiery Co., Inc., New York, N. Y. 557,304, canc. Cl. 39.
Gozzi's Turkey Farm, Guilford, Conn. 662,069, pub. 3–11–58. Cl. 1.
Grace Co., The, Belton, Mo. 355,029, ren. 3–8–58. Cl. 39.
Grace Co., The, Belton, Mo. 355,515, ren. 3–22–58. Cl. 39.
Graham Paper Co., St. Louis, Mo. 356,361, ren. 4–26–58. Cl. 37.
Griggs, Cooper & Co., St. Paul, Minn. 557,325, canc. Cl. 46.
Gro-Up-Own Chemical Gardens, Inc., Seattle, Wash. 557,245, canc. Cl. 10.
Gulf Coast Distributing Co.: *See*—
Martin, James A., Jr.
Guss, David, & Co., Philadelphia, Pa. 557,285, canc. Cl. 22.
Guttman, William, d. b. a. Oriental Dairy Products Co., Minneapolis, Minn. 662,317, pub. 3–11–58. Cl. 46.
Haig & Haig Ltd., Markinch, Scotland. 359,367, ren. 8–16–58. Cl. 48.
Hall, William R., Herbert C. Berning, and Harvey R. Collins, Angola, Ind. 557,217 canc. Cl. 22.
Hammond, G. H., Co., The to Emery Food Co., Chicago, Ill. 122,470, ren. 8–20–58. Cl. 46.
Hampden Brewing Co., Willimansett, to Hampden-Harvard Breweries Inc., Chicopee, Mass. 355,989, ren. 4–5–58. Cl. 48.
Hampden-Harvard Breweries Inc.: *See*—
Hampden Brewing Co.
Hansen Baking Co., Inc., Seattle, Wash. 662,321, pub. 3–11–58. Cl. 46.
Hanson, Dean E., Wyoming, Minn. 662,168, pub' 3–11–58. Cl. 19.
Hanson-Gorrill-Brian, Inc., Glen Cove, N. Y. 662,211–12, pub. 3–11–58. Cl. 26.
Hartford Electric Steel Corp., The, Hartford, Conn. 662,118, pub. 3–11–58. Cl. 14.
Harvey, G. F., Co., The, Saratoga Springs, N. Y. 662,138, pub. 3–11–58. Cl. 18.
Hausheer, W. E., d. b. a. The Tecor Co., Chicago, Ill. 358,095, ren. 6–28–58. Cl. 51.
Hawaiian Pineapple Co. Ltd., San Jose, Calif. 359,150, ren. 8–9–58. Cl. 38.
Heads and Threads, Inc., Chicago, Ill. 662,116, pub. 3–11–58. Cl. 13.
Hearst Corp., The, New York, N. Y. 557,416, canc. Cl. 38.
Hehr Mfg. Co., Los Angeles, Calif. 662,162, pub. 3–11–58. Cl. 19.
Heller-Sperry, Inc., New York, N. Y. 662,227, pub. 3–11–58. Cl. 28.
Hercules Cycle and Motor Co. Ltd., Aston, Birmingham, England. 557,310, canc. Cl. 19.
Hercules Powder Co., Wilmington, Del. 662,091–2, pub. 3–11–58. Cl. 6.
Hercules Powder Co., Wilmington, Del. 662,097, pub. 3–11–58. Cl. 6.
Heyden Chemical Corp., New York, N. Y. 557,336, canc. Cl. 6.
Hickok Mfg. Co. Inc., Rochester, N. Y. 557,328, canc. Cl. 39.
Hipwell Mfg. Co., Pittsburgh, Pa. 662,175, pub. 3–11–58. Cl. 21.
Hollingshead, R. M., Corp., Camden, N. J. 359,586, ren. 8–23–58. Cl. 5.
Hollingshead, R. M., Corp., Camden, N. J. 360,120, ren. 9–6–58. Cl. 15.
Hollingshead, R. M., Corp., Camden, N. J. 557,417, canc. Cl. 6.
Hollywood Shoe Co., Inc., Los Angeles, Calif. 614,457, canc. Cl. 39.
Holophane Co., Inc., New York, N. Y. 662,253, pub. 3–11–58. Cl. 34.
Homefield Associated, Inc., Chicago, Ill. 662,292, pub. 3–11–58. Cl. 42.
Hope Rubber Co., Inc., Fitchburg, Mass. 662,256, pub. 3–11–58. Cl. 35.
Hopkins, Clarence N., d. b. a. American Metal Products Co., Portland, Oreg. 662,187, pub. 4–23–57. Cl. 23.
Hopp Press, Inc., The, New York, N. Y. 662,270, pub. 3–11–58. Cl. 38.
Hough, Frank G., Co., The, Libertyville, Ill. 662,205, pub. 3–11–58. Cl. 23.
Hudson, H. D., Mfg. Co., Chicago, Ill. 662,075, pub. 3–11–58. Cl. 2.
I-T-E Circuit Breaker Co.: *See*—
Bulldog Electric Products Co.
Illes, A. E., Co., Dallas, Tex. 662,340, pub. 3–11–58. Cl. 46.
Imperial Products Co., Philadelphia, Pa. 557,406, canc. Cl. 6.
Industrial Electrical Works: *See*—
Stahmer, Bernhardt.
International Business Machines Corp., New York, N. Y. 662,202, pub. 3–11–58. Cl. 23.
International Millennial Kingdom Movement, The, Washington, D. C. 662,274, pub. 3–11–58. Cl. 38.
International Silver Co., The, Meriden, Conn. 662,223–5, pub. 3–11–58. Cl. 28.
Jackson Mattress Co., Inc., Fayetteville, N. C. 662,240, pub. 3–11–58. Cl. 32.
Jameco Metal Products Co.: *See*—
Silverman, Daniel.
Jaysen Strips Co.: *See*—
Rosten, Jay.
Jenaer Glaswerk Schott & Gen., Mainz, Germany. 662,242–3, pub. 3–11–58. Cl. 33.
Jenkins Bros., to Jenkins Bros., New York, N. Y. 15,321, ren. 3–27–58. Cl. 35.
Johnson, C. S., Co., The, Champaign, Ill. 662,191, pub. 3–11–58. Cl. 23.
Kalo Shop, The, Chicago, Ill. 121,185, ren. 4–16–58. Cl. 28.
Kaylon Inc., New York, N. Y. 557,121, canc. Cl. 39.
Keasbey & Mattison Co., Ambler, Pa. 662,106, pub. 3–11–58. Cl. 12.
Keasbey & Mattison Co., Ambler, Pa. 662,308, pub. 3–11–58. Cl. 43.
Kelco Co., San Diego, Calif. 359,204, ren. 8–9–58. Cl. 16.
Kellogg Co., Battle Creek, Mich. 662,327, pub. 3–11–58. Cl. 46.
Kind & Knox Gelatin Co., Camden, N. J. 662,334, pub. 10–5–57. Cl. 46.
Kitch-N-Ese Co.: *See*—
Averdieck, Ed.
Knit Products Corp., Belmont, N. C. 662,283, pub. 3–11–58. Cl. 39.
Koch, George, Sons, Inc., Evansville, Ind. 662,068, pub. 3–11–58. Cl. 1.
Kofuku Sangyo Co., Ltd., Nakaku, Nagoya, Japan. 662,214, pub. 3–11–58. Cl. 26.
Koochook Co., Inc. 557,223, canc. Cl. 23.
Kraissl Co., Inc., The, Hackensack, N. J. 662,237, pub. 3–11–58. Cl. 31.
Kress, S. H., and Co., New York, N. Y. 662,231, pub. 3–11–58. Cl. 29.
Kunst, Simon, & Co. Inc., New York, N. Y. 662,297, pub. 3–11–58. Cl. 42.
Kuttroff, Pickhardt & Co. Inc., to General Aniline & Film Corp., New York, N. Y. 121,190, ren. 4–16–58. Cl. 6.
Kwikset Locks, Inc., Anaheim, Calif. 662,114, pub. 3–11–58. Cl. 13.
L. O F Glass Fibers Co., Toledo, Ohio. 662,103, pub. 3–11–58. Cl. 12.
Labertew, E. W., d. b. a. Quik-Cloth Co, Lamar, Colo. 662,230, pub. 3–11–58. Cl. 29.
Laclede Steel Co., St. Louis, Mo. 662,121, pub. 3–11–58. Cl. 14.
Lander Co. Inc., The: *See*—
Lundborg Perfumer, Inc.
Landers, Frary & Clark, New Britain, Conn. 662,072, pub. 3–11–58. Cl. 2.
La Perla Quality Food Products Co.: *See*—
Filippone, B., & Co.
Lawrence Process Co., Inc., The, North Andover, Mass. 662,353, pub. 3–11–58. Cl. 50.
Leader Novelty Candy Co., Inc., Brooklyn, N. Y. 557,172, canc. Cl. 46.
Lee Products Co., Inc., The, Cleveland, Ohio. 557,292, canc. Cl. 21.
Leland Detroit Mfg. Co., Detroit, Mich. 557,435, canc. Cl. 23.
Leo-Werke G. m. b. H., Frankfurt am Main, Germany. 662,228, pub. 3–11–58. Cl. 29.
Le Page's Inc., Gloucester, Mass. 662,077, pub. 3–11–58. Cl. 5.
Lepetit S. A., Milan, Italy. 557,233, canc. Cl. 18.
Lepetit S. A., Milan, Italy. 557,234, canc. Cl. 18.
Liana Inc., Montclair, N. J. 662,315, pub. 3–11–58. Cl. 46.
Lipton, Thomas J., Inc., Hoboken, N. J. 662,311–12, pub. 11–29–55. Cl. 46.
Lloyd Brothers, Inc., Cincinnati, Ohio. 662,152, pub. 3–11–58. Cl. 18.
Ludlow Mfg. & Sales Co., Needham, Mass. 356,204, ren. 4–19–58. Cl. 43.
Lundborg Perfumer, Inc., to The Lander Co. Inc., New York, N. Y. 359,658, ren. 8–30–58. Cl. 51.
Luxor Hat Co., Inc., New York, N. Y. 662,276, pub. 3–11–58. Cl. 39.
Lynn Umbrella Mfg. Co., Boston, Mass. 358,623, ren. 7–19–58. Cl. 41.
MacAndrews & Forbes Co., Camden, N. J. 662,086, pub. 3–11–58. Cl. 6.
Magne-Tronics, Inc., New York, N. Y. 630,213, canc. Cl. 107.
Mallory, P. R., & Co., Inc., Indianapolis, Ind. 360,150, ren. 9–6–58. Cl. 21.
Marble, John H., Grandview, Wash. 662,314, pub. 3–11–58. Cl. 46.
Marglen, Juliette, Inc., now by change of name to Juliette Marglen Inc., Ridgefield, N. J. 662,385. Cl. 51.
Martin, James A., Jr., d. b. a. Gulf Coast Distributing Co., Biloxi, Miss. 662,346, pub. 3–11–58. Cl. 48.
Martin-Senour Co., The, Chicago, Ill. 662,124, pub. 3–11–58. Cl. 16.
Martin-Senour Co., The, Chicago, Ill. 662,220, pub. 3–11–58. Cl. 26.
Marvella Pearls, Inc., New York, N. Y. 662,226, pub. 3–11–58. Cl. 28.
Maryland Biscuit Co., The, Baltimore, Md. 557,109, canc. Cl. 46.
Mathieson Chemical Corp.: *See*—
Southern Acid & Sulphur Co., Inc.
McDonnell & Miller, Inc., Chicago, Ill. 662,108, pub. 10–2–56, Cl. 13.
McKee Milton G., Youngstown, Ohio. 557,236, canc. Cl. 22.
Mead Johnson & Co., Evansville, Ind. 662,134, pub. 3–11–58. Cl. 18.
Meer Corp., New York, N. Y. 662,135, pub. 3–11–58. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 557,363, canc. Cl. 38.
Mercury Advertising Agency, Inc., Los Angeles, Calif. 557,200 canc. Cl. 38.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 662,139, pub. 3–11–58. Cl. 18.

Carter Products, Inc., New York, N. Y. 662,159–60, pub. 3–11–58. Cl. 18.
Century Products, Inc., Cleveland, Ohio. 662,117, pub. 3–11–58. Cl. 13.
Cerveceria Corona, Inc., New York, N. Y. 662,347–48, pub. 3–11–58. Cl. 48.
Chanticleer Food Products: *See*—
Pulford, George W. S.
Chapman, H. J., & Co. Ltd., Ledbury, England. 662,265, pub. 3–11–58. Cl. 38.
Charles Stores Co. Inc., New York, N. Y. 355,380, ren. 3–15–58. Cl. 39.
Charlestan Mfg. Co., The, Independence, Kans. 557,214, canc. Cl. 22.
Chemco Products Co.: *See*—
Aldridge, E. A.
Cherry Blossoms Co., The: *See*—
Cherry Blossoms Mfg. Co.
Cherry Blossoms Mfg. Co., d. b. a. The Cherry Blossoms Co., St. Louis, Mo. 662,310, pub. 3–11–58. Cl. 45.
Chesapeake and Potomac Telephone Co., The, Washington, D. C. 122,438, ren 8–20–58. Cl. 38.
Chesebrough-Pond's Inc., New York, N. Y. 662,136, pub. 3–11–58, Cl. 18.
Chesebrough-Pond's Inc., New York, N. Y. 662,362, pub. 3–11–58. Cl. 51.
Circle 8 Mfg. Co., San Antonio, Tex. 662,287, pub. 3–11–58. Cl. 39.
Claridge Publishing Corp., New York, N. Y. 557,333, canc. Cl. 38.
Climatic Inc., New York, N. Y. 662,284, pub. 3–11–58. Cl. 39.
Cluett, Peabody & Co., Inc., New York, N. Y. 662,288, pub. 3–11–58. Cl. 39.
Cohn & Rosenberger, Inc., to Coro, Inc., New York, N. Y. 355,597, ren. 3–22–58. Cl. 28.
Colgate & Co., Jersey City, N. J. & New York, to Colgate-Palmolive Co., New York, N. Y. 120,955, ren. 3–19–58 Cl. 52.
Colgate-Palmolive Co.: *See*—
Colgate & Co.
Colgate-Palmolive-Peet Co.
Colgate-Palmolive-Peet Co., Jersey City, N. J., to Colgate-Palmolive Co., New York, N. Y. 358,659, ren. 7–19–58. Cl. 6.
Collins, Harvey R.: *See*—
Hall, William R., Herbert C. Berning, and Harvey R. Collins.
Colyer, J. L., Yuma, Ariz. 557,148, canc. Cl. 46.
Consolidated Cosmetics, Chicago, Ill. 557,155, canc. Cl. 51.
Continental Lithographers, Inc., St. Louis, Mo. 662,351–52, pub. 3–11–58. Cl. 50.
Continental Oil Co., Ponca City, Okla. 358,861, ren. 7–26–58. Cl. 15.
Continental Oil Co., Ponca City, Okla. 358,864, ren. 7–26–58. Cl. 15.
Cook, Watkins & Patch, Inc., Boston, Mass. 662,354, pub. 3–11–58. Cl. 50.
Cooke, Chetwin S., Haddonfield, N. J. 557,195, canc. Cl. 46.
Corn Products Refining Co., New York, N. Y. 662,330, pub. 3–11–58. Cl. 46.
Coro, Inc.: *See*—
Cohn & Rosenberger, Inc.
Corona Foothill Lemon Co., Corona, Calif. 662,342, pub. 3–11–58. Cl. 46.
Country Press, Inc., to Fawcett Publications, Inc., Greenwich, Conn. 356,672, ren. 5–10–58. Cl. 38.
Covell, L. A., Co., to H. P. Cannen & Son, Inc., Bridgeville, Del. 536,994, new certificate. Cl. 46.
Cranston Print Works Co., New York, N. Y. 662,371, pub. 3–11–58. Cl. 106.
Crewett, Margaret W., Philadelphia, Pa. 557,169, canc. Cl. 51.
Crocker-Anglo National Bank, San Francisco, Calif. 662,366, pub. 3–11–58. Cl. 102.
Crown Zellerbach Corp., San Francisco, Calif. 662,073, pub. 3–11–58. Cl. 2.
Crown Zellerbach Corp., San Francisco, Calif. 662,264, pub. 3–11–58. Cl. 37.
Crystal, David, Inc., New York, N. Y. 662,286, pub. 3–11–58. Cl. 39.
Daggett & Ramsdell Inc.: *See*—
Richter, F. Ad., & Co.
Daiichi Bussan Kaisha, Ltd., New York, N. Y. 662,326, pub. 3–11–58. Cl. 46.
Dakin, R., & Co., San Francisco, Calif. 662,180, pub. 3–11–58. Cl. 22.
D'Alesandro, Nancy, Baltimore, Md. 557,181, canc. Cl. 44.
Danbury Rubber Co., Inc., The, Danbury, Conn. 662,105, pub. 3–11–58. Cl. 12.
Dangelmaier, Bernhard, d. b. a. Dangelmaier & Co., Reutlingen/Wurttemberg, Germany. 662,209, pub. 3–11–58. Cl. 26.
Dangelmaier & Co.: *See*—
Dangelmaier, Bernhard.
Dawnelle, Inc., New York, N. Y. 557,383, canc. Cl. 39.
Dayton Candy Co., Atchison, Kans. 662,339, pub. 3–11–58. Cl. 46.
Debby Dare, Inc., Kansas City, Mo. 662,277, pub. 3–11–58. Cl. 39.
De Lahoud, Corina R., Madrid, Spain. 662,363, pub. 3–11–58. Cl. 52.
Delta Air Lines, Inc., Atlanta, Ga. 654,915, cor. Cl. 105.
Delta Air Lines, Inc., Atlanta, Ga. 655,099, cor. Cl. 105.
Delta Phi Fraternity, Inc., Philadelphia, Pa. 662,375, pub. 3–11–58. Cl. 200.
Develco, Windom, Minn. 662,076, pub. 3–11–58. Cl. 2.
Devoe & Raynolds Co., Inc., New York, N. Y. 662,229, pub. 3–11–58. Cl. 29.
Dexheimer & Becker Co., to Mound City Products Co., St. Louis, Mo. 355,278, ren. 3–8–58. Cl. 49.
Disney, Walt, Productions: *See*—
Disney, Walt, Productions, Ltd.
Disney, Walt, Productions, Ltd., Los Angeles, Calif., to Walt Disney Productions, Burbank, Calif. 358,747, ren. 7–26–58. Cl. 38.
Di Giorgio Wine Co., d. b. a. Santa Fe Vintage Co., and Santa Fe Wine Co., Los Angeles, Calif. 662,344, pub. 3–11–58. Cl. 47.
Di Giorgio Wine Co., d. b. a. Santa Fe Vintage Co., and Santa Fe Wine Co., Los Angeles, Calif. 662,349, pub. 3–11–58. Cl. 49.
Diversey Corp., The, to Enoz Corp., Chicago, Ill. 505,438, new cert. Cl. 6.
Diversey Corp., The, to Enoz Corp., Chicago, Ill. 580,667, new cert. Cl. 6.
Dixie-Portland Flour Co., Memphis, Tenn. 557,140, canc. Cl. 46.
Dodge, F. W., Corp., New York, N. Y. 662,266, pub. 3–11–58. Cl. 38.
Dole Refrigerating Co., Chicago, Ill. 662,251, pub. 3–11–58. Cl. 34.
Dombrower, Ralph L., to Sorbtex Foundation, Inc., Richmond, Va. 352,969, ren. 12–21–57. Cl. 44.
Douglas Fir Plywood Association, Tacoma, Wash. 557,298, canc. Cl. 38.
Duffy's, Inc., New York, N. Y. 662,368, pub. 3–11–58. Cl. 103.
Eastern Banana Corp., New York, N. Y. 557,375, canc. Cl. 46.
Eaton Laboratories: *See*—
Norwich Pharmacal Co., The.
Emery Food Co.: *See*—
Hammond, G. H., Co., The.
Emhart Mfg. Co., Hartford, Conn. 662,194, pub. 3–11–58. Cl. 23.
Enoz Chemical Co., to Enoz Corp., Chicago, Ill. 440,760, new cert. Cl. 6.
Enoz Corp.: *See*—
Diversey Corp., The.
Enoz Chemical Co.
Phenol Chemical Co., The.
Epstein, Sol, d. b. a. Televex Co., Los Angeles, Calif. 557,300, canc. Cl. 21.
Etablissements Godefroy, Société Anonyme, Calvados, France. 557,322, canc. Cl. 46.
Eugene-Gallia S. A., Paris, France. 662,357, pub. 3–11–58. Cl. 51.
Eves, M. Z., and Co., New York, N. Y. 557,162, canc. Cl. 39.
Exhibit Supply Co., Chicago, Ill. 557,252, canc. Cl. 22.
Exomet, Inc., Conneaut, Ohio. 662,089, pub. 3–11–58. Cl. 6.
Ez-Fire Co., Ludowici, Ga., to Black Panther Co., Inc., Sanford, N. C. 353,606, ren. 1–11–58. Cl. 1.
FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Thurgau, Switzerland. 557,309, canc. Cl. 21.
Fairbanks Co., The, New York, N. Y. 662,167, pub. 3–11–58. Cl. 19.
Fairchild Controls Corp., Hicksville, N. Y. 654,126, cor. Cl. 26.
Fairchild Engine and Airplane Corp., Bay Shore, N. Y. 662,379. Cl. 13.
Fastening Devices, Inc., Brooklyn, N. Y. 662,204, pub. 3–11–58. Cl. 23.
Faultless Rubber Co., The, Ashland, Ohio. 121,425, ren. 4–30–58. Cl. 44.
Faultless Rubber Co., The, Ashland, Ohio. 121,426, ren. 4–30–58. Cl. 44.
Fawcett Publications, Inc.: *See*—
Country Press, Inc.
Fayette Mfg. Co., Fayette, Ohio. 662,166, pub. 3–11–58. Cl. 19.
Feature Ring Co., Inc., New York, N. Y. 662,222, pub. 3–11–58. Cl. 28.
Ferguson, Edgar A., Research Developments Inc., Brooklyn, N. Y. 662,151, pub. 3–11–58. Cl. 18.
Ferro Corp., Cleveland, Ohio. 662,293, pub. 3–11–58. Cl. 42.
Fiber Glass Industries, Inc., Amsterdam, N. Y. 662,300–1, pub. 3–11–58. Cl. 42.
Filippone, B., & Co., d. b. a. La Perla Quality Food Products Co., Garfield, N. J. 662,337, pub. 3–11–58. Cl. 46.
Florence Stove Co., Gardner, Mass. 557,402, canc. Cl. 21.
Fluoritab Corp., Flint, Mich. 662,145, pub. 3–11–58. Cl. 18.
Forslund, Carl, Inc., Grand Rapids, Mich. 662,244, pub. 3–11–58. Cl. 33.
Franklin Research Co., Philadelphia, Pa. 662,096, pub. 3–11–58. Cl. 6.
French-Stamats Co., to Stamats Publishing Co., Cedar Rapids, Iowa. 358,854, ren. 7–26–58. Cl. 38.
Fry, Lloyd A., Roofing Co., Summit, Ill. 359,345, ren. 8–16–58. Cl. 12.
Gallenkamp Stores Co., San Francisco, Calif. 289,642, canc. Cl. 39.
Garden Grove Citrus Association, Garden Grove, Calif. 557,135, canc. Cl. 46.
Garlock Packing Co., The, Palmyra, N. Y. 646,952, cor. Cl. 1.
Garry Laboratories, Inc., Buffalo, N. Y. 662,122, pub. 3–11–58. Cl. 15.
General Aniline & Film Corp.: *See*—
Kuttroff, Pickhardt & Co. Inc.
Agfa Ansco Corp.
General Features Corp., New York, N. Y. 662,273, pub. 3–11–58. Cl. 38.
Germaine Monteil Cosmetiques Corp., New York, N. Y. 662,361, pub. 3–11–58. Cl. 51.
Gla-Zol Corp., Dallas, Tex. 557,175, canc. Cl. 6.
Gleason Works, The, Rochester, N. Y. 355,773, ren. 3–29–58. Cl. 23.

Glenmore Distilleries Co., Louisville, Ky. 662,350, pub. 3–11–58. Cl. 49.
Golden Mix, Inc., Warsaw, Ind. 662,338, pub. 3–11–58. Cl. 46.
Golden Pick Foods, Inc., Los Angeles, Calif. 662,335, pub. 3–11–58 Cl. 46.
Goodyear Tire & Rubber Co., The, Akron, Ohio. 662,066, pub. 3–11–58. Cl. 1.
Gotham Hosiery Co., Inc., New York, N. Y. 557,304, canc. Cl. 39.
Gozzi's Turkey Farm, Guilford, Conn. 662,069, pub. 3–11–58. Cl. 1.
Grace Co., The, Belton, Mo. 355,029, ren. 3–8–58. Cl. 39.
Grace Co., The, Belton, Mo. 355,515, ren. 3–22–58. Cl. 39.
Graham Paper Co., St. Louis, Mo. 356,361, ren. 4–26–58. Cl. 37.
Griggs, Cooper & Co., St. Paul, Minn. 557,325, canc. Cl. 46.
Gro-Ur-Own Chemical Gardens, Inc., Seattle, Wash. 557,245, canc. Cl. 10.
Gulf Coast Distributing Co.: *See*—
Martin, James A., Jr.
Guss, David, & Co., Philadelphia, Pa. 557,285, canc. Cl. 22.
Guttman, William, d. b. a. Oriental Dairy Products Co., Minneapolis, Minn. 662,317, pub. 3–11–58. Cl. 46.
Haig & Haig Ltd., Markinch, Scotland. 359,367, ren. 8–16–58. Cl. 49.
Hall, William R., Herbert C. Berning, and Harvey R. Collins, Angola, Ind. 557,217, canc. Cl. 22.
Hammond, G. H., Co., The to Emery Food Co., Chicago, Ill. 122,470, ren. 8–20–58. Cl. 46.
Hampden Brewing Co., Willimansett, to Hampden-Harvard Breweries Inc., Chicopee, Mass. 355,989, ren. 4–5–58. Cl. 48.
Hampden-Harvard Breweries Inc.: *See*—
Hampden Brewing Co.
Hansen Baking Co., Inc., Seattle, Wash. 662,321, pub. 3–11–58. Cl. 46.
Hanson, Dean E., Wyoming, Minn. 662,168, pub' 3–11–58. Cl. 19.
Hanson-Gorrill-Brian, Inc., Glen Cove, N. Y. 662,211–12, pub. 3–11–58. Cl. 26.
Hartford Electric Steel Corp., The, Hartford, Conn. 662,118, pub. 3–11–58. Cl. 14.
Harvey, G. F., Co., The, Saratoga Springs, N. Y. 662,138, pub. 3–11–58. Cl. 18.
Hausheer, W. E., d. b. a. The Tecor Co., Chicago, Ill. 358,095, ren. 6–28–58. Cl. 51.
Hawaiian Pineapple Co. Ltd., San Jose, Calif. 359,150, ren. 8–9–58. Cl. 38.
Heads and Threads, Inc., Chicago, Ill. 662,116, pub. 3–11–58. Cl. 13.
Hearst Corp., The, New York, N. Y. 557,416, canc. Cl. 38.
Hehr Mfg. Co., Los Angeles, Calif. 662,162, pub. 3–11–58. Cl. 19.
Heller-Sperry, Inc., New York, N. Y. 662,227, pub. 3–11–58. Cl. 28.
Hercules Cycle and Motor Co. Ltd., Aston, Birmingham, England. 557,310, canc. Cl. 19.
Hercules Powder Co., Wilmington, Del. 662,091–2, pub. 3–11–58. Cl. 6.
Hercules Powder Co., Wilmington, Del. 662,097, pub. 3–11–58. Cl. 6.
Heyden Chemical Corp., New York, N. Y. 557,336, canc. Cl. 6.
Hickok Mfg. Co. Inc., Rochester, N. Y. 557,328, canc. Cl. 39.
Hipwell Mfg. Co., Pittsburgh, Pa. 662,175, pub. 3–11–58. Cl. 21.
Hollingshead, R. M., Corp., Camden, N. J. 359,586, ren. 8–23–58. Cl. 5.
Hollingshead, R. M., Corp., Camden, N. J. 360,120, ren. 9–6–58. Cl. 15.
Hollingshead, R. M., Corp., Camden, N. J. 557,417, canc. Cl. 6.
Hollywood Shoe Co., Inc., Los Angeles, Calif. 614,457, canc. Cl. 39.
Holophane Co., Inc., New York, N. Y. 662,253, pub. 3–11–58. Cl. 34.
Homefield Associated, Inc., Chicago, Ill. 662,292, pub. 3–11–58. Cl. 42.
Hope Rubber Co., Inc., Fitchburg, Mass. 662,256, pub. 3–11–58. Cl. 35.
Hopkins, Clarence N., d. b. a. American Metal Products Co., Portland, Oreg. 662,187, pub. 4–23–57. Cl. 23.
Hopp Press, Inc., The, New York, N. Y. 662,270, pub. 3–11–58. Cl. 38.
Hough, Frank G., Co., The, Libertyville, Ill. 662,205, pub. 3–11–58. Cl. 23.
Hudson, H. D., Mfg. Co., Chicago, Ill. 662,075, pub. 3–11–58. Cl. 2.
I-T-E Circuit Breaker Co.: *See*—
Bulldog Electric Products Co.
Iles, A. E., Co., Dallas, Tex. 662,340, pub. 3–11–58. Cl. 46.
Imperial Products Co., Philadelphia, Pa. 557,406, canc. Cl. 6.
Industrial Electrical Works: *See*—
Stahmer, Bernhardt.
International Business Machines Corp., New York, N. Y. 662,202, pub. 3–11–58. Cl. 23.
International Millennial Kingdom Movement, The, Washington, D. C. 662,274, pub. 3–11–58. Cl. 38.
International Silver Co., The, Meriden, Conn. 662,223–5, pub. 3–11–58. Cl. 28.
Jackson Mattress Co., Inc., Fayetteville, N. C. 662,240, pub. 3–11–58. Cl. 32.
Jameco Metal Products Co.: *See*—
Silverman, Daniel.
Jaysen Strips Co.: *See*—
Rosten, Jay.
Jenaer Glaswerk Schott & Gen., Mains, Germany. 662,242–3, pub. 3–11–58. Cl. 33.
Jenkins Bros., to Jenkins Bros., New York, N. Y. 15,321, ren. 3–27–58. Cl. 35.
Johnson, C. S., Co., The, Champaign, Ill. 662,191, pub. 3–11–58. Cl. 23.
Kalo Shop, The, Chicago, Ill. 121,185, ren. 4–16–58. Cl. 28.
Kaylon Inc., New York, N. Y. 557,121, canc. Cl. 39.
Keasbey & Mattison Co., Ambler, Pa. 662,106, pub. 3–11–58. Cl. 12.
Keasbey & Mattison Co., Ambler, Pa. 662,308, pub. 3–11–58. Cl. 43.
Kelco Co., San Diego, Calif. 359,204, ren. 8–9–58. Cl. 16.
Kellogg Co., Battle Creek, Mich. 662,327, pub. 3–11–58. Cl. 46.
Kind & Knox Gelatin Co., Camden, N. J. 662,334, pub. 10–5–57. Cl. 46.
Kitch-N-Ese Co.: *See*—
Averdieck, Ed.
Knit Products Corp., Belmont, N. C. 662,283, pub. 3–11–58. Cl. 39.
Koch, George, Sons, Inc., Evansville, Ind. 662,068, pub. 3–11–58. Cl. 1.
Kofuku Sangyo Co., Ltd., Nakaku, Nagoya, Japan. 662,214, pub. 3–11–58. Cl. 26.
Koochook Co., Inc. 557,223, canc. Cl. 23.
Kralasl Co., Inc., The, Hackensack, N. J. 662,237, pub. 3–11–58. Cl. 31.
Kress, S. H., and Co., New York, N. Y. 662,231, pub. 3–11–58. Cl. 29.
Kunst, Simon, & Co. Inc., New York, N. Y. 662,297, pub. 3–11–58. Cl. 42.
Kuttroff, Pickhardt & Co. Inc., to General Aniline & Film Corp., New York, N. Y. 121,190, ren. 4–16–58. Cl. 6.
Kwikset Locks, Inc., Anaheim, Calif. 662,114, pub. 3–11–58. Cl. 13.
L. O. F Glass Fibers Co., Toledo, Ohio. 662,103, pub. 3–11–58. Cl. 12.
Labertew, E. W., d. b. a. Quik-Cloth Co, Lamar, Colo. 662,230, pub. 3–11–58. Cl. 29.
Laclede Steel Co., St. Louis, Mo. 662,121, pub. 3–11–58. Cl. 14.
Lander Co. Inc., The: *See*—
Lundborg Perfumer, Inc.
Landers, Frary & Clark, New Britain, Conn. 662,072, pub. 3–11–58. Cl. 2.
La Perla Quality Food Products Co.: *See*—
Filippone, B., & Co.
Lawrence Process Co., Inc., The, North Andover, Mass. 662,353, pub. 3–11–58. Cl. 50.
Leader Novelty Candy Co., Inc., Brooklyn, N. Y. 557,172, canc. Cl. 46.
Lee Products Co., Inc., The, Cleveland, Ohio. 557,292, canc. Cl. 21.
Leland Detroit Mfg. Co., Detroit, Mich. 557,435, canc. Cl. 23.
Leo-Werke G. m. b. H., Frankfurt am Main, Germany. 662,228, pub. 3–11–58. Cl. 29.
Le Page's Inc., Gloucester, Mass. 662,077, pub. 3–11–58. Cl. 5.
Lepetit S. A., Milan, Italy. 557,233, canc. Cl. 18.
Lepetit S. A., Milan, Italy. 557,234, canc. Cl. 18.
Liana Inc., Montclair, N. J. 662,315, pub. 3–11–58. Cl. 46.
Lipton, Thomas J., Inc., Hoboken, N. J. 662,311–12, pub. 11–29–55. Cl. 46.
Lloyd Brothers, Inc., Cincinnati, Ohio. 662,152, pub. 3–11–58. Cl. 18.
Ludlow Mfg. & Sales Co., Needham, Mass. 356,204, ren. 4–19–58. Cl. 43.
Lundborg Perfumer, Inc., to The Lander Co. Inc., New York, N. Y. 359,658, ren. 8–30–58. Cl. 51.
Luxor Hat Co., Inc., New York, N. Y. 662,276, pub. 3–11–58. Cl. 39.
Lynn Umbrella Mfg. Co., Boston, Mass. 358,623, ren. 7–19–58. Cl. 41.
MacAndrews & Forbes Co., Camden, N. J. 662,086, pub. 3–11–58. Cl. 6.
Magne-Tronics, Inc., New York, N. Y. 630,213, canc. Cl. 107.
Mallory, P. R., & Co., Inc., Indianapolis, Ind. 360,150, ren. 9–6–58. Cl. 21.
Marble, John H., Grandview, Wash. 662,314, pub. 3–11–58. Cl. 46.
Marglen, Juliette, Inc., now by change of name to Juliette Marglen Inc., Ridgefield, N. J. 662,385. Cl. 51.
Martin, James A., Jr., d. b. a. Gulf Coast Distributing Co., Biloxi, Miss. 662,346, pub. 3–11–58. Cl. 46.
Martin-Senour Co., The, Chicago, Ill. 662,124, pub. 3–11–58. Cl. 16.
Martin-Senour Co., The, Chicago, Ill. 662,220, pub. 3–11–58. Cl. 26.
Marvella Pearls, Inc., New York, N. Y. 662,226, pub. 3–11–58. Cl. 28.
Maryland Biscuit Co., The, Baltimore, Md. 557,109, canc. Cl. 46.
Mathieson Chemical Corp.: *See*—
Southern Acid & Sulphur Co., Inc.
McDonnell & Miller, Inc., Chicago, Ill. 662,108, pub. 10–2–56, Cl. 13.
McKee, Milton G., Youngstown, Ohio. 557,236, canc. Cl. 22.
Mead Johnson & Co., Evansville, Ind. 662,134, pub. 3–11–58. Cl. 18.
Meer Corp., New York, N. Y. 662,135, pub. 3–11–58. Cl. 18.
Merck & Co., Inc., Rahway, N. J. 557,363, canc. Cl. 38.
Mercury Advertising Agency, Inc., Los Angeles, Calif. 557,200 canc. Cl. 38.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 662,139, pub. 3–11–58. Cl. 18.

Metallising Engineering Co., Inc., Westbury, N. Y. 358,092, ren. 6–28–58. Cl. 14.
Metallising Engineering Co., Inc., Westbury, N. Y. 359,053, ren. 8–2–58. Cl. 23.
Meyer, H. B., & Son, Dallas, Tex. 557,212, canc. Cl. 52.
Meyercord Co., The, Chicago, Ill. 360,006, ren. 9–6–58. Cl. 38.
Michaels & Co., Inc., Brooklyn, N. Y. 557,395, canc. Cl. 21.
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NOTICES

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Austria	Apr. 22, 1958	196,900
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(*Additions*)	Apr. 21, 1958	67,850
Germany		
(*Auslegeschriften*)	Mar. 11, 1958	1,022,170
(*Patents*)	Mar. 11, 1958	1,010,864
Great Britain	Apr. 28 1958	793,240
India	Apr. 1, 1958	57,704
Ireland	Apr. 9, 1958	21,450
Italy	Oct. 21, 1957	549,200
Japan	Apr. 16, 1958	2,000
Netherlands	Apr. 3, 1958	87,774
Norway	Mar. 31, 1958	91,029
Philippines	June 29, 1956	217
Poland	Mar. 20, 1958	40,586
Sweden	Apr. 11, 1958	162,249
Switzerland	Apr. 25, 1958	327,993
Yugoslavia	Feb. 17, 1955	16,461

Austrsiia: First 2,000 incomplete
Belgium: First printed 493,079
Canada: First printed 453,746
Czechoslovakia: Latest 81,300/1952
Finland: First printed 19,428
First 500 incomplete
Hungary: First received 5,792
Latest 140,582/1951
Ireland: Missing 1–10,000
Italy: First 243,000 incomplete
Russia: Latest 2496/1928
Yugoslavia: First received 10,001

Annual Index of Patents

The 1957 edition of the Annual Index of Patents has been published. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: Buckram bound $5.50.

Erratum

All references to Patent No. 2,834,696 to Calvin S. Fuller, assignor to Bell Telephone Laboratories, Inc., for Method of Forming Semiconductive Bodies, appearing in the OFFICIAL GAZETTE of May 13, 1958, should be deleted as the application was withdrawn from issue and the patent was not issued.

International Convention for the Protection of Industrial Property

Adherence of Haiti to the London 1934 revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective July 1, 1958, of Haiti to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

May 1, 1958.

Adjudicated Patents

(Ct. Cl.) Mapes Patent No. 2,521,526 (62—1), for liquid carbon dioxide suitable for discharge at low temperatures and method of filling storage containers for confining same. Claims 1 to 4 and 6 to 10 *Held* valid and infringed. *Specialties Development Corp. v. U. S.*, 159 F. Supp. 620; 116 USPQ 449.

(D. C. Va.) Inglett Patent No. 2,705,607 (249—45), for bagging method. Claims 1 to 10 *Held* invalid. *Inglett & Corley, Inc. v. Baugh & Sons Co.*, 159 F. Supp. 583; 117 USPQ 146.

Patents Available for Licensing or Sale

2,595,275. Lamp Shade Adjustably Mounted Directly on an Elongated Tube. John C. Long. Correspondence to James D. Foster, 201 Jackson St., N. E., Cleveland, Tenn.

2,823,715. Egg Cracking Device. Andrew Carlos Quave, Route 4, Box 145–A, Pensacola, Fla., and R. C. Saunders, Route 2, Box 208, Cantonment, Fla.

2,826,806. Cluster Gear Assembling Tool. Earl McDonald. Correspondence to Mr. and Mrs. K. D. Tatom, Box 212, Carter, Okla.

2,827,883. Internal Combustion Engine. Henri Goede, 27—11 McKintosh St., East Elmhurst, Long Island, N. Y.

2,828,734. Pulse Indicator. Arthur M. Johnston, 209 Broad St., Warrensburg, Mo.

Des. 178,916. Combination Bathtub and Toilet Fixture. Lester D. Ehmke, 1291 Burnside Rd., Sebastopol, Calif.

Imperial Chemicals Industries Limited offers the following patent for non-exclusive licensing on reasonable terms. Inquiries should be addressed to: Cushman, Darby & Cushman, 730 15th St., N. W., Washington 5, D. C.

2,827,371. Method of Producing Titanium in an Agitated Solids Bed.

General Electric Company is prepared to grant non-exclusive licenses *in the field of radio purposes* under the following 30 patents upon reasonable terms to domestic manufacturers.

New Applications Received During April 1958

Patents	6,609
Designs	416
Plant Pats	16
Reissues	10
Total	7,051

Issue

Patents	917	No. 2,836,826 to No.	2,837,742, incl.
Designs	43	No. 182,943 to No.	182,985, incl.
Plant Pats	2	No. 1,714 to No.	1,715, incl.
Reissues	4	No. 24,479 to No.	24,482, incl.
Total	966		

Applications for licenses may be addressed to: Patent Counsel, Electronic Components Division, General Electric Company, Electronics Park, Syracuse, N. Y.

2,741,526. Color Switching Circuits for Reflector Type Color Television Tube.
2,741,720. Color TV Apparatus and Methods.
2,744,873. Mixed Nickel, Zinc, Vanadium Ferrite.
2,747,140. Means for Focusing a Varying Magnetic Field.
2,755,014. Ionic Vacuum Pump Device.
2,755,403. Magnetic Motion Transducer.
2,756,588. Apparatus for Determining Stress.
2,765,419. Electroluminescent Cell.
2,765,864. Acoustic Horn Assembly.
2,769,876. Electric Switching Device.
2,769,926. Non-Linear Resistance Device.
2,773,570. Combined Vacuum Seal and Electrode Terminal.
2,774,039. Method of Varying the Output Frequency of Magnetron Oscillators.
2,777,084. Plastic Electrode Structure for Electron Tubes.
2,777,088. Tri-Color Cathode Ray Image Reproducing Tube.
2,792,271. Method of Making Electric Discharge Device.
2,792,272. Metallic Bond.
2,792,273. Oxide Coated Nickel Cathode and Method of Activation.
2,792,520. Ultra-High Frequency Discharge Device.
2,792,524. Gaseous Arc High Frequency Generator.
2,793,244. Solid Electrolyte Cells and Batteries.
2,793,316. High Frequency Electron Discharge Device and System.
2,803,738. Wear Resistant Contact.
2,803,749. Microwave Oscillator.
2,803,772. Apparatus for Producing a Hollow Electron Beam.
2,803,773. High Frequency Diode Magnetron.
2,819,421. Electrode Spacing Adjustment.
2,820,919. Mount for Electron Discharge Devices.
2,821,496. Non-Emissive Grids.
2,822,489. Temperature Responsive Arrangement.

CONDITION OF PATENT APPLICATIONS AS OF APRIL 30, 1958

Total number of pending applications (excluding Designs)	209,451
Total number of pending Design applications	6,569
Total number of applications awaiting action (excluding Designs)	86,050
Total number of Design applications awaiting action	3,016
Date of oldest new application	May 6, 1957
Date of oldest amended application	Apr. 30, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-6-57	8-14-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	8-5-57	8-16-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	10-23-57	9-18-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	8-5-57	8-9-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-2-57	7-29-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	9-12-57	10-1-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	8-2-57	8-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-18-57	9-3-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	8-13-57	8-9-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	8-16-57	8-15-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	9-12-57	9-16-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	7-22-57	6-10-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	8-26-57	8-14-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	8-2-57	8-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	8-30-57	8-7-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	6-12-57	6-24-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	8-21-57	8-21-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	8-2-57	8-5-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	8-8-57	8-16-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	8-8-57	8-5-57
21. (III) MADER, R. C., Textiles	6-17-57	6-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	8-1-57	8-1-57
23. (VI) SMITH, I., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	5-6-57	4-30-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	9-19-57	9-23-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-10-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	10-1-57	8-15-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	9-23-57	9-25-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	8-1-57	7-15-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	7-10-57	6-7-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	9-10-57	8-15-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	8-21-57	8-23-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-27-57	8-5-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	10-1-57	10-1-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	9-16-57	9-16-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	11-18-57	11-18-57
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	6-24-57	6-21-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	8-6-57	8-9-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	10-10-57	10-3-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	10-9-57	10-4-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	10-2-57	10-2-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	7-25-57	7-19-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	7-1-57	7-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	8-12-57	8-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8-15-57	8-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	8-19-57	8-14-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	8-20-57	8-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	8-21-57	8-8-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	7-9-57	7-5-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	9-11-57	9-3-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	9-9-57	10-1-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	8-14-57	8-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-15-57	8-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	10-11-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	9-27-57	9-25-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	6-11-57	5-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	9-5-57	9-3-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	10-9-57	9-16-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	9-11-57	9-4-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-29-57	7-25-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	11-13-57	10-8-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	8-1-57	8-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	10-3-57	10-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	7-8-57	6-10-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	8-7-57	5-20-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	8-1-57	8-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	8-5-57	8-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	9-27-57	9-23-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	9-6-57	9-3-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	8-2-57	8-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	8-6-57	8-5-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	8-1-57	8-2-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	6-10-57	5-15-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	10-7-57	11-14-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-3-57	9-25-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during June 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,243,829, to 2,247,344, inclusive
Plant Patents ..... Numbers 470 to 477, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

C. H. BOEHRINGER SOHN
v.
ROBERT C. WATSON, COMMISSIONER OF PATENTS

No. 14,181. Decided May 1, 1958

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

1. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—FINDINGS OF LOWER TRIBUNALS NOT UNREASONABLE OR CLEARLY ERRONEOUS.

"The Patent Office tribunals found in terms, and the District Court in substance, that there was no invention. Since these findings do not appear to us to be unreasonable or clearly erroneous, we must affirm the judgment in favor of the Commissioner."

2. SAME—PRESUMPTION LOWER TRIBUNALS—CORRECT—*Abbott v. Coe* QUOTED.

"'The presumption that the Patent Office is right is reenforced, in the present case, by the presumption that the trial court is right.' *Abbott* v. *Coe*, 71 App. D. C. 195, 197, 109 F.2d 4 and 9, 451."

APPEAL from the United States District Court.

AFFIRMED.

Jennings Bailey, Jr., for C. H. Boehringer Sohn; *Hugo Huettig, Jr.*, also entered an appearance.

Clarence W. Moore (*Joseph Schimmel* of counsel) for the Commissioner of Patents.

Before EDGERTON, *Chief Judge*, and BAZELON and BURGER, *Circuit Judges*

PER CURIAM:

A patent applicant appeals from a judgment for the Commissioner of Patents in a suit under 35 U. S. C. § 145. The Patent Office tribunals found in terms, and the District Court in substance, that there was no invention. [1] Since these findings do not appear to us to be unreasonable or clearly erroneous, we must affirm the judgment in favor of the Commissioner. [2] "The presumption that the Patent Office is right is reenforced, in the present case, by the presumption that the trial court is right." *Abbott* v. *Coe*, 71 App. D. C. 195, 197, 109 F.2d 449, 451.

AFFIRMED.

BURGER, *Circuit Judge* (concurring specially):

My colleagues and the District Court reach a result which is probably compelled by the present state of the decisions. But I think that the decisions in their present state impose barriers to patents far more stringent than contemplated either in the first instance by the Constitution or later by Congress. The Patent Office tells us that the art for which appellant seeks his patent was anticipated by the patents of Merck (1903) and Scheuing et al. (1942), and in the light of what was made known by Merck what appellant did was "obvious" to anyone skilled in the art, i. e., to any trained chemist or pharmaceutical expert. But is it not also plain that this "obvious" application of what the Patent Office says was taught by the Merck patent was not sufficiently clear for the chemists of Germany, for which that country is justly famous, and of the rest of the world, to discover this "obvious" truth for so many years?

I would prefer to grant a patent to appellant for discovering some unexpected properties. Predictions of the properties of this chemical, if and when actually synthesized, were such that no one was tempted to synthesize it. But appellant ignored the predictions and found new, unpredicted and worthy qualities, which the scientific world has admittedly overlooked for all these years. This case illustrates, to me, the inhospitable attitude toward patents, stemming in part from our natural aversion to monopolies. From the premise that monopolies are bad, it is argued that patents being monopolies are at least suspect. But a patent is a monopoly primarily in a technical dictionary sense, much as is ownership of land, and we ought not let our reason be clouded by semantics.

This lack of hospitality toward patents is suggested in the argument, frequently made here by counsel for the Patent Office, that Buck Rogers comic strips which depict rockets, jets and the space age will no doubt operate and be cited as "anticipation" of some patent applications for such devices as the fertile brain of the cartoonist depict for the children. It appears that unrestrained imagination, unburdened by any responsibility for the hard, patient and painstaking work of development, can bar future patent protection for the men and women who actually implement and carry out the predictions and prophecies of the Buck Rogers comic strips and the "Fantastic Stories" of the paperback trade. Indeed Patent Office counsel advise us that Rube Goldberg cartoons have been used for this same purpose. This hardly seems the way to encourage maximum incentive for those engaged in research and invention. This could mean that widespread research and experimentation in these areas might well, by economic necessity or default, ultimately become a Government monopoly.

United States Court of Appeals
District of Columbia Circuit

JOHN W. ANDERSON AND PRODUCTIVE INVENTIONS, INC.
v.
ROBERT C. WATSON, COMMISSIONER OF PATENTS

No. 14,272. Decided April 24, 1958

[— U. S. App. D. C. —; — F.2d —; 117 USPQ 206]

1. COMMISSIONER OF PATENTS—MANDAMUS—MATTER OF DISCRETION, NOT REVIEWABLE BY COURT—INTERFERENCE—MOTION FOR JUDGMENT DURING INTERFERENCE—RIGHT OF REVIEW AFTER FINAL DECISION BY PATENT OFFICE.

Agreement accorded the view of the District Court that the question whether a motion for judgment should be passed upon when made during the pendency of patent interference proceedings, or deferred to its final conclusion, "is a matter of discretion with the Commissioner, which may not be reviewed by the courts," and the view that, if final disposition of the proceedings results unfavorably to the moving party, that party will still have a right to review of the question either by an appeal from the final decision of the Patent Office to the Court of Customs and Patent Appeals, or by civil action.

2. SAME — SAME — INTERFERENCE — MOTION FOR JUDGMENT PRIOR TO TAKING TESTIMONY.

The District Court's dismissal of a suit against the Commissioner of Patents for a writ of mandamus, to require him to set for hearing motions, based on a claim of res judicata, for judgment on the record and to render decisions thereon prior to the taking of testimony in pending patent interference proceedings, is affirmed.

APPEAL from the United States District Court.

AFFIRMED.

Charles F. Meroni for Anderson et al.: *William A. Smith, Jr.*, also entered an appearance.

Clarence W. Moore for the Commissioner of Patents.

Before DANAHER, BASTIAN, and BURGER, *Circuit Judges*

PER CURIAM:

Appellants filed suit against the Commissioner of Patents for a writ of mandamus to require the Commissioner to set down for hearing appellant Anderson's motions for judgment on the record and to render decisions thereon prior to the taking of testimony in certain pending interference proceedings, the motions being based on a claim of res judicata. The District Court granted the Commissioner's motion to dismiss and this appeal followed.

In disposing of the motion to dismiss, the District Court (HOLTZOFF, *J.*) said:

"The question whether the motion for judgment should be passed upon when made during the pendency of the proceedings, or deferred until its final conclusion, is a matter of discretion with the Commissioner, which may not be reviewed by the courts. If final disposition of the proceedings results unfavorably to the plaintiff, the plaintiff will still have a right to review the question either by an appeal from the final decision of the Patent Office to the Court of Customs and Patent Appeals, or by an action de novo in this court."

[1, 2] We agree.

AFFIRMED.

In the United States Patent Office Before the Board of Appeals

EX PARTE FRITHIOF V. JOHNSON
EX PARTE RICHARD W. PORTER
EX PARTE RICHARD G. JEWELL
EX PARTE ALBERT HANSEN, JR.

Appeals Nos. 452—32, 452—34, 452—35, 452—39. Decided January 31, 1956

1. PRACTICE—REISSUE—RULE 177—REFERRING DIVISIONAL REISSUE APPLICATIONS TO THE COMMISSIONER.

"The reference of * * * divisional reissue applications to the Commissioner is 'for the purpose of enabling the Commissioner to make a ruling at the outset as to whether or not he will permit several reissues in the particular situation, and the practice under the rule since it was adopted in 1949 has been for the Commissioner or some official delegated by him to write a memorandum to the Examiner directing what action should be taken insofar as the separation of the original patent into several reissue patents is concerned."

2. REISSUE—PRIOR STATUTES—REMOVAL OF AN INVENTOR FROM A PATENT.

"* * *, it must be considered as established by the Patent Office and by the courts in review of Patent Office decisions that under the prior statutes a reissue which had as its objective the removal of an inventor from the patent could not be allowed."

3. SAME—35 U. S. C. 251—"CLAIMING MORE OR LESS THAN HE HAD A RIGHT TO CLAIM" OF 35 U. S. C. 251 REFERS ONLY TO SUBJECT MATTER CLAIMED.

Held that the phrase "claiming more or less than he had a right to claim" in 35 U. S. C. 251 "obviously refers to the subject matter claimed and not to anything else."

4. SAME—SAME—NO NEW GROUND FOR REISSUE INTRODUCED BY SECOND PARAGRAPH OF 35 U. S. C. 251.

Held that the second paragraph of 35 U. S. C. 251, relating to reissues in divisions, "refers primarily to the manner in which the correction of errors otherwise authorized by the statute may be done and does not introduce a new ground for reissue."

5. PATENTS—CORRECTION OF NONJOINDER OR MISJOINDER OF INVENTORS—35 U. S. C. 256.

"It cannot be assumed * * * that Congress intended to go beyond the specific provisions of Section 256 in providing for the correction of patents with respect to nonjoinder or misjoinder of inventors or that another section of the statute, silent on the matter, was intended to be also applicable."

6. SAME—SAME—MISJOINDER MIGHT BE CORRECTED BY ELIMINATING CLAIMS AND STRIKING OUT EXCESS INVENTORS UNDER 35 U. S. C. 256.

"The first paragraph of Section 256 provides for deleting the name of an erroneously joined person (or persons) from the patent and hence it is considered obvious that appellant can retain whatever group of claims he wishes to retain in the patent, eliminating the other claims and simultaneously correcting the patent by striking out the three excess names."

7. REISSUE—MISJOINDER OF INVENTORS NOT CORRECTABLE BY REISSUE.

The rejection of reissue applications, in effect, on the ground that the statute does not authorize the grant of reissue patents to correct a misjoinder of inventors is affirmed.

8. PATENTABILITY—INVENTION—WORDING OF CLAIM IS MEASURE OF THE INVENTION.

"It is axiomatic that it is the wording of the claims which constitutes the measure of the invention, * * *."

9. SAME—SAME—DIFFERENCE IN STRUCTURE WITHOUT ACCOMPANYING UNOBVIOUS OR UNEXPECTED RESULT NOT SUFFICIENT.

"It is well settled that a mere difference in structure without an accompanying unobvious or unexpected result is not of itself sufficient to support patentability."

10. PRACTICE—CONSIDERING PATENTABILITY OF ONE APPLICATION OVER ANOTHER WHERE COMMONLY ASSIGNED—WHEN ORDER IN WHICH INVENTIONS WERE MADE IS KNOWN.

With respect to four divisional applications for reissue of a patent, *Held* that "it is in order to consider the patentability of the cases over each other in exactly the same manner as the patentability over each other of any two applications assigned to the same assignee can be considered," and *Held* that "Where the filing dates are the same and the order in which the respective inventions were made is known it is appropriate to consider the applications in that order."

APPEALS from the Examiner. Serial Nos. 397,501, 397,502, 397,503, and 397,504.

AFFIRMED AND MODIFIED.

Prowell S. Mack, Claude H. Mott, Alfred B. Levine, and *F. Gerald Toye* for appellants.

Before FEDERICO and FRIEDMAN, *Examiners-in-Chief,* and KEELY, *Acting Examiner-in-Chief*

FEDERICO and FRIEDMAN, *Examiners-in-Chief.*

These are appeals from the final rejection by the Examiner of four divisional applications for reissue of Patent No. 2,416,097. Consideration of these appeals has been greatly facilitated by the presentation of a single brief (with a copy for each application file) covering all the appeals, and the cases are similarly decided in one opinion.

Ordinarily, in Patent Office appeal proceedings, the applicant is referred to as the party appellant even though the application has been assigned; however, in these cases the assignee to whom the original patent was issued, who is also the assignee of each of the reissue applications, will be referred to as the appellant.

Section 251 of Title 35, as enacted in 1952, provides that "The Commissioner may issue several reissue patents for distinct and separate parts of the thing patented . . ." This language, which differs only in wording from the prior statute, confers discretion on the Commissioner of Patents as to whether or not to permit several divisional reissues, after they have been requested by the patentee. Rule 177 of the Rules of Practice provides that on filing divisional reissue applications they shall be referred to the Commissioner (by the Examiner). [1] The reference of such divisional reissue applications to the Commissioner is for the purpose of enabling the Commissioner to make a ruling at the outset as to whether or not he will permit several reissues in the particular situation, and the practice under the rule since it was adopted in 1949 has been for the Commissioner or some official delegated by him to write a memorandum to the Examiner directing what action should be taken insofar as the separation of the original patent into several reissue patents is concerned. The files of the present applications do not show that they were referred to the Commissioner under Rule 177, but it is understood that they were so referred informally and that the Commissioner, through the Supervisory Examiner, determined that the applications should be acted upon by the Examiner without specific direction on this point.

Patent No. 2,416,097 was issued February 18, 1947, to the General Electric Company as assignee, on an application filed May 28, 1943, by Johnson, Porter, Jewell, and Hansen as joint inventors. After the patent issued it became involved in two interferences (Nos. 83,123 and 85,574) with a pending application in which four claims (claims 10, 11, 12 and 14 of the patent) had been copied for the purpose of interference. In the interference the interfering applicant was accorded a date of conception prior to appellant's filing date and also prior to any date on which the four joint inventors could have been associated in working on the subject matter. The Board of Patent Interferences found, however, that the invention of the four claims in issue was the sole invention of Johnson and that Johnson was the prior inventor, and awarded priority on this basis, recognizing that some action could be taken to correct the patent.

These reissue applications were filed as a result of collecting the evidence in preparation for the taking of testimony in the interferences, at which time it was determined by appellant that various claims of the patent represented the sole inventions of various ones of the joint applicants. Appellant in his brief has stated the order in which the respective inventions were made. It is stated that the records show that Johnson as sole inventor evolved the basic inventions called for by the broadest claims (claims 10, 11, 12 and 14) and that his conception was sufficiently complete and detailed to enable one skilled in the art to construct an apparatus incorporating his invention. This statement, of course, follows from the holding of the Board of Patent Interferences. Some time after Johnson's original conception, a second independent group of technical people were brought into appellant's project and in the course of their work one of their members, Porter, made certain improvements going beyond the original conception of Johnson and these improvements are included as the subject matter of the next broadest claims of the patent (claims 2 and 3). The project was then transferred by the appellant to a third group of workers and during the course of the work of this third group, two of its members, Jewell and Hansen, made additional contributions beyond the original conception of Johnson which are included in the subject matter of claims 8, 9 and claims 1, 4, 5, 6, 7, 13, respectively. Appellant summarizes the conclusions made after the unravelling of documentary data and testimony that neither Porter, Jewell, nor Hansen could be joint inventors of the broader claims since each of these people were brought into the project some time after Johnson's conception; neither Jewell nor Hansen could be joint inventors with Porter since they were brought into the project after Porter; and neither Jewell nor Hansen could be considered joint inventors with one another since their improvements appear to be separate and distinct from one another.

These four reissue applications were filed dividing the claims in accordance with the determination of the inventorship. The applications are listed as follows, the claims in each of the reissue applications retaining the same numbers as the claims of the patent:

Case 1. Serial No. 397,501, Frithiof V. Johnson. Claims 10, 11, 12, 14.

Case 2. Serial No. 397,502, Richard W. Porter. Claims 2, 3.

Case 3. Serial No. 397,503, Richard G. Jewell. Claims 8, 9.

Case 4. Serial No. 397,504, Albert Hansen, Jr. Claims 1, 4, 5, 6, 7, 13.

Each of these applications is filed as the sole invention of the inventor named therein with respect to the claims included in that application and is accompanied by a sole inventor's oath of the inventor named in the application.

The reissue applications have been rejected in effect upon the ground that the statute does not authorize the grant of reissue patents for the purpose contemplated here, i. e., to correct a misjoinder of inventors.

There is no question but that the instant reissue applications could not have been allowed prior to January 1, 1953, under the reissue statute then in force, namely, R. S. 4916 (35 U. S. C., 1946 ed., sec. 64). The question of correcting patents in which there had been a misjoinder of an inventor arose several times under the prior statutes. The first of these of which any record has been found was the case of *In re Crocker*, decided June 5, 1869, by a Justice of the Supreme Court of the District of Columbia on appeal from the Patent Office (this was the predecessor to the present Court of Customs and Patent Appeals in appellate jurisdiction over the Patent Office). This case involved the situation in which a patent had been issued to two persons as joint inventors and it was subsequently discovered that the invention was the sole invention of but one of them. The court held that the statute did not permit a reissue under such circumstances, in fact that the statute could not possibly have been enacted to meet cases of this kind. (The court held that the only remedy possible was the filing of a new independent application by the sole inventor and the declaration of an interference between the sole appli-

cation and the joint patent; this has been permitted ever since but the new application must be timely filed since it must stand on its own date.) The question arose again in the case of *Ex parte Barsaloux*, 1878 C. D. 154, in which the Attorney General on reference of the question to him by the Patent Office also ruled that such a reissue could not be obtained. (Subsequently Congress passed a special act, 21 Stat. 526, specifically authorizing a reissue to Barsaloux for the purpose of removing the misjoined inventor.) The latest decision in which the question was considered under the old statute was *In re Hamilton*, 17 CCPA 833; 1930 C. D. 210; 37 F.2d 758; 4 USPQ 224. Here the Patent Office refused a reissue application filed for the purpose of omitting one of the two joint inventors of the original patent, on the ground that the reissue statute made no provision for the reissue of a joint patent to a sole applicant. The Court of Customs and Patent Appeals affirmed the decision of the Patent Office stating "We are unable to see how the statute can be constructed so as to allow" the reissue and again stating, "We are limited by the statute." Regardless of collateral matters which may have been argued or discussed in the last two cases mentioned, [2] it must be considered as established by the Patent Office and by the courts in review of Patent Office decisions that under the prior statutes a reissue which had as its objective the removal of an inventor from the patent could not be allowed.

Appellant acknowledges the status of the law under the prior statute but urges that the instant reissue applications can be allowed under the new statute, that the wording of the new statute is such that the decisions under the prior statute are no longer applicable. In the Patent Act which came into effect on January 1, 1953, R. S. 4916 has become Sections 251 and 252 of Title 35, Patents. Section 252 is of no concern in these appeals: the first paragraph of 35 U. S. C. 251 reads:

"Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Commissioner shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue."

The first sentence of the old statute reads as follows:

"Whenever any patent is wholly or partly inoperative or invalid, by reason of a defective or insufficient specification, or by reason of the patentee claiming as his own invention or discovery more than he had a right to claim as new, if the error has arisen by inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, the Commissioner shall, on the surrender of such patent and the payment of the duty required by law, cause a patent for the same invention, and in accordance with the corrected specification, to be reissued to the patentee or to his assigns or legal representatives, for the unexpired part of the term of the original patent."

Appellant quotes the following wording of the new statute:

"wholly . . . invalid . . . by reason of the patentee claiming more . . . than he had a right to claim *in the patent*."

and urges that in view of this wording, as compared with the corresponding wording of the old statute, a patentee is now permitted to obtain a reissue of the nature presented here. However, a literal reading of this new wording is of no help to appellant, the patentee is not seeking to correct an error of claiming more than he had a right to claim in the patent. Such an error can be corrected by deleting the excess claiming or revising the claims that are too broad but the patentee here is retaining all the claims and hence is not seeking to correct an error of claiming more than he had a right to claim in the patent. [3] The phrase in the statute "claiming more or less than he had a right to claim" obviously refers to the subject matter claimed and not to anything else. If this phrase were held to refer to things other than the subject matter of the claims then equally the expression "No new matter shall be introduced into the application for reissue" would also have to be taken as referring to other things than the subject matter of the patent, and it cannot be denied that a change in inventorship would be new matter in this sense.

Appellant points to the second paragraph of 35 U. S. C. 251 which provides that

"The Commissioner may issue several reissued patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue for each of such reissued patents."

and urges that since the Commissioner is given the power to grant reissues in divisions he therefore has the power to grant the reissues here sought since the claims of the various reissue applications constitute distinct and separate parts of the patent and therefore separate patents may be issued for each. [4] This paragraph relating to reissues in division refers primarily to the manner in which the correction of errors otherwise authorized by the statute may be done and does not introduce a new ground for reissue. It should be noted first that this sentence, which now appears as a separate paragraph of Section 251, was contained in the old statute in substantially the same language, and that *In re Hamilton* referred to supra actually involved a case of reissues in divisions, only one of the reissue applications having been appealed.

Appellant also points to the third paragraph of 35 U. S. C. 251 which states that

"The provisions of this title relating to applications for patent shall be applicable to applications for reissue of a patent, except that application for reissue may be made and sworn to by the assignee of the entire interest if the application does not seek to enlarge the scope of the claims of the original patent."

Appellant states that by virtue of this provision Section 116 of Title 35 becomes applicable. However, Section 116 relates to an application which has been filed by several persons as joint inventors and to the correction of such application after it has been filed. This situation is not presented here as no question arises relating to correction of an application.

Appellant refers to "the avowed liberalizing legislative intent of the new act." It is true that the new act is more liberal than the old act, particularly in reference to correcting situations of misjoinder or nonjoinder of inventors which prior to the new act could not be corrected in any manner in the case of an issued patent (other than by a new independent application if timely filed). The legislative history of the Patent Act of 1952 has been completely reviewed and nothing has been found which even suggests any intention to revise the reissue section of the statute to provide for reissues such as are sought for here. On the other hand the action of Congress indicates an intent not to change the reissue section of the statute in this respect. The problem of the invalidity of patents by reason of misjoinder or nonjoinder of inventors had been presented to Congress many times and in developing the revised patent code enacted in 1952 the prior bills which had been presented to Congress during the preceding twenty-five years were specifically considered (see U. S. Congress, Committee on the Judiciary, Proposed Revision and Amendment of the Patent Laws, Preliminary Draft with Notes, 1950, pages vi and 49). Some of these prior bills contained broad provisions which would have been adequate to remedy all situations of misjoinder or nonjoinder of inventors. With the problem and these prior proposals before it Congress chose to legislate on the question of misjoinder and nonjoinder of inventors in issued patents solely in the manner set forth in section 256 of Title 35. [5] It cannot be assumed then that Congress intended to go beyond the specific provisions of Section 256 in providing for the correction of patents with respect to nonjoinder or misjoinder of inventors or that another section of the statute, silent on the matter, was intended to be also applicable.

A word must be said concerning Section 256, the first paragraph of which provides for correction of patents which include an excess inventor by a certificate deleting the name of the erroneously joined person from the patent. Appellant states in his brief that this section of the statute is not applicable to the situation presented here. [6] The first paragraph of Section 256 provides for deleting the name of an erroneously joined person (or persons) from the patent and hence it is considered obvious that appellant can retain whatever group of claims he wishes to retain in the patent, eliminating the other claims and simultaneously correcting the patent by striking out the three excess names.

[7] The rejection of each of the reissue applications on the above discussed ground will be affirmed.

The Examiner has also rejected some of the claims as unpatentable over certain prior patents and the claims in two of the cases as unpatentable over the claims of other of the cases.

The references relied on are:

Tarbox, 1,832,433, Nov. 17, 1931.
Fischel et al., 2,188,834, Jan. 30, 1940.
Frische et al., 2,398,421, Apr. 16, 1946.

The rejections of the claims are as follows:

Case 1

(1) Claims 10 and 12 are rejected on Frische et al.

(2) Claims 11 and 14 are rejected as unpatentable over Frische et al. in view of Tarbox or Fischel et al.

Case 2

(1) Claims 2 and 3 are rejected as unpatentable over Frische et al.

(2) Claims 2 and 3 are rejected as unpatentable over the claims of Case 1 in view of Frische et al.

Case 4

(1) Claims 4, 5 and 13 are rejected as unpatentable over Frische et al.

(2) Claims 1, 5, 6 and 13 are rejected as unpatentable over the claims of Case 1 and Case 2 in view of Frische et al.

(3) Claim 4 is rejected as unpatentable over the claims of Case 1 and Case 2.

The following claims are quoted:

Case 1

12. In an automatic control device for a craft, the combination with a position-maintaining means for detecting movement of said craft about a control axis thereof, a control surface controlling the attitude of said craft about said control axis, and a servomotor connected to move said control surface, of an inductive pick-off device having a control member coupled to said position-maintaining means, an inductive device having a control member coupled to said servomotor, each of said inductive pick-off and follow-up devices having a primary winding energized from a common source of alternating current and a secondary winding positioned relative to its primary winding by the control member associated therewith so that the voltage output thereof varies in polarity and magnitude in accordance with the direction and amount of displacement of the control member from a null position, and means for controlling the direction of movement of said servomotor in accordance with the polarity and magnitude of the algebraic sum of the voltage outputs of the secondary windings of said inductive pick-off and follow-up devices.

14. In an automatic pilot control device for a craft, the combination with a position-maintaining means for detecting movement of said craft about a control axis thereof, a control surface controlling the attitude of said craft about said control axis, and a servomotor connected to move said control surface, of a pick-off signal generator, a follow-up signal generator, a trim signal generator, each of said signal generators having a movable control member and being arranged to produce an output signal voltage variable in polarity and magnitude in accordance with the direction and amount of movement of the control member from a null position, polarity sensitive means responsive to the algebraic sum of the voltage outputs of said signal generators for controlling the direction of movement of said servomotor, means responsive to the movement of said position-maintaining means relative to said craft for actuating the control member of said pick-off signal generator, means responsive to movement of said control surface for actuating said follow-up signal generator whereby said servomotor actuates said control surface to stabilize said craft about said control axis in a predetermined attitude and means for manually actuating the control member of said trim signal generator to change the stabilized attitude of said craft.

Case 2

3. In an automatic control device for a craft, the combination with a position-maintaining means for detecting movement of said craft about a control axis thereof, a control surface for controlling the attitude of said craft about said control axis, and a servomotor connected to move said control surface, of a single phase inductive device operated in response to movement of said position-maintaining means relative to said craft, a single phase inductive device operated in response to movement of said control surface relative to said craft, said two inductive devices having primary windings energized by a common single phase source of supply and the secondary windings connected in series opposition and each having a range of regulation over which their secondary voltages vary in magnitude and reverse in phase, a differential amplifier means having an input circuit energized by a differential voltage in said series secondary circuit of said inductive devices, said amplifier means having a pair of differential direct current output circuits the relative current magnitude of which varies inversely in response to the magnitude and phase direction of the input voltage to said amplifier means, an electrically operated controller differentially energized from the direct current output of said amplifier means for controlling said servomotor and determining the direction of operation thereof in accordance with the phase direction and magnitude of the input voltage to said amplifier, and means for varying the relation between the secondary voltages of said inductive devices to vary the sensitivity of the control.

Case 4

5. In an automatic control device for a craft, the combination with a position-maintaining means for determining movement of said craft about a control axis thereof, a control surface for controlling the attitude of said craft about said control axis, and a hydraulic servomotor connected to move said control surface, of single phase inductive devices having primary and secondary windings and having rotary elements connected to be moved by said position maintaining means and said control surface respectively, a common source of alternating current for energizing said primary windings, a circuit connecting said secondary windings in series opposition, phase sensitive differential amplifier means responsive to the differential voltage in the series secondary circuit of said inductive devices and having two direct current output circuits the relative current magnitudes of which are determined by the phase of the input voltage, a normally closed valve for controlling the flow of an operating fluid to said hydraulic servomotor, said valve having two operating solenoids connected respectively in the two direct current output circuit of said amplifier means, one solenoid for operating the valve in one direction for one direction of operation of said servomotor and the other solenoid for opening the valve in the opposite direction for opposite direction of operation of said servmotor, the extent of operation of said valve in either direction being proportional to the relative energization of said solenoids.

The instant applications relate to an automatic pilot device for an aircraft, for the control of each of the bank, pitch and yaw axes of said craft to maintain steady flight thereof. The claims here involved, however, as stated by appellant in the brief, are each directed to the control of merely a single one of said axes.

The control is of the follow-up type, and involves a

comparison of an initiating voltage arising from a change in an attitude of the aircraft, with a follow-up voltage dependent upon the position of a control surface relative to the craft. Taking the control for the pitch axis of the aircraft as exemplary, the voltages mentioned are produced in the variable inductive generator devices 18 and 19. The rotors thereof, in the form of primary coils 45 and 46 energized from a common source 29, are respectively connected to be rotated from the gyroscope 10 through the shaft 12 and the elevator surface 16 through the mechanical connection 27. The stators or secondary windings are individually of split, reversely wound character and are mutually connected in circuit in series opposition for said voltage comparison purposes. In each of said secondary windings an alternating voltage will be produced having a magnitude varying as a function of the angular deviation of the primary winding from normal and a phase or instantaneous polarity dependent upon the direction of said deviation. A potentiometer 30 is provided in association with the primary winding of the follow-up generator device 19 for adjustment of the sensitivity of the comparison system, while a control 31 is provided in the series circuit connecting devices 18 and 19 for enabling a trim or course setting adjustment. Assuming the craft to have deviated from its normal pitch angle, the resultant voltage in the comparison circuit is applied to the amplifier 20 for suitable control of the solenoid operated valve arrangement 21, which in turn controls a hydraulic servomotor 22 to operate the elevator 16 in a direction to correct for the change in pitch. The correcting action continues, with diminishing deviation of the elevator surface and pertinent gyroscope components from normal, until the craft regains its original pitch attitude and a voltage balance occurs in the comparison circuit.

The Frische et al. patent, which is the chief reference patent of concern here, likewise relates to an automatic pilot arrangement for a control axis of an aircraft. Figure 1 of this patent shows a basic arrangement for producing a control voltage in response to the deviation of an initiating control element, while Figure 2 discloses a system utilizing an initiating control similar to that of Figure 1, in conjunction with a follow-up control producing a voltage for comparison purposes generally similar to those in the system of the instant applications. In Figure 2 of Frische et al., the initiating and follow-up voltages, which are alternating in character, are produced by angular deviations of the potentiometer contact arms 32 operated by the gyroscope 33 and 47 operated by the control surface 46, respectively, through the unbalancing effects caused thereby in an alternating current bridge circuit arrangement. As is apparent from page 2, left-hand column, lines 48 to 51 of the patent, these voltages will each have an amplitude and polarity dependent upon the magnitude and direction of the displacement of the potentiometer arm corresponding thereto. As described at page 4, right-hand column, lines 25 to 35, said voltages are compared in series opposed relationship, to produce a resultant voltage of differential amplitude and polarity. This resultant, assuming an unbalance such as would occur upon a deviation in attitude of the craft from normal, is applied to the vacuum tube arrangement illustrated in Figure 2. The output of the vacuum tube arrangement, which will have a corresponding amplitude and polarity, is applied to the torque motor 20, to in turn control the valve device 25 and hydraulic servomotor 26, for suitably varying the position of the control surface 46 of the aircraft for flight corrective purposes.

As described by Frische et al. at page 3, right-hand column, lines 26 to 38, the alternating current displacement potential may be generated by inductive devices such as shown in the patents to Nisbet, No. 2,054,945, or Moseley et al., No. 2,139,558, instead of by way of the unbalance of the resistance arm of an alternating current bridge circuit as illustrated. In order to prevent hunting in operation of the system, Frische et al. provide, as best shown at 12 in Figure 1, a direct current source in the alternating current bridge circuit, so as to produce during deviation motion of the initiating control element, a time derivative or rate signal corresponding to the rate of such deviation, for application to the vacuum tube arrangement aforementioned together with the alternating voltage applied thereto.

We will first consider the rejections noted above which are based solely on prior art patents, and then the rejections involving the claims of others of the applications before us. In doing so, we will in each instance follow the order of the serial numbers of the applications.

The Examiner regards claims 10 and 12 as being fully met in Frische et al., calling attention to the above-mentioned portion of the reference referring to the use of inductive devices for the production of the alternating displacement voltages, in connection with claim 12 which characterizes the pick-off and follow-up components as inductive in nature. Appellant challenges the propriety of Frische et al. as a reference herein, on the ground that the claimed structure produces a new improved result, in that a non-hunting operation is effected thereby without the use of a conventional anti-hunt expedient such as the aforementioned rate signal required in Frische et al. for the purpose. Appellant predicates the production of his non-hunting operation upon the utilization in his system of a combination of three features which he enumerates at the top of page 26 of the brief, and which he argues are inherently embraced within the terms of the claims at hand. Appellant, further, refers to an affidavit of one R. E. Hoseley, submitted in the original joint parent application, as evidencing superior performance of the instant control system as compared with prior systems.

We have carefully considered the various arguments and contentions advanced by appellant but are not convinced thereby that claims 10 and 12 are patentable over the reference. Applying claim 10 to the system of Frische et al., the latter discloses a position-maintaining means including the gyroscope 31, an aircraft control surface 46, a servomotor 26 connected to said control surface for rotating the same, a pick-off means including the contact 32 and potentiometer 33 actuated from the gyroscope for producing one alternating voltage, a follow-up means including the potentiometer 48 and its contact arm 47 actuated by movement of the control surface for producing a second alternating voltage, a circuit 50 in which the aforementioned voltages are compared to produce a resultant control voltage, and means responsive to the latter, including the vacuum tube circuits illustrated in Figure 2, the torque motor 20, and the valve 25, for controlling the servomotor 26 for the purpose of actuating the control surface 46. As we have pointed out above, the alternating voltages produced in Frische et al. for comparison and resultant controlling purposes have magnitude and polarity characteristics commensurate with those required by the claim, and the control surface is actuated in a direction determined by the phase or polarity of the resultant voltage. The speed of actuation of the control surface would inherently be a function of the magnitude of the resultant voltage in Frische et al., since as described at page 3, right-hand column, lines 51 to 61 of said patent, the operative effect on the devices subsequent to the torque motor 20, including the controlling force exerted by the valve 25, would be a function of the energy supplied to said torque motor.

It is apparent from our analysis as given above that all of the positive requirements of claim 10 are found in Frische et al. We do not agree with appellant, as argued in the brief, that the mere language as used in the claim relating to the servomotor, the resultant voltage, and the pick-off and follow-up means and their recited association, inherently limits said claim as also requiring for satisfaction the three features stated by appellant as significant to his non-hunting operation. The claim does not structurally define the pick-off as frictionless, or even inductive, recites no amplifier, much less one of high gain, and defines no actuator in terms of its saturation effects or low time constant, and in the absence of positive recitation of these features the claim cannot be presumed as limited thereto. [8] It is axiomatic that it is the wording of the claim which constitutes the measure of the invention, and in this respect we see no material distinction between the wording of claim 10 and the structure shown in Frische et al. Insofar as the language of the claim is concerned, it would not preclude the additional utilization of a rate signal, if the same were desired to achieve the results normally attributable thereto. Nor do we regard the affidavit mentioned above as significant. The same is merely general in character, evidencing no specific factual data as to comparison with the device of the particular reference at hand. We therefore regard said affidavit as of no essential persuasive value in the instant situation.

Claim 12 defines the pick-off and follow-up devices as being inductive, and further recites certain details of the same. While it is conceded that neither of the patents to Nisbet or Moseley et al. mentioned in the specification of Frische et al. discloses inductive voltage producing elements having the precise arrangement set forth in claim 12, we are not convinced, and appellant has not pointed out, that any new or unobvious results would flow from the use of the claimed inductive arrangement rather than the inductive devices of the mentioned patents. It would appear that so far as any pertinent operational aspects of the system as a whole are concerned, the various inductive voltage producing arrangements involved would be equivalent. Consequently, claim 12 being otherwise satisfied by Frische et al. for reasons as pointed out above in our treatment of claim 10, we are of the opinion that said claim presents no patentable distinction over the system of said reference.

We will sustain the rejection of claims 10 and 12 on Frische et al.

Each of claims 11 and 14, in varied language, includes structure for the production of a trim voltage and the insertion thereof in the voltage comparison circuit for comparison together with the pick-off and follow-up voltages to produce a resultant voltage. We do not agree with the Examiner that the Tarbox and Fischel et al. patents relied upon by him in a secondary sense would suggest these features. In such secondary references, the trim compensation is obtained by the physical displacement of the limiting contacts with which a movable contact arm is associated for the purpose of controlling a motor apparatus in a reversible manner. No additional voltage, to be used for comparison purposes with other voltages, is produced therein. Hence, we fail to see how any suggestion could be fairly derived from the secondary references by one skilled in the art for the production of the particular features at hand. Nor, in view of the lack of any teaching in the secondary references of such features, do we find any suggestion for the insertion of the potentiometer 3 of Figure 1 of Frische et al. in the system of Figure 2 thereof in the circuit relationship necessary to produce a trim voltage and the comparison involved. In our estimation, any suggestion for such modification would come only from appellant's disclosure. Accordingly, we will not sustain the rejection of claims 11 and 14 as unpatentable over Frische et al. in view of Tarbox or Fischel et al.

Claims 2 and 3 call for the pick-off and follow-up devices as being inductive, claim 3 additionally characterizing said devices as being single phase, and include details thereof in somewhat the same manner as in claim 12. As to these features, we regard the same as lacking patentability for the same reasons as given above in connection with claim 12, it being noted further that the control operation in Frische et al. is single phase in character. Claim 3 further calls for amplifier means, characterized as having a pair of differential direct current output circuits. The latter feature is contained in the vacuum tube, or amplifier, arrangement disclosed in Frische et al. In addition, claims 2 and 3 include, in various terms, means for obtaining a variation in the magnitude relation of the secondary voltages of the pick-off and follow-up devices, for sensitivity control purposes. For this feature, the Examiner points out that the general utilization of potentiometer elements across voltage sources for varying their magnitude with respect to other voltages is a notoriously old and well known practice in the electrical arts and that such expedient is, moreover, shown at 8, 9 in Figure 1, and 56 of Figure 3 of Frische et al. We are in agreement with the Examiner in this respect, and are of the opinion that it would merely be following conventional practice, as broadly exemplified by Frische et al., to associate an additional potentiometer with the potentiometer 33 of this reference, for ordinary, usual voltage magnitude regulating purposes. Such modification would inherently provide variability as to the magnitude relation of the pick-off and follow-up voltages, and enable a control of the sensitivity of the system. In this respect, we are not impressed by appellant's arguments as to the feature in question. The instant rejection of claims 2 and 3 will be sustained.

With respect to claim 4, the only feature recited therein that has not already been treated and deemed

unpatentable over Frische et al. is the characterization that the pick-off and follow-up devices have "a uniform reluctance in all regulating positions." The property represented by such characterization, however, is dependent upon particular structural arrangement involving the windings of the devices in question, and in the absence of recitation in the claim of the structural details necessary to establish the result stated, said characterization can be regarded merely as functional in nature and consequently, as of no patentable weight. We will sustain the rejection of claim 4.

Claim 5 differs from Frische et al. only in respect to the recited details of the valve which controls the hydraulic servomotor, neither of the valve elements 113 or 113' in Frische et al. providing the "normally closed" valve condition specified in the claim. However, appellant has not shown that his particular valve arrangement will produce any new or unobvious results over those attributable to the valve arrangement of the reference, and we regard the same as equivalents, from the standpoint of the operation of the system as a whole. [9] It is well settled that a mere difference in structure without an accompanying unobvious or unexpected result is not of itself sufficient to support patentability. *In re Neely*, 40 CCPA 1061; 1953 C. D. 375; 98 USPQ 273; 205 F.2d 195; 676 O. G. 5. *In re Felburg*, 41 CCPA 833; 1954 C. D. 130; 101 USPQ 195; 211 F.2d 597; 685 O. G. 474. The instant rejection of claim 5 will be sustained.

With respect to claim 13, we find nothing recited therein that has not already been treated above and found to be essentially satisfied by the structure disclosed in Frische et al. Accordingly, we will sustain the instant rejection of claim 13.

[10] In connection with the rejection of claims in two of the cases as unpatentable over the claims in other cases, appellant asserts that such action is improper since all the cases have the same filing date and the filing date is controlling, not the respective dates of invention. Appellant, in presenting four different divisional applications, is in effect asserting that the inventions will support four different patents, and it is in order to consider the patentability of the cases over each other in exactly the same manner as the patentability over each other of any two applications assigned to the same assignee can be considered. Where the filing dates are the same and the order in which the respective inventions were made is known it is appropriate to consider the applications in that order. Here appellant has indicated that the inventions of Cases 1, 2 and 4 were made in that order and hence it is appropriate and proper to consider the invention claimed in Case 1 in connection with the patentability of Case 2 and Cases 1 and 2 in connection with the patentability of Case 4.

With respect to claims 2 and 3 and the rejection thereof as unpatentable over the claims of Case 1 in view of Frische et al., this rejection would, in the instant situation, appear to be on the same footing as the above treated prior art rejection of these claims. We do not think that it is necessary to rely, as the Examiner has done, upon Frische et al. with respect to the inductive pick-off and follow-up devices as they are recited in claims 2 and 3, since such devices, as there claimed, are essentially the same as presented in claim 12 of Case 1. While the claims of Case 1 do not include the sensitivity control feature, we have pointed out that the addition of the same to subject matter of the character represented by the claims in Case 1 would not constitute a patentable modification. For the reasons stated, we are of the opinion that the instant rejection of claims 2 and 3 is proper, and the same will accordingly be sustained.

We will likewise sustain the rejection of claims 1, 4, 5 and 13, applied in Case 4, as unpatentable over the claims of Cases 1 and 2, either alone or in view of Frische et al., as enumerated above. As to claim 4, all of the features thereof except the uniform reluctance characterization are found, essentially, in claim 3 of the earlier Case 2 for example, and as to said characterization we have shown above that the same is of only functional significance and therefore insufficient for patentability. All of the features of claim 5 except the valve details recited therein, the specific qualification of the servomotor as hydraulic, and the rotary elements of the inductive devices are likewise essentially found in claim 3. The hydraulic qualification for the servomotor clearly presents no patentability, since such devices are old and well known in a similar control system as shown in Frische et al. and use of the same in conjunction with structure such as represented by claim 3 would be obvious. In claim 3, the inductive devices are described as having primary and secondary windings, and as being responsive to movement of another element. This would connote some movable relation between said windings, and to make such relationship a rotary one, by means of rotary elements appropriately associated, would be merely a following of notoriously old and well known practice in the art, as exemplified by the rotary relationship in the inductive device of the patent to Nisbet mentioned in Frische et al. As to the valve details recited in claim 5, they represent nothing patentable over those shown in Frische et al., as pointed out above. Claim 13 presents no patentable distinction over the subject matter of the claims of the earlier cases, it being noted that substantially the precise language applied in claim 13 to characterize the inductive follow-up device appears in claim 12 of Case 1.

With respect to claim 1, which has not been heretofore specifically treated herein, it is apparent from what we have already stated that all of the structural attributes thereof except those mentioned below are substantially met in the claimed subject matter of the earlier cases. The characterization of the servomotor as "hydraulic" is of no patentable significance, as we have pointed out in connection with claim 5. The recitation of a pair of solenoids energized by the amplifier is clearly disclosed in Frische et al. wherein the windings of the torque motor 20 may be regarded as the solenoids in question. To apply such component of Frische et al. in conjunction with the structure represented by the claims of the earlier cases would in our opinion involve no invention, as falling within the ordinary skill of the art.

Claim 6, which similarly has not been specifically heretofore treated, recites the amplifier means as adjusted to saturate at a relatively low value of control voltage. We do not find this feature to be present either in any of the claims of the earlier cases or in the references before us. Since such feature has a definite utility in the operation of appellant's system we regard the same, in conjunction with the other structure recited in claim 6 as rendering said claim patentable over the reference entities cited thereagainst. We will not sustain the instant rejection of claim 6.

The claims in Case 3, claims 8 and 9, have not been rejected by the Examiner except on the general ground first considered. These claims, as claims of the patent, were involved in Interference No. 83,304 in which a judgment adverse to the patent, which has become final, has been rendered. According to 35 U. S. C. 135 which deals with interferences, "A final judgment adverse to a patentee . . . shall constitute cancellation of the claims involved from the patent." No action in connection with this matter was taken by the Examiner since the final rejection was made before the interference decision became final. It is assumed that the Examiner will take appropriate action in the event this application should return to his jurisdiction.

The decision of the Examiner in rejecting claims 1 to 14, inclusive, is affirmed.

AFFIRMED AND MODIFIED.

REISSUES

JUNE 3, 1958

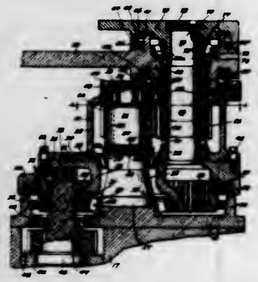
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,479
ROTARY MINING MACHINE HEAD AND CUTTER CARRIED THEREBY MOVABLE IN ELLIPTICAL PATHS

Dallas P. Graham, Homewood, Ill., assignor, by mesne assignments, to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Original No. 2,694,563, dated November 16, 1954, Serial No. 163,911, May 24, 1950. Application for reissue December 6, 1955, Serial No. 551,483

19 Claims. (Cl. 262—7)



13. A mining machine comprising a supporting frame, boring and disintegrating mechanism mounted on said frame for forming a bore of elliptical cross section in the mineral of a solid mine vein comprising an orbitally movable cutting tool having means including widely angularly spaced, narrow elongated cutter supporting arms for guiding and moving the cutters in an elliptical orbit which is the resultant of movement of said tool in a smaller closed orbit and concurrent movement of said last mentioned orbit, means for effecting movement of said tool carrying arms in one direction to cause the cutters to move in the smaller closed orbit during the boring operation, and means for continuously effecting movement of said arms during the boring operation to cause rotation of said tool in the opposite direction about its own axis as it travels orbitally as aforesaid, movement of said arms as aforesaid causing the cutters to trace an elliptical path to cut an elliptical bore as aforesaid.

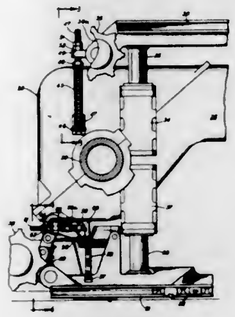
24,480
ADJUSTABLE TRIMMER BAR FOR BORING TYPE MINING MACHINE

Edward L. Anderson, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Original No. 2,808,251, dated October 1, 1957, Serial No. 601,568, August 1, 1956. Application for reissue November 21, 1957, Serial No. 698,019

2 Claims. (Cl. 262—7)

1. In a mining machine of the boring type having a mobile frame, a pair of laterally spaced boring heads rotatable on said frame for cutting contiguous bores in advance of the machine, a horizontally disposed chain carrying cutter bar on said frame rearwardly of and generally tangential to the circular paths of said boring heads for removing the cusps left between said heads and means including extensible fluid pressure motors for adjusting said cutter bar vertically relative to said boring heads, the improvement which comprises a flexible member having one end fixed to the frame for limiting the vertical adjustment of said cutter bar relative to said frame, the other end of said flexible member having a threaded ex-



tension, and the cutter bar having a lug through which said threaded member extends for endwise adjustment by a threaded nut.

24,481
UNLOADING ATTACHMENT FOR A BIN

Gordon G. German, Eugene, Oreg.

Original No. 2,729,346, dated January 3, 1956, Serial No. 461,241, October 8, 1954. Application for reissue June 5, 1957, Serial No. 664,882

5 Claims. (Cl. 214—17)



1. An unloading device for a bin having an open end comprising a follower mounted in said bin to move longitudinally therein toward and away from the open end thereof, a cylinder carried by the follower for movement therewith above the bottom of the bin, a piston carried by the bin remote from the open end thereof and telescopically entering the cylinder, means to admit fluid under pressure to the cylinder through the piston to advance the follower toward the open end of the bin and discharge from the bin material deposited therein between the open end thereof and the follower, a cylinder carried by the bin beneath the bottom thereof, a piston mounted in said last mentioned cylinder for movement longitudinally through one end thereof beneath the bottom, a guide pulley carried by the bottom adjacent the end thereof remote from the open end, a pulley carried by the last mentioned piston for movement therewith, and a flexible member trained over said pulleys and connected to the cylinders for retracting the cylinder carried by the follower as the pulley advances with its piston.

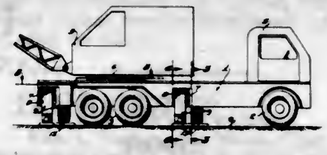
24,482
HYDRAULIC STABILIZER FOR CRANES

Alphie O. Felkner, Palmdale, Calif., assignor to The Thew Shovel Company, Lorain, Ohio, a corporation of Ohio

Original No. 2,740,538, dated April 3, 1956, Serial No. 349,535, April 17, 1953. Application for reissue November 29, 1957, Serial No. 703,472

5 Claims. (Cl. 212—145)

5. The combination with a crane mounted on a truck having a chassis and wheels, of a stabilizer comprising: means defining transverse compartments associated with said chassis frame; an arcuate beam in each compartment; and means guiding each beam about the center of its arc and located in said compartment to direct said beam in an arcuate downward and outward path until its



extended end engages the surface on which said truck wheels rest; and fluid power means for extending and retracting each arcuate beam.

PLANT PATENTS

GRANTED JUNE 3, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,714
AZALEA PLANT

Lenard L. Brooks, Modesto, Calif.

Application April 22, 1957, Serial No. 654,433

1 Claim. (Cl. 47—60)

A new and distinct variety of azalea plant substantially as herein shown and described, characterized particularly by its large Belgian indica type double flowers in a distinctive shade of pink; the ease with which the cuttings root; and its rapid, many branched habit of growth when properly pinched.

1,715
ROSE PLANT

Thomas Edison Motose, Fairport, N. Y., assignor to George B. Hart, Inc., a corporation of New York

Application September 26, 1957, Serial No. 686,549

1 Claim. (Cl. 47—61)

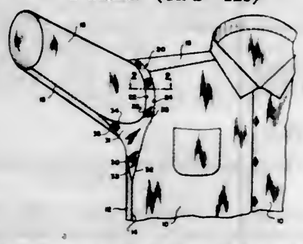
A new and distinct variety of hybrid tea rose plant classified botanically as, and belonging to, the continuous or recurrent blooming variety of the cultivated species of the genus Rosa, characterized as to novelty by its large and long canes, by its tendency to produce large number of lateral branches, by its narrow and pointed leaflets, by the presence of very few thorns on its lower canes or branches and almost complete absence of thorns from its upper branches or canes, by its tendency to unfurl its petals slowly and to remain in the very desirable partly opened stage longer than the average hybrid tea rose, by its great production of blooms of the quality and size suitable for the cut-flower trade, by its distinctive sweet fragrance, by the clear, clean pink coloring of its bloom, by its distinctive floral pattern, by its tendency to grow better and bloom in greater profusion in glass-houses, and by the combination of all the said characteristics, substantially as described herein and shown in the accompanying picture.

PATENTS

GRANTED JUNE 3, 1958

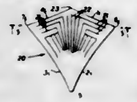
GENERAL AND MECHANICAL

2,836,826
CONSTRUCTION FOR SLEEVED GARMENT
Harry S. Geiss, New York, N. Y.
Application March 16, 1956, Serial No. 571,959
1 Claim. (Cl. 2—125)



A garment comprising a body portion, a sleeve having an attachment end and having in the armpit section upwardly diverging edges forming a V-shaped cut-out terminating at its attachment end, the body portion including a relatively non-stretchable material defining a shoulder and armhole structure, the front and back sections of the garment, being cut along downwardly converging lines to form a V-shaped cut-out in the armhole structure at the armpit, and a coupling member stretchable in all directions in the form of a ring, said coupling member having integral oppositely projecting V-shaped projections of substantially the same shape and size as the V-shaped cut-outs in the sleeve and body portion, respectively, the edges of said projections merging with the respective edges of the ring along smoothly converging lines, the opposite sides of the coupling member being secured, respectively, to the attachment edge of the sleeve and the armhole section of the body portion, the edges of the V-shaped sections being secured to the edges of the cut-out sections in the sleeve and body portion, respectively, portions of the ring and portions of the projections at the armpit section extending into the front and back sections of the garment, the coupling member permitting unrestricted movement between the sleeve and body of the garment and freedom of movement of the shoulders of the wearer.

2,836,827
COLLAR STAYS AND METHOD OF MAKING THEM
Luis Montero, San Isido, Lima, Peru
Application October 17, 1955, Serial No. 540,697
5 Claims. (Cl. 2—132)



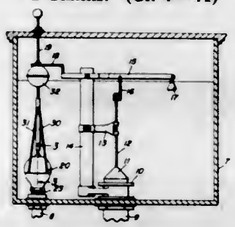
4. A collar stay of thin flexible and resilient material in the shape of a symmetrical quadrilateral having a longitudinal center line, said stay having a first pair of adjacent edges disposed on opposite sides of said center line and of the same size and meeting at an acute angle, and a second pair of shorter edges disposed on opposite sides of said center line and meeting at an obtuse angle, said stay being laterally arched along substantially its entire length.

2,836,828
MITTEN
Norma M. Henriksen, Lakewood, Ohio
Application January 30, 1956, Serial No. 562,217
1 Claim. (Cl. 2—158)



A mitten comprising, a flat tubular body portion of flexible material open at both ends, a thumb portion having an opening at the outer end thereof, formed of similar material, opening into said body portion intermediate the ends thereof and extending outwardly from the side thereof, and a pocket within the outer end of said body portion, extending entirely around the inner periphery of the outer end of said body portion, said pocket being secured to the sides of said body portion providing an opening on both the front and back sides of said body portion, whereby one side opening is adapted to receive the wearer's fingers with the palm of the hand against the palm portion of said mitten when the mitten is worn on the right hand and the other side opening is adapted to receive the fingers with the palm against the palm portion of the mitten when the mitten is worn on the left hand, thereby permitting the same mitten to be worn on either hand with equal utility.

2,836,829
FLUSH MECHANISM FOR TOILETS
Cecil S. Eddowes, San Isidro, Lima, Peru
Application October 10, 1955, Serial No. 539,544
2 Claims. (Cl. 4—41)



1. In a toilet flush mechanism, the combination of a flush tank having an inlet and an outlet, a semi-automatic inlet valve for the inlet, said inlet valve including a housing registered with said inlet and having an opening at its top forming a valve seat, a valve element in said housing, a valve rod secured to said valve element, a guide having a passage in vertical alignment with said opening, said valve rod slidably disposed in said guide, a float connected to said rod for closing the inlet valve which is opened by a depressing movement of the float, a semi-automatic valve for the outlet and opened by a raising movement, an arm pivoted inside the tank and having one end portion overlying and in direct engagement with the float to depress the float for opening the inlet valve, means connecting the other end portion of the arm to the outlet valve, and a manually actuated plunger outside the tank and engaging the arm to rockably actuate the same.

2,836,830
TILLE RECEPTOR FOR SHOWERS
Glenn E. Norman, Nevada, Mo.
Application April 16, 1957, Serial No. 653,142
2 Claims. (Cl. 4—146)



2. A composition shower receptor comprising a concrete base formed with an inclined upper surface inclined towards the center of said base, a water drain pipe disposed centrally of the base, an imperforate metal band rising from the base adjacent to the marginal edge of said base, the major portion of said band being exposed above said upper inclined surface of said concrete base providing a splash plate, the lower edge of said band being anchored in said base, and a layer of ceramic tile embedded in the upper surface of said base providing a floor surface.

2,836,831
WASH BASIN
Julius Hurwitz, Bayside, N. Y.
Application November 9, 1956, Serial No. 621,386
3 Claims. (Cl. 4—166)



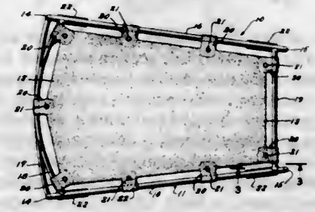
1. In a washstand and basin construction, a horizontal support plate having an opening, a wash basin including a dished body portion mounted in said opening, an outwardly directed circumferential flange on the body portion seated on the top surface of the support plate for supporting the basin in the opening, and a gasket engaged between the flange and said top surface, said basin being free of direct connections to said support plate, the gasket being of a resiliently compressible material and being adapted to compress responsive to the weight of the basin imposed upon the gasket on the basin in the opening, said flange being curved in cross section and being bowed upwardly, defining a downwardly opening groove in the underside of the flange, the gasket seating in said groove, said gasket, when in its uncompressed state, being of greater cross-sectional area than the groove for compression of the gasket between the flange and support plate under the weight of the basin, the inner diameter of the gasket being less than the diameter of said opening, for disposition of the inner peripheral portion of the gasket in the opening whereby, on extension of the basin downwardly through said opening, the inner peripheral portion of the gasket will be deformed downwardly into the opening to extend as a spacer between the wall of the opening and the body portion of the basin.

2,836,832
SWIMMING POOL
Norman F. De Namur, Berlin, Wis., assignor to Berlin Chapman Company, Berlin, Wis., a corporation of Wisconsin
Application October 24, 1955, Serial No. 542,136
6 Claims. (Cl. 4—172)



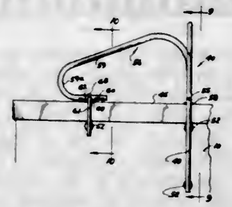
1. A watertight tank structure comprising, a plurality of metallic plates disposed in edge-abutting relation, a trough-shaped metallic joining member extending along and seated against the abutting edges of adjacent sheets, and means interconnecting said abutting edges and the base of said joining member immediately adjacent said abutting edges by fusion.

2,836,833
BABY BATH CRADLE
Elna A. Carlson, East Haven, Conn.
Application April 24, 1957, Serial No. 654,800
1 Claim. (Cl. 4—185)



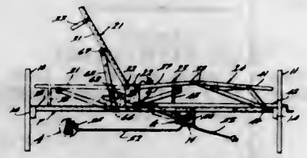
In a bath cradle for babies, a unitary substantially rectangular support frame having a pair of forwardly converging spaced longitudinal side bars and a pair of cross end spacer bars welded to the ends of said side bars, a flexible hammock secured in horizontal position to said side and end spacer bars, each side bar being welded at its ends to a downwardly extending open rectangular side frame member, a rear bottom spacer bar being welded at its ends to the rear bottom ends of said side frame members, said rear spacer bars being concave, and the upper rear spacer bar having a smaller radius of curvature than the lower rear spacer bar.

2,836,834
HAND RAILING FOR A BATHTUB
Garnet H. Tisdall, Detroit, Mich.
Application October 10, 1957, Serial No. 689,365
2 Claims. (Cl. 4—185)



1. In combination with a side wall of a bathtub, a railing consisting of a single length of elongated stock formed into a U-shaped standard including a looped top and two parallel legs disposed vertically and straddling the wall, a pad on one leg bearing against one side of the wall, adjustable clamp means mounted on the other leg and opposed to said pad and bearing against the opposite side of the wall, a transverse bar joining the two legs at a level above the top portion of the wall about one-half of the length of the standard including its looped end extending above the top of the wall of the bathtub, an inverted U-shaped member straddling said wall at a point spaced from said standard, the U-shaped member including two legs clamped to said wall, and a looped portion disposed on top thereof, and a tubular member at one end secured to the transverse bar of the standard and secured at the other end to the looped portion of the shaped member, said tubular member including a portion disposed in a spaced relation above the top of said wall.

2,836,835
INVALID BED
Richard A. Wright, Detroit, and Robert H. Williamson, Highland Park, Mich.
Application June 28, 1955, Serial No. 518,512
3 Claims. (Cl. 5—68)



1. In an invalid bed having a base frame and a mattress supporting spring frame section mounted thereabove and pivotally connected thereto for oscillatory movement between a position substantially parallel to said base frame to a position elevated thereabove, an electric motor mounted on said base frame, a crank arm drivingly connected to said motor and mounted for rotation about an axis extending transversely of and substantially parallel to said base frame, a lever pivotally connected to said base frame for oscillatory rotation about an axis extending transversely of said base frame, said lever having a free end portion thereof carrying a roller arranged for rolling engagement with said spring frame section to effect oscillatory movement thereof during oscillatory movement of said lever, and a link connected between said crank arm and said lever arranged to transmit continuous rotary motion of the crank arm into cyclic oscillatory movement of said lever to effect alternate, power operated, raising and lowering movement of the spring frame section.

2,836,836
CONTOUR MATTRESS
Robert Cohen, Denver, Colo.
Application March 4, 1955, Serial No. 492,087
4 Claims. (Cl. 5—351)



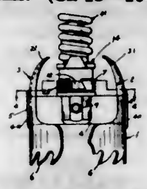
1. In a mattress of the type including an elongated supporting frame, a series of spaced slats extending transversely of the frame, a row of springs supported by each slat, and a pad resting on the tops of the springs, the improvement which comprises: the use of longer springs in those transverse rows which correspond to the portions of greater weight concentration in the human body, all of said springs being adapted to compress and form a substantially planar surface when supporting a human body.

2,836,837
TOOL FOR STRIPPING WIRE AND MAKING AN INSULATED WRAPPED CONNECTION
Emil Belek, New Hyde Park, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 29, 1954, Serial No. 478,456
3 Claims. (Cl. 7—14.1)



1. A wiring tool for making insulated wrapped wire connections on a terminal comprising a rotatable shaft including an intermediate flat portion, said shaft having a substantially axial terminal receiving opening and an integral sleeve extending beyond the end of said shaft, and an insulated wire receiving opening in said tool comprising conjointing longitudinal bores in said sleeve and said shaft, and insulation slitting edges defined by the intersection of said sleeve bore and the inner periphery of said sleeve extension.

2,836,838
SAW CUTTING TOOL FOR PIPE CLEANERS AND THE LIKE
Karl J. Kollmann, Erie, Pa.
Application April 21, 1952, Serial No. 283,473
4 Claims. (Cl. 15—104.09)



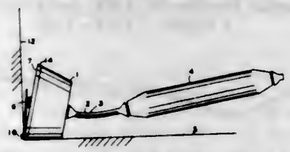
2. A cutting head for connection to a sewer snake comprising a cutting member, means to connect said cutting member to said snake, said cutting member operationally extending forwardly from said snake and generally defining a cylinder, said cylindrically shaped member having spaced cutting teeth on the edge thereof remotest from said connecting means, said teeth being disposed in an arcuate path, and spaced wings connected to said cutting member extending rearwardly therefrom and curving inwardly toward the axis of said cylinder, said wings adapted to engage the inside of a pipe to guide said cutting member through the pipe and to cut debris from a pipe when debris comes into engagement therewith.

2,836,839
FOUNTAIN TOOTHBRUSH
John Julian, Elizabeth, Pa.
Application June 5, 1956, Serial No. 589,407
1 Claim. (Cl. 15—137)



A fountain toothbrush comprising an elongated tubular handle for the reception of a dentifrice, said handle having a longitudinal groove therein and further having an air vent in one end portion communicating with the groove, a head on the other end of the handle, a plunger slidable in the handle for ejecting the dentifrice through said head, and an operating rod pivotally connected to the plunger and engageable snugly in the groove against the bottom thereof for frictionally securing said plunger in retracted position and for closing the vent.

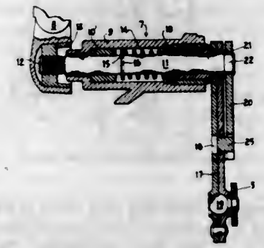
2,836,840
PAINT ROLLER MEANS
William J. Pratt, North Bellmore, N. Y.
Application September 27, 1956, Serial No. 612,483
5 Claims. (Cl. 15—230)



2. Paint roller means for edging comprising a handle shaft having a bend therein, a frusto-conical roller freely

mounted for rotation with its base adjacent one end of said shaft, a guide member fixedly connected to said one end of said shaft at an angle to the base of said roller, and a handle member freely mounted on said shaft.

2,836,841
WINDSHIELD CLEANER PARKING INSTALLATION
John R. Oishei, Buffalo, and William C. Riester, Eggertsville, N. Y., assignors to Trico Products Corporation, Buffalo, N. Y.
Application April 8, 1954, Serial No. 421,865
6 Claims. (Cl. 15—253)



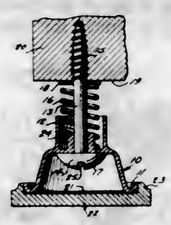
1. A windshield cleaning system for automotive vehicles comprising, a wiper, a transmission including a drive part and a driven part, said driven part being connected to the wiper for oscillation therewith as a unit, a clutch connecting said drive part and said driven part for movement in unison, actuating means connected to said drive part and operable to move the same back and forth across a definite path of operation, said actuating means being operable to arrest said drive part at an end of said path of operation, said clutch being operable to release said driven part for manual parking movement independently of said drive part and beyond such end of said path of operation, and clutch restoring means including stop means connected to one of said parts and engaging the other thereof to confine such manual parking movement of said driven part and cause said drive part to move said driven part back into said path for reclutching for continued operation when said actuating means again becomes operative.

2,836,842
FOLDING SHOE SHINE STANDS
Jack E. Brown, Brooklyn, N. Y.
Application October 8, 1956, Serial No. 614,435
2 Claims. (Cl. 15—265)



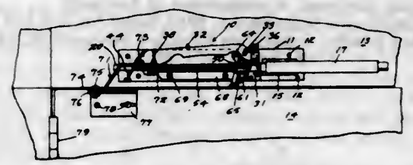
1. A folding shoe shine stand, consisting of a relatively flat rectangular box, and a member having a main center portion pivoted to one wall of the box and having two parallel legs, the center portion thereof having the same width of the walls of the box, whereby when the stand is not in use as a foot rest, the legs straddle the box and the main portion is adjacent to and covers its adjacent wall of the box, and when the center portion is swung to a position at right angles to the wall of the box, the wall of the box opposite to the wall to which the main portion of the straddling member is pivoted forms with the two legs a three legged support for the stand.

2,836,843
LEVELER
Edward J. Gallagher, Jr., Baltimore, Md.
Application May 7, 1956, Serial No. 583,033
3 Claims. (Cl. 16—44)



1. A leveler for objects comprising an inverted cup-shaped base having an upper flat end, an outer sleeve extended upwardly from said upper end, a stud with a threaded upper end extended through the upper end of the base and the sleeve, a head on said stud within said base and engaging the undersurface of said upper end to retain said stud in said base and a spring extended around the stud and positioned between the upper end of the base and the lower surface of an article of furniture into which the stud may be threaded.

2,836,844
MECHANICAL DOOR CHECK
Otto A. May, Albuquerque, N. Mex.
Application January 18, 1956, Serial No. 559,835
10 Claims. (Cl. 16—65)



1. A door check comprising a mounting plate adapted to be secured to a door frame, a rod, guide means supported by said plate in which said rod is slidably supported, said guide means including an inner end from which the rod projects, a clamp secured to said rod beyond the inner end of said guide means, an arm having one end swingably connected to said clamp, a bracket adapted to be secured to a hinged closure and to which the opposite end of said arm is pivotally connected at a point disposed parallel to and radially spaced from the axis of swinging movement of said closure, and a spring carried by said guide means for urging the rod to move relative to the guide means in a direction for displacing the clamp toward the guide means for exerting a pull on said arm and bracket for swinging the closure toward a closed position, a friction brake supported by said mounting plate and having a portion in direct contact with the rod and through which said rod slidably extends and including a movable upper part constituting a part of the brake portion through which the rod slidably extends, and means actuated by movement of the rod for applying said brake for resisting sliding movement of the rod.

2,836,845
TENDON PULLER
Roy H. Farchmin, Robert Donald Pitts, and Ervin F. Zuber, Cedar Rapids, Iowa, assignors to Pickwick Company, Cedar Rapids, Iowa, a corporation of Iowa
Application February 19, 1954, Serial No. 411,508
7 Claims. (Cl. 17—11.3)

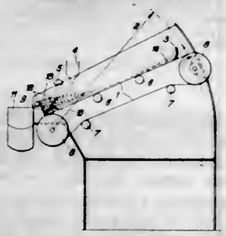
1. In a tendon puller having a main frame and a table for supporting a fowl during the pulling operation, a

pulling frame pivotally engaged at one end to the main frame and means operatively positioned between the main frame and the pulling frame for causing the pulling frame to be forced away from the main frame in an arcuate movement, a fixed plate on the main frame having a notch for gripping a leg of the fowl and a second gripping plate having a notch for also engaging the leg



of the fowl at a spaced distance from the first engagement, the second gripping plate being pivotally engaged to the pulling frame on an axis transverse to the line of movement of the pulling frame whereby the movement of said pulling frame away from the main frame will cause the second gripping plate to tilt to first break the leg and on continued movement to pull the tendons.

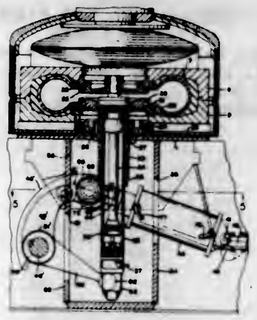
2,836,846
APPARATUS AND PROCESS FOR GRANULATING MATERIAL
Kurt Meyer, Frankfurt am Main, Germany, assignor to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany, a corporation of Germany
Application September 3, 1954, Serial No. 454,170
Claims priority, application Germany February 24, 1954
8 Claims. (Cl. 18—1)



1. An apparatus for forming finely divided materials into granules comprising an endless band, means for mounting said band with the upper reach thereof lying in an upwardly inclined plane for forming an upwardly moving granulating surface on the upper reach of said band upon which finely divided material is granulated while moving downwardly thereon, means for depositing finely divided material upon said band, and means for moistening said material, the depositing and moistening means, respectively, both being mounted above the lower portion of the upper reach of said band.

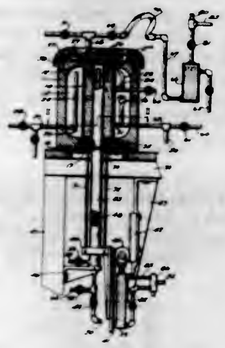
2,836,847
TIRE LIFTING MECHANISM FOR DUAL VULCANIZING PRESSES
Leslie E. Soderquist, Silver Lake, Ohio, assignor to The McNeil Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application July 24, 1957, Serial No. 673,920

12. In a press for curing two tires in side-by-side relationship in sectional molds comprising a lower mold section for each tire, and vertically movable lifting elements extending through said lower mold sections for supporting the tires, improved mechanism for elevating said lifting elements to strip the cured tires from their lower mold sections, said mechanism including a pair of parallel lever arms operatively connected at one end one to each lifting element, a transverse compensating shaft having its ends movably connected to the other ends of said lever arms and an enlarged spherically curved central portion, and



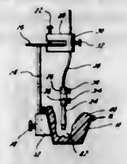
a thrust element for actuating said lever arms, said thrust element having a transverse bore surrounding said shaft, the central part of the bore journaling the spherically curved portion of the shaft and the remaining part of said bore being radially spaced from the shaft to allow limited tilting movement of the shaft.

2,836,848
METHOD AND APPARATUS FOR FORMING CALCIUM SILICATE PRODUCTS
Harold F. Zink, William C. Taylor, and Clarence D. Pawlicki, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application March 27, 1953, Serial No. 345,066
22 Claims. (Cl. 18—5)



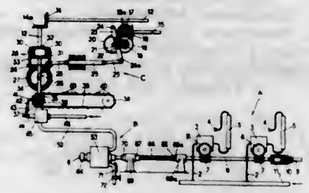
12. In a device for forming a reacted and integrated product from a molding material the combination of a steam chambered mold having a material molding chamber therein, a cover for said molding chamber forming with said molding chamber a pressure chamber above and cooperating with the molding chamber, means associated with said pressure chamber for admitting fluid under pressure into said pressure chamber to impose fluid pressure on an exposed surface of the molding material in said molding chamber and for relieving said fluid pressure, means to lock said mold and cover in cooperative relationship, means to supply heating and cooling media alternately to said steam chambered mold, and means operable to fill said molding chamber with said material and thereafter eject the formed product therefrom.

2,836,849
DENTAL APPARATUS
Lysle H. Humphrey, Houston, Tex.
Application March 25, 1955, Serial No. 496,792
5 Claims. (Cl. 18—5.7)



1. Apparatus for making a die from a prepared tooth impression from a mold disposed in a dental impression tray comprising, a frame including a guide member spaced from and generally coextensive with at least a portion of the dental tray, means for detachably locking the frame to the dental impression tray, adjustable clamp means movably disposed on the guide member, a flexible member secured to said clamp means extending downwardly toward said prepared tooth impression, said flexible member being adjustable lengthwise and angularly with respect to the prepared tooth impression, and means at the lower end of the flexible member for detachably locking a dowel pin thereto whereby said dowel pin is supported by said dental tray in adjusted position with respect to said prepared tooth impression.

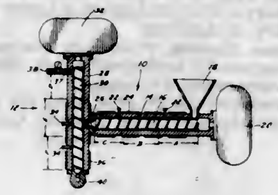
2,836,850
APPARATUS FOR PRODUCTION OF ARTIFICIAL FILAMENTS OF RANDOMLY VARYING DENIER
Henri Joseph Marie Emile Edmond Lindemann, Coquelles, France, assignor to Societe Anonyme dite: "Les Filés de Calais," Paris, France, a corporation of France
Application July 13, 1953, Serial No. 367,660
Claims priority, application France July 17, 1952
17 Claims. (Cl. 18—8)



1. A spinning machine for the production of artificial filaments of varying denier from a spinning solution, said machine comprising at least one spinneret, an individual spinning pump for delivering spinning solution to each spinneret, a toothed wheel for driving each pump, a single common drive shaft, worm gearing mounted on said shaft for driving each toothed wheel, and means for randomly reciprocating said drive shaft and worm gearing axially lengthwise, thereby varying the speed at which said drive shaft drives the pump and consequently the rate of flow of the spinning solution and the diameter of the filament spun.

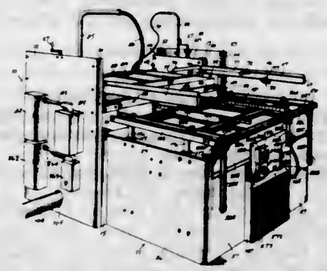
2. A spinning machine as claimed in claim 1 in which said means for randomly moving said shaft and worm gearing lengthwise comprises differential gearing constituted by coaxial driving and driven bevel gears and an idler gear transmitting the motion of the former to the latter, means for periodically varying the angular position of said idler with respect to the axis of said driving and driven gears and thereby varying the speed at which said driven gear is rotated, an endless belt driven from said driven gear, said belt being provided with irregularly spaced projections, and hydraulic means for axially shifting said shaft, in which said hydraulic means is controlled by actuating means positioned adjacent the path of travel of said endless belt, said actuating means being engaged by said projections successively as they pass thereby, and the time required for said belt to complete a single cycle is a prime number with respect to the period of said driven gear.

2,836,851
APPARATUS FOR EXTRUSION
John E. Holt, Danielson, Conn., assignor to The Danielson Manufacturing Company, Danielson, Conn., a corporation of Rhode Island
Application September 9, 1955, Serial No. 533,424
6 Claims. (Cl. 18—12)



1. Apparatus for extruding non-dehydrated plastic comprising a first and second cylinder, each having therein an extruder screw, means for heating each of said cylinders and for rotating said screws, said screws each having a feed zone, a pressure zone and a metering zone, means for feeding plastic to said first cylinder feed zone, each cylinder further having a restricted delivery head located just after and adjacent to its respective metering zone, said second cylinder having a pressure release valve therein located adjacent its feed zone, and a passage connecting said first cylinder delivery head to said second cylinder, said passage leading directly to said second cylinder pressure zone.

2,836,852
VACUUM MOLDING MACHINE
Robert L. Butzko, Bridgeport, Conn., assignor to Auto-Vac Company, Bridgeport, Conn., a partnership
Application March 8, 1954, Serial No. 414,653
14 Claims. (Cl. 18—19)



2. In a vacuum molding machine, a vacuum table part including a top plate having a vacuum opening and adapted to support a vacuum mold in sealed relation over said vacuum opening, a material holding frame for holding a thermoplastic sheet to be molded in sealed relation to said mold, a vertically movable raising and lowering frame support for said frame, and frame actuating means for raising and lowering said frame support to and from respective raised and lowered positions relative to said top plate, said frame actuating

means including a toggle leverage comprising a crank lever and a link which in the lowered position of said frame are in a substantially vertical line.

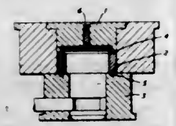
5. A rectangular material holding frame for holding a thermoplastic sheet to be molded, comprising a base frame part and a clamp frame part pivoted to said base frame part, each including a pair of spaced parallel inner and outer longitudinal bars, a pair of spaced transverse bars, means adjustably securing said longitudinal and transverse bars at their corner intersections, and a pair of transverse end bars adjustably connected to the ends of said longitudinal bars for transverse adjustment of said longitudinal bars.

2,836,853

MOLD FOR THE MANUFACTURE OF ARTIFICIAL THERMOPLASTIC BEARING CAGES FOR ANTI-FRICTION BEARINGS

Kurt Altmann, Herford, Westphalia, Germany, assignor to Durkoppwerke Aktiengesellschaft, Bielefeld, Germany, a corporation of Germany

Application March 29, 1954, Serial No. 419,546
Claims priority, application Germany April 2, 1953
3 Claims. (Cl. 18—34)



1. In a mould for forming a plastic cage for needle bearings, a first mould section having one surface provided with an annular groove therein, a second mould section having a surface provided with an annular groove, the grooved surfaces of said first and second mould sections being disposed in opposed relation, a destructible mould member disposed between said first and second mould sections and having its opposite ends engaged thereby, said destructible mould member having a series of annularly arranged, circumferentially spaced, parallel cavities therein with said cavities extending axially of said destructible mould member and opening upon the opposite ends thereof, the opposite sides of each cavity being concave, means for locating said destructible mould member between said first and second mould sections such that the opposite ends of said cavities communicate and register with said annular grooves, and one of said mould sections having a sprue passageway therein communicating with the corresponding annular groove therein.

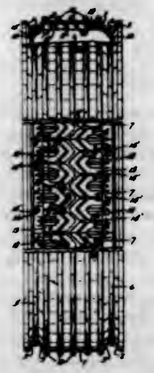
2,836,854

TIRE RETREADING MOLD

Earle W. Hawkinson, Minneapolis, Minn., assignor to Paul E. Hawkinson Company, Minneapolis, Minn., a corporation of Minnesota

Application November 7, 1955, Serial No. 545,295
2 Claims. (Cl. 18—44)

1. In a device of the class described, an endless annular substantially cylindrical sheet metal mold having generally radially inwardly projecting circumferentially extending tread material confining flanges adjacent the opposite marginal edges thereof, each of said flanges having inner walls flaring axially outwardly and radially inwardly from the respective marginal edge, a plurality of circumferentially arcuate generally rectangular matrix sections disposed around the interior of said mold intermediate the inner walls of the flanges with adjacent circumferential ends thereof being in abutting relationship to define a circumferentially continuous annular tread forming surface, a plurality of circumferentially arcuate segmental matrix members disposed radially inwardly and axially outwardly around the interior of each inner wall of the flanges with adjacent circumferential ends thereof being in abutting relationship to define axially spaced circumferentially continuous annular shoulder forming surfaces, the adjacent annular sides of said matrix sections and members being in abutting relationship to define a circumferentially continuous annular mold cavity of U-shape in cross-section, each of said



matrix members having an axially inwardly projecting tongue-like portion which overlies the adjacent annular side portion of the respective matrix section with the radially inner edge portions thereof forming a continuous extension axially outwardly and radially inwardly of the respective inner wall of the flanges, and means securing the matrix sections and elements to the mold including means passing through the tongue-like portions and the respective matrix sections.

2,836,855

TIRE RETREADING MOLD

Earle W. Hawkinson, Minneapolis, Minn., assignor to Paul E. Hawkinson Company, Minneapolis, Minn., a corporation of Minnesota

Application October 5, 1954, Serial No. 460,407
2 Claims. (Cl. 18—44)



1. In a device of the class described, an endless annular sheet metal mold having generally radially inwardly projecting axially outwardly diverging circumferentially extending tread material confirming flanges adjacent the marginal edges thereof and a substantially axially flat bottom portion intermediate the tread material confining flanges, a substantially axially flat endless annular matrix member in engagement with and substantially axially and circumferentially co-extensive with the bottom portion of the mold, a plurality of segmental matrix sections extending circumferentially and axially over the entire inner surface of each tread material confining flange with the adjacent axially extending edge portions thereof being in abutting relationship and the circumferentially extending axial inner edge portions thereof being in overlying engagement with the adjacent marginal edge portion of the matrix member to prevent flowage of rubber stock between the mold and the matrix member and means securing said segmental matrix sections to the respective tread material confining flange to retain the segmental matrix sections in said overlying engagement and clamp said matrix member in said engagement with the mold.

2,836,856

SEED COTTON CLEANER

Gerald N. Franks, Greenville, Miss.

Application August 24, 1955, Serial No. 530,431
2 Claims. (Cl. 19—67)
(Granted under Title 35, U. S. Code (1952), sec. 266)



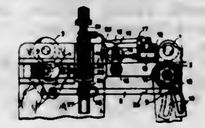
1. A seed cotton cleaner comprising a casing, an inlet at the top of the casing through which harvested seed cotton containing sticks and stems is intrduced into the cleaner, feed means for regulating the speed of feeding the seed cotton, a horizontal rotatable, extracting cylinder in the casing having peripheral teeth, a grid bar assembly having horizontal spaced bars positioned along one side of the extracting cylinder, the direction of rotation of the extracting cylinder being such that the teeth move downwardly past the grid bars, a plate leading from below the feed means to the top of the grid bar assembly so that the seed cotton is received on the top portion of the extracting cylinder, the construction and arrangement being such that sticks and stems are centrifugally impelled through the grid bar assembly and the cleaned seed cotton is carried by the extracting cylinder on past the grid bar assembly, a doffer for removing the cleaned seed cotton from the extracting cylinder, and a partition extending below the extracting cylinder and doffer along one side of which the cleaned seed cotton falls and the other side of which the sticks and stems fall.

2,836,857

DEVICE FOR ADJUSTING THE GAUGE, THICKNESS OR CROSS-SECTION OF A SLIVER IN SPINNING MACHINES

Federico Calzone, Bostone, Italy

Application July 18, 1955, Serial No. 522,779
Claims priority, application Italy July 22, 1954
4 Claims. (Cl. 19—70)



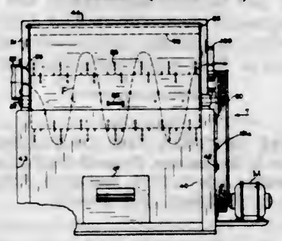
1. A sliver gauge adjusting device for spinning machines comprising a pair of drawing cylinders, a pair of feeding cylinders, and a pair of sliver gauging cylinders arranged intermediate of the said first mentioned pairs of cylinders, each of said pairs of cylinders having a lower cylinder and an upper cylinder superimposed thereupon, all cylinders having their axes arranged horizontally and parallel to each other, the lower cylinders of each pair being tangent to a common horizontal plane arranged above them, the upper cylinder of said pair of sliver gauging cylinders being a bodily movable cylinder, means for transmitting rotation from the lower drawing cylinder to the lower feeding cylinder, said means including a pair of alternately movable horizontally arranged connecting rods receiving alternating movement from the lower drawing cylinder and each operatively connected to the outer member of a one-way clutch having its inner member pivoted to one end of said lower feeding cylinder for producing alternate angular movements thereof, and means responsive to the bodily movements of the said upper sliver gauging cylinder for producing the inclination of said rod and for varying thereby the rate of the transmission between said lower drawing and feeding cylinders.

2,836,858

MACHINE FOR OPENING AND CLEANING TEXTILE FIBERS

Zoltan Szaloki, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application November 2, 1954, Serial No. 466,250
4 Claims. (Cl. 19—91)



1. In an opening and cleaning machine for textile fibers having two parallel beater cylinders both rotating in the same direction, the features that the beater cylinders each have a plurality of beater pins, the ends of which clear each other as the cylinders rotate but move in adjacent paths and in opposite directions through their adjacent area, and that a deflector plate is provided extending parallel to said cylinders and above one cylinder, and that means is provided to angularly adjust said deflector plate to selectively direct the fibers downward between said cylinders or over the second cylinder.

2,836,859

CEILING STRUCTURE

Joseph J. Crissey, Fort Lauderdale, Fla.

Application August 4, 1955, Serial No. 526,468
1 Claim. (Cl. 20—1)



A permanent ceiling structure comprising spaced, parallel wooden joists, elongated precast panels of heat insulating material and of arcuate cross section mounted longitudinally between the joists and having their longitudinal marginal portions in side-abutting engagement therewith, nails penetrating the panels and entering the joists, channel bars secured longitudinally to the lower edges of the joists and engaged beneath the longitudinal edges of the panels, said channel bars including upstanding side flanges spaced from the joists and receiving the panels therebetween, and a roof mounted on the joists in spaced relation to the panels.

2,836,860

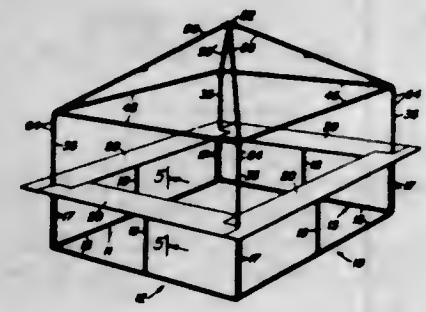
KNOCKDOWN STAND

Jeromé A. Staropoli, Rochester, N. Y., assignor of one-half to Frank G. Staropoli, Rochester, N. Y.

Application October 24, 1956, Serial No. 618,048
12 Claims. (Cl. 20—1.6)

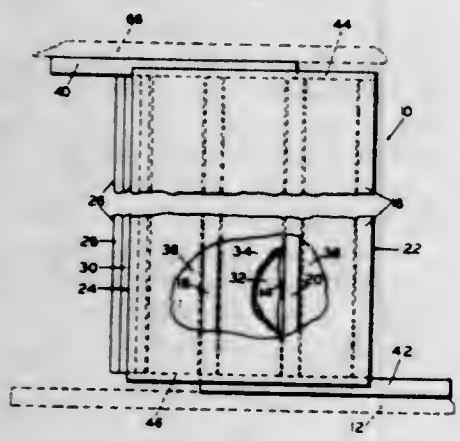
1. A demountable stand structure comprising a plurality of base sections formed to interlock detachably

to form a continuous enclosure, each section including a shelf portion hinged thereon along a longitudinal central axis of said shelf to be supported on said section parallel



thereto when said sections are detached and each shelf portion having means thereon to interlock detachably with the shelf portions on adjacent sections when said sections are interlocked to form a horizontal shelf surface.

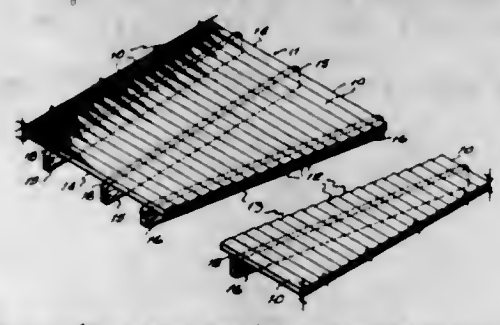
2,836,861
WALL SECTION FOR DWELLING
Ernest A. Rethmeier, Council Bluffs, Iowa
Application July 7, 1955, Serial No. 520,538
5 Claims. (Cl. 20—4)



1. A preformed wall section comprising spaced apart, confronting inner and outer facing panels of coextensive width and height, spaced apart, parallel studs interposed vertically between the panels and to which the panels are fixed, said studs being spaced below and above the upper and the lower end edges of the panels to define top and bottom grooves in the wall section between the panels, wall stringers fixed in said grooves and extending partially above and below the top and bottom edges of the panels, said wall section having opposing sides, one of said wall stringers being spaced from one side and projecting laterally beyond the other side and the other wall stringer being spaced from the other side and projecting laterally beyond the one side whereby said wall stringers form an interlocking means for coupling the wall section to adjoining like wall sections.

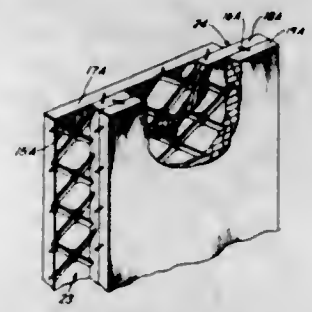
2,836,862
PORTABLE FLOOR CONSTRUCTION
Joseph F. Jones, Fort Worth, Tex., assignor to S. M. Lawson, Jr., Fort Worth, Tex.
Application January 23, 1953, Serial No. 332,891
4 Claims. (Cl. 20—6)

2. In a portable floor, a prefabricated section comprising a series of parallel spaced joists and an angularly arranged joist on each end of the series of said parallel joists, a series of juxtaposed flooring strips secured to said joists, each being extended on one end of said section beyond its adjacent strip defining a substantially serrated pattern, a plurality of marginal members abutting the ends of said joists, and a cable connecting said



marginal members and having means for tensioning the said flooring strips in longitudinal association.

2,836,863
PANEL STRUCTURES
Charles T. Denker, Chicago, Ill.
Application April 13, 1953, Serial No. 348,174
4 Claims. (Cl. 20—91)



4. A structural panel member for building and like purposes comprising a first relatively thick, rigid plywood panel including at least two wood plys bonded to each other; a second similar plywood panel; a sheet of expanded metal, comprising a network of metal elements intersecting in a regular pattern and each affording cutting edges extending outwardly from both sides of said sheet, pressed between said two plywood panels with said cutting edges of said expanded metal embedded in adjacent faces of said panels to interlock said panels with said sheet of expanded metal and with each other; and adhesive material, disposed between said panels and substantially filling the interstices in said expanded metal, for bonding said panels and said expanded metal to each other.

2,836,864
CENTRIFUGAL CASTING DEVICE
Alexandre Biganzoli, Fumel, France, assignor to Compagnie de Pont-A-Mousson, Nancy, France, a French body corporate
Application June 13, 1957, Serial No. 665,461
Claims priority, application France June 16, 1956
9 Claims. (Cl. 22—65)

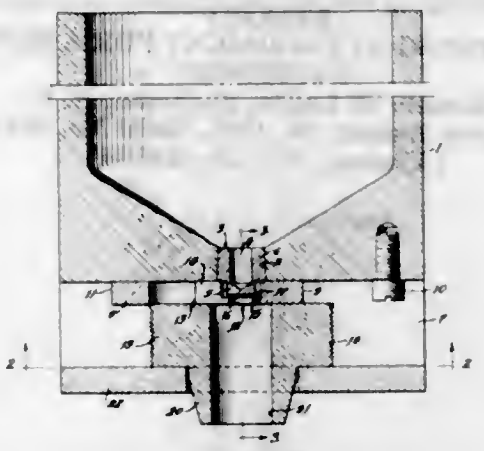


1. A device for centrifugal casting comprising a sleeve, a shell disposed in said sleeve and constituting a mould whose outside diameter is less than the inside diameter of said sleeve so as to provide an annular space between said sleeve and said shell over substantially the whole of their length, and a plurality of elastic collars disposed in spaced relation along said shell in said annular space for maintaining said shell in coaxial relation to said sleeve, each of said collars being formed of a helical spring which is bent in the form of a ring around said shell, the two ends of the spring being interconnected and the coils of the spring being in non-abutting relation to one another.

2,836,865
CRUCIBLE POUR MECHANISM

Roy F. Bravard, Cincinnati, and James W. Mahaffey and McDonald S. Nelson, Harrison, Ohio, assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application February 9, 1956, Serial No. 564,594
4 Claims. (Cl. 22—84)

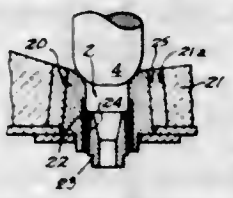


1. The combination with a crucible having a hole in its bottom of a stopper composed of a nozzle portion positioned in the hole, a cap protruding from the bottom and a frangible section between the cap and the nozzle portion, and a slide mounted at the bottom so as to be shiftable therealong, said slide having a first aperture into which the cap normally protrudes, and a second aperture spaced from the first aperture in the direction of shifting, said first and second apertures being joined by a slot extending through the slide, said slot being narrower than the exterior diameter of the cap, whereby movement of the slide breaks the stopper at the frangible section permitting the molten metal to pour through the second aperture or the slot of said slide.

2,836,866
POURING LADLE FOR METALS

Gordon L. McMillin, St. Louis, Mo., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware

Application May 13, 1954, Serial No. 429,546
1 Claim. (Cl. 22—85)



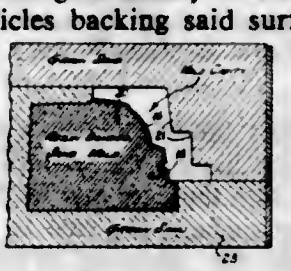
A pouring ladle for molten metal having a bottom wall and a discharge nozzle both of coarse, refractory material, there being an interior bushing of relatively dense graphite lining the nozzle and having a downwardly flaring inner periphery, and a separate reducer nozzle inserted within the bushing and having an upwardly and inwardly tapering exterior periphery secured to the bushing solely by cement.

2,836,867
PROCESS OF MAKING MOLD

Xarifa L. Bean, Yellow Springs, Ohio, assignor to Morris Bean & Company, Yellow Springs, Ohio, a corporation of Ohio

Application December 4, 1950, Serial No. 199,006
10 Claims. (Cl. 22—193)

1. The process of casting molten materials which comprises making of a tough resiliently flexible material a flexible pattern mold with surface corresponding to the desired surface of the casting mold, molding on said surface a settable plaster slurry of such composition that when set it will form a substantially rigid pattern which is strong and dimensionally stable at room temperature but which becomes disintegrable when baked at the setting temperature of the resin hereinafter referred to, removing the set pattern from said pattern mold, forming on the surfaces of individual grains of sand a thin dry non-adhesive coat of binder which is adapted to securely bond contacting grains at a temperature below that at which the plaster pattern is weakened, to retain the bond above said temperature and to decompose at a metal-casting temperature, applying said coated sand to the surface of said pattern, finer particles thereof being in contact with said surface to give fidelity of surface reproduction and coarser particles backing said surface layer to give

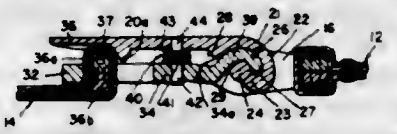


desired structural strength with required permeability, heating the pattern with said applied sand until the binder on the sand is bonded at the contact points, and heating further until the plaster of the pattern is substantially dehydrated, whereby it is weakened for disintegration and removal, disintegrating the pattern and removing it from the resulting bonded sand mold, assembling the resulting bonded sand mold with other mold parts to form a mold, casting molten material therein at a temperature at which its sensible heat raises the mold, to a substantial depth from its surface, above the decomposition temperature of the set binder; and, after solidification of the casting, removing the at least partly decomposed casting mold therefrom.

2,836,868
SAFETY STRAP BUCKLE

Jesse B. Carter, Pittsford, N. Y., assignor to Hickok Manufacturing Co. Inc., Rochester, N. Y., a corporation of New York

Application December 5, 1955, Serial No. 550,912
10 Claims. (Cl. 24—77)



1. A buckle comprising a first part and a second part, said first part embodying a substantially U-shaped yoke having side arms and a cross connecting bar, an elongate substantially flat tongue including a tail portion, said tail portion terminating in a curved underturned lip and flange forming a keeper slot, said underturned lip and flange being positioned between said arms, means pivotally connecting the lip at its ends to the arms for facilitating turning of the tongue between the arms from an open position to a closed position, the keeper slot being disposed to open outwardly when the tongue is in open position, said second part embodying a plate having means for effecting attachment of a belt end thereto and a keeper jaw of a form to enter into the keeper slot by the turning of the tongue from open to closed position after placing the jaw in a prescribed position relative to the open tongue.

2,836,869
BUTTONS

Michael Adinolfi, Brooklyn, N. Y.

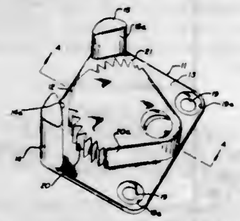
Application April 8, 1957, Serial No. 651,329
2 Claims. (Cl. 24—113)

2. A button comprising a dished cap including a peripheral series of teeth, a flexible cover piece for the cap

extending over the teeth, and a clamping disc seated in the cap and including means to attach the same to a garment, said teeth projecting radially inwardly of the cap in overlying relation to the periphery of the disc, the cap having a body of concavo-convex formation to impart the dished shape to the cap, said cap being formed, at the periphery of the body, with a continuous flange on which said teeth are formed, the clamping disc having a circumferential lip adapted to engage against the inner surface of the flange, the clamping disc being so formed as to snap into the cap, and including a peripherally extending cam surface disposed to temporarily bias the teeth outwardly for snapping of the clamping disc into the cap, said teeth being bent about the lip of the disc to lock the disc within the cap after snapping of the disc into the cap.



2,836,870
CAM CLEAT
Philip B. Shea, Akron, Ohio
Application May 13, 1954, Serial No. 429,500
4 Claims. (Cl. 24—134)



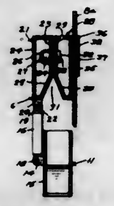
1. A line clamping device of the character described comprising; a pair of spaced lug members, each provided with a line engaging surface; a cam member having an arcuate base portion and being eccentrically pivoted about the apex thereof, whereby said arcuate portion thereof is pivotally disposed between said lug members; a pair of arcuately spaced line engaging surfaces provided on said arcuate portion of said cam member; and resilient means operable upon said cam member to centrally position said spaced line engaging surfaces thereof with respect to said respective line engaging surfaces of said lug member; said line engaging surfaces of said cam being located substantially equidistant from said pivot point, whereby selective movement of said cam member about said pivot point will decrease the distance between one line engaging surface of said cam member and one line engaging surface of said lug member.

2,836,871
BELT BUCKLE
Sidney Williams, Brooklyn, N. Y.
Application January 28, 1958, Serial No. 711,702
2 Claims. (Cl. 24—170)



1. A buckle of the character described comprising a rectangular frame having a central cross bar, a belt having one end passing around said cross bar, and held by a rivet, a leaf fastened to said belt by said rivet and extending forwardly and outwardly at an angle from said belt, said leaf being of a length to extend substantially to the inner edges of the buckle frame, whereby when the free end of the belt is inserted through said buckle the outer end of said leaf will lock the belt against the inner side of the outer bar of the frame.

2,836,872
RETAINING ATTACHMENT FOR A SLIDE FASTENER
Theodore Di Luglio, Rochester, N. Y.
Application January 30, 1956, Serial No. 562,101
2 Claims. (Cl. 24—205.11)

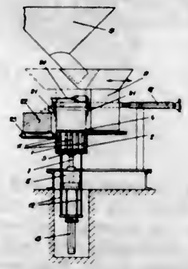


1. A slide fastener retainer comprising an anchoring member, means adapted to detachably secure said anchoring member to a supporting piece of material, an elongated tab, means adapted to swingably connect an inner end of said tab to the slider of a slide fastener for swinging movement of the tab relative to the slider in a direction longitudinally of said slider and slide fastener, said anchoring member being disposed in a position relative to the slide fastener such that an outer free end portion of the tab may assume a position in overlying relation to said anchoring member when the slider is disposed to retain the slide fastener in a fully closed position, and connecting means having portions carried by said anchoring member and by said outer portion of the tab for detachably connecting the tab to the anchoring member to retain the slider against movement toward an open position of the slide fastener, said connecting means comprising separable portions of a resilient snap fastener including a resilient socket portion carried by the outer tab portion and opening through an inner side thereof toward the anchoring member, a male portion supported by the anchoring member and projecting from an outer side thereof, said tab including a knee joint disposed intermediate of the ends thereof and between the portion of the tab containing the socket and the swingably connected end of the tab, the parts of the tab, between which the knee joint is disposed, each comprising a rigid element, said outer tab portion comprising an outer section, the opposed sides of said outer tab section and of said anchoring member including inclined portions disposed in opposed relation to one another and defining a recess between the ends of said outer tab section and of said anchoring member located adjacent the knee joint and between the connecting means and the slider, and said ends of the anchoring member and outer tab section being adapted to be squeezed and rocked toward one another for disengaging the separable snap fastener sections from one another.

2,836,873
AUTOMATIC PRESS FOR THE PRESSING OF LARGE-SIZED STONES FROM GRANULAR MATERIAL
Hans Lingl, Neu-Ulm, Germany
Application August 11, 1955, Serial No. 527,791
4 Claims. (Cl. 25—45)

1. In a press for the manufacture of molded bodies of solid compressible material; a mold for said bodies comprising a movable bottom and cover, a first mold

half having two ends, a first bearing support, said first mold half being rotatably mounted at one end thereof upon said first bearing support, a second mold half having two ends, a second bearing support, said second mold half being rotatably mounted at one end thereof upon said second support, said first and second mold halves having an open, separated position and a closed position in which they conjoin to form the side walls of said mold, a first cylinder connected to said first mold half intermediate said ends thereof, a piston rod in said first cylinder connected to the other end of said second mold half, a second cylinder connected to said second mold half intermediate the ends thereof, and a piston rod in said second cylinder connected to the other end of said first mold half, said bearing supports being positioned at diagonally opposite locations along said mold side walls, whereby said mold halves may be simultaneously rotated about their respective bearing supports between said open and closed positions by the operation of said piston rods, respectively.

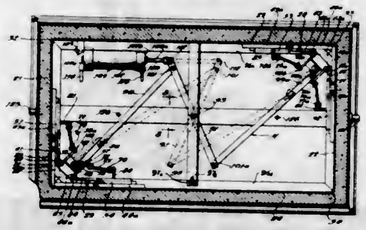


2,836,874
PAPER TUBE CONCRETE FORM
Blanding D. Clarkson, Hartsville, S. C., assignor to Sonoco Products Company, a corporation of South Carolina
Application October 12, 1955, Serial No. 540,116
2 Claims. (Cl. 25—118)



1. A form for molding circular concrete columns and the like, said form comprising a multi-ply, spirally wound, circular paper tube of sufficient strength and rigidity to support a column of concrete poured therein, the innermost ply of said paper tube being spirally wound with a butt joint and having a liner coating applied thereon that is resistant to the abrasive action of the concrete during pouring and that covers all protruding fibers of said ply so as to prevent the embedding of said fibers in the poured concrete during setting, said liner coating being perforated uniformly with fine, closely spaced, perforations small enough to prevent release of any of said protruding innermost ply fibers from the covering afforded by said coating, but large enough to allow transfer therethrough of moisture initially from the poured concrete for obtaining a swelling in the structure of said paper tube during the initial setting of the concrete by which subsequent adhesion of said paper tube to the concrete after setting is eliminated, and an intermediate ply of said paper tube being spirally wound with an overlapping joint and being waterproofed to prevent penetration of said moisture outwardly through the structure of said paper tube beyond said intermediate ply.

2,836,875
CORE FORMS
Wesley Miles Chandler and Paul Fred Heuser, St. Paul, Minn., assignors to Wilbert W. Haase Co., Forest Park, Ill., a corporation of Illinois
Application October 14, 1955, Serial No. 540,382
6 Claims. (Cl. 25—128)



1. A core for use in forms for molding burial vaults, and the like, comprising two pairs of oppositely disposed corner sections disposed in abutting relationship with respect to each other, said pairs of corner sections being movable vertically and horizontally relative to each other, means pivotally mounted in said corner sections of one of said pairs for swinging movement thereon through similar predetermined arcs, said means in each of said corner sections in said one pair being connected to each of said corner sections in the other of said pairs and being operable upon oscillation of said means through said arc to move said corner sections in said other pair vertically and horizontally relative to said corner sections in said one pair to expand and contract the core, and a driving member connected to said first mentioned means and operable to simultaneously swing said means in both said corner sections of said one pair through said arcs.

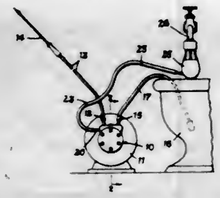
2,836,876
CONTAINER FOR HUMAN BODIES
Albert F. Ziegler, Concord, Mich.
Application September 9, 1954, Serial No. 454,869
1 Claim. (Cl. 27—6)



A casket liner and container comprising a sheet metal body having fluid tight sides and bottom, said sides being substantially vertical and having along their upper edges a flat inturned horizontally disposed peripheral flange, a fluid tight flat sheet metal top having a turned down peripheral outer edge to define a flat substantially vertical flange, an L-section sheet metal member having one leg attached to the under side of said top and the other leg spaced from said vertical flange and substantially parallel thereto to define a downwardly facing peripheral channel of a width to snuggly receive said peripheral flange, a relatively soft rubber sealer disposed in said channel, said peripheral flange being received in said channel to abut said sealer, screws disposed downwardly through said channel and sealer and engaging said peripheral flange to provide an air tight structure, handle straps attached to the outer surface of said sides of said body and extending

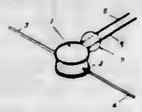
above said inturned peripheral flange, said straps being slightly off-set from said sides adjacent said inturned flange to provide clearance for said vertical flange of said channel upon telescoping of said peripheral flange within said channel, and handles hinged to the upper ends of said straps to overlie said top when out of use.

2,836,877
EMBALMING APPARATUS
William F. Hannahan, Springfield, Ohio, assignor to The Champion Company, Springfield, Ohio, a corporation of Ohio
Application November 22, 1954, Serial No. 470,413
2 Claims. (Cl. 27—24)



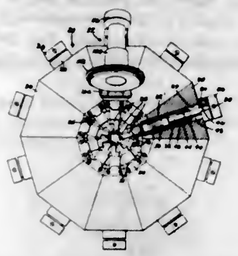
1. An aspirating system for embalming comprising a flexible vane type pump having an inlet and an outlet, drive means for said pump, a trocar, means connecting said inlet to said trocar to produce a suction therein for drawing body fluids through said pump for discharge through said outlet, a tube opening into said inlet for conducting packing fluid to said pump independently of aspirated fluid supplied through said trocar, a connector ring adapted to engage a water faucet, and a bowl supported beneath said ring in spaced relation thereto for receiving water from the faucet, said bowl having an outlet adjacent its bottom, means connecting said bowl outlet to said tube for supplying water thereto for mixture and discharge with said body fluids through said outlet, and means providing a restriction in the flow path between said bowl outlet and said pump inlet for maintaining said water supply at a rate less than the capacity of said pump to maintain effective suction on said inlet.

2,836,878
ELECTRIC DEVICES EMPLOYING SEMICONDUCTORS
Stanley Cardew Shepard, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application April 20, 1953, Serial No. 349,641
Claims priority, application Great Britain April 25, 1952
8 Claims. (Cl. 29—25.3)



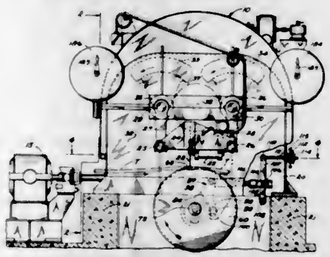
1. A method of making an electric semi-conductor device which comprises the steps of mounting a semi-conductor body on a metal plate, forming a metal wire loop whose area is of the same order as the area of the plate, mounting an electrode on the loop, arranging the plane of the loop substantially parallel to the plane of the plate, thereby forming a skeleton mould, the loop and plate being so spaced that the electrode comes into contact with the surface of the body, filling the skeleton mould with a liquid polymerisable insulating compound, and finally polymerising the said compound to form a solid mass in which the semi-conductor body and the electrode are embedded.

2,836,879
JIG FIXTURE
Zoltan Haydu, Plainfield, and Arthur E. Sutton, New Market, N. J., assignors, by mesne assignments, to Burroughs Corporation, a corporation of Michigan
Application November 28, 1955, Serial No. 549,250
16 Claims. (Cl. 29—25.19)



1. A jig fixture for positioning and assembling small components of a device to a common support comprising; holder means for the common support, a plurality of members radially projectable over said holder means to positions corresponding to the placement of the components on the common support, said members being adapted to support the components to be assembled in their proper positions, means overlying said members in their projected positions and adapted to force simultaneously all said components into secure engagement with the common support, and means for radially withdrawing said members from over said holder means to facilitate the removal of the assembled components and support.

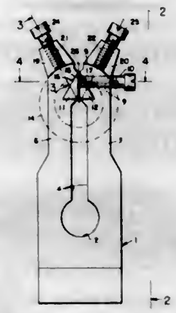
2,836,880
FLYING HOT SAW
William J. H. Chang, Youngstown, Ohio, assignor to The Aetna-Standard Engineering Company, Pittsburgh, Pa., a corporation of Ohio
Application October 5, 1954, Serial No. 460,393
8 Claims. (Cl. 29—69)



7. Apparatus for severing successive longitudinal sections from continuously moving elongated work such as pipe, tube, rod and the like comprising a motor driven rotary cutting tool, guides for directing the work in a normal path, a rotatable support for said cutting tool adapted to carry said tool in a circular orbital path approaching but not intersecting the normal path of the work, means for periodically causing the paths of the work and the cutting tool to intersect, a single source of power for driving said rotatable support at an average R. P. M. functional of the speed of the work, a drive train connecting said source of power to said rotatable support, and adjustable means incorporated in said drive train for increasing during one portion of the cycle and decreasing during another portion of the cycle the instantaneous angular velocity of said support and the instantaneous lineal speed of the cutting tool in its orbit without changing the average R. P. M. of said support or the path of the cutting tool, whereby the lineal speed

of said cutting tool in its orbit can be made substantially equal to the lineal speed of said work at the time said paths of said work and said cutting tool are caused to intersect.

2,836,881
METHOD OF MAKING TRANSDUCER CORES
William E. Pollock, Sun Valley, Calif., assignor to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application June 3, 1953, Serial No. 359,251
5 Claims. (Cl. 29—155.5)



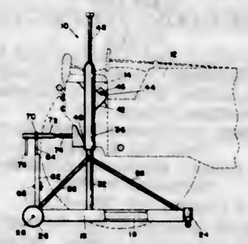
1. A method of producing a gap in a transducer core having a toroidal configuration such as a magnetic core, comprising the steps of grooving the core at a line along which the gap is to be produced and applying a stressing force on said core to separate the core at said line until the core fractures at said line, arresting the application of such stressing force at the instant of said fracture at said line whereby the core is prevented from breaking other than along said line, spreading the gap slightly and inserting a dimensioned shim in said gap, and releasing said stressing force.

2,836,882
VENETIAN BLIND RESTRINGER
Clarence Nokes, Washington, D. C.
Application May 28, 1956, Serial No. 587,891
1 Claim. (Cl. 29—241)



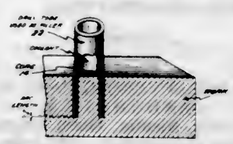
A Venetian blind restringing device comprising an elongated flexible elastic molded cylindrical body, a solid tapered end portion integrally formed on one end of said body, said body having an axial bore extending inwardly thereof from the end opposite said tapered end portion, said cylinderical body having an opening through the side thereof communicating with said bore, a relatively short length of ball chain having an end portion thereof molded into the tapered end portion of said body for connecting said body to an operator, and a pair of sharpened pins molded into the wall of said bore and extending at an angle into said bore toward said tapered end portion for engaging and securing a Venetian blind cord therein, said sharpened pins being molded into the wall of said bore on the side thereof opposite the opening in said cylindrical body communicating with said bore in aligned relation thereto.

2,836,883
DEVICE FOR REMOVING PARTS FROM A TRACTOR
Willis H. Puck, Manning, Iowa
Application September 24, 1956, Serial No. 611,531
2 Claims. (Cl. 29—288)



1. In a support, the combination which comprises a base including side and end bars, a supporting caster mounted on one of the end bars and positioned midway of the length thereof, wheels mounted at the ends of the end bar at the end of the base opposite to that on which the caster is positioned, tubular upright support members mounted on the side bars and spaced from the end of the base on which the wheels are positioned, the upper ends of the upright support members being closed, sleeves having threaded openings in upper ends thereof slidably mounted over the upright support members, bolts having flat sides on upper ends thereof threaded in the threaded openings in the upper ends of the sleeves and positioned to engage the closed upper ends of the upright support members whereby rotation of the bolts adjusts the positions of the sleeves vertically, means for preventing turning of the sleeves on the upright support members, braces for retaining the upright support members in vertical positions, an upright channel mounted on the intermediate part of the end bar at the ends of which the wheels are positioned, a rod adjustably mounted on the channel, and a sleeve having a handle on one end and splines for receiving an end of a power take-off shaft of a tractor in the opposite end rotatably mounted on the upper end of the rod, the sleeves slidably mounted on the upright support members having rock shaft arm supports with aligned V-shaped upper ends extended from intermediate parts thereof.

2,836,884
PRODUCTION OF HOLLOW METAL ARTICLES
Alexander Barbour Graham, Glasgow, Scotland, assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application April 22, 1955, Serial No. 503,343
Claims priority, application Great Britain April 29, 1954
3 Claims. (Cl. 29—423)



1. The method for producing a hollow metal article having at least one internal passage or cavity comprising electrically eroding a metal billet to provide therein at least one longitudinally located, annular, blind hole hav-

ing inner and outer walls defining a substantially concentric, integral core of billet metal, said electric erosion operation being performed while utilizing a preformed metal electrode sleeve; leaving said electrode sleeve in situ to thereby provide a filler material in said cored hole; hot working the resulting billet in a direction parallel to said filled, cored hole to change the cross section of said billet and said cored hole; and removing the filler material and core from each hole to provide a worked metal article having at least one passage or cavity therein.

2,836,885
METHOD OF MAKING CERAMIC-TO-METAL SEALS

Kenneth Angus Macdonald, Glasgow, and Edward John Whitmore, Edinburgh, Scotland, assignors to Ferranti Limited, Lancashire, England, a company of Great Britain and Northern Ireland

No Drawing. Application September 7, 1954
Serial No. 454,610
Claims priority, application Great Britain
September 9, 1953
6 Claims. (Cl. 29—472.9)

1. A method of forming a seal between an alumina ceramic member and a metal member including the steps of applying to the appropriate surface of the ceramic member a film of finely-divided interstitial metallic carbide material consisting of a mixture of a major portion of tungsten carbide and a minor portion of titanium carbide suspended in a liquid, the titanium carbide comprising at least 10% of said mixture, firing said film in an atmosphere containing hydrogen at a temperature such as to cause the formation on said surface of a strongly-adherent layer of the carbide material at least partially converted to metal by said atmosphere, forming on the surface of said layer a metallized surface adapted to be wetted by a brazing material, the metal of said metallized surface being selected from the group consisting of nickel, cobalt and iron, and brazing said metal member to said metallized surface.

2,836,886
ORANGE KNIFE

Ernesto C. Marulli, Holyoke, Mass.

Application June 14, 1957, Serial No. 665,856
1 Claim. (Cl. 30—24)



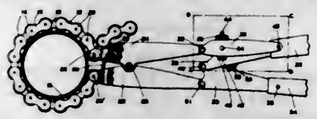
A knife for peeling and dismembering oranges and the like, comprising a singular and generally knife-blade shaped member, said member having a handle section at one end, a cutting side, an opposite non-cutting side, a cutting V-notch having two arms formed in the cutting side, the inner portion of the arms of the V-notch being formed as cutting edges, the outer portions of said arms being flared to form non-cutting edges.

2,836,887
CUTTER FOR SEVERING CAST IRON PIPE AND THE LIKE

Charles J. Wheeler, Mentor, Ohio, assignor to Wheeler Manufacturing Corporation, Ashtabula, Ohio, a corporation of Ohio

Application June 3, 1957, Serial No. 663,137
9 Claims. (Cl. 30—92)

1. A cutter comprising, in combination, a flexible, non-extensible, cutter chain and a pressure clamp to engage said chain about an article to be cut and to apply thereto, without rotation of said chain thereabout, radially-directed, article cutting pressure, at least one of

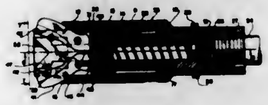


said clamp jaws carrying a projection outstanding toward the opposite jaw and subjacent cutters engaged by said jaws.

2,836,888
TOOLS FOR REMOVING THE COLLARS OF FASTENERS

James G. Hargrove, Northridge, Calif., assignor to Lockheed Aircraft Corporation, Burbank, Calif.

Application November 23, 1956, Serial No. 623,914
10 Claims. (Cl. 30—272)

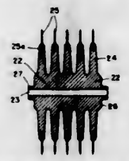


1. A tool for cutting the collar of a fastener comprising a shell having an open end, an internal cam face on said end, a mandrel in the shell, the shell and mandrel having a common longitudinal axis and being related for relative axial movement, cutters supported on the mandrel for pivotal movement about spaced axes spaced at opposite sides of said longitudinal axis and having spaced opposing inner cutting edges, the cutters having outer edges co-operating with said cam face upon relative movement between the shell and mandrel to pivot the blades in one direction and thus move the cutting edges toward one another, yielding means urging the blades to pivot in the other direction, and means associated with the mandrel for engaging with the collar to position the cutters in cutting relation thereto.

2,836,889
CUTTING ROLLER FOR CULINARY AND LIKE USES

Eric Joyet, Lausanne, Switzerland, and Hans Koch, Munich-Pasing, Germany, assignors to F. Ritter & Sohn, Munich-Pasing, Germany

Application February 20, 1956, Serial No. 566,729
Claims priority, application Germany March 17, 1955
3 Claims. (Cl. 30—307)



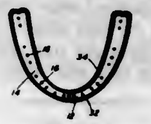
1. A cutting roller for culinary and like purposes comprising a rotatable hub and a plurality of metal blades, said hub being formed of a synthetic plastic material, and said blades consisting of sheet steel rings the depth of each of which is less than half the radius of the roller.

2,836,890
DENTURE

Donald E. Silvis, Glendale, Calif.

Application July 16, 1956, Serial No. 598,085
5 Claims. (Cl. 32—2)

1. A denture for attachment to a jaw comprising a bone plate adapted to be positioned on and affixed to a jaw bone and having a solid central portion with arcuate front and back perforated portions through which

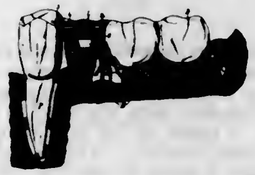


perforated portions gums are adapted to knit together, and teeth secured to said bone plate.

2,836,891
EXTENSION BRIDGE

Leo Schubert, deceased, late of Paris, France, by Rosa Schubert, nee Adler, legal representative, Paris, France, assignor to Rosa Schubert, nee Adler, Marcel Maurice Schubert, and Andree Paulette Schubert, sole heirs

Application September 13, 1955, Serial No. 535,211
Claims priority, application France September 14, 1954
3 Claims. (Cl. 32—5)

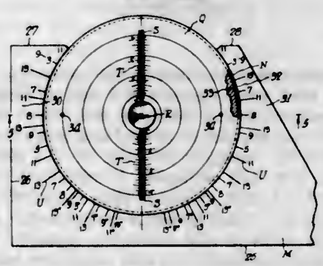


1. In an extension bridge for use in prosthetic dentistry, the combination of a saddle, a female member molded into said saddle and having an inner face which tapers toward the alveolar arch of the mouth, a male member having a shape and dimensions substantially complementary to those of the female member, said shape and dimensions being such that no wedging engagement can occur between the surfaces of said male and female members, a support rigid with fixing means permitting the fixing of this support to a support tooth in the mouth of the user and, furthermore, rigid with the male member, the latter being disposed in the female member so that its taper is in the same direction as that of said female member, an aperture provided transversely of the tapering male member, a retaining screw held stationary with respect to the female member and disposed transversely of the latter, this screw extending through said aperture and having its head housed in a recess formed in the saddle, and said aperture having such size in the vertical direction as to permit the screw a limited free upward and downward displacement therein.

2,836,892
UNIVERSAL CIRCLE DIVIDER

Stanley M. Nisenson, Brooklyn, N. Y.

Application September 21, 1955, Serial No. 535,547
1 Claim. (Cl. 33—1)

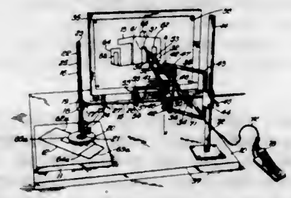


A universal circle divider for laying out sheet metal piping whereby a circle is divided into equal parts for projection lines for layout enabling cutting sheet metal comprising a clear plastic plate of trapezoidal shape with a bottom edge, a left side edge perpendicular to the bottom edge, an interrupted top edge perpendicular to the left side edge and a right oblique edge extending downwardly obliquely to the right, said plate having a circular recess with a peripherally projecting ridge, said recess projecting through and interrupting the top edge and the portions of the top edge adjacent the recess being bevelled inwardly obliquely so as to be perpendicular to the recess and a rotatable disk extending beyond said interrupted edge snapped into said recess and rotatable therein, having a peripheral groove to fit on and receive said ridge, said rotatable disk having diametrically oppositely positioned openings for insertion of a scriber and having diametrically opposite radially extending slots on each side of the center of the disk 90° away from said openings, the edges of the circular recess being graduated in degrees and the edges of the slots being graduated in inches, said disk having a central upwardly projecting handle to rotate the disk within the circular recess.

2,836,893
APPARATUS FOR MAKING PERSPECTIVE DRAWINGS

Robert A. Barnett, Germiston, Transvaal, Union of South Africa

Application September 19, 1956, Serial No. 610,865
Claims priority, application Union of South Africa
August 9, 1954
24 Claims. (Cl. 33—18)



1. A perspective drawing machine comprising a horizontal table, a vertical drawing board, an extensible tracing arm and an extensible drawing arm at right angles to one another in plan, a vertical column, a plinth supporting the column and standing movably on the table, means swivellably connecting an end of the tracing arm to the column and movable up and down the column, a tracing point provided by the plinth, a writing instrument mounted at one end of the drawing arm, a coupling rotatable about a vertical axis, connecting the drawing and tracing arms one above the other and constraining them against relative movement in the horizontal plane while permitting relative pivotal movement in vertical planes, a vertical post rigidly fixed to the table, means to support the coupling on the post at an adjustable height, and additional coupling means connecting the drawing and tracing arms, displaced in plan from the vertical axis of the coupling, spanning the vertical distance between them and comprising a universal joint.

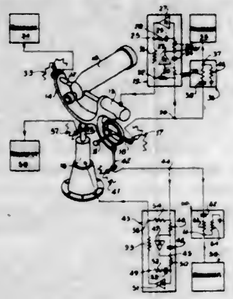
2,836,894
OPTICAL TRACKING RECORDING SYSTEM

Herbert A. Wagner, Thousand Oaks, Calif., assignor to H. A. Wagner Company, Van Nuys, Calif.

Application April 19, 1954, Serial No. 424,191
9 Claims. (Cl. 33—46)

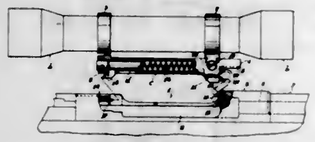
1. An optical tracking device comprising a tracking sighting means, means for moving the sighting means, an aided tracking control mechanism, a control stick, a mounting for said control stick, said control stick being manually adjustable on said mounting, means including

said aided tracking control mechanism for controlling said moving means responsive to the motion of the control stick, means for generating a signal responsive to the po-



sition of the sighting means, and means for simultaneously generating a signal responsive to the rate of motion of said control stick and recording means to record said signals.

2,836,895
TELESCOPIC SIGHT MOUNT FOR FIRE ARMS
Ernesto P. Dillon, Buenos Aires, Argentina
Application December 13, 1955, Serial No. 552,926
4 Claims. (Cl. 33—50)



1. Telescopic sight mount for fire-arms, comprising a rigid piece constituting a mounting disposed parallel to the axis of the sight and provided at its extremities with two spaced clasps for holding the telescopic portion of the sight, a set of projections at the forward end of the mounting extending in the direction of fire and interfittable with corresponding grooves formed in the internal front end of the opening corresponding to the breech action mechanism of the fire-arm, a latch at the rear end of the mounting spring pressed toward the butt end of the fire-arm and cooperating with a catch at the rear end of said breech opening, whereby said rigid mounting is adapted to be directly and removably engaged in the opening of the breech action mechanism.

2,836,896
GUN SIGHTS
Charles H. Wolverton, Montcalm, Mich.
Application July 7, 1953, Serial No. 366,587
1 Claim. (Cl. 33—52)



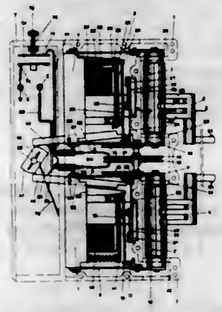
A rear sight for a shotgun comprising a member having a top wall, opposed side walls depending downwardly from the top wall, said side walls being substantially parallel one to the other and means for supporting said member on a shotgun and extending longitudinally thereof with the forward edge of said top wall spaced above the level of the top of the barrel of the shotgun and with said top wall inclined toward the muzzle of the shotgun at an angle such that an extension of said top wall would intersect said barrel, and with said side walls extending downwardly on opposite sides of said barrel, said means comprising a U-shaped member extending between said side walls adjacent the rear edges thereof with its base a spaced distance below the rear edge of said top wall, and suction cups on said side walls.

2,836,897
GARDEN LINE MARKER
Virgil J. Gooley, Mount Angel, Oreg.
Application December 24, 1953, Serial No. 400,183
1 Claim. (Cl. 33—86)



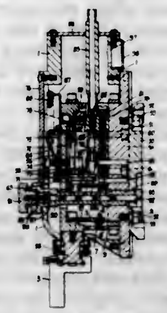
A garden line maker comprising first and second stakes having shaft portions with pointed bottom ends, head members on said shaft portions for driving the stakes into the ground, a concentric hand grip sleeve on the shaft of said first stake, a handle on the head member of said first stake for turning said stake in said sleeve, a spool of line concentrically mounted on said first stake, and line guides frictionally engaged on each of said stakes for relative rotative and sliding movement, each of said guides comprising a coil spring surrounding and gripping the stakes and having looped ends projecting tangentially for guiding said line and for loosening said grip.

2,836,898
COMPARATOR HAVING REED SUPPORTED, LOCKABLE FEELERS AND CAPACITIVE RESPONSE MEANS
Mario Possati, Loris Giardino, and Vittorio Faenza, Milan, Italy
Application July 6, 1953, Serial No. 366,252
Claims priority, application Italy July 10, 1952
19 Claims. (Cl. 33—147)



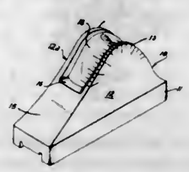
19. A comparator micrometer for measuring dimensions of a work piece comprising a pair of feelers, leaf spring suspension means mounting said feelers in alignment for limited movement toward and away from each other, means for biasing at least one of said feelers into engagement with said workpiece, a measuring capacitor comprised of two plates with each plate connected to move responsive to one of said feelers, a compensating capacitor connected in series to said measuring capacitor, and an electrical circuit connected to said capacitors adapted to indicate the relative positions of the plates of said measuring capacitor.

2,836,899
GAUGES
Frederick Robert Boosey, Letchworth, England, assignor to The Sigma Instrument Company Limited, Letchworth, England, a British company
Application June 29, 1953, Serial No. 364,888
Claims priority, application Great Britain July 1, 1952
5 Claims. (Cl. 33—169)



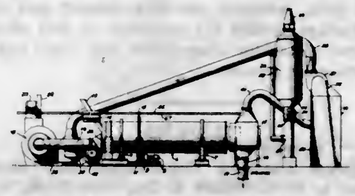
1. A measuring head for pneumatic gauges, said head comprising a displaceable measuring anvil for contacting a work-piece to be gauged, there being a jet of circular section for connection to a source of air, a needle, a parabolic surface portion on said needle and entered in said jet so that the annular escape area between said surface portion and the periphery of the jet varies linearly with displacement of the needle into and out of the jet, and connecting means between the anvil and the needle to move the needle in direct proportionality to the movement of the anvil.

2,836,900
MAGNETIZED ANGLE MEASURING LEVELS
Theodore B. H. Vogt, Fair Lawn, N. J.
Application December 7, 1955, Serial No. 551,669
1 Claim. (Cl. 33—212)



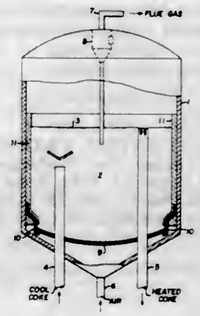
A spirit level comprising a flat magnetized base having upwardly and inwardly sloping end walls and upwardly extending parallel side walls, said side walls having the portions thereof between said end walls extending upward a substantial distance above said end walls and having aligned convex semi-circular edges blending at their extremities with the upper edges of said end walls, said side walls together with said upper edges of the end walls providing a recess, a disc-shaped transparent hollow receptacle registering on edge on said base in said recess and having a smaller diameter than the diameter of said semi-circular edges of the side walls, said receptacle thereby having a portion of the edge thereof exposed between said side walls and positioned radially inward from said semi-circular edges, the receptacle being partly filled with a liquid thereby providing an air bubble therein, and angle graduations on the semi-circular edges of said side walls.

2,836,901
METHOD FOR DRYING METAL SCRAP
Herbert William Davis, Compton, Calif., assignor to Link-Belt Company, a corporation of Illinois
Application May 26, 1954, Serial No. 432,480
9 Claims. (Cl. 34—15)



1. A method of removing cutting oil and the like from metal scrap that is wetted therewith, comprising flowing a stream of gases through a substantially enclosed path at a pressure above atmospheric pressure, passing the stream of gases through a zone in which a combustible mixture of fuel and air is burned to increase the temperature of the gases in said stream, passing the stream of heated gases through an agitated bed of metal scrap to evaporate the wetting liquid therefrom and entrain the resulting vapor in the flowing stream of off-gases, releasing off-gases from said stream at a rate which will maintain the pressure of the gases in said stream at a substantially constant value, recirculating the off-gases remaining in said stream to said zone in which the combustible mixture of fuel and air is burned, and regulating the quantity of air in said combustible mixture to a value which will permit substantially complete combustion of the fuel and the combustible vapors in said off-gases and which will prevent ignition of the combustible vapors entrained in any portion of said stream apart from said zone.

2,836,902
GRID SUPPORT FOR FLUIDIZED SOLIDS VESSELS
Howard C. North, Westfield, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 14, 1955, Serial No. 552,997
2 Claims. (Cl. 34—57)



1. In an apparatus for contacting solids and gases at temperatures above about 900° F. which comprises a vertically disposed circular vessel, outlet means in the upper portion for removing gases, gas inlet means in the bottom portion, a foraminous plate positioned within the lower portion of said vessel and adapted to support a bed of fluidized solids thereon, said plate being in horizontally spaced relationship to the walls of said vessel, and particle outlet means extending beneath said plate, the improvement which comprises employing a downwardly dished foraminous plate supported from above by an in-part vertically disposed, gas impervious, circular sup-

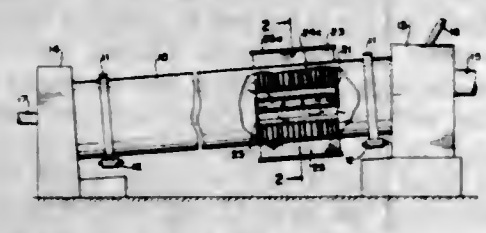
port, said support being attached to the walls of said vessel only in the region of the upper end of said support, said support being further characterized as extending downwardly for the major portion of its length and inwardly away from said vessel walls in spaced relationship thereto, its lower end terminating at and encompassing said plate, whereby gas from beneath said plate is denied passage around the periphery of said plate, and the volume of reactor space below said plate and solids bed is reduced in amount.

2,836,903

SLURRY HEAT EXCHANGER

Niels Edvard Andersen, Copenhagen-Valby, Denmark, assignor to F. L. Smidth & Co., New York, N. Y., a corporation of New Jersey

Application January 16, 1957, Serial No. 634,481
Claims priority, application Great Britain January 23, 1956
4 Claims. (Cl. 34—109)



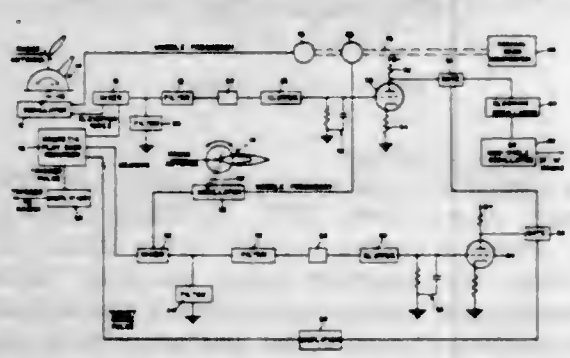
1. Apparatus for heating slurry by means of gases, which comprises a tubular shell mounted for rotation with its axis approximately horizontal, means for feeding slurry into the shell at one end, means for supplying hot gases to the shell at the other end, the heated slurry issuing from the shell at the end to which the gases are supplied, partition means dividing the interior of the shell into at least two compartments open at opposite ends and overlapping lengthwise of the shell, the partition means including end walls transverse to the shell axis and closing opposite ends of the compartments and at least two pairs of spaced side walls connecting the end walls, the side walls of each pair being rigidly secured to the wall of the shell and having a closure at their inner ends and apertured sections within the shell, the side walls, end closures and end walls defining chambers, through which the gases and slurry pass in opposite directions in passing between compartments, a charge of loose bodies in each compartment, and flexible connecting means between the inner ends of the chambers and partly defining the compartments.

2,836,904

RADAR FIRE CONTROL TRAINING SYSTEM

John H. Hickey, Port Washington, N. Y.

Application October 6, 1954, Serial No. 460,786
14 Claims. (Cl. 35—10.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



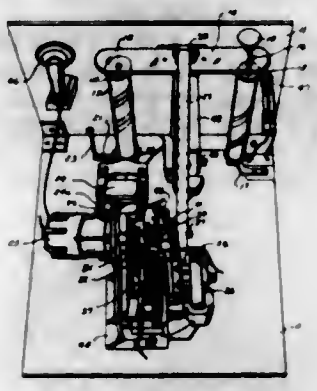
11. A device to generate synthetic radar targets comprising a plurality of programmed frequencies to represent the range, bearing and angle of elevation respectively of an aircraft target, a gun, a first oscillator coupled to said gun to indicate angles of elevation in the form of discrete frequencies, a second oscillator coupled to said gun to indicate bearing information in the form of discrete frequencies, a first mixer coupled to receive said first oscillator output and said programmed frequency that represents angle of elevation, a second mixer coupled to receive said second oscillator output and said programmed frequency that represents bearing, a first filter connected to receive the output of said first mixer to pass the difference of the two mixer input frequencies, a second filter connected to receive the output of said second mixer to pass the difference of the two mixer input frequencies, first converting means coupled to said first filter to change said output frequency into a plurality of negative pulses, second converting means connected to said second filter to change said output frequency into a plurality of negative pulses, a time delay network connected to receive said negative pulses from said first mentioned converting means, a first vacuum tube connected to said time delay network to conduct current for a discrete number of negative pulses, a second time delay network connected to receive said negative pulses from said first converting means, and a second vacuum tube connected to said time delay network to conduct current for a discrete number of negative pulses, a first gate operated by said first vacuum tube, a second gate operated by said second vacuum tube, a third oscillator, and a programmed target range pulse to trigger said third oscillator at the instant that said first and second gates are both operative, a motor, and variable condensers coupled to said motor and coupled to said oscillators to wobble the frequency of said oscillators.

2,836,905

GLIDE PATH INDICATING DEVICE FOR USE IN GROUNDED TRAINING SYSTEMS

Robert F. Mielke, Wampum, Pa., and Lawrence E. Redmond, Newberry, Mich.

Application February 24, 1955, Serial No. 490,438
6 Claims. (Cl. 35—12)
(Granted under Title 35, U. S. Code (1952), sec. 266)



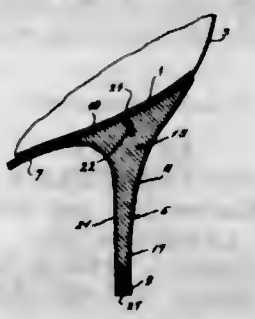
5. A device for automatically indicating the glide path position of a grounded training system during a landing operation wherein a ground controlled approach system is simulated in response to controls manipulated by the student pilot in the trainer, said device comprising a screen having glide path indicated thereon, rollers for supporting said screen including a driving and driven roller, electrical means responsive to the ground speed drive of the trainer, said means being adapted to undirectionally move the screen at a rate of speed corresponding to the simulated ground speed of the trainer, an apertured continuous strip arranged in normal relation to said screen and supported on spools including a driving spool and at least one driven spool, a servo-mechanism for actuating said driving spool, said servo mechanism being connected with the altitude control of the trainer and adapted to move the driving spool and the strip supported thereon in a direction and at a rate corresponding to changes in altitude of the trainer as indicated on the altimeter thereof, and an illumination source for transmitting a beam of light through the apertured portion of said strip onto said screen.

2,836,906

SHOES AND HEELS

James Josephi, New York, N. Y., assignor to General Shoe Corporation, Nashville, Tenn., a corporation of Tennessee

Application March 27, 1957, Serial No. 648,849
2 Claims. (Cl. 36—34)



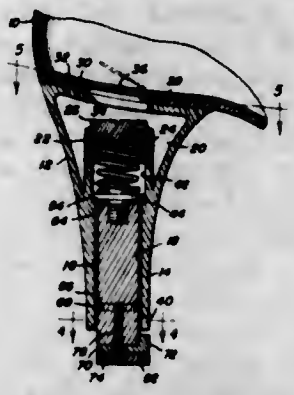
1. In a high-heeled shoe, the improvement comprising a heel formed with a cast magnesium core having a substantially solid exterior surface and a top seat shaped to accommodate a screw, the weight of the core being less than two ounces, and a single screw received through the sole of a shoe and in the top seat portion of the magnesium core securing the heel to the shoe.

2,836,907

CUSHIONED HEEL CONSTRUCTION

Carl A. Windle, Los Angeles, Calif.

Application August 8, 1957, Serial No. 676,988
10 Claims. (Cl. 36—38)



1. A cushioned heel construction comprising an elongated body having a chamber in its upper end and a bore connecting with said chamber and opening upon the bottom surface of said body, a plunger slidably mounted in said bore, resilient means engaging said plunger and yieldingly urging the latter downwardly in said bore, adjusting means in said chamber for regulating said resilient means, access means in said body affording access to said chamber and said adjusting means, a heel cap holder on the bottom end of said plunger disposed beneath said body, a heel cap on said holder, said body having an upwardly extending notch in a side wall thereof from its bottom surface, said holder having an upturned flange guidingly received in said notch.

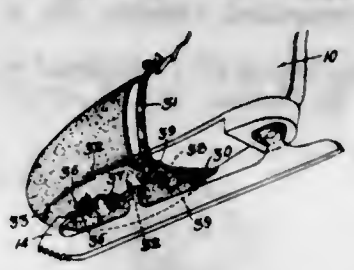
2,836,908

TOE COVERS FOR ICE SKATES

Hans Altinger, New York, N. Y.

Application November 6, 1956, Serial No. 620,650
2 Claims. (Cl. 36—72)

1. A toe cover for a skate and shoe combination wherein the skate is secured to the shoe by spaced columns including two columns positioned under the sole of the shoe comprising an originally crescent-shaped fabric deformed into a cover complementary to the forward part of the shoe with the originally convex edge of the fabric doubled back under the forward part of the shoe sole with the cusps of the orignially crescent-shaped fabric mutually overlapping under the shank of the shoe sole, said originally convex edge of the fabric having elastic means and hence normally shrinking the portions of the cover doubled back under the shoe sole, means on said cusps for pulling the same in mutually



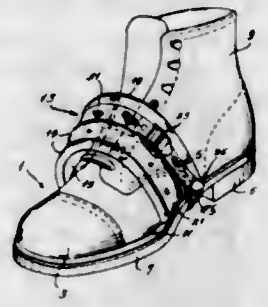
opposite directions transverse with respect to the sole to stretch said elastic means and said portions of the cover thereby tightening the cover on the shoe.

2,836,909

SAFETY SHOE

William J. Richards, Nashville, Tenn., assignor to General Shoe Corporation, Nashville, Tenn., a corporation of Tennessee

Application March 8, 1957, Serial No. 644,766
1 Claim. (Cl. 36—72)



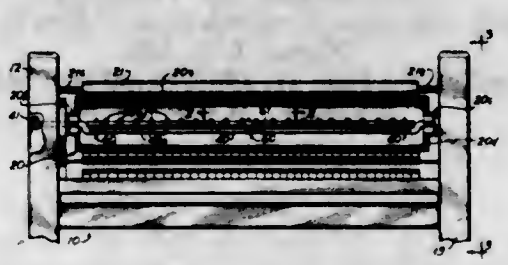
In a safety shoe, the improvement that comprises an instep guard formed as a U-shaped metal arch with a ribbed exterior surface defining a continuous transverse trough thereabout, the ends of said arch abutting the projecting portions of the sole at the sides of the shoe adjacent the instep, and securing means comprising a strap seated within said trough and extending under the sole adjacent the instep.

2,836,910

BURNER CONSTRUCTION FOR IRONING MACHINES

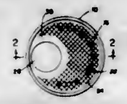
Joseph Kluzelman, Northbrook, Ill., assignor to Gasway Corporation, Chicago, Ill., a corporation of Illinois

Application January 13, 1956, Serial No. 558,926
12 Claims. (Cl. 38—49)



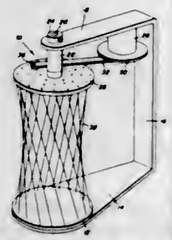
1. In a gas heated ironing machine, a hollow cylindrical roller having at least one substantially open end, gas burner means disposed within said roller, and baffle means within said roller effectively providing a pair of chambers both of which are exposed to atmosphere through the open end of the roller, one of said chambers being in fluid communication with said gas burner means to supply combustion-supporting air from the atmosphere through the open end of the roller, and the other of said chambers being in fluid communication with said gas burner means for receiving the products of combustion in order to exhaust the same to atmosphere through the open end of the roller.

2,836,911
ECCENTRIC COIN
Charles Priesmeyer, Park Ridge, Ill., assignor to Meyer-Wenthe, Incorporated, Chicago, Ill., a corporation of Illinois
Application March 27, 1956, Serial No. 574,248
10 Claims. (Cl. 40—27.5)



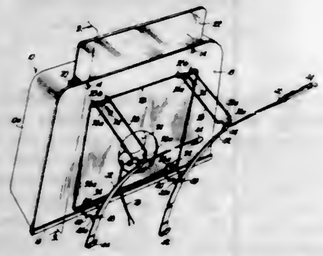
1. A flat circular coin of substantially uniform thickness having a large-sized opening therethrough whose geometric center is spaced from the geometric center of said coin whereby the center of gravity of the coin is substantially spaced from its geometric center.

2,836,912
DISPLAY DEVICE
Ernest R. Rasmcci, Fanwood, N. J.
Application April 22, 1957, Serial No. 654,240
3 Claims. (Cl. 40—30)



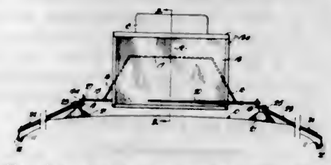
1. A display device comprising a stationary bottom plate, an upper plate rotatable with respect to said stationary plate, a plurality of elastic cords extending between the peripheral edge portions of the plates in circumferentially spaced relation, and means for oscillating said upper plate, thereby causing alternating expansion and contraction of the elatic cords and alternating expansion and contraction of the cylindrical space enclosed by the cords for drawing attention to merchandise displayed on the bottom plate.

2,836,913
ADVERTISING SIGN STRUCTURE FOR MOUNTING ON VEHICLES
Daniel E. Thomson, Grandview, and Miles W. Nelson, Kansas City, Mo.
Application June 21, 1955, Serial No. 516,844
3 Claims. (Cl. 40—129)



1. A sign for mounting on the trunk lid of a vehicle comprising a sign member, flexible nonmetallic strap members extending from front to rear on the exterior of the trunk lid, U-shaped support members on the sign member having their bight portions passing between said straps and said lid, and means cooperating with said straps in the vicinity of said bight portions to secure said bight portions to said straps and space said bight portions from the trunk lid to prevent contact therebetween, said means comprising ring members disposed adjacent said bight portions, the straps being threaded through said ring members on opposite sides of said bight portions to form U-shaped bends in the straps within which said bight portions are engaged.

2,836,914
COLLAPSIBLE SIGN STRUCTURE FOR VEHICLES
Miles W. Nelson, Kansas City, and Daniel E. Thomson, Grandview, Mo.
Application February 6, 1956, Serial No. 563,653
3 Claims. (Cl. 40—129)



1. A collapsible sign structure for mounting on the roof of a vehicle comprising a frame including a pair of spaced parallel frame members, means for securing said frame to the roof of a vehicle with the frame members substantially parallel thereto, a pair of aligned vertically elongated guides associated with said frame members, one guide at each frame member, a crossbar extending transversely between said frame members having portions near each end received in and loosely supported by said guides, a signboard secured to said crossbar, a locking element connected with said crossbar at least at one end, stop means associated with said frame and normally engaging said locking element to prevent rotation of said crossbar about its longitudinal axis when said sign is in an upright position relative the roof, said locking element and stop means constructed and arranged to disengage from one another when the sign and crossbar are displaced upwardly to displace the said portions of the latter upwardly in said guides thereby permitting the crossbar to turn in the guides and the sign to be laid flat near the roof of the vehicle.

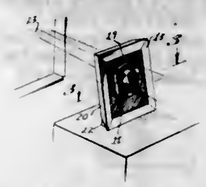
2,836,915
PICTURE FRAMES
Jerry B. Cesak, Bladensburg, Md.
Application February 15, 1955, Serial No. 488,189
1 Claim. (Cl. 40—152.1)



In a picture and the like, the combination of a frame formed integrally from a single piece of round wire rod possessing resilient characteristics and comprising two perimetric frame members disposed in registering relation, said frame members being normally in contact with each other and integrally connected together at one point along their perimetric length by a cross-over portion of said rod extending from one frame member to the other, the round inner edge portions of said frame members coacting to provide a seat of a substantially V-shaped cross-section, said cross-over portion of said rod being

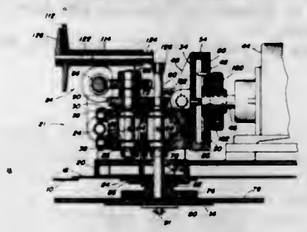
provided with a V-shaped notch in alignment with and constituting an endless continuation of said seat, and a display panel removably positioned in said frame and having its marginal edges disposed in and coextensive with the seat, a portion of one of said frame members being offset from the other frame member whereby to provide combined supporting means for the frame and an entrance means to facilitate insertion and removal of said display panel in and from said seat, regions of said frame members at the opposite sides of said entrance means being in separable contact and providing keeper means for sustaining said panel in said seat.

2,836,916
COMBINED FRAME HOLDER AND PERFORATED OBJECT
Rocco Piromalli, Hollis, N. Y.
Application October 4, 1954, Serial No. 459,989
1 Claim. (Cl. 40—152.2)



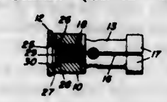
A picture frame including a rectangular frame of predetermined depth, a substantially transparent rear panel secured to the rear side of the frame, a peripheral frame forming a picture holder having inwardly inclined sides, top and bottom secured to the front edges of said rectangular frame, a translucent diffusing screen secured to the peripheral frame and occupying the open area therein, a pair of insert holding channels secured upon two opposite inner edges of the peripheral frame within said translucent screen, and an arcuate opaque intermediate panel comprising a removable insert fitting with two opposite edges in the insert holding channels and having a plurality of mutually related openings therein defining a negative picture outline, whereby light passing through the mentioned openings from said intermediate panel projects a shadow upon said screen of said peripheral frame.

2,836,917
ETCHING MACHINE
Norman C. Schutt, Glen Cove, John L. Bjelland, Huntington, and Floyd W. Flynn, Glen Cove, N. Y., assignors to Powers Chemco, Inc., Glen Cove, N. Y., a corporation of New York
Application August 3, 1955, Serial No. 526,284
8 Claims. (Cl. 41—9)



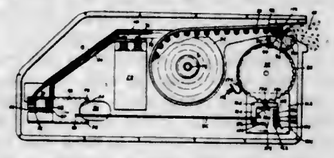
1. In an etching machine of the type wherein acid is continuously sprayed against a plate to be etched, the combination of a carriage mounted for reciprocation through a fixed amplitude, means for reciprocating said carriage including a pair of parallel spaced toothed racks mounted on the carriage, a motor driven sector gear between the racks alternately engaging one or the other of said pair of racks, a rotatable plate support mounted on said carriage, a pinion driving said support, a rack mounted parallel to the path of carriage reciprocation and in driving engagement with said pinion, means driven from said motor for continuously progressing said rack during reciprocation of the carriage, support and pinion whereby relative rotational position of said support with respect to its linear position varies with each reciprocation of the carriage.

2,836,918
SAFETY DEVICE FOR FIREARMS
Stephen Pula, Adamsdale, Mass., and George Loparto, Cumberland, R. I., assignors of one-third to Joseph Marszalkowski, Cumberland, R. I.
Application August 24, 1955, Serial No. 530,264
1 Claim. (Cl. 42—1)



A firearm safety device comprising: an internally threaded, expansible sleeve insertable in the breech of a gun barrel and including a smooth, counterbored end portion providing a shoulder and having a circumferential groove therein, a plug threadedly mounted in the sleeve for expanding same and having a kerf in an end thereof for the reception of an actuating tool, a snap ring mounted in the groove, and a guard for the plug comprising a disk freely rotatable in the counterbore between the shoulder and the snap ring and spaced from the plug, said disk having a slot therein to be brought into parallelism with the kerf for the insertion of the tool therein.

2,836,919
SMALL WEAPONS NOISE SIMULATOR
Edwin R. du Bois, Glen Head, N. Y.
Application September 28, 1954, Serial No. 458,998
18 Claims. (Cl. 42—57)
(Granted under Title 35, U. S. Code (1952), sec. 266)

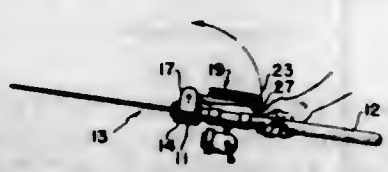


1. A small weapons noise simulator comprising a casing, a firing and resonance chamber at one end of said casing, an ammunition strip mounted in said casing and feeding into said firing chamber, means to feed the strip into the chamber, a spring wound gear means mounted in said casing and engaging the feed means, a step feed member releasably holding said feeding means, heating means on said casing adjacent said firing chamber, a trigger operatively connected to said step feed member, and electrical means connected to said trigger and to said heating means to activate said heating means and explode the ammunition round when the trigger is actuated.

2,836,920
BAIT CASTING CATAPULT
Michael A. Sabara, Brooklyn, N. Y.
Application January 17, 1955, Serial No. 482,159
2 Claims. (Cl. 43—19)

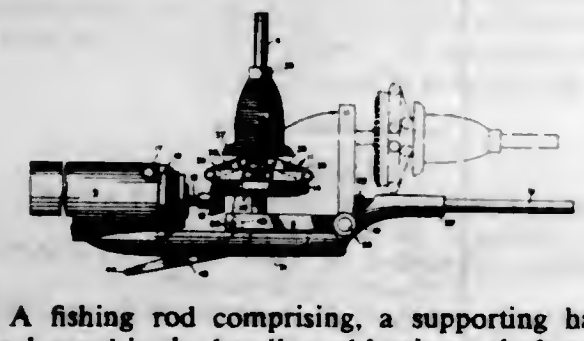
2. Bait casting catapult comprising the combination with a fishing rod of a longitudinally split hollow cylindri-

cal clamp encompassing said rod, said clamp being formed with a pair of elongate apertures extending longitudinally and on opposite sides thereof, a journal member having a hollow substantially semi-cylindrical base portion located inside said clamp and in contact with said rod and with an inner surface of said clamp, said journal member further having a pair of standard portions extending through said apertures and substantially vertically upwardly therefrom, an elongate cradle member, a pin piv-



otally mounting an end portion of said cradle member in said standard portions for swinging motion from a rear, upright position to a forward inverted position, and a coil spring mounted on said pin and engaging said cradle member and urging the same to said forward position, said cradle member including finger purchase means for holding said cradle in said rear position against the action of said spring while bait is placed in said cradle, and said spring being adapted to swing said cradle forward to cast said bait when said cradle is released.

2,836,921
FISHING-ROD REEL
Vernon C. Lynch, Waukesha, Wis.
Application November 23, 1956, Serial No. 623,986
7 Claims. (Cl. 43—21)



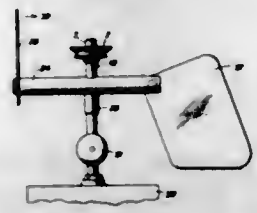
1. A fishing rod comprising, a supporting handle, a motor housed in the handle and having a shaft projecting forwardly therefrom, a reel mounting extension on the handle, a pinion on the motor shaft exteriorly of the handle, an arm hinged to said extension, a reel-spool shaft fixed on the arm and swingable with the arm between positions with the reel-spool shaft axis normal to and parallel with the axis of the motor shaft, a gear journaled on the reel-spool shaft in position to mesh with the pinion when the reel-spool shaft axis is normal to the motor shaft, a reel-spool journaled on the reel-spool shaft and connected to rotate with the gear, and coacting means on the reel-spool shaft and the reel-spool for effecting the axial reciprocation of the reel-spool when rotated on the reel-spool shaft.

2,836,922
FISHHOOK FOR ATTACHING LIVE BAIT
Jacob Cox, Ironwood, Mich.
Application July 18, 1955, Serial No. 522,659
2 Claims. (Cl. 43—44.2)



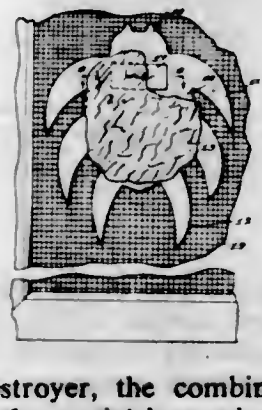
1. A fishing device comprising a length of wire defining a member generally U-shaped in plan, said member embodying a bight portion and a pair of elongated coplanar limbs, said limbs embodying shank portions disposed in spaced apart relationship, the rear end portions of said shank portions being free and formed into upstanding return bends defining fishhooks, a horizontal plate superimposed on and fixed to said bight portion, an oblique angled spoon connected by a web to the forward end of said plate, a substantially J-shaped minnow impaling member having a curved leading end portion at approximate right angles to and joined rigidly with and rising above said horizontal plate, the body portion of said impaling member being, for the most part, in a plane above the plane of said shank portions and having the additional function of an artificial lure, the rear end portion of said impaling member projecting rearwardly of said return bends and to a position slightly below the plane occupied by said shank portions.

2,836,923
OUTDOOR GAS LIGHTS FOR INSECT DESTRUCTION
Howard W. Stump, Maricopa County, Ariz.
Application April 30, 1957, Serial No. 656,023
2 Claims. (Cl. 43—113)



2. In an outdoor liquid petroleum gas vapor burner for destroying night flying insects consisting of a vertical support and supply pipe adapted for attachment to a gas supply tank, a burner cap at the upper end of said pipe having air supply grooves on its upper face and a plurality of burner orifices opening into the bottoms of said grooves adapted to produce a long somewhat flat luminous insect destroying flame, and radial igniter flame orifices, an igniter flame deflector below said cap to deflect gas and flame upward around said insect destroying flame and reignite said flame in case of blowout, and a rotatable windshield to prevent blowout of said insect destroying flame by wind currents, consisting of a horizontal bar, journalled at its mid-portion on said vertical gas supply pipe below said flame deflector, having a windshield plate transversely mounted at on end, provided with air holes near its bottom to prevent the formation of a partial vacuum below said burner, and a longitudinally extending wind vane at the opposite end bar.

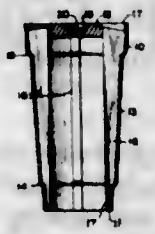
2,836,924
INSECT RETAINER AND KILLER
Herbert Lapetina, Norfolk, Va., assignor of twenty per cent each to Edward L. Copeland and Jesse A. Simpkins, Norfolk, Va.
Application November 18, 1955, Serial No. 547,752
1 Claim. (Cl. 43—131)



In an insect destroyer, the combination which comprises a flat sheet of material impervious to moisture representing a body of a beetle having a simulated head, arms

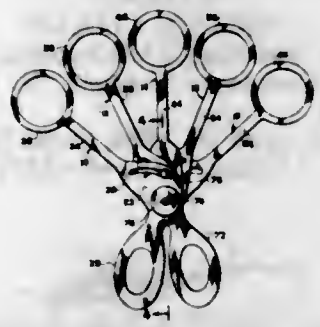
and legs formed contiguous with the body which is substantially oval in formation, a staple having a head with spaced prongs extended from ends thereof positioned with the prongs extended through the body adjacent the head and centrally of the body and adapted to be bent over wire mesh or the like for retaining the body to the wire mesh, a strip of adhesive tape positioned over the head of the staple and a pad of cotton impregnated with a toxic material secured to the body with a waterproof adhesive.

2,836,925
UNITARY TAKE-UP ESCUTCHEON
Erwin Reed, University Heights, Ohio; William Friedman, executor of the estate of Erwin Reed, deceased, assignor to Reed-Cromex Corporation, South Euclid, Ohio, a corporation of Ohio
Original application November 23, 1951, Serial No. 257,924. Divided and this application June 27, 1956, Serial No. 595,569
1 Claim. (Cl. 45—139)



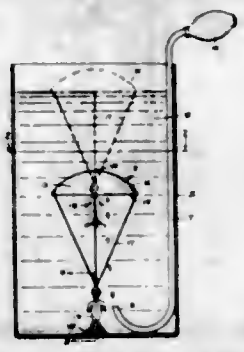
A unitary take-up escutcheon of the character described, comprising a tubular body portion having an upper end of larger external diameter than the bottom end, a plurality of circumferentially-spaced longitudinally extending ribs integral with said body portion and extending radially inwardly thereof, said ribs having a relatively small thickness in a direction circumferentially of said escutcheon body, and the radially-inward edges of said ribs defining a central cylindrical bore of substantially uniform diameter for said escutcheon, an element disposed centrally within said body portion and adjacent said end of larger diameter, said element being integrated with the upper ends of said ribs and having a countersunk central opening therein which is threaded.

2,836,926
MULTI-RING BUBBLE-PRODUCING TOY
Hung-tu Tseng, New York, N. Y.
Application November 17, 1955, Serial No. 547,473
9 Claims. (Cl. 46—6)



7. A bubble producing toy comprising a plurality of pivotally connected members each including a stem and a ring at one end of the stem, said members being swingable between a first position in which said rings are registered for immersion in a bubble-forming liquid, and a second position in which the rings are spaced laterally of one another, said toy comprising at least five of said members, said members including a pair of outermost members, a middle member, and members disposed between the middle member and the respective outer members, the several members being formed with relatively flat wide bodies, and stems extending from said bodies to connect the same to the rings, the outer members having handles projecting in opposite directions relative to the length of the middle member, the handles of the outer members being disposed at obtuse angles to the lengths of their associated stems, and also being at obtuse angles to the lengths of the members disposed between the middle and outer members, in both the first and second positions of the members.

2,836,927
AQUATIC AMUSEMENT DEVICE
Harry A. Warner, Miami, Fla.
Application December 24, 1956, Serial No. 630,113
2 Claims. (Cl. 46—92)

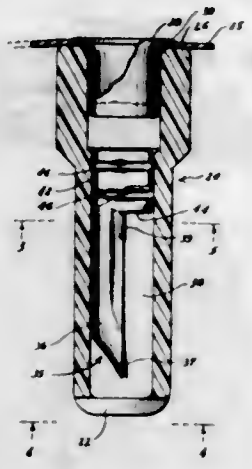


1. An aquatic amusement device in combination with a transparent vessel for supporting a body of water, an object in the form of a simulated parachute that is submerged in the water, the parachute having a relatively fixed dome-shaped canopy open at its bottom and whereby to form an air entrapping chamber, the canopy around its marginal edge being provided with a thickened bead, shroud lines connected with the canopy, the shroud lines embodying a plurality of relatively stiff and relatively fine wires that are connected at their upper end to a wire ring, the said ring having a diameter for snapping engagement with the bead, the several shroud wires converging downwardly to be jointly connected to a simulated figure of a man and whereby the man is suspended from the canopy, the figure of the man having a flat weighted base that is adapted to have a flat resting engagement upon the bottom of the vessel when the parachute is in a fully submerged position for maintaining the figure and the parachute in an upright position, the said canopy being provided with minute air escape openings, an air tube insertible within the vessel to a point adjacent its bottom and with a free end of the tube being directed upwardly and whereby air from the tube will bubble upwardly to be entrapped within the chamber of the canopy for imparting buoyancy thereto, means carried at the upper end of the air tube for forcing air downwardly therethrough, the said canopy rising upwardly through the body of water when adequate buoyancy has been imparted thereto and whereby the canopy will float upon the water with the simulated man in suspended position, the said parachute when sufficient air has leaked therefrom through the openings shifting downwardly under the weight of the simulated man and its weighted base to a point where the weighted base rests upon the bottom of the vessel for maintaining the parachute in a vertical position through the medium of the stiff shroud wires.

2,836,928
VOICE ASSEMBLY FOR STUFFED TOYS
Alfred P. Ragazzo, Elmont, N. Y., assignor to Wintriss Inc., New York, N. Y., a corporation of New York
Application January 4, 1955, Serial No. 479,715
8 Claims. (Cl. 46—117)

1. The combination, with a stuffed toy having a resilient flexible skin, of a casing located in the stuffing, said casing having an elongated hollow chamber therein open at its outer end and with an annular face around the opening at said outer end, the casing having a wall

at the inner end of the chamber with openings through said wall for passage of air, the openings being narrow to prevent entrance of stuffings into the casing, an eyelet having a flange with an annular face which confronts the outer end face of the casing and having a generally cylindrical and axially extending portion that fits into the chamber and that has a face confronting a portion



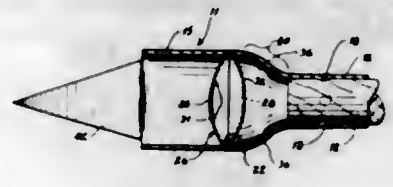
of the length of the wall of the chamber, the inner end of the eyelet extending through an opening in the skin of the toy and the chamber being secured to the toy by skin around the edges of the opening clamped between the annular faces of the casing and eyelet and clamped also between the wall of the chamber and the axially extending face of the eyelet, and a reed and channel sound maker that fits within the chamber.

2,836,929
ASSEMBLED DOLL
Julius Weih, Ozone Park, N. Y., assignor to Ideal Toy Corporation, New York, N. Y., a corporation of New York
Application November 28, 1956, Serial No. 624,917
6 Claims. (Cl. 46—162)



1. An assembled doll, said doll having a head-section and a torso-section and a pelvis-section, each said section being hollow; spring means for forcing said head-section and pelvis-section vertically towards each other to exert vertical compression on said torso-section; said head section having an internal head-rod; said torso-section having an internal reinforcing torso-tube which resists said vertical compression on said torso-section; the upper end of said torso-tube effectively abutting the upper end of said torso, the lower end of said torso-tube effectively abutting the top wall of said pelvis-section; said torso-section having a torso-rod located within said torso-tube; the lower end-part of said head-rod extending downwardly through the upper end of said torso-section and also extending downwardly into said torso-tube; the lower end-part of said torso rod extending below the lower end of said torso-tube into said pelvis-section; said spring means being located in said pelvis-section and engaging that part of said torso-rod which extends into said pelvis-section; the upper end of said torso-rod being below the upper end of said torso-tube; the adjacent ends of said head-rod and said torso-rod having connecting means which are located in said torso-tube.

2,836,930
MISSILE WITH RAM JET SOUNDING DEVICE
Alfred Ragazzo, Elmont, and Bernard Wels, Oceanside, N. Y., assignors to Wintriss, Inc., New York, N. Y., a corporation of New York
Application January 9, 1956, Serial No. 558,136
7 Claims. (Cl. 46—175)



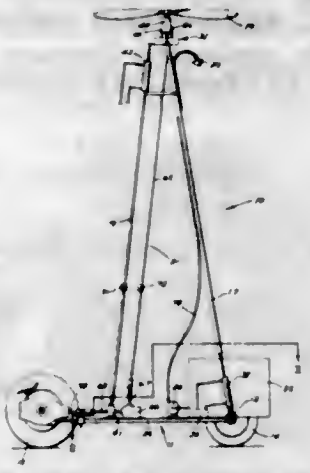
1. A ram jet sounding device comprising a sleeve having a portion of its length toward its rearward end of reduced cross section and having a forward portion of larger cross section and a region along which the side wall of the sleeve converges toward the rearward portion of the sleeve at an acute angle to the longitudinal axis of the sleeve, a pneumatic sound maker located in the sleeve at a substantial distance back from the forward end of the sleeve and having a passage through which air travels through the sound maker from the forward portion of the sleeve to the region where the sides converge, the length of the sleeve wall ahead of the sound maker being imperforate and the sleeve wall behind the sound maker having one or more openings therethrough of a total cross section substantially larger than the air passage through the sound maker, said opening through the wall of the sleeve being located in the converging portion of the sleeve wall and facing in a direction with a substantial rearward component whereby forward movement of the sleeve in the direction of its longitudinal axis causes an aspirator suction for drawing additional air through the sleeve and sound maker.

2,836,931
WIGGLY LIZARD
George Andrew Brennan, Philadelphia, Pa., assignor to S. S. Adams Company, Neptune, N. J., a corporation of New Jersey
Application April 30, 1956, Serial No. 581,420
1 Claim. (Cl. 46—237)



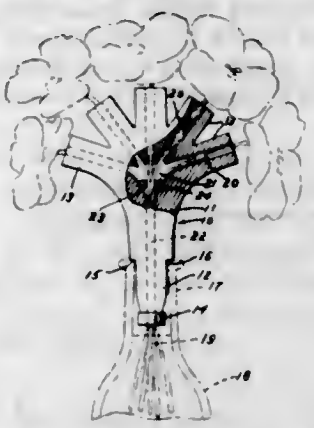
A novelty comprising a rubber resilient crawling reptile shaped body including a head and an elongated torso having laterally extending legs on opposite sides thereof and a tail for said body, said head and torso being peripherally flanged downwardly at the sides and at said head to define a downwardly opening hollow and with the edge of the flange supporting the head and torso on a given surface and with the tail trailing therebehind, and a metallic element in said head effective through magnetic action to flex resiliently said head and at least a portion of the torso to cause same to wiggle and thus impart a lifelike wiggling action to the body.

2,836,932
PORTABLE CROP SAVER
Edwin B. Potter, Lowell, Mich.
Application September 1, 1955, Serial No. 532,064
13 Claims. (Cl. 47—2)



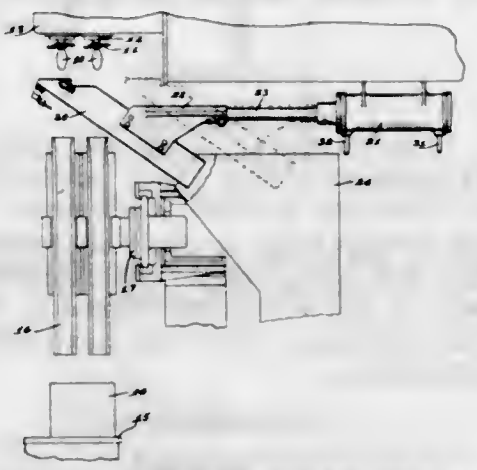
1. A portable machine for moving air in a predetermined direction and manner, comprising: a base frame; an axle on said frame and ground engaging wheels on said axle; a pair of elongated, rear elements extending upwardly from said frame; a platform pivotally mounted upon the upper ends of said rear elements for movement about a first axis parallel with said axle; a front element engaging said platform on one side of said axis; first remotely controllable means for changing the length of said front element and one of said rear elements; a bearing casing and means pivotally supporting same upon said platform for movement about a second axis coplanar with and perpendicular to said first axis, one portion of said second axis being horizontal; second remotely controllable means for pivoting said casing about said second axis; a shaft rotatably supported within said casing; a propeller secured to the upper end of said shaft; and drive means including linkage secured to the lower end of said shaft.

2,836,933
FLOWER DISPLAY DEVICE
Samuel Klein, New York, N. Y.
Application June 5, 1956, Serial No. 589,513
1 Claim. (Cl. 47—41)



A device for displaying cut flowers which comprises a main body portion having a central chamber therein and having a plurality of upwardly divergent, separate fingers extending from its upper end, a stem depending from said main body portion, said stem having an upwardly extending, vertical passageway therein and the opposite side walls defining said central chamber being downwardly rounded and curved to merge smoothly with said passageway, and each of said fingers having a passageway therein extending inwardly from its free end with all of such finger passageways joining said central chamber above said opposite side walls thereof, said stem being of substantially square cross-section at its juncture with said main body portion and said body portion being wider than the stem to present a pair of downwardly facing supporting shoulders on opposite sides of the stem, said stem being of progressively decreasing width toward its lower end and terminating thereat in an enlarged discoidal stabilizing foot having a diameter substantially equal to the width of said stem at its juncture with the main body portion.

2,836,934
MEANS FOR INTERCEPTING GOBS OF MOLTEN GLASS
John E. McLaughlin, Alton, Ill., and Guy H. Allgeyer, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application December 13, 1955, Serial No. 552,903
11 Claims. (Cl. 49—5)



1. The combination of a mold carriage, molds thereon, means for driving the carriage and bringing the molds periodically to a charge receiving station, means for delivering mold charges to the mold at said station, a normally inactive intercepting device, means for moving said intercepting device into and out of the path of the mold charges in synchronism with the movement of the molds to the charging station, electroresponsive means controlling the said means for moving the intercepting device, and manual means for bringing said electroresponsive means into activity.

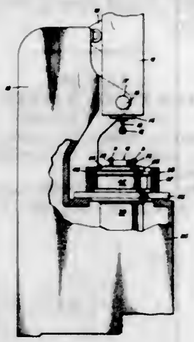
2,836,935
SURFACE TREATMENT OF MOLYBDENUM AND TUNGSTEN FOR GLASS SEALING
John E. Stanworth, Ecclesall, Sheffield, Harold Rawson, Newbold-on-Avon, near Rugby, and Mary Knowles, Rugby, England, assignors to The British Thomson-Houston Company Limited, a British company
No Drawing. Application June 12, 1952
Serial No. 293,204
Claims priority, application Great Britain July 4, 1951
4 Claims. (Cl. 49—81)

1. A method of making glass-to-metal seals which are free from the oxide of the metal which comprises the steps of selecting a metal from the class consisting of molybdenum and tungsten, passing a volatile halide of silicon over the metal at a temperature of 1200–1400° C. for a time ranging from one-half to two hours in the presence of hydrogen until the surface of the metal is covered with a film of the silicide of the metal, and then sealing the metal so treated into the glass.

2,836,936
APPARATUS FOR GENERATING NON-CIRCULAR PROFILES AND SURFACES OF REVOLUTION
John W. Lovely, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application November 13, 1956, Serial No. 621,862
19 Claims. (Cl. 51—50)

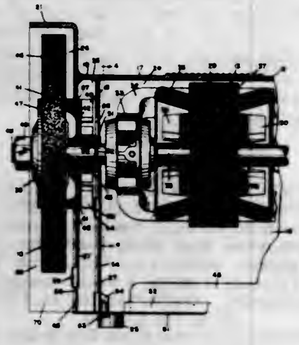
1. A machine for shaping a surface of a work piece comprising a work holder adapted to hold a work piece

in fixed relation thereto, a shaping tool adapted to be placed in working relation to said work piece, axially and circumferentially offset, fixed cam supporting shoes, a cam surface coacting with each shoe, at least one of



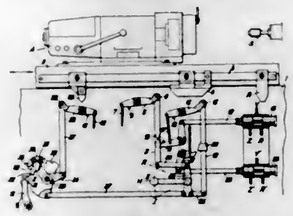
said cam surfaces being on said work holder, and means to rotate said work holder with freedom for limited movement of said workholder normal to the axis of rotation of said means while said cam surfaces are held against said shoes.

2,836,937
MOTOR DRIVEN GRINDERS
Richard T. Cornelius, Minneapolis, Minn.
Application April 9, 1956, Serial No. 577,169
9 Claims. (Cl. 51—71)



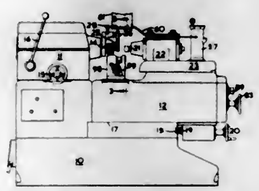
1. In a motor driven grinder, a case having three compartments arranged in end to end relation, a motor disposed in the innermost of the compartments and secured to said case, said case having an inlet passageway leading from the exterior and into the motor compartment, said motor having a drive shaft extending into said other compartments, a blower rotor attached to said drive shaft and disposed in the intermediate compartment, said case being formed with a passageway between the motor compartment and the blower compartment and directing air toward the innermost portion of said blower rotor, a grinding wheel attached to the outer end of said motor shaft and disposed in the outer compartment, said case being formed with a passageway between the blower compartment and the grinding compartment and situated at the outer periphery of said blower rotor and directing air from the blower compartment and into the grinding compartment, said case having a discharge passageway leading from the grinding compartment and to the exterior.

2,836,938
OPERATION CONTROL ARRANGEMENT FOR MACHINE TOOLS
Erich Koch, Berlin-Charlottenburg, Germany, assignor to Firma Jung Schleifmaschinen H. Gaub, Berlin-Tempelhof, Germany
Application March 9, 1955, Serial No. 493,273
Claims priority, application Germany March 19, 1954
11 Claims. (Cl. 51—95)



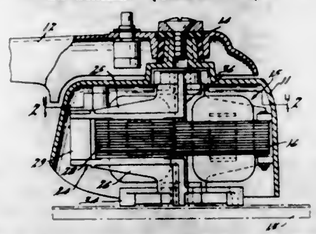
11. In a machine tool including auxiliary devices for performing different operations of the machine tool, a control apparatus for controlling the auxiliary devices, comprising, in combination, a movable carriage; operating means movable in one direction between a retracted position and an advanced position and being shiftable in a transverse direction between a coupling position and an inoperative position; carriage controlled means and manually operated means for selectively shifting said operating means between said inoperative and coupling position; actuating means on said carriage engaging during carriage movement said operating means for shifting the same from the retracted position to said advanced position, and engaging said carriage controlled means for selectively shifting said operating means to said coupling position; and operation control means for the auxiliary devices and being connected to and actuated by said operating means when the same in said coupling position are moved from said retracted position to said advanced position by said actuating means.

2,836,939
MACHINE FOR PRODUCING SPHERICAL SURFACES
Arthur Howard White, Stourbridge, England
Application March 21, 1956, Serial No. 572,994
Claims priority, application Great Britain March 24, 1955
11 Claims. (Cl. 51—131)



1. Apparatus for producing a spherical surface on a work-piece comprising a first rotatable spindle, means on said first spindle for retaining a work-piece, a second rotatable spindle, cutting means carried on said second spindle, said cutting means being displaced from the axis of said second spindle and defining a circular path about said axis, said first and second spindles lying in a common plane, means for causing relative angular movement between said spindles about an axis perpendicular to said plane, means for advancing said second spindle along its own axis of rotation up to the point where said circular path intersects the axis of rotation of said first spindle.

2,836,940
ELECTROMAGNETIC RECIPROCATING TOOL MOTOR AND ARMATURE SUPPORT THEREFOR
Thomas Frazer Carmichael, Plymouth, Mich., assignor to Syncro Corporation, Oxford, Mich., a corporation of Michigan
Application April 17, 1956, Serial No. 578,682
11 Claims. (Cl. 51—170)



7. In an electromagnetic reciprocating portable sander, a housing having an open bottom, an electromagnetic core fixed within said housing, a coil for said core, an armature within said housing adjacent said core, a sandpaper platen secured to said armature and disposed below said housing, and means for supporting said armature comprising a bundle of rods of spring-like quality disposed on an axis normal to said platen, spaced portions on said bundle being fixed to said core and armature respectively, the free length of said bundle between said spaced portions being such that said armature is movable toward and away from said core on said axis.

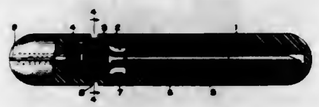
2,836,941
ART OF PACKAGING COMMODITIES IN EXPANSIBLE WRAPPERS
Paul B. Hultkrans and Dominic A. Perino, Milwaukee, Wis., assignors to Milprint, Inc., Milwaukee, Wis., a corporation of Delaware
Application June 29, 1953, Serial No. 364,592
4 Claims. (Cl. 53—14)



1. The method of packaging a commodity, which comprises, initially printing indicia on a selected local area of a wrapper sheet of thermoplastic material, thereafter subjecting only the major unprinted area of the wrapper sheet to sufficient heat to render the heated area expansible while isolating the local printed area of the wrapper sheet from the heat and simultaneously cooling the isolated area sufficiently to cause the printed area to retain its normal stability, subjecting the wrapper sheet to a stretching operation while the major unprinted area only thereof is still in expansible condition to thereby stretch the same while shaping the wrapper sheet to substantially accommodate the commodity to be packaged, and finally closing the wrapper sheet about the commodity to confine the same therein.

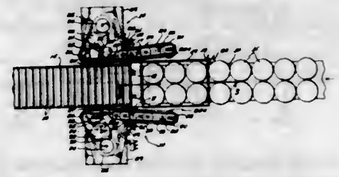
2,836,942
METHOD OF ENCASING AND STERILIZING NEEDLES
John J. Miskel, Brooklyn, N. Y., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
Application November 16, 1953, Serial No. 392,246
2 Claims. (Cl. 53—25)

2. A method for encasing a hypodermic syringe needle in a sterile, protective casing of rubber which comprises forming two partially vulcanized sections of rubber in a mold, each section being provided with a thin longitudinal recess to accommodate a needle and an enlarged recess to accommodate a needle collar, placing between said sections a needle having an enlarged collar portion



thereon intermediate its ends, and hermetically sealing the combination at a temperature and pressure sufficient to complete vulcanization of said rubber and sterilize said needle and providing an integral protective casing of rubber thereabout.

2,836,943
BOX SHIFTING APPARATUS
Earl Davis, Whittier, Calif., assignor to Parex Corporation, Ltd., South Gate, Calif., a corporation of California
Application March 8, 1954, Serial No. 414,705
14 Claims. (Cl. 53—52)



1. Box handling apparatus comprising means forming a surface for supporting a box at a predetermined location, endless flexible means mounted for endless movement adjacent said box location and operable to engage the box and advance it along said surface, means driving said endless means, means mounting a portion of said endless means for movement into and out of engagement with a box at said location, means operable to actuate said portion of the endless means into and out of said engagement with the box, a control unit for actuating said last mentioned means to move the endless means against the box, and a second control unit for actuating said last mentioned means to retract said endless means and positioned for operation by the box as it is advanced by said endless means.

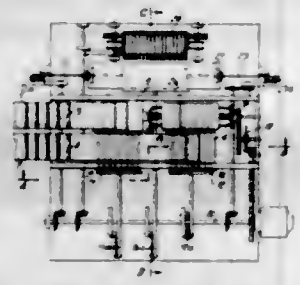
2,836,944

WITHDRAWN

2,836,945
APPARATUS FOR DELIVERING INTO BINS CIGARETTES WITH MOUTHPIECE COATINGS
Ulrich Riegger, Wentorf a. W., Post Reinbek, Germany, assignor to Kurt Körber & Co. K.-G., Hamburg-Bergedorf, Germany
Application August 2, 1954, Serial No. 447,125
Claims priority, application Germany August 10, 1953
9 Claims. (Cl. 53—150)

1. Apparatus for delivering to a single handling bin mouthpiece cigarettes arriving from a cigarette machine on two separate belts, and disposed with the mouthpiece ends oppositely on the two belts, comprising a pair of containers for receiving cigarettes from said belts, cigarette receiving means between said containers and said bin, means to transfer the cigarettes from the two containers to the bin, turning means interposed in the path travelled by the cigarettes leaving the one container to

position all the cigarettes reaching the bin in the same direction, means operable on said cigarette receiving



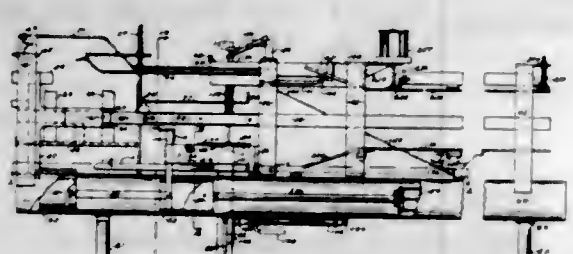
means to bunch said cigarettes together, and plunger means to project said cigarettes into said bin.

2,836,946

CARTON HANDLING MACHINE

Arthur C. Schroeder, Skaneateles, N. Y., assignor to Schroeder Machines Corporation, Syracuse, N. Y., a corporation of New York

Application November 30, 1949, Serial No. 130,226
9 Claims. (Cl. 53—186)



1. A carton handling machine comprising an elongated frame member, a magazine mounted on one end of said frame member for supporting a stack of flat, collapsed cartons, a carton packing station arranged on said frame member remote from said magazine, a carton support arranged at said packing station and operable to support a vertically arranged expanded carton, a carton advancing member slidably supported by said frame member for reciprocal movement axially thereof, actuating mechanism operable to effect forward and rearward movement of said carton advancing member, said carton advancing member having means cooperable upon forward movement of said member to simultaneously advance a flat collapsed carton from said magazine to said packing station and to advance an expanded carton from said packing station, said carton advancing member having a portion engaging a bottom flap of an expanded carton at said packing station and being operable upon rearward movement to fold said flap to horizontally closed position, and said carton support having folding means cooperable with said carton advancing member upon such return movement thereof to fold the oppositely disposed bottom flap to horizontally closed position.

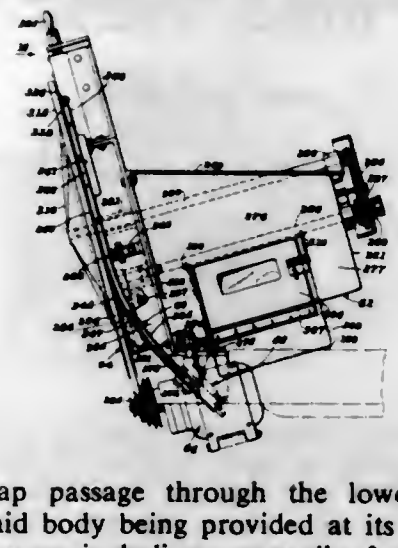
2,836,947

CAP FEEDING AND APPLYING MECHANISM

Carl L. Day and Frederick E. Fauth, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York

Original application June 23, 1952, Serial No. 295,024, now Patent No. 2,734,672, dated February 14, 1956. Divided and this application January 20, 1954, Serial No. 405,195
27 Claims. (Cl. 53—314)

1. In a cap applying mechanism, a cap chute comprising a bottom wall and side guide members movable with respect to each other on said bottom wall, a supporting bracket for said bottom wall and adapted to be fixed to a machine frame to extend horizontally, the cap outfeeding ends of said side guide members and said bottom wall being positioned adjacent the outfeed side of said bracket, a cap applying element to receive caps from the outfeed end of said chute and position them upon containers moving below said element on the machine frame, said cap applying element including a body provided with side walls and a bottom wall to thereby



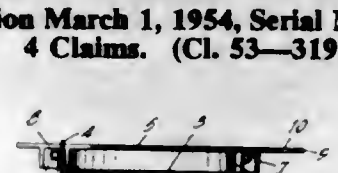
provide a cap passage through the lower portion of said body, said body being provided at its cap receiving end with recesses including outwardly facing shoulders to receive and space apart the outfeed ends of said guide members, said bottom wall being positioned in the plane of the bottom wall of said chute, and means to secure said guide members in adjusted position.

2,836,948

DEVICE FOR APPLYING COVERS OF FLEXIBLE MATERIAL TO PAPER CUPS AND LIKE RECEPTACLES

Charles C. Austin, St. Paul, Minn., assignor to Sutherland Paper Company, Kalamazoo, Mich., a corporation of Michigan

Application March 1, 1954, Serial No. 413,354
4 Claims. (Cl. 53—319)



4. A device for applying a disc-like cover to a receptacle having an upwardly facing internal annular shoulder-like cover seat spaced from its upper edge, the device comprising a body member having integral downwardly projecting concentrically disposed radially spaced annular flanges of substantially the same vertical width, each flange being adapted to seat a cover upon the shoulder of a receptacle when the body member is in supported engagement with the rim of the receptacle, the flanges being substantially radially spaced permitting the selective use of a flange of a diameter to be received within the receptacle.

2,836,949

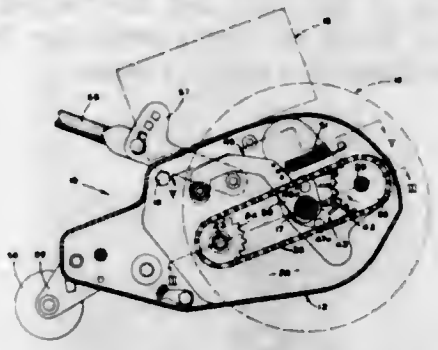
REEL TYPE POWER MOWER

Clayton K. Cole, Kalamazoo, and Abraham J. Oorbeck, Cooper Township, Kalamazoo County, Mich., assignors to Atlas Press Company, Kalamazoo, Mich., a corporation of Michigan

Application July 28, 1955, Serial No. 524,969
10 Claims. (Cl. 56—26)

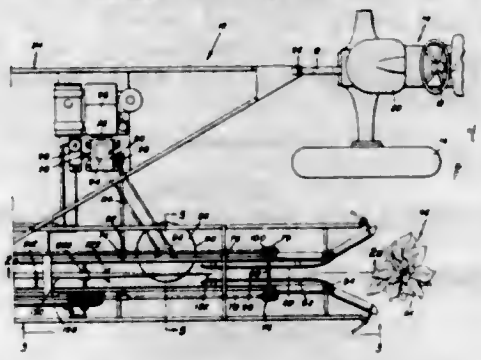
1. A disconnectible power translating device for a lawn mower having a frame mounting an axle with a ground engaging wheel and rotatably supporting a power driven cutting reel parallel with said axle, comprising: a drive shaft rotatably mounted upon said frame parallel with said axle; gear means drivingly connecting said shaft to said wheel; drive means including a spring clutch for se-

lectively coupling said reel with said shaft to rotate same; a clutch plate pivoted upon said frame and engageable with said clutch for contracting said spring clutch onto said shaft; a clutch arm pivoted upon said frame and engageable with said clutch plate; and a mower handle



pivoted upon said frame and engageable with said arm, said plate, arm and handle being pivoted about parallel axes and movement of said handle acting through said clutch arm to effect engagement of said plate onto said clutch.

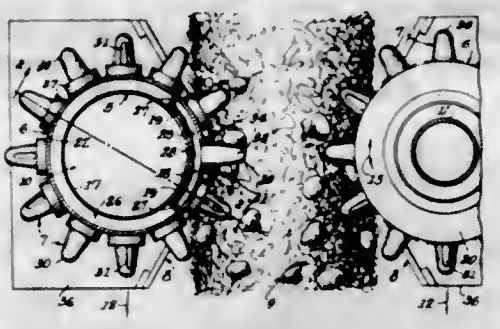
2,836,950
TOBACCO CUTTING MACHINE
Harvey H. Anderson, deceased, late of Harrodsburg, Ky., by Cordie Anderson, administratrix, Harrodsburg, Ky.
Application October 17, 1955, Serial No. 540,768
5 Claims. (Cl. 56—27.5)



1. A machine for harvesting tobacco comprising a longitudinally elongated steerable mobile frame, said frame including vertically extending members providing vertical height thereto, said frame having a longitudinally extending passage defining a path for tobacco stalks extending upwardly from the bottom of the frame whereby the frame may straddle the row of tobacco stalks being cut, longitudinally extending guide members mounted on the frame and extending into the passage adjacent the bottom of the frame, each of said guide members flaring outwardly at the forward end thereof for guiding tobacco stalks between the guide members, a pair of transversely spaced vertically disposed endless belt members mounted on said frame adjacent the forward end thereof, said belt members having vertical flights defining the forward portion of the passage whereby tobacco stalks passing between the belt members will be lifted upwardly, means mounted on the frame for driving said endless belt members, a saw rotatably mounted on said frame and being disposed in a horizontal plane below the plane of the lower ends of the belt members with the periphery of the saw disposed in the path of movement of the tobacco stalks through the passage for cutting the stalks adjacent the ground surface, and means on said frame for conveying the cut tobacco stalks rearwardly on the frame.

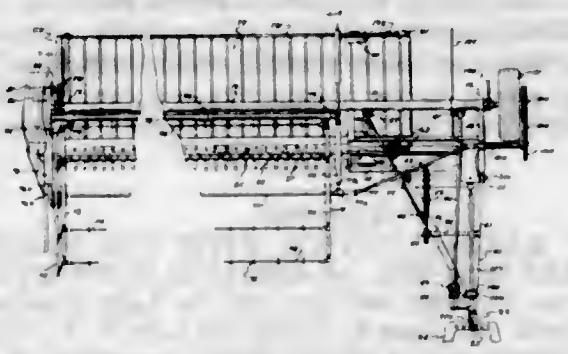
2,836,951
PNEUMATIC COTTON HARVESTER UNIT
Lawrence C. Annis, Bakersfield, Calif.
Application December 19, 1955, Serial No. 553,809
9 Claims. (Cl. 56—30)

1. A cotton picker unit comprising a fixed housing having a side opening and to the interior of which suction is adapted to be applied, a revoluable drum around and spaced from the housing, sealing means between said housing and said drum, said means circumscribing the mentioned side opening, a multiplicity of radially outwardly directed nozzles each having a side opening there-



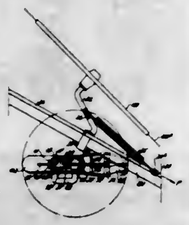
in and rotationally carried by the drum and subject to the suction in the interior of said housing when in register with said side opening, and means to rotate the nozzles on their respective axes, said latter means comprising a rail having frictional engagement with said nozzles as they are rotated by the opening in the housing.

2,836,952
CROP CUTTING AND WINDROWING MACHINE
Horace D. Hume, Mendota, Ill.
Application November 26, 1954, Serial No. 471,471
6 Claims. (Cl. 56—192)



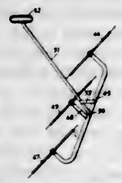
1. In a crop cutting and windrowing machine comprising a vertical U shaped main frame formed of a transverse horizontal section having depending legs fixed thereto at each end, wheels mounted at the lower ends of said legs, a cutting mechanism supported on said frame forward of said wheels and below said transverse horizontal section, a harvester reel carried on said frame above the cutting mechanism, a transverse draper carried on said frame behind the cutting mechanism whereby to move the cut crops to one side of the machine, and a tow frame secured to one end of the main frame, the improvement for mounting the tow frame comprising a pair of spaced apart forwardly extending vertical frames secured to one end of said main frame, a horizontal sub-frame supported between said spaced apart frames at the lower ends thereof, said tow frame pivotally connected to said sub-frame, a control lever pivoted to the tow frame near the front thereof, a connecting bar pivoted to the control lever and extending rearwardly, the opposite end of said bar being pivoted to the horizontal section of the main frame, whereby movement of the control lever will cause tipping of the main frame about the wheels, a second lever pivoted to the tow frame, a push bar having one end pivoted to the top of said second lever and having the other end pivoted to the horizontal section of the main frame, and a spring under tension connected to said second lever and having its opposite end connected to said sub-frame, whereby to balance the weight of the machine against the tow frame.

2,836,953
SIDE DELIVERY RAKE WITH RUNNING WHEEL SUPPORTING MEANS
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch limited company of the Netherlands
Application February 2, 1954, Serial No. 407,772
Claims priority, application Netherlands February 6, 1953
8 Claims. (Cl. 56—377)



1. A device for laterally displacing rakeable substance lying on the ground comprising a frame; axle means mounted on said frame; running wheels supporting said frame for ground traversing movement; a raking member supported by said axle means on said frame for free rotation and arranged obliquely with respect to the direction of movement of said frame, said raking member being put into rotation by contact with the ground traversed; and elastic means supporting the running wheels on the frame, said elastic means including running wheel supports coupled to said running wheels to enable the same to move vertically with respect to the frame, said elastic means maintaining said running wheel supports in a fixed angular relationship to said frame.

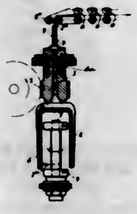
2,836,954
ROTARY RAKING DEVICE WITH THE RAKING WHEELS SERVING AS GROUND SUPPORTS
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch limited company of the Netherlands
Application August 19, 1954, Serial No. 450,904
Claims priority, application Netherlands August 27, 1953
2 Claims. (Cl. 56—377)



1. A device for laterally displacing material lying on the ground comprising a frame, ground supported rake wheels operatively associated with said frame and arranged in raking inter-relationship, and draft means operatively associated with said frame, said wheels constituting the sole support for said frame.

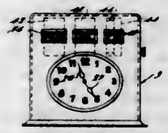
2,836,955
METHOD AND MACHINE FOR SPINNING ROVINGS
Walter Frenzel, Dresden, Germany
Application October 12, 1953, Serial No. 385,646
8 Claims. (Cl. 57—36)

1. A method for spinning slivers, comprising the steps of: drawing out a sliver on a fly frame so as to form a roving, subjecting said roving to a hard twist so as to render same undrawable and winding simultaneously the twisted roving on a bobbin, thereafter untwisting the roving for returning same into drawable condition by means of gripping means rotating in a direction opposite to the direction of the twist, and carrying out said untwisting shortly before the roving enters the feed rollers of the drawing frame of a spinning frame.



6. In a spinning machine having a drawing frame and feeding means for feeding a roving thereto, a spindle arranged for receiving a bobbin on which twisted roving is wound and from which it is fed to the drawing frame, a flyer rotatable about said spindle and bobbin mounted thereon and having means to guide the roving from the bobbin to the feeding means, rotatable gripping means for gripping said roving disposed directly before the feeding means, and driving means cooperating with said flyer and said roving gripping means to rotate the same at equal speeds.

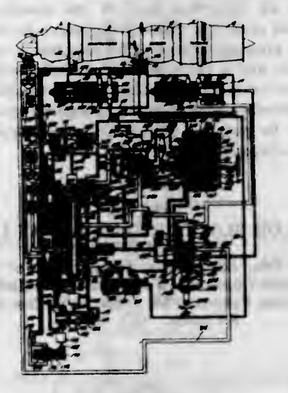
2,836,956
ELECTRICALLY DRIVEN CALENDAR CLOCK
Lees W. Chadwick, Miami, Fla.
Application July 29, 1955, Serial No. 525,279
20 Claims. (Cl. 58—6)



1. In a calendar clock, motor means for driving the hour and minute hands in a normal manner to provide the time of day, a month name drum, a day name drum, and a pair of date drums, means for advancing said drums, gear sectors moved to raised position by said motor means for storing energy for rapidly actuating said advancing means, and control means for releasing said sectors.

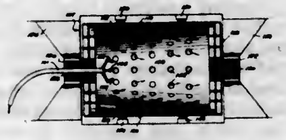
2,836,957
FUEL CONTROL FOR A GAS TURBINE POWER PLANT
Samuel S. Fox, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application June 21, 1952, Serial No. 294,903
15 Claims. (Cl. 60—39.28)

6. In a fuel control for a gas turbine power plant having a compressor, a combustor, and a turbine, and nozzles for discharging fuel into the combustor, said control having a source of fuel under pressure, conduit means from said source to said nozzles, a chamber in said conduit means through which the fuel flows, a metering valve in said conduit means upstream of said chamber for metering maximum fuel into said chamber as a function of turbine speed, compressor air inlet temperature and compressor discharge pressure, and a plurality of other meter-



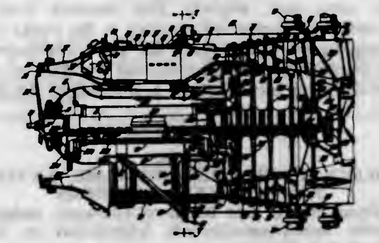
ing means in parallel in said conduit means downstream of said chamber for metering fuel at selected rates.

2,836,958
JET POWER PLANT WITH UNOBSTRUCTED ROTATING COMBUSTION CHAMBER
John A. Ward III, Duluth, Minn.
Application February 17, 1954, Serial No. 410,905
5 Claims. (Cl. 60—39.35)



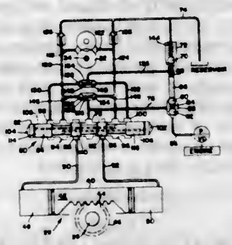
1. In a rotary jet engine, the combination of spaced front and rear stationary supports having axially aligned bearings therein, front and rear outer hubs rotatable in the bearings of the respective supports, front and rear inner hubs rotatable in the respective outer hubs, outer compressor blade means and outer turbine blade means rigid with the respective front and rear outer hubs and extending radially outwardly therefrom, inner compressor blade means and inner turbine blade means rigid with the respective front and rear inner hubs and extending radially outwardly therefrom, an open-ended shell having front and rear ends thereof secured to the respective inner compressor blade means and inner turbine blade means coaxially with said bearings and affording an unobstructed combustion chamber therein, an open-ended jacket having front and rear ends thereof secured to the respective outer compressor blade means and outer turbine blade means and surrounding said shell in radially outwardly spaced coaxial relation, said compressor blade means and said turbine blade means having spaces in direct communication with the respective front and rear ends of said combustion chamber and with the respective front and rear ends of the space between said shell and said jacket whereby gases may flow through the engine in a straight path coaxial with said bearings, and stationary fuel supply means extending into said combustion chamber through one of said inner hubs.

2,836,959
GAS TURBINE ENGINE SUPPORTING FRAME
Charles J. McDowall and Oscar V. Montieth, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application January 11, 1950, Serial No. 138,026, now Patent No. 2,763,462, dated September 18, 1956. Divided and this application March 21, 1956, Serial No. 572,861
9 Claims. (Cl. 60—39.31)



1. In a rotary engine, a frame having bearings for a central shaft, a torque ring surrounding said frame, struts supporting said frame within said torque ring, a cylindrical support secured to said torque ring and extending rearwardly, a rear bearing for a central shaft, and rear struts connecting said rear bearing and said cylindrical support.

2,836,960
HYDRAULIC POWER STEERING
Richard A. Wittren, Cedar Falls, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application July 6, 1956, Serial No. 596,333
9 Claims. (Cl. 60—52)



1. In a hydraulic power steering system including a steering motor having opposite fluid-receivable ends, a main fluid pressure source, a reservoir and a reversible steering pump having opposite sides alternately serviceable as discharge and intake sides depending upon the direction of steering, the improvements comprising: a bi-directional control valve selectively actively and neutrally positionable to respectively mobilize and demobilize the motor and having an inlet port connected to the main pressure source, a pair of motor ports connected respectively to opposite ends of the motor and disconnected from the inlet port when the control valve is neutrally positioned, first and second servo ports, and first and second relief ports connected respectively to the servo ports when the control valve is neutrally positioned; a pair of relief lines connecting the relief ports to the reservoir; relief valve means normally preventing relief line flow to the reservoir and including in each relief line a biased check valve yieldably opposing flow to the reservoir; means affording first and second opposed fluid-receivable servo chambers connected respectively to the first and second servo ports and associated with and for actively and neutrally positioning the control valve; a pair of servo lines connecting the servo ports respectively

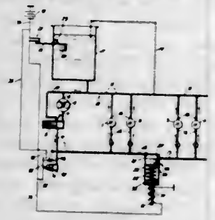
to the opposite sides of the steering pump so that operation of said pump in one direction pressurizes the first servo chamber via the first servo port and withdraws fluid from the second servo chamber via the second servo port to actively position the control valve; and said control valve being so constructed that when it is thus actively positioned the inlet port is connected to one motor port, the other motor port is connected to the second servo port and the second relief port is cut off from the second servo port, whereby fluid pressure from said other end of the motor is conducted to the intake side of the pump via the second servo line and is conducted also to the second servo chamber so that cessation of operation of the pump incurs neutral positioning of the control valve.

2,836,961
FILLER MEMBER RETAINING MEANS FOR WHEEL BRAKE CYLINDERS
Karl Brand, Ebern, near Bamberg, Germany, assignor to Schafer Industriegesellschaft Schweinfurt m. b. H., Schweinfurt, Germany
Application November 29, 1955, Serial No. 549,780
Claims priority, application Germany December 1, 1954
1 Claim. (Cl. 60—54.6)



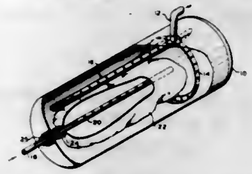
A filler member retaining arrangement for an hydraulically operated brake system for automotive vehicles comprising a braking cylinder having engaging means on an inner wall thereof, a filler member within said cylinder and comprising a body member having a bore therethrough, a substantially S-shaped self-spreading spring having a central portion extending through said bore and ends extending outside said body member, said filler member having a centrally located spaced annular groove for receiving the ends of said spring, said groove being at least as deep as the diameter of the wire comprising said spring, the ends of said spring being engageable by said engaging means on an inner wall of said cylinder whereby leakage of hydraulic fluid is minimized.

2,836,962
HYDRAULIC ACTUATING SYSTEM, PARTICULARLY FOR MOTOR VEHICLES
Hans-Joachim M. Förster, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application June 30, 1955, Serial No. 519,139
Claims priority, application Germany July 1, 1954
8 Claims. (Cl. 60—97)



1. Hydraulic actuating system comprising a main group of fluid motors, a secondary group of fluid motors, each motor having an inlet and an outlet, a pump having a suction port and a discharge port, a main pressure line connecting said discharge port to the inlets of said main motors, a secondary pressure line establishing a communication between said discharge port and the inlets of said secondary motors, an exhaust pipe connecting the outlets of said motors to said suction port, a fluid reservoir communicating with said suction port, means responsive to an abnormal drop of the quantity of liquid stored in said reservoir, means responsive to an abnormal drop of the pressure produced by said pump in said main pressure line, and a valve inserted in said secondary pressure line and cooperatively coordinated to said means to be closed thereby, whereby said secondary group of fluid motors will be put out of operation in response to any one of said abnormal drops.

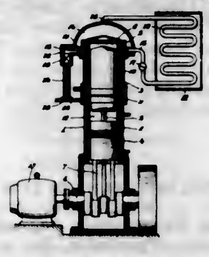
2,836,963
BAG OR BLADDER FLEXIBLE AT LOW TEMPERATURES
Homer M. Fox, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application February 28, 1955, Serial No. 490,822
8 Claims. (Cl. 62—1)



1. A tank adapted to feed liquid oxygen to a combustion zone without interruption regardless of the position of the tank comprising in combination a rigid container having a pressurizing gas inlet line extending almost through the interior of said container and a liquid oxygen outlet line; perforate conduit means for passing liquid oxygen from any portion of said container to said outlet line comprising a perforate conduit extending along the inside wall of said container generally parallel to said gas inlet line and a ring conduit extending around the inside wall of said container adjacent one end of said perforate conduit, both said conduits being connected with said outlet line; a bladder enclosing that portion of said inlet line within said container in sealed relation therewith, said bladder being constructed of hydrogenated polymer of the group consisting of homopolymers of butadiene and copolymers of butadiene and styrene containing not more than 30 weight percent styrene based on the weight of the monomers, the unsaturation of said polymer being below about 30% based upon a theoretical value of 100% for the unhydrogenated polybutadiene and being substantially the size and shape of said container when filled out; and perforations in said portion of line for passing fluid into said bladder so as to fill out same and expel said liquid oxygen from said container.

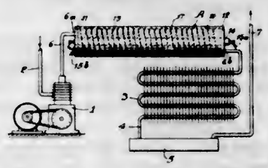
2,836,964
REFRIGERATING DEVICE COMPRISING A GAS-REFRIGERATOR
Klaas Roozendaal and Evert Hellingman, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 4, 1954, Serial No. 466,794
Claims priority, application Netherlands
November 5, 1953
7 Claims. (Cl. 62—2)

1. A refrigerating device comprising a cold gas refrigerator; a pipe system including an evaporator; a refrigerated space; and auxiliary medium circulating in said pipe system, said evaporator and part of said cold gas refrigerator; said medium being condensed in said cold gas refrigerator and supplied to said refrigerated space where said condensate is evaporated and the evaporated auxiliary medium returned to communication with said cold gas refrigerator; said auxiliary medium being a vapor in at least part of the cycle and having a boiling tem-



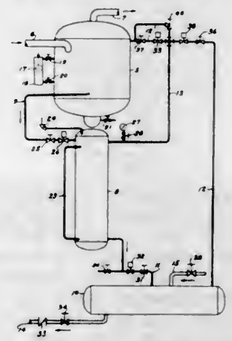
perature which is less than 20° C. at a pressure of approximately 20 atmospheres, while at a temperature of 20° C. said pipe system contains a maximum of 1 gram-molecule per dm.^{3} of said medium.

2,836,965
HEAT EXCHANGERS FOR VAPORIZING LIQUID REFRIGERANT
Herman W. Kleist, Hollywood, Ill., assignor to Dole Refrigerating Company, Chicago, Ill., a corporation of Illinois
Application March 7, 1955, Serial No. 492,435
7 Claims. (Cl. 62—3)



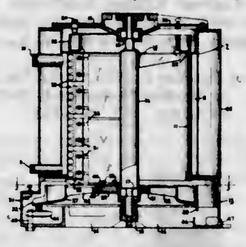
1. The method of maintaining predetermined gas pressure in a refrigerating circuit, which includes sensing ambient temperature, and heating the refrigerant, as it passes from compressor to condenser, in controlled relation to variations of such ambient temperature.

2,836,966
LIQUID REFRIGERANT TRANSFER SYSTEM
Erich J. Kocher, Milwaukee, and Joseph N. Long and Francis T. Pallanch, Wauwatosa, Wis., assignors to The Vilter Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application July 15, 1955, Serial No. 522,322
6 Claims. (Cl. 62—3)



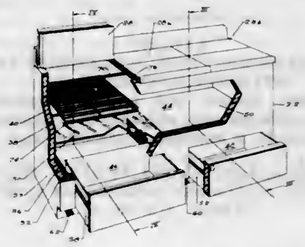
1. In a liquid refrigerant transfer system adapted for cooperation with a refrigerant circulating compressor communicable with the low pressure discharge and with the high pressure refrigerant supply lines of an evaporator, an accumulator for collecting liquid refrigerant from the evaporator discharge line, a liquid refrigerant transfer drum disposed below the accumulator, and means comprising a single liquid level actuated switch operable directly by variations of the liquid level within said accumulator to periodically transfer liquid refrigerant from the accumulator to the transfer drum and from the latter to the high pressure supply line.

2,836,967
FLAKE ICE MAKING APPARATUS
Erich J. Kocher, Milwaukee, Wis., assignor to The Vilter Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application January 14, 1957, Serial No. 634,023
12 Claims. (Cl. 62—107)



1. A flake ice making machine comprising, a refrigerated jacket having an inner annular freezing surface, a rotor revolvable within said jacket, a plurality of knives carried by said rotor and having the cutting edges thereof movable along said freezing surface, means for distributing water over said freezing surface remote from the cutting zone, an annular non-rotatable gutter at the lower end of said refrigerated jacket, and means carried by said rotor and revolvable with said knives for laterally moving said gutter to maintain the portion thereof below the cutting zone out of alinement with said freezing surface while maintaining the portion of said gutter below the water distributing zone in alinement with said freezing surface to catch excess water dripping therefrom.

2,836,968
REFRIGERATOR WITH PLURAL REFRIGERATED COMPARTMENTS
Edward A. Ferris, Utica, N. Y.
Application October 6, 1954, Serial No. 460,629
7 Claims. (Cl. 62—117.3)



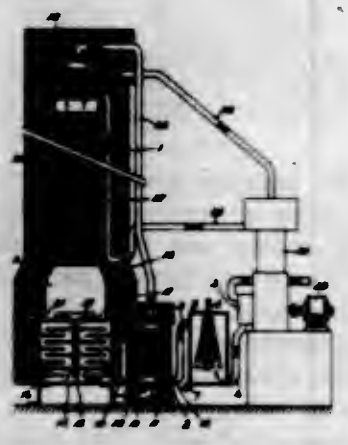
7. A custom kitchen cabinet refrigerator of the character described comprising a low, substantially flat top oblong frame portion having insulated bottom and side walls and open top; a plurality of refrigerated compartments disposed in said frame portion including a first compartment accessible through said open top, a second compartment separated from said first by a non-insulated solid partition and a third compartment separated from said first and second by thickly insulated partitions; said second and third compartments opening on the side of said frame

portion and having a drawer with substantially solid sides and bottom disposed therein; said first compartment extending across the entire length and width of the top of said frame portion; at least one movable shelf slidably mounted in said first compartment, said shelf having a surface area of approximately one-half the cross-sectional area of said first compartment; a refrigerating system having a first evaporator section positioned about said first compartment and a second evaporator section positioned about said third compartment whereby different temperatures may be maintained in each compartment; and control means for regulating said refrigerating system.

2,836,969
GAS RECTIFYING SYSTEM

Jacob Willem Laurens Köhler, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 5, 1954, Serial No. 460,442
Claims priority, application Netherlands October 22, 1953
3 Claims. (Cl. 62—123)



1. A gas rectifying system comprising a gas rectifying column provided with a condenser and a boiler, a first heat exchanger in which air to be separated is in thermal contact with nitrogen and some impurities are separated from the air, a second heat exchanger in which the additional impurities in the air to be separated are removed by freezing out, means to saturate the air with water vapor before said impurities have been frozen out in order to increase the heat content of said air, said heated air heating the oxygen in said boiler, said condenser in said rectifying column for condensing said nitrogen, and a cold-gas refrigerator for withdrawing heat from said condenser.

2,836,970
METHOD OF KNITTING A BACKED FABRIC WITH BINDING THREAD

Jaroslav Deiss, Tisnov, and Jaroslav Dvorak, Brno-Obrany, Czechoslovakia, assignors to Vyzkummy ustav tvarecich stroju a technologie tvarevi, Brno, Czechoslovakia

Application April 16, 1954, Serial No. 423,633
Claims priority, application Czechoslovakia April 20, 1953
1 Claim. (Cl. 66—9)

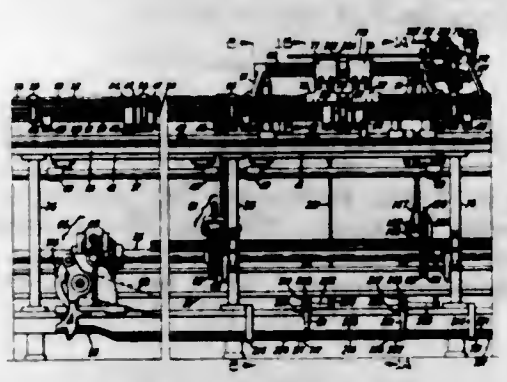


A method of knitting backed fabric with binding thread on a circular knitting machine having latch needles and sinkers with two sinking planes, comprising the steps of successively feeding a filling thread and a binding thread on the circumference of the needle ring, drawing-in the loops of the binding thread in the upper sinking plane, laying-in a facing thread in the lower sinking plane upon needles which are positioned so that the ends of the open needle latches are disposed below said lower sinking plane, laying the loops of the binding thread upon said needles between said facing thread and the hooks of the needles, and knocking-over the fabric in a plane disposed below said lower sinking plane.

2,836,971
FASHIONING MECHANISM FOR KNITTING MACHINES

John C. Arentz, West Reading, Pa., assignor to Textile Machine Works, Wyomissing, Pa., a corporation of Pennsylvania

Application December 17, 1956, Serial No. 628,847
14 Claims. (Cl. 66—89)

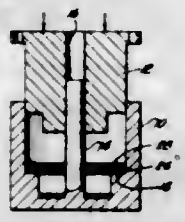


1. In a knitting machine having means for knitting and fashioning selvaged fabric blanks, said fashioning means comprising point combs for shaping selvages of said fabric blanks, and means for operating said point combs including a reversely threaded spindle, means for turning said spindle in one direction, means for turning said spindle in a direction opposite to said one direction, a member mounted on and movable axially of said spindle for controlling the operation of said turning means, means for moving said member between positions in which the member permits operation of one of said turning means and inactivates the other, and means for operating said moving means for moving said member between said positions.

2,836,972
IMPREGNATING AND MOLDING OF LEATHER

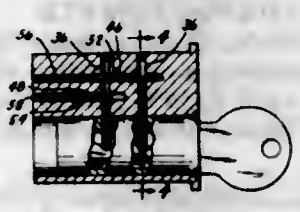
Keith R. Cranker, Trenton, N. J., and Daniel J. Smith, Elkton, Md., assignors to Thiokol Chemical Corporation, Trenton, N. J., a corporation of Delaware

Application December 30, 1954, Serial No. 478,594
5 Claims. (Cl. 69—21)



1. The method of making a molded leather object impregnated with a polythiol polymer which comprises introducing into a mold a leather object to be molded a liquid polythiol polymer and a curing agent capable of reacting with said liquid polymer to convert it into solid form, said leather object and liquid polymer being separately introduced into said mold, and subjecting the leather object, liquid polymer and curing agent within said mold to heat and pressure to force said liquid polymer into the pores of said leather object, to mold said object, and to at least partially cure the polymer within said leather object.

2,836,973
ANTI-PICK CYLINDER LOCK
Salvatore S. Schillizzi, New York, N. Y.
Application October 25, 1954, Serial No. 464,661
8 Claims. (Cl. 70—421)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. In a pin tumbler cylinder lock, a shell formed with pin tumbler bores, a key plug formed with pin tumbler bores adapted for alignment with the pin tumbler bores in said shell, said key plug mounted for rotation in said shell, key controllable locking pin tumblers in the pin tumbler bores formed in said shell and said key plug, respectively, key plug jamming means slidable in said shell towards said key plug, and biased means slidable in said shell transversely to said jamming means and continuously pressing against said jamming means and adapted for forcing said key plug jamming means part way into at least one pin tumbler bore in said key plug and also adapted for projecting into the path of said jamming means to prevent withdrawal of said jamming means from said key plug to jam said key plug against any further rotation pursuant to a lock-picking attempt, the abutting surface portions of said key plug jamming means and said biased means, respectively, being inclined to provide for camming action, said key plug adapted for rotation in said shell free of interference from said jamming means through the use of a properly serrated key.

2,836,974
INDICATOR FOR WATER CONTENT OF LIQUIDS
Walter O. Krause, Marinette, Wis., assignor to Ansul Chemical Company, Marinette, Wis., a corporation of Wisconsin
No Drawing. Application November 26, 1956
Serial No. 624,216
6 Claims. (Cl. 73—53)

1. An indicating element for determining quantities of water just above or just below the range of 1.2 to 2.4 percent relative saturation in liquids of low water solubility selected from the group consisting of trichloromonofluoromethane, dichlorodifluoromethane, monochlorotrifluoromethane, monochlorodifluoromethane, methyl chloride, gasoline and kerosene adapted to be immersed in the said liquids, said indicating material comprising a mat of fibers chemically inert to cobaltous bromide having uniformly distributed therein 8 percent to 160 percent by weight pure anhydrous cobaltous bromide, the color of the indicating element just above the range of 1.2 to 2.4 percent relative saturation being Purple Red-Purple (Munsell color [10.0 P] 7/8) and the color just below said range being Yellow Green (Munsell color [2.5 G] 7/8).

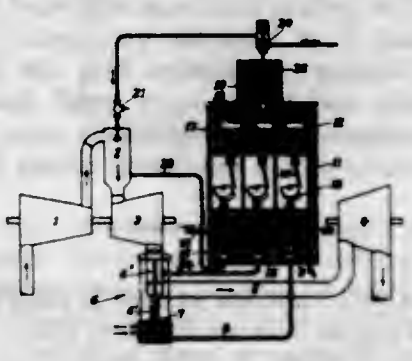
2,836,975
DISPOSABLE VISCOSITY CUP
Maynard R. Euverard, Short Hills, N. J.
Application August 26, 1954, Serial No. 452,301
2 Claims. (Cl. 73—55)

1. A disposable or one-use efflux-type viscometer consisting of an orifice cup and a receiver cup, said orifice and receiver cups being formed of paper and being identical with each other in shape and size, said orifice cup having a substantially plane bottom, said bottom being provided with a tubular orifice member extending beneath the bottom of the cup and having a length greater than its internal diameter, said orifice and receiver cups having fill lines, parallel to and intermediate the tops and bottoms of the cups, the fill line of the orifice cup representing an arbitrary standard volume of liquid



the viscosity of which is to be determined and the fill line of the receiver cup representing a volume somewhat smaller than said standard volume.

2,836,976
DETERMINING AND CONTROLLING THE INLET TEMPERATURE OF A GAS TURBINE
Walter Traupel, Zurich, Switzerland, assignor to Sulzer Frères, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application August 11, 1954, Serial No. 449,196
Claims priority, application Switzerland August 13, 1953
1 Claim. (Cl. 73—346)



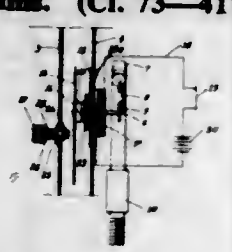
An apparatus for measuring the inlet temperature T_1 of a gas turbine comprising means responsive to and actuated by the outlet temperature T_2 of the turbine for producing a force corresponding to the outlet temperature of the turbine, means for transforming said force into a fluid pressure which is proportional to the logarithm of the outlet temperature of the turbine, means responsive to the inlet pressure p_1 of the turbine and transforming the turbine inlet pressure into a fluid pressure which is proportional to the logarithm of the inlet pressure of the turbine, means responsive to the outlet pressure p_2 of the turbine and transforming the turbine outlet pressure into a fluid pressure which is proportional to the logarithm of the outlet pressure of the turbine, and means jointly actuated by the aforesaid three fluid pressures and coordinating said fluid pressures according to the ratio defined by the formula

$$\eta \cdot \frac{\chi - 1}{\chi}$$

in which η stands for the internal efficiency of the turbine and χ stands for the ratio between the specific heats at constant pressure and at constant volume of the gases operating the turbine for transforming said fluid pressures into a force indicating the logarithm of the inlet temperature of the turbine according to the formula

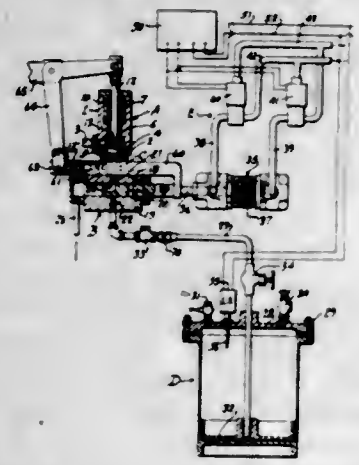
$$\log T_1 = \log T_2 + \eta \cdot \frac{\chi - 1}{\chi} (\log p_1 - \log p_2)$$

2,836,977
CUMULATIVE GAUGE
Franklin W. Cook, Sacramento, Calif., assignor, by mesne assignments, to Wafnet Indicator Co., Omo Ranch, Eldorado County, Calif., a partnership
Application September 27, 1954, Serial No. 458,439
8 Claims. (Cl. 73—417)



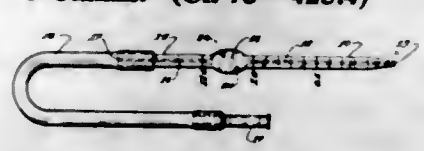
8. In a gauge which includes a dial having a scale thereon, a spindle extending axially of the dial, a primary hand fixed on the spindle to read on the dial scale, and pressure actuated means operative to rotate said spindle; a secondary hand on the spindle to likewise read on the dial scale, the primary hand being spaced from the dial and the secondary hand being disposed between the same for relative rotation and axial sliding on the spindle, a permanent magnet fixed in connection with the spindle rearwardly of the primary hand operative to normally releasably secure the secondary hand in a forward position on the spindle for rotation with said primary hand, the secondary hand having a hub normally engaging the permanent magnet in substantially matching face to face engagement, a normally deenergized electro-magnet mounted on the dial at the back thereof and in surrounding relation to the spindle, the dial being of non-metallic material, said electro-magnet when energized being effective to release and cause rearward axial sliding of the secondary hand from the permanent magnet into face to face holding engagement with the front of the dial, the spindle and the primary hand then being rotatable independently of said secondary hand, and a normally open, switch closed energizing circuit for the electro-magnet.

2,836,978
AUTOMATIC LIQUID SAMPLE DISPENSER
Fred H. Warren, Findlay, Ohio
Application October 28, 1955, Serial No. 543,521
3 Claims. (Cl. 73—422)



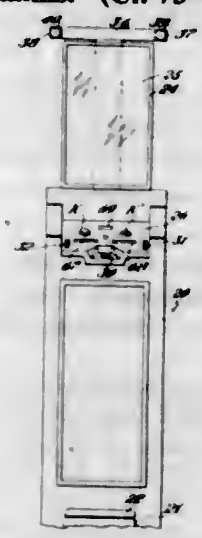
1. In a liquid sampler, means forming a passage from a flow line and including a sample taking space, an admission valve between said flow line and said space, a distributing valve at the outlet end of said space, a plunger projecting through said admission valve and coacting therewith to open it when the plunger is moved outward, said plunger when moved inward permitting a closing of the admission valve and projecting into said space to effect displacement of liquid therein, means for closing the admission valve when relieved of the opening pressure of said plunger, and mechanism operable to move said plunger to open said admission valve and move said distributing valve to close said passage during one portion of a sample taking cycle and to open said distributing valve and move said plunger to permit closing of the admission valve and displacement of liquid in said space during another portion of said cycle.

2,836,979
MIXING PIPETTE
James F. Ryley, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application April 5, 1955, Serial No. 499,455
3 Claims. (Cl. 73—425.4)



1. A mixing pipette comprising an upper capillary tube, a lower capillary tube and a mixing chamber arranged between said upper and lower tubes, said chamber having one or more projections formed therein extending into the internal space of the said chamber.

2,836,980
APPARATUS FOR MEASURING WEIGHT AND HEIGHT
Hubert M. Giepen, Cohasset, Mass., assignor to Red Mill Company, Boston, Mass., a partnership
Application July 27, 1953, Serial No. 370,361
25 Claims. (Cl. 73—432)

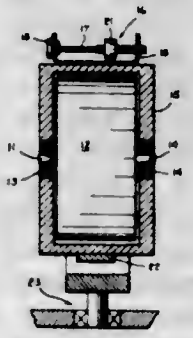


1. In combination in apparatus for measuring height and weight, a scale platform, height measuring means including a vertically movable carriage, means normally retaining said carriage in an elevated position, and means for effecting movement of the carriage in elevation, said means comprising an electric motor for moving the carriage down and a second motor for moving the carriage up, means which responds to the insertion of a coin, only after a downward motion of the scale platform, for closing the circuit of the motor which moves the carriage down, detector means movable with the carriage, said detector means being operable when it reaches the level of the head of a person standing on the scale platform to break the circuit of the motor which moves the carriage down, and means responsive to the removal of weight from the scale platform for closing the circuit of the motor which moves the carriage up.

2,836,981
ACCELERATION ERROR COMPENSATION
Charles Karatzas Jackson Heights, and George H. Neugebauer, Northport, N. Y., assignors to American Bosch Arma Corporation, a corporation of New York
Application August 8, 1955, Serial No. 527,086
3 Claims. (Cl. 74—5)

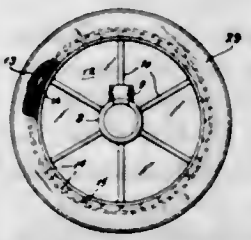
1. In a device of the character described, a gyroscope, a casing for said gyroscope, a structure for supporting said

casing, said structure having unequal compliances in at least two mutually perpendicular directions, a cantilever beam carried by said casing, a weight on said beam, said



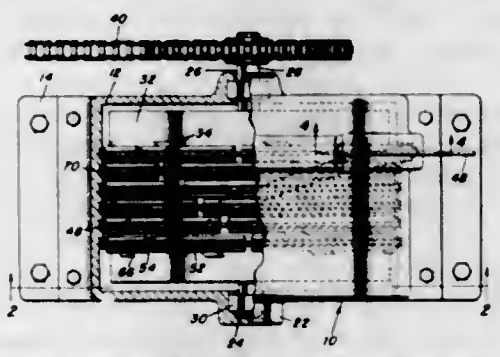
beam being mounted so as to have its maximum stiffness parallel to the direction of maximum compliance of said structure.

2,836,982
FRICTION DRIVE WHEEL
Otto J. Voss, Town and Country, and Loren Willhoft, Frontenac, Mo., assignors to St. Louis Diecasting Corporation, St. Louis, Mo., a corporation of Missouri
Application May 18, 1956, Serial No. 585,894
4 Claims. (Cl. 74—214)



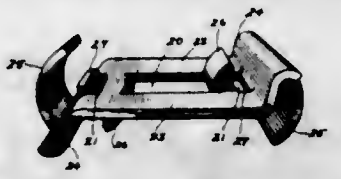
1. A friction drive wheel comprising a die casting having a rim, a continuous sinuous band concentric with said rim but radially spaced outwardly therefrom, said band being integrally connected with said rim by a plurality of spaced ribs whose walls are substantially parallel with the radii on which they are located respectively, and a rubber-like tread on said rim embedding said band and said ribs.

2,836,983
POWERED UNIT FOR ENDLESS CONVEYOR CABLES
Felix I. Stewart, Huntsville, Ala.
Application September 18, 1956, Serial No. 610,518
10 Claims. (Cl. 74—224)



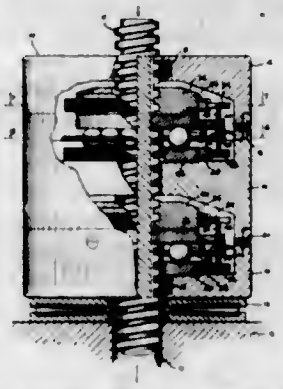
1. A powered unit comprising a hollow casing, a drum rotatable within said casing, means for driving said drum, a plurality of pivotally interconected lugs mounted on said drum for transverse sliding movement, said lugs forming an endless flexible member, means on the exterior surface of the lugs for receiving a cable, means on said lugs for engaging the inner surface of the casing for guiding the movement of the lugs on the drum, cross-over means for said lugs whereby the lugs may return to a position for receiving additional cable, each of said lugs being provided with a diagonal groove on the inner surface thereof, said drum having a plurality of diagonal projecting ribs thereon for guiding the lateral movement of the lugs on the drum.

2,836,984
DRIVE CHAIN
Wilfrid H. Bendall, New York, N. Y.
Application May 16, 1957, Serial No. 659,528
15 Claims. (Cl. 74—249)



15. A chain link member constructed of flat sheet material having a plurality of rectangular apertures and a plurality of transversely curved portions at opposite ends thereof, said curved portions comprising identically shaped and oppositely disposed link pivotal members at said opposite ends.

2,836,985
TORQUE CONVERTING APPARATUS
Arthur M. Maroth, Wilton, Conn.
Application March 13, 1957, Serial No. 645,743
6 Claims. (Cl. 74—424.8)

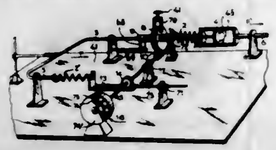


1. In a torque converter for translating rotary movement into linear movement, in combination, a threaded shaft, a housing member rotatably mounted on said shaft, mechanism for imparting linear motion to said shaft upon rotation of said housing member including a first and a second cam plate interposed between said housing member and said shaft and having opposing wavy cam surfaces of similar contour, said first cam plate engaging and connected to said housing member to rotate therewith about said shaft and said second cam plate being slidably keyed to said shaft to move longitudinally only with respect thereto, a plurality of balls interposed between said cam surfaces, said surfaces being shaped so that the opposing zones of contact with said balls will at all times be parallel, a cage for said balls interposed between said cam plates, a nut threaded to said shaft opposite said second cam plate, means forming a rotary connection between said first cam plate, said cage, and said nut and adapted to intermittently rotate said nut in a direction to move it toward said second cam plate when said cam plates are moving toward each other, whereby said cam plates intermittently move apart to impart linear movement to said shaft and move toward each other when said nut rotates to move toward said second cam plate.

2,836,986
CONTROL AID
Marcel Kretz, Paris, France, assignor to Giravions Dorand, Paris, France, a French company
Application July 21, 1954, Serial No. 444,840
Claims priority, application France August 5, 1953
8 Claims. (Cl. 74—470)

1. A control aid to be interposed between a control and a controlled member, comprising, in combination, a correcting system including retardating means directly interposed between said control and controlled mem-

bers and adapted to interconnect the same in a substantially positive manner during quick displacements of said control member, a displaceable anchoring member and first return-to-neutral elastic means interposed between said anchoring and controlled members, and a resetting system including means to shift said anchoring member



with respect to said controlled member in the direction in which the latter has been positively displaced by said control member, second return-to-neutral elastic means operatively connected between said control member and said anchoring member shifting means, and retardating means to control the action of said second elastic means on said shifting means.

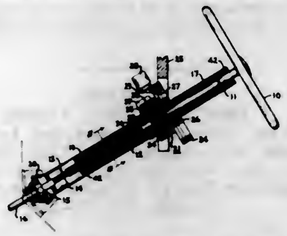
2,836,987
MECHANICAL DISCRIMINATING DEVICE
Arthur W. Gaubatz, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 1, 1954, Serial No. 453,670
4 Claims. (Cl. 74—479)



1. A discriminator device comprising, in combination, a support, three parts movably mounted on the support for parallel movement, two of the parts being driving parts and one being a driven part, similar cams on the driving parts, and a coupling member rockably mounted on the driven part adjacent the periphery of the cam for rotation about an axis normal to the direction of movement of the parts, the coupling member having two arms terminating in coupling portions cooperating respectively with the surfaces of the two cams, the cams having notches adapted to receive the coupling portions, the cams also having extended surfaces paralleling the direction of movement thereof, one coupling portion being adapted to ride on the said surface of one cam while the other portion is lodged in the notch of the other cam, and each cam including a surface overlying the notch therein adapted to engage the corresponding coupling portion to cam it into the notch thereof upon relative movement of the cam and the said other cam.

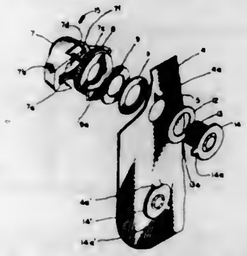
2,836,988
ADJUSTABLE STEERING MECHANISM
Howard A. Cashman, Appleton, Wis.
Application March 12, 1954, Serial No. 415,734
2 Claims. (Cl. 74—493)

1. In a vehicle steering device cooperable with the steering motion delivery post and dashboard of a vehicle, an upwardly projecting shaft having its lower end drivingly connected by a universal joint to the upper end of the steering post, a tubular shaft member telescopically embracing the upper portion of said shaft and having a spline driving connection therewith permitting displacement of the member axially of the shaft, a steering wheel secured to the upper end of said member and being operable to transmit steering rotation to said post through said member and said shaft, an elongated sleeve embracing and providing a bearing for said member and having its medial portion externally screw threaded, a frame mountable upon the vehicle dashboard and having a guide slot disposed transversely of said sleeve and surrounding the latter near said medial threaded por-



tion, a housing fixed against rotation but slidable within said frame slot and loosely embracing said threaded sleeve portion and having a tubular lower extension enclosing the lower portion of said sleeve and protruding lower portions of said member and of said shaft, a ring journalled within said housing and having internal screw threads coacting with the externally threaded portion of said sleeve, means interposed between said frame and housing and being operable to move the latter along said guide slot to effect lateral adjustment of the steering wheel in either direction, and other means interposed between said housing and ring and being operable to move said sleeve and said member axially and to thereby effect axial adjustment of the steering wheel in either direction.

2,836,989
CONTROL DEVICE
William J. Schultz, Peabody, Mass., assignor to General Electric Company, a corporation of New York
Application April 28, 1954, Serial No. 426,177
9 Claims. (Cl. 74—504)



7. A control device comprising an apertured support panel, a rotatable shaft extending through said panel, a knob assembly affixed to said shaft on the outer side of said panel to facilitate manual positioning thereof and including a knob portion fitted over the outer end of said shaft and fastened thereto and also including an externally threaded sleeve slidably surrounding said shaft and extending through said panel, said knob portion and said sleeve being keyed together to rotate as a unit, said knob portion being recessed to receive a portion of said sleeve, said sleeve having an annular portion fastened to its inner end contiguous to the inner side of said panel,

a lock nut threadably engaging said sleeve on the outer side of said panel between the panel and said knob portion, a protective washer surrounding said sleeve between said nut and said panel, said protective washer being keyed to said knob portion, and annular resilient friction washers surrounding said sleeve on both sides of said panel there being one between said protective washer and said panel and one between said annular sleeve portion and said panel, said nut being adapted to draw said annular sleeve portion up against said panel to thereby prevent movement of said knob portion in either direction of rotation of said shaft.

2,836,990
ACCELERATOR MEANS
Herbert A. De Heer, Grand Haven, Mich.
Application February 20, 1956, Serial No. 566,675
3 Claims. (Cl. 74—513)



1. A pedal having top and bottom surfaces; an elongated bracket secured to said bottom surface along the longitudinal axis thereof; said bracket being channel-shaped and having bent flanges spaced from extending over its bight portion; and a plurality of different length helical springs each having its end convolutions fitted into the channel and held therein by said bent flanges.

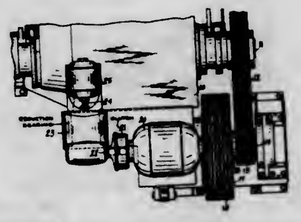
2,836,991
REVERSING MECHANISM
David B. Perlis, Sun Valley, Calif., assignor to Western Precipitation Corporation, Los Angeles, Calif., a corporation of California
Application March 25, 1954, Serial No. 418,607
4 Claims. (Cl. 74—567)



1. The combination comprising: a rotatable drive shaft; a collar fixed on said shaft; cam means supported on said shaft at a position spaced from the collar; a control arm; a support for said control arm, said arm being pivotally mounted on said support, and being engageable with said cam means and holding said cam means against direct rotation by said shaft; a plurality of rings arranged in an axially directed series on said shaft between said collar and said cam means, said shaft being rotatable relative to said rings, said rings being substantially of equal outer diameter, each of said rings having abutment means projecting radially outwardly from the periphery thereof and also extending in an axial direction from the ring but not beyond an adjacent ring, said collar having similar abutment means engageable with the ring adjacent thereto, and said cam means having abutment means engageable with the ring adjacent thereto.

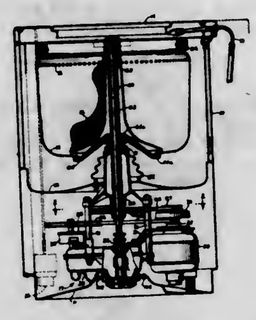
2,836,992
DRIVE AND EMERGENCY BRAKE MECHANISM FOR NUT FORMERS, HEADERS AND THE LIKE
Erwin B. Byam, Wolcott, Conn., assignor to The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn., a corporation of Connecticut
Application May 24, 1954, Serial No. 431,653
6 Claims. (Cl. 74—665)

3. Drive mechanism for a nut former or the like comprising a main shaft, a main motor having a shaft drivingly connected to said main shaft, said motor shaft extending from the motor casing at one end and a second motor having a shaft drivingly connected to the extended end of said first-named motor shaft to drive the latter and said main shaft when said first motor is inoperative, the driving connection between the main motor and the main shaft



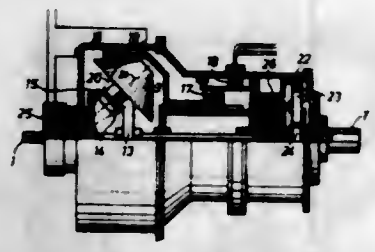
comprising an auxiliary shaft connected to the main shaft, a pulley wheel rotatably mounted on the auxiliary shaft and a clutch to connect said pulley wheel with the auxiliary shaft, a brake mechanism applied to said auxiliary shaft, fluid-pressure means to operate said braking mechanism and clutch, and a valve mechanism operable to simultaneously set said brake and release the clutch.

2,836,993
WASHING MACHINES
Harold D. Johnson and Ronald S. Blough, Fairfield, Iowa, assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application March 21, 1955, Serial No. 496,847
12 Claims. (Cl. 74—665)
(Filed under Rule 47(a) and 35 U. S. C. 116)



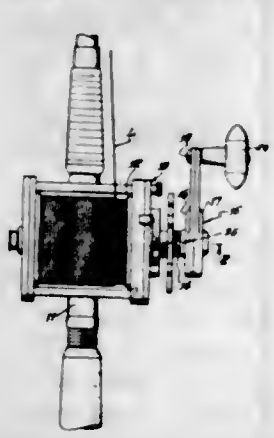
1. In a spin-dry washer, a supporting frame, a spin tub, a vertical drive shaft having an upper portion connected to said spin tub and extending coaxially therewith, a mount at a lower portion of said drive shaft and supported on said frame to permit limited rocking movement of said shaft in response to gyrations of said spin tub, first and second plate members arranged opposite one another, resilient means between said plate members and anchored to each of them, said first plate member being coupled with said frame, said second plate member being coupled with said shaft and so arranged that departure of said shaft from its vertical position causes progressive stress to be developed in said resilient means, and means for applying a damping force to said shaft to damp out rocking movement thereof, said damping means being so constructed and arranged that the damping torque exceeds the restoring torque of said resilient means over the range of movement of said shaft from its normal vertical position.

2,836,994
INFINITELY VARIABLE FRICTION TRANSMISSION WITH CONICAL PLANETARY ROLLERS
Max Weber, Muhlhofen (Bodensee), Germany
Application August 31, 1954, Serial No. 453,363
Claims priority, application Germany September 10, 1953
5 Claims. (Cl. 74—796)



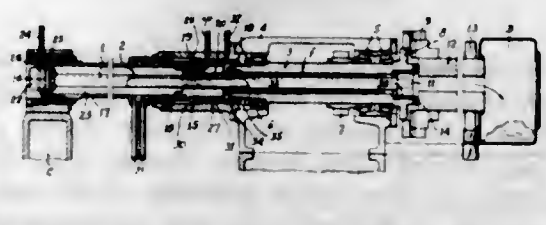
1. An infinitely variable friction transmission comprising, in combination, support means; a driven member supported for rotation about its axis by said support means; a deformable friction ring coaxial with said driven member and operatively connected to the latter for transmitting a drive thereto when said friction ring rotates about its axis; a plurality of conical planetary rollers distributed about the axis of said driven member, and being surrounded by and engaging said friction ring; a plurality of bearing means respectively supporting said planetary rollers for respective free rotation about their axes and for respective free movement along their axes under the action of centrifugal force so that when said planetary rollers rotate about the axis of said driven member they will press against said friction ring due to the centrifugal force acting on said rollers; a drive shaft coaxial with said driven shaft and also supported for rotation about its axis by said support means; and turning means cooperating with said drive shaft and said rollers for turning the latter respectively about their axes and simultaneously about the drive shaft axis when said drive shaft rotates, so that the drive from said drive shaft will be transmitted through said rollers to said friction ring and from the latter to said driven member.

2,836,995
FISHING REEL TRANSMISSION
Edward H. Heddy, Los Angeles, Calif.; Dorothy P. Heddy, executrix of said Edward H. Heddy, deceased
Application April 11, 1955, Serial No. 500,399
9 Claims. (Cl. 74—812)



1. For attachment to a fishing reel stationary shaft and drag sleeve rotatable thereon to wind a line, a housing connectible to said shaft and having an integral crank arm rotatable in opposite directions, a transmission within the housing operatively connectible to the drag sleeve and housing and including a first means operable to transmit clockwise rotation of the housing to the drag sleeve rotating the sleeve in a first direction at a relatively slow rate and second means for transmitting anticlockwise rotation of the housing to said drag sleeve rotating the sleeve in said direction at a relatively increased rate, both of said means being operable solely by opposite rotations of the crank, inner and outer ratchet teeth carried by said shaft and housing respectively, and said first and second means including a body rotatable about said shaft between said inner and outer teeth and having radially extending recesses formed therein, first and second pawls movable in said recesses respectively toward said outer and inner teeth, and springs urging said first and second pawls into locking and sliding engagement with said outer and inner teeth respectively in response to clockwise housing rotation and said springs being operable to urge said first and second pawls into sliding and locking engagement with said outer and inner teeth respectively in response to anticlockwise housing rotation.

2,836,996
PIPE BORING MACHINE
Paul Jacques Bissey, Tarbes, France
Application April 21, 1955, Serial No. 502,895
Claims priority, application France April 23, 1954
12 Claims. (Cl. 77—3)



1. In a tube boring machine, in combination, a hollow spindle, means supporting said spindle for rotation and means for rotating said spindle, means for rotatably supporting a tube in alignment with said spindle and means for connecting adjacent ends of said spindle and tube for bodily rotation, annular sealing means between adjacent surfaces of said spindle and said tube, a tool carrier shaft extending through said spindle in closely spaced relation with the periphery of the hollow interior thereof, a boring tool carried on the end of said carrier shaft adjacent said tube for boring engagement with said tube, a hydraulic cylinder, means rotatably supporting said cylinder in alignment with said spindle beyond the end thereof remote from said tube, a piston on the end of said carrier shaft remote from said tool slidably received within said cylinder, said carrier shaft projecting axially into an adjacent end of the cylinder in substantially sealed relation therewith, means connecting said cylinder and carrier shaft for non rotatable axial relative displacement, drive means for rotating said cylinder, first pressure fluid means including delivery lines communicating with opposite ends of said cylinder for selective axial actuation of the carrier shaft, and second pressure fluid means including a delivery line communicating with the end of said spindle adjacent said cylinder for delivering coolant fluid under pressure through the interior of said spindle and past said tool and out through said tube.

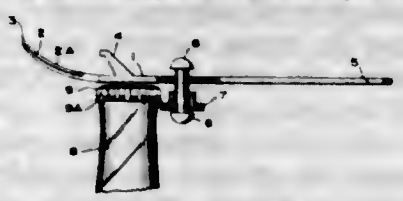
2,836,997

WITHDRAWN

2,836,998
BOTTLE OPENER WITH ROTATABLY MOUNTED SKIRT ENGAGING MEMBER
Edmund Barrell White, Quincy, Mass.
Application December 5, 1955, Serial No. 551,060
1 Claim. (Cl. 81—3.46)

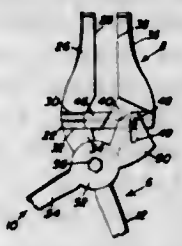
A receptacle opener for removing closures of the type including a skirt-like flange overhanging the mouth of the receptacle, said opener comprising an elongated flat body having a stud depending from said body, an annular shoulder grip rotatably secured to and supported by said

stud and spaced from a flat side of said body, said annular shoulder grip having a peripheral portion to engage



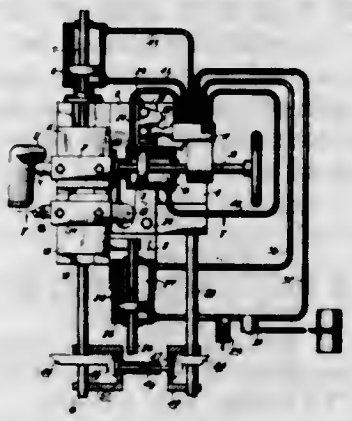
under the closure flange and cooperate with said flat side of the body in removing the closure.

2,836,999
PLIERS-TYPE WRENCH WITH CAM-OPERATED SLIDING JAW
Thaddeus Ly, Passaic, N. J.
Application August 14, 1957, Serial No. 678,110
5 Claims. (Cl. 81—361)



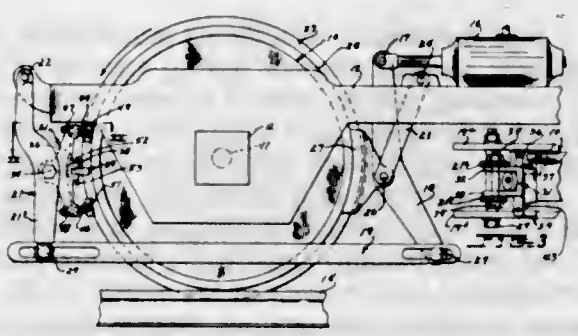
1. A pliers-type wrench comprising a first unit having a handle with enlarged head means integral with the outer end of the handle, said means embodying a cheek portion provided with a flat face having a straight keying groove open at its respective ends and opening through said flat face of said cheek portion, said cheek portion having an outstanding extension constituting a stationary jaw and the latter having a linearly straight object-gripping surface which is disposed at right angles to said groove and is offset and thus located adjacent to one end portion of the groove, the other end of the groove projecting beyond said gripping surface, a second unit embodying a movable jaw substantially like said stationary jaw and likewise having a linearly straight gripping surface continuously parallel to said first-named gripping surface, said second movable jaw unit also having a head portion provided with an assembling and adjusting rib at right angles to its gripping surface and slidingly keyed in said groove, and a third unit having a second handle with an outer end portion superimposed upon and crossing and pivotally mounted on said cheek portion, said outer end portion being provided with means having pin and slot operating connection with the head on said movable jaw.

2,837,000
PATTERN SUPPORTS FOR LATHES
Theodor Dombrowski, Erkelenz, Germany
Application October 27, 1953, Serial No. 388,507
Claims priority, application Germany October 31, 1952
8 Claims. (Cl. 82—14)



1. In a device of the type described, in combination, a first slide means for supporting a first tool adapted to work on a first portion of a work piece, said first slide means being movable in one direction; a second slide means for supporting a second tool adapted to work on a second portion of the work piece; a third slide means supporting said second slide means for movement in a direction transverse to said one direction, said third slide means being movable in said one direction; a feed spindle operatively connected to said first slide means for moving the same; a first hydraulic operating means including a first piston member and a first cylinder member, one of said first members being movable and operatively connected with said feed spindle for movement together with said first slide means; a second hydraulic operating means including a second piston member and a second cylinder member, one of said second members being movable and connected to said second slide means for moving the same; a third hydraulic operating means including a third piston member and a third cylinder member one of said members being movable and connected to said third slide means for moving the same; a pattern for controlling said second tool; a feeler cooperating with said pattern; and hydraulic control means controlled by said feeler and connecting said first, second and third cylinders for operating said second tool in accordance with the shape of said pattern and depending on the movement of said first slide means and of said first tool.

2,837,001
APPARATUS FOR TURNING TIRES ON LOCOMOTIVE WHEELS
Loyola I. Mulvaney and Hugh H. Jones, Birmingham, Ala.
Application August 9, 1954, Serial No. 448,708
1 Claim. (Cl. 82—36)

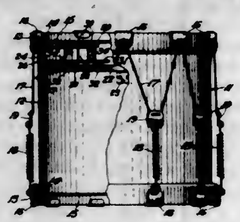


In a tool holder for machining flanged locomotive wheels, said tool holder having a transverse slot therein midway between its ends in position to face a wheel to be machined, a double edged forming tool loosely mounted in the transverse slot and having a curved slot in one end thereof adapted to fit over the flange of a wheel in cutting relation thereto both when the wheel is moving in one direction and when moving in the opposite direction, pivotal mounting means for the tool holder on its side opposite the forming tool, an adjusting screw extending through each end of the tool holder from rear to front, and a flat surfaced limit shoe pivotally mounted on each adjusting screw in position for one shoe only to engage a wheel being machine alternately as the wheel is moved first in one direction and then the other, thereby to determine the angle at which the edge of the tool is presented to the wheel and the depth of cut to be made.

2,837,002
CHIME DRUM
Ernest S. Susser, Bayonne, N. J.
Application February 13, 1956, Serial No. 565,173
10 Claims. (Cl. 84—170)

5. A musical drum comprising a hollow body member, a drum-head on the body member, a platform mounted in the hollow body member under the drum-head, a chime bar mounted on the platform, a resilient striking

member mounted on the platform, a portion of the striking member disposed within striking distance from the chime bar, a portion of the striking member disposed immediately under the drum-head, a plate attached to



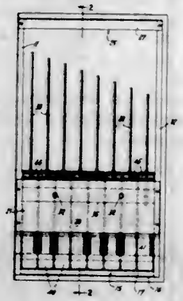
the striking member and disposed in parallelism with and close to the drum-head, an area marked on the drum head defining the position of the plate under the drum-head.

2,837,003
MOUTHPIECE AND LIGATURE FOR REED INSTRUMENTS
James Collis, New York, N. Y.
Application November 28, 1955, Serial No. 549,343
4 Claims. (Cl. 84—383)



1. In a reed instrument, including a mouthpiece, a reed and a ligature, said mouthpiece having a series of longitudinally extending grooves around its outer surface forming ridges therebetween, said ridges being formed with transverse slots, said ligature including an elongated wrap-around metal lying in said slots and encircling said mouthpiece and reed, means for bringing and holding the ends of said metal member together, a ligature clamping element elongated with respect to the width of the elongated metal member and secured thereto diametrically opposite said bringing and holding means, said ligature clamping element having points disposed at its corners thereof toward the reed, said points forming the sole engaging means between the clamping element and the reed.

2,837,004
TOY PIANO
Daniel J. Volpe, Bronx, N. Y.
Application March 29, 1955, Serial No. 497,667
3 Claims. (Cl. 84—404)



1. A toy piano comprising, in combination, a frame including a pair of parallel wooden side wall members, and light gage sheet metal front and rear wall members inter-connecting the ends of said side wall members; a light gage sheet metal support member overlying and inter-connecting the upper edges of said side wall members intermediate the ends thereof; a pivot rod extending into and between said side wall members intermediate the ends thereof beneath said support member; a metal support bar secured to the underside of said support member to extend transversely of said frame, and formed with uniformly laterally spaced horizontal apertures; a plurality of various length piano wire metal rods each secured at its forward end in an aperture in said support bar and extending horizontally therefrom; a plurality of keys pivoted on said rod and having fingering portions extending forwardly therefrom; each key comprising an inverted channel of light gage sheet metal having aligned apertures in its flanges receiving said rod and a base extending rearwardly beyond said flanges and carrying a wooden striker engageable with a piano wire, and including grommets of deformable material in each flange opening and bearing on said rod; each striker being aligned beneath a piano wire rod; said support member having a depending front wall portion extending between the side wall members toward the keys; a cardboard top wall overlying and secured to the upper edges of said side frame members; and a cardboard base, side wall, and cover member unit, said base and side wall enveloping and being secured to said frame to cooperate with said top wall in enclosing the piano wire and key assemblies except for the fingering portions of the key assembly; said cover member being hinged to the upper end of said side wall to overlie said top wall when closed; and an instruction book having its rear cover adhered to said cardboard top wall and stapled to the hinge portion of said cover member.

2,837,005
EXPANDING HELICAL COIL FOR A WOOD SCREW
Max Gaul, Eppstein, Taunus, Germany, assignor to Hans Sickinger, Providence, R. I.
Application May 21, 1953, Serial No. 356,378
Claims priority, application Germany December 20, 1952
1 Claim. (Cl. 85—2.4)



In a screw fastener for work having a cylindrical bore, a wood screw having a tapered portion, a sharp thread of comparatively coarse pitch on said tapered portion with flats between adjacent turns, a helical steel strip mounted on said thread at a relatively narrow portion of said taper, the width of said strip being slightly greater than the lead of said thread, and a plurality of teeth along the edge of said strip facing the wider portion of said taper and spaced from each other in the direction of extent of said strip, said teeth being bent slightly outwardly, rotation of said screw causing said teeth to be fixed into the walls of said cylindrical bore at spaced points, whereby said strip becomes fixed to the work and thereafter acts as a nut.

2,837,006
ANGULAR DISCRIMINATING OPTICAL VIEWING DEVICE
Otto G. Schwede, Ventura, Calif.
Application December 30, 1955, Serial No. 556,755
2 Claims. (Cl. 88—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

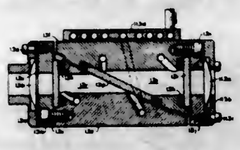
1. An angular discriminating optical device which comprises a transparent prism means having an entrance face,

an emergent face parallel to and spaced from said entrance face, said prism means also having two parallel spaced planar surfaces connecting corresponding edges of said entrance and emergent faces, one of said planar surfaces being disposed at an acute angle to the entrance face and the other of said planar surfaces being disposed at an acute angle to the emergent face of said prism whereby a portion of the light rays entering the entrance face is totally reflected sequentially by said planar surfaces and a portion of said rays is partially reflected and partially transmitted by said planar surfaces depending on the angle of incidence of said rays, a pair of optical double layers respectively disposed contiguous to said planar surfaces,



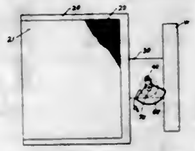
each of said double layers comprising a light absorption filter and a transparent lamina the index of refraction of which is less than that of said prism means, the lamina of each of said double layers being adjacent to and in continuous contact both with its associated filter and one of said planar surfaces so as to effect total sequential reflection of that portion of said light rays reaching the entrance face of said prism at greater than a predetermined angle of incidence with respect to such face, and to effect partial transmission by said transparent laminae, and subsequent absorption by the filters respectively associated therewith, of that portion of those light rays reaching the entrance face of said prism at less than a predetermined angle of incidence with respect to such face.

2,837,007
DIFFERENTIAL REFRACTOMETER CELL
Francis W. Crawford, Idaho Falls, Idaho, assignor to Phillips Petroleum Company, a corporation of Delaware
Original application September 29, 1950, Serial No. 187,600, now Patent No. 2,724,304, dated November 22, 1955. Divided and this application May 28, 1953, Serial No. 358,108
7 Claims. (Cl. 88—14)



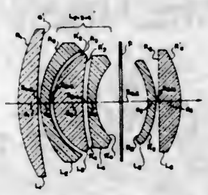
7. A refractometer cell comprising an opaque body having substantially the shape of a rectangular parallelepiped and divided into two halves along a plane perpendicular to one pair of parallel faces of the parallelepiped and angularly disposed with respect to the other four faces thereof at an angle differing from ninety degrees and extending from the exterior of one of said other four faces near one edge thereof all the way to the exterior of the opposite face near the diagonally opposite edge, a plate of transparent material disposed between said halves, each of said body halves having a hole extending therethrough terminating at one end at said plate and at the opposite end on one of another pair of parallel faces of said parallelepiped, and transparent means closing the outer ends of said holes, the last said means and said holes and said plate providing a light passage through said cell parallel to said faces to which the dividing plane is perpendicular.

2,837,008
KINOPTIC DEVICES
Richard T. Erban, Flushing, N. Y.
Original application March 10, 1952, Serial No. 275,760, now Patent No. 2,780,136, dated February 5, 1957. Divided and this application June 8, 1956, Serial No. 590,122
4 Claims. (Cl. 88—28.93)



1. In a device of the class described, in combination, a screen, a primary inertia mass positioned outside said screen to one side thereof and connected thereto so as to move in unison therewith, a journal positioned intermediate said screen and said primary mass, the mass of said screen and of said primary mass respectively, and their distances from said journal being so arranged that their common center of gravity will be positioned substantially near said journal, and means for imparting to said journal a continuous motion along a closed path.

2,837,009
OBJECTIVE LENS WITH SHORT REAR LENGTH
Albrecht Wilhelm Tronnier, New York, N. Y., assignor to Farrand Optical Co., Inc., New York, N. Y., a corporation of New York
Application May 2, 1956, Serial No. 582,137
16 Claims. (Cl. 88—57)



1. A high speed lens comprising, from front to back, a positive meniscus element and a triplet including a front negative meniscus element, a front positive element of unequal surface curvatures and a negative element having its more strongly divergent surface directed toward the rear, and, behind the diaphragm position, a rear negative meniscus element and a rear positive element of unequal surface curvatures, the powers of the front surface of the front negative meniscus element and of the rear surface of the rear negative meniscus element both lying between 1.4 and 3.2 times the equivalent power of the entire lens and the absolute value of the sum of the surface power sums of the said negative meniscus elements lying between 1.15 and 2.3 times the said equivalent power.

2,837,010
DUOLINEAL-FEED HOBBING MACHINE
Granger Davenport, Montclair, N. J., assignor to Gould & Eberhardt, Incorporated, Irvington, N. J., a corporation of New Jersey
Application January 21, 1955, Serial No. 483,405
11 Claims. (Cl. 90—4)

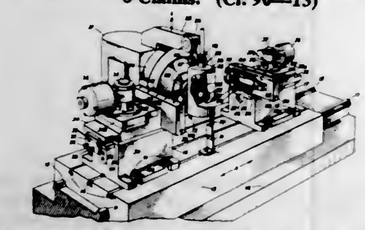
1. In a hobbing machine having a rotatable hob spindle and a rotatable work spindle and means for imparting rotary movements to said spindles, said spindles being mounted for translatory movement relative to one another the combination of, a first transmission operative to effect relative translatory movement between the spindles at a traverse rate faster than usable for an actual

hobbing operation, a second transmission for effecting relative translatory movement between said spindles at a feed rate appropriate for a hobbing operation, said second transmission including a first set of gears adapted when effective to yield a hobbing-feed movement at an enterfeed rate and a second set of gears adapted when



effective to impart a hobbing-feed movement at a normal feed rate, and means electively operable to render but one of said sets of feed gears effective at any one time, said first and said second set of gears being operative to effect the relative translatory movement in a common lineal direction.

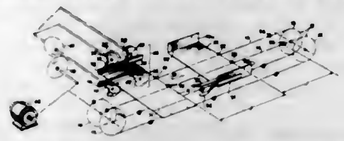
2,837,011
ROOT PLATFORM MILLING FIXTURE
John Oliver Creek, Brampton, Ontario, and Edward William Dawson, Toronto, Ontario, Canada, assignors to Orenda Engines Limited, Malton, Ontario, Canada, a corporation
Application February 6, 1956, Serial No. 563,539
8 Claims. (Cl. 90—13)



2. A pattern controlled metal working machine, including a horizontal bed having guideways extending longitudinally of its upper surface, a table slidably mounted on the guideways, a spindle arranged above the table for its axis to be transverse to the direction of movement of the table, a cutter secured to the spindle, a drive for the spindle, means for moving the spindle in a direction normal to the table, a slide mounted on the table for movement in the direction transverse to the direction of movement of the table and parallel to the axis of the spindle, means for continuously reciprocating the slide, a pattern and a holder for a workpiece carried by the slide, a follower for the pattern arranged in a predetermined fixed position with respect to the axis of the spindle, and means for resiliently biasing the slide carrying the pattern and the holder towards the follower and the cutter respectively.

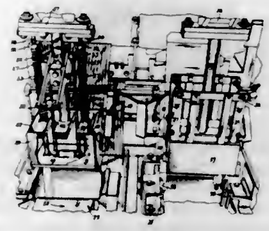
2,837,012
SCORING APPARATUS
Edwin E. Burroughs, Pensacola, Fla., assignor to St. Regis Paper Company, New York, N. Y., a corporation of New York
Application November 30, 1954, Serial No. 472,057
2 Claims. (Cl. 93—8)

1. In apparatus of the class described, conveyor means for conveying a succession of bag tubes spaced at a common interval along a common path and at a selected frequency with respect to a scoring station; means for scoring each of such bag tubes in succession as each passes such scoring station along such common path and comprising a pair of score bars between which each tube is pressed in succession, such score bars extending in the direction of movement of such bag tubes and being adapted for scoring the bags in such direction of movement, one of such score bars including a score blade positioned for entering a score groove formed in the other of such bars, said score bars comprising parallel portions of a pair of parallel equal crank four-bar linkages, the latter linkages being positioned and operatively associated for urging said score blade into such groove at the aforementioned station; the common radius of the cranks of such linkages being



less than the dimension from the axis of rotation of such cranks perpendicular to the plane of the scoring region; means for rotating in timed relationship said cranks of said parallel equal crank four-bar linkages and including means for cyclically varying the angular speed thereof as a function of the differential between such radius and such dimension, whereby the linear velocity of said score bars is brought into synchronism with the linear velocity of said conveyor means during scoring co-operation of said score bars; means for operatively interconnecting said conveyor means and parallel equal crank four-bar linkages, thereby to bring the cycle of bag movement by said conveyor means into phase with the cycle of score bar movement, whereby said bag tubes are scored in succession at such scoring station.

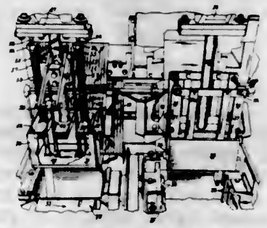
2,837,013
MACHINE FOR ASSEMBLING FOLDING BOX SHELLS AND INSERTING LINERS INTO THE SHELLS
Edward J. Pagendarm, San Mateo, Calif., assignor, by mesne assignments, to Baljak Corporation, Wilmington, Del., a corporation of Delaware
Application April 20, 1955, Serial No. 502,637
10 Claims. (Cl. 93—36.01)



1. A folding box machine comprising, in combination, a first die; a first plunger movable through said first die for setting up box blanks in box form by passage through said die; a second die; a second plunger movable through said second die; a first conveyor having lugs for positively feeding boxes discharged by said first die towards said second die; a second conveyor in line with said first conveyor for frictionally advancing boxes delivered by said first conveyor into the path of said second plunger underneath said second die; and means operable in timed relationship with said second plunger for arresting boxes on said second conveyor in a position in line with the stroke

path of the second plunger, the stroke of the second plunger being sufficiently long that in its bottommost position the second plunger extends into the respective box arrested underneath said second die.

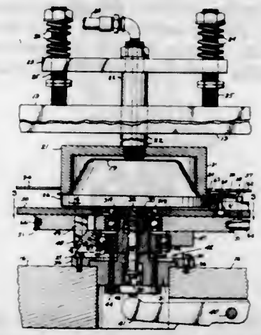
2,837,014
DEVICE FOR FOLDING AND INSERTING LINERS INTO FOLDING BOX SHELLS
Thomas Francis Burke, Redwood City, Calif., assignor, by mesne assignments, to Baljak Corporation, Wilmington, Del., a corporation of Delaware
Application April 20, 1955, Serial No. 502,660
8 Claims. (Cl. 93—36.01)



1. A machine for forming liner blanks into box-like form and inserting such formed liners into the bodies of assembled folding boxes, the machine comprising, a liner blank magazine; a folding die; a feeder for moving liner blanks from said magazine to said folding die; a plunger movable through said folding die to fold liner blanks into box-like form, said plunger comprising a body member and a separate bottom member movable relatively to the body member; means for moving said plunger into and through said die; a conveyor for feeding folding boxes into a position underneath said die; enclosure means between said die and said conveyor for confining the formed liner, said enclosure means comprising side wall members and end wall members extending towards the conveyor, the end wall members being sufficiently short to clear boxes moving on said conveyor, the end wall members being projectible and retractable, at least in part, and sufficiently long in extended position to engage the boxes moving on said conveyor; and means operable at the end of the plunger stroke for projecting the bottom member of the plunger beyond the body member into a position adjacent said conveyor to strip the liner off the plunger and insert it into the respective folding box body.

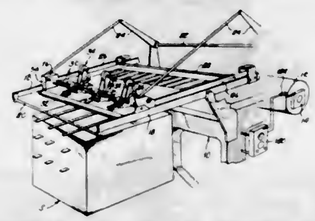
2,837,015
COMBINATION PRESS AND EDGE ROLLER
Louis W. Chundelak, Jr., and Theodore L. Stoudt, Portland, Oreg., assignors to Alpan Company, Portland, Oreg., an Oregon partnership
Application January 31, 1955, Serial No. 485,031
6 Claims. (Cl. 93—36.5)

2. In combination with a punch press for stamping pans from metal foil, means for blanking and forming from said foil a pan having a sharp edged flange, a plurality of conduits for directing jets of air into predetermined areas of the machine at preselected times, means for operating one of said jets of air to move said pan horizontally from said stamping position into an edge rolling position, means for operating at least two of said jets of air to fix the pan in the rolling position, a spring loaded support on which the pan rests in rolling position, a hold down member for engaging the pan and holding it against the support, a rotatable wheel, means for rotating the wheel, a slide laterally movable in a guideway on the wheel, a spinning roller mounted at one end of the slide in cooperative relation with the edge of the pan, a cam plate beneath the wheel, a finger projecting from the slide through the wheel and adapted to be engaged by said cam, a lever arm operatively connected to the machine, a plate with a pair of upstanding pins adapted to be moved vertically by said lever arm, a ring connected to said pins, a ball bearing ring connected to said ring and to said cam plate whereby when said lever



arm is actuated the cam plate engages the finger to move the spinning roller inwardly against centrifugal force and into engagement with the edge of the pan to roll the edge, whereupon the hold down member is released, and means for operating another of said air jets to eject the completed pan from the machine.

2,837,016
SHEET FEEDING AND COUNTING ASSEMBLY
Victor Jezierski, West New York, N. J., assignor to Federal Carton Corporation, Inc., North Bergen, N. J., a corporation of New York
Application May 19, 1955, Serial No. 509,574
5 Claims. (Cl. 93—93)



1. In a mechanism of the type disclosed the combination with a sheet delivering and stacking machine, of automatic means to feed a count-signal onto the sheet stack at predetermined count intervals, said sheet feeding, delivering and stacking machine including a reciprocable carriage and said automatic means including a plurality of tape feeding devices mounted on said carriage, and means for actuating said tape feeding devices at predetermined count intervals to feed predetermined lengths of tape and apply them to stack so that their ends extend beyond the boundaries of the stack.

2,837,017
PNEUMATIC RELEASE FOR CAMERA SHUTTERS
Clinton W. Hough, Pasadena, Calif.
Application February 2, 1953, Serial No. 334,682
2 Claims. (Cl. 95—54)

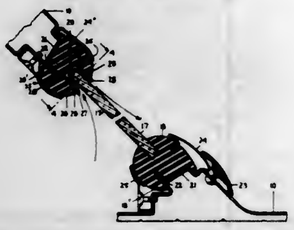
1. A pneumatic actuator for camera shutters comprising a casing screw threaded at one end and provided with a fastening extension on the other end for attachment to a shutter housing, said extension having an axial bore therethrough, an actuating member slidably mounted in the bore in said extension, a piston reciprocative in said casing and connected with the internal end of said actuating member, a screw threaded closure member en-

gageable with the screw threaded end of said casing, a plate revolvable and lineally slidable within said casing in abutment with the inner face of said closure member, a tubular member mounted in said plate and having an internal projection and an external projection extending axially therefrom in opposite directions, said external projection extending centrally through an aperture in said screw threaded closure member and revolvable and lineally slidable with respect thereto, a pressure tube connection extending from one side of said external projec-



tion of said tubular member and angularly disposed with respect to the axis of said tubular member whereby said plate and said tubular member with said pressure tube connection extending therefrom swivel with respect to said casing, a resilient sack disposed within said casing and connected with the internal projection of said tubular member and disposed in a position in contact with said piston whereby pressure introduced into said resilient sack from said pressure tube expands said sack against said piston for displacing said piston within said casing and correspondingly moving said actuating member.

2,837,018
AUTOMOBILE GLASS TRANSPARENCY DEVICE
Jules Haltenberger, Rancho Santa Fe, Calif.
Application December 2, 1955, Serial No. 550,606
1 Claim. (Cl. 98—2)



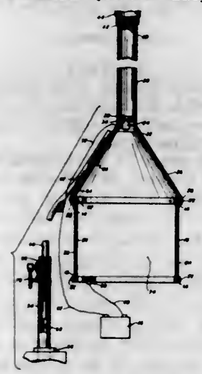
In a motor vehicle, a rear window frame, an endless yieldable channel secured in said frame and having a bottom, two sides and a top, a rearwardly downwardly inclined rear window having its bottom and side edges nested in the bottom and sides of said channel, said top of the channel having a downwardly rearwardly opening recess extending longitudinally thereof, the walls of the recess being U-shaped in transverse cross-section, a rigid strip secured in the recess in contact with the walls of the recess and having a U-shaped cross-section complementary to said cross-section of the walls of the recess, the top edge of said rear window being disposed within the confines of said strip, and means on the inner sides and bottom walls of the rigid strip projecting inwardly to space the top edge of the rear window from the rigid strip to define a U-shaped exit passage for heated air from within the motor vehicle so that when the vehicle is in forward motion there will be a region of reduced pressure outside the top of the rear window toward which heated air will flow from within the vehicle through said exit passage to remove rain, snow and ice from the upper outside surface of the rear window.

2,837,019
AIR OUTLET DEVICE FOR VENTILATING APPARATUS
Elliot Godes, Manchester, Conn., assignor to Anemostat Corporation of America, New York, N. Y., a corporation of Delaware
Application April 19, 1956, Serial No. 579,364
11 Claims. (Cl. 98—40)



1. An air outlet device having rear and front ends and comprising a first portion including air passageway defining means extending between said ends and formed to cause supply air flowing forwardly therethrough to be deflected in one direction from the front end of the device and a second portion including air passageway defining means extending between said ends and formed to cause supply air flowing forwardly therethrough to be deflected in a different direction from the front end of the device, a pair of damper elements swingably mounted upon the device at its rear end and controlling flow of supply air through said portions, respectively, an actuator for said damper elements mounted on the device for lineal shifting movements, and connections between said actuator and said damper elements operable in response to shifting of said actuator lineally in one direction first fully to close one and then to effect any desired amount of opening of the other of said damper elements and operable in response to shifting of said actuator lineally in the opposite direction first fully to close the second and then to effect any desired amount of opening of the first of said damper elements.

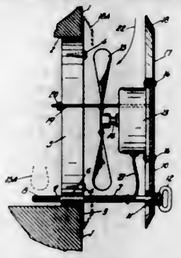
2,837,020
PROTECTOR
Martin S. Gasparde, Long Point, Ill.
Application March 30, 1955, Serial No. 497,855
1 Claim. (Cl. 98—115)



A safety cage for a machine such as a tractor, harvester, crane or the like, comprising, a frame, said frame including an upper substantially cylindrical frame member and a lower substantially cylindrical frame member, a pair of side bars interconnecting said frame members to hold them in spaced apart relation, a substantially cylindrical and transparent shield member connected to

said frame members positioned completely to surround the head and shoulders and upper arms and upper portion of the back of an operator, a cone, means attaching said cone to said upper frame member, a pipe mounted upon said cone and extending upwardly therefrom and communicating with the area within said shield member and said cone, a fan mounted in said pipe to draw air from the upper end of said pipe and force it into the area confined by said shield member and downwardly and out from under the edge of said shield member, and adjustabble mounting means for mounting said cone and the attached shield member on a machine about the head and shoulders and upper arms and upper portion of the back of an operator, said shield member in adjusted position permitting ready access of the operator's hands to the machine controls within said shield member and providing a back rest for the operator.

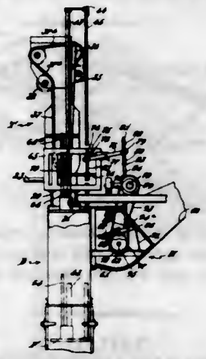
2,837,021
EXHAUST FANS
Gordon McLarty, Battle Creek, Mich.
Application September 15, 1955, Serial No. 534,572
13 Claims. (Cl. 98—116)



13. An exhaust fan comprising a mounting member adapted to be secured to a wall and defining an opening to register with a passage through the wall, a cover of a size to fit over said opening, means connected to said cover for supporting said cover in spaced relation in front of said member, a motor mounted on said cover and having a shaft projecting inwardly from the cover centrally of the opening, and a screw propeller type fan mounted on said shaft to propel air inwardly through said opening, the tips of said propeller being spaced radially and axially inwardly from the periphery of said cover.

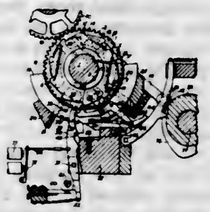
2,837,022
COTTON TRAMPER AND SWEEP MECHANISM
Dewey D. Day, Dallas, Tex., assignor to The Murray Company of Texas, Inc., Dallas, Tex., a corporation of Delaware
Application November 17, 1954, Serial No. 469,381
12 Claims. (Cl. 100—215)

1. In a cotton tramper of the kind wherein a tramper foot is guided to move in a rectilinear vertical path and mechanical motion-transmitting means transmits motion from a constantly turning drive shaft to the tramper foot, the motion-transmitting means being constructed and arranged to cause the tramper foot to dwell for a predetermined period of time when at the upper end of its path of travel, said motion-transmitting means including an endless, constantly moving sprocket chain, a rigid pitman pivotally connected at its lower end to the tramper foot and at its upper end to a crank pin carried by one link of the chain, in combination, means for guiding a run of the chain to move in a substantially horizontal path and another run of the chain to move in a substantially vertical path, a crank pin carried by one link of the chain, and means connecting the crank pin to the tramper foot, the means for guiding the chain comprising two sprocket wheels engaging opposite sides respectively, of the chain and turning about parallel, horizontal



axes located at one side of the path of travel of the tramper foot, said wheels being so constructed and arranged as to define said down-going run of the chain.

2,837,023
RECORD CARD CONTROLLED PRINTING MECHANISMS
Denis John Ash, Stotfold, and Roger Arthur Davis, Metchworth, England, assignors to The British Tabulating Machine Company Limited, London, England
Application November 30, 1955, Serial No. 550,128
Claims priority, application Great Britain February 14, 1955
19 Claims. (Cl. 101—93)

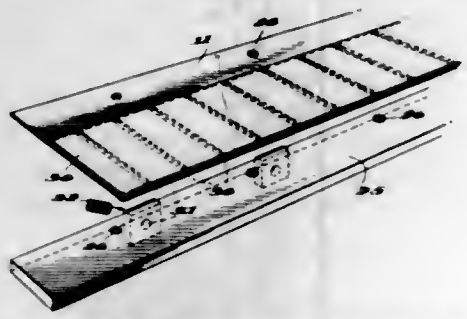


1. Printing apparatus comprising a printing member having a plurality of type characters, means for sensing a record member which has digit and zone data thereon representing the character to be printed, said sensing means generating digit and zone impulses at prescribed times in accordance with the said digit and zone data, control means operated in response to the occurrence of two digit impulses, means operated by said control means for generating a further zone impulse at a time different from said prescribed times, and means controlled by said digit and zone impulses and said further zone impulse for selecting a type character for printing.

2,837,024
INK FOUNTAIN BLADE
Douglas S. Dougan, Bedminster, N. J., assignor to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey
Application April 7, 1955, Serial No. 499,889
9 Claims. (Cl. 101—365)

1. A combined bottom plate and ink metering blade for an ink fountain adapted to cooperate with the fountain roll and be adjusted by thumb screws across its length to non-uniformly regulate the ink feed across the roll width comprising a resilient metal blade having a longitudinal metering edge for gauging the ink delivery onto the roll and a remote edge portion for mounting the blade, said

blade having a plurality of narrow slits extending from near the mounting edge through the gauging edge to provide a plurality of tongues allotted one to each set screw,



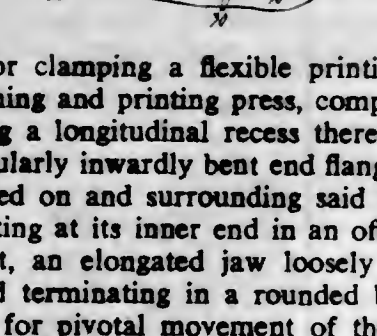
and a single sheet of flexible material secured throughout its full area to the upper or roll confronting faces of all of said tongues to seal the slits between them against ink leakage.

2,837,025

CLAMPING AND TENSIONING DEVICE

William Pechy, Belmar, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application May 8, 1956, Serial No. 583,391
4 Claims. (Cl. 101—415.1)



1. Means for clamping a flexible printing plate taut in a lithographing and printing press, comprising a plate cylinder having a longitudinal recess therein for the reception of angularly inwardly bent end flanges of a printing plate carried on and surrounding said cylinder, said recess terminating at its inner end in an offset elongated rounded socket, an elongated jaw loosely contained in said recess and terminating in a rounded bead disposed in said socket for pivotal movement of the jaw in said recess, one side of said jaw being engageable with the inner surface of one of said inwardly bent plate end flanges, a longitudinal channel in said cylinder opening into said recess, wedging means longitudinally and laterally slidable in and relative to said channel and having a side thereof engageable with the adjacent side of said jaw, and means for effecting longitudinal and lateral sliding movement of said wedging means in said channel to pivotally rock said jaw in said recess on the jaw bead in said socket to force said printing plate flanges towards each other for drawing the plate taut on and around said cylinder.

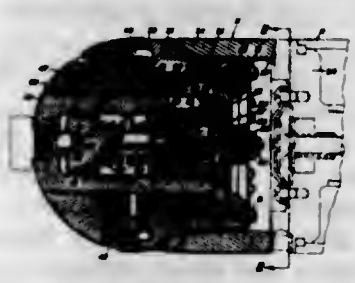
2,837,026

DEPTH CHARGE FIRING CONTROL MECHANISM

Solomon Burg, Kensington Heights, Md., and Thomas C. Smith, Poughkeepsie, N. Y.; said Smith assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 18, 1953, Serial No. 343,208
4 Claims. (Cl. 102—16)

1. An item of ordnance, the subcombination thereof comprising a ball valve and a hollow cylinder having a central passage defining a seat for the ball valve, a piston freely slidable in the hollow cylinder and having a recess for the ball valve, means adhering the ball valve in the recess, preventing its rolling sidewise in the recess and avoiding resulting damage to the seat on a sliding of the piston during a test operation, a ported plug disposed within said cylinder and movable thereby, means on said cylinder in engagement with complementary means on said plug for moving said plug as the cylinder is rotated, means in clamping engagement with said plug for causing the plug to move axially in response to rotation of the cylinder, means carried by said cylinder for imparting rotary movement thereto, spring means in engagement



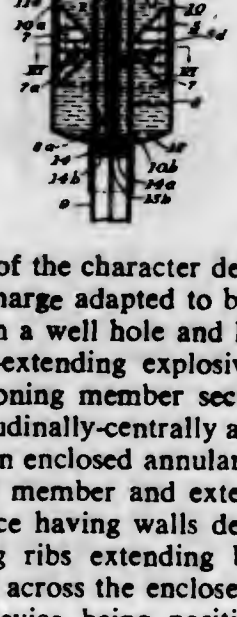
with said plug and piston and controlled by said plug for maintaining the ball valve in engagement with said seat, and means including a flange on said cylinder for preventing axial movement of the cylinder as the cylinder is rotated.

2,837,027

DIRECTIONAL SHOOTING OF WELLS

Thomas B. Martin, Bradford, Pa.

Application November 1, 1955, Serial No. 544,615
9 Claims. (Cl. 102—20)



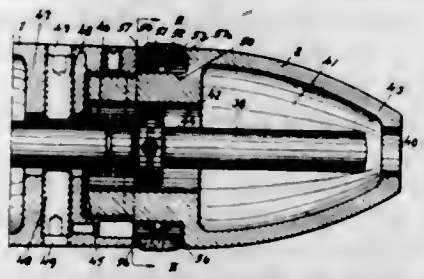
1. In a container of the character described for a well-shooting explosive charge adapted to be positioned longitudinally-vertically in a well hole and having walls defining a longitudinally-extending explosive-receiving chamber, a hollow positioning member secured to said walls and extending longitudinally-centrally along the explosive-receiving chamber, an enclosed annular directionating device secured on said member and extending transversely therefrom, said device having walls defining an enclosed chamber, reinforcing ribs extending between said last-mentioned walls and across the enclosed chamber defined thereby, and said device being positioned intermediate opposite longitudinal ends of the explosive-receiving chamber and being constructed and arranged to direct and concentrate explosive forces outwardly in a transverse path from the container.

2,837,028

HEAVY CALIBRE TRAINING AMMUNITION

Fritz Vilhelm Fransson, Saffle, Sweden

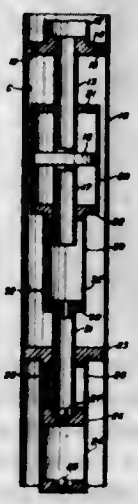
Application February 2, 1953, Serial No. 334,432
2 Claims. (Cl. 102—41)



1. Improvements in training ammunition for heavy caliber weapons which ammunition has a configuration similar to the cartridge for said weapon and contains a small caliber weapon for simulated firing comprising a

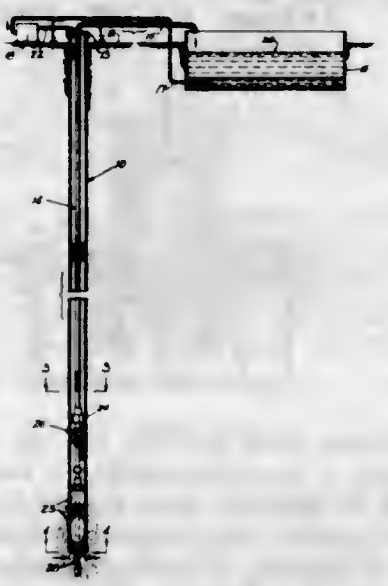
training round having an annular recess provided in and extending laterally around the forward portion of the periphery thereof, a plurality of longitudinally arched members loosely positioned in and around said groove with each member occupying a segment of said groove, a plurality of resilient members each connected at its medial portion to said round within said groove and at its end portion to end portions of one of said arched members tiltably supporting said arched members and tending to move said arched members from said groove in a radial direction beyond the periphery of said round whereby said round will be properly centered when chambered within said weapon by said arched members bearing against the bore of said weapon and means limiting the outward movement of said arched members.

2,837,029
HYDRAULIC SUBSURFACE PUMP AND MOTOR
Gerald E. Mohnkern, Oil City, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application September 14, 1954, Serial No. 455,930
2 Claims. (Cl. 103—46)



1. A hydraulic subsurface motor and pump combination, the motor portion of said combination comprising a piston of substantially uniform outside diameter, upper and lower stationary piston tubes of equal cross-sectional area connected to opposite ends of said piston and being of a smaller outside diameter than the piston, a traveling cylinder of substantially uniform inside diameter closely receiving said piston, upper and lower cylinder heads of equal cross-sectional area fixed to the ends of said cylinder and through which the respective tubes extend in closely received relation, a main valve and a pilot valve housed in said piston for directing power fluid from said upper tube alternately to the upper end of said piston, where it acts on the bottom of said upper cylinder head to produce an upstroke of said cylinder, and to the lower end of said piston, where it acts on the top of said lower cylinder head to produce a downstroke, said valves relieving the opposite end of said piston in each instance to said lower tube, the pump portion of said combination being single-acting and comprising a stationary cylinder below said traveling cylinder, said stationary cylinder having relief ports adjacent its upper end, tubing engaging means fixed to said stationary cylinder above said ports and preventing flow from said ports into the space thereabove, a standing valve adjacent the lower end of said stationary cylinder, a reciprocable element in said stationary cylinder, a traveling valve in said reciprocable element, a tube connecting said reciprocable element with said traveling cylinder, the cross-sectional area of said last named tube being one-half that of the bore of said stationary cylinder, and means at the top of said stationary cylinder closely receiving said last named tube and preventing downward flow therepast, whereby the pump delivers substantially equal volumes of fluid on both its upstroke and downstroke and the load on the motor is balanced on both strokes.

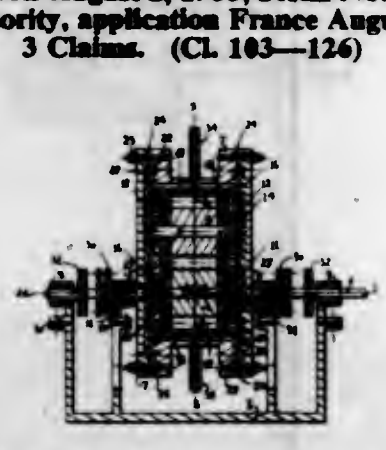
2,837,030
FLUID-OPERATED DEEP-WELL PUMP
Edward C. Laster, Sr., and Theodore L. Menge, Sr., Shreveport, La.
Application September 16, 1955, Serial No. 534,724
8 Claims. (Cl. 103—46)



1. In a deep well of the type having a well casing and a string of tubing positioned within the casing and spaced from the walls thereof, said casing being filled with a liquid under pressure; a pumping mechanism comprising a pump body inserted in the string of tubing adjacent the lower end thereof, an upstanding hollow shell in said well casing carried by said pump body adjacent the upper end thereof, said shell having at least two pairs of inlet ports arranged in vertical spaced relation, the inlet ports of each pair being in opposed relation to each other with one port of each pair placing the interior of the shell in communication with said well casing to permit flow of the liquid under pressure from said casing through said one port of said pairs, a valve positioned within said shell and movable vertically into and out of alternate bridging relation with respect to each pair of said ports, a valve body carried by said pump body extending transversely thereacross adjacent said shell and having a vertical passage therethrough, said valve body having opposed inlet ports and each extending transversely from the vertical passage to the exterior thereof, valve means positioned within the transverse ports of said valve body and movable into seating engagement with the end of one of the transverse ports adjacent the vertical passage and out of seating engagement with the end of the other transverse port adjacent the vertical passage, a first conduit connecting one of the inlet ports of one pair in said shell to one of the transverse ports in said body, a second conduit connecting the other of the inlet ports of the other of said pairs in said shell to the other of the transverse inlet ports in said body, a plurality of cylinders arranged in vertical spaced relation positioned below said body, a connecting member securing the uppermost one of said cylinders to the lower end of said body, said member having a vertical passage in communication with the first mentioned vertical passage and also having a passage connecting said first vertical passage with each of the transverse inlet ports in said valve body, a piston mounted in each cylinder for up and down movement, a piston rod rigidly connecting said pistons for movement together, a third conduit connecting one of the passages of said connecting member to the lowermost one of said cylinders adjacent the lower end thereof, and means connecting said shell valve to said piston rod for movement

of said shell valve into and out of bridging relation with one pair of shell ports on conclusion of the execution of the upward and downward movements of the pistons in the respective cylinders.

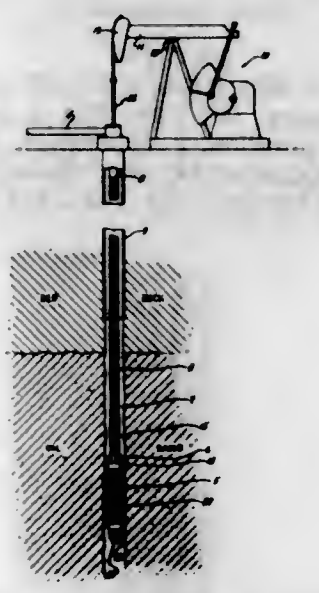
2,837,031
VOLUMETRIC ROTARY PUMPS AND COMPRESSORS
Georges Ilune, Paris, France
Application August 2, 1955, Serial No. 525,974
Claims priority, application France August 5, 1954
3 Claims. (Cl. 103—126)



1. In a rotary fluid machine for use with high temperature fluids, a housing including a body member and cover plates at opposite ends of said body member to maintain a pressure tight fluid seal for the fluid and rotating parts therein, a driving element and a driven element within said housing, said driving element and driven element being each mounted on a separate shaft, having bearings in sealing contact with said housing, the shaft of said driving element extending outside of said housing while the shaft of said driven element lies within said housing, said shaft of said driving element provided with inner bearings at opposite ends within said housing and with outer bearings at opposite ends outside of said housing, a support for said outer bearings which also supports said housing independently of the supporting action for the ends of said shaft of said driving element, recesses in said housing for said inner bearings, within which said bearings may under go limited floating movement, floating plates attached to said inner bearings and supported by said inner bearings which floating plates support said driven shaft, said floating plates moving with said bearings within said recesses, and insulation wedges for supporting said driving shaft and said housing including a wedge interposed between said outer bearings and said support for mounting said driving shaft and a wedge interposed between said housing and said support for mounting said housing whereby thermal expansion of said floating plates which affects the performance of said machine is compensated at said wedge mounting of said housing and at said wedge mounting of said driving shaft.

2,837,032
FILTER FOR USE WITH PERIODIC SUCTION PUMPS
William F. Horsting, Sr., Wilmette, Ill., assignor of one-sixth to Ira Milton Jones, Milwaukee, Wis.
Application July 31, 1957, Serial No. 675,293
6 Claims. (Cl. 103—220)

1. A self-cleaning filter unit for attachment to the suction pipe of a pump which produces periodic suction impulses to filter suspended solid abrasive particles such as sand from liquid being pumped before such liquid enters the suction pipe, said filter unit comprising: an elongated body member; means on one end of the body member to connect the same to the inlet end of the suction pipe of the pump, said body member being transversely rigid and having means defining flow passages leading from mouths at its sides to said end thereof to permit liquid to be drawn transversely into the body member for flow into the suction pipe; a sleeve of soft yieldable but resilient porous rubber-like foam material embracing the body member and covering the mouths of its flow passages so that liquid must pass through the pores of the sleeve wall to reach the mouths of said flow passages, the outer surface of the sleeve being exposed to have direct contact with the liquid to be pumped so that solid particles suspended in the liquid are separated therefrom and accumulate on the sleeve as liquid is drawn through the pores of the sleeve wall by the suction impulses of the pump manifested inside the sleeve through the flow passages in the body member, the pores of the sleeve wall being uniformly distributed and of a size smaller than sand, the material of which the sleeve is formed having a degree of resilience such that the suction impulses produced by the pump cause the sleeve wall and its pores to contract and thereby more effectively preclude penetration of the solid particles into the sleeve wall under the force of liquid flowing through the pores thereof, and such that during the intervals between suction impulses the sleeve wall returns to its normal thickness to thereby dislodge solid particles from the sleeve, and the sleeve wall having a thickness great enough to assure that the inner portions of the sleeve wall contiguous to the mouths of the flow passages in the body will remain porous to permit flow to the pump even under maximum pump produced suction; and means securing the sleeve against endwise shifting on the body member to thereby assure against uncovering the mouths of any of the flow passages despite a tendency for the sleeve to sag under the weight of liquid filling its pores.



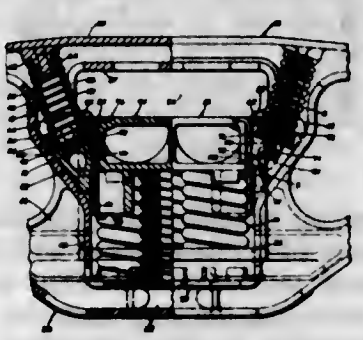
2,837,033
TRUCKS FOR TRACK FASTENING DEVICES
Charles E. Godfrey, Lombard, and Wesley T. Johnson, Jr., Chicago, Ill., assignors to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application December 27, 1954, Serial No. 477,662
4 Claims. (Cl. 105—162)



1. In a truck for transporting studs or like track fastening devices along a railway, a main frame having wheels adapted to travel on one rail of the railway, means on said frame for carrying a wheel adapted to travel on the other rail of the railway, a seat adjacent one end of the main frame on which an operator may sit to straddle

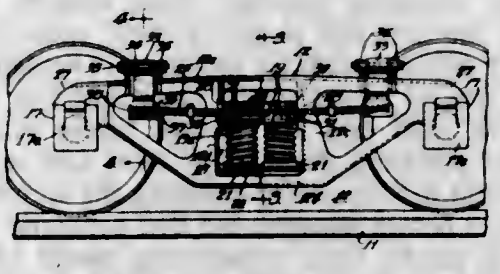
the main frame and pedally propel the truck along the railway to each position whereat such fastening devices are to be used, a pair of spaced apart standards arranged vertically on the main frame, means on one of the standards above the main frame affording a support for one end of a container containing such fastening devices, means on the other of said standards above the main frame affording a support for the other end of said container, said supports being so arranged that the container, when supported thereby, will be inclined downwardly in the direction of said seat, and a bin on the main frame between said seat and the standard more adjacent thereto for receiving fastening devices spilled from said container, said bin having one end wall immediately in front of the seat and another end wall terminating at the said more adjacent standard.

2,837,034
CAR TRUCK
James A. Shafer, East Cleveland, Ohio, assignor to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio
Original application November 18, 1949, Serial No. 128,153, now Patent No. 2,712,796, dated July 12, 1955. Divided and this application January 28, 1955, Serial No. 484,679
6 Claims. (Cl. 105—197)



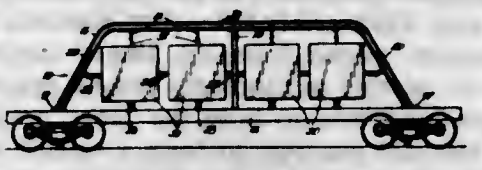
1. A car truck comprising a side frame having a tension member, a compression member and a pair of columns joining said members and forming a bolster receiving opening therewith, a bolster extending into said opening, each of said columns having side walls and a sloping connecting wall forming a pocket facing a side of said bolster, a wedge member in said pocket, a spring for urging said wedge member into engagement with said sloping wall and a side of said bolster, and abutment means on said side walls in said pocket for engagement with said wedge member to preclude swivelling of the latter transversely of the side frame during angling of the bolster in a horizontal direction relative to the side frame.

2,837,035
FREIGHT CAR TRUCK
Hermann Bleibtreu, Hinsdale, Ill.
Application January 17, 1955, Serial No. 482,105
7 Claims. (Cl. 105—197.1)



1. In a railway car truck, the combination of a side frame having a bolster opening, a transversely disposed bolster extending into said opening, a leaf spring disposed lengthwise within the confines of said frame and extending transversely through said bolster, means for rigidly securing said bolster to said leaf spring intermediate the ends of said spring, and a pair of swing hangers mounted on a pivotal axis parallel with the longitudinal axis of said spring each supporting a different end of said leaf spring.

2,837,036
CONTAINER CAR
Stephen J. Fraenkel, Wilmette, Ill., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application February 14, 1956, Serial No. 565,364
3 Claims. (Cl. 105—366)



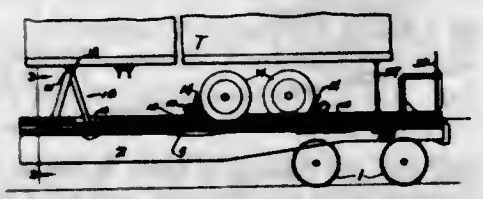
1. In a railway car for transporting lading, a center sill extending from end to end of said car, a frame having end columns rigidly fixed to the center sill, a beam rigidly fixed to said end columns, said lading being supported by the frame and offset from the connections of the frame with the center sill.

2,837,037
RAIL CARRIER FOR HIGHWAY VAN
Aaron K. Holmberg, Eau Claire, Wis.
Application January 15, 1954, Serial No. 404,281
11 Claims. (Cl. 105—368)



1. A rail carrier for highway vans comprising a first and second railway car truck having axles and wheels, a longitudinal body member for supporting the wheels of a van having one end supported by said first truck at a height intermediate the top of the rails and said axles and being adapted to pivot downwardly with respect to said first truck, cooperating elements on the other end of said body member and said second truck for coupling said second truck and other end to temporarily support said other end in van transporting position at substantially the same height as said first-mentioned end, means for uncoupling said other end and second truck to permit said body member to pivot downwardly and drop said uncoupled end to a position at which a van may be loaded on and unloaded from said body member, said platform constituting the draft connection between said trucks.

2,837,038
HIGHWAY TRAILER CARRYING CAR
Frank Fahland, Omaha, Nebr.
Application October 18, 1954, Serial No. 462,808
8 Claims. (Cl. 105—368)



3. In combination, a railway car having a floor and a pair of parallel bars spaced apart and extending lengthwise of the central portion of the floor, and similar bars extending lengthwise of the floor adjacent to the sides of the car, all of said bars being provided with a series of upwardly opening recesses at intervals along their length. a device positioned between the first two-mentioned bars

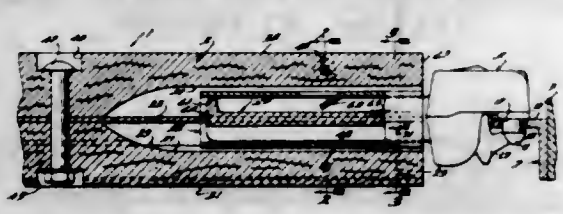
and comprising two members having a hinged connection at one end of the device and provided with transversely extending elements at the ends of the members spaced from the hinged connection and arranged for seating in relatively closely spaced recesses in said bars to hold the hinged portion of the device in elevated position, to form a vehicle body support, or in relatively remotely spaced recesses to lower the hinged connection to accommodate movement of a vehicle along the floor over the members, and a device between each bar at the side of the car and the adjacent bar comprising two members having a hinged connection at one end of the device and provided with transversely extending elements at the end of the member spaced from the hinged connection and arranged for seating in relatively closely spaced recesses in the associated bars to hold the hinge portion of the device in elevated position, to form a vehicle wheel stop, or in relatively remotely spaced recesses to lower the hinged connection and accommodate movement of a vehicle along the floor and over the members.

2,837,039

FREIGHT LOADING CROSS BAR

George M. Schueder, Dearborn, Mich., assignor to Evans Products Company, Plymouth, Mich., a corporation of Delaware

Application February 24, 1955, Serial No. 490,265
5 Claims. (Cl. 105—369)



1. A freight bracing cross bar comprising a body portion and a locking head, said body portion including an elongated reinforcing member having a web portion extending across the width of the body portion, a socket secured in a notch in said web portion and opening out of the end of the body portion, said head having a stem telescopically and slidably received in said socket, and tabs struck out of said socket and engaging opposite surfaces of said web and serving to mechanically align said socket with the web.

2,837,040

HATCH FRAME AND COVER FOR COVERED HOPPER CAR

Carl E. Johansson, Cleveland, Ohio, assignor to The Youngstown Steel Door Company, Cleveland, Ohio, a corporation of Ohio

Application December 17, 1952, Serial No. 326,490
3 Claims. (Cl. 105—377)



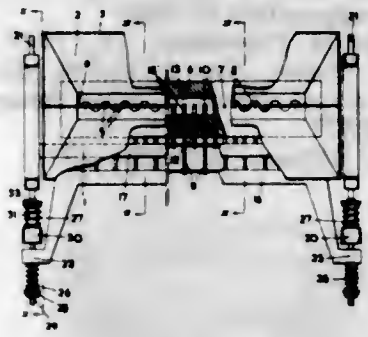
1. In a railway car having a roof, a hatch opening in said roof, a hatch frame secured to said roof around said opening, a cover for said frame, shaft supporting members secured to said frame, a shaft journalled in said members, cams eccentrically mounted on said shaft, hinge straps secured to said cover, collars on said straps encircling said cams, a lever secured to said shaft for imparting rotation thereto, and cooperating means on said cover and frame for locking said cover upon said frame, said lever being swingable in one direction to effect automatic disengagement of said cooperating locking means and permit swinging movement of said cover to open position about said cams, engaging means on said cover and engaging means on said shaft supporting members, said latter two means being engaged to limit swinging movement of said lever in the opposite direction when said lever is swung in said opposite direction prior to closing movement of said cover.

2,837,041

MACHINE FOR MANUFACTURING COMPOSITE CONFECTIONERY

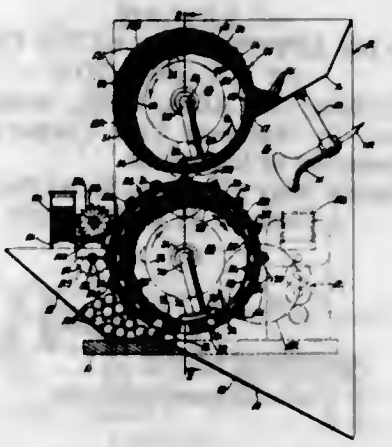
Pieter Gerrit Endeveld, Vlaardingen, Netherlands, assignor to Vennootschap onder firma "D. O. V. O." Fabriek van Suikerwerken, Schiedam, Netherlands, a corporation of the Netherlands

Application March 29, 1955, Serial No. 497,748
Claims priority, application Netherlands April 3, 1954
10 Claims. (Cl. 107—1)



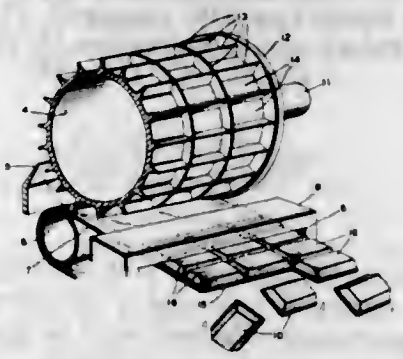
1. A machine for manufacturing confectionery products having a core of a first material and an envelope of a second material, said second material completely surrounding and enclosing the core material, said machine comprising a plurality of outer extruding nozzles, each of said outer nozzles surrounding at least one inner extruding nozzle, a plurality of first pumps each having an outlet channel communicating with one of said outer nozzles and each having a suction channel communicating with a source of supply of said second enveloping material, a plurality of second pumps each having an outlet channel communicating with one of said inner nozzles and each having a suction channel communicating with a source of supply of said first material, each of said first and second pumps including a cylinder and a piston axially reciprocatable therein to withdraw material from the source of supply with which the associated suction channel is connected and to advance said material through the associated outlet channel, valve means for selectively establishing and cutting off communication between each pump and its associated suction channel and between each pump and its associated outlet channel in timed relationship with the reciprocating movement of the pump piston, first actuating members for said first pumps and second actuating members for said second pumps, said first and second actuating members being coupled with the pistons of the first and second pumps, respectively, reciprocatory driving means for moving said actuating members, said driving means acting upon said first actuating members to drive said first pistons before acting upon said second actuating members to drive said second pistions and said driving means releasing the second actuating members before releasing the first actuating members during each stroke, force transmitting means adapted to undergo limited relative displacement connecting said driving means and one of said first and said second actuating members to transmit force from said driving means to said one of said first and said second actuating members, and stops for limiting the stroke of said last-named actuating members.

2,837,042
CEREAL MANUFACTURING DEVICE
Claude C. Laval, Jr., Fresno, Calif.
Application January 3, 1956, Serial No. 556,932
13 Claims. (Cl. 107—1)



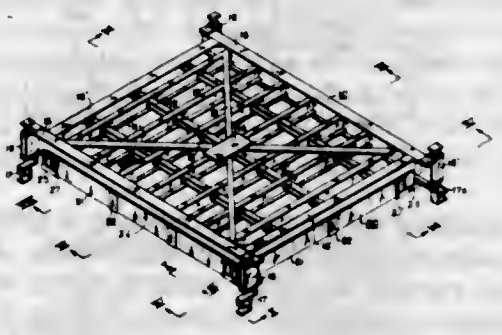
1. In an article handling apparatus, the combination of an article carrying member having an inner surface, an outer resiliently flexible and compressible surface, and a passage extended therethrough between the inner and outer surfaces for receiving an article to be carried, said passage having a minimum transverse dimension less than that of the articles to be handled so as to prevent movement of the article entirely through the passage; and means adjacent to the inner surface of the carrying member drawing air inwardly through the passage whereby an article is drawn against the outer surface of the carrying member in overlaying relation to the passage and whereby the material of the carrying member about the passage puckers inwardly about the article to retain the article and minimize air loss.

2,837,043
BISCUIT MAKING APPARATUS
Harvey H. Grice and Hovey M. Burgess, Kankakee, Ill., assignors to General Foods Corporation, White Plains, N. Y., a corporation of Delaware
Application May 3, 1956, Serial No. 582,562
1 Claim. (Cl. 107—8)



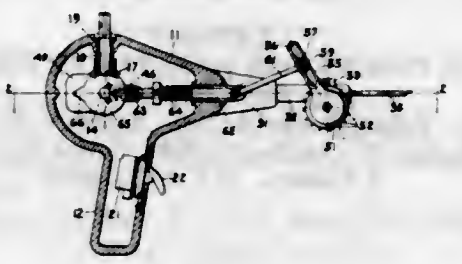
A biscuit making apparatus comprising a rotatable generally cylindrical die, spaced circumferential ribs on said die extending outwardly therefrom and defining a strip-forming space, circumferential rib-like projections mounted between said circumferential ribs on said die, extending radially outwardly therefrom and dividing said space into a plurality of biscuit strips; axially extending rib-like projections on said die, extending radially outwardly therefrom, traversing said space, and dividing said strips into a plurality of biscuit molds, the outermost ends of said rib-like projections being closer to said die than the outermost ends of said circumferential ribs, scraper means mounted stationary with respect to said rotatable die and bearing a scraping edge lying across the space between and in contact with the peripheral surfaces of said spaced circumferential ribs, along an axis parallel to the die axis so as to scrape against said circumferential ribs, and means for supplying biscuit dough to said space in advance of said scraping edge whereby there may be formed between said circumferential ribs a biscuit sheet of plural biscuit width containing biscuits linked to each other by dough portions of lesser thickness than the thickness of said biscuits.

2,837,044
SOAKING PIT COVER
Levi S. Longenecker, Mount Lebanon, Pa.
Application July 15, 1954, Serial No. 443,587
6 Claims. (Cl. 110—173)



1. In a soaking pit cover, framing members defining outer peripheral boundaries of said cover, said framing members having inwardly-projecting bottom flanges, refractory filler blocks below said framing members, short-length beam pieces secured to bottom faces of said bottom flanges and extending at substantially right angles to said flanges to slidably receive said refractory filler blocks, a refractory block assembly carried by said framing members in side-abutment with said filler blocks, a unitary sand seal frame positioned in tight abutment about said framing members and projecting downwardly therefrom in a gas-tight abutting and expansion-controlling relationship with said filler blocks for engagement with a sand bed, and means securing said sand seal frame in position on said framing members.

2,837,045
PORTABLE TUFTING MACHINE
Theron F. Gifford, Lookout Mountain, Ga., assignor to Ten-Tex Corporation, Chattanooga, Tenn., a corporation of Tennessee
Application November 6, 1953, Serial No. 390,659
8 Claims. (Cl. 112—80)



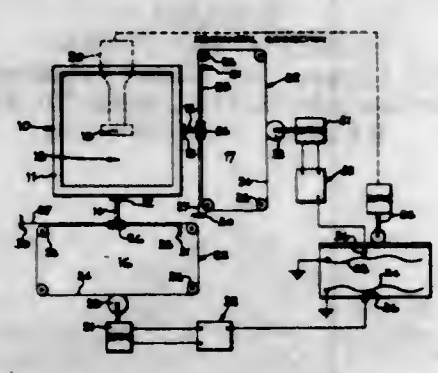
1. A tufting machine of a type which is bodily carried in the hand and guided by the hand relative to the work during use, said machine comprising a body portion, reciprocatory needle means carried by said body portion, step-by-step feed means carried by the body portion and operable to advance the body portion and needle means relative to the work, reciprocatory means connected with said step-by-step feed means to actuate the same each time the needle means is near the top of its upstroke, intermittent positive yarn feed means carried by the body portion and adapted to feed yarn to the needle means during the downstroke of the needle means, and a single rotary driving means for said needle means, second-named reciprocatory means and yarn feed means carried by said body portion.

2,837,046

AUTOMATIC FASTENING MACHINE

Gordon B. Carson, Portsmouth, and Daniel K. Wright, Jr., Cleveland, Ohio, assignors, by mesne assignments, to Selby International, Inc., Portsmouth, Ohio, a corporation of Delaware

Application November 26, 1952, Serial No. 322,746
11 Claims. (Cl. 112—118)



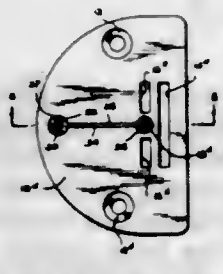
1. A stitching device for reproducing a given stitching pattern comprising a reciprocating needle, a movable platen for moving the work relative to the needle, said platen being supported for movement along a first component axis and for movement along a second component axis disposed at right angles relative to the first, whereby movements along said axes may be combined to cause universal movement of the platen, a first component drive effective to cause movement of the platen along said first axis, and a second component drive effective to cause movement along said second axis, each of said drives including a reversible motor, each of said drives also including means interconnecting the motor associated with that drive and said platen, means comprising a drive pulley associated with said motor, a substantially non-elastic cable wrapped around said drive pulley, a double groove pulley associated with said platen, each end of said cable passing over a groove of said double groove pulley and being secured to a stationary member, so that two oppositely opening loops are formed over said double groove pulley, a conductive line follower adapted to sense its position relative to a conductive line, said follower having a tracing point disposed for engagement with said line, means for moving said line past said tracing point, said tracing point being mechanically interconnected with one of said motors, and means effective to energize one of said motors, whereby said tracing point follows said guide line.

2,837,047

BUSHING INSERT FOR BASE PLATE FOR SEWING MACHINE

John Sheppard, New York, N. Y.

Application November 9, 1956, Serial No. 621,384
5 Claims. (Cl. 112—260)



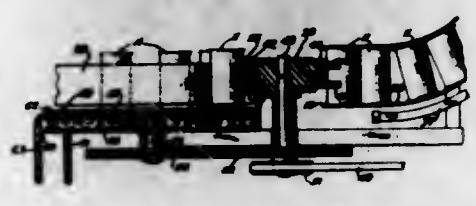
1. The combination, with a sewing machine throat plate having an opening, of a bushing insert adapted for disposition centrally in said opening and having an axial bore for guarding a sewing machine needle therethrough, and means for supporting the insert upon the throat plate, said means resting upon the throat plate and extending outwardly from said opening, said means comprising an elongated arm disposed radially of the opening of the throat plate, and a head rigid with one end of the arm and seating in the throat plate opening, said head having a centrally disposed aperture for receiving the bushing insert, the throat plate being formed with a groove in which said arm is disposed.

2,837,048

METHOD OF APPLYING WAX TO THE FLANGE OF A CAN BODY

William I. Colvin, Los Altos, Calif., assignor, by mesne assignments, to National Can Corporation, Chicago, Ill., a corporation of Delaware

Application May 17, 1954, Serial No. 430,077
2 Claims. (Cl. 113—120)



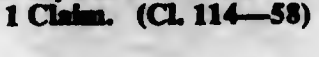
1. A method of applying wax in a restricted band on the inside of the flange of a flanged can body, comprising preparing molten wax, continuously revolving a felt-like surface substantially horizontally, applying molten wax to said surface from below the surface by capillary action, positioning a can body in proximity to said surface with an open end downward, continuously moving said open end across and parallel to said surface as said surface revolves and with said open end resting upon said surface under the attraction of gravity to coat the inside of the flange from its outer edge to the level of the beginning of the outward flare of said flange with a band of wax, withdrawing said body from contact with said wax, and allowing said wax to solidify on the inside of said flanged end of said body.

2,837,049

RIVER FERRY DRIVEN BY TWO SAIL-WHEEL PROPELLERS

Günther Franz, Heidenheim (Brenz), Germany, assignor to J. M. Voith G. m. b. H., Maschinenfabrik, Heidenheim (Brenz), Germany

Application May 23, 1955, Serial No. 510,366
In Germany November 25, 1948
Public Law 619, August 23, 1954
Patent expires November 25, 1968
1 Claim. (Cl. 114—58)



A river ferry having a hull with a substantially planar bottom an upstream side and a downstream side, and two end portions provided each with an upwardly slanted substantially planar bottom for landing on an inclined partially submerged ramp, said hull comprising a recess forming a niche at each of said end portions on said downstream side, each of said niches having walls forming obtuse angles with said downstream side and said bottom of said hull and end portion so as to provide a tapering transition of the shape of said niche into the shape of said hull, and a cycloidal propeller in each said niche above the bottom level of the hull.

2,837,050

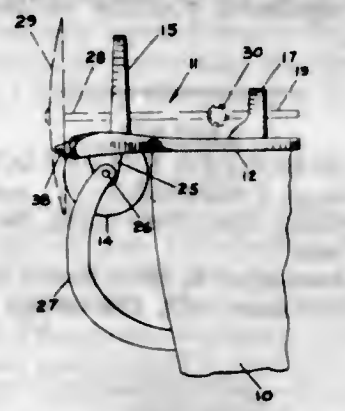
ANCHOR HOIST AND HOLDER

Morris Frank, Cedar Springs, Mich.

Application February 7, 1955, Serial No. 486,668
5 Claims. (Cl. 114—210)

1. A bracket for storing a sea anchor supported by a flexible element comprising: a normally horizontal base plate; a guide pulley rotatably mounted adjacent one end

of said plate; a fairlead on said plate for said flexible element; a convex guide member below said plate adapted



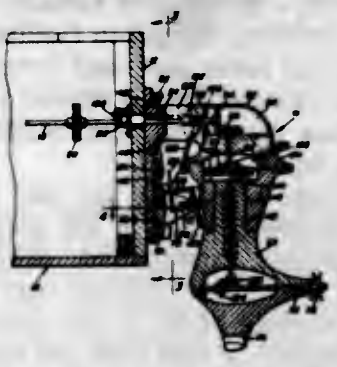
to engage said anchor and initiate its travel over and about said pulley.

2,837,051

BOAT DRIVE ASSEMBLY

George J. Friedrich, North Bellmore, N. Y., assignor of fifty percent to George S. Geary, Bayville, N. Y.

Application September 1, 1955, Serial No. 531,982
4 Claims. (Cl. 115—35)



1. In a motor boat which has a transom and a stub shaft, a mounting plate secured to said transom, a combined steering and power transmission device, means mounting said device on said mounting plate for pivotal movement about a generally horizontal axis, said device including an upper housing portion and a lower housing portion, said upper housing portion having a bore, a spindle on said lower housing portion mounted for rotation in said upper housing portion bore, a propeller carried by said lower housing portion, shafting and gearing drivingly connecting said stub shaft with said propeller, means connected to said spindle for rotating said spindle in said bore in order that the boat may be steered by changing the lateral direction of application of the driving force of the propeller, means operatively connected with said device and said mounting plate for tilting said device about a generally horizontal axis in order that the line of thrust of the propeller may be varied so that it is applied in a plane approximately parallel to the path of movement of the boat, said means for tilting said device including a generally vertical guideway on said plate, a sliding block in said guideway, an inclined flange carried by said upper housing portion, an abutment carried by said block against which said flange bears, and means for adjusting said sliding block within said guideway so that due to the inclination of said flange, said device is tilted to selected positions.

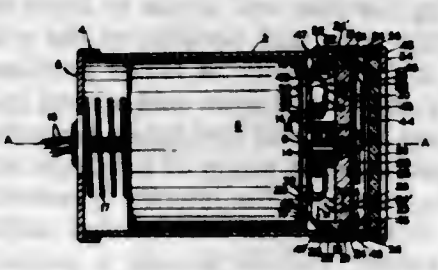
2,837,052

INDICATING APPARATUS

Andre P. Viret, Ridgewood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application January 17, 1956, Serial No. 559,603
1 Claim. (Cl. 116—129)

Indicating apparatus comprising a housing having a generally cylindrical portion, a dial structure mounted inside said housing and including a ring-like lighting member of light-conducting material having an annular inner surface and having an annular outer surface fitted within said cylindrical portion of the housing, said dial structure also including a separate generally cylindrical dial plate of light-conducting material having an annular outer surface fitted within said inner annular surface of said lighting member, said dial plate having a central aperture along the central axis of the apparatus and an opaque front dial face apertured with light-transmitting indicia, at least one pointer having portions to be illuminated which are disposed in front of said dial face for cooperation with said indicia, means including a shaft extending axially through said aperture for rotating said pointer with respect to said indicia, said lighting member having a rear portion with an inner annular surface and with a 45° beveled rear outer annular surface extending rearwardly of said dial plate and obliquely towards said axis, said lighting member also having a forward portion with an



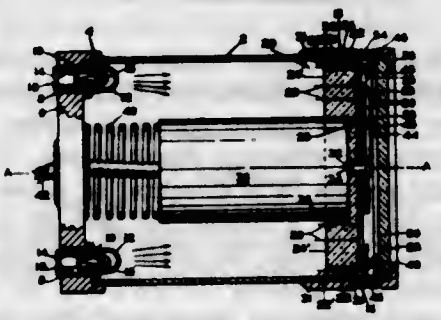
inner annular light-projecting surface which extends axially ahead of said dial face to encompass substantially said pointer, said forward portion of the lighting member having a 45° beveled forward outer annular surface, said last-mentioned bevel beginning approximately at the plane including said dial face and at said cylindrical portion of the housing to reflect light rays received in said lighting member out across in front of said dial face to impinge upon said portions of the pointer to be illuminated, and a plurality of lamps positioned behind said dial plate and spaced from said central axis approximately the same distance as said lighting member and said indicia for passing a first group of light rays into said inner annular surface of said lighting member for internal reflection from said beveled rear surface to impinge upon and internally reflect from said beveled forward surface to illuminate said pointer and for passing a second group of light rays into the portions of the rear of said dial plate approximately directly behind said indicia for internal transmission through said dial plate to illuminate said indicia.

2,837,053

INDICATING APPARATUS

Andre P. Viret, Ridgewood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

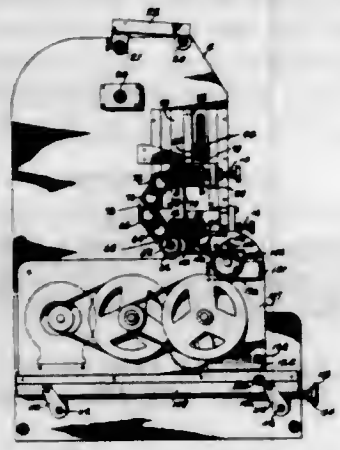
Application January 17, 1956, Serial No. 559,607
3 Claims. (Cl. 116—129)



1. Indicating apparatus comprising a housing having a generally cylindrical portion and being hermetically sealed, a dial structure mounted inside said housing and including a ring-like lighting member of light-conducting material having an annular inner surface and having

an annular outer surface fitted within said cylindrical portion of the housing, said dial structure also including a separate generally cylindrical dial plate of light-conducting material having an annular outer surface fitted within said inner annular surface of said lighting member, said dial plate having a central aperture along the central axis of the apparatus and an opaque front dial face apertured with light-transmitting indicia, at least one pointer having portions to be illuminated which are disposed in front of said dial face for cooperation with said indicia, means including a shaft extending axially through said aperture for rotating said pointer with respect to said indicia, said lighting member having a portion with an inner annular light-projecting surface which extends axially ahead of said dial face to encompass substantially said pointer, said portion of the lighting member having a beveled outer annular surface, the bevel beginning approximately at the plane including said dial face and at said cylindrical portion of the housing to reflect light rays received in said lighting member out across in front of said dial face to impinge upon said portions of the pointer to be illuminated, and a plurality of lamps positioned behind said dial plate and spaced from said central axis approximately the same distance as said lighting member and said indicia for passing a first group of light rays into the rear of said lighting member for internal transmission therethrough and reflection from said beveled surface to illuminate said pointer and for passing a second group of light rays into the portions of the rear of said dial plate approximately directly behind said indicia for internal transmission through said dial plate to illuminate said indicia, each of said lamps being enclosed within a transparent casing which is hermetically sealed to the rear end of said housing so that said lamps may be inserted and removed without destroying the hermetic seal for the housing.

2,837,054
LABEL FEEDING AND COATING MACHINE
Oreste B. Eccher, Brooklyn, N. Y., assignor to Potdevin Machine Co., Teterboro, N. J., a corporation of New York
Application March 11, 1955, Serial No. 493,782
13 Claims. (Cl. 118—40)



11. In a label-dispensing machine, the combination of a pair of parting-and-discharge rollers; a pair of web-feeding rollers; driving means for said rollers, including a one-way clutch, for effecting simultaneous, intermittent rotation of said rollers in a direction to cause the web-feeding rollers to draw a continuous web of labels from a supply source and feed the web to the parting-and-discharge rollers; and gearing for coupling the said pairs of rollers to each other for rotation of the parting-and-discharge rollers at a higher speed than the pair of web-feeding rollers, the pairs of rollers being spaced at such a distance from each other and their relative peripheral speeds being such that, as the leading end of the web is nipped by the higher-speed parting-and-discharge rollers, the web will be tensioned sufficiently to part the same a label-length from the web end, the parted label being discharged by continued rotation of the parting-and-discharge rollers.

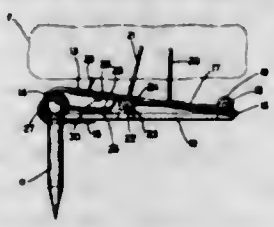
2,837,055
TISSUE-HOLDER RECEPTACLES
Edwin C. Whitehead, Crestwood, N. Y., assignor to Technicon International, Ltd., New York, N. Y., a corporation of New York
Application December 9, 1954, Serial No. 474,244
5 Claims. (Cl. 118—500)



2. A tissue-holder receptacle for use in treating the tissue with a processing liquid in the preparation of the tissue for microscopic examination, comprising a container having a body portion provided with perforations, the upper part of said body portion having an internal cover-seat, and a cover for the top of said container adapted to be releasably secured to said cover seat by pressing said cover downwardly thereon, said cover being provided with a plurality of radially extending slots to increase the flexibility thereof to facilitate the pressing of the cover on said cover seat, said cover being further provided with an internal porous fibrous surface part for mounting the tissue thereon in position for access thereto of the processing liquid.

4. A tissue-holder receptacle for use in treating the tissue with a processing liquid in the preparation of the tissue for microscopic examination, comprising a container having a perforated surface part providing for access of the processing liquid to said tissue and a member having a plurality of fold lines for folding it into at least two conditions, said member being insertable into said container when in said folded conditions, said member being adapted to divide said container into a number of container portions when in one folded condition and being further adapted to divide said container into another number of container portions in another of said folded conditions, whereby said container is adapted to mount a number of isolated tissue specimens corresponding to the number of container portions in which said container is divided by said member.

2,837,056
ANIMAL TRAINING DEVICE
George E. Kanta, Three Forks, Mont.
Application June 1, 1956, Serial No. 588,875
4 Claims. (Cl. 119—29)



1. An animal training device comprising a horizontal body member, a spring-loaded loop pivotally attached at one end to one end of the body member and normally urged to an upright position, a retaining link pivotally mounted upon the other end of the body member for engaging over the free end of said loop for holding the loop folded against the body member, a tapered upright finger upon said retaining link, a trigger pivotally mounted upon the body member between the retaining link and the pivotal point of said loop, said trigger comprising an angular lug for releasably engaging the free end of the retaining link, and a tapered upright finger upon the

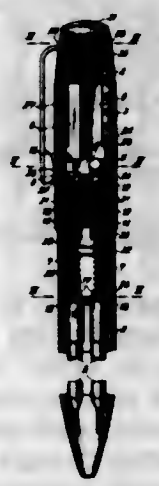
trigger cooperating with the tapered finger upon the retaining link for holding food scraps in position to be taken by an animal, whereby when an animal removes the food scraps from said tapered fingers the trigger will release the retaining link permitting the spring-loaded loop to swing upward striking the animal a sharp blow.

2,837,057

MECHANICAL MULTI-COLOR PENCIL OF THE BALL-WRITING OR LEAD-WRITING TYPE

Kurt Morlock, Pforzheim, and Eugen Kratz, Buchenbronn, near Pforzheim, Germany, assignors to Heinrich Morlock, Pforzheim, Germany, a firm of Germany

Application April 22, 1955, Serial No. 503,152
18 Claims. (Cl. 120—42.13)



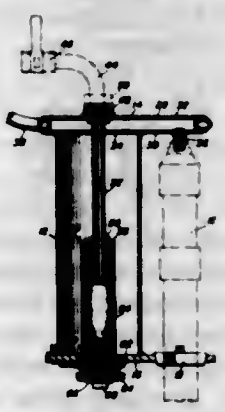
5. In a writing implement, in combination, an elongated jacket having a forward end; a plurality of carriers for writing points and mounted in the forward portion of said jacket for independent longitudinal movement into and out of an operative position projecting from said forward end of said jacket; actuating means mounted rearwardly of said carriers on said jacket for longitudinal movement; and a ball having a continuous spherical surface and mounted on said actuating means for free rolling movement on said spherical surface in transverse direction between a plurality of coupling positions respectively located opposite one of said carriers so that said ball rolls to a position located opposite the lowermost carrier when said writing implement is tilted out of a substantially vertical position, said ball being mounted in said actuating means non-movable in longitudinal direction so as to move with said actuating means in longitudinal direction for shifting the respective lowermost carrier to said operative position.

2,837,058

BACKFILL TAMPER

Edward F. Taylor, Denver, Colo.

Application March 31, 1955, Serial No. 498,318
12 Claims. (Cl. 121—1)



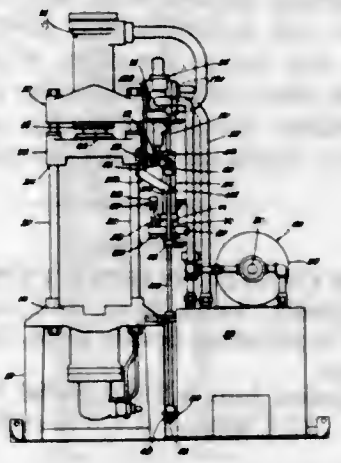
1. A holder for a pneumatic reciprocating tool comprising a supporting body having a fluid receiving and delivering chamber therein, means adapted to supply fluid under pressure into said chamber, means for supporting a plurality of fluid pressure operated elements upon the exterior surface of said body, means for delivering fluid from said chamber to said plurality of fluid pressure operated elements, a metallic fluid screen disposed in said chamber, a pair of supports for rigidly holding said screen at its opposite ends, said chamber having a pair of walls, one of said walls having an opening therein, one of said supports being mounted in said opening and being removable therethrough with the screen.

2,837,059

VARIABLE STROKE PRESS

Joseph W. Tomka, Cincinnati, Ohio, assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application April 19, 1956, Serial No. 579,322
20 Claims. (Cl. 121—38)



1. In an indexing arrangement for a press having a frame, a movable member slidably carried by said frame, power means to move said member, and a control device for said power means; the combination of a control lever fulcrumed intermediate its ends to the frame, a control shaft having spaced upper and lower stops thereon, said lever having at one of its ends a pivotal connection to one end of said shaft and having adjacent the other of its ends a pivotal connection to control said device, an index shaft secured to said frame, a rotatable turret positioned on said index shaft, said turret having a plurality of circumferentially spaced openings therein and having ratchet means on one side thereof, said ratchet means comprising ratchet teeth and a spring loaded pawl on said turret, a plurality of spring loaded plungers of varying lengths extending through the respective openings of said turret, cam teeth on said turret, an index cam slidably positioned on said index shaft, said index cam having cam teeth at one end thereof engageable with the cam teeth of the turret and having at the other end thereof a cylinder presenting a slot therein, a guide lug rigidly secured to said member and slidably receivable in said slot, and a follower rigidly secured to said member, said follower comprising a head engageable with one of said plungers, and a follower slide slidably positioned on said control shaft between said abutment stops.

2,837,060

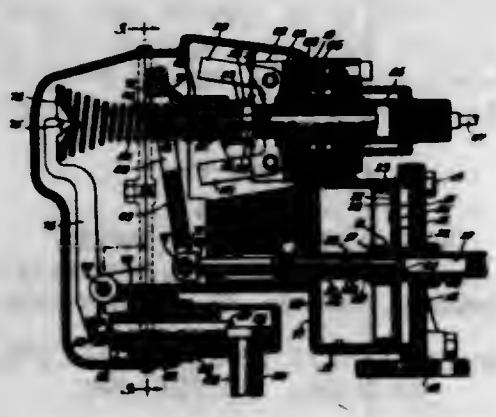
SPEED CONTROL DEVICE

Ralph R. Teetor, Hagerstown, Ind., assignor to Perfect Circle Corporation, Hagerstown, Ind., a corporation of Indiana

Application December 15, 1953, Serial No. 398,365
5 Claims. (Cl. 121—42)

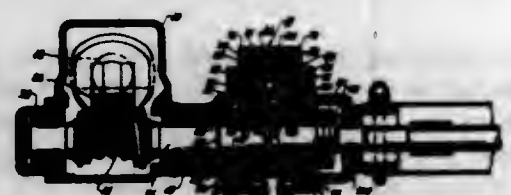
1. A vacuum operated speed control device for an automotive vehicle comprising a cylinder and a piston tending to move in one direction when vacuum is applied to said cylinder, a pair of shiftable valve members for

controlling the application of vacuum to said cylinder, one member being movable with the piston, a governor having a drive shaft mounted on an axis parallel to the cylinder axis, said governor including a collar shiftably mounted at one end of said shaft and movable by the



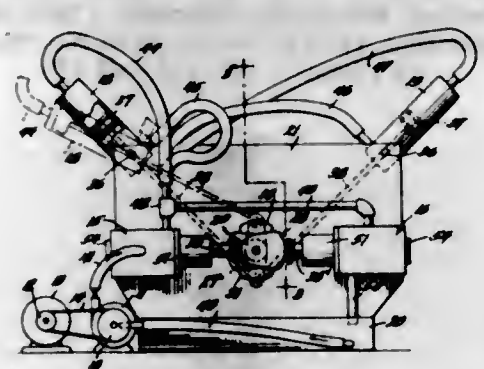
governor a spring aligned with said shaft and opposing movement of said collar by said governor, and a lever connected at one end to the other of said pair of members and at its other end to said collar and having a yoke portion extending about said spring, said yoke portion being pivotally supported at opposite sides of said spring.

2,837,061
OPEN CENTER POPPET TYPE VALVE
Harold B. Schultz, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 1, 1953, Serial No. 358,873
15 Claims. (Cl. 121—46.5)



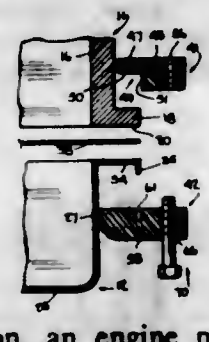
2. A valve device comprising a body having an inlet port connected to a return port and to both a first working port and a second working port, a member journaled in said body and reciprocable therein, two annular channels formed between said body and said member connecting the inlet port with said working ports, and valve means for controlling communication between said ports, said valve means comprising first and second free-floating valve elements arranged eccentrically of said member, each of said valve elements being associated with one of said working ports, two diametrically opposite valve seats associated with each valve element and between which each valve element is interposed, one of said two valve seats associated with each valve element being interposed between the inlet port and said associated working port and the other of said valve seats being interposed between the return port and said associated working port, and two pressure plates radially outwardly extending from said reciprocable member and bearing against oppositely disposed ends of said valve elements for seating said valve elements on their respective seats, said valve elements having a neutral position in which they are unseated from their respective valve seats by a balance between the influences of said pressure plates, said pressure plates urging said valve elements toward said neutral position when a differential of pressure exists in the said two annular channels, said valve element being arranged such that when the first valve element is seated on its said one seat, the second valve element is seated on its said other seat respectively to allow exclusive communication between the inlet port and said first working port and between said second working port and said return port, and when said first valve element is seated on its said other seat, said second valve element is seated on its said one seat respectively to allow exclusive communication between the inlet port and said second working port and between said first working port and the return port.

2,837,062
HYDRAULIC POWER UNIT
Joseph Thorpe, Egg Harbor City, N. J.
Application March 28, 1957, Serial No. 649,175
7 Claims. (Cl. 121—63)



1. A power unit comprising a plurality of pivotally mounted cylinders, double-acting pistons mounted for longitudinal reciprocation within said cylinders, a drive shaft including a crank portion, connecting rods fixed to said pistons and connected with said crank portion, said connecting rods extending through the closed lower end of said cylinders and being slideably mounted with respect to said cylinders in fluid-tight manner, means for supplying fluid under pressure, an inlet valve block communicating with said fluid supply and comprising a plurality of valves, one for each end of said cylinders, an outlet valve block comprising a plurality of valves, one for each end of said cylinders, conduit means separately interconnecting each of said valves of said inlet valve block with one of the upper and lower ends of said cylinders, conduit means separately interconnecting each of said valves of said outlet valve block with one of the upper and lower ends of said cylinders, means to actuate said valves of said inlet valve block in timed sequential relation, and means to oppositely actuate the valve of said outlet valve block which is connected with the same end of the same cylinder.

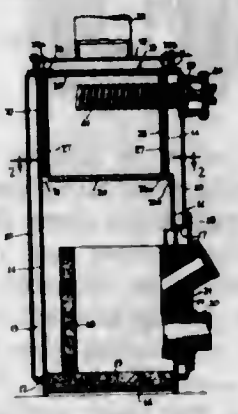
2,837,063
DEVICE FOR CLAMPING A CRANK CASE OIL PAN TO THE BASE OF A GASOLINE ENGINE
Rafael Martinez, New York, N. Y.
Application October 31, 1955, Serial No. 543,656
7 Claims. (Cl. 121—194)



1. In combination, an engine motor having an outwardly extending flange at its lower end, an oil pan having an outwardly extending flange at its upper end disposed beneath the flange of the motor base, a pair of removable clamp jaws on each side of the motor and pan, each pair of clamp jaws comprising an upper clamp jaw engaging the upper side of the flange of the motor, and a lower clamp jaw engaging the underside of the flange on the pan, and means to attach each set

of clamp jaws to each other for clamping the pan to the motor, said means comprising fastening members passing through openings in the clamp jaws of each pair, the flange on the oil pan being formed with downwardly extending lips at opposite sides thereof, said lower clamping jaws being formed with grooves receiving said lips.

2,837,064
LIQUID HEATER USING BURNED FUEL HEATING GASES
William S. Anderson, Williamsport, Pa., assignor of one-half to James E. Axeman, Williamsport, Pa.
Application May 11, 1954, Serial No. 429,069
9 Claims. (Cl. 122—165)



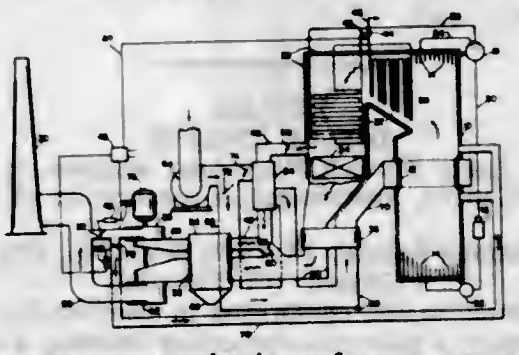
1. A liquid heater in which the liquid is heated by burned fuel gases, comprising in combination, outer and inner shells forming an annular outer liquid space between them, a fire box within the lower part of the inner shell and largely surrounded by liquid space formed between said shells, a C-shaped shell sheet disposed above the fire box and spaced inwardly from the inner shell and with it forming a thin wide C-shaped flue above the fire box, the inner shell being formed with a cut out gap matching the side opening or gap in the C-shaped shell sheet, upper and lower header plates secured to the ends of the C-shaped shell sheet and across the upper and lower ends of the matching gap openings in the shell sheet and the inner shell, and vertical flue gap end strips secured between the spaced edges of the gap openings in the shell sheet and inner shell to form with the shell sheet an enclosure for an inner liquid space having a wide connecting passage with the outer liquid space, leaving the flue open, the connecting passage being of the full height of the inner liquid space, the header plates closing off the passage of gases from the fire box except through said flue, a smoke box located directly above the upper end of the flue, the flue being relatively short as compared to the length of the outer liquid space, the flue also being very wide and very thin transversely to the direction of gas flow therethrough and being clearly open and substantially free from transverse baffling obstructions throughout its full length from the fire box to the smoke box to provide for free even flow of hot gases therethrough, a thin C-shaped divider sheet disposed in said flue between said inner shell and said shell sheet to divide the thin flue space into thinner spaces which are clearly open and substantially free from baffling obstructions to provide for free even flow of hot gases therethrough, the thin divider sheet presenting at least one of its two broad outer surfaces toward one of said liquid-backed surfaces formed by the inner shell and the shell sheet, means holding said divider sheet in position in the flue but leaving it sufficiently free from engagement with the liquid-backed surfaces so that by convection heat transfer from hot gases it can attain a temperature much higher than that of the liquid-backed surfaces to transfer heat to them by radiation but with little transfer by conduction, the means holding said divider sheet in position including top supports and side spacers disposed at spaced points throughout the surface of the divider sheet on both sides, said spacers having small contact surfaces presented on the sides away from said sheet to minimize transfer of heat by conduction, the arcuate shape of the divider sheet, the relatively uniform temperature over its surface extent produced by having liquid-backed heat absorptive surfaces, and the side spacers for the divider sheet, together with the rapid and uniform passage of hot gases thereover, serving to keep the divider sheet in proper position and free from buckling or warping.

2,837,065
FURNACE CONSTRUCTION
John W. Throckmorton and John S. Wallis, New York, N. Y., assignors to Petro-Chem Process Company, Incorporated, New York, N. Y., a corporation of Delaware
Application January 8, 1953, Serial No. 330,192
4 Claims. (Cl. 122—356)



1. A vertical tube fluid heater comprising an upright cylindrical furnace shell having a ceramic lining, a single cylindrical bank of vertical tubes within the furnace shell, said tubes being close to but spaced from the ceramic lining, and means for connecting the tubes in series to form a hollow cylindrical heating coil, upshot burners at the bottom of the furnace adapted to discharge flame and hot gases axially upward within the heating coil, whereby the tubes are heated by direct radiation from the flame and hot gases and by reradiation from the ceramic lining, the tubes of said hollow cylindrical coil spaced relatively close together near the inlet end of the coil where the fluid to be heated enters at a low temperature, and relatively far apart near the outlet end of the coil where the fluid has already reached a comparatively high temperature.

2,837,066
VAPOR GENERATOR WITH NOVEL GAS RECIRCULATING SYSTEM
Henry J. Blaskowski, New York, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application February 25, 1954, Serial No. 412,426
13 Claims. (Cl. 122—479)



1. A vapor generator having a furnace, vapor generating tubes lining the inner surface of the walls of the fur-

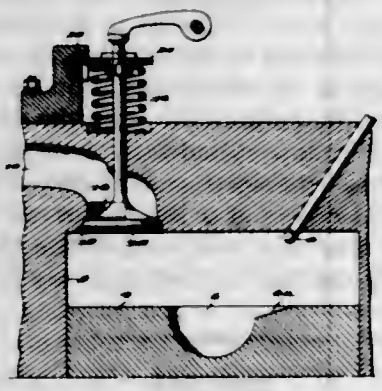
nace, means for firing said furnace with a fuel, gas pass means conveying the combustion gases generated in the furnace to a point of discharge, a vapor heater disposed in said gas pass means at the beginning thereof and connected to receive and heat vapor generated by the vapor generator, a fan means having a single driving motor, said fan means being comprised of two separate compartments with a fan disposed in each, one of said fans being in series flow with the gas pass means effective to draw the combustion gases through the gas pass means and deliver them to the point of discharge, the other fan being in parallel with said one fan and having its inlet and outlet connected to the gas pass means upstream and downstream respectively of said one fan, the individual capacities of these fans being insufficient to handle the volume of combustion gases produced at maximum load but the combined capacities of these fans is sufficient, means in the outlet connection of said other fan to control the flow therefrom into said gas pass means, a duct leading from said outlet connection at a point upstream of said control means into the furnace of the generator to introduce combustion gases thereinto, means controlling the flow through said duct, and means for regulating said two control means to control the introduction of combustion gases into the furnace to control within limits the temperature of the vapor leaving the vapor heater with the first mentioned control means being moved towards its closed position and the second mentioned control means being moved toward its open position to raise said temperature, and with an opposite control effect being had to lower said temperature.

2,837,067

INJECTION SYSTEM FOR DIESEL-TYPE ENGINES

Siegfried Meurer, Nurnberg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg, A. G., Nurnberg, Germany

Application July 22, 1955, Serial No. 523,915
Claims priority, application Germany July 24, 1954
12 Claims. (Cl. 123—32)



1. A method of cold starting diesel-type engines in which a jet of substantially all the fuel is first deposited as a film on the wall of the combustion chamber, vaporized therefrom by an air swirl, and then burned in the normal hot running of the engine, comprising distributing the fuel in starting the engine so that it is mixed with the air swirl instead of becoming a film on the combustion chamber wall.

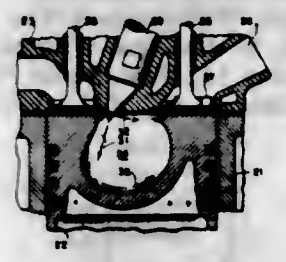
2,837,068

DIESEL ENGINE

Heinrich Lang, Munich, Germany, assignor to Durex, S. A., Geneva, Switzerland, a corporation of Switzerland

Application January 13, 1956, Serial No. 559,031
4 Claims. (Cl. 123—32)

1. A diesel engine comprising in combination an engine cylinder; a piston reciprocating therein; a cylinder head; an open combustion chamber of substantially rotational symmetry and coaxial with the cylinder; the opening of said combustion chamber leading into the cylinder and having a clearance substantially not larger than the largest section of said chamber taken at least approximately perpendicularly to the axis of the cylinder; at least one air inlet; means to impart a revolving movement or swirl to the air entering the engine cylinder through said inlet; an injection nozzle mounted in the cylinder head; the tip of said nozzle being located at least substantially within the said opening of the combustion chamber and close to the border thereof; at



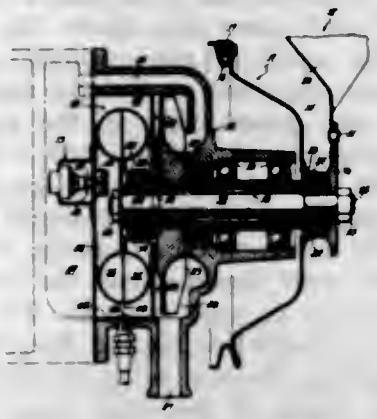
least one primary orifice in said tip adapted to eject a main fuel jet of strong penetrating power into said combustion chamber substantially along the side wall thereof and in a direction away from said opening toward the bottom of the combustion chamber; and at least one secondary orifice in said tip adapted to eject an auxiliary fuel jet of weaker penetrating power into the at least relatively stagnant core of the air charge in said combustion chamber so that said auxiliary fuel jet enters such portion of the air charge which has not been cooled off by the walls of the combustion chamber.

2,837,069

VARIABLE SPEED FAN DRIVE

Harold Nutt, Chicago, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application November 30, 1956, Serial No. 625,270
1 Claim. (Cl. 123—41.12)



A fan control system comprising rotatable driving means, tubular shaft means, means connecting said driving means to said shaft means comprising a tongued washer and a clamp nut whereby said driving means and tubular shaft means are connected together for common rotation, a pump impeller fixedly mounted on said tubular shaft means at a position spaced from said driving means, fluid coupling means comprising a driving member and a driven member, means on said driving member and said pump impeller connecting said driving member and said impeller together for common rotation, rotatable shaft means disposed within said tubular shaft means, means fixedly connecting said driven member to one end of said rotatable shaft means, fan means, means connecting said fan means to said rotatable shaft means at the end thereof opposite said driven member whereby rotation of said driven member effects rotation of said fan means, means defining a fluid coupling chamber surrounding said fluid coupling means, aperture defining means in said last mentioned means, fluid receiving means in communication with said aperture, a thermally responsive valve responsive to the temperature of fluid in the

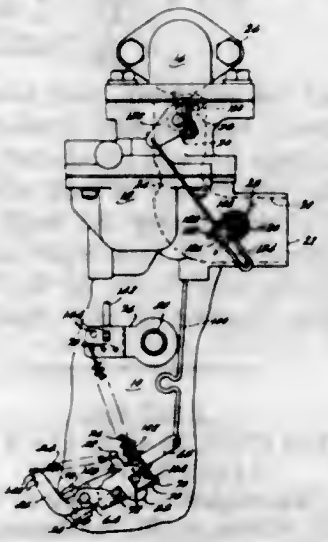
fluid receiving means adapted to control the flow of fluid through said aperture, and opening defining means in said chamber defining means, the maximum effective area of which is approximately 25% of the maximum effective area of said aperture.

2,837,070

CHOKE CONTROL SYSTEM FOR CARBURETORS

Kenneth C. Agar, Ann Arbor, Mich., assignor to Clinton Machine Company, Clinton, Mich., a corporation of Michigan

Application August 6, 1956, Serial No. 602,118
18 Claims. (Cl. 123—108)



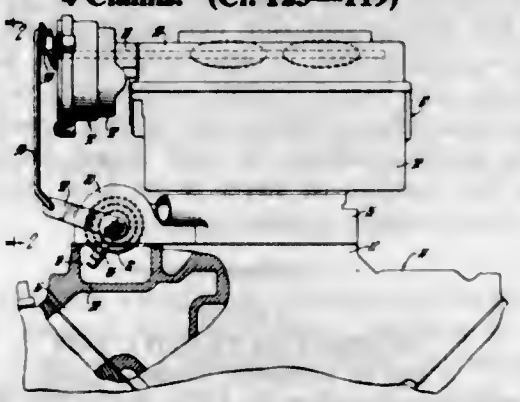
1. In a carburetor for an internal combustion engine having an air passageway, a choke valve in said passageway and a throttle valve in said passageway downstream from said choke valve, means urging said throttle valve toward open position, a speed responsive governor driven by said engine and operably connected to said throttle valve and said choke valve, said governor being operable for positioning said throttle valve in accordance with the speed of the engine and for holding said choke valve in a less than full open position when the engine speed is below a predetermined speed, temperature responsive means in the connection between said governor and said choke valve for varying the closed position of said choke valve in accordance with ambient temperatures, and means for opening said choke valve as said throttle valve is moved from its said open position by said governor during operation of said engine.

2,837,071

CARBURETOR

Clarence J. Eckert and Elmer Olson, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 22, 1956, Serial No. 605,594
4 Claims. (Cl. 123—119)



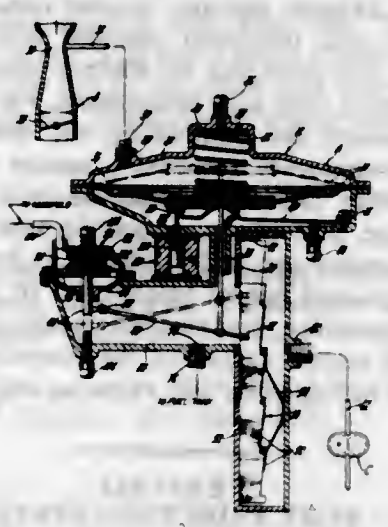
1. A carburetor of the type which includes a choke valve, a throttle body disposed posteriorly of said choke valve and a mechanism for automatically controlling the choke valve in accordance with engine temperature and manifold vacuum, in which said automatic choke mechanism includes a temperature responsive element mounted within the throttle body and projecting therebelow.

2,837,072

FUEL METERING SYSTEM

Albert J. Zupancic, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 9, 1957, Serial No. 633,349
18 Claims. (Cl. 123—119)



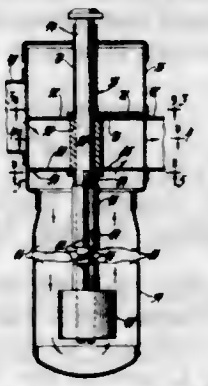
1. A continuous flow fuel system for an internal combustion engine comprising an induction passage having a throttle for controlling the flow of air therethrough, a source of fuel under pressure, passage means communicating said fuel with the induction passage posteriorly of the throttle, a metering valve in said passage means for varying the quantity of flow therethrough, a servo device connected to said valve, means biasing said device toward a position causing the valve to reduce the flow of fuel, means responsive to the mass of air flowing through the induction passage for urging the servo device in a fuel flow increasing direction with an increase in air flow, means opposing the action of said flow reducing means on said servo to insure sufficient flow of fuel through said valve for idling purposes, and a mechanism for rendering said opposing means inoperative during the deceleration of said engine whereby the flow reducing means causes said valve to cut off the flow of fuel to said induction passage.

2,837,073

HEATER FOR FUEL INJECTION SYSTEM

John Dolza, Fenton, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 6, 1957, Serial No. 657,180
15 Claims. (Cl. 123—122)



10. A fuel injection system for an internal combustion engine comprising a cylinder head, a plurality of intake passages mounted on said cylinder head and adapted to respectively communicate with the intake for each cylinder of the engine, an air manifold communicating with said intake passages, an induction passage adapted to supply air to said manifold, a venturi in said induction pas-

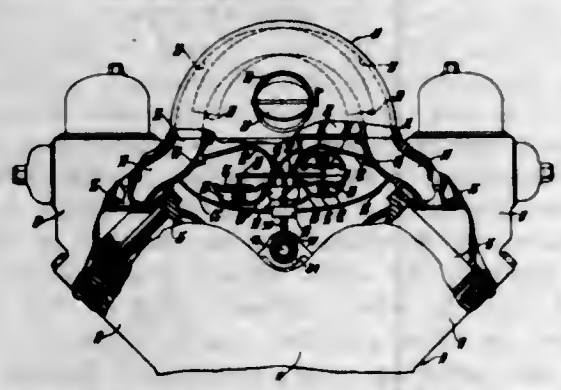
sage, a throttle valve disposed in said induction passage posteriorly of said venturi, a second valve in said induction passage anteriorly of said venturi, an exhaust passage formed in said cylinder head, an air flow controlling mechanism supported on said cylinder head and projecting within said exhaust passage, a nozzle disposed in each intake passage, first conduit means for supplying fuel to each nozzle, passage means for communicating air to said nozzle for mixture with said fuel prior to injection into said intake passage, said air flow controlling mechanism including a closed casing member projecting within said exhaust passage, second conduit means communicating said induction passage with said air flow mechanism for supplying air thereto, said nozzle air passage connected with said mechanism, valve means within said mechanism for controlling the flow of air therethrough, temperature responsive means disposed in the casing member and exposed to the heat within said exhaust passage, first means connecting said temperature responsive member and said valve means for controlling the flow through said heater mechanism in accordance with engine temperature, and second means operatively connecting said second valve and the temperature responsive mechanism for opening the valve as engine temperature increases.

2,837,074

FUEL INJECTION SYSTEM

George P. Ransom, Berkley, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 10, 1956, Serial No. 608,850
11 Claims. (Cl. 123—140)



1. A fuel injection system for an internal combustion engine having a plurality of cylinders and an induction system with induction passages for charging said cylinders, said injection system comprising pumping means for injecting metered quantities of fuel into the charges in said induction passages, metering means responsive to the vacuum in said induction system operatively interconnected with said pumping means and effective to meter said injected fuel in proportion to said vacuum, and means responsive to the difference in the pressures at the opposite ends of said induction passages to modify the action of said metering means in proportion to said difference.

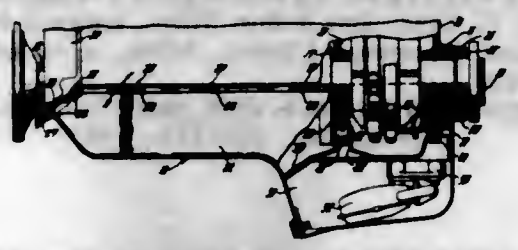
2,837,075

ENGINE CRANKCASE STRUCTURE

Clayton B. Leach, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 12, 1954, Serial No. 442,736
7 Claims. (Cl. 123—195)

1. An engine crankcase structure comprising an engine frame having a part of the engine crankcase about the axis of rotation of the crankshaft formed therein, bearings formed in transverse walls of said frame and extending in spaced relation to one another throughout the length of said crankcase, a crankshaft for said engine mounted in said bearings, bearing caps forming the lower part of each of said bearings for securing said crankshaft in position, an oil pan secured to the lower edges of said frame for closing the lower part of said crankcase, said oil pan being formed to provide an oil reservoir therein, an oil pump secured to the lower edge of one of said transverse walls at one side of the bearing cap for the bearing of said one transverse wall, means for securing said oil pump to said one transverse wall independently of said bearing cap, said oil pump being formed to extend downwardly into said oil reservoir and having an



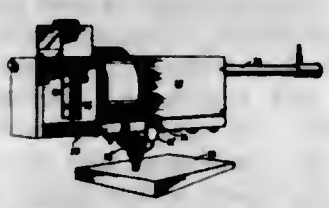
inlet within said oil reservoir, said inlet being disposed in said oil reservoir beneath said crankshaft and between two of said bearings for said crankshaft, and a baffle disposed across the upper part of said reservoir and above said inlet and closely fitting the walls of said oil pan around the upper part of said reservoir, and means for removably securing said baffle to the bearing caps for said two bearings supporting said crankshaft.

2,837,076

SIMULATED PNEUMATICALLY OPERATED MACHINE GUN

Jerry C. Koci, Barrington, and Alfred Holz and Everett Leslie Dreyer, Chicago, Ill., assignors to Chicago Dynamic Industries, Inc., a corporation of Illinois

Application April 1, 1957, Serial No. 649,990
19 Claims. (Cl. 124—13)



1. A pneumatically operated simulated machine gun comprising a gun casing having a barrel, a shot magazine within said casing, a shot delivering means having communication with said barrel and said magazine, an air cylinder having open communication with one end of said barrel, a motor driven piston reciprocable in said cylinder for generating pneumatic pressure for firing shots from said barrel, an electric motor, clutch means for operatively connecting said motor to said piston and said delivering means, a trigger means for said gun, means operatable by said trigger means for actuating said clutch to operate said piston and said delivering means, means for coordinating the reciprocation of said piston in said cylinder and said delivering means so that a shot is delivered to said barrel for each reciprocation of said piston in said cylinder, and means for sealing said shot delivering means when said piston is reciprocated in said cylinder so as to fire a shot from said barrel, means cooperating with said delivering means for actuating said clutch actuating means after its initial actuation by said trigger means for regulating the number of shots to be fired by each actuation of said trigger means.

2,837,077

WHIRLING FLIGHT TOY

Jay B. Frazelle, Encino, Calif.

Application October 25, 1954, Serial No. 464,237
6 Claims. (Cl. 124—16)

1. A toy comprising: a rod adapted to be held toward one end in one hand of the player, said rod being provided at a point toward but spaced from the free end

thereof with an abutment; a resilient member secured by one end to the upper end of the rod; and a flight member having a plurality of arms arranged substantially in a common plane and extending from a common center, the end of one of said arms being engaged against said abutment and detachably engaged, between the center of said flight member and the end of the arm engaged with



the abutment, with said resilient member, said arm being used as a lever to stress said resilient member by the player pulling the free end of the arm toward the beld end and thereafter suddenly released to cause the flight member to be propelled into the air with a whirling motion by said stressed resilient member in returning to an unstressed condition.

2,837,078
REPEATING SPEAR GUN
James A. Daniel, Jacksonville, Fla.
Application August 16, 1957, Serial No. 678,626
3 Claims. (Cl. 124—27)



1. In a repeating spear gun, a tube having forward and rear ends, a forward partition in the tube spaced rearwardly from the forward end of the tube, a rear partition in the tube spaced from the forward partition and from the rear end of the tube, a spring-pressed plunger rod located between the partitions, said plunger rod having a rear end working through the rear partition and having a longitudinal spear projecting pin working through the forward partition, said projecting pin being eccentric with respect to the axis of said tube, a barrel assembly rotatably and removably secured in the tube forwardly of said forward partition, said barrel assembly comprising a plurality of circumferentially spaced barrels secured together and severally alignable with the spear projecting pin, releasable detent means on the tube and engaging the barrel assembly for holding a barrel in alignment with the projecting pin, cocking means pivoted to the stock adjacent the rear end of the tube and engageable with said plunger for retracting and cocking the plunger, and trigger means pivoted to the stock adjacent the rear end of the tube and engageable by said plunger for holding the plunger in cocked position, said trigger means being operable for releasing the plunger from cocked position.

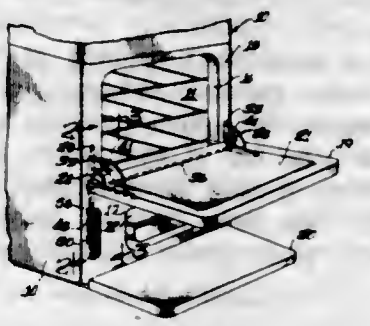
2,837,079
PLUG AND FEATHER CONSTRUCTION
William B. Horton, Concord, Mass., assignor to H. E. Fletcher Co., West Chelmsford, Mass., a corporation of Massachusetts
Application January 30, 1956, Serial No. 562,060
1 Claim. (Cl. 125—36)

A feather member for a stone splitting tool of the plug and feather type for use in a round hole in the stone, said feather member comprising an elongated body having a flat surface adapted to be engaged by a wedge and having an opposite curved bearing surface for engagement with a curved inner surface of the round hole, the elongated body having a recessed portion above



the curved bearing surface and extending from below to above the top of the hole and having a portion adapted to extend above the top of the stone and bent outwardly to provide means for manually rotatably adjusting the plug in the hole.

2,837,080
OVEN DOOR SPRING MOUNTING
Herbert M. Reeves, Kankakee, Ill., assignor to Florence Stove Company, Gardner, Mass., a corporation of Massachusetts
Application December 1, 1955, Serial No. 550,272
7 Claims. (Cl. 126—191)

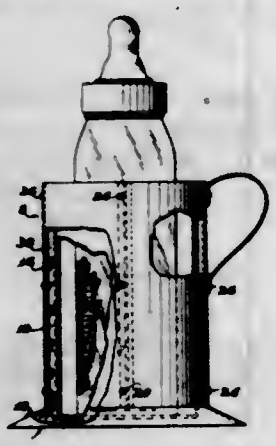


3. In a cook stove, the combination comprising, a wall panel defining a first opening, a door hingedly mounted to said panel for vertical swing to close said opening, spring means releasably connected to said door for biasing said door toward closed position, said panel defining a second opening downwardly and laterally offset from said first opening, a pair of inwardly offset vertical guide members at opposed sides of said second opening, said guide members extending generally along the line of force of said spring means, an inwardly offset horizontal abutment member between the top end portion of said guide members, and a slider in sliding engagement with the forward faces of said guide members and having an endwise projection engaging the rear face of said abutment member for restraining said slider from forward rocking movement and limiting upward sliding movement thereof, said slider being detachably connected to said spring means so that the force of said spring maintains said slider in engagement with said guide and abutment members but permits said slider to be slid manually against the force of said spring to release said slider from said guide and abutment members, said guide members projecting over the sides of said opening so that upon release of said slider from said abutment member the slider may be rocked forwardly to relieve the force of said spring means and uncover said opening to permit access to said spring means for connecting and disconnecting the same from said door and said slider.

2,837,081
HEATING VESSEL
Richard A. Ayers, Kensington, Md.
Application June 10, 1954, Serial No. 435,854
3 Claims. (Cl. 126—261)

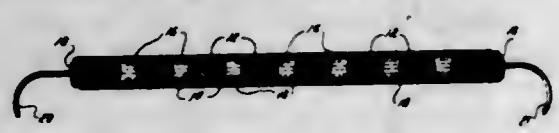
1. A cooking utensil adapted to rest over a source of heat, comprising: an inner member of cup-shaped con-

figuration consisting solely of imperforate side and bottom portions with said side portion being substantially normal to said bottom portion; a sleeve encompassing, substantially parallel to, and spaced from said side portion; means on said sleeve, disposed between the ends of said sleeve, projecting inwardly and rigidly secured to said inner member side portion to maintain said sleeve in spaced arrangement around said inner member side portion and providing a continuous opening at the utensil



base between said inner member and said sleeve, a substantially vertical through passage from bottom to the top of the utensil substantially surrounding said inner member and a continuous opening at the utensil top between said inner member and said sleeve, said means including elongate thin plate portions extending from closely adjacent the top of said sleeve to closely adjacent the bottom of said sleeve, essentially the entire extent of said thin plate portions being parallel to a vertical axis through the center of the cup-shaped member.

2,837,082
ACCELEROMETER
Robert Vincent Elliott, Cincinnati, Ohio, and Robert Gay Packard, Waco, Tex.
Application March 18, 1954, Serial No. 416,986
5 Claims. (Cl. 128—2.06)



1. An accelerometer accurately responsive to forces of an order of less than 10^6 dynes comprising a tube having from 25 to 40 layers of a higher density conducting fluid separated by layers of a lower density conducting fluid that does not react with said higher density fluid, both of said fluids being insoluble in each other, and an electrode projecting into a layer of the higher density fluid near each end of the tube, said tube having an inside diameter of no more than 0.75 millimeter throughout the space between said electrodes.

2,837,083
SPIROMETER
Cornelis Lanooy, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 29, 1953, Serial No. 388,952
Claims priority, application Netherlands November 25, 1952
8 Claims. (Cl. 128—2.08)

1. A spirometer comprising a housing, a detachable closure including a mouthpiece therein mounted on said housing, a first rotatable member mounted within said housing adjacent said mouthpiece and being rotatable by air currents conducted through said mouthpiece and said member, a second rotatable member operably connected to and rotated by said first member, an indicating device on said second member and mounted for sliding movement, a timing mechanism operably con-



nected to said indicating device to slide said indicating device on said second member, and means for commencing the sliding movement of said indicating member when an air current starts to rotate said first member.

2,837,084
ELECTRIC HEATING MASSAGER
Frank Brumek, New York, N. Y., assignor of one-half to Hans E. Mees
Application April 18, 1956, Serial No. 578,946
4 Claims. (Cl. 128—24.1)



1. A massage device comprising a casing having a smooth outer massage surface, a hollow handle connected with the casing, an electric vibrator and an electric heating unit mounted in the casing to vibrate and heat the smooth outer massage surface, electric conduits extending through the handle into the casing and connected with the vibrator and heating unit to connect the vibrator and heating unit with a source of electricity, and speed control means for the vibrator, said vibrator having an anchor plate and said heating unit having a cover clip with spaced brackets slidably to receive and frictionally to hold the anchor plate of the vibrator.

2,837,085
TRACTION APPARATUS
George Claud Tong, St. Louis, Mo.
Application August 15, 1956, Serial No. 604,268
3 Claims. (Cl. 128—75)



1. In a traction apparatus having a base, a vertical post, a plurality of sheaves carried by said post, a cable

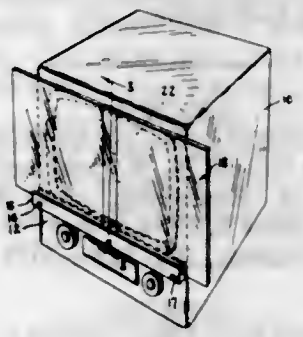
extending about said sheaves and a motor mounted on said base and connected to drive said cable reciprocally, the improvement comprising said post's being constituted by two spaced members; a sheave mounted between said members on a hub having a diameter greater than the width of said post members, cross bars extending through said hub and embracing said post members between them, and clamping means carried by said cross bars and adapted to clamp against said post members to maintain said sheaves in any of a plurality of positions along said post.

2,837,086

VISUAL TRAINING DEVICE

Milton R. Thorburn, Williamsville, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application March 5, 1952, Serial No. 275,006
4 Claims. (Cl. 128—76.5)



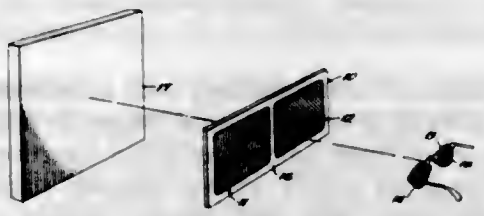
4. Eye training apparatus for use with a device providing a visual field of fixed size and shape having moving form characters thereon to stimulate the observer's interest comprising a transparent member of a size to cover said visual field and means for supporting said member on the device over said visual field, said transparent member being divided into two adjacent principal areas having different light-altering characteristics for use with a pair of viewing means adapted to be positioned before the eyes of an observer and through which the visual field is adapted to be viewed, said viewing means each embodying different light-altering characteristics for cooperation with the respective principal areas of said transparent member to render one of each of said principal areas visible only to a respective eye of the observer thereby requiring the use of both eyes of the observer to see the whole of said visual field and transparent means intermediate said principal areas having characteristics which are such as to permit binocular vision of the central region of said visual field to further stimulate binocular viewing by the observer as he views said visual field through said viewing means.

2,837,087

APPARATUS FOR USE IN TREATING VISUAL DEFECTS

Priscilla A. Sawyer, Chicago, Ill., now by change of name Priscilla Allen, assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application May 24, 1952, Serial No. 289,765
13 Claims. (Cl. 128—76.5)



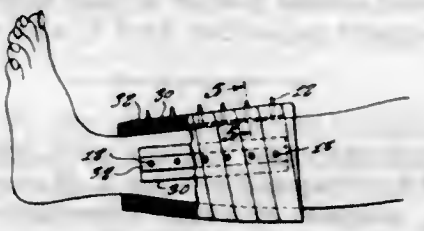
11. A visual training device for use in treating individuals having a tendency to suppress vision in one eye comprising a visual field of fixed size and shape having moving form characters thereon positioned within the field of vision of the eyes of an individual, viewing means embodying a pair of lenses adapted to be positioned before the eyes of an individual and through which the visual field is adapted to be viewed, said lenses each embodying different light-altering characteristics, and light-altering means interposed between said viewing means and said visual field comprising a pair of portions having different light-altering characteristics for cooperation with the respective lenses of said viewing means to render selected areas of said visual field visible to the respective eyes of the viewer whereby the use of both eyes of the individual is required to see the whole of said visual field.

2,837,088

VENTILATING MEANS FOR SURGICAL CASTS

Edmund Quincy Moses, Scarborough, N. Y.

Application March 11, 1955, Serial No. 493,794
3 Claims. (Cl. 128—91)



2. A ventilating and protective insert for surgical casts comprising an elongated strip having a central portion extending lengthwise thereof serving as a protection when splitting the cast for removal, the insert having a longitudinal series of hollow ventilating nipples serving not only for ventilating purposes, but also to guide the surgeon in applying the saw for splitting the cast in such a location that the base of the insert protects the skin from the saw the base of the insert having a saw resisting material incorporated therein and extending lengthwise thereof.

2,837,089

REAR TRUSS PAD

Rudolph E. Haesly, Davenport, Iowa

Application October 16, 1953, Serial No. 386,511
5 Claims. (Cl. 128—106)



2. In a rear truss pad, a thin foundation plate having a depression centrally, said depression being provided with a hole, an externally conical stud mounted, fixedly, in said hole, said stud being provided with a longitudinally extending screw-threaded opening therein, a body spring having a hole therethrough which is countersunk at both sides, a screw fastening said spring to said stud loosely so that the plate can rock in all directions, and a covering of soft, pliable, yieldable rubber-like material placed on said plate and slightly depressed centrally.

2,837,090

UNIVERSAL AVIATORS OXYGEN BREATHING MASK

Aaron Bloom and Edward L. Michel, Philadelphia, Pa.

Application July 6, 1955, Serial No. 520,388
4 Claims. (Cl. 128—146)
(Granted under Title 35, U. S. Code (1952), sec. 266)

4. A mask comprising a relatively rigid molded plastic body member, the lower central portion of said body member being substantially flat for the reception of a valve piece and the remaining portion of said body member partaking the general curved shape of a truncated

cone having a truncated edge and a base edge, a sized relatively flexible face piece having edge portions thereon, one said edge portion of said face piece being attached to the base edge of said body member by an adhesive,



another edge portion of said face piece being sized to fit the face of a particular individual, a valve piece fixed to said flat lower central portion of said body member, and two rigid support projections fixed to said valve member.

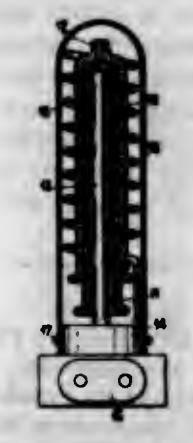
2,837,091
DRIP METER CONNECTING MEANS
Roland A. McMinn and William L. Hartop, Jr., Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois
Application May 5, 1953, Serial No. 353,106
6 Claims. (Cl. 128—214)



4. A venoclysis apparatus for intravenous administration comprising in combination, a flexible resilient plastic tubular member, a lower end closure for said tubular member having a length of small diameter flexible tubing attached thereto, a substantially rigid upper end closure member having a conduit means extending therethrough, said rigid closure member having on one side thereof means for engaging the discharge outlet of a fluid container and having on the other side thereof a projection surrounding said conduit means extending into the interior of the said tubular member, said projection having at the outer end thereof a laterally extending flange, and a plastic ring member fixedly mounted on the said projection in contact with the said flange and maintained in sealing engagement with the said tubular member, whereby a fluid-tight connection is formed between the said plastic tubular member and the rigid end closure member.

2,837,092
SYRINGE WITH STERILIZATION MEANS
Otto Schäller, Vienna, Austria, and Fred Malek-Naegeli, Berlingen, Switzerland
Application January 21, 1954, Serial No. 405,469
Claims priority, application Austria January 23, 1953
5 Claims. (Cl. 128—218)

1. In an injection syringe having a cylinder, a hollow piston displaceable within said cylinder, and means for radiating energy disposed within the hollow of said piston, said piston being composed at least in part of material transparent to the energy radiated by said radiating means, whereby said cylinder together with a liquid when



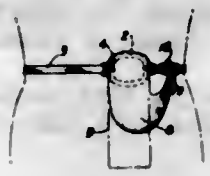
contained therein may be disinfected in assembled state without removal of said piston.

2,837,093
HYPODERMIC SYRINGE
Irving Tash, Long Beach, N. Y., assignor of fifteen percent to Joseph A. Rosenberg, Long Beach, N. Y.
Application June 1, 1954, Serial No. 433,580
4 Claims. (Cl. 128—218)



1. A hypodermic needle assembly comprising a body portion, a hypodermic needle extending through said body portion and having a point at each end thereof, a compressible bulb secured to said body portion and enclosing one of said needle points, said bulb being constructed of a flexible, transparent material adapted to be squeezed and released so as to aspirate fluid when the other of said needle points is injected into a patient, and a tubular section in said body portion adjacent said bulb.

2,837,094
COLOSTOMY UNITS
Raymond H. Cowles, San Francisco, Calif., assignor, by decree of distribution, to Pauline M. Cowles
Application June 20, 1955, Serial No. 516,530
14 Claims. (Cl. 128—283)



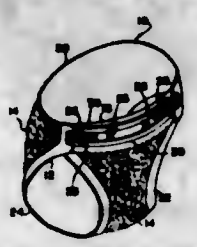
1. As a support in a colostomy unit a deformable ring composed of flexible material, and means to prevent said deformable ring from collapsing upon exertion of diametrically opposed forces within selected opposite sectors of said ring, said last named means extending throughout two opposed segments of said ring each of a length substantialy less than one-half the circumference of said ring.

2,837,895
BABY DIAPER
Clinton L. Stevenson, Long Beach, Calif.
Application March 15, 1956, Serial No. 571,776
3 Claims. (Cl. 128—284)



1. A baby diaper comprising a main body portion, said body portion including waist bands thereon, and said body portion being shaped to fit an infant, a receptacle portion, means detachably securing said receptacle portion to the said main portion of the diaper, said main portion and receptacle portions each having a hole therein, said holes being aligned and a urine bag in said receptacle portion, said urine bag being open to and extending from said hole in the receptacle portion, said body portion having a second opening therein adjacent the first named hole and said receptacle portion having a pocket therein aligned with the last named opening, and a paper pack arranged within said pocket.

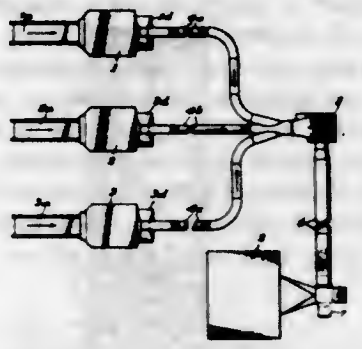
2,837,896
ADJUSTABLE DIAPER
Frances M. Leveillee, Burlington, Vt.
Application October 31, 1956, Serial No. 619,418
3 Claims. (Cl. 128—284)



1. A diaper of the character described, comprising a substantially rectangular body member having ends and sides, a tab member attached to each corner adjacent one end of and extending transversely from the side of said body member, means to attach each of said tab members to said body member, said means including a strip of elastic material of less width than said tab member, said strip being secured at one end to said tab member and at the other end to said body member and being capable of extension and contraction, a plurality of parallel spaced loop members for selectively cooperating with said tab members to fasten the corners of the diaper, and means to attach said loop members to said body member, said means including spaced parallel tapes integrally secured to opposite ends of said loop members and stitched to said body member adjacent the end opposite the end portion to which said tabs are attached.

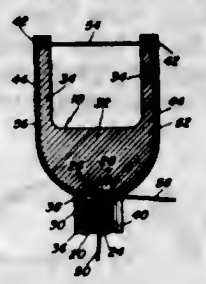
2,837,897
STEMMING PLANT FOR LEAF TOBACCO
Hans Koch, Hamburg-Rahlstedt, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany
Application June 7, 1956, Serial No. 589,986
Claims priority, application Germany August 17, 1955
3 Claims. (Cl. 131—146)

1. A stemming plant for tobacco leaves comprising a plurality of stemming machines, each machine including a tobacco feed conveyor for individually feeding stalk tobacco to its corresponding stemming machine, a stemming device, a sorting conveyor, and a vertical separating stack having a stalk discharge opening at its lower end, a discharge device for receiving the stemmed leafy tobacco portion common to all of said stemming machines, separate pneumatic conveyor pipes connecting the upper end



of each of said separating stacks with said common discharge device, a single blower having its inlet connected to said discharge device, and a single dust filter connected to the outlet of said blower.

2,837,898
DENTAL FLOSS HOLDER AND DISPENSER
William M. Sorboro, Kent, Ohio
Application January 10, 1956, Serial No. 558,268
3 Claims. (Cl. 132—92)



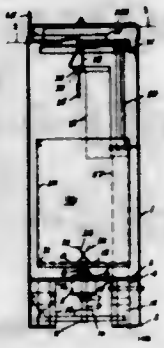
1. A holder and dispenser for dental floss comprising two essential cooperating units, namely, a first unit characterized by a hollow handle providing a chamber in which the supply of dental floss is contained and from which a free end portion of the same is progressively withdrawn and readied for accessible use, and a second companion unit embodying a body having a fork on one side and a socket member on the other side, the adjacent outer end of said handle being fitted telescopically and removably into the socket portion of said socket member, said outer end portion having a ratchet-equipped head and said body having a recess aligned with and into which said head is fitted for rotation, said recess having marginal circumferentially spaced shoulders with which the ratchet teeth on said head are releasably and retentively cooperable.

2,837,899
HAIR TREATMENT PADS FOR COMBS
Ernest Van Meer, Jr., Chicago, Ill.
Application December 7, 1955, Serial No. 551,588
5 Claims. (Cl. 132—110)



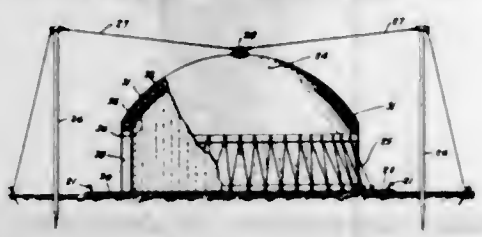
1. The combination of a comb and pad comprising two layers of absorbent material stitched together by a line of stitches extending through both layers and through the inter-tooth spaces of the comb, and holding the layers snugly against the sides of the comb, with each layer entirely on one side of the comb.

2,837,100
MASK WASHING MACHINE
Robert B. Way and Carl D. Hersey, Erie, Pa.
Application November 26, 1954, Serial No. 471,196
13 Claims. (Cl. 134—121)



1. A mask washing machine comprising a frame, a container rotatably mounted on said frame, means to rotate said container, a cover for said container, said cover supported on said frame, and means on said cover to support articles to be washed, said cover being movable upward off of said container to an unloading position and movable into engagement with said container lowering articles supported thereon into said container.

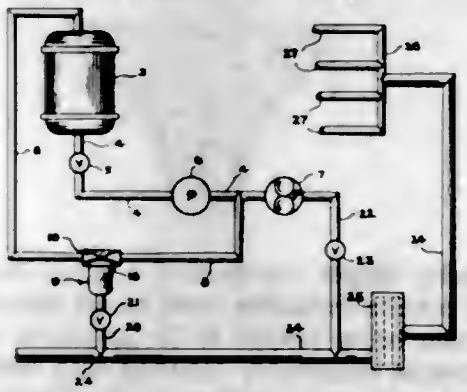
2,837,101
INFLATABLE STRUCTURE
Woldemar A. Bary, New York, N. Y., assignor to Nina Bary, New York, N. Y.
Application April 28, 1955, Serial No. 504,425
8 Claims. (Cl. 135—1)



1. An inflatable structure comprising a plurality of inflatable tubular arched wall elements of uniform cross section arranged side-by-side in parallel relation to each other and terminated in spaced apart vertical ends, said arched wall elements forming a chamber having at least one of said elements of a predetermined radius at its center and having a plurality of said elements of progressively reduced radii flanking said central element, each of said elements being individually replaceable and having an inflation medium entrance, means for securing ends of said elements in predetermined spaced relation, means for enclosing and interconnecting said elements to maintain the same in side-by-side relation, whereby adjacent elements, when inflated, are capable of supporting each other, and means at said spaced apart vertical ends for entering said chamber.

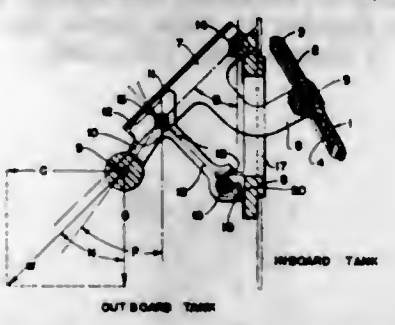
2,837,102
METHOD AND APPARATUS FOR INCORPORATING COLORING MATTER IN SPINNING SOLUTIONS
Ralph F. Bauer, Chagrin Falls, and Kenneth M. McLellan, Cleveland, Ohio, assignors to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application December 20, 1954, Serial No. 476,536
8 Claims. (Cl. 137—7)

1. Method for directly incorporating a metering gear pump fed liquid pigment composition into a spinning solution under pressure for subsequent extrusion into colored yarn and like products comprising; overfeeding the liquid pigment composition to a point in a conduit predetermining the amount to be injected into a flowing spinning solution under pressure; injecting a predetermined amount of said liquid pigment composition into said spinning solution at said point; and by-passing the overfed liquid pigment composition through a constrictable passageway being directly responsive to varying pressure of flowing spinning solution whereby the flow of said by-passed liquid pigment composition



is controlled in accordance with the pressure of said spinning solution so that the flow of said liquid pigment composition being overfed to said point of injection is substantially equalized with that of said flowing spinning solution.

2,837,103
VALVE WITH INERTIA LOCKING MECHANISM
Kazimierz T. Ksieski, Corry, Pa., assignor to Aero Supply Manufacturing Company, Inc., Corry, Pa., a corporation of New York
Application September 21, 1954, Serial No. 457,494
11 Claims. (Cl. 137—38)

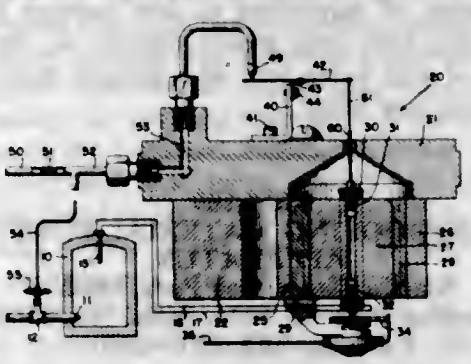


1. In a liquid carrying system including a plurality of liquid containing compartments and a wall separating the same, a communicating port in said wall between said compartments, a valve assembly for controlling liquid flow through said port, said valve assembly being pivotally connected to said wall and including a flapper check valve for engaging said port, a pivotally, pendulously mounted ballast arm operatively connected to said flapper check valve, locking means associated with said valve assembly and ballast arm and comprising a locking arm and a member to be releasably engaged thereby, said ballast arm, in response to normal positive static gravity forces, being so mounted and arranged as to cooperate with said valve assembly and locking means to bias said valve assembly and locking means to lock said valve assembly in valve open position, said mounting of the ballast arm also being positioned as to effect the unlocking of the valve assembly and movement of said valve into closed position under negative gravity forces or under predetermined inertia forces, discontinuance of said negative gravity or inertia forces and restoration of positive gravity forces effecting the repositioning of the valve to locked open position.

2,837,104
ROTARY TO LINEAR MOTION TRANSDUCER
Frederick W. Side, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 29, 1953, Serial No. 358,424
16 Claims. (Cl. 137—82)

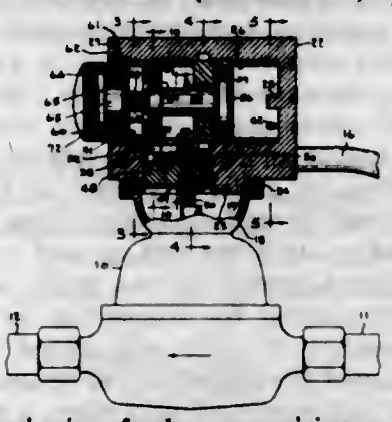
8. Apparatus for converting an electrical signal into a proportional pneumatic pressure comprising, an electri-

cal coil arranged for rotary movement in a magnetic field, a pair of suspension members holding said coil in said field, said suspension members when twisted having a changed overall length, a pneumatic flapper in the form of a semi-rigid blade, an adjustable anchor block for one



end of said flapper, means connecting the other end of said flapper to one of said suspension members so that said flapper will be moved when said suspension members are twisted by said coil, and a pneumatic nozzle cooperating with said flapper for creating a pneumatic pressure proportional to the twisting action of said coil.

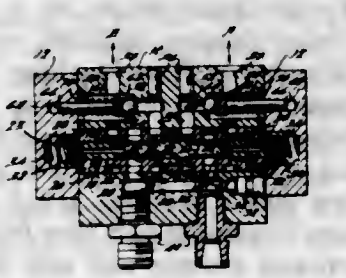
2,837,105
PROPORTIONING FEEDER
Russell W. Henke, Milwaukee, Wis., assignor to Badger Meter Mfg. Company, Milwaukee, Wis., a corporation of Wisconsin
Application September 30, 1955, Serial No. 537,741
10 Claims. (Cl. 137—99)



1. A proportioning feeder comprising a primary fluid conduit, a flow responsive device in said conduit, a casing for said device having a seat for a meter register or the like, a spindle operated by said device projecting beyond said seat, a housing having a mounting secured to said seat, a pump valve chamber in said housing, a pump cylinder in said housing having a ported dividing wall, an additive fluid control valve chamber in said housing, first passageways within said housing leading from said pump valve chamber to said pump cylinder, second passageways within said housing leading from said pump cylinder to said additive fluid control valve chamber, a pump valve in said pump valve chamber operatively connected to said spindle, pistons freely floating in said pump cylinder on opposite sides of said wall, said pistons being interconnected by a rod passing through said wall, a multiport valve operatively associated with said additive fluid control chamber, a conduit connecting a source of fluid pressure to said pump valve chamber, a conduit connecting said additive fluid control valve chamber to a source of additive fluid, and a conduit connecting said additive fluid control valve chamber to said primary fluid conduit.

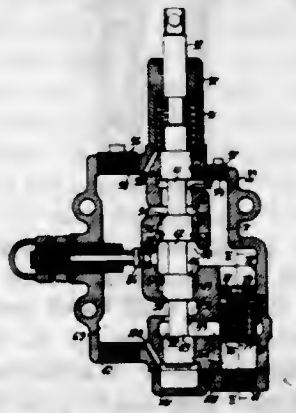
2,837,106
LOCK VALVE
Russell E. Bauer, Grosse Pointe Woods, Mich.
Application February 18, 1955, Serial No. 489,227
5 Claims. (Cl. 137—106)

1. A lock valve for use with a reversible hydraulic load device comprising a housing having two line ports and a load port corresponding to each line port, first means defining an inlet flow path from each line port to its corresponding load port, said first means including a check valve in each inlet flow path directed to prevent flow from its associated load port to its associated line port, said first means also including a variable inlet restriction in each inlet flow path between the check valve therein and its associated line port to meter the flow to said check valve, second means defining an exhaust flow path coexistent with and independent of each of said inlet flow paths from each load port to its corresponding line port, said second means including a variable outlet restriction in each exhaust path to meter the flow from its associated load port to its associated line port, said second



means directing the flow in each exhaust path to its corresponding line port behind the check valve associated with the same line port, a displaceable member having a centered position closing off the inlet restriction in each of said inlet flow paths and the outlet restriction in each of said exhaust flow paths, the movement of said displaceable member being responsive to the difference in pressures in said two line ports for varying the area of and flow through the inlet restriction in the inlet flow path leading from the line port of higher pressure and correspondingly varying the area of and flow through the outlet restriction in the exhaust path leading to the line port of lower pressure and for closing off the flow through the outlet restriction in the other exhaust flow path and the inlet restriction in the other inlet flow path.

2,837,107
MULTIPLE SPEED HYDRAULIC VALVE
Harvey W. Rockwell, Cedar Rapids, Iowa, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application December 27, 1955, Serial No. 555,612
7 Claims. (Cl. 137—106)



7. In a fluid control system for operating a fluid motor at two speeds, a valve mechanism comprising a valve housing having a bore for receiving a valve element; an input passage extending from said bore to an input port; a pair of output passages in said housing connected, respectively, with motor supply ports and communicating with said bore at spaced points of the latter; an exhaust passage formed in said housing in communication with said bore and an exhaust port; a secondary passage extending between said input passage and said exhaust passage and intermediately intersecting said bore; a pressure sensitive valve reciprocably mounted in said input passage; spring means urging said pressure sensitive valve toward a closed position in which said secondary passage

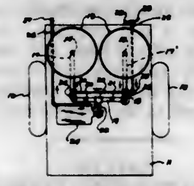
is blocked at the input passage; means defining an opening in said pressure sensitive valve so as to present a permanently open orifice in said input passage; said pressure sensitive valve shifting to an adjusted position in which said input and secondary passages are in communication when the resultant force produced by said spring and the fluid pressure differential across said orifice exceeds a predetermined amount; a bypass passage connecting said secondary passage with said input passage at a portion of the latter between said bore and pressure sensitive valve; check means in said bypass passage permitting fluid flow therethrough from said secondary passage when fluid pressure on the secondary passage side of said check means exceeds the fluid pressure on the input passage side of said check means by a predetermined amount; and a valve element shiftably mounted in said bore having a plurality of flow blocking portions and a plurality of communication establishing portions, said valve element being selectively shiftable from a neutral position in which said output passages are blocked at said bore to slow speed and fast speed positions; said input passage being blocked at said bore from communication with said exhaust passage and said output passages being in communication with said input and exhaust passages, respectively, when said valve element is in said slow and fast speed positions; said secondary passage being open and blocked, respectively, when said valve element is in said slow and fast speed positions.

2,837,108
COMBINATION SELF-CLEANING CONSTANT AND INTERMITTENT FLOW VALVE
James H. Howard, Houston, Tex., assignor to Camco, Incorporated, Houston, Tex., a corporation of Texas
Application February 2, 1953, Serial No. 334,561
7 Claims. (Cl. 137—155)



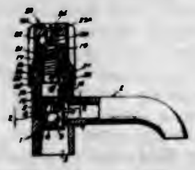
1. A flow valve comprising, a housing, a valve seat adjacent one end of said housing, a flow passage in said housing extending through said valve seat, a valve stem in said housing having a valve tip on one end thereof to seat upon said valve seat in a downstream flow direction, means connected with said valve stem and active to unseat said tip in response to pressure above the valve tip of the fluid to be controlled, resilient means in said housing biasing said valve stem to closed position against the action of the valve stem connected pressure responsive means and having a biasing force which yields within a predetermined range of fluid pressure for a given extent of tip travel slightly less than the maximum range of tip travel under fluid pressure in excess of said predetermined range, said tip having a flow metering portion extending in said flow passage for a length corresponding to the aforesaid given extent of tip travel for obstructing free flow through the passage, the cross-sectional area of said portion over said length bearing a constant ratio to the free flow passage area through which said portion extends for a uniform obstruction and said cross sectional area abruptly decreasing beyond said length, said metering portion being fixed with the tip for movement outside the passage in response to fluid pressure increase above said predetermined range for the abrupt removal of restriction to free passage flow, said housing having inlet port means therein on the resilient means side of said valve seat of a greater cross-sectional area than said free area.

2,837,109
WATERPROOFING MATERIAL PUMPING APPARATUS
Martin Elsner, Oak Park, Mich.
Application June 12, 1956, Serial No. 590,994
1 Claim. (Cl. 137—267)



A pumping unit for waterproofing material comprising a platform on wheels, a pair of upright tanks on said platform adapted to contain a fluid mixture for underground waterproofing of basements, outlet pipes extending from the bottoms of said tanks and through said platform terminating in a pair of spaced longitudinally and downwardly extending mixture supply pipes, a transverse pipe interconnecting the ends of said supply pipes, a pair of spaced shut-off valves mounted in said transverse pipe, a motor pump having an inlet and having an outlet adapted for connection to a delivery hose, a T fitting pipe joined at one end to said transverse pipe intermediate said valves and at its other end to said pump inlet, a water intake pipe mounted on and below said platform having an inlet adapted for connection to a source of water under pressure, an outlet pipe joined to said water intake pipe adapted for connection at spaced points with end portions of said mixture supply pipes, a shut-off valve at each of said latter connections whereby water under pressure may be selectively supplied to each of said tanks from their bottoms, and a waterproofing mixture may be alternately supplied to said pump on adjustment of said valves.

2,837,110
FLUID PRESSURE CONTROL VALVE
Clinton Lee Graybill, Superior, Mont.
Application September 12, 1955, Serial No. 533,801
2 Claims. (Cl. 137—327)



1. A valve of the character described comprising a hollow valve housing having a vertically disposed inlet opening adapted to be connected to a source of supply and a horizontal outlet opening in communication with the interior of the housing, a check valve housing disposed on the interior of the valve housing adjacent said outlet opening and being of lesser outside diameter than the inside diameter of the valve housing to provide an annular space between both of said valve housings, internal and external valve seats being provided at the top end of said check valve housing, a valve in the form of a flexible disc cooperating with said external valve seat, an internally and externally threaded valve stem housing provided with an external annular flange and removably secured by its external threads to the interior of said valve housing with said flange bearing against the top end of said valve housing and its bottom end bearing against the marginal edge of said flexible disc valve, said annular flange having an opening therein, a reciprocatory valve stem threadedly mounted within the valve stem housing for actuating said disc valve against said external valve seat, a ball check-valve of less diameter than and disposed within said check valve housing to provide for the normal passage of fluid therethrough, a pin formed integral with the ball check-valve and in contact with said disc valve at all times to prevent the check-valve from seating against said internal valve seat when said disc is positioned for operation and whereby said check-valve will seat against the internal valve seat when said disc is elevated to a predetermined degree from said external valve seat whereby the check-valve will cut off the flow of fluid from said inlet to the interior of the valve housing and into said outlet, an upwardly biased handwheel slidably attached to said reciprocatory valve stem and adapted to rotate the same, said handwheel having a pin extending downwardly therefrom terminating above said annular flange and adapted upon downward movement of the handwheel along said valve stem to engage within the opening in said annular flange whereby rotation of the handwheel in one direction will correspondingly rotate said valve stem housing to thereby remove the same from its threaded attachment to said valve housing.

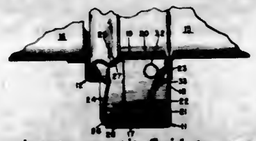
2,837,111
BALL COCK VALVE MECHANISM
Paul G. Mueller, Los Angeles, Calif.
Application January 6, 1955, Serial No. 480,158
5 Claims. (Cl. 137—410)



1. In a ball cock for flush tanks embodying a valve housing, an upwardly opening and downwardly closing poppet valve element in said housing normally closed by water pressure within said housing, a float, and a lever having a long arm to which said float is attached and having a short arm engaging said valve element arranged to effect opening of said valve element on downward movement of said float and long arm; means for imposing a downward pull on said long arm supplementing said float to initiate opening of said valve.

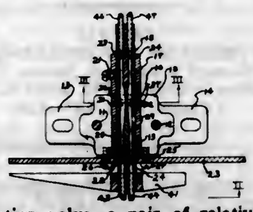
2,837,112
ATMOSPHERIC PRESSURE RESPONSIVE VALVE MEANS FOR MAINTAINING FLEXIBLE CONNECTOR SEAL MEANS
William R. Foley, Portland, Conn., assignor to Chance Vought Aircraft, Incorporated, Dallas, Tex., a corporation of Delaware
Application March 11, 1955, Serial No. 493,801
9 Claims. (Cl. 137—526)

1. A quick-detachable flexible sealing connector for forming a seal between two co-axial abutting section ends in a restricted area in a fluid flow conduit comprising, an annular channel member forming an annular pressure chamber having a base substantially normal and concentric to the conduit longitudinal axis and interconnecting an inner side and an outer side of said channel member, said base adapted to be secured to one of the section ends with said channel member inner side substantially coplanar with the walls of the conduit, a flexible diaphragm secured to the edges of said inner side and said outer side for closing the open side of said channel member for forming the annular pressure chamber, a small vent orifice in said inner side, a large opening in said base, a spring-biased valve means associated



with said opening to permit fluid to pass through said large opening only for entering said chamber, and a seal member comprising an inner annular lip portion adapted to be secured to the other duct end, a radially projecting portion extending outwardly from said inner securing portion, and an outer sealing flange extending from said radially projecting portion for frictionally and sealingly engaging said diaphragm.

2,837,113
DILUTION VALVE
Albert L. Thomas, Jr., Birmingham, Ala., assignor to Southern Research Institute, a corporation of Alabama
Application February 4, 1957, Serial No. 638,109
5 Claims. (Cl. 137—597)

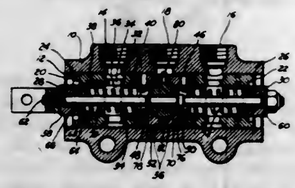


1. In a dilution valve, a pair of relatively rotatable valve members having plane end surfaces normal to the longitudinal axes thereof and abutting end to end, each of said members having identical pairs of longitudinal rectilinear passages extending therethrough from end to end, each passage in said pair of passages flaring adjacent its terminus at the abutting surface to provide a narrow partition between each pair of passages, whereby the passages in one valve member are connected with the passages in the other valve member and fluids may be passed therethrough, means to introduce a fluid to be diluted into one of the passages in one of the members, means to introduce a diluent fluid into the other passage of said member, and means to vary the angular relation of the members relative to each other.

2,837,114
CONTROL VALVE OF THE TYPE HAVING FLOW CONDUCTING SLEEVES BIASED AGAINST VALVE CLOSURE MEMBERS
Charles A. L. Rubl, Kalamazoo, Mich., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application October 4, 1956, Serial No. 614,003
11 Claims. (Cl. 137—620)

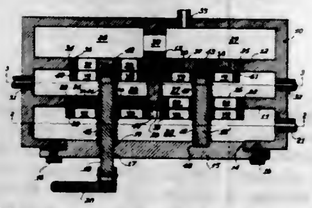
1. In a control valve: a body member having a valve chamber connecting a control port with pressure and exhaust ports, said control port being positioned intermediate said pressure and exhaust ports; a pair of annular members each having a generally transverse end abutment surface and each being slidably and sealingly received in said valve chamber with their end abutment surfaces facing in opposite directions, one of said annular members being positioned between said pressure and con-

trol ports, and the other of said annular members being positioned between said control and exhaust ports; fluid sealing surfaces formed in said annular members in predetermined relation to said generally transverse abutment surfaces for controlling fluid flow through said annular members; accurately formed valve closure means for abutment with said fluid sealing surfaces; means biasing said annular members in opposite directions toward said valve closure means; abutment means for engagement



with said abutment surfaces of said annular members limiting movement in said opposite directions; and means for producing relative movement between said accurately formed valve closure means and said abutment means to control communication between said ports; and whereby generally predetermined clearance is provided between said abutment surfaces and said abutment means when said valve closure means is in engagement with the fluid sealing surfaces of both annular members.

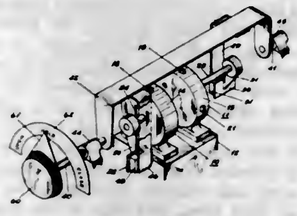
2,837,115
FLUID PRESSURE CONTROLLING VALVE
Howard S. Bancroft, Sharon, Pa.
Application October 9, 1956, Serial No. 614,974
3 Claims. (Cl. 137—620)



1. A fluid pressure controlling valve comprising a housing subdivided into a plurality of chambers by a plurality of partitions, openings formed in said partitions, and valve seat elements disposed one in each of said openings, said valve seat elements having circumferentially spaced, radially positioned openings therein, a plurality of valve elements rotatably positioned one on each of said valve seat elements, said valve elements having circumferentially spaced, radially positioned openings therein, said valve elements arranged with respect to said valve seat elements so that the openings in two pairs of said valve and valve seat elements are in alignment simultaneously and the openings in the other two pairs are out of alignment, means interconnecting said valve elements for imparting motion thereto, said means comprising valve stems disposed through said valve elements and keyed thereto and gear teeth formed on engaging peripheral surfaces of at least two of said valve elements.

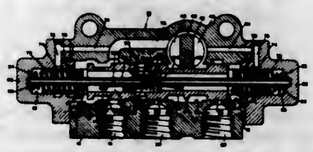
2,837,116
UNITARY MEANS FOR OPERATION OF TWO PILOT VALVES
Samuel L. Adelson, Tucson, Ariz., assignor to Infilco Incorporated, Tucson, Ariz., a corporation of Delaware
Application October 29, 1956, Serial No. 619,014
5 Claims. (Cl. 137—620)

1. In a pilot valve for controlling flow of pressure fluid to and waste fluid from a fluid cylinder of the type wherein a piston is operated by fluid under pressure, said pilot valve including two three-way valves, each having a housing, a pressure port, a waste port, and a service port in each housing, a rotary valve member rotatably mounted in each housing, a passageway in each rotary valve member adapted to selectively connect the pressure port or the waste port to the service port of the respective housing upon rotation of the valve member, said pressure ports being adapted to be connected to a source of fluid under pressure, and said service ports being



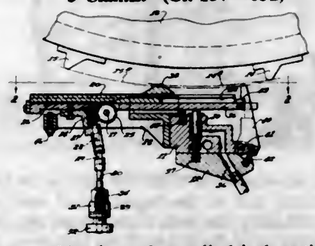
adapted to be connected to said fluid cylinder on opposite sides of said piston, the combination with said valve members of unitary means for rotating said valve members, said means comprising a pair of armatures rigidly connected to said valve members, magnet means mounted to be in one position adjacent opposite faces of said armatures, means for swinging said magnet means from said one position through predetermined angles in clockwise direction and in counterclockwise direction, and stop means in the path of travel of said armatures.

2,837,117
OPEN CENTER VALVE WITH HOLD FEATURE
Charles A. L. Ruhl, Kalamazoo, Mich., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application October 15, 1956, Serial No. 615,861
9 Claims. (Cl. 137—622.5)



1. In a slide valve: a body having a valve chamber therein; a slide in said valve chamber constructed and arranged to communicate a pressure supply to a controlled device when in one position and to close off communication therebetween when in another position, said slide being urged into said other position; a movable wall in said valve, said movable wall having opposing surfaces upon one of which surfaces the pressure supply is continually communicated, said movable wall permitting said slide to be moved to its closed position when substantially equal pressure exists on its opposing surfaces, and to prevent said slide from being moved out of its open position when a lower pressure is communicated with the other opposing surface of said movable wall; first valve and passage means communicating said other opposing surface of said movable wall to said pressure supply when said slide is in its closed position and communicating said other opposing surface to a lower pressure when said slide is in its open position; second passage means for communicating said pressure supply to said other opposing surface of said movable wall; and normally open valve means in said second passage means constructed and arranged to be closed by fluid flows through said slide valve; whereby pressure differential is produced across said movable wall when fluid flow is experienced in said slide valve, thereby causing said slide to be held in its open position, and whereby the pressure is equalized across said movable wall when flow through said slide valve ceases, to permit slide to return to its closed position.

2,837,118
VALVE OPERATING MECHANISM
Russell G. Allen, Godfrey, Ill., assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application November 5, 1954, Serial No. 467,048
3 Claims. (Cl. 137—632)



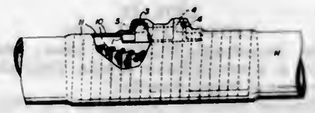
3. The combination of a cylindrical stationary drum having a vertical axis, a head positioned exteriorly of the drum and rotatable horizontally about the said axis, said head formed with a conduit extending therethrough for the circulation of a fluid, a valve mounted for lengthwise movement in said head in a horizontal direction radially of said drum into and out of a closed position in which it closes said conduit, spring means for moving the valve to closed position, a horizontal lever mounted on said head for rotation about a vertical axis, said lever extending between the valve and the drum and operable when rotated about its pivot in one direction to move the valve to open position, a spring loaded latch mounted on said head in position to engage the said lever and hold the lever in position to hold the valve open, a cam on said drum in the path of said latch and operable by rotation of said head to release the latch, permitting automatic closing of the valve, a horizontal bar slidably mounted for adjusting movement lengthwise of said lever, a cam on said bar, a second lug on the drum in the path of said cam, and a vernier adjusting means for adjusting the said bar in the direction of its length.

2,837,119
COMBINED CONTROL DIAPHRAGM AND SAFETY DIAPHRAGM FOR GAS PRESSURE REGULATOR
Karl H. Schwarz, Chicago, Ill., and Josef Drabik, near Osnabruck, Germany, assignors to G. Kromschroder Aktiengesellschaft, Osnabruck, Germany
Application November 9, 1954, Serial No. 467,695
Claims priority, application Germany November 12, 1953
3 Claims. (Cl. 137—785)



1. In a diaphragm type gas pressure regulator having a control diaphragm and a safety diaphragm disposed above the control diaphragm inside a casing which is closed by means of a cover having an opening therein providing a vent to atmosphere, said safety diaphragm having an opening therein which is small as compared to said opening in said cover, the arrangement of a diaphragm plate which is centrically fastened to the safety diaphragm, a load spring between the control diaphragm and said diaphragm plate and an axially adjustable stop for said diaphragm plate disposed in the cover of the casing, and means whereby the control diaphragm is exposed to and acted upon by the gas.

2,837,120
DISCHARGE HOSE COMPRISING SUPPORTING MEANS AND METHOD OF PROVIDING SUCH MEANS
Frederick M. Galloway, Langhorne, Pa., assignor to H. K. Porter Company (Delaware), Philadelphia, Pa., a corporation of Delaware
Application February 19, 1957, Serial No. 641,162
6 Claims. (Cl. 138—54)



1. A multiple-ply elastomer-impregnated fabric reinforced hose comprising a rigid elongated saddle having a concave cylindrical surface between the longitudinal edges conforming to and engaging one ply of the hose, an elastomer-impregnated fabric binding enveloping the saddle and said ply engaging the latter circumferentially between the longitudinal edges of the saddle, the impregnating elastomer of all said fabric being vulcanized, and means projecting from the saddle through said binding and exposed exteriorly thereof for reception of a supporting element.

5. A saddle for securing a bail to a multiple ply hose comprising a body having a parti-cylindrical surface complementary to the hose and a pair of bosses projecting therefrom in spaced planes normal to the axis thereof each providing a bail receiving socket extending generally parallel to said axis.

2,837,121
FLEXIBLE HOSE AND METHOD AND APPARATUS FOR MAKING SAME
Fred T. Roberts, Wilton, Conn.
Original application January 30, 1956, Serial No. 562,216, now Patent No. 2,780,273, dated February 5, 1957. Divided and this application June 7, 1956, Serial No. 589,911
5 Claims. (Cl. 138—56)



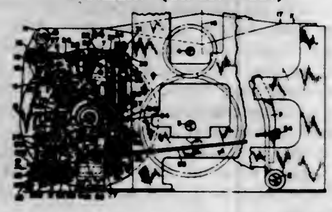
1. A mold-formed hose comprising a laminated body formed of layers of fabric having elastomeric material therebetween, said hose having cylindrical attaching portions at each end thereof and helical corrugations extending therebetween and provided with a molded outer surface, a helical spring covered with elastomeric material and having spaced convolutions surrounding the body and having the ends thereof secured to said attaching portions and the convolutions of the spring secured to the outer surface of the crests of the corrugations, the body having a normal diameter at the crests at least equal to the inner diameter of the convolutions and the body in the troughs of the corrugations being in unstressed condition.

2,837,122
METHOD OF REDUCING LEAKS IN CONDUITS
Fred B. Shaw, Jr., and Ellsworth Ungethuem, Milwaukee, Wis., assignors of four-fifths to said Ungethuem and one-fifth to said Shaw, Jr.
No Drawing. Continuation of application Serial No. 434,330, June 3, 1954. This application June 28, 1956, Serial No. 594,389
8 Claims. (Cl. 138—97)

1. A method of sealing a leak in a conduit or the like, comprising introducing a fluid under pressure into said

conduit with said fluid having a precipitable resealing material therein, withdrawing a substantial portion of said fluid from the conduit while allowing a portion of the fluid to remain adjacent the leak, and precipitating out the resealing material in said remaining fluid so that the precipitated material is deposited in the leak to seal the conduit against further leakage.

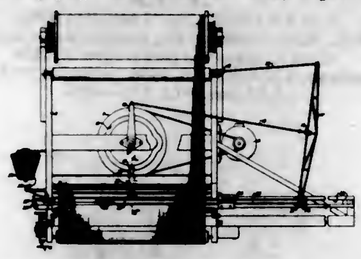
2,837,123
LETOFF FOR LOOM
Carl Philip Bergstrom, Millbury, Mass., assignor to Crompton & Knowles Loom Works, Worcester, Mass., a corporation of Massachusetts
Application April 21, 1955, Serial No. 502,959
5 Claims. (Cl. 139—110)



1. In letoff mechanism for a loom having a rotatable warp beam, a whip roll over which the warp extends movable forwardly from a normal rearmost position due to increase in the tension of the warp, means tending to move the whip roll to said rearmost position, a worm wheel operatively connected with the beam to turn therewith, a worm meshing with the worm wheel effective when turned in a given direction to cause the wheel to turn the beam to pay off warp, a gear operatively connected to the worm to rotate the latter when the gear rotates, a second gear meshing with the first gear, a rotary clutch unit operatively connected to said second gear effective when turned in one direction to cause said gears to cooperate to turn said worm in said given direction but ineffective when turned in the opposite direction to cause turning of said gears, an actuator having a working stroke and a return stroke each beat of the loom, a movable stop the position of which is determined by the whip roll, clutch unit operating means the position of which is normally determined by engagement with the stop effecting a variation depending upon the position of the stop in the amount of the working stroke of the actuator operative to cause movement of the operating means away from said stop to move the clutch unit in said one direction to turn the beam to pay off warp, resilient means effective to move said operating means toward said stop when the actuator has a return stroke, said gears being of unequal size and being interchangeable from one setting to another so that in one setting of the gears the letoff is adapted for the weaving of relatively coarse fabrics and is adapted for the weaving of relatively fine fabrics when the gears are in the other setting.

2,837,124
SHUTTLELESS WEAVING LOOM
Victor Marie Joseph Ancet and Marius Fayolle, also known as Marcel Fayolle, Lyon, France
Application June 1, 1954, Serial No. 433,739
Claims priority, application France June 9, 1953
21 Claims. (Cl. 139—123)

1. A method for laying a pick in a shuttleless loom including a weft drawing member adapted to reciprocate through the shed, a weft means feeding weft to one end of the reciprocating path of said weft drawing member and a clamping member rigid with the weft drawing member the opening of which faces the rear of the weft drawing member, said method consisting in shifting the inoperative weft drawing member throughout the breadth of the fabric inside the shed until the weft clamping member has moved ahead of the weft feeding means, leading the weft thread across the opening of the clamping member when the weft drawing member is approximately in its foremost position nearest the weft feeding means, causing the weft drawing member to recede with the clamping member engaging the weft thread to lay a pick during



its receding movement, severing the pick to be laid from that precedingly laid at the beginning of said receding movement, releasing the weft thread from the clamping member at the end of the laying of the pick when the weft drawing member has receded throughout the breadth of the shed and returning forwardly said now inoperative weft-drawing member for further operation.

2,837,125
SHUTTLE CHANGE MAGAZINE FOR LOOMS
Emile Achille Butin, Lyon, France
Application April 8, 1953, Serial No. 347,495
Claims priority, application France April 18, 1952
3 Claims. (Cl. 139—232)

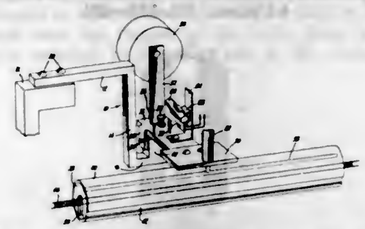


1. In a shuttle-changing device for looms, a magazine comprising a plurality of adjacent shuttle-holding compartments, a downwardly flaring chute opening out of the bottom of the magazine and including two side walls, partitions subdividing the space between the side walls into equal channels registering respectively with the different compartments of the magazine, the lower ends of the side walls of the chute extending down to points substantially lower than the lower ends of the partitions to form therewith passageways for the shuttles, and a flap pivotally secured to the lower end of each partition and adapted to rock sideways under the action of the shuttle engaging its lower end as it passes through any of the corresponding channels to allow said shuttle to drop through said passageway.

2,837,126
DEVICE FOR ELIMINATING OXIDATION DURING HOT STRETCHING OPERATION ON GRIDS
Frank J. Hughes, Levittown, and Robert McGhee, Massapequa Park, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application November 20, 1953, Serial No. 393,428
6 Claims. (Cl. 140—71.5)

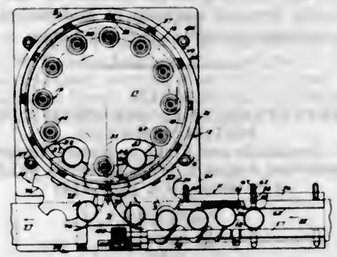
1. A device for hot stretching a string of grids while in a non-oxidizing atmosphere comprising a chamber

mounted for movement to and from a position encompassing the string of grids, valve means under control of a part movable with said chamber for supplying said



chamber with a non-oxidizing medium when the chamber encompasses the string, means for heating the grid string while within said chamber, and means for simultaneously stretching said grid string while in said chamber.

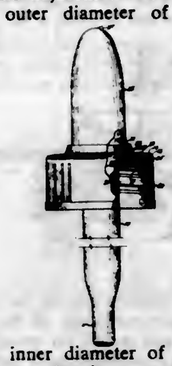
2,837,127
APPARATUS AND METHOD FOR FILLING CONTAINERS WITH LIQUID
Paul E. Luther, Oakland, Calif.
Application June 18, 1954, Serial No. 437,685
8 Claims. (Cl. 141—12)



6. A method of filling containers with liquid which comprises moving a series of containers along a single horizontal plane with their open ends uppermost, moving a plurality of liquid filler valves each having a sealing head in a horizontal plane overlying said first mentioned plane, sequentially lowering said valves during the horizontal movement thereof to engage said cans, continuing downward movement of said heads so as to enter said containers and open said valves, intermittently jarring the liquid in said container to remove and expunge air pockets therefrom, and then raising and closing said valves.

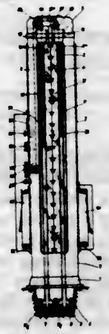
2,837,128
DROPPER ASSEMBLY
Paul A. Marchant, Kansas City, Mo., assignor to Injection Molding Company, Kansas City, Mo., a corporation of Missouri
Application October 1, 1956, Serial No. 613,266
15 Claims. (Cl. 141—24)

1. A cap dropper assembly comprising a pipette having a lower discharge end and an upper engaging end, a flange extending circumferentially outwardly from the outer surface of the pipette adjacent but below the upper end thereof, engaging means adjacent the upper end of the pipette on the outside surface thereof above the flange, a cap comprising a top having a depending circumferential container engaging rim, a hole in the top of the cap, said hole engageable by the upper end of the pipette above the flange, the internal diameter of the hole greater than the outer diameter of the pipette above the flange, the flange on the pipette having a greater diameter than the internal diameter of the hole in the top, a squeeze bulb having a closed upper end and an open lower end, the bulb lower end of an internal diameter sufficient relative the pipette to permit engagement of the top of the pipette above the flange by the bulb, a radial flange on the outer surface of the bulb adjacent the lower end thereof but thereabove, the outer diameter of the flange being



greater than the inner diameter of the cap hole, and engaging means on the inner surface of the bulb coperable with the pipette engaging means to couple one with the other whereby the bulb flange and the pipete flange will be positioned on opposite surfaces of the cap.

2,837,129
AIR DISTRIBUTOR FOR INFLATING AND BALANCING PNEUMATIC TIRES FOR VEHICLE WHEELS
Maurice René Veny, Paris, France, assignor to Societe des Etablissements Roger Brillie, Suresnes, France, a French company
Application July 13, 1956, Serial No. 597,705
Claims priority, application France July 22, 1955
5 Claims. (Cl. 141—197)

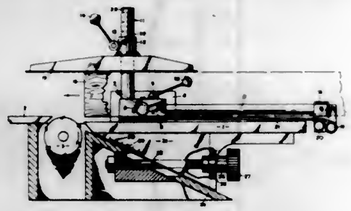


1. An inflation and balancing apparatus for pneumatic tires of vehicles comprising two mercury manometers connected to flexible piping mounted on the two valves of the tires of the respective wheels of a vehicle; and a distributor connected to the flexible piping to put each tire, by means of the flexible piping, in communication with the manometers, then the two tires in communication with each other for balancing the tires, and finally the two tires in communication with a compressed-air source and with the atmosphere.

2,837,130
SURFACE PLANING MACHINES
Wilfred E. Gale, Horley, England
Application December 12, 1955, Serial No. 552,646
Claims priority, application Great Britain December 14, 1954
4 Claims. (Cl. 144—117)

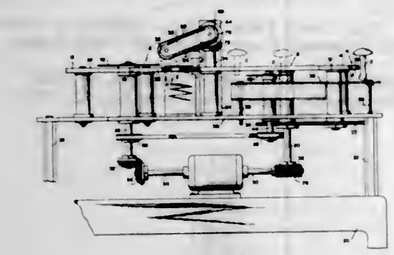
1. A thicknessing attachment for a surface planing machine having a vertically adjustable feed-in table, a

cutter cylinder and a planing table, which comprises, an overhead table, means for pivotally supporting said overhead table on the feed-in table so that said overhead table may be selectively disposed above said planing ma-



chine in operative position during the thickness cutting operation or laterally outwardly of the feed-in table in operative position, and means for pressing a work piece upwardly against said overhead table during the thickness cutting operation.

2,837,131
MUSHROOM TRIMMER
Robert P. Fried, Staatsburg, N. Y.
Application March 18, 1955, Serial No. 495,256
4 Claims. (Cl. 146—81)



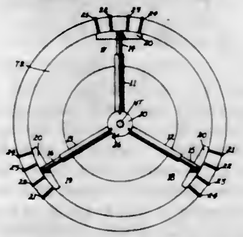
2. An improved vegetable processing machine comprising conveyor belt means for holding a vegetable while transporting it along a predetermined path, said conveyor belt means comprising a pair of endless belts arranged to lie in juxtaposition in a single horizontal plane, a plurality of pairs of pulley means having vertical axes perpendicular to the plane of said conveyor belt means for supporting adjacent portions of said belts side by side in transporting a vegetable along said predetermined path, said pulley axes being so located that a straight line joining the axes of any corresponding pair is not perpendicular to said predetermined belt path whereby resilient radial tension can be provided between contiguous portions of the belts without crushing the vegetable between the peripheries of said corresponding pair of pulleys, vertical shaft supported rotating cutter means arranged to lie in a plane parallel to and substantially adjacent but spaced from that of said conveyor belt means to cooperate with a proximate pulley of one of said corresponding pairs whereby said conveyor belt means grips said vegetable immediately adjacent the place of cut, said proximate pulley being so positioned with respect to said cooperating cutter that effective portions of said conveyor belt means lie between their axes in a manner that the radial distance between them is less than the sum of their respective radii, whereby the periphery of said proximate pulley acts on said conveyor belt means to oppose the cutting force of said cutter to function as a backstop therefor.

2,837,132
INSULATED HAND BAG
Herbert Daust, St. Louis, Mo.
Application September 7, 1956, Serial No. 608,603
4 Claims. (Cl. 150—28)



1. A hand bag comprising an outer covering of pliable sheet material having a top opening and slide fastener means for closing said opening, a pocket assembly located within said covering, said pocket assembly including a pocket-forming panel of stiff sheet material, an insulating layer attached to the pocket-forming panel and located between the panel and said covering, flanges of stiff sheet material secured to the covering along opposed side margins of said top opening, said stiff flanges extending downwardly internally of the pocket forming panel, and a sack-like liner of flexible waterproof material secured to the covering at the margin of said opening and normally disposed internally of said pocket-forming panel in overlying relation to said stiff flanges.

2,837,133
TRACTION OR ANTI-SKID DEVICE FOR MOTOR VEHICLES
Jerry V. Armenante and Frank A. Russo, Newark, N. J.
Application August 1, 1956, Serial No. 601,524
12 Claims. (Cl. 152—218)

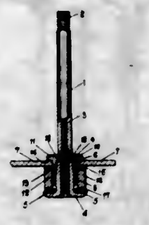


1. A traction device intended for application to the tires on the wheels of motor vehicles comprising in combination a tire, a wheel for mounting said tire, a hub member centrally disposed with respect to the axis of said tire and said wheel, a plurality of arms rigidly secured to and radiating from said hub member and having extendable portions mounted thereon, removable gripping means mounted on the free ends of said extendable members and adapted to embrace the tread of said tire, ratchet means on said hub member for retracting and locking said extendable members, whereby said gripping means are held in intimate contact with the tread of said tire.

2,837,134
TUBELESS TIRE VALVE STEM
Donald E. Steer, Stratford, Conn., assignor to Bridgeport Brass Company, Bridgeport, Conn., a corporation of Connecticut
Application October 28, 1953, Serial No. 388,762
5 Claims. (Cl. 152—427)

1. A tubeless tire valve stem assembly comprising a valve stem adapted to extend through a hole in the rim of a wheel, a flange integrally attached to the valve stem extending around the outer circumference of the end of

the valve stem inside the rim, a lip integrally attached to the flange extending around its outer circumference, the portion of the valve stem immediately adjacent the flange being externally threaded, an internally threaded bushing nut adapted to extend down through the hole in the rim to thread onto the threads of the valve stem, a flange integrally attached to the outer end of the bushing nut



and adapted to engage the rim at the edge portion around the hole, a pair of sealing washers and a spacer washer, one sealing washer positioned between the rim and the spacer washer, the other sealing washer positioned between the spacer washer and the valve stem flange, the sealing washers and spacer washer held in position by means of the engagement and tightening of the bushing nut threads with the valve stem threads.

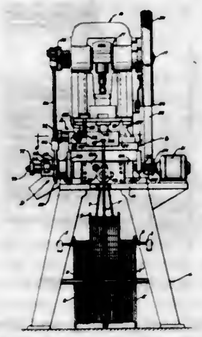
2,837,135
ROTARY TURRET HEAD FOR CRIMPING TOOLS
Henry W. Demler, Lebanon, Pa., assignor to AMP Incorporated, a corporation of New Jersey
Application March 15, 1955, Serial No. 494,497
2 Claims. (Cl. 153—1)



1. A crimping device including a die assembly movable along a path, a die nest wheel, a plurality of spaced die nests carried by said die nest wheel each of said spaced die nests having a different angular position about said die nest wheel, a rotatable mounting for said die nest wheel whereby said die nest wheel can be turned into various angular positions with respect to the path of said die assembly to present various ones of said spaced die nests toward said path, flattened surfaces on the periphery of the die nest wheel, adjacent each of the spaced die nests, a releasable stop means comprised of a pair of rectangular members in side-by-side relationship, a foot portion depending from one end of each of the members, each foot portion resiliently biased into contact with the flattened surface adjacent one of the spaced dies to prevent rotation of the die nest wheel, said stop means arranged to hold said die nest wheel in said various angular positions with various ones of said die nests toward said path and force-exerting means arranged to move said die assembly along said path.

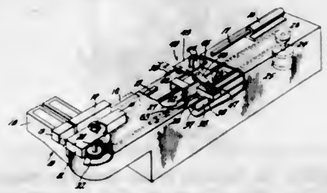
2,837,136
MACHINE FOR MAKING GARMENT FASTENER TRACKS
Robert C. Legat, New Britain, Conn., assignor to The G. E. Prentice Manufacturing Company, Kensington, Conn., a corporation of Connecticut
Application November 29, 1955, Serial No. 549,596
15 Claims. (Cl. 153—1)

1. In apparatus for forming fastener elements on tape, means for feeding a tape past an attaching station, means for feeding an end of a supply length of wire to said station, at right angles to and in spaced relation with one edge of the tape an anvil located at said station between said tape and said wire, means supporting said anvil for movement substantially parallelly to such edge of the tape, means for cutting off a piece of the wire and forming it into an element on said anvil, means supporting said cutting and forming means for reciprocating movement transversely to said wire and anvil, said cutting and form-



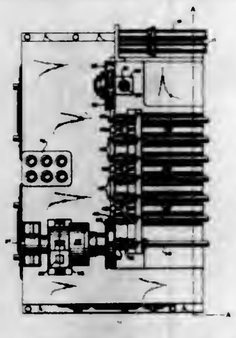
ing means having on its advancing end a recess to receive the element formed on said anvil, means to withdraw said anvil from between the formed element and the tape, leaving the former in the recess on the cutting and forming means, means to advance said cutting and forming means through the place occupied by the anvil during the forming operation to place the element on the tape, and means for securing the element to the tape while the cutting and forming means is in such advanced position.

2,837,137
BOOSTING MECHANISM FOR BENDING WAVE GUIDE TUBING WITH CONTROLLED NEUTRAL AXIS
Francis J. Fuchs, Jr., Winston-Salem, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application May 14, 1953, Serial No. 355,137
8 Claims. (Cl. 153—40)



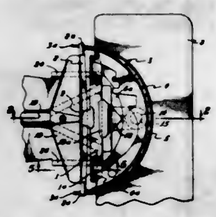
1. In a machine for draw bending tubing, a rotatable forming die, means to secure the tubing in the forming die, means to actuate the forming die, a reciprocable mandrel, means to support and actuate the mandrel, a slide mounted on the bending machine, engaging means mounted on the slide and adapted to contact the rearward extremity of the tubing being bent and to allow passage therethrough of the mandrel supporting and actuating means, an extensible arm pivotally connected at one end to the forming die actuating means and at the other end to the slide, and a support member upon which the extensible arm is mounted pivotally for rotational movement about a fulcrum point intermediate of the ends of the arm, said support member being adjustably positionable to shift the fulcrum point with respect to the ends of said arm.

2,837,138
POWER DRIVEN MACHINE FOR STRAIGHTENING AND AUTOMATICALLY FEEDING WIDE STRIP STOCK IN ANY PREDETERMINED LENGTH
Pierre de la Motte, Nutley, N. J., assignor to U. S. Tool Company, Inc., Ampere, N. J., a corporation of New Jersey
Application November 26, 1954, Serial No. 471,175
2 Claims. (Cl. 153—106)



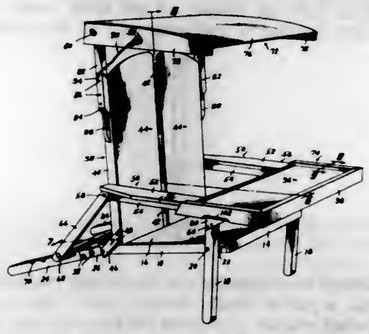
1. Machine for straightening and feeding wide strip stock, comprising long straightener rolls in opposed, alternating relation and backup rolls in supporting engagement with said straightener rolls, a pair of takein pinch rolls at one end of the straightener rolls, a pair of takeout pinch rolls at the opposite end of said straightener rolls and gearing driving said pinch rolls and intermediate straightener rolls in unison, and including chain and sprocket gearing between takein and takeout pinch rolls and a closed train of gears connecting the interposed straightener rolls with each other and with the pinch rolls at opposite ends of the same.

2,837,139
CLAMP FOR HOLDING BRAKE LINING IN POSITION TO BE BONDED TO A BRAKE SHOE
Marvin E. Green, Los Angeles, Calif.
Application October 22, 1953, Serial No. 387,606
5 Claims. (Cl. 154—1)



1. A device for holding brake lining in position to be bonded to the convex surface of an arcuate brake shoe comprising: an elongated body for spanning the concave side of such a brake shoe; means on the ends of said body for engaging ends of said shoe to hold the shoe and body against relative movement; a resilient bar of greater length than said body; mounting means between the ends of said body supporting said bar alongside said body for flexure relative thereto with the ends of the bar disposed beyond the ends of said shoe; a base structure for supporting said body and shoe; a flexible band for holding the brake lining on the shoe; said band having its ends extended beyond the ends of the shoe; means on said ends of said band for connecting said band with said ends of said bar; and force applying means operable on said base structure for flexing said bar; said force applying means being disposed to engage portions of said bar on opposite sides of said mounting means.

2,837,140
FOLDING YARD CHAIR
Dean L. R. Hedman, Des Moines, Iowa
Application July 2, 1956, Serial No. 595,240
6 Claims. (Cl. 155—117)



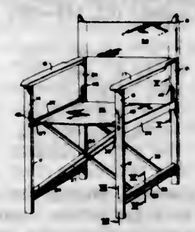
1. A folding chair, comprising, a seat frame, front legs pivotally secured intermediate their ends to each forward side of said seat frame, a back frame pivotally secured to the rear of said seat frame, arms pivotally secured at respective ends to said front legs and back frame, back legs disposed respectively in endwise abutting alignment to each respective side of said seat frame, an operating plate rigidly connected at one end to each respective back leg and at the other end pivoted directly to each respective seat frame so as to exend adjacent the abutting ends thereof to afford pivotal connection between each back leg and the corresponding side of said seat frame, means on said back legs engageable with said seat frame across the abutting ends thereof for locking said back legs against pivotal movement at times, and brace means on said back frame releasably engageable with said back legs to allow selected inclination of said back frame relative to said seat frame.

2,837,141
FOLDING TABLE AND SEAT ASSEMBLY
Charles Shore, Cheltenham, Pa.
Application June 13, 1957, Serial No. 665,551
2 Claims. (Cl. 155—124)



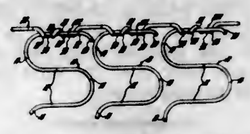
1. A folding table and seat assembly comprising a substantially rectangular table top and a peripheral skirt depending therefrom, two pairs of substantially U-shaped legs each pivoted at its ends to said skirt adjacent its corners, releasable brace means to retain said legs in erect divergent positions, two substantially rectangular seats each including a peripheral skirt depending therefrom, means hingedly securing said skirt to each seat adjacent a pair of its corners to and between each U-shaped leg, and means guidingly and selectively retaining each seat in a folded position generally in the plane of the U-shaped leg to which it is hinged and in an unfolded position generally parallel to the table top, said last-named means including a guide bar secured at its ends to each seat skirt and offset from said seat and a generally U-shaped brace rod pivoted at its ends to each U-shaped leg beneath said seat, said brace rod having a web portion extending between said guide bar and said seat, the ends of said brace rod adjacent its pivots being bent at an obtuse angle to permit the seat when folded to be positioned in the plane of the U-shaped leg.

2,837,142
FOLDING CHAIR
John C. McGuire, San Francisco, Calif.
Application October 3, 1957, Serial No. 687,883
4 Claims. (Cl. 155—140)



1. A folding chair of the class described comprising in combination two side units each comprising a front leg, a back leg and connecting members, spaced X-shaped members pivoted at their respective cross points, a rotatable connecting member adjacent the bottom of each of said side units and secured to the lower ends of said X-shaped members, a free connecting member secured to the upper ends of said X-shaped members at each side, said free-connecting members having a web of material secured therebetween to form the seat of said chair, and each of said free members having pins extending beyond the ends thereof, substantially vertical grooves in the opposed faces of said front and back legs of each side unit which are curved to enter at the inside a short distance above the seat level and terminating at the appropriate seat level, for removably receiving the end pins of said free connecting members, and a web of material between the upper portion of said back legs to form the back of said chair.

2,837,143
BORDER WIRE INTERLOCK FOR SINUOUS SPRING CUSHION
Joseph B. Griffo, Harper Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 24, 1957, Serial No. 667,506
4 Claims. (Cl. 155—179)



1. In a sinuous spring cushion of the type wherein a plurality of sinuous spring elements are arranged in spaced parallel rows to provide a seating surface, each element having a straight portion in lateral alignment with a straight portion of an adjacent element, and wherein a reinforcement wire is laterally disposed across the elements to series connect the aligned straight portions, the improvement comprising providing the wire with a plurality of pairs of bowed portions all facing the same direction and with each pair of bowed portions receiving a respective straight portion, the bowed portions of each pair being axially spaced to provide a passage for inserting a respective straight portion therebetween so that the front side of the straight portion engages the bow connecting portion of the wire, the straight portion being thereafter rotated into engagement with the bowed portions, one bowed portion extending over and engaging the upper and back sides of the straight portion and the other bowed portion extending under and engaging the under and back sides of the straight portion.

2,837,144
FURNITURE BACK WITH CUSHION UPHOLSTERY
Maximilian Heller, London, England
Application August 25, 1954, Serial No. 452,102
2 Claims. (Cl. 155—181)



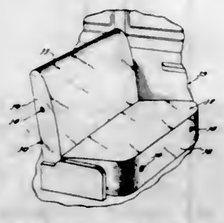
1. In an article of furniture such as a chair, comprising in combination a frame including two upwardly extending side members and a least one cross-rail interconnecting said two side members, a plurality of tension springs extending between and secured to said side members and together constituting a resilient upholstery support, and a cushion upholstery doubled upon itself over the top portion of said resilient upholstery support to form two parts of which one covers said tension springs at the front and the other covers said tension springs at the rear, the arrangement of that part of said cushion upholstery which covers said tension springs at the rear being closely adjacent to said tension springs and between said cross-rail and said tension springs, and the provision of readily-releasable fastening means fastening that part of said cushion upholstery which covers said tension springs at the rear to said frame whereby said cushion upholstery rests straddling on and wrapped over the top of said resilient upholstery support and the said cushion upholstery closely encloses said resilient upholstery support alone and forms therewith a deflectable upholstered back support, said cross-rail interconnecting said two side members being spaced externally and rearwardly from the rear part of said cushion upholstery whereby said upholstered back support formed by said cushion upholstery and said tension spring is free to deflect rearwardly resiliently and as a whole under load.

2,837,145
VIBRATION INSULATOR
Carlos Cudell Goetz, Lisbon, Portugal
Application July 1, 1955, Serial No. 519,320
4 Claims. (Cl. 155—182)



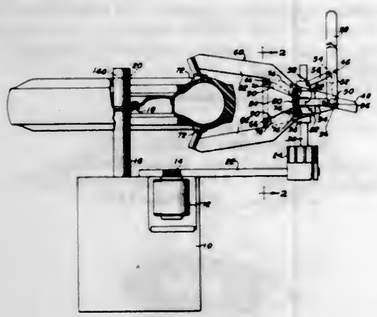
1. A cushion comprising a resilient pad folded downwardly across itself to form sections to provide an air space intermediate the upper and lower sections thus formed with the free ends of said pad coming together, said pad along one face having a plurality of spaced openings extending partially therethrough, said openings being adapted to be aligned with corresponding openings when the pad is doubled over to form unitary air pockets within the cushion, and a plastic airtight covering for said pad, said covering extending beyond the doubled-up sides and end of said pad to provide air pockets, said covering near the doubled-up ends of said pad being provided with a plastic slide fastener construction whereby to permit the insertion and removal of the pad, said covering further being provided with a relatively small air opening therethrough to permit the escape of air when the cushion is compressed and the return of the air into the air pockets when the cushion has been expanded to its normal position.

2,837,146
CUSHION COVERS AND BREATHER EYELETS THEREFOR
Howard F. Leopold, Chicago, Ill., assignor to Ero Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application October 9, 1956, Serial No. 614,898
4 Claims. (Cl. 155—182)



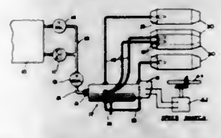
1. An automotive vehicle cushion cover comprising a body of thermoplastic resinous material having an opening formed therein and including a marginal edge portion defining said opening, and a section of porous woven glass fabric material arranged in said opening, and including a marginal edge portion surrounding and overlying and fused to the said marginal edge portions of said thermoplastic resinous material defining said opening.

2,837,147
SEMI-AUTOMATIC TIRE BEAD BREAKING MACHINE
Albert Stuart Henderson, Zion, and Walter L. Miller, Henderson, Ky.
Application February 4, 1954, Serial No. 408,161
3 Claims. (Cl. 157—1.28)



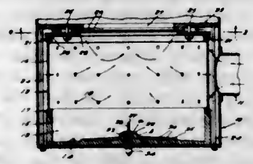
1. A tire changing machine comprising a support, a rotatable shaft extending from said support, power means for rotating said shaft, means on said shaft for fixedly securing a tire rim concentrically thereon, a member mounted on said support for sliding aljustment toward and away from said shaft, a plate slidably mounted in said member for movement toward and away from said shaft, means for sliding said plate in said member, a pair of spaced opposed arms pivoted intermediate their ends to said plate, an end of each of said arms extending beyond said plate toward said shaft, means on said ends for engaging opposite side walls of a beaded tire carried by said tire rim, roller means on the opposite ends of said arms, a wedge-shaped element disposed between said rollers and slidably mounted on said plate, means for biasing said rollers into engagement with said wedge-shaped element and means for sliding said wedge-shaped element relative to said plate whereby said arms are caused to pivot and the first-mentioned ends are caused to move toward each other.

2,837,148
FUEL METERING VALVE
Kenneth William Jay, Beverly Hills, Ontario, Canada, assignor to Orenda Engines Limited, Malton, Ontario, Canada, a corporation
Application July 25, 1956, Serial No. 600,116
5 Claims. (Cl. 158—36)



1. A combined scavenge, priming and metering valve for a fuel system of a gas turbine engine, including a valve body having a bore, a connection providing an inlet by which fuel under pressure can be supplied to one end of the bore, a valve member slidable within the bore and having an axial bore, means in the bore of the valve body limiting the extent of movement of the valve member towards the fuel inlet, means biasing the valve member into engagement with the limiting means, the valve member having at least two radial ports spaced axially of the valve member which, when the valve member is engaging the limiting means, connect ports of the valve body with the bore of the valve member, a plunger extending through the bore of the valve member, means for moving the plunger axially of the bores between two extreme positions, a first land of the plunger slidable within the bore of the valve member, and a second land of the plunger closing the bore of the valve member at its end adjacent the fuel inlet of the valve body when the valve member is engaging the limiting means and the plunger is in one of its extreme positions, the lands providing a free communication between each of the ports in the valve member when the plunger is in its said one extreme position; the first land masking one of the ports in the valve member when the plunger is in an intermediate position and the valve member is engaging the limiting means, the second land permitting free communication between the other of the ports in the valve member and the said fuel inlet; the first land masking each of the ports to isolate the ports when the plunger is in its other extreme position and the valve member is engaging the limiting means; the valve member providing at least one metered orifice which is masked by the bore of the valve body when the valve member is engaging the limiting means and through which fuel can pass to a port of the valve body when the valve member is displaced from the limiting means.

2,837,149
TOP PLATE AIR DEFLECTOR FOR POT BURNERS
Carl B. Richardson, Norfolk, Va.
Application March 24, 1953, Serial No. 344,353
1 Claim. (Cl. 158—91)



A fuel oil burner of the pot type comprising a combustion chamber having a bottom wall, a sidewall and a top plate carried by the sidewall, the top plate having a central flame opening, the sidewall having air admission openings, a static air chamber enclosing the combustion chamber and having a sidewall surrounding and spaced from the combustion chamber sidewall, an air deflector plate closing the upper end of said air chamber and overlying said top plate in spaced relation thereto, said air plate having a central opening concentric with the top plate opening, means comprising a plurality of spaced lugs depending from said air plate and integral therewith and engaging the upper surface of said top plate to maintain the spacing between said top plate and air plate and a depending air deflecting lip on the under side of said air plate, said lip having a downwardly and inwardly inclined outer surface for deflecting inflowing air downwardly and inwardly toward the axial center of the combustion chamber and a downwardly and outwardly inclined inner surface on said lip intersecting said outer surface to form an annular edge, said annular edge defining a circle and disposed in a plane above the plane of the top surface of said top plate, the diameter of said top plate opening being at least as great as the diameter of said annular edge.

2,837,150
WINDOW CORNICE BOX
Andrew J. Toti, Modesto, Calif.
Application August 8, 1955, Serial No. 526,873
2 Claims. (Cl. 160—38)



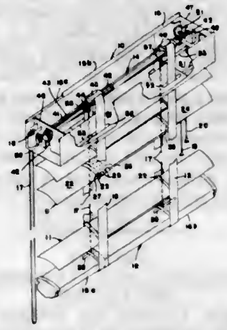
1. In a cornice box having a top, and both front and end walls, said front and end walls formed to provide thin upper and lower freely engageable outer edges directed respectively upward and downward, and a series of extremely thin flexible springy facia slats each of a length substantially equal to the height of said walls arranged vertically against the outer surface of said walls in substantially abutting edge relation to cover the same, and said springy facia slats each flanged rearwardly at their upper and lower ends only, in a manner to be sprung to snap over engagement with the thin engageable edges of said walls.

2,837,151
UPWARDLY ACTING DOOR ASSEMBLIES PROVIDED WITH WEATHER SEALS
Earl L. Stroup, Hartford City, Ind., assignor to Overhead Door Corporation, Hartford City, Ind.
Application November 21, 1955, Serial No. 548,163
9 Claims. (Cl. 160—40)



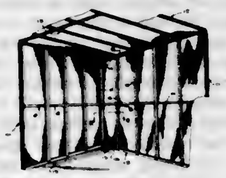
1. An upwardly acting door assembly comprising side frame members, a door comprising a plurality of hingedly connected sections, tracks comprising vertical and horizontal sections and curved intermediate connecting sections therefor, the vertical sections being disposed at the inner sides of the side frame members, said door sections being provided with rollers coacting with said tracks to slidably support the door, vertically disposed elongated resiliently flexible seal members secured along their outer edges to the inner sides of said frame side members, rockshafts disposed vertically at the inner sides of the door frame side members and to which the inner edges of said seal members are secured with the seal members cross-sectionally bowed toward the door in all positions of adjustment of said rockshafts, and means for manually adjusting said rockshafts whereby said seal members may be engaged with the outer side of the door when its is in closed position or disengaged therefrom to permit opening and closing of the door with the seal members in noncontacting relation therewith, said seal members having a plurality of longitudinally extending resiliently flexible fins on said door engaging surfaces.

2,837,152
HORIZONTALLY ADJUSTABLE VENETIAN BLIND
Nathan Edward Moore, Jr., Greensboro, N. C.
Application March 26, 1956, Serial No. 573,816
15 Claims. (Cl. 160—168)



1. An adjustable Venetian blind comprising an extensible top channel, an extensible tilting bar pivotally supported in the top channel, a pair of ladder tape clamping means axially spaced from each other on said tilting bar, said clamping means being movable toward each other as the top channel is extended, and away from each other as the channel is contracted longitudinally, a pair of ladder tapes spaced apart and extending from said clamping means at one end, said ladder tapes having double transverse slat supporting elements, an extensible bottom rail supported at the other end of the tapes, a series of horizontal compound louver slat members supported on the slat supporting elements, each of said slat members having one end reaching beyond a tape and one portion reaching between the pair of tapes, the slat reach extending between tapes forming an overlapping portion, each of said slat members of a single compound slat being fastened adjacent to the other end to a transverse element on opposite tapes, in overlapping sliding relation, means for pivoting the tilting bar and tape clamping means, and means for raising and lowering the bottom rail and other slats in successive order upwardly from the bottom rail.

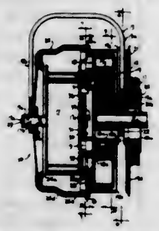
2,837,153
METALLIC BUILDING WALL
Harold H. Brown, Miami Beach, and William Cook, Miami, Fla.
Application December 2, 1955, Serial No. 550,608
5 Claims. (Cl. 160—371)



5. In a metallic building structure, a panel frame embodying a pair of hollow metal side members arranged in spaced upstanding relation and a cross hollow metal member extending between each of the lower ends and

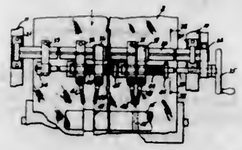
of the upper ends of said side members, each of said side and cross members embodying a U-shaped element having a web and a pair of side flanges, each of the side flanges having an inwardly directed end portion, the end portions of said flanges lying in the same plane and stopping short of one another to define an opening, the web having a groove extending inwardly at an angle to the vertical adjacent one of said side flanges, and a pair of ribs interiorly of said element and extending inwardly from each of said side flanges and in parallel spaced relation with respect to said inwardly directed end portions and forming with said end portions an inner slideway and an outer slideway, a connecting element having a pair of legs arranged at a right angle with respect to each other positioned intermediate each end of each of said cross members and the adjacent end of each of said side members and having one leg slidably received in the inner slideway of the adjacent cross member and the other leg slidably received in the inner slideway of the adjacent side member, and a reticulated covering extending over the space defined by said frame and having its bounding edge portions anchored in the grooves of said webs of said side and cross members.

2,837,154
TIME CONTROLLED VALVE OPERATING MECHANISM
Philip S. Harper, Chicago, and William S. Wagenhals, Princeton, Ill., assignors to Harper-Wyman Company, Chicago, Ill., a corporation of Illinois
Application December 13, 1954, Serial No. 474,696
10 Claims. (Cl. 161—9)



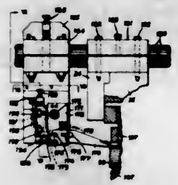
8. A time controlled valve operating mechanism for rotating a valve stem between an "on" position and an "off" position, comprising telescopically nested spring housing and valve actuator cups, said spring housing cup being stationary and being provided with a tubular hub for receiving said valve stem and for rotatably supporting said actuator cup for rotation about the axis of said valve stem from an "off" position to an "on" position, a coil spring disposed within said cups and connected therebetween to bias said actuator cup for rotation from its "on" position to its "off" position, latching means for latching said actuator cup in its on position, a supporting cup partially enclosing said housing and actuator cups and provided with a centrally disposed and flanged base wall aperture for receiving the end of said tubular hub, an adjustable period timer mounted on said housing cup opposite the end of said shaft and provided with a rotatable cup-shaped time setting knob opening toward the open end of said supporting cup and provided with a rim pivotally supported by the rim of said supporting cup, means controlled by said timer for releasing said latching means to permit said actuator to rotate from its "on" position to its "off" position under the influence of said spring, said tubular hub and the side wall of said supporting cup being provided with radially aligned arcuate slots overlying said valve stem, and a manually operable valve operating handle extending through and movable within said slots and connected to rotate said actuator cup and said valve stem in unison from their "off" positions to their "on" positions and operable to rotate said valve stem between its "on" and "off" positions following operation of said latching means to latch said actuator cup in its "on" position, said actuator cup being operable under the influence of said spring to return said handle and valve stem to their "off" positions in response to release of said latching means.

2,837,155
SHEET-SAMPLING MECHANISM
Lester B. Cundiff, Wilmington, Del., and William M. Watts, Fredericksburg, Va., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application April 28, 1955, Serial No. 504,422
8 Claims. (Cl. 164—36)



1. A sampler for traveling sheel material comprising a support, a pair of slitting blade holders secured to the support, a slitting blade mounted in each blade holder, means connected with the blade holders for moving at least one of the blade holders laterally toward and away from the other blade holder, said blade moving means being capable of operation both before and after the slitting blades pierce the traveling sheet material, and a take-up roller supported adjacent the slitting blades, said roller having an adhesive surface to pick up the sample between the slits formed by the blades.

2,837,156
TUBE CUTTING DIE
Charles M. Brehm, Springfield, Ohio, assignor, by mesne assignments, to Kelsey-Hayes Company, a corporation of Delaware
Application February 8, 1954, Serial No. 408,664
6 Claims. (Cl. 164—40)



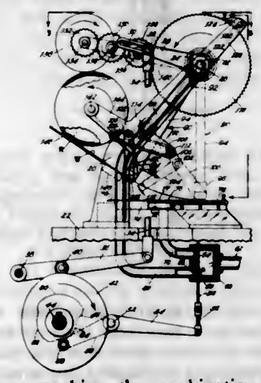
1. Apparatus of the character described for cutting tubular stock comprising a frame, two pairs of inner and outer cutters each including an inner punch adapted for insertion within said stock and a continuous annular die adapted to encircle said stock and said punch, means supporting said pairs of cutters for relative shearing movement transversely of said stock, means for operating said cutters in desired sequence to execute a pair of shearing strokes substantially perpendicular to each other, means for continuously feeding said stock, stop means in the path of said stock to limit the feeding movement thereof to a predetermined distance, means operated by engagement of said stock with said stop means for actuating said operating means for said cutters, and means operated by said cutter operating means for temporarily releasing said stop means upon completion of said shearing strokes to provide for automatic continuous sequential operation of said apparatus.

2,837,157
BILLET SHEARS AND THE LIKE
Helmut Günther, Karlsruhe, Germany, assignor to Industrie-Werke Karlsruhe Aktiengesellschaft, Karlsruhe, Germany
Application August 11, 1954, Serial No. 449,209
Claims priority, application Germany August 13, 1953
6 Claims. (Cl. 164—45)



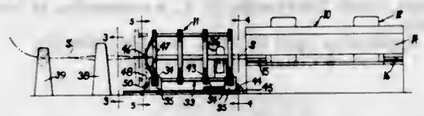
1. In combination in a shears for cutting billets, sheet bars and the like: a frame, a shaft stationarily supported by said frame, an upper shearing knife, a shearing lever supporting said upper knife and pivotally supported by said shaft for tilting movement in a vertical plane, the cutting plane of said upper shearing knife being slightly inclined with regard to said vertical plane, a stationary support, a lower shearing knife with the cutting plane thereof substantially parallel to the cutting plane of said upper knife, said lower knife being stationarily supported by said support in offset spaced opposite arrangement with regard to said upper knife for receiving therebetween that portion of a workpiece which is to be cut off from said workpiece, said shearing lever being movable to pass said upper knife closely by said lower knife to perform a cutting operation, a two-arm holding lever arranged laterally of and in spaced arrangement to said lower shearing knife for holding that portion of the work piece which is to be cut off against said upper knife during a cutting operation, pivot means pivotally connecting said holding lever with said shearing lever, a movable clamping member arranged opposite said support and movable to clamp a workpiece from which a piece is to be cut off against said stationary support, and actuating means for actuating said two-arm lever, said shearing lever and said clamping lever.

2,837,158
MECHANISM FOR FEEDING AND CUTTING CONTINUOUS TOBACCO SHEET MATERIAL
Henry H. Wheeler, Bellerose, N. Y., assignor to International Cigar Machinery Company, a corporation of New Jersey
Application July 13, 1953, Serial No. 367,384
24 Claims. (Cl. 164—48)



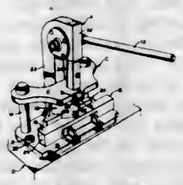
1. In a cigar machine, the combination with a bunch rolling table having a suction chamber for holding tobacco material thereon, valve means for applying suction therein, an arm swingably pivoted above said table, a continuous source of tobacco web material, gripping means on the free end of said arm to grip the leading end of said web and draw it over said rolling table, control means to release said gripping means on said arm and to operate said valve, means to apply suction to said table, said arm swinging back over said rolling table to deposit a leading portion of said web thereon, and means on said arm operative upon the return of said arm to sever said leading portion from said web on said table.

2,837,159
METHODS OF AND APPARATUS FOR CUTTING STRIP MATERIAL
Richard F. Herr, Warren, Ohio, assignor to The Herr Equipment Corporation, Warren, Ohio, a corporation of Ohio
Application May 21, 1954, Serial No. 431,551
11 Claims. (Cl. 164—49)



4. Apparatus for cutting strip material, comprising cutting means intermittently operable to cut said strip material into pieces of shorter length, feed means including a pair of juxtaposed feed rolls in gripping engagement with said strip and operable to intermittently feed a predetermined length of strip to operative relation with said cutting means, means for shifting said feed means and consequently the strip gripped thereby in a direction to move the end of said strip toward and away from said cutting means, and means providing for rotation of said feed means in alternate directions about the longitudinal axis of said strip so as to shift said strip side for side about its longitudinal axis intermediate the cutting operations of said cutting means.

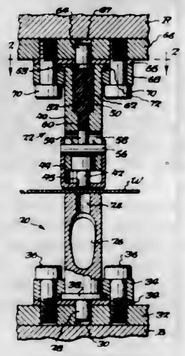
2,837,160
DOWNSPOUT MITERING TOOL
Robert M. Vera and Albert B. Everly, Jr., Salinas, Calif.
Application August 20, 1956, Serial No. 605,130
9 Claims. (Cl. 164—50)



1. A downspout miter cutter comprising an upper piercing die and a lower die, first die means on the lower die having a pair of angularly divergent, intersecting, inwardly facing cutting edges thereon, second die means on the lower die having a pair of inwardly facing, parallel cutting edges thereon each of which perpendicularly intersects one of the divergent cutting edges of said first lower die means a predetermined distance from the point of intersection of the latter, a pipe retaining member extending parallel to the plane defined by the parallel cutting edges and closely beyond the intersection of the divergent cutting edges on the first die means for retaining a rectangular pipe of predetermined width upon the first die means and between the retaining member and the second die means, a pair of intersecting cutting edges on the piercing die disposed in planes defining an angle similar to that defined by the divergent cutting edges of

the first die means, the cutting edges of the piercing die sloping upwardly away from their point of intersection, and guided actuating means for moving the dies from open condition with the cutting edges of the upper die on the opposite side from the first die means on the lower die of a pipe retained by the retaining member, to shut condition along a path parallel to the perpendicular cutting edges of the lower die, whereby the piercing die makes an initial V-shaped cut in the unsupported wall of such pipe adjacent thereto, followed by the making of contiguous parallel shear cuts along the parallel edges of the lower die and a final contiguous V-shaped cut in the wall of such pipe upon the first die means of the lower die, thereby to make a miter cut in such pipe.

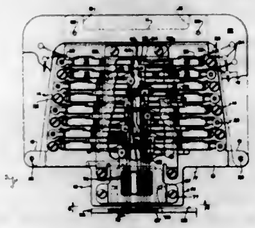
2,837,161
PERFORATING APPARATUS
Paul H. Taylor, Grand Island, and Robert F. Zumwalt, Tonawanda, N. Y., assignors to Wales-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York
Application April 14, 1955, Serial No. 501,271
6 Claims. (Cl. 164—110)



1. The combination with a punch press, which has a reciprocable ram and a bed, of a perforating implement comprising a punch unit affixed to said ram and a separate die unit affixed to said bed and axially aligned with said punch unit, said punch unit comprising a supporting member having a central bore, means for securing said supporting member to said ram, pilot means mounted to project from the bore of said supporting member to engage said ram to locate said punch unit on said ram, said pilot means including a closure portion slidably engaged in the upper end of said bore to close said upper end, a punch secured to the lower end of said supporting member, a stripping member reciprocable on said supporting member, and compressible, solid stripping material filling said bore and interposed between said closure portion and said stripping member so that when said stripping member engages the work on a working stroke of the ram said compressible material is compressed while the punch perforates the work.

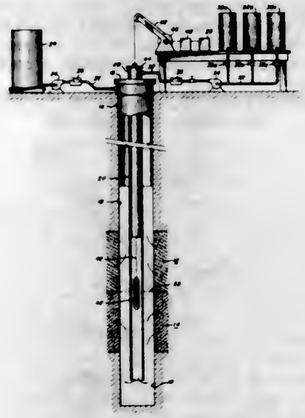
2,837,162
MODULAR BLOCK PUNCH SELECTOR ASSEMBLY
Ronald H. Arthur, West Hartford, Conn., assignor to Royal McBee Corporation, New York, N. Y., a corporation of New York
Application February 5, 1957, Serial No. 638,272
9 Claims. (Cl. 164—111)

6. In combination with a vertically moving punch and die unit adapted to carry record cards or tapes which are to receive record data items in parallel columns across the shorter dimension thereof, a modular block punch set-up construction for selecting punches adapted to perforate said record cards or tapes having a vertical planar array of columnar punch selector assemblies, each of said assemblies comprising a mounting plate, a plurality of aligned punch selectors on either side of said plate, and means for selecting and readying predetermined ones of said punch selectors for a perforating operation, said means comprising a plurality of set-up pins connected at one end to said punch selectors, means cooperating with said set-up pins and punch selectors for biasing said punch selectors to a card punch selecting position, a plurality of interposers staggered in parallel horizontal planes



on opposite sides of said plate, one each of said set-up pins having its free end extending vertically and adjacent one of said interposers, said interposers being adapted to engage said free ends of said set-up pins when actuated to prevent vertical movement of said pins, and means for actuating predetermined ones of said interposers whereby when said die unit moves vertically toward said punch selectors those set-up pins and punch selectors associated with an actuated interposer remain in a card punch selecting position while those not so associated with an actuated interposer are moved out of card punch selecting position by the card on the die unit.

2,837,163
SELECTIVE PLUGGING OF UNDERGROUND WELL STRATA
Joe Ramos and Wayne F. Hower, Duncan, Okla., assignors to Halliburton Oil Well Cementing Company, Duncan, Okla.
Application December 22, 1955, Serial No. 554,685
11 Claims. (Cl. 166—10)



1. The method of treating permeable underground strata penetrated by a bore hole in order to reduce the permeability of a section thereof which comprises the steps of simultaneously conducting two streams of liquid downwardly along separate paths into the bore hole, one and only one of said streams containing in one portion thereof a quantity of an aqueous solution of a metal salt and in a substantially separate portion thereof a quantity of a solution capable of reacting with said metal salt solution to form water-insoluble deposits, causing said streams to meet in the bore hole and enter adjacent sections of the strata, and continuing the treatment so as to maintain the entry of the stream containing the solutions into one of said sections until the solutions have come together therein and formed water-insoluble deposits reducing the permeability of said one section.

2,837,164
WELL COMPLETION METHOD
Thomas O. Allen, Houston, Tex., and Albert W. Coulter, Jr., Tulsa, Okla.; said Allen assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware, and said Coulter assignor to The Dow Chemical Company
Application October 12, 1955, Serial No. 540,068
1 Claim. (Cl. 166—22)



A method for forming clean perforations in a well bore penetrating a subsurface earth interval having a casing arranged therein which comprises arranging in said well casing adjacent said interval a suspension comprising a mixture of at least two finely divided solid materials in a liquid vehicle, said solid materials being capable of chemically interacting and of being separable from the liquid vehicle by filtration, and then gun perforating said casing in said suspension whereby a filter plug is formed in the resulting perforations which temporarily plug said perforations until chemical interaction between the solids in the filter plug causes destruction thereof, said mixture being selected from the group consisting of mixtures of solid inorganic acids with solid inorganic bases; solid organic acids with solid inorganic bases; solid mineral acid salts of weak bases with inorganic bases; solid ammonium salts with solid inorganic bases; and solid reducing agents with solid oxidizing agents.

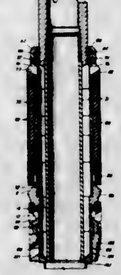
2,837,165
PERMANENT WELL COMPLETION APPARATUS
Alan P. Roberts, Jim Hogg County, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application October 4, 1954, Serial No. 460,114
1 Claim. (Cl. 166—114)

Apparatus for conducting treating operations in a cased well having a tubing arranged therein, the lower open end of which tubing is positioned above a productive interval, said apparatus comprising a packer positioned adjacent the lower end of said tubing for sealing off the annulus between said casing and tubing, a tubular extension member arranged within said tubing and having sealing means sealingly engaging said tubing above said packer and extending to adjacent said productive interval, and fluid passage means positioned in said tubing above and adjacent to said packer and below said tubular extension sealing means adapted to fluidly communicate said casing-tubing annulus and the interior of said tubing, valve means in said fluid passage means



openable when the fluid pressure in said annulus and said tubing is below a selected pressure to permit flow through said passage means and closable to seal off fluid communication between said annulus and said tubing when the pressure in said annulus and said tubing is greater than said above selected pressure.

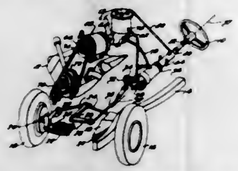
2,837,166
WELL PACKER
Neil T. Breaux, Houston, Tex.; Hazel Inez Breaux, administratrix of said Neil T. Breaux, deceased
Application April 2, 1951, Serial No. 218,785
6 Claims. (Cl. 166—134)



1. In a well packer of the type having a tubular mandrel and an expansible packer element around the mandrel adapted to form a fluid-tight seal with a surrounding well casing, casing gripping means mounted on the mandrel for relative movement longitudinally thereof beneath the packer element and engageable with the casing to form an abutment against which the element is engageable to support the element against downward movement in the casing to allow the mandrel to move downwardly relative to said element, means on the mandrel above the element and movable downwardly with the mandrel relative to the abutment to expand the element, said mandrel having an opening leading from the interior of the mandrel to the exterior thereof and positioned to be closed by said element upon such downward movement of said mandrel, and fluid pressure oper-

able means around the mandrel above the packer element and including means operable under the influence of the pressure of fluid in said mandrel when said opening is in closed position to anchor the mandrel against upward movement in the casing.

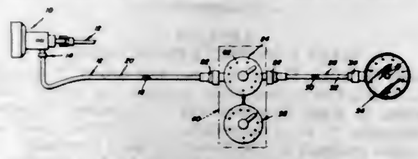
2,837,167
POWER STEERING MECHANISM OF THE HYDRAULIC TYPE
Alan G. Loofbourrow, Bloomfield Hills, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application November 10, 1953, Serial No. 391,209
29 Claims. (Cl. 180—79.2)



4. Pressure-fluid-supplied apparatus for moving an element to perform work comprising a toothed member drivingly enmeshed with said work performing element, means for operating said toothed member manually including a wheel and first and second threadably connected axially aligned shafts, one of said shafts being a longitudinal thrust transmitting shaft drivingly connected to said toothed member and being formed of multiple sections and having a spring-loaded lost motion connection between sections whereby relative movement occurs between sections in response to a predetermined thrust applied to said one shaft as occasioned by a predetermined torque applied to said wheel and other shaft, means for operating said toothed member by power including fluid motor means having a movable element connected to said toothed member and movable along a longitudinal axis coaxial with said axially aligned shafts, valve means disposed concentrically within the movable element of said motor means for controlling the delivery and the exhausting of fluid pressure to and from said motor means, said valve means having a valve inlet and outlet through which the pressure fluid passes and having an operative connection to said one shaft whereby said valve means is operable in response to the above described relative movement between the lost motion connected sections of said one shaft, said lost motion connection containing a fluid-tight chamber and having a pair of oppositely disposed movable walls therein, said walls being movable one in each direction of the relative movement aforesaid and being exposed to pressure corresponding to the fluid pressure at the valve inlet whereby increases of pressure on the fluid at the inlet of the valve means are utilized progressively to oppose said predetermined torque and the named relative movement tending to be produced thereby.

2,837,168
TIME DELAYED SPEED GOVERNOR FOR VEHICLE
Carlos Sabater, Ponce, Puerto Rico
Application October 14, 1955, Serial No. 540,417
3 Claims. (Cl. 180—82.1)

1. For use with a motor vehicle that has a part which rotates at a speed proportional to the speed of the vehicle, a speed responsive control assembly to open the ignition circuit thereof upon overspeed for a predetermined period of time, said assembly comprising a housing, a first contact, means connected to said first contact for moving said contact a distance which is proportional to the speed of said part, a second contact, means mounting said second contact on said housing in selected positions with respect to the travel of said first contact, a timer control comprising a casing, a motor in said casing, an electric circuit arranged to energize said motor when said first and second contacts are closed, a shaft, means including an over-riding clutch drivingly connecting said shaft to said motor, a cam secured to said shaft and rotatable therewith, a stationary contact, a lever pivoted to said casing, a movable contact carried by said lever



and normally touching said stationary contact, said movable and stationary contacts constituting a part of a switch that has terminals adapted to be connected operatively in the vehicle ignition circuit, a cam follower on said lever and riding on said cam, a spring tending to open said switch and keep said follower on said cam, adjustable means to limit the extent of travel of said cam, and a spring connected with said cam to return said cam to the starting position and thereby move said lever to such position that said switch is closed.

2,837,169
COMBINED ENGINE MUFFLER AND COMBUSTION CHAMBER
Howard C. Sawyer, Detroit, Mich.
Application February 7, 1955, Serial No. 486,412
3 Claims. (Cl. 183—6)



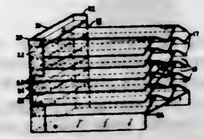
1. An engine muffler comprising an elongated hollow body formed at its ends respectively with an inlet and an outlet for exhaust gases, and a turbulator within and substantially coaxial with said body and inwardly spaced from the body to form an annular outer passage for said gases, said turbulator being formed by a plurality of units of highly refractory material abutting one another in an end to end relation, each such unit including an annulus and a helical baffle fixed upon and within such annulus, such baffles jointly forming a substantially continuous helix and each baffle terminally projecting sufficiently beyond the corresponding annulus to abut the baffles of adjoining units, said units jointly forming an inner passage for the exhaust gases, and said baffles occupying such inner passage, the turbulator being formed between its units with passages for delivering gases from said inner to said outer passage.

2,837,170
AIR FILTER LUBRICANTS
Jack W. Armstrong, Concord, and Harold A. Woods and Charles E. Francis, Martinez, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 18, 1956
Serial No. 591,782
6 Claims. (Cl. 183—51)

1. A thixotropic lubricating oil composition for coating air filters consisting essentially of a mineral lubricating oil containing from about 1% to about 2% of a water-resistant aminated oleophilic clay treated with phosphoric acid, from about 0.5% to about 2% of an alkylene glycol

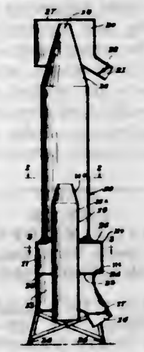
the alkylene radical containing from 2 to 6 carbon atoms and from about 0.5% to about 5% of an oil-soluble adhesive olefin hydrocarbon polymer having a molecular weight in the range of from about 10,000 to about 500,000, said polymer being derived from an olefin monomer having from 2 to 4 carbon atoms.

2,837,171
GAS DEHYDRATOR
Erich J. Kocher, Milwaukee, Wis., assignor to The Vilter Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin
Application June 8, 1956, Serial No. 590,148
6 Claims. (Cl. 183—75)



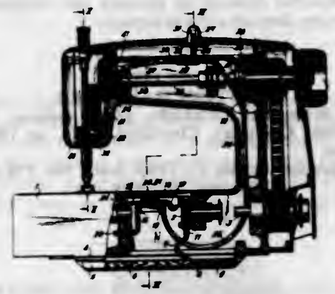
2. A gas dehydrator comprising, a series of longitudinally corrugated plates cooperating to form undulated open passages extending transversely through the series, a pair of members each having a web extending across but spaced from the adjacent extreme ends of said plates and also having flanges at its opposite sides extending toward the other member and coacting with the adjacent side edges of said plates at the ends of said passages to prevent lateral displacement of the plates, a series of elements at each end of the plate series each spanning the space between the flanges of the adjacent member and each having a positioning flange of approximately the same depth as that of the adjacent plate corrugations interposed in the spaces between the adjacent plate ends and member web and each also having a spacer flange extending away from the adjacent member web between the corresponding plate ends to maintain the plates in spaced relation, the successive positioning flanges of each series of elements engaging each other, and means rigidly uniting said members to hold said plates and said elements in assembled condition.

2,837,172
CENTRIFUGAL SEPARATOR
George Johann Klein and Douglas Arthur Baker, Ottawa, Ontario, Canada, assignors to National Research Council, Ottawa, Ontario, Canada, a body corporate
Application September 15, 1955, Serial No. 534,632
6 Claims. (Cl. 183—84)



1. A two stage vortex type separator comprising a scroll chamber for the tangential introduction to the separator of a fluid suspension of particles to be separated, said scroll chamber having a curved outer wall, the side edges of said outer wall defining a pair of substantially parallel planes disposed normally with respect to the outer wall and the axis of the separator, a first stage separator having a first hopper for collecting the particles, means defining a restricted annular inlet to the first hopper having an outer wall formed as a smooth continuation of a portion of the curved outer wall of the scroll chamber, a second stage separator having a second hopper, means defining a second inlet to said second stage separator, said second stage separator having a wall spaced inwardly with respect to the outer wall of said scroll chamber, both said first and second inlets opening into said scroll chamber in at least one of said pair of parallel planes and a clean fluid outlet duct having an end extending to a point within said second stage separator.

2,837,173
LUBRICATING SYSTEM FOR SEWING MACHINES
Heinrich K. Clecior, Karlsruhe, Germany, assignor to Industrie-Werke Karlsruhe Aktiengesellschaft, Karlsruhe, Germany
Application July 15, 1955, Serial No. 522,334
Claims priority, application Germany July 19, 1954
7 Claims. (Cl. 184—6)

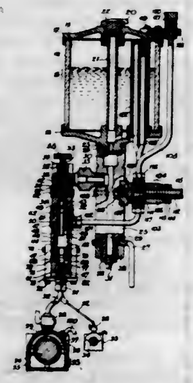


1. In a lubricating system for a sewing machine, especially industrial sewing machine, having a hollow table member, a head, a cantilever member carrying said head, and a neck connecting said table member to said cantilever member, the combination of: an oil reservoir connected to one of said members, a first shaft extending into said one member, a first pump having a suction side communicating with said oil reservoir and having a pressure side for delivering oil under pressure to parts to be lubricated in said sewing machine, said first pump being arranged for driving connection with said first shaft, a second shaft extending into the other one of said members and arranged for driving connection with said first shaft, an oil accumulating chamber arranged in said head for accumulating excessive oil, a second pump having a suction side communicating with said accumulating chamber and having a discharge side for returning the oil drawn in from said accumulating chamber to said oil reservoir, and conduit means connecting the pressure side of said first pump with the suction side of said second pump.

2,837,174
COMBINED DROP AND FLUSH OILERS
Frank J. Lyden, Manitowoc, Wis.
Application October 13, 1955, Serial No. 540,221
14 Claims. (Cl. 184—81)

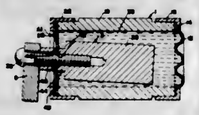
1. A combined drop and flush oiling apparatus, comprising a body having a chamber, means for feeding oil dropwise into said chamber, a discharge conduit extending downwardly from said chamber for supplying oil to

a device to be lubricated, a shut-off valve for said conduit disposed lower than said chamber, and a venting conduit extending upwardly from said chamber for accumulating



a head of flushing oil therein from said feeding means when said shut-off valve is closed, and for discharging the accumulated flushing oil through said discharge conduit when the shut-off valve is opened.

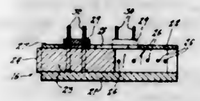
2,837,175
VIBRATION DAMPENER
Earl O. Schweitzer, Wickliffe, Ohio, assignor to The Swartwout Company, Cleveland, Ohio, an Ohio corporation
Application August 27, 1953, Serial No. 376,930
7 Claims. (Cl. 188—1)



1. A vibration dampener comprising an open ended casing, an expansible diaphragm secured to and sealing one end of said body, a member spaced from and telescopically extending into said casing from the other end thereof, a sealing diaphragm secured to the other end of said casing and to said member and sealing said other end of the casing, a viscous substance completely filling the space within said casing and surrounding the portion of the member disposed therewithin, a fulcrum element secured to said other end of casing and supporting said member in said spaced relation with said casing for permitting relative movement between said member and said casing, said fulcrum element having a flange portion adapted to be supported on said casing and a leg portion extending across said other end of the body on a transverse axis, said leg portion being connected at its ends to the flange portion and centrally to said member, said leg portion being torsionally resilient with the central part thereof being pivotally movable only about said axis whereby to limit movement of said member relative to said casing only about said axis of the leg portion.

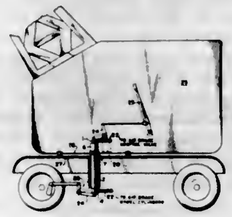
2,837,176
SAFETY DEVICE FOR AUTOMOBILES
Israel Dropkin, Brooklyn, N. Y.
Application September 8, 1955, Serial No. 533,090
2 Claims. (Cl. 188—1)

1. A braking mechanism comprising a shear pin slide bolt device having a base, a channel member secured to the base, a bar extending partly into the channel member and being slidable therein, a plurality of spaced shear pins extending across the space inside the channel member behind the bar, said shear pins being arranged in spaced relation one behind the other, said channel member having an opening in its web portion, a plate secured to the top of the bar and protruding outwardly



through the opening in the web portion and being slidable along said opening, means on the protruding portion of the plate for fastening the plate to a vehicle, said shear pins being disposed at varying distances one from another and being disposed progressively closer from the inner end of the sliding bar to the adjacent end of the channel member.

2,837,177
ROTATABLE PIPE COUPLING
Stanley Howard Edge and George Alan Jeffrey, Lincoln, England, assignors to Clayton Dewandre Company Limited, Lincoln, England, a British company
Application July 22, 1954, Serial No. 445,080
Claims priority, application Great Britain July 23, 1953
6 Claims. (Cl. 188—2)

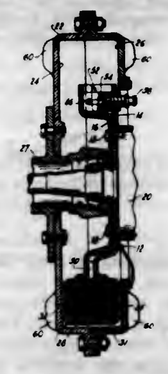


1. A combined fluid and mechanical transmission coupling between relatively rotatable structures comprising two coaxial relatively rotatable coupling parts having a fluid tight fit between them and having means for transmitting mechanical forces axially through the coupling, pipes on said structures connected respectively to said parts of the coupling, and mechanical transmission elements mounted on the respective structures and connected respectively to said parts of the coupling and supporting the coupling parts for relative rotation on an axis coincident with the axis of relative rotation of said structures and for reciprocation of the coupling axially for transmission of mechanical forces between said structures.

2,837,178
BRAKE WITH AXIALLY MOVABLE MEMBERS
Richard T. Burnett, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application July 1, 1953, Serial No. 365,377
11 Claims. (Cl. 188—73)

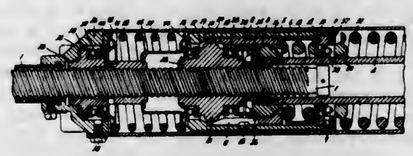
10. In a brake, a support member comprising two centrally joined stampings which are laterally spaced-apart at the periphery thereof, a plurality of fluid motors transversely received in the spaced-apart portions of said stampings and secured thereto, a plurality of friction means associated with said fluid motor and actuable thereby,

and a circular fluid pressure distributing conduit located wholly between the spaced apart portions of said stamp-



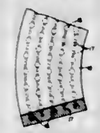
ings and extending around the periphery of said stampings to intercommunicate said cylinders.

2,837,179
AUTOMATIC SLACK ADJUSTERS
Erik Mauritz Jeppsson, Limhamn, Sweden, assignor to Svenska Aktiebolaget Bromsregulator, Malmo, Sweden, a corporation of Sweden
Application September 14, 1955, Serial No. 534,350
Claims priority, application Germany September 27, 1954
10 Claims. (Cl. 188—196)



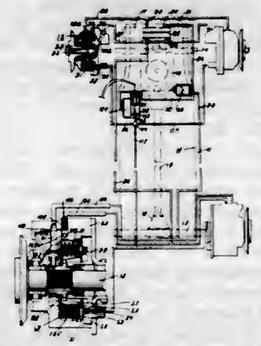
1. An automatic brake slack adjuster comprising a two-part brake rod, the first part of said brake rod being a tubular rod part, the second part of said brake rod being a threaded spindle with one end within one end of said tubular rod part, said spindle being axially displaceable in said tubular rod part, a housing around said one end of said tubular rod part, said housing being rotatable relative to said tubular rod part, a coupling member housed in said housing and threadedly engaged with said spindle for transmitting braking stress between said tubular rod part and said spindle, a tubular operating member having a seat therein and being rotatably and axially displaceable on said tubular rod part and said spindle, spring means between said housing and said tubular operating member and axially urging said operating member toward the other end of said tubular rod part into a normal axial end position in relation thereto and holding said housing and said coupling member in frictional engagement, a feed member threadedly engaged with said spindle and housed in said tubular operating member and abutted by said seat in said normal axial end position of said operating member and movable on said spindle away from said tubular rod part when not abutted by said seat in said tubular operating member on axial displacement of the latter against the force of said spring means, means including a slip clutch frictionally connecting said housing to said tubular rod part and exerting a limited resistance to rotation between them, and said housing being frictionally coupled by the force of said spring means to said operating member for rotation together with said operating member in said normal axial end position thereof, whereby said housing and said coupling member therein are taken along in a rotation of said operating member on said brake rod due to slipping of said slip clutch and said spindle and said tubular rod part may be axially adjusted in relation to one another without rotating either of them in relation to the other.

2,837,180
HEAT ABSORBING BRAKE MEANS
Edward T. Armstrong, Passaic, N. J., assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application June 24, 1954, Serial No. 439,066
5 Claims. (Cl. 188—218)



1. Heat absorbing brake means comprising an impervious closed body of impervious metal defining a multiplicity of cells therewithin, each cell containing water filling said cell under a pressure of about 3200 p. s. i. and with the water being under greater than critical pressure within the range of temperatures of the brake means in use.

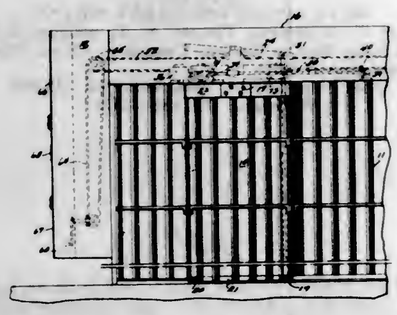
2,837,181
FLUID COOLING SYSTEM FOR LIQUID COOLED FRICTION BRAKES
Oliver K. Kelley, Bloomfield Hills, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 22, 1955, Serial No. 529,670
7 Claims. (Cl. 188—264)



1. Brake mechanism for a vehicle, comprising in combination, a vehicle wheel including brake means for the wheel, pump means within the wheel to circulate cooling fluid through said brake means, means providing a heat exchange circuit means including heat exchange means externally of the wheel connected with said pump and brake to effect cooling of said circulating cooling fluid, and flow control valve means carried by said wheel re-

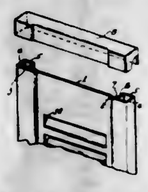
sponsive to the temperature of cooling fluid from the brake means to effect flow circulation of the cooling fluid from the brake means to the pump means in by-pass relation to the external heat exchange circuit and heat exchange means when the temperature of the cooling fluid from the brake means is below a predetermined value.

2,837,182
KEYLESS LOCKING AND OPERATING SYSTEMS FOR CELL DOORS
Loyd J. White, San Antonio, Tex., assignor to Southern Steel Company, San Antonio, Tex., a corporation of Texas
Continuation of application Serial No. 346,581, April 3, 1953. This application August 12, 1957, Serial No. 678,266
6 Claims. (Cl. 189—7)



1. A system for keyless and remote control operation of a series of sliding cell doors to automatically and selectively lock and unlock and impart closing and opening movement to each cell door individually, comprising a unitary power operated mechanism for each door including a screw shaft positioned above and extending across the door opening; a ball bearing nut mounted on said shaft for linear travel thereon when said shaft is rotated; a reversible electric motor directly coupled to said shaft for rotating it in either direction; a remote control switch for the motor; a vertically movable locking bar for locking the door in its open and closed positions; a rocker member pivotally mounted on the door carriage for rocking movement about a horizontal axis perpendicular to the plane of the door, said rocker member being slidably connected to operate said locking bar and having a depending operating arm fixedly connected thereto; an actuating member pivotally connected to said nut for oscillation about a vertical axis and to said operating arm for loose oscillation about a horizontal axis; and limit switches at opposite ends of the door opening connected to stop said motor after the door has reached either one of its locked positions, the construction and arrangement being such that when said remote control switch is operated to cause said motor to rotate said screw shaft in one direction said nut will be caused to travel longitudinally along said screw shaft and actuate said rocker member about its pivot to unlock said locking bar, said door will be propelled from its locked open position to its locked closed position and said rocker member will be actuated about its pivot to lock said locking bar, and when said remote control switch is operated to cause said motor to rotate said screw shaft in the opposite direction said nut will be caused to travel longitudinally along said screw shaft and actuate said rocker member about its pivot to unlock said locking bar, said door will be propelled from its locked closed position to its locked open position and said rocker member will be actuated about its pivot to lock said locking bar.

2,837,183
SHEET METAL DOOR
Jordan L. Heiman, St. Louis, Mo.
Application May 18, 1955, Serial No. 509,277
7 Claims. (Cl. 189—46)



1. A door comprising a sheet metal panel having hollow tubular side bounding edges formed integrally therefrom, and an approximately channel-shaped cross-section cap closed at both ends and extending across each end of said door and slidably superimposed on said tubular portions, the opposed flanges of said cap being substantially of equal length.

2,837,184
BEADING FASTENER
Eric Birger Fernberg, Northwood, England
Application January 26, 1956, Serial No. 561,570
3 Claims. (Cl. 189—88)



1. An assembly of a fastener, an edge and a beading of U-section formed with one limb longer than the other and with internal rims, wherein the fastener comprises a single strip of spring metal bent to U-shape so as to have longer and shorter limbs and a base, formed in at least one limb prongs directed inwardly and towards the base, formed in the longer limb a catch directed outwardly and away from the base and formed in the base a tongue directed outwardly of the fastener, the fastener being engaged over the edge, and the beading over the fastener, the rims of the beading being located under the catch and shorter limb respectively, the prongs of the fastener biting into the edge and the tongue bearing against the inside of the beading.

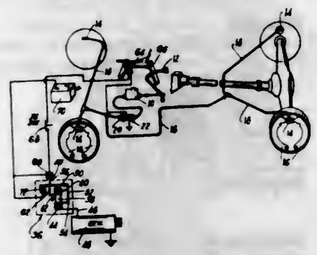
2,837,185
SALESMAN'S SAMPLE CASE WITH OUTSIDE GUSSETED POCKET
George G. Guenther, North Bergen, N. J.
Application May 20, 1957, Serial No. 660,401
1 Claim. (Cl. 190—51)



A salesman's sample case comprising a hollow casing rectangular in configuration and cross section having stiff side, end and bottom walls and an operable top, a handle on the top, an inner wall section secured along three sides of one of said side walls and along the bottom wall, the remainder of said inner wall section being unattached, and with said one side wall forming a pocket therebetween, said one side wall having a horizontally disposed slit along and adjacent its top edge and having a vertically disposed slit communicating with said horizontally disposed slit at one end thereof, means for expansibly connecting the edge walls of said vertical slit, slidable means for connecting and disconnecting the edge walls of the horizontal slit, and an elongated flexible

rectangular strip interposed and secured between one end of said one side wall and the adjacent end of the inner side wall section, said strip extending the height of said one side wall and extending laterally into the pocket for a short distance thereby dividing the pocket into several spaces for separating papers and the like.

2,837,186
BRAKE ANTI-CREEP MECHANISM
Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application November 17, 1954, Serial No. 469,426
6 Claims. (Cl. 192—3)



1. In an automotive vehicle including a generator, a grounded battery, a generator cut out relay, electrical means interconnecting the battery, relay and generator, wheel brakes, and means for operating said brakes including a brake pedal; anti-creep means cooperating with the brake operating means and operative to hold the brakes applied once they are applied by an operation of the brake pedal and despite a release of said pedal, said anti-creep means including an electrically operated valve, and means for controlling the operation of said valve including means actuated by the relay.

2,837,187
SEMI-AUTOMATIC TWO-SPEED COASTER BRAKE FOR BICYCLES AND THE LIKE
Edwin Elliott Hood, Elmira, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware
Application September 4, 1956, Serial No. 607,750
10 Claims. (Cl. 192—6)



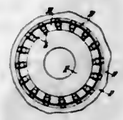
1. In a semi-automatic two-speed coaster brake for velocipedes and the like, a stationary axle, an anchor member fixed thereon, a low-speed screw shaft rotatably mounted on the axle, a driving member and high-speed screw shaft rotatably mounted on the low-speed screw shaft, speed-reducing gearing connecting the driving member to the low-speed screw shaft, a wheel hub rotatably mounted on the anchor member and the driving member, having high-speed and low-speed interior clutch surfaces, a low-speed driving clutch member threaded on the low speed screw shaft for engagement with the hub responsive to forward rotation of the low-speed screw shaft, a high-speed driving clutch member similarly threaded on the high-speed screw shaft, and means under the control of the operator for holding the high-speed driving clutch member out of engagement with the hub comprising a selector sleeve rotatably mounted on the high-speed screw shaft in the path of engaging movement of the high speed driving clutch member, said clutch member and selector sleeve having equally spaced cooperating projections which, when brought into registry, prevent said clutch member from engaging the hub, said selector sleeve having a set of laterally extending ratchet teeth, and means cooperating with said teeth to index said selector sleeve with respect to the high-speed driving clutch member responsive to relative backward and forward movement of the high-speed screw shaft.

2,837,188
ONE-WAY CLUTCH
Leland D. Cobb, Forestville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 18, 1954, Serial No. 411,052
7 Claims. (Cl. 192—45.1)



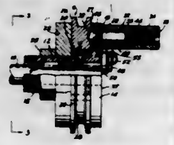
1. A one-way clutch for driving connection between relatively rotatable annular race members comprising a plurality of circumferentially spaced tiltable grippers arranged to be shifted simultaneously into and out of engagement with the race members, a pair of relatively rotatable annular cages arranged to be received between members and in radially spaced relation to both of said race members and having peripherally spaced openings, the ends of said grippers extending through corresponding openings in each cage and radially beyond each cage for race member engagement, an annular flange on one cage journalled on the other cage to provide for relative coaxial cage rotation, spaced spring members secured to the flange and respectively urging the grippers towards clutch engaging positions, and interfitting portions on the springs and grippers for demountably holding the grippers in unit-handling relation with both cages.

2,837,189
SPRAG CLUTCH
René E. Sauzedde, Terryville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 18, 1954, Serial No. 412,757
10 Claims. (Cl. 192—45.1)



1. A sprag type clutch including concentric cylindrical races, a plurality of sprags having outwardly projecting lugs formed on opposite ends thereof, the sprags having substantially parallel transverse sides, said lugs including side surfaces parallel to the transverse sides of said sprags, annular spring means engaging said lugs and retaining said sprags in circumferentially spaced relation to each other between said races and in biased engagement with said races, said spring means including a plurality of circumferentially spaced loops having substantially straight sides respectively fitting against the said surfaces of said lugs, said straight portions of said loops tiltably urging said sprags in engagement with said races.

2,837,190
OVERLOAD RELEASE CLUTCH
Walter L. Blakeslee, Youngsville, Pa.
Application November 16, 1954, Serial No. 469,081
2 Claims. (Cl. 192—56)



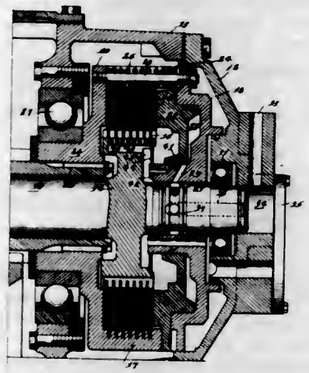
1. In an overload release clutch, a hub having an enlarged diameter fixed clutch disc thereon, a shoulder on the hub spaced from said fixed disc and facing away from said fixed disc, a collar secured on the hub and having an inward side engaging said shoulder, a rotary clutch disc circumposed on said hub and confined between said collar and the fixed clutch disc, said collar being positioned from said fixed clutch disc a distance substantially equal to the width of said rotary clutch disc, said rotary clutch disc having an outer side provided with a socket, and spring-pressed detent means on said fixed clutch disc releasably engageable in said socket, said detent means comprising a tubular guide mounted on and traversing said fixed clutch disc, said guide having an inner end and an outer end, a ball confined in the guide at the inner end thereof, a plunger working in the guide, said plunger having an inner end engaging said ball and an outer end, a plug threaded in the outer end of the guide, and an expanding spring compressed between said plug and the outer end of the plunger, said fixed clutch disc having an outer side, and said guide having a side wall provided with an arcuate slot located at the outer side of the fixed clutch disc, a latch arm pivoted on the outer side of the fixed clutch disc having a free end arranged to pass through said slot and engage the plunger, spring means acting between the fixed clutch disc and the latch arm and urging the free end of the latch arm toward the plunger, said plunger having a shoulder on its inner end with which the free end of the latch arm is engageable to hold the plunger in an outwardly retracted position.

2,837,191
CENTRIFUGAL POWDER COUPLINGS
Arthur Terry III, Newtown, Conn., assignor to Powdermatic Corporation, New York, N. Y., a corporation of New York
Application October 5, 1955, Serial No. 538,744
3 Claims. (Cl. 192—58)



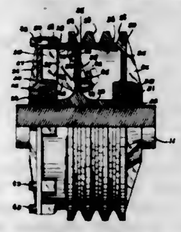
1. A centrifugal powder coupling comprising a rotatable casing serving to contain a quantity of powder and enclosing a rotor mounted coaxially with said casing, in which the rotor has, on each of its sides, a plurality of regularly spaced corrugations, protrusions between said corrugations on at least one of said surfaces being closely adjacent an opposed surface of the casing to provide a series of restricted spaces in which during operation powder may accumulate to provide a driving connection between the rotor and the casing, the said corrugations extending substantially radially of the rotor and each having at least one of its edges located in or inclined to a plane perpendicular to the axis of the rotor, a first shaft on which the casing is mounted, a second shaft on which the rotor is mounted, the rotor laterally movably mounted within the casing so as to move laterally as well as rotatably with respect to each other to permit self-alignment during operation.

2,837,192
OIL PRESSURE ACTUATED CLUTCH
Henry J. Dunkelow, Racine, Wis., assignor to Twin Disc Clutch Company, Racine, Wis., a corporation of Wisconsin
Application April 26, 1954, Serial No. 425,577
2 Claims. (Cl. 192—85)



1. An oil pressure actuated clutch comprising a plurality of annular, friction plates movable between released and engaged positions, a cylinder, a piston shiftable in the cylinder to engage the plates, means for supplying oil under pressure to the cylinder to actuate the piston, separate passage means in the piston and cylinder wall, respectively, which register to conduct pressure oil from the cylinder when the piston is in clutch release position, and means for collecting and delivering oil supplied by the passage means to the inner edges of the friction plates for flow between the respective opposed surfaces thereof, flow through the registering passage means being interrupted when the piston is moved to engaging position.

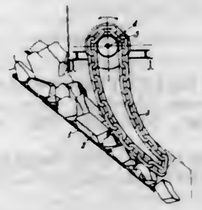
2,837,193
HYDRAULIC DRIVE WITH CENTRIFUGAL CONTROL FOR SUBSTANTIALLY CONSTANT OUTPUT SPEED
Stuart Wilder, Jr., Columbus, Ind., assignor to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
Application April 13, 1955, Serial No. 501,028
15 Claims. (Cl. 192—104)



1. A device of the class described comprising a shaft member, a housing member rotatably mounted on said shaft member, said housing member providing a liquid-tight chamber therewithin, a first clutch element having a

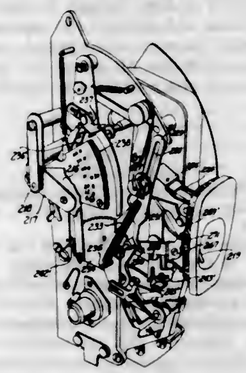
first set of clutch pieces disposed within said chamber in rotatably fixed relation with respect to one of said members, and a second clutch element comprising a second set of clutch pieces radially disposed about said shaft member, each of the clutch pieces of said second set being pivotally mounted within said chamber in rotatably fixed relation with respect to the other of said members, the center of gravity of each of said pivotally mounted clutch pieces being offset from its pivotal axis in an axial direction with respect to said shaft member, said pivotally mounted clutch pieces being yieldably biased toward said first clutch element.

2,837,194
FEEDING AND CONTROLLING THE FLOW OF GRANULAR MATERIALS
William Ross, Surbiton, England
Application November 16, 1956, Serial No. 622,580
Claims priority, application Great Britain July 30, 1956
7 Claims. (Cl. 193—32)



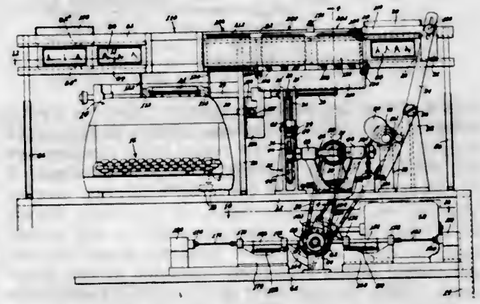
6. Apparatus for controlling the flow of granular material comprising a set of endless chains suspended from a driving drum in such a way as to control its fall, and means on the drum surface for engaging with the chain links and for holding them in planes inclined to the drum surface at approximately 45° while they are in contact with the drum surface, whereby the adjacent links are oppositely inclined to the drum surface at substantially equal angles, said projecting members being so arranged on the drum surface that the links of adjacent chains are staggered with respect to one another.

2,837,195
COIN-OPERATED DEVICE
Robert J. Ballman, Springfield Township, Hamilton County, Ohio, assignor to The Herschede Hall Clock Company, Cincinnati, Ohio, a corporation of Ohio
Application November 30, 1954, Serial No. 472,012
5 Claims. (Cl. 194—72)



1. A coin-operated device which comprises a member having a coin slot and a coin passageway for receiving a coin from the slot, a gate in said slot actuatable by a coin as the coin is inserted into the slot, a coin stop in said passageway below the gate for holding the coin at a predetermined position in the passageway, a trigger actuatable by the coin, a trigger carrier supporting the trigger and mounted to swing with the trigger between an advanced position in which the trigger is engageable with the coin on said stop and a retracted position, means connected to the gate for actuating the trigger carrier from advanced position to retracted position when a coin is in the slot, a latch, means for connecting said latch to the trigger carrier to hold the trigger carrier in retracted position, means for urging the gate to closed position, the gate being adapted to drive the coin toward the stop when the gate closes, means connected to the gate for engaging the latch to release the latch when the gate is closed to release the trigger carrier, and means for urging the trigger carrier to trigger advanced position to bring the trigger into engagement with the coin, whereby the trigger is actuated thereby.

2,837,196
STENCIL-CHARACTER-FORMING APPARATUS
Harmon P. Elliott, Watertown, Mass.
Application January 24, 1957, Serial No. 635,990
11 Claims. (Cl. 197—130)



10. Stencil-character-forming apparatus comprising track means for guiding stencils in succession to a transfer station, mechanism, including a platen roll, arranged below said track means, a transfer carriage having stencil receiving means thereon and movable between said transfer station and said platen roll, means for effecting a movement of said carriage from said platen roll to said transfer station in response to rotation of said platen roll in one direction and for effecting a movement of said carriage from said transfer station to said platen roll in response to rotation of said platen roll in the opposite direction, and mechanism operative only when said carriage is at said transfer station for advancing a stencil from said track means into said receiving means on said carriage.

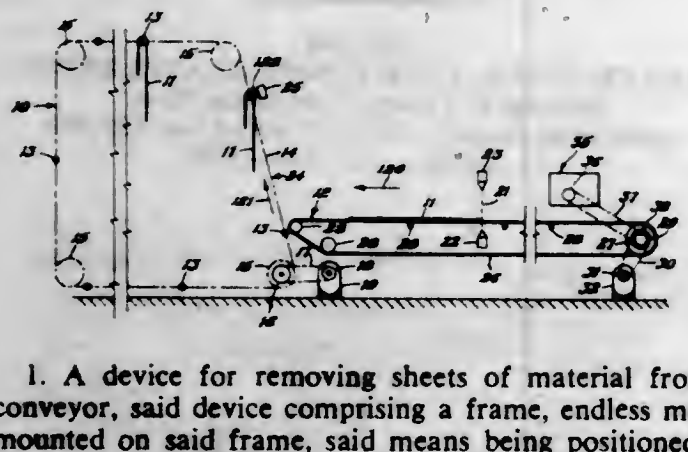
2,837,197
GATHERING ARM FOR UNDERGROUND LOADERS
Hamilton M. Albers, Palos Heights, Ill., assignor, by mesne assignments, to Poor & Company, Chicago, Ill., a corporation of Delaware
Application March 27, 1956, Serial No. 574,266
1 Claim. (Cl. 198—10)



A material gathering arm for universal use at either the right or left side of a mine loader conveyor, com-

prising, a body, a flat top wall, spaced alined integral conical teeth on said flat top wall, parallel side walls on the body pierced at their rear end by a fastening receiving slot, a bottom wall, a transverse rib on said bottom wall, laterally spaced ribs extending forwardly and upwardly from the transverse rib, a tip including a portion of said flat top wall and having a square terminal edge and flat side faces converging from their junction with the parallel side walls to said edge, said tip having an upwardly inclined flat bottom face whose inner end begins with the terminal ends of said laterally spaced ribs.

2,837,198
COMPUTER DEVICE FOR LEATHER STACKER
Roger L. Griffin, Manchester, Mass., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois
Application December 10, 1956, Serial No. 627,352
15 Claims. (Cl. 198—21)



1. A device for removing sheets of material from a conveyor, said device comprising a frame, endless means mounted on said frame, said means being positioned on said frame to have a generally vertical run positioned at the discharge end of said conveyor, a carrying member supported on said endless means for movement thereby along said run, power means connected to said endless means to move said member upwardly along said run, and control means operatively connected to said power means to stop the movement of said endless means when said member is immediately adjacent the end of said conveyor in a position that a sheet from said conveyor will pass over said member, said control means including computing means to measure the length of each sheet moving along said conveyor, said control means being operatively connected to said power means to start the movement of said endless means when a portion of a sheet representing a predetermined proportion of the total length of said sheet has passed over said member.

2,837,199
BOTTLE FEED MECHANISM FOR WASHING MACHINES
Archie E. Ladewig, Waukesha, Wis., assignor to Archie Ladewig Co., Waukesha, Wis., a corporation of Wisconsin
Application January 13, 1956, Serial No. 558,920
7 Claims. (Cl. 198—27)

1. In a loading mechanism for a washer having bottle conveying pockets for receiving the bottles in approximately horizontal condition, a conveyor deck operable to advance bottles resting in upright position thereon horizontally toward the successive pockets of the washer, a transfer member having a lower forwardly projecting end shelf and being interposed between the delivery end of said deck and the empty receiving pockets and periodically movable from an inclined position with its front lower end shelf beneath said deck delivery end to an approximately horizontal position in alinement with said receiving pockets, a stationary guide plate having a rearwardly and downwardly inclined lip projecting beyond the delivery shelf of said deck and terminating adjacent to but slightly above said lower member end, means for periodically moving said member to elevate the successive bottles deposited thereon by said deck and guide

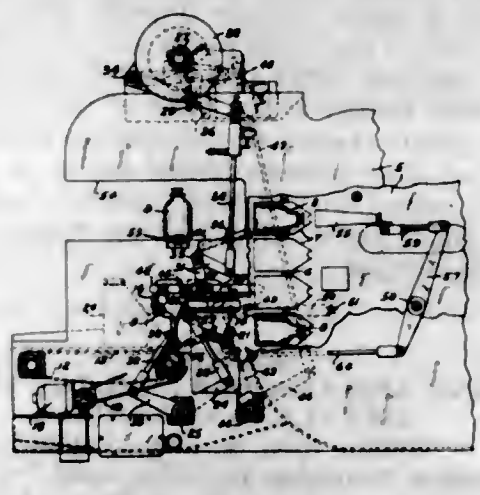
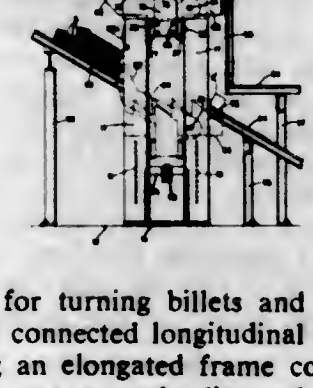


plate from partially tilted position into alinement with said receiving pockets, and means for transferring the elevated bottles into said pockets.

2,837,200
BAR AND BILLET TURNING APPARATUS
Frederick H. Evans, Massillon, Ohio, assignor to Evans Enterprises, Inc., Massillon, Ohio, a corporation of Ohio
Application July 16, 1956, Serial No. 597,976
15 Claims. (Cl. 198—33)

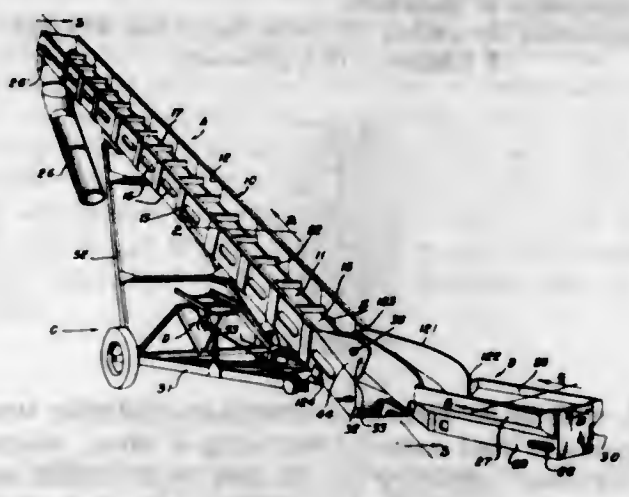


5. Apparatus for turning billets and bars having angularly arranged connected longitudinal faces, said apparatus comprising an elongated frame comprising spaced pairs of uprights, transversely disposed turn plates connected to the upper ends of said uprights, each turn plate having a similar series of notches in its upper edge adapted to receive billets or bars with one longitudinal face thereof upward, a plurality of toothed lift plates vertically movably mounted within the frame, and means for vertically reciprocating the lift plates for progressively moving the billets or bars through the series of notches in the turn plates and successively turning each of the other longitudinal faces thereof upward, and pivoted lift arms associated with the lift plates for feeding a billet or bar to the turn plates with each operation of the lift plates.

2,837,201
ELEVATOR
Leondras A. Warren, Omaha, Nebr., assignor to Valley Manufacturing Company, Valley, Nebr., a corporation of Nebraska
Application July 14, 1953, Serial No. 367,896
4 Claims. (Cl. 198—98)

1. In a material handling apparatus including a hopper assembly and an endless elevator conveyor assembly, means for pivotally mounting said hopper assembly on said conveyor assembly and for counterbalancing the weight of said hopper assembly so that pivotal movement thereof with respect to said conveyor assembly can be effected with little manual effort, said means comprising a pivot member rigidly carried by one of said assemblies and journalled in the other of said assemblies, said pivot

member being apertured through its pivotal axis to receive a shaft forming a part of a conveyor means carried by said one assembly, and a torsion spring having an



inner end fixed with respect to said pivot member, said torsion spring encircling the axis of said pivot member and having an outwardly extending end connected with the other of said assemblies.

2,837,202

SUSPENSION TROUGHING IDLER

George Baechli, New Philadelphia, Ohio, assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application August 29, 1955, Serial No. 531,185
3 Claims. (Cl. 198—192)



1. A suspension belt-troughing idler structure including spaced brackets supporting bearings spaced more widely than the width of a belt to be supported and guided and a flexible element extending between and rotatably supported by said bearings and having idler rollers fixed to it, said flexible element being a wire cable and the idler rollers fixed to the flexible element being bonded on the cable, and the cable having a sheath of the same material as and of one piece with said idler rollers bonded to and covering the same between said rollers, said flexible element having end sleeves supported by said bearings, respectively, and said bearings having between them and said sleeves a pair of coaxial sleeves, respectively, each pair having between them a resilient sleeve fixed against longitudinal movement with respect to them and under radial compression between them for limiting the effect of radial vibration of said flexible element upon said bearings, and means for preventing axial movement of said end sleeves inwardly with respect to the inner ones of said coaxial sleeves, respectively, when the idler structure is loaded thereby limiting the effect of axial vibration of said flexible element upon said bearings.

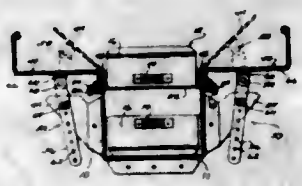
2,837,203

HINGE CONSTRUCTION

Esral M. Reeser, Burlington, Iowa, assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin

Application March 11, 1953, Serial No. 341,743
5 Claims. (Cl. 198—204)

1. In an elevator comprising an elongated channel-shaped body portion provided with an outwardly-extending flange, and a floor extending transversely of said body portion and secured to said flange, an improvement comprising an elongated hinge member co-extensive with said body portion and secured uprightly to said floor adjacent said flange, said hinge member provided with a saddle comprising a horizontal portion and an adjoining vertical portion, an elongated side sheet having a rolled portion at the edge thereof co-extensive with said hinge portion and resting in said saddle, said hinge member and said side sheet provided with longitudinally spaced mutually-co-extensive openings in said saddle and said rolled portion, a removable hinge connecting-strip inde-



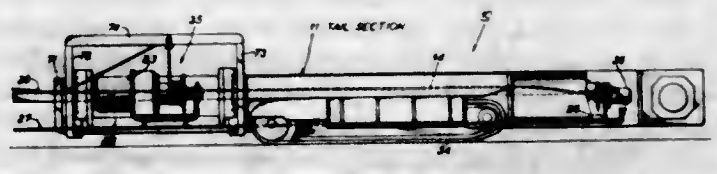
pendent of said hinge member and fitted into said openings, secured to said flange and provided with a rolled portion co-axial with said first-mentioned rolled portion, said connecting-strip secured to said hinge member, and a hinge pin co-extensive with said body portion and passing through said rolled portions of said side sheet and said connecting-strip, maintaining said rolled portions in co-axial relationship.

2,837,204

TENSIONING DEVICE FOR EXTENSIBLE CONVEYORS OR THE LIKE

Roy F. Lo Presti, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application October 28, 1955, Serial No. 543,306
12 Claims. (Cl. 198—208)



1. In an endless conveyor, a head section and a tail section, flexible strand means extending between said sections, and means for imposing tension on said strand means comprising a weighted carriage supported on one of said sections and movable in a vertical direction with respect thereto, means for guiding said carriage in its movement, a winch including a drive motor therefor, said winch being mounted on said carriage and having said strand means wound on said winch, and means for driving said winch in a direction to pay off said strand means when said carriage has reached an upper limit of travel and for driving said winch in a direction to wind said strand means thereon when said carriage has reached a lower limit of travel, a limit switch disposed near a limit of travel of said carriage in either direction, a circuit controlled by said limit switches for driving said motor in a direction to maintain said carriage between said upper and lower limits of travel, and means for controlling the speed of said motor.

2,837,205

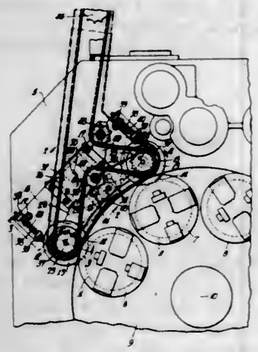
CHUCK POSITIONING MEANS

William B. Retz, Plainville, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut

Application October 1, 1954, Serial No. 459,592
7 Claims. (Cl. 198—210)

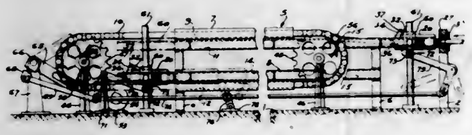
1. In a chuck positioning means, a driving member for the chuck, means moving said driving means continuously to rotate said chuck, a V-groove in the chuck, a

tapered part on said driving member to fit the said V-groove for driving said chuck, said V-groove at one angular position being enlarged so as to be free of the



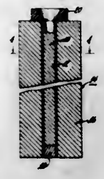
driving means whereby the chuck will be stopped in a predetermined position in its rotation by said driving member.

2,837,206
DRAW BENCH
Edwin J. McIlvried, Medina, Ohio, assignor to The Vaughn Machinery Company, Cuyahoga Falls, Ohio, a corporation of Ohio
Application December 2, 1953, Serial No. 395,775
7 Claims. (Cl. 205—3)



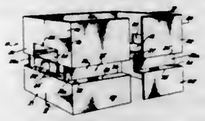
3. In drawing apparatus; a die; a pair of generally parallel tracks, one of which is longitudinally aligned with said die; at least two carriages each equipped with workpiece-gripping jaws; an endless drive chain trained over sprockets wheels to provide oppositely moving courses generally parallel to said tracks; draw bars pivotally connected to the respective carriages and to said endless chain at longitudinally spaced intervals such that, while one carriage is moved by said chain along said one track in a direction away from said die, the other carriage is moved by said chain along the other track in a direction toward said die; a carriage transfer mechanism comprising two track sections each disposed adjacent an end of said tracks, and means supporting the respective track sections for movement transversely from a position registering with one end of said one track to a position registering with the corresponding end of the other track and from a position registering with the other end of said other track to a position registering with the corresponding end of said one track, said track sections constituting alternate extensions of said tracks into which said carriages move for transfer from one track to the other; and jaw-actuating means operatively connected to said draw bars for gripping a workpiece responsive to swinging of the draw bars in one direction as said chain passes around one sprocket wheel and for releasing a drawn workpiece responsive to swinging of said draw bars in the opposite direction as said chain passes around another sprocket wheel.

2,837,207
GETTER STRUCTURE
Ira S. Solet, New York, N. Y., and Robert L. Waer, Roseland, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application December 29, 1954, Serial No. 478,352
5 Claims. (Cl. 206—.4)



4. A method of making an aluminum-clad core structure having a core material including a metal selected from the class consisting of alkaline earth metals and alkaline earth metal alloys and characterized in being reactive with the ordinary atmosphere, and comprising the operations of heating said material to a temperature below the melting point thereof and in an atmosphere at below ordinary atmospheric pressure whereby said material is substantially degassed, further heating said material in an atmosphere of an inert gas at a pressure at least as high as that of the vapor pressure of said material and to a temperature sufficient to melt said material whereby said material is melted while evaporation of said material is reduced, still further heating said material in said last named atmosphere for achieving a pouring temperature of said material which is above the melting point thereof, pouring said material in an inert gas at said last named pressure into an aluminum container which has a melting point below said melting point while drawing heat from the inside surface of said container through said container to maintain said inside surface at a temperature below the melting point thereof and thereby preventing any alloying between said core material and said container, cooling said material in an inert gas to a temperature below the melting point of said container, and mechanically working said container to remove any gases entrapped therein with said core material and to close an opening in said container, whereby an aluminum-clad core structure is provided having a substantial freedom from entrapped gases.

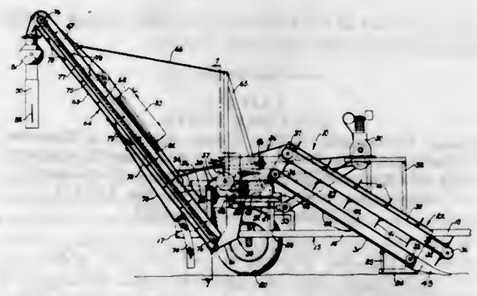
2,837,208
SHIPPING SWING SUSPENSION FOR FRAGILE ARTICLES
Daniel J. Lingenfelter, Glendale, Calif., assignor to Polyfab Company, Los Angeles, Calif., a corporation of California
Application April 12, 1956, Serial No. 577,840
19 Claims. (Cl. 206—46)



1. In combination: a container having vertical side walls and a bottom wall; a suspension device fitting within said container and providing vertical side wall portions in face-to-face engagement with the vertical side walls of said container and thereby reinforcing said side walls of said container, said suspension device being folded vertically and providing vertical corners at said folds, said device having a pair of spaced upper and lower horizontal bends on its sides at median positions and extending peripherally around the device, and also having a second pair of horizontal spaced bends between said upper and lower bends, said device being provided at said corners

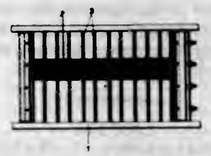
with openings between said upper and lower bends, the upper and lower vertical portions of each side of said device being vertically collapsed toward each other along said bends and forming an inwardly projecting horizontal channel member on the respective side of said device and thereby providing an outwardly faced horizontal recess, the portion of each channel member between said second pair of bends forming an upstanding narrow wall connecting narrow transverse ledges between said upstanding narrow wall and said upper and lower bends, said openings accommodating adjacent end portions of said narrow wall and ledges in collapsed relation; and article-carrying means connected with ledges at opposite sides of said device.

2,837,209
RAISIN GATHERING APPARATUS
Merle W. Forbes, Fresno, Calif.
Application January 18, 1954, Serial No. 404,696
12 Claims. (Cl. 209—75)



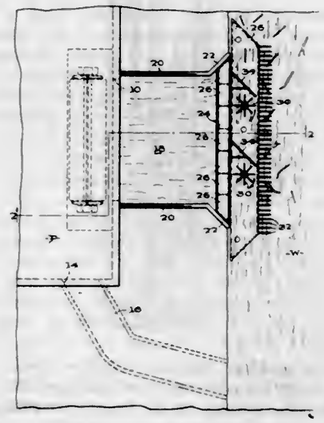
12. In an apparatus for segregating materials from wrappings in which they are held, which apparatus has a support frame, a table mounted for movement in the frame adapted to support wrapped materials thereon, drive means mounted in the frame connected to the table for vigorously reciprocating the table whereby wrapped materials on the table are shaken to separate the materials from their wrappings, an elongated member rotatably mounted in the frame adjacent to the table having fingers extended therefrom for snagging wrappings on the table, and means connected to the elongated member for rotating the member to bring the fingers into engagement with the wrappings for removal of the latter from the table.

2,837,210
OSCILLATING SIEVES, SCREENS OR THE LIKE
Rudolf Ackert, Salzgitter-Steterburg, and Karl Klaeb, Salzgitter-Lebenstedt, Germany
Application May 20, 1955, Serial No. 509,927
In Germany June 27, 1949
Public Law 619, August 23, 1954
Patent expires June 27, 1969
3 Claims. (Cl. 209—400)



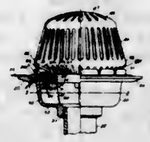
1. An oscillating split screen for separating small sized, damp and sticky particles, such as coal, coke, and ores, from one another, said screen comprising, in combination, a frame, a plurality of rubber strips arranged in said frame substantially parallel with one another, and a plurality of cross bridges arranged in said frame at a distance from one another, each of said cross bridges being provided at one edge thereof with apertures for said rubber strips.

2,837,211
DEBRIS REMOVER FOR POWER PLANT INTAKES
James Millard Everson, Brilliant, Ohio
Application February 2, 1955, Serial No. 485,728
9 Claims. (Cl. 210—154)



1. A debris remover useful in combination with a hydraulic power plant having an intake mouth and a discharge mouth comprising: a wall extending outwardly from each side of said intake mouth to define a channel from said intake mouth into a body of water, a floating barrier extending between the outer ends of said walls, paddle wheels rotatably mounted on the outer side of said barrier, and means for driving said paddle wheels to create a current in said body of water to direct floating debris away from said floating barrier and into the path of water expelled from said discharge mouth.

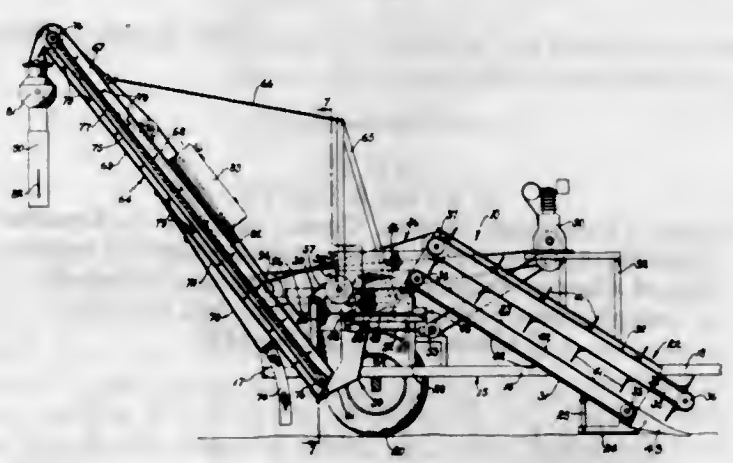
2,837,212
SURFACE DRAIN
John H. Schmid, Westfield, N. J., assignor to J. A. Zurn Mfg. Co., Erie, Pa., a corporation of Pennsylvania
Application February 10, 1954, Serial No. 409,388
8 Claims. (Cl. 210—166)



1. A surface drain for handling large quantities of water comprising an open cup shaped reservatory, said reservatory having a generally flat bottom, a discharge outlet in said bottom, side walls extending upwardly from said bottom, said discharge outlet being substantially smaller in transverse cross sectional area than the transverse cross sectional area of said reservatory, and spaced, radially extending baffles attached to the inside of said reservatory, said baffles being spaced along the inner periphery of said reservatory and extending parallel to

with openings between said upper and lower bends, the upper and lower vertical portions of each side of said device being vertically collapsed toward each other along said bends and forming an inwardly projecting horizontal channel member on the respective side of said device and thereby providing an outwardly faced horizontal recess, the portion of each channel member between said second pair of bends forming an upstanding narrow wall connecting narrow transverse ledges between said upstanding narrow wall and said upper and lower bends, said openings accommodating adjacent end portions of said narrow wall and ledges in collapsed relation; and article-carrying means connected with ledges at opposite sides of said device.

2,837,209
RAISIN GATHERING APPARATUS
Merle W. Forbes, Fresno, Calif.
Application January 18, 1954, Serial No. 404,696
12 Claims. (Cl. 209—75)

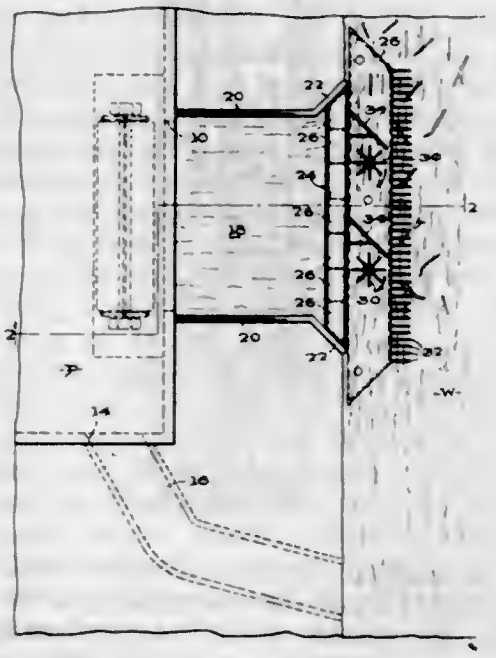


12. In an apparatus for segregating materials from wrappings in which they are held, which apparatus has a support frame, a table mounted for movement in the frame adapted to support wrapped materials thereon, drive means mounted in the frame connected to the table for vigorously reciprocating the table whereby wrapped materials on the table are shaken to separate the materials from their wrappings, an elongated member rotatably mounted in the frame adjacent to the table having fingers extended therefrom for snagging wrappings on the table, and means connected to the elongated member for rotating the member to bring the fingers into engagement with the wrappings for removal of the latter from the table.

2,837,210
OSCILLATING SIEVES, SCREENS OR THE LIKE
Rudolf Ackert, Salzgitter-Steterburg, and Karl-Klaeb, Salzgitter-Lebenstedt, Germany
Application May 20, 1955, Serial No. 509,927
In Germany June 27, 1949
Public Law 619, August 23, 1954

bination, a frame, a plurality of rubber strips arranged in said frame substantially parallel with one another, and a plurality of cross bridges arranged in said frame at a distance from one another, each of said cross bridges being provided at one edge thereof with apertures for said rubber strips.

2,837,211
DEBRIS REMOVER FOR POWER PLANT INTAKES
James Millard Everson, Brilliant, Ohio
Application February 2, 1955, Serial No. 485,728
9 Claims. (Cl. 210—154)

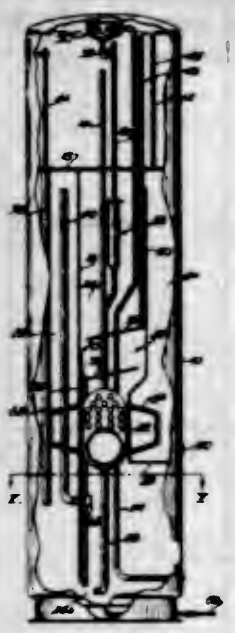


1. A debris remover useful in combination with a hydraulic power plant having an intake mouth and a discharge mouth comprising: a wall extending outwardly from each side of said intake mouth to define a channel from said intake mouth into a body of water, a floating barrier extending between the outer ends of said walls, paddle wheels rotatably mounted on the outer side of said barrier, and means for driving said paddle wheels to create a current in said body of water to direct floating debris away from said floating barrier and into the path of water expelled from said discharge mouth.

2,837,212
SURFACE DRAIN
John H. Schmid, Westfield, N. J., assignor to J. A. Zurn Mfg. Co., Erie, Pa., a corporation of Pennsylvania
Application February 10, 1954, Serial No. 409,388
8 Claims. (Cl. 210—166)

the axis of said reservatory, said baffles terminating adjacent the outside edge of said outlet and extending upwardly and terminating near the top of said reservatory.

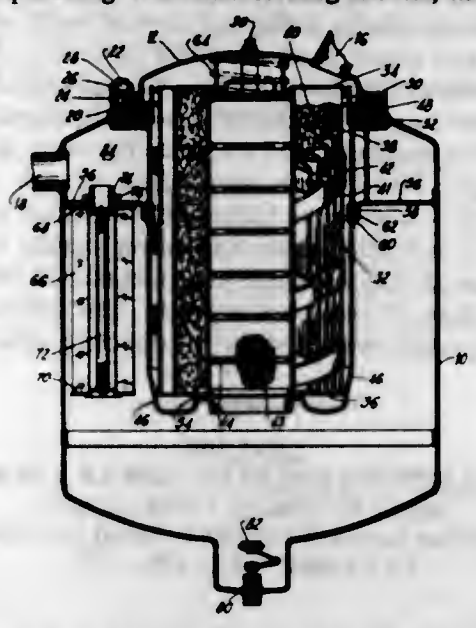
2,837,213
SEPARATOR FOR OIL, GAS AND WATER
Forrest Lee Murdock, Sr., Tulsa, Okla.
Application May 7, 1956, Serial No. 583,202
7 Claims. (Cl. 210—187)



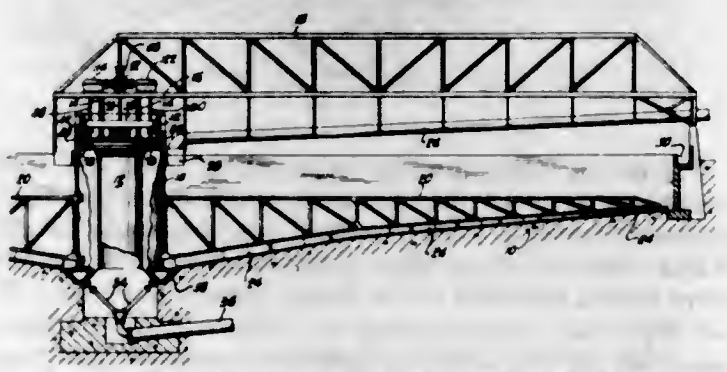
1. In an emulsion treater, a hollow shell; a vertical pre-heat baffle in said shell terminating at its lowermost end above the bottom of the latter, presenting a water collection area at said bottom of the shell, a combination free water knockout and pre-heating chamber on one side of the baffle, and a heater compartment on the opposite side of the baffle, there being a hot water wash area in said compartment adjacent the bottom thereof and a settling area in said compartment above the wash area, said shell having an outlet for flow of oil from the settling area; a heater in the wash area; means for conveying emulsion downwardly within the chamber and discharging the same into the water collection area; means for receiving the emulsion near the top of the chamber, conveying the same downwardly within said chamber, and discharging the same into the water collection area below said heater; and continuous conduit means located within said chamber in heat exchange relationship with said emulsion and communicating at each end thereof with the wash area for removing water from the wash area and recirculating the same back to the wash area for discharge thereinto below the point of removal.

2,837,214
FILTER-DEMULSIFIER ASSEMBLY
Walter Kasten, Royal Oak, Mich., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application July 15, 1954, Serial No. 443,519
3 Claims. (Cl. 210—300)

3. An apparatus for removing contaminants from a liquid, comprising an outer casing having an opening at the top, said opening being substantially smaller in diameter than said casing, an inner casing spaced from the sidewall and bottom of said outer casing and connected with said outer casing through an opening in the lower end thereof, sealing means on the sidewall of said inner casing, a cover for said outer casing having a liquid inlet passage communicating with said inner casing, a liquid outlet passage in said outer casing near the top thereof, a filter-demulsifier unit in said inner casing operatively positioned between said inlet passage and the opening in the bottom of said casing, an annular shelf attached to the interior sidewall of said outer casing having means cooperating with said sealing means, and filter elements attached to the bottom of said shelf having outlets communicating with said outlet passage.



2,837,215
FLEXIBLE DRIVE
Roman Chelminski, Wilton, Conn., assignor to Knowles Associates, New York, N. Y., a copartnership consisting of Chester L. Knowles and Roman Chelminski
Application May 21, 1954, Serial No. 431,356
7 Claims. (Cl. 210—531)

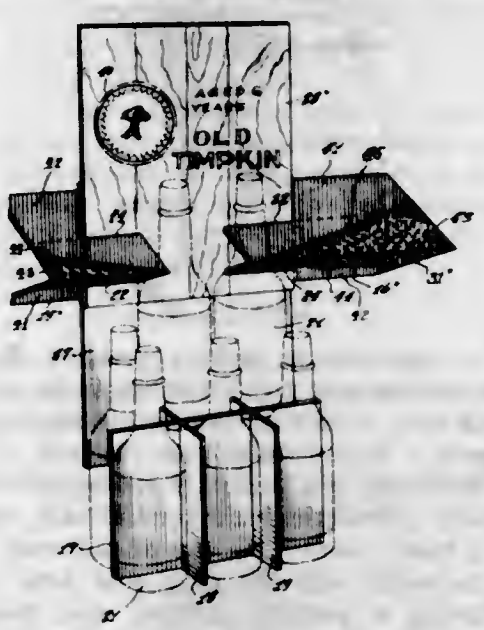


2. In a sedimentation tank of the type in which a centrally located, generally cylindrical rotatable drum supports a plurality of rake-carrying arms extending outwardly in said tank toward the periphery thereof, driving means for driving said rotatable drum comprising in combination one or more electric motors each having a rotatable stator and rotor that cooperate to produce a differential torque, said motors being mounted on a fixed support above said rotatable frame, a bull gear horizontally arranged within said drum with its periphery close to the inner surface of said drum, said bull gear being mechanically connected to said drum to rotate therewith, one or more pairs of pinions positioned to engage said bull gear, said pinions being arranged at substantially equal intervals around the periphery of said bull gear, one pinion of each pair being mechanically connected to the rotatable stator of one motor and the other pinion of each pair being mechanically connected to the rotor of the same motor, whereby the differential torque developed by each motor is automatically substantially equally distributed between the pinions connected to that motor.

2,837,216
BOTTLE DISPLAY STAND
Richard E. Paige, New York, N. Y.
Application May 7, 1954, Serial No. 428,264
1 Claim. (Cl. 211—72)

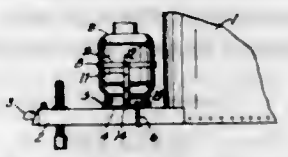
A bottle display stand formed of the top and bottom members and the partitions of a bottle case, one of said

members having advertising matter thereon and overlapping the other member, certain of said partition members each having a transverse score intermediate the length thereof and bent on said score to provide portions lying at an angle relative to each other, said certain of the partitions each having a slot on each side of said transverse score, said slots extending inwardly from one edge thereof so that they are aligned with one another when



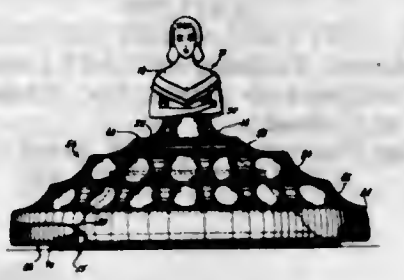
the partitions are so bent, said certain of the partitions arranged as wing pieces and frictionally receiving the overlapped portions of the top and bottom members on each side edge thereof to hold them in said overlapped position and other of the partitions being interlocked and certain of said other partitions having parallel slots in their upper edges receiving the lower edge of one of said members to provide a support for the members and for the bottles to be displayed.

2,837,217
HOLDER FOR CLAMPING COMPRESSED GAS BOTTLES ON TRAILERS
Harold W. Norris, Battle Creek, Mich.
Application July 12, 1956, Serial No. 597,539
1 Claim. (Cl. 211—74)



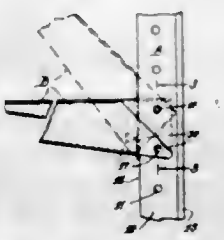
A holder for clamping compressed gas bottles on trailers comprising a flat base plate having upturned flanges on opposite edges spaced apart by a distance equal to the diameter of the base of the bottles to be held, a looped band of springable metal positioned in spaced relation above said plate and defining a pair of incomplete circles with opposed connecting strips therebetween, said circles extending outwardly over said flanges, a plurality of supporting struts removably connected to the ends of said loop and supported on said plate, downwardly and inwardly inclined lower portions on said struts terminating in upright shouldered ends with outwardly bent lugs passed through slots in said plate and lapped on the under side of the plate, ears struck upwardly from said plate and spaced diametrically from said shouldered ends by a distance equal to the diameter of the base of the bottles, and a clamp bolt passed through said connecting strips with a spring compressed between the bolt and one of the connecting strips to spread the loop and a hand nut to contract the loop.

2,837,218
RELISH DISH
Louis Arceo, New York, N. Y.
Application August 31, 1955, Serial No. 531,711
1 Claim. (Cl. 211—129)



A dish for food, condiments, and the like comprising an upstanding body having a reduced upper end portion and a downwardly flaring skirt portion shaped to include a plurality of outwardly, upwardly facing cavities adapted to hold different food items, said cavities being arranged in rows extending circumferentially of the skirt portion, the rows being disposed in spaced, horizontal planes, the skirt portion being formed with circumferentially extending tiers each greater in diameter than the tier next above, each tier having a single row of said cavities, said dish further including an auxiliary dish member, flared in a downward direction and formed open at its opposite ends so as to be fitted about and supported upon the skirt portion of the dish, said auxiliary dish member being rotatably supported upon the skirt portion, at both the upper and lower ends of the auxiliary dish member, the upper end of the auxiliary dish member including a folded lip extending about the opening of said upper end, said lip being supported upon the bead of one of the tiers of the skirt portion, the lower end of the auxiliary dish member including an inwardly directed, circumferential lip terminating in an upwardly inclined extension lip, said extension lip being adapted to engage slidably the surface of the lowermost tier of the skirt portion to provide said rotatable support of the auxiliary dish member at the upper and lower ends thereof.

2,837,219
SHELVING DEVICE
Irwin J. Ferdinand, Glencoe, and Ralph J. Bellon, Chicago, Ill., assignors to S. A. Hirsh Manufacturing Co., Skokie, Ill., a corporation of Illinois
Application August 13, 1954, Serial No. 449,724
4 Claims. (Cl. 211—147)



1. A shelving device comprising, a vertical support with a transverse stem part having a series of vertically spaced apertures, a shelf bracket of U-shaped cross section having a web connecting a pair of legs with transversely-disposed coplanar flanges formed integrally along the upper marginal edges of the legs, the bracket at the web being slotted inwardly from the base to form a pair of spaced ears and a shoulder inwardly of the base, one leg of the U-shaped part of the bracket being cut away adjacent the base, an inwardly-extending pin on the other leg of the bracket adjacent the base and the respective flange, and aligned inwardly-disposed projections formed on the ears adjacent the base and the slot, the projections being spaced from the pin a distance equal to the spacing of the support apertures, the shelf bracket being se-

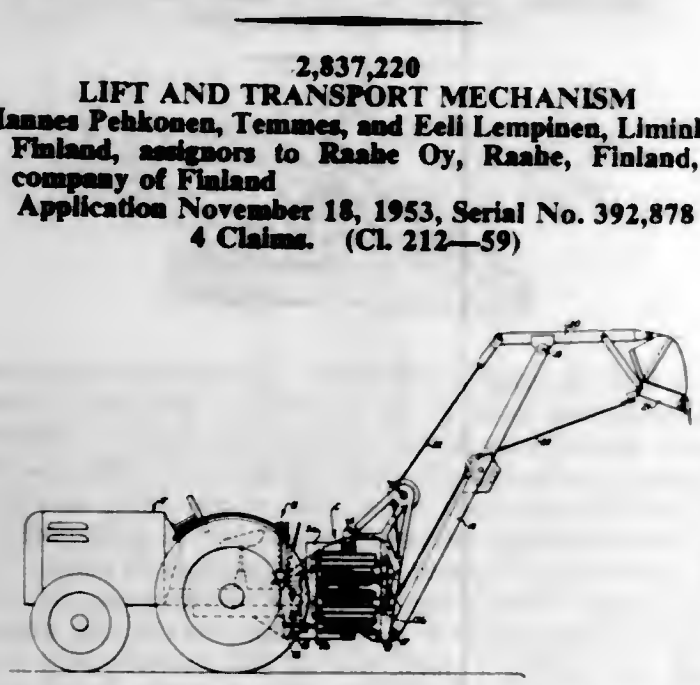
cured to the support by seating the pin in one support aperture and the projections in another support aperture on opposite sides of the support.

2,837,220

LIFT AND TRANSPORT MECHANISM

Hannes Pehkonen, Temmes, and Eeli Lempinen, Liminka, Finland, assignors to Raahe Oy, Raahe, Finland, a company of Finland

Application November 18, 1953, Serial No. 392,878
4 Claims. (Cl. 212—59)



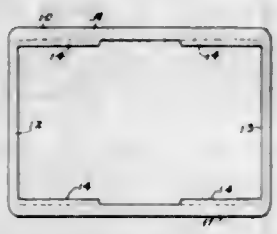
1. A hoist mechanism comprising a frame, an axle fixedly mounted on said frame, first and second cable drums rotatably mounted on said axle, means for selectively effecting rotation of said first and second cable drums in opposed rotational directions, a turntable rotatably mounted on said axle to turn relative to said frame about an axis concentric with the axes of rotation of said cable drums, and brake means operative to releasably couple said turntable to a selected one of said cable drums so that the turntable can be driven in the opposite rotational directions from the related cable drums.

2,837,221

DRAFT GEARS FOR RAILWAY DRAFT RIGGINGS

Eric G. Forssell, Kenmore, N. Y., assignor to W. H. Miner, Inc., Chicago, Ill., a corporation of Delaware

Application June 20, 1955, Serial No. 516,615
5 Claims. (Cl. 213—45)



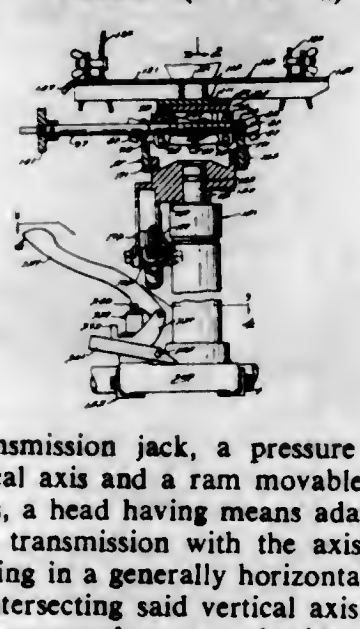
1. A compensating unit for an encased rubber column draft gear comprising: a pair of plunger members each having a C-shaped portion telescoped into the gear casing with their open ends adjacent but spaced apart; front walls on said members closing the front ends of the members and overhanging the walls of the gear casing; a compensating follower disposed within the space between said members and abutting against the rear faces of said front walls; a boss on said compensating follower projecting between said front walls and terminating forwardly thereof; a compensating column within said space abutting against said compensating follower; a front follower for said rubber column against which said compensating column also abuts; projections on said front follower extending forwardly therefrom between said plunger members and abutting against the adjacent ends of said C-shaped portions to hold the members apart; and interengaged lugs on said C-shaped portions and the gear casing for limiting movement of the compensating unit outwardly of the gear casing.

2,837,222

TRANSMISSION JACK

Walter C. Trautman and Robert W. McNabb, Racine, Wis., assignors to Walker Manufacturing Company of Wisconsin, Racine, Wis., a corporation of Wisconsin

Application September 15, 1951, Serial No. 246,762
6 Claims. (Cl. 214—1)



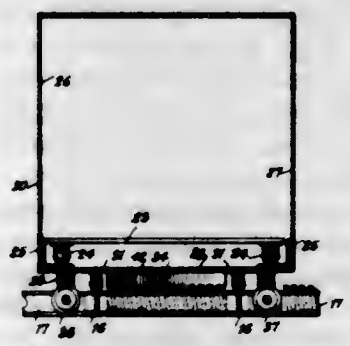
2. In a transmission jack, a pressure fluid cylinder having a vertical axis and a ram movable up and down along said axis, a head having means adapted to engage and support a transmission with the axis of the transmission extending in a generally horizontal direction and substantially intersecting said vertical axis, said head including a base mounted on top of said ram so that the head is movable with the ram, said head including a saddle having a portion carrying said means, means mounting said saddle portion on the base for arcuate movement about an axis above said head and substantially coincident with said transmission axis, a handle operatively connected to said saddle to effect said arcuate movement, means mounting said saddle on said base for pivotal movement about a horizontal axis extending substantially normally to said vertical axis and to said axis of arcuate movement whereby pivotal movement of said saddle tilts said transmission axis to vary the angle thereof with said vertical axis, a handle operatively connected to said saddle to effect pivotal movement thereof, a carriage, said cylinder being mounted on said carriage, said carriage including legs radiating a substantial distance outwardly from the cylinder and having swivelly mounted caster wheels on the ends of said legs so that it is rollable in all directions, said cylinder including a pump mounted adjacent the bottom thereof, a foot operated lever operatively connected to said pump and rotatable through a wide arc, said cylinder including a release valve adjacent the bottom thereof, and a wide foot treadle operatively connected to said release valve.

2,837,223

AUTOMOBILE PARKING APPARATUS

Ivan Wolff, New York, N. Y.

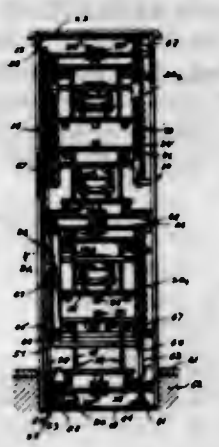
Application November 3, 1953, Serial No. 389,910
1 Claim. (Cl. 214—16.1)



In an automobile storage apparatus, a plurality of cubicles each of which receives an automobile for storage, a frame on which the cubicles are movably supported, each cubicle being provided at the bottom with a plurality of rollers swivelly mounted and resting on the frame and permitting longitudinal, as well as crosswise movement of

the cubicle on said frame, said rollers being adapted to carry the cubicles through a rectilinear path with an intermittent movement, means for imparting said intermittent movement to each cubicle comprising a first set of worms located below and extending longitudinally over and causing longitudinal movement only of the cubicle, a plurality of longitudinally-extending racks on the bottom of each cubicle and maintained in mesh with the worms during longitudinal travel of the cubicles, a plurality of transverse racks on the bottom of each cubicle, transverse worms on the frame adapted for engagement with the transverse racks, the transverse worms being rotatably operative to move the cubicles sidewisely and when doing so to disengage the longitudinally-extending racks from the longitudinally-extending worms, the swivelled rollers on the bottom of each cubicle being located inwardly of the racks on each cubicle.

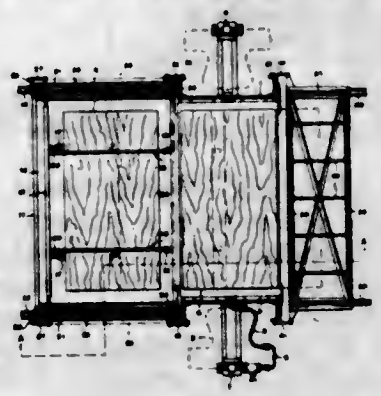
2,837,224
AUTOMATIC AUTOMOBILE PARKING AND STACKING DEVICE
Jacob Rosen, Belmar, N. J.
Application August 6, 1956, Serial No. 602,110
3 Claims. (Cl. 214—16.1)



1. A storage device, comprising a frame structure, said structure being divided into a plurality of compartments, said compartments containing a plurality of trucks having platforms for receiving articles to be stored, means for elevating said trucks through the compartments, and means for moving the trucks laterally through the compartments, whereby said trucks may each be caused to travel an endless path through the compartments, said path having alternating vertical and horizontal portions, each of said platforms having a plurality of casters disposed at corners thereof, a plurality of lugs depending from the platform, a plurality of posts disposed near corners of the platform, crossbars connecting opposite pairs of said posts, other casters depending from ends of said crossbars with said ends having portions extending beyond said other casters, a tie-bar connecting said crossbars, and lugs extending upwardly from said tie-bar.

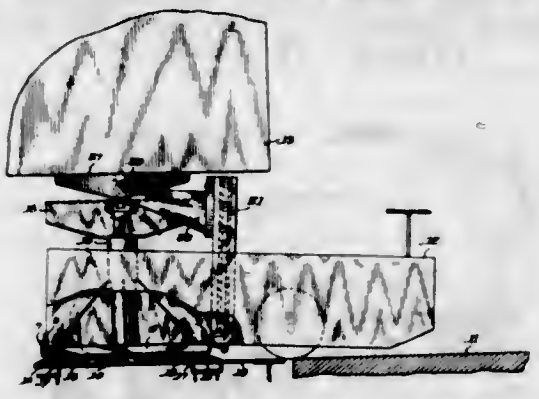
2,837,225
TRANSFERRING APPARATUS FOR PLYWOOD PLATES OR THE LIKE TO BE TREATED IN A MULTISTAGE PRESS
Keinosuke Kaji, Obu-machi, Chita-gun, Aichi-ken, Japan, assignor to Kabushiki Kaisha Meiki Seisakusho, Mizuho-ku, Nagoya, Japan, a corporation of Japan
Application November 29, 1955, Serial No. 549,803
Claims priority, application Japan August 21, 1955
1 Claim. (Cl. 214—16.6)

A transferring apparatus for plywood sheets and the like to be treated in a multistage press comprising a plurality of oscillating supporting arms, at least two for each stage of the multistage press, one of said two arms having a front transferring claw thereon and the other having a rear transferring claw thereon, a moving support, a plurality of pivot rods rotatably mounted on said moving support and on which pivot rods the ends of said arms are fixedly mounted, said support being movable toward and away from the press, a raising and lowering rod, a plurality of parallel levers each fixed at one end to one of said pivot rods and pivoted at the other end to said raising and lowering rod, a balancing spring on the upper end of said rod, a bell crank lever with a center point pivoted on said moving support and having one end connected to the lower end of said rod, and a braked endless chain to which the other end of said bell



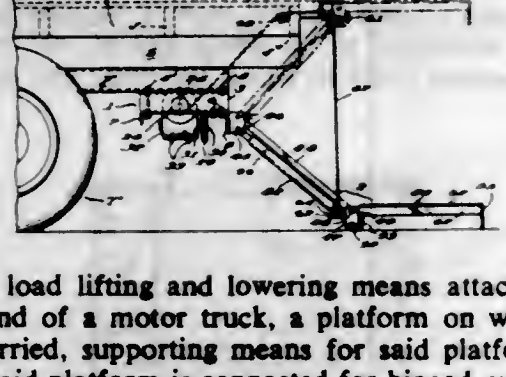
crank lever is connected, whereby when said moving support is moved toward the press, said bell crank lever is moved and the said other end of the bell crank connected to said endless chain is braked thereby, thus pivoting said bell crank lever and raising said rising and lowering rod and moving said transferring claws down, and when said moving support is moved away from the press, said braked chain holds the said other end of said bell crank lever back and pivots said bell crank in the opposite direction thereby lowering said rising and falling rod and raising said transferring claws.

2,837,226
DEVICE FOR LOADING TRAILERS ON FLAT CARS
Jack E. Gutridge, Munster, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application September 17, 1953, Serial No. 380,766
2 Claims. (Cl. 214—38)



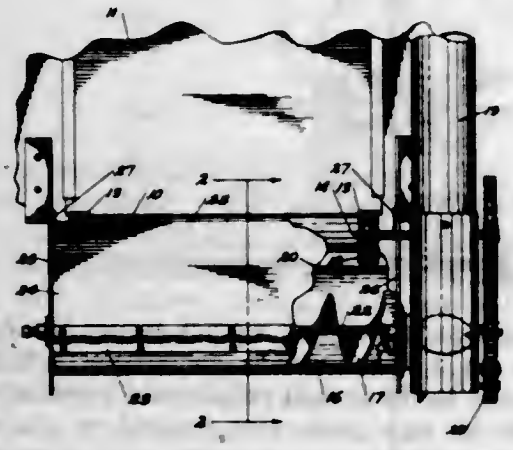
1. Apparatus for loading a truck trailer having a fifth wheel pin on a fright vehicle comprising a fifth wheel stand secured to the freight vehicle and provided with an opening in its top, guide pins secured to the stand, a lift truck including a body provided with an opening extending inwardly from one end and leaving shoulders forming the opposite walls of the opening, and wedge-shaped structures positioned at said one end of the body and secured to the shoulders, the lift truck being adapted to move the trailer onto the freight vehicle and the wedge-shaped structures on the shoulders being adapted to engage the pins on the stand to guide the shoulders around the stand and the end wall of the opening in the body being adapted to engage the stand to position the fifth wheel pin directly over the opening in the top of the stand.

2,837,227
LOAD ELEVATOR FOR MOTOR TRUCKS
Max J. Lugash, North Hollywood, Calif.
Application April 15, 1957, Serial No. 652,860
11 Claims. (Cl. 214—77)



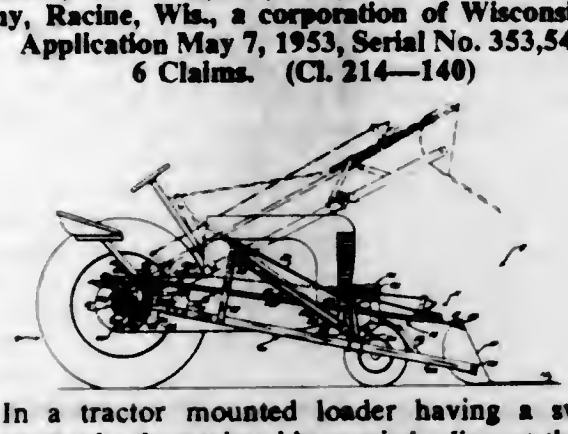
1. In a load lifting and lowering means attachable to the rear end of a motor truck, a platform on which the load is carried, supporting means for said platform and to which said platform is connected for hinged movement about a horizontal axis, means carried by said supporting means effective to prevent movement of said platform about said hinged mounting beyond a position in which said platform projects rearwardly from the truck and in a plane substantially parallel to the plane of the truck bed, identical parallel rule linkage systems at each side of said platform pivotally connected to the truck and to said platform supporting means for movement about horizontal axes, and reversible, manually controlled power means on the truck and connected to each of said parallel rule linkage systems effective to cause said parallel rule linkage systems to lift said platform supporting means and said platform from ground level to the plane of the truck bed or to any desired intermediate extent and upon reversal of said power means to allow the weight of said platform to cause it to descend to a desired extent; said parallel rule linkage systems including stop means against which said platform may be swung about said hinged mounting to a position overlying and parallel to said linkage systems.

2,837,228
WAGON UNLOADER
Paul G. Kaster, Shelby County, near Shelbyville, Ind.
Application September 12, 1955, Serial No. 533,703
2 Claims. (Cl. 214—83.18)



1. An unloading delivery device for mounting at a discharge opening of a receptacle through which opening materials may flow, the combination of a pair of spaced apart, approximately vertically disposed end members; an open top, generally U-shaped housing secured by ends to said members and approximately horizontally disposed therebetween; one of said members having a discharge opening therethrough; an auger rotatably carried in and lengthwise of said housing between said members with a discharge end portion at said member opening; said housing having a first wall portion on one side extending along and above said auger; said housing having a second wall portion terminating on a horizontal longitudinal line between said members; a door hinged along said second wall line and extending in one rocked position inclined from the hinge line over and covering said auger, and in a second rocked position away from and uncovering the auger as an upward continuation of second wall portion; said door swinging between said members; and stop means carried by said members limiting swing of the door to said second position; and means mounting said device on said receptacle; said mounting means locating the upper edge of said first wall portion under said opening, the second wall portion being spaced from and locating said auger across and below said opening exposed by its full length thereunder to receive materials thereacross and thereon falling from said opening; and said door terminating in a line under said opening when in said inclined position setting up a chute floor over the auger and between said members inclined downwardly and away from the opening; and said door upon being in said second position forming a splash guard on the side of the auger removed from said opening.

2,837,229
TRACTOR MOUNTED LOADER
John M. Markel, William R. Schmidt, and August R. Zellmer, Rockford, Ill., assignors to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application May 7, 1953, Serial No. 353,544
6 Claims. (Cl. 214—140)



1. In a tractor mounted loader having a swingable boom and a bucket swingably carried adjacent the swinging end of said boom, said bucket being biased to move from a load receiving position to a load dumping position, means for latching said bucket in its load receiving position, and means operable by the operator from his position on the tractor for unlatching said bucket for permitting said bucket to swing into its load dumping position, the improvement comprising a force transmitting means for moving the bucket from its load dumping position to its load receiving position upon said boom's being permitted to swing downwardly a predetermined distance comprising a swingable member rotatably carried by said boom and rockable about an axis substantially parallel to the axis of swinging movement of said bucket, said swingable member including a reset arm and an angularly disposed rock arm, a cam follower pivotally secured to said rock arm and freely swingable with respect thereto when rocked in one direction and caused to swing into engaging relationship with said swingable member when rocked in the other direction for rocking said swingable member in said other direction, an abutment fixed with said tractor and in the path of movement of said cam follower upon swinging of said boom downwardly or upwardly relatively to said abutment, said cam follower engaging said swingable member upon said boom's being permitted to move downwardly relatively to said abutment for rocking said swingable member in said other direction in response to said abutment's urging said cam follower in said other direction, and a reset rod between said reset arm and said bucket for swinging said bucket into its load receiving position in response to said cam follower's being rocked in said other direction a predetermined amount.

2,837,230
TRASH COLLECTION TRUCK

Oskar Paul Herterich, Thalfingen, near Ulm, Germany, assignor to Klockner-Humboldt-Deutz Aktiengesellschaft, Koln, Germany

Application January 23, 1956, Serial No. 560,732
Claims priority, application Germany January 25, 1955
2 Claims. (Cl. 214—503)



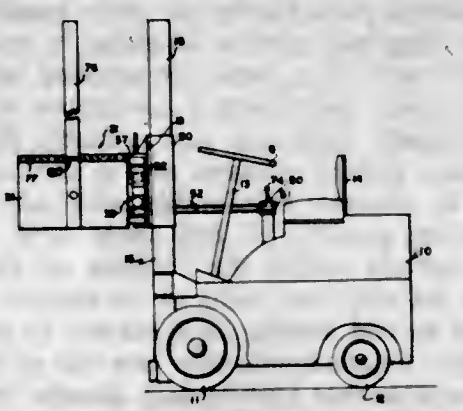
1. In combination in a trash collecting truck: a collecting container having an opening at one end thereof, a receiving container arranged adjacent to and having a discharge opening at said one end, said receiving container including bucket means forming the bottom of said receiving container and being tiltable about a substantially horizontal axis from its normal trash receiving position into an elevated discharge position for the transfer of trash from said receiving container into said collecting container through said discharge opening, scoop means tiltable about a substantially horizontal axis near the upper end of said discharge opening, said scoop means normally closing said discharge opening, said bucket means having two substantially parallel side walls and also having therebetween a curved front wall and a curved rear wall connected to each other along a line, the curvature of said front wall following a circle having its center of curvature located on the tilting axis of said scoop means when said bucket means occupies its discharge position, and said rear wall having a curvature following a circle having its center of curvature located on the tilting axis of said bucket means, a curved stationary extension means extending substantially from the tilting axis of said bucket means inwardly into said collecting container and being curved along a circle having its center of curvature located on the tilting axis of said scoop means so that when said bucket means occupies its discharge position said extension means forms with said front wall a continuously curved path for the trash to be discharged, and actuating means operable to tilt said scoop means away from its normal position in which it closes said opening into unloading position in which it is partly within said bucket means when the latter is in its elevated position, said actuating means also being operable to tilt said scoop means from its unloading position back to its normal position.

2,837,231
BALE-HANDLING ATTACHMENT FOR INDUSTRIAL TRUCKS AND THE LIKE

Scott E. Ross, Shreveport, La., assignor to American Compress & Warehouse Co., Inc., Shreveport, La., a corporation of Louisiana

Application August 2, 1955, Serial No. 525,998
10 Claims. (Cl. 214—620)

1. In combination with an industrial truck having a vertically movable member, means for actuating said member, a bale-handling attachment connected to said member so as to be vertically movable therewith, said attachment including a housing extending transversely of the truck, spaced end plates extending outwardly and laterally from opposite ends of the housing, means movably connecting the end plates to the housing so that the end plates are displaceable horizontally relative to each other, one of said end plates constituting a prong plate and the other a bale plate, said prong plate having lifting prong means extending outwardly and laterally thereof and arranged to penetrate a bale of material, means connected at one end to the truck and arranged to be detachably connected at its opposite end to a selected bale, means operatively connecting the flexible means to the

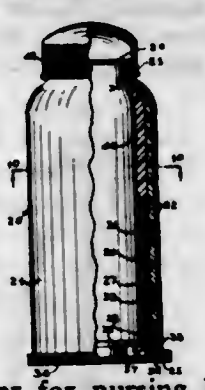


bale plate, and means operatively connected to said plates for selectively moving the same relative to the housing.

2,837,232
THERMAL CONTAINER FOR BOTTLES AND OTHER CONTAINERS

Mario Rossi, Brooklyn, N. Y., assignor to Parfour, Inc., New York, N. Y., a corporation of New York

Application April 30, 1956, Serial No. 581,694
1 Claim. (Cl. 215—13)



A thermal container for nursing bottles and the like comprising an outer hollow shell having a cylindrical wall and an open top, an inner hollow shell having a cylindrical wall and an open top and adapted to receive and hold a nursing bottle, said inner hollow shell being cement sealed to the outer hollow shell at one end thereof with a space between the cylindrical walls of the two shells, and a top cap releasably fitting over the open tops of the two shells, said inner hollow shell having a bottle gripping means on the inner periphery thereof, said sealed, combined inner and outer shells having open bottom ends and a bottom end closure removably fitting over the open bottom ends of the combined shells, said bottom end closure having annular concentrically arranged nursing bottle supporting flanges various heights adapted to receive and hold the bottom end of a nursing bottle, and reinforced ribs between said annular flanges.

2,837,233
CUTTER FOR SECONDARY SEAL OF A STOPPERED BOTTLE

Norman Kravitz, Cincinnati, Ohio

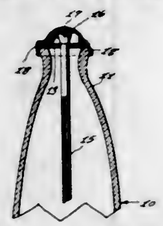
Application February 23, 1955, Serial No. 489,990
3 Claims. (Cl. 215—46)



1. The combination with a bottle, and a closure member and secondary seal therefor, the neck of the bottle

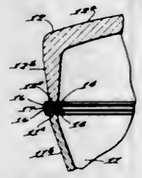
and closure member having horizontally extending annular complementary abutting portions and one of said two last mentioned parts having an outer annular longitudinally extending face portion adjoining its complementary abutting portion, of a cutter for severing said secondary seal, said cutter comprising a continuous relatively thin flat substantially rigid ring part rotatably fitting on said annular face portion between and in substantial contact with but in rotatable relationship with said complementary abutting portions of the bottle neck and closure member entirely within the confines of the secondary seal, said flat ring part being of an interior diameter to be applied to said annular face portion by movement of the ring part longitudinally over one end of the part having said annular face portion, said annular ring part having a tab integral therewith extending radially outwardly therefrom through the side wall of said secondary seal and terminating exteriorly of the same, the side edges of said tab forming cutting edges, whereby by rotation of said tab and ring part the secondary seal will be severed by said tab.

2,837,234
SELF CONTAINED DRINKING TUBE AND BOTTLE CAP
Nicholas R. Mainiere, Mount Vernon, N. Y.
Application October 31, 1955, Serial No. 543,905
1 Claim. (Cl. 215—100)



An attachment for a drinking bottle comprising a washer adapted to fit on the mouth of a bottle, a drinking tube slidably mounted in said washer and having an upper end of greater diameter than the washer opening, said enlargement being integrally formed at the upper end of said drinking tube and comprising a flattened substantially frusto-conical enlarged portion, and a bottle cap having a dome shaped central portion wherein the upper end of the tube rests, said cap having a circumferential flange extending from the edge of the dome portion and provided with a crimped depending skirt for gripping arcund the bottle mouth.

2,837,235
LAMINATED JOINT FOR CATHODE-RAY TUBE ENVELOPE AND METHOD OF SEALING
Harvard B. Vincent, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application March 5, 1957, Serial No. 644,076
14 Claims. (Cl. 220—2.3)



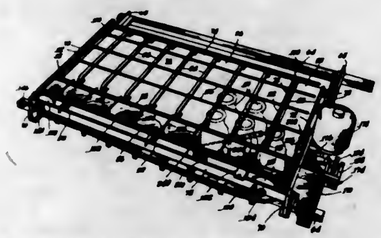
1. An envelope for a hermetically sealed cathode-ray tube comprising prefabricated hollow glass funnel and face plate members having complemental annular sealing edges in juxtaposed relationship, annular metallic bands attached to each of said sealing edges to provide annular metallic sealing surfaces, thin gasketing layers of high-melting glass comparable to the base glass of said glass parts adhered to the juxtaposed sealing surfaces of said metallic bands, and an intermediate annular layer of low-melting glass sealing composition interposed between said gasketing layers of high-melting glass.

2,837,236
RE-USABLE CONTAINER WITH DISPOSABLE COVER
Thomas E. Betner, Bryn Mawr, Pa.
Application March 3, 1954, Serial No. 413,779
5 Claims. (Cl. 220—54)



1. A container comprising a pre-formed body of semi-rigid plastic material such as polyethylene or one of its derivatives, said body having at its open end an integral peripheral bead and having below said open an outwardly extending peripheral flange; a re-usable cover having a side wall extending externally of the container body below said body bead and toward said body flange, said re-usable cover having a flange extending downwardly and inwardly of the container body, the adjacent faces of said cover flange and said cover side wall defining a cover groove having a peripheral snap fit with said bead of the body to lock the cover thereto; and a second, disposable cover overlying said re-usable cover and having a flange heat-sealed to said body flange to form a hermetic seal, said bead of the body and said cooperating groove of the re-usable cover relieving said hermetic seal provided by the heat-sealed flanges of said disposable cover and of said body, from mechanical strains incident to handling of the container.

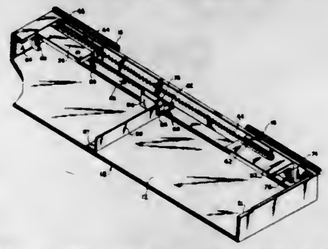
2,837,237
VENDING MACHINE
John M. Stewart, Chicago, Ill.
Application April 17, 1951, Serial No. 221,400
16 Claims. (Cl. 221—11)



1. A vending machine comprising elongated delivery means, storage means arranged laterally of said elongated delivery means and adapted to support a plurality of articles to be vended, means for shifting a predetermined number of articles from said storage means on to said elongated delivery means, means for shifting articles along said elongated delivery means to vend the articles, means including first operable means for driving said first named article shifting means, means including second operable means for driving said second article shifting means, a power source, an angularly turnable means driven by said power source, and a first set of actuators on said angularly turnable means for engaging said first operable means and a second set of actuators on said angularly turnable means for engaging said second operable means, said sets of actuators engaging the associated operable

means in predetermined sequence to effect shifting of articles from said delivery means and a shifting of articles from said storage means on to said delivery means to refill said delivery means.

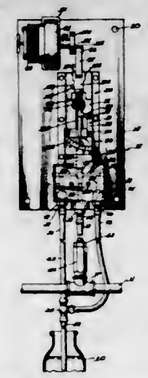
2,837,238
EJECTING CIGARETTE CASE
Vincent Pino, New York, N. Y.
Application January 25, 1956, Serial No. 561,179
5 Claims. (Cl. 221—227)



1. A cigarette case comprising a container adapted to hold a quantity of cigarettes and having an opening adjacent one end through which a cigarette may be dispensed, a lid on said container, ejector means at said one end of the container for shifting through said opening the cigarette nearest said end, follower means for shifting the cigarettes toward the ejector means, a latch assembly for holding the follower means in a retracted position during loading of the container with a fresh supply of cigarettes, and means on the lid for shifting the latch assembly to a follower-means-releasing position responsive to closing of the lid, said follower means including a follower block and a pusher bar projecting transversely of the container from said follower block, the container including stationary blocks adjacent opposite ends thereof and the follower block being movable below the stationary blocks, said follower means additionally including a rod extending between opposite ends of the container, the follower block sliding upon said rod, the latch assembly including a spring arm secured to one of said stationary blocks, said spring arm being formed with a laterally projecting finger normally extending in the path of the follower block during movement of the follower block upon said rod.

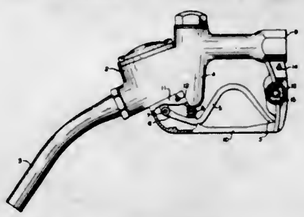
2,837,239
METERING PUMP
Axel R. Scholin, Chicago, Ill.
Application July 28, 1955, Serial No. 524,934
11 Claims. (Cl. 222—41)

1. A metering pump adapted to draw treating liquid from a source and introduce it under pressure and in measured quantities into a different liquid in transit through a pipe and comprising: a block-like body having formed therein a cross duct with closed ends, a bore providing a pumping cylinder and intersecting the cross duct and extending a short distance therebeyond, an inlet duct having one end thereof in communication with the cross duct, provided with an inlet type check valve and embodying means at its other end for connecting it to the source, a discharge duct of less diameter than the bore, having one end thereof in coaxial communication with said projecting end of the bore and embodying at its other end an outlet type check valve and means for connecting it to the pipe, and an overflow duct having one end thereof in communication with the cross duct and embodying at its other end an outlet type check valve and means for connecting it to said source; a plunger mounted slidably in the pumping cylinder, provided on the inner end thereof with a reduced longitudinally extending stem movable into said one end of the discharge duct to cut off communication between the discharge duct and cross bore, and adapted when slid outwards to draw treating liquid from the source into the cross duct via the first mentioned connecting means, the inlet type check valve and the inlet duct and when slid initially inwards to force a portion of the treating liquid from the cross duct back to the source via



the overflow duct, the second mentioned outlet type check valve and the third mentioned connecting means, and thereafter when said stem moves into said one end of the discharge duct to force a portion of the treating liquid entrapped in the discharge duct into the pipe via the first mentioned outlet type check valve and the second mentioned connecting means, and power-driven means for reciprocating the plunger.

2,837,240
CONTROL FOR AUTOMATIC LIQUID DISPENSING NOZZLE
Wallace D. Boone, Cincinnati, Ohio, assignor to O P W Corporation, Cincinnati, Ohio, a corporation of Ohio
Application March 14, 1956, Serial No. 571,541
10 Claims. (Cl. 222—43)

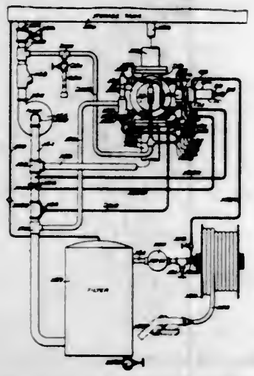


1. An automatic filling nozzle, provided with a dispensing passage leading to a discharge spout adapted to be inserted in a container, comprising a valve normally biased to close the dispensing passage, a lever for opening the valve, said lever moving through a path between open and closed positions of said valve, a pin slidably mounted on the nozzle in position for being moved into the path of the lever for holding said lever in valve opening position, and means for biasing the pin out of the path of the lever.

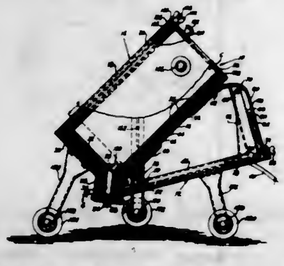
2,837,241
LIQUID FLOW CONTROL MEANS FOR REFUELING APPARATUS AND THE LIKE
David E. Griswold, San Marino, Calif., assignor to Donald G. Griswold, Alhambra, Calif.
Application August 20, 1952, Serial No. 305,482
30 Claims. (Cl. 222—52)

6. Liquid flow control means, comprising: a storage tank; conduit means connected with said storage tank; a

pump connected in said conduit means; a fluid pressure operable main valve connected in by-passing relation to said pump for returning excess liquid to said storage tank; and automatic pressure differential operated control means connected with said main valve including a fluid pressure operable element controlling the volume of operating fluid effective to actuate said main valve, and means for controlling said element in accordance with the pressure differential between (1) a pressure sensing point in said conduit means, located at a point spaced from the discharge end of said conduit means and beyond which point said conduit means offers a known resistance to flow at a given flow rate, and (2) the differential pressure across an orifice in said conduit means offering substantially the same resistance to flow at said flow rate as said known resistance in said conduit means.

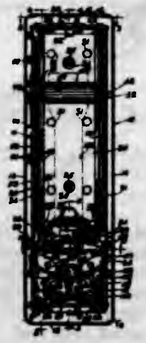


2,837,242
APPARATUS FOR DISPENSING VISCOUS MATERIAL
Daniel G. McLaughlin, Opa Locka, Fla.
Application November 9, 1956, Serial No. 621,376
4 Claims. (Cl. 222—88)



1. Apparatus for dispensing a viscous material comprising a vehicular carriage including means for manually propelling the same, a tubular housing member on said carriage, said housing member having a bottom wall and a forward end wall, said forward end wall having a discharge opening inwardly of and adjacent said bottom wall, a discharge nozzle depending from the forward end wall and the bottom wall and in communication with the opening in said forward end wall, said housing member including an open end for inserting therein a severable container containing a viscous material, a container-opening assembly in the housing member for opening the severable container inserted into the tubular housing permitting viscous material disposed therein to flow toward the discharge nozzle, and control means embodying a control plate operatively connected to said discharge nozzle between the ends thereof for slidable projection through the wall of said discharge nozzle and across said discharge nozzle and for slidable retraction from said discharge nozzle and out of the wall of said discharge nozzle for controlling the flow of the viscous material dispensed through the discharge nozzle.

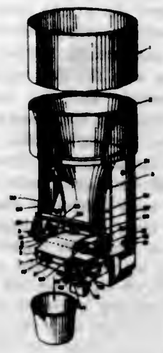
2,837,243
AUTOMATIC TOOTHPASTE DISPENSER
Herbert M. La Zebnik, Jackson, Mich.
Application April 12, 1956, Serial No. 577,837
2 Claims. (Cl. 222—101)



1. In a device of the character described, a frame including side walls, a rear wall and a base plate, means for mounting a collapsible tube in said frame, said tube having a closed end portion and a neck portion, and means for dispensing predetermined amounts of the contents of said tube, said last-named means comprising a vertically extending press plate yieldably mounted on the forward side of said rear wall, a gripping roller transversely mounted in said walls and adapted to forcibly hold the closed end portion of said tube against said press plate, a fitting removably mounted in said base plate and having an interiorly threaded recess in its upper end adapted to receive the neck portion of said tube, a pair of vertical fixed racks engaged with the rearward side of said roller, an actuating rack engaged with the forward side of said roller, and a holding rack engaged with the forward side of said roller, both said holding rack and said actuating rack being normally spring-urged into contact with said roller, said roller being provided with an integrally formed ratchet wheel for receiving said holding and actuating racks, and said roller being provided with a pair of integrally formed gear wheels each enmeshed with one of said fixed racks.

2,837,244
MEASURING AND DISPENSING DEVICE
Marino Perpignani, Round Lake, and Otto E. Werner, Skokie, Ill., assignors to Automatic Canteen Company of America, Chicago, Ill., a corporation of Delaware
Application January 14, 1955, Serial No. 481,742
6 Claims. (Cl. 222—135)

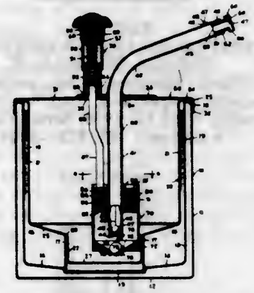
1. A measuring and dispensing mechanism comprising a storage container for a flowable material having a discharge opening, a flexible elastic tube connecting said discharge opening to a discharge position, a constant volume tubular measuring receptacle enclosed in said flexible tube at an intermediate point between said discharge opening and said discharge position, said measuring receptacle having an inlet on one side toward said storage container and an outlet on the opposite side toward said discharge position and said flexible tube being clamped to the outside of said measuring receptacle, and means for alternately stretching said flexible tube over the inlet opening of said measuring receptacle and then over the outlet opening of said measuring receptacle to seal off said inlet opening while permitting gravity discharge of the contents of said measuring receptacle from the outlet opening and to seal off the outlet opening while permitting said measuring receptacle to be refilled from said storage container.



2,837,245
LOW PRESSURE FLEXIBLE WALL CONTAINER
Michael J. Grebowiec, Kansas City, Mo., assignor to Injection Molding Company, Kansas City, Mo., a corporation of Missouri
Application May 12, 1955, Serial No. 507,878
2 Claims. (Cl. 222—184)

1. A two-piece plastic container for relatively low pressure product storage comprising, in combination, a sealable, plastic container with flexible walls of sufficient strength to receive relatively low pressure compression charges, the bottom of said container formed convex in cross section whereby to minimize pressurization strain on the bottom edge from said compression charges, a circumferential groove indent formed in the side surface of the container adjacent the bottom thereof and a snap-on plastic base piece adaptable to engage the groove and fit about said convex bottom of said container, the depth of the indent in the wall of the container ranging from the thickness of the base piece material to a greater thickness, said base piece comprising an outer ring-shaped flange having an inside top diameter essentially equal to the outside diameter of the top portion of the groove indent and an outside top diameter essentially equal to the outside diameter of the container immediately above the groove indent therein, said outer ring-shaped flange having an interior subflange integral therewith and extending downwardly and inwardly therefrom, said subflange filling the portion of the indent not filled by the base piece proper and congruent in form therewith whereby said base piece may be snap fitted on said convex bottom container, the upper edge of the base piece extending above said convex bottom of said container and the bottom edge of said base piece extending below said convex bottom of the container to form a stable resting base for the container.

2,837,246
SELF-CONTAINED LIQUID DISPENSER-DOWN-STROKE DISCHARGE
Vernon P. Steele, Stamford, Conn., assignor to Kesco Products Corporation, Englewood, N. J.
Application April 12, 1955, Serial No. 500,872
5 Claims. (Cl. 222—309)



1. A dispensing pump unit for handling fluids contained in open-topped tanks, comprising, in combination, a skirted cover; a vertically disposed discharge tube fixedly mounted in and extending through the cover, the tube having a depending body section and an uptilted spout section forming an obtuse angle with the body section; a discharge nozzle detachably fitted in the mouth of the spout, the nozzle embodying a radial discharge orifice; a spring-biased pump rod mounted for reciprocation in the cover; an actuating knob on the top of the rod; an axially apertured piston plunger eccentrically mounted on the bottom of the pump rod, the plunger being reciprocable on and along the bottom of the discharge tube, the said tube being shouldered to provide reciprocating bearing engagement for the plunger; a pump casing fitted on and over the plunger and receiving the plunger in reciprocating bearing engagement, said casing being reciprocable on and along the bottom of the discharge tube and forming a pump chamber therewith, the casing being a cup-shaped member with a cylindrical wall and an axially apertured bottom, the inside of the bottom tapering gently toward the axial aperture, and the outside of the bottom mounting a plurality of supporting lugs, whereby to raise the bottom from out of contact with the bottom of a liquid-containing tank and permit free inflow of liquid into the pump; a spherical valve closure member disposed in the pump and adapted to be seated in the axial aperture, whereby the pump is unidirectionally valved; and an apertured locking bar in the top of the pump casing, receiving the discharge tube and serving as a stop member for the plunger.

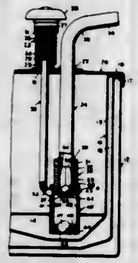
2,837,247
DISPENSING PUMP UNITS
James U. Stewart, Whittier, and Rex C. Cooprider, Downey, Calif., assignors to The Drackett Company, Cincinnati, Ohio, a corporation of Ohio
Application September 24, 1956, Serial No. 611,641
5 Claims. (Cl. 222—321)



2. A dispensing pump unit comprising a centrally apertured closure cap for a portable liquid container, said cap having inner and outer faces, a cylindrical pump barrel extending axially through said aperture and having an integral radial flange abutting against the inner face of

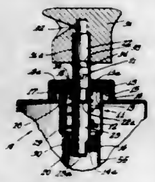
said cap, an annular sealing collar abutting against the outer face of said cap and secured on the external end of said barrel, said collar and said flange axially fixing said barrel relative to said cap, a finger piece integral with said collar including diametrically aligned arm portions projecting radially beyond the periphery of said cap.

2,837,248
SELF-CONTAINED LIQUID DISPENSER-UP-STROKE DISCHARGE
Vernon P. Steele, Stamford, Conn., assignor to Kenco Products Corporation, Englewood, N. J.
Application April 12, 1955, Serial No. 500,873
6 Claims. (Cl. 222—340)



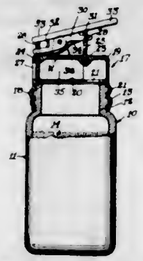
1. A dispensing unit for handling fluids contained in open-topped tanks, comprising in combination, a cup-shaped pump chamber, having an external annular groove, mounted for reciprocation on and over a fixed piston; a discharge tube formed from a single piece of tubing of uniform internal diameter, secured in the axis of the piston; spring-biased actuating means mounted on the cover and in engagement with the chamber; said spring-biased actuating means including a plunger mounted for reciprocation on the cover, the biasing spring being encapsulated in a two-part telescoping housing seated on the cover, the upper end of the housing being detachably secured to the plunger rod and serving as an actuating member, the bottom portion of said plunger rod being bent at right angles, and split to form a two-pronged fork, the fork being fitted into the external annular chamber of the pump chamber and conformed to the chamber, in loose locking engagement therewith, whereby the chamber is rotatably held by and is reciprocable with the plunger rod.

2,837,249
AEROSOL VALVE
Philip Meshberg, Fairfield, Conn.
Application May 10, 1957, Serial No. 658,283
18 Claims. (Cl. 222—394)



1. In a valve means for controlling the discharge of a measured amount of fluid under pressure from a container having a tubular measuring chamber, a combined resilient sealing gasket and first valve disk having a bore mounted at the outer end of the chamber and a second resilient valve disk having a bore mounted adjacent the inner end of the chamber, a valve stem mounted in said chamber and having portions extending through the bores in the valve disks and a sealing portion cooperating with the first disk to seal the container and a portion at the inner end passing through the second valve disk and having means to control passage of fluid from the container to the chamber, and means urging the stem into sealing position, movement of said stem against the urging means a predetermined distance from normal sealing position to a dispensing position causing said sealing portion to be moved out of sealing relation with the first valve disk and causing the stem to cooperate with the second valve disk to seal the chamber from the container prior to the breaking of the seal at the first valve disk, thereby dispensing only the fluid in the measuring chamber, the improvement wherein said stem comprises an inner and outer tubular member, each having a closed inner end, the other end of the inner member being sealingly secured to the inner end of the outer member and wherein the means cooperating with the second valve disk comprises a portion of reduced diameter on the inner member adapted to be normally disposed in the bore thereof and connect the chamber with the container and to be moved out of the bore when the stem is moved to dispensing position.

2,837,250
MEASURING AND DISPENSING ATTACHMENT
Irven Hagman, New York, N. Y.
Application December 7, 1954, Serial No. 473,625
5 Claims. (Cl. 222—449)



1. A dispensing attachment for use with a container having substance which is to be dispensed comprising means providing a narrow measuring chamber adapted to hold a predetermined quantity of said substance, said means having a dispensing orifice at one end of the chamber and having a filling opening at a side of the chamber, said opening communicating with the interior of the container and said chamber-providing means having a wall at the side of the chamber, containing said filling opening and being adapted to constitute virtually a complete closure for the container; a movable closure member for said dispensing orifice, carried by the said means; a movable partition member carried by said means, insertable in and removable from the chamber, said partition member when in inserted position dividing the chamber into two parts which communicate respectively with said opening and orifice; and manually operable means carried by said chamber-providing means for actuating both said members to cause the dispensing orifice to be closed when the partition member is removed from the chamber and vice versa, said chamber-providing means constituting a low cap for said container.

2,837,251
DISPENSING DEVICE
Douglas Ainslie Moir, Grafton, and Gordon George Webber, South Grafton, New South Wales, Australia
Application November 1, 1955, Serial No. 544,312
Claims priority, application Australia November 15, 1954
1 Claim. (Cl. 222—490)

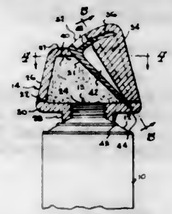
A dispensing device and closure member adapted to be secured to a container with a screw-threaded neck

comprising a coupling member, an elastic tubular member having one end constricted and provided with a slit opening in the constricted end forming a non-return valve and being further provided at its other end with an



annular retaining groove, and an annular ridge formed internally intermediate the ends of said coupling member, said coupling member being internally screw-threaded at both ends for attachment to the screw-threaded container neck, said ridge being received within the groove.

2,837,252
CLOSURE FOR COLLAPSIBLE CONTAINERS
Peter X. Hoynak, Jr., Englewood, N. J.
Application September 6, 1957, Serial No. 682,385
3 Claims. (Cl. 222—494)



1. A dispensing type closure for a container holding a pasty substance, said container having an outlet, comprising: a hollow body connectable to the outlet of the container for flow of the container contents into said body, said body having a dispensing opening; and an elongated closure element of spring material anchored at one end to the body within the same and spring tensioned to normally shift to a position closing said dispensing opening, said body including a plurality of guide slots, and the closure element including means slidably engaging in said slots, to guide the closure element to and from said position thereof, said guide slots including an upper guide slot, the closure element including a lip projecting into said upper guide slot, the body additionally including, in said plurality of guide slots, a pair of side guide slots, the closure element including side wings slidably engaging in the side slots, the side wings being of springable material and being under tension tending to bias the same toward each other, the side slots lying in divergent planes, said planes diverging in a direction such as to bias the wings outwardly from each other against the spring tension thereof, during movement of the closure element from said position thereof, whereby to provide a seal between the wings and the adjacent walls of the side guide slots.

2,837,253
RETRACTABLE CONTAINER SPOUT
Roy Corella, Los Angeles, Calif.
Application December 27, 1955, Serial No. 555,363
7 Claims. (Cl. 222—517)



7. A retractable container spout for use in combination with a container having a neck, a cap removably mounted thereon and a downwardly directed lip disposed adjacent the top of the neck, said spout comprising a funnel portion, said funnel portion having a pouring surface and a catch portion disposed therebeneath, the distance between said pouring surface and catch portion being greater than the downward thickness of the lip of said container, said funnel portion being movable between a pouring position in which it extends horizontally outwardly from the edge of the neck and a retracted position in which it extends substantially vertically within the neck and upper portion of the container, said catch portion being disposed beneath and adapted to pivotally engage the lip of the neck to permit said funnel portion to be pivoted between vertical and horizontal positions, means holding said spout within said container, and means resiliently urging said funnel portion upwardly and pivotally to pouring position when the cap is removed from the container, the end of said funnel portion being adapted to fit within the cap for movement of said funnel portion from pouring position to retracted position.

2,837,254
POURING SPOUT FOR STANDARD BLANKS
Saul Goldstein, San Francisco, Calif.
Application May 17, 1955, Serial No. 508,888
2 Claims. (Cl. 222—531)

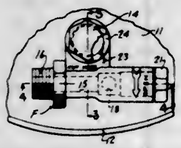


1. In a carton having a rectangular spout opening in one wall thereof with a spout holding tab having one edge thereof hingedly connected to the upper edge of said opening and the opposite side edges of the spout holding tab being parallel with respect to each other and being free of the opposite side edges of the opening and in closely spaced relation thereto; a single blank pouring spout comprising a generally rectangular bottom wall and opposite triangular side walls relatively thicker than the space between the side edges of the said spout holding tab and the side edges defining said opening, said rectangular bottom wall of the spout being connected hingedly by fold lines along its opposite side edges to said respective triangular side walls, said bottom wall of said spout being formed with a bottom section defined by a transverse fold line, said section being secured to the inner face of said carton wall below said opening, and said spout being selectively swingable on said transverse fold line with each of the respective side walls thereof frictionally engaged between each of the respective opposite side edges of said spout holding tab and the respective corresponding edges of said opening to and from the pouring position of the spout, whereby the respective side edges of said spout holding tab cooperate when said spout is pulled to pouring position to frictionally bend against each respective inner side of each of the triangular side walls of said spout, thereby holding the same to a set pouring position.

2,837,255
FAUCET-GASKET UNIT FOR DRUMS
Phillip Donald Sanborn, Chardon, Ohio, assignor, by mesne assignments, to National Laboratories, Inc., a corporation of Delaware
Application April 13, 1955, Serial No. 501,143
2 Claims. (Cl. 222—538)

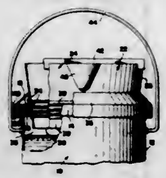
1. In combination with a drum having a recessed head surrounded by peripheral wall, there being a bung hole in the head closed by a removable shouldered bung, a plastic faucet having an attaching threaded nipple at

one end to fit the bung hole, said faucet constituting an elongate cylindrical body provided with a longitudinal channel from which extends a lateral spout, a valve controlling the fluid flow from the channel to the spout, the nipple facing the the drum head when the gasket is in position of use, the transverse dimensions of the faucet being substantially less than the distance from the head to the outer edge of the peripheral wall, a laterally pro-



jecting gasket portion integral with the faucet and fitting between said bung hole and the flange on the bung, and retaining the faucet within the confines of the peripheral wall in protective custody for shipment, and a severable web between said gasket and faucet so that before the faucet is applied to the bung hole in position of use, the gasket portion may be severed and discarded.

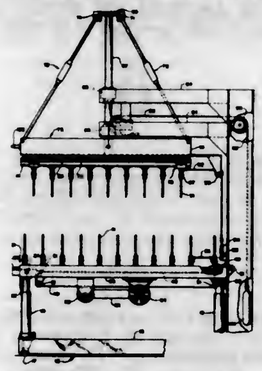
2,837,256
COMBINED MIXING AND POURING CAN GUARD
Samuel J. Daner, East Orange, N. J.
Application May 25, 1955, Serial No. 510,943
8 Claims. (Cl. 222—568)



1. A combined mixing and pouring can guard for round friction top cans having a concentric groove and inner and outer peripheral beads in the rim, comprising an annular member having an upstanding wall with at least its lower portion inwardly tapering downwardly, annular projections on the outer side of said lower portion whereby to frictionally engage the inner peripheral bead throughout its circumference between vertically-adjacent annular projections, and an annular outstanding collar projecting from the outer surface of said upstanding wall spaced above said annular projections whereby to overlie the rim of the can when said member is inserted therein.

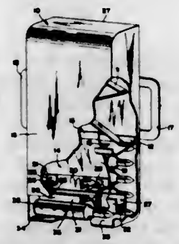
2,837,257
METHOD OF AND APPARATUS FOR FORMING PLEATS
Oliver E. Gibson, Skokie, and William G. Luecke, Chicago, Ill.
Application November 7, 1956, Serial No. 620,961
7 Claims. (Cl. 223—30)

1. Apparatus for forming pleats in material, comprising a base, a plurality of upstanding parallelly extending members secured to said base, means to move each of said upstanding members with respect to said base, means secured to said base and extending above and over said upstanding members, a plurality of downwardly parallelly extending members secured to said means, means to move each of said downwardly extending members with respect to said securing means, means to move said securing means toward said base, whereby said upstanding members and downwardly extending members cooperate with each other to form pleats in material placed therebetween, and means connected to said securing means for moving said securing means away from said base, where-



by the pleated material may be removed from said upstanding parallelly extending members.

2,837,258
PORTABLE SHELL CASE
Robert E. Williams, Hawthorne, Nev.
Application April 6, 1956, Serial No. 576,662
8 Claims. (Cl. 224—15)

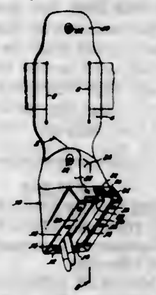


1. A shell case for containing shells or extra rounds of ammunition including, in combination: a housing member including a front face portion, a rear face portion, and first and second lip portions, said first and second lip portions defining lower, contiguous, shell ejection and finger admittance areas; a guide element disposed within said housing member and including a flanged end portion and an inclined central portion, said flanged end portion being affixed to said front face portion; a spring loaded retaining member disposed within said housing member substantially parallel to said first and second lip portions and in proximity with said shell ejection and said finger admittance areas; and a vertically translatable spring loaded follower disposed within said housing member and adapted to cooperate with said guide element for routing shells within said housing member in single file relationship in the region of said retaining member.

2,837,259
BELT SUPPORTED CARTRIDGE POUCH
Floyd W. Blanchard, Los Angeles, Calif.
Application April 1, 1957, Serial No. 649,691
4 Claims. (Cl. 224—15)

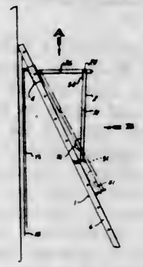
1. A belt supported cartridge pouch including a single blank of flexible material having an upwardly disposed belt-engaging portion, a body portion at the lower end of the belt-engaging portion, a plate having a generally vertically disposed slot with an enlarged upper end, the medial and lateral lower edge portion of the flexible body portion of said blank being secured respectively to the lower and generally vertical side edges of said plate,

said blank having lateral wings folded inwardly toward each other, said wings, when folded, having their rearward portions secured to the bottom of the belt-engaging portion of said blank and having adjacent forward por-



tions secured to the upper part of said plate and each wing having a marginal portion thereof constituting a flexible flap overlying the enlarged upper end of the slot in said plate.

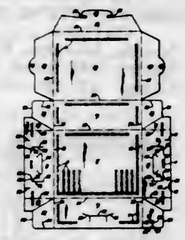
2,837,260
SAFETY DEVICE FOR LADDERS
Lucian Kinnett, Lincoln Park, Mich.
Application February 24, 1955, Serial No. 490,168
4 Claims. (Cl. 228—67)



2. A safety device for a ladder comprising a pair of guide members for slidable reception on the ladder side rails, a dog element pivotally mounted on each of said guide members and in registry with the ladder rungs, a stop member extending from each of said guide members and in registry with the associated dog element, flexible means for raising said guide members on the ladder, flexible means for moving said dog elements into contact with the stop members, a U-shaped railing having its ends pivotally mounted on the guide members, two depending members pivotally mounted on the U-shaped railing, and a foot plate interconnecting said depending members.

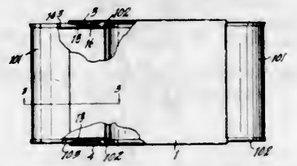
2,837,261
SELF-LOCKING FOLDING BOXES
Richard C. Stenger, San Carlos, Calif., assignor to Baljak Corporation, Wilmington, Del., a corporation of Delaware
Application April 1, 1955, Serial No. 498,510
8 Claims. (Cl. 229—35)

1. A folding box, particularly for use with a liner, the box being assembled from a single box blank comprising, a bottom panel; a front panel, and a back panel articulated to the bottom panel along a front fold line and a back fold line, respectively; side panels articulated to the bottom panel along side fold lines; corner flaps articulated to the ends of the side panels along corner flap fold lines; lock flaps articulated to the ends of the front and the back panels along lock flap fold lines which are substantially in coincidence with said corner fold lines, considering the set up box, said side panels having internal cuts in them forming internal tongues in the side panels overlying said lock flaps in the assembled box, the internal cuts being of substantially inverted L-shape, the substantially vertical leg of the L being at a distance from the corner flap fold line less than the distance of the end edge of the lock flap from the lock flap fold line, the substantially horizontal leg of the L extending away from the corner and terminating at a point substantially in coincidence with said end edge of the lock flap in corner forming position thereby arresting the lock flap against movement beyond the position in which the corner is squared, said lock flap and said side panel being provided with an interlock including an external cut extending into the body of the side panel from its top edge and an external cut extending into the body of the lock flap from its top edge, said two external cuts having an interior portion remote from the respective top edge and an exterior por-



tion adjacent the top edge, the interior portions of both cuts being in substantial coincidence when the box is set up, to permit engagement in the position in which the said end edge of the lock flap is arrested by the end of the horizontal leg of the L, the exterior portion of the side wall cut being at a greater distance from the respective flap fold line than the exterior portion of the lock flap cut, the exterior portion of the lock flap cut being offset with regard to the interior portion of the lock flap cut, thereby forming a hook on the lock flap pointing towards the lock flap fold line, the hook being sufficiently short to permit flexing of the stock without permanent creasing by pressure applied adjacent the hook and directed toward the inside of the box to snap the hook from a position overlying the end panel into a position underlying the end panel, whereby the far edge of the interior portion of the flap cut is flexed into engagement with the near edge of the interior portion of the side panel cut.

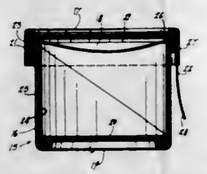
2,837,262
PACKAGE HOLDER FOR CANS AND THE LIKE
Fred J. Ullrich, Kalamazoo, Mich., assignor to Sutherland Paper Company, Kalamazoo, Mich.
Application November 10, 1954, Serial No. 467,980
6 Claims. (Cl. 229—40)



1. A tubular holder for packaging containers having projecting rims at the ends thereof, said holder being formed of an integral cut and scored blank of paperboard or the like and comprising four walls and a sealing flap disposed in alignment in the blank and connected by hinging scores, one opposed pair of walls and the sealing flap having integral end flaps of substantial width folded inwardly upon and fixedly secured to the inner sides

thereof in parallel relation thereto, the other pair of opposed walls having inturned container rim engaging tongues disposed approximately parallel thereto and springably connected to the ends thereof, the tongues adjacent their swinging inner ends being connected to the adjacent end flaps by integral links having flexing connections to the tongues and flexing score connections to the flaps aligned with the said hinging scores, whereby when the walls are in erected position the said connecting links are subjected to endwise thrust and the tongues are springably supported with their swinging inner ends in diverging relation to the inner sides of the walls to which they are springably connected thereby facilitating their engagement and retention of their engagement within the rims of packaged containers positioned between the first mentioned pair of walls.

2,837,263
PULL TAPE FOR REMOVING CONTAINER COVERS
Roy Nasello, Brooklyn, N. Y.
Application July 25, 1955, Serial No. 524,085
1 Claim. (Cl. 229—43)



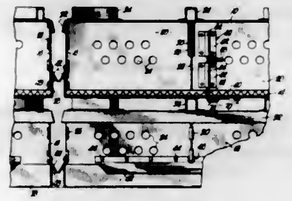
A container for potables and other substances comprising a cylindrical hollow two-ply body with an upper open end and a closed lower end having a bottom therein, an upper edge at said upper open end of the body, a cap having a downwardly extending peripheral flange adapted slidably and removably to fit over said open end and overlap the body, and a flexible tape having one end secured to the body adjacent said edge, said tape being adapted to extend loosely across the open upper end and the upper edge of the body and between the flange of the cap and the body with a free end disposed outside the body and beneath and beyond the flange of the cap, said end of the tape being anchored between the plies of the body at one side and extending from the other side of the body.

2,837,264
TWO PIECE CARTON WITH NECK
Arthur Rous, Englewood, N. J., assignor to Federal Carton Corporation, Inc., North Bergen, N. J., a corporation of New York
Application May 28, 1957, Serial No. 662,151
11 Claims. (Cl. 229—43)



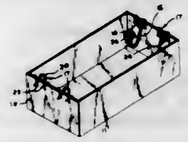
1. A two piece carton adapted to be formed into a package having a constricted section comprising a first piece having at least 3 sides and a bottom, each said side having two oblique fold lines, each said fold line running from a point on the top of said side to a point on a respective edge of said side, said fold lines serving to facilitate inward folding of the portions of said first piece delineated by said fold lines, and a second piece comprising a multisided flat section and flaps extending from the sides of said section, said flaps having divergent edges near the end thereof, said second piece being adapted to be placed with said flaps extending into said first piece and retained therein when the portions of said first piece delineated by said fold lines are folded inward.

2,837,265
COLLAPSIBLE SHIPPING RECEPTACLE
Ralph S. Zebarth, Hickman Mills, Mo., assignor to Gordon Johnson Equipment Company, Kansas City, Mo., a corporation of Missouri
Application March 28, 1955, Serial No. 497,177
2 Claims. (Cl. 229—47)



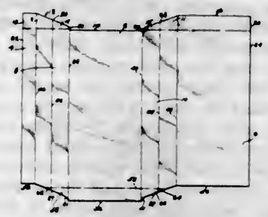
2. In a shipping receptacle, a hollow body having opposed side and end walls and a partition spanning the distance between a pair of said walls; a member closing the bottom; and means on the partition intermediate the ends thereof engaging the member for holding the latter against sagging relative to the body, said means including an element extending through the member and having a lateral extension engaging the lowermost face of the member, said extension being provided with means thereon for cutting a slot in the member as the extension is forced through the member and said element being rotatably mounted on the partition for swinging the extension to a positon engaging said lowermost face of the member after the extension has been forced through the member.

2,837,266
STORING, DISPLAY AND CARRYING CONTAINER
Edward B. Sarnoff, Bronx, N. Y.
Application January 14, 1957, Serial No. 634,034
2 Claims. (Cl. 229—47)



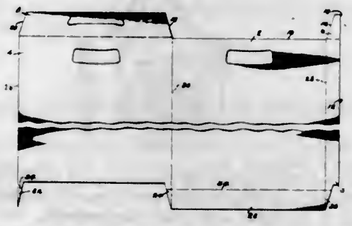
1. A container comprising a hollow box-like body having rectangular ends, a pair of tabs secured to the top of each of said ends, a rectangular cover formed to fit over said body, said cover having a pair of aligned slots at each end thereof, said tabs having loops adapted to fit through said slots when in upright position, said tabs being formed of yielding material so that the tabs can be bent over said tops of the ends of the body to dispose the loops within the body, said body having a pair of spaced openings in one end thereof, a cord extending through the openings and having free ends terminating inside the body, said free ends having tips which are larger than the openings in the body, said loops interlocking with said tips, said cord being longer than the spacing between the openings in the body to provide a handle for carrying the container when the cord is drawn out of the base so that the tips are juxtaposed to said one end at the openings in the body.

2,837,267
BAGS
Adolph Potdevin, Westwood, and Rudolph P. Bechle, Wyckoff, N. J., assignors to Potdevin Machine Co., Teterboro, N. J., a corporation of New York
Application December 7, 1955, Serial No. 551,550
4 Claims. (Cl. 229—53)



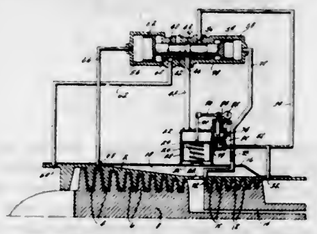
4. A bag composed of a single piece of material, said bag comprising a front wall and a rear wall; a gusset extending along each side of the bag intermediate the two bag walls; and a foldable closure lip at the bottom end of the bag, said lip extending across the entire bottom end of the front bag wall and then sloping so that the bottom end of the inner half of each gusset immediately adjacent the side edges of the front wall projects beyond the bottom end of the other or outer half of each gusset, said lip being folded over upon the outer face of the rear wall of the bag along a transverse fold line extending across the lip from one edge to the other, said fold line lying below the inner end of the lip and traversing the longer or inner half of each gusset for its entire width but traversing the shorter or outer half of each gusset for only part of the width of this half of the gusset, that portion of the outer half of each gusset which is traversed by said transverse fold line being pinched between the inner half of the gusset and the untraversed portion of the outer half of the gusset.

2,837,268
BAGS
Adolph Potdevin, Westwood, and Rudolph P. Bechle, Wyckoff, N. J., assignors to Potdevin Machine Co., Bergen County, N. J., a corporation of New York
Application September 22, 1955, Serial No. 535,868
4 Claims. (Cl. 229—54)



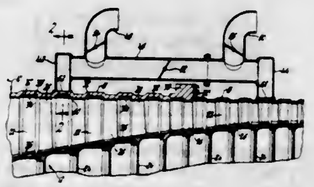
2. A bag blank comprising two integral panels; a relatively narrow, seam-forming flap along the outer edge of and integral with one panel and projecting beyond one end thereof adjacent the outer edge of the panel, the inner edge of the projecting portion of said seam-forming flap inclining toward the outer edge of the flap; an integral flap projecting from the same end of and extending entirely across the other panel, said last-mentioned flap having convergent side edges, the angle of inclination of each of which is substantially equal to the angle of inclination of the said inner edge of the first-mentioned flap, the distance between the inner end of the inclined inner edge of the projecting portion of the said seam-forming flap and the inner end of the adjacent inclined edge of the said second flap being substantially the same as the distance between the inner ends of the two convergent edges of the said second flap; a relatively narrow flap integral with the second-mentioned panel, the inner edge of this flap inclining toward its outer edge at the same angle of inclination as that of the inner edge of the said seam-forming flap; and a flap integral with the first-mentioned panel and projecting beyond the end of the same, opposite said seam-forming flap, this flap extending entirely across its panel and having convergent side edges, the angle of inclination of each of which is substantially equal to the angle of inclination of the inner edge of the said seam-forming flap.

2,837,269
COMPRESSOR BLEED CONTROL
Bruce N. Torell, Wethersfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application May 3, 1954, Serial No. 427,303
6 Claims. (Cl. 230—114)



1. A bleed control for a multi-stage compressor having means for bleeding air therefrom at an intermediate stage, said control including a fluid actuated closure for regulating the area of said bleed means, valve means for regulating the effect of fluid on said closure, means for actuating said valve means in one sense in response to fluid pressure adjacent to the point in the compressor where bleeding occurs, means for actuating said valve means in an opposite sense in response to fluid pressure at a point in the compressor upstream of said first point and means for actuating said valve means in both senses in response to fluid pressure at the compressor inlet.

2,837,270
AXIAL FLOW COMPRESSOR
Gilbert E. Chapman, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 24, 1952, Serial No. 300,714
7 Claims. (Cl. 230—115)



1. In combination, a multi-stage axial flow compressor comprising a stator and a rotor, said stator including

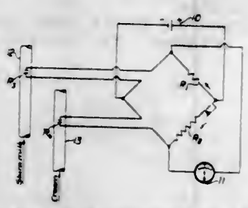
an outer casing surrounding said rotor and containing a plurality of axially spaced circumferential grooves within the interior thereof, each of said grooves having an inner wall and a pair of spaced side walls, a ring of stator vanes for each of said grooves including an outer shroud band and a plurality of radially extending stator vanes mounted therein, said shroud band being seated between the side walls of respective ones of said grooves, portions along the circumferential length of at least one of the side walls of at least one of said grooves being chamfered to form a plurality of spaced slots between said one groove and its respective shroud band, ports being formed in said compressor casing communicating with said selected grooves, said compressor casing having manifold means thereon connected to said ports.

2,837,271

METHOD AND APPARATUS FOR REGULATING THE FAT CONTENT OF CENTRIFUGALLY SEPARATED CREAM

Folke Valentin Haglund, Johanneshov, Sweden, assignor to Aktiebolaget Separator, Stockholm, Sweden, a corporation of Sweden

Application November 16, 1951, Serial No. 256,689
6 Claims. (Cl. 233—1)



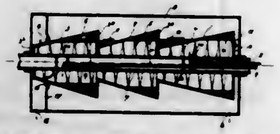
3. Apparatus for use in regulating the fat content of cream discharged from a centrifugal separator having separate skim milk and cream outlets, which comprises resistance cell means, pipes communicating with the cell means for passing separately therethrough skim milk and cream discharged from the separator, a Wheatstone bridge having four resistance arms including two resistors maintained at predetermined values proportioned substantially in the ratio of the electrical resistances of the separated skim milk and cream at a predetermined fat content of the cream, means for connecting the resistance cell means into at least one of said arms which does not include either of said resistors, the bridge having two pairs of opposing corners between which the resistance arms are connected, an alterating current source connected across one pair of opposing corners, and an electrical potential indicator connected across the other pair of corners.

2,837,272

CENTRIFUGAL APPARATUS FOR SEPARATING SOLID PARTICLES OUT OF A LIQUID

Pierre Robert Laguilharre, Enghien-les-Bains, France

Application November 7, 1955, Serial No. 545,476
Claims priority, application France November 9, 1954
9 Claims. (Cl. 233—7)



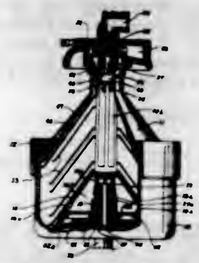
1. A centrifugal apparatus for separating solid material out of a liquid, comprising a hollow shaft, at least two separating stages arranged coaxially in register with successive sections of said hollow shaft and including each a frustoconical bowl revolubly mounted on said hollow shaft, the bowls flaring all in the direction of one end of the apparatus, means for making the bowls revolve in unison on the shaft, a cover closing the larger diameter end of the bowl in the stage located at the first mentioned end of the apparatus, said cover engaging revolubly and fluidtightly the hollow shaft through a central opening therein, an annular cover closing the larger diameter end of the bowl in all of the other stages, each annular cover engaging the smaller diameter end of the bowl in the following stage in the direction of the above mentioned end of the apparatus in joining relationship therewith along a circumference surrounding at a distance the hollow shaft, a flat cover closing the smaller diameter end of the bowl in the stage at the second end of the apparatus and engaging revolubly and fluidtightly the hollow shaft, means for introducing the liquid, laden with the solid material to be separated centrifugally, into the bowl at the first mentioned end of the apparatus, a conveyor worm mounted coaxially inside each bowl and adapted, when rotated, to urge the solid material separated out of the liquid in said bowl towards the second end of the apparatus, means for rotating the worms in unison with the shaft in the same direction as the bowls, but at a different speed, means for introducing washing water into the bowl of the stage located at the second mentioned end of the apparatus, means wherethrough the mother lye produced through the centrifugal separation in the bowl at the first end of the apparatus is exhausted out of the said bowl, means through which the solid material separated out of the liquid in the bowl in the stage nearest the second end of the apparatus is discharged out of last-mentioned bowl and means for connecting the bowls in a series of two successive stages, through the cover on the larger diameter end of the bowl in the stage nearer the second end of the apparatus, and through the side wall of the bowl nearer the first mentioned end of the apparatus, the said connecting means providing for the passage of the washing water in succession through the bowls in counter-current relationship with reference to the solid material separated out of the liquid under treatment and moving under the action of the worms in the direction leading from the first to the second end of the apparatus.

2,837,273

CENTRIFUGAL SEPARATOR

Frank E. Sullivan, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, Poughkeepsie, N. Y., a corporation of New Jersey

Application February 8, 1956, Serial No. 564,203
11 Claims. (Cl. 233—14)



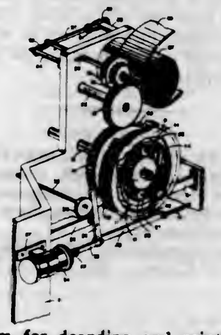
1. In a centrifugal separator having a centrifugal bowl provided with a separating chamber a hollow axial spindle secured to the bowl and rotatable therewith, and a frame rotatably supporting the spindle and having two stationary inlets, the combination of a tube secured in the hollow spindle and rotatable therewith, the tube containing a central passage and forming with the spindle an outer passage separate from said central passage, sealed flow connections from said stationary inlets to said passages, respectively, said passages extending into the bowl and means in the bowl forming a first generally radial passage leading from said outer passage and terminating at the outer peripheral portion of the separating chamber, said means also forming a second generally radial passage leading from said central passage and terminating in the separating chamber at a region located substantially inward from said peripheral portion, the bowl having an outlet for discharge of a separated lighter component from the inner portion of said chamber, the bowl also having a heavier component discharge passage leading from said peripheral portion of the separating chamber.

2,837,274

PRINTING MECHANISM

Siegfried Godel, Norwalk, Conn., assignor to Olivetti Corporation of America, New York, N. Y., a corporation of Massachusetts

Application May 9, 1955, Serial No. 507,079
6 Claims. (Cl. 235—58)



1. In a system for decoding and printing binary information constituted by a sequence of individual binary digits which includes an indexing shaft to provide a series of angular displacements corresponding to the values of the individual binary digits in said sequence, and a printing wheel carrying angularly spaced printing characters, each representative of a respective sequence, the combination with said indexing shaft and said printing wheel of a printing wheel drive mechanism to selectively intercouple the indexing shaft and the printing wheel in accordance with the values of the digits contained in the sequence thereof, said printing wheel drive mechanism comprising: an epicyclic gear train having a sun pinion coupled to said indexing shaft, an internal gear coupled to said printing wheel, and at least one planetary pinion in mesh with said sun pinion and said internal gear; and means operable in response to each digit in said sequence to fix the position of the axis of said planetary pinion whereby said internal gear and said printing wheel are caused to rotate with said sun pinion and said indexing shaft, the total amount of said rotation being representative of said binary information.

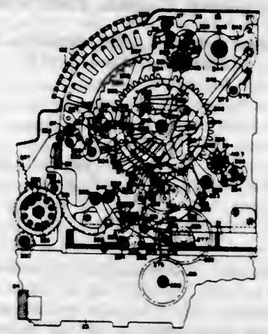
2,837,275

CONTROL OF TOTALIZER SELECTING MECHANISM BY THE TOTALIZER

Herman M. Konrad and Rudolph J. Moser, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland

Application October 23, 1953, Serial No. 387,975
13 Claims. (Cl. 235—60.2)

1. In a machine of the class described, the combination of a balance totalizer; totalizer-selecting means for selecting the plus side or the minus side of the totalizer; a differentially-adjustable mechanism for actuating said totalizer-selecting means; a bank of manipulative devices to control said differentially-adjustable mechanism; and means controlled by the algebraic state of said totalizer for superseding the control of the manipulative devices over said differentially adjustable mechanism and for automatically controlling the adjustment of said differentially-adjustable mechanism.

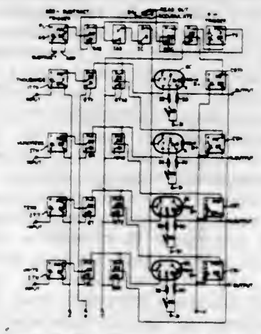


2,837,276

SELF-COMPLEMENTING GAS TUBE COUNTER

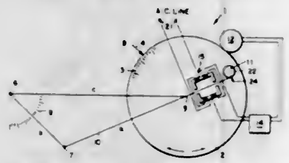
Richard K. Steinberg, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application July 30, 1952, Serial No. 301,675
20 Claims. (Cl. 235—61)



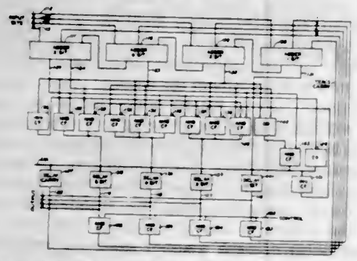
17. In an accumulating device for effecting storage of amounts in response to pulses representing the amounts in true form and having means to manifest the amount therein and also means to manifest the algebraic sign of said amount; sensing means for sensing a succession of records for designations representing amounts and the algebraic signs of those amounts; a gaseous discharge counter tube of the glow transfer type for each order of the accumulator; said counter tube comprising an anode and a plurality of digit representing cathodes defining a closed glow transfer path along which a glow discharge is stepped in response to electrical pulses applied to the tube, and having complementing glow transfer means coupled between digit representing cathodes of complementary value and adapted to complement the amount stored in response to an impulse; circuit means connected to be energized by said sensing means for entering into the accumulator electrical pulses representative of the amounts sensed from the succession of records and including means for pulsing said complementing cathodes of each of said counter tubes for cyclically complementing the amounts thus represented and stored in the accumulator just prior to and just after entry of each amount having a predetermined algebraic sign; and cyclic pulse producing means synchronized with said sensing means for reading out pulses representative of the amount stored in said accumulator.

2,837,277
FLUX TYPE SENSING ELEMENT
Chester Brandon, La Canada, Calif., assignor to Librascope, Incorporated, Glendale, Calif., a corporation of California
Application October 1, 1953, Serial No. 383,602
12 Claims. (Cl. 235—61)



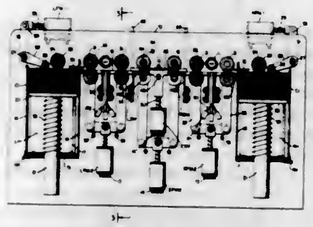
1. An angular value-registering device rotatably mounted on an axis, representing one apex of a triangle, means adjustable with reference to said axis for registering a value representative of the known length of one side of said triangle, a second means adjustable with reference to said axis for registering a value representative of the instantaneous length of a second side of said triangle, adjustable means for registering a value representative of the known value of the angle between the said one side and said second side of said triangle, means for simulating a third side of said triangle, comprising a longitudinally-extending magnetic element connected at one end to said second adjustable means and at its opposite end to anchoring means carried by said rotatably mounted angular value-registering device, said element normally extending along a line intersecting the axis upon which said angular value-registering device is rotatably mounted, means for rotating said angular value-registering device, comprising a servomotor, means for controlling said servomotor, comprising a pair of magnetic cores carried by said rotatably mounted angular value-registering device and disposed one on each side of said magnetic element between the anchored end thereof and the axis of said rotatably mounted angular value-registering device, energized windings on said cores, control windings on said cores, means inter-connecting said control windings and said servomotor for controlling operation of said motor in accordance with the error signals induced in said control windings, and means associated with said anchoring means for registering the length of said simulated third side when said magnetic element is intersecting the axis upon which said angular value-registering device is rotatably mounted.

2,837,278
CHECKING CIRCUIT
Kenneth Eugene Schreiner, Harrington, N. J., and John Perry Cedarholm, New York, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 23, 1954, Serial No. 472,098
4 Claims. (Cl. 235—61)



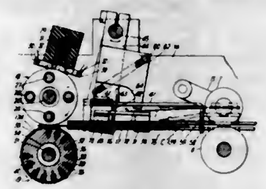
3. A modulo nine computer having a plurality of modulo nine accumulators each for converting a multi-digit decimal number involved in an arithmetical operation into a corresponding single digit modulo nine number, said decimal number having each digit thereof expressed in pure binary notation and said accumulators consisting of a combination of a 1 bit binary adder, a 2 bit binary adder, a 4 bit binary adder, and an 8 bit binary adder, said adders in combination having a 1 bit, a 2 bit, a 4 bit, an 8 bit and a 16 bit output terminal, a rationalizer operated over said terminals and having a 1 bit, a 2 bit, a 4 bit, an 8 bit and a 16 bit output terminals, a delay circuit in series with each said output terminal from said rationalizer, said terminals beyond said delay circuits being connected as input terminals to said binary adders, said 16 bit terminal being connected as an input to said 1 bit binary adder, means controlled in a series of prearranged operations for combining the modulo nine numbers in one of said accumulators, means connected to the 1 bit and the 8 bit terminals connecting said delay circuits to said inputs of said binary adders for detecting a value nine as the result of said arithmetical operation and means connected to said 16 bit terminal incoming to one of said delay circuits and said 8 bit terminal outgoing from one of said delay circuits for detecting a value consisting of a multiple of nine as the result of said arithmetical operation during the penultimate step of said arithmetical operation.

2,837,279
DATA PROCESSING MACHINE
Arthur H. Dickinson, Greenwich, Conn., and Robert I. Roth, Mount Pleasant, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,193
17 Claims. (Cl. 235—61.7)



10. In a data processing machine, a pair of record sensing devices, each having an address sensing section and a data sensing section, reversible means to feed records bearing data designations identified by address indicia past first one and then the other of said devices, an address storage device, a data register, means to enter an address in the storage device, means to enter data in the data register, means to compare the address indicia with the entered address; alternate selective means effective in one direction of feed to first connect the data entering means to the address sensing section of a predetermined sensing device and then operable to connect the data entering means to the data sensing section of the other sensing device, said selective means being alternately settable for the reverse direction of feed to initially connect the address sensing section of the other sensing means to the data entering means and thereafter connect the data sensing section of the first sensing means to the data entering means, means controlled by the last record sensed in each direction of feed for setting the selective means according to the direction of feed of the records, and means controlled by the comparing means for rendering the alternate selective means operable to connect the data entering means to the appropriate data sensing section when the address indicia agrees with the entered address.

2,837,280
RECORD CONTROLLED STATISTICAL MACHINES
Richard Everest Baldwin, Coulsdon, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company
Application September 2, 1955, Serial No. 532,349
Claims priority, application Great Britain August 8, 1955
5 Claims. (Cl. 235—61.11)



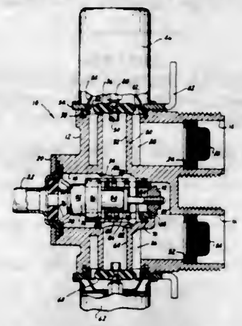
1. Apparatus for sensing normal or interstage data-indicating positions on moving record cards, comprising feeding means to move a card with a continuous movement during sensing thereof, sensing means to sense data-indicating positions of a card as they are moved in succession past the sensing position, a card support located in advance of the sensing means, delivery means to deliver cards in succession to a position on the support at which each card is temporarily arrested with the leading edge thereof disposed at a position in advance of the sensing means, a card-feeding member movable into and out of the path of cards delivered to said support to engage the trailing edge of a card arrested on the support and movable after engagement with said trailing edge in a straight line path to advance the card for engagement thereof by said feeding means to move it past the sensing means for sensing thereby, and selector means to vary the time of entry of said member into the card path and the extent of movement of the member along said straight path according as to whether normal or interstage row positions of the card are to be sensed.

2,837,281
TOTALISATOR EQUIPMENT
Esmond Philip Goodwin Wright, Donald Adams Weir and Glyndwr Rhys Phillips, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application May 13, 1952, Serial No. 287,556
Claims priority, application Great Britain May 17, 1951
10 Claims. (Cl. 235—92)



3. A totalisator comprising a central source of electrical pulses, a plurality of ticket issuing machines, aggregating equipment comprising a plurality of aggregators, a distributor, separate leads connecting said distributor to said ticket issuing machines, means responsive to pulses from said source for operating said distributor to transmit a different pulse in a cycle of repetitive pulses to each of said ticket issuing machines over said leads, a set of common stake leads to which all of said ticket issuing machines are connected, a set of contact pairs in each ticket issuing machine, one contact of each pair connected respectively to said stake leads, the other contacts of said contact pairs being connected to said distributor over said separate lead for that machine, means for selectively closing one or more of said contact pairs when a ticket issuing machine is ready to send a signal representing a bet for connecting said distributor over the particular lead to a combination of said stake leads which represents a number of units in the stake, said combination including one unit, thereby to energize said combination of stake leads, means comprising a counter connected to said pulse source and responsive to the combination of said stake leads which are energized for causing said counter to count out a selected number of pulses determined by said combination, additional selecting means at each of said ticket issuing machines for selecting an aggregator to which said pulses are to be transmitted, and means for transmitting said selected number of pulses to said selected aggregator.

2,837,282
WATER MIXING VALVE
James Clarence Budde, Detroit, Mich., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application June 8, 1956, Serial No. 590,243
8 Claims. (Cl. 236—12)

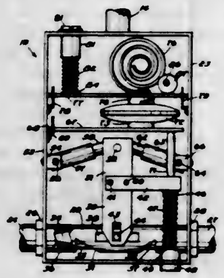


1. A mixing valve for hot and cold water comprising a valve body having a central mixing chamber, spaced hot and cold water inlets into said body communicating with said chamber, the hot water inlet leading to one side of the chamber and the cold water inlet leading to the other side of said chamber, an outlet from said chamber intermediate said inlets, an auxiliary cold water inlet to said chamber opposite from said outlet, a thermo-sensitive element in said chamber adjacent said outlet, and a shut-off valve in said auxiliary cold water inlet operable by said thermo-sensitive element to open when the temperature of the mixed liquid leaving said outlet reaches a predetermined degree.

2,837,283
MIXING VALVE
Aloysius J. Braun, Dyersville, Iowa
Application January 23, 1957, Serial No. 635,639
3 Claims. (Cl. 236—12)

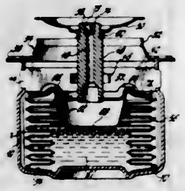
1. A mixing valve for supplying fluid at a constant temperature comprising, a valve housing, a hot fluid inlet pipe connected to the housing, a cold fluid inlet pipe connected to the housing, a straight section of pipe within the housing with its opposite ends connected to the cold and hot inlet pipes, a cylindrical valve member with conical ends mounted within the straight section of pipe,

a pair of valve seats in the straight section adjacent the conical ends of the valve member, a pair of outlet openings formed in the straight section, a rectangular opening formed in the straight section, a pin attached in the valve member and extending through the rectangular opening, control means connected to said pin to maintain the valve structure positioned so as to supply fluid of constant temperature, said control means comprises,



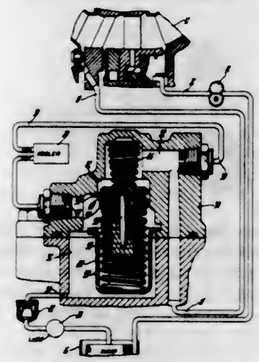
a plate pivotally supported by the housing and formed with an opening through which said pin extends, a pair of shock-absorbers attached to opposite side walls of the housing and pivotally attached to the plate, a lever attached to the plate, a spring mounted between said lever and the housing, a temperature responsive means coupled to the lever, and means for moving the temperature responsive means to set the valve to a pre-set temperature.

2,837,284
AUTOMOBILE RADIATOR THERMOSTAT
Charles S. Bailey, Lockport, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 27, 1954, Serial No. 458,443
2 Claims. (Cl. 236—34)



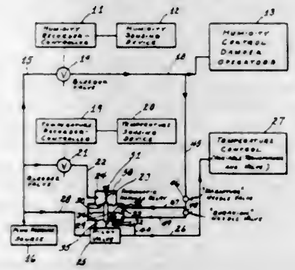
1. A thermostat including a frame with one end in the form of a flanged element for supporting the thermostat in a conduit, said one end also presenting a valve seat defining an opening, the other end of said frame being joined to said one end by spaced portions of the frame whereby a flow passage for fluid to pass through said conduit extends through the frame by way of said opening, an expansible and contractable bellows with one head at one end of the bellows being movable, a valve element outside said bellows and frame and slidably mounted with respect to the latter to engage said seat and being rigidly fixed to said one movable head, the other end of said bellows being fixed to and closed by said other end of said frame, an expansible liquid confined in said bellows, a cup-shaped member with its margin fixed to one end of said bellows and including a membrane lying in a plane transverse to the axis of said bellows to divide the interior of the latter into two chambers, and said membrane having a clear opening through which said liquid may flow from one of said chambers to the other when said bellows is subjected to a variation in temperature of said fluid.

2,837,285
THERMOSTATIC AND PRESSURE RESPONSIVE CONTROL VALVE
Harry R. Urban, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 13, 1956, Serial No. 603,569
4 Claims. (Cl. 236—34.5)



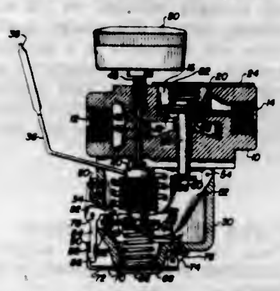
1. A temperature and pressure-responsive control including in combination a chamber through which liquid can flow from a principal inlet to a principal outlet, an auxiliary outlet passage communicating with the chamber adjacent the principal inlet, an auxiliary inlet passage communicating with the chamber at a point separated from the principal inlet and the auxiliary outlet passage, a valve seat between the auxiliary inlet and both the principal inlet and the auxiliary outlet passage, a fixed support in the chamber, a passage to permit flow past the support from the valve seat to the principal outlet, a valve adapted to be closed on said seat to prevent flow from the principal inlet to the principal outlet, the valve being located on the upstream side of said support, a spring urging the valve away from the seat, a thermo-responsive valve actuator located on the downstream side of the support for urging the valve toward the seat, and a second spring yieldingly holding the valve actuator on the support against pressure in the auxiliary outlet.

2,837,286
TEMPERATURE AND HUMIDITY CONTROL SYSTEM
Hugh N. Ross, Silver Spring, Md., assignor to American Instrument Company, Inc., Silver Spring, Md.
Application September 13, 1956, Serial No. 609,776
15 Claims. (Cl. 236—44)



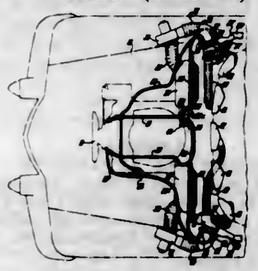
1. In a humidity and temperature control system, humidity-sensing means, humidity-modifying means, means controllingly connecting said humidity-sensing means to said humidity-modifying means, temperature-sensitive means, temperature modifying means, means controllingly connecting said temperature-sensitive means to said temperature-modifying means, and means connected to said humidity-sensing means and being formed and arranged to operate said temperature-modifying means only in response to a relatively rapid change in humidity, and independently of said temperature-sensitive means.

2,837,287
THERMOSTATIC CONTROL DEVICE FOR FUEL BURNERS
Woodford D. Miller and William S. Kunzler, Greensburg, Pa., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application March 24, 1955, Serial No. 496,425
6 Claims. (Cl. 236—99)



2. A thermostatic control device comprising a casing having inlet and outlet passages separated by a valve seat, a valve member movable relative to the seat for controlling a fluid flow between said passages, resilient means for biasing said valve member toward the seat, means normally defining an operative connection for transmitting movement to said valve member, biasing means engaging said operable connection and having an active position for urging the same in one direction, thermally responsive means including a movable member engaging said operable connection for moving the same in another direction, and means responsive to excessive movement of said movable member for terminating said operative connection to permit movement of said valve member toward the seat under the bias of said resilient means.

2,837,288
AUTOMOTIVE HEATING, VENTILATING AND DEFROSTING SYSTEM
Webster J. Owen, Birmingham, and Charles F. Arnold, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 11, 1953, Serial No. 397,592
7 Claims. (Cl. 237—8)



1. A heating, ventilating and defrosting system for an automobile having a cowl, fire wall and windshield, said system comprising a heater and a distribution chamber at each side of said cowl, an air inlet at the top of said cowl, two blisters supported on the engine side of said fire wall, a blower located forward of each of said blisters, each of the latter with one of said blowers being arranged to conduct air from said air inlet through one of said heaters to one of said chambers, separate defroster means connected to each chamber and directed at said windshield, and valve means associated with each of said chambers for controlling the defroster means whereby air from the said blisters may bypass or pass through the cores of the heaters.

2,837,289
TUMBLER BARREL FOR IMPACT CLEANING OF METAL SCRAP
Eric H. Heckett, Valencia, Pa., assignor to Harsco Corporation, Harrisburg, Pa., a corporation of Delaware
Application September 12, 1955, Serial No. 533,623
7 Claims. (Cl. 241—91)

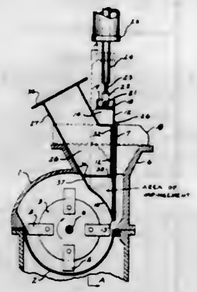


1. Impact apparatus for continuously recovering reusable metallics from steel-bearing slag particles comprising an elongated horizontally extending barrel-like member of continuous uniform multiple-sided tubular cross section, said barrel-like member having open ends thereby defining charging and discharging ends and being adapted to receive material to be broken at said charging end, said barrel-like member comprising a plurality of heavy side wall plates, and said side wall plates being perforated with apertures of predetermined size and spacing, a plurality of wear-plates rigidly attached to the inner working surface of each of said side wall plates along appreciable portions of the lengths thereof, at least some of said wear-plates being arranged in horizontally spaced and generally transversely extending but forwardly inclined spaced rows with respect to the axis of rotation of said barrel-like member, said forwardly inclined rows of wear-plates attached to any one of said side wall plates being offset horizontally from the forwardly inclined rows of wear-plates on others of said side wall plates, said offset relation of said rows of wear-plates thereby defining a substantially continuous thread-like portion of wear-plates on the internal surface of said barrel-like member for carrying material toward said discharge end, and apertures in at least a portion of said wear-plates whereby at least a portion of the apertures in said side wall plates are not blocked or obstructed.

2,837,290
FEED MILL CHUTE WITH RECIPROCABLE KNIFE, TO PREVENT PLUGGING OF MILL
Alfred W. Nagel, Anniston, Ala., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application March 5, 1951, Serial No. 213,977
5 Claims. (Cl. 241—186)

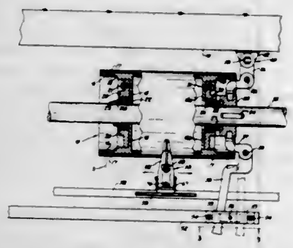
3. In combination with a mill including a rotary grinding means, a device for feeding materials thereto comprising a feed chute of substantially rectangular cross section having rear and side walls terminating in knife edges and a front wall provided with an elongated extension on its bottom end; a casing embracing the rear and side walls of said feed chute, against which the feed from said chute discharges and against which a portion of the material being ground is projected on rotation of said rotary grinding means in the direction of said casing; a reciprocable knife located with running clearance between said chute and said casing, which embraces the rear and side walls of said chute and

reciprocates at least the distance defined by the lower end of said casing and the bottom edge of the rear wall of said chute and prevents buildup of material on said knife and said casing by coaction on its upward movement with the knife edges of said chute and on its downward movement with the adacent surfaces of said casing; and means for reciprocating said knife, said



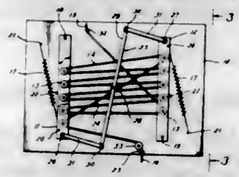
elongated extension of said front wall being located transversely with respect to the path of the material thrown from said rotary grinding means so as to serve as a baffle preventing impingement of said ground material on said rear and side walls of said chute and said feed chute being located above the axis of said rotary grinding means and at an angle permitting gravity flow of materials therethrough.

2,837,291
STOP MOTION
Frank J. Baumann and Joseph M. Bloomfield, Cleveland, Ohio, assignors to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application January 21, 1955, Serial No. 483,367
5 Claims. (Cl. 242—37)



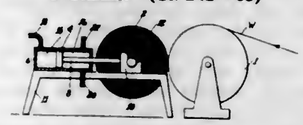
1. Stop motion for a friction drive thread winding machine having a reciprocating thread guide and a friction roller for rotating the thread package during winding compromising; a drive shaft for said friction roller; bearings mounting said friction roller independently rotatable about said shaft; a disengagable coupling between said shaft and said roller for driving said roller, said coupling having a driven member fixed to said roller and a driving member slidably mounted on said shaft; a pivotally mounted lever adjacent to said roller linked with the driving member of said coupling and pivotally movable to positions wherein it extends clear of said guide within and without its stroke zone to respectively engage and disengage said coupling; and means in said thread guide, operative upon a discontinuity of thread through the guide, adapted to move said lever to a position out of the stroke zone of said guide wherein the friction roller coupling with said drive shaft is disengaged.

2,837,292
AUTOMATIC TAKE-UP DEVICE
Harley W. Adamson, Houston, Tex.
Application February 9, 1955, Serial No. 487,037
8 Claims. (Cl. 242—47.5)



1. An automatic take-up device, comprising a support, a pair of arms pivotally mounted on the support for swinging movement from a first spaced apart position, wherein said arms are disposable in a parallel relation, to a second position more nearly adjacent one another, connecting means for maintaining said parallel relation during movement to said second position, pulleys on the arms for stringing a line therebetween and means urging the arms toward the first position.

2,837,293
PAPER WINDING MACHINE
Everett W. Clem, Shrewsbury, Mass., assignor to Rice Barton Corporation, Worcester, Mass., a corporation of Massachusetts
Application June 27, 1955, Serial No. 518,169
3 Claims. (Cl. 242—65)

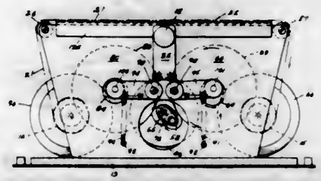


1. In a paper winding machine, a driving drum journaled in a stationary support, a reel spool supported at its ends in a pair of slidable bearing blocks for sliding movement of said spool towards and away from said drum, a frame structure including a pair of horizontal ways adapted to receive said bearing blocks for sliding movement therein, a pair of spaced hollow cylinders mounted along said ways in substantial alignment with said bearing blocks, a piston mounted within each cylinder intermediate the ends thereof, a piston rod connecting each piston with its corresponding bearing block, means for introducing pneumatic pressure into each cylinder on one side only of each piston so as to urge said spool resiliently against said drum, means for circulating hydraulic fluid under low pressure through each cylinder on the other side of each piston so as to keep the hollow portion of each cylinder on said other side of each piston full of hydraulic fluid at all times, and means for stopping the circulation of said hydraulic fluid and for simultaneously introducing a measured quantity of said fluid into said hollow portions.

2,837,294
PROMPTING APPARATUS
John Jacobs III, West Newton, Mass., assignor, by mesne assignments, to Teleprompter West Coast Corporation, Los Angeles, Calif., a corporation of California
Application February 17, 1955, Serial No. 488,963
2 Claims. (Cl. 242—67.4)

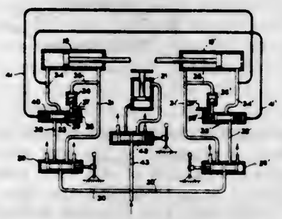
1. In prompting apparatus including two rotatable spools between which a script sheet may be wound, means to drive one or the other of said spools, said driving means comprising a reversible motor, a shaft coupled to said motor, a housing journaled coaxially of said shaft, said housing being rotatable about said shaft, a driving

puck journaled in said housing eccentrically of said shaft and parallel thereto, resilient means stressing said puck into engagement with said shaft, and two driving wheels each coupled to one of said spools, said driving wheels being supported with respect to said shaft to present their circumferences within the circle described by said puck upon rotation of said housing about said shaft,



whereby upon rotation of said shaft in one direction said housing is rotated about said shaft in said one direction to engage said puck with one of said driving wheels and upon rotation of said shaft in the opposite direction said housing is rotated about said shaft in the opposite direction to engage said puck with the other of said driving wheels.

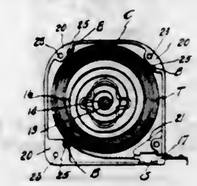
2,837,295
UNCOILER WITH SIDE SHIFT CONTROL
Russell T. Todd, Youngstown, and Paul McCreary, Poland, Ohio, assignors to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio
Application February 28, 1952, Serial No. 274,026
7 Claims. (Cl. 242—78.6)



7. In apparatus for uncoiling metal strip and having a base and a pair of oppositely disposed coil supporting heads slidably mounted on said base for inward and outward movement toward and away from each other; the improvement which comprises separate hydraulic cylinders for moving each of said heads independently of the other whereby the individual positions of the heads may be determined as well as the spacing between them, separate hydraulic circuits connecting said separate cylinders, said separate circuits including separate control valves, separate pressure responsive valves connecting each of said cylinders and providing for outward movement of said cylinders and heads independently of said control valves, and a single source of hydraulic fluid under pressure for energizing said hydraulic circuits.

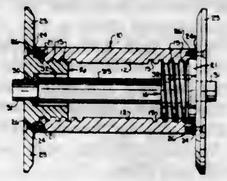
2,837,296
ANTI-FRICTION TAPE MEASURE CASE
Charles Zelnick, Saginaw, Mich., assignor to The Lufkin Rule Company, Saginaw, Mich.
Application October 19, 1953, Serial No. 386,957
7 Claims. (Cl. 242—84.8)

1. In combination, a casing having walls defining a substantially hollow chamber; a coiled tape having measuring indicia on at least one face received in said chamber, said tape having one of its ends secured within said chamber and having its other end extending through an opening formed in said casing in communication with said chamber so as to enable said tape to be uncoiled when it is to be used for measuring purposes; and means for guiding said tape during its movements from and to coiled position, said guiding means comprising projections carried by said walls extending into said chamber and being arranged on an arc of a circle having a diameter corresponding substantially to the diameter of the coil assumed by said tape, and spherical roller members



carried by said projections and arranged so as to contact said one face of said tape tangentially during its said movements to minimize frictional resistance to said movements of said tape, all of said roller members being arranged circumferentially substantially in line so that each contacts said tape at a point substantially in line with the point of contact of the remaining roller members with the tape thereby avoiding obliteration of said measuring indicia by said guiding means.

2,837,297
SPOOL WITH THREADABLY MOUNTED END MEMBERS
Clarence B. Moss, Elizabethton, Tenn.
Application April 26, 1954, Serial No. 425,524
7 Claims. (Cl. 242—118.62)

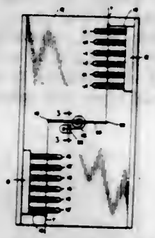


1. An improved spool construction comprising an elongated barrel having a relatively thin wall, a plurality of circumferentially spaced inwardly projecting ribs integral with said wall, at least one end of each of said ribs having a series of notches in the inner surface thereof, the notches in all of the ribs collectively defining internal threads in the ribs, the outer end of each rib also having a groove therein, and an externally threaded relatively short plug fitting in the threads collectively formed in the ribs, and said plug having an annular portion thereon adapted to snugly fit in the annular groove formed by said grooves in the ends of the ribs.

2,837,298
THREAD TENSION REGULATORS
Karl Lehner, Miltenberg am Main, Germany, assignor to Vereinigte Glanzstoff-Fabriken A. G., Wuppertal-Elberfeld, Germany
Application August 16, 1956, Serial No. 604,490
Claims priority, application Germany August 20, 1955
12 Claims. (Cl. 242—153)

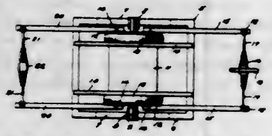
1. A thread tension regulator which comprises: opposing lattice brakes, each providing decreasing frictional resistance to thread travel therethrough as the thread path in each respective brake is shifted toward the opposing lattice brake; and, intermediate said lattice brakes in the path of thread travel, bias-loaded thread guides shiftably mounted between said lattice brakes, said in-

termediate thread guides being shiftable against the bias load from the path of thread travel providing the highest



frictional resistance through the said brakes toward a path providing lower frictional resistance.

2,837,299
BRAKING DEVICE FOR WIRE AND CABLE REELS
Geoffrey U. Canack, Pueblo, Colo.
Application July 22, 1955, Serial No. 523,658
1 Claim. (Cl. 242—156)



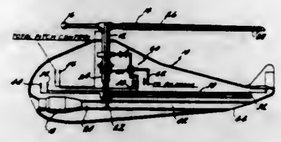
In a wire and cable reel, a rack, bearings carried by said rack, a shaft rotatably engaging said bearings, a reel fixed on said shaft between said bearings, said reel comprising a cylindrical hub and a disc at each end of said hub, a pair of disc-shaped plates loose on said shaft and confronting the outer sides of said discs, a yieldable friction member fixed to each plate and adapted to frictionally bear against said discs, a pair of oppositely extending arms fixed to each plate, a turnbuckle connected between the outer ends of adjacent arms, a second turnbuckle connected between the outer ends of the other arms, and a hand wheel carried by one of said turnbuckles, said arms and turnbuckles providing a means whereby said friction members may be maintained in even contact with said discs.

2,837,300
VERTICAL AND HORIZONTAL FLIGHT AIRCRAFT
John J. Sullivan, Norfolk, Va.
Application November 22, 1954, Serial No. 470,328
11 Claims. (Cl. 244—7)



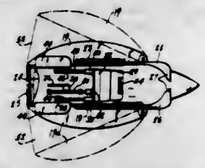
1. An aircraft capable of both horizontal and vertical flight, comprising a wing having front and rear edges and oppositely disposed wing surfaces extending between said edges said wing at its forward portion being of sufficiently great dimension between the said oppositely-disposed surfaces to contain within it crew and passenger accommodations; a deck disposed within the forward portion of the body and extending along the front edge thereof; and means including an elongate tube surrounding the deck, mounting the latter for turning movement about a transverse axis substantially parallel to the front edge of the wing, said deck being at all times positionable substantially in a horizontal plane regardless of the front-to-rear tilt of the wing.

2,837,301
CONVERTIPLANE WITH AUTOMATIC ROTOR-AILERON COUPLING
David S. Jenney, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application December 10, 1956, Serial No. 627,473
5 Claims. (Cl. 244—7)



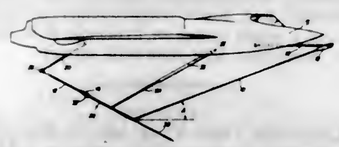
1. In a convertiplane having fixed laterally extending wings and a single variable pitch rotor blade, an aileron carried by each of said wings, means for varying the position of said ailerons in timed relation with the rotation of said rotor blade, and means responsive to the speed of rotation of said rotor blade for varying the effect of said aileron position varying means on said ailerons.

2,837,302
FLYING MACHINE
Anthony L. M. Pirrone, New Kensington, Pa.
Application November 27, 1953, Serial No. 394,679
1 Claim. (Cl. 244—49)



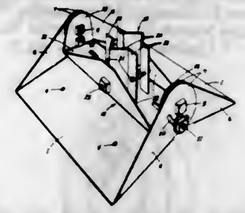
A flying machine comprising a tapered shell, a cockpit in said shell, a propeller at the rear end of the shell, wings hinged on the sides of said shell, pontoons secured to the underside of said wings, intake tubes supported on the sides of the shell, said propeller pulling air into said intake tubes, a rudder extending from said shell, a motor in the shell forwardly of the rudder, a worm in the shell operated by said motor and a worm gear sector rigid with said rudder and meshing with said worm to turn the flying machine.

2,837,303
LANDING GEAR FOR SEAPLANES
Guy B. De Vall, Hollywood, Calif.
Application February 2, 1956, Serial No. 563,056
17 Claims. (Cl. 244—105)



6. In a landing gear for seaplanes, a plurality of parallel cables, a forward strut structure and a rear strut structure, said structures depending from said seaplane, cross members at the ends of said structures, said cables being attached to said strut structures at their respective ends, means for rotating said cross members whereby said cables are wound and unwound thereon to vary the length of the exposed cables.

2,837,304
TELEVISION ANTENNA MAST BASE
Albert G. Goss, Sr., Hammonton, Calif.
Application May 9, 1955, Serial No. 506,877
1 Claim. (Cl. 248—44)



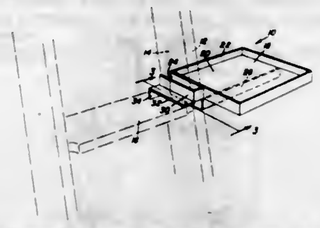
A mast base comprising an elongated cradle having a bottom plate provided with upstanding end ears and upstanding longitudinal side flanges, a transversely adjustable socket-like mast clamp unit upstanding from and seated on the bottom plate centrally of its ends, a cross bolt through the side flanges and the clamp unit adjacent the lower end thereof, and means to mount the cradle on a roof comprising a pair of roof plates disposed in side by side spaced relation, an upstanding flange extending along each end edge of each plate for the full width of such edge, the related pair of flanges extending toward each other and across the space between the plates in close overlapping relation, the cradle extending the full distance between the pairs of flanges with the ears engaging the relatively inner ones of the plate flanges in the zone of overlap with the outer flanges, each of said ears and the related flanges having matching and substantially centrally located bolt holes therethrough, a pivot bolt extending through said holes; each ear having another bolt hole located between the first named bolt hole and the bottom plate of the cradle, and the related flanges having arcuate slots extending in opposite directions relative to each other concentric with the bolt and registering with the last named bolt hole, and a clamping bolt through the slots and said last named bolt hole.

2,837,305
ATTACHABLE SUPPORTS FOR CANS, PAILS AND THE LIKE
Harold Andren, Point Pleasant, N. J.
Application July 22, 1955, Serial No. 523,678
3 Claims. (Cl. 248—148)



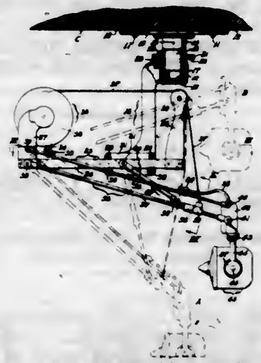
3. An attachable and detachable leg unit for pails, chimed cans and similar receptacles, the unit comprising, a tubular member; an upper bracket fixedly mounted on said member adjacent its upper end, said upper bracket having a downwardly extending lip for engaging the top edge of a receptacle; a lower bracket slidably mounted on said member adjacent its lower end, said lower bracket being longer than said upper bracket and having a plurality of spaced upwardly extending protrusions thereon for engaging the bottom edge of the receptacle; a first set screw for adjustably securing said lower bracket relatively to said tubular member so that the distance between said brackets may be adjusted to the height of the receptacle; a leg telescopically mounted in, and normally protruding from the bottom end of, said member; and a second set screw independent of said first set screw for fixing said leg relatively to said member in a predetermined position of protrusion from said member.

2,837,306
LADDER ATTACHMENT FOR PAINT CAN
Paul E. Elm, Watsonville, Calif.
Application December 16, 1954, Serial No. 475,799
1 Claim. (Cl. 248—210)



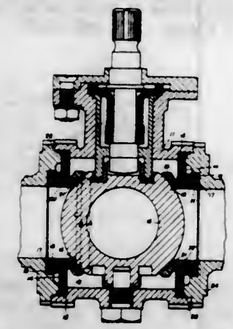
A ladder attachment comprising a tray, a plate attached to said tray and having a lower strap secured to said plate and secured to and underlying said tray, said plate having an upper strap of substantially L-shape for embracing a rail of a ladder, said upper strap having a horizontal flange for overlying the step of a ladder, and a vertical flange depending from one end of said horizontal flange for engaging the rear surface of a step of said stepladder, said lower strap extending transversely of said tray beneath the midportion thereof.

2,837,307
SUPPORTS
George W. Schwager, Silver Spring, Md., and William J. Hogan, Philadelphia, Pa., assignors to Franklin X-Ray Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application January 27, 1954, Serial No. 406,414
5 Claims. (Cl. 248—325)



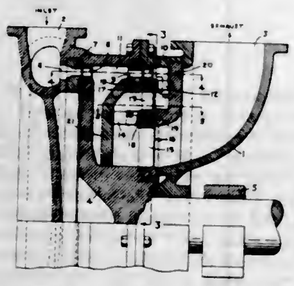
1. In a support for a dental X-ray unit or the like, an anchorage member adapted to be secured to the ceiling of a room or compartment, said member having a pendent vertical axis stub shaft; a drop bracket having a swivel bearing at the top engaged with said shaft projection and a radial extension at the bottom; an elongate open carriage guided for horizontal adjustment between spaced pairs of upper and lower rollers at opposite sides of the radial extension of the bracket; a pair of forwardly-reaching arms fulcrumed at the rear end of the carriage at opposite sides for up and down adjustment; a crosshead pivotally connected to the distal ends of the respective arms; an X-ray unit supported by said head; and means for counterbalancing the combined weight of the arms and the X-ray unit.

2,837,308
FLUID CONTROL VALVES
Stanley Grapes Shand, Hereford, England, assignor to Saunders Valve Company Limtied, Monmouthshire, England, a British company
Application June 6, 1955, Serial No. 513,558
10 Claims. (Cl. 251—174)



1. A valve comprising a body having a passage therethrough, a ducted obturating member movable within the body between a position in which the passage is obturated and a position in which the duct therein aligns with the passage, at least one seating ring surrounding the passage at the high pressure side thereof and coacting with said obturating member, a flexible diaphragm sealed to the body and to the seating ring, the fluid pressure in the passage at the location of the ring having access to the back of the diaphragm and also to a portion of the surface of the ring facing the obturating member, the effective area at the back of the diaphragm to which the fluid pressure has access being less than the area of the portion of the surface of the ring facing the obturating member to which the fluid pressure has access so that the net effect of the fluid pressure is in a direction to lift the ring away from the obturating member, and spring means urging the ring against the obturating member with a force adequate to provide a good seal between the ring and the obturating member when the fluid pressure is not above a determined value corresponding to normal operating conditions.

2,837,309
TURBINE
Albert F. Hanschke, Wellsville, N. Y., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application December 19, 1955, Serial No. 553,932
3 Claims. (Cl. 253—71)



1. In a multistage turbine including, a single overhung wheel, buckets forming at least four separate turbine stages carried by said wheel, the buckets of the second, third and fourth stages being disposed in a common radial plane substantially perpendicular to the axis of rotation of the wheel, and the buckets of the first stage being disposed laterally of the buckets of the second stage.

2,837,310
DEVICE FOR INSPECTING SIDE WALLS OF TIRES
James C. Hansen, Minneapolis, Minn.
Application March 23, 1955, Serial No. 496,194
7 Claims. (Cl. 254—50.2)



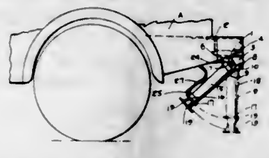
1. In a device for inspecting the side walls of a pneumatic tire, a frame member having a base formed with two spaced extremities, a pair of rollers each rotatably mounted on an extremity of said frame, an arm member pivotally mounted on said base of said frame member and lying centrally of said extremities, a deformer roller rotatably mounted on said arm member, and means for drawing said arm member and deformer roller toward and centrally of said pair of rollers

2,837,311
STRAP AND ANCHOR PLATE PULLER
Emilien Legault, Ville St. Pierre, Quebec, and Michel Lavoie, Montreal, Quebec, Canada
Application October 18, 1954, Serial No. 462,888
1 Claim. (Cl. 254—79)



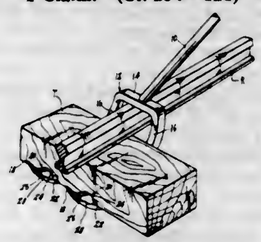
A box strap and anchor plate puller comprising a handle, a head formed at one end of said handle and providing a longitudinally curved fulcrum surface extending transversely of said handle, said head further forming an integral strap gripping surface at one end thereof extending in substantially parallel relationship to the handle, and across the entire width of said head, a yoke member secured to said head and projecting outwardly from said first gripping surface, a jaw member pivotally mounted on said yoke member and providing a second strap gripping surface complemental to the gripping surface of said head, said jaw member and said first gripping surface on said head being adapted to grip a strap between them at a portion of said strap adjacent said anchor plate whereby rocking movement of said head about its fulcrum surface in cooperation with the wall surface to which said anchor plate is secured will pull said anchor plate from said wall surface, said yoke member having the shape of a U providing a long leg and a short leg, said long leg being secured to a side face of said head, and said short leg terminating short of said first strap gripping surface to provide a space therebetween for the insertion of said strap, spring means to pivot said jaw member into engagement with the strap gripping surface of said head, a short handle upstanding from said jaw member and adapted to pivot said jaw member out of engagement with said gripping surface of said head.

2,837,312
AUTOMATIC JACK
Herman J. Troche, Fairview Park, Ohio, assignor to J. H. Holan Corporation, Cleveland, Ohio, a corporation of Ohio
Application October 4, 1954, Serial No. 460,220
2 Claims. (Cl. 254—86)



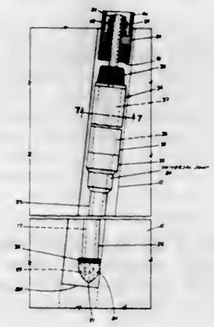
1. A jack, for use with a structure to which it is secured and which it is designed to support, comprising a cylinder pivotally secured adjacent one end to and depending from the structure, a base upon one face of which the cylinder is mounted at its opposite end, a plate secured to the opposite face of the base, a link pivotally secured at one of its ends to the structure, downwardly inclined toward the cylinder, and passed through and extended from the plate at its other end and slidable relative thereto; a reciprocable piston for the cylinder having a head member snugly slidably engageable with the inner surface of the cylinder, the piston having its opposite end passed through and extended from the cylinder base and the plate, means feeding fluid pressure into the cylinder and selectively against the opposed faces of the piston head member, and a ground plate for the piston movable into engagement with the extended end of the link when the piston is moved upwardly, to urge the link upwardly relative to the plate, the ground plate moving away from said link end when the piston is moved downwardly.

2,837,313
SAFETY RAILROAD TIE HOLDER
Frank J. Rogowski, New York, N. Y.
Application June 20, 1955, Serial No. 516,712
1 Claim. (Cl. 254—121)



A railroad tie holder comprising a handle, a fork thereon having a bight connected to the handle and a pair of longitudinally curved tines extending from the bight, and blocks welded to the inner surfaces of the respective tines and constituting abutments engaging against an adjacent side surface of a tie when the same is engaged along its lower longitudinal edges with the curved tines, to hold the tie from slippage in one direction longitudinally of the tines, said tines at the ends thereof remote from the bight terminating in pointed tips, the blocks being welded to the tines inwardly from the tips, said blocks having inner surfaces lying substantially in planes at 45° to the length of the associated portions of the tines, said latter inner surfaces constituting the tie-engaging surfaces of the blocks, the blocks having outer surfaces gradually sloping toward the pointed tips, to merge smoothly into the tine surfaces a short distance inwardly of said tips, said blocks having side surfaces flush with the opposite sides of the tine legs, and having rounded top surfaces merging into the inner and outer surfaces of the blocks, said tines being approximately triangular in cross section, said blocks being also approximately rectangular in cross section at any point between the opposite ends thereof.

2,837,314
APPARATUS FOR DEFLECTING BORE HOLES
Albert F. Pickard, Minneapolis, Minn., assignor to E. J. Longyear Company, Minneapolis, Minn., a corporation of Delaware
Application August 16, 1954, Serial No. 449,942
6 Claims. (Cl. 255—1.6)

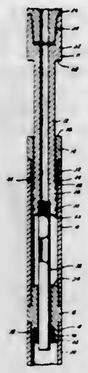


1. Apparatus for deflecting bore holes of predetermined diameter adapted to be mounted on the lower end of a drill string, said apparatus comprising a pilot bit having a diameter substantially smaller than the predetermined diameter of the bore hole, said bit being carried by a section of drill rod having a diameter substantially smaller than the pilot bit, a hard pivot point centrally positioned in the nose of said bit, an off-center fluid ejection port in the side wall of said bit, another section of drill rod having one side thereof weighted, universal coupling means for coupling said smaller drill rod to the weighted drill rod section whereby to permit transverse movement of the bit relative to the bore hole, and means for coupling said weighted drill rod section to said drill string, said weighted drill rod section being mounted for free rotary and limited sliding movement with respect to said drill string, means for engaging said weighted drill rod section for rotary movement with the drill string and a fluid channel running longitudinally through said coupling means, drill rod sections and bit communicating with said ejection port.

2,837,315
HYDROSTATIC BUMPER JAR
Albert L. Burns, Jr., and Jack Chadderdon, Houston, Tex., assignors to Houston Oil Field Material Company, Inc., Houston, Tex., a corporation of Delaware
Application February 16, 1953, Serial No. 337,092
10 Claims. (Cl. 255—27)

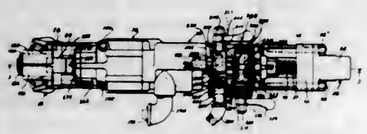
1. A hydrostatic jar for use in a well bore having hydrostatic pressure therein comprising, in combination, an elongate hollow body, said body including an internal shoulder formed at one end of the body and a closed end at the other end of the body, a hollow support adapted to be secured to operating means in the well bore, said support including a stem of reduced diameter extending into the body through the shoulder, a piston on the lower end of said stem snugly slidable in said body, a hammer surface on the piston, an anvil surface carried by the body and engageable by the hammer surface on movement of the stem relative to the body, a tube extending through the other end of said

body and secured to the piston, said tube being in fluid communication with the hollow portion of the stem and the support, seal means sealing the tube from the interior of the body, coupling means on the body for connecting the body to tools or pipe, and means in the body



permitting entry of the hydrostatic pressure into the interior of the body between the piston and the internal shoulder whereby said hydrostatic pressure urges said piston to bring the hammer and anvil surfaces into violent impact.

2,837,316
AIR DRIVEN ROTARY EARTH AUGER
Earl B. Lear, Utica, N. Y., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey
Application January 14, 1953, Serial No. 331,270
8 Claims. (Cl. 255—47)



1. In a rotary earth auger, a guided shell, a feed screw journalled at the opposite ends of said guide shell and extending longitudinally therethrough, overload release means on said guide shell and engageable with said feed screw to normally retain the same against rotation on said shell, a rotary auger unit having a power driven feed nut extending into said shell and operable along said feed screw whereby the auger unit may be fed along said guide shell, said feed screw thereby releasable through the overload release means upon said feed nut binding upon the feed screw, said feed screw having a splined end portion, said overload release means including a clutch sleeve surrounding the splined end portion of the feed screw, an internal cone member splined upon said end portion of the feed screw, a clutch housing fixed to the end of said guide shell, said clutch sleeve fixed to said housing, a clutch spring disposed in said clutch housing and reacting between said clutch cone and the housing to normally retain said cone in clutch engagement with said clutch sleeve, said feed screw having a flange, a buffer spring surrounding the feed screw shaft and having an enlarged end, a bracket for mounting said clutch housing and recessed to receive said enlarged end of the buffer spring and the flange of the feed screw whereby to retain the buffer spring and the feed screw against axial displacement relative to said guide shell.

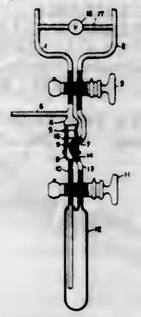
2,837,317
HOLE CLEANING DEVICE
George W. Hulshizer, Stewartsville, N. J., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey
Application February 15, 1957, Serial No. 640,382
3 Claims. (Cl. 255—49)



1. A pneumatic drill comprising a casing having a chamber therein, a hammer piston reciprocable in said chamber within normal limits in either direction when the drill is operating, said hammer piston having a longitudinal passage therethrough, said piston having a second passage communicating at its forward end with said first passage intermediate the ends thereof and terminating at its other end at the rearward end of said piston, a working implement having an end in said casing arranged to be struck by said piston and normally limiting the forward position of the piston when the drill is operating, a valve in said casing for valving compressed air to the opposite end portions of said chamber for actuating said piston, a stem longitudinally mounted against movement relative to the casing in said chamber and extending forwardly into said first passage of said piston with a slidable fit, said stem being of a length such that said stem extends beyond said forward end of said second passage when said piston is in its normal rearward limited position and lies rearwardly of said forward end of said second passage when said piston is in its normal forward limited position, said stem having a longitudinal bore communicating at the rearward end thereof with an air supply, a port formed in said stem and communicating with said longitudinal bore of said stem, said port being at a location such that said port is covered by said piston during the normal operation of the drill and uncovered when said piston is moved forwardly of its normal forward limited position by cutting off the air supply and moving the drill away from the work, a passage in said casing for conducting compressed air from said valve to the forward end portion of said chamber and including a port formed in said casing and communicating with the forward end portion of said chamber at a location such that said port is closed by said piston when said piston is moved forwardly of its normal forward limited position by cutting off the air supply and moving the drill away from the work, and means for exhausting such air from the forward end portion of said chamber.

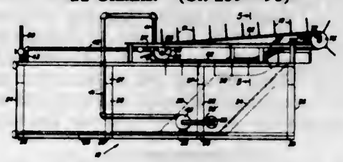
2,837,318
CONDENSATION TRAP
Paul F. Winternitz and Arrigo A. Carotti, New York, N. Y., assignors, by mesne assignments, to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application March 28, 1956, Serial No. 574,472
2 Claims. (Cl. 257—29)

1. A male-female joint characterized by two separate passages through the joint which passages are simultaneously broken when the joint is opened which comprises a hollow elongated tapered female member having an opening at the wider end, an opening at the narrower end and an opening in a sidewall, a hollow tube connected to the sidewall of the female member from without and enclosing the opening in the sidewall of the female member, a hollow elongated tapered male member sized to be inserted into the opening at the wider end of the female member and to fit tightly therein, the male member having an opening at the wider end, an opening at the narrower end and an opening in a sidewall positioned opposite the opening in the sidewall of the female mem-



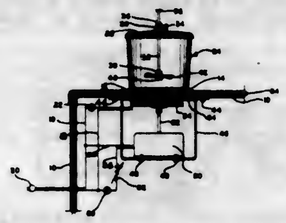
ber when the male member and the female member are placed in juxtaposition, a hollow tube within the male member connected with and enclosing the opening in the sidewall of the male member and extending and connected with and enclosing a second opening in the sidewall of the male member, the second opening being positioned so that it is not closed by the sidewall of the female member when the male member and female member are placed in juxtaposition, and a hollow tube connected to the sidewall of the male member from without and enclosing the second opening in the sidewall of the male member.

2,837,319
SAUERKRAUT PROCESSING APPARATUS
Douglas M. McBean, Rochester, and Laurence C. Tallman, Churchville, N. Y., assignors to McBean Research Corporation, Rochester, N. Y., a corporation of New York
Application July 30, 1954, Serial No. 446,707
11 Claims. (Cl. 259—95)



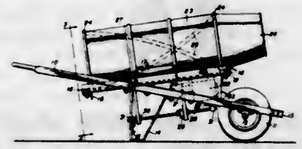
1. Apparatus for processing sauerkraut comprising a tank having a rear end and a forward end, a liquid impervious baffle plate in said tank dividing it into a rear section and a forward section, the top of said baffle plate being lower than the top of said tank, said tank being adapted to be filled with kraut and liquid to a depth-level higher than the height of said baffle plate, a perforated member spanning said tank from the top of said baffle plate to the top of the forward end of said tank and through which liquid may drain into said forward section, means for continuously pumping said liquid out of the forward section of said tank and into the rear section of said tank to circulate said liquid and thereby move the kraut forwardly through said tank, over said baffle plate and onto said perforated member, means within the rear section of said tank for agitating said liquid while it is circulating.

2,837,320
MAGNETIC MIXERS
Howard C. Baron, Brooklyn, N. Y.
Application April 27, 1956, Serial No. 581,097
16 Claims. (Cl. 259—108)



1. In combination: a mixing vessel having a removable closure with an exterior surface and an interior surface; an adjustable rod mounted on said closure and having a first section of its length extending outward beyond the exterior surface of the said closure; and a second section of its length extending through the said closure and beyond its interior surface; a magnetizable stirring element freely rotatable in a selected plane, and rotatably mounted on the second section of the adjustable rod; a supporting structure for the mixing vessel; motive means having a rotatable shaft substantially colinear with the adjustable rod and mounted on the said supporting structure; and a magnet of high permeability fixedly mounted on the said rotatable shaft to rotate in a plane external to the mixing vessel and parallel and proximate to the said selected plane.

2,837,321
PORTABLE CEMENT MIXING DEVICE
Tyler J. Gleason, Chatham, N. Y.
Application November 14, 1956, Serial No. 622,132
7 Claims. (Cl. 259—177)

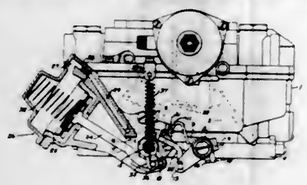


1. In a wheelbarrow mounted mixer, a rotary mixing barrel having a chime at each end edge, and a concentric discharge spout at one end, a pair of support rollers carried by said barrow to rotatably support said mixing barrel, at least one grooved roller on said barrow at each end of said mixing barrel so placed as to receive the outer side edge of each barrel chime in its groove, the grooves of said rollers being disposed in opposed spaced relation to each other securely to hold the barrel rotatively between opposite chimes, whereby said barrel is held in position on said support rollers, and against endwise movement in both directions as well as against upward movement away from said support rollers upon tilting of said barrow.

2,837,322
SECONDARY THROTTLE OPERATOR FOR TWO-STAGE CARBURETORS
Leslie K. Thome, Grosse Pointe Park, Mich., and Harold A. Carlson, Brentwood, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application October 6, 1955, Serial No. 538,825
15 Claims. (Cl. 261—23)

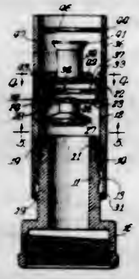
1. In a multi-stage carburetor having primary and secondary mixture conduits, the combination of a manually

operated primary throttle in said primary mixture conduit, a secondary throttle in said secondary mixture conduit, and mechanism for operating said secondary throttle, said mechanism comprising means responsive to suction during operation of an engine tending to open said secondary throttle, means for applying an opposite force



tending to close said secondary throttle, and means acting independent of said first two means and movable over a predetermined dead center position for applying a force tending to open said secondary throttle only when said suction responsive means moves said throttle from closed position to a partially open position beyond said dead center position.

2,837,323
HOSE NOZZLE WITH AERATOR
Joseph J. Goodrie, Lansing, Ill., assignor to Wrightway Engineering Co., Chicago, Ill., a corporation of Illinois
Application June 16, 1955, Serial No. 516,018
1 Claim. (Cl. 261—71)



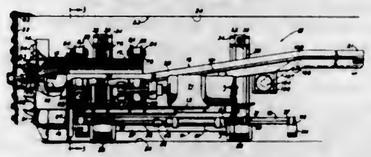
In a hose nozzle, a tubular member adapted to be connected at one end thereof to the outlet of a hose, elongated sleeve means concentrically surrounding said tubular member and threadedly connected therewith for axial adjustment of the sleeve means relative to said tubular member, a first apertured disk carried by said sleeve means, a valve member extending rearwardly from said first disk and having a restricted neck portion secured centrally on said first disk and an enlarged end portion cooperable with the opposite end of said tubular member for regulating the flow from the nozzle in response to axial adjustment of said sleeve means relative to said tubular member, the apertures in said first disk being spaced outwardly relative to said neck portion, aerating means mounted on said sleeve means forwardly of said first disk and including a second apertured disk and a break-up and mixing body carried by said second disk, said break-up and mixing body extending forwardly from said second disk and having an enlarged terminal portion at its outer end adapted to have liquid jets from said second apertured disk impinge thereon and said sleeve means being provided with air inlet ports for entrainment of air during liquid flow through the aerating means, said second disk being spaced axially forwardly of said first disk to define a flow restriction and pressure chamber therebetween, and baffle means comprising a transverse partition disposed substantially centrally between said disks and being imperforate except for a central opening therethrough, the imperforate portion of said partition being interposed in flow blocking relation between the apertures in the respective disks whereby to prevent direct passage of liquid from the apertures in the first disk to the apertures in the second disk and thereby causing diversion of flow through said central opening and the total area of the apertures in said second disk being less than the area of the central opening in said partition, so that said chamber is always filled with liquid, thereby obtaining proper operation of said aerating means over a wide range of valve settings.

2,837,324
APPARATUS FOR DRILLING LARGE HOLES BETWEEN GALLERIES
Martin Aschacker, Blairmore, Alberta, Canada, assignor to West Canadian Collieries Ltd., Blairmore, Alberta, Canada
Application April 4, 1955, Serial No. 499,134
2 Claims. (Cl. 262—7)



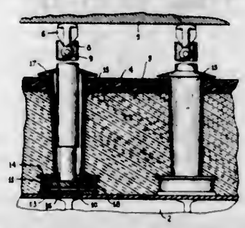
1. A device for drilling minerals from between one gallery and another comprising in combination a rotary drilling machine, situated in one of said galleries, a sliding shaft rotatable by said machine, means associated with said drilling machine adapted to provide rotary motion and forward motion to said sliding shaft, means on one end of said sliding shaft for detachably securing associated length of drill rod thereto, a cutting head rotatable by said drilling machine, and winch means situated in the other of said galleries adapted to pull said cutting head through a pilot hole extending between said galleries, said cutting head including an annular ring, cutting elements adjustably secured around the front perimeter of said ring, a hub, a set of vanes extending between said ring and said hub, cutting elements secured to the forward edges of said vanes, means adjacent to the rear of said vanes for attaching said cutting head to said associated drill rod, a pilot tube extending forwardly from said hub, said winch means including a cable attached to said cutting head, and means mounting said cutting head to said cable whereby the former rotates around the latter, said last mentioned means including a rod extending through said pilot tube, said pilot tube including bearings supporting same for rotation on said rod, said cable being secured to the forward end of said rod, the rear end of said rod extending through said hub, and a thrust bearing between the rear end of said rod and said hub.

2,837,325
ROTARY TYPE TUNNELING MACHINE
Anthony R. Biedess, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application August 10, 1955, Serial No. 527,471
2 Claims. (Cl. 262—7)



1. A tunneling machine comprising a main frame having ground engaging feet, an auxiliary frame, means acting between said main and auxiliary frames for causing relative movement therebetween, a boring head supported by said auxiliary frame adapted to cut a circular bore and comprising a rotatable hollow drum supporting boring arms at one end thereof, an endless conveyor mounted within said drum, and adapted to convey cuttings resulting from the action of said boring head, sweep members supported by said hollow drum arranged to lift cuttings from the invert of said bore and discharge same on said conveyor, means for maintaining said main frame in position whilst said auxiliary frame and said boring head move with respect thereto including a pair of curved shoes conforming to said circular bore, each being pivoted at its lower end to said main frame and extending around said hollow drum, means acting between the upper ends of said curved shoes and extending over said hollow drum to force said shoes against the wall of said bore, means acting between said auxiliary frame and the invert of said bore to raise the main frame from engagement with the ground whilst said curved shoes are released from engagement with the wall of said bore to enable the first named means to move the main frame to a new position with respect to said auxiliary frame.

2,837,326
CHARGE SUPPORTING MEANS FOR FURNACES
Robert C. Muth, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 1, 1953, Serial No. 395,342
8 Claims. (Cl. 263—40)



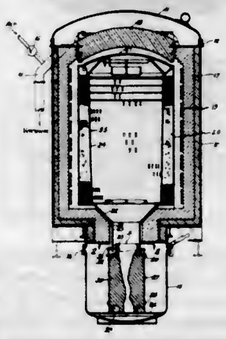
1. Charge supporting means for a furnace comprising a hearth, a plurality of posts supporting said hearth, each of said posts comprising an upwardly extending portion and a flanged base portion extending transversely to said upwardly extending portion, a furnace base structure, a plurality of bearing members supported on said furnace base structure and each having an annular bearing portion extending along the upper portion thereof in a substantially horizontal direction, each of said bearing members interacting along the said bearing portion thereof with a different one of said flanged base portions to support said posts on said furnace base structure and to permit a tilting action of said posts in any direction, and means for limiting the maximum tilting of said posts to a predetermined amount.

2,837,327
LETTER SCALE
Eddie L. Eiffert, Pomona, Calif.
Application February 19, 1957, Serial No. 641,136
2 Claims. (Cl. 265—53)



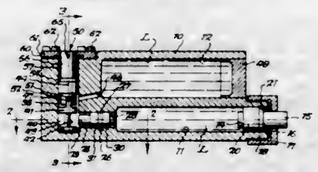
1. Weighing apparatus comprising, in combination, an elongated main body member, there being a plurality of parallel longitudinal spaced transversely extending grooves in one side of said body member, a fulcrum member adapted to selectively engage one of said grooves and support said main body member for pivotal movement thereon, and clamp means mounted on an opposite side of said main body member for supporting an envelope, said clamp means including a pair of transversely spaced apart and longitudinally extending grooves in said main body member and a spring clamp having a pair of legs each slidably and adjustably received within one of said grooves, said clamp extending substantially perpendicular to the longitudinal axis of said main body member.

2,837,328
APPARATUS FOR PRODUCING MAGNESIUM
Lloyd Montgomery Pidgeon, Toronto, Ontario, Canada, assignor to Chromium Mining & Smelting Corporation, Limited, Sault Ste. Marie, Ontario, Canada, a corporation of Canada
Application January 27, 1953, Serial No. 333,457
4 Claims. (Cl. 266—15)



1. In combination with a condenser shell of the type that is suspended beneath the downwardly directed throat member of a vacuum furnace, an open-ended, cylindrical sleeve adapted to rest on one end in said condenser, an upwardly open trough disposed on the upper end of said sleeve, said trough having a diameter and its side walls having a height such that when the condenser with the sleeve is positioned beneath the furnace, the furnace throat will extend into the trough.

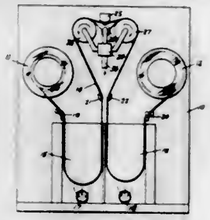
2,837,329
LIQUID SPRING
Paul H. Taylor, Grand Island, and Robert F. Zumwalt, Tonawanda, N. Y., assignors to Wales-Strippit Corporation, North Tonawanda, N. Y., a corporation of New York
Application April 14, 1955, Serial No. 501,272
12 Claims. (Cl. 267—64)



1. A liquid spring comprising a container having a pair of compression chambers, a passage connecting said chambers, one of said chambers being closed except for said passage, a compressible liquid filling said chambers and said passage, means for compressing the liquid in the other of said chambers, means movable in said pas-

sage for transmitting the pressure applied to the liquid in said other chamber to the liquid in said one chamber, and means operable after a predetermined time after compression of said liquid for preventing further transmission of the pressure to the liquid in said one chamber, said means for compressing the liquid being operable thereafter to compress the liquid in said other chamber only, whereby a relatively small cushioning force is exerted initially by the total volume of liquid in the two chambers and thereafter a relatively high cushioning force is exerted by the volume of liquid in said one chamber, and means for adjusting the point at which said high cushioning force becomes effective.

2,837,330
CONTROL APPARATUS
Richard B. Lawrance, Winchester, and Robert A. Pendleton, Dedham, Mass., assignors, by mesne assignments, to Minneapolis-Honeywell Regulator Company, a corporation of Delaware
Application May 21, 1956, Serial No. 586,022
14 Claims. (Cl. 271—2.3)



1. A pneumatically actuated apparatus for controlling the movement of an elongated flexible member comprising, in combination, a perforated member having a surface arranged to engage said flexible member, said perforated member having formed on the surface thereof elongated grooves which are parallel to the path of travel of said flexible member, a pneumatic passage connecting with each of said grooves, and means connected to said passage to create a pneumatic pressure therein to draw said flexible member into locking engagement with said perforated member.

2,837,331
APPARATUS FOR GUIDING STRIP INTO PIN-HOLE DETECTOR
Daniel E. Feick, Duquesne, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application August 18, 1954, Serial No. 450,749
1 Claim. (Cl. 271—2.6)



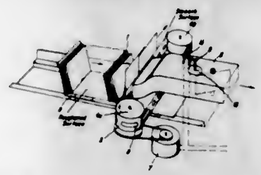
In the exit end portion of an electrolytic tinning line, wherein a coated steel strip forms a short loop which is guided into a pin-hole detector, a pin-hole detector, and means for supporting and guiding the strip between the exit end of the loop and the pin-hole detector, said means comprising a pair of fixed supports at opposite sides of the strip path, a series of directional rollers journaled in said supports for free rotation on parallel horizontal axes, said axes lying in an arc which is concave downwardly, the upper face of the roller at the exit end of the series lying in approximately the plane of the strip path through the pin-hole detector, and magnets mounted within the roller at the exit end to render it magnetic.

2,837,332
CONTINUOUS FILM REEL
Edwin Busch, Saginaw, Mich.
Application May 21, 1953, Serial No. 356,546
16 Claims. (Cl. 271—2.18)



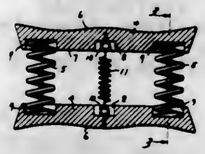
1. In a continuous film reel, support means, a carrier rotatably mounted thereon, an endless coil of film supported flatwise on said carrier, a portion of which leads from the inner periphery thereof and returns to the outer periphery thereof, a central drum on said carrier around which said coil of film is disposed, and disk means of reduced thickness relative to the width of the film and depth of the drum separating the innermost convolution of said coil and the drum and with the drum guiding said film as it is unwound from said reel.

2,837,333
APPARATUS FOR SEPARATING FLAT ARTICLES
Willy Sindzinski, Berlin, and Günther Dannehl, Berlin-Wilmersdorf, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application August 5, 1955, Serial No. 526,599
Claims priority, application Germany August 23, 1954
1 Claim. (Cl. 271—12)



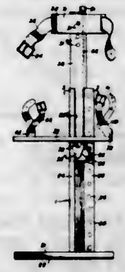
Apparatus for separating flat articles from a stack and for conveying them individually to another position, comprising a perforated conveyor member, an electro motor for driving said conveyor member, a carrier for said stack of articles disposed adjacent one side of said conveyor member, a suction duct having an outlet disposed adjacent the other side of said conveyor member opposite said carrier, a diaphragm mounted in the wall of said suction duct, a pair of electrical contacts, means for connecting said contacts in the energizing circuit of said motor, and means mounted on said diaphragm for closing said contacts.

2,837,334
GRIP EXERCISER
Charles E. Long, Milwaukee, Wis., assignor to Reel-Safe, Inc., Waukesha, Wis., a corporation of Wisconsin
Application October 20, 1955, Serial No. 541,772
3 Claims. (Cl. 272—68)



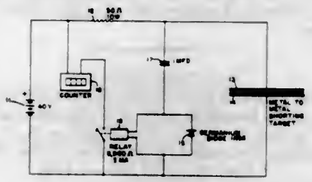
1. In a grip exerciser, the combination of a pair of hand grip members, a pair of compression springs arranged to bear on the inner sides of the end portions of said members, and freely flexible means for holding said members in assembled relation with said springs.

2,837,335
STILT CONSTRUCTION
Frederick C. Koenig, West Palm Beach, Fla.
Application March 16, 1955, Serial No. 494,722
10 Claims. (Cl. 272—70.1)



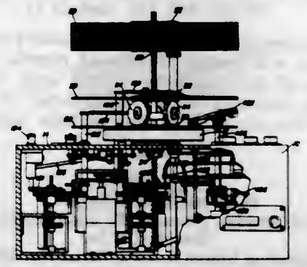
1. In and adjustable stilt construction, first and second vertically extending support members mounted for vertical movement relative to one another; a ground engageable part on the lower end of one of said members; a foot supporting plate extending longitudinally in a direction fore and aft of said members and substantially horizontally when in its normal supporting position and having toe and heel receiving parts respectively at its front and rear ends; means mounting said foot supporting plate on the other of said support members for rocking relatively to said support members from and to its normal position in a substantially vertical plane extending fore and aft of said supporting plate and about an axis transverse to the longitudinal extent of said foot supporting plate and between said toe and heel receiving parts; control means normally preventing relative vertical movement of said support members; and means interconnecting said foot supporting plate and said control means for operating the latter in response to rocking of said foot supporting plate in said substantially fore and aft extending vertical plane to render said control means inoperative, and thereby permit relative vertical movement of said support members.

2,837,336
SCORING CIRCUIT
Forrest W. Brown, New Canaan, Conn., assignor to The Reflectone Corporation, Stamford, Conn., a corporation of Connecticut
Application January 9, 1956, Serial No. 558,044
5 Claims. (Cl. 273—102.2)



1. A scoring circuit for a target having a set of spaced electrodes which become momentarily short-circuited by a bullet passing therethrough comprising; a source of voltage connected to the electrodes of said target rendering one electrode of positive and the other electrode of negative potential; an electrical network including the winding of an electrical relay and a rectifier in parallel and a capacitor connected serially with said rectifier and winding; said network connected in parallel with said target and said source thereby causing said capacitor to be maintained normally charged with electrical potential; said rectifier connected so as to permit passage of current therethrough from the normally positive to the normally negative target electrode via said capacitor to cause said capacitor to discharge in response to the bullet establishing a short circuit between said target electrodes; said rectifier having a sufficiently low resistance in the direction of current flow to cause substantial discharging of said capacitor during the momentary short circuit condition across said target electrodes; said relay having characteristics such that it will not operate in response to discharge current, and an indicating device operated in response to the current flow through the coil of said relay when said capacitor is being restored to its charged condition.

2,837,337
AUTOMATIC INTERLOCKING DUAL PHONOGRAPH RECORD PLAYER WITH SELECTIVE CONTROL
Herman H. Mueller, Ephrata, Pa., assignor of small interests to various assignees
Application October 16, 1952, Serial No. 314,987
16 Claims. (Cl. 274—10)

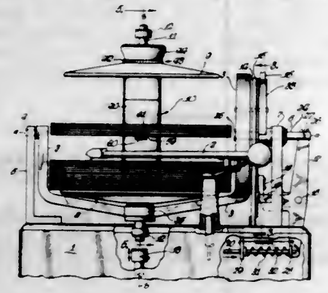


1. An automatic record player including a turntable, means for supporting and driving a record above said turntable, a tone arm having upwardly and downwardly projecting styluses, means for interposing and withdrawing said tone arm from a position between the turntable and a record on said supporting and driving means, a record changer for successively moving records from a stack to said supporting and driving means and thereafter from the latter to the turntable, means for tilting said tone arm to cause its upwardly projecting stylus to engage the sound track on the bottom side of a record on said supporting and driving means, means for lowering said tone arm to cause its downwardly projecting stylus to engage the sound track on the top side of a record on said turntable, means for selectively preventing operation of said tilting means, means for applying pressure to a record on said supporting and driving means, means for moving said pressure applying means into and out of operative position, means for moving said supporting and driving means into and out of position, means for maintaining said last two means out of position and simultaneously preventing operating of said tilting means.

2,837,338
CONTINUOUS MULTIPLE RECORD PLAYER
Lloyd J. Andres, Itasca, Ill.
Application March 23, 1954, Serial No. 417,988
7 Claims. (Cl. 274—10)

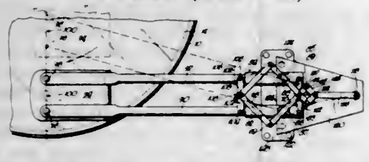
1. In a record player of the character described means forming a base, cradle means on said base journaled for rotation about a horizontal axis, locking means on said base for securing said cradle means in each of two opposite positions, a dual turntable means journaled for rotation in said cradle about an axis normal to and intersecting said horizontal axis, said turntable means comprising a pair of turntables equi-spaced from said horizontal axis and fixed to a coaxial center post, said post adapted to slidably retain concentric therewith a plurality of disc records in stacked relation, record holding and tripping means positioned in the mid-portion of said spin-

dle for holding and sequentially releasing each of said records from a position above said mid-portion to a position on the lower of either said turntables for playing one side thereof when operated, whereby the release of said locking means and the rotation of said cradle means



to its said opposite position and the relocking of said locking means will deposit all of said records by gravity from one of said turntables to rest upon said release means for sequential deposit to the other of said turntable for the sequential playing of their opposite sides.

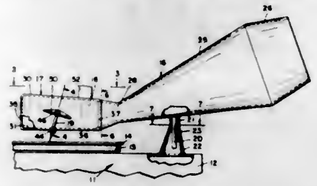
2,837,339
PHONOGRAPH PICKUP
Mordy M. Rhodes, Chicago, Ill., and Chester K. Puda, Sheridan, Wyo.
Application March 6, 1953, Serial No. 340,702
12 Claims. (Cl. 274—23)



1. A phonograph pickup comprising a pivotally mounted pickup arm adapted to be swung over a surface of a record turntable, a stylus mounted adjacent one end of said arm, means mounting said stylus on said arm so that the angle between the stylus and the plane through which said arm is swung remains constant, and means for maintaining the movement of said stylus substantially along a radius of said turntable, said latter means including said pickup arm and comprising a pivotally mounted first arm-segment, a second arm-segment telescopically supported on said pivotally mounted first arm-segment and extensibly and retractably movable radially with respect to the pivot axis of said pivotally mounted first arm-segment, a mechanical proportional expansion means defining an articulated control linkage and an articulated follower linkage, said follower linkage being pivotally connected to said second arm-segment, and said control linkage being constrained along a predetermined path so that, as the pickup arm is pivoted, the follower causes the stylus to move along a radius of the turntable.

2,837,340
MECHANICAL SOUND REPRODUCING DEVICE
Theodore R. Duncan, North Hollywood, Calif., assignor of twenty-six percent to Golda A. Duncan, twenty-four percent to Theodore Roger Duncan, and twenty-four percent to Alan C. Duncan, all of North Hollywood, Calif.
Application April 7, 1952, Serial No. 280,867
6 Claims. (Cl. 274—25)

1. In sound reproducing means a sound pick-up head comprising wall means defining an outlet opening and a diaphragm opening, said wall means presenting a continuous diaphragm mounting edge about said diaphragm opening, said edge having a major portion in a common plane and having a minor portion recessed from said plane, a diaphragm mounted against said major portion



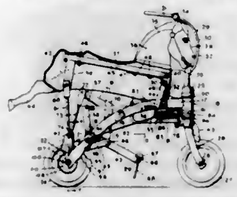
of said edge and overlying said minor portion in spaced relation thereto, means sealing said diaphragm to said wall means to close said diaphragm opening whereby said wall means and diaphragm cooperate to form a chamber, and means for actuating said diaphragm.

2,837,341
AUTOMATIC SAFETY CHUCK OR CONNECTOR-COUPLER
Bernard A. Swanson, Sacramento, Calif.
Application January 29, 1954, Serial No. 407,093
16 Claims. (Cl. 279—19.7)



1. A mechanism of the character described comprising a base mounting member having a longitudinal axial opening for the reception of the shank of a unit to be held; an inner expansible locking member releasably secured to said base mounting member and having a front end portion formed of a plurality of resilient longitudinally directed segments with slots therebetween forming an axial front end expansible opening; and an outer shell locking member releasably secured to said base member, having its body portion longitudinally movable over said inner expansible locking member and disposable in spaced, surrounding relation to the inner expansible locking member, thereby providing space in which said expansible locking member may expand, said front portion of said outer shell locking member having a fixed diameter opening registrable in superimposed locking position upon said expansible front end portion of said inner expansible locking member.

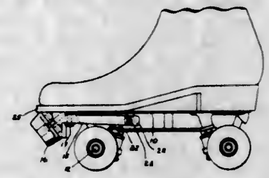
2,837,342
CHILD'S VEHICLE OF THE VELOCIPEDE TYPE
Ralph D. Kirk, Heath Springs, S. C., assignor of one-half to Roy O. Small, Heath Springs, S. C.
Application December 28, 1955, Serial No. 555,931
3 Claims. (Cl. 280—1.189)



1. A vehicle of the velocipede type comprising a frame, front steering wheel means connected with the frame and supporting it and including a rotary steering column, a rear axle journaled upon the frame and having a crank

part for turning the rear axle, rear wheels journaled upon said rear axle and supporting it, separate movable clutch means associated with the rear axle and shiftable into and out of driving engagement with said rear wheels, a horizontally swingable element secured to said steering column for movement therewith, a short link pivoted to said element and swingable horizontally with respect thereto, a relatively long rod arranged substantially horizontally and having its forward end pivoted to said short link and its rear end pivoted to said frame and having an upturned part near its forward end, a substantially horizontal link arranged above said rod and pivoted to the frame and having an end portion to swing horizontally, a retractile spring secured to and connecting said end portion of the last-named link and said upturned part, a horizontally swingable crosshead secured to said substantially horizontal link to swing horizontally therewith, and cable means secured to the ends of said crosshead and connected with the movable clutch means to actuate the latter when the steering column is turned.

2,837,343
BRAKE ATTACHMENT FOR ROLLER SKATE
James G. Serba, Waynesboro, Va., assignor to Wilbur C. Zook, Waynesboro, Pa.
Application July 1, 1955, Serial No. 519,491
1 Claim. (Cl. 280—11.2)



In a roller skate having a sole plate, a truck post on said sole plate and a wheel truck mounted on said truck post, the combination of a rigid U-shaped member having a brake element mounted forwardly at the bight of the member and parallel rearwardly extending arms, means for attaching said member at its forward end to the sole plate and a screw for clamping said arms to the truck post adjacent said sole plate.

2,837,344
FOLDING BABY SEATS FOR TELESCOPING CARTS
Fred W. Young, Oklahoma City, Okla., assignor to Sylvan N. Goldman, Oklahoma City, Okla.
Application January 6, 1956, Serial No. 557,765
12 Claims. (Cl. 280—33.99)



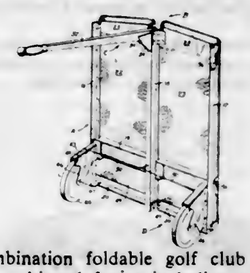
1. In a telescoping cart assembly including upright supports, a receptacle of tapered form carried by said supports and having an end gate, said gate being hingedly supported at its upper end to said receptacle to permit telescopic association of a second cart of similar construction, leg openings formed in said gate, a seat structure for said assembly including a seat supporting frame hinged to the gate immediately below said leg openings, a seat back, said seat back being hinged to said seat supporting frame at its outer portion for folding movement toward said frame, means swingably mounting said seat back on the upper portion of said receptacle, a plate hinged to the gate below the leg openings and adapted for pivotal movement from a horizontal position on said seat supporting frame to a vertical position closing said leg openings, and a trigger means mounted upon and extending outwardly of the gate and adapted to be operated by impact upon telescopic association with a second cart, said trigger mechanism having a movement sufficient to engage one edge portion of said plate to swing the same on its pivot to elevated vertical position upon initial movement of the swinging gate to its upper position due to said impact.

2,837,345
FOLDING SEATS FOR TELESCOPING CARTS
Fred W. Young, Oklahoma City, Okla., assignor to Sylvan N. Goldman, Oklahoma City, Okla.
Application November 9, 1956, Serial No. 621,242
12 Claims. (Cl. 280—33.99)



1. In a folding seat for a telescoping cart, said cart including a receptacle having side walls, a bottom and a hinged gate at one end, said gate being formed at its upper portion with leg openings, a collapsible seat structure including a seat bottom and a seat back hinged together, means projecting from the seat back and overlying and swingably supported upon the upper face of the side walls of the receptacle for supporting the seat back, and means for hingedly supporting the outer marginal edge portion of the seat bottom from the swinging gate immediately adjacent and below the leg openings.

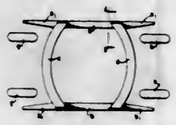
2,837,346
FOLDING COMBINATION GOLF BAG AND CADDY CART
Ersyl F. Chambless, Chicago, Ill.
Application December 23, 1955, Serial No. 555,131
12 Claims. (Cl. 280—37)



1. A combination foldable golf club bag and cart, comprising: a hinged frame including a center post, a pair of end structures pivotally mounted to said center post, each of said end structures comprising an end post, and cross-bracing members, said cross-bracing members being pivotally mounted to said center post, affixed to said end post, and cooperable with portions of said center post and said end post to provide a housing; a pair of

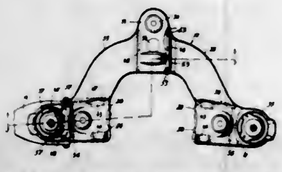
brackets, each having a wheel rotatably mounted therein and adapted to be disposed in a housing when said frame is pivoted to folded condition, each bracket further being pivoted to an end post and arranged to swing said wheel to ground engaging position; a pair of struts, each pivotally mounted to said center post and engageable with a bracket for releasably retaining the wheel carried thereby in ground engaging position; a handle member pivoted to said center post; latch means for releasably retaining said handle member in extended position; a pair of elongated golf club compartments, each mounted to one of said end structures; and means carried by said compartments whereby said frame is retained in said folded condition.

2,837,347
FRAME FOR MOTOR VEHICLES
Béla Barényi, Stuttgart, Germany
Application December 3, 1949, Serial No. 130,987
Claims priority, application Germany December 6, 1948
11 Claims. (Cl. 280—106)



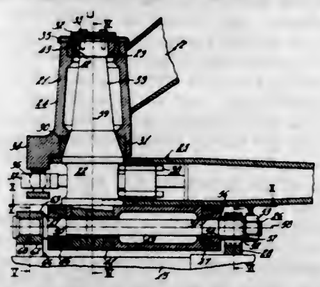
1. A frame for a motor vehicle having a car body with a low center of gravity, comprising two straight and parallel side members of hollow section laterally limiting said car body and two cross members of hollow section limiting the interior space of said car body forwardly and rearwardly thereof and connecting said side members together to form a closed frame, said cross members being continuously arched towards the ends of said motor vehicle for providing continuously curved connections between said two side members devoid of any angle between said connections and for forming an essentially quadrangular frame, said side members and said cross members limiting a space within said frame free of side and cross members for providing a continuous uninterrupted space for a floor therein, said side members being provided with extensions projecting up to at least one of the ends of said motor vehicle, and at least one end cross member, said end cross member being continuously arched similarly to one of said cross members towards the corresponding end of said vehicle.

2,837,348
AUXILIARY CHASSIS MEMBER FOR A VEHICLE
Josef Müller, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application December 16, 1955, Serial No. 553,574
Claims priority, application Germany December 20, 1954
9 Claims. (Cl. 280—106)



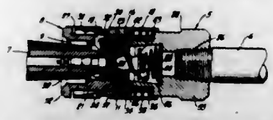
1. In a vehicle, the combination comprising a body, a hollow sheet metal member having horseshoe shape and being reinforced by internal bulkheads and adapted to support said body, resilient means connecting said sheet metal member to said body, and wheel-carrying means connected to and supporting said member.

2,837,349
UNIVERSAL HITCH CONSTRUCTION
Dale W. Hawk, Cedar Rapids, Iowa, assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application December 18, 1956, Serial No. 629,018
12 Claims. (Cl. 280—492)



1. A hitch mounting for an articulated vehicle having front and rear units, interconnected for relative lateral tilting and horizontal angling about a kingpin member having an upstanding portion and a horizontal portion secured to one of said units, said hitch mounting comprising: a horizontal hitch pin rotatably connected to said kingpin member by a pair of longitudinally spaced bearings, each of said bearings having cooperating tapered bearing surfaces, a support means on said one of said units for rigidly restraining said horizontal hitch pin against radial and axial movement, a sleeve encompassing a portion of said hitch pin in longitudinally spaced relation to said first support means and in axial thrust transmitting relation to one of said bearings, a second support means restraining said sleeve and said hitch pin against radial movement relative to one of said units and selectively permitting axial movement of said sleeve to axially adjust said bearings.

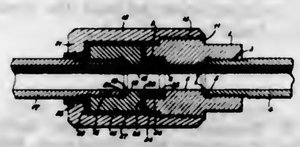
2,837,350
AIR SUPPLY LINE CHUCK
Dan O. Druge, San Leandro, Calif.
Application May 14, 1956, Serial No. 584,606
4 Claims. (Cl. 284—18)



1. An air supply line chuck for a tubular tire valve stem having an open end formed with threaded internal and external peripheries and an internal axially displaceable valve comprising, a housing formed with a socket dimensioned to coaxially receive said stem end, a valve member mounted in said housing for axial displacement from a closed position and having an axially extending tapered portion engageable with said inner periphery of said stem end, said tapered portion being dimensioned for insertion into said stem end for conjoint centering and coaxial displacement of said valve and valve member upon insertion of said stem end into said socket, a plurality of detents mounted in said housing in circumferentially spaced relation around the axis of said tapered portion for radial reciprocation and having pointed inner ends formed to nest in the thread grooves of said stem, a manually engageable member carried by said housing for movement between locking and unlocking positions, spring means biasing said last named member to locking position, and cam means provided by said last named member and said detents and formed for displacing said detents inwardly into said nested position for conjoint

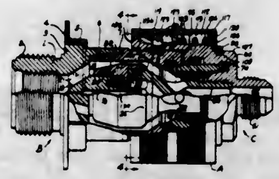
and concentric engagement of said inner and outer peripheries of said stem by said valve member and said detents upon movement of said manually engageable member to locking position, said cam means being formed for releasing said detents for outward movement out of engagement in said thread grooves upon movement of said manually engageable member into unlocking position.

2,837,351
ELECTRICALLY INSULATED PIPE COUPLING WITH CONFINED PRESSURE-SEALING MEANS
Richard J. Bailey, Chicago, Ill., assignor to Cardox Corporation, Chicago, Ill., a corporation of Illinois
Application February 1, 1954, Serial No. 407,408
4 Claims. (Cl. 285—52)



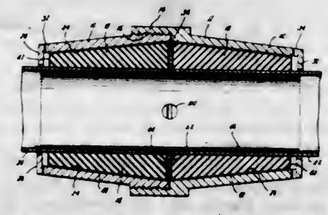
1. A device of the type defined, comprising a first coupling member and a second coupling member arranged in end-to-end relationship and having correspondingly sized alined passageways therethrough with internally threaded outer end portions, the adjacent end portions of said first and second coupling members being internally and externally rabbeted, respectively, to provide flat end surfaces and arranged in axially overlapped relationship to provide longitudinally staggered inwardly and outwardly opening grooves between said flat end surfaces of said members and a cylindrical chamber between the bases of said grooves, a flat insulating washer formed of a material having high compressive strength positioned in each of said grooves, a cylindrical insulating and sealing sleeve positioned in said cylindrical chamber between said grooves and confined thereto by said insulating washers, said cylindrical sleeve being formed of a pressure deformable material capable of being urged into sealing engagement with the surfaces of said cylindrical chamber by fluid pressure applied axially to said sleeve, a clamping sleeve threadedly connected to one of said coupling members and extending axially therefrom in radially outwardly spaced relationship with the other of said members, said sleeve having an inwardly extending flange in axially spaced relationship with the outer end of said other of said members, and electrical insulating means between said sleeve and said other of said members and around the inner edge surface of said flange.

2,837,352
SWIVEL COUPLING WITH RESILIENT RING TO BIAS DETENT MEANS
Paul D. Wurzburger, Cleveland Heights, Ohio
Application November 8, 1954, Serial No. 467,522
19 Claims. (Cl. 285—93)



1. A locking coupling part for interlocking association with a companion coupling part, said locking part comprising a tubular body member formed with parallel axially extending external ribs, a sleeve movable axially over the body member, a split ring, a plurality of segmental elements slidingly related to the body member for radial shifting movement, the segmental elements and the split ring being interfitted as a locking structure arranged for contracting and expanding movements into and out of locking association with the companion coupling part, and ribs on the inside of the sleeve interfitted with the external ribs on the body member to splinely relate the sleeve and the body member, said sleeve ribs including inclined portions serving as cams engageable with the locking structure to shift the latter into said locking association upon axial movement of the sleeve relative to the body member.

2,837,353
THIN-WALL PIPE COUPLING WITH PRESSURE ACTUATED LOCKING GASKET
Clifford L. Ashbrook, Houston, Tex., assignor to Henry T. Chamberlain, Evanston, Ill., trustee
Application February 3, 1954, Serial No. 408,004
4 Claims. (Cl. 285—106)

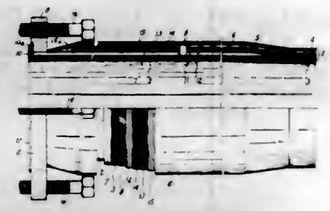


2. In a coupling for pipe, the combination comprising, a hollow body having a pair of frusto-conical internal guide surfaces formed by correspondingly shaped opposed chambers communicating with opposite ends of said body, said guide surfaces each diverging radially from the ends of said body, a pair of elongated deformable packing elements mounted within said body, one in each of said chambers and each provided with a cylindrical axial bore throughout its length for snugly receiving an end portion of a pipe, plural slide members mounted on the exterior of each of said packing elements and presenting an exterior slide surface complementary to and slidably engaged with one of said guide surfaces, a generally annular face at the axially innermost end of each of said packing elements within said body, a pipe support means comprising a tubular section insertable concentrically within the ends of pipe received in the respective bores of said packing elements for aligning said pipe ends coaxially within said body, a spacer member extending radially outward from the said tubular section between said annular faces of said elements and engageable with an internal wall of said body, and port means formed in said tubular member communicating with said annular face of each of said packing elements for transmitting pressure of fluids carried within said pipe to said packing elements, such fluid pressure serving to force said packing elements in opposite axially directions toward the converging ends of said guide surfaces and cause the same to compressibly grip said pipe end portions and to effect fluid tight seals with the latter and the associated guide surface.

2,837,354
FLANGE COUPLING FOR REINFORCED PLURAL LAYER RESILIENT TUBES
Bernard Thibault and Jacques Richardin, Decize, France, assignors to Pneumatics & Caoutchouc Manufacture Kleber Colombes, Societe Anonyme, Colombes, France
Application June 28, 1955, Serial No. 518,634
Claims priority, application France June 28, 1954
4 Claims. (Cl. 285—149)

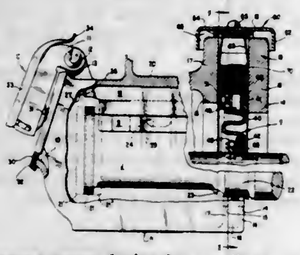
1. A tube coupling construction for a tube having a wall including an inner annular portion of resilient flex-

ible material which is reinforced by an annular covering comprising a plurality of reinforcing layers of stretch-resisting material, said construction comprising a flanged coupling member having an exterior surface of substantially uniform diameter, the inner annular portion of the tube wall being disposed interiorly of and in contact with the inner surface of said coupling member to cover said inner surface completely, and the outer surface of substantially uniform diameter of the coupling member being overlain by the layers of reinforcing material along the major portion of its length, said layers overlying each



other in parallel cylindrical planes concentric with the axis of the coupling, a first ferrule lying wholly in a plane parallel to said planes and simultaneously pressing the several overlying layers of reinforcing material against said outer surface of the coupling member and said layers being bent back around the outer edge of said ferrule to cover it, a second ferrule lying wholly in a plane parallel to said first-named planes and simultaneously pressing inwardly the portion of the overlying reinforcing layers bent back against the outer surface of said first ferrule, and discontinuous locking means for preventing longitudinal displacement of said ferrules.

2,837,355
PRESSURE EQUALIZING COVER FOR JOURNAL BOXES
Lloyd A. Johnson, Woodside, Dan A. Christensen, Palo Alto, and Antone D. Martin, Menlo Park, Calif., assignors, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application February 17, 1955, Serial No. 488,908
3 Claims. (Cl. 286—6)



1. A snap-on cover device for a railway truck journal housing of the type having a rear end wall with a rim defining a narrow deep well, generally rectangular in horizontal cross-section, opening downwardly through its top edge and adapted to house a resilient journal-sealing ring, each end of said rim having projections extending outwardly therefrom, said cover device comprising a sheet longer and wider than said rim with a down-turned continuous flange cooperable with said rim of said well to define an air passage opening into said well and having two pairs of flat-stock spring members secured to the under surface of said sheet adjacent each end, one spring of each pair projecting lengthwise outwardly and being generally L-shaped, with one leg generally horizontal but diverging from said sheet to prevent closure of said sheet against said rim, the other leg comprising a downwardly extending hook engageable with said projections on said rim to hold said cover firmly locked in assembled position, the divergence of the first named leg serving to hold the cover spaced sufficiently above the face of said well opening for the free flow of air therepast, the other spring of each pair being generally shaped like an inverted U with legs extending down and adapted to engage the longitudinal walls of said well for centering said cover with respect to the well with said flange spaced laterally from said rim to provide narrow air passages providing communication between the atmosphere and the interior of said housing.

2,837,356
SANITARY STUFFING BOX
Norman V. Beaman, Cheviot, Ohio, assignor to The J. H. Day Company, Inc., Cincinnati, Ohio, a corporation of Ohio
Application September 15, 1955, Serial No. 534,544
6 Claims. (Cl. 286—7)



4. A seal for a wall opening surrounding a rotary shaft of subtantially smaller diameter than the opening, said seal comprising an annular gland having a central opening surrounding said shaft in spaced relationship therewith, the outer periphery of said gland being adapted to reside within the said wall opening, gasket material disposed intermediate said gland and said wall, said gland being provided with an inwardly facing bearing surface adapted for engagement with a rotatable element extending radially from said shaft, means for maintaining said gland within said wall opening, said means comprising a yoke in engagement with the said gland, a bracket mounted upon said wall, said yoke being in slidable engagement with said bracket, and spring means asociated with said yoke for pivoting said yoke relative to said bracket and urging said yoke into engagement with said gland.

2,837,357
PITMAN CONNECTION
William G. Miller, Toronto, Ontario, Canada, assignor to Massey-Harris-Ferguson Inc., Racine, Wis., a company of Maryland
Application March 29, 1955, Serial No. 497,742
1 Claim. (Cl. 287—89)



A releasable pitman connection comprising, in combination a pitman rod having a bifurcated end defining two extending end portions, an arm pivoted to the end of each of said end portions, said arms having opposed surfaces shaped for conforming to and embracing a connector, an elongated cam member slidably mounted between said bifurcated end portions and extending between said arms, cam projections on said member cooperable with cam surfaces on said arms for urging the latter together when said member is slid outwardly, a cam projection on each of said arms cooperable with cam surfaces on said member for wedging the arms apart and allowing them to swing freely when said member is slid inwardly, and a lever pivoted to said rod and having spring-biased, lost motion means coupling the lever to said member for sliding the latter in and out, said spring-biased lost motion means being mounted in protected position between said extending end portions of said rod.

2,837,358
CLAMP CONSTRUCTION
John R. Millard, Perth, Ontario, Canada
Application February 8, 1954, Serial No. 408,923
Claims priority, application Canada January 25, 1954
1 Claim. (Cl. 287—118)



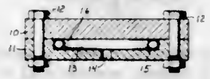
A clamp construction comprising the combination of a structural rod, a structural connecting wire having a portion extending substantially parallel to said structural rod, a deformable clamping sleeve integrally formed as a solid block having a first aperture to receive said structural rod and a second aperture spaced from and substantially parallel to the first aperture to receive said portion of the structural connecting wire, a web forming part of said solid block extending between said first and second apertures and being integral at each end with said deformable clamping sleeve, and securing means, formed from material harder than the materials from which the clamping sleeve structural rod and structural connecting wire are formed and consisting of a coil spring, within said apertures between the clamping sleeve and the rod and said portion of the structural connecting wire respectively adapted to become embedded in the surfaces of the clamping sleeve, structural rod and structural connecting wire upon crimping of the clamping sleeve to deform the shapes of said apertures, said apertures prior to deformation providing sufficient clearance between the clamping sleeve and the structural rod and structural connecting wire respectively to receive said securing means, without said securing means being embedded in said surfaces and to permit sliding movement between said clamping sleeve and said structural rod and structural connecting wire respectively.

2,837,359
METAL REINFORCED ROTARY SHAFT SEAL
George L. Corsi, Detroit, Mich., assignor, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Application April 8, 1955, Serial No. 500,161
3 Claims. (Cl. 288—9)



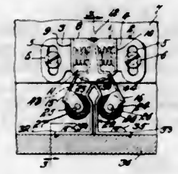
1. A shaft seal, including in combination a unitary rigid metal reinforcing ring having a first radial flange and a second radial flange joined by a generally axially extending web portion, said first flange extending radially inwardly from said web portion and said second flange extending radially outwardly therefrom, one said radial flange terminating in a cylindrical rim edge; and a unitary resilient synthetic rubber member enclosing and bonded to substantially the entire surface of said ring except for said rim edge, said rubber member having a cylindrical periphery flush with said rim edge and having integral therewith a shaft-engaging lip extending from the radial flange other than the one having said rim edge, said lip being concentric with said rim edge.

2,837,360
SELF ENERGIZING SEALING RING
Edward L. Ladd, Dayton, Ohio, assignor to United Aircraft Products, Inc., Dayton, Ohio, a corporation of Ohio
Application August 20, 1953, Serial No. 375,351
2 Claims. (Cl. 288—24)



1. A self energized sealing ring of a kind adapted to be received in a recess in a flat sealing surface for predetermined compression loading by a second superposed sealing surface, comprising a length of relatively thin tubing formed from metal of uniform thickness and having its ends joined together to define an O-shaped ring, said tubing having at least one opening of small diameter therein, said opening being positioned so as to face that side of the tubing which in the installation thereof is subjected to the higher external pressure, whereby the whole interior of the ring is energized in accordance with said higher external pressure and the ring responds to variation in deflection of the sealing surfaces with a natural resilience uninhibited by the external pressure.

2,837,361
KEEPERS
Morris Loeb, New York, N. Y.
Application May 18, 1956, Serial No. 585,842
3 Claims. (Cl. 292—15)



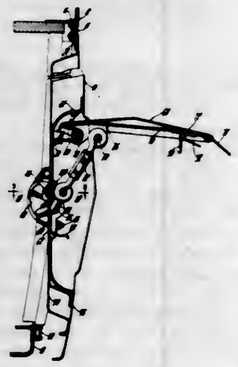
1. A keeper for cooperating with a bolt, the keeper having a bracket including two side walls and an inner base, said base having an inner pivot defining area having sides, two substantially complementary jaws, each jaw having a projection extending into said area and pivotally mounted therein, said projections being confined by the sides of said area, a broad inner arm portion fulcrumed on the inner face of said base, an intermediate arm portion extending outwardly from said inner arm portion and an outer arm portion flaring laterally away from the outer arm portion of the other jaw, a pair of inwardly extending flanges on each of said outer arm portions, a roller journalled between each of said pairs of flanges to engage said bolt in door locking position, coil springs tensed between said side walls and said inner arm portions to urge said rollers into central position toward one another into bolt gripping position, and arcuate tongues extending toward one another from said side walls and substantially concentric to said pivot defining area, there being openings in said outer arm portions receiving said tongues with the parts of said outer arm portions at the inner sides and ends of said openings in substantial engagement with said tongues throughout the movement of the outer arm portions into and out of bolt engaging position.

2,837,362
DOOR VENTILATOR LATCH
Barthold F. Meyer, St. Clair Beach, Ontario, Canada, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 18, 1957, Serial No. 640,753
7 Claims. (Cl. 292—207)



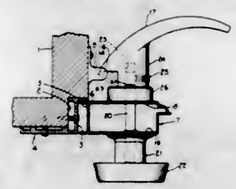
1. A latch for a swinging closure, comprising: a mounting stud having a bearing portion and a reduced cylindrical shank portion; a latch housing mounted on said stud for rotative movement on the bearing portion thereof, said housing surrounding the shank portion of the stud in spaced relation thereto and said housing having an opening in its outer wall opposite the shank portion of the stud; a latching arm projecting outward from the housing; a latching sleeve in said housing, said sleeve having a generally elliptical bore through which the shank portion of the stud projects, the sleeve being radially movable on the shank portion of the stud and said sleeve and shank portion having complementary locking parts thereon to lock the sleeve against rotation on the stud; a finger operator projecting from said sleeve out through the opening in said housing for moving the sleeve radially in said housing to disconnect the complementary locking parts of the sleeve and the shank portion and permit rotative movement of the housing and sleeve on the stud to swing the latching arm from latched to unlatched position; and keeper means for engagement by said latching arm in the latched position thereof.

2,837,363
LATCHING MECHANISM
Ferdinand R. Eichner, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 9, 1953, Serial No. 366,921
6 Claims. (Cl. 292—217)



4. A latching mechanism for the closure of a vehicle compartment or the like, comprising a handle pivotally connected to said closure and adapted for manipulation between latching and unlatching positions, a torsion rod pivotally mounted on said closure, said torsion rod including a crank portion and a latch portion, a link pivotally connected at one end to said handle and at the other end to said crank portion, a catch carried by said compartment coacting with said latch portion, said catch having an abutment and an aperture the latter defining a cam surface for camming engagement with said latch portion, a stop surface on said closure engageable in the unlatching position of said handle with that portion of said link which is pivotally connected to said crank portion for determining the position of the latch portion with respect to the abutment and the aperture of said catch, and spring means biasing said handle toward latching position.

2,837,364
LOCK
Morris Loeb, New York, N. Y.
Application March 2, 1955, Serial No. 491,733
3 Claims. (Cl. 292—228)

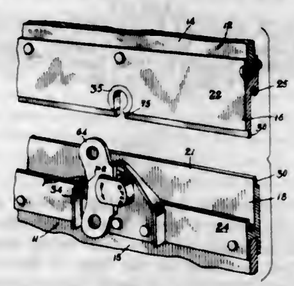


1. In a lock, the combination of a casing, a main disk clockwise and counterclockwise rotatably mounted on an axis in said casing relative to an intermediate locking position and having an angular opening therethrough, projections extending from said disk, spring control means engaging said projections and yieldably urging said disk into said intermediate locking position and normally anchoring said disk against rotation in said intermediate locking position, a shank having an angular cross section to fit said angular opening and thereby rotate with said disk, a handle at one end of said shank and a strike bar engaging nose and handle at the other end of said shank, said strike bar engaging nose disposed in locking position when said disk is in said intermediate locking position, said casing having recessed means to receive and confine said spring means, two inner shoulders at the ends of said recessed means engaged by said spring means in said intermediate locking position, there being extensions of said recessed means in said casing, and two outer shoulders at the ends of said extensions cooperating with said projections to form limiting stops for the rotation of said main disk, one of said projections adapted to engage and follow the engaged end of said spring means while travelling in said recessed means whereby the rotation of said main disk in either angular direction will compress the ends of the spring means engaged.

2,837,365
DOUBLE SEAL JOINT AND LOCK THEREFOR
Ernest Schlueter, Troy, N. Y.
Application June 23, 1955, Serial No. 517,547
15 Claims. (Cl. 292—240)

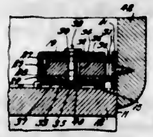
13. In combination, lapped first and second strip-like joining members each having a lateral lap portion and flange extending in the same direction and providing a medial groove therebetween, the lap portion extending further than the flange; the lap portions each having a rabbet groove at the exterior faces thereof to form a tongue lying in the medial groove of the other member; the lap portion of the first member having a bearing hole therein; a generally cylindrical rotatable locking bolt mounted on the first member and having an end thereof in the bearing hole and between the outer edges of the flanges; a knob on the bolt, said bolt having a transverse slot therein about halfway through the bolt in the zone of the lap portion of the second member, the second member having a keeper opening in the lap portion

thereof, the opening being substantially circular and coaxial with the bolt and having an open gap communicating therewith narrower than the diameter of the bolt and wide enough to receive the bolt at the slot thereof, a



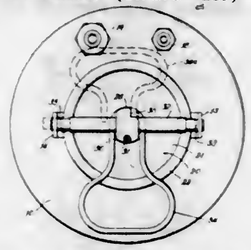
butterfly handle hinged on the knob and biased to lie in a position approximately parallel with strip-like members, detent means fast on the first member for holding the handle and bolt against rotary motion when the handle lies in said position and the bolt is in locked position.

2,837,366
MAGNETIC CATCH
Morris Loeb, New York, N. Y.
Application December 24, 1956, Serial No. 630,318
3 Claims. (Cl. 292—251.5)



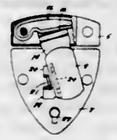
1. In a magnetic catch for relatively movable frames comprising a metal housing adapted to be secured to a first frame and containing a magnetic unit for cooperation with a metal contact plate responsive to a magnetic force adapted to be secured to a second frame, said housing characterized by a base adapted to be secured to said first frame and having attachment ears and an outer face, the ears having structure engaging faces engaging said first frame parallel to but offset from the outer face of the base to form a clearance between said ears, a one piece chamber forming section having an outer wall, two side walls and a rear wall, said base having a rear edge, a tongue intermediate said rear edge, said side walls having projections adjacent their front ends, said rear wall having an intermediate slot to receive said tongue and said base having recesses at the outer ends thereof to receive the projections of said side wall, said projections being bent across said base with their outer faces in alinement with the structure engaging faces of said ears and the free edge of said rear wall being in alinement with the structure engaging faces of said ears to enable said ears, free edge of said rear wall and projections, all to engage the structure to which the device is attached, a magnetic unit anchored to, but movable between, said outer wall and said base, said magnetic unit having parallel metal plate portions throughout their width projecting from the front edges of said outer wall and base for engagement with said contact plate, a magnet disposed between said metal plate portions with its front edge spaced inwardly from the front edges of said metal plate portions, said magnet and plate portions being rectangular in shape and movable to and from said side walls and rear wall, and means anchoring said magnetic unit to said base and outer wall.

2,837,367
SYRUP TANK AND COVER THEREFOR
Alexander F. McMahon, Oak Park, Ill., assignor to The Bastian-Blessing Company, Chicago, Ill., a corporation of Illinois
Application July 15, 1954, Serial No. 443,661
15 Claims. (Cl. 292—259)



15. In a structure of the character described, a container providing a chamber therein and having an opening in a wall thereof, said container being equipped with a pair of spaced-apart standards, one on each side of said opening and each being provided wth an eye therethrough, a closure member adapted to sealingly close said opening, said closure member being equipped with a bar having elongated eccentric end portions slidably receivable within said eyes, said eccentric end portions being contoured to afford axial movement of said bar in said eyes, said bar having a handle secured thereto for rotating the bar between positions wherein said eccentric end portions are selectively moved into and out of locking engagement within said eyes, and means connected to said closure member and said bar for limiting said axial movement throughout a portion of its said rotational movement when out of locking engagement within said eyes.

2,837,368
BOX LOCK
Merton S. Williams, Terryville, Conn., assignor to The Eagle Lock Company, Terryville, Conn., a corporation of Connecticut
Application July 7, 1954, Serial No. 441,731
4 Claims. (Cl. 292—281)

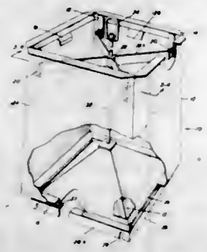


3. A lock of the character described including an upper case, a lower case having an opening therein, an extension at one side of said opening, a hasp carried by said upper case and having a tongue receivable in said opening, said tongue having an opening therein adapted to receive said extension, means mounting said hasp for pivotal movement relatively to said upper case in a first direction toward and away from the lower case to carry said tongue into and out of said opening in the lower case, and means mounting said hasp for pivotal movement relatively to said upper case in a second direction transversely to said first direction whereby said tongue is movable into and out of engagement with said extension.

2,837,369
BOTTOM OPENING BIN
Alfred Leslie Stopps, West Flamboro, Ontario, Canada
Application November 7, 1955, Serial No. 545,387
7 Claims. (Cl. 294—69)

1. A bin comprising: a unitary side wall structure; a drop-out bottom movable with respect to said side wall

structure, but adapted to support said structure; said side walls and said bottom defining a vertical axis, a support member for and attached to said bottom, a support member for and attached to said wall structure adjacent the upper surface thereof and adapted to support a similar bin by its said bottom support member, such support members being provided with two combi-



nations of a support surface on said bottom member and a support surface on said wall structure adapted to support such upper bin bottom at a lower and an upper height above such lower bin depending on the relative orientation about a vertical axis of said bins and means on said wall structure for independently supporting the wall of a bin located thereabove when such bottom is supported in the lower position.

2,837,370
RELEASABLE COUPLING
Albert M. Stott, Clifton Heights, and C Walton Musser, Levittown, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application November 30, 1955, Serial No. 550,227
5 Claims. (Cl. 294—83)
(Granted under Title 35, U. S. Code (1952), sec. 266)



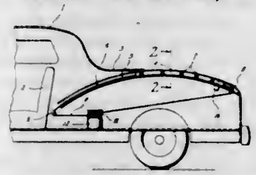
1. A releasable coupling device for maintaining two objects connected together as long as opposing forces acting respectively upon said objects tend to separate them, said device comprising three telescoping members, an outer member, an intermediate member and an inner member, the outer member being hollow and provided with coupling means on one end thereof for attaching a first one of the objects thereto, the opposite end of said outer member being open, the intermediate member and the inner member being disposed within said outer member for slidable movement relative thereto and separable therefrom through said open end thereof, said inner member being provided with coupling means on one end thereof for attaching a second one of the objects thereto, a first locking means carried by said intermediate member for movement transversely relative thereto, a portion of said inner member being in contact with said first locking means normally to maintain said first locking means engaged with said outer member thereby to hold said intermediate member against movement relative to said outer member, means carried by said inner member for moving said inner member relative to said outer and said intermediate members in a direction opposing movement to separate said members, said movement causing means being effective in response to both application and release of the opposing forces acting upon the objects, said inner member portion being so disposed and arranged as to release said first locking means in response to movement of said inner member by said movement causing means sufficiently to release said intermediate member from said outer member thereby to effect separation of all of said members from each other.

2,837,371
DOOR EDGE PROTECTORS FOR AUTOMOBILES
Benjamin C. McKee, Memphis, Tenn.
Application August 8, 1955, Serial No. 526,888
4 Claims. (Cl. 296—44)



2. In an automobile door having an edge, a door edge protector comprising a strip of resilient metal having a channel-shaped cross section and being longitudinally contoured to the shape of the edge of said automobile door; said strip including an inner flange, an outer flange spaced from said inner flange, and a rounded web connecting said inner flange and said outer flange; said outer flange engaging a portion of the exterior of said door adjacent the edge thereof, said rounded web fitting over said edge, said inner flange being drilled to provide a plurality of threaded apertures, a plurality of screws respectively threadedly engaged in said apertures, said screws engaging the portion of the interior of a door adjacent the edge thereof for anchoring the edge protector to said door, said inner and outer flanges being sprung apart by said screws against the resiliency of said metal whereby said protector is clampingly held on said door edge, the resiliency of said metal urging said flanges to return from sprung apart condition to maintain said outer flange snugly against said door lip.

2,837,372
VEHICLE TRUNK COVER
Mary Ann Odom, Houston, Tex.
Application June 10, 1957, Serial No. 664,833
1 Claim. (Cl. 296—76)

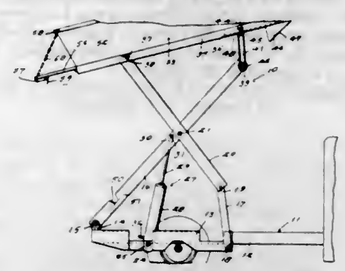


In a vehicle trunk closure, a vehicle body having a luggage compartment, said compartment having a luggage receiving aperture, channels formed in said vehicle body in the side margins of said aperture and extending downwardly into said vehicle body, a cover, laterally extending rollers mounted in the side faces of said cover, said rollers being positioned in said channels, a cable connected to the front and rear faces of said cover, a winch in said vehicle body to which said cable is connected, an electric motor mounted within said vehicle body in operative connection with said winch, a latch means in said vehicle body having a locking pin adapted to extend into said cover when in closed position, a solenoid in operative connection with said latch means, and means for remote activation of said motor and solenoid to permit the opening and closing of said cover.

2,837,373
FLUID PRESSURE ACTUATED LIFTING APPARATUS
Eli Elwood Edenfield, Lakeland, Fla.
Application August 31, 1953, Serial No. 377,403
3 Claims. (Cl. 298—11)

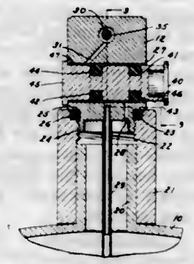
1. A lifting unit of the character described comprising an elongated base, a pair of levers pivotally connected at

corresponding ends thereof to said base, a pair of links pivotally connected to the base at a point spaced from the lever pivot, a pair of lever arms, pivot means connecting the levers and lever arms at points spaced from the ends thereof, corresponding ends of said lever arms being pivotally connected to the opposite ends of said links, a load supporting member disposed above the base, levers and lever arms and pivotally connected adjacent one end thereof to the opposite ends of said lever arms, rollers, means journalling the rollers on the opposite ends of said levers, said rollers engaging the underside of the opposite end of the load supporting member for movement longitudinally thereof, the pivotal connection of the lever arms to the load supporting member and the journal means of said rollers being equally spaced from the pivot means connecting the levers and lever arms, and a fluid pressure responsive extensible means having one end pivotally connected to the base and an opposite end pivotally connected to the levers, the distance between the pivot of the levers to the base and the pivot of the fluid pressure responsive means to the base being less than the distance between the pivot of the levers to the base and said pivot of the fluid pressure responsive means to the levers whereby said fluid pressure responsive means will swing in the same direction as the levers and away from the base when moved to an extended position for swinging the levers away from the base for elevating the load supporting member, the pivot of the fluid pressure responsive means



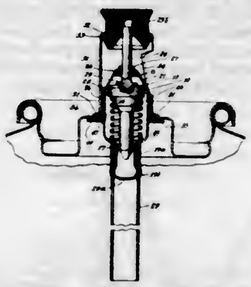
to the base being below the level of the adjacent portions of the levers when the levers are in lowermost retracted positions, rails mounted on the underside of said load supporting member and longitudinally thereof and disposed to be engaged by said rollers, link members having corresponding ends swingably supported on the last mentioned ends of said levers, means slidably and pivotally connecting said link members adjacent their opposite ends to the load supporting member, said last mentioned ends of the link members having notches formed therein, stop members fixed to the load supporting member and disposed in the path of movement of the notched ends of the link members as the load supporting member is moved to an elevated position, said rail members including inclined surfaces over which the rollers are movable away from the load supporting member, said inclined surfaces being disposed to be engaged by the rollers as said load supporting member approaches a fully elevated position for positioning the link members at an angle to the plane of the load supporting member when the notched ends of the link members engage said stop members for causing the load supporting member to be rocked on its pivotal connection with the lever arms for swinging the rails out of engagement with the rollers and for elevating the portion of the load supporting member supported by the link members relatively to the portion thereof which is pivotally connected to the lever arms for tilting the load supporting member.

2,837,374
ATOMIZER CAP
Elmer Lipman, Waterford Township, Oakland County, Mich.
Application October 21, 1957, Serial No. 691,210
4 Claims. (Cl. 299—88)



4. A sealable atomizer cap for bottles such as for perfume comprising a head adapted to be sealed on a bottle; said head having a transverse valve chamber, a vent orifice for communicating between a bottle top interior and said valve chamber, and a liquid tube for communicating between a bottle bottom interior and said valve chamber; said head also having an atomizing chamber adjacent said valve chamber and a channel communicating between said atomizing chamber and said valve chamber; a slide valve plunger loosely disposed in said valve chamber having spaced circumferential O-ring seats, O-rings in said plunger seats sealing against said head and defining a sealed valve plunger pocket area therebetween; said plunger being slidable in said valve chamber in one direction to a first bottle sealing position with said plunger pocket out of communication with said channel to said atomizing chamber and with said plunger pocket in communication with both said liquid tube and said vent orifice so as to close off a bottle; said plunger being slidable in the other direction to a second bottle opening position with said plunger pocket out of communication with said vent orifice permitting bottle to atmosphere communication from said vent to the space between said plunger and said plunger chamber and with said pocket in communication with both said tube and said atomizing channel.

2,837,375
FLUID DISPENSING VALVE
John T. Efford, Stratford, and Lester Clifford Morton, Danbury, Conn., assignors, by mesne assignments, to Shulton, Inc., a corporation of New Jersey
Application April 4, 1955, Serial No. 498,972
5 Claims. (Cl. 299—95)



1. A fluid dispensing valve including a hollow valve body having a substantially conical internal surface, and a valve head having an annular portion forming a relatively sharp peripheral corner seating in said conical surface, said corner being made of non-metallic material which is flexibly deformed both radially and axially by

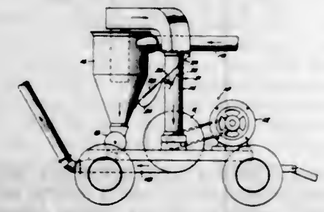
said corner wedging in said surface, said body having fluid openings on the opposite sides of said head, and means for mounting said head so that it floats angularly and laterally while being reciprocative with respect to said conical surface, said means comprising a coil compression spring having one end mounting said head, said body having an internal spring seat spaced oppositely to said conical surface and said spring having a second end engagaing said seat, said spring otherwise being free from said body and urging said head towards said surface, said seat having a central hole formed therethrough, and a pin projecting from said head axially through said spring and through said hole, said pin being smaller in diameter than said hole to a degree permitting said head to float as described herein while restricting said head from floating angularly so excessively that said corner cannot wedge in said surface.

2,837,376
DUST CAPS FOR ROLLER SKATE WHEELS
Alexander Bruno, New York, N. Y.
Application May 9, 1956, Serial No. 583,859
1 Claim. (Cl. 301—37)



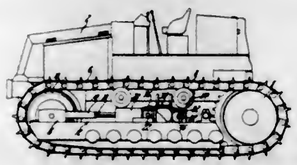
In a roller skate including a shaft having a hub thereon and a wheel having an annular core of magnetizable material rigid therewith, said hub shaft registering in said annular core, said core having a circumferential flange enclosing an axial recess, the improvement consisting in a dust cap adapted to cover said recess and having two diametrically opposed permanently magnetized clips in the form of approximately semi-cylindrical bands extending from and at right angles to the dust cap adapted to be inserted into said recess to engage the inner surface of said flange to retain the dust cap on the wheel by magnetic attraction between said clips and said flange, each of said clips having the outer cylindrical surface thereof complementary to said inner surface of the flange and having a pedestal extending therefrom intermediate its length, said pedestal extending also from and secured to the dust cap and thus spacing the clip from the dust cap, said clips each having an arcuate length of slightly less than 180 degrees.

2,837,377
AUTOMATIC REGULATING DEVICE FOR PNEUMATIC CONVEYORS
James F. Finnegan, Aurora, Ill., assignor to Dunbar Kapple, Inc., Geneva, Ill., a corporation of Illinois
Application July 6, 1954, Serial No. 441,270
2 Claims. (Cl. 302—23)



1. In a pneumatic conveyor having a fan for developing an air stream to convey loose material, a motor for driving said fan, a separator for separating the loose material from the air stream, a suction pipe connected to said separator for receiving loose material and entraining air, an inlet air pipe connected between said separator and said fan, an outlet pipe connected to said fan, and means for transferring the loose material from said separator to said outlet pipe so as to bypass the material around said fan, apparatus for preventing said motor from being overloaded by said fan when said suction pipe is removed from the source of the loose material, said apparatus comprising a valve member, means asymmetrically mounting said member in said inlet air pipe for swinging movement between generally open and nearly closed positions to that the force of the air stream in said inlet pipe will tend to swing said valve member to said nearly closed position, yieldable means for biasing said valve member toward said generally open position and thereby normally restraining movement of said valve member to said nearly closed position, the force of said air stream overcoming said yieldable means and thereby effecting such closing movement when the flow of air in said inlet pipe increases above a predetermined normal value, said valve member when in said nearly closed position restricting air flow in said inlet pipe to a value comparable to said normal value, said yieldable means again opening said valve member when the flow of air in said inlet pipe decreases to a predetermined extent.

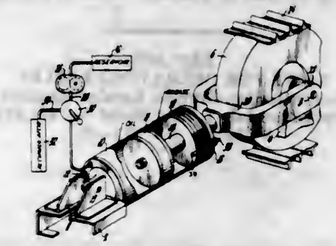
2,837,378
HYDRAULIC RECOIL MECHANISM
Russell C. Williams, Rocky River, Edwin J. Selyem, North Royalton, and John P. Carroll, Fairview Park, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 14, 1954, Serial No. 455,999
10 Claims. (Cl. 305—9)



1. A hydraulic recoil mechanism comprising a cylinder, a piston movable in said cylinder, a source of low-fluid pressure, conduit means connecting said cylinder with said source of low-fluid pressure to maintain yieldable forward pressure on said piston, a source of high-fluid pressure, means connecting said source of high-fluid pressure in communicating relation with said conduit, means movable to a fixed position to resist said high pressure, a check valve in said conduit, said valve being movable to closed position upon movement of said piston against said low-fluid pressure, whereby passage of fluid out of said cylinder yieldably displaces said movable means against said high-pressure source.

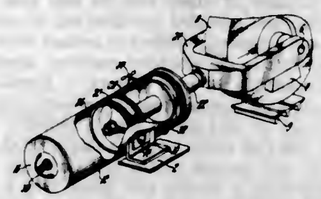
2,837,379
HYDRAULIC TRACK ADJUSTER
Edwin J. Selyem, North Royalton, and Janis Mazzarins, Cleveland, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 24, 1955, Serial No. 496,369
10 Claims. (Cl. 305—9)

1. A track adjusting mechanism comprising a hydraulic cylinder, a piston in said cylinder, a thrust member on said piston extending out of said cylinder, yieldable fluid pressure means urging said piston forwardly in said cylinder, and non-yieldable fluid means in said



cylinder forming an abutment engageable by said piston to limit the forward movement thereof.

2,837,380
TRACK RECOIL MECHANISM
Janis Mazzarins, Cleveland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 31, 1956, Serial No. 607,447
9 Claims. (Cl. 305—9)



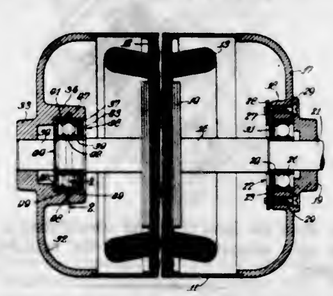
1. A self-contained track adjusting mechanism for a vehicle having an idler wheel over which there is entrained an endless flexible track, said mechanism being mounted on said vehicle and operatively connected to said idler wheel, said mechanism comprising a closed cylinder, a piston slidably disposed within said cylinder and having a piston rod extending through one end thereof, a stop chamber containing an incompressible fluid surrounding said piston rod to limit relative movement of said piston and cylinder in one direction, a self-contained accumulator chamber opposite said piston from said stop chamber, said accumulator chamber containing yieldable fluid under pressure constantly urging relative movement of said cylinder and said piston in said one direction and permitting relative recoil of said cylinder and piston in the opposite direction.

2,837,381
REINFORCED TOOL HANDLE ATTACHMENT
Oscar L. Sarlandt, Guerneville, Calif.
Application November 21, 1955, Serial No. 547,995
1 Claim. (Cl. 306—32)



A handle for a tool having an eye for the reception of a handle of an elongated reinforcing shaft having ribs formed thereon, said shaft having a cross shaped cross-section, said ribs having openings therethrough, a plastic coating forming a handle and surrounding said reinforcing shaft and engaging said openings in said reinforcing shaft, and a pin extending through said handle, said reinforcing shaft, and having its ends engaging the tool body adjacent its eye.

2,837,382
BEARING MOUNTING
Edward J. Schaefer, Fort Wayne, Ind.
Application February 17, 1953, Serial No. 337,271
17 Claims. (Cl. 308—236)



1. In combination, an annular bearing having an inner race and an outer race member with anti-friction bearing elements therebetween, a housing member surrounding said bearing, one of said members having a circumferential groove therein, and a rubber ring having a circumferential portion thereof snugly seated in said groove with an opposite circumferential portion of the ring engaging the other of said members, said ring being disposed substantially completely within said groove over its entire circumference and having a cross-sectional shape such that said opposite circumferential portion of the ring is spaced transversely from the side walls of the groove adjacent the opening of the latter whereby to permit axial deflection of only said opposite circumferential and spaced portion of the ring within said groove for accommodating slight axial movement of said bearing relative to said housing member.

2,837,383
FASTENING DEVICE
James J. Skelly, Lakewood, Ohio, assignor to Specialty Products Corporation, Cleveland, Ohio, a corporation of Ohio
Application May 10, 1954, Serial No. 428,614
1 Claim. (Cl. 308—237)

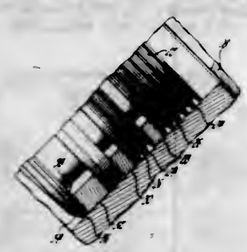


A clamp draw-bolt comprising, a threaded shank having a T-shaped head at one end forming generally cylindrical trunnions for pivotally supporting the shank, each of said trunnions having a generally planar indentation in a segmental portion of its external surface and spaced axially inwardly from the corresponding free extremity of the trunnion, and an independent bearing sleeve encircling each trunnion, each sleeve having a generally planar segmental offset portion on its inner surface disposed into the indentation on the corresponding trunnion in surface-to-surface engaging relationship therewith to restrain relative movement therebetween.

2,837,384
PISTON
Ralph H. Johnson, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 7, 1956, Serial No. 620,858
5 Claims. (Cl. 309—10)

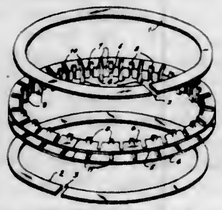
1. A piston for an internal combustion engine, said piston having an oil ring groove and a land having a peripheral edge formed thereon adjacent said groove, said land forming one wall of said groove with an

annular portion of said wall being beveled away from said groove, said land peripheral edge thereby having



less area than the land root and constituting a high unit pressure area adapted to contact the cylinder wall of said engine.

2,837,385
PISTON RING ELEMENT AND METHOD OF MAKING SAME
George C. Mayfield, Richmond Heights, Mo., assignor to McQuay-Norris Manufacturing Company, St. Louis, Mo., a corporation of Delaware
Application August 8, 1956, Serial No. 602,736
12 Claims. (Cl. 309—44)



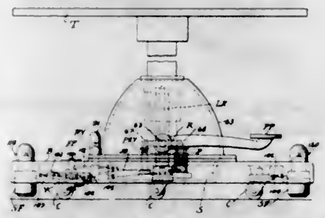
1. A piston ring comprising a pair of cylinder-engaging rails and a channel, said channel being disposed between said rails and having edges continuous from end to end of the ring, the ends of the channel abutting when in operation, incisions in the channel extending from near one edge toward and across the bottom of the channel and therebeyond toward the other edge, said incisions terminating short of both edges, thereby forming a series of circumferentially flexible webs at the peripheral edges of the ring, and substantially circumferentially spaced tabs adjacent the inner periphery of said channel for transmitting radial thrust from said channel to said rails.

2,837,386
PISTON RING ASSEMBLIES
George C. Mayfield, Richmond Heights, Mo., assignor to McQuay-Norris Manufacturing Company, St. Louis, Mo., a corporation of Delaware
Application August 8, 1956, Serial No. 602,737
18 Claims. (Cl. 309—44)



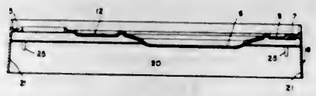
1. A non-bottoming piston ring element of the character described comprising a channel defining spaced lands having free edges, a series of notches extending inwardly from the free edges of each land, cantilever members aligned with said notches, each of said cantilever members having its root end in one land and looped within the channel to engage and space a part integral with the opposite land and to have its free end aligned with said free edges, said channel being annular and having its ends in abutment when in operative position.

2,837,387
BASES FOR OPERATING TABLES
Ernest Gordon Greville, London, England
Application July 7, 1954, Serial No. 441,852
8 Claims. (Cl. 311—5)



1. In a base for supporting equipment such as an operating table or the like, said base being movable on a plurality of castors, the combination of a hydraulic lift for altering the vertical position of the supported equipment, a plurality of stump feet for said base vertically movable between retracted positions out of contact with the floor and extended positions in contact with the floor, said stump feet in the extended positions supporting the base independently of said castors, a junction box, a plurality of fluid passage means between said junction box and each of said stump feet, a plurality of simultaneously operable check valves in said junction box, one in each of said passage means and normally occluding flow in direction to retract said stump feet, a hydraulic pump carried on said base, fluid connections from the pump to the lift and from the pump to the junction box, a relief valve interposed in said last named connections and operable upon extension of said stump feet to deliver pressure fluid to the lift, means for releasing the pressure to said lift, and means for disabling said check valves independently of the release of pressure to said lift.

2,837,388
STACKING LAP TRAY FOR FOOD
Lamar E. Majeroni and Edward E. Majeroni, Erie, Pa.
Application July 30, 1956, Serial No. 600,986
7 Claims. (Cl. 311—23)

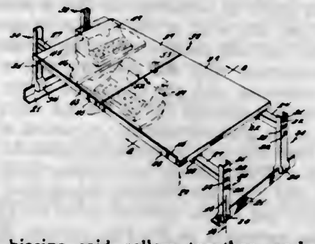


1. A food tray comprising a one piece body including a table portion with depressions for the reception of receptacles in which food is served, and a supporting wall pending from the table portion, the lower margin of which tapers fore and aft to hold the food receptacles level while the tray is supported on the lap of the user.

2,837,389
TABLE FOR HANDICAPPED PERSONS
Leanna Jones Brown, Boise, Idaho
Application May 17, 1957, Serial No. 659,885
1 Claim. (Cl. 311—29)

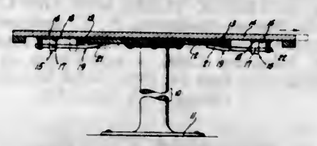
An invalid table comprising a pair of spaced parallel laterally adjustable frame members, a plurality of legs depending from the opposite ends of said frame members and secured thereto for vertical adjustment thereon, means on the lower ends of each of said legs resiliently securing said legs to a bed rail comprising a pair of

rubber rollers engaging opposite sides of the bed rail, spring means mounting said rubber rollers to said legs



resiliently biasing said rollers together, and a folding table top detachably secured to said frame members.

2,837,390
BRACKET FOR SLIDING TABLE TOP
Harold H. von der Heiden, Anaheim, Calif.
Application May 9, 1956, Serial No. 583,748
4 Claims. (Cl. 311—35)



1. A bracket for facilitating the movement and adjustment of a sliding table top relative to a fixed table top support, said bracket comprising a fixed base, having means to facilitate its immovable attachment to the underface of such table top, a pair of spaced lugs extending from the base and a mobile arm pivotally supported between and extending from the lugs, one of its ends being bent for forcibly engaging the undersurface of such top support, and an adjusting element for the other end of said arm passing through the latter and operatively lodged in said base, and wherein said base constitutes an attaching plate, said spaced lugs being located at one end of the plate, and said adjusting element being mounted at the opposite end of the plate, and wherein the other end of said arm has an aperture for the passage therethrough of said adjusting element, and wherein said plate has a threaded extension, said adjusting element having a threaded end for engaging said threaded extension to facilitate adjustment of said arm relative to said plate, and wherein means are provided for retaining said element in adjusted position, said retaining means constituting a lock nut and a coil spring for rendering the forcible engagement by said arm of the undersurface of such table top tensional and yieldable.

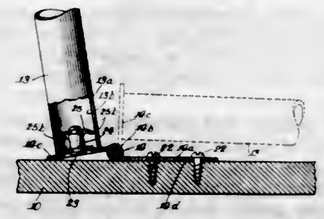
2,837,391
ADJUSTABLE SLANT DRAWING BOARD STAND
Homer W. Clark, Seattle, Wash.
Application October 10, 1955, Serial No. 539,306
4 Claims. (Cl. 311—38)

1. An adjustable drawing board stand comprising two pairs of crossed legs, corresponding legs of said pairs being adjustable in effective length, pivot means connecting the crossed legs of each pair at fixed locations, said leg pairs being spaced apart lengthwise of their pivot axes, a drawing board, anchoring means secured to said drawing board and tiltably carried by two corresponding legs, one of each of said pairs of crossed legs, a drawing board rest carried by the other two corresponding legs, one of each of said pairs of crossed legs, and slidably engageable with various portions of said drawing board between opposite edges thereof, and adjustable means securing said legs in a selected angular relationship to establish and maintain any selected spacing of



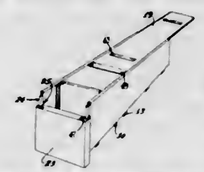
various possible spacings between said drawing board anchoring means and said drawing board rest to support said drawing board in a desired tilted position.

2,837,392
TABLE WITH PIVOTAL FOLDING LEG
Ernest J. Straits, St. Charles, Ill., assignor to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application August 9, 1956, Serial No. 603,046
6 Claims. (Cl. 311—77)



1. A table comprising a table top, a hinge including two hinge plates pivotally interconnected, means mounting one of said hinge plates to the under side of said table top, a rivet having one end thereof fixedly secured to the other of said hinge plates and extending outwardly therefrom substantially perpendicular thereto, a mounting plate fixedly attached to the other end of said rivet and having a plurality of resilient engaging arms extending outwardly therefrom, and a leg having an upper hollow tubular portion, said mounting plate being positioned within said tubular portion with said arms biting into the material of said leg to mount said leg on said other hinge plate whereby pivotally to mount said leg upon said table top.

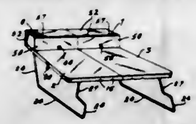
2,837,393
KNOCKDOWN CABINET AND METHOD OF ASSEMBLING SAME
Richard W. Sitler, St. Charles, Ill., assignor to Aurora Equipment Company, Aurora, Ill., a corporation of Illinois
Application September 17, 1954, Serial No. 456,670
5 Claims. (Cl. 312—257)



1. In a knock-down cabinet construction, a pair of coextensive elongated panels in opposed spaced relation

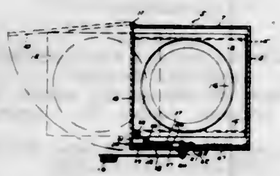
having respective longitudinal edge channels, on confronting margins, each of said panels having similar directly opposite transverse channel structure at common spaced locations thereon longitudinally thereof and extending normal to said longitudinal edge channels, short transverse panels of substantially similar width as said elongated panels and having edge channel structure interengageable with said transverse channel structure of the elongated panels by endwise relative sliding assembly movement of said transverse panel edge channel structures and said transverse channel structures, and a third elongated panel having on its longitudinal edges respective channel structures slidably interengageable with the longitudinal channels of the first mentioned panels by relative sliding interengagement from one end of the first mentioned panels, means whereby said third panel retains said pair of elongated and transverse panels against sliding disassembly, and securing structure for fixedly securing said third longitudinal panel against disassembly unless said securing structure is released.

2,837,394
PORTABLE DESK
Philip Rahall, Afton, Mo.
Application March 14, 1957, Serial No. 645,964
3 Claims. (Cl. 312—257)



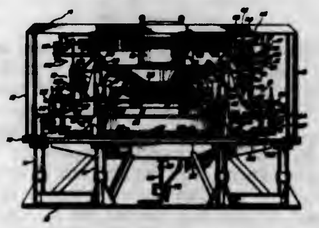
3. A portable desk comprising a top, said top being made up of a pair of panels hinged together on their under sides along contiguous edges to permit folding of the panels; a receptacle on the upper surface of each of said top panels, each of said receptacles having a side wall extending along the hinged contiguous edge of its panel, said walls abutting when the top panels are unfolded, a front, hinged along one edge; and runner-type supports hinged to the under side of said panels toward the outboard edge thereof, each of said supports having a handle section projecting beyond an edge of the top, the front of the receptacles opening in a direction toward said handle section.

2,837,395
GARBAGE CAN STORAGE CABINET
Attilio D. Carani, Miami, Fla.
Application December 1, 1955, Serial No. 550,318
1 Claim. (Cl. 312—274)



A storage cabinet for the support of a garbage can that comprises a housing having top and bottom walls and side walls and with the cabinet being closed at one end and having its opposite end covered and uncovered by a hinged spring loaded door, a platform disposed within the cabinet and extending for the major length thereof, the platform being parallel to and in spaced relation to the bottom of the cabinet, anti-friction rollers carried by the bottom wall adjacent and parallel to each side wall, means carried by the platform that engages the rollers whereby the platform is horizontally shiftable on the rollers, a rock shaft that is journaled in one side wall of the cabinet, a treadle bar connected to the outer end of the rock shaft, a crank arm connected to the inner end of the rock shaft, an actuating bar that is pivotally connected to the side wall of the cabinet upon the inner side thereof, the said crank arm having pivotal and lost motion connection with the actuating bar, a link bar pivotally connected with the upper end of the actuating bar and with the opposite end of the link being pivotally connected to the platform whereby movement of the actuating bar and the link functions to shift the platform into and out of the cabinet, latch means carried by one side wall and that has latching engagement with the closure door, and means operable under the influence of the shifting movement of the link whereby the latch is initially released to permit the platform to be shifted outwardly and spring means for retracting the crank arm, the actuating bar and the link inwardly to retract the platform and a supported garbage can to a wholly housed position within the cabinet.

2,837,396
PROCESS AND APPARATUS FOR EVACUATING ELECTRONIC TUBES AND THE LIKE
Horace G. Warren, Rochester, N. Y., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application June 16, 1953, Serial No. 362,070
7 Claims. (Cl. 316—31)



1. Apparatus for processing hollow articles comprising stationary supporting means, a generally circular member mounted for rotation on said supporting means, means for continuously rotating said circular member, a plurality of hanger elements on the periphery of said circular member, exhaust head units coupled to hang from said hanger elements and readily removable therefrom, each exhaust head unit being independent of the remaining exhaust head units and comprising a frame adapted to removably engage one of said hanger elements, a mechanical pump secured to said frame and having a drive shaft projecting inwardly towards said circular member and terminating in a clutch plate facing said circular member, a diffusion pump, an inverted exhaust socket for engaging the neck of an article to be evacuated, valve and conduit means connecting said exhaust socket with said pumps and arranged for rough pumping during a portion of the rotation of said circular member and for high vacuum pumping during a subsequent portion of the rotation of said circular member, a holding fixture mounted on said frame for releasably holding an article during processing, said holding fixture being mounted for displacement from a position remote from said exhaust socket to an evacuating position adjacent said exhaust socket, and means operable in a predetermined zone along the path of rotation of said circular member for displacing said holding fixture between said positions as said exhaust head unit moves through said predetermined zone, each said exhaust head unit being removable from said circular member as a unit, means for energizing said diffusion pump during rotation of said circular member, central driving means mounted on said circular member for simultaneously driving the mechanical pump on each of said exhaust head units, said central driving means including drive shaft means for contact engagement with said clutch plate on each of said mechanical pumps, and means mounted on said supporting means in an end zone of said high vacuum pumping portion of the rotation of said circular member for tipping off evacuated articles being moved through said end zone.

2,837,397
MULTIPLE RECORDING APPARATUS
Marc Frachon, Saint-Genis-Laval, France, assignor to "C. O. R. E. C. I. Compagnie de Regulation et de Control Industriel," Lyon, France, a French limited liability company
Application March 23, 1955, Serial No. 496,301
Claims priority, application France March 24, 1954
9 Claims. (Cl. 346—46)

1. Apparatus for recording on the same chart a plurality of magnitudes, comprising a rotatable support; a plurality of rectilinear guiding means regularly disposed on said rotatable support; carriages movable on said guiding means; means to impart to said rotatable support such an intermittent rotary motion that the guiding means corresponding to each of said carriages successively assume a number of definite positions; means to successively position each of said carriages on the corresponding guiding means in accordance with the value of one of the magnitudes to be recorded; printing means on each of said carriages; a chart movable close to a first one of the successive positions of said guiding means, in a plane



parallel to the rectilinear direction of said guiding means when same are at said last-named position and transversely with respect to said direction; and means to actuate said printing means of each successive carriage in relation with said chart whenever the guiding means of this carriage are at said first position.

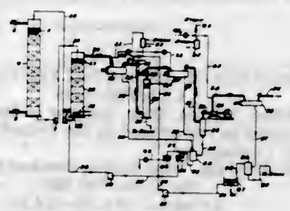
CHEMICAL

2,837,398
PROCESS OF REMOVING HYDROCYANIC ACID, HYDROGEN SULFIDE AND AMMONIA FROM GASES
Otto Grosskinsky, Heinrich Fruhbuss, and Walter Klempt, Dortmund-Eving, Germany
Application August 7, 1953, Serial No. 372,853
Claims priority, application Germany August 8, 1952
6 Claims. (Cl. 23—3)



1. A method of purifying coke oven gas containing hydrogen cyanide, hydrogen sulfide and ammonia as impurities, comprising the steps of passing a cooled, detarred coke oven gas containing substantially its original content of hydrogen cyanide, hydrogen sulfide and ammonia in a first stage through a purification mass consisting essentially of ferrous sulfide which absorbs the hydrogen cyanide from said gas; passing the thus hydrogen cyanide-free gas still containing hydrogen sulfide and ammonia in a second stage through a purification mass consisting essentially of iron oxide, whereby hydrogen sulfide is absorbed and converts said iron oxide to ferrous sulfide which is adapted to absorb hydrogen cyanide; substituting the purification mass of said first stage when the same has become substantially saturated with hydrogen cyanide with the purification mass of said second stage which now consists essentially of ferrous sulfide which is adapted to absorb hydrogen cyanide and replacing said purification mass of said second stage with a fresh iron oxide purification mass which is adapted to absorb hydrogen sulfide; passing the coke oven gas obtained from said second purification stage still containing ammonia and a reduced amount of hydrogen sulfide and being substantially free of hydrogen cyanide in a third stage through liquid purifiers adapted to remove substantially all of said ammonia and a major portion of the remaining hydrogen sulfide from said gas by liquid scrubbing thereof; and passing the thus obtained coke oven gas still containing some hydrogen sulfide and being substantially free of ammonia and hydrogen cyanide in a last stage through a purification mass consisting essentially of iron oxide which absorbs the remainder of said hydrogen sulfide from said coke oven gas, thereby obtaining a purified coke oven gas being substantially free of hydrogen cyanide, hydrogen sulfide and ammonia.

2,837,399
SEPARATION OF ACID GASES FROM COAL CARBONIZATION GASES
Herbert A. Gollmar and Walter M. Africa, Pittsburgh, Pa., assignors to Koppers Company, Inc., a corporation of Delaware
Application November 22, 1954, Serial No. 470,450
3 Claims. (Cl. 23—3)



1. In the recovery of hydrogen sulfide and hydrogen cyanide from a fuel gas by a hot vacuum actification process comprising recirculating an aqueous alkaline absorbent solution in a closed cycle between a scrubber in which the gas is scrubbed by the solution and an actifier in which the solution is regenerated by heating at subatmospheric pressures, passing the vapors discharged from said actifier through condensing equipment in which said vapors are cooled and also passing said vapors through a vacuum pump, said vapors having a tendency to form hard polymers in said pump, the improvement wherein steam jet evacuating means are provided in series with said vacuum pump so as to operate on said vapors ahead of said vacuum pump and the temperature of said vapors leaving said pump is controlled at about 60° C. by operating said pump at a compression ratio of about 1:3 to substantially eliminate the formation of said polymers in said pump.

2,837,400

TRIOXODIZIRCONIUM HYDROXY HALIDES

Warren Barnett Blumenthal, Niagara Falls, N. Y., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 27, 1954
Serial No. 432,919
15 Claims. (Cl. 23—14)

1. A basic zirconium halide in the form of a water-soluble, glass-like solid having a composition corresponding to the formula $Zr_2O_3OHX \cdot yH_2O$ where "X" is a halogen selected from the group consisting of chlorine, bromine, and iodine and "y" is a variable number.

5. A process for making a basic zirconium halide corresponding to the formula $Zr_2O_3OHX \cdot yH_2O$ where "X" is a halogen selected from the group consisting of chlorine, bromine, and iodine and "y" is a variable number, which comprises adding an aqueous solution of a zirconyl halide to a mixture of water and a carbonate selected from the class consisting of alkali metal carbonates and alkaline-earth metal carbonates to form an aqueous suspension of a precipitate, said suspension having a pH of substantially 4.0, filtering out and washing said precipitate, dissolving said precipitate in a hydrohalogen acid, said acid being added in a molal ratio of 1:2 with respect to the zirconium content, expressed as ZrO_2, of said precipitate, and evaporating the solution obtained.

2,837,401

SEPARATION OF PLUTONIUM FROM AQUEOUS SOLUTIONS BY ION-EXCHANGE

Jack Schubert, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application November 4, 1948
Serial No. 58,367
14 Claims. (Cl. 23—14.5)

1. A process for the separation of plutonium from an aqueous solution of a plutonium salt, which comprises adding to said solution an acid of the group consisting of sulfuric acid, phosphoric acid, and oxalic acid, and mixtures thereof to provide an acid concentration between 0.0001 and 1 M, contacting the resultant solution with a synthetic organic anion exchange resin, and separating an aqueous phase and resin containing plutonium.

2,837,402

METHOD OF REDUCING PLUTONIUM COMPOUNDS

Iral B. Johns, Dayton, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application October 17, 1947
Serial No. 780,586
6 Claims. (Cl. 23—14.5)

1. The process of purifying plutonium which comprises reducing higher valence plutonium to the plus three state by passing hydrogen over black platinum powder in a higher valence plutonium solution, removing the platinum black, adding an anion which forms an insoluble plus three plutonium compound, and removing the insoluble plus three compound.

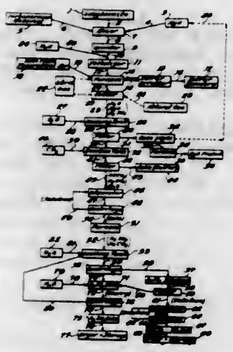
2,837,403

PRODUCTION OF POTASSIUM CARBONATE

Gunter H. Gloss, Lake Bluff, and William J. McGinnis, Chicago, Ill., assignors to International Minerals & Chemical Corporation, a corporation of New York

Application May 24, 1955, Serial No. 510,669
17 Claims. (Cl. 23—33)

1. A process for producing potassium carbonate which comprises admixing a double sulfate salt of potassium and magnesium containing less than about 2% sodium chloride by weight with carbonaceous material and a substance selected from the group consisting of magnesium oxide and potassium carbonate, comminuating the mixture and forming the mixture into pellets, heating the pellets at a temperature between about 725° C. and about 1000° C. until the potassium sulfate component of said double sulfate salt is subtantially reduced to potassium sulfide, cooling the reaction product in a non-



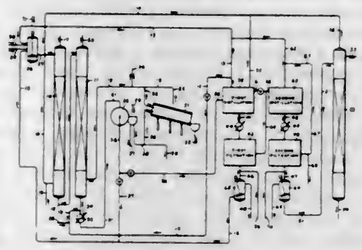
oxidizing atmosphere, treating the reaction product with water to dissolve the soluble constituents thereof, separating the insoluble magnesium oxide from the resulting solution, carbonating said solution until the solution is substantially entirely free of sulfide ions, whereby said potassium sulfide is converted substantially completely into potassium carbonate and bicarbonate, and recovering potassium carbonate from the carbonated solution.

2,837,404

MANUFACTURE OF POTASSIUM BICARBONATE AND POTASSIUM CARBONATE

Alan G. Follows, Camillus, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Application September 4, 1956, Serial No. 607,964
20 Claims. (Cl. 23—63)



1. The method of producing a potassium salt selected from the group consisting of potassium carbonate and potassium bicarbonate comprising forming an ammoniated and carbonated aqueous solution containing potassium chloride and carbonate and ammonium ions in relative proportions and in concentration such that the solution upon cooling precipitates a carbonate compound, including within said solution for each two parts of water at least about one part of a free, basic, organic nitrogen compound weaker in basic properties than ammonium hydroxide, cooling said solution until precipitate comprising one of the potassium salts selected from the group consisting of potassium carbonate and potassium bicarbonate forms, and separating mother liquor containing said organic nitrogen compound from said precipitate.

2,837,405

PROCESS FOR PREPARATION OF LEAD DIOXIDE

Edgar H. Herrmann, Brooklyn, N. Y., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 26, 1955
Serial No. 504,092
4 Claims. (Cl. 23—146)

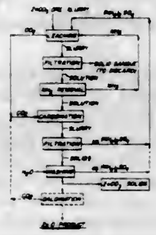
3. A process for the production of lead dioxide which comprises the steps of reacting molten lead and caustic soda in the presence of sodium nitrate to produce a fused mass of sodium plumbate and sodium nitrite dissolved in excess caustic soda, granulating said sodium plumbate in the presence of from 1.0 to 1.3 parts by weight of water for each part by weight of said fused mass to produce a slurry of solid sodium plumbate in a concentrated aqueous solution of sodium hydroxide and sodium nitrite, separating said solid sodium plumbate from said aqueous sodium hydroxide and sodium nitrite, hydrolyzing said solid sodium plumbate with additional water to produce lead dioxide and regenerate additional sodium hydroxide, and separating said regenerated sodium hydroxide from said lead dioxide.

2,837,406

HYDROMETALLURGICAL PROCESS

Felix A. Schaufelberger, Rye, N. Y., assignor to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

Application May 5, 1955, Serial No. 506,258
13 Claims. (Cl. 23—147)



1. In the hydrometallurgical separation of metal values from metal bearing carbonate ores containing an oxidized mineral of a metal capable of forming an ammine complex, the process of which comprises the steps of: forming an aqueous slurry of said metal carbonate ore, adjusting the solute content thereof by the addition of sufficient ammonia and an ammonium salt of a strong inorganic acid while maintaining the reactants at a temperature of at least 50° C. but below about 110° C., to provide a leach liquor containing a soluble metal polyammine salt complex having at least 2.5 mols but not more than 4 mols of ammonia per atom of metal and carbon dioxide being substantially insoluble therein, removing said insoluble carbon dioxide from said leach liquor, and recovering metal polyammine salt complex.

2,837,407

METHOD OF REDUCING METALLIC CORROSION BY FUMING NITRIC ACID BY ADDITION OF FLUORIDE ION TO ACID

Eric Rau, Toms River, N. J., assignor to the United States of America as represented by the Secretary of the Navy

No Drawing. Application July 8, 1955
Serial No. 520,934
4 Claims. (Cl. 23—157)
(Granted under Title 35, U. S. Code (1952), sec. 266)

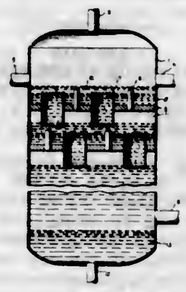
1. A method for inhibiting corrosion of untreated stainless steel containers by white fuming nitric acid stored therein, said method comprising adding at least 1% of an inhibitor such as one from the group consisting of hydrofluoric acid, sodium fluoride and ammonium fluoride to said acid.

2,837,408

PROCESS AND APPARATUS FOR THE CATALYTIC DECOMPOSITION OF ALKALI METAL AMALGAMS

Walter J. Sakowski, Youngstown, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application June 29, 1954, Serial No. 440,196
3 Claims. (Cl. 23—184)



1. In a vertical flow process for decomposing dilute alkali metal amalgams with an amalgam-decomposing fluid in the presence of a graphite catalyst the improvement which comprises flowing dilute alkali metal amalgam downwardly through an amalgam decomposing zone countercurrent to an amalgam-decomposing fluid flowing upwardly through the decomposing zone, maintaining in said decomposing zone a plurality of horizontal amalgam-decomposing fluid interfaces, each of said interfaces being formed by a pair of liquid layers consisting of a lower layer of amalgam and a supernatant layer of decomposing fluid, said pairs of liquid layers being disposed one above the other in said decomposing zone, maintaining graphite catalyst means in contact with each interface, maintaining open passage zones for communication between adjacent pairs of liquid layers in the decomposing zone, the upper openings of each of said passage zones being coincident with the interface defined by an upper pair of liquid layers and the lower opening of said passage zone being immersed in the supernatant layer of decomposing fluid of the next lower pair of liquid layers, said open passage zones allowing flow of amalgam downwardly and flow of evolved hydrogen and decomposing fluid upwardly in said zone, maintaining a layer of gaseous hydrogen between adjacent pairs of liquid layers, removing mercury from the bottom of said decomposing zone, and removing decomposing fluid from the top of said decomposing zone.

2,837,409

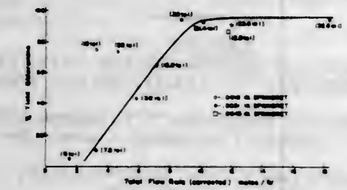
CHLORAMINE PROCESS

Harry H. Sisler, Columbus, Ohio, and Robert Mattair, Niagara Falls, N. Y., assignors to The Ohio State University Research Foundation, Columbus, Ohio

Application March 10, 1954, Serial No. 415,197
10 Claims. (Cl. 23—190)

1. A process of preparing substantially anhydrous chloramine which consists of introducing substantially anhydrous gaseous chlorine into substantially anhydrous gaseous ammonia in a ratio providing substantially more than two moles of ammonia to each mole of chlorine whereby there is formed a gaseous mixture of chloramine and unreacted ammonia containing suspended solid am-

monium chloride, and moving the reaction mixture away from the point of chlorine introduction to avoid pro-

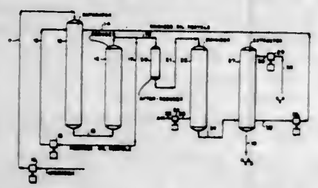


longed contact between unreacted chlorine and gaseous chloramine.

2,837,410
MANUFACTURE OF STABILIZED CONCENTRATED HYDRAZINE COMPOSITIONS
John F. Haller, Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application December 24, 1954
Serial No. 477,598
18 Claims. (Cl. 23—190)

1. In a method for the manufacture of concentrated hydrazine compositions having a molar hydrazine-water ratio greater than that of hydrazine hydrate, the step of incorporating into the hydrazine composition a metal oxide selected from the group consisting of aluminum oxide, zinc oxide and cadmium oxide in amount sufficient to substantially inhibit the decomposition of hydrazine.

2,837,411
PROCESS FOR PRODUCTION OF HYDROGEN PEROXIDE
Theodore M. Jenney, Kenmore, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application November 25, 1952, Serial No. 322,431
4 Claims. (Cl. 23—207)

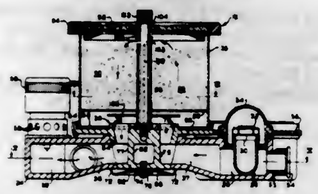


1. In the production of hydrogen peroxide utilizing an alkyl anthraquinone as an intermediate wherein the intermediate in solution is reduced by reaction with hydrogen in a reduction zone followed by oxidation of the reduced solution in an oxidation zone and recovery of hydrogen peroxide from the oxidized solution, the method of reducing the intermediate in solution which comprises circulating solution between a hydrogen dissolving zone in which all the hydrogen for the reduction is dissolved in solution under elevated pressure in the absence of a catalyst prior to introduction to the reduction zone and the reduction zone, solution from the hydrogen peroxide recovery step and a major portion of the effluent from the reduction zone being circulated to the hydrogen dissolving zone in a continuous flow cycle, the solution from the hydrogen dissolving zone having all of the hydrogen for the reduction dissolved therein and free of any hydrogen gas being fed to the reduction zone where it is contacted with a particle form hydrogenation catalyst under partial reduction conditions, a minor portion of the effluent from the reduction zone being passed to the oxidation zone.

2,837,412
PREPARATION OF IMPERVIOUS GRAPHITE BY LIQUID PHASE IMPREGNATION
George A. Bennett, Wheaton, Ill., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application December 18, 1956
Serial No. 628,981
10 Claims. (Cl. 23—209.1)

1. An improved method of increasing the density and imperviousness of graphite, which comprises saturating said graphite with a liquid furan ring compound consisting of carbon, hydrogen and oxygen, contacting the resulting impregnated graphite with aqueous hydrofluoric acid and then drying the resulting treated graphite.

2,837,413
CARBON DIOXIDE ABSORBER FOR ANESTHETIC ADMINISTERING APPARATUS
Wayne W. Hay, Madison, Wis., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application April 13, 1955, Serial No. 501,077
18 Claims. (Cl. 23—252)

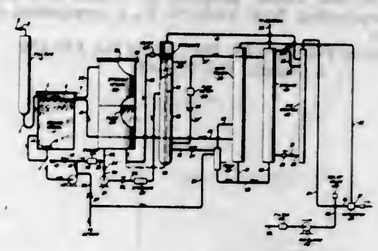


1. A carbon dioxide absorber for anesthetic administering apparatus having a canister through which anesthetic gases are adapted to be passed comprising, a housing having inlet and an outlet gas passages, a valve member adjustable to "off" and "on" positions received in said housing, having a passage forming a connecting duct between said inlet and said outlet passages in the "off" position of the valve element, second and third passages, in said valve element adapted to register respectively with said inlet and outlet passages in the "on" position of said valve element, said second and third passages, terminating in corresponding openings in a canister receiving portion of said valve element externally of said housing, and a canister removably mounted on said canister receiving portion of said valve element in communication with said openings, such that gases are passed through said canister when the valve element is in "on" position.

2,837,414
APPARATUS FOR DISPENSING CHLORINE DIOXIDE
Hilding V. Williamson, Chicago, and James C. Hesson, Riverdale, Ill., and Warren F. Keller, Overland Park, Kans., assignors to Cardox Corporation, Chicago, Ill., a corporation of Illinois
Application December 28, 1953, Serial No. 400,604
3 Claims. (Cl. 23—260)

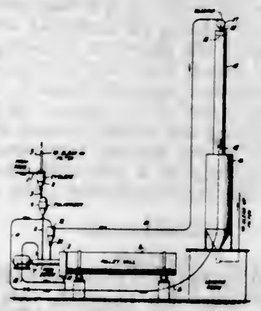
1. An apparatus for generating chlorine dioxide from chlorine dioxide hydrate and forming a dilute mixture of chlorine dioxide with an inert gas, comprising mixing means for forming a dilute aqueous solution of chlorine dioxide of known concentration, a storage vessel, means for intermittently passing batches of said solution to the storage vessel from said mixing vessel, a constant-level standpipe, means for continuously passing solution in excess of plant requirements from the storage vessel to the standpipe, overflow means in the standpipe positioned above said last named means, a conduit connecting the overflow means with the storage vessel for returning the

excess solution from the standpipe to the storage vessel by gravity flow, a stripping tower provided with a gas outlet at the top and a liquid-withdrawal outlet at the bottom, a second conduit connecting the solution-containing portion of the standpipe to the top of the stripping tower at a point substantially the same level as said overflow means in said standpipe, flow control means and a flowmeter in said second conduit, means for introducing air into the bottom of the stripping tower



countercurrent to solution flowing therethrough to form a dilute mixture of chlorine dioxide and air, pressure means communicating with the gas outlet of said tower for adding additional air of lesser humidity to the gaseous mixture emerging from the top of the stripping tower, and pressure means for maintaining the solution in said standpipe and said second conduit at a pressure sufficiently greater than that in said stripping tower thereby to cause flow of liquid from the standpipe to the stripping tower.

2,837,415
GAS LIFTING CARBON BLACK PELLETS
William R. King, Bartlesville, Okla., and George J. Webster, Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
Application March 29, 1954, Serial No. 419,234
6 Claims. (Cl. 23—314)



1. A carbon black pelleting and storage apparatus comprising in combination a pellet mill having a feed means and a discharge means; a storage bin; a disengaging tube on top of and communicating freely with the said storage bin; a pneumatic conveyor adapted to receive carbon black from the discharge means of the said pellet mill and for conveying the said carbon black to the bottom of the said disengaging tube; the said penumatic conveyor being flared outwardly at its outlet end so as to distribute said carbon black uniformly upward and over the entire cross sectional area of said disengaging tube; the said outlet end being disposed upward and within the said disengaging tube; the said disengaging tube having a cross sectional area substantially greater than that of the said pneumatic conveyor and being of sufficient height to allow carbon black of a predetermined minimum size to come to rest and reverse its direction gravitating to the said storage bin; means for removing gas and carbon black of less than the said predetermined size from the said disengaging tube; means for separating carbon black from gas; means for passing said removed gas and carbon black to said separator wherein most of the carbon black is separated from the gas; means for passing the thus separated carbon black to the said pellet mill; and means for passing the gas from the said separator to the said pneumatic conveyor.

5. The method of preparing carbon black for transportation which comprises passing carbon black through a pelleting zone thereby forming pellets, withdrawing said pellets from said pelleting zone, suspending said withdrawn pellets in a gasiform stream, passing said stream through a longitudinally extensive zone of restrictive cross section at a velocity sufficient to transport the suspended carbon black through said zone, elevating the said suspended carbon black in said zone of restricted cross sectional area to a height well above the level of introducing said carbon black to said gasiform stream, discharging said stream from said zone of restricted cross sectional area upwardly and uniformly into a longitudinally extensive zone of greater cross sectional area than said zone of restricted cross sectional area wherein the velocity of said stream is reduced and part of the carbon black is disengaged from said gasiform stream to settle gently toward the bottom of said zone of greater cross sectional area through the ascending gasiform stream, withdrawing the disengaged carbon black from the bottom of said zone of greater cross sectional area, withdrawing the rest of said carbon black suspended in said stream from a region of said zone of greater cross sectional area above the highest level obtained by the disengaged carbon black, blowing the said withdrawn carbon black suspended in said stream to a separation zone, separating substantially all of the still suspended carbon black from the gasiform stream in said separating zone, settling the separated carbon black to the bottom of the said separating zone, withdrawing the gasiform stream from said separating zone, passing the thus withdrawn black free gasiform stream in a longitudinally extensive zone of restricted cross sectional area to the position of introducing the carbon black pellets thereby serving as said gasiform stream, withdrawing the separated carbon black from the bottom of said separating zone, and introducing the last said withdrawn carbon black to the carbon black passing through the pelleting zone.

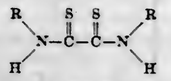
2,837,416
VITRIFIED BONDED SILICON CARBIDE ABRASIVE ARTICLES
Guy Ervin, Jr., Shrewsbury, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
No Drawing. Application October 13, 1954
Serial No. 462,111
6 Claims. (Cl. 51—308)

1. A fired grinding wheel or other abrasive article comprising abrasive grains at least 75% by volume of which are silicon carbide abrasive grains, at least two-thirds by volume of said silicon carbide grains being at least as coarse as No. 30 grit size, and glassy bond of composition from 50% to 90% by weight silica, from 4% to 25% by weight alumina, from 2% to 15% by weight alkali oxide flux with at least 1% K_2O, and from 1% to 15% by weight of other flux, said glassy bond containing an insufficient amount of crystalline particles to restrict the free flow of the bond during firing, said abrasive grains being bound together in a matrix of said glassy bond which forms a smooth coating on said abrasive grains as the result of said free flow during firing, said abrasive grains constituting from 60 volume percent to 67 volume percent of the wheel and said bond

constituting from 2 volume percent to 20 volume percent of the wheel, said wheel being a hard grade silicon carbide wheel.

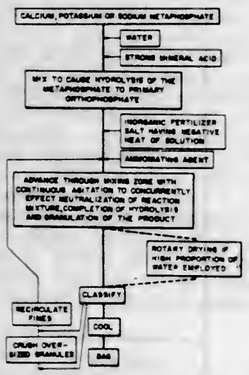
2,837,417
METHOD FOR MODIFYING THE GROWTH CHARACTERISTICS OF PLANTS
John R. Fisher, Fresno, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application August 12, 1954
Serial No. 449,510
8 Claims. (Cl. 71—2.7)

1. A method for modifying the growth characteristics of plants which comprises exposing the plants to the action of a growth altering amount of a dithiooxamide of the formula



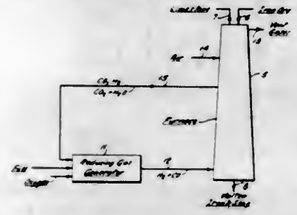
wherein R represents an alkyl radical containing from 2 to 6 carbon atoms, inclusive.

2,837,418
PROCESSES FOR PRODUCING MIXED FERTILIZERS
James E. Seymour, Collinsville, Ill., assignor, by mesne assignments, to Central Farmers Fertilizer Company, Chicago, Ill., a corporation of Illinois
Application March 29, 1955, Serial No. 497,785
9 Claims. (Cl. 71—64)



1. A self-granulating process for producing high analysis mixed fertilizers comprising the steps of (1) combining at least one particulate metaphosphate selected from the group consisting of calcium metaphosphate, potassium metaphosphate and sodium metaphosphate with water and at least one strong mineral acid selected from the group consisting of hydrochloric acid, nitric acid, phosphoric acid and sulfuric acid to provide a reaction mixture in the form of a slurry, (2) intimately mixing said reaction mixture and thereby initiating hydrolysis of the metaphosphate with such hydrolysis progressing exothermically as mixing continues, (3) then incorporating neutralizing ammonia in said reaction mixture in proportion for substantially complete neutralization of the acid constituents of the reaction mixture, and (4) then further intimately mixing said reaction mixture as said neutralizing ammonia reacts with said acid constituents and, by such further mixing, causing the reaction mixture to be converted to a substantially fully reacted fertilizer product in the form of solid granules which are substantially homogeneous as to chemical constituency, the proportion of acid employed being in the range of from 0.1 to 1.5 parts by weight per part by weight of said metaphosphate, and the proportion of water employed being 1–5 times the stoichiometric quantity required for complete hydrolysis of the metaphosphate.

2,837,419
REDUCTION OF METAL OXIDES
Frederick Burton Sellers, Tarrytown, N. Y., and Peter L. Paull, Norwalk, Conn., assignors to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application February 15, 1957, Serial No. 640,479
2 Claims. (Cl. 75—41)

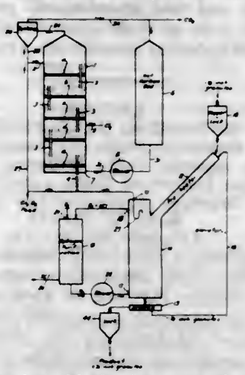


1. In a process for the reduction of iron oxide to molten metallic iron wherein iron oxide admixed with coke and a fluxing material is contacted in an elongated vertical reduction zone with an upwardly flowing stream of reducing gas comprising carbon monoxide whereby the iron oxide is reduced to molten iron, and oxygen-containing gas is introduced into the lower portion of said reduction zone whereby coke is converted to carbon monoxide, the improvement which comprises forming a pumpable slurry of a solid carbonaceous fuel in water, passing said slurry as a confined stream through an externally heated tubular heating zone wherein substantially all of said water is vaporized from said slurry to form a dispersion of fuel particles in steam, a portion of said steam is separated from said dispersion to maintain the steam content of said dispersion less than about 20 weight percent based upon the weight of said fuel, generating an auxiliary stream of reducing gas comprising carbon monoxide by reaction of said dispersion containing less than about 20 weight percent steam with an oxygen containing gas at a temperature within the range of from about 2,000° F. to about 3,000° F. in a separate gas generation zone, and introducing said auxiliary stream of reducing gas substantially at said reaction temperature directly into said reduction zone at a point above the point of introduction of said oxygen-containing gas to the reduction zone.

2,837,420
METHOD OF PRODUCING CHROMIUM
Henry Alfred Doerner, San Francisco, Calif.; Blanche S. Doerner, sole legatee of said Henry Alfred Doerner, deceased
Application July 30, 1953, Serial No. 371,240
9 Claims. (Cl. 75—84.5)

1. In a process of producing chromium metal, the steps of dispersing fused chromous chloride on solid carrier particles to coat a thin film of chromous chloride on the carrier particles, and passing the coated carrier particles counter-current to a stream of hydrogen at 850°–1100° C. to reduce the chromous chloride to a chromium coating on the surface of the carrier particles.

9. In a process for producing metallic chromium from chromic oxide, maintaining a reaction zone at a temperature of 600–800° C., introducing substantially pure chromic oxide in the upper end of said reaction zone for downward movement through the reaction zone, introducing carbon monoxide into the lower end of said reaction zone for upward movement through the reaction zone and to provide a reducing atmosphere in the lower end of said reaction zone wherein residual chromic chloride and chromic oxide are converted to granular chromous chloride, and introducing chlorine into an intermediate portion of said reaction zone for upward movement through the reaction zone and to provide with the carbon



monoxide a reducing chlorinating atmosphere in the intermediate and upper end portion of the reaction zone to convert chromic oxide to granular chromic chloride and granular chromous chloride, sufficient chlorine being introduced to ensure complete chlorination and conversion of the chromic oxide to a preponderance of chromous chloride.

2,837,421
DIE STEEL ALLOY
Ernest C. Kron, Toledo, Ohio, assignor to National Lead Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application March 18, 1955
Serial No. 495,338
2 Claims. (Cl. 75—126)

1. A die steel alloy consisting essentially of 0.15 to 0.25% carbon, 0.25 to 1.25% silicon, 0.20 to 1.00% manganese, 3.50 to 7.00% chromium, 1.00 to 3.00% molybdenum, 0.15 to 0.35% vanadium, up to 0.03% sulfur, up to 0.03% phosphorus, and the balance iron, said alloy characterized in that it will harden on air quenching from at least 1850° F. to the hardness required in die casting applications, said alloy being resistant to notch impact, easily polishable and further characterized in that it can be welded without a zone forming around the weld which is harder than the originally hardened steel.

2,837,422
ADDITION AGENTS FOR THE TREATMENT OF MOLTEN CAST IRON
Jürgen Motz, Frankfurt am Main, Heinz Küchler, Oberursel, Kurt Figge, Frankfurt am Main, Franz Kaess, Trostberg, and Horst Mühlberger, Frankfurt am Main, Germany, assignors to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, and Süddeutschen Kalkstickstoff-Werke Akt. Ges., Trostberg (Upper Bavaria), Germany, both German companies
No Drawing. Application August 15, 1956
Serial No. 604,073
Claims priority, application Germany August 27, 1955
11 Claims. (Cl. 75—134)

1. As a new article of manufacture, an improved addition agent for treating molten cast iron containing the following:

30–50% magnesium
2.8–10% calcium
At least 35% silicon
Up to 30% iron

the quantity of silicon contained in the addition agent being at least sufficient to combine with the magnesium, calcium, and iron as silicides and the ratio of magnesium to calcium ranging between 4:1 and 9:1.

2,837,423
NICKEL BASE CATHODE EMISSIVE ALLOY
Donald R. Kerstetter, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
No Drawing. Application March 15, 1957
Serial No. 646,193
3 Claims. (Cl. 75—171)

1. A cathode comprising an alloy base and an alkaline earth oxide coating on the base, said alloy base, by weight, containing about .04% aluminum, 1.0% chromium, 2.0% tungsten, and 0.5% cobalt, the balance of the alloy of the cathode base being preponderately of nickel.

2,837,424
PROCESS FOR PREPARING A CATALYST OF A SILVER-BASE ALLOY
Barbara McPhee Burford, Ottawa, Ontario, Canada, and Adrien Cambron, deceased, late of Ottawa, Ontario, Canada, by The Royal Trust Company, Montreal, Quebec, Canada, executor, assignors to National Research Council, Ottawa, Ontario, Canada, a body corporate
No Drawing. Application June 5, 1953
Serial No. 359,956
2 Claims. (Cl. 75—173)

1. The process of preparing a catalyst for the oxidation of ethylene to ethylene oxide which includes preparing an alloy comprising silver, from 1 to 75% calcium, from 0.1 to 0.4% nickel based on the weight of silver, and at least as much magnesium as nickel, the balance of the alloy being essentially silver, and subjecting the alloy to treatment with acid to remove from 5% to all but a trace of the calcium and magnesium content without significant removal of silver, whereby an active catalyst is formed.

2,837,425
THERMO-SETTING METAL ALLOYS AND PRODUCTION THEREOF
Milton B. Vordahl, Beaver, Pa., assignor to Rem-Cru Titanium, Inc., Midland, Pa., a corporation of Pennsylvania
No Drawing. Application March 26, 1954
Serial No. 419,079
7 Claims. (Cl. 75—175.5)

4. The process which comprises: admixing, in a fine state of subdivision, a metal selected from the group consisting of titanium, zirconium and alloys of each, with a lower melting metal and heating at a temperature slightly above the melting point of said lower melting metal until a pasty admixture is obtained, shaping the resulting paste with pressure while at said temperature into a desired configuration, and thereupon holding said shaped pasty admixture at elevated temperature until said metals have interdiffused into a substantially homogeneous alloy.

2,837,426
CYCLIC PROCESS FOR THE MANUFACTURE OF TITANIUM-ALUMINUM ALLOYS AND REGENERATION OF INTERMEDIATES THEREOF
Jonas Kamlet, New York, N. Y., assignor to National Distillers and Chemical Corporation, a corporation of Virginia
No Drawing. Application January 31, 1955
Serial No. 485,325
14 Claims. (Cl. 75—175.5)

1. A cyclic process for the manufacture of titanium-aluminum alloys containing 0.1% to 95% of titanium, and the regeneration of the intermediates of said process which comprises in combination the steps of initially reacting an alkali metal fluotitanate with metallic alu-

minum in stoichiometric excess at temperatures between 660° C. and 1800° C. to obtain the said titanium-aluminum alloy and a by-product salt mixture of alkali metal fluoaluminate and aluminum fluoride, thereafter separating said alloy from said salt mixture, reacting said salt mixture of alkali metal fluoaluminate and aluminum fluoride, in an aqueous medium, with at lest one member of the group consisting of ammonium hydroxides, ammonium carbonates, ammonium bicarbonates, alkali metal hydroxides, alkali metal carbonates, and alkali metal bicarbonates in quantity sufficient to precipitate all of the aluminum ions in the salt mixture as aluminum hydroxide, separating said precipitate of aluminum hydroxide from the resulting solution containing at least one member of the group consisting of ammonium fluoride and alkali metal fluorides, reacting said solution with a titanium containing product comprising at least one member of the group consisting of titanic sulfate, basic titanium sulfate, and titanium dioxide, the reaction mixture containing at least two equivalents of sulfate ion for each equivalent of titanium ion, separating the resultant alkali metal fluotitanate from the reaction mixture, and recycling said separated alkali metal fluotitanate to the above said initial reaction of alkali metal fluotitanate and metallic aluminum.

2,837,427

ZINC BASE TERNARY ALLOY CONTAINING TIN AND LEAD

Luigi Monaco, New York, N. Y.
No Drawing. Application May 28, 1956
Serial No. 587,906
1 Claim. (Cl. 75—178)

An alloy consisting of zinc 70%, tin 10%, lead 20%.

2,837,428

METHOD OF SINTERING CHROMIUM-ALUMINA METAL CERAMICS

Harry J. Brown, Lewistown, N. Y., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application April 28, 1954
Serial No. 426,297
2 Claims. (Cl. 75—206)

1. In a process for producing an article of substantially elongated shape from metal ceramic material consisting essentially of chromium and alumina, wherein chromium constitutes the major constituent of said metal ceramic, the process of minimizing cracking during heat hardening comprising forming the article to said elongated shape in the green state, heating the article to a temperature between 500° C. and 1000° C. in an oxidizing atmosphere to increase the green strength of said article, and then sintering said article in a non-contaminating atmosphere until sintering of said article is complete.

2,837,429

METHOD OF PRODUCING PATTERNS

William Elmer Whiting, Seneca Falls, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
No Drawing. Application June 21, 1955
Serial No. 517,075
2 Claims. (Cl. 96—35)

1. A method of forming a cathode ray tube viewing panel having a phosphor pattern formed thereon comprising the steps of coating said panel with a layer of a phosphor having a given light emissivity and light sensitized polyvinyl alcohol, exposing predetermined portions of said layer to light rays to form the phosphor pattern, washing said coated panel with water to develop the phosphor pattern by removing most of the unexposed portions of said layer, depositing a film of polyvinyl alcohol upon said coated panel to disassociate substantially all of the remainder of said unexposed portions from said panel, drying said polyvinyl alcohol film, rinsing the panel with water to remove said polyvinyl alcohol film and said dis-associated portions, and repeating said steps to form other phosphor patterns of different light emissivity laterally offset from one another.

2,837,430

METHOD OF MAKING DYED RELIEF RECORDS

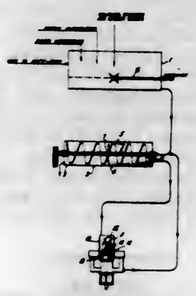
Richard J. Goldberg, North Hollywood, and Leon A. Levinson, Agoura, Calif., assignors to Technicolor Corporation, Hollywood, Calif., a corporation of Maine
No Drawing. Application July 12, 1955
Serial No. 521,619
4 Claims. (Cl. 96—35)

1. For forming a dyed relief record from a colloid layer sensitized with silver-halide, the method which comprises exposing the layer to form a latent image, developing the layer with a hardening developer to form a silver image and hardening the layer in the region of the developed silver, etching off the unhardened layer to form a relief record, and dyeing the relief record, characterized by using a soluble thiosulphate in the developer to prevent the layer from being etched all the way through in the highlights.

2,837,431

PROCESS FOR CONDITIONING GRAPE AND ANALOGOUS BERRY OR FRUIT MATERIALS PRIOR TO EXTRACTION OF JUICE THEREFROM

Samuel K. Wolcott, Jr., Penn Yan, N. Y.
Application July 1, 1954, Serial No. 440,740
3 Claims. (Cl. 99—106)



1. Process for conditioning grape material preparatory to the extraction of juice therefrom, comprising adding to a mass of grape material a pectin hydrolizing agent, and finely divided wood pulp fiber, the latter being characterized by a surface rough through the presence of hair-like processes enabling it to hold contacting solids particles freed in the mass as the result of disintegration of the fruit tissue, dispersing the additives throughout the mass by mixing, whereby the wood pulp fiber forms a three dimensional web-like network throughout the mass positioned to intercept, and inhibit the independent migration of, said particles, and maintaining the mixture at a temperature within the reaction range of the hydrolizing agent for a sufficient time to obtain a substantial hydrolizing effect, then progressively reducing the volume of the mass whereby the juice is extracted independently of the solids particles, the latter being retained in their relatively dispersed positions in said mass.

2,837,432

CORROSION INHIBITOR

Stanley W. Drigot, Chicago, John M. Lebolt, Deerfield, Lawrence I. Mlnow, Chicago, and Albert H. Reynolds, Glen Ellyn, Ill., assignors to The Cromwell Paper Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application April 15, 1955
Serial No. 501,750
5 Claims. (Cl. 106—14)

1. A method of controlling the dissipation of a volatile corrosion inhibitor into its vapor-state which comprises dispersing said volatile corrosion inhibitor in a water-soluble wax, whereby, as the wax sloughs at a rate determined by the humidity of the surrounding atmosphere, new surfaces of wax and inhibitor are successively exposed, from which surfaces the inhibitor vaporizes into the surrounding atmosphere.

2,837,433

MILDEW RESISTANT PAINT COMPOSITION

Robert F. Heran, Sr., Cleveland, Ohio, assignor to The Pioneer Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application February 23, 1954
Serial No. 412,068
6 Claims. (Cl. 106—18)

1. A mildew resistant, drying oil base, paint composition consisting essentially of a pigment including ferriferrocyanide, copper naphthenate and a vehicle suitable for use with copper naphthenate, the ferri-ferrocyanide and the naphthenate being present in amounts between about 0.36% and about 3.62% by volume of the paint composition and between about 1.0% and about 3.0% by volume of the paint composition, respectively.

2,837,434

DENTAL IMPRESSION COMPOSITION

Robert S. Grumbine, Chicago, Ill., assignor to Coe Laboratories, Inc., Chicago, Ill.
No Drawing. Application February 4, 1955
Serial No. 486,270
9 Claims. (Cl. 106—38.35)

1. A dental impression composition consisting essentially of a water-soluble alginate, a compound contributing a cation which forms an elastic gel with said alginate, and about 2% to about 14% by weight of potassium ferric fluoride.

2,837,435

BAGASSE CONCRETE

Allyn C. Miller, Palo Alto, and Norman Fishman, San Jose, Calif., assignors, by mesne assignments, to Hawaiian Development Company, Ltd., Honolulu, Territory of Hawaii, a corporation of the Territory of Hawaii
Application November 15, 1955, Serial No. 546,971
13 Claims. (Cl. 106—93)

1. A light weight concrete having the following composition:

	Parts by weight
Shredded bagasse containing polysaccharides, dry basis	100
Portland cement	100 to 400
Lime, hydrated	20 to 160
Water soluble polyvalent metal salt activator for said cement	2 to 30
Pozzolan	20 to 200
Water to give consistency.	

2,837,436

CONCRETE AND CEMENT

Edward P. Chapman, Jr., and John A. Wood, Albuquerque, N. Mex., assignors to Vernon F. Taylor, Jr.
No Drawing. Application August 10, 1954
Serial No. 449,006
5 Claims. (Cl. 106—97)

1. A cement mix for paving and structural concretes of increased compressive and flexural strengths and increased resistance to corrosive waters, said mix consisting of anhydrous calcium sulfate from about 5% to about 15% by weight and the remainder Portland cement.

2,837,437

PRODUCTION OF THERMOPLASTIC MATERIALS

Donald Finlayson, Boleslaw Krzesinski, and Antoni Harcolinski, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
No Drawing. Application May 12, 1953
Serial No. 354,660
Claims priority, application Great Britain May 29, 1952
9 Claims. (Cl. 106—198)

1. Method of preparing a powder of thermoplastic material infusible below 120° C., the particles of said powder being bonded to an effect material selected from the group consisting of pigments and dyes, which consists in heating a product consisting solely of a loose intimate mixture of thermoplastic material in the dry powdered state with the effect material also in the dry powdered state in thin layers with agitation to a temperature of at least 120° C. and at most 220° C. but insufficiently high to cause any substantial fusing together of the particles of thermoplastic material, the heating being continued until mechanical segregation of thermoplastic material and effect material is no longer possible.

2,837,438

COLLOIDAL SYSTEMS OF CYANOETHYLATED STARCH AND THEIR USE

Thomas E. Sample, Jr., La Marque, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application January 3, 1956
Serial No. 556,792
17 Claims. (Cl. 106—213)

1. A composition consisting essentially of a colloidal dispersion of a cyanoethyl ether of starch containing from about 1.5 to about 2.0 cyanoethyl ether groups per glucose unit, in a solvent mixture of water and a ketone chosen from the group consisting of the water-miscible, low-molecular-weight, aliphatic and alicyclic ketones, water being present in a minimum amount varying from about 1% by weight of solvent mixture for a starch containing about 2.0 cyanoethyl ether groups per glucose unit to a minimum amount of about 12% by weight of solvent mixture for a starch containing about 1.5 cyanoethyl ether groups per glucose unit and in a maximum amount varying from about 49% by weight of solvent mixture for a starch containing about 2.0 cyanoethyl ether groups per glucose unit to a maximum amount of about 55% by weight of solvent mixture for a starch containing about 1.5 cyanoethyl ether groups per glucose unit.

2,837,439

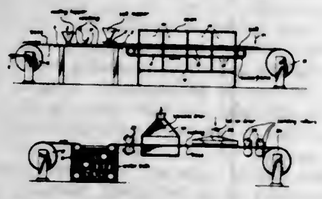
PAPER SIZE

Judson S. Swearingen and Lubertus Bakker, San Antonio, Tex., assignors, by mesne assignments, to Sinclair Refining Company, New York, N. Y., a corporation of Maine
No Drawing. Application October 27, 1953
Serial No. 388,688
4 Claims. (Cl. 106—238)

3. A paper sizing composition for use in forming water emulsions which consists essentially of a mixture of an aromatic petroleum lubricating oil extract having an aniline point of not more than about 60° C., an API gravity in the range of about 6.0 to 16.0, a flash point of not less than about 375° F., a viscosity in Saybolt Universal seconds in the range of about 400 to 35,000 at 100° F. and about 50 to 300 at 210° F. and a molecular weight in the range of about 250 to 500, and partially saponified rosin, in which composition the saponi-

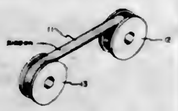
fied rosin is in a ratio of about 0.4 to 3 parts per part of extract and in which free rosin is present in an amount of about 5 to 8.5 weight percent of the rosin present before saponification.

2,837,440
METHOD OF PRODUCING AIR PERVIOUS MATERIAL BY TREATING WITH GAS EVOLVING BLOWING AGENT AND COACTING WITH A WASHABLE SALT LAYER
Horace Boivin, Granby, Quebec, Canada
Application June 13, 1956, Serial No. 591,023
3 Claims. (Cl. 117—7)



3. A method of making a flexible, stretchable and breathable fabric comprising mixing together polyvinyl chloride and a substantially equal amount of an alkyl plasticizer, a stabilizer agent and a drier agent, about 15% of a granular water soluble material and a nitrogen type blowing agent in a proportion of ½ to 1% weight of the total mixture, milling the resultant mixture to a homogeneous consistency of very fine particles, applying and spreading the mixture onto a stretchable knitted cloth backing at a temperature below the activation temperature of the blowing agent to form a continuous coating on said backing, adjusting the thickness of said coating to a uniform, constant value substantially equal to the thickness of said backing, sprinkling onto the outer face of the uncured coating an inert, granulated, water-soluble material of fine particle size and to a depth of from 15 to 20 times the thickness of the coating, stretching said fabric widthwise in the direction of the courses of the knitted backing, while tensioning said backing lengthwise and heating said dimensionally stabilized coated backing in successive steps of substantially 25° F., from 250° F. to 375° F. to fuse and dry said coating, while causing said blowing agent to produce gas evolution through the mass of said coating, removing the inert materials sprinkled on the outer face of the coating, washing the resulting coated fabric in water, drying the same while in stretched condition, sanding the outer face of the cured coating.

2,837,441
XEROGRAPHIC WET BELT LOADING
Carl B. Kaiser, Rochester, N. Y., assignor to The Haloid Company, Rochester, N. Y., a corporation of New York
Application February 1, 1955, Serial No. 485,548
3 Claims. (Cl. 117—17.5)



1. The method of creating a uniform dispersion of fine dry developer powder particles in gas for image development in xerography comprising forming a liquid suspension of xerographic developer powder particles in a volatile nonsolvent liquid, immersing a substantially uniform tape of porous material into the liquid suspension, removing the tape of material from the liquid suspension and drying the tape to thereby form a tape impregnated with releasable developer particles, and then feeding the impregnated tape at a substantially uniform linear rate through a substantially uniform gas stream producing a uniformly constant and dense dispersion of powder particles in gas.

2,837,442
METHODS OF CHROMIZING MOLYBDENUM TUNGSTEN AND THEIR ALLOYS
Richard P. Seelig, Hartsdale, and Richard L. Wachtell, Larchmont, N. Y., assignors to Chromalloy Corporation of New York, New York, N. Y.
No Drawing. Application May 2, 1955
Serial No. 505,565
5 Claims. (Cl. 117—22)

1. The method of applying a shiny glossy chromium rich layer on an underbase metal selected from the class consisting of molybdenum, a molybdenum alloy, tungsten, and a tungsten alloy which comprises maintaining said underbase metal at an elevated temperature of about 1900° F. for a period of several hours in a substantially oxygen-free atmosphere while the underbase metal is in the presence of a powdered chromizing pack comprised of ferro-chrome, an inert filler, a volatile halide and a minor quantity of free iron, the amount of said free iron being at least 3% of said pack.

2,837,443
METHOD OF PORCELAIN ENAMELING
Jason M. Zander, Chicago, Ill., assignor, by mesne assignments, to The Eagle-Picher Company, Cincinnati, Ohio, a corporation of Ohio
No Drawing. Application July 26, 1954
Serial No. 445,887
10 Claims. (Cl. 117—53)

1. A method of treating a ferrous metal article surface, that comprises subjecting the surface to an alkaline cleanser solution followed by rinsing to remove surface contaminants and residual cleanser; subjecting the surface to aqueous nitric acid solution followed by rinsing to impart substantially uniform chemical activity to the surface; subjecting the surface to the aqueous sulfuric acid-hydrogen sulfide pickling solution followed by rinsing to etch the surface and remove occluded hydrogen, rust, scale and residual oxides from the nitric acid treatment; subjecting the surface to aqueous alkaline cyanide solution followed by rinsing to remove substantially all ferrous oxidation products; subjecting the surface to aqueous nickel salt solution followed by rinsing to deposit a nickel flash on the surface by electromotive displacement; neutralizing residual acid on the surface followed by drying the surface; and applying directly to the surface a titania-opacified cover coat of porcelain enamel.

2,837,444
AQUEOUS LATEX PAINT AND A POROUS SURFACE COATED THEREWITH
Frank J. Hahn, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application August 22, 1956
Serial No. 605,474
5 Claims. (Cl. 117—72)

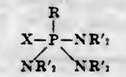
5. A porous surface carrying an undercoat of a quadricomponent interpolymer admixed with an oil modified alkyd resin and a top coat of a quadricomponent interpolymer, said quadricomponent interpolymer containing about (1) 35–60 parts of an unsaturated ester of the group consisting of straight-chain and branched-chain saturated aliphatic alcohol esters of acrylic and methacrylic acid containing a total of about 5–20 carbons in the alcohol radical of which about 5–14 carbon atoms comprise the longest continuous chain thereof, (2) 3–10 parts of an unsaturated nitrile of the group consisting of acrylonitrile and methacrylonitrile, (3) 2–5 parts of an unsaturated monocarboxylic acid of the group consisting of acrylic acid, methacrylic acid, cinnamic acid, atropic acid and crotonic acid, and (4) correspondingly, 60–25 parts by weight of a monovinylidene aromatic hydrocarbon, said quadricomponent interpolymer having been prepared by first partially polymerizing all of the nitrile component with from 1.5–3 times its weight of vinylidene aromatic hydrocarbon component, then adding the remaining components and finally completing the polymerization reaction, said oil-modified alkyd resin consisting of a polyhydric alcohol containing at least 3 hydroxyl groups, a polycarboxylic acid and a member of the group consisting of drying oils, semi-drying oils, drying oil acids, semi-drying oil acids and mixtures thereof, said resin containing from 5–25 weight percent of polycarboxylic acid, and from 55–88 weight percent of oil acids with the balance being polyhydric alcohol.

2,837,445
CONTINUOUS PROCESSES OF CHEMICAL NICKEL PLATING
Paul Talmey, Barrington, Ill., and Donald E. Metheny, Hammond, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York
No Drawing. Application April 6, 1956
Serial No. 576,533
7 Claims. (Cl. 117—130)

1. In the continuous process of chemically plating with nickel articles essentially comprising an element selected from the group consisting of iron, cobalt, nickel, aluminum, copper, silver, gold, palladium and platinum; wherein said articles are contacted with a bath comprising an aqueous solution of nickel ions and hypophosphite ions and lactic ions and propionic ions; and wherein said bath initially comprises an absolute concentration of hypophosphite ions in the range 0.15 to 0.30 mole/liter, sufficient nickel ions to provide a ratio between the nickel ions and the hypophosphite ions in the range 0.25 to 0.60, an absolute concentration of lactic ions of about 0.30 mole/liter, and an absolute concentration of propionic ions of about 0.03 mole/liter, and said bath has an initial pH in the range 4.5 to 4.8; the method of regenerating said bath as the continuous plating process proceeds comprising progressively adding thereto nickel ions and hypophosphite ions and lactic ions and propionic ions, whereby said progressive additions of nickel ions and hypophosphite ions are such as to prevent the depletions thereof in said bath as the continuous plating process proceeds and said progressive additions of lactic ions and propionic ions are such as to increase the concentrations thereof in said bath as the continuous plating process proceeds, wherein said additions of lactic ions and propionic ions are related to said addition of nickel ions so that about 0.03 mole of lactic ions and about 0.005 mole of propionic ions are added to said bath to each 0.08 mole of nickel ions added thereto.

2,837,446
TEXTILE MATERIALS WITH AN ANTI-STATIC FINISH AND PROCESS OF MAKING SAME
Oscar P. Cohen, Longmeadow, and Milton J. Scott, Lexington, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Original application August 31, 1951, Serial No. 244,730. Divided and this application June 11, 1956, Serial No. 590,362
15 Claims. (Cl. 117—138.8)

1. Textile materials consisting of textile fibers, of which at least 10% by weight are fiber-forming synthetic polymer fibers, and a quaternary phosphonium salt distributed continuously on the surface of said textile fibers, said salt being present on said materials in an amount sufficient to provide an anti-static finish and having the general formula:



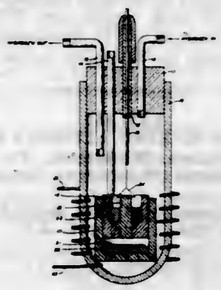
where R is an alkyl radical containing from 6 to 22 carbon atoms, R′ is an alkyl radical containing from 1 to 4 carbon atoms and X is selected from the group consisting of chlorine and bromine atoms and aliphatic monocarboxylate radicals containing 8 to 24 carbon atoms.

2,837,447
METAL-COATED THREADED COUPLINGS FOR ELECTRODES
Georg Weindel, Frankfurt am Main, Germany
Application December 1, 1955, Serial No. 550,451
Claims priority, application Germany December 13, 1954
1 Claim. (Cl. 117—227)



A flame-sprayed metallized threaded joint member for an electric arc furnace carbon electrode, comprising a thread surface on said member, and a sprayed metal coating on said surface selected from the class consisting of copper, aluminum, and steel and having a thickness less than 50 microns and the natural roughness of the threaded carbon surface whereby the roughness of the surface is unfilled by said coating.

2,837,448
METHOD OF FABRICATING SEMICONDUCTOR PN JUNCTIONS
Carl D. Thurmond, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 26, 1953, Serial No. 388,094
7 Claims. (Cl. 148—1.5)



1. The method of producing a semiconductor PN junction which comprises placing a significant impurity determinative of one conductivity type upon crystalline semiconductive material of opposite conductivity type, heating the assembly to a temperature above the eutectic temperature of said impurity and material and below the melting point of said material, slowly cooling the assembly to a temperature between the initial temperature and said eutectic temperature for forming a layer of the one conductivity type on the surface of the semiconductive body in contact with the molten layer, flooding the resulting combination with a molten metal which is appreciably softer than and which has a melting point substantially below that of said impurity and further char-

acterized in that said semi-conductive material and said impurity are only slightly soluble in said molten metal at its melting point, and cooling the product to room temperature.

2,837,449

COMPOSITION OF MATTER FOR AND PROCESS OF PRODUCING PHOSPHATE LAYERS ON IRON SURFACES

Bruno Bieser, Duesseldorf-Urdenbach, Germany, assignor to Henkel & Cie. G. m. b. H., Duesseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application August 11, 1953
Serial No. 373,691
Claims priority, application Germany August 14, 1952
7 Claims. (Cl. 148—6.15)

1. In a process of producing phosphate layers on iron surfaces, the step comprising immersing iron articles in an aqueous phosphatizing solution consisting essentially of the addition product of phosphoric acid and an amide of a low molecular carboxylic acid containing from 1 to 3 carbon atoms to cause formation of a phosphate layer on the surface of said iron article.

2,837,450

METHOD OF BONDING PARTS OF LIGHT ALLOY HEAT EXCHANGERS

Donald C. Moore, Sutton Coldfield, and Dennis A. Edge, Kings Norton, Birmingham, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application October 26, 1953
Serial No. 388,435
Claims priority, application Great Britain
October 27, 1952
9 Claims. (Cl. 148—21.91)

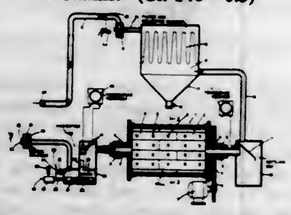
1. Method of manufacture of heat exchangers of the kind comprising a matrix wherein heat transfer takes place from one medium to another and ancillary fittings for conveying the two media to the matrix, which comprises forming the matrix components from an alloy containing 0.35–0.55% magnesium, 0.35–0.55% silicon, 0–0.35% titanium, 0–1% manganese, balance aluminum, bonding the said components by a brazing process employing aluminium-silicon alloy brazing material, forming the ancillary parts of the heat exchanger from an alloy containing 0.5–1.0% magnesium, 0.75–1.25% silicon, 0.2–0.35% titanium, 0–1% manganese, balance aluminium, and brazing the said parts to the matrix.

2,837,451

METHOD OF MAKING ALUMINA POWDER

John W. G. Hannon, Washington, Pa., assignor to McIntyre Research Foundation, Toronto, Ontario, Canada

Application November 18, 1954, Serial No. 469,820
4 Claims. (Cl. 148—6.3)



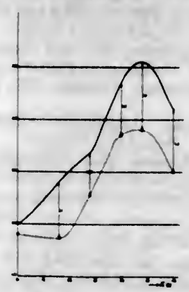
1. A method of manufacturing an aluminum oxide powder comprising grinding pure aluminum pellets while maintaining said pellets free from contact with substances other than aluminum, and, during grinding, drawing through the mill at a substantially constant uniform rate of approximately 7 feet per minute air containing a substantially constant moisture content of approximately 8 grains of moisture per cubic foot of air to draw off aluminum oxide particles produced on grinding, passing said constant moisture content air containing particles drawn off from said mill through a settling chamber to settle out larger particles drawn off and subsequently through a filtering medium to filter out smaller particles and collecting said smaller particles.

2,837,452

METHOD OF MAKING ANISOTROPIC PERMANENT MAGNETS

Krijn Jacobus de Vos, Adolf Johannes Jacobus Koch, Hendrik Johannes Meerkamp Van Embden, Bartholomeus Haas, and Johannes Flipse, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application January 18, 1956, Serial No. 559,982
Claims priority, application Netherlands January 19, 1955
5 Claims. (Cl. 148—103)



1. In the manufacture of a permanent magnet, the steps of forming a body of a ferrous alloy containing about 15 to 42% cobalt, about 10 to 20% nickel, about 6 to 10% aluminium, about 2 to 8% copper, about 4 to 10% titanium and the balance principally iron, quenching said body from a temperature exceeding about 1200° C. to a temperature of about 900° C., and subjecting said body to the action of a magnetic field while said body is maintained at a substantially constant temperature varying less than about 20° C. in a range of about 10° to 70° C. below its Curie temperature for about 2 to 30 minutes whereby an anisotropic permanent magnet having a substantially increased $(BH)_{max}$ is obtained.

2,837,453

PRELIMINARY PRESSING OF LAMINATED GLASS

Oscar D. Englehart, Brackenridge, John R. Sadesky and John W. Morris, Tarentum, and Roy S. Sherbondy, New Kensington, Pa., assignors to Pittsburgh Plate Glass Company

Application August 19, 1955, Serial No. 529,522
19 Claims. (Cl. 154—2.70)



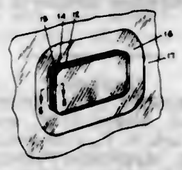
1. The method of prepressing at least the marginal area of an assembly comprising two matched sheets of glass and a thermoplastic interlayer, which comprises supporting the assembly on a flexible sheet within an area of the sheet defined by a continuous rib on the top surface of the sheet and spacing the periphery of the assembly from the rib, placing a flexible cover sheet over the assembly and the rib to cover the entire area of the flexible sheet defined by the rib and to maintain a conduit around the periphery of the assembly, evacuating the conduit through the rib while maintaining air passages from the periphery of the assembly to the point of evacuation at the rib, maintaining the vacuum while heating at least the marginal area of the glass sheets and interlayer, releasing the vacuum, removing the cover sheet and removing the assembly of glass sheets and interlayer.

2,837,454

LAMINATED TRANSPARENT ARTICLE AND METHOD OF MAKING THE SAME

George B. Watkins, Toledo, and James D. Gwyn, Perrysburg, Ohio, assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application September 23, 1954, Serial No. 457,968
10 Claims. (Cl. 154—2.75)



1. A method of making a laminated transparent sheet material, comprising treating the surface of a sheet of polyester plastic with a hot alkaline solution, said polyester plastic including the reaction product of terephthalic acid and a glycol, placing a sheet of polyvinyl butyral plastic material over the treated surface, and subjecting the sheets to heat and pressure.

8. A laminated transparent article, comprising a sheet of polyester plastic consisting essentially of a reaction product of terephthalic acid and a glycol compound and having a surface thereof treated with a hot alkaline solution, and a sheet of polyvinyl butyral plastic material permanently bonded to the treated side of said sheet of polyester plastic.

2,837,455

COMPOSITE UPHOLSTERY MATERIAL AND METHOD OF MANUFACTURE

Mariand S. Wolf, St. Paul, Minn., assignor to Wood Conversion Company, St. Paul, Minn., a corporation of Delaware

Application October 11, 1954, Serial No. 461,554
17 Claims. (Cl. 154—54)



8. Cushioning material comprising a layer of compressible cushioning fiber felt having a multiplicity of holes formed therein and therethrough along the thickness dimension, a layer of spongiform elastomer united to one face of said felt, and spongiform elastomer bodies substantially filling said holes in the felt and united to the felt and to the spongiform layer at their interfaces, said bodies having the surfaces of their free ends coextensive with the surface of the felt.

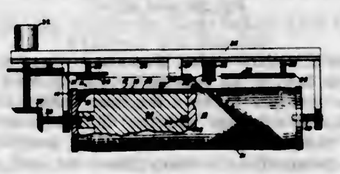
2,837,456

FILAMENT WOUND CONTAINER

Arthur R. Parilla, Mountain Lakes, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application February 29, 1952, Serial No. 274,197
9 Claims. (Cl. 154—83)

1. The method of fabricating a hollow container with a closed bottom end and an open top end which consists in providing a body form of substantially the configuration of a united opposed pair of the desired containers, positioning closures at the ends of said body form in opposed relation, each of said closures including a curved surface facing away from the other of said closures, winding and bonding filament under tension along a helix whose pitch exceeds the diameter of said body form over



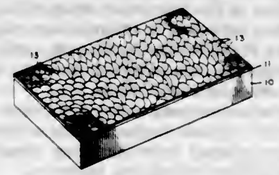
said body form between said closures to form a hollow body and along a geodesic over said curved surfaces to form said hollow body and said closures into an integrated structure which is held together against longitudinally acting disruptive forces substantially only by said bonded filament windings acting under tension, parting said hollow body intermediate its ends, and removing the thus produced containers from said body form.

2,837,457

METHOD OF PRODUCING GLASS SURFACED LOW PRESSURE LAMINATES

Thomas R. Baxter, Mount Vernon, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application July 11, 1956, Serial No. 597,171
3 Claims. (Cl. 154—95)



1. A method of applying a surface layer to a fiber mat which comprises; coating a carrier web with glass flakes, a thermo-setting resin and a wetting agent, applying said web to a fibrous mat so as to bring the glass flakes in contact with the mat to form a panel assembly, curing the assembly and stripping the web from the assembly.

2,837,458

BONDING RUBBER TO SUBSTRATES

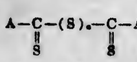
Elmer W. Coleman, Jr., Erie, Pa., assignor to Lord Manufacturing Company, Erie, Pa., a corporation of Pennsylvania

Application April 29, 1955, Serial No. 505,025
32 Claims. (Cl. 154—139)

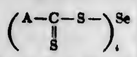


1. The method of bonding a body of rubber selected from the group consisting of natural rubbers and unsaturated synthetic rubbers containing carbon-to-carbon double bonds to a solid structural substrate capable of existing as a solid at 250° F. which comprises interposing between said rubber and said substrate an intermediate bonding phase comprising an organic isocyanate and a dithiocarbamic acid derivative selected from the

group consisting of (*a*) the thiuram sulfides having the formula:

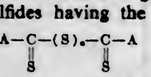


and (*b*) the selenium dithiocarbamates having the formula:

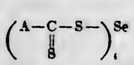


where A is a tertiary amine group and where *n* is an integer from 2 to 4 the isocyanate being at least available at the interface between the intermediate bonding phase and said substrate and the dithiocarbamic acid derivative being at least available at the interface between the intermediate bonding phase and said rubber body, and heating the resulting assembly under pressure.

16. A composite article comprising a body of rubber selected from the group consisting of natural rubbers and unsaturated synthetic rubbers containing carbon-to-carbon double bonds bonded to a solid structural substrate capable of existing as a solid at a temperature of 250° F. by means of an intermediate bonding phase comprising an organic isocyanate and a dithocarbamic acid derivative selected from the group consisting of (*a*) the thiuram sulfides having the formula:

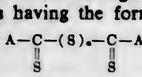


and (*b*) the selenium dithiocarbamates having the formula:

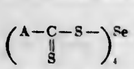


where A is a tertiary amine group and where *n* is an integer from 2 to 4, the isocyanate being at least available at the interface between the intermediate phase and said substrate and the dithiocarbamic acid derivative being at least available at the interface between the intermediate phase and said rubber body.

25. As an adhesive composition a solution comprising, in admixture, an organic isocyanate and a dithiocarbamic acid derivative selected from the group consisting of (*a*) the thiuram sulfides having the formula:



and (*b*) the selenium dithiocarbamates having the formula:



where A is a tertiary amine group and where *n* is an integer from 2 to 4.

2,837,459

METHOD OF AND COMPOSITION FOR PRESERVING MILK AND MILK PRODUCTS

Burdet Heinemann, Springfield, Mo., assignor to Eco, Incorporated, Kansas City, Mo., a corporation of Missouri

No Drawing. Application July 12, 1954
Serial No. 442,920
2 Claims. (Cl. 167—19)

1. A method of treating an inedible laboratory test sample of milk to preserve the same for from two to four weeks for subsequent testing to determine butter fat content, total solids and direct bacteria count, said method comprising the step of adding to said milk from 10 to 300 milligrams of mercuric chloride and from 10 to 300 milligrams of a milk-soluble oxidizing compound selected from the group consisting of potassium chlorate, potassium dichromate, potassium permanganate, potassium iodate, ceric sulfate, and ammonium nitratocerate for each 200 milliliters of the milk.

2,837,460

PERTUSSIS VACCINE PREPARATION

Otto K. Behrens and Paul W. Ensminger, Indianapolis, Ind., assignors to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application October 23, 1952
Serial No. 316,566
7 Claims. (Cl. 167—78)

1. A method of preparing a reaction-free antigen for immunization against *Hemophilus pertussis* which comprises extracting intact cells of *Hemophilus pertussis* for a period of about 1 to about 3 weeks with an aqueous solution of about 0.1 to about 0.2 percent on a weight/volume basis of a phenolic compound of the group consisting of phenol, cresol, chlorophenol, nitrophenol, and carvacrol, separating the extract from the intact cells, and adjusting the concentration of the phenolic compound in the separated extraction solution to a value less than about 0.5 percent.

2,837,461

AQUEOUS RIBOFLAVIN COMPOSITIONS

Morris E. Auerbach, Albany, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 7, 1957
Serial No. 638,693
9 Claims. (Cl. 167—81)

8. A composition affording in aqueous solution riboflavin in a concentration exceeding its normal water solubility, and comprising riboflavin and, as a solubilizing agent, a non-toxic, water-soluble salt of a polybasic acid selected from the group consisting of a hydroxy-sulfonaphthoic acid and a hydroxy-disulfo-naphthoic acid in which the hydroxy group is on one of the positions adjacent to the carboxyl group.

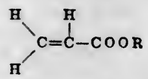
2,837,462

NONWOVEN FABRIC AND PRODUCTS CONTAINING BACTERISTATIC AGENT

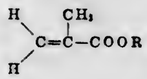
George Van Norden Morin, Westfield, N. J., assignor to Chicopee Manufacturing Corporation, a corporation of Massachusetts

No Drawing. Application December 29, 1954
Serial No. 478,539
6 Claims. (Cl. 167—84)

1. A relatively soft nonwoven fabric comprising a loosely assembled web of overlapping intersecting fibers, a substantially nonionic binder material distributed throughout the web in adhesive contact with the fibers therein, the binder forming bonds between the fibers and said bonds having wet abrasion resistance, said binder comprising a material selected from the group consisting of copolymers of vinyl acetate and an alkyl acrylate, copolymers of vinyl acetate and an alkyl methacrylate and tripolymers of vinyl acetate, an alkyl acrylate, and an alkyl methacrylate, said binder comprising at least about 70 percent of vinyl acetate based upon the weight of the total monomers, said acrylates having the following structural formula:

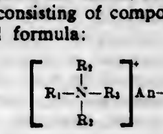


and said methacrylates having the following structural formula:

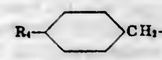


wherein R is an alkyl radical having less than nine carbon atoms, and no more than about 0.4 percent by weight of the dry fabric of a quaternary ammonium salt distributed

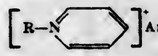
uniformly throughout the fabric, said salt being selected from the group consisting of compounds having the following structural formula:



in which R_1 is selected from the group consisting of alkyl and heterogeneous aliphatic radicals each having 8–18 carbon atoms and radicals of the formula:



in which R_4 is an alkyl radical having 8–18 carbon atoms, each R_2 is a lower alkyl radical having not more than two carbon atoms, and R_3 is selected from the group consisting of methyl, ethyl, allyl, and benzyl radicals; and



in which R is selected from the group comprising alkyl and aliphatic radicals each containing 8–18 carbon atoms; in both of which An— is an anion.

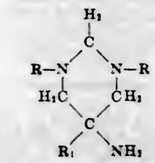
2,837,463

THERAPEUTIC COMPOSITIONS COMPRISING 5-AMINO HEXAHYDROPYRIMIDINES OR SALTS THEREOF

Leonard S. Fosdick, Wilmette, Ill., and Roland R. Read, Morristown, Robert G. Sanders, Pompton Lakes, and Robert B. Edwards, Bound Brook, N. J., assignors to Warner-Lambert Pharmaceutical Company, Morris Plains, N. J., a corporation of Delaware

No Drawing. Application January 10, 1958
Serial No. 708,072
21 Claims. (Cl. 167—93)

1. A therapeutic composition effective to inhibit the growth of microorganisms, free of undesirable toxic effects, comprising a pharmaceutical carrier and a substantial amount, less than 1% by weight, of a compound of the group consisting of those having the formula:



wherein R represents a radical selected from the group consisting of alkyl, aryl, aralkyl, alkaryl, hydroxy-alkyl, aminoalkyl, and cycloalkyl and R_1 is selected from the group consisting of hydrogen, lower alkyl and hydroxymethyl radicals and the salts of said compounds.

2,837,464

PROCESS FOR PRODUCTION OF DIENES BY CORYNEBACTERIA

Arthur Nobile, Belleville, N. J., assignor to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application January 11, 1955
Serial No. 481,279
19 Claims. (Cl. 195—51)

1. Process for the manufacture of $\Delta^{1,4}$-pregnadienes which comprises subjecting a Δ^4-3-keto pregnene to the action of a culture of a member of the group consisting of *Corynebacterium simplex* and *Corynebacterium hoagii*.

2,837,465

HYDROCATALYTIC DESULFURIZATION OF PETROLEUM HYDROCARBONS

Frederick William Bertram Porter and Roy Purdy Northcott, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited, London, England, a British joint-stock corporation

No Drawing. Application April 13, 1955
Serial No. 501,168
Claims priority, application Great Britain April 14, 1954
4 Claims. (Cl. 196—24)

1. A process for the hydrocatalytic desulfurization of petroleum hydrocarbons boiling in the gas oil range, which comprises passing the hydrocarbons at a space velocity of the liquid feedstock within the range 0.5 to 20 v./v./hr. and in admixture with up to 2000 S. C. F./B. of hydrogen over a sulfur-resistant hydrogenation catalyst at a temperature of 750–820° F. and a pressure of above 500 p. s. i. ga. and not exceeding 1000 p. s. i. ga., whereby organically combined sulfur in the hydrocarbons is converted into hydrogen sulfide, and removing hydrogen sulfide from the treated hydrocarbons.

2,837,466

REMOVING BENZENE AND THIOPHENE FROM GASOLINE HYDROCARBONS

Constantijn Leopold van Panthaleon Baron van Eck, Amsterdam, Netherlands, assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application February 2, 1953
Serial No. 334,715
Claims priority, application Netherlands July 31, 1952
8 Claims. (Cl. 196—30)

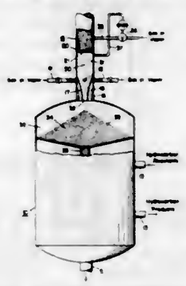
1. A method for removing benzene from a mixture thereof with hydrocarbons boiling within the gasoline boiling range which comprises contacting said mixture with a suspension of solid nickel cyanide in an aqueous ammonia solution containing from 5% to 10% by weight of ammonia, said suspension containing from 2% to 20% by weight of solid nickel cyanide in excess of that required to saturate the aqueous ammonia solution, whereby a solid complex of benzene, nickel cyanide, and ammonia is formed; permitting the resulting mixture to settle whereby two phases stratify, a hydrocarbon phase and an aqueous phase containing said solid complex; and separating said hydrocarbon phase from said aqueous phase.

2,837,467

HYDROCARBON CONVERSION SYSTEMS

William L. McClure, Toledo, Ohio, assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application September 21, 1953, Serial No. 381,185
5 Claims. (Cl. 196—55)



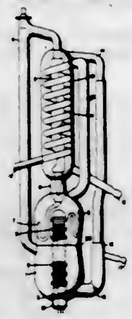
1. Method for introducing conversion-supporting granular solids into a vessel in a hydrocarbon conversion system which method comprises: passing granular solids comprising particles having size within the range 4 to

20 mesh downwardly as a compact moving bed through a confined zone; passing said solids downwardly through an upper orifice and vertically through an enclosed zone as a falling stream of solids passing through a well-defined substantially unobstructed path directly into and vertically through a lower orifice into said vessel, said lower orifice having cross-sectional area approximately equal to the natural cross-sectional area of said falling stream at the level of said lower orifice; maintaining the pressure in said vessel above the pressure in said enclosed zone passing a gasiform material downwardly through said enclosed zone and through said lower orifice with said solids; and discharging gasiform material downwardly into said vessel from a position adjacent to and external of said falling stream of solids as it emerges from said lower orifice.

2,837,468
PURIFICATION OF POLYHYDRIC ALCOHOLS
Robert J. Ruhf, Allentown, Pa., assignor to Trojan Powder Company, a corporation of New York
No Drawing. Application December 23, 1955
Serial No. 554,916
6 Claims. (Cl. 202—52)

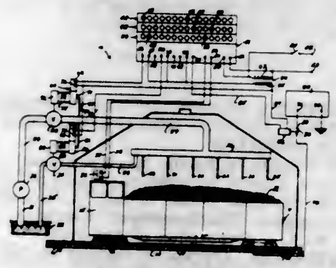
1. In purifying polyols of the general type formula $R_{4-n}C(CH_2OH)_n$ wherein R represents monovalent units containing each not more than 4 carbon atoms selected from the group consisting of alkyl and alkoxy groups and *n* is an integer within the range 2–4, the process which comprises introducing into the polyol an acid in any amount required to establish the pH of the resulting mixture approximately within the range 5–6.7 during the distillation of the polyol, subjecting the mixture in substantially anhydrous condition to distillation at a temperature of 136°–206° C. and at a pressure corresponding to not more than about 50 mm. of mercury, and maintaining the pH in the said mixture during the distillation of the polyol within the said range.

2,837,469
DISTILLING APPARATUS FOR THE PRODUCTION OF PURE WATER
Heinrich Mohn, Hailer, Germany, assignor to W. C. Heraeus G. m. b. H., Hanau (Main), Germany, a German body corporate
Application May 18, 1955, Serial No. 509,323
In Germany October 7, 1949
Public Law 619, August 23, 1954
Patent expires October 7, 1969
9 Claims. (Cl. 202—73)



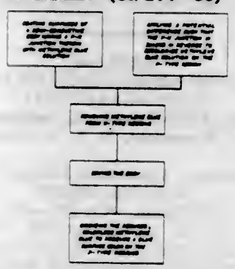
1. Distillation apparatus for the production of pure water, comprising, in combination, two superposed distillation flasks of silicon dioxide for simultaneously and continuously operating two distillation stages, a separating wall between said flasks constituting the ceiling of the lower flask and the bottom of the upper flask, electrical heating means mounted in the two flasks, conduit means connecting the two flasks for feeding distillate from the lower to the upper flask, safety means arranged in the upper flask and forming part of said conduit means for preventing contamination of the vapor of the second distillation stage by condensate fed from the first stage through the conduit means, a common cooler of silicon dioxide for both distillation stages, said cooler being arranged in superposed relationship to the two distillation flasks and said conduit means passing through the cooler to constitute a cooling path for the first distillation stage, capillary means arranged near the lower end of said cooling path for effecting pressure equalization with the atmosphere, overflow means connecting the cooler and the lower flask for feeding water from the cooler to the lower flask, and a throttle device arranged in said overflow water feeding means.

2,837,470
COKE QUENCHING
Carl F. Hayden, Chicago, Ill., assignor to Hayden and Company, Chicago, Ill., a corporation of Illinois
Application August 17, 1955, Serial No. 529,024
3 Claims. (Cl. 202—227)



1. In a coke quenching system in which coke is carried by an electrically powered railroad car from a coke oven to a quencher tower which includes spray nozzles for spraying water on the coke in the car, valve means arranged for controlling flow of water to said nozzles, conductor means arranged for transmitting electrical power to the railroad car, and timer means arranged for automatically opening said valve means and deenergizing said conductor means for certain time intervals after the railroad car is in the quencher tower.

2,837,471
METHOD OF LOCATING PN JUNCTIONS IN SEMICONDUCTIVE BODIES
John T. Law, Berkeley Heights, and Peter S. Meigs, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1955, Serial No. 556,516
3 Claims. (Cl. 204—35)



1. A method of locating and marking a p–n junction in a semiconductive body comprising the steps of coating

the surface of said body with a solution comprising a dye, said dye characterized in that it may be cathodically and reversibly reduced in said solution to produce a reduced form which adheres to the surface of said body and which is insoluble in said solution, electrically biasing said junction in the reverse direction for a period of time sufficient to cause selective reduction of the dye in contact with the surface of the p-type portion of said body, removing the unreduced dye from the surface by washing, and oxidizing the reduced form of the dye on said p-type portion back to the colored state.

2,837,472
BRIGHTENERS FOR ELECTROPLATING BATHS
Wolfgang Gundel, Duesseldorf-Oberkassel, and Hermann Haas and Wennemar Strauss, Duesseldorf-Holthausen, Germany, assignors to Dehydag, Deutsche Hydrierwerke G. m. b. H., Duesseldorf, Germany, a corporation of Germany
No Drawing. Application December 13, 1955
Serial No. 552,699
Claims priority, application Germany December 13, 1954
14 Claims. (Cl. 204—49)

1. An electroplating bath for producing electrodeposits of metals selected from the group consisting of copper, nickel and zinc, comprising an acid aqueous solution of an inorganic salt of the metal to be deposited and a compound selected from the group consisting of organic sulfonic acids having the structural formulas

$$Z-\underset{\displaystyle R_1}{\underset{|}{N}}-R-SO_3H \quad \text{and} \quad Z=N-R-SO_3H$$

and their salts, wherein Z is a radical comprising a carbon atom directly attached to a sulfur atom, to an atom selected from the group consisting of sulfur, oxygen and nitrogen atoms and to the nitrogen atom of the

$$-N-R-SO_3H$$

group, R is a bivalent organic radical selected from the group consisting of aliphatic and aromatic radicals, and R′ is selected from the group consisting of hydrogen and aliphatic radicals, said organic compound being dissolved in said bath in sufficient quantity to produce bright metal-plating deposits therefrom.

2,837,473
PROCESS FOR ACTIVATION OF SILVER ALLOY CATALYST
Kenneth Earnshaw MacCormack, Saltburn-by-the-Sea, and Geoffrey Anthony Harrow, Orrell Park, Liverpool, England, assignors to National Research Council, Ottawa, Ontario, Canada, a body corporate of Canada
Application October 10, 1956, Serial No. 615,024
4 Claims. (Cl. 204—140)

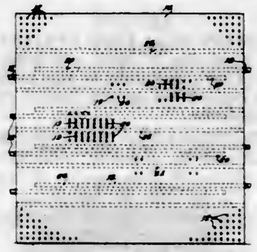


1. A process for the activation of silver alloy catalyst, comprising a porous mass of alloy of silver and a non-silver component selected from the group consisting of silver-lithium, silver-potassium, silver-sodium, silver-strontium, silver-barium, silver-calcium, silver-magnesium, silver-aluminum, silver-zinc, silver-cadmium and silver-tin alloys, comprising immersing the alloy in an aqueous electrolyte and passing current therethrough with the alloy as an anode, thereby causing selective removal of at least some of the non-silver components to form an activated catalyst.

2,837,474
CORROSION INHIBITION
Groves H. Cartledge, Fountain City, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application April 7, 1954
Serial No. 422,700
12 Claims. (Cl. 204—154.2)

12. A new and improved method of inhibiting corrosion of a nickel-chrome stainless steel by an aqueous uranyl sulfate solution in contact therewith under conditions of substantial nuclear radiation eminated from a self-sustaining chain-fission reaction, which comprises providing, throughout the entire period of contact of said solution with said metal, a concentration of at least approximately 5×10^{-5} molar pertechnetate ion dissolved in said solution.

2,837,475
NEUTRONIC REACTOR HAVING LOCALIZED AREAS OF HIGH THERMAL NEUTRON DENSITIES
Henry W. Newson, Durham, N. C., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application August 21, 1952, Serial No. 305,597
3 Claims. (Cl. 204—193.2)

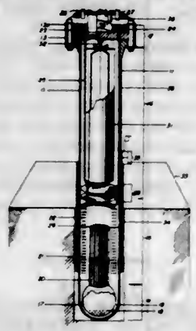


1. A neutronic reactor having an active portion including a graphite moderator at least 25 feet in length along each axis, a plurality of parallel channels traversing said moderator, said channels being disposed within a geometric lattice with adjacent channels spaced from each other by a distance of approximately 8 inches, a plurality of cylindrical bodies of natural uranium disposed within at least 1089 of said channels, said uranium bodies having a diameter of approximately 1.1 inch and being jacketed in a thin aluminum jacket, the total amount of natural uranium being approximately 93.5 tons, and the diameter of the channels being greater than 1.1 inch characterized by the improved construction wherein a duct traverses the moderator normal to some channels, and the channels adjacent to at least a portion of the duct are displaced from the lattice and disposed 8 inches from the duct, said channels being approximately 4 inches from adjacent channels, each of said channels containing one of said uranium bodies.

2,837,476
STEAM STIRRED HOMOGENEOUS NUCLEAR REACTOR
Harold M. Busey, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application January 27, 1956, Serial No. 561,961
5 Claims. (Cl. 204—193.2)

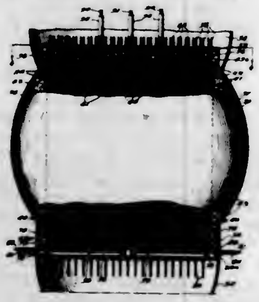
1. A homogeneous nuclear reactor comprising a vessel containing in combination a volume of liquid nuclear fuel including a fissionable material and a liquid moderator, means for attaining nuclear criticality in a region of criticality in said liquid fuel, and means including a plurality of small diameter vertically disposed tubes extending

upwardly from said region of criticality to provide circulation of said liquid fuel from said region of criticality, said tubes producing a geyser effect for forcing liquid fuel out the top of said tubes when said liquid fuel is



heated, said volume of liquid fuel having a level below the upper extremity of said tubes and above said critical region, and a channel for returning liquid fuel from the top of said tubes to said region of criticality.

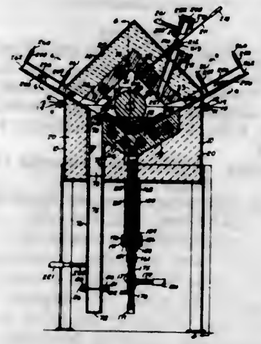
2,837,477
CHAIN REACTING SYSTEM
Enrico Fermi, Santa Fe, N. Mex., and Miles C. Leverett, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application February 16, 1945, Serial No. 578,278
2 Claims. (Cl. 204—193.2)



1. A device for effecting a self-sustaining neutron chain reaction comprising uranium bodies geometrically arranged in graphite, a shell surrounding the graphite, the shell being spaced slightly from the graphite to provide an expansion space for the graphite, a quantity of helium in the shell and circulated under super atmospheric pressure through the graphite and in heat exchange relationship with the uranium, and a resilient packing in the space between the graphite and the shell to prevent passage of helium therethrough.

2,837,478
APPARATUS FOR THE PRODUCTION OF METAL
Guy Ervin, Jr., Shrewsbury, and Herbert F. G. Ueltz, Worcester, Mass., assignors to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application December 17, 1954, Serial No. 475,952
2 Claims. (Cl. 204—216)

1. Electrolytic apparatus for the production of refractory metal from its carbide comprising a chamber having a well for molten salt said chamber being refractory, means to circulate inert gas into and through said chamber, a metal cathode which is a body of revolution in said well where it can contact the molten salt in the well, means journalling said cathode for rotation, driving means outside of said apparatus and connected to said cathode through said refractory chamber to rotate said cathode, a doctor blade to scrape deposited metal from said cathode, another well positioned to collect said scraped metal, a carbide anode in said first well where it can contact the molten salt in the well, a rod connectable to and disconnectable from said anode, a guideway to guide said anode into and out of said well, a gas lock connected to said chamber and in line with the guideway, an inside movable gate for said gas lock at the end of said guideway



movable to close said gas lock from said well and to open it to said well, and an outside movable gate for said gas lock movable to close said gas lock from the atmosphere outside of the apparatus and to open it to said atmosphere, whereby said anode can be withdrawn from said well into said gas lock and then to the outside of the apparatus to be replaced and then the replacement anode can be introduced through said lock into said well, and means for flushing said gas lock of air by inert gas after the outside gate has been opened and a replacement anode has been inserted therein.

2,837,479
FIRE-FIGHTING FOAMS AND METHODS OF PRODUCING THE SAME
James Derek Birchall, Leigh, England, assignor to John Kerr & Company (Manchester) Ltd., near Liverpool, England, a British company
No Drawing. Application February 21, 1956
Serial No. 566,787
Claims priority, application Great Britain June 21, 1955
11 Claims. (Cl. 252—8.05)

1. An aqueous foam concentrate adapted to be transformed by mixing with water and agitation into a foam for fire-fighting purposes and being particularly suitable against burning of inflammable liquids which are at least partly water-soluble, said aqueous foam concentrate consisting essentially of water; at least one water-soluble derivative of alginic acid; a water-soluble electrolyte which does not react with said water-soluble derivative of alginic acid to form a water-insoluble derivative thereof; and a foam-forming agent for fire-fighting purposes non-chemically reactive with said water-soluble alginic acid derivative and with said water-soluble electrolyte and being dissolved in said water in an amount sufficient to cause formation of a foam when diluted with a predetermined amount of water and mechanically agitated therewith, said water-soluble electrolyte being present in an amount sufficient on the one hand to cause salting-out of said water-soluble derivative of alginic acid in said aqueous foam concentrate and insufficient on the other hand to prevent dissolution of said water-soluble derivative of alginic acid when said aqueous foam concentrate is diluted with said predetermined amount of water, whereby upon formation of a foam by dilution and agitation of said aqueous foam concentrate with said predetermined amount of water the foam bubbles are stabilized against the action of water-soluble inflammables by said alginic acid derivative in contact with the foam bubbles.

2,837,480
POLYETHYLENE PHOSPHONATES AS GREASE THICKENERS
Bruce W. Hotten, Orinda, and Frederick O. Johnson, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application March 31, 1955
Serial No. 498,435
10 Claims. (Cl. 252—32.5)

1. A grease composition comprising an oil of lubricating viscosity and, in an amount sufficient to thicken said oil to the consistency of a grease, an alkali metal polyethylene phosphonate, wherein the polyethylene radical has a molecular weight ranging from about 750 to about 100,000.

2,837,481
METAL ALKYL PHOSPHONATE THICKENED LUBRICATING OILS
Bruce W. Hotten, Orinda, and Frederick O. Johnson, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application March 31, 1955
Serial No. 498,436
13 Claims. (Cl. 252—32.5)

1. A grease composition comprising an oil of lubricating viscosity and, in an amount sufficient to thicken said oil to the consistency of a grease, a metal hydrocarbon phosphonate, wherein the hydrocarbon radical is an aliphatic radical containing from 12 to 40 carbon atoms, and wherein said metal is a metal selected from the group consisting of alkali metals and alkaline earth metals.

2,837,482
ORGANOPOLYSILOXANE LUBRICANTS
Maynard C. Agens, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
No Drawing. Application November 18, 1955
Serial No. 547,839
4 Claims. (Cl. 252—49.6)

1. A composition of matter consisting essentially of (1) a liquid organopolysiloxane and (2) from about 0.5 to 25 percent by weight, based on the weight of (1), of a mixture of octyltetrachlorobenzoate and dioctyltetrachlorophthalate.

2,837,483
METHOD OF MAKING A PERMANENT MAGNET
Petrus Johannes Hakker and Gerard Hugo Weber, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application April 18, 1955
Serial No. 502,237
Claims priority, application Netherlands April 20, 1954
5 Claims. (Cl. 252—62.5)

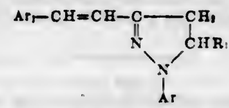
1. A method of producing an anisotropic permanent magnet comprising the steps of mixing a finely comminuted permanent magnetic material having a composition $MO.6Fe_2O_3$, M being a metal selected from the group consisting of barium, strontium and lead, with up to four times the weight of said material of a mixture of an oxide of one of said metals and Fe_2O_3, said mixture containing about 1 mole of an oxide MO for each 6 moles of Fe_2O_3 magnetically orienting said permanent magnetic material in the mixture while the latter is in a mobile condition, and sintering said mixture at a temperature of about 1100 to 1400° C., to form a body having a density of at least 4 and constituted principally by hexagonal crystals having dimensions smaller than 10μ and having a composition corresponding to said formula $MO.6Fe_2O_3$.

2,837,484
METHOD FOR REMOVING CARBONACEOUS DEPOSITS FROM ALUMINUM MOLDS
Boris Sway, Amberly Village, and Joseph W. Callahan, Cincinnati, Ohio, assignors to Texo Corporation, Cincinnati, Ohio
No Drawing. Application October 22, 1954
Serial No. 464,164
2 Claims. (Cl. 252—100)

1. The method of removing adherent carbonaceous deposits from aluminum molds without causing significant damage to the molds, comprising treating the aluminum molds and adherent carbonaceous deposits, for a period of time sufficient to loosen the carbonaceous deposits from the surfaces of the aluminum molds, with a composition consisting essentially of an aqueous solution of from 20 to 36 parts by weight of chromic acid and from 2 to 12 parts by weight of sulfuric acid in from 300 to 1,000 parts water, the chromic acid being present in from 1.67 to 10.0 times the amount of sulfuric acid by weight, then washing the aluminum molds with water.

2,837,485
PROCESS FOR COLORING ORGANIC MATERIALS WITH FLUORESCENT STYRYL PYRAZOLINE DYESTUFFS AND COMPOSITIONS CONTAINING SAME
Adolf-Emil Siegrist, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application December 7, 1953
Serial No. 396,793
Claims priority, application Switzerland December 18, 1952
15 Claims. (Cl. 252—301.2)

11. A fluorescent pigment from a resinous organic material which contains incorporated therein a colored pyrazoline derivative, which fluoresces in solution or when applied to a substratum and corresponds to the general formula



wherein Ar and Ar_1 each represents an aromatic radical of the benzene series and R_1 represents a member selected from the group consisting of hydrogen and a radical of the bengene series.

2,837,486
SILVER-ALKALINE EARTH METAL CATALYST
Gustav Lawrence Osberg, Ottawa, Ontario, Canada, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate of Canada
No Drawing. Application July 29, 1954
Serial No. 446,639
7 Claims. (Cl. 252—437)

1. A fluidizable bed catalyst for the oxidation of ethylenic hydrocarbons which comprises a granular silver-alkaline earth metal alloy from which 5% to all but a trace of the alkaline earth metal has been removed, the surface of the granules being coated with from 0.2% to about 5.0% of a powdered inorganic salt selected from the group consisting of calcium oxide, calcium carbonate, calcium cyanamid, calcium phosphate, barium oxide, barium carbonate, strontium oxide and strontium carbonate to render them non-agglomerating when fluidized as a catalyst in the oxidation of ethylenic hydrocarbons.

2,837,487

RESISTOR ENAMEL AND RESISTOR MADE THEREFROM

Daniel Edward Huttar, Staten Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application January 25, 1956, Serial No. 561,969
5 Claims. (Cl. 252—514)

4. A vitreous flux paste adapted to be applied to and fired on a ceramic insulating material to produce an electric resistor of substantially uniform resistance value comprising a vitreous flux comprising 10% to 25% powdered vitreous metal borosilicate, 3% to 26% finely divided silver, 0% to 25% finely divided cupric oxide, and 29% to 87% cuprous oxide, together with sufficient liquid vehicle to form a paste with said flux components.

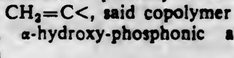
2,837,488

PREPARATION OF CATION-EXCHANGE RESINS CONTAINING HYDROXYL AND PHOSPHONIC ACID GROUPS

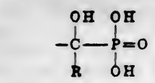
Arthur F. Ferris, Huntsville, Ala., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application June 10, 1954
Serial No. 435,941
10 Claims. (Cl. 260—2.2)

1. A cation-exchange resin comprising a cross-linked copolymer of a ketone having the formula



in which R' is a member of the class consisting of a hydrogen atom and a methyl group and R is a monovalent hydrocarbon radical, and a copolymerizable compound which contains a plurality of cross-linking vinylidene groups, $CH_2=C<$, said copolymer containing cation-adsorbing, α-hydroxy-phosphonic acid groups of the formula



attached to the carbon atoms corresponding to the carbon atom which carries the group, R', in the formula for the ketone above.

2,837,489

PROCESS FOR PREPARATION OF CONDENSATION PRODUCTS OF CARBOHYDRATES, SULFUROUS ACID OR ITS DERIVATIVES, FORMALDEHYDE, AND PHENOL

Richard Alles, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application May 23, 1955, Serial No. 510,580. In Germany August 24, 1949
Public Law 619, August 23, 1954
Patent expires August 24, 1969
7 Claims. (Cl. 260—17.2)

1. A process of manufacturing a water-soluble tannin-like condensation product which comprises condensing by heating to temperatures from about 50 to 100° C. in aqueous alkaline medium free from organic compounds having sulfonic acid groups a carbohydrate selected from the group consisting of natural and synthetic sugars, a compound selected from the class consisting of sulfurous acid and its water-soluble salts, formaldehyde, and a hydroxyl compound of the benzene series free from sulfonic acid groups selected from the group consisting of phenol, a lower alkyl phenol, a chloro-phenol and a nitro-chloro-phenol, the molar ratio of carbohydrate to sulfurous compound being about 1:1 to 1:2, the molar ratio carbohydrate to hydroxyl compound being about 1:4 to 1:14, respectively.

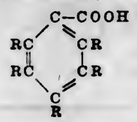
2,837,490

MIXTURES OF VINYL RESIN, AROMATIC ACID, AND ASBESTOS CONTAINING IRON OXIDE

Arthur C. Hecker, Richmond Hill, N. Y., assignor to Argus Chemical Laboratory, Inc., a corporation of New York

No Drawing. Application January 8, 1954
Serial No. 403,072
10 Claims. (Cl. 260—23)

1. A composition of matter comprising asbestos containing iron oxide, a resin component selected from the group consisting of vinyl chloride resins and vinylidene chloride resins, and a stabilizer therefor, the proportion of the asbestos being 25–200 parts by weight for 100 of the polyvinyl chloride resin and the stabilizer consisting essentially of the iron oxide of the asbestos in contact with a free acid of the type formula



in which R represents a component selected from the group consisting of hydrogen, C_1–C_8 alkyls, hydroxyl, halogens, oxyacyl, oxyalkyl, ester, nitro and phenylene groups and at least 2 of the R's represent components selected from the group consisting of hydrogen and C_1–C_8 alkyls.

2,837,491

PROCESS FOR RAISING THE SOFTENING POINT OF HYDROCARBON RESINS AND PRODUCT PRODUCED THEREBY

John F. McKay, Jr., Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 20, 1953
Serial No. 387,310
10 Claims. (Cl. 260—27)

1. In a process for raising the softening point of a hydrocarbon resin prepared by the polymerization of a hydrocarbon fraction boiling between about 20° C. and 280° C. and containing about 10 to 35% conjugated diolefins and 30 to 65% mono-olefins; the improvement which consists in mixing about 100 parts of said resin with at least about 10 parts of a metal resinate selected from the group consisting of zinc, calcium, magnesium, and aluminum resinates, and heating the mixture above about 240° C. but below the decomposition temperature of the resin for a time of about 1 to 6 hours to substantially raise the softening point of the resin.

2,837,492

PROCESS OF MAKING COLORLESS AQUEOUS SALINE SOLUTIONS OF POLYACRYLONITRILE

George W. Stanton, Walnut Creek, Clyde W. Davis, Antioch, and Thomas C. Spence, Concord, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 10, 1954
Serial No. 409,526
9 Claims. (Cl. 260—29.6)

1. In a process in which an aqueous zinc halide-containing solution is used as the solvent medium for a linear polymer containing at least 85 percent of acrylonitrile in the polymer molecule, the steps which consist in acidifying said aqueous solution with a water-soluble non-oxidizing acid which forms only colorless and water-soluble salts with the cations present in the solution, the amount of such acid employed being sufficient to reduce the pH of the zinc halide-containing solution to a value lower than that of a solution in water of the zinc halide alone at the same concentration, said reduced pH value not exceeding 4.0, and thereafter dissolving such a polymer in the so-acidified solution.

2,837,493

EPOXY RESIN COMPOSITIONS CONTAINING POLYVALENT METAL PHENOLATES OR PHENOLATE-ALDEHYDE RESINS AND THE PROCESS OF THEIR PRODUCTION

Felix Schlenker, Wiesbaden, Germany, assignor to Chemische Werke Albert, Wiesbaden-Biebrich, Germany, a corporation of Germany

No Drawing. Application April 12, 1955
Serial No. 500,998
Claims priority, application Germany April 17, 1954
20 Claims. (Cl. 260—33.4)

1. A heat hardenable epoxy resin composition containing an epoxy resin derived from a diphenol and a compound selected from the group consisting of epi-halogenhydrin and di-halogenhydrin, and as a hardening agent for the epoxy resin a substance selected from the group consisting of a polyvalent metal phenolate, a polyvalent metal-modified phenol-aldehyde resin and mixtures thereof wherein the polyvalent metal is selected from a group consisting of aluminum, titanium, iron and tin.

2,837,494

SILICONE RUBBER OF IMPROVED THERMAL STABILITY CONTAINING TRIORGANOPHOSPHINE OXIDE

Alfred R. Gilbert and Simon W. Kantor, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application December 28, 1954
Serial No. 478,179
20 Claims. (Cl. 260—37)

1. A curable composition of matter comprising (1) an organopolysiloxane convertible to the cured, solid, elastic state, said organopolysiloxane having an average of from 1.95 to 2.01 organic groups selected from the class consisting of alkyl, aryl, aralkyl, and haloaryl radicals per silicon atom, with at least 90 percent of the silicon atoms in said organopolysiloxane containing two silicon-bonded alkyl radicals, and (2) from 0.001 to 10 percent, by weight, based on the weight of the convertible organopolysiloxane, of a triorganophosphine oxide having the formula

$$(R)_3PO$$

where R represents members selected from the class consisting of alkyl, cycloalkyl, aryl, aralkyl and haloaryl radicals and mixtures of said members.

2,837,495

RUBBER COMPOSITION CONTAINING ALUMINA-SILICA PIGMENT

Edward M. Allen, Doylestown, Ohio, assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

No Drawing. Application November 26, 1954
Serial No. 471,533
8 Claims. (Cl. 260—41.5)

1. A vulcanizate of a synthetic rubberlike copolymer of butadiene and acrylonitrile and an amorphous alumina-silica pigment containing 6 to 300 moles of SiO_2 per mole of Al_2O_3, the ratio of SiO_2 to metal oxide being in excess of 3 and the ratio of moles of Al_2O_3 per mole of other metal oxides being not less than 0.2, said pigment having an average ultimate particle size of 0.01 to 0.05 micron.

2,837,496

GRAFT COPOLYMERS AND PREPARATION THEREOF FROM POLYMER HYDROPEROXIDES

Edwin J. Vandenberg, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 31, 1952
Serial No. 329,133
18 Claims. (Cl. 260—45.5)

1. The process of preparing a graft copolymer which comprises polymerizing a polymerizable ethylenically unsaturated monomer in the presence of a polymer hydroperoxide, said polymer hydroperoxide being the only free radical initiator present in the polymerization mixture and said polymer hydroperoxide being the hydroperoxide of a polymer of a vinylidene compound and containing at least about 20 monomer units.

2,837,497

AMINE CURING AGENT FOR EPOXY RESINS

John Delmonte, Glendale, Calif., assignor to Furane Plastics Incorporated, Los Angeles, Calif., a corporation of California

No Drawing. Application September 4, 1956
Serial No. 607,590
8 Claims. (Cl. 260—47)

1. A curing agent for epoxy resins of the polyglycidal ether type comprising the reaction product of a mixture of a primary amine selected from the group consisting of phenylene diamine, methyl dianiline, and triamino triphenyl methane, and a tertiary amine being selected from the group consisting of dimethyl amino methyl phenol and tri-dimethyl amino methyl phenol, said reaction product resulting from heating said mixture to at least 210° F. until all of the evolved gas has been removed.

2,837,498

XYLYLENE DIISOCYANATE MODIFIED POLYESTERS

Louis L. Ferstandig, El Cerrito, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application October 4, 1954
Serial No. 460,261
5 Claims. (Cl. 260—75)

1. In the process of preparing a diisocyanate modified polyester useful as a synthetic rubber product, which involves first esterifying a glycol and dibasic carboxylic acid to produce a polyester having an acid number below about 10 and a hydroxyl number between about 20 and 80, followed by reaction of the polyester with a diisocyanate to produce an intermediate stage diisocyanate modified polyester existing in a fusible, deformable state, the improvement of prolonging the existence of the fusible, deformable state of said diisocyanate modified polyester, which comprises employing as the diisocyanate a 5-alkyl-1,3-xylylene diisocyanate in which the alkyl group contains 1 to 8 carbon atoms.

2,837,499

MONOMERIC POLYMERIZABLE UREIDO AND THIOUREIDO VINYL ETHERS AND METHODS FOR PRODUCING THEM

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Original application April 15, 1955, Serial No. 501,708. Divided and this application June 12, 1957, Serial No. 665,122
9 Claims. (Cl. 260—77.5)

1. As a composition of matter, a compound having the formula:



in which A is an alkylene group having 2 to 4 carbon

atoms of which a chain of at least two extend between the adjoined atoms of O and N, R' is selected from the group consisting of H, cyclohexyl, and alkyl groups having 1 to 12 carbon atoms, and R is a lower alkyl group having 1 to 4 carbon atoms.

2,837,500

COPOLYMERS OF ACRYLONITRILE WITH ALKENYLAROMATIC SULFONIC ACIDS OR SALTS

Raymond Joseph Andres and Wilfred Sweeny, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 3, 1953
Serial No. 372,182
9 Claims. (Cl. 260—79.3)

1. A copolymer obtained by copolymerizing a mixture comprising two vinyl monomers, one of the said monomers being a vinylarenesulfonate selected from the group consisting of vinylarenesulfonic acids and their hydrolyzable water-soluble salts, and the other vinyl monomer being acrylonitrile and being present in the amount of at least 70% of the total monomer mixture, said copolymer having sulfo groups uniformly and definitely located in the said copolymer.

2,837,501

TERPOLYMERS INCLUDING VINYLARENESULFONIC ACIDS AND ACRYLONITRILE

Frederick Roy Millhiser, Waynesboro, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 3, 1953
Serial No. 372,183
15 Claims. (Cl. 260—79.3)

1. A composition of matter comprising a terpolymer of (1) acrylonitrile in a predominant amount, (2) a compound selected from the class consisting of vinylarenesulfonic acids and their water-soluble salts in minor amount and (3) a different ethylenically unsaturated monomer in intermediate amount copolymerizable therewith.

2,837,502

STABLE HIGH-SOLIDS LATICES

Robert S. Hanmer, Borger, and James H. Carroll, Phillips, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application April 24, 1953
Serial No. 351,046
9 Claims. (Cl. 260—83.7)

1. In the emulsion polymerization of a monomeric material comprising an unsaturated organic compound containing an active $CH_2{=}C<$ group and polymerizable in an aqueous emulsion, the improvement which comprises conducting said polymerization in an aqueous phase ranging from 50 to 160 parts by weight per 100 parts of monomer at a temperature below 0° C. in the presence of an alcohol mixture in an amount sufficient to prevent freezing of said aqueous phase and consisting essentially of a major amount of methanol and a minor amount of at least one polyhydric alcohol selected from the group consisting of glycerol, ethylene glycol, and erythritol.

2,837,503

1,1,1-TRIFLUORO-3-TRIFLUOROMETHYL BUTENE-2 POLYMERS

Elizabeth S. Lo, Elizabeth, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application April 30, 1956
Serial No. 581,346
12 Claims. (Cl. 260—85.3)

4. A process for preparing a polymeric composition which comprises a monomeric mixture of 1,1,1-trifluoro-3-trifluoromethyl butene-2 and a trifluoro-1,3-butadiene selected from the group consisting of 1,1,3-trifluoro-1,3-butadiene and 2-trifluoromethyl-1,3-butadiene, said mixture containing between about 20 mole percent and about 75 mole percent 1,1,1-trifluoro-3-trifluoromethyl butene-2 and correspondingly between about 80 mole percent and about 25 mole percent of trifluoro-1,3-butadiene, at a temperature between about —20° C. and about 150° C.

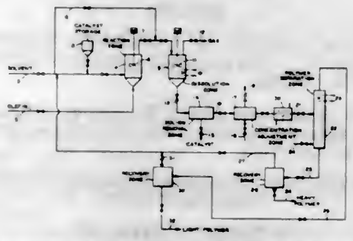
10. A copolymer of 1,1,1-trifluoro-3-trifluoromethyl butene-2 and a trifluoro-1,3-butadiene selected from the group consisting of 1,1,3-trifluoro-1,3-butadiene and 2-trifluoromethyl-1,3-butadiene.

2,837,504

FRACTIONATION AND RECOVERY OF POLYMERS

George E. Hanson and Leo B. Croley, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application May 23, 1955, Serial No. 510,199
18 Claims. (Cl. 260—88.1)



1. A process for fractionating a normally solid polymer selected from the group consisting of polymers and copolymers of 1-olefins having a maximum chain length of 8 carbon atoms and no branching nearer the double bond than the 4 position, to obtain at least two fractions which differ from each other in physical properties, which comprises heating a solution of said polymer in a solvent selected from the group consisting of normally liquid paraffins and naphthenes to a temperature at which a polymer-rich phase separates from a solvent-rich phase and separating said phases.

2,837,505

MANUFACTURE OF FLUORINE-CONTAINING POLYMERS

Albert L. Dittman, North Bergen, and Herbert J. Passino, Englewood, N. J., and John M. Wrightson, Whittier, Calif., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application May 11, 1954, Serial No. 428,972
5 Claims. (Cl. 260—92.1)

1. A process for polymerizing trifluorochloroethylene to produce a normally solid homopolymer which comprises polymerizing trifluorochloroethylene monomer in admixture with an amount of water between about 1 and about 10 times the amount of monomer at a pressure sufficient to maintain monomer in the liquid phase in the presence of an inorganic water soluble salt of a weak peracid as substantially the sole promoting agent, and maintaining an alkaline pH such that a normally solid homopolymer of trifluorochloroethylene is produced and recovering homopolymer thus produced as a product of the process.

2,837,506

POLYMERIZATION OF CHLOROPRENE

Arthur F. Myers, Louisville, Ky., and Jack Raymond Hively, Clarksville, Ind., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 26, 1956
Serial No. 561,672
1 Claim. (Cl. 260—92.3)

The process of inhibiting the formation of granular polymers of chloroprene upon surfaces exposed to an aqueous emulsion of chloroprene and to chloroprene vapor without inhibiting the normal polymerization of the chloroprene, which surfaces tend to initiate the formation of popcorn polymer, which comprises coating such surfaces with sulfur.

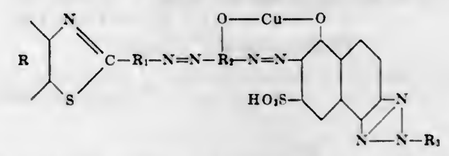
2,837,507

CUPRIFEROUS AZO-DYESTUFFS

Henri Riat, Arlesheim, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application March 7, 1955
Serial No. 492,744
Claims priority, application Switzerland March 16, 1954
9 Claims. (Cl. 260—146)

1. A cupriferous azo-dyestuff of the formula



in which R represents a benzene radical fused to the thiazole ring in the manner indicated, R_1 represents a benzene radical bound to the azo linkage in para-position to the thiazole ring, R_2 represents an aromatic radical containing at the most 10 aromatic nuclear carbon atoms, R_3 represents a member selected from the group consisting of a benzene radical and a sulfonated naphthalene radical, and in which at least one of the radicals R and R_1 contains a sulfonic acid group and the groups $R_1{-}N{=}N{-}$, $-O-Cu-$ and $-N{=}N$ are present in the 1:3:4-positions of the radical R_2.

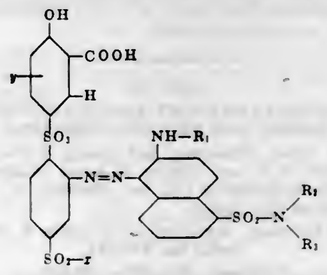
2,837,508

MONOAZO DYESTUFFS

Franz Frisch, Arlesheim, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application November 15, 1954
Serial No. 469,038
Claims priority, application Switzerland November 19, 1953
6 Claims. (Cl. 260—196)

1. A monoazo dyestuff corresponding to the formula



wherein x stands for a member selected from the group consisting of lower alkyl, benzyl, phenyl, lower alkylamino, cycloalkylamino, benzylamino, phenylamino, methylphenylamino, N,N-lower dialkylamino, N-lower alkyl-N-benzylamino and N-lower alkyl-N-phenylamino, the substituted amino groups containing a total of not more than 14 carbon atoms, y stands for a member selected from the group consisting of hydrogen and methyl, R_1 stands for a member selected from the group consisting of hydrogen, methyl and ethyl, R_2 stands for a member selected from the group consisting of hydrogen and lower alkyl, and R_3 stands for a member selected from the group consisting of lower alkyl, cycloalkyl, aralkyl and phenyl.

2,837,509

THIOSEMICARBAZONE COMPOUNDS

Vincent C. Barry, Dublin, Ireland, assignor to Lasdon Foundation, Inc., Yonkers, N. Y., a corporation of New York

No Drawing. Application May 26, 1953
Serial No. 357,629
23 Claims. (Cl. 260—209)

1. Process for the production of therapeutic compounds, which comprises reacting an oxidized polysaccharide having at least two available carbonyl functions with a compound having a reactive primary amine group and selected from the group consisting of isoniazid, thiosemicarbazide and p-aminobenzaldehyde thiosemicarbazone.

7. Process for the production of therapeutic compounds, which comprises reacting a modified starch oxidized with a periodate so as to contain at least two available carbonyl functions with a compound having a reactive primary amine group and selected from the group consisting of isoniazid, thiosemicarbazide and p-aminobenzaldehyde thiosemicarbazone.

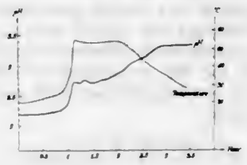
15. Process for the production of therapeutic compounds, which comprise reacting a modified inulin oxidized with a periodate so as to contain at least two available carbonyl functions with a compound having a reactive primary amine group selected from the group consisting of isoniazid, thiosemicarbazide and p-aminobenzaldehyde thiosemicarbazone.

2,837,510

PROCESS FOR PREPARING DIHYDRODESOXYSTREPTOMYCIN

Teijiro Yabuta, Hiroshi Ikeda, and Kenji Shiroyanagi, Tokyo, Hatsuko Ikeda, Fujisawa, and Itsuo Fujimaki, Mitsuhiko Katayama, Kei-ichi Tsuji, and Tomonori Sato, Tokyo, Japan

Application March 4, 1957, Serial No. 643,560
Claims priority, application Japan January 19, 1957
4 Claims. (Cl. 260—210)



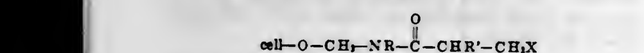
1. The process that comprises reacting an acid salt of streptomycin with amalgamated aluminum, the pH of the reaction mixture being maintained at 1.5–2.4 at the early stage of the reaction and at 2.7–3.5 when the reaction has become vigorous during the process, and then recovering the free base of dihydrodesoxystreptomycin from the reaction mixture.

2,837,511
ALKYLAMIDOMETHYL CELLULOSE MONOETHERS AND PROCESS OF MAKING SAME

Gerald J. Mantell, Newark, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

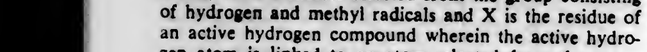
No Drawing. Application November 3, 1954
Serial No. 466,694
13 Claims. (Cl. 260—231)

1. A cellulose ether of the general type



wherein R is a radical selected from the group consisting of hydrogen and lower alkyl radicals of 1 to 4 carbon atoms; R' is a radical selected from the group consisting of hydrogen and methyl radicals and X is the residue of an active hydrogen compound wherein the active hydrogen atom is linked to an atom selected from the group consisting of sulfur, nitrogen, phosphorus and oxygen and wherein the degree of substitution is between about 0.015 to 0.60.

5. A process for the preparation of cellulose ethers which comprises reacting a cellulose derivative having the general formula



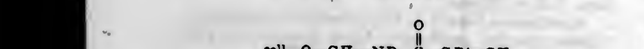
wherein R is a radical selected from the group consisting of hydrogen and lower alkyl radicals of 1 to 4 carbon atoms and R' is a radical selected from the group consisting of hydrogen and methyl radicals and wherein the degree of substitution is between about 0.015 to 0.60, with an active hydrogen compound wherein the active hydrogen atom is linked to an atom selected from the group consisting of sulfur, nitrogen, phosphorus and oxygen, in a basic medium at a temperature of about 20° C. to 120° C. and separating the cellulose ether thus produced.

2,837,512
ACTIVATED CELLULOSE ETHERS AND PROCESS OF PREPARING SAME

Gerald J. Mantell, Newark, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

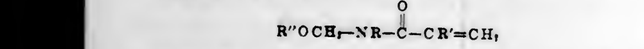
No Drawing. Application November 3, 1954
Serial No. 466,699
6 Claims. (Cl. 260—231)

1. A cellulose ether of the general type



wherein R is a radical selected from the group consisting of hydrogen and lower alkyl radicals of from 1 to 4 carbon atoms and R' is a radical selected from the group consisting of hydrogen and methyl radicals and wherein the degree of substitution is between about 0.015 to 0.60.

4. A process for the preparation of cellulose ethers which comprises reacting cellulose with an amide having the general formula



wherein R is a radical selected from the group consisting of hydrogen and lower alkyl radicals; R' is a radical selected from the group consisting of hydrogen and methyl radicals; R'' is a radical selected from the group consisting of hydrogen and lower alkyl radicals in the presence of a catalyst strong enough to effect the condensation, said catalyst being selected from the group consisting of acid and acid-generating catalysts at a temperature of about 140° to 175° C.

2,837,513
PENICILLIN SALTS

Paul Gailliot, Paris, and Jean Baget, Ermont, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application December 12, 1955
Serial No. 552,276
Claims priority, application France February 3, 1955
1 Claim. (Cl. 260—239.1)

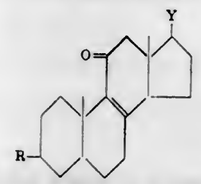
The tetracycline salt of penicillin V.

2,837,514
$\Delta^{8(9)}$-11-KETO-STEROIDS AND PROCESS OF PREPARING THEM

Earl M. Chamberlin, Westfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 26, 1951
Serial No. 263,473
19 Claims. (Cl. 260—239.55)

15. A $\Delta^{8(9)}$ - 11 - keto - steroid having the following formula:



wherein R is a radical selected from the group which consists of hydroxy and lower alkanoyloxy radicals, and Y is a C–17 side chain selected from the group which consists of the ergosterol side chain and the sapogenin side chain.

2,837,515
HALOGENATION PROCESS FOR CONVERTING Δ^7-ALLOSTEROIDS TO $\Delta^{7,9(11)}$-ALLOSTEROIDS

John M. Chemerda, Metuchen, and Theodore A. Jacob, Cranford, N. J. assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 22, 1952
Serial No. 322,162
25 Claims. (Cl. 260—239.55)

24. Allo - cyclopentanopolyhydrophenanthrene compounds having an unsaturated linkage attached to the C–8 carbon atom selected from the group which consists of $\Delta^{7,9(11)}$-3-hydroxy-22,23-dihalo-ergostadiene, $\Delta^{7,9(11)}$ - 3-(lower alkanoyloxy)-22,23-dihalo-ergostadiene, $\Delta^{7,9(11)}$-23-halo-bisdehydrotigogenin 3-(lower alkanoate), Δ^8-3-hydroxy - 7,11,22,23 - tetrahalo - ergostene, Δ^8-3-(lower alkanoyloxy)-7,11,22,23-tetrahalo-ergostene, Δ^8-7,11-dihalo-dehydrotigogenin and Δ^8 - 7,11 - dihalo-dehydrotigogenin 3-(lower alkanoate).

2,837,516
$\Delta^{5,16}$-3-ETHYLENEDIOXY-PREGNADIENE-11,20-DIONE AND PROCESS THEREFOR

Lewis H. Sarett, Princeton, and George I. Poos, North Plainfield, N. J., and William F. Johns, Madison, Wis., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application September 9, 1953
Serial No. 379,282
7 Claims. (Cl. 260—239.55)

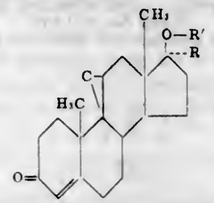
1. The process which comprises intimately contacting 2,4b-dimethyl-1-(β-hydroxyethyl)-2-methallyl-7-ethylenedioxy - 1,2,3,4,4a,4b,5,6,7,8,10,10a - dodecahydrophenanthrene-4-ol with pyridine-chromium trioxide complex to produce 2,4b - dimethyl - 1 - acetaldehydo - 2 - methallyl-7 - ethylenedioxy - 1,2,3,4,4a,4b,5,6,7,8,10,10a - dodecahydrophenanthrene-4-one, reacting this compound with osmium tetroxide and decomposing the resulting osmate ester to obtain 2,4b-dimethyl-1-acetaldehydo-2-(β,γ-dihydroxyisobutyl) - 7 - ethylenedioxy - 1,2,3,4,4a,4b,5,6,7,-8,10,10a-dodecahydrophenanthrene-4-one, cleaving this compound by reaction with periodic acid to produce 2,4b-dimethyl - 1 - acetaldehydo-2-(β-ketopropyl)-7-ethylenedioxy - 1,2,3,4,4a,4b,5,6,7,8,10,10a - dodecahydrophenanthrene-4-one, reacting this compound with potassium hydroxide to produce $\Delta^{8,16}$-3-ethylenedioxy-pregnadiene-11,20-dione, and hydrolyzing this product by heating with acid to obtain $\Delta^{4,16}$-pregnadiene-3,11,20-trione.

2,837,517
9,11β-EPOXY-17-ALKYLTESTOSTERONES

Milton E. Herr, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Original application August 8, 1955, Serial No. 527,118. Divided and this application May 10, 1956, Serial No. 583,937
2 Claims. (Cl. 260—239.55)

1. 9,11β-epoxy-17-alkyltestosterones represented by the following formula



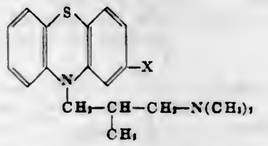
wherein R' is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and wherein R is a lower-alkyl group containing less than three carbon atoms.

2,837,518
PHENTHIAZINE COMPOUNDS

Robert Michel Jacob, Ablon-sur-Seine, and Jacques Georges Robert, Paris, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application October 22, 1956
Serial No. 617,235
Claims priority, application France November 8, 1954
6 Claims. (Cl. 260—243)

6. A member of the class consisting of the racemic and optically active phenthiazine derivatives of the general planar formula:



and their therapeutically acceptable salts wherein X is selected from the class consisting of the hydrogen atom, methyl, methoxy, ethyl and ethoxy groups.

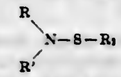
2,837,519
ACCELERATOR OF VULCANIZATION OF RUBBER

Albert F. Hardman, Northampton Township, Summit County, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 23, 1954
Serial No. 458,026
13 Claims. (Cl. 260—247.1)

1. The method of preparing 2-(4-morpholinyldithio) benzothiazole which comprises reacting N-oxydiethylene-benzothiazole-sulfenamide with sulfur.

10. The method of preparing an amino azole disulfide which comprises reacting sulfur and an amino azole sulfenamide having the formula:



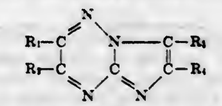
in which R and R' are radicals selected from the group consisting of aliphatic hydrocarbon, cycloaliphatic hydrocarbon, aralkyl and radicals in which R and R' together form a single ring selected from the group consisting of alkylene, oxyalkylene, thioalkylene and iminoalkylene and R_2 is a radical selected from the class consisting of 2-thiazolyl, 2-oxazolyl and 2-imidazolyl.

2,837,520
FLUORESCENT MATERIALS ON THE BASIS OF TETRAZOINDENES

Raffaello Fusco and Silvano Rossi, Milan, Italy, assignors to Industria Chimica Profarmaco S. r. l., Milan, Italy

No Drawing. Application April 10, 1956
Serial No. 577,203
Claims priority, application Italy May 26, 1955
14 Claims. (Cl. 260—249.5)

1. A compound of the general formula



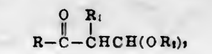
where R_1, R_2, R_3, and R_4 each indicates a member of the group consisting of nitrophenyl, phenyl and hydrogen.

2,837,521
METHOD FOR MAKING POLYAZAINDENES

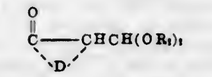
Donald M. Burness, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 11, 1956
Serial No. 577,457
11 Claims. (Cl. 260—256.4)

1. A process for preparing polyazaindene compounds comprising condensing together a β-ketoacetal selected from those represented by the following two general formulas:



and



wherein R represents a member selected from the group consisting of an alkyl group and an aromatic group, R_1 represents a member selected from the group consisting of a hydrogen atom, an alkyl group, and an aromatic group, D represents the atoms necessary to complete a carbocyclic nucleus, and R_2 represents an alkyl group, with a polyazole having at least one primary amino group attached to the polyazole ring, said polyazole containing from 2 to 4 nitrogen atoms in the polyazole ring.

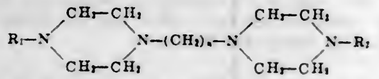
2,837,522

SUBSTITUTED ALKYLENEDIPIPERAZINES

Frederick L. Bach, Jr. and Herbert J. Brabander, Pearl River, and Samuel Kushner, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 20, 1955
Serial No. 541,828
7 Claims. (Cl. 260—268)

1. Compounds selected from the group having the general formula:



wherein *n* is a positive integer from 2 to 10, R_1 is a member selected from the group consisting of carblower-alkoxy, pyridyl, and pyrimidyl radicals. R_2 is a member selected from the group consisting of pyridyl, lower alkyl-pyridyl, chloropyridazyl, and pyrimidyl radicals, and the non-toxic quaternary and mineral acid salts thereof.

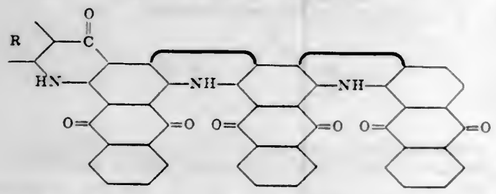
2,837,523

ANTHRAQUINONE VAT DYESTUFFS

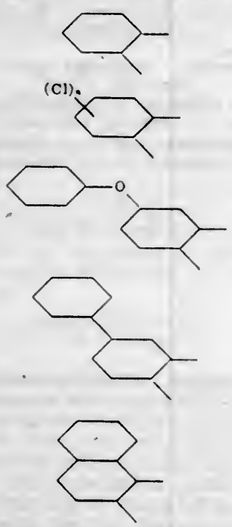
Maurice Grelat and Jacob Koch, Basel, and Paul Sutter, Binningen, and Walter Kern, Sissach, Switzerland, assignors to Ciba Limited, Basel Switzerland, a Swiss firm

No Drawing. Application December 19, 1952
Serial No. 327,032
Claims priority, application Switzerland
December 21, 1951
6 Claims. (Cl. 260—276)

1. An anthraquinone dyestuff of the formula



in which R represents a radical selected from the group consisting of the radicals corresponding to the formulae



and

in which *n* is a number of at most two.

2,837,524

PROCESS FOR THE MANUFACTURE OF POLYMETHYLENEIMINES

Hans Oberrauch, Burgkirchen, Oberbayern, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application October 22, 1954
Serial No. 464,167
Claims priority, application Germany October 29, 1953
12 Claims. (Cl. 260—293.2)

1. A process for the manufacture of polymethyleneimines which comprises vaporizing a lactam selected from the group consisting of α-piperidone and α-pyrrolidone at elevated temperature and atmospheric pressure while introducing an excess of hydrogen, jointly passing the mixture of lactam vapor and hydrogen through a hydrogenation catalyst containing at least one member selected from the group consisting of copper and cadmium at atmospheric pressure and at a temperature within the range 200°–350° C., collecting and separating the reaction mixture.

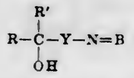
2,837,525

1-THIENYL-1-CYCLOALKYL(OR ARYL)-3-(ALIPHATIC - TERTIARY-AMINO)-1-HYDROXY-LOWER-ALKANES AND PREPARATION THEREOF

Arlo Wayne Ruddy, Morris Plains, N. J., and Theodore J. Becker, deceased, late of Albany, N. Y., by Maurice L. Tainter, administrator, Elsmere, N. Y., assignors to Sterling Drug Inc., a corporation of Delaware

No Drawing. Application July 12, 1955
Serial No. 521,616
23 Claims. (Cl. 260—293.4)

2. A member of the group consisting of compounds of the formula



wherein R is a member of the group consisting of cycloalkyl radicals and aryl radicals of benzene, naphthalene and biphenyl, R′ is a thienyl radical, Y is a lower-alkylene radical wherein two carbon atoms separate the nitrogen atom from the carbon atom bearing the OH group, and N=B is a tertiary-amino radical selected from the group consisting of lower-dialkylamino, 1-piperidyl, 4-morpholinyl, 1-pyrrolidyl, and lower-alkylated derivatives of said 1-piperidyl, 4-morpholinyl and 1-pyrrolidyl radicals; and acid-addition and quaternary ammonium salts thereof.

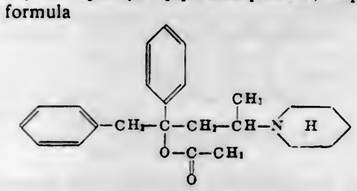
2,837,526

2-ACETOXY-1,2-DIPHENYL-4-PIPERIDINOPENTANE

Albert Pohland, Indianapolis, Ind., assignor to Eli Lilly and Company, Indianapolis, Ind., a corporation of Indiana

No Drawing. Application April 14, 1954
Serial No. 423,234
4 Claims. (Cl. 260—294.3)

1. A compound selected from the class consisting of 2-acetoxy-1,2-diphenyl-4-piperidinopentane, represented by the formula



and its nontoxic acid addition salts.

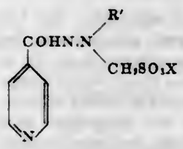
2,837,527

PROCESS FOR PREPARING 1-ISONICOTINYL-2-CYANOMETHYLHYDRAZINE

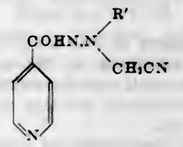
Robert E. Carnahan, Groton, Conn., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application December 31, 1952
Serial No. 329,087
2 Claims. (Cl. 260—294.9)

1. A process for the conversion of:



wherein R′ is selected from the group consisting of hydrogen and alkyl containing up to 6 carbon atoms and X is an alkali metal to:



which comprises contacting the former in aqueous solution with a metal cyanide.

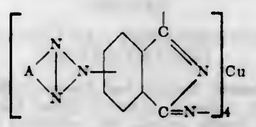
2,837,528

PHTHALOCYANINE PIGMENTS

André Pugin, Basel, and Ernst Keller, Binningen, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application January 30, 1956
Serial No. 562,043
Claims priority, application Switzerland
February 1, 1955
4 Claims. (Cl. 260—299)

1. A phthalocyanine pigment dye of the formula



wherein A is a member selected from the group consisting of the 1.2-naphthylene and 5-methoxy-4-methyl-1.2-phenylene radicals.

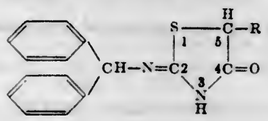
2.837,529

SUBSTITUTED THIAZOLIDONES AND THEIR PREPARATION

Stanley O. Winthrop, Montreal, Quebec, Canada, assignor to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 2, 1957
Serial No. 656,517
9 Claims. (Cl. 260—306.7)

1. A compound of the formula



where R is lower alkyl.

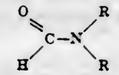
2,837,530

PROCESS FOR THE MANUFACTURE OF SALTS OF SULPHURIC ACID ESTERS OF LEUCO VAT DYESTUFFS OF THE ANTHRAQUINONE SERIES

Walter Oppliger and Eduard Peyer, Basel, Switzerland, assignors to Durand & Huguenin A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application February 19,1954
Serial No. 411,568
Claims priority, application Switzerland
February 20, 1953
7 Claims. (Cl. 260—316)

1. A process for the manufacture of a water-soluble salt of a sulphuric acid ester of a leuco vat dyestuff of the anthraquinone series which is difficult to esterify, giving an ester yield of less than 25% relative to the weight thereof when esterified by means of a mixture of α-picoline and chlorosulphonic acid (10:1 by weight) in the presence of copper powder, which comprises subjecting the vat dyestuff, in a mixture of at least one dialkyl-formamide of the general formula



in which each R is selected from $-CH_3$ and $-C_2H_5$, and methylene-bis-p,p′-(N:N-diethyl-cyclohexylamine) containing 10–70 percent by weight of the latter amine and in the presence of a finely divided metal selected from the group consisting of iron, cobalt, nickel, copper and a copper alloy to the action of a member selected from the group consisting of chlorosulphonic acid and an equivalent mixture of SO_3 and HCl in the form of its addition products with the said bases, and converting the resulting sulphuric acid ester compound into a water-soluble ester salt.

2,837,531

EXTRACTION OF INDOLES

John R. Anderson, Pittsburgh, Pa., and David W. Peck, South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

Application May 9, 1955, Serial No. 506,978
18 Claims. (Cl. 260—319)

1. A continuous process for recovering indoles from indole-bearing oils containing aromatic hydrocarbons which comprises extracting said oil with a lower alkylene glycol to produce a first extract of glycol, indoles and a small amount of aromatic hydrocarbons; extracting said first extract with a naphtha to leave a glycol-indoles second residue; extracting said second residue with a lower alkyl ether to produce a third extract of ether and indoles; heating said third extract to remove said ether and leave said indoles as product.

2,837,532

PROCESS FOR PRODUCTION OF GLUTAMIC ACID

Joseph L. Purvis, Cincinnati, Ohio, assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application February 28, 1956
Serial No. 568,198
11 Claims. (Cl. 260—326.3)

1. A process for preparing an alpha-amino dicarboxylic acid which comprises heating ammonia at a temperature above about 200° C. with a glutaric acid compound selected from the group consisting of alpha-chloroglutaric acid, alpha-hydroxyglutaric acid, alpha-hydroxyglutaric acid lactone, and the alkyl-substituted homologues thereof wherein the alkyl substituent contains less than eight carbon atoms until the reaction of ammonia therewith is substantially complete, hydrolyzing any amino acid precursor compounds therein, and recovering said alpha-amino dicarboxylic acid therefrom.

11. A process for preparing the ammonium salt of 2-oxo-5-pyrrolidine carboxylic acid which comprises heat-

ing ammonia at a temperature above about 200° C. with a glutaric acid compound selected from the group consisting of alpha-haloglutaric acid, alpha-hydroxyglutaric acid, and alpha-hydroxyglutaric acid lactone until the reaction of ammonia therewith is substantially complete.

2,837,533

NEW QUATERNARY AMINO ETHERS AND A PROCESS FOR THEIR PREPARATION

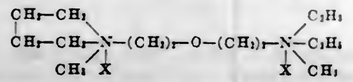
Diran Melkonian and Philippe Gold, Geneva, Switzerland, assignors to Laboratoire Sapos, Geneva, Switzerland, a Swiss company, and Edouard Frommel, Geneva, Switzerland

No Drawing. Application May 14, 1956
Serial No. 584,447

Claims priority, application Switzerland January 26, 1954

3 Claims. (Cl. 260—326.5)

1. The quaternary amino-ethers of the general formula



in which X is a halogen atom from the group consisting of chlorine, bromine and iodine atoms.

2,837,534

PROCESS FOR EXTRACTING PYRETHRIN SYNERGISTS FROM SESAME OIL

Ralph L. Tracy, Miller Place, N. Y., assignor to Norda Essential Oil & Chemical Company, New York, N. Y., a corporation of New York

No Drawing. Application June 11, 1956
Serial No. 590,364

8 Claims. (Cl. 260—340.5)

1. A process for the extraction of pyrethrin synergists from sesame oil which comprises dissolving the oil in from 0.25 to 8 volumes of γ-butyrolactone at a temperature of at least 130° C. but below the boiling point of the γ-butyrolactone, cooling the resulting solution to a temperature below 60° C. at which the solution separates into a γ-butyrolactone layer and a sesame oil layer, separating the γ-butyrolactone layer from the sesame oil layer, and recovering pyrethrin synergists from the γ-butyrolactone layer.

2,837,535

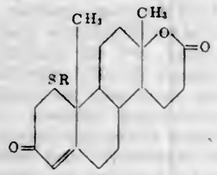
1-ACYLTHIO SUBSTITUTION PRODUCTS OF 17a-OXA-D-HOMO-4-ANDROSTENE-3,17-DIONE

Raymond M. Dodson, Park Ridge, and Robert C. Twelt, Wilmette, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application January 16, 1957
Serial No. 634,419

3 Claims. (Cl. 260—343.2)

1. A compound of the structural formula



wherein R is a lower alkanoyl radical.

2,837,536

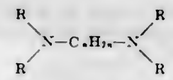
STABILIZATION OF HETEROCYCLIC OXYGEN-CONTAINING COMPOUNDS

Homer M. Fox, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 23, 1955
Serial No. 510,546

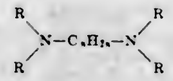
14 Claims. (Cl. 260—345.2)

1. A method of stabilizing the heterocyclic oxygen-containing compound wherein said heterocyclic oxygen is present in a ring selected from the group consisting of the furan and pyran rings: which comprises incorporating and maintaining therein during storage 0.1 to 10 weight percent based on the compound being stabilized of a compound having the structural formula



wherein *n* is an integer of 0 to 6, and each R is selected from the group consisting of hydrogen, alkyl-, aryl-, cycloalkyl- and cycloalkanylalkyl-radicals, and wherein each of said hydrocarbon radicals contains not more than 6 carbon atoms.

7. A stabilized composition of matter comprising a heterocyclic oxygen-containing compound selected from the group consisting of furan and pyran having admixed therein a stabilizing amount of a compound of the structural formula



wherein each R is selected from the group consisting of hydrogen, alkyl-, aryl-, cycloalkyl- and cycloalkanylalkyl-radicals wherein each of said hydrocarbon radicals contains not more than six carbon atoms, and *n* is an integer of 0 to 6.

2,837,537

1-TETRAHYDROFURYL-3,6,9-NONANETRIOL TRIALKANOATES

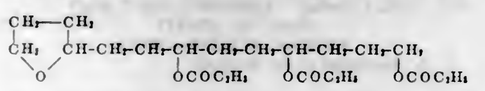
Charles R. Russell, Peoria, and Lester E. Schniepp, Barrington, Ill., Louis S. Hafner, Indian Head, Md., and Herbert E. Smith, Peoria, Ill., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application July 25, 1957
Serial No. 674,259

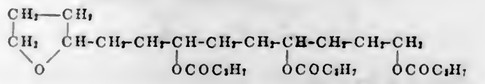
5 Claims. (Cl. 260—347.4)

(Granted under Title 35, U. S. Code (1952), sec. 266)

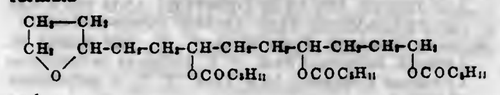
5. A compound selected from the group consisting of 1-tetrahydrofuryl-3,6,9-nonanetriol tripropionate having the formula



1-tetrahydrofuryl-3,6,9-nonanetriol tributyrate having the formula

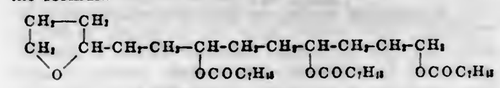


1-tetrahydrofuryl-3,6,9-nonanetriol tricaproate having the formula



and

1-tetrahydrofuryl-3,6,9-nonanetriol tricaprylate having the formula



2,837,538

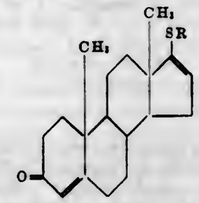
17-THIOANDROSTADIENES

Raymond M. Dodson, Park Ridge, and Paul B. Sollman, Skokie, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

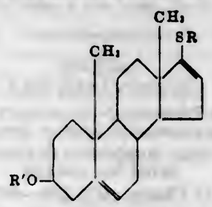
No Drawing. Application April 19, 1956
Serial No. 579,135

9 Claims. (Cl. 260—397.3)

1. A member of the group consisting of compounds of the structural formula



and compounds of the structural formula



wherein R is a member of the group consisting of lower alkyl and lower alkanoyl radicals and R′ is a member of the group consisting of hydrogen and lower alkanoyl radicals.

2,837,539

PREGNENE-20-THIONES

Raymond M. Dodson, Park Ridge, and Paul B. Sollman, Skokie, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application April 20, 1956
Serial No. 579,434

3 Claims. (Cl. 260—397.3)

1. A member of the group consisting of 3-oxo-4-pregnene-20-thione and 3-hydroxy-5-pregnene-20-thione.

2,837,540

EXTRACTION OF STEROLS

Henry J. Buehler, St. Louis, Mo., assignor to Anheuser-Busch, Inc., St. Louis, Mo., a corporation of Missouri

No Drawing. Application September 28, 1954
Serial No. 458,947

7 Claims. (Cl. 260—397.25)

1. The method of extracting sterols from fungoid organisms containing lipid substances, including the steps of partially hydrolyzing the fungoid organism with an aqueous solution of an alkali; filtering and treating the residue with an alkali dissolved in an aliphatic alcohol having from four to six carbon atoms to simultaneously saponify the conjugates and extract the sterols; removing the solid residue; adding sufficient water to the remaining liquid to precipitate the sterols; and separating the precipitated sterols from the liquid.

2,837,541

IMPROVED PROCESS FOR PREPARING 9α-FLUORO-$\Delta^{1,4}$-3,20-DIKETO - 11β,17α - DIHYDROXY-21-ACYLOXY-PREGNADIENE

Ralph F. Hirschmann, Westfield, and Richard Miller, New Brunswick, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application May 26, 1955
Serial No. 511,403

6 Claims. (Cl. 260—397.45)

1. In the process of dehydrobrominating 2,4-dibromo-9α - fluoro - 3,20 - diketo - 11β,17α - dihydroxy - 21-lower alkanoyloxy-allopregnane to produce 9α - fluoro-$\Delta^{1,4}$-3,20 - diketo - 11β,17α - dihydroxy - 21 - lower alkanoyloxy-pregnadiene, the improvement which comprises conducting said dehydrobromination in the presence of an N,N-dialkyl-acylamide.

2,837,542

CHEMICAL COMPOUNDS AND PROCESSES OF PREPARING SAME

Edward W. Tristram, Cranford, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application August 5, 1955
Serial No. 526,774

6 Claims. (Cl. 260—397.45)

1. 1,2-dibromopregnane - 17α,21-diol-3,11,20-trione-21-acetate.

2. 2-bromo-1-pregnene-17α,21 - diol-3,11,20-trione - 21-acetate.

2,837,543

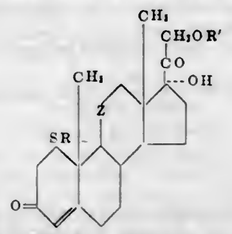
PREGNENE-1-THIOL ESTERS AND PREPARATION THEREOF

Raymond M. Dodson, Park Ridge, and Robert C. Twelt, Wilmette, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application October 22, 1956
Serial No. 617,277

10 Claims. (Cl. 260—397.45)

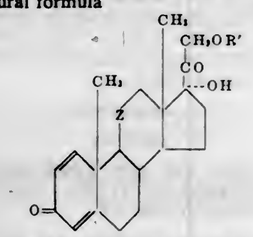
1. A compound of the structural formula



wherein R is a lower alkanoyl radical; R′ is a member of the group consisting of hydrogen and lower alkanoyl

radicals; and Z is a member of the group consisting of carbonyl and hydroxymethylene radicals.

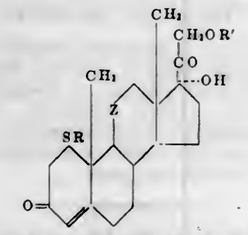
10. A process which comprises reacting a compound of the structural formula



with a thio acid of the structural formula

R''COSH

and isolating a compound of the structural formula



in which formulas R is a lower alkanoyl radical; R' is a member of the group consisting of hydrogen and lower alkanoyl radicals; R'' is lower alkyl and Z is a member of the group consisting of carbonyl and hydroxymethylene radicals.

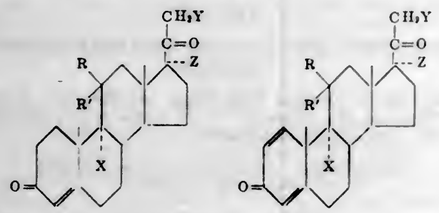
2,837,544

SYNTHESIS OF STEROIDS

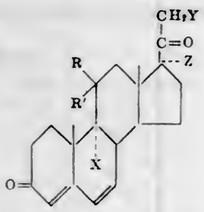
Josef Fried, New Brunswick, N. J., assignor to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application March 25, 1957
Serial No. 647,949
13 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of steroids of the general formulae



and



wherein R is hydrogen, R' is β-hydroxy and together R and R' is keto, X is halogen, Y is selected from the group consisting of cyano and thiocyano, and Z is selected from the group consisting of hydrogen and α-hydroxy.

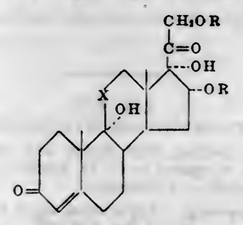
2,837,545

9α,11β,16α,17α,21-PENTA-HYDROXY-4-PREGNENE-3,20 DIONE, ITS 16,21 DIESTERS AND PROCESS OF PREPARING THE ABOVE COMPOUNDS

Seymour Bernstein, Pearl River, N. Y., and Robert H. Lenhard, Ridgefield Park, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 29, 1957
Serial No. 655,490
7 Claims. (Cl. 260—397.45)

1. Compounds having the general formula:



in which R is a member of the group consisting of hydrogen and lower alkanoyl radicals and X is a divalent radical of the group consisting of



and



radicals.

5. A method of preparing 16α,21-di-lower alkanoyloxy-9α,11β,17α-trihydroxy-4-pregnene-3,20-dione which comprises reacting 16α,21-di-lower alkanoyloxy-9β,11β-oxido-17α-hydroxy-4-pregnene-3,20-dione with perchloric acid in a mixture of water and a water-miscible solvent.

2,837,546

STYRENATED OILS

Joseph Nichols, Princeton, N. J., assignor to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application October 25, 1954
Serial No. 464,656
12 Claims. (Cl. 260—407)

1. A styrenated oil in which the oil is a glyceride selected from the class consisting of glycerides of 12-keto-oleic acid, glycerides of 12-keto-10-octadecenoic acid, and mixtures thereof.

9. A bodied, styrenated oil in which the oil comprises a glyceride selected from the class consisting of glycerides of 12-keto-oleic acid, glycerides of 12-keto-10-octadecenoic acid, and mixtures thereof.

2,837,547

POLYMERIZATION OF UNSATURATED TRIGLYCERIDES

Carl J. Ish, Columbus, Ohio, assignor, by mesne assignments, to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

No Drawing. Application December 30, 1955
Serial No. 556,390
3 Claims. (Cl. 260—407)

2. The process of modifying solid, rubberlike polymeric products obtained by the action of anhydrous hydrogen fluoride on unsaturated triglycerides comprising dissolving the solid rubberlike polymeric products in anhydrous hydrogen fluoride, flooding the resulting solution with water, and separating therefrom a material differing from said polymeric product characterized by being, in comparison therewith, relatively soft and waxlike.

2,837,548

SEPARATION PROCESS USING COMPLEXING AND ADSORPTION

Frank Harold Spedding, Ames, Iowa, and John A. Ayres, Schenectady, N. Y., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application May 27, 1948
Serial No. 29,656
12 Claims. (Cl. 260—429.1)

1. A process for recovering plutonium from a solution of neutron irradiated uranium containing ions of a compound of plutonium and other cations which comprises forming a chelate complex compound with plutonium ions in solution by adding a derivative of 8-hydroxyquinoline, said derivative containing a sulphonic acid group, and adsorbing at least one of the remaining cations from the solution.

9. A water soluble organic chelate complex of plutonium and an 8-hydroxyquinoline of the group consisting of 7-iodo-8-hydroxyquinoline-5-sulphonic acid and 8-hydroxyquinoline-5-azo-(p-benzene sulphonic acid).

2,837,549

ZINC DIALKYL DITHIOPHOSPHATES

Richard F. Reeves, Somerville, and Dominic J. Cestoni, Metedeconk, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 12, 1955
Serial No. 507,984
9 Claims. (Cl. 260—429.9)

1. A method of preparing an improvement agent for lubricants comprising the steps of reacting phosphorus pentasulfide with an alcohol having the formula ROH wherein R is a higher alkyl radical having from 6 to 18 carbon atoms to form a reaction product containing a dialkyl dithiophosphoric acid, treating the reaction product with an alcohol having the formula R'OH wherein R' is a lower alkyl radical having up to 4 carbon atoms at a temperature of from about 170 to about 195° F. for from about ½ to about 2½ hours, neutralizing with a basic zinc compound to form a reaction product containing a zinc dialkyl dithiophosphate and aging said reaction product at a temperature of from about 140 to about 195° F. for from about ½ to about 6 hours.

2,837,550

HYDROXYALKYLCYCLOPOLYSILOXANES

Maurice Prober, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application May 18, 1955
Serial No. 509,413
1 Claim. (Cl. 260—448.2)

β-Hydroxyethylheptamethylcyclotetrasiloxane.

2,837,551

PROCESS FOR PRODUCING BETA-CYANOETHYLTRICHLOROSILANE

Victor B. Jex and John E. McMahon, Buffalo, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application December 23, 1955
Serial No. 555,204
6 Claims. (Cl. 260—448.2)

1. A process for the production of beta-cyanoethyltrichlorosilane which comprises forming a mixture of acrylonitrile and a polychloropolysilane composed of silicon and chlorine and heating said mixture to a temperature sufficiently elevated to cause said acrylonitrile and polychloropolysilane to react.

2,837,552

CLEAVAGE OF SILICON-TO-SILICON AND SILOXANE LINKAGES

Philip D. George and Arthur E. Newkirk, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application December 20, 1954
Serial No. 476,544
19 Claims. (Cl. 260—448.8)

1. The method of making monosilanes comprising adding compounds of the class consisting of compounds containing a silicon-to-silicon linkage and compounds containing a siloxane linkage to a melted arylol compound, heating the mixture to split the linkage, and separating monosilanes from the reaction mass.

2,837,553

OXIDATION OF PETROLEUM CERESIN AND NOVEL PRODUCT OBTAINED THEREBY

Seymour W. Ferris, Mount Holly, N. J., and Herbert L. Johnson, Media, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application December 31, 1953
Serial No. 401,689
12 Claims. (Cl. 260—451)

1. Method for obtaining oxidized petroleum ceresin having low penetration and high viscosity which comprises: oxidizing a petroleum ceresin having melting point within the approximate range from 175° F. to 210° F. at an average rate equivalent to 0.05 to 1.25 increase in saponification number per hour for the period required to reach a saponification number of 65; and terminating the oxidation when the saponification number of the total oxidation product is above 65 and the penetration of the oxidized wax at 77° F. is less than it was at an earlier stage of the oxidation.

2,837,554

PRODUCTION OF ISOCYANATES

Alois Gemassmer, Koln-Stammheim, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application March 25, 1954
Serial No. 418,761
Claims priority, application Germany March 27, 1953
4 Claims. (Cl. 260—453)

1. In the process for the production of organic isocyanates in which an amine is reacted with phosgene in a first step to form carbamyl chloride and in which the reaction mixture from the first step is heated to a temperature of between about 100 to 200° C. in a second step to form the isocyanate. the improvement which comprises at least partially effecting said heating by passing the hot vapors of an inert solvent through the reaction mixture from the first step.

2,837,555

PREPARATION OF CARBONATE ESTERS

John M. Lee, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 20, 1956
Serial No. 610,894
9 Claims. (Cl. 260—463)

1. A process for the preparation of a carbonate ester, which comprises reacting in a liquid phase a phenol selected from the group consisting of phenol, cresol, and mixtures thereof with phosgene in the presence of a tetramethyl ammonium halide of a halogen having an atomic number in the range of 17 to 54.

2,837,556
PROPIONITRILES AND METHOD OF PREPARING SAME
John A. Brockman, Jr., Woodcliff Lake, N. J., and Paul F. Fabio, Pearl River, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application October 11, 1955
Serial No. 539,946
10 Claims. (Cl. 260—465)

1. A method of preparing a member of the group consisting of 2,3-dihydroxypropionitrile and carboxylic acid acyl derivatives, which comprises reacting acrylonitrile with a soluble permanganate salt in the presence of a mineral acid in a substantially aqueous solution and recovering the glycol and following acylation, the carboxylic acid acyl derivative therefrom.

6. A compound selected from the group consisting of 2,3-dihydroxypropionitrile and carboxylic acid acyl derivatives thereof having from 1 to 7 carbon atoms.

2,837,557
ESTERS OF N,N-BIS(2-CYANOETHYL) CARBOXAMIC ACIDS
John W. Lynn, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Original application April 22, 1953, Serial No. 350,514, now Patent No. 2,790,820, dated April 30, 1957. Divided and this application June 5, 1956, Serial No. 589,366
1 Claim. (Cl. 260—465.4)

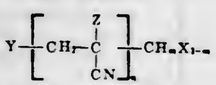
Allyl N,N-bis(2-cyanoethyl)succinamate.

2,837,558
ESTERS OF N,N-BIS(2-CYANOETHYL) CARBOXAMIC ACIDS
John W. Lynn, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Original application April 22, 1953, Serial No. 350,514, now Patent No. 2,790,820, dated April 30, 1957. Divided and this application June 5, 1956, Serial No. 589,387
1 Claim. (Cl. 260—465.4)

Ethyl N,N-bis(2-cyanoethyl) succinamate.

2,837,559
NITRILE TELOMERS
Joseph E. Fields, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application September 27, 1954
Serial No. 458,689
15 Claims. (Cl. 260—465.7)

1. Compounds of the formula



wherein Y is chosen from the group consisting of hydrogen and the halogens, Z is chosen from the group consisting of hydrogen and the methyl radical, X is a halogen, n is an integer from 2 to 30, and m may vary from 0 to 2.

2,837,560
PREPARATION OF ORGANIC DICARBAMATES
Sidney Beinfest and Phillip Adams, Berkeley Heights, and Joseph Halpern, New Providence, N. J., assignors to Berkeley Chemical Corporation, Berkeley Heights, N. J., a corporation of New Jersey
No Drawing. Application January 23, 1956
Serial No. 560,856
10 Claims. (Cl. 260—482)

1. A process for preparing a lower alkanediol dicarbamate which comprises reacting urea with a lower alkanediol at a temperature in the range of about 100° to 180° C. in a reaction zone in the presence of an alkanol reactive solvent having a boiling point in the range of 64° to 150° C. and an aluminum alkoxide derived from an alkanol having a boiling point in the range of 64° to 150° C.

2,837,561
PREPARATION OF ORGANIC MONO-CARBAMATES
Sidney Beinfest and Phillip Adams, Berkeley Heights, and Joseph Halpern, New Providence, N. J., assignors to Berkeley Chemical Corporation, Berkeley Heights, N. J., a corporation of New Jersey
No Drawing. Application May 31, 1956
Serial No. 588,230
4 Claims. (Cl. 260—482)

1. In a process for preparing an alkyl monocarbamate which comprises reacting an aliphatic monohydric alcohol having a normal boiling point in the range of 64.7 to 195° C. with urea at a temperature in the range of 120° to 160° C., the maximum amount of alcohol utilized being 1.5 mol/mol urea, the improvement which comprises carrying out the reaction in the presence of cupric acetate as a catalyst, the catalyst being utilized in an amount of from 0.001 to 0.5 mol/mol of urea.

2,837,562
SYNTHETIC LUBRICATING OIL COMPOSITIONS
Alfred H. Matuszak, Westfield, Harold R. Ready, Roselle Park, and William E. Lifson, Union, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application January 4, 1955
Serial No. 479,868
1 Claim. (Cl. 260—485)

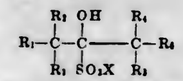
As a new composition of matter having lubricating properties a complex ester composition of (*a*) two moles of an isomeric mixture of aliphatic, saturated, primary branched chain C_8 alcohols and (*b*) two moles of an isomeric mixture of C_{10} dibasic acids comprising by weight about 75% of α-ethyl suberic acid, about 15% α,α′-diethyl adipic acid and about 10% sebacic acid and (*c*) one mole of tetraethylene glycol typified by the general formula:

$$R_1—OOCR_2COO—R_3—OOCR_4COO—R_5$$

wherein R_1 and R_5 are radicals of the alcohol, R_2 and R_4 are alkyl radicals of dibasic acid and R_3 is the radical of the glycol.

2,837,563
WATER SOLUBLE ALBUMIN-PRECIPITATING CONDENSATION PRODUCTS
Richard Alles, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
No Drawing. Application May 23, 1955, Serial No. 510,581. In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
12 Claims. (Cl. 260—506)

6. A water-soluble albumin-precipitating compound having the general formula



wherein R_1 is a hydroxyaryl methyl group, the hydroxyaryl radical thereof being derived from at least one of the members from the group consisting of phenol itself, a polyhydric phenol, an alkyl phenol, a halogenated phenol, a dihydroxydiphenylmethane, a nitrophenol, and a carboxylated phenol and R_2, R_3, R_4, R_5 and R_6 are members of the groups consisting of hydrogen and a hydroxyaryl methyl group, the hydroxyaryl radical thereof being derived from at least one of the members from the group consisting of phenol itself, a polyhydric phenol, an alkyl phenol, a halogenated phenol, a dihydroxydiphenylmethane, a nitrophenol, and a carboxylated phenol and X is a member of the group consisting of hydrogen, an alkali metal and ammonium.

11. A process of manufacturing a water-soluble albumin-precipitating condensation product which comprises condensing by heating at from 60–100° C. in aqueous medium (*a*) an addition compound of a member selected from the group consisting of sulfurous acid and a water-soluble, inorganic salt of sulfurous acid and a lower molecular weight, saturated, aliphatic carbonyl compound having at least one reactive hydrogen on a carbon atom contiguous to the carbonyl group with (*b*) approximately equal molar amounts of formaldehyde and a phenolic compound selected from the group consisting of phenol itself, a polyhydric phenol, an alkyl phenol, a halogenated phenol, a dihydroxydiphenylmethane, a nitrophenol and a carboxylated phenol, wherein the molar amount of the phenolic compound is at most equal to the reactive hydrogen atoms on the carbonyl carbon and the carbons contiguous thereto in the said carbonylsulfurous acid addition compound, and then replacing the hydroxy group in the sulfocarbinol group of said carbonyl-sulfurous acid addition compound by heating in aqueous alkaline medium at from 60–100° C. with a member of the class consisting of phenol, a polyhydric phenol, a hydroxyaryl carboxylic acid, naphthols, dihydroxydiphenylsulfone and urea.

2,837,564
SELECTIVE DECARBOXYLATION PROCESS
Raymond Wynkoop, Metuchen, N. J., and John J. Giachetto, La Romana, Dominican Republic, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application November 15, 1955
Serial No. 547,011
7 Claims. (Cl. 260—533)

1. A process for selective decarboxylation of carboxylated materials other than sebacic acid, 2-ethylsuberic acid and 2,2′-diethyladipic acid in a mixture containing said acids and carboxylated materials other than said acids, said mixture having been obtained by initial reaction between an alkali metal and butadiene to produce a reaction mixture comprised predominantly of dialkali metal derivatives of octadienes, carbonating said reaction mixture to produce a carbonated mixture comprised predominantly of dialkali metal salts of unsaturated C_{10} aliphatic diacids, hydrogenating said mixture of metal salts of unsaturated acids to produce a mixture of the metal salts of the corresponding saturated acids, and acidifying said mixture of metal salts of saturated acids to liberate said saturated acids from their salts and provide a mixture comprised predominantly of sebacic acid, 2-ethylsuberic acid and 2,2′-diethyladipic acid and a small amount of carboxylated materials other than said acids, which comprises subjecting said latter mixture to an elevated temperature up to about 300° F. at a reduced pressure for a period of time sufficient to selectively decarboxylate said other carboxylated materials.

2,837,565
CHEMICAL PROCESS FOR RECOVERY OF ACIDS
Julian Feldman, Cincinnati, and Orville D. Frampton, Wyoming, Ohio, assignors to National Distillers and Chemical Corporation, a corporation of Virginia
Application October 29, 1956, Serial No. 618,875
8 Claims. (Cl. 260—533)

1. In a process for producing and recovering organic acids by reacting finely divided alkali metal with an aliphatic conjugated diolefin to form alkali metal hydrocarbons including dialkali metal dimers of the diolefin, reacting the resulting reaction mixture with carbon dioxide to convert the alkali metal hydrocarbon to alkali metal organic acid salts, neutralizing the resulting salts in an aqueous medium to liberate the organic acids from their salts with formation of the corresponding alkali metal salt of the neutralization agent, and recovering said organic acids and said salt of the neutralization agent from the aqueous medium in which the neutralization is carried out, the improvement providing improved recovery of said organic acids and the alkali metal salt of the neutralization agent which comprises separating toluene-soluble organic acids from the aqueous neutralized mixture thereby providing an aqueous mixture comprising water-soluble organic acids and the alkali metal salt of the neutralization agent, heating said aqueous mixture of water-soluble acids and alkali metal salt at an elevated temperature up to about 250° C. for a period of time sufficient to convert a substantial amount of the water-soluble organic acid to toluene-soluble acids, separating the toluene-soluble organic acids from said heat-treated aqueous mixture, thereby providing an aqueous heat-treated mixture of water-soluble substantially toluene-insoluble organic acids and the alkali metal salt of the neutralization agent, adding to the resulting aqueous heat-treated mixture an alkaline agent in an amount sufficient to convert the organic acids to their corresponding salts of the alkaline agent and to precipitate heavy metals present in said aqueous heat-treated mixture, removing the thus precipitated heavy metals thereby providing a substantially heavy metal-free aqueous mixture of water-soluble organic acids and salt of the neutralization agent, removing water from said substantially heavy metal-free aqueous mixture in an amount sufficient to precipitate out a substantial portion of the salt of the neutralization agent and providing an aqueous phase containing an increased concentration of the organic acid salts, removing the precipitated salt of said neutralization agent, recycling a portion of said aqueous phase of increased concentration of organic acid salts to the process at a stage following removal of heavy metals but prior to the step of removing water for crystallizing out the salt of the neutralization agent, acidiying the remainder of the aqueous phase of increased concentration of organic acid salts to liberate the organic acids from their salts, and recovering said liberated organic acids.

2,837,566
PROCESS FOR RECOVERY OF ORGANIC ACIDS
Julian Feldman, Cincinnati, and Orville D. Frampton, Wyoming, Ohio, assignors to National Distillers and Chemical Corporation, a corporation of Virginia
No Drawing. Application October 19, 1956
Serial No. 616,913
9 Claims. (Cl. 260—533)

1. In a process for production of toluene-soluble organic acids by selectively reacting an aliphatic conjugated diolefin with an alkali metal to form a mixture comprising dialkali metal derivatives of dimers of the diolefin, carbonating said mixture to form a mixture comprising dialkali metal salts of organic acids having two more carbon atoms/molecule than said diolefin dimer and conversion of said mixture of salts by hydrogenation and acidification to a mixture of toluene-soluble water-insoluble organic acids and toluene-insoluble water-soluble organic acids, the improvement providing for obtainment of increased yield of toluene-soluble organic acids which comprises subjecting the toluene-insoluble water-soluble organic acid components, separated from their mixture with toluene-soluble water-insoluble organic acids, to an elevated temperature up to about 250° C. for a period of time sufficient to convert a substantial portion of said toluene-insoluble organic acids to toluene-soluble organic acids.

2,837,567

PREPARATION OF β,β′-OXYDIPROPIONIC ACID

Keith M. Taylor, La Marque, Tex., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 29, 1955
Serial No. 556,043
2 Claims. (Cl. 260—535)

1. A process for the preparation of β,β′-oxydipropionic acid which comprises passing substantially anhydrous HCl into a mixture containing β,β′-oxydipropionitrile, at least 4 molecular proportions of water for each proportion of β,β′-oxydipropionitrile and a quantity of 1,2-dichloroethane sufficient to dissolve the β,β′-oxydipropionic acid formed, removing ammonium chloride formed, distilling therefrom water and 1,2-dichloroethane and recovering β,β′-oxydipropionic acid.

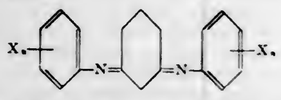
2,837,568

BIS(HALOPHENYLIMINO)CYCLOHEXANES

Markus Zimmermann, Evanston, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 28, 1956
Serial No. 587,498
6 Claims. (Cl. 260—566)

1. Bis-substituted phenyliminocyclohexane compounds having the formula



wherein X is selected from the group consisting of hydroxyl, halogen and lower alkoxy and *n* is a positive integer less than 3.

2,837,569

METHOD OF FIXING LOWER ALKYL RADICALS ON ETHYLENIC DOUBLE BONDS OF TERPENES

Albert Veriey, Neuilly-sur-Seine, France

No Drawing. Application April 21, 1954
Serial No. 424,779
Claims priority, application France April 27, 1953
2 Claims. (Cl. 260—587)

1. A method of inserting a lower alkyl group on an ethylenic double bond in a substance selected from the group consisting of citral, geraniol, rhodinol, linalool, citronellol and α-ionone, wherein said substance is reacted with a quaternary ammonium salt formed from a lower alkyl ester and a tertiary amine, selected from the group consisting of pyridine and quinoline compounds, to cause replacement of a hydrogen atom attached to the ethylenic double bond by the alkyl radical of said ester.

2,837,570

METHOD OF PREPARING CARVONE

Seymour M. Linder, Eggertsville, and Frank P. Greenspan, Buffalo, N. Y., assignors to Food Machinery and Chemical Corporation, San Jose, Calif.

No Drawing. Application March 21, 1956
Serial No. 572,789
6 Claims. (Cl. 260—587)

1. Method of preparing l-carvone comprising reacting upon d-limonene glycol with a selective oxidizing agent to produce l-hydroxyhydrocarvone, reacting upon said l-hydroxyhydrocarvone with a carbonyl reagent to produce a substitution product of said l-hydroxyhydrocarvone and dehydrating and hydrolyzing said substitution product to provide l-carvone.

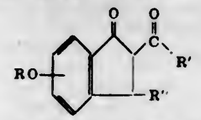
2,837,571

2-ACYLINDANONES AND PROCESS FOR THEIR PREPARATION

Lloyd H. Conover, New London, Conn., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application August 12, 1953
Serial No. 373,903
6 Claims. (Cl. 260—592)

4. A compound having the structure



wherein R is selected from the group consisting of hydrogen and lower alkyl, R′ is selected from the group consisting of lower alkyl and hydroxy substituted lower alkyl, and R″ is selected from the group consisting of hydrogen and methyl.

2,837,572

PRODUCTION OF ALIPHATIC ETHERS

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a German corporation

No Drawing. Application November 1, 1950
Serial No. 193,520
Claims priority, application Germany November 25, 1949
5 Claims. (Cl. 260—614)

1. In the method for the production of aliphatic ethers, the improvement which comprises passing an aliphatic alcohol at a pressure of about 1–30 kg./cm.² and a temperature of about 150–350° C. in contact with a substantially solid contact catalyst consisting essentially of kieselguhr, magnesium oxide, thorium oxide, and a member selected from the group consisting of cobalt and nickel, and recovering the aliphatic ether formed.

2,837,573

ETHERS AND ALCOHOLS VIA SULFUR DIOXIDE OXIDATION OF SULFIDES AND MERCAPTANS

Julian M. Mavity, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application January 14, 1955
Serial No. 481,973
7 Claims. (Cl. 260—614)

1. A process for the preparation of oxygen-containing organic compounds selected from the group consisting of alcohols and ethers which comprises treating an organic compound selected from the group consisting of mercaptans, sulfides and disulfides, with sulfur dioxide, at a temperature in the range of from about 100° to 350° C., and recovering the resultant oxygen-containing organic compound.

2,837,574

CHLORINATION OF ALCOHOLS

Harry E. Hill, Lewiston, and Guenter K. Weisse, Niagara Falls, N. Y., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application March 15, 1956
Serial No. 571,598
12 Claims. (Cl. 260—615)

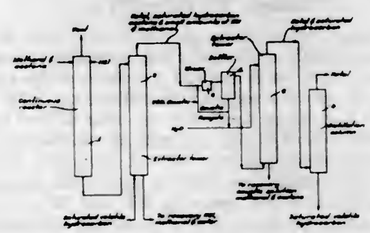
1. A method for the replacement of the hydroxyl radicals of compounds of the formula $R'O(RO)_nROH$ with chlorine which comprises reacting a compound of the formula $R'O(RO)_nROH$ with a compound selected from the group consisting of sulfur mono-chloride and sulfur dichloride while the reactants are in admixture with a catalytic amount of a material containing a basic nitrogen atom, R′ being selected from the group consisting of hydrogen and alkyl radicals containing from 1 to 4 carbon atoms, R being an alkylene radical containing from 2 to 3 carbon atoms and *n* being an integer from 0 to 5.

2,837,575

PREPARATION OF KETALS

Rolland M. Waters, Freeport, and John M. Lee, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application April 23, 1956, Serial No. 579,943
19 Claims. (Cl. 260—615)



1. A process for preparation of a lower ketal by the reaction of an alcohol with a ketone, which comprises the step of reacting an unsubstituted saturated monohydric alcohol having from 1 to 2 carbon atoms and an unsubstituted saturated aliphatic ketone having from 3 to 4 carbon atoms in the presence of an acid selected from the group consisting of sulfuric acid and halogen acids and in an amount equal to 2 to 20 weight percent of the reacting mass, the reaction being initiated in the substantial absence of water.

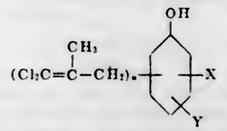
2,837,576

DICHLOROMETHYLALLYLPHENOLS

Donald G. Kundiger, Manhattan, Kans., and Huey Pledger, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 28, 1956
Serial No. 587,468
7 Claims. (Cl. 260—623)

1. Dichloromethylallylphenols having the formula



wherein *n* represents an integer selected from 1 and 2, and X and Y each represent a member of the group consisting of hydrogen, chlorine, bromine and alkyl radicals containing from 1 to 4 carbon atoms, inclusive.

2,837,577

PROCESS FOR THE ISOMERIZATION OF UNSATURATED ALCOHOLS AND THEIR ESTERS

Bruno Blaser and Werner Stein, Dusseldorf, Germany, assignors to Henkel & Cie. G. m. b. H., Dusseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application May 23, 1955, Serial No. 510,558. In Germany July 5, 1949
Public Law 619, August 23, 1954
Patent expires July 5, 1969
7 Claims. (Cl. 260—642)

1. The process of isomerizing an unsaturated alcohol having from 3 to 26 carbon atoms in the molecule, which comprises admixing said alcohol with a material selected from the group consisting of cobalt and cobalt carbonyl, heating the resulting mixture in a substantially oxygen-free atmosphere of carbon monoxide at elevated pressures to a temperature between 100° C. and 300° C. while maintaining said pressure at a value greater than the dissociation pressure of cobalt carbonyl at the prevailing temperature.

2,837,578

CHLORO-NITRO COMPOUNDS AND THEIR PREPARATION

John F. Brown, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application November 19, 1953
Serial No. 393,230
8 Claims. (Cl. 260—644)

1. The method of making substituted lower aliphatic hydrocarbon compounds having a chlorine atom attached to one carbon atom and a nitro group attached to the adjacent carbon atom, which method comprises bubbling oxygen through a solution of (1) a lower aliphatic hydrocarbon containing at least one olefinic double bond, (2) nitrosyl chloride, and (3) an oxide of nitrogen other than nitrous oxide.

2,837,579

POLYCHLORINATED DICYCLOPENTADIENE

George Allen Buntin, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 19, 1952
Serial No. 272,528
5 Claims. (Cl. 260—648)

1. As a new composition of matter, the stable insecticidally-active reaction product resulting from the direct chlorination of dicyclopentadiene until about 4 to about 8 chlorine atoms, corresponding to about 52 to about 68% chlorine, are introduced therein.

2,837,580

TELOMERIZATION WITH SULFURYL HALIDE AND A SULFUR DIOXIDE MODIFYING AGENT

William S. Barnhart, Cranford, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application March 16, 1953
Serial No. 342,743
23 Claims. (Cl. 260—653)

1. A process for the production of a distillable open chain telomer which comprises telomerizing a substituted ethylene containing at least one halogen atom attached to at least one of the double bonded carbon atoms under liquid phase and substantially anhydrous conditions with a sulfuryl halide telogen, the halide substituents of said telogen being selected from at least one of the group consisting of fluorine, chlorine and bromine, in the presence of sulfur dioxide as a modifying agent.

2,837,581

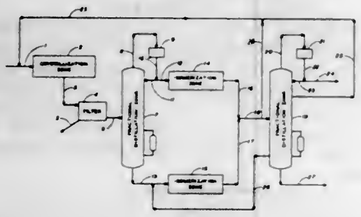
ISOMERIZATION OF XYLENE

Roger W. Hill, El Cerrito, and Raymond V. Luthy, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application May 3, 1954, Serial No. 427,168
5 Claims. (Cl. 260—668)

1. A process for producing para-xylene which comprises cooling a xylene feed to a temperature in the range −75° F. to −120° F. to cause crystallization of a portion of the para-xylene, separating the para-xylene crystals and a mother liquor, fractionally distilling the mother liquor to separate an overhead fraction comprising meta-xylene and para-xylene and having an ortho-xylene content substantially less than that of the mother liquor and a bottoms fraction having an ortho-xylene content sub-

stantially higher than that of the mother liquor, isomerizing the overhead fraction by contacting it with a silica-alumina catalyst at 700° F. to 1000° F. and at a space velocity in the range from 0.5 to 5.0 v./v./hr., separately isomerizing the bottoms fraction by contacting it with a silica-alumina catalyst at conditions of temperature and space velocity substantially more severe than those employed in isomerizing the overhead fractions, the temperature being in the range from 900° F. to 1050° F.



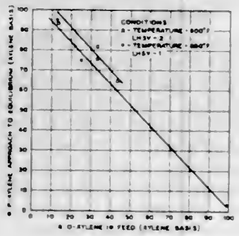
and the space velocity being in the range from 0.5 to 5.0 v./v./hr., passing the isomerizing product mixture into a fractional distillation zone to separate an overhead fraction comprising meta-xylene and para-xylene and having an ortho-xylene content substantially less than that of joined isomerizing product mixtures and a bottom fraction having an ortho-xylene content substantially higher than that of the joined isomerizing product mixtures, and fractionally crystallizing the overhead mixture to recover para-xylene.

2,837,582

P-XYLENE VAPOR PHASE ISOMERIZATION

Roger W. Hill, El Cerrito, and Alfred J. Engel, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application May 24, 1954, Serial No. 431,686
1 Claim. (Cl. 260—668)



A process for increasing the para-xylene content of xylene mixtures containing ortho- meta-, and para-xylenes and having a para-xylene content below about 15% by volume and an ortho-xylene content above about 15% by volume which comprises fractionally distilling the xylene mixture to separate an overhead fraction comprising meta- and para-xylenes and having an ortho-xylene content below about 10% by volume, contacting the overhead fraction with a silica-alumina catalyst at a temperature in the range about 700° F. to 1000° F., periodically regenerating the catalyst by contacting it with a free oxygen-containing gas to remove carbon deposited on the catalyst during the feed contacting step, and passing steam through the catalyst for a period of 2 to 20 minutes immediately subsequent to the regeneration step.

2,837,583

PRODUCTION OF MONO-ALKYLNAPHTHALENES BY THE INTERACTION OF NAPHTHALENE AND ALKYLBENZENES

Arthur P. Lien, Highland, Ind., and David A. McCaulay, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 20, 1954 Serial No. 451,304
9 Claims. (Cl. 260—671)

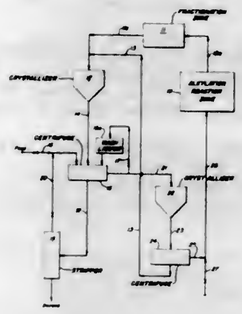
1. A process which comprises contacting, under substantially anhydrous conditions, a feed consisting substantially of (*a*) naphthalene and (*b*) a member of the class consisting of ethylbenzene and diethylbenzene, with at least about 3 moles of liquid HF per mole of feed and at least about 1 mole of BF_3 per mole of naphthalene, at a temperature between about −20° C. and about +30° C. for a time sufficient to form an appreciable amount of ethylnaphthalene and removing HF and BF_3 to recover a reaction product mixture containing ethylnaphthalene.

2,837,584

PROCESS FOR PRODUCTION OF DURENE

Melvern C. Hoff, Highland, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application October 31, 1955, Serial No. 543,806
6 Claims. (Cl. 260—671)



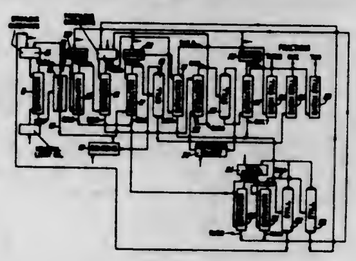
1. In the production of durene from an alkyl benzene in a cyclic process which includes alkylation of alkyl benzenes under equilibrium alkylation conditions in an alkylation reaction zone and recovery of a high purity durene product in subsequent separation and purification zones and wherein feed for the alkylation reaction is charged to the purification zone, the steps of producing a mixture enriched in tetramethylbenzenes by methylation of a recirculating mixture of alkyl benzenes with a methyl donor in the presence of an acid-type alkylation catalyst in the alkylation reaction zone, fractionating the alkylation reaction mixture to recover the tetramethylbenzenes fraction, crystallizing a durene fraction from said tetramethylbenzenes fraction, separating the crystallized durene fraction and mother liquor, contacting the durene fraction with a liquid comprising feed for the alkylation reaction, recovering a crystalline durene fraction therefrom which is substantially free of tetramethylbenzene isomers other than durene and residual contact liquor containing said isomers, charging said contact liquor and the first mentioned mother liquor to the alkylation reaction and stripping the crystalline durene fraction to recover a 97+% durene product.

2,837,585

SEPARATION OF AROMATICS AND ALIPHATICS USING ALKYLENE CARBONATE

James V. Murray, Jr., South Charleston, Charles H. Young, Charleston, and John R. Anderson, St. Albans, W. Va., assignors to Union Carbide Corporation, a corporation of New York

Application February 23, 1954, Serial No. 411,922
7 Claims. (Cl. 260—674)



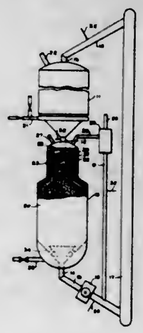
1. A process for effecting the substantial separation of a hydrocarbon mixture into three fractions, a Fraction one comprising benzene, alkyl homologs of benzene averaging less than two alkyl carbon atoms per benzene ring, naphthalene and those alkylene homologs of naphthalene boiling below 300° C., a Fraction two comprising essentially alkyl benzene homologs averaging at least two alkyl carbon atoms per benzene ring but not more than four alkyl carbon atoms per benzene ring, alkyl benzene homologs averaging at least two alkyl carbon atoms per benzene ring but a total of not more than five alkyl and cycloalkyl carbon atoms per benzene ring, and alkyl substituted naphthalene homologs boiling above 300° C., and a Fraction three comprising essentially non-aromatic hydrocarbons and the alkyl homologs of benzene having a higher degree of alkylation than those of said Fraction two, which process comprises first extracting said mixture with a 1,2 alkylene carbonate containing from three to four carbon atoms to separate one of said three fractions and then extracting the mixture of two fractions, resulting from said first extraction, with the other of said 1,2 alkylene carbonates to separate one fraction from the other.

2,837,586

PEBBLE HEATER PROCESS AND APPARATUS

Harold J. Hepp, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application June 25, 1954, Serial No. 439,389
7 Claims. (Cl. 260—679)



1. A process for pyrolytically converting hydrocarbon material to more desirable hydrocarbons which comprises gravitating at least one compact stream of hot refractory pebbles into the upper section of a reaction zone below the top thereof so as to maintain a pebble-free gas space above the hereinafter named bed and form a generally conical top surface for the pebble bed at the juncture of said stream with said bed said upper section being of substantially smaller diameter than a subjacent section whereby gas flow rate is materially faster in said upper section and pebble flow rate is materially slower in said subjacent section; gravitating said pebbles in a compact bed thru said reaction zone; recovering said pebbles from the lower section of said reaction zone; passing a hydrocarbon gas upwardly thru the bed of pebbles in direct heat exchange therewith so as to heat and convert said hydrocarbon gas to more desirable form; maintaining the flow rate of said hydrocarbon gas in the range of 0.5 G_{max} to G_{max} (where G_{max} is the maximum permissible rate of gas flow upwardly thru the pebble bed without lifting pebbles from the bed and effecting carry over of pebbles in the effluent gas) so as to substantially reduce the base angle of each cone and thereby flatten the top surface of the pebble bed; and recovering a converted hydrocarbon gas from said pebble-free gas space.

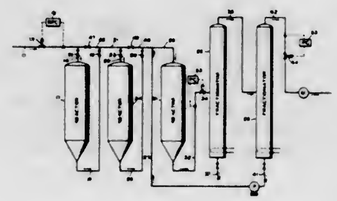
7. Apparatus comprising a closed pebble heater reactor having an upper cylindrical section of substantially smaller diameter than a subjacent cylindrical lower section wherein said upper section opens unrestrictedly into said lower section; gas inlet means in the lower portion of said subjacent section and gas outlet means in the upper portion of said upper section, said gas inlet and outlet means being the sole means for removing and introducing gas from and to, respectively, said reactor, whereby all of the gas introduced to said lower section thru said inlet means is removed from said upper section without loss, except by conversion to solid material, thru said outlet means; pebble outlet means in the bottom of said subjacent section; a single axially disposed pebble conduit extending into said upper section so as to deliver pebbles to a level below the top of said upper section, said pebble conduit being the sole means of introducing pebbles into said reactor.

2,837,587

PURIFICATION OF OLEFIN-RICH FEED PRIOR TO POLYMERIZATION

John Paul Hogan and Robert L. Banks, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application August 20, 1954, Serial No. 451,311
28 Claims. (Cl. 260—683.15)



1. A process for polymerizing a normally gaseous olefin in a feed containing impurities comprising minor amounts of acetylene and carbon monoxide, and at least one mol of hydrogen per mol of acetylene in contact with

a nickel oxide catalyst which has been activated by heating in an oxidizing atmosphere at a temperature in the range of 700 to 1300° F., which comprises contacting said feed with a reduced copper oxide catalyst so as to remove acetylene from the feed; thereafter contacting the resulting feed with hopcalite so as to remove carbon monoxide from the feed; contacting the purified feed with said nickel oxide catalyst under polymerizing conditions; and recovering liquid polymer from the process.

2,837,588
POLYMERIZATION OF TERTIARY OLEFINS
Ernest J. Kahler, Columbus, Ohio, assignor, by mesne assignments, to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
No Drawing. Application July 12, 1956
Serial No. 597,356
4 Claims. (Cl. 260—683.15)

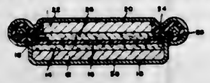
1. The method which comprises polymerizing tertiary olefins in the presence of P_2X_5NO wherein X is halogen.

ELECTRICAL

2,837,589
ACTIVE MATERIAL FOR STORAGE BATTERIES
Otto Konig, New York, N. Y., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application July 19, 1954
Serial No. 444,368
6 Claims. (Cl. 136—26)

1. A composition for use as active material in storage battery plates comprising lead oxide and about 0.1 to 1% by weight of said composition of an alkali salt of a condensation product of formaldehyde and a sulfonated phenolic compound.

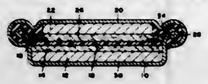
2,837,590
MOLYBDENUM ANODE CELL
John W. Rhyne, Jr., Lancaster County, Pa., assignor to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania
Application October 3, 1956, Serial No. 613,648
6 Claims. (Cl. 136—100)



1. A primary alkaline dry cell comprising an anode substantially completely consisting of molybdenum, an alkaline electrolyte, and a depolarizer cathode including an electrolytically reducible oxygen yielding compound.

2. A primary alkaline dry cell comprising an anode substantially completely consisting of powdered molybdenum consolidated into a solid mass, an alkaline electrolyte, and a depolarizer cathode including an electrolytically reducible oxygen yielding compound.

2,837,591
GERMANIUM ANODE CELL
John W. Rhyne, Jr., Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania
Application October 3, 1956, Serial No. 613,652
8 Claims. (Cl. 136—100)



1. An alkaline dry cell comprising a germanium anode, an alkaline electrolyte, and a depolarizer cathode including an electrolytically reducible oxygen yielding compound.

2,837,592
SEPARATORS FOR ELECTRIC STORAGE BATTERIES
Joseph Dowse and Frank Booth, Denton, England, assignors to The British Fibrak Separator Company Limited, Denton, Lancashire, England, a British company
Application August 26, 1954, Serial No. 452,390
4 Claims. (Cl. 136—145)

1. A plate separator for electric storage batteries comprising a web of fibrous separator material, integral portions upthrust from said web forming parallel hollow ribs extending across said separator and raised to a uniform height above the face thereof and being dimensionally stable under conditions of use, said height being an exact multiple of the thickness of the separator ma-



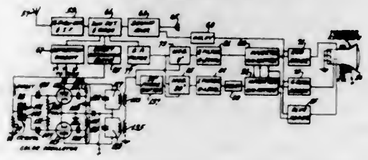
terial, and an integrally, bonded, folded portion of the web in each of the side margins of said separator parallel to said ribs, the number of folds of said separator material at each side margin being equal to said exact mutiple of the thickness of the separator material.

2,837,593
PRIMARY CELL CASE
Herman Rueger, Lancaster Township, Lancaster County, Pa., assignor to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania
Application November 23, 1955, Serial No. 548,660
6 Claims. (Cl. 136—166)



1. A housing for a primary cell comprising a cup-like casing having a cylindrical closed bottom and an open end, said open end terminating in an outwardly rolled rim having a continuously arcuate cross section which is located radially outward of the cylindrical portion of the case, a cap secured to said case over the open end thereof and having an annular groove of a smaller diameter than the innermost diameter of said rolled rim, and a washer between said rim and said cap, the edge of said cap outward of said rim being rolled about said rim to have a continuously arcuate cross section extending from said rim to the edge of said cap, said washer being held between said arcuate cross sections of said rim and cap over an arcuate cross sectional distance in excess of 180° to form a liquid and gas tight seal.

2,837,594
COLOR SYNCHRONIZATION
Burton R. Clay, Woodbury, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 30, 1953, Serial No. 394,930
9 Claims. (Cl. 178—5.4)



1. In a color television receiver system of the type employing a color synchronizing burst, the frequency of which is employed for color selection, a color synchronizing circuit comprising in combination, a burst separator having a burst signal output circuit, a vacuum tube oscillator circuit having a resonant plate tank circuit in its plate circuit and a piezoelectric crystal circuit in its grid circuit such that the frequency of resonance of said resonant plate tank circuit and said piezoelectric crystal circuit is substantially the same as that of the color synchronizing burst, a feedback circuit means coupled from said resonant plate tank circuit to said piezoelectric crystal circuit for purpose of inducing reactive components of current in said resonant plate tank circuit, means for utilizing said reactance component of current to compensate for shifts in the frequency and phase of said oscillator, means for introducing said color synchronizing bursts into said grid circuit of said vacuum tube oscillator, means for utilizing said feedback circuit to adjust frequency and phase of said vacuum tube oscillator to the frequency and phase of said burst, and means for utilizing output of said oscillator in said color television receiver system.

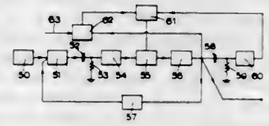
2,837,595
SIGNAL SEPARATION CIRCUIT
Wolf J. Gruen, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application February 1, 1954, Serial No. 407,448
7 Claims. (Cl. 178—5.4)



1. A circuit for separating bursts of alternating current waves that are repeated in a signal train at a frequency that is less than the frequency of the alternating current waves from a train of signals having components of the same frequency as the alternating current waves comprising in combination a low impedance driving source having an output across which the bursts and the signals appear, a gating amplifier having at least a plate, a grid and a grounded cathode, a source of positive pulses each of which occurs at the same time as one of the bursts, means for coupling the output of said source of positive pulses to said grid so as to cause it to draw current and hence have an impedance comparable to that of said driving source, said coupling means being of such nature as to maintain said grid at a cut-off potential between the positive pulses, and a series resonant circuit tuned to the frequency of the waves in said burst coupled between said low impedance driving source and said grid.

2,837,596
GENERATION OF SYNCHRONISING PULSES ESPECIALLY FOR TELEVISION
James John Billin, Isleworth, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application February 4, 1955, Serial No. 486,233
Claims priority, application Great Britain March 26, 1954
3 Claims. (Cl. 178—5.4)

1. Apparatus for generating synchronising signals for colour television comprises a source of first reference oscillations having a frequency equal to the difference between the frequency of a luminance carrier wave and a chrominance carrier wave, means for deriving line synchronising signals, means for deriving field synchronising signals having a fixed frequency relationship with said line synchronising signals, a source of second reference oscillations having a frequency subject to variation relative to the frequency of said first reference oscillations, means for deriving a control signal in response to relative variations between the frequency of said first reference oscillations and the frequency of said second reference oscillations, and control means responsive to said



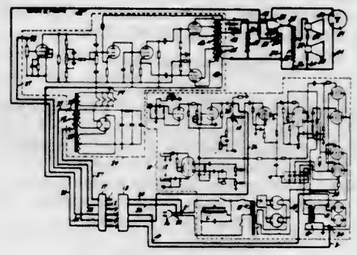
control signal for changing the frequency of said line and field frequency signals in discrete steps, each step corresponding to an odd integral multiple relationship between the half the frequency of said line synchronising signals and the frequency of said first reference oscillations.

2,837,597
AUDIO REPRODUCTION APPARATUS
Raymond Lubow, Los Angeles, Calif.
Application September 14, 1956, Serial No. 609,850
5 Claims. (Cl. 179—1)



1. Acoustic delay and reproducing apparatus comprising a first air column defined by a length of tubing, walls defining a second air column, said tubing being wound around said walls, means to apply acoustical vibrations to one end of said tubing, a loudspeaker, means to backload said loudspeaker with said second air column, and means to drive said loudspeaker from acoustical vibrations emanating from the other end of said air tubing.

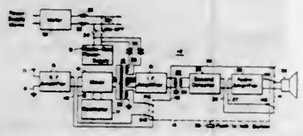
2,837,598
SELECTIVE CONTROL AND RELATIVE VOLUMES INDICATOR FOR VOICE AND/OR MUSIC AMPLIFIERS
James C. Hilton, Oakland, Calif.
Application December 19, 1956, Serial No. 629,352
1 Claim. (Cl. 179—1)



Selective control means for music and voice and music from a reproducing and amplifying system comprising a switch including two arms and a plurality of poles, a speaker system including a speaker volume control, and a relative volume indicating meter, a main amplifier having a recording amplification circuit including an input and

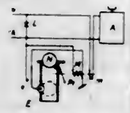
an intermediate stage with volume control, and a voice amplification circuit and a common output for said circuits, a monitor amplifier having a recording input and having an output transformer, a recording connection from said intermediate stage to said recording input, a recording and voice connection from said common output to said meter and to one pole of said switch, a connection from said output transformer to a second pole of said switch and a loading resistor biasing the secondary of said output transformer for maintaining the circuit under load, a resistor in series from said recording and voice connection to a third pole of said switch with one arm of the switch connected to ground and the other connected to the speaker volume control, whereby when the arms of the switch are in one position the speaker system will be in circuit with the monitor amplifier to provide music alone, and when in the other position music will be provided from said common output with the voice superimposed thereon with the indicating meter providing visual indication of the relative volume levels of music alone and with the voice superimposed thereon through normal interruptions of voice broadcast for suitable balance for clear reception of the voice over the music volume level through adjustment of the volume controls.

2,837,599
WAVE-SIGNAL RECEIVERS
Meyer Marks, Clarendon Hills, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application March 14, 1955, Serial No. 493,868
5 Claims. (Cl. 179—2.5)



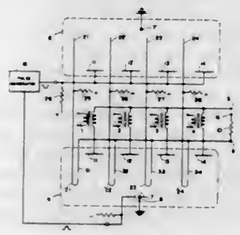
1. A wave-signal receiver for use alternatively to receive and reproduce radiated intelligence signals, or for intercommunication with other similar receivers energized from a common power line, said receiver comprising: means for receiving and amplifying said radiated intelligence signals; means for detecting said amplified intelligence signals; electromechanical means responsive to said detected signals for reproducing said received intelligence signals; means including a first switch element for conditioning said first-mentioned means to generate local oscillations; means including a second switch element for conditioning said electromechanical means to develop a local intelligence signal; means including a third switch element for modulating said local oscillations with said local intelligence signal; said switch elements being ganged for unicontrol operation; and means for impressing said modulated local oscillations on said power line.

2,837,600
CONTROLLING DEVICE IN COIN BOXES
Harald Valdemar Alexandersson, Lidingo, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application December 20, 1955, Serial No. 554,325
Claims priority, application Sweden December 23, 1954
1 Claim. (Cl. 179—6.5)



A check circuit system preventing the connection of a telephone pay station to a two-wire communication line of a telephone exchange without the insertion of a coin, said check system comprising, in combination, a telephone pay station including a telephone apparatus, a coin chute, a movable coin pawl biased to extend into the coin chute at an upper coin position, a pawl operating electro-magnet withdrawing said pawl when energized, a normally open coin contact at a lower coin position and closed by a coin passing through the chute, a contact means in the telephone exchange actuated by the deposition of a coin, a grounded circuit means including said electro-magnet, one wire of said line and a reset relay for restoring said line and causing energization of the pawl withdrawal electro-magnet, actuation of said contact means disconnecting said line and closing said circuit means through ground, a by-pass circuit arranged to be closed by closing of said coin chute contact upon passage of a coin through the chute for reducing the resistance in said circuit means, reduction in resistance causing energization of the reset relay, a cut-off switch contact included in circuit with said telephone apparatus in the pay station and the line, said cut-off switch contact being operated by the electromagnet to disconnect the telephone apparatus during the passage of a coin through the chute, and a control relay in the telephone exchange, said control relay having contacts controlling the energization of said reset relay, the coil of said control relay being included in said circuit means and responsive to the same current strength as said electro-magnet but requiring less operating current strength and being slower energized to make than said reset relay whereby the restoration of the communication line by the reset relay is blocked until the control relay is energized.

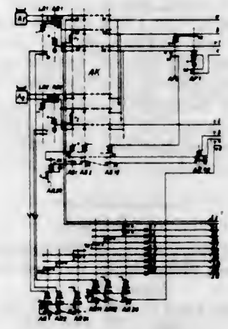
2,837,601
ARRANGEMENT FOR GENERATING AMPLITUDE MODULATED PULSE TRAINS
Stig Erik Warring, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden
Application May 18, 1954, Serial No. 430,687
Claims priority, application Sweden June 17, 1953
4 Claims. (Cl. 179—15)



1. A device for generating a complex pulse train composed of a plurality of mutually time displaced channel pulse trains, said device comprising a trochotron tube having a cathode and a plurality of electrodes forming compartments one for each channel, each of said compartments including a control electrode, a first electron receiving electrode and a second electron receiving electrode, said first electrodes being each connected to a common bias source, modulation transformers, diodes, each of said connections to the common bias source including in series the secondary of one of said transformers and one of said diodes, means for selectively applying to said control electrodes a stepping voltage to direct successively the electron beam to the several compartments, circuit means for applying the modulating voltage of each channel to said first electron receiving

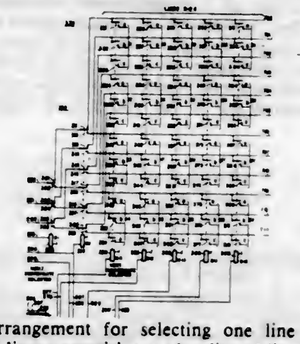
electrode in the compartment corresponding to said channel, the primary of said transformers being included in each of said circuit means, said two electron receiving electrodes of each compartment being correlated so that the current to each of said second receiving electrodes is a linear function of the modulating voltage applied to said first receiving electrode of the same compartment, within certain limits of said modulating voltage, means for supplying cathode current simultaneously with the stepping voltage, and load impedance means connected to all said second electron receiving electrodes, said complex pulse train appearing across said second electron receiving electrodes.

2,837,602
CONNECTION SYSTEM FOR SELECTION OF A JUNCTION LINE
Karl Axel Lundkvist, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericcson, Stockholm, Sweden, a company of Sweden
Application February 21, 1952, Serial No. 272,857
Claims priority, application Sweden February 23, 1951
3 Claims. (Cl. 179—18)



1. A telephone system comprising, in combination, a main exchange and an auxiliary exchange, a group of subscriber's lines connected with the auxiliary exchange, a line relay individual to each of said lines, group relays controlling contacts located in the auxiliary exchange and operated by said line relays upon a call on one of said subscriber's lines to designate the number of the calling line, at least one cross-bar switch for said subscriber's lines and located at the auxiliary exchange, operating means for said switch, switching means in the main exchange, a plurality of trunks interconnecting said cross-bar switch in the auxiliary exchange and said switching means in the main exchange, registering means in the main exchange connected to said trunks over said switching means calling line identifying relays at the main exchange, said identifying relays controlling a first set and a second set of contacts, auxiliary signalling lines interconnecting said identifying relays with said contacts of the group relays and with said switch operating means in the auxiliary exchange, circuit means closed by said group relays for transmitting signals indicating the number of the calling line over said auxiliary signalling lines to said identifying relays, circuit means closed by the first set of contacts of said identifying relays actuating said switching means in the main exchange for sending revertive signals over the auxiliary signalling lines to said operating means in the auxiliary exchange to establish a connection between the calling line and said registering means, and circuit means closed by the second set of contacts of said identifying relays for setting said registering means in accordance with the number of the calling line.

2,837,603
AUTOMATIC TELEPHONE SYSTEM
Per O. Dahlman, Galion, Ohio, assignor to North Electric Company, a corporation of Ohio
Application January 3, 1955, Serial No. 479,344
18 Claims. (Cl. 179—18)



1. An arrangement for selecting one line out of a plurality of lines comprising a plurality of lines arranged in subgroups to twenty lines each, each subgroup being arranged in a coordinate system of four rows and five columns so that each individual line of said subgroups is disposed in one of said rows and in one of said columns; means including a group of five relays operative to select the one of said columns in which said one line is disposed; and a second group of two relays for selecting from the rows of lines, the one of said rows in which said one line is disposed.

2,837,604
SIGNAL RECEIVING DEVICE
Maurice Armand Pretcelle, Conflans Sainte-Honorine, France, assignor to Lignes Telegraphiques & Telephoniques, Paris, France, a French company
Application January 3, 1955, Serial No. 479,636
Claims priority, application France January 22, 1954
4 Claims. (Cl. 179—84)

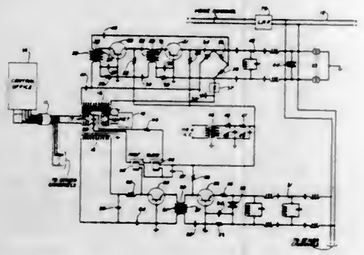


1. A receiving device for carrier wave keyed signals comprising a modulator made of four rectifiers in bridge connection and of an input transformer and an output transformer, said modulator having input terminals, carrier wave terminals and output terminals respectively connected to one winding of said input transformer, one winding of said output transformer and mid-point tappings provided in each one of the other windings of both said transformers, an alternating current source, means for applying voltage from said alternating current source to said input terminals, means for applying said signals to said carrier wave terminals, a further rectifier having input alternating current and output direct current terminals, means for applying voltage received at said output terminals to said further rectifier, and means for connecting a winding of an electromechanical relay to said output direct current terminals of said further rectifier.

2,837,605
SUBSCRIBER-LOOP CARRIER TELEPHONE RINGING SYSTEMS
Lester Hochgraf, Madison, and Walter Koenig, Jr., Clifton, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 28, 1955, Serial No. 490,976
8 Claims. (Cl. 179—84)

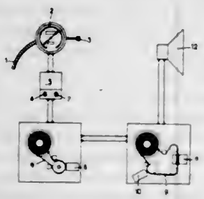
1. A carrier telephone system intercoupling a central office and at least one telephone subscriber which com-

prises, in combination, a transmission line, an office carrier terminal coupled to said line including a modulator for carrier frequency oscillations balanced to interrupt oscillations on alternate half-cycles of the modulating signal applied to its input in response to a modulating signal in excess of a predetermined amplitude level, a source of low frequency A.-C. ringing signals at said central office, means to apply said ringing signals to the input of said modulator at an amplitude level in excess of said predetermined level, whereby the carrier is periodically interrupted in the presence of ringing signals



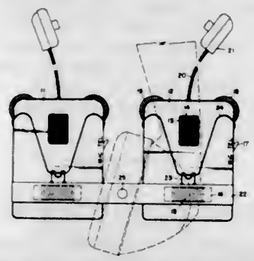
and a series of ringing pulses having a repetition rate equal to the ringing signal frequency is produced and transmitted over said line, and at least one subscriber carrier terminal coupled to said line at a location remote from said central office and including a demodulator for recovering modulated carrier frequency oscillations, a ringer, and means to operate said ringer under the control of said ringing pulses, whereby said ringer is operated whenever subscriber ringing signals are applied from said source at said central office to said modulator at said office carrier terminal.

2,837,606
ANNOUNCING METHOD AND APPARATUS
Paulette Barthe, Paris, France
Application March 14, 1955, Serial No. 494,135
Claims priority, application France March 17, 1954
6 Claims. (Cl. 179—100.1)



1. Announcing apparatus for installation on a vehicle, comprising a record medium bearing prerecorded announcements and physical configurations for initiating the operation of a first switch device, a motor for driving said record medium, a carrier member bearing pilot signals in the form of physical configurations for initiating the operation of a second switch device, means for driving the carrier member in synchronism with the running of the vehicle, means for reproducing the prerecorded announcements from the record carrier, means for starting the motor to reproduce a pre-recorded announcement through said reproducing means upon operation of said second switch device by a pilot signal in the form of a physical configuration on said carrier member, and means for switching-off said motor at the end of a reproduced announcement by the operation of said first switch device by a physical configuration on said record medium following that announcement.

2,837,607
HEARING AID DEVICES
Paul J. McGee, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application June 23, 1955, Serial No. 517,509
1 Claim. (Cl. 179—107)



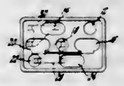
A hearing aid device adapted for balanced operation when employed in conjunction with a telephone receiver, comprising: a first hearing aid including an inductive pickup coil adapted for magnetic coupling to said telephone receiver; a second hearing aid including an inductive pickup coil adapted for magnetic coupling to said telephone receiver; and a continuous ferromagnetic coupling element having a first portion magnetically coupled to one of said pickup coils and a second portion, spaced from said first portion, magnetically coupled to the other of said pickup coils, whereby said telephone receiver may be magnetically coupled to said ferromagnetic coupling element at various locations intermediate said first and second portions to provide various conditions of balanced and unbalanced outputs from said hearing aids.

2,837,608
RAILWAY CONDUCTOR PLOW
Vincent P. Robb, Philadelphia, Pa., and John R. Sacher, Erlton, N. J.
Application April 11, 1955, Serial No. 500,713
1 Claim. (Cl. 191—48)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A vertical conductor plow assembly comprising front and rear metal plates, an elongate horizontal spacing element between the upper edges of the plates and a pair of vertical spacing elements between the side edges of said plates providing a housing therebetween having an open lower end, a horizontal slot in each of said plates disposed below and adjacent the horizontal spacing element providing front and rear slots, a pair of spaced electrically insulated conductor strips extending vertically within said compartment, one of said strips having its upper end bent to extend outwardly from the front slot and the other strip having its upper end bent to extend outwardly from the rear slot to provide spaced front and rear connections for receiving electrical wiring, each strip extending through the lower open end of the compartment providing first and second horizontally spaced lower end portions, a first insulated support having its upper portion fixed to the front metal plate providing a first depending portion and a second insulated support having its upper portion fixed to the rear metal plate providing a second depending portion, said depending portions having their inner faces disposed adjacent each other, a recess in the inner face of each depending portion, securing means for maintaining said first lower end portion of one conductor strip in the recess of said first depending portion of one support and securing means for maintaining said second lower end portion of the other conductor strip in the recess of said second depending portion of the other support, insulation in each recess disposed adjacent each conductor strip, each of said supports having a cut out portion at its lower end which communicates with its inner recess, a metal connector secured in each cut out portion, means for clamping the lower ends of the supports together to provide a unitary structure and place each metal connector in independent contact with one of the conductor strips, a collector shoe fixed to the outer face of each support, a lead wire carried by each metal connector and one lead wire being connected to one collector shoe and the other lead wire being connected to the other collector shoe.

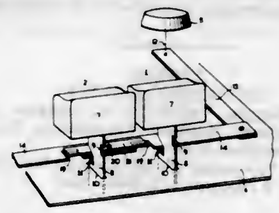
2,837,609
ELECTRIC SWITCH
David P. Clayton and Robert N. Falge, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 11, 1953, Serial No. 379,584
5 Claims. (Cl. 200—16)



1. An electric switch comprising a housing, a block adapted for reciprocation within said housing, a plurality of fixed contacts in one wall of said housing and arranged in three linear groups all parallel with the direction of reciprocation of triangular shaped said block, and a pair of contactor plates arranged side by side on said block transversely to the direction of reciprocation of said block, one of said contactor plates being positioned for bridging engagement with the inner group of fixed contacts and one of the outer groups of fixed contacts and the other of said contactor plates being positioned for bridging engagement with the inner of said groups and the other of the outer of said groups of fixed contacts.

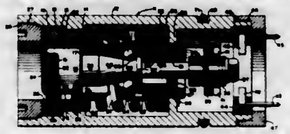
2,837,610
SWITCHING DEVICE
Friedrich Lampe and Friedrich Laa, Vienna, Austria, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 20, 1955, Serial No. 523,248
Claims priority, application Austria September 10, 1954
6 Claims. (Cl. 200—18)

1. A switching device comprising a plurality of substantially parallel switching elements, a plurality of interconnected slidable elements, a switch member operatively connected to said slidable elements for moving the latter in a direction substantially transverse to the direction of movement of said switching elements, each of said switching elements and one of said slidable elements being provided with recesses, another of said slidable elements being pivotally connected to said one of said slidable elements, the latter being selectively and removably engaged in at least one of said recesses of said switching elements, and the latter being selectively and



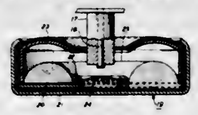
removably engaged in at least one recess in said one slidable element.

2,837,611
PRESSURE OPERATED SWITCH WITH INERTIAL LOCKING MEANS
Robert L. Detwiler, Alfred N. Birmingham, and Samuel H. Kauffman, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy
Application February 6, 1957, Serial No. 638,664
13 Claims. (Cl. 200—83)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a switch of the class disclosed, an operating rod movable in one direction to operate the switch to closed position, said rod having an enlargement thereon including a conical portion having an external tapered cam surface which converges in said one direction, a movable inertial means surrounding said rod and normally urged in said one direction to a seating position, said inertial means having a tapered interior cam surface which converges in a direction opposite to said one direction, said cam surfaces generally facing each other, fixed means cooperatively disposed with respect to said cam surfaces and defining a pocket therebetween, force transmitting means disposed in said pocket, movement of said rod in said one direction imparting outward movement to said force transmitting means, said outward movement of the force transmitting means reacting against said fixed means and said interior cam surface to move said inertial means away from its seating position, said inertial means serving to counter the effect of an impact force acting to urge said rod and inertial means in said one direction, whereby outward movement of said force transmitting means is prevented and said operating rod is locked against movement in said one direction.

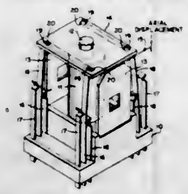
2,837,612
MERCURY SWITCHES
Walter G. Gustafson, New York, and Henry C. Harrison, Port Washington, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 18, 1955, Serial No. 489,046
10 Claims. (Cl. 200—87)



1. In a mercury switch, a container having an aperture therein, an annular member positioned in said container,

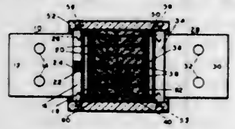
a body of mercury in said container, a contact in line with said aperture and with said annular member, and means for moving said contact into and out of engagement with said mercury.

2,837,613
SWITCHING DEVICE
William F. Morgan, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 23, 1954, Serial No. 470,605
4 Claims. (Cl. 200—104)



1. In an electrical relay comprising a coil and an armature having a plurality of apertures therein, a plurality of flexible contact elements extending in the direction of movement of said armature and posessing a certain initial single deflection, each of said elements having one end extended into an aperture of said armature and anchored at the opposite end, whereby operation of said armature will cause all of said elements to bow, a plurality of second contact elements each of which is located in the place in which one of said flexible elements is bowed for electrical contact therewith, and a plurality of corresponding third contact elements each of which is located in a place to make contact with one of said flexible elements when said flexible element is not forcibly bowed.

2,837,614
PROTECTORS FOR ELECTRIC CIRCUITS
Aloysius J. Fister, Vinita Terrace, Mo., assignor to McGraw-Edison Company, a corporation of Delaware
Application October 19, 1953, Serial No. 386,919
18 Claims. (Cl. 200—120)



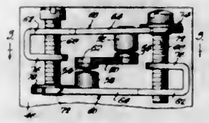
1. A protector for electric circuits that comprises a housing with a longitudinally extending axis, a plurality of fusible elements of electrically conducting material, a terminal of electrically conducting material that is positioned at one end of said housing, said terminal having a portion that supports the ends of said plurality of fusible elements and also having a portion that projects outwardly from said supporting portion and is securable into an electric circuit, said supporting portion of said terminal extending into said one end of said housing and having a face that communicates with the interior of said housing, said face of said supporting portion of said terminal being substantially perpendicular to said axis, a plurality of elongated narrow grooves in said face of said supporting portion of said terminal, said grooves being spaced apart, a second terminal of electrically conducting material that is positioned at the opposite end of said housing, said second terminal having a portion that supports the opposite ends of said plurality of fusible elements and also having a portion that projects outwardly from said supporting portion and is securable into said electric circuit, said supporting portion of said second terminal extending into the opposite end of said housing and having a face that communicates with the interior of said housing, said face of said supporting portion of said second terminal being substantially perpendicular to said axis, a plurality of elongated narrow grooves in said face of said supporting portion of said second terminal, the grooves in said face of said supporting portion of said second terminal being spaced apart, the grooves in said face of said supporting portion of said second terminal being similar to and being registerable with the grooves in the face of said supporting portion of the first said terminal, said fusible elements being wide and thin whereby the ends of said fusible elements extend within and are confined and guided by said elongated narrow grooves in said faces of said supporting portions of said terminals, and solder that electrically bonds said fusible elements directly to said terminals.

2,837,615
THERMOSTATIC CONTROL DEVICE
David L. Morgan, Shelton, Conn., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application January 9, 1956, Serial No. 558,150
16 Claims. (Cl. 200—140)



1. In a control device, the combination comprising thermally responsive means including a pair of expansible and contractible elements responsive to the same temperature conditions and movable in response to a change in said temperature condition, a volatile liquid in each of said elements, a control member movable between controlling positions, an operative connection between said control member and said elements, means including said operative connection for actuating said control member between said positions upon differential movements of said elements, and means associated with said elements for establishing different vaporization temperatures of the liquid in said elements thereby effecting differential movement of said members when the liquid in one of said elements vaporizes in response to a change in said temperature condition.

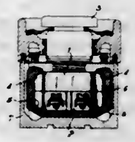
2,837,616
ADJUSTABLE CONTACT ASSEMBLY FOR RELAYS AND THE LIKE
John H. Jaidinger, Chicago, Ill.
Application January 11, 1957, Serial No. 633,749
10 Claims. (Cl. 200—166)



1. An adjustable contact assembly comprising a pair of contact carriers, each of said carriers comprising a mounting portion and a blade portion, said blade portions being movable at their outer ends and adapted to carry a contact, said carriers being mounted in spaced opposed relation with the mounting portion of each aligned with the outer end of the blade portion of the other, a movable contact blade having an outer end portion extending between the blade portions of said carriers with its longitudinal axis generally perpendicular to the longitudinal axes of said blade portions, and an adjusting screw

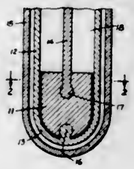
threaded through the mounting portion of each carrier and engaging the outer end of the blade portion of the other carrier to adjust the position of each blade portion relative to said movable blade.

2,837,617
EXPLOSION-PROOF SWITCH
Fritz Weisser, Deizisau, Wurttemberg, Germany, assignor to R. Stahl, Maschinenfabish, Stuttgart, Germany, a corporation of Germany
Application September 6, 1955, Serial No. 532,558
2 Claims. (Cl. 200—168)



1. A switch casing comprising a box having ribs along its side walls, said ribs having sloping lower surfaces, and two mating switch-enclosing parts, one part being slidable on the bottom of the box and the other part having sloping corners slidably engaging said sloping surfaces to clamp the parts in the box.

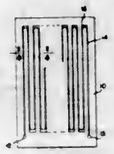
2,837,618
SEMI-CONDUCTOR ALLOYS
Lee William Gildart, Irvington, N. J., assignor to Jack Waldman, Louis Waldman, and Edward Sagerman, Irvington, N. J.
Application August 6, 1954, Serial No. 448,284
8 Claims. (Cl. 201—63)



1. A semi-conductor alloy suitable for use in thermistors consisting of a compound selected from the group consisting of the triselenides and the trisulfides of the group consisting of antimony and bismuth, alloyed with at least about 2% by weight of a compound selected from the group consisting of arsenic triselenide and arsenic trisulfide.

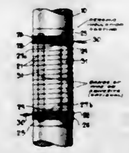
2,837,619
STRAIN SENSITIVE ELEMENT AND METHOD OF MANUFACTURE
Samuel Stein, Shaker Heights, Ohio
Application August 30, 1954, Serial No. 453,165
1 Claim. (Cl. 201—63)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A strain sensitive element comprising a base formed of resilient sheet metal, a group of closely spaced and substantially parallel grooves formed in one face of said base, a plurality of end grooves of greater cross-section than the parallel grooves and interconnecting alternate adjacent ends of the parallel grooves to place the parallel grooves in series, said group numbering at least 150 grooves per inch transversely of said base to provide a single continuous and extended groovular path, an insulated terminal post at each end of the groovular path for connection to a resistance measuring instrument, a first thin continuous layer of insulating material within



said groovular path between said terminal posts, a second thin continuous layer of conductive material disposed within said groovular path and superposed on the insulating material to provide a continuous electrical conductive path between said terminal posts whereby as strain is applied thereto the conductive path will become deformed with a resultant variation in the resistance of the electrical path as a measure of the applied strain.

2,837,620
STRAIN GAUGES AND LOAD WEIGHING CELLS
Dennison H. MacDonald, East Haven, and Thomas S. Harris, Jr., Wallingford, Conn., assignors to Revere Corporation of America, Wallingford, Conn., a corporation of New Jersey
Application April 12, 1956, Serial No. 577,726
8 Claims. (Cl. 201—63)

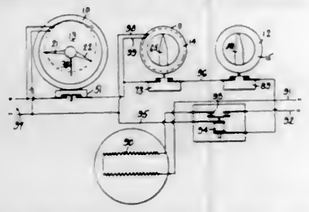


6. Strain gauge means comprising in combination: a load-bearing element; a plurality of turns of electrical resistance filament wrapped under tension about said element; and a pair of connection wires for said element, each of said wires including a plurality of turns wrapped about the load-bearing element and secured together, the latter turns embracing one or more of the filament turns near the end turns of the filament, one end portion of each of said wires diverging away from the adjacent secured portions thereof and being connected to a point on said filament spaced inwardly of the wire turns and whereby an electrically effective gauge portion of the filament extends from such point of connection of one wire to the corresponding point of connection of the other wire, the effective gauge portion of the filament thus being exclusive of the end portions thereof and of the portions thereof embraced by the wires.

2,837,621
RANGE CONTROL MECHANISMS
Paul A. Lux, Middlebury, and Emil Niemand, Waterbury, Conn., assignors to The Lux Clock Manufacturing Company, Inc., Waterbury, Conn., a corporation of Connecticut
Application May 3, 1954, Serial No. 427,100
8 Claims. (Cl. 219—20)

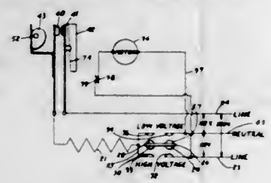
1. A timing mechanism for ranges or the like comprising a heating element, means for energizing said heating element including an electric circuit having a first and a second switch in series whereby both must be closed to close said circuit, a continuously running

starting timing mechanism for controlling the first of said switches, a separate, intermittently running, period timing mechanism for controlling the second of said



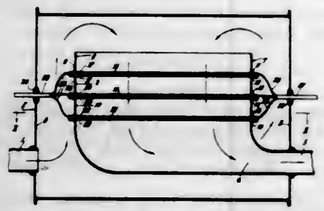
switches, a motor for driving said period timing mechanism, and means effective upon the closing of said first switch for initiating operation of said motor.

2,837,622
ACCELERATOR SWITCH CONTROL
Daniel V. Tuttle, Kirkland, and William D. Kelly, Western Springs, Ill., assignors, by mesne assignments, to Ferro Corporation, Cleveland, Ohio, a corporation of Ohio
Application June 14, 1954, Serial No. 436,470
10 Claims. (Cl. 219—20)



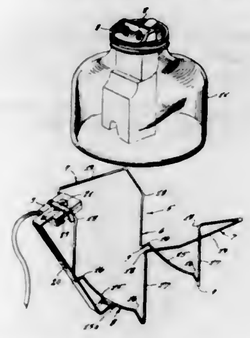
1. In an automatic control device for a heating element, an electric circuit including said heating element, a motor in said circuit, a double throw switch in said circuit for supplying either high or low voltage current to said heating element, a flat bow spring element for actuating said double throw switch, cam means actuated by said motor for automatically actuating said bow spring element to produce a flash period of high voltage and a long period of low voltage in said heating element, and a second cam actuated by said motor to cause said current to be pulsating.

2,837,623
TREATMENT OF FLUIDS
Charles Alan Judson, Solihull, and George McLeish Collins, Birmingham, England, assignors to The Birmingham Small Arms Company Limited, Birmingham, England, a British company
Application May 13, 1957, Serial No. 658,733
Claims priority, application Great Britain May 26, 1956
4 Claims. (Cl. 219—39)



4. For heating a fluid, apparatus comprising an outer chamber having an inlet for fluid under regulable pressure, a plurality of hollow members, framed ends of said hollow members, insulating and sealing means fitting each framed end, a porous body of electrical conducting material interposed between each pair of insulating and sealing means, means for securing adjacent framed ends together for making fluid-tight joints between hollow members with parts of the porous bodies projecting beyond said joints, one hollow member having an outlet extending through a wall of said outer chamber, and electrical conducting means connected to said projecting parts of said porous bodies and extending through to the outside of said outer chamber for enabling an electric current to be applied across said porous bodies, the assembly of hollow members, insulating and sealing means and porous bodies serving for forming an inner chamber communicating at one end with the inside of said outer chamber and at the other end with the outside of said outer chamber and being partitioned by said porous bodies, fluid supplied to said inlet being constrained to pass into said outer chamber, into said inner chamber, through said porous bodies where it can have transferred to it heat generated in said porous bodies by the electrical resistance thereof to the flow of electric current therethrough, and out of the inner and outer chambers via said outlet.

2,837,624
VAPORIZER
Max Katzman and Lawrence Katzman, New York, and Meyer Block, Port Washington, N. Y., assignors to Kay Manufacturing Co., Inc., New York, N. Y., a corporation of New York
Application April 12, 1955, Serial No. 500,969
11 Claims. (Cl. 219—40)

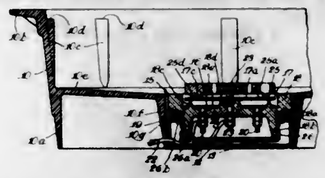


1. A carrier stand adapted for supporting a vaporizer comprising a base centrally located with respect to upstanding resilient members connected to opposite sides of said base and extending upwardly and inwardly above said base, said members being adapted to laterally support a vaporizer between said members, said base being formed of spaced elements, means fixed on said base and extending upwardly as a part of said base and defining a plane of support for a vaporizer for supporting said vaporizer upon said base with minimum contacts therewith to minimize the transfer of heat from said vaporizer to said base.

2,837,625
LIQUID CONDUCTOR HEATER
James R. Conlin and William Schulz, Reedsburg, Wis., assignors to Hankscraft Company, Reedsburg, Wis., a corporation of Wisconsin
Original application July 30, 1954, Serial No. 446,912. Divided and this application August 9, 1956, Serial No. 603,028
2 Claims. (Cl. 219—40)

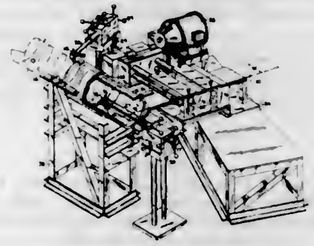
1. A device of the class described, comprising a vessel formed of insulating material and adapted to contain a quantity of liquid to be vaporized, said vessel having a bottom wall provided with a relatively large single open-

ing around which there is a downwardly extending tubular extension open at its lower end, said tubular extension having an inwardly extending annular flange formed about its inner wall, an insulating member seated on the upper side of said flange and occupying the interior of said exten-



sion, a retaining ring having a threaded engagement with said insulating member below said flange and bearing against the underside of said flange to secure said insulating member on said flange in a liquid-tight manner, and spaced electrodes carried by said insulating member.

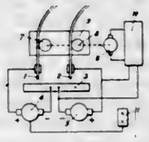
2,837,626
METHOD FOR PRODUCING WELDED TUBING
Mortimer Pierce Buck and Cecil Franklin Crumbley, Huntington, W. Va., assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
Application February 2, 1951, Serial No. 208,992
18 Claims. (Cl. 219—61)



1. A welded metal tube comprising a helically-formed metal strip of substantially uniform width and thickness, having substantially square and parallel edges and having abutting contiguous edges of adjacent convolutions of said helically-formed metal strip permanently and rigidly united by a continuous, composite, autogenous, inert gas-shielded, electric-arc butt weld having an exposed surface substantially flush with a surface of said tube in the as-welded condition; said composite weld being composed of a primary, continuous, autogenous, inert gas-shielded, electric-arc, butt weld penetrating from the inside tube-wall surface toward the outside tube-wall surface and a secondary, continuous, autogenous, inert gas-shielded, electric-arc butt weld penetrating from the outside tube-wall surface toward the inside tube-wall surface and contacting but not substantially interdiffusing with said primary weld between the tube-wall surfaces of said tube to form said composite weld.

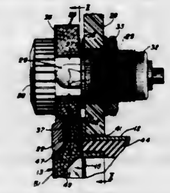
2,837,627
AUTOMATIC MULTIPLE ARC WELDING METHODS
Pierre Soulary, Croissy-sur-Seine, France, assignor to Unionmelt, Societe Anonyme Francaise, Paris, France
Application March 7, 1956, Serial No. 570,129
Claims priority, application France March 18, 1955
3 Claims. (Cl. 219—137)

1. In an automatic multiple-arc welding process using fusible electrodes, the improvement which comprises, maintaining a constant ratio between the feed rates of the electrodes, automatically controlling said rates together in function of the variations of the arc voltage of a single one of said electrodes, energizing said single electrode from an independant welding current source, and energizing the other electrodes from at least one current



source of a known type having self-adjusting output features, whereby the melting rates of said other electrodes are kept proportional to the feed rate of the said single electrode.

2,837,628
ILLUMINATED INSTRUMENT DIAL
Francis X. Lamb, East Orange, and Elmer G. De Mott, Chatham, N. J., assignors, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application September 22, 1954, Serial No. 457,704
10 Claims. (Cl. 240—2.1)



1. An electrical instrument comprising a cup-shaped case with an open end terminating in an outwardly-directed flange formed with apertures to receive securing means; an instrument mechanism including a scale plate disposed within the case, said scale plate lying substantially in the plane of said flange; a transparent cover closing the open end of said case, said cover including an outwardly-extending flange portion overlying the said case flange, a central raised portion spaced from the scale plate and a generally cylindrical, axially extending ring portion telescoping into the said case, an inner wall portion formed as an outwardly converging truncated cone, the ends of which respectively merge with the inner surface of the central raised portion and the inner surface of the ring portion; a bezel overlying the cover flange and formed with apertures alined with the case flange apertures to receive means to secure the instrument to a panel; light admitting spaces between the bezel and the case flange; and illuminating means for directing light into the said spaces to the edge of the transparent cover flange for illuminating the scale plate.

2,837,629
COMBINATION WALL AND PORTABLE NIGHT LAMP
Guy W. Clark, Galveston, Tex.
Application July 12, 1955, Serial No. 521,507
5 Claims. (Cl. 240—10.6)

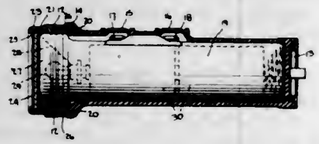
1. A combination wall and portable battery operated night lamp comprising, a wall bracket including a back portion for fitting against a wall and a bottom portion secured to said back portion and extending outwardly therefrom in a substantially perpendicular plane, a holder on said bottom portion, a lamp base slidably fitting in said holder, said base having parallel top and bottome walls spaced by and connected together with parallel vertical side walls and a vertical end wall which co-

operate to form a hollow battery receiving chamber, electrical contacts in said chamber, a second end wall for said chamber, said end wall and each of said parallel top and bottom walls having cooperating surfaces whereby said second end wall may be removably secured to said chamber, a vertically disposed hollow lamp stand secured to said top wall and extending upwardly therefrom, said lamp stand having a pair of spaced ears on the top thereof, a socket holder fitting between said ears, a socket in the end of said holder, a pin extending through said ears and socket holder whereby said socket holder may be rotated about said ears, a spring loaded



plug fitting in the upper end of said hollow lamp stand and abutting said socket holder for frictionally holding said socket holder in any desired rotated position, electrical contacts on said socket holder and electrically connected to said socket, electrical contacts on said lamp stand adjacent said socket holder and electrically connected to said contacts in said battery chamber, said contacts on said socket holder adapted to be engaged with said contacts on said lamp stand when said socket holder is rotated, and batteries in said chamber having terminals engaging said contacts in said chamber whereby electrical energy may be supplied to said rotatable socket holder.

2,837,630
WATERPROOF FLASHLIGHT
Yen Ting Shen, Kowloon, Hong Kong, assignor to Torch Manufacturing Corp., Glenbrook, Conn., a corporation of New York
Application August 25, 1955, Serial No. 530,457
6 Claims. (Cl. 240—10.6)



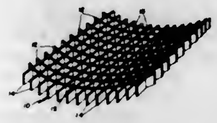
1. A waterproof casing for an electrical flashlight comprising an elongated tubular housing fabricated of flexible, waterproof material, said housing being open at one end and being otherwise imperforate, an annular flange on the open end of the housing, said flange being axially elongated and comprising a straight hollow cylindrical section, a head assembly removably embraced by said flange, said head assembly comprising a sleeve fabricated of waterproof material, said sleeve being overlapped by said flange and lying flatly thereunder, the overlapping of said sleeve by said flange effecting a waterproof seal therewith, the thickness of said flange being uniformly less than that of said sleeve so as to be easily bendable relative thereto whereby it may be rolled on to or off of the sleeve and may be folded back so as to release the sleeve, and said housing being formed with an annular, outward protuberance immediately below said flange and of a diameter greater than said flange whereby said flange may be rolled back onto said protuberance so as to be engaged thereby for maintaining the flange in the rolled back position whereby said head assembly may be removed or replaced.

2,837,631
STORING LAMP FIXTURES
Eberhard Lenze and Josef Müller, Nehein-Huesten, Germany
Original application October 2, 1950, Serial No. 187,872, now Patent No. 2,734,995, dated February 14, 1956. Divided and this application August 30, 1955, Serial No. 531,562
2 Claims. (Cl. 240—51.11)



1. A stack comprising a plurality of casings of lamp fixtures stacked to facilitate storage and shipping thereof with a minimum of bulk, each of said plurality of casings being substantially channel-shaped and having a top and a pair of sides, said top and pair of sides forming a pair of lateral edges at the loci of intersection of the planes thereof, said top consisting of five angularly bent integral elements each enclosing an acute angle with the element situated immediately adjacent thereto, said five elements comprising a median element and two lateral pairs of elements, the loci of intersection of the planes of said two lateral pairs of elements forming a pair of edges recessed within said casing, contiguous casings within said stack being arranged in abutting relation with said pair of recessed edges of one casing engaging the median element of a contiguously stacked casing, and the sides of contiguously stacked casings being progressively farther bent apart.

2,837,632
CURVED, CELLULAR LIGHT CONTROL PANEL
Willis L. Lipscomb, San Diego, Calif.
Application January 24, 1955, Serial No. 483,761
2 Claims. (Cl. 240—78)

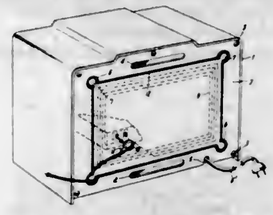


1. An elongated, rectangular, cellular, light control diffusion panel of concavo-convex configuration transverse the width thereof, comprising a plurality of spaced, parallel, elongated, translucent, rectangular strips of light reflective nature and having upper and lower straight edges extending the length of said panel and a plurality of spaced, parallel, curved, elongated, translucent strips of light reflective nature and having one concave edge and the opposed edge convex, all of said curved strips being curved in the same direction, said straight edged strips intersecting at substantially right angles with said curved strips, thereby forming a plurality of cells oriented in a common direction, said intersecting strips between their respective straight and curved edges forming the walls of each of said respective cells.

2,837,633
BACKS FOR RECEIVER CABINETS
Marion J. Pifer, Williamsville, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 22, 1953, Serial No. 350,410
2 Claims. (Cl. 250—14)

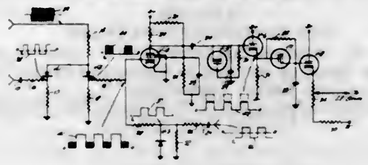
1. A back panel adapted to be mounted on the rear of a radio receiver mounted in a cabinet, said back panel

having mounted, on the inner face presented toward the front of the cabinet, a signal receiving loop, said loop being adapted to be connected at both of its ends to the input of the receiver, one end of the loop being connected to a terminal on the back, the terminal having a portion



exposed on the other, outer, face of the back, and provided thereat with a second terminal and projections formed in the back and accessible from said outer face for winding a coil thereabout, which coil may be connected with the second terminal and an outside antenna.

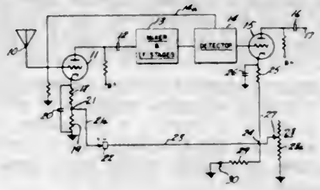
2,837,634
AUTOMATIC NOISE REGULATION FOR RADAR RECEIVERS
Stanis J. Mederer, Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 30, 1953, Serial No. 383,425
4 Claims. (Cl. 250—20)



1. An automatic volume control system comprising means for receiving an electromagnetic signal; a gate circuit for alternately rendering the electromagnetic signal receiving means effective; a square wave reference source; means for superimposing the gated output of the signal receiving means upon the output of the reference source such that a composite wave having the gated electromagnetic signal interposed between alternate pulses of the square wave reference source is provided; an integrating circuit; means responsive to the average potential of the electromagnetic signal portion of the composite wave for charging the integrating circuit; means responsive to the square wave portion of the composite wave for discharging the integrating circuit; and means utilizing the output of the integrating circuit as an automatic volume control voltage.

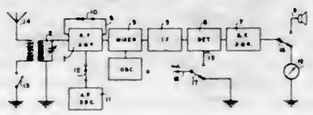
2,837,635
VOLUME CONTROL FOR RADIO RECEIVER
William H. Epperson, Coral Gables, Fla., assignor to Aeronautical Communications Equipment, Inc., Miami, Fla., a corporation of Florida
Application November 25, 1953, Serial No. 394,332
6 Claims. (Cl. 250—20)

1. A volume control for a radio receiver having a plurality of stages comprising means providing a variable potential, control means in each of said stages supplying them with a bias potential with respect to a reference potential, a unidirectional conducting device coupling the variable potential to a point on one of the control means at a potential intermediate the bias potential and the reference potential, said unidirectional conducting device being polarized to condut only when the variable potential is less than the intermediate potential to limit sensitivity reduction in the stage controlled by said one control means, and conducting means coupling at least



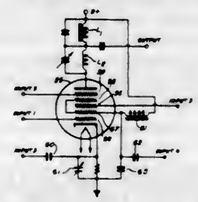
one other of the control means to said variable potential for simultaneously varying the sensitivities of said stages in a selected relation.

2,837,636
RADIO TEST SIGNAL GENERATION
Joseph D. Richard, Jr., South Miami, Fla.
Application March 8, 1954, Serial No. 414,811
2 Claims. (Cl. 250—20)



1. A method of checking the overall performance of a communications receiver which has a feedback loop switchable into its radio frequency amplifying stage, which comprises: causing the tuned radio frequency amplifying stage of the communications receiver to oscillate substantially at its tuned frequency, said oscillations thereby simulating a received radio frequency signal; modulating said oscillations at some lower frequency, said modulated oscillations thereby simulating a received modulated radio frequency signal; and indicating, quantitatively, the amplitude of signals of the said lower frequency from the output stage of the said communications receiver, said indication thereby being a measure of the overall performance of the said communications receiver.

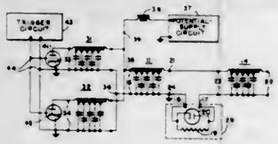
2,837,637
SIGNAL MIXER CIRCUIT
Erwin Stuart Davis, Newark, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application December 9, 1954, Serial No. 474,104
1 Claim. (Cl. 250—20)



An improved mixer circuit capable of accepting five input signals of different frequencies to produce resulting output beat signals with a minimum of interaction of one input signal upon another, said mixer circuit comprising an electron tube having an anode, a cathode and five grids; a load, including a pair of inductances in series, shunted respectively by a pair of condensers, between the anode and the positive terminal of an anode-biasing source for the purpose of selecting particular bands of frequencies produced from various signals injected into said tube input circuits; circuit elements to

impress a sweep generator signal on the number 1 grid which is located nearest the cathode; circuit elements to impress through a first capacitor the signal output of a variable frequency oscillator on the cathode; circuit elements connecting grids number 2 and 4 to the positive terminal of said source through a reactor and to ground through a second capacitor; circuit elements to impress the signal output of a crystal oscillator to grid number 3; circuit elements to impress a modulating signal on both grids number 2 and 4 through a third capacitor; and circuit elements to impress a fifth input signal directly on grid number 5.

2,837,638
PULSE GENERATOR
Frederick W. Frink, Los Angeles, Calif., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application June 3, 1953, Serial No. 359,379
15 Claims. (Cl. 250—27)



1. A pulse generator for supplying pulses to a pulse-utilization device having an effective impedance of R_L comprising: a plurality of cascade-connected pulse-shaping energy-storage networks including input connections and output connections for coupling to said pulse-utilization device; p pulse-shaping energy-storage networks individually including a first pair of terminals and including also a second pair of terminals common to said p networks and coupled to said input connections; said plurality of networks having characteristic impedances determined by the expression

$$Z_r=\frac{R_L(r+2)(r+1)}{n(n+1)}$$

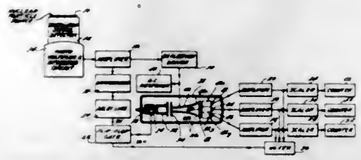
and the characteristic impedance of each of said p networks being determined by the expression

$$\frac{2pR_L}{n(n+1)}$$

where n denotes the total number of networks with said p networks considered as a single network and Z_r denotes the characteristic impedance of the rth network of said plurality of networks counting from said pair of input connections; energizing circuit means coupled to said networks for charging said networks during recurring intervals; and p switching devices individually coupled to said first pairs of terminals of said p networks for discharging said networks during intervening intervals and developing said pulses at said output connections.

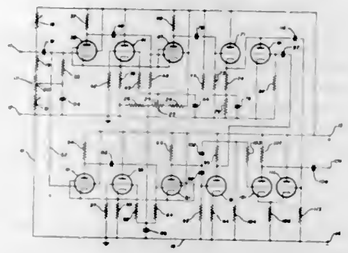
2,837,639
PULSE AMPLITUDE ANALYZERS
George William Gray, Lambertville, and Arthur Seigfried Jensen, Princeton, N. J., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application July 29, 1953, Serial No. 370,965
9 Claims. (Cl. 250—27)

1. A pulse amplitude analyzer for sorting and counting pulses of voltage comprising means to integrate each of said pulses, means to differentiate each of said integrated pulses, means to delay each of said differentiated pulses for a period equal to substantially the rise time of each of said integrated pulses, a cathode ray tube having an electron gun disposed at one end thereof for producing an electron beam, a plurality of targets disposed at the other end of said tube, a mask formed with a plurality of slits therein disposed between said gun and said targets within said tube, each of said slits being aligned with a path of said electron beam to each of said targets respectively, means to apply operating voltages to said electron gun, switching means responsive to each of said delayed differentiated pulses to render said electron gun operative to project said electron beam



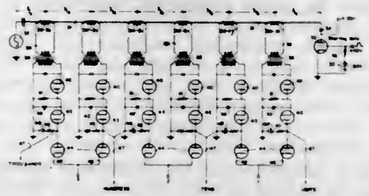
therefrom, means to deflect said electron beam an amount proportional to the amplitude of each of said pulses, whereby said beam passes through one of said slits and impinges on the target aligned therewith, feedback means connected between said targets and said switching means to render said electron gun inoperative after said beam passes through one of said slits, and means for indicating the particular target which intercepts said deflected beam.

2,837,640
PULSE HEIGHT ANALYZER
William W. Goldsworthy, Orinda, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application September 3, 1953, Serial No. 382,503
3 Claims. (Cl. 250—27)



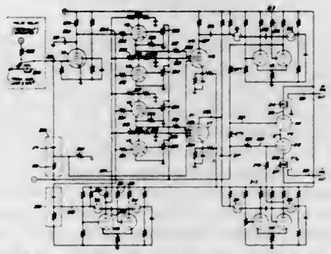
1. In a differential pulse height analyzer, the combination comprising a first and second pulse height discriminator connected to an input means connected to said first discriminator circuit rendering the same responsive to pulses having values greater than a first minimum value, means connected to said second discriminator circuit rendering the same responsive to pulses having values greater than a second minimum value, said first value being less than said second value, an anticoincidence circuit having at least two interconnected vacuum tubes with a common cathode resistor, a resistor connected between the output of said first discriminator circuit and a control grid of one of said tubes whereby pulses are delayed, a cathode follower tube having a cathode resistor of such value as to provide a long time constant with the interelectrode capacitance of the tube, said cathode follower tube connected between the output of said second discriminator circuit and a control grid of the other of said tubes, and discharge means responsive to the output of said first discriminator circuit connected across said cathode resistor.

2,837,641
RADIO FREQUENCY ACTUATED TRANSFER RELAY
Helmut John Geisler, Wappingers Falls, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application October 1, 1953, Serial No. 383,680
23 Claims. (Cl. 250—27)



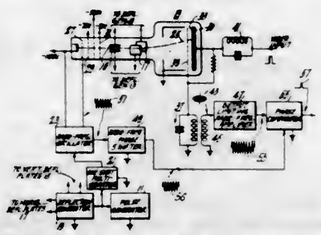
1. A multiple transfer device comprising in combination, an energy transmission means, a source of alternating energy coupled to said transmission means, a plurality of energy responsive means arranged along said transmission means and effectively displaced from one another a distance equal to a multiple of one quarter wavelength of said alternating energy, circuit means coupled to pairs of adjacent ones of said energy responsive means, and selectively operable means for causing a standing energy wave produced on said transmission means to shift between a first and a second position so as to activate alternate ones of said energy responsive means to provide alternate conductive paths through said circuit means.

2,837,642
PULSE RATE DISCRIMINATOR
Alfred K. Schenck, Glen Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 17, 1953, Serial No. 398,738
5 Claims. (Cl. 250—27)



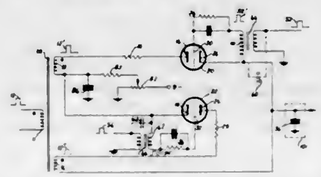
1. In an electrical circuit for receiving trains of pulses of a plurality of predetermined durations, the pulses of any one train having substantially equal duration, means for generating a voltage pulse varying in accordance with the duration of each received pulse, a pair of detectors, an anticoincidence circuit, a multivibrator and an output circuit individual to each predetermined duration, one detector of each pair adjusted to detect a minimum pulse of that duration, the other detector of each pair adjusted to detect a more than maximum pulse of that duration, each anti-coincidence circuit responsive to the non-coincident operation of the associated pair of detectors, each multivibrator adjusted to develop an output pulse of the duration to which it is individual, means for directing the voltage pulse resulting from an incoming pulse to all of said detectors, means for marking the termination of said received pulse, and means under the control of said marking means for causing the responsive anticoincidence circuit to operate the individual multivibrator to transmit a pulse of the individual duration to the individual output circuit.

2,837,643
STORAGE TUBE CIRCUIT EMPLOYING AMPLITUDE AND PHASE COMPARISON
William V. Goodwin, Haddonfield, and Miles C. Johnson, Pennsauken Township, Camden County, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application December 18, 1953, Serial No. 399,050
5 Claims. (Cl. 250—27)



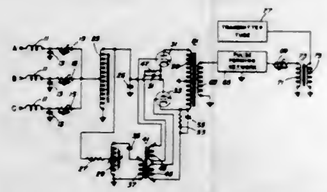
1. Electrical apparatus comprising, an electrical storage tube having a charge storage member and a normally biased-off electron beam, means for gating-on said normally biased-off electron beam at a radio-frequency rate, means for simultaneously applying video information to said tube to establish an electrical charge pattern on said charge storage member, means for deriving an output signal from said storage tube comprising video information superimposed on a radio-frequency pedestal signal, said pedestal signal having an amplitude and phase which vary in accordance with the position of said beam on the surface of said storage member, means for amplitude limiting said superimposed video information and pedestal signal to provide a constant-amplitude varying-phase signal, and means for phase comparing said constant-amplitude varying-phase signal and said radio-frequency gating signal to provide video signals having substantially zero D.-C. level.

2,837,644
TIME DISCRIMINATOR
Sheldon C. Shallon, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application July 15, 1955, Serial No. 522,212
8 Claims. (Cl. 250—27)



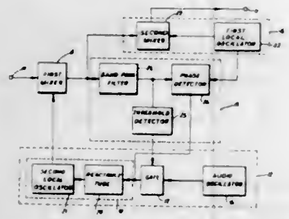
1. A time discriminator circuit comprising: an input signal transformer having first and second secondary windings; first and second electronic vacuum tubes, each having a cathode, grid and plate; means interconnecting the plate of said first tube and one end of said first secondary windings; means interconnecting the plate of said second tube and the end of said second secondary winding having a polarity corresponding to that of said one end of said first secondary winding; means interconnecting the cathode of said first tube and the remaining end of said second secondary winding; means interconnecting the cathode of said second tube and the remaining end of said first secondary winding; means for applying gating pulses to the grid of each of said tubes whereby said tubes are rendered conductive during the period of coincidence between said input signal pulses and said gating pulses, respectively, and means for maintaining the cathodes of each of said tubes at substantially constant alternating current potential.

2,837,645
MAGNETIC-THYRATRON MODULATOR
Melvin P. Siedband, Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 24, 1955, Serial No. 530,430
5 Claims. (Cl. 250—27)



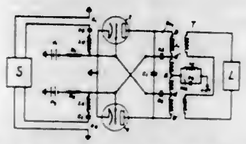
1. A device for connection to a frequency multiplier, said device comprising: input terminal means for connection to the output of a frequency multiplier, charge storage means connected to said input terminals for charging by the output of said frequency multiplier, a discharge path for said charge storage means said discharge path comprising two series joined thyratrons connected across the primary of a transformer having a grounded center-tap and means coupling said thyratrons to said charge storage means, means coupled to said thyratrons for rapidly discharging said charge storage means through said discharge path when the charge on said charge storage means reaches its maximum value, a pulse forming network and switch having an input connected to the secondary of said transformer for shaping an input pulse to enable it to fire a magnetron, and output terminal means connected to the output of said pulse forming network and switch for connection to the input of a radar transmitter tube.

2,837,646
COHERENT DETECTOR CIRCUIT
Richard Alden Campbell, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application October 24, 1955, Serial No. 542,210
13 Claims. (Cl. 250—27)



1. A coherent detector circuit for searching for message signals transmitted within a predetermined range of frequencies, each message signal having an associated carrier frequency, and for automatically locking in on a received message signal to produce a demodulated output signal representing in formation contained therein, said circuit comprising: first means for generating a first sweep signal whose frequency normally periodically varies through a first predetermined band of frequencies, said first means being operable in response to first and second control signals for fixing the frequency and phase, respectively, of said first sweep signal; second means electrically connected to said first means for heterodyning the received message signal against said first sweep signal to produce a second sweep signal whose frequency normally periodically varies through a second predetermined band of frequencies corresponding to the carrier frequency associated with the received message signal and including at some instant a predetermined first intermediate frequency, the frequency of said second sweep signal being fixed when the frequency of said first sweep signal is fixed; third means electrically connected to said first means for demodulating said second sweep signal, when the frequency of said second sweep signal is fixed, to produce the output signal, said third means including a local oscillator circuit for generating a reference signal at a second intermediate frequency; and fourth means electrically connected between said second means and said local oscillator circuit and to said first means, said fourth means being responsive to said second sweep signal when said second sweep signal is produced at said first intermediate frequency for applying a first control signal to said first means, the frequency of said first sweep signal being fixed by said first means at that frequency required to cause the frequency of said second sweep signal to be fixed at said first intermediate frequency, said fourth means being responsive to said second sweep signal and to said reference signal for producing a second control signal for shifting the phase of said first sweep signal in accordance with the voltage amplitude of said second control signal, whereby the phase of said second sweep signal may be shifted.

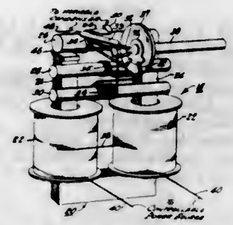
2,837,647
ELECTRONIC OSCILLATOR CONTROL MEANS
Paul Geny, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application October 21, 1953, Serial No. 387,466
Claims priority, application France October 30, 1952
4 Claims. (Cl. 250—36)



1. In a starting device, an oscillator comprising two electronic tubes connected in opposition, each of said tubes having at least a cathode, a control grid and an anode, means to apply a negative bias to said two grids for rendering said two tubes ordinarily non-conductive, an anode circuit common to said two tubes and resonant at a certain resonant frequency whereby said circuit has a mid-point having zero alternating potential when the oscillator is oscillating; means comprising a circuit resonant at said resonant frequency, said circuit comprising an inductor and a capacitor connected in parallel and constituting, for said frequency, a high impedance connecting said mid-point to a source of direct-current high tension, means for connecting to earth said two cathodes, means for applying to each of said two grids signals of sufficient intensity to overcome said negative bias whereby the system is caused to oscillate only upon the simultaneous reception of said signals at each of its grids, and a load circuit connected to said anode circuit.

2,837,648
ELECTRICALLY CONTROLLABLE INDUCTOR METHOD AND APPARATUS
William D. Gabor, Norwalk, Conn., assignor to C. G. S. Laboratories, Inc., Stamford, Conn., a corporation of Connecticut
Application September 20, 1954, Serial No. 457,265
21 Claims. (Cl. 250—36)

1. An electrically controllable inductor comprising a yoke of magnetically permeable material having a pair of legs, a rod of ferrite material having two ends, one of said ends being closely adjacent one of said legs and the other of said ends being closely adjacent the other of said legs with the rod extending between said legs, a pair of



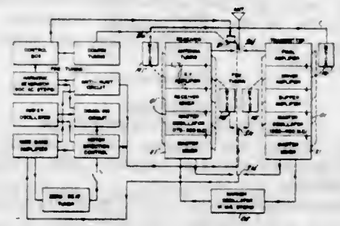
conductive strips extending around opposite sides of said rod, an end of each of said strips being adjacent, and switch means connected to said ends.

2,837,649
STABILIZER FOR MICROWAVE OSCILLATORS
William D. Hershberger, Los Angeles, Calif., assignor to The Regents of the University of California, Berkeley, Calif., a corporation of California
Application August 1, 1955, Serial No. 525,625
5 Claims. (Cl. 250—36)



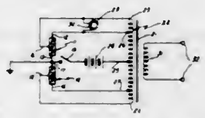
1. Means for stabilizing the frequency of a generator of electrical oscillations in the microwave range comprising a resonator adapted to be loosely coupled to said generator, a first sample of paramagnetic material of known gyromagnetic ratio coupled to said resonator, means for establishing a magnetic field through said sample, said magnetic field varying cyclically in strength through a relatively narrow range as compared to its average value, the range of variation extending both above and below a value whereat said sample has an absorption line centered at the desired frequency of the generator to be stabilized so as to produce by absorption pulses of downward modulation in the oscillations within said resonator, a second sample of paramagnetic material so positioned as to lie within said magnetic field and having a nuclear gyromagnetic ratio such as to produce therein an absorption line at a known fraction of the frequency of that of said first sample of paramagnetic material, fluxmeter means coupled to said second sample of paramagnetic material and adapted to produce a pulse of modulation of oscillations of said known fraction of the desired frequency of said generator as said magnetic field passes through the value corresponding thereto, means for detecting the pulses developed by said first sample to produce unidirectional pulses, means for detecting the pulses developed by said second sample also to produce unidirectional pulses, means for comparing the relative time sequence of the detected pulses in each cycle of variation of said magnetic field and developing therefrom a voltage depending in polarity upon the order of succession of the pulses within each cycle and in magnitude upon the interval between them, and means for applying the voltage so developed to said generator in such sense as to so alter its frequency as to tend to bring said pulses into coincidence.

2,837,650
APPARATUS FOR GENERATING STABLE FREQUENCIES
Harry J. Keen, Atlantic Highlands, Peter Muller, Long Branch, Donald Colbert, Old Bridge, and Robert J. Papaleck, Sayreville, N. J., assignors to Lavoie Laboratories, Inc., Morganville, N. J., a corporation of New Jersey
Application August 4, 1955, Serial No. 526,372
16 Claims. (Cl. 250—36)



1. Apparatus for generating a plurality of stable frequencies spaced by predetermined steps over a predetermined range, comprising a master oscillator the frequency of which is variable over the full width of said range and means for tuning said oscillator to a selected frequency in said range comprising a marker oscillator generating a series of marker frequencies spaced apart a multiple of said steps, a master mixer having inputs connected respectively to said master oscillator and said marker oscillator, a control circuit comprising elements that are settable to select a desired frequency, a coarse tuning motor for said master oscillator, a coarse tuning motor circuit controlled by said control circuit and controlling the operation of said coarse tuning motor to tune said master oscillator to a frequency within a predetermined distance of the marker frequency nearest the selected frequency, a reversible fine tuning motor for said master oscillator and a fine tuning motor circuit comprising a harmonics generator, means connected to and controlled by said control circuit for selecting a harmonic that algebraically added to said nearest marker frequency will equal the selected frequency, a direction control circuit connected with the output of said master mixer and said harmonic selector and controlling the direction of operation of said fine tuning motor to vary the frequency of the master oscillator in a direction toward the selected frequency and an anti-hunt circuit, connected with the output of said master mixer and said harmonic selector, for stopping said fine tuning motor when the frequency of the master oscillator equals the algebraic sum of the said nearest marker frequency and the selected harmonic and thus equals the selected frequency.

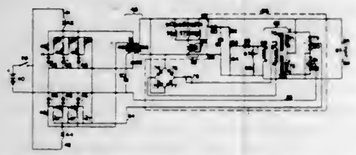
2,837,651
POWER OSCILLATORS
Robert T. Schultz, Duarte, Calif., assignor to Motordyne Inc., Monrovia, Calif., a corporation of California
Application November 14, 1955, Serial No. 546,666
16 Claims. (Cl. 250—36)



1. A power oscillator comprising: a first signal translating device having a first common electrode, a first output electrode, and a first control electrode; a second signal translating device having a second common electrode, a second output electrode, and a second control electrode, said common electrodes being interconnected

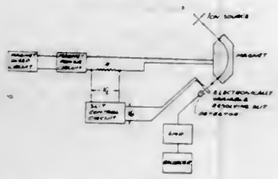
and returned to a point of fixed potential; first feedback means connected between said first output and control electrodes; second feedback means connected between said second output and control electrodes; means for developing an output signal connected between said first and second output electrodes; frequency control means including a core of magnetic material having a substantially rectangular hysteresis loop effectively connected in parallel with said first feedback means, said second feedback means and said output signal developing means; and a source of operating potential connected between said output signal developing means and said point of fixed potential.

2,837,652
SOLID STATE INVERTERS
James C. Nailen, Los Angeles, Calif., assignor to Electronic Specialty Co., Los Angeles, Calif., a corporation of California
Application January 7, 1957, Serial No. 632,907
17 Claims. (Cl. 250—36)



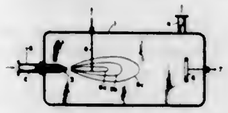
1. An electrical power inverter for converting direct current energy to alternating current energy comprising an even-numbered plurality of similar adjacently connected solid unidirectionally conductive junction devices each having a loop electrical characteristic of current as a function of voltage, an impedance connected to said devices, said impedance having capacitative, inductive and resistive components, direct current electrical power means serially connected to each of said devices through a reactive component of said impedance to cause electrical oscillations of a given frequency therein by virtue of said loop electrical characteristic phased to produce a complete alternating current wave at said given frequency.

2,837,653
MASS SPECTROMETERS
Robert Derek Craig, Straidarran, Northern Ireland, and James Ian Alexander Thompson, Altrincham, England, assignors to Metropolitan-Vickers Electrical Company Limited, London, England, a British company
Application November 30, 1956, Serial No. 625,420
Claims priority, application Great Britain December 1, 1955
6 Claims. (Cl. 250—41.9)



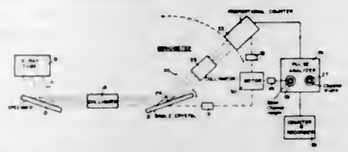
1. A mass spectrometer comprising means for projecting a beam of ions through a magnetic field whereby the beam is diffracted into a spectrum of a series of lines of ions of successive mass numbers, a collector for said ion beam comprising a detector and a plate, an edge to said plate defining a slit aperture, control means for scanning said beam across said slit aperture by altering the strength of said magnetic field, control means for varying the effective width of said slit aperture inversely in accordance with the mass number of the ions being received by the collector, and means for varying the two said control means so that the time period during which ions of any one mass number reach the detector is substantially of the same duration for all ions.

2,837,654
PROCESS AND APPARATUS FOR CARRYING OUT REACTIONS BY THE ACTION OF ELECTRICAL GLOW DISCHARGES
Bernhard Berghaus and Hans Bucek, Zurich, Switzerland, assignors to Elektrophysikalische Anstalt Bernhard Berghaus, Vaduz, Liechtenstein
Application May 9, 1955, Serial No. 506,752
Claims priority, application Switzerland May 11, 1954
18 Claims. (Cl. 250—49.5)



17. Apparatus for producing an electric glow discharge, comprising a metallic chamber, a gas supply conduit, said gas supply conduit terminating in a nozzle-like opening within the interior of the chamber, said opening being so shaped that a current of gas is injected into the interior of the chamber in the form of a thread-like stream, said gas supply conduit being made of metal, being insulated from the wall of the chamber and being connected outside the chamber to one pole of a source of current of which the other pole is connected to the wall of the chamber, and an impact body disposed in the chamber spaced from the nozzle-like opening and extending transversely to the axis of said opening, said impact body being provided with a suction opening and adapted to be connected with a suction pump, said impact body being connected to a gas suction conduit to withdraw gas from said chamber.

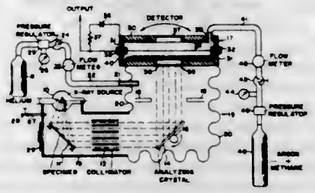
2,837,655
X-RAY FLUORESCENT ANALYSIS APPARATUS
Andrew Richard Lang, Tarrytown, N. Y., assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application August 28, 1953, Serial No. 377,098
11 Claims. (Cl. 250—52)



1. An X-ray fluorescent analysis apparatus comprising an X-ray source for producing X-radiation, means for supporting a specimen material in a position to receive said X-radiation to excite fluorescent radiation therein, and means for separating and analyzing the fluorescent radiation produced by said specimen; said analyzing means comprising a goniometer including a single crystal and a radiation detector for scanning the fluorescent radiation emanating from said specimen, said radiation detector being a proportional counter adapted to translate X-radiation into electrical signals, pulse analyzing means coupled to said proportional counter and responsive to electrical signals having an amplitude within a given range and of a given mean amplitude, means for varying the mean amplitude response of said analyzer, and means coupling said amplitude adjusting means to said goniometer for synchronizing the scanning motion

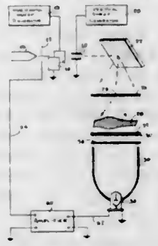
of the goniometer and the mean amplitude response of said analyzer to eliminate substantially all but first order reflections from the single crystal.

2,837,656
X-RAY ANALYSIS SYSTEM AND RADIATION DETECTOR FOR USE IN SUCH SYSTEM
Charles F. Hendee, Hartsdale, and Samuel Fine, New York, N. Y., assignors to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application January 31, 1956, Serial No. 562,412
16 Claims. (Cl. 250—53)



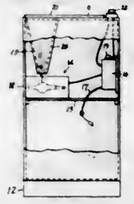
14. In an X-ray spectral analysis system, the combination comprising an optical path including a specimen containing elements which fluoresce in soft X-radiation, means for impinging X-radiation on said specimen to fluoresce said elements, means including a single crystal for selectively redirecting certain of said soft X-radiations, a gas-tight enclosure surrounding said optical path, helium at atmospheric pressure in said enclosure to minimize the absorption of soft X-radiation therein, and a radiation detector in said enclosure for detecting said redirected soft X-radiations, said detector comprising electrodes and a porous, exceedingly thin, soft X-radiation transparent window, gas inlet and outlet means coupled to said detector, and means coupled to said inlet means for continuously passing at atmospheric pressure and at a predetermined rate of flow soft X-radiation absorbing counter gas through said detector, said rate of flow having a value at which the detector operates in a stable region of its flow rate discharge characteristic.

2,837,657
RADIOGRAPHIC METHOD AND APPARATUS
Dwin R. Craig, Falls Church, Va., and William F. Hamilton, Rockville, Md., assignors, by mesne assignments, to LogEtronics, Inc., Alexandria, Va., a corporation of Delaware
Application November 19, 1954, Serial No. 470,112
8 Claims. (Cl. 250—65)



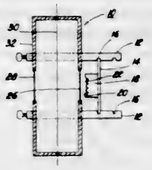
1. A radiographic method comprising energizing an X-ray source to produce a variable X-ray beam, directing said beam on a portion of a subject to produce a spot of finite area, scanning said subject with said spot and forming a shadow image thereof on an X-ray sensitive surface, sensing the intensity of X-rays transmitted from said surface, and modifying said beam as a function of the sensed intensity to maintain the average exposure of all portions of the X-ray sensitive surface substantially constant, thereby reducing over-all contrast and maximizing detail contrast.

2,837,658
X-RAY IDENTIFICATION
David R. Limbach, Flint, Mich.
Application July 9, 1956, Serial No. 596,658
2 Claims. (Cl. 250—67)



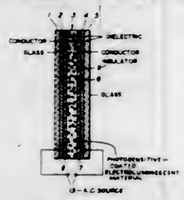
2. In the taking of X-ray photographs, supporting film between rigid plate-like members one of which is provided with a portion opaque to X-rays, said opaque portion coinciding with a marginal section of the film, exposing the film to X-rays passing through the body to be photographed with said one X-ray opaque support member disposed at the side of the X-ray source, whereby such marginal portion of the film is shielded against exposure, thereafter disposing a plate of varying radiolucence against the other support member in the region of such unexposed marginal portion of the film, and passing X-rays through said plate to expose such film portion, the variable permeability of the plate to the X-rays being such to define identifying indicia on this film portion.

2,837,659
APPARATUS FOR CALIBRATING ENERGY SENSITIVE DEVICES
Charles Hendee, Hartsdale, and Samuel Fine, New York, N. Y., assignors to North American Philips Company, Inc.
Application November 9, 1955, Serial No. 545,990
7 Claims. (Cl. 250—83.6)



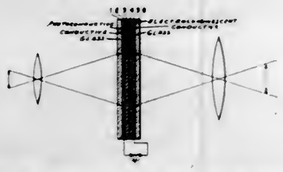
4. In combination a source holder, a plurality of X-ray emitting radioactive isotopes spatially mounted on said source holder, spacing means between said isotopes, said spacing means being constituted of X-ray opaque materials for preventing the mutual fluorescence of said isotopes, each of said isotopes simultaneously emitting characteristic X-radiation along given paths, said isotopes being selected to provide X-radiation of different energy over a given spectrum, an energy sensitive device in said X-ray path and disposed to detect the X-radiation, said energy sensitive device comprising spaced electrodes and an ionizable gas between said electrodes, the X-radiation being substantially absorbed in the ionizable gas, means for impressing a voltage difference across the electrodes in the proportional counting region for producing output pulses on one of the electrodes, and an output circuit associated with said one electrode for indicating the output pulses, said output pulses having an amplitude in volts proportional to the photon energy of said incident X-radiation.

2,837,660
COMPOSITE RADIATION AMPLIFIER
Richard K. Orthuber and Lee R. Ullery, Fort Wayne, Ind., assignors to International Telephone and Telegraph Corporation
Application October 13, 1953, Serial No. 385,802
17 Claims. (Cl. 250—213)



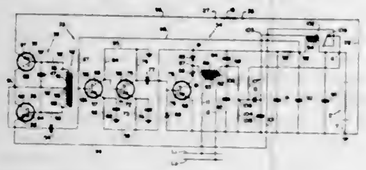
17. A radiation-handling device comprising electroluminescent phosphor material, photosensitive material intermixed with said phosphor material, and means for controlling optical feedback between the phosphor material and the photosensitive material.

2,837,661
RADIATION AMPLIFIER
Richard K. Orthuber and Lee R. Ullery, Fort Wayne, and Cyril L. Day, Huntington, Ind., assignors to International Telephone and Telegraph Corporation
Application November 10, 1954, Serial No. 467,922
9 Claims. (Cl. 250—213)



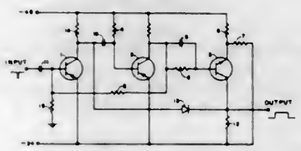
4. A radiation amplifier comprising an elemental layer of photoconductive material having impedance characteristics dependent upon incident radiation, an elemental layer of electroluminescent material disposed substantially parallel to said photoconductive layer, a contact element having one surface conductively engaging said electroluminescent layer, an electrode terminal conductively connected to said photoconductive layer, said element and said terminal being conductively connected to said photoconductive layer at spaced apart points whereby the latter is connected in series therebetween, and an electrode for said electroluminescent layer, both electrode terminals being so arranged that an electric field connected thereto will distribute over both layers thereof.

2,837,662
MEASURING AND CONTROL APPARATUS
Robert J. Ehret, Palo Alto, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application September 29, 1955, Serial No. 537,526
15 Claims. (Cl. 307—88.5)



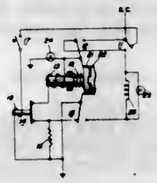
5. A voltage regulating circuit comprising in combination direct current to alternating current conversion means comprising a pair of transistors each having an emitter, a collector, and a base, and a center tapped transformer secondary adapted to be energized with a reference voltage, the base of one of said transistors being connected to one end terminal of said secondary winding, the base of the other transistor being connected to the other end terminal of said winding, the collectors of both of said transistors being connected to the center tap of said winding, an amplifier, circuit means connecting the output of said conversion means to the input of the amplifier, a rectifying phase discriminator comprising in combination a transistor having an emitter, a collector, and a base, a first diode, a source of alternating current, and a first capacitor connected in series with the collector-emitter circuit of said transistor, said first diode being poled so as to prevent current flow into the collector of said transistor, a second diode and a second capacitor connected in series across said alternating current source, said second diode being poled in the same direction with respect to the transistor collector as the first diode, and a third diode connected between the emitter and base of said transistor, said third diode being poled to pass current away from said base and toward said emitter, circuit means connecting the output of said amplifier to the emitter-base circuit of said transistor, a filter circuit connected across said first and second capacitors, a voltage divider connected across the output of said filter, circuit means including a standard cell connecting a point on said voltage divider to the emitter of one of the two transistors in the conversion means, a load connected across the output of said filter, and load voltage sampling means connecting said load to the emitter of the other transistor in the conversion means.

2,837,663
MONOSTABLE TRIGGER CIRCUIT
Paul F. Walz, Rochester, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application May 16, 1956, Serial No. 585,233
4 Claims. (Cl. 307—88.5)



1. A monostable trigger circuit comprising first and second transistors, each of said transistors having collector, emitter, and base electrodes, said trigger circuit being so arranged that said first transistor is nonconductive and said second transistor is conductive when said circuit is in its stable operated condition, means for applying a trigger pulse to the base electrode of said first transistor to thereby render said first transistor conductive, a capacitor connected between the collector electrode of said first transistor and the base electrode of said second transistor for triggering said second transistor non-conductive and for maintaining it nonconductive for a given period of time whenever said first transistor is triggered conductive, means for maintaining said first transistor conductive so long as said second transistor remains nonconductive, a first impedance element connected between the collector electrode of said first transistor and a source of potential, a second impedance element interposed in a connection adapted to be completed between the collector electrode of said first transistor and said source of potential, and means for completing said connection only when said second transistor is conductive.

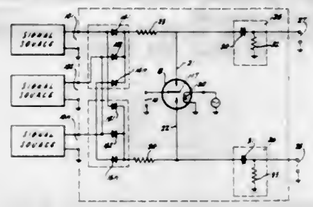
2,837,664
SAFETY CIRCUITS FOR ELECTRO-MECHANICAL BRAKING
Ture Lindstrom, Glen Burnie, and Alexander S. Nagy, Linthicum, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 15, 1957, Serial No. 659,444
4 Claims. (Cl. 307—116)



4. A protective system for gun turrets comprising an electro-mechanical brake having first and second brake elements; a brake disengaging circuit including a first switch having first and second fixed contacts and a moveable contact, a second switch in juxtaposition to one of said brake elements and having first and second fixed contacts and a moveable contact, a solenoid winding for actuating one of said brake elements, a normally closed relay switch having an actuating winding, and a third switch in juxtaposition to said one of said brake elements having first and second fixed contacts and a moveable contact, means connecting said moveable contact of said first switch to a source of voltage and to said first fixed contact of said second switch, means connecting said moveable contact of said second switch to one side of said solenoid winding, means connecting the other side of said solenoid wirding in series with said normally closed relay to said first fixed contact of said third switch, means connecting the moveable contact of said third switch to ground; a brake engaging circuit comprising a normally open switch and the actuating winding of said normally closed relay switch connected in series between said first fixed contact of said first switch and ground; a turret control circuit connected in series between said second fixed contact of said first switch and said second fixed contact of said third switch; said second fixed contact of said second switch being connected to said second fixed contact of said first switch; a current limiting resistor connected between said first contact of said third switch and ground; means urging said brake elements in engagement when said brake disengaging circuit is deenergized, whereby when said brake elements are separated said turret control circuit is energized and when said moveable contact of said first switch is moved to contact said second fixed contact said brake engaging circuit is energized and said turret control circuit is deenergized.

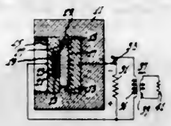
2,837,665
ELECTRO-MECHANICAL VOLTAGE DIFFERENTIAL DETECTOR
James N. Edwards, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application December 31, 1956, Serial No. 632,623
10 Claims. (Cl. 307—149)

1. An electro-mechanical voltage differential detector for receiving a plurality of input signals and a reference signal and producing an output signal corresponding to the difference in amplitude between the input signal having the maximum absolute value and the reference signal, comprising: a plurality of input terminals for receiving a corresponding plurality of input signals; first and second load impedance elements; a first plurality of unidirectional conducting devices interconnecting each of said input terminals and said first load impedance element; a second plurality of unidirectional conducting devices interconnecting each of said input terminals and said second load impedance element; first and second



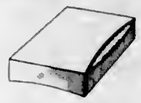
output circuits connected individually to each of said first and second load impedance elements; and means for alternately applying the reference signal across one and the other of said first and second output circuits.

2,837,666
RADIOACTIVE VOLTAGE SOURCE EMPLOYING A GASEOUS DIELECTRIC MEDIUM
Ernest G. Linder, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application July 24, 1953, Serial No. 370,125
13 Claims. (Cl. 310—3)



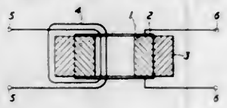
1. A primary source of electrical energy comprising, a source capable of emitting radioactive charged particles, a collector electrode spaced from said source for collecting said radioactive charged particles to establish a potential relative to said source, and a gaseous medium occupying a space between said emission source and said collector electrode, the geometry of the space occupied by said gaseous medium being such that charged particles traversing said medium travel a distance which is less than the mean free path for ionization of molecules of said medium by collisions with said charged particles.

2,837,667
PIEZO-ELECTRIC QUARTZ CRYSTAL PLATE
Jacobus Petrus Beljersbergen, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 3, 1954, Serial No. 434,233
Claims priority, application Netherlands June 10, 1953
2 Claims. (Cl. 310—9.6)



1. A quadrangular piezo electric crystal plate having two surfaces each parallel to the X-axis of the crystal and each forming an angle of less than 90° with the Z-axis whereby said plate is adapted to vibrate in the thickness-shear mode, each of said surfaces being bounded by at least one concavely curved inwardly bevelled peripheral edge.

2,837,668
MECHANICAL SYSTEMS
Anthony W. Simpson, Radcliffe-on-Trent, England, assignor to The Plessey Company Limited, Ilford, England, a British company
Application July 20, 1955, Serial No. 523,344
6 Claims. (Cl. 310—26)



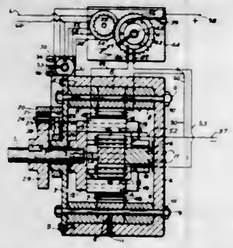
1. An electrical impedance converting device comprising a first annulus of crystalline insulating material of the type which is adapted to change its shape on the application of a voltage thereto and a second annulus consisting of magnetostrictive ferrite material, the inside periphery of one of said annuli being in contact with the outside periphery of the other, a pair of electrodes, one at each end of said first annulus, a coil wound toroidally about both said annuli.

2,837,669
DYNAMOELECTRIC MACHINE
Alec Fisher, Lynn, and William B. Penn, Marblehead, Mass., assignors to General Electric Company, a corporation of New York
Application January 3, 1955, Serial No. 479,274
4 Claims. (Cl. 310—45)



1. A dynamoelectric machine comprising a stator including a core having winding slots therein, windings in said slots having end turns extending beyond the ends of said core, said stator being coated and impregnated with a dual coating system comprising (1) a cured reaction product of a polyhydric alcohol and a polybasic acid and (2) an outer coating superposed on (1) comprising an air-cured methylpolysiloxane resin.

2,837,670
MOTORS
Albert G. Thomas and Thomas D. Johnson, Chattanooga, Tenn., assignors, by direct and mesne assignments, to Industrial Controls Corporation, Chattanooga, Tenn.
Application August 5, 1954, Serial No. 448,021
18 Claims. (Cl. 310—49)



1. In a step motor, rotor means having a plurality of substantially evenly spaced poles, first stator means having a plurality of substantially evenly spaced poles surrounding said rotor poles and cooperating therewith, second stator means having a plurality of substantially evenly spaced poles surrounded by said rotor poles and cooperating therewith, winding means for said first and second stator means, means for supplying current to said first and second stator means alternately, and brake means continuously in effect for holding said rotor means against rotation in one direction of more than a fraction of one step, the poles of said stator means being positionally phased so that rotor poles will be positioned intermediate the poles of one stator means when rotor poles are in alignment with the poles of the other stator means.

2,837,671
COMMUTATOR BAR CONSTRUCTION
John W. Reardon and Kenneth R. McDougal, Erie, Pa., assignors to General Electric Company, a corporation of New York
Application February 16, 1956, Serial No. 565,939
5 Claims. (Cl. 310—236)



1. A current collector for use with a dynamoelectric machine comprising a core of material having a conducting wearing surface formed on a face of said core adapted for contact by brushes, said wearing surface comprising a material having a temperature coefficient of expansion different than said core, a plurality of spaced grooves in said wearing surface extending at an angle to a line drawn through the axis of said surface and extending inwardly at right angles therefrom to said core so as to divide said wearing surface into a plurality of segments wherein each individual segment is individually attached to said core and out of contact with those adjacent to it, thereby permitting improved cooling of said wearing surface and reducing the adverse effects of differential thermal expansion occurring between said core of material and said wearing surface.

2,837,672
GRID CONTROLLED TUBES
Theodore W. Small, Phoenixville, and William P. Cole, Quakertown, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application June 15, 1953, Serial No. 361,738
5 Claims. (Cl. 313—6)



1. An electron tube mount having at least one electrode which is enclosed by another electrode and visually obscured by said other electrode, insulator spacer members at opposite ends of both electrodes, said spacers being joined by a plurality of metal rods and forming with said electrodes a unitary assembly, said other electrode having two opposite main walls which face the first mentioned electrode, said main walls being joined by an intervening yoke, said main walls and yoke obscuring the first mentioned electrode against visual examination when said other electrode is assembled in enclosing relation to said first electrode, each of said main walls terminating in a bent back wing, one of said main walls and its wing being provided at opposite ends with means

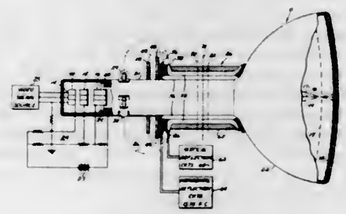
permanently interlocking said one wall with said insulator spacers, maintaining said one main wall in fixed relation to the first mentioned electrode, the joint between said one main wall and said yoke being slitted to form a hinge around which said yoke and said other main wall with its wing can be swung as a unit outwardly to reveal the first electrode and can then be swung inwardly to bring both said main walls in predetermined symmetrical spaced relation on opposite sides of said first electrode, and means anchoring the wing of said other main wall to hold both said main walls in said symmetrical relation.

2,837,673
FREQUENCY CONVERTER TUBE
Francis Thomas Quigley and Robert J. Bisso, Emporium, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application January 17, 1955, Serial No. 482,024
5 Claims. (Cl. 313—69)



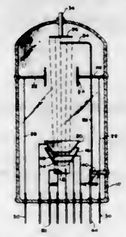
1. A frequency converter tube comprising an oscillator section including a cathode, a first control grid and a first anode; an incoming signal section comprising a second control grid, a second anode and accelerator means between said second control grid and second anode, said first anode lying between said first control grid and said second grid, said second control grid being arcuate in form with the concave side facing the second anode and said accelerator means being a pair of rods spaced apart substantially the width of the second control grid and opposite the lateral sides of the second control grid.

2,837,674
ELECTRO-MAGNETIC DEFLECTION APPARATUS
William H. Barkow, Pennsauken, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 17, 1954, Serial No. 469,398
12 Claims. (Cl. 313—70)



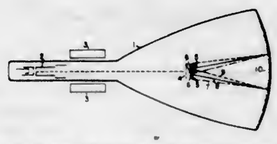
1. An electromagnetic deflection yoke comprising a first pair of electromagnetic coils adapted to surround the neck of a cathode ray tube, said first pair of coils having upwardly-turned end conductors; a second pair of electromagnetic coils surrounding said first pair of coils and oriented substantially normally with respect thereto, said second pair of coils also having upwardly-turned end conductors adjacent to said end conductors of said first coils; and a member of magnetic permeability disposed between the turned-up end conductors of said first and second coil pairs.

2,837,675
HIGH IMPEDANCE ACCELEROMETER
Arthur H. Iversen, Santa Monica, Calif., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application January 23, 1956, Serial No. 560,669
4 Claims. (Cl. 313—72)



1. An accelerometer comprising an electron gun, a fixed target anode in the path of electrons emitted from the gun in position to receive substantially all of the said electrons, a second target anode in the path of the electrons and a rigid envelope mounting the aforesaid elements, acceleration responsive yielding means mounted in said rigid envelope supporting the second anode for movement parallel to the face of the first anode, said second anode being normally in a position to receive substantially only half of the electrons emitted from the gun.

2,837,676
METHOD AND MEANS FOR OPTICALLY REDUCING THE PERCEPTIBLENESS OF DISCRETE COMPONENT COLOR ELEMENTS OF A COLOR IMAGE
Hyman A. Michlin, New York, N. Y.
Application February 20, 1956, Serial No. 566,564
17 Claims. (Cl. 313—92)

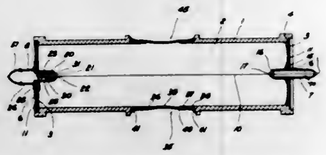


9. The apparatus for reducing the perceptibleness of areas of component colors of each elemental color image area of a color image on a surface comprising a color image on a first surface, said color image having its elemental color image areas in perceptible areas of component colors; a second surface; and optical means to overlay the perceptible component color areas of each color image element on the second surface thereby reducing the perceptibleness thereof.

2,837,677
PROPORTIONAL COUNTER TUBE
Charles F. Hendee, Irvington-on-Hudson, Samuel Fine, New York, and Jan Bleeksma, Mount Vernon, N. Y., assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application January 18, 1954, Serial No. 404,524
12 Claims. (Cl. 313—93)

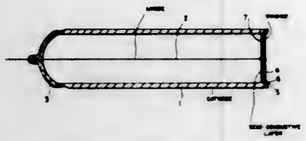
1. A radiation detector comprising an elongated, cylindrical, metal, low and medium energy X-radiation-opaque shell having recesses at opposite ends and an inner cylindrical surface serving as a cathode, a pair of insulating members each seated in a recess at one end of the shell and vacuum-tight sealed thereto, said insulating members having central apertures aligned with each other and with the longitudinal axis of the shell,

a pair of end-pieces each seated in an aperture of one of said insulating members and sealed thereto, each end-piece comprising a hollow, elongated, metal member having a shoulder in engagement with the insulating member and a portion inside said shell having a rounded end and a central aperture, an anode wire supported by said end-pieces and passing through the apertures in the rounded ends, and a X-radiation-permeable window for the radiation to be detected located in a side wall of the



metal shell, the ends of said window being spaced distances from the adjacent end-pieces at which incoming radiation is confined to a region within the shell exhibiting an electric field which is cylindrically symmetrical and uniform in the axial direction of the shell when a potential is applied between cathode and anode, said window including a conductive member positioned so as to define a substantially continuous surface with said cathode surface to maintain the field symmetry within the tube.

2,837,678
PROPORTIONAL COUNTER TUBE
Charles F. Hendee, Irvington-on-Hudson, and Samuel Fine, New York, N. Y., assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 18, 1954, Serial No. 437,831
6 Claims. (Cl. 313—93)



1. A proportional counter comprising a central anode wire, a cylindrical cathode surrounding said anode wire, a radiation-transparent window in said counter, and a thin semi-conductive member in the vicinity of said window, said member being electrically connected at its periphery to the cathode and at its center to the anode, said member having an overall resistance between its center and periphery of between about 10^6 and 10^{10} ohms.

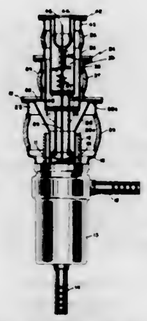
2,837,679
GLASS SEALED CENTERWIRE STRUCTURE
Karl Schwartzwalder, Holly, and Robert W. Smith, Flint, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 22, 1952, Serial No. 305,876
9 Claims. (Cl. 313—145)

7. A spark plug comprising a tubular metal shell, an alumina insulator secured within said shell and having a bore extending therethrough, a silver electrode spindle positioned in said bore, a resistor element in said bore, a layer of a mixture containing from about 30 to 50% glass and the balance substantially all a metal powder electrically connected to said resistor element and bonded to the walls of said bore between said resistor element and said silver electrode spindle to form a gas-tight seal in said bore, and a compact sintered layer of conductive material in contact with and bonded to said first mentioned layer and said silver electrode spindle to form a path of low electrical resistance, said conductive material being



selected from the group consisting of nickel, silver, iron, cobalt, chromium, silica and alloys thereof.

2,837,680
ELECTRODE SUPPORT
Joseph Leferson, Springdale, Conn., assignor to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut
Application April 28, 1954, Serial No. 426,158
9 Claims. (Cl. 313—180)



5. An electron tube comprising an envelope containing a cathode and an anode in predetermined spaced relation, a filament adjacent the cathode and electrically connected at its ends to respective filament terminals having portions external of the envelope, a support rod having one end portion thereof connected to and supporting an intermediate portion of the filament and having its other end portion penetrating the envelope, the support rod being provided intermediate its end portions with an insulator electrically separating the end portions, a heater element electrically connecting together the end portions of the support rod, and gettering material adjacent the insulator and adapted to be head by the heater element upon application of sufficient voltage across one of the filament terminals and the end portion of the support rod which penetrates the envelope.

2,837,681
ELECTRIC DISCHARGE TUBE
Klaas Rodenhuis, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 23, 1953, Serial No. 369,803
Claims priority, application Netherlands July 30, 1952
2 Claims. (Cl. 313—258)

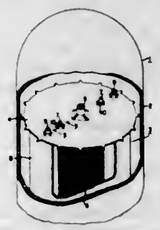
1. An electron discharge tube comprising a substantially cylindrical envelope; a reentrant cylindrical section in the cylindrical wall of said envelope intermediate the

ends thereof, said reentrant section having a precisely determined inner diameter; an electrode system within said envelope supported at one end by electrode-connecting pins extending through an end wall of said envelope; a planar mica locating disc secured to the other end of said electrode system, the perimeter of said disc being defined by a plurality of arcs intersecting in a plurality of obtuse points, the radius of each of said arcs exceeding by 20% to 30% the inner radius of said reentrant section and the geometrical center of said disc being



located substantially directly in line between the central point on each of said arcs and the center of curvature thereof, said obtuse points forming regions of maximum diameter of said mica locating disc, said maximum diameter being at least 0.5% greater than the precisely determined inner diameter of said reentrant section but not more than 2% greater than said inner diameter; said mica disc being transversely anchored within said reentrant section with said points exerting lateral pressure against said reentrant section to prevent said electrode system from moving laterally within said envelope.

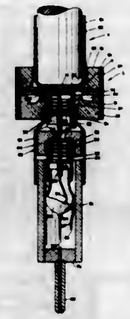
2,837,682
ELECTRIC DISCHARGE DEVICE STRUCTURE
Jewell G. Tucker, Owensboro, Ky., assignor to General Electric Company, a corporation of New York
Application September 15, 1955, Serial No. 534,425
4 Claims. (Cl. 313—260)



1. An electric discharge device comprising, an envelope, a plurality of cooperating electrode elements and at least one apertured member having portions of said elements fitted therein and supporting said elements in said envelope, said member being formed of a single sheet of laminated insulative material and including a plurality of discrete delaminated centrally extending elongated portions being flexed and resiliently engaging said portions of said elements for providing a tight fit of said elements in said member.

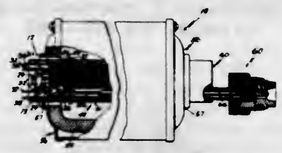
2,837,683
PLANAR TUBES
John B. Gaenzle, Bay Shore, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application September 13, 1955, Serial No. 533,966
6 Claims. (Cl. 313—337)

6. In an electron tube, a cathode structure comprising an insulating support having a bore therethrough, a cathode plate over said bore having its peripheral portion resting on said support, a sleeve affixed to and depending from said plate and extending downwardly through said bore and spaced from the walls of said bore along a major portion of its length, a heater within said sleeve, a transverse wall in said sleeve having an opening therein forming a seat, an insulator pivotally supported on said seat, a rod attached to said insulator, and a spring, under compression, coiled about said rod and in spaced



relation thereto, with one end of said spring bearing against a fixed part of the structure below the heater and with the other end connected to said rod.

2,837,684
TRAVELING WAVE DEVICES
Robert McCowan Unger, Wayland, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application April 25, 1956, Serial No. 580,609
9 Claims. (Cl. 315—3.5)

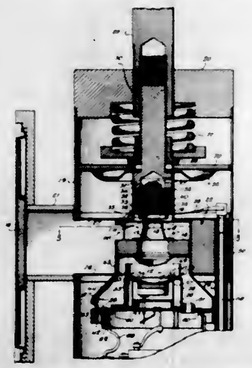


1. In combination, a periodic slow wave energy propagating network including a plurality of interdigital spaced elements, and coaxial output coupling means coupled to said network, said output coupling means including means for adjusting the position of one of said elements of said network, said output coupling means including a stationary portion and a movable portion rigidly connected to said one element, and means for adjusting the position of said one element in response to relative movement of said movable and stationary portions, said output coupling means including a flexible hermetic seal between said stationary and said movable portions.

2,837,685
HIGH FREQUENCY KLYSTRON TUBE CONSTRUCTION
Gisli C. Dalman, Huntington, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 30, 1953, Serial No. 334,305
19 Claims. (Cl. 315—5.22)

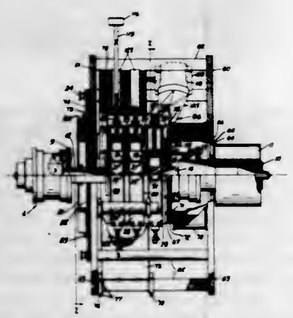
11. A rugged klystron tube structure, comprising a metallic tubular envelope having a cylindrical cross section, an opening in the cylindrical wall of said envelope for alignment with an electromagnetic transmission line, an approximately semiannular body of metal coaxially supported within said tubular envelope, said body having coplanar, spaced ends adjacent said opening in said wall of said envelope, the space between said coplanar ends being aligned with said opening, a metallic tubular aligning element having a cylindrical section coaxially supported in said body, said cylindrical section including an aperture which is positioned approximately between the coplanar ends of said body, a target electrode subassembly, an electron gun subassembly, said subassemblies

being coaxially located by said tubular aligning element on opposite sides of said aperture in said element, and means defining an electron permeable electromagnetic



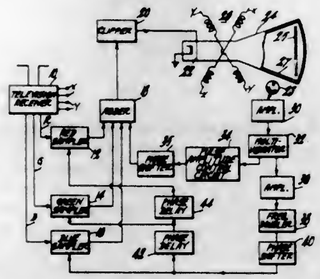
resonator within said tubular aligning element between said target electrode subassembly and electron gun subassembly.

2,837,686
KLYSTRON APPARATUS
Donald F. Drieschman, Los Altos, Arthur A. Goldfinger, Palo Alto, and Stanley F. Mitchell, Millbrae, Calif., assignors to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California
Application October 1, 1956, Serial No. 612,995
14 Claims. (Cl. 315—5.46)



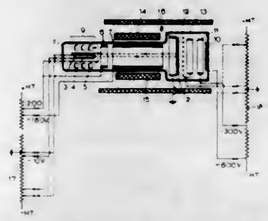
1. Electron tube apparatus comprising a klystron having an air-tight envelope with an electron gun at one end and a collector electrode at the other end, a plurality of cavity resonator portions surrounding said envelope intermediate said gun and collector and having open ends, each two adjacent resonator portions having a common wall whereby all of the resonator portions are grouped compactly along said envelope, two tuning doors movably mounted in each resonator portion, each of said doors having a sieve-like wall forming a part of the inner surface of its respective resonator portion, a shroud opening onto said resonator portions in registry with the open ends of said resonator portions, said shroud having an inlett aperture therein adjacent the resonator portion nearest said collector, a magnetic circuit surrounding said envelope and comprising a frame including end plates spaced along the klystron axis and extending transversely of said axis, spaced rods interconnecting said end plates and arranged around the klystron axis substantially parallel to said axis, an annular magnet coil encircling said resonator portions, adjustment means for moving said tuning doors, said coil having bores extending therethrough for receiving the adjustment means for the tuning doors in said resonator portions, and means adjustably supporting said coil on said rods for movement longitudinally of the tube.

2,837,687
COLOR TELEVISION SYSTEM
Roger D. Thompson and James W. Schwartz, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application October 28, 1954, Serial No. 465,344
9 Claims. (Cl. 315—10)



1. A cathode ray beam control system comprising a target electrode having a plurality of signal generating elements positioned thereon, said signal generating elements being responsive to generate a target generated signal when excited by electron beam energy during certain intervals of excitation, means for forming an electron scanning beam for exciting said signal generating elements, means for sensing said target generated signal, pulse generating means for generating pulses from said target generated signal, said pulses having a characteristic which coincides in time with a predetermined position of said electron beam, means for controlling the level of intensity of said electron beam, and means for applying said pulses to said means for controlling said electron beam for maintaining said beam at a constant predetermined level during said certain intervals of excitation.

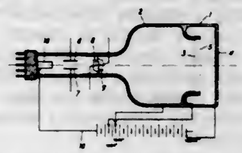
2,837,688
ELECTRON DISCHARGE DEVICES
James Dwyer McGee, Ealing, London, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain
Application June 29, 1955, Serial No. 518,852
Claims priority, application Great Britain July 3, 1954
4 Claims. (Cl. 315—11)



1. A method of operating an electron discharge device comprising a target composed of conducting glass, an electron gun including a cathode for producing a beam of electrons for scanning one side of said target and a photo-electric cathode for producing an electron image which can be projected on the other side of said target, wherein the tube is operated alternately and for times which are long compared with a picture period under a normal picture-signal generating condition in which the target is scanned with a beam of electrons from said gun

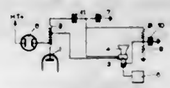
of such low velocity as to stabilise the first-mentioned side of the target at the potential of said gun cathode whilst electrons are projected from said photo-electric cathode on to the other side of said target with sufficient velocity as to produce a positive charge, and under an abnormal target-rejuvenating condition in which the target is scanned wtih a beam of electrons from said gun of sufficient velocity as to stabilise the first-mentioned side of the target at a potential which is positive with respect to said gun cathode whilst electrons are projected from said photo-electric cathode on to the other side of said target with such low velocity as to produce a negative charge.

2,837,689
POST ACCELERATION GRID DEVICES
Charles Dufour, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application December 1, 1955, Serial No. 550,413
Claims priority, application France December 2, 1954
2 Claims. (Cl. 315—14)



1. A monochromatic cathode ray tube of the type including a cathode, a target, a post-accelerating grid disposed in the vicinity of said target, means for raising said post-accelerating grid to a potential slightly positive with respect to said cathode and highly negative with respect to said target, and means for causing an electron beam issued from said cathode to scan said target, said tube further comprising an additional grid disposed between said post-accelerating grid and said target, substantially nearer to the post-accelerating grid than to the target, and means for raising said additional grid to a slightly negative potential with respect to said post-accelerating grid, whereby secondary emission electrons from both grids are prevented from reaching said target, said grids being constituted of fine wires, the wires of said first grid being disposed at an angle of 45° with respect to the wires of said second grid.

2,837,690
CIRCUIT ARRANGEMENTS EMBODYING CATHODE RAY TUBES
Anthony Francis Jaques, Farnham, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application February 11, 1957, Serial No. 639,331
Claims priority, application Great Britain February 15, 1956
1 Claim. (Cl. 315—20)



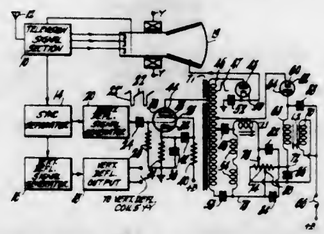
A circuit arrangement embodying a cathode ray tube a scanning circuit including scanning coils for said tube and a transformer for feeding current to said coils, a volt age boost condenser for deriving a voltage from said scan ning circuit and means for employing the voltage set u across said boost condenser for controlling the intensity of the cathode ray beam of said tube, wherein said voltage boost condenser is arranged in series with said transformer and a further condenser is provided in series between said transformer and said voltage boost condenser and one lead to the scanning coils is connected to said transformer and another lead to a point between said condensers so that in the event of an open circuit occurring in said scanning coils or the leads thereto said further condenser prevents the flow of direct current to said boost condenser so that the voltage across said boost condenser diminishes and serves to reduce the intensity of the cathode ray beam.

2,837,691
ELECTRONIC DEVICE
William Ross Aiken, Los Altos, Calif., assignor, by mesne assignments, to Kaiser Industries Corporation, a corporation of Nevada
Application August 24, 1955, Serial No. 530,281
5 Claims. (Cl. 315—23)



1. A method of presenting a visual signal in an electron sensitive target, which comprises the steps of delivering a beam along a given path, applying low voltage deflection forces to said beam to deflect same to different paths in a given plane, applying low voltage deflecting forces to bend the beam from the paths in said plane to corresponding paths in a second plane, and applying high voltage deflection forces to said beam to bend same from said second plane into registration with said target.

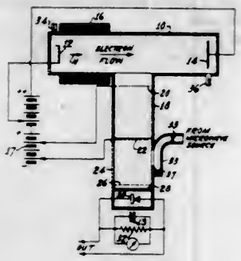
2,837,692
CATHODE RAY BEAM DEFLECTION APPARATUS
Bethel Edward Denton, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application August 19, 1953, Serial No. 375,190
18 Claims. (Cl. 315—27)



1. Electromagnetic deflection apparatus for effecting linear deflection of a cathode ray beam, which comprises: a source of deflection current; an electromagnetic winding; means for coupling said source to said winding to cause current to flow therein for a predetermined portion of a deflection cycle; a unilaterally conductive electronic damping device connected in damping relation with said winding; a linearity control circuit in series with said damping device and including a bi-part inductance coil and capacitive means in shunt with said coil; potentiometer means for delivering a direct current centering component to said winding, and means connecting said

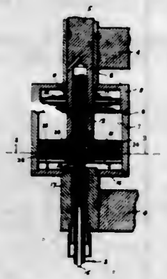
potentiometer means between the two parts of said linearity control coil and in a series direct current path with said linearity control coil.

2,837,693
GAS RESONANCE APPARATUS
Lowell E. Norton, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 31, 1952, Serial No. 328,871
9 Claims. (Cl. 315—39)



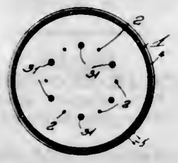
1. The combination comprising a gas, means to contain said gas at low pressure, means to impress upon gas particles of said gas an increase of particle velocity, means to impress upon the increased velocity gas particles a microwave radiation field, the direction of particle acceleration having at least a component in the same coordinate as the direction of propagation of said radiation and detector means to receive said radiation after impression upon and transmission through said gas.

2,837,694
ELECTRON DISCHARGE DEVICES
Percy L. Spencer, Waban, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application September 16, 1954, Serial No. 456,513
8 Claims. (Cl. 315—39.61)



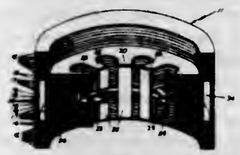
1. An electron discharge device comprising a body of highly conductive material, a plurality of vanes each of which is attached at one end to said body, the other end of each of said vanes being in spaced relation to the next adjacent of said vanes, means for emitting a stream of electrons past the spaced ends of said vanes, a tuning assembly including material of high magnetic permeability adapted to be interposed in the space between adjacent vanes, a sheath of conducting material extending substantially around a portion of said magnetically permeable material, and means for producing displacement of said magnetically permeable material in said space, to adjust the operating frequency of said device.

2,837,695
MAGNETRONS
Herbert Sixsmith, Reading, England, assignor to English Electric Valve Company Limited, London, England, a British company
Original application February 14, 1952, Serial No. 271,527, now Patent No. 2,774,914, dated December 18, 1956. Divided and this application October 26, 1956, Serial No. 618,646
Claims priority, application Great Britain February 19, 1951
16 Claims. (Cl. 315—39.67)



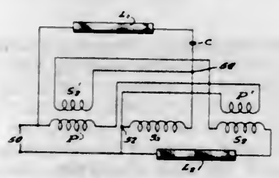
1. A magnetron comprising a hollow cavity resonator, means for exciting a standing wave in said cavity resonator, comprising a plurality of concentrically arranged cathodes and rod-like anodes to constitute a plurality of magnetron systems mounted within said cavity resonator, means for providing a magnetic field within said resonator, power supply means for said systems, and means for effecting the withdrawal of useful power from said cavity resonator.

2,837,696
LAMINATED MAGNETRON CONSTRUCTIONS
Albert D. La Rue, Lexington, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application October 7, 1954, Serial No. 460,982
4 Claims. (Cl. 315—39.75)



1. An electron discharge device comprising a laminated anode constructed of a plurality of individual laminations, said anode having a plurality of vanes of substantial length and adapted to have oscillations set up therein, and a facing material for each vane thereby protecting said laminations from electron bombardment.

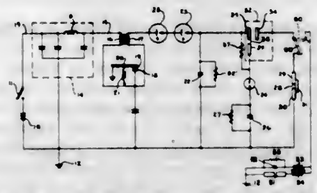
2,837,697
APPARATUS FOR IGNITING AND OPERATING GASEOUS DISCHARGE DEVICES
Paul Berger, Chicago, Ill., assignor to Advance Transformer Co., Chicago, Ill., a corporation of Illinois
Application January 5, 1956, Serial No. 557,550
12 Claims. (Cl. 315—138)



1. Apparatus for igniting and providing the operating voltages of gaseous discharge devices comprising: a source of low voltage A. C. current, a transformer having a

primary winding connected across the source and having first and second end terminals, a first secondary winding having first and second end terminals with the first end terminal connected to the second terminal of the primary winding, and a second secondary winding having first and second end terminals with the second end terminal of said first secondary winding connected to said second secondary winding at a point other than said second terminal thereof, an elongate iron core mounting all of the windings with the first secondary winding disposed on one end of the core and there being a shunt between the said first secondary winding and the remainder of the windings, a first gaseous discharge device having a condenser connected in series therewith and connected from the first terminal of the second secondary winding to one of the first and second terminals of the primary winding, a second gaseous discharge device connected from the second terminal of the second secondary winding to the other of said first and second terminals of said primary winding, and the open circuit voltage relationship of the secondaries being in opposition, the second secondary winding being disposed on the end of said core opposite the first secondary winding, with the major portion of the primary winding physically disposed between the two secondary windings on said core and closer coupled with the second secondary winding than the first, and a minor portion of the primary winding closely coupled with the second secondary winding and physically separated from the major portion of said primary winding, the coupling between the minor portion of the primary winding and the second secondary winding being substantially closer than the coupling between the major portion of the primary winding and the second secondary winding.

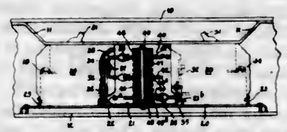
2,837,698
ELECTRICAL APPARATUS
Louis H. Segall, Sidney, N. Y., assignor to Bendix Aviation Corporation, New York, N. Y., a corporation of Delaware
Application September 29, 1953, Serial No. 382,965
21 Claims. (Cl. 315—232)



1. In an electrical apparatus, a source of electrical energy including a storage condenser, a second condenser, and means connecting said source and said second condenser including a spark gap and resistance in parallel and a control gap connected in series with said spark gap and second condenser, the spark-over voltage of said spark gap being no greater than the spark-over voltage of the control gap and said resistance being spaced from the electrodes of said spark gap.

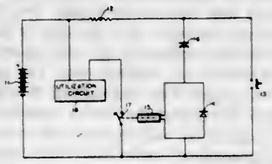
2,837,699
PANELBOARD CONSTRUCTION
James G. Foré, Fresno, Calif., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application September 8, 1953, Serial No. 378,857
3 Claims. (Cl. 317—119)

1. An electrical panelboard assembly comprising, in combination, a sheet metal mounting member; a plurality of individual enclosed switch units each including an adjustably positionable spring-clip type terminal, said switch units being attached to said mounting member in two parallel spaced apart rows with the spring-clip type terminals of each of said rows extending toward the other of said rows; and a plurality of flat bus bars for effecting supply of current to said switch units, said bus bars being positioned at different levels, one above the



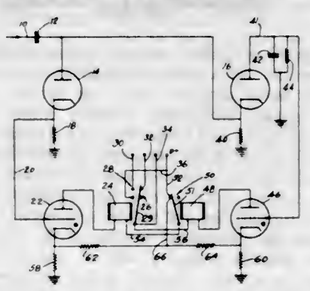
other, on said mounting member between said rows of switch units with their opposite edges extending in the direction of said switch units, and each of said bus bars being engageable by those of said spring-clip type terminals positioned at a corresponding level.

2,837,700
IMPULSE RESPONSIVE CIRCUIT
Forrest W. Brown, New Canaan, Conn., assignor to The Reflectone Corporation, Stamford, Conn., a corporation of Connecticut
Application November 28, 1955, Serial No. 549,407
6 Claims. (Cl. 317—141)



1. An impulsive responsive circuit comprising; a source of direct current voltage connected to an electrical circuit network which includes the parallel connection of a current responsive device and a rectifying device, and a capacitor serially connected to said parallel connection thereby causing said capacitor normally to be maintained charged from said source; electrical switching means adapted to momentarily establish a short circuit across said network connected in parallel with said electrical network; an utilization circuit operated in response to actuation of said current responsive device; and said rectifier being connected in such a manner and having a sufficiently low forward resistance to cause substantial discharging of said capacitor during the momentary short circuit condition.

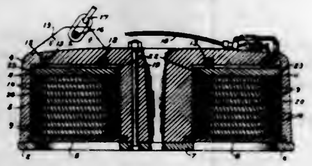
2,837,701
ELECTRONIC CONTROL CIRCUIT
Benjamin G. Lewis, Los Angeles, Calif.
Application June 9, 1953, Serial No. 360,619
8 Claims. (Cl. 317—142)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for conditioning an electrical network upon receipt of an input signal, which periodically varies

in polarity and which is subject to fluctuations in amplitude, and for maintaining the conditioned status of such network for a predetermined period of time following the cessation of the input signal, said apparatus comprising: a first thyratron; a circuit for applying operating potentials to said first thyratron; means for biasing said first thyratron beyond cutoff in the absence of a control potential applied thereto; means for deriving a first control potential from the excursions of said input signal in one direction of polarity and for applying such first control potential to said first thyratron to render the latter conductive; a first relay having a first pair of switch contacts which are closed when the relay is de-energized and a second pair of switch contacts which are closed when said relay is energized, said two sets of switch contacts being adapted for incorporation into an external utilization circuit; means for connecting said first relay to the output of said first thyratron so that the relay is energized when the thyratron becomes conductive to thereby establish a circuit status for said two sets of switch contacts; a second normally non-conductive thyratron; a circuit for supplying operating potentials to said second thyratron; a second relay having a pair of switch contacts which are closed when said second relay is de-energized and opened when said second relay is energized, said switch contacts being included in the circuit for supplying operating potentials to said first thyratron; means, including a resistance-capacitance network, for deriving a second control potential from the excursions of said input signal in the remaining direction of polarity and for applying such second control potential to said second thyratron to maintain the latter nonconductive for a period of time, following the cessation of said input signal, which is predetermined in accordance with the time-constant of said resistance-capacitance network, after which period of time said second thyratron will become conductive to energize said second relay and open the switch contacts associated therewith, thereby disconnecting said first thyratron from its source of operating potentials and rendering it nonconductive; and means responsive to the de-energization of said first relay when conduction of said first thyratron is terminated to disconnect said second thyratron from its source of operating potentials and hence render it nonconductive.

2,837,702
LIFTING MAGNET
Karl A. Blind, Thiensville, Wis.
Application November 17, 1955, Serial No. 547,379
2 Claims. (Cl. 317—164)



1. In an electric lifting magnet, a magnetic body having a downwardly open recess bounded by coaxial annular inner and outer surfaces and a top surface, a stack of annular magnet energizing windings within said recess snugly embracing said inner surface but spaced from said outer surface and being separated by intervening incompressible layers of insulation and surrounded by granular material, means coacting with the lowermost winding of the stack to retain the coil within said recess, a plate bearing against the uppermost winding of the stack and sealingly but slidably engaging both of said recess side surfaces, and an annular series of springs interposed between said top recess surface and said plate and coacting with the latter to compensate for expansion and contraction of said windings transversely of said insulation layers.

2,837,703
COMPOSITE RECTIFIER ASSEMBLY
Eric Lidow, Los Angeles, Calif., assignor to International Rectifier Corporation, El Segundo, Calif., a corporation of California
Application April 4, 1955, Serial No. 498,889
9 Claims. (Cl. 317—234)



1. A composite metal rectifier comprising, in series, a plurality of rectifying elements each having the characteristic of a leakage current which varies with change of temperature over a range of temperatures, one of said rectifying elements having a minimum leakage at one temperature in said range and another of said rectifying elements having a minimum leakage at a different temperature in said range, one of said rectifying elements consisting of a germanium rectifier, and the other of said rectifying elements consisting of a selenium rectifier.

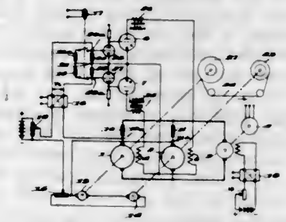
2,837,704
JUNCTION TRANSISTORS
Reimer Emeis, Pretzfeld, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a corporation of Germany
Application April 5, 1955, Serial No. 499,395
Claims priority, application Germany April 6, 1954
16 Claims. (Cl. 317—235)



1. A junction transistor, comprising a semiconductor body of a given conductivity type having two opposite broad sides, two electrodes serving as emitter and collector respectively, both having conductivity of a type opposite to the said given type, one of said electrodes extending on one of said broad sides, said other electrode comprising mutually spaced recessed connected parts and being located on the opposite broad side, the recession being less than the thickness of the body, and a base contact comprising respective parts fused onto said opposite broad side only on raised portions between said spaced parts of said other electrode and out of contact therewith, said base contact comprising doping material adapted to increase the conductivity of said given type of said body and forming within said body close to the respective parts of the base contact a zone of higher conductivity in the sense of the given type than the rest of the base region.

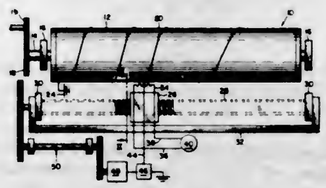
2,837,705
DEVICE TO REGULATE THE DIRECT CURRENT MOTORS FOR THE COIL ROLLS OF A REWINDER
Roland Spuhler, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application August 19, 1955, Serial No. 529,455
Claims priority, application Switzerland August 21, 1954
4 Claims. (Cl. 318—7)

1. A speed regulating system comprising a direct current motor and a direct current generator having their armature circuits connected in parallel with a direct current source; means providing a direct current signal voltage which is a function of the difference of the armature currents of said direct current machines; means providing a direct current correcting voltage which is a function of the difference of the rate of revolutions of said direct current machines; means for comparing said signal voltage and said correcting voltage with a predetermined direct current voltage to produce a resultant direct current control voltage; a pair of electron tubes connected in push-pull relationship, the field winding of said direct current motor being connected in parallel across one of



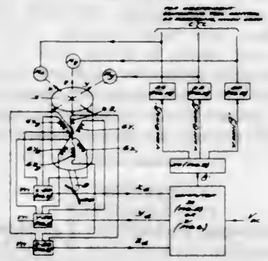
said electron tubes and the field winding of said direct current generator being connected in parallel across the other of said electron tubes; means for applying alternating current voltages upon the field windings of said motor and said generator respectively; and means for applying said direct current control voltage upon the control grids of said electron tubes so that during the increase of the field current in the field winding of one of the direct current machines a reduction in field current will be effected in the field winding of the other direct current machine.

2,837,706
LINE FOLLOWING SERVOSYSTEM
Eugene A. Glassey, Mountain View, Calif.
Application September 27, 1956, Serial No. 612,568
5 Claims. (Cl. 318—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)



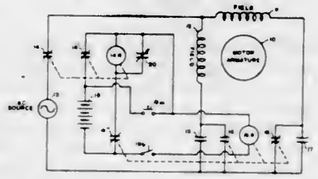
1. A function generator comprising a rotatable support member carrying an electrical conductor thereon representing a predetermined curve, said conductor being maintained at constant potential, means for rotating said support member, a curve follower comprising a potentiometer sensing element an intermediate point of which tends to be maintained in contact with said conductor, means for movably supporting said follower, means for exciting said potentiometer by applying voltages of opposite polarity to the respective terminals thereof to generate an error signal when said conductor is out of contact with the said intermediate point of the potentiometer, and a servomeans for positioning one of said members in accordance with the error signal to again establish the said intermediate-point-contacting relationship.

2,837,707
SERVOSYSTEM CONTROLLED CONTOUR MACHINING APPARATUS
John Arthur Stokes, Rugby, England, assignor to The British Thomson-Houston Company Limited, a British company
Application January 19, 1955, Serial No. 482,822
Claims priority, application Great Britain January 21, 1954
11 Claims. (Cl. 318—39)



1. In a contour tracing apparatus, a tracing head arranged for relative movement with respect to a support along three mutually perpendicular reference axes, a stylus carried by the tracing head and universally deflectable with respect thereto, said stylus being adapted to engage the surface of a model on said support for tracing a contour thereof along a selected course having a desired angle of orientation with respect to one of said axes which defines a reference plane with another of said axes, means for driving the tracing head independently along each of said three axes, and means for simultaneously controlling the driving of the tracing head along each reference axis in such manner as to cause the stylus to follow the shape of the model along the selected course with substantially constant deflection, said controlling means comprising means responsive to the components of stylus deflection along said three axes for providing signals respectively proportional to these components, computing means for deriving from these signals in conjunction with the desired value of said angle of orientation a direction signal representing the instantaneous direction in space along which relative movement needs to be effected between the tracing head and support for the stylus to follow the model surface along the selected course, and means responsive to the direction signal for controlling the respective driving means to produce between the tracing head and support a resultant relative motion in said instantaneous direction appropriate to the stylus tracing the model surface along said course at a substantially constant speed.

2,837,708
DYNAMIC BRAKING OF CAPACITOR MOTOR
Robert R. Jones and Stephen Kowalyshyn, Sharon, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 24, 1954, Serial No. 451,993
4 Claims. (Cl. 318—210)



1. A motor and motor plugging system comprising an electrical motor having circuitry controllable by switching action to reverse torque developed by the motor, a

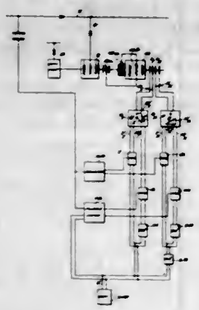
first relay having a normally-open contact, said normally-open contact when closed connecting said motor to an electrical power source, a second relay having a normally-closed contact, a first switch arranged to complete an energizing circuit for the first relay through said normally-closed contact whereby to close said normally-open contact and energize said motor, a second switch arranged to complete an energizing circuit for the second relay whereby to open said normally-closed contact, said second relay having additional contacts connected to effect said torque-reversal switching action when the second switch is closed, and said first relay having slow-release means to hold said normally-open contacts closed for a predetermined period after operation of said second switch, whereby to provide motor plugging action during said predetermined period.

2,837,709
POWER SUPPLY
Arthur S. Milinowski, Peekskill, N. Y., assignor to Q-O-S Corporation, a corporation of New York
Application December 21, 1953, Serial No. 399,319
8 Claims. (Cl. 321—25)



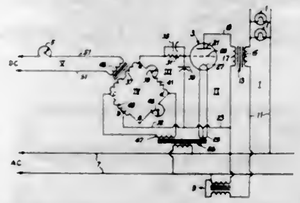
1. A power supplying device for voltage regulation of alternating current from a source of alternating current supply, comprised of a transformer, a circuit in and confined to a circuit with the primary of said transformer and a circuit in and confined to a circuit with the secondary of said transformer, said first-mentioned circuit being comprised of a first inductor, a first capacitor in series therewith, a second inductor in series with said first inductor, and a second capacitor in series with said second inductor, said first inductor being connected to the source of alternating current supply to receive a saturating current surge therefrom and charging the first capacitor and producing a current surge to and saturation of the second said inductor and a pulse surge to said transformer primary, said first capacitor augmenting said pulse surge to the transformer primary by reverse current and the second said capacitor limiting duration of said pulse to said transformer primary.

2,837,710
GENERATOR CONTROL SYSTEM
Robert Keller, Ennetbaden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie., Baden, Switzerland, a joint-stock company
Application May 21, 1956, Serial No. 586,152
Claims priority, application Switzerland May 21, 1955
2 Claims. (Cl. 322—24)



1. Apparatus for producing a three-phase alternating network voltage as a power supply for television equipment and the like requiring a high order of frequency constant comprising an asynchronous generator, a frequency changer, motor means driving the rotors of said generator and frequency changer in synchronism, circuit means connecting the collector brushes on said frequency changer through the exciting windings thereof to the slip rings connected to the rotor winding of said generator, first and second pairs of slip rings on the rotor of said frequency changer connected to the rotor winding, a first intensifier unit for supplying said first pair of slip rings with a first alternating voltage, a second intensifier unit for supplying said second pair of slip rings with a second alternating voltage 90° out of phase with respect to said first alternating voltage, a primary alternating voltage generator having a high order of frequency constant, a first alternating control voltage for said first intensifier unit comprising two alternating voltage components 90° out of phase with respect to each other and which are derived from said primary alternating voltage generator, a second alternating control voltage for said second intensifier unit 90° out of phase with respect to said first alternating control voltage comprising two alternating voltage components 90° out of phase with respect to each other and which are likewise derived from said primary alternating voltage generator, a first phase modulator for one of the alternating voltage components of said first alternating control voltage, a second phase modulator for the corresponding alternating voltage component of said second alternating control voltage, and means controlling said phase modulators in accordance with the instantaneous phase difference between said three-phase network voltage supplied by said asynchronous generator and the voltage produced by said primary control voltage generator in such sense as to reduce said phase difference.

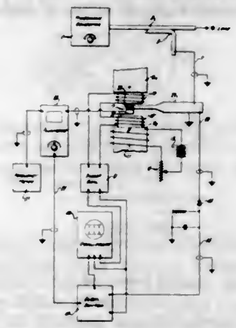
2,837,711
ELECTRICAL CONTROL
Harold A. Lewis, St. Louis, Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a corporation of Missouri
Application August 28, 1952, Serial No. 306,776
4 Claims. (Cl. 323—123)



1. A phase-shifting circuit for supplying an A. C. output, the phase of which is variable with respect to the input, the circuit comprising a first resistor and a variable reactance series connected across said input, a second resistor and a tapped reactance series connected across said input, and output terminals one being at the connection between the first resistor and the variable reactance and the other being at the tap on the tapped reactance, said second resistor having substantially more resistance than reactance, and said tapped reactance having substantially more reactance than resistance.

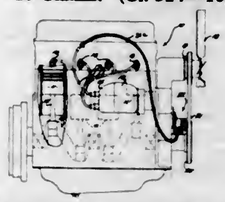
2,837,712
MICROWAVE MEASUREMENT APPARATUS
Richard C. Mackey, Beverly Hills, Calif., assignor to The Regents of the University of California, Berkeley, Calif., a corporation of California
Application November 14, 1955, Serial No. 546,508
9 Claims. (Cl. 324—.5)

9. The method of employing two materials having different gyromagnetic constants to establish an accurately determinable ratio of a relatively high frequency oscillation to the frequency of a standard of a lower order of magnitude which comprises the steps of subjecting samples of both of said materials to a magnetic field varying cyclically through a range within which one of said samples is resonant to said high frequency oscillation and the other is resonant to the frequency of said standard oscillation,



whereby two trains of pulses occurring respectively at epochs of the cyclic variation of said field at which such resonance occurs are developed, comparing the epochs of occurrence of the respective trains of pulses, and varying the frequency of one of said oscillations to bring the epochs of occurrence of the respective trains of pulses into coincidence.

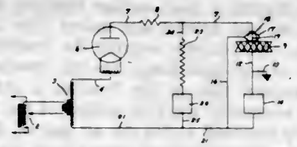
2,837,713
SPARK TIMING INDICATOR
Lawrence H. Schoenleber, Racine, Wis., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application December 30, 1952, Serial No. 328,630
10 Claims. (Cl. 324—16)



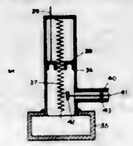
1. Means for timing the ignition in an internal combustion engine of the type having a fan belt pulley adapted to be moved in synchronism with the crank shaft, a pointer carried by the pulley and formed of conducting material, a dial of conducting material carried adjacent said pulley and in close proximity to the path of travel of said pointer, said dial being insulated from said engine and said pulley and having formed thereon an indexing mark adapted to coincide with said pointer when a piston of said engine is at top dead center, and an electrical connection between the ignition system and said dial for electrifying said dial when a spark would normally occur with respect to said top dead center piston so that a spark occurs between said dial and said pointer, enabling thereby the advance or retard of said spark to be observed in relationship to said indexing mark while the engine is running.

2,837,714
METHOD OF TESTING ELECTRICAL INSULATION
George Leslie Hill, Oakland, Calif.
Application March 31, 1954, Serial No. 420,026
9 Claims. (Cl. 324—54)

2. The method of diagnosing electrical insulation for determining the dielectric strength thereof which comprises interposing the insulation to be tested in a high voltage direct current circuit, energizing the circuit in increasing increments to impress varying values of high voltage direct current on the insulation under tests, measuring the conduction current passing through the insulation, measuring the voltage drop in the circuit due to the interposition therein of the insulation, and plotting the measured values in a system of coordinates to graphically indicate the dielectric strength of the insulation.

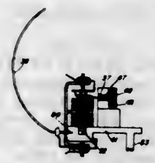


2,837,715
WIDE BAND SLOTTED LINE
Armig G. Kandoian, Glen Rock, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application March 20, 1953, Serial No. 343,622
14 Claims. (Cl. 324—95)



1. A device for measuring the standing waves in a transmission line having energy propagated therethrough comprising a resonant section including an outer conductive element and an inner conductive element in the form of a helix, non-frequency sensitive direct electrical contacting means for shorting turns of said helix to vary the resonant frequency of said resonant section, coupling means extending from the end of said helical element into said transmission line for introducing energy from said transmission line into said resonant section in accordance with the standing waves existing in said line and means for coupling energy from said resonant section.

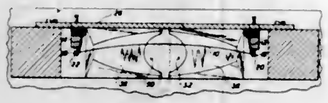
2,837,716
ELECTRODYNAMOMETER INSTRUMENT
Alfred H. Wolferz, Hillside, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application July 11, 1952, Serial No. 298,357
7 Claims. (Cl. 324—144)



1. An iron-core electrodynamometer instrument comprising a unitary cast metal mounting base of non-magnetic material, said base including spaced parallel arms having upper surfaces lying in one plane and a laterally-extending platform joining the said arms, the upper surface of said platform being disposed above said plane to function as a support for damping means; a C-shaped, laminated yoke having side arms supported by the upper surfaces of the mounting base arms and a lateral arm spanning ends of the mounting base arms, said yoke

including arcuate end surfaces forming a cylindrical air gap; means securing the yoke to the mounting base; a field coil carried by the lateral arm of the yoke; an integral, non-magnetic bracket of sheet material U-shape in edge view, having a base section abutting the ends of the base arms and parallel legs spaced from opposite surfaces of the yoke; means securing the bracket to the abutting ends of the base arms; bearing members carried by the parallel legs of the bracket; a cylindrical soft-iron core secured to the base section of the bracket, said core being disposed within the air gap of the yoke and having its peripheral surface spaced from the arcuate end surfaces of the yoke; a wire-wound movable coil pivotally supported by the said bearing members and rotatable about the said core; a pointer carried by the lower end portion of said movable coil; and spiral springs for conducting current to the movable coil.

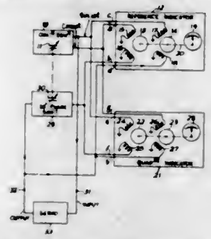
2,837,717
END SUPPORT ARRANGEMENTS FOR STRING GALVANOMETER
Clifford E. Berry, Altadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application October 8, 1954, Serial No. 461,087
5 Claims. (Cl. 324—154)



1. In a string galvanometer having a pair of spaced leaf springs for supporting the flexible conductor element of the galvanometer, the improvement which comprises a pair of cylindrical pins affixed to the ends of the respective leaf springs with each cylindrical pin being affixed to the side of the leaf spring which faces away from the other spring, each of the leaf springs having a notch in its end where the cylindrical pin is affixed to it, and a flexible conductor extending through the notches and between the pins on the leaf springs so that it is under tension, the conductor being looped around the respective pins in a loose fit with the respective ends of the conductor extending beyond the pins substantially perpendicularly with respect to the direction along which its supporting leaf spring may move, and a pair of fixed terminals connected to the respective ends of said conductor, with each terminal being located approximately along the axis of the adjacent cylindrical pin so that the end portions of the conductor are subjected primarily to torsional stresses and exert negligible forces uopn the movable portion of the flexible conductor which is under tension.

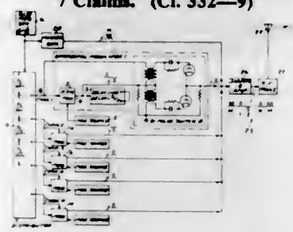
2,837,718
TESTING SERVO SYSTEMS
Reginald Catherall, Ashford, England, assignor to The Solartron Electronic Group Limited
Application January 10, 1957, Serial No. 633,462
Claims priority, application Great Britain
January 18, 1956
5 Claims. (Cl. 324—158)

2. Apparatus for testing servo systems comprising a source of electrical oscillations of angular frequency ω having a first terminal supplying a signal $\sin \omega t$ and a second terminal supplying a signal $\cos \omega t$, said first terminal serving for connection to the input of a servo to be tested, a servo output terminal for connection to the output of the servo, a reference indicator, a quadrature indicator, each said indicator including two pairs of inputs, means for multiplying one input of each pair by the other to produce a resultant, means for adding the resultants, and means for indicating the result of the addition, phase-shifting means producing a phase shift of 90° and having an input terminal, for connection to said servo output terminal, and an output terminal, means connecting the last-named output terminal to a first input of a first said pair of inputs of said reference and quadrature indicators respectively, means coupling said first source terminal to a first input of the second pair of inputs of said reference in-



dicator and to the second input of the first pair of inputs of said quadrature indicator, means coupling said second source terminal to the second input of the first pair of inputs of said reference indicator and to the first input of the second pair of inputs of said quadrature indicator, and means coupling said servo output terminal to the second input of the second pair of inputs of said reference and quadrature indicators.

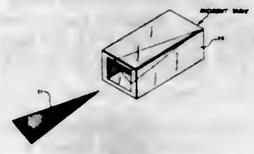
2,837,719
PULSE MODULATOR
Damian F. Albanese, Irvington, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application December 5, 1956, Serial No. 626,411
7 Claims. (Cl. 332—9)



1. A differential modulator comprising a source of modulating signals, a pulse position modulator coupled to the output of said source to produce position modulated pulses, a short-circuited delay line having a predetermined delay time, means coupling the sending end of said delay line to the output of said modulator to apply thereto said position modulated pulses, means coupled to the sending end of said delay line to remove therefrom a resultant pulse signal having as components thereof the position modulated pulse incident on the sending end of said delay line and the reflected component of the preceding position modulated pulse received at the sending end of said delay line, and means to remove from said resultant pulse signal differential modulation.

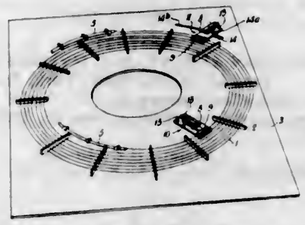
2,837,720
ATTENUATION DEVICE AND MATERIAL THEREFOR
Alvin R. Saltzman, Willow Grove, and Jack M. Rosen, Levittown, Pa.
Application August 31, 1953, Serial No. 377,745
3 Claims. (Cl. 333—22)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. An electromagnetic wave energy absorbing element for attenuation devices comprising; laminae of a backing of fiber glass impregnated with an electromagnetic wave energy absorbing material comprising; a resinous dielectric vehicle including barium titanate particles in spatial



dispersion therein; particles of highly conductive magnetically permeable material, and particles of highly resistive material incorporated in said resinous dielectric vehicle.

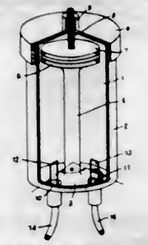
2,837,721
MEANS FOR DELAYING ELECTRIC IMPULSES
Ronald Millership, East Barnet, England, assignor to Elliott Brothers (London) Limited, London, England, a company of Great Britain
Application February 24, 1953, Serial No. 338,530
Claims priority, application Great Britain
February 22, 1952
9 Claims. (Cl. 333—30)



4. Means for delaying an electric pulse comprising in combination an aperiodic member in the form of a length of wire of a material having good acoustic pulse transmission qualities which are substantially constant over a wide range of ambient temperatures, a first coating of a material having magnetostrictive properties surrounding and intimately bonded to said wire adjacent the one end thereof, the thickness of said coating being tapered each end of the length thereof, a transmitting device associated with said first coating to produce a change in the length thereof upon the passage of an electric pulse through said transmitting device, a second coating of a material having magnetostrictive properties surrounding and intimately bonded to said wire adjacent to the other end thereof, the thickness of said second coating being tapered towards each end of the length thereof, an output device associated with said second coating to produce an electric pulse in said output device upon a change in the length of said second coating, and means surrounding the free ends of said wire in acoustic pulse absorbing relationship.

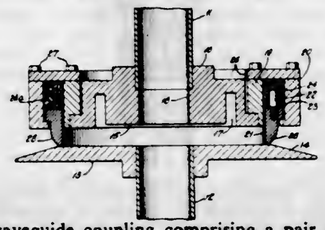
2,837,722
TUNED CAVITY SYSTEMS
Roger Octave Goublin-Korsten, Saint-Cloud, and Jean Dubois, Paris, France, assignors to Compagnie Francaise Thomson-Houston, Paris, France, a French body corporate
Application January 18, 1956, Serial No. 559,944
Claims priority, application France January 21, 1955
4 Claims. (Cl. 333—82)

1. A cavity resonator comprising a cylindrical casing closed at its ends, a metal piston within said casing having its stem supported by one of the ends of the casing and capable of moving along the axis of the cylinder, an enlarged portion fixed to the other end of the casing and opposite to the end of the piston, variation of the spacing between the piston and the enlarged portion varying the capacity of the resonator and consequently its tuned frequency, means for feeding energy to said cavity constituted by a first loop passing through said other end of the cylinder and situated in a plane passing through the axis of said cylinder, a second loop for withdrawing



output energy from said cylinder, said second loop passing through said other end of the cylinder and being situated in another axial plane of said cylinder, and means for adjusting the angular spacing between the two axial planes containing the two loops.

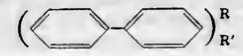
2,837,723
WAVEGUIDE COUPLING
Frank M. Krantz, Baltimore, and Hagan L. Jackson, Catonsville, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 11, 1953, Serial No. 354,089
4 Claims. (Cl. 333—98)



1. A waveguide coupling comprising a pair of waveguide sections, a pair of disc-shaped radial flanges mounted one on each of the adjacent ends of said sections whereby said flanges are disposed in close proximity to each other, a continuous ring-shaped bridge loosely mounted on one of said flanges and protruding axially therefrom toward the other of said flanges, means for biasing said ring-shaped bridge axially into contact with the other of said flanges, the protruding contact surface of said ring being curved to provide an adjustable contact surface, the surface of the flange contacted by said ring being bevelled to form an adjustable cam surface for seating said ring, conducting means for electrically connecting said bridge and its supporting flange, and said supporting flange being formed with a circular choke slot.

2,837,724
TRANSFORMER WITH IMPROVED DIELECTRIC LIQUID
Clinton D. Cook, Burlington, Vt., assignor to General Electric Company, a corporation of New York
Application December 29, 1953, Serial No. 400,922
3 Claims. (Cl. 336—58)

1. A transformer comprising a liquid-tight tank, a magnetic core positioned in said tank, a plurality of windings on said core, and a dielectric liquid surrounding said core and coils consisting of a mixture of compounds having the formula



in which R is a tertiary alkyl group having 4 to 8 carbon atoms and is attached to either ring and R′ is selected



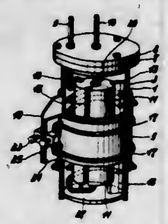
from the group consisting of hydrogen and $-CH_3$ and is attached to either ring.

2,837,725

COIL SYSTEM MORE PARTICULARLY FOR HIGH-FREQUENCY HEATING GENERATORS

Lourens Blok and Gooitzen Zwanenburg, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 30, 1953, Serial No. 401,324
Claims priority, application Netherlands January 22, 1953
5 Claims. (Cl. 336—62)



1. A coil system for high frequency heating generators comprising a substantially cylindrical container of electrically insulating material, a helically wound, water-cooled primary coil in said container and extending co-axially with said container, a ferromagnetic core having an axial bore and a radial gap therein, means mounting said ferro-magnetic core axially within said primary coil, a coupling coil secured to the outer surface of said cylindrical container extending co-axially therewith and substantially surrounding said primary coil, a plurality of current and cooling water supply ducts for said primary coil, one of said supply ducts passing through the axial bore of said ferromagnetic core, and the magnetic circuit formed by said core around said one of said supply ducts being interrupted by said radial gap.

2,837,726

RELUCTANCE TUNED RADIO FREQUENCY COIL

William Pearlman and Robert L. Smith, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application July 1, 1953, Serial No. 365,569
1 Claim. (Cl. 336—131)
(Granted under Title 35, U. S. Code (1952), sec. 266)

A high frequency tunable transformer comprising a pair of coarse tuning separately movable susbtantially cup-shaped elements of magnetic material, a pair of coil supporting elements, each of said supporting elements being of non-magnetic material and coaxially positioned within said cup-shaped elements respectively and spaced therefrom, a pair of coil elements, each of said coil elements being disposed on said coil supporting elements and within each of said cup-shaped elements respectively, one of said coil elements constituting a transformer primary winding and the other of said coil elements constituting a transformer secondary winding, a pair of fine tuning axially movable core elements of magnetic material, each of said core elements being disposed within said coil supporting elements respectively, an elongated electrical shield surrounding all of said elements, said shield having an aperture formed on each end wall there-



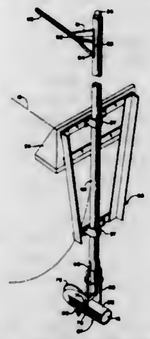
of, a first pair of adjusting means individually accessible by one of said apertures for effecting independent axial movement of the cup-shaped element and the core element associated with the primary winding, and a second pair of adjusting means individually accessible by the other of said apertures for effecting independent axial movement of the cup-shaped element and the core element associated with the secondary winding.

2,837,727

POSITION ADJUSTABLE HYDROPHONE

Fred M. Mayes, Ridley Park, Pa.

Original application January 10, 1951, Serial No. 205,396. Divided and this application June 25, 1957, Serial No. 673,996
1 Claim. (Cl. 340—6)
(Granted under Title 35, U. S. Code (1952), sec. 266)



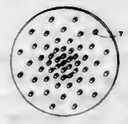
A device of the character disclosed for supporting a searching directional hydrophone on a recovery vessel comprising, mounting means including a pair of bearing members arranged for attachment to a recovery vessel, a sleeve mounted for pivotal rotation within said bearing members about a vertical axis, said sleeve having a pair of elongated diametrically opposed slots therethrough, a horizontal arm secured to said sleeve and having a pin secured to the outer end thereof, a lever pivotally mounted on said pin and having a handle portion at the outer end thereof and a bifurcated portion terminating at the inner end thereof, a rod slidably arranged within said sleeve, a cross head secured to said rod and slidably arranged within said pair of slots and pivotally mounted on the bifurcated portion of said lever, a directional hydrophone positioned as to be below the water-line of a recovery vessel and mounted on said sleeve for pivotal movement about a horizontal axis thereon for directing the response area of the hydrophone into an azimuth-searching position as the sleeve is rotated in said bearing members, and a crank mechanism pivotally secured to the rod and to the hydrophone for directing the response area of the hydrophone toward the bed of the body of water as the handle portion of the lever is depressed.

2,837,728

MEANS TO ALTER THE DIRECTIVITY PATTERN OF ENERGY TRANSLATING DEVICES

Oscar Hugo Schuck, Belmont, Mass., assignor to the United States of America as represented by the Secretary of the Navy

Application December 14, 1945, Serial No. 635,097
4 Claims. (Cl. 340—9)



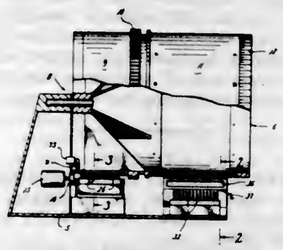
1. A wave projector comprising a plurality of transducer elements arranged to form a planar group having a longitudinal axis, said transducer elements being equally and simultaneously energized, the distance between adjacent elements in a direction perpendicular to said axis being substantially in proportion to secant $n\theta$ where n is the number of the element counted from the axis and θ is approximately 10 degrees.

2,837,729

MULTI-CHANNEL RECORDER AND REPRODUCER WITH VISUAL PLAYBACK

Joseph J. Houghton and Louis W. Erath, Houston, Tex., assignors, by mesne assignments, to Southwestern Industrial Electronics Company, Houston, Tex., a corporation of Delaware

Application July 7, 1955, Serial No. 520,474
8 Claims. (Cl. 340—15)



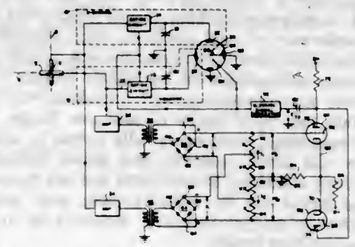
1. A recording and viewing device comprising a recorder-reproducer operable alternatively to record a plurality of varying signals in parallel channels on a movable record member and to translate signals from said channels into a corresponding plurality of electrical voltage signals, a movable screen provided with a phosphor coating operable to luminesce when excited with light energy, a plurality of galvanometers, a mirror for each galvanometer, the position of each mirror being determined by the magnitude of the voltage supplied its galvanometer, means including a light source for directing light energy to the mirrors and from thence to parallel channels on the screen extending along the path of movement, means connecting the recorder-reproducer to the galvanometers in such fashion that signals from different ones of said channels are supplied to corresponding different ones of said galvanometers, and means for moving the record member and the screen in synchronism, whereby signals recorded on the record member may be observed visually at the moment of reproduction.

2,837,730

DEFLECTION METHOD FOR CATHODE-RAY TUBE

James Snyder, Asbury Park, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application August 4, 1952, Serial No. 302,642
7 Claims. (Cl. 340—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



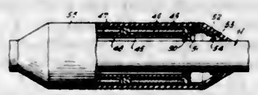
1. In a system for locating the source of explosion waves including two directional microphones of the cosine type having their axes of sensitivity disposed in quadrature for detecting said explosion waves; means responsive to the combined outputs of said microphones and adapted to produce signals of substantially uniform amplitude for explosion waves of equal intensity irrespective of the angle of incidence of said waves; said means comprising first and second full-wave rectifiers responsive respectively to the outputs of each of said microphones, each of said rectifiers having a relatively positive output terminal and a relatively negative output terminal, a first and a second vacuum tube, each normally non-conductive and having discrete input circuits and a common output circuit, said input circuits being respectively connected to the positive output terminals of said rectifiers, four resistors connected in series across said input circuits, said resistors being connected to the negative terminals of each of said rectifiers such that the direct current output of one of said rectifiers flows through the two inner resistors and one end resistor in a prescribed direction and the direct current output of the other of said rectifiers flows through said two inner resistors and the other end resistor in a direction opposite to said prescribed direction, said end resistors being equal in magnitude, and each of said inner resistors being a predetermined decimal fraction of the magnitude of one of said end resistors.

2,837,731

HYDROPHONE CABLE

Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut

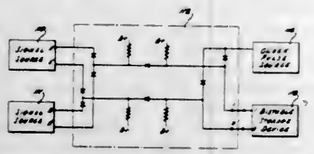
Application April 19, 1955, Serial No. 502,434
1 Claim. (Cl. 340—17)



An electro-acoustic array, comprising a continuous elongated multi-conductor electric cable with a continuous flexible tension core and a plurality of transducer units connected thereto and supported thereon in longitudinally spaced relation, each transducer unit comprising a rigid cylinder secured to and coaxially surrounding a continuous part of said cable, an annular piezoelectric member supported by and coaxially surrounding said cylinder and in radially spaced relation therewith, rigid protective radial flanges carried by said cylinder at the longi-

tudinal ends of said piezoelectric member, said flanges extending radially outwardly of the periphery of said piezoelectric member, pressure-release means longitudinally coextensive with said piezoelectric member and radially intermediate said piezoelectric member and said cable, a potting of sound-transmitting material extending between said flanges and intimately covering the periphery of said piezoelectric member and securing said piezoelectric member in radially spaced relation with said rigid cylinder, and impedance-matching means electrically connecting conductors of said cable to said piezoelectric member, the rigid frame constituted by said cylinder and by said flanges having adjacent one of said flanges a protective recess accommodating said impedance-matching means within the radial limits of said one flange, said impedance-matching means being fully potted in said recess within said limits, whereby said potted transducer units effectively form part of said cable and can be towed, wound and payed out by cable-handling gear without damage either to said piezoelectric members or to said impedance-matching means.

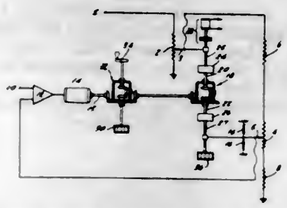
2,837,732
ELECTRONIC MAGNITUDE COMPARATOR
Eldred C. Nelson, Los Angeles, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application November 25, 1953, Serial No. 394,443
5 Claims. (Cl. 340—149)



1. In a system for comparing and indicating the relative magnitudes of two binary numbers represented as electrical digit signal sets including one signal for each digit of the number represented, the digit signals being supplied in the order of least significant digit signal first, corresponding digit signals at the same time, the combination comprising: a bistable storage device having first and second input terminals; first means responsive to said corresponding digit signals for applying a signal to the first input terminal of said storage device to set said storage device to one of its stable states when said digit signals are dissimilar in one sense; and second means responsive to said corresponding supplied digit signals for applying a signal to the second input terminal of said storage device to set said bistable storage device to the other of its stable states when said corresponding digit signals are dissimilar in another sense.

2,837,733
WIDE RANGE MEASURING OR CONTROL SYSTEM
Victor Azgapetian, Roslyn Heights, N. Y., assignor to Servomechanisms Inc., a corporation of New York
Application December 17, 1953, Serial No. 398,692
11 Claims. (Cl. 340—187)

1. In a system for measuring over a wide range the condition of a variable and for yielding an electrical output signal indicative of such condition, the combination comprising a first mechanico-electrical converter having a mechanical input element the total excursion of which corresponds to the total range over which the condition of the variable is to be measured, a second mechanico-electrical converter having a mechanical input element the total excursion of which corresponds to a fraction of such range, means for combining the electrical outputs of said converters to yield a single electrical output signal and mechanical means for optionally impressing an input signal responsive to the condition of the variable on one or the other of said mechanical input elements whereby, when said means are operated to transfer the input signal from the input element of said first converter to the input



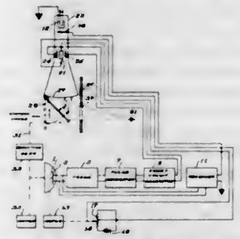
element of said second converter, change in condition of the variable from that corresponding to the position of the input element of said first converter will be accurately measured throughout the fraction of the total range corresponding to total excursion of the input element of said second converter.

2,837,734
SURROUND-LIGHTING STRUCTURE
Robert M. Bowie, Manhasset, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application May 29, 1952, Serial No. 290,735
10 Claims. (Cl. 340—369)



1. A surround-lighting structure comprising a member having at least one apertured surface to surround and receive forwardly of said surface the image screen of an image reproducing device, said image reproducing device including a light transparent portion adjacent the image screen thereof so that said screen is viewable from both the front and rear sides thereof, said surface having light reflecting properties to direct light incident on said surface from the rear side of said screen forwardly to an observer as surround lighting for said screen.

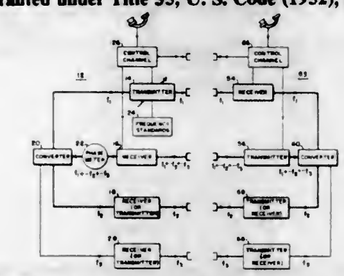
2,837,735
PULSE ECHO RADIO LOCATOR SYSTEM
Irving Wolff, Merchantville, N. J., assignor to Radio Corporation of America, New York, N. Y., a corporation of Delaware
Application September 30, 1938, Serial No. 232,647
46 Claims. (Cl. 343—11)



1. A radio vision device including means for scanning by radio energy a two coordinate scene to be reproduced, said coordinates corresponding respectively to the angular position of the reflecting elements of said scene and to the distances from the point of scanning to the reflecting elements of said scene measured directly as a function of the velocity and time of transit of said energy, means

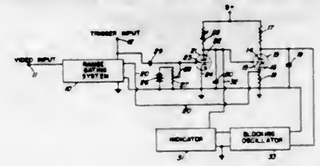
for deriving visual indications of reflections of said energy and means for arranging said indications for reproducing said scene in Cartesian coordinates corresponding to said original scene coordinates.

2,837,736
RADIO INTERFEROMETRY
Marcel J. E. Golay, Rumson, N. J.
Application February 8, 1955, Serial No. 487,002
1 Claim. (Cl. 343—12)
(Granted under Title 35, U. S. Code (1952), sec. 266)



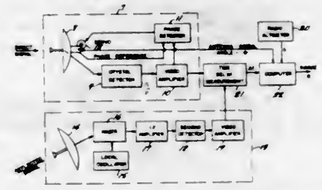
Apparatus for measuring distance between a first and a second point comprising a continuous wave transmitter at said first point operable at a frequency which can vary between two known values, a receiver, converter, and transmitter at said second point to return a signal of a different frequency but with an identifiable phase relation, a receiver at said first point for such signal of different frequency, a converter at said first point synchronized to said first converter to provide from said transmitted and returned signals two signals of the same frequency, and a phase responsive means for counting the relative whole and fractional phase rotations of said transmitted and returned signals caused by a shift of said transmitter from one to the other of said two known frequencies, said phase responsive means comprising a phase shift network connected to the source of one of said two signals of the same frequency to provide two outputs of said frequency but of different phase, two frequency converters each energized by one of said outputs and both energized by the source of the other of said signals to provide two outputs of frequency and phase corresponding to the difference between the energizing voltages, and a low frequency indicator responsive to the relative instantaneous values of the two outputs, and further including a translator for converting changes in the instantaneous values of said two outputs corresponding to each change in quadrant of phase rotation, to directional pulses on second or third input leads of a binary computer stage depending on the direction of such change in phase rotation, and a count pulse on a first input lead to such computer simultaneously with a pulse on either said second or third input lead, said computer comprising a plurality of stages each having first, second, and third input leads and three corresponding output leads, a bistable circuit successively shiftable between a first and a second state responsive to each count pulse signal received over said first input lead, a "carry" circuit comprising first and second "and" gates, said first "and" gate being responsive to a shift of said bistable circuit from said first state and a signal received over said second input lead, said second "and" gate being responsive to a shift of said bistable circuit from said second state and a signal received over said third input lead, said first output lead being energized by a pulse generated by either "and" gate to cause a "carry" pulse serving as a count pulse in the bistable circuit of the next stage, said second output lead being energized by said bistable circuit of said stage in said second state, and said third output lead being energized by said bistable circuit of said stage in said first state, whereby the distance may be determined by the number of phase rotations and the difference in frequencies at which said transmitter at said first point is operated.

2,837,737
RADAR SWEEP MULTIPLIER
Robert L. Plouffe, Jr., Livingston, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application December 17, 1953, Serial No. 398,902
7 Claims. (Cl. 343—13)



1. A radar sweep multiplier comprising: an electronic switch biased at the point of cutoff and connected across a source of potential; a condenser connected across said electron switch; a range gating system having a direct voltage output proportional to range coupled to said electron switch for biasing said switch below cutoff; and a sawtooth generator having an output coupled to said switch for driving said switch above cutoff, whereby said condenser discharges when said electron switch conducts.

2,837,738
PASSIVE RANGE MEASURING DEVICE
Lester D. van Valkenburgh, Seaford, N. Y., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application August 10, 1955, Serial No. 527,557
15 Claims. (Cl. 343—112)

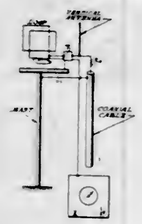


1. A system for measuring the range between a given point and a second point at an unknown location from which detectable radiations having distinguishable characteristics are emanating, comprising means for receiving at said given point direct radiations from said second point and indirect radiations from said second point which have been reflected from a reflecting surface, means for measuring the time delay at said given point between said direct and indirect radiations, means for measuring the angle of elevation of said second point from said given point, means for indicating the altitude of said given point relative to said reflecting surface, and computing means for determining the range from said given point to said second point as a function of said time delay, said angle of elevation, and said altitude of said given point.

2,837,739
SENSE ANTENNA SYSTEM
Dudley Gray, Chicago, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application July 12, 1954, Serial No. 442,826
11 Claims. (Cl. 343—114)

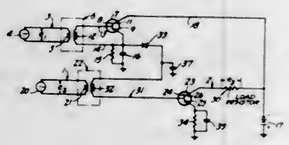
1. In a system for sensing and indicating the direction of the source of radiated signals, a directional antenna

system comprising a loop antenna and a vertical sense antenna electrically coupled thereto to provide sensing signals for a receiver, a receiver coupled to receive said sensing signals adapted for indicating the direction of the source of the signals, said receiver having means for adjusting its frequency of response, a mast carrying at least said vertical sense antenna, and means for com-



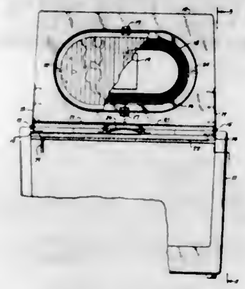
pensating for errors in sensing signals resulting from mast resonance comprising a length of coaxial cable having one end of its outer conductor electrically connected to the top of said mast, having the same end of its inner conductor electrically coupled to said vertical sense antenna and having the other end of said coaxial cable open.

2,837,740
PROPORTIONAL GATE CIRCUIT
Robert L. Riddle, Boalsburg, Pa., assignor to Haller, Raymond and Brown, Inc., State College, Pa., a corporation of Pennsylvania
Application January 30, 1957, Serial No. 637,157
9 Claims. (Cl. 343—228)



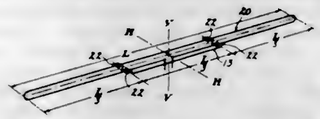
1. In a system for controlling the gating and amplifying of a primary signal by an auxiliary signal, circuit means comprising an auxiliary control circuit adapted to have auxiliary signals impressed thereon, rectifying means connected to said auxiliary control circuit for deriving direct current potentials corresponding to the auxiliary signals, a transistor having base, emitter and collector electrodes, means applying a direct current potential across said emitter and collector electrodes, an output circuit coupled across said emitter and collector electrodes, a bias circuit comprising in series connection the said emitter and base electrodes, said rectifying means, and a diode; said diode being connected to be forward-biased by said rectifying means; a primary control circuit adapted to have primary-intelligence alternating current signals impressed thereon; and means coupling said primary control circuit to said bias circuit.

2,837,741
DIRECTIONALLY ADJUSTABLE RADIO RECEIVER ANTENNA
Harold J. Heindel, Munsey Park, Ernst Groschoff, Glen Head, and Emil Joos, Huntington, N. Y., assignors to Andrea Radio Corporation, Long Island City, N. Y., a corporation of New York
Application June 11, 1956, Serial No. 590,624
3 Claims. (Cl. 343—702)



3. A radio receiver case comprising a cabinet, a cabinet cover, hinge means with horizontal axis pivotally attaching said cover to said cabinet for movement through approximately 180 degrees, an antenna pivotally attached to said cover about an axis perpendicular to said hinge axis and thereby adapted to be adjusted for optimum radio reception, conductive means connected to said antenna and adapted to be connected to said receiving apparatus, said cabinet cover being of L-shaped cross-section, and an angular scale on the leg of said L at right angles to said antenna axis for determining the angle at which the antenna is turned.

2,837,742
TELEVISION ANTENNAS
Robert S. Weiss, South Euclid, Ohio, assignor to Finney Manufacturing Company, Bedford, Ohio, a corporation of Ohio
Application October 15, 1956, Serial No. 615,809
16 Claims. (Cl. 343—749)

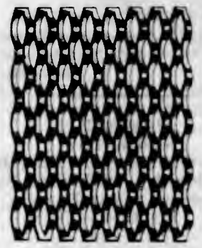


2. A radio frequency antenna comprising a driven dipole having a low half-wave resonant frequency in the range of 54 to 88 mc. and parasitic means associated with said dipole to improve its response at a substantially higher frequency in the range of 174 to 216 mc., said dipole having a pair of condensers symmetrically interposed therein in spaced relationship so as to divide the dipole longitudinally into three parts of substantially equal resonant length, and said condensers being selected to have a capacitive reactance at said low resonant frequency sufficient to substantially reduce the resonant length of the driven dipole at that frequency, but having a relatively low capacitive reactance and relatively little effect on the resonant length of said driven dipole at said substantially higher frequency.

DESIGNS

JUNE 3, 1958

182,943
EXPANDED METAL SHEET
Charles B. Alvord, Kenilworth, Ill., assignor to United States Gypsum Company, Chicago, Ill., a corporation of Illinois
Application September 17, 1956, Serial No. 42,979
Term of patent 14 years
(Cl. D54—2)



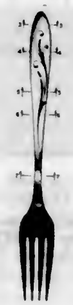
182,944
DRAWER PULL OR THE LIKE
Charles E. Attwood, Lake Worth, Fla., assignor to Acme Visible Records, Inc., Crozet, Va., a corporation of Delaware
Application December 11, 1956, Serial No. 44,153
Term of patent 14 years
(Cl. D10—8)



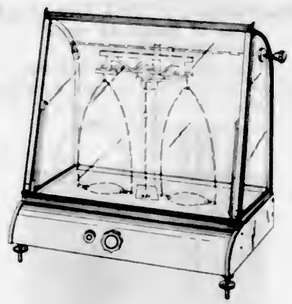
182,945
HIGHWAY MARKER FOR WET TRAFFIC LINES
James Back, Dayton, Ohio, assignor of one-half to John C. Weigel, Dayton, Ohio
Application January 7, 1957, Serial No. 44,411
Term of patent 14 years
(Cl. D72—1)



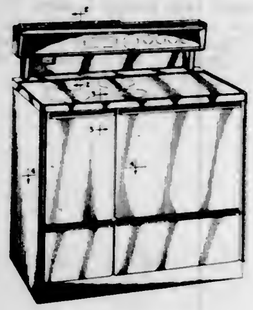
182,946
FORK OR SIMILAR ARTICLE OF FLATWARE
Clifton Barr, Rowley, and Robert J. King, Newburyport, Mass., assignors to Towle Manufacturing Company, Newburyport, Mass., a corporation of Massachusetts
Application August 15, 1957, Serial No. 47,373
Term of patent 14 years
(Cl. D54—12)



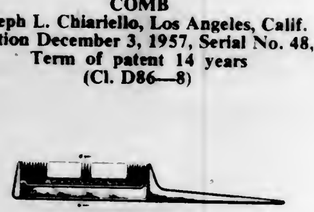
182,947
BALANCE SCALE
Harry C. Becker, New Rochelle, N. Y.
Application March 14, 1956, Serial No. 40,608
Term of patent 3½ years
(Cl. D52—10)



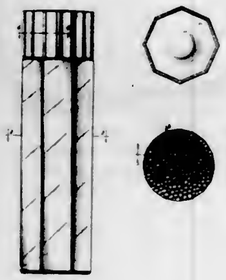
182,948
ELECTRIC RANGE
Arthur N. Bec Var and Edward W. Harrison, Jefferson County, Ky., assignors to General Electric Company, a corporation of New York
Application March 21, 1957, Serial No. 45,378
Term of patent 14 years
(Cl. D81—4)



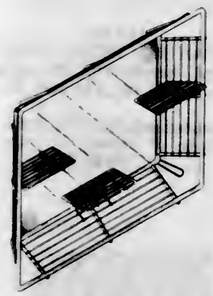
182,949
COMB
Joseph L. Chiariello, Los Angeles, Calif.
Application December 3, 1957, Serial No. 48,755
Term of patent 14 years
(Cl. D86—8)



182,950
DECANTER
Ernest L. Du Pree, Weston, Conn., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application February 19, 1957, Serial No. 44,907
Term of patent 14 years
(Cl. D58—6)



182,951
WHATNOT MIRROR OR THE LIKE
Thomas Estella, Long Island City, N. Y.
Application June 19, 1956, Serial No. 41,976
Term of patent 3½ years
(Cl. D33—9)



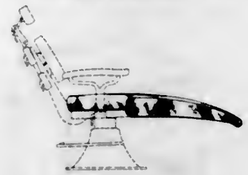
182,952
STICK TOY
Arthur W. Frisk, South Bend, Ind.
Application March 1, 1957, Serial No. 45,044
Term of patent 14 years
(Cl. D34—15)



182,953
PHONOGRAPH RECORD HOLDER OR THE LIKE
Harold R. Gullixson, Greensboro, N. C.
Application March 29, 1957, Serial No. 45,505
Term of patent 14 years
(Cl. D33—3)



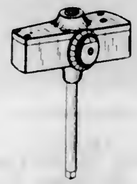
182,954
DENTAL CHAIR SEAT
Norman A. Hana, San Francisco, Calif., assignor to Hek Manufacturing Company, San Francisco, Calif., a partnership of California
Application April 17, 1957, Serial No. 45,769
Term of patent 14 years
(Cl. D15—3)



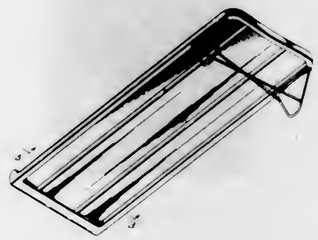
182,955
DENTAL CHAIR SEAT
Norman A. Hana, San Francisco, Calif., assignor to Hek Manufacturing Company, San Francisco, Calif., a partnership of California
Application April 29, 1957, Serial No. 45,941
Term of patent 14 years
(Cl. D15—3)



182,956
TORQUE INDICATING AND TRANSMITTING TOOL
Oren B. Harmes, Algona, Iowa
Application July 18, 1956, Serial No. 42,287
Term of patent 14 years
(Cl. D54—16)



182,957
BODY SUPPORTING BOARD
George R. Harris and Thomas H. Lane, Houston, Tex.; said Lane assignor to Polymer Engineering Corporation, Houston, Tex., a corporation of Texas
Application May 21, 1956, Serial No. 41,555
Term of patent 14 years
(Cl. D5—2)



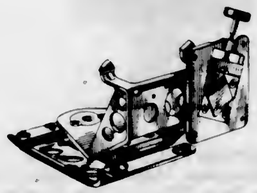
182,958
TRAILER TANK BODY
Clifford C. Holt, Independence, Mo., assignor to Butler Manufacturing Company, Kansas City, Mo., a corporation of Missouri
Application October 17, 1957, Serial No. 48,141
Term of patent 14 years
(Cl. D14—3)



182,959
PUFFED TEXTILE FABRIC
Clement R. Howell, Fairfield, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 23, 1957, Serial No. 45,863
Term of patent 14 years
(Cl. D92—1)



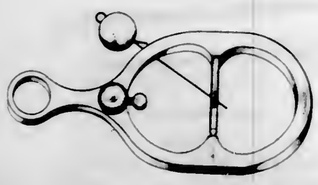
182,960
ADJUSTABLE MOUNT FOR SIGHT UNIT AND CAMERA
John E. Huber, Delhi Township, Hamilton County, Ohio, assignor to Huber Industries, Inc., Cincinnati, Ohio, a corporation of Ohio
Application February 13, 1956, Serial No. 40,133
Term of patent 14 years
(Cl. D61—1)



182,961
LACE TABLECLOTH
James S. Hughes, Kingston, Pa.
Application May 31, 1957, Serial No. 46,421
Term of patent 3½ years
(Cl. D92—26)



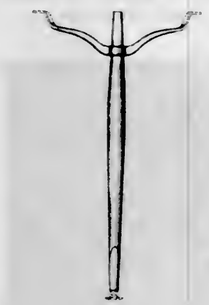
182,962
TETHERED BALL G[illegible]E APPARATUS
Alfred C. Kather, [illegible] Angeles, Calif.
Application February 7, 1957, Serial No. 44,793
Term of patent 14 years
(Cl. D34—15)



182,963
PUFFED TEXTILE FABRIC
Ruth Kerkovius, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application May 29, 1957, Serial No. 46,403
Term of patent 14 years
(Cl. D92—1)



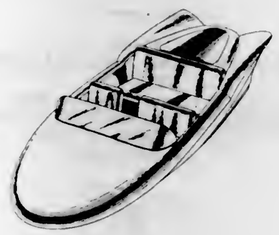
182,964
COMBINED LEG AND BRACE
Robert E. Kjer Jakobsen, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application October 28, 1957, Serial No. 48,260
Term of patent 14 years
(Cl. D33—14)



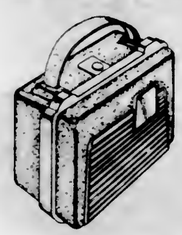
182,965
TABLE
Robert E. Kjer Jakobsen, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application October 28, 1957, Serial No. 48,261
Term of patent 14 years
(Cl. D33—14)



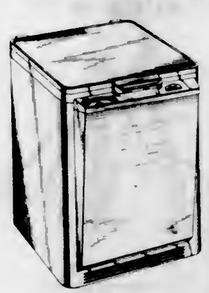
182,966
BOAT
Roland E. Ladewig, Fort Worth, Tex., assignor to Whitehouse Reinforced Plastics Company, Fort Worth, Tex., a corporation of Texas
Application October 8, 1956, Serial No. 43,271
Term of patent 3½ years
(Cl. D71—1)



182,967
SLIDE FILE BOX OR SIMILAR ARTICLE
Herbert R. Leopold, Havertown, Pa., and Clarence B. Mitchell, Chicago, Ill., assignors to Optics Manufacturing Corporation, Philadelphia, Pa., a corporation of Illinois
Application July 24, 1957, Serial No. 47,071
Term of patent 14 years
(Cl. D61—1)



182,968
DISHWASHER
Harrison K. Linger and Robert W. Blee, Jefferson County, Ky., assignors to General Electric Company, a corporation of New York
Application March 21, 1957, Serial No. 45,377
Term of patent 14 years
(Cl. D49—1)



182,969
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application March 11, 1957, Serial No. 45,174
Term of patent 14 years
(Cl. D92—1)



182,970
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application May 29, 1957, Serial No. 46,398
Term of patent 14 years
(Cl. D92—1)



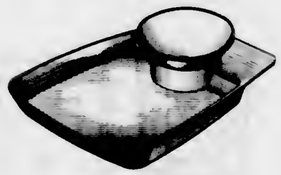
182,971
TOY MOUSE FIGURE
Anna Edwarda Moszczynski, New York, N. Y.
Application August 16, 1957, Serial No. 47,409
Term of patent 14 years
(Cl. D34—2)



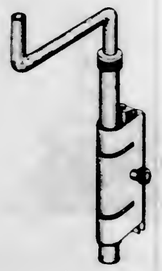
182,972
TOY MOUSE FIGURE
Anna Edwarda Moszczynski, New York, N. Y.
Application August 16, 1957, Serial No. 47,410
Term of patent 14 years
(Cl. D34—2)



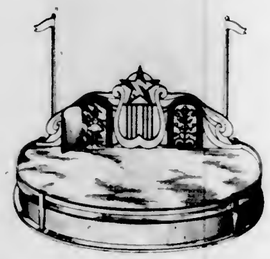
182,973
SNACK TRAY
Jean O. Reinecke, Oak Park, Ill., assignor to Proven Products, Inc., Evanston, Ill., a corporation of Illinois
Application September 16, 1957, Serial No. 47,746
Term of patent 7 years
(Cl. D44—10)



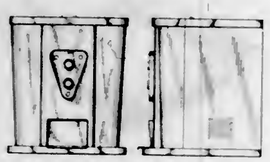
182,974
LAMP MOUNTING UNIT
Milton R. Revzin, Youngstown, Ohio
Application November 27, 1956, Serial No. 43,962
Term of patent 14 years
(Cl. D48—4)



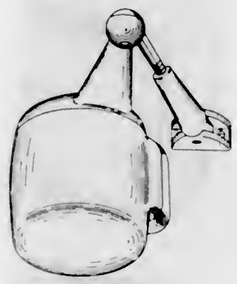
182,975
MUSICAL JEWEL BOX
Hester H. Robinson, St. Joseph, Mo.
Application August 26, 1957, Serial No. 47,507
Term of patent 3½ years
(Cl. D86—9)



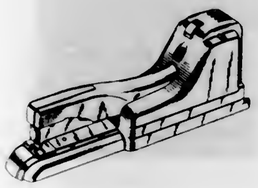
182,976
COLORANT DISPENSER
Kenneth C. Rolin, Lake Villa, Ill., assignor to Rockford Paint Manufacturing Co., Rockford, Ill., a corporation of Illinois
Application September 27, 1957, Serial No. 47,907
Term of patent 14 years
(Cl. D52—2)



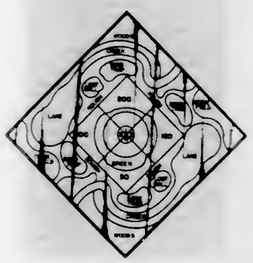
182,977
DOOR CLOSER
John Rollitt, Copmanthorpe, York, Yorkshire, England, assignor to Armstrong Patents Co. Limited, Beverley, England
Application June 12, 1957, Serial No. 46,556
Claims priority, application Great Britain December 15, 1956
Term of patent 14 years
(Cl. D10—7)



182,978
ELECTRIC STAPLING MACHINE OR SIMILAR ARTICLE
Henry Ruskin, New York, N. Y., assignor to Swingline, Inc., Long Island City, N. Y., a corporation of New York
Application July 9, 1957, Serial No. 46,877
Term of patent 14 years
(Cl. D74—1)



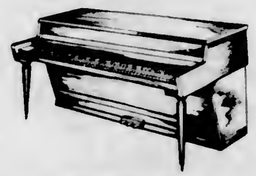
182,979
GAME BOARD
Harold D. Spencer, Clinton Corners, N. Y.
Application March 22, 1956, Serial No. 40,729
Term of patent 14 years
(Cl. D34—5)



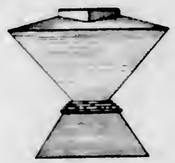
182,980
HAND TOOL
Herbert C. Stoltz, Palmyra, Pa.
Application April 26, 1957, Serial No. 45,898
Term of patent 14 years
(Cl. D54—13)



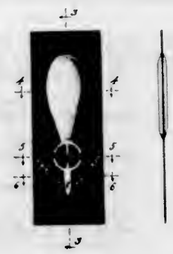
182,981
PIANO OR SIMILAR ARTICLE
Vincent R. Trabucco, Flossmoor, Ill., assignor to Steger Products Mfg. Corp., Steger, Ill., a corporation of Illinois
Application July 31, 1957, Serial No. 47,161
Term of patent 14 years
(Cl. D56—9)



182,982
TROPHY BASE
Norman S. Twitchell, Los Angeles, Calif.
Application August 15, 1957, Serial No. 47,379
Term of patent 14 years
(Cl. D29—23)



182,983
FLEXIBLE STORAGE CONTAINER FOR LIQUIDS
Lloyd I. Volckening, Glen Ridge, N. J., assignor to Ivers-Lee Company, Newark, N. J., a corporation of New Jersey
Application September 16, 1957, Serial No. 47,742
Term of patent 14 years
(Cl. D58—2)



182,984
COVERED COAT HANGER
Irma S. Walsh, Washington, D. C.
Application July 1, 1957, Serial No. 46,781
Term of patent 7 years
(Cl. D80—8)



182,985
HOBBY HORSE SHELL
Robert H. Wendt, Evanston, Ill.
Application April 12, 1957, Serial No. 45,723
Term of patent 14 years
(Cl. D34—15)



LIST OF REISSUE PATENTEES

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PATENTS WERE ISSUED ON THE 3RD DAY OF JUNE, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Anderson, Edward L., to Goodman Mfg. Co. Adjustable trimmer bar for boring type mining machine. Re. 24,480, 6–3–58, Cl. 262—7.

Felkner, Alphie O., to The Thew Shovel Co. Hydraulic stabilizer for cranes. Re. 24,482, 6–3–58, Cl. 212—145.

German, Gordon G. Unloading attachment for a bin. Re. 24,481, 6–3–58, Cl. 214—17.

Goodman Mfg. Co.: *See*—
Anderson, Edward L. Re. 24,480.

Graham, Dallas P., to Joy Mfg. Co. Rotary mining machine head and cutter carried thereby movable in elliptical paths. Re. 24,479, 6–3–58, Cl. 262—7.

Joy Mfg. Co.: *See*—
Graham, Dallas P. Re. 24,479.

Thew Shovel Co., The: *See*—
Felkner, Alphie O. Re. 24,482.

LIST OF PLANT PATENTEES

Brooks, Lenard L. Azalea plant. 1,714, 6–3–58, Cl. 47—60.

Hart, George B., Inc.: *See*—
Motose, Thomas E. 1,715.

Motose, Thomas E., to George B. Hart, Inc. Rose plant. 1,715, 6–3–58, Cl. 47—61.

LIST OF DESIGN PATENTEES

Acme Visible Records, Inc.: *See*—
Attwood, Charles E. 182,944.

Alvord, Charles B., to United States Gypsum Co. Expanded metal sheet. 182,943, 6–3–58, Cl. D54—2.

Armstrong Patents Co. Ltd.: *See*—
Rollitt, John. 182,977.

Attwood, Charles E., to Acme Visible Records, Inc. Drawer pull or the like. 182,944, 6–3–58, Cl. D10—8.

Back, James, ½ to J. C. Weigel. Highway marker for wet traffic lines. 182,945, 6–3–58, Cl. D72—1.

Barr, Clifton, and R. J. King, to Towle Mfg. Co. Fork or similar article of flatware. 182,946, 6–3–58, Cl. D54—12.

Becker, Harry C. Balance scale. 182,947, 6–3–58, Cl. D52—10.

Bec Var, Arhtur N., and E. W. Harrison, to General Electric Co. Electric range. 182,948, 6–3–58, Cl. D81—4.

Blee, Robert W.: *See*—
Linger, Harrison K., and Blee. 182,968.

Butler Mfg. Co.: *See*—
Holt, Clifford C. 182,958.

Chiariello, Joseph L. Comb. 182,949, 6–3–58, Cl. D86—8.

Chicopee Mills, Inc.: *See*—
Kerkovius, Ruth. 182,963.
McCord, Douglas D. 182,969.
McCord, Douglas D. 182,970.

Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 182,950, 6–3–58, Cl. D58—6.

Estella, Thomas. Whatnot mirror or the like. 182,951, 6–3–58, Cl. D33—9.

Frisk, Arthur W. Stick toy. 182,952, 6–3–58, Cl. D34—15.

General Electric Co.: *See*—
Bec Var, Arthur N., and Harrison. 182,948.
Linger, Harrison K., and Blee. 182,968.

Gullixson, Harold R. Phonograph record holder or the like. 182,953, 6–3–58, Cl. D33—3.

Hana, Norman A., to Hek Mfg. Co. Dental chair seat. 182,954, 6–3–58, Cl. D15—3.

Hana, Norman A., to Hek Mfg. Co. Dental chair seat. 182,955, 6–3–58, Cl. D15—3.

Harmes, Oren B. Torque indicating and transmitting tool. 182,956, 6–3–58, Cl. D54—16.

Harris, George R., and T. H. Lane; said Lane assor. to Polymer Engineering Corp. Body supporting board. 182,957, 6–3–58, Cl. D5—2.

Harrison, Edward W.: *See*—
Bec Var, Arthur N., and Harrison. 182,948.

Hek Mfg. Co.: *See*—
Hana, Norman A. 182,954.
Hana, Norman A. 182,955.

Holt, Clifford C., to Butler Mfg. Co. Trailer tank body. 182,958, 6–3–58, Cl. D14—3.

Howell, Clement R., to United States Rubber Co. Puffed textile fabric. 182,959, 6–3–58, Cl. D92—1.

Huber Industries, Inc.: *See*—
Huber, John E. 182,960.

Huber, John E., to Huber Industries, Inc. Adjustable mount for sight unit and camera. 182,960, 6–3–58, Cl. D61—1.

Hughes, James S. Lace tablecloth. 182,961, 6–3–58, Cl. D92—26.

Ivers-Lee Co.: *See*—
Volckening, Lloyd I. 182,983.

Kather, Alfred C. Tethered ball game apparatus. 182,962, 6–3–58, Cl. D34—15.

Kerkovius, Ruth, to Chicopee Mills, Inc. Puffed textile fabric. 182,963, 6–3–58, Cl. D92—1.

King, Robert J.: *See*—
Barr, Clifton, and King. 182,946.

Kjer Jakobsen, Robert E., to Virtue Bros. Mfg. Co. Combined leg and brace. 182,964, 6–3–58, Cl. D33—14.

Kjer Jakobsen, Robert E., to Virtue Bros. Mfg. Co. Table. 182,965, 6–3–58, Cl. D33—14.

Ladewig, Roland E., to Whitehouse Reinforced Plastics Co. Boat. 182,966, 6–3–58, Cl. D71—1.

Lane, Thomas H.: *See*—
Harris, George R., and Lane. 182,957.

Leopold, Herbert R., and C. B. Mitchell, to Optics Mfg. Corp. Slide file box or similar article. 182,967, 6–3–58, Cl. D61—1.

Linger, Harrison K., and R. W. Blee, to General Electric Co. Dishwasher. 182,968, 6–3–58, Cl. D49—1.

McCord, Douglas D., to Chicopee Mills, Inc. Puffed textile fabric. 182,969, 6–3–58, Cl. D92—1.

McCord, Douglas D., to Chicopee Mills, Inc. Puffed textile fabric. 182,970, 6–3–58, Cl. D92—1.

Mitchell, Clarence B.: *See*—
Leopold, Herbert R., and Mitchell. 182,967.

Mosszynski, Anna E. Toy mouse figure. 182,971, 6–3–58, Cl. D34—2.

Mosszynski, Anna E. Toy mouse figure. 182,792, 6–3–58, Cl. D34—2.

Optics Mfg. Corp.: *See*—
Leopold, Herbert R., and Mitchell. 182,967.

Polymer Engineering Corp.: *See*—
Harris, George R., and Lane. 182,957.

Proven Products, Inc.: *See*—
Reinecke, Jean O. 182,973.

Reinecke, Jean O., to Proven Products, Inc. Snack tray. 182,973, 6–3–58, Cl. D44—10.

Revsin, Milton R. Lamp mounting unit. 182,974, 6–3–58, Cl. D48—4.

Robinson, Hester H. Musical jewel box. 182,975, 6–3–58, Cl. D86—9.

Rockford Paint Mfg. Co.: *See*—
Rolin, Kenneth C. 182,976.

Rolin, Kenneth C., to Rockford Paint Mfg. Co. Colorant dispenser. 182,976, 6–3–58, Cl. D52—2.

Rollitt, John, to Armstrong Patents Co. Ltd. Door closer. 182,977, 6–3–58, Cl. D10—7.

Ruskin, Henry, to Swingline, Inc. Electric stapling machine or similar article. 182,978, 6–3–58, Cl. D74—1.

Schenley Industries, Inc.: *See*—
Du Pree, Ernest L. 182,950.

Spencer, Harold D. Game board. 182,979, 6–3–58, Cl. D34—5.

Steger Products Mfg. Corp.: *See*—
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Stolts, Herbert C. Hand tool. 182,980, 6–3–58, Cl. D54—13.

Swingline, Inc.: *See*—
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Towle Mfg. Co.: *See*—
Barr, Clifton, and King. 182,946.

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Twitchell, Norman S. Trophy base. 182,982, 6–3–58, Cl. D29—23.

United States Gypsum Co.: *See*—
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United States Rubber Co.: *See*—
Howell, Clement R. 182,959.

Virtue Bros. Mfg. Co.: *See*—
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Kjer Jakobsen, Robert E. 182,965.
Voickening, Lloyd I., to Ivers-Lee Co. Flexible storage container for liquids. 182,983, 6–3–58, Cl. D58—2.
Walah, Irma S. Covered coat hanger. 182,984, 6–3–58, Cl. D80—8.
Weigel, John C.: *See*—
Back, James. 182,945.
Wendt, Robert H. Hobby horse shell. 182,985, 6–3–58, Cl. D34—15.
Whitehouse Reinforced Plastics Co.: *See*—
Ladewig, Roland E. 182,966.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 3RD DAY OF JUNE, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industires, Inc.: *See*—
Thome, Leslie K., and Carlson. 2,837,322.
A M P Inc.: *See*—
Demler, Henry W. 2,837,135.
Abbott Laboratories: *See*—
McMinn, Roland A., and Hartop. 2,837,091.
Ackert, Rudolf, and K. Klaeb. Oscillating sieves, screens or the like. 2,837,210, 6–3–58, Cl. 209—400.
Acme Steel Co.: *See*—
Straits, Ernest J. 2,837,392.
Adam, Frank, Electric Co.: *See*—
Lewis, Harold A. 2,837,711.
Adams, Phillip: *See*—
Beinfest, Sidney, Adams, and Halpern. 2,837,560.
Beinfest, Sidney, Adams, and Halpern. 2,837,561.
Adams, S. S., Co.: *See*—
Brennan, George A. 2,836,931.
Adamson, Harley W. Automatic take-up device. 2,837,292, 6–3–58, Cl. 242—47.5.
Adelson, Samuel L., to Infilco Inc. Unitary means for operation of two pilot valves. 2,837,116, 6–3–58, Cl. 137—620.
Adinolfi, Michael. Buttons. 2,836,869, 6–3–58, Cl. 24—113.
Adler, Rosa: *See*—
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Advance Transformer Co.: *See*—
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Kaleski, Kazimier T. 2,837,103.
Aeronautical Communications Equipment, Inc.: *See*—
Epperson, William H. 2,837,635.
Aetna-Standard Engineering Co., The: *See*—
Chang, William J. H. 2,836,880.
Africa, Walter M.: *See*—
Gollmar, Herbert A., and Africa. 2,837,399.
Agar, Kenneth C., to Clinton Machine Co. Choke control system for carburetors. 2,837,070, 6–3–58, Cl. 123—108.
Agens, Maynard C., to General Electric Co. Organopolysiloxane lubricants. 2,837,482, 6–3–58, Cl. 252—49.6.
Aiken, William R., to Kaiser Industries Corp. Electronic device. 2,837,691, 6–3–58, Cl. 315—23.
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Hay, Wayne W. 2,837,413.
Akt. Brown, Boveri & Cie: *See*—
Keller, Robert. 2,837,710.
Spuhler, Roland. 2,837,705.
Aktiebolaget Separator: *See*—
Haglund, Folke V. 2,737,271.
Albanese, Damian F., to International Telephone and Telegraph Corp. Pulse modulator. 2,837,719, 6–3–58, Cl. 332—9.
Albers, Hamilton M., to Poor & Co. Gathering arm for underground loaders. 2,837,197, 6–3–58, Cl. 198—10.
Alexandersson, Harald V., to Telefonaktiebolaget L M Ericsson. Controlling device in coin boxes. 2,837,600, 6–3–58, Cl. 179—6.5.
Allen, Edward M., to Columbia-Southern Chemical Corp. Rubber composition containing alumina-silica pigment. 2,837,495, 6–3–58, Cl. 260—41.5.
Allen, Priscilla: *See*—
Sawyer, Priscilla A. 2,837,087.
Allen, Russell G., to Owens-Illinois Glass Co. Valve operating mechanism. 2,837,118, 6–3–58, Cl. 137—632.
Allen, Thomas O., and A. W. Coulter, Jr., to Esso Research and Engineering Co. Well completion method. 2,837,164, 6–3–58, Cl. 166—22.
Alles, Richard, to Badische Anilin- & Soda-Fabrik Akt. Process for preparation of condensation products of carbohydrates, sulfurous acid or its derivatives, formaldehyde, and phenol. 2,837,489, 6–3–58, Cl. 260—17.2.
Alles, Richard, to Badische Anilin- & Soda-Fabrik Akt. Water soluble albumin-precipitating condensation products. 2,837,563, 6–3–58, Cl. 260—506.
Allgeyer, Guy H.: *See*—
McLaughlin, John E., and Allgeyer. 2,836,934.
Allied Chemical & Dye Corp.: *See*—
Follows, Alan G. 2,837,404.
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Hawk, Dale W. 2,837,349.
Rockwell, Harvey W. 2,837,107.
Alpan Co.: *See*—
Chundelak, Louis W., Jr., and Stoudt. 2,837,015.
Altinger, Hans. Toe covers for ice skates. 2,836,908, 6–3–58, Cl. 36—72.
Altmann, Kurt, to Durkoppwerke Akt. Mold for the manufacture of artificial thermoplastic bearing cages for antifriction bearings. 2,836,843, 6–3–58, Cl. 18—34.
American Bosch Arma Corp.: *See*—
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American Brake Shoe Co.: *See*—
Godfrey, Charles E., and Johnson. 2,837,033.
American Can Co.: *See*—
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American Compress & Warehouse Co., Inc.: *See*—
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Bach, Frederick L., Jr., Brabander, and Kushner. 2,837,522.
Bernstein, Seymour, and Lenhard. 2,837,545.
Brockman, John A., Jr., and Fabio. 2,837,556.
Reeves, Richard F., and Cestoni. 2,837,549.
American Home Products Corp.: *See*—
Winthrop, Stanley O. 2,837,529.
American Instrument Co., Inc.: *See*—
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American Optical Co.: *See*—
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Thorburn, Milton R. 2,837,086.
American Radiator & Standard Sanitary Corp.: *See*—
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American Steel Foundries: *See*—
Tomka, Joseph W. 2,837,059.
American Viscose Corp.: *See*—
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Ancet, Victor M. J., and Marius Fayolle, also known as Marcel Fayolle. Shutteless weaving loom. 2,837,124, 6–3–58, Cl. 139—123.
Andersen, Niels E., to F. L. Smidth & Co. Slurry heat exchanger. 2,836,903, 6–3–58, Cl. 34—109.
Anderson, Cordie: *See*—
Anderson, Harvey H. 2,836,950.
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Anderson, John R.: *See*—
Murray, James V., Jr., Young and Anderson. 2,837,585.
Anderson, John R., and D. W. Peck, to Union Carbide Corp. Extraction of indoles. 2,837,531, 6–3–58, Cl. 260—319.
Anderson, William S., ½ to J. E. Axeman. Liquid heater using burned fuel heating gases. 2,837,064, 6–3–58, Cl. 122—165.
Andrea Radio Corp.: *See*—
Heindel, Harold J., Groschoff, and Joss. 2,837,741.
Andren, Harold. Attachable supports for cans, pails and the like. 2,837,305, 6–3–58, Cl. 248—148.
Andres, Lloyd J. Continuous multiple record player. 2,837,338, 6–3–58, Cl. 274—10.
Andres, Raymond J., and W. Sweeny, to E. I. du Pont de Nemours & Co. Copolymers of acrylonitrile with alkenylaromatic sulfonic acids or salts. 2,837,500, 6–3–58, Cl. 260—79.3.
Anemostat Corp. of America: *See*—
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Annis, Lawrence C. Pneumatic cotton harvester unit. 2,836,951, 6–3–58, Cl. 56—30.
Ansul Chemical Co.: *See*—
Krause, Walter O. 2,836,974.
Arceo, Louis. Relish dish. 2,837,218, 6–3–58, Cl. 211—129.
Arentz, John C., to Textile Machine Works. Fashioning mechanism for knitting machines. 2,836,971, 6–3–58, Cl. 66—89.
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Hecker, Arthur C. 2,837,490.
Armenante, Jerry V., and F. A. Russo. Traction or antiskid device for motor vehicles. 2,837,133, 6–3–58, Cl. 152—218.
Armstrong, Edward T., to The Goodyear Tire & Rubber Co. Heat absorbing brake means. 2,837,180, 6–3–58, Cl. 188—218.
Armstrong, Jack W., H. A. Woods, and C. E. Francis, to Shell Development Co. Air filter lubricants. 2,837,170, 6–3–58, Cl. 183—51.
Arnold, Charles F.: *See*—
Owen, Webster J., and Arnold. 2,837,288.
Arthur, Ronald H., to Royal McBee Corp. Modular block punch selector assembly. 2,837,162, 6–3–58, Cl. 164—111.
Aschacker, Martin, to West Canadian Collieries Ltd. Apparatus for drilling large holes between galleries. 2,837,324, 6–3–58, Cl. 262—7.
Ash, Denis J., and R. A. Davis, to The British Tabulating Machine Co. Ltd. Record card controlled printing mechanisms. 2,837,023, 6–3–58, Cl. 101—93.
Ashbrook, Clifford L., to H. T. Chamberlain, trustee. Thinwall pipe coupling with pressure actuated locking gasket. 2,837,353, 6–3–58, Cl. 285—106.
Atlas Press Co.: *See*—
Cole, Clayton K., and Gorbeck. 2,836,949.
Auerbach, Morris E., to Sterling Drug Inc. Aqueous riboflavin compositions. 2,837,461, 6–3–58, Cl. 167—81.
Aurora Equipment Co.: *See*—
Sitler, Richard W. 2,837,398.
Austin, Charles C., to Sutherland Paper Co. Device for applying covers of flexible material to paper cups and like receptacles. 2,836,948, 6–3–58, Cl. 53—319.
Auto-Vac Co.: *See*—
Butzko, Robert L. 2,836,852.
Automatic Canteen Co. of America: *See*—
Perpignani, Marino, and Werner. 2,837,244.

Axeman, James E.: *See*—
Anderson, William S. 2,837,064.
Ayers, Richard A. Heating vessel. 2,837,081, 6-3-58, Cl. 126—261.
Ayres, John A.: *See*—
Spedding, Frank H., and Ayres. 2,837,548.
Azgapetian, Victor, to Servomechanisms Inc. Wide range measuring or control system. 2,837,733, 6-3-58, Cl. 340—187.
Bach, Frederick L., Jr., H. J. Brabander, and S. Kushner, to American Cyanamid Co. Substituted alkylenedipiperazines. 2,837,522, 6-3-58, Cl. 260—268.
Badger Meter Mfg. Co.: *See*—
Henke, Russell W. 2,837,105.
Badische Anilin- & Soda-Fabrik Akt.: *See*—
Alles, Richard. 2,837,489.
Alles, Richard. 2,837,563.
Baechli, George, to Joy Mfg. Co. Suspension troughing idler. 2,837,202, 6-3-58, Cl. 198—192.
Baget, Jean: *See*—
Gaillot, Paul, and Baget. 2,837,513.
Bailey, Charles S., to General Motors Corp. Automobile radiator thermostat. 2,837,284, 6-3-58, Cl. 236—34.
Bailey, Richard J., to Cardox Corp. Electrically insulated pipe coupling with confined pressure-sealing means. 2,837,351, 6-3-58, Cl. 285—52.
Baker, Douglas A.: *See*—
Klein, George J., and Baker. 2,837,172.
Bakker, Lubertus: *See*—
Swearingen, Judson S., and Bakker. 2,837,439.
Baldwin, Richard E., to Powers-Samas Accounting Machines Ltd. Record controlled statistical machines. 2,837,280, 6-3-58, Cl. 235—61.11.
Baljak Corp.: *See*—
Burke, Thomas F. 2,837,014.
Pagendarm, Edward J. 2,837,013.
Stenger, Richard C. 2,837,261.
Ballman, Robert J., to The Herschede Hall Clock Co. Coin-operated device. 2,837 195, 6-3-58, Cl. 194—72.
Bancroft, Howard S. Fluid pressure controlling valve. 2,837,115, 6-3-58, Cl. 137—620.
Banks, Robert L.: *See*—
Hogan, John P., and Banks. 2,837,587.
Barényi, Béla. Frame for motor vehicles. 2,837,347, 6-3-58, Cl. 280—106.
Barkow, William H., to Radio Corp. of America. Electromagnetic deflection apparatus. 2,837,674, 6-3-58, Cl. 313—70.
Barnett, Robert A. Apparatus for making perspective drawings. 2,836,893, 6-3-58 Cl. 33—18.
Barnhart, William S., to Minnesota Mining and Mfg. Co. Telomerization with sulfuryl halide and a sulfur dioxide modifying agent. 2,837,580, 6-3-58, Cl. 260—653.
Baron, Howard C. Magnetic mixers. 2,837,320, 6-3-58, Cl. 259—108.
Barry, Vincent C., to Lasdon Foundation, Inc. Thiosemicarbazone compounds. 2,837,509, 6-3-58, Cl. 260—209.
Barthe, Paulette. Announcing method and apparatus. 2,837,606, 6-3-58, Cl. 179—100.1.
Bary, Nina: *See*—
Bary, Woldemar A. 2,837,101.
Bary, Woldemar A., to N. Bary. Inflatable structure. 2,837,101, 6-3-58, Cl. 135—1.
Bastian-Blessing Co., The: *See*—
McMahon, Alexander F. 2,837,367.
Bauer, Ralph F., and K. M. McLellan, to Industrial Rayon Corp. Method and apparatus for incorporating coloring matter in spinning solutions. 2,837,102, 6-3-58, Cl. 137—7.
Bauer, Russell E. Lock valve. 2,837,106, 6-3-58, Cl. 137—106.
Baumann, Frank J., and J. M. Bloomfield, to Industrial Rayon Corp. Stop motion. 2,837 291, 6-3-58, Cl. 242—37.
Baxter, Thomas R., to Continental Can Co., Inc. Method of producing glass surfaced low pressure laminates. 2,837,457, 6-3-58, Cl. 154—95.
Beaman, Norman V. to The J. H. Day Co., Inc. Sanitary stuffing box. 2,837,356, 6-3-58, Cl. 286—7.
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Bean, Xarifa L. 2,836,867.
Bean, Xarifa L., to Bean, Morris, & Co. Process of making mold. 2,836 867, 6-3-58, Cl. 22—193.
Bechle, Rudolph P.: *See*—
Potdevin, Adolph, and Bechle. 2,837 267.
Potdevin, Adolph, and Bechle. 2,837,268.
Becker, Theodore J.: *See*—
Ruddy, Arlo W., and Becker. 2,837,525.
Behrens, Otto K., and P. W. Ensminger, to Eli Lilly and Co. Pertussis vaccine preparation. 2,837,460, 6-3-58, Cl. 167—78.
Beijersbergen, Jacobus P., to North American Philips Co., Inc. Piezo-electric quartz crystal plate. 2,837,667, 6-3-58, Cl. 310—9.6.
Beinfest, Sidney, P. Adams, and J. Halpern, to Berkeley Chemical Corp. Preparation of organic dicarbamates. 2,837,560, 6-3-58, Cl. 260—482.
Beinfest, Sidney, P. Adams, and J. Halpern, to Berkeley Chemical Corp. Preparation of organic monocarbamates. 2,837,561, 6-3-58, Cl. 260—482.
Belek, Emil, to Bell Telephone Laboratories, Inc. Tool for stripping wire and making an insulated wrapped connection. 2,836,837, 6-3-58, Cl. 7—14.1.
Bell Telephone Laboratories, Inc.: *See*—
Belek, Emil. 2,836,837.
Gustafson, Walter G., and Harrison. 2,837,612.
Hochgraf, Lester, and Koenig. 2,837,605.
Law, John T., and Meigs. 2,837,471.
Schenck, Alfred K. 2,837,642.
Thurmond, Carl D. 2,837,448.
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Bendall, Wilfrid H. Drive chain. 2,836,984, 6-3-58, Cl. 74—249.
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Hood, Edwin E. 2,837,187.
Kasten, Walter. 2,837,214.
Price, Earl R. 2,837,186.
Ruhl, Charles A. L. 2,837,114.
Ruhl, Charles A. L. 2,837,117.
Schultz, Harold B. 2,837,061.
Segall, Louis H. 2,837,698.
Viret, Andre P. 2,837,052.
Viret, Andre P. 2,837,053.
Bennett, George A., to United States of America, Atomic Energy Commission. Preparation of impervious graphite by liquid phase impregnation. 2,837,412, 6-3-58, Cl. 23—209.1.
Berger, Paul, to Advance Transformer Co. Apparatus for igniting and operating gaseous discharge devices. 2,837,697, 6-3-58, Cl. 315—138.
Berghaus, Bernhard, and H. Bucek, to Elektrophysikalische Anstalt Bernhard Berghaus. Process and apparatus for carrying out reactions by the action of electrical glow discharges. 2,837,654, 6-3-58, Cl. 250—49.5.
Bergstrom, Carl P., to Crompton & Knowles Loom Works. Letoff for loom. 2,837,123, 6-3-58, Cl. 139—110.
Berkeley Chemical Corp.: *See*—
Beinfest, Sidney, Adams, and Halpern. 2,837,560.
Beinfest, Sidney, Adams, and Halpern. 2,837,561.
Berlin Chapman Co.: *See*—
De Namur, Norman F. 2,836,832.
Bernstein, Seymour, and R. H. Lenhard, to American Cyanamid Co. 9α,11β,16α,17α,21-penta-hydroxy-4-pregnene-3,20 dione, its 16,21 diesters and process of preparing the above compounds. 2,837,545, 6-3-58, Cl. 260—397.45.
Berry, Clifford E., to Consolidated Electrodynamics Corp. End support arrangements for string galvanometer. 2,837,717, 6-3-58, Cl. 324—154.
Betner, Thomas E. Re-usable container with disposable cover. 2,837,236, 6-3-58, Cl. 220—54.
Bledsoe, Anthony R., to Goodman Mfg. Co. Rotary type tunneling machine. 2,837,325, 6-3-58, Cl. 262—7.
Biganzoli, Alexandre, to Compagnie de Pont-A-Mousson. Centrifugal casting device. 2,836,864, 6-3-58, Cl. 22—65.
Billin, James J., to Electric & Musical Industries Ltd. Generation of synchronising pulses especially for television. 2,837,596, 6-3-58, Cl. 178—5.4.
Birchall, James D., to John Kerr & Co. (Manchester) Ltd. Fire-fighting foams and methods of producing the same. 2,837,479, 6-3-58, Cl. 252—8.05.
Birmingham, Alfred N.: *See*—
Detwiler, Robert L., Birmingham, and Kauffman. 2,837,611.
Birmingham Small Arms Co. Ltd., The: *See*—
Judson, Charles A., and Collins. 2,837,623.
Bissey, Paul J. Pipe boring machine. 2,836,996, 6-3-58, Cl. 77—3.
Bisso, Robert J.: *See*—
Quigley, Francis T., and Bisso. 2,837,673.
Bjelland, John L.: *See*—
Schutt, Norman C., Bjelland, and Flynn. 2,836,917.
Blakeslee, Walter L. Overload release clutch. 2,837,190, 6-3-58 Cl. 192—56.
Blanchard, Floyd W. Belt supported cartridge pouch. 2,837,259, 6-3-58, Cl. 224—15.
Blaser, Bruno, to Henkel & Cie. G. m. b. H. Composition of matter for and process of producing phosphate layers on iron surfaces. 2,837,449, 6-3-58, Cl. 148—6.15.
Blaser, Bruno, and W. Stein, to Henkel & Cie. G. m. b. H. Process for the isomerization of unsaturated alcohols and their esters. 2,837,577, 6-3-58, Cl. 260—642.
Blaskowski, Henry J., to Combustion Engineering, Inc. Vapor generator with novel gas recirculating system. 2,837,066, 6-3-58, Cl. 122—479.
Bleeksma, Jan: *See*—
Hendee Charles F., Fine, and Bleeksma. 2,837,677.
Bleibtreu, Hermann. Freight car truck. 2,837,035, 6-3-58, Cl. 105—197.1.
Blind, Karl A. Lifting magnet. 2,837,702, 6-3-58, Cl. 317—164.
Block, Meyer: *See*—
Katzman, Max and L., and Block. 2,837,624.
Blok, Lourens, and G. Zwanenburg, to North American Philips Co., Inc. Coil system more particularly for high-frequency heating generators. 2,837 725, 6-3-58, Cl. 336—62.
Bloom, Aaron, and E. L. Michel. Universal aviators oxygen breathing mask. 2,837 090, 6-3-58, Cl. 128—146.
Bloomfield, Joseph M.: *See*—
Baumann, Frank J., and Bloomfield. 2,837,291.
Blough, Ronald S.: *See*—
Johnson, Harold D., and Blough. 2,836,993.
Blumenthal, Warren B., to National Lead Co. Trioxodisirconium hydroxy halides. 2,837,400, 6-3-58, Cl. 23—14.
Bolvin, Horace. Method of producing air pervious material by treating with gas evolving blowing agent and coacting with a washable salt layer. 2,837,440, 6-3-58, Cl. 117—7.
Boone, Wallace D., to O P W Corp. Control for automatic liquid dispensing nozzle. 2,837,240, 6-3-58, Cl. 222—43.
Boosey, Frederick R., to The Sigma Instrument Co. Ltd. Gauges, 2,836,899, 6-3-58, Cl. 33—169.
Booth, Frank: *See*—
Downe, Joseph, and Booth. 2,837,592.
Borg-Warner Corp.: *See*—
Nutt, Harold. 2,837,069.
Bowie, Robert M., to Sylvania Electric Products Inc. Surround-lighting structure. 2,837,734, 6-3-58, Cl. 340—369.

Brabander, Herbert J.: *See*—
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Brand, Karl, to Schafer Industriegesellschaft Schweinfurt m. b. H. Filler member retaining means for wheel brake cylinders. 2,836,961, 6-3-58, Cl. 60—54.6.
Brandon, Chester, to Librascope, Inc. Flux type sensing element. 2,837,277, 6-3-58, Cl. 235—61.
Braun, Aloysius J. Mixing valve. 2,837,283, 6-3-58, Cl. 236—12.
Bravard, Roy F., J. W. Mahaffey, and M. S. Nelson, to United States of America, Atomic Energy Commission. Crucible pour mechanism. 2,836,865, 6-3-58, Cl. 22—84.
Brehm, Charles M., to Kelsey-Hayes Co. Tube cutting die. 2,837,156, 6-3-58, Cl. 164—40.
Brennan, George A., to S. S. Adams Co. Wiggly lizard. 2,836,931, 6-3-58, Cl. 46—237.
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Steer, Donald E. 2,837,184.
British Celanese Ltd.: *See*—
Finlayson, Donald, Krzesinski, and Harcolinski. 2,837,437.
British Fibrak Separator Co. Ltd., The: *See*—
Dowse, Joseph, and Booth. 2,837,592.
British Petroleum Co. Ltd., The: *See*—
Porter, Frederick W. B., and Northcott. 2,837,465.
British Tabulating Machine Co. Ltd., The: *See*—
Ash, Denis J., and Davis. 2,837,023.
British Thomson-Houston Co. Ltd., The: *See*—
Stanworth, John E., Rawson, and Knowles. 2,836,935.
Stokes, John A. 2,837,707.
Brockman, John A., Jr., and P. F. Fabio, to American Cyanamid Co. Propionitriles and method of preparing same. 2,837,556, 6-3-58, Cl. 260—465.
Brown, Forrest W., to The Reflectone Corp. Scoring circuit. 2,837,336, 6-3-58, Cl. 273—102.2.
Brown, Forrest W., to The Reflectone Corp. Impulse responsive circuit. 2,837,700, 6-3-58, Cl. 317—141.
Brown, Harold H., and W. Cook. Metallic building wall. 2,837,153, 6-3-58, Cl. 160—371.
Brown, Harry J., to Union Carbide Corp. Method of sintering chromium-alumina metal ceramics. 2,837,428, 6-3-58, Cl. 75—206.
Brown, Jack E. Folding shoe shine stands. 2,836,842, 6-3-58 Cl. 15—265.
Brown, John F., Jr., to General Electric Co. Chloro-nitro compounds and their preparation. 2,837,578, 6-3-58, Cl. 260—644.
Brown, Leanna J. Table for handicapped persons. 2,837,389, 6-3-58, Cl. 311—29.
Brumek, Frank, ¼ to H. E. Mees. Electric heating massager. 2,837,084, 6-3-58, Cl. 128—24.1.
Bruno, Alexander. Dust caps for roller skate wheels. 2,837,376, 6-3-58, Cl. 301—37.
Bryant Chucking Grinder Co.: *See*—
Lovely, John W. 2,836,936.
Bucek, Hans: *See*—
Berghaus, Bernhard, and Bucek. 2,837,654.
Buck, Mortimer P., and C. F. Crumbley, to The International Nickel Co., Inc. Method for producing welded tubing. 2,837,626, 6-3-58, Cl. 219—61.
Budde, James C., to American Radiator & Standard Sanitary Corp. Water mixing valve. 2,837,282, 6-3-58, Cl. 236—12.
Buehler, Henry J., to Anheuser-Busch, Inc. Extraction of sterols. 2,837,540, 6-3-58, Cl. 260—397.25.
Buntin, George A., to Hercules Powder Co. Polychlorinated dicyclopentadiene. 2,837,579, 6-3-58, Cl. 260—648.
Burford, Barbara M., and A. Cambron, deceased (by The Royal Trust Co., executor), to National Research Council. Process for preparing a catalyst of a silver-base alloy. 2,837,424, 6-3-58, Cl. 75—178.
Burg, Solomon, and T. C. Smith; said Smith assor. to United States of America, Navy. Depth charge firing control mechanism. 2,837,026, 6-3-58, Cl. 102—16.
Burgess, Hovey M.: *See*—
Grice, Harvey H., and Burgess. 2,837,043.
Burke, Thomas F., to Baljak Corp. Device for folding and inserting liners into folding box shells. 2,837,014, 6-3-58, Cl. 93—36.01.
Burness, Donald M., to Eastman Kodak Co. Method for making polyazaindenes. 2,837,521, 6-3-58, Cl. 260—256.4.
Burnett, Richard T., to Bendix Aviation Corp. Brake with axially movable members. 2,837,178, 6-3-58, Cl. 188—73.
Burns, Albert L., Jr., and J. Chadderdon, to Houston Oil Field Material Co., Inc. Hydrostatic bumper jar. 2,837,315, 6-3-58, Cl. 255—27.
Burroughs Corp.: *See*—
Haydu, Zoltan, and Sutton. 2,836,879.
Burroughs, Edwin E., to St. Regis Paper Co. Scoring apparatus. 2,837,012, 6-3-58, Cl. 93—8.
Busch, Edwin. Continuous film reel. 2,837,332, 6-3-58, Cl. 271—2.18.
Busey, Harold M., to United States of America, Atomic Energy Commission. Steam stirred homogeneous nuclear reactor. 2,837,476, 6-3-58, Cl. 204—193.2.
Butin, Emile A. Shuttle change magazine for looms. 2,837,125, 6-3-58, Cl. 139—232.
Butzko, Robert L., to Auto-Vac Co. Vacuum molding machine. 2,836,852, 6-3-58, Cl. 18—19.
Byan, Erwin B., to The Waterbury Farrel Foundry & Machine Co. Drive and emergency brake mechanism for nut formers, headers and the like. 2,836,992, 6-3-58, Cl. 74—665.
C. G. S. Laboratories, Inc.: *See*—
Gabor, William D. 2,837,648.
"C. O. R. E. C. I. Compagnie de Regulation et de Control Industriel": *See*—
Frachon, Marc. 2,837,397.
California Research Corp.: *See*—
Ferstandig, Louis L. 2,837,498.
Hill, Roger W., and Engel. 2,837,582.
Hill, Roger W., and Luthy. 2,837,581.
Hotten, Bruce W., and Johnson. 2,837,480.
Hotten, Bruce W., and Johnson. 2,837,481.
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Sway, Boris, and Callahan. 2,837,484.
Calzone, Federico. Device for adjusting the gauge, thickness or cross-section of a sliver in spinning machines. 2,836,857, 6-3-58, Cl. 19—70.
Cambron, Adrien: *See*—
Burford, Barbara M., and Cambron. 2,837,424.
Camco, Inc.: *See*—
Howard, James H. 2,837,108.
Campbell, Richard A., to Hughes Aircraft Co. Coherent detector circuit. 2,837,646, 6-3-58, Cl. 250—27.
Carani, Attilio D. Garbage can storage cabinet. 2,837,395, 6-3-58, Cl. 312—274.
Cardox Corp.: *See*—
Bailey, Richard J. 2,837,351.
Williamson, Hilding V., Hesson, and Keller. 2,837,414.
Carlson, Elna A. Baby bath cradle. 2,836,833, 6-3-58, Cl. 4—185.
Carlson, Harold A.: *See*—
Thome, Leslie K., and Carlson. 2,837,322.
Carmichael, Thomas F., to Syncro Corp. Electromagnetic reciprocating tool motor and armature support therefor. 2,836,940, 6-3-58 Cl. 51—170.
Carnahan, Robert E., to Chas. Pfizer & Co., Inc. Process for preparing 1-isonicotinyl-2-cyanomethylhydrazine. 2,837,527, 6-3-58, Cl. 260—294.9.
Carotti, Arrigo A.: *See*—
Winternitz, Paul F., and Carotti. 2,837,318.
Carroll, James H.: *See*—
Hanmer, Robert S., and Carroll. 2,837,502.
Carroll, John P.: *See*—
Williams, Russell C., Selyem, and Carroll. 2,837,378.
Carson, Gordon B., and D. K. Wright, Jr., to Selby International, Inc. Automatic fastening machine. 2,837,046, 6-3-58, Cl. 112—118.
Carter, Jesse B., to Hickok Mfg. Co. Inc. Safety strap buckle. 2,836,868, 6-3-58, Cl. 24—77.
Cartledge, Groves H., to United States of America, Atomic Energy Commission. Corrosion inhibition. 2,837,474, 6-3-58, Cl. 204—154.2.
Case, J. I. Co.: *See*—
Markel, John M., Schmidt, and Zellmer. 2,837,229.
Reeser, Esral M. 2,837,203.
Schoenleber, Lawrence H. 2,837,713.
Cashman, Howard A. Adjustable steering mechanism. 2,836,988 6-3-58, Cl. 74—493.
Catherall Reginald, to The Solartron Electronic Group Ltd. Testing servo systems. 2,837,718, 6-3-58, Cl. 324—158.
Central Farmers Fertilizer Co.: *See*—
Seymour, James E. 2,837,418.
Cesak, Jerry B. Picture frames. 2,836,915, 6-3-58, Cl. 40—152.1.
Cestoni, Dominic J.: *See*—
Reeves, Richard F., and Cestoni. 2,837,549.
Chadderdon Jack: *See*—
Bunns, Albert L., Jr., and Chadderdon. 2,837,315.
Chadwick, Lees W. Electrically driven calendar clock. 2,836,956, 6-3-58, Cl. 58—6.
Chamberlain, Henry T.: *See*—
Ashbrook, Clifford L. 2,837,353.
Chamberlin, Earl M., to Merck & Co., Inc. Δ8(9)-11-ketosteroids and process of preparing them. 2,837,514, 6-3-58, Cl. 260—239.55.
Chambless, Ersyl F. Folding combination golf bag and caddy cart. 2,837,346, 6-3-58, Cl. 280—37.
Champion Co., The: *See*—
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Chance Vought Aircraft, Inc.: *See*—
Foley, William R. 2,837,112.
Chandler, Wesley M., and P. F. Heuser, to Wilbert W. Haase Co. Core forms. 2,836,875, 6-3-58, Cl. 25—128.
Chang, William J. H., to The Aetna-Standard Engineering Co. Flying hot saw. 2,836,880, 6-3-58, Cl. 29—69.
Chapman, Edward P., Jr., and J. A. Wood, to V. F. Taylor, Jr. Concrete and cement. 2,837,436, 6-3-58, Cl. 106—97.
Chapman, Gilbert E., to General Motors Corp. Axial flow compressor. 2,837,270, 6-3-58, Cl. 230—115.
Chelminski, Roman, to Knowles Associates. Flexible drive. 2,837,215, 6-3-58, Cl. 210—531.
Chemerda, John M., and T. A. Jacob, to Merck & Co., Inc. Halogenation process for converting Δ7-allosteroids to Δ7, 9(11)-allosteroids. 2,837,515, 6-3-58, Cl. 260—239.55.
Chemical Construction Corp.: *See*—
Schaufelberger, Felix A. 2,837,406.
Chemische Werke Albert: *See*—
Schlenker, Felix. 2,837,493.
Chicago Dynamic Industries, Inc.: *See*—
Koci, Jerry C., Holz, and Dreyer. 2,837,076.
Chicago Pneumatic Tool Co.: *See*—
Lear, Earl B. 2,837,316.
Chicopee Mfg. Corp.: *See*—
Morin, George V. N. 2,837,462.
Christensen, Dan A.: *See*—
Johnson, Lloyd A., Christensen, and Martin. 2,837,355.
Chromalloy Corp. of New York.: *See*—
Seelig Richard P., and Wachtell. 2,837,442.
Chromium Mining & Smelting Corp., Ltd.: *See*—
Pidgeon, Lloyd M. 2,837,328.
Chrysler Corp.: *See*—
Loofbourrow, Alan G. 2,837,167.

Chundelak, Louis W., Jr., and T. L. Stoudt, to Alpan Co. Combination press and edge roller. 2,837,015, 6–3–58, Cl. 93—36.5.

Ciba Ltd: *See*—
Greiat, Maurice, Koch, Sutter, and Kern. 2,837,523.
Riat, Henri. 2,837,507.
Siegrist, Adolph Emil. 2,837,486.

Ciecior, Heinrich K., to Industrie-Werke Karlsruhe Akt. Lubricating system for sewing machines. 2,837,173, 6–3–58, Cl. 184—6.

Clark, Guy W. Combination wall and portable night lamp. 2,837,629, 6–3–58, Cl. 240—10.6.

Clark, Homer W. Adjustable slant drawing board stand. 2,837,391, 6–3–58, Cl. 311—38.

Clarkson, Blanding D., to Sonoco Products Co. Paper tube concrete form. 2,836,874, 6–3–58, Cl. 25—118.

Clay, Burton R., to Radio Corp. of America. Color synchronization. 2,837,594, 6–3–58, Cl. 178—5.4.

Clayton, David P., and R. N. Falge, to General Motors Corp. Electric switch. 2,837,609, 6–3–58, Cl. 200—16.

Clayton Dewandre Co. Ltd.: *See*—
Edge, Stanley H., and Jeffrey. 2,837,177.

Clem, Everett W., to Rice Barton Corp. Paper winding machine. 2,837,293, 6–3–58, Cl. 242—65.

Clinton Machine Co.: *See*—
Agar, Kenneth C. 2,837,070.

Cobb, Leland D., to General Motors Corp. One-way clutch. 2,837,188, 6–3–58, Cl. 192—45.1.

Coe Laboratories, Inc.: *See*—
Grumbine, Robert S. 2,837,434.

Cohen, Oscar P., and M. J. Scott, to Monsanto Chemical Co. Textile materials with an anti-static finish and process for making same. 2,837,446, 6–3–58, Cl. 117—138.8.

Cohen, Robert. Contour mattress. 2,836,836, 6–3–58, Cl. 5—351.

Colbert, Donald: *See*—
Keen, Harry J., Muller, Colbert, and Papaleck. 2,837,650.

Cole, Clayton K., and A. J. Oorbeck, to Atlas Press Co. Reel type power mower. 2,836,949, 6–3–58, Cl. 56—26.

Cole, William P.: *See*—
Small, Theodore W., and Cole. 2,837,672.

Coleman, Elmer W., Jr., to Lord Mfg. Co. Bonding rubber to substrates. 2,837,458, 6–3–58, Cl. 154—139.

Collins, George M.: *See*—
Judson, Charles A., and Collins. 2,837,623.

Collis, James. Mouthpiece and ligature for reed instruments. 2,837,003, 6–3–58, Cl. 84—383.

Columbia-Southern Chemical Corp.: *See*—
Allen, Edward M. 2,837,495.

Colvin, William I., to National Can Corp. Method of applying wax to the flange of a can body. 2,837,048, 6–3–58, Cl. 113—120.

Combustion Engineering, Inc.: *See*—
Blaskowski, Henry J. 2,837,066.

Compagnie de Pont-A-Mousson: *See*—
Biganzoli, Alexandre. 2,836,864.

Compagnie Francaise Thomson-Houston: *See*—
Goublin-Korsten, Roger O., and Dubois. 2,837,722.

Compagnie Generale de Telegraphie Sans Fil: *See*—
Dufour, Charles. 2,837,689.
Geny, Paul. 2,837,647.

Conlin, James R., and W. Schulz, to Hankscraft Co. Liquid conductor heater. 2,837,625, 6–3–58, Cl. 219—40.

Conover, Lloyd H., to Chas. Pfizer & Co., Inc. 2-acylindanones and process for their preparation. 2,837,371, 6–3–58, Cl. 260—592.

Consolidated Electrodynamics Corp.: *See*—
Berry, Clifford E. 2,837,717.
Warren, Horace G. 2,837,396.

Continental Can Co., Inc.: *See*—
Baxter, Thomas R. 2,837,457.

Cook, Clinton D., to General Electric Co. Transformer with improved dielectric liquid. 2,837,724, 6–3–58, Cl. 336—58.

Cook, Franklin W., to Wafast Indicator Co. Cumulative gauge. 2,836,977, 6–3–58, Cl. 73—417.

Cook, William: *See*—
Brown, Harold H., and Cook. 2,837,153.

Cooprider, Rex C.: *See*—
Stewart, James U., and Cooprider. 2,837,247.

Copeland, Edward L.: *See*—
Lapetina, Herbert. 2,836,924.

Corella, Roy. Retractable container spout. 2,837,253, 6–3–58, Cl. 222—517.

Cornelius, Richard T. Motor driven grinders. 2,836,937, 6–3–58, Cl. 51—71.

Corsi, George L., to Federal-Mogul-Bower Bearings, Inc. Metal reinforced rotary shaft seal. 2,837,359, 6–3–58, Cl. 288—9.

Coulter, Albert W., Jr.: *See*—
Allen, Thomas O., and Coulter. 2,837,164.

Cowles, Pauline M.: *See*—
Cowles, Raymond H. 2,837,094.

Cowles, Raymond H., to P. M. Cowles. Colostomy units. 2,837,094, 6–3–58, Cl. 128—283.

Cox, Jacob. Fishhook for attaching live bait. 2,836,922, 6–3–58, Cl. 43—44.2.

Craig, Dwin R., and W. F. Hamilton, to LogEtronics, Inc. Radiographic method and apparatus. 2,837,657, 6–3–58, Cl. 250—65.

Craig, Robert D., and J. I. A. Thompson, to Metropolitan-Vickers Electrical Co. Ltd. Mass spectrometers. 2,837,653, 6–3–58, Cl. 250—41.9.

Cranker, Keith R., and D. J. Smith, to Thiokol Chemical Corp. Impregnating and molding of leather. 2,836,972, 6–3–58, Cl. 69—21.

Crawford, Francis W., to Phillips Petroleum Co. Differential refractometer cell. 2,837,007, 6–3–58, Cl. 88—14.

Creek, John O., and E. W. Dawson, to Orenda Engines Ltd. Root plattorm milling fixture. 2,837,011, 6–3–58, Cl. 90—13.

Crissey, Joseph J. Ceiling structure. 2,836,859, 6–3–58, Cl. 20—1.

Croley, Leo B.: *See*—
Hanson, George E., and Croley. 2,837,504.

Crompton & Knowles Loom Works: *See*—
Bergstrom, Carl P. 2,837,123.

Cromwell Paper Co., The: *See*—
Drigot, Stanley W., Lebolt, Minow, and Reynolds. 2,837,432.

Crown Cork & Seal Co., Inc.: *See*—
Day, Carl L., and Fauth. 2,836,947.

Crumbley, Cecil F.: *See*—
Buck, Mortimer P., and Crumbley. 2,837,626.

Cundiff, Lester B., and W. M. Watts, to American Viscose Corp. Sheet-sampling mechanism. 2,837,155, 6–3–58, Cl. 164—36.

Cusack, Geoffrey C. Braking device for wire and cable reels. 2,837,299, 6–3–58, Cl. 242—156.

Cutler-Hammer, Inc.: *See*—
Foré, James G. 2,837,699.

Dahlman, Per O., to North Electric Co. Automatic telephone system. 2,837,603, 6–3–58, Cl. 179—18.

Daimler-Benz Akt.: *See*—
Forster, Hans-Joachim M. 2,836,962.
Müller, Josef. 2,837,348.

Dalman, Gisli C., to Sperry Rand Corp. High frequency klystron tube construction. 2,837,685, 6–3–58, Cl. 315—5.22.

Daner, Samuel J. Combined mixing and pouring can guard. 2,837,256, 6–3–58, Cl. 222—568.

Daniel, James A. Repeating spear gun. 2,837,078, 6–3–58, Cl. 124—27.

Danielson Mfg. Co., The: *See*—
Holt, John E. 2,836,851.

Daust, Herbert. Insulated hand bag. 2,837,132, 6–3–58, Cl. 150—28.

Davenport, Granger, to Gould & Eberhardt, Inc. Duolineal-feed hobbing machine. 2,837,010, 6–3–58, Cl. 90—4.

Davis, Clyde W.: *See*—
Stanton, George W., Davis, and Spence. 2,837,492.

Davis, Earl, to Purex Corp., Ltd. Box shifting apparatus. 2,836,943, 6–3–58, Cl. 53—52.

Davis, Erwin S., to Daystrom Inc. Signal mixer circuit. 2,837,637, 6–3–58, Cl. 250—20.

Davis, Herbert W., to Link-Belt Co. Method for drying metal scrap. 2,836,901, 6–3–58, Cl. 34—15.

Davis, Roger A.: *See*—
Ash, Denis J., and Davis. 2,837,023.

Dawson, Edward W.: *See*—
Creek, John O., and Dawson. 2,837,011.

Day, Carl L., and F. E. Fauth, to Crown Cork & Seal Co., Inc. Cap feeding and applying mechanism. 2,836,947, 6–3–58, Cl. 53—314.

Day, Cyril L.: *See*—
Orthuber, Richard K., Ullery, and Day. 2,837,661.

Day, Dewey D., to The Murray Co. of Texas, Inc. Cotton tramper and sweep mechanism. 2,837,022, 6–3–58, Cl. 100—215.

Day, J. H., Co., Inc., The: *See*—
Beaman, Norman V. 2,837,356.

Daystrom Inc.: *See*—
Davis, Erwin S. 2,837,637.
Lamb, Francis X., and De Mott. 2,837,628.
Wolferz, Alfred H. 2,837,716.

Deere Mfg. Co.: *See*—
Wittren, Richard A. 2,836,960.

De Heer, Herbert A. Accelerator means. 2,836,990, 6–3–58, Cl. 74—513.

Dehydag, Deutsche Hydrierwerke G. m. b. H.: *See*—
Gundel, Wolfgang, Haas, and Strauss. 2,837,472.

Deiss, Jaroslav, and J. Dvorak, to Vyskumny ustav tvarecich stroju a technologie tvareni. Method of knitting a backed fabric with binding thread. 2,836,970, 6–3–58, Cl. 66—9.

De la Motte, Pierre, to U. S. Tool Co., Inc. Power driven machine for straightening and automatically feeding wide strip stock in any predetermined length. 2,837,138, 6–3–58, Cl. 153—106.

De Laval Separator Co., The: *See*—
Sullivan, Frank E. 2,837,273.

Delmonte, John, to Furane Plastics Inc. Amine curing agent for epoxy resins. 2,837,497, 6–3–58, Cl. 260—47.

Demler, Henry W., to A M P Inc. Rotary turret head for crimping tools. 2,837,135, 6–3–58, Cl. 153—1.

De Mott, Elmer G.: *See*—
Lamb, Francis X., and De Mott. 2,837,628.

De Namur, Norman F., to Berlin Chapman Co. Swimming pool. 2,836,832, 6–3–58, Cl. 4—172.

Denker, Charles T. Panel structures. 2,836,863, 6–3–58, Cl. 20—91.

Denton, Bethel E., to Radio Corp. of America. Cathode ray beam deflection apparatus. 2,837,692, 6–3–58, Cl. 315—27.

Detwiler, Robert L., A. N. Birmingham, and S. H. Kauffman, to United States of America, Navy. Pressure operated switch with inertial locking means. 2,837,611, 6–3–58, Cl. 200—83.

De Vall, Guy B. Landing gear for seaplanes. 2,837,303, 6–3–58, Cl. 244—105.

De Vos, Krijn J., A. J. J. Koch, H. J. M. Van Embden, B. Haes, and J. Flipse, to North American Philips Co., Inc. Method of making anisotropic permanent magnets. 2,837,452, 6–3–58, Cl. 148—103.

Dickinson, Arthur H., and R. I. Roth, to International Business Machines Corp. Data processing machine. 2,837,279, 6–3–58, Cl. 235—61.7

Dillon, Ernesto P. Telescopic sight mount for fire arms. 2,836,895, 6–3–58, Cl. 33—50.

Di Luglio, Theodore. Retaining attachment for a slide fastener. 2,836,872, 6–3–58, Cl. 24—205.11.

Dittman, Albert L., H. J. Passino, and J. M. Wrightson, to Minnesota Mining and Mfg. Co. Manufacture of fluorine-containing polymers. 2,837,505, 6–3–58, Cl. 260—92.1.

Dodson, Raymond M., and R. C. Tweit, to G. D. Searle & Co. 1-acylthio substitution products of 17a-oxa-d-homo-4-androstene-3,17-dione. 2,837,535, 6–3–58, Cl. 260—343.2.

Dodson, Raymond M., and P. B. Sollman, to G. D. Searle & Co. 17-thioandrostadienes. 2,837,538, 6–3–58, Cl. 260—397.3.

Dodson, Raymond M., and P. B. Sollman, to G. D. Searle & Co. Pregnene-20-thiones. 2,837,539, 6–3–58, Cl. 260—397.3.

Dodson, Raymond M., and R. C. Tweit, to G. D. Searle & Co. Pregnene-1-thiols esters and preparation thereof. 2,837,543, 6–3–58, Cl. 260—397.45.

Doerner, Blanche S.: *See*—
Doerner, Henry A. and B. S. 2,837,420.

Doerner, Henry A., deceased, B. S. Doerner, sole legatee, Method of producing chromium. 2,837,420, 6–3–58, Cl. 75—84.5.

Dole Refrigerating Co.: *See*
Kleist, Herman W. 2,836,965.

Dolza, John, to General Motors Corp. Heater for fuel injection system. 2,837,073, 6–3–58, Cl. 123—122.

Dombrowski, Theodor. Pattern supports for lathes. 2,837,000, 6–3–58, Cl. 82—14.

Dorand, Giravions: *See*—
Krets, Marcel. 2,836,986.

Dougan, Douglas S., to John Waldron Corp. Ink fountain blade. 2,837,024, 6–3–58, Cl. 101—365.

Dow Chemical Co., The: *See*—
Fisher, John R. 2,837,417.
Kundiger, Donald G., and Pledger. 2,837,576.
Lee, John M. 2,837,555.
Stanton, George W., Davis, and Spence. 2,837,492.
Waters, Rolland M., and Lee. 2,837,575.

Dowse, Joseph, and F. Booth, to The British Fibrak Separator Co. Ltd. Separators for electric storage batteries. 2,837,592, 6–3–58, Cl. 136—145.

Drabik, Josef: *See*—
Schwars, Karl H., and Drabik. 2,837,119.

Drackett Co., The: *See*—
Stewart, James U., and Cooprider. 2,837,247.

Dreyer, Everett L.: *See*—
Koci, Jerry C., Hola, and Dreyer. 2,837,076.

Drieschman, Donald F., A. A. Goldfinger, and S. F. Mitchell, to Eitel-McCullough, Inc. Klystron apparatus. 2,837,686, 6–3–58, Cl. 315—5.46.

Drigot, Stanley W., J. M. Lebolt, L. I. Minow, and A. H. Reynolds, to The Cromwell Paper Co. Corrosion inhibitor. 2,837,432, 6–3–58, Cl. 106—14.

Dropkin, Israel. Safety device for automobiles. 2,837,176, 6–3–58, Cl. 188—1.

Druge, Dan O. Air supply line chuck. 2,837,350, 6–3–58, Cl. 284—18.

Du Bois, Edwin R. Small weapons noise simulator. 2,836,919, 6–3–58, Cl. 42—57.

Dubois, Jean: *See*—
Goublin-Korsten, Roger O., and Dubois. 2,837,722.

Dufour, Charles, to Compagnie Generale de Telegraphie Sans Fil. Post acceleration grid devices. 2,837,689, 6–3–58, Cl. 315—14.

Dunbar Kapple, Inc.: *See*—
Finnegan, James F. 2,837,377.

Duncan, Alan C.: *See*—
Duncan, Theodore R. 2,837,340.

Duncan, Golda A.: *See*—
Duncan, Theodore R. 2,837,340.

Duncan, Theodore R., 24% to G. A. Duncan, 24% to T. R. Duncan, and 24% to A. C. Duncan. Mechanical sound reproducing device. 2,837,340, 6–3–58, Cl. 274—25.

Duncan, Theodore R.: *See*—
Duncan, Theodore R. 2,837,340.

Dunkelow, Henry J., to Twin Disc Clutch Co. Oil pressure actuated clutch. 2,837,192, 6–3–58, Cl. 192—85.

Du Pont de Nemours, E. I., & Co.: *See*—
Andres, Raymond J., and Sweeny. 2,837,500.
Huttar, Daniel E. 2,837,487.
Mantell, Gerald J. 2,837,511.
Mantell, Gerald J. 2,837,512.
Millhiser, Frederick R. 2,837,501.
Myers, Arthur F., and Hively. 2,837,506.

Durand & Huguenin A. G.: *See*—
Oppliger, Walter, and Peyer. 2,837,530.

Durex, S. A.: *See*—
Lang, Heinrich. 2,837,068.

Durkoppwerke Akt.: *See*—
Altmann, Kurt. 2,836,843.

Dvorak, Jaroslav: *See*—
Deiss, Jaroslav, and Dvorak. 2,836,970.

Eagle Lock Co., The: *See*—
Williams, Merton S. 2,837,368.

Eagle-Picher Co., The: *See*—
Zander, Jason M. 2,837,443.

Eastman Kodak Co.: *See*—
Burness, Donald M. 2,837,521.

Eccher, Oreste B., to Potdevin Machine Co. Label feeding and coating machine. 2,837,054, 6–3–58, Cl. 118—40.

Eckert, Clarence J., and E. Olson, to General Motors Corp. Carburetor. 2,837,071, 6–3–58, Cl. 123—119.

Eco, Inc.: *See*—
Heinemann, Burdet. 2,837,459.

Eddowes, Cecil S. Flush mechanism for toilets. 2,836,829, 6–3–58, Cl. 4—41.

Edenfield, Eli E. Fluid pressure actuated lifting apparatus. 2,837,373, 6–3–58, Cl. 298—11.

Edge, Dennis A.: *See*—
Moore, Donald C., and Edge. 2,837,450.

Edge, Stanley H., and G. A. Jeffrey, to Clayton Dewandre Co. Ltd. Rotatable pipe coupling. 2,837,177, 6–3–58, Cl. 188—2.

Edwards, James N., to Hughes Aircraft Co. Electro-mechanical voltage differential detector. 2,837,665, 6–3–58, Cl. 307—149.

Edwards Robert B.: *See*—
Fosdick, Leonard S., Rea, Sanders, and Edwards. 2,837,463.

Efford, John T., and L. C. Morton, to Shulton, Inc. Fluid dispensing valve. 2,837,375, 6–3–58, Cl. 299—95.

Ehret, Robert J., to Minneapolis-Honeywell Regulator Co. Measuring and control apparatus. 2,837,662, 6–3–58, Cl. 307—88.5.

Eichner, Ferdinand R., to General Motors Corp. Latching mechanism. 2,837,363, 6–3–58, Cl. 292—217.

Eiffert, Eddie L. Letter scale. 2,837,327, 6–3–58, Cl. 265—53.

Eisner, Martin. Waterproofing material pumping apparatus. 2,837,109, 6–3–58, Cl. 137—267.

Eitel-McCullough, Inc.: *See*—
Drieschman, Donald F., Goldfinger, and Mitchell. 2,837,686.

Electric & Musical Industries Ltd.: *See*—
Billin, James J. 2,837,596.
Jaques, Anthony F. 2,837,690.
McGee, James D. 2,837,688.

Electronic Specialty Co.: *See*—
Nailen, James C. 2,837,652.

Elektrophysikalische Anstaet Bernhard Berghaus: *See*—
Berghaus, Bernhard, and Bucek. 2,837,654.

Elliott Brothers Ltd.: *See*—
Millership, Ronald. 2,837,721.

Elliott, Harmon P. Stencil-character-forming apparatus. 2,837,196, 6–3–58, Cl. 197—130.

Elliott, Robert V., and R. G. Packard. Accelerometer. 2,837,082, 6–3–58, Cl. 128—2.06.

Elm, Paul E. Ladder attachment for paint can. 2,837,306, 6–3–58, Cl. 248—210.

Emeis, Reimer, to Siemens-Schuckertwerke Akt. Junction translators. 2,837,704, 6–3–58, Cl. 317—235.

Endeveld, Pieter G., to Vennootschap onder firma "D. O. V. O." Fabriek van Suikerwerken. Machine for manufacturing composite confectionery. 2,837,041, 6–3–58, Cl. 107—1.

Engel Alfred J.: *See*—
Hill, Roger W., and Engel. 2,837,582.

Englehart, Oscar D., J. R. Sadesky, J. W. Morris, and R. S. Sherbondy, to Pittsburgh Plate Glass Co. Preliminary pressing of laminated glass. 2,837,453, 6–3–58, Cl. 154—2.70.

English Electric Valve Co. Ltd.: *See*—
Sixsmith, Herbert. 2,837,695.

Ensminger, Paul W.: *See*—
Behrens, Otto K., and Ensminger. 2,837,460.

Epperson, William H., to Aeronautical Communications Equipment, Inc. Volume control for radio receiver. 2,837,635, 6–3–58, Cl. 250—20.

Erath, Louis W.: *See*—
Houghton, Joseph L., and Erath. 2,837,729.

Erban, Richard T. Kinoptic devices. 2,837,008, 6–3–58, Cl. 88—28.93.

Ero Mfg. Co.: *See*—
Leonold, Howard P. 2,837,146.

Ervin, Guy, Jr., to Norton Co. Vitrified bonded silicon carbide abrasive articles. 2,837,416, 6–3–58, Cl. 51—308.

Ervin, Guy, Jr., and H. F. G. Ueltz, to Norton Co. Apparatus for the production of metal. 2,837,478, 6–3–58, Cl. 204—216.

Esso Research and Engineering Co.: *See*—
Allen, Thomas O., and Coulter. 2,837,164.
Matuszak, Alfred H., Ready, and Lifson. 2,837,562.
McKay, John F., Jr. 2,837,491.
North, Howard C. 2,836,902.
Roberts, Alan P. 2,837,165.

Ethicon, Inc.: *See*—
Nichols, Joseph. 2,837,546.

Euverard, Maynard R. Disposable viscosity cup. 2,836,975, 6–3–58, Cl. 73—55.

Evans Enterprises, Inc.: *See*—
Evans, Frederick H. 2,837,200.

Evans, Frederick H., to Evans Enterprises, Inc. Bar and billet turning apparatus. 2,837,200, 6–3–58, Cl. 198—33.

Evans Products Co.: *See*—
Schueder, George M. 2,837,039.

Everly, Albert B., Jr.: *See*—
Vera, Robert M., and Everly. 2,837,160.

Everson, James M. Debris remover for power plant intakes. 2,837,211, 6–3–58, Cl. 210—154.

Fabio, Paul F.: *See*—
Brockman, John A., Jr., and Fabio. 2,837,556.

Faenza, Vittorio: *See*—
Possati, Mario, Giardino, and Faenza. 2,836,898.

Fahland, Frank. Highway trailer carrying car. 2,837,038, 6–3–58, Cl. 105—368.

Fairchild Engine and Airplane Corp.: *See*—
Van Valkenburgh, Lester D. 2,837,738.

Falge, Robert N.: *See*—
Clayton, David P., and Falge. 2,837,609.

Farbenfabriken Bayer Akt.: *See*—
Gemassmer, Alois. 2,837,554.

Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning: *See*—
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Farchmin, Roy H., R. D. Pitts, and E. F. Zuber, to Pickwick Co. Tendon puller. 2,836,845, 6–3–58, Cl. 17—11.3.

Farrand Optical Co., Inc.: *See*—
Tronnier, Albrecht W. 2,837,009.

Fauth, Frederick E.: *See*—
Day, Carl L., and Fauth. 2,836,947.

Fayolle, Marcel: *See*—
Ancet, Victor M. J., and Fayolle. 2,837,124.

Fayolle, Marius: *See*—
Ancet, Victor M. J., and Fayolle. 2,837,124.
Federal Carton Corp., Inc.: *See*—
Jezierski, Victor. 2,837,016.
Rous, Arthur. 2,837,264.
Federal-Mogul-Bower Bearings, Inc.: *See*—
Corsi, George L. 2,837,359.
Johnson, Lloyd A., Christensen, and Martin. 2,837,355.
Feick, Daniel E., to United States Steel Corp. Apparatus for guiding strip into pin-hole detector. 2,837,331, 6–3–58, Cl. 271—2.6.
Feldman, Julian, and O. D. Frampton, to National Distillers and Chemical Corp. Chemical process for recovery of acids. 2,837,565, 6–3–58, Cl. 260—533.
Feldman, Julian, and O. D. Frampton, to National Distillers and Chemical Corp. Process for recovery of organic acids. 2,837,566, 6–3–58, Cl. 260—533.
Ferdinand, Irwin J., and R. J. Bellon, to S. A. Hirsh Mfg. Co. Shelving device. 2,837,219, 6–3–58, Cl. 211—147.
Fermi, Enrico, and M. C. Leverett, to United States of America, Atomic Energy Commission. Chain reacting system. 2,837,477, 6–3–58, Cl. 204—193.2.
Fernberg, Eric B. Beading fastener. 2,837,184, 6–3–58, Cl. 189—88.
Ferranti Ltd.: *See*—
MacDonald, Kenneth A., and Whitmore. 2,836,885.
Ferris, Arthur F., to Rohm & Haas Co. Preparation of cation-exchange resins containing hydroxyl and phosphonic acid groups. 2,837,488, 6–3–58, Cl. 260—2.2.
Ferris, Edward A. Refrigerator with plural refrigerated compartments. 2,836,968, 6–3–58, Cl. 62—117.3.
Ferris, Seymour W., and H. L. Johnson, to Sun Oil Co. Oxidation of petroleum ceresin and novel product obtained thereby. 2,837,553, 6–3–58, Cl. 260—451.
Ferro Corp.: *See*—
Tuttle, Daniel V., and Kelly. 2,837,622.
Ferstandig, Louis L., to California Research Corp. Xylylene diisocyanate modified polyesters. 2,837,498, 6–3–58, Cl. 260—75.
Fields, Joseph E., to Monsanto Chemical Co. Nitrile telomers. 2,837,559, 6–3–58, Cl. 260—465.7.
Figge, Jurt: *See*—
Motz, Jürgen, Küchler, Figge, Kaess, and Mühlberger. 2,837,422.
Fine, Samuel: *See*—
Hendee, Charles, and Fine. 2,837,659.
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Hendee, Charles F., and Fine. 2,837,678.
Hendee, Charles F., Fine, and Bleekema. 2,837,677.
Finlayson, Donald, B. Krzesinski, and A. Harcolinski, to British Celanese Ltd. Production of thermoplastic materials. 2,837,437, 6–3–58, Cl. 106—198.
Finnegan, James F., to Dunbar Kappe, Inc. Automatic regulating device for pneumatic conveyors. 2,837,377, 6–3–58, Cl. 302—28.
Finney Mfg. Co.: *See*—
Weiss, Robert S. 2,837,742.
Firma Jung Schleifmaschinen H. Gaub: *See*—
Koch, Erich. 2,836,938.
Fisher, Alec, and W. B. Penn, to General Electric Co. Dynamoelectric machine. 2,837,669, 6–3–58, Cl. 310—45.
Fisher, John R., to The Dow Chemical Co. Method for modifying the growth characteristics of plants. 2,837,417, 6–3–58, Cl. 71—2.7.
Fishman, Norman: *See*—
Miller, Allyn C., and Fishman. 2,837,435.
Fister, Aloysius J., to McGraw-Edison Co. Protectors for electric circuits. 2,837,614, 6–3–58, Cl. 200—120.
Fletcher, H. E., Co.: *See*—
Horton, William B. 2,837,079.
Flipse, Johannes: *See*—
De Vos, Krijn J., Koch, Van Embden, Haes, and Flipse. 2,837,452.
Florence Stove Co.: *See*—
Reeves, Herbert M. 2,837,080.
Flynn, Floyd W.: *See*—
Schutt, Norman C., Bjelland, and Flynn. 2,836,917.
Foley, William R., to Chance Vought Aircraft, Inc. Atmospheric pressure responsive valve means for maintaining flexible connector seal means. 2,837,112, 6–3–58, Cl. 137—526.
Follows, Alan G., to Allied Chemical & Dye Corp. Manufacture of potassium bicarbonate and potassium carbonate. 2,837,404, 6–3–58, Cl. 23—63.
Food Machinery and Chemical Corp.: *See*—
Linder, Seymour M., and Greenspan. 2,837,570.
Forbes, Merle W. Raisin gathering apparatus. 2,837,209, 6–3–58, Cl. 209—75.
Ford, James G., to Cutler-Hammer, Inc. Panelboard construction. 2,837,699, 6–3–58, Cl. 317—119.
Forssell, Eric G., to W. H. Miner, Inc. Draft gears for railway draft riggings. 2,837,221, 6–3–58, Cl. 213—45.
Förster, Hans-Joachim M., to Daimler-Benz Akt. Hydraulic actuating system, particularly for motor vehicles. 2,836,962, 6–3–58, Cl. 60—97.
Fosdick, Leonard S., R. R. Read, R. G. Sanders, and R. B. Edwards, to Warner-Lambert Pharmaceutical Co. Therapeutic compositions comprising 5-amino hexahydropyrimidines or salts thereof. 2,837,463, 6–3–58, Cl. 167—93.
Fox, Homer M., to Phillips Petroleum Co. Bag or bladder flexible at low temperatures. 2,836,963, 6–3–58, Cl. 62—1.
Fox, Homer M., to Phillips Petroleum Co. Stabilization of heterocyclic oxygen-containing compounds. 2,837,536, 6–3–58, Cl. 260—345.2.
Fox, Samuel S., to United Aircraft Corp. Fuel control for a gas turbine power plant. 2,836,957, 6–3–58, Cl. 60—39.28.
Frachon, Marc, to "C. O. R. E. C. I. Compagnie de Regulation et de Control Industriel." Multiple recording apparatus. 2,837,397, 6–3–58, Cl. 346—46.
Fraenkel, Stephen J., to Standard Railway Equipment Mfg. Co. Container car. 2,837,036, 6–3–58, Cl. 105—366.
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Feldman, Julian, and Frampton. 2,837,565.
Feldman, Julian, and Frampton. 2,837,566.
Francis, Charles E.: *See*—
Armstrong, Jack W., Woods, and Francis. 2,837,170.
Frank, Morris. Anchor hoist and holder. 2,837,050, 6–3–58, Cl. 114—210.
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Schwager, George W., and Hogan. 2,837,307.
Franks, Gerald N. Seed cotton cleaner. 2,836,856, 6–3–58, Cl. 19—67.
Fransson, Fritz V. Heavy calibre training ammunition. 2,837,028, 6–3–58, Cl. 102—41.
Franz, Günther, to J. M. Voith, G. m. b. H., Maschinenfabrik. River ferry driven by two sail-wheel propellers. 2,837,049, 6–3–58, Cl. 114—58.
Frazelle, Jay B. Whirling flight toy. 2,837,077, 6–3–58, Cl. 124—16.
Frenzel, Walter. Method and machine for spinning rovings. 2,836,955, 6–3–58, Cl. 57—36.
Fried, Josef, to Olin Mathieson Chemical Corp. Synthesis of steroids. 2,837,544, 6–3–58, Cl. 260—397.45.
Fried, Robert P. Mushroom trimmer. 2,837,131, 6–3–58, Cl. 146—81.
Friedman, William: *See*—
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Friedrich, George J., 50% to G. S. Geary. Boat drive assembly. 2,837,051, 6–3–58, Cl. 115—35.
Frink, Frederick W., to Hazeltine Research, Inc. Pulse generator. 2,837,638, 6–3–58, Cl. 250—27.
Frisch, Franz, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. Monoazo dyestuffs. 2,837,508, 6–3–58, Cl. 260—196.
Frommel, Edouard: *See*—
Melkonian, Diran, and Gold. 2,837,533.
Fruhbuss, Heinrich: *See*—
Grosskinsky, Otto, Fruhbuss, and Klempt. 2,837,398.
Fuchs, Francis J., Jr., to Western Electric Co., Inc. Boosting mechanism for bending wave guide tubing with controlled neutral axis. 2,837,137, 6–3–58, Cl. 153—40.
Fujimaki, Itsuo: *See*—
Yabuta, Teijiro, Ikeda, Shiroyanagi, Ikeda, Fujimaki, Katayama, Tsuji, and Sato. 2,837,510.
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Fusco, Raffaello, and S. Rossi, to Industria Chimica Profarmaco S. r. L. Fluorescent materials on the basis of tetrazoindenes. 2,837,520, 6–3–58, Cl. 260—249.5.
Gabor, William D., to C. G. S. Laboratories, Inc. Electrically controllable inductor method and apparatus. 2,837,648, 6–3–58, Cl. 250—36.
Gaenzle, John B., to Sylvania Electric Products Inc. Planar tubes. 2,837,683, 6–3–58, Cl. 313—337.
Gailliot, Paul, and J. Baget, to Societe des Usines Chimiques Rhone-Poulenc. Penicillin salts. 2,837,513, 6–3–58, Cl. 260—239.1.
Gale, Wilfred E. Surface planing machines. 2,837,130, 6–3–58, Cl. 144—117.
Gallagher, Edward J., Jr. Leveler. 2,836,843, 6–3–58, Cl. 16—44.
Galloway, Frederick M., to H. K. Porter Co. (Delaware) Discharge hose comprising supporting means and method of providing such means. 2,837,120, 6–3–58, Cl. 138—54.
Gaspardo, Martin S. Protector. 2,837,020, 6–3–58, Cl. 98—115.
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Kinselman, Joseph. 2,836,910.
Cedarholm, John P.: *See*—
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Gaubatz, Arthur W., to General Motors Corp. Mechanical discriminating device. 2,836,987, 6–3–58, Cl. 74—479.
Gaul, Max, to H. Sickinger. Expanding-helical coil for a wood screw. 2,837,005, 6–3–58, Cl. 85—2.4.
Geary, George S.: *See*—
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Geigy, J. R., A.-G.: *See*—
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Geisler, Helmut J., to International Business Machines Corp. Radio frequency actuated transfer relay. 2,837,641, 6–3–58, Cl. 250—27.
Geiss, Harry S. Construction for sleeved garment. 2,836,826, 6–3–58, Cl. 2—125.
Gemassmer Alois, to Farbenfabriken Bayer Akt. Production of isocyanates. 2,837,554, 6–3–58, Cl. 260—453.
General American Transportation Corp.: *See*—
Talmey, Paul, and Metheny. 2,837,445.
General Dynamics Corp.: *See*—
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General Electric Co.: *See*—
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Brown, John F. Jr. 2,837,578.
Cook, Clinton D. 2,837,724.
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George, Philip D., and Newkirk. 2,837,552.
Gilbert, Alfred R., and Kantor. 2,837,494.
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Muth, Robert C. 2,837,326.
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General Motors Corp.: *See*—
Bailey, Charles S. 2,837,284.
Chapman, Gilbert E. 2,837,270.
Clayton, David P., and Faige. 2,837,609.
Cobb, Leland D. 2,837,188.
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Eckert, Clarence J., and Olson. 2,837,071.
Eichner, Ferdinand R. 2,837,363.
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Griffo, Joseph B. 2,837,143.
Johnson, Ralph H. 2,837,384.
Kelley Oliver K. 2,837,181.
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McDowall, Charles J., and Montieth. 2,836,959.
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Ransom, George P. 2,837,074.
Sauzedde, Rene E. 2,837,189.
Schwartswalder, Karl, and Smith. 2,837,679.
Selyem, Edwin J., and Mazzarins. 2,837,379.
Urban, Harry R. 2,837,285.
Williams, Russell C., Selyem, and Carroll. 2,837,378.
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Josephi, James. 2,836,906.
Richards, William J. 2,836,909.
General Steel Castings Corp.: *See*—
McMillin, Gordon L. 2,836,866.
Geny, Paul, to Compagnie Generale de Telegraphie Sans Fil. Electronic oscillator control means. 2,837,647, 6–3–58, Cl. 250—36.
George, Philip D., and A. E. Newkirk, to General Electric Co. Cleavage of silicon-to-silicon and siloxane linkages. 2,837,552, 6–3–58, Cl. 260—448.8.
Giardino, Loris: *See*—
Possati, Mario, Giardino, and Faenza. 2,836,898.
Gibson, Oliver E., and W. G. Luecke. Method of and apparatus for forming pleats. 2,837,257, 6–3–58, Cl. 223—30.
Giepen, Hubert M., to Red Mill Co. Apparatus for measuring weight and height. 2,836,980, 6–3–58, Cl. 73—432.
Gifford, Theron F., to Ten-Tex Corp. Portable tufting machine. 2,837,045, 6–3–58, Cl. 112—80.
Gilbert, Alfred R., and S. W. Kantor, to General Electric Co. Silicone rubber of improved thermal stability containing triorganophosphine oxide. 2,837,494, 6–3–58, Cl. 260—37.
Gildart, Lee W., to J. and L. Waldman, and E. Sagerman. Semi-conductor alloys. 2,837,618, 6–3–58, Cl. 201—63.
Glassey, Eugene A. Line following servosystem. 2,837,706, 6–3–58, Cl. 318—31.
Gleason, Tyler J. Portable cement mixing device. 2,837,321, 6–3–58, Cl. 259—177.
Gloss, Gunter H., and W. J. McGinnis, to International Minerals & Chemical Corp. Production of potassium carbonate. 2,837,403, 6–3–58, Cl. 23—33.
Godel, Siegfried, to Olivetti Corp. Printing mechanism. 2,837,274, 6–3–58, Cl. 235—58.
Godes, Elliot, to Anemostat Corp. of America. Air outlet device for ventilating apparatus. 2,837,019, 6–3–58, Cl. 98—40.
Godfrey, Charles E., and W. T. Johnson, Jr., to American Brake Shoe Co. Trucks for track fastening devices. 2,837,033, 6–3–58, Cl. 105—162.
Goetz, Carlos C. Vibration insulator. 2,837,145, 6–3–58, Cl. 155—182.
Golay, Marcel J. E. Radio interferometry. 2,837,736, 6–3–58, Cl. 343—12.
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Goldberg, Richard J., and L. A. Levinson, to Technicolor Corp. Method of making dyed relief records. 2,837,430, 6–3–58, Cl. 96—35.
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Drieschman, Donald F., Goldfinger, and Mitchell. 2,837,686.
Goldman, Sylvan N.: *See*—
Young, Fred W. 2,837,344.
Young, Fred W. 2,837,345.
Goldstein, Saul. Pouring spout for standard blanks. 2,837,254, 6–3–58, Cl. 222—531.
Goldsworthy, William W., to United States of America, Atomic Energy Commission. Pulse height analyzer. 2,837,640, 6–3–58, Cl. 250—27.
Golimar, Herbert A., and W. M. Africa, to Koppers Co., Inc. Separation of acid gases from coal carbonization gases. 2,837,399, 6–3–58, Cl. 23—3.
Goodman Mfg. Co.: *See*—
Biedess, Anthony R. 2,837,325.
Lo Presti, Roy F. 2,837,204.
Goodrie, Joseph J., to Wrightway Engineering Co. Hose nozzle with aerator. 2,837,323, 6–3–58, Cl. 261—71.
Goodwin, William V., and M. C. Johnson, to Radio Corp. of America. Storage tube circuit employing amplitude and phase comparison. 2,837,643, 6–3–58, Cl. 250—27.
Goodyear Tire & Rubber Co., The: *See*—
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Hardman, Albert F. 2,837,519.
Gooley, Virgil J. Garden line marker. 2,836,897, 6–3–58, Cl. 33—86.
Goss, Albert G., Sr. Television antenna mast base. 2,837,304, 6–3–58, Cl. 248—44.
Goublin-Korsten, Roger O., and J. Dubois, to Compagnie Francaise Thomson-Houston. Tuned cavity systems. 2,837,722, 6–3–58, Cl. 333—82.
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Davenport, Granger. 2,837,010.
Graham, Alexander B., to The International Nickel Co., Inc. Production of hollow metal articles. 2,836,884, 6–3–58, Cl. 29—423.
Gray, Dudley, to Stewart-Warner Corp. Sense antenna system. 2,837,739, 6–3–58, Cl. 343—114.
Gray, George W., and A. S. Jensen, to United States of America, Atomic Energy Commission. Pulse amplitude analyzers. 2,837,639, 6–3–58, Cl. 250—27.
Graybill, Clinto L. Fluid pressure control valve. 2,837,110, 6–3–58, Cl. 137—327.
Grebowiec, Michael J., to Injection Molding Co. Low pressure flexible wall container. 2,837,245, 6–3–58, Cl. 222—184.
Green, Marvin E. Clamp for holding brake lining in position to be bonded to a brake shoe. 2,837,139, 6–3–58, Cl. 154—1.
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Grelat, Maurice, J. Koch, P. Sutter, and W. Kern, to Ciba Ltd. Anthraquinone vat dyestuffs. 2,837,523, 6–3–58, Cl. 260—276.
Greville, Ernest G. Bases for operating tables. 2,837,387, 6–3–58, Cl. 311—5.
Grice, Harvey H., and H. M. Burgess, to General Foods Corp. Biscuit making apparatus. 2,837,043, 6–3–58, Cl. 107—8.
Griffin, Roger L., to Swift and Co. Computer device for leather stacker. 2,837,198, 6–3–58, Cl. 198—21.
Griffo, Joseph B., to General Motors Corp. Border wire interlock for sinuous spring cushion. 2,837,143, 6–3–58, Cl. 155—179.
Griswold, David E., to D. G. Griswold. Liquid flow control means for refueling apparatus and the like. 2,837,241, 6–3–58, Cl. 222—52.
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Grosskinsky, Otto, H. Fruhbuss, and W. Klempt. Process for removing hydrocyanic acid, hydrogen sulfide and ammonia from gases. 2,837,398, 6–3–58, Cl. 23—2.
Gruen, Wolf J., to General Electric Co. Signal separation circuit. 2,837,595, 6–3–58, Cl. 178—5.4.
Grumbine, Robert S., to Coe Laboratories, Inc. Dental impression composition. 2,837,434, 6–3–58, Cl. 106—38.35.
Guenther, George G. Salesman's sample case with outside gusseted pocket. 2,837,185, 6–3–58, Cl. 190—51.
Gundel, Wolfgang, H. Haas, and W. Strauss, to Dehydag, Deutsche Hydrierwerke G. m. b. H. Brighteners for electroplating baths. 2,837,472, 6–3–58, Cl. 204—49.
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Gustafson, Walter G., and H. C. Harrison, to Bell Telephone Laboratories, Inc. Mercury switches. 2,837,612, 6–3–58, Cl. 200—87.
Gutridge, Jack E., to Pullman-Standard Car Mfg. Co. Device for loading trailers on flat cars. 2,837,226, 6–3–58, Cl. 214—38.
Gwyn, James D.: *See*—
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Haglund, Folke V., to Aktiebolaget Separator. Method and apparatus for regulating the fat content of centrifugally separating cream. 2,837,271, 6–3–58, Cl. 233—1.
Hagman, Irven. Measuring and dispensing attachment. 2,837,250, 6–3–58, Cl. 222—449.
Hahn, Frank J., to Monsanto Chemical Co. Aqueous latex paint and a porous surface coated therewith. 2,837,444, 6–3–58, Cl. 117—72.
Hakker, Petrus J., and G. H. Weber, to North American Philips Co., Inc. Method of making a permanent magnet. 2,837,483, 6–3–58, Cl. 252—62.5.
Haller, John F., to Olin Mathieson Chemical Corp. Manufacture of stabilized concentrated hydrazine compositions. 2,837,410, 6–3–58, Cl. 23—190.
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Halpern, Joseph: *See*—
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Beinfest, Sidney, Adams, and Halpern. 2,837,561.
Haltenberger, Jules. Automobile glass transparency device. 2,837,018, 6–3–58, Cl. 98—2.
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Rhyne, John W., Jr. 2,837,591.
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Hanmer, Robert S., and J. H. Carroll, to Phillips Petroleum Co. Stable high-solids latices. 2,837,502, 6–3–58, Cl. 260—83.7.

Hannahan, William F., to The Champion Co. Embalming apparatus. 2,836,877, 6–3–58, Cl. 27—24.
Hannon, John W. G., to McIntyre Research Foundation. Method of making alumina powder. 2,837,451, 6–3–58, Cl. 148—6.3.
Hanschke, Albert F., to Worthington Corp. Turbine. 2,837,309, 6–3–58, Cl. 253—71.
Hansen, James C. Device for inspecting side walls of tires. 2,837,310, 6–3–58, Cl. 254—50.2.
Hanson, George E., and L. B. Croley, to Phillips Petroleum Co. Fractionation and recovery of polymers. 2,837,504, 6–3–58, Cl. 260—88.1.
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Hardman, Albert F., to The Goodyear Tire & Rubber Co. Accelerator of vulcanization of rubber. 2,837,519, 6–3–58, Cl. 260—247.1.
Hargrove, James G., to Lockheed Aircraft Corp. Tools for removing the collars of fasteners. 2,836,888, 6–3–58, Cl. 30—272.
Harper, Philip S., and W. S. Wagenhals, to Harper-Wyman Co. Time controlled valve operating mechanism. 2,837,154, 6–3–58, Cl. 161—9.
Harper-Wyman Co.: *See*—
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Harris, Wilbur T., to The Harris Transducer Corp. Hydrophone cable. 2,837,731, 6–3–58, Cl. 340—17.
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Hawkinson, Earle W., to Paul E. Hawkinson Co. Tire retreading mold. 2,836,854, 6–3–58, Cl. 18—44.
Hawkinson, Earle W., to Paul E. Hawkinson Co. Tire retreading mold. 2,836,855, 6–3–58, Cl. 18—44.
Hawkinson, Paul E., Co.: *See*—
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Hawkinson, Earle W. 2,836,855.
Hay, Wayne W., to Air Reduction Co., Inc. Carbon dioxide absorber for anesthetic administering apparatus. 2,837,413, 6–3–58, Cl. 23—252.
Hayden, Carl F., Hayden and Co. Coke quenching. 2,837,470, 6–3–58, Cl. 202—227.
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Hayden, Carl F. 2,837,470.
Haydu, Zoltan, and A. E. Sutton, to Burroughs Corp. Jig fixture. 2,836,879, 6–3–58, Cl. 29—25.19.
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Hecker, Arthur C., to Argus Chemical Laboratory, Inc. Mixtures of vinyl resin, aromatic acid, and asbestos containing iron oxide. 2,837,490, 6–3–58, Cl. 260—23.
Heckett, Eric H., to Harsco Corp. Tumbler barrel for impact cleaning of metal scrap. 2,837,289, 6–3–58, Cl. 241—91.
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Heddy, Edward H. and D. P. 2,836,995.
Heddy, Edward H., deceased, by D. P. Heddy, executrix. Fishing reel transmission. 2,836,995, 6–3–58, Cl. 74—812.
Hedman, Dean L. R. Folding yard chair. 2,837,140, 6–3–58, Cl. 155—117.
Heiman, Jordan L. Sheet metal door. 2,837,183, 6–3–58, Cl. 189—46.
Heindel, Harold J., E. Groschoff, and E. Joss, to Andrea Radio Corp. Directionally adjustable radio receiver antenna. 2,837,741, 6–3–58, Cl. 343—702.
Heinemann, Burdet, to Eco, Inc. Method of and composition for preserving milk and milk products. 2,837,459, 6–3–58, Cl. 167—19.
Heller, Maximilian. Furniture back with cushion upholstery. 2,837,144, 6–3–58, Cl. 155—181.
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Hendee, Charles, and S. Fine, to North American Philips Co., Inc. Apparatus for calibrating energy sensitive devices. 2,837,859, 6–3–58, Cl. 250—83.6.
Hendee, Charles F., and S. Fine, to North American Philips Co., Inc. X-ray analysis system and radiation detector for use in such system. 2,837,656, 6–3–58, Cl. 250—53.
Hendee, Charles F., S. Fine, and J. Bleekama, to North American Philips Co., Inc. Proportional counter tube. 2,837,677, 6–3–58, Cl. 313—93.
Hendee, Charles F., and S. Fine, to North American Philips Co., Inc. Proportional counter tube. 2,837,678, 6–3–58, Cl. 313—93.
Henderson, Albert S., and W. L. Miller. Semi-automatic tire bead breaking machine. 2,837,147, 6–3–58, Cl. 157—1.28.
Henke, Russell W., to Badger Meter Mfg. Co. Proportioning feeder. 2,837,105, 6–3–58, Cl. 137—99.
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Blaser, Bruno, and Stein. 2,837,577.
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Hepp, Harold J., to Phillips Petroleum Co. Pebble heater process and apparatus. 2,837,586, 6–3–58, Cl. 260—679.
Heraeus, W. C., G. m. b. H.: *See*—
Mohn, Heinrich. 2,837,469.
Heran, Robert F., Sr., to The Pioneer Mfg. Co. Mildew resistant paint composition. 2,837,433, 6–3–58, Cl. 106—18.
Hercules Powder Co.: *See*—
Buntin, George A. 2,837,579.
Vandenberg, Edwin J. 2,837,496.
Herr Equipment Corp., The: *See*—
Herr, Richard F. 2,837,159.
Herr, Milton E., to The Upjohn Co. 9,11β-epoxy-17-alkyltestosterones. 2,837,517, 6–3–58, Cl. 260—239.55.
Herr, Richard F., to The Herr Equipment Corp. Methods of and apparatus for cutting strip material. 2,837,159, 6–3–58, Cl. 164—49.
Herrmann, Edgar H., to National Lead Co. Process for preparation of lead dioxide. 2,837,405, 6–3–58, Cl. 23—146.
Herschede Hall Clock Co., The: *See*—
Ballman, Robert J. 2,837,195.
Hersey, Carl D.: *See*—
Way, Robert B., and Hersey. 2,837,100.
Hershberger, William D., to The Regents of the University of California. Stabilizer for microwave oscillators. 2,837,649, 6–3–58, Cl. 250—36.
Herterich, Oskar P., to Klockner-Humboldt-Deutz Akt. Trash collection truck. 2,837,230, 6–3–58, Cl. 214—503.
Hesson, James C.: *See*—
Williamson, Hilding V., Hesson, and Keller. 2,837,414.
Heuser, Paul F.: *See*—
Chandler, Wesley M., and Heuser. 2,836,875.
Hickey, John H. Radar fire control training system. 2,836,904, 6–3–58, Cl. 35—10.4.
Hickok Mfg. Co. Inc.: *See*—
Carter, Jesse B. 2,836,868.
Hill, George L. Method of testing insulation. 2,837,714, 6–3–58, Cl. 324—54.
Hill, Harry E., and G. K. Weisse, to Olin Mathieson Chemical Corp. Chlorination of alcohols. 2,837,574, 6–3–58, Cl. 260—615.
Hill, Roger W., and R. V. Luthy, to California Research Corp. Isomerization of xylene. 2,837,581, 6–3–58, Cl. 260—668.
Hill, Roger W., and A. J. Engel, to California Research Corp. P-xylene vapor phase isomerization. 2,837,582, 6–3–58, Cl. 260—668.
Hilton, James C. Selective control and relative volumes indicator for voice and/or music amplifiers. 2,837,598, 6–3–58, Cl. 179—1.
Hirschmann, Ralph F., and R. Miller, to Merck & Co., Inc. Improved process for preparing 9α-fluoro-Δ1,4-3,20-diketo-11β,17α-dihydroxy-21-acyloxypregnadiene. 2,837,541, 6–3–58, Cl. 260—397.45.
Hirsh, S. A., Mfg. Co.: *See*—
Ferdinand, Irvin J., and Bellon. 2,837,219.
Hively, Jack R.: *See*—
Myers, Arthur F., and Hively. 2,837,506.
Hochgraf, Lester, and W. Koenig, Jr., to Bell Telephone Laboratories, Inc. Subscriber-loop carrier telephone ringing systems. 2,837,605, 6–3–58, Cl. 179—84.
Hoff, Melvern C., to Standard Oil Co. Process for production of durene. 2,837,584, 6–3–58, Cl. 260—671.
Hogan, John P., and R. L. Banks, to Phillips Petroleum Co. Purification of olefin-rich feed prior to polymerization. 2,837,587, 6–3–58, Cl. 260—683.15.
Hogan, William J.: *See*—
Schwager, George W., and Hogan. 2,837,307.
Holan, J. H., Corp.: *See*—
Troche, Herman J. 2,837,312.
Holmberg, Aaron K. Rail carrier for highway van. 2,837,037, 6–3–58, Cl. 105—368.
Holt, John E., to The Danielson Mfg. Co. Apparatus for extrusion. 2,836,851, 6–3–58, Cl. 18—12.
Hols, Alfred: *See*—
Koci, Jerry C., Hols, and Dreyer. 2,837,076.
Hood, Edwin E., to Bendix Aviation Corp. Semi-automatic two-speed coaster brake for bicycles and the like. 2,837,187, 6–3–58, Cl. 192—6.
Horsting, William F., Sr., ¼ to I. M. Jones. Filter for use with periodic suction pumps. 2,837,032, 6–3–58, Cl. 103—220.
Horton, William B., to H. E. Fletcher Co. Plug and feather construction. 2,837,079, 6–3–58, Cl. 125—36.
Hotten, Bruce W., and F. O. Johnson, to California Research Corp. Polyethylene phosphonates as grease thickeners. 2,837,480, 6–3–58, Cl. 252—32.5.
Hotten, Bruce W., and F. O. Johnson, to California Research Corp. Metal alkyl phosphonate thickened lubricating oils. 2,837,481, 6–3–58, Cl. 252—32.5.
Hough, Clinton W. Pneumatic release for camera shutters. 2,837,017, 6–3–58, Cl. 95—54.
Houghton, Joseph J., and L. W. Erath, to Southwestern Industrial Electronics Co. Multi-channel recorder and reproducer with visual playback. 2,837,729, 6–3–58, Cl. 340—15.
Houston Oil Field Material Co., Inc.: *See*—
Burns, Albert L., Jr., and Chadderdon. 2,837,315.
Howard, James H., to Camco, Inc. Combination self-cleaning constant and intermittent flow valve. 2,837,108, 6–3–58, Cl. 137—155.
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Hoynak, Peter X., Jr. Closure for collapsible containers. 2,837,252, 6–3–58, Cl. 222—494.
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Campbell, Richard A. 2,837,646.
Edwards, James N. 2,837,665.
Nelson, Eldred C. 2,837,732.
Shallon, Sheldon C. 2,837,644.

Hughes, Frank J., and R. McGhee, to Sylvania Electric Products Inc. Device for eliminating oxidation during hot stretching operation on grids. 2,837,126, 6–3–58, Cl. 140—71.5.
Hulshizer, George W., to Ingersoll-Rand Co. Hole cleaning device. 2,837,317, 6–3–58, Cl. 255—49.
Hultkrans, Paul B., and D. A. Perino, to Miliprint, Inc. Art of packaging commodities in expansible wrappers. 2,836,941, 6–3–58, Cl. 53—14.
Hume, Horace D. Crop cutting and windrowing machine. 2,836,952, 6–3–58, Cl. 56—192.
Humphrey, Lysle H. Dental apparatus. 2,836,849, 6–3–58, Cl. 18—5.7.
Hurwitz, Julius. Wash basin. 2,836,831, 6–3–58, Cl. 4—166.
Huttar, Daniel E., to E. I. du Pont de Nemours and Co. Resistor enamel and resistor made therefrom. 2,837,487, 6–3–58, Cl. 252—514.
Ideal Toy Corp.: *See*—
Welh, Julius. 2,836,929.
Ikeda, Hatsuko: *See*—
Yabuta, Teijiro, Ikeda, Shiroyanagi, Ikeda, Fujimaki, Katayama, Tsuji, and Sato. 2,837,510.
Ilune, Georges. Volumetric rotary pumps and compressors. 2,837,031, 6–3–58, Cl. 103—126.
Ikeda, Hiroshi: *See*—
Yabuta, Teijiro, Ikeda, Shiroyanagi, Ikeda, Fujimaki, Katayama, Tsuji, and Sato. 2,837,510.
Imperial Chemical Industries Ltd.: *See*—
Moore, Donald C., and Edge. 2,837,450.
Industria Chimica Profarmaco S. r. L.: *See*—
Fusco, Raffaello, and Rossi. 2,837,520.
Industrial Controls Corp.: *See*—
Thomas, Albert G., and Johnson.
Industrial Rayon Corp.: *See*—
Bauer, Ralph F., and McLellan. 2,837,102.
Baumann, Frank J., and Bloomfield. 2,837,291.
Industrie-Werke Karlsruhe Akt.: *See*—
Ciecior, Heinrich K. 2,837,173.
Gunther, Helmut. 2,837,157.
Infilco Inc.: *See*—
Adelson, Samuel L. 2,837,116.
Ingersoll-Rand Co.: *See*—
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Injection Molding Co.: *See*—
Grebowiec, Michael J. 2,837,245.
Marchant, Paul A. 2,837,128.
International Business Machines Corp.: *See*—
Dickinson, Arthur H., and Roth. 2,837,279.
Geisler, Helmut J. 2,837,641.
Morgan, William F. 2,837,613.
Schreiner, Kenneth E., and Cedarholm. 2,837,278.
Steinberg, Richard K. 2,837,276.
International Cigar Machinery Co.: *See*—
Wheeler, Henry H. 2,837,158.
International Minerals & Chemical Corp.: *See*—
Gloss, Gunter H., and McGinnis. 2,837,403.
Purvis, Joseph L. 2,837,532.
International Nickel Co., Inc., The: *See*—
Buck, Mortimer P., and Crumbley. 2,837,626.
Graham, Alexander B. 2,836,884.
International Rectifier Corp.: *See*—
Lidow, Eric. 2,837,703.
International Standard Electric Corp.: *See*—
Shepard, Stanley C. 2,836,878.
Sindzinski, Willy, and Gunther. 2,837,333.
Wright, Esmond P. G., Weir, and Phillips. 2,837,281.
International Telephone and Telegraph Corp.: *See*—
Albanese, Damian F. 2,837,719.
Kandolan, Armig G. 2,837,715.
Orthuber, Richard K., and Ullery. 2,837,660.
Orthuber, Richard K., Ullery, and Day. 2,837,661.
Ish, Carl J., to Pennsalt Chemicals Corp. Polymerization of unsaturated triglycerides. 2,837,547, 6–3–58, Cl. 260—407.
Iversen, Arthur H., to Sylvania Electric Products Inc. High impedance accelerometer. 2,837,675, 6–3–58, Cl. 313—72.
Jackson, Hagan L.: *See*—
Krants, Frank M., and Jackson. 2,837,723.
Jacob, Robert M., and J. G. Robert, to Societe des Usines Chimiques Rhone-Poulenc. Phenthiazine compounds. 2,837,518, 6–3–58, Cl. 260—243.
Jacob, Theodore A.: *See*—
Chemerda, John M., and Jacob. 2,837,515.
Jacobs, John, III, to Teleprompter West Coast Corp. Prompting apparatus. 2,837,294, 6–3–58, Cl. 242—67.4.
Jaidinger, John H. Adjustable contact assembly for relays and the like. 2,837,616, 6–3–58, Cl. 200—166.
Jaques, Anthony F., to Electric & Musical Industries Ltd. Circuit arrangements embodying cathode ray tubes. 2,837,690, 6–3–58, Cl. 315—20.
Jay, Kenneth W., to Orenda Engines Ltd. Fuel metering valve. 2,837,148, 6–3–58, Cl. 158—36.
Jeffrey, George A.: *See*—
Edge, Stanley H., and Jeffrey. 2,837,177.
Jenney, David S., to United Aircraft Corp. Convertiplane with automatic rotor-aileron coupling. 2,837,301, 6–3–58, Cl. 244—7.
Jenney, Theodore M., to Olin Mathieson Chemical Corp. Process for production of hydrogen peroxide. 2,837,411, 6–3–58, Cl. 23—207.
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Jeppsson, Erik M., to Svenska Aktiebolaget Bromsregulator. Automatic slack adjusters. 2,837,179, 6–3–58, Cl. 188—196.
Jex, Victor B., and J. E. McMahon, to Union Carbide Corp. Process for producing beta-cyanoethyltrichlorosilane. 2,837,551, 6–3–58, Cl. 260—448.2.
Jezierski, Victor, to Federal Carton Corp., Inc. Sheet feeding and counting assembly. 2,837,016, 6–3–58, Cl. 93—93.
Johansson, Carl E., to The Youngstown Steel Door Co. Hatch frame and cover for covered hopper car. 2,837,040, 6–3–58, Cl. 105—377.
Johns, Iral B., to United States of America, Atomic Energy Commission. Method of reducing plutonium compounds. 2,837,402, 6–3–58, Cl. 23—14.5.
Johns, William F.: *See*—
Sarett, Lewis H., Poos, and Johns. 2,837,516.
Johnson, Frederick O.: *See*—
Hotten, Bruce W., and Johnson. 2,837,480.
Hotten, Bruce W., and Johnson. 2,837,481.
Johnson, Gordon, Equipment Co.: *See*—
Zebarth, Ralph S. 2,837,265.
Johnson, Harold D., and R. S. Blough, to Philco Corp. Washing machines. 2,836,993, 6–3–58, Cl. 74—665.
Johnson, Herbert L.: *See*—
Ferris, Seymour W., and Johnson. 2,837,553.
Johnson, Lloyd A., D. A. Christensen, and A. D. Martin, to Federal-Mogul-Bower Bearings, Inc. Pressure equalising cover for journal boxes. 2,837,355, 6–3–58, Cl. 286—6.
Johnson, Miles C.: *See*—
Goodwin, William V., and Johnson. 2,837,643.
Johnson, Ralph H., to General Motors Corp. Piston. 2,837,384, 6–3–58, Cl. 309—10.
Johnson, Thomas D.: *See*—
Thomas, Albert G., and Johnson. 2,837,670.
Johnson, Wesley T., Jr.: *See*—
Godfrey, Charles E., and Johnson. 2,837,033.
Jones, Hugh H.: *See*—
Mulvaney, Loyola I., and Jones. 2,837,001.
Jones, Ira M.: *See*—
Horsting, William F., Sr. 2,837,032.
Jones, Joseph F., to S. M. Lawson, Jr. Portable floor construction. 2,836,862, 6–3–58, Cl. 20—6.
Jones, Robert R., and S. Kowalyshyn, to United States of America, Navy. Dynamic braking of capacitor motor. 2,837,708, 6–3–58, Cl. 318—210.
Josephi, James, to General Shoe Corp. Shoes and heels. 2,836,906, 6–3–58, Cl. 36—34.
Joss, Emil: *See*—
Heindel, Harold J., Groschoff, and Joss. 2,837,741.
Joy Mfg. Co.: *See*—
Baechli, George. 2,837,202.
Joyet, Eric, and H. Koch, to F. Ritter & Sohn. Cutting roller for culinary and like uses. 2,836,889, 6–3–58, Cl. 30—307.
Judson, Charles A., and G. M. Collins, to The Birmingham Small Arms Co. Ltd. Treatment of fluids. 2,837,623, 6–3–58, Cl. 219—39.
Julian, John. Fountain toothbrush. 2,836,839, 6–3–58, Cl. 15—137.
Kabushiki Kaisha Meiki Seisakusho: *See*—
Kaji, Keinosuke. 2,837,225.
Kaess, Franz: *See*—
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Kahler, Ernest J., to Pennsalt Chemicals Corp. Polymerization of tertiary olefins. 2,837,588, 6–3–58, Cl. 260—683.15.
Kaiser, Carl B., to The Haloid Co. Xerographic wet belt loading. 2,837,441, 6–3–58, Cl. 117—17.5.
Kaiser Industries Corp.: *See*—
Aiken, William R. 2,837,691.
Kaji, Keinosuke, to Kabushiki Kaisha Meiki Seisakusho. Transferring apparatus for plywood plates or the like to be treated in a multistage press. 2,837,225, 6–3–58, Cl. 214—16.6.
Kamlet, Jonas, to National Distillers and Chemical Corp. Cyclic process for the manufacture of titanium-aluminum alloys and regeneration of intermediates thereof. 2,837,426, 6–3–58, Cl. 75—175.5.
Kandolan, Armig G., to International Telephone and Telegraph Corp. Wide band slotted line. 2,837,715, 6–3–58, Cl. 324—95.
Kanta, George E. Animal training device. 2,837,056, 6–3–58, Cl. 119—29.
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Gilbert, Alfred R., and Kantor. 2,837,494.
Karatzas, Charles, and G. H. Neugebauer, to American Bosch Arma Corp. Acceleration error compensation. 2,836,981, 6–3–58, Cl. 74—5.
Kasten, Walter, to Bendix Aviation Corp. Filter-demulsifier assembly. 2,837,214, 6–3–58, Cl. 210—300.
Kaster, Paul G. Wagon unloader. 2,837,228, 6–3–58, Cl. 214—83.18.
Katayama, Mitsuhiko: *See*—
Yabuta, Taijiro, Ikeda, Shiroyamagi, Ikeda, Fujimaki, Katayama, Tsuji, and Sato. 2,837,510.
Katsman, Lawrence: *See*—
Katsman, M. and L., and Block. 2,837,624.
Katsman, M. and L., and M. Block, to Kaz Mfg. Co., Inc. Vaporizer. 2,837,624, 6–3–58, Cl. 219—40.
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Kaz Mfg. Co., Inc.: *See*—
Katsman, M. and L., and Block. 2,837,624.
Keen, Harry J., P. Muller, D. Colbert, and R. J. Papaleck, to Lavole Laboratories, Inc. Apparatus for generating stable frequencies. 2,837,650, 6–3–58, Cl. 250—36.
Keller, Ernst: *See*—
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Keller, Robert, to Akt. Brown, Boveri & Cie. Generator control system. 2,837,710, 6–3–58, Cl. 322—24.
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Kelley, Oliver K., to General Motors Corp. Fluid cooling system for liquid cooled friction brakes. 2,837,181, 6–3–58, Cl. 188—264.

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Steele, Vernon P. 2,837,248.
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Kerr, John, & Co. (Manchester) Ltd.: *See—*
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Kerstetter, Donald R., to Sylvania Electric Products Inc. Nickel base cathode emissive alloy. 2,837,423, 6–3–58, Cl. 75—171.
King, William R., and G. J. Webster, to Phillips Petroleum Co. Gas lifting carbon black pellets. 2,837,415, 6–3–58, Cl. 23—314.
Kinnett, Lucian. Safety device for ladders. 2,837,260, 6–3–58, Cl. 228—67.
Kinselman, Joseph, to Gasway Corp. Burner construction for ironing machines. 2,836,910, 6–3–58, Cl. 38—49.
Kirk, Ralph D., ½ to R. D. Small. Child's vehicle of the velocipede type. 2,837,342, 6–3–58, Cl. 280—1.189.
Klaeb, Karl: *See—*
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Klein, George J., and D. A. Baker, to National Research Council. Centrifugal separator. 2,837,172, 6–3–58, Cl. 183—84.
Klein, Samuel. Flower display device. 2,836,933, 6–3–58, Cl. 47—41.
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Koch, Hans, to Kurt Korber & Co, K. G. Stemming plant for leaf tobacco. 2,837,097, 6–3–58, Cl. 131—146.
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Kocher, Erich J., J. N. Long, and F. T. Pallanch, to The Vilter Mfg. Co. Liquid refrigerant transfer system. 2,836,966, 6–3–58, Cl. 62—3.
Kocher, Erich J., to The Vilter Mfg. Co. Flake ice making apparatus. 2,836,967, 6–3–58, Cl. 62—107.
Kocher, Erich J., to The Vilter Mfg. Co. Gas dehydrator. 2,837,171, 6–3–58, Cl. 183—75.
Koci, Jerry C., A. Holz, and E. L. Dreyer, to Chicago Dynamic Industries, Inc. Simulated pneumatically operated machine gun. 2,837,076, 6–3–58, Cl. 124—13.
Koenig, Frederick C. Stilt construction. 2,837,335, 6–3–58, Cl. 272—70.1.
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Köhler, Jacob W. L., to North American Philips Co., Inc. Gas rectifying system. 2,836,969, 6–3–58, Cl. 62—123.
Kollmann, Karl J. Saw cutting tool for pipe cleaners and the like. 2,836,838, 6–3–58, Cl. 15—104.09.
Konig, Otto, to National Lead Co. Active material for storage batteries. 2,837,589, 6–3–58, Cl. 136—26.
Konrad, Herman M., and R. J. Moser, to The National Cash Register Co. Control of totalizer selecting mechanism by the totalizer. 2,837,275, 6–3–58, Cl. 235—60.2.
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Gollmar, Herbert A., and Africa. 2,837,399.
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Kowalyshyn, Stephen: *See—*
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Krause Walter O., to Ansul Chemical Co. Indicator for water content of liquids. 2,836,974, 6–3–58, Cl. 73—53.
Kravitz, Norman. Cutter for secondary seal of a stoppered bottle. 2,837,233, 6–3–58, Cl. 215—46.
Krets, Marcel, to G. Dorand. Control aid. 2,836,986, 6–3–58, Cl. 74—470.
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Laguilharre, Pierre R. Centrifugal apparatus for separating solid particles out of a liquid. 2,837,272, 6–3–58, Cl. 233—7.
Lamb, Francis X., and E. G. De Mott, to Daystrom, Inc. Illuminated instrument dial. 2,837,628, 6–3–58, Cl. 240 2.1.
Lampe, Frederich, and F. Laa, to North American Philips Co., Inc. Switching device. 2,837,610, 6–3–58, Cl. 200—18.
Lang, Andrew R., to North American Philips Co., Inc. X-ray fluorescent analysis apparatus. 2,837,655, 6–3–58, Cl. 250—52.
Lang Heinrich, to Durex, S. A. Diesel engine. 2,837,068, 6–3–58, Cl. 123—32.
Lanooy, Cornelis, to North American Philips Co., Inc. Spirometer. 2,837,083, 6–3–58, Cl. 128—2.08.
Lapetina, Herbert, 20% each to E. L. Coneland and J. A. Simpkins. Insert retainer and killer. 2,836,924, 6–3–58, Cl. 43—131.
La Rue Albert D., to Raytheon Mfg. Co. Laminated magnetron constructions. 2,837,096, 6–3–58, Cl. 315—39.75.
Lasdon Foundation, Inc.: *See—*
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Laster, Edward C., Sr., and T. L. Menge, Sr. Fluid-operated deep-well pump. 2,837,030, 6–3–58, Cl. 103—46.
Laval, Claude C., Jr. Cereal manufacturing device. 2,837 042, 6–3–58, Cl. 107—1.
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Lavole, Michel: *See—*
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Law, John T., and P. S. Meigs, to Bell Telephone Laboratories Inc. Method of locating PN junctions in semiconductive bodies. 2,837,471, 6–3–58, Cl. 204—35.
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La Zebnik, Herbert M. Automatic toothpaste dispenser. 2,837,243, 6–3–58, Cl. 222—101.
Leach, Clayton B., to General Motors Corp. Engine crankcase structure. 2,837,075, 6–3–58, Cl. 123—195.
Lear, Earl B., to Chicago Pneumatic Tool Co. Air driven rotary earth auger. 2,837,316, 6–3–58, Cl. 255—47.
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Lee, Jonn M., to The Dow Chemical Co. Preparation of carbonate esters. 2,837,555, 6–3–58, Cl. 260—463.
Leferson, Joseph, to Machlett Laboratories, Inc. Electrode support. 2,837,680, 6–3–58, Cl. 313—180.
Legat, Robert C., to The G. E. Prentice Mfg. Co. Machine for making garment fastener tracks. 2,837,136, 6–3–58, Cl. 153—1.
Legault, Emilien, and M. Lavole. Strap and anchor plate puller. 2,837,311, 6–3–58, Cl. 254—79.
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Lenze, Eberhard, and J. Müller. Storing lamp fixtures. 2,837,631, 6–3–58, Cl. 240—51.11.
Leopold, Howard F., to Ero Mfg. Co. Cushion covers and breather eyelets therefor. 2,837,146, 6–3–58, Cl. 155—182.
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Lien, Arthur P., and D. A. McCaulay, to Standard Oil Co. Production of mono-alkylnaphthalenes by the interaction of naphthalene and alkylbenzenes. 2,837,583, 6–3–58, Cl. 260—671.
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Limbach, David R. X-ray identification. 2,837,658, 6–3–58, Cl. 250—67.
Lindemann, Henri J. M. E. E., to Societe Anonyme Dite "Les Filés de Calais." Apparatus for production of artificial filaments of randomly varying denier. 2,836,850, 6–3–58, Cl. 18—8.
Linder, Ernest G., to United States of America, Air Force. Radioactive voltage source employing a gaseous dielectric medium. 2,837,666, 6–3–58, Cl. 310—3.
Linder, Seymour M., and F. P. Greenspan, to Food Machinery and Chemical Corp. Method of preparing carvone. 2,837,570, 6–3–58, Cl. 260—587.
Lindstrom, Ture, and A. S. Nagy, to United States of America, Navy. Safety circuits for electro-mechanical braking. 2,837,604, 6–3–58, Cl. 307—116.
Lingenfelter, Daniel J., to Polyfab Co. Shipping swing suspension for fragile articles. 2,837,208, 6–3–58, Cl. 206—46.
Lingl, Hans. Antomatic press for the pressing of large-sized stones from granular material. 2,836,873, 6–3–58, Cl. 25—40
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Lipman, Elmer. Atomizer cap. 2,837,374, 6–3–58, Cl. 299—88.
Lipscomb, Willis L. Curved, cellular light control panel. 2,837,632, 6–3–58, Cl. 240—78.
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Lubow, Raymond. Audio reproduction apparatus. 2,837,597, 6–3–58, Cl. 179—1.
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Lux, Paul A., and E. Niemand, to The Lux Clock Mfg. Co., Inc. Range control mechanisms. 2,837,621, 6–3–58, Cl. 219—20.
Ly, Thasseus. Pliers-type wrench with cam-operated sliding jaw. 2,836,999, 6–3–58, Cl. 81—361.
Lyden, Frank J. Combined drop and flush oilers. 2,837,174, 6–3–58, Cl. 184—81.
Lynch, Vernon C. Fishing-rod reel. 2,836,921, 6–3–58, Cl. 43—21.
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Lynn, John W., to Union Carbide Corp. Esters of N,N-bis(2-cyanoethyl) carboxamic acids. 2,837,558, 6–3–58, Cl. 260—465.4.
MacCormack, Kenneth E., and G. A. Harrow, to National Research Council. Process for activation of silver alloy catalyst. 2,837,473, 6–3–58, Cl. 204—140.
MacDonald, Dennison H., and T. S. Harris, Jr., to Revere Corp. of America. Strain gauges and load weighing cells. 2,837,620, 6–3–58, Cl. 201—63.
MacDonald, Kenneth A., and E. J. Whitmore, to Ferranti Ltd. Method of making ceramic-to-metal seals. 2,836,885, 6–3–58, Cl. 29—472.9.
Machlett Laboratories, Inc.: *See—*
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Mackey, Richard C., to The Regents of the University of California. Microwave measurement apparatus. 2,837,712, 6–3–58, Cl. 324—0.5.
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Mantell, Gerald J., to E. I. du Pont de Nemours and Co. Activated cellulose ethers and process of preparing same. 2,837,512, 6–3–58, Cl. 260—231.
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Markel, John M., W. R. Schmidt, and A. R. Zellmer, to J. I. Case Co. Tractor mounted loader. 2,837,229, 6–3–58, Cl. 214—140.
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Martinez, Rafael. Device for clamping a crank case oil pan to the base of a gasoline engine. 2,837,063, 6–3–58, Cl. 121—194.
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Sisler, Harry H., and Mattair. 2,837,409.
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Mavity, Julian M., to Universal Oil Products Co. Ethers and alcohols via sulfur dioxide oxidation of sulfides and mercaptans. 2,837,573, 6–3–58, Cl. 260—614.
May, Otto A. Mechanical door check. 2,836,844, 6–3–58, Cl. 16—65.
Mayes, Fred M. Position adjustable hydrophone. 2,837,727, 6–3–58, Cl. 340—6.
Mayfield, George C., to McQuay-Norris Mfg. Co. Piston ring element and method of making same. 2,837,385, 6–3–58, Cl. 309—44.
Mayfield, George C., to McQuay-Norris Mfg. Co. Piston ring assemblies. 2,837,386, 6–3–58, Cl. 309—44.
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McBean, Douglas M., and Tallman. 2,837,319.
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McDowall, Charles J., and O. V. Montieth, to General Motors Corp. Gas turbine engine supporting frame. 2,836,959, 6–3–58, Cl. 60—39.31.
McGee, James D., to Electric & Musical Industries Ltd. Electron discharge devices. 2,837,688, 6–3–58, Cl. 315—11.
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McGuire, John C. Folding chair. 2,837,142, 6–3–58, Cl. 155—140.
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McLarty, Gordon. Exhaust fans. 2,837,021, 6–3–58, Cl. 98—116.

McLaughlin, Daniel G. Apparatus for dispensing viscous material. 2,837,242, 6–3–58, Cl. 222—88.

McLaughlin, John E., and G. H. Allgeyer, to Owens-Illinois Glass Co. Means for intercepting gobs of molten glass. 2,836,934, 6–3–58, Cl. 49—5.

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Melamed, Sidney, to Rohm & Haas Co. Monomeric polymerizable ureido and thioureido vinyl ethers and methods for producing them. 2,837,499, 6–3–58, Cl. 260—77.5.

Melkonian, Diran, and P. Gold, to Laboratoire Sapos, and E. Frommel. New quaternary amino ethers and a process for their preparation. 2,837,533, 6–3–58, Cl. 260—326.5.

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Hirschmann, Ralph F., and Miller. 2,837,541.
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Meshberg, Philip. Aerosol valve. 2,837,249, 6–3–58, Cl. 222—394.

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Meyer, Barthold F., to General Motors Corp. Door ventilator latch. 2,837,362, 6–3–58, Cl. 292—207.

Meyer, Kurt, to Metallgesellschaft Akt. Apparatus and process for granulating material. 2,836,846, 6–3–58, Cl. 18—1.

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Michel, Edward L.: *See*—
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Mielke, Robert F., and L. E. Redmond. Glide path indicating device for use in grounded training systems. 2,836,905, 6–3–58, Cl. 35—12.

Milinowski, Arthur S., to Q-O-S Corp. Power supply. 2,837,709, 6–3–58, Cl. 321—25.

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Miller, Woodford D., and W. S. Kunzler, to Robertshaw-Fulton Controls Co. Thermostatic control device for fuel burners. 2,837,287, 6–3–58, Cl. 236—99.

Millership, Ronald, to Elliott Brothers (London) Ltd. Means for delaying electric impulses. 2,837,721, 6–3–58, Cl. 333—30.

Millhiser, Frederick R., to E. I. du Pont de Nemours and Co. Terpolymers including vinylarenesulfonic acids and acrylonitrile. 2,837,501, 6–3–58, Cl. 260—79.3.

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Moore, Nathan E., Jr. Horizontally adjustable Venetian blind. 2,837,152, 6–3–58, Cl. 160—168.

Morgan, David L., to Robertshaw-Fulton Controls Co. Thermostatic control device. 2,837,615, 6–3–58, Cl. 200—140.

Morgan, William F., to International Business Machines Corp. Switching device. 2,837,613, 6–3–58, Cl. 200—104.

Morin, George V. N., to Chicopee Mfg. Corp. Nonwoven fabric and products containing bacteristatic agent. 2,837,462, 6–3–58, Cl. 167—84.

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Morlock, Kurt, and E. Kratz, to H. Morlock. Mechanical multi-color pencil of the ball-writing or lead-writing type. 2,837,057, 6–3–58, Cl. 120—42.13.

Morris, John W.: *See*—
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Efford, John T., and Morton. 2,837,375.

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Moss, Clarence B. Spoon with threadably mounted end members. 2,837,297, 6–3–58, Cl. 242—118.62.

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Motz, Jürgen, H. Küchler, K. Figge, F. Kaess, and H. Mühlberger, to Metallgesellschaft Akt., and Süddeutschen Kalkstitchstoff-Werke Akt. Ges. Addition agents for the treatment of molten cast iron. 2,837,422, 6–3–58, Cl. 75—134.

Mueller, Herman H., to small interests to various assignees. Automatic interlocking fuel phonograph record player with selective control. 2,837,337, 6–3–58, Cl. 274—10.

Mueller, Paul G. Ball cock valve mechanism. 2,837,111, 6–3–58, Cl. 137—410.

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Motz, Jürgen, Küchler, Figge, Kaess, and Mühlberger. 2,837,422.

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Mulvaney, Loyola I., and H. H. Jones. Apparatus for turning tires on locomotive wheels. 2,837,001, 6–3–58, Cl. 82—36.

Murdock, Forrest L., Sr. Separator for oil, gas and water. 2,837,213, 6–3–58, Cl. 210—187.

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Murray, James V., Jr., C. H. Young, and J. R. Anderson, to Union Carbide Corp. Separation of aromatics and aliphatics using alkylene carbonate. 2,837,585, 6–3–58, Cl. 260—674.

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Myers, Arthur F., and J. R. Hively, to E. I. du Pont de Nemours & Co. Polymerization of chloroprene. 2,837,506, 6–3–58, Cl. 260—92.3.

Nagel, Alfred W., to Monsanto Chemical Co. Feed mill chute with reciprocable knife, to prevent plugging of mill. 2,837,290, 6–3–58, Cl. 241—186.

Nagy, Alexander S.: *See*—
Lindstrom, Ture, and Nagy. 2,837,664.

Nailen, James C., to Electronic Specialty Co. Solid state inverters. 2,837,652, 6–3–58, Cl. 250—36.

Nassello, Roy. Pull tape for removing container covers. 2,837,263, 6–3–58, Cl. 229—43.

National Can Corp.: *See*—
Colvin, William L. 2,837,048.

National Cash Register Co., The: *See*—
Konrad, Herman M., and Moser. 2,837,275.

National Distillers and Chemical Corp.: *See*—
Feldman, Julian, and Frampton. 2,837,565.
Feldman, Julian, and Frampton. 2,837,566.
Kamlet, Jonas. 2,837,426.

National Laboratories, Inc.: *See*—
Sanborn, Phillip D. 2,837,255.

National Lead Co.: *See*—
Blumenthal, Warren B. 2,837,400.
Herrmann, Edgar H. 2,837,405.
Konig, Otto. 2,837,589.
Kron, Ernest C. 2,837,421.

National Malleable and Steel Castings Co.: *See*—
Shafer, James A. 2,837,034.

National Research Council: *See*—
Burford, Barbara McP., and Cambron. 2,837,424.
Klein, George J., and Baker. 2,837,172.
MacCormak, Kenneth E., and Harrow. 2,837,473.
Osberg, Gustav L. 2,837,486.

Nelson, Eldred C., to Hughes Aircraft Co. Electronic magnitude comparator. 2,837,732, 6–3–58, Cl. 340—149.

Nelson, McDonald S.: *See*—
Bravard, Roy F., Mahaffey, and Nelson. 2,836,865.

Nelson, Miles W.: *See*—
Thomson, Daniel E., and Nelson. 2,836,913.

Nelson, Miles W., and D. E. Thomson. Collapsible sign structure for vehicles. 2,836,914, 6–3–58, Cl. 40—129.

Neugebauer, George H: *See*—
Karatsas, Charles, and Neugebauer. 2,836,981.

New Britain Machine Co., The: *See*—
Rets, William B. 2,837,205.

Newkirk, Arthur E.: *See*—
George, Philip D., and Newkirk. 2,837,552.

Newson, Henry W., to United States of America, Atomic Energy Commission. Neutronic reactor having localized areas of high thermal neutron densities. 2,837,475, 6–3–58, Cl. 204—193.2.

Nichols, Joseph, to Ethicon, Inc. Styrenated oils. 2,837,546, 6–3–58, Cl. 260—407.

Niemand, Emil: *See*—
Lux, Paul A., and Niemand. 2,837,621.

Nisenson, Stanley M. Universal circle divider. 2,836,892, 6–3–58, Cl. 33—1.

Nobile, Arthur, to Schering Corp. Process for production of dienes by corynebacteria. 2,837,464, 6–3–58, Cl. 195—51.

Nokes, Clarence. Venetian blind restringer. 2,836,882, 6–3–58, Cl. 29—241.

Norda Essential Oil & Chemical Co.: *See*—
Tracy, Ralph L. 2,837,534.

Norman, Glenn E. Tile receptor for showers. 2,836,830, 6–3–58, Cl. 4—146.

Norris, Harold W. Holder for clamping compressed gas bottles on trailers. 2,837,217, 6–3–58, Cl. 211—74.

North American Philips Co., Inc.: *See*—
Bijersbergen, Jacobus P. 2,837,667.
Blok, Lourens, and Zwanenburg. 2,837,725.
De Vos, Krijn J., Koch, Van Embden, Haas, and Flipse. 2,837,452.
Hakker, Petrus J., and Weber. 2,837,483.
Hendee, Charles, and Fine. 2,837,659.
Hendee, Charles F., and Fine. 2,837,656.
Hendee, Charles F., and Fine. 2,837,678.
Hendee, Charles F., Fine, and Bleeksma. 2,837,677.
Köhler, Jacob W. L. 2,836,969.
Lampe, Friedrich, and Laa. 2,837,610.
Lang, Andrew R. 2,837,655.
Lanooy, Cornelis. 2,837,083.
Rodenhuis, Klaas. 2,837,681.
Roozendaal, Klaas, and Hellingman. 2,836,964.

North Electric Co.: *See*—
Dahlman, Per O. 2,837,603.

North, Howard C., to Esso Research and Engineering Co. Grid support for fluidized solids vessels. 2,836,902, 6–3–58, Cl. 34—57.

Northcott Roy P.: *See*—
Porter, Frederick W. B., and Northcott. 2,837,465.

Norton Co.: *See*—
Ervin, Guy, Jr. 2,837,416.
Ervin, Guy, Jr., and Ueltz. 2,837,478.

Norton, Lowell E., to Radio Corp. of America. Gas resonance apparatus. 2,837,693, 6–3–58, Cl. 315—39.

Nutt, Harold to Borg-Warner Corp. Variable speed fan drive. 2,837,069, 6–3–58, Cl. 123—41.12.

O P W Corp.: *See*—
Boone, Wallace D. 2,837,240.

Oberrauch, Hans, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Process for the manufacture of polymethyleneimines. 2,837,524, 6–3–58, Cl. 260—293.2.

Odom, Mary A. Vehicle trunk cover. 2,837,372, 6–3–58, Cl. 296—76.

Ohio State University Research Foundation, The: *See*—
Sisler, Harry H., and Mattair. 2,837,409.

Oishei, John R., and W. C. Riester, to Trico Products Corp. Windshield cleaner parking installation. 2,836,841, 6–3–58, Cl. 15—253.

Olin Mathieson Chemical Corp.: *See*—
Fried, Josef. 2,837,544.
Haller, John F. 2,837,410.
Hill, Harry E., and Weisse. 2,837,574.
Jenney, Theodore M. 2,837,411.
Sakowski, Walter J. 2,837,408.
Winternitz, Paul F., and Carotti. 2,837,318.

Olivetti Corp.: *See*—
Godel, Siegfried. 2,837,274.

Olson, Elmer: *See*—
Eckert, Clarence J., and Olson. 2,837,071.

Oorbeck, Abraham J.: *See*—
Cole, Clayton K., and Oorbeck. 2,836,949.

Oppliger, Walter, and E. Peyer, to Durand & Huguenin A. G. Process for the manufacture of salts of sulphuric acid esters of leuco vat dyestuffs of the anthraquinone series. 2,837,530, 6–3–58, Cl. 260—316.

Orenda Engines Ltd.: *See*—
Creek, John O., and Dawson, 2,837,011.
Jay, Kenneth W. 2,837,148.

Orthuber, Richard K., and L. R. Ullery, to International Telephone and Telegraph Corp. Composite radiation amplifier. 2,837,660, 6–3–58, Cl. 250—213.

Orthuber, Richard K., L. R. Ullery, and C. L. Day, to International Telephone and Telegraph Corp. Radiation amplifier. 2,837,661, 6–3–58, Cl. 250—213.

Osberg, Gustav L., to National Research Council. Silver-alkaline earth metal catalyst. 2,837,486, 6–3–58, Cl. 252—437.

Overhead Door Corp.: *See*—
Stroup, Earl L. 2,837,151.

Owen, Webster J., and C. F. Arnold, to General Motors Corp. Automotive heating, ventilating and defrosting system. 2,837,288, 6–3–58, Cl. 237—8.

Owens-Illinois Glass Co.: *See*—
Allen, Russell G. 2,837,118.
McLaughlin, John E., and Allgeyer. 2,836,934.
Ryley, James F. 2,836,979.
Vincent, Harvard B. 2,837,235.
Zink, Harold F., Taylor, and Pawlicki. 2,836,848.

Oy, Roahe: *See*—
Pehkonen, Hannes, and Lempinen. 2,837,220.

Packard, Robert G.: *See*—
Elliott, Robert V., and Packard. 2,837,082.

Pagendarm, Edward J., to Baljak Corp. Machine for assembling folding box shells and inserting liners into the shells. 2,837,013, 6–3–58, Cl. 93—36.01.

Paige, Richard E. Bottle display stand. 2,837,216, 6–3–58, Cl. 211—72.

Pallanch, Francis T.: *See*—
Kocher, Erich J., Long, and Pallanch. 2,836,966.

Papaleck, Robert J.: *See*—
Keen, Harry J., Muller, Colbert, and Papaleck. 2,837,650.

Parfour, Inc.: *See*—
Rossi, Mario. 2,837,232.

Parilla, Arthur R., to The M. W. Kellogg Co. Filament wound container. 2,837,456, 6–3–58, Cl. 154—83.

Passino, Herbert J.: *See*—
Dittman, Albert L., Passino, and Wrightson. 2,837,505.

Paull, Peter L.: *See*—
Sellers, Frederick B., and Paull. 2,837,419.

Pawlicki, Clarence D.: *See*—
Zink, Harold F., Taylor, and Pawlicki. 2,836,848.

Pearlman, William, and R. L. Smith, to United States of America, Navy. Reluctance tuned radio frequency coil. 2,837,726, 6–3–58, Cl. 336—131.

Pechy, William, to American Can Co. Clamping and tensioning device. 2,837,025, 6–3–58, Cl. 101—415.1.

Peck, David W.: *See*—
Anderson, John R., and Peck. 2,837,531.

Pehkonen, Hannes, and E. Lempinen, to R. Oy. Lift and transport mechanism. 2,837,220, 6–3–58, Cl. 212—59.

Pendleton, Robert A.: *See*—
Lawrence, Richard B., and Pendleton. 2,837,330.

Penn, William R.: *See*—
Fisher, Alec, and Penn. 2,837,669.

Pennsalt Chemicals Corp.: *See*—
Ish, Carl J. 2,837,547.
Kahler, Ernest J. 2,837,588.

Perfect Circle Corp.: *See*—
Teetor, Ralph R. 2,837,060.

Perino, Dominic A.: *See*—
Hultkrans, Paul B., and Perino. 2,836,941.

Perlis, David B., to Western Precipitation Corp. Reversing mechanism. 2,836,991, 6–3–58, Cl. 74—567.

Perpignani, Marino, and O. E. Werner, to Automatic Canteen Co. of America. Measuring and dispensing device. 2,837,244, 6–3–58, Cl. 222—135.

Petro-Chem Process Co., Inc.: *See*—
Throckmorton, John W., and Wallis. 2,837,065.

Peyer, Eduard: *See*—
Oppliger, Walter, and Peyer. 2,837,530.

Pfizer, Chas., & Co., Inc.: *See*—
Carnahan, Robert E. 2,837,527.
Conover, Lloyd H. 2,837,571.
Miskel, John J. 2,836,942.

Philco Corp.: *See*—
Johnson, Harold D., and Blough. 2,836,993.
Small, Theodore W., and Cole. 2,837,672.

Phillips, Glyndur R.: *See*—
Wright, Esmond P. G., and Phillips. 2,837,281.

Phillips Petroleum Co.: *See*—
Crawford, Francis W. 2,837,007.
Fox, Homer M. 2,836,963.
Fox, Homer M. 2,837,536.
Hanmer, Robert S., and Carroll. 2,837,502.
Hanson, George E., and Croley. 2,837,504.
Hepp, Harold J. 2,837,586.
Hogan, John P., and Banks. 2,837,587.
King, William R., and Webster. 2,837,415.

Pickard, Albert F., to E. J. Longyear Co. Apparatus for deflecting bore holes. 2,837,314, 6–3–58, Cl. 255—1.6.

Pickwick Co.: *See*—
Farchmin, Roy H., Pitts, and Zuber. 2,836,845.

Pidgeon, Lloyd M., to Chromium Mining & Smelting Corp., Ltd. Apparatus for producing magnesium. 2,837,328, 6–3–58, Cl. 266—15.

Pifer, Marion J., to Sylvania Electric Products Inc. Backs for receiver cabinets. 2,837,633, 6–3–58, Cl. 250—14.

Pino, Vincent. Ejecting cigarette case. 2,837,238, 6–3–58, Cl. 221—227.

Pioneer Mfg. Co., The: *See*—
Heran, Robert F., Sr. 2,837,433.
Piromalli, Rocco. Combined frame holder and perforated object. 2,836,916, 6–3–58, Cl. 40—152.2.
Pirrone, Anthony L. M. Flying machine. 2,837,302, 6–3–58, Cl. 244—49.
Pitts, Robert D.: *See*—
Parchmin Roy H., Pitts, and Zuber. 2,836,845.
Pittsburgh Plate Glass Co.: *See*—
Englehart, Oscar D., Sadesky, Morris, and Sherbondy. 2,837,453.
Pledger, Huey, Jr.: *See*—
Kundiger, Donald G., and Pledger. 2,837,576.
Plessey Co. Ltd., The: *See*—
Simpson, Anthony W. 2,837,668.
Plouffe, Robert L., Jr., to United States of America, Navy Radar sweep multiplier. 2,837,737, 6–3–58, Cl. 343—13.
Pneumatics & Caoutchouc Manufacture Kleber Colombes, Societe Anonyme: *See*—
Thibault, Bernard, and Richardin. 2,837,354.
Pohland, Albert, to Eli Lilly and Co. 2-acetoxy-1,2-diphenyl-4-piperidinopentane. 2,837,526, 6–3–58, Cl. 260—294.3.
Pollock, William E., to Librascope, Inc. Method of making transducer cores. 2,836,881, 6–3–58, Cl. 29—155.5.
Polyfab Co.: *See*—
Lingenfelter, Daniel J. 2,837,208.
Poor & Co.: *See*—
Albers, Hamilton M. 2,837,197.
Poos, George I.: *See*—
Sarett, Lewis H., Poos, and Johns. 2,837,516.
Porter, Frederick W. B., and R. P. Northcott, to The British Petroleum Co. Ltd. Hydrocatalytic desulphurization of petroleum hydrocarbons. 2,837,465, 6–3–58, Cl. 196—24.
Porter, H. K., Co. (Delaware): *See*—
Galloway, Frederick M. 2,837,120.
Possati, Mario, L. Giardino, and V. Faenza. Comparator having reed supported, lockable feelers and capacitive response means. 2,836,898, 6–3–58, Cl. 33—147.
Potdevin, Adolph, and R. P. Bechle, to Potdevin Machine Co. Bags. 2,837,267, 6–3–58, Cl. 229—53.
Potdevin, Adolph, and R. P. Bechle, to Potdevin Machine Co. Bags. 2,837,268, 6–3–58, Cl. 229—54.
Potdevin Machine Co.: *See*—
Eccher, Oreste B. 2,837,054.
Potdevin, Adolph, and Bechle. 2,837,267.
Potdevin, Adolph, and Bechle. 2,837,268.
Potter, Edwin B. Portable crop saver. 2,836,932, 6–3–58, Cl. 47—2.
Powdermatic Corp.: *See*—
Terry, Arthur, 3rd. 2,837,191.
Powers Chemco, Inc.: *See*—
Schutt, Norman C., Bjelland, and Flynn. 2,836,917.
Powers-Samas Accounting Machines Ltd.: *See*—
Baldwin, Richard E. 2,837,280.
Pratt, William J. Paint roller means. 2,836,840, 6–3–58, Cl. 15—230.
Prentice, G. E., Mfg. Co., The: *See*—
Legat, Robert C. 2,837,136.
Pretceille, Maurice A., to Lignes Telegraphiques & Telephoniques. Signal receiving device. 2,837,604, 6–3–58, Cl. 179—84.
Price, Earl R., to Bendix Aviation Corp. Brake anti-creep mechanism. 2,837,186, 6–3–58, Cl. 192—3.
Priesmeyer, Charles, to Meyer-Wenthe, Inc. Eccentric coin. 2,836,911, 6–3–58, Cl. 40—27.5.
Prober, Maurice, to General Electric Co. Hydroxyalkylcyclopolysiloxanes. 2,837,550, 6–3–58, Cl. 260—448.2.
Puck, Willis H. Device for removing parts from a tractor. 2,836,883, 6–3–58, Cl. 29—288.
Puda, Chester K.: *See*—
Rhodes, Mordy M., and Puda. 2,837,339.
Pugin, André, and E. Keller, to J. R. Geigy A.-G. Phthalocyanine pigments. 2,837,528, 6–3–58, Cl. 260—299.
Pula, Stephen, and G. Loparto, ½ to J. Marszalkowski. Safety device for firearms. 2,836,918, 6–3–58, Cl. 42—1.
Pullman-Standard Car Mfg. Co.: *See*—
Gutridge, Jack E. 2,837,226.
Purex Corp., Ltd.: *See*—
Davis, Earl. 2,836,943.
Purvis, Joseph L., to International Minerals & Chemical Corp. Process for production of glutamic acid. 2,837,532, 6–3–58, Cl. 260—326.3.
Q-O-S Corp.: *See*—
Milinowski, Arthur S. 2,837,709.
Quigley, Francis T., and R. J. Blaso, to Sylvania Electric Products Inc. Frequency converter tube. 2,837,673, 6–3–58, Cl. 313—69.
Radio Corp. of America: *See*—
Barkow, William H. 2,837,674.
Clay, Burton R. 2,837,594.
Denton, Bethel E. 2,837,692.
Goodwin, William V., and Johnson. 2,837,643.
Norton, Lowell E. 2,837,693.
Solet, Ira S., and Waer. 2,837,207.
Thompson, Roger D., and Schwartz. 2,837,687.
Wolff, Irving. 2,837,735.
Ragazzo, Alfred P., to Wintriss Inc. Voice assembly for stuffed toys. 2,836,928, 6–3–58, Cl. 46—117.
Ragazzo, Alfred, and B. Weis to Wintriss Inc. Missile with ram jet sounding device. 2,836,930, 6–3–58, Cl. 46—175.
Rahall, Philip. Portable desk. 2,837,394, 6–3–58, Cl. 312—257.
Ramos, Joe, and W. F. Hower, to Halliburton Oil Well Cementing Co. Selective plugging of underground well strata. 2,837,163, 6–3–58, Cl. 166—10.
Ransom, George P., to General Motors Corp. Fuel injection system. 2,837,074, 6–3–58, Cl. 123—140.
Ranucci, Ernest R. Display device. 2,836,912, 6–3–58, Cl. 40—30.
Rau, Eric, to United States of America, Navy. Method of reducing metallic corrosion by fuming nitric acid by addition of fluoride ion to acid. 2,837,407, 6–3–58, Cl. 23—157.
Rawson, Harold: *See*—
Stanworth, John E., Rawson, and Knowles. 2,836,935.
Raytheon Mfg. Co.: *See*—
La Rue, Albert D. 2,837,696.
Spencer, Percy L. 2,837,694.
Unger, Robert M. 2,837,684.
Read, Roland R.: *See*—
Fordick, Leonard S., Read, Sanders, and Edwards. 2,837,463.
Ready, Harold R.: *See*—
Matuszak, Alfred H., Ready, and Lifson. 2,837,562.
Reardon, John W., and K. R. McDougal, to General Electric Co. Commutator bar construction. 2,837,671, 6–3–58, Cl. 310—236.
Red Mill Co.: *See*—
Glepen, Hubert M. 2,836,980.
Redmond, Lawrence E.: *See*—
Mielke, Robert F., and Redmond. 2,836,905.
Reed-Cromex Corp.: *See*—
Reed, Erwin. 2,836,925.
Reed, Erwin, deceased; W. Friedman, executor, to Reed-Cromex Corp. Unitary take-up escutcheon. 2,836,925, 6–3–58, Cl. 45—139.
Reel-Safe, Inc.: *See*—
Long, Charles E. 2,837,334.
Reeser, Esral M., to J. I. Case Co. Hinge construction. 2,837,203, 6–3–58, Cl. 198—204.
Reeves, Herbert M., to Florence Stove Co. Oven door spring mounting. 2,837,080, 6–3–58, Cl. 126—191.
Reeves, Richard F., and D. J. Cestoni, to American Cyanamid Co. Zinc dialkyl dithiophosphates. 2,837,549, 6–3–58, Cl. 260—429.9.
Reflectone Corp., The: *See*—
Brown, Forrest W. 2,837,336.
Brown, Forrest W. 2,837,700.
Reliance Electric and Engineering Co., The: *See*—
Wilder, Stuart, Jr. 2,837,193.
Rem-Cru Titanium, Inc.: *See*—
Vordahl, Milton B. 2,837,425.
Rethmeier, Ernest A. Wall section for dwelling. 2,836,861, 6–3–58, Cl. 20—4.
Retz, William B., to The New Britain Machine Co. Chuck positioning means. 2,837,205, 6–3–58, Cl. 198—210.
Revere Corp. of America: *See*—
MacDonald, Dennison H., and Harris. 2,837,620.
Reynolds, Albert H.: *See*—
Drigot, Stanley W., Lebolt, Minow, and Reynolds. 2,837,432.
Rhodes, Mordy M., and C. K. Puda. Phonograph pickup. 2,837,339, 6–3–58, Cl. 274—23.
Rhyne, John W., Jr., to Hamilton Watch Co. Molybdenum anode cell. 2,837,590, 6–3–58, Cl. 136—100.
Rhyne, John W., Jr., to Hamilton Watch Co. Germanium anode cell. 2,837,591, 6–3–58, Cl. 136—100.
Riat, Henri, to Ciba Ltd. Cupriferous azo-dyestuffs. 2,837,507, 6–3–58, Cl. 260—146.
Rice Barton Corp.: *See*—
Clem, Everett W. 2,837,293.
Richard, Joseph D., Jr. Radio test signal generation. 2,837,636, 6–3–58, Cl. 250—20.
Richardin, Jacques: *See*—
Thibault, Bernard, and Richardin. 2,837,354.
Richards, William J., to General Shoe Corp. Safety shoe. 2,836,909, 6–3–58, Cl. 36—72.
Richardson, Carl B. Top plate air deflector for pot burners. 2,837,149, 6–3–58, Cl. 158—91.
Riddle, Robert L., to Haller, Raymond and Brown, Inc. Proportional gate circuit. 2,837,740, 6–3–58, Cl. 343—228.
Riegger, Ulrich, to Kurt Körber & Co. K.-G. Apparatus for delivering into bins cigarettes with mouthpiece coatings. 2,836,945, 6–3–58, Cl. 53—150.
Riester, William C.: *See*—
Olshei, John R., and Riester. 2,836,841.
Ritter, F., & Sohn: *See*—
Joyet, Eric, and Koch. 2,836,889.
Robb, Vincent P., and J. R. Sacher. Railway conductor plow. 2,837,608, 6–3–58, Cl. 191—48.
Robert, Jacques G.: *See*—
Jacob, Robert M., and Robert. 2,837,518.
Roberts, Alan P., to Esso Research and Engineering Co. Permanent well completion apparatus. 2,837,165, 6–3–58, Cl. 166—114.
Roberts, Fred T. Flexible hose and method and apparatus for making same. 2,837,121, 6–3–58, Cl. 138—56.
Robertshaw-Fulton Controls Co.: *See*—
Miller, Woodford D., and Kunzler. 2,837,287.
Morgan, David L. 2,837,615.
Rockwell, Harvey W., to Allis-Chalmers Mfg. Co. Multiple speed hydraulic valve. 2,837,107, 6–3–58, Cl. 137—106.
Rodenhuis, Klaas, to North American Philips Co., Inc. Electric discharge tube. 2,837,681, 6–3–58, Cl. 313—258.
Rogowski, Frank J. Safety railroad tie holder. 2,837,313, 6–3–58, Cl. 254—121.
Rohm & Haas Co.: *See*—
Ferris, Arthur F. 2,837,488.
Melamed, Sidney. 2,837,499.
Roosendaal, Klaas, and E. Hellingman, to North American Philips Co., Inc. Refrigerating device comprising a gas-refrigerator. 2,836,964, 6–3–58, Cl. 62—2.
Rosen, Jack M.: *See*—
Saltzman, Alvin R., and Rosen. 2,837,720.
Rosen, Jacob. Automatic automobile parking and stacking device. 2,837,224, 6–3–58, Cl. 214—16.1.
Rosenberg, Joseph A.: *See*—
Tash, Irving. 2,837,093.

Ross, Hugh N., to American Instrument Co., Inc. Temperature and humidity control system. 2,837,286, 6–3–58, Cl. 236—44.
Ross, Scott E., to American Compress & Warehouse Co., Inc. Bale-handling attachment for industrial trucks and the like. 2,837,231, 6–3–58, Cl. 214—620.
Ross, William. Feeding and controlling the flow of granular materials. 2,837,194, 6–3–58, Cl. 193—32.
Rossi, Mario, to Parfour, Inc. Thermal container for bottles and other containers. 2,837,232, 6–3–58, Cl. 215—13.
Rossi, Silvano: *See*—
Fusco, Raffaello, and Rossi. 2,837,520.
Roth, Robert I.: *See*—
Dickinson, Arthur H., and Roth. 2,837,279.
Rottig, Walter, to Ruhrchemie Akt. Production of aliphatic ethers. 2,837,572, 6–3–58, Cl. 260—614.
Rous, Arthur, to Federal Carton Corp., Inc. Two piece carton with neck. 2,837,264, 6–3–58, Cl. 229—43.
Royal McBee Corp.: *See*—
Arthur, Ronald H. 2,837,162.
Royal Trust Co., The: *See*—
Burford, Barbara M., and Cambron. 2,837,424.
Ruddy, Arlo W., and T. J. Becker, deceased (by M. L. Tainter, administrator), to Sterling Drug Inc. 1-thienyl-1-cycloalkyl (or aryl)-3-(aliphatic-tertiary-amino)-1-hydroxy-lower-alkanes and preparation thereof. 2,837,525, 6–3–58, Cl. 260—293.4.
Rueger, Herman, to Hamilton Watch Co. Primary cell case. 2,837,593, 6–3–58, Cl. 136—166.
Ruhf, Robert J., to Trojan Powder Co. Purification of polyhydric alcohols. 2,837,468, 6–3–58, Cl. 202—52.
Ruhl, Charles A. L., to Bendix Aviation Corp. Control valve of the type having flow conducting sleeves biased against valve closure members. 2,837,114, 6–3–58, Cl. 137—620.
Ruhl, Charles A. L., to Bendix Aviation Corp. Open center valve with hold feature. 2,837,117, 6–3–58, Cl. 137—622.5.
Ruhrchemie Akt.: *See*—
Rottig, Walter. 2,837,572.
Russell, Charles R., L. E. Schniepp, L. S. Hafner, and H. E. Smith, to United States of America, Agriculture. 1-tetrahydrofuryl-3,6,9-nonanetriol trialkanoates. 2,837,537, 6–3–58, Cl. 260—347.4.
Russo, Frank A.: *See*—
Armenante, Jerry V., and Russo. 2,837,133.
Ryley, James F., to Owens-Illinois Glass Co. Mixing pipette. 2,836,979, 6–3–58, Cl. 73—425.4.
Sabara, Michael A. Bait casting catapult. 2,836,920, 5–3–58, Cl. 43—19.
Sabater, Carlos. Time delayed speed governor for vehicle. 2,837,168, 6–3–58, Cl. 180—82.1.
Sacher, John R.: *See*—
Robb, Vincent P., and Sacher. 2,837,608.
Sadesky, John R.: *See*—
Englehart, Oscar D., Sadesky, Morris, and Sherbondy. 2,837,453.
Sagerman, Edward: *See*—
Gildart, Lee W. 2,837,618.
St. Louis Diecasting Corp.: *See*—
Voss, Otto J., and Willhoft. 2,836,982.
St. Regis Paper Co.: *See*—
Burroughs, Edwin E. 2,837,012.
Sakowski, Walter J., to Olin Matheson Chemical Corp. Process and apparatus for the catalytic decomposition of alkali metal amalgams. 2,837,408, 6–3–58, Cl. 23—184.
Saltzman, Alvin R., and J. M. Rosen. Attenuation device and material therefor. 2,837,720, 6–3–58, Cl. 333—22.
Sample, Thomas E., Jr., to Monsanto Chemical Co. Colloidal systems of cyanoethylated starch and their use. 2,837,438, 6–3–58, Cl. 106—213.
Sanborn, Phillip D., to National Laboratories, Inc. Faucet-gasket unit for drums. 2,837,255, 6–3–58, Cl. 222—538.
Sanders, Robert G.: *See*—
Fosdick, Leonard S., Read, Sanders, and Edwards. 2,837,463.
Sarett, Lewis H., G. I. Poos, and W. F. Johns, to Merck & Co., Inc. $\Delta^{5,16}$-3-Ethylenedioxy-pregnadiene-11,20-dione and process therefor. 2,837,516, 6–3–58, Cl. 260—239.55.
Sarlandt, Oscar L. Reinforced tool handle attachment. 2,837,381, 6–3–58, Cl. 306—32.
Sarnoff, Edward B. Storing, display and carrying container. 2,837,266, 6–3–58, Cl. 229—47.
Sato, Tomonori: *See*—
Yabuta, Teijiro, Ikeda, Shiroyanagi, Ikeda, Fujimaki, Katayama, Tsuji, and Sato. 2,837,510.
Saul & Co.: *See*—
Frisch, Frans. 2,837,508.
Saunders Valve Co. Ltd.: *See*—
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Sausedde, René E., to General Motors Corp. Sprag clutch. 2,837,189, 6–3–58, Cl. 192—45.1.
Sawyer, Howard C. Combined engine muffler and combustion chamber. 2,837,169, 6–3–58, Cl. 183—6.
Sawyer, Priscilla A., now by change of name to Priscilla Allen, to American Optical Co. Apparatus for use in treating visual defects. 2,837,087, 6–3–58, Cl. 128—76.5.
Schaefer, Edward J. Bearing mounting. 2,837,382, 6–3–58, Cl. 308—236.
Schafer Industriegesellschaft Schweinfurt m. b. H.: *See*—
Brand, Karl. 2,836,961.
Schaufelberger, Felix A., to Chemical Construction Corp. Hydrometallurgical process. 2,837,406, 6–3–58, Cl. 23—147.
Schenck, Alfred K., to Bell Telephone Laboratories, Inc. Pulse rate discriminator. 2,837,642, 6–3–58, Cl. 250—27.
Schering Corp.: *See*—
Nobile, Arthur. 2,837,464.
Schillizzi, Salvatore S. Anti-pick cylinder lock. 2,836,973, 6–3–58, Cl. 70—421.
Schlenker, Felix, to Chemische Werke Albert. Epoxy resin compositions containing polyvalent metal phenolates or phenolate-aldehyde resins and the process of their production. 2,837,493, 6–3–58, Cl. 260—33.4.
Schlueter, Ernest. Double seal joint and lock therefor. 2,837,365, 6–3–58, Cl. 292—240.
Schmid, John H., to J. A. Zurn, Mfg. Co. Surface drain. 2,837,212, 6–3–58, Cl. 210—166.
Schmidt, William R.: *See*—
Markel, John M., Schmidt, and Zellmer. 2,837,229.
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Schoenleber, Lawrence H., to J. I. Case Co. Spark timing indicator. 2,837,713, 6–3–58, Cl. 324—16.
Scholin, Axel R. Metering pump. 2,837,239, 6–3–58, Cl. 222—41.
Schreiner, Kenneth E., and J. P. Cedarholm, to International Business Machines Corp. Checking circuit. 2,837,278, 6–3–58, Cl. 235—61.
Schroeder, Arthur C., to Schroeder Machines Corp. Carton handling machine. 2,836,946, 6–3–58, Cl. 53—186.
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Schroeder, Arthur C. 2,836,946.
Schubert, Andree P.: *See*—
Schubert, Leo. 2,836,891.
Schubert, Jack, to United States of America, Atomic Energy Commission. Separation of plutonium from aqueous solutions by ion-exchange. 2,837,401, 6–3–58, Cl. 23—14.5.
Schubert, Leo, deceased, by R. Schubert, nee Adler, legal representative, F. Schubert, R., nee Adler, M. M. and A. P. Schubert, sole heirs. Extension bridge. 2,836,891, 6–3–58, Cl. 32—5.
Schubert, Marcel M.: *See*—
Schubert, Leo. 2,836,891.
Schubert, Rosa: *See*—
Schubert, Leo. 2,836,891.
Schuck, Oscar H., to United States of America, Navy. Means to alter the directivity pattern of energy translating devices. 2,837,728, 6–3–58, Cl. 340—9.
Schueder, George M., to Evans Products Co. Freight loading cross bar. 2,837,039, 6–3–58, Cl. 105—369.
Schuller, Otto, and F. Malek-Naegeli. Syringe with sterilization means. 2,837,092, 6–3–58, Cl. 128—218.
Schultz, Harold B., to Bendix Aviation Corp. Open center poppet type valve. 2,837,061, 6–3–58, Cl. 121—46.5.
Schultz, Robert T., to Motordyne Inc. Power oscillators. 2,837,651, 6–3–58, Cl. 250—36.
Schultz, William J., to General Electric Co. Control device. 2,836,989, 6–3–58, Cl. 74—504.
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Schutt, Norman C., J. L. Bjelland, and F. W. Flynn, to Powers Chemco, Inc. Etching machine. 2,836,917, 6–3–58, Cl. 41—9.
Schwager, George W., and W. J. Hogan, to Franklin X-ray Corp. Supports. 2,837,307, 6–3–58, Cl. 248—325.
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Schwartzwalder, Karl, and R. W. Smith, to General Motors Corp. Glass sealed centerwire structure. 2,837,679, 6–3–58, Cl. 313—145.
Schwarz, Karl H., and J. Drabik, to G. Kromschroder Akt. Combined control diaphragm and safety diaphragm for gas pressure regulator. 2,837,119, 6–3–58, Cl. 137—785.
Schwede, Otto G. Angular discriminating optical viewing device. 2,837,006, 6–3–58, Cl. 88—1.
Schweitzer, Earl O., to The Swartwout Co. Vibration dampener. 2,837,175, 6–3–58, Cl. 188—1.
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Cohen, Oscar P., and Scott. 2,837,446.
Searle, G. D., & Co.: *See*—
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Dodson, Raymond M., and Sollman. 2,837,539.
Dodson, Raymond M., and Tweit. 2,837,535.
Dodson, Raymond M., and Tweit. 2,837,543.
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Seelig, Richard P., and R. L. Wachtell, to Chromalloy Corp. of New York. Methods of chromizing molybdenum tungsten and their alloys. 2,837,442, 6–3–58, Cl. 117—22.
Segall, Louis H., to Bendix Aviation Corp. Electrical apparatus. 2,837,698, 6–3–58, Cl. 315—232.
Selby International, Inc.: *See*—
Carson, Gordon B., and Wright. 2,837,046.
Sellers, Frederick B., and P. L. Paull, to Texaco Development Corp. Reduction of metal oxides. 2,837,419, 6–3–58, Cl. 75—41.
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Selyem, Edwin J., and J. Mazzarins, to General Motors Corp. Hydraulic track adjuster. 2,837,379, 6–3–58, Cl. 305—9.
Serba, James G., to W. C. Zook. Brake attachment for roller-skate. 2,837,343, 6–3–58, Cl. 280—11.2.
Servomechanisms Inc.: *See*—
Azgapetian, Victor. 2,837,733.
Seymour, James E., to Central Farmers Fertilizer Co. Process for producing mixed fertilizers. 2,837,418, 6–3–58, Cl. 71—64.
Shafer, James A., to National Malleable and Steel Castings Co. Car truck. 2,837,034, 6–3–58, Cl. 105—197.
Shallon, Sheldon C., to Hughes Aircraft Co. Time discriminator. 2,837,644, 6–3–58, Cl. 250—27.
Shand, Stanley G., to Saunders Valve Co. Ltd. Fluid control valves. 2,837,308, 6–3–58, Cl. 251—174.
Shaw, Fred B., Jr., and E. Ungethuem, ½ to said Ungethuem and ½ to said Shaw. Method of reducing leaks in conduits. 2,837,122, 6–3–58, Cl. 138—97.

Shea, Philip B. Cam cleat. 2,836,870, 6–3–58, Cl. 24—134.

Shell Development Co.: *See*—
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Van Eck, Constantijn L. V. 2,837,466.

Shen, Yen T., to Torch Mfg. Corp. Waterproof flashlight. 2,837,630, 6–3–58, Cl. 240—10.6.

Shepard, Stanley C., to International Standard Electric Corp. Electric devices employing semiconductors. 2,836,878, 6–3–58, Cl. 29—25.3.

Sheppard, John. Bushing insert for base plate for sewing machine. 2,837,047, 6–3–58, Cl. 112—260.

Sherbondy, Roy S.: *See*—
Englehart, Oscar D., Sadesky, Morris, and Sherbondy. 2,837,453.

Shiroyanagi, Kenji: *See*—
Yabuta, Teijiro, Ikeda, Shiroyanagi, Ikeda, Fujimaki, Katayama, Tsuji, and Sato. 2,837,510.

Shore, Charles. Folding table and seat assembly. 2,837,141, 6–3–58, Cl. 155—124.

Shulton, Inc.: *See*—
Efford, John T., and Morton. 2,837,375.

Sickinger, Hans: *See*—
Gaul, Max. 2,837,005.

Side, Frederick W., to Minneapolis-Honeywell Regulator Co. Rotary to linear motion transducer. 2,837,104, 6–3–58, Cl. 137—82.

Siedband, Melvin P., to United States of America, Navy. Magnetic-thyratron modulator. 2,837,645, 6–3–58, Cl. 250—27.

Siegrist, Adolf-Emil, to Ciba Ltd. Process for coloring organic materials with fluorescent styryl pyrazoline dyestuffs and compositions containing same. 2,837,485, 6–3–58, Cl. 252—301.2.

Siemens-Schuckertwerke Akt.: *See*—
Emeis, Reimer. 2,837,704.

Sigma Instrument Co. Ltd., The: *See*—
Boosey, Frederick R. 2,836,899.

Silvia, Donald E. Denture. 2,836,890, 6–3–58, Cl. 32—2.

Simpkins, Jesse A.: *See*—
Lapetina, Herbert. 2,836,924.

Simpson, Anthony W., to The Plessey Co. Ltd. Mechanical systems. 2,837,668, 6–3–58, Cl. 310—26.

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Swearingen, Judson S., and Bakker. 2,837,439.

Sindninsky, Willy, and D. Günther, to International Standard Electric Corp. Apparatus for separating flat articles. 2,837,333, 6–3–58, Cl. 271—12.

Sisler, Harry H., and R. Mattair, to The Ohio State University Research Foundation. Chloramine process. 2,837,409, 6–3–58, Cl. 23—190.

Sitler, Richard W., to Aurora Equipment Co. Knockdown cabinet and method of assembling same. 2,837,393, 6–3–58, Cl. 312—257.

Sixsmith, Herbert, to English Electric Valve Co. Ltd. Magnetrons. 2,837,695, 6–3–58, Cl. 315—39.67.

Skelly, James J., to Specialty Products Corp. Fastening device. 2,837,383, 6–3–58, Cl. 308—237.

Small, Roy D.: *See*—
Kirk, Ralph D. 2,837,342.

Small, Theodore W., and W. P. Cole, to Philco Corp. Grid controlled tubes. 2,837,672, 6–3–58, Cl. 313—6.

Smidth, F. L., & Co.: *See*—
Andersen, Niels E. 2,836,903.

Smith, Daniel J.: *See*—
Cranker, Keith R., and Smith. 2,836,972.

Smith, Robert L.: *See*—
Pearlman, William, and Smith. 2,837,726.

Smith, Robert W.: *See*—
Schwartswalder, Karl, and Smith. 2,837,679.

Smith, Thomas C.: *See*—
Burg, Solomon, and Smith. 2,837,026.

Snyder, James, to United States of America, Army. Deflection method for cathode-ray tube. 2,837,730, 6–3–58, Cl. 340—16.

Societe Anonyme Dite "Les Filés de Calais": *See*—
Lindemann, Henri J. M. E. E. 2,836,850.

Societe des Etablissements Roger Brillie: *See*—
Veny, Maurice R. 2,837,129.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
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Jacob, Robert M., and Robert. 2,837,518.

Soderquist, Leslie E., to The McNeil Machine & Engineering Co. Tire lifting mechanism for dual vulcanizing presses. 2,836,847, 6–3–58, Cl. 18—2.

Solartron Electronic Group Ltd., The: *See*—
Catherall, Reginald. 2,837,718.

Solet, Ira S., and R. L. Waer, to Radio Corp. of America. Getter structure. 2,837,207, 6–3–58, Cl. 206—0.4.

Sollman, Paul B.: *See*—
Dodson, Raymond M., and Sollman. 2,837,538.
Dodson, Raymond M., and Sollman. 2,837,539.

Sonoco Products Co.: *See*—
Clarkson, Blanding D. 2,836,874.

Sorboro, William M. Dental floss holder and dispenser. 2,837,098, 6–3–58, Cl. 132—92.

Soulary, Pierre, to Unionmelt, Societe Anonyme. Automatic multiple arc welding methods. 2,837,627, 6–3–58, Cl. 219—137.

Southern Research Institute: *See*—
Thomas, Albert L., Jr. 2,837,113.

Southern Steel Co.: *See*—
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Southwestern Industrial Electronics Co.: *See*—
Houghton, Joseph J., and Erath. 2,837,729.

Specialty Products Corp.: *See*—
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Spedding, Frank H., and J. A. Ayres, to United States of America, Atomic Energy Commission. Separation process using complexing and adsorption. 2,837,548, 6–3–58, Cl. 260—429.1.

Spence, Thomas C.: *See*—
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Spencer, Percy L., to Raytheon Mfg. Co. Electron discharge devices. 2,837,694, 6–3–58, Cl. 315—39.61.

Sperry Rand Corp.: *See*—
Dalman, Gisli C. 2,837,685.

Spuhler, Roland, to Akt. Brown, Boveri & Cie. Device to regulate the direct current motors for the coil rolls of a rewinder. 2,837,705, 6–3–58, Cl. 318—7.

Stahl, R., Maschinenfabish: *See*—
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Standard Oil Co. (Indiana): *See*—
Hoff, Melvern C. 2,837,584.
Lien, Arthur P. 2,837,583.

Standard Railway Equipment Mfg. Co.: *See*—
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Stanton, George W., C. W. Davis, and T. C. Spence, to The Dow Chemical Co. Process of making colorless aqueous saline solutions of polyacrylonitrile. 2,837,492, 6–3–58, Cl. 260—29.6.

Stanworth, John E., H. Rawson, and M. Knowles, to The British Thomson-Houston Co. Ltd. Surface treatment of molybdenum and tungsten for glass sealing. 2,836,935, 6–3–58, Cl. 49—81.

Staropoli, Frank G.: *See*—
Staropoli, Jeromé A. 2,836,860.

Staropoli, Jeromé A., ¼ to F. G. Staropoli. Knockdown stand. 2,836,860, 6–3–58, Cl. 20—1.6.

Steele, Vernon P., to Kenco Products Corp. Self-contained liquid dispenser-down-stroke discharge. 2,837,246, 6–3–58, Cl. 222—309.

Steele, Vernon P., to Kenco Products Corp. Self-contained liquid dispenser-up-stroke discharge. 2,837,248, 6–3–58, Cl. 222—340.

Steer, Donald E., to Bridgeport Brass Co. Tubeless tire valve stem. 2,837,134, 6–3–58, Cl. 152—427.

Stein, Samuel. Strain sensitive element and method of manufacture. 2,837,619 6–3–58, Cl. 201—63.

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Steinberg, Richard K., to International Business Machines Corp. Self-complementing gas tube counter. 2,837,276, 6–3–58, Cl. 235—61.

Stenger, Richard C., to Baljak Corp. Self-locking folding boxes. 2,837,261, 6–3–58, Cl. 229—35.

Sterling Drug Inc.: *See*—
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Ruddy, Arlo W., and Becker. 2,837,525.

Stevenson, Clinton L. Baby diaper. 2,837,095, 6–3–58, Cl. 128—284.

Stewart, Felix I. Powered unit for endless conveyor cables. 2,836,983, 6–3–58, Cl. 74—224.

Stewart, James U., and R. C. Cooprider, to The Drackett Co. Dispensing pump units. 2,837,247, 6–3–58, Cl. 222—321.

Stewart, John M. Vending machine. 2,837,237, 6–3–58, Cl. 221—11.

Stewart-Warner Corp.: *See*—
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Stokes, John A., to The British Thomson-Houston Co. Ltd. Servosystem controlled contour machining apparatus. 2,837,707, 6–3–58, Cl. 318—39.

Stoppa, Alfred L. Bottom opening bin. 2,837,369, 6–3–58, Cl. 294—69.

Stott, Albert M., and C. W. Musser, to United States of America, Army. Releasable coupling. 2,837,370, 6–3–58, Cl. 294—83.

Stoudt, Theodore L.: *See*—
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Stump, Howard W. Outdoor gas lights for insect destruction. 2,836,923, 6–3–58, Cl. 43—113.

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Sullivan, John J. Vertical and horizontal flight aircraft. 2,837,300, 6–3–58, Cl. 244—7.

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Sun Oil Co.: *See*—
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McClure, William L. 2,837,467.

Susser, Ernest S. Chime drum. 2,837,002, 6–3–58, Cl. 84—170.

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Ullrich, Fred J. 2,837,262.

Sutter, Paul: *See*—
Greiat, Maurice, Koch, Sutter, and Kern. 2,837,523.

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Haydu, Zoltan, and Sutton. 2,836,879.

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Swanson, Bernard A. Automatic safety chuck or connector-coupler. 2,837,341, 6–3–58, Cl. 279—19.7.

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Sway, Boris, and J. W. Callahan, to Texo Corp. Method for removing carbonaceous deposits from aluminum molds. 2,837,484, 6–3–58, Cl. 252—100.

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Sweeny, Wilfred: *See*—
Andres, Raymond J., and Sweeny. 2,837,500.

Swift and Co.: *See*—
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Sylvania Electric Products Inc.: *See*—
Bowie, Robert M. 2,837,734.
Gaensle, John B. 2,837,683.
Hughes, Frank J., and McGhee. 2,837,126.
Iversen, Arthur H. 2,837,675.
Kerstetter, Donald R. 2,837,423.
Pifer, Marion J. 2,837,633.
Quigley, Francis T., and Blaso. 2,837,673.
Whiting, William E. 2,837,429.

Syncro Corp.: *See*—
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Szaloki, Zoltan, to Whitin Machine Works. Machine for opening and cleaning textile fibers. 2,836,858, 6–3–58, Cl. 19—91

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Talmey Paul, and D. E. Metheny, to General American Transportation Corp. Continuous processes for chemical nickel plating. 2,837,445, 6–3–58, Cl. 117—130.

Tash, Irving, 15% to J. A. Rosenberg. Hypodermic syringe. 2,837,093, 6–3–58, Cl. 128—218.

Taylor, Edward F. Backfill tamper. 2,837,058, 6–3–58, Cl. 121—1.

Taylor, Keith M., to Monsanto Chemical Co. Preparation of β,β-oxydipropionic acid. 2,837,567, 6–3–58, Cl. 260—535.

Taylor, Paul H., and R. F. Zumwalt, to Wales-Strippit Corp. Perforating apparatus. 2,837,161, 6–3–58, Cl. 164—110.

Taylor, Paul H., and R. F. Zumwalt, to Wales-Strippit Corp. Liquid spring. 2,837,329, 6–3–58, Cl. 267—64.

Taylor, Vernon F., Jr.: *See*—
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Taylor, William C.: *See*—
Zink, Harold F., Taylor, and Pawlicki. 2,836,848.

Technicolor Corp.: *See*—
Goldberg, Richard J., and Levinson. 2,837,430.

Technicon International, Ltd.: *See*—
Whitehead, Edwin C. 2,837,055.

Teetor, Ralph R., to Perfect Circle Corp. Speed control device. 2,837,060, 6–3–58, Cl. 121—42.

Telefonaktiebolaget L M Ericsson: *See*—
Alexandersson, Harald V. 2,837,600.
Lundkvist, Karl A. 2,837,602.
Warring, Stig E. 2,837,601.

Teleprompter West Coast Corp.: *See*—
Jacobs, John, III. 2,837,294.

Ten-Tex Corp.: *See*—
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Terry, Arthur 3rd, to Powdermatic Corp. Centrifugal powder couplings. 2,837,191, 6–3–58, Cl. 192—58.

Texaco Development Corp.: *See*—
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Texo Corp.: *See*—
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Thibault, Bernard, and J. Richardin, to Pneumatics & Caoutchouc Manufacture Kleber Colombes Societe Anonyme. Flange coupling for reinforced plural layer resilient tubes. 2,837,354, 6–3–58, Cl. 285—149.

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Thomas, Albert G., and T. D. Johnson, to Industrial Controls Corp. Motors. 2,837,670, 6–3–58, Cl. 310—49.

Thomas, Albert L., Jr., to Southern Research Institute. Dilution valve. 2,837,113, 6–3–58, Cl. 137—597.

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Classification of Designs

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D10— 7: Des. 182,977
8: Des. 182,944
D14— 3: Des. 182,958
D15— 3: Des. 182,954
Des. 182,955
D29—23: Des. 182,982
D33— 3: Des. 182,953
D33— 9: Des. 182,951
14: Des. 182,964
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D34—15: Des. 182,962
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D44—10: Des. 182,973
D48— 4: Des. 182,974
D49— 1: Des. 182,968
D52— 2: Des. 182,976
10: Des. 182,947
D54— 2: Des. 182,943
12: Des. 182,946
13: Des. 182,980
16: Des. 182,956
D56— 9: Des. 182,981
D58— 2: Des. 182,983
6: Des. 182,950
D61— 1: Des. 182,960
Des. 182,967
D71— 1: Des. 182,966
D72— 1: Des. 182,945
D74— 1: Des. 182,978
D80— 8: Des. 182,984
D81— 4: Des. 182,948
D86— 8: Des. 182,949
9: Des. 182,975
D92— 1: Des. 182,959
Des. 182,963
Des. 182,969
Des. 182,970
26: Des. 182,961

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
June 3, 1958 Volume 731 Number 1

TRADEMARKS

NOTICES

Notice of Tentative Recordation of a Trade Name

[T. D. 54390]

Tentative recordation of trade name under section 42, Trademark Act of July 5, 1946, and section 11.16, Customs Regulations

TREASURY DEPARTMENT,
OFFICE OF THE COMMISSIONER OF CUSTOMS,
Washington, D. C., May 12, 1958

To Collectors of Customs and Others Concerned:

An application has been filed in the Treasury Department for the recordation of the following described trade name under the provisions of section 42, Trademark Act of 1946, and section 11.16, Customs Regulations:

"C. A. STEINHEIL SOHNE GMBH," a corporation organized under the laws of the Republic of Germany, located and doing business at Munchen, Germany, which trade name is used in connection with optical and photographic lenses, apparatus and instruments.

Since the trade name is owned by a foreign corporation, merchandise manufactured or sold by this firm bearing the name may be imported by anyone.

Any person who desires to file an opposition to the recordation of this trade name shall notify the Commissioner of Customs, Bureau of Customs, Washington 25, D. C., before the expiration of 30 days after May 20, 1958, of his intent to oppose the recordation. If a notice of opposition is filed, the opposer will be furnished with a copy of the application for recordation of the trade name, together with its supporting documents and instructions as to the procedure to be followed. The customs officers concerned will be given notice within 45 days after May 20, 1958, of any opposition proceeding.

Until 45 days after May 20, 1958, all articles of foreign manufacture bearing names or marks which copy or simulate the above-mentioned trade name shall be detained, but not seized, and thereafter shall receive the treatment provided for in section 11.17, Customs Regulations, unless a notice is received that an opposition has been filed, in which case such articles shall continue to be detained until a final determination is made concerning the right of the applicant to the trade name.

(Signed) D. B. STRUBINGER,
Acting Commissioner of Customs.

CONDITION OF TRADEMARK APPLICATIONS AS OF APRIL 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 11,733
Date of oldest new application ..... Sept. 5, 1957
Date of oldest amended application ..... Sept. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	10-16-57	9-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	9-5-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	10-4-57	12-9-57
Renewals (All Classes)	3-26-58	4-25-58
Sec. 12 (c) Publications (All Classes)	2-17-58	4-25-58

Applications Filed During the Month of April 1958—1,965

Registrations Issued ..... 344—No. 662,387 to No. 662,730
Renewals Issued 13

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 30,483. Foote Mineral Company, Philadelphia, Pa. Filed May 22, 1957.

ZERIFAC

For Heated Natural and Synthetic Lithium Minerals.
First use Apr. 12, 1957.

SN 31,800. United Cement Company, Inc., Montevallo, Ala. Filed June 11, 1957.



No claim is made to the word "Products."
For Quicklime Fines, Pebble Quick Lime, and Agricultural Limestone.
First use Apr. 12, 1957.

SN 33,890. Frank Morrell, Brooklyn, N. Y. Filed July 17, 1957.



Without waiving his common law rights and for purposes of this registration only, applicant makes no claim to the word "Oak" apart from the mark as shown.
For Sole Leather.
First use in January 1952.

SN 36,232. A. H. Ross & Sons Co., Chicago, Ill. Filed Aug. 26, 1957.

ANSONIAN

Owner of Reg. No. 394,682.
For Leather.
First use in June 1925.

SN 36,693. Central States Seed Service, Inc., Lima, Ohio. Filed Sept. 5, 1957.

GREEN GOLD

For Alfalfa Seed.
First use Jan. 11, 1956.

SN 37,065. Herman Basch & Co., Inc., New York, N. Y. Filed Sept. 12, 1957.

H. BASCH & CO. INC.
LAM-MOIRE
HAMMER-BRAND

Owner of Reg. No. 359,996.
For Fur Skins—Any and All Sorts of Skins, Dressed and Dyed, of the Lamb Family.
First use Apr. 8, 1957.

SN 38,203. Double H Ranch, Gibson, Ga. Filed Oct. 2, 1957.

HHR

For Cattle.
First use June 16, 1953.

SN 38,276. A. F. Gallun & Sons Corporation, Milwaukee, Wis. Filed Oct. 3, 1957.

GALAXY CALF

The word "Calf" is disclaimed except in association with the other features of the mark.
For Leather.
First use Sept. 18, 1957.

SN 39,056. The General Tire & Rubber Company, Akron, Ohio. Filed Oct. 17, 1957.

GENTHANE

Owner of Reg. Nos. 582,430, 577,320, and others.
For Polyurethane Rubber.
First use June 28, 1957.

SN 39,074. McHutchison & Co., Ridgefield, N. J. Filed Oct. 17, 1957.

FLAMINGO

For Caladium Flower Bulbs.
First use July 15, 1957.

SN 39,292. Standard Milling Company, Kansas City, Mo. Filed Oct. 21, 1957.

BIG RED

For Charcoal Briquets.
First use on or about Oct. 15, 1957.

SN 39,293. Standard Milling Company, Kansas City, Mo. Filed Oct. 21, 1957.

PATIO CHEF

For Charcoal Briquets.
First use on or about Oct. 15, 1957.

SN 39,294. Standard Milling Company, Kansas City, Mo. Filed Oct. 21, 1957.

HICKORY RIVER

For Charcoal Briquets.
First use on or about Oct. 15, 1957.

Class 2—Receptacles

SN 32,940. Fibreboard Paper Products Corporation, San Francisco, Calif. Filed July 1, 1957.



Owner of Reg. No. 290,165.
For Paper and Paperboard Baskets, Boxes, Cans, Bottle Carriers, Cartons, Cases, Crates, Drums, Flats, Lugs, Pails, Trays, Tubs, and Tubes.
First use Mar. 25, 1957.

SN 39,400. The J. & B. Smith Company, Inc., Atlanta, Ga. Filed Oct. 23, 1957.

THESCO

For Reconditioned Steel Drums.
First use Sept. 16, 1957.

SN 39,784. Continental Can Company, Inc., New York, N. Y. Filed Oct. 30, 1957.

CAN-TRAK

For Paperboard Cartons.
First use June 25, 1956.

Class 4—Abrasives and Polishing Materials

SN 27,030. Knomark Manufacturing Co., Inc., Brooklyn, N. Y. Filed Mar. 27, 1957.

Lanol white

The word "White" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 418,923, 425,794, and 418,924.
For White Shoe Polish.
First use April 1956; February 1946 as to "Lanol White."

SN 29,661. Bruno Rossi, d. b. a. Ditta Pietro Rossi di Bruno Rossi, Florence, Italy. Filed May 8, 1957.

ABRA
Stick

The drawing is lined for blue. Italian Reg. No. 117,517, dated May 8, 1954.
For Product (Abrasive Block) To Clean and To Give Again Colouring to the Shoes, Skins, Chamois Leather and the Like.

SN 39,260. Norton Company, Troy, N. Y. Filed Oct. 21, 1957.



Owner of Reg. Nos. 216,121, 592,079, and others.
For Coated Abrasives.
First use Mar. 7, 1957.

Class 6—Chemicals and Chemical Compositions

SN 30,933. Para-Chem, Incorporated, Philadelphia, Pa. Filed May 28, 1957.

PARAFINE

For Lubricant-Softener Applied to Textile Fabrics, Fibers and Yarns To Assist in Processing.
First use Feb. 22, 1955.

SN 30,935. Para-Chem, Incorporated, Philadelphia, Pa. Filed May 28, 1957.

PARASEW

For Lubricants for Dressing Synthetic Sewing Thread.
First use Apr. 11, 1955.

SN 30,936. Para-Chem, Incorporated, Philadelphia, Pa. Filed May 28, 1957.

PARASTAT

For Chemical Preparation Used in Treating Synthetic Fibers, Yarns, and Fabrics, To Prevent Electrostatic Charges.
First use July 25, 1955.

Class 8 — Smokers' Artides, Not Including Tobacco Products

SN 38,907. Elgin American, Inc., Elgin, Ill. Filed Oct. 15, 1957.

EA

Owner of Reg. No. 338,723.
For Cigarette Boxes, Ash Trays, Cigarette Cases, Cigarette Urns, Combination Cigarette Cases and Lighters, Pocket Lighters, Table Lighters, Musical Pocket Lighters, and Musical Table Lighters.
First use Apr. 14, 1937.

SN 39,610. Elgin American, Inc., Elgin, Ill. Filed Oct. 28, 1957.

SATELLITE

For Pocket Lighters, Table Lighters, Combination Cigarette Cases and Lighters.
First use Oct. 24, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 36,764. American Cyanamid Company, New York, N. Y. Filed Sept. 6, 1957.

CYADYN

For Dynamite.
First use July 14, 1957.

SN 37,766. Astra, Unceta y Cia, S. A., Guernica, Vizcaya, Spain. Filed Sept. 25, 1957.

CUB

Owner of Spanish Reg. No. 313,663, dated Mar. 12, 1957.
For Automatic Pistols.

Class 10 — Fertilizers

SN 18,178. Mock Seed Company, Pittsburgh, Pa. Filed Oct. 25, 1956.



Owner of Reg. No. 556,409.
For Chemical Fertilizer.
First use May 15, 1956.

SN 28,960. Paxton Processing Co., Inc., Paxton, Ill. Filed Apr. 26, 1957.

FERT-I-MULCH

For Mulch or Soil Topping Made of Corncob Meal.
First use Feb. 15, 1957.
Subj. to Intf. with SN 28,961.

SN 28,961. Albert L. Pemberton, d. b. a. The Ferti-Mulch Company, Round Rock, Tex. Filed Apr. 26, 1957.



For Compost, Peat Moss Mulch.
First use Apr. 1, 1955.
Subj. to Intf. with SN 28,960.

SN 38,047. Hyper-Humus Company, Bryn Mawr, Pa. Filed Sept. 30, 1957.

ROOT PALS

For Cultured Inoculant for Application to Vegetation for Acceleration of Growth and a Long Healthy Life.
First use Aug. 12, 1957.

Class 12 — Construction Materials

SN 32,000. Palmetto Quarries Company, Columbia, S. C. Filed June 14, 1957.



For Glass Block Skylights.
First use May 23, 1956.

SN 32,266. Superior Clay Corporation, Uhrichsville, Ohio. Filed June 19, 1957.

PT 75

For Joint Sealant for Clay Pipe.
First use May 27, 1957.

SN 33,416. Idaho Bartile Company, Boise, Idaho, now by change of name National Ro-Tile Corporation. Filed July 9, 1957.

RO-TILE

For Cement Roofing Tiles and Cement Bricks.
First use in or about June 1951.

SN 34,615. Kochton Plywood & Veneer Co., Inc., d. b. a. Kochton Plywood and Veneer Co., Inc., Chicago, Ill. Filed July 30, 1957.

PANALLURE

For Plywood.
First use June 21, 1957.

SN 37,216. The British Portland Cement Manufacturers, Limited, London, England. Filed Sept. 16, 1957.



No claim is made to the exclusive use of the word "Brand."
Owner of British Reg. No. 461,302, dated Aug. 11, 1925.
For Cement.

SN 37,799. Mexico Refractories Company, Mexico, Mo. Filed Sept. 25, 1957.

MONO T9

Owner of Reg. Nos. 512,192, 512,193, and 522,540.
For Plastic Firebrick.
First use in August 1956.

SN 38,162. Precision Building System, Inc., East Canton, Ohio. Filed Oct. 1, 1957.

GROUTLOCK

For Masonry Construction Materials Formed of Concrete—Namely, Wall Blocks, Floor Blocks, Corner Blocks, Structural Shapes, and Lintels and Beams Formed of Wall Blocks Connected Together With Grouting and Tie Rods.
First use Aug. 3, 1957.

SN 38,934. Masury-Young Company, Charlestown, Boston, Mass. Filed Oct. 15, 1957.

TRI-POXY

For Mortar Admixture for Resurfacing Floors.
First use Feb. 20, 1957.

SN 39,551. The Robinson Clay Product Company, Akron, Ohio. Filed Oct. 25, 1957. Sec. 2(f).

ROBINSON LAP-LOK

For Wall Coping.
First use on or about Apr. 7, 1934.

SN 39,691. The Upco Company, Cleveland, Ohio. Filed Oct. 28, 1957.

TILE-MATE

For Grouts and Cements for Setting Ceramic Tile.
First use Oct. 3, 1957.

SN 39,701. Armstrong Cork Company, Lancaster, Pa. Filed Oct. 29, 1957.

MINABOARD

For Acoustical Insulation.
First use Oct. 11, 1957.

SN 39,885. Masonite Corporation, Chicago, Ill. Filed Oct. 31, 1957.

ROYALCOTE

For Construction Board, and More Specifically Fiber Board, Insulating Board, Composite Board, Hardboard, and Synthetic Lumber or Artificial Lumber With Coatings on the Surface Thereof for Decorative and Other Purposes.
First use Oct. 10, 1957.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 15,168. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Sept. 6, 1956. Sec. 2(f).



The drawing is lined for red.
For Tire Chains.
First use July 20, 1920.

SN 28,480. Noel M. Anderson, d. b. a. Merrill Manufacturing Company, Storm Lake, Iowa. Filed Apr. 19, 1957. Sec. 2(f).

ANY FLOW

Owner of Reg. No. 553,677.
For Hydrants.
First use Oct. 1, 1949.

SN 40,417. The Autoyre Company, Chicago, Ill. Filed Nov. 12, 1957.

ESTATE

For Bathroom Accessories, To Wit: Soap Dishes, Towel Bars, Toothbrush and Tumbler Holders, Coat Hooks, Etc.
First use Sept. 30, 1957.

SN 40,636. Woodmack Products, Incorporated, San Jose, Calif. Filed Nov. 13, 1957.

ANCOR-EEZ

For Wooden Post Anchors.
First use May 1, 1956.

Class 14 — Metals and Metal Castings and Forgings

SN 35,123. Scovill Manufacturing Company, Waterbury, Conn. Filed Aug. 7, 1957. Sec. 2(f).

SCOVILL

Owner of Reg. Nos. 284,266 and 588,939.
For Aluminum, Brass, Bronze, Copper and Nickel Silver Mill Products Such as Sheet and Strip Stock, Either Flat or Coiled, Tubing, Rod, Wire and Special-Shaped Drawn Products.
First use April 1954; November 1929 in association with a design; 1850 on Brass Mill Products.

Class 15 — Oils and Greases

SN 29,980. Western Engineers Company, Powderhorn, Colo., to Titanol, Inc., Broomfield, Colo. Filed May 13, 1957.

TITANOX

For Lubricants and Lubricant Additives.
First use October 1953.

SN 39,555. The Standard Oil Company, Cleveland, Ohio. Filed Oct. 25, 1957.

STARTIC

For Grease.
First use in February 1957.

SN 39,874. Gulf Oil Corporation, Pittsburgh, Pa. Filed Oct. 31, 1957.

Gulf

The drawing is lined for blue. Owner of Reg. Nos. 621,650, 621,651, and others.
For Petroleum and Its Products—Namely, Gasoline, Kerosene, Naphtha, Fuel Oil, Lubricating Oils, and Greases.
First use on or about May 27, 1957.

Class 16 — Protective and Decorative Coatings

SN 43,553. The Proko Company, Dallas, Tex. Filed Jan. 7, 1958.

TRIX

Owner of Reg. No. 641,995.
For Paint.
First use Nov. 25, 1957.

Class 17 — Tobacco Products

SN 37,178. Ogden Huddle, Inc., Chicago, Ill. Filed Sept. 13, 1957.

SEVEN ELEVEN

For Cigarettes.
First use Aug. 28, 1957.

Class 18 — Medicines and Pharmaceutical Preparations

SN 14,816. Madison Pharmaceutical Laboratories, Inc., New York, N. Y., to Gray Pharmaceutical Co., Inc., Newton, Mass. Filed Aug. 29, 1956.

QUINOPLEX

For Laxative Preparation Containing Sennosides.
First use Aug 23, 1956.

SN 23,787. Geigy Chemical Corporation, Ardsley, N. Y. Filed Feb. 5, 1957.

HEMERAN

For Anti-Coagulants.
First use Jan. 28, 1957.

SN 23,791. The G. F. Harvey Company, Saratoga Springs, N. Y. Filed Feb. 5, 1957.

COBEGEL

For Medicinal Preparation, a Repository Form of Crystalline Cyanocobalmin, Used To Make a Repository in the Body for Vitamin B_{12} or for in the Treatment of Anemia.
First use Aug. 1, 1955.

SN 25,156. Carter Products, Inc., New York, N. Y. Filed Feb. 27, 1957.

SOMA

For Medicinal Preparation To Induce Sleep.
First use Jan. 18, 1957.

SN 25,688. Disease Prevention Research Foundation, Inc., Chicago, Ill. Filed Mar. 7, 1957.

PAOS

For Laxative Preparation.
First use January 1952.

SN 28,385. Joseph E. Seagram & Sons, Inc., New York, N. Y. Filed Apr. 17, 1957.

coldene

Owner of Reg. Nos. 635,816 and 630,771.
For Nasal Spray.
First use Mar. 9, 1957; Nov. 23, 1955, on related goods.

SN 28,956. Harry A. Newton, d. b. a. Health-Aids, New York, N. Y. Filed Apr. 26, 1957.

FLUORINSE

For Mouthwash Used as an Aid in Preserving the Teeth and Gums and Also as a Gargle.
First use Apr. 15, 1957.

SN 30,297. Don Baxter, Inc., Glendale, Calif. Filed May 20, 1957.

SIGMOL

Owner of Reg. No. 436,521.
For Medicated Enema Solution in Disposable Applicator-Container.
First use Apr. 16, 1957.

SN 34,446. Ralph L. Messer, d. b. a. Messer Laboratories, Kansas City, Kans. Filed July 26, 1957.

STA-COAT

For Dietary Supplement for Animal Consumption.
First use June 12, 1957.

SN 36,292. Robert L. Gaddy, Tallahassee, Fla. Filed Aug. 27, 1957. Sec. 2(f).

EZ-IT

The lining on the drawing represents a part of the mark, not color. Owner of Reg. Nos. 430,432, 533,087, and others.
For Preparation for the Relief of Athlete's Foot, Ringworm, Impetigo, Itching Skin Irritations, Blisters, and Minor Cuts, and Calluses, Corns, and Warts.
First use July 5, 1918.

SN 37,338. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Sept. 17, 1957.

VALMORIN

Owner of German Reg. No. 664,866, dated Oct. 20, 1954; and U. S. Reg. No. 640,591.
For Antipyretic, Antiphlogistic and Analgesic Preparations.

SN 37,516. Pasco Products, Inc., Forest, Miss. Filed Sept. 19, 1957.

ALFA-LITE

For Mineral and Vegetable Food Supplement for Humans.
First use Aug. 16, 1957.

SN 37,628. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed Sept. 23, 1957.

OXAZIMEDRINE

Owner of German Reg. No. 704,436, dated July 13, 1957.
For Antidepressive and Antiappetizing Agent.

SN 38,691. Gane's Chemical Works, Inc., New York, N. Y. Filed Oct. 10, 1957.

g

For Aminophylline; Benzocaine; Butaphyllamine; Sodium-5-Ethyl-5-(1-Methyl-1-Butenyl) Barbiturate; Dehydroacetic Acid; Dehydroacetate, Sodium; d, l Desoxyephedrine, HCl; a-(Isopropylaminomethyl) Protocatechuyl Alcohol, HCl; Niacin; Phenacaine, HCl; 2-Phenyl-1,3-Indanedione; Phenylephrine HCl; Barbiturates.
First use about Jan. 2, 1956.

SN 38,912. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Oct. 15, 1957.

ESCORPAL

Owner of German Reg. No. 492,487, dated Apr. 2, 1937.
For Pharmaceutical Preparations.

SN 39,958. Geigy Chemical Corporation, Ardsley, N. Y. Filed Nov. 1, 1957.

DELTA-BUTAZOLIDIN

Owner of Reg. No. 559,912.
For Anti-Rheumatic, Analgesic, and Anti-Pyretic Preparations.
First use Oct. 24, 1957.

SN 41,106. Metabolic Products Corporation, Boston, Mass. Filed Nov. 21, 1957.

PROSTEX

For Preparation for the Relief of Symptoms of Prostate Hypertrophy.
First use Nov. 12, 1957.

SN 41,330. Texas Pharmacal Company, San Antonio, Tex. Filed Nov. 25, 1957.

Lubath

For Pharmaceutical Mixture for the Treatment of Dermatosis and Epidermidosis.
First use Nov. 12, 1957.

SN 41,464. Merck & Co., Inc., Rahway, N. J. Filed Nov. 27, 1957.

HYDROZIL

For Medicinal Preparation Containing Hormonal Compound and Antibiotics for Topical Use.
First use Oct. 7, 1957.

SN 42,011. Flint, Eaton & Company, Decatur, Ill. Filed Dec. 9, 1957.

CEANOTHYN

For Hemostatic.
First use Sept. 1, 1924.

SN 46,568. A. H. Robins Company, Inc., Richmond, Va. Filed Feb. 25, 1958.

SERENONE

For Muscle Relaxant Medicinal Preparation.
First use Jan. 16, 1958.

Class 19 — Vehicles

SN 30,528. Sprout, Waldron & Company, Inc., Muncy, Pa. Filed May 22, 1957.

SPROUT-WALDRON FEED PIPER

For Truck and Trailer Bodies Adapted for the Bulk Handling of Dry Bulk Materials.
First use in or about December 1954.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 1,357. General Electric Company, Schenectady, N. Y. Filed Jan. 24, 1956.

KINAMATIC

For Dynamoelectric Machines—Namely, Electric Motors and Generators.
First use on or about December 1955.

SN 1,715. D. W. Onan & Sons Inc., Minneapolis, Minn. Filed Jan. 30, 1956.

VacuFlo

For Electric Generator-Engine Sets.
First use December 1955.

SN 11,404. Ratigan Electronics, Inc., Los Angeles, Calif. Filed July 2, 1956.

REI

For Pulse Delay Lines.
First use Feb. 1, 1955.

SN 11,405. Ratigan Electronics, Inc., Los Angeles, Calif. Filed July 2, 1956.



For Pulse Delay Lines.
First use Feb. 1, 1955.

SN 11,406. Ratigan Electronics, Inc., Los Angeles, Calif. Filed July 2, 1956.



For Pulse Delay Lines.
First use Feb. 1, 1955.

SN 20,793. Henry W. Shaw, d. b. a. Sound-Craft Systems, Pittsburgh, Pa. Filed Dec. 10, 1956.

BIG-VOICE

For Portable and Mobile Electronic Sound Amplifiers, Loud Speakers; Battery Cases, and Microphones.
First use Aug. 7, 1956.

SN 20,991. Calbest Engineering & Electronics Co., Los Angeles, Calif. Filed Dec. 13, 1956.

MUSICALL

Owner of Reg. No. 626,479.
For Radio-Interphone Apparatus.
First use November 1954.

SN 21,310. Roy M. Grill, Harlingen, Tex. Filed Dec. 19, 1956.

LITADDRESS

For Electrically Illuminated Combination Home Numeral Sign and Porch Light.
First use Nov. 26, 1956.

SN 21,340. University Loudspeakers, Inc., White Plains, N. Y. Filed Dec. 19, 1956.

DIFFUSICONE

For Extended or Multi-Range Speakers.
First use January 1953.

SN 21,877. Chemex Corporation, New York, N. Y. Filed Dec. 31, 1956.

CHEMEX

For Electric Kettles and Fans.
First use Nov. 13, 1956.

SN 24,765. Electro Sliv-A-King Corporation, Chicago, Ill. Filed Feb. 20, 1957.

LUMENAREA

For Fluorescent Luminous Ceilings.
First use Jan. 10, 1956.

SN 29,016. Burndy Corporation, Norwalk, Conn. Filed Apr. 29, 1957.

KA-LUG

For Electrical Connectors.
First use Nov. 25, 1955.

SN 29,017. Burndy Corporation, Norwalk, Conn. Filed Apr. 29, 1957.

SPANTAP

For Electrical Connectors.
First use June 10, 1955.

SN 29,025. Burndy Corporation, Norwalk, Conn. Filed Apr. 29, 1957.

FINGRIP

For Electrical Connectors.
First use Jan. 26, 1956.

SN 29,986. Ortex S. A., Geneva, Switzerland. Filed Apr. 24, 1957.

vacomat

Owner of Swiss Reg. No. 162,235, dated Aug. 17, 1956.
For Electric Temperature-Controlled Heating Element.

SN 32,521. Natvar Corporation, Woodbridge, N. J. Filed June 24, 1957.

ISOLASTANE

For Electrical Insulating Material in Sheet, Web, Tube, and Tape Form.
First use May 28, 1957.

SN 34,381. Tennessee Stove Works, Inc., Chattanooga, Tenn. Filed July 25, 1957.

MODERN MAID

Owner of Reg. No. 228,896.
For Electric Ranges.
First use June 1951.

SN 37,462. Triangle Conduit & Cable Co., Inc., New Brunswick, N. J. Filed Sept. 18, 1957.



Owner of Reg. Nos. 363,952, 618,867, and others.
For Electrical Apparatus—Namely, Rigid Conduit, Both Galvanized and Black Enameled, Metallic Thinwall Conduit and Fittings for Each and Flexible Steel Conduit; Plastic Pipe; Wire and Cable.
First use Mar. 21, 1949.

Class 22—Games, Toys, and Sporting Goods

SN 37,283. Alexander P. More, d. b. a. Home-Port Products Company, Staten Island, N. Y. Filed Sept. 16, 1957.



For Metal Fish Line.
First use July 5, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 39,684. Tipper Tie, Inc., Union, N. J. Filed Oct. 28, 1957.

TIPPER

For Machines Used in Applying Fasteners to Casings.
First use Apr. 1, 1953.

SN 40,095. Ty-Sa-Man Machine Company, Knoxville, Tenn. Filed Nov. 4, 1957.

TY-SA-MAN

For Sawing, Grinding, and Polishing Machines and Parts Thereof.
First use during or about 1904.

SN 40,456. Albert J. Harvey, d. b. a. Harvey Engraving Company, Detroit, Mich. Filed Nov. 12, 1957.

JOGAIR

For Paper Joggers—Horizontal, Angle and Bin.
First use Oct. 5, 1956.

SN 40,566. Dixon Corporation, Bristol, R. I. Filed Nov. 13, 1957.

SB RULON

Owner of Reg. No. 578,944.
For Machine Bearings, Including Flat Plates, Thrust Plates, Sleeve Bearings and Textile Half-Sleeve Bearings.
First use Oct. 3, 1957.

SN 40,577. Arnold Haviland, d. b. a. Arnold Haviland Company, Defiance, Ohio. Filed Nov. 13, 1957.

ThermoFlo

For Vehicle Exhaust Mufflers.
First use Sept. 27, 1957.

SN 40,687. Motor Parts Depot, San Antonio, Tex. Filed Nov. 14, 1957.

APR

For Rebuilt Parts of Automobiles and Other Motor Powered Vehicles—Namely, Water Pumps, Clutch Pressure Assemblies and Clutch Plates.
First use Feb. 1, 1957.

SN 40,688. The Murray Company of Texas, Inc., d. b. a. Boston Gear Works, Division of The Murray Company of Texas, Inc., North Quincy, Mass. Filed Nov. 14, 1957. Sec. 2(f).

SHOLD-A-GRIP

Owner of Reg. No. 595,332.
For Shaft Mounting for Sheaves, Gears, Sprocket Wheels and Other Rotary Driving or Driven Power Transmission Members.
First use Oct. 16, 1952.

SN 40,702. Ed. Raichert, Inc., Chicago, Ill. Filed Nov. 14, 1957.

RAICO

For Sewing Machines, Sewing Machine Heads, and Sewing Machine Parts and Accessories.
First use on or about Aug. 1, 1957.

SN 43,244. Dean Cut-Rate Floor Covering Company, Inc., Newark, N. J. Filed Dec. 31, 1957.



For Tools for Installing Floor and Wall Coverings.
First use June 15, 1953.

SN 43,503. L. O. Gregory Engineering, Memphis, Tenn. Filed Dec. 30, 1957.

GREGCO

For Aggregate and Cement Elevators, Bulk Cement Equipment, Aggregate and Cement Batching Equipment, Pile Driving Equipment.
First use Dec. 15, 1955.

SN 43,615. Husqvarna Vapenfabriks Aktiebolag, Huskvarna, Sweden. Filed Jan. 8, 1958.



Owner of Swedish Reg. No. 15,170, dated Feb. 17, 1912.
For Sewing Machines and Parts Thereof.

SN 43,828. De Luxe Saw and Tool Company, Louisville, Ky. Filed Jan. 13, 1958.



Owner of Reg. Nos. 629,459, 629,462, and 629,461.
For Circular Saw Blades and Dado Heads.
First use Aug. 13, 1957.

Class 24 — Laundry Appliances and Machines

SN 38,659. Sunbeam Corporation, Chicago, Ill. Filed Sept. 17, 1957.

SUNBEAM

For Ironing Boards.
First use Apr. 2, 1957.

Class 26—Measuring and Scientific Appliances

SN 14,712. Way-Wolff Associates, Inc., New York, N. Y. Filed Aug. 27, 1956.

LARM-TECTOR

Owner of Reg. No. 642,328.
For Smoke Detecting Devices.
First use Apr. 16, 1956.

SN 25,340. E. Leitz, Inc., New York, N. Y. Filed Mar. 1, 1957.

IMARECT

For Photographic Equipment—Namely, Camera View Finders.
First use May 1948.

SN 25,448. National Tank Company, Tulsa, Okla. Filed Mar. 4, 1957.

TRANS-OIL

For Apparatus for Automatically Metering and Sampling Petroleum Fluids and Discharging Such Fluids Into Transmission Pipe Lines.
First use Jan. 16, 1957.

SN 28,510. The Geograph Company, Oklahoma City, Okla. Filed Apr. 19, 1957.

MAGNA SENSOR

For Mechanical Well Logging Instruments.
First use Feb. 4, 1957.

SN 29,101. Ryan Recording Thermometer Co., Seattle, Wash. Filed Apr. 29, 1957. Sec. 2(f).

RYAN

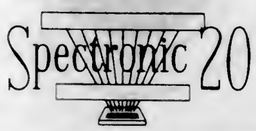
For Portable Recording Thermometer of the Spring-Wound Type.
First use on or about July 1, 1922.

SN 29,159. Koh-I-Noor Pencil Company, Inc., Bloomsbury, N. J. Filed Apr. 30, 1957.

RAPIDO-GUIDE

Owner of Reg. Nos. 597,102 and 613,177.
For Lettering Guides for Use by Draftsmen.
First use Jan. 9, 1957.

SN 31,744. Bausch & Lomb Optical Company, Rochester, N. Y. Filed June 11, 1957.



The number "20" is disclaimed apart from the mark as shown.
For Colorimeters.
First use Aug. 19, 1954.

SN 32,520. The National Cash Register Company, Dayton, Ohio. Filed June 24, 1957.

POST-TRONIC

For Electrical, Electronic, or Electro-Mechanical Computing and Accounting Machines.
First use on or about Feb. 20, 1957.

SN 35,666. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Aug. 16, 1957.

"THE FOURTEEN"

For Electrically Operated Machine Employing Infrared Light Source for Producing Copies of Printed or Pictorial Matter by Means of Heat-Sensitive Paper.
First use Sept. 4, 1956.

SN 35,667. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Aug. 16, 1957.

"THE PREMIER"

For Electrically Operated Machine Employing Infrared Light Source for Producing Copies of Printed or Pictorial Matter by Means of Heat-Sensitive Paper.
First use Sept. 4, 1956.

SN 36,519. Instrument Development Laboratories, Inc., Attleboro, Mass. Filed Aug. 30, 1957.

IDL

Owner of Reg. No. 590,134.
For Telemetery Switches, Rotary Switches, Time Pulse Generators, Digitalizers, Velocimeters and Process Control Colorimeters.
First use June 5, 1948.

SN 36,577. Electroacustic G. m. b. H., Kiel, Germany. Filed Sept. 3, 1957.

MINISCOP

Owner of German Reg. No. 689,818, dated Apr. 19, 1956.
For Depth-Measuring Echo-Sounding Devices for Marine Purposes.

SN 36,937. United Geophysical Corporation, Pasadena, Calif. Filed Sept. 9, 1957.

PACDRILL

For Portable Geophysical Well Drilling Equipment.
First use Dec. 21, 1955.

SN 37,719. Cleveland Grinding Machine Co., Cleveland, Ohio. Filed Sept. 24, 1957. Sec. 2(f).



For Optical Projection Viewer for Tool Grinding Machines Which Projects an Image Revealing the Progress of the Work Piece in the Tool Grinding Machine.
First use Mar. 1, 1949.

SN 37,955. Herold Products Company, Inc., Chicago, Ill. Filed Sept. 27, 1957.

SPARTUS

Owner of Reg. No. 553,464.
For Timers for Turning Electric Appliances On and Off Automatically.
First use Mar. 1, 1950.

SN 38,100. Thermo Electric Manufacturing Co., Dubuque, Iowa. Filed Sept. 30, 1957.

THERMOLYNE

Owner of Reg. No. 650,033.
For Portable Indicating Pyrometer-Millivoltmeters; Current Input Controllers; Combination Current Input Controllers and Indicating Pyrometers; Potentiometer Type Pyrometers Controllers; Portable Combined Indicating Pyrometers and Millivoltmeters.
First use Aug. 27, 1957.

SN 41,750. Endevco Corporation, Pasadena, Calif. Filed Dec. 4, 1957.

DIGISTEPPER

For Pulse-Actuated Electric Motors for Adding and Subtracting Electrical Pulses According to Their Polarity.
First use Mar. 20, 1957.

SN 41,884. The Burdick Corporation, Milton, Wis. Filed Dec. 6, 1957.

TELECOR

For Cardiac Monitors.
First use Oct. 14, 1957.

SN 41,948. Societe Anonyme Dite: Messier, Paris, France. Filed Dec. 6, 1957.



Priority claimed under Sec. 44(d) on French Reg. No. 465,995, dated June 28, 1957 (Seine); Natl. Inst. No. 92,552.
Owner of U. S. Reg. Nos. 570,538, 615,321, and 619,891.
For Aircraft Component Testing Machines; Test Benches for Testing Hydraulic Apparatus, Hydraulic Accumulators; Test Benches for Verifying Fluid Tightness; Altitude Simulation Chambers—Namely, Decompression, Chambers for Testing Program Heating, Cooling and Humidity Cycles; Automatic Recorders for Controlling and Integrating Temperature, Humidity, and Altitude; Jet Engine Fuel System Testing Benches for Testing Pumps and Regulators; Hydrostatic Leak Check Stands; "G" Restrictors—Namely, a Unit Which Warns the Pilot, When a Critical Vertical Acceleration on the Aircraft Is Reached, by Imposing a Resisting Load on the Airplane Control Column; Gauges for Testing Stress on Aircraft Parts; Machmeters; Manometers; Pitot Tubes; Venturis; Aircraft Dive Safety Instruments—Namely, Acceleration Indicators, and Automatic Flap Controls.

SN 42,237. Quick-Set, Incorporated, Skokie, Ill. Filed Dec. 11, 1957.

QUICKTAR

For Photographic Equipment—Namely, Projector Lens.
First use Sept. 21, 1957.

Class 28 — Jewelry and Precious-Metal Ware

SN 21,465. Raimond Incorporated, Malden, Mass. Filed Dec. 21, 1956.



For Silver Personal and Household Articles—Namely, Picture Frames, Straws, Tongs, Baby Rattles, Teething Rings, Dishes, Jars, Cups, Picks, Forks, and Piggy Banks.
First use Oct. 31, 1956.

Class 29 — Brooms, Brushes, and Dusters

SN 35,127. Harry Serwer, New York, N. Y. Filed Aug. 7, 1957.

CHUK-AWAY

For Disposable Paint Rollers, Disposable Paint Trays, and Paint Tray Holders.
First use Aug. 2, 1957.

SN 37,694. D. W. Swindle, d. b. a. D. W. Swindle and Sons Company and The Southwestern Broom Mfg. Co., Nashville, Tenn. Filed Sept. 23, 1957.

Iron Clad

For Brooms.
First use 1900.

SN 38,022. Crown 400 Corporation, Chicago, Ill. Filed Sept. 30, 1957.

SCOTTY

For Mops for Polishing, Dusting, Washing and Scrubbing Floors, Walls, Ceilings, Woodwork, and Furniture.
First use Sept. 18, 1957.

Class 31 — Filters and Refrigerators

SN 43,464. The Marley Company, Kansas City, Mo. Filed Jan. 6, 1958.

UNDERFLOW

For Liquid Cooling Towers and Parts Thereof.
First use Dec. 17, 1957.

SN 43,528. Dole Refrigerating Company, Chicago, Ill. Filed Jan. 7, 1958.

LEKTRO-CEL

Owner of Reg. Nos. 594,861, 640,685, and others.
For Refrigerating Units.
First use Oct. 29, 1957.

Class 32 — Furniture and Upholstery

SN 20,320. Standard Pressed Steel Co., Jenkintown, Pa. Filed Dec. 3, 1956.

HALLOWELL

Owner of Reg. No. 533,959.
For Movable Storage Wall Units and Adjustable Shelves.
First use Mar. 10, 1955; 1915 as to "Hallowell."

SN 43,587. Carlson Manufacturing Company, Oakland, Calif. Filed Jan. 8, 1958.

DOO-TEE

For Infant Cradle Chairs.
First use May 17, 1955.

Class 33 — Glassware

SN 37,688. Safetee Glass Company, Philadelphia, Pa. Filed Sept. 23, 1957.

SCREENLOK

For Laminated Glass.
First use Sept. 12, 1957.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 39,197. Design Engineers, Rockford, Ill. Filed Oct. 21, 1957.

SMOKEY

For Smoke Generators Comprised of a Hand Operated Pump and Tube Device, Containing Smoke Producing Means, Such as a Cigarette, for Determining the Direction of Air Movements.
First use Apr. 10, 1957.

SN 39,746. A. W. Pistol Inc., New Rochelle, N. Y. Filed Oct. 29, 1957.

ELEGANCE

For Lamps and Lighting Fixtures.
First use in February 1955.

SN 40,122. Holophane Company, Inc., New York, N. Y. Filed Nov. 5, 1957. Sec. 2(f).

HI-STRESS

Owner of Reg. No. 407,733.
For Glass Lamp Panels and Screens (Flat or Curved), Globes, Lenses and Reflectors, Smooth, Ribbed or Prismatic.
First use Nov. 24, 1942.

Class 37 — Paper and Stationery

SN 2,406. Clearprint Paper Company, Emeryville, Calif. Filed Feb. 10, 1956. Sec. 2(f) as to "Clearprint."

CLEARPRINT CHARTS

No claim is made to the word "Charts" apart from the mark as shown. Owner of Reg. Nos. 375,649 and 524,613.
For Printed Chart Forms.
First use Nov. 29, 1955.

SN 29,306. Robert Scott, d. b. a. Shoreline Litho, Neptune, N. J. Filed May 2, 1957.

Speed-O-Gram

For Message Blank for Direct Mail Advertising and Announcements.
First use Dec. 4, 1956.

SN 29,762. Superior Systems Forms, Inc., Detroit, Mich. Filed May 9, 1957. Sec. 2(f).

QUIKARBON

For Individual One Time Carbon Sets (Carbon Interleaved) and Continuous One Time Carbon Forms (Carbon Interleaved).
First use January 1947.

SN 30,885. Richard Best Pencil Company, Inc., Springfield, N. J. Filed May 28, 1957.

TAD

For Eraser-Cleaner.
First use July 18, 1952.

SN 32,385. Alphons J. Hackl, d. b. a. Colortone Press, Washington, D. C. Filed June 21, 1957.

SELLVELOPE

For Envelopes.
First use May 1, 1957.

SN 32,693. The Parker Pen Company, Janesville, Wis. Filed June 26, 1957.

T-BALL

For Ball Point Writing Pens and Parts Therefor.
First use May 31, 1957.

SN 34,044. The Crossett Company, Crossett, Ark. Filed July 19, 1957.



Owner of Reg. No. 406,160.
For Kraft Bag, Wrapping, Butchers, Creping, Gumming, Converter, Interleaving, Envelopes and Waxing Papers; and Paper Board for Use in Making Cartons, Plates, Trays, Cups, Tags, and Folders.
First use 1943 on kraft wrapping paper.

SN 34,469. The Snapout Forms Company, Chardon, Ohio. Filed July 26, 1957.

LIN-O-TAB

For Manifold Forms.
First use July 3, 1957.

SN 36,131. West Virginia Pulp and Paper Company, New York, N. Y. Filed Aug. 23, 1957.

KRAFTSMAN DURA-CORR

Owner of Reg. No. 391,623.
For Corrugating Material—a Paperboard Used for Making the Corrugated or Fluted Portion of Corrugated Board.
First use Apr. 2, 1957.

SN 36,371. Globe Ticket Company, Philadelphia, Pa. Filed Aug. 28, 1957.

PARKONTROL

For Claim Checks.
First use July 20, 1956.

SN 37,668. Menasha Wooden Ware Corporation, Menasha, Wis. Filed Sept. 23, 1957.

HARDCOR

For Processed Paper for Use in Corrugated Board for Boxes, Containers and the Like.
First use Dec. 18, 1948.

SN 38,123. Bergstrom Paper Company, Neenah, Wis. Filed Oct. 1, 1957. Sec. 2(f).

IBSEN

For Book Papers.
First use Dec. 31, 1935.

SN 38,811. Eberhard Faber Pencil Company, Wilkes-Barre, Pa. Filed Oct. 14, 1957.

ZERO

For Lead Pencils, Mechanical Pencils, and Rubber Bands.
First use about 1899.

SN 39,406. Helene McDonald, d. b. a. Emmett M. McDonald Enterprises, Chicago, Ill. Filed Oct. 23, 1957.

BLARNEY

For Ball Point Pens.
First use Oct. 14, 1957.

SN 39,485. Milwaukee Lace Paper Company, Milwaukee, Wis. Filed Oct. 24, 1957.

DUCHESS

For Paper Lace Place Mats.
First use Sept. 9, 1957.

Class 38 — Prints and Publications

SN 27,243. Macy H. Stein, New York, N. Y. Filed Mar. 29, 1957.

Marcé

Owner of Reg. No. 566,377.
For Jewelry Designs.
First use Nov. 1, 1935.

SN 36,915. President and Fellows of Harvard College, Cambridge, Mass. Filed Sept. 9, 1957.

A
HARBUS
FILM

The word "Film" is disclaimed apart from the mark as shown.
For Motion Pictures.
First use Apr. 29, 1957.

SN 37,167. Jensen Industries, Inc., Forest Park, Ill. Filed Sept. 13, 1957.

JENSELECTOR

For Phonographic Parts Catalogs.
First use May 31, 1951.

Class 39 — Clothing

SN 678,288. Universal Overall Company, Chicago, Ill. Filed Dec. 13, 1954.

SAMPSON

For Men's and Boys' Overalls.
First use in the year 1928.

SN 683,075. Youthcraft Creations, Inc., New York, N. Y. Filed Mar. 8, 1955.

YOUTHCRAFT
FREE STRIDE

For Girdles and Panty Girdles.
First use Jan. 18, 1955.

SN 699,860. Tam O'Shanter, Inc., Manchester, N. H. Filed Dec. 12, 1955.

PLAYTOGS BY JIMINY

Without waiving its common law rights and for purposes of this registration only, applicant makes no claim herein to the word "Playtogs" apart from the mark as shown.
For Knitted Wear—Namely, Polo Shirts, Basques, Cardigans, Jackets, Swim Trunks, Socks, Pajamas, Underwear Longies and Woven Boxer Shorts.
First use Nov. 16, 1955.

SN 1,202. Browns Hosiery Mills, Inc., Burlington, N. C. Filed Jan. 23, 1956.

Sweater Knit

For Hosiery.
First use on or about June 15, 1952.
Subj. to Intf. with SN 31,775.

SN 10,982. Cambridge Rubber Company, Cambridge, Mass. Filed June 26, 1956.

Decks
by Blue Ridge

Owner of Reg. No. 553,031.
For Men's, Boys', Women's, Misses', and Children's Casual Footwear—Namely, Shoes, Sandals, and the Like, Made of Fabric, Leather, Rubber, or Combinations Thereof, Having Rubber and/or Composition Soles.
First use Apr. 24, 1947.

SN 11,765. Richard A. Heller, New York, N. Y. Filed July 9, 1956.

Alpine

For Ladies', Men's, and Children's Raincoats and Rain Jackets.
First use May 10, 1956.

SN 18,581. New York Merchandise Co., Inc., New York, N. Y. Filed Nov. 1, 1956.

ZEPHYRLYTE

For Wool Sweaters for Infants, Misses, and Ladies, Infants' Wool Bootees and Bootee Sets Consisting of Sweater, Cap, and Bootees, All Hand Made or Machine Made, and Infants' Wool Gloves, Hand Made or Machine Made.
First use Mar. 7, 1956.

SN 24,182. Nu-Dell Plastics Corporation, Chicago, Ill. Filed Feb. 11, 1957.

CLOGHOPPERS

For Plastic Sandals.
First use Dec. 15, 1953.

SN 24,573. Cushionized-Bellaire Shoe Co., Portland, Maine. Filed Feb. 18, 1957.

Cushionized Bellaires

Owner of Reg. No. 550,324.
For Women's Shoes of Leather and/or Fabric.
First use Dec. 13, 1956.

SN 30,889. Comptoir de l'Industrie Cotonnierre, Etablissements Boussac, Société à Responsabilité Limitée, Paris, France. Filed May 28, 1957.

MADEMOISELLE DIOR

Owner of French Reg. No. 464,945, dated May 17, 1957 (Paris); Natl. Inst. No. 90,323; and U. S. Reg. Nos. 582,398 and 523,754.
For Misses' and Ladies' Dresses, Suits, Coats, Gowns, Hosiery and Belts for Personal Wear, Jackets, Boleros, Capes, Stoles, Sport Ensembles, Pullovers, Sweater Coats, Scarfs, Muffs, Collars, Underwear, Hats, Shoes.

SN 31,775. Morpul, Inc., Greensboro, N. C. Filed June 11, 1957.

SWEATER KNIT

For Hosiery.
First use in June 1952.
Subj. to Intf. with SN 1,202.

SN 32,960. Joyce, Inc., Cincinnati, Ohio. Filed July 1, 1957.

FRENCH CUFF

For Footwear—Namely, Shoes, Slippers, and Sandals Made of Leather, Fabric, Rubber, or Cork, and/or of Combinations of Said Materials.
First use Mar. 21, 1954.

SN 33,563. Mine Safety Appliances Company, Pittsburgh, Pa. Filed July 11, 1957.

CHEMGARD

For Industrial and Protective Clothing—Namely, Aprons, Sleeves, and Hoods.
First use at least as early as Nov. 25, 1949.

SN 37,289. Princess Peggy, Inc., Peoria, Ill. Filed Sept. 16, 1957.

Angee'

For Ladies' and Children's Dresses and Sportswear—Namely, Dresses, Blouses, Halters, Briefs, Shorts, Pedal Pushers, and Skirts.
First use on or about May 20, 1957.

SN 37,524. Sheffield Hosiery Mills, Inc., New York, N. Y. Filed Sept. 19, 1957.

dana

For Hosiery for Women and Children.
First use June 13, 1957.

SN 37,776. Boreva Sportswear Company, Chicago, Ill. Filed Sept. 25, 1957.

SKILT

For Combination Skirt and Short.
First use Sept. 10, 1957.
Subj. to Intf. with SN 40,058.

SN 37,947. Dunham Brothers Company, Brattleboro, Vt. Filed Sept. 27, 1957.

FOAM-LITE

For Slippers.
First use Aug. 10, 1955.

SN 37,953. Irving E. Grossmann, d. b. a. I. E. G. Associates, Los Angeles, Calif. Filed Sept. 27, 1957.

PERTIES

For Women's Shoes.
First use Feb. 8, 1957.

SN 38,003. Adams-Millis Corporation, High Point, N. C. Filed Sept. 30, 1957.

Mauray

For Hosiery.
First use Sept. 10, 1957.

SN 38,110. White Stag Mfg. Co., Portland, Oreg. Filed Sept. 30, 1957.

CLAMDIGGER

Owner of Reg. No. 565,037.
For Men's, Boys', and Girls' Short Slacks.
First use Mar. 15, 1946.

SN 38,286. Indiana Merchandising Company, Inc., Indianapolis, Ind. Filed Oct. 3, 1957.

Renault

For Women's Hosiery and Lingerie, and Men's Hosiery.
First use Sept. 1, 1954.

SN 38,446. The Formfit Company, Chicago, Ill. Filed Oct. 7, 1957.

FORMTEX

For Brassieres.
First use on or about Sept. 23, 1957.

SN 38,491. Rajinder Singh, d. b. a. Mohini Footwear Co., New York, N. Y. Filed Oct. 7, 1957.

jindi's

For Ladies' and Men's Shoes and Slippers.
First use Aug. 15, 1957.

SN 38,497. Carol B. Sullivan, New York, N. Y. Filed Oct. 7, 1957.

"CLOUDY-DAY DUET"

For Matching Set Consisting of a Head Covering and a Bag.
First use in September 1956.

SN 38,522. Baker-Cammack Hosiery Mills, Inc., Burlington, N. C. Filed Oct. 8, 1957.

HI-SLAX

Owner of Reg. No. 382,585.
For Hosiery.
First use June 8, 1939.

SN 38,809. Ernest Donath Inc., Boston, Mass. Filed Oct. 14, 1957.

SADRAN

For Ladies' Dresses.
First use Sept. 27, 1957.

SN 38,895. Brauer Bros. Shoe Company, St. Louis, Mo. Filed Oct. 15, 1957.



Owner of Reg. No. 640,069.
For Women's Shoes of Leather and Cloth and Leather.
First use Sept. 1, 1952.

SN 39,143. Ino Merchandise Company, San Francisco, Calif. Filed Oct. 18, 1957.

Go-Ahead

For Sandals.
First use June 21, 1951.

SN 39,222. The Grand Union Company, East Paterson, N. J. Filed Oct. 21, 1957.

GRAND-WAY

For Hosiery.
First use on or about Aug. 20, 1957.

SN 39,237. M. K. M. Knitting Mills, Inc., Manchester, N. H. Filed Oct. 21, 1957.

MATEX

For Hosiery.
First use Oct. 1, 1948.

SN 39,323. Danvers Shoe Company, Inc., Manchester, N. H. Filed Oct. 22, 1957.

DOINGS-A-FOOT

For Men's, Women's, and Children's Shoes, Slippers, and Moccasins.
First use Oct. 2, 1957.

SN 39,940. Auerbach Bath Robe Corp., New York, N. Y. Filed Nov. 1, 1957.

TERRILOFER

For Men's, Boys', and Girls' Beach Jackets and Men's Robes.
First use Oct. 26, 1957.

SN 40,058. Kahn-Lucas-Lancaster, Inc., New York, N. Y. Filed Nov. 4, 1957.

SKILT

For Children's Dresses, Blouses, and Skirts.
First use Sept. 1, 1957.
Subj. to Intf. with SN 37,776.

SN 40,489. Pertform Brassiere Co., Inc., Bayonne, N. J. Filed Nov. 12, 1957.

PERTFORM

For Ladies' Brassieres.
First use Jan. 2, 1949.

SN 40,564. Coat Craft Company, Philadelphia, Pa. Filed Nov. 13, 1957.

SNOWCREST

For Boys' and Girls' Coats, Jackets, Legging Sets and Hats.
First use Oct. 5, 1957.

Class 40—Fancy Goods, Furnishings, and Notions

SN 40,473. Lidz Brothers, Inc., New York, N. Y. Filed Nov. 12, 1957.

COSTUMAKERS

For Buttons and Buckles.
First use June 1, 1945.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 22,941. Morgenstern Fabrics Development Corp., New York, N. Y. Filed Jan. 22, 1957.

LEVLON

For Piece Goods of Bonded Non-Woven Natural Staple Fibers, Synthetic Staple Fibers, and Combinations Thereof.
First use Jan. 8, 1956.

SN 26,161. Crompton Company, New York, N. Y. Filed Mar. 14, 1957.

APRILIZED

For Fabric Finish With Which Applicant Has Treated Its Piece Goods.
First use Jan. 23, 1957.

SN 28,374. The Jack H. Perle Co., Los Angeles, Calif. Filed Apr. 17, 1957.

Foremost Fabrics

Applicant disclaims the word "Fabrics."
For Textile Fabrics for Draperies, Slipcovers, and the Like.
First use Feb. 1, 1957.

SN 37,822. J. P. Stevens & Co., Inc., New York, N. Y. Filed Sept. 25, 1957.

PRF

For Piece Goods of Synthetic Fibers.
First use July 9, 1957.

SN 39,450. Crawford Manufacturing Co., Inc., Richmond, Va. Filed Oct. 24, 1957.

Trigette

For Throw Covers for Furniture.
First use Oct. 2, 1957.

SN 40,216. Einiger Mills, Inc., New York, N. Y. Filed Nov. 7, 1957.

WISPAIRE

For Piece Goods of Wool.
First use Feb. 21, 1957.

Class 45—Soft Drinks and Carbonated Waters

SN 40,379. Shandex (Edinburgh) Limited, Perth, Scotland. Filed Nov. 8, 1957.

SHANDEX

Owner of British Reg. No. 749,378, dated Dec. 24, 1955.
For Soft Drinks and Carbonated Waters.

SN 40,380. Shandex (Edinburgh) Limited, Perth, Scotland. Filed Nov. 8, 1957.

SHANDELL

Owner of British Reg. No. 733,969, dated Sept. 13, 1954.
For Soft Drinks and Carbonated Waters.

SN 40,381. Shandex (Edinburgh) Limited, Perth, Scotland. Filed Nov. 8, 1957.

SHANDREX

Owner of British Reg. No. 744,509, dated July 20, 1955.
For Soft Drinks and Carbonated Waters.

SN 40,719. Walter Janik, d. b. a. The Johnnie Ryan Co., Niagara Falls, N. Y. Filed Nov. 8, 1957. Sec. 2(f).

RYAN DRY

For Non-Alcoholic, Maltless Beverages, Sold as Soft Drinks and Concentrates for Making Same.
First use Aug. 1, 1936.

Class 46—Foods and Ingredients of Foods

SN 682,271. Kosher Star Sausage Mfg. Co., Chicago, Ill. Filed Feb. 24, 1955.



Owner of Reg. Nos. 220,484 and 322,225.
For Meats and Meat Products, viz., Salami, Bologna, Sausages, Cooked, Pickled, and Pressed Tongues, Pastrami, Pickled Beef, Cooked Corned Beef, and Cooked and Cured Beef.
First use Apr. 26, 1934.

SN 8,965. The W. E. Long Co.—Independent Bakers' Cooperative, Chicago, Ill., from The W. E. Long Co. Filed May 24, 1956. Sec. 2(f).

HOLSUM

For Bakery Products—Namely, Bread, Cakes, Pies, Biscuits, Rolls, and Doughnuts.
First use on Oct. 23, 1914.

SN 28,251. Gordon-Allen Co., Quincy, Mass. Filed Apr. 16, 1957.



For Pizza Cheese, Pizza Shells, and Pizza Filling.
First use June 5, 1956.

SN 28,654. Summerton Motel Corp., d. b. a. Summerton Motel & Coffee Shop, Summerton, S. C. Filed Apr. 22, 1957.



For Pies.
First use February 1954.

SN 29,392. Safeway Stores, Incorporated, Oakland, Calif. Filed May 3, 1957. Sec. 2(f).

WALDORF

For Fresh Fruits and Fresh Vegetables.
First use Feb. 21, 1949, on fresh tomatoes.

SN 29,758. Southdown Sugars, Inc., New Orleans, La. Filed May 9, 1957.

Southdown
PURITY

The word "Purity" is disclaimed apart from the mark as shown. Owner of Reg. No. 533,618.
For Sugar.
First use Apr. 13, 1957; on Nov. 1, 1932, as to "Southdown."

SN 30,077. Jas. H. Forbes Tea and Coffee Corporation, St. Louis, Mo. Filed May 15, 1957.



The drawing is lined for red, but the mark is not limited to any particular color.
For Dry Spice Mixture.
First use Apr. 24, 1957.

SN 30,107. Osceola Foods, Inc., Osceola, Ark. Filed May 15, 1957.

HI-VAL

For Oleomargarine.
First use May 7, 1957.

SN 31,182. Wm. Barnes, Inc., Minneapolis, Minn. Filed June 3, 1957.

BILLY BOY

For Preserves, Jellies, and Table Syrups.
First use in 1924 on preserves and jellies.

SN 33,767. Top-Hand Dairies, Inc., Bartlesville, Okla. Filed July 15, 1957.

TOP-HAND

For Fluid Milk, Buttermilk, Chocolate Milk, and Skimmed Milk; Fluid Cream, Half 'n Half; Butter, Cottage Cheese, and Ice Cream.
First use 1949.

SN 34,217. DCA Food Industries Inc., New York, N. Y. Filed July 23, 1957.

DCA

For Prepared Mixes for Breads, Cakes, Griddle Cakes, Muffins, Pastries, Doughnuts, Icings; for Breading, Fruit Pie Filling, Meringues, Fruit Concentrates, Sugars.
First use December 1934.

SN 34,596. Eskimo Pie Corporation, Richmond, Va. Filed July 30, 1957.

ESKIMO *Pickle*

Owner of Reg. Nos. 300,055 and 534,287.
For Frozen Confections, Particularly a Water Ice Bar on a Stick.
First use July 17, 1957.

SN 35,028. The Borden Company, New York, N. Y. Filed Aug. 6, 1957. Sec. 2(f).

WHITSON'S

Owner of Reg. Nos. 210,388, 532,341, and others.
For Chocolate Flavored Syrup Used for Flavoring Dairy Drinks.
First use Apr. 15, 1917.

SN 38,382. The Procter & Gamble Company, Cincinnati, Ohio. Filed Oct. 4, 1957.

PAB

For Edible Vegetable Fats and Oils.
First use in April 1948.

SN 38,383. The Procter & Gamble Company, Cincinnati, Ohio. Filed Oct. 4, 1957.

CLIDO

Owner of Reg. No. 623,651.
For Edible Fats and Oils.
First use Mar. 17, 1955, on edible vegetable oils.

SN 38,513. Westbrook Industries, Inc., Long Island City, N. Y. Filed Oct. 7, 1957.

WESTBROOK

The drawing is lined for red and blue.
For Fruit Preserves.
First use July 22, 1957.

SN 38,940. Northam Trading Co., Inc., New York, N. Y. Filed Oct. 15, 1957.

SEACROWN

For Canned and Frozen Fish and Shell Fish.
First use Oct. 4, 1957.

SN 39,011. Richter Brothers, Inc., New York, N. Y. Filed Oct. 16, 1957.



The word "Brand" is disclaimed apart from the mark as shown.
For Fish Preserves and Fish Delicacies—Namely, Bismarckherrings, Rollmops, Herring in Aspic, Fried Herrings, Rollmops in Remouladensauce and Sprats.
First use Sept. 20, 1927.

SN 39,667. Pillsbury Mills, Inc., Minneapolis, Minn. Filed Oct. 28, 1957.

ROMA

For Wheat Flour.
First use Feb. 2, 1922.

SN 40,579. Just So, Inc., Watertown, Wis. Filed Nov. 13, 1957.

SALAD SIP

For Vegetable Concentrate.
First use on or about July 1, 1957.

SN 40,615. B. M. Reeves Company, Inc., Brooklyn, N. Y. Filed Nov. 13, 1957.

CHERRISPICE

Owner of Reg. No. 356,175.
For Cherries Pickled With Spices.
First use Dec. 23, 1936.

SN 40,657. Cape Cod Cooks, Inc., Sandwich, Mass. Filed Nov. 14, 1957.

CLAMATO

For Mixture of Tomato Juice and Clam Juice.
First use Oct. 30, 1957.

SN 40,870. Oelerich & Berry Company, Chicago, Ill. Filed Nov. 18, 1957.

3 CHEERS

For Chocolate Flavored Food Syrup With Vitamins and Iron Added.
First use Oct. 13, 1957.

SN 40,914. Brown-Miller Co., New Orleans, La. Filed Nov. 19, 1957.



The drawing is lined for green, red, gold, blue, orange, and purple. Owner of Reg. Nos. 310,063 and 337,104.
For Pickles and Pickle Relish.
First use Jan. 28, 1936.

SN 40,924. Crosbie's Pure Food Company Limited, Bradley, Lincolnshire, England. Filed Nov. 19, 1957.

Sweet Nell



For Marmalade.
First use Sept. 23, 1950; in commerce 1950.

SN 41,029. Leaf Brands, Inc., Chicago, Ill. Filed Nov. 20, 1957.



For Chewing Gum.
First use Oct. 14, 1957.

SN 41,038. Nalley's, Inc., Tacoma, Wash. Filed Nov. 20, 1957.

"DIPPERS"

For Potato Chips.
First use Oct. 8, 1957.

SN 41,147. Salvatore Casertano, Waterbury, Conn. Filed Nov. 22, 1957.

SPARROW

For Fresh Fruits and Vegetables.
First use Nov. 13, 1957.

SN 41,175. Lehman Bros., Cleveland, Ohio. Filed Nov. 22, 1957.

TEE-ZEE

Owner of Reg. No. 432,638.
For Candy for Dogs and Dog Food.
First use July 12, 1946, on candy for dogs.

SN 41,187. The Procter & Gamble Company, Cincinnati, Ohio. Filed Nov. 22, 1957.

glodo

For Processed Edible Fats and Oils.
First use Sept. 13, 1957.

SN 41,259. Elmore and Stahl, Pharr, Tex. Filed Nov. 25, 1957.

MISS MUSKIE

For Fresh Vegetables and Melons.
First use Nov. 4, 1957.

SN 41,310. Salinas Valley Vegetable Exchange, Salinas, Calif. Filed Nov. 25, 1957.

EAGLE EYE

For Fresh Vegetables.
First use Sept. 25, 1957.

SN 41,407. Leslie A. Smith, d. b. a. Veterans Trading Post, Bloomington, Ill. Filed Nov. 26, 1957.

SMITTI-MOJO

For Barbecue Sauce.
First use Aug. 17, 1957.

SN 41,455. Edward W. Hartman, d. b. a. Bee Tree Apiaries, Raytown, Mo. Filed Nov. 27, 1957.

"BEE-TREE"

For Honey.
First use Oct. 30, 1957.

SN 41,599. Winn-Dixie Stores, Inc., Jacksonville, Fla. Filed Nov. 29, 1957.

PINKY PIG

For Bacon, Smoked Hams, Pork Sausages, and Frankfurters.
First use Feb. 5, 1948.

Class 49—Distilled Alcoholic Liquors

SN 30,337. Phillip Hoffman, d. b. a. Walton Liquor Imports, Ltd., Jersey City, N. J. Filed May 20, 1957.

ANDRÉ RÉMY

For Cognac.
First use in February 1935.

SN 33,657. W. & A. Gilbey Ltd., London, England. Filed July 12, 1957.

GOVERNOR GENERAL

For Rum.
First use in 1894; in commerce in 1894.

Class 50—Merchandise Not Otherwise Classified

SN 25,092. The General Tire & Rubber Company, Akron, Ohio. Filed Feb. 26, 1957.

DECOR-EZE

For Adhesive-Backed Decorative Vinyl Material.
First use November 1954.

Class 51—Cosmetics and Toilet Preparations

SN 27,508. The Merens Company, Cleveland, Ohio. Filed Apr. 4, 1957.

PENETRATE 4

For Modified Germ Oil as an Ingredient Contained in Cosmetics Such as Creams, Lip Sticks, Skin Fresheners, and Deodorants.
First use Nov. 19, 1956.

SN 38,798. Burma-Vita Company, Minneapolis, Minn. Filed Oct. 14, 1957.

BURMA

Owner of Reg. Nos. 227,135, 587,704, and others.
For Lotion for Use After Shaving.
First use Sept. 19, 1957.

SN 39,184. Bristol-Myers Company, New York, N. Y. Filed Oct. 21, 1957.

IPANA PLUS

Owner of Reg. Nos. 105,039, 568,263, and others.
For Dentifrice.
First use Mar. 6, 1957.

SN 39,367. Avon Products, Inc., New York, N. Y. Filed Oct. 23, 1957.

FLOWER FLAME

For Cologne.
First use Oct. 16, 1957.

SN 39,368. Avon Products, Inc., New York, N. Y. Filed Oct. 23, 1957.

VALE OF KASHMIR

For Cologne.
First use Oct. 16, 1957.

SN 39,663. Parfums Evyan Inc., New York, N. Y. Filed Oct. 28, 1957.

GREAT LADY

For Perfume.
First use on or about Oct. 21, 1957.

Class 52—Detergents and Soaps

SN 34,811. National Disinfectant Company, Dallas, Tex. Filed Aug. 1, 1957.

SS-25

For Solvent Type Degreaser Liquid.
First use Aug. 29, 1956.

SN 45,397. Lens Bright Co., New York, N. Y. Filed S. R. Feb. 6, 1958. Am. P. R. Apr. 14, 1958.

LENS BRIGHT

For Eye Glass Cleaning Fluid.
First use in December 1951.
Subj. to Intf. with SN 25,665.

SERVICE MARKS

Class 102—Insurance and Financial

SN 24,480. Bank-A-Count Corporation, Wisconsin Rapids, Wis. Filed Feb. 15, 1957.

BANK
BA
COUNT

For Machine Tabulating and Financial Record Keeping Service for Individual and Business Bank Depositors.
First use Dec. 15, 1955.

SN 30,523. Provident Tradesmens Bank and Trust Company, Philadelphia, Pa. Filed May 22, 1957.



Owner of Reg. No. 527,917.
For Banking and Trust Services.
First use during the year 1957.

SN 30,524. Provident Tradesmens Bank and Trust Company, Philadelphia, Pa. Filed May 22, 1957.



Owner of Reg. No. 527,917.
For Banking and Trust Services.
First use during the year 1957.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 35,200. National Association Legions of Honor Ancient Arabic Order of Nobles of the Mystic Shrine, Miami, Fla. Filed Aug. 8, 1957.



The drawing is lined for red, yellow, green, gold, and blue.
For Indicating Membership in a National Organization Composed of Present or Former Service Men Who Are Members of the Shrine.
First use during 1931.

SN 41,127. Alaska Visitors Association, Juneau, Alaska. Filed Nov. 22, 1957.



The drawing is lined for gold.
For Indicating Membership in the Application Association.
First use in the spring of 1956.

CERTIFICATION MARKS

Class A—Goods

SN 18,390. Independent Battery Manufacturers of America, Akron, Ohio. Filed Oct. 22, 1956.

APPROVED BY
INDEPENDENT BATTERY
IBMA
MANUFACTURERS OF AMERICA
SERIAL NO

The mark certifies that the batteries bearing the mark meet certain minimum standards and specifications of quality set by applicant. The words "Serial No." are followed in use by a different number assigned to each battery or similar product.
For Batteries and Allied Products.
First use June 1, 1956.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

662,387. POLYFILM. Extruders, Inc. SN 660,402. Pub. 6–14–55. Filed 2–1–54.

662,388. POLYFILM AND REPRESENTATION OF A PARROT. Extruders, Inc. SN 660,403. Pub. 6–14–55. Filed 2–1–54.

662,389. VX AND DESIGN. Plantation Garden Products. SN 672,313. Pub. 3–18–58. Filed 8–26–54.

662,390. WEDRON AND DESIGN. Wedron Silica Company. SN 700,492. Pub. 3–18–58. Filed 12–22–55.

662,391. CRISTOFORO COLOMBO AND DESIGN. Vincenzo Asseretto. SN 3,981. Pub. 3–18–58. Filed 3–7–56.

662,392. CINDERELLA'S MUSICAL FLOWERS. Patrick M. Casey. SN 17,261. Pub. 3–18–58. Filed 10–11–56.

662,393. TRITAL. The Societa Anonima Snia Viscosa, Societa Nazionale Industria Applicazioni Viscosa. SN 22,976. Pub. 3–18–58. Filed 1–22–57.

662,394. NY-SUL-LOFT. Star Woolen Co. SN 26,979. Pub. 3–18–58. Filed 3–26–57.

662,395. HUSKILAWN. The Sexauer Co. SN 30,197. Pub. 3–18–58. Filed 5–16–57.

662,396. GALEX PELLETS AND DESIGN. G and A Laboratories, Inc. SN 32,749. Pub. 3–18–58. Filed 6–27–57.

662,397. TUSCANY. Armour and Company. SN 32,885. Pub. 3–18–58. Filed 7–1–57.

662,398. SKYE. Armour and Company. SN 32,889. Pub. 3–18–58. Filed 7–1–57.

662,399. KORDOLINE. Armour and Company. SN 32,894. Pub. 3–18–58. Filed 7–1–57.

662,400. THERMO LOGS. Columbia Hardbord Co. SN 33,466. Pub. 3–18–58. Filed 7–10–57.

662,401. SEA-GRO. Harold Wright, d. b. a. Wright Feeds. SN 34,026. Pub. 3–18–58. Filed 7–18–57.

662,402. FEATHERSOFT. The Lackawanna Leather Company. SN 34,440. Pub. 3–18–58. Filed 7–26–57.

Class 2 — Receptacles

662,403. CONOLENE. Continental Can Company, Inc. SN 29,613. Pub. 3–18–58. Filed 5–8–57.

662,404. STRUM-A-GUITAR. Starke Design, Inc. SN 34,472. Pub. 3–18–58. Filed 7–26–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

662,405. SS AND DESIGN. Stanley & Stanley, Incorporated. SN 30,116. Pub. 3–18–58. Filed 5–15–57.

Class 4 — Abrasives and Polishing Materials

662,406. NORKANSAS. Norton Pike Company. SN 33,661. Pub. 3–18–58. Filed 7–1–57.

Class 5 — Adhesives

662,407. SOFTEX. Rarolite Chemical Co. Inc. SN 21,944. Pub. 3–18–58. Filed 12–31–56.

Class 6 — Chemicals and Chemical Compositions

662,408. JAPANESE CHARACTERS. Seiki Konaka. SN 6,531. Pub. 3–18–58. Filed 4–17–56.

662,409. SOF-FLEX. Rarolite Chemical Co. Inc. SN 16,833. Pub. 3–18–58. Filed 10–2–56.

662,410. SIMFECTION. Warner-Lambert Pharmaceutical Company. SN 22,841. Pub. 3–18–58. Filed 1–18–57.

662,411. ST. MAURICE CHEMICALS AND DESIGN. St. Maurice Chemicals Limited. SN 25,794. Pub. 3–18–58. Filed 3–8–57.

662,412. ALCO AND DESIGN. Alco Oil and Chemical Corporation. SN 26,522. Pub. 3–18–58. Filed 3–20–57.

662,413. BREATHALYZER. Robert F. Borkenstein. SN 28,024. Pub. 3–18–58. Filed 4–12–57.

662,414. CURB. Diamond Black Leaf Company, to Diamond Alkali Company. SN 28,582. Pub. 3–18–58. Filed 4–22–57.

662,415. SYL-SOFT. Dow Corning Corporation. SN 30,150. Pub. 3–18–58. Filed 5–16–57.

Class 7 — Cordage

662,416. J–M TC SUPERIOR AND DESIGN. J–M Trading Corporation. SN 680,388. Pub. 3–18–58. Filed 1–24–55.

662,417. FAS-TIES. Plas-Ties Company. SN 687,729. Pub. 3–18–58. Filed 5–17–55.

662,418. MAYFLOWER. The Gourock Ropework Company Limited. SN 32,490. Pub. 3–18–58. Filed 6–24–57.

662,419. ROPEMATES. Whitlock Cordage Company. SN 32,716. Pub. 3–18–58. Filed 6–26–57.

662,420. SUPER 9. Sperry Rand Corporation. SN 34,471. Pub. 3–18–58. Filed 7–26–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

662,421. PREMIER. California Arms Company. SN 14,618. Pub. 3–18–58. Filed 8–27–56.

662,422. ULTRAMAX. Alcan Shells, Inc. SN 34,493. Pub. 3–18–58. Filed 7–29–57.

662,423. MAGNAMAX. Alcan Shells, Inc. SN 34,494. Pub. 3–18–58. Filed 7–29–57.

Class 10 — Fertilizers

662,424. HI-NI-PO. International Minerals & Chemical Corporation. SN 17,815. Pub. 4–16–57. Filed 10–19–56.

662,425. HYDRO-PAK. Mutual Fertilizer Company, to Hydro-Pak Company. SN 21,015. Pub. 3–18–58. Filed 12–13–56.

662,426. RED DEVIL AND DESIGN. Arley Cheadle, d. b. a. Marine Electrolysis Eliminator Co. SN 36,057. Pub. 3–18–58. Filed 8–23–57.

Class 11 — Inks and Inking Materials

662,427. PELIKAN AND DESIGN. Gunther Wagner. SN 657,432. Pub. 3–18–58. Filed 12–4–53.

662,428. TWIN-PAK. Royal McBee Corporation. SN 23,835. Pub. 3–18–58. Filed 2–5–57.

Class 12 — Construction Materials

662,429. PLACE ENGINEERED AND DESIGN. Place Homes, Inc. SN 7,840. Pub. 3–11–58. Filed 5–7–56.

662,430. THERMOGUARD. Thermoguard Insulation Company, d. b. a. Thermoguard Insulation. SN 8,727. Pub. 3–18–58. Filed 5–21–56.

662,431. BEHR-PROCESS AND DESIGN. Erwin Behr. SN 8,921. Pub. 2–4–58. Filed 5–24–56.

662,432. J1F-SET. Fred H. Leinweber, d. b. a. F. H. Leinweber Co. SN 10,095. Pub. 3–18–58. Filed 6–12–56.

662,433. TRAK-SCREEN. The Columbia Mills, Inc. SN 12,015. Pub. 3–18–58. Filed 7–12–56.

662,434. SEAL-O-PANE. Roy S. Woodard, d. b. a. Deluxe Window Company. SN 14,110. Pub. 3–18–58. Filed 8–16–56.

662,435. SOILCRETE. Massachusetts Mineral and Manufacturing Co., Inc. SN 21,319. Pub. 3–18–58. Filed 12–19–56.

662,436. JOANIT. John Olle Andersson. SN 26,591. Pub. 3–18–58. Filed 3–21–57.

662,437. ARKELITE. Arketex Ceramic Corporation. SN 29,416. Pub. 3–18–58. Filed 5–6–57.

662,438. RS PANELS AND DESIGN. United States Ceramic Tile Company. SN 30,457. Pub. 3–18–58. Filed 5–21–57.

662,439. EVER-COOL. Globe Venetian Blind Corporation. SN 31,212. Pub. 3–18–58. Filed 6–3–57.

662,440. STRAN STEEL AND DESIGN. Stran-Steel Corporation. SN 32,784. Pub. 3–18–58. Filed 6–27–57.

662,441. GRACO. Gray Products Company, Inc. SN 35,188. Pub. 3–18–58. Filed 8–8–57.

662,442. EMERI-CRETE. Walter Maguire Company, Inc. SN 36,091. Pub. 3–18–58. Filed 8–23–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

662,443. DAKOTA AND DESIGN. Dakota Engineering Inc. SN 25,760. Pub. 3–18–58. Filed S. R. 3–8–57. Am. P. R. 1–10–58.

662,444. THE DIAPER-AID. M. William Beaumont, d. b. a. The Diaper-Aid Company. SN 26,054. Pub. 3–18–58. Filed 3–13–57.

662,445. JEWELTONE. Curtis Companies Incorporated. SN 32,058. Pub. 3–11–58. Filed 6–17–57.

662,446. US AND DESIGN. United States Casting Repair Corp. SN 32,151. Pub. 3–11–58. Filed 6–17–57.

662,447. TIGER TAIL. Web Wilson Oil Tools, Incorporated. SN 32,358. Pub. 3–18–58. Filed 6–20–57.

662,448. SIGN OF THE BEST BUY HUDSON AND DESIGN. H. D. Hudson Manufacturing Company. SN 33,075. Pub. 3–18–58. Filed 7–2–57.

662,449. SANITOI. Sanitoi, Inc. SN 33,642. Pub. 3–18–58. Filed 7–12–57.

662,450. RUGGO. The Thomas Company. SN 33,765. Pub. 3–18–58. Filed 7–15–57.

662,451. KING-ZIP. Conmar Products Corporation. SN 33,802. Pub. 3–18–58. Filed 7–16–57.

Class 14 — Metals and Metal Castings and Forgings

662,452. DEWARD. Allegheny Ludlum Steel Corporation. SN 28,826. Pub. 3–18–58. Filed 4–25–57.

662,453. REPRESENTATION OF A DUTCH BOY. National Lead Company. SN 32,404. Pub. 3–18–58. Filed 6–21–57.

662,454. CARILLOY. United States Steel Corporation. SN 33,584. Pub. 3–18–58. Filed 7–11–57.

Class 15 — Oils and Greases

662,455. LUBE-QUIK. Continental Oil Company. SN 17,994. Pub. 3–18–58. Filed 10–23–56.

662,456. SHEROWAX. Continental Oil Company. SN 33,133. Pub. 3–18–58. Filed 7–3–57.

662,457. CARILUB. Reliance Chemicals Corporation. SN 33,746. Pub. 3–18–58. Filed 7–15–57.

662,458. CONOCO AND DESIGN. Continental Oil Company. SN 33,950. Pub. 3–18–58. Filed 7–18–57.

662,459. KAYO. Kendall Oil Company. SN 34,956. Pub. 3–18–58. Filed 8–5–57.

Class 16 — Protective and Decorative Coatings

662,460. LAWRENCE TIGER BRAND ETC. AND DESIGN. W. W. Lawrence & Company. SN 36,902. Pub. 3–11–58. Filed 9–9–57.

662,461. C & D DUNTINE. Cook & Dunn Paint Corporation. SN 37,143. Pub. 3–18–58. Filed 9–13–57.

662,462. GAMMA. M. Grumbacher, Inc. SN 39,328. Pub. 3–18–58. Filed 10–22–57.

662,463. POLYTINT. Marine Paint & Varnish Company, Inc. SN 39,480. Pub. 3–18–58. Filed 10–24–57.

662,464. KEVINITE. Swedlow Plastics Company. SN 39,502. Pub. 3–18–58. Filed 10–24–57.

Class 17 — Tobacco Products

662,465. V. Benson and Hedges. SN 24,559. Pub. 3–18–58. Filed 2–18–57.

Class 18 — Medicines and Pharmaceutical Preparations

662,466. CYSTONE. The Knox Company. SN 689,043. Pub. 3–18–58. Filed 6–7–55.

662,467. CLIN. Societe Anonyme Etablissements Clin-Byla. SN 17,193. Pub. 2–11–58. Filed 10–9–56.

662,468. PFIZER TYZINE. Chas. Pfizer & Co., Inc. SN 31,586. Pub. 3–18–58. Filed 6–7–57.

662,469. UNISPANS. Schenley Laboratories, Inc., now by change of name SchenLabs Pharmaceuticals, Inc. SN 31,692. Pub. 3–18–58. Filed 6–10–57.

662,470. KENLIV. Johnston's Products. SN 32,496. Pub. 3–18–58. Filed 6–24–57.

662,471. BIO-PAK. Johnston's Products. SN 32,497. Pub. 3–18–58. Filed 6–24–57.

662,472. NEMBU-HARMONYL. Abbott Laboratories. SN 32,796. Pub. 3–18–58. Filed 6–28–57.

662,473. ADOLESIN. Golden Peacock Co., Inc. SN 33,567. Pub. 3–18–58. Filed 7–11–57.

662,474. RUGARDONUM. Rugard Kemperdick & Co. SN 34,013. Pub. 3–18–58. Filed 7–18–57.

662,475. MUROCOLL. Muro Pharmacal Laboratories Inc. SN 34,068. Pub. 3–18–58. Filed 7–19–57.

662,476. ACTIV 8 AND DESIGN. Chesapeake Pharmacal Corporation. SN 36,564. Pub. 3–18–58. Filed 9–3–57.

662,477. OPTILETS-M. Abbott Laboratories. SN 36,760. Pub. 3–18–58. Filed 9–6–57.

662,478. ENAVID. G. D. Searle & Co. SN 36,811. Pub. 3–18–58. Filed 9–6–57.

662,479. BOON. Ed Jones. SN 37,020. Pub. 3–18–58. Filed 9–11–57.

662,480. LOGRAMYCIN. Chas. Pfizer & Co., Inc. SN 37,103. Pub. 3–18–58. Filed 9–12–57.

662,481. RIBOMYCIN. Chas. Pfizer & Co., Inc. SN 37,104. Pub. 3–18–58. Filed 9–12–57.

662,482. CITRAMYCIN. Chas. Pfizer & Co., Inc. SN 37,105. Pub. 3–18–58. Filed 9–12–57.

662,483. DYNAMYCIN. Chas. Pfizer & Co., Inc. SN 37,106. Pub. 3–18–58. Filed 9–12–57.

662,484. OCTYLAN. Don Baxter, Inc. SN 37,212. Pub. 3–18–58. Filed 9–16–57.

662,485. BIO-RUMINUTRA. Allied Mills, Inc. SN 37,334. Pub. 3–18–58. Filed 9–17–57.

662,486. TRANCOPAL. Sterling Drug Inc. SN 37,458. Pub. 3–18–58. Filed 9–18–57.

662,487. ORGAFUNGON. Organon Inc. SN 37,513. Pub. 3–18–58. Filed 9–19–57.

Class 19—Vehicles

662,488. DESIGN OF EAGLE. Fichtel & Sachs Aktiengesellschaft. SN 21,892. Pub. 3–18–58. Filed 12–31–56.

662,489. McCLINTOCK. Ekco Products Company. SN 22,850. Pub. 3–18–58. Filed 1–18–57.

662,490. THE ROMER. Robert Romer. SN 29,170. Pub. 3–18–58. Filed 4–30–57.

662,491. PC. Pacific Car and Foundry Company. SN 34,076. Pub. 3–18–58. Filed 7–19–57.

662,492. DETROITER. Detroiter Mobile Homes Mfg., Inc. SN 34,343. Pub. 3–18–58. Filed 7–25–57.

662,493. JAVELIN. American Machine and Foundry Company. SN 34,758. Pub. 3–18–58. Filed 8–1–57.

662,494. LAKE 'N SEA. Chris-Craft Corporation, to Parsons Corporation. SN 34,920. Pub. 3–18–58. Filed 8–5–57.

662,495. AQUA-JACK. Crawford Manufacturing Co., Inc. SN 34,925. Pub. 3–18–58. Filed 8–5–57.

662,496. DUO-GLIDE. Harley-Davidson Motor Co. SN 35,346. Pub. 3–18–58. Filed 8–12–57.

662,497. POLYMARINE. Polymer Engineering Corporation. SN 35,387. Pub. 3–18–58. Filed 8–12–57.

Class 20—Linoleum and Oiled Cloth

662,498. ACELLA. J. H. Benecke. SN 3,072. Pub. 4–16–57. Filed 2–21–56.

Class 21—Electrical Apparatus, Machines, and Supplies

662,499. SPACE-COMMAND. Zenith Radio Corporation. SN 24,389. Pub. 3–18–58. Filed 2–13–57.

662,500. DESIGN OF DIAMOND AND WINGS. Diamond Electrical Products. SN 29,880. Pub. 12–24–57. Filed 5–13–57.

662,501. LINDE. Union Carbide Corporation. SN 32,554. Pub. 3–11–58. Filed 6–24–57.

662,502. POWER BUFF. Power Products Corporation. SN 34,173. Pub. 3–11–58. Filed 7–22–57.

662,503. CRAPO HTL–195 AND DESIGN. Indiana Steel & Wire Company, Inc. SN 34,532. Pub. 3–18–58. Filed 7–29–57.

662,504. CRAPO HTL–155 AND DESIGN. Indiana Steel & Wire Company, Inc. SN 34,533. Pub. 3–11–58. Filed 7–29–57.

662,505. NPI. Neon Products, Inc. SN 34,550. Pub. 3–18–58. Filed 7–29–57.

662,506. TRAVLER AND DESIGN. Trav-Ler Radio Corporation. SN 34,824. Pub. 3–18–58. Filed 8–1–57.

662,507. ETERNALITE AND DESIGN. Eternalite, Inc. SN 34,847. Pub. 3–18–58. Filed 8–2–57.

662,508. LANGEVIN. Maxson Instruments Corporation, to The W. L. Maxson Corporation. SN 35,522. Pub. 3–18–58. Filed 8–14–57.

662,509. ZELL-AIRE. Zellers Laboratories. SN 35,839. Pub. 3–18–58. Filed 8–19–57.

662,510. LYTESPAN. Lightoller, Incorporated. SN 35,868. Pub. 3–18–58. Filed 8–20–57

Class 22—Games, Toys, and Sporting Goods

662,511. WIENERMOBILE. Oscar Mayer & Co., Inc. SN 28,364. Pub. 3–18–58. Filed 4–17–57.

662,512. KING OF THE HILL. Schaper Manufacturing Co., Inc. SN 28,545. Pub. 3–18–58. Filed 4–19–57.

662,513. ALLSTATE. Sears, Roebuck and Co. SN 30,607. Pub. 3–18–58. Filed 5–23–57.

662,514. CADDY-CANE. Modern Manufacturing Inc. SN 32,202. Pub. 3–18–58. Filed 6–18–57.

662,515. DILLY DOLL. Industrial Theatricals, Inc. SN 32,824. Pub. 3–18–58. Filed 6–28–57.

662,516. MYSTIC. Tuxco Corporation. SN 33,008. Pub. 3–18–58. Filed 7–1–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

662,517. TROPANA AND DESIGN. Hans Fiebelkorn, d. b. a. Trophy Rasier-Klingenfabrikation Hans Fiebelkorn. SN 14,636. Pub. 3–18–58. Filed 8–27–56.

662,518. HAMMER ENGRAVED. Imperial Knife Associated Companies, Inc. SN 23,398. Pub. 3–11–58. Filed 1–29–57.

662,519. TENSICON. Huck Co., Inc. SN 27,103. Pub. 3–18–58. Filed 3–28–57.

662,520. RUN RITE. National Plastics, Incorporated. SN 27,386. Pub. 3–18–58. Filed 4–2–57.

662,521. HORTON CHUCK AND DESIGN. Greenfield Tap and Die Corporation, now by merger United-Greenfield Corporation. SN 27,434. Pub. 3–18–58. Filed 4–3–57.

662,522. GIANT GRIP. De Walt Inc. SN 29,709. Pub. 3–18–58. Filed 5–9–57.

662,523. HUSKEE. Tractor Supply Co. SN 31,962. Pub. 3–18–58. Filed 6–13–57.

662,524. SHAMROCK. The Moreland Corporation. SN 32,619. Pub. 3–18–58. Filed 6–25–57.

662,525. EXCELALL. The Bastian-Blessing Company. SN 33,599. Pub. 3–11–58. Filed 7–12–57.

662,526. NTW DRESDEN AND DESIGN. Veb Nahmaschinentellewerke Dresden. SN 34,383. Pub. 3–18–58. Filed 7–25–57.

662,527. WILLCO-VEYOR AND DESIGN. Marion R. Williams, d. b. a. Willco Sales Co. SN 34,388. Pub. 3–18–58. Filed 7–25–57.

662,528. HERR. Herr Manufacturing Company, Inc. SN 35,864. Pub. 3–18–58. Filed 8–20–57.

662,529. PEERLESS FUTURE-MATIC AND DESIGN. Peerless Elevator Service, Inc. SN 35,948. Pub. 3–18–58. Filed 8–21–57.

662,530. MO-HO. McDonough Power Equipment, Inc. SN 36,385. Pub. 3–18–58. Filed 8–28–57.

662,531. COLE-VAC. Coleman Engineering Company, Inc. SN 38,735. Pub. 3–18–58. Filed 10–11–57.

662,532. GEHL SHRED-ALL. Gehl Bros. Manufacturing Co. SN 39,393. Pub. 3–18–58. Filed 10–23–57.

662,533. IBM. International Business Machines Corporation. SN 39,531. Pub. 3–18–58. Filed 10–25–57.

662,534. TRACTO RIPPER. Tractomotive Corporation. SN 39,685. Pub. 3–18–58. Filed 10–28–57.

662,535. REDA. Reda Pump Company. SN 39,895. Pub. 3–18–58. Filed 10–31–57.

662,536. SQUEE-TEE. Irving Kramer. SN 39,967. Pub. 3–18–58. Filed 11–1–57.

662,537. HOWRY-BERG. Howry-Berg Steel & Iron Works, Inc. SN 40,053. Pub. 3–18–58. Filed 11–4–57.

662,538. DITTO. Ditto, Incorporated. SN 40,118. Pub. 3–18–58. Filed 11–5–57.

Class 26—Measuring and Scientific Appliances

662,539. TRAK. C. G. S. Laboratories, Incorporated. SN 699,472. Pub. 3–18–58. Filed 12–6–55.

662,540. RONAR. Optische Werke G. Rodenstock. SN 16,470. Pub. 2–18–58. Filed 9–23–57.

662,541. HI-TEMP. Edward F. Kirby, d. b. a. E. F. Kirby Co., to Hi-Temp Safety Control Inc. SN 20,468. Pub. 1–14–58. Filed 12–5–56.

662,542. ARGO. Kienzle Apparate G. m. b. H. SN 21,316. Pub. 3–18–58. Filed 12–19–56.

662,543. DATA-LINE. Hanson-Gorrill-Brian, Inc. SN 21,538. Pub. 3–18–58. Filed 12–24–56.

662,544. S AND DESIGN. Johannes Sorteberg, d. b. a. Sorteberg Controls Co. SN 28,812. Pub. 3–18–58. Filed 4–24–57.

662,545. SAVUE. Progress Industries, Inc. SN 32,120. Pub. 3–18–58. Filed 6–17–57.

662,546. IRIS LANE. General Features Corporation. SN 32,302. Pub. 3–11–58. Filed 6–20–57.

662,547. DIRECTOR. Burroughs Corporation. SN 32,465. Pub. 3–18–58. Filed 6–24–57.

662,548. TRANSCOPE. Taylor Instrument Companies. SN 32,551. Pub. 3–18–58. Filed 6–24–57.

662,549. SKYLARK. Mansfield Industries, Inc. SN 32,765. Pub. 3–18–58. Filed 6–27–57.

662,550. POROTEC. Foundry Services Limited. SN 33,143. Pub. 3–18–58. Filed 7–3–57.

662,551. BRUNING. Charles Bruning Company, Inc. SN 33,399. Pub. 3–18–58. Filed 7–9–57.

662,552. READYMATIC. Eastman Kodak Company. SN 33,953. Pub. 3–18–58. Filed 7–18–57.

662,553. DALTON. Armistead L. Boothe, Administrator of the Estate of Philip Dalton, Deceased. SN 34,028. Pub. 3–18–58. Filed 7–18–57.

Class 27—Horological Instruments

662,554. INVENTIC. Ed. Kummer AG. (Ariston Inventic) Uhrenfabrik Bettlach (Ed. Kummer S. A. [Ariston Inventic] Fabrique d'Horlo Gerie de Bettlach) (Ed. Kummer Ltd. [Ariston Inventic] Watch Co. Bettlach) (Ed. Kummer S. A. [Ariston Inventic] Fabbrica d'orologeria di Bettlach). SN 30,171. Pub. 3–18–58. Filed 5–16–57.

Class 28—Jewelry and Precious-Metal Ware

662,555. EMMONS. Emmons Jewelers, Inc. SN 19,235. Pub. 3–18–58. Filed 11–14–56.

662,556. LADY WINDEMERE. The International Silver Company. SN 22,192. Pub. 3–18–58. Filed 1–7–57.

662,557. STAR OF FREYUNG. Werner C. Von Clemm. SN 23,586. Pub. 3–18–58. Filed 1–31–57.

662,558. MODERN LIVING. The International Silver Company. SN 24,046. Pub. 3–18–58. Filed 2–8–57.

662,559. JOAN OF ARC. The International Silver Company. SN 26,828. Pub. 3–18–58. Filed 3–15–57.

662,560. MEADOW FLOWER. The International Silver Company. SN 27,029. Pub. 3–18–58. Filed 3–27–57.

662,561. FLOATING OPALS BY MILANO. Medicated Products Company. SN 31,330. Pub. 3–18–58. Filed 6–4–57.

662,562. LUXURY. The International Silver Company. SN 33,622. Pub. 3–18–58. Filed 7–12–57.

662,563. RHAPSODY. The International Silver Company. SN 34,703. Pub. 3–18–58. Filed 7–31–57.

Class 29—Brooms, Brushes, and Dusters

662,564. ACORN BRAND AND DESIGN. Chadwick & Shapcott Limited. SN 15,017. Pub. 3–18–58. Filed 9–4–56.

Class 31—Filters and Refrigerators

662,565. BEN HUR ETC. Ben-Hur Manufacturing Co. SN 25,819. Pub. 3–18–58. Filed 3–11–57.

662,566. KLEENITE. Tractor Supply Co. SN 31,961. Pub. 3–18–58. Filed 6–13–57.

662,567. SAFETY GRILLE. Pittsburgh Plate Glass Company. SN 39,747. Pub. 3–18–58. Filed 10–29–57.

Class 32—Furniture and Upholstery

662,568. MATTSON MODERN OAKMASTERS AND DESIGN. Grand Rapids Bookcase & Chair Co. SN 589,971. Pub. 9–1–53. Filed 12–27–49.

662,569. PUNCH-BOARD. Marcus Window Display Service, Inc., d. b. a. J. P. Denton. SN 19,898. Pub. 3–18–58. Filed 11–26–56.

662,570. E-Z-S. James A. Damato. SN 28,116. Pub. 3–18–58. Filed 4–15–57.

662,571. ADD-A-CUSHION. Endicott Church Furniture, Inc. SN 28,771. Pub. 3–18–58. Filed 4–24–57.

662,572. CASEMATE. Oxford, Ltd. SN 34,251. Pub. 3–18–58. Filed 7–23–57.

662,573. IRONING CADDY. The Cal-Dak Company. SN 34,662. Pub. 3–18–58. Filed 7–31–57.

662,574. SYMPHONY IN COLOR. Tomlinson of High Point. SN 39,760. Pub. 3–11–58. Filed 10–29–57.

662,575. SOLOTOP. Craddock Furniture Corporation. SN 40,436. Pub. 3–18–58. Filed 11–12–57.

662,576. BEAUTY GUARDIAN. The Inco Company. SN 40,842. Pub. 3–18–58. Filed 11–18–57.

662,577. FLAIRCHAIR. Thayer Coggin, Inc. SN 41,242. Pub. 3–18–58. Filed 11–25–57.

Class 33—Glassware

662,578. OWL HOLLOW. Carl Forslund, Inc. SN 23,310. Pub. 3–18–58. Filed 1–28–57.

662,579. PARALLEL-O-GREY. Libbey-Owens-Ford Glass Company. SN 33,162. Pub. 3–18–58. Filed 7–3–57.

Class 34—Heating, Lighting, and Ventilating Apparatus

662,580. SIGN OF THE BEST BUY HUDSON AND DESIGN. H. D. Hudson Manufacturing Company. SN 33,074. Pub. 3–18–58. Filed 7–2–57.

662,581. FEDDERS AND DESIGN. Fedders-Quigan Corporation. SN 33,226. Pub. 3–18–58. Filed 7–5–57.

662,582. TWIN SHOT. International Heater Company. SN 33,620. Pub. 3–18–58. Filed 7–12–57.

662,583. OIL-O-MATIC ETC. AND DESIGN. Eureka Williams Corporation. SN 34,677. Pub. 3–18–58. Filed 7–31–57.

662,584. BURNHAM JUBILEE. Burnham Corporation. SN 37,138. Pub. 3–18–58. Filed 9–13–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

662,585. TUF-LUG. United States Rubber Company. SN 22,720. Pub. 3–18–58. Filed 1–16–57.

662,586. "K & M." Keasbey & Mattison Company. SN 34,434. Pub. 3–18–58. Filed 7–26–57.

662,587. LOGMASTER. W. J. Voit Rubber Corp. SN 34,755. Pub. 3–18–58. Filed 7–31–57.

662,588. GARDEN QUEEN AND DESIGN. Gering Products, Inc. SN 34,787. Pub. 3–18–58. Filed 8–1–57.

662,589. GREEN SEAL AND DESIGN. The Goodyear Tire & Rubber Company. SN 35,045. Pub. 3–18–58. Filed 8–6–57.

662,590. B AND DESIGN. Bellofram Corporation. SN 35,081. Pub. 3–18–58. Filed 8–7–57.

662,591. FRANCE AND DESIGN. France Packing Company. SN 35,146. Pub. 3–18–58. Filed 6–20–57.

Class 36—Musical Instruments and Supplies

662,592. EMBEE AND DESIGN. Paul Barrett Music, Inc. SN 35,314. Pub. 3–18–58. Filed 8–12–57.

Class 37—Paper and Stationery

662,593. FLECO. Fletcher Paper Company. SN 8,653. Pub. 3–18–58. Filed 5–21–56.

662,594. JEAN McLAIN. Imperial Paper and Color Corporation. SN 23,058. Pub. 3–18–58. Filed 1–23–57.

662,595. STYRON. The Dow Chemical Company. SN 28,032. Pub. 3–18–58. Filed 4–12–57.

662,596. THE K LINE. Kennedy & Kennedy Company. SN 30,787. Pub. 3–18–58. Filed 5–27–57.

662,597. RHAPSODY. The Papercraft Corporation. SN 32,114. Pub. 3–18–58. Filed 6–17–57.

Class 38—Prints and Publications

662,598. DATAGRAM. Murray Smith, d. b. a. Data and as Queensmith Associates. SN 25,471. Pub. 3–18–58. Filed 3–4–57.

662,599. MARYKNOLL. Catholic Foreign Mission Society of America, Inc. SN 32,468. Pub. 3–18–58. Filed 6–24–57.

662,600. LANCASTER NEW ERA. The New Era Company. SN 33,430. Pub. 3–18–58. Filed 7–9–57.

662,601. INTELLIGENCER JOURNAL AND DESIGN. Steinman & Steinman, Inc. SN 33,438. Pub. 3–18–58. Filed 7–9–57.

662,602. ADA FORECAST. American Diabetes Association, Inc. SN 33,859. Pub. 3–18–58. Filed 7–17–57.

662,603. MIND YOUR MONEY. General Features Corporation. SN 33,872. Pub. 3–18–58. Filed 7–17–57.

662,604. PARENTS' CORNER. General Features Corporation. SN 33,873. Pub. 3–18–58. Filed 7–17–57.

662,605. JOBBER JOURNAL. Perfect Circle Corporation. SN 36,102. Pub. 3–18–58. Filed 8–23–57.

662,606. DOTTIE DECORATES. General Features Corporation. SN 36,708. Pub. 3–18–58. Filed 9–5–57.

Class 39—Clothing

662,607. LEISURE LADS. Leisure Lads, Inc. SN 682,647. Pub. 5–1–56. Filed 3–2–55.

662,608. MONGOLITO. Habley, Inc., d. b. a. Habley Barber. SN 1,087. Pub. 3–18–58. Filed 1–19–56.

662,609. UNIVERSITY FASHION. Cluett, Peabody & Co., Inc. SN 1,342. Pub. 3–18–58. Filed 1–24–56.

662,610. PLIRIB. B. B. Chemical Co. SN 24,909. Pub. 3–18–58. Filed 2–25–57.

662,611. BEA YOUNG. Smoler Bros., Inc. SN 26,124. Pub. 3–18–58. Filed 3–13–57.

662,612. BEAUTILLION. Odek Sales Corporation. SN 26,482. Pub. 3–18–58. Filed 3–19–57.

662,613. VANTAGE. Phillips-Jones Corporation, now by change of name Phillips-Van Heusen Corporation. SN 27,720. Pub. 3–18–58. Filed 4–8–57.

662,614. MORCHROME. Armour and Company, d. b. a. Winslow Bros. & Smith Co. SN 28,007. Pub. 3–18–58. Filed 4–12–57.

662,615. MICROSPUN. Leonard J. Gladatone, d. b. a. Lansdale Clothes of New York. SN 29,063. Pub. 3–18–58. Filed 4–29–57.

662,616. SWING OVER COTTONS. Linsk of Philadelphia, Inc. SN 29,458. Pub. 3–18–58. Filed 5–6–57.

662,617. LOV-LEZE BY ALL-DIN. All-Din Footwear Mfg. Corp. SN 30,465. Pub. 3–18–58. Filed 5–22–57.

662,618. CHINOOK. Lord Jeff Knitting Company, Incorporated. SN 31,236. Pub. 3–18–58. Filed 6–3–57.

662,619. SMOOTH SET. Shelburne Shirt Co., Inc. SN 31,596. Pub. 3–18–58. Filed 6–7–57.

662,620. ENRICO CELLI. Ehrenpreis Inc. SN 31,754. Pub. 3–18–58. Filed 6–11–57.

662,621. TINKER-TOT. Conaway-Winter, Inc. SN 33,124. Pub. 3–18–58. Filed 7–3–57.

662,622. COVENTRY AND DESIGN. Coventry Knitting Co., Inc. SN 33,214. Pub. 3–18–58. Filed 7–5–57.

662,623. LEOTITE. Capezio Inc. SN 33,684. Pub. 3–18–58. Filed 7–15–57.

662,624. ARCTEX. J. E. Morgan Knitting Mills, Inc. SN 33,731. Pub. 3–18–58. Filed 7–15–57.

662,625. GOLD RIBBON. The Olen Company Inc. SN 33,736. Pub. 3–18–58. Filed 7–15–57.

662,626. STEMWEAR. Capezio Inc. SN 33,794. Pub. 3–18–58. Filed 7–16–57.

662,627. GEPPETTO. Dori Shoe Company, Inc. SN 33,805. Pub. 3–18–58. Filed 7–16–57.

662,628. 10 BIG TEN. Portage Hosiery Company, d. b. a. Big Ten Hosiery Co. SN 33,908. Pub. 3–18–58. Filed 7–17–57.

662,629. GOLFER BY DARON. Daron Underwear Corp. SN 34,122. Pub. 3–18–58. Filed 7–22–57.

662,630. YOUNG-FAIR. Yunker Manufacturing Co. Inc. SN 34,200. Pub. 3–18–58. Filed 7–22–57.

662,631. SOPHISTIKINS. Stein-Sulkis Shoe Co. SN 34,203. Pub. 3–18–58. Filed 7–11–57.

662,632. FEM FORM. Fem Form, Inc. SN 34,234. Pub. 3–18–58. Filed 7–23–57.

662,633. MICA TONE. Merit Clothing Company. SN 35,371. Pub. 3–18–58. Filed 8–12–57.

662,634. ALEXANDER AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,535. Pub. 3–18–58. Filed 8–15–57.

662,635. ALEXANDER AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,557. Pub. 3–18–58. Filed 8–15–57.

662,636. ALEXANDER AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,558. Pub. 3–18–58. Filed 8–15–57.

662,637. THE PACKARD SHOE P AND DESIGN. Howard & Foster Co., Inc. SN 38,886. Pub. 3–18–58. Filed 9–23–57.

Class 40—Fancy Goods, Furnishings, and Notions

662,638. FOSTA LIFETIME. Foster Grant Co., Inc. (Massachusetts corporation), to Foster Grant Co. Inc. (Delaware corporation). SN 33,066. Pub. 3–18–58. Filed 7–2–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

662,639. DORCOLOR. Farbenfabriken Bayer Aktiengesellschaft. SN 30,317. Pub. 3–18–58. Filed 5–20–57.

662,640. MOBILITY. Cabin Crafts, Inc. SN 30,888. Pub. 3–18–58. Filed 5–28–57.

662,641. SAFETEX. Pacific Mills Domestics Corp. SN 31,345. Pub. 3–18–58. Filed 6–4–57.

662,642. PRIDE OF THE SPINDLE. The H. Zussman & Son Company. SN 31,444. Pub. 3–18–58. Filed 6–5–57.

662,643. CDS. Crompton Company. SN 32,234. Pub. 3–18–58. Filed 6–19–57.

662,644. NYCOOL. Shain and Company, Inc. SN 32,703. Pub. 3–18–58. Filed 6–26–57.

662,645. DRI-DON. Dan River Mills, Incorporated. SN 32,807. Pub. 3–18–58. Filed 6–28–57.

662,646. SPRINGHILL. Monarch Rug Mills, Inc. SN 33,985. Pub. 3–18–58. Filed 7–18–57.

662,647. FABMAT. Fiber Glass Industries, Inc. SN 34,129. Pub. 3–18–58. Filed 7–22–57.

662,648. ROVCLOTH. Fiber Glass Industries, Inc. SN 34,681. Pub. 3–18–58. Filed 7–31–57.

Class 43—Thread and Yarn

662,649. ESSLINGER WOLLE TWOLADY WOOLS AND DESIGN. Merkel & Co. SN 23,070. Pub. 3–18–58. Filed 1–23–57.

662,650. FOULARDINE. North American Rayon Corporation. SN 30,354. Pub. 3–18–58. Filed 5–20–57.

662,651. NORTH AMERICAN RAYON AND DESIGN. North American Rayon Corporation. SN 30,441. Pub. 3–18–58. Filed 5–21–57.

Class 44—Dental, Medical, and Surgical Appliances

662,652. CWS DELUXE SEAMLESS AND DESIGN. Charles Walton & Son, Inc. SN 26,135. Pub. 3–18–58. Filed 3–13–57.

662,653. HILL TRACTION AND DESIGN. Hill Laboratories Co. SN 29,156. Pub. 3–18–58. Filed 4–30–57.

662,654. SAFE-TEX. Floyd E. Barnett, d. b. a. The Barnett Distributing Co. SN 30,392. Pub. 3–11–58. Filed 5–21–57.

662,655. RADIOTOPE. Abbott Laboratories. SN 32,161. Pub. 3–18–58. Filed 6–18–57.

662,656. SPIRAL DESIGN. Moxley Massage Equipment Company, Inc. SN 32,402. Pub. 3–18–58. Filed 6–21–57.

662,657. PLASTUPALAT. Farbenfabriken Bayer Aktiengesellschaft. SN 34,322. Pub. 3–18–58. Filed 7–24–57.

662,658. ETHICON. Ethicon, Inc. SN 36,068. Pub. 3–18–58. Filed 8–23–57.

662,659. FOIL LUBE. National Sanitary Sales, Inc. SN 36,461. Pub. 3–18–58. Filed 8–29–57.

662,660. SPARES. National Sanitary Sales, Inc. SN 36,462. Pub. 3–18–58. Filed 8–29–57.

662,661. VIAL LUBE. National Sanitary Sales, Inc. SN 36,463. Pub. 3–18–58. Filed 8–29–57.

662,662. VICON. Vicon, Inc. SN 36,489. Pub. 3–18–58. Filed 8–29–57.

Class 46—Foods and Ingredients of Foods

662,663. "A PIP OF A CHIP." W. P. Ihrie and Sons. SN 680,146. CONCURRENT USE. Pub. 3–18–58. Filed 1–19–55.

662,664. PURE FOOD PRODUCTS BURK'S FAMOUS FOR QUALITY AND DESIGN. Louis Burk, Incorporated, to Louis Burk Company. SN 14,931. Pub. 3–18–58. Filed 9–17–56.

662,665. FIRST PRIZE. Tobin Packing Co., Inc. SN 18,366. Pub. 3–18–58. Filed 10–29–56.

662,666. FIRST PRIZE APD AND DESIGN. Tobin Packing Co., Inc. SN 18,367. Pub. 3–18–58. Filed 10–29–56.

662,667. ORIENTAL DAIRY. William Guttman, d. b. a. Oriental Dairy Products Co. SN 18,746. Pub. 3–18–58. Filed 11–5–56.

662,668. CHIC. Stocker-Hausmann Co. SN 20,414. Pub. 3–18–58. Filed 12–4–56.

662,669. UNITED FARMERS UF AND DESIGN. United Farmers of New England, Inc., d. b. a. United Farmers. SN 26,578. Pub. 3–18–58. Filed 3–20–57.

662,670. HONEE SWEET. Robinson Syrup Company, Inc., d. b. a. Robinson Syrup & Canning Co. SN 26,974. Pub. 3–18–58. Filed 3–26–57.

662,671. TEXAS TAVERN AND DESIGN. Texas Tavern Canning Company. SN 27,545. Pub. 3–18–58. Filed 4–4–57.

662,672. BULL'S EYE. Meat Industry Suppliers, Inc. SN 28,054. Pub. 3–18–58. Filed 4–12–57.

662,673. UNION. Swift Canadian Co., Limited. SN 32,350. Pub. 3–18–58. Filed 6–20–57.

662,674. P & R'S. Planters Nut & Chocolate Co. SN 33,098. Pub. 3–18–58. Filed 7–2–57.

662,675. NEW MOON AND DESIGN. Hazel R. Ayton, d. b. a. American Export Co. SN 33,326. Pub. 3–18–58. Filed 7–8–57.

662,676. DOUWE EGBERTS MOCCONA. Douwe Egberts Koninklijke Tabaksfabriek - Koffiebranderijen - Theehandel N. V. SN 33,406. Pub. 3–18–58. Filed 7–9–57.

662,677. DELICO. Swift & Company. SN 34,020. Pub. 3–18–58. Filed 7–18–57.

662,678. CHARMAINE. National Peanut Corporation. SN 34,978. Pub. 3–18–58. Filed 8–5–57.

662,679. PLANTATION. Comet Rice Mills. SN 36,430. Pub. 3–18–58. Filed 8–29–57.

662,680. VITAPON. East Coast Food Merchants Co. SN 36,866. Pub. 3–18–58. Filed 9–9–57.

662,681. VITABICHUELA. East Coast Food Merchants Co. SN 36,867. Pub. 3–18–58. Filed 9–9–57.

662,682. SCHOOL PAC. Peter Eckrich & Sons, Inc. SN 37,646. Pub. 3–18–58. Filed 9–23–57.

662,683. DIXIE. The Hillson Nut Company. SN 37,877. Pub. 3–18–58. Filed 9–26–57.

662,684. WIN. Armour and Company, d. b. a. Armour Creameries. SN 38,325. Pub. 3–18–58. Filed 10–4–57.

Class 47—Wines

662,685. TV. Bisceglia Brothers Wine Co., d. b. a. Winedale Vineyards Co. SN 611,884. Pub. 3–18–58. Filed 3–28–51.

662,686. ROSEMONT. The Hammer Company. SN 36,799. Pub. 3–18–58. Filed 9–6–57.

Class 48 — Malt Beverages and Liquors

662,687. BURGIE. San Francisco Brewing Corporation, now by change of name to Burgermeister Brewing Corporation. SN 18,392. Pub. 12–3–57. Filed 10–23–56.

Class 49 — Distilled Alcoholic Liquors

662,688. MONOPOLES ALFRED ROTHSCHILD. Roger L. Myers, d. b. a. Monopoles Alfred Rothschild. SN 699,087. Pub. 3–18–58. Filed 11–29–55.

662,689. "FAIRWAY" AND DESIGN. J. G. Thomson and Company, Limited. SN 34,267. Pub. 3–18–58. Filed 7–23–57.

Class 50 — Merchandise Not Otherwise Classified

662,690. "TRIM-A-TERIA" AND DESIGN. Alex W. Block & Co., Inc. SN 5,022. Pub. 11–27–56. Filed 3–22–56.

662,691. ZIPPERTUBING. W. A. Plummer, d. b. a. Walter A. Plummer Co. SN 12,104. Pub. 3–18–58. Filed 7–13–56.

662,692. TOD. Lydia R. Hicks. SN 33,618. Pub. 3–18–58. Filed 7–12–57.

Class 51 — Cosmetics and Toilet Preparations

662,693. HAIRLAC. The Nestle-Le Mur Company. SN 13,994. Pub. 3–18–58. Filed 8–15–56.

662,694. PINK TIGHTS. The House of Stuart, Incorporated, to The House of Stuart, Inc. SN 17,364. Pub. 3–18–58. Filed 10–12–56.

662,695. JEWELSEAL. Juliette Marglen Inc., now by change of name to Juliette Marglen, Inc. SN 20,764. Pub. 3–18–58. Filed 12–10–56.

662,696. NANNETTE. Charles Stutzer, d. b. a. Royal Luxury Perfumes Distributors. SN 31,359. Pub. 3–18–58. Filed 6–4–57.

662,697. MOISTURE BLOOM. Jesse F. McHam, d. b. a. M B Cosmetics and Moisture Bloom Cosmetics. SN 32,330. Pub. 3–18–58. Filed 6–20–57.

662,698. BARBER'S SECRET. Fulenwider Manufacturing & Distributing Company. SN 36,509. Pub. 3–18–58. Filed 8–30–57.

662,699. COLESE. Colese, Inc. SN 36,570. Pub. 3–18–58. Filed 9–3–57.

662,700. SUMMER-SETT. The Procter & Gamble Company. SN 36,917. Pub. 3–18–58. Filed 9–9–57.

662,701. BLANCHARD. Parfums Blanchard. SN 37,096. Pub. 3–18–58. Filed 9–12–57.

Class 52 — Detergents and Soaps

662,702. HIS AND HER. The House for Men, Inc. SN 32,758. Pub. 3–18–58. Filed 6–27–57.

Service Marks

Class 100 — Miscellaneous

662,703. FEDERAL LEASING CORPORATION AND DESIGN. Federal Leasing Corporation. SN 30,759. Pub. 3–18–58. Filed 5–27–57.

Class 102 — Insurance and Financial

662,704. SAVE-O-MATIC. La Salle National Bank. SN 28,162. Pub. 3–18–58. Filed 4–15–57.

Class 103 — Construction and Repair

662,705. BRAKE HOSPITAL AND DESIGN. Atlas Automotive Products, Inc. SN 693,112. Pub. 3–18–58. Filed 8–16–55.

Class 106 — Material Treatment

662,706. PERMADIZING. Stillman Rubber Company. SN 25,902. Pub. 2–11–58. Filed 3–11–57.

Class 107 — Education and Entertainment

662,707. LEONARD SILLMAN'S NEW FACES. New Faces, Inc. SN 693,762. Pub. 3–18–58. Filed 8–26–55.

662,708. TRI CITY TOWN HALL. Patroon Broadcasting Company, Inc. SN 26,011. Pub. 3–18–58. Filed 3–12–57.

662,709. "SUNNYSIDE OF THE STREET." Storer Broadcasting Company. SN 33,297. Pub. 3–18–58. Filed 7–5–57.

Collective Membership Mark

Class 200

662,710. FRATERNAL ORDER OF POLICE. Fraternal Order of Police. SN 18,423. Pub. 3–18–58. Filed 10–30–56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 4 — Abrasives and Polishing Materials

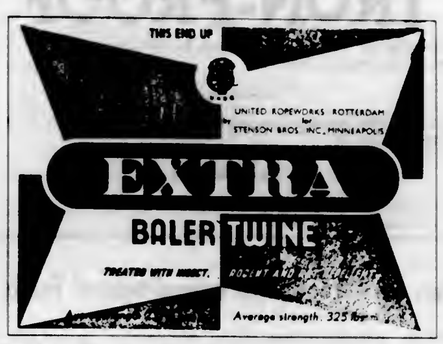
662,711. Abrasive Company of America, Omaha, Nebr. SN 693,728. Filed P. R. 8–26–55. Am. S. R. 3–27–58.

MAGNECOATED

For Abrasive Disks and Abrasive Papers and Cloths.
First use June 10, 1955.

Class 7 — Cordage

662,712. N. V. Vereenigde Touwfabrieken (United Ropeworks), Rotterdam, Netherlands. SN 26,007. Filed P. R. 3–12–57. Am. S. R. 4–7–58.



For Baler Twine.
First use on or about Dec. 1, 1956; in commerce on or about Dec. 1, 1956.

Class 14 — Metals and Metal Castings and Forgings

662,713. George L. Whitman, d. b. a. Whitman & Robinson, Weedsport, N. Y. SN 38,111. Filed 9–30–57.

NOMAR

For Plastic Coated Metal Anchors.
First use Apr. 30, 1954.

Class 21 — Electrical Apparatus, Machines, and Supplies

662,714. Kurt Maecker, d. b. a. Elan-Schaltelemente Kurt Maecker oHG., Dusseldorf, Germany. SN 7,359. Filed P. R. 4–30–56. Am. S. R. 3–17–57.

MAECKER

Priority claimed under Sec. 44(d) on German application filed Oct. 29, 1955; Reg. No. 689,834, dated Apr. 19, 1956.
For Electrical Switching Apparatus, Particularly Limit Switches, Push Buttons, Push Button Keys, Signal Lamps, Control Boxes for the Electrical Equipment of Machines, Particularly Machine Tools.

Class 32 — Furniture and Upholstery

662,715. Wood-Metal Industries, Inc., Kreamer, Pa. SN 645. Filed P. R. 1–12–56. Am. S. R. 3–19–58.

FOR THOSE WHO DEMAND THE FINEST

For Kitchen Equipment of Wood, Fiberboard, Metal, Linoleum, Formica, Porcelain, Vinyl Plastics, and Combinations Thereof—Namely, Wall Cabinets, Base Cabinets, Broom Cabinets, Linen Cabinets, Sink Fronts and Compartments, Undersink Cabinets, Cabinet Fillers, Valances, Side Wall and Corner Shelves, and Counter Tops for Sink Cabinets.
First use May 1948.

662,716. American Foam Rubber Corp., Burlington, N. J. SN 28,316. Filed P. R. 4–17–57. Am. S. R. 3–26–58.

BUTT'N-OUT

For Cushions.
First use Mar. 22, 1957.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

662,717. The Goodyear Tire & Rubber Company, Akron, Ohio. SN 27,433. Filed P. R. 4–3–57. Am. S. R. 3–21–58.

POLICE SPECIAL

For Tires.
First use Mar. 18, 1957.

Class 36 — Musical Instruments and Supplies

662,718. Charles Shultz, Shoemakersville, Pa. SN 38,092. Filed 9–30–57.

BASSTONE

For Guitars.
First use July 15, 1955.

Class 37 — Paper and Stationery

662,719. Flo-Ball Pen Corporation, Holland, Mich. SN 18,628. Filed P. R. 11–2–56. Am. S. R. 1–31–58.

Black Plume

For Ball Pens.
First use on or about Sept. 1, 1951.

662,720. Curt G. Joa, Inc., Sheboygan Falls, Wis. SN 21,813. Filed P. R. 12-28-56. Am. S. R. 3-3-58.

PAK AD

For Pads for Cushioning During Shipment.
First use Aug. 27, 1956.

662,721. Radiant Color Company, Oakland, Calif. SN 23,744. Filed P. R. 2-4-57. Am. S. R. 11-22-57.

SUN-TESTED

For Fluorescent Paper.
First use Sept. 7, 1956.

Class 38 — Prints and Publications

662,722. Audiocom, Inc., Great Barrington, Mass. SN 39,773. Filed 10-30-57.

Hi Fi

For Bulletin or Periodical.
First use Aug. 16, 1955.

Class 39 — Clothing

662,723. Diplomat Tie Company, Baltimore, Md. SN 3,929. Filed P. R. 3-6-56. Am. S. R. 4-14-58.

TIE-LOCK

For Neckties.
First use on or about Feb. 23, 1956.

662,724. Piedmont Shirt Company, Greenville, S. C. SN 26,201. Filed P. R. 3-14-57. Am. S. R. 3-27-58.

TAPERED TAILORING

For Men's and Boys' Shirts, Pajamas, Jackets, and Slacks.
First use Mar. 11, 1957.

662,725. Juliana Lingerie, Inc., New York, N. Y. SN 26,361. Filed P. R. 3-18-57. Am. S. R. 3-28-58.

LA FEMME LINGERIE

For Lingerie—Namely, Ladies' and Misses' Slips, Petticoats, Nightgowns, Bedroom Jackets, Housecoats, and Negligees.
First use Feb. 25, 1957.

Class 40 — Fancy Goods, Furnishings, and Notions

662,726. The Gillette Company, d. b. a. Bobbi Cosmetics, Boston, Mass. SN 26,936. Filed P. R. 3-26-57. Am. S. R. 4-2-58.

CASUAL

For Non-Electric Hair Curlers Not Made of Precious Metal.
First use Oct. 8, 1956.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

662,727. The Linette Co., Inc., New York, N. Y. SN 33,518. Filed 7-8-57.

IRON-PROOF

For Canvas Interlining Fabrics in the Piece.
First use June 9, 1936.

662,728. The Kendall Company, Boston, Mass. SN 38,825. Filed 10-14-57.

KENDALL

For Rug and Carpet Underlay.
First use Mar. 26, 1956.

Class 46 — Foods and Ingredients of Foods

662,729. Rosenberg Bros. & Co., Inc., d. b. a. Arnold Hoover Company, San Francisco, Calif. SN 32,415. Filed P. R. 6-21-57. Am. S. R. 1-22-58.

10 MINUTE

For Dried Fruits.
First use in 1948.

Class 51 — Cosmetics and Toilet Preparations

662,730. Revlon, Inc., New York, N. Y. SN 27,137. Filed P. R. 3-28-57. Am. S. R. 2-27-58.

PERSIAN MELON

For Lipstick and Nail Enamel.
First use Feb. 25, 1957.

TRADEMARK REGISTRATIONS RENEWED

121,413. CRAVENETTE. Cl. 42. 4-30-18.
121,559. COTTAGE. Cl. 46. 5-X-18.
122,123. MIRRO A. G. M. CO. AND DESIGN. Cl. 13. 7-2-18.
354,109. FREIGHTMASTER. Cl. 19. 2-1-38.
355,837. SILVER SEAL. Cl. 46. 4-5-38.
355,858. SYLMAR AND DESIGN. Cl. 46. 4-5-38.
355,897. MACDOUGAL IMPORTS AND DESIGN. Cl. 39. 4-5-38.
356,061. THE PATERSON EVENING NEWS. Cl. 38. 4-12-38.
356,235. TECNIK. Cl. 52. 4-19-38.
356,276. SPEEDROCK. Cl. 44. 4-19-38.
356,391. CARNET DE BAL. Cl. 51. 4-26-38.
356,571. CHAMOISINE. Cl. 42. 5-3-38.
356,995. "SUNI-BEST" ETC. Cl. 46. 5-24-38.

TRADEMARK REGISTRATIONS CANCELED

Section 8

309,865. STE. PIERRE SMIRNOFF FLS AND DESIGN. Cl. 45. 2-6-34.
373,319. BABETTE. Cl. 39. 12-5-39.
373,722. ROCKIN-EEZ ETC. AND DESIGN. Cl. 32. 12-19-39.

396,998. RESTIN-EEZ. Cl. 32. 8-11-42.
538,100. ROYAL COACH AND DESIGN. Cl. 4. 2-20-51.
539,729. SPARKLING AND DESIGN. Cl. 46. 3-20-51.

The following registrations issued Apr. 15, 1952

557,450. GAUZE AND DESIGN. Cl. 37.
557,451. GASA. Cl. 37.
557,457. OATREX. Cl. 46.
557,458. FRESH-WAXT AND DESIGN. Cl. 38.
557,461. SNOW-FALL. Cl. 46.
557,466. KWIK-SHAVE. Cl. 23.
557,467. TABOURAID. Cl. 2.
557,469. TEMFAST. Cl. 23.
557,474. AEROCILIN. Cl. 18.
557,476. THE AIRE-WARE LINE AND UAP IN CIRCLE. Cl. 13.
557,479. TALK TIMER. Cl. 26.
557,482. WYCO. Cl. 13.
557,488. SOL-AD AND DESIGN. Cl. 18.
557,490. OVR-NITE. Cl. 44.
557,493. CLECO HANDI DRILL AND DESIGN. Cl. 23.
557,496. TOMATO SUPREME. Cl. 46.
557,499. COLUMBIA. Cl. 13.
557,501. RITE. Cl. 13.
557,503. CARESSUEDE. Cl. 42.
557,506. CHEMSTRAND. Cl. 42.
557,512. RED AND BLUE PANEL DESIGN. Cl. 37.
557,522. VALERITAL. Cl. 18.
557,528. MRS. A. C. CORDRAY. Cl. 50.
557,530. LOCKERATOR. Cl. 31.
557,533. RETLIF MULTI-COIL AND DESIGN. Cl. 37.
557,536. PURSE-NALIZED. Cl. 51.
557,537. MULTI-BLOX. Cl. 50.
557,538. B-SAFE. Cl. 26.
557,540. LINDIBOLT. Cl. 13.
557,545. REPRESENTATION OF A WOMAN. Cl. 42.
557,546. BATH BOUQUET. Cl. 2.
557,547. TRIZONA. Cl. 23.
557,555. REPRESENTATION OF A MAN IN UNIFORM WITH GUN. Cl. 39.
557,557. RAVE DISCOVERER. Cl. 38.
557,562. SILBRO. Cl. 28.
557,571. C. C. IN CIRCLE HELD BY HAND. Cl. 28.
557,575. MERI MARR ORIGINAL AND DESIGN. Cl. 39.
557,577. SOUTH BEND SOLOMASTER. Cl. 12.
557,580. ULTRA-LINE. Cl. 1.
557,584. PACKARD. Cl. 39.
557,585. PACKARD CASUAL. Cl. 39.
557,586. DESIGN OF HORSE AND RIDER. Cl. 46.
557,588. CONEY CANOE. Cl. 2.
557,592. C-I-L WITHIN DESIGN. Cl. 6.
557,595. DANBURY AND DESIGN. Cl. 50.
557,598. CONFETES. Cl. 18.
557,600. CAP-TUR-NECK. Cl. 39.
557,608. BLUEITES. Cl. 46.
557,616. GINTER PARK. Cl. 39.
557,617. THE ELVES. Cl. 29.
557,621. VARICK. Cl. 52.
557,625. MICROSOLITE. Cl. 6.
557,627. F. O. E. AND PICTURE OF EAGLE AND WOMAN'S HEAD. Cl. 39.
557,628. F. O. E. AND PICTURE OF EAGLE. Cl. 39.
557,631. AMERICAN TRIUMPH. Cl. 28.
557,638. SANI-SEAL. Cl. 13.
557,641. KRONENADLER. Cl. 50.
557,645. EGRESAMIDE. Cl. 18.
557,646. SITUCAINE. Cl. 18.
557,647. SAVAGE AND DESIGN. Cl. 23.
557,649. ESCALATOR. Cl. 40.
557,651. UAS. Cl. 37.
557,659. FYTERS. Cl. 18.
557,669. ORLANEX. Cl. 18.
557,675. DUPLIFORM. Cl. 23.
557,676. KRAD-L CURLER. Cl. 40.
557,678. CONA-ONE. Cl. 6.
557,684. DUO. Cl. 39.
557,685. SNAP-A-PLEAT. Cl. 40.
557,688. ANCHOR CHIEF AND DESIGN. Cl. 40.
557,690. FLORIDA CLUB. Cl. 46.
557,693. REPRESENTATION OF A FIGURE. Cl. 46.
557,694. BIG-SHOP. Cl. 23.
557,695. BIG SHOP AND DESIGN. Cl. 23.
557,699. UTILAWARE AND DESIGN. Cl. 2.
557,700. PARASCOPE. Cl. 2.
557,702. TWIZ. Cl. 44.
557,707. SUNRUCO. Cl. 23.
557,709. SANDWIG. Cl. 39.
557,713. METROCLIP. Cl. 37.
557,714. BARFAIR. Cl. 6.
557,717. SIXIDE. Cl. 6.
557,720. NIZO. Cl. 26.
557,721. BIG STAR AND DESIGN. Cl. 46.
557,723. DYOXOLATE. Cl. 6.
557,729. RECLINO-SPECS. Cl. 26.
557,743. FLEX-O. Cl. 13.
557,744. MERCURY AND DESIGN. Cl. 13.
557,749. BARKER. Cl. 21.
557,752. HIGHWAYS TO GOOD FOOD AND DESIGN. Cl. 101.
557,754. GET IT FROM YOUR JOBBER AND DESIGN. Cl. 101.
557,758. HAPPINESS TOURS INTERNATIONAL. Cl. 105.
557,760. ELASTIC BONING. Cl. 39.
557,761. XTRA FINE. Cl. 46.
557,762. VERIFINE. Cl. 46.
557,763. CRANE-LINE—THE ORIGINAL PLUMBER-LINE. Cl. 34.
557,767. GYM-EASE. Cl. 39.
557,768. SMIRNOFF. Cl. 46.
557,769. PARKER TRAV-A-CORNICE. Cl. 12.
557,772. TRACERY. Cl. 28.
557,779. 'DRAINAWAY.' Cl. 33.
557,781. HILLSBORO. Cl. 46.
557,785. NILGIRI. Cl. 46.
557,786. FENTON'S FEEDERS. Cl. 50.
557,787. VENT-AIRE. Cl. 12.
557,789. SCHIFFLI CREATORS GUILD WITHIN DESIGN. Cl. 42.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 2 — Receptacles

435,951. Jan. 20, 1948. Continental Can Company, Inc., New York, N. Y. Pub. by registrant.

For Containers—Namely, Cups, and Shipping, Storing and Packing Cartons and Boxes Made Principally of Paper or Cardboard

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

398,503. Nov. 3, 1942. Enger Kress Company, West Bend, Wis. Pub. by Enger-Kress Company, West Bend, Wis.

Swing-it

For Leather Billfolds Equipped With a Removable Memorandum Book.

Class 6—Chemicals and Chemical Compositions

267,375. Feb. 18, 1930. Florasynth Laboratories, Inc., New York, N. Y. Pub. by registrant.

SALVINOL

For Aromatic Chemical Solvents for Essential Oils, Including Esters, Ethers, Aldehydes, and Ketones Used Individually and in Combination With Each Other for the Manufacture of Food-Flavoring Extracts.

377,553. May 7, 1940. David Crampton, d. b. a. Highside Chemicals Company, Newark, N. J. Pub. by Highside Chemicals Incorporated, Clifton, N. J.

THAWZONE

For Liquid Dehydrant for Refrigerants.

418,762. Jan. 8, 1946. David Crampton, d. b. a. Highside Chemicals Company, Newark, N. J. Pub. by Highside Chemicals Incorporated, Clifton, N. J.



For Chemical Preparation for Detecting Leaks in Fluid Systems.

Class 12—Construction Materials

389,857. Aug. 26, 1941. McGrew Paint & Asphalt Co., Chicago, Ill. Pub. by Insul-Mastic Inc., Summit, Ill.



For Asphaltic Compound for Sealing, Insulating, or Waterproofing Exterior and Interior Surfaces.

438,210. Apr. 13, 1948. Ajax Floor Products Corporation, Clifton, N. J. Pub. by registrant.

FLASH PATCH

For Dry, Powder-Form, Watermix Patching Materials for Use on Wood, Concrete, Plaster, Tile Floors, and Walls.

444,711. Aug. 5, 1952. Ajax Floor Products Corporation, Clifton, N. J. Pub. by registrant.

AJAX

For Asphaltic Mastic Compound for Floor Resurfacing and as Underlayment for Setting Linoleum or Other Floor Covering Material.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

370,058. Aug. 15 1939. Hepworth & Grandage Limited, Bradford, England. Pub. by registrant.

HEPLEX

For Engine Pistons.

424,864. Oct. 29, 1946. Continental Can Company, Inc., New York, N. Y. Pub. by registrant.



For Can Making Machines.

Class 28—Jewelry and Precious-Metal Ware

47,551. Nov. 7, 1905. Towle Manufacturing Company, Newburyport, Mass. Pub. by registrant.



For Table Silverware.

Class 36—Musical Instruments and Supplies

356,951. May 17, 1938. Winter & Co., New York, N. Y. Pub. by Winter & Company, Inc., New York, N. Y.

PRACTIANO

For Mufflers for Pianos, Organs and the Like.

Class 38—Prints and Publications

353,533. Jan. 11, 1938. Advertising Publications Incorporated, Chicago, Ill. Pub. by registrant.

THE MARKET DATA BOOK

For Annual Publication Relating to Periodicals.

355,656. Mar. 22, 1938. National Industrial Publishing Co., Pittsburgh, Pa. Pub. by registrant.

Industrial Ovens

For Department or Section of a Magazine.

Class 39—Clothing

15,153. Jan. 31, 1888. Lincoln Bennett & Co., London, England. Pub. by Lincoln, Bennett & Co., Limited, London, England.

LINCOLN BENNETT & Co

For Hats, Caps, and Helmets.

15,154. Jan. 31, 1888. Lincoln Bennett & Co., London, England. Pub. by Lincoln, Bennett & Co., Limited, London, England.



For Hats, Caps, and Helmets.

282,239. Apr. 14, 1931. Field & Flint Co., Brockton, Mass. Pub. by registrant.



For Shoes of Leather and Combinations of Leather and Fabric.

351,948. Nov. 16, 1937. Sears, Roebuck and Co., Chicago, Ill. Pub. by registrant.



For Men's Shoes Formed of Leather, Fabric, and Combinations of the Same.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

168,403. May 22, 1923. Philadelphia Rug Mills, Inc., Philadelphia, Pa. Pub. by The Wool "O" Company, Philadelphia, Pa.

Wool "O"

For Wool Rugs.

Class 44—Dental, Medical, and Surgical Appliances

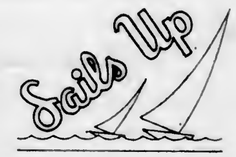
353,381. Jan. 4, 1938. "Sodeco" Société des Compteurs de Genève, Geneva, Switzerland. Pub. by registrant.

VIBROSAN

For Alternating Current Driven Vibrating Massaging Device.

Class 45—Soft Drinks and Carbonated Waters

363,901. Jan. 10, 1939. John Martin Rodgers, Vallejo, Calif. Pub. by registrant.



For Non-Alcoholic, Non-Cereal, Maltless Beverages Sold as Soft Drinks and Sirups and Extracts for Making the Same.

Class 46 — Foods and Ingredients of Foods

179,375. Feb. 5, 1924. Lillie Mill Company, Franklin, Tenn. Pub. by Nebraska Consolidated Mills Company, Omaha, Nebr.



For Wheat Flour.

286,411. Aug. 25, 1931. Florasynth Laboratories, Inc., New York, N. Y. Pub. by registrant.



VANILLIC ESTER

For Synthetic Organic Products for Use in Vanilla Flavors, Food Flavoring Compounds, and for General Food Flavoring Purposes.

306,480. Sept. 19, 1933. Victorias Milling Company, Inc., Manila, Philippine Islands. Pub. by registrant.

VICTORIAS

For Refined Sugar.

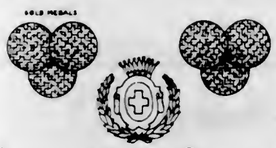
399,947. Feb. 9, 1943. Allied Mills, Inc., Chicago, Ill. Pub. by Wayne Feed Supply Co., Inc., Chicago, Ill.



For Feeds for Live Poultry.

Class 47 — Wines

398,146. Oct. 13, 1942. Italian Swiss Colony, San Francisco, Calif. Pub. by registrant.



ITALIAN SWISS COLONY

For Wines.

401,028. Apr. 20, 1943. Italian Swiss Colony, San Francisco, Calif. Pub. by registrant.

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Class 50 — Merchandise Not Otherwise Classified

355,235. Mar. 8, 1938. Glassips, Inc., Towson, Md. Pub. by registrant.

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McGrew Paint & Asphalt Co.
International Business Machines Corp., New York, N. Y. 662,533, pub. 3–18–58. Cl. 23.
International Heater Co., Utica, N. Y. 662,582, pub. 3–18–58. Cl. 34.
International Minerals & Chemical Corp., Chicago, Ill. 662,424, pub. 4–16–57. Cl. 10.
International Service Association: *See*—
Kirby, Donald R.
International Silver Co., The, Meriden, Conn. 662,556, pub. 3–18–58. Cl. 28.
International Silver Co., The, Meriden, Conn. 662,558–60, pub. 3–18–58. Cl. 28.
International Silver Co., The, Meriden, Conn. 662,562–3, pub. 3–18–58. Cl. 28.
Italian Swiss Colony, San Francisco, Calif. 398,146, 12(c) pub. 6–3–58. Cl. 47.
Italian Swiss Colony, San Francisco, Calif. 401,028, 12(c) pub. 6–3–58. Cl. 47.
J-M Trading Corp., Chicago, Ill. 662,416, pub. 3–18–58. Cl. 7.
Jackson-Mitchell Pharmaceuticals, Inc.: *See*—
Special Milk Products, Inc.
Jacoby-Bender, Inc., New York, N. Y. 557,631, canc. Cl. 28.
Jos. Curt G., Inc., Sheboygan Falls, Wis. 662,720. Cl. 37.
Johnston's Products, Los Angeles, Calif. 662,470–1, pub. 3–18–58. Cl. 18.
Jones, Ed., New Orleans, La. 662,479, pub. 3–18–58. Cl. 18.
Juliana Lingerie, Inc., New York, N. Y. 662,725. Cl. 39.
Kashins, Lou, New York, N. Y. 557,467, canc. Cl. 2.
Kaufmann Department Stores, Inc., Pittsburgh, Pa. 373,319, canc. Cl. 39.
Keasbey & Mattison Co., Ambler, Pa. 662,586, pub. 3–18–58. Cl. 35.
Kemperdick, Rugard, & Co., Porz near Cologne, Rhine, Germany. 662,474, pub. 3–18–58. Cl. 18.
Kendall Co., The, Boston, Mass. 662,728. Cl. 42.
Kendall Oil Co., Chattanooga, Tenn. 662,459, pub. 3–18–58. Cl. 15.
Kennedy & Kennedy Co., Chicago, Ill. 662,596, pub. 3–18–58. Cl. 37.
Kent, Alla, New York, N. Y. 557,709, canc. Cl. 39.
Kienzle Apparate G. m. b. H., Villingen/Schwarzwald, Germany. 662,542, pub. 3–18–58. Cl. 26.
King, George, & Co. Ltd., London, England. 557,457, canc. Cl. 46.
Kirby, Donald R., d. b. a. International Service Association, Champaign, Ill. 557,752, canc. Cl. 101.
Kirby, E. F., Co.: *See*—
Kirby, Edward F.
Kirby, Edward F., d. b. a. E. F. Kirby Co., North Hollywood, to Hi-Temp Safety Control Inc., Glendale, Calif. 662,541, pub. 1–14–58. Cl. 26.
Knapp-Monarch Co., St. Louis, Mo. 557,466, canc. Cl. 23.
Knox Co., The, Los Angeles, Calif. 662,466, pub. 3–18–58. Cl. 18.
Konaka, Seiki, Chuo-ku, Tokyo, Japan. 662,408, pub. 3–18–58. Cl. 6.
Krad-L Laboratory, Reading, Pa. 557,676, canc. Cl. 40.
Kramer, Irving, Hartford, Conn. 662,536, pub. 3–18–58. Cl. 23.
Kummer, Ed., AG, (Ariston Inventic) Uhrenfabrik Bettlach (Ed. Kummer S. A. (Ariston Inventic) Fabrique d'Horlogerie de Bettlach) (Ed. Kummer Ltd. (Ariston Inventic) Watch Co. Bettlach) (Ed. Kummer S. A. (Ariston Inventic) Fabbrica d'orologeria di Bettlach), Bettlach, Switzerland. 662,554, pub. 3–18–58. Cl. 27.
Lackawanna Leather Co., The, Hackettstown, N. J. 662,402, pub. 3–18–58. Cl. 1.
Landsdale Clothes: *See*—
Gladstone, Leonard J.
La Resista Corset Co., The, Bridgeport, Conn. 557,760, canc. Cl. 39.
La Salle National Bank, Chicago, Ill. 662,704, pub. 3–18–58. Cl. 102.
Lawrence, W. W., & Co., Pittsburgh, Pa. 662,460, pub. 3–11–58. Cl. 16.
Leggett, Francis H., & Co., New York, N. Y. 557,621, canc. Cl. 52.
Leinweber, Fred H., d. b. a. F. H. Leinweber Co., Chicago, Ill. 662,432, pub. 3–18–58. Cl. 12.
Leinweber, F. H., Co.: *See*—
Leinweber, Fred H.
Leisure Lads, Inc., Salisbury, N. C. 662,607, pub. 5–1–56 Cl. 39.
Libbey-Owens-Ford Glass Co., Toledo, Ohio. 662,579, pub. 3–18–58. Cl. 33.
Libby, McNeil & Libby, Chicago, Ill. 121,559, ren. 5–7–58. Cl. 46.
Lightolier, Inc., New York, N. Y. 662,510, pub. 3–18–58. Cl. 21.
Lillie Mill Co., Franklin, Tenn., by Nebraska Consolidated Mills Co., Omaha, Nebr. 179,375, 12(c) pub. 6–3–58. Cl. 46.
Lincoln Bennett & Co., by Lincoln, Bennett & Co., Ltd., London, England. 15,153, 12(c) pub. 6–3–58. Cl. 39.
Lincoln Bennett & Co., by Lincoln, Bennett & Co., Ltd., London, England. 15,154, 12(c) pub. 6–3–58. Cl. 39.
Lincoln, Bennett & Co., Ltd.: *See*—
Lincoln Bennett & Co.
Lindsay, Henry, Ltd., Bradford, England. 557,540, canc. Cl. 13.
Linette Co., Inc., The, New York, N. Y. 662,727. Cl. 42.
Linak of Philadelphia, Inc., Philadelphia, Pa. 662,616, pub. 3–18–58. Cl. 39.
Lord Jeff Knitting Co., Inc., Maspeth, N. Y. 662,618, pub. 3–18–58. Cl. 39.
M B Cosmetics and Moisture Bloom Cosmetics: *See*—
McHam, Jesse F.
Maecker, Kurt, Dusseldorf, Germany. 662,714. Cl. 21.
Maguire, Walter, Co., Inc., New York, N. Y. 662,442, pub. 3–18–58. Cl. 12.
Mansfield Industries, Inc., Chicago, Ill. 662,549, pub. 3–18–58. Cl. 26.
Marco Co., Inc., Wilmington, Del. 557,638, canc. Cl. 13.
Marcus Window Display Service, Inc., d. b. a. J. P. Denton, Boston, Mass. 662,569, pub. 3–18–58. Cl. 32.
Marglen, Juliette, Inc., Ridgefield, N. J., now by change of name to Juliette Marglen, Inc. 662,695, pub. 3–18–58. Cl. 51.
Marine Electrolysis Eliminator Co.: *See*—
Cheadle, Arley.
Marine Paint & Varnish Co., Inc., New Orleans, La. 662,463, pub. 3–18–58. Cl. 16.
Massachusetts Mineral and Mfg. Co., Inc., Penbody, Mass. 662,435, pub. 3–18–58. Cl. 12.
Maxson Instruments Corp., Long Island City, to The W. L. Maxson Corp., New York, N. Y. 662,508, pub. 3–18–58. Cl. 21.
Maxson, W. L., Corp., The: *See*—
Maxson Instruments Corp.
Mayer, Oscar, & Co., Inc., Chicago, Ill. 662,511, pub. 3–18–58. Cl. 22.
McDonough Power Equipment, Inc., McDonough, Ga. 662,530, pub. 4–18–58. Cl. 23.
McGrew Paint & Asphalt Co., Chicago, by Insul-Mastic, Inc., Summit, Ill. 389,857, 12(c) pub. 6–3–58. Cl. 12.
McHam, Jesse F., d. b. a. M B Cosmetics and Moisture Bloom Cosmetics, Los Angeles, Calif. 662,697, pub. 3–18–58. Cl. 51.
Meat Industry Suppliers, Inc., Chicago, Ill. 662,672, pub. 3–18–58. Cl. 46.
Medicated Products Co., Chicago, Ill. 662,561, pub. 3–18–58. Cl. 28.
Meinig, E. Richard, Co., The, Reading Pa. 557,503, canc. Cl. 42.
Meri Marr Blouse Co., Brodheadsville, Pa. 557,575, canc. Cl. 39.
Merit Clothing Co., Mayfield, Ky. 662,633, pub. 3–18–58. Cl. 39.
Merkel & Co., Esslingen/Neckar, Germany. 662,649, pub. 3–18–58. Cl. 43.
Metropolitan Photo Co.: *See*—
Mosberg, Paul J.
Midwest Fibre Co., Sheboygan, Wis. 373,722, canc. Cl. 32.
Midwest Fibre Co., d. b. a. Midwest Furniture Co., Sheboygan, Wis. 396,998, canc. Cl. 32.
Midwest Furniture Co.: *See*—
Midwest Fibre Co.
Mill Agents and Distributors, Inc., Oakland, Calif. 557,458, canc. Cl. 38.
Miller Hatchery, Waverly, Iowa. 557,580, canc. Cl. 1.
Minnesota Retail Hardware Association, Minneapolis, Minn. 557,743, canc. Cl. 13.
Mirro Aluminum Co.: *See*—
Aluminum Goods Mfg. Co.
Models Publishing Co., Inc., New York, N. Y. 557,557, canc. Cl. 38.
Modern Mfg. Inc., Worcester, Mass. 662,514, pub. 3–18–58. Cl. 22.

Monarch Rug Mills, Inc., Dalton, Ga. 662,646, pub. 3–18–58. Cl. 42.
Moreland Corp., The, Willow Grove, Pa. 662,524, pub. 3–18–58. Cl. 23.
Morgan, J. E., Knitting Mills, Inc., Tamaqua, Pa. 662,624, pub. 3–18–58. Cl. 39.
Mosberg, Paul J., d. b. a. Metropolitan Photo Co., Seattle, Wash. 557,713, canc. Cl. 37.
Moxley Massage Equipment Co., Inc., Los Angeles, Calif. 662,656, pub. 3–18–58. Cl. 44.
Muro Pharmacal Laboratories Inc., Boston, Mass. 662,475, pub. 3–18–58. Cl. 18.
Mutual Fertilizer Co., Savannah, Ga., to Hydro-Pak Co. 662,425, pub. 3–18–58. Cl. 10.
Mutual Orange Distributors, to Pure Gold, Inc., Redlands, Calif. 355,837, ren. 4–5–58. Cl. 46.
Myers, Roger L., d. b. a. Monopoles Alfred Rothschild, Beaune, France. 662,688, pub. 3–18–58. Cl. 49.
N. V. Vereenigde Touwfabrieken (United Ropeworks), Rotterdam, Netherlands. 662,712. Cl. 7.
National Industrial Publishing Co., Pittsburgh, Pa. 355,656, 12(c) pub. 6–3–58. Cl. 38.
National Lead Co., New York, N. Y. 662,453, pub. 3–18–58. Cl. 14.
National Peanut Corp., Wilkes-Barre, Pa. 662,678, pub. 3–18–58. Cl. 46.
National Plastics, Inc., Knoxville, Tenn. 662,520, pub. 3–18–58. Cl. 23.
National Sanitary Sales, Inc., Chicago, Ill. 662,659–61, pub. 3–18–58. Cl. 44.
National Silver Co., New York, N. Y. 557,772, canc. Cl. 28.
Nebraska Consolidated Mills Co.: *See*— Lillie Mill Co.
Neiman-Marcus, Dallas, Tex. 557,617, canc. Cl. 29.
Neon Products, Inc., Lima, Ohio. 662,505, pub. 3–18–58. Cl. 21.
Nestle-Lemur Co., The, New York, N. Y. 662,693, pub. 3–18–58. Cl. 51.
New Era Co., The, Lancaster, Pa. 662,600, pub. 3–18–58. Cl. 38.
New Faces, Inc., New York, N. Y. 662,707, pub. 3–18–58. Cl. 107.
News Printing Co., Paterson, N. J. 356,061, ren. 4–12–58. Cl. 38.
North American Rayon Corp., New York, N. Y. 662,650–1, pub. 3–18–58. Cl. 43.
Northern Paper Mills, Green Bay, Wis. 557,450, canc. Cl. 37.
Northern Paper Mills, Green Bay, Wis. 557,451, canc. Cl. 37.
Norton Pike Co., Littleton, N. H. 662,406, pub. 3–18–58. Cl. 4.
Odek Sales Corp., New York, N. Y. 662,612, pub. 3–18–58. Cl. 39.
Olen Co. Inc., The, Mobile, Ala. 662,625, pub. 3–18–58. Cl. 39.
Optische Werke G. Rodenstock, Munich, Germany. 662,540, pub. 2–18–58. Cl. 26.
Organon Inc., Orange, N. J. 662,487, pub. 3–18–58. Cl. 18.
Oriental Dairy Products Co.: *See*— Guttman, William.
Oxford, Ltd., Chicago, Ill. 662,572, pub. 3–18–58. Cl. 32.
Pacific Car and Foundry Co., Renton, Wash. 662,491, pub. 3–18–58. Cl. 19.
Pacific Mills Domestics Corp., New York, N. Y. 662,641, pub. 3–18–58. Cl. 42.
Packard Dresses, Inc., New York, N. Y. 557,584, canc. Cl. 39.
Packard Dresses, Inc., New York, N. Y. 557,585, canc. Cl. 39.
Papercraft Corp., The, Pittsburgh, Pa. 662,597, pub. 3–18–58. Cl. 37.
Parfums Blanchard, New York, N. Y. 662,701, pub. 3–18–58. Cl. 51.
Parker-Hughes Corp., Philadelphia, Pa. 557,769, canc. Cl. 12
Parsons Corp.: *See*— Chris-Craft Corp.
Patroon Broadcasting Co., Albany, N. Y. 662,708, pub. 3–18–58. Cl. 107.
Peerless Elevator Service, Inc., New York, N. Y. 662,529, pub. 3–18–58. Cl. 23.
Perfect Circle Corp., Hagerstown, Ind. 662,605, pub. 3–18–58. Cl. 38.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 662,468, pub. 3–18–58. Cl. 18.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 662,480–3, pub. 3–18–58. Cl. 18.
Philadelphia Rug Mills, Inc., by The Wool "O" Co., Philadelphia, Pa. 168,403, 12(c) pub. 6–3–58. Cl. 42.
Phillips-Jones Corp., New York, N. Y., now by change of name Phillips-Van Heusen Corp. 662,613, pub. 3–18–58. Cl. 39.
Phillips-Van Heusen Corp.: *See*— Phillips-Jones Corp.
Piedmont Shirt Co., Greenville, S. C. 662,724. Cl. 39.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 662,567, pub. 3–18–58. Cl. 31.
Place Homes, Inc., South Bend, Ind. 662,429, pub. 3–11–58. Cl. 12.
Plantation Garden Products, Boynton Beach, Fla. 662,389, pub. 3–18–58. Cl. 1.
Planters Nut & Chocolate Co., Wilkes-Barre, Pa. 662,674, pub. 3–18–58. Cl. 46.
Plas-Ties Co., Santa Ana, Calif. 662,417, pub. 3–18–58. Cl. 7.
Platt Brothers (Sales) Ltd., Oldham, Lancashire, England. 557,547, canc. Cl. 23.
Plummer, W. A., d. b. a. Walter A. Plummer Co., Los Angeles, Calif. 662,691, pub. 3–18–58. Cl. 50.
Polymer Engineering Corp., Houston, Tex. 662,497, pub. 3–18–58. Cl. 19.
Portage Hosiery Co., d. b. a. Big Ten Hosiery Co., Portage, Wis. 662,628, pub. 3–18–58. Cl. 39.
Power Products Corp., Kansas City, Mo. 662,502, pub. 3–11–58. Cl. 21.
Premo Pharmaceutical Laboratories, Inc., South Hackensack, N. J. 557,779, canc. Cl. 33.
Procter & Gamble Co., The, Cincinnati, Ohio. 662,700, pub. 3–18–58. Cl. 51.
Progress Industries, Inc., Norwood, R. I. 662,545, pub 3–18–58. Cl. 26.
Protex Products Co., Inc., New York, N. Y. 557,700, canc. Cl. 2.
Pure Gold, Inc.: *See*— Mutual Orange Distributors.
Radiant Color Co., Oakland, Calif. 662,721. Cl. 37.
Ransburg, Harper J., Co., Inc., Indianapolis, Ind. 557,546, canc. Cl. 2.
Rarolite Chemical Co. Inc., Middlesex, N. J. 662,407, pub. 3–18–58. Cl. 5.
Rarolite Chemical Co. Inc., Raritan, N. J. 662,409, pub. 3–18–58. Cl. 6.
Reda Pump Co., Bartlesville, Okla. 662,535, pub. 3–18–58. Cl. 23.
Reed Roller Bit Co., Houston, Tex. 557,493, canc. Cl. 23.
Reliance Chemicals Corp., Houston, Tex. 662,457, pub. 3–18–58. Cl. 15.
Resetar Produce Co., Watsonville, Calif. 557,721, canc. Cl. 46.
Retlif Corp., Hollywood, Calif. 557,533, canc. Cl. 37.
Revlon, Inc., New York, N. Y. 662,730. Cl. 51.
Reynolds & Reynolds Co., The, Dayton, Ohio. 557,651, canc. Cl. 37.
Riverside Citrus Association, Riverside, Calif. 557,761, canc. Cl. 46.
Riverside Citrus Association, Riverside, Calif. 557,762, canc. Cl. 46.
Robinson Syrup & Canning Co.: *See*— Robinson Syrup Co., Inc.
Robinson Syrup Co., Inc., d. b. a. Robinson Syrup & Canning Co., Cairo, Ga. 662,670, pub. 3–18–58. Cl. 46.
Rodgers, John M., Vallejo, Calif. 363,901, (12c) pub. 6–3–58. Cl. 45.
Romer, Robert, Vallejo, Calif. 662,490, pub. 3–18–58. Cl. 19.
Rose, Sonya, Beverly Hills, Calif. 557,536, canc. Cl. 51.
Rosenberg Bros. & Co., Inc., d. b. a. Arnold Hoover Co., San Francisco, Calif. 662,729. Cl. 46.
Rosenthal, David B., d. b. a. S. & R. Surplus Sales, Terre Haute, Ind. 557,555, canc. Cl. 39.
Rotchford, J. Stuart, Travel Service: *See*— Happiness Tours.
Royal Coach Products, Compton, Calif. 538,100, canc. Cl. 4.
Royal McBee Corp., Port Chester, N. Y. 662,428, pub. 3–18–58. Cl. 11.
S. & R. Surplus Sales: *See*— Rosenthal, David B.
San Francisco Brewing Corp., San Francisco, Calif., now by change of name to Burgermeister Brewing Corp. 662,687, pub. 12–3–57. Cl. 48.
Sanitol, Inc., Lafayette, Ind. 662,449, pub. 3–18–58. Cl. 13.
Savage Bros. Co., Chicago, Ill. 557,647, canc. Cl. 23.
Scarves By Vera, Inc., New York, N. Y. 557,684, canc. Cl. 39.
Schaper Mfg. Co., Inc., Minneapolis, Minn. 662,512, pub. 3–18–58. Cl. 22.
Schenley Laboratories, Inc., New York, N. Y. 557,598, canc. Cl. 18.
Schenley Laboratories, Inc., New York, N. Y., now by change of name Schen Labs Pharmaceuticals, Inc. 662,469, pub. 3–18–58. Cl. 18.
Searle, G. D., & Co., Skokie, Ill. 662,478, pub. 3–18–58. Cl. 18.
Sears, Roebuck and Co., Chicago, Ill. 351,948, 12(c) pub. 6–3–58. Cl. 39.
Sears, Roebuck and Co., Chicago, Ill. 662,513, pub. 3–18–58. Cl. 22.
Sexauer Co., The, Brookings, S. Dak. 662,395, pub. 3–18–58. Cl. 1.
Shain and Co., Inc., Boston, Mass. 662,644, pub. 3–18–58. Cl. 42.
Sharp & Dohme, Inc., Philadelphia, Pa. 557,645, canc. Cl. 18.
Sharp & Dohme, Inc., Philadelphia, Pa. 557,646, canc. Cl. 18.
Shelburne Shirt Co., Inc., New York, N. Y. 662,619, pub. 3–18–58. Cl. 39.
Shen Labs Pharmaceuticals, Inc.: *See*— Schenley Laboratories, Inc.
Shultz, Charles, Shoemakersville, Pa. 662,718. Cl. 36.
Silver Brothers, Atlanta, Ga. 557,562, canc. Cl. 28.
Smith, Kline & French Laboratories, Philadelphia, Pa. 557,669, canc. Cl. 18.
Smith, Murray, d. b. a. Data and Queensmith Associates, Arlington, Va. 662,598, pub. 3–18–58. Cl. 38.
Smoler Bros., Inc., Chicago, Ill. 662,611, pub. 3–18–58. Cl. 39.
Snyder & Black, New York, N. Y. 557,537, canc. Cl. 50.
Societa Anonima Snia Viscosa, Societa Nazionale Industria Applicazioni Viscosa, The, Milan, Italy. 662,393, pub. 3–18–58. Cl. 1.
Societe Anonyme Etablissements Caln-Byla, Paris, France. 662,467, pub. 2–11–58. Cl. 18.
Societe Anonyme Parfums Revillon, Paris, France. 356,391, ren. 4–26–58. Cl. 51.
"Sodeco" Societe Des Compteurs De Geneve, Geneva, Switzerland. 353,381, 12(c) pub. 6–3–58. Cl. 44.
Sorteberg Controls: *See*— Sorteberg, Johannes.
Sorteberg, Johannes, d. b. a. Sorteberg Controls, South Norwalk, Conn. 662,544, pub. 3–18–58. Cl. 26.
South Bend Lathe Works, South Bend, Ind. 557,577, canc. Cl. 12.
Sparkle Sales Corp., The, St. Paul, Minn. 539,729, canc. Cl. 46.

Special Milk Products, Inc., now by change of name Jackson-Mitchell Pharmaceuticals, Inc., West Los Angeles, Calif. 557,488, canc. Cl. 18.
Sperry Rand Corp., New Holland, Pa. 662,420, pub. 3–18–58. Cl. 7.
Spicknall, Inc., Hannibal, Mo. 557,694, canc. Cl. 23.
Spicknall, Inc., Hannibal, Mo. 557,695, canc. Cl. 23.
Ste. Pierre Smirnoff Fls, Inc., New York, N. Y. 309,865, canc. Cl. 45.
Ste. Pierre Smirnoff Fls, Inc., Hartford, Conn. 557,768, canc. Cl. 46.
St. Maurice Chemicals Ltd., Montreal, Quebec, Canada. 662,411, pub. 3–18–58. Cl. 6.
Stillman Rubber Co., Culver City, Calif. 662,706, pub. 2–11–58. Cl. 106.
Sun Rubber Co., The, Barberton, Ohio. 557,707, canc. Cl. 23.
Sylmar Packing Corp., Los Angeles, to Cristo Fusano & Sons, San Fernando, Calif. 355,858, ren. 4–5–58. Cl. 46.
Stanley & Stanley, Inc., New York, N. Y. 662,405, pub. 3–18–58. Cl. 3.
Star Woolen Co., Cohoes, N. Y. 662,394, pub. 3–18–58. Cl. 1.
Starke Design, Inc., Brooklyn, N. Y. 662,404, pub. 3–18–58. Cl. 2.
Steinman & Steinman, Inc., Lancaster, Pa. 662,601, pub. 3–18–58. Cl. 38.
Stein-Sulkir Shoe Co., Haverhill, Mass. 662,631, pub. 3–18–58. Cl. 39.
Sterling Drug Inc., New York, N. Y. 662,486, pub. 3–18–58. Cl. 18.
Stocker-Hausmann Co., St. Louis, Mo. 662,668, pub. 3–18–58. Cl. 46.
Storer Broadcasting Co., Miami Beach, Fla. 662,709, pub. 3–18–58. Cl. 107.
Stran-Steel Corp., Ecorse, Mich. 662,440, pub. 3–18–58. Cl. 12.
Stutzer, Charles, d. b. a. Royal Luxury Perfumes Distributors, New York, N. Y. 662,696, pub. 3–18–58. Cl. 51.
Swedlow Plastics Co., Los Angeles, Calif. 662,464, pub. 3–18–58. Cl. 16.
Swift & Co., Chicago, Ill. 662,677, pub. 3–18–58. Cl. 46.
Swift Canadian Co., Ltd., Toronto, Ontario, Canada. 662,673, pub. 3–18–58. Cl. 46.
Swift, Elizabeth, Little Silver, N. J. 557,688, canc. Cl. 40.
Taylor Instrument Companies, Rochester, N. Y. 662,548, pub. 3–18–58. Cl. 26.
Templeton, James, & Co. Ltd., Glasgow, Scotland. 557,469, canc. Cl. 23.
Texas Tavern Canning Co., Seguin, Tex. 662,671, pub. 3–18–58. Cl. 46.
Thermoguard Insulation: *See*— Thermoguard Insulation Co.
Thermoguard Insulation Co., d. b. a. Thermoguard Insulation, Spokane, Wash. 662,430, pub. 3–18–58. Cl. 12.
Thomas Co., The, Minneapolis, Minn. 662,450, pub. 3–18–58. Cl. 13.
Thomson, J. G., and Co., Ltd., Edinburgh, Scotland. 662,689, pub. 3–18–58. Cl. 49.
Tobin Packing Co., Inc., Rochester, N. Y. 662,665–6, pub. 3–18–58. Cl. 46.
Tomlinson of High Point, High Point, N. C. 662,574, pub. 3–11–58. Cl. 32.
Towle Mfg. Co., Newburyport, Mass. 47,551, 12(c) pub. 6–3–58. Cl. 28.
Tractomotive Corp., Deerfield, Ill. 662,534, pub. 3–18–58. Cl. 23.
Tractor Supply Co., Chicago, Ill. 662,523, pub. 3–18–58. Cl. 23.
Tractor Supply Co., Chicago, Ill. 662,566, pub. 3–18–58. Cl. 31.
Trav-Ler Radio Corp., Chicago, Ill. 662,506, pub. 3–18–58. Cl. 21.
Trophy Rasier-Klingenfabrikation Hans Fiebelkorn: *See*— Fiebelkorn, Hans.
Turco Products, Inc., Los Angeles, Calif. 356,235, ren. 4–19–58. Cl. 52.
Tuxco Corp., North Chicago, Ill. 662,516, pub. 3–18–58. Cl. 22.
Union Carbide Corp., New York, N. Y. 662,501, pub. 3–11–58. Cl. 21.
United Aircraft Products, Inc., Dayton, Ohio. 557,476, canc. Cl. 13.
United Farmers: *See*— United Farmers of New England, Inc.
United Farmers of New England, Inc., d. b. a. United Farmers, Charlestown, Mass. 662,669, pub. 3–18–58. Cl. 46.
United Greenfield Corp.: *See*— Greenfield Tap and Die Corp.
United States Casting Repair Corp., Philadelphia, Pa. 662,446, pub. 3–11–58. Cl. 13.
United States Ceramic Tile Co., Canton, Ohio. 662,438, pub. 3–18–58. Cl. 12.
United States Rubber Co., New York, N. Y. 662,585, pub. 3–18–58. Cl. 35.
United States Steel Corp., Pittsburgh, Pa. 662,454, pub. 3–18–58. Cl. 14.
Vance & Co., Not Inc., Chicago, Ill. 557,685, canc. Cl. 40.
Vanta Co., Inc., The, Pawtucket, R. I. 557,767, canc. Cl. 39.
Veb Nahmaschinenteilewerke Dresden, Dresden, Germany. 662,526, pub. 3–18–58. Cl. 23.
Vicon, Inc., Colorado Springs, Colo. 662,662, pub. 3–18–58. Cl. 44.
Victorias Milling Co., Inc., Manila, P. I. 306,480, 12(c) pub. 6–3–58. Cl. 46.
Viking Products, Inc., New York, N. Y. 557,693, canc. Cl. 46.
Visual Research Inc., Boston, Mass. 557,729, canc. Cl. 26.
Volt, W. J., Rubber Corp., Los Angeles, Calif. 662,587, pub. 3–18–58. Cl. 35.
Von Clemm, Werner C., New York, N. Y. 662,557, pub. 3–18–58. Cl. 28.
Waco Aircraft Co., The, Troy, Ohio. 557,479, canc. Cl. 26.
Wade-Youmans Co., The, Alliance, Ohio. 557,482, canc. Cl. 13.
Wagner, Gunther, Hannover, Germany. 662,427, pub. 3–18–58. Cl. 11.
Walton, Charles, & Son, Inc., Needham Heights, Mass. 662,652, pub. 3–18–58. Cl. 44.
Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 662,410, pub. 3–18–58. Cl. 6.
Watson-Park Co., Ballardvale, Mass. 557,723, canc. Cl. 6.
Wayne Feed Supply Co., Inc.: *See*— Allied Mills, Inc.
Webster, William A., Co., The, Memphis, Tenn. 557,522, canc. Cl. 18.
Wedron Silica Co., Chicago, Ill. 662,390, pub. 3–18–58. Cl. 1.
Whitlock Cordage Co., New York, N. Y. 662,419, pub. 3–18–58. Cl. 7.
Whitman, George L., d. b. a. Whitman & Robinson, Weedsport, N. Y. 662,713. Cl. 14.
Whitman & Robinson: *See*— Whitman, George L.
Wieland, Gerald W., Indianapolis, Ind. 557,588, canc. Cl. 2.
Willco Sales Co.: *See*— Williams, Marion R.
Williams, Marion R., d. b. a. Willco Sales Co., Kansas City, Mo. 662,527, pub. 3–18–58. Cl. 23.
Wilson, Web, Oil Tools, Inc., Los Angeles, Calif. 662,447, pub. 3–18–58. Cl. 13.
Winedale Vineyards Co.: *See*— Bisceglia Brothers Wine Co.
Winslow Bros. & Smith Co.: *See*— Armour and Co.
Winter & Co., by Winter & Co., Inc., New York, N. Y. 356,951, 12(c) pub. 6–3–58. Cl. 36.
Winter & Co., Inc.: *See*— Winter & Co.
Woodard, Roy S., d. b. a. Deluxe Window Co., St. Louis, Mo. 662,434, pub. 3–18–58. Cl. 12.
Wood-Metal Industries, Inc., Kreamer, Pa. 662,715. Cl. 32.
Wool "O" Co., The: *See*— Philadelphia Rug Mills, Inc.
Wright Feeds: *See*— Wright, Harold.
Wright, Harold, d. b. a. Wright Feeds, Paramount, Calif. 662,401, pub. 3–18–58. Cl. 1.
Youre, George J., d. b. a. Geo. J. Youre & Co., Chicago, Ill. 557,490, canc. Cl. 44.
Youre, Geo. J., & Co.: *See*— Youre, George J.
Yunker Mfg. Co. Inc., New York, N. Y. 662,630, pub. 3–18–58. Cl. 39.
Zellers Laboratories, Reading, Pa. 662,509, pub. 3–18–58. Cl. 21.
Zenith Radio Corp., Chicago, Ill. 662,499, pub. 3–18–58. Cl. 21.
Zusaman, H., & Son Co., The, Cincinnati, Ohio. 662,642, pub. 3–18–58. Cl. 42.

U. S. GOVERNMENT PRINTING OFFICE: 0—1958

PATENTS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Haiti to the London 1934 revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective July 1, 1958, of Haiti to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

May 1, 1958.

Annual Index of Patents

The 1957 edition of the Annual Index of Patents has been published. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price: Buckram bound $5.50.

Dedications

2,268,946.—*William Krumbhaar*, deceased, New York, N. Y. PHENOL MODIFIED ETHERS. Patent dated Jan. 6, 1942. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,268,947.—*William Krumbhaar*, deceased, New York, N. Y. PHENOL MODIFIED ESTERS. Patent dated Jan. 6, 1942. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,279,754.—*William Krumbhaar*, deceased, New York, N. Y. SURFACE COATINGS. Patent dated Apr. 14, 1942. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,319,507.—*William Krumbhaar*, deceased, New York, N. Y. COMPOSITIONS CONTAINING WOOD OIL OR OITICICA OIL. Patent dated May 18, 1943. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,434,168.—*William Krumbhaar*, deceased, New York, N. Y. PENTAERYTHRITOL ROSINATE POLYMERS AND THE METHOD FOR PREPARING SAME. Patent dated Jan. 6, 1948. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,470,855.—*William Krumbhaar*, deceased, New York, N. Y. ROSIN MALEIC GLYCERINE ESTERS. Patent dated May 24, 1949. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,471,629.—*William Krumbhaar*, deceased, New York, N. Y. DEPOLYMERIZED COPAL-LIKE RESINOUS ESTERS. Patent dated May 31, 1949. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,478,490.—*William Krumbhaar*, deceased, New York, N. Y. ROSIN MODIFIED PHENOL FORMALDEHYDE RESINS OF ENLARGED MOLECULAR SIZE. Patent dated Aug. 9, 1949. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,545,150.—*William Krumbhaar*, deceased, New York, N. Y. PHENOL FORMALDEHYDE RESINS. Patent dated Mar. 13, 1951. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,546,826.—*William Krumbhaar*, deceased, New York, N. Y. DEPOLYMERIZED COPAL-LIKE RESINOUS ESTERS. Patent dated Mar. 27, 1951. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

2,555,042.—*William Krumbhaar*, deceased, New York, N. Y. ROSIN MODIFIED MALEIC RESINS OF ENLARGED MOLECULAR SIZE. Patent dated May 29, 1951. Dedication filed May 5, 1958, by the executors, *Louise Krumbhaar* and *Edwin F. X. Silk*.

Hereby dedicate to the public the entire terminal part of said patent.

New Applications Received During April 1958

Patents	6,609
Designs	416
Plant Pats	16
Reissues	10
Total	7,051

Issue

Patents	1,014	No. 2,837,743 to No.	2,838,756, incl.
Designs	50	No. 182,986 to No.	183,035, incl.
Plant Pats	3	No. 1,716 to No.	1,718, incl.
Reissues	4	No. 24,483 to No.	24,486, incl.
Total	1,071		

Adjudicated Patents

(C. A. Ill.) Cameron Patent No. 2,601,771 (66—170), for cleaning aid. Claims 2 and 4 *Held* invalid. *General Foods Corp.* v. *Triangle Mfg. Co.*, 253 F.2d 227; 116 USPQ 555.

(C. A. Va.) Rickes and Wood Patent No. 2,703,302 (167—81), for vitamin B_{12} active composition and process of preparing same. Claims 1 to 3 *Held* valid. *Merck & Co.* v. *Olin Mathieson Chemical Corp.*, 253 F.2d 156; 116 USPQ 484.

Patents Available for Licensing or Sale

2,599,597. Double Knothead Twiner (Machine for Tying Hop Plants). Hiram Price Wilson, 2150 Auburn Boulevard, Sacramento 21, Calif.

2,660,207. Hand-Guided Motor-Driven Bark Removing Plow. Lester E. Phillips and Margaret M. Hamilton. Correspondence to Lester E. Phillips, Box 114, Monte Rio, Calif.

2,819,300. Process of Producing and Purifying Benzene Carboxylic Acid. Bergwerksverband zur Verwertung von Schutzrechten der Kohlentechnik G. m. b. H. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,832,124. Yarn Remover. Joseph S. W. Haas, 3615 Park Road, Charlotte, N. C.

2,832,384. Board Cinching Tool. Loule O. Wicka, 40 Longfellow Drive, Cape Elizabeth, Maine.

2,832,498. Receptacle (Permanently Installed Motor Vehicle Trash Container for Anti-Litter Compliance). For licensing or royalty contract only. O. A. Parsons, 625 Highland Park Drive, Billings, Mont.

General Electric Company is prepared to grant non-exclusive licenses *in the field of radio purposes* under the following 4 patents upon reasonable terms to domestic manufacturers.

Applications for license may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,825,753. Color Television Systems Employing Alternating Low-Frequency Components.

2,825,756. Automatic Gain Control of Keyed Automatic Gain Control Amplifier.

2,825,758. Direct Current Restoration Circuits.

2,828,419. Automatic Frequency Control System.

CONDITION OF PATENT APPLICATIONS AS OF APRIL 30, 1958

Total number of pending applications (excluding Designs)	209,451
Total number of pending Design applications	6,569
Total number of applications awaiting action (excluding Designs)	86,050
Total number of Design applications awaiting action	3,016
Date of oldest new application	May 6, 1957
Date of oldest amended application	Apr. 30, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-6-57	8-14-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	8-5-57	8-16-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	10-23-57	9-18-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	8-5-57	8-9-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-2-57	7-29-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	9-12-57	10-1-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	8-2-57	8-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-18-57	9-3-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	8-13-57	8-9-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	8-16-57	8-15-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	9-12-57	9-16-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	7-22-57	6-10-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	8-26-57	8-14-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	8-2-57	8-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	8-30-57	8-7-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	6-12-57	6-24-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	8-21-57	8-21-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	8-2-57	8-5-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	8-8-57	8-16-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	8-8-57	8-5-57
21. (III) MADER, R. C., Textiles	6-17-57	6-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	8-1-57	8-1-57
23. (VI) SMILOW, I., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	5-6-57	4-30-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	9-19-57	9-23-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-10-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	10-1-57	8-15-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	9-23-57	9-25-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	8-1-57	7-15-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	7-10-57	6-7-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	9-10-57	8-15-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	8-21-57	8-23-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-27-57	8-5-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	10-1-57	10-1-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	9-16-57	9-16-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	11-18-57	11-18-57
36. (V) CUTTING, C. A., (acting). Measuring and Testing; Automatic Weighers; Weighing Scales	6-24-57	6-21-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	8-6-57	8-9-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	10-10-57	10-3-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	10-9-57	10-4-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	10-2-57	10-2-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	7-25-57	7-19-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	7-1-57	7-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	8-12-57	8-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8-15-57	8-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	8-19-57	8-14-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	8-20-57	8-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	8-21-57	8-8-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	7-9-57	7-5-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	9-11-57	9-3-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	9-9-57	10-1-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	8-14-57	8-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-15-57	8-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	10-11-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	9-27-57	9-25-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	6-11-57	5-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	9-5-57	9-3-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	10-9-57	9-16-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	9-11-57	9-4-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-29-57	7-25-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	11-13-57	10-8-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	8-1-57	8-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	10-3-57	10-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	7-8-57	6-10-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	8-7-57	5-20-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	8-1-57	8-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	8-5-57	8-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	9-27-57	9-23-57
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CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	8-2-57	8-1-57
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M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	6-10-57	5-15-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	10-7-57	11-14-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-3-57	9-25-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during June 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents ..... Numbers 2,243,829, to 2,247,344, inclusive
Plant Patents ..... Numbers 470 to 477, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals
District of Columbia Circuit

ROBERT C. WATSON, COMMISSIONER OF PATENTS
v.
E. LEITZ, INC.

Nos. 14,158 and 14,159. Decided March 27, 1958

[— U.S. App. D. C. —; — F.2d; 117 USPQ 13]

1. TRADEMARKS—OWNERSHIP—TRANSFER.
Where a German manufacturer had registered in 1914 in the German Patent Office the trademark "Leitz" and had marketed its products for many years before 1916 through a branch in New York City, and where in 1916 it caused to be formed a New York corporation and conveyed thereto the assets of the branch, including goodwill and trademarks in general terms, the new corporation continuing as the outlet in the United States for the products of the German manufacturer and later commencing the manufacture of some goods and placing thereon the same mark as used on goods of the German manufacturer, and where there was no evidence of any disagreement between the New York corporation and the German manufacturer as to the former's activities in manufacturing other products and selling them with the "Leitz" mark, *Held* that it was obviously intended by the parties that the new legal entity should own, in its marketing area, the United States, the right which the German manufacturer had in that area when it marketed its products there through agents, and *Held* that, as the mark would be applied to goods imported from the German manufacturer, there can be no doubt that the manufacturer intended and attempted to transfer ownership of the trademark in the United States to the New York corporation.

2. SAME—SAME—TRADEMARK MUST BE APPURTENANT TO ENTERPRISE RELATED TO MARKETING OF GOODS.
"A trademark must be appurtenant to some enterprise which is related to the marketing of goods. It is both philosophically and legally impossible for it to exist in gross."

3. SAME—SAME—MERCHANT AND MANUFACTURER.
"• • • a merchant as well as a manufacturer may have a trademark."

4. SAME—SAME—TRANSFER.
Where a German manufacturer, owning trademarks and marketing its products through its agency in the United States, caused the formation of a domestic corporation and conveyed to that corporation the agency assets, including goodwill and trademarks by a conveyance which was absolute, and where the German manufacturer, though it completely owned and controlled the domestic corporations during the latter years of the 1930's, made no protest or objection against the use by the domestic corporation of the same mark in the United States which it used elsewhere, *Held* that the domestic corporation had the right to use the trademark as its own mark.

5. SAME—EVIDENCE—DISCLOSURE OF FACTS EXPECTED OF APPLICANT IN PATENT OFFICE AND PARTY TO SUIT UNDER 35 U. S. C. 145—OWNERSHIP.
Where the ownership of a trademark sought to be registered by appellee had been in issue in the Patent Office and in the District Court in a suit under 35 U. S. C. 145; and an existing agreement, between the sole present owner of the stock of appellee and a manufacturer and putative owner of the trademark, in one of its parts indicated a lack of ownership by appellee of trademarks relating to the manufacturer's products but in another of its parts expressly referred "to such trademarks owned by appellee"; *Held* that the agreement should have been disclosed by appellee to the Patent Office and to the District Court.

6. SAME—REGISTERABILITY—PARTICULAR MARK—"LEITZ."
The decision of the District Court, holding that E. Leitz, Inc. is entitled to registration of the mark "Leitz" and authorizing the Commissioner of Patents to register the mark, is affirmed.

7. FEDERAL RULES OF CIVIL PROCEDURE—RULE 60(b)—MOTION FOR RELIEF FROM JUDGMENT ON GROUND THAT MATERIAL FACTS HAVE BEEN WITHHELD.
Held that the District Court's denial of a motion under Rule 60(b) for relief from a judgment grounded on the assertion that the appellee had withheld from the court certain facts and documents relevant to the question of ownership of the trademark at issue was well within the discretion of the court and is affirmed.

APPEAL from the United States District Court [District Court opinion reported at 152 F. Supp. 631, 113 USPQ 409].

AFFIRMED.

Clarence W. Moore (*J. Schimmel* of counsel) for the Commissioner of Patents.

John Vaughan Groner, with whom *Donald M. Dunn*, *Delavan Smith*, and *Richard P. Schulze*, were on the brief for E. Leitz.

Before PRETTYMAN and BURGER, *Circuit Judges*, and MADDEN,* *Judge* of the United States Court of Claims

MADDEN, *J.*:

The appellee in 1950 filed an application, pursuant to the provisions of the act of July 5, 1946, 15 U. S. C. 1051, for the registration of the trademark here in issue. After extended proceedings in the Patent Office, the Assistant Commissioner of Patents denied the application on the ground that the applicant, the appellee here, was not the owner of the trademark. The applicant then filed suit in the District Court under section 1071 of Title 15 and section 145 of Title 35 of the United States Code, praying for a decree adjudging that it was entitled to registration of the mark and authorizing and directing the Commissioner of Patents to register the mark. The District Court entered the decree prayed for. 113 USPQ 409. No. 14158 is the Commissioner's appeal from that judgment. Thereafter the Commissioner filed a motion under Rule 60(b) for relief from the judgment on the ground that material facts had been withheld in the prior proceedings. The District Court denied that motion. No. 14159 is the Commissioner's appeal from that denial.

If the appellee was the owner of the trademark in question, it was entitled to have it registered, and to have the very substantial benefits which result from registration. The appellant's position is and has been that the appellee is not the owner of the mark.

Ernest Leitz G. m. b. H., Wetzlar, Germany, hereinafter called Leitz-Wetzlar, manufactured and sold cameras, photographic equipment, and other optical and laboratory equipment. It was apparently a proprietorship with limited liability. In 1914 Leitz-Wetzlar registered in the German Patent Office the trademark "Leitz." For many years before 1916 Leitz-Wetzlar had had a branch in New York City which handled its products. In 1916 Leitz-Wetzlar caused to be formed a New York corporation, named E. Leitz, Inc. and conveyed to that corporation

the business now conducted by me at No. 30 East 18th Street, Borough of Manhattan, City of New York, together with all contracts, patents, trademarks • • • and all goods, wares, and merchandise • • • goodwill, and property of every kind and nature belonging to me or used by me in this business • • •

* Sitting by designation pursuant to the provision of 28 U. S. C. § 291(a).

The new corporation, herein called Leitz-1916, was, as its predecessor, the New York branch of Leitz-Wetzlar had been, the outlet in the United States of the products of Leitz-Wetzlar, and it operated a repair department for those products. It later commenced the manufacture in the United States of some scientific instruments and parts, and it placed upon them the trademark "E. Leitz," or "Leitz," which was the same mark used on the goods manufactured by Leitz-Wetzlar.

During the First World War Leitz-1916 was seized by the Alien Property Custodian, but it was restored to private ownership after the war, and the business was carried on as before. About 1925 Leitz-1916 introduced the Leica camera, a product of Leitz-Wetzlar, into the United States. About 1929 or 1930 Leitz-1916 began to apply the trademark "Leitz" in the exact script form for which it applied for registration in the proceedings here under review, to appliances developed and manufactured by it in the United States, as well as to those manufactured by Leitz-Wetzlar.

By about 1935 all of the stock of Leitz-1916 was owned by Leitz-Wetzlar. It would seem that the corporation had been effectively controlled by Leitz-Wetzlar from the time of its formation in 1916, although the exact nature of the relationship between the formal owners of the stock and Leitz-Wetzlar during the intervening years is not shown by the record. In any event, there is no evidence of any disagreement between Leitz-1916 and Leitz-Wetzlar as to the former's activities in manufacturing or acquiring other products and selling them with the Leitz mark.

In 1941 the assets of Leitz-1916 were transferred to a newly-formed corporation, again named E. Leitz, Inc., which corporation is the present appellee. Leitz-1941 paid Leitz-1916 for its assets by issuing to it the stock of Leitz-1941. Since Leitz-Wetzlar was the sole stockholder of Leitz-1916, it remained, through that stockholding, the sole owner of Leitz-1941. The bill of sale of the assets of Leitz-1916 to Leitz-1941 mentioned no specific trademarks, but transferred trademarks and goodwill in general terms.

In 1942 all stock of both Leitz-1916 and Leitz-1941 was seized by the Office of Alien Property, because of its German ownership. During the war Leitz-1941 manufactured equipment for the Signal Corps of the Army, and marked its product with the word "Leitz." The Alien Property Custodian caused or permitted Leitz-1941 to apply for and receive a trademark registration for a trademark in the exact form of script which is at issue in this case. The application was made in 1944 and the registration was issued in 1946. This registration was of the kind authorized by the act of March 19, 1920, 41 Stat. 533, and did not give the holder the protection afforded by registration under the act of July 5, 1946, the kind of registration sought in the proceedings here under review. See *Speed Products Co. Inc.* v. *Tinnerman Products, Inc.* CA–2 179 F.2d 778, for discussion of this distinction.

The Attorney General of the United States, as Alien Property Custodian, issued a prospectus describing the assets of Leitz-1941, for the purpose of inducing persons to bid for its stock. This prospectus stated that the company owned legal title to "the trade names, trademarks and registrations in the United States," both for goods manufactured by itself and for goods imported from Leitz-Wetzlar, but stated further that no opinion was expressed as to whether this ownership would prevent Leitz-Wetzlar or others authorized by it from marketing its products in the United States under their trade names, which were identical with those of Leitz-1941.

Supplementing the original vesting order issued in 1942, the Alien Property Custodian issued further vesting orders including one issued on February 26, 1952, which vested every interest, including reversionary interests, which Leitz-Wetzlar might have in any and all trademarks and trade names appurtenant to the business of Leitz-1941, and specifically including the trademark having the distinctive script here in issue. He then conveyed the rights so vested to Leitz-1941.

In 1952 the Alien Property Custodian sold all the capital stock of Leitz-1941 to Dunhill International, Inc. Dunhill sold the stock to Synthetic Nitrogen Products Corp. The present ownership of the stock derives from Synthetic Nitrogen Products Corporation.

In 1950, while the stock of Leitz-1941 was owned by the Alien Property Custodian, the application for the trademark registration here in issue was filed by the corporation, and has continued to be pressed regardless of the changes in ownership of the corporation's stock. As we have seen, the application was rejected by the Patent Office on the ground that the applicant was not the owner of the trademark sought to be registered.

When Leitz-Wetzlar marketed its products through its agents in the United States, it of course owned its trademarks. The appellant's position is that the mere agency relation continued, in substance, down to the time of the application for registration in 1950. The creation by Leitz-Wetzlar of Leitz-1916, its probable control of that corporation until about 1935 and its undoubted control of it thereafter, its creation and control of Leitz-1941 until the vesting of the stock by the Alien Property Custodian in 1942, all of these facts indicate a relationship akin to agency. [1] However, when Leitz-1916 was created and the New York assets including goodwill and trademarks were conveyed to it, it was obviously intended by the parties that the new legal entity should own, in its marketing area, the United States, the rights which Leitz-Wetzlar had had in that area when it marketed its products there through agents. The lodging of those rights in the American corporation would facilitate their enforcement against infringers in its market area.

As we have said, the appellant's contention is that the ownership of the trademark in question was and is in Leitz-Wetzlar, from which it would necessarily follow that the appellee was not entitled to register it. But the ownership of the mark, so far as concerns the percentage of the goods manufactured by the appellee itself, or secured from other manufacturers than Leitz-Wetzlar, could not possibly have been in Leitz-Wetzlar. It did not manufacture or sell these goods, nor have anything whatever to do with them. It would have been deceptive and misleading to have represented by a trademark or otherwise, that they came from Leitz-Wetzlar.

As to the ownership of the trademark in the United States, as the mark would be applied to the goods imported from Leitz-Wetzlar, there can be no doubt that Leitz-Wetzlar intended and attempted to transfer that ownership to Leitz-1916. The language in the

1916 bill of sale could have referred to nothing else. That intent continued through the entire period of Leitz-1916's ownership and operation of the United States business. From some time early in the 1930's, Leitz-1916 was using the trademark "Leitz," sometimes in the same script form in which Leitz-Wetzlar used it in Germany, and was using it on both the American-made goods and the German-made goods. Yet Leitz-Wetzlar made no protest or objection, though during the latter years of the 1930's it completely owned and controlled Leitz-1916 and could have instantly put a stop to any conduct which violated its 1916 intent. The conveyance in 1941 from Leitz-1916 to Leitz-1941 was a conveyance of everything that Leitz-1916 owned. It, then, neither added to nor subtracted from the assets, tangible and intangible, which had been owned by Leitz-1916.

The appellant must, then, in order to sustain his contention of lack of ownership of the trademark by the appellee, show that, regardless of the intent of the parties, it was legally impossible to place that ownership in the appellee. In the case of a jus in re aliena the law does not permit an easement in the land of one person which easement was created as an appurtenance to the land of another person, to be separated from the dominant land and given a separate existence in an owner who does not own the dominant land. The appellant makes a somewhat similar contention with regard to the trademark here in question. He says that it is an appurtenance to the Wetzlar factory and it is not possible for it to have a legal existence separate from that factory.

[2] A trademark must be appurtenant to some enterprise which is related to the marketing of goods. It is both philosophically and legally impossible for it to exist in gross. But [3] a merchant as well as a manufacturer may have a trademark. 16 U. S. C. 1127. As a merchant, Leitz-1916 had a right to use a mark which would become a symbol of the quality of its goods, and of its responsibility for them. Leitz-Wetzlar was willing that Leitz-1916 should use the same mark in the United States which Leitz-Wetzlar used elsewhere. Such an arrangement was held valid in *A. Bourjois & Company, Inc.* v. *Katzel*, 260 U. S. 689. See also *Scandinavia Belting Co.* v. *Asbestos and Rubber Works*, 257 F. 937, 954.

[4] Leitz-1916 had the right to use the trademark and did use it, as its own mark. Leitz-1941, the appellee, acquired the same right by conveyance from Leitz-1916. The changes of ownership of the stock of Leitz-1941, from Leitz-Wetzlar, though the Alien Property Custodian and Dunhill to the present owner, did not increase or decrease the assets of the corporation, including its goodwill and trademarks.

The Alien Property Custodian, having in 1942 seized the stock of Leitz-1941, issued further vesting orders in 1951 and 1952, apparently for the purpose of clarifying the title and making the stock saleable to a better advantage. The 1952 vesting purported to vest any reversionary interest which Leitz-Wetzlar might have in trademarks appurtenant to the business of Leitz-1941. This move was apparently made out of an abundance of caution, in view of the possibility that the grant of Leitz-Wetzlar to Leitz-1916 might be held to create only a determinable right to the trademarks, which right would end if, for example, the grantee ceased to be controlled by the grantor. If the right had been a determinable one, it may be that the Alien Property Custodian's attempt to seize the reversion would have been ineffective since the reversion would perhaps have been in gross. We need not decide that question, since we think the 1916 conveyance was absolute.

The conveyance of the trademark by Leitz-Wetzlar to Leitz-1916, in 1916, without limit as to time, and without a contract defining the rights and duties of the parties with regard to the Leitz-Wetzlar products was an unusual and probably an improvident thing to do. It must have contemplated that Leitz-Wetzlar would control Leitz-1916, which it probably did from the beginning and certainly did from about 1935. Having conveyed the trademark to a separate legal entity in the United States, Leitz-Wetzlar exposed itself to the danger that, in the event of war, the property in the United States would be seized and sold into independent ownership. That is what happened, with its necessary logical and legal consequences.

We do not decide what would be the consequences if the appellee should use its trademark unfairly to market inferior goods and mislead purchasers to think that they were manufactured by Leitz-Wetzlar when in fact they were not. Section 1119 of Title 15 of the United States Code lodges in the courts the power to order the cancelation of a registration if the trademark is used unfairly.

Appeal No. 14159 is from the District Court's denial of the appellant's motion under Rule 60(b) seeking relief from the judgment ordering the registration of the trademark. The motion was grounded upon the assertion that the appellee had withheld from the court certain facts and documents relevant to the question of ownership of the trademark, and that additional evidence had become available.

The agreement of November 22, 1923, between Leitz-1916 and Leitz-Wetzlar seems to us to throw no light on our question. It seems to be a conventional agreement that Leitz-1916 should act as a sales agent for Leitz-Wetzlar in the United States, should diligently cultivate the market, and should not handle other goods which would compete with those of Leitz-Wetzlar. It is consistent with the ownership by Leitz-1916 of the trademarks appurtenant to its market area.

[5] The agreement of September 13, 1952, between Manca, Inc., the present owner of the stock of appellee, and Leitz-Wetzlar is an interesting document which should have been disclosed by the appellee to the Patent Office, and to the District Court. This agreement made Manca, Inc. the exclusive sales agent in the United States for the Leitz-Wetzlar's trademarked products, with certain exceptions not here important. It said that Manca conceded that it had "no present right to any trademark heretofore or presently used for the products of Leitz * * *." But it said "In the event Manca acquires E. Leitz, Inc., Leitz-1941, or any trademark owned by it applying to products of Leitz (Leitz-Wetzlar), Manca agrees that it will use such trademarks so acquired only in the manner and to the extent heretofore used by E. Leitz, Inc." The agreement was for a term of 10 years, renewable only by the agreement of both parties.

This agreement, made by the corporation which became and is the sole owner of the stock of appellee,

would, in one of its parts, indicate a lack of ownership by appellee of trademarks relating to Leitz-Wetzlar products. But then it goes on to expressly refer to such trademarks owned by appellee. It is another example of the indirections engaged in by Leitz-Wetzlar and its American outlets which tend to confuse our problem.

We have considered the other matters put forth by the appellant as grounds for his motion for relief from the judgment, and we conclude that it was well within the discretion of the District Court to deny the motion.

[6] No. 14158 affirmed.

[7] No. 14159 affirmed.

AFFIRMED.

United States Court of Appeals
District of Columbia Circuit

JAMES W. MARTIN ET AL. v. ROBERT C. WATSON, COMMISSIONER OF PATENTS

Nos. 14153 and 14154. Decided May 8, 1958

[— U. S. App. D. C. —; — F.2d —; 117 USPQ 242]

PATENTABILITY—UNEXPECTEDLY GOOD RESULTS—PROCESS—INCREASING RECOVERY OF OIL FROM OIL FORMATIONS.

In regard to appellants' process for increasing the recovery of oil from oil bearing formations by forcing carbon dioxide gas alone or in mixture with water or brine into the formations at or exceeding a specified pressure, *Held* that "when unexpectedly good results were obtained by the use of that pressure or more at the surface level, when everything else, including the forcing of carbon dioxide into oil bearing formations had been disclosed, invention was not established," and *Held* that "Appellants' process includes altogether too much of what was already known to entitle them to patents because unexpectedly good results came to light by the addition of greater pressure at the sub-surface level than had been exactly specified by prior disclosures."

APPEALS from the United States District Court for the District of Columbia.

AFFIRMED.

Louis D. Fletcher, with whom *Harry W. F. Glemser* was on the brief for James W. Martin et al; *Francis D. Thomas, Jr.*, also entered an appearance.

Clarence W. Moore (*Joseph Schimmel* and *S. W. Cochran* of counsel) for the Commissioner of Patents.

Before REED,* *Associate Justice* of the Supreme Court, retired, and FAHY and BURGER, *Circuit Judges*

PER CURIAM:

These appeals are from a judgment of the District Court dismissing appellants' complaints after a hearing, findings of fact and conclusions of law. Pursuant to 35 U. S. C. § 145 (1952) appellants sought decrees authorizing the Commissioner of Patents to issue letters patent.[1]

The inventions claimed by appellants consist essentially of a process for increasing the recovery of oil from underground oil bearing sands or formations by the use of carbon dioxide gas, alone or in mixture with water or brine, under what are said to be critical conditions, that is, by forcing the gas or mixture into the formations at pressures of 600 pounds or more per square inch. In this manner there can be brought to the surface large quantities of oil that natural forces, and indeed other kinds of artificial forces, have proven inadequate to do.

It is not claimed that the mere supplementing of natural forces by the means and with the result stated is itself invention. Invention is claimed because appellants' process calls for effective pressure, that is, pressure at the subsurface levels of 600 pounds per square inch or more, which brings about the unexpectedly favorable recovery.

Notwithstanding the favorable results achieved by appellants through the use of the indicated quantity of effective pressure, we think it cannot be disputed that except for the added pressure all else involved in the process had been disclosed by the prior art, particularly the Spindler Patent No. 1,826,371 issued October 6, 1931, and the Russell patents, No. 1,511,067 issued October 7, 1924, and No. 1,658,305 issued February 7, 1928, and that these patents also called for the use of gas pressures. Indeed, the use of carbon dioxide at pressures which might exceed 600 pounds, depending upon the depth of the well, seems clearly contemplated by Russell. When unexpectedly good results were obtained by the use of that pressure or more at the subsurface level, when everything else, including the forcing of carbon dioxide gas into oil bearing formations, had been disclosed, invention was not established. Appellants' process includes altogether too much of what was already known to entitle them to patents because unexpectedly good results came to light by the addition of greater pressure at the subsurface level than had been exactly specified by prior disclosures. *Dow Chemical Co.* v. *Halliburton Oil Well Cementing Co.*, 324 U. S. 320; *Sinclair Refining Co.* v. *Coe*, 78 U. S. App. D. C. 176, 138 F.2d 673. The findings of the District Court against appellants—consistent with the decision of the Patent Office—must be sustained on this record.

AFFIRMED.

U. S. Court of Customs and Patent Appeals

IN RE CONTINENTAL DISTILLING CORP.

Nos. 6351 and 6352. Decided April 11, 1958

[— CCPA —; — F.2d —; 117 USPQ 300]

1. TRADEMARKS—SELECTION OF ONE OF SEVERAL COMBINED WORDS—*In re Standard Underground Cable Co.* CONSTRUED.

Held that *In re Standard Underground Cable Co.* (C. A., D. C., 1906), 27 App. D. C. 320, 123 O. G. 656, 1906 C. D. 687, "is not authority for the proposition that one of two or more words which combine to give a unitary meaning may be arbitrarily selected as a trademark."

2. SAME—TRADEMARK ACT OF 1946, SEC. 8—NO PRESUMPTION OF USE—DUTY OF COMMISSIONER.

"• • •, section 8 of the Lanham Act clearly requires the filing of an affidavit 'showing that the mark is still in use,' and imposes upon the Commissioner the duty of deciding whether such an affidavit is sufficient and of cancelling the registration if it is not. It is evident those express requirements cannot be superseded by any presumption that the mark is in use."

3. SAME—SAME—EXCUSE FOR NONUSE.

In regard to a contention that affidavits showing use of a composite mark including the words "Yankee Clipper," if not accepted as showing use of the registered trademarks "Yankee" and "Clipper," should be accepted as excusing nonuse of the registered trademarks under section 8 of the Trademark Act of 1946, *Held* that it is not seen "how the fact that a word has been used as an essential part of a composite trademark excuses the failure to use it alone."

4. SAME—SAME—CANCELLATION FOR FAILURE TO SHOW USE—REGISTRATIONS "YANKEE" AND "CLIPPER."

Held that specimens, included with affidavits filed under section 8 of the Trademark Act of 1946 and showing a sailing vessel surrounded by a circular border bearing two stars and the words "Yankee Clipper Blended Wiskey," disclose the use of "Yankee Clipper" as an integral mark and do not show that either of the registrations "Yankee" or "Clipper" alone has ever been used as a trademark; and *Held* the Assistant Commissioner, therefore, properly refused to accept the affidavits and ordered cancellation of the registrations.

APPEAL from the Patent Office. Serial Nos. 530,780 and 530,781.

AFFIRMED.

Leonard L. Kalish for Continental Distilling Corp.

Clarence W. Moore for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

WORLEY, *J.*, delivered the opinion of the court.

These appeals involve the decisions of the Assistant Commissioner, acting for the Commissioner of Patents, refusing to accept affidavits of use filed by appellant under the provisions of section 8 of the Lanham Act (Trademark Act of 1946) in connection with Registrations Nos. 530,781 and 530,780, and ordering cancellation of said registrations. The registrations are for the words "Yankee" and "Clipper" respectively, while the specimens submitted with the affidavits show a sailing vessel, surrounded by a circular border bearing two stars and the words "Yankee Clipper Blended Whisky." The affidavits were refused on the ground the specimens did not show trademark use of either "Yankee" or "Clipper."

This is the first case to come before us involving section 8 of the Lanham Act. That section provides that the Commissioner shall cancel any certificate of trademark registration on the principal register at the end of six years following its date unless there is filed, within one year next preceding such expiration, an affidavit "showing that said mark is still in use or showing that its nonuse is due to special circumstances which excuse such nonuse and is not due to any intention to abandon the mark." The section further provides that the Commissioner shall notify the registrant who files such an affidavit of his acceptance or refusal thereof and, if the latter, the reasons therefor.

The Assistant Commissioner, pointing out that a specimen identical with those here had been filed and accepted as showing continuing use of appellant's trademark "Yankee Clipper," for which Registration No. 531,054 had been granted, held that such specimens did not show individual trademark use of "Yankee" or "Clipper" alone. We are in agreement with that holding.

It is evident that the words "Yankee" and "Clipper" are not used separately as trademarks on the specimens, but convey the single unitary meaning of an American ship of the clipper type. The illustration of such a ship forms a prominent feature of the specimen and, as above noted, appellant has registered "Yankee Clipper" as a unitary trademark.

The instant situation is clearly distinguishable from that in *In re Standard Underground Cable Co.*, 27 App. D. C. 320, relied on by appellant. There the mark sought to be registered was the word "Eclipse" which had been used on a label in conjunction with the words "Black Core" and certain background material illustrating an eclipse. It was held the applicant had the right to select and designate what he considered the essential feature of the mark. It is to be noted that "Eclipse" was a distinct and separable feature of the label. It did not modify another word and was not modified by other words, and it seems likely that the merchandise to which it was applied would have been asked for by the name "Eclipse." [1] The decision is not authority for the proposition that one of two or more words which combine to give a unitary meaning may be arbitrarily selected as a trademark.

On the other hand, the situation is closely similar to that in *Quaker City Flour Mills Company* v. *Quaker Oats Company*, 43 App. D. C. 260, in which an attempt was made to register "Quaker" as a trademark on the basis of use of the words "Quaker City." In refusing registration the court pointed out that "Quaker" alone had a meaning distinct from that of "Quaker City," and that the "mark as claimed" (Quaker) had not been used. That case was expressly distinguished from the Standard Underground Cable case on that basis, the court pointing out that if the word "Quaker" had merely been associated with separable or illustrative matter, such as a scroll or a picture of a man in Quaker dress, it could presumably have been registered alone. So in the instant case, the words "Yankee Clipper" as a unit may have been used as a trademark distinct from the words "Blended Whisky" or the picture of a ship; but neither "Yankee" nor "Clipper" has been so used separately.

The cases of *Graves* v. *Gunder*, 1908 C. D. 201; *Tip Top Bottling Co.* v. *Jones*, 1927 C. D. 1; and *In re Servel, Inc.*, 37 CCPA (Patents) 977, 181 F.2d 192, 85 USPQ 257, also relied on by appellant, are similar to the Standard Underground Cable case in that they involve the selection of a trademark as a word or words which were distinct and separable from those with which they had been associated in use. Thus in the Servel case, for example, it was held that "Servel" had been used as a trademark even though its only use had been as part of the term "Servel Inklings." In so holding, the court noted that "Servel" was "appellant's primary and technical trademark" and that "the word 'Inkling' is descriptive and in the public domain." The words, therefore, were clearly separable and the applicant had the right to eliminate the descriptive term "Inklings" in designating its mark. That is not the case here, since neither "Yankee" nor "Clipper" is descriptive as applied to whisky and neither has more trademark significance than the other.

Appellant contends that it is well settled that a registration affords prima facie evidence of continuing use of the registered mark and that, therefore, the Commissioner cannot question its use of the marks involved. However [2] section 8 of the Lanham Act clearly requires the filing of an affidavit "showing that the mark is still in use," and imposes upon the Commissioner the duty of deciding whether such an affidavit is sufficient and of cancelling the registration if it is not. It is evident those express requirements cannot be superseded by any presumption that the mark is in use.

[3] Appellant further contends that if its affidavits do not show trademark use of its registered marks they

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* Sitting by designation pursuant to the provisions of Sec. 294(a) Title 28, U. S. C.

[1] The two complaints in the District Court, seeking separate patents, were consolidated for hearing and decision. Separate appeals were taken but again consolidation was ordered. There is no difference significant to this appeal in the two patent applications upon which the separate complaints were based.

should be accepted as excusing its nonuse. We are unable to see, however, how the fact that a word has been used as an essential part of a composite trademark excuses the failure to use it alone.

[4] In our opinion, the specimens submitted by appellant disclose the use of "Yankee Clipper" as an integral mark and do not show that either "Yankee" or "Clipper" alone has ever been used as a trademark. The Assistant Commissioner, therefore, properly refused to accept appellant's affidavits and ordered cancellation of the registrations involved in the instant appeals.

The decisions of the Assistant Commissioner are affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate was present at the hearing of this appeal but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

GENERAL SHOE CORPORATION
v.
LERNER BROS. MFG. CO., INC.

No. 6303. Decided April 11, 1958

[— CCPA — : — F.2d — ; 117 USPQ 281]

1. TRADEMARKS—CONFUSING SIMILARITY—TRADEMARK ACT OF 1946, SEC. 2(d)—GOODS TO BE COMPARED.
On the question of what goods are to be compared with applicant's goods in determining, in an opposition based on opposer's prior registration, likelihood of confusion under the Trademark Act of 1946, Sec. 2(d), *Held* that "it must be the goods enumerated in the registration of the opposer's previously registered mark."

2. SAME—SAME—PARTICULAR GOODS—MEN'S BOOTS AND SHOES, AND MEN'S SPORT SHIRTS.
"We are of the opinion that the use of the same trademark on the men's boots and shoes, as described in opposer's 1913 registration, and on men's sport shirts would be more than likely to 'cause confusion.'"

3. EVIDENCE — JUDICIAL NOTICE — TRADEMARKS — SALE OF MEN'S SHOES AND SHIRTS—USE OF RUBBER BOOTS AND RUBBER-SOLED CANVAS SHOES, AND SPORT SHIRTS.
"The sale of men's shoes and shirts to the same customers in the same stores is a practice of which we can take judicial notice along with the common use of rubber boots and rubber-soled canvas shoes by men who would be wearing sport shirts."

4. TRADEMARKS — OPPOSITION—PRIOR REGISTRATION—GOODS SPECIFIED IN REGISTRATION.
In an opposition to an application for registration of a mark for men's sport shirts, based on a prior registration for "rubber boots and shoes, rubber overshoes, and rubber-soled canvas boots and shoes," *Held* that, even though the net effect of the evidence of record may be to create the impression that opposer is now primarily concerned commercially with women's shoes under the registered mark, this cannot be "controlling of the issue so long as the opposer's earlier registration • • • is not so limited."

5. SAME—SAME—SAME—SAME—TRADEMARK ACT OF 1946, SEC. 7(b).
"If, in an opposition, • • •, in which opposer puts in *some* testimony as to its business activities, it must at the same time prove up the current factual accuracy of every allegation of a registration relied on, on penalty of having that registration treated as not covering all of the goods enumerated in it, then there is little left to the provision of section 7(b) of the statute that a registration is '*prima facie* evidence of the validity of the registration' and of 'registrant's exclusive right to use the mark in commerce in connection with *the goods* or services *specified in the certificate*.'"

6. SAME—SAME—SAME—GOODS ENUMERATED IN REGISTRATION CONSIDERED.
Held that the issue in an opposition of likelihood of confusion should not have been considered on the basis of what the record as a whole tended to show about opposer's use of its registered mark, however close to the truth this may have been, but rather on the basis of the goods enumerated in its registration and the legal rights flowing therefrom in accordance with the statute.

APPEAL from the Patent Office. Opposition No. 31,914.

REVERSED.

Ernest P. Rogers (*Francis C. Browne, Russell L. Lane, Smith, Kilpatrick, Cody, Rogers & McClatchey*, and *Mead, Browne, Schuyler & Beveridge* of counsel) for General Shoe Corporation.

Charles W. Gerard and *J. Harold Kilcoyne* for Lerner Bros. Mfg. Co., Inc.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This is an appeal from the decision of the Commissioner of Patents (108 USPQ 341) in Trademark Opposition No. 31,914, reversing the decision of the Examiner of Interferences which sustained appellant's opposition to appellee's application, filed September 26, 1947, to register the word "Holiday" as a trademark for men's outer shirts, and lounging, beach and bath robes. Use since January 1, 1945, is asserted by applicant.

Appellant opposes registration alleging that on May 1, 1944, it commenced using and has since continuously used the trademark "Holiday" on men's, women's and children's shoes, made of leather, fabric and combinations thereof, on which it obtained, on an application filed April 20, 1949, Registration No. 529,488 of August 22, 1950, relied on here. Opposer also owns and relies on Registration No. 91,874 dated June 3, 1913, of "HOLIDAY" for "rubber boots and shoes, rubber overshoes, and rubber-soled canvas boots and shoes."

The marks as used by both parties are in script, the only difference between them being that opposer's is in a rather nondescript backhand while applicant's is in a more regular and forwardly slanting script. While there is this difference, so that the marks are not identical in fact, it seems to go undisputed that for the purposes of this case they may be considered identical in law and we shall so treat them.

Opposer's priority of use is not questioned and the sole issue is whether the use of "Holiday" on the goods named in applicant's application is likely "to cause confusion or mistake or to deceive purchasers" so as to render the mark unregistrable to applicant under Sec. 2(d) of the Trademark Act of 1946.

The parties have stipulated into the record a few pages from the record of an earlier opposition to which opposer was a party, being the testimony of opposer's vice-president in charge of its women's retail shoe stores. It would appear therefrom that, as of 1951, opposer owned and operated a chain of forty-four "Nisley Shoe Stores" which sell shoes, handbags, gloves and hosiery throughout the United States and, more important here, another chain of fourteen "Holiday" shoe stores in as many different cities. Photographs of fronts of some of the latter are annexed to the notice of opposition and show that the store fronts bear, by way of a name, a large electric sign,

often as long as the store is wide, on which the facsimile of opposer's trademark "Holiday" appears as a double row of incandescent bulbs, the testimony being that they are made to flash on and off. In these "Holiday" stores, it would appear that shoes bearing the trademark in question are sold in boxes and wrappings also featuring the mark, which has been promoted locally and nationally by a half-million dollars worth of advertising in the period 1944–1951. The testimony was that the mark had been used on "*all types* of footwear," on hosiery, and that handbags had been "promoted • • • under the name." There is no specific mention *in this testimony* of the sale of any men's shoes or other men's wear, or of the sale of any goods bearing the "Holiday" mark anywhere except in the "Holiday" stores and the implication is clear that the latter were women's shoes stores also selling handbags and hosiery and presumably nothing else.

The foregoing testimony, introduced from another opposition against Joseph N. Eisendrath Company, obviously does not purport to develop the total commercial picture of opposer's business under the "Holiday" trademark. It would appear from reading the stipulated testimony and from other evidence put in by the applicant in the present case that the earlier opposition was directed against the registration of "Holiday" for women's fabric gloves and the obvious purpose of the testimony was to show that the sale of *gloves* in the Holiday stores would be a logical extension of the business done under the mark by opposer. We think that much of this testimony, brief though it is, being directed to a different objective, has had a somewhat misleading effect in the present case, for reasons we shall explain later.

Applicant took the testimony of three witnesses (no attorney appearing for opposer to cross examine), one being a Kansas City merchandise manager in a specialty store handling applicant's sport shirts, the other two being the president and secretary of the applicant, a manufacturer of men's sport shirts and apparently nothing else. They testified to the innocent adoption and continuing use of "Holiday" on sport shirts, from a date later than opposer's adoption, and to a short but discontinued use on men's undershorts; to its use by them on no other goods; to a knowledge of some other uses and trademark registrations of "Holiday" and to lack of actual confusion with any of the other registrants or users or with opposer; to separate markets for shoes and sport shirts at the wholesale level; to channels of distribution for applicant's sport shirts through department, men's wear and men's specialty stores; and to advertising expenditures of $75,000 per year in support of a gross business of $2.5 million annually.

Since this record showed continuing use of the mark by applicant only on sport shirts, the case was treated as though no other product had been specified, except that the Examiner was directed by the Assistant Commissioner, in her opinion, to withhold registration pending a showing of use on the other items named in the application.

On these facts, the Examiner of Interferences held there would be likelihood of confusion and sustained the opposition. The Assistant Commissioner reversed saying, "The *facts of this case* are such as to lead away from a conclusion that there is likelihood of confusion rather than toward it." [Emphasis ours.] What both lower tribunals were considering, and what we must consider, is, of court, likelihood of consumer confusion as to source, origin or sponsorship.

The statute which controls here is section 2(d) of the 1946 act (15 U. S. C. 1052). It provides that a trademark shall not be registered if it

(d) consists of or comprises a mark which so resembles *a mark registered in the Patent Office* or a mark or trade name previously used in the United States by another and not abandoned, as to be likely, *when applied to the goods of the applicant*, to cause confusion or mistake or to deceive purchasers • • •. [Emphasis ours.]

Familiar though this passage may be, we think its precise words should be kept in mind.

First of all, opposer has "a mark registered in the Patent Office." That mark is "Holiday." The mark applicant seeks to register "resembles" it to the point of being legally identical. This brings us to the clause "when applied to the goods of the applicant." The goods of the applicant are stated in the application to be "men's outer shirts" and shown by the evidence of applicant to be sport shirts, disregarding the robes. Now with what goods are these sport shirts to be compared? [1] We think it is elementary that it must be the goods enumerated in the registration of the opposer's previously registered mark. In the earlier of opposer's registrations, No. 91,874 of 1913, the goods are "rubber boots and shoes, rubber overshoes, and rubber-soled canvas boots and shoes." Women's shoes are not mentioned. Opposer could have rested its case on this registration without taking any testimony. Instead, it chose to introduce some testimony from another opposition in order to get evidence of its Holiday store operation on the record, but in doing so we do not see why the case based on its earlier registration should be weakened. It is our view that opposer has a good case without the aid of its testimony, yet it is on the basis of the *testimony* that the decision in its favor was reversed because the goods compared with the applicant's men's sport shirts by the commissioner were "opposer's *women's* shoes and handbags." [Emphasis ours.] The decision that confusion was not likely appears to have been predicated primarily on the sex of the ordinary purchasers of the goods, it being assumed (without any supporting proof) that men's sport shirts would normally be bought by men and women's shoes and handbags by women, in different stores or different departments of stores.

[2] We are of the opinion that the use of the same trademark on the men's boots and shoes, as described in opposer's 1913 registration, and on men's sport shirts would be more than likely to "cause confusion." [3] The sale of men's shoes and shirts to the same customers in the same stores is a practice of which we can take judicial notice along with the common use of rubber boots and rubber-soled canvas shoes by men who would be wearing sport shirts. The case presents an almost exact parallel with the ultimate issue in *In re Application of Keller, Heumann & Thompson Co., Inc.*, 23 CCPA (Patents) 837, 81 F.2d 399, 28 USPQ 221, wherein this court said in 1936:

It seems clear to us that a purchaser of men's shoes bearing the trademark "TIMELY" would, upon seeing the same mark upon men's suits, topcoats or overcoats, for sale in the same store, conclude that they had the same origin as the shoes bearing said mark.

[4] Even though the net effect of the evidence of record may be to create the impression that opposer is now primarily concerned commercially with women's

shoes under the "Holiday" mark, we do not feel that this can be controlling of the issue so long as the opposer's earlier registration of "Holiday" is not so limited. We have to decide on the basis of the registration and the statute. We feel that the Commissioner erred in predicating the decision on the conclusion used as a premise and stated as follows:

> The record as a whole, however, leads to the conclusion that the mark is used only on women's shoes of various styles and women's handbags.

[5] If, in an opposition, like the present, in which opposer puts in *some* testimony as to its business activities, it must at the same time prove up the current factual accuracy of every allegation of a registration relied on, on penalty of having that registration treated as not covering all of the goods enumerated in it, then there is little left to the provision of section 7(b) of the statute that a registration is "prima facie evidence of the validity of the registration" and of "registrant's exclusive right to use the mark in commerce in connection with *the goods* or services *specified in the certificate*." [Emphasis ours.] Furthermore, as Assistant Commissioner Leeds so properly held in *North Star Woolen Mill Company* v. *Caljax Incorporated*, 98 USPQ 454, "The opposer * * * is regarded as the owner of its mark for all of the goods recited in its registrations," citing, decisions of this court, and it is not proper to consider a contention in an opposition that the opposer has not used the mark on certain goods "since it involves questions which can be resolved by the Patent Office Tribunals only in a cancellation proceeding." The present proceeding is an opposition, not a cancellation. [6] We therefore feel that the issue should not have been considered on the basis of what the record as a whole tended to show about opposer's use of the mark "Holiday," however close to the truth this may have been, but rather on the basis of the goods enumerated in its registration and the legal rights flowing therefrom in accordance with the statute. On this basis it is our opinion that applicant's application could not be allowed and that the opposition must be sustained.

We have purposely left out of consideration "Registration No. 529,488 because its filing date, April 20, 1949, is later than applicant's filing date of September 26, 1947. This registration, therefore, would not, in itself, establish *prior* use of "Holiday" on the men's shoes specifically named in it.

The opposition should, for the reasons given above, be sustained and the decision of the Commissioner of Patents is reversed.

REVERSED.

JACKSON, J., retired, recalled to participate was present at the hearing of this appeal but did not participate in the decision.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

1,744,016, A. P. Steckel, Metal rolling; **1,744,017**, same, Rolling metal strip; **1,744,018**, same, Method and apparatus for rolling; **1,779,195**, same, Method and apparatus for rolling thin sheet-like material, **filed** Jan. 20, 1936, D. C., N. D. Ohio (Cleveland), Doc. 5402, *E. W. Bliss Co.* v. *Cold Metal Process Co.* Compiaint dismissed with prejudice as to Patent Nos. 1,744,017 and 1,744,018 on motion by plaintiff (notice Apr. 30, 1958).

1,744,017. (See 1,744,016.)

1,744,018. (See 1,744,016.)

1,779,195. (See 1,744,016.)

2,224,468, H. A. Lines, Electrical heating of storage and transportation system of a viscous fluid, suit for Declaratory Judgment filed Mar. 2, 1954, D. C. Conn. (New Haven), Doc. 4802, *Electric Pipe Line, Inc.* v. *Fluid Systems, Inc.* Judgment for defendant; plaintiff enjoined Dec. 4, 1956. **Same, appeal** filed Feb. 26, 1957, C. C. A., 2nd Cir., Doc. 24536, *Electric Pipe Line, Inc.* v. *Fluid Systems, Inc.* Judgment of District Court affirmed (notice Dec. 30, 1957).

2,425,655, E. H. Tompkins, Therapeutic devices, **filed** Nov. 14, 1956, D. C., N. D. Tex. (Wichita Falls), Doc. 1110, *Mattarama, Inc. et al.* v. *United Mattress & Co. et al.* Claims 9 and 14 held invalid; complaint dismissed (notice Apr. 23, 1958).

2,439,703, B. J. Tofflemire, Matrix retainer; **2,502,903**, same, Dental matrix retainer, **filed** Dec. 24, 1957, D. C., E. D. Wis. (Milwaukee), Doc. 57c312, *Benjamin F. Tofflemire et al.* v. *The Toothmaster Co.* Final judgment; defendants permanently enjoined Apr. 23, 1958.

2,461,464, R. Aronstein, Filter for fluorescent screens, **filed** May 2, 1958, D. C., S. D. N. Y., Doc. 133/36, *Transmirra Products Corp. et al.* v. *Semon Bache & Co.*

2,501,522, S. Israel, Shoe; **2,721,400**, same, Cushioned shoe sole, **filed** May 1, 1958, D. C. Minn. (Minneapolis), Doc. 4/58/121, *Samuel Israel et al.* v. *Richard H. Picha et al.*

2,502,903. (See 2,439,703.)

2,611,198. (See 2,611,199.)

2,611,199, W. Stelzer, Tag; **2,611,198**, E. W. Ashton, Poultry tag, **filed** Oct. 29, 1952, D. C., S. D. N. Y., Doc. 79,389, *E. J. Brooks Co.* v. *Stoffel Seals Corp.* Patent No. 2,611,198 held valid and infringed by plaintiff; Pat. No. 2,611,199 held invalid; plaintiffs enjoined Apr. 21, 1958.

2,649,276, T. L. Titus, Liquid dispensing devices, **filed** Dec. 15, 1955, D. C. Colo. (Denver), Doc. 5232, *The Wyott Mfg. Co., Inc.* v. *The Doran Coffee Roasting Co., Inc.* Claims 7, 8, and 9 held valid; claim 8 infringed; dismissed as to claims 1 to 6; decree for plaintiff May 1, 1958.

2,671,922, Lower and Hatz, Jr., Spun glass roofing mop, **filed** Dec. 16, 1954, D. C. N. J. (Camden), Doc. 1003/54, *Haloro, Inc.* v. *McLaughlin's Roofing & Building Supply, Inc.* Order of dismissal with prejudice May 1, 1958.

2,675,918, W. H. Newton, Magnetic separator, **filed** May 8, 1957, D. C. N. J. (Newark), Doc. 429/57, *Jeffrey Mfg. Co.* v. *Magnetic Engineering & Mfg. Co.* Consent dismissal Apr. 28, 1958.

2,689,450, K. E. Stiegele, Expansible bracelet, **filed** May 1, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c778, *Karl E. Stiegele et al.* v. *Berco Watch & Jewelers Supply Co. et al.*

2,721,400. (See 2,501,522.)

2,726,679, J. H. Countryman, Mixing valve, **filed** Apr. 24, 1958, D. C., S. D. Ohio (Dayton), Doc. 2242, *The Alamark Co.* v. *American Radiator-Standard Sanitary Co. et al.*

2,739,367, R. W. Winberg, Buckle-forming machine, **filed** May 13, 1957, D. C. N. J. (Newark), Doc. 440/57, *O & W Sewing Machine Attachments, Inc.* v. *Andrew Derer.* Patent held valid; permanent injunction issued (notice Apr. 29, 1958).

2,762,162, W. E. Doljan, Gyroscopic top, **filed** Mar. 7, 1957, D. C., E. D. Mo. (St. Louis), Doc. 57c116(3), *Christian F. Kleinknecht* v. *Steven Mfg. Co.* Plaintiff's petition dismissed; decision for defendant Apr. 18, 1958.

2,762,438, C. A. Naylor, Wash-over spear apparatus, **filed** May 2, 1958, D. C., S. D. Tex. (Houston), Doc. 11793, *Cecil A. Naylor et al.* v. *Houston Oil Field Material Co., Inc.*

2,802,339, E. H. Fogerty, Septic tank drain line, **filed** Apr. 25, 1958, D. C., S. D. Fla. (Miami), Doc. 1417–M, *Edward H. Fogerty* v. *Septic Block of Florida, Inc.*

2,802,933, H. Broadwin, Lighting fixture, **filed** May 1, 1958, D. C. N. J. (Newark), Doc. 502/58, *Perfect-Line Mfg. Corp.* v. *Camber Lighting, Inc.*

2,811,155, W. G. Dunnican, Hypodermic syringe tip assembly, **included** by amended complaint filed Apr. 25, 1958, D. C. N. J. (Newark), Doc. 1281/57, *Becton, Dickinson & Co.* v. *East Rutherford Syringes, Inc. et al.*

2,818,832, G. H. Bushway, Box toe blank conditioning machine, **filed** Apr. 28, 1958, D. C. Mass. (Boston), Doc. 58/450–S, *Shu-Conditioner Inc.* v. *Bixby Box Toe Co., Inc.*

2,828,579, Schwerbel and Mann, Bubble gum, **filed** May 2, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c112, *George N. Schwerbel et al.* v. *Atomic Sales, Inc.*

2,830,757, H. Romanoff, Aquarium aerating pump, **filed** Apr. 24, 1958, D. C., S. D. N. Y., Doc. 132/298, *Saxon Plastics Corp.* v. *Herbert N. Nestler et al.*

2,832,595, W. Hastings, Portable exercising device; **Des. 182,660**, same, Portable exercising device or similar article, **filed** Apr. 29, 1958, D. C. Mass. (Boston), Doc. 58/454–F, *Beacon Enterprises, Inc.* v. *J. H. Smith Co., Inc. et al.*

Des. 182,660. (See 2,832,595.)

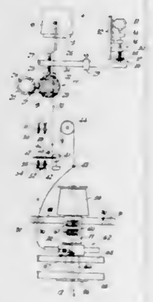
REISSUES

JUNE 10, 1958

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,483
METHOD OF AND APPARATUS FOR PLYING STRANDS

Alfred W. Vibber, Ridgewood, N. J.
Original No. 2,731,785, dated January 24, 1956, Serial No. 333,242, January 26, 1953. Application for reissue November 26, 1957, Serial No. 700,251
24 Claims. (Cl. 57—58.36)

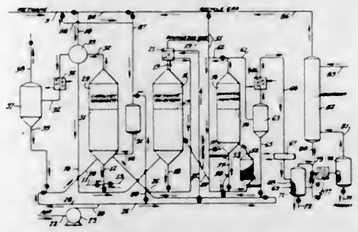


1. Apparatus for handling elongated flexible material comprising a hollow shaft, a balloon creating flyer mounted coaxial of the shaft for independent rotation with respect thereto, means for rotating the flyer, a driven material feeding means supported by the flyer for rotation therewith about the axis of the flyer, and means drivingly connecting the shaft to the feeding means whereby the material feeding means is driven by the rotation of the flyer relative to the shaft, a generally radial material conducting passage in the flyer radially outwardly of the material feeding means, the shaft and the driving connection between it and the feeding means being so positioned relative to the flyer as to leave unimpeded a zone of the flyer at the axis thereof and beyond the shaft whereby material may be fed from the feeding means in the flyer into and through the shaft.

24,484
PREPARATION OF HYDROGEN-CARBON OXIDE MIXTURES AND CATALYTIC REACTION THEREOF

Arnold Beichetz, Larchmont, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Original No. 2,577,563, dated December 4, 1951, Serial No. 749,282, May 20, 1947. Application for reissue May 21, 1952, Serial No. 289,084
36 Claims. (Cl. 260—449.6)

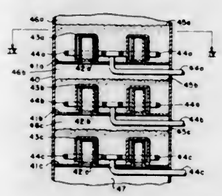
27. The method of converting a normally gaseous hydrocarbon feed material into desired hydrocarbon fractions which comprises contacting a readily reducible metal oxide with said normally gaseous hydrocarbon feed material at an elevated temperature such that substantial reaction occurs in which the metal oxide is subjected to substantial reduction, and the normally gaseous hydrocarbon feed is substantially converted into synthesis gas comprising essentially hydrogen and carbon monoxide, passing synthesis gas in contact with an active hydrocarbon synthesis catalyst, distinct from said reducible metal oxide, in a synthesis zone under reaction conditions including a lower temperature in the range at which said synthesis catalyst actively converts synthesis



gas into said desired products and carrying out contact between said synthesis catalyst and synthesis gas in the presence of reduction product of said metal oxide.

24,485
METHOD OF CARRYING OUT HOMOGENEOUS VAPOR PHASE REACTIONS

Allen R. Kittleson and Erving Arundale, Westfield, N. J., and Jennings H. Jones and Merrell R. Fenske, State College, Pa., assignors to Esso Research and Engineering Company, a corporation of Delaware
Original No. 2,809,981, dated October 15, 1957, Serial No. 339,308, February 27, 1953. Application for reissue December 10, 1957, Serial No. 703,989
9 Claims. (Cl. 260—451)



1. A process for homogeneous non-catalytic partial oxidation of oxidizable hydrocarbons vaporous at reaction temperature which comprises passing a stream of said hydrocarbons in alternating sequence upwardly through a plurality of dense phase regions and [void] *dilute* regions within a reaction zone, said dense phase regions containing turbulent finely divided fluidized non-catalytic solids [having an apparent density of about 20 to 40 lbs./cu. ft], *said solids having a settled bed density of about 32 to 300 lbs./cu. ft.*, and said [void] *dilute* regions containing an essentially homogeneous vapor phase having an apparent density of not more than 1 lb./cu. ft., contacting the said hydrocarbon stream in said dilute regions at a reaction temperature between about 275° and 480° C. with a free oxygen containing gas for a contact time up to about 10 seconds, in amounts such that the local mole ratio of oxygen to hydrocarbon is not in excess of about 1.25 whereby the hydrocarbon containing vapor phase is selectively oxidized and heated, contacting the selectively oxidized vapors with the [densed] *dense* fluidized solids to maintain the desired temperature, cooling the finely divided solids to remove the excess heat of reaction, and withdrawing the oxidized reaction products from an upper portion of the reaction zone.

24,486
HIGH-ALPHA CELLULOSE

Reid Logan Mitchell, Morristown, N. J., assignor to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware
No Drawing. Original No. 2,805,169, dated September 3, 1957, Serial No. 522,855, July 18, 1955. Application for reissue December 17, 1957, Serial No. 703,468
12 Claims. (Cl. 106—163)

7. The improvement in the poduction of filaments by the viscose process which comprises forming a viscose solution from wood pulp containing not more than 0.5% based on the bone dry weight of the pulp of ether extractable resins of the wood, and *including in the viscose* from 0.02% to 0.5% *based on the content of the bone dry pulp* of a water-soluble non-ionic compound which consists of an organic hydrophobic compound of low water solubility containing from 2 to 4 active hydrogens substituted by from 2 to 4 terminal polyethylene oxide groups each containing from 1.6 to 700 ethylene oxide units.

PLANT PATENTS

GRANTED JUNE 10, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,716
PEACH TREE

Dareld R. Vestal, Red Bluff, Calif., assignor to Reedley Nursery, Inc., Reedley, Calif., a corporation
Application June 24, 1957, Serial No. 667,730
1 Claim. (Cl. 47—62)

A new and distinct variety of peach tree as illustrated and described, characterized by its general resemblance in tree and fruit to the parent Redhaven peach, but distinctively characterized by fruit having a ripening period approximately two weeks earlier than said Redhaven peach; and further characterized by a blooming period which averages three to four days earlier.

1,717
AZALEA PLANT

Edith C. Bosley, Mentor, Ohio
Application October 15, 1957, Serial No. 690,414
1 Claim. (Cl. 47—60)

The new and distinct variety of azalea plant, substantially as herein shown and described, characterized particularly by its low, compact growth; its semi-evergreen foliage; its exceptional hardiness; and its crimson red flowers which do not fade.

1,718
NECTARINE TREE

Lisle A. Hagler, Visalia, Calif.
Application October 28, 1957, Serial No. 692,991
1 Claim. (Cl. 47—62)

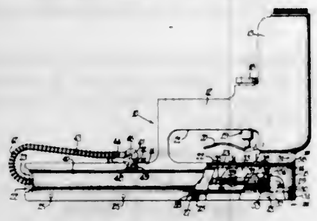
A new and distinct variety of nectarine tree of the yellow-fleshed freestone fruit type, substantially as herein shown and described, characterized particularly as to novelty by its habit of ripening about five or six days earlier than the fruit of its parent variety "Le Grand" (Plant Patent No. 549), and by a higher red coloring of the skin of its fruit as compared with "Le Grand."

PATENTS

GRANTED JUNE 10, 1958

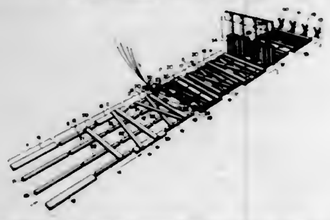
GENERAL AND MECHANICAL

2,837,743
FEED MECHANISM FOR STAPLING OR LIKE MACHINES
Charles E. Crooks, Fox River Grove, and William R. Beckman, Chicago, Ill., assignors to Spotnails, Inc., Evanston, Ill., a corporation of Illinois
Application January 4, 1956, Serial No. 557,393
18 Claims. (Cl. 1—49)



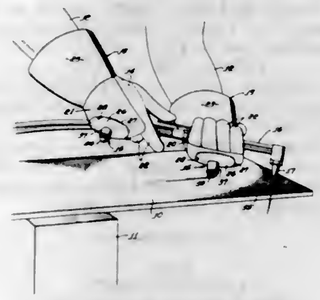
1. In combination in a machine of the character described, a structure provided with an elongated rearwardly opening fastening element magazine within which a series of fasteners is supported for feeding into position to be driven at a driving station at the front of the machine, a pusher mechanism for urging the series of fasteners toward said position including a pusher member for engaging the fasteners, a rod on which the pusher member is slidably mounted, said rod having a portion extending into said magazine and a further portion extending rearwardly around the rear end of the machine and forwardly along said magazine and having on its terminal end an interlock lug, and a bracket having an interlock socket within which said lug is latchingly interengageable, said bracket having an attachment flange attached to said magazine, said rod having thereabout a compressible coil spring extending from the terminal end portion of said further portion of the rod and into forwardly thrusting engagement with said pusher.

2,837,744
METHODS FOR MAKING WIREBOUND BOX AND CRATE MATS
Walter F. Newhouse, Benton Harbor, Mich.
Application December 5, 1956, Serial No. 626,472
10 Claims. (Cl. 1—62)



1. A method of continuously making crate mats having hingedly connected panels which includes, continuously arranging at least a pair of cleats in parallel spaced relation at one station, continuously advancing the cleats along a flat surface to other successive stations, continuously feeding wires onto said cleats, continuously arranging at least a pair of slats over said cleats and said wires at another successive station, continuously fastening said cleats, slats and wires together at another successive station, and automatically cutting the wires at predetermined intervals to separate the mats from each other, after the completion of the fastening operation.

2,837,745
SUPPORTING DEVICE
David P. Nelson, Porterville, Calif.
Application October 15, 1956, Serial No. 615,847
8 Claims. (Cl. 2—161)



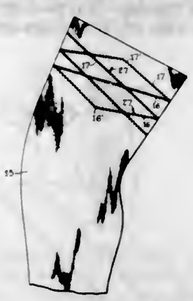
1. The combination of a glove having an external surface, a rollable support, and means mounted on the glove outwardly extended from its outer surface and universally journaling the rollable support on the glove in a position outwardly spaced from the external surface of the glove.

2,837,746
PROTECTIVE GARMENT
Mabel J. Gundy, Chicago, Ill.
Application September 16, 1954, Serial No. 456,387
5 Claims. (Cl. 2—187)



5. A protective garment comprising a first sheet of flexible water impervious material, said first sheet having a plurality of accordion-like folds longitudinally arranged therein, the end folds of said first sheet forming attaching edges therefor, a second sheet also of flexible water impervious material having top and bottom edge portions, said top edge portion forming an attaching edge for said second sheet, said second sheet having its attaching edge integrally secured to the entire length of one of the attaching edges of the first sheet of folds forming a cape, rigid-like means pivotally securing said folds of the first sheet together only at the ends thereof, and ribbon tie means piovtally secured to said first sheet by said rivet-like means, whereby said two sheets may be secured to the wearer as a protective garment.

2,837,747
SUPPORTING MEANS FOR HOSIERY AND THE LIKE
Kay M. Schafler, New York, N. Y.
Application January 14, 1955, Serial No. 481,861
1 Claim. (Cl. 2—240)



In combination with a stocking or the like, a supporting means therefor comprising a string-like member having ends; said string-like member being positioned adjacent one surface of said stocking around an upper portion thereof and arranged thereon as a helix of a plurality of turns; said upper portion of the stocking being of closely woven material; the ends of said string-like member being secured to said stocking and means secured on said upper portion of the stocking determining a string confining helical structure on said surface; said string-like member being laced through such string-confining helical structure and loose therethrough.

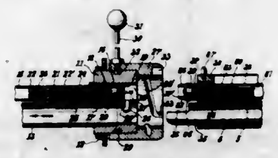
2,837,748
GARMENT KEEPER
Anna K. Manning and Russell L. Manning, Gardena, Calif.
Application January 23, 1956, Serial No. 560,699
5 Claims. (Cl. 2—309)



1. In a device to take up the slack in an encircling part of a garment, the combination of: a strap of rubber-like material; a clasp on each end of the strap, each of said clasps comprising a piece of sheet metal lying against one side of the strap with two opposite wings of the sheet metal folded to encase the strap, the edges of the folded wings being spaced apart to expose a portion of the strap therebetween, said wings compressing the rubber-like material of the strap to cause said exposed portion to form a resilient elongated bulge extending longitudinally of said strap; and a hook on each of said clasps extending longitudinally of the strap and inwardly of the outer end of the clasp in close proximity to said resilient bulge to cooperate therewith for engaging said encircling part of the garment, the longitudinal axes of said bulge and hook being substantially coplanar.

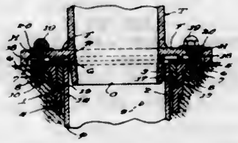
2,837,749
MULTIPLE WATER PIPE CONNECTING DEVICE
Lothar Gross, Stuttgart, Wurttemberg, Germany
Application July 22, 1954, Serial No. 445,147
6 Claims. (Cl. 4—159)

1. In a washing apparatus, the combination, with a stationary fitting having a body and two water supply conduits and a waste conduit connected thereto, of a transportable basin, two flexible water supply pipes and a flexible waste pipe leading from said basin and assembled as a unit, a ring rotatable on said fitting body and having an end portion thereof extending beyond said body to form a socket, a plurality of grooves on the inner peripheral face of said ring socket portion, each groove having an axial entrance part and an inclined part, a head on the free end of said pipe unit engaged within said ring socket, a plurality of external radial projections on said head engaged within the ring socket grooves thereby to removably attach the head to the fitting body first by relative axial movement of said head and body and then



by rotational movement of said ring relative to said head and body, a valve in the body connected to each supply conduit, a valve in the head connected to each supply pipe, interengaged means on each supply conduit valve and the corresponding flexible supply pipe valve for holding the valves open when the head and body are coupled and means on each of the valves for biasing each valve to the closed position when the head and body are uncoupled whereby each supply and waste conduit communicates with the corresponding pipe when the head and body are coupled.

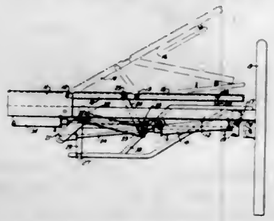
2,837,750
PLUMBING FIXTURE CONNECTING MEANS
Robert L. Robinson, Lancaster, Calif.
Application January 11, 1954, Serial No. 403,161
3 Claims. (Cl. 4—252)



1. Means for attaching toilet fixtures and the like to soil pipes comprising a ring having a smaller inner diameter portion loosely fitting the exterior of the soil pipe, a concentrically disposed larger inner diameter portion disposed above and joining said smaller diameter portion with resultant formation of a shoulder; the inner face of said larger diameter portion adjacent to said shoulder including an annular groove, and a laterally outwardly extending annular flange at the upper end of said larger diameter portion, a series of radially spaced screws extending through the wall of said smaller diameter portion operable to secure said ring to the soil pipe at a selected elevation thereon and in a selected angular position with respect to the axial line of the soil pipe, a pair of holes extending through said flange, a pair of fixture hold down bolt engaging nuts associated one each with one of said holes; each of said nuts having a shank portion extending through the hole in said flange with which it is associated and a body portion larger than said shank portion disposed beneath said shank and having a threaded hole extending downwardly through said shank and into said body portion; the space between said larger diameter and the exterior of the soil pipe affording space for the application of caulking material, and a washer closely engaging the outer periphery of the soil pipe and resting on said shoulder effective to prevent the escape between the soil pipe and said smaller diameter of molten caulking material poured into the space be-

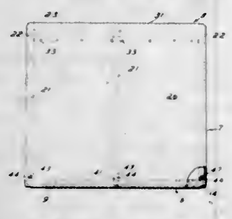
tween said larger inner diameter and the outer surface of the soil pipe and said groove affording additional anchorage of the caulking material to said ring.

2,837,751
FOOT PANEL ADJUSTMENT FOR HOSPITAL BED
Sherad M. McCall, Pittsburgh, Pa., assignor to Ronalie G. Silbaugh, Uniontown, Pa.
Application May 19, 1954, Serial No. 430,895
12 Claims. (Cl. 5—80)



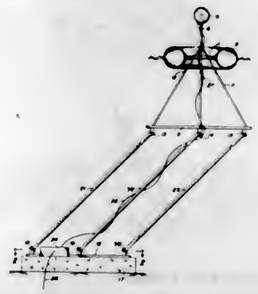
12. In a hospital bed, a bed frame, adjustable knee and foot panels hingedly connected together with the front end of the knee panel pivotally connected to the mid portion of the frame, a cradle having a horizontal pivotal connection to the mid portion of the frame and having guide rods positioned below the panel, rollers at the sides on the bottom of the foot panel engaging the cradle guide rods, a fluid operated reciprocatable piston in a cylinder connected by a linkage to the knee panel, means to supply pressure fluid to the cylinder to raise and lower the knee panel, a vertically inclined rod at each side of the cradle and power operated means movable in engagement with the inclined rods to oscillate the cradle about its horizontal axis for raising and lowering the foot panel.

2,837,752
KNOCK-DOWN PLAY PEN
Esther M. Wilkerson, Danville, Calif.
Application November 15, 1954, Serial No. 468,615
2 Claims. (Cl. 5—99)



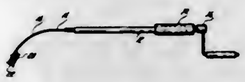
1. Apparatus of the character described comprising a base member, a plurality of vertically extending pales positioned adjacent marginal edge portions of said base member, means at the lower end of each of said pales for securing it to said base member, said means each including a pair of spaced ears each having a slot therethrough and a pin whereby in one position of axial movement of said pale, the pale will remain in an upright position and in another position of axial adjustment of said pale, said pale may be rotated about said pin to assume a folded position adjacent the upper surface of said base member, an upper retaining ring having means depending therefrom engageable with each of said pales, a liner extending from said base portion to substantially the upper end portion of said pales, said liner being positioned substantially immediately adjacent the respective pales and extending completely around said base portion, and means for securing the lower edge portion of said liner to said base portion and for releasably attaching the upper edge portion of said liner to said upper retaining ring.

2,837,753
SEADROME LIGHT SUPPORT
Amos L. Lewis, Vienna, Va., assignor to the United States of America as represented by the Secretary of the Navy
Application February 14, 1957, Serial No. 640,298
4 Claims. (Cl. 9—8.3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A seadrome light support for outlining a seaplane landing area comprising a light, means for supporting said light, a buoy attached to said means, at least three universal joints fixed to said means and arranged in a triangular relationship, a platform anchored to the bottom of the sea, at least three universal joints fixed to said platform and arranged in a triangular relationship, and rods connecting respective universal joints on said means and platform whereby the light is free to move up and down and in a circular locus above the platform while maintaining a constant orientation for the light.

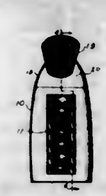
2,837,754
APPLICATION OF CONDUCTIVE COATING TO CATHODE RAY TUBES
Alfred P. Johansen, Hasbrouck Heights, N. J., assignor to Thomas Electronics, Inc., Passaic, N. J., a corporation of New Jersey
Application May 17, 1956, Serial No. 585,538
6 Claims. (Cl. 15—22)



1. An apparatus for coating the interior surface of a vessel having an irregular shape comprising, a handle, a tube extending from said handle, a spring wire movably extending through said tube and handle, said wire having a permanent set and being substantially longer than said tube and handle, said wire being axially movable and rotatable within said tube, a brush mounted on the end of said wire extending from said tube, and means for rotating said wire mounted on the end thereof extending from said handle.

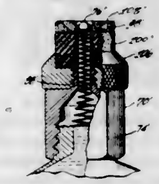
2,837,755
COMBINATION COMB AND CLIPPER CLEANER
Dan H. Jones, Las Vegas, Nev.
Application October 12, 1955, Serial No. 540,004
1 Claim. (Cl. 15—106)

A combination cleaner for combs and clippers including an elongated hollow body having a flat transverse surface at one end substantially perpendicular to the axis of said body for supporting the cleaner in a vertical position, said body having elongated generally rectangular aligned openings in opposite sidewalls thereof, said openings being disposed centrally of said sidewalls and extending axially of said body substantially perpendicular to said flat surface, a pair of elongated opposed comb cleaning brushes rotatably mounted in said body in substantially parallel relationship, said brushes having helically disposed bristles and with the bristles of one brush intermeshing with and overlapping the bristles of the other brush, the sidewalls of said body adjacent said openings extending around and enclosing a portion of the bristles of each brush and the



bristles of said brushes being disposed entirely within the confines of said body whereby contact of said brushes with objects exteriorly of said body is prevented and clipper cleaning bristles mounted on the opposite end of said body, said clipper cleaning bristles extending from said body in a direction away from said flat surface and at an oblique angle to the axis of said body.

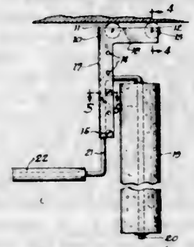
2,837,756
FLUID APPLICATOR HAVING RELATIVELY ADJUSTABLE VALVE AND SPREADER ELEMENTS
Sidney D. Barlow, Mount Vernon, and Philip S. Sussman, Bronx, N. Y., and Arrigo Varettoin de Molin, Park Ridge, N. J.
Application September 8, 1953, Serial No. 378,928
1 Claim. (Cl. 15—139)



An applicator device for use in applying a fluid to a surface comprising: a valve element and a spreader element; said valve element including a first elongated tube having an opening at an end thereof and a spring pressed ball disposed within said opening; said spreader element being in the form of a second tube surrounding said first tube and having a spreading surface lying substantially tangentially to the exposed surface of said spring pressed ball; and means for adjusting the axial position of said spreader element with respect to said valve element whereby wear occurring upon the surface of said spreading element may be compensated for and said surface may be maintained in tangential relationship with respect to the exposed surface of said ball, said means including a threaded engagement of the spreader element upon the valve element.

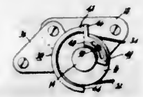
2,837,757
DROP CEILING GUIDE
Leonard D. Katanich, Lansing, Ill.
Application April 12, 1954, Serial No. 422,419
1 Claim. (Cl. 15—246)

A roller guide frame having identical parallel but separated sides which are joined by a curved edge, each side having one long arm and one short arm that is disposed at right angle to said long arm, said parallel short arms having spaced pairs of oppositely disposed holes therethrough, means inserted through one pair of said oppositely disposed holes and through the center of a wheel to hold said wheel in place between the parallel short arms of said frame, each pair of said oppositely disposed holes in said short arms having similar wheels similarly held in place, said long arms having oppositely



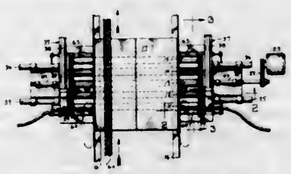
disposed holes therethrough, contractible means inserted through selected holes in said long arms to fasten said frame around a rod-like element having a roller applicator attached thereto.

2,837,758
WINDSHIELD WIPER TRANSMISSION
Daniel M. Adams, Birmingham, and Charles P. Roth, Dearborn, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 16, 1954, Serial No. 437,084
4 Claims. (Cl. 15—253)



1. Windshield wiper drive apparatus including, a power unit having an oscillatory output member with a stroke of predetermined amplitude, a wiper, a shaft for oscillating the wiper, a pulley assembly attached to the wiper shaft, a flexible cable drive interconnecting the output member and the pulley assembly including a pair of flexible cables and primary tensioning means therefor, a stationary bracket having an arcuate stop encircling a portion of the pulley assembly, a complementary stop attached to said pulley assembly and engageable with said arcuate stop for positively limiting the oscillation of said wiper to an amplitude less than the predetermined amplitude of the output member, resilient means in one of said cables for taking up the extra movement of said output member, and auxiliary tensioning means in the other flexible cable for preventing humping thereof due to engagement between the arcuate stop and the pulley assembly stop.

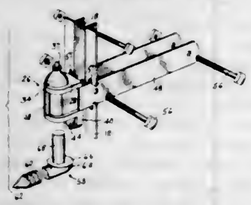
2,837,759
WHEEL WASHER
Loren Russell Haverberg, Chicago, Ill.
Application August 23, 1956, Serial No. 605,734
2 Claims. (Cl. 15—302)



2. In a wheel washing machine, means for moving a wheel to be washed forwardly along a given travel path, means for rotating said wheel in the forward direction of rotation considerably faster, rim speed considered, than the bodily speed of the wheel while being moved

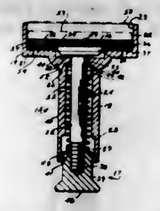
along said travel path, an elongated brush assembly, paralleling said travel path, anchored double-acting hydraulic cylinder means operatively connected to said brush assembly for moving the same in a straight line at cross-angles to said travel path, control means responsive to the travel of a wheel along said travel path for selectively activating said hydraulic cylinder means such as to cause the same to move said brush assembly into and out of wheel engaging position when said wheel is near the beginning and end, respectively, of said brush assembly, a track carried by the brush assembly and extending therealong in parallel relation to said travel path, a carriage mounted on said track for movement therealong, an arm carried by said carriage and arranged to extend into said travel path to be engaged by the front of the wheel being washed when the brush assembly is in wheel engaging position to thereby move the carriage along the track in concert with the wheel and be retracted from said travel path when the brush assembly is withdrawn from wheel engaging position, carriage return means operatively associated with said carriage for returning said carriage when said arm is retracted from said travel path, and a nozzle above said brush carried by said carriage rearwardly of said arm and directed toward said travel path such as to direct a cleaning agent supplied to the nozzle against the forward portion of the wheeel whereby the cleaning agent will be disbursed over the approaching rotating wheel surface to be washed just before contact therewith by the bristles of said brush assembly.

2,837,760
GATE HINGE
Dale V. Ware, Farmington, Iowa
Application June 22, 1954, Serial No. 438,469
3 Claims. (Cl. 16—174)



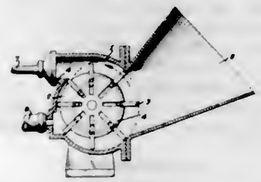
1. In a gate hinge for mounting a gate having a horizontal rail on a gate post, the rail having an end adjacent the post, a bearing member formed with a vertically disposed chamber closed at its upper end and open at its bottom, said bearing member provided with a grease passageway extending from the exterior of said bearing member into the top of said chamber, a lip depending from said bearing member and offset relative to the bottom of said chamber, said lip having a recess, a screw hook having one end adapted to be secured in the gate post, a pivot member integrally formed on the other end of said screw hook to present a horizontal circular face covering the open bottom of said chamber, an upstanding shaft eccentrically disposed on said horizontal face, said shaft pivotally journalled in said chamber and being of such a length that the top thereof is spaced below the top of said chamber to form a grease reservoir communicating with said grease passageway, a portion of said horizontal face receivable at the closed position of the gate within said recess to lock said bearing member against removal from said shaft, an elongated U-shaped clamp having its closed U-shaped end embracing said bearing member and its sides adapted for attachment to respective opposite sides of said gate rail whereby one side of said bearing member is held in abutting engagement with the adjacent end of said rail.

2,837,761
HAMBURG STEAK PATTY FORMING DEVICE
George Stiegler, Cincinnati, Ohio
Application April 17, 1956, Serial No. 578,815
3 Claims. (Cl. 17—32)



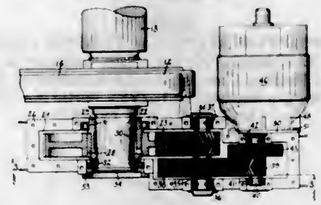
1. In a Hamburg patty forming device the combination of a stand having a substantially flat supporting surface, a rod carried by and upstanding from said stand, a Hamburg steak patty support including a relatively thin flat plate at the upper end of the rod, a patty former comprising a base having an upper surface of an area substantially equal to the area of the patty supporting plate, said patty former base having a wall upstanding from its periphery to a point above the patty support, a hollow body member depending from the patty former base encircling the rod and having an internal shoulder at its upper end, a given number of removable individual collars within said hollow body member superimposed on one another on said hollow body member internal shoulder, yielding means between the stand and collars within said hollow body member under sufficient tension for yieldably maintaining the patty supporting plate in operative position against the upper surface of the patty former base and thereby establish the capacity of the patty former but which yielding means permits the patty former to be moved toward the stand for exposing the patty support above said patty former wall, and said individual collars being adapted to be removed selectively and in toto from within the hollow body member and disposed between the patty supporting plate and the upper surface of the base of the patty former for changing the capacity of the patty former without changing the tension in the yielding means for maintaining the patty support in operative position within the patty former.

2,837,762
ROTARY MATERIAL PRESS
Antonio Azzini and Graziano Azzini, Milan, Italy
Application November 12, 1953, Serial No. 391,602
2 Claims. (Cl. 17—37)



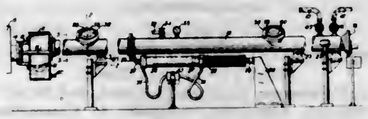
1. A material press comprising a hollow body defining a substantially cylindrical enclosure, a cylinder defining radial slots, an exit tube extending from said body with one side substantially tangential to said body, an axle rotatably supporting said cylinder eccentrically in said cylindrical enclosure, the opposite side of said exit tube being substantially tangential to said cylinder, blades slidably mounted in the radial slots, pins on said blades, means defining grooves for receiving said pins and guiding said blades to maintain the outer edges of the latter normally adjacent said body, a hopper having an opening into said enclosure for feeding material into engagement with said blades in said enclosure, means for rotating said cylinder in the direction moving said blades from said opening of the hopper past said exit tube in the general direction in which the latter extends from said body, means for producing a vacuum, conduit means communicating said means for producing a vacuum with said enclosure and opening into the latter at a location between said exit tube and said opening of the hopper considered in said direction of movement of the blades so that the relative low pressure thus created in said enclosure induces the movement of material from said hopper into said enclosure to fully charge the spaces defined between successive blades, while movement of the blades from said location toward said opening of the hopper ensures against the entry of material into said conduit means, said grooves guiding said blades adjacent to said body until they force the material directly into said exit tube and thereafter withdrawing said blades for travel adjacent said body in accordance with the eccentric disposition of said cylinder.

2,837,763
DRIVE MECHANISM FOR A RUBBER MILL OR SIMILAR MACHINE
Warren C. Whittum, Ansonia, Conn., assignor to Farrel-Birmingham Company, Incorporated, Ansonia, Conn., a corporation of Connecticut
Application July 8, 1954, Serial No. 441,965
9 Claims. (Cl. 18—2)



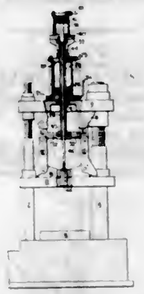
1. A rubber mill or like device comprising a mill stand having a pair of cooperating rolls, side frames in which said rolls are rotatably mounted, a gear case mounted adjacent one of said side frames, one of said rolls having a neck portion extending into said case, a gear rotatably mounted in bearings carried by said case and having a hollow hub member in which the roll neck portion is nonrotatably received, reducing gears rotatably mounted in bearings carried by said case and connected to said first-named gear, and a motor for driving said reducing gears.

2,837,764
PRESSURIZED COOLING TROUGH FOR EXTRUDERS
Cecil A. Hallam, Westfield, and Samuel Pitt, Cranford, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 15, 1955, Serial No. 494,402
1 Claim. (Cl. 18—6)



The combination with an apparatus for extruding a plastic sheath on a core while advancing longitudinally in a given horizontal path, of a closed trough disposed in a horizontal plane to surround the path and having an entrance end and an exit end, means having an exit passageway therethrough for the sheathed core sealing the exit end of the trough about the sheathed core, means to direct water into the trough, a dam mounted in the lower portion of the entrance end of the trough, recessed in its upper surface for the sheathed core and controlling the depth of water in the lower portion of the trough to surround the sheathed core, a receptacle, with one opening fixed to the entrance end of the trough, and another opening removably sealed to the outlet of the extruding apparatus, extending below the openings to receive the water overflowing the dam, means actuated when the level of the water in the receptacle reaches a position short of the outlet of the extruding apparatus to open a drain for the water, and means to force air under a predetermined controlled pressure into the trough to force the sheath into intimate engagement with the core to force air from between the sheath and the core back toward the extruding apparatus.

2,837,765
KNOCKOUT MECHANISM FOR MOLDING MACHINE
Wilfred G. Harvey, Leominster, Mass.
Application March 17, 1954, Serial No. 416,785
6 Claims. (Cl. 18—16)

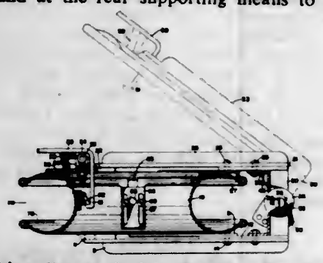


6. A molding machine comprising a fixed platen, a movable platen for holding a mold having a two-stage stripper mechanism, fixed stop means engageable with the stripper mechanism to effect the first-stage stripping action as said movable platen is moved to open position, an ejector member mounted on said movable platen and operative when depressed to effect the second-stage stripping action, a clamp cylinder having an operating piston and a tubular piston rod extending axially through and beyond each end of the clamp cylinder, the inner end of said tubular piston rod having a connection with said movable platen effective to reciprocate it in response to reciprocatory movement of said operating piston, said ejector having an extension projecting into the inner end of said tubular piston rod, an auxiliary cylinder coaxial with and mounted adjacent to the outer end of said clamp cylinder, a piston within said auxiliary cylinder having a rod extending into said tubular piston rod with its end engageable with said extension, and control means for successively admitting fluid pressure to the outer end of said clamp cylinder to close said movable platen, admitting fluid pressure to the inner end of said clamp cylinder to open said movable platen, and admitting fluid pressure to the outer end of said auxiliary cylinder when said movable platen is open thereby to operate said ejector piston.

2,837,766
TUBE-FORMING RING
Alexander F. Stolitzka, Akron, Ohio
Application August 24, 1953, Serial No. 375,996
2 Claims. (Cl. 18—17)

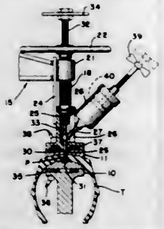
1. A clam-shell type tube-forming ring which includes an annular support which forms the bottom and inside of an annular enclosure, the outer edge of the bottom being inclined upwardly, and a cover which forms the top of the annular enclosure, the outer edge of which

cover is spaced from the outer edge of the support whereby the outer circumference of a tube in the ring is exposed to view, both said support and cover being seamless and of spun metal, a base to which said support is attached, and at the rear supporting means to which the



cover is hingedly attached, a slot extending downwardly from the upper edge of the annular support and a plate with a valve hole in it fastened to the inner surface of the annular support, the location of the plate being adjustable on the support to position the valve hole at a desired height.

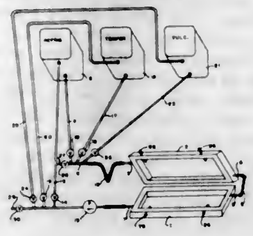
2,837,767
TIRE REPAIR APPARATUS
Donald A. MacDonald, Indianapolis, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 14, 1954, Serial No. 455,849
8 Claims. (Cl. 18—18)



2. Apparatus for repairing a puncture in a tire casing comprising, a pair of clamping jaws providing opposed clamping surfaces between which a section of a tire casing surrounding a puncture therethrough may be clamped, means for moving said clamping jaws toward and away from each other, an opening through the clamping surface of one of said jaws through which a vulcanizable compound may be injected into said puncture to form a plug, a recess in the surface of the other of said jaws in alignment with and of a larger diameter than said opening through the surface of said one of said jaws into which some of said compound can flow to thereby form a head on said plug, a rod mounted for movement through said opening, means for moving said rod to clamp the nozzle of an injection gun in said opening and for applying pressure to compoud injected into said puncture when said injection gun is removed, and means for heating said jaws to vulcanize said compound injected into said puncture and recess.

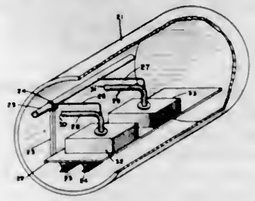
2,837,768
METHOD FOR THE MANUFACTURE OF FOAM RUBBER
Anselm Talalay, New Haven, Conn., assignor, by direct and mesne assignments, of one-half to The Dayton Rubber Company, Dayton, Ohio, a corporation of Ohio, and one-half to The B. F. Goodrich Company, Akron, Ohio, a corporation of New York
Application September 2, 1950, Serial No. 182,989
8 Claims. (Cl. 18—53)

1. A method for the manufacture of foam rubber which comprises incorporating a foamed aqueous rubber dispersion within a mold, circulating a refrigerant fluid at a temperature below the freezing point of the foam through the mold in indirect heat exchange with the contents thereof until the foam is frozen, introducing a coagulant into the frozen mass to effect coagulation of said foam while still in a frozen state, circulating a tempering fluid through the mold in indirect heat exchange with the con-



tents thereof at a temperature above the freezing point of the latex and below the vulcanization temperature to at least partially thaw the frozen mass and increase the temperature of the mold and its contents, and then circulating a fluid through said mold in indirect heat exchange with the contents thereof and at vulcanizing temperatures to effect vulcanization of the foam.

2,837,769
METHOD FOR MANUFACTURING CLOSURES
William T. Wagner, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application September 1, 1953, Serial No. 377,954
6 Claims. (Cl. 18—53)

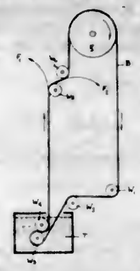


2. A method for the manufacture of fuel cells comprising building a cell formed of composite rubber layers about a water disintegratable form, the dimensions of which conform to the interior dimensions of the cell, vulcanizing the cell while supported by the form therewithin in an atmosphere of steam, and introducing relatively dry air into the cell during the vulcanization thereof at a rate capable of maintaining a pressure therewithin which is at least equal to the pressure of the steam atmosphere surrounding the same, whereby contact of the steam with the form and premature disintegration of the latter are prevented.

2,837,770
PROCESS FOR PRODUCING FILMS FROM POLYVINYL ALCOHOL
Willy O. Herrmann, Wolfram Haehnel, and Heinz Winkler, Munich, Germany, assignors to Consortium für Elektrochemische Industrie G. m. b. H., Munich, Germany, a corporation
Application July 28, 1953, Serial No. 370,888
Claims priority, application Germany August 7, 1952
6 Claims. (Cl. 18—57)

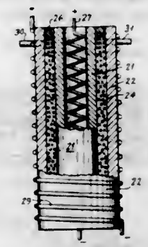
5. Process for producing films from a solution of polyvinyl alcohol which comprises moving a conveyor band through a bath of said solution, pressing said solution upon both sides of said band with a rolling pressure while

said band is submerged in said bath, removing the film-coated band from said solution, drying said coated band,



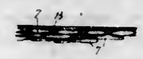
and subjecting the latter to a repetition of the foregoing process to produce films of optional thickness.

2,837,771
CASTING METHOD
Warren Jackson, Jr., Lyndhurst, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
Application July 8, 1953, Serial No. 366,749
5 Claims. (Cl. 18—58)



1. A method of casting solid material containing at least two components that are non-reactive and miscible with one another in the liquid state which comprises confining the components, in a liquid state, in a chamber defined by closely and substantially equidistantly spaced walls of heat conductive, inert material, maintaining one of the walls at a higher temperature below the boiling point of the lowest boiling component and maintaining the other of said walls at a lower temperature above the solidification temperature of the highest melting component until there is a variation in the concentrations of the components in different portions of the chamber, and then quickly cooling both walls to a temperature below the eutectic temperature to solidify the liquid.

2,837,772
COATING OF PLASTIC MATERIAL
Stanley Thomas Deakin, Ewell West, England, assignor, by mesne assignments, to Siemens Edison Swan Limited, Westminster, London, England, a British company
Application August 13, 1954, Serial No. 449,801
Claims priority, application Great Britain August 25, 1953
3 Claims. (Cl. 18—59)



1. A process of coating polytetrafluoroethylene with a metal consisting in initially cold compressing the polytetrafluoroethylene in granular form into a shape, surfacing said shape with a metallic coating so as to cause the metal to flow into the spaces between the polytetrafluoroethylene granules, further cold compressing the coated polytetrafluoroethylene so as to mould it more closely to a required shape, thus increasing the bonding action between the polytetrafluoroethylene and the metal and finally heat treating said coated polytetrafluoroethylene to a temperature between 320 and 400° C. to effect its setting.

2,837,773
PROCESS FOR BRIQUETTING TITANIUM SCRAP
Walter W. Eichenberger, Erie, Pa.
No Drawing. Application December 3, 1956
Serial No. 625,630
1 Claim. (Cl. 18—59.3)

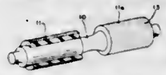
A method of forming briquettes from titanium scrap which has obtained an extreme hardness due to working thereof comprising providing said titanium scrap in unannealed form having oxidized surfaces, mixing titanium sponge in an amount at least equal to the weight of said scrap with said scrap to form a matrix for said scrap, and placing said scrap and said sponge in a briquetting press and applying a pressure thereto whereby said scrap and said sponge are formed into a briquette with said sponge forming a matrix for said scrap.

2,837,774
SUCTION HEAD MOUNTING FOR VACUUM CLEARING SYSTEMS
Woodrow W. Hewitt, Charlotte, N. C., assignor to Spinsavac Corporation, Charlotte, N. C., a corporation of North Carolina
Application August 9, 1955, Serial No. 527,262
7 Claims. (Cl. 19—139)



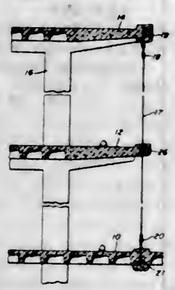
1. Improved means for supporting suction heads of vacuum clearing systems adjacent drafting rolls mounted on roll stands comprising a bracket for each end of said suction head, means connecting said brackets to the proximal surfaces of adjacent roll stands, a resilient link for each of said brackets, said links each having a fixed end and a free end, means rigidly securing the fixed ends of said links to their respective brackets and means releasably connecting the free ends of said links to respective ends of said suction head, the free ends of said links being normally biased toward each other in their relaxed state to exert inward clamping pressure on the suction head, the free ends of said links also being normally biased upwardly above the fixed ends thereof to urge the suction head toward the drafting rolls, and said links being yieldable to permit the suction head to be moved away from the drafting rolls.

2,837,775
TEXTILE COT
Joseph Rockoff, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
Application July 19, 1952, Serial No. 299,841
9 Claims. (Cl. 19—143)



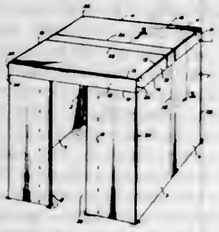
1. A textile fiber drafting cot having a working surface composed of vulcanized oil-resistant synthetic rubber having intimately incorporated therewith a minor proportion of particles of soft, porous, fibrous nutshells, said particles being exposed at said cot surface.

2,837,776
MULTIPLE-STORY BUILDING
Henry R. Klein, Berwyn, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application July 15, 1955, Serial No. 522,261
8 Claims. (Cl. 20—1.13)



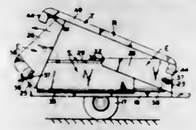
7. In a multiple story building, which includes a plurality of internally supported vertically spaced reinforced concrete floors, an outside vertical wall construction comprising a plurality of vertically extending spaced stranded wire structures, a pair of anchors for each of said structures fixedly embedded respectively in the ceiling of an upper story and in the floor of a lower story, take-up means joined to each of said structures and one of its anchors, and resilient means connected to each of said structures and its other anchor, the floors of intermediate stories having passages through which said structures extend freely.

2,837,777
COLLAPSIBLE SHELTER
Roger L. White, Lawrence, Kans., assignor to The Lawrence Paper Company, Lawrence, Kans., a corporation of Kansas
Application February 16, 1956, Serial No. 565,895
4 Claims. (Cl. 20—2)



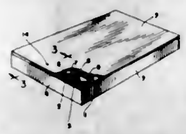
3. A collapsible shelter comprising, a plurality of rigid post members each having a sharpened end for insertion into the ground, said posts having a spacing whereby certain posts form corner posts of the shelter and other posts are spaced to substantially define a door opening thereto, a side wall formed of a sheet of paperboard that is inherently stiff in a direction transversely thereof, means removably securing the ends of the paperboard to the door forming posts whereby the sheet of paperboard extends therefrom in engagement with the corner posts to define a substantially continuous side wall of the shelter, a cover member formed of relatively stiff paperboard supported on the upper edges of the side wall sheet, depending flanges on the cover member overlying the outer surface of the side wall sheet, said posts having a length and said side wall sheet having a heighth slightly less than the length of one side of the shelter, said cover having spaced double score lines extending thereacross in substantially parallel relation to said one side whereby the cover is foldable to form a container for the side sheet and posts for transportation thereof.

2,837,778
FOLDING TRAILERS
James W. Kern, Vancouver, Wash.
Application November 19, 1956, Serial No. 622,941
3 Claims. (Cl. 20—2)



1. A folding trailer comprising a horizontal base frame, front and rear end walls hingedly secured to opposite ends of said base frame, opposite side walls hingedly secured to opposite sides of said base frame, a roof, a pair of tracks extending longitudinally on the underside of said roof and having arcuately depending end portions on the opposite ends thereof, rollers positioned on the free end portions of said front and rear end walls for engagement with said tracks, pulleys positioned on the free end portions of said front and rear end walls adjacent said rollers, winches secured to said front and rear end walls adjacent the lower portions thereof, cables extending from said winches engaging over said pulleys and secured to the opposite ends of said roof whereby said roof can be lifted above said end wall suspended on said cable.

2,837,779
INSULATION PRODUCT
Harold W. Jacobs, Chicago, Ill.
Application September 15, 1953, Serial No. 380,197
1 Claim. (Cl. 20—4)

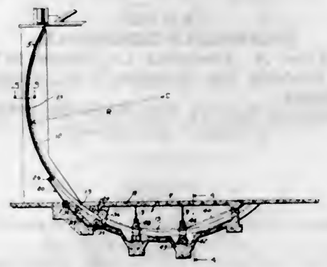


An insulation construction element comprising a shell of transparent plastic material having flat parallel top and bottom walls, flat parallel side walls, and flat parallel end walls, said walls being continuously sealed to one another along the edges thereof and providing a hermetically sealed oblong enclosure, a cellular core unit within said enclosure said core unit comprising a plurality of spaced straight strips parallel with said end walls and having their opposite ends abutting the inner sides of said side walls, and a plurality of zigzag strips disposed between said parallel strips, said zigzag strips having exterior angle portions thereof abutting said parallel strips and sealed thereto providing a rigid self-sustaining latticed bridgework, said straight and zigzag strips having straight bottom edges engaging against the inner side of said bottom wall, these being cut-outs in the upper edges of said straight and zigzag strips at the junctures thereof with one another, said cut-outs providing vents between cells formed by said straight and zigzag strips, the remainder of said upper edges engaging against the inner side of said top wall, and a sealable opening and seal therefor in one of said walls, whereby the air within the interior of said enclosure may be evacuated.

2,837,780
RADIAL DOOR
Dwen R. Younger, Napa, Calif.
Application August 9, 1954, Serial No. 448,675
6 Claims. (Cl. 20—19)

1. In a airplane hangar having a floor level and a door opening above said floor level, a door panel adapted to

register with said opening when said panel is closed, a compartment below said floor level for receiving said panel when the latter is open, said door panel being curved along its vertical extent to a circular arc, said panel being provided with a rigid extension extending into said compartment when said panel is closed, a pair of rollers in said compartment and respectively engaging



opposite sides of said extension for providing a couple resisting the couple due to the action of gravity on said panel when said panel is closed, means for swinging said panel through its circular arc about the center of curvature of said panel between said open and closed positions with said rollers in rolling engagement with said panel at all times.

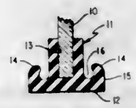
2,837,781
WINDOW STRUCTURE OR ASSEMBLY
Claude J. Teggelaar, Grand Rapids, Mich., assignor to Grand Rapids Hardware Company, Grand Rapids, Mich.
Application January 18, 1956, Serial No. 559,840
13 Claims. (Cl. 20—52.2)



9. A sliding window sash carrying means comprising a clutch rod fixedly connected to the inner side of a vertical side of a window frame, a sash counterbalance means, a hanger member suspendingly connected to said counterbalance means, a clutch member tiltably mounted on said hanger member to automatically clutchingly engage said rod when the clutch member is without load of a sash, and a hanger slide and clutch member holder mounted on said hanger member in superimposed relation to said clutch member to limit its upward tilting movement to rod disengaging position when the clutch member is subject to the load of a sash.

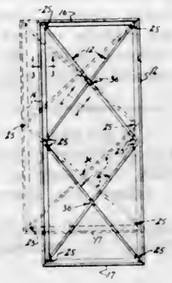
2,837,782
RESILIENT RETAINING FRAME FOR GLASS PANELS
Robert J. White, Toledo, Ohio
Application August 13, 1957, Serial No. 677,925
1 Claim. (Cl. 20—56)

A resilient mounting for glass panels comprising a one-piece open frame of resilient rubber-like material, said frame having an outwardly flat sealing surface around the outer periphery thereof, an inwardly open glass panel receiving socket at right angles to said surface integral with and extending around the inner periphery of the frame, said frame having integral lateral extensions, one on each side of said socket, and an inwardly extend-



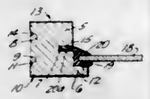
ing integral rib around the inner periphery of each of said frame extensions and co-extensive with the outer edge portions thereof, said ribs being laterally spaced from said socket and providing handles for installing said frame.

2,837,783
DIAMOND PATTERN METAL WINDOW ASSEMBLY
Boris Smirnoff, San Francisco, Calif., assignor to Soule Steel Company, San Francisco, Calif., a corporation of California
Application June 11, 1956, Serial No. 590,557
2 Claims. (Cl. 20—56)



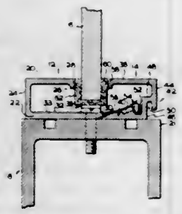
2. In a window construction, a frame, a first and a second muntin bar attached at their opposite ends to said frame, said bars crossing; each bar being substantially T-shaped and comprising a central web and a top flange extending outwardly in opposite directions along the top edge of said central web, said central web of said first bar being formed with a T-shaped slot having a crossarm and a transverse leg, the crossarm of said slot being disposed along the upper edge of said web immediately below said top flange and the leg of said slot projecting outwardly to the lower edge of said web, said top flange being bent obliquely upwardly adjacent opposite ends of said crossarm of said slot in oblique stretches and being offset upwardly intermediate said oblique stretches in an upwardly offset stretch parallel to said top flange remote from said T-shaped slot, the length of said upwardly offset stretch being substantially equal to the width of said top flange, the amount of upward displacement of said upwardly offset stretch being substantially equal to the thickness of said top flange; said second muntin bar passing through said slot in said first muntin bar, the underside of said top flange of said second muntin bar and the underside of said top flange of said first muntin bar remote from said upwardly offset stretch being substantially co-planar; and means securing said muntin bars in assembled position; said muntin bars being angularly shiftable relative to each other prior to application of said last-named means to accommodate windows of different shapes.

2,837,784
SASH CONSTRUCTION
Lawrence J. Jannette, St. Paul, Minn.
Application November 30, 1954, Serial No. 472,067
2 Claims. (Cl. 20—56.4)



1. Sash construction comprising wooden frame members joined together to form a substantially rectangular frame and formed with inner marginal shoulders and inner marginal grooves extending in spaced parallel relation to said shoulders, each of said frame members being formed with spaced parallel grooves in its outer margin, a substantially channel shaped sheet metal member covering the inner side of each of said frame members and formed with flanges engaging the frame member in said inner marginal groove and in one of said outer marginal grooves respectively, a second substantially channel shaped sheet metal member covering the outer side of each of said wooden frame members and formed with a flange engaging the wooden frame member in the other of said outer marginal grooves, said second sheet metal members being spaced from said first mentioned, substantially channel shaped, sheet metal members along the outer and inner margins of the wooden frame members, a pane fitting in said frame between said inner marginal shoulders and grooves, resilient compressible sealing means embracing the margins of said pane adjacent to said shoulder and means confining the pane and sealing means under compression against said shoulder.

2,837,785
SNAP-IN GLASS SETTING CONSTRUCTION
Maurice May, Atlanta, Ga., assignor to American Art Metals Company, Atlanta, Ga., a corporation of Delaware
Application July 21, 1955, Serial No. 523,442
2 Claims. (Cl. 20—56.4)



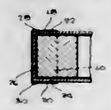
1. A glass setting assembly comprising a first stop member having an upper and a lower planar flange portion connected along their outer longitudinal edges by a web portion, said lower flange terminating in a beveled, undercut lip, a spring clip secured upon said lower flange portion and projecting beyond the inner longitudinal edge thereof to a downwardly biased lip, a second stop member including an upper and a lower flange portion connected along their outer longitudinal edges by a web portion, the inner longitudinal edge of the last-mentioned lower flange being beveled upwardly toward the last-mentioned web, to define a beveled lip parallel to said first stop lip, and said last-mentioned lower flange having a groove receiving said spring clip lip for locating and resiliently securing said stop members in predetermined relation with each other upon a support wherein the inner longitudinal edges of the upper flange portions of said first and said second stop members are in opposed facing relation with each other and spaced from each other a distance sufficient to receive a sheet of glass therebetween, the lip of said second member facilitating the entry of said spring clip lip into engagement with said lower flange groove, and the parallel lips on said first and second members accommodating accurate juxtapositioning of said members.

2,837,786
ADJUSTABLE THRESHOLD
Jewel E. Fryar, Jr., Alexandria, La., assignor to National Guard Products, Inc., Memphis, Tenn., a corporation of Tennessee
Application April 13, 1956, Serial No. 577,973
2 Claims. (Cl. 20—64)



1. A threshold assembly comprising a first plate member, means for securing said first plate member to the lower of a pair of vertically offset surfaces adjacent a doorway, an upstanding flange at a longitudinal margin of said first plate member, a second plate member, means for securing said second plate member to the upper of said pair of vertically offset surfaces adjacent said first-named plate member in overlying relationship to said upstanding flange, said second plate member being formed with a longitudinal groove slidably receiving said upstanding flange, and opposed guiding means on the top edge of said flange and the lower end of an inner surface of said groove and engaging the inner surface of the groove and said flange respectively.

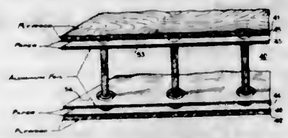
2,837,787
PROTECTIVE AND DECORATIVE DEVICE FOR DOOR JAMBS AND THE LIKE
Carl C. Wright, Terre Haute, Ind.
Application March 12, 1954, Serial No. 415,838
1 Claim. (Cl. 20—74)



A protective and decorative device made of a thin sheet of plastic material and including an elongated channel comprising a generally rectangular web having opposite longitudinal edges, wings on and extending along said edges, and resilient folds formed in the material of the device and connecting the wings to said opposite edges of the web, said wings initially overlying and being superimposed on the web and arranged to be spread away from each other and the web to receive a jamb grippingly and frictionally therebetween, both of said wings being narrower than said web and in contact with a side of the web in the initial condition of the device.

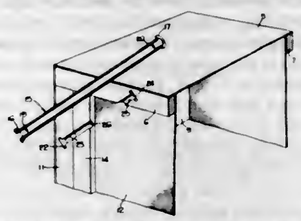
2,837,788
PANEL CORE CONSTRUCTIONS
Dante V. Mazzocco, Hartsdale, N. Y.
Application July 18, 1955, Serial No. 522,534
6 Claims. (Cl. 20—91)

1. A panel core construction comprising a pair of semi-rigid core sheets and a plurality of spacer pegs extending between said core sheets and adapted to maintain the latter in spaced apart relationship, the ends of each of said spacer pegs being bonded to said core sheets by means of glue masses, each said glue mass having a larger cross-sectional area than the cross-sectional area of the spacer pegs, said core sheet being each formed of



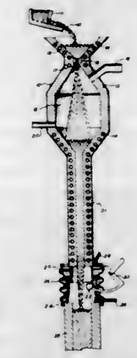
spaced apart inner and outer plies with the inner plies of each sheet facing each other and a layer of metal foil adhered to the opposed faces of said inner plies.

2,837,789
JOINING SPINDLE
William I. Evans, Danville, and Elias Blanco, Los Angeles, Calif.
Application May 2, 1955, Serial No. 505,443
9 Claims. (Cl. 20—92)



1. A spindle and mortise combination used for interlocking or joining elements having mortises with circular portions of a certain diameter and longitudinal openings to said circular portions having a width less than the diameter of said mortises, comprising a spindle having a hollow cylindrical body portion with an external diameter substantially the same as the internal diameter of said circular portions of said mortises, said body portion also having a longitudinal opening therein having a width less than the diameter of said spindle and of substantially the same width as the width of said longitudinal openings in the circular portions of said mortises.

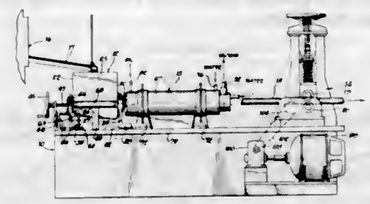
2,837,790
PROCESS FOR DEGASSING FERROUS METALS
Irving W. Rozian, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application December 28, 1953, Serial No. 400,681
6 Claims. (Cl. 22—57.2)



1. A process for degassing ferrous metals comprising establishing a body of molten ferrous metal, flowing the molten metal through a restricted nozzle into an evacuated chamber whereby it is shattered into discrete droplets, permitting these discrete droplets to descend under the influence of gravity through the evacuated chamber, coalescing the discrete droplets into reguline metal in the lower portion of the evacuated chamber, withdrawing molten metal from the evacuated chamber through a barometric leg and discharging the barometric leg into a continuous casting mold, said molten metal being protected from gaseous contamination after it leaves the barometric leg.

5. A continuous casting machine comprising a receptacle for molten metal, an enlarged chamber connected to said receptacle via a restricted nozzle, a barometric leg communicating with the enlarged chamber and a continuous casting mold below and communicating with the end of the barometric leg remote from the enlarged chamber.

2,837,791
METHOD AND APPARATUS FOR CONTINUOUS CASTING
Alfred H. Tessmann, Lookout Mountain, Ga., assignor to Industrial Research and Development Corporation, Chattanooga, Tenn., a corporation of Tennessee
Application April 15, 1955, Serial No. 501,693
17 Claims. (Cl. 22—57.2)

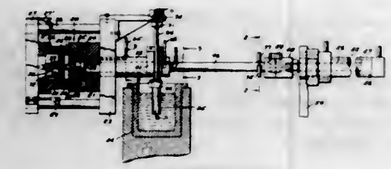


1. Apparatus for the continuous casting of metal comprising, in combination, a supporting base structure, a tubular metal mold having a mold cavity extending longitudinally therethrough from end to end, means for supporting the mold from the base structure, a jacket surrounding the mold and having conduits therein from which coolant liquid is applied to the external surface of the mold during use, a supply reservoir for molten metal mounted on the base structure at one end of the mold, means providing a connection for the continuous flow of molten metal from the supply reservoir to the mold cavity at said one end of the mold, the last mentioned means having clearance from the mold for the flow of atmosphere to said one end of the mold cavity, means for withdrawing cast metal from the other end of the mold, and a housing enclosing said other end of the mold and providing a connection to a vacuum pump for effecting a reduction of the air pressure within the mold cavity and continuous movement of atmosphere through the mold from said one end to the other end of the mold between the metal and the mold.

2,837,792
DIE CASTING MACHINE
Lucian Ring, Detroit, Mich., assignor to Ring Aluminum Development Company, a corporation of Michigan
Application September 24, 1953, Serial No. 382,079
10 Claims. (Cl. 22—68)

1. Die casting apparatus comprising a die having a cavity, a cylinder having a discharge opening communicating with the said cavity and having an intake port for molten casting material spaced axially inwardly from said discharge opening, a plunger reciprocable axially

within and relative to said cylinder, said plunger being movable outwardly relative to said cylinder to inject molten casting material from said cylinder into said cavity and movable inwardly relative to said cylinder to a position inwardly beyond said intake port, means providing a supply passage communicating with said intake port and with a source of supply of molten casting material, means operative in response to initial inward movement of said plunger relative to said cylinder to



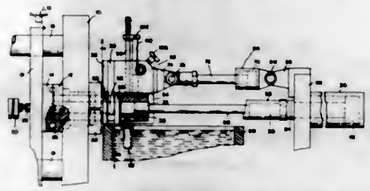
close said discharge opening and keep it closed during the entire subsequent inward movement of said plunger, said last-named means cooperating with said plunger to provide a closed chamber in said cylinder which gradually increases in volume during inward movement of said plunger to produce a vacuum in said cylinder at the outer side of said plunger sufficient to draw molten casting material through said supply passage into said cylinder when said plunger assumes a position inwardly beyond said intake port.

2,837,793
DIE CASTING MACHINE
Lucian Ring, Clawson, Mich., assignor, by mesne assignments, to Ring Aluminum Development Company, Clawson, Mich., a corporation of Michigan
Application December 27, 1955, Serial No. 555,372
4 Claims. (Cl. 22—68)



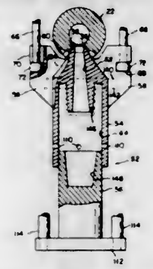
1. Die casting apparatus comprising a die having a cavity, means for injecting molten casting material into said cavity including a cylinder having a discharge opening communicating with said cavity and having an intake port in the underside spaced from said discharge opening axially of said cylinder, means for cooling said cylinder, said cylinder having an annular seating portion surrounding said intake port, means for introducing molten casting material into said cylinder including a reservoir for molten casting material beneath said cylinder, an upright supply tube having its lower end immersed in the molten casting material in said reservoir and movable vertically toward and away from an upper operative position in which the upper end portion of said tube communicates with said intake port, angularly spaced pilot projections on said upper end portion of said supply tube engageable with said seating portion in the operative position of said supply tube to guide said upper end portion into proper seating relationship with said seating portion and also to maintain a major part of said upper end portion out of contact with said seating portion, thereby minimizing heat transfer from said cylinder to said supply tube, said projections defining angularly spaced relatively restricted passages between said upper end portion of said supply tube and said seating portion for the return of excess casting material along the exterior of said supply tube to said reservoir, thereby further minimizing heat transfer from said cylinder to said suppy tube.

2,837,794
DIE CASTING MACHINE
Lucian Ring, Birmingham, Mich., assignor to Ring Aluminum Development Company, Clawson, Mich., a corporation of Michigan
Application January 23, 1956, Serial No. 560,730
10 Claims. (Cl. 22—68)



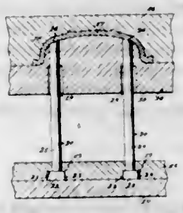
1. Die casting apparatus comprising a die having a cavity, means for introducing molten casting material into said cavity including an axially shiftable cylinder having a discharge opening at the outer end in communication with said cavity and having an intake port for molten casting material spaced inwardly from the discharge opening axially of said cylinder, a plunger supported in said cylinder for axial sliding movement between the discharge opening and a position at the axially inner side of said intake port, means providing a supply passage communicating with said intake port and with a source of molten casting material, said die having an abutment surface adjacent said discharge opening axially outwardly thereof, and means operative in timed relation to said plunger and upon initial movement of said plunger axially inwardly of said cylinder to shift said cylinder axially outwardly to sealingly engage the outer end of said cylinder with said abutment surface to close said discharge opening and produce a sub-atmospheric pressure in said cylinder at the outer side of said plunger sufficient to draw molten casting material through said supply passage into said cylinder through said intake port when the latter is uncovered by movement of said plunger to the axially inner side of said intake port.

2,837,795
DIE CASTING STRUCTURE
Lucian Ring, Birmingham, Mich., assignor to Ring Aluminum Development Company, Clawson, Mich., a corporation of Michigan
Application May 28, 1956, Serial No. 587,793
5 Claims. (Cl. 22—70)



1. In die casting structure including a reservoir for molten casting material and apparatus located above the level of casting material in the reservoir for injecting casting material from the reservoir into a die, means for supplying casting material from the reservoir to the injecting apparatus including a pumping assembly extending into the reservoir and beneath the level of casting material therein, said pumping assembly including a cylinder member, a piston member within said cylinder member and defining therewith a pumping chamber, said piston and cylinder members being relatively reciprocable between first and second positions to increase and decrease respectively the volume of said pumping chamber, a fluid passage means communicating with said chamber at one end of said cylinder member and extending upwardly above the level of casting material in the reservoir for communication with the injection apparatus, means for admitting casting material from the reservoir into said chamber when said piston and cylinder members are in the first position aforesaid to fill said chamber and passage means to the level of casting material in the reservoir whereby the casting material so admitted may be pumped to the injection apparatus through said passage means upon relative movement of said members from the first to the second position thereof, said passage means being of substantially smaller cross section than said pumping chamber whereby changes in the level of casting material in the reservoir along said passage means will not materially affect the volume of casting material pumped to the injecting apparatus by said pumping assembly, a tubular part extending into said chamber from said one end of said cylinder member providing an extension of said passage means of substantially smaller cross section than said chamber, and said piston member having a recess for receiving said tubular part in the second position of said members.

2,837,796
EJECTOR PIN
Alvino Aliberti, Southbridge, Mass.
Application April 12, 1955, Serial No. 500,782
1 Claim. (Cl. 22—94)



In combination, an ejector plate, a retainer plate arranged contiguous to said ejector plate and provided with a plurality of countersunk recesses, a mold including a coacting core and a base, there being a cavity in said base for receiving a casting or molding, said core being provided with an enlarged portion extending into said casting, there being a plurality of spaced apart openings in said core, a plurality of spaced parallel similar ejector pins each including an enlarged head seated in said recess, said ejector pins adapted to be used for removing the casting from the core after the base and core have been detached from each other, each of said heads having a cylindrical shape, a plurality of prongs extending outwardly from said head and engaging said retainer plate to prevent accidental rotation of the pins, a cylindrical shank extending from each of said heads and projecting through the openings in said core and engaging said casting, the diameter of said heads being greater than the diameter of said shanks, the free edge of each of said shanks being inclined to fit the corresponding contour of the casting, the inclined surface being maintained in its proper aligned position with respect to the casting since the pins will not accidentally rotate so that the inclined surface will be in a definite fixed position with respect to the casting, said prongs having their outer ends sharpened to form a knife edge, said heads each including an outer flat surface, said prongs being of maximum size in cross section at a point contiguous to said flat surface, said prongs decreasing progressively in size in proportion to the distance away from the flat surface so that the knife edge gradually merges into the head, two of said prongs being spaced 60 degrees apart from each other whereby once the pins are installed in the retainer plate, the pins may be taken out and put back in place and still be oriented in their proper position.

2,837,797
MOLD FOR MAKING CASTINGS
Charles E. Norton, Highland Park, and Harry A. Porter, Jr., North Riverside, Ill., assignors to National Malleable and Steel Castings Company, Cleveland, Ohio, a corporation of Ohio
Application October 1, 1953, Serial No. 383,674
13 Claims. (Cl. 22—126)



11. In a composite mold assembly an upright core of low-heat conductive ceramic material, said core having a trough extending along its top for passage of molten metal, a downsprue passage extending downwardly from said trough, a mold cavity portion in said core in close communication with said passage, said cavity portion opening on a face of said core, and a mold section of high-heat conductive metallic material in face-to-face contact with said core, said high-heat conductive section having a mold cavity portion complemental to said cavity portion in said core.

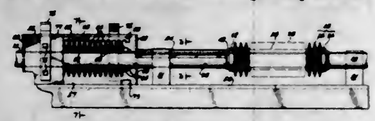
2,837,798
METHOD OF SHELL MOLDING
Julius M. Bleuenstein, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
No Drawing. Application June 16, 1952
Serial No. 293,845
4 Claims. (Cl. 22—193)

1. The process of preparing a shell mold comprising applying to a heated metal surface a loose first mixture of sand and a thermosetting resin, permitting the resin portion of this sand-resin mixture adjacent the heated metal surface to cure at least sufficiently to produce a thin, self-supporting lamina of sand-resin, removing the excess of non-adhering loose first sand-resin mixture, permitting the resin in the sand-resin lamina to cure further, reapplying a loose, second sand-resin mixture to substantially the entire area of the rough surface of the thin lamina, maintaining this loose, second sand-resin mixture in contact with the thin lamina until the desired thickness of shell has been produced, removing the excess loose, second sand-resin mixture and curing the laminated mold formed, said first sand-resin mixture comprising sand substantially finer than the second sand-resin mixture.

2,837,799
PROCESS OF CASTING HEAT EXCHANGE FINS UPON A TUBE
Ernest B. Priebe, Jr., Hudsondale, and Paul A. Priebe, Weatherly, Pa., assignors to Drake Block Co., Inc., a corporation of New York
Continuation of abandoned application Serial No. 191,228, October 20, 1950. This application May 23, 1955, Serial No. 510,133
5 Claims. (Cl. 22—206)

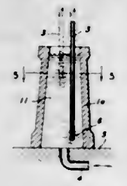
1. A process of forming a heat dissipating member which comprises enclosing a length of a steel tube with a mold having inwardly-projecting ribs thereon, and forming a casting of castiron within said mold, the length of

the mold being such as to cause the molten metal to heat the surface of the tube to uniting temperature without



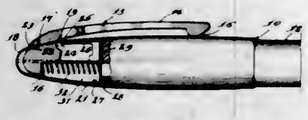
softening the tube, whereby the cast metal is united to the tube surface.

2,837,800
CASTING OF FERROUS INGOTS
Shigeo Hachiya, Tokyo-to, and Tatsuhei Uchiyama and Masumi Aihara, Yawata City, Japan, assignors to Yawata Iron and Steel Co., Ltd., Tokyo, Japan, a Japanese corporation
Application October 21, 1955, Serial No. 541,958
Claims priority, application Japan November 1, 1954
12 Claims. (Cl. 22—215)



1. A method of casting ferrous ingots which comprises teeming molten ferrous metal into an ingot mold, introducing a treating pipe having a degasifying agent filled into the foremost end thereof into the bottom portion of said molten ferrous metal immediately upon completion of the teeming of said molten metal, agitating upwardly along the periphery of the lower central portion of said molten metal with said treating pipe in a circular motion to dissolve said degasifying agent in the molten metal, whereby various occluded gases in said molten metal are eliminated by reacting said gases with said degasifying agent.

2,837,801
CLIP AND CAP ASSEMBLY FOR WRITING INSTRUMENTS
Ernest H. Seibert and Joseph J. Cada, Chicago, Ill., assignors to Cory Corporation, Chicago, Ill., a corporation of Delaware
Original application May 21, 1956, Serial No. 356,506. Divided and this application March 28, 1956, Serial No. 574,427
5 Claims. (Cl. 24—11)



1. In combination, a hollow cap for a writing instrument, said cap being closed at one end and adjacent said closed end having a longitudinally extending slot, a liner for said cap, a clamp member mounted at the upper end of the liner within and fitting conformably in the cap and having a part projecting through the slot and anchored to the adjacent edge of the cap, spaced flanges at one side of the clamp member, a rigid clip having an enlargement at its one end anchored in the cap by said clamp member and said enlargement having an offset portion at one end providing a shoulder, and a coil spring mounted between the spaced flanges of the clamp member within the cap and beneath the offset portion and engaging said shoulder on the enlargement for tensionally retaining the other end of the clip in operative position.

2,837,802
PAGE HOLDERS OR LIKE ARTICLES
Dominick Genco, New York, N. Y.
Application July 1, 1957, Serial No. 669,256
1 Claim. (Cl. 24—66)



A device of the class described comprising a clamp formed of a single piece of resilient wire having opposed jaws each consisting of a pair of spaced sections of the wire with said sections of one jaw lying in a plane approximately parallel to the spaced sections of the other of the jaws, one of said jaws having a bight joining the outer extremities thereof, a circular bight joining one of the sections of each of the jaws with one of the sections of the other of the jaws, the circular bights lying in parallel planes and being aligned, an elongated arm having one end deformed into a circular contour, said one end of the arm being positioned between said circular bights, a bolt passing through said circular bights and said one end of the arm thereby pivoting the arm on the bolt, and means for urging said circular bights against said one end of the arm.

2,837,803
FASTENING DEVICE
William C. Wootton, Centerville, Calif., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application November 26, 1954, Serial No. 471,316
1 Claim. (Cl. 24—81)



A fastening device for securing together four cylindrical containers having peripheral beads at the ends, said device being adapted for assembly into the quadri-cusped shaped space at the end of a group of containers spaced with their centers disposed on the corners of a square and with adjacent containers touching, said device comprising a cylindrical body portion for bearing against the innermost portions of the group of container beads, a circumferential rim disposed on the lower end of the body and extending outwardly therefrom and a circumferential flange extending radially from the upper end of the cylindrical body, said flange having four sheared portions disposed therein which are uniformly spaced about the flange, each of said sheared portions extending generally perpendicular to a radius of the cylindrical portion and having an inwardly facing edge deformable downwardly into engagement with the inside of a container bead.

2,837,804
RETAINING SUPPORT FOR FLEXIBLE THIN-SHEET MATERIALS
John T. Danell, Eureka, Calif.
Application April 18, 1955, Serial No. 501,850
1 Claim. (Cl. 24—84)



A device for grippingly retaining and supporting a flexible thin-sheet member in a virtually vertical depending relationship with respect to a longitudinal weight-bearing member, comprising: body means having first thin-sheet-engaging surface means by which tapered recess means is defined; said first surface means having a back surface portion and two laterally spaced inclined opposing side surface portions, said surface portions forming three bounding sides of said recess means; said recess means having a top opening, a bottom opening, and a front opening continuous with said bottom opening and placed opposite said back surface portion; said two inclined opposing side surface portions converging toward each other in a forward direction and in a vertically upward direction for a substantial distance of their length, and said inclined opposing side surface portions being parallel for a short distance at their uppermost vertical ends; wedge means in complementary retainable relationship with said recess means, having second thin-sheet-engaging surface means cooperable with respect to said back surface portion and said two laterally spaced inclined side surface portions defining said tapered recess means to grippingly retain a portion of a flexible thin-sheet member in said recess means forcibly gripped therebetween; said wedge means having a rigid extension forming tensile means, said tensile means being passable through said openings; said wedge means having a plurality of serrations along the portions thereof which are forcibly cooperable with respect to said two laterally spaced inclined side surface portions defining said tapered recess means and cooperable to forcibly grip said flexible thin-sheet member therebetween; open loop means attached to said tensile means, removably retainably and slideably engageable with said longitudinal weight-bearing member to hold the device, and a thin-sheet member grasped by the device, in virtually vertical depending relationship with said weight-bearing member, and to allow the positioning of the thin-sheet member by the sliding of said engaging means along said weight-bearing member.

2,837,805
RUBBERIZED BUTTONHOLE EYELET
John William Larkin, New York, N. Y.
Application June 20, 1955, Serial No. 516,529
1 Claim. (Cl. 24—202)



A buttonhole eyelet comprising a body of resilient material having an elongated aperture for receiving a button, a portion of said body being adapted to overlie a fabric or the like to which the eyelet is applied and a second portion of said body underlying the first portion to extend under the fabric, and stitching extending about said aperture through said body for attaching the same to said fabric, said body including a backing member and a welt, the welt being solid and being extended along the full perimeter of said aperture to reinforce the eyelet along the edge of the aperture, said welt constituting the first-named portion and said backing member constituting the second portion of said body, the stitching being extended through said backing member, said welt being of elliptical configuration, the backing member being flat over its full area, the welt extending over substantially the full length of the backing member and being disposed longitudinally and centrally of the backing member, the welt having an inner surface defining the wall of the aperture, said inner surface being transversely rounded through substantially 180° with the lower edge of said inner surface merging into the underside of the backing member and the upper edge terminating at the top of the welt, said welt having an outer surface also transversely curved through substantially 180°, but about a radius substantially less than that of the inner surface, the upper edge of the inner surface merging into the upper edge of the outer surface of the welt, thereby constituting a welt substantially circular in cross section, the lower surface of the welt terminating above and in closely spaced relation to the top surface of the backing member to define therebetween an undercut groove extending along the outside of the welt to receive an adjacent edge of said fabric.

2,837,806
CLIP
Gabriel S. Hawie, Bridgeport, Conn., assignor to The Hawie Manufacturing Company, Bridgeport, Conn., a corporation of Connecticut
Application June 15, 1956, Serial No. 591,710
2 Claims. (Cl. 24—250)

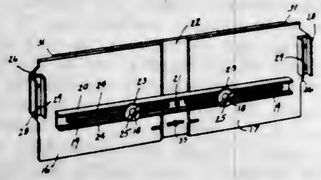


1. A clip adapted to be pinned to a fabric-supporting means comprising a base, a clamping jaw pivotally mounted on the base, said base and jaw being bent toward one another on the forward end and having thereon cooperating fabric-gripping means, a pin secured to the other end of the base, and an actuating means pivotally mounted on the base and connected to the movable jaw to move said jaw into and out of gripping relation with a fabric disposed therebetween, the improvement wherein said gripping means comprises a pair of broad teeth on the bent portion of said base adjacent the edges thereof and a pair of broad cooperating teeth on the clamping jaw, the opposing inner edges of said teeth being substantially perpendicular to said base and jaw whereby lateral movement of the gripped fabric is prevented.

2,837,807
ADJUSTABLE BULKHEAD
Glenn P. McGraw, Indianapolis, Ind.
Application April 8, 1955, Serial No. 500,098
1 Claim. (Cl. 25—118)

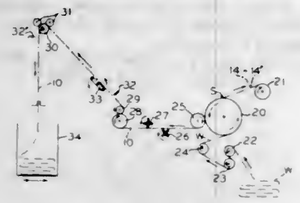
An adjustable form for use with precast concrete joists having inset webs in the sides thereof, comprising a stationary panel having a flat front face, an elongated U-shaped channel fixedly connected to said panel extending substantially the length thereof and spaced from the rear face of the panel, said channel including a pair of slots in the bight portion thereof, a pair of laterally spaced

and aligned flat panels interposed between the bight of said channel and said stationary panel, each of said aligned panels having a projection extending through a slot and being movable laterally relative to said channel and to said stationary panel, said aligned panels each having an outside end portion shaped to conform to the configura-



tion of the web of an adjacent joist and including at a point adjacent said outside end portion an upright channel adapted to abut said web to reinforce said panel and to facilitate removal of the form, and means associated with each projection and said elongated U-shaped channel for retaining said aligned panels in any selected position.

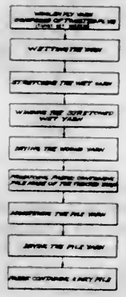
2,837,808
LACE WEB SEPARATION
Roland E. Langlois and Henri A. Boulay, West Warwick, and Louis G. Blumenbaum, Edgewood, R. I., assignors to Technical Service, Inc., Pontiac, R. I., a corporation of Rhode Island
Application November 18, 1955, Serial No. 547,669
9 Claims. (Cl. 28—1)



4. A process of separating into strips a lace web formed of lace strips connected together side by side by rover or connector threads through which pass longitudinal draw threads, said process including the steps of advancing the web longitudinally under tension while supporting the web without relative movement with respect to the supporting medium, and effecting complete separation of the web into separate strips of lace solely by pulling endwise and removing the draw threads from the web in a direction away from themselves in the advancing web while subjecting said draw threads to applied tension sufficient to break the rover or connector threads and thereby divide the web into its component lace strips.

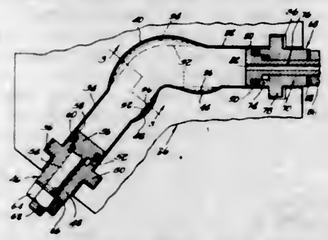
2,837,809
PROCESS OF PRODUCING FABRIC CONTAINING KINKY WOOLEN PILE
Ferdinand H. Muller, Roseland, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application July 5, 1955, Serial No. 519,971
1 Claim. (Cl. 28—76)

The process of producing a fabric containing kinky woolen pile which process comprises first wetting plied woolen yarn having a weight of one ounce for from 40 to 100 yards thereof composed of from two to seven plies each having a Z-twist of between about two and about five turns to the inch and plied up with an S-twist of between about four and about twelve turns to the inch by passing the yarn through an aqueous bath heated to about 200° F. at a lineal speed to retain the yarn in the bath for a sufficient duration to wet the same throughout, stretching the wet yarn at a tension equalling between about 25% of its wet breaking strength and almost its wet breaking strength, winding and drying the stretched



yarn and maintaining the wound yarn in stretched condition, making the pile contained in the fabric of the so treated yarn, applying wet steam to the pile yarn to render the same kinky, and drying the pile yarn to restore the natural resiliency thereof.

2,837,810
METHOD OF PRODUCING FITTINGS
Carl Roger Ekholm, Elgin, Ill., assignor to Flexonics Corporation, Maywood, Ill., a corporation of Illinois
Application June 17, 1955, Serial No. 516,263
6 Claims. (Cl. 29—157)

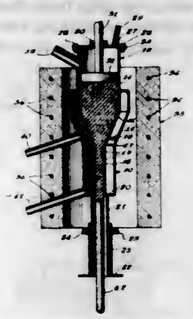


1. The method of producing right angle elbows for tubing and the like which comprises bending a section of tubing, placing the bent section of tubing in a confining die, sealing the ends of said tubing, stretching the material of the tubing on the outside of the bend and for a substantial distance in each direction therefrom whereby to stretch the material over a large area in the bend vicinity and simultaneously stretching the material in the vicinity of the inside of the bend to counteract the tendency toward compression in the initial bending, such stretching being effected by the application of fluid pressure internally of the sealed length of tubing, relieving such pressure and removing said section of tubing from said die, and cutting off the ends of said tubing along a pair of mutually perpendicular planes, at least one of said planes passing through a stretched part of the tubing.

2,837,811
ELECTRODE COMPOSITION
Gerald G. Hatch, Chicago, Ill., assignor to Kennecott Copper Corporation, New York, N. Y.
Original application May 31, 1950, Serial No. 165,346, now Patent No. 2,676,882, dated April 27, 1954. Divided and this application June 23, 1953, Serial No. 371,092
1 Claim. (Cl. 29—191.2)

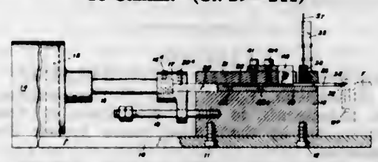
A consumable electrode comprising a rod of a compressed mixture of about 75% by weight of titanium

particles and about 25% by weight of sodium chloride,



the titanium particles being sufficiently large to be stable toward air.

2,837,812
MEANS FOR DISPENSING AND APPLYING OPEN RETAINING RINGS
Hans Erdmann, Maplewood, N. J., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application December 22, 1953, Serial No. 399,795
18 Claims. (Cl. 29—211)



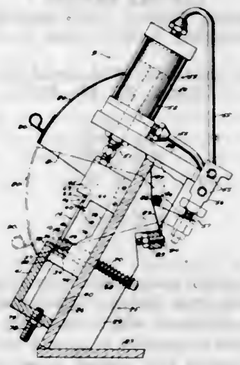
1. Apparatus for automatically dispensing open retaining rings singly from a supply thereof and for applying said rings to work pieces positioned to receive them comprising, in combination, a support, means for maintaining a supply of open retaining rings in vertical stack formation on said support, an applicator having a ring receiving recess defined by complemental jaws spreadable under tension for resiliently gripping a ring presented to it along the ring outer edge, means operatively related to said support for positively actuating said applicator along a predetermined path of movement extending between the stack and the work piece, means operative in response to a portion of the movement of said applicator to present the lowermost ring of the stack to the gripping action of said applicator jaws, the construction and arrangement being such that, responsively to said applicator partaking of its further movement, to the work piece, it transfers the gripped ring to the work piece and finally forces it over the same so as to apply said ring to the work piece.

2,837,813
DEVICE FOR INSTALLING HELICAL SPRINGS
Roy P. Anselmo, Franklin Park, and Hilton G. Kohr, Chicago, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 21, 1954, Serial No. 444,836
3 Claims. (Cl. 29—227)



1. A device for applying helical springs comprising a tubular member having an enlarged portion at one end and a reduced portion at the other end with a hook thereon engageable with the loop on one end of a helical spring, a rod extending through and mounted for sliding movement in the reduced portion of said tubular member and having a hook on one end thereof outside of the tubular member engageable with the loop on the other end of said spring, a sleeve mounted for longitudinal and rotary movement within the enlarged portion of said tubular member and having a collet supported thereby for releaseably gripping said rod for movement therewith relative to the tubular member, resilient means mounted within said enlarged portion of the tubular member for urging said sleeve and collet to a normal retracted position to dispose the hooks in a predetermined spaced relation to each other, and means for effecting relative movement between said tubular member and said sleeve to vary the longitudinal position of the hooks relative to each other.

2,837,814
APPARATUS FOR ASSEMBLING INSULATING WASHERS ON RELAY CORES
Paul E. Anderson, Hinsdale, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application September 30, 1955, Serial No. 537,695
6 Claims. (Cl. 29—252)

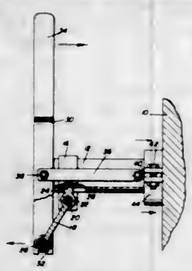


1. In an apparatus for assembling a washer onto a relay core, a frame, a stationary holder on said frame for supporting the washer in a predetermined position, a pusher reciprocable on said frame along a predetermined path and having a nest for supporting one end of the core in a predetermined position and for imparting movement thereto, an aligning member mounted on said frame adjacent said holder for movement transversely of said predetermined path to and from a normal position in overlapping relation to said washer in said holder and having a nest for supporting the other end of the core adjacent to and in alignment with said washer, an actuator on said frame for reciprocating said pusher to push the core into said washer, an element movable with said pusher for moving the core and washer assembly from the holder on the return stroke of the pusher, and means operable in timed relation to the pusher for moving the aligning member from its normal position to provide clearance for the washer as the core and washer assembly is moved from said holder.

2,837,815
WHEEL ADJUSTER
Henry A. Schumann, Moberly, Mo., assignor of fifty percent to Robert A. Wirth and fifty percent to Leonard E. Harris, both of Nebraska City, Nebr.
Application October 9, 1953, Serial No. 385,240
2 Claims. (Cl. 29—267)

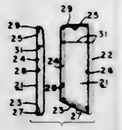
1. A wheel adjuster for moving a wheel mounted on an axle comprising a member partially encircling and

engaging the axle, means pivotally mounted on said member to clampingly engage the axle in opposition to the member, a yoke member pivotally secured to said clamp means, and link means interconnecting the yoke and wheel



for moving the wheel on the axle upon pivotal movement of the yoke, said link means generally lying alongside said member and axle for exerting force generally parallel thereto.

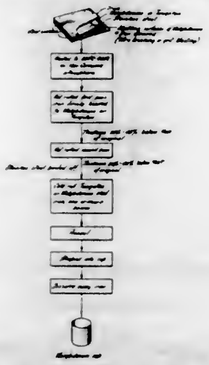
2,837,816
METHOD OF MANUFACTURING SINGLE AND DOUBLE DOORS
Orson V. Saunders, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 30, 1954, Serial No. 453,016
7 Claims. (Cl. 29—414)



1. The method of manufacturing two separate front doors for a refrigerator having two separate adjacent refrigerating compartments which comprises: drawing an outer pan adapted adequately to cover both of said compartments and having four cupped edges; piercing holes in a line from one edge to another edge of said pair corresponding to a dividing line between said compartments; cutting said pan along said holes to form a pair of complementary front pieces each having three cupped edges and an uncupped edge; and assembling said pairs of complementary metal front pieces with completing door parts to form said two separate front doors.

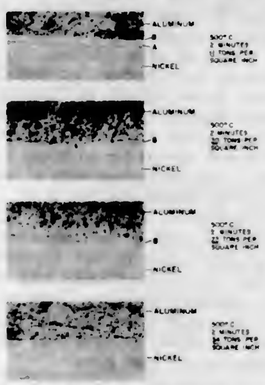
2,837,817
METHOD OF MAKING THIN METAL SHEETS
Floyd C. Kelley, Schenectady, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 18, 1955, Serial No. 529,368
7 Claims. (Cl. 29—424)

1. A method of preparing a thin foil of a metal selected from the group consisting of molybdenum and tungsten which comprises the steps of cleaning one surface of a thin sheet of said metal and one surface of a thicker larger sheet of iron; placing the cleaned surface of said metal sheet against and within the periphery of the cleaned surface of said iron sheet; placing a sheet of uncleaned stainless steel which is substantially equal in dimensions to said iron sheet against the uncleaned surface of said metal sheet; making a plurality of spaced spot welds between said iron and said stainless steel at said periphery to form a compact comprising said stainless steel, said metal, and said iron; heating said compact in a noncorrosive atmosphere to a temperature of 800° C. to 900° C.; rolling said heat compact to reduce its total original thickness by about 35 to 45% and to firmly bond said metal to said iron; further rolling said heated compact to further reduce its total original thickness by 50 to 60% and to free said stainless steel from



said compact leaving a laminate of said metal and said iron; cold rolling said laminate to a chosen thickness; annealing said laminate; and then dissolving said iron away from said laminate whereby there is obtained a thin foil of said metal.

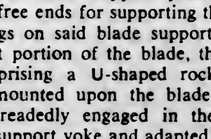
2,837,818
METHOD OF SOLID STATE WELDING
Samuel Storchheim, Forest Hills, N. Y., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application July 6, 1954, Serial No. 441,693
2 Claims. (Cl. 29—494)



2. In the process of cladding uranium with aluminum, the method of providing an improved intermetallic bonding which comprises sandwiching between the aluminum and uranium surfaces to be joined a thin layer of nickel, heating the sandwich in a protective atmosphere to a temperature of approximately 550° C. and urging said surfaces together at a pressure of approximately 20 tons per square inch for a period of about 6 minutes.

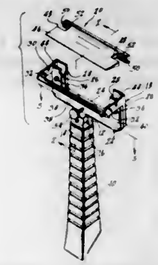
2,837,819
DRY SHAVER WITH RECIPROCATING CIRCULAR BEVELLED BLADES
Kurt Bauerle, Wurttemberg, Germany
Application November 28, 1955, Serial No. 549,475
Claims priority, application Germany November 27, 1954
3 Claims. (Cl. 30—42)

1. In a dry shaver of the type having cutting means movable relative to each other and provided with motive means for actuating said cutting means; a shaver head comprising a stationary cutting element and a movable cutter element; said stationary cutting element consisting of an outer stationary plate having a plurality of spaced circular openings therein, said circular openings formed with conically shaped cutting edges; said movable cutter element consisting of a plurality of eccentric circular blades rotatably mounted in said shaver head and movable eccentrically with respect to said circular openings,



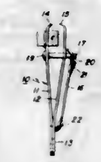
said circular blades having cutting edges of the shape of bevelled pins, said cutting edges of said circular blades disposed in the plane of said conically-shaped cutting edges of the openings in said outer stationary plate; an inner movable plate element in said shaver head mounted for reciprocating movement, to which said circular blades are operatively connected, and eccentric drive means in said shaver head for imparting reciprocating movement to said inner movable plate element.

2,837,820
SAFETY RAZOR WITH CLAMPED BLADE
Walter Ostrowski, New York, N. Y.
Application October 3, 1955, Serial No. 538,120
1 Claim. (Cl. 30—51)



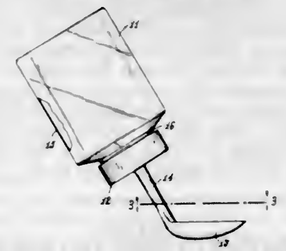
A razor comprising a handle, a recessed blade, and blade support means carried by the handle, and means on the blade support means for fixedly engaging the blade against the blade support means, said blade support means comprising a U-shaped blade support yoke fixedly connected to the handle at the bight of the blade support yoke, said blade support yoke including legs adapted at their free ends for supporting the back portion of the blade, lugs on said blade support yoke for supporting the front portion of the blade, the blade engaging means comprising a U-shaped rockable clamping yoke rockably mounted upon the blade support yoke, and a screw threadedly engaged in the bight of the U-shaped blade support yoke and adapted to bear against the bight of the blade support yoke, to rock the rockable clamping yoke in a direction to clampably engage the blade between the respective yokes, the rockable clamping yoke including curved lips formed upon the legs thereof bearing against the blade in the clamped position of the blade and received in the recesses thereof.

2,837,821
NAIL CLIPPER
Andrew Mitchell David, Washington, D. C.
Application April 8, 1957, Serial No. 651,277
2 Claims. (Cl. 30—124)



1. A nail clipper of the character described comprising a pair of elongated, resilient, diverging jaw members secured together at one end, coacting blades on the free ends of said members, a headed, notched rivet swivelly mounted on one of said members and extending rotatably through the other of said members, a lever for actuating the coacting blades or cutters pivoted at its upper end to the headed, notched rivet or pin by means of a crotch, a shoe on said actuating lever adjacent the crotch, said shoe acting as a fulcrum by bearing against the adjacent jaw member when the lever is swung downwardly to force the jaw members carrying the cutters toward each other to effect the cutting of the finger nails, the other of said jaw members being provided with a rectangular opening located between the head of the rivet and the cutting end of the jaw member, a cubical deposit chamber, formed by bending upwardly its four sides, placed in the rectangular opening, the side adjacent the cutting knives being of lesser height and the cubical chamber being easily removed or placed in position due to the spring effect caused by the upward bending of the sides.

2,837,822
FOUNTAIN TYPE FEEDING SPOON
Rachel E. Wille, Udina-Elgin, Ill.
Application October 7, 1957, Serial No. 688,633
1 Claim. (Cl. 30—125)



A feeder comprising a container for a fluid, said container being open at one end and adapted to be held in an inclined substantially inverted position with its open end disposed downwardly, an externally threaded flange surrounding the open container end, an internally threaded cap mounted on said flange and closing said end, a tubular stem integral with and depending from said cap open at both of its ends and in communication at one end with the container interior, a shallow bowl integral with a portion of the wall of said stem adjacent to its free end and disposed at an obtuse angle to said stem, said free stem end opening into the bowl below the upper perimeter thereof and in a plane at an angle to the plane of said perimeter, and at least one notch opening in the free end of said stem and adjacent to the juncture of the stem with the bowl, said notch being of a length to locate its inner end substantially in horizontal alignment with the opposed edge of the open free end so as to be closed

to atmosphere when the level of fluid flowing into the bowl through said stem reaches the level of said opposed edge.

2,837,823
SCISSORS WITH A COMPOUND BLADE MOVEMENT
Gobbi Petrocelli, Hackensack, N. J.
Application March 28, 1957, Serial No. 649,033
3 Claims. (Cl. 30—239)



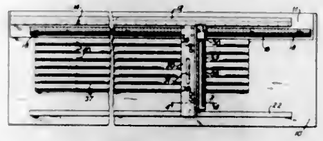
1. A pair of shears or scissors, comprising a pair of angularly separable blades, each of said blades having a substantially straight integrally formed shank, one of said shanks having a centrally disposed aperture, a connecting section joined to said one shank, a notch formed in said section, the other of said shanks having a longitudinally extending elongated slot centrally disposed therein and a fixed pin upstanding therefrom near the slot, another connecting section integrally formed with said other shank, said one shank being formed with a camming corner surface, said other section being formed with a cam following corner, a cam plate disposed to overlie one side of said other shank, said plate having a channel formed therein, two apertures with an obliquely disposed slot being formed in the bottom of said channel, said plate being further formed with a terminal depending tongue adapted to engage in said notch, a retainer bar disposed in said channel, said bar having two notches overlying the apertures in said plate, said pin being arranged to slidably fit into said obliquely disposed slot in the plate, said bar having the notches at opposite ends thereof, a pin having a cylindrical shank with a knob at one end and a head at the other end, said cylindrical shank being extended through the aperture in said one shank, the elongated slot in the other shank and one aperture in said plate, said knob extending beyond one notch in said bar to lock the bar to the plate, and a screw extending through the other notch in the bar and being threaded in the other aperture in said plate.

2,837,824
AMALGAM CARRIER AND EJECTOR
Edward B. Moller, Falconer, N. Y.
Application March 19, 1956, Serial No. 572,377
7 Claims. (Cl. 32—60)



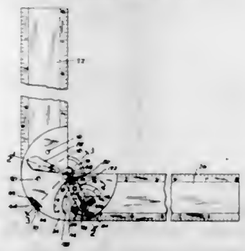
1. A carrier and extruding instrument for dental practice comprising a tubular member, a plunger projecting into one end of said member and being movable to extend beyond the other end thereof, walls extending from said other end forming a compartment, an ejector nozzle at the end of said compartment remote from said member, the openings in said member and said nozzle being in alignment, a container mounted in said compartment, said container having an amalgam receiving passageway and being movable within said compartment to align said passageway with the openings in said member and said nozzle whereby movement of said plunger in one direction will extrude amalgam from said nozzle.

2,837,825
APPARATUS FOR MEASURING AND MARKING ELONGATE ARTICLES
Harry W. Clifford, East Orange, and Edward S. Geary, Nutley, N. J., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 6, 1955, Serial No. 520,236
3 Claims. (Cl. 33—32)



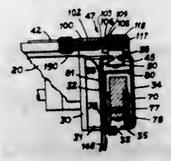
1. An apparatus for measuring and marking elongate articles comprising an elongate support for the articles, a calibrated scale mounted on the support and extending longitudinally thereof, an elongate screw having a thread pitch corresponding to the calibration on the scale fixedly mounted on the support parallel with the scale, a crossbar adapted to be disposed at any desired position relative to the scale transversely of the articles and the support, a follower fixed to the crossbar and having a recess with internal threads formed for interengagement with the threads of the screw to removably locate the crossbar at any desired calibrated position, a pointer disposed on the follower for registration with any of the calibrations on the scale, an element carried by the crossbar and having a longitudinally extending slot for a marker disposed in alignment with the pointer, and means to adjustably secure the element to the crossbar at different vertical positions parallel with the support for resting on articles of different thicknesses disposed on the support.

2,837,826
ANGLE SETTING AND MEASURING INSTRUMENT
Joseph B. Cox, Portland, Oreg.
Application June 7, 1955, Serial No. 513,679
14 Claims. (Cl. 33—75)



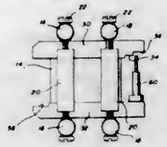
1. An angle setting and measuring instrument comprising a blade-carrying element, a blade-carrying member pivotally secured to said element for angular movement relative to said element about a pivotal axis, an index member supported for pivotal movement relative to said element about said axis, means to lock said index member to said element at fixed angular positions spaced from each other by predetermined equal angular increments, means including a cam element journalled in one of said members for pivotal movement about an axis parallel to said pivotal axis, a cam on said cam element and a cam follower on the other of said members and engaged by said cam element for moving said blade-carrying member relative to said index member about said pivotal axis through angles smaller than said angular increments, and means to indicate the position of said cam in terms of said smaller angles.

2,837,827
STRAIGHT EDGE SYSTEM FOR DRAFTING TABLES
John D. Gayer, Dayton, Ohio
Application June 17, 1954, Serial No. 437,350
6 Claims. (Cl. 33—80)



1. In a drafting straight edge system comprising a drawing board and a straight edge extending entirely across said board, the combination of means for coordinating the movements of each end of said straight edge including tape members having respective center portions, hinge members attached to said center portions and operatively connected to opposite ends of said straight edge, said hinge members providing for pivotal movement of said straight edge toward and away from said board about an axis parallel to the length of said straight edge, upper and lower sprocket wheels supported adjacent each upper and lower corner of said board to operatively engage said tape members, counterweight means connecting the ends of each of said tape members to form closed loops at each side of said board and adapted to move parallel to the sides of said board in opposition to movement of said straight edge, a shaft connecting said upper sprocket wheels to coordinate rotation thereof and maintain said straight edge parallel to a reference line during movement of said straight edge up or down said board, and means for altering the alignment of said straight edge with respect to the reference line.

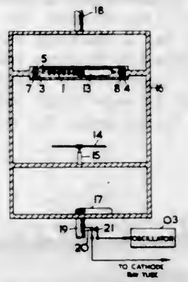
2,837,828
BUILT-UP SNAP GAUGE
Stephen F. Cybulski, Waterbury, Conn.
Application January 31, 1955, Serial No. 485,128
12 Claims. (Cl. 33—168)



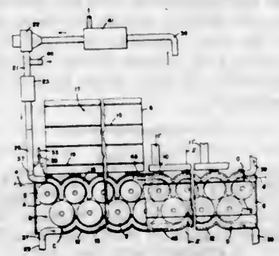
12. A built-up snap gauge comprising a pair of anvils of rectangular cross-section spaced by a bar of rectangular cross-section, bridge means for each of said anvils and adjustable means lying laterally outside the confines of said anvils and block and connecting said bridge means for each of said anvils, said adjustable means cooperating with said bridge means to hold the anvils against the block.

2,837,829
COMPASSES, MAGNETOMETERS AND THE LIKE
Alfred A. Fayers, Milford, Fleet, and Alfred Hine, Slough, England, assignors to the Minister of Supply in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, London, England
Application April 8, 1954, Serial No. 421,847
Claims priority, application Great Britain April 9, 1953
9 Claims. (Cl. 33—222)

1. A compass comprising a compass needle freely rotatable about an axis, a coil wound about a substantially linear magnetic core and disposed near the compass needle, first magnetic means disposed near the coil for applying a constant biassing magnetic field to the core so that the self-inductance of the core varies in a linear manner with the strength of the component of the magnetic field of the compass needle along the longitudinal axis of the core, and second magnetic means for generating a magnetic field to substantially counteract the action on the compass needle of said first magnetic means without substantially reducing the biassing magnetic field applied to the core.



2,837,830
METHOD AND APPARATUS FOR DRYING FLEXIBLE SHEET MATERIAL
Horace P. Fry, Jr., West Chester, Pa., and Lester B. Cundiff, Wilmington, Del., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 19, 1956, Serial No. 592,338
21 Claims. (Cl. 34—23)

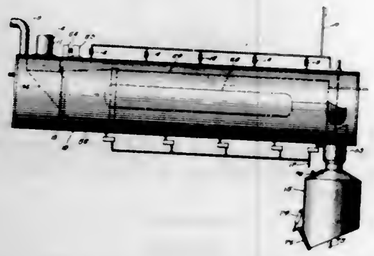


14. A method of drying traveling continuous flexible sheet material comprising the steps of passing the continuous sheet through a drying area, discharging the sheet from the drying area, supplying a moving air mass to a point adjacent the discharge point of the sheet material, breaking up the air mass into separate partially-confined air streams, guiding the separate air streams through the drying area along a surface of the sheet material longitudinally of the sheet material whereby the moisture escaping from the heated traveling sheet material being dried is picked up by the air streams moving through the drying area and removed from the area, independently adjusting the humidity of at least one of the air streams before the air streams enter the drying area, and discharging the moisture-laden air from the drying area.

2,837,831
APPARATUS FOR VACUUM DRYING
Wilbur C. Gates, Flossmoor, Ill., assignor, by direct and mesne assignments, of one-half to Chicago Bridge & Iron Company, Chicago, Ill., a corporation of Illinois, and one-half to Baerguard, Inc., Chicago, Ill., a corporation of Illinois
Application March 15, 1955, Serial No. 494,504
7 Claims. (Cl. 34—92)

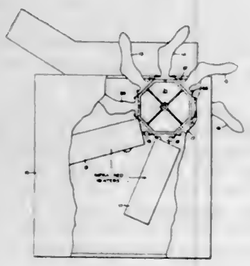
1. An apparatus for treating flowable, liquid-absorbing solid material, which comprises: an elongated her-

metically sealed material treating chamber, means for controlling the pressure in the chamber, an input port at one end of the chamber and an output port at the other end of the chamber, an outer drum and an inner drum arranged concentrically to each other and longitudinally aligned in the chamber, the outer drum having a receiving end and a discharge end, the inner drum being fixedly attached to the outer drum to form a drum unit, means for concentrically rotating the drum unit, the inner side of the outer drum and the outer side of the inner drum having means for tumbling material in



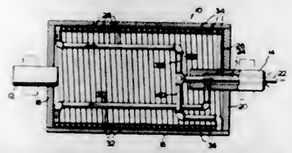
the drum unit, means for feeding material from the input port to the receiving end of the outer drum, means for progressively conveying the material from the receiving end of the outer drum, between the outer and inner drums, and out the discharge end of the outer drum, means communicating with the discharge end and output port, and heating means provided in the chamber between the inner chamber wall and the outside of the outer drum, said heating means having means for heating portions of the outer drum to different predetermined temperatures.

2,837,832
TEXTILE BOARDING APPARATUS
Francis M. Southerland, Mebane, N. C., assignor of one-half to Weldon E. Rascoe, Mebane, N. C.
Application August 19, 1955, Serial No. 529,560
2 Claims. (Cl. 34—103)



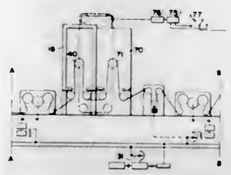
1. A hosiery boarding and presetting device comprising, a wheel having a polygonal periphery comprising a plurality of straight portions, each of said portions having a peripheral surface adapted to define a generally semi-circular cross-section, a plurality of hosiery boards, each of said hosiery boards having a base portion with a bottom surface of generally semi-circular cross-section complementing the peripheral surface of the straight portions of said wheel, and means for detachably securing the base of each of said hosiery boards to a respective peripheral striaght portion of said wheel.

2,837,833
ROLL TEMPERATURE CONTROL SYSTEM
Edward A. Coudriet, Henrico County, Va., assignor to The Inta-Roto Machine Company, Inc., Henrico County, Va., a corporation of Virginia
Application September 15, 1955, Serial No. 534,490
7 Claims. (Cl. 34—124)



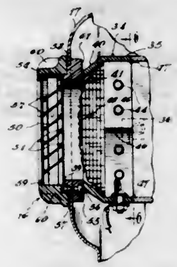
1. A heat-exchange roll, comprising a roll body, means to journal the roll body for rotation about a central axis through the roll body, means forming at least a pair of helical conduits within the roll body adjacent and in heat exchange relation with its periphery, the inclination of the conduits being in the same direction, means defining an inlet fluid passageway at one end of each helical conduit and restricting fluid flow only into the respective conduit with the inlet passageway of the two conduits being located in the roll body at relative opposite ends of the respective conduits, and means defining an outlet passageway at the end of each helical conduit opposite the inlet passageway, whereby fluid is fed through one of the helical conduits in one rotational direction and through the other of the helical conduits in an opposite rotational direction to offset frictional drag on the roll body during rotation of the roll.

2,837,834
WEB HEAT TREATMENT AND APPARATUS THEREFOR
Alexander V. Alexeff, Cleveland, Edwin P. Homburg, Parma Heights, and Howard Richards, Lakewood, Ohio, assignors to Industrial Ovens, Incorporated, Cleveland, Ohio, a corporation of Ohio
Application September 17, 1954, Serial No. 456,691
2 Claims. (Cl. 34—159)



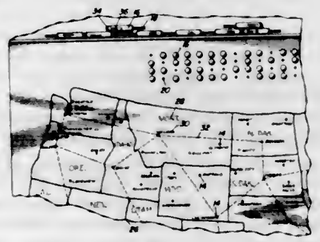
1. In continuous and semi-continuous strip treating apparatus, a heat treating station comprising a heating chamber having port means to receive and discharge strip material to be treated, first roll means including at least one first roll mounted for lateral translation within the chamber, second roll means including at least one second roll mounted for lateral translation without the chamber, said first and second roll means each being in strip-tension-supporting engagement with said strip material, means to guide said strip material toward and away from said heating chamber, means to translate said first roll means over at least one continuous range to vary the length of strip material within the heating chamber, stressed linkage means supporting said first and second roll means against strip tension and extending therebetween to cause strip-tension-supporting loads imposed on said linkage means by said first and second roll means to oppose each other, whereby said varying is accomplished independently of the degree of tensioning of said strip material.

2,837,835
DRYER
Elmer S. Hewitt, Wilmette, and Louis E. Beyer, Chicago, Ill.; said Beyer assignor to Electric-Aire Engineering Corporation, a corporation of Illinois
Application March 4, 1954, Serial No. 414,148
2 Claims. (Cl. 34—243)



1. In a forced air dryer, a casing enclosing a fan scroll arranged to discharge air substantially horizontally, a heating coil housing on the fan scroll forming an air directing member and having a narrowing discharge portion terminating in an upright discharge mouth, a heating coil in said housing adapted to heat air forced through the scroll, and an air baffle rotatably supported in the front face of said casing opposite said discharge mouth, the inner end of said baffle being in slidable contact with the mouth defining end of the heating coil housing to seal against leakage of air between the baffle and housing, said baffle having a discharge opening in an upright plane and inclined louvers extending across the opening, a plurality of substantially parallel louvers in said air baffle each inclined to the direction of air discharge from said fan scroll, and an outer ring on said baffle having finger depressions about its periphery to permit manual rotation of the baffle and louvers to direct the discharged air in desired directions.

2,837,836
TEACHING AID
John H. Morawitz, Hannibal, Mo., assignor of twenty percent to Henry L. Morawitz, Hannibal, Mo.
Application August 1, 1955, Serial No. 525,543
7 Claims. (Cl. 35—9)



1. A teaching aid comprising a playing board having a plurality of apertures therein, a plurality of pegs selectively positionable in said apertures, a normally invisible line interconnecting certain of said apertures, said line being formed of invisible ink becoming visible when illuminated thereby designating the pegs properly positioned in the apertures on said line and those improperly positioned in the apertures not on said line.

2,837,837
MANUALLY OPERABLE GRAPHIC DEVICE FOR TEACHING DANCING
Eli N. Castle, South Orange, N. J.
Application February 10, 1955, Serial No. 487,285
3 Claims. (Cl. 35—29)

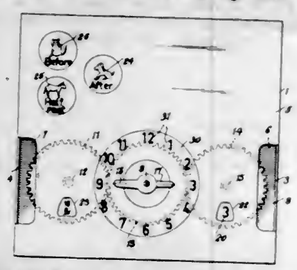


1. A manually operable graphic device for teaching dancing comprising an elongated generally rectangular sheet folded upon itself at one end to provide an envelope open at one end and having front and rear super-imposed panels secured together along their opposite side edges, a semi-circular cut-out in said front and rear panels at the open end of said envelope, a plurality of right and left shoe outlines on said front panel denoting the several locations of the feet from start to finish of a particular dance step, an aperture in the sole portion of each shoe outline, an elongated cut-out adjacent the shoe outlines denoting the start and finish of the dance step, lines connecting certain of said shoe outlines and arrows indicating the direction of movement of the feet during each phase of the dance step, a slide comprising a generally rectangular elongated sheet disposed between said front and rear panels, tabs extending inwardly from said front panel adjacent the opposite side edges thereof and engaging said slide to support and guide the same for sliding movement in and out of the open end of said envelope, stop means on said slide for engaging certain of said tabs to limit outward movement of said slide, a semi-circular cut-out in the end of said slide adjacent the closed end of said envelope, colored areas on said slide disposed to register with said apertures in certain of said apertures in certain other positions of said slide, indicia on said slide disposed to register with said elongated cut-out at the inner and outer positions of said slide to indicate the start and finish of the dance step, colored areas on said rear panel disposed to register with said openings in certain positions of said slide and numbers on said last named areas whereby upon movement of said slide outwardly of said envelope said colored areas and numbers will become visible through said apertures in sequence to indicate the order of movement and proper positioning of the feet from start to finish of the dance step.

2,837,838
DEVICE FOR TEACHING THE TELLING OF TIME
George P. Lewis, Mineola, N. Y.
Application February 16, 1956, Serial No. 565,996
2 Claims. (Cl. 35—39)

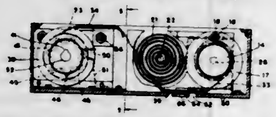
1. An educational device including a casing, said casing including a front panel, a clock dial on the outer face of said panel, a pair of independently movable hands at the front of said dial and movable thereover to designate time, a gear carried by one of the hands within the casing, an indicating gear in the casing in mesh with said gear, the indicating gear having a face bearing numerals, a gear carried by the second hand, an indicating gear in mesh therewith and bearing numerals and symbols, windows in the panel through which the numerals and sym-

bols borne by the indicating gears can be successively presented to view, the coupling between the hands and gears being such that the indicating dials will present



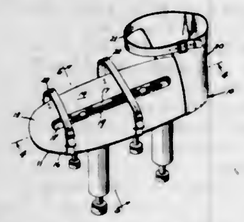
through the windows a statement of the time as it is indicated by the position of the hands on the dial, the casing having apertures through which the indicating gears are exposed for manual rotation.

2,837,839
VOCABULARY STUDY DEVICE
Linders J. Fernbach, Bronx, N. Y.
Application October 19, 1954, Serial No. 463,154
1 Claim. (Cl. 35—76)



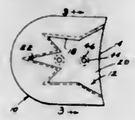
In a language study device of the type comprising a casing, supply and takeup spools rotatably supported therein and a web wound on said spools and extending between them, said casing being formed with a window for viewing a particular portion of said web, the improvement comprising a web tensioning spring operatively connected to said takeup spool, said spring being loaded when said takeup spool is empty, a ratchet wheel operatively connected to said supply spool, an operating handle operatively connected to said ratchet wheel, and a dog resiliently engaging the teeth of said ratchet wheel to stop the same and said supply spool and web selectively in any of a multiplicity of positions, said supply spool being mounted between a pin engaging one end thereof and a slidable spindle engaging the other end thereof and said ratchet wheel being mounted on said spindle, said dog further being biased to engage said ratchet wheel with a force exerted substantially axially thereof and in the direction of said supply spool, thereby maintaining said spindle in engagement with said supply spool.

2,837,840
SPRING SHOE
Julius A. Kerpel, New York, N. Y.
Application August 10, 1956, Serial No. 603,348
2 Claims. (Cl. 36—7.8)



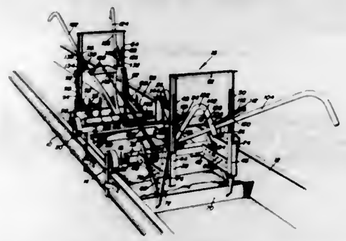
1. A spring shoe for use by a wearer comprising: a sole plate element and a resilient element; said sole plate element having means for securing the same to a foot of said wearer, and being of generally elongated planar configuration having a principal axis and upper and lower surfaces; said resilient element including a plurality of resilient components, each having a line of action substantially perpendicular to said axis; at least one of said resilient components being individually adjustable with respect to resilient force exerted along its line of action.

2,837,841
SHOE HEEL FASTENER
Dik Warren Twedt, Wilmette, Ill.
Application July 18, 1957, Serial No. 672,782
4 Claims. (Cl. 36—36)



1. A device for securing replaceable heels to shoe soles comprising in combination a replaceable heel having a concavity and a fastener comprising a base plate and boss integrally attached thereto the boss being angled on two perpendicular planes such that it is narrower at its root adjacent to the base plate, and, at one end, the base plate being provided with a plane surface suitable for ready permanent attachment with adhesive to the sole of a shoe, and a heel having a concave contour complementary to the boss whereby the heel may be securely held to the shoe sole by inserting the boss into the concave contour.

2,837,842
CURB AND GUTTER GRADING MACHINE
Andrew W. Jackson, Gadsden, Ala.
Application May 13, 1954, Serial No. 429,516
4 Claims. (Cl. 37—108)



1. A curb and gutter scarifying and grading apparatus for use in conjunction with spaced forms for curb and gutter of different height comprising sets of wheels adapted to ride on the spaced forms, a car suspended from said wheels, other sets of wheels mounted on said carriage engaging the inner surfaces of said forms, a scarifier carrying frame hingedly secured to said carriage, a blade carrying frame hingedly secured to said carriage, a first handle pivotally and adjustably secured to said scarifier carrying frame, a second handle pivotally and adjustably secured to said blade carrying frame, first resilient means terminally secured to said carriage and said first handle for urging the scarifier to a raised position and other resilient means terminally secured to said second handle and said carriage for urging the blade to a raised position, said scarifier carrying frame including a pair of upwardly extending standards, said standards having elongated vertically extending slots therein, a pair of arms carried by said first handle, said arms having elongated slots therein, and fasteners extending through said

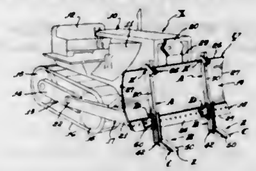
slots in said standards and through said slots in said arms for adjustably locking said first handle in a selected position.

2,837,843
METHOD OF AND MEANS FOR REPOINTING WORN TEETH
Herman S. Meshorer, Shaker Heights, Ohio
Application March 29, 1956, Serial No. 574,825
9 Claims. (Cl. 37—142)



1. The method of repointing a worn tooth of an excavating implement or the like, said method comprising the steps of removing a portion of the worn tooth to provide a surface to which an adaptor may be welded, welding to said surface an adaptor having means to which a replacement tooth may be mechanically connected, and mechanically connecting a replacement tooth to said adaptor.

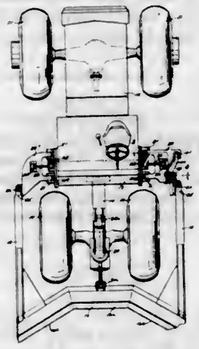
2,837,844
ROOTER ATTACHMENT FOR BULLDOZERS OR THE LIKE
Richard L. Launder, Downey, Calif., assignor to H. & L. Tooth Company, Montebello, Calif., a corporation of California
Application June 23, 1955, Serial No. 517,429
11 Claims. (Cl. 37—145)



1. An attachment for earth handling machines, including, an elongate resilient shank, a cutting head at the lower end of the shank and having a cutting point, and mounting means for the shank including, a pivotal support at the cutting head thereof, and a sliding anchor at the upper portion thereof.

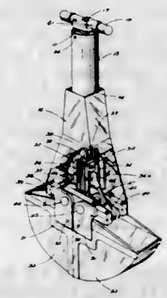
2,837,845
TILTING DEVICE FOR BULLDOZER BLADE
Arthur P. Armington, Willoughby, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 2, 1954, Serial No. 407,744
2 Claims. (Cl. 37—144)

1. A material moving implement adapted to be mounted on a power-driven vehicle and propelled by the same, comprising a blade, beams of generally equal length adapted to straddle said vehicle and secured to said blade, a separate mounting means for each beam, each mounting means adapted to be secured to said vehicle and including a universal pivotal connection with its associated beam spaced from said blade, both said universal pivotal connections being generally in lateral alignment, at least one of said mounting means including a member having as a first pivot said universal pivotal connection with its associated beam and having a second pivot fixed relative to said vehicle and spaced on the side of said first pivot opposite the blade and having a pivotal axis extending generally transverse to said vehicle, whereby swinging said member about the axis of said second pivot will raise or lower said first pivot and its associated beam to tilt said blade, said first and second pivots being generally in alignment with the force exerted by said blade on said last-mentioned beam, said mounting means including a generally vertically extending and vertically elongated guide track of closed slot form



only slightly wider than and surrounding said member between said first and second pivots and being fixed relative to said vehicle to restrict member movement to within only a generally vertically and longitudinally extending plane relative to said vehicle, said mounting means including an adjustable link comprising interconnected screw and nut elements with one element pivotally connected to said member and means holding the other of said elements in fixed relation to said vehicle adjacent one end of said slot.

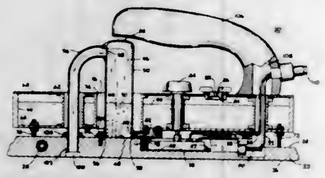
2,837,846
HYDRAULIC CLAMSHELL BUCKET
Daniel L. Long, Parma, Ohio
Application September 21, 1953, Serial No. 381,297
1 Claim. (Cl. 37—186)



A hydraulic clamshell bucket comprising a longitudinal housing, a hydraulic cylinder mounted in said housing having a piston therein, a crosshead arranged to reciprocate axially of said housing in guideways secured to the opposed side walls of said housing, a piston rod connecting said piston to said crosshead, bearing members secured to the opposed side walls of said housing adjacent the lower end of said guideways, a pair of centrally disposed transverse shafts in alignment with said crosshead and rotatably mounted in said bearing members, means for rotating said shafts including a pair of cooperating links, one of said links having one end secured to the central portion of the shaft and the second link

having one end pivotally attached to the outer end of said first link and the other end connected to the crosshead, said point of pivotal attachment between said links being outwardly positioned with respect to the shaft to which the said one of the links is attached, power arms secured to the outer ends of said shafts for rotation therewith, and a pair of bucket members substantially quarter-cylindrical in configuration each secured at its apex to said power arms on the said shaft adjacent thereto whereby upon downward movement of the piston, power is directed in an axial line substantially centrally of the bucket through the said crosshead to the said links which in turn rotate the said shaft to effect closing of the bucket members.

2,837,847
STEAM IRON
Edmond G. Franklin, Stanton Holmberg, and Frank B. Jewett, Jr., Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application November 18, 1953, Serial No. 392,859
17 Claims. (Cl. 38—77)



1. A steam iron comprising a soleplate having top and bottom surfaces, a reservoir above said soleplate for containing water therein at a predetermined maximum level electrical heating means for the soleplate, means providing a steam generating boiler chamber defined by wall portions having their lower edges in sealing engagement around the edges of a relatively small predetermined constant area of said top surface and their upper edges above said predetermined water level, and means normally maintaining a predetermined small volume of liquid in the boiler chamber with portions of the liquid covering the entire soleplate top surface area within the chamber throughout normal ironing movements for generation of steam in the presence of such liquid by heat conducted from the heating means to the liquid throughout said predetermined soleplate top surface area, said last-mentioned means including means connecting said reservoir and said boiler chamber for maintaining the liquid level within said boiler chamber at least as high as that within said reservoir, and steam conduit means having one end communicating with said boiler chamber at a point above said predetermined maximum water level and having another end located to discharge steam on the material to be ironed by said bottom surface of the soleplate.

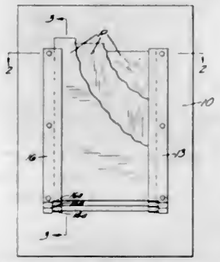
2,837,848
BOTTLE TOPPER DISPLAY PANEL AND ANTI-THEFT DEVICE
Dan Goldstein, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application July 12, 1956, Serial No. 597,460
1 Claim. (Cl. 40—4)

A bottle topper display panel and anti-theft device for use with a bottle display comprising three bottles disposed in a line with the two outside bottles of one height and capacity and the intermediate bottle of a smaller height and capacity, said display panel and anti-theft device comprising a flat generally rectangular blank having top, bottom and side edges and providing a body portion and a bottle neck engaging portion adjacent said bottom edge, indicia on said body portion, a centrally disposed substantially rectangular projection extending from said bottom edge, a slit of horseshoe configuration in said projection with the ends of said slit terminating in alignment with said bottom edge, fold lines between the ends of said slit and the side edges of said projection in alignment with said bottom edge, arcuate slits in said bottle neck engaging portion extending inwardly of said blank from the juncture of the side edges of said projection with said bottom edge to provide side flaps, a slit of horseshoe configuration in each flap, fold lines between the inner ends of said last named slits and the inner ends of said arcuate slits and fold lines between the other ends of said last named horseshoe slits and the side edges of said blank



whereby upon folding said flaps rearwardly there will be provided horizontally disposed apertures of horseshoe configuration for disposition over the necks of said two outside bottles and with downwardly extending tabs of horseshoe configuration engaging the front surfaces of such necks and upon folding said projection rearwardly there will be provided a horizontally disposed aperture of horseshoe configuration for disposition over the neck of said smaller intermediate bottle and with a downwardly extending tab of horseshoe configuration engaging the front surface of said intermediate bottle to support said panel in upright position and lock said bottles together.

2,837,849
ATTACHMENT FOR ADVERTISING DISPLAY CASES
Emil W. Flieder, Canby, Minn.
Application April 19, 1955, Serial No. 502,272
2 Claims. (Cl. 40—16)



1. A device for holding advertising display posters, comprising a frame member, a plurality of upstanding and elongated retainer plates having lower ends and being grouped into two sets, said plates in each of said sets being secured to said frame member in spaced and overlying relation with respect to each other to define a plurality of open-ended grooves therebetween, said sets of plates being arranged in spaced relation with each other with the grooves thereof being disposed in spaced and opposed relation for receiving and carrying such display posters, the lower end of each plate being spaced upwardly from the lower end of the plate underlying the same and the lower ends of said plates having hooks thereon for supporting the edge of such a poster adjacent thereto without closing the adjacent groove, the upper ends of the grooves also being open and at elevations similar with each other to permit the upper edges of the posters to extend upwardly therefrom different distances whereby

display posters of similar sizes may be inserted into the grooves adjacent the lower end of said plates and be guided by an underlying plate relative to the groove, and the outermost display poster from the frame member may be manually gripped at the upper edge thereof without interference of the underlying poster.

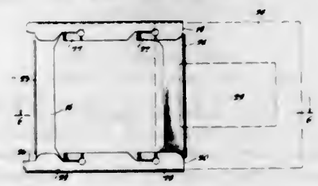
2,837,850
ELECTRIC CALENDAR
Ernest G. Sink, Sacramento, Calif.
Application April 10, 1957, Serial No. 651,944
6 Claims. (Cl. 40—117)



1. In an electric calendar, in combination, a casing having an upwardly extending portion including a removable base, an electric clock motor mounted on said base, a cam rotatable once in twenty-four hours by said clock motor, a cam follower, spring means biasing said follower into engagement with said cam, a pair of supporting uprights in said upwardly extending portion of said casing, an upper shaft extending horizontally between said uprights, a lower shaft parallel to and spaced from said upper shaft, a calendar strip including a feed roll extending between said upper and lower rolls, spaced date indicia on said strip, said casing having a viewing opening therein, a ratchet connected to said lower shaft, an operating arm, means pivoting said arm coaxially with said lower roller, a ratchet dog pivoting to said operating arm engageable with a tooth of said ratchet, a push rod connecting said operating arm and said cam follower, said cam being synchronized with the teeth of said ratchet whereby upon a full rotation of said cam, said dog engages a tooth of said ratchet, and upon release of said cam follower said spring means moves said dog, through said push rod, to advance said lower roller and hence said calendar strip, and means for preventing overriding of said calendar strip beyond the distance between said spaced date indicia.

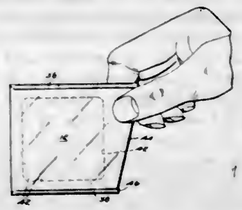
2,837,851
SLIDE
Carl H. Wiklund, New Rochelle, N. Y., assignor to Airequipt Manufacturing Co., Inc., New Rochelle, N. Y., a corporation of New York
Original application March 13, 1951, Serial No. 215,371, now Patent No. 2,711,602, dated June 28, 1955. Divided and this application January 17, 1955, Serial No. 482,350

1 Claim. (Cl. 40—152)



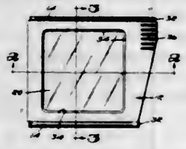
A slide holder for insertion into a magazine divided into parallel slide holder accommodating sections and having one side of the magazine open to allow removal of the slide holders from the sections and having the lower portion of the opposite side of the magazine open to allow access to slide holders in the sections by a slide transfer member comprising the combination of a one piece rectangular frame, the top and bottom of said frame comprising inwardly facing channels with a width corresponding generally to the width of the magazine accommodating sections to allow the slide holder to slide in and out of the accommodating sections, one end of the frame bottom channel extending beyond the adjacent frame side at the corner and having an end piece extending across the channel adapted to engage the slide transfer member, the opposite end of said frame bottom channel being open, the end of the frame top channel above the open end of the lower channel being open to permit the insertion of slides, a stop member on the frame side opposite the open channel ends, and a stop member on the frame side adjacent to the open channel ends extending outwardly from said rectangular frame for a distance equal to only a portion of the width of said channels to removably retain a slide in said channels, and at least one of said channels having integral yieldable projections extending into the channel to yieldably engage slides inserted in the slide holder.

2,837,852
PHOTOGRAPHIC TRANSPARENCY MOUNT
Robert C. Casselman, Auburndale, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application September 29, 1955, Serial No. 537,424
12 Claims. (Cl. 40—152)



1. A photographic product comprising a generally rectangular positive photographic transparency having a frame area surrounding the image area and an outwardly flared asymmetric edge providing an enlarged corner of the frame area, a mounting element having a framelike, substantially flat, inner supporting surface engaging said frame area of the transparency, a central aperture, an outwardly flared matching asymmetric edge providing an enlarged corner area, said matching asymmetric edges when aligned insuring that the image area of the transparency and the aperture of the mounting element are in register and that the image-carrying surface of the transparency is remote from said supporting surface of the mounting element and a pair of parallel channels formed at two opposed longitudinal edge portions of the mounting element and slidably receiving said transparency, a substantially rigid retaining plate of similar shape to said transparency and said mounting element engaged in said channels, said retaining plate having a framelike inner supporting surface engaging said frame area of the transparency, a central aperture, an outwardly flared asymmetric edge providing an enlarged corner area, said flared edge and enlarged corner area of the retaining plate when aligned with said asymmetric edges and enlarged areas of the transparency and mounting element providing correct register of the aperture of the retaining plate with that of the mounting element and with said image area and correct mounting of the transparency for exhibition purposes, said enlarged corner areas when superposed providing means for manually manipulating said product.

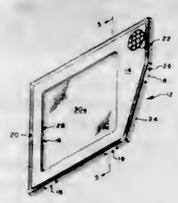
2,837,853
PHOTOGRAPHIC TRANSPARENCY MOUNT
Herbert A. Bing, Wellesley, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application September 29, 1955, Serial No. 537,436
9 Claims. (Cl. 40—152)



1. A mount for a photographic transparency comprising, in combination, a supporting element and an interlocking retaining plate, said supporting element comprising marginal frame portions providing flat, coplanar surfaces for supporting a face of a transparency on all sides of an image area thereof, a substantially rectangular recessed area formed centrally of said marginal area for holding therein a transparent plate having a thickness substantially equal to the depth of said recess, a central aperture formed in said recessed area, a pair of channels formed at the longitudinal edges of said element by two overturned longitudinal edge portions of said supporting element extending first in a direction similar to that of said recessed area and substantially to the same depth as that of said recessed area and then projecting above said supporting surfaces for slidably receiving said transparency, at least said longitudinal edge portions comprising said channels being resilient, a substantially rigid retaining plate adapted to fit between said channels and including marginal areas corresponding to said marginal areas of said supporting element having coplanar surfaces for supporting the opposite surface of said transparency on all sides of said image area, a substantially rectangular recessed area formed centrally of the inner supporting surface of the last-mentioned marginal areas for holding a second transparent plate having a thickness substantially equal to the depth of the last-mentioned recess, and a central aperture formed in the last-mentioned recessed area, said apertures being adapted to be aligned when said retaining plate is located between said channels, and flanges extending laterally from the longitudinal edges of said retaining plate and adapted to project into said channels, said channels being deformable apart from one another to permit introduction of said flanges into said channels by pressing said retaining plate between said channels toward said supporting element, said channels including longitudinal edge portions projecting toward one another and toward said supporting surfaces of said supporting element for engaging said flanges and resiliently urging said retaining plate toward said supporting element for gripping a transparency between the support surfaces of the marginal areas of said supporting element and retaining plate.

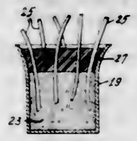
2,837,854
PHOTOGRAPHIC TRANSPARENCY MOUNT
Herbert A. Bing, Wellesley, and John W. Lothrop, Westwood, Mass., assignors to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application October 3, 1956, Serial No. 613,776
9 Claims. (Cl. 40—152)

1. A mount for an asymmetric film transparency comprising a pair of substantially flat interlocking frame members of asymmetric contour between the inner facing surfaces of which said transparency is mounted, said transparency being of a type having a contour similar to that of said frame members but having slightly smaller dimensions, each frame member having a central aperture which is substantially coextensive and aligned with that of the other and a continuous planar marginal area surrounding said aperture providing a bearing surface for said transparency, a first of said frame members having a plurality of integral fastener means projecting toward the second frame member from its inner surface and positioned at a plurality of given spaced locations adjacent its periphery, said fastener means each having an undercut transversely innermost face nearest said central aperture which is adapted to engage complementary fastener means of said second frame member, said transversely innermost face of each fastener means also serving, in cooperation with the asymmetric shape of said transparency and first frame member, as a positioning means for properly locating said transparency laterally and for insuring that the image-bearing emulsion thereof is properly centered and facing said first frame member, said second frame member also having a con-



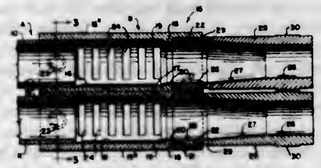
tinuous planar marginal area surrounding its central aperture which provides a bearing surface for said transparency opposite to the first-named bearing surface, the fastener means of said second frame member comprising a plurality of recesses formed in the peripheral edges of said frame member and extending transversely inwardly toward said central aperture, the transversely innermost faces of said fastener recesses nearest said central aperture including portions of reduced thickness which are adapted to be inserted underneath and to be releasably locked by the undercut faces of the fastener means of said first frame member, locking together of the two frame members being achieved by pressing said members toward one another so that the innermost faces of the recessed fastener means are forcibly inserted under the undercut faces of the projecting fastener means whereby there is provided a continuous compression of the marginal areas of the transparency which surround the image areas.

2,837,855
PRESERVATION OF ARRANGEMENTS MADE OF DRIED FLOWERS AND THE LIKE
Agnes P. Hoke, Princeton, N. J.
Application September 19, 1955, Serial No. 535,119
4 Claims. (Cl. 41—12)



1. The method of fixing arrangements of flowers and the like comprising the steps of partially filling a container with a granular substance in its granular form, arranging said flowers and the like by sticking the stems of flowers and the like in said granular substance, after the flowers and the like have been arranged, adding to the container, on top of the granular substance and around said stems, a liquid capable of changing to a solid and without disturbing the arrangement causing the liquid to change to a solid to fix the arrangement.

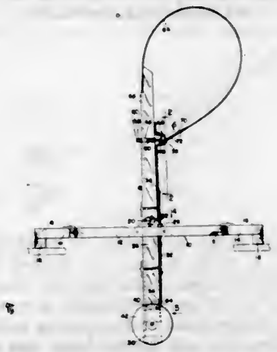
2,837,856
DUAL COMPENSATOR HAVING SHOT CONTROLS FOR DOUBLE BARREL SHOTGUNS
Humberto Ortiz Benitez, Mexico City, Mexico
Application March 21, 1955, Serial No. 495,609
1 Claim. (Cl. 42—79)



As an article of manufacture a compensator for a double barrel shotgun, said compensator comprising an elongated tubular body having an inner end portion, an outer end portion, a substantially circular inner face, an arcuate outer face defined by two substantially parallel longitudinal edges of said body, a substantially flat and elongated outer face extending to both of said edges for the entire length of said tubular body and secant to said arcuate outer face, said flat outer face being bisected by the transverse axis of said body, the shortest distance from said circular inner face to said flat outer face being less than the shortest distance from said circular inner face to said arcuate outer face, whereby two of said articles of manufacture may be disposed in substantial parallelism with their flat outer faces in face-to-face abutting relationship for mounting upon the outer end portions of the barrels of a double barrel shotgun, said elongated tubular body being provided with a gas discharge opening, from said circular inner face to said arcuate outer face and disposed intermediate the ends of said elongated tubular body, said inner end portion being of an interior circumference to telescopically receive the outer end portion of a barrel of a double barrel shotgun and said outer end portion of said elongated tubular body being provided with directing means to deflect the shot column, emerging from said elongated tubular body, toward the longitudinal axis of said elongated tubular body comprising a beveled annular inner face portion of said inner face thereof extending toward the longitudinal axis of said elongated tubular body and toward the outer end of said elongated tubular body and falling short of the outer end of said outer end portion of said elongated tubular body, and connecting means for detachably connecting a screw threaded choke to said elongated tubular body, comprising an annular shoulder and interior screw threads carried by said outer end portion outwardly of said bevelled annular inner face portion with said interior screw threads extending outwardly from the base of said annular shoulder, whereby said directing means will also deflect hot residual products of combustion toward said axis and away from said screw threads in order to protect said screw threads from heat and the connection of elongated tubular body and choke from incrustations of deposited residual products of combustion.

2,837,857
ICE-FISHING TILT
Carl Albert Ellison, Worcester, Mass.
Application April 1, 1955, Serial No. 498,679
5 Claims. (Cl. 43—17)

4. An ice-fishing tilt comprising a stand, an upright pivoted thereto intermediate the ends thereof, a free-ended spring strip signal on the upright adapted to be bent over to be tensioned and released to spring upright, a hook at the free end of the spring strip, a U-shaped member embracing the upright, said hook being adapted to hook over an arm of the U in tensioned condition of the spring strip, means including a wire and a radial arm on the wire to engage the hook to slide the same off the free end of the arm of the U to release the strip, a reel on the upright, means on the reel to turn the wire and radial arm to move the hook, and means mov-



ably mounting the U-shaped member to extend or selectively retract the free end of the arm to which the hook is to be applied to vary the point of release thereof.

2,837,858
HOLDER FOR ATTACHING A REEL TO THE CORK GRIP OF A FISHING POLE
George O. Benson, Youngstown, N. Y., assignor to Chisholm-Ryder Co., Inc., Niagara Falls, N. Y., a corporation of New York
Application August 3, 1954, Serial No. 447,503
3 Claims. (Cl. 43—22)



1. In a fishing pole having a manually compressible generally cylindrical cork grip with a radially extending compressible cork enlargement at at least the butt end of said cork grip and said fishing pole also having a reel provided with tapered attaching ears, extending in opposite directions, relative to each other, along and in engagement with said cork grip and with the taper of said ears decreasing their effective thickness with reference to the axis of said cork grip, toward the remote ends thereof; the combination therewith of a holder for securing said ears of said reel compressively to said cork grip, comprising a pair of endless tubular sheet metal rings the internal diameters of which are greater than the external diameter of the central part of said cork grip and slightly less than the maximum cross-sectional dimension of said cork grip at its said enlargement, the size of said maximum cross sectional dimension of said cork grip at said enlargement being such that said rings can be forced manually over said enlargement but said enlargement must be compressed to so force said rings over said enlargement and onto the central part of said cork grip, and a metal slide plate fitted longitudinally directly against one side only of said central part of said cork grip and having a radially outwardly extending enlargement at at least one end, the internal diameters of said rings being severally greater than the combined cross-sectional dimensions of the central parts of said slide plate and cork grip but slightly less than the combined cross-sectional dimension of said enlargement of said slide plate and the central part of said cork grip whereby the end of said slide plate having said last enlargement must be compressed into said cork grip to permit the rings on said central part of said grip to pass endwise over said last enlargement and onto the central part of said slide plate.

2,837,859
FISHING LURE
Joseph Nozal, Virginia, Minn.
Application January 25, 1957, Serial No. 636,332
4 Claims. (Cl. 43—42.33)



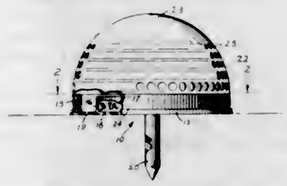
1. A fishing device comprising, in combination, a fish hook having a shank, at least one barbed hook and a portion having a band connecting said shank and said barbed hook, a coil spring attached at one end to an end portion of the shank and projecting rearwardly and beyond the bend of said barbed hook, and a lure head attached to and carried by the other end of said spring, said head embodying light reflecting media.

2,837,860
COLLAPSIBLE BUCKET
Albert E. Norling, Oberlin, Ohio, assignor to Oberlin Canteen Co., Oberlin, Ohio, a corporation of Ohio
Application July 8, 1955, Serial No. 520,713
12 Claims. (Cl. 43—56)



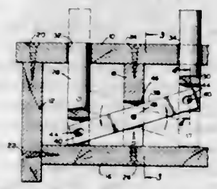
1. In a collapsible canvas bucket having a circular bottom portion, a metal ring encircling said bottom portion and secured thereto to maintain said portion in flat stretched condition, an upper folded fabric lip of said bucket, a second metal ring secured within said upper folded lip, a sheet metal cover fitting within said upper lip and having peripherally arranged tabs crimped thereabout to secure said cover in place, said cover having an eccentric opening therein of sufficient size to permit insertion of the human hand therethrough, an inner disc beneath said cover having an opening therein of substantially the same dimensions as the aforesaid opening in said cover and adapted to coincide therewith when said disc is appropriately rotatively indexed, another portion of said disc having numerous relatively small openings therethrough likewise adapted to be indexed to coincide with such opening in said cover, and another portion of said disc being imperforate and likewise adapted to be indexed to coincide with such opening in said cover fully to close such latter opening, means on said cover engaging the outer peripheral portion of said disc to hold the latter closely against the underside of said cover, a central knob connected with said disc through said cover for manual rotation of said disc, and a bail for said bucket; the improvement comprising means adapted releasably to rigidify said bucket in fully expanded condition comprising a generally U-shaped wire brace member adapted to extend from said cover to said bottom of said bucket adjacent the wall of the latter, hinge means pivotally connecting the respective ends of said member to the inner side of said cover radially outwardly of said disc whereby said member may be swung up flat against said disc, the closed end portion of said U-shaped member being adapted to bear against said bottom of said bucket and being of arcuately radially outwardly bowed conformation, the leg portions of said U-shaped member being inwardly bent adjacent their points of juncture with the respective ends of said bowed portion and slightly outwardly recessed just above said inwardly bent portions; a second U-shaped wire brace member adapted to extend from said cover to said bottom of said bucket, hinge means pivotally connecting the respective ends of said second member to the inner side of said cover radially outwardly of said disc and diametrically opposite said first-named member, whereby said second member may also be swung up closely parallel to said disc, the closed end portion of said second U-shaped member being adapted to bear against the bottom of said bucket and forming flat loops where joined with the leg portions of said second U-shaped member; and a third U-shaped wire brace member adapted to extend transversely of said bucket against said bottom between said first and second brace members and having its ends pivotally secured to said loops, whereby it may be swung up flat against said second brace member, the leg portions of said third member being resiliently outwardly bowed, and the cross portion of said third member having shallow recesses adapted to engage in said recesses in said side portions of said first member transversely thereof and thereby resiliently latch the brace structure together, each said brace member being shorter than the width of said cover.

2,837,861
OUTDOOR INSECTICIDE CONTAINER
James T. Graham, Sr., Piedmont, Ala.
Application July 24, 1957, Serial No. 673,969
2 Claims. (Cl. 43—131)



1. An outdoor insecticide container comprising, in combination, a base member having a compartment for receiving a quantity of insecticide, means for securing said base member in the earth, and a closure member enclosing said compartment and having means for limiting access to said compartment to small insects, said base member comprising a flat base plate, inner and outer spaced concentric circular walls extending upwardly from said base plate, said inner wall defining said compartment for receiving said insecticide, and said outer wall threadingly engaging said closure member, said base plate intermediate said inner and outer walls defining a plurality of drain openings, said closure member defining a hemispherical member having an upper imperforate portion, and said access means comprising perforations adjacent to the bottom of said hemispherical member.

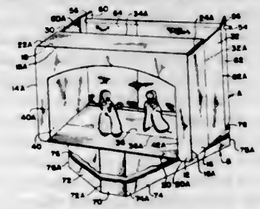
2,837,862
POUNDING TOY
George B. Cleveland, Pacific Palisades, Calif.
Application July 5, 1956, Serial No. 595,991
1 Claim. (Cl. 46—1)



A device of the class described comprising upper and lower spaced apart horizontally disposed boards, a pair

of spaced apart and parallel vertically disposed boards interconnecting and supporting said horizontally disposed board, a fifth board extending between and supported by said horizontally disposed boards and disposed between and in parallel with said vertically disposed boards, a pair of holes extending through said upper horizontally disposed board, said holes being disposed at opposite sides of said fifth board, a pair of pegs substantially non-frictionally fitted within said holes, a slot formed in said fifth board and extending vertically therein from the lower end of said board to a point short of the upper end thereof, a lever extending through said slot, a bolt extending through said fifth board and said lever transversely of said slot and pivotally supporting said lever, a pivotal connection between the lower end of each peg and an end of said lever whereby downward movement of one peg relative to said upper board will cause upward movement of the other peg relative to said upper board through pivotal movement of said lever, at least one portion of the lower end of said fifth board at one side of said slot having no fixed connection with said lower board whereby said board may be edgewise compressed to frictionally grip the portion of said lever disposed within said slot, and a nut adjustably threadably engaged with said bolt adapted to enable variable edgewise compression of said fifth board.

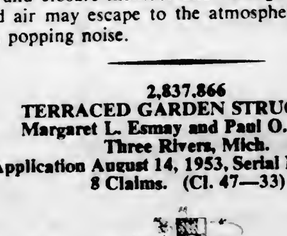
2,837,863
COMBINED PUPPET STAGE AND CARRYING CASE
Marion R. Duvall, Haddon Heights, N. J.
Application October 2, 1957, Serial No. 687,709
1 Claim. (Cl. 46—13)



A collapsible puppet stage adapted to be folded into a compact carrying case comprising a rectangular front panel, a peripheral edge extending at right angles to the plane of said front panel, a pair of portals punched in said front panel and hingedly secured thereto adjacent the sides thereof, said portals being folded backwardly respectively into planes parallel to the side portions of said peripheral edge, a portico hingedly secured to the top portion of said peripheral edge, a flap longitudinally hinged to said portico and having notches therein in detachable interlocking engagement with slots at the top of said portals, a wing hingedly secured at each side portion of said peripheral edge, a rod interfitting at each end with an aperture in each wing and detachably maintaining said wings in spaced parallel relation, a curtain slidably supported on said rod and a base panel hingedly secured to the bottom of said peripheral edge to define a stage floor whereby the stage may be opened in exhibition position for displaying puppets or collapsed into a compact carton for storage thereof.

2,837,864
TOY AEROPLANE
Jürgen Bortfeldt, Lehrte, Hannover, Germany, assignor to K. Arnold & Co., Nurnberg, Germany
Application July 19, 1956, Serial No. 598,777
Claims priority, application Germany December 23, 1952
2 Claims. (Cl. 46—77)

1. A captive toy airplane, which comprises in combination: a fuselage, two wings supported by said fuselage, a propeller shaft journalled in the front portion of said fuselage, a propeller connected to one end of said propeller shaft, an intermediate shaft rotatably supported by one of said wings and located substantially in the plane passing through the longitudinal axis and the transverse axis of said airplane, said intermediate shaft having its one end



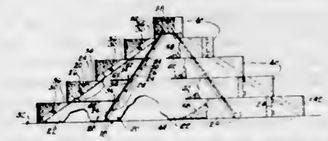
drivingly connected to the other end of said propeller shaft and defining with said propeller shaft an obtuse angle, a remote driving device, and a flexible power conveying shaft having one end drivingly connected with said driving device and having its other end drivingly connected with the other end of said intermediate shaft.

2,837,865
POPGUN CONSTRUCTION
William S. Wells, Palo Alto, Calif., assignor to Daisy Manufacturing Company, Plymouth, Mich., a corporation of Michigan
Application May 28, 1956, Serial No. 587,673
4 Claims. (Cl. 46—175)



1. In a toy popgun construction, a hollow cylindrical housing member, a bore-fitting piston slidably disposed in said housing member, a piston rod member connected with said piston and extending axially of said housing member, means spaced from one end of said housing member sealingly closing the same so that the portion of said housing between said piston and said closure means provides a chamber in which air is compressed upon relative movement of said piston and said closure means toward each other, and actuatable means for effecting said relative movement and causing the compression of air in the chamber, the cross-sectional area of said hollow cylindrical housing member adjacent said closure means being enlarged adjacent said closure means so as to provide a passageway between the wall of said housing member and said piston just prior to engagement of the piston and closure member and through which the compressed air may escape to the atmosphere so as to produce a popping noise.

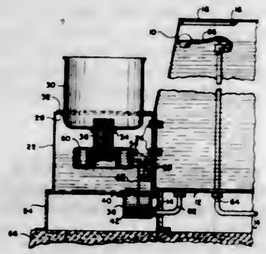
2,837,866
TERRACED GARDEN STRUCTURE
Margaret L. Esmay and Paul O. Esmay, Three Rivers, Mich.
Application August 14, 1953, Serial No. 374,244
8 Claims. (Cl. 47—33)



1. In a terraced garden in which soil is adapted to be confined within endless bands, a support for the bands,

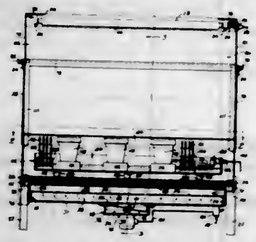
said support converging in girth from bottom to top so as to support endless bands of progressively reduced girth upward, said support comprising a plurality of sections extending throughout the height of and converging from bottom to top of said support, each section having side flanges extending outward relative to said support, the flanges of each section facing and being secured to the neighboring flanges to provide a unitary structure, said flanges having ledges at different elevations therealong on which the several bands are adapted to rest.

2,837,867
CONSTANT FEED PLANT WATERING APPARATUS
Charles R. Courtenay, Watertown, N. Y.
Application August 1, 1955, Serial No. 525,620
1 Claim. (Cl. 47—38)



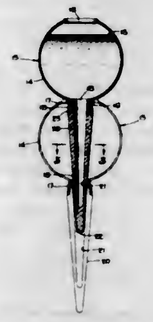
A cemetery plant watering device comprising a hollow marker adapted to serve as a water reservoir, a float valve reservoir located adjacent said marker and having a conduit connecting with the water reservoir, an annular hollow float hingedly mounted on a side wall and located centrally within said float valve reservoir, a valve in said conduit having an actuating connection with said float whereby to maintain a constant liquid level within said valve reservoir, and a plant receptacle located above said float valve reservoir, and acting as a closure therefor, said receptacle having an aperture in the bottom thereof in alignment with said annular float, and a wick projecting through said aperture and into said receptacle, and extending downwardly below the liquid level of said valve reservoir, and axially through the annular float.

2,837,868
HUMIDIFIED PLANT HOLDER
Roy P. Skerritt, Detroit, Mich.
Application May 21, 1956, Serial No. 586,028
6 Claims. (Cl. 47—38)



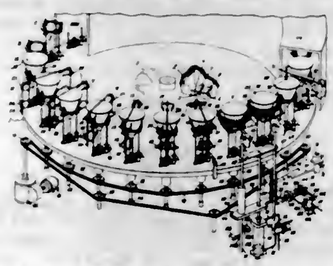
1. A humidified plant holder comprising a housing having side walls and air inlet and outlet apertures in the lower and upper portions thereof respectively, a water pan mounted in said housing in laterally-spaced relationship to said walls and having an air passageway disposed between said pan and said walls, means for supporting evaporator plates in spaced parallel relationship in said pan, evaporator plates of capillary material mounted in said plate-supporting means with portions of said plates projecting downwardly into said pan, said plates having outwardly-extending lateral wings projecting into said air passageway, and means for supporting a plant in said pan.

2,837,869
PLANT-WATERING DEVICE
Victor H. Chatten, Torrance, Calif., assignor of one-half to Takeo Ono, Gardena, Calif.
Application November 12, 1954, Serial No. 468,269
1 Claim. (Cl. 47—48.5)



A plant-watering device having a bulb shaped to provide a water reservoir, the bulb having a filler opening and a skirt defining an outlet opening, the openings being axially aligned, and the filler opening being smaller than the maximum lateral dimension of the bulb but larger than the outlet opening, a hollow stem formed of porous ceramic material and having an outer surface tapering from a small lower end to a larger upper end, said upper end having a portion cooperating with said skirt and fixed thereto, said stem having a central axially extending cavity opening directly into the reservoir in the bulb, the outside lateral dimensions of the lower portion of the stem being smaller than the inside lateral dimensions of the upper portion of the stem cavity, the stem being longer than the distance between the bulb openings, the proportions of the bulb and stem being such that a duplicate device may be stacked thereon in telescoping relationship therein with the stem on the upper device projecting through both bulb openings and into the stem cavity on the lower device, the filler opening on the bulb of the lower device cooperating with the skirt on the said duplicate device to limit lateral movement thereof.

2,837,870
APPARATUS FOR MAKING TUBE ENVELOPES
Lloyd S. Hartley, Schenectady, Joseph B. Henry, Scotia, and John W. Miller and William E. Shahan, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application June 24, 1950, Serial No. 170,202
13 Claims. (Cl. 49—2)



3. A work support for the metal and glass parts of a cathode ray tube comprising a cone support, a neck support, spring means for urging said supports to move vertically and relatively in one direction, a cam carried by said neck support, a cam actuator pivotally mounted in vertically fixed relation with respect to said supports to maintain said supports in a controlled relative vertical position with respect to one another, and means for pivotally positioning said cam actuator to effect a controlled change in the relative positions of said supports as a result of relative movement produced by said spring means.

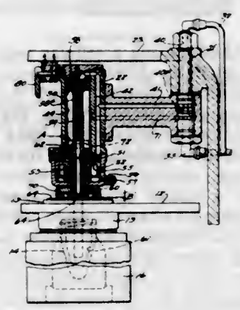
6. A machine for sealing a face plate to a metal cone of the type having a flange for supporting the face plate prior to sealing including means for supporting the cone in an upright position with the larger end opening upwardly to receive a face plate, gas supply means communicating with the interior of a cone on said support for introducing gas within a cone on said support and switch means responsive to the vertical position of a face plate on a cone in said support, said switch means actuating said supply means for controlling the admission of gas through said supply means to the interior of a cathode ray tube envelope for maintaining such a face plate in a controlled position during the cooling of the cone and face plate.

8. Apparatus for sealing together a vitreous neck portion and a metallic conical portion of a cathode-ray tube envelope including: a supporting table; a vertically extending lift tube; a vertically extending air tube mounted coaxially with said lift tube and extending upwardly beyond the extremity of said lift tube; an adjustable mechanism for varying the axial position of said air tube relative to said lift tube; means associated with said adjustable mechanism for securing said air tube and lift tube in a selected relative axial position; a first supporting structure for supporting said conical portion in a vertical position with its large end upward; a second supporting structure secured to said air tube for supporting said neck portion coaxially with said conical portion but initially spaced below the lower small end of said conical portion a distance determined by the setting of said adjustable mechanism; and a lifting mechanism mechanically coupled to said lift tube for raising said neck portion into contact with the lower end of said conical portion.

10. Apparatus for sealing a glass face plate to the rim of a metal cone to which a glass neck has been previously sealed, said apparatus including a rotatable turret having a plurality of cradles, each cradle having means for holding a metal cone in an upright position, and a hollow rotatable spindle upon which said glass neck may be seated, means for rotating said turrent intermittently through a series of working positions, a gas burner at one of said positions, said burner being capable of being moved into a position proximate said rim of said cone only when said cradle is at rest in one of said working positions and out of the path of travel of said cone when said turret rotates between working positions, an electrical control for moving said burner, an air valve at one of said working positions, said air valve being in register with the hollow of said spindle when said cradle is in said last-mentioned one of said working positions, means for introducing a regulated blast of air through said valve and said hollow spindle and into said cone, an electrical control for starting and stopping said air blast, and a common electrical synchronizing control for activating said electrical control for moving said burner and said electrical control for starting and stopping said air blast.

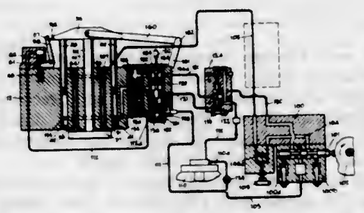
2,837,871
GLASS BLOWING DEVICE
Keith Conrad, Toledo, and Robert R. Denman, Columbus, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application November 1, 1954, Serial No. 465,814
3 Claims. (Cl. 49—18)

1. A parison blowing device comprising in combination, a blow head baffle, a piston movable with said baffle, a piston rod providing attachment between said piston and said baffle, a spring adapted to contact the lower end of said piston and hold said baffle and piston in a non-blowing position, means to supply fluid pressure to the top of said piston, a metering orifice in the top of said piston adapted to permit leakage of said fluid pressure through said piston in metered quantity to permit



lifting of said baffle, a neck and blow mold adapted to support a parison in blowing position with respect to said blow head and baffle, means to supply blowing air to the inside of said parison and beneath said baffle, and means to regulate the rate of flow of said top pressure fluid through said metering orifice to thereby control the amount of lift of said baffle.

2,837,872
HYDRAULIC CONTROL FOR GLASS PRESSING MACHINES
Andrew E. Brymer, Jr., Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application August 24, 1955, Serial No. 530,309
4 Claims. (Cl. 49—38)



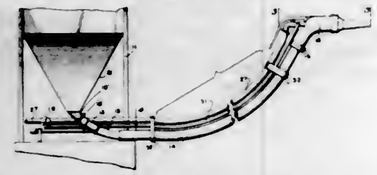
1. In an apparatus for pressing molten glass, the combination which includes a pressing head, a crosshead shaft extending through said head, opposing cross arms formed on each end thereof one of said cross arms disposed above and one below said head, said crosshead shaft and arms mounted for vertical movement relative to said head, pairs of vertically movable pistons arranged in said head between said opposing cross arms, each pair of said pistons having actuating contact with only one of said cross arms, each pair of said pistons being adapted for alternate communication with a controlled source of fluid pressure, means to alternately aply fluid pressure to each pair of pistons, and means adapted to supply a separate constant pressure on one pair of pistons upon the cessation of the normal supply of pressure thereto.

2,837,873
METHOD OF MAKING DENSE-FACE, CELLULAR VITREOUS BODIES
Walter F. Lynsavage, Port Allegany, Pa., assignor to Pittsburgh Corning Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 31, 1955, Serial No. 498,390
6 Claims. (Cl. 49—77)



1. A method of making a cellular body having a unitary cellular, relatively dense facing layer and a cellular relatively lightweight backing, which comprises mixing pulverized vitreous material and an amount of a first cellulating agent to provide a first batch adapted when heated to cellulating temperature to form said relatively dense facing layer, mixing pulverized vitreous material and an amount of a second cellulating agent to provide a second batch adapted when heated to cellulating temperature to form said relatively lightweight backing, each of said cellulating agents having a temperature of reaction to liberate gas which is above the temperature of sintering and softening of the vitreous material with which it is mixed, the temperature of reaction of said first cellulating agent to liberate gas being lower than that of said second cellulating agent, superposing said separate batches in layers and heating the superposed layers to a temperature sufficient to sinter and cellulate them into a unitary body.

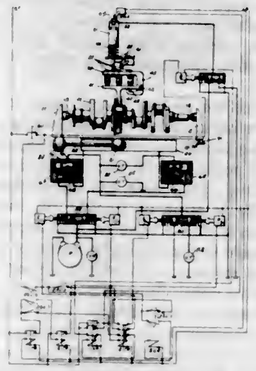
2,837,874
SAND BLASTING APPARATUS
Edgar D. Hunter, Baltimore, Md.
Application June 18, 1956, Serial No. 591,967
4 Claims. (Cl. 51—8)



1. A sand blasting apparatus having a sand receiving element and a nozzle for dispensing the same having an air cut-off valve carried thereby, the sand receiving element having positioned therein an air jet directed toward its outlet, a flexible air supply line leading directly to the said nozzle from a suitable supply source, a flexible sand supply line leading from the sand receiving element to the nozzle, and a flexible air line leading from the nozzle to the air jet in the sand receiving element and being connected with the nozzle outwardly toward the exhaust end of the nozzle and beyond the air cut-off valve.

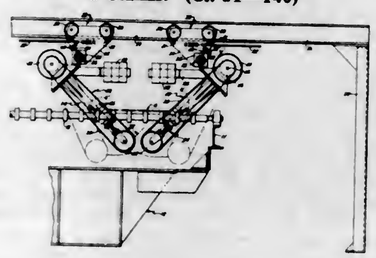
2,837,875
LOCATING DEVICE FOR MACHINE TOOLS
William E. Happel, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa.
Application September 28, 1956, Serial No. 612,673
4 Claims. (Cl. 51—105)

4. In a metal working machine, a tool support movable toward and from a workpiece and having a cutting tool mounted thereon, a work support, means for rotatably supporting a workpiece thereon, means for relatively locating the work and tool axially including a gauge movable toward and from working position and having means for co-acting with a locating surface on said workpiece, means for causing a relative longitudinal movement between said tool and said work including a piston and cylinder, a selector valve for determining the rate of flow of exhaust from said cylinder, a plurality of throttle valves each set for a different rate of flow, con-



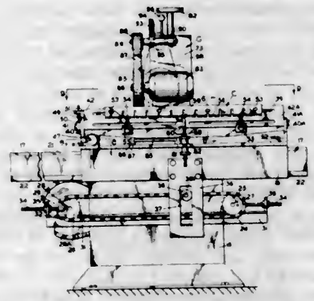
duits between said selector valve and said throttle valves, and means actuated by said gauge for actuating said selector valve to direct exhaust fluid through one of said throttle valves which is set to cause the traverse movement to be reduced to a slow rate for approaching a position at which the work is to be located for grinding.

2,837,876
TREATING GLASS SHEETS
Fred W. Kocher, Festus, Mo., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application June 3, 1957, Serial No. 663,037
5 Claims. (Cl. 51—140)



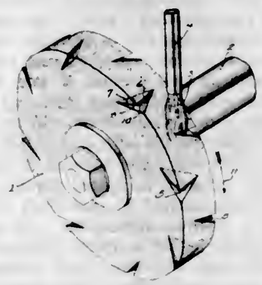
1. Apparatus for edge seaming curved longitudinal edges of flat glass sheets having varying widths comprising a horizontal conveyor for transporting flat glass sheets therealong, a seaming station comprising a track extending transversely in spaced relation to said conveyor, a pair of carriages mounted along said track for location in predetermined positions therealong, a pulley system pivoted to each carriage, each pulley system comprising a driving pulley, a driven pulley, an abrasive belt traversing the horizontal plane of the conveyor and interconnected between said pulleys, means to balance each pulley system to cause the abrasive belts to pivot slowly into engagement with the path traversed by the opposite longitudinal edges of glass sheets conveyed past the seaming station, freely rotatable guide rolls intersecting the plane of the conveyor and located intermediate the tangential planes common to the driving and driven pulleys and beyond the lateral edges of the abrasive belt to limit the minimum spacing between opposing pairs of abrasive belts at the plane of the conveyor to the width of the increment of glass sheet passing therethrough, and means to drive each pulley system.

2,837,877
GRINDERS FOR GRINDING CUTTER BLADES
Burton R. Andrus, Eugene, Oreg.
Application February 13, 1956, Serial No. 564,982
4 Claims. (Cl. 51—143)



1. A cutting blade grinding machine comprising an elongated base, a pair of spaced apart parallel legs secured to said base and extending transversely thereof, said legs having horizontal grooves formed in the adjacent sides thereof, a base plate having the opposite side edges supported in said grooves for transverse horizontal sliding movement, hand control means on said base for sliding said base plate horizontally with respect to said base, a longitudinally extending table fixed to said base plate in upwardly spaced parallel relation thereto, a goose-neck pedestal, a vertical pivot bolt securing said pedestal to said table for rotary adjustment thereon, an upright plate on said goose-neck extending perpendicularly to said table, a vertical base plate mounted for vertical sliding movement on said upright plate, control means extending between said vertical base plate and said upright plate for sliding said vertical base plate with respect to said upright plate, a motor fixed to said vertical base plate with the axis thereof parallel to said table, a drive pulley on said motor, an idler pulley, means mounting said idler pulley to said vertical base for swinging movement on a horizontal pivot, means biasing said idler pulley away from said drive pulley, an endless grinding belt trained over said idler and said drive pulleys, and longitudinally movable means on said base for supporting and moving work with respect to said grinding belt.

2,837,878
ABRADING WHEELS WITH UNDERCUT RELIEF GROOVES
Norman E. Johnson, Cedarburg, Wis., assignor of one-third to Oliver M. Johnson, Milwaukee, Wis.
Application January 18, 1956, Serial No. 559,979
7 Claims. (Cl. 51—206)



1. An abrasive wheel of the character described comprising end surface portions and an intervening peripheral surface portion, said wheel being provided with two series of undercut notches, each of which extends into the peripheral portion and a respective end portion of the wheel, the notches extending into one end portion of the wheel being staggered peripherally of the wheel with respect to the notches extending into the other end portion thereof and all of said notches being undercut to provide a margin overhanging the notch and projecting in the direction of wheel rotation, each of said notches having a rearward rake from the angle between said end surface portions and said peripheral portions with respect to the direction of wheel rotation.

2,837,879
SAFETY RAZOR BLADE SHARPENER
Samuel W. Lee, Buffalo, N. Y.
Application April 10, 1956, Serial No. 577,270
2 Claims. (Cl. 51—211)



1. A razor blade sharpening device comprising a hollow open ended cylinder of uniform diameter, a solid partition formed within said body portion at a point intermediate its ends, said partition extending completely across said body portion dividing the body portion into razor blade sharpening areas at the ends of said body portion, and said sharpening areas having abrasive qualities of different degrees, said partition limiting the inward endwise movement of a blade inserted into either end of the device.

2,837,880
LAMP SEALING METHOD
Alexander Rosenblatt, Williamsport, and John F. Burfield, Montoursville, Pa., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application June 27, 1956, Serial No. 594,305
5 Claims. (Cl. 53—7)

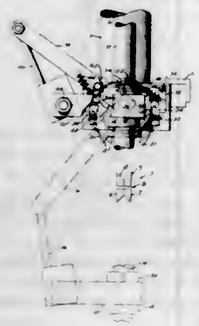


1. The method of sealing and tipping-off an exhaust tube extending from and in communication with the interior of a sealed electrical device filled with gas at a pressure above ambient, which comprises: heating a portion of the exhaust tube, while exposed to ambient pressure, to a temperature sufficient to render it sufficiently plastic to be worked but not sufficiently plastic to be ruptured by the internal gas pressure; pinching the plastic portion of the exhaust tube completely closed; evacuating the exhaust tube below the pinched portion to a pressure below ambient; and heating the exhaust tube below the pinched portion to a temperature sufficient to effect a severance thereof.

2,837,881
ENCAPSULATED PRODUCT AND METHOD AND APPARATUS FOR MAKING SAME
Lawrence A. Schneider, Fargo, N. Dak.
No Drawing. Application December 13, 1952
Serial No. 325,880
8 Claims. (Cl. 53—21)

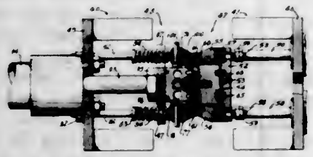
1. The improved process which comprises mechanically working a gelatin compatible polish composition which is normally solid when at rest at temperatures above the melting point of gelatin but fluid and pourable when mechanically worked, said mechanical working being carried out at a temperature below the melting point of gelatin continued until said polish composition is fluid and pourable, and encapsulating the polish composition in gelatin while it is in a fluid and pourable state.

2,837,882
PACKAGE KNOCKER MECHANISM FOR AUTOMATIC PACKAGING MACHINES
Robert T. Hull, Suffield, Conn., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application November 18, 1955, Serial No. 547,671
4 Claims. (Cl. 53—124)



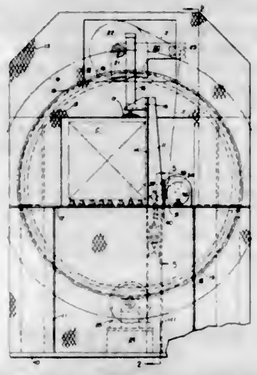
1. In a packaging machine having a tube former through which material may be fed to a flexible tube formed thereby, clamp means to form a receptacle at the end of the tube and reciprocable means for actuating said clamp means; paddle means mounted adjacent the end of the tube former and movable against the wall of the tube removed from said former, and oscillating means to move said paddle means against the side of the flexible tube to settle the contents received in said receptacle, said paddle oscillating means having a drive connection from said reciprocable clamp actuating means.

2,837,883
AUTOMATIC PACKAGING MACHINE
Fred J. Bracey, Springfield, Mass., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application September 6, 1956, Serial No. 608,346
6 Claims. (Cl. 53—182)



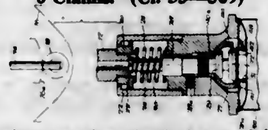
1. In a tubular package forming machine having a reciprocable clamp device including opposed gripping members and heat sealing members to grip, seal, and feed a package length of tube during a portion at least of one stroke of clamp reciprocation, in combination, means to close said clamp on the tube including yieldable means advancing one of said gripping members in oppositely extended relation to the other member and heat seal advancing means effective on the closing of said clamp to hold one of said sealing members in extended position for tube engagement with said latter sealing member being slidable relative to said yieldably urged gripping member and positioned at an outer limit of travel, means to then move said clamp to feed the tube, selectively adjustable means to effect withdrawal of said slidable sealing member for a portion of its path of travel inwardly from extended position and independently of said closed position of said gripping members for completing the cycle for sealing said tube, means responsive to the position of the tube to subsequently complete a full inward stroke of movement of said slidable member, said slidable member being engageable adjacent its inner limit of movement with said yieldable means of the said one gripping member and effecting withdrawal of the latter from tube engagement to complete the tube feeding movement of said clamp, and means effective on completion of said one stroke of clamp reciprocation to open said clamp closing means to permit return of said clamp to the opposite end of its reciprocating stroke and at said latter end to advance said slidable heat sealing member to its outer position of travel to repeat a gripping, sealing and feeding cycle on a succeeding portion of the tube.

2,837,884
PACKAGE WRAPPING MACHINE
Chester R. Gibbons, Canfield, Ohio
Application December 13, 1955, Serial No. 552,818
6 Claims. (Cl. 53—198)



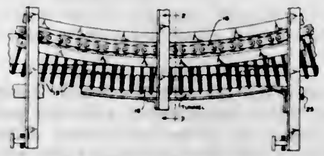
1. In a package wrapping machine, means for receiving an object to be wrapped, said means having a circular pathway thereabout and comprising a frame having a ring gear rotatably mounted therein, means for revolving said ring gear and a bracket on said ring gear for rotatably supporting a roll of adhesive tape, a device positioned in said machine adjacent said circular pathway for applying an end portion of said tape to said object to be wrapped, said device including a rotatable shaft, means for rotating said shaft, said rotatable shaft having a roller thereon, the adhesive side of one end of said tape from said roll being adhered to said roller, a secondary roller mounted in spaced parallel relation to said roller on arms carried by said shaft and movable by said shaft in a circle thereabout, said circle intersecting said object to be wrapped whereby revolving motion of said shaft will move said secondary roller around said circle into initial engagement with said object to be wrapped and then against the non-adhesive side of said tape intermediate said first mentioned roller and said roll of tape to move said tape to engage said end of said tape on said object to be wrapped and simultaneously pull the same free from said first mentioned roller while said ring gear, bracket and roll of tape thereon revolve about said object to be wrapped, reciprocally mounted means for engaging and cutting said tape between said object to be wrapped and said first mentioned roller and for engaging said tape and wiping the end thereof onto said object to be wrapper in overlapping relation to the end of said tape first applied thereto.

2,837,885
CAPPING CHUCK
George H. Dimond, East Aurora, N. Y., assignor to Consolidated Packaging Machinery Corporation, Buffalo, N. Y., a corporation of New York
Application March 22, 1955, Serial No. 495,843
8 Claims. (Cl. 53—369)



1. A container capping chuck for applying caps having a laterally extending projection thereon, comprising a cylindrical body piece having a container-engaging ledge at the bottom thereof and provided with an internal centrally located, generally frusto-conical recess extending upwardly from the bottom thereof, a vertically extending sleeve secured within said body piece and provided with a lower flanged portion having a generally spherical upper surface positioned within the frusto-conical recess of said body piece, an upwardly biased stripper spindle slidably carried within said sleeve and having a flanged plunger portion at the lower end thereof extending beyond the bottom of said sleeve, a generally semi-spherical dome having an opening at the top and an inwardly projecting cap-engaging annulus at the bottom thereof and positioned around said sleeve with the inside upper portion thereof resting on the upper surface of the flanged portion of said sleeve whereby, within the limits permitted by the size of the top opening thereof, to be freely oscillatable in the chamber defined by the upper surface of the flanged portion of said sleeve and the frusto-conical recess of said body piece, said stripper spindle being relatively movable downwardly with respect to said body piece, said sleeve and said dome, whereby to effect the disengagement of any cap from said dome and to apply a cap held thereby to a container positioned in capping association with said chuck.

2,837,886
COTTON PICKING UNIT WITH ELECTROSTATICALLY CHARGED SPINDLES
Robin Beach, Brooklyn, N. Y., and Nicholas S. Hare, Monroeville, Ala.
Application August 24, 1954, Serial No. 451,838
10 Claims. (Cl. 56—42)



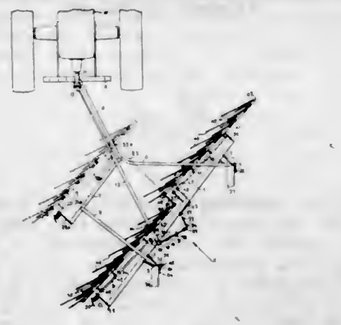
1. Mobile cotton picker having plant guiding means including a downwardly open channel disposed to receive, guide and confine standing plants in travel of the machine over a cotton field, rotary cotton gathering picker spindles movably mounted on said machine in position to enter said channel at one side, mechanical drive means connected to rotate and project said spindles into and withdraw them from said channel in travel of the machine, insulating bearing means for electrically insulating said rotating spindles from the ground, and electrical generating means on said machine connected to electrostatically charge said picker spindles on projection of the same into and to discharge them upon withdrawal from said channel and whereby to inductively energize and attract cotton fibre within the inductive field of energized spindles within said plant guiding means toward and into electrostatically coupled engagement with said rotating spindles and then to electrically release electrostatically gathered cotton from the spindles as they are withdrawn from said plant guiding means.

2,837,887
ROTARY LAWN MOWER BLADE
Henry W. Hansen, Riverdale, Md., assignor to Lord Manufacturing Company, Erie, Pa., a corporation of Pennsylvania
Application May 3, 1957, Serial No. 656,908
4 Claims. (Cl. 56—295)



1. In a rotary lawn mower of the type having a depending vertical power shaft, a hub fixed to the shaft, a pair of diametrically aligned flexible rubber spokes fixed to the hub and projecting from opposite sides of the hub, metal blades fixed in the outer ends of the spokes, said blades being normally held in cutting relation by centrifugal force and said spokes being stiff enough to be self-sustaining but flexible enough to yield whenever one of the blades encounters an obstruction, and flexible but non-stretchable members embedded in the rubber spokes and connected to the blades for preventing stretching of the spokes and the consequent radially outward movement of the blades under centrifugal force.

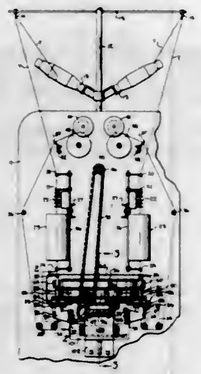
2,837,888
SIDE DELIVERY RAKE PROVIDED WITH OSCILLATING RAKING FINGERS
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch limited company
Application May 13, 1955, Serial No. 508,226
Claims priority, application Netherlands June 1, 1954
16 Claims. (Cl. 56—376)



1. A device for laterally displacing material lying on the ground comprising a mobile frame, advancing means lying in a line of draft operatively associated with said frame, raking means on said frame extending at an acute

angle to said line of draft, said raking means comprising an elongated oscillatable support, rake fingers extending at an acute angle downwardly from said support, and oscillating means operatively associated with said support whereby said support can be oscillated to move said rake fingers for laterally displacing crop contacted thereby.

2,837,889
PRODUCTION OF LIVELY YARNS
Marvin H. Comer, Burlington, N. C., assignor, by mesne assignments, to Patentex, Inc., New York, N. Y., a corporation of New York
Application October 17, 1955, Serial No. 541,010
9 Claims. (Cl. 57—104)



2. In a twisting machine having a plurality of twister spindles thereon and having continuously moving belt means movable adjacent said spindles; the combination therewith of pattern controlled means for imparting lateral reciprocatory shifting movement to the spindles, and said belt means being adapted to impart rotation to the spindles in one direction when the spindles occupy one position and being adapted to impart rotation to the spindles in the opposite direction when the spindles occupy the other position.

2,837,890
LINK ASSEMBLY HAVING TWO V-SHAPED PARTS EACH OF WHICH HAS A LATERAL EXTENDING BEARING
Charles A. Morrill, Cortland, N. Y.
Application May 31, 1956, Serial No. 588,529
5 Claims. (Cl. 59—86)

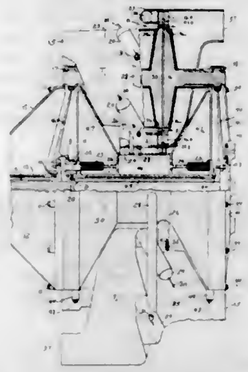


1. A link comprising a pair of identical forged members, each including a semi-circular body portion and a pair of parallel arms integral therewith and extending from the ends of said body portion, each of said arms being substantially of equal length and of substantially one half the thickness of said body portion and off-set in the same direction from the ends of said body portion with the outer surface of one arm and the inner surface of the other arm substantially aligned with the corresponding surfaces of the ends of said body portion, the opposite surfaces of each said arm being flattened to form parallel engaging surfaces substantially centrally of the ends of said body portion and in planes perpendicular to the plane of said body portion, a cylindrical bearing integral with one of said arms and extending perpendicularly from one of said bearing surfaces, a cylindrical opening extending through the other of said arms in line with said bearing, said bearing and opening each substantially corresponding in diameter to the thickness of said body portion, the bearing of each member extending substantially through and being pivotally engaged in the opening of the other member with respective engaging surfaces abutting, a spacer between and engaging said members and in alignment with said bearing members, an opening extending through said bearings and spacer, said opening being not greater in diameter than one-third the diameter of said bearings and means in said opening maintaining said members and spacer assembled.

2,837,891
EXTINGUISHMENT OF ROCKET PROPELLANT FIRES
Raymond R. Stasiak, Enon, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
No Drawing. Application March 31, 1954
Serial No. 420,223
3 Claims. (Cl. 60—35.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

2. The process of reacting together a fuel selected from the group which consists of gasoline, xylidine, ethanol and furfuryl alcohol; with an oxidant selected from the group which consists of fuming nitric acid and liquid oxygen; and an extinguisher selected from the group which consists of dibromodifluoromethane and bromotrifluoromethane.

2,837,892
COMBUSTION GAS TURBINE ASSEMBLY EMBODYING A PLURALITY OF LIKE TURBINE MEMBERS
Joseph E. Van Acker, Haledon, N. J.
Application October 8, 1949, Serial No. 120,288
5 Claims. (Cl. 60—39.15)



1. A combustion gas turbine assembly comprising a substantially spool shaped casing, reduction gear means enclosed within each of the end portions of said spool shaped casing, a pair of shafts coaxial with said central casing and with each other and connected to said reduction gear means, and a plurality of like turbines spaced about the periphery of said casing and nested between the end portions of said casing in driveable connection with said reduction gear means.

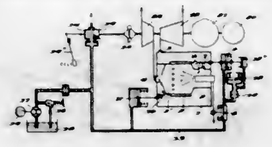
2,837,893
AUTOMATIC PRIMARY AND SECONDARY AIR FLOW REGULATION FOR GAS TURBINE COMBUSTION CHAMBER
Robert M. Schirmer, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 12, 1952, Serial No. 325,508
1 Claim. (Cl. 60—39.23)



A jet engine combustion chamber comprising, in combination: a housing; a flame tube having at least a primary and a secondary combustion section and mounted within said housing so as to form an annular space for the flow of air between said flame tube and said housing; an annular closure member positioned between said housing and said flame tube near the downstream end of said annular space; said flame tube being comprised of three concentrically mounted perforated tubes expansible and contractible with changes in temperature, one of said three perforated tubes being fixed to said housing at a point intermediate its ends and concentrically mounted in telescopic sliding relationship to the adjacent end portions of the other two tubes, a second of said three perforated tubes being closed at its upstream end to form an enclosed space and fixed near said upstream end to said housing, the third of said three perforated tubes being fixed near its downstream end to said housing adjacent said annular closure member; said perforated tubes being concentrically mounted and slideably engaged with respect to each other so as to align and to vary the alignment of the perforations provided therein for admitting air only from said annular space into said flame tube; a portion of said perforations forming openings into said primary combustion section; another portion of said perforations forming openings into said secondary combustion section; the location of the perforations in each of said tubes being predetermined relative to the location of the perforations in the other of said tubes so as to permit control of the amount of air admitted to both of said primary and said secondary combustion sections, simultaneously; the alignment of each said portion of perforations being variable and depending upon (1) said predetermined relative locations of said perforations, (2) differences in thermal expansion of said tubes, and (3) temperature changes within said flame tube; ignition means positoned in said upstream end and extending into said enclosed space; and fuel injection means positioned in said upstream end and extending into said enclosed space.

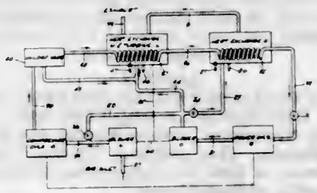
2,837,894
AUTOMATIC AIR REGULATING DEVICE IN COMBUSTION CHAMBERS OF GAS TURBINE PLANTS
Camillo Kind, Zurich, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie., Baden, Switzerland, a joint stock company
Application December 5, 1955, Serial No. 551,145
Claims priority, application Switzerland December 18, 1954
1 Claim. (Cl. 60—39.27)

Apparatus for supplying working gas to the gas turbine plant, which comprises a combustion chamber providing a combustion space and an adjacent mixing space, a valved fuel inlet in operative association with said combustion space, a valved primary air inlet in operative association with said combustion space, a valved secondary air inlet in operative association with said mixing space, a valved tertiary air inlet in operative association with said mixing space, a regulatory pressure oil line in operative association with said gas turbine the variable pressure on said oil being commensurate with the variable load on said gas turbine, a first means responsive to variation in pressure of said oil to vary the setting of the fuel inlet valve, a second means responsive to variation in pressure of said oil to vary the setting of



the tertiary air inlet valve, a third means likewise responsive to variation in pressure of said oil to vary the settings of the primary and secondary air inlet valves, and a retarding-accelerating device, including an oil accumulator and a compensator operatively associated therewith, in said pressure oil line to modify the rate of operation of said third means.

2,837,895
HOT AIR ENGINE
Leon C. Webb, Van Nuys, Calif., assignor of twenty-five percent to Clara M. Long, Van Nuys, Calif.
Application September 28, 1953, Serial No. 382,639
5 Claims. (Cl. 60—59)



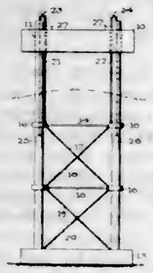
1. A hot air engine, comprising a compressor cylinder and a power cylinder, compressor and power pistons mounted, respectively, in said cylinders and connected to a common crankshaft, a rotary air compressor adapted to conduct compressed air to the intake of said compressor cylinder, first conduit means to connect the outlet from said compressor cylinder to the intake of said power cylinder, first valve means interposed between said rotary compressor and compressor cylinder and controlled to be open during a major portion of the downstroke of said compressor piston and closed during a major portion of the upstroke thereof, second valve means disposed in said first conduit means and controlled to open after said compressor piston has completed a major portion of its upstroke and additionally compressed the air delivered to said compressor cylinder, combustion chamber means enclosing at least a portion of said first conduit means, second conduit means to conduct exhaust air from said power cylinder to said combustion chamber means, means to deliver fuel to said combustion chamber means and to effect in said combustion chamber means the combustion of said exhaust air from said power cylinder and said fuel for generation of hot gases, a turbine associated with said combustion chamber means and adapted to be operated by said hot gases, means to drivingly connect said turbine and said rotary compressor, a by-pass line connected between the outlet from said rotary air compressor and said second conduit means, and means in said by-pass line to block the flow of air therethrough except when the output pressure of said rotary air compressor exceeds a predetermined value.

2,837,896
HYDRAULIC OR PNEUMATIC BI-DIRECTIONAL IMPULSE MOTOR
George W. Cox, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application April 22, 1955, Serial No. 503,147
3 Claims. (Cl. 60—97)



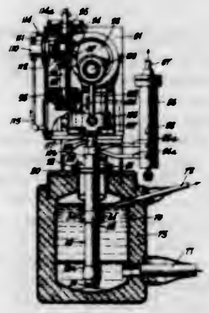
1. A bi-directional impulse motor comprising a body having a fluid porting and conduit system therein; a pair of reciprocable, but non-rotating, mechanisms in the body between the inlet and outlet of said system that controls the flow of fluid therein; a pair of reciprocable and rotatable driving mechanisms in the body, each driving mechanism being between a corresponding reciprocable mechanism and outlet of said system, that is fluid actuated when each corresponding reciprocable mechanism is actuated; each of said driving mechanisms being rotatable in only one direction, but one driving mechanism being rotatable in a direction opposite to the other; and a driven mechanism in said body common to both driving mechanisms that is actuated by each of said driving mechanisms that converts the reciprocable and rotary motion of said driving mechanisms into only rotary motion.

2,837,897
AUTOMATIC UNDERWATER BRACING SYSTEM FOR A MOBILE DRILLING RIG
Wendell H. Nedderman, College Station, and Richard T. Lietz, Houston, Tex., assignors, by direct and mesne assignments, to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application September 24, 1954, Serial No. 458,178
3 Claims. (Cl. 61—46.5)



1. In combination with a platform supported over water on a plurality of columns which are lowered to bottom and partly submerged, an automatically erected underwater bracing system for the supporting columns comprising a number of rigid brace members extending horizontally between the adjacent columns and having rings at their ends encircling the columns and permitting the brace members to move therealong, cross cables connecting adjacent brace members, said cross cables being of such flexibility that the connected brace members may be collapsed together and stowed in stacked relation, further flexible cross cables attached at one end to the lowermost brace member and anchored at their opposite ends in fixed relation to the columns whereby they are placed under tension as the columns are lowered, and means exerting an upward pull on the uppermost horizontal brace member as the lowermost brace member is pulled downwardly in lowering the supporting columns, whereby the flexible cross cables of the bracing system are placed under tension.

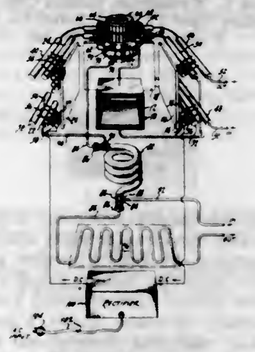
2,837,898
DIFFERENTIAL PLUNGER TYPE LIQUEFIED GAS PUMP
Phillip M. Ahlstrand, Kenmore, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application July 15, 1953, Serial No. 368,099
11 Claims. (Cl. 62—1)



1. In a reciprocative plunger pump the combination of a cylinder and a differential plunger of stepped diameter reciprocative therein the respective lengths of the plunger portions of smaller and larger diameter being longer than the pumping stroke, said cylinder having walls defining a working chamber in which the inner plunger portion of larger diameter is operative and a portion of reduced bore conforming to and adapted to receive the plunger portion of smaller diameter for reciprocation therein, a fluid discharge opening leading from said working chamber at the end adjacent said reduced bore portion, inlet valve means communicating with the opposite end of said working chamber, said plunger portion of larger diameter having a longitudinal fluid flow passage therethrough, and a one way acting valve therein adapted to permit the flow of fluid therethrough from said opposite end of the working chamber, and a vent means through the wall of said working chamber positioned at a point substantially midway of the length of said working chamber so that said vent remains covered by the plunger portion of larger diameter during operation for venting gas material tending to flow between the plunger portion and the working chamber wall toward the lower part of the working chamber.

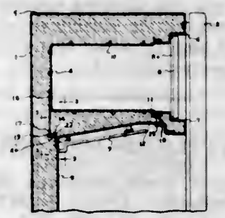
2,837,899
THERMOELECTRIC REFRIGERATOR
Nils E. Lindenblad, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application October 13, 1954, Serial No. 462,078
6 Claims. (Cl. 62—1)

1. A thermoelectric refrigerator comprising an array of thermocouples providing hot junctions and cold junctions, means for circulating a heat transfer fluid in heat exchange relationship with said hot junctions to carry away the heat rejected at said hot junctions, means for circulating a heat transfer fluid in heat exchange relationship with said cold junctions to supply heat to be absorbed by said cold junctions thereby cooling said fluid, another array of thermocouples providing additional hot junctions and cold junctions, means for mounting said thermocouples of said other array with cold junctions disposed to define walls of an enclosure, and means for circulating the said cooled fluid in heat exchange relationship with



the hot junctions of said other array of thermocouples to carry away heat rejected at said hot junctions.

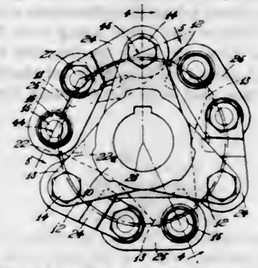
2,837,900
REFRIGERATOR FROZEN FOOD COMPARTMENT MOUNTING STRUCTURE
Harold P. Harle, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application August 13, 1956, Serial No. 603,487
3 Claims. (Cl. 62—89)



1. A refrigerator comprising an outer casing, a food storage liner within said casing, a frozen food evaporator mounted above said liner, a mounting structure for mounting said evaporator above said liner comprising a pair of thermal insulating spacers secured to the bottom of said evaporator adjacent the front thereof, adjustable connecting means securing said thermal insulating spacers to the top of said liner through slots formed in the top of said liner designed to permit adjustment normal to the front of said liner, a first bracket having one end secured to the rear of said liner and having the other end extending upwardly from said liner, said upwardly extending end having a slot disposed therein, a second bracket having one end secured to the rear of said evaporator and the other end extending downwardly from said evaporator to a position parallel to said upwardly extending end of said first bracket, said downwardly extending end having a transverse slot therein, and connecting means connecting said first and second brackets through said slots to provide a horizontally and vertically adjustable support for said evaporator above said liner.

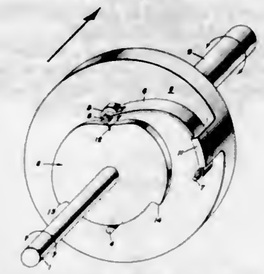
2,837,901
FLEXIBLE COUPLINGS
Charles Wallace Chapman, Burstow, near Horley, England, assignor to Compression Ignition Limited, Twickenham, England, a British company
Application January 21, 1953, Serial No. 332,280
Claims priority, application Great Britain
January 25, 1952
1 Claim. (Cl. 64—12)

A flexible coupling, for connecting together two substantially co-axial rotatable elements, comprising a number of axially extending pins fixed to and spaced around a circle on each rotatable element, a number of independent linkages each made up of a number of links pivoted end to end by pivotal connections so that the links on each linkage extend away from one another and connect a pin on one element to a pin on the other element and with the intermediate pivotal connections of the various linkages free to move radially independently of



one another and so that when no torque is being transmitted, the axes of all the pivotal connections lie closely adjacent one and the same circle and a torsionally resilient bush in each joint comprising inner and outer sleeves fixed respectively to a pin and to one of the elements and rubber bonded between the sleeves which bush is arranged to restrain pivotal movement of the connections.

2,837,902
MECHANICAL TORSIONAL VIBRATION DAMPER
Otis L. Stevens, Bladensburg, Md., and Edward J. Millard, Sr., Hatboro, Pa.
Application July 12, 1956, Serial No. 597,554
4 Claims. (Cl. 64—29)

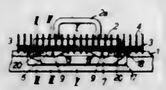


3. A mechanical torsional vibration damper comprising an input shaft and an output shaft, cam means fixedly engaged to said input shaft for simultaneous rotation therewith, said cam means being formed with lobes such that a detent is provided in the upper center portion of said cam means, plate means fixedly engaged to said output shaft for rotation therewith and concentrically positioned in relation thereto, said plate means being disposed in close spaced adjacency relative to said cam means, resilient means attached at one end to said plate means in a manner such that said resilient means is downwardly biased, a cam follower mounted on the other end of said resilient means adapted to rest within said detent and to move along the lobes of said cam means, and limit stop means interlocking said plate means with said cam means to limit relative rotation therebetween.

2,837, 903
HAND OPERATED KNITTING MACHINE
Ernst Luchsinger, Zurich, Switzerland, assignor to Fibra A. G., Glarus, Switzerland
Application April 12, 1955, Serial No. 500,951
Claims priority, application Switzerland April 13, 1954
4 Claims. (Cl. 66—60)

1. In a hand powered knitting machine, a stationary retaining comb having parallel spaced teeth defining a

plane inclined to the horizontal, a plurality of parallel spaced latch needles mounted for intersecting reciprocation through said comb, plate means supported adjacent said comb and movable therealong beneath the plane of said latch needles, first compression spring means urging said plate means bodily toward said comb such that a leading edge thereon yieldingly engages said comb substantially at the latter's line of intersection with said latch needles, the incline of said comb being such that as loops of yarn are cast from said latch needles they are normally engaged by said plate's leading edge substantially at said line of intersection and held therebeneath for movement



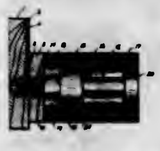
on said incline toward the base of said comb, a pair of jaw members pivotal on said plate means for independent movement and arranged to engage knitted fabric beneath said plate's line of contact with said loops, second compression spring means common to both said jaw members for resiliently urging the same to pivot in opposite rotational sense, said jaw members serving to engage and resiliently tension the fabric away from said plate means and latch needles, and means for adjusting the compressive force of said second spring means to accommodate variations in fabric thickness and to regulate the fabric tensioning activity of said jaw means.

2,837,904
KNIT PANTY-GIRDLE AND METHOD OF MAKING SAME
Edwin P. Scriggins, Summit, N. J., assignor to Jantzen Inc., Portland, Oreg., a corporation of Nevada
Application August 9, 1956, Serial No. 603,103
8 Claims. (Cl. 66—176)



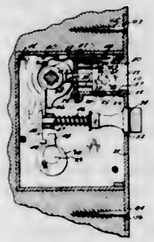
1. A circular knit panty-girdle, comprising a peripherally continuous knit fabric body which is circumferentially and longitudinally elastic and having an integrally knit part at the lower end thereof defining the leg portions and crotch of the girdle, said leg portions being circumferentially and longitudinally elastic and having cooperating pairs of longitudinal edges, respectively, at the inner side thereof secured together by a longitudinally extending continuous seam traversing said crotch and terminating at the lower edges of said leg portions, respectively, said body having a predetermined number of wales per unit of circumferential length to provide it with a predetermined constricting force, said lower end part being circular knit in integral relation with said body and having substantially more wales per unit of circumferential length than said body to provide said leg portions with a lesser constricting force than said body, each of said leg portions comprising an inner peripherally extending panel adjacent said crotch and an outer peripherally extending panel, said inner panel having more wales per unit of circumferential length than said outer panel to provide even tension around the legs of the wearer.

2,837,905
WINDOW LOCK
Oliver L. Wroughton, Kansas City, Mo.
Application April 17, 1956, Serial No. 578,663
2 Claims. (Cl. 70—90)



1. A device for limiting movement of the lower sash of a window with respect to the upper sash having a side member comprising, an anchor member secured to the side member of the upper sash in spaced relation to the lower sash, said anchor member having a threaded opening in substantially the center thereof, a housing, a shaft having one end offset and threaded and slidable longitudinally in said housing, a collar substantially at the center of said shaft, said housing having an open end and said open end being internally threaded and the other end flanged inwardly forming a stop member for said collar at said other end with an opening in the center thereof, and a threaded bushing rotatable on said shaft adjacent the threaded end thereof for engaging the threads in said housing and abutting against said collar at said open end to define an elongate compartment between said bushing and stop member, the threaded end of the shaft being threaded into the threaded opening of the plate whereby said shaft will be slidably enclosed within the housing and said housing extend over the lower sash to limit upward movement thereof.

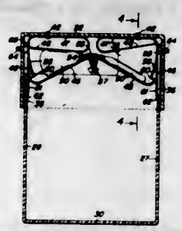
2,837,906
LOCK WITH CYLINDER LOCK CONTROLLED DOGGING MEANS
Fred W. Krauss, Pittsburgh, Pa.
Application September 10, 1954, Serial No. 455,198
1 Claim. (Cl. 70—153)



In a lock, a lock case provided with a face plate, a lock bolt extending through said face plate, a housing in said lock case, a cylinder arranged in said housing and said cylinder being provided with a key slot, there being an annular groove in said cylinder, a pin engaging said annular groove, an annular lip on said housing, said pin and groove and lip adapted to retain the cylinder in the housing, a plurality of spring pressed pins in said cylinder and housing coacting to prevent rotation of said cylinder relative to said housing, a pin extended from the inner end of said cylinder, a casing slidably supporting said housing and said casing being provided with spaced apart slots, springs engaging the inner end of said casing and positioned between the casing and housing, a slider in said housing having a finger adapted to be selectively positioned in said slots, there being a slot in said slider for receiving the pin on the inner end of said cylinder, a spring for retaining the finger in the selected slot in said casing, a latching bar carried by said housing and movable with the housing, a sectional doorknob shaft having

a cam provided with a notch for receiving said latching bar, a cam piece in said lock case, a lug on top of said case, a spring member arranged in engagement with said cam piece, said lug and spring member coacting to retain said cam piece in position, an arm engaging the lower end of said cam piece, a stem extending from said lock bolt and secured to said arm, a bearing having said stem extended therethrough, and a shoulder for retaining said housing in said casing.

2,837,907
CIGARETTE CASE TIME LOCK DEVICE
Louis F. Halling, Rochester, and Roderick G. Newell, Canandaigua, N. Y.
Application May 18, 1955, Serial No. 509,242
3 Claims. (Cl. 70—267)



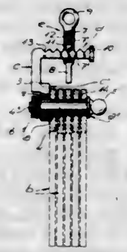
1. A container, a closure for said container, a detent for releasably locking said closure to said container, and means preventing release of said detent until elapse of a predetermined time interval, comprising a bladder adapted to be filled with a liquid, a second bladder, a duct connecting the two bladders so that liquid may flow from one to the other, means controlling the rate of such flow, and a spring member constantly pressing on the first-named bladder, and having a portion which will prevent release of said detent until a predetermined amount of liquid has flowed from the first bladder to the second.

2,837,908
CYLINDER LOCK
Samuel Segal, New York, N. Y.
Application July 26, 1954, Serial No. 445,571
6 Claims. (Cl. 70—367)



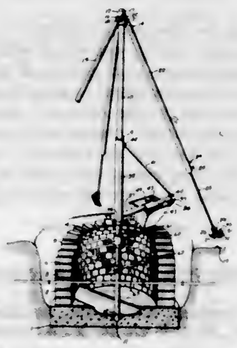
1. A lock comprising a cylinder having an axial bore for reception of a rotatable plug and means on the front surface of said cylinder for limiting the inward movement of said plug, a rotatable plug positioned in said bore with an end portion projecting beyond the rear surface of said cylinder, the projecting end of said plug being provided with a groove having an inner edge flush with the rear surface of said cylinder, said cylinder and said plug having aligned transverse bores to receive lock tumblers, a retaining plate engaging said cylinder to retain tumblers in said transverse bores, said retaining plate having an angular end piece engaging the rear surface of said cylinder, said plug having a tendency to rotate the angular end piece and to thereby displace said retaining plate angularly when said plug is rotated in the normal operation of said lock, projections on the rear surface of said cylinder engaging opposite edges of said angular end piece to prevent rotation thereof, and a guard engaging with said groove and overlying the angular end piece of said retaining plate to retain said plug and said retaining plate against separation from said cylinder.

2,837,909
KEY HOLDER AND SELECTOR
Domingo C. Ricci, Buenos Aires, Argentina
Application July 19, 1954, Serial No. 444,289
5 Claims. (Cl. 70—456)



1. In a keyholder, a support member provided with a perforation and including a body portion defining a first stop member, a sleeve extending from said body portion, a plurality of keys rotatably mounted on said sleeve, a second stop member arranged in spaced parallel relation with respect to said first stop member, a slide including a casing provided with an opening therein, an arm extending from said support member and projecting through said opening, said slide being mounted for movement along said arm, a projection extending from said casing and extending toward said sleeve, locking means comprising a ball positioned in said slide, resilient means arranged in engagement with said ball, there being a plurality of notches in said arm for engagement by said ball, and disks interposed between said keys.

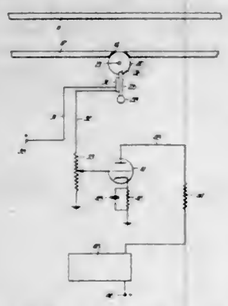
2,837,910
APPARATUS FOR BUILDING CIRCULAR STRUCTURES
Evart R. Steed, Leavenworth, Kans.
Application June 22, 1953, Serial No. 363,138
3 Claims. (Cl. 72—129)



1. An apparatus for spreading mortar and gauging the position of masonry elements in forming a circular masonry wall, said apparatus including a vertical support, means for fixing the vertical support perpendicularly within the axial center of a wall to be constructed, a first sleeve slidably and rotatably mounted on said support, a first collar beneath said sleeve and detachably secured to said support to position said first sleeve in predetermined vertical position on said support, a substantially radially extending first arm secured to said first sleeve and projecting radially outwardly to be positioned over the wall, a mortar container adjustably supported by said first arm for radial movement with respect thereto and adapted to rotate therewith, said container having a substantially radially extending elongated outlet formed in

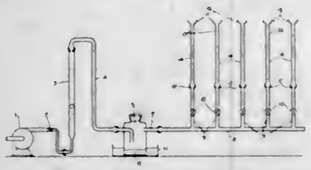
the bottom portion hereof and adapted to be spaced above a course of masonry elements to deposit mortar in a bed upon said course, the rear wall of the container being provided with a troweling blade extending rearwardly of the direction of operative movement of said container for smoothing the bed of mortar discharged through said outlet, a second sleeve slidably and rotatably mounted on said support vertically below said first sleeve, a second collar beneath said second sleeve and detachably secured to said support to position said second sleeve in predetermined vertical position on said support, a second substantially radially extending and radially adjustable arm secured to said second sleeve and projecting outwardly to a point such that the outer end thereof is radially inward of the outer end of said first arm, said second arm gauging the radial position of masonry elements placed upon the smooth bed of mortar produced by said mortar container and troweling blade.

2,837,911
WHEEL FRICTION INDICATOR
L. V. Haggadone, Chicago, Ill., assignor of fifty-one per cent to Hardt Foundation, Chicago, Ill., a corporation of Illinois
Application August 8, 1955, Serial No. 526,827
5 Claims. (Cl. 73—9)



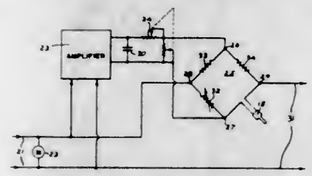
1. A device for the measurement of the operating characteristics of a railway car wheel which comprises a contact member located in a section of track and to be engaged by a railway car wheel passing thereover to move said contact member by the frictional resistance of said wheel, an electrical circuit, means connected to said contact member for varying an electrical current in said circuit, and indicating means connected to said electrical circuit for showing such current variations.

2,837,912
APPARATUS FOR THE CHARACTERIZATION OF ODORS
Robert W. Moncrieff, Chichester, England, assignor to Airkem, Inc., New York, N. Y., a corporation of New York
Application March 8, 1955, Serial No. 492,833
Claims priority, application Great Britain March 16, 1954
6 Claims. (Cl. 73—23)



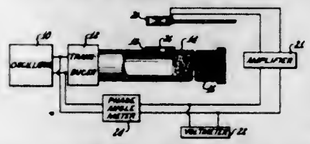
1. A device for the characterization of odors comprising at least three adsorption tubes of identical size and dimensions, each of said tubes containing predetermined amounts of a different adsorbent material in particled form, the particle size and other physical and chemical properties of each adsorbent material corresponding to predetermined standards, means for passing an air stream at a measurable variable rate through said tubes of adsorbent material individually and selectively, means for introducing an odorant to said airstream, whereby said variable time of contact is measured by sensing the presence of odor in the effluent stream at the discharge end of said tubes.

2,837,913
TEMPERATURE-COMPENSATED VISCOSIMETER
Stanley R. Rich and Wilfred Roth, West Hartford, Conn., assignors to Bendix Aviation Corporation, New York, N. Y., a corporation of Delaware
Application November 9, 1953, Serial No. 391,086
11 Claims. (Cl. 73—59)



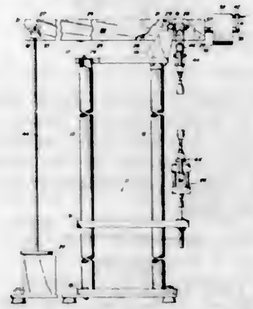
1. In a viscosimeter having an electrical output which varies as a function of viscosity of a fluid-like material, apparatus for temperature compensating said output which comprises a temperature-sensitive device adapted to respond to the temperature of said fluid-like material, circuit means supplied with said electrical output and having said temperature-sensitive device included therein for producing a second electrical output which varies with the first-mentioned electrical output and the difference between said temperature and a predetermined reference temperature, and means for combining said first and second electrical outputs to obtain a resultant output representing the viscosity of said fluid-like material at said predetermined temperature.

2,837,914
ACOUSTIC IMPEDANCE MEASURING APPARATUS
Stephen A. Caldwell, Haddon Heights, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application February 24, 1954, Serial No. 412,360
5 Claims. (Cl. 73—67.1)



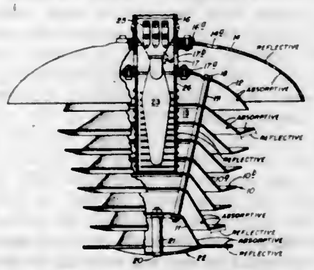
1. A device for measuring acoustical impedance comprising means for generating sound, means coupled to said sound generating means for guiding said sound generated thereby, said sound guiding means including means for passing said sound through individual ones of a pair of elements for measuring the acoustical impedance of one of said elements, the acoustical impedance of said one element being unknown, the acoustical impedance of the other of said elements being known, said last-mentioned means providing a source of sound for measuring the acoustical impedance of said element of unknown impedance, the acoustical impedance of said source of sound being low with respect to the acoustical impedance of said elements, means spaced from said source along the path of said sound through said elements responsive to sound from said source for measuring the amplitude of sound from said source, said elements being adapted to be placed individually and successively in the path of said sound from said source to which said last-named means is responsive, means coupled to said last-named means and said sound generating means for measuring the phase shift imposed on said sound generated by said generating means upon passage through said source of sound and the one of said elements placed in said path.

2,837,915
AXIAL LOADING CREEP AND RUPTURE MACHINE
William F. Brown, Jr., Bay Village, and Melvin H. Jones, Olmsted Falls, Ohio
Application December 20, 1954, Serial No. 476,612
7 Claims. (Cl. 73—95)
(Granted under Title 35, U. S. Code (1952), sec. 266)



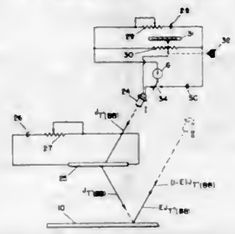
3. An axial loading creep and rupture machine comprising: three tubular post members; three superposed cross plates, said plates having three sets of aligned openings therein, each of said posts being received in one of said sets of openings and secured to the cross plates; a supporting bracket secured to the uppermost of said cross plates; a lever positioned on said bracket; loading means supported on one end of said lever, and upper and lower loading fixtures supported by the other end of said lever and the intermediate cross plate respectively, each of said fixtures including two interengaging yokes, a ball between said yokes whereby forces are transmitted from one yoke to the other through said ball.

2,837,916
METEOROLOGICAL INSTRUMENT SHELTER
John D. Humphreys, Encino, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application November 14, 1955, Serial No. 546,631
6 Claims. (Cl. 73—170)



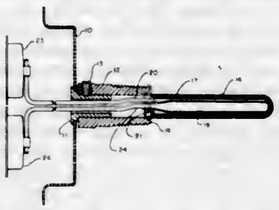
1. A meterological instrument shelter comprising: a plurality of generally similar annular louver elements symmetrically disposed about a common vertical axis in axially spaced relation to define ventilating passages therebetween; upper and lower elements above and below said louver elements respectively and defining with said louver elements a central space for an instrument substantially closed at the top and bottom and communicating with the ambient air through said ventilating passages; frame means mutually suporting said elements; each of said louver elements having an inner annular frusto-conical section extending outwardly and downwardly and an outer annular frusto-conical section extending outwardly and upwardly.

2,837,917
RADIATION SYSTEMS FOR MEASURING TEMPERATURE
Raymond C. Machler, Philadelphia, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania
Application February 7, 1950, Serial No. 142,886
11 Claims. (Cl. 73—355)



1. An apparatus for accurately measuring the temperature of a heated body, having an emissivity less than unity, without physical contact therewith and in avoidance of errors due to variable emissivity comprising an auxiliary surface, means for supporting said auxiliary surface adjacent said heated body to permit an interchange of radiant energy therebetween, said auxiliary surface having an emissivity of approximately unity, means for generating heat substantially uniformly throughout said auxiliary surface, a pair of radiation-responsive devices connected differentially for viewing said surface and said body, a detector for producing a null deflection when the intensities of the effective radiation from said heated body and from said auxiliary surface are equal, means responsive to said detector for adjusting said heat generating means until there is null deflection by said detector, and means for measuring the temperature of said auxiliary surface as a replica of the temperature of said heated body when there is said null deflection of said detector.

2,837,918
TEMPERATURE SENSING ELEMENT
Arthur L. Good, Elkhart, Ind., assignor to Penn Controls Incorporated, Goshen, Ind., a corporation of Indiana
Application March 9, 1956, Serial No. 570,434
1 Claim. (Cl. 73—368.4)



A dual thermal responsive bulb assembly adapted to independently accommodate the thermally sensitive fluid for a dual fluid pressure transmitting system comprising an

elongated tubular outer bulb having one closed and one open end, an inner bulb generally concentric with said outer bulb and coextensive therewith, one end of said inner bulb being in supporting engagement with the closed end of said outer bulb, a header member closing the open end of said outer bulb and supporting the adjacent end of said inner bulb, means including openings in said header member providing independent fluid passages to both said outer and inner bulbs, and a well assembly adapted to support and sheath said bulb assembly.

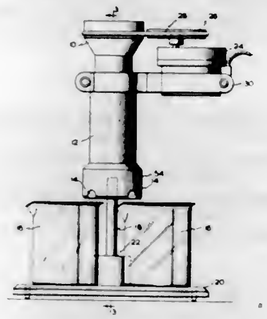
2,837,919
DARKROOM THERMOMETER
John L. Chaney, Lake Geneva, Wis.
Application April 28, 1954, Serial No. 426,203
4 Claims. (Cl. 73—374)



1. A stirring thermometer assembly for photographic use providing for rapid response to the temperature of the liquids in which it is used and adapted for rotating the spool of a developing tank comprising a casing, an indicia bearing member of resilient material located in said casing, a thermometer tube secured to said indicia bearing member, means on the interior wall of said casing for receiving and supporting said indicia bearing member therein in flexed condition with the thermometer positioned wholly within said casing and readable therethrough and the thermometer bulb at the lower end of said casing, the wall of said casing having apertures adjacent said bulb providing for passage of said liquids into the interior of said casing in direct contact with said bulb, the bottom of said casing being open, said casing having spaced projecting portions extending partially across the opening therein for supporting said tube in cushioned relation to said casing and protecting said bulb, said casing having its lower end shaped to be inserted into engagement with the socket in said spool with its upper end extending above said tank and accessible for manually rotating said spool.

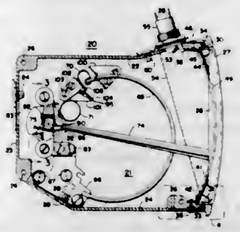
2,837,920
SAMPLING APPARATUS
Carl D. Keith, Munster, Ind., assignor to Sinclair Research Laboratories, Inc., Harvey, Ill., a corporation of Maine
Application March 29, 1955, Serial No. 497,694
1 Claim. (Cl. 73—424)

Apparatus of the type described which consists essentially of a cylindrical member, a partitioning means disposed within said member dividing the member into a plurality of vertically elongated portions, outlet means in the bottom of each of the plurality of portions of said cylindrical member, a rotatable member disposed above said cylindrical member having an unobstructed bore through its longitudinal axis, the upper portion of said bore flaring outwardly defining a funnel shaped entrance for said bore, said rotatable member having its vertical axis in alignment with the vertical axis of said cylindrical member, said rotatable member being mounted on said cylindrical member by a means permitting rotation of said rotatable member, and a flat dispersion plate disposed below the bore of said rotatable member and above said partitioning means of said cylindrical member, said dispersion means being rotatably integral with said rotatable member and having a diameter which is at least as large as the diameter of said bore, said flat



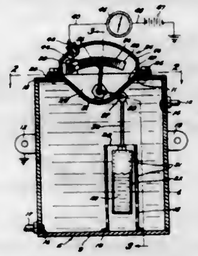
dispersion plate being rotatably integral with said rotatable member by rigid attachment means between said plate and rotatable member placed radially beyond the bore of said rotatable member thereby providing an unobstructed bore through said rotatable member extending to said dispersion plate.

2,837,921
INSTRUMENT CASING
Thomas A. Green, Willoughby, Harvard H. Gorrie, Cleveland Heights, Jack F. Shannon, Euclid, and Trevor Fink, University Heights, Ohio, assignors to Bailey Meter Company, a corporation of Delaware
Original application July 28, 1950, Serial No. 176,382. Divided and this application June 10, 1954, Serial No. 435,882
3 Claims. (Cl. 73—431)



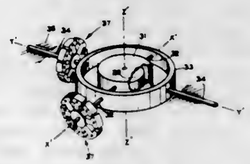
1. In a measuring instrument for visually advising the value of a variable measurement, position, or the like; a relatively thin rectangularly shaped housing with the hook being made upon one end; a scale plate located within the housing facing the observed end, substantially filling the opening and bowed to a long radius, and having clearance with a side wall of the housing through which a pointer may extend; a window member closely filling the housing opening in front of the scale; projections on the ends of the window member arranged to extend into the housing; spring clip members rigidly attached by one end to the scale plate with their free ends engaging the inner edges formed by the internal surface of the window member and the projections on the ends of the window member; and leaf spring members rigidly mounted by one end external of the housing and having free spring ends extend into the housing through holes in the housing and projections in capturing the projections against the free ends of the spring clip members.

2,837,922
ANTI-FREEZE GAUGE FOR AUTOMOBILE MOTORS
L V Henry, Reading, Ohio
Application October 23, 1956, Serial No. 617,738
1 Claim. (Cl. 73—453)



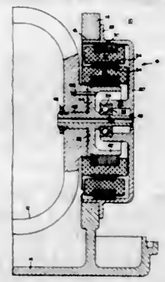
In an anti-freeze gauge for motor vehicles, a hollow liquid container comprising a tubular side wall having a curved front part and a flat rear part, a bottom wall and a top wall for the container, said top wall having an opening therethrough, container mounting means fixed to the rear wall, a fluid inlet formed in the upper portion of the front part of the side wall, a fluid outlet opening formed in the lower portion of said wall, a casing having a plate overlapping the mouth of the opening, liquid tight means for securing the plate to the container, a recess formed in the plate, said recess having a flat wall portion, a rheostat element mounted on the plate above the flat wall portion on the casing, a packing gland fixed in and extending through the said flat wall portion, a shaft extending through the gland, an arm secured to the shaft and having a free end slidably engaging the rheostat element, a crank arm formed on the opposed end of the shaft extending into the interior of the container, an open topped, perforate guide tube mounted upon the bottom of the container, a cylindrical float of smaller diameter than the inside of said guide tube vertically freely movable within the guide tube, and an arm fixed to the upper end of the float and having its upper end pivotally connected to the crank arm.

2,837,923
DAMPING DEVICE FOR GYROSCOPE OR THE LIKE
Karl J. Klarman, Clifton, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application May 10, 1951, Serial No. 225,519
10 Claims. (Cl. 74—5.5)



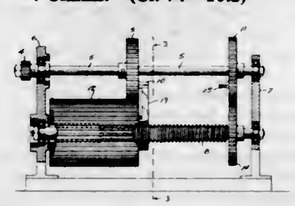
1. A damping device formed of soft rubber comprising a hub portion for securing the device to apparatus subject to vibration, and a plurality of unconfined arms extending radially from said hub portion and provided with circumferential rim portions to damp vibration of said apparatus.

2,837,924
MOUNTING MEANS FOR ANGULAR PICKOFFS
Henry A. Dinter, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 8, 1954, Serial No. 467,534
12 Claims. (Cl. 74—5.6)



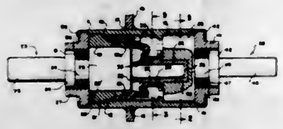
1. In a gyroscopic device having a gimbal frame and a base, a pre-assembled synchro pickoff journalling said frame on said base, said pickoff comprising a rotor member rotatably supported on a stator member, said rotor being connected to said frame and said stator being connected to said base.

2,837,925
DIFFERENTIAL LIMIT STOP
Lothair H. Rowley and Patrick J. McKeown, Syosset, N. Y., assignors to The Sperry Rand Corporation Ford Instrument Company Division, Long Island, N. Y., a corporation of Delaware
Application April 15, 1957, Serial No. 652,751
4 Claims. (Cl. 74—10.2)



1. A limit stop mechanism of the character described comprising a rotatably mounted input shaft, a rotatably mounted helical screw shaft disposed in spaced parallel relation to said input shaft, a first gear secured to said input shaft in fixed position for rotation therewith, a second gear secured to said input shaft in spaced relation to said first gear for rotation with said input shaft and said first gear, a third gear which is secured to said helical screw shaft in mesh with said second gear and through which said screw shaft is rotated by said second gear, an elongated gear mounted upon said screw shaft in mesh with said first gear and adapted to be translated back and forth along said screw shaft by the rotation of said screw shaft and to be rotated by said first gear during the translation thereof along said screw shaft, a pair of opposed abutments one of which is secured to the face of said first gear and the other of which is secured to the opposed face of said second gear, a flying arm disposed between said pair of abutments and secured to said elongated gear for rotation and translation therewith, said flying arm being adapted to engage the abutment on said first gear and thereby stop the rotation of said input shaft when said input shaft is rotated in one direction and to engage the abutment on said second gear and thereby stop the rotation of said input shaft when said input shaft is rotated in the opposite direction.

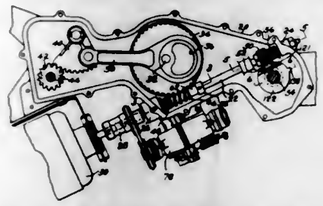
2,837,926
SEALED DRIVE MECHANISM
Theodore Y. Korsgren, Sr., Woodbury, and Frank Stelma, West Cheshire, Conn., assignors to Haydon Switch Incorporated, Waterbury, Conn., a corporation of Connecticut
Application November 16, 1956, Serial No. 622,563
9 Claims. (Cl. 74—17.8)



1. A sealed drive mechanism for transmitting rotary movement from a first point to a second point, where said points may be at substantially different pressures, comprising a tubular casing having a first shoulder facing outwardly at one end and a second shoulder facing outwardly at the other end, a bearing sleeve received in said casing and seated against said first shoulder, said bearing sleeve having an enlarged axial opening therethrough forming a journal portion and having an inwardly projecting annular extension, a first end cap received at the first end of said casing and seated adjacent said bearing sleeve, said end cap having an opening therethrough concentric with but smaller than the opening of said bearing sleeve and partially closing off the latter, a first rotatable member having an enlarged cylindrical portion journaled in the opening in said bearing sleeve and having a concentric portion projecting outwardly of said casing and an eccentric portion projecting into the interior of the casing, said concentric portion including a grooved neck closely received in the opening in said end cap, a resilient O-ring sealing element received in the groove of said neck and forming a liquid seal between said neck and said end cap, a bearing cap received over the eccentric portion of said first rotatable member, said bearing cap being closed at its outer end, a flexible tubular sealing element secured in sealed relation to said bearing cap inwardly of the outer end thereof and to the annular extension of said bearing sleeve, said sealing element being spaced from the bearing cap and first rotatable member throughout a portion of its length whereby to form a first chamber for sealing liquid, a second rotatable member having an enlarged portion rotatably received in said casing and seated against said second shoulder, said second rotatable member having an eccentrically located cylindrical recess therein closed at one end and opening in the interior of said casing, said bearing cap being received at its outer end in said recess, said second rotatable member having a grooved neck, a second resilient O-ring sealing element received in the neck of said second rotatable member, and a cap received at the said other end of said casing and having an opening therein closely receiving said second O-ring element and forming therewith a liquid seal, said tubular sealing element having portions spaced from said second rotatable member whereby to form a second chamber for sealing liquid.

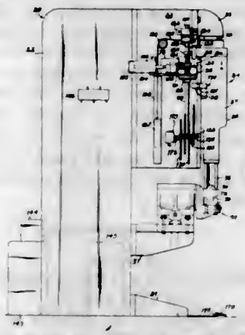
2,837,927
LAUNDRY APPLIANCES
Charles R. Stelljes, Fayetteville, and John P. Rogers, Liverpool, N. Y., assignors, by mesne assignments, to The Murray Corporation of America, Detroit, Mich., a corporation of Delaware
Application May 7, 1953, Serial No. 353,465
8 Claims. (Cl. 74—81)

1. A washing machine transmission comprising a casing, a relatively high speed motor-driven worm shaft journaled in said casing, a toothed member freely rotatable on said shaft having at least one spiral tooth, a relatively low speed gear wheel journaled in said casing adapted to drive a washing element and having spiral teeth meshing with said toothed member, a collar affixed to said shaft on one side of said toothed member, said collar having a cylindrical surface, and said toothed member having an integral collar abutting said shaft-affixed collar and having a cylindrical surface of like diameter, a resilient helical clutch coil positioned over said surfaces in light grip-



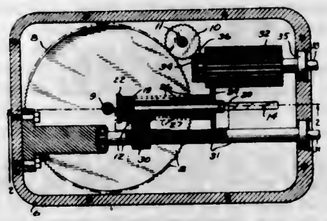
ping relation and otherwise free of said surfaces and adapted through self-gripping operation in one direction of rotation to positively drive said toothed member from said shaft-driven collar, and relatively stationary means movably mounted on said casing for at will engaging the end of said coil on said fixed collar to expand and stop the rotation thereof and declutch said toothed member from said fixed collar.

2,837,928
INDEXING AND STROKE CONTROL MECHANISMS FOR RECIPROCATING DEVICES
Robert J. Meredith, Elburn, Ill., assignor to Pines Engineering Co., Inc., Aurora, Ill., a corporation of Illinois
Application November 17, 1954, Serial No. 469,338
5 Claims. (Cl. 74—152)



1. In an indexing and control mechanism, a ratchet wheel, an axially reciprocable means, a pawl means carried by said reciprocable means and extending forwardly thereof tangentially to the ratchet wheel for engagement with the teeth thereof on each forward stroke of the reciprocable means to rotate the ratchet wheel in step by step fashion in one direction, a holding pawl pivotally mounted adjacent said ratchet wheel and engageable therewith to hold it in adjusted rotated position, a plate adjustably carried by the ratchet wheel for rotation therewith, a pin carried by said plate positionable between adjacent teeth of the ratchet wheel to connect the plate to the ratchet wheel, spring means releasably holding the pin in engagement with the ratchet wheel, and a cam portion on said plate extending radially beyond the toothed periphery of the ratchet wheel at a selected part of the periphery, said pawl means being selectively engageable with the cam portion to be moved thereby out of engagement with the ratchet wheel and into engagement with the holding pawl to move said holding pawl out of engagement with the ratchet wheel.

2,837,929
DISC-ROLLER INTEGRATOR
Raymond E. Crooke, Roslyn, N. Y., assignor to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware
Application February 21, 1957, Serial No. 641,718
7 Claims. (Cl. 74—194)



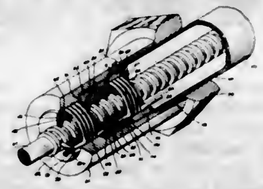
1. An integrator of the character described comprising a housing having a base plate and a spaced parallel closure plate, a disc having flat smooth upper and lower faces, means by which said disc is rotatably mounted in said housing between said base and closure plates for rotation about a fixed axis perpendicular to said base and closure plates, input means by which said disc is rotated, a U-shaped carriage having a pair of spaced parallel legs connected together at one end thereof disposed in said housing with one of said legs disposed on one side of said disc and the other of said legs disposed on the opposite side of said disc, a fixed guideway in said housing by which said carriage is slidably mounted for back and forth movement across the surfaces of said disc, an elongated screw shaft rotatably mounted in said housing parallel to said guideway, a second input means by which said screw shaft is rotated, interconnecting means between said carriage and said screw shaft through which said carriage is moved back and forth across the surfaces of said disc by the rotation of said screw shaft, an elongated gear the length of which is not less than the maximum travel of said carriage rotatably mounted in said housing parallel to said screw shaft and said guide way, output means connected to said elongated gear, a pair of shafts one of which is rotatably mounted in one leg of said carriage diametrically of said disc and the other of which is rotatably mounted in the other leg of said carriage diametrically of said disc, a pair of vertically aligned rollers disposed in a plane parallel to the axis of rotation of said disc, one of said rollers being secured to one end of one of said shafts in contact with one surface of said disc and the other of said rollers being secured to the adjacent end of the other of said shafts in contact with the other surface of said disc, a spur gear secured to one of said shafts, and a similar spur gear connected to the other of said shafts in fixed mesh with said spur gear and in sliding mesh with said elongated gear.

2,837,930
NON-JAMMING DRIVE ACTUATOR
Charles F. Desmond, Williamsville, N. Y., assignor to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application March 20, 1956, Serial No. 572,726
1 Claim. (Cl. 74—424.8)



A translation adjuster comprising a motor having a gear box housing, means for pivotally securing said gear box housing and said motor on a stationary support, a screw shaft projecting out of said gear box housing and being rotatably driven in selected angular direction by said motor, a pair of axially spaced stop pins on said screw shaft, a nut member threaded on said screw shaft and movable between said stop pins upon relative rotation between said nut member and said screw shaft, frame means to be translatably adjusted including a non-rotatable thrust member circumjacent said nut member, and a spring clutch between said collar and said nut member comprising a coil spring having the coiling axis coaxial with the axis of said nut member and said screw shaft and having oppositely extending tangs on the ends thereof, a thrust ring at each end of said nut member, each thrust ring having a slot formed therein confining a corresponding tang for limited angular movement, the self-energizing action of said coil spring effecting frictional engagement between the peripheral surfaces of said coils and said collar, said stop pins on said shaft engaging said tangs when said tangs are moved to limit positions by relative axial movement of said nut member and said screw shaft to wind up said coil spring, thereby decreasing the diameter of the coils thereof and permitting rotation of said nut member relative to said thrust member and together with said screw shaft at the limit positions.

2,837,931
NON-JAMMING SCREW AND NUT ASSEMBLY FOR ACTUATOR
Alan D. Brundage, Birmingham, Mich., assignor to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application April 11, 1956, Serial No. 577,463
5 Claims. (Cl. 74—424.8)

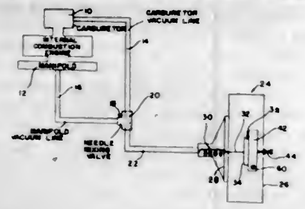


4. A mechanical actuator comprising inner and outer relatively rotatable members, a concentrically disposed coil spring between said inner and outer members connected to one of said members and exerting a radial coupling force between the members as a function of the self-energizing action of said coil spring for locking said inner and outer members against rotation, a rotatable third member, means forming a driving connection between one of said inner and outer members and said third member for axially moving said inner and outer members relative to said third member, and stop means on said third member cooperating with said coil spring operative to limit relative axial movement of said one of said inner and outer members and said third member beyond a predetermined axial position by winding up said coil spring to reduce said radial coupling force, thereby releasing said inner and outer members for relative rotation at said predetermined axial position.

2,837,932
AUTOMOTIVE SUB-ATMOSPHERIC PRESSURE-ACTUATED OVERDRIVE CONTROL AND INDICATOR SYSTEM
Edwin Russell Roller, Putnam, Conn.
Application May 25, 1954, Serial No. 432,084
11 Claims. (Cl. 74—472)

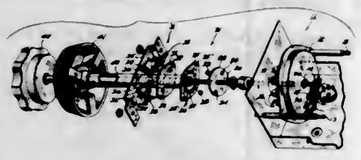
1. A control for an overdrive unit of the type suitable for use with an automotive engine, said engine being provided with a carburetor and a manifold, comprising means for tapping off the sub-atmospheric pressure present in

said manifold, means for tapping off the sub-atmospheric pressure present in said carburetor, means for mixing both said sub-atmospheric pressures, at least two switches, a housing for said switches and means for supplying said mixed sub-atmospheric pressures to said switch housing, an electrical circuit including a solenoid winding, an elec-



tric current source, said switches being operated sequentially by a predetermined amount of said mixed sub-atmospheric pressures in said housing to thereby complete said electrical circuit and furnish said current to said solenoid winding whereby said overdrive unit is made operative.

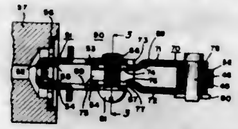
2,837,933
DOUBLE DETENT MECHANISM
Louis J. Patta, Elmwood Park, Ill.
Application August 12, 1953, Serial No. 373,843
6 Claims. (Cl. 74—527)



1. A detent mechanism comprising a relatively stationary base member and a rotatable member connected to a load element, said rotatable member and its load element being movable to center said load element in any one of a plurality of angularly displaced positions with respect to said base member, a second detent mechanism comprising a fixed member and a relatively rotatable member movable to any of at least two angularly displaced positions with respect to its fixed member, said base member of the first detent mechanism being connected to and rotatable with said relatively rotatable member of the second detent mechanism, the angular displacement of said relatively rotatable member in moving between said positions being other than the angular displacement between positions of said load element, and said second detent mechanism being self-maintained in set position during operation of said first detent mechanism, whereby the positions of said load member due to rotation of its connected rotary member may be increased by movement of said relatively rotatable member from one position to another.

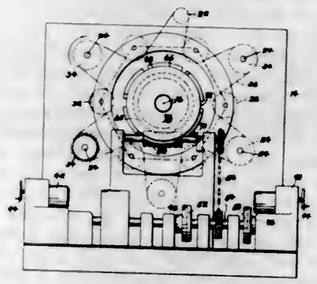
2,837,934
ADJUSTABLE LINKAGE
William C. Edmundson, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 19, 1953, Serial No. 362,883
3 Claims. (Cl. 74—586)

1. An adjustable linkage for transmitting motion between two movable members comprising in combination; a first clevis operatively connected with one of the members, said clevis including spaced arms and provided with mutually aligned openings adjacent the free ends of said arms, a second clevis having a yoke portion and spaced arms and having the free ends of said arms adapted to be operatively connected with the other member and adapted to have the yoke portion disposed between the arms of the first clevis, said arms of the second clevis having two pairs of parallel flanges and longitudinal slots between the flanges, screw means received by the openings in the free ends of the arms in the first clevis and passing through the slots of the arms of the second clevis



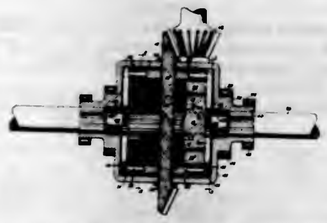
for securing the clevises together, and means including interengaging serrated surface portions on at least one of the arms of each clevis for restraining relative movement between the two clevises when the screw means secures said clevises together and when said yoke portion of the second clevis is disposed between the arms of said first clevis.

2,837,935
INVERTED MILLING MACHINE
John J. Deliso, Shrewsbury, Mass.
Application June 26, 1952, Serial No. 295,690
9 Claims. (Cl. 74—665)



1. A machine comprising a base, a shaft thereon, a turret on the shaft, means to rotate the shaft at a plurality of different speeds including fast traverse and slow feed, and said means including adjustable means to change the initiation and termination of the rotative steps of different speeds of the turret including a pair of angularly adjustable discs and means thereon to provide adjustable lands and gaps.

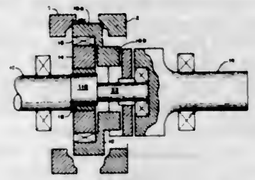
2,837,936
DIVIDED POWER DIFFERENTIAL
John M. Fackler, Jr., Embreeville, Pa.
Application September 19, 1956, Serial No. 610,749
8 Claims. (Cl. 74—711)



4. A differential wherein power will be furnished one output when the other output is running free, said differential comprising a pinion gear, a ring gear meshing with said pinion gear, a sun gear centrally secured to each side of the ring gear, a pair of planet gears meshing with

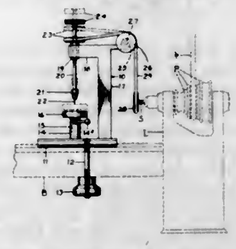
and diametrically positioned on each sun gear, a pair of generally semi-circular brake shoes positioned around the sun gear on each side of the ring gear, said brake shoes being mounted so that their extremities confront each other, each brake shoe having internal teeth meshing with a planet gear, the radius of the internally toothed portion of each brake shoe varying from a maximum at its midpoint to a lesser radius at each extremity so that the travel of each planet gear around its respective sun gear toward either end of the brake shoe will force the shoe outwardly, a spring between the confronting ends of each pair of brake shoes to maintain them in spaced relation, a synchronizing plate connected to each pair of brake shoes, a synchronizing shaft loosely connected to the synchronizing plates, a brake drum fitting over and surrounding each brake shoe pair, and an output axle extending from each brake drum.

2,837,937
SPEED CHANGER
Charles E. Kraus, Rochester, N. Y., assignor to Excelermatic, Inc., a corporation of New York
Application October 22, 1954, Serial No. 463,880
9 Claims. (Cl. 74—804)



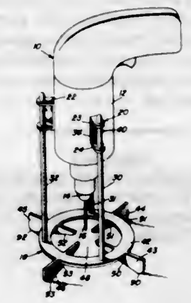
1. In a speed changer, a driving shaft, said shaft having an eccentric portion, a planet carrier, means utilizing said eccentric portion for imparting eccentric movement to said carrier, a pair of spaced rings, adjacent surfaces of said rings being generally inclined with respect to the radii of said rings, and a planet member interposed between said carrier and said rings and engaging said rings, said rings and said planet member being circular, said planet member being of less diameter than said rings, said planet member being mounted within said rings, and said planet member being shaped substantially to provide point contact with said inclined surfaces.

2,837,938
WATCHMAKER'S DRILL PRESS FOR USE WITH A LATHE
William L. Spitzer, Warrensburg, Ill.
Application March 7, 1957, Serial No. 644,673
2 Claims. (Cl. 77—5)



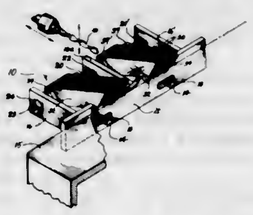
1. A drill press comprising a frame including an elongated horizontal base member engageable with the horizontal bed of a lathe, a vertically disposed bolt depending from said base member and extendable through said bed, a nut on the lower end of said bolt for engaging said bed for holding said frame in operative position, said frame further including a vertical upright member disposed at one side of said bolt, a tubular mount extending vertically upwardly from said base member at the other side of said bolt, a work supporting table vertically adjustably supported by said mount, a frame portion projecting horizontally from the upper end of said vertical upright member with the free end thereof overhanging said work supporting table, a vertical bearing in said free end of said horizontal frame portion in coaxial relation to said mount, a drill shaft supported in said bearing for rotation about its axis and for movement along said axis, a finger engageable knurled disc rotatably mounted on the upper end of said drill shaft, and belt engaged pulleys supported by said frame and said shaft for effecting rotation of said shaft from a horizontal axis belt engaged drive pulley on said lathe.

2,837,939
HAND DRILL STAND
Linn J. Leitner and Cyrus V. Edwards, Oklahoma City, Okla.
Application August 10, 1955, Serial No. 527,538
3 Claims. (Cl. 77—55)



1. For use with a hand drill having a casing, an attachment comprising laterally spaced guides on said casing intermediate the ends thereof, a positioning head adapted to rest upon a work piece, rails separably attached to said head on which said guides are mounted for sliding movement, said rails being interchangeably connected on either side of said head, said head including a supporting ring, a plurality of generally wedge shaped feet secured to said ring at one surface thereof and having upper edges parallel to said ring surface to form with said ring surface a flat base on which the head is adapted to rest, and said feet having outer ends which protrude outwardly of the outer edge of said supporting ring.

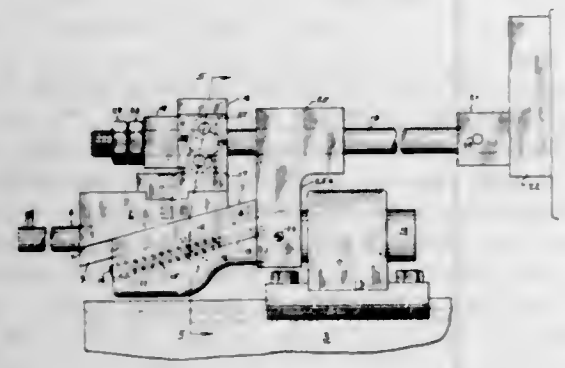
2,837,940
WORK STOP AND GAUGE
John E. Case, Seattle, Wash.
Application November 25, 1955, Serial No. 549,045
2 Claims. (Cl. 77—55)



1. The combination with a work supporting table, and a boring bit operable in a working plane that is

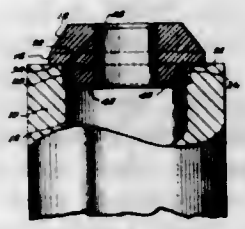
perpendicular to the table top and at a right angle to its back edge, of a stop and gauge device comprising an abutment bar fixed to said back edge and extending slightly above the top surface of the table as an abutment for work pieces positioned on the table for boring by said bit, and extended to opposite sides of the plane in which the bit operates, an arm extended rearwardly from said bar substantially in the working plane of said bit, arms extended rearwardly from the opposite end portions of said abutment bar, shafts mounted by and extended between said arms in axial alignment, a succession of gauge plates mounted in face-to-face relationship on each of said shafts and adapted to be swung axially thereon, individually or in groups, from positions rearwardly of the abutment bar to positions extended forwardly across and rested upon the abutment bar to serve as lateral gauging stops for work pieces placed on said table and against the abutment bar for boring by said bit; said groups of plates being held between nuts threaded onto their respective mounting shafts and bodily adjustable along said shafts by said nuts to establish predetermined and exact spacing from the working plane of the bit, and all gauge plates being identical in size and shape and each formed with a downwardly and rearwardly sloping end edge serving as a caming surface against which work pieces may be engaged upon movement directly toward the abutment bar to lift the plates for the positioning of the work piece against the abutment bar.

2,837,941
RECESSING TOOL HOLDER
Michael J. Schlitters, Detroit, Mich.
Application March 27, 1957, Serial No. 648,891
7 Claims. (Cl. 77—58)



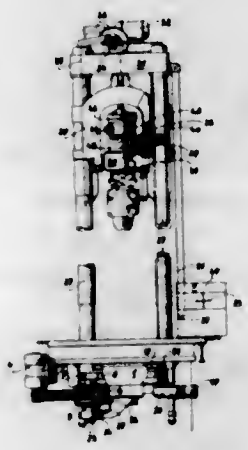
1. A recessing tool holder comprising a supporting and a supported member, means for guiding the supporting member in a rectilinear advance toward and retraction from the work, said members having contiguous substantially plane cam faces acutely divergent to said advance and retraction, means for interconnecting said members and guiding them in a relative travel along said cam faces in the direction of said divergency, means for installing a cutter on the supported member, a spring reacting between the two members and uring the supported member toward the work, coacting elements on said members for limiting response of the supported member to the spring, means on the supported member for engaging a stop during said advance of the tool holder and thus limiting advance of the supported member, whereby said cam faces take effect to feed the supported member transversely to said rectilinear advance, and coacting means on said supported member and stop-engaging means for camming the supported member in the direction of said rectilinear retraction, responsive to said transverse feeding of such member.

2,837,942
SELF LOCKING BUSHING
Ronald T. Howell, Manhattan Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application June 6, 1955, Serial No. 513,190
2 Claims. (Cl. 77—62)



1. A self locking bushing comprising a head; a frustoconical extension on said head and having an outside dimension greater than the bore but less than said head resulting in there being a shoulder on said head that engages the wall defining the bore of the supporting member; serrations formed in the side of said extension resulting in there being a shearing edge that shears and serrates the wall defining the bore in order to lock said bushing in a non-rotating condition; said serrations being inclined in two directions with respect to the opening through said bushing; and a tapered projection on said shoulder that is spaced from said extension and penetrates the wall defining the bore of said supporting member resulting in swaging material of said supporting member into the space between said extension and said projection to lock and prevent the ready removal of said bushing from the assembled position.

2,837,943
CONTROL FOR TWO ORTHOGONAL FEED MOVEMENTS
August Saxer, Thalwil, Switzerland
Application March 18, 1952, Serial No. 277,130
Claims priority, application Austria March 21, 1951
2 Claims. (Cl. 78—20)



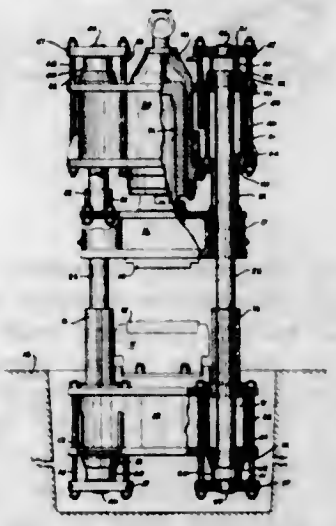
1. In a control system for two orthogonal feed movements of a machine for shaping a workpiece, the combination of adjusting means operable to perform one of said movements, adjusting means operable to perform the other of said movements, a pointer, a slide bar in engagement with the pointer and guiding it in a first direction, means in engagement with the slide bar and guiding it in a second direction orthogonal to said first one, means positively connecting one of said adjusting means to said pointer for moving the latter in said first direction in dependence on the feed movement of said adjusting means, means positively connecting the other of said adjusting means to said slide bar to move it in said second direction in dependence on the feed movement of said other adjusting means, and a manually controllable motion transmitter operatively connected to one, and only one, of said adjusting means for thus operating the same.

2,837,944

SUPPORT FOR COLUMN AND CROSSHEAD

Heinrich B. Albers, Malverne, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application January 12, 1954, Serial No. 403,530
7 Claims. (Cl. 78—42)



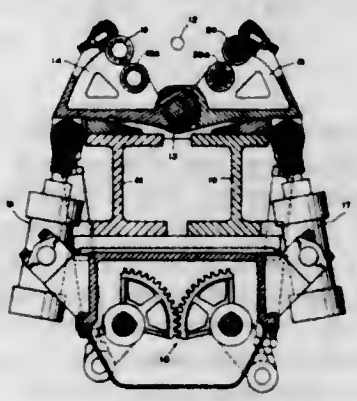
1. In a press and the like having a base, columns connected to the base, a crosshead, means whereby said crosshead is supported by said columns, and actuating means whereby stresses are developed in said crosshead, said stresses being transmitted from said crosshead to said columns during operation of the press, the improvement which comprises a lateral extension of each column integral with the column, each of said extensions having an outer surface and an inner surface, and means for supporting said crosshead on said outer surfaces, said crosshead being in operative engagement with said inner surfaces for applying to said inner surfaces the stresses developed in said crosshead during operation of said press.

2,837,945

BAR STEADIER FOR SEAMLESS TUBING MILLS

George R. Griffiths, Gary, Ind., assignor to United States Steel Corporation, a corporation of New Jersey

Application July 16, 1953, Serial No. 368,449
1 Claim. (Cl. 80—13)



In a bar steadier which comprises a cluster of four opposed rolls and means journalling said rolls on parallel axes and supporting at least two of the rolls for relative movement toward and away from the other two, said four rolls when brought together defining a space for receiving a bar, which space is bounded by a portion of the circumference of each roll so that the four rolls cooperate to grip the bar, the improvement comprising high cylindrical sections and mating low sections formed on at least two of said rolls, which two rolls are relatively movable toward and away from each other, said high and low sections interfitting when the rolls are brought together enabling the circumferences of the high sections of two rolls and the circumferences of the other two rolls to contact a bar of diameter smaller than the distance across a space defined by four rolls of uniform diameter equivalent to that of said high sections, the circumferences of said high sections also being adapted to contact a bar of larger diameter without the sections interfitting.

2,837,946

CLOSURE REMOVER WITH VENTING MEANS

Herbert A. Berkman, Chicago, Ill., assignor to Zim Manufacturing Company, a corporation of Illinois

Application July 31, 1956, Serial No. 601,244
7 Claims. (Cl. 81—3.1)



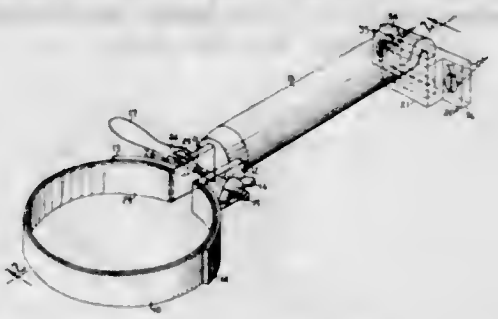
1. An implement for removing flanged covers from glasses, comprising a lever provided at one end with a laterally projecting hook-like part; the free end of said part being a blade that extends toward the lever, inwardly from said end, and terminates at such a distance from the lever as to lie below the lower edge of the flange on the cover of such a glass when the lever is resting on top of the cover and the blade is on the down side beside the glass; and said blade containing a passage into which outside air may enter and pass into the glass when the blade is forced up between the flange and the glass.

2,837,947

WALL MOUNTED JAR TOP REMOVER WITH ADJUSTABLE DIAMETER SPLIT BAND

William F. Handford and Fred Riggs, Cave City, Ark.

Application June 13, 1956, Serial No. 591,075
2 Claims. (Cl. 81—3.3)



1. In a jar top holder, the combination which comprises a split band having flanges extended from the ends thereof with a screw extended through the flanges, a lining of resilient material positioned on the inner surface of the band, a wing nut threaded on the screw extended through the flanges thereof, a lever pivotally mounted on the head of the screw, the pivotal mounting being eccentrically positioned in the lever whereby upon actuating the lever to an angle of 90 degrees the band is contracted on a jar top, a handle extended from one of said flanges and having a tongue extended from the end opposite to that from which the flange extends, and a wall bracket having a vertically disposed socket therein in which the socket is positioned to receive the tongue of the handle.

2,837,948

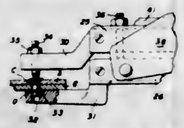
RETAINING-RING APPLYING TOOLS

Hans Erdmann, Maplewood, N. J., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York

Application February 25, 1955, Serial No. 490,485
7 Claims. (Cl. 81—5.1)

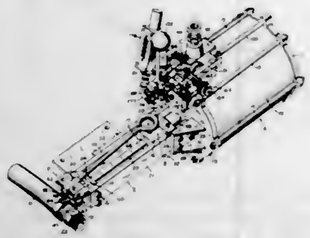
1. A tool for assembling closed retaining rings having locking prongs extending from their inner edges on pins, rivets and the like, comprising a pair of arms mounted for

relative movement toward and away from one another, heads affixed to corresponding ends of said arms and partaking of such relative movement means limiting approach movement of said arm ends past relative positions in which said heads are in parallelism, one head having a hole extending at a right angle through same of a diameter to accommodate the pin or rivet on which the retaining ring is to be assembled upon said pin or rivet being pushed axially into and partially through said retaining ring, and a full-circular shallow countersunk recess communicating with and extending about the inner end of the opening for receiving the retaining ring faced so that its prongs



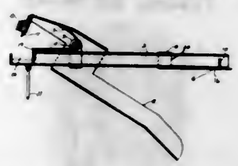
extend into said hole, the other head mounting a centering member extending at a right angle thereto and being generally aligned with said hole and positioned so that its inner end is adapted to engage on one end of said pin or rivet arranged so that its other end is in readiness to be pushed into the ring received in said recess as aforesaid, the construction and arrangement being such that movement of said arms toward one another results in the centering member pushing said pin or rivet partially through said retaining ring and in moving to a final position in which it is exactly coaxial with said hole and countersunk recess.

2,837,949
MACHINE FOR APPLYING PRESSURE CLAMPS
Valdemar Lodholm, Denver, Colo., assignor to Band-It Company, Denver, Colo., a corporation of Colorado
Application March 12, 1956, Serial No. 571,045
11 Claims. (Cl. 81—9.3)



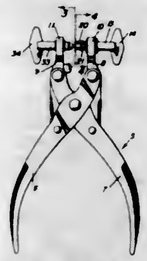
1. A power operated tensioning device for a hose clamp applying tool, having a guide frame and a gripper mechanism movable along said frame for applying a pressure clamp having a length of strap and buckle through which the strap passes which device comprises a main cylinder, a piston mounted in said main cylinder for reciprocation, a piston rod secured to said piston and moving in response to movement of said piston and adapted to be connected to the gripper mechanism, and valve and conduit means operative to admit pressure fluid selectively to the chamber space in front of said piston to drive said piston rod in a rearward direction along said frame to pull said strap taut prior to cutting the strap and to the chamber space behind said piston to drive said piston rod in the opposite direction along said frame after said strap has been cut, a trip lever member on said valve means, and piston means in said valve means operative in response to fluid pressure in said main cylinder to trip said lever member and thereby shut off flow of pressure fluid through said conduit means into said main cylinder when the pressure in the space in front of said piston reaches a predetermined amount.

2,837,950
PLIER-LIKE DEVICE FOR ATTACHING AND DETACHING SPLIT SHOT
Duane Hardy, Salt Lake City, Utah
Application October 11, 1954, Serial No. 461,465
4 Claims. (Cl. 81—15)



1. A tool for performing operations on split shot, comprising a pair of members disposed in crossed, plier-like relation and having operating ends for engaging a shot, one of said members having channel means providing a magazine for shot, and having a discharge opening at one end, through which the stored shot may pass; means pivotally connecting said members for plier-like relative movements; spring means normally tending to separate the operating ends of said members; and a stop disposed in said discharge opening and connected with and actuated by said spring means, for retaining shot in the channel means of said one member, said stop being manually operable against the action of said spring means to release the shot.

2,837,951
PLIER-TYPE RIVET REMOVING TOOL
George E. Phelps, Jr., Grand Forks, N. Dak.
Application October 14, 1954, Serial No. 462,244
4 Claims. (Cl. 81—15)

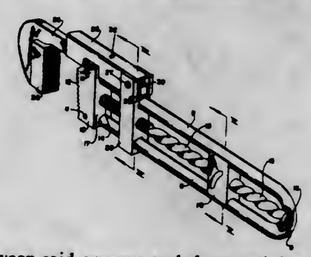


1. A rivet removing tool of the pliers type comprising a pair of confronting jaw plates, one of said plates including an anvil portion, and a rivet un-peening member carried by the other plate and opposing the anvil, said un-peening member including a rotatable shank for turning said member during the un-peening operation, said shank having a recess in one end portion and said un-peening member comprising a pair of outwardly flared retractible rivet gripping jaws slidably carried in the recess of its related shank to close said jaws by opposing pressure of the anvil to retract the jaws.

2,837,952
SLIDABLE NUT ACTUATED, SLIDABLE OUTER JAW WRENCH
Clarence L. Pritchett, La Canada, Calif.
Application July 2, 1957, Serial No. 669,552
8 Claims. (Cl. 81—172)

1. A non-binding wrench, comprising: a handle having parallel members connected at one end; a lower jaw attached to the opposite end of said handle; a rotatably mounted rod disposed between said parallel members; said rod having an upper threaded portion and a lower quick acting threaded portion; a non-binding operating nut, surrounding said quick acting threaded portion and

slidably mounted between said parallel members, having central engaging contacts in threaded engagement with said quick acting threaded portion; a non-binding carriage slidably mounted on said handle; non-binding bearings provided with grooves, in said non-binding carriage, for said parallel members; longitudinally disposed curved



edges between said grooves and the remaining intermediate projecting portions of said bearings between said grooves; a shank attached at its lower end with respect to said carriage and carrying an upper jaw at the opposite end, and with said upper jaw being dispsed opposite said lower jaw.

2,837,953
STRINGED MUSICAL INSTRUMENTS
François Pierre Maurice Baschet, Paris, France
Application November 29, 1954, Serial No. 471,853
Claims priority, application France November 30, 1953
6 Claims. (Cl. 84—275)



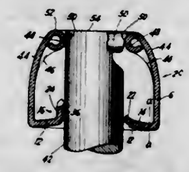
1. A stringed musical instrument, comprising in combination: an elongated neck support, including a peg box and a finger board; an extension member connected to said neck support; a bridge mounted on said extension member; resilient means disposed between said bridge and said extension member; at least one string connected to said peg box and contacting the upper edge of said bridge; a key connected to said extension member on the portion thereof on the other side of said bridge from said neck support, said string being connected to said key; a member secured to said extension member having portions, one of which extends away from said extension member, a second of said portions extending parallel with, but spaced from, said extension member, and a third of said portions extending toward, and connected to, said neck support, said portions of said extension member defining an enclosure; an inflated, flexible, closed envelope mounted in said enclosure, said envelope engaging said bridge.

2,837,954
NOTE SELECTOR FOR PITCH PIPES
William Kratt, Union, N. J.
Application June 25, 1956, Serial No. 593,681
4 Claims. (Cl. 84—456)



1. In combination with a flat, circular pitch pipe having a plurality of note openings circumferentially spaced on the rim thereof, note selector means detachably mounted on said pitch pipe, said selector means comprising an arm having a hook shaped portion at one end thereof substantially complementary to the rim of said pitch pipe, said hook shaped portion being formed with a mouthpiece registrable with said note openings, said arm being disposed adjacent one side of said pitch pipe, the other end of said arm and a central portion of said pitch pipe adjacent thereto having interengageable means providing for rotary movement of said arm relative to the central portion of said pitch pipe, and detent means on said hook shaped portion releasably engageable in at least one note opening for retaining the mouthpiece thereof in registry with a selected note opening in said pitch pipe.

2,837,955
PUSH-ON FASTENER HAVING SETS OF TEETH AT DIFFERENT LEVELS
Ivan Sislik, Bound Brook, and William B. Duffy, Newark, N. J., assignors to The Palnut Company, Irvington, N. J., a corporation of New Jersey
Application May 14, 1952, Serial No. 287,698
6 Claims. (Cl. 85—36)

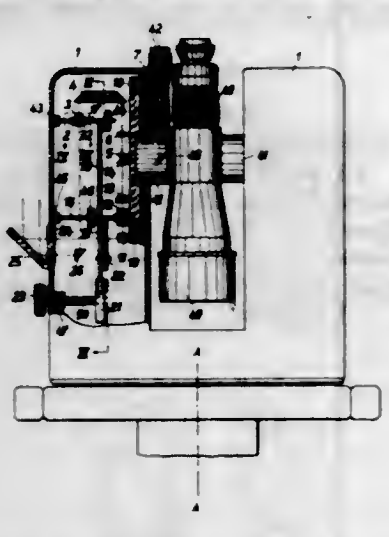


1. A threadless sheet-metal nut comprising: an annular web adapted to surround a male member; at least three radially-inwardly-extending resilient teeth having narrow bodies struck from the metal of said web, said teeth being homogeneous with the web and being located in their entirety close to the level of the web, the width of said teeth being small as compared to a semicircumference of the opening in said web and said teeth being equally spaced about said opening and being adapted to extend into gripping engagement with the smooth cylindrical surface of the male member on a first circle the plane of which is perpendicular to the axis of the male member; and additional resilient teeth homogeneous with the web, said additional teeth being also equally spaced about said opening and being interspersed with the first-mentioned teeth but the additional teeth beginning at the inner edge of the web and extending lengthwise of the male member in closely spaced relation thereto and thence bent inwardly for gripping engagement with the smooth cylindrical surface of the male member on a second circle the plane of which is perpendicular to the axis of the male member, the extent of said additional teeth lengthwise of the male member guiding the nut during its telescopic application to the male member and sustaining the force of side blows fortuitously imposed upon the nut after it has been telescoped onto the male member; and the inwardly-bent portions of said additional teeth lying on a circle which is at least as small as the circle on which the tips of said radially-inwardly-extending teeth lie.

2,837,956
THEODOLITE HAVING SCALE READING MEANS
Wilhelm Schneider, Konigsbronn, Germany, assignor to Carl Zeiss, Heidenheim on the Brenz, Wurttemberg, Germany
Application July 26, 1954, Serial No. 450,399
Claims priority, application Germany August 22, 1953
6 Claims. (Cl. 88—1)

1. In a geodetic instrument, especially one of the theodolite type having a telescope and a coarse reading scale connected with said telescope to give vertical angles of the telescope, a reading window, a second scale ar-

ranged in said window to give decimal values of said telescope angles, optical means projecting a scale mark of said coarse reading scale on said second scale to serve as index mark for reading said decimal values on said second scale, means arranged in the ray path between said scale mark imaged in said reading window and said window to shift the image of said coarse reading scale mark along said second scale for coincidence setting of said mark with one of the marks of said second scale, an inclinable tubular level, a third scale arranged in said reading window to give decimal values of the second



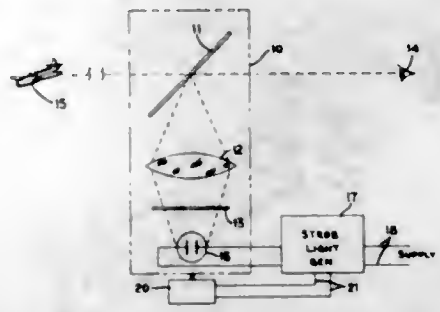
scale values and further optical means projecting at least one bubble end of said tubular level on said third scale, said bubble end serving as index mark for reading a value on said third scale, further means coupling said inclinable tubular level with said means shifting the image of said coarse reading scale mark along said second scale for coincidence setting so that in doing so said level turns and its bubble as well as the image of the bubble displaces along said third scale to give a value on said scale corresponding to the shift of said index mark along the second scale.

2,837,957
LENS HOOD
Kunihiko Hori, Setagayaku, Tokyo, Japan, assignor to Nippon Kogaku K. K., Shinagawaku, Tokyo, Japan, a corporation of Japan
Application March 14, 1956, Serial No. 571,505
4 Claims. (Cl. 88—1)



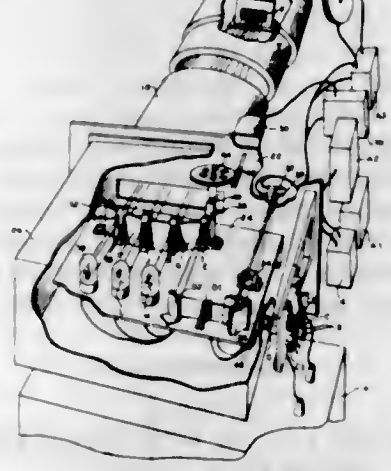
1. A lens hood for attachment to the internally threaded lens supporting frame of an optical instrument comprising a flaring hood, a cylindrical flange integral with the hood end of the smaller diameter, an elastic ring having a circumferential gap therein and affixed at a region substantially intermediate its free ends to and within the flange, threading on the external circumferential surface of the elastic ring, the flange having at least one elongated aperture therethrough at a region thereof spaced from the region at which the elastic ring is affixed to the flange and spaced from the free ends of the elastic ring, and a push-button extending through the elongated aperture of the flange and attached to a free end region of the elastic ring so that on depressing the push-button the diameter of the elastic ring is decreased sufficiently that the elastic ring may enter the threaded end of the lens supporting frame and on release of the push-button the external threading of the elastic ring meshes with the internal threading of the lens frame.

2,837,958
STROBOSCOPIC ILLUMINATING SYSTEM FOR VIEWING INSTRUMENTS AND THE LIKE
Elbert A. Newhouse, Indianapolis, Ind.
Application May 13, 1955, Serial No. 508,337
2 Claims. (Cl. 88—2.3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



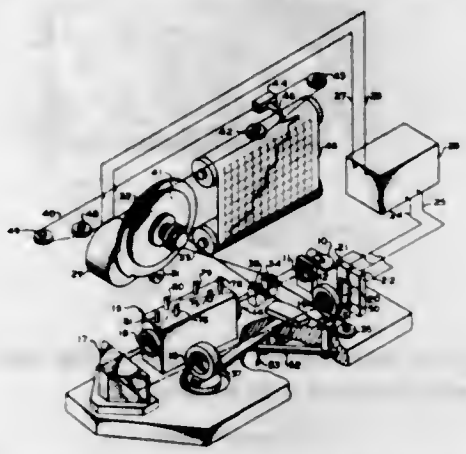
2. An optical sight unit for viewing a target comprising, a partial reflector plate attached to a sight unit body, a reticle mounted within said body, a fast-acting light enclosed within said body for producing intermittently an image of said reticle on said partial reflector plate, a source of power for said light, and vibration pickup means connected to said sight unit body for producing electrical signals responsive to the frequency of vibration of said sight unit, said electrical signals being coupled with said source of power for intermittently triggering said source of power whereby said reticle pattern is produced on said reflector plate at cycles corresponding to the frequency of vibration of said sight unit body.

2,837,959
AUTOMATIC MEANS FOR ALIGNING SPECTROSCOPIC COMPONENTS
Jason L. Saunderson, Lexington, and Eliot Du Bois, Lincoln, Mass., assignors to Baird-Atomic, Inc., Cambridge, Mass., a corporation of Massachusetts
Application February 17, 1955, Serial No. 488,786
17 Claims. (Cl. 88—14)



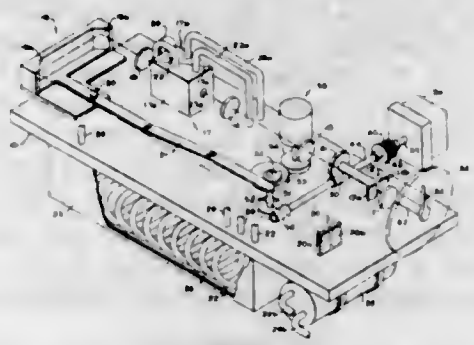
8. Spectroscopic apparatus comprising first means for exciting a chemical sample to emit characteristic radiation, second means for directing said characteristic radiation along a predetermined optical path, third means for dispersing said characteristic radiation from said optical path into a spectrum, fourth means for reading said spectrum, fifth means for emitting monitor radiation, sixth means for directing said monitor radiation along said optical path to said third means, and seventh means responsive to said monitor radiation from said third means for controlling the relative orientations of said optical path, said third means and said fourth means.

2,837,960
DIFFERENTIAL REFRACTOMETER
Elmer C. Miller, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application May 9, 1955, Serial No. 506,841
7 Claims. (Cl. 88—14)



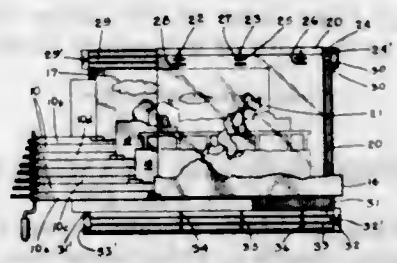
1. An analyzer comprising a radiation source, radiation detecting means, means for passing a beam of radiation from said source to said detecting means, means in said beam for deflecting said beam in accordance with the refractive index of a test material, a first plate of radiation transparent material disposed in said beam of radiation, means responsive to said detecting means to rotate said first plate to deflect said beam of radiation so that said beam remains impinging upon a predetermined portion of said detecting means, means to indicate rotation of said first plate, a second plate of radiation transparent material disposed in said beam of radiation, and means to rotate said second plate to deflect said beam of radiation.

2,837,961
DRIVE MECHANISM
Marvin E. Reinecke, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 27, 1955, Serial No. 518,271
3 Claims. (Cl. 88—14)



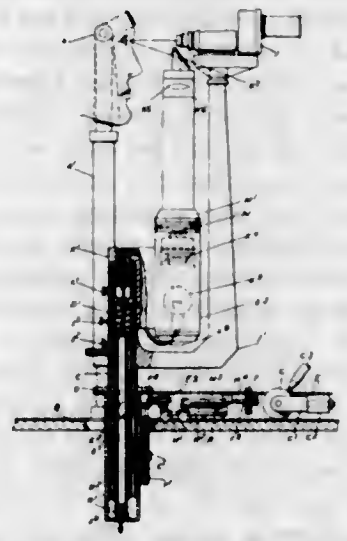
1. A refractometer comprising means to form a beam of radiation; means positioned in said beam to deviate said beam in accordance with the refractive index of a test material, radiation detecting means, radiation deflecting means positioned in said beam to direct said beam on a predetermined portion of said detecting means, a drive member, a driven member positioned opposite said drive member, a bellows secured at one end to one of said members and extending therefrom toward the other of said members, the second end of said bellows terminating in a first plate, a clutch plate secured to the other of said members, a clutch facing disk secured to one of said plates and extending therefrom so as to engage the other of said plates, means responsive to said detecting means to rotate said drive member when said beam does not impinge upon said predetermined portion of said detecting means, means connecting said driven member to said deflecting means to cause rotation thereof, and means connected to said driven member to indicate the position thereof.

2,837,962
APPARATUS FOR PRODUCING ANIMATED CARTOONS IN THREE DIMENSIONS
Seymour H. Kneitel, New York, N. Y., assignor to Paramount Pictures Corporation, New York, N. Y., a corporation of New York
Application July 10, 1953, Serial No. 367,319
1 Claim. (Cl. 88—16)



In three dimensional photography of animated cartoons, a plurality of slides for adjustably supporting a corresponding series of scenery sheets, a single actuated member directly engaging said slides for moving the slides and sheets into different variable parallax positions in taking series of left and right eyed pictures of the scene characterized by said sheets, a characterized Celluloid arranged over and movable relatively to said sheets, means for adjusting the position of said Celluloid with respect to the scenery sheets, and said last named means comprising a plurality of manually adjustable pegged bars.

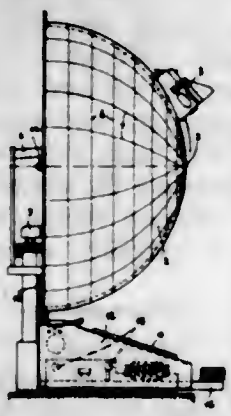
2,837,963
OPTICAL APPARATUS FOR THE EXAMINATION OF THE HUMAN EYE
Hugh Cecil Binstead, Hastingwood, near Harlow, and Henry James Stockwell, Kenton, England, assignors to Allied Instrument Manufacturers Limited, London, England, a company of Great Britain
Application January 23, 1950, Serial No. 140,104
Claims priority, application Great Britain January 25, 1949
16 Claims. (Cl. 88—20)



1. Optical slit lamp apparatus for the examination of the human eye of the type comprising a head rest for locating the eye to be examined at the object position, a microscope for observing the eye so located from different angles of observation with respect thereto and an illuminating means for directing a beam of light on to the object position from different angular directions, characterized by two brackets mounted for pivotal movement around an axis approximately aligned on the object position at approximately right angles to the optical axis of the microscope, one of said brackets supporting the microscope and the other supporting the illuminating means, the illuminating means bracket having a shorter arm than that of the microscope bracket and swinging freely between the latter and its axis of movement in all positions of observation of the microscope to main-

tain the beam of light directed on the object position, such illuminating means including an aperture member, a source of light for illuminating the aperture of such member, an objective whose optical axis is approximately parallel to the axis of pivotal movement of said brackets for focusing an image of the aperture on the object position, and a small reflector for deflecting the illuminating beam from the objective to the object position, the small reflector lying close to the plane of observation but just clear of the path of movement of the microscope.

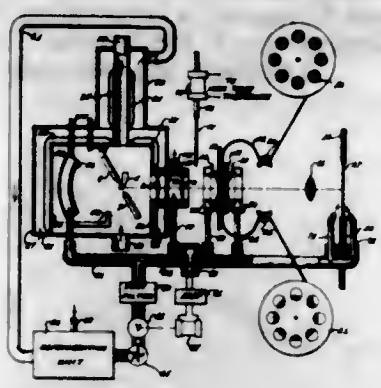
2,837,964
PERIMETERS FOR THE EXAMINATION OF VISUAL FIELDS
Paul Frederic Marie Gamba, Lyon, France
Application March 2, 1954, Serial No. 413,681
Claims priority, application France June 9, 1953
1 Claim. (Cl. 88—20)



In combination with a perimeter for the examination of the visual field of a patient's eye comprising a hemispherical cap of transparent material having a horizontal axis and at the center of which the patient's eye to be investigated is to be located, the outer convex surface of the hemispherical cap carrying a series of meridian and parallel lines, means shiftable over the outer surface of the cup to form a luminous spot on the inner surface of said cup and a stationary carrier over which the transparent cup is adapted to be shifted transversely with reference to its axis, the provision of a sheet of transparent material adapted to be laid on said stationary carrier to the rear of the transparent cup and carrying on its front surface general data and a writing space on its back in side by side relationship two mirror replicas of the meridian and parallel lines on the convex surface of the transparent cup as projected on a surface perpendicular to the axis of said cup, said replicas being apparent through the transparent sheet to the observer at the rear of the cup to allow said observer to draw a record on the front of the paper and then to examine said record through the transparent material after turning the sheet round to see the replicas of the meridian and parallel lines, in direct view in optical superposition with the general data and writing space on the front surface of the sheet.

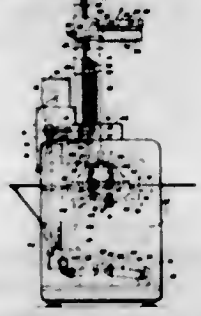
2,837,965
PROJECTOR COOLING SYSTEM
Alfred N. Goldsmith, New York, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application September 29, 1953, Serial No. 383,062
14 Claims. (Cl. 88—24)

1. A film projecting system comprising a light source, said source being adapted to heat a circulating fluid, a housing for said light source, means associated with said housing for collecting and directing said circulating fluid, means for forming light from said source into a beam, means for passing a film through said light beam, a heat energized refrigeration unit, means for conducting said heated fluid from said collecting means to said refrigeration unit to provide the energy for said refrigeration unit



for cooling air, and means for conducting said cooled air from said refrigeration unit to said film.

2,837,966
FLOW-TYPE COPYING CAMERA
Francis T. Arnold, Levittown, and Selah S. Brewster, Jr., Port Jefferson, N. Y., Carroll B. Collins, Pittsburgh, Pa., and George B. Crouse, Wading River, N. Y., assignors to Peerless Photo Products, Inc., Shoreham, N. Y., a corporation of New York
Application October 19, 1953, Serial No. 386,934
5 Claims. (Cl. 88—24)

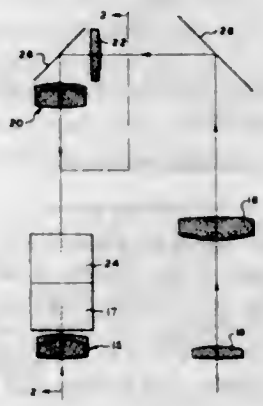


1. In a copying camera, the combination of a conveyor belt, a light source above said belt, an opaque platen between said light source and said belt having a transverse slot therein, a lens, an adjustably positioned reflector means to direct light rays from said slot toward said lens along a path of variable length comprising three mirrors, two of said mirrors mounted at right angles to each other and at forty-five degrees to said third mirror and said light rays, a film holder comprising an aperture, a film supply roller, a film take-up roller and a film drive roller, a drive motor for said conveyor belt and said film drive roller, and a drive speed reduction device in the drive connection between said motor and said film drive roller.

2,837,967
DEVICES FOR VIEWING BINOCULARLY FUSIBLE OBJECTS SUCH AS PHOTOGRAPHIC IMAGES
David S. Grey, Weston, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application September 17, 1953, Serial No. 380,778
10 Claims. (Cl. 88—29)

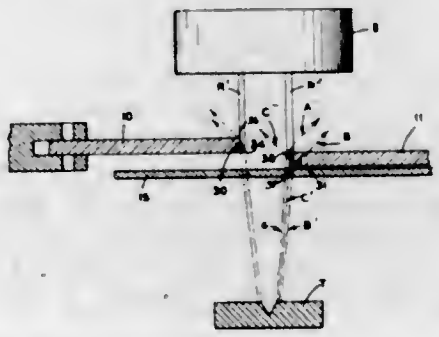
1. A device for viewing a pair of stereoscopic pictures which are so printed on a given area of sheet material that the bottom edge of one picture is contiguous with the top edge of the other, said device comprising a housing having a pair of viewing apertures which are spaced apart substantially according to the human interocular, means for mounting said area of sheet material in said housing so that said pair of pictures are inverted and lie in a given plane, means for illuminating said pictures, and a first and second optical system contained in said housing for providing necessary deviation and reversal of image-forming light rays to obtain fusible, erect stereoscopic images of said pictures having a separation sub-

stantially equal to said interocular, said first optical system comprising positive lens means optically aligned with one of said viewing apertures, and reflecting means positioned at a given angle on the optical axis of said



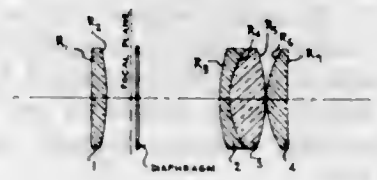
lens means for deviating said axis and in part establishing said interocular, additional reflecting means positioned along said deviated axis for further establishing said interocular and for deviating said axis to a substantially central point of the second of said pair of inverted pictures, and image-forming lens means positioned at a given location along said deviated axis, said second optical system providing a magnified and erect image of said second picture which is spaced from the image of said first picture by said interocular and which forms a fusible stereoscopic image therewith.

2,837,968
KNIFE-EDGES INSERTED IN THE MICROMETER OCULAR OF A MICROSCOPE
Kazuhiko Akashi, Tokyo, Japan, assignor to Akashi Seisakusho, Ltd., Tokyo, Japan, a corporation of Japan
Application September 26, 1956, Serial No. 612,226
2 Claims. (Cl. 88—39)



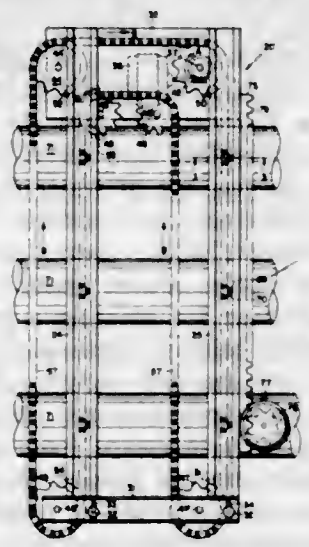
1. In an optical measuring instrument, the combination including: an ocular focused on an image plane which receives the image of the object to be measured; a pair of parallel, flat, transparent plates positioned adjacent and parallel to said image plane and means mounting said plates for movement in their own planes toward and away from each other, one of said planes being offset from the other a distance at least as great as the thickness of said other plate, said plates having opposed end faces inclined in the same direction with respect to the planes of said plates, said end faces each having an edge adjacent the other plate and an edge remote from the other plate, the adjacent edges of said end faces being closer together in the direction parallel with the planes of said plates than the remote edges thereof.

2,837,969
TELESCOPE AND MICROSCOPE EYEPIECE SYSTEM
Robert M. Muller, Cheektowaga, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application October 15, 1956, Serial No. 615,795
5 Claims. (Cl. 88—57)



1. In combination with the diaphragm of a microscope, an eyepiece system having a relatively wide flat field and adequately corrected for color and composed of three components, the intermediate component being a convergent doublet having the radius of curvature of the internal contact surfaces lying between .65 F and .71 F where F is the focal length of the system, and the ratio of the V values of the two glasses of the doublet lying between .415 and .445, the back component being a convergent single lens of crown glass and the front component being a convergent field lens of crown glass having a focal length lying between 2.5 F and 8 F, the front component being in front of said diaphragm and the other two components being in back of said diaphragm.

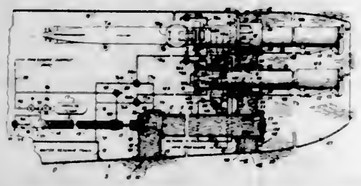
2,837,970
MISSILE LAUNCHER DEVICE
Herbert A. Helstrom, Jr., Dallas, Tex., assignor, by mesne assignments, to Chance Vought Aircraft, Incorporated, a corporation of Delaware
Application December 17, 1953, Serial No. 398,703
2 Claims. (Cl. 89—1.7)



1. Apparatus for successively launching elongated missiles of the rocket type which comprises oppositely disposed guide means, a supporting frame for said missiles retractably mounted on said guide means, three pairs of sprockets rotatably mounted on each side of said supporting frame, a pair of endless chains each carried on opposite sides of said supporting frame by each of said three pairs of sprockets for concurrent movement in spaced-apart parallel planes, said three pairs of sprockets being disposed so that the first of said pairs lies intermediate the second and third of said pairs but in proximity to said second pair, with said endless chain being arranged to engage in succession both sprockets of said second pair, one sprocket of said third pair, both sprockets of said first pair, and then the remaining sprocket of

said third pair, thus defining a chain configuration having two portions which extend essentially linearly and parallel to one another between said first and third pairs of sprockets and which move in the same direction upon actuation of said chain, and a plurality of retaining elements formed on each endless chain of said pair, with those retaining elements on the said chain portions which extend essentially linearly and parallel to one another and which move in the same direction being oppositely-disposed to thereby releasably support and position a missile between said chains so that the longitudinal axis of the missile is parallel to the planes defined by said endless chains, each missile being supported and positioned by two of the retaining elements formed on each endless chain of said pair.

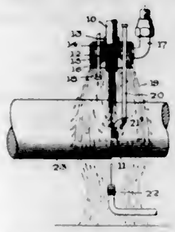
2,837,971
HYDRAULIC EJECTION EQUIPMENT FOR MISSILES
Robert Wosak, Quaker Hill, Conn., assignor to General Dynamics Corporation, New York, N. Y., a corporation of Delaware
Application September 3, 1952, Serial No. 307,637
9 Claims. (Cl. 89—5)



1. In a balanced system for ejecting missiles from an installation on a submarine or from other similar installations submerged under the surface of the sea, a missile ejecting tube whose muzzle end is submerged below the surface of the sea, a water cylinder, a passageway connecting said cylinder with the sea whereby the hydraulic pressure from the sea is substantially the same in said water cylinder as it is at said muzzle end, means defining a conduit connecting said water cylinder and said ejection tube for the passage of water from said cylinder into said tube, a piston and rod mounted for reciprocation in said water cylinder, which piston on its stroke from retracted position forces water ahead of it from said cylinder into said tube for ejecting a missile therefrom while drawing water behind it into said cylinder through said passageway, means for reciprocating said piston, means including water ports in said cylinder cooperating with said piston to provide escape from said cylinder into said tube for water moving behind the piston whereby the energy built up in the mass of water moving behind the piston is dissipated through said tube when said piston is brought to rest at the end of its stroke from retracted position.

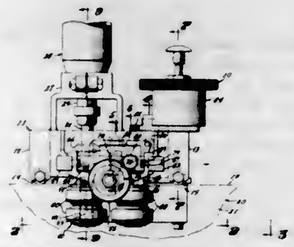
2,837,972
ACCESSORY FOR METAL CUTTING MACHINES
Joseph Russell Knowles, London, England, assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application February 17, 1955, Serial No. 488,952
1 Claim. (Cl. 90—11)

In a smoke suppressing system for machine tools having a downwardly flaring liquid distributor from which a curtain of liquid flows to surround the end of the cutting tool and the contiguous portion of a work piece, the combination therewith of a smoke eduction pipe extending through the distributor inwardly of its periphery and terminating within the space confined by the liquid curtain, and a second pipe extending through the distributor inwardly of its periphery for admitting air to the space



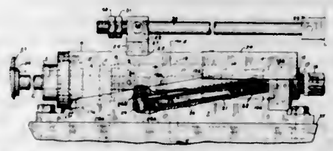
confined by the liquid curtain, said second pipe terminating nearby the cutting tool.

2,837,973
THICKNESS ROUTER
Laurel Elton Dunlap, Van Nuys, Calif., assignor, by mesne assignments, to Zenith Plastics Company, Gardena, Calif., a corporation of Delaware
Application September 28, 1953, Serial No. 382,722
2 Claims. (Cl. 90—12)



1. In a thickness router for cutting a side wall of an object adjacent an edge thereof to a predetermined thickness, the combination of: a carriage, said carriage being adapted for movement along said edge, roller means on said carriage having axes transverse to said side wall for rolling engagement with said edge and for determining the longitudinal position of said carriage; a motor on said carriage; a cutter rotatably mounted on said carriage for cutting said side wall, means engaging said cutter by said motor; a driver on said carriage engageable with said object for translating said carriage thereupon; means energizing said driver by said motor and adjustment means on said carriage engageable with said object for adjusting said cutter with reference to said side wall, said adjustment means engaging the side wall opposite that engageable by said cutter for laterally shifting the cutter in relation to said side wall, said driver and said adjusting means being on opposite sides of said wall for determining the transverse position of said carriage.

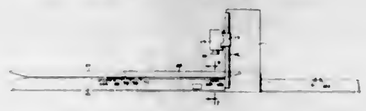
2,837,974
HOLDER FOR ROTARY RECESSING TOOL
Michael J. Schlitters, Detroit, Mich.
Application March 27, 1957, Serial No. 648,929
4 Claims. (Cl. 90—15)



1. A recessing tool-holder comprising a supporting and a supported member, means for guiding the supported

member in a rectilinear travel to and from the work, said members having contiguous cam faces acutely divergent to the direction of said travel, means interconnecting said members and guiding them in relative travel along said faces in the direction of said divergency, spring means reacting between the two members and urging the supported member toward the work, means limiting response of the supported member to the spring means, stop-engaging means carried by the supported member, effective upon encountering a stop during advance of the tool-holder toward the work to induce a relative travel of the members along said cam faces, a driven shaft journaled in said supported member and adapted to carry a cutter, a drive shaft journaled in said supporting member and axially spaced from said driven shaft, and coupling means interconnecting said shafts and adapted to maintain a continuous drive during said relative travel.

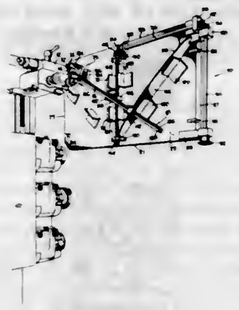
2,837,975
MACHINE TOOL
Arthur W. Johnson, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a corporation of Illinois
Application January 8, 1954, Serial No. 402,917
1 Claim. (Cl. 90—21)



A machine tool having, in combination, a bed providing a horizontal guideway, first and second tables slidable in said guideway, means for detachably connecting said tables rigidly together in end to end relation or releasing the same for independent movement along said guideway, a power rotated first feed element mounted on said bed intermediate the ends thereof, a two part coacting second feed element meshing therewith and mounted part on said first table and part on the second table for progressive meshing engagement with said first feed element as the drive by the latter is transferred from one table to the other, a first set of limit devices operable when said tables are joined as a unit to control the operation of said first feed element to confine the movement of the unit along said bed to a long range between two limit positions in which said first feed element respectively engages said second feed element near opposite ends of the unit, a second limit device associated with said second table and acting when operative to interrupt the movement of the second table away from said first table when said first feed element is engaging said second feed element near the inner end of the second table, and means operable automatically as an incident to abutment and separation of said tables to render said first and second limit devices operative respectively.

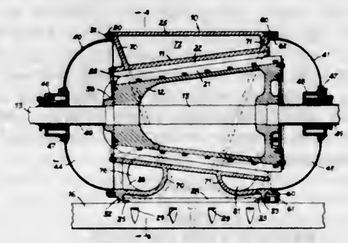
2,837,976
ATTACHMENT TO BE APPLIED TO A DUPLICATING MILL FOR DUPLICATING CONICAL SHAPES
Robert A. Bridwell, Lynwood, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application March 1, 1955, Serial No. 491,455
5 Claims. (Cl. 90—62)

1. An attachment to be applied to a duplicating mill for duplicating conical shapes comprising a plate that is affixed to the horizontally and vertically movable bed of the duplicating mill; a pressure sensitive stylus on said duplicating mill; a vertically and horizontally rotatable guide bar on said plate that is engaged by the stylus of said duplicating mill; a template on said plate that is



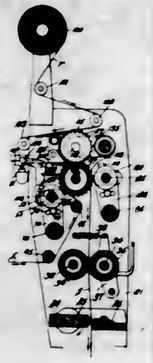
engaged by said guide bar; and structure on said plate engaged by said guide bar, for changing the position of said guide bar on said template.

2,837,977
PAPER MACHINERY
Joseph Baxter, Jr., Franklin, Ohio, assignor to The Black-Clawson Company, Hamilton, Ohio, a corporation of Ohio
Application May 22, 1956, Serial No. 586,402
13 Claims. (Cl. 92—27)



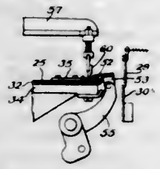
11. A rotary refiner of the character described for liquid slurry stock comprising a main body having coaxial annular end portions, a frustoconical shell within and integral with said main body and of substantially smaller diameter at both ends than the adjacent end portion of said main body, a cover secured to each of said end portions of said main body in overlying relation with the adjacent end of said shell and cooperating therewith to define end chambers for stock adjacent each end of said shell, means forming part of said main body and adjacent each end thereof defining a port connecting with the adjacent said end chamber, means for connecting inlet and outlet conduits for stock to said ports adjacent the smaller and larger ends of said shell respectively, a frustoconical plug substantially complementary to said shell, a shaft extending through said covers and supporting said plug for rotation within said shell, a base, means securing said body to said base, end stands including bearings for rotatably supporting said shaft on said base, releasable means for securing to said base the said end stand adjacent the larger end of said plug, and means carried by said releasably secured end stand for raising said end stand with respect to said base upon release of said releasable means and for effecting free movement of said end stand along said base to withdraw said plug from within said shell.

2,837,978
SHEET FEEDING AND CUTTING MECHANISM
Andrew W. Anderson, Nutley, N. J., assignor to Scandia Manufacturing Co., North Arlington, N. J., a corporation of New Jersey
Application April 18, 1955, Serial No. 501,819
2 Claims. (Cl. 93—1)



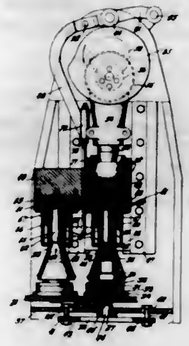
1. Strip feeding and cutting mechanism comprising a platen roll, means for feeding a strip to said roll, means for adjusting said feeding means to vary the rate of speed of the strip feed, means for feeding a tear tape to said roll and for securing said tape to one surface of the strip, a rotary member, a cutter radially mounted in said member and engageable with the strip to place a series of longitudinally spaced slits in the strip after the strip has engaged the roll but before the tape has contacted the strip, said cutter being radially adjustable in said member, and the axis of said rotary member being movable toward and away from the platen roll, a second rotary member, a cutter radially mounted thereon, said cutter being engageable with said tear tape, said cutter being radially adjustable on said rotary member, and the axis of said rotary member being adjustable toward and away from said platen roll.

2,837,979
PRODUCTION OF BAGS
Leonard J. Vilutis, Chicago, Ill., assignor to Quatrum Corporation, Chicago, Ill., a corporation of Illinois
Original application February 28, 1955, Serial No. 491,104. Divided and this application January 25, 1957, Serial No. 636,438
3 Claims. (Cl. 93—27)



1. In a process for making flat rectangular fold-over bottom bags from heat-sealable plastic film material characterized by the use of a plate-like mandrel having a contour corresponding generally to the contour of the finished bag and wherein a freely projecting marginal end portion of a tube of said film material is folded into overlapping relation with a tube wall portion on said mandrel and fused thereto in a tranverse line of seal substantially coextensive with the width of the tube on the upper face of the mandrel by means of a sealing bar of greater width than said tube urged into pressure engagement thereover, the improvement which comprises further fusing together the adjacent layers only of a remaining folded-over free end portion of said tube in a second transverse line of seal fully coextensive with the width of the latter by elevating said free end portion and pressing against a surface of said sealing bar normal the base thereof.

2,837,980
APPARATUS FOR TRUNCATING CONICAL CUPS
Clarence T. Brewer, Oak Park, Ill., assignor, by mesne assignments, to American Can Company, New York, N. Y., a corporation of New Jersey
Application July 7, 1954, Serial No. 441,821
11 Claims. (Cl. 93—36.1)



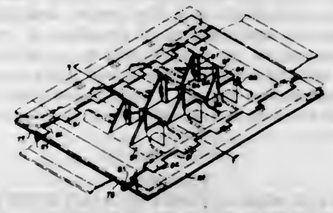
2. Mechanism for truncating the apexes of conical cups comprising a solid, one-piece truncated anvil die, means for clamping the apex end portion of the cup to the anvil before the punch descends with the apex projecting beyond the anvil end surface, thereby trapping air in the apex, a punch having a solid, one-piece end mounted to engage and compress the apex against the anvil, means for regulating the slow escape of air from the apex as the punch descends, said punch end having annular serrations engageable successively with the side wall to circumferentially control the side walls and to compress the apex against the anvil, and means for releasing air surrounding the apex as the punch compresses the apex.

2,837,981
METHOD OF TRUNCATING CONICAL CUPS
Clarence T. Brewer, Oak Park, Ill., assignor, by mesne assignments, to American Can Company, New York, N. Y., a corporation of New Jersey
Application July 7, 1954, Serial No. 441,822
4 Claims. (Cl. 93—36.1)



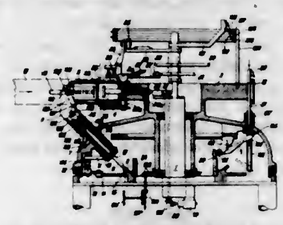
1. A method of truncating the apex of a conical cup which consists of clamping the apex portion of the cup on a solid one-piece, truncated anvil and of scoring and folding successive annular wall portions, starting at the apex, against the pressure of air in the apex, so regulating the rate of depression of the apex and the tightness of the clamping action on the cup wall as to permit the slow escape of the air trapped in the apex and venting the air outside the portion being compressed during the truncating operation.

2,837,982
METHOD AND DEVICE FOR ERECTING CARTONS
William P. Frankenstein, Cincinnati, Ohio
Original application April 27, 1949, Serial No. 89,891, now Patent No. 2,688,432, dated September 7, 1954. Divided and this application November 12, 1953, Serial No. 391,461
9 Claims. (Cl. 93—37)



5. An erecting device for erecting a carton which includes hollow side walls and a transverse partition integral with and upstanding from the carton bottom comprising a body member receiving the carton bottom, a punch upstanding from the body member for positioning the integral transverse partition flap to be angularly, upwardly of the carton bottom, and wings hingedly mounted on the body member underlying the carton hollow walls for swinging movement to an upstanding position to effect an operative engagement of said hollow walls with the transverse partition.

2,837,983
CONTAINER MANUFACTURING PROCESS AND APPARATUS
Ferdinand Kovac, deceased, late of Hannover, Germany, by Alexandra Kovac, legal representative, Linz (Danube), Austria
Application February 23, 1956, Serial No. 567,486
Claims priority, application Germany September 27, 1954
17 Claims. (Cl. 93—44.1)



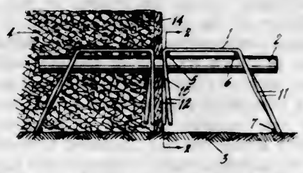
2. In an apparatus for continuously making containers from a strip of sheet material, in combination, support means; means forming a plurality of folding chambers carried by said support means for continuously moving the folding chambers successively along an endless path, a plurality of folding members equal in number to the number of folding chambers respectively located adjacent the latter and carried by said support means, respectively; a plurality of pairs of folding block means also carried by said support means respectively adjacent said chambers for first closing and joining upon itself each of a pair of side edges of a strip portion in each chamber and then folding the joined side edges against the remainder of the strip portion; and control means carried by said support means and operatively connected to said folding members and block means for moving said folding members in a given sequence into and out of said chambers and for moving each pair of said block means at a given time during the movement of said folding members first toward each other for closing and joining said side edges upon themselves and then together laterally across each chamber for folding the joined side edges against the remainder of the strip portion.

2,837,984
LIMESTONE TYPE TENNIS COURT
Donald D. Klotz, Iowa City, Iowa
Application January 9, 1956, Serial No. 557,943
1 Claim. (Cl. 94—7)



A tennis court structure, comprising five layers of granular particles of limestone one upon another, each of said layers being progressively less coarse from bottom to top and respectively comprising one fourth to three quarter inch concrete stones forming a layer depth of three quarters to one inch, two sixteenths to six sixteenths inch chip stones forming a layer depth of one half to five eighths inch, coarse agricultural lime particles incapable of passing through a No. 10 screen to form a layer depth three quarters to one inch, agricultural lime particles capable of passing through a No. 8 screen to form a layer depth of seven eighths to one inch, agricultural lime particles capable of passing through a No. 10 or 12 screen to form a layer depth of five eighths to three quarter inch, and a water distributing system in said lowermost layer.

2,837,985
REINFORCE ASSEMBLIES AND UNITS THEREOF
John I. Swanson, Albion, Mich., assignor to Union Steel Products Company, Albion, Mich., a corporation of Michigan
Application August 22, 1955, Serial No. 529,804
9 Claims. (Cl. 94—8)

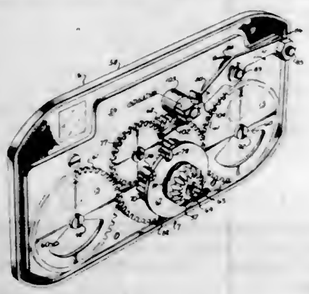


1. A reinforce assembly comprising a pair of units disposed in opposed relation, said units comprising laterally spaced inner and outer top bars, a bottom bar disposed in downwardly spaced outwardly offset relation relative to the outer top bar, pairs of chair members spaced longitudinally of said top bars, said chair members of the pairs being of inverted U-shape and fixedly secured to said top bars in spaced relation to each other with their arms in crossed relation, the inner crossed arms coacting with the top bars to provide dowel seats, the outer arms being secured to the bottom bar and constituting legs, the inner arms being springable relative to each other permitting expanding of the seats thereof to receive a dowel bar presented endwise thereto, and dowel bars disposed in aligned seats of the units with the inner arms of the chair members in springable clutching engagement against said dowel bars, the dowels constituting the tie members for the units and connecting bars for the legs of the units.

2,837,986
STEREOCAMERAS
Fred Perlin, Edgerton, Wis., assignor, by mesne assignments, to Graflex, Inc., Rochester, N. Y., a corporation of Delaware
Application November 1, 1952, Serial No. 318,153
3 Claims. (Cl. 95—61)

1. In a camera of the character described, a shutter assemblage separate and distinct from the camera body and adapted for assembly therewith as a unit, comprising: a base; a shutter rotatably mounted upon the base; a disc rotatably mounted upon the base for rotation about a

fixed axis parallel to that of the shutter; gear means drivingly connected with the disc and through which rotation may be imparted to the disc from a remotely located manually operable actuator; a stop abutment rotatably mounted upon the base for rotation about a fixed axis parallel to that of the disc, said stop abutment being spaced radially from its axis of rotation a distance such that as it moves along its orbit it collides with the edge of the disc and is thereby held against further movement in said direction; means positively connecting said stop abutment with the shutter so that rotation of the shutter from its cocked position is accompanied by movement of the stop abutment along its orbit into collision with the edge of the disc to thereby hold the shutter against further rotation in said direction; a shutter spring having one end connected with the shutter and its other



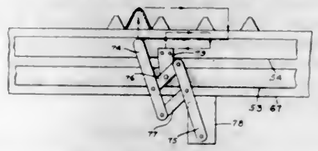
end connected with the disc, said spring being under tension and yieldingly urging the shutter in said direction to effect collision of the stop abutment with the edge of the disc; means constraining the disc to rotation in only that direction in which rotation of the disc with respect to the shutter increases the tension upon the spring; said disc having a gate in its edge adapted to receive the stop abutment in one relative position of rotation of said parts to thereby enable the stop abutment to move beyond the position it occupies when it engages the edge of the disc and accordingly allow the shutter to turn under the influence of the spring from its position defined by the engagement of the stop abutment with the edge of the disc toward the cocked position of the shutter; and trigger means for releasably holding the shutter in its cocked position in which it is maintained by the tension of its spring.

2,837,987
PHOTOGRAPHIC PRODUCT
Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
Application June 16, 1954, Serial No. 437,058
33 Claims. (Cl. 95—66)



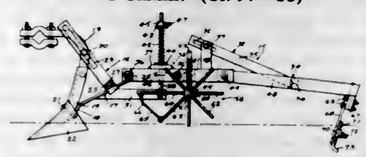
1. A photographic assemblage comprising a generally flat magazine defining a chamber, said magazine having a front face and a rear face one of which provides a path for actinic radiation and a pair of opposed extremities one of which provides a lighttight passage, and a pair of flexible strips within said chamber each of which has inner and outer overlapping sections joined by a loop at the other of said pair of opposed extremities, said front face, said overlapping sections and said rear face being substantially parallel, the outer section of one of said strips carrying a photosensitive element containing a member of the class consisting of silver, iron, diazonium and chromium compounds in a first region underlying said front face, the outer section of the other of said strips being located in a second region underlying said rear face and the inner sections of said strips extending in superposed relation through a third region interposed between said first region and said second region and through said passage.

2,837,988
APPARATUS FOR AUTOMATICALLY PROCESSING A SENSITIZED FILM IN SUCCESSIVE STEPS
Leo Pavelle, Mount Vernon, N. Y., assignor, by mesne assignments, to Technicolor New York Corporation, a corporation of Delaware
Application August 2, 1954, Serial No. 447,193
5 Claims. (Cl. 95—89)



5. A photographic developing machine comprising a plurality of tanks for treating solutions, each tank being of a length proportional to the desired treating time the film remains in said solution, a rack for holding sensitized photographic film, means for moving said rack stepwise the length of said tanks at a constant rate, said means including an advance bar for advancing said rack in said tanks, a first link pivotally mounted on said advance bar, a second link mounted on a pivot fixed relative to said tanks and a third link interconnecting said first and second links, said first link being of such length that it will contact the female tapered guide on the film holding rack and advance the same a multiple of the normal advance distance, and means for lifting the rack from one tank and placing it in the next succeeding tank.

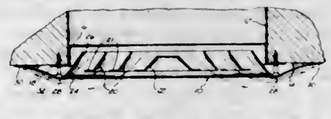
2,837,989
DAM FORMING DEVICE
Ruben L. Gann, Ballinger, Tex.
Application February 23, 1956, Serial No. 567,243
2 Claims. (Cl. 97—55)



2. A dam forming device comprising a mounting unit having a forward end, means detachably securing said forward end to the rear side of a foot piece of an agricultural implement, said mounting unit having a rear end upwardly offset relative to the forward end thereof, an elongated frame including a forward section and a rear section, means connecting the forward end of said forward frame section to the upper end of the mounting unit for vertical swinging movement of the frame relative to the mounting unit, a bearing supported by the forward frame section and disposed transversely thereof and behind and spaced from the mounting unit, an axle journalled in

said bearing, wheels fixed to the ends of said axle and spaced outwardly from the sides of the frame and providing ground engaging supporting wheels for the frame, said wheels having aligned outwardly offset eccentric portions for intermittently elevating the frame on its pivotal connection to the mounting unit, a hanger fixed to and depending from the rear end of the rear frame section, a dam forming blade secured to and depending from said hanger adapted to travel in a furrow over which the frame is moving, said dammer blade being intermittently raised by upward swinging movement of the frame for releasing earth accumulated in advance thereof for forming spaced dams in the furrow, means pivotally connecting the forward end of said rear frame section to the rear end of the forward frame section for vertical swinging movement of the rear frame section, and means connecting and retaining the frame sections in different angularly adjusted positions relative to one another to position the rear frame section as a straight or upwardly or downwardly inclined extension of the forward frame section for varying the operating depth of the dam forming blade.

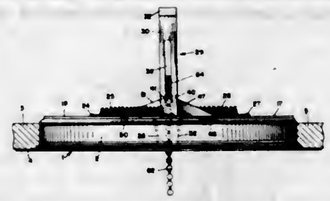
2,837,990
AIR DIFFUSER
Richard D. Tutt, New Britain, Conn., assignor, by mesne assignments, to Allied Thermal Corporation, New Britain, Conn., a corporation of Connecticut
Application May 11, 1950, Serial No. 161,371
2 Claims. (Cl. 98—40)



1. In an air diffuser of the type for use with an air duct outlet in a wall surface and having a plurality of spaced apart generally frusto-conical inner vanes for deflecting air laterally from the axis of said outlet, an anti-smudge ring extending about the periphery of the diffuser and forming throughout a continuous, smoothly curved, uninterrupted connecting surface between the diffuser and the wall surface, said ring comprising an annular sheet having an inner edge portion forming an outer vane of the diffuser and extending generally parallel to the inner vanes and a relatively wide peripheral skirt portion angularly related to the inner edge portion and engaging with the wall surface at its outer periphery, said inner edge portion and angularly related skirt portion forming a convex smoothly curved ridge projecting beyond the wall surface immediately adjacent the periphery of the air duct outlet and encircling the lower edges of the vanes, said skirt portion being of substantially greater width than the height of said ridge so as to extend toward the wall surface at a relatively small angle thereto.

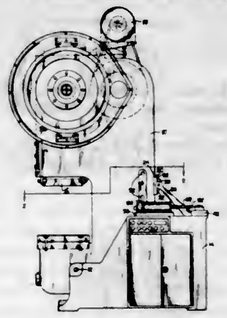
2,837,991
DAMPER CONSTRUCTION FOR AIR OUTLETS
William C. De Roo, Holland, Mich., assignor to Hart & Cooley Manufacturing Co., Holland, Mich., a corporation of Delaware
Application March 30, 1954, Serial No. 419,761
12 Claims. (Cl. 98—40)

1. A damper construction for ceiling diffusers and the like comprising, a frame member having an opening therethrough for the passage of air, a pair of opposed damper blades mounted for pivotal movement along the adjacent edges thereof toward each other and away from said frame to open position, and away from each other toward said frame to closed position, means for continually urging said blades toward each other, guide means, a movable damper actuating member slidably mounted in said guide means, a link connected to each damper blade and to said actuating member, whereby movement of the actuating member toward said frame will close said damper blades, and movement thereof away from said frame will open said blades, and a threaded opening through siad actuating member adapted to receive and



threadedly engage a screw for permanently adjusting the position of said blades, said threaded opening also being adapted to have a chain extend therethrough in place of the screw for adjusting said blades and maintaining them temporarily in adjusted position.

2,837,992
INCLINING ATTACHMENT FOR PRESS
Reuben E. Wissman, Minster, Ohio, assignor to The Minster Machine Company, Minster, Ohio, a corporation of Ohio
Application January 6, 1954, Serial No. 402,547
4 Claims. (Cl. 100—231)

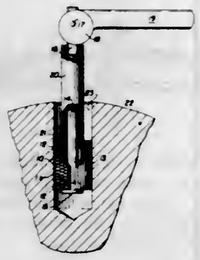


1. In an inclinable press, a press frame having side plates and being pivotally mounted between a pair of spaced upright stationary supporting legs, there being a vertical guide groove in the inner face adjacent the rear edge of one of said supporting legs, a movable block having a threaded bore therethrough within said groove and restrained against lateral movement by the walls of said groove, a gib along one edge of said vertical groove to retain said block within said groove, there being a recess in the rear edge of the side plate adjacent said one leg, a second block fixed within said recess, a link pivotally connecting said blocks, a screw within said guide groove and passing through said threaded bore of said movable block, means rotatably supporting the upper end of said screw, a reversible ratchet drive on the upper end of said screw and having a drive arm extending therefrom, a reciprocating motor connected to said drive arm, means for reversing the direction of travel of said motor to result in continuous reciprocation thereof when said motor is energized, and means for controlling the energization of said motor.

2,837,993
KNURLING TOOL FOR BOWLING BALLS
George B. Price, Fort Worth, Tex.
Application May 9, 1955, Serial No. 507,024
3 Claims. (Cl. 101—4)

1. A tool for knurling finger cavities in bowling balls, said tool comprising a draw pin having a base end and in-

cluding an outwardly and downwardly beveled surface therearound, a tubular mandrel slidably mounted on said draw pin, said mandrel having a downwardly and inwardly inclined beveled surface around the end thereof opposite the beveled surface of said draw pin, arcuate semicircular inserts positioned between the beveled surface of



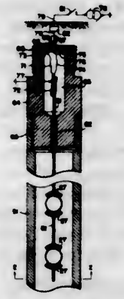
the mandrel and the beveled surface of the draw pin, at least one of said inserts having a knurled surface thereon, the respective upper and lower ends of said inserts having inclined surfaces corresponding with the beveled surfaces of said mandrel and said draw pin, and means moving the mandrel towards the base of said draw pin when said tool is inserted in a cavity of a bowling ball.

2,837,994
LOCK-UP
George Rogers Brodie, Narberth, Pa., assignor to Fred'k H. Levey Company, Inc., New York, N. Y., a corporation of Delaware
Application May 9, 1957, Serial No. 658,154
4 Claims. (Cl. 101—415.1)



1. A lock-up adapted to the clamping of the printing plate on the plate cylinder of a rotary printing press, comprising two parallel shafts rotatably mounted at their ends, extending longitudinally through the plate cylinder and positioned beneath, and one on each side of, a longitudinal slot in the peripheral surface of the cylinder, the ends of at least one of the pair of shafts being mounted in a journal block adapted to be moved transversely of the longitudinal axis of the cylinder, means for so moving said journal block and for holding the journal block in the adjusted position, means for rotating said shafts about their respective axes, two pairs of parallel clamping plates coextensive in length with the width of the printing plate, a longitudinal slot of substantially rectangular cross section in each shaft adapted to receive one edge of a pair of the parallel plates, the plate of each pair furtherest removed from the other pair extending outwardly through the longitudinal slot and terminating substantially flush with the periphery of the cylinder, the width of the slots in the respective shafts being slightly greater than the combined thicknesses of the pair of plates, so that the plates of each pair, while in position within the slot, may be moved apart sufficiently to receive between them one end of the printing plate, when no stress is exerted on the outer edge of the plates, and will be forced together when stress is exerted on the outer edge of the plates to clamp the end of the printing plate inserted between them.

2,837,995
UNSYMMETRICALLY ENCASED SHAPED EXPLOSIVE CHARGES
Jacques H. Castel, Houston, Tex., assignor, by mesne assignments, to PGAC Development Co., Houston, Tex., a corporation of Texas
Application December 26, 1952, Serial No. 328,026
3 Claims. (Cl. 102—20)



1. The combination with a reusable jet type perforating gun barrel having at least one radially extending port, of a shaped explosive charge suitable for producing penetration of target objects by means of the jet or Munroe effect obtained on detonation of the charge carried transversely within the gun barrel, said charge comprising a shaped body of explosive material provided with at least one cavity adapted to be directed toward the target to be penetrated through said port and contained within a casing for said explosive material, the side walls of said casing being unsymmetrical in thickness about the longitudinal axis of the charge, the wall portions of said casing of lesser thickness being relieved over substantially the extent of the explosive material and positioned toward the walls of said gun barrel.

2,837,996
EXPLOSIVE CHARGE
Robert L. Klotz, Conyngham, Pa., assignor to Seismograph Service Corporation, Tulsa, Okla., a corporation of Delaware
Application May 4, 1954, Serial No. 427,464
3 Claims. (Cl. 102—24)



1. An explosive cartridge adapted for alignment with other identical cartridges to form an elongated column of explosives, comprising a container for explosive material, one end of said container being provided with a concave shaped end wall and the other end of said container being provided with a convex shaped end wall, the convex shaped end wall of said container being shaped and dimensioned to coact with the concave shaped end wall of an adjacent identical container to bring the two containers into axial alignment as the cartridges are assembled into a column, and structural means comprising a liner extending inwardly of said first-named container from its convex shaped end wall and coacting with the concave shaped end wall of said adjacent container to

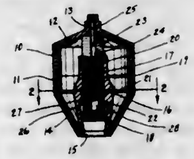
define first and second spaced apart and oppositely directed jet forming cavities in the explosive material contained within the two containers, said liner defining a hollow standoff chamber extending axially of said first named container and having opposed ends one of which opens to the concave shaped end wall of said adjacent container so that the latter end wall cooperates with the liner to define said first jet forming cavity, said liner also being shaped to define said second jet forming cavity at the other end of and directed into said standoff chamber and extending into the explosive material in said first-named container.

2,837,997
EXPLOSIVE CONTAINER HOLDER AND EXPLOSIVE ASSEMBLY EMPLOYING SAME
Robert E. Woods, Bellaire, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application August 3, 1954, Serial No. 447,594
4 Claims. (Cl. 102—24)



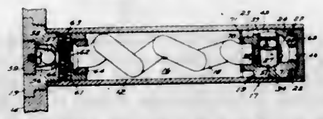
1. An explosive assembly comprising an elongated cylindrical container filled with high explosive, a first container holder including a first resilient split ring gripping the outside of the wall of said container at one end thereof, a second container holder including a second resilient split ring gripping the outside of the wall of said container at the other end thereof, each of said container holders further including a support means attached at one end thereof to the respective split ring and hook shaped frictional gripping means provided at the other end of each of said support means, each of said gripping means being disposed along the axis of said container and at a point remote from said container and a flexible length of explosive material frictionally engaged in each of said gripping means so that at least a portion of the length of said explosive material intermediate the points thereof in frictional engagement with said gripping means is in contact with the wall of said container.

2,837,998
IMPACT RELEASE MECHANISM FOR FIRING PIN
Max Earl Eggman, Fort Wayne, Ind., assignor to The Magnavox Company, Fort Wayne, Ind., a corporation
Application November 16, 1954, Serial No. 469,099
4 Claims. (Cl. 102—73)



1. An impact release mechanism for an action initiating member comprising a housing having a cylindrical portion and a camming end portion, a telescoping sleeve and barrel mounted in said housing axially thereof to bear against the end portions thereof, a spring loaded action initiating member slideably mounted in said barrel movable under spring pressure to strike an initiating element, a locking ball mounted in a lateral opening provided in the wall of said barrel and retained therein by said sleeve to lock said member with its load spring under compression, an arming pin extending through said housing into the free end of said barrel, and a latch pivotally and freely mounted on said barrel and restrained by said pin in the way of movement of said sleeve to prevent telescoping movement between said barrel and sleeve, said latch being movable by said sleeve out of locking position to permit telescoping upon removal of said arming pin, said sleeve having an adjacent cavity for receiving said ball and releasing it from locking engagement with said member upon said telescoping movement to thereby permit said member to be forced under its spring loading to action initiating position.

2,837,999
BASE DETONATING FUZE
Harvey B. Lindsay, Oakland, Calif.
Application July 26, 1954, Serial No. 445,852
5 Claims. (Cl. 102—75)



1. A base detonating fuze for shells comprising a longitudinally extending casing adapted for attachment to a shell along the rotational axis thereof, a base member secured to the rear end portion of said casing and having an axial passage therein, a firing element in the form of a ball normally positioned within said passage, resilient means for releasably holding said ball in said passage until impact, means secured to the front end portion of said casing having an axial bore therethrough and further provided with a generally cylindrical chamber whose axis is normal to and coplanar with said bore, a rotor journalled in said chamber for rotation about an axis transverse to the axis of said casing, means defining a diametrical bore in said rotor which in one position of said rotor is normal to said axial bore and in another position of rotor rotation is aligned with said axial bore, means on said rotor for receiving a detonator in said diametrical bore, and longitudinally extending conduit means communicating between said axial passage and said axial bore through which said ball may move upon release thereof from said resilient means.

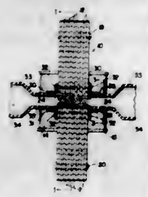
2,838,000
PROJECTILE AND METHOD OF MAKING THE SAME
Charles M. Schreiber, Alton, Ill., assignor to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia
Continuation of application Serial No. 73,785, January 31, 1949. This application July 5, 1955, Serial No. 519,915
14 Claims. (Cl. 102—92.5)



1. A projectile comprising a copper-base alloy jacket having an exteriorly smooth open-ended relatively thin

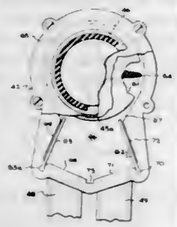
nose portion comprising alternate longitudinally extending thick and thin portions of the type resulting from the drawing of the jacket on a polygonal punch to a cross-section which is circular on the exterior, said thin portions being reentrantly folded to form longitudinally extending internal ridges of greater radial dimension than said thick portions thereadjacent.

2,838,001
ELECTROMAGNETIC CONDUCTIVE FLUID PUMP
William J. Robinson, Richfield, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application May 8, 1957, Serial No. 657,879
6 Claims. (Cl. 103—1)



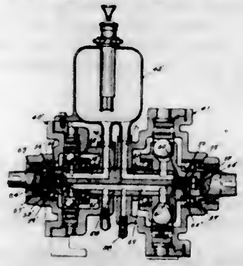
6. In an electromagnetic pump of the class described wherein a conductive fluid is caused to flow by an electric current and a magnetic field angularly disposed to each other and to the direction of flow of the fluid: conduit means having a portion thereof disposed in said magnetic field; said portion including a porous material; and electrode means adjacent said porous material to pass said electric current therethrough; said current and magnetic field causing the conductive fluid to move through the porous material and thereby propel said conductive fluid in said conduit means.

2,838,002
TWO-WAY PUMP
David Cohen, St. Joseph, Mich., assignor to General Electric Company, a corporation of New York
Application November 21, 1955, Serial No. 548,040
7 Claims. (Cl. 103—2)



1. A centrifugal pump comprising a housing defining a pump chamber section and a valve chamber section, an impeller for rotation within said pump chamber section and having a discharge path into said valve chamber section, an inlet through which fluid enters said pump chamber section, two outlet ports from said valve chamber section, and two independently, alternately movable flap valves mounted within said valve chamber adjacent said ports and arranged to be actuated by the movement of fluid from said impeller in reverse directions to close their respectively associated ports, said valves being biased to flex about their respective mountings to their port open positions when said impeller is inactive.

2,838,003
HYDRAULIC MOTOR AND/OR PUMP MECHANISM
Joseph F. Joy, Pittsburgh, Pa.
Original application January 21, 1947, Serial No. 723,436. Divided and this application September 20, 1952, Serial No. 310,589
4 Claims. (Cl. 103—4)

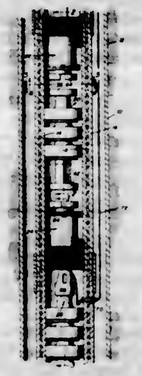


1. In a hydraulic mechanism, a casing having a chamber, a hydraulic device from which fluid leakage may occur including rotor means mounted for rotary motion within said chamber, said chamber being constructed to receive fluid leakage from said hydraulic device, a scavenger pump for pumping fluid from said chamber and having scavenger pump elements contained within said rotor means including cylinder means extending along and coaxial with the axis of said rotor means, said cylinder means being rotatable with said rotor means, a piston contained in said cylinder means, casing mounted means cooperating by a sliding interlock connection with said piston to prevent piston rotation and limit piston motion to reciprocating motion along the axis of said cylinder means and said rotor means, means for driving said piston in reciprocating motion by reaction between said casing mounted means and said rotor means during rotation of said rotor means, said scavenger pump including passage means providing fluid communication from said chamber to said scavenger pump for conducting fluid from said chamber to said scavenger pump, said passage means including an opening through said rotor means from the exterior thereof to said scavenger pump and a valve carried by said rotor means constructed to limit fluid flow through said opening for one way fluid flow to said scavenger pump, fluid discharge passage means from said scavenger pump for discharging fluid pumped by said scavenger pump to a suitable point of delivery, said fluid discharge passage means including an opening through a pumping element of said scavenger pump and a valve carried by the same pumping element constructed to limit fluid flow through said opening for one way fluid flow from said scavenger pump.

2,838,004
ELECTROMAGNETIC PUMP FOR WELLS
Ray E. Childs, Winfield, Kans.
Application February 2, 1956, Serial No. 563,069
9 Claims. (Cl. 103—38)

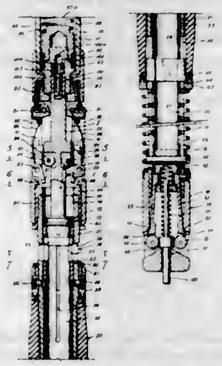
1. An electromagnetic pump for wells comprising a pump tubing adapted for disposition in a well bore for delivering fluid therefrom, a standing valve assembly stationarily mounted in a lower portion of said tubing, a pump body reciprocable in an upper portion of said tubing and having a fluid passage therethrough, a working valve assembly carried by said body and controlling flow through said passage upon reciprocation of said body in said tubing, said pump body having magnetizable armatures mounted upon its top and bottom, a pair of electromagnets disposed in and directly carried by said tubing above and below said body and in spaced endwise relation thereto and engageable by the same up-

on reciprocation of said body, supports in said tubing carrying said electromagnets, means for the flow of fluid



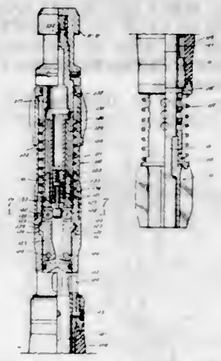
in said tubing past said supports, means for supplying electric energy to said electromagnets for operating the same.

2,838,005
WELL APPARATUS
Henry U. Garrett and Norman F. Brown, Longview, Tex., assignors, by mesne assignments, to U. S. Industries, Inc., a corporation of Delaware
Application September 16, 1955, Serial No. 534,727
26 Claims. (Cl. 103—52)



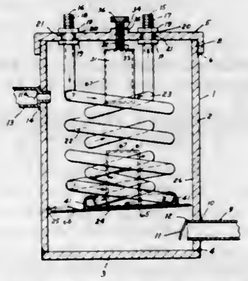
1. In a well system, a well conduit; a free piston reciprocal in said conduit, said free piston including motor means and also including flow control means carried by the free piston and actuated by the motor means to alternately limit and permit flow of fluid past the free piston upon arrival of the same respectively at a lower and an upper level in the well; and means preventing the motor means from actuating the flow control means until the free piston arrives at one of said levels including a part carried by the free piston and movable laterally thereof between retracted and extended positions, a connection between said part and one of said motor and flow control means preventing and permitting actuation of the flow control means when the part is respectively in its retracted and extended positions; said conduit having an enlarged portion into which said part can move to assume its extended position upon arrival of the free piston at said one level; said motor means urging the part to extended position as the free piston moves toward said one level and the part being held in retracted position by the well conduit as the free piston moves toward and until it reaches said one level whereby actuation of the flow control means is positively prevented until the free piston arrives at said one level irrespective of the magnitude of the force applied thereto by said motor means.

2,838,006
WELL APPARATUS
Henry U. Garrett and Norman F. Brown, Longview, Tex., assignors, by mesne assignments, to U. S. Industries, Inc., a corporation of Delaware
Application September 16, 1955, Serial No. 534,728
32 Claims. (Cl. 103—52)



1. A free piston adapted to reciprocate between upper and lower levels in a well conduit which comprises, in combination, piston body means including flow control means movable between two positions to limit and permit flow from one end of the free piston to the other, energy storage means urging the flow control means to one of its positions, said piston body means including means engageable with an instrumentality exteriorly of the free piston for moving the flow control means to its other position upon arrival of the free piston at one of said levels and by such movement causing energy to be stored in said storage means, a disengageable latch mechanism holding the flow control means in said other position when moved thereto, and means for disengaging said latch mechanism including trigger means movable to cause disengagement of the latch mechanism, said trigger means having means to contact with a trigger trip means carried by the well conduit at the other of said levels so that upon arrival of the free piston at said other level, the trigger means is caused to move by the trigger trip means to cause disengagement of the latch mechanism.

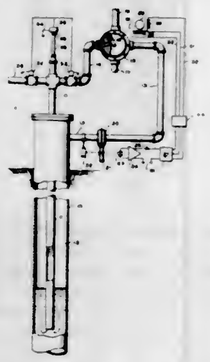
2,838,007
AGITATING DEVICE
William Derrick Johnston, Erie, Pa.
Application June 1, 1953, Serial No. 358,732
14 Claims. (Cl. 103—53)



1. A device for agitating liquid comprising a closed container adapted to contain liquid to be agitated, elec-

trical conducting means comprising a coiled conductor in said container, a part of said conducting means being immersed in said liquid having terminals extending through one wall of said container, an intermittent source of electrical energy connected to said terminals establishing an electrostatic field around said conducting means urging said conducting means to move relative to said container whereby said conductor is oscillated.

2,838,008
AUTOMATIC WELL ROCKING AND KICK-OFF APPARATUS AND PROCESS
Robert G. Nisle and Fred H. Poettmann, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application April 13, 1953, Serial No. 348,546
9 Claims. (Cl. 103—232)



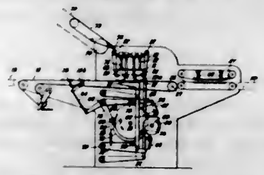
1. Apparatus for rocking a gas lift well to initiate flow, comprising in combination, a well having a tubing and a casing; a pair of conduits, one communicating with the tubing and the other with the casing of said well; a gas pressure supply line adapted to feed pressurizing gas alternately into said conduits thru the hereinafter defined control valve; a control valve intermediate said supply line and said pair of conduits and in communication therewith; control means in said valve for directing the flow of gas from said gas pressure supply line alternately to said conduits and simultaneously exhausting gas from the other of said conduits in each instance; an orifice in one of said conduits; a differential-pressure-sensitive device in communication with the conduit each side of said orifice including means for sending out electrical impulses in response to a predetermined pressure-differential across said orifice; electrically operated reversing means on said control means; and amplifying means in circuit with said electrically operated reversing means and actuatable by said differential-pressure-sensitive device.

2,838,009
TOY RAILROADS
Joseph L. Bonanno, Madison, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application October 4, 1950, Serial No. 188,410
3 Claims. (Cl. 105—77)



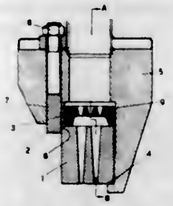
1. In combination, magnetizable wheel supporting rail means including two parallel magnetizable rails and magnetizable cross ties connected between said rails, a self-propelled wheeled toy vehicle for running on said rail means, means on said vehicle providing a magnetic path of low reluctance through at least one pair of opposite wheels of said vehicle and through portions of the rails with which said wheels are in contact and the cross ties adjacent thereto, said magnetic path including a permanent magnet positioned between said pair of wheels so that one wheel is a north pole and the other is a south pole, said vehicle being so constructed of non-magnetic material that the portions of the vehicle adjacent said magnetic path will not shunt the low reluctance path and the passage of the magnetic flux through the wheels and the rails results in increased traction.

2,838,010
SANDWICHING MACHINE
Kenneth Farrer, Peterborough, Northants, England, assignor to Baker Perkins Limited, Peterborough, England, a company of Great Britain
Application March 27, 1956, Serial No. 574,197
Claims priority, application Great Britain March 29, 1955
11 Claims. (Cl. 107—1)



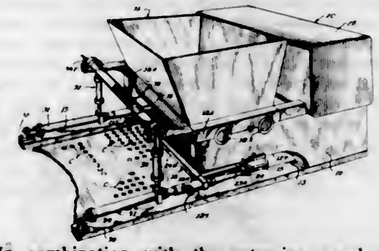
1. A machine for producing wafer sandwiches comprising a conveyor for feeding creamed wafer sheets, with their creamed surfaces uppermost, successively into position against a stop, means for periodically lifting arrested wafer sheets from the conveyor and afterwards allowing the lifted wafer sheets to descend into position on top of another arrested wafer sheet, thereby forming a sandwich of superposed creamed wafer sheets in front of the stop, mechanism for incorporating at the top of each sandwich a single dry wafer sheet, and means for periodically withdrawing the stop to permit the conveyor to feed completed wafer sandwiches forward.

2,838,011
DEVICE FOR LOCKING THE EXTRUDING DIE ON THE HEAD OF AN EXTRUDING PRESS FOR DOUGHY MATERIALS
Mario Braibanti and Giuseppe Braibanti, Milan, Italy
Application November 14, 1955, Serial No. 546,748
Claims priority, application Italy November 20, 1954
1 Claim. (Cl. 107—14)



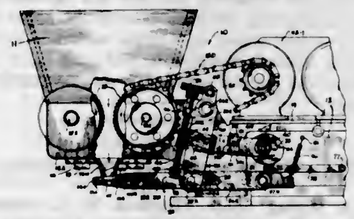
A locking device, for a die used in an extruding press, comprising a die holding member including a body portion defining a passage for the material to be extruded and a further portion coupled to and extending from said body portion at one side of the passage, an abutment on the free extremity of said further portion extending transverse to said passage, the die seating against said further portion and abutment, and a block controllably slidable in said body portion in parallel with said further portion and at the other side of said passage for locking said die in seated position.

2,838,012
COOKIE FORMING MACHINE
Robert M. Weidenmiller, Northbrook, and Jack E. Weidenmiller, Chicago, Ill., assignors to Edward Weidenmiller Co., Inc., Chicago, Ill.
Application June 24, 1955, Serial No. 517,783
7 Claims. (Cl. 107—29)



3. In combination with the extrusion nozzles of a wire-cut cookie forming machine, a wire supporting frame having side members pivoted at one end on an axis parallel to the plane of said nozzles, and having a cutting wire stretched between the other ends of said side members, each of said side members being longitudinally extensible, actuating means for extending and shortening said side members in unison to impart motion to said wire in a generally horizontal direction, and actuating means for pivoting said side members in unison to impart vertical movements to said wire.

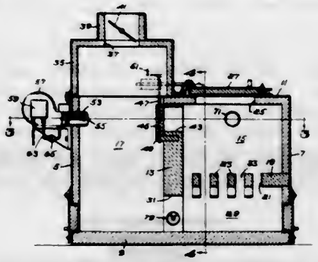
2,838,013
COOKIE FORMING MACHINE
Robert M. Weidenmiller, Northbrook, and Jack E. Weidenmiller, Chicago, Ill., assignors to Edward Weidenmiller Co., Inc., Chicago, Ill.
Application February 21, 1956, Serial No. 566,966
9 Claims. (Cl. 107—29)



1. In a wire-cut cookie machine, spaced side frames, a hopper carried thereon with extrusion nozzles and means for exerting extruding forces on the dough, a cutter frame having side arms with a bridging cutting wire at one end thereof and said arms extending at their other ends along said side frames, said side frames having outwardly projecting aligned rollers, and said arms having elongated longitudinal slots in their inner faces riding on the respective rollers to support said cutter frame for reciprocating and rocking movements, a transverse drive shaft extended between and mounted in said side frames parallel to said wire, means including driving cranks on opposite ends of said shaft for reciprocating said side arms in unison, and means on said shaft at opposite ends thereof for correspondingly rocking said arms.

2,838,014
INCINERATORS
Ralston M. Sherman, Glastonbury, Conn., assignor to The Silent Glow Oil Burner Corporation, Hartford, Conn., a corporation of Connecticut
Application July 25, 1956, Serial No. 600,111
9 Claims. (Cl. 110—8)

1. An incinerator having walls which form a charging chamber for reception and incineration therein of the material to be incinerated, form a vertically extending combustion chamber separated from said charging chamber by a vertical partition, and form a passage beneath said charging chamber opening into the lower portions of said charging chamber and combustion chamber for placing them in communication; the walls of said combustion chamber being formed at its upper portion with an opening for placing it in communication with a stack whereby to cause flow of combustion products from said charging chamber through said passage into said combustion chamber for ascent through the latter to and into said stack, said partition being formed with an opening placing said combustion chamber in communication with said charging chamber at a point below said opening which places said combustion chamber in communication

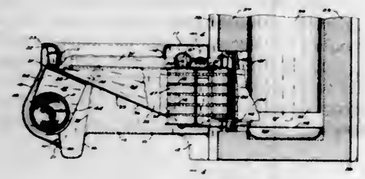


with the stack and above the opening of said passage into said combustion chamber, means comprising a power burner for discharging a burning mixture of fuel and excess combustion air across said combustion chamber from its wall opposite said partition to and through said opening in said partition into said charging chamber for burning smoke forming particles contained in the gaseous combustion products ascending said combustion chamber and breaking down and burning odoriferous constituents of such products and for treating the charge in said charging chamber and supplying the latter with combustion air and for forcing part of the combustion products ascending said combustion chamber through such opening into the charging chamber for recirculation through the charging chamber, passage, and combustion chamber before entering the stack.

2,838,015
PAPER FEED MECHANISM FOR DRY TOILETS
Vernon E. Gleasman, Cleveland Heights, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a corporation of Ohio
Application December 20, 1956, Serial No. 629,594
8 Claims. (Cl. 110—9)

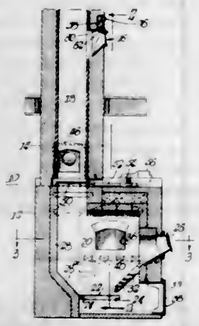
1. Apparatus for the disposal of fecal matter comprising a closet housing, a seat thereon having an opening therein, a roll of paper in said housing, a guide plate in said housing adjacent said roll of paper for the support of a strand thereof, upturned parallel side walls in said plate constituting a trough under and facing said opening for the reception of fecal matter and for folding the paper along the medial axis thereof, a pair of spaced vertical rollers contiguous the end of said trough engaged with said folded paper, selectively actuatable means for rotating said rollers and pulling the folded paper and fecal matter through said trough and flattening it between said rollers, a fixed arm supported on the axis of one of said rollers, a pivoted arm supported on the axis of the other of said rollers, a second pair of rotatable vertical rollers mounted respectively on said arms, chains on the first named rollers for driving the second named rollers, an incinerator having a passageway therein and coaxially aligned with said trough for guiding said folded paper

and fecal matter into said incinerator, means for swinging said pivoted arm towards said fixed arm, whereby the second named rollers close said passageway into said



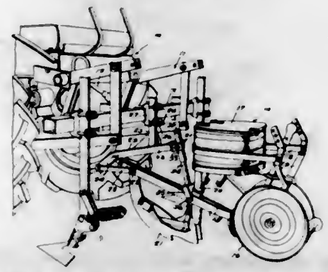
incinerator when the folded paper and the fecal matter envelope therein has passed between said second named rollers.

2,838,016
INCINERATOR CONSTRUCTION
Peter S. Sharpe, Joliet, Ill., assignor to Goder Incinerator Corporation, Chicago, Ill., a corporation of Illinois
Application June 30, 1955, Serial No. 519,121
4 Claims. (Cl. 110—18)



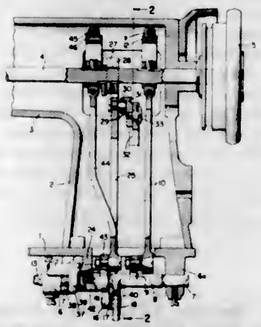
1. An incinerator construction comprising a burning chamber, a combustion chamber in juxtaposition with said burning chamber and in communication therewith, chimney means surmounted over said burning chamber and in communication therewith, a breeching connection in communication with said combustion chamber and said chimney means, refuse charging means positioned in said chimney means enabling material to be incinerated to be dropped through said chimney means and accumulated in said burning chamber, locking means affixed to said chimney means for maintaining said refuse charging means in openable or locked conditions, reciprocally movable damper means positioned in said chimney means for sealing said burning chamber from said chimney means in the normal course of incineration, control means for said locking means comprising temperature sensitive means disposed in said burning chamber, said damper means being rendered effective by said temperature sensitive control means by assuming the sealing position between the said burning chamber and said chimney means when said burning chamber reaches normal operating temperature.

2,838,017
PLANTER ATTACHMENT
David W. Waldron, Jr., Valdosta, Ga., assignor to Lowndes Engineering Co., Inc., Valdosta, Ga.
Application April 28, 1955, Serial No. 504,466
1 Claim. (Cl. 111—63)



An attachment for mounting a planter on a tractor or cultivator, comprising an elongated draw bar having an obtusely inclined forward end, a shank fixed to and rising from said draw bar, means adjustably securing said shank to the tractor or cultivator, a pair of links pivotally secured to the forward end of said draw bar and extending rearwardly and downwardly therefrom, said links having a length less than the length of said draw bar, means pivotally securing the rear ends of said links to the forward end of a planter draw bar, a fork at the rear end of said first named draw bar, a tubular guide between the arms of said fork, means rockably securing said guide to said fork, a shank slidable in said guide, a U-shaped yoke fixed to the lower end of said latter named shank, means pivotally securing said yoke to the planter draw bar between the ends of said U-shaped yoke, a planter shoe carried by said planter draw bar, wheels rotatably mounting the rear end of said planter draw bar, and a stop member fixed to the upper end of said latter named shank engageable with said guide for limiting the downward movement of said latter named shank when the planter is raised from engagement with the ground.

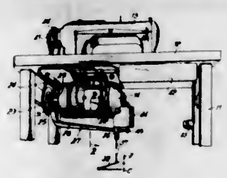
2,838,018
FEEDING MECHANISMS FOR SEWING MACHINES
Edward J. Herbst, South Plainfield, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application July 9, 1956, Serial No. 596,687
3 Claims. (Cl. 112—210)



1. In a sewing machine having a frame including a bracket arm and a bed, a main shaft journalled longitudinally of said bracket arm, a bed shaft journalled in said bed, means including a first rotary actuator on said main shaft for imparting oscillation to said bed shaft upon

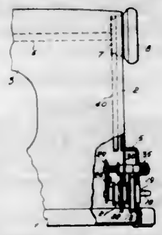
rotation of said main shaft, stitch-forming mechanism including a shuttle shaft journalled in said bed, operative connections between said bed shaft and said shuttle shaft for imparting oscillation to said shuttle shaft upon oscillation of said bed shaft, feeding mechanism for advancing work past the point of stitch formation and including a feed-advance shaft and a feed-lift shaft journalled in said bed, adjustable means including a second rotary actuator on said main shaft for imparting oscillation to said feed-advance shaft upon rotation of said main shaft, a feed-lift cam journalled on said bed shaft, means including a third rotary actuator on said main shaft for imparting oscillation to said cam upon rotation of said main shaft, and operative connections between said cam and said feed-lift shaft for imparting oscillation to said feed-lift shaft upon oscillation of said cam.

2,838,019
STOP MECHANISM FOR SEWING MACHINES
Karl Winz, Kaiserslautern, Germany, assignor to G. M. Pfaff A. G., Kaiserslautern, Germany, a corporation of Germany
Application September 14, 1955, Serial No. 534,366
Claims priority, application Germany September 27, 1954
7 Claims. (Cl. 112—219)



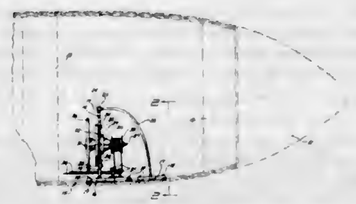
1. In a stop mechanism, for use in connection with a sewing machine having a needle and a clutch type driving motor including an actuating lever, in combination, electromagnetic means connected to the motor and including an electric circuit having a retarding relay arrangement and being operable automatically after the uncoupling of the sewing machine from the motor, to actuate said lever after a predetermined time interval for reestablishing the driving connection between the motor and the sewing machine until the sewing machine has reached a predetermined needle position, and thereafter uncoupling it again.

2,838,020
SEWING MACHINE DRIVING DEVICES
Allan Herman Eriksson, Huskvarna, Sweden, assignor to Husqvarna Vapenfabriks Aktiebolag, Huskvarna, Sweden, a corporation of Sweden
Application June 8, 1954, Serial No. 435,274
6 Claims. (Cl. 112—220)



1. In a sewing machine having a casing and a main drive shaft rotatably mounted therein; driving means for said main drive shaft disposed within said casing and comprising in combination a power driven shaft, a rotary driving member driven by said power driven shaft and provided with a coaxial pin extending outwardly of the casing for rotating a thread spool upon being slid thereon, a rotary driven member coaxially of said driving member and being operatively connected to said main drive shaft, said pin being provided with an axial groove opening through the periphery thereof, and said rotary driven member being provided with a recess, an elongated coupling member pivotally connected to said driving member, spring means supported by said driving member normally urging an end portion of said coupling member into said recess for simultaneous rotation of the driving and driven members, and said coupling member extending outwardly of said groove when said end portion of the coupling member is disposed within said recess whereby upon application of said spool to said pin, said driven member is rendered inoperative, said driving and driven member each being provided with a gear wheel, a reduction cluster gear supported in said casing on an axis parallel to the axis of said pin and comprising a pair of coaxial rigidly connected gear wheels for selective driving engagement with said first mentioned gear wheels, means supporting said cluster gear wheels normally out of driving engagement with said first mentioned gear wheels, and means accessible externally of said casing for effecting driving engagement of the said first mentioned and said cluster gear wheels for the purpose set forth.

2,838,021
BOAT STEERING MECHANISM MOUNTING MEANS
Roy R. West, Detroit, Mich.
Application October 25, 1955, Serial No. 542,714
5 Claims. (Cl. 114—160)

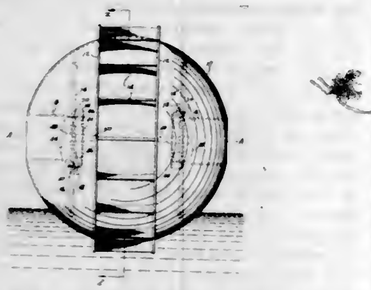


1. A steering device adapted to be mounted on a boat comprising a single support bar, means adapted to be secured to a boat gunwale to support said bar at one end thereof, stanchion means supporting said bar at the other end thereof, said bar extending athwartship a distance less than the beam of the boat, a steering shaft having a steering wheel mounted on one end thereof and a cable receiving means on the other end thereof, hub means journalling said shaft, and means mounting said hub means for swivelling adjustment about said bar, the range of such swivelling adjustment being in excess of 180°, said last mentioned means including means frictionally engageable with said bar to maintain said mounting device in adjusted position.

2,838,022
SPHERICAL WATER CRAFT
Wayne E. Wilson, York, Pa.
Application March 30, 1956, Serial No. 575,223
7 Claims. (Cl. 115—20)

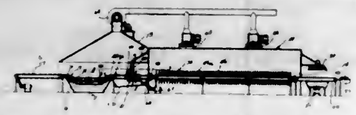
1. A water craft comprising a spherical, hollow hull; diametrically opposed tubes extending radially of the hull and aligned coaxially, on an axis extending diametrically of the hull, said tubes providing entrance passages for a user; and a paddle wheel girdling the hull for propelling the same in a selected direction, said axis

being normal to a plane bisecting the paddle wheel and paralleling the opposite sides of the paddle wheel, thus



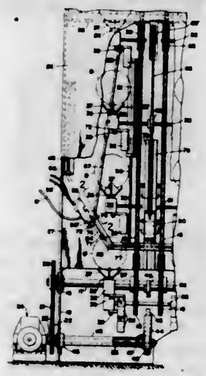
to effect rotation of the hull about said axis by walking of the user upon the inner surface thereof.

2,838,023
CONVEYER APPARATUS WITH COATING, SHAKING, HEATING, AND COOLING OF METAL PANELS
Phillip C. Jaime, Granite City, Ill.
Application October 28, 1955, Serial No. 543,356
3 Claims. (Cl. 118—57)



3. In an apparatus for applying a protective coating to a metal panel, an open top receptacle adapted to contain a protective liquid coating, an endless conveyer positioned over the open top of said receptacle, said conveyer having an intermediate portion which is horizontally disposed below and spaced from the open top of said receptacle with each end portion sloping upwardly toward the open top of said receptacle and being adapted to carry a horizontally disposed metal panel down one sloping end portion, over said intermediate portion, up the other sloping end portion, and to discharge the panel from the top end of said other sloping end portion of said conveyer, a trough arranged in tandem relation with respect to said receptacle, a horizontally disposed second conveyer arranged in alignment with the top end of said other sloping end portion of the first-named conveyer and extending over said trough, said second conveyer being adapted to convey from one end thereof towards the other end a horizontally disposed panel discharged by said first-named conveyer and to discharge said panel from said other end, a spoked member positioned on each side of said second conveyer within said trough intermediately of the ends of the latter and mounted on said trough for rotational movement about a horizontal axis, said spoked members being adapted to intercept a panel conveyed on said second conveyer and to receive between successive spokes thereof the adjacent end portions of said panel and to shift said panel upwardly to a vertical position and then downwardly to an inverted horizontal disposed position, a plurality of upright resilient spaced fingers dependingly secured by their upper ends above and intermediate said spoked member and having their lower ends adapted to frictionally engage in turn the adjacent edge of said panel when said panel is in the vertical position, a heating tunnel having a discharge opening at one end thereof arranged with its other end adjacent said other end of said second conveyer, a third conveyer having upwardly projecting prongs on its upper flight positioned within said tunnel so that one end of said third conveyer is in alignment with the adjacent end of said second conveyer, said third conveyer being adapted to receive said horizontally disposed panel from said other end of said second conveyer, turn said panel to the vertical position, carry said panel to said discharge opening in said housing, and to discharge said panel in a horizontal position, a fourth conveyer arranged in end to end relation with respect to said third conveyer with one end adjacent said discharge opening, means arranged in superimposed relation with respect to said fourth conveyer for directing a blast of cooling air over said fourth conveyer, and a fifth conveyer arranged longitudinally of said first-named conveyer with one end adjacent to the end of said first conveyer remote from said trough and adapted to discharge to said first-named conveyer metal panels placed thereon.

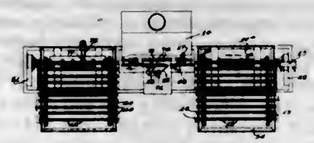
2,838,024
APPARATUS FOR SPRAY COATING BALLS
Paul Rekettye, Akron, Ohio, assignor to The Sun Rubber Company, Barberton, Ohio, a corporation of Ohio
Application July 5, 1955, Serial No. 519,760
8 Claims. (Cl. 118—321)



1. Apparatus for spray coating balls comprising an upright frame, an endless conveyor vertically movable on said frame, longitudinally spaced horizontal shafts journaled transversely of the conveyor, means to axially rotate said shafts, a set of upwardly directed fingers on the end of each shaft for rotatably supporting a ball in upright position for rotation on its vertical axis and having a uniform circumferential spacing at their upper ends less than the largest diameter of a ball, counterweighted gear means on each shaft for transmitting rotation of said shaft to said fingers, means movable with the conveyor for rotatably mounting a spray device for rotation concentric of each succeeding ball on an axis perpendicular to its axis of rotation, and means operated by the conveyor for successively dumping coated balls from each set of fingers.

2,838,025
ARTICLE CONVEYING APPARATUS FOR USE WITH SPRAY PAINT GUNS
Frank E. Miller, Jr., Toledo, Ohio, and David H. Skinner, Detroit, Mich., assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application July 27, 1956, Serial No. 600,469
9 Claims. (Cl. 118—322)

1. Apparatus for use in spray coating articles, comprising workholders each in the form of a rod, a plurality of article holding devices mounted on each rod and spaced at intervals lengthwise thereof, a feed conveyor comprising means for supporting the rods in parallel relation and spaced at intervals lengthwise of the direction of travel of the feed conveyor, means for driving the conveyor and thereby bringing the rods in succession



into line with a spraying zone, and means for moving each rod lengthwise off the feed conveyor and into the spraying zone.

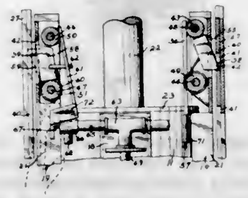
2,838,026
WRITING INSTRUMENT
Ernest H. Seibert and Joseph J. Cada, Chicago, Ill., assignors to Cory Corporation, Chicago, Ill., a corporation of Delaware
Application May 21, 1953, Serial No. 356,506
6 Claims. (Cl. 120—42.03)



1. A writing instrument comprising a hollow barrel provided with a reduced opening at its forward end, a cap having one end encompassing the other end of and longitudinally movable on the barrel, a cartridge slidably mounted in the barrel and provided with a writing point at its forward end adapted to be projected or retracted through said reduced opening, a slotted plug carried by said cap and at its forward end provided with a threaded reduction to which the upper end of said barrel is detachably mounted for removal of said barrel and replacement of the cartridge, resilient means in the barrel for urging and spring-biasing the cartridge toward retracted position with the writing point retracted through said opening, actuating means in said plug for projecting the cartridge and its writing point through said opening to writing position and including a slotted plunger longitudinally slidable and guided in the plug and at its forward end engaging the cartridge and its rear end engaging the interior of the cap, said cap when depressed moving said plunger in the plug to propel the cartridge and its writing point to writing position, a spring latch having a projection adapted to be received in the slot in the plunger for retaining said plunger in its propelled position, and a release bar having a protuberance projecting through an opening in the cap adapted to be depressed and a part extending into the slot of the plunger and engaging the projection on the spring latch for depressing and releasing said projection on the spring latch and thereby releasing the plunger whereupon said resilient means retracts said cartridge and its writing point.

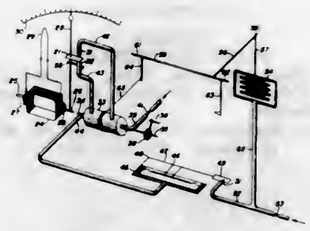
2,838,027
FLUID PRESSURE OPERATED JACK
Charles E. Branick, Fargo, N. Dak.
Original application December 28, 1954, Serial No. 478,142, now Patent No. 2,805,839, dated September 10, 1957. Divided and this application March 6, 1957, Serial No. 644,387
1 Claim. (Cl. 121—40)

In a fluid pressure operated lifting mechanism, a cylinder, a piston disposed within said cylinder for movement therein, a plunger secured to said piston for movement therewith and projecting outwardly through a head on said cylinder, movement of said piston in one direction extending said plunger with respect to said cylinder and movement of said piston in the opposite direction contracting said plunger with respect to said cylinder, a pair of normally closed valves, one being an inlet valve and the other being an outlet valve, fluid pressure inlet and outlet conduit means extending between said valves and said cylinder, one-way acting detent means releasably urged into latched relationship for preventing extending movements of said plunger, one-way acting detent means releasably urged into latched relationship for preventing contracting movements of said plunger, said inlet valve being adapted to removably receive the head of a conduit leading from a source of fluid pressure, engagement of said head with said inlet valve opening said inlet valve to admit piston-actuating fluid pressure into said cylinder



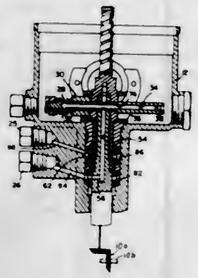
and the removal of said head permitting said inlet valve to close, means for opening said outlet valve, and a pair of actuating arms each connected to a different one of said detent means and movable to release its latched relationship, said arms being disposed adjacent said valves and adapted to be actuated so that the arm connected to the detent preventing contracting movements of the plunger and said last mentioned means are actuated together to permit contracting movements of said plunger and the engagement of said head with said inlet valve and the actuation of the other arm are accomplished together to permit extending movements of said plunger.

2,838,028
PNEUMATIC FOLLOW-UP SYSTEM
Paul F. K. Erbguth, Great Neck, N. Y., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application March 8, 1955, Serial No. 492,930
6 Claims. (Cl. 121—41)



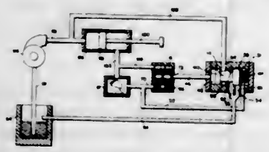
1. A pneumatic follow-up system comprising a vane movable by a rotatable member in response to changes in a variable condition, a pair of axially-aligned nozzles disposed on opposite sides of the vane and carried by a coupling member rotatable coaxially with the said rotatable member, means normally maintaining an air stream between the nozzles, air-operated means responsive to changes in the air pressure within one of the nozzles as brought about by movement of the vane in the air stream, and mechanism responsive to the said air-operated means to rotate the coupling member in a direction to maintain the vane in a predetermined throttling position in the air stream.

2,838,029
DISTRIBUTOR GOVERNOR SHAFT ASSEMBLY
Eugene C. Bettoni, Birmingham, Mich., assignor to Holley Carburetor Company, Van Dyke, Mich., a corporation of Michigan
Application June 13, 1956, Serial No. 591,168
6 Claims. (Cl. 121—43)



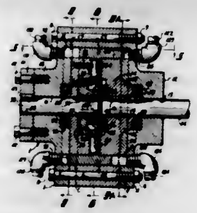
1. In an engine distributor governor valve assembly, a shaft adapted to be connected to a rotating part of an engine, distributor adjusting mechanism including a fluid motor connected to said shaft, a bleed valve for controlling governor operation connected to said shaft, said shaft being constructed to connect said fluid motor and bleed valve to separate variable pressure sources, said shaft comprising a first shaft section having a passage extending axially from one end thereof and a lateral passage extending to the side of said first shaft section at a point spaced from the end thereof, a second shaft section having a recess extending into one end in which the end portion of said first shaft section extends, a passage extending axially beyond the end of said recess and in communication therewith, said recess being spaced from the end portion of said first shaft section to define a fluid passage therebetween, a passage extending laterally between said fluid passage and the side of said second shaft section, a transverse passage intersecting said axially extending passage, a transverse tube receiving opening intersecting both said first and second shaft sections and intersecting the passage in said first shaft section, a tube in said opening closing said last named passage, and a port in said tube communicating with the said passage at the side thereof connected to said lateral passage.

2,838,030
FLOW CONTROLLER
Leland K. Spink, Foxboro, Mass., assignor to Rivett Lathe & Grinder, Inc., Brighton, Mass., a corporation of Massachusetts
Application September 28, 1954, Serial No. 458,921
15 Claims. (Cl. 121—45)



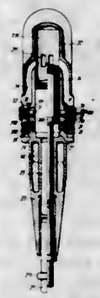
1. For use in a fluid pressure system, having a source from which fluid is supplied under pressure and in volume in excess of that required, a fluid actuated device actuated by said fluid pressure, and a by-pass connection for said fluid under pressure by-passing said fluid actuated device, a fluid flow control unit which comprises, a casing, a valve body shiftable within the casing, a fluid pressure inlet including an inlet chamber disposed in the casing for directing fluid against the valve body to force said body in one direction, a fluid pressure exhaust including a fluid pressure exhaust port and an exhaust chamber disposed in the casing for directing fluid against the valve body in the opposite direction, yieldable means acting on said valve body to move said valve body to a limit position, a fluid pressure by-pass inlet port from said bypass connection and a bypass exhaust port in the casing, a measuring orifice having inlet and outlet sides thereof connected respectively with said inlet and outlet chambers, said valve body having portions operable upon movement of the valve body from said limit position to open a passageway between, said by-pass inlet port and said by-pass exhaust port and operative upon further movement of the valve body from said limit position to throttle said fluid pressure exhaust port.

2,838,031
HYDRAULICALLY OPERATED MOTOR AND MEANS FOR CONTROLLING THE SAME
William M. Osborn, Denver, Colo.
Application April 16, 1954, Serial No. 423,726
12 Claims. (Cl. 121—93)



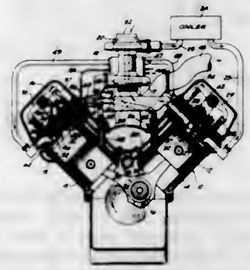
12. A fluid-actuated device, comprising: a housing having a centrally positioned rotor chamber; a compact rotor positioned in said chamber and having extending hub portions on each side thereof journaled within said housing and thereby supporting said rotor for free rotation in said chamber, said rotor unit substantially filling said chamber with all exterior surfaces of said rotor and interior surfaces of said housing forming the rotor chamber being in confronting relationship with only close operating clearance therebetween, said rotor having a plurality of recesses extending inwardly from the periphery thereof and said housing having arcuate portions removed from the interior thereof on each side of the peripheral portion of said rotor adjacent the recessed portions of the rotor to thereby provide working chambers for operating fluid; a radially extending shaft rotatably journaled in a portion of each of said recesses; a gate in each recess mounted on the outer end of the shaft associated with the recess and adapted to be pivotally moved by the rotation of said shaft into the chambers for operating fluid; said rotor having a cavity formed therein and an axial bore communicating with said cavity; a stationary shaft fixed to said housing and extending through said axial bore into said cavity; a stationary cam in said cavity concentric with said rotor and carried by said stationary shaft; a cam follower on the inner end of each of the shafts journaled in the rotor recesses, said cam and cam followers being in operating engagement and co-operating to control the movement of said gates into and out of the working chambers during the rotation of said rotor; means for introducing operating fluid to and for discharging operating fluid from said working chambers; and a shaft extending through said housing and fixed to said rotor in axial alignment with and on the opposite side of said rotor from said stationary shaft.

2,838,032
EXPLOSIVELY ACTUATED IMPACT TOOL WITH FREE-PISTON
Gotthilf Schulin, Fellbach, Wurttemberg, and Konrad Haage, Esslingen, Wurttemberg, Germany, assignors to Delmag-Maschinenfabrik Reinhold Dornfeld, Esslingen (Neckar), Germany
Application August 1, 1955, Serial No. 525,451
Claims priority, application Germany August 11, 1954
16 Claims. (Cl. 123—7)



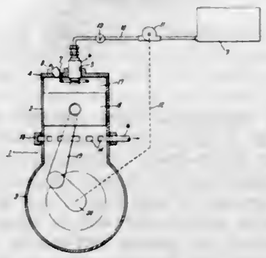
1. An explosively operable impact tool, which comprises in combination: a casing including a cylinder, piston means freely reciprocably mounted in said cylinder, said cylinder being provided with inlet and outlet means for admitting driving gas into and exhausting combustion gas from said cylinder, means associated with said casing for slidably receiving the stem of a work tool to be actuated by said impact tool, said piston means being arranged to convey actuating power upon said work tool, retracting means arranged normally to return said piston means to its starting position following each working stroke of said piston means, and frictional retaining means operable automatically in response to the lack of pressure from the outside of said impact tool in axial direction of and upon said stem to frictionally engage said piston means to thereby prevent said piston means from performing its return stroke.

2,838,033
COMBINATION HOT AIR AND INTERNAL COMBUSTION ENGINE INCORPORATING IMPROVED HOT AIR VALVE MEANS TO THE POWER CYLINDERS
Leon C. Webb, Van Nuys, Calif., assignor of thirty-five percent to Clara M. Long, Van Nuys, Calif.
Application October 15, 1957, Serial No. 690,282
9 Claims. (Cl. 123—26)



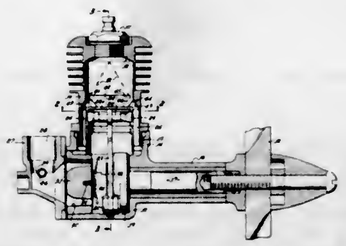
1. In an engine, a compressor cylinder and a power cylinder, compressor and power pistons reciprocably mounted, respectively, in said cylinders and connected to a common output means, conduit means connecting said compressor cylinder to said power cylinder to effect introduction of compressed air into said power cylinder with consequent creation of a downward force on said power piston, and valve means to control the introduction of compressed air from said conduit means into said power cylinder; said valve means including a poppet valve and piston means to operate the same, and passage means to subject said piston means to the pressure in said conduit means.

2,838,034
MONOFUEL INTERNAL DECOMPOSITION ENGINE
Albert G. Clark, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York
Application March 7, 1955, Serial No. 492,692
10 Claims. (Cl. 123—65)



1. The combination in a reciprocating engine adapted for use of monofuel without injection of separate reactant comprising in combination a cylinder closed at one end, a piston arranged to reciprocate in said cylinder, means to inject monofuel into said cylinder when its piston is substantially at one end of its stroke in time to be ignited solely by the heat from the compressed residual exhaust gases in said cylinder and exhaust ports near the opposite end of said cylinder arranged to be opened when said piston is at said opposite end.

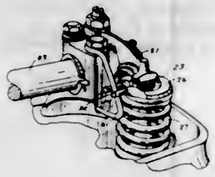
2,838,035
INTERNAL COMBUSTION ENGINE
Henry T. M. Rice, San Gabriel, Calif., assignor to Chemineol Corporation, Los Angeles, Calif., a corporation of Delaware
Application February 1, 1956, Serial No. 562,705
7 Claims. (Cl. 123—65)



1. In an internal combustion engine: a cylinder having a head portion; a piston reciprocable in said cylinder; said cylinder having an exhaust port and a fuel inlet port arcuately displaced from said exhaust port; said piston being movable along both of said ports to open and close said ports; said inlet port having its sides converging toward each other in a direction toward said head portion and its discharge end portion inclined to the axis of the cylinder and lying in a path intersecting said cylinder head portion, whereby fuel discharged from said inlet port will strike said cylinder head portion, said

inlet port providing an inclined nozzle of progressively increasing width as said inlet port is uncovered by said piston.

2,838,036
VALVE ROTATING MEANS
Louis L. Repko, Detroit, and Curtis G. Ashlin, Wayne, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application October 22, 1956, Serial No. 617,440
7 Claims. (Cl. 123—90)



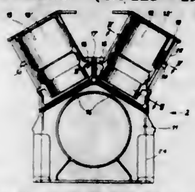
1. In a reciprocable valve assembly having a valve actuated by a rocker arm against the pressure of a spring that improvement comprising a guide rod being skewed relative said valve stem, a spring retainer being slidingly attached to said rod so that on reciprocation of said valve said retainer will be caused to swing in equal arcs on the opening and closing strokes of said valve, so that said retainer uniformly turns said valve on one of said opening and closing strokes more than on the other thereby imparting a substantially uniform incremental resultant rotation of said valve on a cycle of opening and closing strokes.

2,838,037
APPARATUS FOR INTRODUCING A MIXTURE OF FUEL AND AIR INTO THE COMBUSTION CHAMBER OF AN INTERNAL COMBUSTION ENGINE
Louis O. French, Milwaukee, Wis.
Application March 2, 1956, Serial No. 569,102
17 Claims. (Cl. 123—139)



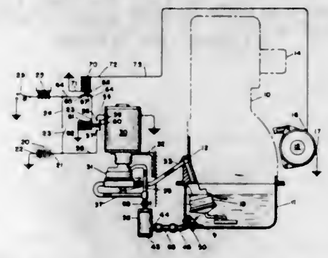
1. In an internal combustion engine, the combination with an engine wall having an opening communicating with the combustion space of the engine, of a pair of telescopically mounted pistons movable relative to said opening, one of said pistons being a mixture expelling piston having a prechamber in restricted communication with the combustion space of the engine, the other of said pistons being a reciprocatory fuel pump member working in said prechamber and cooperating therewith to expand and contract said chamber, means for spraying fuel into said chamber while moving said fuel pump member relative to said expelling piston to expand said chamber near the end of the compression stroke of the engine, and means for moving said pistons relative to each other and the expelling piston relative to said opening to contract said chamber to expel the mixture of fuel and air therefrom directly after said fuel pump member has completed its outward stroke.

2,838,038
WELDED CYLINDER AND CRANKSHAFT CASING FOR MULTICYLINDER PISTON ENGINES
Richard Seifert and Otto Baur, Friedrichshafen, Germany, assignors to Maybach-Motorenbau G. m. b. H., Friedrichshafen, Germany, a firm of Germany
Application January 28, 1957, Serial No. 636,620
Claims priority, application Germany January 30, 1956
4 Claims. (Cl. 123—195)



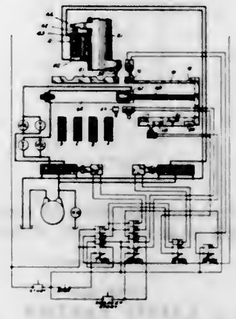
1. A cylinder and crankshaft casing for a multicylinder piston engine which casing is split in planes transverse to the longitudinal axis of the engine and comprises two outside groups of castings and at least one inner group of castings placed between said outside groups, said inner group including a first casting forming one half of each of two adjacent cylinder cooling jackets and a second casting forming a bearing support extending in a plane which is transverse to the longitudinal axis of the engine and between said cylinder cooling jacket halves, said first and second castings having adjacent portions extending in a plane which is substantially transverse to the longitudinal cylinder axes, said portions being connected by welding, each of said outside groups including a first casting forming one half of a cylinder cooling jacket and a second casting forming a support for an end bearing, said first and second castings of each outside group having adjacent portions interconnected by welding and extending in a plane which is substantially transverse to the longitudinal cylinder axes, the first castings of adjacent groups being directly connected by welding along lines extending axially of the cylinder cooling jackets and in diametrical planes which are at a right angle to the longitudinal axis of the engine, and sheet metal elements welded to and interconnecting said second castings of adjacent groups.

2,838,039
PRE-START AND AUXILIARY PRESSURE OILER
John M. Smith and Joseph A. Gay, Portland, Oreg.
Application June 8, 1954, Serial No. 435,240
2 Claims. (Cl. 123—196)



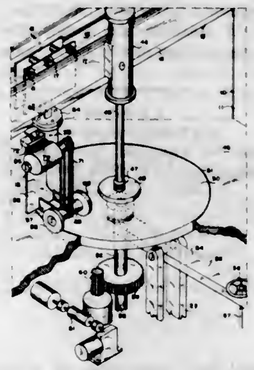
1. In an internal combustion engine having a lubricating oil pressure passage and a crank case oil reservoir under the engine equipped with a drain opening, an auxiliary pump to establish normal operating pressure in said pressure passage when the engine is not operating, a supporting bracket for mounting said pump adjacent the engine, a discharge pipe from said pump connected with said pressure passage in the engine, a strainer chamber outside of said crank case having a drain plug, a pipe connecting said strainer chamber with said drain opening in said oil reservoir, and a suction pipe for said auxiliary pump connected with said strainer chamber.

2,838,040
DRESSER FOR MULTIPLE GRINDING WHEELS
Harold E. Balsiger and Charles E. Tolbert, Waynesboro, Pa., assignors to Landis Tool Company, Waynesboro, Pa.
Application April 30, 1956, Serial No. 581,576
10 Claims. (Cl. 125—11)



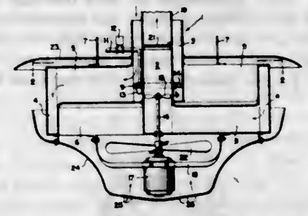
7. A dressing device for formed grinding wheels comprising a base member, a carriage slidably mounted on said base member, means for moving said carriage alternately in opposite directions, a diamond holder slidably mounted on said carriage for movement transversely of said carriage, means for effecting said transverse movement of said diamond holder comprising a hydraulic motor, a solenoid valve for directing fluid under pressure to said motor, a switch for actuating said solenoid valve, a cam on said carriage for actuating said switch when said carriage is moving in one direction, and means including a control device operable at one end of said carriage movement to render said switch ineffective during movement of said carriage in the opposite direction.

2,838,041
MARBLE CUTTING AND FINISHING MACHINE
Max Rovis, Flushing, N. Y.
Application February 17, 1956, Serial No. 566,293
14 Claims. (Cl. 125—13)



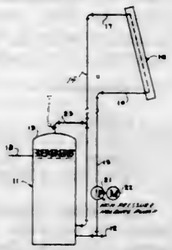
1. A machine for cutting and finishing marble workpieces comprising a supporting structure, a stationary workpiece supporting platform carried by said supporting structure, said stationary platform being provided with a substantially centrally disposed opening therethrough, a rotary workpiece supporting platform disposed within said opening and means for rotating said rotary platform, and additional means for changing the elevation of one of said platforms with respect to the other.

2,838,042
UNIT HEATER
Tze-Ning Chen, Lakewood, N. J., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application November 21, 1955, Serial No. 548,111
4 Claims. (Cl. 126—110)



1. A unit heater comprising in combination a wheel-shaped heat exchanger having a hollow hub, hollow spokes and a hollow rim, means in said hub forming a pair of concentric chambers with some of said spokes connected to one chamber and the rest of said spokes being connected to the other chamber and all of said spokes being connected to said rim, means through which combustion air is supplied to the outer of said chambers, exhaust means connected to said inner chamber, a burner in the outer of said concentric chambers having ports directed radially toward the spokes connected therewith, a fan in the inner of said chambers operating to discharge axially thereof to said exhaust means whereby products of combustion are drawn through said spokes and rim to heat the same and are discharged axially of the heat exchanger, and drive means for said fan.

2,838,043
SOLAR WATER HEATING SYSTEM
Raymond W. Bliss, Jr., Amado, Ariz.
Application July 2, 1954, Serial No. 441,118
5 Claims. (Cl. 126—271)

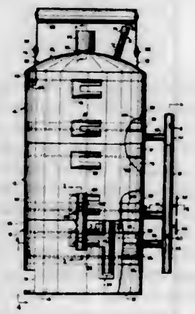


1. In a solar water-heating system, a solar heat collector, a hot water storage tank below said collector, a cold water supply line connected to said tank, pipe connections between said collector and tank forming circulating lines for delivery of water from the tank to the collector and back to the tank, a non-pressure holding circulating pump in one of said water circulating lines, means providing an air space in communication with an upper portion of said tank said air space being closed to atmosphere whereby to cause static pressure therein to be the same as in the system, and a bleeder connection between said air space and a portion of said system above said tank which it is desired to drain.

2,838,044
TRIPLE CONTAINER FOR FOOD
Andrew Tohchung Wei, New York, N. Y.
Application April 18, 1956, Serial No. 579,065
2 Claims. (Cl. 126—369.3)

1. A boiler for food, comprising a plurality of cylindrical containers stacked vertically one upon the other,

all the containers above the lowermost container of the stack having closed bottoms proportioned for nesting in the next lower container, the lowermost container having a transverse partition dividing the same into steam and heating chambers, a tray supported upon the partition adapted to hold a quantity of water to be converted into steam upon application of heat through said partition, all of the containers above the lowermost container each having a transverse partition therein defining an upper food compartment and a lower steam chamber, a connecting tube extending radially outward from each



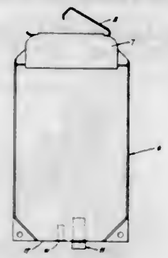
of the steam chambers, a conduit section secured perpendicularly to each connecting tube, each of the conduit sections being interfitted with each other and in communication with the steam chamber in the lowermost container for providing steam therefrom to the steam chambers in the upper containers, at least one of the food compartments being heated by steam circulating in steam chambers above and below said one food compartment, and a lid removably seated in the uppermost one of said containers, said lid closing the food compartment in the uppermost container, said lid being in the form of a substantially closed compartment for containing hot water.

2,838,045
MICROBICIDAL BANDAGE
John W. Ryznar, La Grange Park, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware
No Drawing. Application October 29, 1956
Serial No. 618,684
8 Claims. (Cl. 128—156)

1. A microbicidal bandage comprising an ion exchange membrane being a finely porous film of a homogeneous molecular dispersion of a water-insoluble acid and alkali-resistant thermoplastic film-forming polymer and a substantially linear polyelectrolyte, and an ionic microbicidal agent adsorbed on said ion exchange membrane.

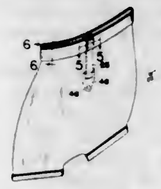
2,838,046
CONTAINER FOR BLOOD AND THE LIKE
William F. Butler, Oakland, Calif., assignor to Cutter Laboratories, Inc., a corporation of California
Application April 6, 1955, Serial No. 499,697
6 Claims. (Cl. 128—272)

1. A flexible container adapted to have a fluid withdrawn therefrom with a hollow needle, said container having a wall, a tubular member mounted on said wall and having a first portion extending on one side of the container wall and a second portion extending on the other side of said container wall and concentrically with the bore in said first portion, a resilient plug compressed in said second portion and providing a closure therefore, and means retaining said plug in position against displacement when punctured by a needle, said first and



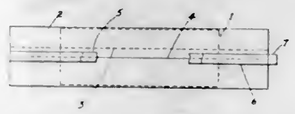
second tubular portions providing an aligned tubular passage of a length in excess of that of said needle.

2,838,047
LADIES' PANTIES
Albert E. Sidnell, North Canton, Ohio
Application February 10, 1955, Serial No. 487,353
5 Claims. (Cl. 128—288)



5. A lady's panty which is liquid proof and which includes at least one ply of latex rubber which is continuous from the waist to the legs, there being openings at the waist and at each leg of the panty adjacent which there is a lamination of said rubber and a circumferentially elastic circlet of a material of greater modulus than the latex which contracts into sealing contact with the body of the wearer, the leg openings being near the crotch and the panty rising sheer from the circlets around the legs whereby the panty fits snugly about the tops of the legs and the portion of the body immediately above the legs.

2,838,048
CATAMENIAL PAD
Walter M. Kowalski, New York, N. Y.
Application March 21, 1955, Serial No. 495,410
1 Claim. (Cl. 128—290)



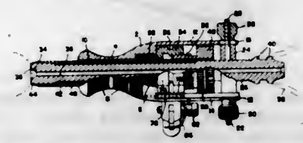
A catamenial pad comprising an absorbent body, a porous cover therefor enclosing the body, the cover having longitudinal overlapping edges, the ends of the cover extending beyond the ends of the body, a strip having adhesive on its entire inner face engaging the cover along the full length of said edges to secure the cover upon the body, said strip having adhesive on the whole of its outer face also, and a second strip as long as the aforesaid strip covering to the outer face of the first-named strip, said second strip being removable so that the adhesive strip will attach itself to the wearer's clothing.

2,838,049
SCALPEL
Johann Eisenhofer, Munich, and Leo Horbach, Aachen, Germany
Application February 28, 1956, Serial No. 568,314
Claims priority, application Germany March 7, 1955
2 Claims. (Cl. 128—305)



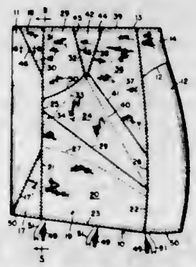
1. A scalpel comprising a blade terminating in a needle-like point substantially in the longitudinal axis of the scalpel and having a cutting edge extending toward the point along a concave, partially oval line which gradually approaches the longitudinal axis and merges into the point.

2,838,050
TREPHINE FOR CORNEAL GRAFTING
Abidin Ara, Ankara, Turkey, assignor to George P. Pilling & Son Company, Philadelphia, Pa., a corporation of Pennsylvania
Application January 11, 1956, Serial No. 558,545
6 Claims. (Cl. 128—310)



1. A trephine for corneal grafting comprising a body portion, a corneal holding element mounted in said body portion and provided with a socket and connections for partial evacuation of the region of the socket, an annular knife surrounding the holding element, and means for projecting the knife beyond the socket end of said holding element.

2,838,051
FOUNDATION GARMENT
Mario Laguzzi, New York, N. Y., assignor to Poirette Corsets, Inc., New York, N. Y.
Application July 29, 1955, Serial No. 525,198
7 Claims. (Cl. 128—547)



1. In a foundation garment of the type having front and rear panels the combination therewith of a pair of elastic side panels connecting the opposite edges of said front and rear panels, with each side panel comprising a lower section secured along its side edges to the front and rear panels and having an upper edge sloping from the mid portion of said front panel downwardly to the lower portion of said rear panel, a central section secured along its side edges to the front and rear panels with the lower edge portion of said central section, underlying the upper portion of said lower section with the width of the underlying portion decreasing from the upper forward portion thereof adjacent the front panel to the lower rear portion thereof adjacent the rear panel, said central section having upwardly converging front and rear upper edges, an upper front section secured along an upright edge thereof to the front panel and having its lower edge portion underlying the upper front edge of said central panel a substantial amount with the width of the second named underlying portion decreasing from the lower front portion thereof adjacent the front panel to the upper rear portion thereof adjacent the center of said side panel, an upper rear section having an upright edge thereof secured to said rear panel and having its lower edge underlying the upper rear edge of the central section with the width of the last named underlying portion decreasing from the lower rear portion thereof adjacent the rear panel to the upper front portion thereof adjacent the center of said side panel and means connecting the forward edge of said upper rear section to the rear edge of said upper front section.

2,838,052
TOBACCO SMOKING DEVICE
Rosario Crisafulli, Jamaica Estates North, N. Y.
Application July 12, 1956, Serial No. 597,454
3 Claims. (Cl. 131—198)



1. A tobacco smoking pipe comprising a bowl defining a tobacco burning chamber and having a thick base, the latter having a diametrically extending bore passage opening to the outside of the base at one end of the passage and having a vertical port communicating the passage centrally with the burning chamber, an elongated tubular stem of balsa wood having a short mouthpiece affixed to one end thereof and having its opposite end extended into the base passage, the stem having a radial port registering with the vertical port to the burning chamber whereby the stem serves as a channel for the passage of smoke from the burning chamber to the mouthpiece, the balsa wood structure of the stem serving to absorb moisture and to filter out impurities from the smoke, the stem having a plurality of rows of radial pin holes along its length for admitting cooling air to the interior of the stem for mixing with smoke passing through the latter, a manually rotatable sleeve member of balsa wood surrounding the external length of the stem and having a plurality of rows of pin holes of a particular size and a plurality of alternate rows of pin holes of a larger size, the pin holes of the particular size being registrable with some of the pin holes of the stem in a first rotated condition of the sleeve, the pin holes of the larger size being registrable with the remaining holes of the stem in a second rotated condition of the sleeve, and blank spaces between the various pin holes of the sleeve adapted to cover all of the pin holes of the stem in a further rotated condition of the sleeve, whereby the volume air flow admitted to the stem is controlled, and visible indicator marks on the sleeve registrable with a fixed mark on the bowl as the sleeve is rotated from one

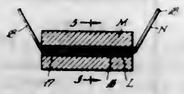
condition to another, whereby the rotated condition of the sleeve relative to the stem may be readily determined.

2,838,053
METHOD AND MEANS FOR PERMANENT WAVING HAIR
Herbert Zimmerman, Los Angeles, Calif.
Application February 17, 1955, Serial No. 488,744
12 Claims. (Cl. 132—7)



1. A device of the character described for use in permanent waving hair which includes a uniformly apertured shell upon which tresses of hair can be wound, the walls of said apertured shell having a relatively high percentage of opening along its length so as to flex uniformly inwardly as the said tresses of hair are wound tightly therearound and absorbent means within said shell for absorbing excess fluid applied to the hair.

2,838,054
HAIR CURLER DEVICE
Bernard Fischer, Jamaica, N. Y.
Application June 7, 1956, Serial No. 589,908
4 Claims. (Cl. 132—43)



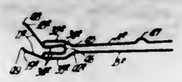
1. A hair waving device comprising a tubular synthetic sponge having longitudinally and axially extending therethrough a plastic coated flexible bendable flat metal rod, said sponge also receiving a central stiff plastic tube having an outside roughened surface to hold it in position in the center of the tubular sponge and said tube encircling and tightly holding the central portion of said bendable rod.

2,838,055
RESILIENT CLIP ARRANGEMENT
Carl Kertesz, Westbury, N. Y.
Application December 7, 1954, Serial No. 473,527
3 Claims. (Cl. 132—48)



1. A double bifurcated spring clip for resiliently clamping together strands of hair and other fibrous and sheet materials comprising two bifurcated elements having pivotal end portions with separated manual actuators, one having a plurality of parallel lateral spaced spring tongue means stamped integrally therefrom and projecting through and onto the other element and pressing the two elements together, the said second mentioned element having a recessed portion, said spring tongue means being outwardly and convexly bowed so as to project away from the first mentioned element and with its intermediate portion projecting up through the recessed portion in said second mentioned element and with its end portion projecting downwardly toward the second mentioned element until it contacts said element and presses it toward the first mentioned element, each of said elements having elongated legs which are in facing juxtaposition and means associated with said spring tongue means to prevent relative longitudinal slippage between said elements.

2,838,056
RESILIENT CLIP CONSTRUCTION
Carl Kertesz, Westbury, N. Y.
Application December 7, 1954, Serial No. 473,528
11 Claims. (Cl. 132—48)



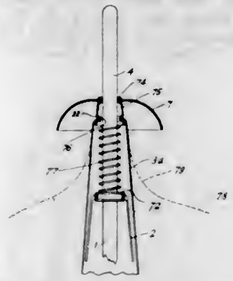
6. A one-piece integral resilient clip construction stamped and bent out of a single flat sheet of metal comprising a gripping leg portion, a resilient hinge portion and a manual actuating arrangement, said gripping leg portion consisting of contacting pairs of legs biased together to press against each other, said resilient hinge portion being formed of an inside U-member having substantially spaced side legs and two outside U-members having side legs with the inside members being integral with the side legs of the inside U-member and said inside U-member legs having integral divergent tabs cut out integrally from said side legs and bent about 180 degrees away from said side legs with the tabs extending in the opposite direction from said pairs of legs forming said manual actuating arrangement and said outside U-members also having bent integral substantially spaced extensions at the ends of the U-member legs forming the connections to the base ends of said pairs of legs.

2,838,057
MANICURE DEVICE
Hannah Smith, Oakland, Calif.
Application January 20, 1955, Serial No. 483,110
3 Claims. (Cl. 132—76.4)



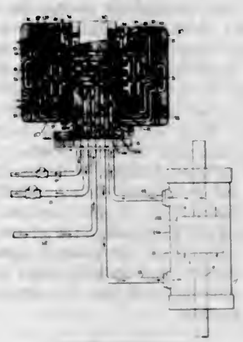
1. A manicure device, comprising an elongated nonmetallic three sided member having two elongated flat surface forming sides intersecting along a straight line and a third side forming an elongated convex surface having a radius of curvature equal to the width of one of said two flat surface forming sides, and an abrasive material applied over the entire area of the three surfaces of said member.

2,838,058
DRIP RETAINING ATTACHMENT FOR AN UMBRELLA
Anestis Foltis and Phillip Kates, Jackson Heights, N. Y.
Application May 9, 1955, Serial No. 506,734
2 Claims. (Cl. 135—48)



1. A drip retaining device for an umbrella having a central rod with handle at one end, expansible ribs attached at one extremity to said rod at the opposite end portion thereof, and a cover on said ribs, said device having an open hollow cup-shaped body concave on one side with a rim of greater diameter than the rod, said body being disposed between the ribs and cover and the opposite end of the rod, with its concave side and rim presented to the ribs and cover, to collect water when the cover is wet and the said opposite end is lower-most, said body having a central opening through which the rod projects, an annular member in said opening surrounding said rod and having an exterior annular groove receiving the edge of the opening in the body, said member having a rim of relatively small diameter within said body and encircled by the rim of said body.

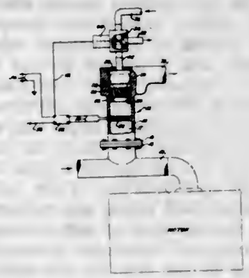
2,838,059
APPARATUS AND METHOD FOR MOUNTING AND REPLACING HYDRAULIC VALVE UNITS
Paul E. Biagi, Upper Darby, William H. McMordie, Philadelphia, and Henry F. Wiesel, Willow Grove, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application May 10, 1955, Serial No. 507,252
8 Claims. (Cl. 137—15)



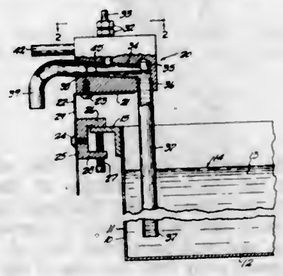
7. The method of exchanging ported valve units on a ported base having permanent pipe connections on one side for a plurality of passages and a plurality of channelled and ported plates on other sides which are movable between port registering and non-registering positions on the base, which comprises, connecting a first valve unit with one plate and moving it into port-registering position on the base so that the said first valve unit is operative, moving another plate carrying a second valve unit to non-registering position and clamping it, and then removing the said second valve unit from the plate.

2,838,060
AUTOMATIC OXYGEN VAPOR VENT VALVE FOR ENGINES
Mirabeau C. Towns, Jr., Rockaway, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 14, 1953, Serial No. 367,946
3 Claims. (Cl. 137—115)

1. In an engine having an oxidizer conducting line, a venting device for the line comprising a valve body provided with a movable valve element, means reacting on said element for moving it to an open position, means disposed in said valve body between one side of said valve element and said conducting line for detecting the presence of gases in said valve body, fluid pressure means connected to said body on the other side of said valve element for normally holding said valve element in a closed position in opposition to said valve element moving means, said fluid pressure means having a valve therein for controlling the flow of the fluid therethrough, a discharge opening connected to the same side of said body as said fluid pressure means, and means operatively connecting said gas detecting means with said fluid pressure valve means to control the actuation of the latter in response to the presence of gases in said valve body.



2,838,061
LIQUID LEVEL CONTROL DEVICE
Wilbur F. Stump, Elkhart, Ind.
Application July 26, 1956, Serial No. 600,286
7 Claims. (Cl. 137—154)

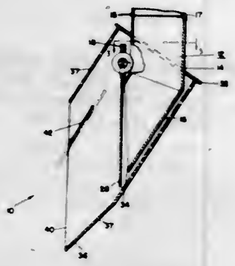


1. A liquid level control device for adding water to a container to maintain substantially constant therein the level of a mixture consisting of water and a liquid of greater specific gravity than water, comprising a member having a liquid passage therethrough, adjustable means for supporting said member on said container at a selected elevation, means supplying water to said passage, a discharge conduit communicating with said passage and depending from said member and projecting into said container and immersed in said mixture, said passage having an outlet above said container for draining clear of said container water from said supply means in excess of the amount required to maintain the desired mixture level in said container, the top of said passage having a vent to atmosphere between said supply means and said outlet.

2,838,062
TRICKLE VALVE
Hans J. Held, Lake Success, and John Welts, Westbury, N. Y., assignors to Ducon Company, Inc., Mineola, N. Y., a corporation of New York
Application September 12, 1955, Serial No. 533,854
7 Claims. (Cl. 137—382)

1. A trickle valve for use in high temperature fluid catalytic operations including a conduit, a bracket fixedly secured to the outer surface of said conduit, said bracket having an opening therein, a closed loop hinge formed from a rod having a core thickness appreciably less than the inner diameter of said opening, said hinge being mounted through the opening in said bracket, a valve plate, said hinge passing through an opening in the upper portion of said valve plate whereby said valve plate is suspended from said hinge, the opening in said

valve plate extending between the face of said valve plate that is juxtaposed to the discharge opening of said conduit and the face opposite thereto whereby a portion of said hinge projects beyond said juxtaposed face and overlaps the portion of said conduit adjacent the discharge opening, and a portion of said hinge projects beyond the face opposite to the face juxtaposed to the discharge opening, the opening in said valve plate having an inside diameter appreciably larger than the core thickness of the rod forming said hinge, the diameter of the openings in said bracket and valve plate being so much larger than the core thickness of the rod forming the hinge as to permit both lateral and rotational movement of said hinge through each of said openings, said valve plate being juxtaposed suspended in respect to the discharge opening of the conduit, the width and length of said valve plate being appreciably greater than the maximum width and length dimensions of the discharge



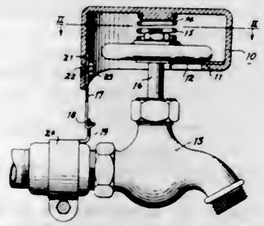
opening of the conduit, the face of the valve plate juxtaposed to the discharge opening of the conduit seating against the edge of the discharge opening of the conduit when said valve plate is disposed in its closed position, and said juxtaposed face of the valve plate being disposed away from the edge of the discharge opening of the conduit when the valve plate is disposed in its open position, and an open-ended perforated housing surrounding said valve plate and the portion of said conduit adjacent and including the discharge opening, the open-end of said perforated housing being in communication with and spaced from and at least partially below the discharge opening, the lowermost portion of said housing projecting beyond the valve plate a sufficient distance so that it extends beyond the valve plate when the valve plate is disposed in its open position, said lowermost portion also projecting beyond the hinge for an appreciable distance.

2,838,063
TRICKLE VALVE
John Welts, Westbury, and Hans J. Held, Lake Success, N. Y., assignors to Ducon Company, Inc., Mineola, N. Y., a corporation of New York
Application October 10, 1955, Serial No. 539,320
11 Claims. (Cl. 137—382)



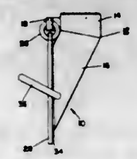
1. A trickle valve including a conduit, a bracket fixedly secured to the outer surface of said conduit, said bracket having an opening therein, a closed loop hinge formed from a rod having a core thickness appreciably less than the inner diameter of said opening, said hinge being mounted through the opening in said bracket, a valve plate, said hinge passing through an opening in the upper portion of said valve plate whereby said valve plate is suspended from said hinge, the opening in said valve plate having an inside diameter appreciably larger than the core thickness of the rod forming said hinge, the openings in said bracket and valve plate being so much larger than the core thickness of the rod forming the hinge as to permit both lateral and rotational movement of said hinge through each of said openings, said valve plate being juxtaposedly suspended in respect to the discharge opening of said conduit, the width and length of said valve plate being appreciably greater than the maximum width and length dimensions of the discharge opening of said conduit, the opening in said valve plate extending between the face of said valve plate that is juxtaposed to the discharge opening of said conduit and the face opposite thereto whereby a portion of said hinge projects beyond said juxtaposed face and overlaps the portion of said conduit adjacent the discharge opening, and a portion of said hinge projects beyond the face opposite to the face juxtaposed to the discharge opening, the face of the valve plate juxtaposed to the discharge opening of the conduit being flat, said juxtaposed face of the valve plate seating against the edge of the discharge opening of the conduit when said valve plate is disposed in its closed position, and said juxtaposed face of the valve plate being disposed away from the edge of the discharge opening of the conduit when the valve plate is disposed in its open position, a flange depending from said conduit, and a deflector plate carried by said flange beneath the undersurface of said conduit, said deflector plate being angularly disposed to the plane of the edge of the discharge opening of the conduit against which the valve plate is seated and so positioned that the entire valve plate is superimposed over it when the valve plate is in its closed position.

2,838,064
SAFETY GUARD FOR VALVES
Charles E. Schieberl, San Leandro, Calif.
Application May 14, 1956, Serial No. 584,687
3 Claims. (Cl. 137—382)



3. In a safety guard for fluid-controlling valves, said valve having a fluid conduit and a manual valve-operating member, an inverted cup-like member having an inwardly projecting lip extending partially around its lower edge and underlying said valve-operating member, a centrally disposed spring-retaining means within said cup, a compression spring carried by said retaining means extending downwardly for engagement with the valve-operating member, a latch member carried by said cup-like member opposite its inwardly projecting lip, and a stationary detent carried by said conduit upon which the valve is mounted, said latch member and said detent operating to hold said cup-like member in a fixed position upon the valve with said compression spring in a compressed condition.

2,838,065
TRICKLE VALVE
Hans J. Held, Lake Success, and John Welts, Westbury, N. Y., assignors to Ducon Company, Inc., Mineola, N. Y., a corporation of New York
Application September 12, 1955, Serial No. 533,852
9 Claims. (Cl. 137—521)



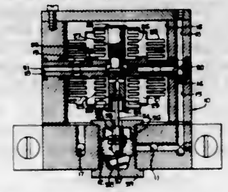
1. A trickle valve including a conduit, a bracket fixedly secured to the outer surface of said conduit, said bracket having an opening therein, a closed loop hinge formed from a rod having a core thickness appreciably less than the inner diameter of said opening, said hinge being mounted through the opening in said bracket, a valve plate, said hinge passing through an opening in the upper portion of said valve plate whereby said valve plate is suspended from said hinge, the opening in said valve plate having an inside diameter appreciably larger than the core thickness of the rod forming said hinge, the openings in said bracket and valve plate being so much larger than the core thickness of the rod forming the hinge as to permit both lateral and rotational movement of said hinge through each of said openings, said valve plate being juxtaposedly suspended in respect to the discharge opening of said conduit, the width and length of said valve plate being appreciably greater than the maximum width and length dimensions of the discharge opening of said conduit, the opening in said valve plate extending between the face of said valve plate that is juxtaposed to the discharge opening of said conduit and the face opposite thereto whereby a portion of said hinge projects beyond said juxtaposed face and overlaps the portion of said conduit adjacent the discharge opening, and a portion of said hinge projects beyond the face opposite to the face juxtaposed to the discharge opening, the face of the valve plate juxtaposed to the discharge opening of the conduit being flat, said juxtaposed face of the valve plate seating against the edge of the discharge opening of the conduit when said valve plate is disposed in its closed position, and said juxtaposed face of the valve plate being disposed away from the edge of the discharge opening of the conduit when the valve plate is disposed in its open position.

2,838,066
METERING VALVE
Thomas Harris, Warwick, R. I., assignor to Harris & Stevenson Engineering & Development Co., Inc., a corporation of Rhode Island
Application March 16, 1954, Serial No. 416,513
1 Claim. (Cl. 137—556)



A metering valve comprising a valve body having a hollow area therein, inlet and outlet openings therefrom more restricted in cross-section than said area and providing a flow passageway through said body, a valve seat having a seating surface in a single plane in said passageway having an opening leading from the influent side of said passageway to the effluent side thereof, L-shaped guides carried by said seating surface on either side of said opening and spaced therefrom, each having with one leg of the L spaced from and parallel to said seating surface to provide a guide channel, a closure plug slidable in said guide channels and having surface portions in a single plane engaging said seating surface two of said surface portions being in said guide channels a third surface portion of approximately the size of said opening being between said guides and located to be moveable across said opening for controlling the flow of fluid through said opening with the remainder of said plug being spaced from said seat, said closure plug having an inverted T-slot, a spindle rotatably mounted for axial movement thereof towards and from said opening and having a reduced neck portion providing a head located in said slot for attaching said closure plug to said spindle for movement therewith axially of the spindle and for movement relative to the spindle in a direction normal to the seating surface.

2,838,067
AIR RELAY
Barton Jones, Los Angeles, Calif.
Application August 13, 1956, Serial No. 603,676
5 Claims. (Cl. 137—620)

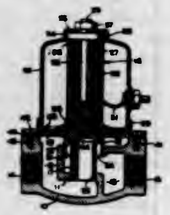


1. An air relay comprising a housing, an air inlet for admitting compressed air to the housing, a valve closure and seat therefor in the air inlet normally urged to close the inlet, a spider in the housing, bellows mounted on opposite sides of the spider and cooperating therewith to define chambers which are isolated from each other, connecting means rigidly connecting the outer ends of the bellows through the spider to cause them to move in unison, means venting one of the chambers to atmosphere externally of the housing, a passage having a valve seat therein in the connecting means and vented to atmosphere externally of the housing, a valve closure adapted to seat upon said seat, an outlet for transmitted air leading from the housing, means for admitting pilot pressure to the other of said chambers, and means connecting the valve closure in the connecting means to the valve closure in the air inlet whereby when pilot pressure varies the valve closure in the connecting means may seat upon the seat in the connecting means closing said passage against venting to atmosphere and opening the valve in the air inlet, thus altering transmitted pressure in response to variations in pilot pressure.

2,838,068
ELECTROMAGNETIC VALVE
William Alton Ray, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Original application February 10, 1951, Serial No. 210,409, now Patent No. 2,719,939, dated October 4, 1955. Divided and this application December 11, 1953, Serial No. 405,972
2 Claims. (Cl. 137—625.33)

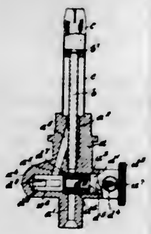
2. In combination: a valve body having an inlet opening and an outlet opening, as well as wall means extend-

ing between the openings, to define within said body an inlet chamber and an outlet chamber; said wall having a pair of spaced openings; a conduit means fixed in the openings, the interior of the conduit means being in constant communication with the inlet chamber via one end of the conduit means; means forming an annular valve



seat about the other end of the conduit means, there being a plurality of annularly arranged ports through said valve seat and in communication with the outlet chamber; and a valve closure cooperating with said seat to close the said other end of the conduit means as well as said ports; said conduit means thus serving to keep the two chambers out of communication while the valve is closed.

2,838,069
TAPS
Harold George Woodhall, Dudley, England, assignor to Ewarts Limited, Dudley, England, a British company
Application January 10, 1955, Serial No. 480,967
Claims priority, application Italy January 21, 1954
1 Claim. (Cl. 137—625.41)



A tap comprising, in combination, a tap body having a passage extending downwardly therethrough, said body also having a main cylindrical chamber extending laterally therewithin and intersecting said passage, a main cylindrical control member rotatably mounted within said main cylindrical chamber, said main cylindrical control member being axially slidable within said main cylindrical chamber to close said passagweay when in one position and to open said passageway when slid into another position, said tap body having an auxiliary cylindrical chamber therein, said auxiliary cylindrical chamber being located coaxially with said main cylindrical chamber, there being an annular internal shoulder between said main cylindrical chamber and said auxiliary cylindrical chamber, said main cylindrical control member having an auxiliary cylindrical portion projecting into said auxiliary cylindrical chamber, there being a conduit leading from the exterior of said tap body to said auxiliary cylindrical chamber, said auxiliary cylindrical portion of said control member having an oblique slot to connect said conduit to the lower end of said passage when said control member is axially away from engagement with said annular internal shoulder and is rotated into one position and to close such connection when said control member is rotated out of such position.

2,838,070
VALVE ASSEMBLY FOR FAUCETS
Frank N. Williams, Wadsworth, Ill., assignor to Federal-Huber Company, Chicago, Ill., a corporation of Illinois
Application February 2, 1956, Serial No. 563,010
12 Claims. (Cl. 137—636.3)



1. In a mixing faucet having a housing provided with a hot water inlet and a cold water inlet, a pre-assembled valve unit for each inlet for controlling its flow and bodily insertable into and removable from the housing, each valve unit including a cylindrical valve body anchored in a bore in the housing and spaced from the encompassing wall of said housing, said valve body having one or more inlet ports about its circumference open to the flow from one of said inlets, a rigid, metal valve member rotatably mounted in said body adjacent said ports and provided with a flat sealing surface having ports for the passage therethrough of water entering the valve body through the ports in said body, a valve seat in the form of a flat metal plate mounted in fixed position in the valve body and in intimate contact with the rotatable valve member with said valve seat ports therethrough adapted to be aligned with the ports in said valve member as the latter is moved to open position, a hollow valve stem rotatably mounted in said valve body and having at one end a projection and openings for the passage of water into the hollow valve stem when the valve member is rotated to open position in which its ports are moved into registry with the ports of the valve seat, means for connecting the projection on said valve stem to said valve member for rotating the latter, and means for rotating said valve stem and valve member to control the flow of water through said faucet.

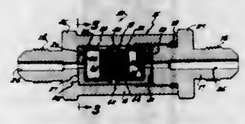
2,838,071
PRESSURE-RESPONSIVE DEVICE AND MOUNTING MEANS THEREFOR
Louvan E. Wood, Glen Arm, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application May 18, 1954, Serial No. 430,699
7 Claims. (Cl. 137—784)



1. In combination, a pressure-responsive device having walls defining an expansible chamber including a disc-shaped diaphragm formed of relatively thin metallic material, and means for supporting said device, comprising a plurality of resilient members located at spaced points around the peripheral portion of said diaphragm in gripping engagement with said portion at said spaced points only.

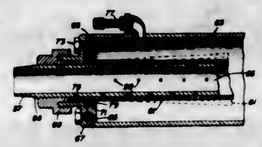
2,838,072
TEMPERATURE COMPENSATED DEVICE FOR ABSORBING TRANSIENT PRESSURE FLUCTUATIONS
Richard A. Stumm, Jr., Pasadena, Calif., assignor to Sterer Engineering & Manufacturing Company, North Hollywood, Calif., a partnership
Application February 7, 1955, Serial No. 486,660
3 Claims. (Cl. 138—26)

1. In a temperature compensated fluid flow regulating device the combination comprising: a body having an internal chamber with an opening at each end for fluid entering and leaving the chamber; a hollow member having a passage extending entirely through it and reciprocable within the chamber, said member having an exterior surface which cooperates with a complementary wall of the chamber to define a primary fluid passage providing a comparatively restricted flow of fluid through the body



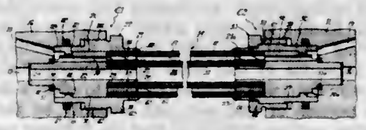
at all temperatures; a plug of material having a relatively high coefficient of thermal expansion located within said hollow member, said plug normally closing the passage through said hollow member but contracting at lowered temperatures sufficiently to permit restricted fluid flow through said hollow member; and means holding said plug in position when contracted.

2,838,073
SURGE PRESSURE ABSORBER
Samuel P. Di Mattia, New Castle, Del., and John N. Bruce, Bel Air, Md.
Application September 1, 1953, Serial No. 377,987
1 Claim. (Cl. 138—30)
(Granted under Title 35, U. S. Code (1952), sec. 266)



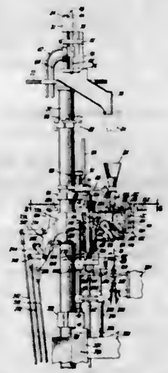
A surge pressure absorber comprising a rigid tubular member of uniform cross section having a smooth unobstructed bore, said tubular member having a central perforate section and imperforate end sections; a housing comprising a cylinder provided with end walls positioned substantially at right angles to the axis thereof, each said end wall having a substantially flat outer face and having a circular central opening of a diameter slightly greater than the external diameter of said tubular member; a flange at each end of said housing comprising a radially inner portion in contact with the periphery of said tube, a threaded sleeve portion surrounding and concentric with said tubular member and joined to said radially inner portion and a flat face portion contacting the outer face of said end wall, said face portion being cut away adjacent said tubular member; packing material between said sleeve portion and said tubular member; a tube formed of resilient non-reinforced rubber having an internal diameter substantially equal to the external diameter of said tubular member and surrounding said tubular member, each of the ends of said tube being bent outwardly to lie between said face of an end member and the cut away portion of the face portion of a flange; screw means for forcing said face portion of each flange against the outer face of the adjacent end member and a nut engaging said threaded portion of each flange and said packing material, whereby the ends of the tube and the packing material are compressed, thus forming a substantially gas tight chamber within said housing and surrounding said tube; means to introduce and maintain gas under pressure within said chamber; the imperforate ends of said tubular member extending beyond said housing and being provided with coupling means adapted to couple said tubular member to a flow line.

2,838,074
FLUID PRESSURE HOSE
John A. Lauck, Shaker Heights, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 6, 1954, Serial No. 473,387
5 Claims. (Cl. 138—49)



1. A fluid pressure communicating assembly comprising means defining a first conduit and a second conduit, said first conduit being disposed within said second conduit, said first conduit providing thereby an inner fluid pressure passage and having its outer periphery cooperating with said second conduit to provide an outer fluid pressure passage, and means defining couplings connecting said inner passage and said outer passage to sources of fluid pressure, said means defining couplings comprising inner members for communicating fluid pressure to and from said inner passage and including means for communicating fluid to and from said outer passage, ring-like means for sealably affixing said inner disposed conduit to said inner members and cooperating with said means for communicating fluid pressure to and from said outer fluid pressure passage to communicate fluid pressure therethrough, and outer members cooperating with said inner members, ring-like means and said inner and outer conduits for sealably affixing said outer conduit to said inner members and ring-like means and thereby defining a unitary fluid pressure communicating assembly, said outer members being further provided with means for being connected to sources of fluid pressure.

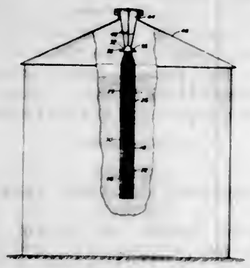
2,838,075
WIRE FLATTENING, HOOKING, AND FEEDING DEVICE
Roger M. Terry, Ipswich, and Roland M. Gardner, Swampscott, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application October 30, 1953, Serial No. 389,366
2 Claims. (Cl. 140—71.6)



1. The combination, with a stem machine having a plurality of heads for supporting stem elements and movable to a plurality of work stations, of a wire flattening, hooking and loading apparatus disposed adjacent to said stem machine at one of the work stations thereof, said apparatus comprising: a pair of rolls disposed side-by-side in the same plane and normally spaced from one another a

distance less than the diameter of the wire, and having a wire-feeding end and a wire-delivery end, the periphery of each of said rolls having a wire-flattening portion and a wire-feeding portion; an anvil mounted adjacent to the said wire-delivery end of said rolls and disposed in alignment with the space defined by the adjacent peripheral portions of said rolls; a wiper mounted adjacent to said anvil and in cooperative relationship with respect thereto; means for feeding individual pre-cut wires end-on to said wire-feeding end of said rolls; means for rotating said rolls to draw one of said wires therebetween, firstly by the said wire-flattening portions thereof to effect a flattening of a portion of said wire and secondly by the said wire-feeding portions thereof to feed the flattened portion of said wire to said anvil; means for moving said wiper into engagement with the flattened portion of said wire and bending it over said anvil to form a hook; means for releasing the hooked wire from the said rolls; and means for transferring the hooked wire, immediately upon its release from said rolls, to a head of the stem machine.

2,838,076
METHOD AND APPARATUS FOR LOADING A GRAIN BIN
Robert D. Knight, Shaker Heights, Alden O. Mason, Lakewood, and Thomas Melville, South Russell, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey
Application January 3, 1957, Serial No. 632,311
5 Claims. (Cl. 141—1)



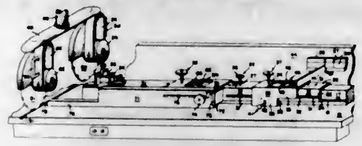
1. An extensible vent for grain bins comprising a sleeve, a spring having an expanded length much greater than the length of said sleeve, means for attaching one end of said spring to said sleeve substantially coaxial therewith, and means for holding said spring in compressed condition on said sleeve.

2,838,077
DISPENSING MACHINE FOR BEVERAGES
Roy L. Cooper, Waterman, Ill., assignor to Waterman Engineering Company, Waterman, Ill., a corporation of Illinois
Application October 20, 1954, Serial No. 463,342
15 Claims. (Cl. 141—82)

1. A hot-mixture dispensing machine characterized by mechanism having a brief cycle of dispensing at least one beverage or other liquid food for an individual serving, including hot water supply means at temperatures of 195 to 200° F., normal cold water supply means, a mixing cup, a dispensing container receiving chamber, means for starting said mechanism, automatic means for dispensing the hot water and the solid ingredients simultaneously into said mixing cup, means for simultaneously supplying a cold water portion from said cold water supply means directly into a dispensing container in said receiving chamber, and means for tipping the hot mixture in said mixing cup into said container after the solid ingredients have been subjected to the thorough soaking and solution in the substantially boiling hot water to produce a resulting mixture temperature of about 155° F. in said container, so that it may be safely handled.

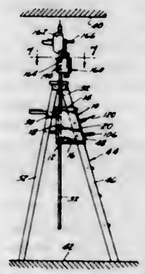


2,838,078
GAUGE FOR CUT-OFF SAWS AND DADOS
George Casanza, Sacramento, Calif.
Application September 17, 1956, Serial No. 610,122
5 Claims. (Cl. 143—174)



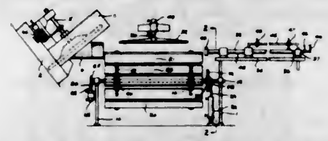
3. In a gauge for cut-off saws and dados comprising an elongated table, a rail mounted longitudinally on said table, a sleeve lockably mounted on said rail, and a carriage lockably mounted on said sleeve, the combination of a template mounted parallel to said rail, a pointer mounted on said carriage and pointed toward said template, a spacer arm lockably mounted on said sleeve, said arm being in abutment with a saw in one extreme position, and a plurality of indicia on said template whereby said pointer, said carriage and said arm are located in a predetermined position relative to a saw by locating said pointer adjacent a predetermined one of said indicia.

2,838,079
DRILL MOUNTING
Richard E. Abendroth, Minneapolis, Minn.
Application June 18, 1954, Serial No. 437,771
16 Claims. (Cl. 144—105)



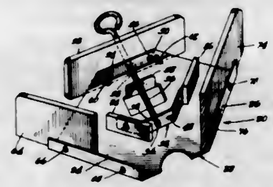
1. A drill mounting comprising a frame adapted to be supported between two spaced generally horizontal surfaces, a generally vertically disposed rod carried by said frame for longitudinal movements with respect thereto, a collar of slightly larger diameter than said rod encircling said rod, said collar being carried by said frame and adapted to engage said rod in a binding relationship which limits the downward movement of said rod, yielding resilient means connected to said collar and said frame biasing said collar downwardly and at an angle with respect to the axis of said rod, a lever connected adjacent one end with said collar and at its opposite end projecting beyond the limits of said frame and forming a handle to actuate said lever for moving said collar relative to said frame when it is in a binding relationship with said rod for moving said rod longitudinally with respect to said frame, and a second lever fulcrumed intermediate of its ends to said frame, one end of said second lever connected to said collar adjacent the connection with said resilient means and the opposite end of said second lever projecting beyond the limits of said frame to form an actuating handle adjacent said first-named handle for moving said collar against the bias of said yielding resilient means to take said collar out of binding relationship with said rod.

2,838,080
PULP WOOD CHIPPER FEEDS
Norman Springate, Burnaby, British Columbia, Canada, assignor to Canadian Forest Products Ltd., Vancouver, British Columbia, Canada
Application June 13, 1955, Serial No. 515,159
3 Claims. (Cl. 144—242)



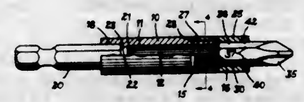
1. A device for feeding pulp wood to a chipper comprising a horizontal conveyor having a pair of spaced chains, said chains being provided with collapsible elongated pockets, means for imparting movement to the chains and their pockets to progressively align the pockets one by one with a feed shoe of said chipper, each of said pockets being formed with spaced side plate members extending between the chains and being hingedly connected thereto, said members substantially contacting each other along one edge to form open-ended V-shaped trough-like pockets in which the pulp wood is carried.

2,838,081
MITER CLAMP AND GAUGE
Charles O. Larson, Sterling, Ill.
Application April 14, 1955, Serial No. 501,322
4 Claims. (Cl. 144—293)



1. A device of the type described comprising a sheet material body, a pair of angularly disposed members on said body providing guides for a pair of angularly disposed workpieces, a clamping member for holding said workpieces against said guide members, a flange extending from a margin of said body behind said clamping member, an internally threaded cylindrical section drawn from the plane of said marginal flange, an intermediate flange between said marginal flange and said clamping member, said intermediate flange being integral with and struck from within the material of said body and folded from the plane of the body toward said marginal flange, an internally threaded cylindrical section drawn from the plane of the intermediate flange, and an elongated screw member connected with and extending rearwardly from said clamping member and threaded through both of said internally threaded cylindrical sections for stable and accurate support of the screw member.

2,838,082
MAGNETIC DRIVING TOOL
Carl A. Lange, Dayton, Ohio, assignor to The Apex Machine and Tool Company, Dayton, Ohio, a corporation of Ohio
Application June 18, 1956, Serial No. 591,881
1 Claim. (Cl. 145—50)

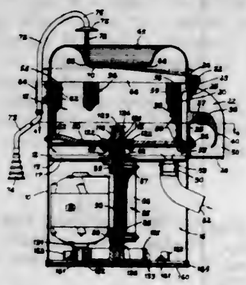


A magnetic tool for retaining magnetically attractable fastenings in driving relation with the bit of the tool, comprising the combination of a bit of magnetic material having a driving end for engaging fastening elements in torque-transmitting relation, a shank on said bit of non-circular cross section, a tubular sleeve of non-magnetic material having an inner surface of non-circular cross section corresponding to said bit shank and engaging said bit shank in torque-transmitting driving relation, a threaded end on said sleeve, a tubular body portion of non-magnetic material having a threaded end for mating with said threaded end of said sleeve, a permanent magnet supported within said body portion, one face of said magnet being positioned at the edge of said threaded end of said body portion, means in said sleeve for yieldably retaining said bit shank in said sleeve, the relative dimensions of said threaded ends and the location of said retaining means being such that said bit shank is maintained in direct magnetic flux-transmitting relation with said face of said magnet, a driving shank of magnetic material, and means retaining a portion of said driving shank in torque-transmitting relation within said body portion and in magnetic flux-transmitting relation with the end of said magnet opposite said face.

2,838,083
VEGETABLE PEELER HAVING SPRAY DISPERSER
Gerald B. Fox, Franklin D. Houser, and David A. Meeker, Troy, Ohio, assignors to The Hobart Manufacturing Company, Troy, Ohio, a corporation of Ohio
Application September 12, 1955, Serial No. 533,845
6 Claims. (Cl. 146—50)

1. In an open top machine for peeling and cleaning vegetables and the like, the combination of a housing providing a chamber for reception of the vegetables to be peeled and cleaned, means in said chamber for peeling the skin portions from the vegetables, a lid covering said open top of said chamber including a downwardly and inwardly flared lip defining an opening in said lip for loading the vegetables into said chamber, a liquid supply tube including means for connection thereof to a source of flushing liquid and having an open end positioned above said lid and arranged to direct a stream of liquid against said lip at an angle such that said liquid is dispersed in a wide generally flat spray pattern across said opening forming a liquid curtain for preventing back splash from within said chamber, said spray of liquid

traveling toward the walls of said chamber and affording a supply of flushing liquid for washing the peelings from said vegetables and the surrounding walls of said chamber, and drain means adjacent the bottom of said chamber for conducting the flushing liquid and the peelings entrained therein from said chamber.

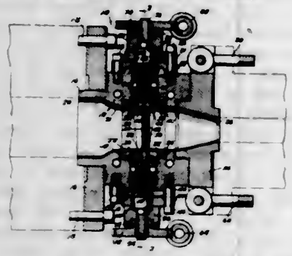


2,838,084

SCREEN CHANGING METHOD FOR CONDUITS AND TUBES FOR CONVEYING FLUIDS AND FOR EXTRUSION MACHINES

Lee F. Samler, Baltimore, Md., assignor to The National Plastic Products Company, Odenton, Md., a corporation of Maryland

Application August 8, 1956, Serial No. 602,786
9 Claims. (Cl. 146—242)



1. In a method of changing a screen disposed in a seated position in a body portion, comprising the steps of moving said screen upwardly in a vertical direction to an unseated position, shifting said screen in a horizontal direction to move said screen out of the screen operating position, and simultaneously shifting a replacement screen into the screen operating position to replace the first-named screen.

2,838,085

CARRYING CASE FOR OXYGEN EQUIPMENT

Wilma Beeler, Beloit, Kans.

Application June 6, 1955, Serial No. 513,347
2 Claims. (Cl. 150—52)



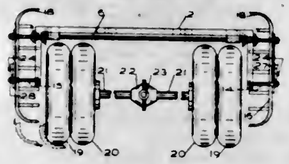
1. A case for carrying an oxygen administering apparatus, which apparatus includes a cylindrical oxygen bottle having a valve at one end and a base at the other end, a flexible tubing connected with the valve and a mask connected with the tubing, said carrying case including a rigid body portion having opposed substantially flat side walls and a base forming a closed-bottom compartment open at the opposite end and adapted to contain said bottle therein with the base of said bottle rested upon the base of said body portion and opposite sides of the bottle in tangential contact with said side walls to support the bottle in a vertical position on said base of the body portion of the case, a pliable covering for the body portion and having an integral hood extending upwardly from said side walls for covering relation with the valve, tube and mask, said hood having an opening extending upwardly from one side wall of the body portion across to the opposite side wall to divide the hood into sections adapted to be folded retractively from the other two side walls for removal of the mask for use, "zipper" means for closing said opening to retain the hood sections in covering relation with the valve, tubing and mask, and a carrier strap for said case having spaced apart portions extending transversely across one side wall of said body portion and having portions extending across the adjoining side walls and terminating in loops adapted to be gathered across the other side wall to form handholds for carrying the case with the bottle in horizontal position.

2,838,086

MOTOR VEHICLE TRACTION ATTACHMENT

Bernard Feeney, Salmo, British Columbia, Canada

Application October 29, 1956, Serial No. 618,870
2 Claims. (Cl. 152—214)



1. In a traction attachment for motor vehicles of a character providing a frame for suspension in the vehicle in working relation to traction wheels therein, said attachment including primary crank shafts and a shaft in the frame connected for rotation of said crank shafts the one by the other, secondary crank shafts, depending brackets in the frame in which the primary and secondary crank shafts are mounted to rotate, means connecting the secondary crank shafts to be driven by the primary crank shafts, brackets to which the primary and secondary crank shafts attach free to turn thereon, stub axle shafts carried by said brackets, and a wheel engaging traction element mounted for rotation on each of said stub axle shafts.

2,838,087

TUBELESS TIRE PATCH

Robert J. Covert, Indianapolis, Ind., assignor to Bowes "Seal Fast" Corporation, Indianapolis, Ind., a corporation of Indiana

Application April 8, 1955, Serial No. 500,212
1 Claim. (Cl. 152—367)

A tubeless tire patch constructed for predetermined direction positioning relative to beads of the tire, comprising a pair of rectangular equal lengths of fabric symmetrically, diagonally laid one length over the other, embedded in rubber, and crossing one another at an angle greater than ninety degrees measured along side edges thereof; said diagonally laid lengths defining non-overlapping major area triangular corner portions, the apices of which are right angles and are pointed oppositely toward the tire beads; said diagonally laid lengths also defining non-overlapping minor area triangular corner portions, the apices of which are right angles and are closer together than said first apices and point in directions normal to those of the major triangular portions; said lengths having an extent of overlapping exceeding the longitudinal lengths thereof in a direction parallel to said beads exceeding the maximum extent of overlapping in a direction normal to said beads.

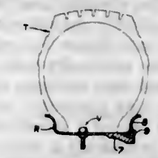


2,838,088

TUBELESS TIRE VALVE

Donald E. McIntire, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application January 4, 1956, Serial No. 557,330
7 Claims. (Cl. 152—427)



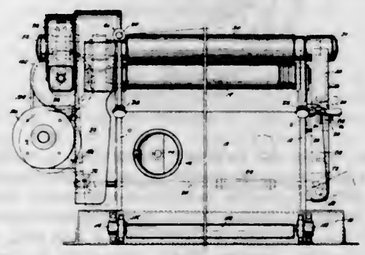
1. A snap-in inflation valve for mounting in an apertured wheel rim to form part of a tubeless tire assembly, comprising a generally cylindrical body of rubber having an integral flange at the outside end for engaging the outside wall of a wheel rim, a rigid valve stem moulded in said body coaxially therewith, said valve stem having a flange disposed at the end of said rubber body opposite the rubber flange, and a flexible radially deformable metal insert in said rubber body having an axis of symmetry substantially coincident with the axis of said body, said insert having a radial dimension greater than that of the rim aperture, the diameter of said cylindrical body being greater than that of the rim aperture.

2,838,089

ROLL FORMING MACHINE WITH WORK RELEASING MECHANISM

Ralph H. Weimer, Greensboro, N. C., assignor to Wysong & Miles Company, Greensboro, N. C.

Application June 24, 1954, Serial No. 439,070
7 Claims. (Cl. 153—61)



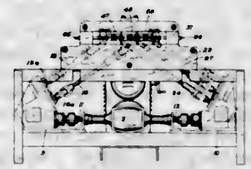
1. In a slip roll forming machine having a frame comprising upright end plates and a front plate joining the two end plates, front and rear roll guides carried by said end plates, front and rear rolls adjustably mounted in said guides, head and tail pivoted end members carried by said frame, the head member being pivoted at its upper end to the upper end of one upright plate and the tail member being pivoted to the opposite end plate at its lower end, a top roll disposed above the front and rear rolls and having its ends supportably mounted in the upper ends of the pivoted members, one end of the top roll being axially fixed in the upper end of the head member, and the other end of such roll being slidably and detachably supported in the tail member, means operatively connecting the lower end of the head member to the lower end of the tail member at a point above the pivot of the latter, and power means for driving said rolls.

2,838,090

CROSS ROLL STRAIGHTENING APPARATUS IN WHICH THE OPPOSED ROLLS ARE DRIVEN THROUGH A DIFFERENTIAL MECHANISM

Odd J. Skawden, Bellefonte, and Joseph H. Gettig, Malvern, Pa., assignors to Sutton Engineering Company, Bellefonte, Pa., a corporation of Pennsylvania

Application July 12, 1955, Serial No. 521,488
2 Claims. (Cl. 153—105)



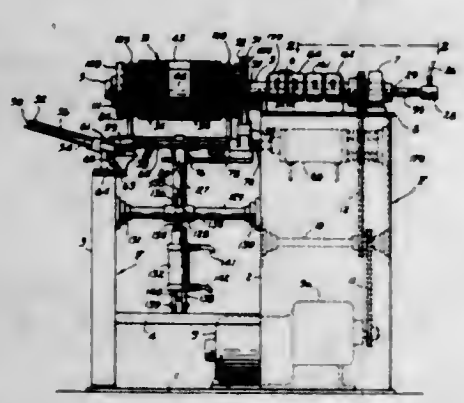
1. In a cross roll straightening machine, for straightening round stock, constructed to have a pass line extending through the machine and having a pair of opposed cross rolls at least one of which rolls has a concave working surface and which rolls define a work pass coinciding with the pass line, the combination comprising the aforesaid rolls, a separate gear assembly for each roll, shaft connections between each gear assembly and its associated roll, a differential device, driving connections between the differential device and each of the gear assemblies, the gear assemblies being adapted to drive the rolls at substantially the same effective surface speed when the driving connections from the differential device to each gear assembly rotate at substantially the same angular velocity, and a single source of power connected to the differential device for simultaneously driving the two rolls, whereby when the axes of the rolls are disposed at unequal angles relative to the pass line the roll disposed at the smaller of said angles will have a lower effective surface speed than the other roll.

2. In cross roll straightening apparatus having two banks of angularly disposed and mutually crossed rolls, the combination comprising a frame for supporting the rolls, two gear assemblies mounted within the frame at opposite ends thereof, shafting connections between each gear assembly and the rolls in one of the roll banks, the shafting connections to the rolls of at least one of the roll banks engaging the rolls therein interiorly of those rolls by tangential means and without radial bearing thereagainst, a differential device mounted on the frame between the two gear assemblies, driving connections between the differential device and each of the gear assemblies, said driving connections being disposed at an acute angle to the shafting connections associated with each gear assembly, and a single source of power connected to the differential device for simultaneously driving both banks of rolls.

2,838,091
TIRE BUILDING MACHINE

Herman T. Kraft, Akron, Ohio, assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 17, 1955, Serial No. 528,996
24 Claims. (Cl. 154—9)



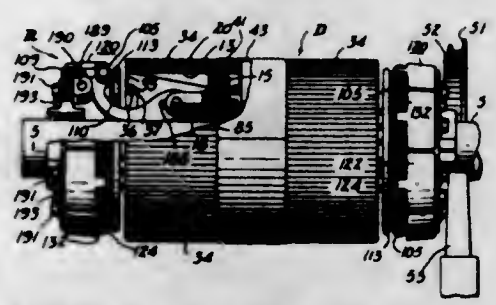
1. In a tire building machine having a generally cylindrical expandable drum for receiving a plurality of fabric layers with end portions extending axially beyond the shoulders of the drum, means for radially expanding the drum, and means for positioning bead rings against the fabric end portions adjacent the drum shoulders, improved fabric lapping means for turning the end portions of the fabric layers radially outwardly and axially inwardly over the bead rings and the ends of the drum comprising: a series of circumferentially spaced radially extending curved fingers mounted at one end of said drum, an actuating member radially inwardly of the drum shoulders and mounted for movement axially relative to said drum, an expandable resilient constraining annulus, each of said fingers being pivotally connected at one end of said actuating member and being connected at its opposite end to said annulus, means for swinging said fingers radially outwardly substantially in unison in response to axial movement of said actuating member to move said resilient annulus from a first position within an axially extending end portion of said fabric to a second position radially outwardly of said drum including means for engaging the axially outer face of each finger to provide a first pivot radially inwardly of said drum shoulders and means for engaging the axially inner face of each finger to provide a second pivot radially outwardly of said first pivot.

21. A method of building a tire comprising placing a plurality of rubber-coated fabric strips on an expandable cylindrical drum with the cords of each strip inclined with respect to the cords of the next adjacent strip and with the edges of the strips arranged in staggered relation to form a fabric layer having end portions that decrease in thickness toward their outer ends and that extend beyond the ends of the drum, expanding the drum to expand the fabric layer between said end portions, moving inextensible bead rings over said end portions toward said drum and into engagement with the fabric adjacent the shoulders of the drum to adhere the bead rings to the fabric, placing a resilient stitching ring within each of said end portions and expanding and moving said ring along a first predetermined path over the shoulders of the drum while holding the ring concentric to the drum so as to lift the end portion and to lap said end portion over the bead ring, contracting the stitching ring during axial inward movement of the ring to press the fabric against the drum, and expanding and moving the stitching ring along a second predetermined path radially outwardly of said first path to move the stitching ring out of contact with said fabric and beyond the ends of said drum.

2,838,092
FABRIC LAPPING MEANS

Thomas J. McMahon, Akron, Ohio, assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio

Application July 17, 1956, Serial No. 598,404
6 Claims. (Cl. 154—9)

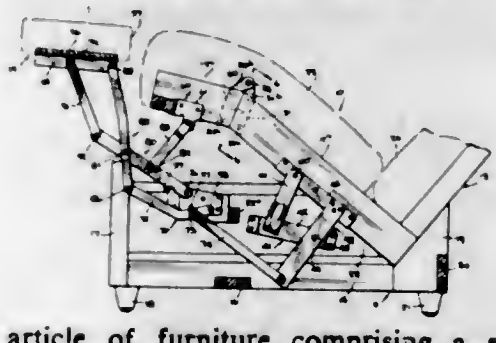


1. In a tire building machine having a generally cylindrical drum for receiving a plurality of fabric layers with end portions extending axially beyond the shoulders of the drum, and means for positioning the bead rings over the fabric end portions and for pressing the bead rings against the fabric end portions, improved fabric lapping means for turning the end portions of the fabric layers radially outwardly and axially inwardly over the bead rings and the ends of the drum comprising: an expansible and contractible resilient stitching ring near each shoulder of said drum, means for supporting said ring and for expanding and contracting the ring over the drum including a series of circumferentially spaced turnover fingers and means for actuating said fingers in unison to move the stitching ring radially outwardly and axially inwardly over the bead ring and over the ends of the drum while holding the stitching ring concentric to the drum, each of said fingers being spaced a substantial distance from the adjacent fingers and having a fabric-engaging lateral extension mounted thereon, the lateral extensions of adjacent fingers being spaced apart circumferentially a distance which is a small fraction of the distance between said adjacent fingers when the fingers are retracted and in their normal innermost positions, the fabric-engaging portions of said turnover fingers and said lateral extensions being positioned adjacent the stitching rings for engaging the fabric end portions at closely spaced points around the periphery of the fingers so that the fabric is pulled tightly around the bead rings as the fingers move over the shoulders of the drum.

2,838,093
RECLINING FURNITURE

Albert M. Bank, Jersey City, and Alex J. Katz, West Orange, N. J., assignors to Super Sagless Spring Company, Jersey City, N. J., a partnership

Application March 17, 1955, Serial No. 494,886
8 Claims. (Cl. 155—106)

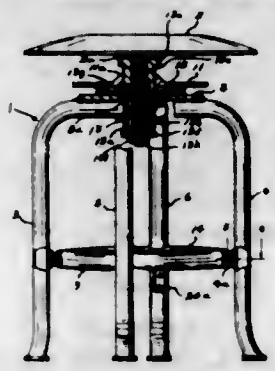


3. An article of furniture comprising a supporting frame, a rear seat part pivoted to said supporting frame, a front seat part pivoted to the rear seat part, a first link pivoted to the supporting frame, a second link connecting the rear seat part with the first link, a foot rest, a pair of interpivoted, crossing levers connected to the foot rest, supporting frame and first link, and link means connecting one of said interpivoted levers with the front seat part.

2,838,094
COLLAPSIBLE STOOL

William J. Janning, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force

Application March 22, 1957, Serial No. 647,927
6 Claims. (Cl. 155—149)
(Granted under Title 35, U. S. Code (1952), sec. 266)

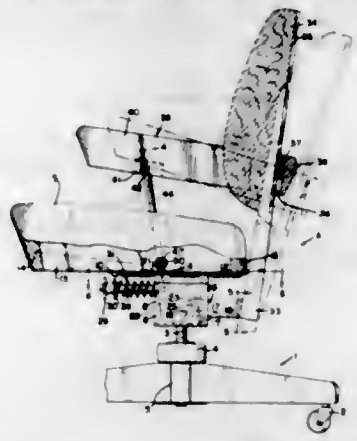


1. A general utility stool comprising an upper plate, a lower plate affixed to said upper plate and spaced therefrom, a stand attached to said lower plate, a seat affixed to said upper plate, collapsible means supporting said seat and said lower plate comprising a first pair of supporting legs rigidly affixed to said lower plate and a second pair of supporting legs affixed to said lower plate and pivotal between an open, supporting position and a closed nonsupporting position, and a foot-rest rotatably mounted between said first pair of supporting legs having means locking said second pair of supporting legs in said open, supporting position, said foot-rest rotatable between a locking position and a nonlocking position.

2,838,095
POSTURE CHAIRS

Charles U. Deaton, Denver, Colo.

Application December 7, 1955, Serial No. 551,653
6 Claims. (Cl. 155—157)

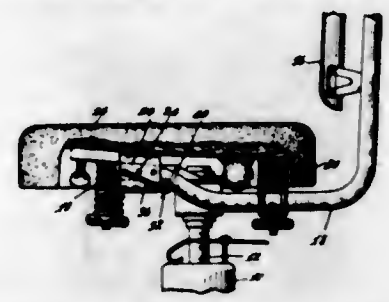


1. A posture chair comprising upright support means, seat supporting bracket means mounted on the upper end of the support means, a seat mounted on said bracket means to form, in combination therewith, a seating assembly, an arm pivotally mounted on the bracket and extending rearwardly therefrom a back member mounted on the said arm and extending upwardly at the rear of the seat, spring means operatively associated with the bracket means for biasing the back member forwardly into an upright position in relation to the seat member, a U-shaped arm rest hingedly mounted on the rear of the back member and having a pair of forwardly extending arms, and means hingedly connected to the underside of the arms forwardly of the back member, said last-mentioned means also including horizontally extending bight means journaled in the seating assembly for causing the arm rest means to change its position in relation to both the seat and back member as the back member swings rearwardly against the bias of the spring means.

2,838,096
CHAIR

James A. Heavern, Columbus, Ind., assignor to Hamilton Manufacturing Corporation, Columbus, Ind., a corporation of Indiana

Application August 12, 1954, Serial No. 449,369
8 Claims. (Cl. 155—163)

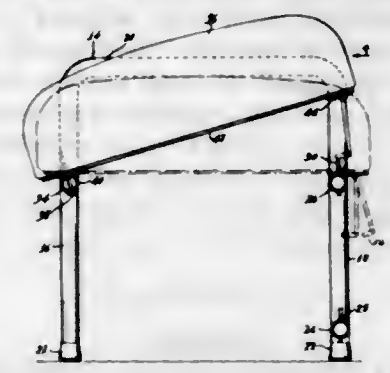


1. In a chair or the like having a seat, a back, and a back support, said back support including an arm extending adjacent the seat, means for releasably interconnecting said arm and seat, said means comprising a flange projecting from the seat beside said arm, said flange and arm having aligned holes, and a resilient clip having a first leg received in said holes and a second leg projecting from one end of the first leg along said arm to a point beyond said flange and being there formed to provide a hook extending across said arm and resiliently engaging the remote side thereof to prevent withdrawal of said first leg from said holes, said clip being rotatable about the axis of its first leg to effect disengagement of the hook from said arm.

2,838,097
OTTOMANS

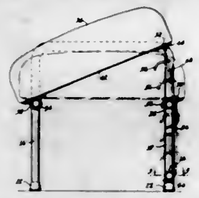
Harold Gleitsman, New Rochelle, and Carl Fuerst, Bronx, N. Y., assignors to Gleitsman's, Inc., Long Island City, N. Y., a corporation of New York

Application June 13, 1956, Serial No. 591,228
6 Claims. (Cl. 155—169)



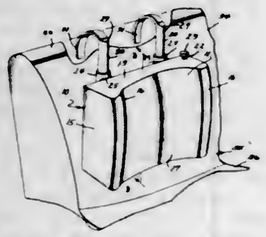
1. A floor-supported leg-rest bench adapted to be positioned adjacent the front of a chair, and comprising a rigid frame including front and rear pairs of supporting legs and a front cross member, extending between the upper parts of said front legs, a leg support pivotally mounted on and supported by said front cross member to swing on a horizontal axis and adapted to lie either in a horizontal position or in a tilted leg-supporting position in which said leg support is inclined forwardly and downwardly from substantially the horizontal level of the chair seat in said adjacent position of the leg support; said rear legs each having a plurality of vertically spaced openings accessible externally of said frame, and prop means for propping said leg support in an inclined position pivotally attached to said leg support and depending downwardly therefrom and having end portions adjacent said rear legs, respectively, removably engageable with said rear legs, respectively, in selected ones of said vertically spaced openings for vertically adjustable securement of said prop means to said rear legs for correspondingly adjusting the position of said leg support on said frame.

2,838,098
ADJUSTABLE OTTOMAN
Carl Fuerst, Bronx, N. Y., assignor to Gleitsman's Inc., Long Island City, N. Y., a corporation of New York
Application April 11, 1957, Serial No. 652,214
2 Claims. (Cl. 155—169)



2. An ottoman bench adapted to be positioned adjacent the front of a chair, and comprising a base and a foot rest member pivotally mounted on said base and adapted to lie either in a horizontal position or in a tilted leg-supporting position; the base being a unitary framework adapted to provide a suitable support and comprising an open frame having a pair of front legs, a first horizontal cross member connecting and rigidly uniting the front legs, a pair of rear legs, a second horizontal cross member connecting and rigidly uniting the rear legs, a substantially horizontal member extending from a front leg to a rear leg on each side of the ottoman bench and connecting and rigidly securing the two pairs of legs, said foot rest member having an upper padded surface, and the pivot mounting of the foot rest member being underneath said padded surface and uniting the latter to the first named horizontal cross member, rigid brace means pivotally mounted at its upper end on the under side of the foot rest member at the rear of the base, and means on said rigid brace means for seating on the second horizontal cross member at the rear of the base, said seating means comprising a plurality of vertically spaced transverse parts selectively engageable with and releasable from the second horizontal cross member to support said foot rest member in adjusted tilted position when said seating means is seated on said second cross member, said seating means being manually engageable with and releasable from said second cross member by pivotal movement toward and away from said second cross member at the outer side of the frame and being gravity biased into engagement with said second cross member.

2,838,099
BACK CUSHION FOR AUTOMOBILES OR THE LIKE
Ernest H. Warner, Nova, Ohio
Application August 4, 1953, Serial No. 372,351
5 Claims. (Cl. 155—182)



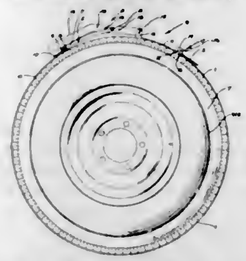
1. A back cushion for the seat of an automobile comprising an inflatable cushion for supporting the back of an occupant of the automobile and means for adjustably supporting said cushion above the seat portion of said seat comprising at least one tubular member fixed to said inflatable cushion and having a longitudinally extending slit therein and a series of longitudinally spaced apart transversely extending recesses opening into said slit and having a bottom wall angularly displaced from said slit substantially ninety degrees, and a hook member having a hook portion for engaging over the top of the back of said seat, a shank portion slidably received by said tubular member and a lug extending from said shank portion in vertical alignment with said hook portion and received by said slit to permit relative longitudinal sliding of said members and adapted to be received by said recesses upon a partial rotation of said hook member within said tubular member for engaging the lug with the bottom wall of the recess for preventing relative longitudinal sliding of said members and bringing the hook portion into position whereby it may be engaged over the top of the back of the seat.

2,838,100
CHAIR, SOFA, OR SIMILAR ARTICLE
John W. Follows, Forest Hills, N. Y.
Application December 12, 1955, Serial No. 552,414
3 Claims. (Cl. 155—191)



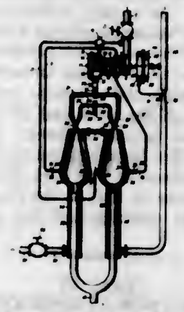
1. A chair, sofa, or similar article, comprising a base, inner frame parts supported by said base and defining the skeleton form and structure of the article above said base, and resilient molded foam material in which said skeleton frame parts are embedded for reinforcing said material, said resilient foam material forming a cushioning layer over said frame and having a molded, contoured surface conforming to the external contoured surface of said article in accordance with the external shape of the article.

2,838,101
TOOL TO RENDER A TUBELESS TIRE INFLATABLE
Harley M. Carpenter, Bellflower, Calif.
Application September 12, 1955, Serial No. 533,730
1 Claim. (Cl. 157—1.21)



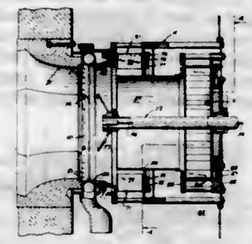
A tool for effectively sealing the beads of a tubeless tire with respect to the inside of a wheel rim whereby to render said tubeless tire inflatable, comprising: a substantially flat, thin-sheet fabric, longitudinal tensile belt member to engage the periphery of said tire; and manually operable tension-applying means having a first portion pivotally connected at one end to one end of said belt and having a second portion removably and adjustably connected to the other end of said belt, said tension-applying means including an over-center lever means pivoted to said second portion of said tension-applying means and connected to the other end of said first portion of said tension-applying means at a point remote from the point of pivotal attachment of said lever means to said second portion, said lever means being manually pivotally operable about its point of pivotal attachment to said second portion into an extreme over-center position with respect to said point of pivotal attachment thereby moving said first and second portions of said tension-applying means closer together and locking them in tension-applying relationship until manual release thereof, said point of pivotal attachment of said over-center lever means to said second portion being radially outwardly displaced a distance substantially greater than the radial outward displacement of the point of connection of said over-center lever means to said other end of said first portion of said tension-applying means when said lever means is manually pivoted around its point of pivotal attachment with respect to said second portion into said extreme over-center position, means for selectively adjusting the distance between the connections of said lever to said first and second portions; said second portion of said tension-applying means including rotatively mounted eccentric means adjacent the removable and adjustable connection of said other end of the belt to effectively lock said other end of said belt with respect to said second portion of said tension-applying means.

2,838,102
PULSE JET BURNER SYSTEM
Ernst Reimers, Wernau am Neckar, Germany, assignor to Junkers & Co. G. m. b. H., Wernau am Neckar, Germany
Application August 25, 1955, Serial No. 530,537
Claims priority, application Germany August 28, 1954
7 Claims. (Cl. 158—4)



6. In a pulse jet burner system, in combination, a pair of combustion chambers each formed with an inlet opening for admitting a combustible mixture; a pair of resonant tubes each extending between said inlet openings and being in permanent communication with the interiors of said combustion chambers, said tubes being joined together and communicating with each other at each of said inlet openings, each tube having a Venturi portion located midway between said inlet openings, one of said Venturi portions being formed at its throat with an intake portion communicating permanently with the outer atmosphere and dividing said throat into two opposing throat portions, said intake portion forming a gap between said opposing throat portions and providing a free spacing between the smallest ends of said throat portions and the other of said Venturi portions being formed at its throat with an intake portion communicating with a source of combustible gas and dividing said throat into two opposing throat portions, said intake portion forming a gap between said opposing throat portions and providing a free spacing between the smallest ends of said throat portions, and each of said resonant tubes providing a permanent uninterrupted fluid path between said chambers.

2,838,103
FORCED AIR DRAFT BURNER CONSTRUCTION
Temple S. Voorhis, San Francisco, Calif.
Application April 3, 1956, Serial No. 575,824
2 Claims. (Cl. 158—11)

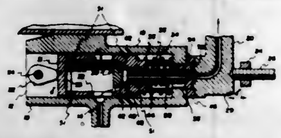


1. In a convertible oil and gas burner construction of the type incorporating a gas ring disposed coaxially adjacent a combustion chamber throat opening operable to introduce discrete gas streams into said throat generally radially inwardly toward the center thereof, and an oil nozzle disposed coaxially with said throat opening alternatively operable to inject a conical spray of oil generally outwardly toward the walls of the burner throat, the improvement comprising: means including a circular, adjustable, air-vane type register mounted coaxially and rearwardly of said gas ring operable to direct a first air stream into said throat opening of smaller cross-sectional area than the cross-sectional area of said throat opening; means including an annular, adjustable, air-vane type register mounted coaxially and rearwardly of said gas ring operable to direct an annular second air stream into said throat opening concentrically sheathing said first air stream; the set of air vanes of said circular air register and the set of air vanes of said annular air register when in closed position overlapping one another; the set of vanes of said circular register overlying one another in a direction opposite to the direction of overlapping of the set of vanes of the annular register whereby the respective air streams discharged from said two registers are caused to swirl in counter-rotating directions; first operating means for simultaneously opening and closing the vanes of said circular air register; second operating means for simultaneously opening and closing the vanes of said annular air register; a master control means movable from first to second positions; first and second linkage means for respectively connecting said first and second operating means to said master control means; said linkage means being so connectable to said master control means in a first arrangement of operation for burning oil whereat movement of said master control from its first to second arrangement will cause the vanes of both said registers to open simultaneously; said linkage means being so connectable to said master control means in a second arrangement of operation for burning gas whereat movement of said master control from its first to second arrangement will cause the vanes of said circular register to open while simultaneously closing the vanes of the annular register.

2,838,104
FUEL OIL BURNER SAFETY DEVICE
Carl R. Midtlyng, Helmville, Mont., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application August 6, 1954, Serial No. 448,397
12 Claims. (Cl. 158—73)
(Granted under Title 35, U. S. Code (1952), sec. 266)

8. In a fuel burner system including a fuel carrying device detachably coupled to a source of fluid fuel, a combined safety valve and coupling comprising a housing having a fluid inlet and outlet, a valve mechanism

positioned between said inlet and outlet in said housing for controlling the flow of fuel through said outlet, said valve mechanism comprising a first slidable valve member having a valve face, a second slidable valve member having a seat co-acting with the valve face of said first valve member to control flow of fuel therethrough, said housing arranged to permit movement of said valve members within predetermined limits, each valve member mounted movable relative to each other within said predetermined limits in said housing, a coupling bushing adapted to mate with said fuel carrying device and mount-



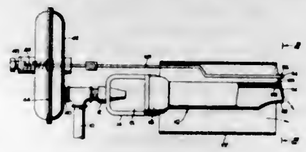
ed adjacent to said second valve member in said housing outlet to slide in and out within limits to actuate said second valve member, valve operating means supported by said housing having an open and closed position for positioning said first valve member for the opening and closing of the valve, spring means in said housing arranged to urge said first and second valve members closed and said coupling bushing outwardly, said housing predetermined limits arranged so the limits of each valve member overlap to always close the valve when the coupling bushing is in its outermost position and said valve operating means is in its open position.

2,838,105
BURNER FOR THE PRODUCTION OF CARBON MONOXIDE AND HYDROGEN
du Bois Eastman, Whittier, Calif., and Leon P. Gaucher, Tuckahoe, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
Application September 18, 1953, Serial No. 380,898
3 Claims. (Cl. 158—109)



1. A burner structure for discharging and mixing a stream of gasiform hydrocarbon and a stream of oxygen containing gas which comprises a unitary body provided with an inner conduit having a relatively extended, substantially cylindrical portion adjacent its discharge end for unrestricted flow of one of the streams therethrough and a section at said discharge end joined to said cylindrical portion and flared outwardly starting within said inner conduit from a point at least one diameter thereof from said discharge end and terminating in a knife edge to define a circular discharge port, an outer conduit substantially concentric with and disposed about said inner conduit in spaced relationship thereto for the passage of the other of the streams therethrough, the discharge end of said outer conduit converging inwardly and terminating in a circular discharge orifice beyond said discharge port and in axial alignment therewith, whereby the streams from the inner and outer conduits are mixed with one another and discharged through said discharge orifice, and means disposed about the exterior of said burner structure adjacent said discharge orifice for cooling the discharge end of said burner structure, the angle of the outward flare of said section at said discharge end of said inner conduit being not less than 14° and not more than 45°, and the angle of inward convergence of said discharge end of said outer conduit being within the range of 30° to 75° measured from the longitudinal axis of said inner conduit.

2,838,106
GAS BURNER
John V. Thomas, Pasadena, Calif.
Application April 12, 1954, Serial No. 422,468
4 Claims. (Cl. 158—119)

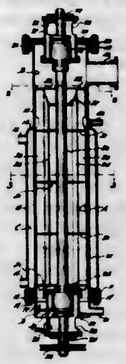


1. In a gas burner, the combination of: a gas nozzle, a line for supplying gas under pressure to said nozzle, a member receiving gas from said nozzle and having a discharge opening through which gas and air pass, a casing surrounding said member and spaced therefrom and having an open end for secondary air, the discharge opening of said member being positioned closely adjacent said open end of the casing, a deflector adjacent said discharge opening having a pivotal axis disposed transversely of said member at one side thereof, said deflector including a first portion adapted to restrict flow through the discharge opening and a second portion adapted to restrict flow through the open end of the casing, a rod pivotally connected to said deflector, and gas pressure responsive means for actuating the rod whereby an increase in gas pressure in said line acts to tilt the deflector in a direction to reduce the restricting effect on both the discharge opening and the open end of the casing.

2,838,107
APPARATUS FOR EVAPORATING AND CONCENTRATING LIQUIDS
Charles P. Bridges, Morristown, and John William Runge, Ridgefield, N. J., assignors to Charles P. Bridges, doing business as Bridges Engineering Company, Morristown, N. J.
Application July 12, 1956, Serial No. 597,449
4 Claims. (Cl. 159—6)

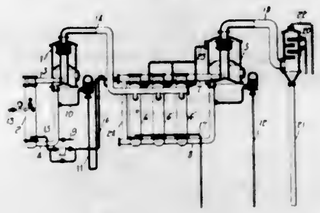
1. Liquid concentrating apparatus comprising a cylindrical column the lower portion of which provides an evaporating section having means to discharge concentrate therefrom and the upper portion of which provides a vapor discharge section, means to heat the wall of the evaporating section, and a rotor mounted co-axially within the column for extension through the evaporating section to the vapor discharge section, said rotor comprising an axial shaft having transverse centrifuge plates longitudinally spaced therealong and affixed thereto whereby to rotate therewith, longitudinally extending vanes carried by outer marginal portions of said centrifuge plates in outwardly spaced relation to and around the shaft, outer edges of said vanes and centrifuge plates terminating in close proximity to the column wall, an annular partition plate affixed to and bridging the upper ends of said vanes, a second partition plate extending

between the rotor shaft and inner margins of said blades and spaced below said annular partition plate whereby to provide the upper end of the rotor with a vapor outlet communicating with the vapor discharge section, said



partition plates being adapted to supplement the centrifugal effect of the centrifuge plates, and means to introduce liquid to be concentrated for down flow along the heated wall of the evaporator section.

2,838,108
MULTIPLE EFFECT VACUUM EVAPORATOR
Shinzo Sumiya, Takaishicho, Senbokugun, Japan
Application May 9, 1955, Serial No. 507,040
In Japan August 3, 1949
Public Law 619, August 23, 1954
Patent expires August 3, 1969
2 Claims. (Cl. 159—17)



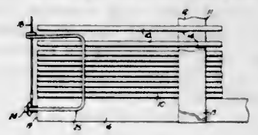
1. A multiple effect vacuum evaporator having a plurality of stages, each of which comprises at least one heater and a single separator for removing liquid entrained in the vapor passing through said separator, each of said heaters having a plurality of heating tubes for receiving a liquid to be evaporated, the outlet of each of the heaters in each stage leading to the separator, the separator for each stage having an outlet connected for delivering the vapor to the heaters in the following stage to serve as the heating medium for said heaters, said heaters in each stage being vertical, and an upper and a lower horizontal circulation pipe in each stage connected between the heater and the separator in that stage, the number of heaters in the second stage being greater than the number of heaters in the first stage for producing a temperature difference in the first stage greater than the temperature difference in the second stage, the number of heaters in the stage following the second being at least the same as the number of heaters in the second stage, and each of the heaters in a given stage following the first stage having at least the same heating area as each of the heaters in the stage preceding that stage.

2,838,109
WINDOW
Eric Sigfrid Persson, Malmo, Sweden
Application March 26, 1952, Serial No. 278,619
Claims priority, application Sweden June 11, 1951
1 Claim. (Cl. 160—107)



A window comprising an outer stationary frame, an inner stationary frame connected with the outer frame, heat insulating means mounted between said frames, an outer sash, an inner sash connected with said outer sash to form a unit pivoted to one of said frames, at least one of said frames and at least one of said sashes each comprising an integral member made from a single metallic bar extending along a whole side and along the whole or a substantial portion of two adjacent sides of the window, the fourth side being formed by a straight member forming right angles with the adajcent side members, the straight member of one of the frames being formed as a holder or a head of screening means.

2,838,110
VENETIAN BLIND CONSTRUCTION
Ellis A. Lando, Mill Valley, Calif.
Application January 14, 1955, Serial No. 481,866
1 Claim. (Cl. 160—168)

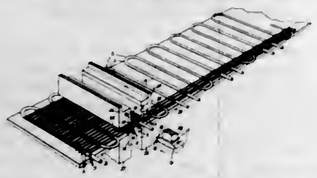


In a Venetian blind construction, a top tilting rail, a bottom rail, ladder tapes connecting said rails, a plurality of slats supported by said tapes, means for raising said bottom rail, said means including a pull cord, and means for pivotally connecting the ends of the pull cord to the ends of the bottom rail intermediate the side edges of the bottom rail, the vertical portions of the cord being disposed at and confronting the opposite free ends of the slats, the pivotal connections of said pull cord permitting tilting movement of said bottom rail, and cage means mounted on the bottom rail adjacent each end thereof, said cage means including a pair of members pivotally mounted on said bottom rail and having portions extending upwardly at right angles from the bottom rail, the portions having a predetermined height so that the members will receive the Venetian blind slats as they are gathered, said cage means also including guide means carried by said members, said guide means engaging said cord and servng to maintain said members in a substantially vertical position when the bottom rail is in a tilted position, the members serving to prevent sidewise movement of the slats when the bottom rail is in a tilted position.

2,838,111
DEVICE FOR CUTTING SPACED ELEMENTS
George A. Baltus, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application October 31, 1952, Serial No. 317,958
9 Claims. (Cl. 164—47)

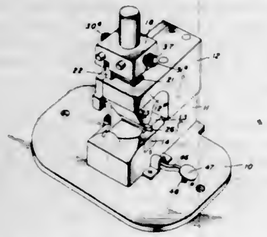
4. In a device for cutting intermediate portions from pluralities of wires arranged in a pair of spaced-apart planes, a first pair of dies, said first pair of dies including a first pair of opposed shearing edges, each of said

first pair of opposed shearing edges being serrated, the serrations in each of said first pair of shearing edges being adapted for receiving the wires arranged in one of said planes, at least one of said first pairs of dies being movable toward the other for clamping said wires in said serrations in said first pair of opposed shearing edges, a second pair of dies, said second pair of dies including a second pair of opposed shearing edges, each of said second pair of opposed shearing edges being serrated, the serrations in each of said second pairs of shearing edges being adapted for receiving the wires arranged in one of said planes, at least one of said second pairs of dies being movable toward the other for clamping said wires in said serrations in said second pair of opposed shearing edges, and a cutter, said cutter being tapered to form



a first pair of inclined shearing edges on one side thereof and a second pair of inclined shearing edges on the other side thereof for cooperating with said first and second pairs of opposed serrated shearing edges, said cutter being movable between said first and second pairs of dies and on a line intermediate said spaced apart planes of said elements, said inclined shearing edges being in shearing engagement with each serration independently in both said first and second pairs of opposed shearing edges when said wires are clamped in said serrations and during movement of said cutter between said dies whereby a greater shearing angle is created for cutting from the pluralities of wires arranged in both of said spaced-apart planes the portions of said wires intermediate said first and second pairs of dies.

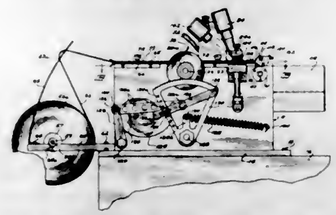
2,838,112
PUNCH MEANS USEFUL IN SLIDE FASTENER MANUFACTURE
Rudolf Feitl, Brooklyn, N. Y., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application December 20, 1954, Serial No. 476,525
4 Claims. (Cl. 164—47)



1. Punch and die mechanism for the production of individual slide fastener chains having one or more element-free spaces along the length thereof from a continuous chain comprising, in combination, a die set including a ram and a die, punch means operatively carried by said ram and coacting with the die and comprising at least one longitudinally disposed fastener-element removing punch, of length as to be effective to remove a predetermined small number of fastener elements from a length portion of the chain disposed on said die, and a transversely disposed cut-off punch for cutting off desired lengths of fastener chain from the continuous chain, said cut-off punch being disposed forwardly of said element-removing punch and tapering to a cutting edge which is spaced forwardly of the front-end edge of said element-removing punch a distance which is slightly less than the normal spacing between any two longitudinally related fastener elements of the chain, said cut-off punch being further mounted for limited retracting movement in a slot provided therefor in said ram, spring means in said slot urging said cut-off punch to a normal position in which its said cutting edge is disposed closer to the chain than is the cutting edge of said element-removing punch whereby, upon the ram being actuated on its working stroke, the cutting edge of the cut-off punch is adapted to cammingly engage with a fastener element of the chain disposed generally in the path of movement thereof prior to the cutting edge of the element-removing punch engaging said chain, and normally inactive chain-stop means operatively mounted in said die rearwardly of said element-removing punch and adapted when rendered active to move against the chain and anchor it at the point of its engagement therewith, the cutting edge of said cut-off punch and the chain-stop means being spaced apart in the direction of the length of the fastener chain a predetermined distance which is greater than the length portion of the chain occupied by the predetermined number of the fastener elements to be removed, the construction and arrangement being such that said cut-off punch, in addition to its fastener-chain cutting function, also serves preliminary to exercising said function as a pilot acting in collaboration with said stop means to tension the portion of the chain extending therefrom to said point of anchorage as required to position the predetermined number of fastener elements to be removed in the path of movement of said element-removing punch whereby said punch effects complete removal of all said elements

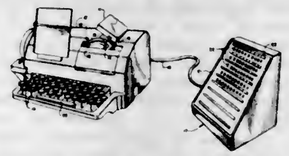
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2,838,113
METHOD AND APPARATUS FOR CUTTING PRINT
William D. Cornell, Kenmore, N. Y.
Application December 21, 1953, Serial No. 399,553
5 Claims. (Cl. 164—49)



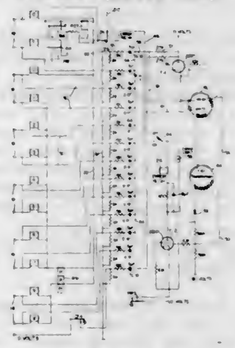
1. A machine for cutting prints from a film strip having spaced images thereon with light spaces therebetween having in combination, means for carrying said strip, a pair of rollers for advancing said strip having said strip pass therebetween, a cutting means, a segmental gear having positive engagement with one of said rollers for driving the same to advance said strip to bring said light spaces into register with said cutting means, a cam for oscillating said gear, means for driving said cam and said cutting means, said driving means actuating a second cam at fixed intervals, means for stopping the advance of said strip, said second cam actuating said stopping means to register said light spaces with said cutting means, a photo-electric cell focused on said strip, means associated with said photo-electric cell for stopping said strip, said cell being actuated to operate said stopping means when said strip has advanced too far to be stopped in register with said cutting means by the operation of said stopping means by said second cam, and means for returning said segmental gear to starting position by operatively disengaging said gear from said one of said rollers to automatically adjust its position on said film strip to move said strip in order to have the same stopped in register with said cutting means by said second cam.

2,838,114
KEYBOARD PERFORATOR AND COUNTER FOR SETTING TABULAR MATTER
Maurus T. Goetz, Chicago, and Ralph H. Halvorsen, Des Plaines, Ill., assignors, by mesne assignments, to Fairchild Graphic Equipment, Inc., a corporation of New York
Application August 29, 1955, Serial No. 531,232
3 Claims. (Cl. 164—112)



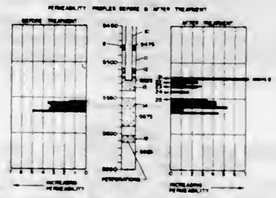
1. In combination with a keyboard perforator suitable for the production of perforated tape representing lines of composition comprising consecutive characters and expansible word spacers, a series of keys, a scale, a pointer, means for moving said pointer variably with respect to said scale in response to the operation of said keys to indicate the cumulative widths of characters, additional pointer means, a space key, means for moving said additional pointer means a predetermined distance upon each operation of said space key to indicate the cumulative expansibility of the word spacers, a special pointer cooperably associated with said other recited pointers, means for governing the movement of said special pointer, and control facilities for controlling said governing means, whereby said special pointer is positioned within predetermined limits with respect to said other pointers to indicate at all times the justifiability of the line being composed.

2,838,115
MULTIPLE PUNCH PREVENTION DEVICE
Roderic A. Davis, Hopewell Junction, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 14, 1955, Serial No. 553,039
7 Claims. (Cl. 164—115)



1. In a record perforating machine comprising, a plurality of devices operable for perforating a record, a plurality of electrical means corresponding to said devices and energizable selectively for conditioning said corresponding devices in accordance with a single element code, and means for operating conditioned ones of said perforating devices, the combination of a toroidal magnetic core, means for establishing said core in one magnetic state, a plurality of means controlled by corresponding ones of said plurality of electrical means and indicative of the selection respectively of said corresponding electrical means, the selection of two or more of said plurality of means being effective to reverse said magnetic state, and means operable by change of flux during said reversal of magnetic state for inhibiting energization of said electrical means whereby perforating is inhibited.

2,838,116
PRODUCING MULTIPLE FRACTURES IN A FORMATION PENETRATED BY A WELL
Joseph B. Clark, Jr., George C. Howard, and Clarence R. Fast, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
Application October 22, 1956, Serial No. 617,377
20 Claims. (Cl. 166—22)

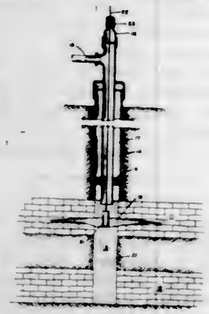


1. In a method of producing multiple fractures in a formation penetrated by a well, the steps of introducing into said well a first quantity of a fracturing liquid, said first quantity of a fracturing liquid comprising a slurry of a propping agent in a carrier liquid, pumping said first quantity of fracturing liquid into said formation at a pressure sufficient to produce a first fracture in said formation, introducing into said well following said first quantity of fracturing liquid a temporary fracture sealing agent comprising a slurry of bridging material, said bridging material comprising solid particles larger than said propping agent so that said bridging material will bridge in and plug said first fracture, pumping said temporary fracture sealing agent into said first fracture until said first fracture is plugged, introducing into said well following said temporary fracture sealing agent a second quantity of a fracturing liquid, pumping said second quantity of fracturing liquid into said formation at a pressure sufficient to produce a second fracture in said formation, said fracturing liquid having initially a retarded tendency to filter into said formation and being reverted within said formation to a liquid which flows more freely from said formation, and thereafter producing said well to remove said bridging material from said first fracture and to remove fracturing liquid from said first and said second fractures.

2,838,117
FRACTURING FORMATIONS AT SELECTED ELEVATIONS
Joseph B. Clark, Jr., and Karl Dyk, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
Application May 22, 1953, Serial No. 356,881
8 Claims. (Cl. 166—42)

7. In a method of increasing the productivity of a selected formation penetrated by a well comprising disposing a low-penetrating liquid in a zone of said well which intersects said selected formation and which spans all exposed permeable formations, contacting said low-

penetrating liquid in said well at only the elevation of said selected formation with a breaker specific for said low-penetrating liquid to increase the filtrate rate of said low-penetrating liquid at said elevation, allowing said breaker to remain in contact with said low-penetrating



liquid at said elevation until the filtrate rate of said low-penetrating liquid at said elevation is substantially increased, and then applying sufficient pressure to said low-penetrating liquid which is at least partially reverted, to fracture said selected formation.

2,838,118
PROCESS FOR SECONDARY OIL RECOVERY: DYNAMIC CYCLE SYSTEM
Simon L. Ruskin, New York, N. Y., and Charles W. Ripple, Union County, N. J.
No Drawing. Application March 3, 1955 Serial No. 492,050
2 Claims. (Cl. 166—42)

1. A process for releasing oil from an oil-bearing deposit, said process comprising providing a solution of acetylene under a pressure greater than atmospheric, introducing said solution into said deposit while maintaining a pressure greater than atmospheric, reducing said pressure to release at least a portion of said acetylene from said solution, and dissolve at least a portion of said released acetylene in said oil thereby reducing the viscosity of said oil and transporting said oil from said deposit.

2,838,119
MULTIPURPOSE OIL WELL TOOL
William B. Collins, Inglewood, Calif.
Application August 25, 1954, Serial No. 452,157
2 Claims. (Cl. 166—146)



1. A positively and selectively operable multipurpose oil well tool comprising: a tubular upper packer cup assembly including means for connecting the same to a string of pipe; a tubular lower packer cup assembly; a tubular imperforate spacer and a radially ported coupling collar connecting said upper and lower packer cup assemblies; a tubular port control mandrel longitudinally movable within the lower packer cup assembly and slidable within the coupling collar to selectively open and close a radial port in said collar, the tubular mandrel including a lower extension projecting below the lower packer cup assembly, said extension carrying a friction-type centralizer of substantially the same external diameter as said packer cup assemblies, the tubular packer cup assemblies, spacer, ported coupling collar and mandrel providing an axial through bore for the passage of fluid; fixed partition means carried at the upper end of said tool blocking direct communication between the interior of a string of pipe to which said tool may be attached and said through bore; a radial port in said tool below said partition and above the upper packer cup assembly providing an unobstructed bypass passageway for fluid from above the upper packer cup assembly and exteriorly of a pipe string through said through bore to below the lower packer cup assembly; and a permanent, unobstructed fluid conduit through said partition communicating the interior of a pipe string to which the tool is adapted to be connected with the annular space surrounding the spacer and between said packer cup assemblies; said mandrel being selectively movable with respect to said packer cup assemblies and spacer to open and close said ported collar.

2,838,120
WELLPOINTS
Jacob Allmendinger, Elmont, and Halstead W. Weyant, Bayside, N. Y., assignors to Foundation Equipment Corporation, a corporation of New York
Application October 29, 1953, Serial No. 388,996
2 Claims. (Cl. 166—157)



1. In a wellpoint, a tubular upper head having stepped sockets therein, one of said sockets being tapered toward one end thereof, a second of said sockets being also internally threaded and tapered toward the other end, and a third non-threaded and tapered socket adjacent to said last mentioned socket, a lower head member having stepped sockets therein, the uppermost socket in said lower head also being non-threaded and tapered and facing said third socket in said upper head, a second socket in said lower head adjacent to said non-threaded socket and having threads tapering towards said upper head; a tubular screen assembly comprised of an outer, perforate screen member, a mesh tubular screen within and embraced by the lower end of said sleeve member, an inner tubular member substantially concentric with said sleeve member and said screen and having a series of longitudinal ribs with laterally slotted channels therebetween and forming a unitary structure; a threaded pipe extending through said screen member in spaced apart parallel concentric relation to and engaging said second threaded socket in said upper head and the threads of the second mentioned socket in said lower head, for forcing the extremities of said screen member into tight engagement with the respective non-threaded tapered sockets as the latter are pulled toward each other by said threads when said head is rotated, a fluid passage extending through said lower head to said stepped passages and communicating the lower end of the wellpoint with the interior of said pipe, holes in said pipe providing communication between the interior of the pipe and the interior of the screen, and an upwardly closing valve controlling said fluid passage.

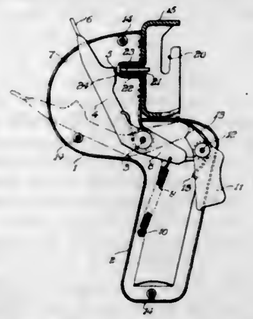
2,838,121
WELL CASING SCRAPING AND POLISHING TOOL
William E. Coyle, Cotton Valley, La.
Application October 14, 1953, Serial No. 385,954
3 Claims. (Cl. 166—173)



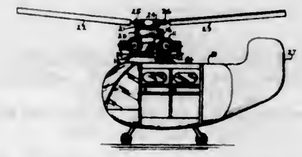
1. A well casing scraping and polishing tool comprising a core having a passage extending longitudinally therethrough, external screw threads carried by the core adjacent opposite ends thereof, said core having spiral grooves opening through its periphery, spiral scraper blades mounted in said grooves for radial movement relative to the core, said spiral scrapers being in uniform relation to each other throughout their length, lugs carried by the scraper blades and extending longitudinally therefrom adjacent opposite threaded ends of the core, caps threadedly engaging the threads at opposite ends of the core and having aligned openings extending therethrough which register with the passage through the core, externally screw threaded nipples carried by the caps and extending longitudinally outwardly therefrom, flanges carried by the caps and extending longitudinally therefrom adjacent the ends thereof remote from the nipples to engage the lugs and retain the scraper blades in their grooves, and springs mounted in the core and engaging the scraper blades midway between opposite ends thereof to yieldingly support the blades for rocking movement of the core.

2,838,122
FIRE EXTINGUISHING PISTOLS
Harold Hutchinson, Acton, London, England
Application May 13, 1954, Serial No. 429,643
6 Claims. (Cl. 169—1)

1. In a fire extinguishing pistol having means for ejecting a dry powder fire extinguisher, the combination of a firing pin for detonating a propellant charge, a striker adapted to engage and operate the firing pin, a barrel to enclose a cartridge containing the fire extinguishing powder, a propellant charge and a detonator therefor, a bushing extending from the rear end of the barrel through which the firing pin passes and arranged to seal the rear end of the barrel to prevent rearward release of pressure created by explosion of the propellant charge, a double swaging at the muzzle end of the barrel, and a sealing element having a fluid tight engagement with said swaging to prevent deterioration of the fire extinguishing powder.

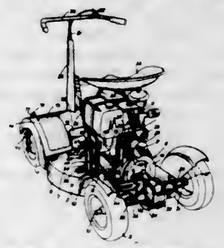


2,838,123
COAXIAL ROTOR HELICOPTER
Bernard Olcott, Fort Worth, Tex.
Application February 4, 1955, Serial No. 486,093
8 Claims. (Cl. 170—135.26)



1. A coaxial rotor helicopter comprising a fuselage, an engine having a body and a shaft, means for rotatably mounting said body on said fuselage for rotation of said body relative to said fuselage about the axis of said shaft, a first hinged rotor, means including a speed reducer for operatively connecting said first rotor to said shaft for rotation about the axis of said shaft, a second rotor having a diameter not greater than the diameter of said first rotor and comprising a plurality of adjustable pitch blades, hinge-connected to said body for rotation therewith about the axis of said shaft, means associated with said second rotor and said fuselage for collectively and cyclically changing the pitch of said second rotor, and means coupled between said fuselage and both rotors for selectively applying a torque to turn said fuselage about the axis of said shaft for providing clockwise and counterclockwise directional control for the fuselage.

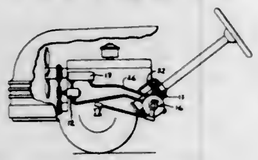
2,838,124
POWER MOWER DRIVE MECHANISM
Roy A. Cramer, Jr., Kansas City, Mo.
Application August 13, 1956, Serial No. 603,528
4 Claims. (Cl. 180—70)



1. A power driven vehicle comprising, a wheel supported frame structure having a power unit thereon, a

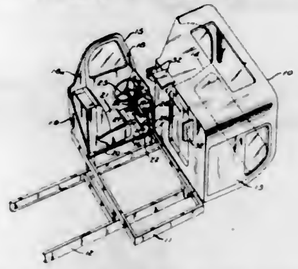
differential housing having oppositely extending driven shafts with traction wheels secured to said shafts, means adjacent one end of the frame structure rotatably supporting the differential housing for rocking movement on the axis of said driven shafts, a differential drive shaft extending towards the power unit and in a plane transversely of and perpendicular to the axis of the differential driven shafts, a power shaft connected with the power unit and extending toward the differential housing with the axis of said power shaft in a plane transversely of and perpendicular to the axis of the differential driven shafts, a pulley and a friction drum fixed on the power shaft and adapted to be constantly rotated by the power unit, means leading from said constantly rotated pulley to selectively rotate the differential drive shaft in one direction, a friction plate fixed on the differential drive shaft and adapted to be brought into frictional engagement with the friction drum to reverse the direction of the differential drive shaft, an arm fixed relative the differential housing and extending therefrom substantially radially of the axis of the differential driven shafts, and means on the frame and operatively connected with said arm for rocking the differential housing through a suitable arc to maintain drive connection between the pulley on the power shaft and the differential drive shaft and for disengaging said drive connection and move the periphery of the friction plate into frictional engagement with the friction drum.

2,838,125
STEERING WHEEL STABILIZER
Edwin G. Staude, Los Angeles, Calif., assignor of one-half to Olive B. Staude
Application September 23, 1957, Serial No. 685,483
1 Claim. (Cl. 180—79.2)



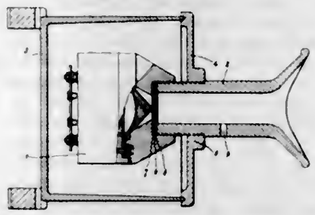
In a steering wheel stabilizer for use in a vehicle power steering system having a steering shaft which steers the vehicle through the agency of the road wheels when turned manually, and a power unit connected to said steering shaft and operated by a pump driven by the vehicle engine, the combination comprising, a stabilizer housing mounted in surrounding relation with said steering shaft, spaced brake disc members mounted coaxially of said steering shaft in said housing, said shaft having a splined portion and said brake discs being formed to fit about said splined portion for rotation with said steering shaft, said housing having end walls defining frictional surfaces facing the respective outer sides of the spaced brake disc members, a fluid pressure actuator mounted in said housing between said brake disc members and including an annular receptacle having outer faces of wear resistant material coextensive with said brake discs, said receptacle being mounted to be expandable axially in both directions upon the application of pressure fluid and having sufficient internal rigidity in the absence of pressure fluid to engage said facings with said brake disc members and further to urge the members into rubbing engagement with the said frictional surfaces in said housing, the engagement of said facings with the disc members upon the application of pressure fluid to the receptacle producing a circular braking force and rubbing engagement of said disc members with the frictional surfaces producing a further circular braking force, both said circular braking forces being applied to the steering shaft by means of the disc members, said receptacle having a pressure fluid connection to said pump so that said actuator is operated by pressure fluid derived from said power steering system.

2,838,126
TILTING CAB
Vernon E. Gleasman, Cleveland Heights, Ohio, assignor to The White Motor Company, Cleveland, Ohio, a corporation of Ohio
Application April 16, 1956, Serial No. 578,494
4 Claims. (Cl. 180—89)



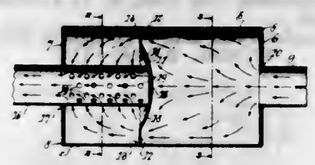
1. A tilting cab for a motor vehicle embodying a body cross frame, control units mounted on said cross frame in fixed operative position, a cab pivoted for forward tilting movement on said cross frame, said cab having an opening in one side thereof, a door in the opposed side of the cab, and a door frame affixed upon said cross frame configured for abutting engagement with the edge of said opening in said cab.

2,838,127
DEVICE FOR THE TRANSMISSION OF SOUND FROM ROOMS HAVING A HIGH NOISE LEVEL
Theodor Wilhelm Ernst Jliski, Hamburg, Schnelsen, and Otto Oskar Siegfried Denkhaus, Hamburg, Germany, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 4, 1953, Serial No. 390,187
4 Claims. (Cl. 181—27)



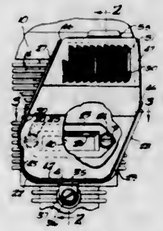
4. A device for the transmission of sound from an area having a very high noise level, comprising a microphone, a speaking funnel having a relatively wide mouth end and a relatively narrow end, means for attaching said funnel at said narrow end to said microphone to direct acoustic waves through said funnel to said microphone, an acoustic threshold device positioned in the path of the acoustic waves within said funnel, said acoustic device comprising an auxiliary diaphragm rigidly secured to said funnel at substantially said narrow end in close operative proximity with said microphone, said diaphragm having a surface area having dimensions at which acoustic waves having large amplitudes are greatly damped and acoustic waves having small amplitudes are only very slightly damped, and a vent connecting the interior of said funnel with the atmosphere, said vent being positioned between said threshold device and said wide end of said funnel to permit leveling of pressure and discharge of condensate.

2,838,128
ENGINE EXHAUST MUFFLER
Edward A. Kliewer, Sr., Longview, Tex.
Application August 30, 1955, Serial No. 531,451
4 Claims. (Cl. 181—57)



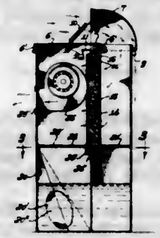
1. An engine exhaust muffler consisting of a generally cylindrical casing, having an entrant end and a discharge end, an exhaust gas receiving tube delivering axially into the casing, an exhaust gas discharging tube delivering axially from the discharge end of the casing and extending axially in the casing to a point intermediately of the length thereof to provide an annular space surrounding the discharging tube within the casing, and a baffle plate rigidly secured to and traversing and abutting the end of the discharging tube within the casing and dividing the casing into an expanding chamber extending throughout at least half of the length of the casing into which the receiving tube delivers and the before mentioned annular space, said plate being dimensioned to leave a clear annular space surrounding the plate within the casing, and the discharging tube portion within the casing having apertures therein throughout the length thereof between the portion thereof abutting the baffle and the portion thereof extending through the casing discharge end whereby exhaust gases entering the casing through the receiving tube will expand in the expanding chamber then pass through the clear annular space surrounding the baffle plate into the annular space surrounding the apertured portion of the discharge tube then inwardly into the discharge tube through its apertures to be discharged axially through the discharge tube.

2,838,129
MUFFLER ASSEMBLY
Arno Hesse and Peter Walzak, Chicago, Ill., assignors to Mall Tool Company, Chicago, Ill., a corporation of Illinois
Application August 18, 1955, Serial No. 529,182
3 Claims. (Cl. 181—61)



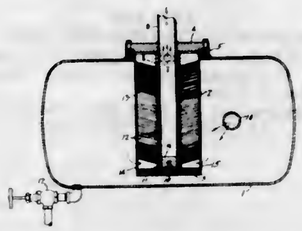
1. A muffler for the exhaust port of a cylinder of an internal combustion engine, said cylinder being provided with an exhaust port flange, comprising a plate carried on the engine cylinder, said plate having an offset portion forming a bracket for mounting the plate on the exhaust port flange, with an opening in said portion communicating with the exhaust port, said plate having substantially parallel sides bent over to provide parallel lips, and a dished muffler cover adapted to be supported on the plate to form a muffler cavity, having substantially parallel sides formed with narrow flanges to slip under the lips of the plate and slidably fasten the cover thereto, whereby the cover may be removed providing easy access to the exhaust port.

2,838,130
AIR CONDITIONER
Louis E. Lemmon, Norwalk, Calif.
Application August 23, 1954, Serial No. 451,661
4 Claims. (Cl. 183—30)



1. An air conditioner applicable to a vehicle including, a box-like case having an air inlet opening and an air outlet opening therein, a cooling pad within the case to occur between said openings, a motor driven fan in the case adjacent the outlet opening and adapted to draw air through the inlet opening and the pad and discharging it through the outlet opening, a switch controlling the operation of the fan, and a forwardly disposed air scoop pivotally carried by the case to project therefrom and to direct air into the case through the inlet opening when the vehicle is moving and having a part adapted to normally engage and hold the said switch closed, the said part of the air scoop being adapted to shift out of engagement with and open the switch when the scoop is pivoted by the air impinging thereon.

2,838,131
SEPARATOR
Ruben O. Peterson, University Heights, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application September 3, 1954, Serial No. 454,109
4 Claims. (Cl. 183—44)



1. A device for separating minute droplets of oil and the like from compressed air systems comprising a horizontally extending cylindrical pressure tank, a transverse cylindrical well in said tank having an upper outer end opening to the side thereof, said well extending a major portion of the tank diameter but with its lower inner end substantially spaced from the opposite tank wall, mesh closing the lower end of said well, an air-tight gasketed cover removably closing the upper end of said well, a pipe extending through said cover and axially of said well substantially the entire depth of the latter, the lower end of said pipe being closed, lateral openings in said pipe communicating with the annular space between the pipe and the well wall adjacent said cover, lateral openings in said well adjacent said mesh communicating with the interior of said tank, said pipe having its outer surface lightly helically grooved; a plurality of annular brush sections stacked on said pipe within said well, said brush sections each comprising an annular back dimensioned closely to fit the outer periphery of said pipe and having radial grooves, and

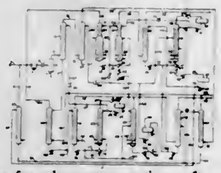
dense bristle material secured in said back and extending generally radially therefrom, said bristles being longer than the radial distance between said back and the inner wall of said well and being inclined outwardly upwardly in engagement with said wall; a valved outlet in the bottom of said tank for withdrawal of accumulated liquid, and an inlet to said tank substantially above the level of said mesh.

2,838,132
MEANS FOR REMOVING MOISTURE FROM A GAS
Basil Gervase Markham and Ralph Murch Denning, Bristol, England, assignors, by mesne assignments, to Bristol Aero-Engines Limited, Bristol, England, a British company
Application December 19, 1955, Serial No. 554,034
Claims priority, application Great Britain December 9, 1955
5 Claims. (Cl. 183—110)



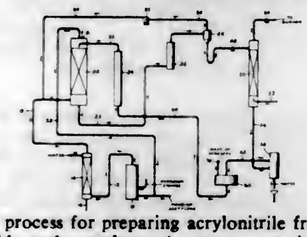
1. In a duct, means for removing moisture from a moisture-laden stream of gas passing through the duct, said means comprising a row of upright streamlined sectioned vanes carried from the duct, the vanes extending each across the duct from the floor thereof and being arranged side by side and spaced apart transversely of the duct, the vanes each having a straight trailing edge which is rearwardly inclined in a downward direction with respect to the long axis of the duct, and a chordal dimension which increases progressively from top to bottom of the vane, and draining means for draining from the floor of the duct moisture which has been deposited on the vanes and which has run down the vanes onto the floor of the duct.

2,838,133
PURIFICATION OF ACETYLENE
Warren C. Schreiner, Franklin Square, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application June 22, 1955, Serial No. 517,289
11 Claims. (Cl. 183—115)



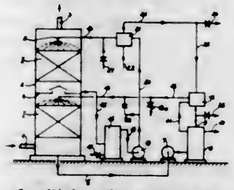
1. In a process for the preparation of acetylene by the pyrolysis of hydrocarbons in which the gaseous reaction product contains impurities of a polymerizable nature the method of separating said impurities from the gases with a minimum of polymerization which comprises contacting the product gases in an absorption zone with a solvent under suitable conditions to absorb the impurities and a minimum proportion of the acetylene from said gases, contacting the bottoms from the absorption zone with between about 0.5 and about 2.0 mols of an inert gas per mol of absorbed gas in a first stripping zone for the removal of absorbed acetylene and further contacting the absorbent in the presence of water with between about 5 and about 20 mols of inert gas per mol of absorbed gas in a second stripping zone at a temperature below the boiling point of water to remove the impurities contained therein.

2,838,134
PRODUCTION OF ACRYLONITRILE FROM HYDROCYANIC ACID AND ACETYLENE
Irving F. Anderson, Chesterfield County, and Robert F. Butler, Hopewell, Va., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
Application March 15, 1957, Serial No. 646,474
5 Claims. (Cl. 183—115)



1. In a process for preparing acrylonitrile from hydrogen cyanide and acetylene, the steps comprising scrubbing monovinylacetylene from acetylene-rich recycle gas with kerosene, flashing the spent kerosene at low temperature and pressure to recover a major portion of the dissolved acetylene, and subsequently stripping the kerosene of monovinylacetylene with steam.

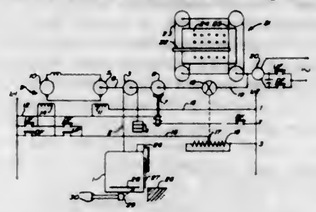
2,838,135
PROCESS FOR THE RECOVERY OF HEAT FROM HOT GASES
Claes Wilhelm Pilo, Stockholm, and Sven Wilhelm Dahlbeck, Djursholm, Sweden
Application January 25, 1955, Serial No. 483,986
Claims priority, application Sweden January 26, 1954
12 Claims. (Cl. 183—120)



1. A method of utilizing the heat content of hot gases containing water vapor by heat exchange with a liquid comprising the steps of passing said hot gases mainly in counter current with and in direct heat exchanging relation with a first liquid in a first direct heat exchanger so as to heat said liquid to a temperature close to that of the gas entering said direct heat exchanger, while cooling said gas to a temperature not appreciably below the dew point of said gas, withdrawing said heated liquid substantially free from water condensate and passing said heated liquid in indirect heat exchanging relation with a second liquid in an indirect heat exchanger so as to give up at least the major portion of its heat contents to said second liquid, said first liquid being non-aqueous and having a boiling point at normal pressure considerably higher than 100° C., and the pressure of the vapor phase above said first liquid being approximately zero at the temperature prevailing in the liquid at the place where said gas escapes from and said first liquid enters said direct heat exchanger.

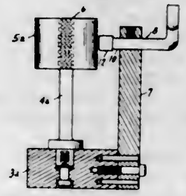
2,838,136
TRAFFIC ADJUSTED STANDING TIME CONTROL
Walter A. Nikazy, Toledo, Ohio, assignor to Toledo Scale Corporation, a corporation of Ohio
Application August 9, 1956, Serial No. 602,981
8 Claims. (Cl. 187—29)

8. In an automatic elevator control system, in combination, an elevator car arranged to serve a plurality of floors, hall call means and car call means for registering calls for service, means for opening the doors as the car stops for a floor, means for reclosing the doors, a first timer arranged to delay reclosing of the doors for a first time interval measured from the opening of the doors in response to a hall call, a sensitive tread arranged in the elevator car, said tread being divided to be



directionally sensitive and connected to the first timer to terminate the first time interval when the tread responds to a passenger entering the car, and a second timer adapted to delay reclosing of the doors for a minimum time interval following opening of the doors in response to a car call or following expiration or termination of the first time interval.

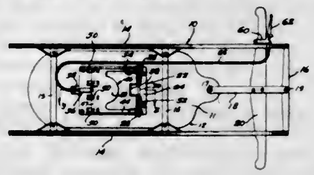
2,838,137
SELF TUNING VIBRATION ABSORBER
Leon Wallerstein, Jr., Erie, Pa., assignor to Lord Manufacturing Company, Erie, Pa., a corporation of Pennsylvania
Application January 17, 1955, Serial No. 482,070
15 Claims. (Cl. 188—1)



1. A self-tuned vibration absorber tunable to absorb vibrations of varying frequencies comprising a support, a vibration absorber mass, a spring on the support restraining movement of the vibration absorber mass, adjustable means for tuning the natural frequency of the spring and mass including a rotatable part associated and moving with the vibration absorber mass, a tuning mass, means supporting the tuning mass on the support at a natural frequency outside the frequency range of the vibrations to be absorbed, a tuning member, means supporting the tuning member for movement normal to the direction of vibration to be absorbed into and out of contact with the rotatable part while restraining movement in the direction of vibration, and means for transmitting to the tuning member a motion normal to the direction of the vibration to be absorbed into and out of contact with the rotatable part corresponding to the motion of the tuning mass in the direction of the vibration to be absorbed.

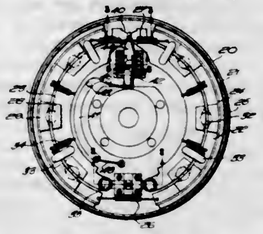
2,838,138
SLED BRAKE
Harold D. Aylward, Dedham, Mass.
Application July 23, 1954, Serial No. 445,381
4 Claims. (Cl. 188—8)

1. In a sled brake unit, a base plate adapted to be secured to the underside of the center board of a steerable sled, a transverse pivot rod mounted on and positioned beneath said base plate at the forward end thereof, a brake frame comprising a pair of laterally spaced arms having first ends mounted on said pivot rod and having second ends, a brake frame plate fixed on and extending between said arms at their second ends, said frame plate having a transverse edge at the second ends of said arms, teeth secured to the frame plate and extending downwardly from the transverse edge, a latch secured to and positioned beneath the rearward end of the base plate



in the region of said transverse edge, said latch comprising a spring pressed latch bar having a first end retainably engageable beneath said frame plate at said transverse edge and a second end, spring means mounted on said pivot rod having portions effectively engaged severally with said brake frame arms and the base plate and urging said brake frame away from the base plate, and manual retracting means operatively connected to the second end of the latch bar.

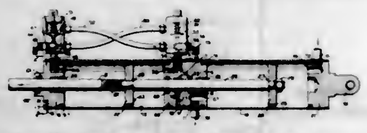
2,838,139
SELF-ENERGIZING BRAKE
John B. Des Rosiers, Providence, R. I.
Application August 19, 1953, Serial No. 375,159
9 Claims. (Cl. 188—74)



1. A self-energizing brake installation for automotive vehicle wheels and the like, said installation comprising, in combination, a brake drum secured to the wheel and having an annular flange projecting therefrom, a fixed backing plate for supporting brake shoes in proximity to the brake drum, a pair of approximately semi-circular brake shoes, said brake shoes arranged in complementary position and between them covering nearly the entire arc of said drum flange, means pivotally mounting the adjacent ends of said shoes on said backing plate at one side of the installation, operating means for swinging said shoes in mutually opposite directions about said pivoting means to apply and release the brakes; each of said brake shoes comprising an approximately semi-circular actuating member and an approximately semi-circular full-floating drum-flange-engaging member, said last named associated members being substantially conterminous and occupying similar substantially concentric arcs, the drum engaging member being mounted in a position radially outward from said actuating member and between the latter member and the drum flange; means mounting said engaging member upon said actuating member for relative translatory movement only as distinguished from pivotal or rocking movement, said last named means comprising parts disposed in supporting relation between said drum engaging member and said actuating member, at least a portion of said parts adapted to move during operation of the brakes in a

path which is not concentric with respect to the arcs of curvature of said members, whereby said mounting means is adapted to cause generally radial separation of said members upon the occurrence of relative angular movement thereof about their center of curvature, as when initial contact of said engaging member with said brake drum flange upon application of the brake causes retardation of said member, thus effecting increased pressure of application by self-energization the means mounting each of the engaging members upon its actuating member for translatory movement being multiple and spaced apart along the arcs of the brake shoes, the successive mounting means along each shoe varying progressively in extent of radial movement afforded, to compensate for their respective distances from the pivot point of the shoe, and thus for the different angularity of the engaging members of the shoe with relation to the brake drum flange at such points.

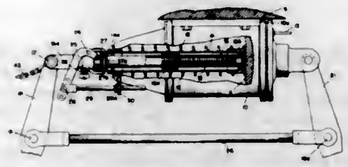
2,838,140
HYDRAULIC DASH-POT CONTROLLER FOR AN ACTUATOR
Marlin B. Rasmusson and Robert J. Betschart, Sacramento, Calif.
Application November 3, 1955, Serial No. 544,722
1 Claim. (Cl. 188—97)



A hydraulic dash-pot controller for an actuator comprising a cylinder, a first head at one end of said cylinder and having a first axial bore therethrough, a second head at the other end of said cylinder and having a second axial bore therethrough, a piston rod extending through said cylinder and projecting therefrom through said bores, a piston on said rod and reciprocable within said cylinder, a first valve body at one end of said cylinder, said first valve body having therein a first main passage forking into a first branch passage and a second branch passage, means connecting the interior of said cylinder between said piston and said first head with said first main passage, a first adjustable restriction in said first branch passage, a first check valve in said second branch passage and adapted to close toward said first main passage, a second valve body at the other end of said cylinder, said second valve body having therein a second main passage forking into a third branch passage and a second branch passage, means connecting the interior of said cylinder between said piston and said second head with said second main passage, a second adjustable restriction in said third branch passage, a second check valve in said fourth branch passage and adapted to close toward said second main passage, a first conduit interconnecting said first branch passage and said fourth branch passage and between said first adjustable restriction and said second check valve, and a second conduit interconnecting said second branch passage and said third branch passage between said second adjustable restriction and said first check valve.

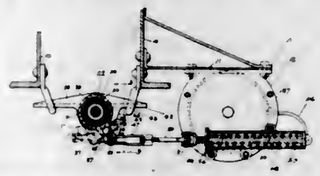
2,838,141
SELF-ADJUSTING ROD MECHANISM FOR RAILWAY BRAKE SYSTEM
Thomas James, Jr., Philadelphia, Pa., assignor to Specialty Brake Appliance Company, Camden, N. J., a corporation of New Jersey
Application May 12, 1954, Serial No. 429,328
34 Claims. (Cl. 188—198)

22. In an automatic braking system having an actuator and associated brake-applying linkage for moving brake shoes into and out of braking positions, said actuator including a piston for power operation of the braking system to a normal braking position, and means manually operable for operating the braking system to an abnormal braking position, the improvement of brake-adjusting mechanism comprising adjustable members for varying the overall length of the linkage between the actuator and the brake shoes, a length-controlling element secured to one of said adjustable members, a second length-controlling element, means supporting said second element in cooperating relation with said first length-controlling element, operating mechanism for said length-controlling elements including a lever pivoted to the actuator, a support normally engaged by an element of said operating mechanism for preventing relative movement between said support and said element and producing movement of said pivoted



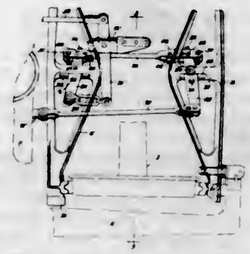
lever in one direction only with movement of the linkage toward brake-applying position, yieldable means normally maintaining said element of said operating mechanism in engagement with said support during automatic operation of the braking system and permitting movement of said element away from said support during manual operation of the braking system to an abnormal braking position to increase the effective length thereof, and a mechanical connection between said lever and said length-controlling elements, movement of the second one of said length-controlling elements with the linkage during a brake-applying operation beyond a predetermined amount conditioning the brake-applying linkage toward brake-releasing position to change the length of the linkage in a direction to reduce slack in the brake-applying linkage in movement of the brake shoes toward a braking position.

2,838,142
BRAKE SLACK ADJUSTER
George B. Dorey, Westmount, Quebec, Canada
Application January 24, 1955, Serial No. 483,764
2 Claims. (Cl. 188—198)



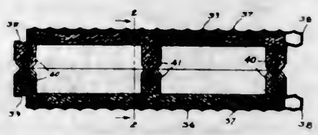
1. In a slack adjuster for the brake leverage system of a railway car including a brake lever and a rod pivoted at one end to the lever, said rod having a take-up device operable by rotation for varying the length of the connection and thereby compensate for slack in the system; means for rotating the take-up device including a ratchet wheel fixedly mounted on the rotatable device and a lever rockably mounted on the take-up device adjacent the ratchet wheel; and a pawl carried by the lever to provide a clutch connection with the ratchet wheel when the lever is rocked in one direction and rocked independently thereof in the opposite direction, said pawl being biased to normally engage with the ratchet wheel; the herein described improvement including a carrier for supporting the take-up device at a location remote from the brake lever and positioned adjacent the ratchet wheel, said carrier including a central section rotatably supporting the take-up device and laterally extending wings at each side of the central section, said carrier being maintained against longitudinal displacement in one direction by the ratchet wheel and a stop collar fixedly mounted on the take up device for preventing displacement in the opposite direction; supports underlying the wings; a finger on the pawl extending in a plane parallel with the plane of the carrier and a cam face on the carrier adapted to engage with the finger of the pawl and displace the latter from its biased position to release the said pawl from the ratchet wheel at a predetermined extent of angular movement of the operating lever.

2,838,143
RAILWAY BRAKE LINKAGE SAFETY SUPPORT
Walter H. Baselt, Floosmoor, Ill., assignor to American Steel Foundries, Chicago, Ill, a corporation of New Jersey
Application September 27, 1954, Serial No. 458,594
1 Claim. (Cl. 188—210)



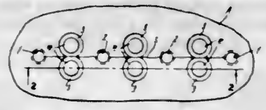
In a brake rigging, a closed brake beam having a slotted strut, a brake lever extending downwardly through said closed slot, said brake lever being pivotally connected to said brake beam, safety abutment means comprising a nut and bolt secured to the brake lever above the pivotal connection to engage the brake beam in the event of failure of the pivotal connection, said nut and bolt being readily releasable to facilitate assembly and disassembly of the brake lever from the brake beam slot, said brake lever comprising an abutment rigidly secured to the lower end thereof, a pull rod having spaced plates at the end thereof, said plates being pivotally connected to the lower end of the brake lever, the last-mentioned abutment engaging the pull rod in the event of failure of the last-mentioned pivotal connection, and other means interconnecting the outer ends of the spaced plates, said other means preventing separation of the brake lever and pull rod.

2,838,144
METAL PLANKS
Angus Snead Macdonald, near Rapidan, Va.
Original application November 23, 1948, Serial No. 61,588, now Patent No. 2,682,938, dated July 6, 1954. Divided and this application October 21, 1953, Serial No. 387,455
5 Claims. (Cl. 189—34)



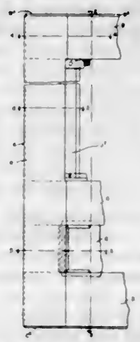
1. A structural plank member comprising opposite side sections, one of said sections having a recess in the inner face thereof extending at an acute angle with respect to said inner face, and the other of said sections having a projection on the inner face thereof of a size less than that of the recess and extending at an acute angle to said other section equal to said first-named acute angle and fitting closely in said recess when said sections are brought together, locking means on opposite edges of said plank adapted to interlock with complementary locking means on adjacent planks when disposed in a wall, at least one of said locking means being resilient, whereby separation of an intermediate plank section may be effected only by moving said section relative to the other in a direction parallel to said projection.

2,838,145
METHODS AND MEANS FOR REPAIRING CRACKED CASTINGS
Frank Schulte, St. Louis, Mo., assignor to H & H Machine & Motor Parts Co., St. Louis, Mo., a corporation of Missouri
Continuation of application Serial No. 155,053, filed April 10, 1950. This application December 24, 1956, Serial No. 630,420
10 Claims. (Cl. 189—36)



4. A repaired cracked casting having a recess consisting of two arcuate annuli overlapping chordwise, and an insert element having the contour of two intersecting arcuate annuli integrally joined together along a short portion of their peripheries in the provision of a central waisted area, the line of juncture between said annuli being a chord common to the outer peripheral circles of both annuli, said insert being substantially similar in geometric shape to the recess of the casting and being inserted therein tightly and self-retentively so that said line of juncture extends approximately along the crack.

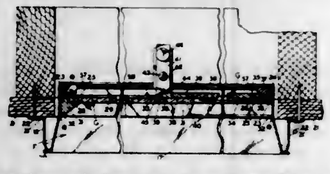
2,838,146
ALUMINUM JALOUSIE DOOR ASSEMBLY
Victor E. Anderson, Bradenton, Fla., assignor to V. E. Anderson Manufacturing Company, Bradenton, Fla., a corporation of Kentucky
Application December 23, 1954, Serial No. 477,357
8 Claims. (Cl. 189—46)



1. A metal door structure comprising an inwardly opening channel-shaped upright stile, the inner faces of opposite sides of said channel-shaped stile being provided adjacent the mouth and adjacent the base of the channel with opposed integral bearing strips, each of the opposed strips adjacent the mouth of said channel having an inwardly opening groove therein, top and bottom horizontal rails extending into said channel-shaped upright stile between and fitting snugly against said opposed bear-

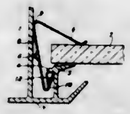
ing strips so that said rails form reinforcements for opposite sides of said channel-shaped stile, a horizontal rail intermediate said top and bottom rails extending into said channel-shaped upright stile between and fitting snugly against said opposed bearing strips so that said rail forms a further reinforcement for opposite sides of said channel-shaped stile, opposed edges respectively of said bottom rail and of said intermediate rail having oppositely projecting opposed vertically opening channel portions, a kick plate closing the space between said bottom and intermediate rails and having its upper and lower edges within said opposed vertically extending channel portions, and a plate-like member closing the mouth of said channel-shaped stile between said bottom and intermediate rails, said plate-like member having portions within the grooves aforesaid in said bearing strips and having an inwardly projecting outwardly opening channel portion receiving the adjacent upright edge of said kick plate.

2,838,147
SASHLESS WINDOW STRUCTURE
George Alfred Downs, Salem, Oreg.
Application October 29, 1956, Serial No. 618,807
3 Claims. (Cl. 189—72)



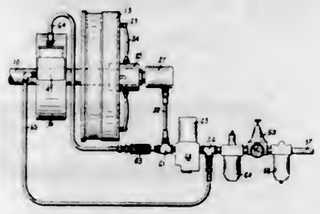
1. A sashless window structure comprising a rectangular metal frame having a pair of spaced vertical jambs connected at their top by a header and at their bottom by a sill, said frame having a slot formed therein completely around the inner face intermediate the inner and outer edges thereof, an inwardly extending flange formed integrally on the inner edge of said frame in spaced parallel relation to said slot, a flat inwardly extending bar supported in said slot of one of said jambs, a second flat inwardly extending bar supported in said slot in said sill, a third flat inwardly extending bar supported in said slot in said header, said bars being offset from the longitudinal center line of said slots in a direction toward said flange, said second and third bars extending from said one jamb to a point adjacent to but short of the center of said sill and said header, a fourth flat inwardly extending bar supported in said slot of the other of said jambs, a fifth flat inwardly extending bar supported in said slot in said sill, a sixth flat inwardly extending bar supported in said slot in said header, said fourth, fifth and sixth bars being offset from the longitudinal center line of said slots in a direction away from said flange, said fifth and sixth bars extending from said other jamb to a point adjacent to but short of the center of said sill and said header, a pane of glass engaged against the outer side of said first, second and third bars and extending from said one jamb to a point adjacent to but beyond the center of said sill and said header, said pane being disposed in the same general plane as said fourth, fifth and sixth bars, means securing said pane of glass in said frame, a second pane of glass extending from said one jamb to a point adjacent to but beyond the center of said sill and said header, said second pane of glass being positioned intermediate the inner side of said first, second and third bars and said flange for lateral sliding movement in said frame from a position behind said first pane of glass to a position adjacent to said other jamb intermediate the inner side of said fourth, fifth and sixth bars and said flange, and means in said frame for moving said second pane of glass into sealing contact with the inner side of said fourth, fifth and sixth bars and into sealing contact with said first pane of glass adjacent the center of said window frame when closing said second pane of glass with respect to said window frame.

2,838,148
GLAZING BAR ASSEMBLIES
Jack Fox-Williams, London, and Harold Graham Musgrave, Chester, England, assignors to Williams & Williams Limited, Chester, England, a company of Great Britain
Application December 20, 1955, Serial No. 554,348
Claims priority, application Great Britain December 23, 1954
6 Claims. (Cl. 189—78)



1. A glazing bar assembly comprising a readily corroded metal girder member having a web, a part projecting laterally from said web and having a longitudinal abutment formed thereon to support the edge portion of a sheet of glass, above which the web extends, a shoulder on said girder constituting the upper side of a groove lying between the abutment and web with the mouth of the groove facing the web, and a resilient cover strip having a laterally extending upper portion whose outer edge part engages the upper face of the sheet of glass resting on the abutment, and a downwardly projecting portion toward which said outer edge is biased which extends between the edge of the glass and the web, a part of the cover strip bearing against the web while its lower edge portion is formed to ride over the shoulder during insertion of the cover strip and then to spring into the groove formed by the shoulder, said glass being retained in position by the reaction between the lateral portion of the cover strip and the upper face of the glass on the one hand and between the downwardly projecting portion of the cover strip and the girder on the other hand, at least one of the cooperating faces of the downwardly extending part of the cover strip and the adjacent part of the web being formed with a series of longitudinally spaced projections to provide only a limited and relatively restricted area of contact between the cover strip and the web during insertion of the cover strip.

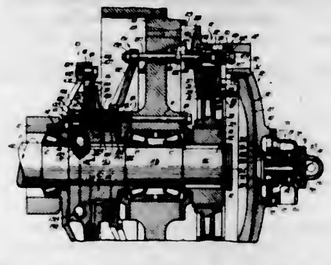
2,838,149
COMBINATION BRAKE AND CLUTCH MECHANISM
Jesse B. Burton, Waterbury, Conn., assignor to The Waterbury Farrel Foundry & Machine Company, Waterbury, Conn., a corporation of Connecticut
Application August 3, 1953, Serial No. 372,024
14 Claims. (Cl. 192—12)



1. In a combination brake and clutch mechanism, a driving member, a shaft to be driven thereby, fluid-pressure-operated clutch means to drivingly connect said

member to the shaft, braking means to effect a braking action on said shaft, fluid-pressure-operated mechanism to actuate said braking means comprising a piston and a cylinder, means constantly supplying a compressible fluid under pressure to one portion of said cylinder to normally urge said brake means to brake-applying position, and means for supplying fluid pressure, at will, to another portion of said cylinder to release the brake and simultaneously supply fluid pressure to said clutch means to engage the same.

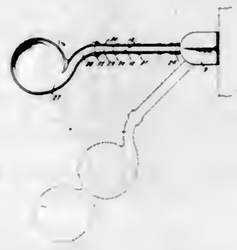
2,838,150
INTERCONNECTED CLUTCH AND BRAKE MECHANISM
Clarence M. Eason, Waukesha, Wis., assignor to Industrial Clutch Corporation, Waukesha, Wis., a corporation of Wisconsin
Application October 29, 1954, Serial No. 465,649
16 Claims. (Cl. 192—18)



1. In mechanically interconnected clutch and brake mechanism for controlling the starting and stopping of a power driven shaft rotatably mounted in a supporting frame, the combination of a power driven fly wheel rotatably mounted on said shaft and normally having continuous rotation thereon, brake mechanism interposed between said fly wheel and said frame and operative when engaged to exert a braking force on said shaft, self-energizing mechanism for increasing the pressure of braking engagement as soon as said brake mechanism starts operating, clutch mechanism mounted on the outer side of said fly wheel and operative to clutch said fly wheel to said shaft, a compressed air power unit comprising a cylinder and piston mounted outwardly of said clutch mechanism and outwardly of the end of said shaft and operatively connected to actuate said clutch mechanism, motion transmitting rods extending from said clutch mechanism through said fly wheel for actuating said brake mechanism, said motion transmitting rods rotating continuously with said fly wheel, and supplementary clutch mechanism responsive to said motion transmitting rods for transmitting rotational torque from said fly wheel to said self-energizing mechanism for releasing the latter.

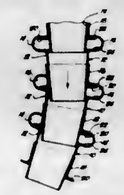
2,838,151
COIN DELIVERY CHUTE
Arnold R. Buchholz, Watertown, Wis., assignor to Brandt Automatic Cashier Company, Watertown, Wis., a corporation of Wisconsin
Application January 24, 1955, Serial No. 483,527
3 Claims. (Cl. 193—6)

1. In a coin delivery chute for coin handling machines, the combination of a chute including a bottom trough member and flexible side plates, means for hanging said chute at the coin delivery opening of the machine, a chute including a bottom trough member and side plates adapted to telescopically engage the trough member and the side plates of the first named chute, a coin dispensing cup mounted at the outer end of the second named chute, telescopically engageable supporting means for said chutes including a supporting rail on the first named chute extending parallel to and spaced from its bottom trough



member, and means for lengthwise adjustably locking the parts of said supporting means together.

2,838,152
CIRCULAR FLEXIBLE CHUTE
Mark D. Aumann, Fullerton, Calif., assignor to Armament Components, Inc., Santa Ana, Calif., a corporation of California
Application May 11, 1956, Serial No. 584,288
14 Claims. (Cl. 193—16)

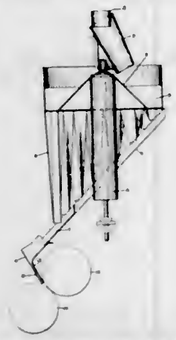


1. A flexible chute, comprising: a series of interengaging links each including an open-ended sleeve having one end formed with an internal annular recess having opposing, axially spaced walls in transverse planes of the sleeve and laterally extending external flange means on the sleeve adjacent the other end thereof; the sleeves comprising the several links having smooth internal guiding surfaces and being arranged in end to end fashion with said other end of one sleeve loosely received in said one end of an adjacent sleeve and with said flange means on said one sleeve loosely engaging in the annular recess of said adjacent sleeve to retain the sleeves against axial separation while accommodating limited articulation thereof in any direction, said flange means being engageable with said opposing walls of said recess to limit said articulation in any direction.

2,838,153
DISTRIBUTOR
Virgil Spencer, East Petersburg, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
Application June 3, 1954, Serial No. 434,286
3 Claims. (Cl. 193—23)

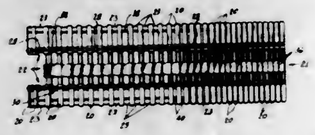
1. In an apparatus for producing sheet material from a plurality of individual flat color sheets, a continuously revolving chute conveying the color sheets at a constant rate; a plurality of receptacles positioned in a circular plane immediately beneath the path of travel of the end of said revolving chute, the relationship between the position of said receptacle and said chute being such that as the chute revolves it delivers an equal number of color sheets to each receptacle; and a plurality of parallel chutes leading from said receptacles to a discharge

nozzle, the number of chutes corresponding to the number of receptacles, each receptacle being in communica-



tion with only one chute and each chute being in communication with only one receptacle.

2,838,154
FLEXIBLE CONVEYER CHUTE
Ralph A. Van Fossen, Los Angeles, Calif., assignor to Armament Components, Inc., Santa Ana, Calif., a corporation of California
Application July 26, 1956, Serial No. 600,316
27 Claims. (Cl. 193—25)



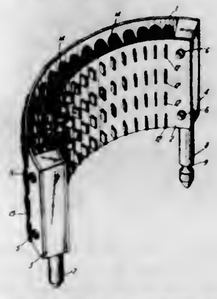
1. A flexible conveyer chute comprising a plurality of hollow links spaced lengthwise of the chute and defining a guideway for guiding articles to be conveyed, a set of couplers extending between adjacent links, connecting means between the couplers and links, said connecting means comprising connecting elements operatively engaged with the respective couplers and links, said elements associated with each coupler being arranged in a generally triangular pattern, and said connecting means accommodating limited longitudinal and angular movement between the couplers and each of the adjacent links between which the respective couplers extend whereby said chute is capable of controlled angular and longitudinal adjustment.

2,838,155
ARRANGEMENT FOR OPERATING TYPE-BARS
Jean Ségui, Vincennes, France, assignor to Societe Anonyme dite: Stenotype Grandjean, Paris, France
Application June 16, 1953, Serial No. 362,029
Claims priority, application France August 12, 1952
1 Claim. (Cl. 197—9)



A typewriting or shorthand typewriting machine comprising a platen, at least one key-bar rotatable about a pivot, and at least one type-bar rotatable about a pivot and adapted for cooperation with the said key-bar, in which the two said pivots are parallel to one another and to the platen, the key-bar comprising a bearing surface extending substantially in a plane passing through the axes of said two pivots, and the type-bar comprising a corresponding surface constantly resting upon the bearing surface of the key-bar, an oscillation of the key-bar about its pivot inducing thereby a corresponding oscillation of the type-bar about its pivot, and causing said type-bar to touch said platen, said typewriting machine further comprising an elastic stop for the key-bar and a hairpin spring mounted on a pivot pin parallel to the pivots of said type-bar and key-bar and disposed between these pivots but at a lower level, the ends of said hairpin spring bearing freely against registering surfaces of said key-bar and type-bar which are substantially at right angles to the plane passing through the axes of these two members, so as to urge said type-bar against said key-bar and said key-bar against the relevant elastic stop.

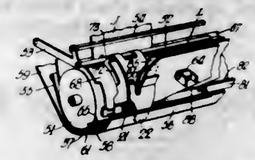
2,838,156
TYPE CARRIER FOR TELEGRAPH TYPE PRINTING APPARATUS
Ronald George Griffith, Mount Royal, Montreal, Quebec, Canada
Application May 2, 1955, Serial No. 505,480
Claims priority, application Great Britain May 3, 1954
2 Claims. (Cl. 197—53)



1. A type carrier for a telegraph type printing apparatus comprising parallel front and rear arcuate bearing members, and readily removable means for securing said members in parallel relation, to mount said arcuate bearing members to have a common axis, each of said bearing members having a part-cylindrical surface extending in an arc of less than 180 degrees about said common axis, a plurality of type members, each of said type members extending between said front and rear bearing members, means including said front and rear bearing members for supporting said type members so that each has slidable movement between said front and rear bearing members, said type members being arranged in parallel rows which are spaced axially and extend circumferentially with respect to said axis, said type members bearing type faces which lie in a part cylindrical convex surface parallel to and in front of the said front bearing member, whereby any one of said type members may be brought selectively into a predetermined printing position by moving said carrier axially along and angularly about its axis, and a plurality of springs mounted in operative relation to said type members when said arcuate bearing members are secured together in parallel relation so that each of said springs urges one of said type members towards said common axis and so that upon removal of said securing means to release the rear bearing member from the front bearing member, all of said type members are retained by the said front bearing member under the control of said springs.

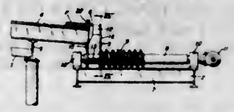
2,838,157
DUPLICATING RIBBON ATTACHMENT
Julius C. Hochman, New York, N. Y.
Application January 19, 1953, Serial No. 331,943
21 Claims. (Cl. 197—153)

1. As an article of manufacture, an insertion guide unit for a bookkeeping machine of the front feed type including a platen and a deflector plate underneath the platen, said guide unit comprising a plurality of superposed insertion guides of sheet material secured together near one edge of width but a small fraction of the width of the sheet, the upper portions of said guides being spaced



from each other, the lower portion of at least one of said guides being adapted to be located between said deflector plate and said platen, said unit including means of supporting it in operative position with respect to the machine.

2,838,158
PIPE HANDLING APPARATUS
David C. Kerr and Stanley K. Kifer, Lorain, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey
Application February 23, 1955, Serial No. 490,095
5 Claims. (Cl. 198—26)



1. In an apparatus for transferring elongated articles such as pipe and the like between a pair of laterally spaced tables, the combination with said tables, of a transfer mechanism arranged between said tables, said transfer mechanism comprising a first skid for lifting an article from one of said tables and a second skid for receiving the article from said first skid and delivering it to the other of said tables, a support on which said skids are respectively mounted in circumferentially spaced positions for rotation about a common axis extending transversely of the space between said tables, each of said skids having a skid surface which converges relative to said axis in the direction of article transfer, and a stop for arresting movement of an article over the skid surface on said first skid.

2,838,159
SPIRAL BALL CONVEYOR
Fritz Siegfried, Chicago, Ill.
Application April 17, 1957, Serial No. 653,373
3 Claims. (Cl. 198—26)



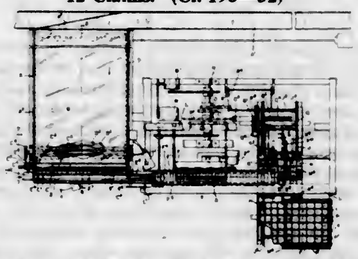
1. A spiral ball conveyor, comprising: a supporting structure; a horizontal shaft secured to and extending from said supporting structure; a spiral track mounted on said shaft for rotation in a substantially vertical plane; balls freely rollable on said spiral track in a manner so as to descend in a substantially vertical line from the interior to the periphery of said track as the track rotates; and means for feeding balls onto the interior of the spiral track including a ball feed trough in which a plurality of balls may be mounted and a ball engaging member secured to said spiral track for rotation therewith, said ball engaging member passing between adjacent balls on said trough to permit the feeding of a single ball onto said track during each complete rotation of the track.

2,838,160
CONTAINER FEEDING DEVICES
John W. Rouse, Kansas City, Mo., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application January 24, 1956, Serial No. 561,002
9 Claims. (Cl. 198—31)



1. In a can runway system, the combination of an inlet runway, a pair of outlet runways disposed in vertically spaced relation to each other adjacent said inlet runway, a divider housing connecting said inlet runway with the lowermost of said outlet runways for the passage of cans from said inlet runway into said lowermost outlet runway, magnetic means disposed between said inlet runway and the uppermost of said outlet runways for directing cans along a path from said inlet runway into said uppermost outlet runway, said magnetic means comprising an electromagnetic section having pole pieces extending from said inlet runway longitudinally along a portion of the upper side of said path of the cans leading toward the uppermost of said outlet runways and a permanent magnetic section extending longitudinally from said electromagnetic section and along the remainder of said upper side of said path of the cans to said uppermost outlet runway, and means partially located within said lowermost outlet runway and connected with said magnetic means and operable by an accumulation of cans in said lowermost outlet runway to energize and thus render said electromagnetic section effective on cans entering said divider housing from said inlet runway to divert such cans away from said lowermost outlet runway and onto said permanent magnetic section which serves to guide said cans to said uppermost outlet runway and to support excess cans disposed between said electromagnetic section and the entrance to said uppermost outlet runway when the latter is filled and said electromagnetic section is deenergized.

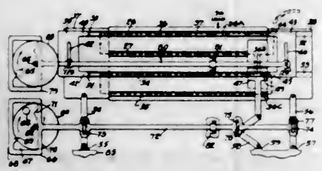
2,838,161
EGG HANDLING MACHINE
Clarence Page and George A. Page, Detroit, Mich., assignors to Page-Detroit, Inc., Southfield Township, Mich., a corporation of Michigan
Application January 16, 1950, Serial No. 138,714
12 Claims. (Cl. 198—32)



1. In a machine for handling eggs, a stationary flexible sheet on which the eggs are deposited en masse, an

endless series of advancing rollers beneath said sheet forming a support for the eggs between adjacent rollers adapted to exert a limited forward pressure thereon, and a gate for temporarily arresting movement of the eggs on said sheet in an aligned series transverse to the direction of advancement and adapted to periodically separate an aligned series of the eggs from the mass.

2,838,162
MACHINE FOR PROOFING DOUGHNUTS
John Floyd Hewitt, Portland, Oreg.
Application October 20, 1953, Serial No. 387,167
2 Claims. (Cl. 198—84)



1. A doughnut proofing machine comprised of an elongated frame having super-imposed horizontal guide channels therein, elongated work-holding trays arranged to slide in said channels, a set of pusher bars engaging alternate rows of trays adapted to move alternate rows of trays in the same direction, a second set of pusher bars arranged to move the intermediate rows of trays in the opposite direction, a carrier for each set of pusher bars for shifting their registration between the odd and even numbered guide channels, a third carrier disposed between said first and second carriers constituting an elevator for moving said trays in an upward direction, and means for picking up each tray out of line as it returns to a topmost position, inverting said tray and then restoring it to its line of travel.

2,838,163
MECHANISM FOR CARRYING ARTICLES THROUGH A TREATING ZONE WITH A VARIABLE DELIVERY AND DISCHARGE RATE
Irving M. Archer, Dallas, Tex., assignor to Campbell Taggart Research Corporation, Dallas, Tex., a corporation of Missouri
Application June 29, 1953, Serial No. 364,693
22 Claims. (Cl. 198—85)



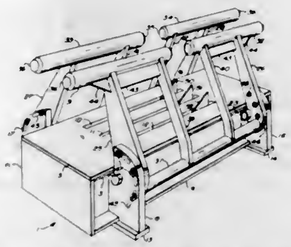
1. An apparatus for carrying articles through a treating zone from a receiving station to a discharge station including a plurality of trays for containing said articles, means moving the trays in successive order through the treating zone from the receiving station to the discharge station, means in the path of the trays for discharging the articles at the discharge station, and means for receiving empty trays from the discharge station and for returning the empty trays to the receiving station for retravel through the treating zone including means for storing the empty trays in idle position when trays are being moved from said discharge means to said returning means.

2,838,164
CONVEYORS
Angus W. Duncan, Worcester, England, assignor to The Mining Engineering Company Limited, Worcester, England
Application March 1, 1955, Serial No. 491,423
Claims priority, application Great Britain March 9, 1954
3 Claims. (Cl. 198—191)



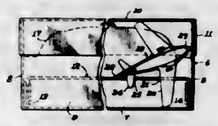
1. In a conveyor comprising a load carrying element, an independent tension element comprising parallel cable link chains and cross members detachably connected to links of said chains, said cross members supporting said load carrying element, a carrier cross member assembly comprising a pair of cable links, a carrier member extending at its ends across each of the pair of cable links, means for detachably connecting the ends of the carrier member to the cable links and a key integral with the cable link engaging a recess in the carrier member.

2,838,165
DEVICE FOR HOLDING COILS OF STRIP METAL
Alvin Frank Groll, Napoleon, Ohio
Application June 21, 1956, Serial No. 592,974
8 Claims. (Cl. 198—221)



1. A device for holding coils of strip metal comprising, in combination, a table having openings in its upper surface, chocks pivotally mounted beneath said table and adapted to be swung from positions in which they project upwardly through certain parts of said openings to positions in which they are non-projecting, pushers pivotally mounted beneath said table and adapted to be swung from non-projecting positions to positions in which they project upwardly through other parts of said openings to engage and impart rolling movements to coils of strip metal supported on said table, said chocks and pushers being rigidly fixed together, fluid pressure means for swinging said chocks and pushers into and out of non-projecting positions, parallel cylindrical tubular rails extending above said table in position to lie along the sides of and align and guide coils of strip metal supported on said table and thus prevent such coils from becoming askew when said pushers impart rolling movement thereto, said rails being divided into sections, arms carrying the sections of said rails, brackets extending outwardly at each side of said table, said arms being mounted on said brackets for pivotal adjustment to space said rails for the accommodation of coils of strip metal of various widths, counterbalances also carried by said arms whereby the centers of mass of said arms and the parts carried thereby are in proximity to the axes of pivotal adjustment of said arms and means comprising studs fixedly connected to said arms and positionable along arcuate slots in said brackets for locking said arms and the sections of rails carried thereby in adjusted positions.

2,838,166
COMBINATION SHIPPING CONTAINER BOARD AND DISPLAY BOARD FOR TOY AIRPLANES AND THE LIKE
Earl W. Herdklotz, Rockford, Ill., assignor to A & E Tool and Gage Co. (Inc.), Rockford, Ill., a corporation of Illinois
Application August 25, 1955, Serial No. 530,603
3 Claims. (Cl. 206—45.19)



2. In combination, a generally rectangular shipping box providing spaced substantially parallel housing walls, a generally rectangular board of paperboard material fitting closely within said box and supported in closer spaced parallel relation to one of said housing walls than the other by means of flanges on the edge portions of the board, said board having slits provided therein in a predetermined spaced parallel relation, and a plurality of toy air planes disposed in parallel relation almost wholly between said board and the farther housing wall with their wings and elevators substantially at right angles to the board, the wings on one side being thrust with a tight friction fit through said slits for the complete support of the toy airplanes solely by said board and so that the tips of these wings are disposed adjacent the closer housing wall, the wings on the opposite side projecting toward and terminating adjacent the farther housing wall, whereby all of said toy airplanes are caged between said housing walls against accidental displacement from the slits in said board while housed in said box during shipment, said board having other slits provided therein in a predetermined spaced relation to the first mentioned slits in which the elevators on one side are thrust with a tight friction fit for more secure fastening of the toy airplanes on the board, said flanges in addition to supporting said board so that its body portion is spaced from the near wall serving by frictional engagement with the other walls alongside the flanges to reinforce the box and resist displacement of the board.

2,838,167
TAPE RETAINING AND IDENTIFICATION MEANS FOR TAPE REELS
Thomas S. Kulka, Cleveland, Ohio
Application March 16, 1955, Serial No. 494,770
2 Claims. (Cl. 206—54)



1. Tape retaining means for tape reels having substantially circular spaced flanges and a substantially centrally disposed aperture, said means comprising an elongated strip, a hook at the outer end of said strip, said hook comprising a portion extending at right angles to said strip, which merges into a terminal portion that extends parallel to said strip, a sleeve of yieldable material received over said hook and extending inwardly on said strip and a resilient plug at the inner end of said strip, said plug being substantially cylindrical and having a diameter less than the width of said strip, said plug being joined to said strip along a line that extends substantially at right angles to the direction of longitudinal extent of said elongated strip, whereby with the hook engaged over the peripheral edge of one of said flanges and with said plug inserted in said aperture the end of the tape carried by said reel may be clamped between said yieldable sleeve and the surface of said flange to prevent unwinding of said tape, whether the reel be filled with said tape or partially filled thereby.

2,838,168
PROTECTIVE DOOR PLATE
Charles G. Schwarz, New York, N. Y.
Application August 11, 1954, Serial No. 449,221
1 Claim. (Cl. 206—56)



An article of manufacture comprising a pair of identical, substantially rectangular, complementary vinyl plastic door plates adapted to be positioned on opposite sides of a door and shaped to accommodate a hand, said plates being of such dimensions as to provide a sufficient surface for applying the hand in opening the door, a central sheet of flexible cloth material disposed between said plates having substantially the same shape as said plates and extending over the entire area of adjacent faces of said plates, pressure sensitive adhesive means on said adjacent faces of said plates for securing the same to said central sheet and when removed therefrom to the opposite faces of the door, and means secured to said central sheet for facilitating the removal of said plates from said sheet, said pressure sensitive adhesive means comprising a synthetic rubber, a synthetic resin and a solvent therefore, said means for facilitating the removal of said plates from said flexible sheet comprising an extension of said sheet beyond said plates at one end thereof to form a flap portion adapted to be held between the fingers while pulling the plates away from said sheet.

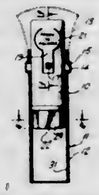
2,838,169
COSMETIC STICK CARRIER MEMBER
George Grau, Freeport, N. Y., assignor to Jarco Metal Products Corp., Westbury, N. Y., a corporation of New York
Application May 31, 1955, Serial No. 512,009
1 Claim. (Cl. 206—56)



A carrier member adapted to hold the lower end of a cosmetic stick in a cosmetic stick holder of the type having a first tubular member having a longitudinal slot formed therein attached to a base, a second coaxial tubular member having a helicoidal slot formed therein disposed outside said first tubular member and adapted to revolve circumferentially with respect thereto and a third coaxial tubular member disposed outside and frictionally engaging said second tubular member, comprising a generally cup shaped element comprising a single stamped member having joined abutting edges along one side thereof, a male dovetail extending outwardly beyond one of said edges, a complementary female dovetail formed in the other edge of said element and the male and female dovetails being interengaged to hold said element in substantially cylindrical form having an outer diameter slightly less than the

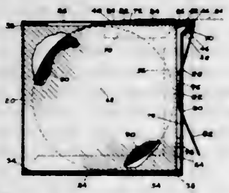
inner diameter of said first tubular member and an inner diameter substantially equal to the outer diameter of the lower end of the cosmetic stick, said element having a partial bottom wall comprising a series of circumferentially spaced and inwardly projecting trapezoidal teeth, the inner ends of said teeth being spaced from each other and defining a central opening in said bottom wall, the opposite side edges of said teeth being spaced from the corresponding adjacent edges of immediately adjacent teeth and the side wall of said element, between each adjacent pair of teeth, being provided with an upwardly extending notch, at least one radially inwardly extending projection formed in the side wall of said element adapted to press into the cosmetic stick to hold the same in said element, and a radially outwardly extending stud formed on the outer surface of said element substantially midway between said edges adapted to extend through said longitudinal and helicoidal slots.

2,838,170
LIPSTICK CONTAINER
Louis E. Isele, Oakville, Conn.
Application July 26, 1957, Serial No. 674,460
12 Claims. (Cl. 206—56)



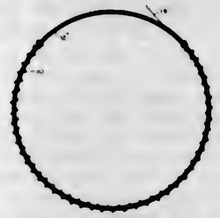
1. In a cosmetic or the like container of the character indicated, an outer decorative case comprising an elongated tubular body open at one end thereof, said body including within the bore and near said open end a circumferentially continuous radial shoulder, and a rotary-propulsion cartridge removably receivable within said open end, said cartridge comprising relatively rotatable base and sleeve parts, and mechanism responsive to such relative rotation for selectively propelling a lipstick or the like beyond the end of said sleeve part, said cartridge base having angularly keyed engagement with said body, means carried by said sleeve part and projecting radially outwardly and having snap-locking engagement with said shoulder, actuating means for said last-mentioned means and projecting externally of said open end, and a closure cap removably engageable with said body at said open end and covering otherwise exposed parts of said cartridge.

2,838,171
PRICE TAG DISPENSER
William A. Kaspar, Omaha, Nebr., assignor to Paramount Paper Products Company, a corporation of Nebraska
Application March 15, 1956, Serial No. 571,772
6 Claims. (Cl. 206—58)



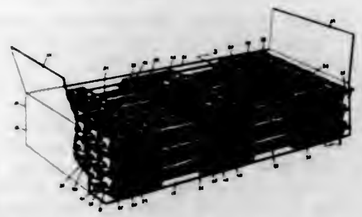
6. A device for dispensing price tags or labels detachably attached in a row to a strip of flexible material, said attachment being at like end portions of each of said tags, comprising a housing for said strip with tags attached thereto provided with an edge exteriorly thereof and an opening through which the strip may be withdrawn from said housing toward and over said edge; said opening and said edge being spaced apart to define therebetween a flat wall portion of said housing for supporting the strip with a tag thereon during manual writing of intelligence-bearing indicia on said tag; and said strip being manually graspable for guiding said strip away from said edge to cause the free end portions of said tags to be successively moved outwardly beyond said edge facilitating a manual detachment of the tags from said strip during operation; the tags being on the exposed side of the strip when said strip is on said flat wall portion of said housing.

2,838,172
WIRE PACKAGE AND METHOD OF FORMING
Robert H. Prindle, Palmetto, Fla.
Application November 2, 1956, Serial No. 620,108
3 Claims. (Cl. 206—59)



3. A method of packaging wire or the like comprising feeding the free end of a wire from a supply of wire axially through a spirally wound coil spring and forming the wire into a generally annular convolution of measured length with the coil spring mounted thereon, applying a marker to said convolution and locating the marker relative to the coil spring, rotating said convolution with the marker through said coil spring a desired number of times to thereby produce a wire coil of desired length having a desired number of convolutions, severing the wire between said wire coil and supply, and then stretching the coil spring circumferentially of the wire coil for a major portion of the length of the latter and thereby exceeding the elastic limit of the coil spring so that it will remain in the stretched condition.

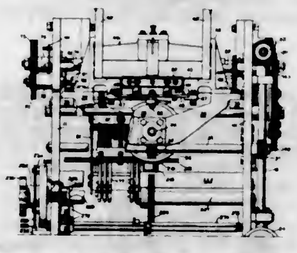
2,838,173
PACKING FOR FRAGILE ARTICLES
Richard L. Emery, Fairfield, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application May 2, 1955, Serial No. 505,201
8 Claims. (Cl. 206—65)



1. A molded pulp packing device for elongated articles comprising a sheet having a bottom wall, a pair of side walls and a rear wall, said rear wall being rigidly connected to one edge of said bottom wall and to said side walls, a plurality of elongated ribs extending upwardly from said bottom wall and spaced laterally from

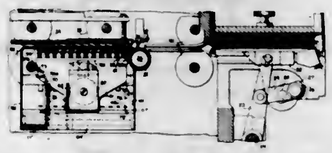
each other, said ribs being of a height equal to the height of said rear wall and being spaced from and parallel with said side walls, said ribs being each connected, at one end, to said rear wall and extending to a common plane adjacent the front edge of said sheet, a lateral flange extending outwardly from said rear wall, a series of arcuate notches in said lateral flange, each of said arcuate notches extending completely from one side to the other of said lateral flange and being positioned between each pair of adjacent ribs as well as between each of the side walls and the ribs adjacent thereto, and a plurality of spaced notches in each of said ribs and in each of said side walls, the notches in said ribs being offset relative to the notches in said side walls.

2,838,174
RECORD SORTING MACHINES
Frank A. Lopez, Stamford, Conn., assignor to Sperry Rand Corporation, a corporation of Delaware
Application May 8, 1952, Serial No. 286,729
8 Claims. (Cl. 209—110)



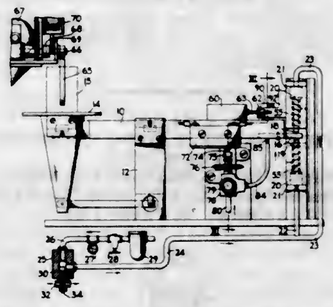
1. In a machine of the character described for sorting statistical cards bearing characters in the form of one or more code perforations arranged in a single column of the card, a continuously rotating sensing unit, means for continuously feeding cards over the rotating sensing unit, the sensing unit including pin means in single file order for successively sensing the perforations of each card, and in so doing closing one or more sensing circuits, decoding means serving to elicit a single circuit from the circuits closed in the sensing of a card, the elicited circuit being representative of the character coded into the sensed card, a plurality of card receiving pockets each representative of a particular elicited circuit, continuously operating means for conveying the sensed cards to their destined pockets, and timing mechanism under control of said decoding means and including a separate actuating member operatively associated with each circuit elicited and the related card pocket whereby the related card pockets are opened in timed relation to the passage of the cards.

2,838,175
DISTRIBUTING MACHINE
Clair D. Lake, Binghamton, and Wesley Pfaff, Endicott, N. Y., assignors to International Business Machines Corporation, New York N. Y., a corporation of New York
Application December 8, 1954, Serial No. 473,944
14 Claims. (Cl. 209—110)



1. In a distributing mechanism, a plurality of distributing members with their ends disposed progressively along the path of travel of a record element to be sorted, means for feeding an element to pass said ends, a plurality of movable deflectors cooperating with related members, means for supporting said deflectors so that each of said deflectors is normally located in the path of said element and is moved out of the path of said element when the element reaches the deflector, and means operable at a selected instant for locking a selected deflector against movement and in the path of said element, whereby said element is deflected for guidance by a selected member.

2,838,176
CHECK-WEIGHING MECHANISM
Charles R. Pettis, Jr., Watkins Glen, N. Y., assignor to International Salt Company, Inc., Scranton, Pa.
Application November 20, 1951, Serial No. 257,316
14 Claims. (Cl. 209—121)

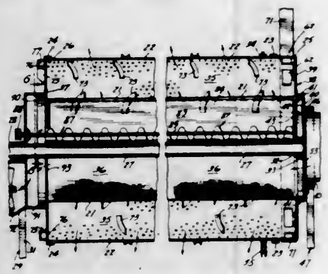


1. An apparatus for check-weighing objects, said apparatus including a pivoted beam adapted to receive the objects in weighing position at one end of said beam, said beam being counterbalanced to the exact weight prescribed for said objects and therefore pivotable in response to underweight or overweight conditions, pneumatic pressure actuated holding means normally projecting to engage said beam to hold the latter in inoperative position means for supplying pneumatic pressure to said holding means, driven means arranged to control the supply of air to the pneumatic pressure means to sequentially release and restore said pneumatic pressure therein, means biasing said holding means toward beam released position upon release of said pneumatic pressure, pneumatic valve means having an air nozzle device controlling the valve means and directed against said beam for being throttled by pivoting motion of said beam upon release thereof in response to underweight or overweight conditions, and object reject means controlled by said valve means for rejection of underweight or overweight objects.

2,838,177
ROTARY DRIER
Raymond J. Higgin, Minneapolis, Minn., assignor to Jim-Ray Co., Inc., Claremont, Minn., a corporation of Minnesota
Application November 18, 1954, Serial No. 469,621
6 Claims. (Cl. 209—238)

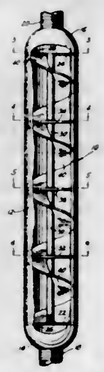
3. A rotary drier comprising an inner rotatable perforate drum, an outer perforate drum in concentric relationship with said inner drum and connected to said inner drum for rotation therewith, means mounting said drums for rotation, said inner and outer drums defining therebetween a longitudinally-extending enclosed annular drying chamber; said inner drum defining a longitudinally-extending central chamber, means supplying heated gases to said central chamber, a longitudinally extending arcuate baffle fixed in position in said central chamber to direct the flow of heated gases through the lower circum-

ferential area of said inner perforate drum, said baffle forming a longitudinally-extending trough underlying an upper portion of the cylindrical area of said inner drum



to receive particles which will sift from said drying chamber through said inner drum, and conveyor means positioned adjacent the bottom of said trough to remove said particles from said trough.

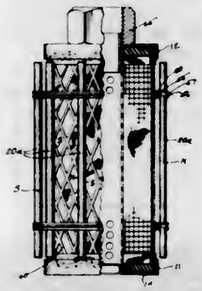
2,838,178
DEVICE FOR SEPARATING CRUDE OIL FROM WATER
Frank O. Bankes, Oklahoma City, Okla.
Application March 22, 1955, Serial No. 495,975
2 Claims. (Cl. 210—170)



1. A separator comprising an elongated tubular body defining a flow chamber, perforated supporting disks carried by the body and extending across opposite ends thereof, a supporting disk carried by the body midway the opposite ends, a rod carried by the disks and extending longitudinally therebetween along the axis of the body, longitudinally spaced baffles carried by the rod and extending outwardly therefrom between the supporting disks, the peripheries of said baffles lying in concentric spaced relation to the tubular body, and a helical flange carried by the rod and extending between the supporting disks with its outer edge in contact with the tubular body.

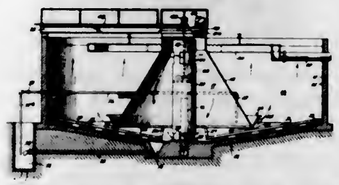
2,838,179
MAGNETIC FILTERS
William A. Thomas, Chicago, Ill., assignor to Marvel Engineering Company, Chicago, Ill., a corporation of Illinois
Application December 2, 1955, Serial No. 550,635
7 Claims. (Cl. 210—223)

2. In a magnetic filter attachment for a filter having an outer foraminous housing for passing liquid to be filtered, said housing having a pair of metal rings secured to the housing with the rings spaced from each other, said rings having a multiplicity of radial slots, and a multiplicity of permanent magnet rods extending from end to end of said housing and located in said slots forming a cage about the filter housing, the said rods being magnetized diametrically and presenting a multiplicity



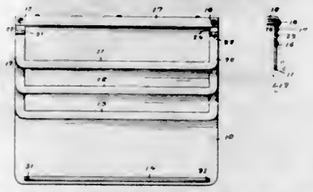
of lateral polarized portions, side by side, causing a magnetic field between the rods from end to end of the housing for attracting and separating from the liquid all magnetic particles before the liquid enters the filter.

2,838,180
SLUDGE BLANKET CLARIFIER
Joseph P. Lawlor, Ames, Iowa, assignor to General Filter Company, Ames, Iowa, a corporation of Iowa
Application February 27, 1956, Serial No. 568,077
6 Claims. (Cl. 210—528)



1. In a sludge blanket clarifier, a tank providing inner mixing and flocculation zones and an outer clarification zone wherein a sludge blanket can be maintained, an upwardly-converging conical partition mounted in the central portion of said tank for rotation about its vertical axis, said partition separating the inner mixing and flocculation zones from the outer clarification zone and being spaced upwardly from the tank bottom to provide a passage therebeneath between said inner and outer zones, means for rotating said partition about its axis, an annular trough extending around the lower end portion of the outside wall of said partition for collecting and concentrating sludge from said blanket, means for stirring the sludge in said trough as said trough rotates, and means for removing sludge from the lower portion of said trough.

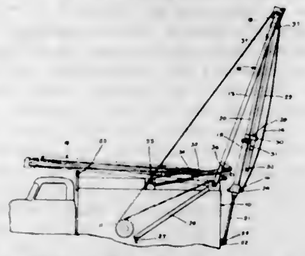
2,838,181
BOW TIE RACK
Joseph Cass, Forty Fort, Pa.
Application May 23, 1956, Serial No. 586,817
2 Claims. (Cl. 211—100)



2. In a rack for temporarily mounting preformed bow ties, the combination which comprises a rectangular-

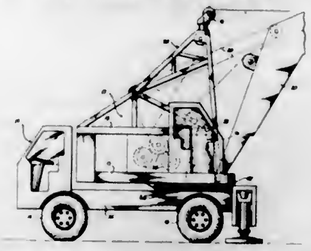
shaped panel having an upper section extending from the upper end thereof at right angles thereto, said upper section having a depending flange on the outer edge, mounting screws extended through the flange and panel, supporting arms connected to said upper section in parallel relation to said depending flange, and vertically disposed tie mounting bars hinged to said supporting arms.

2,838,182
HYDRAULICALLY OPERATED TRUCK DERRICKS
Howard D. Brown, Westfield, N. J.
Application August 4, 1953, Serial No. 372,324
8 Claims. (Cl. 212—8)



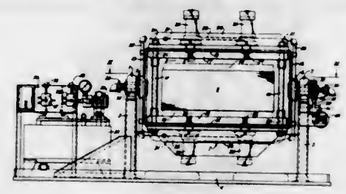
1. A hydraulically actuated derrick for trucks, said derrick comprising an A-shaped frame, a truck body, means for pivotally mounting the lowed wide ends of the frame in fixed position on an upper portion of the truck body, the upper contracted end of the frame supporting a pulley over which a cable from a winch on the truck body is adapted to pass, a main leg pivoted to the upper portion of said frame, said leg including a hydraulic cylinder, means in wide spaced relation below said frame pivot means for detachably coupling the lower portion of the leg with the truck body in support of said derrick in upright position with respect to the truck, and means comprising a hydraulic cylinder coupled with the truck body and said frame adjacent said pivot means for movement of the frame and said main leg from a collapsed position on the truck body to an upright operable position and from the operable position to said collapsed position.

2,838,183
MOUNTING AND ROTATING MEANS FOR TURNTABLE STRUCTURE
Sidney S. McIntyre, Sr., Sedro Woolley, Wash., assignor to The Humboldt Company, Seattle, Wash., a corporation of Washington
Application December 12, 1955, Serial No. 552,374
6 Claims. (Cl. 212—68)



1. A mounting and rotating means for a turntable structure comprising a base, a vertical pivot post fixed rigidly thereon, an annular track fixed relative to said base concentrically about the lower end portion of said pivot post, a bull gear fixed to said base coaxial of the annular track, a pivot pin fixed in and extending upward from the upper end of the pivot post in coaxial alignment with the annular track and bull gear, a turntable structure revoluble about said post and having a supporting bearing fixed therein, mounted on and revoluble about said pivot pin, a plurality of rollers mounted in circular arrangement in the lower portion of said structure, on vertical axes and in rolling contact with said annular track, and a drive gear mounted in the turntable structure in mesh with the bull gear.

2,838,184
APPARATUS FOR CLAMPING AND TURNING A PILE OF SHEETS
William I. MacCurdy, Johnstown, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application December 29, 1954, Serial No. 478,425
4 Claims. (Cl. 214—1)

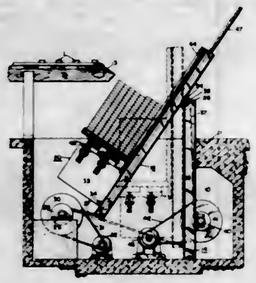


2. An apparatus for rotating a pack of plate from a horizontal position to a vertical position comprising a receptacle having trunnions at its ends mounting it for rotational movement about a horizontal axis, a side wall at the back thereof and top and bottom members respectively extending outwardly from the upper and lower edges of said side wall, a pair of clamping platens respectively mounted between said top and bottom members for movement toward and away from each other, each of said top and bottom members having means including a fluid pressure motor mounted thereon and connected with an adjacent platen for imparting clamping and releasing movement thereto, said receptacle having an unobstructed opening along the front side thereof through which a pack of plate may be inserted to a horizontal position supported on the platen adjacent said bottom member, a fluid pressure system for operating said motors to move said platens to and from clamping engagement with a pack of plate received on said bottom platen comprising common fluid conduit connections to opposite ends of said motors respectively having portions extending axially of and through said trunnions, and a reversing valve controlling the flow of fluid through said connections and in opposite directions with respect to said motors, said receptacle being rotatable about said trunnions to turn the pack of plate between said platens to a vertical position with the back edge of the pack supported against said side wall for preventing its downward movement after clamping engagement of said top and bottom members has been released, and means for rotating said receptacle comprising a driven gear keyed to one of said trunnions, a drive gear in meshing engagement with said driven gear, a crank arm connected with said drive gear, a double acting fluid pressure motor for actuating said crank arm, and a fluid pressure system including a reversing valve controlling the operation of said last-named motor.

2,838,185
LOADING DEVICE
Frederick W. Horstkotte, Portland, Oreg.
Application May 4, 1956, Serial No. 582,678
1 Claim. (Cl. 214—6)

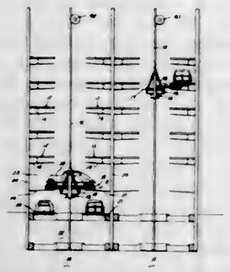
A lumber loading device comprising a transfer conveyor having a terminus located above the floor, an elevator assembly located adjacent said transfer conveyor terminus, a guide frame for the elevator in said

elevator assembly, a stationary support for said guide frame spaced beyond said conveyor terminus a distance equal approximately to the width of said elevator assembly, a hinge mounted at the top of said support, said guide frame mounted on said hinge, the axis of said hinge extending horizontally and extending normal to the direction of travel of said transfer conveyor, the horizontal plane of said hinge axis spaced below the horizontal plane of said conveyor terminus by a distance slightly less than the width of said elevator assembly, means for setting and maintaining said guide frame at



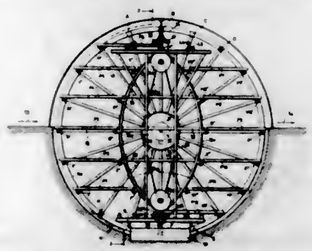
any desired position on said hinge best suited for the loading of said elevator with the particular lumber being delivered by said transfer conveyor, means for moving said elevator up and down in said guide frame while said guide frame is maintained in a desired position, said elevator assembly, guide frame and hinge axis so arranged that said elevator can move up and down in desired close proximity to said conveyor terminus whether said guide frame is in vertical or tilted position, and means on the bottom of said elevator for moving a load off from said elevator in a direction normal to the direction of travel of said transfer conveyor.

2,838,186
AUTOMOBILE PARKING APPARATUS
Mihai Alimanestiano, Bellaire, Tex., assignor, by direct and mesne assignments, to Speed-Park, Inc., a corporation of New York
Application July 30, 1953, Serial No. 371,211
12 Claims. (Cl. 214—16.1)



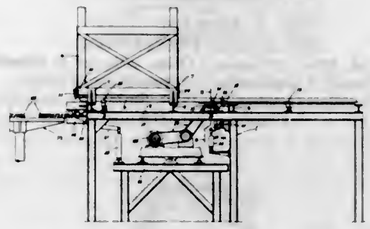
1. Transfer and storage apparatus comprising two sets of generally elongated rectangular superposed vertically spaced shelves, said sets being spaced apart horizontally and disposed directly opposite each other with the lengths of the shelves in one set parallel to the lengths of the shelves in the other set and defining therebetween an elevator shaftway with one side of each shelf in one set adjacent one side of the shaftway and one side of each shelf in the other set adjacent the opposite side of the shaftway, the shaftway thus defined being of generally elongated rectangular horizontal cross-section with its length parallel to the lengths of the shelves, vertically extending elevator guide means at each end of the elevator shaftway, an elevator disposed with its length parallel to the length of the shelves and mounted between said guide means for movement up and down between the top and bottom of said shaftway, means for raising and lowering the elevator, second vertically extending guide means carried by said primary elevator at each end of said primary elevator, a secondary elevator disposed with its length parallel to that of the primary elevator, means mounting said secondary elevator between said second guide means for movement up and down relative to the primary elevator, means for raising and lowering the secondary elevator relative to the primary elevator, a turntable mounted on the secondary elevator for rotation about a vertical axis, an elongated generally rectangular conveyor carried by said turntable, the length of said conveyor being greater than the width of said shaftway, said conveyor and each of said shelves each comprising a plurality of horizontally spaced apart parallel elongated members, the shelf members running transverse to said one side of the shelf, means operable when the conveyor is at a different level from the levels of said shelves for turning the turntable between one normal position in which the conveyor members are parallel to the shelf members and another normal position 180 degrees therefrom in which the conveyor members are again parallel to said shelf members, the ends of said conveyor extending out of the shaftway and passing through the intershelf spaces at opposite sides of the elevator as the turntable is rotated to turn the conveyor from one normal position to the other, and means operable when said turntable is in one of its normal positions and the conveyor is at the same level as a shelf for extending the conveyor horizontally to intermesh its members with those of the colevel shelf to transfer a load between the conveyor and shelf upon change in the level of the conveyor relative to the shelf, said second guide means for said secondary elevator extending above and below said conveyor and said mounting means for said secondary elevator including means at the ends of said secondary elevator engaging said guide means above and below said conveyor, a distance between the uppermost and lowermost points of engagement of the last said means with said second guide means being greater than the width of said elevator shaftway to facilitate resistance to torque due to extension of the conveyor to transfer a load between a shelf and the conveyor.

2,838,187
PARKING WHEEL
Josef Schulte, Bochum, Germany
Application September 12, 1956, Serial No. 609,409
Claims priority, application Germany October 28, 1955
13 Claims. (Cl. 214—16.1)



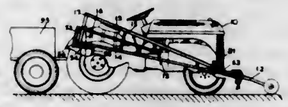
1. A parking device comprising an outer and an inner endless member rotatable along orbits centered on a common horizontal axis, a plurality of movable vehicle-carrying platforms, means for releasably supporting opposite extremities of said platforms on said outer and inner members, respectively, coupling means interconnecting said members for rotation in unison at a relative speed maintaining said platforms approximately horizontal throughout substantially a full revolution of said inner member, means defining a horizontal path for said platforms extending across the upper and the lower apex of said inner member, mechanism operative in a zenith and a nadir position of each platform to disengage same from said members and to transport said platforms across said horizontal paths and into re-engagement with said members, and drive means for intermittently rotating said members.

2,838,188
STICKER FEEDER
Edwin B. Mason, Stirling City, Calif.
Application August 9, 1956, Serial No. 602,994
12 Claims. (Cl. 214—8.5)



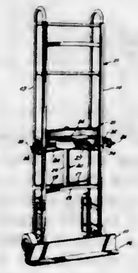
1. A machine to feed stickers onto a horizontal course of lumber comprising a plurality of upstanding sticker hoppers disposed to one side of and above such lumber course at right angles thereto and arranged in spaced relation lengthwise of the course, each hopper being arranged to retain a stack of horizontally disposed stickers, and mechanisms associated with the hoppers to feed stickers from the hoppers onto the lumber course, said mechanisms including sticker supporting arms each movable to convey a sticker from a hopper and deposit such sticker on the lumber course, operating means normally connected to all the arms to actuate the same in unison, and selectively operable means on the machine to disconnect any arm from the operating means.

2,838,189
DEVICE FOR LIFTING BALES OR THE LIKE
Eric Norbury, Astwood Bank, near Redditch, England
Application October 4, 1956, Serial No. 614,006
6 Claims. (Cl. 214—147)



1. In a tractor incorporating a lift mechanism, a device for picking up bales of hay or straw, or stooks formed of sheaves of corn, or like material, the device comprising a frame and a short mast on the tractor, the mast providing a pivotal support for the frame, the frame extending beyond the front of the tractor and carrying forwardly an implement to engage the said material as the tractor moves across the ground, means connecting the lift mechanism to the frame so as to swing the frame and said material through an appropriate angle in a substantially vertical plane when the lift mechanism is actuated, in order to deposit the material on to a trailer, the implement being in the form of a claw moun ed on the frame, the claw having jaws which are biassed towards each other and are held against the bias in a position in which they can embrace the material to be picked up, a trip member carried by the frame engaging the material as the tractor moves towards it to release the jaws and allow them to grip the material, the jaws being pivoted, intermediate their lengths, from a member fast with the frame, a sleeve slidably supported on the frame, links, the ends of the jaws adjacent the frame being connected by the links to the sleeve, the sleeve carrying an abutment for coaction with a detent of the trip member, the bias being provided by springs one end of each spring being fast with the member fast with the frame, and the other end of each spring being fast with a respective link adjacent the connection of each link to the sleeve.

2,838,190
HAND TRUCK
William P. Stevens, Augusta, Ga.
Application August 30, 1956, Serial No. 607,072
5 Claims. (Cl. 214—374)



1. A hand truck comprising a frame for supporting an article to be transported by said truck, a roller rotatably mounted on said frame, strap means attached to said roller and adapted to form an article-engaging loop, a spring connected between said frame and said roller to rotate said roller in a first direction so as to wind said strap means therearound and tighten the article-engaging loop, a ratchet wheel rigidly mounted on said roller, a rotatable member mounted with its axis of rotation coincident with the axis of said roller, a pawl movably mounted on said rotatable member for releasably engaging said ratchet wheel and upon rotation of said rotatable member further rotating said roller in said first direction to further tighten the article-engaging loop of said strap means, and stop means to prevent unwinding of said strap means by holding said roller against rotation in a second direction opposite to said first direction while said pawl and ratchet means are disengaged.

2,838,191
ELEVATABLE BED VEHICLE
Arthur G. Schramm, Phoenix, Ariz.
Application June 11, 1957, Serial No. 664,975
5 Claims. (Cl. 214—505)



1. An elevatable bed vehicle having a flat bed, springs laterally positioned beneath said bed supporting shoes, laterally disposed tandem pairs of wheels journalled on spindles carried on wheel arms pivotally mounted on transversely movable expansible elements attached to the under face of said bed; said wheel arms having rollers at their free ends adapted to contact and ride on said spring shoes when in contracted position beneath said bed; power operated means for operating said expansible elements and moving said wheels and wheel arms

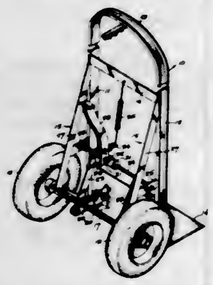
laterally from said contracted position to an expanded position beyond the lateral edges of said bed, so that the bed can be lowered while said wheel arms pivot on said expansible members, and a power operated jack centrally attached to the underside of said bed, having a foot plate adapted to bear on the ground beneath said bed and lift said bed so that the weight of the bed is removed from said wheels and wheel arms and so that said wheels may be moved by said expansible elements from beneath said bed, and withdrawn to a position beneath it.

2,838,192
EXTENSIBLE TRAILER
Mike Dzvonik, Whitaker, Pa.
Application July 18, 1957 Serial No. 672,643
3 Claims. (Cl. 214—506)



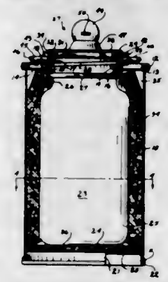
1. In a boat trailer, an inner frame, an enlarged support member arranged on the front end of said inner frame, a hook extending forwardly from said inner frame for engagement with a towing vehicle, a trip lever having its lower end secured to said support member and said trip lever including an inclined portion terminating in an upstanding finger, an outer frame slidably surrounding said inner frame and having substantially the same configuration in cross section as said inner frame, a body member extending upwardly from the front of the outer frame and including a pair of arcuate sections defining diametrically opposed slots therebetween, there being registering openings in said inner and outer frames, a vertically movable locking pin mounted for movement into and out of engagement with said openings, a transverse bar on the upper end of said pin for selective engagement with the finger of said trip lever, and a coil spring surrounding said pin and having its upper end connected to said bar.

2,838,193
UNLOADING-TYPE HAND TRUCK
Perry B. Statton, Ellensburg, Wash.
Application September 11, 1956, Serial No. 609,237
4 Claims. (Cl. 214—511)



1. A hand truck providing a frame having transversely spaced side pieces each stiffened by a respective and identical rearwardly directed belly truss having its apex located adjacent to but spaced above the lower end of the frame, an axle traversing said apices of the belly trusses and projecting by each of its ends beyond the latter, wheels journaled on said axle ends, a loading tongue made rigid with the frame and extending forwardly therefrom at the lower end of the frame, a transversely disposed unloading plate bearing on-edge upon the tongue and adapted for fore-and-aft reciprocal motion, a transverse horizontal shaft journaled from the frame for pivot movements about a fixed axis spaced above and somewhat to the front of the axle, a pair of parallel lever arms each fixed to said pivot arm in proximity of a related said side piece of the frame and pointing in a general downward direction with its free end linked to the unloading plate, and a complementing lever arm fixed to said pivot shaft at the approximate center thereof, transversely considered, with its free end pointing in a general rearward direction and serving as a foot lever, said last-named lever arm admitting to an approximate 90° swing with the geometry being such that the arcuate path travelled by the free end thereof is of approximate equal extent above and below a horizontal plane traversing the center of the pivot shaft.

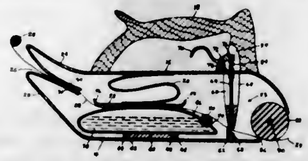
2,838,194
INSULATED CONTAINER
Herbert M. Piker, Wyoming, Ohio, assignor to Hamilton-Skotch Corporation, a corporation of Ohio
Application October 20, 1954, Serial No. 463,373
5 Claims. (Cl. 215—13)



5. In an insulated container, the combination of an outer container having a body portion, an apertured top, a removable bottom and a centrally apertured neck upstanding from said top and concentric with the top aperture, said neck being formed of sheet material of uniform thickness and having formed therein a spiral groove forming in said neck an internal thread and an external thread, an inwardly projecting horizontal radial flange from the upper end of the neck central aperture with said flange having an upper and a lower surface, a depending flange at the inner periphery of the radial flange, a gasket on said neck flange having a portion underlying the flange lower surface, a portion overlying the flange upper surface and a portion to embrace the depending flange, an inner container centrally of the outer container having a bottom, a body portion upstanding from said bottom and a centrally apertured neck at the upper end of the inner container body portion, said inner container neck having an outwardly projecting spiral rib forming an external thread in threaded engagement with the outer container neck internal thread for securing said inner and outer containers to one another and suspending said inner container within the outer container, said inner container neck having its upper end in sealing contact with the outer container neck gasket portion that underlies the said outer container neck radial flange lower surface for effecting a seal between said inner and outer container necks, said inner container being of less external dimensions than the internal dimensions of the outer container so that the inner container has its body portion and bottom, respectively, inwardly spaced from the outer container body portion and bottom, heat insulation in the space between the inner and outer containers body portions and bottoms, a closure cap having a body portion and a peripheral flange provided with an internal thread

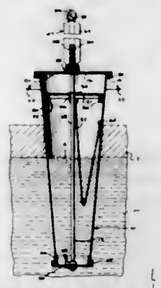
cooperatively engaging the external thread of the outer container neck and with said closure cap body portion in sealing engagement with the outer container neck gasket portion that overlies the upper surface of the radial flange, and a bail handle carried by the closure cap.

2,838,195
TAPE DISPENSER
Frederick A. Zito, Yorktown, Va.
Application August 12, 1954, Serial No. 449,532
2 Claims. (Cl. 216—22)
(Granted under Title 35, U. S. Code (1952), sec. 266)



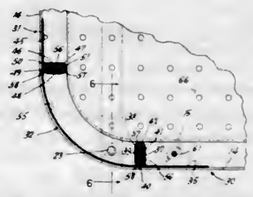
1. A gum tape dispenser comprising a housing, tape inlet and outlet means in said housing, liquid supply means mounted between said inlet and outlet means, said liquid supply means comprising a reservoir having a depending boss, grooves in said boss, and track means in said housing receiving said boss for sliding movement of said reservoir, an aperture in said housing, a perforating knife receiprocable vertically in said housing, a trigger secured pivotally on said housing, a stem connecting said knife and trigger extending through said aperture, tension means on said stem urging said trigger into inoperative position, a block member mounted below said perforating knife, and a groove in said block member aligned with said knife, said block member having an inclined guide surface.

2,838,196
DEVICE TO OBTAIN ACCESS TO ICE BOUND WATER SUPPLY
Harold E. Chapman, East Corinth, Maine
Application April 20, 1956, Serial No. 579,642
5 Claims. (Cl. 220—1)



1. A device for obtaining access to an ice covered water supply comprising a cylinder, said cylinder being of such length as to be capable of being embedded in the ice with its upper end projecting above the ice and its lower end extending into the water below the ice; a stopper having a top surface bearing against the lower end of the cylinder to sealably close said lower end when forced upwardly thereagainst; means extending upwardly within the cylinder connected to the stopper, for shifting the stopper downwardly to open the cylinder at the lower end thereof, comprising a stem connected at one end to the stopper and extending axially of and within the cylinder to the upper end thereof; means supported by and within the cylinder normally engaging the stem against downward movement, comprising a cross bar extending diametrically within the cylinder and having a center opening, the stem being slidably engaged in said center opening and having a transverse aperture adjacent the cross bar, and a pin extending through said aperture and supported at its ends upon the cross bar, said pin being removably engaged in the aperture so as, when removed, to free the stem for downward movement; a cover having a bottom surface bearing against the upper end of the cylinder to sealably close said upper end when forced downwardly thereagainst; and a nut threaded upon the upper end of the stem and bearing against the top surface of the cover so as to draw the cover and stopper into sealing engagement with the upper and lower ends, respectively, of the cylinder, said nut being fully separable from the stem to free the cover for removal from the cylinder simultaneously with freeing the stem and stopper for gravitation from the cylinder.

2,838,197
KNOCK-DOWN RECEPTACLES
Saul K. Wolff, Long Beach, N. Y., assignor to Wolff Appliance Corp., Long Island City, N. Y., a corporation of New York
Application August 17, 1955, Serial No. 528,972
4 Claims. (Cl. 220—4)

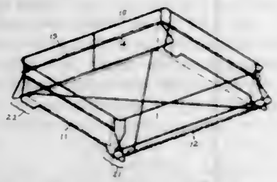


3. A receptacle comprising top and bottom inwardly facing, channel-shaped, similar symmetrically disposed frames each having inner and outer flanges, and coextensive panels having their upper and lower ends received within said frames, tie means interconnecting said frames, of said panels comprising a wall contacting the inner surfaces of the outer flanges of said frames, a flange extending from said wall transversely toward the inner flanges of said frames, a bent back portion extending from the flange and contacting the inner flanges of said frames, a flange extending transversely from the bent back portion toward the outer flanges of the frames, a bent back portion extending from the outer end of the last flange and spaced from the outer flanges of said frames and a flange extending transversely from the last bent back portion and disposed between the first and second flanges of said panel, an adjacent panel having a wall contacting the outer flanges of said frames, a flange extending from one end of the wall of the last mentioned panel, and disposed between the first and third flanges of the first panel, a bent back portion extending from the flange of the second panel and nesting within the first bent back portion of the first panel, and a second flange extending from the bent back portion of the second panel and received between the second and third flanges of the first panel, said flanges and bent back portions of the two panels having sliding interlocking engagement, and a bottom wall supported by said bottom frame.

2,838,198
REINFORCED BOX
Eugene L. Vidal, Avon, Conn.
Application January 26, 1956, Serial No. 561,489
7 Claims. (Cl. 220—19)

1. A receptacle comprising a rectangular frame forming the upper edge of the receptacle, an elongated horizontally disposed member below and extending parallel

to each leg of the rectangular frame, each of said members having upturned ends for supporting the rectangular frame, the upturned ends of each member being connected to the corresponding leg of the rectangular frame to which it is parallel, adjacent members being connected together adjacent their ends below the connections between the upturned ends of the members.



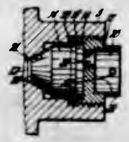
2,838,199
FLOATING ROOF FOR RESISTING AIR OR GAS SHOCK WAVES
John H. Wiggins, Woodside, Calif.
Application August 29, 1955, Serial No. 531,082
8 Claims. (Cl. 220—26)



1. An explosion and shockproof floating roof for tanks of the oil storage type comprising a deck for floating engagement throughout substantially its entire area with the liquid in the tank, and a center pontoon structure including an upstanding center guide post secured to said deck, an upstanding outer wall secured to said deck, a plurality of upwardly extending frame and support elements secured to said deck and disposed between said post and said wall, a flexible, sheet-metal roof for said center pontoon structure having sliding engagement with said post and normally resting freely upon the tops of said wall and said support elements, said wall and said support elements having relative heights such that said flexible roof is supported thereby in a water-shedding configuration and is supported thereby so as to withstand external pressures that may be applied to the upper surface of said flexible roof, said roof being adapted to be lifted bodily about said guide post and upwardly out of contact with said wall and said support elements upon occurrence of an explosion within said center pontoon, thereby venting the interior of said center pontoon, and a stop on said post for limiting upward movement of said roof, said roof having by virtue of its flexibility a freely liftable outer periphery which flexes upwardly with respect to the center portion of said roof in response to the internal pressure created by said explosion within said center pontoon, thereby increasing the speed with which said internal pressure is relieved from the interior of said center pontoon.

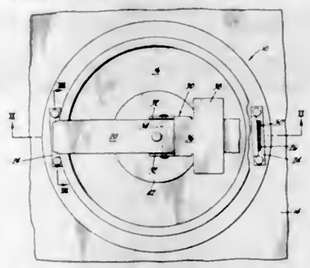
2,838,200
SEALING MEANS
Charles A. Brewer, Noroton Heights, Conn., assignor of one-half to William J. Lennon, Jr., Housatonic, Mass.; Mary B. Brewer, administratrix of the estate of said Charles A. Brewer, deceased
Application September 5, 1952, Serial No. 308,042
2 Claims. (Cl. 220—39)

1. A two-part unitary device for closing and sealing a valve provided with an outlet bore having an outer internally threaded portion and a portion extending inwardly therefrom having converging sides comprising in combination, an outer and inner body and plug, said plug being solid and having inwardly converging outer sides for sealing contact with the inner portion of the outlet bore of the valve and being provided on its outer end portion with an annular flange extending outwardly therearound, said body at its outer end portion being provided with external threads for engaging the threaded portion of the valve bore and a recess on the inner end thereof receiving the flange of the plug and a continuous annular rim portion disposed adjacent the rear side of the flange and adjacent sides of said plug, the recess and rim of said



body and the flange of said plug being relatively arranged to hold said body and plug in general coaxial relationship against axial separation and permitting relative rotation of said body and plug and slight relative tilting thereof whereby by screwing said body into the valve bore said plug may be pressed and sealed against the inner portion of the bore, said body being provided with a guide bore extending inwardly from the outer end thereof having a key portion at the inner end of said guide bore, and a key receivable in the guide bore provided with means engageable with the key portion of the bore whereby said body may be rotated by said key.

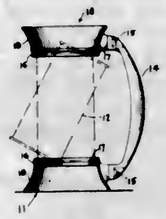
2,838,201
QUICK-SEALING ACCESS COVERS
Frank E. Monsler, Berkeley, Calif.
Application July 22, 1954, Serial No. 445,208
2 Claims. (Cl. 220—57)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A cover assembly for sealing a wall opening comprising a rim member projecting upwardly from the perimeter of said opening, a resilient cover member provided with a radially-extending circumferential and downwardly facing U-shaped flange adapted to fit over said rim, a gasket disposed in said U-shaped flange for centrally engaging the free end of said upwardly projecting rim member, a pair of clips disposed radially outwardly and diametrically of said rim member, an independently rotatable locking bar provided at its ends with depending hooks adapted to be rotatably engaged beneath said diametric pair of clips, a downwardly-projecting pin centrally carried by said bar and freely slidable in a bearing in said cover for axially aligning the cover and the bar and for permitting rotation of said bar independently of said cover, and a cam pivotally mounted on said bar and movable against said cover for exerting an upward force on the bar capable of securely interlocking said hook and clip engagement and a downward force on said cover capable of clamping together the rim and the cover and of pressing said free end of the rim into said gasket whereby said gasket is sealably compressed, said cam

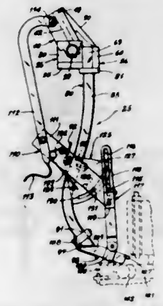
being shaped to exert said forces in an over-center pivoted position maintainable through force exerted by said resilient cover.

2,838,202
COMBINED CUP, STAND AND HANDLE FOR BEVERAGE CANS
Charles P. Huether, Clifton, N. J.
Application January 11, 1957, Serial No. 633,593
8 Claims. (Cl. 220—90.6)



1. In an attachment for beverage cans, the combination of a pair of generally circular members each having a flared wall formed with circular edge at one end disposed in a horizontal plane and having a cylindrical skirt portion at the other end adapted for attachment to the ends of a cylindrical beverage can, both of which are adapted to serve as a stand for the can and as a drinking aid receptacle for receiving the beverage poured out of an opening in the upper end of the can to facilitate drinking the same whereby said members are interchangeable with respect to the top and bottom of the can, and a handle secured to said members formed to extend along the side of the can and spaced therefrom to facilitate grasping the same.

2,838,203
APPARATUS FOR FEEDING LOOSE LEAF METAL ARCHES
Edward A. Koelling, St. Louis, Mo.
Application March 19, 1953, Serial No. 343,291
14 Claims. (Cl. 221—248)



1. An apparatus for feeding individually oriented loose leaf metal arches comprising, in combination, means for congregating individually oriented arches in consecutive abutment, means for simultaneously releasing a predetermined number less than the total number of congregated arches and at the same time restraining the unreleased arches, means for receiving released groups of arches and conducting the same individually to respective points of detention while maintaining individual orientation thereof, means for detaining said group at their points of detention, means for again releasing said detained group, and means for conducting said again released group to an assembly station while still maintaining individual orientation thereof.

2,838,204
PELLET DISPENSING DEVICES
Richard F. Snyder, Princeton Township, Mercer County, N. J.
Application December 20, 1954, Serial No. 476,220
1 Claim. (Cl. 221—307)



A storage and dispensing device for pellet-like objects subject to contaminating external influences comprising a container having an orifice therein, and a cooperating dispenser element connected thereto in an airtight manner and extending outwardly from said container, said element being a length of flat walled tubing of resilient material having a divergent section and a normally closed passageway section, said divergent portion being connected to said orifice and adapted to introduce and orient said object into the normally closed passageway section for manipulation therethrough, said normally closed section of tubing having a length to provide closed sections on both sides of a pellet which is centrally located therein to shield unused objects remaining within said container from contaminating external influences by sealing off said container before dispensing an object.

2,838,205
FLOW CONTROL VALVE
Jack J. Booth, Dallas, Tex.
Application December 15, 1954, Serial No. 475,394
6 Claims. (Cl. 222—52)



1. In a heat exchanger for pre-carbonated beverages having a beverage cooling tank and pick-up tube provided with a delivery valve, a flow control device in the cooling tank between the pick-up tube and the delivery valve comprising an elongated body in separable, longitudinally aligned tubular sections, one of the sections having a bore of greater diameter than the bore of the companion section and axially aligned therewith, a guide rod anchored at one end in said one of the sections and extending concentrically through the bores of both of the sections, a sleeve substantially coextensive with the larger of the bores and spring biased away from the other of the bores and means for admitting beverage into the larger bore from the pick-up tube to displace the sleeve on the guide rod into the smaller bore to vary the effective length of the annular orifice defined between the exterior surface of the sleeve and the wall of the smaller bore in direct proportion to the differential of the pressures in the bores.

2,838,206
DISPENSING DEVICE FOR ODORIZING LIQUEFIED PETROLEUM GAS
John W. Wilkinson, Hamden, Conn., assignor to Humphrey-Wilkinson, Incorporated, North Haven, Conn., a corporation of Connecticut
Application April 17, 1956, Serial No. 578,667
5 Claims. (Cl. 222—83)



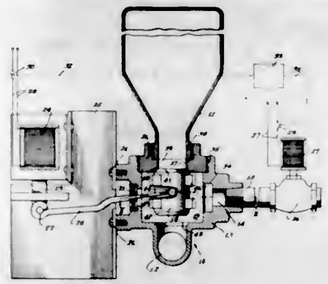
4. A dispensing device comprising an elongated cylinder, spaced inlet and outlet passages for the cylinder, a receptacle at one end of the cylinder between the inlet and outlet passages at a point spaced from the inlet passage for a container having fluid to be dispensed, a piston within the cylinder operable by fluid pressure between the inlet and outlet passages acting on said piston, a puncturing head on the piston, means connected with the fluid inlet passage for scavenging the fluid contents of the container from the receptacle into the outlet passage after fracture by the puncturing head of said piston.

2,838,207
COLLAPSIBLE TUBE
Edward B. Freed, Los Angeles, Calif.
Application July 5, 1955, Serial No. 519,740
4 Claims. (Cl. 222—99)



1. In combination, an elongated hollow tube having a closed bottom to retain contents such as a fluid within the tube and having a top portion for obtaining an outward flow of the contents of the tube, the tube being made from a deformable material to facilitate the flow of the contents through the top portion upon the exertion of pressure against the tube and to facilitate the folding of the tube from the bottom into a plurality of sinuous layers in accordance with the removal of the contents from the tube, and a key portion integral with the tube at the bottom of the tube to facilitate a manual grip for winding the tube from the bottom into the plurality of sinuous layers, the key portion having a curved external surface of convex configuration to produce a gradual increase in pressure on the tube as the tube is rotated for an optimum removal of the contents from the tube as the key portion is rotated, the key portion having a grooved configuration at its interior and the tube having a tongue portion for fitting into the groove to facilitate a seal of the bottom end of the tube.

2,838,208
DISPENSING SYSTEM
Edward C. Levit, St. Joseph, Mich., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application June 15, 1955, Serial No. 515,739
9 Claims. (Cl. 222—133)



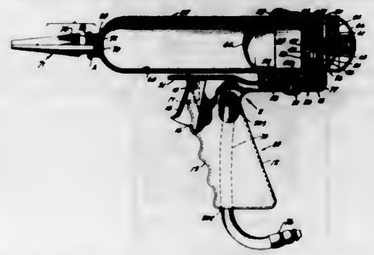
1. A self-flushing and cleaning dispensing and mixing system comprising a housing enclosing a chamber therein with an outlet therefrom and inlets thereto, a first valve means selectively opening said outlet and opening one of said inlets whereby said outlet is closed when said one inlet is open and said one inlet is closed when said outlet is open, a second valve means to control material flow to the chamber through the other inlet, a first valve operator connected to operate said first valve, a second valve operator connected to operate a said second valve, means to control both said valve operators to maintain said second valve closed when said one inlet is opened by said valve means, and means to vary the capacity of said chamber without opening the chamber to determine the quantity of material admissible thereto through said one inlet.

2,838,209
HOLDING ATTACHMENT FOR BOTTLE CAPS
Nathan Legman, New York, N. Y.
Application December 5, 1956, Serial No. 626,381
2 Claims. (Cl. 222—180)



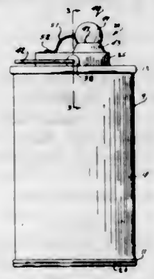
1. A closure and dispensing cap device for bottles and other containers comprising a cap having a pouring spout with an outer pouring end opening, a pair of trunnions on the pouring spout, and a yoke having a closure portion with two dependent arms pivotally mounted on the trunnions, said arms having forwardly extending counterweight lever portions normally to hold the yoke pivoted with the closure portion of the yoke over the outer pouring end opening the spout, said closure portion of the yoke having a rearward extension with an opening therein and a hanging cord in said latter opening for suspending the bottle, said pouring spout extending outwardly from the cap and having a beveled lip at the outer pouring end opening with a front edge higher than the rear edge, said closure portion of the yoke having an inner surface matching the surface of the beveled lip of the pouring spout, said arms of the yoke having trunnion openings along their longitudinal axes to receive said trunnions and said trunnions being disposed along the longitudinal axis of the pouring spout, said yoke being of stiffly flexible material with the arms resiliently spreadable for removable mounting on the trunnions.

2,838,210
SEALANT DISPENSING DEVICE
Arthur J. Detrie, Santa Monica, and Paul J. Stayboldt, Los Angeles, Calif., assignors to Douglas Aircraft Company, Inc., Santa Monica, Calif.
Application December 21, 1954, Serial No. 476,618
30 Claims. (Cl. 222—327)



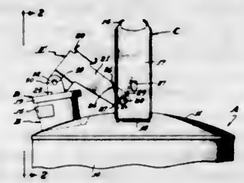
1. A dispenser, comprising: a main frame; a socket mounted atop the rearmost end of said main frame and constituting a secondary frame; a cartridge-unit, containing dispensable material, for mounting coaxially in said socket, said socket being closed at its rear end and open at its front end for coaxially and removably receiving the rear end of said cartridge unit in said front end and to enable the rear end of said socket to effectuate sealing of said cartridge unit, said cartridge unit being open at a pair of opposed, front and rear, loci thereof; powering-fluid receiving and valvular powering-fluid directing means mounted in said socket coaxially of, and rearwardly adjacent, the rear one of said pair of loci; said flow-directing means being in communication with the open rear of the cartridge unit at said rear locus; and means for controlling the said means, said controling means being operatively connected on occasion to said flow-directing means, so as to effectuate controlled dispensing of said dispensable material thru the front one of said loci.

2,838,211
CLOSURE CAP FOR AN INSULATED CONTAINER
Herbert M. Piker, Wyoming, Ohio, assignor to Hamilton-Skotch Corporation, a corporation of Ohio
Application October 18, 1954, Serial No. 462,925
4 Claims. (Cl. 222—460)



1. A closure cap of the class described comprising a body portion having a peripheral, depending, internally threaded, attaching flange for removable attachment to a container, a boss upstanding from said body portion having a funnel-like passageway therethrough terminating in a discharge opening with an outwardly and upwardly tapered lip terminating in a sharp edge, a stopper for said discharge opening comprising a body portion and a reduced portion projectable through the discharge opening and with said stopper body portion on said lip, and a leash carried by the stopper and closure cap body portion tying the stopper to the body portion to prevent misplacement relative to the closure cap.

2,838,212
SAFETY CONTAINER
Snell Robertson, Los Angeles, Calif., assignor to Swingspout Measure Company, Los Angeles, Calif., a corporation of California
Application March 21, 1955, Serial No. 495,733
2 Claims. (Cl. 222—473)



1. A safety container including, a closed vessel having a top wall and adapted to carry liquids, an elongate tubular pouring spout with an open outer end fixed to and projecting upwardly from the top wall of the vessel, a handle with an elongate horizontally disposed hand grip spaced above the top wall of the container and laterally offset from the spout, elongate legs depending from the ends of the hand grip and connected with the top wall of the vessel, a closure cap, actuating means carrying the cap and adapted to shift the cap into and out of engagement with the spout including, a unity frame member with laterally spaced elongate parallel arms having inner and outer ends, pivot pins connecting the inner ends of the arms with lower ends of the legs, a gripping bar extending between the outer ends of the arms to extend parallel with the hand grip and shiftable into and out of engagement with the hand grip, a clevis plate fixed to the cap, laterally inwardly projecting fingers on the outer ends of the arms and pivotally connected to the clevis plate, and spring means between the legs and the arms and adapted to normally yieldingly urge the frame away from the handle and the cap into tight sealing engagement on the spout.

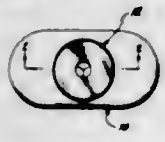
2,838,213
CONTAINER AND RESILIENTLY SUPPORTED CLOSURE MEMBER THEREFOR
Clifford B. Kinley, Coral Gables, Fla.
Application August 12, 1954, Serial No. 449,475
2 Claims. (Cl. 222—498)



1. A dispensing device comprising a container having a neck defining an outlet port substantialy centrally located in a free end thereof, first abutment means integrally formed on said neck and surrounding said outlet port, second abutment means integrally formed on said neck and surrounding said neck at a location spaced from said free end, a closure comprising a substantially flat structural portion defining an outlet aperture therein and further de-

fining indent means adjacent said aperture, said indent means adapted to seat selectively over said outlet port thereby to close said container and being further adapted to bear selectively upon a portion of said first abutment means whereby said outlet port and said outlet aperture are brought into alignment thereby to open said container, said flat structural portion having downwardly extending first and second parallel flanges slidably bearing simultaneously on first and second opposite surfaces of said neck adjacent said outlet port, said flat structural portion including a downwardly extending third flange selectively bearing on a third surface of said neck between said first and second flanges, said closure further including an elongated resilient member affixed at one of its ends to said flat structural portion and defining a pair of spaced elongated portions at the other of its ends, said spaced elongated portions being located adjacent opposing surfaces of said neck and defining an arcuate bearing surface therebetween which bears resiliently upon the external periphery of said neck between said first and second flanges below said second abutment means on a fourth surface of said neck opposite to said third surface.

2,838,214
DISPENSING CLOSURE
William L. Kimball, Rego Park, N. Y., assignor to Shulton, Inc., Clifton, N. J., a corporation of New Jersey
Application January 26, 1955, Serial No. 484,203
18 Claims. (Cl. 222—502)



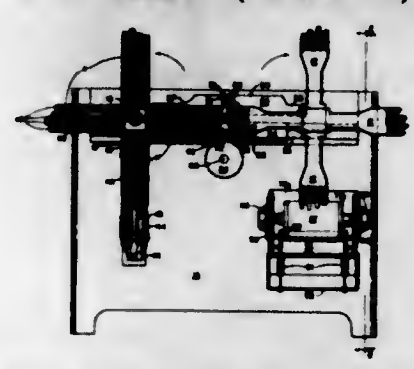
1. A valve for a dispensing closure opening comprising a tubular body, a plurality of elements projecting inwardly from and hinged to an inner surface of said body at circumferentially spaced points about the closure opening, said elements having tip sections constructed and arranged to cooperate with each other to effect closing and unclosing of the opening, a cap member rotatably mounted in a horizontal plane on said body above said elements, and depending means on said cap member for engaging each of said elements to effect operation thereof upon rotative movement of said member.

2,838,215
CONTAINER CLOSURE CAPS
Wayne F. Robb and Bert W. Myer, Jr., Denver, Colo., assignors, by mesne assignments, to Yorker & Sons, Inc., a corporation of Colorado
Application April 13, 1955, Serial No. 501,053
5 Claims. (Cl. 222—521)



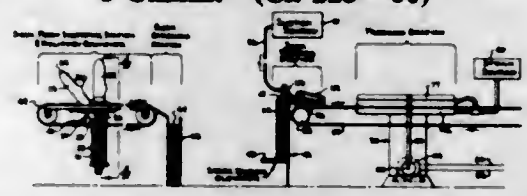
1. A closure structure for application to a pliable chambered flowable material dispensing container having a neck, comprising an insert member having a depending hollow skirt portion bowed outwardly to provide when inserted in said neck a tight wedge-like engagement with the interior wall of said neck and a continual seal for material therebetween, a cap member substantially embracing said insert member and supported for movement relative to said neck and insert member, said cap member having an opening for discharge of material from the container, said insert member having a passageway for conducting material from the container to said opening when said cap member is moved in one direction, and an annular ridge extending from one of said members between the passageway and opening for providing a seal between the opening and the passageway when the cap member is moved in the other direction.

2,838,216
GLOVE FINISHING MACHINE
Max M. Beasley, Chattanooga, Tenn.
Application November 7, 1955, Serial No. 545,278
11 Claims. (Cl. 223—57)



1. In a glove pressing and stripping machine, a glove form, a substantially longitudinal frame pivoted at one end about a fixed axis spaced from and perpendicular to the long axis of said glove form, a pair of revoluble coacting rollers arranged for rotation in opposite directions on opposite sides and at the end of said glove form, said rollers being journaled on and near the opposite end of said frame, means for rotating said rollers in opposite directions, and means for pivoting said frame about said fixed axis to move the coacting portions of said rollers in an arc tangential to the long axis of said glove form to enable the rotating rollers to engage and strip a glove from said form.

2,838,217
METHOD OF FINISHING KNITTED ARTICLES
Wade V. Bowman, Hickory, and Henry G. Bell, High Point, N. C.; said Bell assignor to Adams-Millis Corporation, High Point, N. C., a corporation of North Carolina
Application July 26, 1956, Serial No. 600,230
3 Claims. (Cl. 223—60)

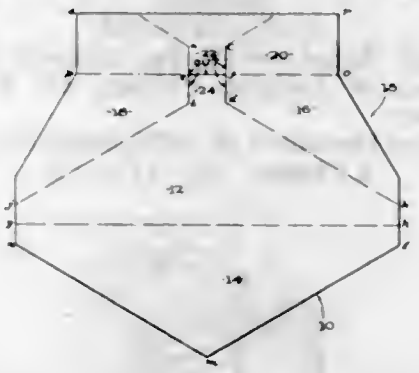


1. The method of boarding pairs of men's hose which comprises inserting a paper board form of disposable material and of substantially the same length and shape as a finished hose in one of the hose of a pair, inserting said first hose while on the form within a second hose of the pair, and then pressing the pair of hose while on the form between a pair of heated platens while subjecting the hose to steam.

2,838,218
GARMENT HANGER SHIELD
John D. Grigsby, Jackson, Miss.
Application February 16, 1954, Serial No. 410,672
5 Claims. (Cl. 223—98)

1. A shield made from a single sheet of flexible material for a triangular hanger having a base with upwardly

converging sides extending from the ends thereof and terminating in an upstanding support comprising a shank and a hook extending therefrom, said shield comprising: a sheet having a body adapted to cover the upper triangular portion of the hanger, an upper section extending upwardly from the body, a pair of tongue members

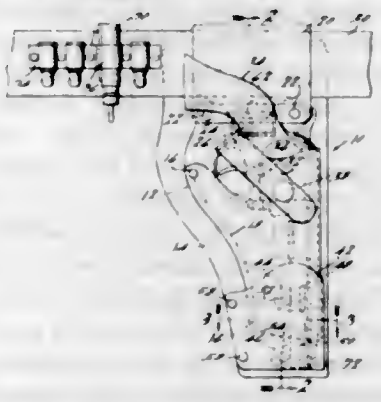


defined by an H-shaped cut in the upper section, the legs of the H-shaped cut adapted to be disposed on either side of the shank of the hanger, the upper section being so folded upon itself that the tongue members meet in confronting relationship with their free ends extending upwardly, said tongue members being adapted for positioning on either side of the hanger-hook shank.

2,838,219
TOY HOLSTER SET

George H. Zerbel, Northville, Mich., assignor to Daisy Manufacturing Company, Plymouth, Mich., a corporation of Michigan

Application May 8, 1956, Serial No. 583,508
4 Claims. (Cl. 224—2)



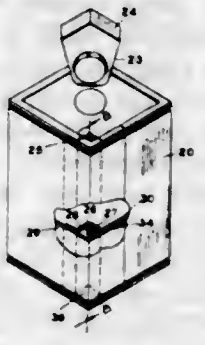
1. A holster set comprising an open bottom holster of trim and compact appearance and of a size conveniently to house a snub-nosed pistol or the like, a flat panel larger in its flat dimensions than said holster, said panel having a projecting pocket shaped to receive the lower end of said holster and to fit therearound, and means carried by said panel and said holster for removably securing said panel to said holster when the bottom portion of said holster is positioned within said pocket.

2,838,220
CONTAINER WITH INTEGRAL SUCTION TUBE

Jess Oppenheimer and William Crane, Jr., Los Angeles, Calif.; said Crane assignor to said Oppenheimer

Application May 23, 1955, Serial No. 510,074
3 Claims. (Cl. 229—7)

1. A beverage container having a polygonal horizontal cross-section with a plurality of sidewalls, and bottom and top portions affixed thereto to form said container, said sidewalls being formed of a sheet of material with vertical edge portions overlapping and adhered adjacent one corner of the container, one of said edge portions being folded inwardly of the container longitudinally of the corner and intermediate the overlapping edges to define with the overlapping opposite edge and with the corner of the container an elongated tube extending longitudinally of the sidewalls, said inwardly folded edge portion having an opening adjacent the bottom of the container only to provide an inlet opening, the top of the resulting tube terminating at and engaging the top of the container, a corner opening in the top portion of the container coextensive with and communicating with the upper end of the tube to provide an outlet opening in the top of the container communicating with the interior

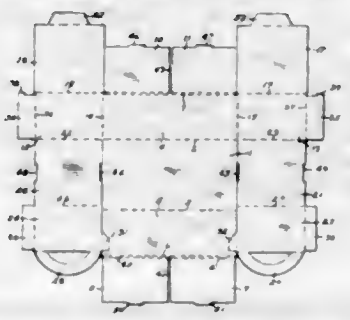


thereof, a second opening in said top portion communicating with the interior of the container, said openings thereby providing separate inlet and outlet means for fluid, and a removable protective flap covering both of said openings and extending to the corner of the container to seal the contents, said contents being capable of being imbibed by raising of said protective flap and the application of suction through the lips of a consumer to the opening in the corner of said top portion.

2,838,221
BASKET

Roy K. Wilson, Port St. Joe, Fla., assignor to St. Joe Paper Company, Jacksonville, Fla., a corporation of Florida

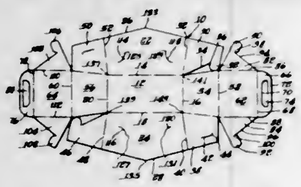
Application March 29, 1954, Serial No. 419,535
4 Claims. (Cl. 229—27)



1. A substantially rectangular blank for forming a partitioned container, said blank comprising a bottom panel, a first side wall panel connected to said bottom panel by a foldline and extending therefrom toward one side of the blank, a second side wall panel connected to said bottom panel by an opposite foldline and extending therefrom toward the other side of the blank, a pair of end wall panels each secured to a respective end of said first side wall panel and extending therefrom toward opposite ends of the blank, a pair of bottom reinforcing panels joined to said end wall panels respectively and extending toward said other side of the blank, a respective partition panel secured to each said bottom reinforcing panel by a foldline and extending therefrom toward said other side of said blank and having a free edge opposite the foldline and a handle portion extending from said free edge, said bottom panel and said side wall panels being of substantially equal lengths, said bottom panel and said bottom reinforcing panels and said end wall panels and said partition panels being of substantially equal widths, each of said panels being rectangular, whereby said bottom reinforcing and partition panels have inner side edges extending along end edges of said bottom panel and said second side wall panel, a respective inwardly extending flap hingedly joined to the inner

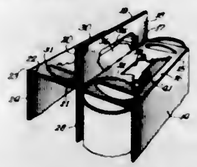
edge of each said partition panel and carved out of respectively opposite end portions of said second side wall panel, one end of said flap being substantially in line with said free edge, a respective outwardly extending flap hingedly attached to the outer edge of each said partition panel, a respective outwardly extending flap having a predetermined width dimension hingedly attached to the outer edge of each said end wall panel, said predetermined width dimension of said end-wall-panel-attached flaps being greater than the distance to which said end portions of said second side wall panel are so carved out as measured inwardly from the respective end edges thereof, and a respective inner wall panel joined to each said side wall panel by a foldline and extending toward said respectively opposite sides of said blank, each said inner end wall panel being slotted to receive one edge portion and the thereto attached flap of both said partition panels through each such slot upon erection of the container, said end panels being adapted to fold forwardly, said bottom reinforcing panels being foldable inwardly to overlie said bottom panel and to bring said partition panels, when folded upwardly, into juxtaposition across the center of the container, said end wall flaps being foldable inwardly to lie inwardly and coveringly against the carved out portions of said second side wall, and said inner side wall panels being foldable inwardly toward and parallel to the respective said side wall panels with said end wall flaps enclosed between said second side wall panel and the inner side wall panel which is thereto joined.

2,838,222
FOLDING BOX CONSTRUCTION
Constantine John Papadopoulos, Chicago, Ill.
Application July 29, 1952, Serial No. 301,431
4 Claims. (Cl. 229—36)



1. A one-piece knockdown box, comprising a bottom panel, a pair of opposed side panels articulated to opposite edges of said bottom panel, a pair of end panels articulated to other opposite edges of said bottom panel, a pair of complementary top panels each articulated to an upper edge of one of said end panels and having inner edges disposed substantially over the middle of said bottom panel, a pair of juxtaposed upstanding handle members each articulated to the inner edge of one of said top panels, the junctions between said handles and top panels extending substantially the full width of said top panels, a pair of locking flaps articulated to side edges of each top panel and depending along said side panels, each of said locking flaps having a tongue portion disposed between inner and outer edges of its associated top panel, and each of said side panels having a pair of slots therein for receiving said locking tongues, each of said slots having a terminal end engageable with one of said tongues and disposed at a point substantially in a diagonal line extending from a point at the middle of the upper edge of its associated side to a corner of the bottom panel, whereby to restrain tilting of the box when the box is supported by said handle members and to distribute the weight of the box substantially equally to the handles through all of said locking flaps, and a pair of end flaps articulated to each pair of adjacent ends of said side panels and extending inwardly along the inner surfaces of the adjacent end panels and each pair of end flaps having cooperating locking tongue and slit means for locking them together.

2,838,223
CAN CARRIER
Paul A. Graf, Bala-Cynwyd, Pa., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application December 28, 1956, Serial No. 631,175
2 Claims. (Cl. 229—52)



1. A foldable can carrier formed from a one piece blank of sheet material and comprising a bottom wall having a lengthwise median fold line, side wall panels attached at their lower edges along fold lines to the side edges of said bottom wall and extending upward therefrom, two top wall panels attached at their outer side edges along fold lines to the upper edges of said side wall panels and extending inward therefrom, two handle flaps integrally connected together at their upper edges along a fold line and integrally attached at their lower edges along fold lines to the inner edges of said top wall panels and extending upward therefrom, a center partition panel attached at its lower edge to said bottom wall along a fold line contiguous to the median fold line thereof and extending therefrom upward between said handle flaps, the latter being secured to the upper portion of said center partition panel providing therewith a three ply handle structure, said handle structure being provided at the midportion thereof with aligned elongated finger openings, and a securing flap formed of material cut from one of said handle flaps to provide said finger opening therein and attached to the corresponding top wall panel, said securing flap extending through said finger openings and being secured to the other top wall panel, said center partition panel having at its upper portion an opening extending downward from the midportion of said handle structure and disposed to underlie the area of said other top wall panel corresponding to said securing flap, when said carrier is folded flatwise with said top wall panels seating on said center partition panel, said center partition panel opening being of a width and length at least as great as the width and length of said securing flap, the area of said carrier corresponding to said securing flap being of three thicknesses of material when said carrier is so folded.

2,838,224
HANDLED BAG OF PAPER OR LIKE MATERIAL AND METHOD OF MAKING SAME
Harford K. Steen, Newburgh, N. Y., assignor, by mesne assignments, to Interstate Bag Company, Inc., a corporation of Virginia
Application April 6, 1953, Serial No. 346,843
9 Claims. (Cl. 229—54)

1. A bag having a handle in the form of a loop and composed of a strip of comparatively stiff ribbon-like material, one end thereof being secured flatwise to one side of the bag and extending in a first course upwardly thereof, then sharply folded to assume a second course outwardly of the central longitudinal axis of the bag, then sharply folded to assume a third course inwardly of said longitudinal axis, said third course constituting

the grip portion of the handle, said strip further having sharply defined courses complementary to said second



and first courses to complete the bag handle, said last mentioned course being attached to the same side of the bag as said first course.

2,838,225
SUPPLEMENTAL SLEEVE FOR MULTIWALL GUSSETED VALVE BAG
Sheldon Y. Carnes, Englewood, N. J., and Robert F. Searle, Canajoharie, N. Y., assignors to Arkell and Smiths, a corporation of New York
Application August 9, 1954, Serial No. 448,718
2 Claims. (Cl. 229—62.5)



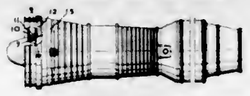
1. A gusseted paper bag with walls of a plurality of plies of paper therein having a portion of one of the gussets and side wall folded inwardly into the mouth of the bag to form a valve and valve opening therein, a supplemental sheet having one end portion positioned in the valve of the bag with the remainder of the sheet extending inwardly into the bag away from the inner edge of said valve, means for attaching said end portion of the sheet in a fixed position in the valve of the bag, said sheet having both its side edges throughout their entire length securely held in the mouth of the bag by means of a line of stitching across the top of the bag that passes through the side walls of the bag and supplemental sheet to close the mouth of the bag, said sheet having three slits positioned therein each of which extends from the inner edge of the valve out to the free end edge of the sheet inside the bag, said sheet being imperforate between said slits, one of said slits being positioned in the middle of the sheet which divides the body of the sheet in half and each of the other two slits being positioned along opposite sides of the sheet immediately below the line of stitching across the top of the bag subtsantially in alinement with the upper extremity of the valve opening in the bag, whereby the body of the supplemental sheet is free of the line of stitching across the top of the bag so that it may readily adapt itself to a nozzle during the filling operation and whereby when the nozzle is withdrawn each half of the sheet below the line of stitching is free of the line of stitching so that each half may be folded over upon itself and the halves overlapped and flattened out against the side walls at the top of the bag to supplement the sealing action of the valve in the bag.

2,838,226
CASING FOR INDIVIDUAL BOTTLES AND OBJECTS OF LIKE SHAPE
Carl Wilhelm Hartmann, London, England, and Albert Bertram Arkadius Hansen, Lyngby, Denmark, assignors, by mesne assignments, to Keyes Fibre Company, Portland, Maine, a corporation of Maine
Application July 9, 1954, Serial No. 442,406
Claims priority, application Denmark July 13, 1953
1 Claim. (Cl. 229—90)



A molded pulp casing for bottles comprising an inner section and two outer sections, one outer section being integrally hinged to one edge of said inner section and the other outer section being integrally hinged to the opposite edge of said inner section, each of said sections being generally elongated with a lateral flange at one end and an integral, dome-shaped portion at the opposite end, the dome-shaped portion of each section being connected to the dome-shaped portion of the adjacent section only at its lower end and at relative angles to each other of less than 90° so that when said sections are hingedly closed in edge-to-edge contact to form the casing, the upper edge of the casing is scalloped longitudinally and defines a top opening having a configuration which is substantially that of an equilateral triangle, said lateral flanges also defining a bottom opening of a configuration similar to that of said top opening, and said inner and outer sections being each provided with indentations on the outer surface and projections corresponding to said indentations thereof, said indentations each defining a projection on the corresponding opposite surface, and the thickness of the projections being greater than the thickness of the sections between these projections.

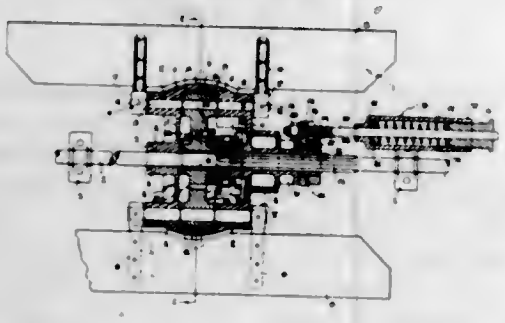
2,838,227
PREVENTING OR REDUCING STALLING OF THE EARLY ROWS OF AXIAL-FLOW COMPRESSOR BLADES OF GAS TURBINE ENGINES
Albert Thomas and John Marlow, Coventry, England, assignors to Armstrong Siddeley Motors Limited, Coventry, England
Application December 9, 1954, Serial No. 474,258
Claims priority, application Great Britain December 23, 1953
4 Claims. (Cl. 230—114)



1. In a gas turbine engine having an axial-flow compressor and a compressor air intake, a plurality of overlapping shutters pivotally mounted at their upstream ends upstream of the compressor, resilient biassing means acting on said shutters to move them against the direction of the airstream, the shutters extending into the compressor air intake to blank off a continuous inner annular portion only of the compressor air intake, a hydraulic piston and cylinder arrangement for each shutter, a respective link connecting each shutter with its piston and cylinder arrangement, a hydraulic pressure source, a valve adapted to control the application of hydraulic pressure from said source to said piston and cylinder arrangements, and a governor mechanism driven from the engine, said governor mechanism adapted to operate said valve for varying the hydraulic pressure ap-

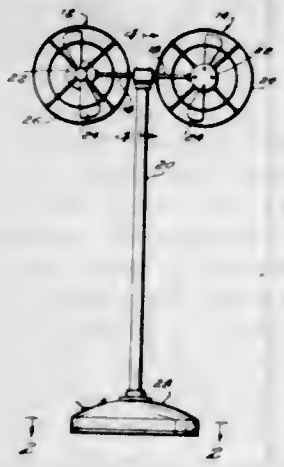
plied to said piston and cylinder arrangements for moving said shutters about their respective pivot axes against the bias and in response to increasing engine speed to decrease the area of the annular portion blanked-off.

2,838,228
AUTOMATICALLY ADJUSTABLE CENTRIFUGAL FAN
Claude M. Bremner, Cranbrook, British Columbia, Canada, assignor to M. C. Marcotte, Hudson Bay, Saskatchewan, Canada
Application August 9, 1956, Serial No. 603,051
8 Claims. (Cl. 230—114)



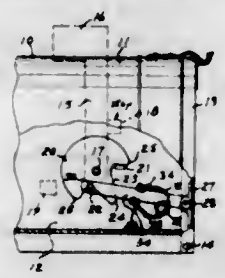
1. A fan adapted to automatically maintain a given volume of air within limits, comprising in combination a drive shaft journalled for rotation between bearing, a spider casing secured to said drive shaft and rotatable therewith, a set of fan blades, shafts for each of said fan blades mounted around the perimeter of said spider casing for limited rotative movement relative thereto, trunnion means journalled for rotation upon said shaft, means cooperating between said trunnion means and said fan blade shafts whereby relative movement of said tunnion means provides relative movement to said fan blades, means on said shaft mounted for limited endwise movement thereon engaging said trunnion means and adapted to rotate said trunnion means within limits, and adjustment means externally of said spider casing adapted to pre-select said limits of rotation on said trunnion means, said means cooperating between said trunnion means and said fan blade shaft including a segment gear secured to each of said fan blade shafts adjacent the apex of said segment gear, said trunnion means taking the form of a gear for bearing rotation on said shaft, said gears on said fan blade shaft engaging said trunnion gear.

2,838,229
ELECTRIC FAN
Roland J. Belanger, Bloomfield, N. J.
Application October 30, 1953, Serial No. 389,365
3 Claims. (Cl. 230—254)



1. An electric fan of the revolving type comprising a support post, a fan unit carried by said post with its axis offset from the post axis in order to cause revolution of the fan unit about the post, slip rings and appropriate wiring from a source of power through said slip rings and to said fan in order to supply electric current to the revolving fan unit, and means to control the rate of revolution of the fan unit, said means including a crank means which revolves with the fans and a plurality of dashpots connected to said crank means, said dashpots and crank means being so relatively disposed that the dashpots are effective in displaced phase, said dashpots containing liquid the viscosity of which is sensitive to temperature change.

2,838,230
AUTOMATIC MAIL BOX SIGNAL
Howard W. Barkdoll, St. Paul, Minn.
Application April 2, 1957, Serial No. 650,136
1 Claim. (Cl. 232—35)



In combination, a mail box including a housing provided with a side wall, a door hingedly connected to said housing, a signal actuated by said door and said signal including a horizontally disposed shaft extending through said side wall, an arm arranged externally of said housing and having one end rigidly connected to said shaft at right angles thereto, a signal element mounted on the other end of said arm, a movable body member arranged in said housing and rigidly connected to the inner end of said shaft at right angles thereto, said body member being provided with a pair of spaced apart cutouts defining an intermediate finger and a pair of inclined cam surfaces and shoulders, a bar having one end pivotally connected to said door, a pin carried by the other end of said bar for alternate shifting movement into and out of engagement with the cam surfaces and cutouts in said body member, and resilient means mounted on said side wall and arranged in engagement with said bar to retain the bar adjacent said side wall to guide the movement of said bar so that said pin will move into and out of engagement with the cutouts in said body member, said resilient means comprising a spring member including an intermediate coil portion terminating in spaced apart side portions, the pin carried by said bar being alternately shifted from one cutout to the other by coaction of the spring member and intermediate finger in each cycle of operation of the door and lugs on said side portions for engagement with said bar.

2,838,231
AUTOMATIC OVERDRAFT DETECTION LOCK FOR ACCOUNTING MACHINES
Herman M. Konrad and Rudolph J. Moser, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application January 26, 1953, Serial No. 333,046
3 Claims. (Cl. 235—60.2)

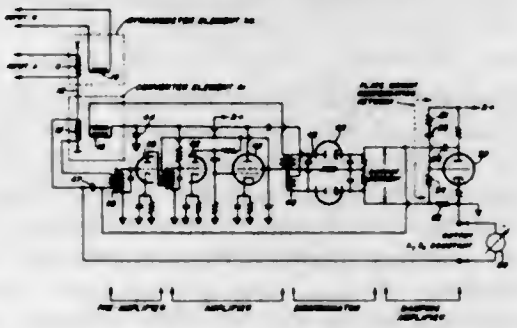
1. In a machine of the class described, the combination of a balance totalizer; machine release mechanism; a plurality of depressible control keys, the operation of any one of which causes an operation of said machine release mechanism; means adapted to be moved into position to block the operation of the machine release mechanism, said means being normally in an ineffective position; devices controlled by said totalizer when the latter is in a negative condition to partially release said blocking means; and means actuated by any one of said keys

upon depression thereof, when the totalizer is in a negative condition, to complete the release of said blocking



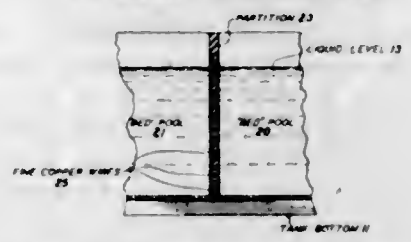
means to render the latter effective to prevent operation of the machine release mechanism.

2,838,232
ARRANGEMENT FOR CONVERTING A MECHANICAL TORQUE TO A D.-C. CURRENT
Roswell W. Gilbert, Montclair, N. J., assignor, by mesne assignments, to Daystrom, Incorporated, Murray Hill, N. J., a corporation of New Jersey
Application November 25, 1952, Serial No. 322,438
6 Claims. (Cl. 235—61)



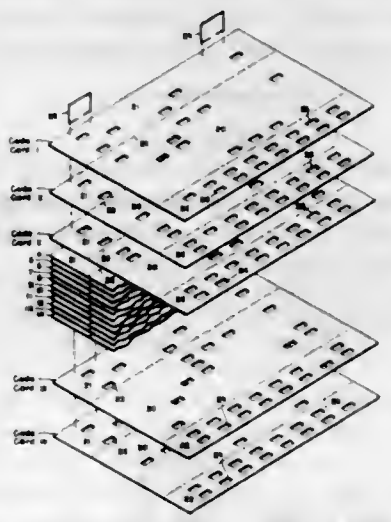
1. A system for producing an output current that is a function of a mechanical torque, said system comprising a primary torque-producing element, a staff mechanically coupled to said primary torque-producing element and rotatable in direction and magnitude in response to the torque of the said torque-producing element, electromagnetic means mechanically coupled to said staff and developing an alternating current component having a magnitude and phase sense relating to rotation of said staff, means phase-rectifying the said alternating current component to produce a corresponding output current; and means feeding said output current back into said electromagnetic means to return said staff to its initial position.

2,838,233
ELECTRICAL ANALOGUES
Allen D. Garrison, La Jolla, Calif., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Continuation of application Serial No. 98,666, June 13, 1949. This application April 5, 1956, Serial No. 576,428
7 Claims. (Cl. 235—61)



1. In a process for simultaing in a potentiometric model the conditions existing in a physical system in which a difference analogous to a difference in an electrical potential exists at a boundary between two parts of the system, the improvement which comprises separating two parts of the model corresponding to the two parts of the system with a nonconductive barrier corresponding in shape and location to the boundary, disposing pools of electrolyte corresponding respectively to the two parts of the system in contact with the barrier on opposite sides of it, connecting the pools with a metallic conductor, and producing potential difference between the two pools by galvanic action including electrochemical equilibrium at each contact between metallic conductor and pool of electrolyte, the two pools both containing ions corresponding to the metal of the conductor but in different concentrations so that the two pools and the metallic conductor act as a concentration cell.

2,838,234
SUBSCRIPTION TELEVISION CODE CARD COUPON BOOK
George V. Morris, Chicago, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application July 28, 1953, Serial No. 370,804
3 Claims. (Cl. 235—61.12)



1. A code card coupon book for use in a subscription television system comprising: a plurality of code-determining cards for use in said system one at a time, each of said cards having coding information stored thereon and representing a code schedule for determining mode changes in said subscription television system in accordance with said schedule, said code cards also having an area bearing a pattern of perforations identifying each card and individualized as to each card in that one portion of said area of any card is imperforate whereas the corresponding portion of said area of each of the remainder of said cards is perforated; and mechanical means for assembling said code-determining cards into a group with corresponding portions of said areas of said cards in stacked alignment so that when any one of said cards is removed from the group a different row of perforations is unblocked through the remaining cards of said group.

2,838,235
KEY-RESPONSIVE CALCULATING MACHINE WITH AUTOMATIC REPEAT MECHANISM
Alton G. Snyder, Ithaca, N. Y., assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application July 29, 1954, Serial No. 446,468
1 Claim. (Cl. 235—62)

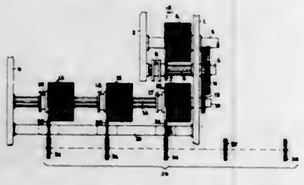
In a calculating machine, the combination of a main operating means; drive means for cyclically driving the main operating means; trip means operable to cause the drive means to drive the main operating means through one or more cycles of operation; digit keys selectively operable from a home position to a position where they control the entry of data during a machine cycle, and each being operable further to operate the trip means; key latch means to hold the keys in said first position; key locking means operable to an effective position to

lock the keys in operated condition or in unoperated condition as the case may be; means operative in each machine cycle to operate the key latch means to release the keys from said first position; and means connecting the trip means and the key locking means so that, as the trip means is operated, the key locking means is operated



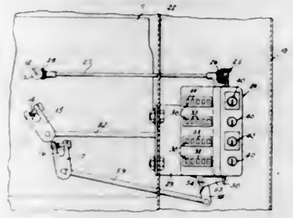
to an effective position and held there until the end of the one or more cycles of machine operation caused by the further operation of any one of the digit keys, whereby all the operated digit keys, whether operated to control position or further are prevented from returning to home position until the end of the last cycle of operation.

2,838,236
ROTARY MULTIPLYING-DIVIDING DEVICE
Gilbert de Changy, Clamart, France, assignor to Electricite de France—Service National—Direction des Etudes et Recherches, Paris, France
Application December 28, 1955, Serial No. 555,990
Claims priority, application France December 29, 1954
1 Claim. (Cl. 235—63)



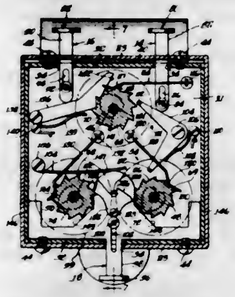
A rotary multiplying-dividing device, characterized essentially in that it comprises the following members: a first differential actuator comprising a driving shaft and a driven shaft, a group of ten pinions of same diameter keyed on the driving shaft, said pinions being each formed with a toothed segment having a number of teeth in arithmetical progression of ratio n from a first pinion having no teeth, and with a smooth segment of a diameter very slightly smaller than the pitch circle of the pinion teeth, and an output pinion axially adjustable on the driven shaft to mesh with one or another pinion from the group of ten pinions according to the digit of multiplier, said output pinion comprising normally $10n$ teeth of which one tooth out of n teeth is truncated down at least to the pitch circle, whereby upon each revolution of the driving shaft and according to which pinion from said group of ten the output pinion cooperates, the driven shaft will rotate through from zero to $9/10$ of a revolution, an auxiliary shaft for the multiplicand-divisor, a pair of intermeshing pinions, fast with said driven shaft and said auxiliary shaft respectively, such that, when the driven shaft will effect $p/10$ of a revolution, p being an integer included between 0 and 9 inclusive, the auxiliary shaft will effect p revolutions, as many other ordinal differential actuators similar to the first above-referred to as there are orders in the multiplicand or divisor, each of said other ordinal differential actuators comprising a group of ten pinions of same diameter, rotatably fast with said auxiliary shaft and an output pinion, said ordinal differential actuators being slidable axially along said auxiliary shaft so as to selectively cause one or the other of said ten pinions to mesh with the relevant output pinion, according to the respective plural digits of multiplicand or divisor, a shaft on which all of said output pinions are mounted for loose rotation, and a totalizer having its input pinions of the successive orders in driving relation with said output pinions.

2,838,237
REGISTER MECHANISM FOR DISPENSING APPARATUS
Harvey Lewis Spaunburg and George W. White, West Hartford, Conn., assignors to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut
Application September 8, 1955, Serial No. 533,065
24 Claims. (Cl. 235—94)



1. In dispensing apparatus of the type having a pump, a pump motor for driving the pump, a meter connected to the outlet of the pump, a main register driven by the meter having a movable resetting member, and an interlock to prevent operation of the pump motor until after the actuation of the resetting member, the combination comprising an individual counter, and key operated means for simultaneously actuating the movable resetting member and connecting the individual counter to the main register drive.

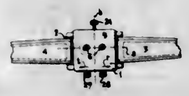
2,838,238
GOLF SCORING APPARATUS
Herbert Menes, Chicago, Ill., assignor to Clinton Watch Company, Chicago, Ill., a corporation of Illinois
Application May 18, 1956, Serial No. 585,860
2 Claims. (Cl. 235—113)



1. Golf scoring apparatus comprising: a pocket-sized casing, manually operable stroke-scoring means extending from one side of said casing, hole stroke counting means in said casing coupled to said manually operable means for operation thereby, said hole stroke counting means advancing one step for each elemental movement of said manually operable means, externally visible hole score-indicating means coupled to said hole stroke counting means for indicating the number of strokes taken per hole, a total stroke counting means in said casing coupled to said manually operable means for operation thereby, said total stroke counting means advancing one step for each elemental movement of said manually operable means, externally visible total score-indicating means coupled to said total stroke counting means

for indicating the total strokes for the previous holes played, manually operable hole score resetting means extending from the same side of said casing as said manually operable stroke scoring means for resetting said hole score indicating means to zero, independently of the total score indicating means, and manually operable total score resetting means extending from a different side of said casing for resetting said total score indicating means to a start position.

2,838,239
COUNTER
Charles Dom, Geneva, Switzerland
Application May 10, 1955, Serial No. 507,437
Claims priority, application Switzerland July 1, 1954
3 Claims. (Cl. 235—114)



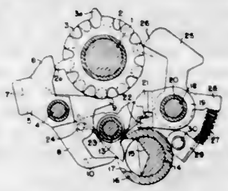
1. A counting instrument comprising a casing, an upper cover for said casing and having apertures therein, first and second rotary counting members, figures carried by said rotary members and appearing in succession in said apertures, a first notched wheel rigidly connected to said first rotary counting member, a pusher member actuating step by step said first notched wheel, a tens transfer mechanism comprising a finger rigidly connected to said first rotary counting member, a second notched wheel rigidly connected to said second rotary counting member, first and second resetting to zero members, bearings in which said two members revolve freely, two radially extending driving fingers carried by each of said resetting to zero members, said two driving fingers being located in a diametral plane of said resetting to zero member, said fingers of said first and second resetting to zero members cooperating successively with each tooth of said first and second notched wheels, a blade spring acting on said two resetting to zero members and maintaining each of said two members in angular rest positions in which said fingers are out of the path of the teeth of said first and second notched wheels, and in which said casing presents the shape of a wrist watch casing.

2,838,240
DEVICE FOR SUPERIMPOSING DIGIT COUNTS IN THE MECHANICAL COUNTERS
Herbert M. Heuver and John B. D'Andrea, Dayton, Ohio
Application September 21, 1955, Serial No. 535,766
5 Claims. (Cl. 235—136)
(Granted under Title 35, U. S. Code (1952), sec. 266)



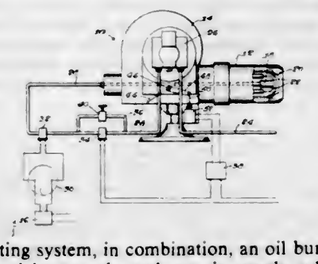
1. An apparatus of the class described comprising a digital converter in combination with a digital superimposer, said digital converter comprising a plurality of digit members of various orders, said digit members interconnected by transfer means in such a way that the output of one digit member drives a transfer means which in turn drives a digit member of the next higher order, said digital superimposer comprising a first means connected to the transfer means adapted to drive the digit member selected to receive the superimposed counts, a second means connected to the digit member selected to receive the superimposed counts, intermediate means connecting said first means to said second means so that they move in a 1:1 correspondence to permit the digital converter to function normally when digital superposition is not required, means operative on said intermediate means adapted to actuate said second means independently of said first means when digital superposition is required.

2,838,241
TENS TRANSFER MECHANISM FOR TOTALIZERS
Otto Max Philipp, Augsburg, Germany, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application July 13, 1953, Serial No. 367,692
Claims priority, application Great Britain July 16, 1952
7 Claims. (Cl. 235—138)



1. In a tens transfer mechanism for a cash register or similar accounting machine, the combination of a totalizer consisting of a plurality of totalizer wheels, a tens transfer tooth on each totalizer wheel, a tens transfer member for each totalizer wheel, a tripping member which is tripped by the tens transfer tooth as the totalizer wheel is moved from "9" to "0," said tripping member directly imparting a preparatory movement to the tens transfer member for the totalizer wheel of next higher order in a transfer entry direction during said tripping movement, and an actuating member which thereafter imparts a further movement to the tens transfer member in said transfer entry direction, whereby the tens transfer member engages directly with its related totalizer wheel to advance the latter by one step to effect the tens transfer.

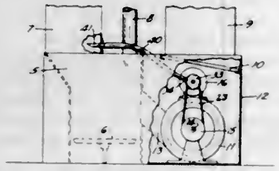
2,838,242
AUTOMATIC OIL BURNER
Stanley C. Paterson, Medford, Mass.
Application November 23, 1954, Serial No. 470,595
1 Claim. (Cl. 236—1)



In a heating system, in combination, an oil burner having an atomizing nozzle and an air supply adjustment means to form a combustible mixture; a fan for supplying combustion air; an oil pump and pressure-regulating unit having a feed line connected with said nozzle for supplying oil to said nozzle at a selected high pressure sufficient to provide a high fire; an electric motor for driving said fan and oil pump; a first solenoid-operated valve connected in said feed line controlling the flow of oil to said nozzle; a room thermostat connected in circuit with said motor and said first solenoid-operated valve to control the operation of the same; a second solenoid-operated valve connected in said feed line between said pump and said first solenoid-operated valve allowing oil

flow to said nozzle at a rate and pressure sufficient to provide said high fire when said first solenoid-operated valve is open; means for reducing the pressure and rate of oil flow to said nozzle to provide a low fire, including a by-pass line connected around said second solenoid-operated valve, an oil flow rate adjustment means connected in said by-pass line limiting oil flow to said nozzle at a rate and a selected pressure less than that permitted by said second solenoid-operated valve to provide a low fire, and an outdoor thermostat connected in series with said second solenoid-operated valve in a circuit independent of the circuit containing said room thermostat for causing said second solenoid-operated valve to close to by-pass the oil through said oil flow rate adjustment means when a low fire is required, said outdoor thermostat controlling said second solenoid-operated valve to permit oil to pass therethrough when a high fire is required; and a solenoid connected in circuit in series with said outdoor thermostat and said second solenoid-operated valve and operatively connected with said air supply adjustment means for simultaneously regulating the supply of air to said nozzle to correspond to changes in the rate of oil supplied to said nozzle to provide a relatively small amount of air for a low fire and a larger amount of air for a high fire.

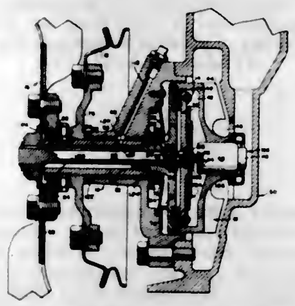
2,838,243
BLOWER SPEED CONTROL FOR FORCED AIR HEATING SYSTEMS
Claude H. Peters, St. Paul, Minn.
Application December 13, 1954, Serial No. 474,744
3 Claims. (Cl. 236—10)



1. For a forced air heating system having a blower, a motor for operating said blower and a source of warm air, said motor having a rotary shaft, the improved blower speed control which comprises, driving means for the blower revolubly mounted on said motor shaft, a multiple speed clutch for operatively connecting said driving means to said shaft, heat responsive means carried by said shaft and operatively connected to said clutch, a fan mixed on said shaft adjacent to said heat responsive means, a normally stationary casing enclosing said heat responsive means and fan, and an auxiliary conduit for air extending from said source of warm air to said casing and having one end connected to said casing and the other end communicating with said source, said shaft being freely revoluble relative to said casing and said casing having an unrestricted intake opening communicating with said auxiliary conduit, said fan being operative to force air from said source through said conduit and casing while the motor is operating to thereby subject said heat responsive means to the temperatures of air drawn from said source.

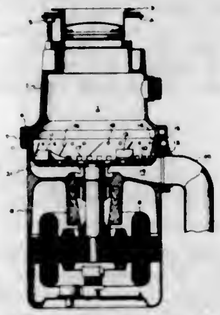
2,838,244
VISCOUS DRIVE FOR FAN
Sidney Oldberg, Birmingham, Mich., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application January 10, 1955, Serial No. 480,634
7 Claims. (Cl. 236—35)

3. An engine cooling apparatus comprising a cooling liquid chamber, a coupling having a first rotatable member including an end plate provided with a plurality of smooth surfaced, radially spaced concentric cylindrical sleeves extending axially from one end face thereof, a second end plate secured to the first end plate and forming a housing therewith which is disposed within a portion of said cooling liquid chamber, a second rotatable member including a part rotatably journalled in the first member, and a movable plate, supported for rotation with and axially movable to the part, having a plurality of smooth surfaced, radially spaced concentric sleeves extending axially from one face thereof opposite to the end face of the first end plate, resilient means interconnecting the part and the movable end plate biasing the



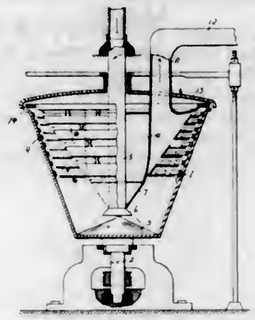
sleeves of the end plate and movable plate from one another, a thermostat mechanism supported in the second end plate including an expansible element having a part extending axially outwardly of the end plate, and a member engageable with the movable plate effective to move the movable plate axially against the resistance of the resilient means upon an expansion of an expansive substance in the expansible element, said expansive substance being responsive to the temperature of the liquid in said cooling liquid chamber, and a viscous fluid in the housing and between the sleeves of the respective first end plate and movable plate.

2,838,245
WASTE DISPOSAL APPARATUS
Herbert J. Macemon, Jeffersontown, and William D. Ryckman, Jr., Louisville, Ky., assignors to General Electric Company, a corporation of New York
Application December 14, 1955, Serial No. 553,118
5 Claims. (Cl. 241—46)



1. Waste disposal apparatus comprising a generally cylindrical wall member located at the bottom of a vertically extending comminuting chamber having a top access opening for receiving waste material and water, said wall member having a plurality of apertures therein through which comminuted waste material is expelled from the lower portion of said chamber, stationary shredding means within the lower portion of said chamber, rotary means within the lower portion of said chamber for impelling waste material against said shredding means and for expelling comminuted material through said apertures, said rotary means including a circular flywheel having a peripheral surface concentric with the inner surface of said cylindrical member and in close proximity thereto, an inwardly inclined peripheral shelf depending from said cylindrical member and underlying the peripheral surface of said flywheel, and wall means below said shelf defining a drainage chamber communicating with said comminuting chamber through said apertures.

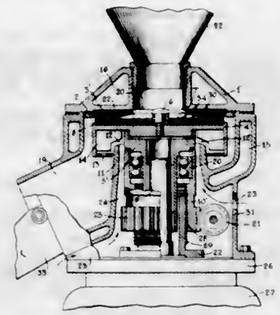
2,838,246
MACHINES FOR TREATING ASBESTOS AND SIMILAR FIBERS
Stefano M. Cattaneo Adorno and Giorgio Vercelli, Rio de Janeiro, Brazil
Application December 6, 1954, Serial No. 473,351
Claims priority, application Brazil November 5, 1954
3 Claims. (Cl. 241—47)



1. Improvements in machines for treating fibers, especially asbestos fibers, by the joint action of impacts and centrifugal force, comprising a rotating receptacle having the shape of a truncated cone mounted on a vertical axis with its larger base turned upwards; an internal metal perforated hollow conical skirt mounted coaxially with respect to said receptacle, the walls of said skirt and receptacle converging upwardly towards each other and having relative movement therebetween; delivery means for introducing material to be treated centrally to the bottom of said receptacle; and suction-operated collection means communicating with the interior of said skirt for withdrawing treated material therefrom.

2,838,247
FINE GRAIN MILL
Paul August Wilhelm Hauser, Rheinfelden, Baden, Germany
Application May 1, 1956, Serial No. 582,048
Claims priority, application Germany May 3, 1955
2 Claims. (Cl. 241—60)

1. A grinding mill comprising a stationary housing, a pair of horizontal grinding disks superimposed upon each other and each having a grinding surface substantially parallel to each other within said housing, the upper disk being annular, means for securing said upper disk to the upper part of said housing, the lower disk having an upper central receiving surface, said housing having a central filling opening therein for passing the material to be ground through the central opening of said upper disk upon said receiving surface of said lower disk, the inner peripheral surface of said upper disk being downwardly inclined to said grinding surface thereof and forming with the upper surface of said lower disk an annular slot of substantially wedge-shaped cross section, said central receiving surface of said lower disk when rotated being adapted to serve as means for centrifugally forcing the material in an outward direction into said annular wedge-shaped slot so as to be preground therein by said disks before passing between and along said parallel grinding surfaces thereof toward their outer edges, means for rotating said lower disk relative to said upper disk comprising a shaft, an inverted cup-shaped member having an upper surface supporting said lower disk, means for centrally securing said lower disk to said member, means for mounting said member on said shaft comprising a slide bushing mounted on said member and keyed on said shaft for sliding movement of said member and lower disk in an axial direction of said shaft, a second stationary bushing mounted within said housing and having outer screw threads thereon, a third bushing on said second bushing and having internal screw threads engaging with the threads on said second bushing for longitudinal screwing adjustment of said third bushing along said second bushing, a ball bearing intermediate said first and third bushings for rotatably supporting said first

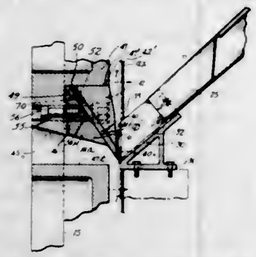


bushing on said third bushing and for transmitting the movement of said third bushing in the axial direction to said first bushing and to said lower disk for adjusting said lower disk relative to said upper disk, a gear secured to said third bushing, a spiral gear rotatably mounted within said housing and in engagement with said first gear, and means for turning said spiral gear from the outside of said housing, an annular discharge channel within said housing and surrounding said grinding disks for receiving and conveying away the finely ground material, said cup-shaped member forming an annular chamber intermediate said first bushing and said discharge channel and having air intake and outlet openings, said outlet openings terminating into said channel, and a plurality of vanes within said chamber and mounted on the wall thereof for cooling said lower disk and the finely ground material received within said channel and for aerating said material and conveying the same through said channel.

2,838,248
RECHIPPER
Henry W. Ringman, Everett, Wash., assignor to Sumner Iron Works, Everett, Wash.
Application September 25, 1956, Serial No. 611,835
3 Claims. (Cl. 241—92)

1. In a rechipper: a vertically disposed and axially revoluble knife carrier disk with a chip discharge slot formed therethrough outwardly from the disk axis and substantially radially of the disk, a material feed spout directed downwardly toward and terminating in a shearing edge disposed in a plane that is slightly spaced from and parallel to the disk face and at such location that the discharge slot passes it with each rotation of the disk, a knife mounted on the forward face of the disk across the top edge of said slot in a position inclined away from the disk face and formed along its forward edge with a beveled cutting surface lying in a plane parallel to the disk face, to pass the shearing edge of the spout

with coacting shearing action for the chipping of material advanced thereto in said spout, and a knife holding bar overlying the knife and securing it to the disk formed



with a forward surface that continues from and in the plane of the beveled cutting surface of the knife for a substantial distance.

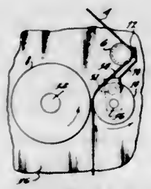
2,838,249
ROLL HOLDING FACILITIES OF EQUIPMENT FOR STORING AND HANDLING ROLLS OF CARPETING
Claud C. Riemenschneider, Western Springs, Ill.
Application December 14, 1954, Serial No. 475,186
7 Claims. (Cl. 242—55.2)



1. A rack of the class described for storing and transporting rolls of material which have a central opening therein extending axially from end to end thereof, the said rack comprising two laterally spaced uprights each of which is independently wheel supported for independent portability and relative movability toward and away from the other and has spindle supporting means thereon, and a roll supporting spindle which is insertable endwise in the central opening of an aforesaid roll of material to support the roll thereon and extends between the uprights and is removably supported rotatably in the said spindle supporting means of the uprights, the said spindle having fittings thereon which are spaced apart and cooperable respectively with the spindle supporting means of the two uprights to interconnect the uprights in spaced apart relationship precluding the aforesaid independent portability and relative movability thereof and establishing conjoint portability of the uprights from place to place, at least one of said fittings being slidable telescopically on the spindle to various positions thereon and detachably securable thereto in such various positions and completely removable from the spindle, and the said spindle being provided between said fittings with means receivable in the central opening of a roll thereon and operable independently of the said spaced apart position of the fittings to lock the roll on the spindle for rotation therewith.

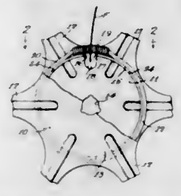
2,838,250
WEB DRIVE MECHANISM
Alexander Stavrakis, Upper Darby, Pa., and Charles J. Kennedy, Haddonfield, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application October 20, 1954, Serial No. 463,502
5 Claims. (Cl. 242—55.12)

1. A web driving mechanism comprising, in combination, reversible means for driving a web selectively in opposite directions, a storage reel for said web, means operative in response to operation of said driving means in one direction to withdraw said web from said reel,



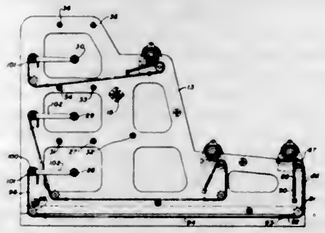
and web engaging means relatively movable in response to operation of said driving means in the opposite direction for engaging said web to apply drag tension to said web being wound onto said reel.

2,838,251
ATTACHMENT UNIT FOR FILM REELS
Karl Knickerbocker, Morris, Ill.
Application June 12, 1956, Serial No. 590,992
10 Claims. (Cl. 242—74.2)



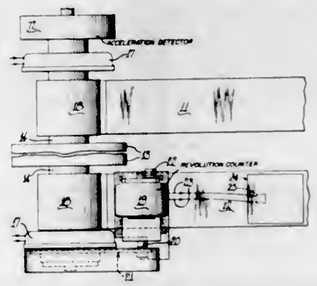
1. A unit for attachment to a film reel having a hub with an axially open recess extending inwardly from its periphery for the reception of a film end therein, said attachment including a member having cooperating fingers between which a film end has entry to provide a yieldable holding connection with a film end engaged therebetween, and means for mounting said member across said recess with the film engaging surfaces thereof extending axially of the hub, said means including first and second flexible straps connected respectively to opposite ends of said member for engagement with the outer peripheral surfaces of the hub.

2,838,252
WEB TENSION CONTROL
Julius J. Tomasch, Cleveland, Ohio
Application May 1, 1953, Serial No. 352,480
4 Claims. (Cl. 242—75.43)



3. A web tension control device for a rolled web, comprising, a frame, a spindle mechanism including a revoluble spindle journaled in said frame for carrying said rolled web, a transversely movable roll around which the web is adapted to travel and disposed for transverse movements in said frame in accordance with increased and decreased tension in said web, and a brake mechanism interconnecting said spindle and said frame to variably brake said spindle in accordance with the transverse position of said roll, said spindle mechanism including an adjustment mechanism for longitudinally adjusting said revoluble spindle relative to said frame, said spindle adapted to carry said rolled web, a threaded handwheel interconnecting said frame and said spindle to provide longitudinal adjustment of said spindle and hence transverse adjustment of said rolled web, said brake mechanism including a brake drum fixedly attached to said spindle for rotation therewith, a flexible and resilient brake shoe extending around said brake drum, a chain extending completely around and overlapping and contacting the outer periphery of said brake shoe but not attached thereto, said transverse roll being linked to an end of said chain to pull on said chain with movement of said transversely movable roll in a first direction to brake said brake drum and movement of said transversely movable roll in a second direction causing release of braking engagement on said brake drum.

2,838,253
ROLL UNWINDING CONTROL SYSTEM
Paul W. Jacobsen, Kiel, Wis., assignor to H. G. Weber & Company, Kiel, Wis., a corporation of Wisconsin
Application May 10, 1955, Serial No. 507,306
9 Claims. (Cl. 242—75.47)



1. In a system to control tension in sheet material unwinding from a roll thereof revolvingly supported on a roll stand, means driven by said roll as it revolves to sense the revolutions of the roll and generate an electrical pulse after each successive group of a selected number of revolutions of the roll, a pawl and ratchet mechanism, a solenoid connected to said means to be energized thereby periodically to step drive said mechanism, electrically controlled brakes for said roll to variably impede revolution of the roll and tension in the sheet material, a rheostat connected to said brakes to control energization thereof, and means connecting said rheostat to said pawl and ratchet mechanism whereby the energization of the brakes is changed after each successive group of the selected number of revolutions of the roll.

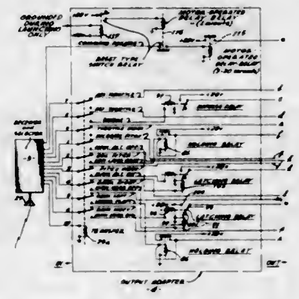
2,838,254
YARN BOBBIN
Glen W. McCollough, La Jolla, Calif.
Application August 2, 1954, Serial No. 447,029
5 Claims. (Cl. 242—125)

1. A yarn bobbin comprising an elongated, thin-walled, hollow cylindrical body completely open at both ends and having one end lying in a single plane extending at an oblique angle to the longitudinal axis of the body and having an elliptical form, said body constituting a spool onto which coils of yarn may be wound externally, the hollow body constituting a channel for the free end portion of the yarn which in use is looped over said



one end, and said one end, by virtue of its elliptical form, constituting means for automatically guiding the yarn looped thereover toward that point of said one end closest to said coils, thereby preventing unwanted unwinding.

2,838,255
AUTOMATIC EMERGENCY RADIO CONTROL SYSTEM
Jacob J. Hagopian, San Jose, and Stuart R. Hennies, Los Altos, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Original application August 18, 1950, Serial No. 180,367. Divided and this application May 1, 1953, Serial No. 352,334
4 Claims. (Cl. 244—14)



3. Automatic emergency control means for an aircraft to be initially launched and having an electrical control circuit normally connected to operate a control member of said aircraft in accordance with radio signals from a manually operated remote transmitter, which comprises a pre-set emergency connection for said control circuit not associated with said transmitter, means for switching said control circuit from its normal connection to said pre-set emergency connection in the event of failure of said transmitted signals to maintain a certain minimum strength at said aircraft, and delay means for preventing operation of said switching means for a predetermined time after launching of said aircraft, said delay means comprising a reset type switch connected in series with said switching means, a time delay relay connected to operate said reset switch after said time delay relay is energized for said predetermined time interval, and means for energizing said time delay relay simultaneously with launching of said aircraft.

2,838,256
WING MOUNTED JET PROPULSION SYSTEM FOR AIRCRAFT

Ivor Macaulay Davidson, Farnborough, and Norman Albert Dimmock, Woking, England, assignors to Power Jets (Research and Development) Limited, London, England, a British company

Application January 28, 1955, Serial No. 484,658
Claims priority, application Great Britain February 11, 1954
5 Claims. (Cl. 244—15)

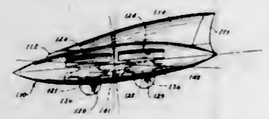


1. An aircraft comprising a hollow wing formed with an air inlet slot extending along the wing leading edge and including a hollow main spar extending spanwise along and within the wing, said spar being formed with inlet and outlet apertures to and from its interior; a plurality of jet engines mounted within the wing, each engine having an air inlet; air supply passages within the wing from said air inlet slot to said inlet apertures in the spar; and further air supply passages within the wing from said outlet apertures in the spar to each of said engine inlets.

2,838,257
JET SUSTAINED AIRCRAFT WITH ENCLOSED COMPRESSOR ROTOR

Michel Wibault, New York, N. Y., assignor to Vibrane Corporation, New York, N. Y., a corporation of New York

Application July 27, 1954, Serial No. 445,974
11 Claims. (Cl. 244—23)



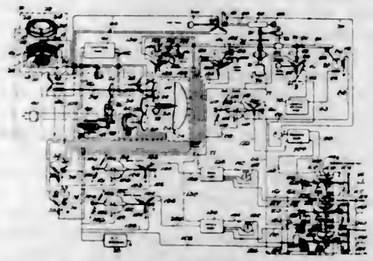
1. An aircraft having a body and a centrifugal blower enclosed within the body of the aircraft, an air inlet through which air is supplied to the blower, outlet passage means through which air is discharged from the blower, the downstream end of the outlet passage means discharging into the ambient atmosphere in which the aircraft flies, and different portions of said downstream end being at different locations with respect to the center of gravity of the aircraft, the outlet passage means having a wall that curves downwardly to deflect the air stream from the blower downward to develop an upward lift reaction which constitutes the curving wall a lift surface for the aircraft, and a control element located within the passage means and movable into different positions to selectively change the cross section of said different portions of the passage means so as to change the amount of air discharged from the downstream end of said passage means at different locations with respect to the center of gravity of the aircraft.

2,838,258
AUTOMATIC PILOT

Paul A. Noxon, Tenafly, Alan M. MacCallum, Maywood, and Norman B. Murphy, West Englewood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application May 29, 1944, Serial No. 537,952
23 Claims. (Cl. 244—77)

11. In combination with an automatic pilot for a craft having rudder, aileron and elevator surfaces thereon together with servo motors for operating said surfaces, an automatic turn mechanism for said pilot comprising a turn signal generator for energizing said rudder servo motor, bank and pitch trim devices for energizing said

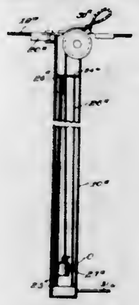


aileron and elevator servo motors, an integrating mechanism for operating said signal generator, a control motor for variably operating said mechanism and said bank and pitch trim devices, and a control for said motor.

2,838,259
AIRCRAFT BRIDLE ARRESTER

Robert B. Cotton, Media, Pa., assignor to All American Engineering Company, Wilmington, Del., a corporation of Delaware

Application October 12, 1955, Serial No. 539,959
8 Claims. (Cl. 244—110)



1. An elongated energy absorber vertically mounted below a runway having one end flush with the runway, comprising a tube, an elongated housing around the tube, a barometric liquid feed into the said tube adapted to maintain a constant body of liquid therein, liquid displacement means in said tube, and an arresting cable connected to said means, said cable projecting above said runway in the form of a loop for engagement with a mobile object to be arrested.

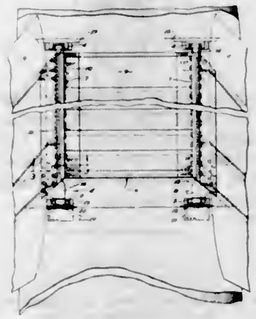
2,838,260
WING MOUNT WITH FLOATING CENTER SECTION

Norman B. Christensen, Inglewood, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application August 6, 1953, Serial No. 372,643
2 Claims. (Cl. 244—117)

1 In an aircraft the combination comprising: right and left outer wing panels of similar configuration and each having inboard and outboard ends; a center section having upper and lower surfaces which are spaced with respect to each other and which have a generally parallel relationship; the inboard ends of said right and left wing panels being rigidly attached to opposite ends of said center section to provide a wing structure; first and second elongated members each including axially aligned cylindrical ends; said first elongated member being fixedly attached to the inboard end of said right wing panel with

the cylindrical ends thereof positioned respectively adjacent the leading and trailing edges of said right wing panel and the axes of the cylindrical ends thereof being located midway between said upper and lower surfaces; said second elongated member being fixedly attached to the inboard end of said left wing panel with the cylindrical ends thereof positioned respectively adjacent the leading and trailing edges of said left wing panel and the axis of the cylindrical ends thereof being located midway between said upper and lower surfaces; first and

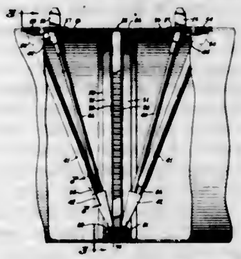


second sets of bearing supports respectively mounted on the cylindrical ends of said first and second elongated members; said first set of bearing supports being fixedly secured to structural members of said aircraft with the axes thereof located at equal distances on one side of the longitudinal axis of symmetry of said aircraft and said second set of bearing supports being fixedly secured to structural members of said aircraft with the axes thereof also located at equal distances on the other side of said longitudinal axis.

2,838,261
JETTISONABLE FUEL TANK CONSTRUCTION

Homer Amos, Manhattan Beach, and Edward T. Strickland, Playa del Rey, Calif., assignors to Pastushin Aviation Corporation, Los Angeles, Calif., a corporation

Application August 31, 1954, Serial No. 453,204
12 Claims. (Cl. 244—135)

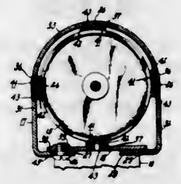


3. In a jettisonable fuel tank for releasable attachment to an aircraft by means including spaced mounting means on the tank, and for separation from the aircraft by ejective force applied to the tank intermediate said mounting means, the combination of: a tank shell; an internal circumferential reinforcement for said shell; two pairs of sway brace pads spaced from said internal reinforcement in opposite directions longitudinally of the tank; two mounting means on the tank for releasable attachment of the tank, said two mounting means being spaced in opposite directions from said internal reinforcement longitudinally of the tank at positions intermediate the internal reinforcement and said sway brace pads; two oppositely inclined tension means connecting two said mounting means respectively with said internal reinforcement; and two oppositely inclined compression means connecting each of said pairs of sway brace pads with said internal reinforcement.

2,838,262
SUPPORT FOR AN ELECTRIC MOTOR

Harold L. Anderson, Fairborn, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 6, 1956, Serial No. 563,558
1 Claim. (Cl. 248—26)



In combination, a motor and a housing therefor, a plurality of circumferentially spaced apart opposed studs projecting laterally from said housing intermediate ends of said motor, a split bracket including an arcuate shaped portion and a flat base portion surrounding said motor housing and provided with openings receiving said studs, said bracket having an integral supporting leg extending from the flat base portion thereof and secured to a support, means for yieldably mounting said motor to said bracket, said mounting means comprising resilient rubber-like bushing elements disposed over said studs, said bushing elements each having an enlarged section with a fluted surface bearing against said motor housing, a reduced section fitting in the openings of said bracket and a fluted shoulder intermediate said sections abutting the inner face of the barcket, an end of said split bracket being drawn into overlapping relationship with another end thereof at said flat base portion and being rigidly tied to one another, and the drawing and tying of said ends of said bracket simultaneously compressing said enlarged fluted section of each of said bushing elements between the inner face of said bracket and said motor housing to prevent tilting of said motor relative to the bracket and to reduce transmission of noise and vibrations of said motor to said bracket and said support.

2,838,263
FISHING ROD HOLDER

Walter V. Drewrys, Winnipeg, Manitoba, Canada

Application February 14, 1955, Serial No. 487,973
1 Claim. (Cl. 248—43)

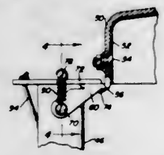
A holder for fishing rods comprising in combination a socket for receiving the handle of said rod and a clamp on the lower end of said socket for detachably securing said socket to a supporting member, said clamp consisting of a pair of jaws, each of said jaws including a gripping portion and a shoulder portion, a screw-threaded stud pivotally secured to one of said jaws at the shoulder portion thereof and extending therefrom, said stud being screw-threadably engaged by the lower end of said socket, an elongated closed ended slot formed in the shoulder portion of the other of said jaws whereby said other jaw is freely mounted on said stud for limited movement to and from said first-mentioned jaw, a series of transverse serrations formed on the upper surface of the shoulder portion of said other jaw, an apertured arcuately curved plate freely engaged around said stud, one downwardly curved end of said plate engaging one of said serrations, and a resilient bifurcated plate secured

to the other downwardly curved end of said plate engaged with the upper surface of said shoulder of said



second-mentioned jaw, the lower end of said socket contacting the crown of said arcuately curved plate.

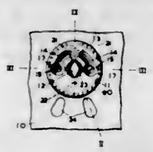
2,838,264
WASTE CAN HOLDER
Matt V. Hill, Ely, Minn.
Application July 19, 1954, Serial No. 444,048
1 Claim. (Cl. 248—147)



A holder for a garbage can comprising a supporting structure for seating a garbage can, a standard rising from said structure and having a free upper portion and a horizontal flat top, a member attachable to a garbage can lid to support the same and having a pair of lateral ears thereon straddling and connected by a pivot to the upper portion of said standard for vertical swinging into lowered and raised positions to lower and raise a garbage can lid, an elongated flap surmounting and hinged to said member and seating flat on said top and against one side of the standard in the lowered and raised positions, respectively of said member to establish said positions, a cross-bar on said flap having ends extending outwardly beyond said flap and standard, and a pair of tension springs at opposite sides of said standard terminally connected to said bar and to said pivot and urging said bar and flap toward said standard to maintain said flap seated for yieldingly retaining said member in lowered and raised positions.

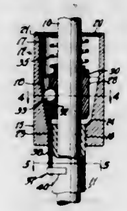
2,838,265
STOWAGE FOR THREE-PIN ELECTRICAL PLUG
Leonard H. Jackson, Coventry, England, assignor to Coventry Radiator & Presswork Co. Limited, Coventry, England
Application February 10, 1955, Serial No. 487,427
Claims priority, application Great Britain April 8, 1954
1 Claim. (Cl. 248—314)

A stowage for a three-pin electrical plug having a larger ground pin and two smaller current carrying pins, the cross-sectional size of the larger pin falling within a predetermined range, the stowage comprising an annular plate, having an outer peripheral flange and a central aperture, which is just larger than the maximum diameter of the range, said annular plate also having arcuate grooves between the flange and said central aperture, said grooves being defined by arcuate walls; a resilient member in the form of a ring-like wire located between the flange and the arcuate walls nearer to the flange and having two radially extending arms forming between them an extendible opening which is aligned



with the aperture and is just smaller than the minimum diameter of the range, the opening resiliently expanding to grip the larger pin frictionally, and a plate supporting said annular plate and having two slots which diverge outwardly from the aperture beyond the plate to receive the two smaller pins of the plug.

2,838,266
ADJUSTABLE STRUT
Frank W. Rees, Madras, Oreg., assignor to Cameron W. Sparks, Oswego, Oreg.
Application November 1, 1954, Serial No. 466,146
1 Claim. (Cl. 248—355)



A general utility adjustable length strut comprising a tubular member having a forked support on one end thereof, a rod having close fitting sliding engagement in said tubular member, a forked support on the outer end of said rod, a housing on the other end of said tubular member having a tapered bore surrounding said rod, an apertured cylindrical ball cage slidable on said rod within said bore, ball detents in said cage engageable with said rod and said bore to lock said rod against movement into said tubular member, an annular end plate in one end of said housing around said rod, a coil spring in said housing compressed between said end plate and one end of said cage urging said cage toward locked position, said housing having a hole in its other end adjacent the exterior surface of said tubular member, a stem slidable in said hole, a release ring on the inner end of said stem engageable with the other end of said cage, and an arcuate finger piece on the outer end of said stem concentric with and slidable on said tubular member for releasing said cage from said locked position.

2,838,267
ANTI-VIBRATION MOUNTING DEVICES
Alfred William John Wells, Llangoed, Anglesey, North Wales, assignor, by direct and mesne assignments, of one-half to A. Wells & Company Limited, London, England, a British company, and one-half to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application February 1, 1954, Serial No. 407,531
3 Claims. (Cl. 248—358)

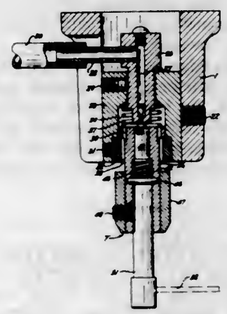
3. An anti-vibration mounting device comprising an apertured base member, a columnar member extending centrally through the aperture in the base member and

normally disposed in spaced relation to the marginal edge portions of the base member defining the aperture, separate means resiliently supporting each end of the columnar member, the means supporting one of said ends including a set of helical springs extending between the marginal edge portions of the base member and said



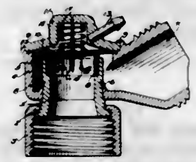
one end with their axes so disposed as to lie on the surface of an imaginary cone, and a quantity of metal sleeves made of thin wire mesh, each sleeve disposed in concentric closely embracing relationship with a corresponding one of said helical coil springs, the inner surface of said sleeve frictionally engaging the adjacent surface of the helical coil spring.

2,838,268
TRACER
George E. Ryckman, East Liverpool, Ohio
Application May 4, 1955, Serial No. 505,890
6 Claims. (Cl. 251—3)



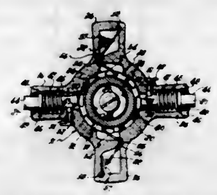
1. A tracer comprising a head provided with an inwardly extending cylindrical recess having supporting means facing the inner end of the recess, the head also being provided with a fluid passage having an outer end adapted to receive fluid under pressure and having its inner end terminating in a central orifice at said inner end of the recess, said orifice being positioned to direct fluid from said passage toward the outer end of the recess, a tiltable barrel in the recess and projecting therefrom and having an enlarged inner end normally seated on said supporting means, the periphery of said enlarged end being spherical and slidably engaging the encircling wall of the recess, the portion of the barrel between its enlarged end and the outer end of the recess being spaced from the encircling wall of the recess, the tracer being provided with fluid outlet ports leading out from the recess, a valve member carried by the inner end of the barrel and tiltable therewith and normally spaced axially of the recess from said orifice, and a stylus projecting from the outer end of the barrel and adapted to be swung laterally to tilt the barrel and valve member in said head, whereby the valve member will be moved closer to the orifice to restrict flow of said pressure fluid therefrom.

2,838,269
DIAPHRAGM VALVE WITH SELF PURGING BLEED PORT
Edwin J. Hunter and Lorenzo A. Richards, Riverside, Calif.
Application August 21, 1953, Serial No. 375,775
1 Claim. (Cl. 251—61)



A valve comprising: a tubular stem forming an inlet port at one end, a flange at its other end, and an external channel intermediate its ends; an inlet fitting journalled on said flanged end; a valve body having a tubular portion surrounding and spaced from the inlet end of said stem, an internal flange at one end of said tubular portion fitting said annular channel to secure said body thereon, and an outlet port extending laterally from said tubular portion; a cap overlying said inlet port and closing said tubular portion, said cap having a bleed outlet; a diaphragm secured by its margins between said cap and tubular portion and movable to and from engagement with said inlet port; said diaphragm forming with said cap a pressure chamber of larger effective area than said inlet port; said diaphragm deflecting fluid flow from said inlet port to said outlet port and thereby caused by the flow of fluid to vibrate; said valve membrane having a bleed port therein for passage of fluid from said inlet port into said pressure chamber; and a wiper pin anchored at one end and extending through said bleed port to restrict the effective area thereof; said membrane, on vibrating in response to turbulent flow through said tubular stem and valve body, effecting a scrubbing action on said pin thereby to maintain said wiper pin free of accumulations and maintain said bleed port open.

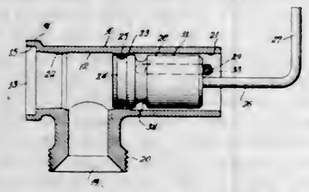
2,838,270
HANDLE STRUCTURES FOR VALVES AND THE LIKE
Paul F. Danielson, San Marino, Calif., assignor to All-Power Manufacturing Co., Montebello, Calif, a corporation of California
Application September 8, 1952, Serial No. 308,339
10 Claims. (Cl. 251—110)



1. A handle unit for actuating a valve having a rotary actuating stem movable in predetermined opening and closing rotary directions, said unit comprising a first member containing a recess for receiving an end of said stem, means for securing said member on said stem and against withdrawal therefrom, a handle mounted to said first member for rotation therewith and relative thereto about the stem axis, a ratchet connection between said handle and said first member acting to transmit rotary motion from the handle to said first member in said closing direction but not in said opening direction, a manually actuable clutch element movable relative to said handle and said member between a released position and an ac-

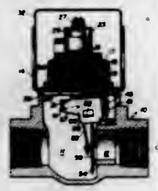
tive position in which said element transmits rotary motion in said opening direction from the handle to said first member and stem, said handle being rotatable independently of said first member in said opening direction when said clutch element is in released position, and a spring yieldingly urging said clutch element to said released position and resisting its actuation to said active position to thereby prevent opening movement of the valve stem by small children.

2,838,271
J-PIN VALVE
Harold H. Nelson and Eugene K. Nelson, Cedar Rapids, Iowa, assignors to Cherry-Burrell Corporation, Chicago, Ill., a corporation of Delaware
Application May 23, 1955, Serial No. 510,216
3 Claims. (Cl. 251—111)



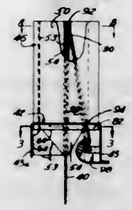
1. A valve of the class described comprising a hollow valve body having a hollow extension at one end, a piston reciprocably mounted in said valve body and retractable into said extension, and means for holding said piston selectively in retracted and non-retracted positions comprising an L-stem on said piston projecting beyond said extension and adapted to engage the extension when the piston is in non-retracted position, two longitudinally spaced index holes in said extension, a J-shaped pin the legs of which are spaced apart substantially the same distance as said holes and engageable therein, and a concavity in said piston engageable by a leg of said pin when said concavity is aligned with one of said holes.

2,838,272
ELECTROMAGNETIC VALVE
Kenneth G. Kreuter, Goshen, Ind., assignor to Penn Controls Incorporated, Goshen, Ind., a corporation of Indiana
Application October 3, 1956, Serial No. 613,626
8 Claims. (Cl. 251—130)



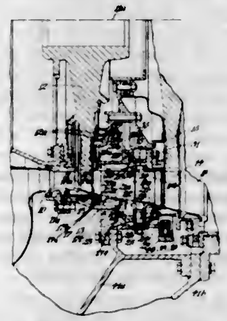
1. An electromagnetic valve comprising a valve body having an inlet and an outlet chamber and a valve passage therebetween, a valve member controlling said passage, an electromagnetic actuator for said valve mounted on said valve body, linkage means between said actuator and said valve comprising a movable member adapted to be moved upon energization of said acuator, a valve member supporting element pivotally mounted on said movable member, biasing means providing a force for urging said element and said member to move as a unit during the initial movement of said member, and a fixed abutment engaged by said element at the termination of said initial movement, the abutment engaging area on said element being then on the opposite side of its pivotal mounting from said supported valve member, thereby producing pivotal relative movement between said movable member and said element resisted by the force exerted by said biasing means during subsequent movement of the movable member.

2,838,273
DAMPERS FOR AXIAL FLOW BLADES
Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
Application October 22, 1954, Serial No. 463,976
4 Claims. (Cl. 253—77)



1. In combination in a rotor, a hub structure, a plurality of hollow axial flow blades carried on said structure peripherally spaced thereabout and extending radially outward therefrom, each said blade having a blade section at the root end thereof with a substantial curvature along the chord, an element within each said blade fixedly connected thereto adjacent the tip thereof at a point located substantially forward from the trailing edge thereof, said tip being subject to vibration in operation with corresponding movement of said element, each said element extending inwardly of said blade to a locality adjacent the trailing edge of said root end, damper means supported on said structure, said damper means having a part connected to the inner end of a said element for movement therewith in response to said vibration, and a brake part frictionally engageable with said damper means to dissipate the energy of said movement to damp said vibration.

2,838,274
BLADED STATOR STRUCTURES FOR AXIAL-FLOW FLUID MACHINES
Arthur Holmes Fletcher, Derby, Frank Henry Stark, Chellaston, and George Ellison, Allestree, England, assignors to Rolls-Royce Limited, Derby, England, a British company
Application May 11, 1953, Serial No. 354,106
Claims priority, application Great Britain June 4, 1952
6 Claims. (Cl. 253—78)



1. An axial-flow gas turbine comprising stationary outer structure; stationary inner structure co-operating with said stationary outer structure to provide an annular working fluid passage for the turbine; a turbine rotor rotatable with respect to said inner and outer structures about the axis of the working fluid passage; said inner structure including annular gas sealing means co-operating in a gas sealing manner with said turbine rotor; an annular assembly of nozzle guide vanes arranged coaxially with said turbine rotor and extending across the working fluid passage, each nozzle guide vane having a fixed upstream portion with its outer end secured in said outer structure and its inner end secured to said inner structure, said fixed upstream portions providing the sole support for said inner structure, and each nozzle guide vane also having an adjustable downstream portion which is rotatably mounted both in said outer structure and said inner structure for angular adjustment relative to the fixed upstream portion of the vane about an axis substantially radial to the turbine; and means interconnecting said adjustable portions for simultaneous angular adjustment.

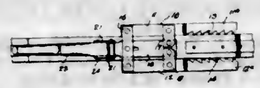
2,838,275
GAS TURBINES
Frank Rosslyn Harris, Mumbles, Swansea, Wales, and John Arthur Boyle, Sale Moor, Sale, England, assignors to Metropolitan-Vickers Electrical Company Limited, London, England, a British company
Application September 21, 1953, Serial No. 381,316
Claims priority, application Great Britain October 3, 1952
1 Claim. (Cl. 253—78)



In a gas turbine cylinder, a diaphragm assembly comprising a hub member, an annular row of nozzle blades attached to said hub member, an outer annular ring concentric with said hub member and attached to the outer ends of said blades in a manner which permits radial expansion of the blades relative to said outer ring, an inner wall to said turbine cylinder, surfaces defining axial grooves in said inner wall, surfaces defining recesses extending axially and radially outwards in said outer ring, and a plurality of radially extending keys connecting the outer ring and the inner wall of the turbine cylinder, each of said keys having an axial projection thereon engaging a corresponding recess in said outer ring and a radial projection engaging a corresponding axial groove in said turbine wall and slidable therein to permit said outer ring to expand radially and axially but to prevent circumferential movement of the outer ring with respect to said inner wall, said keys having arms thereon extending circumferentially and bolted to said outer ring to prevent relative movement between the keys and the outer ring.

2,838,276
PULLER GRIP FOR A COLUMN STRAPPER
John B. Perkins, San Antonio, Tex.
Application June 8, 1954, Serial No. 435,209
1 Claim. (Cl. 254—79)

A puller grip for a column strapper comprising a drag bar adapted to lie flat upon the outer edge of a column strapper cleat, a pair of spaced substantially parallel jaws mounted to extend longitudinally of and upon opposite sides of a column strapper cleat thereby defining a channel between the jaws, said jaws having forward ends inclined inwardly with respect to the longitudinal axis of the puller grip in a manner to straddle a column strapper cleat upon which the grip is supported, the forward end of each jaw having teeth upon its inner face to firmly grip the side faces of a cleat, a binding strip clamping lever pivotally mounted near one end of said drag bar and adapted to grip a binding strip to facilitate the securing of the strip to the edge of a column strapper, a



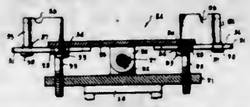
transverse tie bar pivotally connected to the rear ends of said jaws, said drag bar being slidable between said jaws and slidable under said transverse tie bar, drag links pivoted at one end to said jaws and pivotally connected at their other ends to said drag bar to selectively draw said jaws toward and away from each other near their outer ends as said drag bar is moved longitudinally of and between said jaws in a selected direction and as said clamping lever is swung in a selected direction, the swinging of said lever in a selected direction being adapted to force the teeth of said jaws into and out of gripping engagement with the sides of a column strapper cleat.

2,838,277
RAILWAY RAIL PULLER
Floyd C. Currier, Sr., Oakland, Calif.
Application October 17, 1955, Serial No. 540,874
2 Claims. (Cl. 254—104)



1. A railway rail puller comprising, a frame having side members, a roller rotatably mounted on and supporting the front end of said frame, and wheels rotatably mounted on and supporting the rear end of said frame, a drop frame for each side member and each adjustably mounted on the frame for vertical and horizontal adjustment on the frame and each drop frame having a lifting roller rotatably mounted in the lower end, said roller having a diameter in excess of four feet and a weight of not less than two tons, and said wheels having a diameter of less than three feet to cause vertical reciprocation of the lifting roller as the wheels ride over the ties and into the spaces between the ties.

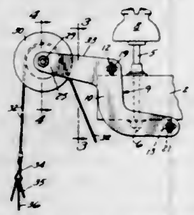
2,838,278
ADAPTER FOR TRANSMISSION JACK
George V. Johnsen, Los Angeles, Calif.; Edith Tarbet executrix of said George V. Johnsen, deceased, assignor to Edmund J. Wudel
Application June 28, 1954, Serial No. 439,727
5 Claims. (Cl. 254—134)



1. A clamping assembly for use with lifting apparatus comprising a horizontal plate member adapted to support an object to be lifted, a plurality of slotted adjusting arms positioned substantially in the plane of said plate, means for swingably and slidably securing said arms with

said plate in horizontally spaced-apart relationship and for firmly locking said arms against movement with respect to said plate in a plurality of predetermined, retracted, partially extended, fully extended, or angled positions, and an upstanding gripping jaw carried by each of said arms adjacent its outer end and swingable about an axis substantially normal to said plane whereby to conform to the outline of, and provide lateral support for an object on said plate.

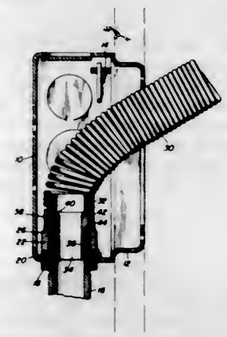
2,838,279
DEVICE FOR RAISING POWER CONDUCTOR LINES
Lionel E. Parkyn, Waterville, Minn.
Application April 27, 1954, Serial No. 426,002
1 Claim. (Cl. 254—134.3)



In a device for raising power transmission lines to the elongated cross arm of an upright pole, a body adapted to be removably mounted on the end portion of said cross arm, said body comprising a pair of laterally spaced side members and upper and lower transverse members, said upper transverse member being upwardly spaced from the level of said lower transverse member for reception of said cross arm therebetween, said upper and lower transverse members each comprising a pair of aligned fingers each anchored at its outer end to a respective side member and projecting inwardly therefrom, said fingers each having cooperating angular surfaces defining edges which extend longitudinally of the transverse members, said edges engaging the top and bottom surfaces respectively of said cross arm with the side members disposed outwardly of the opposite sides of the cross arm when the body is mounted thereon, means for releasably locking said fingers selectively in end to end abutting relationship or in spaced apart relationship, whereby to vary the spacing between the side members, said side members having longitudinally extended portions projecting laterally with respect to said upper transverse member, and a grooved pulley journalled between the outer ends of said extended portions for rotation on a horizontal axis generally parallel to said transverse members, said pulley being disposed relative to said upper transverse member and being of such diameter that the upper peripheral surface portion thereof lies above the horizontal plane of said upper transverse member and the extended portions of said side members, whereby the top portion of the pulley is substantially above the top surface level of said cross arm when the body is mounted thereon, said pulley being adapted to receive and support a hoisting cable, said upper transverse member being disposed in more closely spaced relation than said lower transverse member to said pulley, said edges defined by the angular surfaces of said fingers tending to bite into the adjacent upper and lower surfaces of the cross arm when a load is applied to said pulley.

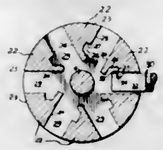
2,838,280
WIRE GUIDE ADAPTER
Edward G. Eyles, Fitchburg, Mass.
Application January 13, 1956, Serial No. 558,989
1 Claim. (Cl. 254—134.3)

In a wire guide for pulling wire through a conduit that is connected to an electrical box by means of a bushing which has a bore coaxial with the bore of the conduit, said guide including a flexible tube to one end of which there is attached a collar having internal threads with a shoulder at the inner end thereof, an adapter for said collar which is arranged to fit directly into the bores of the conduit and bushing, said adapter comprising a sleeve provided with external threads which are engage-



able within the threads in said collar, an externally smooth smaller diameter portion which is axially slidable into said bores thereby holding said wire guide attached to the conduit and bushing, one end of said sleeve abutting said shoulder when said sleeve is threaded in said collar, and the edge of said sleeve at the inner edge of said shoulder being chamfered to prevent the wire from becoming snarled thereon.

2,838,281
AUTOMOBILE CARRIER WINCH
Junior A. Flippin, Janesville, Wis.
Application April 5, 1957, Serial No. 650,930
3 Claims. (Cl. 254—164)



1. A load securing device for a freight transportation vehicle comprising an operating bar terminating in at least one end portion having a notch adjacent the end thereof bounded adjacent said end by a wall extending transversely to the axis of said end portion, a shaft adapted to be journalled for rotation about its axis on said vehicle and having means for anchoring a load binding band to said shaft to be wound about said shaft, manually operable means for rotating said shaft comprising a cylindrical member secured to said shaft, said cylindrical member having a plurality of sockets extending radially from the axis of said cylindrical member and opening through the periphery thereof for the reception of the end portion of said operating bar, means bounding each of said sockets including a bearing surface adjacent the socket entrance positioned to form a fulcrum surface for the end portion of said operating bar and a wall disposed on the opposite side of the socket from said bearing surface having a shoulder projecting transversely of the axis of the socket disposed to coact with said notch bounding wall of said operating bar end portion to lap said notch bounding wall when pressure is applied to said operating bar in a direction to wind said band upon said shaft and restrain said operating bar from accidental withdrawal from the socket.

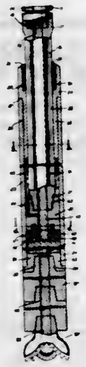
2,838,282
TRACTOR MOUNTED ROCK DRILLS
Odie Colquitt, Denver, Colo., assignor to The Winter-Weiss Co., Denver, Colo., a corporation of Colorado
Application February 9, 1955, Serial No. 487,086
6 Claims. (Cl. 255—19)



1. A rotary rock drilling mechanism adapted to be mounted upon the chassis frame of a tractor of the type having a power takeoff device, comprising: a horizontal, U-shaped frame consisting of two side frame members adapted to extend forwardly at each side of said tractor chassis frame and rear frame members adapted to extend across the rear of said tractor chassis frame, and having means for securing said side frame members to said tractor chassis frame; a rotary table supported by said rear frame members; a drilling mast pivotally mounted over said table and adapted to swing from a vertical position over said table to a substantially horizontal position over said tractor; hydraulic means for elevating said mast from the horizontal to the vertical position; a vertically-positioned transmission housing supported between the side frame members and extending transversely of said U-shaped frame rearwardly of said tractor chassis frame; a power shaft journalled in and extending forwardly from said transmission housing; means for connecting said power shaft to the power takeoff device of said tractor; a hydraulic pump driven from said power shaft and supplying fluid pressure to said hydraulic means; a drilling shaft journalled in said housing driven from said power shaft; means for transmitting rotation from said drilling shaft to said table for hole drilling purposes; a pair of spaced-apart drum shafts journalled in said housing and extending rearwardly thereof; a drilling drum mounted on one of said drum shafts; a running drum mounted on the other of said drum shafts; clutch means for clutching said drums to their respective shafts; means in said housing for driving said drum shafts from said power shaft; a flexible drilling line extending from said drilling drum and supporting a hollow drill stem in said mast, said stem extending through said table; and a flexible running line extending from said running drum to said mast for hoisting purposes therein.

2,838,283
METHOD AND APPARATUS FOR DRILLING WELL HOLES
Wayne W. Simmonds, Tulsa, Okla., and Arlie J. Simmonds, Glendale, Calif., assignors to John H. Lucas, Kansas City, Mo.; trustee for Wayne W. Simmonds and Arlie J. Simmonds
Application January 14, 1957, Serial No. 633,895
2 Claims. (Cl. 255—28)

1. In apparatus for drilling of well holes having apparatus at the surface operable for raising, lowering and supporting a string of drill pipe and rotating same in a well hole and a supply of drilling fluid under pressure connected to the upper end of the string of drill pipe for flow therethrough, a drill bit, a plurality of drill collars connected to and extending upwardly from the drill bit for applying weight thereto; a telescoping drive coupling comprising, an elongate tubular member having a cylindrical bore extending longitudinally therein, means connecting the lower end of the tubular member to the upper end of the uppermost drill collar and in flow communication therewith, a drive collar secured to the upper end of the tubular member and having a longitudinal bore extending therethrough, said drive collar having a sleeve portion extending downwardly in the upper portion of said tubular member and closely engaging the walls of said cylindrical bore, a hollow drive shaft extending through the drive collar and sleeve portion and into the tubular member and movable longitudinally thereof in telescoping relation to the tubular member, interengaging means on the drive shaft and drive collar keying same together whereby said drive shaft slidably engages

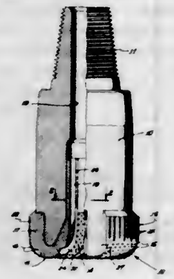


said drive collar and is rotatable therewith, means sealingly engaging the drive shaft and drive collar to provide a fluid tight seal therebetween, a piston on the lower end of the drive shaft below the bottom of said sleeve portion slidably engaging the interior of the tubular member in fluid tight relation and cooperating with the sleeve portion of said drive collar to define a chamber therebetween, and a bleed passage communicating the interior of the hollow drive shaft and the chamber for filling said chamber from flow in the drill pipe when the telescoping drive coupling is contracted and for restricting flow of fluid from the chamber in response to unsupported weight of the drill bit and drill collars acting on the tubular member to extend the telescoping drive shaft and tubular member whereby extension of the telescoping drive coupling is retarded and sudden dropping of the drill bit into a cavity is prevented.

2,838,284
ROTARY DRILL BIT
Benjamin L. Austin, Ogden, Utah, assignor to Christensen Diamond Products Company, Salt Lake City, Utah, a corporation of Utah
Application April 19, 1956, Serial No. 579,300
15 Claims. (Cl. 255—61)

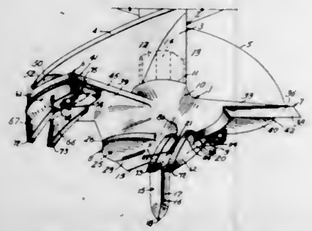
1. In a rotary drill bit: a body having fluid passage means, said body having a drilling face adapted to engage the bottom of the hole in which the bit is operating, said face beginning closely adjacent the axis of said body and containing a plurality of generally spiral watercourses spaced circumferentially from each other and extending outwardly from said passage means to the outer portion of said body to provide circumferentially spaced generally spiral lands between said watercourses beginning closely adjacent the axis of said body; each land being engageable with the bottom of the hole substantially the full width

of the land, the arcuate extent of each watercourse and land ground the drilling face being substantially less



than 360 degrees; and cutting elements secured to said lands.

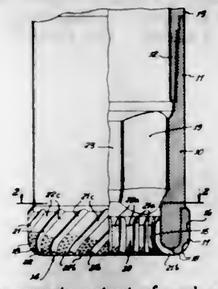
2,838,285
AUGER BIT
Otto N. Gredell, North Kansas City, Mo., assignor, by mesne assignments, to Standard Steel Works, Inc., North Kansas City, Mo., a corporation of Texas
Application December 2, 1953, Serial No. 395,784
8 Claims. (Cl. 255—69)



3. An auger for boring holes into the ground including, a shaft, spiral flights extending about the shaft and having lower ends terminating on opposite sides of the shaft, an auger bit having a hub fixed coaxially to the lower end of the shaft and having a position below the terminals of said flights, diametrically opposed blades having cutting edges extending substantially radially with respect to the axis of said hub and having upper and lower faces sloping upwardly in a circumferential direction with the upper faces joining with upper faces of the flights, and said blades having supporting means spaced above the level of the cutting edges and extending rearwardly from said lower faces of the blades to support the auger and limit cuts made by said blades.

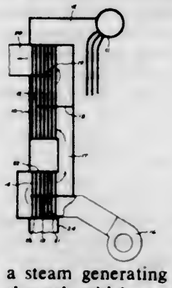
2,838,286
ROTARY DRILL BIT
Benjamin L. Austin, Ogden, Utah, assignor to Christensen Diamond Products Company, Salt Lake City, Utah, a corporation of Utah
Application April 19, 1956, Serial No. 579,299
8 Claims. (Cl. 255—72)

1. In a rotary drill bit: a body having a drilling face adapted to engage the bottom of the hole in which the bit is operating and a fluid passage extending longitudinally therethrough and opening into said drilling face, said drilling face containing a plurality of substantially uniformly spaced generally spiral watercourses to provide substantially uniformly spaced generally spiral lands between said watercourses, each land being engageable with the bottom of the hole across substantially the full width of the land, cutting elements secured to said lands for operation upon the bottom of the hole, each of said spiral watercourses commencing at said fluid passage and extending laterally outwardly therefrom to the outer portion of said body at an increasing angle to a radial line from the body axis to the commencement of said



watercourse, the arcuate extent of each watercourse and land around the drilling face being substantially less than 360 degrees.

2,838,287
AIR HEATER
Max H. Kuhner, Worcester, Mass., assignor to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts
Application November 4, 1953, Serial No. 390,165
1 Claim. (Cl. 257—224)

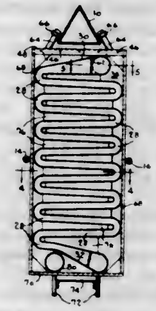


An air heater for a steam generating unit comprising a vertical glass tube through which gases from the unit pass, the glass being of a type having the ability to withstand, without breaking, substantial differences in temperature from one portion to another, said tube having a reduced portion at one end, a first horizontal metallic tube sheet having an aperture in which the reduced end of the tube is held, a second metallic tube sheet spaced from the first and having an aperture a gas-tight, temperature-resistant, non-corrosive, resilient bushing between the first sheet and the said one end of the tube, the said bushing being fixed relative to the tube sheet and normally contacting the surface of the reduced portion of the tube in sliding relationship, walls extending around the tube and sheets causing air to pass externally of the tube between tube sheets, a shoulder between the reduced portion and the remainder of the tube, the shoulder contacting the bushing for supporting a substantial portion of the weight of the tube, a means consisting of a bushing of heat-resistant material slidably connecting the other end of the tube to the aperture of the second sheet, the said shoulder contacting the bushing in the said first aperture to cause it to expand into gas-tight relationship with the said first aperture.

2,838,288
SERPENTINE HOLDING CONTAINER
Carl R. Stoelting and Meredith C. Thomson, Oconomowoc, Wis., assignors to Kusel Dairy Equipment Co., Watertown, Wis., a corporation of Wisconsin
Application September 16, 1955, Serial No. 534,782
6 Claims. (Cl. 257—255)

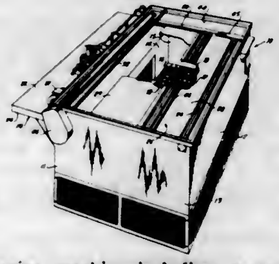
1. A fluid holding container, comprising, co-extensive spaced apart wall-like members provided with a plurality

of reverse interfitting bends providing a continuous upwardly inclined generally vertical serpentine passage therebetween, sealing plates for covering the openings defined by the edges of said wall-like members, means for securing said parts in assembled relationship, an inlet port in the bottom of one of the plates communicating with the lowermost part of said passage, an outlet port



in the top of one of the plates communicating with the uppermost part of said passage, sheet gasket means located between said plates and said edges to seal a major portion of the associated ports, and struts spanning the space between the wall members adjacent each port with an edge of the strut coplanar with the wall member edges to cooperate with the gasket means to complete the seal about the ports.

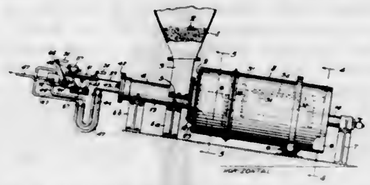
2,838,289
MEANS FOR CLEANING EQUIPMENT
Leonard L. Northrup, Jr., Dallas, Tex.
Application April 30, 1954, Serial No. 426,670
4 Claims. (Cl. 259—1)



1. A cleaning machine including: a tank having a bottom and walls extending upwardly from the walls, a horizontal baffle movable horizontally to close the tank, a bay secured to the tank and extending horizontally therefrom for receiving said baffle when it is in open position; means for agitating liquid in the tank; means for moving said baffle between an open position wherein it is disposed in said bay and a closed position wherein it closes said tank; and means for holding liquid in said bay and over said baffle.

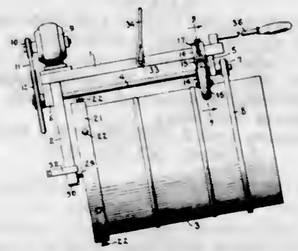
2,838,290
MATERIAL CONDITIONER
George N. Simpson, Chicago, Ill.
Application June 11, 1954, Serial No. 436,205
11 Claims. (Cl. 259—3)

1. A material conditioning assembly including a hopper and a material treating drum in communication therewith through a passageway leading from the hopper to the drum, whereby material may flow from the hopper to the drum, a ram movably mounted in said passageway, said ram, upon movement thereof, being operative to vary the effective flow area between said hopper and said drum to thereby control the amount of material flowing from said hopper to said drum, and means in-



dependent of the material in the hopper for holding said ram at a selected position between opposite limits of movement within said passageway.

2,838,291
CEMENT MIXER
Chad A. Peebles, Newaygo, Mich.
Application November 24, 1954, Serial No. 470,935
12 Claims. (Cl. 259—177)



1. The combination with a drum having an open forward end and a rear end, of a frame having a back member, a shaft rotatably supported on said back member, means for rotating the shaft, a pulley on said shaft near the forward end of the drum, an endless belt passing over said pulley and around said drum, an attachment on said drum adjacent its rear end including a stub shaft in substantial alignment with the axis of the drum, means for rotatably supporting said stub shaft on said frame, means for tiltably supporting said back member, and guide means mounted on said back member near the upper forward end of the drum and rotatably engaging the exterior of the wall of drum.

2,838,292
FUEL FEEDING APPARATUS FOR PRESSURE BURNERS
Carl Bramming, Nashville, Tenn., assignor to Aladdin Industries, Incorporated, Nashville, Tenn., a corporation of Illinois
Application November 30, 1954, Serial No. 472,059
13 Claims. (Cl. 261—19)

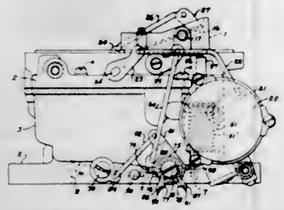
1. In a pressure burner for liquid hydrocarbon fuel, the combination comprising a tank adapted to hold fuel and air under pressure, a mixture tube extending downwardly into said tank and having means in the upper portion thereof for mixing fuel and air, a sleeve around said tube and having a closed lower end, said tube having a port formed therethrough and communicating with the lower end of said sleeve, a fuel control valve having a soft resilient rubber-like valve member with an outlet port therein, a first, second, and third valve ports in said resilient valve member and communicating with said tube, said sleeve and said tank, respectively, a movable valve member engaging said resilient member and having recess means therein, said valve member being movable to a first position with said recess means connecting said outlet port to said first port while interconnecting said

second and third ports, to a second position with said recess means connecting said outlet port to said second



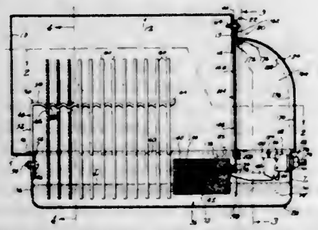
port, and to a third position with said movable member cutting off said outlet port.

2,838,293
SECONDARY-STAGE THROTTLE CONTROL FOR A MULTISTAGE CARBURETOR
Harold A. Carlson, Brentwood, and Olin J. Eickmann, Normandy, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application April 5, 1956, Serial No. 576,370
5 Claims. (Cl. 261—23)



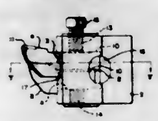
1. In a multi-stage carburetor, the combination of primary and secondary mixture conduits, a manually controlled primary throttle in said primary mixture conduit, a secondary throttle in said secondary mixture conduit unbalanced to close by engine suction, resilient means between said throttles operative to open said secondary throttle responsive to opening movement of said primary throttle, and yielding means resisting the action of said resilient means.

2,838,294
HUMIDIFIER
Roy P. Skerritt, Detroit, Mich., assignor to Economic Products Company, Detroit, Mich., a corporation of Michigan
Application September 30, 1954, Serial No. 459,314
1 Claim. (Cl. 261—104)



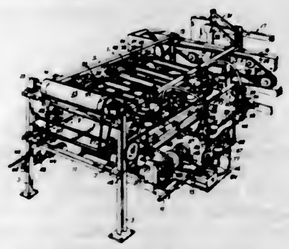
A humidifier for mounting in a hole in a heating apparatus, said humidifier comprising a generally-vertical mounting structure having an opening therethrough and adapted to be secured to the heating apparatus in alignment with the hole thereof, an elongated water-evaporating pan extending through said opening and mounted on and secured to said mounting structure in supported relationship therewith, said pan having front and rear end portions disposed respectively in front of and behind said mounting structure with the major part of the length of said pan disposed behind said mounting structure, an inverted L-shaped evaporator plate bracket having a vertical arm and a horizontal arm, said vertical arm being secured to the rear end portion of said pan and extending upwardly therefrom and providing the entire support for said bracket, said horizontal arm extending from said vertical arm forwardly over said pan toward said mounting structure with its forward end free, and perforated evaporator plates of capillary material threaded upon said horizontal arm rearwardly of the free end thereof and depending from said horizontal arm into said pan whereby said mounting structure and pan can be fully preassembled and inserted through the hole in the heating apparatus and secured to the heating apparatus, after which the evaporator plates can be inserted through said opening in the mounting structure and threaded upon said horizontal bracket arm over the free end thereof in full view of the operator looking through said opening.

2,838,295
BIT HOLDER FOR HOLDING A PLURALITY OF BITS
Charles E. Compton, Bridgeport, W. Va.
Application October 26, 1956, Serial No. 618,624
6 Claims. (Cl. 262—33)



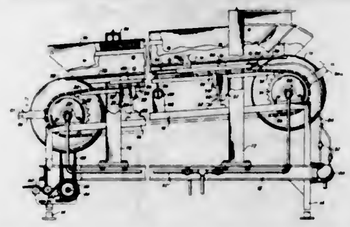
1. Multiple bit structure for mining apparatus and the like comprising a bit holder having therein bit sockets each extending inwardly of the bit holder from the exterior thereof, the bit sockets intersecting, bits in the sockets, one bit having a lateral projection, another bit when introduced into its socket engaging said lateral projection and thereby holding the first mentioned bit in place in its socket, and means connected with the holder and exerting restraining force against the second mentioned bit only holding the second mentioned bit in place in its socket.

2,838,296
DRYING APPARATUS
Raymond E. White, East St. Louis, Ill., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application January 9, 1956, Serial No. 557,903
16 Claims. (Cl. 263—3)



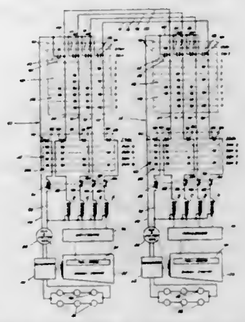
1. Means for drying ink imprinted on a continuous web in a printing press having variable speed means for feeding the web, comprising a gas burner, means for guiding the web for travel over the burner so that the web is heated by the burner flames, means for supplying an air-gas mixture to the burner comprising a mixer having an air inlet, a gas inlet adapted for connection to a source of gas, and an outlet connected to the burner, an air blower having its outlet connected to the air inlet, the output of the blower being proportional to its speed, and a drive for the blower adapted to be responsive to web speed for maintaining the ratio of the blower speed and web speed substantially constant.

2,838,297
OVEN FOR HEATING ELECTRIC LAMP ENVELOPES
Stanley C. Shappell, West Boxford, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Original application October 31, 1955, Serial No. 543,673, now Patent No. 2,789,587, dated April 23, 1957. Divided and this application November 30, 1956, Serial No. 625,465
3 Claims. (Cl. 263—8)



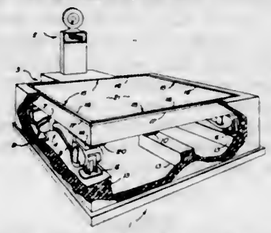
1. An oven for heating elongated tubular electric lamp envelopes comprising: an insulated enclosure having an opening at each end thereof defining an entrance and an exit; a conveyor, inclined from said entrance to said exit, for carrying elongated tubular electric lamp envelopes through said insulated enclosure from said entrance to said exit, with the longitudinal axes of said envelopes transverse to the longitudinal axis of said enclosure; and heating means disposed beneath the path traversed by said lamp envelopes moving through said enclosure and substantially parallel to the longitudinal axis of said enclosure.

2,838,298
ISOLATION AND ENGINE SPEED LIMIT CONTROLLER
Robert M. Henderson, Williams Bay, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application June 4, 1954, Serial No. 434,636
3 Claims. (Cl. 264—1)



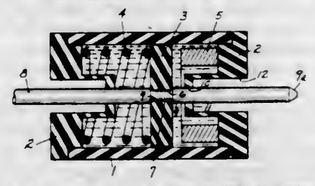
2. In a control system for an internal combustion engine having an adjustable governor including governor adjusting solenoids effective through selective energization thereof for adjusting the governor to determine engine operation at correspondingly different predetermined operating speeds, the combination with the governor solenoids, of solenoid energizing circuit means including a throttle switch for determining solenoid energization selectively according to throttle switch actuation, and controller means arranged in said circuit means between the throttle switch and solenoids, said controller means being selectively settable to condition the circuit means for limiting throttle switch energization control of the solenoids variably in accordance with settings of the controller means.

2,838,299
WEIGHBRIDGE
George C. Reiser and Calvert H. Shuptrine, Toledo, Ohio, assignors, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Application July 29, 1955, Serial No. 525,179
2 Claims. (Cl. 265—71)



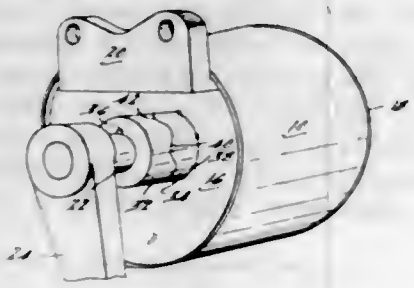
1. A weighbridge that comprises a channel iron frame, the backs of the channels forming the outer edges of the weighbridge and the flanges of the channels forming the marginal area of the weighbridge, a plurality of snags secured to the inwardly directed surfaces of the channels, a concrete slab formed in the frame with its peripheral portion embraced by the channels and with the snags embedded in said peripheral portion, and coupling means embedded in the slab and extending below the frame.

2,838,300
DASHPOT
Robert B. Gray, Erie, Pa., assignor to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania
Application April 17, 1957, Serial No. 653,428
2 Claims. (Cl. 267—1)



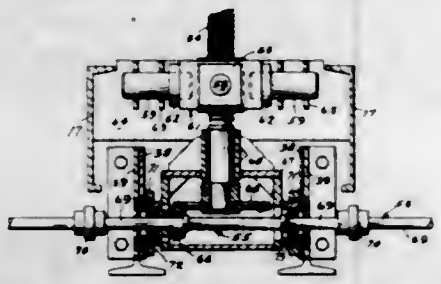
1. A dashpot comprising a liquid filled cylinder having end caps sealed to opposite ends, a piston having a time delay clearance with the bore of the cylinder, the cylinder end caps and piston being made of a thermoplastic elastomer, reentrant tubular sections on the end caps extending toward each other and having on their inner ends inwardly extending annular sealing flanges, a piston rod fixed to the piston and having opposite ends slidably projecting through the annular flanges, a coil spring surrounding the piston rod and one of the reentrant sections and arranged between the piston and one of the end caps, a stiff annular ring surrounding the other reentrant section and arranged between the piston and the other end cap, said ring projecting beyond the reentrant section it surrounds and transmitting thrust from the piston to the other end cap.

2,838,301
TORSION SPRING
William P. Strumbos, Livonia, Mich.
Application October 28, 1955, Serial No. 543,347
4 Claims. (Cl. 267—57.1)



1. A rubber spring comprising a body of elastomeric material, transverse disks bonded to opposite sides of said rubber body, an actuator having a rod extending axially through said rubber body and connected to one of said disks, means for fastening the other of said disks to a suitable stationary support, and co-acting cam elements on said rod, one of said cam elements being connected to the rod and the other of said cam elements being connected to said other disk, said cam elements having co-operating cam surfaces which coact when the rod is rotatably actuated to move said rod axially so as to press said one disk against said rubber body whereby said body is subjected simultaneously to shear and compression to resist rotative movement of said rod.

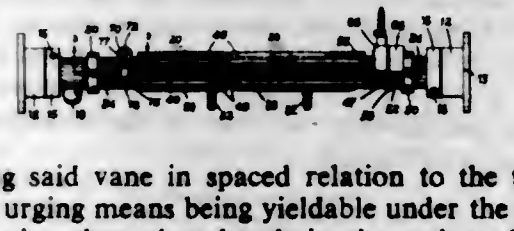
2,838,302
VERTICAL LIFT CANOPY DOOR
Thornton L. Urquhart, Farmington, Mich., assignor to Byrne Doors, Inc., Ferndale, Mich., a corporation of Michigan
Application August 9, 1954, Serial No. 448,636
2 Claims. (Cl. 268—74)



1. A door comprising a leaf having coplanar sections and pivotal tilt arms at and secured to the adjacent ends of said sections, driving mechanism for swinging said leaf about the pivots of said tilt arms having a nut universally connected to each tilt arm, a screw for engaging each nut, a pivotal gear box for each screw, reduction gearing in each gear box connected to the associated screw, a drive shaft having a shaft section journalled in each gear box and connected to the associated reduction gearing, and an adjustably mounted unitary bracket forming a common support for the pivot of each tilt arm and the pivot of the associated gear box, said brackets cooperating with each other to align the pivots for all of the tilt arms and also to align all of the shaft sections.

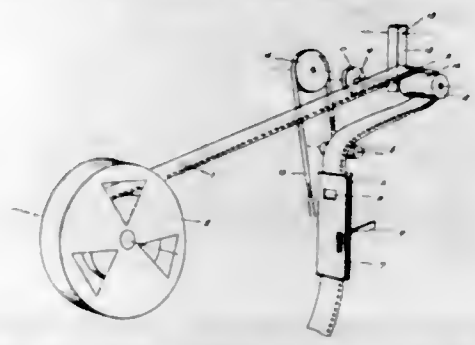
2,838,303
WEB BREAK DETECTION
Orville A. Morley, Dayton, Ohio, assignor to McCall Corporation, Dayton, Ohio, a corporation of Delaware
Application August 21, 1956, Serial No. 605,404
4 Claims. (Cl. 271—2.1)

1. A web break detection device comprising means for directing a large volume flow of relatively low pressure air against the traveling web across substantially the entire width thereof, a vane supported on the opposite side of the web from said air directing means and movable under the pressure of air passing through a break in the web, said vane being substantially equal in length to the width of said web for sensing a flow of air through said web at any position across the width thereof, means urging said vane normally toward said web, stop means



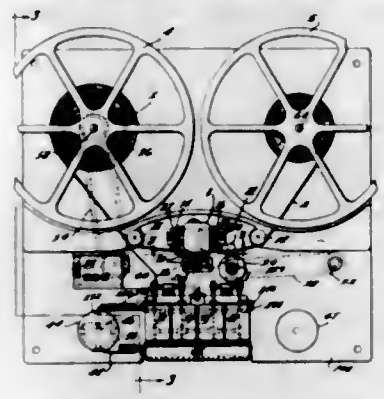
positioning said vane in spaced relation to the traveling web, said urging means being yieldable under the pressure of air passing through a break in the web and against said vane, and means operable by movement of said vane from its normal position to actuate an emergency control.

2,838,304
FILM PROJECTOR
Heinz Berkenhoff, Koln-Holweide, Germany, assignor to Steatit-Magnesia Aktiengesellschaft, Lauf, Germany, a corporation of Germany
Application August 9, 1955, Serial No. 527,279
2 Claims. (Cl. 271—2.3)



1. In a motion picture film projector, a compensating device providing for the smooth feeding of film which comprises a friction roll in the film-feeding path, said roll being mounted on a common shaft with a friction plate, said shaft also being rotatably mounted on a pivotally mounted swing arm; said friction plate being operatively engageable with film driving means upon movement of the axis of the said common shaft responsive to film tension on the said friction roll, and disengageable therefrom when said film tension is relieved.

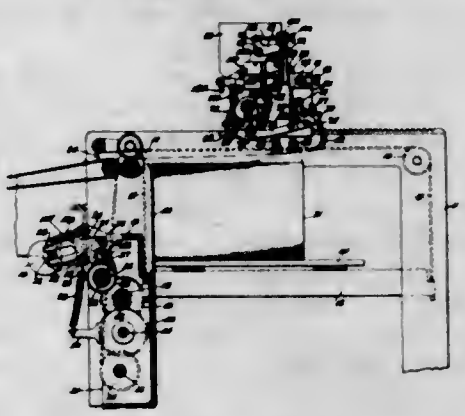
2,838,305
MAGNETIC RECORDING AND REPRODUCING APPARATUS
John J. Hoehn, Merchantville, and Fielding B. Hills, Atco, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Original application July 1, 1954, Serial No. 440,758. Divided and this application October 31, 1955, Serial No. 543,994
6 Claims. (Cl. 271—2.3)



1. In a magnetic recording and reproducing apparatus, a capstan for driving a record receiving member, driving means for driving said capstan at either of two selected

speeds comprising a motor having a shaft, a stepped puck on said shaft, a flywheel directly coupled to said capstan, a first idler roller, a second idler roller, a first and a second slide plate for individually supporting each of said rollers axially displaced from each other to dispose each of said rollers in cooperative relationship with a different one of said steps, said first roller being rotatably mounted on said first slide plate, said second roller being rotatably mounted on said second slide plate, and means for sliding said plates with respect to each other for selectively providing for frictional engagement between a different one of said rollers and said puck and said flywheel.

2,838,306
SHEET FEEDING APPARATUS
Leo C. Williams, Pearl River, N. Y., assignor, by mesne assignments, to Miehle-Goss-Dexter, Incorporated, a corporation of Delaware
Application August 27, 1954, Serial No. 452,505
5 Claims. (Cl. 271—31)



1. In a sheet feeder having mechanism for moving a supply of sheets, the combination of a substantially horizontal lever located above the sheet supply and mounted for pivotal movement about a horizontal axis, a feeler element carried by said lever and movable thereby downwardly into engagement with the top of the sheet supply, a vertical member pivotally connected at the lower end thereof directly to said lever and having a roller journalled on the upper end thereof, a vertically disposed straight bar cam mounted for pivotal movement about a horizontal axis and having a low cam surface followed by a high cam surface facing said roller, said roller being normally engaged with said low cam surface and caused to engage said high cam surface and thereby swing said bar cam about its pivot when the downward movement of said feeler exceeds a predetermined amount, a guide slidably engaged by said member for maintaining said roller in operative position with respect to said bar cam, and means including an electrical switch arranged to be engaged and actuated by said bar cam upon said swinging movement thereof for rendering said mechanism effective to move the sheet supply.

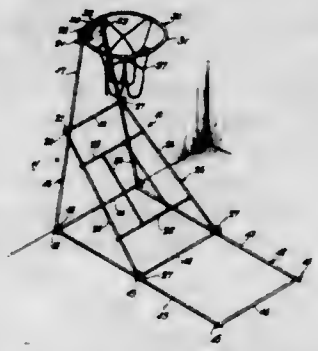
2,838,307
EXERCISING DEVICE
John J. Drew, Broadview, Ill.
Application October 11, 1956, Serial No. 615,316
2 Claims. (Cl. 272—57)

1. An exercising device which includes: an elongate flexible member; means to affix a first end portion of said member to an elevated support which includes an eye-defining member, so that said elongate flexible member depends downwardly therefrom, said means including a first hook mounted on said first end portion of said elongate flexible member that pivotally engages said eye-defining member, said first hook being provided with manually operable means to prevent inadvertent disengagement of said first hook from said eye-defining member; an elongate rigid frame including two laterally spaced uprights that have a plurality of cross pieces extending therebetween which define a plurality of longitudinally spaced openings; a handle supported on the lower end portion of said frame; means fastened on the upper end portion of said frame and slidably engaging said elongate flexible member; and means to removably



affix a second end portion of said elongate flexible member at a desired longitudinal position on said frame to dispose said handle at a selected elevation above the surface on which the user of said device stands, said last-named means including a second hook mounted on the lower end portion of said member, said second hook being capable of engaging any one of said openings.

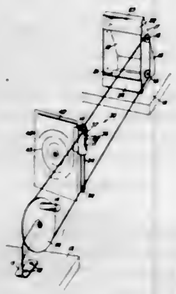
2,838,308
BASKETBALL GAME APPARATUS
Roosevelt I. Polite, Lansdale, Pa.
Application March 2, 1956, Serial No. 569,084
2 Claims. (Cl. 273—1.5)



1. An improved basketball apparatus comprising a base frame including a pair of substantially horizontal rods arranged in spaced and parallel relation, a plurality of rod-shaped and substantially horizontal cross members arranged in spaced and parallel relation with each other and transverse to said pair of rods, said cross members being secured adjacent their ends to said pair of rods and extending outwardly therefrom so as to form projecting pin portions at the ends of said cross members; an upright frame including a pair of spaced upright rods having a pair of curved eyelet portions at their lower ends, respectively, for engaging, in fitting relationship, the projecting pin portions of one of said cross members on said base frame, a transverse bracket connecting the upper ends of said upright rods and having means thereon for supporting a ring-shaped goal basket in substantially parallel relation to said base frame, a rod-shaped and substantially horizontal intermediate cross member connected to said upright rods intermediate the ends thereof, said intermediate cross member extending outwardly from said upright rods so as to form at the ends of said cross member a pair of projecting pin portions; and an inclined frame including a pair of outer inclined rods curved at their lower ends, respectively, so as to form eyelets for engaging the projecting pin portions of a cross member located on said base frame forward of the cross

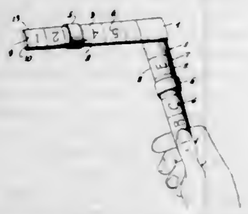
member engaged by said upright frame, said outer inclined rods being curved at their upper ends so as to provide eyelets for engaging the projecting pin portions of the cross member on said upright frame, a pair of substantially horizontal and spaced cross members secured at their ends to said inclined rods and arranged transversely with respect to said inclined rods, and a pair of inner inclined rods arranged in spaced and parallel relation with said outer inclined rods and being secured to the cross members of said inclined frame, said inner inclined rods being positioned beneath said goal basket so as to provide a ball retriever portion for said apparatus.

2,838,309
REMOTE CONTROL TARGET
Rudolf Merz and John W. Wagner, Rochester, N. Y., assignors to Crosman Arms Company, Inc., Fairport, N. Y., a corporation of New York
Application December 12, 1956, Serial No. 627,829
9 Claims. (Cl. 273—105.6)



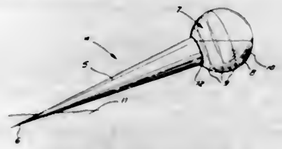
1. In combination with a target box having an open face that is bounded across its top by a skirt, a remote control target positioning device for moving a target sheet between a firing station and said target box comprising a clamp for holding a target sheet along one side marginal edge thereof, a resilient arm mounted on said clamp and extending outwardly therefrom to engage against the upper marginal edge of said target sheet and to hold said target sheet resiliently against said skirt when said clamp is positioned adjacent said target box, and means to transport said clamp to and from said target box.

2,838,310
BOOMERANG
Henry R. Redka, New York, N. Y., assignor of one-half to Albert K. Roemermann, Jr., Mount Vernon, N. Y.
Application October 7, 1955, Serial No. 539,199
1 Claim. (Cl. 273—106)



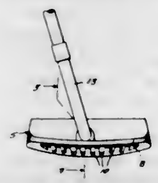
A toy boomerang comprising the combination of a plurality of airfoils connected together in substantially coplanar angular relationship and adapted to support the toy boomerang in aerial flight when the toy boomerang is projected into the air with combined linear and rotary motion, elastic bands encircling and frictionally engaging said airfoils and adjustably positionable lengthwise of said airfoils to shift the center of gravity of the toy boomerang to change its path of flight, and indicia on said airfoils for indexing the position of said adjustably positionable elastic bands lengthwise of said airfoils.

2,838,311
POINT INDICATING PEG
Harvey J. Griffith, Denver, Colo., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application December 26, 1956, Serial No. 630,526
2 Claims. (Cl. 273—106.5)



1. A score-indicating throwably penetrating peg, comprising: a throwably penetrating peg having a shaft provided with a tapered conical smooth translatably penetrating point at one extremity and provided with a score-indicating means at the opposite extremity consisting of a transparent hollow bulb having a visibly observable graduated index thereon and being provided therein with a visibly observable indicating liquid partially filling said hollow bulb and cooperating with said visibly observable graduated index to indicate a game score corresponding to the angular relationship of said throwably penetrating peg with respect to a surface throwably translatably penetrated by said peg.

2,838,312
GOLF PUTTER
John F. Drake, Ponca City, Okla.
Application June 28, 1957, Serial No. 668,809
3 Claims. (Cl. 273—183)



1. A golf putter comprising a club head having a flat surface, a flange extending rearwardly from said club head at each end thereof, a curved bar connected at its ends with said flange, a plurality of vibrating sound producing tines of varying lengths extending rearwardly disposed between the rear edge of said putter head and bar, and said tines producing sounds varying in pitch according to the tines vibrated by contact of the club head with a golf ball adjacent to said tines.

2,838,313
GOLF BALL TEEING MECHANISM
Joe Mozel, Portland, Oreg.
Application December 20, 1954, Serial No. 476,421
4 Claims. (Cl. 273—201)

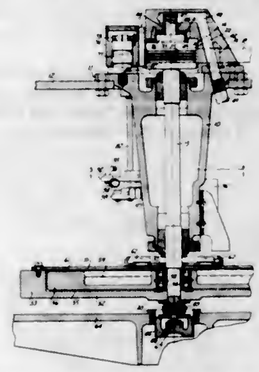
1. A golf ball teeing mechanism, comprising a platform, a base plate set into said platform, a golf ball dispenser affixed to the upper surface of the platform for connection to a supply hopper, tracks to support golf balls affixed within the ball dispenser, a driving mat and artificial driving green superimposed on portions of the platform, vertically movable stops passing through the

base plate to selectively control the forward movement of the golf balls, a bracket depending from the platform, a lever adapted to be depressed by the weight of each golf ball pivoted to the bracket, a reduction gear unit attached to the base plate, an operating motor secured to the reduction gear unit, a pedestal depending from said base plate, a pillow block vertically movable on said pedestal, a bearing affixed to and passing through said pillow block, a plunger operable in said bearing, a tee affixed to the upper end of said plunger, a rotary cam



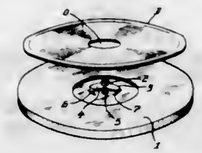
shaft journaled in the gear reduction unit and pillow block, a cam affixed to the free end of said cam shaft, a connecting rod pivoted to said pillow block, means attached to the base plate to support the free end of the connecting rod, a spring attached to and passing transversely of the base plate to engage the underside of the connecting rod to normally lift said cross head when the ball is off the tee, a manually operable lever to regulate the vertical position of the tee, and an electric circuit to energize the motor to drive the reduction gear unit and cam shaft.

2,838,314
MAGNETIC TAPE APPARATUS
Walter T. Selsted, San Mateo, Calif., assignor to Ampex Corporation, a corporation of California
Application October 20, 1952, Serial No. 315,758
6 Claims. (Cl. 274—4)



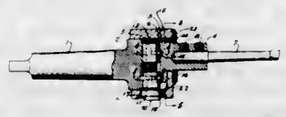
1. In magnetic tape apparatus of the character described, a capstan assembly including a member having a cylindrical exterior tape engaging surface, said surface being interrupted by a circumferential cavity adapted to be spanned by the tape when the tape is looped about the assembly, and means for establishing communication between the cavity and either sources of pneumatic pressure or suction, whereby the tape is either caused to press against and grip the exterior surface of the capstan assembly, or is separated therefrom by a small clearance, a movable magnetic head having pole pieces adapted to engage a portion of the tape which spans the cavity, and means for moving the head into operative pressing engagement with the tape when suction is being applied to the cavity, and for retracting the head from the tape when pressure is applied, the pole pieces of the head having an effective width which is less than the width of the cavity whereby said pole pieces engage only that portion of the tape which spans the cavity and which is being urged into the cavity by external atmospheric pressure.

2,838,315
MEANS FOR CENTERING GRAMOPHONE RECORDS
Marcel Jules Helene Staar, Ixelles, Brussels, Belgium
Application July 17, 1953, Serial No. 368,563
Claims priority, application Belgium July 19, 1952
2 Claims. (Cl. 274—39)



1. In a record turntable having a spindle of about 9/32" for centering records with smaller size center holes such as 33⅓ R. P. M. and 78 R. P. M. records, an attachment for centering records having a relatively large diameter center hole such as 45 R. P. M. records, said attachment being mounted for vertical movement between a position in a depression in the center of the turntable and a raised position projecting above the surface of the turntable and comprising in combination, a centering element fitting closely about the spindle for vertical sliding movement between the said positions, a plurality of arms extending from the underside of said element and through the turntable, said arms defining a circumferential surface of relatively large diameter for centering 45 R. P. M. records having center holes of a like diameter, said turntable having slots for receiving the said arms, said slots being oversize relative to said arms so that the arms fit loosely therein and the element is accurately centered on the turntable by means of the spindle which is effective to guide the element in its vertical movement, the ends of said arms having portions formed to extend laterally beyond the edge of the slots respectively for movably securing the element to the turntable, and a single compression spring mounted coaxially of said spindle and contacting the surface of the depression in the turntable and the underside of the element, the bias force of said spring being relatively light such that it is compressed by the weight of a 33⅓ R. P. M. or a 78 R. P. M. record resting on the turntable to allow the element to sink into the depression yet positively urges the element to a raised position fitting in the center hole of a 45 R. P. M. record resting on the turntable.

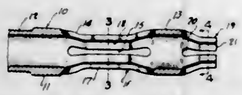
2,838,316
ADJUSTABLE BORING BAR ASSEMBLY
Albert Thomas, Munhall, Pa.
Application April 20, 1955, Serial No. 502,694
5 Claims. (Cl. 279—6)



1. An adjustable boring bar assembly comprising end-to-end juxtaposed shank and bit holder members which define a transverse bore therebetween, a housing for holding said members together but permitting relative transverse movement thereof axially of said bore, an adjusting screw rotatable in said bore, key means axially fixing said screw with respect to one of said members, a nut threaded on said screw for axial movement relative to said

one of said members, key means holding said nut against rotation in said bore and against axial movement with respect to the other of said members whereby, upon rotation of said screw, said members are moved transversely with respect to one another, said bore comprising semi-cylindrical grooves in the juxtaposed end faces of said shank and bit holder members, said screw and said nut being fitted into said bore to constitute the sole torque-resisting means to key said members together against relative rotary movement.

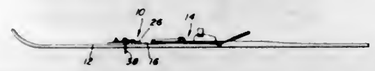
2,838,317
FEED COLLET
Albert A. Parigian, Allen Park, Mich., assignor to Modern Collet & Machine Co., Ecorse, Mich., a corporation of Michigan
Application November 9, 1953, Serial No. 390,970
1 Claim. (Cl. 279—46)



A feed collet comprising a tubular member having first and second axially spaced circumferentially continuous annular portions, circumferentially spaced feed fingers at one end of said tubular member, said fingers projecting generally axially of said tubular member from said first annular portion in a direction away from said second annular portion, said fingers having portions integrally joined to said first annular portion inclined from said first annular portion radially inwardly of said tubular member and having gripping portions integral with and in continuation of said inclined portions extending in substantially parallel relationship to the axis of said tubular member for a considerable distance to the free ends of said fingers, said inclined portions providing flexing sections enabling adjustment of said fingers radially relative to said first annular portion, the axial elements of the internal stock engaging surface of the gripping portion of each finger extending for the full length of said gripping portion along the axis of said tubular member in parallel relation thereto to provide an extended bearing engagement with the stock in the various adjusted positions of said fingers, said tubular member having a reduced portion between said annular portions formed at circumferentially spaced points with longitudinally extending slots closed at the ends to provide a plurality of elongated circumferentially spaced generally axially extending feed fingers respectively axially aligned with said first-mentioned feed fingers, said last-named fingers having intermediate portions of considerable length extending substantially parallel to the axis of said tubular member, the opposite ends of said last-named fingers flaring radially outwardly from said intermediate portions and being integrally connected to said annular portions to provide flexing sections enabling radial adjustment of said last-named fingers, the axial elements of the internal stock-engaging surface of the intermediate portion of each of said last-named fingers extending for the full length of said intermediate portion along the axis of said tubular member and in parallel relationship thereto to provide an extended bearing engagement with the stock in the various adjusted positions of said last-named fingers.

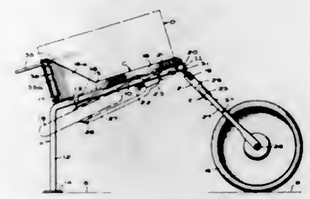
2,838,318
SKI CLIMBER
Norman M. Marshall, Georgetown, Mass.
Application October 22, 1956, Serial No. 617,499
1 Claim. (Cl. 280—11.13)

A ski attachment comprising a base plate adapted to be mounted on the upper surface of a ski, a mounting plate detachably connected to said base plate, a transverse shaft journaled on said mounting plate, a paddle on each end of said shaft and disposed alongside of a ski, spring means interconnecting the shaft and mounting plate for urging the paddles to a downwardly and operative vertical position for engagement with the snow below the plane of a ski, and stop means interconnecting the shaft and mounting plate for limiting the swinging movement of the paddle in one direction thereby preventing forward swinging movement thereof from an operative position thus preventing rearward movement of the ski when climbing a hill, said stop means including a plurality of stop pins projecting laterally from said shaft for engagement against the upper surface of the mounting plate, said spring means including a resilient



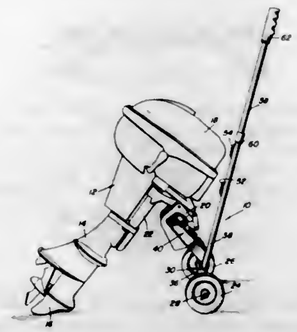
member extending between the outer end of one of said stop pins and said mounting plate, said resilient member permitting the paddle to swing rearwardly to a position parallel to the ski when going down hill, said mounting plate being provided with a plurality of upwardly bowed loops thereon for supporting said shaft an upwardly extending projection on said base plate, said mounting plate being bifurcated at its rearward end, so that said mounting plate will surround said projection on three sides, and fastening means remote from the edges in the form of a threaded stud mounted on the base plate and extending upward through an opening in said mounting plate, said mounting plate being held in engagement with said base plate by a wing nut on said threaded stud, thereby rigidly and detachably securing the mounting plate to the base plate.

2,838,319
FOLDABLE PRODUCE-GATHERING VEHICLE
James H. Besser, San Juan Bautista, Calif.
Application June 4, 1956, Serial No. 589,283
3 Claims. (Cl. 280—41)



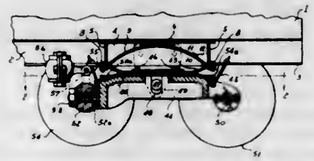
1. In a foldable produce-gathering vehicle: a supporting frame providing a pair of spaced-apart longitudinally-extending side members, which are interconnected at their forward ends by a transverse member; a swingable plate having tubes journalled on the transverse member of the frame, with said plate being movable from a position projecting forwardly and downwardly from the transverse member to a position projecting rearwardly therefrom; a wheel-mounting structure secured to said plate, and including a fork having a wheel journalled thereon; a tubular keeper secured to one of the sleeves; a bearing fixed to the transverse member, and being movable into alignment with the keeper, when the wheel-mounting structure is moved into a load-carrying position; and a retractible latch-bolt slidably carried by said bearing, and being movable into the keeper to releasably hold the wheel-mounting structure in its load-carrying position.

2,838,320
OUTBOARD MOTOR CARRIER
William D. Sosalla, Minot, N. Dak.
Application November 29, 1955, Serial No. 549,669
1 Claim. (Cl. 280—47.24)



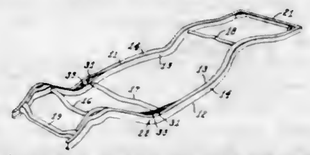
In an outboard motor carrier, the combination of a pair of wheels, an axle on which said wheels are mounted for rotation, a bearing intermediate the ends of said axle and located between said wheels, a single elongated handle secured to said bearing and protruding laterally of said axle, a support for the clamp of the outboard motor located in a plane which forms an acute angle with respect to the longitudinal axis of said handle and rigidly secured to said handle intermediate the ends of the handle, a generally U-shaped bracket having parallel spaced plates and a cross member connected to said plates, said cross member fixed to said handle, and said motor support disposed between said parallel plates and secured thereto whereby said bracket rigidly secures said outboard motor clamp motor to said handle.

2,838,321
PNEUMATIC SUSPENSION FOR VEHICLES
Rene Gouirand, New York, N. Y.
Original application May 19, 1948, Serial No. 27,966, now Patent No. 2,663,569, dated December 22, 1953. Divided and this application November 17, 1953, Serial No. 392,656
9 Claims. (Cl. 280—104.5)



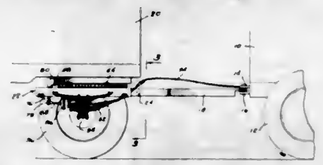
1. A vehicle comprising: a body having hangers extending downwardly from the opposite sides thereof, a cradle positioned beneath the body and between the hangers and interfitting with the hangers to maintain the cradle in cooperative relation with and beneath the body, a pneumatic suspension chamber interposed between the cradle and the body, wheels mounted on the rear end of the cradle, additional wheels mounted on an axle secured to the forward end of the cradle for pivotal movement on a horizontal axis normal to the axis of the axle, said axle and the forward wheels being removable as a unit, and a hanger secured to the body and adapted to be secured to and support the forward end of the cradle when said axle is removed.

2,838,322
VEHICLE FRAME
Jerome J. Felts, Walled Lake, and William E. Davis, Northville, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application October 22, 1956, Serial No. 617,439
7 Claims. (Cl. 280—106)



5. A vehicular frame comprising in combination a pair of longitudinally extending outer side rails bowed inwardly at their forward ends, an inner side rail secured to each of the outer side rails at the forward portion of the bowed outer rail and rearwardly thereof of the bowed section throughout its extent and defining a space between said rails at the bowed section of the outer rail, said inner rail being reduced in height with respect to said outer rail between said points of attachment.

2,838,323
STEERING BRAKE FOR A FOUR WHEELED TRAILING VEHICLE
Regis H. Coustillac, Youngstown, Ohio
Application August 13, 1954, Serial No. 449,642
2 Claims. (Cl. 280—116)



1. In a steerable front truck for a trailer, a steerable wheeled horizontal truck frame having front and rear ends and opposite sides, a relatively stationary horizontal trailer frame adapted to be fixed to a trailer and overlying said truck frame, a vertical king pin traversing and secured to said truck and trailer frames, rotary bearing means surrounding said king pin and supportably interposed between said truck and trailer frame, said trailer frame having a rear end comprising an arcuate brake bar concentric with the king pin, said brake bar having a convex rear side providing a braking surface, a vertical brake shaft journaled through said truck frame and having an upper end above said truck frame, said brake shaft being located rearwardly of said trailer frame brake bar and spaced from the opposite sides of the truck frame, a brake cam fixed on the upper end of the brake shaft having a brake shoe arranged to brakingly contact the braking surface of the brake bar upon rotation of said brake shaft, and actuating means on said truck frame operatively connected to the brake shaft.

2,838,324
UPPER FIFTH WHEEL WITH PLURAL ADAPTERS FOR REMOVABLE KING PIN
Thomas B. Dalton, Muskegon, Mich., assignor to West Michigan Steel Foundry Co., Muskegon, Mich., a corporation of Michigan
Application August 9, 1956, Serial No. 603,015
10 Claims. (Cl. 280—407)

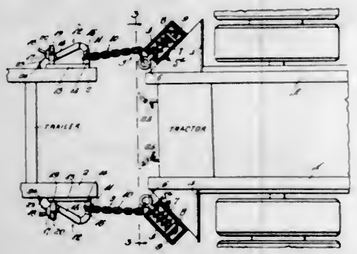
6. In a semi-trailer for use with a tractor having a lower fifth wheel member comprising, a trailer body, an upper fifth wheel member on the underside of the trailer body adapted to rest upon the lower fifth wheel member on the tractor, the upper fifth wheel member having a

plurality of apertures therein spaced lengthwise of the trailer body, a plurality of adapters each secured in position above the upper fifth wheel member and each in substantial alignment with one of said apertures, a king pin, the king pin and each adapter having interfitting



parts so that the king pin may be selectively interfitted with one of the adapters, said king pin having a portion depending from the selected adapter and below the upper fifth wheel member for coupling with the lower fifth wheel member on the tractor, and means for detachably securing the king pin to the selected adapter.

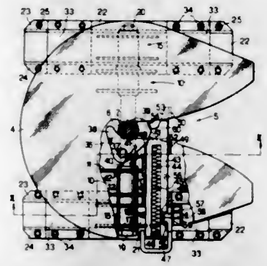
2,838,325
SAFETY JACKKNIFE APPARATUS
Sylvio J. Begin, Schenectady, N. Y., assignor to K-W Mfg., Inc., Schenectady, N. Y., a corporation of New York
Application August 30, 1956, Serial No. 607,091
4 Claims. (Cl. 280—432)



1. In a device of the character described, in combination, a tractor having longitudinally extending frame members, spacers in the form of right angled triangles secured to the outer rear portions of said frame members, with the hypotenuse of the triangles extending outwardly and forwardly, a cylinder secured to the edges of the hypotenuse of each spacer, each cylinder having an opening in its inner rear end, a piston in each cylinder, a piston rod secured to each piston and having one end extending through its associated opening, said one end of each piston rod terminating in an eye, a compression coil spring in each cylinder surrounding a piston rod and normally biasing said piston rod inwardly relative to its associated cylinder, a trailer having longitudinally extending frame members, a base plate carried by the outer front end of each trailer frame member, parallel lugs extending outwardly from the front end of each base plate, a latch arm, a pivot mounting each latch arm between an associated pair of lugs, chains connecting each latch arm to an eye of a piston rod, and means securing each latch arm in chain locking position.

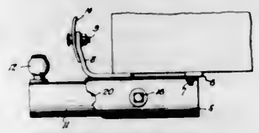
2,838,326
SEMITRAILER COUPLING-PIN LOCKING MECHANISM
Theodor Georgi, Hilden, Rhineland, Germany, assignor to Jost Werke Josef Steinfass G. m. b. H., Neu-Isenburg, Germany, a corporation of Germany
Application April 3, 1957, Serial No. 650,332
9 Claims. (Cl. 280—434)

1. A coupling constituting a detachable, biaxial, articulated connection between two coupling parts, comprising a coupling pin secured to one of said parts and a pin locking assembly secured to the other part, said assembly comprising a platform having an entry slot for the pin, a pivotable pin-engaging member, a pivot mounting said member on the platform, a transversely movable spring-loaded bolt mounted on the platform for coopera-



tion with said member, cooperating wedge surfaces on said member and said bolt for locking the pin-engaging member around the pin in an end position of the bolt, and a bolt support mounted on the platform, the pin-engaging member pivot and the bolt support being arranged on the same side of the pin entry slot.

2,838,327
TRAILER HITCH OF THE RETRACTIBLE TYPE
Horace R. Collins, Elroy, Wis.
Application October 6, 1955, Serial No. 538,890
1 Claim. (Cl. 280—491)



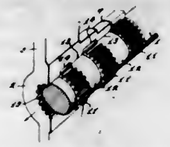
A tractor hitch comprising a tubular housing open at each end thereof, a transverse supporting bar fixed to the forward end of said housing and adapted for attachment to a vehicle adjacent to the rear bumper thereof, a bracket arm extending upwardly and rearwardly from said housing adapted to be attached to the bumper of the vehicle, the rear end of said tubular housing terminating below the lower edge of the vehicle bumper, the rear edge of said housing being curved downwardly and forwardly, and having a pair of spaced-apart guide recesses formed in the rear curved edge thereof, one of said recesses being disposed adjacent to the top of said housing, the other recess being formed at one side of said housing, a hitch member including a tubular slide engaging in said housing, a hitch secured to the rear of said slide, adapted to move over said curved edge and moved into said other recess of said housing holding said tubular slide against rotation in said housing, said slide having aligned pairs of openings therethrough, said housing having a pair of aligned openings, a bolt engaging through a selected pair of said first named openings and through said second named pair of openings, a spring constantly biasing said bolt to disengaged position, a pin extending transversely through said bolt for locking the latter with said hitch member in either extended or retracted position, a chain connected to said pin and said housing, and a positioning pin carried by said slide engageable in one of said recesses when the slide is retracted into said housing to thereby dispose one pair of said slide openings in registry with said opening in said housing.

2,838,328
METALLIC SEALING RING
Paul W. Rohrberg, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey
Application July 18, 1956, Serial No. 598,624
6 Claims. (Cl. 288—14)



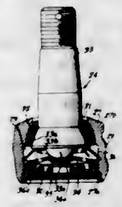
1. An elastic sealing component comprising a hollow tubular approximately circular ring of highly elastic metal, the cross-sections of the tubular ring taken on planes radial to the ring being elliptoid with the major axis lying substantially in an imaginary right circular cone coaxial with the ring.

2,838,329
SHAFT AND HUB CONSTRUCTIONS
Augusta M. Pressley, Concord, N. C.
Application February 19, 1957, Serial No. 641,059
2 Claims. (Cl. 287—52.03)



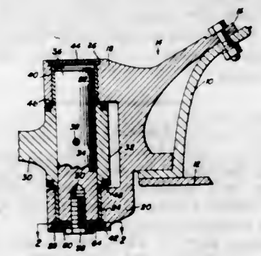
1. The combination with a shaft having thereon an annular series of splines, and a smooth zone adjacent thereto, of a split hub comprising a pair of separable halves, each half having a semi-annular series of splines formed thereon and a smooth zone adjacent thereto, said series of splines on the respective parts being constructed to interlock, bolts holding said separable halves together and spaced laterally from said shaft, said splines having substantially radial sides, whereby, when interlocked, separation of said halves is prevented even when said bolts are removed, said two series of splines being disengageable only by shifting the hub halves axially relative to said shaft to such an extent that the splines on one part register with the smooth zone on the other part, stop means preventing relative axial shifting of said hub halves and shaft in one direction, an abutment on said shaft, and removable means co-operating with said abutment for normally locking said hub halves and shaft rigidly against relative axial shifting in the other direction, thus preventing disengagement of said splines.

2,838,330
SELF-RIGHTING BALL JOINT ASSEMBLY
Robert E. Fidler, Rochester, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application December 15, 1954, Serial No. 475,403
2 Claims. (Cl. 287—90)



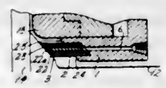
1. A joint structure comprising a housing having a central cavity and an inner segmental spherical bearing surface, a closure plate closing one end of said cavity, a bearing ring having an outer bearing surface mating with the inner bearing surface of said housing, a stud having a bearing face arranged to be received along the inner surface of said bearing ring, said stud having a planar lower surface and a segmental spherical ball portion extending downwardly from said planar lower surface, a recessed spring seat receiving said ball portion, a spring having one end bottomed on said closure plate and urging said spring seat into seated relation with said ball portion, and an annular spring member having its outer peripheral edge bottomed by the walls of said housing in spaced relation to said closure plate and having a raised annular surface abutting said planar lower surface to urge said stud into an upright position.

2,838,331
STEERING IDLER ARM REPAIR KIT
Archie V. Coleman, Corpus Christi, Tex.
Application July 21, 1954, Serial No. 444,889
12 Claims. (Cl. 287—100)



1. In combination with a center steering bracket having spaced knuckle portions provided with registered bores, and a pin journaled in said bores and carrying, between said knuckle portions, a steering arm; a washer rigidly secured to said pin and including an annular shoulder disposed in spaced relation to one end thereof, a conical resilient member disposed between said washer and the one end of the pin and flattened from its normal conical state thereby, said resilient member bearing radially throughout a peripheral portion thereof against the surface of the bore in one knuckle portion.

2,838,332
DUST RING FOR MIXERS
Stewart Bolling, Cleveland, Ohio
Application June 16, 1955, Serial No. 516,001
2 Claims. (Cl. 288—2)



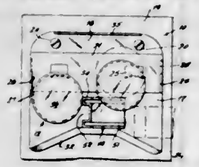
1. A dust ring to engage a moving shaft in a closed vessel to seal the opening between the shaft and the vessel, said ring comprising a pair of semi-circular members, means securing said members together to form a complete ring, each member having an arcuate groove extending inwardly from one end thereof to define an annular groove in said ring, said one end of each member being leveled with the bevel inclining inwardly toward the opposite end of each member, the bottom of said annular groove being parallel with said bevel, and a metallic sealing element consisting of several layers of a resilient metal seated in said annular groove.

2,838,333
OIL SEAL
Phelps Wilder, Winnetka, and Casimir Czernik, Chicago, Ill., assignors to Chicago Rawhide Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application February 20, 1956, Serial No. 566,568
6 Claims. (Cl. 288—3)



1. A seal for insertion in a bore in a housing about a centrally located shaft for sealing off the opening between the housing and the shaft, said seal being characterized by a centrally apertured cup having a bottom and a rim, an annular sealing member mounted in the cup, a centrally apertured closure washer which is positioned in the cup substantially flush with the edge of the rim of the latter, a narrow inturned edge on the rim of the cup for retaining the washer in position, an annular gasketing member of rubber-like material which is clamped between the outer portion of the washer and said inturned edge, with an exposed portion of said gasket protruding axially beyond said inturned edge to provide an annular gasket.

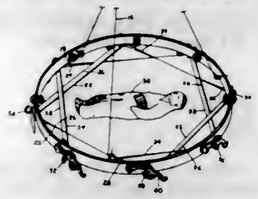
2,838,334
GATE LATCH
Alexander M. Cornwell, Jr., and Stanley F. Jackes, University City, and Salvatore Strano, St. Louis, Mo., assignors to Jackes-Evans Manufacturing Company, St. Louis, Mo., a corporation of Missouri
Application May 21, 1956, Serial No. 586,253
1 Claim. (Cl. 292—299)



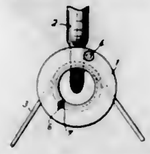
A gate latch comprising a mounting member adapted to be secured to a gate post, said mounting member having a supporting wall with spaced tabs projecting therefrom, said tabs having free edges, stop lugs connected to the ends of the supporting wall and projecting therefrom in the same direction as said tabs; retaining means encasing said supporting wall of said mounting member, said retaining means having a wall in spaced relationship with said supporting wall and the free edges of said tabs; and a pair of latch members each of which includes a disc wall positioned in the space between the wall of said retaining means and the free edge of one of said tabs, and an annular axially extending side wall connected to the periphery of each disc wall and positioned in circumscribing relation with one of said tabs, said latch members being slidable relative to said tabs and the axial extent of said latch member side walls being greater than the distance between the wall of said retaining means and the free edges of said tabs whereby the latch member side walls are adapted to abut the tabs to normally support the latch members thereon.

2,838,335
RETRIEVING APPARATUS
George M. Bulvid, Moorestown, N. J.
Application February 3, 1955, Serial No. 485,904
14 Claims. (Cl. 294—67)

1. A litter for retrieving objects comprising a rigid endless frame having a hollow interior, a plurality of spaced securing means attached around said frame, elastic bands extending across the hollow interior of the frame in the form of a litter and secured to said securing means, release means secured to said frame and adapted to releasably retain each adjacent elastic band intermediate its ends, whereby a large opening in the hollow interior is provided and means on said release means adapted to release the elastic band to its original litter position.



2,838,336
ROPE SLING
Jean Francois Archer, La Celle Saint Cloud, France
Application January 7, 1955, Serial No. 480,404
Claims priority, application France January 12, 1954
4 Claims. (Cl. 294—78)



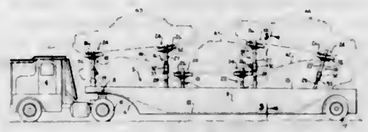
1. A sling comprising a guide member for supporting and guiding a line having spans to be attached to a load to be lifted, said guide member having an aperture so as to be releasably engageable by a lifting hook, said aperture being arcuate in configuration and of a dimension permitting rotational movement between said hook and said line guide member, means on said guide member for releasably engaging said hook for keeping said guide member from rotating relative to the hook when lifting a load, means disposed on the guide member for engaging the line to releasably hold the line on said guide member so as to stop relative movement between the line and said guide member, said means for keeping the guide member from rotating relative to the hook being constructed and positioned on said guide member for precluding rotation of said guide member on the hook and said aperture being positioned beenath an apex formed by spans of said line, whereby when a load is applied the weight of the load is distributed on the spans of the line and the load can be picked up without substantial swinging laterally of said hook and in a selected upright position.

2,838,337
BRAILING BLOCK
Ludvik W. Wilhelmsen, Vancouver, British Columbia, Canada
Application October 8, 1956, Serial No. 614,490
7 Claims. (Cl. 294—83)

1. A brailing block adapted for suspension from a haul line and having spaced sides, a lever pivotally mounted intermediate its ends upon a pin carried between said sides, a latch seat associated with the lower end of said lever, a latch arm swingingly mounted at one end between said sides and normally supported at its free end upon said latch seat, a hand line connected at one end to the free end of said latch arm, said hand line having running engagement with the upper end of said lever and extending outwardly from the block, a load supporting member having a slot at its upper end, said latch arm normally extending through said slot to support the member within the block, said lever being rockable in response to a pull exerted upon the hand line to withdraw the latch seat from beneath the latch arm and said member being supported in a bight formed in the hand line when the load supporting member is released from the block.



2,838,338
DISMOUNTABLE SUPERSTRUCTURE FOR TRANSPORTING VEHICLES
Sam D. Kerley, Kenosha, and George C. Kalb, Rochester, Wis., and Oscar C. Finkel, Wadsworth, Ill., assignors to Nicholas Demos, Kenosha, Wis.
Application November 7, 1955, Serial No. 545,338
7 Claims. (Cl. 296—1)



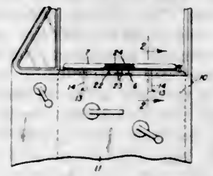
3. In an automobile transport device of the type having opposite substantially low elongated side walls and a bottom portion extending between said side walls for supporting automobiles in a low level transit position on the device, dismountable superstructure means for supporting automobiles in elevated transit positions on the device, comprising: longitudinally spaced pairs of laterally opposite upright posts having lower portions thereof non-rotatably stepped in socket members on the side walls and endwise removable therefrom, said posts having upper portions extending a distance above the upper edges of the side walls; a load carrying device on each post, comprising a rigid tubular arm fixed at one end to the upper portion of its post and projecting substantially horizontally therefrom in a direction traversely inwardly of the transport device, a channel-shaped track section, and means detachably mounting said channel-shaped track section upon said arm with the track section extending crosswise thereof and lengthwise with respect to the device; the upper and lower portions of each post of at least one pair of laterally opposite posts comprising similar separate upper and lower post sections; means detachably mounting said upper post sections upon their respective lower post sections with the upper and lower post sections coaxial; and a tie-down mechanism carried by each upper post section and including a rotatable tie-down shaft rotatably journalled in said tubular arm and extending lengthwise therethrough with both ends of the shaft accessible, a tie-down hook on the exposed end of the shaft which is adjacent to the outer end of said arm, and means on the opposite end of the tie-down shaft alongside said upper post section for imparting rotation to the shaft and for releasably holding the same in different positions of rotation.

2,838,339
MOTOR VEHICLE BODY MOUNT
Arthur L. Schaldenbrand, Farmington, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application May 20, 1955, Serial No. 509,815
3 Claims. (Cl. 296—35)



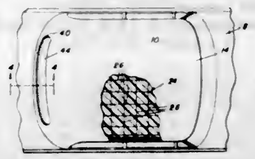
3. A body mount for connecting a motor vehicle body part to an apertured motor vehicle frame part, comprising a pair of apertured resilient insulators positioned on opposite sides of said frame part, a pair of retaining members adjacent the outer sides of said insulators and having offset central portions extending into the apertures in said insulators, and abutting each other, means associated with the offset central portions of said retaining members and securing said retaining members to each other and clamping said insulators to said frame part to form an assembly thereon, and fastening means engageable with said means and securing said body part to said frame part through said resilient insulators.

2,838,340
DEMOUNTABLE AND DISASSEMBLABLE ARMREST FOR VEHICLE WINDOW SILLS
Cecil R. Johnson, Willoughby, Ohio
Application August 9, 1957, Serial No. 677,395
2 Claims. (Cl. 296—49.2)



1. An armrest for use on motor vehicle doors of the type including a vertically slidable glass, said armrest comprising: an elongated horizontal plate including duplicate, end-abutting separable half sections having depending marginal flanges, pads on said half sections, a flexible, removable cover on the plate securing the half sections together, and means for removably securing the plate on the upper edge of the glass.

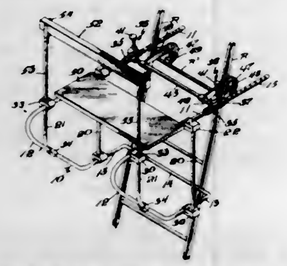
2,838,341
ROOF CONSTRUCTION FOR VEHICLES
Richard Albert Watson, Kitzbuehel, Austria
Application March 27, 1956, Serial No. 574,294
3 Claims. (Cl. 296—137)



1. A removable top or roof for an open top vehicle comprising an inflatable, flexible body member, said body member including an inner and an outer layer of flexible material, means air-tightly sealing the peripheral edges of the layers together and spacing them apart, valve means carried by one of the layers to inflate and deflate the body member and locking means carried by said first

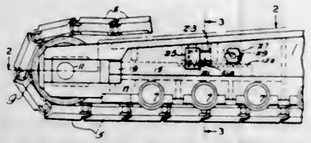
named means for detachably securing the body member on the body of an open top vehicle, a separate reinforcing grid of first thin flexible elements embedded in each of said layers of flexible material and a plurality of spaced second thin flexible elements connecting the grid in one of said layers to the grid in the other of said layers, said grids each comprising a plurality of crossed first flexible members and said second flexible elements interconnecting each of the cross-over points of one of said grids with an adjacent cross-over point of the other of said grids.

2,838,342
PORTABLE SCAFFOLD
Rene A. Masse, Hackensack, N. J.
Application June 5, 1956, Serial No. 589,433
1 Claim. (Cl. 304—31.5)



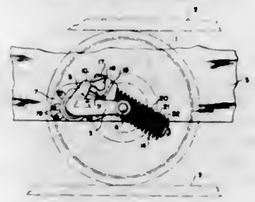
A portable scaffold comprising a frame section including a pair of parallel arms for horizontal disposition, a slidable member received on each of said arms, a cross member connecting said slidable members, a pair of legs mounted on said cross member for axial movement thereon and for swinging movement relative thereto, said legs extending from said cross member and adapted to be passed between the rails of an inclined ladder above a rung thereof and slidable axially of said cross member to engage against the inner side of said rails, abutments extending laterally outwardly from said legs to engage the rear side of said rails, said abutments being fixed to said legs to be held stationary therewith means including a horizontal extending bridge connected to said arms, said bridge extending at a position beneath said arms so as to engage against the front side of said rail, said frame extending outwardly of said rails whereby the weight of said scaffold will tend to rock said frame about said points of engagement with said rail to support said scaffold by the jamming engagement at said bridge and abutments with said ladder rails.

2,838,343
ENDLESS TRACK TAKE UP AND LOCK
Gerald Stuart Jenkins and Allton B. Jackson, Nashville, Ill., assignors, by mesne assignments, to National Mine Service Company, Pittsburgh, Pa., a corporation of West Virginia
Application January 5, 1956, Serial No. 557,584
7 Claims. (Cl. 305—9)



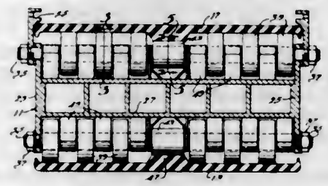
1. In a vehicle having a frame and an endless track including a plurality of links pivotally connected to each other and having spaced rollers over which the track passes, at least one of said rollers having journal bearings positioned at opposite sides of the track and independently movable lengthwise of the track, a single backing for both of said bearings movable lengthwise of the track and positioned intermediate said bearings, means for taking up slack in the track comprising a block-like member between said backing and an opposed face on the frame, said block-like member being accessible from the outer side of the vehicle for removal from the insertion into its functioning position by movement transversely of the frame, there being a series of cooperating selectively interengageable elements on said backing and member.

2,838,344
BOGIE-WHEEL SUSPENSION FOR TRACKED VEHICLES
Wolfgang Eyb, Stuttgart, Zuffenhausen, Germany, assignor to Porsche System Engineering Ltd., Zug, Switzerland
Application June 23, 1955, Serial No. 517,619
Claims priority, application Switzerland July 2, 1954
4 Claims. (Cl. 305—9)



1. A tracked vehicle including a body having bogie wheel units mounted thereon, the combination in which at least one of said bogie wheel units comprises a readily detachable bearing bracket attached to and projecting from the side of the body of the vehicle, the bogie wheel unit being mounted on the body solely by means of its readily detachable bearing bracket, a suspension arm one end of which is pivoted to the bearing bracket on an axis transverse to the direction of travel of the vehicle, said suspension arm extending longitudinally of the vehicle from its pivoted end and terminating in a movable end, an outwardly projecting stub axle carried on the movable end of the suspension arm, a bogie wheel journaled on the stub axle, a second arm having one end fixed to the pivoted end portion of the suspension arm, the second arm extending upwardly from the pivoted end portion of the suspension arm at an acute angle thereto and terminating in a movable end, and spring means attached to the movable end of the second arm and arranged to yieldably bias the suspension arm downwardly to apply a load on the bogie wheel, said arms and spring means being located within the bounds of the inner rim portion of the bogie wheel and protected by the bogie wheel.

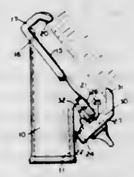
2,838,345
TRACTION DEVICE
John C. Miller, Schenectady, N. Y.
Application August 17, 1954, Serial No. 450,312
5 Claims. (Cl. 305—10)



1. A traction device including a rigid frame, support rollers journalled on said frame adjacent the opposite

ends thereof, an endless belt extending around said support rollers and having vertically spaced upper and lower reaches, a plurality of spaced shafts supported on said frame and extending transversely thereof above the lower belt reach, a plurality of spaced apart shafts supported on said frame and extending transversely thereof below the belt upper reach, a plurality of spaced-apart rollers journalled on each of said shafts and engaging the adjacent belt portion, bearing means journalling each roller on its shaft, shaft support means adjacent each roller rigidly supporting each of said shafts on said frame, the rollers on one shaft being offset from alignment with the rollers of an adjacent shaft and said rollers being disposed in an overlapping relationship with respect to each other so as to provide a nesting roller arrangement engaging the upper and lower reaches of the belt.

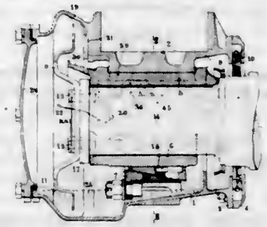
2,838,346
BRUSH HOLDER
Albert Walter Lindberg, Jr., Bayonne, N. J.
Application January 30, 1957, Serial No. 637,123
1 Claim. (Cl. 306—1)



A brush holder comprising a socket with an upwardly extending bore to receive a handle and provided with a set screw to secure the handle in place, and a seat to receive the back of the brush and which extends diagonally of the socket, said seat being provided with a flanged portion at its upper end which engages one longitudinal edge of the brush back, a web extending between the socket and the lower end of the seat and having a threaded hole extending inwardly from the lower face of the web generally parallel with the face of the seat, and a headed screw received in said hole, the lower end of the seat and the adjoining portion of said lower face being cut away, and a clamping plate secured by means of said screw to said lower face of the web and provided with a flange to engage the opposite longitudinal edge of the brush back, a pair of upwardly extending lugs carried by the clamping plate which straide the web and retain the plate against rotation.

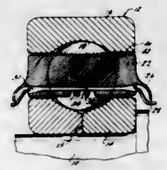
2,838,347
OIL COLLECTOR AND DISTRIBUTOR FOR MECHANICALLY-LUBRICATED AXLE-BOX
Jean Bouvat-Martin, Paris, France, assignor to Société Anonyme dite: Societe Generale Isothermos, Paris, France
Application December 16, 1955, Serial No. 553,605
Claims priority, application France December 31, 1954
3 Claims. (Cl. 308—86)

1. An oil collecting and distributing device comprising an axle, an axle-box for said axle having an oil sump therein, an upper bearing engaging the upper portion of said axle having a feed cavity, ducts leading from said cavity to said upper portion of said axle, a lower bearing mounted under the lower portion of said axle having upper edges sloping toward said axle, an oil-elevating member rotatably driven by said axle supplying said feed cavity with oil drawn from said oil sump, the inner surface of said axle-box in which said oil-elevating member rotates being formed at its upper portion with a slope inclined inwardly to direct towards said feed cavity any oil projected by said oil-elevating member against said last named upper portion, said inner surface having two inner troughs disposed slightly above the level of the two upper edges of said lower bearing and inclined



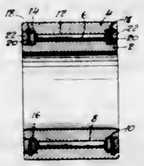
slightly towards said two upper edges respectively so as to discharge thereon that fraction of the oil projected by said elevating member against said inner surface which has not streamed down to said feed cavity.

2,838,348
HIGH SPEED ANTI-FRICTION BEARINGS
Clarence Lockwood Hamm, Marblehead, Mass., assignor to General Electric Company, a corporation of New York
Application April 17, 1956, Serial No. 578,749
5 Claims. (Cl. 308—187)



1. A high speed bearing comprising an inner ring and an outer ring, a bearing cage positioned between the rings having members therein, at least one annular shroud on the cage forming a reservoir for oil, the reservoir being adapted to receive oil from a source of lubricating oil, an axial passageway in said cage connected to the reservoir, at least one annular groove on the inner surface of the cage intersecting the axial passageway so as to receive oil from the reservoir.

2,838,349
NEEDLE BEARING ASSEMBLY WITH SEALING MEANS
Leonhard A. Maas, Trenton, N. J., assignor to The Smith Bearing Company, Inc., Trenton, N. J., a corporation of New Jersey
Application June 7, 1957, Serial No. 664,423
5 Claims. (Cl. 308—187.2)



1. A roller bearing assembly comprising an inner race member having a bearing race thereon, an outer race member with a complementary race thereon, a complement of rollers located between said race members and engaging said races, a thrust ring carried by one of said race members and extending beyond the adjacent edge of the race on the other race member, a sealing ring positioned adjacent the thrust ring, and a retaining ring serving to clamp one edge of the sealing ring into fixed po-

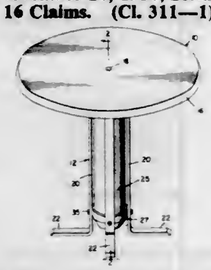
sition with respect to the thrust ring, the opposite edge of the sealing ring projecting beyond the thrust ring and into sealing relation with the other race member.

2,838,350
TOOL SPINDLE
Joseph Grewe and John Grewe, Cincinnati, Ohio
Application September 14, 1955, Serial No. 534,300
2 Claims. (Cl. 308—189)



1. A tool spindle comprising a tool holding shaft, a pair of bearings fixed on said shaft, a housing engaged over said bearings, and a spacer sleeve between said bearings, said sleeve having a longitudinal slot therein greater in width than the diameter of said shaft.

2,838,351
GARDEN UMBRELLA TABLE HAVING BALLAST MEANS
John Siconolfi and Edward W. Siconolfi, Yonkers, N. Y.
Application November 26, 1956, Serial No. 624,413
16 Claims. (Cl. 311—1)



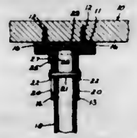
1. A ballasted garden umbrella table comprising a flat top body, said top body including a depending surrounding flange, supporting structure for and beneath said top body and comprising leg units each having an upper end portion adapted to bear against the underside of the top body and fit against the inner side of said depending flange and a lower ground engaging end, means coupling said leg units together, a ballast receptacle supported beneath the top body between and in engagement with the leg units and maintaining the upper end portions of the leg units against the inner side of the flange, said top body having a central opening therein for reception of a standard and said receptacle having an opening in line with the top body opening for receiving said standard.

2,838,352
FOLDABLE TABLE
William P. Kennedy, Marietta, Ga.
Application April 5, 1955, Serial No. 499,263
3 Claims. (Cl. 311—28)



1. In a table, a supporting body including a supporting surface, a pair of legs for supporting said body from a surface, means for pivotally mounting said legs for movement to and from a plane parallel with said body, means for pivotally mounting said legs for pivotal movement in a plane normal to said body, and means for retaining said legs in pivotally adjusted position with respect to the plane of said body and in a plane normal thereto.

2,838,353
FOLDING LEG HINGE AND LATCH STRUCTURE
Roland C. Emmert, St. Louis, Mo.
Application September 21, 1956, Serial No. 611,234
3 Claims. (Cl. 311—99)



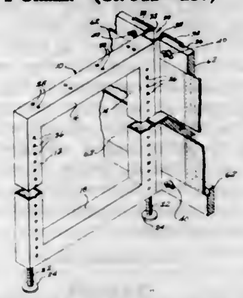
1. A folding leg hinge and latch structure comprising a bracket, a leg located adjacent said bracket, the bracket being provided with an elongate slot aligned with the longitudinal axis of said leg when in an extended position, a hinge pin carried by said leg and received in said slot, the leg having a tubular end, a stop member normally interfitting the tubular leg end when the leg is disposed in an extended locked position to prevent pivotal movement of said leg, the hinge pin being movable to another position in said slot so that said stop member operatively disengages the tubular leg end to permit pivotal movement of said leg from the extended position to the folded position, the bracket including a shoulder disposed at one side of the slot transversely in the path of the leg and engaging the leg end to move the hinge pin along said slot upon folding and extending said leg.

2,838,354
AUTOMATIC CIGARETTE ASH TRAY
Harold R. Bohnsack, Billings, Mont.
Application May 10, 1955, Serial No. 507,313
1 Claim. (Cl. 312—246)



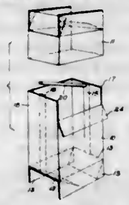
In an ash tray for use in an instrument panel of a motor vehicle, the combination which comprises a cylindrical housing having an open end and a closed end formed to be installed in an opening of an instrument panel of a vehicle, a cylindrical tray poistioned in the housing and mounted to slide longitudinally therein, a closure plate carried by the end of the tray extended from the open end of the cylindrical housing, said tray having a cigarette butt receiving opening in the upper portion, the closed end of the housing having a packing gland therein, a piston rod extended through the packing gland of the housing, a latch for connecting one end of the piston rod to the cigarette butt receiving tray, means for actuating the latch from the end of the tray in which the opening is positioned, a cylinder aligned with and extended from the cylindrical housing, a piston in said cylinder, means for connecting the piston to the piston rod, connections in opposite ends of the cylinder extended to a vacuum supply, and a manually actuated valve in said connections for supplying vacuum, selectively, to opposite ends of the cylinder for extending and retracting the cigarette butt receiving ash tray.

2,838,355
KNOCKDOWN STORE FURNITURE
Richard L. Crowther, Denver, Colo.
Application March 9, 1954, Serial No. 414,952
1 Claim. (Cl. 312—257)



In knockdown store furniture, two laterally spaced vertical open frames having front and rear vertical members, vertically extending hook flanges on and projecting laterally inwardly from said rear vertical members, said hook flanges terminating in forwardly directed vertical flanges, said hook flanges having front and rear sides, a back panel extending between said rear frame members at the front sides of said hook flanges, said panel having a rear side and a front side, the rear side of the panel being provided with vertical grooves receiving the vertical flanges of the hook flanges, and bolts fixed in the hook flanges and projecting forwardly therefrom and traversing the back panel and securing the back panel in place.

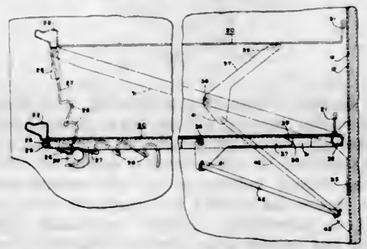
2,838,356
REINFORCING HANGER MEANS FOR A COLLAPSIBLE WARDROBE
David T. Lane, Dallas, Tex., assignor to Lane Container Co., Dallas, Tex.
Application January 17, 1955, Serial No. 482,245
5 Claims. (Cl. 312—259)



1. In a collapsible wardrobe characterized by an elongated rectangular tube having a flap closure for one end and an open end, the combination therewith which comprises two inside cleats of length equal the height said tube and secured to opposed side panels thereof, the entire contacting surfaces between said cleats and said side panels in the region of the open end of said tube being intimately bonded by adhesive, notches in the ends of said cleats at the open end of said tube having dovetail configuration, a hanger bar having a configuration complementary with said notches of length equal to the distance between said panels and closure means for said open end.

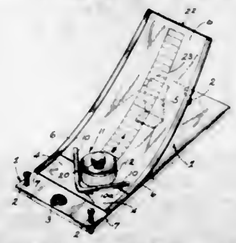
2,838,357
VERTICALLY ADJUSTABLE REFRIGERATOR SHELF
Lester M. Miller, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 27, 1956, Serial No. 630,822
9 Claims. (Cl. 312—306)

8. In a cabinet provided with a plurality of walls forming a compartment therein, a shelf within said compartment, means for supporting said shelf in said compartment and for varying the height thereof while supported therein, said means comprising opposed stationary shelf supports at the front of said compartment, a rail extending along each of the compartment side walls, the front end of said rails being hingedly attached to a front portion of said shelf and having their rear ends pivotally anchored to an upright wall of said compartment, a forward portion of said rails normally being supported on said shelf supports and supporting said shelf at a predetermined height within said compartment, cam means pivotally mounted upon each of said rails intermediate the ends thereof, said cam means each having a free end adapted to engage a rear portion of said shelf and another end spaced from the pivotally mounting thereof, a



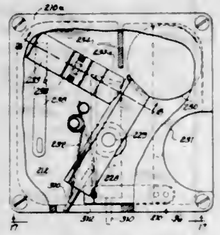
tying link for each of said cam means having an end hingedly attached to said another cam end and having its other end pivotally anchored to said compartment upright wall below the pivotal anchorage of said rails thereto, the front of said shelf being manually movable upward relative to said stationary supports to swing said rails about their pivotal anchorage and cause said links to coact between said cam means and said upright compartment wall to rotate said free end of the cam means whereby to elevate the rear portion of said shelf simultaneously with the upward movement of the front thereof, and means carried by the front portion of said shelf and movable relative thereto into engagement with said stationary supports for holding the shelf in said elevated position with respect to said shelf supports.

2,838,358
BRAKE EFFICIENCY RECORDER
George Warren Wattles, Jr., Shaker Heights, Ohio
Application February 23, 1954, Serial No. 411,996
15 Claims. (Cl. 346—7)



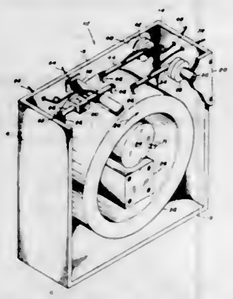
1. A brake efficiency recorder comprising a base portion; an inclined slide portion supported by and extending upward from the base portion; retaining elements along the sides of the slide portion; a recording surface on the slide portion between the retaining elements; a stop at the lower end of the recording surface; and, for movement away from the stop in a direction extending toward the upper end of the recording surface, a movable marking device in contact with and adapted to leave a trace on the recording surface, said marking device being free to move laterally into contact with the retaining elements along the sides of the slide portion.

2,838,359
SYSTEM AND APPARATUS FOR RECORDING THE LISTENING HABITS OF WAVE SIGNAL RECEIVER USERS
Fred Krahulec, Skokie, Ill., assignor to A. C. Nielsen Company, Chicago, Ill., a corporation of Illinois
Application March 2, 1950, Serial No. 147,302
17 Claims. (Cl. 346—22)



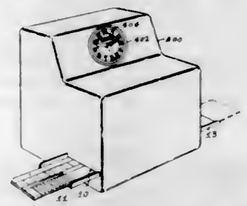
6. A recorder comprising a housing, a magazine receptacle in said housing, a magazine capable of being inserted into said receptacle, means for supporting a record receiving element in said magazine, means for effectively producing record indications on said record receiving element, means for ejecting said magazine from said receptacle, an interference member associated with said magazine and capable when rendered effective to prevent insertion of said magazine into said receptacle, means for maintaining said interference member ineffective, and means responsive to insertion of said magazine into said receptacle for releasing said last mentioned means whereby upon removal of said magazine from said receptacle said interference member prevents reinsertion thereof.

2,838,360
SIMPLIFIED CRASH DATA RECORDER
John V. Foster, Los Altos, Calif.
Application February 16, 1955, Serial No. 488,728
4 Claims. (Cl. 346—74)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In an aircraft, an aircraft crash data recorder comprising a container, a drum having a magnetizable surface thereon, said drum being mounted for rotation about its axis in said container, an electric motor within said drum and connected therewith by gear means, whereby said drum may be rotated, at least first, second, and third recording heads, each having a width substantially less than one-third of the width of said surface positioned near said surface and spaced widthwise thereof, a plurality of actuating means in said container respectively connected to said first, second, and third recording heads, each of said actuating means being operative in response to a change in value of a parameter to move its associated recording head laterally of the path of motion of said magnetizable surface, whereby a magnetic record of the values of said parameters is impressed upon said surface, said magnetic record consisting of a plurality of lines, equal in number to said recording heads, of magnetized particles having spacial distributions corresponding to the values of said parameters, a magnetic erase head, sized to substantially span the width of said surface, positioned near said surface ahead of and in proximity to said recording heads, and means, adapted to be connected to an aircraft electrical system, to supply current to said motor, at least one of said actuating means comprising a lever having one end connected to one of said recording heads, a mass on said lever intermediate the ends thereof, a bracket mounted on said container, a pivot connected to the other end of said lever and rotatably supported in said bracket, means in said bracket yieldingly urging said pivot to one position, said lever being in a plane perpendicular to said drum axis when said pivot is in said one position.

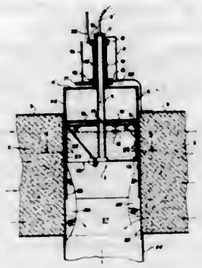
2,838,361
TIME RECORDING APPARATUS
Albert James Findlay, Montreal, Quebec, John Archibald MacDonald, City View, Ontario, and George Craven Widdup, Ottawa, Ontario, Canada, assignors to Canadian Patents and Development Limited, Ottawa, Ontario, Canada
Application April 22, 1955, Serial No. 503,302
8 Claims. (Cl. 346—83)



7. In an electrically operated card punching time recorder of the card actuated type having means for progressively selecting a series of time indicating punches in time related sequence and means to actuate said punches including a control relay and a circuit connecting said relay to a driving motor; a card advancing means comprising in combination, a card receiver having an entry end and a discharge end, a control switch having a lever arm disposed in the path of a card passing into the entry end of said card receiver, spaced apart opposed sets of fixed and movable card engaging rollers mounted above and below said card receiver with one of said sets of rollers mounted for movement towards and away from the other set, electrically controlled means for moving said one set of rollers, circuit means connected to said switch and controlling said roller moving means, roller driving means connected to one set of said opposed rollers, a driving motor connected to said roller driving means and to said switch controlled roller moving means, a further lever disposed in the path of said card passing along said receiver, a control switch connected to said lever and a solenoid disposed above said card receiver, an armature connected to said solenoid, a resiliently biased card sensing rod connected to said armature, a switch including a switch arm in the path of said armature and being connected to said solenoid, whereby entry of a card into said card receiver is adapted through said first switch to actuate said driving motor and roller moving means to cause said rollers to engage and move said card towards said card receiver discharge end, and actuation of said further lever by said card causes said sensing rod to move into contact with said card and on said sensing rod passing through said card perforation said armature contacts said switch arm to operate said roller moving means moving said movable rollers away from said card.

2,838,362
APPARATUS FOR ATOMIZING LIQUIDS
Alan A. Robert, Los Angeles, Calif., and Othmar Eckstein, Tradate, Italy, assignors to Coachcraft, Ltd., Hollywood, Calif., a corporation of California
Application December 22, 1954, Serial No. 476,950
Claims priority, application Germany December 24, 1953
6 Claims. (Cl. 261—83)

1. An apparatus for atomizing liquids, comprising a container for holding the liquid to be atomized, a cylinder surrounding the periphery of the container in close relation and being provided with a band of perforations adapted to surround the container, the peripheral wall of the container being provided with liquid distributing means closely adjacent to the cylinder and registering with said band of perforations for supplying liquid to the perforations when the band surrounds the peripheral wall of the container at the position of the distributing means, a gas flow pocket carried by the container open through the periphery of the container to the surrounding cylinder but closed off with respect to the interior of the container, means for effecting relative rotation of the cylinder and container to bring liquid-filled perforations of the cylinder and the gas flow pocket of the container into register with each other, means for effecting relative axial movement of the cylinder and container to vary the extent of overlap between the band of perforations and the liquid distributing means, and means for conducting



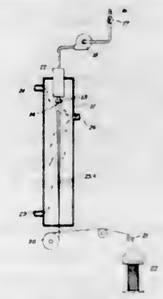
a gaseous atomizing medium to the perforated band of the cylinder to effect atomization of the liquid in the liquid-filled perforations of the cylinder when they are in register with the gas flow pocket in the container.

CHEMICAL

2,838,363
METHOD OF PREPARING FILAMENTS AND SHEETS FROM PROCOLLAGEN
Arthur Veis and Jerome Cohen, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application October 19, 1954
Serial No. 463,332
7 Claims. (Cl. 18—54)

1. The method of producing a material of relatively high wet strength from procollagen, comprising converting an aqueous acid solution of procollagen to a gel by dialyzing said solution against water, said dialysis being carried out at a rate slow enough to form a gel having a substantially homogeneous appearance to the naked eye, aging the homogeneous gel in water to increase its cohesive strength, and then applying stress with a directional orientation to the aged gel while exuding water therefrom.

2,838,364
DRY SPINNING PROCESS
Arthur S. Smith, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application January 7, 1955, Serial No. 480,486
3 Claims. (Cl. 18—54)



1. The method of forming cellulose organic acid ester filaments having a relatively high bulk and of a closed C-shaped cross-section, which comprises extruding a cellulose organic acid ester filament forming solution through a spinnerette equipped with extrusion orifices in the form of a sector of a circle the arcuate boundary of which is subtended by an angle of 210 degrees, and into a dry spinning cabinet, drafting the thus formed C-shaped cross-section filaments while drying the filaments at a temperature within the range of 80 to 90° C. whereby the cross-section of the filaments is changed to said closed C-shaped cross-section.

2,838,365
DRY SPINNING PROCESS
Charles A. Jarrett, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 21, 1955, Serial No. 554,587
5 Claims. (Cl. 18—54)



1. The method of forming cellulose organic acid ester filaments with a flat cross-section, which comprises extruding a cellulose organic acid ester filament forming solution through a spinnerette equipped with orifices in the form of a hexagon having two parallel sides of equal length and of greater length than the other sides of the hexagon all of which said other sides are of the same length, the vertex angles midway between said parallel sides being equal and within the range of 30 to 130 degrees, drafting the thus formed filaments at a draft ratio within the range of approximately 0.4 to 0.5 while drying the filaments at an average temperature within the range of 60° C. to 90° C. whereby a flat cross-section filament is produced.

2,838,366

OXIDATIVE METHOD OF SEPARATING PLUTONIUM FROM NEPTUNIUM

Loren J. Beaufait, Jr., Richmond, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application March 25, 1948 Serial No. 17,118

10 Claims. (Cl. 23—14.5)

1. A process for the preferential oxidation of neptunium in an aqueous solution containing neptunium and plutonium each in a valence state not greater than +4 and mineral acid in a concentration of at least 4 N, comprising digesting said solution in the presence of dichromate ions at a temperature of below 50° C.

2,838,367

U-EXTRACTION—IMPROVEMENTS IN ELIMINATION OF Mo BY USE OF FERRIC ION

Herbert M. Clark, Troy, N. Y., and Dick Duffey, La Fontaine, Ind., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 8, 1948 Serial No. 31,834

8 Claims. (Cl. 23—14.5)

1. A method of recovering uranium values from aqueous solutions containing uranium values and molybdenum values which comprises adding ferric ions to the solution, and thereafter extracting the uranium values by contacting the solution with a substantially water immiscible selective organic solvent.

2,838,368

TREATMENT OF AMMONIUM NITRATE SOLUTIONS

Thomas William Boyer, John George MacHutchin, and Leo Yaffe, Deep River, Canada, assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 28, 1948 Serial No. 35,746

6 Claims. (Cl. 23—14.5)

6. A method of treating aqueous solutions containing ammonium nitrate and fission products which comprises slowly adding the solution to an excess of hot acetic anhydride without external heating, heating the mixture to complete transformation of the ammonium nitrate, distilling the remaining mixture to near dryness and adding nitrogen dioxide to the mixture containing small volume of acetic anhydride and acetic acid while distilling the mixture.

2,838,369

PROCESS FOR THE CONCENTRATION OF ORES CONTAINING GOLD AND URANIUM

Antoine M. Gaudin, Newtonville, and John Dasher, Reading, Mass., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 26, 1949 Serial No. 73,008

7 Claims. (Cl. 23—14.5)

1. A process of jointly concentrating the gold and uranium values from a low grade gold and uranium bearing ore which contains large amounts of quartz gangue and also some foliated silicate minerals, pyrite and carbonaceous material which comprises subjecting the ore to a froth flotation process at a pH between 5 and 8 employing a fatty acid collector, a supplementary xanthate collector and a frothing agent.

2,838,370

RECOVERY OF URANIUM AND THORIUM FROM AQUEOUS SOLUTIONS

George D. Calkins, Worthington, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 9, 1952 Serial No. 281,470

13 Claims. (Cl. 23—14.5)

8. A process of separating uranium values from thorium values contained in an aqueous alkali carbonate solution comprising thoroughly contacting said solution with a strong-base anion exchange resin whereby the uranium values are adsorbed while the thorium values remain in solution, and separating the uranium-containing resin from the thorium-containing solution.

2,838,371

METHOD OF SEPARATING PLUTONIUM FROM LANTHANUM FLUORIDE CARRIER

George W. Watt, Austin, Tex., and Robert H. Goeckermann, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application October 30, 1947 Serial No. 783,218

2 Claims. (Cl. 23—14.5)

1. The method of separating plutonium from lanthanum ions in an aqueous 0.5 to 2.5 N nitric acid solution which comprises treating the solution at room temperature with $(NH_4)_2SO_3$ in an amount sufficient to reduce the hexavalent plutonium present to a lower valence state, and then treating the solution with H_2O_2 thereby forming a tetravalent plutonium peroxide precipitate.

2,838,372

PRODUCTION OF ELEMENTAL PHOSPHORUS AND FERROUS CHLORIDE

John F. Gall, Narberth, and Gerhard Barth-Wehrenalp, Elkins Park, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

No Drawing. Application July 5, 1955 Serial No. 520,106

6 Claims. (Cl. 23—87)

1. In the recovery of iron and phosphorus from ferrophosphorus the process comprising heating ferrophosphorus with at least one material of the group consisting of chlorine, phosphorus trichloride, phosphorus pentachloride and $(FeCl_3)_3 \cdot PCl_5$ in an amount insufficient to fully chlorinate said ferrophosphorus, at a temperature of 500° to 700° C. to form elemental phosphorus and ferrous chloride and separating said elemental phosphorus as formed.

2,838,373

METHOD FOR TREATMENT OF SPENT HYDROCHLORIC ACID PICKLE LIQUOR FOR THE RECOVERY OF IRON OXIDE, AMMONIUM SULPHATE AND HYDROCHLORIC ACID

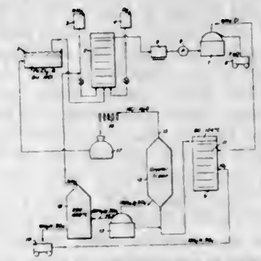
Charles D. Stricker, Shaker Heights, Ohio, assignor to United States Steel Corporation, a corporation of New Jersey

Application May 23, 1956, Serial No. 586,810

2 Claims. (Cl. 23—119)

1. In a method of recovering spent hydrochloric-acid pickle liquor, the steps including introducing ammonia and oxygen into the liquor thereby to convert it to a complex ferroso-ferric hydrated oxide and an aqueous solution of ammonium chloride, collecting the oxide and reacting the chloride solution with ammonium bisulphate

at a temperature of from 80 to 124° C. to produce a mixed solution of ammonium sulphate and hydrochloric



acid, then boiling off the hydrogen chloride and crystallizing the sulphate from the last mentioned solution.

2,838,374

PROCESS FOR THE PRODUCTION OF SODIUM SULPHIDE

Heinz Beyer, Koln-Stammheim, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application June 27, 1956 Serial No. 594,104

Claims priority, application Germany June 29, 1955

2 Claims. (Cl. 23—134)

1. In a process for the production of pure anhydrous sodium sulfide free from iron, the step which comprises heating the melt obtained by reduction of sodium sulfate with carbon and which contains impurities resulting from the reduction process, with an alcohol, filtering the sodium sulfide solution thereby formed and recovering the sodium sulfide from the said solution by evaporating the alcohol.

2,838,375

ALUMINA CATALYST BASE

John W. Teter, Chicago, and John L. Gring, Homewood, Ill., and Carl D. Keith, Munster, Ind., assignors to Engelhard Industries, Inc., a corporation of New Jersey

No Drawing. Original application February 21, 1955, Serial No. 489,726. Divided and this application February 5, 1958, Serial No. 716,831

1 Claim. (Cl. 23—142)

A catalyst base essentially comprising calcined alumina which is characterized by large pore, high area structure essentially composed of gamma alumina modifications resulting from the drying and calcination of a mixture of precursor hydrous alumina phases containing from about 65 to about 95% of trihydrate, said base after calcining and before use having an area (BET method) of from about 350 to about 550 square meters per gram.

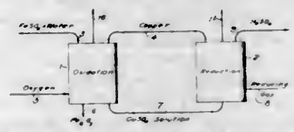
2,838,376

REGENERATION OF SPENT PICKLE LIQUORS

Louis N. Allen, Jr., Short Hills, N. J., assignor to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

Application February 24, 1953, Serial No. 338,191

12 Claims. (Cl. 23—200)



1. A method of treating aqueous ferrous sulfate solutions which comprises admixing copper therewith in a quantity at least equivalent to the amount of iron to be recovered and heating the mixture in the presence of oxygen at temperatures above 400° F. and thereby forming a dense precipitate of easily filterable, black, crystalline iron oxide and a copper sulfate solution.

2,838,377

BLOOD TEST

Dale E. Fonner, Elkhart, Ind., assignor to Miles Laboratories, Inc., Elkhart, Ind., a corporation of Indiana

No Drawing. Continuation of abandoned application Serial No. 148,745, March 9, 1950. This application September 10, 1953, Serial No. 379,468

6 Claims. (Cl. 23—230)

1. A device for testing for blood in fluids, said device comprising in combination, a closed envelope formed of a sheet material which is permeable to electrolytes but impermeable to solid materials and an occult blood detecting composition enclosed therein, said device being adapted to be wetted by and to float to the surface of said fluid to provide a surface of said sheet material above the surface of the said fluid and to develop color on the above surface visible portion of said sheet material when occult blood is present in the fluid.

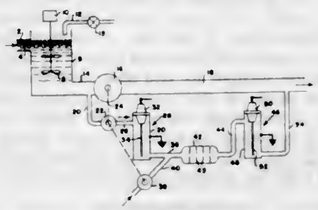
2,838,378

APPARATUS FOR MEASURING AND CONTROLLING ALKALINITY OF NON-AQUEOUS LIQUIDS

Elbert Neil Shawham, Newtown Square, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application October 27, 1950, Serial No. 192,400

3 Claims. (Cl. 23—253)



1. Apparatus for determining the alkalinity of a non-aqueous liquid, comprising means providing conductive plates, means providing a sample of the liquid between said plates to act as a dielectric therebetween, means providing an alternating current source, means applying an alternating potential derived from said source between said plates, and means including a synchronous rectifying device connected to the cell consisting of said plates and the liquid therebetween and to said alternating current source for providing an output signal as a measure of an impedance, having a reactive component, presented between said plates.

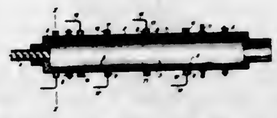
2,838,379

METHOD AND APPARATUS FOR NITROGENATING CALCIUM CARBIDE

Thomas Fischer, Trostberg, Hermann Kronacher, Feldkirchen, near Trostberg, and Franz Kaess, Trostberg, Germany, assignors to Süddeutsche Kalkstickstoff-Werke A. G., Trostberg, Germany

Application July 15, 1955, Serial No. 522,344

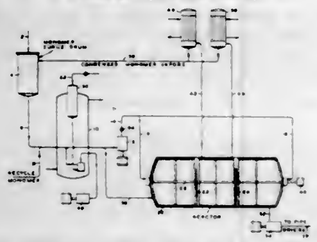
3 Claims. (Cl. 23—279)



1. An apparatus for nitrogenating calcium carbide comprising a rotary kiln, means to feed calcium carbide to

one end of said kiln, means to withdraw calcium cyanamide from the other end of said kiln, spaced peripheral annular chambers on the outer periphery of the kiln, channels in the wall of the kiln connecting said annular chambers with the inside of the kiln, stationary rings sealing said annular chambers against the atmosphere, and means for admitting gas through said rings into said chambers.

2,838,380
POLYMERIZATION APPARATUS
Leonard Kean, New York, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Original application December 14, 1954, Serial No. 475,222. Divided and this application April 2, 1956, Serial No. 579,701
3 Claims. (Cl. 23—285)



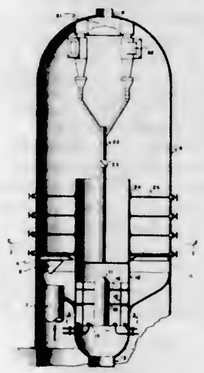
1. In a device of the character described, a vessel having a plurality of partitions positioned in the bottom of said vessel which divide said vessel into sections having open communication at the top, a common hollow rotatable shaft therein and common to each of said sections, a hollow blade secured to said shaft and conforming in shape to the shape of the vessel and closely adjacent to the surface of the vessel whereby said blades function as a scraper, a plurality of orifices in said blade directed only towards the wall of the vessel and means connecting the orifices with the channel in the hollow shaft.

2,838,381
MOVING BED REACTOR
Ludlow S. Daniels, New York, N. Y., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey
Application April 1, 1953, Serial No. 346,131
6 Claims. (Cl. 23—288)



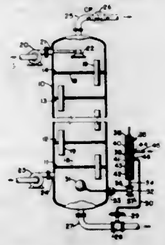
2. A reactor for circulating a mass of solid particles therethrough which comprises a vertically elongated vessel having a closed top head and a plurality of tubular legs in fluid comunication with the bottom of said vessel, an open conduit disposed in each of said legs and extending upwardly through said vessel to a level spaced below said top head, each said conduit being fastened solely by its bottom end to the bottom end of its respective leg with its walls and said bottom end spaced from the walls and bottom end of said respective leg, a fluid inlet disposed in the bottom end of each said leg and discharging into the bottom end of its respective conduit, each said leg and its respective uplift conduit being cylindrical and forming an annular space therebetween, an annular boiler disposed in said annular space, said boiler having a plurality of vertical tubes in parallel for the flow of said solid particles therethrough, said tubes being supported by upper and lower spaced tube sheets, a frusto-conical baffle disposed in each said leg below its respective boiler sloping toward its respective uplift conduit, said baffle providing an annular space below its respective boiler for the collection of said solid particles and another annular space below said baffle, the inner periphery of said baffle being positioned adjacent the bottom end of its respective uplift conduit, an inlet for supplying a fluid stream to said annular space below said baffle, and a plurality of fluid-conveying horizontal decks at spaced levels in said vessel, each said deck comprising at least one box beam with one end thereof in fluid communication through a wall of said vessel with a fluid port, and a multiplicity of parallel rectilinear channels spaced from one another and disposed at substantially right angles to and in fluid communication with said box beam, said channels being in fluid communication with said vessel.

2,838,382
FLUIDIZED CATALYTIC REACTOR
Herman I. Ringgenberg, Whiting, Ind., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine
Application November 15, 1954, Serial No. 468,675
1 Claim. (Cl. 23—288)



A fluid catalytic cracking reactor which comprises a vertical elongated cylindrically-shaped vessel having enclosed upper and lower ends, an outlet in its upper end to permit the exit of product effluent and an outlet in the lower end for catalyst discharge, an elongated cylindrically shaped member of lesser cross section than the vessel and centrally located within the vessel in communication with the catalyst discharge outlet, a grid for supporting a fluid catalyst bed disposed between the vessel and the elongated cylindrically shaped member in the lower portion of the vessel, a catalyst and feed inlet pipe opening into the vessel directly below the catalyst grid, an opening in the wall of said elongated cylindrically shaped member above the grid, valve means in said opening operable from outside the vessel, catalyst deflecting means centrally located within the elongated cylindrically shaped member below the level of the grid which provides a catalyst flow space between the deflecting means and the elongated cylindrically shaped member, separating means extending radially from the catalyst deflecting means defining separate passages for the catalyst flowing downwardly around the deflecting means and through the catalyst discharge outlet of the vessel, means in each of said catalyst passages for injecting catalyst stripping medium, cyclone separator means disposed in the upper part of the vessel, said cyclone separator means having a dip leg for returning catalyst particles to the reaction system which extends into the elongated cylindrically shaped member and terminates at a point below the level of the grid and directly above said catalyst deflecting means.

2,838,383
CONTACTING LIQUIDS BY RECIPROCAL DISPERSION
Harry A. Wistrich, Walnut Creek, Calif, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application December 22, 1955, Serial No. 554,658
12 Claims. (Cl. 23—310)



1. In a reciprocal dispersion method of contacting wherein two at least partially immiscible liquids having different densities are flowed in countercurrent through a series of confined contacting stages situated at progressively different levels and a layer of each of said liquids separated from one another by an interface is maintained within each of said stages, the improvement comprising the steps of: recurrently changing the levels of said interfaces between vertically spaced levels; dispersing liquid of higher density from each stage into the layer of liquid of lower density in the respective adjacent lower stage and simultaneously flowing liquid of lower density from the latter stage to the former stage directly between intermediate levels of said stages when the interface levels are low; and dispersing liquid of lower density from each stage into the layer of liquid of higher density in the respective adjacent higher stage and simultaneously flowing liquid of higher density from the latter stage to the former stage directly between intermediate levels of said stages when the interface levels are high.

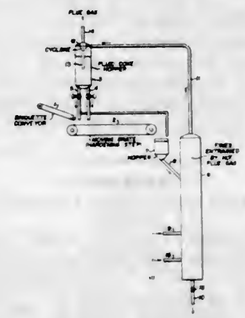
2,838,384
COMBUSTIBLE GEL
Harold F. Sloan, Marquette, and George K. Greminger, Jr., Francis E. Windover, and Samuel M. Rodgers, Jr., Midland, Mich., assignors of one-fourth to Cliffs Dow Chemical Company, Marquette, Mich., a corporation of Michigan, and three-fourths to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application March 11, 1957
Serial No. 645,003
5 Claims. (Cl. 44—7)

1. Combustible gel composition comprising a uniform, extrudable mixture of a hydroxypropyl methyl ether derivative of cellulose; an aliphatic alcohol containing one to three carbon atoms in its molecule; water; and finely divided charcoal proportioned according to the following tabulation:

Ingredient:	Percentage by weight
Cellulose ether	1.5–3.25
Alcohol	55–76
Water	7–15
Charcoal	5–27

wherein the cellulose ether derivative contains from about 5 to 12 percent by weight of hydroxypropoxy groups and from about 27 to 30 percent by weight of methoxy groups, based on the weight of the ether.

2,838,385
STAGED HEAT HARDENING OF FLUID COKE BRIQUETTES
James W. Brown, Mountainside, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application July 27, 1955, Serial No. 524,793
3 Claims. (Cl. 44—23)



1. In the heat hardening of fluid coke briquettes with an agglutinating carbonaceous binder substance at temperatures at which the briquettes normally tend to deform and oxidize, the improvement which comprises the steps of first immersing the briquettes in a non-fluidized bed of finer coke particles at a temperature in the range of 600° to 1200° F., then feeding the mixture of coke particles and briquettes to an upper portion of an elongated, vertical, heat treating zone in which the briquettes are heated to a temperature in the range of 1200° to 2000° F. by hot inert gases entering the heat treating zone at a lower portion at a superficial velocity in the range of 3 to 15 ft. per second, the velocity of the inert gases being such that the briquettes flow countercurrently downwardly in the form of a moving bed while the coke particles are removed and entrained therefrom and returning the coke particles at a temperature in the range of 600° to 1200° F. to the immersion step.

2,838,386
PREPARATION OF FLUID COKE BRIQUETTES
Ralph Burgess Mason, Denham Springs, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application June 28, 1955
Serial No. 518,685
7 Claims. (Cl. 44—24)

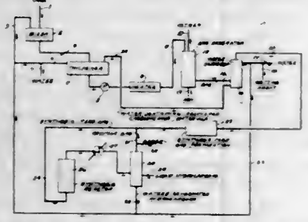
1. A process for preparing stable briquettes from fluid coke particles which comprises the steps of molding at elevated pressure and at a temperature in the range of 50° to 150° F. the fluid coke particles with a volatile hydrocarbon solvent and a carbonaceous binder, said binder consisting of a condensate of the effluent from a fluid coking reactor, having a minimum boiling point in the range of 950° to 1200° F., and having been prepared

by contacting a heavy hydrocarbon oil feed at a temperature in the range of 850° to 1200° F. with a dense, turbulent, fluidized bed of inert solid particles in a coking zone, removing resultant vapors to a fractionation zone and quenching the vapors to a temperature sufficient to condense the condensate binder, the binder and fluid coke particles having first been admixed prior to the addition of the volatile solvent heating the resulting briquettes to a temperature in the range of 300° to 600° F. to expel the solvent and calcining the thus treated briquettes at a temperature in the range of 1800° to 3000° F.

2,838,387
IMPROVED FUEL COMPOSITIONS
Harry W. Rudel, Roselle, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application January 20, 1954
Serial No. 405,259
4 Claims. (Cl. 44—79)

1. A fuel composition for use in internal combustion engines comprising a gasoline to which has been added about 0.001 to 2 wt. percent of a fluorine-saturated polymer of a compound selected from the group consisting of trifluoromonochloroethylene, tetrafluoroethylene, 1-chloro 3-bromo phenyl trifluoroethylene, 2-2 difluoro 1-1 dichloroethylene, hexafluoropropylene, and octafluorobutene, said polymer having a boiling point above 100° C. at 1 mm. Hg and a melting point not higher than 100° C.

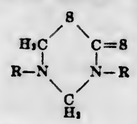
2,838,388
PROCESS FOR GASIFYING CARBONACEOUS FUELS
Charles R. Carkeek, Pasadena, Calif., and Dale M. Strasser, Cuyahoga Falls, Ohio, assignors to The Texas Company, New York, N. Y., a corporation of Delaware
Continuation of application Serial No. 99,908, June 18, 1949. This application April 5, 1954, Serial No. 420,848
2 Claims. (Cl. 48—206)



1. In a process for the production of carbon monoxide and hydrogen from solid carbonaceous fuel wherein a fluid slurry of said fuel in particle form in water is formed, said slurry is passed as a confined stream in turbulent flow through a heating zone wherein said water is vaporized forming a dispersion of said fuel particles in vapor, and said dispersion is subjected to non-catalytic reaction with free oxygen in an unobstructed reaction zone autogenously maintained at a temperature in the range of 2000 to 3000° F. producing a gaseous product comprising mainly carbon monoxide and hydrogen and containing free carbon, the improvement which comprises contacting said product gas with an aqueous solution of a water-soluble oxygenated hydrocarbon wetting agent effecting removal of carbon therefrom and forming a suspension of carbon in said aqueous solution, and admixing said solid carbonaceous fuel in particle form with said aqueous solution containing said recovered carbon suspended therein to form said slurry whereby said water-soluble oxygenated hydrocarbon is subjected to heating and vaporization in said heating zone and is fed into said gasfication zone wherein it is converted to carbon monoxide and hydrogen.

2,838,389
METHOD OF COMBATTING WEEDS
Donald M. Yoder, Yonkers, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application September 3, 1952, Serial No. 307,710
1 Claim. (Cl. 71—2.5)

The method of combatting weeds comprising applying to soil containing weed seeds a phytotoxic amount of a compound having the structural formula



wherein R is selected from the group consisting of methyl and ethyl and both R's are the same.

2,838,390
METHOD OF MAKING METAL-TO-CERAMIC SEALS
Harry Bender, Albertson, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application June 1, 1954, Serial No. 433,608
7 Claims. (Cl. 75—.5)

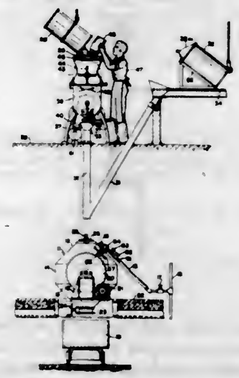


1. A material suitable for the bonding of metal-to-ceramics or ceramics-to-ceramics consisting essentially of a powdered alloy of lead and copper in which the copper ranges from 0.5 to 75% in admixture with powdered titanium in an amount not less than 0.1%.

2,838,391
METHOD OF TREATING SULFUR BEARING MINERAL VALUES WITH MOLTEN SULFUR TO CONCENTRATE MINERAL SULFIDES
John K. Kaufman, Irvington, and Tubin K. Roy, Elizabeth, N. J., assignors to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application October 22, 1953
Serial No. 387,801
7 Claims. (Cl. 75—2)

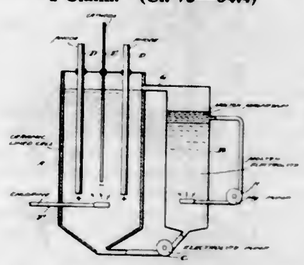
1. A method of treating a mixture comprising sulfur in association with metal values to obtain a concentrate of metal values in processes wherein an aqueous slurry of said mixture is heated to an elevated temperature above the melting point of sulfur to agglomerate the sulfur and said slurry is cooled to solidify the sulfur as pellets, which comprises: subjecting said slurry to said elevated temperature under conditions of time and agitation to form liquid sulfur droplets having therewith an optimum association of said metal values; cooling treated slurry and separating a single solid phase in the form of pellets comprising sulfur and metal values; dispersing said pellets in an aqueous medium to form a slurry; furnishing in said slurry a material which is capable of depressing sulfide minerals in the flotation of oxidized minerals; heating said slurry to a temperature above the melting point of sulfur therein; agitating said slurry and maintaining said temperature for at least sufficient time to separate sulfur from the metal values associated therewith; cooling said treated slurry to obtain sulfur and metal values as separate solid phases; and treating said cooled slurry to separate and collect a concentrate of metal values.

2,838,392
METHODS AND APPARATUS FOR TREATING METALLIC AND NON-METALLIC POWDERS
Chester Aloysius Bielawski, Cleveland, Ohio, assignor to The S. K. Wellman Company, Cleveland, Ohio, a corporation of Ohio
Application July 30, 1953, Serial No. 371,374
5 Claims. (Cl. 75—.5)



1. The method of preparing powders for making friction bodies of sintered powdered metallic and non-metallic materials comprising a predominant component and an agglomerate in minor quantity, the said method comprising the steps of screening and pre-mixing a fraction of the predominant component with all of the agglomerate, adding the remainder of the materials, subjecting all of the materials to a vacuum and to heat, blending the materials together while maintaining said vacuum, and replacing said vacuum with a non-oxidizing atmosphere while allowing said materials to cool.

2,838,393
PROCESS FOR PRODUCING TITANIUM AND ZIRCONIUM
Reginald S. Dean, Hyattsville, Md., assignor to Chicago Development Corporation, Riverdale, Md.
Application November 23, 1954, Serial No. 470,609
1 Claim. (Cl. 75—84.4)



Process of reducing substantially completely to metal a lower halide of a first metal selected from the group consisting of zirconium and titanium, said halide being selected from the group consisting of chlorides and bromides, dissolved in a fused salt of at least one halide selected from the group consisting of chlorides and bromides of sodium, lithium, calcium, strontium and barium, by means of a solution, in said fused salt free from discrete metal, of a second metal selected from the group consisting of sodium, lithium, calcium, barium and strontium, whereby to form a reaction mixture of dissolved second group metal, precipitated first group metal and lower halide of the first group metal, characterized by at least one cycle of the steps consisting essentially in: first removing dissolved second metal from the reaction mixture by reacting the latter with substantially the stoichiometric equivalent of a halogenating agent selected from the group consisting of chlorine, bromine, a tetrachloride of said first metal and a tetrabromide of said first metal, thereby converting the dissolved second metal to the halide salt thereof, and then removing residual halide of first metal, in solution in the resulting reaction mixture, by adding to the resulting reaction mixture magnesium in an amount stoichiometrically equivalent only to said dissolved residual halide thereby converting said residual halide to first metal and halide of magnesium.

2,838,394
NICKEL-CHROMIUM ALLOYS CONTAINING RARE EARTH METALS AND BORON
Bjorn Edwin and Sven A. G. Svensson, Hallstahammar, Sweden, assignors to Aktiebolaget Kanthal, Hallstahammar, Sweden
No Drawing. Application January 23, 1956
Serial No. 560,905
Claims priority, application Sweden January 24, 1955
4 Claims. (Cl. 75—171)

1. A nickel-chromium alloy containing 10 to 30% chromium, 0 to 60% iron, 0.2 to 2% silicon and 0.01 to 0.5% rare-earth metals, and further characterized in that it contains, in its finally produced condition, traces of boron amounting to a maximum content of 0.02%, and the balance nickel.

2,838,395
NIOBIUM BASE HIGH TEMPERATURE ALLOYS
Thor N. Rhodin, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 14, 1956
Serial No. 621,995
10 Claims. (Cl. 75—174)

9. An oxidation-resistant niobium-base alloy containing by weight about 56% niobium, about 14% aluminum, about 10% iron, about 15% cobalt, about 4% molybdenum and about 1% cerium.

10. A niobium-base alloy containing at least 55% by weight of niobium, from 1–20% by weight of aluminum, from 1–25% by weight of iron, and in combination therewith from 0–35% by weight of at least one element selected from the group consisting of cobalt, nickel, tungsten and zirconium, the total of the elements of this group not to exceed 35%; from 0–5% by weight of at least one element selected from the group consisting of beryllium, manganese, molybdenum, silicon, thorium, and vanadium, the total of the elements of this group not to exceed 15%; and from 0–2% by weight of at least one element selected from the group consisting of boron, carbon, calcium and cerium, the total of the elements of this group not to exceed 5%.

2,838,396
METAL PRODUCTION
Thor N. Rhodin, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 14, 1956
Serial No. 622,019
10 Claims. (Cl. 75—174)

9. An oxidation-resistant alloy containing, by weight, about 59% niobium, 10% aluminum, 10% chromium, 15% nickel, 4% tungsten and 2% cerium.

10. A niobium-base alloy containing at least 55% by weight of niobium, from 1–20% by weight of aluminum, from 1–30% by weight of chromium, and in combination therewith from 0–35% by weight of at least one element selected from the group consisting of cobalt, nickel,

tungsten, zirconium, the total of the elements of this group not to exceed 35%; from 0–5% by weight of at least one element selected from the group consisting of beryllium, manganese, silicon, thorium and vanadium, the total of the elements selected from this group not to exceed 15%; and from 0–2% by weight of at least one element selected from the group consisting of boron, carbon, calcium and cerium, the total of the elements selected from this group not to exceed 5%.

2,838,397

PROCESS FOR THE PREPARATION OF MINERAL-FILLED PAPERS

Irving J. Gruntfest, Cheltenham, Pa., and David B. Fordyce, Moorestown, N. J., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application April 10, 1956
Serial No. 577,195
4 Claims. (Cl. 92—21)

1. A process for making filled papers and the like which comprises depositing on a foraminous forming surface an aqueous suspension of cellulose fibers and a water-insoluble inorganic filler, said suspension having a pH between about 3 and 12 and containing 0.01 to 0.5% by weight of the fibers and containing dissolved therein about 0.01 to 1% by weight, based on the weight of fiber, of a water-soluble homopolymer of β-(N,N-dimethylamino)ethyl methacrylate quaternized by ethylene oxide, said homopolymer having a molecular weight of several million.

2,838,398

METHOD OF PRODUCING A PHYSICALLY DEVELOPABLE LATENT PHOTOGRAPHIC IMAGE

Cornelis Johannes Dippel and Jarke Jan Houtman, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application February 15, 1956
Serial No. 565,550
10 Claims. (Cl. 96—49)

1. A method of producing photographic contrasts which comprises the steps of selectively exposing portions of a light-sensitive layer containing a salt of a photo-sensitive diazo-sulphonic acid with a metal selected from the group consisting of lead, lanthanum, thorium, uranium, cadmium, zinc, chromium (III) copper (II) and cobalt, to decompose said diazosulphonate and form a stable light-decomposition product and subjecting said light-decomposition product to the action of a soluble mercurous salt in the presence of moisture to form physically intensifiable contrasts.

2,838,399

NON-GUSHING CARBONATED BEVERAGES AND PROCESS FOR PREPARING THE SAME

Edward H. Vogel, Jr., St. Louis, Mo., assignor to Organic Chemical Corporation, St. Louis, Mo., a corporation of Missouri

No Drawing. Application October 5, 1955
Serial No. 538,806
19 Claims. (Cl. 99—48)

1. A carbonated beverage characterized by its non-gushing properties, said beverage having added to it carbonic anhydrase to prevent evolution of CO_2 in such amounts as cause gushing.

2,838,400

TEA BAG

Verris C. Wardell, New York, N. Y.

Application April 19, 1954, Serial No. 424,193
6 Claims. (Cl. 99—77.1)

1. An infusion bag of the character described comprising an envelope-shaped bag of liquid pervious material having at least one sealed edge and containing a brew substance to be soaked in a liquid, a separate handle for said bag including two portions each of a single ply length of a thin, ribbon-like strip of a material suitable for immersion in the liquid, said portions being adhesively sealed in face-to-face relation along their length except for a



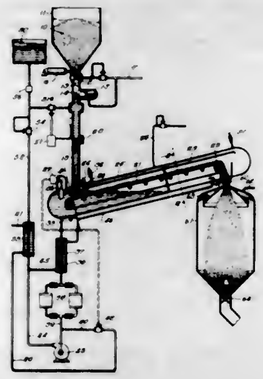
short distance at one end to give a relatively stiff handle of two plys only, and a tag of suitable flat shape having a hole cut through it, said tag being fastened to said handle by the engagement at said one end of said two portions through said hole respectively on opposite sides thereof, said handle being attached at its other end to the sealed edge of said bag.

2,838,401

PUFFING METHOD AND APPARATUS

Wilbur C. Gates, Flossmoor, Ill., assignor, by direct and mesne assignments, of one-half to Chicago Bridge & Iron Company, and one-half to Baerguard, Inc., Chicago, Ill., a corporation of Illinois

Application February 1, 1955, Serial No. 485,472
14 Claims. (Cl. 99—82)



1. The method which comprises supplying cereal in granular form downwardly through a column of water extending upwardly from a body of water in a cooking zone, feeding cereal from the column to the cooking zone wherein it is cooked under substantial pressure in substantial absence of air while the cereal is conveyed from below the water into a steam zone above the water and then passing the cooked cereal through a restricted opening into a maintained vacuum whereby the pressure drop between the cooking zone and the evacuated zone is explosive in nature and the cereal is puffed.

2,838,402

GELATIN DESSERT PRODUCT

Ernst Albert Steigmann, Stoneham, Mass., Matthew Hamell, Fort Lee, N. J., and Bernard Idson, Jamaica, N. Y., assignors to General Foods Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 25, 1956
Serial No. 587,208
5 Claims. (Cl. 99—130)

1. An improved gelatin dessert product containing gelatin of regular bloom and gelatin which has been degraded so that it has substantially no gelling power.

2,838,403

PACKAGING OF DEHYDRATED FOODS

George K. Notter, Berkeley, Calif., assignor to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application May 6, 1957
Serial No. 657,462
4 Claims. (Cl. 99—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)

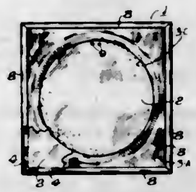
1. A method of packaging and preserving a dehydrated food which comprises depositing the dehydrated food and a desiccant capable of absorbing carbon dioxide into a container, introducing carbon dioxide gas into the container to displace the air normally therein, and sealing the container containing an atmosphere of carbon dioxide whereby to minimize oxidative damage to the food and to enhance removal of residual moisture from the food.

2,838,404

MEAT PACKAGE

Marvin C. Cohen, Havertown, Pa.

Application June 16, 1955, Serial No. 515,931
2 Claims. (Cl. 99—174)



1. A heatable meat package comprising meat inside an edge sealed envelope of transparent plastic material capable of transmitting radiant heat; said envelope being oversized for the quantity of meat disposed therein and having its sealed edge spaced apart from the meat and a heat reflective jacket around said envelope at the sealed edge thereof, the heat reflective jacket covering only a portion of said envelope leaving exposed to view a window approximating in size and shape the meat contained in said envelope, vent openings being provided in said envelope to allow escape of vapors released during heating, whereby the meat can be exposed to radiant heat for heating the same, while the vapors released during the heating protect the window against overheating and the heat reflective jacket protects those portions of the envelope not in direct contact with the meat against radiant heat.

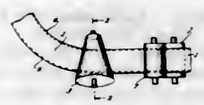
2,838,405

METHOD FOR PRODUCING CURVED SAUSAGE CASINGS

Gebhard Johannes Huckfeldt, Uetersen, Germany

Application August 18, 1953, Serial No. 374,860
Claims priority, application Germany June 25, 1952
10 Claims. (Cl. 99—175)

1. In a method for producing curved sausage casings from a collapsed band-shaped tube consisting of a deformable and stretchable fibrous material of animal origin and composed of two superimposed strip-shaped layers integrally connected along the longitudinal edges thereof, in combination, the step of stretching one longitudinal edge portion of the collapsed band-shaped tube con-



sisting of two superimposed layer portions and extending along one of said longitudinal edges to be longer than the other longitudinal edge portion so as to form a curved collapsed band-shaped tube which in unfolded condition is a curved tubular sausage casing.

2,838,406

METHODS OF PREPARING SAND CORES AND OTHER SAND MOULD PARTS FOR METAL CASTING

Rolf Erhard Morén, Alfredshem, Sweden, assignor to Mo och Domsjö Aktiebolag, Ornskoldsvik, Sweden, a corporation of Sweden

No Drawing. Application October 4, 1955
Serial No. 538,533
Claims priority, application Sweden October 6, 1954
4 Claims. (Cl. 106—38.5)

1. A sand mix suitable for the production of sand cores and other sand mould parts for metal casting consisting essentially of sand, and including 0.1 to 2 parts by weight of a water-soluble cellulose derivative per 100 parts of sand, 0.5 to 5 parts by weight of a core oil per 100 parts of sand, and 2 to 7 parts by weight of moisture per 100 parts of sand.

2,838,407

CERAMIC DIELECTRIC COMPOSITION

William W. Coffeen, Westfield, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 5, 1954
Serial No. 448,150
11 Claims. (Cl. 106—46)

1. A ceramic dielectric body consisting essentially of 99.5 to 95 mole percent barium titanate and .5 to 5 mole percent of an additive chosen from the group consisting of calcium antimonate, a calcium fluoantimonate and mixtures thereof.

2,838,408

GLASS COMPOSITIONS

Guy E. Rindone, State College, Pa., assignor to Prismo Safety Corporation, Huntingdon, Pa., a corporation of Pennsylvania

No Drawing. Application January 28, 1955
Serial No. 484,853
11 Claims. (Cl. 106—53)

1. Transparent, weather-resistant small glass beads having a refractive index of at least 1.90 and a composition consisting essentially of the following mol percent:

SiO_2	20–33
TiO_2	30–50
BaO	Up to 32
PbO	Up to 26
K_2O	Up to 9.5
As_2O_3	Up to 1.0

wherein the composition has at least four ingredients and the total percent of BaO, PbO, K_2O and As_2O_3 is 23.6–40.4.

2,838,409
SILICA REFRACTORY
Ben Davies, Pittsburgh, and Donald O. McCreight, Library, Pa., assignors to Harbison-Walker Refractories Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application July 23, 1956
Serial No. 599,362
10 Claims. (Cl. 106—69)

1. In the method of preparing silica refractory shapes wherein iron-compound containing silica rock is crushed and then combined in a range of sizes that will result in a sound refractory, a bonding agent is mixed with the sized rock, the resultant mixture is tempered, and the refractory shapes formed of the tempered batch are dried and fired, the improvement comprising separating from the crushed rock the coarser particles thereof having a substantial iron content, crushing the separated iron-containing particles to a smaller average particle size, and then adding the crushed iron-containing particles to the crushed silica rock, whereby iron-containing silica shapes that are devoid of concentrations of iron are produced.

2,838,410
METHODS AND COMPOSITIONS FOR IMPROVING CLAY PRODUCTS
William C. Francis, Pittsburg, Kans., and Forrest L. Turbett and Leo C. D. Groenweghe, Joplin, Mo., assignors to Spencer Chemical Company, a corporation of Missouri
No Drawing. Application October 27, 1955
Serial No. 543,264
8 Claims. (Cl. 106—72)

1. The method of manufacturing improved kiln-fired clay products which comprises: adding to the clay mix from which the clay products are made a small amount of an additive combination consisting essentially of (*a*) from at least about .02% by weight (based on dry clay) of a member of the group consisting of ammonium nitrate, ammonium sulfate, ammonium chloride, ammonium phosphate and mixtures thereof, and (*b*) from at least about .002% by weight (based on dry clay) of a member of the group consisting of ammonia, ammonium bicarbonate and mixtures thereof, said additive combination being added in an amount equal to at least about 0.1% by weight (based on dry clay) of the clay mix; forming clay products from such admixture; and firing the clay products.

2,838,411
POINTING COMPOUND
Herman B. Wagner, Blooming Glen, Pa., assignor, by mesne assignments, to Tile Council of America, Inc., a corporation of New York
Application November 15, 1955, Serial No. 547,026
2 Claims. (Cl. 106—93)

1. A pointing composition consisting essentially of a mixture of the following ingredients in percentages by weight: in excess of about 90% Portland cement, about 0.25 to 2.2% methyl cellulose which has a viscosity in 2% solution of 80–6,000 centipoise, and about 1.5 to 2.5% calcium chloride; and about 30–40% water based on the weight of said mixture including the previously named ingredients to form a paste capable of pointing ceramic tile.

2,838,412
STABILIZED VARNISHES CONTAINING AZO-DYES AND PROCESS OF MAKING THEM
Raymond E. Werner and Theodore A. Langstroth, Cincinnati, Ohio, assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application July 29, 1957
Serial No. 674,624
6 Claims. (Cl. 106—228)

1. A composition containing a varnish and a nitrophenylazo pigment and including: benzotriazole, whereby the composition is stabilized against discoloration by contact with iron in the presence of small amounts of water.

2,838,413
SILICA GEL FLATTING AGENT, METHOD OF PREPARING SAME, AND COMPOSITION CONTAINING SAME
Luther O. Young, Baltimore, Md., assignor to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut
No Drawing. Application May 27, 1954
Serial No. 432,884
8 Claims. (Cl. 106—272)

3. A composition consisting of 85 to 70 parts by weight of finely divided silica gel impregnated with about 15 to 30 parts by weight of microcrystalline petroleum wax.

2,838,414
PROTECTIVE COATING COMPOSITION
Claude J. Dunphy and Clinton J. Dunphy, Minneapolis, Minn.
No Drawing. Application June 18, 1956
Serial No. 591,788
1 Claim. (Cl. 106—282)

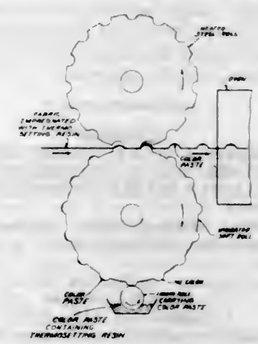
A protective composition for roofs, metal surfaces and the like, in which are included as essential ingredients and in intimate admixtures, coal tar, powdered aluminum, ground asbestos, gypsum and lead oxide in approximately the proportions of coal tar 50 gallons, powdered aluminum 7 pounds, ground asbestos 10 pounds, gypsum 8 pounds and lead oxide 8 pounds, the coal tar being thinned and the mixture liquefied by the addition of gasoline and kerosene.

2,838,415
PHTHALOCYANINE LAKES
Robert E. Brouillard, Westfield, and Thomas D. Mutaffis, North Plainfield, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Original application September 18, 1953, Serial No. 381,149, now Patent No. 2,774,677, dated December 18, 1956. Divided and this application January 27, 1956, Serial No. 561,918
8 Claims. (Cl. 106—289)

1. In a process for the manufacture of a phthalocyanine lake in which a water-insoluble alkaline earth metal resinate is precipitated by reaction between a water soluble alkaline earth metal salt and a water soluble salt of a resin acid in an aqueous medium in the presence of a water-insoluble phthalocyanine coloring matter, the improvement which comprises effecting the precipitation in the presence of about 0.1 to 10 parts by weight of an ammonium salt of a strong acid per part of said coloring matter.

2,838,416
PRODUCTION OF INLAY EMBOSSED FABRICS
Raymond S. Babiarz, Wilmington, and Hillary Arthur Wallace, New Castle, Del., assignors to Joseph Bancroft & Sons Company, Rockford, Wilmington, Del., a corporation of Delaware
Application September 21, 1953, Serial No. 381,484
4 Claims. (Cl. 117—11)

1. The method of producing durable inlay effects in embossed fabrics, which comprises passing a fabric through the nip of an embossing calender having a heated metal roll and an unheated soft roll, said heated roll having a female pattern engraved therein, and said soft roll having a male pattern corresponding to the female pattern of the metal roll; applying a heat hardenable color paste containing as essential ingredients a pigment, a thermosetting resin, a catalyst and a vehicle, to the tips of the relief imparting surfaces of the male pattern of the soft bowl in advance of the nip of the calender, whereby on passage of the fabric through the calender the paste is transferred from the tips of the relief imparting surfaces of the soft roll to the fabric, in the valley areas of the pattern, and thereafter heating the fabric at a temperature and for a time sufficient to harden the resin.

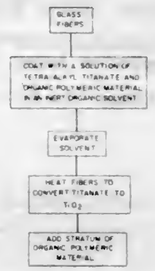


2,838,417
ACIDIZING INDUSTRIAL EQUIPMENT
Billy P. Robinson, Charles L. Wendorff, and Warren M. Zingg, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application September 28, 1954
Serial No. 458,969
3 Claims. (Cl. 117—49)

1. The method of removing acid-soluble deposits from a ferrous metal surface which comprises the following steps carried out in immediate succession: (1) applying to the ferrous metal surface an aqueous solution of a mineral acid selected from the group consisting of sulfuric and hydrochloric acid in an amount and for a time sufficient to remove the deposits; (2) rinsing the so-treated ferrous metal surface so as to remove most of the acid solution therefrom, the rinsing being terminated before the pH of the rinse water exceeds 2; (3) treating the water rinsed surface with an aqueous alkaline solution so as to render the water-rinsed surface alkaline to a pH of from 7 to 10; (4) treating the so-treated surface with an aqueous alkaline solution containing a soluble nitrite so as to displace liquids already on the surface being treated and provide at least a film of the nitrite-containing solution on the metal surface; and (5) allowing the so-treated surface to drain.

2,838,418
ADHESION OF RESINS TO GLASS
Howard Warner Starkweather, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application July 22, 1954, Serial No. 445,205
10 Claims. (Cl. 117—65)

1. The method of preparing a glass-fiber reinforced article which comprises coating glass fibers with a composition comprising a tetra-alkyl ester of titanic acid in which the alkyl groups contain from 1 to 8 carbon atoms, a normally solid thermoplastic linear synthetic resin, an inert organic solvent for said ester and synthetic resin, removing said solvent from said coating by evaporation, heating the resultant coated fibers at an elevated temperature, said temperature being below the thermal decomposition temperature of the synthetic resin, continuing the said heating until the tetra-alkyl titanate has decomposed to titanium dioxide, thereafter impregnating the resulting coated fibers with a molten synthetic resin,



and cooling the resultant article to below the temperature at which the said synthetic resin is molten.

2,838,419
NON-SOLVENT ANTI-CORROSIVE SHIPBOTTOM COMPOSITION
William J. Francis, Portsmouth, Va.
Application April 6, 1954, Serial No. 421,457
8 Claims. (Cl. 117—74)
(Granted under Title 35, U. S. Code (1952), sec. 266)

4. A method of painting steel structures that are to be exposed under water for long periods of time, comprising applying directly to the steel of the structure an anti-corrosive substrate coating in a molten state, the coating composition being solid at ambient temperatures, but molten in a temperature range of about 250°–300° F. and above, said coating having a formulation substantially as follows:

	Percent range
(*a*) A substance from the class consisting of rosin, ester gum and hard para-coumarone-indene resin	25.–32.5
(*b*) Paraffin (melting point 125–127° F.)	11.8–16.2
(*c*) Microcrystalline wax	2.8–9.4
(*d*) A substance from the class consisting of ethyl cellulose and polyvinyl butyral resin	1.6–1.9
(*e*) A substance from the class consisting of zinc naphthenate, hydrogenated methyl abietate, soft para-coumarone-indene resin (melting range 86°–104° F.)	1.35–5.
(*f*) A substance from the class consisting of calcium chromate, stontium chromate, and barium chromate	10.–25.
(*g*) A substance from the class consisting of magnesium silicate, alumina, silica, barium sulphate, calcium sulphate and mica	0.–15.
(*h*) Rosin	25.–32.5
(*i*) Zinc naphthenate	1.35–5.

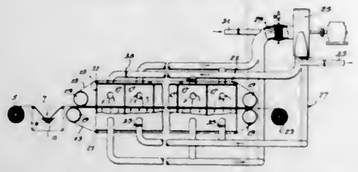
and subsequently applying an anti-fouling coating.

2,838,420
METHOD FOR DRYING IMPREGNATED POROUS WEBS

John E. Valente, Neenah, Wis., assignor to Kimberly-Clark Corporation, Neenah, Wis., a corporation of Delaware

Continuation of application Serial No. 288,406, May 17, 1952. This application August 23, 1956, Serial No. 605,896

4 Claims. (Cl. 117—103)



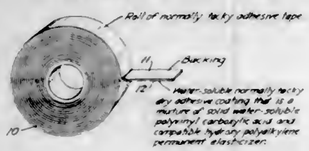
1. The method of producing an impregnated web in which the impregnant is substantially uniformly distributed throughout the thickness of the web which comprises introducing into a porous web a volatile liquid vehicle in such quantity and containing an impregnant in low enough concentration that said vehicle is present in said web as a continuous liquid body throughout the thickness of the web and said impregnant is mobile within said web in response to forces established by drying said web, passing a gaseous drying medium through said web in alternately opposite directions before and until said continuous liquid body is interrupted but said web is still wet with said vehicle and contains a substantial quantity thereof capable of being evaporated by a conventional drying process, thereby to immobilize the impregnant in the web, and then further drying the web sufficiently to permit handling.

2,838,421
ADHESIVES AND ADHESIVE TAPES

William E. Sohl, Birchwood, Minn., assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application November 28, 1956, Serial No. 624,728

11 Claims. (Cl. 117—122)



1. An adhesive tape having a dry layer of normally tacky water-soluble adhesive that aggressively adheres to paper when pressed thereagainst and consists essentially of a homogeneous blend of a solid water-soluble polyvinyl carboxylic acid and a compatible hydroxy-polyalkylene permanent elasticizer in relative proportions such that the adhesive is aggressively tacky and has elastic cohesive strength.

2,838,422
PROCESS FOR RENDERING FIBROUS MATERIALS WATER-REPELLING

Ludwig Orthner and Martin Reuter, Frankfurt am Main, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application May 11, 1954
Serial No. 429,118
Claims priority, application Germany May 18, 1953
20 Claims. (Cl. 117—135.5)

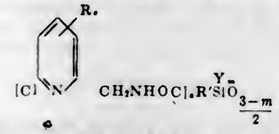
1. The process of imparting hydrophobic properties to fibrous material which comprises treating the material with a solution in an inert organic solvent of tribasic mixed aluminium salts with from about 1.5 to about 2.8 mols of organic acids having a boiling below about 200° under normal pressure or sublimating below the said temperature and with from about 0.2 to about 1.5 mols of organic compounds of acid nature having a boiling point of above 250° C. and being capable of forming salts with aluminium, free from OH groups, and removing the solvent from the material.

2,838,423
AMIDOMETHYL QUATERNARY AMMONIUM SILOXANES AND A METHOD OF RENDERING FABRICS WATER REPELLENT THEREWITH

John W. Gilkey, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application May 29, 1957
Serial No. 662,346
8 Claims. (Cl. 117—135.5)

7. A method of rendering fabrics water repellent which comprises applying to the fabric a copolymeric siloxane consisting essentially of from .1 to 90 mol percent



in which R is an aliphatic hydrocarbon radical of less than 4 carbon atoms, c has a value from 0 to 3 inclusive, a is an integer from 1 to 2 inclusive, R′ is selected from the group consisting of divalent and trivalent saturated aliphatic and cycloaliphatic hydrocarbon radicals of at least 2 carbon atoms, Y is selected from the group consisting of monovalent hydrocarbon radicals and fluorinated monovalent hydrocarbon radicals and m has an average value from 0 to 2 inclusive, and from 10 to 99.9 mol percent siloxane units of the formula

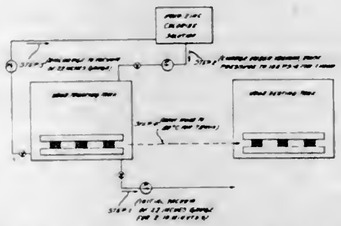
$$Z_b SiO_{\frac{4-b}{2}}$$

in which Z is selected from the group consisting of monovalent hydrocarbon radicals and fluorinated monovalent hydrocarbon radicals and b has an average value from 1 to 3 inclusive and thereafter heating the treated fabric to fix the siloxane.

2,838,424
TREATMENT OF WOOD

Harlan A. Depew, Glendale, and George R. Waitkins, Des Peres, Mo., assignors to American Zinc, Lead & Smelting Company, St. Louis, Mo., a corporation of Maine

Application July 20, 1955, Serial No. 523,384
10 Claims. (Cl. 117—137)



1. The process of treating wood, comprising impregnating pores of the wood with a solution of a water-soluble zinc salt and a potentially basic material which, in the condition in which it is during said initial impregnation, does not react with said zinc salt, thereafter converting said potentially basic material, in the pores of the wood, to a basic material capable of converting a part of the water soluble zinc salt to zinc hydroxide, reacting said basic material with a part of the water soluble zinc salt to form zinc hydroxide, and co-precipitating the said zinc hydroxide and water soluble zinc salt, in the form of a water-insoluble basic zinc salt, in place on the walls of the said pores.

2,838,425
METHOD OF PROTECTING CELLULOSE FIBERS AGAINST MICROORGANISMS AND FUNGI AND THE RESULTING PRODUCT

Karl Lutz, Basel, and Hans Hemmi, Binningen, near Basel, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application November 23, 1953
Serial No. 393,932
Claims priority, application Switzerland November 25, 1952
6 Claims. (Cl. 117—138.5)

1. A method of protecting cellulose fibers against microorganisms and molds, which comprises impregnating the said fibers with an impregnant consisting of the product of the reaction of a chlorinated phenol which contains free phenolic hydroxyl and has fungicidal or bactericidal activity with a polymeric nitrogen compound which has affinity for cellulose fibers and is selected from the group consisting of condensation products obtained by (*a*) condensing dicyandiamide with diethylenetriamine with splitting off of ammonia, (*b*) condensing dicyandiamide with diethylenetriamine with splitting off of ammonia and then reacting the product with benzyl chloride, and (*c*) condensing dicyandiamide with diethylenetriamine with splitting off of ammonia and then reacting the product with formaldehyde.

2,838,426
MILDEW-PROOFING OF LEATHER

Sverre Dahl, West Hyattsville, Md., and Arthur Milton Kaplan, Waban, Mass., assignors to the United States of America as represented by the Secretary of Commerce

Application February 18, 1957, Serial No. 640,993
3 Claims. (Cl. 117—142)



3. The process of rendering leather mildewproof comprising the steps of making a solution comprising approximately 5 percent of bis(4-nitrophenyl) carbonate, 50 percent dioxane, 10 percent neat's-foot oil and 35 percent chloroform, diluting the solutions to provide a concentration of said bis(4-nitrophenyl) carbonate of from 0.3 to 0.6 percent by weight of dry leather, impregnating the leather by immersing in the diluted solution until the desired concentration of said carbonate is obtained and drying said impregnated leather.

2,838,427
METHOD AND APPARATUS FOR FLAME SPIRALLING

Alexander L. Pugh, Jr., Bala-Cynwyd, Pa., assignor to International Resistance Company, Philadelphia, Pa.

Application October 23, 1956, Serial No. 617,814
4 Claims. (Cl. 117—212)



1. The method of burning a path or groove in a carbon surfaced body comprising the steps of contacting the surface of the body with a hot flame, providing relative movement between the flame and the body to pass the flame across the surface of said body and then providing a non-oxidizing atmosphere over the burnt surface of said body.

2,838,428
PLASTICIZED VINYL HALIDE RESINS AND ELECTRICAL CONDUCTORS INSULATED THEREWITH

George J. Bohrer, Troy, N. Y., assignor to General Electric Company, a corporation of New York

Application May 28, 1949, Serial No. 95,974
7 Claims. (Cl. 117—232)

1. A composition of matter comprising, by weight (1) from 40 to 75 percent polyvinyl chloride and (2) from 25 to 60 percent of a plasticizer for (1) having an acid value below 5 and comprising an acid chain-stopped, liquid, heat-stable permanently fusible composition comprising the product of reaction under heat of a mixture of ingredients in the unreacted state and in the following molar ratio and consisting essentially of (*a*) from 4 to 10 mols of adipic acid, (*b*) $n+1+x$ mols propylene glycol where n is equal to the number of mols of adipic acid, and x is equal to a slight molar excess of the propylene glycol necessary to effect complete esterification, and (*c*) about 2 mols of coconut oil fatty acids, the latter fatty acids acting as esterifying chain-stoppers at each end of the linear ester chain formed by the reaction of the aforesaid propylene glycol and adipic acid.

2,838,429
ELECTROLYTE FOR STORAGE BATTERIES AND PROCESS FOR PRODUCING THE SAME

Charlie Asa Sanders, Arenas Valley, N. Mex.

No Drawing. Application June 28, 1954
Serial No. 439,910
1 Claim. (Cl. 136—154)

A battery electrolyte containing from 0.5 to 10% by weight of mellitic acid in solution therein.

2,838,430
METHOD OF PRODUCING AN ANTI-GALLING SURFACE UPON A TITANIUM ARTICLE

Henry J. Argenta and Joseph L. Johnston, Detroit, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

No Drawing. Application October 7, 1953
Serial No. 384,753
4 Claims. (Cl. 148—6.11)

1. The process of producing an anti-galling surface upon a titanium article comprising immersing the article in a barium-rich molten salt bath maintained within the temperature range of 1575° to 1625° F. for from five to forty minutes, directly quenching the article in oil, immersing the quenched article in a molten salt bath within

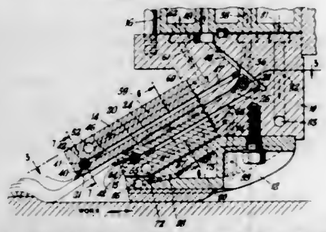
the temperature range of from 1025° to 1075° F. for from five to forty minutes, removing the article from the molten salt bath and cooling the article in air.

2,838,431

METHOD AND APPARATUS FOR THERMO-CHEMICAL METAL SCARFING

William Allmang, Bloomfield, Carl E. Hartmann, Florham Park, and Ivan P. Thompson, Elizabeth, N. J., assignors to Union Carbide Corporation, a corporation of New York

Application May 26, 1953, Serial No. 357,496
11 Claims. (Cl. 148—9.5)



1. In a process for thermochemically scarfing metal bodies, discharging a sheet-like stream of oxidizing gas onto a reaction zone extending across the entire transverse extent of the surface of a metal body and at an acute angle of impingement to the work surface of said metal body, confining said sheet-like stream of oxidizing gas between upper and lower spaced apart surfaces laterally continuous for the entire transverse extent of the surface of said body, discharging a row of jets of preheat fuel gas at an acute angle to said oxidizing gas stream onto said reaction zone from a row of orifices ahead of at least one of said surfaces, and supplying preheat oxidizing gas from said sheet-like stream of oxidizing gas to support combustion of said jets of fuel gas and produce post-mixed preheat flames therefrom.

2,838,432

WITHDRAWN

2,838,433

SOLDERING FLUX

Leonard Ribera, Fishkill, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 2, 1955
Serial No. 550,784
2 Claims. (Cl. 148—25)

1. A soldering flux consisting essentially of 40–100 weight percent of wax oxidate and 60–0 weight percent of at least one hydrocarbon diluent selected from the group consisting of petroleum oil and petrolatum, said wax oxidate being the product of liquid phase air oxidation of a deoiled macrocrystalline paraffin wax at temperature of 230–290° F. and pressure of 30–300 p. s. i. g. and being characterized by a ratio of neut. No. to sap. No. between about 0.6 and 0.65.

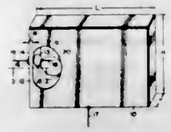
2,838,434

SEMI-CONDUCTOR SIGNAL TRANSLATING DEVICE

Robert G. Pohl, Chicago, Ill., assignor to The Rauland Corporation, a corporation of Illinois

Application April 16, 1954, Serial No. 423,608
5 Claims. (Cl. 148—33)

1. An electrical signal-translating device comprising: a wafer, of predetermined-conductivity-type semi-conductive material of predetermined thickness, having an aperture extending entirely therethrough in the thickness direction and entirely bounded transversely of said thickness direction by said wafer material with the material between a boundary surface of said aperture and an opposed surface of said wafer constituting a bridge section of a width smaller than the thickness of said wafer;



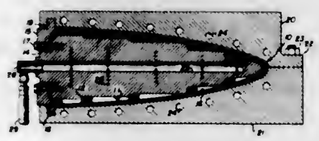
a first diffused junction layer of material of a conductivity type different from said wafer material disposed on one of said surfaces of said bridge section; and a second diffused junction layer of material of a conductivity type different from said wafer disposed on the opposite one of said bridge section surfaces.

2,838,435

METHOD OF FORMING PLASTIC PARTS

Oscar C. Hewett, Fort Worth, Tex.

Application October 8, 1953, Serial No. 384,813
3 Claims. (Cl. 154—110)



1. The method of forming a hollow part on an elongated inner mold having an elastic blanket thereon and which method includes the use of a cavity mold for defining the outer surface of the part to be formed, said method comprising the steps of; contracting said blanket on said inner mold, applying resin impregnated strips of fabric while said resin is in a fluid stage on the outer surface of said blanket, placing a transverse rib on said resin impregnated strips of fabric while said resin is still in the fluid stage, expanding said blanket inside of said cavity mold and thereby causing the outer surface of said resin and strips of fabric to contact the inner surface of said cavity mold, solidifying said resin while said blanket is expanded, contracting said blanket and removing said mandrel and said blanket from the part thus formed.

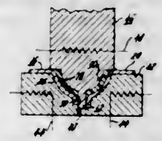
2,838,436

METHOD OF BONDING

Paul E. Clingman, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 3, 1955, Serial No. 544,717
1 Claim. (Cl. 154—110)

In a method of forming and bonding a concave bearing liner into a ball joint socket to withstand relatively high impact load transmitted by a ball to be fitted into the socket, the steps, comprising, providing a preformed apertured metal socket member having a partially spherical concave portion with one side adapted to become a bearing support surface with a lubricating opening therein, forming a non-metallic liner and bearing surface for the one side of said partially spherical concave portion including first preparing a unitary flat laminate stack of fibrous discs having an uncured underlayer impregnated with a compounded cement of both thermoplastic synthetic rubber and thermosetting resin and other layers mechanically joined thereto each impregnated with only a thermosetting resin, placing the uncured flat stack of discs adjacent to said partially spherical concave portion of said socket member, and simultaneously applying heat and pressure through a molding means contoured complementary to said spherical portion of said preformed apertured metal member and having heating elements associated therewith to cure and form said bearing liner thermoplastic and thermosetting resin into a concave bearing liner for said ball joint socket to be subjected to relatively high impact loads, said applying heat and pressure resulting in simultaneously in a single operation transforming the flat stack of discs into an infusible concave bearing surface liner while molding, curing, and



bonding said compounded cement underlayer to both said metal spherical portion and said thermosetting resin impregnated layers other than said underlayer to form a bearing socket adapted to be subjected to relatively high impact loads, said preparing a unitary flat laminate stack of fibrous discs including mechanically uniting layers of resin impregnated fibrous material with the thermoplastic and thermosetting resin impregnated underlayer by stitching together the flat stack in a plurality of points not all to go into the partially spherical portion of said ball joint socket and cutting out flat laminate stacks so as to include at least one of the stitched points for holding the discs together until said impregnated underlayer and other layers are cured and formed by heat and pressure bonding as a unitary fused concave bearing liner for said partially spherical concave portion.

2,838,437

MODIFIED MONOALKENE POLYMERS AND METHOD FOR ADHESIVELY BONDING SAME

Warren Froemming Busse and John Anthony Boxler, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 20, 1956
Serial No. 610,886
16 Claims. (Cl. 154—139)

1. A process for bonding a normally solid monoalkene polymer to a surface which comprises contacting the monoalkene polymer in the molten state with the surface to be bonded therewith, and permitting the surfaces to cool while in contact to produce a solid bond, said molten monoalkene polymer containing as a modifier a member of the class consisting of (1) carboxylic acids having alpha-beta olefinic unsaturation and having hydrogen attached to the alpha carbon atom, (2) anhydrides of said acids, (3) carboxylic acids having alpha-beta acetylenic unsaturation, (4) malonic acid, (5) mono- and di-alkyl and alkenyl esters of said olefinic, acetylenic, and malonic acids wherein said alkyl and alkenyl groups each contains not more than six carbon atoms. and (6) salts of malonic acid, of said olefinic and acetylenic acids, and of said monoalkyl and monoalkenyl esters, said salts having carboxylic hydrogen of the acid replaced by a member of the class consisting of ammonium, alkali metals and alkaline earth metals, whereby the contacted surfaces become bonded more tenaciously than by similar bonding without said modifier.

2,838,438

N-(2-PYRIDYL)-TETRACHLOROPHTHALIMIDE, PROCESS AND USE AS INSECTICIDE

William J. Pyne, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application August 23, 1956
Serial No. 605,711
6 Claims. (Cl. 167—33)

1. The compound N-(2-pyridyl)-tetrachlorophthalimide.

3. A biologically active composition of matter containing as an active ingredient N-(2-pyridyl)-tetrachlorophthalimide, in a biologically active amount and a major proportion of a carrier.

2,838,439

INJECTABLE LOCAL ANESTHETIC SOLUTIONS COMPRISING MIXTURES OF SOLUBLE PROCAINE AND BUTETHAMINE SALTS

Samuel D. Goldberg, West Hempstead, N. Y.

No Drawing. Application October 3, 1955
Serial No. 538,274
11 Claims. (Cl. 167—52)

1. As a new composition of matter, useful in medicine as a local anesthetic agent, an aqueous solution containing, in synergistic combination, a soluble procaine salt and a soluble butethamine salt, so proportionated that there is present in the mixture, per unit weight of butethamine, one to three units of weight of procaine.

2,838,440

DUSTING POWDER OF CARBOXYLIC CATION-EXCHANGE RESIN AND POWDER BASE

Francis M. Thurmon, Boston, Mass., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 29, 1953
Serial No. 389,149
3 Claims. (Cl. 167—58)

1. As a new composition of matter, a dusting powder comprising 2% to 60% by weight of a refined, finely particled cation exchange resin and 98% to 40% of a powder base, said resin having carboxyl groups as the reactive functional groups thereof and giving a pH between about 3 and about 5.5 in suspension in an aqueous 0.15 N salt solution, the particles of said resin substantially passing a 325 mesh screen and being dispersed in said base.

2,838,441

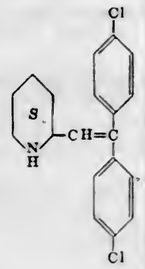
1,1-DI-(p-CHLOROPHENYL) - 2 - (2-PIPERIDYL)-ETHYLENE AND THERAPEUTIC COMPOSITIONS CONTAINING SAID COMPOUNDS

Robert E. Allen, Wyoming, and Frank P. Palopoli and Charles H. Tilford, Cincinnati, Ohio, and Marcus G. Van Campen, Jr., Berkeley, Calif., assignors to The Wm. S. Merrell Company, Cincinnati, Ohio, a corporation of Delaware

No Drawing. Application May 10, 1957
Serial No. 658,254
2 Claims. (Cl. 167—65)

2. A pharmaceutical preparation which includes a

pharmaceutical carrier and 1,1-di-(p-chlorophenyl)-2-(2-piperidyl)-ethylene of the formula



wherein S signifies that the ring is saturated.

2,838,442
SHAVING STICK COMPOSITION AND METHOD OF USING SAME
Theodore McMaster, Gilman, Ill.
Application December 17, 1954, Serial No. 476,037
2 Claims. (Cl. 167—85)

1. The method of preparing the skin for immediate shaving comprising applying to the skin which is wet with water a composition consisting of 90% talc, a detergent composition consisting of about 2% to 5% by weight of a water-soluble salt of an alkyl substituted benzene sulphonic acid having from 12 to 14 carbon atoms in the alkyl group thereof and about 2% to 2.5% of a water-soluble salt of carboxy methyl cellulose, about 2% to 4% by weight of titanium dioxide as a white pigment, and at least about 1.5% of colloidal magnesium silicate as a dispersing agent for the talc, pigment and detergent composition, permitting the face to dry for at least a half minute after application of the composition, and thereafter washing the coating of said composition from the skin by the application of water to leave the skin and beard in a soft and moist condition ready for immediate shaving.

2,838,443
CONCENTRATION OF LACTOBACILLI
Hazel B. Gillespie, New Brunswick, N. J., assignor to Rutgers Research and Educational Foundation, New Brunswick, N. J., a non-profit corporation of New Jersey
No Drawing. Application July 28, 1955
Serial No. 525,072
11 Claims. (Cl. 195—96)

1. The process for obtaining, in media from which they can be readily recovered and concentrated, large populations of micro-organisms belonging to species of the family Lactobacteriaceae which produce acid coagulation upon growth in milk and which are not strictly anaerobic in that they include strains which are microaerophilic and strains which are metabolically indifferent with respect to oxygen and are often called facultative anaerobes, comprising the steps of inoculating media, composed principally of milk, with cultures of at least one of the aforesaid species; growing the inocula in said media to produce well-established cultures of the bacteria therein and to produce sufficient acidity as a result of such growth to reduce the pH to the range of about 6.5 to about 4.5; separately preparing in an aqueous medium a proteolytic enzyme of the type which is able to digest casein in an acid environment, treating said enzyme to render it substantially free from vegetative bacterial cells; adding the enzyme so prepared to said well-established cultures in an effective amount which is equivalent to from about 0.05% up to about 1% of commercial grade of white Ceylon papain, which has been heated while in an aqueous medium to a temperature in the range of about 63°–70° C. for about ½ hour; and continuing the growth of the bacteria in the treated media, while digesting the casein content thereof with the enzyme to minimize the quantity of curd present; the development of contaminating bacteria in the mixtures being substantially prevented by the accumulated metabolic products of the multiplying bacteria being grown as aforesaid.

2,838,444
PLATINUM-ALUMINA CATALYST MANUFACTURE
John W. Teter, Chicago, and John L. Gring, Homewood, Ill., and Carl D. Keith, Munster, Ind., assignors to Engelhard Industries, Inc., a corporation of New Jersey
No Drawing. Application February 21, 1955
Serial No. 489,726
4 Claims. (Cl. 196—50)

1. A catalyst having reforming activity and essentially comprising calcined alumina and a platinum metal having reforming activity which is characterized by large pore, high area base structure essentially composed of gamma alumina modifications resulting from the drying and calcination of a mixture of precursor hydrous alumina phases containing about 65 to 95% of trihydrate, said catalyst containing from about 0.1% to about 1% by weight of a platinum metal, said platinum metal being present in sufficiently finely divided form as to exhibit by X-ray diffraction studies, the substantial absence of crystallites and crystals of size larger than about 50 Angstrom units, said catalyst after calcining and before use having an area (BET method) of from about 350 to about 550 square meters per gram.

3. The process of reforming light hydrocarbon stocks to produce gasoline, benzene and other selected aromatics, which comprises contacting the hydrocarbon stock under reforming conditions of temperature, pressure and hydrogen partial pressure with a reforming catalyst as defined in claim 1.

2,838,445
REFORMING PROCESS AND CATALYST
John W. Teter, deceased, late of Chicago, Ill., by Ruth Young Teter, administratrix, Chicago, Ill., Carl D. Keith, Munster, Ind., and John L. Gring, Homewood, Ill., assignors to Engelhard Industries, Inc., a corporation of New Jersey
No Drawing. Application April 27, 1956
Serial No. 581,250
4 Claims. (Cl. 196—50)

1. A catalyst having reforming activity and essentially comprising calcined alumina and a platinum metal having reforming activity, which catalyst is characterized by large pore base structure essentially composed of gamma-alumina modifications resulting from the drying and calcination of a mixture of precursor hydrous alumina phases containing from about 65 to about 95% of trihydrate, said catalyst containing from about 0.1% to about 1.5% by weight of a platinum metal, said platinum metal being present in sufficiently finely divided form as to exhibit by X-ray diffraction studies, the substantial absence of crystallites and crystals of size larger than about 50 angstrom units, the conditions of calcining serving to sinter the catalyst so that after calcining and before use it has substantially no pores smaller than about 10 angstrom units radius and a surface area of less than about 350 square meters per gram.

3. The process of reforming light hydrocargon stocks to produce gasoline, benzene and other selected aromatics, which comprises contacting the hydrocarbon stock under reforming conditions of temperature, pressure and hydrogen partial pressure with a reforming catalyst as defined in claim 1.

2,838,446
HYDROCARBON CONVERSION PROCESS WITH A PLATINUM CONTAINING CATALYST
George R. Donaldson, North Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Original application May 29, 1950, Serial No. 165,107, now Patent No. 2,723,946, dated November 15, 1955. Divided and this application June 29, 1955, Serial No. 518,971
8 Claims. (Cl. 196—50)

1. In the reforming of a hydrocarbon charge stock boiling approximately within the gasoline range and having an appreciable nitrogen compound content in the presence of hydrogen and a platinum-containing catalyst at reforming conditions at which the charge stock exhibits substantial tendency to deactivate the catalyst, the method which comprises reforming said stock until the catalyst has lost a measurable amount of activity, discontinuing the processing of said charge stock and substituting therefor a normally liquid hydrocarbon charge stock substantially free from nitrogen compounds and which exhibits less tendency to deactivate the fresh catalyst, reforming said latter stock until at least a part of the lost activity has been restored, and thereafter discontinuing the reforming of said latter stock and reforming a charge stock boiling approximately within the gasoline range and having an appreciable nitrogen content in the presence of hydrogen.

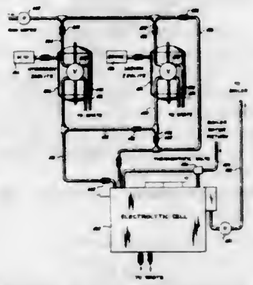
2,838,447
PROCESS FOR STABILIZING CREOSOTE OILS BY SHOCK COOLING AND STABILIZED PRODUCT
John Vincent Savercool, Montville, N. J., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York
No Drawing. Application December 10, 1953
Serial No. 397,487
5 Claims. (Cl. 196—149)

1. As a new composition of matter a stable, non-caking, macroscopically homogeneous-appearing creosote oil containing between about 0.5% and about 5% (dry basis) of "anthracene salt" crystals having maximum particle diameters not exceeding about 15 microns and having the property of remaining substantially non-caking under conditions of temperature fluctuations below the limpid point of the oil for indefinite periods at least sufficient to insure adequate suspension stability during storage and shipment under normal industrial conditions.

2,838,448
COPPER AND BRASS PLATING BRIGHTENER
Daniel R. France, Brooklyn, N. Y.
No Drawing. Application July 17, 1957
Serial No. 672,347
2 Claims. (Cl. 204—44)

1. A plating solution brightener for producing bright ductile deposits of a metal selected from the group consisting of copper and brass from alkaline-cyanide electroplating solutions comprising the following in substantially the following proportions, two ounces of sodium arsenite, ten to twenty ounces sodium nitrate, ten ounces sodium zincate, twenty ounces sodium hydroxide, sixteen ounces methyl alcohol, sixteen ounces formaldehyde, thirty-two ounces wetting agent, one to five grams tetraethylrhodamine and water sufficient to make one gallon of brightener.

2,838,449
METHOD AND APPARATUS FOR WATER TREATING
Robert E. Briggs, Azusa, Calif.
Application July 18, 1955, Serial No. 522,808
8 Claims. (Cl. 204—151)



1. A process for treating water containing a total hardness content in excess of its bicarbonate content, comprising: replacing at least some of the hardness-producing cations in said water with sodium ions by ion exchange with sodium zeolite so that the bicarbonate content of the resultant water is at least equal to the remaining total hardness content of said water, and subjecting said treated water to electrolytic action in the cathode compartment of an electrolytic cell to alkalize said water and precipitate at least part of any remaining hardness-producing cations as carbonates.

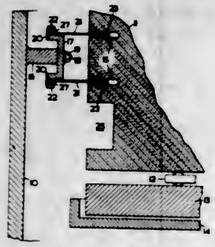
2,838,450
PROCESS FOR THE SEPARATION OF A MIXTURE OF BENZENE AND PARAFFINS
Georges Jules Pierre Souillard, Brussels, Belgium
No Drawing. Application April 4, 1955
Serial No. 499,220
Claims priority, application France July 22, 1950
2 Claims. (Cl. 204—163)

1. A method for separating the components of a mixture consisting essentially of benzene and paraffins wherein the paraffins are present in minor proportion, comprising analyzing the mixture to determine quantitatively the quantity of paraffins present in the mixture, and then passing chlorine into the mixture in a slight molecular excess with respect to the paraffins under conditions to selectively and quantitatively chlorinate the paraffin hydrocarbon consisting essentially of irradiating the reaction mixture with ultraviolet light, and at ambient temperature, and then physically separating the chlorinated paraffins from the benzene.

2,838,451
GAS COOLED NUCLEAR REACTORS
Everett Long, Culcheth, and William Rodwell, Widnes, England, assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application November 14, 1955, Serial No. 546,363
5 Claims. (Cl. 204—193.2)

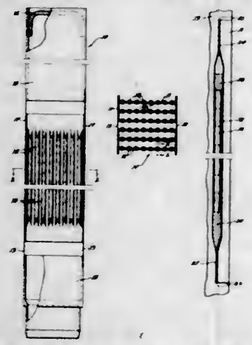
1. A gas seal for sealing the interstice between a multi-sided right prismatic structure and a cylindrical vessel containing said structure, said structure having a pair of parallel slots around its periphery, said seal comprising a flange around the inner wall of the vessel midway between the two slots in said structure and forming an aperture conforming to the cross-sectional shape of the structure, a support member around the periphery of said aperture formed of a number of individual channel section members conforming to the number of sides to said structure adjustably attached to said flange, a flexible web adjustably attached at one end to each leg of each of

said channel-sectioned members and extending radially inward so that its other end resides in one of the slots



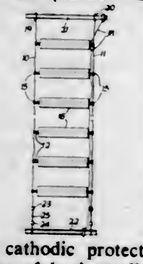
in the structure and means thickening the webs at the ends residing in the slot.

2,838,452
PLATES WITH OXIDE INSERTS
John M. West, Downers Grove, and James F. Schumar, Hinsdale, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application September 28, 1956, Serial No. 612,906
3 Claims. (Cl. 204—193.2)



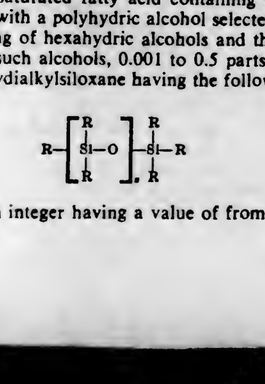
1. An assembly comprising a plurality of aluminum plates, means attached to side edges of the plates for holding them in parallel spaced side-by-side relationship, each plate having a plurality of parallel spaced longitudinal cylindrical openings, cylindrical nuclear-fuel elements of thoria and urania positioned in said openings, and lead contained in the openings in the plates to provide thermal bonds between the fuel elements and the plates.

2,838,453
CATHODIC PROTECTION MEANS
Jack H. P. Randall, London, England, assignor to F. A. Hughes & Co. Limited, London, England
Application November 16, 1955, Serial No. 547,248
Claims priority, application Great Britain November 18, 1954
2 Claims. (Cl. 204—197)



1. Means for the cathodic protection of ship tanks comprising a plurality of horizontally extending anode blocks hung from the top of the tank like rungs of a ladder in vertically spaced position parallel to each other between two flexible electrically non-conducting ropes, and flexible metal conductors electrically connecting said anodes with each other and with the tank.

2,838,454
ELECTROLYTIC CELL
Malcolm E. Washburn, Northboro, Mass., assignor to Norton Company, Worcester, Mass., a corporation of Massachusetts
Application October 12, 1954, Serial No. 461,740
1 Claim. (Cl. 204—246)



An electrolytic cell for the extraction of metal from metal carbide which comprises a metal container, a graphite container within said metal container, said graphite container being adapted to contain fused salt, means for maintaining a controlled inert atmosphere inside said metal container including a head secured to said metal container and an orifice for the introduction of said inert atmosphere, a cathode within said graphite container, a metal carbide anode within said graphite container surrounding at least 80% of the submerged unmasked area of the cathode as determined by projecting the submerged area of the cathode radially in a horizontal direction from its surface to the submerged area of the anode, the area of said anode being considerably greater than the area of said cathode, and electrical leads for the anode and for the cathode whereby the cathode can be made negative and the anode positive.

2,838,455
TEXTILES AND CONDITIONING COMPOSITIONS THEREFOR
Gerald S. Tompkins, Ardmore, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application April 9, 1953
Serial No. 347,849
15 Claims. (Cl. 252—8.6)

1. An aqueous emulsion for conditioning textile structures consisting essentially of 0.1 to 1 part by weight of an ester of a saturated fatty acid containing at least 16 carbon atoms with a polyhydric alcohol selected from the group consisting of hexahydric alcohols and the anhydro derivatives of such alcohols, 0.001 to 0.5 parts by weight of a liquid polydialkylsiloxane having the following formula

wherein x is an integer having a value of from 80 to 800

and R is selected from the group consisting of methyl, ethyl, isopropyl and propyl, 0.01 to 1 part by weight of an emulsifying agent and sufficient water to make a total of 100 parts by weight.

2,838,456
LUBRICATING OIL COMPOSITIONS
Fred W. Banes, Westfield, and William P. Fitzgerald, Florham Park, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application March 1, 1955
Serial No. 491,514
11 Claims. (Cl. 252—50)

1. A lubricating oil composition comprising a major proportion of a lubricating oil and about 0.1 to 10.0% by weight, based on the total composition, of a reaction product of about 10 parts by weight of a copolymer of a major proportion of an isoolefin of 4 to 8 carbon atoms with a minor proportion of a conjugated aliphatic diolefin of 4 to 6 carbon atoms, said copolymer having a molecular weight of about 4,000 to 60,000, and a mol percent unsaturation of about 5 to 50, reacted with about 5 to 200 parts by weight of an unsaturated, polar, nitrogen-containing hydrocarbon monomer selected from the group consisting of acrylonitrile, vinylpyridine and the lower alkyl derivatives thereof.

2,838,457
LOW TEMPERATURE LOW VISCOSITY HYDRAULIC OIL
Oliver M. Ballentine, Whippany, N. J., assignor to the United States of America as represented by the Secretary of the Air Force
No Drawing. Application February 6, 1957
Serial No. 638,663
2 Claims. (Cl. 252—78)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A low temperature low viscosity hydraulic oil consisting of a mixed base stock and an additive, wherein the mixed base stock consists of a dimethyl silicone oil polymerized to a viscosity of about 100 centistokes present by weight in an amount within the range of about from 42 to 58% of the hydraulic oil and a dimethyl silicone oil polymerized to a viscosity of about 2 centistokes present by weight in an amount within the range of about from 30 to 46% of the hydraulic oil, and the additive consisting of a snuffer selected from the group consisting of difluoropentachloro propane and dichlorotrifluoro propane in an amount by weight within the range of about 6 to 14% of the hydraulic oil and an oxidation inhibitor consisting of 2,6 ditertiary butyl 4 methyl phenol in an amount by weight within the range of about between 0.3 and 1.5% of the hydraulic oil.

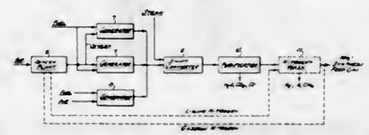
2,838,458
INHIBITED METHYL CHLOROFORM
Howard J. Bachtel, Lake Jackson, Tex., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application September 30, 1955
Serial No. 537,903
5 Claims. (Cl. 252—171)

1. A composition of matter consisting essentially of methyl chloroform having dissolved therein, to inhibit the corrosiveness of methyl chloroform to metals, from 2.5 to 10 percent by volume of 1,4-dioxane and from 0.01 to 10 percent by volume of a lower aliphatic monohydric acetylenic alcohol containing less than 8 carbon atoms.

2,838,459
STABILIZATION OF SOLUTIONS CONTAINING PEROXYGEN COMPOUNDS
Oliver S. Sprout, Jr., North Hills, Pa., assignor to Pennsalt Chemicals Corporation, Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application February 1, 1955
Serial No. 485,620
6 Claims. (Cl. 252—186)

1. A stabilized peroxide solution containing for each 33,333 parts of solution a maximum of about 2,500 parts by weight (100% basis) of a peroxide compound selected from the group consisting of hydrogen and sodium peroxide, about 8 parts to about 2,500 parts by weight of an alkali-metal silicate, anhydrous and hydrated magnesium salts selected from the group consisting of magnesium sulfate, magnesium chloride, magnesium nitrate and magnesium acetate in a quantity sufficient to provide at least about 1 to 67 parts by weight of magnesium, and for each 1 part of magnesium, about 1 part to 5 parts by weight of an alkali metal polyphosphate.

2,838,460
PRODUCTION OF AMMONIA SYNTHESIS FEED GAS
William M. Stratford, New York, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application December 23, 1955, Serial No. 554,964
8 Claims. (Cl. 252—376)



1. A process for the production of a mixture of hydrogen and nitrogen in the relative proportions of approximately three volumes of hydrogen per volume of nitrogen which comprises reacting fossil carbonaceous fuel in a first reaction zone with an oxygen-containing gas comprising substantially pure oxygen as the sole source of free oxygen at a temperature above about 2250° F. in relative proportions such that the carbon content of said fuel is substantially completely converted to carbon monoxide, subjecting additional fossil carbonaceous fuel to reaction with air in a second reaction zone at a temperature above about 2250° F. in relative proportions such that the carbon content of said fuel is substantially completely converted to carbon monoxide, forming a mixture containing carbon monoxide and nitrogen; combining the products of said reactions comprising carbon monoxide and nitrogen together with any hydrogen concomitantly produced in relative proportions such that the composite stream contains at least three volumes of carbon monoxide and hydrogen per volume of nitrogen; subsequently converting carbon monoxide in said composite stream substantially completely to carbon dioxide by reaction with steam thereby producing hydrogen; and removing steam and carbon oxides from the resulting gas stream thereby producing a gaseous mixture of hydrogen and nitrogen containing approximately three volumes of hydrogen per volume of nitrogen.

2,838,461
CATALYST REGENERATION
Reyner Kollgaard, San Rafael, Calif., assignor to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
Application January 16, 1953, Serial No. 331,544
4 Claims. (Cl. 252—418)

1. In a hydrocarbon conversion process wherein granular contact material contaminated with a carbonaceous

deposit is regenerated by combustion of such deposit in the presence of oxygen-containing gas while gravitating as a compact moving mass through a regenerator, the improvement which comprises the steps of: introducing said contact material as a first plurality of confined compact moving columns into an initial contact zone, introducing oxygen-containing gas into said initial contact zone, withdrawing said contact material in admixture with said oxygen-containing gas from said initial contact zone as a second plurality of confined compact moving columns individually aligned with said first plurality and closely spaced therefrom, said second plurality of columns comprising initial concurrent-flow regeneration



zones, discharging said contact material and the gaseous combustion products from said second plurality of columns within an expanded confined regeneration zone, said contact material being deposited directly onto the surface of a compact moving bed therein, introducing oxygen-containing gas into the lower region of said bed and passing the same countercurrently therethrough, disengaging the total gaseous combustion products formed within said columns and said bed at the exposed surface of said bed, discharging said total disengaged gaseous combustion products from the space above said bed, and discharging said contact material downwardly in compact flow from the lower end of said bed.

2,838,462

CATALYST FOR CARBON MONOXIDE OXIDATION

Robert N. Pease, Princeton, N. J., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application March 20, 1956
Serial No. 572,776
1 Claim. (Cl. 252—471)

A catalyst for vapor phase oxidation which consists of an intimate mixture of manganese dioxide, silver oxide, and palladium oxide in the relative atomic proportions of the metals of 3:2:1 respectively.

2,838,463

CHLOROPRENE CEMENT HAVING IMPROVED ADHESIVE PROPERTIES

Stephen E. Freeman, Milwaukee, Wis., assignor to Freeman Chemical Corporation, a corporation of Wisconsin

No Drawing. Application October 20, 1955
Serial No. 541,853
4 Claims. (Cl. 260—3.5)

1. A smooth, homogeneous cement containing:

100 parts by weight of a vulcanized chloroprene polymer
1.9 parts by weight of N-phenyl-beta-naphthylamine
7.2 parts by weight of precipitated calcium silicate
3.7 parts by weight of light calcined magnesia
4.7 parts by weight of zinc oxide
36.2 parts by weight of a terpene-phenolic thermoplastic resin
4.2 parts by weight of a paracoumarone-indene resin
1.6 parts by weight of a chlorinated natural rubber

and an inert organic solvent.

2,838,464

COATING COMPOSITIONS CONTAINING NITROCELLULOSE, ALKYD RESIN AND POLYESTER PLASTICIZER, AND ARTICLE COATED THEREWITH

Walter Kelgwin Moffett and John Daniel Pickens, Flint, Mich., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 14, 1955
Serial No. 494,252
11 Claims. (Cl. 260—16)

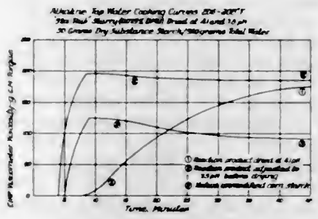
1. A liquid coating composition, which produces a dry light-colored coating characterized by resistance to discoloration from contact with oil, grease or tar, comprising lacquer grade nitrocellulose, alkyd resin modified with 25%–35% by weight of a member of the group consisting of coconut oil and coconut oil fatty acids as the only oil modifier in said resin, polyester plasticizer of the class consisting of 2-ethyl hexanediol adipate, propylene glycol sebacate and propylene glycol adipate, and volatile organic solvent, said plasticizer having a boiling point above about 325° C., having a solubility in water at 25° C. of less than 0.005% by weight, and producing a cloudy mixture when mixed with an equal weight of n-hexane.

2,838,465

THICK-PASTING STARCH CONTAINING UREA-FORMALDEHYDE AND PROCESS OF MAKING THE SAME

Thaddeus Porowski, Wheaton, Ill., assignor to A. E. Staley Manufacturing Company, Decatur, Ill., a corporation of Delaware

Application June 18, 1957, Serial No. 666,807
11 Claims. (Cl. 260—17.3)



1. A process of preparing a starch product characterized by its ability to cook rapidly in an aqueous medium to form high viscosity starch pastes which are stable at high temperatures which comprises, reacting at an acid pH and at a temperature of at least 70° F. but substantially below the pasting temperature of the starch an aqueous slurry of unmodified starch with from about 0.05–0.15% of at least one water-soluble, heat-reactive, urea-formaldehyde composition selected from the group consisting of dimethylol urea, monomethylol urea, and water-soluble urea-formaldehyde resin, based on the weight of the starch in said slurry, adjusting the pH of the reacted medium to an alkaline pH ranging up to about 10, and recovering the starch-resin reaction product from the alkaline medium.

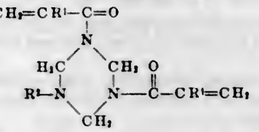
2,838,466

SOIL STABILIZATION WITH POLYMERIZED MONOMERIC TRIAZINE AND PRODUCT

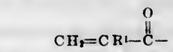
John J. Padbury, Springdale, and Russell L. Morgan, Riverside, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 11, 1953
Serial No. 361,078
13 Claims. (Cl. 260—29.6)

1. A composition of matter which comprises soil and the substantially water-insoluble product of the polymerization of a monomeric triazine having the formula:



in which R^1 is of the group consisting of hydrogen and methyl radicals and R^2 is of the group consisting of hydrogen and



radicals in admixture with a different polymerizable unconjugated terminal ethenoid monomer having a solubility of at least 1 per cent by weight in water at 20 degrees centigrade.

2,838,467

KETO-ACID ESTER PLASTICIZERS FOR VINYLIDENE CYANIDE POLYMERS

Donald Gene Dobay, Brecksville, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application August 30, 1955
Serial No. 531,591
13 Claims. (Cl. 260—31.6)

1. A composition comprising a polymer of vinylidene cyanide and, as a plasticizer therefor, an ester of a 4-oxocarboxylic acid containing from 5 to 10 carbon atoms and an alcohol selected from the class consisting of monohydric alcohols containing 1 to 6 carbon atoms and dihydric alcohols containing from 2 to 6 carbon atoms.

2,838,468

PROCESS FOR PREPARING AMINOPLASTS IN BEAD FORM COMPRISING REACTING AMINE-ALDEHYDE RESINS WITH ANIONIC POLYELECTROLYTES

William A. Laurie, Springfield, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application May 25, 1953
Serial No. 357,367
10 Claims. (Cl. 260—45.2)

1. A process for preparing water-insoluble fusible aminoplasts in bead form which comprises essentially forming a reaction medium by reacting a nitrogen-containing organic compound taken from the group consisting of urea, thiourea, dicyandiamide, melamine, ammeline, hexamethylene diamine, phenylene diamine, 2-oxo-4,5-diimino parabanic acid and guanidine with a carbonyl compound taken from the group consisting of aldehydes and ketones in an aqueous alkaline medium to the point of incipient insolubility in water, said compounds being present in a mol ratio ranging between 0.2 to 1.0 of carbonyl compound per active hydrogen atom attached to nitrogen atoms of said organic compound, and thereafter adding to the reaction medium as the sole additive an anionic polyelectrolyte and heating said medium at 80–100° C. until beads are formed, said anionic polyelectrolyte being a member of the group consisting of homopolymers of acrylic acids, copolymers of non-ionic vinylidene monomers with acrylic acids and copolymers of nonionic vinylidene monomers with butene-dioic acids, the acid monomer in said anionic polyelectrolytes constituting at least 25 mol percent thereof, the amount of polyelectrolyte in the product being restricted to from 1 to 50% based on the total solids thereof.

2,838,469

BLENDS AND COPOLYMERS OF POLYMERIZED ACETYLENE AND METHOD OF MOLDING SAME

Alio J. Buselli, New Providence, and Arthur V. Tobolsky, Princeton, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application March 25, 1953
Serial No. 344,672
14 Claims. (Cl. 260—45.5)

1. A polymer blend comprising cuprene and a synthetic elastomer selected from the group consisting of polybutadiene and a copolymer of butadiene and sytrene.

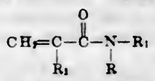
2,838,470

COPOLYMERIZATION OF ACRYLONITRILE AND ANOTHER UNSATURATED MONOMER IN THE PRESENCE OF PREFORMED INTERPOLYMER

Harry W. Coover, Jr., Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 3, 1954
Serial No. 408,012
12 Claims. (Cl. 260—45.5)

1. A process for preparing a resinous fiber-forming graft copolymer containing from 60 to 95% by weight of combined acrylonitrile which comprises contacting a polymerization reaction mixture consisting predominantly of water and containing (1) a peroxide polymerization catalyst and (2) from 40 to 5 parts by weight of a copolymer consisting of from 50 to 99% by weight of an amide represented by the following general formula:



wherein R and R_1 each represents a member selected from the group consisting of a hydrogen atom and an alkyl group of from 1 to 4 carbon atoms and R_2 represents a member selected from the group consisting of a hydrogen atom and a methyl group, and from 50 to 1% by weight of a compound selected from the group consisting of a dissimilar amide represented by the above general formula and acrylonitrile, the said copolymer having been formed in and not separated from said mixture and containing from 70 to 100% of the original polymerizable monomers in said mixture, with (3) from 60 to 95 parts by weight of a monomer mixture consisting of from 85.0 to 99.5% by weight of acrylonitrile and from 15.0 to 0.5% by weight of a monomer represented by the above general formula, until at least 70% by weight of the monomers originally present in said reaction mixture have combined with said copolymer to give a graft copolymer containing from 60 to 95% by weight of combined acrylonitrile.

2,838,471

PREVENTION OF SURFACE CRAZING OF RUBBER-RESIN BLENDS BY AROMATIC POLYAMINES

Dean E. Peterson, Naugatuck, and William F. Brucksch, Jr., Bethany, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 18, 1954
Serial No. 430,722
2 Claims. (Cl. 260—45.9)

1. A polyblend of approximately 50 to 10 percent by weight of a butadiene-acrylonitrile rubbery copolymer

and approximately 50 to 90 percent by weight of a styrene-acrylonitrile resinous copolymer containing, by weight, from about 0.1 to 5.0 parts per 100 parts of the polyblend, of a member selected from the group consisting of diprimary aromatic amines and their salts.

2,838,472

VULCANIZATION OF SILICONE RUBBER

Glennard R. Lucas, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application January 6, 1955
Serial No. 480,271
10 Claims. (Cl. 260—46.5)

1. A curable composition of matter comprising (1) an organopolysiloxane convertible to the cured, solid, elastic state, the organic groups of the organopolysiloxane being selected from the class consisting of monovalent hydrocarbon radicals and chlorinated phenyl radicals, there being present an average of from about 1.98 to 2.05 silicon-bonded organic radicals per silicon atom, and (2) a curing agent for (1) comprising a finely divided peroxide selected from the class consisting of benzoyl peroxide and bis(2,4-dichlorobenzoyl)peroxide, in which at least 95 percent of the peroxide particles have an average particle diameter below 12 microns and essentially all the particles of the peroxide having an average particle diameter below 20 microns, the said finely divided peroxide containing from 2 to 5%, by weight, thereof of water and being in the form of a creamy dispersion in a methylpolysiloxane fluid wherein the benzoyl peroxide comprises from 25 to 75%, by weight, of the entire dispersion.

2,838,473

RAPID METHOD FOR PRODUCING STABLE NOVOLAKS

Alexander M. Partansky, Concord, and Mack A. King, Jr., Walnut Creek, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 28, 1953
Serial No. 382,851
4 Claims. (Cl. 260—57)

1. The rapid method for making a stable novolak from phenol and formaldehyde which comprises supplying to a pressure vessel a mixture consisting essentially of (*a*) phenol, (*b*) from 0.5 to 0.9 mol of formaldehyde per mol of phenol, (*c*) from 0.5 to 2 times as much water as phenol by weight and (*d*) from 0.1 to 5 percent, based on the weight of phenol, of a strong mineral acid. closing the vessel. supplying heat to the mixture only until vigorous exothermic reaction is first evidenced, maintaining the mixture in said closed vessel under the varying autogenous superatmospheric pressure until the temperature and pressure values cease rising and start to decline; and then allowing the closed vessel and the mixture therein to cool by unaided radiation to a temperature below 150° C., and thereafter cooling the mixture in the closed vessel until the pressure in the vessel is atmospheric pressure.

2,838,474

CONDENSATION PRODUCTS OF BISPHENOLS WITH AROMATIC VINYL COMPOUNDS

Helmut Meis and Hubert Sauer, Letmathe, Westphalia, Germany, assignors to Rutgerswerke-Aktiengesellschaft, Frankfurt, Germany

No Drawing. Application January 28, 1954
Serial No. 406,903
8 Claims. (Cl. 260—62)

1. A process for preparing a condensation product, comprising heating one mol of a bisphenol formed by the condensation of a ketone with a phenol selected from the group consisting of phenol, cresols and dimethyl phenols, with 2–10 mols of an aromatic vinyl compound selected from the group consisting of styrene and lower alkyl-substituted styrenes, in the presence of an organic liquid which is inert to the bisphenol and to the vinyl compound, and in the presence of a surface active bleaching earth.

2,838,475

CONTINUOUS POLYMERIZATION PROCESSES AND RESULTING PRODUCTS

Gerald R. Barrett, Winchester, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 23, 1953
Serial No. 400,123
12 Claims. (Cl. 260—78.5)

1. A continuous process of polymerizing monomers of polymerizable unsaturated organic compounds which comprises continuously adding a polymerization catalyst, a non-polymerizable, inert liquid, a gaseous vinyl compound having a single vinyl group and an unsaturated compound selected from the group consisting of maleic anhydride, mixtures of maleic anhydride and alkyl esters of maleic acid, said mixtures containing at least 50% of maleic anhydride by weight, mixtures of maleic anhydride and acrylic acid and mixtures of maleic anhydride and methacrylic acid, to a zone which is at superatmospheric pressure and has an atmosphere of inert gas and contains a slurry of a copolymer of said vinyl compound and said unsaturated compound in said inert liquid, said inert liquid being a non-solvent and substantially non-swelling medium for said copolymer and being selected from the group consisting of hydrocarbons having a boiling point above 50° C. and chlorinated hydrocarbons having a boiling point above 50° C., continuously maintaining the temperature of said slurry sufficiently high to effect copolymerization of the monomers of said vinyl compound and said unsaturated compound in the slurry, thereby forming additional copolymer of said vinyl compound and said unsaturated compound, and continuously removing a minor portion of the slurry from the bulk of the slurry.

2,838,476

MULTICOMPONENT INTERPOLYMERS OF VINYLIDENE CYANIDE AND MALEIC ANHYDRIDE

Hansjorg Heller, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application August 3, 1955
Serial No. 526,335
9 Claims. (Cl. 260—78.5)

1. A resinous interpolymer of (1) monomeric vinylidene cyanide, (2) maleic anhydride, and (3) a monomer containing a $CH_2=C<$ group, and which, when polymerized alone with vinylidene cyanide, forms essentially a 1:1 alternating two-component copolymer therewith said interpolymer resulting from the polymerization in a single phase system of a monomeric mixture comprising from 2.8% to 15.6% by weight of (1) and from 95.2% to 84.4% by weight of (2) and (3) combined, with (2) being present in the amount of 2.4% to 48.6% by weight of the mixture.

2,838,477

PROCESS FOR THE PURIFICATION OF HIGHLY POLYMERIZED HYDROCARBONS

Otto Roelen, Oberhausen-Holten, Helmut Kolling, Duisburg-Hamborn, Nikolaus Geiser, Oberhausen-Holten, and Ewald Stiebling, Oberhausen-Sterkrade, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany

No Drawing. Application March 29, 1955
Serial No. 497,795
Claims priority, application Germany April 5, 1954
12 Claims. (Cl. 260—82)

1. In a process for the purification of highly polymerized olefins of the type comprising ethylene and its homologues in the presence of organic solvents and of catalysts consisting of a mixture of aluminium alkyl compounds with a compound selected from the group of titanium tetrachloride, zirconium acetyl-acetonate, and thorium acetyl acetonate at temperatures from 20–100° C. and pressures up to 100 atm., the steps comprising first mechanically separating the bulk of the solvent from the polymer product, suspending the polymerized mass in water to which an alkaline agent has been added, and thereafter subjecting the suspended polymer to a treatment with steam.

2,838,478

HYDROXYLATED LIQUID DIENE COPOLYMERS AND ESTERS THEREOF

John C. Hillyer and Lee O. Edmonds, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application October 25, 1954
Serial No. 464,628
8 Claims. (Cl. 260—85.1)

1. A process for the production of hydroxylated polymeric material which comprises reacting a liquid copolymer of a conjugated diene containing from 4 to 8 carbon atoms and a compound copolymerizable therewith containing an active $CH_2=C<$ group with aqueous hydrogen peroxide in the presence of a catalyst selected from the group consisting of formic acid, methyl formate, ethyl formate and propyl formate, at a temperature in the range of 10° C. to 95° C. for a time in the range of 1 to 60 hours, the number of mols of hydrogen peroxide per theoretical aliphatic double bond present in said liquid copolymer being in the range of 0.1 to 10, the mol ratio of said catalyst to said hydrogen peroxide being in the range of 0.2 to 1 to 2 to 1, and the concentration of said aqueous hydrogen peroxide being in the range of 3 to 90 weight percent.

2,838,479

2,5-ENDOMETHYLENE-Δ^3-TETRAHYDROBENZYL ACRYLATE AND POLYMERS THEREOF

Harry Biletch, Union Turnpike, N. Y., assignor to Interchemical Corporation, New York, N. Y., a corporation of Ohio

No Drawing. Application April 6, 1956
Serial No. 576,518
3 Claims. (Cl. 260—86.1)

1. 2,5-endomethylene-Δ^3-tetrahydrobenzyl acrylate.

2,838,480

SEPARATION OF MIXED FATTY ACIDS

Daniel Swern and Winfred Evans Parker, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application July 14, 1952
Serial No. 298,879
4 Claims. (Cl. 260—96.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for separating monounsaturated fatty acids from mixtures of fatty acids containing saturated, mono- and polyunsaturated fatty acids in which the ratio of mono- to polyunsaturated acids is at least 3:1 which comprises the following sequence of steps: dissolving the mixture of acids in a solvent comprising 90% methanol and 10% water; cooling the solution to about 0° C. to precipitate most of the saturated acids as a solid; separating the supernatant liquid containing mixed unsaturated acids and residual saturated acids from the precipitate of saturated acids; dissolving, by the application of heat, sufficient urea in the separated solution to form complexes with the monounsaturated acids and remaining saturated acids; cooling the solution to about 25° C. to cause crystallization of said complexes; separating the crystals of complexes from the supernatant solution containing the polyunsaturated acids. recovering a mixture of saturated and monounsaturated fatty acids from the crystalline complexes by the addition of hot water; and separating and recovering the monounsaturated acids from the saturated fatty acids by fractional distillation.

2,838,481

METHOD FOR CONTINUOUS PROCESSING OF TALL OIL AND THE LIKE

Frank E. Sullivan, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, Poughkeepsie, N. Y., a corporation of New Jersey

Application June 29, 1956, Serial No. 594,969
9 Claims. (Cl. 260—97.5)

1. The method of treating tall oil skimmings to recover hydrolized products, which comprises mixing the skimmings with water and acid to form a dilute soap solution in which the acid is intimately dispersed, whereby the acid and solution undergo an exothermic reaction producting a reaction mixture of tall oil, spent acid water, lignin, salts and reaction gases, subjecting said reaction mixture to a gas-removal step to substantially de-gas the mixture, feeding the de-gassed reaction mixture to a locus of centrifugal force and there separating it into tall oil as a light phase, acid water and salts as a heavy phase, and acid water and lignin as an interphase, separately discharging the three phases from said locus, feeding the discharged interphase and heavy phase to a separating zone and there separating lignin and salts as relatively light and heavy components, respectively, from said acid water, and returning acid water from said separating zone to the reaction mixture.

2,838,482

PROCESS OF SULFONATING CASEIN, ZEIN, OR SOY-BEAN PROTEIN

Meyer Mendelsohn, New York, N. Y., assignor to Ion Exchange and Chemical Corp., New York, N. Y. corporation of New York

No Drawing. Application April 15, 1953
Serial No. 349,091
1 Claim. (Cl. 260—119)

A process for producing an ion exchanger soluble in water and insoluble in alkaline solution which comprises the steps of sulfonating a high-molecular-weight polymer selected from the group which consists of casein, zein, and soy-bean protein by immersing said polymer in concentrated sulfuric acid, incorporating silver-oxide powder in said acid in a proportion ranging between substantially 1% and 10% by weight of said polymer, and maintaining said polymer immersed in said acid for a prolonged period.

2,838,483

METHOD OF SEPARATING LIGNOSULFONIC ACIDS

Leif Jantzen, Oslo, Norway, assignor to Arthur C. Trask Company, a corporation of Illinois

No Drawing. Application April 1, 1955
Serial No. 498,773
8 Claims. (Cl. 260—124)

2. The method of treating sulfite liquor from a sulfite paper pulp process to separate selectively alpha-high mo-

lecular weight lignosulfonic acids and beta-low molecular weight lignosulfonic acids therefrom which comprises contacting said liquor with chrome tanned hide in an amount of about 2 parts by weight of the tanned hide per part of alpha acids for a time sufficient to combine chemically said alpha acids with the tanned hide, washing said tanned hide with an alkali to remove the alpha acids therefrom as salts and activate the tanned hide for subsequent reaction with the beta acids, again contacting said liquor from which the alpha acids have thusly been substantially removed with the tanned hide for a time sufficient to combine chemically said beta acids with the tanned hide, and washing said tanned hide with an alkali to remove the beta acids therefrom as salts.

2,838,484

PREPARATION OF PHOSPHORUS SULFIDE-HYDROCARBON REACTION PRODUCT

Robert E. Karll, Hammond, and Albert R. Sabol, Munster, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application October 17, 1955
Serial No. 541,037
6 Claims. (Cl. 260—139)

1. The method of reacting a phosphorus sulfide and a viscous olefin polymer having a viscosity at 210° F. in the range from about 80 to about 2,000 SSU comprising heating and admixture of the olefin polymer and the phosphorus sulfide at a temperature from about 200° F. to about 450° F. for a period of time of from about one to about ten hours in the presence of from about 2% to about 10% by weight of a compound having the general formula:

RXH

wherein R represents a member selected from the group consisting of alkyl radicals having from about 5 to about 20 carbon atoms, the phenyl radical, and the alkyl substituted phenyl radical, which alkyl substituents have from about 1 to about 20 carbon atoms, and X represents a member selected from the group consisting of oxygen and sulfur.

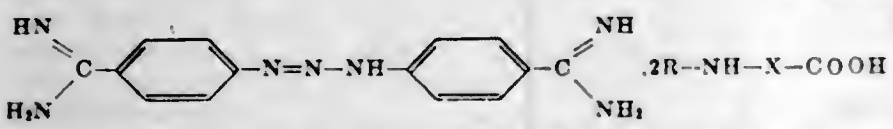
2,838,485

READILY SOLUBLE AND STABLE SALTS OF DI-(4-AMIDINO-PHENYL) - TRIAZENE - (N-1.3) AND A PROCESS OF PREPARING THEM

Richard Brodersen, Frankfurt am Main, Heinz Loewe, Kelkheim, Taunus, and Heinrich Ott, Eppstein, Taunus, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application March 12, 1956
Serial No. 570,669
Claims priority, application Germany March 19, 1955
8 Claims. (Cl. 260—140)

1. Readily soluble and stable salts of the general formula



wherein R represents an aliphatic acyl radical containing at most 4 carbon atoms and X represents an alkylene group with at most 5 carbon atoms.

2,838,486

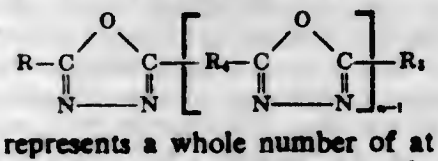
AZO PIGMENTS CONTAINING OXDIAZOLE RINGS

Willy Mueller, Riehen, and Adolf Emil Siegrist, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application July 6, 1955
Serial No. 520,368
Claims priority, application Switzerland July 7, 1954
7 Claims. (Cl. 260—157)

1. An azo pigment which is free from water-solubiliz-

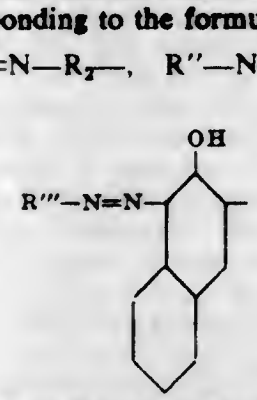
ing groups and corresponds to the formula



in which n represents a whole number of at the most 2, R_4 represents a hydrocarbon radical having at least 2 and at the most 6 carbon atoms, and R and R_3 each represents a member selected from the group consisting of radicals corresponding to the formulae

$$R'—N=N—R_3—, \quad R''—N=N—R_3$$

and



in which R' is an acetoacetylaminobenzene radical, each of R_3 and R''' is an aromatic radical containing a single ring which is a six-membered carbocyclic ring, and R'' is a pyrazolone radical.

2,838,487

SALTS OF SULFATED FATTY AMINE GLYCOSIDES

John G. Erickson, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

No Drawing. Application August 3, 1953
Serial No. 372,143
7 Claims. (Cl. 260—211)

1. An alkali metal salt of a sulfated fatty amine N-glycoside, the fatty amine group containing from 8–22 carbon atoms.

2,838,488

PREPARATION OF ORGANIC ACID ESTERS OF CELLULOSE

Robert S. Titchen, Florham Park, Arnold J. Rosenthal, Madison, and Robert H. Wells, Union, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application October 7, 1954
Serial No. 461,008
5 Claims. (Cl. 260—229)

1. A process for the production of organic acid esters of cellulose by the esterification of cellulose comprising a mixture of cotton linters and wood pulp, which comprises separately pretreating the cotton linters and wood pulp by a multi-stage pretreating process in which one stage of the pretreatment comprises the treatment of the cellulose with a lower aliphatic acid, and a later stage of the pretreatment comprises the treatment of the cellulose with a mixture of a lower aliphatic acid and an esterification catalyst, blending the pretreated cotton linters and the pretreated wood pulp, and esterifying the blended pretreated cellulose.

2,838,489

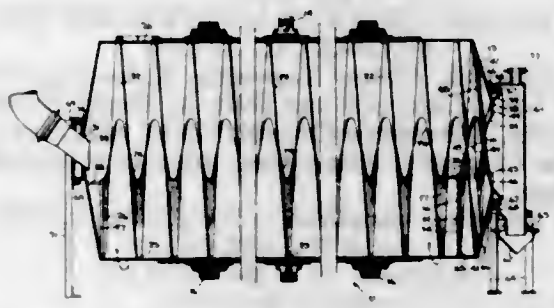
METHOD OF HARDENING CELLULOSE ACETATE AND APPARATUS SUITABLE THEREFOR

John G. Mitchell, Charlotte, N. C., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application September 15, 1954, Serial No. 456,244
13 Claims. (Cl. 260—230)

1. In a treating apparatus, a vessel having an inlet and

an outlet at opposite ends thereof, means for supplying a continuous stream of a flowable material to the inlet of said vessel, and means for dividing said continuous stream into successive separate batches and for moving said batches in separated condition along the length of said vessel from said inlet to said outlet, said means including a rotatable spiral vane mounted in said vessel, said vane having a plurality of convolutions for maintaining said batches separate and for moving said batches along the length of said vessel as said vane rotates, and a second spiral vane pitched in the same direction as said first vane and interlaced therewith, said second vane extending from the outlet end of said vessel to a point adjacent to said outlet end.



13. Process for hardening cellulose acetate directly after continuously precipitating the same from a solution thereof which comprises supplying a continuous stream of a mixture of precipitated cellulose acetate and precipitating medium therefor, continuously dividing said stream into successive separate batches, and passing said batches continuously and successively through a hardening zone while maintaining each of said batches substantially separate from the succeeding batch.

2,838,490

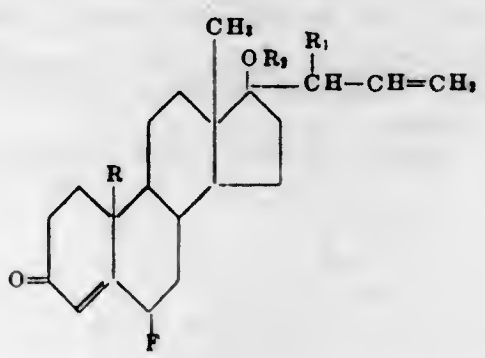
6-FLUORO ANDROSTENES

John C. Babcock, Portage Township, Kalamazoo County, J Allan Campbell and John A. Hogg, Kalamazoo Township, Kalamazoo County, and Raymond L. Pederson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957 Serial No. 699,448

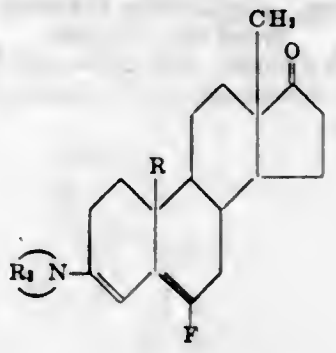
8 Claims. (Cl. 260—239.5)

1. A compound of the formula:



wherein R is selected from the group consisting of methyl and hydrogen, R_1 is selected from the group consisting of hydrogen and a lower alkyl radical containing from one to three carbon atoms, inclusive, and R_2 is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

7. A compound of the formula:



wherein R is selected from the group consisting of methyl and hydrogen and R_3 is an alkylene group containing less than nine carbon atoms and having a four to five carbon atom bridge between the valences which, together with the nitrogen atom, forms a ring which contains from five to six members, inclusive.

2,838,491

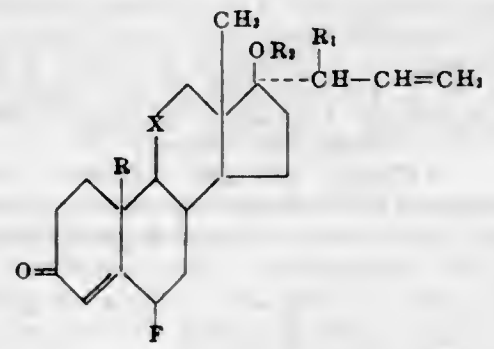
6-FLUORO STEROIDS

Milton E. Herr, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell, John A. Hogg, and Raymond L. Pederson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958 Serial No. 716,016

13 Claims. (Cl. 260—239.5)

1. A compound of the formula:



wherein R is selected from the group consisting of hydrogen and methyl, R_1 is selected from the group consisting of hydrogen and an alkyl radical containing from one to three carbon atoms, inclusive, R_2 is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and X is selected from the group consisting of >CHOH and >C=O.

13. 6 - fluoro - 11β - hydroxy - 3 - (N - pyrrolidinyl)-3,5-androstadien-17-one.

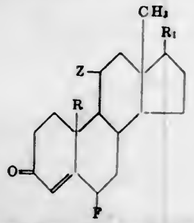
2,838,492

6-FLUORO STEROIDS

Raymond L. Pederson and Milton E. Herr, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell and John A. Hogg, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

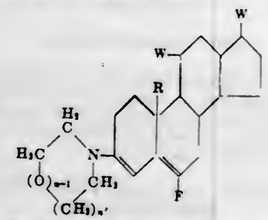
No Drawing. Application February 19, 1958
Serial No. 716,026
38 Claims. (Cl. 260—239.5)

1. A 6-fluoro compound of the androstane series having the formula:



wherein R is selected from the group consisting of methyl and hydrogen, R_1 is selected from the group consisting of hydroxyl, OAcyl, and keto, the term Acyl representing the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and Z is selected from the group consisting of hydrogen, hydroxyl, and keto.

36. A 6-fluoro-11-oxygenated compound of the androstane series having the formula:



wherein R is selected from the group consisting of methyl and hydrogen, and where W is the same member selected from the group consisting of hydroxyl and keto and n and n' are whole numbers from one to two, inclusive.

2,838,493

PREPARATION OF 9,11-OXIDO-STEROIDS

Robert P. Graber, Elizabeth, and Calvin Stewart Snoddy, Jr., Plainfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application January 5, 1955
Serial No. 480,054
5 Claims. (Cl. 260—239.55)

1. The process which comprises reacting a 9α-bromo-11β-hydroxy-steroid selected from the group consisting of the pregnanes, allopregnanes, and unsaturated pregnane compounds, with a strong base having a pH greater than 10 in 0.1 percent aqueous solution to produce the corresponding 9β,11β-oxido compound.

2,838,494

17β-HYDROXY-17α-METHYL-9(11) ANDROSTENE-3-ONE

Milton E. Herr, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application September 17, 1956
Serial No. 610,414
3 Claims. (Cl. 260—239.55)

1. A compound selected from the group consisting of 17β-hydroxy-17α-methyl-9(11)-androsten-3-one and 9,11-epoxy-17β-hydroxy-17α-methylandrostan-3-one.

2,838,495

6-FLUORO STEROIDS AND PROCESS FOR PREPARING SAME

J **Allan Campbell, Kalamazoo Township, Kalamazoo County, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan**

No Drawing. Application November 29, 1957
Serial No. 699,451
18 Claims. (Cl. 260—239.55)

1. 6-fluoro-17α-hydroxy-19-norprogesterone.

9. 5α,6α - oxido - 17α - hydroxy - 19 - norpregnane-3,20-dione 17-acetate 3-ethylene ketal.

2,838,496

6-FLUORO STEROIDS AND PROCESS FOR PREPARING SAME

John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,452
18 Claims. (Cl. 260—239.55)

1. 6-fluoro-17α-hydroxyprogesterone.

9. 5α,6α-oxido-17-hydroxypregnane-3,20-dione 17-acetate 3-ethylene ketal.

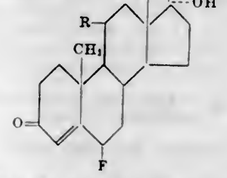
2,838,497

6-FLUORO STEROIDS AND PROCESS

George B. Spero, Kalamazoo, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

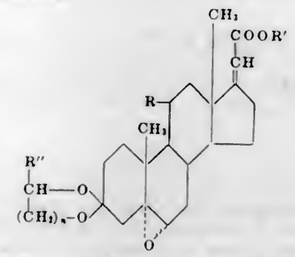
No Drawing. Application November 29, 1957
Serial No. 699,453
36 Claims. (Cl. 260—239.55)

1. 6-fluoro - 11 - oxygenated - 17α,21-dihydroxy-4-pregnene-3,20-dione of the following formula:



wherein R is selected from the group consisting of hydroxy and keto, and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

13. A 3-ketalized 3-keto-5α,6α-oxido-11-oxygenated-17-(20)-pregnene-21-carbonyloxy steroid represented by the following formula:



wherein R is selected from the group consisting of hydroxy and keto, R′ and R″ are selected from the group

consisting of hydrogen and lower-alkyl, and n is a whole number from one to two.

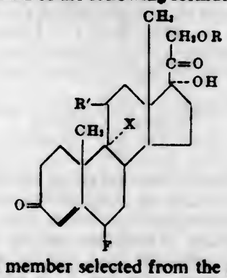
2,838,498

6-FLUORO-Δ⁴-3-KETO STEROIDS AND PROCESS FOR PREPARING SAME

Barney J. Magerlein, Kalamazoo, and George B. Spero, William P. Schneider, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

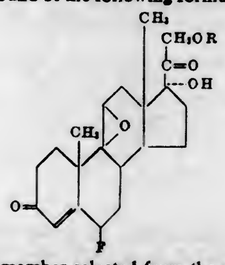
No Drawing. Application November 29, 1957
Serial No. 699,497
24 Claims. (Cl. 260—239.55)

1. A compound of the following formula:



wherein R is a member selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, R′ is a member selected from the group consisting of hydroxy and keto, and X is halogen.

12. A compound of the following formula:



wherein R is a member selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

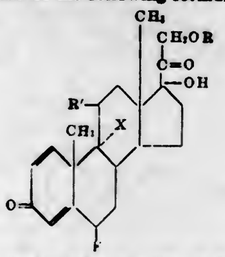
2,838,499

6-FLUORO STEROIDS AND PROCESS

George B. Spero, Kalamazoo Township, Kalamazoo County, Barney J. Magerlein, Kalamazoo, and William P. Schneider and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

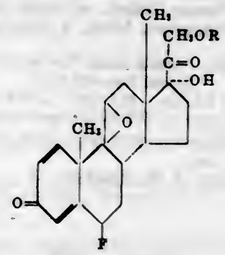
No Drawing. Application November 29, 1957
Serial No. 699,499
32 Claims. (Cl. 260—239.55)

1. A compound of the following formula:



wherein R is a member selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, R′ is a member selected from the group consisting of hydroxy and keto, and X is halogen.

20. A compound of the following formula:



wherein R is a member selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

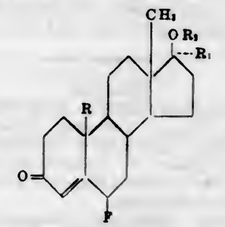
2,838,500

6-FLUORO STEROIDS

J **Allan Campbell, Kalamazoo Township, Kalamazoo County, Raymond L. Pederson, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan**

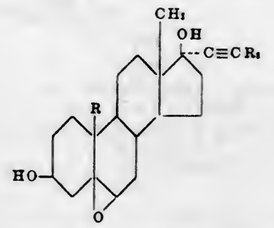
No Drawing. Application November 29, 1957
Serial No. 699,502
29 Claims. (Cl. 260—239.55)

1. 6-fluoro-17β-hydroxy-17α-alkyl-4-androsten-3-ones of the following formula:



wherein R is selected from the group consisting of methyl and hydrogen, R_1 is an alkyl radical containing from one to six carbon atoms, inclusive, and R_2 is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

28. 3β,17β-dihydroxy-17α-ethinyl - 15,6 - epoxyandrostanes of the following formula:



wherein R is selected from the group consisting of methyl and hydrogen, and R_3 is selected from the group consisting of hydrogen and an alkyl radical containing from one to four carbon atoms, inclusive.

2,838,501

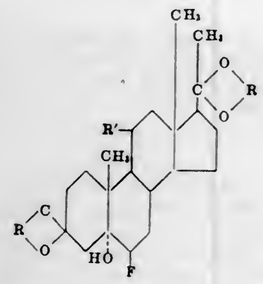
6-FLUORO-11-OXYGENATED PROGESTERONES AND PROCESS FOR PREPARING SAME

J Allan Campbell, Kalamazoo Township, Kalamazoo County, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,503
25 Claims. (Cl. 260—239.55)

1. An 11-oxygenated 6-fluoroprogesterone, wherein the 11-oxygen function is a member of the group consisting of hydroxy and keto.

8. A compound of the formula:



wherein R is an alkylene radical containing one to eight carbon atoms, inclusive, and the attaching oxygen-to-carbon bonds are separated by a chain of at least two and not more than three carbon atoms, and R′ is a member of the group consisting of keto and hydroxy.

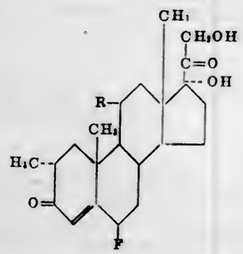
2,838,502

6-FLUORO STEROIDS AND PROCESS

Philip F. Beal, Portage Township, Kalamazoo County, John A. Hogg, Kalamazoo Township, Kalamazoo County, and Robert W. Jackson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,508
24 Claims. (Cl. 260—239.55)

1. 2α-methyl-6-fluoro-11-oxygenated-17α,21-dihydroxy-4-pregnene-3,20-dione of the following formula:



wherein R is a member selected from the group consisting of hydroxy and keto; and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

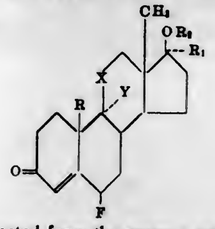
2,838,503

6-FLUORO STEROIDS

Milton E. Herr, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell, John A. Hogg, and Raymond L. Pederson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

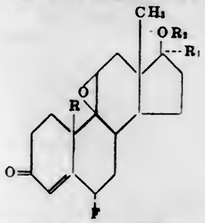
No Drawing. Application February 19, 1958
Serial No. 716,038
40 Claims. (Cl. 260—239.55)

1. 6α-fluoro-11-oxygenated-17α-alkyl compounds of the androstene series having the formula:



wherein R is selected from the group consisting of hydrogen and methyl, R_1 is an alkyl radical containing from one to eight carbon atoms, inclusive, R_2 is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, Y is selected from the group consisting of hydrogen and fluorine and X is selected from the group consisting of >CHOH and >C=O.

38. 6α - fluoro - 9,11β - epoxy - 17α-alkyl compounds of the androstane series having the formula:



wherein R is selected from the group consisting of hydrogen and methyl, R_1 is an alkyl radical containing from one to eight carbon atoms, inclusive, and R_2 is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

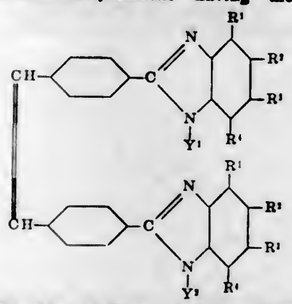
2,838,504

BENZIMIDAZOLYLSTILBENE WHITENING AND BRIGHTENING AGENTS

Nathan N. Crounse, Cincinnati, Ohio, assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 21, 1955
Serial No. 503,015
19 Claims. (Cl. 260—240)

1. A benzimidazolylstilbene having the structural formula



where R^1 R^2, R^3, and R^4 are radicals of the class consisting of hydrogen, lower alkyl containing 1–4 carbon atoms, lower alkoxy containing 1–4 carbon atoms, and halo, and Y^1 and Y^2 are radicals of the class consisting of hydrogen, lower alkyl containing 1–6 carbon atoms, hydroxy-lower alkyl containing 2–6 carbon atoms, 2-hydroxy-3-sulfopropyl, hydroxy-oxaalkyl containing 3–15 carbon atoms, carboxy-lower alkyl containing 2–6 carbon atoms, cyano-lower alkyl containing 3–6 carbon atoms, allyl, methallyl, and monocyclic aralkyl containing 7–11 carbon atoms.

2,838,505

N - [(10 - PHENOTHIAZINYL) - LOWER - ALKYL]-1,5-IMINOCYCLOALKANES, SALTS THEREOF AND PREPARATION THEREOF

Bernard L. Zenitz, Delmar, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 12, 1955
Serial No. 552,249
26 Claims. (Cl. 260—243)

1. A compound selected from the group consisting of (A) N-[(10-phenothiazinyl)-lower-alkyl]-1,5-iminocycloalkanes wherein the 1,5-iminocycloalkane radical has at least seven ring members, (B) therapeutically acceptable acid-addition salts thereof, and (C) therapeutically acceptable quaternary ammonium salts thereof.

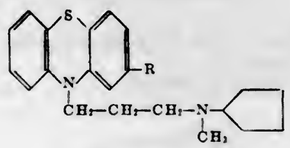
2,838,506

NEW ALKYL-AMINOALKYL-COMPOUNDS AND PROCESS FOR THEIR MANUFACTURE

Karl Hoffmann and Ernst Urech, Binningen, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application July 10, 1956
Serial No. 596,827
Claims priority, application Switzerland July 19, 1955
5 Claims. (Cl. 260—243)

1. A compound selected from the group consisting of those having the general formula:



wherein R is a member of the group consisting of hydrogen and chlorine atoms, and the therapeutically useful acid addition salts thereof.

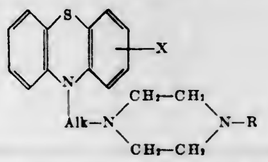
2,838,507

HYDROXYALKYLPIPERAZINOALKYLHALOPHENOTHIAZINES

John W. Cusic, Skokie, and Robert W. Hamilton, Wilmette, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application January 16, 1957
Serial No. 634,422
12 Claims. (Cl. 260—243)

1. A compound of the structural formula



wherein X is a halogen atom of atomic weight less than 100, Alk is a lower alkylene radical of two to four carbon atoms, and R is a member of the class consisting of lower hydroxyalkyl radical in which the hydroxy group is at least 2 carbon atoms removed from the nitrogen atom closest thereto, lower dihydroxyalkyl radicals in which the hydroxy groups are at least 2 carbon atoms removed from the nitrogen atom closest thereto, phenyloxy-(lower)alkyl radicals, lower alkenyloxy-(lower)alkyl radicals and lower alkyloxy-(lower)alkyl radicals.

2,838,508

CHEMICAL PROCESS AND PRODUCT

Hugh E. Ramsden, Scotch Plains, N. J., assignor to Metal & Thermit Corporation, Rahway, N. J., a corporation of New Jersey

No Drawing. Application September 18, 1956
Serial No. 610,649
7 Claims. (Cl. 260—247)

1. A process for releasing cyclic ethers from their complex with organomagnesium chloride type Grignards without destruction of the Grignard and without rendering the Grignard unavailable for subsequent reaction which comprises mixing a composition containing the complex with an ethylene polyether of the general formula:

$$RO(CH_2CH_2O)_xR'$$

wherein x is a positive integer from 1 to 8, and R and R′ are hydrocarbon groups.

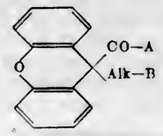
2,838,509

9-AMINOALKYL-9-XANTHENECARBOXAMIDES

John W. Cusic, Skokie, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application October 2, 1956
Serial No. 613,393
11 Claims. (Cl. 260—247.2)

1. A xanthenecarboxamide of the structural formula

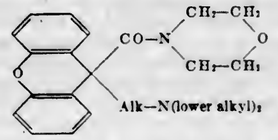


wherein Alk is a lower alkylene radical and wherein A and B are members of the class consisting of amino radicals, lower alkylamino radicals, di-(lower alkyl)amino, di-(lower alkenyl)amino radicals, lower hydroxyalkylalkylamino radicals, morpholino radicals, thiamorpholino radicals, piperazino radicals, lower alkylpiperazino radicals and radicals of the type



wherein Z is a lower alkylene radical containing 4 to 7 carbon atoms of which 4 to 5 are in nuclear position.

7. A xanthenecarboxamide of the structural formula



wherein Alk is a lower alkylene radical.

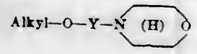
2,838,510

NEW LOCAL ANESTHESIA PRODUCING MORPHOLINO-ALKANOL ETHERS AND SALTS THEREOF

Hans Suter, Dorflingen, and Hans Zutter, Schaffhausen, Switzerland, assignors to Eprova Limited, Schaffhausen, Switzerland

No Drawing. Application December 29, 1955
Serial No. 556,060
Claims priority, application Switzerland January 8, 1955
8 Claims. (Cl. 260—247.7)

1. The new group of locally anesthetic compounds having the general formula



and salts thereof, wherein Alkyl- is a member of the class consisting of an alkyl and aralkyl radical containing six to seven carbon atoms and Y represents a branched chain alkylene radical containing three to four carbon atoms.

2,838,511

PREPARATION OF TRIARYL ISOCYANATES

Irving Charles Kogon, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 31, 1955
Serial No. 544,064
5 Claims. (Cl. 260—248)

1. A process for preparing triaryl isocyanurates which comprises heating a compound of the class consisting of phenyl isocyanate, substituted phenyl isocyanate, naphthyl isocyanate and dimers thereof with a compound of the class consisting of aryl urethanes and diaryl allophanates, the aryl radical in each case being a member of the group consisting of phenyl, substituted phenyl, and naphthyl, at a temperature of from 70° to 200° C., in the presence of from 1 to 5%, by weight, of a tertiary amine catalyst, said tertiary amine catalyst having a boiling point of at least 100° C., the mol ratio of said isocyanates and dimers thereof to said aryl urethane being at least 1:1, and, the mol ratio of said phenyl isocyanate, substituted phenyl isocyanates and naphthyl isocyanates to said diaryl allophanate being at least 2:1, the mol ratio of said isocyanate dimers to said diaryl allophanate being at least 1:1, said phenyl substituents being non-reactive with isocyanate groups.

2,838,512

PREPARATION OF CYANURIC CHLORIDE

Marcel Teysseire and Hans Peter Sieber, Visp, Switzerland, assignors to Lonza Electrical and Chemical Works Ltd., Basel, Switzerland

No Drawing. Application June 7, 1956
Serial No. 589,877
Claims priority, application Switzerland June 10, 1955
6 Claims. (Cl. 260—248)

1. A method of preparing cyanuric chloride comprising dissolving cyanogen chloride in dimethyl ether containing hydrogen chloride in catalytically effective concentration, allowing said cyanogen chloride to polymerize in said solution, whereby the heat of polymerization vaporizes a hydrogen chloride-dimethyl ether azeotrope at a boiling point below the boiling point of the cyanogen chloride, maintaining the hydrogen chloride concentration of the solution essentially constant during polymerization, and separating the formed cyanuric chloride from said solution.

2,838,513

METHOD FOR THE PREPARATION OF 3:6-DIHYDRAZINO-PYRIDAZINE

Jean Druey, Riehen, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application August 13, 1953
Serial No. 374,120
Claims priority, application Switzerland August 20, 1952
2 Claims. (Cl. 260—250)

1. A process which comprises reacting 3:6-dimercapto-pyridazine with hydrazine.

2. 3:6-dimercapto-pyridazine.

2,838,514

PROCESS OF PREPARING 4-ARYLMETHYL-QUINOLINES

Alexander R. Surrey, Albany, and Royal A. Cutler, West Sand Lake, N. Y., assignors to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application July 1, 1955
Serial No. 519,675
1 Claim. (Cl. 260—283)

A process for the preparation of a 4-arylmethylquinoline having the formula ACH_2Q, where A is a monocyclic radical of the benzene series and Q is a 4-quinolyl radical, which comprises heating an alpha-aryl-alpha-(4-quinolyl)acetonitrile having the formula ACH(Q)CN in an acidic medium.

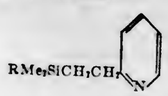
2,838,515

ORGANOSILICON SUBSTITUTED PYRIDINES

Leo H. Sommer, State College, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

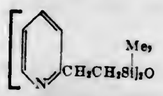
No Drawing. Application October 28, 1953
Serial No. 388,920
4 Claims. (Cl. 260—290)

1. Compounds of the formula



where R is selected from the group consisting of phenyl and methyl radicals.

4. A compound of the formula



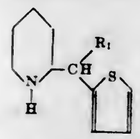
2,838,516

2-(THIENYL METHYL) PIPERIDINES

Karl Hoffmann and Jules Herr, Binningen, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application January 31, 1955
Serial No. 485,322
Claims priority, application Switzerland February 5, 1954
7 Claims. (Cl. 260—293.4)

1. A member of the group consisting of piperidines of the formula



wherein R_1 stands for a member of the group consisting of phenyl and thienyl-(2) radicals, and non-toxic salts thereof.

2,838,517

PROCESS FOR THE MANUFACTURE OF QUINUCLIDINE CARBOXYLIC ACID

Cyril A. Grob and Ernst Renk, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application November 23, 1955
Serial No. 548,783
Claims priority, application Switzerland November 30, 1954
6 Claims. (Cl. 260—294)

1. A process for the preparation of a member of the group consisting of quinuclidine-2-carboxylic acid and salts thereof, which comprises the step of heating a member selected from the group consisting of 2-halo-3-(4'-piperidyl)-propionic acid and acid addition salts thereof in the presence of an acid-binding agent.

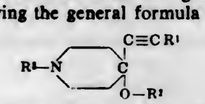
2,838,518

ETHYNYL PIPERIDYL CARBAMIC ACID ESTERS

Wilhelm Schuler, Frankfurt am Main, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany

No Drawing. Application December 20, 1954
Serial No. 476,555
Claims priority, application Germany December 24, 1953
1 Claim. (Cl. 260—294.3)

A compound selected from the group consisting of compounds having the general formula



in which R^1 is a radical selected from the group consisting of hydrogen, alkyl, containing from 1 to 6 carbon atoms and phenyl radicals, R^2 is a carbamic acid ester radical selected from the group consisting of the phenyl carbamic acid ester radical and the pyridyl carbamic acid ester radical and R^3 is an alkyl radical containing from 1 to 6 carbon atoms and the therapeutically useful addition salts thereof with acids.

2,838,519

PROCESS FOR THE CONVERSION OF STEREOISOMERS

Rudolf Rometsch, Riehen, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application December 21, 1954
Serial No. 476,846
Claims priority, application Switzerland December 23, 1953
17 Claims. (Cl. 260—294.3)

1. A process for the conversion of stereoisomers, wherein a material comprising the *a*-stereoisomeric form of a member selected from the group consisting of α-phenyl-α-piperidyl-(2)-acetic acids, their lower alkyl esters and amides is treated with a strong alkaline agent at an elevated temperature to produce the *b*-stereoisomeric form, and in optional sequence isolating the *b*-stereoisomeric form from the reaction products, and esterifying the isolated product with a lower alkanol.

10. The *b*-racemate form of α-phenyl-α-piperidyl-(2)-acetic acid lower alkyl esters free from the *a*-racemate form.

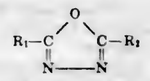
2,838,520

NEW OXDIAZOLES

Willy Mueller, Riehen, and Adolf Emil Siegrist, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application October 10, 1955
Serial No. 539,655
Claims priority, application Switzerland July 7, 1954
6 Claims. (Cl. 260—307)

1. An oxdiazole which corresponds to the formula



in which each of the radicals R_1 and R_2 represents a member selected from the group consisting of hydroxy-naphthyl, hydroxyphenyl, dihydroxyphenyl, hydroxy-phenyl-monosulfonic acid, hydroxy-dichlorophenyl, hydroxy - chlorophenyl - monosulfonic acid, hydroxy - dichlorophenyl-monosulfonic acid, hydroxy-methylphenyl-monosulfonic acid, dihydroxyphenyl-monosulfonic acid, phenyl, chlorophenyl and phenyl-monosulfonic acid, and at least one of the radicals R_1 and R_2 contains a hydroxyl group and is bound to the oxdiazole radical in ortho-position to said hydroxyl group.

2,838,521

ESTERS OF AMINO ALCOHOLS

Carl D. Lunsford, Richmond, Va., assignor to A. H. Robins Company, Inc., Richmond, Va., a corporation of Virginia

No Drawing. Application May 17, 1956
Serial No. 585,403
6 Claims. (Cl. 260—326.3)

1. A compound selected from the group consisting of 1-aliphatic-, and 1-cyclo aliphatic-hydrocarbon radical substituted 3-(para-aminobenzoyloxy) pyrrolidines and acid addition salts thereof, said salts having pyrrolidine as the single basic component, wherein said aliphatic hydrocarbon radical contains at least 4 and less than 9 carbon atoms.

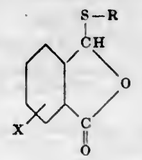
2,838,522

PHTHALIDES

Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 30, 1956
Serial No. 581,350
7 Claims. (Cl. 260—343.3)

1. A 3-thiophthalide having the formula



wherein R represents a member of the group consisting of alkyl, phenyl and chlorophenyl and X is a member of the group consisting of chlorine and hydrogen.

2,838,523

PRODUCTION OF TETRAHYDROFURFURYL ALCOHOL

Andrew P. Dunlop, Riverside, and Horst Schegulla, Chicago, Ill., assignors to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey

No Drawing. Application June 10, 1954
Serial No. 435,928
9 Claims. (Cl. 260—347.8)

1. A low pressure process of producing tetrahydrofur-

furyl alcohol which comprises contacting a compound selected from the group consisting of furfural and furfuryl alcohol in the vapor state with a gas containing a stoichiometric excess of free hydrogen at a hydrogenating temperature below about 120° C. in the presence of a nickel catalyst.

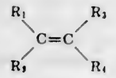
2,838,524

EPOXIDATION PROCESS

Joseph D. C. Wilson II, New Castle, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 20, 1955
Serial No. 535,533
8 Claims. (Cl. 260—348.5)

1. The process for the epoxidation of a nonterminal aliphatic double bond of a hydrocarbon compound containing the same which comprises preparing a reaction mass by adding a peralkanoic acid containing not to exceed four carbon atoms to a compound represented by the formula



in which R_1 and R_3 are aliphatic hydrocarbon constituents and R_2 and R_4 are constituents from the group consisting of hydrogen and aliphatic hydrocarbon, in the presence of sufficient acid acceptor taken from the group consisting of alkali and alkaline earth metal hydroxides, carbonates, bicarbonates, borates, and phosphates to neutralize all acid present in the reaction mass, and isolating the epoxy compound formed.

2,838,525

BROMINATION OF DIBENZOPYRENEQUINONES

Hans Heer, Westfield, N. J., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 10, 1956
Serial No. 583,918
15 Claims. (Cl. 260—362)

1. A process for brominating dibenzopyrenequinones comprising forming a solution of dibenzopyrenequinone in a melt of aluminum chloride and alkali-metal chloride and then subjecting the melt to the action of a solid salt of hydrobromic acid in the presence of an oxidizing agent.

2,838,526

HYDROGENATION OF STEROID COMPOUNDS

Gerald D. Laubach, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application May 22, 1953
Serial No. 356,903
6 Claims. (Cl. 260—397.2)

1. In a process for synthesizing compound F, the steps which include: (*a*) contacting Δ4, 6, 22-ergostatriene-3-one with hydrogen in the presence of a noble metal catalyst and a strong base; (*b*) contacting the so-produced coproergost-22-en-3-one with a reducing agent capable of selectively converting a keto to a secondary alcohol group in the presence of a carbon to carbon double bond; (*c*) preparing a compound selected from the class consisting of coproergost-22-en-3-ol acetate, propionate, butyrate, valerate, isovalerate, caproate, caprylate, succinate, benzoate, ortho-, meta- and para-methylbenzoates, halogenated benzoates, phthalate, naphthoate, phenyl acetate, phenyl propionate, naphthoyl acetate, phenyl valerate, cyclohexyl acetate, cyclopentyl propionate and cyclohexyl propionate, and the methyl, ethyl, propyl, butyl, benzyl, phenylethyl, phenylpropyl, phenylbutyl, cyclohexylmethyl, cyclohexylethyl and methoxymethyl ethers of coproergost-22-en-3-ol by contacting the so-produced coproergost-22-en-3-ol with a reagent chosen from the group consisting of the corresponding esterifying agent and the corresponding etherifying agent; (*d*) contacting the so-produced compound with ozone at a low temperature; (*e*) reductively decomposing the resulting ozonide to produce a compound chosen from the group consisting of the corresponding 3-hydroxybisnorcholane aldehyde 3-ester and 3-hydroxybisnorcholane aldehyde 3-ether; (*f*) contacting the so-produced aldehyde with an enol acylating agent to produce the enol ester of said aldehyde; (*g*) contacting the so-produced enol ester with ozone at a low temperature; and (*h*) reductively decomposing the so-produced ozonide and isolating a compound chosen from the group consisting of the corresponding pregnan-20-one-3-ol 3-ether and pregnan-20-one-3-ol 3-ester.

2,838,527

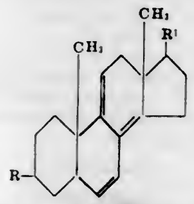
3β-HYDROXY $\Delta^{6.8(14)}$STEROIDS AND PROCESS OF PREPARATION OF THE SAME

Gerald D. Laubach, Jackson Heights, and Karl J. Brunings, Malba, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

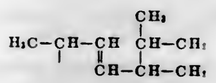
No Drawing. Application March 17, 1954
Serial No. 416,935
10 Claims. (Cl. 260—397.2)

1. A process which comprises heating in the presence of sulfur dioxide, a polymerization inhibitor and an organic base, a steroid compond selected from the class consisting of 5(6). 7(8)-diene and 5(6), 7(8), 9(11)-triene steroids substituted in the B- and C-rings only by a 10-methyl and a 13-methyl group, and recovering the resulting isomer of said compound.

7. A steroid compound having the formula



where R is selected from the class consisting of hydroxyl, and hydrocarbon carboxylic acid ester groups, and R^1 is selected from the class consisting of $-COCH_3$, $COCH_2OH$ and the hydrocarbon carboxylic acid esters thereof, and



2,838,528

6-FLUORO STEROIDS AND PROCESS

J Allan Campbell, Kalamazoo Township, Kalamazoo County, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,504
15 Claims. (Cl. 260—397.3)

1. 6-fluoroprogesterone.

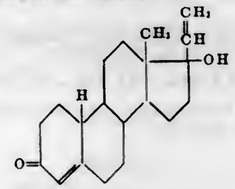
2,838,529

13 - METHYL - 17 - HYDROXY-17-VINYL-1,2,3,6,7,8,9,10,11,12,13,14,16,17 - TETRADECAHYDRO - 15H-CYCLOPENTA[a]PHENANTHREN-3-ONE

Frank B. Colton, Chicago, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application September 1, 1953
Serial No. 377,981
1 Claim. (Cl. 260—397.4)

The compound of the formula



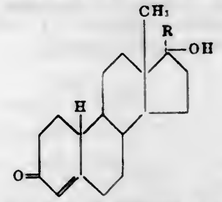
2,838,530

17-ALKENYL AND 17-ALKYNYL-19-NORTESTOSTERONES

Frank B. Colton, Chicago, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application October 16, 1957
Serial No. 690,422
Claims priority, application New Zealand August 19, 1955
8 Claims. (Cl. 260—397.4)

1. A compound of the structural formula



wherein R is a noncyclic unsaturated aliphatic hydrocarbon radical containing 3–6 carbon atoms.

2,838,531

6-FLUORO-17α-HYDROXYPREGNANES AND ESTERS

John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,002
10 Claims. (Cl. 260—397.4)

1. A compound selected from the group consisting of 6 - fluoro - 17α - hydroxy - 1 - allopregnene - 3,20 - dione and 6 - fluoro - 17α - hydroxy - 1 - allopregnene - 3,20-dione 17-acylate wherein the acyl group is of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

6. A compound selected from the group consisting of 6-fluoro-17α-hydroxy-1,4-pregnadiene-3,20-dione and 6-fluoro - 17α - hydroxy - 1,4 - pregnadiene - 3,20 - dione 17-acylate, wherein the acyl group is of a hydrocarbon carboxylic acid, containing from one to twelve carbon atoms, inclusive.

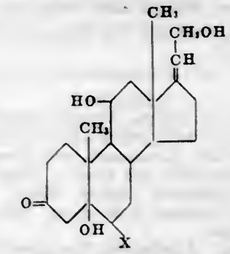
2,838,532

6-HALO-17(20)-PREGNENES

George B. Spero and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 1, 1955
Serial No. 519,632
3 Claims. (Cl. 260—397.45)

1. A compound of the following formula:



and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and X is fluorine.

3. 6 - fluoro - 11β - hydroxy - 21 - acetoxy - 4,17(20)-pregnadien-3-one.

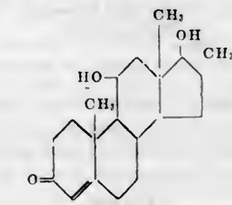
2,838,533

11β-HYDROXY-17α-METHYLTESTOSTERONE

Jack W. Ralls, Berkeley, Calif., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application March 27, 1956
Serial No. 574,095
1 Claim. (Cl. 260—397.45)

11β-hydroxy-17α-methyltestosterone of the formula



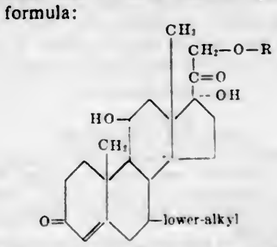
2,838,534

7-LOWER ALKYL STEROIDS AND PROCESS

John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 10, 1956
Serial No. 627,115
18 Claims. (Cl. 260—397.45)

8. 7 - lower - alkyl - 11β,17α,21 - trihydroxy - 4 - pregnene-3,20-dione and 21-esters thereof represented by the following formula:



wherein R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,838,535

6-FLUORO STEROIDS AND PROCESS

Barney J. Magerlein, Kalamazoo, and George B. Spero, William P. Schneider, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,468
4 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6,21-difluoro-21-desoxyhydrocortisone and 6,21-difluoro-21-desoxycortisone.

2,838,536

6-FLUORO 9α-HALO-Δ⁴-PREGNENES AND PROCESS FOR PREPARING SAME

Barney J. Magerlein, Kalamazoo, and George B. Spero, William P. Schneider, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,498
23 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6-fluoro-9α-halo-21-desoxyhydrocortisone and 6-fluoro-9α-halo-21-desoxycortisone, wherein the 9α-halogen atom is of atomic weight between seventeen and eighty, inclusive.

2,838,537

6-FLUORO STEROIDS AND PROCESS

George B. Spero, Kalamazoo Township, Kalamazoo County, Barney J. Magerlein, Kalamazoo, and William P. Schneider and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,500
10 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 1 - dehydro - 6,21 - difluoro - 9α - halo - 21 - desoxyhydrocortisone and 1 - dehydro - 6,21 - difluoro - 9α-halo-21-desoxycortisone, wherein the 9α-halogen is of atomic weight between seventeen and eighty, inclusive.

2,838,538

6-FLUORO STEROIDS AND PROCESS FOR PREPARING SAME

George B. Spero, Kalamazoo Township, Kalamazoo County, Barney J. Magerlein, Kalamazoo, and William P. Schneider and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,501
27 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 1 - dehydro - 6 - fluoro - 9α - halo-21-desoxyhydrocortisone and 1 - dehydro - 6 - fluoro - 9α - halo - 21-desoxycortisone wherein the 9α-halogen atom is of atomic weight between seventeen and eighty, inclusive.

2,838,539

6-FLUORO STEROIDS

Barney J. Magerlein, Kalamazoo, and George B. Spero, William P. Schneider, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,506
10 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6,21 - difluoro - 9α - halo- 21 - desoxyhydrocortisone and 6,21 - difluoro - 9α - halo - 21 - desoxycortisone, wherein the 9α-halogen is of atomic weight between seventeen and eighty, inclusive.

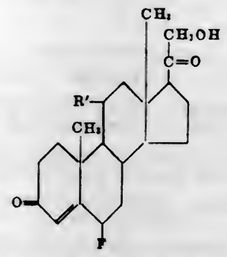
2,838,540

6-FLUORO-11-OXYGENATED STEROIDS

J Allan Campbell, Kalamazoo Township, Kalamazoo County, John C. Babcock, Portage Township, Kalamazoo County, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

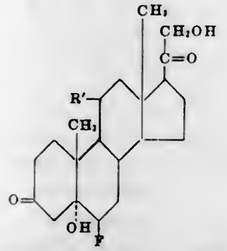
No Drawing. Application November 29, 1957
Serial No. 699,507
20 Claims. (Cl. 260—397.45)

1. 6-fluoro-11-oxygenated-21-hydroxy-4-pregnene - 3,-20-dione of the formula:



wherein R′ is a member of the group consisting of hydroxy and keto; and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

16. 5α,21-dihydroxy-6β-fluoro - 11 - oxygenated - allo-pregnane-3,20-dione of the formula:



wherein R′ is a member of the group consisting of hydroxy and keto; and the 21-acylates thereof wherein the acyl radical is that of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,838,541

6-FLUORO-4-PREGNENES AND PROCESS FOR PREPARING SAME

Barney J. Magerlein, Kalamazoo, and George B. Spero, William P. Schneider, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,527
22 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6-fluoro - 11β,17α - dihydroxy-4-pregnene-3,20-dione and 6-fluoro-17α-hydroxy-4-pregnene-3,11,20-trione.

2,838,542

6-FLUORO STEROIDS AND PROCESS

George B. Spero, Kalamazoo Township, Kalamazoo County, Barney J. Magerlein, Kalamazoo, and William P. Schneider and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,528
8 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6 - fluoro - 11β,17α - dihdroxy - 1,4 - pregnadiene - 3,20-dione and 6-fluoro-17α-hydroxy-1,4-pregnadiene-3,11,20-trione.

2,838,543

6-FLUORO STEROIDS AND PROCESS

George B. Spero, Kalamazoo Township, Kalamazoo County, Barney J. Magerlein, Kalamazoo, and William P. Schneider and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1957
Serial No. 699,529
5 Claims. (Cl. 260—397.45)

1. A compound selected from the group consisting of 6,21 - difluoro - 11β,17α - dihydroxy - 1,4 - pregnadiene - 3,20 - dione and 6,21 - difluoro - 17α - hydroxy - 1,4 - pregnadiene-3,11,20-trione.

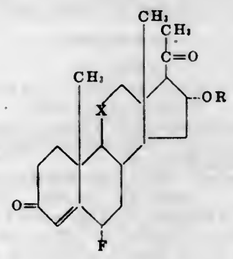
2,838,544

6α-FLUORO-16α-HYDROXY PROGESTERONES

John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell and John A. Hogg, Kalamazoo Township, Kalamazoo County, and Oldrich K. Sebek, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,003
5 Claims. (Cl. 260—397.45)

1. A 16-oxygenated steroid of the formula:



wherein X is selected from the group consisting of the carbonyl radical and the β-hydroxymethylene radical and R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

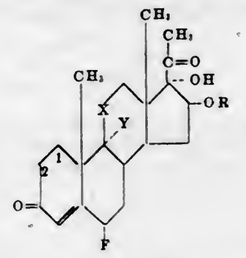
2,838,545

6α-FLUORO-16α-HYDROXY STEROIDS

Barney J. Magerlein, Kalamazoo, William P. Schneider, Kalamazoo Township, Kalamazoo County, and Oldrich K. Sebek and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,004
19 Claims. (Cl. 260—397.45)

1. A 16-oxygenated steroid of the formula:



wherein the 1,2-carbon atom linkage is selected from the linkages consisting of single bond and double bond linkages, Y is selected from the group consisting of hydrogen and fluorine, X is selected from the group consisting of the carbonyl radical and the β-hydroxymethylene radical, and R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

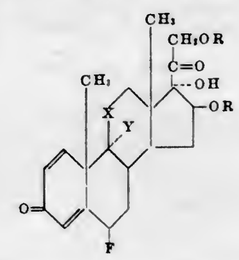
2,838,546

6α-FLUORO-16α-HYDROXY-1,4-PREGNADIENES

Barney J. Magerlein, Kalamazoo, William P. Schneider, Kalamazoo Township, Kalamazoo County, and Oldrich K. Sebek and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,005
9 Claims. (Cl. 260—397.45)

1. A 16-oxygenated pregnadiene of the formula



wherein Y is selected from the group consisting of hydrogen and fluorine, X is selected from the group consisting of the carbonyl radical and the β-hydroxymethylene radical, and R is the same member selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,838,547

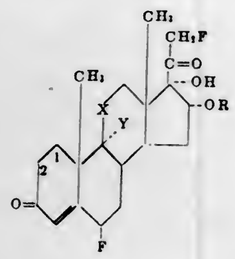
6α,21-DIFLUORO-16α-HYDROXY-STEROIDS

Barney J. Magerlein, William P. Schneider, Oldrich K. Sebek, and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,015

19 Claims. (Cl. 260—397.45)

1. A 16-oxygenated steroid of the formula:



wherein the 1,2-carbon atom linkage is selected from the linkages consisting of single bond and double bond linkages, Y is selected from the group consisting of hydrogen and fluorine, X is selected from the group consisting of the carbonyl radical and the β-hydroxymethylene radical, and R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

2,838,548

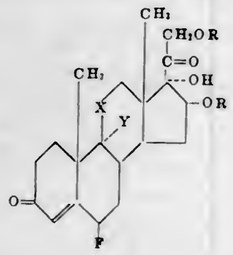
6α-FLUORO-16α-HYDROXY-4-PREGNENES

Barney J. Magerlein, Kalamazoo, William P. Schneider, Kalamazoo Township, Kalamazoo County, and Oldrich K. Sebek and George B. Spero, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,027

9 Claims. (Cl. 260—397.45)

1. A 16-oxygenated pregnene of the formula



wherein Y is selected from the group consisting of hydrogen and fluorine, X is selected from the group consisting of the carbonyl radical and the β-hydroxymethylene radical, and R is the same member selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive.

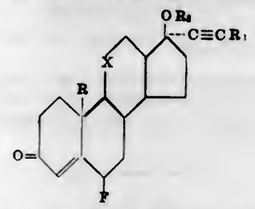
2,838,549

6-FLUORO-17α-ALKYNYL-4-ANDROSTENES

Milton E. Herr, Kalamazoo, John C. Babcock, Portage Township, Kalamazoo County, and J Allan Campbell, John A. Hogg, and Raymond L. Pederson, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 19, 1958
Serial No. 716,030
21 Claims. (Cl. 260—397.45)

1. A compound of the formula:



wherein R is selected from the group consisting of hydrogen and methyl, R_1 is selected from the group consisting of hydrogen and an alkyl radical containing from one to four carbon atoms, inclusive, R_2 is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing from one to twelve carbon atoms, inclusive, and X is selected from the group consisting of >CHOH and >C=O.

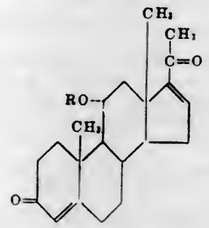
2,838,550

11α-HYDROXY-4,16-PREGNADIENE-3,20-DIONE AND ESTERS

Douglas A. Lyttle and Robert H. Levin, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 27, 1953
Serial No. 376,989
16 Claims. (Cl. 260—397.45)

1. An 11α-oxygenated-4,16-pregnadiene-3,20-dione of the formula:



wherein R is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid containing up to and including eight carbon atoms.

2,838,551

POLYMERIZED FATTY OILS AND METHOD OF PREPARING SAME

Max Kantor and Samuel Guy Wilson, Minneapolis, Minn., assignors to Cargill, Incorporated, Minneapolis, Minn., a corporation of Delaware

No Drawing. Application February 9, 1953
Serial No. 336,008
2 Claims. (Cl. 260—407)

1. A process of treating an unsaturated fatty oil to form polymers which consists of blowing said oil to add oxygen to the unsaturated bonds at a temperature between 70° F. and 300° F., forming a mixture of said blown oil and substantially 0.2% to 0.5% sulfuric acid, maintaining the mixture at a temperature between 70° F. and 160° F. until a substantial portion of the mixture is polymerized and thereafter adding to the mixture a sufficient amount of an alkaline neutralizing agent to partially neutralize the sulfuric acid.

2. A polymer formed of an unsaturated fatty oil blown at a temperature between 70° F. and 300° F. until oxygen has been added to the unsaturated bonds thereof, said blow material then treated at a temperature between room temperature and about 200° F. with a catalytic amount of an aqueous sulfuric acid solution, and thereafter the acid catalyst is at least partially neutralized.

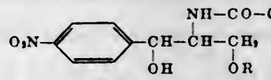
2,838,552

NEW CHLORAMPHENICOL ESTERS AND METHOD OF SYNTHESIZING SAME

Gerhard Ganssu, Mannheim-Waldhof, Erich Haack, Heidelberg, Werner Heimberger, Ludwigshafen (Rhine), and Georg Stoeck, Mannheim-Waldhof, Germany, assignors to C. F. Boehringer & Soehne G. m. b. H., Mannheim-Waldhof, Germany, a corporation of Germany

No Drawing. Application June 28, 1956
Serial No. 594,373
Claims priority, application Germany July 7, 1955
3 Claims. (Cl. 260—410.6)

1. The chloramphenicol-3-mono ester of the formula



wherein R is a member selected from the group consisting of the stearoyl glycolic acid radical and the stearoyl lactic acid radical.

2,838,553

REFINING OF FATTY OILS

Arthur U. Ayres, Philadelphia, and Frederick H. Smith, Huntingdon Valley, Pa., assignors to The Sharples Corporation, a corporation of Delaware

Application October 12, 1954, Serial No. 461,863
14 Claims. (Cl. 260—425)



1. A process for the refining of a fatty oil containing free fatty acid which comprises combining a stream of said oil and a stream of aqueous sodium carbonate solution of at least 22° Bé. in measured quantity such that the amount based on the free fatty acids contained in said oil of sodium carbonate added to said oil is from 2 to 3 times the theoretical stoichiometric amount for said oil, venting gas from said combined streams of oil and aqueous sodium carbonate solution, thereafter and while in mixed state flowing said combined streams at a temperature of at least 180° F. to a centrifugal separator, and separating in said centrifugal separator said oil from the soapstock formed as a result of said treatment.

2,838,554

PROCESS FOR MAKING ORGANOTIN MALEATES

Carl R. Gloskey, Avenel, N. J., assignor to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 15, 1954
Serial No. 423,535
9 Claims. (Cl. 260—429.7)

1. A method for preparing anhydrous hydrocarbontin maleates which comprises reacting substantially stoichiometric amounts of maleic anhydride and a hydrocarbontin oxide selected from the class consisting of alkyltin oxides, monocyclic hydrocarbonaryltin oxides and monocyclic hydrocarbonaralkyltin oxides under substantially anhydrous conditions and in the presence of an inert organic solvent as reaction medium and recovering substantially anhydrous hydrocarbontin maleate.

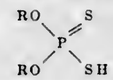
2,838,555

GROUP II METAL SALTS OF A MIXTURE OF SIMPLE DIESTERS OF DITHIOPHOSPHORIC ACIDS

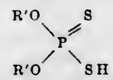
Fred Corwin Goldsmith, Painesville, Ohio, assignor to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio

No Drawing. Application October 12, 1951
Serial No. 251,139
11 Claims. (Cl. 260—429.9)

1. As a composition of matter the oil-soluble group II metal salts of a mixture of simple di-esters of dithiophosphoric acids, one of said di-esters having the formula



where R is selected from the group consisting of saturated aliphatic and cycloaliphatic radicals having less than six carbon atoms, and another of said di-esters having the formula



where R' is selected from the group consisting of saturated aliphatic and cycloaliphatic radicals having at least six carbon atoms, said mixture of simple di-esters being characterized in that the ratio of carbon atoms to phosphorus atoms in said mixture is within the range of about 7.6:1 to about 9.6:1.

2,838,556

ORGANO-ALUMINUM COMPOUNDS

Delmer L. Cottle, Highland Park, and Stanley B. Mirviss, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application October 27, 1955
Serial No. 543,257
16 Claims. (Cl. 260—448)

1. In a method wherein an organo-aluminum halide containing a hydrocarbon radical of 1 to 12 carbon atoms selected from the group consisting of alkyl and phenyl groups is reduced with a reducing metal selected from the group consisting of alkali metals and alkaline earth metals, the improvement which comprises carrying out said reduction with a liquid amalgam of said reducing metal.

9. In a method for reducing a C_1 to C_{12} alkyl aluminum chloride by reaction with sodium metal, the improvement which comprises carrying out said reaction with a liquid amalgam containing 0.1 to 1.5% by weight of said sodium metal.

2,838,557

METHOD OF PREPARING ALKALI AND ALKALINE EARTH METAL SALTS OF DITHIOPHOSPHORIC ACID DIESTERS

Guy M. Verley, Harvey, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application March 28, 1956
Serial No. 574,369
4 Claims. (Cl. 260—461)

1. In a method of preparing the alkali and alkaline earth metal salts of dithiophosphoric acid diesters by neutralizing the acid ester in an essentially anhydrous medium, the steps which comprise partially neutralizing said acid ester with about 0.1 to 1.0 equivalent of a carbonate of a metal selected from the alkali and alkaline earth metals, and in the presence of about 0.005 to 0.2 part by weight of a material selected from the group con-

sisting of alkylene glycols of up to about 300 molecular weight in which the alkylene radical contains 2 to 4 carbon atoms and the ethers thereof, further neutralizing the acid ester by adding about 0.5 to 1.5 equivalents of a member selected from the group consisting of the oxides and hydroxides of the alkali and alkaline earth metals.

2,838,558

CATALYTIC PRODUCTION OF AROMATIC NITRILES AND IMIDES

David James Hadley, Epsom Downs, and Barrie Wood, Hull, England, assignors to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application September 20, 1956
Serial No. 610,901
Claims priority, application Great Britain September 27, 1955
13 Claims. (Cl. 260—465)

1. The process which comprises contacting at an elevated temperature in the vapour phase, a mixture of a lower alkyl-substituted aromatic hydrocarbon of the benzene and naphthalene series, ammonia and molecular oxygen with a catalyst comprising vanadium oxide deposited on activated alumina, the latter having been heated prior to deposition to a temperature in the range of 1,000–1,500° C.

2,838,559

PROCESS FOR THE PRODUCTION OF ACRYLONITRILE

Wilhelm Müller, Leverkusen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application July 24, 1956
Serial No. 599,684
Claims priority, application Germany August 2, 1955
2 Claims. (Cl. 260—465.3)

1. A process for the continuous production of acrylonitrile from the acetylene and hydrocyanic acid in the presence of an acid cuprous chloride catalyst, which comprises subjecting the gases obtained in the reaction immediately after leaving the reaction chamber to a treatment with an aqueous suspension of a member selected from the group consisting of zinc and cadmium oxide and hydroxide and recovering the hydrocyanic acid in known manner from a member of the group of zinc cyanide and cadmium cyanide formed.

2,838,560

MANUFACTURE OF ACRYLONITRILE

Emil Lüscher, Basel, and Hans Peter Sieber, Visp, Switzerland, assignors to Lonza Electric and Chemical Works Ltd., Basel, Switzerland

Application May 29, 1956, Serial No. 588,081
Claims priority, application Switzerland June 2, 1955
8 Claims. (Cl. 260—465.3)

1. A process of producing acrylonitrile substantially free of divinylacetylene comprising passing acetylene and hydrogen cyanide in an amount exceeding the amount required for the conversion of said acetylene to acrylonitrile though a reaction zone containing aqueous cuprous chloride, reacting said acetylene and hydrogen cyanide in said reaction zone to form acrylonitrile, passing the gas containing said acrylonitrile, the excess of hydrogen cyanide, and acetaldehyde formed as by-product in said reaction zone, into a absorption zone, reacting said acetaldehyde and said excess of hydrogen cyanide in said absorption zone in the presence of an alkaline catalyst at a temperature between −10 and +20° C. to form lactonitrile, forming a mixture of acrylonitrile and lactonitrile in said absorption zone, removing said mixture of acrylonitrile and lactonitrile together form said absorption zone, recycling the residual gases into the reaction zone, and separating said mixture into acrylonitrile and lactonitrile.

2,838,561

PRODUCTION OF POLYOLEFINIC ACYLOXY COMPOUNDS

Gene J. Fisher and Alexander F. MacLean, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application June 10, 1955
Serial No. 514,762
11 Claims. (Cl. 260—484)

1. Process for the production of polyolefinic acyloxy compounds which comprises reacting a poly (lower alkoxy) alkane wherein two lower alkoxy radicals are on the 1-carbon atom and a further lower alkoxy radical is on the 3-carbon atom, the alkane portion having up to 8 carbon atoms, with a ketene and dealcoholating the product of the reaction to produce a polyolefinic acyloxy compound.

2,838,562

(BICYCLOHEXYL)-4-AMINE SALTS OF THE 4-CYCLOHEXYL-CYCLOHEXANE CARBAMIC ACIDS

Harry F. Brust, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 7, 1957
Serial No. 638,672
2 Claims. (Cl. 260—501)

1. A (bicyclohexyl)-4-amine salt of 4-cyclohexylcyclohexanecarbamic acid.

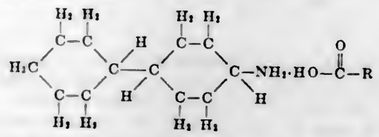
2,838,563

ALKANOIC ACID SALTS OF (BICYCLOHEXYL)-4-AMINE

Harry F. Brust, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 7, 1957
Serial No. 638,673
4 Claims. (Cl. 260—501)

1. An alkanoic acid salt of (bicyclohexyl)-4-amine having the formula



wherein R represents a member of the group consisting of hydrogen, lower-alkyl and chloro lower-alkyl.

2,838,564

PRODUCTION OF SURFACE ACTIVE MATERIALS

Samuel L. Norwood and Thomas W. Sauls, College Park, Ga., assignors to Tennessee Corporation, New York, N. Y., a corporation of New York

No Drawing. Application April 25, 1956
Serial No. 580,435
4 Claims. (Cl. 260—505)

1. A process for the production of surface active products which comprises adding an olefin selected from the group consisting of propylene trimer and tetramer over a period of one to three hours to a mixture of an aromatic compound selected from the group consisting of benzene and toluene with 95–96% sulfuric acid as an alkylation catalyst, maintaining the temperature of the mass between 0° C. and 10° C. during the alkylation, then adding a sulfonating agent to the mass comprising said olefin, aromatic compound, and sulfuric acid catalyst, and recovering the sulfonated material.

2,838,565

PURIFICATION OF TEREPHTHALIC ACID

Royden Lewis Heath and Edmund Cecil Owen, Blackley, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application July 7, 1954
Serial No. 441,935
Claims priority, application Great Britain July 17, 1953
2 Claims. (Cl. 260—525)

1. In a process for manufacturing terephthalic acid by the oxidation of para-xylene, the improvement which comprises dissolving the crude terephthalic acid oxidation product in water at a temperature between 230° C. and 280° C., cooling the resultant solution to a temperature not below 165° C. and separating the purified terephthalic acid which crystallizes out.

2,838,566

RECOVERY OF BENZENE POLYCARBOXYLIC ACIDS

William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application October 6, 1954, Serial No. 460,727
4 Claims. (Cl. 260—525)

1. A process for producing essentially nitrogen-free phthalic acids which comprises heating di-substituted benzene having both of its substituents selected from the group consisting of —COOH, —$CONH_2$ and —$COONH_4$ and having at least one nitrogen-containing substituent with a molar excess of an acid selected from the group consisting of benzoic acid and toluic acid.

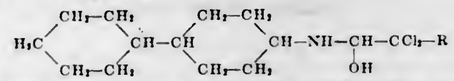
2,838,567

POLYCHLORO-1-(4-CYCLOHEXYLCYCLOHEXYL-AMINO) ALKANOLS

Harry F. Brust, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

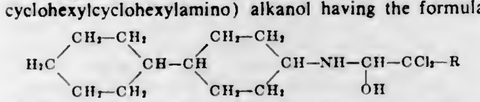
No Drawing. Application May 6, 1957
Serial No. 657,044
3 Claims. (Cl. 260—563)

1. A polychloro - 1 - (4-cyclohexylcyclohexylamino) alkanol having the formula

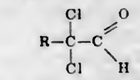


wherein R represents a member selected from the group consisting of hydrogen, chlorine, chloromethyl, methyl, ethyl and propyl.

3. A process for the preparation of a polychloro-1-(4-cyclohexylcyclohexylamino) alkanol having the formula



which comprises the step of reacting portionwise (bicyclohexyl)-4-amine with an equimolar amount of a polychloroaldehyde having the formula



the symbol R in the above formulae representing a member selected from the group consisting of hydrogen, chlorine, chloromethyl, methyl, ethyl and propyl.

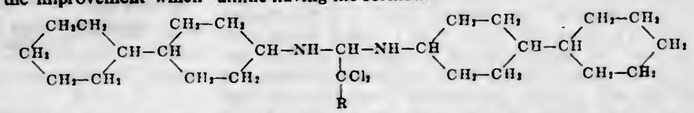
2,838,568

N,N'-BIS(4-CYCLOHEXYLCYCLOHEXYL)ALKYLIDENEDIAMINES

Harry F. Brust, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 6, 1957
Serial No. 657,046
3 Claims. (Cl. 260—563)

1. An N,N'-bis(4-cyclohexylcyclohexyl)alkylidenediamine having the formula



wherein R represents a member selected from the group consisting of hydrogen, chlorine, chloromethyl, chloroethyl, methyl, ethyl and propyl.

2,838,569

DECAHYDROPHENANTHRENE DIONES; THEIR PREPARATION AND INTERMEDIATES

Jack W. Ralls, William C. Wildman, Kirtland E. McCaleb, and Alfred L. Wilds, Madison, Wis., assignors to Wisconsin Alumni Research Foundation, Madison, Wis., a corporation of Wisconsin

No Drawing. Original application April 7, 1950, Serial No. 154,728, now Patent No. 2,674,627, dated April 6, 1954. Divided and this application June 29, 1953, Serial No. 370,881
12 Claims. (Cl. 260—586)

1. The compound, 4b - methyl - 1,2,3,4,4b,5,6,7,9,10-decahydrophenanthrene-1,7-dione.

9. The process of preparing 4b-methyl-1,2,3,4,4b,5,6,7,9,10-decahydrophenanthrene-1,7-dione which comprises (*a*) alkylating dihydroresorcinol with ethyl vinyl ketone, (*b*) reacting the resulting 2-γ-ketopentyl-1,3-cyclohexanedione with diazomethane, (*c*) treating the resulting 3-methoxy-2-γ-ketopentyl-2-cyclohexene-1-one with an alkaline cyclization agent, (*d*) hydrolyzing the resulting 1-methoxy - 5 - methyl - 6-keto - 2,3,4,6,7,8-hexahydronaphthalene, (*e*) reacting the resulting 5-methyl-octalin-1,6-dione with 1-diethylaminobutanone-3-methiodide, and (*f*) reacting the resulting 5-γ-ketobutyl-5-methyl-Δ^{4a-8a}-octalin-1,6-dione with an alkaline cyclization agent to form the desired 4b-methyl-decahydrophenanthrene-1,7-dione.

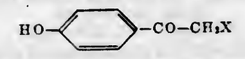
2,838,570

PROCESS OF PRODUCING PURE HALOGENO METHYL (p-HYDROXY PHENYL) KETONES

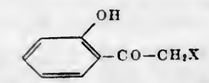
Ludwig Winterhalder, Konstanz (Bodensee), Germany, assignor to Byk-Gulden Lomberg Chemische Fabrik G. m. b. H., a corporation of Germany

No Drawing. Application March 16, 1955
Serial No. 494,819
Claims priority, application Germany March 26, 1954
13 Claims. (Cl. 260—592)

1. The process of separating a halogeno methyl (p-hydroxy phenyl) ketone of the formula



wherein X is a member selected from the group consisting of chlorine, bromine and iodine, from a mixture containing said ketone, the corresponding halogeno methyl (o-hydroxy phenyl) ketone of the formula



wherein X designates the same member as indicated above, and undesired impurities, comprising the steps of

treating said mixture with a halogenated aliphatic hydrocarbon having 1 to 4 carbon atoms in its molecule, the halogen of said halogenated aliphatic hydrocarbon being selected from the group consisting of chlorine and bromine, and separating the undissolved halogeno methyl (p-hydroxy phenyl) ketone from the resulting solution.

7. In a process of producing a halogeno methyl (p-hydroxy phenyl) ketone, the steps which comprise condensing a phenol compound selected from the group consisting of phenol and anisol with a halogeno acetyl halide in the presence of a Friedel-Crafts condensation catalyst, said phenol compound being dissolved in a halogenated aliphatic hydrocarbon having 1 to 4 carbon atoms in its molecule, the halogen of said halogenated aliphatic hydrocarbon being selected from the group consisting of chlorine and bromine, pouring the reaction mixture into water, while cooling, and separating the resulting crystallized undissolved halogeno methyl (p-hydroxy phenyl) ketone from the aqueous and solvent layers.

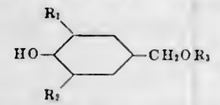
2,838,571

3,5-DIALKYL-4-HYDROXYBENZYL ETHERS

Allen H. Filbey, Walled Lake, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application September 23, 1955
Serial No. 536,318
5 Claims. (Cl. 260—611)

1. As new compositions of matter, 3,5-dialkyl-4-hydroxybenzyl ethers having the general formula



wherein R_1 is an alkyl group containing from 3 to 8 carbon atoms and is branched on the alpha carbon atom, R_2 is an alkyl group containing from 1 to 8 carbon atoms, and R_3 is selected from the group consisting of alkyl, cycloalkyl, aralkyl, and alkenyl.

2,838,572

2-(BENZYLOXYMETHYL)-2-METHYL-1-PENTANOL

Raymond H. Rigterink, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 4, 1957
Serial No. 650,552
2 Claims. (Cl. 260—611)

1. 2-(benzyloxymethyl)-2-methyl-1-pentanol.

2,838,573

PROCESS FOR PREPARATION OF COMPLEX FORMAL SYNTHETIC LUBRICANTS BY A FORMAL INTERCHANGE

Alfred H. Matuszak, Westfield, and Harold R. Ready, Roselle Park, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 31, 1955
Serial No. 498,438
5 Claims. (Cl. 260—615)

1. In a process for the preparation of complex formal lubricating compositions having an ASTM pour point below about +20° F., a viscosity at 210° F. of between 30 and 110 S. U. S. and a flash point above about 350° F., by reacting a formal of the formula

$$R—O—CH_2—O—R'$$

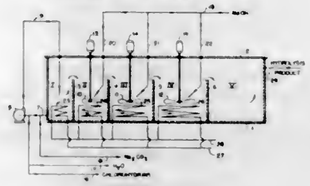
wherein R and R' are alkyl groups containing from about 4 to 26 carbon atoms with a glycol at a temperature within the range of about 50° to 250° C. for about 2 to 20 hours, and recovering a complex formal having from about 20 to 130 carbon atoms per molecule, the improvement which comprises reacting said formal with said glycol in the molar ratio of about 2 to 4 moles of formal to 1 mole of glycol.

2,838,574

CONTINUOUS HYDROLYSIS OF EPICHLOROHYDRIN

Kenneth B. Cofer, Pasadena, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application June 7, 1954, Serial No. 434,715
2 Claims. (Cl. 260—635)



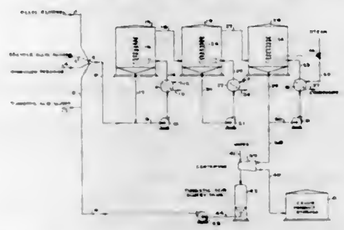
1. A process for producing glycerine which comprises continuously feeding a liquid stream containing glycerine epichlorohydrin and water through a plurality of reaction zones in series maintained at a temperature of about 100° to 200° C. at which hydrolysis takes place, adding alkali metal carbonate to the feed to the first of said reaction zones in an amount about 20% to about 30% of the stoichiometric requirement of base for the hydrolysis, separately feeding alkali metal hydroxide into each of a plurality of succeeding reaction zones of progressively increasing residence periods in an amount to maintain the pH of the reaction mixture in the range of about 8.5 to about 9.5 throughout the reaction, and completing the reaction in a final reaction zone without added base, the flow of said mixture through said zones being arranged so that reaction product from a later zone is not present in an earlier reaction zone of the series whereby reduced consumption of base in the process is obtained.

2,838,575

PRODUCTION OF GLYCERINE BY HYDROXYLATION OF ALLYL ALCOHOL

Curtis W. Smith, Berkeley, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application May 3, 1956, Serial No. 582,573
6 Claims. (Cl. 260—635)



1. A process of producing glycerine which comprises reacting allyl alcohol with hydrogen peroxide in the presence of a catalyst of the group consisting of tungstic acid (H_2WO_4) and water-soluble salts thereof using a feed containing an excess of allyl alcohol to peroxide, water and said catalyst and maintaining the reaction mixture within the range of 40° to 60° C. until at least 95% of the hydrogen peroxide has reacted, then heating the reaction mixture at a temperature substantially higher than 60° C. and recovering the glycerine produced.

2,838,576

TERTIARY ALCOHOLS

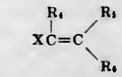
Henri Normant, Paris, France, assignor to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application January 27, 1956
Serial No. 561,928

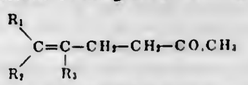
Claims priority, application France February 3, 1955

2 Claims. (Cl. 260—638)

1. A process for the preparation of diethylenic alcohols which comprises reacting magnesium with a solution in tetrahydrofuran of an ethylenic compound of the general formula:



wherein X is a halogen atom and R_4, R_5 and R_6 are each selected from the class consisting of hydrogen atoms and alkyl groups of from 1 to 5 carbon atoms, condensing the ethylenic organo-magnesium derivative thus obtained with a γ-ethylenic ketone of the general formula:



wherein R_1 and R_2 are each selected from the class consisting of hydrogen atoms, alkyl groups of from 1 to 4 carbon atoms and aryl groups and R_3 is selected from the class consisting of hydrogen atoms and methyl groups, and decomposing with water the complex thus produced.

2,838,577

PROCESS OF MAKING ETHYL CHLORIDE AND VINYL CHLORIDE

Shirl E. Cook and Clarence M. Neher, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application January 3, 1955
Serial No. 479,646

2 Claims. (Cl. 260—656)

1. The improved process for manufacture of ethyl chloride and vinyl chloride comprising introducing a preheated gaseous mixture of chlorine and ethane to the bottom of a vertical reaction chamber, the reaction chamber including a bottom chlorination zone and a top dehydrochlorination zone established as hereafter defined, the gaseous mixture being fed at a rate providing a superficial linear velocity of from about 1 to about 3 feet per second at the temperature of reaction, the reaction chamber containing finely divided solids maintained in the fluidized state by the flow of gases in the reaction chamber, said solids being from about 50 mesh to 250 mesh in size and the temperature of the reaction chamber being maintained above about 300° C., the chlorine thereby substantially completely reacting with the ethane in the said bottom zone, to form ethyl chloride, dichloroethane and hydrogen chloride, a stream of vaporized preheated dichloroethanes being fed to the chamber at a vertical level at which the chlorine fed has substantially completely reacted, thereby establishing the bottom of the dehydrochlorination zone and forming feed gases to the dehydrochlorination, the quantity of dichloroethane being at least as high as the quantity of dichloroethane generated in the chlorination zone, the heat generated in the chlorination zone being transferred to the dehydrochlorination zone by the fluidized solids, and withdrawing reacted gases from the top of the dehydrochlorination zone.

2,838,578

ETHYL CHLORIDE MANUFACTURE

Franklin Conrad and Merle L. Gould, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application October 22, 1954
Serial No. 464,178
1 Claim. (Cl. 260—662)

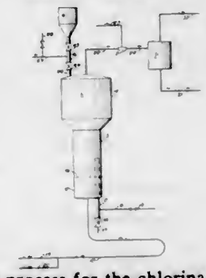
The improved process for the manufacture of ethyl chloride from a hydrocarbon feed stream including ethylene and ethane, comprising mixing said stream with a recycled stream including process generated hydrogen chloride and ethane as hereafter defined, the so-mixed stream including hydrogen chloride in about 2 to 5% molar excess to the ethylene, then feeding said mixed stream to a hydrochlorination zone, said zone containing a liquid reaction medium consisting essentially of ethyl chloride having a catalytic amount of aluminum chloride dissolved therein and being maintained at a temperature of from 40–80° C. and a pressure of from 6 to 14 atmospheres, and hydrochlorinating the ethylene therein, to form an overhead hydrochlorination product stream including ethyl chloride, ethane, and hydrogen chloride, and containing about 0.2 mol percent impurities, ethylene being included in these impurities, removing at least a portion of the ethyl chloride from said product stream and then mixing chlorine with the remaining stream in proportions of from 0.3 to 0.5 moles of chlorine to 1.0 mole of ethane content, and passing the last-mentioned mixed stream to a chlorination zone, the chlorination zone containing fluidized solids and being maintained at a temperature of about 375–475° C. and a pressure of about 5 to 20 atmospheres, contacting the last-mentioned mixed stream with the fluidized solids in the chlorination zone at a superficial velocity of from 1.5 to about 2.0 feet per second for a reaction period of from 1.5 to 3.0 seconds, and reacting essentially all the chlorine, thereby forming a chlorination product stream including ethyl chloride, unreacted ethane and hydrogen chloride, recovering ethyl chloride therefrom thereby forming an ethane and hydrogen chloride containing stream and feeding said stream as above described to the hydrochlorination zone.

2,838,579

CHLORINATION OF ETHANE

Franklin Conrad, Merle L. Gould, and Clarence M. Neher, Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application December 13, 1954, Serial No. 474,672
1 Claim. (Cl. 260—662)



An improved process for the chlorination of an ethane stream in the presence of impurities including oxygen contaminant comprising forming an intimate mixture of gaseous chlorine and an ethane containing feed stream having a methane diluent, the proportions of chlorine being from about 0.3 to 0.5 mole of chlorine to one mole of ethane, and introducing said intimate mixture to a feed zone immediately adjacent and below a vertical, uncooled, reaction zone, then passing said intimate mixture into said reaction zone in a plurality of jets substantially uniformly transversely distributed across said reaction zone, said

jets being not more than about one-half inch in diameter and having a total transverse area of from about 0.5 to 1.5 percent of the transverse area of the reaction zone; the reaction zone containing finely divided carbonaceous inorganic solids in a quantity of from about 40 to 250 pounds per square foot of transverse area thereof and predominating in particles passing a 60 mesh screen and retained on a 140 mesh screen, the said mixed feeds being introduced thereto in quantity corresponding to a superficial linear velocity of from about 1 to 2 feet per second thereby fluidizing finely-divided solids in the reaction zone, the reacting gases in the reaction zone being maintained at a pressure of about 100 to 250 pounds per square inch and a temperature of from about 350 to 450° C., whereby there is no ascertainable temperature gradient within the fluidized solids within the said reaction zone.

2,838,580

PROCESS FOR THE MANUFACTURE OF COMPOUNDS OF THE AZULENE SERIES

Leopold Ruzicka and Vladimir Prelog, Zurich, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application July 20, 1954
Serial No. 444,664
Claims priority, application Switzerland July 27, 1953
10 Claims. (Cl. 260—666)

1. A process for the manufacture of compounds of the azulene series, which comprises heating at a temperature above 300° C. a monocyclic 10-membered ring hydrocarbon of the alicyclic series containing at least one member of the class consisting of hydroxyl and oxo groups and at most one double bond in the ring in the presence of an aluminum oxide catalyst and a metal dehydrogenating catalyst.

2,838,581

PREPARATION OF PARA-DIALKYL SUBSTITUTED AROMATIC COMPOUNDS

Herman S Bloch, Chicago, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application March 8, 1955
Serial No. 493,060
6 Claims. (Cl. 260—668)

1. A process for the preparation of para-xylene which comprises condensing equimolar proportions of propionaldehyde and acetaldehyde in the presence of an acidic condensation catalyst selected from the group consisting of alumina, zirconia, silica, magnesia, zinc chloride, hydrochloric acid and sulfuric acid at a temperature in the range of from about 0° to about 400° C., separating the resultant 2-methyl-3-hydroxybutyraldehyde and 3-hydroxyvaleraldehyde from the reaction mixture and further condensing the same with an equimolar proportion of acetone in the presence of an acidic catalyst selected from the group aforesaid at a temperature in the range of from about 0° to 80° C., and separating the resultant para-xylene from ortho-xylene.

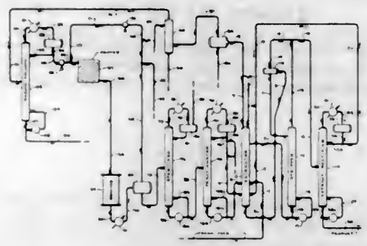
2,838,582

HYDROCARBON CONVERSION PROCESS

Louis S. Kassel, Oak Park, and Vladimir Haensel, Hinsdale, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application December 31, 1954, Serial No. 478,974
5 Claims. (Cl. 260—673.5)

1. A process which comprises introducing a virgin hydrocarbon charge stock containing paraffins and aromatics to a solvent extraction zone wherein said charge stock is treated with a selective solvent containing diethylene glycol and from about 2% to about 30% by weight of water, separately removing from said extraction zone an extract containing said solvent and a substantial amount of aromatics and a raffinate containing a substantial amount of paraffins, treating said extract to separate the solvent from the aromatics, reforming at least a portion of said raffinate with a dehydrocyclization catalyst at dehydrocyclization conditions in the presence of hydrogen thereby forming additional aromatics, introducing the reformate from said reforming zone to a first



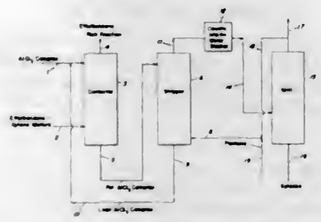
fractionation zone to remove normally gaseous components therefrom, introducing the remaining liquid reformate to a second fractionation zone and therein fractionating said liquid reformate into a low boiling paraffinic fraction containing isohexanes and lighter components and a high boiling fraction containing aromatics, introducing at least a portion of said low boiling paraffinic fraction to said extraction zone, and introducing said high boiling fraction to said extraction zone.

2,838,583

SEPARATION OF MONOALKYLBENZENES BY EXTRACTING ITS POLYALKYL ISOMERS WITH AN $AlCl_3$-AROMATIC HYDROCARBON COMPLEX

Abraham Schneider, Philadelphia, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application October 8, 1953, Serial No. 384,837
7 Claims. (Cl. 260—674)



1. Process for separating a monoalkyl benzene having from 2 to 5 carbon atoms in the monoalkyl group from an admixture consisting essentially of said monoalkyl benzene and a polyalkyl benzene which is an isomer of said monoalkyl benzene which comprises contacting, at a temperature of from —10° C. to 100° C., said admixture with a liquid aluminum chloride-aromatic hydrocarbon complex to dissolve at least a portion of said polyalkyl benzene in said complex, and separating undissolved hydrocarbons containing substantially all of the monoalkyl benzene originally present in the mixture from the fat complex, wherein said liquid aluminum chloride-aromatic hydrocarbon complex is prepared by contacting aluminum chloride with said admixture of monoalkyl benzene and polyalkyl benzene and extracting the resulting complex with a saturated hydrocarbon.

2,838,584

METHOD OF MANUFACTURING ACETYLENE FROM HYDROCARBONS

Shigeru Tsutsumi, Osaka, and Tsukumo Tomonari, Ryogen-Mura, Muko-Gun, Japan, assignors to Kurashiki Rayon Company Limited, Kurashiki, City, Okayama Prefecture, Japan

No Drawing. Application January 6, 1955
Serial No. 480,276
1 Claim. (Cl. 260—679)

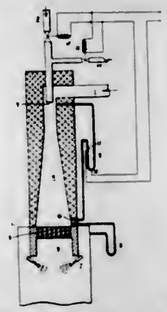
A two-step process for the production of acetylene from saturated hydrocarbons comprising passing in a first step a stream of hydrocarbons consisting essentially of saturated hydrocarbons having boiling points of about 175 to 350° C. at temperatures of about 700 to 900° C. and at a pressure below 300 mm. Hg over a catalyst selected from the group consisting of copper, nickel, chromium and nickel-chrome steel and then passing the effluent olefin-rich gas in a second step at a temperature of about 1000–1100° C. and at a pressure below 300 mm. Hg over a molybdenum catalyst, thereby converting said olefins substantially into acetylene.

2,838,585

PRODUCTION OF ACETYLENE BY INCOMPLETE COMBUSTION OF HYDROCARBONS WITH OXYGEN, AND APPARATUS THEREFOR

Erwin Lehrer, Bad Duerkheim, Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application January 13, 1955, Serial No. 481,667
Claims priority, application Germany January 20, 1954
9 Claims. (Cl. 260—679)



1. In a process for the production of acetylene by incomplete combustion of a gaseous hydrocarbon with an oxygen-containing gas wherein a gaseous hydrocarbon and an oxygen-containing gas are separately preheated and separately introduced into an inlet zone of a mixing chamber to form a gaseous mixture therein, said mixing chamber widening conically from its inlet zone to an outlet into a reaction chamber in which the gases react in a flame reaction, the method for counteracting premature ignition of the gaseous mixture in said mixing chamber which comprises monitoring the pressure in the vicinity of said inlet zone for an increase in pressure induced by said premature ignition, and altering the composition of said gaseous mixture to render said mixture incombustible in response to said increase in pressure.

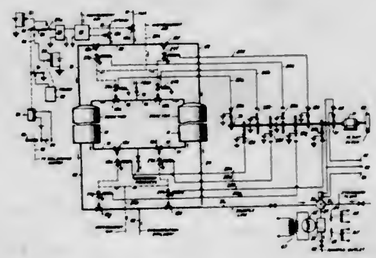
8. In combination with apparatus for the production of acetylene by incomplete combustion of a gaseous hydrocarbon with an oxygen-containing gas wherein preheated gaseous hydrocarbon and preheated oxygen-containing gas are mixed and then reacted in a flame reaction, said apparatus including a mixing chamber connected to a reaction chamber, and means for separately introducing said preheated gases into an inlet zone of said mixing chamber, said mixing chamber widening conically from its said inlet zone to its outlet to said reaction chamber, means for counteracting premature ignition in said mixing chamber which comprise a pressure-sensitive device in gaseous communication in the vicinity of said inlet zone with at least one of said gases, and means responsive to said pressure-sensitive device for quenching a flame in said mixing chamber.

2,838,586

ANALYZER AND METHOD OF USING SAME

Kenneth V. Kratochvil, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 29, 1952, Serial No. 317,513
13 Claims. (Cl. 260—680)



1. In the art of catalytic dehydrogenation of butenes wherein said butenes are passed into contact with a mass of catalytic material consisting essentially of calcium nickel phosphate deposited on an alumina carrier to convert butenes to butadiene and the catalyst becomes fouled with carbonaceous material during the conversion step, and wherein a mixture of steam and air is thereafter passed through the mass of catalytic material to regenerate same and remove a major portion of the carbonaceous material, the steps which consist in continuously withdrawing, during the regeneration period, a sample of effluent gas resulting from the passage of said mixture through the fouled catalyst, continuously passing infra-red radiation through said sample under conditions such that a portion of the radiation is affected by the concentration of carbon dioxide in the effluent gas and another portion is not so affected, producing an electrical voltage representative of the relative intensity of said portions of radiation after their passage through the sample, and progressively reducing the ratio of air to steam in said mixture when the magnitude of said electrical voltage indicates a carbon dioxide concentration of less than 0.5 percent, and, during the conversion period, passing said radiation through air and producing an electrical voltage representative of the relative intensities of said portions of radiation after their passage through said air.

2,838,587

METHOD FOR THE CONDENSATION OF CHLORINATED RUBBER AND AROMATIC COMPOUNDS AND PRODUCT OBTAINED

Marcel Prettre, Lyon, Edouard Grimaud, Vienne, and René Allirot, Plombieres, France, assignors to Société Anonyme dite: Société d'Electro-Chimie, d'Electro-Metallurgie et des Acieries Electriques d'Ugine, Paris, France, a corporation of France

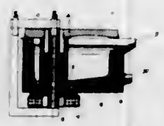
No Drawing. Application May 19, 1953
Serial No. 356,088
Claims priority, application France May 24, 1952
9 Claims. (Cl. 260—772)

1. The method of condensing chlorinated rubber with aromatic compounds which comprises the steps of heating to a temperature below 130° C., a mixture containing, as the sole reactive ingredients, one part by weight of chlorinated rubber, 20 to 300 parts by weight of a

neutral aromatic compound selected from the group consisting of aromatic hydrocarbons, and their lower alkyl and halogen derivatives and 5 to 20 parts by weight of an inorganic halide condensation catalyst selected from the group consisting of aluminum chloride, ferric chloride, stannic chloride and boron fluoride, until the production of acid ceases; and thereafter leaching the said condensation product with an acid medium until the catalyst is completely eliminated from the said product.

ELECTRICAL

2,838,588
DUCTLESS ELECTRIC INDUCTION FURNACE AND PROCESS FOR THE STARTING THEREOF
Giacomo Aldo Tagliaferri, Milan, Italy
Application July 12, 1955, Serial No. 521,563
Claims priority, application Great Britain July 15, 1954
4 Claims. (Cl. 13—28)



4. An induction furnace, comprising means defining a first annular chamber of symmetrical shape and restricted width and a second annular chamber of asymmetrical shape and of greater width than said first annular chamber, said second annular chamber being located eccentrically above and communicating with said first annular chamber, means having a part located centrally of said first annular chamber for generating an alternating magnetic field to be applied to a substance to be melted when in said first and second chambers, a lid for said second annular chamber, and means constituting a further part of said field-generating means for releasably retaining both the latter and said lid in operative position relative to said chambers.

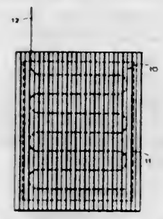
2,838,589
THERMOCOUPLE JUNCTION
George Hunrath, Red Bank, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application April 28, 1953, Serial No. 351,758
1 Claim. (Cl. 136—4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A thermoelectric generator comprising a cylindrical ingot of zinc-antimony alloy and a strip of constantan, said cylindrical ingot being force fitted through a hole in the constantan strip, said ingot protruding slightly on one side of said constantan strip, said slightly protruding end of the zinc-antimony ingot being joined to the constantan strip by a sprayed metal selected from the group consisting of constantan and copper.

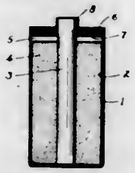
2,838,590
COMPOSITE ELECTRODE FOR ELECTRIC BATTERIES AND METHOD OF MAKING SAME
Paul Garine, Paris, France, assignor to Yardney International Corp., New York, N. Y., a corporation of New York
Application March 7, 1955, Serial No. 492,630
2 Claims. (Cl. 136—30)

1. A process for making an electrode for electrochemical batteries which comprises the steps of mixing zinc oxide powder with a solution of polystyrene into a paste, molding said paste into a platelike electrode body and



causing said body to harden by the evaporation of a solvent from the solution.

2,838,591
PRIMARY CELL
John J. Stokes, Jr., Unity, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 8, 1955, Serial No. 486,757
6 Claims. (Cl. 136—100)



1. A dry cell comprising an aluminous metal anode, a carbon cathode and a paste mixture filling the entire space between said anode and cathode, said paste consisting of from 2 to 25% by weight of the dry mixture of aluminum chloride hexahydrate, 4 to 25% by weight of the dry mixture of at least one compound selected from the group consisting of ammonium, sodium and potassium chromates, the total weight of said chromate component not exceeding 25%, from 5 to 30% by weight of the dry mixture of finely divided carbon, from 35 to 80% by weight of the dry mixture of manganese dioxide and sufficient water to provide the desired consistency to the paste, said paste having a pH of less than 7.

2,838,592
SHIELDING ENCLOSURES
Frank Feketics, Riverside, N. J.
Application March 27, 1956, Serial No. 574,121
7 Claims. (Cl. 174—35)



1. In a knockdown radiation shielding structure, a pair of substantially identical shielding panels each formed of a stiff unbendable member having its opposite faces entirely flat and having at least one face fabricated of electrically conductive material, said panels being arranged in edge to edge spaced relation with their conductive faces on the same side, a flat inner strip having longitudinal margins and extending along the adjacent portions of said panels on the inner side thereof with its margins in flat facing engagement with the inner faces of respective panels, a stiff outer strip having entirely flat longitudinal margins and extending along the adjacent portions of said panels on the outer side thereof with its margins in flat facing engagement with the outer faces of respective panels, said outer strip having a depressed longitudinally extending medial portion defining a channel located in the space between and having its side walls abutting the panel edges, the channel side walls being of a depth less than the thickness of each of said panels, at least one of said strips being fabricated of electrically conductive material and in engagement with said electrically conductive panels faces to provide electrical continuity between adjacent panels, and bolts disposed in the space between said adjacent panel edges and each releasably connected to a laterally medial region of said inner strip and the bottom wall of said channel to firmly clamp said longitudinal strip margins in flat abutment with said panel faces.

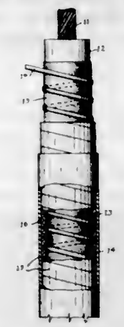
2,838,593
CONNECTOR FOR ELECTRIC WIRES
Olindo Scesa and Joseph B. Speranza, New York, N. Y.
Application February 23, 1950, Serial No. 145,784
2 Claims. (Cl. 174—84)



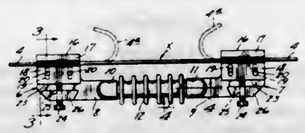
1. In combination, a heat-conductive sleeve having an open end having an inturned flange substantially perpendicular to the axis of the sleeve and shaped to engage a conducting wire on all sides simultaneously; said sleeve having a shoulder remote from the flange; a solid mass of meltable alloy in the sleeve against said shoulder; and an outwardly open cup-shaped charge of hardened flux material fitting in the sleeve with its bottom wall against said mass, and having a thin cup wall as thick as the flange is high substantially from end to end and approximately as long as the cup diameter, fitting against the inner face of the sleeve and flange and extending into the sleeve a distance as great as two thirds the interval from the flange to the shoulder, to aline the wire with the sleeve and hold the wire spaced from the sleeve and protect the sleeve and a wire fitted against said bottom from oxidation throughout said distance before and after the flux is melted; whereby the sleeve may be heated to melt the flux before the alloy is melted to cause the melted flux to simultaneously cover and flux well the inner face of the sleeve and the wire throughout said distance after the flux is melted to allow the conducting means to be pushed inwardly to said shoulder means while flux and alloy are held in by the flange in any position of the sleeve until the alloy pushes out the flux and impurities, if any, and becomes hardened and engages the perpendicular part of the flange.

2,838,594
FAULT DETECTING CABLE SHEATH
Aldo Dapelo, Genoa, Italy
Application March 4, 1954, Serial No. 414,190
Claims priority, application Italy March 9, 1953
3 Claims. (Cl. 174—115)

1. In an electric cable, an inner conductive core, an insulating sheath surrounding said core throughout its length, a high resistance conductive sheath circumposed about said insulating sheath throughout the length of the latter, a conductor of known specific resistance per unit of length helically coiled at a constant pitch about and in contact with said high resistance conductive sheath throughout the full length of the latter and having at least one end adapted for connection to a resistance measuring device, an insulating layer circumposed about said helically coiled conductor and conductive sheath, and a metal sleeve circumposed about said insulating layer spaced from said conductor.



2,838,595
POWER CONDUCTOR ISOLATOR
Lionel E. Parkyn, Waterville, Minn.
Application August 24, 1954, Serial No. 451,746
1 Claim. (Cl. 174—138)



A power conductor isolator comprising, an elongated rigid insulator, a pair of longitudinally spaced clamping heads each having a neck at its lower end extending longitudinally of said insulator, the inner ends of said necks being rigidly secured to the adjacent ends of said insulator, the upper ends of said heads defining laterally outwardly projecting longitudinally extending relatively stationary jaws having aligned downwardly directed faces adapted to engage longitudinally spaced upper surface portions of a power conductor, whereby the isolator is suspended from said conductor, a pair of relatively movable jaw elements each mounted on a different one of said heads in underlying relation to a cooperating relatively stationary jaw element for generally vertical movements toward and away therefrom, and means for independently moving said relatively movable jaws upwardly toward their respective relatively stationary jaws to rigidly anchor said spaced portions of the power conductor therebetween against longitudinal movement relative to each other when the power conductor is severed between said heads.

2,838,596
GLANDS FOR ENTRY OF SUBMARINE CABLES INTO REPEATER HOUSINGS
Stanley George Foord, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application June 23, 1954, Serial No. 438,733
Claims priority, application Great Britain July 10, 1953
4 Claims. (Cl. 174—152)

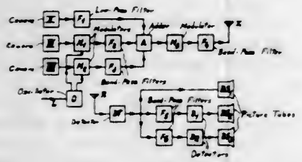
1. A moisture-tight seal for an electrical conductor passing through a bulkhead separating a comparatively low pressure chamber from a region of much higher pressure, comprising an insulating bushing of hard in-

sulating material provided with a central bore and fitting within a passage through said bulkhead, sealing means sealing said low pressure chamber against entry of moisture between said bushing and the walls of said passage, a metal rod passing through said central bore and having integral therewith an enlarged head joined to an external conductor, the head being placed on the



high pressure end of said bore and abutting an end of said bushing, a recess in the face of said bulkhead on the side subjected to high pressure, a viscous liquid filling said recess, a mass of plastic insulating material surrounding said enlarged head and its joint with said conductor, a diaphragm integral with said mass of plastic insulating material, and means clamping said diaphragm against the surface of said viscous liquid filling said recess.

2,838,597
MULTIPLEX TELEVISION SYSTEM
Frederik Willem de Vrijer, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application April 28, 1953, Serial No. 351,575
Claims priority, application Netherlands May 1, 1952
6 Claims. (Cl. 178—5.2)



1. A multiplex system for the transmission and reception of television pictures which are line-scanned comprising transmitting apparatus including means for producing a main signal representative of picture brightness information and having a predetermined frequency band, and means for producing a plurality of supplementary signals, each of said supplementary signals comprising an auxiliary carrier wave and at least one side band, lying in said main signal frequency band and having a frequency band which coincides at least in part with the frequency bands of the other signals of said supplementary signals, said auxiliary carrier waves of said supplementary signals having frequencies which are

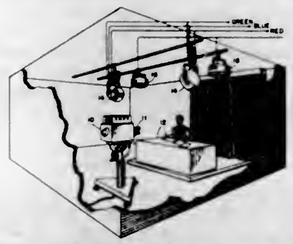
$$\left(n_m+\frac{m}{k+1}\right)$$

times the line frequency, k being equal to the number of supplementary signals, n_m and m being integral numbers and m being equal to 1, 2, 3 . . . k; and receiving apparatus for said main signal and said plurality of supplementary signals, said receiving apparatus including a plurality of selective detectors arranged so that the mth of said detectors is tuned to a frequency which is

$$\left(n_m+\frac{m}{k+1}\right)$$

times the line frequency.

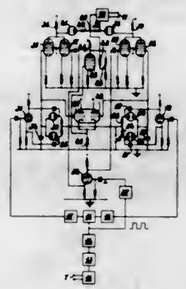
2,838,598
TELEVISION SYSTEM
Jesse Hilton Haines, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application May 1, 1956, Serial No. 581,867
29 Claims. (Cl. 178—5.4)



1. A television system comprising: a studio having light reflecting walls; a flying spot scanner; a lens system focusing light from said scanner onto an object to be televised; pickup means comprising at least one phototube producing a blue signal, at least one phototube producing a green signal, at least two phototubes producing a red signal, and preamplifiers for each said signal; a processing amplifier for each color signal comprising a linear amplifier, a phosphor corrector amplifier, an aperture correcting amplifier, a gamma correcting amplifier, a blanking signal inserting amplifier, and an isolating amplifier; a blanking signal generator; means applying said blanking signal to said blanking signal inserting amplifiers; means applying said blanking signal to said scanner; a masking amplifier; means applying signals from each processing amplifier to said masking amplifier; a utilization device; means applying signals from said masking amplifier to said utilization device; a stroboscopic-light; a power source for said stroboscopic-light; means applying power from said power source to said stroboscopic-light; an energization circuit; means applying said blanking signal to said energization circuit; means applying the output of said energization circuit to said stroboscopic-light.

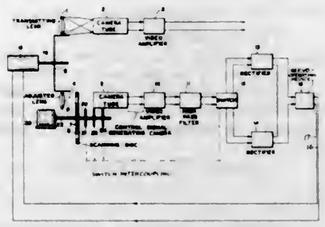
2,838,599
METHOD AND DEVICE FOR ENGRAVING PLATES AND PLATES MANUFACTURED BY SUCH METHODS
Frits Rudolf Hardi, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 24, 1955, Serial No. 517,784
Claims priority, application Netherlands July 1, 1954
4 Claims. (Cl. 178—6.6)

1. Apparatus for engraving a body of material in accordance with a predetermined pattern comprising a pattern forming means, means for producing a first voltage of triangular waveform having a frequency equal to one-half the fundamental frequency of operation of said pattern forming means, means for deriving a modulating voltage dependent upon the configuration of said predetermined pattern, means coupled to said last-mentioned means for deriving from said modulating voltage a first voltage of stepwise waveform having an amplitude equal to the amplitude of said modulating voltage occurring at each amplitude peak of said first voltage of triangular waveform, means connected for adding said first voltage of triangular waveform to said first voltage of stepwise waveform to produce a resultant first sum voltage, means for producing a second voltage of triangular waveform having a frequency equal to one-half said fundamental frequency, said second voltage of triangular waveform being electrically phase opposed to said first voltage of triangular waveform, means connected for deriving from said modulating voltage a second voltage of stepwise waveform having an amplitude equal to the amplitude of said modulating voltage occurring at each amplitude peak of said second voltage of triangular waveform, means connected for adding said



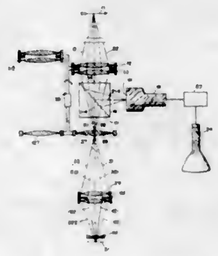
second voltage of triangular waveform to said second voltage of stepwise waveform to produce a resultant second sum voltage, means connected for adding said first and second voltages of stepwise waveform to produce a resultant third sum voltage, switching means controlled by said third sum voltage having an input and an output, means for applying said first and second sum voltages to the input of said switching means, means for controlling the operation of said pattern forming means, and means for coupling the output of said switching means to said operation controlling means whereby the penetration depth of said pattern forming means varies as a function of the amplitude of said modulating voltage.

2,838,600
FOCUSING ADJUSTING SYSTEM
Hans W. Salinger, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application September 22, 1952, Serial No. 310,761
13 Claims. (Cl. 178—7.2)



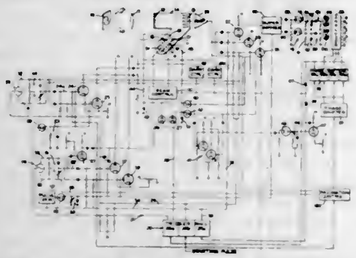
7. In an automatic focus adjusting system for television camera apparatus, a camera means comprising a picture signal-generating camera having a first photosensitive cathode, said camera incorporating a first lens which is adjustable to focus an optical image on said cathode, a control signal-generating camera operatively associated with said picture camera and having a second photo-sensitive cathode and a second lens adjustable with respect thereto, both said first and second lenses being mounted for simultaneous movement toward and away from the respective cathodes, said control camera including a focus modulator interposed in the light path of the second lens and the second cathode and operative to focus the image projected by said second lens alternately in front and behind said second cathode, said modulator comprising a rotatable disc having two windows of different refractive indices which produce the aforementioned alternate focusing, said windows being alternately registrable with the said light path to produce two different control camera output signals having parameters corresponding to the respective differing focusing conditions produced by said two windows, a dividing circuit operatively coupled to the output of said control camera and having two separate branches, an electrical switching device, said switching device having an operative connection with said rotatable disc to couple one of the aforementioned output signals to one of said branches when one of said windows is registered with said light path and to couple the other of said output signals to the other of said branches when the other of said windows is registered with said light path, said branches providing signal parameters corresponding to the focus relationship of the respective windows with respect to said said second cathode, and servo-motor means coupled to both of said branches and responsive to the difference in signal parameters thereof to control movement of said first lens with respect to said first cathode.

2,838,601
OPTICAL SYSTEM
Robert T. Cavanagh, Pompton Plains, N. J., and Jesse H. Haines, Philadelphia, Pa., assignors to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application October 25, 1955, Serial No. 542,643
8 Claims. (Cl. 178—7.2)



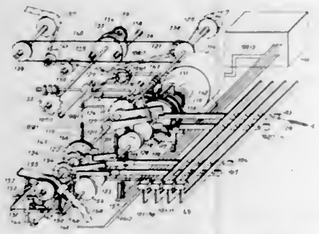
1. An optical system comprising: an objective lens; a television pickup tube having a photosensitive face; a motion picture film; a beam-splitting element located to receive light passing through said objective lens and to direct part of said light along a different path to said photosensitive face to be focused thereon, the remainder of said light passing through said beam splitting element along a direct path to said motion picture film; a relay lens located on said direct path between said film and said beam splitting element to refocus light travelling along said direct path onto said film, said objective lens including a principal iris diaphragm to control the amount of light entering said optical system and to control the depth of focus of the image focused on said pickup tube and said relay lens including a secondary iris diaphragm to restrict additionally the light reaching said film thereby increasing the depth of focus of the image focused on said film.

2,838,602
CHARACTER READER
Walter Sprick, Boeblingen, Germany, assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application July 22, 1953, Serial No. 369,671
Claims priority, application Germany July 26, 1952
14 Claims. (Cl. 178—15)



4. In an analyzing device for reading characters, a scanning station including scanning means adapted to scan a field which includes a character, scanning control means connected to said scanning means to cause said scanning means to traverse an ever-decreasing spiral path in the scanning field, sensing means responsive to the scanning of the top or bottom portions of said character for displacing the focal point of said spiral path toward the effective center of said character, the parts being arranged so that when the sensing means senses both the top and bottom portions of said character the focal point of said spiral path will be at the effective center of the character.

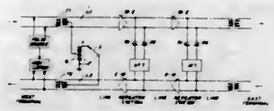
2,838,603
MAGNETIC RECORDING DEVICE
Eric T. Hudec, Haddonfield, N. J.
Application July 25, 1955, Serial No. 524,051
16 Claims. (Cl. 178—17.5)



1. Magnetic recording device comprising a keyboard recorder for producing electrical code signals whenever a key is keyed, a magnetic recorder head activated by these code signals, a magnetic tape moved stepwise whenever a key is keyed for recording the code signals, a magnetic information tape, means for moving both the recorder tape and the information tape continuously, a magnetic pick-up head for reading the information tape, an amplifier connected to the pick-up head and to the recording head for transferring the informations from the information tape to the recorder tape.

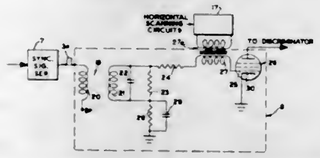
2,838,604
ELECTRIC FAULT LOCATION
Daniel F. Hoth, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 5, 1956, Serial No. 569,626
17 Claims. (Cl. 178—69)

1. In a two-way signaling transmission system including a terminal station and first and second pairs of conductors for opposite directions of transmission therewith, a plurality of discrete asymmetrically conducting means bridged across said first and second pairs of conductors at a plurality of spaced points therealong, said means being poled for conduction from one of said conductor pairs to the other conductor pair, and means comprising



a source of adjustable unidirectional voltage connected to both said conductor pairs at said terminal station for remotely controlling forward and reverse biases on said asymmetrically conducting means to establish either a high or low resistance condition therein.

2,838,605
STABILIZED SYNCHRONIZING SYSTEM
John F. Bigelow, Fort Wayne, Ind., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application October 27, 1952, Serial No. 317,026
13 Claims. (Cl. 178—69.5)

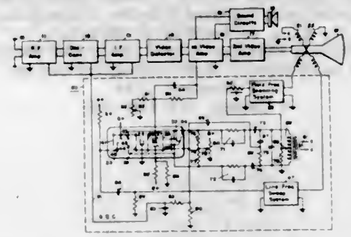


1. A synchronizing circuit for use in a television receiver adapted to utilize a synchronizing signal contained in the video carrier signal for synchronizing the reproduction of a picture comprising a synchronizing wave generator responsive to said synchronizing signal for producing a wave which occurs later in time with respect to said synchronizing signal, a scanning generator operative to produce a scanning signal for use in reproducing the aforementioned picture, automatic frequency control means operatively coupled to said scanning generator and serving to control the frequency of said scanning signal, means whereby said frequency control means is dependent upon said wave for its controlling action, gating means coupling said wave generator and said frequency control means together, means for conducting said scanning signal to said gating means, and means whereby said gating means is responsive to said scanning signal to conduct said wave to said frequency control means only during the occurrence of said scanning signal.

2,838,606
TELEVISION RECEIVER
Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Original application February 18, 1952, Serial No. 272,200, now Patent No. 2,781,468, dated February 12, 1957. Divided and this application June 2, 1954, Serial No. 433,911
9 Claims. (Cl. 178—69.5)

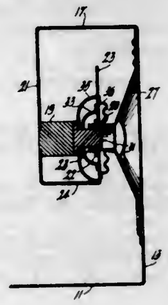
1. In combination: a phase detector having a pair of output electrodes reponsive to an applied comparison signal for developing a balanced unidirectional phase-correction control signal; an electrode system comprising an electron gun for projecting a focused electron beam, means including a deflection-control system responsive to an applied alternating signal for periodically sweeping said beam back and forth transversely across a predetermined mean path, and a pair of anodes having active portions on opposite sides of and asymmetrical

with respect to said mean path; and means direct-coupling said phase-detector output electrodes to said deflec-



tion-control system to apply both said comparison signal and said control signal thereto.

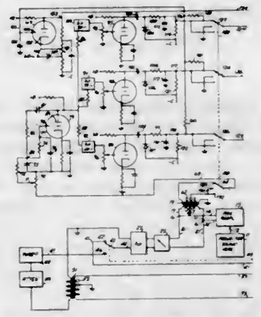
2,838,607
COMBINATION CHASSIS AND LOUDSPEAKER
Harry F. Olson, Princeton, and John Preston, Metedeconk, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application April 27, 1951, Serial No. 223,388
4 Claims. (Cl. 179—1)



1. A combination loud speaker and chassis comprising a unitary magnetic chassis formed by bending a single sheet of magnetic material so as to provide at least a first and second face in spacial, substantially parallel relationship, said first face having an aperture therein, a third parallel face interposed between said first and second faces and having an aperture therein, a diaphragm having its outer periphery contiguous with said first face in axial alignment with said apertures, a voice coil form secured to said diaphragm and extending toward said second face, through said aperture in said third face and spaced apart therefrom, a voice coil on said form, and a magnet mounted on said second face extending into a region of magnetic cooperation with said voice coil.

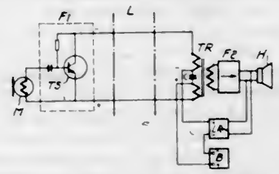
2,838,608
ARTIFICIAL STEREOPHONIC SOUND SYSTEM
Skipwith W. Athey, Mount Kisco, and Weld S. Carter, Jr., Peekskill, N. Y., assignors to General Precision Laboratory Incorporated, a corporation of New York
Application January 13, 1955, Serial No. 481,556
5 Claims. (Cl. 179—1)

1. An artificial stereophonic sound system for producing stereophonically related sound effects from a single composite signal consisting of an audio signal and a plurality of control signals having discretely different frequencies comprising, an input circuit having said composite signal impressed thereon, an audio signal channel connected thereto, means in said audio signal channel for transmitting only said audio signal, a plurality of control amplifiers equal in number to the number of control signals each of which includes at least one sharp cutoff pentode and each of which has its output coupled to a loudspeaker individual thereto, a first audio branch circuit having its output connected to the control grids of all of said pentodes, a second audio branch circuit having its output coupled to one of said loudspeakers at a point subsequent to the associated pentode, a control signal channel, means in said control signal channel for transmitting only said control signals, a plurality of control branch circuits equal in number to the number of control signals connected to said control signal channel, a band-pass filter in each of said control branch circuits each of which passes an individual and different one of said control signals, a rectifier in each of said control branch



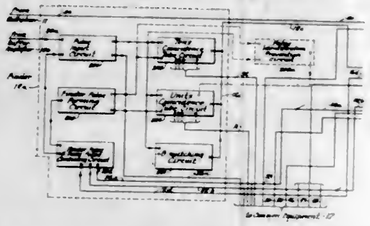
circuits for converting the individual control signal impressed thereon into direct current potentials of corresponding amplitudes, means for impressing individual ones of said direct current potentials on the control grids of said pentodes to adjust the gain thereof, and switching means for alternatively connecting the input of said first and second audio branch circuits to the output of said audio signal channel, said switching means including means for introducing a first selected time delay in connecting said first audio branch circuit to the output of said audio signal channel and for introducing a second selected time delay of less duration than said first time delay in connecting the input of said second branch circuit to the output of said audio signal channel.

2,838,609
ELECTRIC COMMUNICATION SYSTEM
David Eklov, Alvsjo, Sweden, assignor to Svenska Relafabriken AB, Stockholm, Sweden, a joint-stock company of Sweden
Application November 21, 1955, Serial No. 548,168
Claims priority, application Sweden November 29, 1954
4 Claims. (Cl. 179—1)



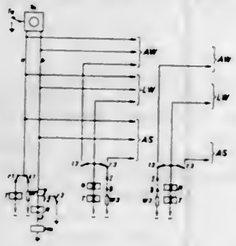
1. An electric communication system comprising at least one transmitting station, a receiving station separate from the transmitting station, a line interconnecting the transmitting and the receiving station, a direct current source at the receiving station for supplying direct current to the transmitting station over said line, means at the transmitting station for modulating said direct current, thereby giving rise to an alternating component in said current, and means at the receiving station responsive to the magnitude of said alternating component as received at the receiving station for controlling the intensity of said direct current.

2,838,610
ELECTRONIC TELEPHONE SYSTEM
Robert B. Trousdale, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application July 26, 1952, Serial No. 301,087
19 Claims. (Cl. 179—15)



4. In an automatic telephone system, a plurality of lines having different plural digit numbers individually assigned thereto, a plurality of directively controllable line selecting links common to said lines, means including said links for concurrently setting up connections between different pairs of said lines, coincidence circuit means included in each of said links for operatively associating the link with any calling one of said lines, and means included in each of said links and operative in the event a calling condition exists concurrently on several of said lines for preventing said coincidence circuit means from responding falsely to a digital combination of two of said concurrently calling lines incident to the setting up of said connections.

2,838,611
CIRCUIT ARRANGEMENT FOR SUBSCRIBER'S STATION LINES
Alfred Heyduck, Stuttgart-Zuffenhausen, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application February 10, 1955, Serial No. 487,397
Claims priority, application Germany February 27, 1954
5 Claims. (Cl. 179—18)



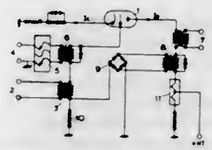
1. In a telephone system a substation line, a substation line circuit comprising a line relay and a cut-off relay a plurality of switches having access to said line circuit each of said switches being adapted to extend a connection in a different traffic direction, a test conductor in said line circuit for each said switch, means for applying a marking potential to a selected test conductor to indicate that the substation line circuit is in a calling condition, an auxiliary circuit forming a path parallel to a portion of said line circuit, contacts for said line and cut-off relays arranged to control the connection or disconnection of said parallel path to or from said last-mentioned test conductor dependent upon the kind of restriction to be provided for calls in the different traffic directions, test circuits in said switches, and discriminating means in said test circuits adapted to respond to the presence of said parallel path when connected to said test conductor.

2,838,612
TELEPHONE SUBSCRIBER'S INSTRUMENTS
Lyndall Crossthwaite Pocock, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application February 2, 1955, Serial No. 485,707
Claims priority, application Great Britain February 8, 1954
6 Claims. (Cl. 179—81)



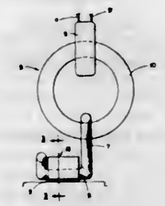
1. A telephone subscriber's station comprising a bridge network, said network having a transmitter circuit and crystal amplifier means coupled across one diagonal of said bridge, a receiver circuit in conjugate relation with said transmitter circuit and coupled across the other diagonal of said bridge, a line circuit constituting a first arm of said bridge, a balancing network in conjugate relation with said line circuit and constituting a second arm of said bridge, and a pair of resistive impedances being respectively the third and the fourth arms of said bridge and constituting ratio arms thereof.

2,838,613
RINGING SIGNAL RECEIVER INCLUDING NON-LINEAR ELEMENTS FOR TELECOMMUNICATION SYSTEMS
Claude Francois Armand Ribeyre, Paris, France, assignor to Lignes Telegraphiques & Telephoniques, Paris, France
Application December 2, 1954, Serial No. 472,694
Claims priority, application France December 22, 1953
6 Claims. (Cl. 179—84)



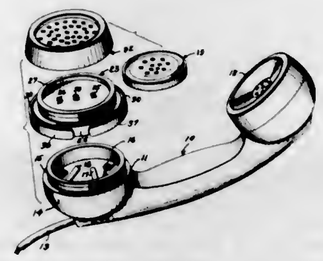
1. A receiver for ringing signals of a telecommunication system in which said ringing signals are transmitted at a predetermined frequency comprising, in combination, an electron tube having at least a cathode, a control grid and an anode, a relay energized by anode current of said tube, frequency selective means for applying ringing signal voltages to said control grid, a tuned circuit tuned at said frequency and inserted in the anode circuit of said tube, means for rectifying voltage developed across said circuit and for applying said rectified voltage to said control grid so as to control the value of the cathode direct-current of said tube, a fixed resistance traversed by said cathode direct-current, a selective network included in said frequency selective means and having maximum attenuation at a frequency about equal to said predetermined frequency, at least one non-linear resistance in said network, the value of said maximum attenuation depending on that of said non-linear resistance, and means for applying the direct current voltage developed across said fixed resistance to said non-linear resistance in such direction that the attenuation of said network be decreased when said cathode direct-current changes under the action of said rectified voltage.

2,838,614
MAGNETIC RECORDING HEAD
Robert M. Ashby, Pasadena, Avard F. Fairbanks, Garvey, and Willoughby M. Cady, Pasadena, Calif., assignors to North American Aviation, Inc.
Application May 12, 1952, Serial No. 287,438
7 Claims. (Cl. 179—100.2)



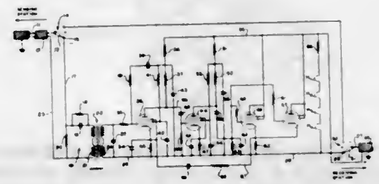
1. A magnetic recording head comprising two closely-spaced parallel sections of wire, said sections of wire being egg-shaped with the tapered ends in close proximity to each other so as to confine the lines of magnetic flux into a narrow beam, means subject to an electric signal for causing an equal amount of current to flow through said sections of wire in opposite directions, and means for conveying a magnetic recording medium through the magnetic field generated between said parallel sections of wire by said current flow and in a direction substantially normal to said magnetic field.

2,838,615
TELEPHONE HAND SET TRANSMITTER DISCONNECTOR DEVICE
Abraham Leifer, Newark, N. J.
Application May 17, 1956, Serial No. 585,414
3 Claims. (Cl. 179—158)



1. A voice cutout device for a telephone transmitter that has a housing with spring contacts therein and a detachable mouthpiece, said cutout device comprising an insulated body having a threaded sleeve portion adapted for engagement with the housing of a telephone transmitter when made free of its mouthpiece, contact means extending axially between the opposite sides of the body, one side of said contact means adapted to be engaged by the spring contacts of the transmitter housing, a second threaded sleeve portion extending from the opposite side of the insulated body and adapted to receive a transmitter unit and the mouthpiece so that the contacts of the transmitted unit may engage the other side of the contact means, depressible switch contact means extending radially through the insulate body to the exterior thereof and operable to bridge said axially extending contact means upon being depressed to short circuit them so as to render the transmitter unit ineffective.

2,838,616
REPEATER AMPLIFIER
William D. Cannon, Metuchen, N. J., assignor to The Western Union Telegraph Company, New York, N. Y., a corporation of New York
Application April 17, 1953, Serial No. 349,504
2 Claims. (Cl. 179—171)



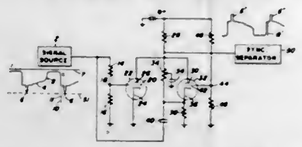
1. In a submersible repeater interposed in a submarine cable circuit whereby said cable has a repeater input end and a repeater output end, a repeater amplifier having a cable input side and a cable output side and adapted to receive operating potentials over said cable circuit comprising a plurality of electron discharge tubes, a heater element in each tube, means to couple the input side of said repeater amplifier to the cable input end whereby message signals are applied to said amplifier and means intercoupling the amplifier output side and the cable output end whereby the message signals are applied to said cable output end, said last named means including resistance coupling means connected directly to the anode of the final electron discharge tube and to the cable output end, said resistance coupling means including a plurality of said heater elements serially connected.

2,838,617
CIRCUIT-ARRANGEMENT COMPRISING A FOUR-ZONE TRANSISTOR
Leonard Johan Tummers and Frederik Hendrik Stieltjes, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 22, 1953, Serial No. 399,745
Claims priority, application Netherlands January 13, 1953
7 Claims. (Cl. 179—171)



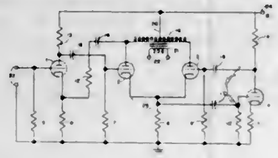
3. A circuit-arrangement comprising a transistor having at least four zones arranged in sequence, the first and third of said zones having a first type of conductivity and the second and fourth of said zones having a second type of conductivity which is opposite to said first type of conductivity, said second and third zones being thinner than the characteristic diffusion length of the minority charge carriers in these zones, a connection to said first zone serving as an emitter, a connection to said second zone serving as a base, a connection to said fourth zone serving as a collector, a first circuit connected between said emitter connection and said base connection and comprising a source of voltage having a polarity to cause the junction of said first and second zones to operate in the forward direction from the first to the second zone, and a second circuit connected between said collector connection and said first circuit and comprising a source of voltage having a polarity to cause the junction of said second and third zones to operate in the forward direction from the second to the third zone and thereby causing the junction of said third and fourth zones to operate in the blocking direction from the third to the fourth zone.

2,838,618
NOISE CANCELLING CIRCUIT
Raymond F. Foster, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application March 31, 1955, Serial No. 498,365
5 Claims. (Cl. 179—171)



1. A noise cancelling circuit comprising, in combination, a first electron discharge device having an anode, a control grid and a cathode, a second electron discharge device having an anode, a control grid and a cathode, an input terminal, a direct current coupling circuit connected between said terminal and said control grid of said first electron discharge device, a connection between said cathode of said first electron discharge device and ground, a source of positive potential, a load impedance connected between said source and said anodes of said first and second electron discharge devices, a resistor connected between said anodes of said first and second electron discharge devices and said cathode of said second electron discharge device, a cathode resistor connected between said cathode of said second electron discharge device and ground, and a capacitor connected between said terminal and said cathode of said second electron discharge device.

2,838,619
LINEAR PUSH-PULL AMPLIFIER
Leon Bess, Allston, Mass.
Application August 22, 1955, Serial No. 529,715
5 Claims. (Cl. 179—171)



4. A linear push-pull electronic circuit comprising, first and second electron tubes each having a control grid, an output transformer having its primary winding connected between the anodes of said tubes, said primary winding having a center tap connected to a source of electric potential, a resistor common to the cathodes of said tubes coupling said cathodes to ground, means for impressing input signals upon the control grid of said first electron tube, an amplifier excited by changes in voltage across said common cathode resistor, and means coupling the output of said amplifier to the control grid of said second electron tube whereby a change in conduction of said first electron tube is offset by a corresponding opposing change in conduction of said second electron tube.

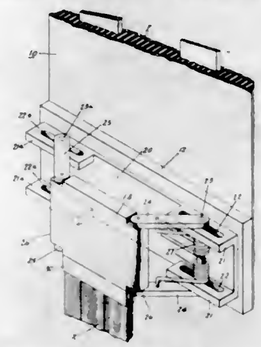
2,838,620
BUS DUCTS
John A. Herrmann, Grosse Pointe Farms, Mich., assignor, by mesne assignments, to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application December 23, 1952, Serial No. 327,585
11 Claims. (Cl. 191—23)

1. In a bus duct having an open bottom casing, a plurality of longitudinally spaced transverse insulator supports mounted in said casing, each of said supports having a plurality of transversely spaced vertical slots, horizontally extending resilient conductors disposed in said slots, each of said supports having a plurality of horizontally transversely spaced openings extending longitudinally therethrough, and insulating and supporting means secured in said support openings and having portions extending beyond the opening and below the conductors,



each of said supports being operatively positioned in engagement with a bottom surface of said conductors along the longitudinal edges of said surface for substantially the full length of said conductors thereby securing and insulating said conductors in said support slots, said insulating and supporting means comprising longitudinally extending strips, at least one of said strips in engagement with two of said conductors.

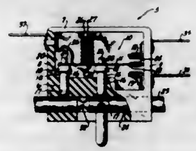
2,838,621
CURRENT COLLECTOR ASSEMBLY FOR RAILWAY CRANES
Vincent P. Robb, Philadelphia, Pa., and John R. Sacher, Erlton, N. J.
Application April 11, 1955, Serial No. 500,714
1 Claim. (Cl. 191—48)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A current collecting device for a vertically disposed conductor plow which comprises a base plate for being affixed horizontally of one face of the plow, said base plate having an upper and lower outwardly extending flange thereon, an elongate vertical slot adjacent each end of each flange providing horizontally spaced pairs of upper and lower aligned slots, a first vertical shaft extending through one pair of aligned slots and being horizontally movable therein, a second vertical shaft extending through the other pair of aligned slots and being horizontally movable therein, a collector shoe having a first and a second vertical edge, a first pair of spaced upper and lower arms each having one end fixedly secured to said first vertical shaft and its other end pivotally connected adjacent said first vertical edge of the collector shoe, a second pair of spaced upper and lower arms each having one end fixedly secured to the second shaft and its other end pivotally connected adjacent said second vertical edge of the collector shoe, a first spring means for independently biasing said first pair of arms and the first vertical edge of the collector shoe outwardly of the base plate and a second spring means for independently biasing said second pair of arms and the second vertical edge of the collector shoe outwardly of the base plate, both said spring means cooperating to maintain the collector shoe

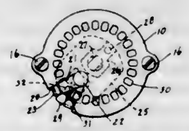
generally parallel with the base plate and in surface contract between its vertical edges with a straight section of rail and each spring means being operative to permit each vertical edge of the collector shoe to move independently inward toward the base plate and the collector shoe to follow any curvature of a conductor rail and maintain substantial and sufficient contact therewith to prevent arcing.

2,838,622
ELECTRIC SWITCH
Robert W. Bachi, Marion, Ind., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application July 21, 1955, Serial No. 523,521
9 Claims. (Cl. 200—6)



1. In an electric switch: a base; a contactor overlying the base in spaced relation thereto and having contact means at one portion thereof; a pair of actuators extending between the base and the contactor; means mounting said actuators in spaced, side by side relationship on the base and for motion to and from defined positions along paths which intersect the contactor; means on said actuators loosely engaged with portions of the contactor which are spaced in the same direction from said contact means to provide alternate fulcrums at one side of the contactor and engaged thereby, about either of which fulcrums the contactor may tilt; and spring means acting on said contactor in a direction to maintain the contactor seated upon both fulcrums; motion of one of said actuators away from its defined position effecting tilting of the contactor about one of said fulcrums to carry the contact means on the contactor in one direction, and motion of the other of said actuators away from its defined position effecting tilting of the contactor about the other of said fulcrums to carry the contact means on the contactor in the opposite direction.

2,838,623
SWITCH MECHANISM
John Wendling, Fort Wayne, Ind., assignor to The Magnavox Company, Fort Wayne, Ind., a corporation
Application October 31, 1956, Serial No. 619,440
10 Claims. (Cl. 200—11)



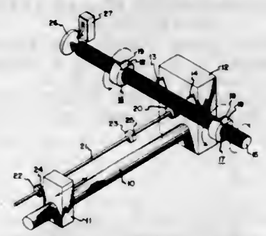
1. A switch mechanism comprising an indexing plate having a peripheral notch formed therein, a shaft rotatably mounted in said plate, switch-control elements mounted on said shaft for rotation thereby, a plate mounted on said shaft to rotate therewith and including a finger end portion extending radially of said plate into register with said notch, and a lever pivotally mounted on said indexing plate and including a stop disposed within said notch in the path of movement of said finger, said stop being movable back and forth between the end walls of said notch to stop said finger and shaft in a predetermined position regardless of direction of shaft rotation.

2,838,624
SWITCHING APPARATUS
Elmer Guy Hills, Des Plaines, and Elmer S. Hewitt, Wilmette, Ill.
Application February 25, 1954, Serial No. 412,489
3 Claims. (Cl. 200—33)



1. A timing switch for electrically closing a pair of contacts at any initial instant and for maintaining said contacts closed for a definite interval thereafter, comprising a pivotable housing including structure dividing the same into separate enclosed sections, a first of said sections carrying said contacts in spaced apart relationship, a supply of conducting fluid within said first section and adapted to flow into and out of engagement with said contacts to make and break the same, a supply of fluid contained within the second section of said housing, said second section including structure defining a passageway having a constricted portion therein through which the fluid in the second section is adapted to flow and also including structure forming a well offset from the axis about which said housing is pivoted, means for pivoting said housing from its normal position at said initial instant to bring the conducting fluid in the first section into electrical contact with said contacts to make the same and for elevating the fluid in said second section to cause the latter to begin to flow through said passageway, the flow of fluid through said passageway and into said well continuing until the weight of fluid in said well is sufficient to pivot said housing about its axis and restore the same to its normal position, at which time electrical contact between said conducting fluid and said contacts is broken.

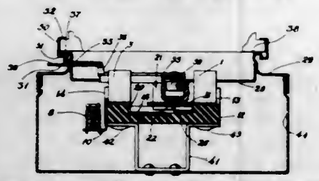
2,838,625
LIMIT STOP SYSTEM OR THE LIKE
Clarence Gerald Satchell, Fullerton, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application July 18, 1955, Serial No. 522,611
8 Claims. (Cl. 200—47)



1. In combination, a carriage portion, a pen arm mounted upon said carriage portion and translatable in opposite directions normal to said pen arm in accordance with the movement of said carriage portion, a pen holder mounted upon said pen arm and translatable in opposite directions along said pen arm, a microswitch, a cam adapted to engage said microswitch upon rotation of said cam in either direction, a limit rod displaceable along the axis thereof and disposed parallel to and in proximate relation with said pen arm, first and second limit stops adjustably disposed upon said limit rod and adapted to engage said pen holder at predetermined extremes of travel thereof along said pen arm, a first means coupled to said limit rod for rotating said cam upon con-

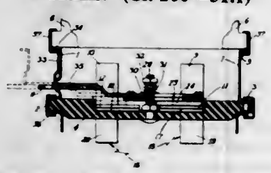
tact of one of said stops with said pen holder, and a second means including third and fourth limit stops of adjustable disposition actuatable upon said carriage portion reaching predetermined extremes of travel for rotating said cam.

2,838,626
ELECTRIC METER BY-PASS ARRANGEMENT
Alfred R. Kuhn, Queens Village, N. Y., assignor to Murray Manufacturing Corporation, Brooklyn, N. Y.
Application March 15, 1957, Serial No. 646,325
11 Claims. (Cl. 200—51.1)



2. A meter mount, for a socket type meter having two pairs of oppositely disposed contact-blades extending from its base, said meter mount comprising an insulator base, two pairs of clips, electrically insulated from each other, and mounted on said base to receive the blades from the meter, one pair of clips being for connection to the line conductors, the other pair of clips being for connection to the load conductors, two pairs of conductive bars, means connecting said pairs of bars to said pairs of clips respectively, each pair of bars being positioned to extend towards the other pair, the lengths of said bars being such that the end portions thereof overlap and said overlapped portions being spaced apart, a movable insulator carrier for a pair of contacts attached thereto, said carrier being positioned to move in the space between said opposite pairs of bars and said contacts being positioned to move into the spaces between the respective overlapped portions, the width of said contacts being greater than the corresponding dimension of the space between said bars whereby when said contacts enter the spaces said opposite pairs of bars are shorted together, and manually operable means attached to said carrier whereby when it is desired to bypass the meter, said manually operable means is operated to move the contacts into the spaces between said overlapped bars.

2,838,627
BY-PASS ARRANGEMENT FOR AN ELECTRICAL METER MOUNT
Alfred R. Kuhn, Queens Village, and Frank T. Hill, West Hempstead, N. Y., assignors to Murray Manufacturing Corporation, Brooklyn, N. Y.
Application March 15, 1957, Serial No. 646,379
9 Claims. (Cl. 200—51.1)



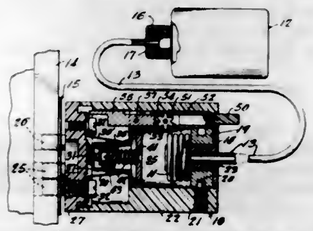
1. In a meter mount for a socket type meter, the meter having two pairs of contact blades extending from the base thereof, the mount having two pairs of conductive clips positioned to receive said contact blades respectively, one pair of said clips being for connection to the line power supply and the other pair being for connection to the load; an arrangement for by-passing the meter so that the meter may be removed without interrupting the flow of current to the load, comprising an adapter having contact blades on one side thereof for connection to the respective clips in the meter mount and clips mounted on the opposite side for connection to the respective meter contact blades, and means for controllably shorting the meter mount clips connected to the line, to the clips connected to the load, said means being manually operable while the meter is maintained in operating position.

2,838,628
AUXILIARY PEDAL FOR AUTOMOBILE DIMMER SWITCHES
James A. Ryall, West Memphis, Ark.
Application November 13, 1956, Serial No. 621,933
5 Claims. (Cl. 200—61.89)



5. In an automobile which includes a floorboard, and a reciprocable button switch member projecting from said floorboard adapted for depression under foot pressure to effect switching of headlight beams, auxiliary control means for said switch member comprising an elongated transversely extending pedal member supported at one end on said button member elevated above said floorboard, a substantially U-shaped bracket secured to said floorboard, means hingedly connecting the other end of said pedal to said bracket in position elevated above said floorboard, said pedal including a body portion extending transversely of said automobile from said bracket to said button member, whereby to provide elongated means for transmitting foot pressure to said button member to effect depression thereof.

2,838,629
REMOTELY CONTROLLED BUTTON SWITCH
Leonhard R. Panzenhagen, Adrian, Mich., assignor to Sperti Faraday, Inc., Adrian, Mich., a corporation of Ohio
Application October 31, 1955, Serial No. 543,678
12 Claims. (Cl. 200—83)

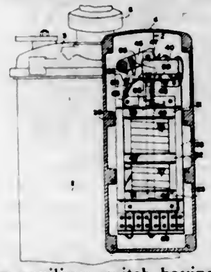


1. A pneumatic remotely controlled switch comprising: a plurality of spaced electrical contacts, a reciprocating member for bridging the space between said contacts, a normally retracted bellows for operating said member to bridge said contacts, a resiliently collapsible pneumatic bulb remote from said bellows, a tube connecting said bellows and said bulb whereby collapse of said bulb extends said bellows and release of said bulb retracts said bellows, and an independent reset means for retracting said member from bridging said contacts after operation of said member by said bellows.

2,838,630
SWITCH CONSTRUCTION
Max Rigert, West Allis, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application July 16, 1956, Serial No. 597,967
3 Claims. (Cl. 200—98)

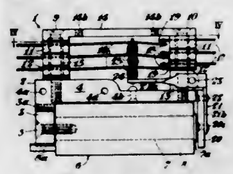
1. A switch construction comprising switch means operable to closed circuit position, a switch opening spring

impressed with stored energy by closing said switch means, latch means normally restraining said opening spring in stored energy condition, a rock shaft operatively connected for closing said switch means when rotated in one direction and for releasing said latch means when rotated in another direction, manual and electromagnetic operating means respectively coupled to the rock shaft for rotation of the latter by one operating means independent of the other, crank means secured to said rock shaft, a magnetic plunger axially reciprocable between switch open and switch closed position and pivotally attached to said crank means, opening and closing solenoids arranged in tandem for jointly receiving said plunger therethrough, a



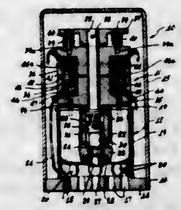
double throw auxiliary switch having a pair of contacts selectively connectable in circuit with and adapted to energize alternate coils in accordance with positions of the crank, said auxiliary switch including a limited movement actuating arm spring biased in one direction, detent means comprising a pair of flexible interconnected fingers, one of said fingers engaging said actuating arm when the latter is moved to one position, and detent release means carried by said crank means and in lost motion connection with said finger when said actuating arm is engaged, whereby said detent release means may become effective to actuate said auxiliary switch when said crank means nears another angular position.

2,838,631
ELECTRICAL RELAYS
Andrew Hufnagel, Penn Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application February 1, 1955, Serial No. 485,427
12 Claims. (Cl. 200—104)



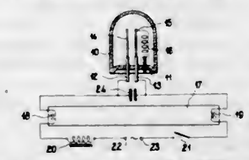
1. A relay comprising a frame, a magnetizable core and an operating winding secured to said frame, a plurality of nested contact spacers of insulating material arranged in spaced stacks on said frame, one of said stacks including a hinge block, said spacers including a groove and a rib on opposite surfaces to provide interlocking elements for said spacers, a plurality of spaced spring contact fingers and stationary contact fingers interposed between said spacers and disposed within said grooves to form banked tiers of electrical contacts, a yoke member interconnecting the spaced stacks, a bolt for each stack to secure and clamp said yoke member, contact spacers, contact fingers and hinge block to said frame, a magnetizable armature pivoted to said hinge block, and a plurality of members of insulating material interposed between said spring contact fingers, each of said members having rolling surfaces engaging said contact fingers, said members being provided with extending pins and openings for interconnecting said members in an articulated actuating linkage, said armature moving said articulated linkage to actuate said contacts.

2,838,632
SLIDING POOL MERCURY SWITCH
Ernest N. Oeland, Jr., West Covina, Calif.
Application June 21, 1956, Serial No. 592,765
3 Claims. (Cl. 200—112)



1. A mercury switch which includes: a housing filled with arc-quenching gas; solenoid means mounted within said housing and including electrical conduits communicating with the exterior of said housing; a terminal pool member and a pressure pool member made of ashless halocarbon, said members being mounted with adjacent surfaces in sliding contact, and one of said members being rotatable relative to the other by the action of said solenoid means; mating mercury pools carried in recesses in the adjacent surfaces of said members; electrical conduits communicating between at least some of said pools and the exterior of said housing; and spring means resiliently urging said members into contact.

2,838,633
TIME DELAY SWITCH OF THE GASEOUS ELECTRIC DISCHARGE TUBE TYPE
György Lakatos, János Szabó, György Szigeti, and János Weiszburg, Budapest, Hungary, assignors to Egyesult Izzolampa es Villamossagi Reszvenytarsasag, Budapest, Hungary
Application November 5, 1954, Serial No. 467,124
Claims priority, application Hungary November 11, 1953
11 Claims. (Cl. 200—113.5)



1. A thermal time delay switch of the gaseous electric discharge type, comprising a hermetically sealed envelope containing an ionisable gas, lead-in conductors extending into said envelope and directly connected each to one of two main electrodes, at least one of said main electrodes being of the bimetallic type and adapted to contact and part with the other of said main electrodes upon the action of heat generated by a gaseous discharge and of cooling down, respectively; at least one auxiliary electrode arranged in direct electrical and thermal connection with a bimetallic main electrode at one of its ends, but being in no direct thermal and electrical connection with said bimetallic main electrode at any intermediate point of said auxiliary electrode, said auxiliary electrode having a metallic surface devoid of any electron-emitting coating comprising a non-metallic substance and being arranged so as to ensure that after having been heated by said gaseous discharge said auxiliary electrode delays the cooling of said bimetallic main electrode, after said bimetallic main electrode has

contacted with said other main electrode, by transmitting heat accumulated in said auxiliary electrode to said bimetallic main electrode and thereby increases the duration of the electric contact between said main electrodes; said auxiliary electrode being arranged and connected otherwise than in series to said bimetallic main electrode and adapted to develop and sustain an arc discharge taking place between said auxiliary electrode and one of said main electrodes so as to ensure that before the contacting of said main electrodes said auxiliary electrode is heated by the action of heat evolved therein mainly by said arc discharge to a temperature exceeding that of any of said main electrodes.

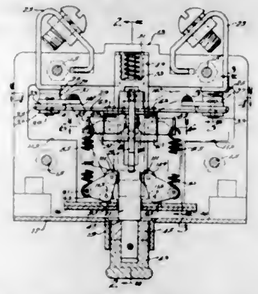
2,838,634
METHOD FOR LIMITING EXCESS CURRENTS IN DIRECT OR ALTERNATING CURRENTS MAINS
Fritz Kesselring, Zollikon Zurich, and Walter Baer, Zurich, Switzerland, assignors to FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Switzerland, a corporation of Switzerland
Application March 9, 1954, Serial No. 415,032
14 Claims. (Cl. 200—114)



1. In a circuit protecting device comprising an element responsive to fault current; said fault current responsive element having a voltage rating corresponding to the voltage of the protected system and a current rating below the current rating of the protected system; a by-pass circuit having a switch connected in parallel to said element responsive to fault current; said by-pass circuit constructed to carry a large part of the rated current of the protected system when said switch is closed; said switch having an insulated protrusion positioned to be under impact with a spring; a fusible element in tension riding over an adjustably fixed pulley; said fusible element having one end maintained to said switch in the closed position and the other end to maintain said spring in a deflected position; an inductor responsive to rate of rise of fault current in the protected system having a parallel auxiliary circuit which includes at least a part of said fusible element; the impedance of said auxiliary circuit being such that the current flowing in said auxiliary circuit upon a fault in the protected system will melt said fusible element thus releasing said deflected spring to strike said switch insulated protrusion to affect interruption of said by-pass circuit said switch in less than 0.5 millisecond after the occurrence of said short circuit.

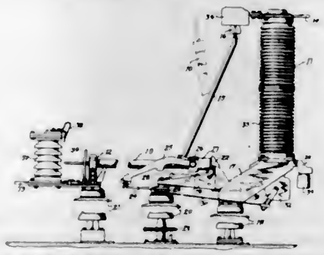
2,838,635
ELECTRIC SWITCH HAVING AUTOMATIC CURRENT OVERLOAD PROTECTION
Richard C. Ingwersen, Jackson, Mich., assignor to Mechanical Products, Inc., Jackson, Mich., a corporation of Michigan
Application July 16, 1956, Serial No. 598,188
5 Claims. (Cl. 200—116)

1. An electric switch having automatic overload current protection including a hollow casing, fixed contact means in said casing, contact means movable into and out of engagement with said fixed contact means to open or close an electric circuit through said switch, plunger means supported in said casing for lineal movement between an "in" and an "out" position and projecting exteriorly of said casing, support means for said movable contact means supported on said plunger means for lineal movement relative thereto, latch means connected with said support means and normally engaging said plunger means to connect said plunger means and said support means together for movement as a unit, thermostat means in said casing electrically connected with said movable contact means and energizable upon the occurrence of a predetermined current overload to move said latch means out of latching engagement with said plunger means, spring means connected with said supporting means to move the same and said movable contact means out of engagement with said fixed contact means upon said movement of said latch



means, spring means in said casing urging said plunger means to said "out" position, second latch means in said casing engageable with said plunger means to releasably retain said plunger means in said "in" position against the action of said plunger spring means, means yieldably retaining said second latch means in engagement with said plunger means, and means on said plunger means engageable with said second latch means to move the same away from said plunger means against said yieldable means when said plunger means is manually moved from its "in" position to its "out" position.

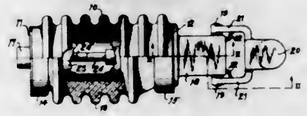
2,838,636
HIGH VOLTAGE CIRCUIT INTERRUPTING SWITCH MEANS
August C. Schwager, Portland, Oreg., assignor to Schwager-Wood Corporation, Portland, Oreg., a corporation of Oregon
Application March 16, 1956, Serial No. 571,923
6 Claims. (Cl. 200—145)



1. In a high voltage power line circuit disconnecting device, the combination of a pivotally mounted circuit isolating switch blade, a rotatable insulator stand forming a support at the pivotal end of said switch blade, a high voltage arc suppressing circuit interrupting means mounted upon said support, operating mechanism for moving the contacts of said circuit interrupting means from a closed to an open circuit position and back into a closed circuit position as a continuous operation, an operating connection between said rotatable insulator stand for imparting circuit opening and closing movements to said pivotally mounted switch blade, and an independent operating connection between said rotatable insulator stand and said operating mechanism, whereby said operating mechanism will move the contacts of said circuit

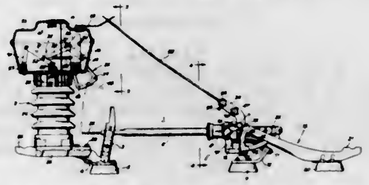
interrupting means into an open circuit position upon an initial circuit opening operation of said switch blade and back into a circuit closed position as said pivotally mounted switch blade approaches its full open circuit position.

2,838,637
CIRCUIT INTERRUPTING AND ISOLATING MEANS FOR HIGH VOLTAGE CIRCUITS
August C. Schwager, Portland, Oreg., assignor to Schwager-Wood Corporation, Portland, Oreg., a corporation of Oregon
Application October 15, 1956, Serial No. 615,837
8 Claims. (Cl. 200—145)



1. In a high voltage circuit interrupting and isolating switch, the combination of a vacuum retaining envelope, an enclosed fixed contact sealed in a wall of said envelope with an exterior circuit completing terminal for mounting said envelope and said fixed contact upon a movable current conducting support, a movable contact also enclosed within said envelope, an external air break contact supporting means electrically connected to the movable contact within said envelope, an exposed stationary line terminal contact, an air break circuit completing contact mounted upon said supporting means for pivotal movement upon engagement with said exposed stationary line terminal contact and means responsive to pivotal movement of said air break contact relative to said supporting means for operating the movable contact within said evacuated envelope into a circuit closed position with respect to said fixed contact.

2,838,638
LOAD INTERRUPTER SWITCH
Kazuo Henry Date, South Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application May 28, 1956, Serial No. 587,873
2 Claims. (Cl. 200—146)



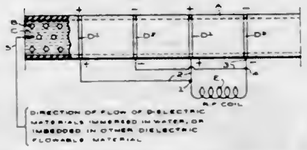
1. The combination of an air disconnect switch and a load interrupter, said switch including a stationary jaw means and a cooperable switch blade, blade guide means in which said blade is journalled for rotation on its longitudinal axis, said guide means being pivoted on an axis transverse to the blade axis for swinging the blade through angular positions into and out of engagement with the jaw means, a load interrupter having its lower end in conductive relation with the jaw means and extending generally along the swinging path of the blade, a trip arm operatively and pivotally connected to said load interrupter near its upper end, said trip arm extending into the blade path for being engaged by the blade when the latter is in intermediate angular positions, a by-pass rod means releasably engageable with a portion of said interrupter more remote from the jaw than said trip arm, crank means pivotally supporting said by-pass rod means for swinging in the direction of the blade means about said transverse axis, said crank means including an extension arm means, driving pin means carried by the blade guide means in the path of said extension arm means and angularly spaced therefrom when said switch blade is angularly remote from said jaw, said driving pin means engaging said extension arm means for positively increasing pressure on said by-pass rod means when said blade means is between its intermediate angular position and engagement with said jaw.

2,838,639
FILM RESISTOR SPIRALLISING
George V. Planer and Robert W. Windebank, Middlesex, England, assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application February 10, 1954, Serial No. 409,464
2 Claims. (Cl. 201—63)



1. An electrical resistor comprising a generally elongated narrow base of electrically insulating material, a pair of electrically conducting tracks each having a plurality of turns around the base, one track extending toward the central portion of the base from adjacent one end, and the other track extending toward the central portion of the base from adjacent its opposite end, the tracks being joined together at said central portion and having their turns oriented in opposite directions.

2,838,640
CONTINUOUS IMMERSION HIGH FREQUENCY HEATING APPARATUS AND PROCESS
Julius W. Mann and George F. Russell, Tacoma, Wash.
Original application April 2, 1951, Serial No. 218,798, now Patent No. 2,761,940, dated September 4, 1956. Divided and this application July 2, 1956, Serial No. 595,449
2 Claims. (Cl. 219—10.41)

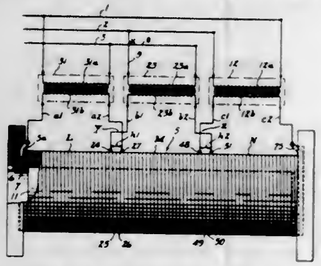


1. The herein described method of heating solid dielectrics by the penetration of radio frequency lines of force which comprises the steps of: immersing solid dielectrics in a liquid dielectric; flowing both dielectrics in a confined path; establishing a radio frequency field having dominant lines of force that move in paths that penetrate the liquid dielectric and extend generally lengthwise of the liquid flow for heat-treating the solid dielectrics through which the lines of force pass, while maintaining the liquid dielectric in surrounding relation to the solid dielectrics to thereby prevent any arcing among the solid dielectrics.

2,838,641
INDUCTION HEATING SYSTEMS
Bruce E. McArthur, Youngstown, Ohio, assignor to Magnethermic Corporation, Youngstown, Ohio, a corporation of Ohio
Application January 27, 1955, Serial No. 484,400
6 Claims. (Cl. 219—10.75)

1. The electrical system for induction heaters of the type described, comprising an inductor consisting of a continuous succession of helical convolutions, of an electrically continuous electrical conductor, which surround an elongated tubular heating compartment within

which metal work-piece material may be inductively heated by currents induced therein, said system being energized from a polyphase source of power, transformer means for deriving from said source a plurality of flows of single phase currents which are of different sequential phases, a plurality of pairs of conductors, one for each of said single phase flows, a first said pair of conductors arranged to direct current of a first phase to a first of a plurality of longitudinally successive groups of said inductor convolutions, and a second pair of said conductor pairs being arranged to direct current of a relatively second phase to a second group of said convolutions, said first group extending from one longitudinal end of the inductor towards its other end and said second group



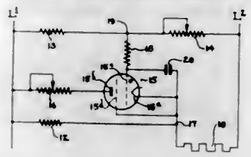
extending from one of the convolutions of the extended end region of said first group and including, in common with said first group, a plurality of endmost convolutions, of said first group and also a substantially greater number of convolutions disposed successively towards the opposite end of the inductor, the number of convolutions in both said groups being substantially equal, and said convolutions which are common to both said groups being simultaneously energized by two merged currents of different phases, the merger of said currents producing a current in said common convolutions whose phase is medial with respect to the phases of current conducted by said first and second pairs of conductors to said convolutions of the said first and second groups.

2,838,642
ELECTRIC BED HEATER
Peder Olaf Gothard Araldsen, Sarpsborg, Norway, assignor to Sarpsborg Elektriske Fabrikker, Sefa A/S, Sarpsborg, Norway
Application November 13, 1956, Serial No. 621,630
Claims priority, application Norway November 15, 1955
6 Claims. (Cl. 219—19)



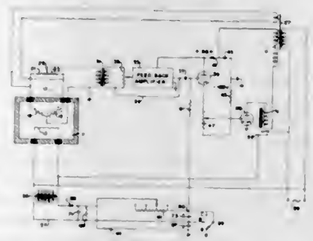
1. An electric bed heater comprising a substantially cylindrical casing of relatively large diameter and of a length corresponding to the length of the major part of a human body and adapted for longitudinal placement in a bed between the foot and the head thereof, said casing being formed of a rigid material of low specific gravity and good insulating properties, and end closures for said casing, said casing and said end closures confining an elongated space, an elongated tubular enclosure positioned in said space, said tubular enclosure having relatively small constructional dimensions and extending substantially the whole length of said casing, a heating element confined within said tubular enclosure, said heating element being adapted for heating said casing to non-dangerous substantially constant temperatures under the heat insulating conditions prevailing in a bed, and spacing means supporting said enclosure and element substantially coaxially within said casing.

2,838,643
AUTOMATIC TEMPERATURE CONTROL FOR ELECTRIC HEATERS
William H. Elliot, Whitefish Bay, and Edwin X. Schmidt, Nashota, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application July 2, 1954, Serial No. 441,133
8 Claims. (Cl. 219—20)



7. The combination with an electric resistance heating element and a source of A. C. supply, of a circuit for supplying and controlling current flow through said heating element comprising a resistance element connected in series with said heating element across said source, second and third resistance elements connected in series across said source, and a gaseous electron discharge tube having an anode connected to one side of said source, a cathode connected to the junction intermediate said heating element and the first mentioned resistance element and a control electrode connected to the junction intermediate said second and third resistance elements, said heating element and said resistance elements being selected with respect to their nominal resistance values and their temperature coefficients of resistance so that when said heating element, the resistance elements and said tube are initially connected to such source the ratio of the resistance of said heating element to the total resistance of said heating element plus that of said first mentioned resistance element is less than the ratio of said third resistance element to the total resistance of said second and third resistance elements and so that the first mentioned ratio increases as a result of current flow through said tube and said heating element.

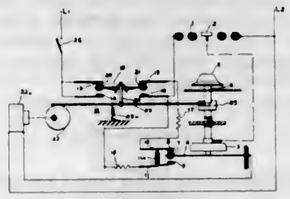
2,838,644
ELECTRONIC THERMOREGULATOR
Francis B. Rolfson, San Pablo, and William B. Milligan, El Cerrito, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application January 20, 1956, Serial No. 560,434
4 Claims. (Cl. 219—20)



1. For use in a zone to be maintained at a constant temperature, a thermoregulator system comprising a heater for said zone energized from an A. C. source, a temperature sensing unit in said zone producing A. C. signals in response to temperature changes therein, a thyratron having its plate energized from said A. C. source, a cathode follower circuit having its input connected to

receive the A. C. signals from the temperature sensing unit and its output connected directly to the grid of the thyratron, said thyratron firing when said signals are in phase with its plate voltage, relay means actuated by the firing of the thyratron to energize said heater, a selector circuit connected to the A. C. source in parallel with the heater, means comprising a rectifier and a capacitor for building up a D. C. potential across said selector circuit, said capacitor being connected to the cathode follower circuit to superimpose said potential on the signals being transmitted to the thyratron, thereby stopping the firing of the thyratron and deenergizing the heater.

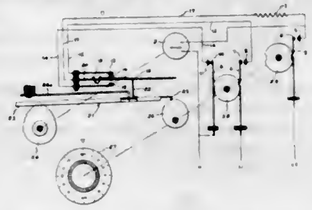
2,838,645
SURFACE HEATING UNIT CONTROL SYSTEM
Stanley B. Welch, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application November 14, 1956, Serial No. 622,171
5 Claims. (Cl. 219—20)



1. A thermostatic control system for an electric surface heating unit comprising means responsive to the temperature of a utensil resting on said heating unit, a movable electric contact actuated by said temperature responsive means, first and second spaced resiliently mounted contacts located on opposite sides of said movable contact, said resiliently mounted contacts being biased toward each other and simultaneously engageable with said movable contact whenever said movable contact is in a range of positions corresponding to the temperature range preselected by adjustment of said temperature setting means, control means for regulating the energization of said heating unit including first and second spaced fixed contacts respectively connected to said first and second resiliently mounted contacts, a movable intermediate contact cooperating with said fixed contacts so as to be in engagement with said first or second fixed contact, said intermediate contact being in circuit with a source of electrical power in each of its two positions, and electrically energizable cycling means for periodically actuating said intermediate contact, said cycling means being connected in said system so as to be energized upon completion of a circuit through said first resiliently mounted contact and said first fixed contact and also upon completion of a circuit through said second resiliently mounted contact and said second fixed contact, and said heating unit being connected in circuit with said second fixed contact so as to be energized upon engagement of said intermediate contact therewith.

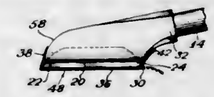
2,838,646
INFINITELY VARIABLE CONTROL SWITCH
Stanley B. Welch, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application November 12, 1957, Serial No. 695,900
5 Claims. (Cl. 219—20)

1. A control device for supplying electric current to a heating element or the like for selectively variable intervals of time comprising first and second spaced switch contacts adapted to be connected to a relatively high voltage power source and a relatively low voltage power source respectively, a third switch contact positioned between said first and second contacts and arranged for reciprocating movement therebetween, said third contact being adapted to be connected in circuit with a heating element so as to provide a first circuit for supplying current thereto when said first and third contacts are in engagement and a second circuit for supplying current thereto when said second and third contacts are in engagement, actuating means for periodically actuating said third contact, manually operable means for adjusting the path of movement of said actuating means within a first range of path positions extending from a first path position in which said first and third contacts are continuously in engagement to a second path position in which said first and third contacts are in engage-



ment during 20% of each switching cycle and said second and third contacts are in engagement during the remaining 80% of said cycle, said manually operable means having a first range of settings providing a first series of path positions progressing from said first path position to said second path position and a second range of settings providing a second series of path positions progressing from said second path position to said first path position, and switch means adapted to connect only said second contact to its power source when said manually operable means is within said first range of settings and to connect only said first contact to its power source when said manually operable means is within said second range of settings.

2,838,647
SHIELD FOR HEAT SEALER
Joseph J. Gorlinski, Chicago, Ill., assignor to Casting Masters, Inc., Chicago, Ill., a corporation of Illinois
Application August 27, 1956. Serial No. 606,390
5 Claims. (Cl. 219—21)

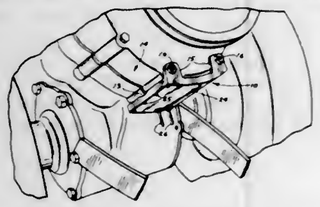


1. A sealing iron shield comprising a piece of relatively stiff metal foil having a base portion equal in size to the sole of the iron, upwardly bent tabs on three sides of said base portion formed to engage in securing relation the three corresponding sides of said iron upwardly of said sole, and an outwardly extending tab on the fourth side of said base adapted to be bent upwardly against the fourth side of said iron upwardly of said sole when said base is seated against said sole with said three tabs against their respective sides.

2,838,648
ENGINE HEATING DEVICE
Robert Ladue, Minneapolis, Minn.
Application December 21, 1956, Serial No. 629,822
2 Claims. (Cl. 219—38)

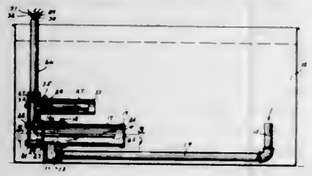
1. An attachment for a small tractor constituting a heating device for ready starting having in combination with a motor of said tractor having a crankcase with a substantially cylindrical surface at its lower side, a plate member having a curved surface at one side fitting about

said lower side, said plate having lugs at each side thereof at one end extending at right angles to said plate and engaging the side of said crankcase, said crankcase having bolts extending through said lugs into the side of said crankcase body for securing said plate to said crankcase, said plate having a chamber therein, an electrical



heating element in said chamber, a pair of electrodes for said heating element projecting from the bottom of said plate, and a removable cover plate secured to said plate and forming a closure for said chamber, said bolts and electrodes being very accessible at one end of said motor and tractor.

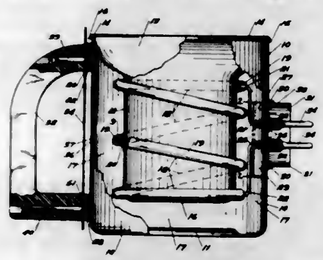
2,838,649
STOCK TANK HEATER
Elmer L. Snyder, Spencer, Iowa
Application May 22, 1957, Serial No. 660,824
3 Claims. (Cl. 219—38)



1. In combination, a tank adapted to contain water, a hollow base housing in the bottom area of said tank and adapted to be immersed in the water in the tank and having an opening in its upper area, a horizontal cylindrical housing having one end bottom area communicating with the opening of said base housing, an electrical heating element in said cylindrical housing having a circuit adapted to be in communication with a source of electrical energy; said cylindrical housing having an opening in its end that is opposite from its end that communicates with said base housing with said opening communicating directly with the inside of said tank, bottom tank engaging feet on said base housing, and an elongated water inlet pipe having one of its ends communicating with the inside bottom area of said base housing and its other end communicating with the inside of said tank at a point remote from said base housing for promoting the circulation of the water in the tank.

2,838,650
HOT CUP AND METHOD OF MAKING SAME
Frederic F. Lehr, Indianapolis, Ind.
Application September 6, 1956, Serial No. 608,239
1 Claim. (Cl. 219—44)

A hot cup comprising an outer shell having an upper rim; an inner cup having an upper rim and carried within said shell and supported thereon by the rim of the cup bearing on the shell rim, forming an annular space between the cup and the shell; means bonding together said rims forming a pressure type seal therebetween, said seal being maintained at temperatures and pressures above which said shell and cup may be subjected; a heating element within the shell and about said cup; a handle fixed to and extending vertically of and spaced from said shell; an insulating member carried by and in spaced relation from shell between the shell and the handle; said shell having a pressure relief hole in size on the order of that produced by a number 56 drill through its wall, and across which hole said insulating member extends in spaced relation; a fusible plug normally sealing



said hole and blowable therefrom upon build up of predetermined temperature and pressure within said space; said space being entirely free of exposure therein of organic material; and electrical conductors extending from said heating element insulated and pressure sealed through said shell wall in a zone removed from said hole.

2,838,651
APPARATUS FOR MAKING AND WELDING CAN BODIES
Clarence J. Smith, Rockford, Ill., assignor to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois
Application July 23, 1956, Serial No. 599,441
9 Claims. (Cl. 219—64)

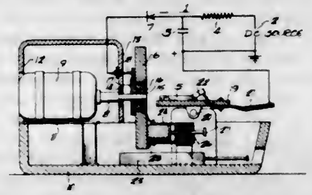


1. An apparatus for making can bodies and the like from blank means moving along a path of travel and for resistance welding side seams of the can bodies or the like, comprising means disposed adjacent said path of travel for forming the blank means and for locating previously spaced longitudinal marginal portions of the blank means substantially in engagement with each other at a predetermined station, elongated resistance welding wire electrode means at said station, means at said station for directing successive increments of a first portion of said wire electrode means against and into electrical contact with successive increments of an outer surface of one of said blank means marginal portions, means at said station for directing successive increments of another portion of said wire electrode means against and into electrical contact with successive increments of an inner surface of one of said blank means marginal portions, and means for guiding said second mentioned wire electrode means portion rearwardly of said station for avoiding interference with blank means advancing to and beyond said station.

2,838,652
METHOD AND APPARATUS FOR SPARK MACHINING
Cecil P. Porterfield, Pittsburgh, Pa., assignor, by mesne assignments, to Firth Sterling Inc., Pittsburgh, Pa., a corporation of Pennsylvania
Application August 30, 1955, Serial No. 531,327
6 Claims. (Cl. 219—69)

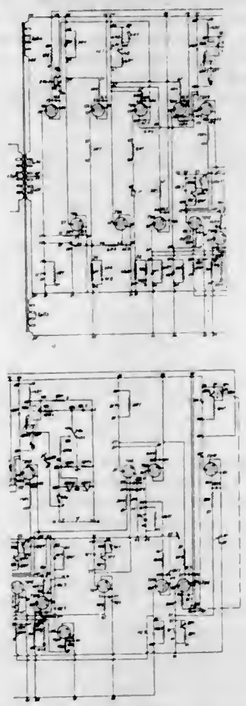
1. The method of shaping a metal workpiece which comprises urging the workpiece toward a side surface of

a disk having a smooth face while at the same time providing a series of localized time-spaced, over-voltage initiated spark discharges between the disk face and the workpiece, rotating the disk at a velocity adequate to



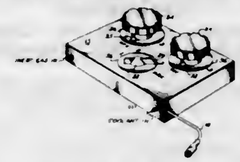
present different portions of the disk face to the workpiece at successive spark intervals, and coating the moving disk face with a dielectric material which is semi-solid at the disk temperature to maintain a spark gap spacing between the workpiece and the disk.

2,838,653
ELECTRONIC APPARATUS FOR CONTROLLING A MACHINE
Lucien Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France, French works under the control and the authority of the French Government
Original application January 10, 1955, Serial No. 480,947. Divided and this application March 6, 1956, Serial No. 569,795
Claims priority, application France February 10, 1954
4 Claims. (Cl. 219—108)



1. Apparatus for controlling the energization of a load circuit, comprising a source of current, a circuit closing relay having contacts operable to connect said load circuit to said source of current and operable to disconnect said load circuit from said source of current, a plurality of electron discharge devices for energizing said relay in successive intervals of time of equal duration when rendered conductive, means for rendering said discharge devices conductive in stages and in successive intervals of equal time duration and means for controlling the periods of non-conduction in a predetermined time pattern of progressively decreasing time intervals in accordance with a predetermined law, whereby the disconnect periods of said relay correspond to said predetermined time pattern.

2,838,654
SELECTIVE CONTROL DEVICE FOR STABILIZED INERT GAS SHIELDED ARC WELDING SYSTEMS
Ralph E. Nugent, North Hollywood, Calif.
Application October 22, 1957, Serial No. 691,667
4 Claims. (Cl. 219—130)



1. A control box adapted to be interposed between an arc welding apparatus having current, coolant and inert gas connections, and a plurality of welding torches, said control box comprising: a casing; a multiple position selector switch, a multiple position gas valve and a multiple position water valve disposed within said casing; a conductor entering said casing and connected to said selector switch for conveying welding current from a main terminal of said welding apparatus to said switch; a plurality of current delivery terminals for connection to respective welding torches mounted in insulated relation to one another in the wall of said casing, a plurality of corresponding selective contacts in said selector switch and a plurality of corresponding conductors connecting the same to the respective current delivery terminals within said casing; a plurality of water delivery fittings mounted in a wall portion of said casing and adapted to be connected respectively to coolant connections of respective torches, and a plurality of delivery tubes extending within said casing from respective selective outlet ports of said water selector valve to respective water delivery fittings; a plurality of gas delivery fittings mounted in a wall portion of said casing for connection to respective inert gas connections of respective torches, and a plurality of gas delivery tubes extending within said casing from respective selective outlet ports of said gas selector valve to respective fittings; said switch and each of said valves having respective rotor stems extending through the wall of said casing; respective knobs attached to the projecting outer ends of said stems and each provided with an indicator pointer; and respective indicator marks on said last mentioned wall of the casing for indicating corresponding positions of adjustment for said switch and each of said valves for setting the same in correlation to one another for selectively directing welding current, gas and water to a selected single torch while cutting off the current, gas and water connections to the other torches.

2,838,655
SWIVEL HOOK FOR LAMP GUARDS
Daniel Woodhead, Jr., Winnetka, Ill., assignor to Daniel Woodhead Company, Chicago, Ill., a corporation of Illinois
Application April 10, 1956, Serial No. 577,214
6 Claims. (Cl. 240—54)

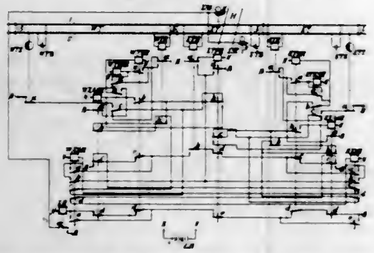
1. A lamp guard comprising a hook swivelly attached to the upper end thereof, a stem depending from said

hook, an integral collar on the stem, an upper disk arranged above the collar and having spaced apertures, a lower disk arranged below the collar and having spaced



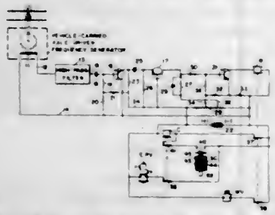
apertures alining with the apertures in the upper disk, and vertical wires for the guard passing through the alined apertures of said disks and securing the collar between the disks.

2,838,656
HIGHWAY CROSSING PROTECTION CONTROL APPARATUS
Ralph R. Kemmerer, Swissvale, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application February 11, 1954, Serial No. 409,677
10 Claims. (Cl. 246—130)



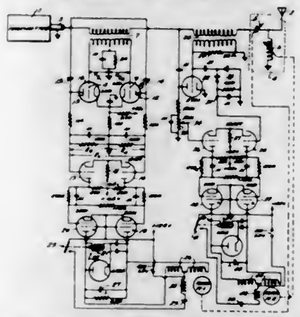
1. In combination with a stretch of track over which traffic may move in one direction, said stretch being provided with a track section having a track circuit including a track relay, a track instrument adjacent the entrance end of said section, time element means, means effective when said track relay is deenergized for energizing said time element means, a control relay, a first means effective only when said track relay is energized for energizing said control relay, a second means effective only when said track instrument is in its normal condition and said time element means has been energized for a predetermined time interval for energizing said control relay, and signaling means controlled by said control relay.

2,838,657
TRAIN SPEED CONTROL SYSTEM
Clinton S. Wilcox, Brighton, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application June 17, 1955, Serial No. 516,067
2 Claims. (Cl. 246—182)



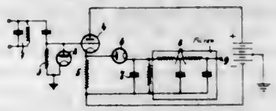
1. In a speed control system for trains, an axle-driven frequency generator having a coil with a voltage induced therein proportional in frequency to the speed of said train, filtering circuit means having said voltage applied thereto and providing an output only when said frequency exceeds a predetermined value, transistor amplifier circuit means for amplifying the output of said filtering circuit means and comprising, a biasing direct-current power source shunted by a multiple tapped potentiometer to provide voltage levels intermediate between those provided by said source, a grounded base transitor voltage amplifier having its base and emitter connected to one terminal of said source, said voltage amplifier transistor having its collector connected through a load impedance to one of said taps on said potentiometer, a grounded emitter transistor relay control amplifier, said collector of said voltage amplifier transistor being connected through a resistor to the base of said relay control amplifier transistor, said base of said relay control amplifier transistor being connected through a resistor to another tap on said potentiometer, said emitter of said relay control amplifier transistor being connected to the junction of two resistors connected in series between said another tap on said potentiometer and the other terminal of said source, an overspeed relay having its winding connected between said collector of said relay control amplifier transistor and said other terminal of said source, said voltage amplifier transistor upon being rendered conductive by the output of said filtering circuit means being effective to cut off said relay control amplifier transistor by a substantial margin to thereby ensure that said overspeed relay is fully deenergized irrespective of ambient temperature, and circuit means responsive to the dropping away of said relay for controlling the speed of said train.

2,838,658
AUTOMATIC TUNING AND LOADING COUPLING NETWORK FOR A COMPLEX LOAD
Vernon H. Vogel, Phoenix, Ariz., and Francis J. Biltz, Glen Lake, Minn., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application February 23, 1954, Serial No. 412,133
6 Claims. (Cl. 250—17)



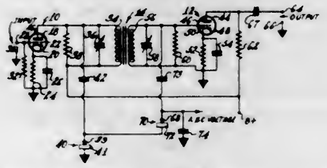
1. An automatic tuning and loading coupling network for coupling a source of high frequency energy to a complex load, said network comprising, a first adjustable reactor having means to connect it in series with said source and said load, a second adjustable reactor having means to connect it in shunt with said load; first means for producing a first error signal which is a function of the phase difference between the current and the voltage supplied to the input terminals of said coupling network, second means responsive to said first signal for adjusting the value of said series reactor to vary the tuning of said adjustable coupling network to a value such that said current and voltage supplied to said input terminals will remain substantially in phase with each other; third means for producing a second signal which is proportional to the magnitude of the voltage supplied to the input of said coupling network times the cosine of the angle between the voltage and the current supplied to said input, fourth means for producing a third signal which is proportional to the magnitude of the current supplied to said input of said coupling network, and fifth means responsive to the difference between said second and third signals for adjusting said shunt reactor to a value such that the difference between said second and third signals will be zero whereby the resistance reflected from said complex load to the input of said coupling network will be equal to a predetermined value.

2,838,659
RADIO RECEIVER AUTOMATIC GAIN CONTROL
Marius Robert Mantz and Jaap Starreveld, Hilversum, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 28, 1954, Serial No. 439,814
Claims priority, application Netherlands July 2, 1953
7 Claims. (Cl. 250—20)



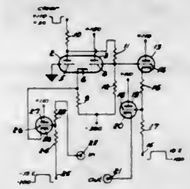
1. An electrical circuit arrangement comprising input means for a carrier wave, a resistor element, detector means for said carrier wave coupled to said input means for producing across said resistor element a unidirectional voltage having an average intensity as determined by the intensity of said carrier wave and undergoing intensity variations as determined by non-symmetrical variations of the intensity of said carrier wave, a unidirectionally conducting element and a capacitor connected in series circuit arrangement, said series circuit being connected in shunt with said resistor element and said unidirectionally conducting element being poled in a conductive sense with respect to said voltage thereby to charge said capacitor to a biasing voltage substantially equal to the said average intensity of said unidirectional voltage, and output circuit means coupled to said resistor element through said unidirectionally conducting element, said unidirectionally conducting element being rendered substantially non-conductive upon intensity variations of said unidirectional voltage to values less than said average intensity produced by said non-symmetrical variations of said carrier wave.

2,838,660
AUTOMATIC GAIN CONTROL SYSTEMS
Bernard B. Bycer, Philadelphia, Pa., assignor to Tele-Dynamics Inc., a corporation of Pennsylvania
Application April 5, 1955, Serial No. 499,435
8 Claims. (Cl. 250—20)



1. An automatic gain control system comprising a coupling transformer having substantially balanced primary and secondary windings, means for applying a radio frequency signal to said primary winding, a voltage doubling circuit including a first rectifying means associated with said primary winding, a first capacitive means for coupling said primary winding to said first rectifying means, said first rectifying means being conductive during the positive portion of said radio frequency signal, means for charging said first capacitive means during the conduction of said first rectifying means, a second rectifying means connected to said secondary winding, a second capacitive means for coupling said secondary winding to said second rectifying means, means for serially connecting said first and second rectifying means, said second rectifying means being conductive during the positive portion of said radio frequency signal applied to said secondary winding from said primary winding, means for charging said second capacitive means during the conduction of said second rectifying means, means for discharging the electrical charge of said first capacitive means through said second rectifying means during said conduction of said second rectifying means whereby said said second capacitive means acquires an additional electrical charge, a voltage storage means connected to said second capacitive means, a utilization circuit, and means for applying said radio frequency signal from said secondary winding to said utilization circuit.

2,838,661
BINARY STORAGE ELEMENT
Jeffrey C. Chu, Naperville, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 15, 1953, Serial No. 355,352
5 Claims. (Cl. 250—27)

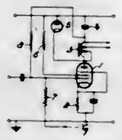


1. A bistable electronic toggle comprising a pair of interconnected electron tubes each including cathode, grid, and anode electrodes, the grid of a first tube being coupled to the anode of the second tube, a source of positive energizing voltage for said second tube coupled to its anode and comprising an output cathode follower, a first amplifier stage supplied with current from said follower, a second amplifier coupled to drive said follower, a first differential amplifier provided with one input coupled to said follower, a second input coupled to a normally constant reference voltage, and a pair of outputs coupled to control said first and second amplifiers, respectively, and means responsive to a control pulse for momentarily lowering said energizing voltage to cut off said first tube comprising a second differential amplifier coupled to receive said pulse at one input and coupled to said normally constant reference voltage at the other input, and a third amplifier stage deriving its input from the output of said second differential amplifier and coupled at its output to the normally constant reference voltage to change the same momentarily upon receipt of a pulse from said second differential amplifier.

2,838,662
CIRCUIT-ARRANGEMENT PRODUCING SAWTOOTH CURRENTS
Emlyn Jones, Horley, and Kenneth Edward Martin, Rochampton, London, England, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application August 25, 1953, Serial No. 376,484
Claims priority, application Great Britain August 26, 1952
2 Claims. (Cl. 250—27)

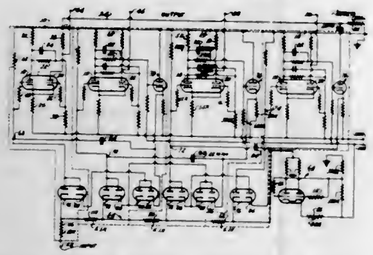
1. A circuit-arrangement comprising a tube having a cathode, a control grid, a screen grid, and an anode, an inductor and a capacitor connected in series combination, a source of voltage, said series combination being connected between said anode and a terminal of said

source of voltage, means connecting said cathode to a remaining terminal of said source of voltage, a diode connected in parallel with the series combination of said capacitor and at least a part of said inductor, said diode comprising a thermionic cathode requiring a relatively long time to heat up to operating temperature, means connecting said screen grid to said source of voltage, a



source of negative grid bias voltage, direct-current conductive means connected to apply said bias voltage to said control grid, said bias voltage having a value to reduce the screen grid current to a safe value in the absence of anode current, and direct-current conductive means connected to produce normal operating bias at said control grid only when said diode cathode reaches operating temperature.

2,838,663
SIGNAL-AMPLITUDE RESPONSIVE CIRCUIT
Edwin A. Goldberg, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 31, 1953, Serial No. 401,682
10 Claims. (Cl. 250—27)



1. A circuit that assumes a plurality of different states in accordance with amplitude variations of a direct input voltage, said circuit comprising a plurality of voltage responsive electron control devices each having two conditions of operation and an input terminal, means for biasing each of said control devices to change from one operating condition to the other upon the application to the associated input terminal of a first predetermined voltage and to change from said other to said one operating condition only upon the application to the associated input terminal of a second predetermined voltage substantially different from said first voltage, and input means for applying a different voltage to each of said input terminals in accordance with said direct input voltage including means for varying all of said applied voltages by equal increments proportional to increments of said direct input voltage.

2,838,664
TRANSISTOR COUNTER CIRCUIT
Eric Wolfendale, Smallfield Horley, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 14, 1954, Serial No. 443,409
4 Claims. (Cl. 250—27)

2. A transistor counter circuit comprising a plurality of transistor stages connected in cascade, each of said stages comprising a transistor having emitter, base and collector electrodes and having a first point of stable operation at a relatively low collector-base current and a second point of stable operation at a relatively high collector-base current, a plurality of resistance elements each connected between a respective one of said base electrodes and a first point of fixed potential, first rectifier elements each connected between a respective one of said emitter electrodes and a second point of fixed potential, second rectifier elements each interconnecting the collector electrode of one of said transistors and the emitter electrode of a succeeding transistor, means for applying operating pulses of a given potential to the emitter electrode of said succeeding transistors through said second rectifier elements, impedance ele-



ments each connected between the said collector electrodes and a third point of substantially fixed potential, said impedance elements and the potential of said third point having values producing at the said collector electrodes a potential normally biasing said second rectifier elements to a cut-off value greater than the potential of said operating pulses when the corresponding stage is operating at said first stable point of the characteristic thereof, a monostable transistor stage having an input circuit coupled to the last of said succeeding transistor stages and having an output circuit for producing resetting impulses, and means for applying said resetting impulses to the base electrode of the transistors of said first-mentioned stages.

2,838,665
GENERATOR PRODUCING PULSATORY VOLTAGES
Jan Bart LePoole, Delft, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 1, 1954, Serial No. 453,511
Claims priority, application Netherlands
September 15, 1953
4 Claims. (Cl. 250—27)

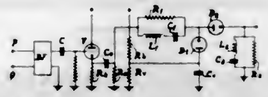


1. A pulse generator comprising a series combination of a source of alternating voltage and a capacitor, a load comprising an electron discharge tube having an anode, a cathode and a grid, a rectifier and a grid voltage control network connected in series across said series combination, means connecting said cathode to the junction of said network and said series combination, means connecting said anode to the junction of said rectifier and said series combination, and means connecting said grid to the junction of said network and said rectifier.

2,838,666
DETECTOR CIRCUIT FOR USE IN TELEVISION RECEIVER
Kees Teer, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 2, 1955, Serial No. 550,713
Claims priority, application Netherlands
December 9, 1954
4 Claims. (Cl. 250—27)

1. A detector circuit for detecting an auxiliary-carrier signal having amplitude modulation and lying within the

frequency band of a main signal, comprising a bandpass filter having a bandpass for said auxiliary-carrier and its sidebands, means for feeding said signals to said filter, a first detector coupled to receive the output signal of said filter and biased to be normally conductive for said output signal so as to be driven in the forward direction thereby providing a detected signal, a second detector,



means for applying to said second detector a composite signal comprising the difference between said detected signal and the output signal of said filter, said second detector being biased to be normally conductive for said composite signal thereby providing a detected composite signal, and means connected to the output of said second detector to derive said detected composite signal therefrom.

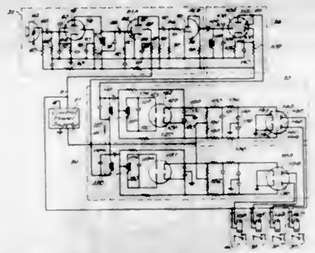
2,838,667
TELEVISION SYSTEM
Harold E. Beste, Verona, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application April 27, 1956, Serial No. 581,026
3 Claims. (Cl. 250—27)



1. A decoding circuit comprising in combination: an electron discharge device of the scanning sheet beam type, said device having an electron emitting cathode, a plurality of scan control electrodes, a plurality of collector anodes positioned to be sequentially swept by said sheet beam, selected collector anodes being divided into sub-anodes positioned to be simultaneously swept by said beam; means to intensity-modulate said beam; a source of input signals; means applying said input signal to said intensity-modulating means; synchronizing and phasing means energized by said source; means applying the output of said synchronizing and phasing means to said scan control electrodes; output signal producing means connected to respective sub-anodes; a plurality of utilization networks; and means applying selected output signals to said utilization networks to produce composite output signals.

2,838,668
FREQUENCY DISCRIMINATION SYSTEM
Robert Adler, Northfield, and John G. Spracklen, Chicago, Ill., assignors to Zenith Radio Corporation, a corporation of Illinois
Application January 2, 1957, Serial No. 632,124
8 Claims. (Cl. 250—27)

1. A frequency-discrimination system comprising: means, including an output circuit presenting thereacross a predetermined reactive impedance at a predetermined frequency, for developing a plurality of control signals at frequencies within a selected range of frequencies including said predetermined frequency; a first frequency-discrimination device, responsive to control signals at frequencies within a first portion of said range, coupled to said output circuit; a second frequency-discrimination device, responsive to control signals at frequencies within a second portion of said range, coupled to said output circuit; and means coupled to said first and second frequency-discrimination devices for introducing a compensating reactive impedance substantially equal in magni-



tude and opposite in sign, at said predetermined frequency, to said predetermined reactive impedance; and utilization means coupled to the outputs of said frequency-discrimination devices.

2,838,669
COUNTING NETWORK
James R. Horsch, Elmhurst, Ill., assignor to General Electric Company, a corporation of New York
Application February 28, 1957, Serial No. 643,113
9 Claims. (Cl. 250—27)

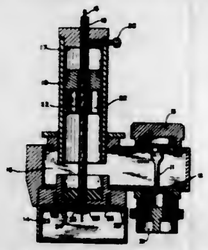


2. A blocking oscillator counter stage comprising a pair of input terminals for connection to a source of input pulses to be counted, means for deriving a uniform volt-second area output pulse from each of said input pulses including a first saturable core having an input and an output winding wound thereon, a capacitor connected in series with said input winding across said input terminals, said input pulses each having sufficient magnitude to drive said first saturable core from one direction of saturation to the other, said capacitor having sufficient capacitance to reset said first saturable core after termination of each of said input pulses, a blocking oscillator including an electron tube having at least a grid, a plate and a cathode, said plate and grid having transformer windings regeneratively coupled therebetween, counting means including a winding on a second saturable core connected between one terminal of said output winding and the grid circuit of said blocking oscillator, said second saturable core being composed of a substantially rectangular hysteresis loop material having high magnetic remanence, means connecting the other terminal of said output winding with the cathode circuit of said blocking oscillator, said uniform volt-second area output pulse having sufficient energy to drive said second saturable core over a fixed increment of said hysteresis loop determined by the number of pulses to be counted per stage, whereby after application of said number of pulses said second saturable core will saturate and trigger said oscillator, and means for resetting said saturable core after triggering said oscillator.

2,838,670
RESONANT CAVITY TYPE WAVE GUIDE PROBE
Nathan Marcuvitz, Boston, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application March 29, 1946, Serial No. 657,995
8 Claims. (Cl. 250—31)

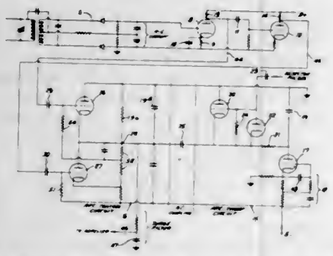
1. In combination, a rectangular wave guide section having a longitudinal slot in a broad wall thereof, a car-

riage mounted for longitudinal movement along said broad wall, a cavity resonator secured to said carriage, a probe supported in energy transferring relation with said resonator and inserted into said guide through said slot, means for varying the insertion of said probe into



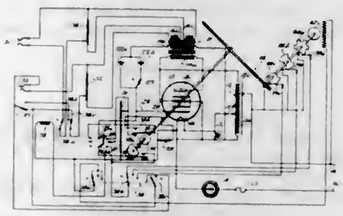
said wave guide, means positioned in said resonator for detecting the energy picked up by said probe, and a retractable cylinder extending into said resonator and partially enclosing said probe for impedance matching of said probe and said detecting means.

2,838,671
AUTOMATIC FREQUENCY CONTROL CIRCUIT
Meritt Lavon Miller, Fort Wayne, Ind., and Robert W. Butler, Mission, Kans., assignors to Farnsworth Research Corporation, Fort Wayne, Ind., a corporation of Indiana
Application July 10, 1952, Serial No. 298,138
7 Claims. (Cl. 250—36)



1. An automatic frequency control circuit, adapted to operate in conjunction with an oscillator of the klystron type intended to operate at a predetermined frequency, for correcting undesirable frequency deviations in said oscillator, including a discriminator circuit for producing distinct and separate pulses in response to frequency deviations of different senses and magnitude, and comprising means coupling said discriminator circuit to said oscillator for correcting said deviations; said means comprising a sweep-producing circuit for producing a sweeping potential and including a gas discharge tube and a control capacitor coupled thereto, means applying said sweeping potential to a frequency control electrode of the oscillator to operate said oscillator over a range of frequencies, a control device operatively coupled to said sweep-producing circuit to terminate and hold said sweep at a fixed potential at which the oscillator is operating at the predetermined frequency, said control device comprising a normally conducting three element vacuum tube, the anode of said tube being connected to a terminal of said capacitor to permit the capacitor to discharge therethrough, a normally non-conducting diode connected across the grid and cathode of said tube, means for rendering said diode conducting to cut off said normally non-conducting tube, thus blocking the discharge circuit for the capacitor and terminating the sweep, the sweep voltage being equivalent to the instantaneous voltage across said capacitor, said terminal voltage at which the sweep is terminated is the voltage at which the oscillator operates at the predetermined frequency, a correction circuit operative independently of said sweep-producing circuit and coupled between said discriminator and said oscillator, and operative in response to said discriminator pulses to produce a voltage corrective of said deviation, and means coupling said correction circuit to said sweep-producing circuit for applying said voltage to the fixed potential to correct said frequency deviation.

2,838,672
ELECTRO-THERAPY GENERATOR
Lawrence R. Paust, Chicago, Ill.; Leah M. Paust, administratrix of said Lawrence R. Paust, deceased, assignor to Physical Medicine Products Co., Kansas City, Mo., a partnership
Application June 29, 1954, Serial No. 440,049
4 Claims. (Cl. 250—36)



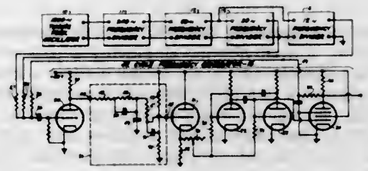
1. An electro-therapy generator of the character described, comprising: an electron tube having a control element; a first circuit connectable to said control element for causing operation of said oscillator at a fixed freqency; a second circuit connectable to said control element for causing pulsed operation of said electron tube at a different frequency; a double-throw switch for effecting alternate connection of one and then the other of said circuits to the control element of said electron tube; motor-driven cam means for controlling the operation of said switch at regular intervals; and means including a contact device connected to said tube for applying the oscillations to a patient.

2,838,673
WIDE-RANGE CAPTIVE OSCILLATOR SYSTEM
George L. Fernsler, Pennington, and Kenneth G. MacLean, Princeton, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 23, 1954, Serial No. 457,984
14 Claims. (Cl. 250—36)



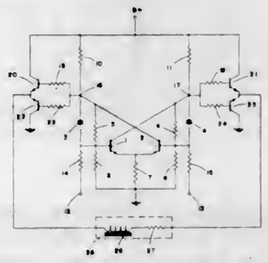
1. In a frequency control system for an oscillator, means for mixing a wave representative of the output of said oscillator with a stable frequency wave to produce a beat frequency wave of predetermined nominal value, a tuned frequency discriminator-detector tuned to said nominal value and adapted to develop a first output voltage proportional to deviations of said beat frequency wave from said nominal value, means supplying said beat frequency wave to the input of said discriminator-detector, a phase detector having two inputs and adapted to develop a second output voltage proportional to phase differences between the two inputs thereto, means supplying said beat frequency wave to said phase detector as one of the inputs therefor, means supplying a stabilized wave of said nominal walue to said phase detector as the other input therefor, a common output circuit receptive of both of said output voltages for controlling the frequency of said oscillator, and means connected between the output side of said frequency discriminator-detector and said common output circuit for preventing the application of said first output voltage to said output circuit unless such output voltage is above a predetermined value.

2,838,674
OSCILLATOR CONTROL CIRCUIT
Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application March 18, 1955, Serial No. 495,288
9 Claims. (Cl. 250—36)



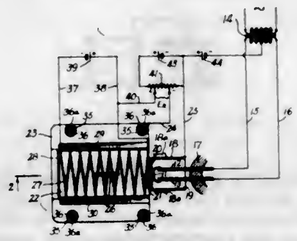
1. A control circuit for controlling the frequency of an oscillator, comprising a source of energizing potential connected to said oscillator, a source of synchronizing voltage, means for deriving a feedback signal from said oscillator, means for combining said synchronizing voltage and said feedback signal to produce a control signal, means including an anti-hunt network for controlling the frequency of said oscillator in accordance with said control signal, said anti-hunt network including at least one capacitive element, and means for charging said capacitive element substantially instantaneously in proportion to said source of energizing potential, thereby to compensate for fluctuations of said source of energizing potential.

2,838,675
REVERSIBLE CURRENT CIRCUIT
Cravens L. Wanlass, Whittier, Calif., assignor to North American Aviation, Inc.
Application May 2, 1955, Serial No. 505,128
8 Claims. (Cl. 250—36)



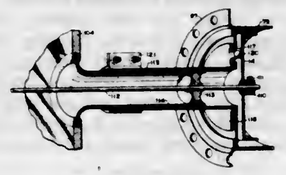
8. In combination, a load, first circuit means for providing a unidirectional current path through said load, second circuit means for providing a unidirectional current path having a direction opposite to said first current path through said load, and means for causing said first and second circuit means to alternatively provide current paths through said load.

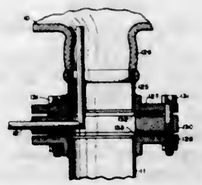
2,838,676
ION SOURCE
Frank Raible, Sands Point, Joseph E. Nemeth, Syosset, and Robert C. Nemeth, Huntington, N. Y., assignors to Vacuum-Electronics Engineering Co., New Hyde Park, N. Y., a partnership
Application July 9, 1953, Serial No. 367,040
15 Claims. (Cl. 250—41.9)



1. In an ion source for purposes described, a cathode providing an electron emitting source, an ionizing chamber providing an electron beam, and heating means and electrical potential means therefor to the side of said chamber applying decarbonization temperatures and ion repeller influence along the path of the electrons for the reduction of insulating deposits and providing a uniform source of useable ions.

2,838,677
MASS SPECTROMETER
John G. Skinner, Corvallis, Oreg., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 10, 1955, Serial No. 546,221
8 Claims. (Cl. 250—41.9)

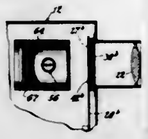




2. A charged particle collector assembly comprising a support plate having a plurality of openings therein, a spring attached to said plate and extending through said openings, an ion collector plate, a spacer positioned adjacent each of said openings in engagement with said spring, and means securing said collector plate to said support plate so that said collector plate engages said spacers against the force of said spring.

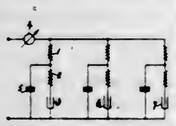
3. Apparatus to introduce a gas sample into and to evacuate a mass spectrometer tube comprising conduit means sealed to the spectrometer tube to communicate at one end with the interior thereof, the second end of said conduit means being adapted to be connected to a vacuum pump, and a tube to supply a gas sample extending from a region exterior of said spectrometer tube to the interior thereof through at least a portion of said conduit means.

2,838,678
INFRARED IMAGE PICK-UP AND CONVERTER DEVICE
Norman C. Beese, Verona, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 30, 1953, Serial No. 345,281
3 Claims. (Cl. 250—83.3)



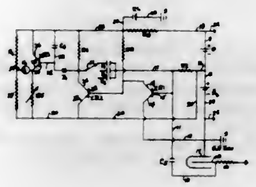
3. In combination with means for forming an infrared image of an infrared radiating body, means for scanning said infrared image and means for converting said scanned infrared image into electrical pulses, a cold cathode gaseous glow discharge fluorescent lamp comprising an inner envelope and an outer envelope and a substantially flat viewing screen positioned without said envelopes and coated with an ultraviolet sensitive phosphor, said inner envelope being spaced in close proximity to but apart from said viewing screen, an anode and a cathode within said inner envelope, an inert ionizable gas and a gas for producing ultraviolet radiation contained within said inner envelope, lead-in conductors sealed through said envelopes and connecting to said anode and said cathode, ultraviolet reflecting means within said outer envelope and spaced apart but in close proximity to said inner envelope and positioned opposite said inner envelope from said viewing screen, said ultraviolet reflecting means being so positioned and of such configuration as to evenly reflect radiation from said inner envelope to said viewing screen, all of the envelope material interposed between said ultraviolet reflecting means and said viewing screen being ultraviolet transparent, a second scanning means synchronized with said infrared image scanning means and interposed between said glow discharge lamp and said phosphor-coated viewing screen, and said glow discharge lamp being modulable in response to said electrical pulses received from said infrared image converting means.

2,838,679
CIRCUIT FOR MEASURING RADIATION INTENSITIES
Pieter Johannes Kraayeveld, Amsterdam, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application August 28, 1953, Serial No. 377,063
Claims priority, application Netherlands August 30, 1952
4 Claims. (Cl. 250—83.6)



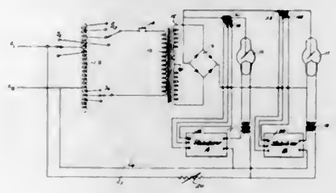
1. A circuit for measuring radiation intensities comprising a series combination of a Geiger-Muller counter and an extinction resistor, means coupled to said series combination for indicating the mean current traversing said Geiger-Muller counter, a second resistor and a smoothing capacitor interposed between said series combination and said indicating means to effect a decrease in voltage at the terminals of said counter at increasing doses of radiation, and means for applying a potential to said counter through said resistors.

2,838,680
TRANSISTORIZED RATE METER
Alfred Bender, Great Neck, and Albert de la Lastra, New York, N. Y., assignors, by mesne assignments, to Universal Transistor Products Corporation, New York, N. Y., a corporation of Delaware
Application October 10, 1955, Serial No. 539,314
7 Claims. (Cl. 250—83.6)



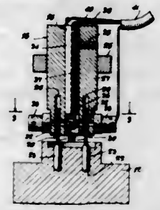
1. In a rate meter for the detection and measurement of radiation, a multivibrator employing a pair of transistors in a circuit, resistance means biasing a first one of said transistors to a point where it is normally heavily conducting, another resistance means interconnected with said first transistor and a second transistor and adapted to hold the latter at cut-off while said first transistor is heavily conducting, capacitor means connected to the junction of said first resistance means with said first transistor and to the output of said second transistor, a Geiger-Müller tube connected in said circuit to deliver negative pulses to said junction, whereby the negative pulses upset the bias on said transistors, causing the second one to become heavily conducting and holding the first one at cut-off, the period of the upset being timed by the discharge of said capacitor means, a meter connected in a circuit with the output of said second transistor, and means in said last circuit to deliver rectified pulses from the output of said multivibrator to said meter.

2,838,681
X-RAY METHOD AND APPARATUS
Edward B. Graves, South Euclid, and Jack Ball, Chesterland, Ohio, assignors to Picker X-Ray Corporation, Walte Mfg. Div. Inc., Cleveland, Ohio, a corporation of Ohio
Application June 1, 1953, Serial No. 358,866
7 Claims. (Cl. 250—94)



1. In combination with an X-ray generator having a plurality of X-ray tubes, each having an anode and a filament adapted to be energized from a common source of electrical energy, a plurality of independent means isolated from each other and respectively coacting in the corresponding anode circuit of each tube to each provide a signal proportional to the corresponding tube current, and a plurality of other independent means each coacting in a separate tube filament circuit in response to the signal corresponding to that tube respectively to stabilize the operation of each tube at a predetermined value.

2,838,682
LEAD WIRE DETECTOR
James B. Lindsay, Millburn, N. J., assignor to Kahle Engineering Co., North Bergen, N. J., a copartnership
Application February 16, 1955, Serial No. 488,666
3 Claims. (Cl. 250—220)



1. Lead wire detecting apparatus comprising an elongated body part having a central opening terminating in at least one end face of said body and a plurality of longitudinal openings surrounding said central opening for receiving said lead wires, a plurality of light conducting passageways extending from the outer surface of said body part and communicating with said central opening, each of said passageways intersecting one of said longitudinal openings, a light source in said central opening and light responsive means associated with the outer end of said passageways and responsive to detect the presence of lead wires in said longitudinal openings.

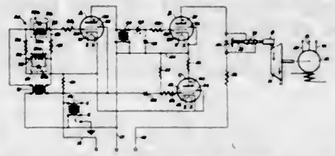
2,838,683
CURVE FOLLOWER
William D. Munro, Attleboro, Mass.
Application July 18, 1955, Serial No. 522,795
2 Claims. (Cl. 250—227)



1. A curve follower probe comprising an elongated casing having a central major axis, a source of light positioned axially in said casing, an elongated member axially aligned with said axis, said member having the property of conducting light in a path parallel to such axis, lense means at one end in said elongated member and concentric with said axis for directing light from said source in the form of a circular spot on to a surface, an axial bore in said elongated member adjacent said end, a photodiode in said bore to receive light reflected from such surface in a path parallel to said axis.

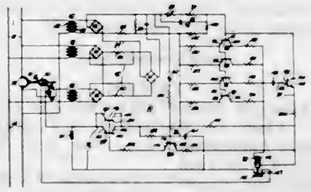
2,838,684
TRIGGER TYPE FREQUENCY SENSITIVE CONTROL NETWORK AND TURBO-GENERATOR CONTROL
Chester E. Martine, Teaneck, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application May 6, 1953, Serial No. 353,350
7 Claims. (Cl. 290—40)

1. In combination, a prime mover; means for controlling said prime mover; an alternator driven by said prime mover providing a source of alternating current power supply; and a network comprising a bridge tuned to a predetermined frequency and having its input connected to be supplied by power from said source, a thermionic tube having an anode and a cathode and grid means connected across the output of said bridge, said bridge in response to a change in a predetermined direction in frequency of the power supplied effecting a phase



shift in the grid means voltage relative to the anode voltage of said tube to fire said tube, and electrically responsive power operated means connected to be actuated by anode signals of said tube to control said prime mover controlling means.

2,838,685
CONTROL APPARATUS FOR SYNCHRONIZING SOURCES OF ALTERNATING CURRENT
Russell W. Stineman, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application August 19, 1957, Serial No. 678,810
9 Claims. (Cl. 307—87)

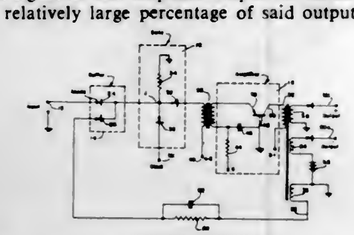


9. In a system, adapted to be connected to a source of voltage, for paralleling sources of alternating current at the instant of phase coincidence, the combination comprising, means for deriving from said sources a pulsating voltage which is dependent on the difference in the frequencies of the electromotive forces of said sources, a capacitor, resistor means connected in parallel circuit relationship with the capacitor, circuit means for impressing said pulsating voltage on the parallel circuit so that the current output from the parallel circuit is dependent on both the magnitude of the pulsating voltage and the rate of change of the pulsating voltage, an amplifier having an input and an output, the input of the amplifier being connected to be controlled by said current output, relaying means interconnected with the output of the amplifier for effecting a paralleling of said sources, a transistor having three electrodes, other circuit means including two of the three electrodes of the transistor for connecting said source of voltage to the input of the amplifier, so as to provide another control input to the amplifier when the transistor is in a conductive state, and another capacitor connected to the remaining electrode of the three electrodes and connected to be responsive to the output of the amplifier to thus maintain said another control input to the amplifier for a predetermined time after an initial output from the amplifier.

2,838,686
AMPLIFIER FOR PULSE TYPE SIGNALS
John Presper Eckert, Jr., Philadelphia, Pa., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application July 28, 1955, Serial No. 524,842
17 Claims. (Cl. 307—88)

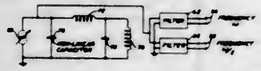
15. In an amplifying system, an amplifier having an input and an output, means for applying an input pulse

signal to said amplifier input for causing said amplifier output to rise from a no-signal state toward a predetermined maximum output signal state, feedback means between said output and said input for maintaining said maximum output signal state at said amplifier output subsequence to cessation of said input pulse signal, said feedback means including means responsive to a rising output signal at said amplifier output for initially supplying a relatively large percentage of said output signal to



said amplifier input whereby said amplifier rises rapidly to said predetermined maximum output signal state, said feedback means including further means responsive to presence of said maximum output signal state at said amplifier output for supplying a smaller percentage of said output signal to said amplifier input thereby to maintain said predetermined maximum output signal state at said amplifier output, and means for periodically rendering said feedback means inoperative whereby said amplifier returns to its said no-signal state.

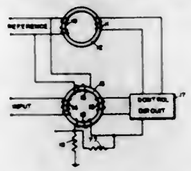
2,838,687
NONLINEAR RESONANT CIRCUIT DEVICES
William T. Clary, Jr., Morristown, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y., a corporation of New York
Application August 9, 1955, Serial No. 527,381
7 Claims. (Cl. 307—88)



7. In combination a doubly resonant nonlinear circuit having resonances at frequencies of f_1 and $f_1/2$, a source of input energy at frequency f_1 connected to said circuit, the amplitude of said circuit output being adjustable over a sufficient range to induce cycles of resonance in said circuit at both of its resonant frequencies and utilization means connected to said circuit, said utilization means including two filters tuned respectively to the frequencies f_1 and $f_1/2$ whereby over a particular portion of the amplitude range of said source an output signal will be received from only one of said filters and over a particular different portion of said amplitude range of said source a substantial output signal will be received from the other of said filters only.

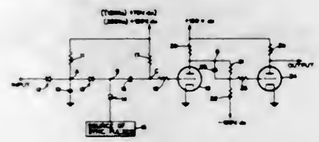
2,838,688
SATURABLE PHASE DETECTOR
Richard T. Loewe, Whittier, Calif., assignor to North American Aviation, Inc.
Application October 22, 1956, Serial No. 617,294
12 Claims. (Cl. 307—88)

1. A phase detector comprising first and second saturable magnetic cores each having a pair of opposite sense saturated states and a transition state therebetween, each said core being shiftable to a saturated state thereof in response to the application thereto of a driving force of predetermined minimum magnitude, a source of reference signal, a source of input signal, means responsive to said reference signal for applying to said first core an alternating driving force having a maximum magnitude considerably greater than said minimum magnitude, means responsive to shifting of said first core from one of the saturated states thereof for generating a reference pulse, means responsive to said reference and input signals for applying to said second core a pair of alternating driving force components each having a maximum magnitude considerably greater than said minimum magnitude,



means responsive to shifting of said second core from one of the saturated states thereof for generating an output pulse, feedback means responsive to said reference and output pulses for varying the net driving force applied to said second core to effect coincidence of said reference and output pulses, and output means coupled with said feedback means.

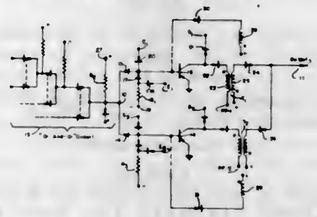
2,838,689
PULSE SIGNAL TRANSLATING APPARATUS
Genung L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 31, 1954, Serial No. 479,133
3 Claims. (Cl. 307—88.5)



1. A pulse signal translating circuit comprising a capacitor having one side referenced with respect to ground and the other side connected to a first junction point, a first gate connected to said first junction point and adapted to receive a train of input pulses, means connected to said first junction point to change the potential thereof toward the inactive level of said input pulses so that said potential changes an incremental amount during a given interval of time, said first gate being arranged to rapidly bring the potential at said first junction point to the active level of the input pulses during an input pulse, a second junction point connected to said first junction point by a second gate arranged to conduct when said first junction point reaches a predetermined reference level, a source of synchronizing pulses having an inactive level substantially identical with the inactive level of said input pulses and an active level substantially identical with said predetermined reference level, said second gate being arranged so as to disconnect said source of synchronizing pulses from said second junction point as long as said second junction point has not reached said predetermined reference level and to rapidly return said second junction point to said predetermined reference level during the active portion of the synchronizing pulse if said second junction point has gone beyond said predetermined reference level, a third junction point coupled to said second junction point by capacitor means, means for clamping said third junction point so that an excursion of the potential at said second junction point beyond said predetermined potential toward said inactive input reference level will produce a change in the potential across said capacitor means, the last-named potential being effective to produce a change in potential at said third junction point when the second junction point is restored to

said predetermined reference level by the synchronizing pulse, and means for restoring said third junction point to said predetermined reference level.

2,838,690
PUSH-PUSH TRANSISTOR CIRCUITS
John Presper Eckert, Jr., Philadelphia, and Harry J. Gray, Jr., Springfield, Pa., assignors to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application December 23, 1955, Serial No. 554,989
18 Claims. (Cl. 307—88.5)



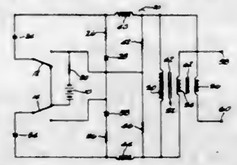
1. In a control circuit, a plurality of signal channels, each of said channels including a transistor amplifier, means connecting said plurality of channels in parallel between a common input point and a common output point, said last-named means including a plurality of transformers coupling the outputs of said plurality of transistor amplifiers to said common output point respectively, means coupling spaced pulses to said common input point, and control means coupled to said channels for rendering different ones of said channels operative during different time periods whereby successive ones of said spaced pulses are switched to and amplified by different ones of said channels during different time periods, said control means including means coupling differently phased control pulses to said plurality of transformers thereby to render different ones of said transformers responsive to output signals from said transistor amplifiers during different time intervals.

2,838,691
PULSE VOLTAGE MULTIPLYING SYSTEM
Charles T. Zavales, New York, N. Y., assignor to F-R Machine Works, Inc., Woodside, N. Y., a corporation of New York
Application July 12, 1957, Serial No. 671,623
6 Claims. (Cl. 307—110)



1. A pulse voltage multiplying system comprising a plurality of cascaded stages, each stage comprising a capacitor adapted to be charged from a high voltage supply source, a rectifying discharge tube connected to said high voltage source for controlling the charging of said capacitor, a discharge circuit for said capacitor including a stabilizing element and a load energizable upon discharge of said capacitor, and a control switching tube having a control electrode and normally operative to prevent discharge of said capacitor; a source of triggering pulse energy connected to the control electrode of said switching tube for rendering the latter conductive to cause discharge of said capacitor and for simultaneously rendering said rectifying discharge tube non-conductive to thus interrupt the charging of said capacitor, said source of triggering pulse energy for the control electrode of said switching tube of each stage except the first comprising the discharge circuit for the capacitor of the preceding adjacent stage in the cascaded system, and a source of coded triggering pulse energy for the control electrode of the switching tube of the first cascaded stage to cause discharge of its associated capacitor and attendant successive self-triggering of the switch tube of each remaining stage of the entire cascaded system to cause discharge of all the capacitors of the system in electrical series across said load at a voltage determined by the number of stages in the cascaded system.

2,838,692
PULSE GENERATOR
John E. Richardson, Los Angeles, Calif., assignor to The Magnavox Company, Los Angeles, Calif., a corporation of Delaware
Application July 11, 1955, Serial No. 521,174
10 Claims. (Cl. 307—132)



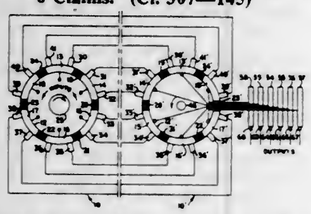
9. A pulse generator, including, a first switch having first and second positions, a second switch having first and second positions, a voltage source, a first capacitance, a second capacitance, first unidirectional means, second unidirectional means, means for actuating the first and second switches on a sequential basis to obtain an operation of each switch in the first position at the same time as an operation of the other switch in the second position, means including the voltage source, the first switch, the first capacitance and the first unidirectional means connected in a first series circuit to obtain a charging of the capacitance in the first position of the switch and to prevent a discharge of the capacitance in the second position of the switch, means including the voltage source, the second switch, the second capacitance and the second unidirectional means connected in a second series circuit to obtain a charging of the capacitance in the first position of the switch and to prevent a discharge of the capacitance in the second position of the switch, a member having a core saturable with fluxes of first and second polarities and connected in a series circuit with the first capacitance and the first switch in the second position of the switch to produce a discharge of the capacitance for a saturation of the core with flux of the first polarity and connected in a series circuit with the second capacitance and the second switch in the second position of the switch to produce a discharge of the capacitance for the saturation of the core with flux of the second polarity, means including a first load connected in a series circuit with the first capacitance and the first switch in the second position of the switch to produce an output pulse across the load upon a discharge of the capacitance and until the saturation of the core with flux of the first polarity, and means including a second load connected in a series circuit with the second capacitance and the second switch in the second position of the switch to produce an output pulse across the load upon a discharge of the capacitance and until the saturation of the core with flux of the second polarity.

2,838,693
ISOCHRONAL CONTROL DEVICE
John A. Van Horn, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania
Application May 17, 1957, Serial No. 660,003
20 Claims. (Cl. 307—132)



17. In an isochronal apparatus an electric load actuated by periodic pulses of electric current, a frame, a staff mounted for oscillation in said frame, resilient spring means connecting said staff to said frame, an electromagnetic prime mover having one portion thereof mounted on said frame and another portion on said staff, switch means having a portion thereof mounted on said staff and a portion on said frame, a source of electro-chemical power, at least a portion of said switch means connected to said electro-chemical power and to said prime mover for periodically energizing said prime mover to produce, in conjunction with said spring means, an isochronal oscillating movement of said staff, said switch means being connected to said load means to supply said pulses thereto.

2,838,694
ROTATABLE ELECTRICAL CONNECTIONS
Denis H. O. Hider, Fareham, England, assignor to the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Northern Ireland
Application February 3, 1955, Serial No. 485,908
6 Claims. (Cl. 307—145)



1. A rotatable contactor device comprising; slip ring and brush means arranged in pairs, one of a pair for following rotative movements of a rotatable element and the other of the pair remote from said one for synchronously following the movements of said one, each slip ring means being divided into electrically conductive segments; and conductors coupling corresponding brushes cooperative with corresponding conductive segments whereby a plurality of circuits are established continuously through said pairs of slip ring and brush means.

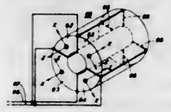
2,838,695
MULTI-SECTION QUARTZ TORSIONAL TRANSDUCERS
Robert N. Thurston, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 15, 1955, Serial No. 528,461
10 Claims. (Cl. 310—8.1)

1. A piezoelectric quartz torsional transducer comprising a plurality of cylindrical sections of quartz assembled to form a complete quartz cylinder, each section being cut from a single quartz crystal with predetermined orientation with respect to the crystallographic axes of the crystal, said sections when assembled in the complete cylinder having two of the three crystallographic axes of each section at an angle of at least 90 degrees with respect to the corresponding crystallographic axes of each of the other sections, the Z axes of all sections being radially directed with respect to the longitudinal axis of the complete cylinder, all sections having the same



crystallographic axis parallel to the longitudinal axis of the completed cylinder, and means for applying signal voltage to each section of said cylinder in a direction substantially parallel to the Y axis of said section to induce torsional vibration of said cylinder.

2,838,696
TORSIONAL TRANSDUCERS OF ETHYLENE DIAMINE TARTRATE AND DIPOTASSIUM TARTRATE
Robert N. Thurston, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 15, 1955, Serial No. 528,462
10 Claims. (Cl. 310—8.1)

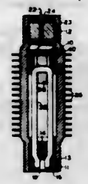


1. A piezoelectric crystal torsional transducer comprising a plurality of cylindrical sections of crystal, the crystal, for all sections of the transducer, being one of the pair named ethylene diamine tartrate and dipotassium tartrate, respectively, said plurality of sections being assembled to form a complete crystal cylinder, each section being cut from a single crystal with a predetermined orientation with respect to the crystallographic axes thereof, said sections being assembled to form the complete cylinder, each section having its X axis radially directed and two of the three crystallographic axes at an angle of at least 90 degrees with respect to the corresponding crystallographic axes of each of the other sections, all sections having the same crystallographic axis parallel to the longitudinal axis of the complete cylinder, and means for applying signal voltage to said cylinder substantially parallel to the Z axis of said cylindrical sections to induce torsional vibration of said cylinder.

2,838,697
DETONATION METER PICKUP
Max M. Adams, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Original application July 25, 1949, Serial No. 106,586, now Patent No. 2,641,719, dated June 9, 1953. Divided and this application March 27, 1953, Serial No. 345,038
1 Claim. (Cl. 310—15)

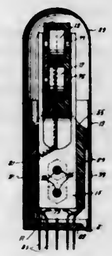
A detonation meter comprising an elongated casing having a plurality of longitudinally spaced fins mounted on the exterior thereof to dissipate heat, the outer surface of one end of said casing being threaded so that the casing can be screwed into a cylinder of an internal combustion engine, a sleeve threaded into said casing at said one end, a diaphragm of magnetic material secured to said sleeve and extending across said one end of said casing, a U-shaped permanent magnet, a support of insulating material mounted within said casing adjacent the second end thereof, said support being the sole support

of said magnet and mounting said magnet so that an air gap exists between said casing and the major portion of said magnet and so that the ends of the legs of said magnet extend into closely spaced relationship with said diaphragm, a coil of wire enclosing the center portion of said magnet so that movement of said diaphragm



changes the spacing between said diaphragm and the legs of said magnet to induce current in said coil representative of movement of said diaphragm, an insulating plug positioned within the second end of said casing, and at least one conductor extending through said plug to said coil.

2,838,698
TUNING FORK ASSEMBLY
William J. Holt, Jr., Garland, Tex., assignor to Varo Mfg. Co., Inc.
Application August 8, 1955, Serial No. 526,894
15 Claims. (Cl. 310—25)



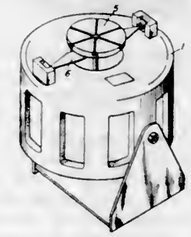
1. A tuning fork assembly comprising, a solid base type tuning fork having tines, a drive coil, a pick-up coil, a housing presenting a cylindrical outer surface at its lower portion tapering to spaced parallel plane outer surfaces at its upper portion, a cavity in the lower inside portion of said housing for receiving the base of said fork with the fork tines extending exteriorly of the housing with their inner faces parallel to and closely adjacent said spaced parallel housing outer surfaces, cavities in the upper portion of said housing centered on the housing longitudinal axis for receiving said coils, means for rigidly securing the base of said fork and said coils within said housing, and means for sealing the assembly.

2,838,699
WIDE-BAND VIBRATION DAMPER
Dana L. Mock, Falls Church, Va., assignor to the United States of America as represented by the Secretary of the Army
Application March 20, 1957, Serial No. 647,458
3 Claims. (Cl. 310—26)



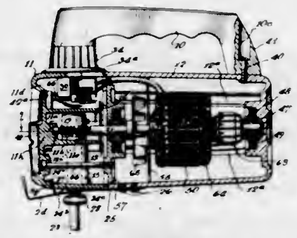
1. A tubular magnetostrictive transducer, a tubular lead extension affixed to said transducer by a non-reflecting junction, and lead wire wrapped around the inner and outer periphery of said extension, said lead wire providing the friction to attenuate compressional wave from said transducer in combination with the inherent damping effect of lead.

2,838,700
FLEXURE LINKS FOR A VIBRATING COIL SUPPORT
Erling J. Bligard, East Haven, Conn., assignor, by mesne assignments, to Textron, Inc., Providence, R. I., a corporation of Rhode Island
Application February 2, 1953, Serial No. 334,438
27 Claims. (Cl. 310—27)



1. In a vibration exciter, a fixed core means, movable driver means, and a plurality of flexure links connecting the said means, each of said flexure links comprising a beam and a rocker, the rocker being on one end of the beam and having rolling contact with one of said means, said flexure links being arranged in two planes perpendicular to the direction of movement of the driver means, flexure links in one plane in spaced positions about said driver means each moving in the same direction at the same time to insure linear movement of said driver means.

2,838,701
ELECTRIC MOTOR UNIT
Fred W. Kuhagen, Chicago, Ill., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application June 2, 1955, Serial No. 512,774
2 Claims. (Cl. 310—83)



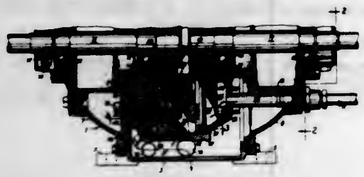
1. A motor construction, comprising: a generally cup-shaped hollow casing section including side walls; a pair of spaced apart first and second baffles with the first baffle being adjacent to but spaced from one of said side walls to define a first chamber between said one wall and first baffle and a second chamber between said baffles, at least said first baffle being substantially lubricant impervious; a switch mechanism in said first chamber; gearing in said second chamber; and a substantially lubricant impervious plate member extending between the inner edges of said baffles forming an inner side wall on said second chamber and containing an opening for a gear-engaging driving gear, the second chamber being adapted to contain a lubricant for said gearing.

2,838,702

ELECTROMAGNETIC COUPLING DEVICE

Martin P. Winther, Gates Mills, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application December 8, 1955, Serial No. 551,804
5 Claims. (Cl. 310—105)



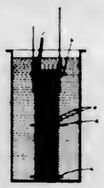
1. An electromagnetic coupling device comprising relatively rotatable coaxial driving and driven members, a fixed magnetizable ring, an annular coil affixed adjacent one end portion of the ring, inner and outer concentric cylindric portions forming the other end portion of said ring, a magnetizable assembly affixed to one of said members and being rotatable therewith, said assembly having a sleeve extending transversely of the coil and an extension providing a cylindric portion forming a first and inner magnetic gap with the adjacent inner cylindric portion of said other end portion of said fixed ring, said assembly having a magnetizable portion adjacent the coil at its end opposite said ring and extending radially, said assembly also having an axial portion extending from said radial portion transversely of the coil and fixed ring, said axial portion comprising a continuous movable ring adjacent the outer cylindric portion of said other end portion of said fixed ring and providing a second and outer magnetic gap therewith, said axial portion also comprising first and second sets of spaced peripherally interdigitated polar teeth extending axially between said movable ring and said radial portion, said first set of teeth being supported by said radially extending portion of said assembly, nonmagnetic means attached to both sets of interdigitated teeth and supporting the second set of teeth and said movable ring on the first set of teeth, and an inductor drum carried by a supporting spider on and rotary with the other member, said drum extending transversely across said interdigitated teeth and having a cylindric portion forming an exterior magnetic gap therewith.

2,838,703

ASSEMBLY OF STACKED LAMINATIONS AND PROCESS FOR MAKING SAME

Roy L. Balke, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application January 18, 1957, Serial No. 635,016
5 Claims. (Cl. 310—217)



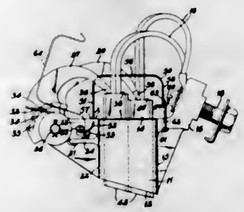
1. A process for assembling a plurality of substantially flat laminations into a stack comprising the steps of punching a tang in each lamination out of the plane thereof so as to form a slot in the lamination, inserting a bar of soft stiff material into the slot of each lamination until all the laminations which are to form the stack are mounted on said bar with said tangs holding said laminations in a spaced apart relationship, applying a treating material between said laminations while they are in said spaced apart relationship, and thereafter and pressing said laminations tightly together while they are maintained in alignment thereby forcing said tangs substantially into the planes of the respective laminations and causing the ends of said tangs to embed themselves in said bar.

2,838,704

BRUSH GUARD FOR BRUSH HOLDER UNITS

Emerson F. Nevill, Beloit, Wis., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois

Application February 14, 1956, Serial No. 565,450
5 Claims. (Cl. 310—246)



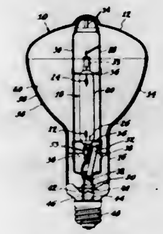
1. In a brush holder having a brush-receiving body portion, a brush element received in the body portion, brush tensioning means on the holder and engaging the rear end of the brush element, a catch element on the holder, a resilient member having one end in pivotal connection to the holder and its opposite end adapted for engagement with said catch element, said member upon pivotal movement to an effective position wherein its said opposite end is in engagement with said catch element, having a portion thereof intermediate its ends extending transversely of the brush element in spaced relation to the rear end of the latter, and means on said member having pressure contact with the holder in said effective position of the member, establishing a spring-tension condition of the member serving to maintain engagement of its said opposite end with said catch element.

2,838,705

COLOR-CORRECTED REFLECTOR HIGH PRESSURE MERCURY VAPOR LAMP AND METHOD OF PREPARING

Frank J. Hierholzer, Jr., Bloomfield, and Luke Thorington, Glen Gardner, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 3, 1953, Serial No. 396,006
6 Claims. (Cl. 315—25)



1. An envelope for an electric discharge device having a clear vitreous portion, a silver reflecting coating on the interior of said clear vitreous portion, a coating of finely-divided silica over said silver reflecting coating, and a coating of phosphor adapted to convert ultraviolet radiation to visible radiation over said silica coating.

2,838,706

METHOD AND APPARATUS FOR ELECTRONIC COMMUTATION

Edwin E. Turner, West Roxbury, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware

Application February 18, 1954, Serial No. 411,172
2 Claims. (Cl. 313—69)



2. An electronic commutator tube device comprising a cylindrical anode, a cathode positioned substantially on the axis of said anode, means for forming electrons from said cathode into a beam extending toward said anode, means sweeping said beam angularly about said cathode and a plurality of generally axially directed arrays of control grid wires arranged about said cathode in a circle concentric with said cathode and separated by a space less than the width of the electron beam.

2,838,707

FLUORESCENT LAMP AND METHOD OF MAKING

Joseph Schwing, Jersey City, and Gerald Schiazzano, Belleville, N. J., assignors to Duro-Test Corporation, North Bergen, N. J., a corporation of New York

Application September 13, 1956, Serial No. 609,654
4 Claims. (Cl. 313—109)



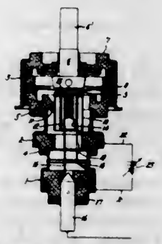
1. A quick starting fluorescent lamp having a transparent envelope coated on its inner face with a coating containing cadmium sulphide and silicon dioxide overlaid with a phosphor coating.

2,838,708

ELECTRON DISCHARGE DEVICE AND METHOD OF GETTERING

Lewis A. Yoder, Esperance, N. Y., assignor to General Electric Company, a corporation of New York

Application June 9, 1954, Serial No. 435,470
8 Claims. (Cl. 313—174)



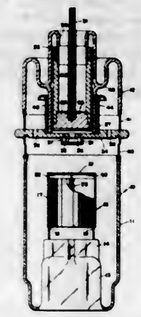
7. A method for flashing getter material in an envelope having a translucent wall portion comprising the steps of providing a light source in said envelope to effect a glow observable through said translucent portion, and energizing said getter material until said glow is substantially reduced by deposition of getter material on said translucent wall portion.

2,838,709

GAS-FILLED THYRATRON

Albert O. Palmer, Stamford, Conn., assignor to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut

Application August 19, 1954, Serial No. 450,913
2 Claims. (Cl. 313—246)



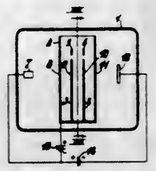
1. A gas-filled thyratron tube comprising a gas-tight dielectric envelope having cylindrical side walls provided with a reentrant portion at one end and having a cathode mounted in the opposite end, the reentrant portion terminating in integral coaxial tubular dielectric bifurcations, one of the bifurcations extending inwardly of the envelope substantially parallel with the side walls thereof and the other of the bifurcations being substantially the same diameter as the first bifurcation and extending coaxially outwardly of the end of the envelope and itself having a reentrant portion at its outer end, a tubular metal anode support connected at one end to the reentrant portion of the second bifurcation and carrying an anode block at its inner end, the support extending inwardly of the envelope parallel and closely spaced to the bifurcations, the anode being located within the first bifurcation closely spaced therewith and having its effective surface positioned barely within the end thereof, and a disc-like grid extending transversely of the envelope in closely spaced relation to the inner end of said first bifurcation and having its marginal portions extending through the side walls of the envelope.

2,838,710

RESONATOR SYSTEM FOR DISCHARGE TUBES

Frederik Coeterier, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

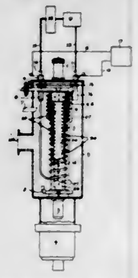
Application March 13, 1953, Serial No. 342,255
Claims priority, application Netherlands March 20, 1952
5 Claims. (Cl. 315—5.51)



5. A resonator system comprising a box-like structure which is electrically conductive, a pair of conductors positioned in said box-like structure to form a first lecher line, corresponding ends of said conductors being connected

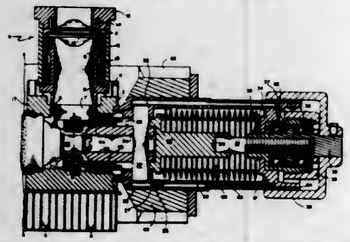
to a wall of said box-like structure, a source of an electric signal, means connected to said conductors to apply said signal out-of-phase to said conductors, a pair of wires positioned in said box-like structure to form a second lecher line, opposed ends of said wires being respectively connected to said box-like structure, and means for respectively electrically coupling the remaining ends of said conductors to the middle portions of said wires.

2,838,711
ELECTRIC DISCHARGE DEVICES
Michael Crowley Crowley-Milling, Colwyn Bay, Wales, assignor to Metropolitan-Vickers Electrical Company Limited, London, England, a company of Great Britain
Application July 18, 1952, Serial No. 299,616
Claims priority, application Great Britain July 27, 1951
2 Claims. (Cl. 315—39)



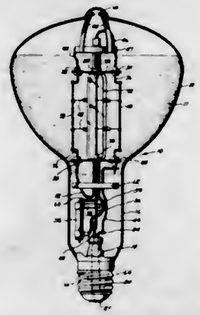
1. In a linear accelerator for an electron beam, a waveguide having peripheral apertures therein, an electron gun for projecting a beam of electrons into said waveguide, apertured diaphragms spaced along said wave-guide for accelerating the electrons to strike a target, a container surrounding said waveguide and communicating therewith, means for continuously evacuating said container and the waveguide through its peripheral aperture, a coil of hollow tubing located within said container and encircling the waveguide, an insulating former for said coil located within the container around the outside of the waveguide, means for separating the turns of the coil with spacing which provides free paths for the evacuation of the waveguide through the apertures therein, insulating and vacuum tight bushings in the container through which said tubing is passed, means for circulating a unidirectional electric current through said tubing thereby to create a magnetic focussing flux in said waveguide, and means for circulating cooling liquid through the interior of said tubing from outside the container.

2,838,712
TUNABLE MAGNETRON
Richard S. Briggs, Beverly, Mass., assignor to Bomac Laboratories Inc., Beverly, Mass., a corporation of Massachusetts
Application April 9, 1956, Serial No. 577,025
3 Claims. (Cl. 315—39.61)



1. A tunable magnetron comprising an anode structure defining a plurality of cavities, a cathode centrally positioned within said anode structure and a tuning assembly positioned adjacent said anode structure, said tuning assembly comprising a plurality of tuning members adapted to be inserted and removed from each of said anode cavities, a bearing member secured to said tuning members, said bearing member having a plurality of spherical members disposed on its outer surface, a carrier member secured to said bearing member having a hollow re-entrant portion defined therein with a transverse slot extending therethrough, a cylindrical member enclosing said bearing and carrier member with a bushing member disposed at one end, a cylinder of a magnetic metal positioned within said hollow portion and a locking member extending transversely through said magnetic cylinder and transverse slot with the ends thereof being anchored to said cylindrical member to thereby maintain said magnetic cylinder in a fixed position relative to said anode structure, the inside surfaces of said bearing and carrier member being in slidable contact with said magnetic cylinder while the spherical members of said bearing member contact said bushing member to thereby provide rigid support of said tuning members in close proximity to their point of introduction into said anode cavities.

2,838,713
LIGHT SOURCE INCLUDING AN ARC TUBE
Michel E. Macksoud, New York, N. Y., assignor to Duro-Test Corporation, North Bergen, N. J., a corporation of New York
Application December 28, 1956, Serial No. 631,094
3 Claims. (Cl. 315—49)

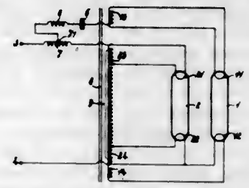


1. A light source comprising in combination an evacuated bulb having a phosphor coating, a support structure mounted in said bulb, an arc discharge tube secured on said support structure and having a crystalline ultra-violet light transmitting envelope, filament sections on said support structure at opposite sides of and parallel to said envelope, and means comprising energizing circuit connections for said discharge tube and filament sections to create a substantially uniform electrostatic field around said arc tube.

2,838,714
IGNITING AND OPERATING CIRCUIT FOR DISCHARGE TUBES
Jozef Cornelis Moerkens, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 10, 1954, Serial No. 455,121
Claims priority, application Netherlands September 28, 1953
3 Claims. (Cl. 315—97)

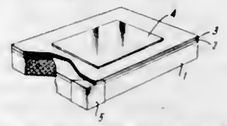
1. An igniting and operating circuit arrangement for two discharge tubes each having an ionizable medium and a pair of thermionic electrodes, said circuit arrangement comprising input means for a source of potential, an

inductive impedance connected in series with a first of said tubes to said input means, a capacitative impedance connected in series with the second of said tubes and a portion of said inductive impedance to said input means, said portion of said inductive impedance comprising less than the whole of the said inductive impedance, a transformer having a primary winding and having a plurality of secondary windings each connected to and energizing a respective one of said thermionic electrodes, said pri-



mary winding being connected in shunt with said first tube and in series with said inductive impedance to said input means, the secondary windings energizing the thermionic electrodes of said first tube being poled to produce across said first tube a voltage having a value not higher than the voltage across said primary winding, and the secondary windings energizing the thermionic electrodes of said second tube being poled to produce across said second tube a voltage having a value greater than the potential of said source.

2,838,715
ELECTROLUMINESCENT LAMP
Elmer C. Payne, Marblehead, Mass., assignor to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application August 22, 1950, Serial No. 180,783
10 Claims. (Cl. 315—108)



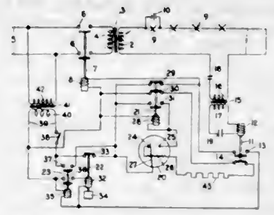
1. An electroluminescent lamp comprising a first electrode, a second electrode in proximity thereto, and a solid layer therebetween including an electroluminescent phosphor, at least one of said electrodes being a light-transmitting conductive solid material in close contact with said layer.

2,838,716
PHOTOELECTRIC CONTROL SYSTEM
Edward D. Spierer, Brooklyn, N. Y.
Application April 20, 1955, Serial No. 502,601
10 Claims. (Cl. 315—152)



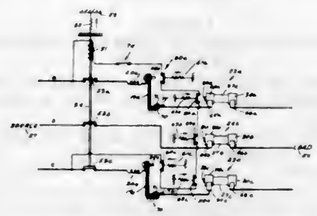
1. A photoelectric control system comprising, means including a triode form of glow-discharge device for developing a control effect dependent upon the state of conduction of said device, said device having glow-discharge control and cathode electrodes, a photo-sensitive device having a value of electrical conductance varying with the light energy incident thereon and including two electrodes directly connected to individual ones of said control and cathode electrodes, an alternating current energizing circuit for energizing said discharge device with an alternating potential, and means for deriving from said alternating potential a unidirectional negative bias potential and for applying said bias potential through a relatively high value of resistance to said control electrode and the connected one of the electrodes of the photo-sensitive device so as to bias said control electrode increasingly negative with respect to said cathode for decreasing values of conductance of said photo-sensitive device.

2,838,717
CONTROL SYSTEM
Harold A. Breeding, Hendersonville, N. C., and Ernest C. Martt, Chagrin Falls, Ohio, assignors to General Electric Company, a corporation of New York
Application December 30, 1955, Serial No. 556,729
13 Claims. (Cl. 317—22)



1. A control system comprising: supply conductors; load conductors; switching means for controlling the connection of said supply conductors with said load conductors; a control circuit, the closing and opening of which respectively operates said switching means to connect and disconnect said load conductors with said supply conductors; first timing means for opening said control circuit a predetermined time interval after its energization when no current exists in said load conductors; second timing means responsive to an interruption in current flow in said load conductors for opening said control circuit and again closing it after a predetermined time; and means for opening and closing said control circuit independently of but subject to the control of each of said timing means.

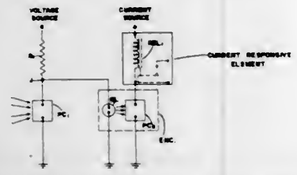
2,838,718
CURRENT LIMITING PROTECTION FOR CONTACTORS
William Harold Edmunds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application May 28, 1953, Serial No. 358,157
6 Claims. (Cl. 317—46)



1. In a contactor; a plurality of cooperating contacts; each of said cooperating contacts being connected in series with a thermal trip device and a current limiting device; said current limiting device comprising a fusible member operatively connected to a striker pin; said fusible member being constructed to interrupt the current flowing therethrough; said current limiting device causing said striker pin to be moved responsive to operation of said fusible member; said plurality of cooperating contacts being linked together for simultaneous movement to either engaged or disengaged position; electromagnetic means for maintaining said plurality of cooperating contacts in said engaged position; said current

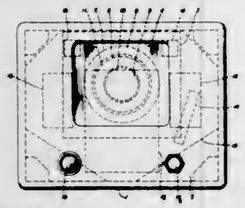
limiting device being electrically connected to interrupt short circuit currents flowing through said pair of cooperating contacts; said thermal trip device and said current limiting device being operatively connected by mechanical means to said energizing circuit to selectively effect de-energization thereof on the occurrence of a fault current, said mechanical means for operatively connecting said current limiting device and said energizing circuit including said striker pin of said current limiting device.

2,838,719
PHOTOCELL CIRCUIT CONTROL ARRANGEMENT
Michael William Gerald Chitty, Mount Royal, Quebec, Canada, assignor to Canadian Marconi Company, Montreal, Quebec, Canada
Application July 2, 1956, Serial No. 595,143
Claims priority, application Canada December 28, 1955
9 Claims. (Cl. 317—124)



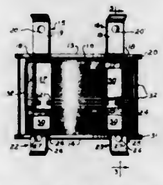
1. A radiant energy responsive circuit control arrangement comprising, a source of given electrical potential, a resistor of predetermined resistance value, a first photoconductive cell, means to connect said resistor and said first photoconductive cell serially across said source of potential, means to so mount said first photoconductive cell that it is exposed to said radiant energy, a glow discharge tube having a striking potential less than said given potential connected between the junction of said resistor and said first photoconductive cell and one side of said source of potential, a second photoconductive cell, a light impervious enclosure, means to mount said glow discharge tube and said second photoconductive cell within said enclosure in such relation that radiant energy produced by said glow discharge tube is directed upon said second photoconductive cell, a source of current, a circuit controlling element responsive to the flow of electric current, and means to serially connect said second photoconductive cell and said current responsive element across said source of current.

2,838,720
WATCH MOVEMENT DEMAGNETIZING APPARATUS
Frank Dostal, Great Neck, N. Y., assignor to American Time Products, Inc., New York, N. Y., a corporation of Delaware
Application October 24, 1955, Serial No. 542,204
1 Claim. (Cl. 317—157.5)



A demagnetizing apparatus for watch movements and cased watches comprising a housing, a voltage multiplier adapted to be connected to an A. C. potential supply, a resistor connected to one output terminal of the multiplier, a capacitor connected at one side to the other output terminal of the multiplier, a cylindrical core of compressed powedered iron of high permeability integral with a cup of the same material having a cylindrical wall concentric with the core, a multi-turn coil about the core and substantially filling the cup space between the cylindrical cup wall and the core and having one end connected to that side of the capacitor connected to said multiplier output terminal, the multiplier, resistor, capacitor, core with integral cup and the coil being disposed within the housing, a switch operable from the exterior of the housing and supported in a wall of the housing and connected to the other side of the capacitor and normally connecting the resistor to the capacitor and operable to disconnect the resistor from the capacitor and connect the other end of the coil to the capacitor, the housing having an aperture aligned with the core with integral cup and the coil, and a supporting means of a material permeable to magnetic lines of force over the aperture, on which supporting means the watch movements and cased watches to be demagentized are positionable, the tops of the core, coil and the cup wall being coplanar and closely adjacent to the watch supporting means.

2,838,721
RELAY COIL CONSTRUCTION
Irving L. Mitchell, Rockville Centre, N. Y., assignor to Ebert Electronics Corporation, Queens Village, N. Y., a corporation of New York
Application June 27, 1956, Serial No. 594,228
13 Claims. (Cl. 317—158)



4. A coil and terminal arrangement comprising a first conductive terminal having a flat body and a connector end, a second conductive terminal having a flat body and a connector end, an insulating closed sleeve for insulating one of said flat bodies, said first of said flat bodies being located within said insulating sleeve, said terminals being relatively positioned with the flat bodies thereof in proximity and in superposition and separated by an element of said insulating sleeve, and with the connector ends of said bodies extending in opposite directions, an inductive coil having a longitudinal axis, and means for securing said flat bodies against said coil and generally parallel with said longitudinal axis, said connector ends extending beyond the bounds of said coil.

2,838,722
SEMICONDUCTOR DEVICE
John R. Watson, Bristol, R. I., assignor to B. A. Ballou & Co. Incorporated, a corporation of Rhode Island
Application June 4, 1957, Serial No. 663,376
4 Claims. (Cl. 317—235)



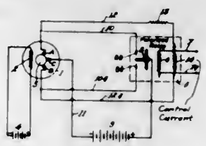
1. A semiconductor device comprising a heat sink of high thermal conductivity, a mounting flange for said sink, said flange having a central cut-out portion smaller than the outline of said sink and mounting ears extending beyond the periphery of said sink, said flange being secured to said sink on one face thereof, a cap secured to said flange around said cut-out portion, a semiconductor affixed to said sink and point contact elements therefor engageable in a contact region, leads extending from said contact region and sealed through the enclosure formed by said sink and cap.

2,838,723
PIEZOELECTRIC SIGNAL TRANSDUCERS AND CERAMIC TITANATE CAPACITORS
Joseph W. Crownover, Sherman Oaks, Calif., and Heiman W. Koren, Bronxville, N. Y., assignors to Sonotone Corporation, Elmsford, N. Y., a corporation of New York
Application September 27, 1955, Serial No. 536,794
6 Claims. (Cl. 317—242)



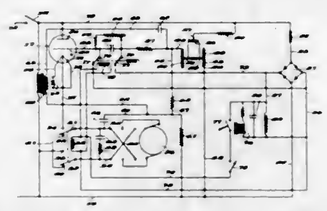
1. In a capacitor structure: a thin dielectric layer of substantially solid refractory dielectric material which is fragile and liable to break when in thin formation; conductive electrode layers on the opposite sides of said dielectric layer; said electrode layers being formed by fusion of metal particles at temperatures above 400° C. to the exposed surfaces of said dielectric layer; one of said electrode layers comprising a sheet portion of metal of substantial strength mechanically and electrically united to the facing surface of said dielectric layer so that when said capacitor structure is subjected to mechanical strain said metal sheet portion absorbs a substantial part of such mechanical strain.

2,838,724
ELECTRICAL SERVO-MECHANISMS
Charles Auguste Ecary, Courbevoie, France, assignor, by mesne assignments, to Société Commerciale ECA, Asnieres, France
Application February 18, 1953, Serial No. 337,636
2 Claims. (Cl. 318—292)



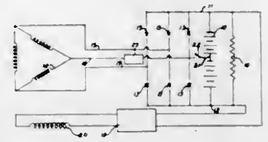
1. An electrical servo-mechanism comprising, in combination, a direct current motor having an exciting winding separately excited by a direct current having a constant direction, an armature winding and three brushes cooperating with said armature winding; a source of direct current one pole of which is connected with one of said brushes; an order receiving relay having a winding receiving a current function of the working orders, a two-position rockable contact member connected to the other pole of the source of current and two operative contacts respectively connected to the two other brushes of the direct-current motor and adapted to be closed by said two-position rockable contact member; and a damping device adapted to damp the idle rotation of the motor as soon as the energized order receiving relay is deenergized, said device comprising a resistor and a coil arranged in series, said coil being wound in reverse direction to that of the winding of the order receiving relay and arranged in inter-actuation relation with the latter, one conducting lead interconnecting said resistor and one of the brushes connected to a rest contact of the order receiving relay, and a second conducting lead interconnecting said coil and the other brush connected to the other rest contact of said relay.

2,838,725
SYSTEM FOR CONTROLLING ENERGIZATION OF D. C. MOTORS CONNECTED TO A. C. SYSTEMS
Gerald K. Heller, Baltimore, Md.
Application June 16, 1955, Serial No. 515,920
5 Claims. (Cl. 318—331)



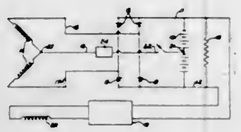
1. A control system for controlling energization of small D. C. motors from a pair of A. C. power lines, said system comprising a gas-filled tube adapted to conduct during a portion of each A. C. cycle, said tube having an anode, a grid and a cathode, a first power line connected to said anode, a motor having its armature connected to said cathode and to a second power line, means connected across said armature for supplying current to said armature during the non-conducting portion of each cycle, a rectifier connected to said first and to said second power lines, a field winding for said motor connected to D. C. output terminals of said rectifier, a time-constant circuit comprising a first capacitor and a first resistor in series connected to the armature terminals of said motor, a transformer connected to said pair of power lines, a secondary winding on said transformer, and a phase shifting circuit including a second capacitor and second resistor connected in series with said secondary winding, said second resistor connected to said grid and to a point in said time-constant circuit between said first capacitor and said first resistor.

2,838,726
ALTERNATOR ELECTRIC SYSTEM
Thomas J. Boyer, Livonia, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application April 11, 1957, Serial No. 652,273
3 Claims. (Cl. 320—59)



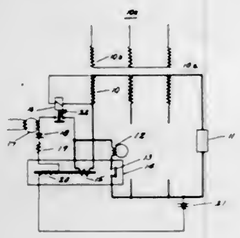
1. An electrical system comprising a storage battery, said storage battery being provided with a positive battery terminal, a negative battery terminal and a third battery terminal at an electrical potential intermediate the positive battery terminal and the negative battery terminal, a first conductor connected to the positive terminal of the battery, a second conductor connected to the negative terminal of the battery, load supplying connections applied to said first conductor and said second conductor, three rectifier conductors shunting the storage battery, a pair of rectifying elements interposed in each of said three rectifier conductors, a three phase energy source connected to said rectifier conductors intermediate the rectifying elements and an electrical connection between the third battery terminal and one of the rectifier conductors intermediate the rectifying elements.

2,838,727
ALTERNATOR ELECTRIC SYSTEM
Thomas J. Boyer, Livonia, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application May 13, 1957, Serial No. 658,587
3 Claims. (Cl. 320—59)



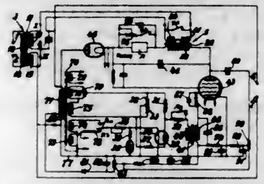
1. An electrical system comprising a storage battery, said storage battery being provided with a positive battery terminal, a negative battery terminal and a third battery terminal at an electrical potential intermediate the positive battery terminal and the negative battery terminal, a first conductor connected to the positive terminal of the battery, a second conductor connected to the negative terminal of the battery, load supplying connections applied to said first conductor and said second conductor, two rectifier conductors shunting the storage battery, a pair of rectifying elements interposed in each of said two rectifier conductors, a two phase energy source connected to said rectifier conductors intermediate the rectifying elements and an electrical connection between the third battery terminal and a point common to the two phases of said energy source.

2,838,728
DE-ENERGIZATION OF A BY-PASS CIRCUIT IN AN ELECTROMAGNETIC RECTIFIER DURING FAULT CONDITIONS
Michael Belamin, Nurnberg, Germany, assignor to Siemens-Schuckertwerke A. G., Berlin, Germany, a corporation of Germany
Application February 28, 1955, Serial No. 491,126
7 Claims. (Cl. 321—48)



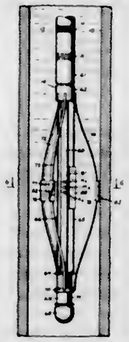
1. In an electromagnetic rectifier energizing a direct current load from an alternating current source; said electromagnetic rectifier having cooperating contacts operable responsive to a magnetic field in series with a saturable type reactor, said cooperating contacts and saturable type reactor connected to place said alternating current source in series with said direct current load when said cooperating contacts are engaged; an auxiliary circuit constructed to create a magnetic field to cause engagement of said cooperating contacts in response to a predetermined instantaneous voltage of said alternating current source; and a switching means in series with said auxiliary circuit constructed to be disengaged responsive to a predetermined voltage of said alternating current source.

2,838,729
VOLTAGE REGULATING DEVICE
Peter Gareth Lovell, London, and Robert Bryce Stephens, Watford, England, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 23, 1953, Serial No. 393,876
9 Claims. (Cl. 323—66)



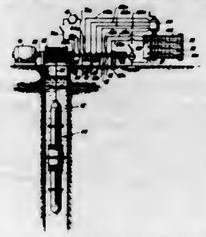
1. A voltage regulating circuit comprising a regulating transformer including a winding and an associated saturable core, a capacitor connected across said winding, input and output terminals, said transformer being connected to said input terminals, a variable reactance coupled to one of said output terminals and said winding, an output voltage error detector connected across said output terminals, said output voltage error detector comprising means for producing a no error signal when the voltage at said output terminals is at its nominal value and for producing an increasing error signal having a given phase when said voltage rises above said nominal value and having a phase opposite to said given phase when said voltage falls below said nominal value, and means responsive to said error signal to control the value of said variable reactance and thereby to oppose any variation from said nominal value of said voltage.

2,838,730
METHOD AND APPARATUS FOR DETERMINING THE RESISTIVITY OF THE MUD IN A BORE HOLE
Maurice P. Lebourg, Houston, Tex., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas
Application June 23, 1953, Serial No. 363,480
8 Claims. (Cl. 324—1)



2. In a method for determining the electrical resistivity of conductive fluid within a bore hole, the steps of moving a current emitting electrode through the conductive fluid in the bore hole, obtaining continuous indications of the potential difference between two closely spaced electrodes in close proximity to said current emitting electrode, recording in a continuous manner said potential difference as a function of the depth of said electrode in the bore hole in order to enable the electrical resistivity of said conductive fluid to be determined from a plurality of extreme values of said potential differences representative of the resistivity of said conductive fluid, and periodically wiping the surfaces of said electrodes with wiping means having a resistivity differing substantially from the resistivity of said conductive fluid so that periodic variations in the recorded potential difference would be indicative of continued wiping action and that said electrodes would be maintained substantially clean during the logging operation.

2,838,731
ELECTRICAL WELL LOGGING
Charles G. Cruzan and Raymond G. Piety, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application July 31, 1953, Serial No. 371,633
17 Claims. (Cl. 324—1)

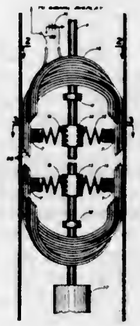


1. The method of electrical well logging which comprises lowering a first electrode to a first predetermined depth in a well, lowering a second electrode to a second predetermined depth in the well so that said first and second electrodes are in substantially vertically spaced alignment, said first depth being greater than said second depth, lowering a third electrode to a third predetermined depth in the well, said third depth being greater than said first depth, lowering a fourth electrode to a fourth predetermined depth in the well, said fourth depth being substantially as much less than said second depth as said third depth is greater than said first depth, applying an electrical potential between said first and second electrodes, moving said third and fourth electrodes simultaneously in substantially vertical directions through the well while retaining said first and second electrodes stationary so that the spacing between said first and third electrodes remains substantially equal to the spacing between said second and fourth electrodes, and measuring the potential difference between said third and fourth electrodes.

5. Electrical well logging apparatus comprising, in combination, an elongated housing assembly adapted to be lowered into a bore hole, first and second current electrodes mounted on said assembly so as to be insulated therefrom and in spaced relation with one another so that said first and second current current electrodes are in substantially vertical alignment when said assembly is positioned in a bore hole, first and second potential pick-up electrodes mounted on said assembly so as to be insulated therefrom and in spaced relation with one another so that said first and second current electrodes are positioned between said first and second pick-up electrodes, and means for varying the effective spacings of said pick-up electrodes with regard to said current electrodes so that the spacing between said first current electrode and said first pick-up electrode remains substantially equal to the spacing between said second current electrode and said second pick-up electrode.

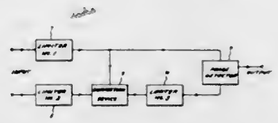
2,838,732
FLEXIBLE COIL FOR WELL LOGGING
Robert J. S. Brown, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware
Application October 24, 1955, Serial No. 542,411
7 Claims. (Cl. 324—10)

1. Well logging apparatus for establishing a magnetic field in an earth formation traversed by a well bore comprising a polarizing coil having an ellipsoidal form, means for supporting said coil in a well bore, said polarizing coil including a plurality of elongated turns, each of the elongated portions of said turns being radially displaced from and substantially parallel to the major axis of said ellipsoidal form with said elongated portions circumferentially distributed in said ellipsoidal form so that the opposite sides of each of said turns can be



brought into firm engagement with the diametrically opposed sections of the walls of the well bore and the surrounding earth formation, means for radially expanding said turns of said coil toward the walls of said well bore, and means for controlling the passage of electrical current through said coil while said turns are radially expanded to increase the strength of the magnetic field within the surrounding earth formation.

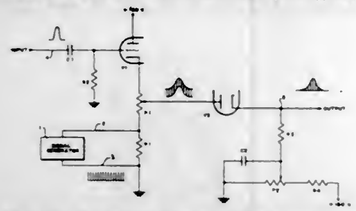
2,838,733
PHASE DETECTION
Richard C. Longfellow, Elk River, Minn., assignor to General Electric Company, a corporation of New York
Application October 15, 1951, Serial No. 251,419
11 Claims. (Cl. 324—83)



6. A phase detector for detecting the phase displacement between two undulating electric waves comprising means for equalizing the amplitudes of said waves to derive undulating equalized waves, means for adding said undulating equalized waves to obtain an undulating resultant wave, means responsive to the phase difference between one of said undulating equalized waves and said wave undulating resultant for producing an electromotive force varying continuously from a value corresponding to one extreme of phase difference between said first two waves and a value corresponding to the other extreme of phase difference between said first two waves.

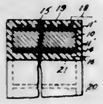
11. The method for determining the phase relation between two alternating electrical signals which comprises limiting the magnitude of each of said signals to the same level to obtain alternating limited signals, vectorially adding said limited signals to derive alternating vector sum signals, and detecting the relative phase difference between one of said electrical signals and said vector sum signals.

2,838,734
MODULATION CIRCUIT
Frank B. Uphoff, Churchville, Pa., assignor to the United States of America as represented by the Secretary of the Navy
Application April 27, 1955, Serial No. 504,387
2 Claims. (Cl. 332—9)
(Granted under Title 35, U. S. Code (1952), sec. 266)



2. Apparatus for generating amplitude modulated pulse signals comprising a low impedance signal generator having a terminating resistor, a high impedance source for a modulating wave form, a unidirectional electronic flow device having a control grid and a cathode, means to couple said modulating wave form source to said control grid, resistance means between said cathode and said terminating resistor, wiper contact means on said resistance means, detector means having an anode and cathode, the latter delivering the output of said apparatus, said anode electrically connected to said contact means and said detector cathode connected to a positive source of biasing voltage.

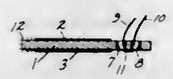
2,838,735
ELECTROMAGNETIC DELAY LINE
Arthur S. Davis, Forest Hills, N. Y., assignor to Dynamic Electronics-New York, Inc., Forest Hills, N. Y.
Application December 17, 1953, Serial No. 398,774
1 Claim. (Cl. 333—31)



A delay line comprising a hollow magnetic cylinder, a first layer of dielectric material covering one major surface of the cylinder, a conductive helix fused to said layer, said conductive helix being insulated from said cylinder by said first layer, a second layer of dielectric material covering an opposite major surface of the cylinder, a conductive layer having a longitudinal slot fused to the second layer, said conductive layer being insulated from said cylinder by said second layer, the end faces of the cylinder being free of conductive material, wire leads attached to said helix and conductive material, and a plastic encasement for the entire delay line with said leads projecting through the encasement, said conductive helix and said conductive layer being substantially co-extensive with each other and with the magnetic cylinder, the first and second dielectric layers of material which insulate said conductive helix and said conductive layer from said cylinder being also adapted to insulate said conductive helix and said conductive layer from each.

2,838,736
HIGH DIELECTRIC CONSTANT CAVITY RESONATOR
James H. Foster, Erie, Pa., assignor to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania
Application November 13, 1953, Serial No. 391,955
2 Claims. (Cl. 333—83)

1. A cavity resonator comprising a high dielectric constant ceramic dielectric plate, electrodes metallized on opposite faces of the plate, spaced holes through the dielectric outside the electrodes, metallized coatings in the holes, terminals connected to one end of the metallized coatings in the holes, and a loop connection to the other



ends of the metallized coatings in the holes, said loop connection being unconnected to the electrodes but electrically coupled thereto through the dielectric by directing its magnetic field between the plates.

2,838,737
ADJUSTABLE INDUCTOR
Robert S. Duncan, Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 23, 1954, Serial No. 477,183
14 Claims. (Cl. 336—120)

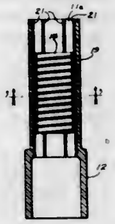


1. An inductive device comprising a pair of cup-shaped core parts of ferromagnetic material, said core parts including walls having rim portions, said core parts being aligned with rim portions in juxtaposition, the walls of each of said core parts including two pairs of radial slots defining four distinct pole segments, a first winding seriately wound about a pair of opposite pole segments of one of said core parts and then seriately about a pair of opposite pole segments of the other of said core parts, a second winding seriately wound about a second pair of opposite pole segments of one of said core parts and seriately about a second pair of opposite pole segments of the other of said core parts, and means for rotating one core part relative to the other core part about their common axis to adjust the inductance of each of said windings simultaneously.

2,838,738
VARIABLE INDUCTANCE DEVICE
John J. Antalek, Chicago, and Robert W. Saville, Glenview, Ill., assignors to Radio Industries, Inc., Chicago, Ill., a corporation of Illinois
Application July 6, 1955, Serial No. 520,332
8 Claims. (Cl. 336—136)

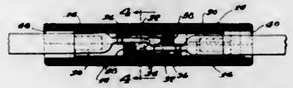
1. A variable inductance device comprising a tubular coil form made of insulating material, a plurality of thin, circumferentially deflectable ribs provided at spaced intervals on the internal wall of said form and extending longitudinally a substantial distance therealong, a core member having an outwardly threaded portion disposed within said tubular coil form, the outside diameter of

said threads being less than the internal diameter of said form and greater than the diameter of a cylinder defined



by the inner ends of said ribs, and at least one coil supported by said form.

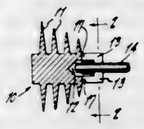
2,838,739
ELECTRICAL CONNECTOR
Edward D. Winkler, Reading, Mass., assignor to Albert & J. M. Anderson Manufacturing Company, Boston, Mass., a corporation of Massachusetts
Application January 30, 1953, Serial No. 334,145
7 Claims. (Cl. 339—47)



1. An electrical connector comprising a hollow insulating housing split longitudinally to form two half sections detachably connected together, one of said half sections having a terminal receiving pocket longitudinally extended therefrom, the other half section having a socket forming portion longitudinally extended therefrom, the pocket of one connector being adapted for longitudinal telescopic insertion into the socket of a second and identical connector when the connectors are engaged, a rigid terminal member provided with a substantially flat contacting portion, said contacting portion having a rounded projection in one of its surfaces adjacent the end thereof, said terminal member resiliently supported within one of the hollow insulating portions in detached relation to the walls thereof, a curved leaf spring carried by said terminal and in engagement with the forward portion of the bottom surface of the contacting portion of said terminal member, said rigid terminal being mounted to yield laterally when slidingly engaged with an identical terminal in the second connector, said resiliently supported terminals being shaped to effect lateral depression of each other into their respective pockets during initial engagement and to effect interlocking engagement with each other when fully engaged, said insulating sockets enclosing said pockets when the connectors are engaged, said housing being formed to provide clearance to permit limited lateral movement of the rigid and resiliently mounted terminal member, and means carried by said contacting portion for preventing longitudinal displacement of the terminal in its insulating housing.

2,838,740
HEAT EXCHANGING CONNECTOR
Norbert David Larky, Somerville, and Ray Gernert Shankweiler, Plainsboro, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 12, 1954, Serial No. 442,498
4 Claims. (Cl. 339—112)

1. A terminal connector for an external anode of an electron tube, comprising an integral structure including an elongated shank, a plurality of oppositely disposed fingers extending from one end of said shank, and a plurality of disc-like fins extending from the sides of said shank and coaxial therewith, said fingers having side surfaces adjacent their free ends adapted to engage said anode and having transverse grooves adjacent said shank, said grooves having one group of walls defining shoulders on said fingers movable into said grooves on flexure of



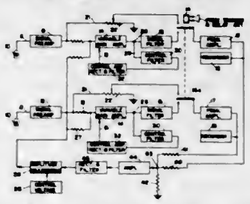
said fingers in opposite directions, whereby bending of said fingers in a movement of relatively large magnitude at said grooves is facilitated for engaging said anode and for urging said side surfaces against said anode to provide a forced electrical and mechanical contact between said fingers and said anode.

2,838,741
UNDERWATER SOUND DETECTION SYSTEM
Warren P. Mason, West Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 27, 1953, Serial No. 351,339
15 Claims. (Cl. 340—2)



1. A wave guide adapted to transmit vibrational waves of distinctive wave modes in one form of energy and means located in said wave guide to translate the distinctive wave modes of said vibrational waves into energy of a different form.

2,838,742
SEISMIC GAIN CONTROL
Louis B. McManis, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
Application December 29, 1951, Serial No. 264,156
3 Claims. (Cl. 340—15)



1. An amplifier channel for the output of a seismic detector, including a variable-gain amplifier substantially uniformly responsive over a substantial frequency range feeding a signal filter and means for controlling the gain of said variable-gain amplifier, said gain-controlling means comprising a source of alternating control voltage of a frequency substantially above the frequency range of seismic signals passed by said signal filter but within the response range of said variable-gain amplifier, means for varying the amplitude of control voltage taken from said source in accordance with the amplitude variation of said seismic detector output, a lead including a high impedance connecting the control-voltage output of said amplitude-varying means to the signal input terminal of said variable-gain amplifier, whereby said control voltage and said seismic detector output are fed into said variable-gain amplifier in parallel to be equally and simul-

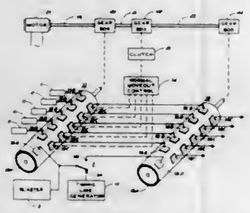
taneously amplified thereby, a filter passing substantially only said control voltage connected to the output of said variable-gain amplifier in parallel with said signal filter, a control-voltage amplifier connected to the output of said control-voltage filter, a control-voltage rectifier and low-pass filter connected to the output of said control-voltage amplifier for producing a direct-current voltage varying with the average amplitude of said control voltage at the output of said variable-gain amplifier, and means for applying said direct-current voltage to the gain-varying element of said variable-gain amplifier with a polarity acting to increase the gain of said variable-gain amplifier when the amplitude of said control voltage at the output of said variable-gain amplifier decreases and vice versa, whereby said control-voltage filter, amplifier, rectifier, and low-pass filter form a gain-controlling feedback loop tending to maintain the amplitude of said control voltage constant at the output of said variable-gain amplifier while similarly controlling the gain of said variable-gain amplifier for seismic signals.

2,838,743

NORMAL MOVEOUT CORRECTION WITH COMMON DRIVE FOR RECORDING MEDIUM AND RECORDER AND/OR REPRODUCING MEANS

Oke A. Fredriksson, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application April 5, 1955, Serial No. 499,355
3 Claims. (Cl. 340—15)



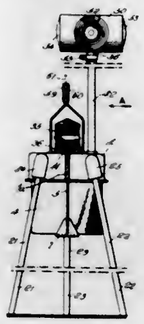
1. Apparatus for removing normal moveout from a plurality of seismic traces comprising a first rotatable reproducible recording medium on which said traces are recorded, a plurality of reproducing devices associated with said first medium and movable relative to the time axis of said medium, a second recording medium, a motive power source, first gear means for mechanically connecting said first medium to said motive power source, a normal moveout programmer mechanically connected to said reproducing devices for moving each of said reproducing devices relative to the time axis of said first medium in accordance with the normal moveout functions of each of said traces, second gear means connecting said motive power source to the input of said normal moveout programmer to supply power to said programmer, third gear means connecting said source to said second medium, and means for reproducing said seismic traces through said reproducing devices and supplying said reproduced traces to said second medium as said recording media and said reproducing devices move to vary the time sequences of the traces recorded on said second medium in accordance with said normal moveout functions.

2,838,744

PORTABLE EMERGENCY SIGNAL AND TRAFFIC CONTROL APPARATUS

William N. De Wald, Youngstown, Ohio
Application September 12, 1956, Serial No. 609,393
5 Claims. (Cl. 340—84)

1. A portable emergency signal and traffic control apparatus comprising a battery support constituted by a hollow inverted top cover member having vertically disposed side walls, said side walls having a pair of vertically extending bores therein, suspension members extending through the bores in said side walls, a battery supported by said suspension members in pendant position beneath said cover member with the sides of said battery extending substantially coplanar with the side walls of said battery support, said battery support having socket members located in the side walls thereof, support rods removably insertable into the socket members in

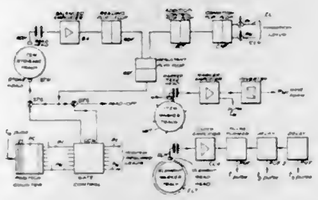


said side walls and extending beyond the sides of said battery and forming legs for suspending said battery support with respect to a mounting surface engaged by said legs, a vertically disposed angularly shiftable electrically illuminated turnstile signal detachably mounted in the top of said battery support and electrical connections extending from said electrically illuminated turnstile signal through the top of said battery support and connected to said battery for energizing said electrically illuminated turnstile.

2,838,745

METHODS OF RECORDING AND/OR MODIFYING ELECTRICAL INTELLIGENCE

Esmond Philip Goodwin Wright and Joseph Rice, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application May 22, 1952, Serial No. 289,383
Claims priority, application Great Britain May 23, 1951
22 Claims. (Cl. 340—174)

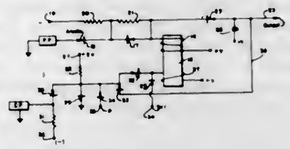


1. Equipment for the storage of items of intelligence expressed as binary numbers, comprising a magnetizable track having at least one section assigned to each of said items, each section being divided into a plurality of discrete elements one for each digit of an item, means for recording a digital value in each of the elements of each of said sections in turn, means for reading in turn and in the same order the values stored in said elements, a computing device, means for signaling to said computing device the first digital value read in one of said sections, means coupled to said computing device for indicating thereto that the item stored in said one section requires modification, means in said computing device responsive to said indication for computing a digital value concurrently with the receipt of the signal of the first digital value, means for concurrently signaling said computed value to said recording means whereby said computed value is recorded in a section assigned to said item, and means for thereafter alternately signaling to said computing device a further value read in said one section and concurrently recording in said section assigned to said item a corresponding computed value.

2,838,746

MAGNETIC AMPLIFIER BISTABLE DEVICE

John Presper Eckert, Jr., Philadelphia, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application April 5, 1955, Serial No. 499,301
21 Claims. (Cl. 340—174)



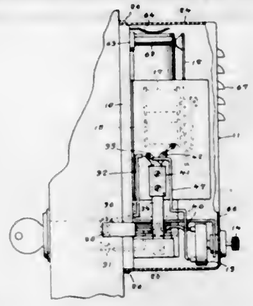
1. In a bistable device, a source of spaced power pulses, an output point, magnetic amplifier means for controlling the flow of current from said source to said output point, said amplifier including a signal winding, and means controlling the energization of said signal winding thereby to control said flow of current comprising all of the following: a set input connected to said signal winding for energizing it in response to a set input signal; a first terminal having a positive potential thereon; a second terminal having a negative potential thereon; a first resistor, a rectifier and a second resistor connected in that order between said terminals with the rectifier having such polarity as to allow current normally to flow from one terminal to the other, said resistors having such relative values that at least one side of said rectifier is substantially at ground potential when the potentials of said terminals are the only potentials applied to said rectifier; a source of clock pulses connected to said rectifier to cut it off selectively and thus raise the potential of said one side of the rectifier toward the potential of the terminal to which it is connected; said clock pulses having the same repetition rate as the power pulses; a rectifier connecting said one side of the first-named rectifier to one side of said signal winding to energize it when said one side of the first-named rectifier rises substantially above ground potential; feedback means connecting said output point to said one side of said first-named rectifier to effectively ground it in response to feedback potentials; and a reset input for grounding said one side of the first-named rectifier in response to a reset input signal.

2,838,747

DOOR-ALARM

Anton Jezl, Chicago, Ill.
Application July 25, 1956, Serial No. 600,007
2 Claims. (Cl. 340—274)

1. In an alarm device for a door, the combination which comprises a base plate adapted to be mounted on a door, a bell clapper assembly mounted on the base plate, a post mounted on the base plate and positioned to be engaged by the bell clapper, a key actuated cylindrical lock and switch mounted in the door, a casing positioned over the parts and mounted on the base plate, a manually actuated switch mounted in the casing and having a knob extended from the casing, a pair of contacts suspended by bus bars in the casing, a bar having an arm on the extended end slidably mounted on the base plate and positioned in the casing, means on the bar for opening the contacts of the bus bars upon closing movement of the door, means mounted on the door jamb for engaging the arm of the plate slidably mounted on the base upon closing movement of the door, a circuit connecting the switches and bell clapper

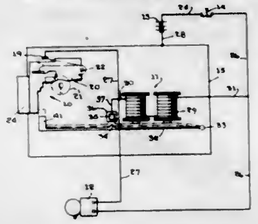


assembly, and means for supplying electric current to said circuit.

2,838,748

SECURITY LOCKS

Louis Torma, Bangor, Pa., assignor of one-half to Susan Horvath, Toronto, Ontario, Canada
Application June 4, 1954, Serial No. 434,450
14 Claims. (Cl. 340—276)



1. A lock comprising a bolt, key receiving means, key operated tumbler means to permit movement of said bolt from unlocked to locked position when a correct key is inserted into said key receiving means and turned, said tumbler means including means to prevent turning of any key other than the correct key inserted into said key receiving means to prevent retraction of the bolt from locked to unlocked position, an electric alarm, means controlled by said tumbler means to actuate said alarm upon inserting a key other than said correct key into said key receiving means after said bolt has been moved to locked position by insertion of a correct key into said key receiving means and turning of said correct key, means to retain said alarm in actuated condition upon subsequent removal of said other key from said key receiving means, and means controlled by said retaining means to block said bolt and prevent unlocking of said bolt by insertion of a correct key into said key receiving means and turning the same after said other key has been removed from said key receiving means.

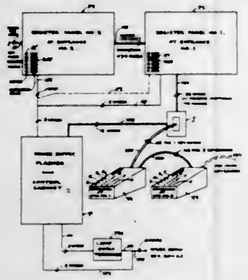
2,838,749

IN-AND-OUT REGISTER AND PAGING SYSTEM

Hugh Rumler, Petersburg, and James A. Hughes, Adrian, Mich., assignors to Sperti Faraday Inc., Cincinnati, Ohio, a corporation of Ohio
Application June 14, 1954, Serial No. 436,438
17 Claims. (Cl. 340—312)

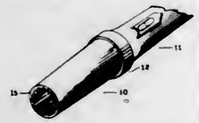
1. A register and paging system comprising: register panels having a plurality of separate registers thereon, a plurality of keyboards, separate indicating means in each register on each panel for each person to be paged, means on each keyboard for selecting a given register on said panels corresponding to a digital number set-up on said

keyboard, means for locking out all but one keyboard on which a selection is being made, means for maintaining the paging of a plurality of persons on said panels simultaneously until each registered person being paged



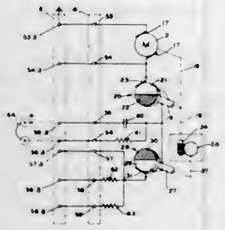
on his corresponding register is individually released by an operation at one of said keyboards, and means at each of said keyboards for checking whether a given register on said panels is operating for paging.

2,838,750
MULTI-DIRECTIONAL FLASHLIGHT LENS ADAPTERS
Edward Harold Rose, Santa Monica, Calif.
Application November 19, 1956, Serial No. 623,028
7 Claims. (Cl. 340—321)



1. A multi-directional lens adapter, being attachable to a conventional flashlight without any structural modification thereof, comprising: a generally tubular main body having a large end and a small end and being progressively tapered therebetween, said tubular body being conformed of a rigid fluorescent material of a predetermined color; means for attaching said tubular body to a conventional flashlight in place of the cover glass thereof; closure means positioned over said large end of said tubular body, said closure means being conformed of rigid uncolored transparent material; longitudinal ridge means disposed interiorly of said tubular body effective to reflect light radially thereof, and means at said small end of said tubular body effective to prevent the emission of colored light edgewise and longitudinally thereof.

2,838,751
WARNING SIGNAL GENERATOR
Thomas P. Hahn, Freeport, N. Y., assignor to Christiaan J. Van Eyk, Byram, Conn.
Application November 27, 1953, Serial No. 394,648
1 Claim. (Cl. 340—345)



An audio frequency warning signal generator comprising an electric motor having a rotary metallic conductive drive shaft, a first commutator mounted on said drive shaft to rotate therewith and having alternate conducting and insulating segments, a first brush making sliding contact with said first commutator and adapted for connection to a first terminal of a voltage source, said motor being adapted to move alternate commutator segments against said brush at a rate corresponding to an audio frequency, said conducting segment of said first brush contacting said motor shaft, a second commutator rotatably mounted and having alternate conducting and insulating segments, a metallic worm gear mounted concentrically with said second commutator and electrically connected with the conducting segment thereof, a metallic worm on said motor drive shaft engaging said worm gear whereby said second commutator is driven at a predetermined rate which is a fraction of the rate of said first commutator and whereby the conducting segments of said commutators are electrically connected together, a second brush making sliding contact with said second commutator and connected to an output terminal whereby a pulsed interrupted audio frequency output voltage appears between the second terminal of said voltage source and the output terminal, and a condenser connected between the second terminal of said voltage source and said interconnected conducting commutator segments to shape the output voltage by charging when said conducting commutator segments are energized by said voltage source and by discharging through a load connected between said second terminal of said voltage source and said output terminal when said conducting commutator segments are deenergized.

2,838,752
SWEEP CIRCUIT GENERATOR
La Verne R. Philpott, Rochelle Park, N. J., assignor, by mesne assignments, of five-ninths to Robert M. Page, one-ninth to Harold G. Bowen, and one-fourth to Leo C. Young
Application June 8, 1944, Serial No. 539,373
17 Claims. (Cl. 343—13)
(Granted under Title 35, U. S. Code (1952), sec. 266)

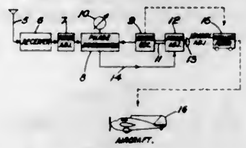


1. An electron beam sweep circuit for a cathode ray tube, comprising a means for producing a saw-tooth wave, means for deflecting said electron beam in a first direction in accordance with said saw-tooth wave, an electron discharge tube having input and output circuits connected thereto, means biasing said follower tube below cut-off, means connecting the output of said saw-tooth generating means to the input of said tube, means differentiating the output of said tube, and means deflecting said electron beam in a direction angularly disposed to said first direction in accordance with the differentiated output of said tube.

2,838,753
RADIO RANGE-INDICATING SYSTEMS
William Joseph O'Brien and Donald Edward Bridges, London, England, assignors to The Decca Record Company Limited, London, England, a British company
Application August 27, 1951, Serial No. 243,852
Claims priority, application Great Britain September 7, 1950
10 Claims. (Cl. 343—105)

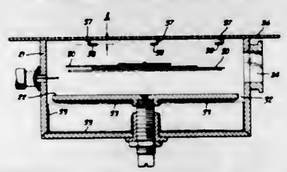
1. A radio range-indicating system for indicating the range of a vehicle from a fixed transmitting station com-

prising radio transmitting apparatus at the transmitting station for radiating a radio signal of highly stable frequency; an oscillator unit having frequency adjusting means for adjusting the frequency of the output signal and adapted to be carried by the vehicle but detached therefrom for synchronising before the commencement of a journey; a receiver on the vehicle for receiving the signal radiated by the transmitting station; a phase angle indicator on the vehicle for indicating the phase difference between the signal received from the transmitting station



and the output from said oscillator unit; and means for setting the frequency of the oscillator unit when detached from the vehicle before the commencement of a journey which means comprises means for receiving the radiated signal, a phase discriminator for producing a control voltage in accordance with the difference in phase between the received signal and the oscillator output signal and means for applying the control voltage to said frequency adjusting means on the oscillator so as to bring the oscillator frequency into synchronism with the frequency of the received signal.

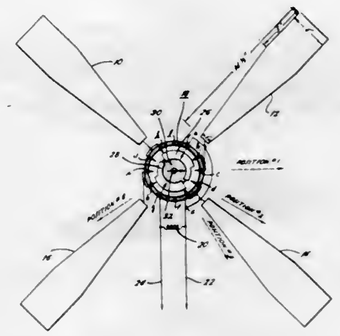
2,838,754
MICROWAVE RADIATOR
Robert W. Bickmore, Santa Monica, Calif., assignor to The Regents of the University of California, Berkeley, Calif., a corporation of California
Application April 26, 1955, Serial No. 503,926
12 Claims. (Cl. 343—769)



1. A microwave radiator comprising a plurality of concentric annular apertures formed in a conducting plate, a cavity associated with said plate, means for supplying electromagnetic energy to said cavity, filter means associated with said cavity to filter out undesired modes, and means for selectively coupling the energy within said cavity to the said apertures to thereby excite the apertures with fields of predetermined distribution, phase and amplitude, whereby a desired spatial pattern completely specified in magnitude, spatial phase and time phase may be obtained.

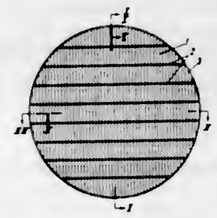
2,838,755
CABINET ANTENNA SYSTEM
Robert B. Albright and Bernard Wise, Philadelphia, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application July 3, 1952, Serial No. 297,076
13 Claims. (Cl. 343—876)

1. An antenna system comprising four shaped antenna elements, extending radially in a common plane from a common point, a fixed tuning element, and a switch disposed adjacent to the centrally disposed ends of said antenna elements, said switch being electrically connected to said centrally disposed ends of each of said antenna elements and to said tuning element, said switch being



constructed and arranged to selectively connect said four antenna elements into any one of a plurality of differently oriented arrays, at least one of said arrays being a dipole array and at least one of said arrays being a biconical array, and to connect said tuning element across the input terminals of each of said plurality of arrays.

2,838,756
REFLECTOR ANTENNA FOR MICROWAVES
Louis Reinhard, Lucerne, and Hans Klauser, Zurich, Switzerland, assignors to Albiswerk Zürich A. G., Zurich, Switzerland, a Swiss corporation
Application September 10, 1956, Serial No. 608,741
Claims priority, application Switzerland October 18, 1955
9 Claims. (Cl. 343—912)



1. Reflector antenna for microwaves, comprising a reflector frame, a multiplicity of flat metal rods uniformly spaced from each other in respective planes parallel to one another and parallel to the reflector axis, tie strips extending transversely to said rods, each of said rods forming respective junctions with said frame and with said strips, a link piece located at each of said respective junctions and forming two pivots at its two ends respectively, said two pivots having mutually perpendicular pivot axes and connecting said link piece with one of said rods and with one of said frame and tie strips respectively.

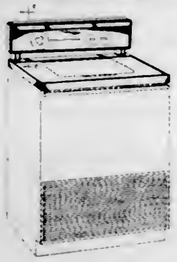
DESIGNS

JUNE 10, 1958

182,986
OUTDOOR LIGHTING FIXTURE
William S. Akely and Ernest P. Kochale, Jr., Oak Park, Ill., assignors to Guardian Light Company, Oak Park, Ill., a corporation of Illinois
Application May 2, 1957, Serial No. 45,977
Term of patent 14 years
(Cl. D48—23)



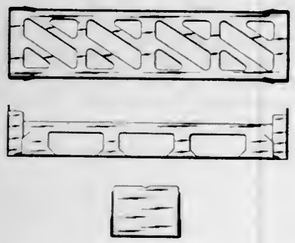
182,987
LAUNDRY MACHINE
Arthur N. Bec Var, Jefferson County, Ky., assignor to General Electric Company, a corporation of New York
Application February 11, 1957, Serial No. 44,821
Term of patent 14 years
(Cl. D49—1)



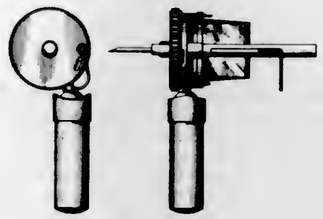
182,988
ORNAMENT FOR AN AUTOMOBILE OR THE LIKE
Fedele Bianco, Grosse Pointe Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 25, 1957, Serial No. 47,086
Term of patent 7 years
(Cl. D14—6)



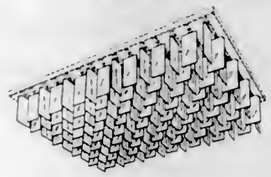
182,989
PACKAGING TRAY
Leo Cesareo, Walpole, Mass.
Application January 31, 1958, Serial No. 49,464
Term of patent 14 years
(Cl. D58—13)



182,990
HORMONE IMPLANTER FOR ANIMALS OR SIMILAR ARTICLE
Nat Cordis, Silver Lake, Wis.
Application December 31, 1956, Serial No. 44,358
Term of patent 14 years
(Cl. D83—1)



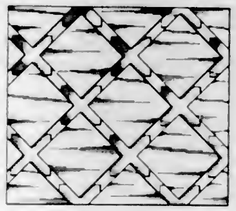
182,991
LIGHT-RAY BAFFLE
Charles U. Deaton, Denver, Colo.
Application July 20, 1956, Serial No. 42,325
Term of patent 14 years
(Cl. D48—16)



182,992
DECANTER
Ernest L. Du Pree, Weston, Conn., and James Rosati, New York, N. Y., assignors to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application November 8, 1957, Serial No. 48,379
Term of patent 14 years
(Cl. D58—6)



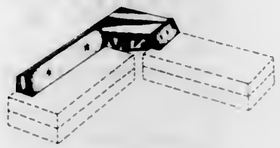
182,993
BUILDING PANEL
Harold A. Edmondson, Los Angeles, Calif.
Application April 30, 1956, Serial No. 41,251
Term of patent 14 years
(Cl. D13—1)



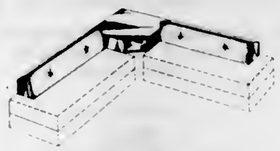
182,994
WARNING OR SIGNAL LIGHT
Eugene J. Freeman, Canoga Park, Calif., assignor to Gen-A-Matic Corporation, Van Nuys, Calif., a corporation of California
Application December 31, 1956, Serial No. 44,362
Term of patent 14 years
(Cl. D72—1)



182,995
TWIN SOFA BED AND TABLE UNIT
Louis Elliott Frey, Los Angeles, Calif.
Application November 19, 1956, Serial No. 43,801
Term of patent 14 years
(Cl. D5—4)



182,996
TWIN SOFA BED AND TABLE UNIT
Louis Elliott Frey, Los Angeles, Calif.
Application November 19, 1956, Serial No. 43,802
Term of patent 14 years
(Cl. D5—4)



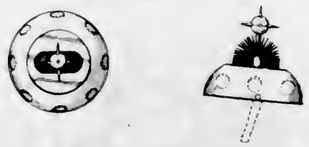
182,997
BOTTLE
Brooks D. Fuerst, Sylvania, Ohio, assignor to Owens-Illinois Glass Company, Toledo, Ohio, a corporation of Ohio
Application October 9, 1957, Serial No. 48,029
Term of patent 14 years
(Cl. D58—8)



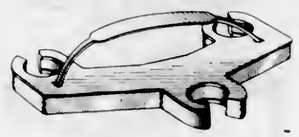
182,998
MOTOR COACH
Roland E. Gegoux and William P. Strong, Pontiac, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 4, 1957, Serial No. 48,769
Term of patent 7 years
(Cl. D14—3)



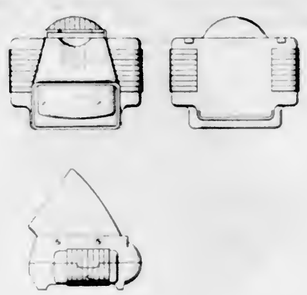
182,999
HAT
Marvin I. Glass, Chicago, Ill.
Application December 12, 1957, Serial No. 48,871
Term of patent 14 years
(Cl. D3—13)



183,000
BOTTLE CARRIER
Irving D. Glazer, Dallas, Tex.
Application October 18, 1957, Serial No. 48,158
Term of patent 14 years
(Cl. D58—5)



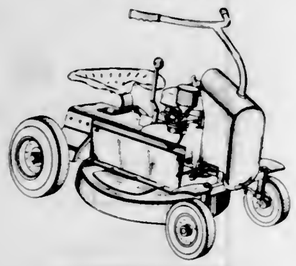
183,001
TRANSPARENCY VIEWER
Hisaharu Hirose, Yokohama City, Japan
Application September 16, 1957, Serial No. 47,750
Term of patent 14 years
(Cl. D61—1)



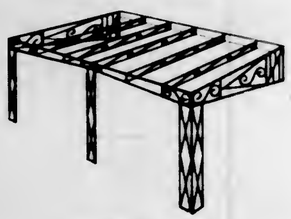
183,002
SPACE CONDITION RESPONSIVE INSTRUMENT
Robert Haven Hose, Mountainside, N. J., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 18, 1957, Serial No. 48,516
Term of patent 14 years
(Cl. D52—7)



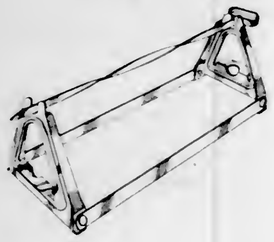
183,003
RIDING POWER LAWN MOWER
Arthur L. Kaeser, Springfield, Ohio
Application December 17, 1956, Serial No. 44,212
Term of patent 14 years
(Cl. D40—1)



183,004
CARPORT
George W. Kramer, Denver, Colo.
Application November 5, 1956, Serial No. 43,667
Term of patent 3½ years
(Cl. D13—1)



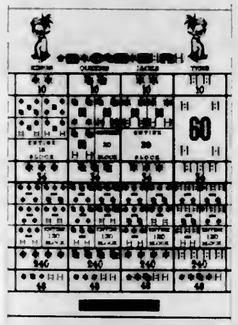
183,005
COMBINED ROASTING RACK AND SKEWER
Walter H. Krause, Chicago, Ill., assignor to Beacon Metal Products Company, Chicago, Ill., a partnership
Application April 10, 1957, Serial No. 45,663
Term of patent 3½ years
(Cl. D81—10)



183,006
HANDLE OR SIMILAR ARTICLE
Newton S. Leichter, Los Angeles, Calif., assignor to Ajax Hardware Manufacturing Corp., Los Angeles, Calif., a corporation of California
Application July 15, 1957, Serial No. 46,946
Term of patent 14 years
(Cl. D10—8)



183,007
GAME BOARD
Albert J. Lord, San Francisco, Calif.
Application July 12, 1956, Serial No. 42,224
Term of patent 14 years
(Cl. D34—5)



183,008
BOTTLE
Arnold I. Lorenzen, Toledo, Ohio, assignor to Owens-Illinois Glass Company, Toledo, Ohio, a corporation of Ohio
Application October 11, 1957, Serial No. 48,068
Term of patent 14 years
(Cl. D58—8)



183,009
CHAIR
Charles Mackintosh, Los Angeles, Calif.
Application June 12, 1956, Serial No. 41,878
Term of patent 14 years
(Cl. D15—1)



183,010
BOAT
Alvin H. Martin, Moundsville, W. Va.
Application November 4, 1957, Serial No. 48,325
Term of patent 14 years
(Cl. D71—1)



183,011
BABY'S TOY
Eleanore Matthews, West Branch, Mich.
Application December 12, 1956, Serial No. 44,162
Term of patent 14 years
(Cl. D34—15)



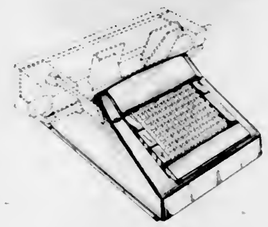
183,012
AUTOMOBILE GRILLE
Friedrich K. H. Nallinger and Rudolf E. Uhlenhaut, Stuttgart, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Original application February 5, 1954, Serial No. 28,870, now Design Patent No. 176,278, dated December 6, 1955. Divided and this application August 15, 1955, Serial No. 37,468
Claims priority, application Germany November 14, 1953
Term of patent 14 years
(Cl. D14—18)



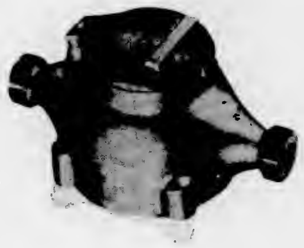
183,013
COMBINATION NECKTIE, POCKET HANDKERCHIEF, CUFF LINKS AND TIE TACK DISPLAY AND MERCHANDISING UNIT
Isadore Nemeroff, Chicago, Ill., assignor to Carter & Holmes, a corporation of Illinois
Application July 22, 1957, Serial No. 47,031
Term of patent 14 years
(Cl. D80—5)



183,014
BOOKKEEPING MACHINE OR THE LIKE
Jiri M. Nessel, Los Angeles, Calif., assignor to Clary Corporation, San Gabriel, Calif., a corporation of California
Application November 8, 1957, Serial No. 48,394
Term of patent 14 years
(Cl. D64—11)



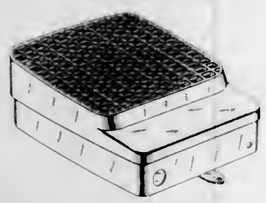
183,015
WATER METER
Amos B. Newbury, Murrysville, and Henning Kariby, Pittsburgh, Pa., assignors to Rockwell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application July 18, 1957, Serial No. 46,983
Term of patent 14 years
(Cl. D91—1)



183,016
SURFBOARD
John E. O'Herron, Detroit, Mich.
Application January 31, 1957, Serial No. 44,687
Term of patent 14 years
(Cl. D71—1)



183,017
BELL HOUSING
Carl Otto, New York, N. Y., assignor to Wheelock Signals Inc., Long Branch, N. J., a corporation of New Jersey
Application October 10, 1956, Serial No. 43,310
Term of patent 14 years
(Cl. D72—1)



183,018
AUTOMOBILE TAIL LAMP
Harold W. Pilkey, Detroit, and Charles F. Gitschlag, St. Clair Shores, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 29, 1957, Serial No. 47,116
Term of patent 7 years
(Cl. D48—32)



183,019
TELEPHONE EARRING GUARD ATTACHMENT OR SIMILAR ARTICLE
Donalda C. Porter, Portland, Oreg.
Application July 16, 1957, Serial No. 46,959
Term of patent 14 years
(Cl. D26—14)



183,020
HANDBAG
Lorena Pat Reed, New York, N. Y.
Application November 22, 1957, Serial No. 48,612
Term of patent 3½ years
(Cl. D87—3)



183,021
ROCKET SHIP
Alex A. Rommel, Fresno, Calif.
Application January 18, 1957, Serial No. 44,525
Term of patent 14 years
(Cl. D71—1)



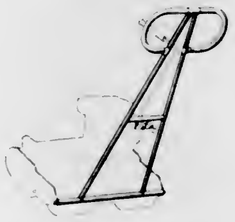
183,022
PANEL OF PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE
Arno H. Scheiding, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey
Application May 9, 1957, Serial No. 46,080
Term of patent 14 years
(Cl. D87—3)



183,023
CONSTRUCTION TOY OR SIMILAR ARTICLE
Martin Schnur, Newark, N. J., assignor to Childhood Interests, Inc., Roselle Park, N. J., a corporation of New Jersey
Application December 6, 1956, Serial No. 44,096
Term of patent 3½ years
(Cl. D34—15)



183,024
LAWN MOWER HANDLE
Norman W. Schultz, Torrance, Calif., assignor to Lawncraft Co., Inc., Torrance, Calif.
Application September 9, 1957, Serial No. 47,648
Term of patent 14 years
(Cl. D40—1)



183,025
DRAPERY PLEATER HOOK
Sidney Schwartz, Detroit, Mich.
Application December 7, 1956, Serial No. 44,112
Term of patent 7 years
(Cl. D17—12)



183,026
CHECK OUT STAND
Leslie V. Slikkers, Grand Rapids, Mich., assignor to The Bulman Corporation, Grand Rapids, Mich., a corporation of Michigan
Application February 3, 1956, Serial No. 40,030
Term of patent 14 years
(Cl. D80—2)



183,027
CONSTRUCTION TOY OR SIMILAR ARTICLE
Gilbert G. Southwick, Plainfield, N. J., assignor to Childhood Interests, Inc., Roselle Park, N. J., a corporation of New Jersey
Application December 6, 1956, Serial No. 44,092
Term of patent 3½ years
(Cl. D34—15)



183,028
CIGARETTE MERCHANDISING MACHINE
Raymond Spilman, Darien, Conn., and Walter L. Koch, Staten Island, N. Y., assignors to Rowe Manufacturing Co., Inc., Whippany, N. J., a corporation of New York
Application October 17, 1957, Serial No. 48,146
Term of patent 14 years
(Cl. D52—3)



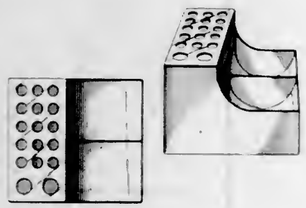
183,029
ADDRESS STAMPING DEVICE
Edwin Szydlek, Detroit, Mich.
Application August 15, 1956, Serial No. 42,621
Term of patent 14 years
(Cl. D64—10)



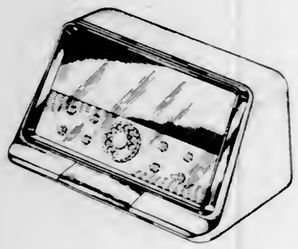
183,030
COMBINED FOOD SLICER, SHREDDER, AND GRATER
Henry J. Talge, Kansas City, Mo., assignor to John C. Hockery, Kansas City, Mo., trustee for Henry J. Talge and Foster L. Talge
Application February 25, 1957, Serial No. 44,986
Term of patent 14 years
(Cl. D89—1)



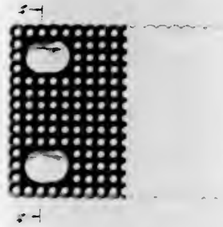
183,031
DESK TRAY
Franklin E. Tarte, Jr., Media, Pa.
Application June 19, 1956, Serial No. 41,973
Term of patent 7 years
(Cl. D74—1)



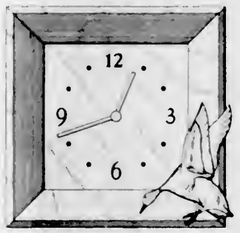
183,032
REMOTE CONTROL AND DATA READ-OUT UNIT
James Teague, Glenview, Ill., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application June 27, 1957, Serial No. 46,762
Term of patent 14 years
(Cl. D26—14)



183,033
STOVE MAT OR THE LIKE
Earl S. Tupper, Smithfield, R. I., assignor to Tupper Corporation, North Smithfield, R. I., a corporation of Delaware
Application July 15, 1957, Serial No. 46,940
Term of patent 14 years
(Cl. D9—6)



183,034
CLOCK
Cecil B. Woofter, Crystal, Minn., assignor of one-half to Donald E. Harley, St. Paul, Minn.
Application February 23, 1956, Serial No. 40,302
Term of patent 14 years
(Cl. D42—7)



183,035
FAUCET SHELL OR SIMILAR ARTICLE
Stephen A. Young, Delphi, Ind.
Application November 1, 1956, Serial No. 43,641
Term of patent 14 years
(Cl. D91—3)



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PATENTS WERE ISSUED ON THE 10TH DAY OF JUNE, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Arundale, Erving: *See*—
Kittleson, Allen R., Arundale, Jones, and Fenske. Re. 24,485.

Belchetz, Arnold, to The M. W. Kellogg Co. Preparation of hydrogen-carbon oxide mixtures and catalytic reaction thereof. Re. 24,484, 6–10–58, Cl. 260—449.6.

Esso Research and Engineering Co.: *See*—
Kittleson, Allen R., Arundale, Jones, and Fenske. Re. 24,485.

Fenske, Merrell R.: *See*—
Kittleson, Allen R., Arundale, Jones, and Fenske. Re. 24,485.

Jones, Jennings H.: *See*—
Kittleson, Allen R., Arundale, Jones, and Fenske. Re. 24,485.

Kellogg, M. W., Co., The: *See*—
Belchetz, Arnold. Re. 24,484.

Kittleson, Allen R., E. Arundale, J. H. Jones, and M. R. Fenske, to Esso Research and Engineering Co. Method of carrying out homogeneous vapor phase reactions. Re. 24,485, 6–10–58, Cl. 260—451.

Mitchell, Reid L., to Rayonier Inc. High-alpha cellulose. Re. 24,486, 6–10–58, Cl. 106—163.

Rayonier Inc.: *See*—
Mitchell, Reid L. Re. 24,486.

Vibber, Alfred W. Method of and apparatus for plying strands. Re. 24,483, 6–10–58, Cl. 57—58.36.

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Bosley, Edith C. Azalea plant. 1,717, 6–10–58, Cl. 47—60.

Hagler, Lisle A. Nectarine tree. 1,718, 6–10–58, Cl. 47—62.

Reedley Nursery, Inc.: *See*—
Vestal, Dareld R. 1,716.

Vestal, Dareld R., to Reedley Nursery, Inc. Peach tree. 1,716, 6–10–58, Cl. 47—62.

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Ajax Hardware Mfg. Corp.: *See*—
Leichter, Newton S. 183,006.

Akely, William S., and E. P. Kochale, Jr., to Guardian Light Co. Outdoor lighting fixture. 182,986, 6–10–58, Cl. D48—23.

Beacon Metal Products Co.: *See*—
Krause, Walter H. 183,005.

Bec Var, Arthur N., to General Electric Co. Laundry machine. 182,987, 6–10–58, Cl. D49—1.

Bianco, Fedele, to General Motors Corp. Ornament for an automobile or the like. 182,988, 6–10–58, Cl. D14—6.

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Slikkers, Leslie V. 183,026.

Carpenter, L. E., & Co., Inc.: *See*—
Scheiding, Arno H. 183,022.

Carter & Holmes: *See*—
Nemeroff, Isadore. 183,013.

Cesareo, Leo. Packaging tray. 182,989, 6–10–58, Cl. D58—13.

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Schnur, Martin. 183,023.
Southwick, Gilbert G. 183,027.

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Pilkey, Harold W., and Gitschlag. 183,018.

Clary Corp.: *See*—
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Daimler-Benz Aktiengesellschaft: *See*—
Nallinger, Friedrich K. H., and Uhlenhaut. 183,012.

Deaton, Charles U. Light-ray baffle. 182,991, 6–10–58, Cl. D48—16.

Du Pree, Ernest L., and J. Rosati, to Schenley Industries, Inc. Decanter. 182,992, 6–10–58, Cl. D58—6.

Edmondson, Harold A. Building panel. 182,993, 6–10–58, Cl. D13—1.

Freeman, Eugene J., to Gen-A-Matic Corp. Warning or signal light. 182,994, 6–10–58, Cl. D72—1.

Frey, Louis E. Twin sofa bed and table unit. 182,995, 6–10–58, Cl. D5—4.

Frey, Louis E. Twin sofa bed and table unit. 182,996, 6–10–58, Cl. D5—4.

Fuerst, Brooks D., to Owens-Illinois Glass Co. Bottle. 182,997, 6–10–58, Cl. D58—8.

Gegoux, Roland E., and W. P. Strong, to General Motors Corp. Motor coach. 182,998, 6–10–58, Cl. D14—3.

Gen-A-Matic Corp.: *See*—
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Bec Var, Arthur N. 182,987.

General Motors Corp.: *See*—
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Gegoux, Roland E., and Strong. 182,998.

Gitschlag, Charles F.: *See*—
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Glass, Marvin I. Hat. 182,999, 6–10–58, Cl. D3—13.

Glazer, Irving D. Bottle carrier. 183,000, 6–10–58, Cl. D58—5.

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Akely, William S., and Kochale. 182,986.

Harley, Donald E.: *See*—
Woofter, Cecil B. 183,034.

Hirose, Hisaharu. Transparency viewer. 183,001, 6–10–58, Cl. D61—1.

Hockery, John C.: *See*—
Talge, Henry J. 183,030.

Hose, Robert H., to Minneapolis-Honeywell Regulator Co. Space condition responsive instrument. 183,002, 6–10–58, Cl. D52—7.

Kaeser, Arthur L. Riding power lawn mower. 183,003, 6–10–58, Cl. D40—1.

Karlby, Hennig: *See*—
Newbury, Amos B., and Karlby. 183,015.

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Kramer, George W. Carport. 183,004, 6–10–58, Cl. D13—1.

Krause, Walter H., to Beacon Metal Products Co. Combined roasting rack and skewer. 183,005, 6–10–58, Cl. D81—10.

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Leichter, Newton S., to Ajax Hardware Mfg. Corp. Handle or similar article. 183,006, 6–10–58, Cl. D10—8.

Lord, Albert J. Game board. 183,007, 6–10–58, Cl. D34—5.

Lorenzen, Arnold I., to Owens-Illinois Glass Co. Bottle. 183,008, 6–10–58, Cl. D58—8.

Mackintosh, Charles. Chair. 183,009, 6–10–58, Cl. D15—1.

Martin, Alvin H. Boat. 183,010, 6–10–58, Cl. D71—1.

Matthews, Eleanore. Baby's toys. 183,011, 6–10–58, Cl. D34—15.

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Hose, Robert H. 183,002.

Nallinger, Friedrich K. H., and R. E. Uhlenhaut, to Daimler-Benz Aktiengesellschaft. Automobile grille. 183,012, 6–10–58, Cl. D14—18.

Nemeroff, Isadore, to Carter & Holmes. Combination necktie, pocket handkerchief, cuff links and tie rack display and merchandising unit. 183,013, 6–10–58, Cl. D80—5.

Nessel, Jiri M., to Clary Corp. Bookkeeping machine or the like. 183,014, 6–10–58, Cl. D64—11.

Newbury, Amos B., and H. Karlby, to Rockwell Mfg. Co. Water meter. 183,015, 6–10–58, Cl. D91—1.

O'Herron, John E. Surfboard. 183,016, 6–10–58, Cl. D71—1.

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Porter, Donalda C. Telephone earring guard attachment or similar article. 183,019, 6–10–58, Cl. D26—14.

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Rosati, James: *See*—
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Schnur, Martin, to Childhood Interests, Inc. Construction toy or similar article. 183,023, 6–10–58, Cl. D34—15.
Schultz, Norman W., to Lawncraft Co., Inc. Lawn mower handle. 183,024, 6–10–58, Cl. D40—1.
Schwartz, Sidney. Drapery pleater hook. 183,025, 6–10–58, Cl. D17—12.
Slikkers, Leslie V., to The Bulman Corp. Check out stand. 183,026, 6–10–58, Cl. D80—2.
Southwick, Gilbert G., to Childhood Interests, Inc. Construction toy or similar article. 183,027, 6–10–58, Cl. D34—15.
Spilman, Raymond, and W. L. Koch, to Rowe Mfg. Co., Inc. Cigarette merchandising machine. 183,028, 6–10–58, Cl. D52—3.
Strong, William P.: *See*—
Gegoux, Roland E., and Strong. 182,998.
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Tarte, Franklin E., Jr. Desk tray. 183,031, 6–10–58, Cl. D74—1.
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Young, Stephen A. Faucet shell or similar article. 183,035, 6–10–58, Cl. D91—3.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 10TH DAY OF JUNE, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*—
Carlson, Harold A., and Eickmann. 2,838,293.
A & E Tool and Gage Co. (Inc.): *See*—
Herdklotz, Earl W. 2,838,166.
Abendroth, Richard E. Drill mounting. 2,838,079, 6–10–58, Cl. 144—105.
Adams, Daniel M., and C. P. Roth, to General Motors Corp. Windshield wiper transmission. 2,837,758, 6–10–58, Cl. 15—253.
Adams, Max M., to Phillips Petroleum Co. Detonation meter pickup. 2,838,697, 6–10–58, Cl. 310—15.
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Adler, Robert, and J. G. Spracklen, to Zenith Radio Corp. Frequency discrimination system. 2,838,668, 6–10–58, Cl. 250—27.
Adorno, Stefano M. C., and G. Vercelli. Machines for treating asbestos and similar fibers. 2,838,246, 6–10–58, Cl. 241—47.
Ahlstrand, Phillip M., to Union Carbide Corp. Differential plunger type liquefied gas pump. 2,837,898, 6–10–58, Cl. 62—1.
Aihara, Masumi: *See*—
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Airkem, Inc.: *See*—
Moncrieff, Robert W. 2,837,912.
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Busell, Alio J., and Tobolsky. 2,838,469.
Akashi, Kazuhiko, to Akashi Seisakusho, Ltd. Knife-edges inserted in the micrometer ocular of a microscope. 2,837,968, 6–10–58, Cl. 88—39.
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Alimanestiano, Mihai, to Speed-Park, Inc. Automobile parking apparatus. 2,838,186, 6–10–58, Cl. 214—16.1.
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Allen, Robert E., F. P. Palopoli, C. H. Tilford, and M. G. Van Campen, Jr., to The Wm. S. Merrell Co. 1,1-di-(p-chlorophenyl)-2-(2-piperidyl)-ethylene and therapeutic compositions containing said compound. 2,838,441, 6–10–58, Cl. 167—65.
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Anderson, Irving F., and R. F. Butler, to Allied Chemical & Dye Corp. Production of acrylonitrile from hydrocyanic acid and acetylene. 2,838,134, 6–10–58, Cl. 183—115.
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Repko, Louis L., and Ashlin. 2,838,036.
Athey, Skipwith W., and W. S. Carter, Jr., to General Precision Laboratory Inc. Artificial stereophonic sound system. 2,838,608, 6–10–58, Cl. 179—1.
Aumann, Mark D., to Armament Components, Inc. Circular flexible chute. 2,838,152, 6–10–58, Cl. 193—16.
Austin, Benjamin L., to Christensen Diamond Products Co. Rotary drill bit. 2,838,284, 6–10–58, Cl. 255—61.
Austin, Benjamin L., to Christensen Diamond Products Co. Rotary drill bit. 2,838,286, 6–10–58, Cl. 255—72.
Aylward, Harold D. Sled brake. 2,838,138, 6–10–58, Cl. 188—8.
Ayres, Arthur U., and F. H. Smith, to The Sharples Corp. Refining of fatty oils. 2,838,553, 6–10–58, Cl. 260—425.
Azzini, Antonio and G. Rotary material press. 2,837,762, 6–10–58, Cl. 17—37.
Azzini, Graziano: *See*—
Azzini, Antonio and G. 2,837,762.

Babcock, John C.: *See*—
Campbell, J Allan, Babcock, and Hogg. 2,838,495.
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Campbell, J Allan, Babcock, and Hogg. 2,838,528.
Campbell, J Allan, Babcock, and Hogg. 2,838,540.
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Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,491.
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Pederson, Raymond L., Herr, Babcock, Campbell, and Hogg. 2,838,492.

Babcock, John C., J. A. Campbell, J. A. Hogg, and R. L. Pederson to The Upjohn Co. 6-fluoro androstenes. 2,838,490, 6–10–58, Cl. 260—239.5.

Babcock, John C., J. A. Campbell, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process for preparing same. 2,838,496, 6–10–58, Cl. 260—239.55.

Babcock, John C., J. A. Campbell, and J. A. Hogg, to The Upjohn Co. 6-fluoro-17α-hydroxypregnanes and esters. 2,838,531, 6–10–58, Cl. 260—397.4.

Babcock, John C., and J. A. Campbell, to The Upjohn Co. 7-lower alkyl steroids and process. 2,838,534, 6–10–58, Cl. 260—397.45.

Babcock, John C., J. A. Campbell, J. A. Hogg, and O. K. Sebek, to The Upjohn Co. 6α-fluoro-16α hydroxy progesterones. 2,838,544, 6–10–58, Cl. 260—397.45.

Babcock & Wilcox Co., The: *See*—
Midtlyng, Carl R. 2,838,104.

Babiarz, Raymond S., and A. W. Hillary, to Joseph Bancroft and Sons Co. Production of inlay embossed fabrics. 2,838,416, 6–10–58, Cl. 117—11.

Bachi, Robert W., to Controls Co. of America. Electric switch. 2,838,622, 6–10–58, Cl. 200—6.

Bachtel, Howard J., to The Dow Chemical Co. Inhibited methyl chloroform. 2,838,458, 6–10–58, Cl. 252—171.

Badische Anilin- & Soda-Fabrik Akt.: *See*—
Lehrer, Erwin. 2,838,585.

Baer, Walter: *See*—
Kesselring, Fritz, and Baer. 2,838,634.

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Gates, Wilbur C. 2,837,831.
Gates, Wilbur C. 2,838,401.

Bailey Meter Co.: *See*—
Green, Thomas A., Gorrie, Shannon, and Fink. 2,837,921.

Baird-Atomic, Inc.: *See*—
Saunderson, Jason L., and Du Bois. 2,837,959.

Baker Perkins Ltd.: *See*—
Farrer, Kenneth. 2,838,010.

Baldwin-Lima-Hamilton Corp.: *See*—
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Balke, Roy L., to General Electric Co. Assembly of stacked laminations and process for making same. 2,838,703, 6–10–58, Cl. 310—217.

Ball, Jack: *See*—
Graves, Edward B., and Ball. 2,838,681.

Ballentine, Oliver M., to United States of America, Air Force. Low temperature low viscosity hydraulic oil. 2,838,457, 6–10–58, Cl. 252—78.

Ballou, B. A., & Co. Inc.: *See*—
Watson, John R. 2,838,722.

Balsiger, Harold E., and C. E. Tolbert, to Landis Tool Co. Dresser for multiple grinding wheels. 2,838,040, 6–10–58, Cl. 125—11.

Baltus, George A., to General Electric Co. Device for cutting spaced elements. 2,838,111, 6–10–58, Cl. 164—47.

Bancroft, Joseph, and Sons Co.: *See*—
Babiarz, Raymond S., and Hillary. 2,838,416.

Band-It Co.: *See*—
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Banes, Fred W., and W. P. Fitzgerald, to Esso Research and Engineering Co. Lubricating oil compositions. 2,838,456, 6–10–58, Cl. 252—50.

Bank, Albert M., and A. J. Katz, to Super Sagless Spring Co. Reclining furniture. 2,838,093, 6–10–58, Cl. 155—106.

Bankes, Frank O. Device for separating crude oil from water. 2,838,178, 6–10–58, Cl. 210—170.

Barkdoll, Howard W. Automatic mail box signal. 2,838,230, 6–10–58, Cl. 232—35.

Barlow, Sidney D., P. S. Sussman, and A. V. de Molin. Fluid applicator having relatively adjustable valve and spreader elements. 2,837,756, 6–10–58, Cl. 15—139.

Barnes, W. F. and John, Co.: *See*—
Smith, Clarence J. 2,838,651.

Barrett, Gerald R., to Monsanto Chemical Co. Continuous polymerization processes and resulting products. 2,838,475, 6–10–58, Cl. 260—78.5.

Barth-Wehrenalp, Gerhard: *See*—
Gall, John F., and Barth-Wehrenalp. 2,838,372.

Baschet, François P. M. Stringed musical instruments. 2,837,953, 6–10–58, Cl. 84—275.

Baselt, Walter H., to American Steel Foundries. Railway brake linkage safety support. 2,838,143, 6–10–58, Cl. 188—210.

Bauerle, Kurt. Dry shaver with reciprocating circular bevelled blades. 2,837,819, 6–10–58, Cl. 30—42.

Baur, Otto: *See*—
Seifert, Richard, and Baur. 2,838,038.

Baxter, Joseph, Jr., to The Black-Clawson Co. Paper machinery. 2,837,977, 6–10–58, Cl. 92—27.

Beach, Robin, and N. S. Hare. Cotton picking unit with electrostatically charged spindles. 2,837,886, 6–10–58, Cl. 56—42.

Beal, Philip F., J. A. Hogg, and R. W. Jackson to The Upjohn Co. 6-fluoro steroids and process. 2,838,502, 6–10–58, Cl. 260—239.55.

Beasley, Max M. Glove finishing machine. 2,838,216, 6–10–58, Cl. 223—57.

Beaufait, Loren J., Jr., to United States of America, Atomic Energy Commission. Oxidative method of separating plutonium from neptunium. 2,838,366, 6–10–58, Cl. 23—14.5.

Beckman, William R.: *See*—
Crooks, Charles E., and Beckman. 2,837,743.

Beeler, Wilma. Carrying case for oxygen equipment. 2,838,085, 6–10–58, Cl. 150—52.

Beese, Norman C., to Westinghouse Electric Corp. Infrared image pick-up and converter device. 2,838,678, 6–10–58, Cl. 250—83.3.

Begin, Sylvio J., to K-W Mfg., Inc. Safety jackknife apparatus. 2,838,325, 6–10–58, Cl. 280—432.

Belamin, Michael, to Siemens-Schuckertwerk A. G. De-energization of a by-pass circuit in an electromagnetic rectifier during fault conditions. 2,838,728, 6–10–58, Cl. 321—48.

Belanger, Roland J. Electric fan. 2,838,229, 6–10–58, Cl. 230—254.

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Mason, Warren P. 2,838,741.
Thurston, Robert N. 2,838,695.
Thurston, Robert N. 2,838,696.

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Bender, Alfred, and A. de la Lastra, to Universal Transistor Products Corp. Transistorized rate meter. 2,838,680, 6–10–58, Cl. 250—83.6.

Bender, Harry, to Sylvania Electric Products Inc. Method of making metal-to-ceramic seals. 2,838,390, 6–10–58, Cl. 75—0.5.

Bendix Aviation Corp.: *See*—
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Klarman, Karl J. 2,837,923.
Noxon, Paul A., MacCallum, and Murphy. 2,838,258.
Rich, Stanley R., and Roth. 2,837,913.
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Benson, George O., to Chisholm-Ryder Co., Inc. Holder for attaching a reel to the cork grip of a fishing pole. 2,837,858, 6–10–58, Cl. 43—22.

Berkenhoff, Heinz, to Steatit-Magnesia Akt. Film projector. 2,838,304, 6–10–58, Cl. 271—2.3.

Berkman, Herbert A., to Zin Mfg. Co. Closure remover with venting means. 2,837,946, 6–10–58, Cl. 81—3.1.

Bess, Leon. Linear push-pull amplifier. 2,838,619, 6–10–58, Cl. 179—171.

Besser, James H. Foldable produce-gathering vehicle. 2,838,319, 6–10–58, Cl. 280—41.

Beste, Harold E., to Allen B. Du Mont Laboratories, Inc. Television system. 2,838,667, 6–10–58, Cl. 250—27.

Betschart, Robert J.: *See*—
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Bettoni, Eugene C., to Holley Carburetor Co. Distributor governor shaft assembly. 2,838,029, 6–10–58, Cl. 121—43.

Beyer, Heinz, to Farbenfabriken Bayer Akt. Process for the production of sodium sulphide. 2,838,374, 6–10–58, Cl. 23—134.

Beyer, Louis E.: *See*—
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Biagi, Paul E., W. H. McMordie, and H. F. Winnai, to The Budd Co. Apparatus and method for mounting and replacing hydraulic valve units. 2,838,059, 6–10–58, Cl. 137—15.

Bickmore, Robert W., to The Regents of the University of California. Microwave radiator. 2,838,754, 6–10–58, Cl. 343—769.

Bielawski, Chester A., to The S. K. Wellman Co. Methods and apparatus for treating metallic and non-metallic powders. 2,838,392, 6–10–58, Cl. 75—5.

Bigelow, John F., to International Telephone and Telegraph Corp. Stabilized synchronizing system. 2,838,605, 6–10–58, Cl. 178—69.5.

Biletch, Harry, to Interchemical Corp. 2,5-endomethylene-Δ^3-tetrahydrobenzyl acrylate and polymers thereof. 2,838,479, 6–10–58, Cl. 260—86.1.

Biltz, Francis J.: *See*—
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Bing, Herbert A., to Polaroid Corp. Photographic transparency mount. 2,837,853, 6–10–58, Cl. 40—152.

Bing, Herbert A., and J. W. Lothrop, to Polaroid Corp. Photographic transparency mount. 2,837,854, 6–10–58, Cl. 40—152.

Binstead, Hugh C., and H. J. Stockwell, to Allied Instrument Manufacturers Ltd. Optical apparatus for the examination of the human eye. 2,837,963, 6–10–58, Cl. 88—20.

Black-Clawson Co., The: *See*—
Baxter, Joseph, Jr. 2,837,977.

Blanco, Elias: *See*—
Evans, William I., and Blanco. 2,837,789.

Bleuenstein, Julius M., to Ford Motor Co. Method of shell molding. 2,837,798, 6–10–58, Cl. 22—193.

Bligard, Erling J., to Textron, Inc. Flexure links for a vibrating coil support. 2,838,700, 6–10–58, Cl. 310—27.

Bliss, Raymond W., Jr. Solar water heating system. 2,838,043, 6–10–58, Cl. 126—271.

Bloch, Herman S., to Universal Oil Products Co. Preparation of para-dialkyl substituted aromatic compounds. 2,838,581, 6–10–58, Cl. 260—668.

Blumenbaum, Louis G.: *See*—
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Boehringer, C. F., & Soehne G. m. b. H.: *See*—
Gansau, Gerhard, Haack, Helmberger, and Stoeck. 2,838,552.

Bohnsack, Harold R. Automatic cigarette ash tray. 2,838,354, 6–10–58, Cl. 312—246.

Bohrer, George J., to General Electric Co. Plasticized vinyl halide resins and electrical conductors insulated therewith. 2,838,428, 6–10–58, Cl. 117—232.

Bolling, Stewart. Dust ring for mixers. 2,838,332, 6–10–58, Cl. 288—2.

Bomac Laboratories Inc.: *See*—
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Bonanno, Joseph L., to The Lionel Corp. Toy railroads. 2,838,009, 6–10–58, Cl. 105—77.

Booth, Jack J. Flow control valve. 2,838,205, 6–10–58, Cl. 222—52.

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Bortfeldt, Jurgen, to K. Arnold & Co. Toy aeroplane. 2,837,864, 6–10–58, Cl. 46—77.

Boulay, Henri A.: *See*—
Langlois, Roland E., Boulay, and Blumenbaum. 2,837,808.

Bouvat-Martin, Jean, to Societe Anonyme dite: Societe Generale Isothermos. Oil collector and distributor for mechanically-lubricated axle-box. 2,838,347, 6–10–58, Cl. 308—86.

Bowen, Harold G.: *See*—
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Bowman, Wade V., and H. G. Bell; said Bell assor. to Adams-Millis Corp. Method of finishing knitted articles. 2,838,217, 6–10–58, Cl. 223—60.

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Boyer, Thomas J., to Ford Motor Co. Alternator electric system. 2,838,726, 6–10–58 Cl. 320—59.

Boyer, Thomas J., to Ford Motor Co. Alternator electric system. 2,838,727, 6–10–58, Cl. 320—59.

Boyer, Thomas W., J. G. MacHutchin, and L. Yaffe, to United States of America, Atomic Energy Commission. Treatment of ammonium nitrate solutions. 2,838,368, 6–10–58, Cl. 23—14.5.

Boyle, John A.: *See*—
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Bracey, Fred J., to Package Machinery Co. Automatic packaging machine. 2,837,883, 6–10–58, Cl. 53—182.

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Braibanti, Mario and G. Device for locking the extruding die on the head of an extruding press for doughy materials. 2,838,011, 6–10–58, Cl. 107—14.

Bramming, Carl, to Aladdin Industries, Inc. Fuel feeding apparatus for pressure burners. 2,838,292, 6–10–58, Cl. 261—19.

Brandt Automatic Cashier Co.: *See*—
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Branick, Charles E. Fluid pressure operated jack. 2,838,027, 6–10–58, Cl. 121—40.

Breeding, Harold A., and E. C. Martt, to General Electric Co. Control system. 2,838,717, 6–10–58, Cl. 317—22.

Bremner, Claude M., to M. C. Marcotte. Automatically adjustable centrifugal fan. 2,838,228, 6–10–58, Cl. 230—114.

Brewer, Charles A., deceased, and M. B. Brewer, administratrix of the estate, ½ to W. J. Lennon, Jr. Sealing means. 2,838,200, 6–10–58, Cl. 220—39.

Brewer, Clarence T., to American Can Co. Apparatus for truncating conical cups. 2,837,980, 6–10–58, Cl. 93—36.1.

Brewer, Clarence T., to American Can Co. Method of truncating conical cups. 2,837,981, 6–10–58, Cl. 93—36.1.

Brewer, Mary B.: *See*—
Brewer, Charles A. and M. B. 2,838,200.

Brewster, Selah S., Jr.: *See*—
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Bridges, Charles P., and J. W. Runge, to C. P. Bridges, doing business as Bridges Engineering Co. Apparatus for evaporating and concentrating liquids. 2,838,107, 6–10–58, Cl. 159—6.

Bridges, Donald E.: *See*—
O'Brien, William J., and Bridges. 2,838,753.

Bridges Engineering Co.: *See*—
Bridges, Charles P., and Runge. 2,838,107.

Bridwell, Robert A., to Northrop Aircraft, Inc. Attachment to be applied to a duplicating mill for duplicating conical shapes. 2,837,976, 6–10–58, Cl. 90—62.

Birggs, Richard S., to Bomac Laboratories Inc. Tunable magnetron. 2,838,712, 6–10–58, Cl. 315—39.61.

Briggs, Robert E. Method and apparatus for water treating. 2,838,449, 6–10–58, Cl. 204—151.

Bristol-Engines Ltd.: *See*—
Markham, Basil G., and Denning. 2,838,132.

Brodersen, Richard, H. Loewe, and H. Ott, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Readily soluble and stable salts of di-(4-amidinophenyl)-triazene-(N-1.3) and a process of preparing them. 2,838,485, 6–10–58, Cl. 260—140.

Brodie, George R., to Fred'k H. Levey Co., Inc. Lock-up. 2,837,994, 6–10–58, Cl. 101—415.1.

Brouillard, Robert E., and T. D. Mutaffis, to General Aniline & Film Corp. Phthalocyanine lakes. 2,838,415, 6–10–58, Cl. 106—289.

Brown, Howard D. Hydraulically operated truck derricks. 2,838,182, 6–10–58, Cl. 212—8.

Brown, James W., to Esso Research and Engineering Co. Staged heat hardening of fluid coke briquettes. 2,838,385, 6–10–58, Cl. 44—23.

Brown, Norman F.: *See*—
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Garrett, Henry U., and Brown. 2,838,006.

Brown, Robert J. S., to California Research Corp. Flexible coil for well logging. 2,838,732, 6–10–58, Cl. 324—10.

Brown, William F., Jr., and M. H. Jones. Axial loading creep and rupture machine. 2,837,915, 6–10–58, Cl. 73—95.

Bruce, John N.: *See*—
Di Mattia, Samuel P., and Bruce. 2,838,073.

Brucksch, William F., Jr.: *See*—
Peterson, Dean E., and Brucksch. 2,838,471.

Brundage, Alan D., to Houdaille Industries, Inc. Non-jamming screw and nut assembly for actuator. 2,837,931, 6–10–58, Cl. 74—424.8.

Brunings, Karl J.: *See*—
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Brust, Harry F., to The Dow Chemical Co. (Bicyclohexyl)-4-amine salts of the 4-cyclohexylcyclohexane carbamic acids. 2,838,562, 6–10–58, Cl. 260—501.

Brust, Harry F., to The Dow Chemical Co. Alkanoic acid salts of (bicyclohexyl)-4-amine. 2,838,563, 6–10–58, Cl. 260—501.

Brust, Harry F., to The Dow Chemical Co. Polychloro-1-(4-cyclohexylcyclohexylamino) alkanols. 2,838,567, 6–10–58, Cl. 260—563.

Brust, Harry F., to The Dow Chemical Co. N,N'-bis (4-cyclohexylcyclohexyl) alkylidene-diamines. 2,838,568, 6–10–58, Cl. 260—563.

Brymer, Andrew E., Jr., to Owens-Illinois Glass Co. Hydraulic control for glass pressing machines. 2,837,872, 6–10–58, Cl. 49—38.

Buchholz, Arnold R., to Brandt Automatic Cashier Co. Coin delivery chute. 2,838,151, 6–10–58, Cl. 193—6.

Budd Co., The: *See*—
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Buivid, George M. Retrieving apparatus. 2,838,335, 6–10–58, Cl. 294—67.

Burfield, John F.: *See*—
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Burton, Jesse B., to The Waterbury Farrel Foundry & Machine Co. Combination brake and clutch mechanism. 2,838,149, 6–10–58, Cl. 192—12.

Buselli, Alio J., and A. V. Tobolsky, to Air Reduction Co., Inc. Blends and copolymers of polymerized acetylene and method of molding same. 2,838,469, 6–10–58, Cl. 260—45.5.

Busse, Warren F., and J. A. Boxler, to E. I. du Pont de Nemours and Co. Modified monoalkene polymers and method for adhesively bending same. 2,838,437, 6–10–58, Cl. 154—139.

Butler, Robert F.: *See*—
Anderson, Irving F., and Butler. 2,838,134.

Butler, Robert W.: *See*—
Miller, Meritt L., and Butler. 2,838,671.

Butler, William F., to Cutter Laboratories, Inc. Container for blood and the like. 2,838,046, 6–10–58, Cl. 128—272.

Bycer, Bernard B., to Tele-Dynamics Inc. Automatic gain control systems. 2,838,660, 6–10–58, Cl. 250—20.

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Byrne Doors, Inc.: *See*—
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Cada, Joseph J.: *See*—
Seibert, Ernest H., and Cada. 2,837,801.
Seibert, Ernest H., and Cada. 2,838,026.

Cady, Willoughby M.: *See*—
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Caldwell, Stephen A., to United States of America, Air Force. Acoustic impedance measuring apparatus. 2,837,914, 6–10–58, Cl. 73—67.1.

California Research Corp.: *See*—
Brown, Robert J. S. 2,838,732.
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Calkins, George D., to United States of America, Atomic Energy Commission. Recovery of uranium and thorium from aqueous solutions. 2,838,370, 6–10–58, Cl. 23—14.5.

Campbell, J Allan: *See*—
Babcock, John C., and Campbell. 2,838,534.
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Babcock, John C., Campbell, Hogg, and Sebek. 2,838,544.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,491.
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Campbell, J Allan, J. C. Babcock, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process for preparing same. 2,838,495, 6–10–58, Cl. 260—239.55.

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Campbell Taggart Research Corp.: *See*—
Archer, Irving M. 2,838,163.

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Springate, Norman. 2,838,080.

Canadian Marconi Co.: *See*—
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Canadian Patents and Development Ltd.: *See*—
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Cannon, William D., to The Western Union Telegraph Co. Repeater amplifier. 2,838,616, 6–10–58, Cl. 179—171.
Cargill, Inc.: *See*—
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Carkeek, Charles R., and D. M. Strasser, to The Texas Co. Process for gasifying carbonaceous fuels. 2,838,388, 6–10–58, Cl. 48—206.
Carnes, Sheldon Y., and R. F. Searle, to Arkell and Smiths. Supplemental sleeve for multiwall gusseted valve bag. 2,838,225, 6–10–58, Cl. 229—62.5.
Carpenter, Harley M. Tool to render a tubeless tire inflatable. 2,838,101, 6–10–58, Cl. 157—1.21.
Carlson, Harold A., and O. J. Eickmann, to A C F Industries, Inc. Secondary-stage throttle control for a multi-stage carburetor. 2,838,293, 6–10–58, Cl. 261—23.
Carter, Weld S., Jr.: *See*—
Athey, Skipwith W., and Carter. 2,838,608.
Case, John E. Work stop and gauge. 2,837,940, 6–10–58, Cl. 77—55.
Cass, Joseph. Bow tie rack. 2,838,181, 6–10–58, Cl. 211—100.
Casselman, Robert C., to Polaroid Corp. Photographic transparency mount. 2,837,852, 6–10–58, Cl. 40—152.
Castel, Jacques H., to P G A C Development Co. Unsymmetrically encased shaped explosive charges. 2,837,995, 6–10–58. Cl. 102—20.
Casting Masters, Inc.: *See*—
Gorlinski, Joseph J. 2,838,647.
Castle, Ell N. Manually operable graphic device for teaching dancing. 2,837,837, 6–10–58, Cl. 35—29.
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Celanese Corp. of America: *See*—
Fisher, Gene J., and MacLean. 2,838,561.
Mitchell, John G. 2,838,489.
Titchen, Robert S., Rosenthal, and Wells. 2,838,488.
Chance Vought Aircraft, Inc.: *See*—
Helstrom, Herbert A., Jr. 2,837,970.
Chaney, John L. Darkroom thermometer. 2,837,919, 6–10–58, Cl. 73—374.
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Chatten, Victor H., ½ to T. Ono. Plant-watering device. 2,837,869, 6–10–58, Cl. 47—48.5.
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Allen, Louis N., Jr. 2,838,376.
Kaufman, John K., and Roy. 2,838,391.
Cheminol Corp.: *See*—
Rice, Henry T. M. 2,838,035.
Chen, Tze-Ning, to Selas Corp. of America. Unit heater 2,838,642, 6–10–58, Cl. 126—110.
Cherry-Burrell Corp.: *See*—
Nelson, Harold H., and E. K. 2,838,271.
Chicago Bridge & Iron Co.: *See*—
Gates, Wilbur C. 2,837,831.
Gates, Wilbur C. 2,838,401.
Chicago Development Corp.: *See*—
Dean, Reginald S. 2,838,393.
Chicago Rawhide Mfg. Co.: *See*—
Wilder, Phelps, and Czernik. 2,838,333.
Childs, Ray E. Electromagnetic pump for wells. 2,838,004, 6–10–58, Cl. 103—38.
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Benson, George O. 2,837,858.
Chitty, Michael W. G., to Canadian Marconi Co. Photocell circuit control arrangement. 2,837,719, 6–10–58, Cl. 317—124.
Christensen Diamond Products Co.: *See*—
Austin, Benjamin L. 2,838,284.
Austin, Benjamin L. 2,838,286.
Christensen, Norman B., to Northrop Aircraft, Inc. Wing mount with floating center section. 2,838,260, 6–10–58, Cl. 244—117.
Chu, Jeffrey C., to United States of America, Atomic Energy Commission. Binary storage element. 2,838,661, 6–10–58, Cl. 250—27.
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Mueller, Willy, and Siegrist. 2,838,486.
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Ciba Pharmaceutical Products Inc.: *See*—
Druey, Jean. 2,838,513.
Grob, Cyril A., and Renk. 2,838,517.
Hoffman, Karl, and Herr. 2,838,516.
Hoffman, Karl, and Urech. 2,838,506.
Rometsch, Rudolf. 2,838,519.
Ruzicka, Leopold, and Prelog. 2,838,580.
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Cleveland, George B. Pounding toy. 2,837,862, 6–10–58, Cl. 46—1.
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Sloan, Harold F., Greminger, Windover, and Rodgers. 2,838,384.
Clingman, Paul E., to General Motors Corp. Method of bonding. 2,838,436, 6–10–58, Cl. 154—110.
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Menes Herbert. 2,838,238.
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Coeterier, Frederick, to North American Philips Co., Inc. Resonator system for discharge tubes. 2,838,710, 6–10–58, Cl. 315—5.51.
Cofer, Kenneth B., to Shell Development Co. Continuous hydrolysis of epichlorohydrin. 2,838,574, 6–10–58, Cl. 260—635.
Coffeen, William W., to Metal & Thermit Corp. Ceramic dielectric composition. 2,838,407, 6–10–58. Cl. 106—46.
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Veis Arthur, and Cohen. 2,838,363.
Cohen, Marvin C. Meat package. 2,838,404, 6–10–58, Cl. 99—174.
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Arnold, Francis T., Brewster, Collins, and Crouse. 2,837,966.
Collins, Horace R. Trailer hitch of the retractible type. 2,838,327, 6–10–58, Cl. 280—491.
Collins, William B. Multipurpose oil well tool. 2,838,119, 6–10–58, Cl. 166—146.
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Chapman, Charles W. 2,837,901.
Compton, Charles E. Bit holder for holding a plurality of bits. 2,838,295, 6–10–58, Cl. 262—33.
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Conrad, Keith, and R. R. Denman, to Owens-Illinois Glass Co. Glass blowing device. 2,837,871, 6–10–58, Cl. 49—18.
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Cook, Shirl E., and C. M. Nehr, to Ethyl Corp. Process of making ethylchloride and vinyl chloride. 2,838,577, 6–10–58, Cl. 260—656.
Cooper, Roy L., to Waterman Engineering Co. Dispensing machine for beverages. 2,838,077, 6–10–58, Cl. 141—82.
Coover, Harry W., Jr., to Eastman Kodak Co. Copolymerization of acrylonitrile and another unsaturated monomer in the presence of preformed interpolymer. 2,838,470, 6–10–58, Cl. 260—45.5.
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Cornwell, Alexander M., Jr., S. F. Jackes, and S. Strano, to Jackes-Evans Mfg. Co. Gate latch. 2,838,334, 6–10–58, Cl. 292—299.
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Cottle, Delmer L., and S. B. Mirviss, to Esso Research and Engineering Co. Organo-aluminum compounds. 2,838,556, 6–10–58, Cl. 260—448.
Cotton, Robert B., to All American Engineering Co. Aircraft bridle arrester. 2,838,259, 6–10–58, Cl. 244—110.
Coudriet, Edward A., to The Inta-Roto Machine Co., Inc. Roll temperature control system. 2,837,833, 6–10–58, Cl. 34—124.
Courtenay, Chalres R. Constant feed plant watering apparatus. 2,837,867, 6–10–58, Cl. 47—38.
Coustillac, Regis H. Steering brake for a four wheeled trailing vehicle. 2,838,323, 6–10–58, Cl. 280—116.
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Jackson, Leonard H. 2,838,265.
Covert, Robert J., to Bowes "Seal Fast" Corp. Tubeless tire patch. 2,838,087, 6–10–58, Cl. 152—367.

Cox, George W., to Northrop Aircraft, Inc. Hydraulic or pneumatic bi-directional impulse motor. 2,837,896, 6–10–58, Cl. 60—97.
Cox, Joseph B. Angle setting and measuring instrument. 2,837,826, 6–10–58, Cl. 33—75.
Coyle, William E. Well casing scraping and polishing tool. 2,838,121, 6–10–58, Cl. 166—173.
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Crownover, Joseph W., and H. W. Koren, to Sonotone Corp. Piezoelectric signal transducers and ceramic titanate capacitors. 2,838,723, 6–10–58, Cl. 317—242.
Crowther, Richard L. Knockdown store furniture. 2,838,355, 6–10–58, Cl. 312—257.
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Danell, John T. Retaining support for flexible thin-sheet materials. 2,837,804, 6–10–58, Cl. 24—84.
Daniels, Ludlow S., Hydrocarbon Research, Inc. Moving bed reactor. 2,838,381, 6–10–58, Cl. 23—288.
Danielson, Paul F., to All-Power Mfg. Co. Handle structures for valves and the like. 2,838,270, 6–10–58, Cl. 251—110.
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Date, Kazuo H., to McGraw-Edison Co. Load interrupter switch. 2,838,638, 6–10–58, Cl. 200—146.
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Davies, Ben, and D. O. McCreight, to Harbison-Walker Refractories Co. Silica refractory. 2,838,409, 6–10–58, Cl. 106—69.
Davis, Arthur S., to Dynamic Electronics-New York, Inc. Electromagnetic delay line. 2,838,735, 6–10–58, Cl. 333—31.
Davis, Roderic A., to International Business Machines Corp. Multiple punch prevention device. 2,838,115, 6–10–58, Cl. 164—115.
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Deaton, Charles U. Posture chairs. 2,838,095, 6–10–58, Cl. 155—167.
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Brust, Harry F. 2,838,563.
Brust, Harry F. 2,838,567.
Brust, Harry F. 2,838,568.
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Rhodin, Thor N., Jr. 2,838,396.
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Ekholm, Carl R., to Flexonics Corp. Method of producing fittings. 2,837,810, 6–10–58, Cl. 29—157.

Eklov, David, to Svenska Relefabriken A B. Electric communication system. 2,838,609, 6–10–58, Cl. 179—1.

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Ellison, Carl A. Ice-fishing tilt. 2,837,857, 6–10–58, Cl. 43—17.

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Emmert, Roland C. Folding leg hinge and latch structure. 2,838,353, 6–10–58, Cl. 311—99.

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Teter, John W., Gring, and Keith. 2,838,444.
Teter, John W., Keith, and Gring. 2,838,445.

Eprova Ltd.: *See*—
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Erbguth, Paul F. K., to Daystrom, Inc. Pneumatic follow-up system. 2,838,028, 6–10–58, Cl. 121—41.

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Erdmann, Hans, to Waldes Kohinoor, Inc. Retaining-ring applying tools. 2,837,948, 6–10–58, Cl. 81—5.1.

Erickson, John G., to General Mills, Inc. Salts of sulfated fatty amine glycosides. 2,838,487, 6–10–58, Cl. 260—211.

Erie Resistor Corp.: *See*—
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Eriksson, Allan H. to Husqvarna Vapenfabriks Aktiegolag. Sewing machine driving devices. 2,838,020, 6–10–58, Cl. 112—220.

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Esmay, Margaret L. and P. O. 2,837,866.

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Conrad, Franklin, Gould, and Neher. 2,838,579.
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Evans, William I., and E. Blanco. Joining spindle. 2,837,789, 6–10–58, Cl. 20—02.

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Excelermatic, Inc.: *See*—
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Eyles, Edward G. Wire guide adapter. 2,838,280, 6–10–58, Cl. 254—134.3.

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Brodersen, Richard, Loewe, and Ott. 2,838,485.
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Feiti, Rudolf, to Waldes Kohinoor, Inc. Punch means useful in slide fastener manufacture. 2,838,112, 6–10–58, Cl. 164—47.

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Fernbach, Linders J. Vocabulary study device. 2,837,839, 6–10–58, Cl. 35—76.

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Fibra A. G.: *See*—
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Fidler, Robert E., to Thompson Products, Inc. Self-righting ball joint assembly. 2,838,330, 6–10–58, Cl. 287—90.

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Follows, John W. Chair, sofa, or similar article. 2,838,100, 6–10–58, Cl. 155—191.

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Boyer, Thomas J. 2,838,727.
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Foster, Raymond F., to General Electric Co. Noise cancelling circuit. 2,838,618, 6–10–58, Cl. 179—171.

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Fox-Williams, Jack, and H. G. Musgrave, to Williams & Williams Ltd. Glazing bar assemblies. 2,838,148, 6–10–58, Cl. 189—78.

France, Daniel R. Copper and brass plating brightener. 2,838,448, 6–10–58, Cl. 204—44.

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Francis, William J. Non-solvent anti-corrosive shipbottom composition. 2,838,419, 6–10–58, Cl. 117—74.

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Freeman, Stephen E., to Freeman Chemical Corp. Chloroprene cement having improved adhesive properties. 2,838,463, 6–10–58, Cl. 260—3.5.

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Garrett, Henry U., and N. F. Brown, to U. S. Industries, Inc. Well apparatus. 2,838,006, 6–10–58, Cl. 103—52.

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Cavanagh, Robert T., and Haines. 2,838,601.
Haines, Jesse H., to Allen B. Du Mont Laboratories, Inc. Television system. 2,838,598, 6–10–58, Cl. 178—5.4.
Hallam, Cecil A., and S. Pitt, to Western Electric Co., Inc. Pressurized cooling trough for extruders. 2,837,764, 6–10–58 Cl. 18—6.
Halling, Louis F., and R. G. Newell. Cigarette case time lock device. 2,837,907, 6–10–58, Cl. 70—267.
Halvorsen, Ralph H.: *See*—
Goetz, Maurus T., and Halvorsen. 2,838,114.
Hamell, Matthew: *See*—
Steigmann, Ernst A., Hamell, and Idson. 2,838,402.
Hamilton Mfg. Corp.: *See*—
Heavern James A. 2,838,096.
Hamilton, Robert W.: *See*—
Cusic, John W., and Hamilton. 2,838,507.
Hamilton-Skotch Corp.: *See*—
Piker Herbert M. 2,838,194.
Piker, Herbert M. 2,838,211.
Hamilton Watch Co.: *See*—
Van Horn, John A. 2,838,693.
Hamm, Clarence L., to General Electric Co. High speed anti-friction bearings. 2,838,348, 6–10–58, Cl. 308—187.
Handford, William F., and F. Riggs. Wall mounted jar top remover with adjustable diameter split band. 2,837,947, 6–10–58, Cl. 81—3.3.
Hansen, Albert B. A.: *See*—
Hartmann, Carl W., and Hansen. 2,838,226.
Hansen, Henry W., to Lord Mfg. Co. Rotary lawn mower blade. 2,837,887, 6–10–58, Cl. 56—295.
Happel, William E., to Landis Tool Co. Locating device for machine tools. 2,837,875, 6–10–58, Cl. 51—105.
Harbison-Walker Refractories Co.: *See*—
Davies, Ben, and McCreight. 2,838,400.
Hardi, Frits R., to North American Philips Co., Inc. Method and device for engraving plates and plates manufactured by such methods. 2,838,599, 6–10–58, Cl. 178—6.6.
Hardt Foundation: *See*—
Haggadone, L. V. 2,837,911.
Hardy, Duane. Plier-like device for attaching and detaching split shot. 2,837,950, 6–10–58, Cl. 81—15.
Hare, Nicholas S.: *See*—
Beach, Robin, and Hare. 2,837,886.
Harle, Harold P., to General Electric Co. Refrigerator frozen food compartment mounting structure. 2,837,900, 6–10–58, Cl. 62—89.
Harris, Frank R., and J. A. Boyle, to Metropolitan-Vickers Electrical Co. Ltd. Gas turbines. 2,838,275, 6–10–58, Cl. 253—78.
Harris, Leonard E.: *See*—
Schumann, Henry A. 2,837,815.
Harris & Stevenson Engineering & Development Co., Inc.: *See*—
Harris, Thomas. 2,838,066.
Harris, Thomas, to Harris & Stevenson Engineering & Development Co., Inc. Metering valve. 2,838,066, 6–10–58, Cl. 137—556.
Hart & Cooley Mfg. Co.: *See*—
De Roo, William C. 2,837,991.
Hartley, Lloyd S., J. B. Henry, J. W. Miller, and W. E. Shahan, to General Electric Co. Apparatus for making tube envelopes. 2,837,870, 6–10–58, Cl. 49—2.
Hartmann, Carl E.: *See*—
Allmang, William, Hartmann, and Thompson. 2,838,431.
Hartmann, Carl W., and A. B. Hansen, to Keyes Fibre Co. Casing for individual bottles and objects of like shape. 2,838,226, 6–10–58, Cl. 229—90.
Harvey, Wilfred G. Knockout mechanism for molding machine. 2,837,765, 6–10–58, Cl. 18—16.
Hatch, Gerald G., to Kennecott Copper Corp. Electrode composition. 2,837,811, 6–10–58, Cl. 29—191.2.
Hauser, Paul A. W. Fine grain mill. 2,838,247, 6–10–58, Cl. 241—60.
Haverberg, Loren R. Wheel washer. 2,837,759, 6–10–58, Cl. 15—302.
Hawie, Gabriel S., to The Hawie Mfg. Co. Clip. 2,837,806, 6–10–58, Cl. 24—250.

Hawie Mfg. Co. The: *See*—
Hawie, Gabriel S. 2,837,806.
Haydon Switch Inc.: *See*—
Korsgren Theodore Y., Sr., and Stelma. 2,837,926.
Heath, Royden L., and L. C. Owen, to Imperial Chemical Industries Ltd. Purification of terephthalic acid. 2,838,565, 6–10–58, Cl. 260—525.
Heavern, James A., to Hamilton Mfg. Corp. Chair. 2,838,096, 6–10–58, Cl. 155—163.
Heer, Hans, to General Aniline & Film Corp. Bromination of dibenzopyrenequinones. 2,838,525, 6–10–58, Cl. 260—362.
Helmberger, Werner: *See*—
Gansau, Gerhard, Haack, Helmberger, and Stoeck. 2,838,552.
Held, Hans J.: *See*—
Welts, John, and Held. 2,838,063.
Held, Hans J., and J. Welts, to Ducon Co., Inc. Trickle valve. 2,838,062, 6–10–58, Cl. 137—382.
Held, Hans J., and J. Welts, to Ducon Co., Inc. Trickle valve. 2,838,065, 6–10–58, Cl. 137—521.
Heller, Gerald K. System for controlling energization of D. C. motors connected to A. C. systems. 2,838,725, 6–10–58, Cl. 318—331.
Heller, Hansjorg, to The B. F. Goodrich Co. Multicomponent interpolymers of vinylidene cyanide and maleic anhydride. 2,838,476, 6–10–58, Cl. 260—78.5.
Helstrom, Herbert A., Jr., to Chance Vought Aircraft, Inc. Missile launcher device. 2,837,970, 6–10–58, Cl. 89—1.7.
Hemmi, Hans: *See*—
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Henderson, Robert M., to Fairbanks, Morse & Co. Isolation and engine speed limit controller. 2,838,298, 6–10–58, Cl. 264—1
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Henry, Joseph B.: *See*—
Hartley, Lloyd S., Henry, Miller, and Shahan. 2,837,870.
Henry, L. V. Anti-freeze gauge for automobile motors. 2,837,922, 6–10–58 Cl. 73—453.
Herbst, Edward J., to The Singer Mfg. Co. Feeding mechanisms for sewing machines. 2,838,018, 6–10–58, Cl. 112—210
Herdklotz, Earl W., to A & E Tool and Gage Co. (Inc.). Combination shipping container board and display board for toy airplanes and the like. 2,838,166, 6–10–58, Cl. 206—45.19.
Herr, Jules: *See*—
Hoffmann, Karl, and Herr. 2,838,516.
Herr, Milton E.: *See*—
Pederson, Raymond L., Herr, Babcock, Campbell, and Hogg. 2,838,492.
Herr, Milton E., J. C. Babcock, J. A. Campbell, J. A. Hogg, and R. L. Pederson, to The Upjohn Co. 6-fluoro steroids. 2,838,491, 6–10–58, Cl. 260—239.5.
Herr, Milton E., to The Upjohn Co. 17β-hydroxy-17α-methyl-9(11)androstene-3-one. 2,838,494, 6–10–58, Cl. 260—289.55.
Herr, Milton E., J. C. Babcock, J. A. Campbell, J. A. Hogg, and R. L. Pederson, to The Upjohn Co. 6-fluoro steroids. 2,838,503, 6–10–58 Cl. 260—239.55.
Herr, Milton E., J. C. Babcock, J. A. Campbell, J. A. Hogg, and R. L. Pederson, to The Upjohn Co. 6-fluoro-17α-alkynyl-4-androstenes. 2,838,549, 6–10–58, Cl. 260—397.45.
Herrmann, John A., to I-T-E Circuit Breaker Co. Bus ducts. 2,838,620, 6–10–58, Cl. 191—23.
Herrmann, Willy O., W. Haehnel, and H. Winkler, to Consortium Für Elektrochemische Industrie G. m. b. H. Process for producing films from polyvinyl alcohol. 2,387,770, 6–10–58, Cl. 18—57.
Hesse, Arno, and P. Walzak, to Mall Tool Co. Muffler assembly. 2,838,129, 6–10–58, Cl. 181—61.
Heuver, Herbert M., and J. B. D'Andrea. Device for superimposing digit counts in the mechanical counters. 2,838,240, 6–10–58, Cl. 235—136.
Hewett, Oscar C. Method of forming plastic parts. 2,838,435, 6–10–58, Cl. 154—110.
Hewitt, Elmer S.: *See*—
Hills, Elmer G., and Hewitt. 2,838,624.
Hewitt, Elmer S., and L. E. Beyer, to Electric-Aire Engineering Corp. Dryer. 2,837,835, 6–10–58, Cl. 34—243.
Hewitt, John F. Machine for proofing doughnuts. 2,838,162, 6–10–58 Cl. 198—84.
Hewitt, Woodrow W., to Spinsavac Corp. Suction head mounting for vacuum clearing systems. 2,837,774, 6–10–58, Cl. 19—139.
Heyduck, Alfred, to International Standard Electric Corp. Circuit arrangement for subscriber's station lines. 2,838,611, 6–10–58, Cl. 179—18.
Hider, Denis H. O., to The Commissioners for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland. Rotatable electrical connections. 2,838,694, 6–10–58, Cl. 307—145.
Hierholzer, Frank J., Jr., and L. Thorington, to Westinghouse Electric Corp. Color-corrected reflector high pressure mercury vapor lamp and method of preparing. 2,838,705, 6–10–58, Cl. 315—25.
Higgin, Raymond J., to Jim-Ray Co., Inc. Rotary drier. 2,838,177, 6–10–58, Cl. 209—238.
Hill, Frank T.: *See*—
Kuhn, Alfred R., and Hill. 2,838,627.
Hill, Matt V. Waste can holder. 2,838,264, 6–10–58, Cl. 248—147.
Hillary, Arthur W.: *See*—
Babiarz, Raymond S., and Hillary. 2,838,416.
Hills, Elmer G., and E. S. Hewitt. Switching apparatus. 2,838,624, 6–10–58, Cl. 200—33.
Hills, Fielding B.: *See*—
Hoehn, John J., and Hills. 2,838,305.
Hillyer, John C., and L. O. Edmonds, to Phillips Petroleum Co. Hydroxylated liquid copolymers and esters thereof. 2,838,478, 6–10–58, Cl. 260—85.1.
Hine, Alfred: *See*—
Fayers, Alfred A., and Hine. 2,837,829.
Hobart Mfg. Co., The: *See*—
Fox, Gerald B., Houser, and Meeker. 2,838,083.
Hochman, Julius C. Duplicating ribbon attachment. 2,838,157, 6–10–58, Cl. 197—153.
Hoehn, John J., and F. B. Hills, to Radio Corp. of America. Magnetic recording and reproducing apparatus. 2,838,305, 6–10–58, Cl. 271—2.3.
Hoffman Electronics Corp.: *See*—
Satchell, Clarence G. 2,838,625.
Hoffmann, Karl, and J. Herr, to Ciba Pharmaceutical Products, Inc. New alkyl-aminoalkyl-compounds and process for their manufacture. 2,838,506, 6–10–58, Cl. 260—243.
Hoffmann, Karl, and J. Herr, to Ciba Pharmaceutical Products, Inc. 2-(thienyl methyl) piperidines. 2,838,516, 6–10–58, Cl. 260—293.4.
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Babcock, John C., Campbell, and Hogg. 2,838,531.
Babcock, John C., Campbell, Hogg, and Pederson. 2,838,490.
Babcock, John C., Campbell, Hogg, and Sebek. 2,838,544.
Beal, Philip F., Hogg, and Jackson. 2,838,502.
Campbell, J Allan, Babcock, and Hogg. 2,838,495.
Campbell, J Allan, Babcock, and Hogg. 2,838,501.
Campbell, J Allan, Babcock, and Hogg. 2,838,528.
Campbell, J Allan, Babcock, and Hogg. 2,838,540.
Campbell, J Allan, Pederson, Babcock, and Hogg. 2,838,500.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,491.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,503.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,549.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,498.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,535.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,536.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,539.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,541.
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Spero, George B., Magerlein, Schneider, and Hogg. 2,838,542.
Spero, George B., Magerlein, Schneider, and Hogg. 2,838,543.
Hoke, Agnes P. Preservation of arrangements made of dried flowers and the like. 2,837,855, 6–10–58, Cl. 41—12.
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Bettoni, Eugene C. 2,838,029.
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Holt, William J., Jr., to Varo Mfg. Co., Inc. Tuning fork assembly. 2,838,698, 6–10–58, Cl. 310—25.
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Eisenhofer, Johann, and Horbach. 2,838,049.
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Horsch, James R., to General Electric Co. Counting network. 2,838,669, 6–10–58, Cl. 250—27.
Horstkotte, Frederick W. Loading device. 2,838,185, 6–10–58, Cl. 214—6.
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Torma, Louis. 2,838,748.
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Brundage, Alan D. 2,837,931.
Desmond, Charles F. 2,837,930.
Houdry Process Corp.: *See*—
Kollgaard, Reyner. 2,388,461.
Houser, Franklin D.: *See*—
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Dippel, Cornelis J., and Houtman. 2,838,398.
Howard, George C.: *See*—
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Howell, Ronald T., to Northrop Aircraft, Inc. Self locking bushing. 2,837,942, 6–10–58, Cl. 77—62.
Huckfeldt, Gebhard J. Method for producing curved sausage casings. 2,838,405, 6–10–58, Cl. 99—175.
Hudec, Eric T. Magnetic recording device. 2,838,603, 6–10–58, Cl. 178—17.5.
Huether, Charles P. Combined cup, stand and handle for beverage cans. 2,838,202, 6–10–58, Cl. 220—90.6.

Hufnagel, Andrew, to Westinghouse Air Brake Co. Electrical relays. 2,838,631, 6–10–58, Cl. 200—104.

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Randall, Jack H. P. 2,838,453.

Hughes, James A.: *See*—
Rumler, Hugh, and Hughes. 2,838,749.

Hull, Robert T., to Package Machinery Co. Package knocker mechanism for automatic packaging machines. 2,837,882, 6–10–58, Cl. 53—124.

Humboldt Co., The: *See*—
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Humphrey-Wilkinson, Inc.: *See*—
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Humphreys, John D., to Bendix Aviation Corp. Meteorological instrument shelter. 2,837,916, 6–10–58, Cl. 73—170.

Hunrath, George, to United States of America, Army. Thermocouple junction. 2,838,589, 6–10–58, Cl. 136—4.

Hunter, Edgar D. Sand blasting apparatus. 2,837,874, 6–10–58, Cl. 51—8.

Hunter, Edwin J., and L. A. Richards. Diaphragm valve with self purging bleed port. 2,838,269, 6–10–58, Cl. 251—61.

Husqvarna Vapenfabriks Aktiebolag: *See*—
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Hutchinson, Harold. Fire extinguishing pistols. 2,838,122, 6–10–58, Cl. 169—1.

Hydrocarbon Research, Inc.: *See*—
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I-T-E Circuit Breaker Co.: *See*—
Edmunds, William H. 2,838,718.
Hermann, John A. 2,838,620.

Idson, Bernard: *See*—
Steigmann, Ernst A., Hamell, and Idson. 2,838,402.

Imperial Chemical Industries Ldt.: *See*—
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Industrial Clutch Corp.: *See*—
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Industrial Ovens, Inc.: *See*—
Alexeff, Alexander V., Homburg, and Richards. 2,837,834.

Industrial Research and Development Corp.: *See*—
Tessmann, Alfred H. 2,837,791.

Ingersoll Milling Machine Co., The: *See*—
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Inta-Roto Machine Co., Inc., The: *See*—
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Interchemical Corp.: *See*—
Biletch, Harry. 2,838,479.

International Business Machines Corp.: *See*
Clapper, Genung L. 2,838,689.
Davis, Roderic A. 2,838,115.
Lake, Clair D., and Pfaff. 2,838,175.
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Pugh, Alexander L., Jr. 2,838,427.

International Salt Co., Inc.: *See*—
Pettis, Charles R., Jr. 2,838,176.

International Standard Electric Corp.: *See*—
Foord, Stanley G. 2,838,596.
Heyduck, Alfred. 2,838,611.
Pocock, Lyndall C. 2,838,612.
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International Telephone and Telegraph Corp.: *See*—
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Isele, Louis E. Lipstick container. 2,838,170, 6–10–58, Cl. 206—56.

Jackes-Evans Mfg. Co.: *See*—
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Jackes, Stanley F.: *See*—
Cornwell, Alexander M., Jr., Jackes, and Strano. 2,838,334.

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Jackson, Andrew W. Curb and gutter grading machine. 2,837,842, 6–10–58, Cl. 37—108.

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Jackson, Warren, Jr., to The Standard Oil Co. Casting method. 2,837,771, 6–10–58, Cl. 18—58.

Jacobs, Harold W. Insulation product. 2,837,779, 6–10–58, Cl. 20—4.

Jacobsen, Paul W., to H. G. Weber & Co., Inc. Roll unwinding control system. 2,838,253, 6–10–58, Cl. 242—75.47.

Jaime, Phillip C. Conveyer apparatus with coating, shaking, heating, and cooling of metal panels. 2,838,023, 6–10–58, Cl. 118—57.

James, Thomas, Jr., to Specialty Brake Appliance Co. Self-adjusting rod mechanism for railway brake system. 2,838,141, 6–10–58, Cl. 188—198.

Jannette, Lawrence J. Sash construction. 2,837,784, 6–10–58, Cl. 20—56.4.

Janning, William J., to United States of America, Air Force. Collapsible stool. 2,838,094, 6–10–58, Cl. 155—149.

Jantzen Inc.: *See*—
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Jarrett, Charles A., to Eastman Kodak Co. Dry spinning process. 2,838,365, 6–10–58, Cl. 18—54.

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Jewett, Frank B., Jr.: *See*—
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Jezl, Anton. Door-alarm. 2,838,747, 6–10–58, Cl. 340—274.

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Johansen, Alfred P., to Thomas Electronics, Inc. Application of conductive coating to cathode ray tubes. 2,837,754, 6–10–58, Cl. 15—22.

Johnsen, George V., deceased; E. Tarbet, executrix, to E. J. Wudel. Adapter for transmission jack. 2,838,278, 6–10–58, Cl. 254—134.

Johnson, Arthur W., to The Ingersoll Milling Machine Co. Machine tool. 2,837,975, 6–10–58, Cl. 90—21.

Johnson, Cecil R. Demountable and disassembleable armrest for vehicle window sills. 2,838,340, 6–10–58, Cl. 296—49.2.

Johnson, Norman E., ⅛ to O. M. Johnson. Abrading wheels with undercut relief grooves. 2,837,878, 6–10–58, Cl. 51—206.

Johnson, Oliver M.: *See*—
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Johnston, Joseph L.: *See*—
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Johnston, William D. Agitating device. 2,838,007, 6–10–58, Cl. 103—53.

Jones, Barton. Air relay. 2,838,067, 6–10–58, Cl. 137—620.

Jones, Dan H. Combination comb and clipper cleaner. 2,837,755, 6–10–58, Cl. 15—106.

Jones, Emlyn, and K. E. Martin, to North American Philips Co., Inc. Circuit-arrangement producing sawtooth currents. 2,838,662, 6–10–58, Cl. 250—27.

Jones, Melvin H.: *See*—
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Joy, Joseph F. Hydraulic motor and/or pump mechanism. 2,838,003, 6–10–58, Cl. 103—4.

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Kalb, George C.: *See*—
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Kaspar, William A., to Paramount Paper Products Co. Price tag dispenser. 2,838,171, 6–10–58, Cl. 206—58.

Kassel, Louis S., and V. Haensel, to Universal Oil Products Co. Hydrocarbon conversion process. 2,838,582, 6–10–58, Cl. 260—673.5.

Katanich, Leonard D. Drop ceiling guide. 2,837,757, 6–10–58, Cl. 15—246.

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Kaufman, John K., and T. K. Roy, to Chemical Construction Corp. Method of treating sulfur bearing mineral values with molten sulfur to concentrate mineral sulfides. 2,838,391, 6–10–58, Cl. 75—2.

Kean, Leonard, to Minnesota Mining and Mfg. Co. Polymerization apparatus. 2,838,380, 6–10–58, Cl. 23—285.

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Teter, John W., Keith, and Gring. 2,838,445.

Keith, Carl D., to Sinclair Research Laboratories, Inc. Sampling apparatus. 2,837,920, 6–10–58, Cl. 73—424.

Kelley, Floyd C., to United States of America, Navy. Method of making thin metal sheets. 2,837,817, 6–10–58, Cl. 29—424.

Kellogg, M. W., Co., The: *See*—
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Kemmerer, Ralph R., to Westinghouse Air Brake Co. Highway crossing protection control apparatus. 2,838,656, 6–10–58, Cl. 246—130.

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Kennedy, Charles J.: *See*—
Stavrakiss, Alexander, and Kennedy. 2,838,250.

Kennedy, William P. Foldable table. 2,838,352, 6–10–58, Cl. 311—28.

Kerley, Sam D., G. C. Kalb, and O. C. Finkel, to Nickolas Demos. Dismountable superstructure for transporting vehicles. 2,838,338, 6–10–58, Cl. 296—1.

Kern, James W. Folding trailers. 2,837,778, 6–10–58, Cl. 20—2.

Kerpel, Julius A. Spring shoe. 2,837,840, 6–10–58, Cl. 36—7.8.

Kerr, David C., and S. K. Kifer, to United States Steel Corp. Pipe handling apparatus. 2,838,158, 6–10–58, Cl. 198—26.

Kertess, Carl. Resilient clip arrangement. 2,838,055, 6–10–58, Cl. 132—48.

Kertess, Carl. Resilient clip construction. 2,838,056, 6–10–58, Cl. 132—48.

Kesselring, Fritz, and W. Baer, to FKF Fritz Kesselring Geratebau A. G. Method for limiting excess currents in direct or alternating current mains. 2,838,634, 6–10–58, Cl. 200—114.

Keyes Fibre Co.: *See*—
Emery, Richard L. 2,838,173.
Hartmann, Carl W., and Hansen. 2,838,226.

Kifer, Stanley K.: *See*—
Kerr, David C., and Kifer. 2,838,158.

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Valente, John E. 2,838,420.

Kind, Camillo, to Akt. Brown, Boveri & Cie. Automatic air regulating device in combustion chambers of gas turbine plants. 2,837,894, 6–10–58, Cl. 60—39.27.

King, Mack A., Jr.: *See*—
Partansky, Alexander M., and King. 2,838,473.

Kinley, Clifford B. Container and resiliently supported closure member therefor. 2,838,213, 6–10–58, Cl. 222—498.

Klarman, Karl J., to Bendix Aviation Corp. Damping device for gyroscope or the like. 2,837,923, 6–10–58, Cl. 74—5.5.

Klauser, Hans: *See*—
Reinhard, Louis, and Klauser. 2,838,756.

Klein, Henry R., to United States Steel Corp. Multiple-story building. 2,837,776, 6–10–58, Cl. 20—1.13.

Kliewer, Edward A., Sr. Engine exhaust muffler. 2,838,128, 6–10–58, Cl. 181—57.

Klotz, Donald D. Limestone type tennis court. 2,837,984, 6–10–58, Cl. 94—7.

Klotz, Robert L., to Seismograph Service Corp. Explosive charge. 2,837,996, 6–10–58, Cl. 102—24.

Kneitel, Seymour H., to Paramount Pictures Corp. Apparatus for producing animated cartoons in three dimensions. 2,837,962, 6–10–58, Cl. 88—16.

Knickerbocker, Karl. Attachment unit for film reels. 2,838,251, 6–10–58, Cl. 242—74.2.

Knight, Robert D., A. O. Mason, and T. Melville, to United States Steel Corp. Method and apparatus for loading a grain bin. 2,838,076, 6–10–58, Cl. 141—1.

Knowles, Joseph R., to Gulf Research & Development Co. Accessory for metal cutting machines. 2,837,972, 6–10–58, Cl. 90—11.

Kocher, Fred W., to Pittsburgh Plate Glass Co. Treating glass sheets. 2,837,876, 6–10–58, Cl. 51—140.

Koelling, Edward A. Apparatus for feeding loose leaf metal arches. 2,838,203, 6–10–58, Cl. 221—248.

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Kohr, Hilton G.: *See*—
Anselmo, Roy P., and Kohr. 2,837,813.

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Kovac, Ferdinand. 2,837,983.

Kovac, Ferdinand, deceased, by A. Kovac, legal representative. Container manufacturing process and apparatus. 2,837,983, 6–10–58, Cl. 93—44.1.

Kowalski, Walter M. Catamenial pad. 2,838,048, 6–10–58, Cl. 128—290.

Kraayeveld, Pieter J., to North American Philips Co., Inc. Circuit for measuring radiation intensities. 2,838,679, 6–10–58, Cl. 250—83.6.

Kraft, Herman T., to The General Tire and Rubber Co. Tire building machine. 2,838,091, 6–10–58, Cl. 154—9.

Krahulec, Fred, to A. C. Nielsen Co. System and apparatus for recording the listening habits of wave signal receiver users. 2,838,359, 6–10–58, Cl. 346—22.

Kratochvil, Kenneth V., to Phillips Petroleum Co. Analyzer and method of using same. 2,838,586, 6–10–58, Cl. 260—680.

Kratt, William. Note selector for pitch pipes. 2,837,954, 6–10–58, Cl. 84—456.

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Krauss, Fred W. Lock with cylinder lock controlled dogging means. 2,837,906, 6–10–58, Cl. 70—153.

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Kuhn, Alfred R., and F. T. Hill, to Murray Mfg. Corp. Bypass arrangement for an electrical meter mount. 2,838,627, 6–10–58, Cl. 200—51.1.

Kuhner, Max H., to Riley Stoker Corp. Air heater. 2,838,287, 6–10–58, Cl. 257—224.

Kulka, Thomas S. Tape retaining and identification means for tape reels. 2,838,167, 6–10–58, Cl. 206—54.

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Kusel Dairy Equipment Co.: *See*—
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Ladue, Robert. Engine heating device. 2,838,648, 6–10–58, Cl. 219—38.

Laguzzi, Mario, to Poirette Corsets, Inc. Foundation garment. 2,838,051, 6–10–58, Cl. 128—547.

Lakatos, György, J. Szabó, G. Szigeti, and J. Weiszburg, to Egyesult Izzolampa es Villamossagi Reszvenytarsasg. Time delay switch of the gaseous electric discharge tube type. 2,838,633, 6–10–58, Cl. 200—113.5.

Lake, Clair D., and W. Pfaff, to International Business Machines Corp. Distributing machine. 2,838,175, 6–10–58, Cl. 209—110.

Land, Edwin H., to Polaroid Corp. Photographic product. 2,837,987, 6–10–58, Cl. 95—66.

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Lando, Ellis A. Venetian blind construction. 2,838,110, 6–10–58, Cl. 160—168.

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Lane, David T., to Lane Container Co. Reinforcing hanger means for a collapsible wardrobe. 2,838,356, 6–10–58, Cl. 312—259.

Lange, Carl A., to The Apex Machine and Tool Co. Magnetic driving tool. 2,838,082, 6–10–58, Cl. 145—50.

Langlois, Roland E., H. A. Boulay, and L. G. Blumenbaum, to Technical Service, Inc. Lace web separation. 2,837,808, 6–10–58, Cl. 28—1.

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Larky, Norbert D., and R. G. Shankweiler, to United States of America, Navy. Heat exchanging connector. 2,838,740, 6–10–58, Cl. 339—112.

Larson, Charles O. Miter clamp and gauge. 2,838,081, 6–10–58, Cl. 144—293.

Laubach, Gerald D., to Chas. Pfizer & Co., Inc. Hydrogenation of steroid compounds. 2,838,526, 6–10–58, Cl. 260—397.2.

Laubach, Gerald D., and K. J. Brunings, to Chas. Pfizer & Co., Inc. 3β-hydroxy-Δ6,8(14) steroids and process of preparation of the same. 2,838,527, 6–10–58, Cl. 260—397.2.

Lauck, John A., to Borg-Warner Corp. Fluid pressure hose. 2,838,074, 6–10–58, Cl. 138—49.

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Laurie, William A., to Monsanto Chemical Co. Process for preparing aminoplasts in bead form comprising reacting amine-aldehyde resins with anionic polyelectrolytes. 2,838,468, 6–10–58, Cl. 260—45.2.

Lavior, Joseph P., to General Filter Co. Sludge blanket clarifier. 2,838,180, 6–10–58, Cl. 210—528.

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Lebourg, Maurice P., to Schlumberger Well Surveying Corp. Method and apparatus for determining the resistivity of the mud in a bore hole. 2,838,730, 6–10–58, Cl. 324—1.

Lee, Samuel W. Safety razor blade sharpener. 2,837,879, 6–10–58, Cl. 51—211.

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Legman, Nathan. Holding attachment for bottle caps. 2,838,209, 6–10–58, Cl. 222—180.

Leifer, Abraham. Telephone hand set transmitter disconnector device. 2,838,615, 6–10–58, Cl. 179—158.

Lehr, Frederic F. Hot cup and method of making same. 2,838,650, 6–10–58, Cl. 219—44.

Lehrer, Erwin, to Badische Anilin- & Soda-Fabrik Akt. Production of acetylene by incomplete combustion of hydrocarbons with oxygen, and apparatus therefor. 2,838,585, 6–10–58, Cl. 260—679.

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Lemmon, Louis E. Air conditioner. 2,838,130, 6–10–58, Cl. 183—30.

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Lewis, George P. Device for teaching the telling of time. 2,837,838, 6–10–58, Cl. 35—39.

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Lindberg, Albert W., Jr. Brush holder. 2,838,346, 6–10–58, Cl. 306—1.

Lindenblad, Nils E., to Radio Corp. of America. Thermoelectric refrigerator. 2,837,899, 6–10–58, Cl. 62—1.

Lindsay, Harvey B. Base detonating fuze. 2,837,999, 6–10–58, Cl. 102—75.

Lindsay James B., to Kable Engineering Co. Lead wire detector. 2,838,682, 6–10–58, Cl. 250—220.

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Long, Daniel L. Hydraulic clamshell bucket. 2,837,846, 6–10–58, Cl. 37—186.

Long, Everett, and W. Rodwell, to United States of America, Atomic Energy Commission. Gas cooled nuclear reactors. 2,838,451, 6–10–58, Cl. 204—193.2.

Longfellow, Richard C., to General Electric Co. Phase detection. 2,838,733, 6–10–58, Cl. 324—83.

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Lüscher, Emil, and H. P. Sieber, to Lonza Electric and Chemical Works Ltd. Manufacture of acrylonitrile. 2,838,560, 6–10–58, Cl. 260—465.3.

Lutz, Karl, and H. Hemmi, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandos Trust. Method of protecting cellulose fibers against microorganisms and fungi and the resulting product. 2,838,425, 6–10–58, Cl. 117—138.5.

Lynsavage, Walter F., to Pittsburgh Corning Corp. Method of making dense-face, cellular vitreous bodies. 2,837,873, 6–10–58, Cl. 49—77.

Lyttle, Douglas A., and R. H. Levin, to The Upjohn Co. 11α-hydroxy - 4,16 - pregnadiene - 3,20 - dione and esters. 2,838,550, 6–10–58, Cl. 260—397.45.

Maas, Leonhard A., to The Smith Bearing Co., Inc. Needle bearing assembly with sealing means. 2,838,349, 6–10–58, Cl. 308—187.2.

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MacDonald, Donald A., to United States Rubber Co. Tire repair apparatus. 2,837,767, 6–10–58, Cl. 18—18.

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Spero, George B., Magerlein, Schneider, and Hogg. 2,838,537.
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Spero, George B., Magerlein, Schneider, and Hogg. 2,838,542.
Spero, George B., Magerlein, Schneider, and Hogg. 2,838,543.

Magerlein, Barney J., G. B. Spero, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro-Δ⁴-3-keto steroids and process for preparing same. 2,838,498, 6–10–58, Cl. 260—239.55.

Magerlein, Barney J., G. B. Spero, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process. 2,838,535, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., G. B. Spero, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro 9α-halo-Δ4-pregnenes and process for preparing same. 2,838,536, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., G. B. Spero, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids. 2,838,539, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., G. B. Spero, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro-4-pregnenes and process for preparing same. 2,838,541, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., W. P. Schneider, O. K. Sebek, and G. B. Spero, to The Upjohn Co. 6α-fluoro-16α-hydroxy steroids. 2,838,545, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., W. P. Schneider, O. K. Sebek, and G. B. Spero, to The Upjohn Co. 6α-fluoro-16α-hydroxy-1,4-pregnadienes. 2,838,546, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., W. P. Schneider, O. K. Sebek, and G. B. Spero, to The Upjohn Co. 6α,21-difluoro-16α-hydroxysteroids. 2,838,547, 6–10–58, Cl. 260—397.45.

Magerlein, Barney J., W. P. Schneider, O. K. Sebek, and G. B. Spero, to The Upjohn Co. 6α-fluoro-16α-hydroxy-4-pregnenes. 2,838,548, 6–10–58, Cl. 260—397.45.

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Marcotte, M. C.: *See*—
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Mason, Ralph B., to Esso Research and Engineering Co. Preparation of fluid coke briquettes. 2,838,386, 6–10–58, Cl. 44—24.

Mason, Warren P., to Bell Telephone Laboratories, Inc. Underwater sound detection system. 2,838,741, 6–10–58, Cl. 340—2.

Masse, Rene A. Portable scaffold. 2,838,342, 6–10–58, Cl. 304—31.5.

Matuszak, Alfred H., and H. R. Ready, to Esso Research and Engineering Co. Process for preparation of complex formal synthetic lubricants by a formal interchange. 2,838,573, 6–10–58, Cl. 260—615.

May, Maurice, to American Art Metals Co. Snap-in glass setting construction. 2,837,785, 6–10–58, Cl. 20—56.4.

Maybach-Motorenbau G. m. b. H.: *See*—
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McArthur, Bruce E., to Magnethermic Corp. Induction heating systems. 2,838,641, 6–10–58, Cl. 219—10.75.

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McCall Corp.: *See*—
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McCall, Sherad M., to R. G. Silbaugh. Foot panel adjustment for hospital bed. 2,837,751, 6–10–58, Cl. 5—80.

McCollough, Glen W. Yarn bobbin. 2,838,254, 6–10–58, Cl. 242—125.

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McGraw, Glenn P. Adjustable bulkhead. 2,837,807, 6–10–58, Cl. 25—118.

McIntire, Donald E., to The B. F. Goodrich Co. Tubeless tire valve. 2,838,088, 6–10–58, Cl. 152—427.

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McMaster, Theodore. Shaving stick composition and method of using same. 2,838,442, 6–10–58, Cl. 167—85.

McMordie, William H.: *See*—
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Mechanical Products, Inc.: *See*—
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Meeker, David A.: *See*—
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Meis, Helmut, and H. Sauer, to Rutgerswerke-Akt. Condensation products of bisphenols with aromatic vinyl compounds. 2,838,474, 6–10–58, Cl. 260—62.

Melville, Thomas: *See*—
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Mendelsohn, Meyer, to Ions Exchange and Chemical Corp. Process of sulfonating casein, zein or soy-bean protein. 2,838,482, 6–10–58, Cl. 260—119.

Menes, Herbert, to Clinton Watch Co. Golf scoring apparatus. 2,838,238, 6–10–58, Cl. 235—113.

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Meredith, Robert J., to Pines Engineering Co., Inc. Indexing and stroke control mechanisms for reciprocating devices. 2,837,928, 6–10–58, Cl. 74—152.

Merrell, Wm. S., Co., The: *See*—
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Meshorer, Herman S. Method of and means for repointing worn teeth. 2,837,843, 6–10–58, Cl. 37—142.

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Ramsden, Hugh E. 2,838,508.

Metropolitan-Vickers Electrical Co. Ltd.: *See*—
Crowley-Milling, Michael C. 2,838,711.
Harris, Frank R., and Boyle. 2,838,275.

Midtlyng, Carl R., to The Babcock & Wilcox Co. Fuel oil burner safety device. 2,838,104, 6–10–58, Cl. 158—73.

Miehle-Goss-Dexter, Inc.: *See*—
Williams, Leo C. 2,838,306.

Miles Laboratories, Inc.: *See*—
Fonner, Dale E. 2,838,377.

Millard, Edward J., Sr.: *See*—
Stevens, Otis L., and Millard. 2,837,902.

Miller, Elmer C., to Phillips Petroleum Co. Differential refractometer. 2,837,960, 6–10–58, Cl. 88—14.

Miller, Frank E., Jr., and D. H. Skinner, to Owens-Illinois Glass Co. Article conveying apparatus for use with spray paint guns. 2, 838,025, 6–10–58, Cl. 118—322.

Miller, John C. Traction device. 2,838,345, 6–10–58, Cl. 305—10.

Miller, John W.: *See*—
Hartley, Lloyd S., Henry, Miller, and Shahan. 2,837,870.

Miller, Lester M., to General Motors Corp. Vertically adjustable refrigerator shelf. 2,838,357, 6–10–58, Cl. 312—306.

Miller, Meritt L., and R. W. Butler, to Farnsworth Research Corp. Automatic frequency control circuit. 2,838,671, 6–10–58, Cl. 250—36.

Milligan, William B.: *See*—
Rolfson, Francis B., and Milligan. 2,838,644.

Mining Engineering Co. Ltd., The: *See*—
Duncan, Angus W. 2,838,164.

Minister of Supply, in Her Majesty's Government of the United Kingdom of Great Britain and Northern Ireland: *See*—
Fayers, Alfred A., and Hine. 2,837,829.

Minster Machine Co., The: *See*—
Wissman, Reuben E. 2,837,992.

Minneapolis-Honeywell Regulator Co.: *See*—
Dinter, Henry A. 2,837,924.
Robinson, William J. 2,838,001.

Minnesota Mining and Mfg. Co.: *See*—
Kean, Leonard. 2,838,380.
Sohl, William E. 2,838,421.

Mirviss, Stanley B.: *See*—
Cottle, Delmer L., and Mirviss. 2,838,556.

Mitchell, Irving L., to Ebert Electronics Corp. Relay coil construction. 2,838,721, 6–10–58, Cl. 317—158.

Mitchell, John G., to Celanese Corp. of America. Method of hardening cellulose acetate and apparatus suitable therefor. 2,838,489, 6–10–58, Cl. 260—230.

Mock, Dana L., to United States of America, Army. Wideband vibration damper. 2,838,099, 6–10–58, Cl. 310—26.

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Parigian, Albert A. 2,838,317.

Moerkens, Jozef C., to North American Philips Co., Inc. Igniting and operating circuit for discharge tubes. 2,838,714, 6–10–58, Cl. 315—97.

Moffett, Walter K., and J. D. Pickens, to E. I. du Pont de Nemours and Co. Coating compositions containing nitrocellulose, alkyd resin and polyester plasticizer, and article coated therewith. 2,838,464, 6–10–58, Cl. 260—16.

Moller, Edward B. Amalgam carrier and ejector. 2,837,824, 6–10–58, Cl. 32—60.

Moncrieff, Robert W., to Airkem, Inc. Apparatus for the characterization of odors. 2,837,912, 6–10–58, Cl. 73—23.

Monsanto Chemical Co.: *See*—
Barrett, Gerald R. 2,838,475.
Laurie, William A. 2,838,468.

Monsler, Frank E. Quick-sealing access covers. 2,838,201, 6–10–58, Cl. 220—57.

Mo Och Domsjo Aktiebolag: *See*—
Moren, Rolf E. 2,838,406.

Morawitz, Henry L.: *See*—
Morawitz, John H. 2,837,836.

Morawitz, John H., 20% to H. L. Morawitz. Teaching aid. 2,837,836, 6–10–58, Cl. 35—9.

Moren, Rolf E., to Mo Och Domsjo Aktiebolag. Methods of preparing sand cores and other sand mould parts for metal casting. 2,838,406, 6–10–58, Cl. 106—38.5.

Morgan, Russell L.: *See*—
Padbury, John J., and Morgan. 2,838,466.

Morley, Orville A., to McCall Corp. Web break detection. 2,838,303, 6–10–58, Cl. 271—2.1.

Morrill, Charles A. Link assembly having two V-shaped parts each of which has a lateral extending bearing. 2,837,890, 6–10–58, Cl. 59—86.

Morris, George V., to Zenith Radio Corp. Subscription television code card coupon book. 2,838,234, 6–10–58, Cl. 235—61.12.

Moser, Rudolph J.: *See*—
Konrad, Herman M., and Moser. 2,838,231.

Mozel, Joe. Golf ball teeing mechanism. 2,838,313, 6–10–58, Cl. 273—201.

Mueller, Willy, and A. E. Siegrist, Ciba Ltd. Azo pigments containing oxdiazole rings. 2,838,486, 6–10–58, Cl. 260—157.

Mueller, Willy, and A. E. Siegrist, to Ciba Ltd. New oxdiazoles. 2,838,520, 6–10–58, Cl. 260—307.

Muller, Ferdinand H., to Specialties Development Corp. Process of producing fabric containing kinky woolen pile. 2,837,809, 6–10–58, Cl. 28—76.

Muller, Robert M., to American Optical Co. Telescope and microscope eyepiece system. 2,837,969, 6–10–58, Cl. 88—57.

Mülller, Wilhelm, to Farbenfabriken Bayer Akt. Process for the production of acrylonitrile. 2,838,559, 6–10–58, Cl. 260—465.3.

Munro, William D. Curve follower. 2,838,683, 6–10–58, Cl. 250—227.

Murphy, Norman B.: *See*—
Noxon, Paul A., MacCallum, and Murphy. 2,838,258.

Murray Corp. of America, The: *See*—
Stelljes, Charles R., and Rogers. 2,837,927.

Murray Mfg. Corp.: *See*—
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Kuhn, Alfred R., and Hill. 2,838,627.

Musgrave, Harold G.: *See*—
Fox-Williams, Jack, and Musgrave. 2,838,148.

Mutaffis, Thomas D.: *See*—
Brouillard, Robert E., and Mutaffis. 2,838,415.

Myer, Bert W., Jr.: *See*—
Robb, Wayne F., and Myer. 2,838,215.

National Aluminated Corp.: *See*—
Ryznar, John W. 2,838,045.

National Cash Register Co., The: *See*—
Konrad, Herman M., and Moser. 2,838,231.
Philipp, Otto M. 2,838,241.
Snyder, Alton G. 2,838,235.

National Guard Products, Inc.: *See*—
Fryar, Jewel E., Jr. 2,837,786.

National Malleable and Steel Castings Co.: *See*—
Norton, Charles E., and Porter. 2,837,797.

National Mine Service Co.: *See*—
Jenkins, Gerald S., and Jackson. 2,838,343.

National Plastic Products Co., The: *See*—
Samler, Lee F. 2,838,084.

Nedderman, Wendell H., and R. T. Lietz, to Gulf Oil Corp. Automatic underwater bracing system for a mobile drilling rig. 2,837,897, 6–10–58, Cl. 61—46.5.

Neher, Clarence M.: *See*—
Conrad, Franklin, Gould, and Neher. 2,838,579.

Neher, Clarence M.: *See*—
Cook, Shirl E., and Neher. 2,838,577.

Nelson, David P. Supporting device. 2,837,745, 6–10–58, Cl. 2—161.

Nelson, Eugene K.: *See*—
Nelson, Harold H. and E. K. 2,838,271.

Nelson, Harold H. and E. K., to Cherry-Burrell Corp. J-pin valve. 2,838,271, 6–10–58, Cl. 251—111.

Nemeth, Joseph E.: *See*—
Raible, Frank, and J. E. and R. C. Nemeth. 2,838,676.

Nemeth, Robert C.: *See*—
Raible, Frank, and J. E. and R. C. Nemeth. 2,838,676.

Nevill, Emerson F., to Fairbanks, Morse & Co. Brush guard for brush holder units. 2,838,704, 6–10–58, Cl. 310—246.

Newell, Roderick G.: *See*—
Halling, Louis F., and Newell. 2,837,907.

Newhouse, Elbert A. Stroboscopic illuminating system for viewing instruments and the like. 2,837,958, 6–10–58, Cl. 88—2.3.

Newhouse, Walter F. Methods for making wirebound box and crate mats. 2,837,744, 6–10–58, Cl. 1—62.

New York Air Brake Co., The: *See*—
Rohrberg, Paul W. 2,838,328.

Nielsen, A. C., Co.: *See*—
Krahulec, Fred. 2,838,359.

Nikazy, Walter A., to Toledo Scale Corp. Traffic adjusted standing time control. 2,838,136, 6–10–58, Cl. 187—29.

Nippon Kogaku K. K.: *See*—
Hori, Kunihiko. 2,837,957.

Nisle, Robert G., and F. H. Poettmann, to Phillips Petroleum Co. Automatic well rocking and kick-off apparatus and process. 2,838,008, 6–10–58, Cl. 103—232.

Norbury, Eric. Device for lifting bales or the like. 2,838,189, 6–10–58, Cl. 214—147.

Norling, Albert E., to Oberlin Canteen Co. Collapsible bucket. 2,837,860, 6–10–58, Cl. 43—56.

Normant, Henri, to Societe des Usines Chimiques Rhone-Poulenc. Tertiary alcohols. 2,838,576, 6–10–58, Cl. 260—638.

North American Aviation, Inc.: *See*—
Ashby, Robert M., Fairbanks, and Cady. 2,838,614.
Loewe, Richard T. 2,838,688.
Wanlass, Cravens L. 2,838,675.

North American Philips Co., Inc.: *See*—
Coeterier, Frederick. 2,838,710.
De Vrijer, Frederik W. 2,838,597.
Dippel, Cornelis J., and Houtman. 2,838,398.
Hardi, Frits R. 2,838,599.
Jilski, Theodor W. E., and Denkhaus. 2,838,127.
Jones, Emlyn, and Martin. 2,838,662.
Kraayeveld, Pieter J. 2,838,679.
Le Poole, Jan B. 2,838,665.
Lovell, Peter G., and Stephens. 2,838,729.
Mants, Marina R., and Starreveld. 2,838,659.
Moerkens, Jozef C. 2,838,714.
Teer, Kees. 2,838,666.
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Wolfendale, Eric. 2,838,664.

Northrop Aircraft, Inc.: *See*—
Bridwell, Robert A. 2,837,976.
Christensen, Norman B. 2,838,260.
Cox, George W. 2,837,896.
Hagopian, Jacob J., and Hennies. 2,838,255.
Howell, Ronald T. 2,837,942.

Northrup, Leonard L., Jr. Means for cleaning equipment. 2,838,289, 6–10–58, Cl. 259—1.

Norton, Charles E., and H. A. Porter, Jr., to National Malleable and Steel Castings Co. Mold for making castings. 2,837,797, 6–10–58, Cl. 22—126.

Norton Co.: *See*—
Washburn, Malcolm E. 2,838,454.

Norwood, Samuel L., and T. W. Sauls, to Tennessee Corp. Production of surface active materials. 2,838,564, 6–10–58, Cl. 260—505.

Notter, George K., to United States of America, Agriculture. Packaging of dehydrated foods. 2,838,403, 6–10–58, Cl. 99—171.

Noxon, Paul A., A. M. MacCallum, and N. B. Murphy, to Bendix Aviation Corp. Automatic pilot. 2,838,258, 6–10–58, Cl. 244—77.

Noxal, Joseph. Fishing lure. 2,837,859, 6–10–58, Cl. 43—42.33.

Nugent, Ralph E. Selective control device for stabilized inert gas shielded arc welding systems. 2,838,654, 6–10–58, Cl. 219—130.

Oberlin Canteen Co.: *See*—
Norling, Albert E. 2,837,860.

O'Brien, William J., and D. E. Bridges to The Decca Record Co. Ltd. Radio range-indicating systems. 2,838,753, 6–10–58, Cl. 343—105.

Oeland, Ernest N., Jr. Sliding pool mercury switch. 2,838,632, 6–10–58, Cl. 200—112.

Olcott, Bernard. Coaxial rotor helicopter. 2,838,123, 6–10–58, Cl. 170—135.26.

Oldberg, Sidney, to Eaton Mfg. Co. Viscous drive for fan. 2,838,244, 6–10–58, Cl. 236—35.

Olin Mathieson Chemical Corp.: *See*—
Schreiber, Charles M. 2,838,000.

Olson, Harry F., and J. Preston, to Radio Corp. of America. Combination chassis and loudspeaker. 2,838,607, 6–10–58, Cl. 179—1.

Ono, Takeo: *See*—
Chatten, Victor H. 2,837,869.

Oppenheimer, Jess, and W. Crane, Jr.; said Crane assor. to said Oppenheimer. Container with integral suction tube. 2,838,220, 6–10–58, Cl. 229—7.

Organic Chemical Corp.: *See*—
Vogel, Edward H., Jr. 2,838,399.

Orthner, Ludwig, and M. Reuter, to Farbwerke Hoechst Akt. vormals Meister Lucius & Bruning. Process for rendering fibrous materials water-repelling. 2,838,422, 6–10–58, Cl. 117—135.5.

Ortiz Benitez, Humberto. Dual compensator having shot controls for double barrel shotguns. 2,837,856, 6–10–58, Cl. 42—79.

Osborn Mfg. Co., The: *See*—
Peterson, Ruben O. 2,838,131.

Osborn, William M. Hydraulically operated motor and means for controlling the same. 2,838,031, 6–10–58, Cl. 121—93.

Ostrowski, Walter. Safety razor with clamped blade. 2,837,820, 6–10–58, Cl. 30—51.

Ott, Heinrich: *See*—
Brodersen, Richard, Loewe, and Ott. 2,838,485.

Owen, Edmund C.: *See*—
Heath, Royden L., and Owen. 2,838,565.

Owens-Illinois Glass Co.: *See*—
Brymer, Andrew E., Jr. 2,837,872.
Conrad, Keith, and Denman. 2,837,871.
Miller, Frank E., Jr., and Skinner. 2,838,025.

P G A C Development Co.: *See*—
Castel, Jacques H. 2,837,995.

Package Machinery Co.: *See*—
Bracey, Fred J. 2,837,883.
Hull, Robert T. 2,837,882.

Padbury, John J., and R. L. Morgan, to American Cyanamid Co. Soil stabilization with polymerized monomeric triazine and product. 2,838,466, 6–10–58, Cl. 260—29.6.

Page, Clarence and G. A., to Page-Detroit, Inc. Egg handling machine. 2,838,161, 6–10–58, Cl. 198—32.

Page-Detroit, Inc.: *See*—
Page, Clarence and G. A. 2,838,161.

Page, George A.: *See*—
Page, Clarence and G. A. 2,838,161.

Page, Robert M.: *See*—
Philpott, La Verne R. 2,838,752.

Palmer, Albert O., to Machlett Laboratories, Inc. Gas-filled thyratron. 2,838,709, 6–10–58, Cl. 313—246.

Palnut Co., The: *See*—
Sislik, Ivan, and Duffy. 2,837,955.

Palopoli, Frank P.: *See*—
Allen, Robert E., Palopoli, Tilford, and Van Campen. 2,838,441.

Pan American Petroleum Corp.: *See*—
Clark, Joseph B., Jr., and Dyk. 2,838,117.
Clark, Joseph B., Jr., Howard, and Fast. 2,838,116.
McManis, Louis B. 2,838,742.

Panzenhagen, Leonhard R., to Sperti Faraday, Inc. Remotely controlled button switch. 2,838,629, 6–10–58, Cl. 200—83.

Papadopoulos, Constantine J. Folding box construction. 2,838,222, 6–10–58, Cl. 229—36.

Paramount Paper Products Co.: *See*—
Kaspar, William A. 2,838,171.

Paramount Pictures Corp.: *See*—
Kneitel, Seymour H. 2,837,962.

Parigian, Albert A., to Modern Collet & Machine Co. Feed collet. 2,838,317, 6–10–58, Cl. 279—46.

Parker, Winfred E.: *See*—
Swern, Daniel, and Parker. 2,838,480.

Parkyn, Lionel E. Device for raising power conductor lines. 2,838,279, 6–10–58, Cl. 254—134.3.

Parkyn, Lionel E. Power conductor isolator. 2,838,595, 6–10–58, Cl. 174—138.

Partansky, Alexander M., and M. A. King, Jr., to The Dow Chemical Co. Rapid method for producing stable novolaks. 2,838,473, 6–10–58, Cl. 260—57.

Pastushin Aviation Corp.: *See*—
Amos, Homer, and Strickland. 2,838,261.

Patentex, Inc.: *See*—
Comer, Marvin H. 2,837,889.

Paterson, Stanley C. Automatic oil burner. 2,838,242, 6–10–58 Cl. 236—1.

Patla, Louis J. Double detent mechanism. 2,837,933, 6–10–58, Cl. 74—527.

Paust, Lawrence R. deceased; L. M. Paust, administratrix, to Physical Medicine Products Co. Electro-therapy generator. 2,838,672, 6–10–58, Cl. 250—36.

Paust, Leah M.: *See*—
Paust, Lawrence R. 2,838,672.

Pavelle, Leo, to Technicolor New York Corp. Apparatus for automatically processing a sensitized film in successive steps. 2,837,988, 6–10–58, Cl. 95—89.

Payne, Elmer C., to Sylvania Electric Products Inc. Electroluminescent lamp. 2,838,715, 6–10–58, Cl. 315—108.

Pease, Robert N., to United States of America, Army. Catalyst for carbon monoxide oxidation. 2,838,462, 6–10–58, Cl. 252—471.

Pederson, Raymond L.: *See*—
Babcock, John C., Campbell, Hogg, and Pederson. 2,838,490.
Campbell, J Allen, Pederson, Babcock, and Hogg. 2,838,500.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,491.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,503.
Herr, Milton E., Babcock, Campbell, Hogg, and Pederson. 2,838,549.

Pederson, Raymond L., M. E. Herr, J. C. Babcock, J A. Campbell, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids. 2,838,492, 6–10–58, Cl. 260—239.5.

Peedles, Chad A. Cement mixer. 2,838,291, 6–10–58, Cl. 259—177.

Peerless Photo Products, Inc.: *See*—
Arnold, Francis T., Brewater, Collins, and Crouse. 2,837,966.

Penn Controls Inc.: *See*—
Good, Arthur L. 2,837,918.
Kreuter, Kenneth G. 2,838,272.

Pennsalt Chemicals Corp.: *See*—
Gall, John F., and Barth-Wehrenalp. 2,838,372.
Sprout, Oliver S., Jr. 2,838,459.

Péras, Lucien, to Regie Nationale des Usines Renault. Electronic apparatus for controlling a machine. 2,838,653, 6–10–58, Cl. 219—108.

Perkins, John B. Puller grip for a column strapper. 2,838,276, 6–10–58, Cl. 254—79.

Perlin, Fred, to Graflex, Inc. Stereocameras. 2,837,986, 6–10–58, Cl. 95—61.

Persson, Eric S. Window. 2,838,109, 6–10–58, Cl. 160—107.

Peters, Claude H. Blower speed control for forced air heating systems. 2,838,243, 6–10–58, Cl. 236—10.

Peterson, Dean E., and W. F. Brucksch, Jr., to United States Rubber Co. Prevention of surface crazing of rubber-resin by aromatic polyamines. 2,838,471, 6–10–58, Cl. 260—45.9.

Peterson, Ruben O., to The Osborn Mfg. Co. Separator. 2,838,131, 6–10–58, Cl. 183—44.

Petrocelli, Gobbi. Scissors with a compound blade movement. 2,837,823, 6–10–58, Cl. 30—239.

Pettis, Charles R., Jr., to International Salt Co., Inc. Check-weighing mechanism. 2,838,176, 6–10–58, Cl. 209—121.

Pfaff, G. M., A. G.: *See*—
Winz, Karl. 2,838,019.

Pfaff, Wesley: *See*—
Lake, Clair D. and Pfaff. 2,838,175.

Pfizer, Chas. & Co. Inc.: *See*—
Laubach, Gerald D. 2,838,526.
Laubach, Gerald D., and Brunings. 2,838,527.

Phelps, George E., Jr. Plier-type rivet removing tool. 2,837,951, 6–10–58, Cl. 81—15.

Philco Corp.: *See*—
Albright, Robert B., and Wise. 2,838,755.

Philipp, Otto M., to The National Cash Register Co. Tens transfer mechanism for totalizers. 2,838,241, 6–10–58, Cl. 235—138.

Phillips Petroleum Co.: *See*—
Adams, Max M. 2,838,697.
Cruzan, Charles G., and Piety. 2,838,731.
Hillyer, John C., and Edmonds. 2,838,478.
Kratochvil, Kenneth V. 2,838,586.
Miller, Elmer C. 2,837,960.
Nisle, Robert G., and Poettmann. 2,838,008.
Reinecke, Marvin E. 2,837,961.
Schirmer, Robert M. 2,837,893.
Skinner, John G. 2,838,677.

Philpott, La Verne R., ⅝ to R. M. Page, ⅛ to H. G. Bowen, and ¼ to L. C. Young. Sweep circuit generator. 2,838,752, 6-10-58. Cl. 343—13.

Physical Medicine Products Co: *See*—
Paust, Lawrence R. 2,838,672.

Pickens, John D.: *See*—
Moffett, Walter K., and Pickens. 2,838,464.

Picker X-Ray Corp., Waite Mfg. Div., Inc.: *See*—
Graves, Edward B., and Ball. 2,838,681.

Piety, Raymond G.: *See*—
Cruzan, Charles G., and Piety. 2,838,731.

Piker, Herbert M., to Hamilton-Skotch Corp. Insulated container. 2,838,194, 6–10–58, Cl. 215—13.

Piker, Herbert M., to Hamilton-Skotch Corp. Closure cap for an insulated container. 2,838,211, 6–10–58, Cl. 222—460.

Pilling, George P., & Son Co.: *See*—
Ara, Abidin. 2,838,050.

Pilo, Claes W., and S. W. Dahlbeck. Process for the recovery of heat from hot gases. 2,838,135, 6–10–58, Cl. 183—120.

Pines Engineering Co., Inc.: *See*—
Meredith Robert J. 2,837,928.

Pitt, Samuel: *See*—
Hallam, Cecil A., and Pitt. 2,837,764.

Pittsburgh Corning Corp.: *See*—
Lynsavage, Walter F. 2,837,873.

Pittsburgh Plate Glass Co.: *See*—
Kocher, Fred W. 2,837,876.

Planer, George V., and R. W. Windebank, to Sprague Electric Co. Film resistor spirallising. 2,838,639, 6–10–58, Cl. 201—63.

Pocock, Tyndall C., to International Standard Electric Corp. Telephone subscriber's instruments. 2,838,612, 6–10–58, C. 179—81.

Poettmann, Fred H.: *See*—
Nisle, Robert G. and Poettmann. 2,838,008.

Pohl, Robert G., to The Rauland Corp. Semi-conductor signal translating device. 2,838,434, 6–10–58, Cl. 148—33.

Poirette Corsets, Inc.: *See*—
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Polaroid Corp.: *See*—
Bing Herbert A. 2,837,853.
Bing Herbert A., and Lothrop. 2,837,854.
Casselman, Robert C. 2,837,852.
Grey, David S. 2,837,967.
Land, Edwin H. 2,837,987.

Polite, Roosevelt I. Basketball game apparatus. 2,838,308, 6–10–58 Cl. 273—1.5.

Porowski, Thaddeus, to A. E. Staley Mfg. Co. Thick-pasting starch containing urea-formaldehyde and process of making the same. 2,838,465, 6–10–58, Cl. 260—17.3.

Porsche System Engineering Ltd.: *See*—
Eyb, Wolfgang. 2,838,344.

Porter, Harry A., Jr.: *See*—
Norton, Charles E., and Porter. 2,837,797.

Porterfield, Cecil P., to Firth Sterling Inc. Method and apparatus for spark machining. 2,838,652, 6–10–58, Cl. 219—69.

Power Jets (Research and Development) Ltd.: *See*—
Davidson, Ivor M., and Dimmock. 2,838,256.

Prelog, Vladimir: *See*—
Ruzicka, Leopold, and Prelog. 2,838,580.

Pressley, Augusta M. Shaft and hub constructions. 2,838,329, 6–10–58, Cl. 287—52.03.

Preston, John: *See*—
Olson, Harry F., and Preston. 2,838,607.

Prettre, Marcel, E. Grimaud, and R. Allirot, to Société Anonyme dite: Societe d'Electro-Chimie, d'Electro-Metallurgie et des Acieries Electriques d'Ugine. Method for the condensation of chlorinated rubber and aromatic compounds and product obtained. 2,838,587, 6–10–58, Cl. 260—772.

Price, George B. Knurling tool for bowling balls. 2,837,993, 6–10–58, Cl. 101—4.

Priebe, Ernest B., Jr. and P. A., to Drake Block Co., Inc. Process of casting heat exchange fins upon a tube. 2,837,799, 6–10–58, Cl. 22—206.

Priebe, Paul A.: *See*—
Priebe, Ernest B., Jr. and P. A. 2,837,799.

Prindle, Robert H. Wire package and method of forming. 2,838,172, 6–10–58, Cl. 206—59.

Prismo Safety Corp.: *See*—
Rindone, Guy E. 2,838,408.

Pritchett, Clarence L. Slidable nut actuated, slidable outer jaw wrench. 2,837,952, 6–10–58, Cl. 81—172.

Pugh, Alexander L., Jr., to International Resistance Co. Method and apparatus for flame spiralling. 2,838,427, 6–10–58, Cl. 117—212.

Pyne, William J., to Diamond Alkali Co. N-(2-pyridyl)-tetrachlorophthalimide, process and use as insecticide. 2,838,438, 6–10–58, Cl. 167—33.

Quaker Oats Co., The: *See*—
Dunlop, Andrew P., and Schegulla. 2,838,523.

Quatrum Corp.: *See*—
Vilutis, Leonard J. 2,837,979.

Radio Corp. of America: *See*—
Goldberg, Edwin A. 2,838,663.
Goldsmith, Alfred N. 2,837,965.
Hoehn, John J., and Hills. 2,838,305.
Lindenblad, Nils E. 2,837,899.
Olson, Harry F., and Preston. 2,838,607.
Stavrakis, Alexander, and Kennedy. 2,838,250.

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Antalek, John J., and Saville. 2,838,738.

Raible, Frank, J. E. and R. C. Nemeth, to Vacuum-Electronic Engineering Co. Ion source. 2,838,676, 6–10–58, Cl. 250—41.9.

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Ralls, Jack W., W. C. Wildman, K. E. McCaleb, and A. L. Wilds, to Wisconsin Alumni Research Foundation. Decahydrophenanthrene dienes; their preparation and intermediates. 2,838,569, 6–10–58, Cl. 260—586.

Ramsden, Hugh E., to Metal & Thermit Corp. Chemical process and product. 2,838,508, 6–10–58, Cl. 260—247.

Randall, Jack H. P., to F. A. Hughes & Co. Ltd. Cathodic protection means. 2,838,453, 6–10–58, Cl. 204—197.

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Rasmusson, Marlin B., and R. J. Betschart. Hydraulic dash-pot controller for an actuator. 2,838,140, 6–10–58, Cl. 188—97.

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Ray, William A., to General Controls Co. Electromagnetic valve. 2,838,068, 6–10–58, Cl. 137—625.33.

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Turner, Edwin E. 2,838,706.

Ready, Harold R.: *See*—
Matuszak, Alfred H., and Ready. 2,838,573.

Redka, Henry R., ½ to A. K. Roemermann, Jr. Boomerang. 2,838,310, 6–10–58, Cl. 273—106.

Rees, Frank W., to C. W. Sparks. Adjustable strut. 2,838,266, 6–10–58, Cl. 248—355.

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Reimers, Ernst, to Junkers & Co., G. m. b. H. Pulse jet burner system. 2,838,102, 6–10–58, Cl. 158—4.

Reinecke, Marvin E., to Phillips Petroleum Co. Drive mechanism. 2,837,961, 6–10–58, Cl. 88—14.

Reinhard, Louis, and H. Klauser, to Albiswerk Zurich A. G. Reflector antenna for microwaves. 2,838,756, 6–10–58, Cl. 343—912.

Reiser, George C., and C. H. Shuptrine, to Toledo Scale Corp. Weighbridge. 2,838,299, 6–10–58, Cl. 265—71.

Rekettye, Paul, to The Sun Rubber Co. Apparatus for spray coating balls. 2,838,024, 6–10–58, Cl. 118—321.

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Rhodin, Thor N., Jr., to E. I. du Pont de Nemours, and Co. Metal production. 2,838,396, 6–10–58, Cl. 75—174.

Ribera, Leonard, to The Texas Co. Soldering flux. 2,838,433, 6–10–58, Cl. 148—25.

Ribeyre, Claude F. A., to Lignes Telegraphiques & Telephoniques. Ringing signal receiver including non-linear elements for telecommunication systems. 2,838,613, 6–10–58, Cl. 179—84.

Ricci, Domingo C. Key holder and selector. 2,837,909, 6–10–58, Cl. 70—456.

Rice, Henry T. M., to Cheminol Corp. Internal combustion engine. 2,838,035, 6–10–58, Cl. 123—65.

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Alexeff, Alexander V., Homburg, and Richards. 2,837,834.

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Richardson, John E., to The Magnavox Co. Pulse generator. 2,838,692, 6–10–58, Cl. 307—132.

Riemenschneider, Claud C. Roll holding facilities of equipment for storing and handling rolls of carpeting. 2,838,249, 6–10–58, Cl. 242—55.2.

Rigert, Max, to McGraw-Edison Co. Switch construction. 2,838,630, 6–10–58, Cl. 200—98.

Riggs, Fred: *See*—
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Ring, Lucian. 2,837,793.
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Ring, Lucian. 2,837,795.

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Ring, Lucian, to Ring Aluminum Development Co. Die casting structure. 2,837,795, 6–10–58, Cl. 22—70.

Ringgenberg, Herman I., to Sinclair Refining Co. Fluidized catalytic reactor. 2,838,382, 6–10–58, Cl. 23—288.

Ringman, Henry W., to Sumner Iron Works. Rechipper. 2,838,248 6–10–58, Cl. 241—92.

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Robb, Vincent P., and J. R. Sacher. Current collector assembly for railway cranes. 2,838,621, 6–10–58, Cl. 191—48.

Robb, Wayne F., and B. W. Myer, Jr., to Yorker & Sons, Inc. Container closure caps. 2,838,215, 6–10–58, Cl. 222—521.

Robert, Alan A., and O. Keckstein, to Coachcraft, Ltd. Apparatus for atomizing liquids. 2,838,362, 6–10–58, Cl. 261—83.

Robertson, Snell, to Swingspout Measure Co. Safety container. 2,838,212, 6–10–58, Cl. 222—473.

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Robinson, Billy P., C. L. Wendorff, and W. M. Zingg, to The Dow Chemical Co. Acidizing industrial equipment. 2,838,417, 6–10–58, Cl. 117—49.

Robinson, Robert L. Plumbing fixture connecting means. 2,837,750, 6–10–58, Cl. 4—252.

Robinson, William J., to Minneapolis-Honeywell Regulator Co. Electromagnetic conductive fluid pump. 2,838,001, 6–10–58, Cl. 103—1.

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Roemermann, Albert K., Jr.: *See*—
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Rohrberg, Paul W., to The New York Air Brake Co. Metallic sealing ring. 2,838,328, 6–10–58, Cl. 286—1.

Rolfson, Francis B., and W. B. Milligan, to Shell Development Co. Electronic thermoregulator. 2,838,644, 6–10–58, Cl. 219—20.

Roller, Edwin R. Automotive sub-atmospheric pressure-actuated overdrive control and indicator system. 2,837,932, 6–10–58, Cl. 74—472.

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Rose, Edward H. Multi-directional flashlight lens adapters. 2,838,750, 6–10–58, Cl. 340—321.

Rosenblatt, Alexander, and J. F. Burfield, to Sylvania Electric Products Inc. Lamp sealing method. 2,837,880, 6–10–58, Cl. 53—7.

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Rovis, Max. Marble cutting and finishing machine. 2,838,041, 6–10–58, Cl. 125—13.

Rowley, Lothair H., and P. J. McKeown, to The Sperry Rand Corp. Ford Instrument Co. Division. Differential limit stop. 2,837,925, 6–10–58, Cl. 74—10.2.

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Rosian, Irving W., to Ford Motor Co. Process for degassing ferrous metals. 2,837,790, 6–10–58, Cl. 22—57.2.

Rudel, Harry W., to Esso Research and Engineering Co. Improved fuel compositions. 2,838,387, 6–10–58, Cl. 44—79.

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Ryall, James A. Auxiliary pedal for automobile dimmer switches. 2,838,628, 6–10–58, Cl. 200—61.89.

Ryckman, George E. Tracer. 2,838,268, 6–10–58, Cl. 251—3.

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St. Joe Paper Co.: *See*—
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Salinger, Hans W., to International Telephone and Telegraph Corp. Focusing adjusting system. 2,838,600, 6–10–58, Cl. 178—7.2.

Samler, Lee F., to The National Plastic Products Co. Screen changing method for conduits and tubes for conveying fluids and for extrusion machines. 2,838,084, 6–10–58, Cl. 146—242.

Sanders, Charlis A. Electrolyte for storage batteries, and process for producing the same. 2,838,429, 6–10–58, Cl. 136—154.

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Lutz, Karl, and Hemmi. 2,838,425.

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Saunderson, Jason L., and E. Du Bois, to Baird-Atomic, Inc. Automatic means for aligning spectroscopic components. 2,837,959, 6–10–58, Cl. 88—14.

Savercool, John V., to Allied Chemical & Dye Corp. Process for stabilizing creosote oils by shock cooling and stabilized product. 2,838,447, 6–10–58, Cl. 196—149.

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Schaldenbrand, Arthur L., to Ford Motor Co. Motor vehicle body mount. 2,838,339, 6–10–58, Cl. 296—35.

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Schieberl, Charles E. Safety guard for valves. 2,838,064, 6–10–58, Cl. 137—382.

Schirmer, Robert M., to Phillips Petroleum Co. Automatic primary and secondary air flow regulation for gas turbine combustion chamber. 2,837,893, 6–10–58, Cl. 60—39.23.

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Schulte, Josef. Parking wheel. 2,838,187, 6–10–58, Cl. 214—16.1.

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Schwager, August C., to Schwager-Wood Corp. Circuit interrupting and isolating means for high voltage circuits. 2,838,637, 6–10–58, Cl. 200—145.

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Colton, Frank B. 2,838,530.
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Selbert, Ernest H., and J. J. Cada to Cory Corp. Writing instrument. 2,838,026, 6–10–58, Cl. 120—42.03.

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Smith, Frederick H.: *See*—
Ayres, Arthur U., and Smith. 2,838,553.

Smith, Hannah. Manicure device. 2,838,057, 6–10–58, Cl. 132—76.4.

Smith, John M., and J. A. Gay. Pre-start and auxiliary pressure oiler. 2,838,039, 6–10–58, Cl. 123—196.

Snoddy, Calvin S., Jr.: *See*—
Graber, Robert P., and Snoddy. 2,838,493.

Snyder, Alton G., to The National Cash Register Co. Key-responsive calculating machine with automatic repeat mechanism. 2,838,235, 6–10–58, Cl. 235—62.

Snyder, Elmer L. Stock tank heater. 2,838,649, 6–10–58, Cl. 219—38.

Snyder, Richard F. Pellet dispensing devices. 2,838,204, 6–10–58, Cl. 221—307.

Société Anonyme dite: Société d'Electro-Chimie, d'Electro-Metallurgie et des Acieries Electriques d'Ugine: *See*—
Prettre, Marcel, Grimaud, and Allirot. 2,838,587.

Societe Anonyme dite: Societe Generale Isothermos: *See*—
Bouvat-Martin, Jean. 2,838,347.

Societe Anonyme dite: Stenotype Grandjean: *See*—
Segui, Jean. 2,838,155.

Societe Commerciale E. C. A.: *See*—
Ecary, Charles A. 2,838,724.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Normant, Henri. 2,838,576.

Sohl, William E., to Minnesota Mining and Mfg. Co. Adhesives and adhesive tapes. 2,838,421, 6–10–58, Cl. 117—122.

Sommer, Leo H., to Dow Corning Corp. Organosilicon substituted pyridines. 2,838,515, 6–10–58, Cl. 260—290.

Sonotone Corp.: *See*—
Crownover, Joseph W., and Koren. 2,838,723.

Sosalla, William D. Outboard motor carrier. 2,838,320, 6–10–58, Cl. 280—47.24.

Souillard, Georges J. P. Process for the separation of a mixture of benzene and paraffins. 2,838,450, 6–10–58, Cl. 204—163.

Soule Steel Co.: *See*—
Smirnoff, Boris. 2,837,783.

Southerland, Francis M., to W. E. Rascoe. Textile boarding apparatus. 2,837,832, 6–10–58, Cl. 34—103.

Sparks, Cameron W.: *See*—
Rees, Frank W. 2,838,266.

Spaunburg, Harvey L., and G. W. White, to Veeder-Root Inc. Register mechanism for dispensing apparatus. 2,838,237, 6–10–58, Cl. 235—94.

Specialties Development Corp.: *See*—
Martine, Chester E. 2,838,684.
Muller, Ferdinand H. 2,837,809.

Specialty Brake Appliance Co.: *See*—
James, Thomas, Jr. 2,838,141.

Speed-Park, Inc.: *See*—
Alimanestiano, Mihai. 2,838,186.

Spencer Chemical Co.: *See*—
Francis, William C., Turbett, and Groenweghe. 2,838,410.

Spencer, Virgil, to Armstrong Cork Co. Distributor. 2,838,153, 6–10–58, Cl. 193—23.

Speranza, Joseph B.: *See*—
Scesa, Olindo, and Speranza. 2,838,593.

Spero, George B.: *See*—
Magerlein, Barney J., Schneider, Sebek, and Spero. 2,833,545.
Magerlein, Barney J., Schneider, Sebek, and Spero. 2,838,546.
Magerlein, Barney J., Schneider, Sebek, and Spero. 2,838,547.
Magerlein, Barney J., Schneider, Sebek, and Spero. 2,838,548.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,498.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,535.
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Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,539.
Magerlein, Barney J., Spero, Schneider, and Hogg. 2,838,541.

Spero, George B., and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process. 2,838,497, 6–10–58, Cl. 260—239.55.

Spero, George B., B. J. Magerlein, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process. 2,838,499, 6–10–58, Cl. 260—239.55.

Spero, George B., and J. A. Hogg, to The Upjohn Co. 6-halo-17 (20)-pregnenes. 2,838,532, 6–10–58, Cl. 260—397.45.

Spero, George B., B. J. Magerlein, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process. 2,838,537, 6–10–58, Cl. 260—397.45.

Spero, George B., B. J. Magerlein, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process for preparing same. 2,838,538, 6–10–58, Cl. 260—397.45.

Spero, George B., B. J. Magerlein, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process. 2,838,542, 6–10–58, Cl. 260—397.45.

Spero, George B., B. J. Magerlein, W. P. Schneider, and J. A. Hogg, to The Upjohn Co. 6-fluoro steroids and process. 2,838,543, 6–10–58, Cl. 260—397.45.

Sperry Rand Corp.: *See*—
Eckert, John P., Jr. 2,838,686.
Eckert, John P., Jr. 2,838,746.
Eckert, John P., Jr., and Gray. 2,838,690.
Lopez, Frank A. 2,838,174.

Sperry Rand Corp., Ford Instrument Co. Division: *See*—
Crooke, Raymond E. 2,837,929.
Rowley, Lothair H., and McKeown. 2,837,925.

Sperti Faraday, Inc.: *See*—
Panzenhagen, Leonhard R. 2,838,629.
Rumler, Hugh, and Hughes. 2,838,749.

Spierer, Edward D. Photoelectric control system. 2,838,716, 6–10–58, Cl. 315—152.

Spink, Leland K., to Rivett Lathe & Grinder, Inc. Flow controller. 2,838,030, 6–10–58, Cl. 121—45.

Spinnavac Corp.: *See*—
Hewitt, Woodrow W. 2,837,774.

Spitzer, William L. Watchmaker's drill press for use with a lathe. 2,837,938, 6–10–58, Cl. 77—5.

Spotnails, Inc.: *See*—
Crooks, Charles E., and Beckman. 2,837,743.

Spracklen, John G.: *See*—
Adler, Robert, and Spracklen. 2,838,668.

Sprague Electric Co.: *See*—
Planer, George V., and Windebank. 2,838,639.

Sprick, Walter, to International Business Machines Corp. Character reader. 2,838,602, 6–10–58, Cl. 178—15.

Springate, Norman, to Canadian Forest Products Ltd. Pulp wood chipper feeds. 2,838,080, 6–10–58, Cl. 144—242.

Sprout, Oliver S., Jr., to Pennsalt Chemicals Corp. Stabilization of solutions containing peroxygen compounds. 2,838,459, 6–10–58, Cl. 252—186.

Staar, Marcel J. H. Means for centering gramophone records. 2,838,315, 6–10–58, Cl. 274—39.

Staley, A. E. Mfg. Co.: *See*—
Porowski, Thaddeus. 2,838,465.

Stalker Development Co., The: *See*—
Stalker, Edward A. 2,838,273.

Stalker, Edward A., to The Stalker Development Co. Dampers for axial flow blades. 2,838,273, 6–10–58, Cl. 253—77.

Standard Oil Co. (Indiana): *See*—
Karll, Robert E., and Sabol. 2,838,484.

Standard Oil Co. (Ohio), The: *See*—
Jackson, Warren, Jr. 2,837,771.

Standard Steel Works, Inc.: *See*—
Gredell, Otto N. 2,838,285.

Stark, Frank H.: *See*—
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Starkweather, Warner H., Jr., to E. I. du Pont de Nemours and Co. Adhesion of resins to glass. 2,838,418, 6–10–58, Cl. 117—65.

Starreveld, Jaap: *See*—
Mantz, Marius R., and Starreveld. 2,838,659.

Stasiak, Raymond R., to United States of America, Air Force. Extinguishment of rocket propellant fires. 2,837,891, 6–10–58, Cl. 60—35.4.

Statton, Perry B. Unloading-type hand truck. 2,838,193, 6–10–58, Cl. 214—511.

Staude, Edwin G., ½ to O. B. Staude. Steering wheel stabilizer. 2,838,125, 6–10–58, Cl. 180—79.2.

Staude, Olive B.: *See*—
Staude, Edwin G. 2,838,125.

Stavrakis, Alexander, and C. J. Kennedy, to Radio Corp. of America. Web drive mechanism. 2,838,250, 6–10–58, Cl. 242—55.12.

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Detrie Arthur J., and Stayboldt. 2,838,210.

Stealit-Magnesia Akt.: *See*—
Berkenhoff, Heinz. 2,838,304.

Steed, Evart R. Apparatus for building circular structures. 2,837,910, 6–10–58, Cl. 72—129.

Steen, Harford K., to Interstate Bag Co., Inc. Handled bag of paper or like material and method of making same. 2,838,224, 6–10–58, Cl. 229—54.

Steigmann, Ernst A., M. Hamell, and B. Idson, to General Foods Corp. Gelatin dessert product. 2,838,402, 6–10–58, Cl. 99—130.

Stelijes, Charles R., and J. P. Rogers, to The Murray Corp. of America. Laundry appliances. 2,837,927, 6–10–58, Cl. 74—81.

Stelma, Frank: *See*—
Korsgren, Theodore Y., Sr., and Stelma. 2,837,926.

Stephens, Robert B.: *See*—
Lovell, Peter G., and Stephens. 2,837,729.

Sterer Engineering & Mfg. Co.: *See*—
Stumm, Richard A., Jr. 2,838,072.

Sterling Drug Inc.: *See*—
Crounse, Nathan N. 2,838,504.
Surrey, Alexander R., and Cutler. 2,838,514.
Werner, Raymond E., and Langstroth. 2,838,412.
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Stevens, Otis L., and E. J. Millard, Sr. Mechanical torsional vibration damper. 2,837,902, 6–10–58, Cl. 64—29.

Stevens, William P. Hand truck. 2,838,190, 6–10–58, Cl. 214—374.

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Roelen, Otto, Kolling, Geiser, and Stiebling. 2,838,477.

Stiegler, George. Hamburg steak patty forming device. 2,837,761, 6–10–58, Cl. 17—32.

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Tummers, Leonard J., and Stieltjes. 2,838,617.

Stineman, Russell W., to Boeing Airplane Co. Control apparatus for synchronizing sources of alternating current. 2,838 685, 6–10–58, Cl. 307—87.

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Binstead, Hugh C., and Stockwell. 2,837,963.

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Stoelting, Carl R., and M. C. Thomson, to Kusel Dairy Equipment Co. Serpentine holding container. 2,838,288, 6–10–58, Cl. 257—255.

Stokes John J., Jr., to Aluminum Co. of America. Primary cell. 2,838,591, 6–10–58, Cl. 136—100.

Stolitzka Alexander F. Tube-forming ring. 2,837,766, 6–10–58, Cl. 18—17.

Storchheim, Samuel, to United States of America, Atomic Energy Commission. Method of solid state welding. 2,837,818, 6–10–58, Cl. 29—494.

Strano, Salvatore: *See*—
Cornwell, Alexander M. Jr., Jackes, and Strano. 2,838,334.

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Stratford, William M., to The Texas Co. Production of ammonia synthesis feed gas. 2,838,460, 6–10–58, Cl. 252—376.

Stricker, Charles D., to United States Steel Corp. Method for treatment of spent hydrochloric acid pickle liquor for the recovery of iron oxide, ammonium sulphate and hydrochloric acid. 2,838,373, 6–10–58, Cl. 23—119.

Strickland, Edward T.: *See*—
Amos, Homer, and Strickland. 2,838,261.

Strumbos, William P. Torsion spring. 2,838,301, 6–10–58, Cl. 267—57.1.

Stumm, Richard A., Jr., to Sterer Engineering & Mfg. Co. Temperature compensated device for absorbing transient pressure fluctuations. 2,838,072, 6–10–58, Cl. 138—26.

Stump, Wilbur F. Liquid level control device. 2,838,061, 6–10–58, Cl. 137—154.

Süddeutsche Kalkstickstoff-Werke A. G.: *See*—
Fischer, Thomas, Kronacher, and Kaess. 2,838,379.

Sullivan, Frank E., to The De Laval Separator Co. Method for continuous processing of tall oil and the like. 2,838,481, 6–10–58, Cl. 260—97.5.

Sumiya, Shinzo. Multiple effect vacuum evaporator. 2,838,108, 6–10–58, Cl. 159—17.

Sumner Iron Works: *See*—
Ringman, Henry W. 2,838,248.

Sun Oil Co.: *See*—
Schneider, Abraham. 2,838,583.
Shawhan, Elbert N. 2,838,378.

Sun Rubber Co. The: *See*—
Rekettye, Paul. 2,838,024.

Super Sagless Spring Co.: *See*—
Bank, Albert M., and Katz. 2,838,093.

Surrey Alexander R., and R. A. Cutler, to Sterling Drug Inc. Process of preparing 4-arylmethylquinolines. 2,838,514, 6–10–58, Cl. 260—283.

Sussman, Philip S.: *See*—
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Suter, Hans, and H. Zutter, to Eprova Ltd. New local anesthesia producing morpholino-alkanol ethers and salts thereof. 2,838,510, 6–10–58, Cl. 260—247.7.

Sutton Engineering Co.: *See*—
Skawden, Odd J., and Gettig. 2,838,090.

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Svensson, Sven A. G.: *See*—
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Swanson, John I., to Union Steel Products Co. Reinforce assemblies and units thereof. 2,837,985, 6–10–58, Cl. 94—8.

Swern, Daniel, and W. E. Parker, to United States of America, Agriculture. Separation of mixed fatty acids. 2,838,480, 6–10–58, Cl. 260—96.5.

Swingspout Measure Co.: *See*—
Robertson, Snell. 2,838,212.

Sylvania Electric Products Inc.: *See*—
Bender, Harry. 2,838,390.
Payne, Elmer C. 2,838,715.
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Szigeti, György: *See*—
Lakotos, György, Szabó, Szigeti, and Weiszburg. 2,838,633.

Tagliaferri, Giacomo A. Ductless electric induction furnace and process for the starting thereof. 2,838,588, 6–10–58, Cl. 13—28.

Talalay, Anselm, ½ to The Dayton Rubber Co., and ½ to The B. F. Goodrich Co. Method for the manufacture of foam rubber. 2,837,768, 6–10–58, Cl. 18—53.

Tarbet, Edith: *See*—
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Technical Service, Inc.: *See*—
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Teer, Kees, to North American Philips Co., Inc. Detector circuit for use in television receiver. 2,838,666, 6–10–58, Cl. 250—27.

Teggelaar, Claude J., to Grand Rapids Hardware Co. Window structure or assembly. 2,837,781, 6–10–58, Cl. 20—52.2.

Tele-Dynamics Inc.: *See*—
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Terry, Roger M., and R. M. Gardner, to Sylvania Electric Products Inc. Wire flattening, hooking and feeding device. 2,838,075, 6–10–58, Cl. 140—71.6.

Tessmann, Alfred H., to Industrial Research and Development Corp. Method and apparatus for continuous casting. 2,837,791, 6–10–58, Cl. 22—57.2.

Teter, John W., J. L. Gring, and C. D. Keith, to Engelhard Industries, Inc. Alumina catalyst base. 2,838,375, 6–10–58, Cl. 23—142.

Teter, John W., J. L. Gring, and C. D. Keith, to Engelhard Industries, Inc. Platinum-alumina catalyst manufacture. 2,838,444, 6–10–58, Cl. 196—50.

Teter, John W., deceased (by R. Y. Teter, administratrix), C. D. Keith, and J. L. Gring, to Engelhard Industries, Inc. Reforming process and catalyst. 2,838,445, 6–10–58, Cl. 106—50.

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Teysseire, Marcel, and H. P. Sieber, to Lonza Electrical and Chemical Works Ltd. Preparation of cyanuric chloride. 2,838,512, 6–10–58, Cl. 260—248.

Thomas, Albert, and J. Marlow, to Armstrong Siddeley Motors Ltd. Preventing or reducing stalling of the early rows of axial-flow compressor blades of gas turbine engines. 2,838,227, 6–10–58, Cl. 230—114.

Thomas, Albert. Adjustable boring bar assembly. 2,838,316, 6–10–58, Cl. 279—6.

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Thomas, John V. Gas burner. 2,838,106, 6–10–58, Cl. 158—119.

Thomas, William A., to Marvel Engineering Co. Magnetic filters. 2,838,179, 6–10–58, Cl. 210—223.

Thompson, Ivan P.: *eSe*—
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Thompson Products, Inc.: *See*—
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Thomson, Meredith C.: *See*—
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Thurmon, Francis M., to Rohm & Haas Co. Dusting powder of carboxylic cation-exchange resin and powder base. 2,838,440, 6–10–58, Cl. 167—58.

Thurston, Robert N., to Bell Telephone Laboratories, Inc. Multi-section quartz torsional transducers. 2,838,695, 6–10–58, Cl. 310—8.1.

Thurston, Robert N., to Bell Telephone Laboratories, Inc. Torsional transducers of etylene diamine tartrate and dipotassium tartrate. 2,838,696, 6–10–58, Cl. 310—8.1.

Tile Council of America, Inc.: *See*—
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Tilford, Charles H.: *See*—
Allen, Robert E., Palopoli, Tilford, and Van Campen. 2,838,441.

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Tobolsky, Arthur V.: *See*—
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Toland, William G., Jr., to California Research Corp. Recovery of benzene polycarboxylic acids. 2,838,566, 6–10–58, Cl. 260—525.

Tolbert, Charles E.: *See*—
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Toledo Scale Corp.: *See*—
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Tomonari, Tsukumo: *See*—
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Tompkins, Gerald S., to American Viscose Corp. Textiles and conditioning compositions therefor. 2,838,455, 6–10–58, Cl. 252—8.6.

Torma, Louis, ½ to S. Horvath. Security locks. 2,838,748, 6–10–58, Cl. 340—276.

Towns, Mirabeau C., Jr., to United States of America, Navy. Automatic oxygen vapor vent valve for engines. 2,838,060, 6–10–58, Cl. 137—115.

Trousdale, Robert B., to General Dynamics Corp. Electronic telephone system. 2,838,610, 6–10–58, Cl. 179—15.

Trousdale, Robert B., to General Dynamics Corp. Oscillator control circuit. 2,838,674, 6–10–58, Cl. 250—36.

Tsutsumi, Shigeru, and T. Tomonari, to Kurashiki Rayon Co. Ltd. Method of maufacturing acetylene from hydrocarbons. 2,838,584, 6–10–58, Cl. 260—679.

Tummers, Leonard J., and F. H. Stieltjes, to North American Philips Co., Inc. Circuit-arrangement comprising a four-zone translator. 2,838,617, 6–10–58, Cl. 179—171.

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Francis, William C., Turbett, and Groenweghe. 2,838,410.

Turner, Edwin E., to Raytheon Mfg. Co. Method and apparatus for electronic commutation. 2,838,706, 6–10–58, Cl. 313—69.

Tutt, Richard D., to Allied Thermal Corp. Air diffuser. 2,837,990, 6–10–58, Cl. 98—40.

Twedt, Dik W. Shoe heel fastener. 2,837,841, 6–10–58, Cl. 36—36.

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Ahlstrand, Philip M. 2,837,898.
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Garrett, Henry U., and Brown. 2,838,006.

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Agriculture: *See*—
Notter, George K. 2,838,403.
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United States Steel Corp.: *See*—
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Universal Oil Products Co.: *See*—
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Kassel, Louis S., and Haensel. 2,838,582.
Universal Transistor Products Corp.: *See*—
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Babcock, John C., and Campbell. 2,838,534.
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346— 7: 2,838,358
22: 2,838,359
74: 2,838,360
83: 2,838,361

Classification of Designs

D 3—13: Des. 182,999
D 5— 4: Des. 182,995
Des. 182,996
D 9— 6: Des. 183,033
D10— 8: Des. 183,006
D13— 1: Des. 182,993
Des. 183,004
D14— 3: Des. 182,998
6: Des. 182,988

D14—18: Des. 183,012
D15— 1: Des. 183,009
D17—12: Des. 183,025
D26—14: Des. 183,019
Des. 183,032
D34— 5: Des. 183,007
15: Des. 183,011
Des. 183,023
Des. 183,027

D40— 1: Des. 183,003
Des. 183,024
D42— 7: Des. 183,034
D48—16: Des. 182,991
23: Des. 182,986
32: Des. 183,018
D49— 1: Des. 182,987
D52— 3: Des. 183,028

D52— 7: Des. 183,002
D58— 5: Des. 183,000
6: Des. 182,992
8: Des. 182,997
Des. 183,008
13: Des. 182,989
D61— 1: Des. 183,001
D64—10: Des. 183,029

D64—11: Des. 183,014
D71— 1: Des. 183,010
Des. 183,016
Des. 183,021
D72— 1: Des. 182,994
Des. 183,017
D74— 1: Des. 183,031
D80— 2: Des. 183,026

D80— 5: Des. 183,013
D81—10: Des. 183,005
D83— 1: Des. 182,990
D87— 3: Des. 183,020
Des. 183,022
D89— 1: Des. 183,030
D91— 1: Des. 183,015
3: Des. 183,035

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

June 10, 1958 Volume 731 Number 2

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 23,100 (STANDARD), Standard Sewing Machine Co., Sewing machines, filed July 12, 1957, D. C., S. D. N. Y., Doc. 122/245, *Standard Sewing Equipment Corp.* v. *Singer Mfg. Co.* Consent judgment; complaint and counterclaim dismissed; plaintiff enjoined Apr. 23, 1958.

TM 79,462 (DESIGN FOR BEER CONTAINERS), P. Ballantine & Sons, Ale, beer, and other malt liquors; **TM 119,244**, same, Trademark for lager-beer; **TM 232,889** (PURITY BODY FLAVOR AND DESIGN), same, filed Jan. 24, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18410, *P. Ballantine & Sons* v. *3 Rings Cafe, Inc.* Order of discontinuance Apr. 30, 1958.

TM 119,244. (See TM 79,462.)

TM 119,887 (F–S AND DESIGN), Felton, Sibley & Co., Inc., Putty, ready mixed paints, etc., filed Feb. 20, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 24146, *Felton, Sibley & Co., Inc.* v. *F & S Paints and F & S Paint Stores.* Consent judgment Apr. 22, 1958.

TM 137,160 (CORO), Cohn and Rosenberger, Inc., Pocketbooks, bill-cases, etc.; **TM 141,000**, same, Articles of jewelry; **TM 280,406** (PADDOCK BY CORO AND DESIGN), same; **TM 280,906** (HI-JINKS BY CORO AND DESIGN), same; **TM 299,084** (MOONBEAM BY CORO AND DESIGN), same; **TM 300,278** (STERLING CRAFT BY CORO AND DESIGN), same; **TM 402,504** (RAPTURE BY CORO AND DESIGN), same; **TM 427,417** (CORO AND DESIGN), Coro, Inc., Jewelry; **TM 531,268** (CORO), same, filed May 1, 1958, D. C., S. D. N. Y., Doc. 133/20, *Coro, Inc.* v. *Curo Company.*

TM 141,000. (See TM 137,160.)

TM 332,889. (See TM 79,462.)

TM 280,406. (See TM 137,160.)

TM 280,906. (See TM 137,160.)

TM 300,084. (See TM 137,160.)

TM 300,278. (See TM 137,160.)

TM 402,504. (See TM 137,160.)

TM 411,700 (REDMANIZED), F. R. Redman, Washable fabric; **TM 577,002**, same, Underwear, including infants' and children's pull-over shirts, etc., filed Apr. 23, 1958, D. C., S. D. N. Y., Doc. 132/279, *Redman Process American Corp.* v. *Perfect Jersey Co., Inc.*

TM 427,417. (See TM 137,160.)

TM 508,995 (PENDLETON), Pendleton Woolen Mills, Shirts, lounging robes, trousers, etc.; **TM 514,710**, same, Yardage and blankets, filed May 1, 1958, D. C., E. D. Ill. (Chicago), Doc. 58c776, *Pendleton Woolen Mills* v. *Sears, Roebuck & Co.*

TM 514,710. (See TM 508,995.)

TM 531,268. (See TM 137,160.)

TM 554,811 (DACRON), E. I. du Pont de Nemours & Co., Synthetic polyester fibers for generalized use in industrial arts; **TM 555,085**, same, Yarns of synthetic fibers, filed Apr. 25, 1958, D. C., S. D. N. Y., Doc. 132/312, *E. I. du Pont de Nemours & Co.* v. *Pilzer Mfg. Co., Inc.*

CONDITION OF TRADEMARK APPLICATIONS AS OF APRIL 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,733
Date of oldest new application	Sept. 5, 1957
Date of oldest amended application	Sept. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Oldest Application: Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	10-16-57	9-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	9-5-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	10-4-57	12-9-57
Renewals (All Classes)	3-26-58	4-25-58
Sec. 12 (c) Publications (All Classes)	2-17-58	4-25-58

Applications Filed During the Month of April 1958—1,965

Registrations Issued 201—No. 662,731 to No. 662,931
Renewals Issued 80

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

TM 555,685. (See TM 554,811.)

TM 577,002. (See TM 411,709.)

TM 631,207 (ERECTA SHELF), Metropolitan Wire Goods Corp., Shelving units for use in the home as an article of furniture, **filed** Apr. 29, 1958, D. C., S. D. N. Y., Doc. 132/368, *Metropolitan Wire Goods Corp.* v. *Kingston Wire Products Inc. et al.*

TM 654,572 (DRESS-A-DOLL DISKS), Johnson & Johnson, Dressing materials for dolls and similar toys, **filed** Feb. 7, 1958, D. C., S. D. N. Y., Doc. 129/321, *Johnson & Johnson* v. *Sculpture Paper Products Co. et al.* Stipulation and order of discontinuance; defendants will delete the name "DESIGN-A-DOLL DRESS" and substitute another name not similar to plaintiff's mark Apr. 29, 1958.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 23,123. Brownell Rose Company, East Providence, R. I. Filed Jan. 24, 1957. Sec. 2(f).

BROWNELL

For Hybrid Rose Bushes.
First use Oct. 1, 1933.
Subj. to Intf. with SN 44,314.

SN 29,112. Textron Inc., d. b. a. F. Burkart Mfg. Company, St. Louis, Mo. Filed Apr. 29, 1957.

BURKART URETHANE FOAM

The words "Urethane Foam" are disclaimed apart from the mark as shown.
For Cellular Urethane Plastic.
First use in January 1956.

SN 44,314. Rhode Island Hospital Trust Company, administrator of the estate of Walter D. Brownell, deceased, d. b. a. Brownell Rose Research Gardens and/or Brownell Roses, Providence, R. I. Filed Jan. 20, 1958. Sec. 2(f).

BROWNELL

For Rose Bushes, Roses, and Rose Bud Wood.
First use in 1928.
Subj. to Intf. with SN 23,123.

Class 2—Receptacles

SN 40,576. Hammond Iron Works, Warren, Pa. Filed Nov. 13, 1957.

HAMONDFLOTE

Owner of Reg. No. 614,637.
For Floating Covers for Tanks.
First use Oct. 30, 1957.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 30,604. Prince Gardner Company, Inc., St. Louis, Mo. Filed May 23, 1957.

THIN-TWIN

For Billfolds and Removable Pass Cases.
First use June 20, 1956.

SN 35,020. Bernard B. White, New York, N. Y. Filed Aug. 5, 1957.

Permatex

Owner of Reg. Nos. 387,010 and 611,971.
For Ladies' Handbags.
First use Mar. 1, 1953.

Class 4—Abrasives and Polishing Materials

SN 13,931. Joseph A. Romano, d. b. a. Winthrop Wax Co., West Babylon, N. Y. Filed Aug. 14, 1956.

Winthrop

For Polishing Wax.
First use Apr. 15, 1953.

SN 33,096. Pierce & Stevens Chemical Corp., Buffalo, N. Y. Filed July 2, 1957.

FAME

For Wax-Like Protective Coating for Various Flooring Materials.
First use June 11, 1957.

SN 34,385. Carl O. Wakefield, Decatur, Ill., to Professional Auto Beauty Shop, Inc., Decatur, Ill. Filed July 25, 1957.

PABS AUTO BEAUTY

For Liquid Cleaning and Glazing Compounds Including a Cleaner-Glaze and Buffer Cleaner-Glaze for Automobiles.
First use Feb. 7, 1957.

SN 38,985. Fischer-Lang & Company, Inc., Frederick, Md. Filed Oct. 16, 1957.

SECURE

For Floor Wax.
First use Mar. 22, 1956.

SN 38,986. Fischer-Lang & Company, Inc., Frederick, Md. Filed Oct. 16, 1957.

FLO-LUSTER

For Floor Wax.
First use Mar. 5, 1956.

SN 39,327. Milton J. Gordon, d. b. a. M. J. Gordon Company, Wall, Pa. Filed Oct. 22, 1957.

GORDON'S
Kromasil

For Chrome and Metal Polish.
First use Sept. 19, 1956.

SN 39,644. Kee Lox Manufacturing Company, Rochester, N. Y. Filed Oct. 28, 1957.

SILVER SPARKLE

For Silver Polish Impregnated Tissues.
First use Oct. 9, 1957.

SN 40,548. The Bergen Point Brass Foundry, Inc., d. b. a. Standard Bronze Co., Bayonne, N. J. Filed Nov. 13, 1957.

MARBLE-GLO

For Marble Polishing Compound.
First use May 10, 1957.

SN 40,549. The Bergen Point Brass Foundry, Inc., d. b. a. Standard Bronze Co., Bayonne, N. J. Filed Nov. 13, 1957.

MARBALURE

For Marble Polishing Compound.
First use May 10, 1957.

Class 5 — Adhesives

SN 38,124. The Borden Company, New York, N. Y. Filed Oct. 1, 1957.

PLACCO

For Adhesives for Use on All Surfaces, Including Hardest Non-Porous Materials; for Bonding Fiber Glass Insulation, Rubber Tile, and Rock Wool Blanket to Metal Ducts; Bonding Rubber Felt, Fiber Board and Soft Board to Wool, Metal, Etc.; for Installing Vinyl and Rubber Tile to Concrete, Metal, Wool or Composition Underlayment.
First use on or about Oct. 31, 1947.

SN 40,585. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Nov. 13, 1957.

PAKLON

For Pressure-Sensitive Adhesive Tape.
First use Aug. 20, 1957.

Class 6 — Chemicals and Chemical Compositions

SN 22,786. American-Marietta Company, Chicago, Ill. Filed Jan. 18, 1957.

POZZOBEL

For Composition of a Chemical Nature for Adding to Concrete and Mortar Mixes To Increase Strength and Durability and To Improve Workability.
First use Jan. 11, 1957.

SN 32,188. Krylon, Inc., Norristown, Pa. Filed June 18, 1957.

ANTI-DUST

For Liquid Spray Applied to Household Mops To Reduce Dust.
First use Oct. 30, 1956.

SN 33,302. The United Salt Corporation, Houston, Tex. Filed July 5, 1957.



Owner of Reg. Nos. 654,953 and 654,954.
For Salt for Agricultural and Industrial Chemical Uses and for Livestock Consumption.
First use Apr. 1, 1957, on salt for livestock consumption.

SN 34,690. The General Tire & Rubber Company, Akron, Ohio. Filed July 31, 1957.

GENERAL

Owner of Reg. Nos. 114,963, 372,525, and others.
For Latex Compositions for Use in Treating Fiber Cords Used in the Manufacture of Rubber-Reinforced Articles.
First use June 28, 1957.

SN 35,080. Baker & Co., Inc., Newark, N. J., now by change of name Engelhard Industries, Inc. Filed Aug. 7, 1957.

ATOMEX

For Immersion Gold Plating Solutions.
First use July 31, 1957.

SN 35,544. Vanadium Corporation of America, New York, N. Y. Filed Aug. 14, 1957.

EXOSIL

Owner of Reg. No. 615,586.
For Silicon Containing Exothermic Compositions for Addition to Metal Baths.
First use June 25, 1957.

SN 35,545. Vanadium Corporation of America, New York, N. Y. Filed Aug. 14, 1957.

EXOKROMSIL

Owner of Reg. No. 615,586.
For Chromium and Silicon Containing Exothermic Compositions for Addition to Metal Baths.
First use June 25, 1957.

SN 36,508. Food Machinery and Chemical Corporation, New York, N. Y. Filed Aug. 30, 1957.

DIPHACIN

For Rodenticide.
First use Aug. 6, 1957.

SN 36,514. Hayes-Sammons Chemical Company, Mission, Tex. Filed Aug. 30, 1957.

SUPER DYNATOX

For Insecticides and Agricultural Fungicides.
First use in May 1957.

SN 36,567. Ciba Limited, Basel, Switzerland. Filed Sept. 3, 1957.

ZEROSTAT

Priority claimed under Sec. 44(d) on Swiss Reg. No. 164,858, dated Mar. 28, 1957.
For Chemical Products for Use as Auxiliary Agents in the Textile, Leather, and Paper Industries.

SN 38,673. The Dow Chemical Company, Midland, Mich. Filed Oct. 10, 1957.

DOWSOL

For Organic Chemical Solvent for the Extraction of Metals From Leach Liquors and Pulps.
First use Apr. 24, 1957.

SN 39,114. Wyandotte Chemicals Corporation, Wyandotte, Mich. Filed Oct. 17, 1957.

MULTI-CHLOR

For Germicidal, Disinfecting, and Deodorizing Composition.
First use Mar. 25, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 36,589. Jet Research Center, Inc., Arlington, Tex. Filed Sept. 3, 1957.

FRAC-JET

For Multiple-Jet Shaped Explosive Charge Perforating Units for Use in Perforating Oil Wells and the Like.
First use Aug. 23, 1957.

Class 10 — Fertilizers

SN 42,777. Kahn Bros. Co., Chicago, Ill. Filed Dec. 20, 1957.

Kay-Bee

For Fertilizer.
First use Sept. 12, 1940.

Class 12 — Construction Materials

SN 673,934. Nickey Brothers, Inc., Memphis, Tenn. Filed Sept. 28, 1954.



Owner of Reg. No. 348,177.
For Hardwood Lumber and Veneer.
First use January 1938.

SN 15,799. The Long-Bell Lumber Company, Longview, Wash., to International Paper Company, New York, N. Y. Filed Sept. 17, 1956.

WORTHWOOD

For End Grain Flooring.
First use Mar. 31, 1933.

SN 34,253. The Patterson Foundry and Machine Company, East Liverpool, Ohio. Filed July 23, 1957.

POROX

Owner of Reg. No. 311,796.
For Porcelain Acid-Proof Blocks and Cement Used for Lining Various Containers and for Use on Floors and Walls of Buildings.
First use Jan. 1, 1931.

SN 35,364. Lumber Fabricators, Inc., Fort Payne, Ala. Filed S. R. Aug. 12, 1957. Am. P. R. Apr. 16, 1958.

BILT-UP

For Door Units Comprising Jambs, Casings, Stops, Hinges, and Doors.
First use Nov. 28, 1955.

SN 35,902. Charles G. Cabral, d. b. a. Interstate Venetian Blinds Company, Fall River, Mass. Filed Aug. 21, 1957.

Interstate

For Aluminum Doors and Windows, and Screens and Awnings.
First use Feb. 7, 1942.

SN 36,730. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed Sept. 5, 1957.

KYLOSEAL

For Pellets Useful as Sealants in the Plugging of Interstices in Solid Matter.
First use July 23, 1957.

SN 37,792. Frank Kogl, d. b. a. Unit Step Form Company, South St. Paul, Minn. Filed Sept. 25, 1957.

UNIT STEP

For Forms for Casting Concrete.
First use in March 1957.

SN 39,446. The Philip Carey Manufacturing Company, d. b. a. The Lehon Company, Lockland, Cincinnati, Ohio. Filed Oct. 24, 1957.

SEWERTEX

For Sewer Joint Compound Containing Asphalt, Asbestos Fibre, Mineral Filler, and Solvent.
First use Sept. 20, 1957.

SN 39,993. Schaik Chemical Company, Los Angeles, Calif. Filed Nov. 1, 1957.

S-14

For Spackling Compound.
First use Sept. 27, 1957.

SN 40,062. Macklanburg-Duncan Company, Oklahoma City, Okla. Filed Nov. 4, 1957.

JAMB-UP

For Weather Strip.
First use Oct. 7, 1957.

SN 40,262. Robbins Floor Products, Inc., Tuscumbia, Ala. Filed Nov. 7, 1957.

MICRO-FINISH

For Rubber Tile and Sheets, and Related Hard Surface Floor Covering Material, Including Cove Base, Feature Strip, and Feature Inlays.
First use May 10, 1954.

SN 40,352. E. J. Lavino and Company, Philadelphia, Pa. Filed Nov. 8, 1957.

PERI

Owner of Reg. No. 504,912.
For Refractory Shapes or Bricks.
First use Oct. 10, 1957.

SN 40,371. Petroleum Engineering Associates, Inc., Pasadena, Calif. Filed Nov. 8, 1957.

VARIPERM

For Permeable Concrete Pipe.
First use Oct. 15, 1957.

SN 40,462. Hunter Douglas Aluminum Corporation, Bridgeport, Conn. Filed Nov. 12, 1957.

UNIVERSE

For Aluminum Awnings and Components Thereof, Including Slat Stock, Structural Members, and Hardware.
First use Oct. 22, 1957.

SN 40,757. Hatfield Industries, Inc., Hatfield, Pa. Filed Nov. 15, 1957.

HI-LINE

For Structural Steel Trusses and Bar Joists.
First use Jan. 12, 1948.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 26,756. Richard C. Barkelew, Montebello, Calif. Filed Mar. 25, 1957.

SAFESPOUT

For Mixing and Proportioning Valves and Faucets.
First use Mar. 7, 1957.

SN 28,443. Gang-Nails, Inc., Coral Gables, Fla. Filed Apr. 18, 1957.

GANG-NAILS

For Wood Fastening and Joint Forming Devices.
First use Jan. 1, 1957.

SN 29,834. The Sims Company, Erie, Pa. Filed May 10, 1957. Sec. 2(f).

SIMS

For Commercial Type Water Heaters, Storage Tanks for Hot Water, Heat Exchangers, and Heat Recovery Equipment.
First use 1886.

SN 34,308. Carlson Manufacturing Company, Oakland, Calif. Filed July 29, 1957.

DOO-TEE

For Infant Toilet Seats.
First use Apr. 1, 1928.

SN 35,406. Vitreous Steel Products Company, Cleveland, Ohio. Filed Aug. 12, 1957.

VITCRETE

Owner of Reg. No. 555,006.
For Receptors for Shower Bath Cabinets.
First use July 17, 1957.

SN 35,567. Ekco Products Company, Chicago, Ill. Filed Aug. 15, 1957.

EKCO

For Sinks and Sink Fixtures.
First use July 17, 1957.

SN 35,964. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 22, 1957.

LUBROTITE

For Metal Valves for Controlling the Flow of Fluids.
First use July 15, 1931.

SN 36,100. Paxton-Mitchell Co., Omaha, Nebr. Filed Aug. 23, 1957.



For Irrigation Systems Comprising Flexible Piping, Sprinkler Heads, and Fittings.
First use Mar. 21, 1957.

SN 36,205. Masonite Corporation, Chicago, Ill. Filed Aug. 26, 1957.

HOLDOL

For Metal Fixtures—Namely, Brackets, Hooks, Racks, Bars, Easels, Shelf Supports, Holders, Hook Stabilizers, Spacers, Screws, Ticket Clips, and Legs.
First use Jan. 4, 1954.

SN 38,501. George S. Tarbox, d. b. a. GST Products, Yonkers, N. Y. Filed Oct. 7, 1957.

FILTERITE

For Coffee Makers.
First use on or about Aug. 30, 1957.

SN 40,199. Acro Metal Stamping Company, Milwaukee, Wis. Filed Nov. 7, 1957.

ACROFLEX

For Deformable Metal Angle Strapping.
First use Oct. 9, 1957.

Class 14 — Metals and Metal Castings and Forgings

SN 16,127. The International Nickel Company, Inc., New York, N. Y. Filed Sept. 21, 1956.

"403"

For Nickel-Containing Alloys—Namely, Those Containing Nickel and Copper, in the Form of Rods, Bars, Sheet, Plate, Strip, Wire, Seamless Tubing, and Welded Tubing.
First use July 13, 1956.

SN 28,081. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed Apr. 12, 1957.



For High Speed Tool Steel in the Form of Drill Rod, Ground Rod or Wire, Ground and Polished Rod or Wire; Cold Drawn or Hot Drawn Standard Drill Rod Shapes Such as Squares, Flats, Hexagons and Octagons; and Cold or Hot Drawn Special Shapes of Various Cross Sectional Configurations for Use in Drills, Taps, Reamers, Punches, Awls, Bits, End Mills, Spindles, Bearings, Special Tools, Dies, Cores, and the Like.
First use Nov. 7, 1923.

SN 28,900. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed Apr. 25, 1957.

WCC

Owner of Reg. No. 81,928.
For Tool Steel in the Form of Billets, Bars, Sheets and Plates, Circles, Stamped or Cut From Plates or Sheets for Use in Fabricating Into Such Articles as Gripper Dies, Hot Nut Dies and All Other Types of Hot Work Dies, and Disc and Ring Forgings Forged on a Steam Hammer, Drop Hammer or Press From Rolled or Preforged Stock, for Use in Fabricating Into Blanking Dies, Drawing Dies, and All Types of Hot Work Dies.
First use Feb. 26, 1953.

Class 15 — Oils and Greases

SN 40,041. Federal Employees' Distributing Company, Los Angeles, Calif. Filed Nov. 4, 1957.

FEDLUBE

For Motor Oil.
First use Sept. 15, 1957.

Class 16 — Protective and Decorative Coatings

SN 31,909. The Dolphin Paint & Varnish Company, Toledo, Ohio. Filed June 18, 1957.

Copperpac

For Paints.
First use Dec. 20, 1956.

SN 33,141. Eastern Chemicals, Inc., Albany, N. Y. Filed July 3, 1957.



The drawing is lined for red.
For Paint Thinners and Paint Brush Cleaners, Including Petroleum Mineral Spirits.
First use Jan. 14, 1957.

SN 33,484. S & C Electric Company, Chicago, Ill. Filed July 9, 1957.

SUPER DURABAKE

For Finish for Metal Clad Switch Gear for Switching Centers, Primaries of Unit Substations and Service Entrance Stations.
First use in March 1956.

SN 42,089. United States Aviex Company, Niles, Mich. Filed Dec. 9, 1957.

AVIEX

Owner of Reg. No. 360,760.
For Protective Coating for Chrome, Aluminum, Brass, Copper, and Other Metal Parts.
First use Oct. 21, 1957.

SN 43,883. The Sherwin-Williams Company, Cleveland, Ohio. Filed Jan. 13, 1958.

KEM CEL

Owner of Reg. Nos. 275,775, 545,522, and 559,004.
For Synthetic Resin Coating Composition for Paper and the Like.
First use May 29, 1957.

SN 44,285. General Waterproofing Corporation, Warren, Ohio. Filed Jan. 20, 1958.

TWINS

For Water Resisting Cement Paints and Putties.
First use Jan. 6, 1958.

SN 44,607. Dayton Electric Manufacturing Company, Chicago, Ill. Filed Jan. 24, 1958.

DEM-KOTE

For Paints, Enamels, Lacquers, Clear Plastics, Degreasing Solutions and Penetrating Oils Which Are Packaged in Pressurised Cans so as To Be Sprayed Therefrom.
First use Dec. 17, 1957.

SN 44,664. Union Carbide Corporation, New York, N. Y. Filed Jan. 24, 1958.

UNION CARBIDE

For Water Repellent.
First use on or about Dec. 16, 1957.

Class 17 — Tobacco Products

SN 39,191. John Cotton Limited, Edinburgh, Scotland. Filed Oct. 21, 1957.

Owner of British Reg. No. 474,448, dated Nov. 2, 1926.
For Manufactured Tobacco.

SN 39,761. United Vintners, Inc., d. b. a. Petri Cigar Company, San Francisco, Calif. Filed Oct. 29, 1957. Sec. 2(f).

VAN CAMP

For Cigars and Cigarettes.
First use Dec. 10, 1913.

SN 39,762. United Vintners, Inc., d. b. a. Petri Cigar Company, San Francisco, Calif. Filed Oct. 29, 1957.

VINCITOR

For Cigars and Cigarettes.
First use June 1, 1918.

Class 18 — Medicines and Pharmaceutical Preparations

SN 12,721. Charles B. Hagaman, d. b. a. Medi-Phragm Products, Arvada, Colo. Filed July 24, 1956.

MEDI-PHRAGM

For Vaginal Jelly.
First use Feb. 1, 1938.

SN 13,287. H. Clay Glover Co., Inc., West Hempstead, N. Y. Filed Aug. 2, 1956.

STAMINEX

For Food Supplement Vitamin Compound for Animals.
First use July 23, 1956.

SN 15,293. S. B. Penick & Company, New York, N. Y. Filed Sept. 7, 1956.

DIDRATE

For Analgesic Preparation.
First use May 10, 1956.

SN 16,730. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Oct. 1, 1956.

DECORTRIL

Owner of Reg. Nos. 595,102, 621,685, and others.
For Medicinal Hormone Preparation.
First use Sept. 21, 1956.

SN 26,503. Smith Kline & French Laboratories, Philadelphia, Pa. Filed Mar. 19, 1957.

DARBID

For Anti-Cholinergic Preparation.
First use Mar. 4, 1957.

SN 30,051. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed May 14, 1957.

PYRISULFINE

For Preparation for the Treatment of Infections of the Urinary Tract.
First use Apr. 25, 1957.

SN 31,066. American Cyanamid Company, New York, N. Y. Filed May 31, 1957.

ACHROPAR

Owner of Reg. No. 591,064.
For Antibiotic Preparation.
First use May 17, 1957.

SN 34,289. Hardy Salt Company, St. Louis, Md. Filed July 24, 1957. Sec. 2(f).

HARDY

For Phenothiazine-Trace Mineral-Salt Mixture for Control of Worms.
First use in August 1956; December 1914 on salt.

SN 35,463. Sterling Drug Inc., New York, N. Y. Filed Aug. 13, 1957.

LAVEMA

For Medicinal Preparation for Use in Enemas.
First use July 29, 1957.

SN 35,645. Furst-McNess Company, Freeport, Ill. Filed Aug. 16, 1957. Sec. 2(f).

Cool-Spray

For Medicinal Preparation Indicated for the Relief of Burns.
First use Feb. 18, 1952.

SN 37,061. Sterling Drug Inc., New York, N. Y. Filed Sept. 10, 1957.

LUMOPAQUE

For Iodine Compound for Internal Use as Radiopaque Medium for X-Ray Examination.
First use Aug. 20, 1957.

SN 38,567. Stanley Drug Products, Inc., Portland, Oreg. Filed Oct. 8, 1957.

BLIP

For Pomades and Ointments for the Relief of Fever Blisters, Chapped Lips, and Other Skin Blemishes.
First use Sept. 20, 1957.

SN 38,663. Dr. Karl Thomae G. m. b. H., Biberach an der Riss, Germany. Filed Oct. 1, 1957.

LARIDOX

Owner of German Reg. No. 654,849, dated Mar. 12, 1954.
For Product for the Treatment of Disorders of the Respiratory Passages.

SN 38,664. Dr. Karl Thomae G. m. b. H., Biberach an der Riss, Germany. Filed Oct. 1, 1957.

SILOMAT

Owner of German Reg. No. 619,064, dated Apr. 16, 1952.
For Product for the Treatment of Disorders of the Respiratory Organs.

SN 39,112. West Laboratories, Inc., Long Island City, N. Y. Filed Oct. 17, 1957.

WELADOL

Owner of Reg. Nos. 559,354 and 563,855.
For Medicated Ointment for the Treatment of Animals.
First use Aug. 13, 1956.

SN 39,155. Parry Laboratories, Inc., New York, N. Y. Filed Oct. 18, 1957.

myo mist

For Antiseptic Product for Personal Use.
First use June 1, 1957.

SN 39,716. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Oct. 29, 1957.

LOMPOLIDON

Owner of German Reg. No. 673,029, dated Mar. 16, 1955.
For Chemotherapeutic Agents, Chemical Products for Healing Purposes and Cultivation of Health, and Pharmaceutical Drugs.

SN 40,006. William Robert Alan Williams, Tokai, Cape Province, Union of South Africa. Filed Nov. 1, 1957.

CORONOIDS

Owner of Union of South African Reg. No. 326/57, dated Feb. 5, 1957.
For Preparations for the Prevention and Treatment of Circulatory Diseases.

SN 40,075. Norden Laboratories, Lincoln, Nebr. Filed Nov. 4, 1957.

IOMYCIN

For Antibiotic Preparation Used in Veterinary Medicine.
First use Oct. 1, 1957.

SN 40,170. Norman Darteil, d. b. a. Darteil Laboratories, Los Angeles, Calif. Filed Nov. 6, 1957.

DARLEIC

For Vitamin-Containing Dietary Food Supplement Providing Essential Unsaturated Fatty Acids.
First use Oct. 7, 1957.

SN 40,581. Laboratoire Sapos, Geneva, Switzerland. Filed Nov. 13, 1957.

MEPROLETTE

Owner of Swiss Reg. No. 164,011, dated Feb. 1, 1957.
For Pharmaceutical Products.

SN 40,813. Carter Products, Inc., New York, N. Y. Filed Nov. 18, 1957.

MILSPIRIN

For Pharmaceutical Preparation for the Treatment of Pain and Tension.
First use Oct. 4, 1957.

SN 40,984. White Laboratories, Inc., Kenilworth, N. J. Filed Nov. 19, 1957.

DELECTAVITES

For Multivitamin Preparation.
First use Nov. 13, 1957.

SN 40,985. White Laboratories, Inc., Kenilworth, N. J. Filed Nov. 19, 1957.

TEMPTAVITES

For Multivitamin Preparation.
First use Nov. 13, 1957.

SN 42,371. Charles E. Frosst & Co., Montreal, Quebec, Canada. Filed Dec. 13, 1957. Sec. 2(f).

FROSST

Owner of Reg. No. 396,263.
For Biological and Pharmaceutical Medicaments.
First use Nov. 20, 1899; in commerce Jan. 2, 1914.

SN 42,563. The Wander Company, d. b. a. Smith-Dorsey, Chicago, Ill. Filed Dec. 16, 1957.

TUSSAMINIC

For Product Used as an Antitussive and Nasal Decongestant.
First use Dec. 4, 1957.

SN 42,596. Professional Laboratories, Inc., New York, N. Y. Filed Dec. 17, 1957.

TRI-COSTIVIN

For Preparations Indicated in the Treatment of Gastro-Intestinal Dysfunction and Constipation.
First use May 6, 1937.

Class 19—Vehicles

SN 35,636. B. T. Crump Company, Inc., Richmond, Va. Filed Aug. 16, 1957.

SEATCO

For Automobile Seat Covers and Automobile Tops.
First use Mar. 1, 1956.

SN 37,998. Adam Opel Aktiengesellschaft, Russelsheim am Main, Germany. Filed Sept. 30, 1957.

OLYMPIA REKORD

For Automobiles and Parts of Automobiles.
First use March 1953; in commerce April 1953.

SN 38,063. W. H. Miner, Inc., Chicago, Ill. Filed Sept. 30, 1957. Sec. 2(f).

MINER

For Hand Brakes, Bell Cranks, Center Pins, and Shock Absorbing Mechanisms for Railway Cars.
First use Dec. 4, 1935.

SN 38,747. Highway Trailer Company, Edgerton, Wis. Filed Oct. 11, 1957.

HIGHWAY

Owner of Reg. Nos. 583,944, 583,945, and 654,729.
For Truck Trailers, Truck and Trailer Bodies and Parts Therefor.
First use on or about May 1, 1957.

SN 40,611. R & L Manufacturing Company, Toledo, Ohio. Filed Nov. 13, 1957.

JEEPERS CREEPER

For Castered Load Bearing Coasters.
First use in January 1947.

SN 40,612. R & L Manufacturing Company, Toledo, Ohio. Filed Nov. 13, 1957.

JEEPER

For Castered Load Bearing Coasters.
First use in November 1948.

SN 40,624. Stewart-Warner Corporation, Chicago, Ill. Filed Nov. 13, 1957.

MINIT HEAT

For Vehicle Heaters of the Internal Combustion Type.
First use May 13, 1957.

SN 40,956. Dennis Mitchell Industries, Philadelphia, Pa. Filed Nov. 19, 1957.

SHOP-N-ROLL

For Flexible Container Mounted Upon Wheels.
First use Oct. 1, 1956.

SN 41,405. Shell Lake Boat Company, Shell Lake, Wis. Filed Nov. 26, 1957.

SHELGLAS

For Boats.
First use on or about Sept. 1, 1954.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 6,622. The May Department Stores Company, St. Louis, Mo. Filed Apr. 18, 1956.

Arflite

For Portable Electric Drills and Power Saws for Home Use.
First use in December 1955.

SN 36,350. Chicago Telephone Supply Corporation, Elkhart, Ind. Filed Aug. 28, 1957.

CTS

Owner of Reg. No. 507,539.
For Potentiometers of the Variable Resistance Type Used in Radio, Television, and Other Electronic Equipment, Rheostats, Tone Controls, Switches, Selector Switches, and Snap Switches.
First use May 10, 1957.

SN 38,194. The Bowman Products Co., Cleveland, Ohio. Filed Oct. 2, 1957.



Owner of Reg. Nos. 541,630 and 555,216.

For Electrical Service and Replacement Automotive Parts—Namely, Battery Bolts, Cables, and Ground Straps; Motor and Generator Parts—Namely, Brushes, Bearings, and Regulators; Ignition System Parts—Namely, Distributor Rotors, Caps and Points, Condensers and Spark Plug Terminals, Wiring Assemblies and Terminals, Switches, Fuses, Lamp Assemblies.

First use June 1940.

SN 38,572. Sarkes Tarzian, Inc., Bloomington, Ind. Filed Oct. 8, 1957.

CENTRE-KOOLED

For Selenium and Like Rectifiers and Parts Thereof.
First use Dec. 3, 1949.

SN 38,812. "Elexa," Anderlecht, Brussels, Belgium. Filed Oct. 14, 1957.

ELEXA

Owner of Belgian Reg. No. 72,077, dated June 30, 1952.
For Electrical Equipment, viz., Vacuum Cleaners, Floor Polishers, Food Mixers, Beverage Mixers, Juicers, and Electric Motors.

SN 38,827. Andrew Kux, d. b. a. Occidental Electric Company, Nogales, Ariz. Filed Oct. 14, 1957.

WATT-MASTER

For Electrical Generating Apparatus.
First use Feb. 18, 1952.

SN 38,899. Clarostat Mfg. Co., Inc., Dover, N. H. Filed Oct. 15, 1957.

PADOHM

For Potentiometers of the Type of Variable Resistors.
First use on or about July 18, 1957.

SN 39,068. The Indiana Steel Products Company, Valparaiso, Ind. Filed Oct. 17, 1957.

HYFLUX

For Wound Cores.
First use Feb. 7, 1955.

SN 39,131. Circle F Mfg. Co., Trenton, N. J. Filed Oct. 18, 1957.

CIRCLOK

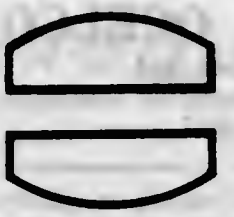
For Electrical Attachment Plugs, Attachment Plug Receptacles, Cord Connectors, and Motor Attachment Plugs.
First use Mar. 8, 1957.

SN 39,342. Sprague Electric Company, North Adams, Mass. Filed Oct. 22, 1957.

PERMASEAL

Owner of Reg. No. 554,471.
For Electrical Resistors, Electrical Capacitors, and Printed Electronic Circuits.
First use Apr. 28, 1951, on electrical resistors.

SN 39,506. AMP Incorporated, Harrisburg, Pa. Filed Oct. 25, 1957.



For Electrical Connectors and Electrical Connections.
First use on or about Mar. 11, 1943.

SN 39,507. Altec Lansing Corporation, Anaheim, Calif. Filed Oct. 25, 1957.

BIFLEX

For Loudspeakers.
First use Sept. 20, 1955.

SN 39,553. The Standard Oil Company, Cleveland, Ohio. Filed Oct. 25, 1957.

SOHIVOLT

For Transformer Oil.
First use in January 1952.

SN 39,624. Hycon Mfg. Company, Pasadena, Calif. Filed Oct. 28, 1957.

HY-MARKER

For Crash Locator Beacons.
First use Oct. 7, 1957.

SN 39,635. Insul-8-Corp., San Carlos, Calif. Filed Oct. 28, 1957.

VICON

For Closed Circuit Television System Comprising Camera, Control Unit and Associated Accessories.
First use in March 1955.

SN 39,725. Hanson-Van Winkle-Munning Company, Matawan, N. J. Filed Oct. 29, 1957.

POWERTRON

For Rectifiers.
First use in January 1957.

SN 39,755. Sprague Electric Company, North Adams, Mass. Filed Oct. 29, 1957.

FLUXAMP

For Magnetic Amplifiers.
First use Oct. 14, 1957.

SN 39,837. Progress Sound Guard Corp., Jersey City, N. J. Filed Oct. 30, 1957.

SOUND GUARD

For Portable Electronic Intercommunication Apparatus.
First use Oct. 25, 1957.

SN 39,962. Guardian Electric Manufacturing Co., Chicago, Ill. Filed Nov. 1, 1957.

POWERLOID

For Solenoid Operated Relays.
First use Oct. 14, 1957.

SN 39,970. Andrew Kux, d. b. a. Occidental Electric Company, Nogales, Ariz. Filed Nov. 1, 1957.

OCELCO

Owner of Reg. No. 441,426.
For Electrical Generating Apparatus.
First use May 21, 1947.

SN 39,998. Union Carbide Corporation, New York, N. Y. Filed Nov. 1, 1957.

UNION CARBIDE

For Electric Dry Cells and Dry Cell Batteries.
First use Aug. 30, 1957.

SN 40,059. S. S. Kresge Company, Detroit, Mich. Filed Nov. 4, 1957.

KRES-TONE

For Radio Receiving Sets and Parts Thereof.
First use Oct. 23, 1957.

SN 40,071. Morganite Incorporated, Long Island City, N. Y. Filed Nov. 4, 1957.

CRUSILITE

For Silicon Carbide Heating Elements for Industrial Furnaces.
First use Sept. 17, 1957.

SN 40,324. The Curtis Development & Mfg. Co., Milwaukee, Wis. Filed Nov. 8, 1957. Sec. 2(f).

EVERLITE

Owner of Reg. No. 566,154.
For Electrically Lighted Frames for House Numbers and Parts Therefor.
First use Nov. 1, 1934.

Class 22 — Games, Toys, and Sporting Goods

SN 35,618. Alexander Baskin, d. b. a. Beaver Sporting Goods Company, Pittsburgh, Pa. Filed Aug. 16, 1957.

RED HEAD



CUSTOM

The drawing is lined for red. Applicant disclaims exclusive rights with respect to the word "Custom."
For Bows, Arrows, and Archery Equipment and Accessories.
First use June 1, 1957.

SN 36,166. Paul Caetto, Trenton, N. J. Filed Aug. 26, 1957.

ZIP

For Fish Lures of the Artificial Type.
First use Sept. 5, 1956.

SN 36,241. Gerald James Shepard, d. b. a. Jerry Shepard Swimming Pool Company, Eugene, Oreg. Filed Aug. 26, 1957.

OASIS

For Swimming Pools.
First use May 28, 1957.

SN 37,232. The Creek Chub Bait Company, Garrett, Ind. Filed Sept. 16, 1957.

SNARKIE

For Artificial Fishing Lures.
First use Aug. 23, 1957.

SN 37,233. The Creek Chub Bait Company, Garrett, Ind. Filed Sept. 16, 1957.

SNARK-EEL

For Artificial Fishing Lures.
First use Aug. 23, 1957.

SN 37,865. The Creek Chub Bait Company, Garrett, Ind. Filed Sept. 26, 1957.

SNARK

For Artificial Fishing Lures.
First use Aug. 23, 1957.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 700,876. Miag Muhlenbau und Industrie G. m. b. H., Braunschweig, Germany. Filed Dec. 30, 1955.

MIAG

Owner of German Reg. No. 383,205, dated Mar. 12, 1928.
For Grain, Flour, Salt, Seed, Cement, Dust, Coloring Material, Synthetic Material, Soap, Cardboard and Wood Milling, Conveying, Processing, Storing and Packaging Machines and Parts Thereof.

SN 14,751. Metallising Engineering Co. Inc., Westbury, N. Y. Filed Aug. 28, 1956.

THERMOSPRAY

For Metal or Refractory Ceramic Spray Guns and Parts Thereof.
First use about May 8, 1956.

SN 17,759. Royco Tap and Tool Corporation, North Branch, Mich. Filed Oct. 18, 1956.

ROYCO

For Threading Tools, Such as Taps, Hobs, Thread Plug Gauges, Circular Chasers, and Thread Rolls.
First use Oct. 12, 1948.

SN 29,199. Connecticut Tool & Engineering Company, Fairfield, Conn. Filed May 1, 1957.

WILLIAMS

For Diesets and Power Operated Machines for Filing, Sawing, and Honing.
First use in January 1946 on die sets.

SN 29,977. Turner Printing Machinery, Inc., Cleveland, Ohio. Filed May 13, 1957.

CORR-U-CUTTER

For Machine for Cutting, Creasing, and Scoring Corrugated Paper-Board so That the Same May Be Folded Into Cartons and Into Stuffers for Occupying What Would Otherwise be Vacant Space Inside Packed Cartons.
First use Apr. 25, 1957.

SN 30,049. William A. Swan, d. b. a. Swan Specialties Company, Casper, Wyo. Filed May 14, 1957.

SWAN

For Oil Well Equipment—Namely, Pumps, Steam Jennys Such as Steam Engines for Hauling or Raising and Lowering Pipe, Controllers for Preventing Blow-Out, Oil Well Packing Tools Used in Connection With a String of Casing or Tubing To Close or "Pack Off" the Annular Space Between the Wall of the Hole and the Casing, or Between the Inside and the Next Larger Size String of Casing, for the Purpose of Preventing the Passage of Either Gas or Fluid Between the Wall of the Hole and the Casing or Between the Two Strings of Casing Beyond the Point at Which the Packer Is Set, Injectors, Ejectors, and Separators.
First use July 15, 1950.

SN 31,081. Clark Engineering & Manufacturing, Inc., Racine, Wis. Filed May 31, 1957.

EM-WAY

For Metal Working Machines—Namely, Turret Lathes.
First use Apr. 9, 1957.

SN 36,792. Ex-Cell-O Corporation, Detroit, Mich. Filed Sept. 6, 1957.

ROTAC

For Fluid Motors.
First use Mar. 8, 1957.

SN 37,012. Health-Mor, Inc., Chicago, Ill. Filed Sept. 11, 1957.

FILTER QUEEN

Owner of Reg. No. 378,297.
For Blower-Driven Crystal Grinder Attachments for Suction Cleaners, Suds Forming and Spraying Attachments for Suction Cleaners, Blower-Driven Floor Polisher Attachments for Suction Cleaners, and Grinding and Sanding Tools for Blower-Driven Suction Cleaner Attachments.
First use in August 1949 on crystal grinders; on Dec. 29, 1939, as to "Filter Queen."

SN 37,923. Western Machinery Company, San Francisco, Calif. Filed Sept. 26, 1957.

TORQUE FLOW

For Fluid Handling Machinery—Namely, Pumps.
First use August 1954.

SN 38,020. W. R. Case & Sons Cutlery Company, Bradford, Pa. Filed Sept. 30, 1957.

MIRACL-EDGE

For Cutlery—Namely, Paring, Slicing, Carving, Utility, Steak, and Trimming Knives.
First use Sept. 11, 1957.

SN 38,702. Mayville Metal Products Company, Mayville, Wis. Filed Oct. 10, 1957.

Vendstor

For Electrically Controlled Coin Operated Dispensing Machines.
First use June 21, 1957.

SN 40,737. Aktienbolaget Uno Lindholm & Co., Stockholm, Sweden. Filed Oct. 17, 1957.

CENTOR

Owner of Swedish Reg. No. 83,298, dated Sept. 6, 1957.
For Tools Including Saws and Saw Frames, Chucks, Machine Tools, and Wood Working Machines.

SN 40,824. The Firestone Tire & Rubber Company, Akron, Ohio. Filed Nov. 18, 1957.

AIRMOUNT

For Vibration Absorbing Suspensions for Machinery and Equipment and Parts Therefor.
First use Oct. 28, 1957.

SN 40,859. Madison Industries, Inc., Muskegon, Mich. Filed Nov. 18, 1957. Sec. 2(f).

MADISON f

Owner of Reg. No. 522,044.
For Machine Tools—Namely, Adjustable Reamers, Roughing Cutters, Boring Bars, Grinding Fixtures, and Arbors.
First use Apr. 4, 1944.

SN 40,906. Geerpres Wringer, Inc., Muskegon, Mich. Filed Nov. 18, 1957.

DES-KART

For Combination Jack and Carrier Unit Intended Primarily for Moving Desks and Other Heavy Office Equipment.
First use Oct. 15, 1957.

SN 40,941. Griffin Wellpoint Corporation, New York, N. Y. Filed Nov. 19, 1957.

AQUAHOG

For Wellpoints.
First use Sept. 10, 1956.

SN 41,304. Outboard Marine Corporation, Waukegan, Ill. Filed Nov. 25, 1957.

GALE

For Outboard Motors and Repair Parts Therefor.
First use Aug. 30, 1957.

SN 41,339. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Nov. 25, 1957.

SATELLITE

For Stainless Steel Flatware—i. e., Knives, Forks, and Spoons.
First use Oct. 31, 1957.

SN 41,495. True Gun All Equipment Corporation, Tulsa, Okla. Filed Nov. 27, 1957.

TRUE GUN-ALL

For Plasticising Machine.
First use Nov. 27, 1953.

SN 42,039. Simplicity Engineering Company, Durand, Mich. Filed Dec. 9, 1957.

VIBRA-WASHER

For Parts Washers.
First use Aug. 15, 1957.

SN 42,202. Comfort Equipment Company, Kansas City, Mo. Filed Dec. 11, 1957.

FARM Chief

Owner of Reg. No. 607,908.
For Farm Machinery—Namely, Tractor Covers and Parts Thereof.
First use Aug. 23, 1957.

SN 43,950. Moto-Tilt Products Co., Wauconda, Ill. Filed Jan. 14, 1958.

MOTO-TILT

For Power-Operated Tilting Mechanisms for Outboard Motors.
First use July 13, 1957.

SN 44,511. Kenneth E. Golt, d. b. a. Rolcor Industries, Minneapolis, Minn. Filed Jan. 20, 1958.

VIBRAPAC

For Power Road Rollers.
First use Apr. 24, 1956.

SN 44,515. Alt Manufacturing & Distributing Co., Inc., Green Bay, Wis. Filed Jan. 23, 1958.

Alt-O-Matic

For Sewing Machines.
First use Oct. 20, 1956.

SN 44,661. Trans "O" Matic Transmission Corp., Palisades Park, N. J. Filed Jan. 24, 1958.

"O"m

For Automotive Tranamissions.
First use Nov. 20, 1956.

Class 24 — Laundry Appliances and Machines

SN 38,299. Pellerin Milnor Corporation, New Orleans, La. Filed Oct. 3, 1957.

MILNOR

Owner of Reg. Nos. 591,110, 622,670, and others.
For Washing Machines and Centrifugal Extractors for Both Wet and Dry Cleaning and Compartmented Laundry Sorting Trays on Caster Stands.
First use June 19, 1947.

SN 38,372. National Cooperatives, Inc., Albert Lea, Minn. Filed Oct. 4, 1957.

Capri

For Electrical Household Appliances—Namely, Electric Washers and Dryers.
First use Mar. 22, 1957.

SN 38,658. Sunbeam Corporation, Chicago, Ill. Filed Sept. 17, 1957.

SUNBEAM

For Laundry Carts.
First use Apr. 2, 1957.

Class 26—Measuring and Scientific Appliances

SN 681,288. Nippon Kogaku Kogyo K. K., Shimagawa-ku, Tokyo, Japan. Filed Feb. 8, 1955. Sec. 2(f) as to "Nippon" and "Kogaku."

NIPPON KOGAKU TOKYO

Applicant disclaims the geographical term "Tokyo" apart from the mark shown. The word "Nippon" designates Japanese; the term "Kogaku" means "optical." Owner of Japanese Reg. Nos. 392,982, dated Oct. 20, 1950, and 365,610, dated Aug. 16, 1946.

For Cameras, Microscopes, Lenses, Binoculars, and Lens Measuring Instruments.

SN 28,027. Cahn Instrument Company, Downey, Calif. Filed Apr. 12, 1957.

ELECTROBALANCE

For Electrical Balance and More Specifically Measuring Devices for Weighing Small Articles Using the Balancing Principle.

First use Mar. 7, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 37,829. Wallco Kjemisk Industri A/S, Oslo, Norway. Filed Sept. 25, 1957.

WALLCO

Owner of Norwegian Reg. No. 35,147, dated Feb. 3, 1948.

For Sponges—Namely, Dish Sponges, Bath Sponges, and Sponges Suitable for the Washing of Automotive Vehicles.

Class 30—Crockery, Earthenware, and Porcelain

SN 32,783. Stetson China Co., Inc., Lincoln, Ill. Filed June 27, 1957.

ROYAL STETSON

Owner of Reg. Nos. 369,578, 370,398, and 635,921.

For China Dinnerware.

First use June 20, 1957.

Class 31—Filters and Refrigerators

SN 36,747. Selmer Raymond Thompson, d. b. a. Thompson Refrigeration, Chicago, Ill. Filed Sept. 5, 1957.

ROSMAN

For Electrical Controls for Refrigerators.

First use Aug. 12, 1957.

SN 40,616. Research Products Corporation, Madison, Wis. Filed Nov. 13, 1957. Sec. 2(f).

COOLPAD

For Wettable Air Pervious Filter-Like Material for Treating Ventilating Air.

First use on or about July 25, 1950.

SN 43,358. The Wallace, Davis Company, Hamden, Conn. Filed Jan. 2, 1958.

Diaclear

The drawing is lined for red and black.

For Water Purifying Equipment.

First use on or about May 26, 1955.

SN 44,571. Union Carbide Corporation, New York, N. Y. Filed Jan. 23, 1958.

Linde

Owner of Reg. No. 441,626.

For Refrigeration Apparatus.

First use on or about June 26, 1957.

Class 32—Furniture and Upholstery

SN 17,198. Precision Metal Products, Inc., Miami, Fla., from Philip Tashman. Filed Oct. 9, 1956.

REDI-SERV

For Food Storage Cabinets Which May Be Equipped With Necessary Heating, Humidifying and Transporting Components for Service Prepared Foods.

First use in April 1954.

Subj. to Intf. with SN 9,559.

SN 34,912. Broyhill Furniture Factories, Lenoir, N. C. Filed Aug. 5, 1957. Sec. 2(f) as to "Broyhill."

BROYHILL Premier Division

For Bedroom, Dining Room, and Living Room Furniture.

First use Apr. 26, 1957; in 1942 as to "Broybill."

SN 45,812. Nachman Corporation, Chicago, Ill. Filed Feb. 13, 1958.

SUR-TOPPER

For Spring Members for Spring Assemblies.

First use Feb. 4, 1958.

SN 46,098. Belknap Hardware and Manufacturing Company, Louisville, Ky. Filed Feb. 19, 1958.

BLUE GRASS

For Mattresses.
First use in 1932.

SN 46,099. Belknap Hardware and Manufacturing Company, Louisville, Ky. Filed Feb. 19, 1958.

OLD KENTUCKY HOME

For Mattresses.
First use in 1932.

SN 46,100. Belknap Hardware and Manufacturing Company, Louisville, Ky. Filed Feb. 19, 1958.

SLUMBER DEEP

For Mattresses.
First use in 1932.

SN 46,127. Falco Products Co., Philadelphia, Pa. Filed Feb. 19, 1958.

ADD-A-MATIC

For Tables.
First use on or about Jan. 8, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 15,249. Weil-McLain Company, Michigan City, Ind. Filed Sept. 6, 1956.

Cool-Mate

For Cooling and Air Conditioning Equipment and Systems Intended Primarily for Residential Installation.
First use June 26, 1956.

SN 35,452. Preway, Inc., Wisconsin Rapids, Wis. Filed Aug. 13, 1957.

PREWAY

Owner of Reg. Nos. 431,694, 549,328, and 550,255.
For Gas Burning Heaters, Domestic Gas Ranges, Gas Trailer Ranges, Oil Burning Heaters, Oil Burning Floor Furnaces, Oil Burning Basement Furnaces, Kitchen Ventilating Hoods, and Ventilating Wall Fans.
First use Dec. 1, 1934.

SN 38,396. William M. Sweigart, d. b. a. Wm. M. Sweigart Mfg. Co., Belleville, Pa. Filed Oct. 4, 1957.

SWEIGART SCOTCHEATER

No claim is made to the words "Scotch" or "Heater" apart from the mark as shown.
For Heat Exchanger Apparatus.
First use October 1955.

SN 38,723. American Air Filter Company, Inc., Louisville, Ky. Filed Oct. 11, 1957.

AMER-KOOL

For Evaporative Coolers for Cooling Intake Air for Gas Turbines and the Like.
First use Dec. 19, 1956.

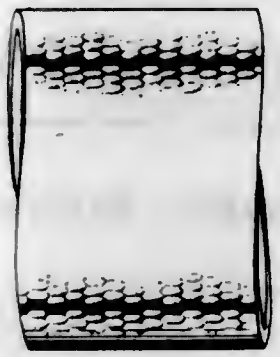
SN 39,424. Star Metal Mfg. Co., Inc., Philadelphia, Pa. Filed Oct. 23, 1957.

Startemp

For Heated Tables of the Type Used in Food Serving Establishments for Keeping Foods Warm.
First use June 1, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 29,657. H. K. Porter Company (Delaware), Philadelphia, Pa. Filed May 8, 1957.



The mark consists of a pair of spaced red stripes, one disposed adjacent each lateral edge of the undistended hose, extending the length of the otherwise substantially white hose and forming a structural part thereof. The drawing is lined for red. No claim is made to the representation of a section of hose.
For Jacketed Fire Hose.
First use Feb. 28, 1957.

SN 37,932. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Sept. 27, 1957.

3-T

Owner of Reg. No. 615,789.
For Belts and Belting.
First use Aug. 16, 1957.

SN 40,545. Atlas Supply Company, Newark, N. J. Filed Nov. 13, 1957.

BUCRON

For Rubber Tires.
First use Oct. 29, 1957.

SN 40,819. The Dayton Rubber Company, Dayton, Ohio. Filed Nov. 18, 1957.

THORO-LINK

For V-Belts.
First use Aug. 15, 1957.

SN 40,832. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Nov. 18, 1957.

THERMO-FLO

For Belts and Belting.
First use Sept. 26, 1957.

SN 41,428. Air Products, Inc., Emmaus, Pa. Filed Nov. 27, 1957.

PRE-PAK

For Precut Lengths of Welding Hose.
First use May 13, 1957.

SN 41,740. Atlas Supply Company, Newark, N. J. Filed Dec. 4, 1957.

ATOMATIC

For Rubber Tires.
First use Oct. 30, 1957.

Class 36 — Musical Instruments and Supplies

SN 28,795. Permo, Incorporated, Chicago, Ill., now by change of name Fidelitone, Incorporated. Filed Apr. 24, 1957.

LUBRI-STAT

Owner of Reg. No. 543,673.
For Cloths and Sprays for Phonograph Records To Reduce or Eliminate Static Electricity.
First use Sept. 13, 1956.

SN 34,034. Blue Ribbon Products Corporation, Memphis, Tenn. Filed July 19, 1957.

HOLLYWOOD RECORDS

No claim is made to the word "Records" apart from the mark shown.
For Mechanically Grooved Phonograph Records.
First use Apr. 5, 1957.

SN 39,825. Fernando J. Montilla, New York, N. Y. Filed Oct. 30, 1957.

TOREADOR

For Grooved Phonograph Records.
First use Oct. 24, 1957.

Class 38 — Prints and Publications

SN 20,884. Advance Lithographing Company, Chicago, Ill. Filed Dec. 12, 1956.

ALLURE LINE

For Calendars.
First use Dec. 15, 1955.

SN 28,537. The National Society for Crippled Children and Adults, Inc., d. b. a. The Easter Seal Society and The Easter Seal Agency, Chicago, Ill. Filed Apr. 19, 1957.

EASTER SEAL

For Series of Pamphlets Relating to Services for Crippled Persons.
First use in February 1953.

SN 34,423. Guenther Publishing Corporation, New York, N. Y. Filed July 26, 1957. Sec. 2(f).

FINANCIAL WORLD

Owner of Reg. Nos. 205,632 and 262,520.
For Magazine Issued Weekly.
First use 1902.

SN 36,705. Ad-Research, Los Angeles, Calif. Filed Sept. 5, 1957.

LOCALE

For Magazines.
First use Jan. 10, 1957.

SN 39,463. Feed Service Corporation, Crete, Nebr. Filed Oct. 24, 1957.

the COWCATCHER CONFIDENTIAL

For House Organ Issued From Time to Time and for Column in Publications Such as Agricultural and Livestock Newspapers and Magazines.
First use Sept. 7, 1957.

SN 39,875. Hammond Iron Works, Warren, Pa. Filed Oct. 31, 1957.

HAMMOND TANKER

For House Organs.
First use during November 1955.

SN 39,996. Song Dex, Inc., New York, N. Y. Filed Nov. 1, 1957.

PIANO AND ORGAN KEYBOARD MAGIC

For Piano and Organ Playing Instruction and Self-Instruction Systems—Namely, Differently Colored Sets of Indicia Attachable to the Keys of a Piano or Organ; Each Differently Colored Set of Indicia Representing the Notes of One Octave, and Music Scores on Which the Notes Are Correspondingly Indicated.
First use on or about Sept. 10, 1957.

SN 40,004. Vital Publications, Inc., New York, N. Y. Filed Nov. 1, 1957.



The lining on the drawing represents the colors red and yellow, but these colors are not an essential part of the mark.
For Booklets of Cartoons Published in a Series at Irregular Intervals.
First use May 20, 1953.

SN 40,168. The Bureau of National Affairs, Inc., Washington, D. C. Filed Nov. 6, 1957.

white collar REPORT

For Periodically Issued Newsreports.
First use Mar. 11, 1957.

SN 40,192. Sutton Publishing Company, Inc., White Plains, N. Y. Filed Nov. 6, 1957. Sec. 2(f).

INDUSTRIAL ELECTRONICS

Owner of Reg. No. 589,828.
For Industry Bulletin Published From Time to Time.
First use in October 1952.

SN 40,395. Tab Books, Inc., New York, N. Y. Filed Nov. 8, 1957.



Owner of Reg. No. 526,222.
For Books.
First use Aug. 1, 1953.

SN 40,396. Tab Books, Inc., New York, N. Y. Filed Nov. 8, 1957.



The word "Book" is disclaimed apart from the mark as shown. Owner of Reg. No. 526,222.
For Books.
First use Aug. 1, 1957; Aug. 1, 1953, as to "Tab Book Club" having identical flag background.

SN 40,734. The Advertising Council, Inc., New York, N. Y. Filed Nov. 15, 1957.

The American Round Table

For Periodic Reports Dealing With the Ideals, Beliefs, and Dynamics of the American Society in Any and Every Type of Media.
First use Apr. 14, 1952.

SN 41,216. American Greetings Corporation, Cleveland, Ohio. Filed Nov. 25, 1957.



For Greeting Cards.
First use Oct. 15, 1957.

SN 41,275. Helipot Corporation, Newport Beach, Calif. Filed Nov. 25, 1957.

HELINEWS

For Trade Publication.
First use in December 1952.

Class 39 — Clothing

SN 27,499. Glovecraft, Inc., Johnstown, N. Y. Filed S. R. Apr. 4, 1957. Am. P. R. Apr. 3, 1958.

TUCAWAY

For Slippers and a Container Therefor, the Container Having an Additional Compartment for Grooming Articles and Accessories.
First use Oct. 8, 1955.

SN 37,819. Select Sportswear, Inc., New York, N. Y. Filed Sept. 25, 1957.

ANDY PANDA

For Sweaters.
First use Sept. 16, 1957.

SN 39,151. Monroe Garment Company, Monroe, N. C. Filed Oct. 18, 1957.

BULL-DOG

For Shirts and Pants.
First use Oct. 10, 1957.
Subj. to Intf. with SN 46,101.

SN 39,383. Coastal Footwear Corporation, Canovanas, Puerto Rico. Filed Oct. 23, 1957.

COASTAL

For Shoes for Men, Women, and Children.
First use during November 1953.

SN 39,525. Haggar Company, Dallas, Tex. Filed Oct. 25, 1957.

TOURNEY

For Men's and Boys' Clothing—Namely, Slacks.
First use on or about Aug. 28, 1957.

SN 39,620. Glen Raven Knitting Mills, Inc., Glen Raven, N. C. Filed Oct. 28, 1957.

Chantilly

For Hosiery.
First use Oct. 25, 1956.

SN 39,981. Napco Chemical Company, Incorporated, Denver, Colo. Filed Nov. 1, 1957.

DUCK-A-STORM

For Rain Coats and Weather Protective Clothing.
First use Sept. 17, 1957.

SN 40,065. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed Nov. 4, 1957.

CLINGING VINE

For Brassieres.
First use Oct. 22, 1957.
Subj. to Intf. with SN 41,777.

SN 40,120. Hayakawa Seni Kogyo Kabushiki Kaisha (Hayakawa Textile Industries Co., Ltd.), Naka-Kawachi-Gun, Osaka, Japan. Filed Nov. 5, 1957.

H.S.K

Owner of Japanese Reg. No. 508,062, dated Oct. 1, 1957.
For Judo Uniforms and Kendo Uniforms.

SN 41,021. International Latex Corporation, Dover, Del. Filed Nov. 20, 1957.

PARTY-PRETTY

For Brassieres.
First use Oct. 24, 1957.

SN 41,232. Biflex Foundations, Inc., New York, N. Y. Filed Nov. 25, 1957.

LARK

For Brassieres and Girdles.
First use Nov. 20, 1957.

SN 41,346. Alamo Manufacturing Co., Inc., New York, N. Y. Filed Nov. 26, 1957.

JANE ANN

For Cotton Dresses.
First use Oct. 11, 1957.

SN 41,371. J. Freezer & Son, Inc., New York, N. Y. Filed Nov. 26, 1957.

Monocle DEBS

Owner of Reg. No. 630,512.
For Children's and Misses' Shirts.
First use July 2, 1957.

SN 41,777. Peter Pan Foundations, Inc., New York, N. Y. Filed Dec. 4, 1957.

CLINGING VINE

For Brassieres.
First use Oct. 21, 1957.
Subj. to Intf. with SN 40,065.

SN 46,101. Benson & Rixon Co., Chicago, Ill. Filed Feb. 19, 1958.

BULLDOG

For Men's Suits, Sport Coats, Jackets, and Slacks.
First use Sept. 10, 1957.
Subj. to Intf. with SN 39,151.

Class 40 — Fancy Goods, Furnishings, and Notions

SN 37,208. Anson Incorporated, Providence, R. I. Filed Sept. 16, 1957.

VALET HORN

The word "Horn" is disclaimed except in association with the rest of the mark.
For Shoe Horns.
First use July 19, 1957.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 38,307. J. P. Stevens & Co., Inc., New York, N. Y. Filed Oct. 3, 1957.

WONDERCARE

Owner of Reg. Nos. 628,771 and 634,411.
For Cotton Goods in the Piece.
First use Aug. 13, 1957.

SN 38,311. United Merchants and Manufacturers, Inc., New York, N. Y. Filed Oct. 3, 1957.

SENECLASS

For Piece Goods of Viscose Rayon Marquisette Adapted To Be Made Up Into Curtains.
First use on or about Sept. 19, 1957.

SN 40,415. S. Augstein & Co., Inc., College Point, N. Y. Filed Nov. 12, 1957.

CALICOOL

Owner of Reg. No. 360,853.
For Piece Goods Made of Wool, Worsted, Silk, Cotton, Linen, Rayon, Nylon, or Synthetic Fibres or Any Combination Thereof.
First use on or about May 6, 1938.

SN 40,554. Cahin Crafts, Inc., Dalton, Ga. Filed Nov. 13, 1957.

PERMAPAD

For Scrim Backing for Carpets and Rugs.
First use Mar. 18, 1957.

Class 44 — Dental, Medical, and Surgical Appliances

SN 39,440. Acralite Co. Inc., New York, N. Y. Filed Oct. 24, 1957.

SIR

For Dental Impression Materials.
First use Oct. 1, 1957.

Class 46 — Foods and Ingredients of Foods

SN 14,059. Doughnut Corporation of America, New York, N. Y., now by change of name DCA Food Industries Inc.

GOLD MINE

Filed Aug. 16, 1956.
For Ice Cream Bars, Fudge Bars, Water Ice Bars, and Bars of Ice Milk and Water.
First use Dec. 30, 1955.

SN 19,317. Donna Lochiatto, d. b. a. House of Pizza, Jamaica Plain, Mass. Filed Nov. 15, 1956.

PIZZARAMA

For Pizzas, Cheese, Vegetable Meat and Fish Sauce, Edible Olive Oil.
First use Sept. 28, 1956, on packaged pizza.

SN 30,142. Louis Burk Company, Philadelphia, Pa. Filed May 16, 1957. Sec. 2(f).

Burk's

Owner of Reg. No. 230,488.
For Sausages, Canned Meats, Smoked Meats, and Lard.
First use Sept. 21, 1915.

SN 33,097. Planters Nut & Chocolate Co., Wilkes-Barre, Pa. Filed July 2, 1957.

P&P'S

For Candy.
First use May 15, 1957.

SN 33,145. Garden State Packing Co., Hammonton, N. J. Filed July 3, 1957.

GARDEN STATE

For Canned and Frozen Berries.
First use in the year 1950.

SN 35,009. The Si-Lak Company, Hospers, Iowa. Filed Aug. 5, 1957.

SI-LAK

For Animal and Poultry Supplements Consisting of Vitamins and Dehydrated Organisms or Molds.
First use June 20, 1956.

SN 35,012. Southland Coffee Company, Atlanta, Ga. Filed Aug. 5, 1957.



Owner of Reg. Nos. 570,061, 544,716, and 373,661.
For Coffee.
First use Mar. 4, 1957; 1920 as to "Bailey's."

SN 37,245. Edy's Character Candies, Oakland, Calif. Filed Sept. 16, 1957.

BURLS

For Candy.
First use Aug. 30, 1957.

SN 38,970. Anton Bans, d. b. a. Banzona Product Company, Freeport, Ill. Filed Oct. 16, 1957.

BANZONA

For Health Powder Made From Flour, Grape Sugar, and Other Natural Products To Be Dissolved in Water, Milk, Orange Juice, and Other Drinks for Added Nourishment, or To Be Eaten as is.
First use Mar. 20, 1956.

SN 39,500. Somafa, S. A., Berne, Switzerland. Filed Oct. 24, 1957.

REALL

Owner of Swiss Reg. No. 165,203, dated Feb. 21, 1957.
For Coffee, Coffee Extracts, Decaffeinated Coffee, and Chicory.

SN 41,030. Leaf Brands, Inc., Chicago, Ill. Filed Nov. 20, 1957.

BON APPETIT!

For Chocolates.
First use Oct. 18, 1957.

SN 41,353. Blue Lakes Trout Farm, Twin Falls, Idaho. Filed Nov. 26, 1957.

Blue Lakes

For Fresh and Frozen Trout.
First use on or about Sept. 1, 1955.

SN 41,657. Vincent Losito & Sons, Toughkenamon, Pa. Filed Dec. 2, 1957.

PENN CHIEF

For Canned Mushrooms.
First use Mar. 8, 1954.

SN 41,721. Standard Brands Incorporated, New York, N. Y. Filed Dec. 3, 1957.

VIN-MIX

Owner of Reg. No. 357,957.
For Vinegar.
First use Nov. 22, 1937.

SN 41,959. James O. Welch Company, Cambridge, Mass. Filed Dec. 6, 1957.

WHIRLIGIGS

For Candy.
First use Mar. 10, 1955.

SN 42,124. Food Products Company of America, Chicago, Ill. Filed Dec. 10, 1957.

DU-RATION

For Canned Dog Food.
First use Aug. 23, 1932.

SN 42,156. Produce Packers, Inc., Chicago, Ill. Filed Dec. 10, 1957.

Spud-Quik



For Raw Potatoes Which Have Been Peeled, Sliced, and Preserved.
First use Dec. 3, 1957.

SN 42,303. Nutrena Mills, Inc., Minneapolis, Minn. Filed Dec. 12, 1957.

SWEETFLOW

For Dairy Feeds.
First use Oct. 13, 1954.

SN 42,338. Andrus & Funk Produce Co., d. b. a. Andrus & Funk, Sunnyside, Wash. Filed Dec. 13, 1957.

UNLIMITED

For Fresh Fruits.
First use Oct. 19, 1957.

Class 48 — Malt Beverages and Liquors

SN 28,649. Staatliches Hofbräuhaus in München, Munich, Germany. Filed Apr. 22, 1957.



For Beer.
First use Dec. 7, 1894; in commerce 1907.

SN 40,799. Anheuser-Busch, Incorporated, St. Louis, Mo. Filed Nov. 18, 1957.

BUD

Owner of Reg. Nos. 13,064, 549,180, and others.
For Beer.
First use prior to June 1939.

Class 49 — Distilled Alcoholic Liquors

SN 33 915 Schenley Industries, Inc., New York, N. Y. Filed July 17, 1957. Sec. 2(f) as to "Schenley."



The drawing is lined for the colors red and gold. Owner of Reg. Nos. 315,434, 544,397, and others.
For Whiskey.
First use May 22, 1957; in or about December 1892 as to "Schenley."

SN 37,352. Glenmore Distilleries Company, Louisville, Ky. Filed Sept. 17, 1957.

OLD K T

For Whiskey.
First use Aug. 27, 1957.

SN 40,474. El Louvre, S. A., Curacao, Netherlands Antilles. Filed Nov. 12, 1957.

CURUMCAO

Owner of Dutch Reg. No. 3,488, dated Oct. 7, 1957; and U. S. Reg. No. 354,555.
For Alcoholic Beverage Distilled From Fresh Orange Peel With Rum.

SN 41,013. Felton & Son, Incorporated, South Boston, Mass. Filed Nov. 20, 1957. Sec. 2(f).

FELTON'S

For Rum.
First use in 1819.

Class 50 — Merchandise Not Otherwise Classified

SN 31,862. Jerome H. Pennock, Moorestown, N. J. Filed June 12, 1957.

HOBBY BIRTHDAY

For Paper Weights, Plaques, and Statuettes.
First use Feb. 1, 1957.

SN 39,029. Addressograph-Multigraph Corporation, Cleveland, Ohio. Filed Oct. 17, 1957.

ADDRESSOGRAPH

Owner of Reg. Nos. 54,697, 553,110, and others.
For Personal and Article Identifying Devices—Namely, Plates and Cards Bearing or Adapted To Bear Printed, Indented, Embossed or Otherwise Inscribed Identification Intelligence.
First use Feb. 1, 1925, on article identifying devices.

SN 39,579. The Bevelite Corporation, Los Angeles, Calif. Filed Oct. 28, 1957.

LUMIPLEX

For Letters, Numerals, and Other Characters of Colored Plastic and Metal for Changeable Signs.
First use Aug. 1, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 698,865. Kenneth Henderson, d. b. a. Andrea Gail, New York, N. Y. Filed Nov. 25, 1955.

DEEP ORCHID

For Perfume.
First use Oct. 5, 1955.

SN 698,866. Kenneth Henderson, d. b. a. Andrea Gail, New York, N. Y. Filed Nov. 25, 1955.

ORCHID MIST

For Perfume.
First use Oct. 5, 1955.

SN 698,867. Kenneth Henderson, d. b. a. Andrea Gail, New York, N. Y. Filed Nov. 25, 1955.

SPRAY OF ORCHIDS

For Perfume.
First use Oct. 5, 1955.

SN 13,002. Parfums de France et de Monte-Carlo, Paris, France. Filed Apr. 30, 1956.

PARFRANCE

Owner of French Reg. No. 61,575, dated June 4, 1953 (Paris); Natl. Inst. No. 12,134.
For Perfumes.

SN 13,424. Columbia Beauty and Barber Supply Company, d. b. a. State and Columbia Beauty and Barbers Supply Company, Columbia, S. C. Filed Aug. 6, 1956.



For Hair Oil, Pressing Oil, Lacquer Hair Spray, Hair Lotion, Cold Wave Lotion.
First use June 1945.

SN 18,710. Calgon, Inc., Pittsburgh, Pa., now by change of name to Hagan Chemicals & Controls, Inc. Filed Nov. 5, 1956.

Bon Vivant

The translation of the mark "Bon Vivant" into the English language is "good living."
For Packaged Unit Containing Packaged Bath Salts of Differing Scents.
First use Nov. 29, 1955.

SN 29,390. The Realistic Company, Cincinnati, Ohio. Filed May 3, 1957.

REDYWAVE

For Hair Curling Lotion.
First use in or about September 1950.

SN 31,570. Laclede Laboratories, Inc., New York, N. Y. Filed June 7, 1957.

LACLEDE

For Medicated Body Deodorant.
First use the year 1948.

SN 32,401. Patrick M. Moore, d. b. a. Moore's Laboratories, Hollywood, Calif. Filed June 21, 1957.

"Bronze Stain"

For Sun Tan Lotion.
First use April 1957.

SN 34,088. W. F. Straub & Company, Chicago, Ill. Filed July 19, 1957.

QUEEN ROYAL

For Face Cream.
First use May 29, 1957.

SN 36,474. The Realistic Company, Cincinnati, Ohio. Filed Aug. 29, 1957.

"SO LOVELY"

For Hair Waving Lotion.
First use on or about Aug. 12, 1957.

SN 37,184. Pan-Am Cosmetic Company, Inc., Brooklyn, N. Y. Filed Sept. 13, 1957.



For Talcum Powder, Cologne, and After-Shave Lotion.
First use July 11, 1957.

SN 37,375. Revlon, Inc., New York, N. Y. Filed Sept. 17, 1957.

SPRAY-LIFE

For Hair Dressing and Conditioning Preparation.
First use Aug. 20, 1957.

SN 37,710. J. Strickland & Co., Memphis, Tenn. Filed Sept. 23, 1957.

ROYAL CROWN

Owner of Reg. Nos. 351,200 and 506,898.
For Hair Preparations—Namely, Hair Dressing, Pomade, Spray Set, Stick Pomade, and Shampoo.
First use 1924 on hair dressing.

SN 37,741. Eleanor Mast, d. b. a. Imperial Toiletries Company, New York, N. Y. Filed Sept. 24, 1957.

ROYAL COMMAND

For Pigmented Foundation Base Make-Up Lotion.
First use Sept. 13, 1957.

SN 37,959. Inter-Hamol Company, Ltd., Zurich, Switzerland. Filed Sept. 27, 1957.

HAMOLSWISS

Owner of Swiss Reg. No. 165,399, dated May 9, 1957.
For Cosmetics—Namely, Toilet Creams and Lotions for the Protection of the Skin Against Sunburn.

SN 38,290. The Lander Co. Inc., d. b. a. Elizabeth Post, New York, N. Y. Filed Oct. 3, 1957.

SAMEDI SOIR

The mark "Samedi Soir" means "Saturday night" in English. Owner of Reg. No. 561,514.
For Cologne.
First use July 15, 1952.

SN 38,477. Marino Manocchia, d. b. a. Vieni-Bella Cosmetic, Pittsburgh, Pa. Filed Oct. 7, 1957.

MARE MANO

For Skin Creams.
First use July 1, 1942.

Class 52—Detergents and Soaps

SN 17,311. Hans Schwarskopf, Hamburg-Altona, Germany. Filed Oct. 11, 1956.

SCHWARZKOPF

Owner of German Reg. No. 85,675, dated Feb. 26, 1906.
For Shampoo, Soap, and Detergent for Personal Use.

SN 34,829. Turco Products, Inc., Los Angeles, Calif. Filed Aug. 1, 1957.

LUSTRITE

For Liquid and Semi-Liquid Cleaning Compounds for Use on Walls, Woodwork, Floors, and Various Surfaces.
First use on or about Jan. 1, 1929.

SN 41,055. Wallerstein Company, Inc., New York, N. Y. Filed Nov. 20, 1957.

PREGEST

For Pre-Spotter for Use in the Dry Cleaning Industry.
First use Aug. 19, 1957.

SERVICE MARKS

Class 100—Miscellaneous

SN 39,544. Niblack System, Inc., Houston, Tex. Filed Oct. 25, 1957.

NIBLACK SYSTEM

The word "System" is hereby disclaimed apart from the mark as shown.
For Slenderising and Reducing Service.
First use December 1939.

Class 102—Insurance and Financial

SN 40,398. Treasure State Life Insurance Co., Butte, Mont. Filed Nov. 8, 1957.



For Underwriting of Life Insurance.
First use June 24, 1957.

SN 41,792. Automobile Mutual Insurance Company of America, Providence, R. I. Filed Dec. 5, 1957.

AMICA

For Underwriting Fire and Casualty Insurance.
First use in 1911.

Class 107—Education and Entertainment

SN 17,950. Nassour Studios, Inc., Los Angeles, Calif. Filed Oct. 22, 1956.

REGISCOPE

For Rental of a Device Which Is Attached to a Motion Picture Camera, Thereby Providing Depth to Animated Drawings.
First use Feb. 8, 1956.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

662,731. CROWNETTE. Armour and Company. SN 32,886. Pub. 3–25–58. Filed 7–1–57.

662,732. AQUAPRUF. Armour and Company. SN 32,890. Pub. 3–25–58. Filed 7–1–57.

662,733. VALENCIA. John R. Evans & Co. SN 33,700. Pub. 3–25–58. Filed 7–15–57.

662,734. SWEDISH PUNCH. Donovan Industries, Inc. SN 34,780. Pub. 3–25–58. Filed 8–1–57.

662,735. HIK-STIX. Natchez Veneer & Lumber Company. SN 34,977. Pub. 3–25–58. Filed 8–5–57.

Class 2 — Receptacles

662,736. SNAP-ON. Snap-On Tools Corporation. SN 573,008. Pub. 4–17–51. Filed 1–28–49.

662,737. DOBECKMUN. The Dow Chemical Company, from The Dobeckmun Company. CONSOLIDATED CERTIFICATE. SN 21,787, pub. 8–6–57, filed 12–28–56, Cl. 2; SN 21,789, pub. 3–18–58, filed 12–28–56, Cl. 37.

662,738. CONOPAK. Continental Can Company, Inc. SN 29,612. Pub. 3–25–58. Filed 5–8–57.

662,739. DURA-DOT. Bemis Bro. Bag Company. SN 34,583. Pub. 3–25–58. Filed 7–30–57.

662,740. FAIRFAX. Keyes Fibre Company. SN 34,708. Pub. 3–25–58. Filed 7–31–57.

Class 4 — Abrasives and Polishing Materials

662,741. MARTINDALE. The Martindale Electric Co. CONSOLIDATED CERTIFICATE. SN 39,246, pub. 1–7–58, filed 10–21–57, Cl. 4; SN 39,248, pub. 1–7–58, filed 10–21–57, Cl. 21; SN 28,618, pub. 1–7–58, filed 4–22–57, Cl. 23; SN 39,247, pub. 1–7–58, filed 10–21–57, Cl. 26.

662,742. EX STATIC PLASTI SHINE AND DESIGN. Agricultural Laboratories, Inc. SN 29,580. Pub. 3–25–58. Filed 5–8–57.

662,743. GERSONITE. The Gerson Stewart Corporation. SN 32,304. Pub. 3–25–58. Filed 6–20–57.

662,744. DURA GLAZE. Dura-Glaze, Inc. SN 32,591. Pub. 3–25–58. Filed 6–25–57.

Class 5 — Adhesives

662,745. FOTOFLAT. Seal, Inc. SN 35,125. Pub. 3–25–58. Filed 8–7–57.

662,746. TORPEDO JET. Plastile Products, Inc. SN 35,529. Pub. 3–25–58. Filed 8–14–57.

Class 6 — Chemicals and Chemical Compositions

662,747. LANTROL. Malmstrom Chemical Corp. SN 692,724. Pub. 9–18–56. Filed 8–9–55.

662,748. PENNSALT CHEMICALS AND DESIGN. Pennsalt Chemicals Corporation, by change of name from The Pennsylvania Salt Manufacturing Company. CONSOLIDATED CERTIFICATE. SN 22,332, pub. 10–22–57, filed 1–9–57, Cl. 6; SN 21,194, pub. 11–5–57, filed 12–17–56, Cl. 12; SN 21,193, pub. 5–14–57, filed 12–17–56, Cl. 15; SN 21,273, pub. 4–30–57, filed 12–18–56, Cl. 16; SN 22,333, pub. 9–10–57, filed 1–9–57, Cl. 52.

662,749. DUCAIR. Alex Eventoff, d. b. a. Ducair Products Co. SN 23,304. Pub. 7–2–57. Filed 1–28–57.

662,750. DHP. Le Fevre Chemical Co. SN 24,608. Pub. 3–25–58. Filed 2–18–57.

662,751. DAV-AD. W. R. Grace & Co. SN 28,591. Pub. 3–25–58. Filed 4–22–57.

662,752. REX. Rex Research Corporation. SN 28,800. Pub. 10–8–57. Filed 4–24–57.

662,753. CONOGAS AND DESIGN. Continental Oil Company. SN 29,789. Pub. 10–22–57. Filed 5–10–57.

662,754. FULGOPHOR. Dehydag Deutsche Hydrierwerke GMBH. SN 31,979. Pub. 3–25–58. Filed 6–14–57.

662,755. DUCTILON. Dehydag Deutsche Hydrierwerke GMBH. SN 31,980. Pub. 3–25–58. Filed 6–14–57.

662,756. HERCOSOL. Hercules Powder Company. SN 32,313. Pub. 3–25–58. Filed 6–20–57.

662,757. STA-PRESS. George V. Willoughby, d. b. a. Century Products Company. SN 34,651. Pub. 3–25–58. Filed 7–30–57.

Class 10 — Fertilizers

662,758. DUGRO. Walter Ratner, d. b. a. The Grant Company. SN 31,508. Pub. 3–25–58. Filed 6–6–57.

Class 12 — Construction Materials

662,748. CONSOLIDATED CERTIFICATE. See Class 6.

662,759. SHAKE-A-WALL AND DESIGN. Roy E. Durham. SN 14,060. Pub. 3–25–58. Filed 8–16–56.

662,760. TECHE-STONE. Iberia Concrete Products, Inc. SN 24,988. Pub. 3–25–58. Filed 2–25–57.

662,761. COUNTRY CLUB. Supradur Manufacturing Corporation. SN 25,477. Pub. 3–25–58. Filed 3–4–57.

662,762. WOODCURL TROPIGLAS. Russell Reinforced Plastics Corporation. SN 35,003. Pub. 3–25–58. Filed 8–5–57.

662,763. MOLER-POROS. Aktieselskabet Skarrehage Molervaerk. SN 35,840. Pub. 3–25–58. Filed 8–20–57.

662,764. REUTEN AND DESIGN. Fred Reuten, Inc. SN 36,319. Pub. 3–25–58. Filed 8–27–57.

662,765. FIR-TEX. Kaiser Gypsum Company, Inc. SN 36,378. Pub. 3–25–58. Filed 8–28–57.

662,766. DRIFTEX. National Gypsum Company. SN 36,388. Pub. 3–25–58. Filed 8–28–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

662,767. DURA-KNUCKLE. Wright Products, Incorporated. SN 25,743. Pub. 3–25–58. Filed 3–7–57.

662,768. AQUA FLAIR. Aqua Flair Marine Equipment Company. SN 33,188. Pub. 3–25–58. Filed 7–5–57.

662,769. SINTZ AND DESIGN. Claude Sintz, Inc. SN 33,647. Pub. 3–25–58. Filed 7–12–57.

Class 14 — Metals and Metal Castings and Forgings

662,770. INNERSHIELD. The Lincoln Electric Company. CONSOLIDATED CERTIFICATE. SN 31,937, pub. 3–11–58, filed 6–13–57, Cl. 14; SN 26,839, pub. 3–11–58, filed 3–25–57, Cl. 21.

662,771. INCO CB AND DESIGN. The International Nickel Company, Inc. SN 28,352. Pub. 3–25–58. Filed 4–17–57.

662,772. VAXEAL. The United States Stoneware Co. SN 30,377. Pub. 3–25–58. Filed 5–20–57.

662,773. LURIA BLOX. Luria Brothers & Company, Inc. SN 31,989. Pub. 3–25–58. Filed 6–14–57.

662,774. LAMINOL. American Nickeloid Company. SN 33,115. Pub. 3–25–58. Filed 7–3–57.

662,775. "RH." The International Nickel Company, Inc. SN 33,621. Pub. 3–25–58. Filed 7–12–57.

Class 15 — Oils and Greases

662,748. CONSOLIDATED CERTIFICATE. See Class 6.

662,776. ADECENE. Archer-Daniels-Midland Company. SN 35,076. Pub. 3–25–58. Filed 8–7–57.

662,777. PILOT. Sail Oil Corporation. SN 35,299. Pub. 3–25–58. Filed 8–9–57.

Class 16 — Protective and Decorative Coatings

662,748. CONSOLIDATED CERTIFICATE. See Class 6.

662,778. PAINT MAKERS GUILD PMG AND DESIGN. Gulf States Paint Company. SN 692,226. Pub. 2–14–56. Filed 8–1–55.

662,779. PRO-MIX AND DESIGN. Melvin W. Venable, Jr., to C. Elwood Mackey and Company, Inc. SN 9,209. Pub. 3–25–58. Filed 5–28–56.

662,780. DUREZ. Hooker Electrochemical Company. SN 30,087. Pub. 3–25–58. Filed 5–15–57.

662,781. DALO. Davis-Barlow Corporation. SN 39,953. Pub. 3–25–58. Filed 11–1–57.

662,782. TREMSEAL. The Tremco Manufacturing Company. SN 39,997. Pub. 3–25–58. Filed 11–1–57.

Class 17 — Tobacco Products

662,783. AURELIA. General Cigar Co., Inc. SN 33,959. Pub. 3–25–58. Filed 7–18–57.

Class 18 — Medicines and Pharmaceutical Preparations

662,784. AMOZON. Chase Chemical Company. SN 683,173. Pub. 9–27–55. Filed 3–10–55.

662,785. JEN-I-SOL. F. E. Young and Company. SN 24,739. Pub. 11–12–57. Filed 2–19–57.

662,786. NORGE. Elars Products, Inc., d. b. a. Vitamin Company of America. SN 27,374. Pub. 3–25–58. Filed 4–2–57.

662,787. PETDROPS. The Upjohn Company. SN 28,898. Pub. 3–25–58. Filed 4–25–57.

662,788. ENDREA. Chas. Pfizer & Co., Inc. SN 30,828. Pub. 11–19–57. Filed 5–27–57.

662,789. SEVANIL. Pharmodex Oy. SN 31,787. Pub. 12–24–57. Filed 6–11–57.

662,790. SEBA-NIL. Texas Pharmacal Company. SN 32,148. Pub. 12–24–57. Filed 6–17–57.

662,791. COLTRAMYL. Les Laboratoires Francais de Chimiotherapie. SN 32,963. Pub. 3–25–58. Filed 7–1–57.

662,792. ESTROSED. Chicago Pharmacal Company. SN 34,324. Pub. 3–25–58. Filed 7–24–57.

662,793. 300. The Borden Company. SN 34,584. Pub. 3–25–58. Filed 7–30–57.

662,794. THERA-ZYMACAP. The Upjohn Company. SN 36,942. Pub. 3–25–58. Filed 9–9–57.

662,795. HYMULSON. Schering Corporation. SN 36,981. Pub. 3–25–58. Filed 9–10–57.

662,796. MUTABON. Schering Corporation. SN 36,982. Pub. 3–25–58. Filed 9–10–57.

662,797. ISOCAINE. Broemmel Pharmaceuticals. SN 37,217. Pub. 3–25–58. Filed 9–16–57.

662,798. TARTRIN. Mead Johnson & Company. SN 37,282. Pub. 3–25–58. Filed 9–16–57.

662,799. GETROIDIN. Sterling Drug Inc. SN 37,459. Pub. 3–25–58. Filed 9–18–57.

662,800. STIM-A-PLEX. Arrow Medical Co., Inc. SN 37,621. Pub. 3–25–58. Filed 9–23–57.

662,801. HYDRIN-2. Broemmel Pharmaceuticals. SN 37,629. Pub. 3–25–58. Filed 9–23–57.

662,802. A AND DESIGN. Abbott Laboratories. SN 37,762. Pub. 3–25–58. Filed 9–25–57.

Class 19 — Vehicles

662,803. PEERLESS AND DESIGN. Peerless Accessories Co. SN 22,701. Pub. 3–25–58. Filed 1–16–57.

662,804. PAYHOPPER. The Frank G. Hough Co. SN 31,661. Pub. 3–25–58. Filed 6–10–57.

662,805. PARLO. States Motors, Inc. SN 35,135. Pub. 3–25–58. Filed 8–7–57.

662,806. ARLAWN. The May Department Stores Company. SN 35,872. Pub. 3–25–58. Filed 8–20–57.

Class 21 — Electrical Apparatus, Machines, and Supplies

662,741. CONSOLIDATED CERTIFICATE. See Class 4.

662,770. CONSOLIDATED CERTIFICATE. See Class 14.

662,807. MAMCO. Master Appliance Mfg. Co. SN 1,886. Pub. 4–9–57. Filed 2–1–56.

662,808. CECO AND DESIGN. Ceco Inc. SN 21,521. Pub. 3–25–58. Filed 12–24–56.

662,809. EISEMANN AND DESIGN. American Industrial Sales Corp. SN 23,198. Pub. 3–25–58. Filed 1–22–57.

662,810. VARITAP. Burndy Corporation. SN 30,636. Pub. 3–25–58. Filed 5–24–57.

662,811. HERCULES. Union Carbide Corporation. SN 34,749. Pub. 3–25–58. Filed 7–31–57.

662,812. USALITE. United States Electric Mfg. Corp. SN 35,072. Pub. 3–25–58. Filed 8–6–57.

662,813. D–K. Danbury-Knudsen, Incorporated, to Amphenol Electronics Corporation. SN 35,918. Pub. 3–25–58. Filed 8–21–57.

Class 22 — Games, Toys, and Sporting Goods

662,814. SMARTEE KAT. Israel Kaufman. SN 33,084. Pub. 3–25–58. Filed 7–2–57.

662,815. PEE-WEE. Fosca Marsyl, d. b. a. Pee-Wee Doll Co. SN 33,166. Pub. 3–25–58. Filed 7–3–57.

662,816. GLASS-FLEX. Indian Archery & Toy Corporation. SN 35,263. Pub. 3–25–58. Filed 8–9–57.

662,817. PLAYER-O-GRAM. George R. Masters. SN 35,369. Pub. 3–25–58. Filed 8–12–57.

662,818. HOOP-N-LOOP. Earl F. Stark. SN 35,391. Pub. 3–25–58. Filed 8–12–57.

662,819. MASTER-GRIP. South Bend Tackle Company, Inc. SN 35,538. Pub. 3–25–58. Filed 8–14–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

662,741. CONSOLIDATED CERTIFICATE. See Class 4.

662,820. TROY. The Associated Merchandising Corporation. SN 18,127. Pub. 3–25–58. Filed 10–25–56.

662,821. PHOEBE. The Associated Merchandising Corporation. SN 18,128. Pub. 3–25–58. Filed 10–25–56.

662,822. TRITON. The Associated Merchandising Corporation. SN 18,129. Pub. 3–25–58. Filed 10–25–56.

662,823. IRIS. The Associated Merchandising Corporation. SN 18,130. Pub. 3–25–58. Filed 10–25–56.

662,824. COSMO. Chicago Rubber Company, Inc. SN 25,831. Pub. 3–25–58. Filed 3–11–57.

662,825. SPOON-A-TIC. Lloyd F. Brogan and Douglas M. Savage, d. b. a. Spoon-A-Tic Company. SN 28,327. Pub. 3–25–58. Filed 4–17–57.

662,826. ARC EDGE. Electric Steel Foundry Company. SN 29,773. Pub. 3–25–58. Filed 3–13–57.

662,827. FLOCK-O-MATIC. Carl M. Davis, d. b. a. Flock-O-Matic Company. SN 33,339. Pub. 3–25–58. Filed 7–8–57.

662,828. PFC PERPETUAL FORM CONTROL AND DESIGN. Jones & Lamson Machine Company. SN 34,064. Pub. 3–25–58. Filed 7–19–57.

662,829. KEYLIFT. Keystone Engineering Company. SN 34,807. Pub. 3–25–58. Filed 8–1–57.

662,830. COOKIE-MATIC. Middleby-Marshall Oven Co. SN 35,374. Pub. 3–25–58. Filed 8–12–57.

662,831. GRASSLANDER. Grasslander Company Limited. SN 36,135. Pub. 3–25–58. Filed 7–29–57.

662,832. ROCK RIB. Goldblatt Tool Company. SN 36,179. Pub. 3–25–58. Filed 8–26–57.

662,833. NISSEX. Peter Wolters Kratzenfabrik und Maschinenfabrik G. m. b. H. & Co. SN 37,185. Pub. 3–25–58. Filed 9–13–57.

662,834. EZEE SWEEP. Parker Sweeper Company. SN 37,514. Pub. 3–25–58. Filed 9–19–57.

662,835. KLEEN SWEEP. Parker Sweeper Company. SN 37,515. Pub. 3–25–58. Filed 9–19–57.

662,836. HOLLOSHAFT. U. S. Electrical Motors, Inc. SN 40,098. Pub. 3–25–58. Filed 11–4–57.

Class 26—Measuring and Scientific Appliances

662,741. CONSOLIDATED CERTIFICATE. See Class 4.

662,837. BOUYOUCOS. Industrial Instruments, Inc. SN 33,153. Pub. 3–25–58. Filed 7–3–57.

662,838. ZEROMATIC. Beckman Instruments, Inc. SN 33,327. Pub. 3–25–58. Filed 7–8–57.

662,839. SANDWICH PAK. General Aniline & Film Corporation. SN 34,416. Pub. 3–25–58. Filed 7–26–57.

662,840. DUOP. Industrial Accountancy Partnership Limited. SN 34,613. Pub. 3–25–58. Filed 7–30–57.

662,841. WORLD IN HAND. Geo-Physical Maps, Inc. SN 34,939. Pub. 3–25–58. Filed 8–5–57.

Class 28—Jewelry and Precious-Metal Ware

662,842. CHINAMIC. The Fieldwood Company. SN 30,420. Pub. 3–25–58. Filed 5–21–57.

662,843. CANA NUPTIAL. Bliss Ring Company, Inc. SN 30,718. Pub. 3–25–58. Filed 5–27–57.

662,844. ACCEPTANCE. The International Silver Company. SN 33,555. Pub. 3–25–58. Filed 7–11–57.

662,845. EXCITEMENT. The International Silver Company. SN 33,879. Pub. 3–25–58. Filed 7–17–57.

Class 29—Brooms, Brushes, and Dusters

662,846. MAGIC-WAY. Robert M. Rigney. SN 35,455. Pub. 3–25–58. Filed 8–13–57.

662,847. JUS-RITE. Potter-McCune Company. SN 35,551. Pub. 3–25–58. Filed 8–6–57.

Class 31—Filters and Refrigerators

662,848. MILLIPORE MICROWEB. Millipore Filter Corporation. SN 36,731. Pub. 3–25–58. Filed 9–5–57.

Class 32—Furniture and Upholstery

662,849. ROLL-A-BED. Duo-Bed Corporation. SN 19,485. Pub. 3–25–58. Filed 11–19–56.

662,850. SMOOTH POSTURE. Enterprise-Moakler Co. Inc. SN 41,009. Pub. 3–25–58. Filed 11–20–57.

Class 34—Heating, Lighting, and Ventilating Apparatus

662,851. KOOLTRONIC. Roger T. Lyman, d. b. a. Kooltronic Fan Co. SN 32,608. Pub. 3–25–58. Filed 6–25–57.

662,852. STRATE-AIR AND DESIGN. Metromatic Manufacturing Co., Inc. SN 34,158. Pub. 3–25–58. Filed 7–22–57.

662,853. WATERAIR. Metromatic Manufacturing Co., Inc. SN 34,159. Pub. 3–25–58. Filed 7–22–57.

662,854. HALO. Halo Lighting Products Company. SN 34,355. Pub. 3–25–58. Filed 7–25–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

662,855. ARLAWN. The May Department Stores Company. SN 35,792. Pub. 3–25–58. Filed 8–19–57.

662,856. BAY STATER. Merchants Distributors, Inc. SN 35,873. Pub. 3–25–58. Filed 8–20–57.

Class 36—Musical Instruments and Supplies

662,857. FUTURAMA. Elsie M. Bennett, d. b. a. Elsie M. Bennett Accordion Studios. SN 26,055. Pub. 3–25–58. Filed 3–13–57.

Class 37—Paper and Stationery

662,737. CONSOLIDATED CERTIFICATE. See Class 2.

Class 38—Prints and Publications

662,858. INTERNATIONAL HARVESTER HORIZONS. International Harvester Company. SN 27,698. Pub. 3–25–58. Filed 4–8–57.

662,859. STEEL AGE. The Penton Publishing Company. SN 32,846. Pub. 3–25–58. Filed 6–28–57.

662,860. KEY NOTES. Associated Locksmiths of America, Inc. SN 33,116. Pub. 3–25–58. Filed 7–3–57.

662,861. BREAD OF LIFE. General Features Corporation. SN 33,233. Pub. 3–25–58. Filed 7–5–57.

662,862. THE AMERICAN CITY. The American City Magazine Corporation. SN 34,884. Pub. 3–25–58. Filed 7–15–57.

662,863. DRILL & PUMP. The Oilfield Equipment Publishing Corporation. SN 34,985. Pub. 3–25–58. Filed 8–5–57.

662,864. V AND DESIGN. R. T. Vanderbilt Company, Inc. SN 35,142. Pub. 3–25–58. Filed 8–7–57.

662,865. TRUMP. HMH Publishing Co., Inc. SN 35,647. Pub. 3–25–58. Filed 8–16–57.

662,866. TV TEE-HEES. General Features Corporation. SN 35,993. Pub. 3–25–58. Filed 8–22–57.

Class 39—Clothing

662,867. MR. CHARLES. Adler's Inc. SN 14,998. Pub. 4–9–57. Filed 9–4–56.

662,868. SLUMBER-SAFE. S. & R. Infants Wear Company, Inc. SN 33,436. Pub. 3–25–58. Filed 7–9–57.

662,869. CORLISS. The Associated Merchandising Corporation. SN 34,501. Pub. 3–25–58. Filed 7–29–57.

662,870. FRI-JETTES BY HAMPTON AND DESIGN. Hampton Corporation. SN 34,608. Pub. 3–25–58. Filed 7–30–57.

662,871. BRIEF CASE. Julius Kayser & Co. SN 34,707. Pub. 3–25–58. Filed 7–31–57.

662,872. SPORTCRAFTER. Rugby Knitting Mills, Inc. SN 34,869. Pub. 3–25–58. Filed 8–2–57.

662,873. GOLDEN SPIKE. International Shoe Company. SN 35,433. Pub. 3–25–58. Filed 8–13–57.

662,874. ALEXANDER. G. W. Alexander & Co., Incorporated. SN 35,553. Pub. 3–25–58. Filed 8–15–57.

662,875. ALEXANDER. G. W. Alexander & Co., Incorporated. SN 35,554. Pub. 3–25–58. Filed 8–15–57.

662,876. ALEXANDER AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,556. Pub. 3–25–58. Filed 8–15–57.

662,877. ALEXANDER AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,559. Pub. 3–25–58. Filed 8–15–57.

662,878. ALEXANDER AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,560. Pub. 3–25–58. Filed 8–15–57.

662,879. ALEXANDER ETC. AND DESIGN. G. W. Alexander & Co., Incorporated. SN 35,561. Pub. 3–25–58. Filed 8–15–57.

662,880. NEXPANDER. The Kaynee Company. SN 35,658. Pub. 3–25–58. Filed 8–16–57.

Class 40—Fancy Goods, Furnishings, and Notions

662,881. KAMGLAS. Keasbey & Mattison Company. SN 32,206. Pub. 3–25–58. Filed 6–18–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

662,882. KATHI'S. Kathi's of California. SN 26,362. Pub. 3–25–58. Filed 3–18–57.

662,883. SF. Shulman Fabrics, Inc. SN 27,061. Pub. 3–25–58. Filed 3–27–57.

662,884. HI-FI. D. B. Fuller & Co., Inc. SN 30,650. Pub. 3–25–58. Filed 5–24–57.

662,885. NO-KAIR. Chrysler Textiles, Inc., d. b. a. Chrysler. SN 33,534. Pub. 3–25–58. Filed 7–11–57.

662,886. DYNA-STEP. The General Tire & Rubber Company. SN 34,691. Pub. 3–25–58. Filed 7–31–57.

662,887. REIGN SEAL AND DESIGN. Peters Manufacturing Company. SN 34,733. Pub. 3–25–58. Filed 7–31–57.

662,888. VERMEER. J. F. Scholten & Zonen, N. V. SN 35,209. Pub. 3–25–58. Filed 8–8–57.

662,889. JETSTREAM. D. B. Fuller & Co. Inc. SN 35,425. Pub. 3–25–58. Filed 8–13–57.

662,890. TRINKET. D. B. Fuller & Co. Inc. SN 35,426. Pub. 3–25–58. Filed 8–13–57.

662,891. SPAGHETTEX. Gehring Textiles, Inc. SN 35,428. Pub. 3–25–58. Filed 8–13–57.

Class 43—Thread and Yarn

662,892. CHARTER. Dixie Mercerizing Company. SN 35,336. Pub. 3–25–58. Filed 8–12–57.

Class 44—Dental, Medical, and Surgical Appliances

662,893. BATRONIC. Batrow Laboratories, Inc. SN 30,553. Pub. 3–25–58. Filed 5–23–57.

662,894. DIAPULSE. A. J. Ginsberg, to Diapulse Manufacturing Corp. of America. SN 34,419. Pub. 3–25–58. Filed 7–26–57.

662,895. DAMASCUS. William Dixon, Incorporated. SN 34,521. Pub. 3–25–58. Filed 7–29–57.

662,896. OPTODONT. Farbenfabriken Bayer Aktiengesellschaft. SN 34,936. Pub. 3–25–58. Filed 8–5–57.

Class 46—Foods and Ingredients of Foods

662,897. FUKUSUKE. Mutual Trading Co., Inc. SN 21,215. Pub. 3–25–58. Filed 12–17–56.

662,898. CANDY MEDLEY. King Candy Company. SN 24,781. Pub. 3–25–58. Filed 2–20–57.

662,899. MONATE. Herman Brothers. SN 30,021. Pub. 3–25–58. Filed 5–14–57.

662,900. TI-O-GA. Tioga Mills, Inc. SN 31,055. Pub. 3–25–58. Filed 5–29–57.

662,901. DINING-IN. Topco Associates, Inc. (Cooperative), d. b. a. Topco Associates, Inc. SN 33,512. Pub. 3–25–58. Filed 7–10–57.

662,902. NFC. SavOil, Inc., d. b. a. NuWay Foods Co. SN 33,641. Pub. 3–25–58. Filed 7–12–57.

662,903. PEARL BUTTON. Marie Ebbecke. SN 34,933. Pub. 3–25–58. Filed 8–5–57.

662,904. TIME 4 AND DESIGN. Jacob Warren Bowman, d. b. a. J. Warren Bowman. SN 36,844. Pub. 3–25–58. Filed 9–9–57.

Class 50—Merchandise Not Otherwise Classified

662,905. SNOFOME. Walters Industries, Inc. SN 35,712. Pub. 3–25–58. Filed 8–16–57.

662,906. UTILITY. H. D. Hudson Manufacturing Company. SN 36,587. Pub. 3–25–58. Filed 9–3–57.

662,907. WHIRLWIND. Novelty Manufacturing Co. Inc. SN 36,616. Pub. 3–25–58. Filed 9–3–57.

Class 51—Cosmetics and Toilet Preparations

662,908. SILI-GARDE. Richard Hudnut. SN 9,546. Pub. 9–10–57. Filed 6–4–56.

662,909. VI-GLO. Mildred L. Fentress, d. b. a. Mildred's Beauty Products. SN 9,969. Pub. 3–25–58. Filed 6–11–56.

662,910. PRETTY UP. Jesse F. McHam, d. b. a. A'vous Cosmetiques Internationale. SN 22,557. Pub. 11-5-57. Filed 1-14-57.

662,911. SUNFROST. Florence Chadwick. SN 26,326. Pub. 3-25-58. Filed 3-18-57.

662,912. ZAYA'S. Zaya Kingman, d. b. a. Kingman Trading Company. SN 27,609. Pub. 3-25-58. Filed 4-5-57.

662,913. CHIP. C. H. Boehringer Sohn. SN 32,461. Pub. 3-25-58. Filed 6-24-57.

662,914. BLESS. A. & F. Pears Limited. SN 34,623. Pub. 3-25-58. Filed 7-30-57.

662,915. WINTER-SETT. The Procter & Gamble Company. SN 36,916. Pub. 3-25-58. Filed 9-9-57.

662,916. GARDENS OF SPAIN. Avon Products, Inc. SN 37,124. Pub. 3-25-58. Filed 9-13-57.

Class 52 — Detergents and Soaps

662,748. CONSOLIDATED CERTIFICATE. See Class 6.

662,917. SPRAYWAY. Tru-Pine Company, to Sprayway, Inc. SN 12,994. Pub. 3-18-58. Filed 7-27-56.

662,918. FORMULA 900. Franklin Research Company. SN 28,505. Pub. 3-25-58. Filed 4-19-57.

Service Marks

Class 100 — Miscellaneous

662,919. WHITE GRILL AND DESIGN. Harold A. McLaughlin, d. b. a. White Grill. SN 35,370. Pub. 3-25-58. Filed 8-12-57.

Class 101 — Advertising and Business

662,920. THE GOLDEN LINK AND DESIGN. Titmus Optical Company, Inc. SN 29,183. Pub. 3-25-58. Filed 4-30-57.

Class 103 — Construction and Repair

662,921. QUALITY LEEDS AND DESIGN. The Leeds Conveyor Manufacturing Co. SN 12,641. Pub. 3-25-58. Filed 7-23-56.

662,922. MATTCO. Mattco, Inc. SN 29,735. Pub. 3-25-58. Filed 5-9-57.

Class 106 — Material Treatment

662,923. ADAPTIONEERING. Sprout, Waldron & Company, Inc. SN 32,346. Pub. 3-25-58. Filed 6-20-57.

Collective Membership Mark

Class 200

662,924. THE ANTEATERS ASSOCIATION ETC. AND DESIGN. L. Gordon Leech, d. b. a. The Anteaters Association. SN 34,544. Pub. 3-25-58. Filed 7-29-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 17 — Tobacco Products

662,925. Peter Meltzer, d. b. a. Hampden Candy & Tobacco Company, Springfield, Mass. SN 31,574. Filed P. R. 6-7-57. Am. S. R. 4-8-58.

BARNETT'S BROAD LEAF MILD & SWEET

For Cigars.
First use 1904.

Class 18 — Medicines and Pharmaceutical Preparations

662,926. Borcherdt Malt Extract Company; d. b. a. Borcherdt Company, Chicago, Ill. SN 26,520. Filed P. R. 3-20-57. Am. S. R. 4-10-58.

FERROMALT

For Enteric-Coated Tablets for Treatment of Iron Deficiency Anemia.
First use Feb. 28, 1957.

662,927. Revlon, Inc., New York, N. Y. SN 28,544. Filed P. R. 4-19-57. Am. S. R. 4-14-58.

THIN-DOWN

For Weight Reducing Pharmaceutical Composition for Oral Use.
First use Mar. 28, 1957.

Class 22 — Games, Toys, and Sporting Goods

662,928. Dayton Bait Corporation, Dayton, Ohio. SN 4,523. Filed P. R. 3-14-56. Am. S. R. 11-21-57.

TRIGGER HOOK

For Fishing Equipment Consisting of Automatic Jerk Fish Hook Apparatus.
First use Jan. 27, 1956.

Class 28 — Jewelry and Precious-Metal Ware

662,929. Duchess Jewelry Mfg. Corp., Hoboken, N. J. SN 25,845. Filed P. R. 3-11-57. Am. S. R. 3-27-58.

CUSTOM-SIZE

For Watch Bracelets.
First use Mar. 1, 1957.

Class 46 — Foods and Ingredients of Foods

662,930. Evirpure Processors Corp., New York, N. Y. SN 26,168. Filed P. R. 3-14-57. Am. S. R. 3-6-58.

ORANJPURE

For Orange Crystals Made From Pure Orange Concentrate for Making a Food Drink.
First use Feb. 27, 1957.

662,931. Richard Migaki, Parlier, Calif. SN 35,442. Filed P. R. 8-13-57. Am. S. R. 3-3-58.

LUSCIOUS

For Fresh Grapes.
First use September 1954.

TRADEMARK REGISTRATIONS RENEWED

15,375. REMINGTON AND DESIGN. Cl. 23. 4-17-1888.
15,474. SSW. Cl. 44. 5-15-1888.
120,120. CHLOROFECTANT. Cl. 52. 1-8-18.
121,363. UHLCO. Cl. 26. 4-23-18.
121,510. IMPERIAL. Cl. 27. 4-30-18.
121,734. MISSION BELLS AND DESIGN. Cl. 46. 5-21-18.
121,868. PROTEXOL AND DESIGN. Cl. 6. 6-11-18.
121,995. TONICO DE WINTERSMITH. Cl. 18. 6-11-18.
122,300. JACK FROST. Cl. 12. 7-23-18.
122,488. AMBITION. Cl. 38. 8-20-18.
122,553. U. Cl. 40. 8-20-18.
122,565. REPRESENTATION OF MAN'S FACE. Cl. 29. 8-27-18.
122,578. OBTUNDIA. Cl. 18. 8-27-18.
122,582. NO-OX-ID ETC. Cl. 6. 8-27-18.
122,664. PRISCILLA. Cl. 46. 9-10-18.
350,197. JNB AND DESIGN. Cl. 18. 9-21-37.
353,298. COLONY CLUB. Cl. 39. 12-28-37.
353,558. AMERICAN IRON AND MACHINE WORKS CO. AND LETTER A DESIGN. Cl. 13. 1-11-38.
353,754. FAMILEX. Cl. 46. 1-18-38.
353,765. STATURAID AND DESIGN. Cl. 39. 1-18-38.
353,861. OCCASION AND DESIGN. Cl. 39. 1-18-38.
354,008. HIDUMINIUM. Cl. 14. 1-25-38.
354,057. DUOPHOTO. Cl. 26. 2-1-38.
354,208. AMERICAN IRON & MACHINE WORKS CO. AND LETTER A AND DESIGN. Cl. 23. 2-8-38.
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557,839. DINNER QUIK. Cl. 46.
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558,166. BLEND SUIT. Cl. 39.
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558,171. SMOCKETTE. Cl. 39.
558,172. DOLE DOLE AND DESIGN. Cl. 46.
558,174. TROPIC SEA. Cl. 46.
558,177. U. S. EUROPE MERCHANT LINE. Cl. 105.

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356,793. DIESEL AND DESIGN. Cl. 23. 5–10–38. Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. Amended to appear:



553,244. AT HOME WITH KAY WEST. Cl. 104. 1–8–52. Westinghouse Radio Stations, Inc. Westinghouse Broadcasting Company, Inc., New York, N. Y. Amended to appear:

KAY WEST

563,499. AUTOGLO WASHES BACK THE SHINE. Cl. 52. 8–26–52. E. F. Drew & Co., Inc., New York, N. Y. Amended to appear:

Autoqlo

637,744. EASTEX. Cl. 37. 11–27–56. East Texas Pulp and Paper Company, Evadale, Tex. Corrected: In column 1, line 1, "Texas" should be *Delaware*.

639,381. ET AND DESIGN. Cl. 37. 1–1–57. East Texas Pulp and Paper Company, Evadale, Tex. Corrected: In column 1, line 1, "Texas" should be *Delaware*.

639,382. EASTEX ET AND DESIGN. Cl. 37. 1–1–57. East Texas Pulp and Paper Company, Evadale, Tex. Corrected: In column 1, line 1, "Texas" should be *Delaware*.

652,535. SHURE SPLICERS. Cl. 21. 10–1–57. The Thomas & Betts Co., Elizabeth, N. J. Corrected: In the statement, column 1, line 1, ", Inc." should be deleted.

655,976. MIX-KWIK. Cl. 12. 12–24–57. Mix-Kwik Products Company, Berkeley, Calif. Corrected: In the statement, column 1, line 3, "Alameda" should be *Berkeley*.

656,960. EASTEX. Cl. 1. 1–14–58. East Texas Pulp & Paper Company, Evadale, Tex. Corrected: In column 1, line 1, "Texas" should be *Delaware*.

656,961. EASTEX ET AND DESIGN. Cl. 1. 1–14–58. East Texas Pulp & Paper Company, Evadale, Tex. Corrected: In column 1, line 1, "Texas" should be *Delaware*.

656,962. ET AND DESIGN. Cl. 1. 1–14–58. East Texas Pulp & Paper Company, Evadale, Tex. Corrected: In column 1, line 1, "Texas" should be *Delaware*.

657,351. MIAMI TRADITIONAL. Cl. 12. 1–21–58. Miami Window Corporation, Hialeah, Fla. Corrected: In the statement, column 1, line 1, "Company" should be *Corporation*.

659,367. HOLIDAY TIMES. Cl. 38. 3–11–58. Holiday Inns of America, Inc., Memphis, Tenn. Corrected: In the statement, column 2, line 1, "Printing" should be *Printed*.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

546,507. TURKEY. Cl. 46. Thomas Roberts & Co. 8–14–51. New Cert. Sec. 7(c), to Albert W. Sisk & Son, Preston, Md., 6–10–58.

554,540. PRIDE OF THE FARM. Cl. 46. Thomas Roberts & Co. 2–12–52. New Cert. Sec. 7(c), to Albert W. Sisk & Son, Preston, Md., 6–10–58.

572,592. FRASER'S COLOGNE. Cl. 51. Abraham Asch, doing business under the firm name and style of Fraser & Co. 3–31–53. New Cert. Sec. 7(c), to David Rosenberg, New York, N. Y., 6–10–58.

635,754. WALRUS. Cl. 7. Dolphin Jute Mills. 10–16–56. New Cert. Sec. 7(c), to The Linen Thread Co., Inc., Wilmington, Del., 6–10–58.

635,755. DOLPHIN. Cl. 7. Dolphin Jute Mills. 10–16–56. New Cert. Sec. 7(c), to The Linen Thread Co., Inc., Wilmington, Del., 6–10–58.

635,756. PORPOISE. Cl. 7. Dolphin Jute Mills. 10–16–56. New Cert. Sec. 7(c), to The Linen Thread Co., Inc., Wilmington, Del., 6–10–58.

635,757. CEDAR. Cl. 7. Dolphin Jute Mills. 10–16–56. New Cert. Sec. 7(c), to The Linen Thread Co., Inc., Wilmington, Del., 6–10–58.

636,334. DOLPHIN JUTE MILLS AND DESIGN. Cl. 7. Dolphin Jute Mills. 10–30–56. New Cert. Sec. 7(c), to The Linen Thread Co., Inc., Wilmington, Del., 6–10–58.

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A. S. R. Products Corp. : *See*—
American Safety Razor Co. Inc.
Abbott Laboratories, North Chicago, Ill. 662,802, pub. 3–25–58. Cl. 18.
Abraham & Straus, to Federated Department Stores, Inc., Brooklyn, N. Y. 122,664, ren. 9–10–58. Cl. 46.
Adam's Perfumes, Inc., New York, N. Y. 557,925, canc. Cl. 51.
Adler's Inc., Kansas City, Mo. 662,867, pub. 4–9–57. Cl. 39.
Agricultural Laboratories, Inc., Columbus, Ohio. 662,742, pub. 3–25–58. Cl. 4.
Air Conditioned Fabrics Corp. : *See*—
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Alanise Enterprises, New York, N. Y. 557,903, canc. Cl. 51.
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Allen Advertising Agency, Inc., Chicago, Ill. 558,115, canc. Cl. 101.
Allen Ranches, Inc., Phoenix, Ariz. 558,080, canc. Cl. 46.
Alexander, G. W., & Co., Inc., West Reading, Pa. 662,874–9, pub. 3–25–58. Cl. 39.
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All-Sil Welding Metals, Inc., New York, N. Y. 558,076, canc. Cl. 6.
Altorfer Bros. Co., Peoria, Ill. 557,838, canc. Cl. 24.
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American Iron & Machine Works Co., to American Iron & Machine Works Co., Oklahoma City, Okla. 354,208, ren. 2–8–58. Cl. 23.
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Broemmel Pharmaceuticals, San Francisco, Calif. 662,797, pub. 3–25–58. Cl. 18.
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Chesebrough Mfg. Co., Consolidated.
Chicago Cardboard Co., Chicago, Ill. 558,011, canc. Cl. 50.
Chicago Pharmacal Co., Chicago, Ill. 662,792, pub. 3–25–58. Cl. 18.
Chicago Rubber Co., Inc., Waukegan, Ill. 662,824, pub. 3–25–58. Cl. 23.
Chrysler: *See*—
Chrysler Textiles, Inc.
Chrysler Textiles, Inc., d. b. a. Chrysler, New York, N. Y. 662,885, pub. 3–25–58. Cl. 42.
Clapp, Otis, & Son Inc., to Otis Clapp & Son, Inc., Boston, Mass. 122,578, ren. 8–27–58. Cl. 18.
Cleveland Lathe & Machine Co., Cleveland, Ohio. 558,155, canc. Cl. 21.
Coast Store Fixture and Mfg. Co.: *See*—
Renna, Vito M.
Coffing, James R., Co., Danville, Ill. 557,947, canc. Cl. 50.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsted-Tex, Inc., Philadelphia, Pa., and Baltimore, Md. 360,094, ren. 9–6–58. Cl. 39.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsted-Tex, Inc., Philadelphia, Pa., and Baltimore, Md. 360,100, ren. 9–6–58. Cl. 39.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsted-Tex, Inc., Philadelphia, Pa., and Baltimore, Md. 360,107, ren. 9–6–58. Cl. 39.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsted-Tex, Inc., Philadelphia, Pa., and Baltimore, Md. 360,108, ren. 9–6–58. Cl. 39.
Cohn, H. C., & Co., to Superba Cravats, Inc., Rochester, N. Y. 358,767, ren. 7–26–58. Cl. 39.
Columbia Broadcasting System, Inc., New York, N. Y. 558,099, canc. Cl. 104.
Columbia Broadcasting System, Inc., New York, N. Y. 558,100, canc. Cl. 104.
Continental Can Co., Inc., New York, N. Y. 662,738, pub. 3–25–58. Cl. 2.
Continental Oil Co., Ponca City, Okla. 662,753, pub. 10–22–57. Cl. 6.
Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany. 356,793. Am. 7(d). Cl. 23.
Dana Perfumes, Inc., Chicago, Ill., to Les Parfums de Dana, Inc., New York, N. Y. 558,022, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 558,023, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 558,024, canc. Cl. 51.
Dana Perfumes, Inc., Chicago, to N. J. Phelps, Palatine, Ill. 558,026, canc. Cl. 51.
Danbury-Knudsen, Inc., Danbury, Conn., to Amphenol Electronics Corp., Chicago, Ill. 662,813, pub. 3–25–58. Cl. 21.
Davis-Barlow Corp., New York, N. Y. 662,781, pub. 3–25–58. Cl. 16.
Davis, Carl M., d. b. a. Flock-O-Matic Co., Riverside, Calif. 662,827, pub. 3–25–58. Cl. 23.
Davis Mfg. Co., Inc., Knoxville, Tenn. 557,940, canc. Cl. 6.
Dayton Bait Corp., Dayton, Ohio. 662,928. Cl. 22.
Dearborn Chemical Co., Chicago, Ill. 122,582, ren. 8–27–58. Cl. 6.
Debrie, Andre L. V. C., d. b. a. Etablissements Andre Debrie, Paris, France. 359,370, ren. 8–16–58. Cl. 26.
Debydag Deutsche Hydrierwerke GMBH, Dusseldorf, Germany. 662,754–5, pub. 3–25–58. Cl. 6.
De Laval Separator Co., The, Poughkeepsie, N. Y. 356,899, ren. 5–17–58. Cl. 23.
Diapulse Mfg. Corp. of America: *See*—
Ginsberg, A. J.
Dixie Mercerizing Co., Chattanooga, Tenn. 662,892, pub. 3–25–58. Cl. 43.
Dixon, William, Inc., Newark, N. J. 662,895, pub. 3–25–58. Cl. 44.
Dole Sales Co. and Barron-Gray Packing Co.: *See*—
Hawaiian Pineapple Co., Ltd.
Dolphin Jute Mills, to The Linen Thread Co., Inc., Wilmington, Del. 635,754, new cert. Cl. 7.
Dolphin Jute Mills, to The Linen Thread Co., Inc., Wilmington, Del. 635,755, new cert. Cl. 7.
Dolphin Jute Mills, to The Linen Thread Co., Inc., Wilmington, Del. 635,756, new cert. Cl. 7.
Dolphin Jute Mills, to The Linen Thread Co., Inc., Wilmington, Del. 635,757, new cert. Cl. 7.
Dolphin Jute Mills, to The Linen Thread Co., Inc., Wilmington, Del. 636,334, new cert. Cl. 7.
Doncaster Collar and Shirt Co., Inc., Rutherfordton, N. C. 359,995, ren. 9–6–58. Cl. 39.
Donovan Industries, Inc., New York, N. Y. 662,734, pub. 3–25–58. Cl. 1.
Dow Chemical Co., The, Midland, Mich. 662,737. Pub. 8–6–57, Cl. 2; pub. 3–18–58, Cl. 37. (Consolidated certificate, Classes 2 and 37.)
Drew, E. F., & Co., Inc., New York, N. Y. 563,499. Am. 7(d). Cl. 52.
Ducair Products Co.: *See*—
Eventoff, Alex.
Duchess Jewelry Mfg. Corp., Hoboken, N. J. 622,929. Cl. 28.
Duo-Bed Corp., Los Angeles, Calif. 662,849, pub. 3–25–58. Cl. 32.
Duophoto Corp.: *See*—
Duophoto, Ltd.
Duophoto, Ltd., now by change of name Duophoto Corp., to Duophoto Corp., New York, N. Y. 354,057, ren. 2–1–58. Cl. 26.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 358,105, ren. 6–28–58. Cl. 6.
Dura-Glaze, Inc., Long Beach, Calif. 662,744, pub. 3–25–58. Cl. 4.
Durham, Roy E., Junction City, Oreg. 662,759, pub. 3–25–58. Cl. 12.
East Texas Pulp and Paper Co., Evadale, Tex. 637,744, cor. Cl. 37.
East Texas Pulp and Paper Co., Evadale, Tex. 639,381, cor. Cl. 37.
East Texas Pulp and Paper Co., Evadale, Tex. 639,382, cor. Cl. 37.
East Texas Pulp & Paper Co., Evadale, Tex. 656,960, cor. Cl. 1.
East Texas Pulp & Paper Co., Evadale, Tex. 656,961, cor. Cl. 1.
East Texas Pulp & Paper Co., Evadale, Tex. 656,962, cor. Cl. 1.
Ebbecke, Marie, Toughkenamon, Pa. 662,903, pub. 3–25–58. Cl. 46.
Elars Products, Inc., d. b. a. Vitamin Co. of America, Richmond, Va. 662,786, pub. 3–25–58. Cl. 18.
Electric Steel Foundry Co., Portland, Oreg. 662,826, pub. 3–25–58. Cl. 23.
Englehard Industries, Inc., Newark, N. J. 355,743, ren. 3–29–58. Cl. 44.
Ensign-Shaw Co., Inc., New Canaan, Conn. 557,951, canc. Cl. 50.
Enterprise-Moakler Co. Inc., Cambridge, Mass. 662,850, pub. 3–25–58. Cl. 32.
Etablissements Andre Debrie: *See*—
Debrie, Andre L. V. C.
Etiwanda Citrus Fruit Association, Etiwanda, Calif. 557,826, canc. Cl. 46.
Evans, John R., & Co., Camden, N. J. 662,733, pub. 3–25–58. Cl. 1.
Eventoff, Alex, d. b. a. Ducair Products Co., New York, N. Y. 662,749, pub. 7–2–57. Cl. 6.
Evirpure Processors Corp., New York, N. Y. 662,930. Cl. 46.
Falls Stamping & Welding Co., The, Cuyahoga Falls, Ohio. 557,871, canc. Cl. 12.
Familex Products Co.: *See*—
Parent, Romeo.
Farbenfabriken Bayer Aktiengesellschaft, Luverkusen-Bayerwerk, Germany. 662,896, pub. 3–25–58. Cl. 44.
Farmer Tarleton: *See*—
Jacobs, Walter.
Federated Department Stores, Inc.: *See*—
Abraham & Straus.
Felters Co., The, Boston, Mass. 558,029, canc. Cl. 50.
Fentress, Mildred L., d. b. a. Mildred's Beauty Products, Clinton, Ill. 662,909 pub. 3–25–58. Cl. 51.
Fieldwood Co., The, Wyckoff, N. J. 662,842, pub. 3–25–58. Cl. 28.
Fleischman, M. R., Co., San Francisco, Calif. 557,924. Cl. 3.
Flock-O-Matic Co.: *See*—
Davis, Carl M.
Florida Coffee Co., Miami, Fla. 558,019, canc. Cl. 46.
Franklin Research Co., Philadelphia, Pa. 662,918, pub. 3–25–58. Cl. 52.
Fuller, D. B., & Co., Inc., New York, N. Y. 662,884, pub. 3–25–58. Cl. 42.
Fuller, D. B., & Co., Inc., New York, N. Y. 662,889–90, pub. 3–25–58. Cl. 42.
Gehring Textiles, Inc., New York, N. Y. 662,891, pub. 3–25–58. Cl. 42.
General Aniline & Film Corp., New York, N. Y. 662,839, pub. 3–25–58. Cl. 26.
General Chemical Co., to Allied Chemical & Dye Corp., New York, N. Y. 355,860, ren. 4–5–58. Cl. 52.
General Chemical Co., to Allied Chemical & Dye Corp., New York, N. Y. 355,861, ren. 4–5–58. Cl. 52.
General Cigar Co., Inc., New York, N. Y. 662,783, pub. 3–25–58. Cl. 17.
General Electric Co.: *See*—
Carboloy Co., Inc.
General Features Corp., New York, N. Y. 662,861, pub. 3–25–58. Cl. 38.
General Features Corp., New York, N. Y. 662,866, pub. 3–25–58. Cl. 38.
General Mills, Inc.: *See*—
Sperry Flour Co.
General Tire & Rubber Co., The, Akron, Ohio. 662,886, pub. 3–25–58. Cl. 42.
Geo-Physical Maps, Inc., New York, N. Y. 662,841, pub. 3–25–58. Cl. 26.
Georges-George De Met & Bros., Inc., Chicago, Ill. 558,090, canc. Cl. 46.
Gerry Nufoam Products Corp., New York, N. Y. 557,883, canc. Cl. 32.
Gerry Nufoam Products Corp., New York, N. Y. 557,884, canc. Cl. 32.
Gerson Stewart Corp., The, Cleveland, Ohio. 662,743, pub. 3–25–58. Cl. 4.
Gift Maker Co.: *See*—
Hagstrom, Marjorie.
Ginsberg, A. J., New York, N. Y., to Diapulse Mfg. Corp. of America, Manhattan, N. Y. 662,894. Cl. 44.
Goldblatt Tool Co., Kansas City, Mo. 662,832, pub. 3–25–58. Cl. 23.
Goldsmith, Samuel R., & Son, Inc., New York, N. Y. 558,053, canc. Cl. 3.
Gould, Barbara, Inc., New York, N. Y. 358,014, ren. 6–21–58. Cl. 51.
Grace, W. R., & Co., New York, N. Y. 662,751, pub. 3–25–58. Cl. 6.
Grand Rapids Store Equipment Co., Grand Rapids, Mich. 557,864, canc. Cl. 32.
Grant Co., The: *See*—
Ratner, Walter.
Graser, August G., Waco, Tex. 558,141, canc. Cl. 18.
Grasslander Co. Ltd., Milverton, Ontario, Canada. 662,831, pub. 3–25–58. Cl. 23.

Great Western Mushroom Co., The, Denver, Colo. 558,138, canc. Cl. 46.
Gulf States Paint Co., Houston, Tex. 662,778, pub. 2–14–56. Cl. 16.
HMH Publishing Co., Inc., Chicago, Ill. 662,865, pub. 3–25–58. Cl. 38.
Hagstrom, Marjorie, d. b. a. Gift Maker Co., Kansas City, Mo. 557,865, canc. Cl. 50.
Halo Lighting Products Co., Chicago, Ill. 662,854, pub. 3–25–58. Cl. 34.
Hampden Candy & Tobacco Co.: *See*—
Meltzer, Peter.
Hampton Corp., Milwaukee, Wis. 662,870, pub. 3–25–58. Cl. 39.
Hardinge Co., Inc., York, Pa. 358,544, ren. 7–19–58. Cl. 26.
Hatchadourian, Matthew, d. b. a. Allied American Export Co., New York, N. Y. 558,157, canc. Cl. 46.
Hawaiian Pineapple Co., Ltd., d. b. a. Dole Sales Co. and Barron-Gray Packing Co., Honolulu, Hawaii, San Francisco and San Jose, Calif. 558,172, canc. Cl. 46.
Heil Co., The, Milwaukee, Wis. 558,131, canc. Cl. 23.
Hercules Powder Co., Wilmington, Del. 662,756, pub. 3–25–58. Cl. 6.
Herman Brothers, Philadelphia, Pa. 662,899, pub. 3–25–58. Cl. 46.
High Duty Alloys Ltd., Slough, England. 354,008, ren. 1–25–58. Cl. 14.
Hipwell Mfg. Co., Pittsburgh, Pa. 558,051, canc. Cl. 21.
Hoffman, Martin Co., Livonia, Mich. 557,969, canc. Cl. 12.
Holiday Inns of America, Inc., Memphis, Tenn. 659,367, cor. Cl. 38.
Holland-Hessol Co. Inc., New York, N. Y. 353,298, ren. 12–28–57. Cl. 39.
Hood Sales Co.: *See*—
Oscar, George.
Hooker Electrochemical Co., Niagara Falls, N. Y. 662,780, pub. 3–25–58. Cl. 16.
Hough, Frank G., Co., The, Libertyville, Ill. 662,804, pub. 3–25–58. Cl. 19.
House of Worsted-Tex, Inc.: *See*—
Cohen, Goldman & Co., Inc.
Hudnut, Richard, New York, N. Y. 557,813, canc. Cl. 51.
Hudnut, Richard, New York, N. Y. 662,908, pub. 9–10–57. Cl. 51.
Hudson H. D., Mfg. Co., Chicago, Ill. 662,906, pub. 3–25–58. Cl. 50.
Huyck, F. C., & Sons, Rensselaer, N. Y. 358,324, ren. 7–5–58. Cl. 42.
Iberia Concrete Products, Inc., New Iberia, La. 662,760, pub. 3–25–58. Cl. 12.
Indian Archery & Toy Corp., Evansville, Ind. 662,816, pub. 3–25–58. Cl. 22.
Industrial Acountancy Partnership Ltd., London, England. 662,840, pub. 3–25–58. Cl. 26.
Industrial Instruments, Inc., Cedar Grove, N. J. 662,837, pub. 3–25–58. Cl. 26.
Industrial Starter Corp., New York, N. Y. 557,990, canc. Cl. 21.
Infilco Inc.: *See*—
International Filter Co.
Ingle, Oliver W., Portland, Oreg. 558,003, canc. Cl. 12.
Interchemical Corp., New York, N. Y. 558,045, canc. Cl. 20.
International Bedding Co., The, Baltimore, Md. 557,948, canc. Cl. 32.
International Filter Co., Chicago, Ill., to Infilco Inc., Tucson, Ariz. 358,612, ren. 7–19–58. Cl. 31.
International Filter Co., Chicago, Ill. 360,529, ren. 9–20–58. Cl. 31.
International Harvester Co., Chicago, Ill. 557,921, canc. Cl. 14.
International Harvester Co., Chicago, Ill. 662,858, pub. 3–25–58. Cl. 38.
International Nickel Co., Inc., The, New York, N. Y. 662,771, pub. 3–25–58. Cl. 14.
International Nickel Co., Inc., The, New York, N. Y. 662,775, pub. 3–25–58. Cl. 14.
International Shoe Co., St. Louis, Mo. 662,873, pub. 3–25–58. Cl. 39.
International Silver Co., The, Meriden, Conn. 662,844–5, pub. 3–25–58. Cl. 28.
International Textbook Co., Scranton, Pa. 122,488, ren. 8–20–58. Cl. 38.
J & L Steel Barrel Co., New York, N. Y. 557,913, canc. Cl. 2.
Jacobs, Walter, d. b. a. Farmer Tarleton, Pike, N. H. 558,084, canc. Cl. 46.
Johnson, Stephens and Shinkle Shoe Co., St. Louis, Mo. 357,376, ren. 6–7–58. Cl. 39.
Johnson, Stephens and Shinkle Shoe Co., St. Louis, Mo. 357,379, ren. 6–7–58. Cl. 39.
Johnson, Stephens and Shinkle Shoe Co., St. Louis, Mo. 357,380, ren. 6–7–58. Cl. 39.
Johnson, Stephens and Shinkle Shoe Co., St. Louis, Mo. 357,386, ren. 6–7–58. Cl. 39.
Jones & Lamson Machine Co., Springfield, Vt. 662,828, pub. 3–25–58. Cl. 23.
Kaiser Gypsum Co., Inc., Oakland, Calif. 662,765, pub. 3–25–58. Cl. 12.
Kathi's of California, San Francisco, Calif. 62,882, pub. 3–25–58. Cl. 42.
Kaufman, Israel, Nashville, Tenn. 662,814, pub. 3–25–58. Cl. 22.
Kaufmann Department Stores: *See*—
May Department Stores Co., The.
Kaynee Co., The, Cleveland, Ohio. 662,880, pub. 3–25–58. Cl. 39.
Kayser, Julius, & Co., New York, N. Y. 662,871, pub. 3–25–58. Cl. 39.
Keasbey & Mattison Co., Ambler, Pa. 662,881, pub. 3–25–58. Cl. 40.
Keyes Fibre Co., Waterville, Maine. 662,740, pub. 3–25–58. Cl. 2.
Keystone Engineering Co., Los Angeles, Calif. 662,829, pub. 3–25–58. Cl. 23.
King Candy Co., Fort Worth, Tex. 662,898, pub. 3–25–58. Cl. 46.
Kingman Trading Co.: *See*—
Kingman, Zaya.
Kingman, Zaya, d. b. a. Kingman Trading Co., New York, N. Y. 662,912, pub. 3–25–58. Cl. 51.
Kiwi Polish Co. Proprietary Ltd., The, Richmond, near Melbourne, Victoria, Australia, and Philadelphia, Pa. 558,164, canc. Cl. 4.
Klenk, Karl: *See*—
Klenk, Karl J.
Klenk, Karl J., d. b. a. Karl Klenk, Wilmington, Del. 557,853, canc. Cl. 23.
Knoll Associates, Inc., New York, N. Y. 557,931, canc. Cl. 32.
Kooltronic Fan Co.: *See*—
Lyman, Roger T.
Kuick, Paul, d. b. a. Macomb Food Supply, Centerline, Mich. 557,850, canc. Cl. 46.
Leech, L. Gordon, d. b. a. The Anteaters Association, Washington, D. C. 662,924, pub. 3–25–58. Cl. 200.
Leeds Conveyor Mfg. Co., The, East Haven, Conn. 662,921, pub. 3–25–58. Cl. 103.
Lefevre Chemical Co., Oklahoma City, Okla. 662,750, pub. 3–25–58. Cl. 6.
Les Laboratoires Francais de Chimiotherapie, Paris, France. 662,791, pub. 3–25–58. Cl. 18.
Les Parfums de Dana, Inc.: *See*—
Dana Perfumes, Inc.
Levine, Max., d. b. a. Max Levine & Co., New York, N. Y. 558,162, canc. Cl. 39.
Levine, Max, & Co.: *See*—
Levine, Max.
Levy, I., Sons, New York, N. Y. 557,862, canc. Cl. 32.
Lewis, David, Inc., St. Louis, Mo. 558,054, canc. Cl. 39.
Liberty Shrinkers Corp., New York, N. Y. 558,112, canc. Cl. 106.
Lily Mills Co., Shelby, N. C. 360,002, ren. 9–6–58. Cl. 40.
Limpert Bros., Inc., New York, N. Y., and Vineland, N. J. 557,936, canc. Cl. 46.
Lincoln Electric Co., The, Cleveland, Ohio. 662,770, pub. 3–11–58. Cl. 14 and 21.
Linen Thread Co., Inc., The: *See*—
Dolphin Jute Mills.
Lubin-Weeker Co., Inc., to Weldon Pajamas, Inc., New York, N. Y. 360,128, ren. 9–6–58. Cl. 39.
Luria Brothers & Co., Inc., Philadelphia, Pa. 662,773, pub. 3–25–58. Cl. 14.
Lyman, Roger T., d. b. a. Kooltronic Fan Co., Princeton, N. J. 662,851, pub. 3–25–58. Cl. 34.
Mack, Andrew, & Son: *See*—
Mack, Glenwood S.
Mack, Glenwood S., d. b. a. Andrew Mack & Son, Jonesville, Mich. 557,976, canc. Cl. 29.
Mackey, C. Elwood, and Co., Inc.: *See*—
Venable, Melvin W., Jr.
Macklanburg-Duncan Co., Oklahoma City, Okla. 558,147, canc. Cl. 12.
Macomb Food Supply: *See*—
Kuick, Paul.
Mallory, P. R., & Co., Inc., Indianapolis, Ind. 359,145, ren. 8–9–58. Cl. 21.
Malmstrom Chemical Corp., Newark, N. J. 662,747, pub. 9–18–56. Cl. 6.
Mandel Brothers, Inc., Chicago, Ill. 558,167, canc. Cl. 21.
March Engineering Co., Oshkosh, Wis., to Vulcan Mfg. Co., Inc., Winona, Minn. 557,797, canc. Cl. 23.
Marsyl, Fosca, d. b. a. Pee-Wee Doll Co., New York, N. Y. 662,815, pub. 3–25–58. Cl. 22.
Martindale Electric Co., The, Lakewood, Ohio. 662,741, pub. 1–7–58. (Consolidated certificate, Classes 23, 4, 26, and 21.)
Masclet, Francesca: *See*—
Masclet, Marie-Francoise.
Masclet, Marie-Francoise, d. b. a. Francesca Masclet, Paris, France. 557,922, canc. Cl. 51.
Master Appliance Mfg. Co., Racine, Wis. 662,807, pub. 4–9–57. Cl. 21.
Masters, George R., Lubbock, Tex. 662,817, pub. 3–25–58. Cl. 22.
Mathieson Alkali Works (Inc.), The, to Olin Mathieson Chemical Corp., New York, N. Y. 358,581, ren. 7–19–58. Cl. 6.
Mattco, Inc., Houston, Tex. 662,922, pub. 3–25–58. Cl. 103.
May Department Stores Co., The, St. Louis, Mo., d. b. a. Kaufmann Department Stores, Pittsburgh, Pa. 557,819, canc. Cl. 39.
May Department Stores Co., The, New York, N. Y. 662,806, pub. 3–25–58. Cl. 19.
May Department Stores Co., The, New York, N. Y. 662,855, pub. 3–25–58. Cl. 35.
Mead Johnson & Co., Evansville, Ind. 662,798, pub. 3–25–58. Cl. 18.
Meltzer, Peter, d. b. a. Hampden Candy & Tobacco Co., Springfield, Mass. 662,925. Cl. 17.
Merchants Distributors, Inc., Boston, Mass. 662,856, pub. 3–25–58. Cl. 35.
Messick, C. B., Jr.: *See*—
Messick, Calvin B., Jr.
Messick, Calvin B., Jr., d. b. a. C. B. Messick, Jr., Wauchula, Fla. 557,840, canc. Cl. 46.
Metromatic Mfg. Co., Inc., Medford, Mass. 662,852–3, pub. 3–25–58. Cl. 34.
Meyer, Melvin, to Air Conditioned Fabrics Corp., to Wm. Simpson, Sons & Co., Inc., New York, N. Y. 358,384, ren. 7–12–58. Cl. 42.

McHam, Jesse F., d. b. a. A'vous Cosmetiques Internationale, Los Angeles, Calif. 662,910, pub. 11–5–57. Cl. 51.
McLaughlin, Harold A., d. b. a. White Grill, Nevada, Mo. 662,919, pub. 3–25–58. Cl. 100.
Miami Window Corp., Hialeah, Fla. 657,351, cor. Cl. 12.
Middleby-Marshall Oven Co., Chicago, Ill. 662,830, pub. 3–25–58. Cl. 23.
Mid-West Acoustical & Supply Co., The, Cleveland, Ohio. 557,873, canc. Cl. 12.
Migaki, Richard, Parlier, Calif. 662,931. Cl. 46.
Mila, Sewing Machine Factory, National Corp.: *See*— Mila, Zavody na Sici Stroje, Narodni Podnik.
Mila, Zavody na Sici Stroje, Narodni Podnik, also d. b. a. Mila, Sewing Machine Factory, National Corp., Opava, Czechoslovakia, now by change of name Minerva, narodni podnik. 557,906, canc. Cl. 23.
Mildred's Beauty Products: *See*— Fentress, Mildred L.
Milk Products, Inc., Philadelphia, Pa. 557,835, canc. Cl. 46.
Miller Dial and Name Plate Co., Los Angeles, Calif. 557,971, canc. Cl. 50.
Millipore Filter Corp., Watertown, Mass. 662,848, pub. 3–25–58. Cl. 31.
Minerva, narodni podnik: *See*— Mila, Zavody na Sici Stroje, Narodni Podnik.
Mix-Kwik Products Co., Berkeley, Calif. 655,976, cor. Cl. 12.
Moland & Son Mfg. Co., Okeene, Okla. 557,956, canc. Cl. 46.
Mor-Pak Preserving Corp., San Francisco, Calif. 358,377, ren. 7–12–58. Cl. 46.
Morton, Francis, (Spring Floors) Ltd., Middlesex, England. 557,845 canc. Cl. 12.
Moyer Mfg. Co., Youngstown, Ohio. 558,163, canc. Cl. 39.
Mutual Orange Distributors, to Pure Gold, Inc., Redlands, Calif. 358,048, ren. 6–28–58. Cl. 46.
Mutual Trading Co., Inc., Los Angeles, Calif. 662,897, pub. 3–25–58. Cl. 46.
Natchez Veneer & Lumber Co., Natchez, Miss. 662,735, pub. 3–25–58. Cl. 1.
National Dairy Products Corp.: *See*— Southern Dairies, Inc.
National Gypsum Co., Buffalo, N. Y. 662,766, pub. 3–25–58. Cl. 12.
National Sweeping Compound Co.: *See*— Siamatas, James P.
New Process Co., Warren, Pa. 558,119, canc. Cl. 23.
North American Rubber Corp., Los Angeles (South Gate), Calif. 557,914, canc. Cl. 32.
Northern Signal Co., Milwaukee, Wis. 557,905, canc. Cl. 21.
Northwest Public Power Association, The, Vancouver, Wash. 558,105, canc. Cl. 100.
Norwegian Preserving Co.: *See*— Boschen, Sigurd.
Novelty Mfg. Co. Inc., Newark, N. J. 662,907, pub. 3–25–58. Cl. 50.
NuWay Foods Co.: *See*— SavOil, Inc.
O. P. Baur Confectionery Co., The, Denver, Colo. 557,869, canc. Cl. 46.
O. P. Baur Confectionery Co., The, Denver, Colo. 557,870, canc. Cl. 46.
O'Connor & Goldberg, Chicago, Ill. 356,269, ren. 4–19–58. Cl. 39.
Oilfield Equipment Publishing Corp., The, Pampa, Tex. 662,863, pub. 3–25–58. Cl. 38.
Old Oaken Bucket, The: *See*— Barrow, John G., Jr.
Olin Mathieson Chemical Corp.: *See*— Mathieson Alkali Works (Inc.), The.
Orange-Crush Co., Chicago, Ill. 557,824, canc. Cl. 46.
Orlando, J., Co. Inc., New York, N. Y. 557,825, canc. Cl. 46.
Orna Metal Products Co., St. Louis, Mo. 558,020, canc. Cl. 32.
Oscar, George, d. b. a. Hood Sales Co., Portland, Oreg. 558,137, canc. Cl. 46.
Pallet Devices, Inc., Des Plaines, Ill. 557,843, canc. Cl. 50.
Parent, Romeo, d. b. a. Familex Products Co., Montreal, Canada. 353,754, ren. 1–18–58. Cl. 46.
Parker Mfg. Co., Warren, Ohio. 558,033, canc. Cl. 29.
Parker Sweeper Co., Springfield, Ohio. 662,834–5, pub. 3–25–58. Cl. 23.
Parkleigh Fashions, Inc., New York, N. Y. 557,821, canc. Cl. 39.
Pears, A. & F., Ltd., Isleworth, England. 662,914, pub. 3–25–58. Cl. 51.
Peerless Accessories Co., Mount Holly, N. J. 662,803, pub. 3–25–58. Cl. 19.
Pee-Wee Doll Co.: *See*— Marsyl, Fosca.
Peninsula Packing Co., Monterey, Calif. 557,908. Cl. 46.
Pennsalt Chemicals Corp.: *See*— Pennsylvania Salt Mfg. Co., The.
Pennsylvania Distilling Co., Inc., Logansport and Philadelphia, Pa., to The American Distilling Co., New York, N. Y. 359,281, ren. 8–9–58. Cl. 49.
Pennsylvania Salt Mfg. Co., The, now by change of name Pennsalt Chemicals Corp., Philadelphia, Pa. 662,748. Pub. 10–22–57. Cl. 6; pub. 11–5–57, Cl. 12; pub. 5–14–57, Cl. 15; pub. 4–30–57, Cl. 16; pub. 9–10–57, Cl. 52. (Consolidated certificate, Classes 6, 12, 15, 16, and 52.)
Penton Publishing Co., The, Cleveland, Ohio. 662,859, pub. 3–25–58. Cl. 38.
Peters, Mary W., Boulder, Colo. 558,072, canc. Cl. 22.
Peters Mfg. Co., Wollaston, Mass. 662,887, pub. 3–25–58. Cl. 42.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 662,788, pub. 11–19–57. Cl. 18.
Pharmodex Oy, Helsingfors, Finland. 662,789, pub. 12–24–57. Cl. 18.
Phelps, Norman J.: *See*— Dana Perfumes, Inc.
Pillsbury Flour Mills Co., to Pillsbury Mills, Inc., Minneapolis, Minn. 355,525, ren. 3–22–58. Cl. 46.
Pillsbury Mills, Inc.: *See*— Pillsbury Flour Mills Co.
Pioneer Rubber Co., The, Willard, Ohio. 356,550, ren. 5–3–58. Cl. 22.
Plastile Products, Inc., Chicago, Ill. 662,746, pub. 3–25–58. Cl. 5.
Plaut & Lederman, Chicago, Ill. 557,952, canc. Cl. 32.
Plymouth Mfg. Co., Boston, Mass. 558,042, canc. Cl. 39.
Pontiac Varnish Co., Pontiac, Mich. 355,718, ren. 3–29–58. Cl. 16.
Potter-McCune Co., McKeesport, Pa. 662,847, pub. 3–25–58. Cl. 29.
Powers, Harold W., d. b. a. Carew & Powers Co., Boston, Mass. 557,816, canc. Cl. 46.
Procter & Gamble Co., The, Cincinnati, Ohio. 662,915, pub. 3–25–58. Cl. 51.
Protexol Corp.: *See*— Carbolineum Wood Preserving Co.
Puerto Rico Agricultural Co., San Juan, P. R., and New York, N. Y. 557,880, canc. Cl. 46.
Pure Gold, Inc.: *See*— Mutual Orange Distributors.
Ratner, Walter, d. b. a. The Grant Co., Chicago, Ill. 662,758, pub. 3–25–58. Cl. 10.
Redlands Mutual Orange Association, Redlands, Calif. 356,190, ren. 4–12–58. Cl. 46.
Remington Rand Inc., Buffalo, to Sperry Rand Corp., New York, N. Y. 355,978, ren. 4–5–58. Cl. 5.
Rendezvous Restaurant, The, Monroe, La. 558,091, canc. Cl. 46.
Renna, Vito M., d. b. a. Coast Store Fixture and Mfg. Co., Los Angeles, Calif. 557,878, canc. Cl. 32.
Reuten, Fred, Inc., Closter, N. J. 662,764, pub. 3–25–58. Cl. 12.
Revlon, Inc., New York, N. Y. 662,927. Cl. 18.
Rex Research Corp., Toledo, Ohio. 662,752, pub. 10–8–57. Cl. 6.
Rexall Drug Co.: *See*— United Drug Co.
Rigney, Robert M., Long Beach, Calif. 662,846, pub. 3–25–58. Cl. 29.
Roberts, Thomas, & Co., to Albert W. Sisk & Son, Preston, Md. 546,507, new cert. Cl. 46.
Roberts, Thomas, & Co., to Albert W. Sisk & Son, Preston, Md. 554,540, new cert. Cl. 46.
Rockhill Radio, New York, N. Y. 558,116, canc. Cl. 107.
Ropher Tackle Co., The: *See*— Townsend, Le Roy E.
Rosenberg Bros. & Co., to Rosenberg Bros. & Co., Inc., San Francisco, Calif. 357,088, ren. 5–24–58. Cl. 46.
Rosenberg Bros. & Co., Inc.: *See*— Rosenberg Bros. & Co.
Rosenberg, David: *See*— Asch, Abraham.
Rugby Knitting Mills, Inc., Buffalo, N. Y. 662,872, pub. 3–25–58. Cl. 39.
Russell Reinforced Plastics Corp., Lindenhurst, N. Y. 662,762, pub. 3–25–58. Cl. 12.
S. & R. Infants Wear Co., Inc., New York, N. Y. 662,868, pub. 3–25–58. Cl. 39.
Safeway Stores, Inc., Baltimore, Md., and Oakland, Calif. 557,839, canc. Cl. 46.
Sail Oil Corp., Knoxville, Tenn. 662,777, pub. 3–25–58. Cl. 15.
San Diego Fruit & Produce Co., San Diego, Calif. 276,730, canc. Cl. 46.
Savage, Douglas M.: *See*— Brogan, Lloyd F., and Douglas M. Savage.
SavOil, Inc., d. b. a. NuWay Foods Co., Atlanta, Ga. 662,902, pub. 3–25–58. Cl. 46.
Schering Corp., Bloomfield, N. J. 662,795–6, pub. 3–25–58. Cl. 18.
Scholten, J. F., & Zonen, N. V., Enschede, Netherlands. 662,888, pub. 3–25–58. Cl. 42.
Scranton Lace Co., The, Scranton, Pa. 358,186, ren. 6–28–58. Cl. 42.
Seal, Inc., Shelton, Conn. 662,745, pub. 3–25–58. Cl. 5.
Sealube Co., The, Reading, Mass. 557,926, canc. Cl. 12.
Sharples Chemicals Inc., Philadelphia, Pa. 558,069, canc. Cl. 6.
Shulman Fabrics, Inc., Paterson, N. J. 662,883, pub. 3–25–58. Cl. 42.
Siamatas, James P., d. b. a. National Sweeping Compound Co., Ipswich and Rowley, Mass. 557,875, canc. Cl. 52.
Simpson, Wm., Sons & Co., Inc.: *See*— Meyer, Melvin.
Sintz, Claude, Inc., Detroit, Mich. 662,769, pub. 3–25–58. Cl. 13.
Sisk, Albert W., & Son: *See*— Roberts, Thomas, & Co.
Smith, Samuel R., Portland, Oreg. 558,018, canc. Cl. 22.
Smock, W. B., Mfg.: *See*— Smock, William B.
Smock, William B., d. b. a. W. B. Smock Mfg., Ridgecrest, Calif. 557,866 canc. Cl. 46.
Snap-on Tools Corp., Kenosha, Wis. 662,736, pub. 4–17–51. Cl. 2.
Sonneborn, L., Sons, Inc., New York, N. Y. 120,120, ren. 1–8–58. Cl. 52.
South Bend Tackle Co., Inc., South Bend, Ind. 662,819, pub. 3–25–58. Cl. 22.
Southern Dairies, Inc., Washington, D. C., to National Dairy Products Corp., New York, N. Y. 355,890, ren. 4–5–58. Cl. 46.

Sperry Flour Co., San Francisco, Calif., to General Mills, Inc., Minneapolis, Minn. 121,734, ren. 5–21–58. Cl. 46.
Sperry Rand Corp.: *See*— Standard Typewriter Mfg. Co. Remington Rand Inc.
Spinnerin Yarn Co., Inc., New York, N. Y. 500,011, canc. Cl. 43.
Spoon-a-Tic Co.: *See*— Brogan, Lloyd F., and Douglas M. Savage.
Sprout, Waldron & Co., Inc., Muncy, Pa. 662,923, pub. 3–25–58. Cl. 106.
Standard Typewriter Mfg. Co., to Sperry Rand Corp., New York, N. Y. 15,375, ren. 4–17–58. Cl. 23.
Stark, Earl F., Yuma, Ariz. 662,818, pub. 3–25–58. Cl. 22.
States Motors, Inc., Long Island City, N. Y. 662,805, pub. 3–25–58. Cl. 19.
Stein, S., & Co., Inc., New York, N. Y. 558,120, canc. Cl. 42.
Sterling Drug Inc., New York, N. Y. 662,799, pub. 3–25–58. Cl. 18.
Stevenson Line, Inc., New York, N. Y. 558,177, canc. Cl. 105.
Strasburger, Byron L., to Bayer, Pretzfeller & Mills, Inc., New York, N. Y. 121,510, ren. 4–30–58. Cl. 27.
Sturm, Leonard W., Decatur, Ill. 557,902, canc. Cl. 6.
Style Undies, Inc., New York, N. Y. 558,159, canc. Cl. 39.
Superba Cravats, Inc.: *See*— Cohn, H. C., & Co.
Supradur Mfg. Corp., Windgap, Pa. 662,761, pub. 3–25–58. Cl. 12.
Supreme Dress Co., Milwaukee, Wis. 558,171, canc. Cl. 39.
Taylor, Taylor & Hobson, Ltd., Leicester, England. 358,500, ren. 7–19–58. Cl. 26.
Texas Pharmacal Co., San Antonio, Tex. 662,790, pub. 12–24–57. Cl. 18.
Thomas & Betts Co., The, Elizabeth, N. J. 652,535, cor. Cl. 21.
Tioga Mills, Inc., Waverly, N. Y. 662,900, pub. 3–25–58. Cl. 46.
Titmus Optical Co., Inc., Petersburg, Va. 662,920, pub. 3–25–58. Cl. 101.
Topco Associates, Inc.: *See*— Topco Associates, Inc. (Cooperative).
Topco Associates, Inc. (Cooperative), d. b. a. Topco Associates, Inc., Chicago, Ill. 662,901, pub. 3–25–58. Cl. 46.
Towle Mfg. Co., Newburyport, Mass. 359,557, ren. 8–23–58. Cl. 28.
Townsend, Le Roy E., d. b. a. The Ropher Tackle Co., West Los Angeles, Calif. 558,095, canc. Cl. 22.
Tremco Mfg. Co., The, Cleveland, Ohio. 662,782, pub. 3–25–58. Cl. 16.
Tru-Pine Co., Chicago, Ill., to Sprayway, Inc. 662,917, pub. 3–18–58. Cl. 52.
Uhlemann Optical Co., Chicago, Ill. 121,363, ren. 4–23–58. Cl. 26.
Union Carbide Corp., New York, N. Y. 662,811, pub. 3–25–58. Cl. 21.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 357,721, ren. 6–14–58. Cl. 51.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 358,135, ren. 6–28–58. Cl. 18.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 358,194, ren. 6–28–58. Cl. 18.
U. S. Electrical Motors, Inc., Los Angeles, Calif. 662,836, pub. 3–25–58. Cl. 23.
United States Electric Mfg. Corp., New York, N. Y. 662,812, pub. 3–25–58. Cl. 21.
United States Rubber Co.: *See*— United States Rubber Products, Inc.
United States Rubber Products, Inc., to United States Rubber Co., New York, N. Y. 355,973, ren. 4–5–58. Cl. 35.
United States Stoneware Co., The, Tallmadge, Ohio. 662,772, pub. 3–25–58. Cl. 14.
Upjohn Co., The, Kalamazoo, Mich. 662,787, pub. 3–25–58. Cl. 18.
Upjohn Co., The, Kalamazoo, Mich. 662,794, pub. 3–25–58. Cl. 18.
Utilitex Co., New York, N. Y. 558,150, canc. Cl. 39.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 662,864, pub. 3–25–58. Cl. 38.
Venable, Melvin W., Jr., to C. Elwood Mackey and Co., Inc., Birmingham, Ala. 662,779, pub. 3–25–58. Cl. 16.
Viking Products, Vicksburg, Mich. 557,982, canc. Cl. 21.
Vitamin Co. of America: *See*— Elara Products, Inc.
Vita Var Corp., Newark, N. J. 356,145, ren. 4–12–58. Cl. 16.
Vulcan Mfg. Co., Inc.: *See*— March Engineering Co.
W A B C O: *See*— Bowman, William A.
Wagner, George R., Creswell, Oreg. 558,104, canc. Cl. 107.
Waldes & Co. of Austria: *See*— Waldes & Co. of New Jersey.
Waldes & Co. of New Jersey, to Waldes & Co. of Austria, New York, N. Y., to Waldes Kohinoor, Inc., Long Island City, N. Y. 122,555, ren. 8–20–58. Cl. 40.
Waldes Kohinoor, Inc.: *See*— Waldes & Co. of New Jersey.
Wallace Mfg. Co., North Kansas City, Mo. 558,002, canc. Cl. 12.
Walters Industries, Inc., New York, N. Y. 662,905, pub. 3–25–58. Cl. 50.
Weldon Pajamas, Inc.: *See*— Lubin-Weeker Co., Inc.
Westinghouse Broadcasting Co., Inc.: *See*— Westinghouse Radio Stations, Inc.
Westinghouse Radio Stations, Inc. Westinghouse Broadcasting Co., Inc., New York, N. Y. 553,244. Am. 7(d). Cl. 104.
White Grill: *See*— McLaughlin, Harold A.
White, S. S., Dental Mfg. Co., The, Philadelphia, Pa. 15,474, ren. 5–15–58. Cl. 44.
White Valley Corp., Amsterdam, N. Y. 557,957, canc. Cl. 39.
Willoughby, George V., d. b. a. Century Products Co., Seattle, Wash. 662,757, pub. 3–25–58. Cl. 6.
Wilson Brothers, Chicago, Ill. 558,166, canc. Cl. 39.
Winer Mfg. Co., Inc., Hammond, Ind. 557,911, canc. Cl. 39.
Winer Mfg. Co., Inc., Hammond, Ind. 557,919, canc. Cl. 39.
Wintersmith Chemical Co., Louisville, Ky. 121,995, ren. 6–11–58. Cl. 18.
Wise Potato Chip Co., Berwick, Pa. 558,124, canc. Cl. 46.
Wolters, Peter, Kratzenfabrik und Maschinenfabrik, G. m. b. H. & Co., Mettmann, Rheinland, Germany. 662,833, pub. 3–25–58. Cl. 23.
Wright Products, Inc., St. Paul Park, Minn. 662,767, pub. 3–25–58. Cl. 13.
Young, F. E., and Co., Chicago, Ill. 662,785, pub. 11–12–57. Cl. 18.

U. S. GOVERNMENT PRINTING OFFICE: 0—1958

PATENTS

NOTICES

Erratum

All references to Patent No. 2,836,569 to Ernest G. Doyling, assignor to Union Carbide Corporation, for Activatable Coke From Carbonaceous Residues, appearing in the OFFICIAL GAZETTE of May 27, 1958, should be deleted as the application was withdrawn from issue and the patent was not issued.

Disclaimer

2,829,010.—*Glenn T. McClure*, McKeesport, Pa. FLUID PRESSURE BRAKE APPARATUS. Patent dated Apr. 1, 1958. Disclaimer filed May 14, 1958, by the assignee, *Westinghouse Air Brake Company*.

Hereby enters this disclaimer to claims 19, 20, 21, 22, 24, 25, and 26 of said patent.

Patents Available for Licensing or Sale

2,804,872. Looseleaf Book. Erich Kraut, Friedrich-Ebert Strasse 102, Wuppertal-Elberfeld, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,825,517. Support Structure for Sensitive Instruments. Contraves A. G., Zurich, Switzerland. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,825,603. Spraying Device. Mary E. Altergott, 5324 W. Argyle St., Chicago 30, Ill.

2,832,178. Crop Protector. William Arthurs, Lee, Maine.

2,834,413. Sole Blanking Apparatus. Elno Jaakkola, 1545 W. Cambria St., Los Angeles 17, Calif.

General Electric Company is prepared to grant non-exclusive licenses under the following 13 patents upon reasonable terms to domestic manufacturers.

Applications for license under the following 6 patents should be addressed to: Department Patent Counsel, Missile and Ordnance Systems Department, General Electric Company, 3198 Chestnut St., Philadelphia 4, Pa.

2,749,705. Fusible Link Jet Motor Control.

2,790,893. Portable Electric Light.

2,801,097. Acceleration Responsive Device Having Error Compensation.

2,811,344. Acceleration Responsive System.

2,816,748. Acceleration Responsive Device Having Limited Response.

2,819,423. Plasma Transmitter.

Applications for license under the following 6 patents may be addressed to: Patent Counsel, Turbine Division, General Electric Company, 1 River Road, Building 53, Schenectady 5, N. Y.

2,464,568. Electrical Coil Insulated With Thermoplastic Particles and Thermoset Polymer.

2,662,010. Cast Tool Steel.

2,811,837. Governing System for Reheat Turbine.

2,821,065. Exhaust Temperature Regulator for Gas Turbine Power-Plant.

2,821,094. Shaft Alignment Mechanism.

2,821,664. Grounding Device To Prevent Stray Currents in Shaft Bearings.

Applications for license under the following patent may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind. Attention Patent Counsel.

2,823,342. Dual-Voltage Alternating-Current Motor.

New Applications Received During April 1958

Patents	6,609
Designs	416
Plant Pats	16
Reissues	10
Total	7,051

Issue

Patents	996	No. 2,838,757 to No. 2,839,752, incl.
Designs	41	No. 183,036 to No. 183,076, incl.
Reissues	5	No. 24,487 to No. 24,491, incl.
Total	1,042	

CONDITION OF PATENT APPLICATIONS AS OF APRIL 30, 1958

Total number of pending applications (excluding Designs)		209, 451
Total number of pending Design applications		6, 569
Total number of applications awaiting action (excluding Designs)		86, 050
Total number of Design applications awaiting action		3, 016
Date of oldest new application	May	6, 1957
Date of oldest amended application	Apr.	30, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-6-57	8-14-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	8-5-57	8-16-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	10-23-57	9-18-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	8-5-57	8-9-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-2-57	7-29-57
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	9-12-57	10-1-57
7. (IV) GONSALVES, J. E. (ANDERSON, F. G., acting), Optics	8-2-57	8-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-18-57	9-3-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	8-13-57	8-9-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	8-16-57	8-15-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	9-12-57	9-16-57
12. (III) SPINTMAN, S., (DURHAM, B. G., acting), Machine Elements; Engine Starters; Interrelated Cluten and Motor Controls	7-22-57	6-10-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	8-26-57	8-14-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics	8-2-57	8-1-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	8-30-57	8-7-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	6-12-57	6-24-57
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	8-21-57	8-21-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	8-2-57	8-5-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating; Automatic Temperature and Humidity Regulation	8-8-57	8-16-57
20. (V) SEERS, J. D., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	8-8-57	8-5-57
21. (III) MADER, R. C., Textiles	6-17-57	6-3-57
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	8-1-57	8-1-57
23. (VI) SMILOW, I., Data Processors; Digital and Analog Computers; Calculators, Bookkeeping Machines; Cash and Fare Registers; Voting Machines; Counters	5-6-57	4-30-57
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	9-19-57	9-23-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	7-10-57	8-15-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms; Inductors	10-1-57	8-15-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	9-23-57	9-25-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	8-1-57	7-15-57
29. (V) FRITZ, M. M., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	7-10-57	6-7-57
30. (VII) O'LEARY, R. A., Illuminating Burners; Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	9-10-57	8-15-57

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application: New	Oldest Application: Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils	8-21-57	8-23-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-27-57	8-5-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements	10-1-57	10-1-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements	9-16-57	9-16-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding	11-18-57	11-18-57
36. (V) CUTTING, C. A., (acting), Measuring and Testing; Automatic Weighers; Weighing Scales	6-24-57	6-21-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits	8-6-57	8-9-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols	10-10-57	10-3-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)	10-9-57	10-4-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages	10-2-57	10-2-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television	7-25-57	7-19-57
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)	7-1-57	7-1-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles	8-12-57	8-1-57
44. (II) EVANS, N. H., Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes	8-15-57	8-1-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)	8-19-57	8-14-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)	8-20-57	8-2-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles; Education	8-21-57	8-8-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers	7-9-57	7-5-57
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring; Concentrating Evaporators	9-11-57	9-3-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber	9-9-57	10-1-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices; Antennas	8-14-57	8-2-57
52. (V) NEFF, P. R. (RIORDAN, R. C., acting), Supports and Racks	7-15-57	8-1-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators	10-11-57	10-7-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications	9-27-57	9-25-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part)	6-11-57	5-13-57
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry	9-5-57	9-3-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending	10-9-57	9-16-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part)	9-11-57	9-4-57
59. (I) BRINDISI, M. A., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating	7-29-57	7-25-57
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products	11-13-57	10-8-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths	8-1-57	8-1-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination; Photographic Apparatus	10-3-57	10-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds	7-8-57	6-10-57
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions	8-7-57	5-20-57
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures	8-1-57	8-1-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification; Centrifugal Bowl Separators; Separating and Assorting Solids (part)	8-5-57	8-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators; Amplifiers	9-27-57	9-23-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics	9-6-57	9-3-57
CLASS. DIVS. II—LADY, J. E., Oscillators	1-7-58	1-6-58
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching	8-2-57	8-1-57
CLASS. DIVS. IV—BERLOWITZ, W., Harrows and Diggers; Plows	8-6-57	8-5-57
CLASS. DIVS. V—ANGEL, C. D., Refrigeration; Roofs; Scaffolds	8-1-57	8-2-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)	6-10-57	5-15-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts	10-7-57	11-14-57
DESIGNS (III) B—GRAY, M. A., Household, Personal and Fine Arts	9-3-57	9-25-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during June 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents	Numbers 2,243,829, to 2,247,344, inclusive
Plant Patents	Numbers 470 to 477, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

SURE-FIT PRODUCTS CO. *v.* SALTZSON DRAPERY CO.

No. 6342. Decided April 11, 1958

[— CCPA —; — F.2d —; 117 USPQ 295]

1. APPEAL TO THE U. S. COURT OF CUSTOMS AND PATENT APPEALS — TRADEMARKS — MATTER BEFORE COURT — OPPOSITION—DECISION EX PARTE IN NATURE.

   Where, though the Assistant Commissioner dismissed an opposition, she nevertheless denied applicant registration of its mark in a decision ex parte in its nature, *Held* that this decision was not before the Court on an appeal in the opposition.

2. TRADEMARKS—DESCRIPTIVENESS—"RITE-FIT" AND "SURE-FIT" FOR SLIP COVERS.

   With regard to the terms "Rite-Fit" and "Sure-Fit" used in connection with ready-made slip covers, *Held* that the word "Fit" is distinctly descriptive of a characteristic of the merchandise and that the prefixes "Rite" and "Sure," when added to the suffix "Fit," do little to remove the terms from the descriptive category.

3. SAME—SAME—SECONDARY MEANING—WEAK MARK.

   "'Rite-Fit' is an obvious misspelling of 'Right-Fit' and is clearly descriptive of a function of the goods with which the words are used. And though appellant has obtained a registration for this mark on the principal register as a secondary meaning mark, there is nothing in the record to indicate that this mark is not still in the category of a weak mark."

4. SAME—CONFUSING SIMILARITY—WEAK AND STRONG MARKS.

   "• • • where a party chooses a trademark which is inherently weak, he will not enjoy the wide latitude of protection afforded the owners of strong trademarks. Where a party uses a weak mark, his competitors may come closer to his mark than would be the case with a strong mark without violating his rights. The essence of all we have said is that in the former case there is not the possibility of confusion that exists in the latter case."

5. SAME—SAME—SIMILARITY IN SOUND, MEANING OR APPEARANCE.

   "Appellant • • • argues • • • that similarity as to any one of three types of similarity, sound, meaning or appearance, may be sufficient to indicate likelihood of confusion • • •. While we do not dispute the correctness of this rule, it must be emphasized that any one of the three factors *may* be sufficient to indicate likelihood of confusion, but does not *necessarily* do so. • • •. Clearly, all three factors must be examined to reach a sound conclusion in a given case."

6. SAME—SAME—SIMILARITY IN MEANING OVERCOME BY DISTINCTIVENESS IN SOUND AND APPEARANCE—"RITE-FIT" AND "SURE-FIT."

   "Assuming arguendo that the marks 'Rite-Fit' and 'Sure-Fit' are similar in meaning, we are of the opinion that they are so distinct in sound and appearance as to overcome such similarity in meaning."

APPEAL from the Patent Office. Opposition No. 32,308.

AFFIRMED.

Leonard L. Kalish for Sure-Fit Products Co.

Leon Edelson for Saltzson Drapery Co.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal in an opposition proceeding from the decision of the Assistant Commissioner of Patents, 110 USPQ 371, reversing the decision of the Examiner of Interferences which sustained the opposition and which held that applicant (appellee here) was not entitled to the registration sought.

No testimony was taken by either party, both having stipulated the relevant facts.

Appellee is in the business of manufacturing, selling and distributing draperies and since 1946 has been engaged in the business of manufacturing, selling and distributing ready-made slip covers for various articles of furniture, including studio couches and daveno[1] beds. On March 9, 1950, it adopted as its trademark for said slip covers the term "Rite-Fit," superimposed in script form upon the pictorial representation of an artist's palette with two paint brushes disposed in the thumb hole. The word "Product," in block letters smaller than the letters which form the term "Rite-Fit," appears immediately beneath the latter term. Appellee has disclaimed the words "Rite-Fit Product" apart from the mark as a whole. Its application for registration of this mark on the Principal Register under the Lanham Act is the one opposed in this proceeding.

Opposer (appellant here) has used the term "Sure-Fit" as its trademark on and in connection with the sale of its ready-made slip covers since January 1926. Appellant was the owner of two registrations granted to it on the "Sure-Fit" mark.[2] The term "Sure-Fit" in the 1950 registration, which is the only one which need be discussed here, is printed in a script similar to the script of appellee's "Rite-Fit" mark.

According to the stipulation, appellant has "extensively advertised, in periodicals having national circulation and in other advertising media," its "Sure-Fit" mark.

The documentary evidence submitted by appellant consists primarily of instruction folders and leaflets for fitting the slip covers on furniture. Several of its exhibits refer to the fact that its mark has been advertised in such publications as "Better Homes and Gardens," "Life," "Collier's," "House & Garden," and "The New York Times." No advertising specimens were introduced by appellee, though the stipulation indicates that its mark has been advertised.

Also in evidence are eleven third-party registrations containing the word or suffix "Fit," which registrations were introduced by appellee.

Appellee has conceded, for purposes of this proceeding, that, despite its disclaimer of the words "Rite-Fit Product" apart from the mark as a whole, the term "Rite-Fit" constitutes the dominant part of its mark. Furthermore, the parties have stipulated that their respective goods are identical and are sold in competition and that the sole question in issue in this proceeding is that of confusing similarity of the terms "Sure-Fit" and "Rite-Fit."

[1] Appellee has agreed in its brief that this word should be "divan," "davenport" or "sofa," since there is no such word as "daveno."

[2] Reg. No. 521,780 issued March 7, 1950, as a secondary meaning mark; Reg. No. 281,507 issued March 17, 1931, under the Act of 1920, expired.

The Assistant Commissioner, in dismissing the opposition,[3] attached little trademark significance to the word "Fit" in each of the parties' marks, which she described as "in common usage by opposer and others in describing slip covers," and concluded that, except for this weak, common feature, the marks do not look or sound alike.

We are of the opinion that the decision of the Assistant Commissioner is correct and that the opposition must accordingly be dismissed.

[2] In reaching our decision we have been most strongly influenced by the fact that the marks in issue, "Sure-Fit" and "Rite-Fit," are the weakest possible type of mark. The word "Fit," aside from the third-party registrations in evidence, is eminently suitable for use in connection with goods such as ready-made slip covers, where proper fit is of the utmost importance. We need not consider third-party registrations to recognize that the word is often used in connection with the sale of such goods. The word is distinctly descriptive of a characteristic of the merchandise in connection with which it is used. Appellant's use of such phrases in its advertising material as "for perfect, lasting *fit*," "for triple-sure *fit*," "smooth, custom-like *fit*," "a super-*fit* feature," "*fits* chairs of this type," "to make smooth *fit* triple-sure," "insures proper *fit*" and "this cover *fits* separate-cushion Cogswells," is indicative of this fact.

The prefixes "Rite" and "Sure," when added to the suffix "Fit," do little, of course, to remove the terms from the descriptive category. [3] "Rite-Fit" is an obvious misspelling of "Right-Fit" and is clearly descriptive of a function of the goods with which the words are used. And though appellant has obtained a registration for this mark on the principal register as a secondary meaning mark, there is nothing in the record to indicate that this mark is not still in the category of a weak mark.

Under these circumstances, we do not feel that appellant is entitled to the broad protection which it seeks. What appellant is in effect asking us to do is to allow it, at least insofar as registration is concerned, to preempt the field as far as the word "Fit" is concerned. We cannot avoid this conclusion despite the fact that appellant stresses the fact that the prefixes "Rite" and "Sure" have the same number of letters and syllables. The fact of the matter is that "Rite" and "Sure" do not look alike or sound alike, factors which we feel, at least in this case, militate against appellant's position. *Hillyard Chemical Co.* v. *Vestal Laboratories, Inc.*, 41 CCPA (Patents) 701, 206 F.2d 926, 99 USPQ 117, is peculiarly applicable to the instant case. In that case this court quoted with approval the following language of the Examiner:

> Aside from the question of laches, however, it is the opinion of the Examiner that the cancellation should be dismissed because of lack of confusing similarity between the notations "Shine-All" and "Briten-All." The notation "Shine-All" manifestly is highly suggestive of the nature of the goods here involved, and while the notation "Briten-All" is similarly suggestive thereof, it differs substantially from "Shine-All" in both appearance and sound. *The applicant having adopted a notation of such character as a trademark for its goods may not prevent others from using similarly suggestive but otherwise distinguishable notations as trademarks for their goods.* • • • [Emphasis added.]

It is unnecessary to cite the numerous other cases of this court wherein the scope to be given to weak trademarks was discussed. It seems both logical and obvious to us that [4] where a party chooses a trademark which is inherently weak, he will not enjoy the wide latitude of protection afforded the owners of strong trademarks. Where a party uses a weak mark, his competitors may come closer to his mark than would be the case with a strong mark without violating his rights. The essence of all we have said is that in the former case there is not the possibility of confusion that exists in the latter case.

[5] Appellant further argues that the two marks are similar in meaning and that similarity as to any one of three types of similarity, sound, meaning or appearance, may be sufficient to indicate likelihood of confusion, citing *Brown Shoe Company, Inc.* v. *Sons Shoe Company*, 79 USPQ 306 (Commr. Pats.); *Cluett, Peabody & Co., Inc.* v. *Denver M. Wright*, 18 CCPA (Patents) 937, 46 F.2d 711, 8 USPQ 344. While we do not dispute the correctness of this rule, it must be emphasized that any one of the three factors *may* be sufficient to indicate likelihood of confusion, but does not *necessarily* do so. See *Holiday Casuals* v. *M. Beckerman & Sons, Inc.*, 43 CCPA (Patents) 731, 228 F.2d 224, 108 USPQ 140. Clearly, all three factors must be examined to reach a sound conclusion in a given case. *Coty, Inc.* v. *Perfumes Habana, S. A.*, 38 CCPA (Patents) 1180, 190 F.2d 91, 90 USPQ 224. [6] Assuming arguendo that the marks "Rite-Fit" and "Sure-Fit" are similar in meaning, we are of the opinion that they are so distinct in sound and appearance as to overcome such similarity in meaning.

For the foregoing reasons, the decision of the Assistant Commissioner is affirmed.

AFFIRMED.

O'CONNELL, *J.*, was present at the hearing of this appeal, but, because of illness, did not participate in the decision.

JACKSON, *J.*, retired, recalled to participate was present at the hearing of this appeal but did not participate in the decision.

[3] Though the Assistant Commissioner dismissed the opposition, she nevertheless denied appellee registration of its mark, in light of its concession that "Rite-Fit" is the dominant part of its mark, on the ground that the dominant part had been disclaimed. She gave appellee leave to file either an amendment transferring the application to the Supplemental Register, or evidence establishing secondary meaning. This decision, being ex parte in its nature, is not before us on this appeal.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,255,313, C. Ellis, Ethylenic-alpha-beta synthetic resins and process of making same, filed Dec. 15, 1954, D. C. N. J. (Newark), Doc. 970/54, *Hooker Electrochemical Co.* v. *Ellis-Foster Co.* Order of dismissal by consent May 5, 1958.

2,453,914, G. M. Hollenback, Device for mixing plaster compounds and mixtures, filed Sept. 27, 1955, D. C., W. D. Ky. (Louisville), Doc. 3012, *Kerr Mfg. Co. et al.* v. *Whip-Mix Corp.* Patent held invalid June 20, 1957 (notice received May 7, 1958).

2,454,767, H. J. Brushaber, Conduit fitting, filed May 6, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c115, *Bertha Rose Brushaber* v. *Midwest Plumbing & Supply Co.*

2,469,636, C. M. Holloway, Self-sealing electric light locket for refrigerator panels, filed May 7, 1958, D. C., E. D. Wis. (Milwaukee), Doc. 58c117, *Holwin Corp.* v. *Unilectric, Inc.*

2,565,245, M. Lebovitz, Method and means for shaping meats, filed May 28, 1956, D. C. N. J. (Newark), Doc. 411/56, *Lebo Press Co. et al.* v. *Clifton Hydraulic Press Co.* Patent held invalid; complaint dismissed as to Lebo Press Co.; judgment for defendant (notice May 5, 1958).

2,657,618, W. Elabein, Developing apparatus, filed May 6, 1958, D. C., N. D. Tex. (Fort Worth), Doc. 3952, *Copease Mfg. Co., Inc.* v. *American Photocopy Equipment Co. et al.*

2,650,200, R. K. MacLea, Jr. et al., Pressure responsive device, filed Apr. 21, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 362/58–WB, *General Precision Laboratory, Inc.* v. *Industrial Instrument Corp. et al.*

2,699,010, H. D. Reed, Drapery sizer, filed May 6, 1958, D. C., W. D. Mich. (Grand Rapids), Doc. 3439, *Howard D. Reed et al.* v. *Uptown Cleaners & Hatters, Inc.*

2,761,273, T. F. Peterson, Dead end for cables, filed May 1, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 406/58–WB, *Preformed Line Products Co.* v. *City of Los Angeles and McGraw-Edison Co.*

2,833,083, M. E. Dunstan, Wheeled toy, filed May 6, 1958, D. C., S. D. N. Y., Doc. 133/100, *Fisher Price Toys, Inc.* v. *J. Chein & Co.*

Re. 22,988, W. S. McLeish, Anchors, filed Apr. 11, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 319/58–WB, *Ric Wil, Inc.* v. *Non-Corrosive Products Co., Inc.*

Des. 179,721, B. Edson, Lace, filed May 5, 1958, D. C., S. D. N. Y., Doc. 133/76, *North American Lace Co., Inc.* v. *Sterling Laces, Inc.*

REISSUES

JUNE 17, 1958

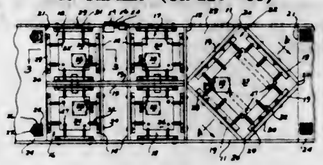
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,487
VIBRATING COUCH CONSTRUCTION

Mark Leach, Pontiac, Mich.

Original No. 2,822,804, dated February 11, 1958, Serial No. 646,140, March 14, 1957. Application for reissue March 4, 1958, Serial No. 719,178

13 Claims. (Cl. 128—33)



1. A massage couch comprising a hollow horizontally disposed frame on legs including a series of variably spaced compartments, a horizontal support platform bridging said frame and secured thereto, there being a series of enlarged apertures of predetermined shape formed through said platform, one aperture for each compartment arranged centrally thereof, a similarly shaped vibration pad loosely nested within each aperture within the plane of said platform, a mounting plate parallel to and spaced below each pad, a series of spacers between each pad and plate and interconnected therewith, [a resilient body snugly nested between each pad and plate co-extensive with their opposed surfaces,] a plurality of resilient means interconnecting spaced marginal portions of said plates with corresponding portions of said frame within individual compartments for yieldingly supporting said plates loosely therein, a vibration producing motor with an unbalanced shaft arranged off center with respect to each plate and suspended therefrom, and relatively thick flexible and resilient cover means snugly extending over the surface of said platform and over the pads.

24,488
STANDOFF TERMINALS

Ashod Charles Demurjian, Cranston, R. I.

Original No. 2,726,280, dated December 6, 1955, Serial No. 244,967, September 4, 1951. Application for reissue November 22, 1957, Serial No. 700,248

6 Claims. (Cl. 174—166)



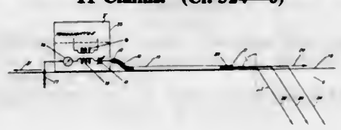
1. A standoff terminal for electronic equipment, having an insulating body, a terminal connector secured to one end thereof, and a fastening insert at the other end thereof in axial alignment with the terminal connector, said fastening insert having a base plate [with a hexagonal periphery], a lock element with a central hub terminating in an enlarged anchor disk, said lock element being locked within the insulating body with the insulating body extending between the plate and the anchor disk, and a securing element depending from said plate and adapted to lock seat in the base of an electronic device, the [distance between opposite hexagonal sides] *diameter* of the base plate being [slightly] greater than the width of the body.

24,489
TRANSMITTING AND RECEIVING APPARATUS AND METHOD FOR ELECTROMAGNETIC PROSPECTING

William M. Barret, Shreveport, La., assignor to Engineering Research Corporation, Shreveport, La., a corporation of Louisiana

Original No. 2,661,466, dated December 1, 1953, Serial No. 584,960, March 26, 1945, which is a division of Serial No. 483,638, April 19, 1943. Application for reissue September 13, 1955, Serial No. 534,180

11 Claims. (Cl. 324—6)



10. The method of investigating earth formations including a reflector of electromagnetic waves lying beneath the surface of the earth, comprising simultaneously transmitting electromagnetic waves along the air-earth interface to a receiving position spaced apart from the origin of transmission and through the earth to a subsurface reflector and thence to said receiving position, receiving some of the transmitted waves below and substantially parallel to said interface and in approximate axial alignment with the direction of transmission, and measuring a parameter of the electromagnetic field resulting from the combined waves arriving at said receiving position.

24,490
METHOD OF POLYCONDENSING DIGLYCOL ESTERS OF TEREPHTHALIC ACID

Erwin Heisenberg, Erlenbach (Main), and Anton Watzl, Kleinwallstadt (Main), Germany, assignors to Vereinigte Glanzstoff-Fabriken A. G., Wuppertal-Elberfeld, Germany, a corporation of Germany

No Drawing. Original No. 2,742,451, dated April 17, 1956, Serial No. 447,386, August 2, 1954. Application for reissue October 1, 1956, Serial No. 613,357

Claims priority, application Germany August 3, 1953

12 Claims. (Cl. 260—75)

10. Process of polycondensing molten diglycol terephthalate which comprises conducting a current of vapors of the group consisting of inert paraffin hydrocarbons and aromatic and hydro-aromatic hydrocarbons through the molten ester, the vapors having a temperature of at least 170° C. and the molten ester being maintained at a temperature of about 250° C. to 270° C.

24,491
APPARATUS FOR RECORDING AND CONTROLLING MACHINE TOOL OPERATION

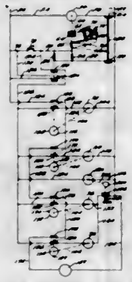
Ralph E. Cross, Grosse Pointe Shores, and Werner H. Jessen, Detroit, Mich., assignors to The Cross Company, Detroit, Mich., a corporation of Michigan

Original No. 2,679,038, dated May 18, 1954, Serial No. 162,176, May 16, 1950. Application for reissue July 15, 1957, Serial No. 672,849

30 Claims. (Cl. 340—267)

1. A machine having a tool, means for actuating said tool including an electrical operating circuit for the machine and a movable part operable in timed relation with said tool, electrically operated indicator means, an electri-

cal control circuit connected to said indicator means, a master timer electrically connected to said control circuit



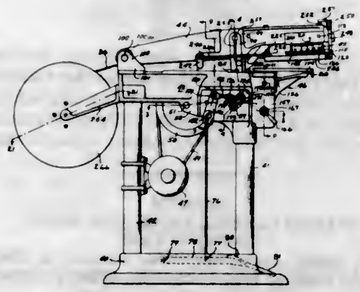
operable to energize said indicator means for a predetermined period of time during each operation of the timer, a switch in said control circuit controlling said master timer and operable by the mentioned part of the machine to energize said timer once for each operation of the tool, said indicator means including a dial having indicia thereon representing the life span of said tool and said indicia having a terminal point, a rotatable adjustable stop movable around said dial from said terminal point to a position representing an estimated life span for said tool, a rotatable pointer movable around said dial between said terminal point and said stop, said pointer being positionable against said stop and operable during energization of said indicator means by said master timer so that successive operations of the machine indexes said pointer progressively around said dial toward said terminal point, and means adjacent the terminal point of said dial co-operable with said pointer to indicate when the latter is a selected time interval in terms of machine operation from said terminal point.

PATENTS

GRANTED JUNE 17, 1958

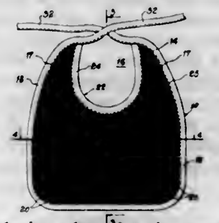
GENERAL AND MECHANICAL

2,838,757
STAYING MACHINE
Clifford F. Holtkamp, Cincinnati, Ohio, assignor, by mesne assignments, to Kamp Company, Inc., Cincinnati, Ohio, a corporation of Ohio
Application July 26, 1954, Serial No. 445,651
8 Claims. (Cl. 1—42.9)



1. In a staying machine, the combination of a housing, a staying arm overlying the housing and pivotally mounted at one end thereof to the housing, a clinching head at the other end of the arm, power actuated means within the housing including an eccentric cam driver connected with the arm for effecting its oscillation, an anvil carried by the housing beneath and cooperating with the clinching head in applying and clinching a stay, means mounting one of said clinching head and anvil for adjustment to establish an effective distance between them, said power actuated means for oscillating the arm including a link having one end pivotally mounted on the arm and the other end pivotally mounted on the eccentric cam driving means, and one of said link pivotal connections being in the form of a rotatable eccentric moveable through approximately 180 degrees so that the effective distance between the clinching head and anvil may be rendered ineffective.

2,838,758
PROTECTIVE DEVICE
Bernard R. Townley, North Plainfield, N. J.
Application January 5, 1955, Serial No. 479,910
1 Claim. (Cl. 2—49)



A protective device adapted to be worn against wearing apparel comprising, in combination, a body formed by a back portion and a front portion secured thereto along a portion of its periphery, the remaining portion of the periphery defining a slit between the front portion and the back portion to permit access to the interior of the body, said back portion being formed from a continuous moisture-proof, flexible sheet material effective to prevent passage of moisture to the wearing apparel and said front portion being formed from moisture-repellent netting, and a moisture-absorbent design-carrying filler removably disposed interiorly of said body, said netting offering substantially no obstruction to visibility of said filler whereby said filler and the design thereon are freely visible through the netting of the front portion and said netting permitting free access of moisture to said filler but resisting absorption of moisture.

2,838,759
GLOVE
John William Donald Tassie, Somerset, Ky., assignor to Advance Glove Manufacturing Co., Detroit, Mich., a corporation of Michigan
Application May 10, 1956, Serial No. 584,105
3 Claims. (Cl. 2—167)



1. A glove for the hand of a wearer having finger portions of flexible sheet material exteriorly coated with a thermoplastic adhered thereto and cured thereupon, said plastic coating being tough and flexible and yet sufficiently self-supporting to maintain the sides of the finger portions of the glove fully extended and disposed substantially normal to the working faces of said finger portions, the backs portion of said finger portions being rendered self-supporting by the plastic coating and extending between the side portions and supported thereby spaced by the width of the side portions from the working faces of the finger portions.

2,838,760
CONVERTIBLE STRAIGHT AND FLARED SKIRT
Walter Lilie, Flushing, N. Y.
Application March 1, 1956, Serial No. 568,787
1 Claim. (Cl. 2—211)



A convertible skirt, comprising a tubular body convertible into either a straight type or a flared type body, said body having an inexpansible waist and having spaced vertical inverted openable pleats extending from the waist to the bottom of the skirt, said pleats each having forward edge portions and a backing portion, coacting slide fastener elements disposed adjacent to and behind the forward edge portions of each pleat, said

slide fastener elements extending from the waist to the hip region of the body, and slider members for connecting the slide fastener elements to close the forward edge portions and the pleats and to separate the slide fastener elements and open the forward edge portions and the pleats to expose the backing portions, said forward edge portions of the pleats being folded providing rearwardly disposed edges, said backing portions having side edges, and said slide fastener elements having tapes secured thereto, said slide fastener elements being secured to one side edge of each tape and the other edge of each tape being secured to one of said rearwardly disposed edges of the forward edge portions of the pleats and to one of the side edges of the backing portions, said slide members being mounted on the slide fastener elements to close the slide fasteners on downward movement and to open the slide fastener elements on upward travel.

2,838,761
STRETCHABLE GARMENT
Jack Title, Montreal, Quebec, Canada
Application November 4, 1955, Serial No. 545,056
1 Claim. (Cl. 2—224)



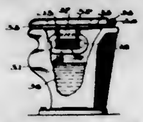
A close fitting knitted bifurcated pants garment adapted to extend from the waist to the crotch of the wearer and having leg openings, said garment including a front section and a back section each made from a single piece of continuous material, the front section being primarily stretchable in a horizontal direction and substantially less stretchable vertically, and the back section being stretchable primarily vertically but substantially less stretchable horizontally, the side edges of said sections being disposed at substantially forty-five degrees to the wales of the material, the front section and the back section being connected by seams along said side edges, the upper ends of said side edges being positioned adjacent one another in the region of the top center back of the garment at the waistline of the garment and extending downward to the base of the garment at the sides thereof, and elastic bands circumscribing the waist and leg openings of the garment.

2,838,762
LUMINOUS PILE FABRIC FLOOR COVERING
Harold E. Wadely, Irvington-on-the-Hudson, N. Y., assignor to The Firth Carpet Company, Inc., New York, N. Y., a corporation of New York
Application January 27, 1955, Serial No. 484,403
1 Claim. (Cl. 2—278)



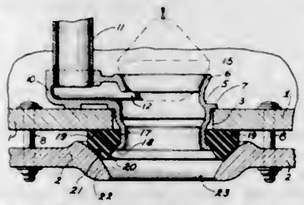
A textile fabric floor covering comprising a design defining covered face formed by tufts of pile yarn of greater and lesser heights, only the pile tufts of lesser height being impregnated with zinc sulphide containing phosphorescent base pigment, casein binder, and light transmitting synthetic resin comprising polyvinyl acetate, whereby the design will be visible in darkness and protected against wear.

2,838,763
BRUSHING DEVICE
John R. Brennan, Indianapolis, Ind.
Application February 17, 1955, Serial No. 488,913
12 Claims. (Cl. 4—1)



1. A brush having hanger support means therefor and vacuum cup support means disposed on the back of said brush, said hanger support means being adapted to provide support in a direction substantially parallel to a surface to which said vacuum cup support means is attached.

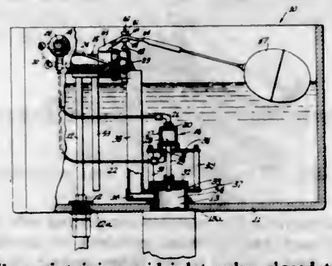
2,838,764
WATER CLOSET TANK AND BOWL COMBINATION
Harry F. Smith, Lexington, Ohio, assignor to Mansfield Sanitary Pottery, Inc., Perrysville, Ohio, a corporation of Ohio
Application March 1, 1956, Serial No. 568,888
2 Claims. (Cl. 4—12)



1. A water closet tank and bowl combination comprising a tank having an outlet opening in its bottom wall, a flush valve engaging the inner surface of said wall and having a valve seat at its upper end, a lateral overflow inlet therebelow and a rigid unthreaded shank extending through the outlet opening and having an out-turned lower end, an elastomeric gasket around the shank and compressed between the out-turned end of the shank and the outer surface of the bottom wall of the tank, a bowl having an opening in its upper wall to receive said shank and to engage said gasket, and means urging said tank and bowl toward one another and securing them together, said gasket being sufficiently stretchable to be stretched and passed over the out-turned end of the shank and to resist dislodgment during shipment and being of sufficient thickness to form a fluid-tight seal between the outer surface of the bottom wall of the tank, said out-turned end of the shank and the gasket engaging surface of the bowl when the tank is secured to the bowl.

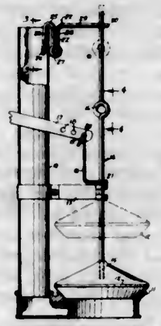
2,838,765
LIQUID DISCHARGING CONTROL
Oakley W. Hosking, Monroe, N. Y., assignor to Hosking Patent Corporation, New York, N. Y., a corporation of New York
Application August 12, 1955, Serial No. 528,001
15 Claims. (Cl. 4—41)

1. A dispensing mechanism for discharging by gravity a predetermined volume of a liquid comprising a tank for storing the liquid, a conduit for connecting the tank to a source of liquid under pressure and having an inlet valve associated therewith, a discharge valve operable to permit flow of the liquid from the tank, and hydraulic means operatively connected to the inlet and discharge valves which, upon actuation, hydraulically opens said discharge



valve while maintaining said inlet valve closed to permit discharge of a predetermined amount of liquid from the tank, then closes said discharge valve and opens said inlet valve to permit an amount of liquid substantially equal to the amount discharged to enter said tank and maintains said discharge valve closed by utilizing the pressure of the source.

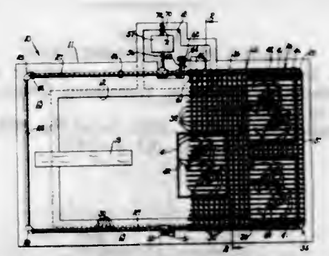
2,838,766
ACCESSORIES FOR TOILET FLUSH TANK
Albert N. Porter, Tulsa, Okla.
Application October 2, 1956, Serial No. 613,443
2 Claims. (Cl. 4—57)



2. In a toilet flush tank, an overflow pipe, an upper guide extending outwardly from the upper end of said overflow pipe and comprising a first portion extending downwardly into the upper end of said overflow pipe and terminating in a triangular lower section, the upper end of said first portion defining a curved portion engaging the upper edge of said overflow pipe and said curved portion terminating in a second portion extending downwardly along the outer surface of said overflow pipe, the lower end of said second portion terminating in a curved portion abutting the outer surface of said overflow pipe, said last named curved portion terminating in an upstanding third portion, said third portion terminating in a horizontally disposed fourth portion, the outer end of said fourth portion being provided with an eyelet for receiving the upper end of a lift rod.

2,838,767
SAFETY DEVICES FOR SWIMMING POOLS AND THE LIKE
Perry W. Matlock, Fresno, Calif.
Application August 19, 1955, Serial No. 529,440
28 Claims. (Cl. 4—172)

1. In combination with a foundation providing an open cavity therein, a cover for the cavity comprising a frame circumscribing the cavity, a lower grid including a plurality of elongated members located in a substantially horizontal plane in substantially parallel relation mounted on the frame and spanning the cavity, and an upper grid including a plurality of elongated members located in a substantially horizontal plane parallel



and above the plane of the lower grid mounted on the frame in spanning relation to the cavity in substantially parallel relation transversely of the elongated members of the lower grid, the elongated members of the upper grid being flexible into engagement with the elongated members of the lower grid upon the imposition of a weight thereon.

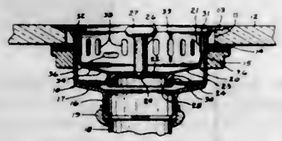
2,838,768
DRAIN VALVE FOR PLASTIC SWIMMING POOL
Charles Fischett, South Ozone Park, N. Y.
Application May 4, 1955, Serial No. 505,997
2 Claims. (Cl. 4—177)



1. A plastic swimming pool having an opening in a wall thereof, a separate drain valve for the opening comprising a hollow cylindrical drain member having an exterior annular flange which projects out beyond the rim of the wall at one end of said hollow cylindrical drain member at right angles to the body thereof, said exterior annular flange being bonded to the wall of the swimming pool surrounding said opening, said hollow cylindrical drain member having an inside diameter smaller than that of the opening in the wall of the swimming pool to provide an annular surface at one end of the drain member that is positioned within the mouth of said opening in the wall of the pool, a drain plug in the hollow cylindrical drain member, said plug having a cylindrical body portion which fits snugly against the interior wall of the hollow cylindrical drain member, said cylindrical body portion of the plug being long enough to project slightly out beyond each end of the cylindrical drain member but not long enough to extend beyond the surface of the wall of the pool on the side opposite to that against which the said flange of the cylindrical drain member is bonded, said plug having a pair of spaced annular flanges each of which is positioned at right angles to the body of the plug around the exterior of the ends thereof where they overlap the rim of the interior wall of the drain member at each end and bear against the exterior end wall thereof to seal and lock the plug in position in the drain member, said flange on the plug which is positioned against the wall of the drain member within the mouth of the opening in the wall of the pool being small enough to remain within the confines of the opening in the wall of the pool without overlapping the pool wall and without extending beyond the surface of the wall of the pool on the side opposite to that against which the said flange of the cylindrical drain member is bonded and a strip of material that connects the plug with the cylindrical drain member, an open cavity centrally

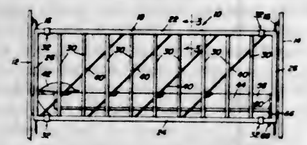
located on the line of the vertical axis of the body of the plug in that end which fits into the drain member, said open cavity extending through more than one-half the length of the body of the drain member with the opening in the end surface of the plug occupying about one-half of the surface area at such end of the plug.

2,838,769
WASTE FITTING ASSEMBLY
John F. Lengyel, Cheshire, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application April 12, 1955, Serial No. 500,869
4 Claims. (Cl. 4—287)



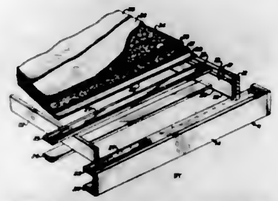
1. A waste fitting assembly comprising a cylindrical cup-shaped body shell having an upper flange, an annular shoulder adjacent said flange and a lower reduced outlet portion, a cup-shaped strainer basket having a perforated bottom and a cylindrical side wall, a stopper positioned against the underside of said basket, a lift stem, means for riveting said lift stem, stopper and strainer basket together as an integral unit, said basket having an outturned lip at its upper edge that rests upon said annular shoulder on the body shell when elevated to hold said strainer basket and plug in drain open position, the cylindrical wall of said basket having a series of elongated drain openings and also provided with equally spaced slits extending through the upper lip to divide the basket wall into resilient sections, said shoulder and said lip having cooperating cam portions so shaped that the lipped edges of said resilient sections will move inwardly and be released from said shoulder when the basket is forced downwardly.

2,838,770
BED COVER RETAINER ASSEMBLY
Jimmie A. Chezem, Sarasota, Fla.
Application July 18, 1955, Serial No. 522,631
2 Claims. (Cl. 5—320)



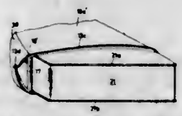
1. In a bed including a pair of oppositely disposed side frames having upper and lower rail members extending between head and foot portions of the bed, a plurality of mutually parallel elongated guide elements extending upwardly and at an acute angle at the head of the bed toward the foot thereof between upper and lower rail members of the side frames, a cover extending transversely between said frames, and a plurality of spaced oppositely disposed guide rings secured on opposite side edges of said cover, each of said guide rings being slidably received on one of the upwardly extending guide elements, said guide element being flexible and having a guide ring secured at one end, the other end of said ring being secured in inwardly spaced relation relative to an opposite side edge of the cover.

2,838,771
SEMI-YIELDABLE REVERSIBLE MATTRESS
Donald B. Goodman and Edmund Collins, Allentown, Pa., assignors to Bethco Bedding Corporation, Allentown, Pa., a corporation of Pennsylvania
Application November 16, 1955, Serial No. 547,186
6 Claims. (Cl. 5—345)



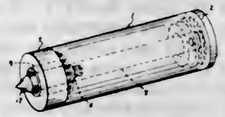
1. A semi-yieldable mattress comprising side rails connected at each end by cross members to provide a box frame, a cleat secured to the inner surface of each side rail and extending the entire length thereof between said cross members, said cleats being of less width than said side rails, a longitudinally disposed reinforcing member secured to said cross members substantially midway between said side rails, the width of said reinforcing member being substantially equal to the width of said cleats and with the upper edge surface of said reinforcing member being in substantially the same plane as the upper edge surfaces respectively of said cleats, end cross slats secured to the upper edge surfaces of said cleats and reinforcing member and to said cross members, a plurality of intermediate cross slats disposed at spaced intervals between said end cross slats and secured to the upper edge surfaces of said cleats and reinforcing member, the outer side surfaces of all of said slats being in substantially the same plane as the upper edge surfaces of said side rails, a strip of fabric silencing material secured to the outer side surface of each slat and extending substantially throughout the length of each slat, a plywood panel secured to the upper edge surfaces of said side rails and said cross members and through said intermediate slats to said reinforcing member, a base pad of vegetable fiber secured to said panel, an intermediate pad of rubber latex coated hair disposed over said base pad, an insulating pad of rubber latex coated wool fibers disposed over said intermediate pad and a fabric casing completely enclosing said pads and said box frame to provide a substantially rigid semi-yieldable mattress.

2,838,772
MATTRESS COVER AND METHOD OF MAKING SAME
Louis Schwartz, Hewlett, N. Y.
Application May 17, 1956, Serial No. 585,515
5 Claims. (Cl. 5—354)



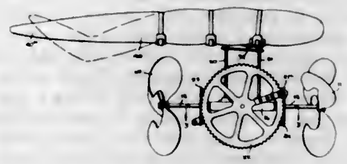
1. A cover for a mattress or the like, comprising a substantially prismatic integral body with an upper and a lower panel, a front panel, a rear panel and two side panels defining two front box corners and two rear box corners with said upper and lower panels, each of said front corners being provided with a triangular front flap consisting of two registering, triangular flap halves each integrally extending from both said upper and lower panels, each front flap having a base along the common edge of said front panel and a respectively adjacent side panel and having its apex directed backwardly along the respective side panel, each front flap registering with and being concealed by a triangular area of said respective side panel, each of said rear corners being formed of a triangular rear flap having a base along the common edge of said rear panel and a respectively adjacent side panel and extending inwardly from its base, said front panel having an entrance slot extending from one front corner to the other and onto said side panels toward the apices of said triangular areas, the base of each front flap being accessible through said slot.

2,838,773
TUBE END FORMING TOOL WITH PIVOTED MANDREL
Marlin F. Muse, Union, Ohio
Application June 28, 1955, Serial No. 518,610
10 Claims. (Cl. 7—14.1)



10. A tool for reshaping tube ends, including an outer held part having a hollow interior, a cylindrical die element on said part providing an opening to the interior of said part, a mandrel longitudinally disposed in said opening in said die element to define with said element an annular space for the entrance of a tube end, one end of said mandrel entering the tube end and the other end being received within the interior of said part, and means connecting the said other end of said mandrel to said part to absorb axial thrust on said mandrel and for relative pivotal motion of the mandrel so that said mandrel may adjust itself for the most facile entry of the said one end thereof into the tube.

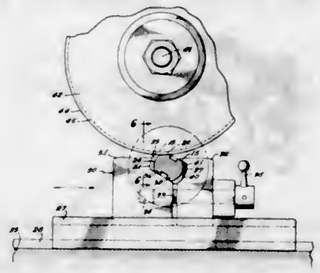
2,838,774
SWIMMING AND WATER PROPELLING DEVICE
John Lamberti, New York, N. Y.
Application January 27, 1955, Serial No. 484,440
3 Claims. (Cl. 9—18)



1. An article of the character described comprising a support, a water float member mounted on said support, water propulsion means mounted to and depending downwardly from said support, said water propulsion means being pivotally secured to said support so that it may be steered relative to said support, said water propulsion means comprising gear means, and means to manually actuate said gear means, said gear means comprising at least one circular gear with a plurality of water propelling blades radiating from the center of the gear.

2,838,775
FORMATION OF FASTENER ELEMENTS HAVING INTERRUPTED THREADS
Jack R. Farrar, Whittier, and Guy E. Lentz, Burbank, Calif., assignors to Frank A. Pachmayr, Los Angeles, Calif.
Application January 21, 1954, Serial No. 405,338
5 Claims. (Cl. 10—27)

1. The method of making a quick disconnect screw that comprises providing on said screw a series of interrupted threads extending only partially about the screw and of constant radius, and then in a separate operation removing some of the material of said screw at leading ends of said threads by engagement of the screw with a material removing tool having a material removing projection of essentially thread shaped sectional configura-



tion, and moving said tool relative to the engaged screw along a path extending generally in the same direction as the threads at said ends thereof but progressively advancing radially with respect to the screw axis, to thereby form leading cam portions on the threads of progressively decreasing radius both at their crests and their roots.

2,838,776
METHOD OF MAKING AN ORTHOPEDIC SHOE
Herman R. Tax, Westbury, N. Y.
Application December 3, 1954, Serial No. 472,819
2 Claims. (Cl. 12—142)

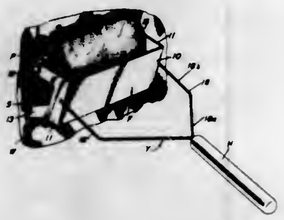


1. The method of forming an orthopedic shoe which comprises the steps of depositing a plastic mass of moldable material on a sole-shaped carrier having an upstanding peripheral lip continuously therearound, placing a flexible covering upon said mass and around and beyond the entire side of said carrier so that a part of said covering extends over a marginal zone on the underside of said carrier and snugly engages said side and lip and holds said mass in place, adhesively securing said covering to said marginal zone, temporarily securing said carrier by adhesion only at said marginal zone to a base forming part of a shoe, conforming said mass to the natural shape of the sole of a patient by having the latter wear said shoe with said carrier therein over a period of sustained normal activity, detaching said carrier from said base, removing from said carrier the entire peripheral portion of said covering projecting beyond the upper carrier surface, permanently securing said carrier to said base, and placing a sock lining on the remaining part of said covering.

2,838,777
WINDOW SCREEN CLEANING IMPLEMENT
Milton H. Schoenfield and Donald B. Schoenfield, Beverly Hills, Calif.
Application March 28, 1955, Serial No. 497,082
2 Claims. (Cl. 15—27)

1. A window-screen cleaning implement, including: an elongated U-shaped frame; a primary brush rotatably mounted longitudinally in the frame and having relatively long, flexible and spirally arranged bristles; a secondary

brush rotatably mounted longitudinally in the frame and having spirally arranged bristles stiffer than the bristles of the primary brush, and shorter so that the brush is of less diameter than the primary brush; and a yoke pivoted on the frame and operable manually to bring the primary brush into rolling contact with a screen so that the bristles thereof are successively projected through the openings



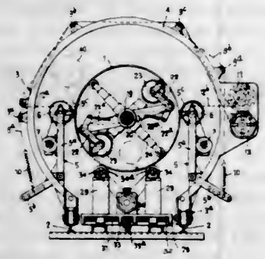
thereof for loosening foreign matter accumulated on the screen, and to bring the secondary brush into rolling contact with the screen in trailing relation to the primary brush and at a greater rotational speed than and in the same direction as the primary brush so that the bristles thereof are successively and more rapidly projected through the screen openings to remove from the screen the foreign matter loosened by the primary brush.

2,838,778

MACHINE FOR SIMULTANEOUS TREATMENT OF THE INSIDE AND OUTSIDE SURFACES OF METAL TUBES

Paul von Arx, Sissach, Switzerland, assignor to P. von Arx & Co. A. G., Sissach, Switzerland, a Swiss company

Application September 27, 1954, Serial No. 458,613
Claims priority, application Switzerland September 30, 1953
11 Claims. (Cl. 15—104.03)



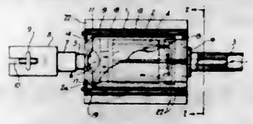
1. A machine for simultaneously treating both the inside and the outside surfaces of metal tubes comprising an outside-treating unit comprising a supporting element and rotatable power driven outside treating means on said element, an inside-treating unit comprising a supporting frame, a drive shaft ad means to drive said shaft mounted thereon and rotatable inside treating means driven by said shaft at the end portion of said shaft remote from said supporting frame, a supporting unit for accommodating the tube to be treated in a horizontal position comprising two tube end supports with rollers mounted thereon for supporting the tube to be treated and means for rotating said rollers to rotate said tube about its own axis, means on which said outside-treating unit and said inside-treating unit are movably mounted in spaced relationship for movement over said supporting units along said tube, and means connecting said units in spaced relation.

2,838,779

APPARATUS FOR DECAKING RETORTS

Norman Lloyd Craig, Renfrew, Ontario, and Gordon John Brydges, Haley, Ontario, Canada, assignors to Dominion Magnesium Limited, Toronto, Ontario, Canada

Application December 17, 1956, Serial No. 628,887
2 Claims. (Cl. 15—104.12)



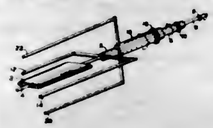
1. An apparatus for removing cake from the interior wall surface of a hot cylindrical retort comprising, in combination with an air motor having a cylindrical casing, an air inlet stem, a fitting connecting said air inlet stem to the rearward end of said casing, air exhaust ports in the forward end of said casing, and a motor shaft extending from said forward end of the casing, a housing enclosing said air motor and having an imperforate cylindrical section and forward and rearward circular plates closing the ends of said section, said rearward plate having an axial opening for passage therethrough of said fitting and being fixed to said fitting and to said section to support said casing in said housing, said forward plate having an axial opening for passage therethrough of said forward end of the casing, said forward end of the casing being seated on said forward plate for support thereby, said air exhaust ports being located interiorly of said forward plate, said cylindrical section of the housing being spaced from said casing to provide an annular air space between said casing and said cylindrical section, said air space being arranged to receive air from said motor exhaust ports, each said plate having a multiplicity of air outlet holes adjacent the periphery thereof and located in substantially longitudinal alignment with said annular air space for peripheral discharge of air received from said motor exhaust ports onto said retort wall surface to embrittle cake thereon, a plurality of radially directed longitudinally extending fins mounted on the outer surface of said cylindrical section to support said housing in spaced relation to said retort wall surface for reciprocal movement therealong, a holder fixed to the motor shaft externally of said housing for rotation with said shaft, a plurality of flexible strands mounted on said holder and revolvable therewith, each said strand having a free end portion arranged to extend radially beyond said fins in response to rotation of said holder for impact with and dislodgment of embrittled cake on said retort wall surface.

2,838,780

SELF-CLEANING SCRAPER

Leonard Kean, New York, N. Y., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application October 22, 1954, Serial No. 463,890
3 Claims. (Cl. 15—104.13)



1. In a device of the character described, flat elongated means adapted to be symmetrically mounted centrally of a vessel to be cleaned and rotatable about its longitudinal axis, a pair of first scraper means and located substantially in a plane perpendicular to the plane of the flat elongated means and rotatable as a unit about said longitudinal axis in the same direction as said flat elongated means to maintain said perpendicular relation with respect thereto, and a pair of second scraper means at a shorter radius from the center of the elongated means than said first scraper means having surfaces in proximity to the surfaces of said elongated means and said first scraper means, and rotatable as a unit about said longitudinal axis, the first and second scraper means being relatively rotatable with respect to each other.

2,838,781

MULTIPLE COLOR PAINT TRAY

Ernest Dalle Molle, Chicago, Ill., assignor to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio

Application March 29, 1954, Serial No. 419,465
6 Claims. (Cl. 15—121.1)



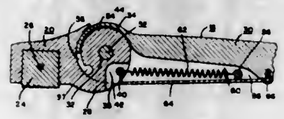
1. A tray adapted for use with roller-coaters in application of multiple color decorative coatings which comprises a relatively shallow liquid storage means, a plurality of relatively narrow partition means within said storage means adapted to provide a plurality of contiguous, rectangular liquid-tight wells, the level of height of said partition means less than that of the peripheral wall of said storage means, and the topmost area of at least one of said partitions adapted to provide retarding means acting on the periphery of the roller-coater.

2,838,782

WINDSHIELD WIPER ARM

Cyril T. Wallis, Brockport, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 23, 1955, Serial No. 490,086
8 Claims. (Cl. 15—255)



1. A wiper arm comprising, an inner section having an arcuate slot therein, an outer section, and a hinge connection between said sections permitting pivotal movement therebetween, said hinge connection comprising a pair of spaced ears on said outer section which straddle said inner section, a pin pivotally interconnecting said ears and said inner section and an integral arcuate strengthening web interconnecting said spaced ears, said arcuate web being disposed in said arcuate slot and engageable with the end of said slot to limit pivotal movement between said inner and outer sections in one direction.

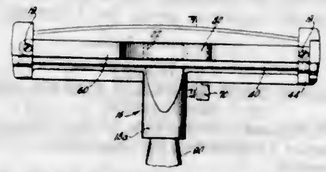
2,838,783

VACUUM CLEANER NOZZLE

Oliver L. Allen, Riverside, Conn., assignor to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware

Application January 14, 1955, Serial No. 481,793
2 Claims. (Cl. 15—417)

2. In a vacuum cleaner tool, a body formed with dissimilar suction nozzles on opposite faces thereof, a passageway leading into said body from each suction nozzle and terminating at a common opening in an intermediate face of said body, a suction conduit rotatably connected to said opening, whereby said body may be turned about said conduit to bring either of said suction nozzles into operative position on a surface to be cleaned, a flexible valve element comprising a snap action leaf spring having opposite ends substantially fixed with respect to said body and being distortable to have its central portion



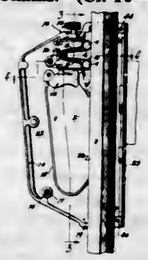
moved selectively towards either of said suction nozzles to close the passageway leading therefrom, and an operating member for said valve element carried by said body and movable relative thereto and having one end engaging said valve element for applying force to distort said valve element to move the same to a selected position, the other end of said member extending out of said body to be accessible for manipulation.

2,838,784

HAND-GRIP LATCH MECHANISM

Laurel E. Cooley, Sr., and Laurel E. Cooley, Jr., La Grange, and Carl O. Plaul, Chicago, Ill.

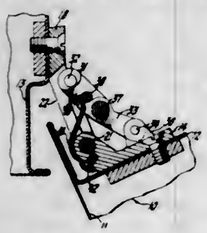
Application May 16, 1956, Serial No. 585,286
4 Claims. (Cl. 16—125)



1. A C-shaped hand-grip having the ends embracively slidable on a mounting member with the intermediate part of the hand-grip in spaced relationship to the mounting member to provide an opening between the mounting member and the intermediate part of the hand-grip for the fingers of an operator's hand, a pair of shoulders integral with the hand-grip on the interior of one end and spaced apart longitudinally of and adjacently opposed to the mounting member, a third shoulder on the interior of the hand-grip located at a point intermediate the pair of shoulders and more remote from the mounting members, a V-shaped resilient plate the ends of which are oppositely angulated, the plate being positioned in the hand-grip with the base of the V embracing the third shoulder and the angulated ends abutting the respective shoulders to dispose the ends at opposite angles to the opposed face and in longitudinally-spaced relationship to the mounting member to provide oppositely-disposed wedge-shaped gaps between the angulated plate ends and the opposed mounting member, a pair of levers pivoted within the hand-grip adjacent the third shoulder on opposite sides thereof longitudinally of the mounting member and extending toward the mounting member beyond the angulated plate ends to partially span the space between the angulated plate ends and the mounting member, a cylindrical roller interposed between each angulated plate end and seated on the ends of the respective levers with their axes radially normal to the mounting member,

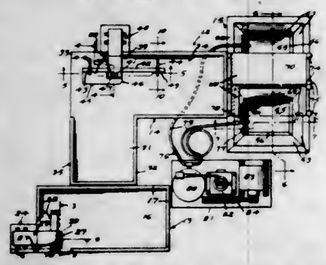
a spring interposed between and contacting the pair of rollers to hold the rollers on the lever ends and into wedging contact between the angulated ends and the mounting member, and manually-actuatable detents located on the hand-grip adjacent the levers for selectively depressing the respective levers to retract the respective rollers from wedging relationship between the angulated plate ends and the mounting member to permit opposite shifting of the hand-grip along the mounting member.

2,838,785
HINGE WITH INTEGRAL CHECK AND HOLD-OPEN
William F. Kapanka, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 16, 1953, Serial No. 392,358
8 Claims. (Cl. 16—138)



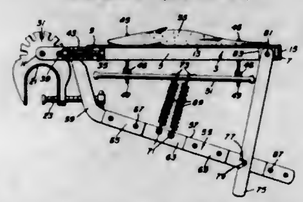
2. A hinge and hold-open comprising, a pair of pivotally interconnected hinge straps, a toggle linkage interconnecting said hinge straps and being movable between generally folded and extended positions as said hinge straps move relative to each other, an abutment on said toggle linkage, and a resilient member secured to one of said hinge straps and engageable with said abutment as said toggle linkage approaches an extended position to exert a resilient detaining force on said abutment tending to bias said toggle linkage toward said position.

2,838,786
APPARATUS FOR EXTRACTING CRAB MEAT
Jarrett M. Ward, Crisfield, Md.
Application July 20, 1955, Serial No. 523,179
4 Claims. (Cl. 17—2)



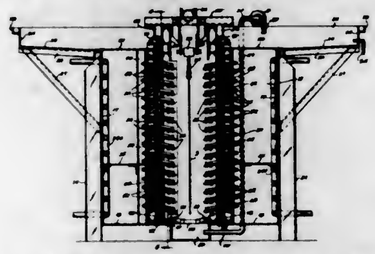
1. An apparatus of the character described comprising a support having a slot extending therethrough, a driven cutting blade movable through said slot in a direction substantially perpendicular to the support, an elongated cleat secured to said support and having a longitudinal edge disposed adjacent to the slot and to a portion of the blade which is disposed adjacent to the slot, and said cleat having a curved recess opening through said longitudinal edge, spaced from and disposed substantially conformably around an adjacent side of said blade portion, said recess defining a guide surface adapted to be engaged by extremities of the knuckles of a crab body for guiding the crab body while being manually moved relative to said blade portion for cutting off the knuckles engaging said guide surface.

2,838,787
FISH HOLDING TABLE
Earl H. Hickey, Brogan, Oreg.
Application November 27, 1956, Serial No. 624,566
2 Claims. (Cl. 17—8)



1. A table for supporting a fish for scaling or filleting comprising an elongated frame adapted to be attached to a part of a boat, a table top on said frame, a plurality of U-shaped yokes straddling said frame and top to straddle a fish on said top in laterally spaced relation and downwardly movable to clamp a fish to said top, a hand lever pivoted on said frame and extending beneath the frame longitudinally thereof, a horizontal rod beneath said frame downwardly movable, means slidably connecting said yokes to said rod for adjustment laterally thereon to straddle fish of different lengths, and movement downwardly by said rod, and means operatively connecting said lever to said rod, said slidably connecting means comprising crossbars slidable on said rod, and means terminally connecting said yokes to said crossbars.

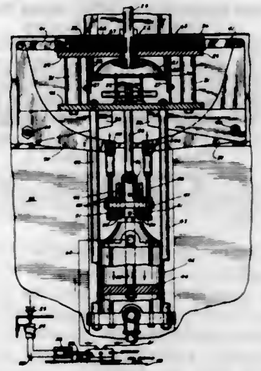
2,838,788
METHOD OF AND APPARATUS FOR TEMPERING, QUENCHING OR SIMILARLY TREATING SHEETS, BODIES AND THE LIKE
Albert F. Hartwig, University City, Mo., assignor to McDonnell Aircraft Corporation, St. Louis, Mo., a corporation of Maryland
Application November 1, 1954, Serial No. 465,997
36 Claims. (Cl. 18—1)



1. A method of tempering a body which includes supporting the body free of restraint in a substantially dry zone, and releasing a large volume of tempering liquid directly at and upon and over all surfaces of the body to engulf the surfaces of the body.

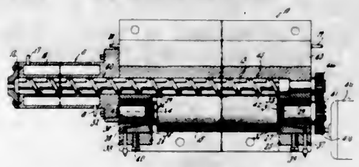
2,838,789
METHOD AND MACHINE FOR CONSTRICTING COLLAR ONTO SHAFT
Louis A. Pazandak, Minneapolis, Minn., assignor to Halvorson Trees, Inc., Duluth, Minn., a corporation of Minnesota
Application April 19, 1956, Serial No. 579,274
8 Claims. (Cl. 18—1)

1. The combination with a malleable collar and a shaft positioned therein of a frame; a plurality of horizontally disposed plungers each slidable with respect to said frame; each having a longitudinal axis thereof radially alined with respect to a common point and each having a collar contacting surface at an end thereof adjacent and spaced from said common point; means for supporting said malleable collar to be in horizontal alinement with said plungers and to have a central axis of said collar vertically disposed and passing through said common point; said plungers being disposed at equal intervals around the entire periphery of said collar; means for forcing said plungers to move simultaneously in direction toward said common point and against said collar to cause said collar to be constricted onto said shaft; and each of said plungers including a plurality of parallel spaced apart plunger plates each having a forward end surface constituted as a portion of said collar contacting surface, and spacers between and in contact with adjacent ones of each of said plunger plates in spaced relationship to said forward end surface thereof.



8. The method of constricting malleable collars onto tree trunks of non-uniform cross section and having generally tapering configuration from a large butt to a small peak; consisting of the following steps: placing a tree trunk inside of a malleable collar, contracting the outer periphery of said collar with a plurality of collar contacting elements substantially equally spaced around said periphery and each having a collar contacting face tapering outwardly of said collar from a first end thereof located toward the peak of said tree to a second end thereof located toward said butt, and simultaneously forcing each of said elements toward said collar along a straight path extending radially inwardly toward a central longitudinal axis of said collar until every element is causing an equal pressure to be exerted upon said collar and said trunk to bring said collar into sealing relationship with said trunk.

2,838,790
DEVICE FOR SHAPING PLASTIC MATERIALS
Eugene H. Hartman, Boonton, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application June 20, 1955, Serial No. 516,371
11 Claims. (Cl. 18—2)



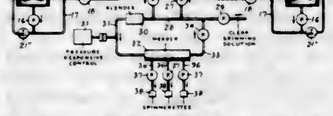
3. An apparatus for extrusion of plastic stock comprising an elongated extrusion screw having a thread extending from a feed end of the screw to a delivery end of the screw, a closely fitting enclosing cylinder surrounding the screw for a portion of its length at said delivery end, a hopper structure partially enclosing the screw for an extended portion of its length equal to many flights of the screw thread at its feed end, the periphery of the screw being exposed over a substantial arc of the screw in the said hopper structure, a roll disposed in the hopper structure alongside the exposed portion of the screw, and means for rotating the roll and screw toward each other whereby a charge of plastic stock placed on said roll and exposed portion of the screw is masticated therebetween and simultaneously charged at a continuously uniform rate through the said enclosing cylinder to the delivery end of the screw.

2,838,791
MOLDS FOR FORMING PLAQUES
Irene H. Theis, Denver, Colo.
Application June 15, 1954, Serial No. 436,768
6 Claims. (Cl. 18—5.1)



6. A mold for forming plaques, comprising a body formed from relatively stiff but pliable rubber providing a cavity for the mold, said body having a base provided with an enlarged opening, an upright surrounding wall extending from said base and having an out-turned flange at its upper edge, and a removable pressure-applying plate in said cavity engaging said base and overlying the enlarged opening, said plate having a knob for finger engagement to facilitate removal of the plate from the mold cavity.

2,838,792
PRODUCTION OF FILAMENTS
Albert W. Keight, Cumberland, Md., and Robert T. Armstrong, Summit, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application November 20, 1952, Serial No. 321,686
8 Claims. (Cl. 18—8)

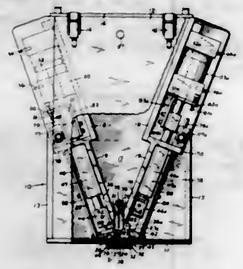


1. Apparatus for the spinning of filaments, which comprises a blender, a positive displacement pump for introducing a concentrate of an effect material under pressure into said blender, a positive displacement pump for introducing a spinning solution under pressure into said blender, whereby a blend of concentrate and spinning solution is produced, a spinnerette for the extrusion of said blend in filamentary form, conduit means connecting said spinnerette to said blender, means for driving said pumps at a fixed speed ratio, and means operatively connected to said conduit means and responsive to the pressure of said blend in said conduit means for varying the speed of said driving means and, accordingly, of said pumps to maintain the pressure of the blend constant in said conduit means.

2,838,793
METHOD AND APPARATUS FOR MELT SPINNING
Alexander G. Scott, Ridgefield, and Harold Weber, Bloomfield, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application March 26, 1953, Serial No. 344,786
5 Claims. (Cl. 18—8)

1. Apparatus for the production of artificial filamentary products from particles of fusible filament-forming

material, said apparatus comprising a vessel for receiving particles of fusible filament-forming material, a heated spinning jet operatively connected to said vessel, a plurality of rams within said vessel and having working faces acting against said jet, said rams being movable in paths which are along intersecting lines, means for



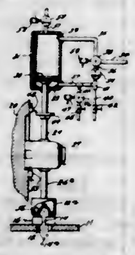
moving said rams to apply substantially constant mechanical pressure to the particles of material adjacent to said jet and dividing means in the path of the particles flowing through said vessel to said jet for directing said particles to positions in the path of one or the other of said rams.

2,838,794
EXTRUSION APPARATUS
Stanley Hiram Munger, Rumson, N. J., and Henry Smithies and Harold Barnard Whitfield, Jr., Parkersburg, W. Va., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 8, 1957, Serial No. 651,348
3 Claims. (Cl. 18—12)



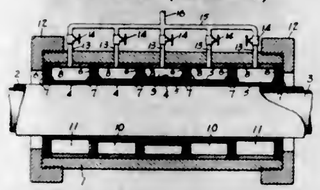
1. In an extrusion apparatus, the improvement which comprises a multiplicity of small, sharp-edged projections located on, and extending outwardly from, the root surface of an extrusion screw, the height of each of said projections above the said root surface being from 0.03 inch to 20% of the depth of the thread of said extrusion screw, the total area of the outwardly exposed surfaces of said projections amounting to one-fifth to one-third of the root surface area between projections.

2,838,795
METHOD AND APPARATUS FOR FORMING A DESICCATOR CAPSULE
Harry A. Lockwood, Weston, Conn.
Application January 12, 1953, Serial No. 330,879
7 Claims. (Cl. 18—19)



1. The method of forming desiccator capsules including steps, comprising spinning one marginal end of a tube of thermoplastic material against a concave wall to form a first closed end, filling the tube with a desiccant, and spinning the remaining marginal end of the filled tube against a concave wall to form a second closed end, wherein said spinning steps each include a first phase, comprising slowly spinning the end of the tube closed, followed by a second phase, comprising rapidly spinning said end against a supplemental, restrictive hollowed wall to form a complete closure.

2,838,796
METHOD AND APPARATUS FOR PRESSURE CURING OF MATERIALS
Daniel J. Reed, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application December 2, 1954, Serial No. 472,635
7 Claims. (Cl. 18—19)



1. An apparatus for applying pressure to an elongated article comprising, a hollow casing having openings in the opposite ends thereof to receive the article, a series of concentric flexible sleeves disposed within the casing with the longitudinal centers of the sleeves being in substantial alignment, each sleeve of said series having a greater length than the outwardly adjacent sleeve and the ends of each sleeve being spaced longitudinally from the corresponding ends of the other sleeves, means for sealing the ends of each sleeve to the inner wall of said casing to provide a series of annular fluid-tight chambers extending substantially the length of the casing, and means for initially introducing fluid pressure into the chamber disposed centrally of said series of chambers and for thereafter successively introducing pressure into the chambers adjacent the chamber at the center of said series outwardly to the chambers at the ends of said series to drive the air entrapped in said article outwardly to the ends of the casing.

6. A method of applying pressure to an elongated article in preparation for curing of the same, comprising applying fluid pressure to the entire outer peripheral surface of a longitudinally central length of the article, and subsequently applying fluid pressure to second lengths of the article on either side of the first length while maintaining the pressure on said first length to drive the air entrapped in said lengths longitudinally toward the ends of said article in preparation for curing of said article.

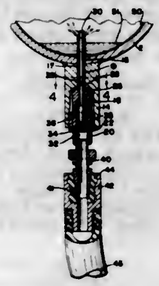
2,838,797
METHOD OF AND APPARATUS FOR SEALING ELECTRICAL COMPONENTS IN A THERMOPLASTIC
Frank J. Kolar, Jr., Hinsdale, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application May 6, 1954, Serial No. 428,053
6 Claims. (Cl. 18—26)



1. In the manufacture of potted capacitors wherein a capacitor is encased in a container having an apertured

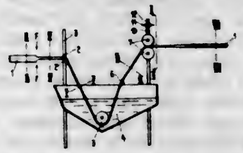
end and melted wax is forced into the container to cover and impregnate the capacitor and the wax is cooled and voids are formed therein which expose a portion of the capacitor to the atmosphere, a method of processing the capacitor to eliminate the voids therein which comprises rapidly revolving the container about an axis with the apertured end thereof directed toward said axis to apply centrifugal force to said wax, heating said apertured end of the container as it revolves to melt the wax adjacent said apertured end and cause it to flow evenly over the end of the capacitor and be compacted thereabout under the influence of said centrifugal force, and cooling the wax to freeze it to provide a moisture seal for the capacitor.

2,838,798
PROCESS AND APPARATUS FOR MAKING INFLATED HOLLOW ARTICLES BY ROTATIONAL CASTING
Paul Rekettye, Akron, Ohio, assignor to The Sun Rubber Company, Barberton, Ohio, a corporation of Ohio
Application May 10, 1954, Serial No. 428,774
5 Claims. (Cl. 18—39)



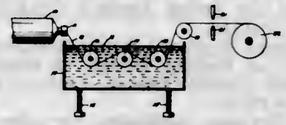
2. In a process for making an inflated hollow article from a rotationally cast plastisol, the steps of: filling a mold with a liquid charge of plastisol having a volume less than the volume of the mold; closing the mold; rotating the mold about a variable axis to distribute the plastisol over the interior thereof; concurrently with said rotation, applying sufficient heat to said mold so that a portion of the distributed plastisol will form a gelled layer; stopping the rotation of the mold; inserting an inflation tube into the interior of the mold through the gelled plastisol layer; introducing a charge of inflating medium within the gelled plastisol layer; withdrawing said inflation tube exteriorly of said gelled layer and continuing rotation of the mold concurrently with the application of additional heat thereto so that all of said plastisol is distributed over the interior thereof and fused.

2,838,799
METHOD FOR TIGHTENING TEXTILE HOSES OR FLEXIBLE TUBES
Arthur Meister, Ruegnauschachen L. E., Switzerland, assignor to Meister & Co., Ruegnau, Switzerland
Application September 8, 1954, Serial No. 454,735
8 Claims. (Cl. 18—47.5)



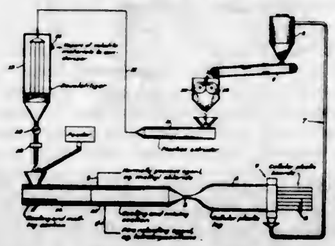
7. A method for tightening a textile hose, particularly a hose for fire engines, comprising filling the hose with water at a pressure such that the hose is thoroughly wetted and stretched to such a degree that it is expanded to take a round cross-sectional shape, draining the water from the hose, the said pressure being so adjusted that the hose maintains a substantially round cross-sectional shape after removal of the pressure, filling the hose with a rubber-containing solution, draining the said rubber-containing solution from the hose and drying the layer of rubber-containing solution adhering to the inner surface of the hose.

2,838,800
PLASTIC SHEET MATERIAL
David B. Hertz, New York, N. Y., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application December 18, 1953, Serial No. 398,983
6 Claims. (Cl. 18—48)



1. Process for the treatment of sheet material which comprises drawing an organic thermoplastic sheet material through a heated bath of molten heavy metal having substantially no tendency to adhere to said sheet material, said bath being maintained at a temperature below the melting point but above the softening point of said material to effect an improvement in the appearance of said sheet material, said sheet being drawn through said heated bath of metal at a point sufficiently below the surface of said metal to there provide a hydrostatic pressure of at least about 1 atmosphere on said sheet.

2,838,801
PROCESS FOR MAKING FIRE-RESISTANT CELLULAR VINYL AROMATIC POLYMER ARTICLES
Chancey E. De Long, Wilson W. Hunt, and Samuel G. Ludington, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application March 29, 1957, Serial No. 649,350
5 Claims. (Cl. 18—48)



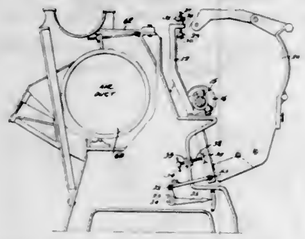
1. In a continuous process for making a cellular thermoplastic article wherein a heat-plastified thermoplastic vinyl aromatic polymer at temperatures between 120° and 250° C. and a normally gaseous agent capable of being dissolved by the polymer are fed into admixture with one another under pressure in a mixing and cooling zone in amounts corresponding to from 5 to 25 parts by weight of the normally gaseous agent per 100 parts of the polymer and wherein the ingredients are blended into a uniform mobile gel under pressure and cooled to a temperature between 60° and 130° C. in said mixing and cooling zone, and the gel is continuously extruded into a zone of lower pressure sufficient to expand the extruded material with resultant formation of a cellular plastic body which is cut and trimmed to shaped articles, thereby producing an appreciable proportion of scrap foam, the steps which consist in collecting the scrap foam,

pressing and heating said foam at temperatures between 90° and 160° C. to obtain a dense sintered material, heating the sintered material to melting temperatures between 190° and 280° C. and vaporizing and separating volatile ingredients therefrom in a devolatilizing zone under not more than 100 millimeters absolute pressure, separately withdrawing vapors of the volatilized materials and the heat-plastified and devolatilized vinyl aromatic polymer from said devolatilizing zone and returning the recovered and devolatilized polymer to the process and into admixture with a further quantity of a thermoplastic vinyl aromatic polymer and a normally gaseous agent in the proportions stated.

2,838,802
PRODUCTION OF COMPRESSED PELLETS OR TABLETS FROM FINELY DIVIDED SOLID MATERIALS
Peter William Reynolds and Eric Billingsley Bates, Norton-on-Tees, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application November 7, 1955
Serial No. 545,558
Claims priority, application Great Britain
November 26, 1954
5 Claims. (Cl. 18—55)

1. A process for the production of compressed pellets by feeding finely divided solid material into dies and compressing it between punches which comprises the successive steps of producing from each die at least one pellet of a material comprising a lubricant and then producing from each die at least one pellet of the desired material.

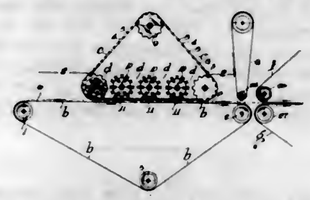
2,838,803
ROTATING ROLL BOX FOR COTTON GINS
Joseph T. Banks, New York, N. Y.
Application January 31, 1956, Serial No. 562,555
6 Claims. (Cl. 19—55)



1. A cotton gin comprising a gin frame, a saw cylinder, a shaft upon which the saw cylinder is mounted, an intermediate swinging frame, a gin breast, a roll box carried by the gin breast and positioned to receive saws of the saw cylinder, means for pivotally mounting the intermediate frame on the shaft of the saw cylinder, and means for actuating the gin breast to adjust the position of the roll box in relation to the saw cylinder.

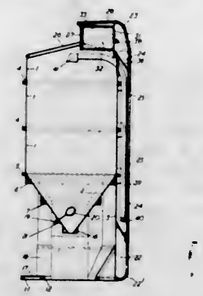
2,838,804
FIBER OPENING MACHINE
Arpad Boer, Buenos Aires, Argentina, assignor to Bancroft-Brillotex International S. A., Montevideo, Uruguay, a corporation of Uruguay
Application December 4, 1956, Serial No. 626,166
6 Claims. (Cl. 19—65)

1. A fiber opening machine comprising an endless cross-rod belt made up of longitudinal cords and spaced cross-rods, a series of opening rollers associated with said endless belt each opening roller of which series has a plurality of peripherally barbed disks forming a first assembly and a plurality of peripherally barbed disks laterally displaceable with respect to the first barbed disks and constituting a second assembly, means for linking the first and second barbed disc assemblies together to form a unit for rotation, a shaft on which each opening roller and its barbed disk assemblies are mounted, one of said assemblies being secured to said shaft, means for rotating



each such shaft and means for imparting a lateral displacement motion to the second assembly of barked disks relative to the first assembly of barbed disks, the spatial and operative arrangement being such that the barbs of the disks pass between the cross-rods of the endless belt whereby during operation of the machine the barbs rise between the rods and cross a plane defining a passage channel for fibers to be processed.

2,838,805
SILOS AND LIKE STORAGE CONTAINERS
Donald Welton Shepherd, York, England, assignor to Portasilo Limited, York, England, a British company
Application June 1, 1954, Serial No. 433,749
Claims priority, application Great Britain June 1, 1953
9 Claims. (Cl. 20—1.4)



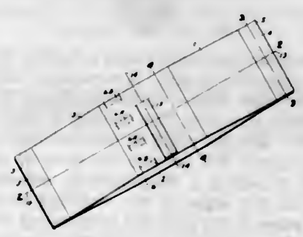
1. A light-weight, unitary silo adapted to be transported from place to place for temporary storing and dispensing of powdery material such as cement, said silo having a container portion comprising an assembly of cylindrical units made from plywood secured together in coaxial relationship, reinforcing rings secured to said units and covering the joints between adjacent units, a roof atop the uppermost cylindrical unit, a base unit below and secured to and supporting said assembly of cylindrical units when in an upright position, a keel extending longitudinally along said base and assembly of cylindrical units and secured thereto for reinforcing and stabilizing the same, said keel also serving as a base on which to rest said silo structure in a horizontal yet stable position for purposes of transport, an inlet pipe extending upwardly along said cylindrical assembly and terminating within the upper part of the container portion of said silo through which said container portion can be charged with the material by pneumatic means, a valve controlled discharge opening located at the lower end of said container portion spaced from the bottom of said silo to permit discharge of the material by gravity, and a movable cover unit permitting access to the interior of said silo through said roof, said cover unit providing a vent for the escape of air employed for charging said container portion and further providing a filter for preventing the material from escaping with the said air.

2,838,806
FIREPROOF ACOUSTICAL CORRECTION PANELS
Hale J. Sabine, Glen Ellyn, Ill., assignor to The Celotex Corporation, Chicago, Ill., a corporation of Delaware
Application June 18, 1957, Serial No. 666,310
5 Claims. (Cl. 20—4)



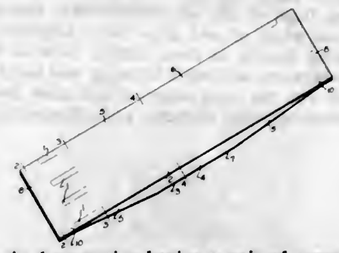
1. A fireproof acoustical correction unit comprising paper-faced gypsum board as the base sheet thereof, the said gypsum board comprising spaced paper face sheets applied to the face surfaces of a spacing core principally of set gypsum, the said core portion thereof incorporated about 10 percent of Wollastonite, principally of particle size between 20 and 35 mesh, and about ½ percent of mineral fiber of average length of about ½ inch, an air porous sheet firmly adhered to the outer surface of a paper facing of the gypsum board base sheet, a protective and decorative coating on the outer face of the other paper facing of the gypsum board base sheet, the coating including as ingredients a surface active agent and a complex water-soluble borate salt and intruding into the paper facing, and passageways extending through the thickness of the gypsum board base sheet and constituted by substantially uniformly distributed perforations of substantially like cross sectional area, in total comprising about 17 percent of the area of the gypsum board base sheet.

2,838,807
GRAIN DOOR
Emmet G. Stack, Portland, Oreg.
Application January 12, 1953, Serial No. 330,684
6 Claims. (Cl. 20—35)



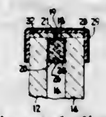
1. A grain door section comprising a pair of oppositely disposed rectangular cover sheets of greater length than width having a straight face middle portion, two straight face narrow-end portions in a plane parallel to and spaced from the plane of the middle portion, and an inclined portion between the middle portion and each end portion and spacer means having the cover sheets secured thereto said spacer means extending longitudinally between the cover sheets and having the configuration of the middle and inclined portions of the cover sheets, said cover sheets having their end portions secured together.

2,838,808
GRAIN DOOR
Emmet G. Stack, Portland, Oreg.
Application February 15, 1954, Serial No. 410,197
1 Claim. (Cl. 20—35)



A grain door section having a pair of cover sheets of greater length than width having the end portions of adjacent faces of their adjacent narrow ends glued to each other to leave a flat bearing surface on both sides of both ends of the door section and means to spread the cover sheets apart between their glued together ends which means comprises a plurality of similar longitudinal spacers each having one straight face and an oppositely disposed arched face to which faces the cover sheets are glued.

2,838,809
MULTIPLE GLAZED UNITS
Mario N. Zeolla and William S. Bobel, New Kensington, Pa., assignors to Pittsburgh Plate Glass Company
Application January 29, 1954, Serial No. 407,024
1 Claim. (Cl. 20—56.5)

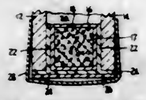


For use in a refrigerated display case, a frost-free, multiple glazed, viewing closure which comprises a plurality of sheets of glass separated at their marginal edges by a hollow spacer element having inner and outer walls and extending completely around the periphery of the sheets so as to enclose an air chamber between the sheets, a desiccant in the spacer element, a strip of moisture and vapor impermeable mastic material in sealing contact with the edges of the sheets of glass and the spacer element and coextensive with the edges of the glass sheets, and a pressure sensitive tape composed of a moisture and vapor impermeable, pressure sensitive, plastic adhesive mounted on a backing of an elastic, moisture and vapor impermeable, plastic material adhered continuously around the periphery of the closure to the marginal edges of the outer glass sheets and to the mastic with a folded lap joint formed on the marginal edges at each corner, said viewing closure having an aligned opening through the tape, mastic and outer wall of the spacer element to connect the atmosphere with the desiccant and at least one other opening through the inner wall of the spacer element spaced longitudinally of the spacer element from the opening in the outer wall of the spacer element.

2,838,810
MULTIPLE GLAZED UNIT
Oscar D. Englehart, Brackenridge, and Renato J. Mazzoni, Tarentum, Pa., assignors to Pittsburgh Plate Glass Company
Application July 9, 1954, Serial No. 442,222
1 Claim. (Cl. 20—56.5)

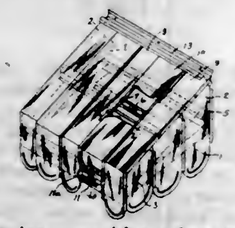
A multiple glazed unit comprising a plurality of glass sheets, a marginal edge spacer-dehydrator element be-

tween the marginal edges of the glass sheets and extending completely around the periphery thereof and having an edge substantially flush with the outer edges of the glass sheets, an inner layer of moisture and vapor-impermeable tacky mastic between each of the pairs of meeting faces of the spacer-dehydrator element and the marginal edges of said glass sheets adjacent thereto and adhering directly to these meeting faces as the sole bond therebetween, said inner layers of said tacky mastic being flush with the outer edges of said glass sheets and said spacer-dehydrator element, a shock-absorbing and



moisture-resistant sealing member bonded to and extending continuously around the edge of said glazed unit, said sealing member comprising a shock-absorbent, moisture-resistant plastic strip having a coextensive layer of a moisture and vapor-impermeable tacky mastic bonded to one surface of said plastic strip, said plastic strip bonded through said mastic layer coextensively to the edges of said glass sheets, said substantially flush edge of said spacer-dehydrator element and each of the tacky mastic layers between said glass sheets and said spacer-dehydrator element, and a channel member surrounding the sealed edges of said glazed unit.

2,838,811
METAL AWNING
Jacob Guttman, Pittsburgh, Pa.
Application November 12, 1954, Serial No. 468,346
2 Claims. (Cl. 20—57.5)



1. A rigid awning, comprising a framework including a transversely extending runner, a plurality of alternately spaced and reversely disposed top and bottom pans of channel shape extending at right angles to said runner and being directly supported thereby, said top and bottom pans having side flanges extending at right angles therefrom and with relatively narrow inturned edges, a plurality of elongated tabs struck out from the metal forming the top portions of said runner, said tabs extending parallel to and closely adjacent the outer surfaces of the side flanges of said bottom pans and being bent over the tops of said last mentioned flanges and having end portions extending substantially vertically downwardly over and in contact with the narrow edges of said bottom pans and substantially in contact with the side flanges of the said bottom pans and within the top pans, parallel to and closely adjacent the side flanges of the top pans throughout the entire height thereof, the inturned edges of the top pans being engaged by the ends of said tabs to serve as stop members for preventing upward movement of said top pans, said tabs spacing the webs of the top pans from tops of the side flanges of the bottom pans substantially the thickness of said tabs to permit limited flow of air laterally between the top and bottom pans and for spacing the inturned edges of the top pans from the webs of the bottom pans by an equal distance to permit outward flow of such air, whereby said tabs provide a positive interlock between said top and bottom pans.

2,838,812
WEATHERSTRIPPED THRESHOLD
Robert G. Oehmig, Chicago, Ill.
Application May 24, 1955, Serial No. 510,675
6 Claims. (Cl. 20—64)



6. A weatherstripped threshold comprising a rigid member formed with a tread surface and an inverted substantially T-shaped slot extending longitudinally of said member, and a resilient weatherstrip secured in said slot, said weatherstrip comprising a pair of elongate resilient members each being hollow and having a cross-sectional configuration substantially thicker at its center with an outer wall and a generally flat inner wall and fixed together by a web extending between their generally flat walls, with the curved and generally flat walls of both of said resilient members on each side thereof meeting to form sealing edges extending longitudinally of the respective resilient members and with said longitudinally extending edges of said members being biased toward each other, said web being received in the opening of said slot of said rigid member with the said longitudinally extending edges of said strip bearing snugly against the portions of said rigid member that are received between said resilient members.

2,838,813
BEADING STRIP
Robert W. Naramore, Bridgeport, Conn., assignor to Bridgeport Fabrics, Inc., Bridgeport, Conn., a corporation of Connecticut
Application March 29, 1956, Serial No. 574,669
5 Claims. (Cl. 20—69)

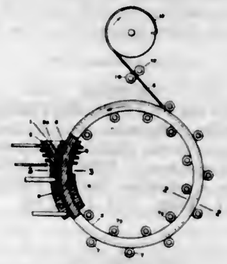


1. A beading strip comprising a flexible bead of compressible material; a stiff, non-metallic attaching strip having one edge secured to the bead with the strip projecting therefrom, said strip having a folded loop portion therein with the edges of the fold forming the loop being juxtaposed and lying in the plane of the attaching strip and providing a longitudinally extending portion intermediate the edges of the attaching strip projecting from the plane of the strip and cooperating with the bead to form a flange-receiving channel for mounting the beading strip; and a cover enclosing the bead and attaching strip, said cover being secured to the side of the attaching strip opposite the projecting fold adjacent each side of such fold to hold the juxtaposed edges thereof from spreading.

2,838,814
METHOD AND APPARATUS FOR CASTING
Joseph B. Brennan, Cleveland, Ohio
Application January 19, 1956, Serial No. 560,100
2 Claims. (Cl. 22—57.2)

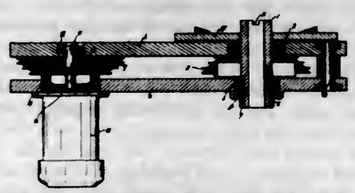
1. The method of continuously casting metal strip and the like which comprises the steps of continuously

feeding molten metal into the upper end of a downwardly extending, open-ended die passage of which one wall is movable downwardly and is of ceramic material having a relatively low electrical conductivity comparable with that of silicon carbide lava and of which the opposite wall is stationary and is of ceramic material having a relatively high electrical conductivity comparable with that of graphite; continuously moving such die wall to carry the metal downwardly therewith through the die passage; passing the downwardly moving body of molten metal in the die passage through an induction heating field which is effective to inductively heat the metal itself to a temperature exceeding its melting point without such die wall attaining that temperature from the effects of the induction heating field it is fed into the die



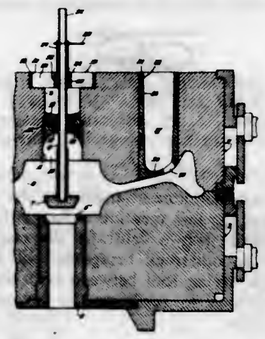
passage and which is effective to inductively heat such stationary die wall so as to keep the metal in contact therewith labile and lubricated and to keep its surface slick due to low friction and as it flows downwardly through the die passage whereby the metal is formed, while molten, to the cross-section shape of the die passage; passing the formed body of molten metal through an adjacent cooled portion of the die passage to solidify the metal in its thus hot-formed shape before it emerges from the lower end of the die passage by extraction of heat therefrom by the movable wall of the die passage and by an opposite wall of the die passage; and continuously removing the solidified metal from the movable wall after the metal has emerged beyond the lower end of the die passage.

2,838,815
CENTRIFUGAL MOULDING MACHINE
Jean Paul Duval, Paris, France, assignor to Max Adolphe Bunford, Monte-Carlo, Monaco
Application October 6, 1953, Serial No. 384,370
7 Claims. (Cl. 22—65)



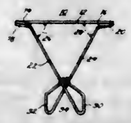
1. Centrifugal casting apparatus comprising a rotatably supported two piece mold having a top and bottom section, a rotatably driven shaft, spaced apart abutments carried by said mold, a lever fixedly carried by said shaft and positioned for striking said mold abutments upon relative movement between and operatively connecting said mold and said shaft and having limited movement when out of contact with said abutments at which time said shaft is disconnected from said mold, means pivotally connected to said mold and said shaft for retaining said top section on said bottom section upon rotation of said shaft in one direction and releasing said top section upon the stopping of said shaft.

2,838,816
PERMANENT MOLD WITH SAND DOME
Charles F. Strom, Glen Ellyn, Ill., assignor to Griffin Wheel Company, Chicago, Ill., a corporation of Delaware
Application September 14, 1955, Serial No. 534,243
14 Claims. (Cl. 22—128)



1. In a mold, the combination of a cope and drag defining a casting cavity, an opening through said cope communicating with said cavity, a porous dome in said opening spaced from the bottom of said opening, a guide ring recessed in the bottom of said dome, an opening through the dome aligned with said ring, a gate through the drag, a plunger extending through said opening and ring into said cavity, and a seat on said plunger engageable with the drag to close said gate.

2,838,817
PAPER CLIP DEVICE
David V. Wills, Philadelphia, Pa.
Application April 9, 1956, Serial No. 577,167
6 Claims. (Cl. 24—66)

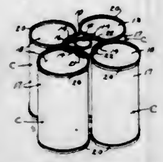


1. An integral paper clip device comprising a horizontal substantially linear top portion having first and second extremities, a first coiled spring element joined to the first extremity of said top portion, having a substantially vertical axis, a second coiled spring element joined to the second extremity of said top portion having a substantially vertical axis, and first and second arm portions respectively joined with the extremities of said top portion by said spring element, said first arm portion being joined with the first extremity of said top portion by said spring element, said second arm portion being joined with the second extremity of said top portion, said arm portions extending downwardly from the extremities of said top portion in the direction across each other, said first arm portion being urged by said spring element towards said second arm portion for retaining a body between said arm portions.

2,838,818
CAN GROUP ATTACHING PLATE
Joseph K. Brennan, Milwaukee, Wis., assignor to Packette Corp., Milwaukee, Wis., a corporation
Application November 10, 1954, Serial No. 468,060
1 Claim. (Cl. 24—81)

In a device for holding a group of cans of the type having end cap terminals and peripheral rims together for dispensing and carrying purposes, a partially pre-

formed plate formed from a single thin sheet of material, a series of arcuate hook shaped flanges on the perimeter of the plate into which a portion of the rims of a group of cans are placed, outwardly extending lips on said flanges normally overlying the cans, said lips having inwardly directed arcuate flanges engaging a portion of the inner surfaces of the rims, whereby the rims are clamped



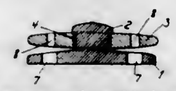
between the last mentioned flanges and the hook shaped flanges, each of the last mentioned flanges having an extension provided with a centrally disposed weakening opening, and an outstruck bridge beyond said opening for receiving a prying tool between said bridge and adjacent can portion, to facilitate the prying thereof off of a rim of a can.

2,838,819
CABLE CLAMP
Otis P. Falkenstein, Jeffersonville, Ind., assignor to the United States of America as represented by the Secretary of the Army
Application September 16, 1954, Serial No. 456,641
3 Claims. (Cl. 24—126)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. A clamp for cables or like flexible elements comprising a barrel provided with a relatively large tapered opening extending inwardly from one end thereof and terminating short of the other end to provide a closed end for said barrel, said barrel having a pair of lateral openings extending through the said walls thereof at diametrically opposed positions adjacent the inner end of the tapered opening and merging into the same and a relatively small opening through the closed end thereof centrally of the tapered opening and leading into the same, a plug including a portion tapered complementary to the taper of the tapered opening in said barrel to adapt the same for wedging engagement in the said tapered opening, said plug being provided with a pair of diametrically opposed longitudinal grooves in its side wall extending throughout its tapered length, and adapted to register with the inner ends of said latter openings when the barrel and plug are disposed in nested relation, means adapted to effect the application of force in one direction to said clamp including a connecting member conformed to pass freely through the small opening in the closed end of said barrel and anchored to said plug and means for drawing said plug and barrel into the said predetermined nested relation, said force applying means locking said parts against retraction from the said position without impeding relative movement of the said plug and barrel to a more advanced position of nesting relationship, a pair of flexible elements having ends tightly clamped between the said longitudinal grooves in said plug and the wall of said tapered opening in said barrel opposed thereto when said plug and barrel are in said predetermined nested relation, the said flexible elements extending through the said lateral openings in said barrel to the exterior of the latter and the said lateral openings being generally convex in an end-to-end direction to force the portions of said flexible members projecting outwardly therefrom generally to adapt the same for effecting the application of force to said clamp in a direction opposed to the direction said force applying means effects application of force to said clamp so that the said barrel and plug are urged toward a more advanced position of nesting relationship when opposed forces are applied to said force applying means and flexible members respectively, and said barrel having axially extending recesses in the exterior thereof longitudinally aligned with said lateral openings and dimensioned to receive portions of said flexible elements exterior to said barrel to form guides for the same when force is applied to the clamp.

2,838,820
PRESS-BUTTON OF PLASTIC OR LIKE MATERIAL
Hans Eric Wilhelm Håkanson, Stockholm, Sweden, assignor to Gusums Bruks Aktiebolag, Gusum, Sweden
Application September 1, 1954, Serial No. 453,460
Claims priority, application Sweden February 4, 1954
1 Claim. (Cl. 24—216)

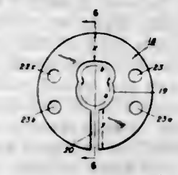


A press-stud fastener of molded material comprising a stud part including a base and an outwardly directed stud, having a bulging outer end portion, a socket part having a central hole slightly smaller than said bulging end adapted to receive said stud by resilient axial flexing of the portions of said socket part adjacent said hole, so as to lock said parts to one another, the edges of said socket part surrounding said central hole being unbroken, said stud part being formed as a siugle piece and having a plurality of openings extending through the base thereof which provide means whereby said stud part may be secured in position to an article having two parts to be joined in overlapping relationship, said socket part being formed with a plurality of angularly extending slots adjacent said central hole, which slots, besides serving as a means whereby said socket part may be secured in position on a part to be joined, also impart to the edge portions of said socket adjacent said hole a degree of radial resiliency such as will allow for pressing of the stud on said stud part through the central hole in said socket part by yielding of the side portions of said socket part by yielding of the side portions of said socket adjacent said hole in the radial direction, the opposed surfaces of said two parts being convex so as substantially to abut each other at the central portions of said parts, thereby preventing securing means passing through said slots from interfering with the efficiency of the cooperation between the stud on the stud part and said portions of said socket part adjacent said central hole when said parts are united and also reducing the wear on the securing means during use.

2,838,821
SNAP FASTENERS
Ira Shur, Bayside, N. Y., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application September 23, 1953, Serial No. 381,769
3 Claims. (Cl. 24—217)

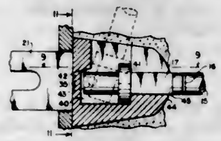
1. A snap fastener comprising the combination of stud and socket members, each fashioned wholly of plastic material, the stud member comprising base, neck and

head portions, of which the head portion has greater diameter than the neck portion and is connected to said neck portion by a chamfered shoulder, the socket member comprising solely a flat, axially rigid disc provided with a neck opening and a slit extending from said opening to the outer periphery of the disc, said opening being generally oval-shaped and arranged with its major diameter disposed on a diameter extending through the slit, one end portion of said opening extending as an arc exceeding 180° of a circle which is concen-



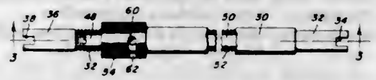
tric with the outer periphery of the disc and has radius corresponding substantially to that of the neck portion of the stud member, the other end portion of said opening extending into the middle-line portion of the disc and diminishing the radial dimension of said portion throughout a substantial arc thereof, said slit and the aforesaid shaping of said opening enabling the disc to deform circularly when spread in its plane the limited amount required to permit the head portion of the stud member to pass through said opening.

2,838,822
WALL FORM TIE ASSEMBLY
William H. Kenney, West Englewood, N. J., and Ferdinand F. Newburg, Baltimore, Md.
Application May 25, 1956, Serial No. 587,332
2 Claims. (Cl. 25—131)



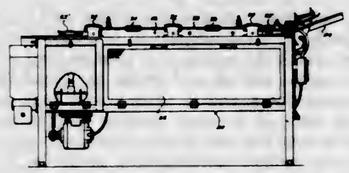
1. A tie assembly for use with concrete receiving form structures comprising, an elongated rod, a flattened portion spaced from each end of said rod, a tie end member engageable with said tie rod, said tie end member consisting of a substantially "cone shaped" tie rod end receiving member having a tie end retaining chamber therein, a tie end engaging nub extending inwardly of the chamber, a tie camming shoulder formed in said retaining chamber and an anchoring bar extending outwardly from said end receiving member, and a keyhole shaped slot in said tie receiving member for coupling the tie rod to the tie end member.

2,838,823
ADJUSTABLE SPREADER BAR
John L. Miller, Port Carbon, Pa.
Application November 20, 1956, Serial No. 623,480
3 Claims. (Cl. 26—55)



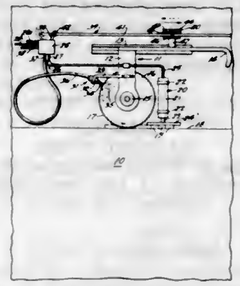
1. In a cloth handling equipment that has a spreader provided with two parts that are spaced from each other, an adjustable spreader bar comprising a sleeve and a bar member, said bar member and said sleeve having means at opposite ends thereof to connect to said parts, said member being extensibly connected with said sleeve and movable therein, said member being oval-shaped and having a thread thereon, a collar oscillatably mounted on said sleeve, said collar having an oval-shaped internally threaded bore so that said member may be freely slipped into and out of said sleeve in one position of adjustment of said collar and threadedly connected to said collar in another position of adjustment of said collar.

2,838,824
MEANS FOR HANDLING BOBBINS IN BOBBIN STRIPPERS AND THE LIKE
Richard Ferguson, Charlotte, N. C., assignor to The Terrell Machine Company, a corporation of North Carolina
Application March 26, 1956, Serial No. 573,760
7 Claims. (Cl. 28—19)



1. In a bobbin stripper or the like incorporating means for supporting and guiding bobbins serially along a path while hanging from the heads thereof, an improved means for propelling said bobbins along said path, said propelling means comprising opposed elements movable along said path at each side thereof laterally adjacent the heads of said bobbins when supported by said first mentioned means, and means yieldably urging said opposed elements together for gripping said bobbin heads therebetween, said last mentioned means being arranged to rest freely on said first mentioned means so as to be self-centering with respect thereto.

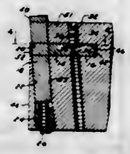
2,838,825
VALVE ACTUATING MECHANISM
Allen V. Knollenberg, Minneapolis, Minn., assignor to Self Storing Window Co., Inc., Minneapolis, Minn., a corporation of Minnesota
Application October 4, 1954, Serial No. 459,887
6 Claims. (Cl. 29—69)



1. A valve actuating mechanism comprising, an actuator element attachable to the movable portion of a valve and adapted to actuate said valve for fluid flow therethrough when moved in one direction and to actuate the valve for interrupting said fluid flow when moved in the other direction, and an interconnecting drive element in frictional bearing engagement with said actuator element, one of said valve actuator and said drive element being movable with a machine member and relative to the other whereby said relative movements will maintain the valve at one setting and reverse relative

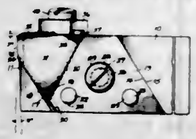
movement will initiate change in the valve setting and maintain the latter for the period of such reverse movement.

2,838,826
TOOL HOLDER AND METHOD OF MAKING SAME
Gustav H. Dabringhaus, Jr., Berkley, Mich.
Application November 8, 1952, Serial No. 319,489
4 Claims. (Cl. 29—96)



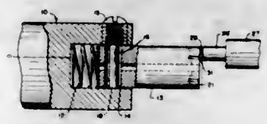
1. A holder for an elongate cutting tool comprising a body having a shank adapted to be secured on the machine on which the cutting tool is to be used and a head at the forward end of said shank, said head having top and bottom faces and a vertical end face and being provided with an elongate opening therethrough which extends to said top and bottom faces, said opening having a cross section corresponding generally in size and shape to the cross section of the tool to be used with said holder and being adapted to receive said tool, said elongate opening having its axis inclined rearwardly towards the shank in a downward direction, said head having a horizontal slot extending transversely therethrough between said top and bottom faces and intersectioning said elongate opening in non perpendicular relation, an insert member in said slot, said insert member having an opening therethrough which is aligned and generally registers with said elongate opening in said head, said insert member corresponding in size and shape with said slot with the exception that the insert member is shorter in length than said slot, said elongate opening in said head intersecting said vertical end face of said head between said slot and the upper face of said head whereby said elongate opening is open at said end face of said head, said insert member having a vertical end face co-planar with said end face of said head and disposed beneath said open face portion of said head whereby the wall portion of said insert member between said end face and the opening in said insert member increases progressively in thickness from top to bottom, and means for drawing said insert member in a generally rearward direction to bring the opening in the insert member out of registration with the opening in said head and thereby clamp a tool in said head.

2,838,827
CUTTING TOOL
John H. Wright, Bridgeport, Conn.
Application July 11, 1955, Serial No. 521,121
1 Claim. (Cl. 29—96)



A cutting tool comprising a shank including a forward end wall, top and bottom walls, and front and rear side walls, said front side wall having a tip insert receiving pocket of substantially equilateral triangle shape including a back wall and forward and rearward walls inclined downwardly toward each other, said rearward inclined wall extending to said top wall and said forward inclined wall extending to said forward end wall at a point below said top wall whereby said pocket has an open upper end within said top wall and an open forward end within said forward end wall, a flat disc-like tip insert member of substantial equilateral triangle shape having inner and outer flat faces, said insert member being removably engaged in said pocket with its inner face against said back wall thereof, with two of its sides respectively engaged with said forward and rearward inclined walls, and with its third side disposed in said open upper end of said pocket, said insert member having a ground surface at each of its corners disposed in angular relation to its sides and providing cutting edges, each indentically disposed relatively to the center point of said insert member, one of said corner surfaces being disposed in cutting position in said forward open end of said pocket, and the other corner surfaces adapted to be successively brought into said cutting position through repositioning of said insert member, said forward and rearward walls of said pocket and the sides of said insert member each having interengaging locking formations to retain said insert member against transverse displacement away from said back wall of said pocket, and clamping means carried by said shank and engaging the side of said insert member disposed in said open upper end of said pocket to retain said insert member against upward movement in said pocket.

2,838,828
BURRING TOOL
Carl E. Nordstrom, Evanston, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application December 3, 1953, Serial No. 395,944
2 Claims. (Cl. 29—103)



1. A cutting tool for removing a projection from a work piece, which comprises a cylinder having a central bore, and end face of the cylinder lying wholly within a plane perpendicular to the axis of the cylinder and the end face being cut by a plurality of slots which communicate with the bore and deepen progressively in the direction of the periphery of the cylinder, a plane developed by one side of each of the slots forming an acute angle with the plane of the end face such that a plurality of radial cutting edges are developed thereby, a housing having a recess formed therein, means for securing the cylinder within the recess such that relative rotation therebetween is prevented but limited longitudinal movement of the cylinder is permitted, and a spring mounted within the recess for urging the cylinder from the recess and toward the work piece as the projection is removed therefrom.

2,838,829
METHOD OF MAKING BEARINGS
Robert V. Goss, Niles, Mich., and Robert W. Lowe, South Bend, Ind., assignors to Toefco Engineering Company, Niles, Mich., a corporation
Application September 5, 1956, Serial No. 608,026
2 Claims. (Cl. 29—149.5)

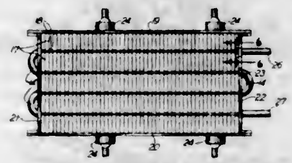
1. A process of producing a product having a surface characterized by its relatively high anti-friction quality, said process comprising the successive steps of forming a blank of comminuted metal, sintering said blank to effect the desired characteristics including porosity of structure, impregnating said sintered blank with an emulsion including a vehicle and polytetrafluoroethylene in suspension

therein, heating said blank at a temperature of approximately 150° F. to evaporate the vehicle, heating said blank at a temperature not to exceed 400° C. to sinter the



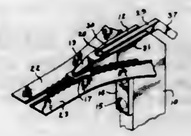
polytetrafluoroethylene, and lastly coining the polytetrafluoroethylene impregnated blank to provide the desired finished product having the desired shape and surface characteristics.

2,838,830
PROCESS OF MANUFACTURING HEAT EXCHANGER
Homer D. Huggins, Racine, Wis., assignor to Modine Manufacturing Company, Racine, Wis., a corporation of Wisconsin
Application March 15, 1956, Serial No. 571,855
7 Claims. (Cl. 29—157.3)



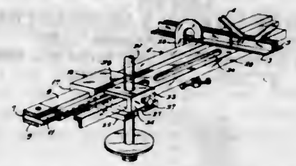
6. In a process of manufacturing a heat exchanger, the steps comprising flattening the opposite side walls of a heat exchanger tube, positioning a heat exchanger fin in contact with each of said walls of said tube, applying pressure at the interior of said tube for expanding said tube toward said fin, and retaining the combined dimension of said tube and said fin while said tube is being expanded.

2,838,831
HOLDERS FOR SLIDE FASTENERS
William F. Aubuchon, Jackson, Miss., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
Application February 2, 1956, Serial No. 563,047
4 Claims. (Cl. 29—284)



1. A fixture for holding zipper sliders while assembling zipper stringers therethrough and wherein the slider is formed with an exterior neck recess and has a pull tab with an opening, said fixture comprising a support standard having an offset arm at its upper end, a bracket attached to said standard and having a support arm in spaced and parallel reltionship to said offset arm, said support arm having a channel in its upper surface for receiving said pull tab, said offset arm formed with a projection adapted to engage in said slider neck recess, and a spring-operated detent pin slidably mounted in said offset arm adapted to automatically snap into said pull tab opening as said pull tab is slidably assembled into said support-arm channel.

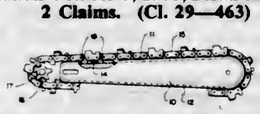
2,838,832
METHOD OF INSTALLING FIXTURE HANGERS ON A CEILING STRUCTURE
James W. Potter, Urbana, Ill.
Application October 7, 1954, Serial No. 460,941
4 Claims. (Cl. 29—428)



1. The method of installing fixture hangers on a joist ceiling structure comprising the steps of providing an elongate jig having a plurality of adjustably positionable hanger-aligning bar-supporting members disposed therealong, positioning and securing said hanger-aligning bar-supporting members at predetermined points along said jig corresponding to the desired spacing of the hangers, temporarily securing said jig against the ceiling, providing a plurality of relatively short bars and supporting one bar on each of said members in position to bridge the adjacent joists, fastening each of said bars to the joists bridged thereby while so supported, securing a hanger to each bar at the predetermined location of its supporting member, and thereafter removing the jig.

2. The method of installing fixture hangers on a joist ceiling structure comprising the steps of providing an elongate jig having a plurality of adjustably positionable hanger-aligning bar-supporting members disposed therealong, positioning and securing said hanger-aligning bar-supporting members at predetermined points along said jig corresponding to the desired spacing of the hangers from one edge of the ceiling, thereafter temporarily securing said jig against the ceiling, with one end of the jig aligned with an edge of the ceiling, providing a plurality of relatively short bars and supporting one bar on each of said members in position to bridge the adjacent joists, fastening each of said bars to the joists bridged thereby while so supported, securing the hangers to each bar at the predetermined location of its supporting member, and thereafter removing the jig.

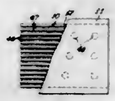
2,838,833
METHOD OF MANUFACTURING A CHAIN SAW CUTTER BAR
William A. Richardson, Vancouver, British Columbia, Canada, assignor, by direct and mesne assignments, to Outboard Marine Corporation, Waukegan, Ill., a corporation of Delaware
Application October 5, 1953, Serial No. 384,217
2 Claims. (Cl. 29—463)



1. The method of manufacturing a chain saw cutter bar which includes offsetting each of two mated elongated plates of cutter bar shape along opposite edges thereof an amount less than the thickness of the plate to form grooves in a face of the plate opening out along said edges, placing the plates together face to face with the grooves opposite each other, securing the plates to each other throughout the entire width thereof from groove to groove to create a single groove in each of the opposite edges of the bar formed by the plates, said grooves being wide and deep enough to receive lugs of a saw chain, and the bottoms of said grooves along which saw chain lugs run being formed by the joined portions of the plates, and removing the protruding metal from the offset portions on the outer

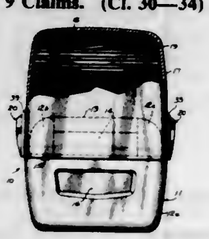
surfaces of the plates to make said surfaces flush, whereby the portions of the plates secured together constitute the maximum thickness of the bar.

2,838,834
METHOD OF MAKING A MUSICAL COMB
Peter Ganine, Los Angeles, Calif.
Application November 22, 1954, Serial No. 470,219
2 Claims. (Cl. 29—529)



1. The method of forming a melody comb comprising the steps of; perforating one end of a sheet of springlike material between the sides thereof, forming a base of castable material around said perforated end portion in intimate contact therewith, including forming an irregular edge on said base confronting the remaining portion of said springlike material, thereafter punching a plurality of parallel spaced slots into said remaining portion starting from starting positions substantially coincident with said confronting edge and progressing outwardly toward the other end of said sheet but stopping short thereof, and finally severing said sheet transversely thereof in a common line across said slots.

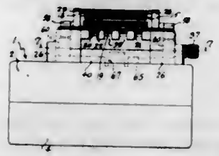
2,838,835
ELECTRIC SHAVER AND CASING THEREFOR IN WHICH THE HOUSING OF THE SHAVER SERVES AS PART OF THE CASING
Ivar Jepson, Oak Park, Ill., assignor to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Application April 29, 1955, Serial No. 504,986
9 Claims. (Cl. 30—34)



1. A combined shaver and case comprising an electric shaver having a housing portion and an associated cutting mechanism, means defining a shoulder on said housing portion surrounding said cutting mechanism, and a cup-shaped cover member for receiving therein said cutting mechanism, said cover member having a single opening therein, said opening being at one end of said cover member, and said cover member including a rim surrounding said single opening engageable with said shoulder portion.

2,838,836
RECIPROCATING ELECTRIC SHAVER HAVING MULTIPLE SHEARING SURFACES ON OUTER AND INNER CUTTERS
Alphonse Lussier, Waterbury, Conn.
Application February 16, 1954, Serial No. 410,559
15 Claims. (Cl. 30—41)

1. An electric shaver comprising a cutter head including an outer hollow stationary cutter having a perforated transversely curved section to engage the surface of the skin, a longitudinally reciprocable hollow cutter within the stationary cutter comprising laterally spaced side walls connected at each of their opposite edges by a series of longitudinally spaced transversely curved cutting blades with the two series separated and integrally connected by the side walls, one of said series located at the inner surface of said perforated section of the stationary cutter to cooperate therewith for a shearing action,



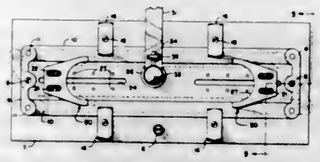
mounting means for the inner cutter comprising a support provided with means adapted to removably support the cutter with either series of cutting blades located at the inner surface of the perforated section for cooperation therewith for the shaving operation, and driving means for longitudinally reciprocating the inner cutter.

2,838,837
DENTAL DRILL
Walter J. Terry, Seattle, Wash.
Application June 27, 1956, Serial No. 594,136
6 Claims. (Cl. 32—28)



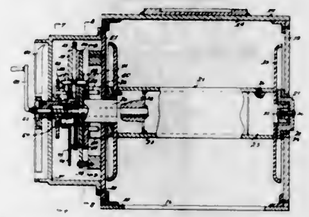
1. A dental instrument comprising a generally hollow handpiece terminating in a hollow head provided with a central bore and an orifice at one side only of said bore, a shaft rotatably mounted in the handpiece having an axial bore in communication with the hollow of the head, a chuck mounted in the central bore of the head adapted to hold a burr and operatively connected with the shaft for rotating the burr, and means for conducting a spray to said handpiece for movement through the bore of the shaft and thence into the hollow of the head for discharge through the orifice in the head in a direction generally toward the outer end of the burr.

2,838,838
ADJUSTABLE PROFILE TEMPLATE
Clarence E. Lica, Chicago, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware
Application March 19, 1957, Serial No. 646,987
6 Claims. (Cl. 33—23)



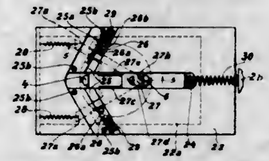
1. A template comprising side guide members, a pair of links pivotally interconnected to the side guide members to form a parallelogram, clamping means for holding said side guide members in adjusted position, and end guide members slidably adjustable between said side guide members.

2,838,839
MOORING DEVICE
Gus Gasdorf, Rolland L. Stratton, and David W. Culp, Lima, Ohio
Application December 22, 1955, Serial No. 554,868
2 Claims. (Cl. 33—136)



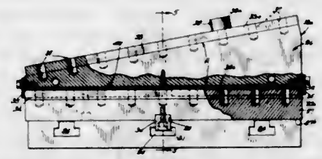
1. In a device of the character described, a frame including a first and second end wall arranged in spaced parallel relation with respect to each other, crosspieces extending between said walls and secured thereto, and one of said crosspieces being provided with a slot for the projection therethrough of a cable a spool rotatably arranged in said frame and including a cylindrical sleeve, circular flanges arranged contiguous to the ends of said spool, a housing arranged exteriorly of said frame and connected to an end wall thereof, said housing having scale markings thereon, a hub secured within an end of said sleeve, a shaft extending outwardly from said hub, a stem of reduced diameter extending outwardly from said shaft, a crank extending through said housing and engaging said stem, a locking ring secured to the outer surface of said frame and having said shaft extending therethrough, there being a plurality of cutouts in said locking ring, there being chambers in said locking ring, spring pressed plungers arranged in said chambers, rollers arranged in said cutouts for engagement by said plungers and shaft, a finger plate arranged contiguous to the outer surface of said locking ring, fingers extending from said plate and projecting into said cutouts, there being a notch in the outer portion of said finger plate, a gear stud plate arranged contiguous to said finger plate, a block secured to said gear stud plate, a trip mechanism arranged in engagement with said block, a hub mounted in an end of said housing and having a pointer connected thereto, and a gear train for selectively connecting said last named hub to said shaft.

2,838,840
COMPARISON MEASURING APPARATUS FOR BORINGS
Wilhelm Rinker and Walter Jung, Wetzlar, Germany, assignors to Ernst Leitz, G. m. b. H., Wetzlar-Lahn, Germany, a corporation of Germany
Application April 21, 1955, Serial No. 502,812
Claims priority, application Germany July 30, 1954
8 Claims. (Cl. 33—148)



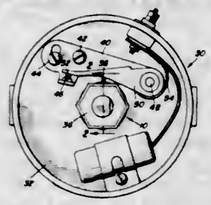
1. Comparison measuring apparatus for borings and the like which comprises a base, a test finger adjustably and securably mounted on said base, a test lever pivotally mounted on said base spaced from said test finger and tiltable in the plane of the test finger, a table comprising a plate mounted on a vertical pivot to swing in a horizontal plane and on a horizontal hinge to tilt vertically relative to said base and having a slot extending between and receiving said test finger and said test lever and having a pair of grooves one extending transversely from each side of said slot at an acute angle thereto, a pair of justifying fingers one for and slidable in one of each of said pair of grooves and securable in its respective groove and a V-shaped rail in said table plate and slidable longitudinally of said slot and positioned to have each of its arms contact one of said slidable justifying fingers and movable to bring its apex to coincide with the test finger, springs to draw said rail from contact with said justifying fingers and from coincidence of its apex with the test finger and a handgrip to enable it to be moved into position against the action of said springs.

2,838,841
GAUGE ASSEMBLY
David E. Anderson, Chicago, Ill.
Application March 23, 1955, Serial No. 496,152
3 Claims. (Cl. 33—174)



1. A gauge assembly for use in positioning a work-supporting plane in a predetermined angular relation with respect to a reference plane, said assembly comprising a plurality of interchangeable blocks adapted to be arranged in stacked relation on the reference plane, said blocks having angularly disposed opposite surfaces of substantially uniform dimensions, the angularity of said surfaces of each block being different, one angular surface of each block being provided with an elongated recessed portion and the opposite angular surface thereof being provided with an elongated protuberance adapted to be nested within the recessed portion of a second block when said blocks are assembled in stacked relation, and a plurality of relatively thin prismatic insert pieces adapted for disposition intermediate the recessed surface portion of one block and the protruding surface portion of a second block when said blocks are assembled in stacked relation, the angularity between the opposite block-contacting sides of said insert pieces being different from one another and less than the angularity of the opposite surfaces of any of said blocks, the peripheral shape of each insert piece being substantially the same as the configuration of the recessed surface portions of said blocks; the exposed angular surface of the uppermost block of the stack defining the work-supporting plane at the predetermined angle with respect to the reference plane.

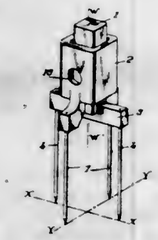
2,838,842
BREAKER POINT GAUGE
David H. Hassler, Honolulu, Territory of Hawaii
Application September 1, 1955, Serial No. 531,984
10 Claims. (Cl. 33—181)



1. A breaker point gauge for setting breaker points on a distributor, said gauge comprising a hollow body of a

size to be snugly received over a distributor cam, said body having a polygonal inner surface including a plurality of corners, at least one projection on said body, said body having a center, the distance between said corners and said center being greater than the distance between an outermost part of said projection and said center, the difference between said distances determining the desired point gap.

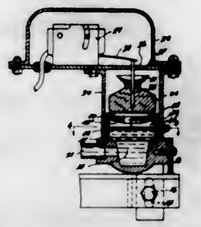
2,838,843
APPARATUS FOR DETERMINING THE DIRECTION OF THE APPARENT VERTICAL ON BOARD A MOVABLE BODY
Rene Claret, Sceaux, France, assignor to Office National d'Etudes et de Recherches Aeronautiques O. N. E. R. A., Chatillon-sous-Bagneux (Seine), France
Application May 26, 1955, Serial No. 511,149
Claims priority, application France May 29, 1954
8 Claims. (Cl. 33—206)



1. An apparatus for determining the direction of the apparent vertical on a movable body which comprises, in combination, a support pivotably mounted on said body, a weight member of parallelepipedal shape, a cross member rigid with the base of said member, two pointed rods parallel to each other rigid with said cross member, said support including an end plate for accommodating the lower pointed ends of said rods, a second weight member constituted by a sleeve of quadrangular cross section surrounding said first mentioned weight member with a small play and two rods rigid with said second weight member parallel to the two first mentioned rods but located in a plane at right angles to the plane of the two first mentioned rods, said lower plate of said support being adapted to accommodate the pointed lower ends of the two second mentioned rods, contact means for limiting the pivoting displacement of said weight members with respect to said support about the lines determined by the pointed ends of the first pair of rods and of the second pair of rods, and motor means operative by said contact means for pivoting said support to tend at any time to restore said weight members into position of equilibrium with respect to said axes.

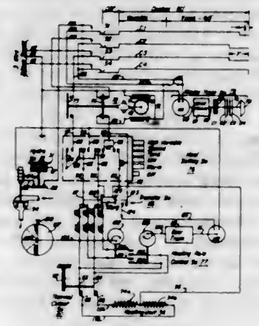
2,838,844
CONTROL FOR LEVELING DEVICE
Manley R. Sackett, Sprague, Wash.
Application April 11, 1955, Serial No. 500,383
6 Claims. (Cl. 33—209)

5. A control for a leveling device comprising a fluid conduit including a pair of spaced dashpots operably interconnected at substantially their lower ends; a level-seeking fluid in said conduit and adapted to surge alternately into the dashpots as the control is rocked in a vertical plane coincident to said dashpots; a confining cage removably secured in the dashpot and adapted to pass fluid flowing therethrough; a rigid apertured flow control element confined for limited reciprocal movement in said cage; annular sealing rings at the upper and lower extremes of said cage and adapted to associate with said flow control element to prevent flow of fluid thereby when disposed in the extreme positions, whereby reduced flow of fluid may pass through the apertured flow control element from one side to the other after the initial surge



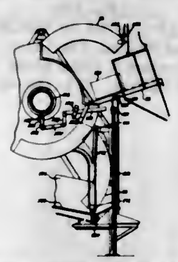
thereof; a float in each said dashpot adapted to be actuated by inflow of said fluid above said flow control element at a speed proportional to the flow therethrough; and a switch actuated by movements of each said float.

2,838,845
CONTROL CIRCUITS FOR CLOTHES DRYING MACHINES
Clifford E. Erickson, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application May 29, 1956, Serial No. 588,056
10 Claims. (Cl. 34—45)



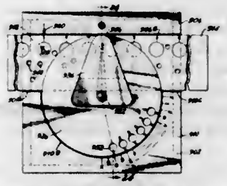
1. In a clothes drying machine including a drum mounted for rotation about a substantially horizontal axis and adapted to receive and to tumble the clothes to be dried, an electric motor operative to rotate said drum, and an electric heating unit for evaporating moisture from the clothes in said drum; the electric control circuit combination comprising a source of electric power, a manually operable control switch having a plurality of control positions respectively corresponding to a plurality of heating rates of said heating unit, said control switch in its plurality of control positions respectively establishing a corresponding plurality of heating connections between said power source and said heating unit, a cycle switch included in one of said heating connections for opening and for closing in each cycle thereof said one heating connection, a manually operable device for selectively setting the ratio between the open contact time and the closed contact time of said cycle switch in each cycle thereof, thereby selectively to vary the corresponding one heating rate of said heating unit during heating thereof in said one heating connection, a master switch selectively operative to control operation of said motor from said power source and to govern opening and closing of the established one of said heating connections, and manually settable timing means for selectively operating said master switch.

2,838,846
TUMBLER DRIER
Donald G. Cowlin, Glendale, Calif.
Application August 16, 1954, Serial No. 449,926
18 Claims. (Cl. 34—87)



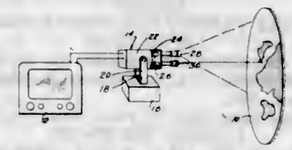
1. A tumbler drier comprising a frame having upright side elements, a drum having end walls and a cylindrical body, hollow shafts extending into said end walls and rotatably supporting the drum on said upright side elements and providing respectively hot air inlet and outlet passages to the central portion of the drum, a door comprising a segment of said cylindrical body hinged along one straight side of the door to the body, said door being adapted to be opened at a loading position when the drum has been rotated to position wherein the door lies generally above the axis of rotation of the drum for loading material into the drum, said door being adapted to be opened at a discharge position when the drum has been rotated to position wherein the door lies generally below said axis of rotation, means mounted on the frame below said discharge position of the door adapted to move discharged contents of the drum away from the drum, and a loading lift on the frame comprising a platform, a stationary guide on the frame for the platform, an upper end of said guide being adjacent the loading position of the door whereby the platform is adapted to be guided to said loading position for loading the drum.

2,838,847
SPELLING DEVICE
Albert M. Zalkind, Arlington, Va.
Application June 18, 1952, Serial No. 294,128
13 Claims. (Cl. 35—9)



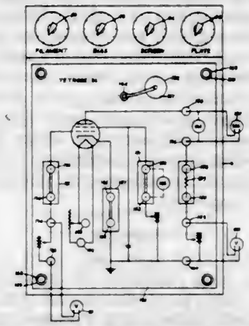
2. A spelling device comprising a picture element having a series of perforations therethrough corresponding in position to respective letters of a word to be spelled, an oscillatable selector means restricted to pivotal motion about a fixed axis and alphabet means accurately associated therewith about said axis, a manipulatable contact element, said selector means being operative to indicate individual letters of said word on said alphabet means to determine the manipulatable position of said contact element in register with respective perforations corresponding to selected letters, a contact plate below said perforated picture element, said contact element being engageable with said contact plate through individual perforations, including means for emitting a signal at predetermined correctly selected positions of said alphabet means upon engagement of said contact element with said contact plate.

2,838,848
TACTICAL TRAINING DEVICE FOR SIMULATING RADAR DISPLAYS
Ralph H. Bergstad and Donald D. Butler, San Diego, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application January 27, 1953, Serial No. 333,624
1 Claim. (Cl. 35—10.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A tactical training device comprising a projection screen, a television camera adapted to view said screen, a first light source adapted to project a point of light on said screen, means to secure said light source rigidly to and in alignment with said camera, actuating means effective in response to an electric current to vary the position of the point of light on said screen by moving said camera, a converter effective to convert the raster scan signal output of said camera to a polar scan signal, a radar adapted to receive the polar scan signal from said converter, a projector adapted to project an image on said screen, and control means effective to supply electric current to said actuating means.

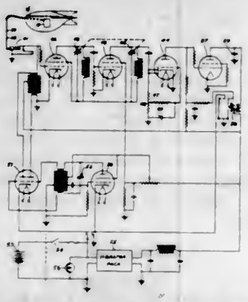
2,838,849
PORTABLE VACUUM TUBE CHARACTERISTIC DEMONSTRATOR
Seymour S. Finkel, Brooklyn, N. Y., assignor to the United States of America as represented by the Secretary of the Navy
Application March 19, 1954, Serial No. 417,525
4 Claims. (Cl. 35—19)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A vacuum tube demonstrator comprising a power supply having a plurality of voltage taps, a panel capping said power supply, a plurality of means to vary voltages supplied by said taps, said means being mounted on said panel, a plurality of vacuum tube sockets and a plurality of jacks carried by said panel, selected jacks being prewired to selected terminals of said tube sockets, selected jacks each being positioned proximate the periphery of said panel and being prewired to selected taps through selected voltage varying means, an overlay card mounted removably on said panel, said card having a first opening revealing one only of said tube sockets, further openings revealing some of said jacks and an incomplete circuit diagram containing a schematic representation of the electrodes of a vacuum tube and of wiring connections from the electrodes to said revealed jacks, said represented wiring connections duplicating the prewiring between said

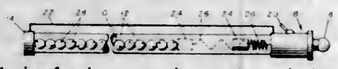
revealed jacks and the terminals of said revealed tube socket, whereby circuit components, shorting links and meters may be connected between said revealed jacks so as to complete said circuit diagram and form a circuit by means of which the electrical characteristics of a vacuum tube of the represented type may be determined upon its insertion in the revealed tube socket.

2,838,850
VIRTUAL TARGET FOR ECHO RANGING APPARATUS
Edward B. Stephenson, Washington, D. C., Horace M. Trent, Alexandria, Va., and James R. Richards, Fort Washington Md.
Application September 15, 1943, Serial No. 502,549
3 Claims. (Cl. 35—25)
(Granted under Title 35, U. S. Code (1952), sec. 266)



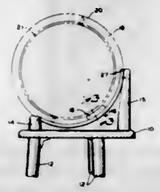
1. A device for use with echo ranging apparatus comprising a submersible target member, a transducer in said target member for receiving compressional wave energy from said echo ranging apparatus, means in said transducer for converting said compressional wave energy into electrical energy, a cable having a pair of conductors connected to said transducer, a receiver and a transmitter remotely disposed from said target member and adapted for installation on a ship, electrical means connecting the other end of said conductors in parallel with said receiver and transmitter whereby said receiver is responsive to electrical energy from said transducer to produce a signal pulse, time delay means connected to said receiver responsive to said signal pulse from said receiver, and means connecting said time delay means to said transmitter, whereby said transmitter emits a pseudo-echo pulse to said transducer for transmission to said echo ranging apparatus.

2,838,851
DEVICE FOR DEMONSTRATING MATHEMATICAL PROBABILITY
Robert Lusser, South Pasadena, Calif.
Application January 26, 1954, Serial No. 406,375
10 Claims. (Cl. 35—30)
(Granted under Title 35, U. S. Code (1952), sec. 266)



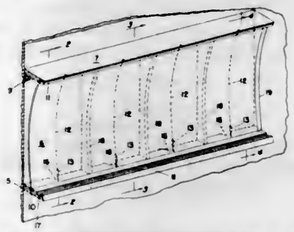
7. A device for demonstrating mathematical probability which comprises a group of elements each of which is movable with respect to all remaining elements, each element being composed of electrically-conductive material except that a predetermined unitary area constituting a minor fraction of the surface of at least some of said elements is of a non-conducting nature, and an electrical circuit including each of said elements, said circuit being completed through at least one contact with the conducting surface of each of said elements, whereby upon movement of said elements to result in a random rearrangement thereof, said circuit will be broken when the contact with any one or more of said elements lies within a non-conducting surface area.

2,838,852
MAP GLOBE SUPPORT
Raphael Katzen, Cincinnati, Ohio
Application August 9, 1954, Serial No. 448,669
10 Claims. (Cl. 35—46)



8. A map globe support comprising an arcuate, U-shaped channel having resilient side walls for yieldably retaining the flanged meridian ring of a map globe, a platform, and a pair of spaced stanchions on the platform for supporting said channel with one end thereof at a substantially higher elevation than the other.

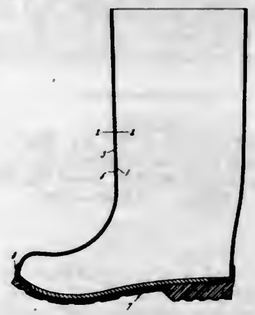
2,838,853
CHALKBOARD HAVING CURVED WRITING SURFACE
Alfred Batzdorff, Langhorne, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
Application July 3, 1956, Serial No. 595,623
2 Claims. (Cl. 35—63)



1. A chalkboard assembly comprising a sheet curved along one of its dimensions, supports for said sheet at the top and bottom thereof along its other dimension, and means for holding said supports in fixed relation to each other and to said sheet so that the curvature of said sheet is rigidly and permanently retained.

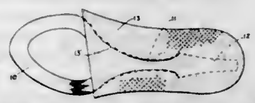
2,838,854
COMPOSITION AND ARTICLE
Lucian P. Dosmann, South Bend, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 14, 1954, Serial No. 455,896
5 Claims. (Cl. 36—4)

3. An acid-resisting boot having an upper formed with a continuous outside layer of a solid mixture of 100 parts of a rubbery copolymer of 90–99.5% of isobutylene and 10–0.5% of a conjugated C_4 to C_8 diolefin hydrocarbon, from 10 to 40 parts of polyethylene having a molecular weight of from 8,000 to 12,000, from 15 to 70 parts of polyisobutylene having a molecular weight of at least 150,000 and from 50 to 70 parts of carbon black having a surface area in acres per pound no greater than 8, an intermediate layer of coated fabric bonded to said outside layer, said intermediate layer having a coating of cement comprising rubbery copolymer of 90–99.5% of isobutylene and 10–0.5% of conjugated C_4 to C_8 diolefin hydrocarbon in admixture with curatives therefor, said cement being disposed adjacent to and forming the bond with said outside layer, a layer of natural rubber applied to the opposite side of said fabric, and a fabric lining layer having a coating of natural rubber bonded to said first-named



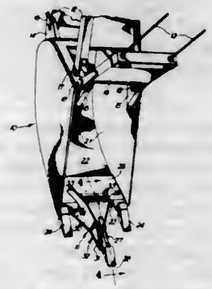
layer of natural rubber, said boot having a sole and foxing formed of a solid mixture answering to the foregoing definition for the mixture from which said outside layer is formed, the aforementioned elements being bonded together by simultaneous vulcanization of the rubber and rubbery copolymer contained therein.

2,838,855
NARROW SHANK SHOE AND PROCESS OF MAKING THE SAME
Fred Maccarone, Brooklyn, N. Y.
Application March 16, 1956, Serial No. 571,931
4 Claims. (Cl. 36—30)



1. An outsole unit for a woman's shoe comprising an outsole having a fiddle shank, a tongue-shaped blank of upper stock attached to the inner face of the outsole rearwardly of the ball line, and a shank piece wider than the shank of the outsole and downwardly convex in transverse contour having its peripheral margin wrapped by the upper stock of the said tongue-shaped blank.

2,838,856
EARTH SCOOPING BUCKET ATTACHMENT FOR BREAKING HARDENED GROUND OR THE LIKE
Charles Buisse, Racine, Wis.
Application March 26, 1956, Serial No. 573,930
5 Claims. (Cl. 37—142)



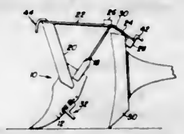
1. An attachment for an earth scooping bucket which has a body and a plurality of teeth projecting therefrom at the forward lip of the body, the combination of a tooth provided with a pointed end, a support member attached to said tooth at the end thereof opposite said pointed end, said support member disposed and extending on both sides of the vertical longitudinal plane of said tooth and away from said pointed end thereof, said support member disposed for abutting said forward lip of said body of said bucket on both sides of said vertical longitudinal plane of said tooth, said attachment including means flanking both sides of one of said teeth of said bucket for restricting lateral movement of said attachment on said bucket, and connecting means attached between said support member and said bucket for securing said support member in the position for abutting said forward lip.

2,838,857
MOLDBOARD TILT ADJUSTING ARRANGEMENT
George S. Allin, Jr., Homewood, and George E. Bock, Chicago, Ill., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application August 17, 1953, Serial No. 374,648
12 Claims. (Cl. 37—144)



2. In a bulldozer or like earth-moving device including a moldboard lift frame vertically swingable on a vehicle, a moldboard carried by the frame tiltable transversely of the frame, a pair of thrust arms pivoted on the moldboard and pivotally connectible to the frame, and means for tilting the moldboard transversely of the frame about a central axis, improved means for pivoting each thrust arm on the frame comprising a trunnion pin having a cylindrical portion and a pivot portion journaling the thrust arm and eccentric relative to the axis of the cylindrical portion, and a lug on the frame having a circular aperture frictionally receiving the cylindrical portion of the trunnion pin, the frictional force of the cylindrical portion in the lug being great enough under thrust arm load to resist a maximum force couple tending to rotate the trunnion pin in the lug induced by the eccentricity of said pivot portion under said load and comprising the sole resistance to rotation of said pin under load.

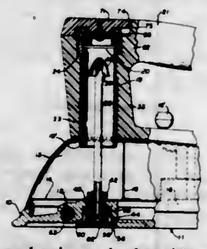
2,838,858
SCARIFYING ATTACHMENT FOR BULLDOZER BLADES
George Conrad, Huron, S. Dak.
Application January 3, 1955, Serial No. 479,519
6 Claims. (Cl. 37—145)



1. A scarifying attachment for bulldozer blades comprising a scarifying blade, and attaching means secured to said scarifying blade, said attaching means including a fixed and permanent upper bracket forming a fully open downwardly directed socket for receiving an upper edge of a bulldozer blade, and a fixed lower bracket engageable with a lower edge of a bulldozer blade, said lower bracket being L-shaped and engageable with only

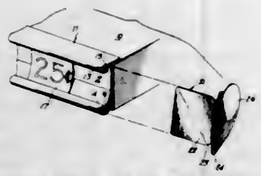
the lower edge and front face of a bulldozer blade to restrict upward and rearward movement of said scarifying blade.

2,838,859
STEAM IRON SAFETY FILLER CAP
Zina A. M. Barreson, Sheboygan, Wis., assignor to Dominion Electric Corporation
Application April 16, 1954, Serial No. 423,597
3 Claims. (Cl. 38—77)



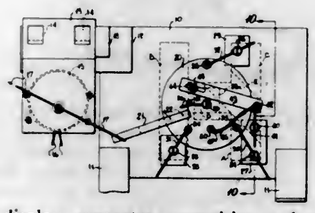
1. A steam iron having a body with a water reservoir, a handle including a pedestal with a bore terminating in an upper enlarged shouldered end, said pedestal having a cap receiving recess at said enlarged shouldered end, a tube secured to said reservoir and extending through said hollow pedestal to communicate with said reservoir and forming a steam chamber and filling passage for water to said reservoir, a sleeve secured to said tube within said pedestal and seated against said shouldered end of said bore to secure said handle to said body and to form a steam dome, said sleeve having a lateral steam escape port located between its ends in said recess, a closure for said sleeve frictionally and slidably engaged with the walls thereof below said escape port to normally close said sleeve and escape port and which closure is adjusted longitudinally of said sleeve by steam pressure to open said escape port for the controlled release of excess steam pressure, said closure remaining in said adjusted steam relief position relative to said sleeve to open said port until re-positioned by an operator to close said escape port, and said closure having a cap portion received in said recess and arranged flush with said handle when said closure is positioned to close said escape port and being adjustable with said closure under the influence of excessive steam pressure to move said cap portion out of said flush position with said handle where it remains until re-positioned flush with said handle by an operator to thereby close said escape port.

2,838,860
END COVER MEMBER
Joseph Norris Finnerty, Norwood, and William F. Volkert, Jr., Philadelphia, Pa., assignors to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application June 24, 1957, Serial No. 667,532
4 Claims. (Cl. 40—10)



1. An elongated blank for an end cover member formed of resilient flexible sheet material comprising a body portion of generally rectangular outline terminating at one end in a reduced neck portion having a transverse fold line at the remote edge thereof, a leg portion extending beyond said fold line and projecting transversely outward beyond said neck portion and the periphery of said body portion and terminating at its remote edge in a double transverse fold line parallel to the fold line intermediate said neck and leg portions, and an end cover portion extending beyond said leg portion having a transverse dimension corresponding substantially to the transverse dimension of said leg portion and having a longitudinal dimension greater than the longitudinal dimension of said portion.

2,838,861
ACTIVATED DISPLAY SIGN
Samuel S. Dunn, Charlotte, N. C.
Application August 8, 1955, Serial No. 527,044
9 Claims. (Cl. 40—30)



1. A display apparatus comprising a body member having first and second opposed sides, at least one letter positioned adjacent the first side and including a plurality of mating segments, means pivotally supporting each of said segments independently of the others on said body member, an oscillatable member journaled on the second side of said body member in substantially concentric relation to the corresponding letter, resilient means urging said oscillatable member in one direction, a driven rotary element disposed adjacent the oscillatable member, means on the oscillatable member engageable by said rotary element for imparting a partial revolution to the oscillatable member in the other direction momentarily, means thereafter responsive to movement of the oscillatable member by said rotary element for successively imparting movement to the segments of said letter for scrambling the same, and said oscillatable member being operable to return said segments to original position under the influence of the resilient means upon said rotary element moving out of engagement with the means engageable thereby on the oscillatable member.

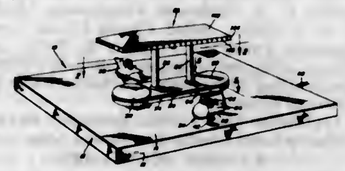
2,838,862
SCHEDULING DEVICE
Thomas M. McConnell, Jamesville, N. Y.
Application March 16, 1956, Serial No. 572,021
10 Claims. (Cl. 40—124)



7. A scheduling device comprising a vertical supporting structure, a pair of spaced vertical elements disposed on said supporting structure defining an extended space therebetween along said supporting structure, horizontally extending supporting elements mounted on said vertical elements, said supporting elements being uniformly vertically spaced one above the other and extending along said supporting structure, and a series of overlapping pockets formed of folded sheet material disposed on said

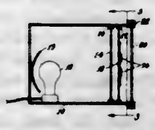
structure, and between said vertical elements and supported from said horizontally extending supporting elements.

2,838,863
TOY WHIP
Charles E. Paul, Buffalo, N. Y., assignor of fifty percent to Lena Z. Paul, Buffalo, N. Y.
Application January 7, 1957, Serial No. 632,707
2 Claims. (Cl. 40—126)



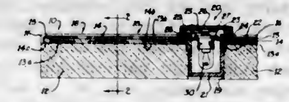
1. A toy whip comprising a generally enlarged flat platform, spaced turrets rotatably mounted on said platform, a flexible line encircling said turrets, one of said turrets being driven for moving the line, a plurality of freely swingable carts attached to said line and offset outwardly therefrom, each of said carts having caster wheels to permit swinging movement about the point of attachment thereof, a canopy for said turrets, blinker lights mounted in said canopy and means operated by said driven turret for causing the lights to blink, said platform having a central upper deck between the turrets, an electric motor mounted beneath said upper deck, a gear drive train connecting said motor to the driven turret, said means for causing blinking of the light including a cam mounted on said drive train for rotation therewith and a breaker arm for alternately making and breaking an electrical circuit to the blinker lights in the canopy thus causing the lights to be alternately energized and de-energized, said canopy including a base plate and a hinge roof, said hinge roof having a depending flange, an upstanding flange of transparent colored material on the base plate extending along the inner surface of the depending flange on the roof, said flange on the roof having a plurality of openings for permitting the blinking lights to be viewed as colored lights from the exterior of the canopy, said base plate being supported on the platform by a pair of hollow tubular posts adapted to receive electrical wires for energizing the lights.

2,838,864
OPTICAL DISPLAY DEVICE HAVING POLARIZING MEANS
Nicholas Guida, Great Neck, N. Y., assignor, by mesne assignments, to Vies-Matic Corporation, New York, N. Y., a corporation of New York
Application August 12, 1953, Serial No. 373,833
1 Claim. (Cl. 40—130)



An attraction causing device for emphasizing certain significant parts only of a photographically-produced image, wherein said image is alternately brightly illuminated in its entirety and then virtually obscured in all but said certain parts while leaving said certain parts brightly illuminated to display said significant parts of said composite image; said device consisting of a lamp box having an open end, a lamp in said box, a first sheet of polarizing material, means fixedly mounting said first sheet across said open end, a second sheet of polarizing material parallel to and spaced from said first sheet and disposed across said open end, said second sheet being rotatable relatively to the first sheet, means for imparting predetermined rotational movement to said second sheet, a diffusing screen mounted in said lamp box and disposed between said lamp and the sheet nearest to said lamp, a positive photographically-produced transparency disposed between said sheets of polarizing material, said transparency carrying said photographically-produced composite image thereon, and a single layer of bi-refringent material covering said certain parts only and the remainder of said composite image on said transparency being free of said bi-refringent material, a rigid transparent member fixedly supporting said transparency and said bi-refringent material across said open end, the axis of said bi-refringent material being positioned relatively to the plane of polarization of the sheets of polarizing material to transmit maximum light through those parts of the composite image covered by the bi-refringent material and through the member and sheets when the axes of said sheets of polarizing material are arranged at 90° with respect to one another, whereby when the polarizing sheets are arranged with their axes parallel, the light passes uniformly through all parts of the composite image and through the member and sheets and the entire composite image is equally illuminated, and whereby when the polarizing sheet is gradually rotated until the polarizers are crossed, the parts of the photographic image not covered by the bi-refringent material become gradually invisible while said significant parts to be emphasized stand out brightly in gradually increasing contrast to the parts of the image being rendered virtually invisible.

2,838,865
ILLUMINATED PANEL-METAL LAMINATION CONDUCTS ELECTRIC CURRENT
George K. C. Hardesty, Anne Arundel County, Md.
Application July 26, 1956, Serial No. 600,357
12 Claims. (Cl. 40—130)
(Granted under Title 35, U. S. Code (1952), sec. 266)

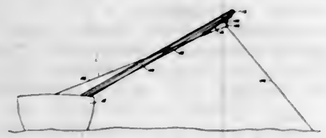


1. An illumination system comprising a light-transmitting panel of transparent material having major front and back surfaces substantially in parallel planes operative for specular reflection of light therebetween, a first lamination of opaque high specular reflectance metal having a specular reflectance surface thereof bonded in optical contact with at least one major surface of said panel for increasing the specular reflection of light in said panel, a source of electric current exteriorly of said panel, an illuminating means located within an opening in said panel for introduction of light into the panel for specular reflection therethrough, and means including said metallic lamination for conducting electric current between said source of current and said illuminating means.

2,838,866
FISHING GEAR
Frank R. Labin, Miami, Fla.
Application November 22, 1955, Serial No. 548,343
10 Claims. (Cl. 43—4)

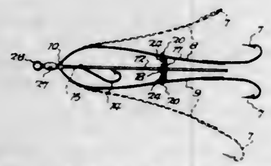
6. In a fishing gear including an outrigger pole, the combination with a fishing line, of a line release comprising a body, means for attaching said body to said pole, a rigid abutment post carried by said body and extending outwardly therefrom at substantially right angles thereto, said post being formed with a cone-frustum end,

a resilient release member fulcrumed upon said body and having a release clip extending longitudinally adjacent said post, and a detachable ring disposed between the cone



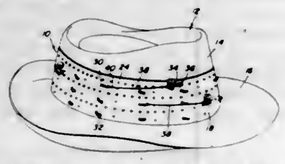
frustum end of said post and said clip, whereby when said ring is released by a jerk upon said line a predetermined amount of slack in the line will be momentarily produced.

2,838,867
FISH CATCHING LURE
John E. Feldman, East Amherst, N. Y.
Application June 24, 1957, Serial No. 667,350
4 Claims. (Cl. 43—36)



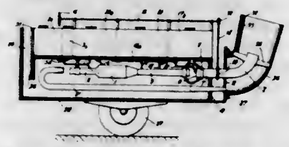
1. A fish lure comprising a pair of outwardly urged spring arms, fish hooks on the outer ends of said arms, a pair of outwardly urged detent arms arranged approximately midway between said first mentioned arms, all of said arms being connected together at one end and the other ends being free to swing outwardly, said detent arms having means for holding said spring arms in close proximity to each other, including open ended channel-shaped recesses on one of said detent arms into which portions of said spring arms may enter when pressed toward each other, the other of said detent arms having parts extending into the channel-shaped recesses of the first detent arms and yieldingly held in the inner ends of said recesses, whereby when said detent arms are moved toward each other, said parts in said channel-shaped recesses move said spring arms out of said recesses to permit the hooks to spring outwardly to embed themselves in a fish.

2,838,868
HAT ATTACHMENT
Eugene B. Young, Delta, Colo.
Application May 4, 1956, Serial No. 582,861
2 Claims. (Cl. 43—57.5)



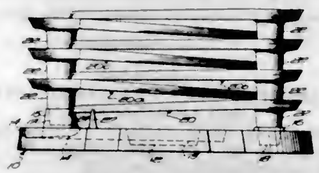
2. An attachment for the crown of a hat comprising an elongated flexible band encircling the crown of the hat, means detachably connecting the ends of the band together for removably retaining the band in crown encircling position, said band having a plurality of laterally spaced longitudinal rows of apertures, a plurality of elongated resilient members each having one end portion secured to the undersurface of the band and an intermediate portion extending through an aperture in one row of apertures, means on the other end of each of said resilient members for preventing withdrawal thereof through the aperture and for attachment to the loop end of fish hook means whereby the hook end of the fish hook means may be engaged with an aperture in another row of apertures with the resilient member tensioned thereby resiliently retaining the fish hook means supported on the band.

2,838,869
APPARATUS HAVING A PULSATORY JET OF GAS FOR THE PROJECTION OF SUBSTANCES
Christian L. A. Desbenoit, Courbevoie, Marie-Rose J. A. A. Deltel, called Claude Caron, born Pecqueriaux, Paris, and François G. Paris, Garches, France, assignors to Societe Nationale d'Etude et de Construction de Moteurs, d'Aviation, Paris, France, a French company
Application May 3, 1956, Serial No. 582,544
Claims priority, application France May 2, 1955
2 Claims. (Cl. 43—147)



1. An apparatus for projecting substances comprising a pulse-jet unit having a gas discharge pipe facing towards the rear of said unit and an aerodynamically-operating air intake duct, a tube having an inlet end opposite said intake duct and substantially coaxial therewith for collecting leak gas issuing therefrom and an outlet end extending substantially parallel to said discharge pipe and facing towards the rear of said unit, means for introducing the substances to be projected into the pulsatory stream generated by the pulse-jet unit, and means for orientating the stream issuing from the pipe and tube.

2,838,870
MARBLE RUNWAY GAME
Charles L. Morse, South Dartmouth, Mass.
Application January 18, 1955, Serial No. 482,525
5 Claims. (Cl. 46—43)



1. A marble game comprising a base, spaced support means on said base, elongated runways removably engaged with each of said support means, said runways and support means co-operating to position the runways on different elevations and in inclined relation, means integral with each of the runways formed at one end thereof and rotatably engageable with another runway or with said support means to removably fasten the runways to each other and the base in stacking relationship, said runways being laterally movable relative to each other, one runway being located to discharge into another runway so that freely movable objects are adapted to roll along the runways from one to another and be discharged from the lowermost runway on to the base, said runways each having an elongated guide groove portion with a depending lip at one end thereof projecting into the guide groove of the lower adjacent runway whereby to secure said runways against relative lateral movement thereof.

2,838,871
SOUNDING TOY
Frank M. Boring, Smithfield, N. C.
Application February 1, 1957, Serial No. 637,691
8 Claims. (Cl. 46—52)



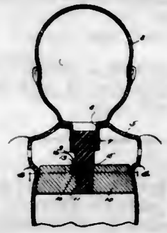
1. A sounding toy comprising an elongated toy body having a forward portion defining a nose and a rear portion defining a tail, an intermediate portion of the toy body being interposed between and connecting adjacent ends of the nose and tail and constituting a hollow chamber forming a siren stator, said stator comprising a casing defining the chamber and including a front wall, a rear wall and an annular side wall, a siren rotor loosely disposed within said chamber including an annular side wall and a rear wall, a spindle extending axially through and secured to said rotor, said front and rear walls of the casing having aligned bearings in which the ends of said spindle are journalled for rotatably mounting the rotor in the casing, said rotor having an open front facing toward the casing front wall, vanes disposed within said rotor and supported by the rear wall thereof, said vanes all being pitched in the same direction such that air passing into said rotor, parallel to the axis thereof, will impinge against the vanes to revolve the rotor and will be deflected centrifugally by the vanes, said front wall of the casing having openings for admitting air to the casing and rotor, said casing side wall and the rotor side wall having slots for escape of air from the casing when the rotor slots are in registration with the casing slots and whereby the escaping air will be emitted in puffs as the rotor is revolved.

2,838,872
INFLATABLE FIGURE TOY
Douglas J. Beck, East Longmeadow, Mass., assignor to Kestral Corporation, Springfield, Mass., a corporation of Massachusetts
Application April 27, 1955, Serial No. 504,240
5 Claims. (Cl. 46—87)



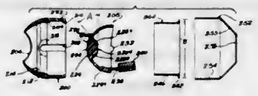
1. An inflatable toy comprising two sheets of flexible expansible material sealed together along their edges, said sealed edges defining a two dimensional development of a three dimensional figure including a body portion and at least one projecting body appendage, said sheets being sealed together inwardly of said sealed edges along a closed line of seal, the portions of said sheets between said sealed edges and said closed line forming an inflatable chamber isolated from the portion enclosed by said closed line, said last-named portion being positioned in part at least adjacent said sealed edge and opposite said projecting body appendage, said portion enclosed by said closed line being provided with an opening through which said appendage may be folded to extend from and be held at an angle to the body portion of the toy, and means for inflating said chamber.

2,838,873
DOLL WITH REMOVABLE OR INTERCHANGEABLE HEADS
William A. Taylor, Detroit, Mich.
Application July 14, 1955, Serial No. 522,105
1 Claim. (Cl. 46—164)



A doll comprising a hollow torso-shaped body having a neck opening, a partition of solid construction secured within the body at the neck region thereof, said partition having a tapered opening in alignment with said neck opening, an annular inwardly projecting rib adjacent the upper end of said tapered opening, a head section, a tapered rubber plug connected with the head section adapted to extend into the opening of said partition, and said plug having an annular groove in which said rib snugly engages for frictionally holding said plug and head section to the body against accidental displacement, said partition having a cut away portion adjacent to the opening, said cut away portion defining a shoulder, and a pin extending laterally from said plug adapted to move into said cut away portion and engage under said shoulder, said rib being positioned above the bottom of said cut away portion.

2,838,874
DOLL'S EYES
Harry Brudney, New York, N. Y., assignor to Dollac Corporation, New York, N. Y., a corporation of New York
Original application November 2, 1953, Serial No. 389,700, now Patent No. 2,753,660, dated July 10, 1956. Divided and this application March 26, 1956, Serial No. 573,770
4 Claims. (Cl. 46—169)

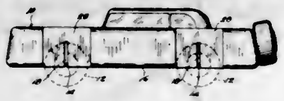


1. A doll's eye comprising a resilient plastic eye socket having trunnion receiving grooves, an eyeball having trunnions pivotally mounted within said grooves and having a pupil and iris area substantially exposed through an eye opening in a forward portion of said socket, a reinforcing ring within said socket to give radial support thereto and to retain said trunnions in respective grooves, and a metal casing enclosing said eyeball at the rear, said casing tightly engaging the exterior surface of the socket and compressing the socket on the ring so that the socket is squeezed between the ring and casing.

2,838,875
TOY VEHICLE
Romeyn S. Hammond, Dearborn, Mich., and Jean Adam Siegfried, Worcester, Mass., assignors to Marketing Specialists, Inc., Chicago, Ill., a corporation of Illinois
Application April 20, 1955, Serial No. 502,564
12 Claims. (Cl. 46—201)

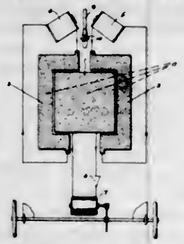
1. A toy vehicle comprising a body and wheels operably associated with and normally projecting below the under portion of said body for rolling said vehicle

over a supporting surface, and means accommodating retraction of said wheels substantially perpendicularly



to said supporting surface a distance at least as great as the extent of projection of said wheels below the bottom surface of said body.

2,838,876
BASIC ELECTRICAL CIRCUIT FOR LIGHT DRIVEN TOYS
Bonnie Smith, Jr., Philadelphia, Pa.
Application March 10, 1955, Serial No. 493,527
5 Claims. (Cl. 46—244)

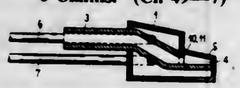


1. In combination with a dirigible toy having steering means; a self contained electric power circuit comprising a centrally located light-to-electrical energy conversion surface for the production of electrical drive power, said surface having connected thereto a series loop circuit wherein a circuit making and breaking switch is electrically connected in combination with an inductive drive motor; said central conversion surface being in part surrounded by but insulated from right and left rim energy conversion surfaces which are connected respectively to electrically balanced right and left maneuvering series loop circuits, said maneuvering loop circuits each containing an electromagnet, said electromagnets being physically located in such manner as to selectively actuate said steering means in response to light falling on said right or left rim surfaces.

2,838,877
SOIL CONDITIONING
Kenneth C. Working, Long Beach, Calif.
No Drawing. Application May 4, 1953
Serial No. 353,000
6 Claims. (Cl. 47—58)

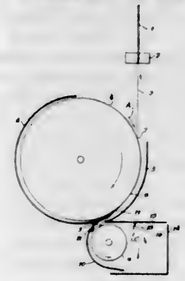
1. As an agricultural soil additive a soluble lime salt of the acid extract from the wood of redwood trees, formed by extracting said wood in the form of sawdust, chips, and the like, with hot water and neutralizing the aqueous acid solution with lime.

2,838,878
DEVICE FOR FUSING ELECTRODES INTO TUBES
Oskar Bachmann, Kaiserstuhl, Switzerland
Application February 10, 1954, Serial No. 409,465
Claims priority, application Switzerland February 18, 1953
6 Claims. (Cl. 49—7)



2. A device for fusing electrodes into deformable tubes, comprising in combination: a pair of hollow double-walled jaws arranged for rectilinear movement toward and away from one another, each jaw having a pressing face extending transversely with respect to the direction of said movement and a burner face slightly inclined to the said direction and having discharge openings therein, each jaw having an inner duct connected in operation to a source of supply of combustion gas and in communication with the discharge openings provided in the said inclined face, the walls of each jaw and its duct forming a jacket connected in operation to the supply and drain pipes of a coolant, the said coolant flowing in operation around the said inner duct and along the inner face of the outer wall of the said double-walled jaw, and flaming jets of the said combustion gas emerging in operation from the said discharge openings substantially transversely to the said direction of movement.

2,838,879
APPARATUS FOR DRAWING GLASS FILAMENTS
Werner Schuller, Alsager, England
Application May 12, 1955, Serial No. 507,924
Public Law 619, August 23, 1954
Patent expires May 6, 1969
3 Claims. (Cl. 49—17)



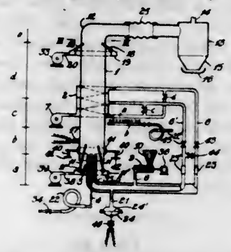
1. Apparatus for the manufacture of glass threads, comprising a main drawing drum for initially picking up filaments drawn from molten glass material at a point on its periphery, an auxiliary drawing drum disposed underneath the main drawing drum and positioned to pick up the filament at a point on its periphery, and a device for breaking the filament between the points of pick up on the main and auxiliary drawing drums.

2,838,880
FLOW SPOUT CONSTRUCTION
Alfred H. Bailey and John C. Blaine, La Salle County, Ill., assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application January 2, 1957, Serial No. 632,158
7 Claims. (Cl. 49—55)



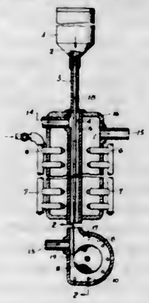
1. In a melting furnace for containing a body of molten material and provided with an opening through which the molten material flows in a continuous sheet form, a shoulder block provided at each side of the opening, an edger block provided at each side of the opening beyond the shoulder block along the path of movement of the sheet, support means engageable with the shoulder block for supporting said shoulder block for movement transverse to the path of movement of the glass sheet for controlling the width of said sheet, and mounting means carried by the support means and engaging the edger block for selectively positioning said edger block in any one of a plurality of planes.

2,838,881
APPARATUS FOR THE MANUFACTURE OF GLASS BEADS
Emile Plumat, Gilly, Belgium, assignor to Union des Verreries Mecaniques Belges Societe Anonyme, Charleroi, Belgium, a Belgian company
Application July 16, 1954, Serial No. 443,936
Claims priority, application Belgium July 18, 1953
7 Claims. (Cl. 49—58)



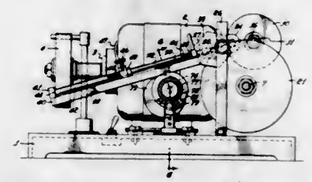
1. Apparatus for forming glass beads from crushed glass particles comprising a substantially vertical column, an upwardly directed burner positioned within the lower end of said column, a bead collecting member attached to the upper end of said column, a central fuel pipe within said burner, an air pipe concentrically surrounding said fuel pipe, a jacket surrounding said column intermediate the ends thereof, connecting means between said air pipe and said jacket, means for supplying fuel to said fuel pipe, means for supplying air under pressure to said air pipe and jacket, means for feeding said glass particles into said air pipe, and means including said jacket and said connecting means for preheating the air in said pipe to a temperature slightly above the softening point of said crushed glass particles, said glass particles being fed into said air pipe at a point spaced sufficiently before said burner for said glass particles to be heated to just below the softening point immediately prior to entry in said burner.

2,838,882
METHOD OF PRODUCING GLASS
Alexander Silverman, Pittsburgh, Pa.
Application January 30, 1952, Serial No. 268,985
3 Claims. (Cl. 49—77)



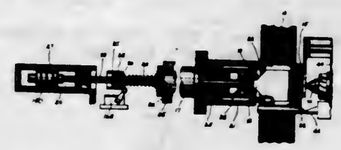
3. A method of forming molten glass, which comprises mixing particles of an element whose oxide is a glass-forming oxide and forming the same into a coherent rod shape, passing said rod into an oxidizing zone in the presence of ambient oxygen, igniting the rod in said zone to cause oxidation of said element, maintaining said rod in said zone at a temperature sufficient to melt the resulting glass mixture produced by said oxidation, and melting said rod in said zone.

2,838,883
HYPODERMIC NEEDLE SHARPENER
Carlton H. Hall, Glendale, Calif., assignor of one-fourth to Stephen S. Thomas and Ethyl F. Thomas, Bellflower, Calif. (jointly)
Application August 20, 1956, Serial No. 605,076
3 Claims. (Cl. 51—92)



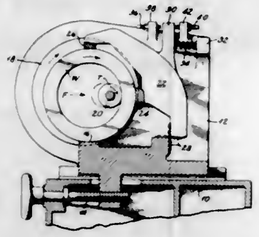
1. A device for sharpening the beveled tip of the capillary tube of a hypodermic needle, including a rotatable abrasive wheel, an elongated support rockably mounted for movement about an axis parallel to the axis of rotation of the wheel, means for adjusting the degree of rocking movement of the support, means for reciprocating said support in a direction parallel to the axis of rotation of the wheel, a capillary tube holder adapted to be reciprocated in step with movement of the support, the said holder having an arcuate surface adjacent to and conforming to the curvature of the wheel and the said arcuate surface being positioned adjacent to the periphery of said wheel, the needle resting on said support, and means constantly urging movement of the needle toward the capillary tube holder, the said holder provided with a capillary tube receiving bore to position the beveled tube tip in engagement with the periphery of said wheel, the tube holder supporting the tube tip against flexing.

2,838,884
PISTON GRINDERS
Harold E. Balsiger and William E. Happel, Waynesboro, Pa., assignors to Landis Tool Company, Waynesboro, Pa.
Application December 2, 1954, Serial No. 472,579
14 Claims. (Cl. 51—101)



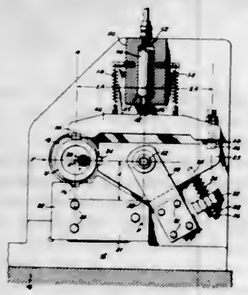
14. In a grinding machine, a work carriage, a footstock and a headstock on said work carriage for rotatably supporting a workpiece, an ejector in said headstock, hydraulic means including pistons and cylinders for actuating said footstock and said ejector, a pump for supplying fluid under pressure to said cylinders, means including conduits directly connecting said pump with each of said cylinders for exerting a relatively low pressure at all times during a grinding cycle in the head end of each cylinder to urge said ejector and footstock center toward one another, a valve connected to each of said conduits for alternately connecting said conduits with higher pressure or with exhaust, and means for actuating said valves in a predetermined timed relation.

2,838,885
COMPENSATING RADIAL WORK SUPPORT FOR AN INTERNAL CENTERLESS GRINDER
Roald Cann, Weathersfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt.
Application April 1, 1957, Serial No. 649,765
4 Claims. (Cl. 51—103)



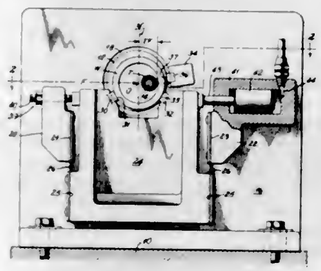
1. In an internal grinding machine, including a headstock supporting a rotatable workdriver, a tool in working relationship to the interior of an annular workpiece on which an internal surface is to be generated concentric with a preformed external surface of said workpiece, means to impart a relative transverse motion between the axes of said tool and workdriver along a line of feed; a work-supporting apparatus comprising: first, second, and third shoes for radially supporting a workpiece on said preformed surface and in frictional relationship thereto, said shoes being arranged in predetermined relative positions defining a periphery of a circle corresponding to a median outside diameter workpiece; means rigidly connecting said first shoe to said headstock; a rockable member carrying said second and third shoes peripherally spaced 90° in relative fixed positions, said second shoe being located on said line of feed and said first and third shoe being located diametrically opposite each other; said rockable member being pivoted about a point located on a line running through the center of a median diameter workpiece and between said first and second shoe, said line being a diagonal in a rectangle having one side parallel to said line of feed of a length two times the length of the other side normal thereto.

2,838,886
COMPENSATING RADIAL WORK SUPPORT FOR AN INTERNAL CENTERLESS GRINDER
John W. Lovely, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application June 5, 1957, Serial No. 663,685
6 Claims. (Cl. 51—103)



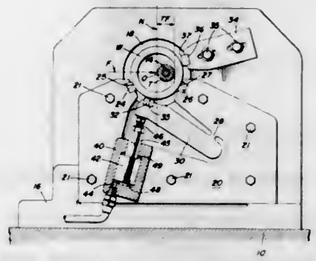
1. In an internal grinding machine, having a rotatable work driver, a tool adapted to be positioned in working relationship to the interior of an annular workpiece on which an internal surface is to be generated concentric with a performed external surface, means to impart a relative transverse movement between the axes of said tool and work driver along a line of feed; a radial work support comprising: first and second shoes radially supporting a workpiece on said performed external surface and in frictional relationhip thereto, the first shoe being a single-line support and supporting the workpiece on a line parallel to said line of feed and being rigidly mounted in relation to the work driver, the second shoe supporting the workpiece with a wall of the workpiece interposed in the space between the shoe and the tool in the path of said transverse movement, a movable member carrying the second shoe; a separate third shoe used as a sensing element contacting the preformed external surface of the workpiece when in grinding position, said third shoe located opposite one of said other two shoes to sense the diameter of the workpiece; and a separate movable member carrying said third shoe and cooperating with said movable member carrying the second shoe to position said second shoe carrying member to compensate for random differences between the outer diameter of successive workpieces.

2,838,887
COMPENSATING RADIAL WORK SUPPORT FOR AN INTERNAL CENTERLESS GRINDER
John W. Lovely, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application July 2, 1957, Serial No. 669,554
6 Claims. (Cl. 51—103)



1. In an internal grinding machine having a base supporting a rotatable tool spindle, a tool adapted to be placed in working relationship with an internal surface of an annular workpiece, a bed on the base supporting a head stock containing a rotatable work driver spindle provided with a face portion normal to the spindle axis for axially supporting an end face of the workpiece in frictional relationship thereto, the supports for the tool spindle and the work driver spindle being arranged for relative transverse movement along a line of feed running through the axis of the tool driver spindle, and improved means on the bed for radially supporting the perimeter of the workpiece for rotation about a support determined axis, said improved means comprising: a support cradle supported by resilient means on the bed, said means permitting a limited movement of the cradle parallel to the line of feed, a pair of support shoes on the cradle angularly straddling a bisector normal to the line of feed, these shoes radially spaced and positioned to place said support determined axis in the proximity of the line of feed; a third shoe supported by the bed in proximity of the line of feed such that a wall of the workpiece may be interposed between this shoe and the tool; and biasing means for displacing the cradle in a direction away from the position of the third shoe.

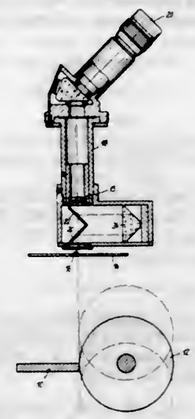
2,838,888
COMPENSATING RADIAL WORK SUPPORT FOR AN INTERNAL CENTERLESS GRINDER
Roald Cann, Weathersfield Township, Windsor County, and John W. Lovely, Springfield, Vt., assignors to Bryant Chucking Grinder Company
Application July 17, 1957, Serial No. 672,424
4 Claims. (Cl. 51—103)



1. In an internal grinding machine having a rotatable workdriver, a tool adapted to be placed in working relationship to the interior of an annular workpiece on which an internal surface is to be generated, means to impart a relative transverse movement to the tool and workdriver between the axes thereof along a line of feed extending through the axis of the tool; a compensating radial work-support apparatus comprising: a first pair of fixed shoes, angularly spaced about a line normal to the line of feed, work contacting face portions of these shoes spaced at a periphery of a circle defined by the work contacting faces of the shoes and having its center at the intersection between the line normal and the line of feed; a second pair of shoes, the first of these fixedly located with a work supporting face portion thereof radially outside said circle and in proximity of the line of feed, where a wall of a workpiece may be interposed between this shoe and the tool, and the second of these shoes movable between an inoperative and an operative position, where its work supporting face, in the inoperative position will be positioned outside said circle, and in the operative position will be positioned inside the circle, and together with the first shoe forms a grinding throat removed from the work supporting trough defined by said first pair of shoes; and means to move said second shoe.

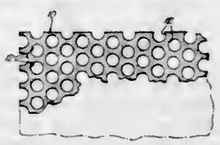
2,838,889
DEVICE FOR OBSERVING AN OPTICAL MATCHING ACTION
Richard Lankes, Munich, Germany, assignor to Hans Deckel, Munchen-Solln, Germany, and Friedrich Wilhelm Deckel, Post Tutzing, Germany
Application March 9, 1954, Serial No. 415,121
Claims priority, application Germany May 7, 1953
4 Claims. (Cl. 51—165)

2. A machine tool having a device for simultaneously observing the real images of the machining action of a tool on a work-piece and of a template showing the desired form of the work-piece, comprising in combination, an optical observing system with a single eye-piece and a single objective lens, a master of translucent material having contour lines thereon, a base member adapted to support a work-piece, a rotatably driven machining tool in operative engagement with said work-piece, said translucent master being located between the optical observing system and the machining position of the work-piece, and optical means for providing an elongated optical path along with the normal optical path in-between the work-piece and master for producing sharp focus of



the real image of said work-piece and master through the eye-piece of the optical observing system.

2,838,890
CELLULOSIC PRODUCT
James W. McIntyre, Appleton, Wis., assignor, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware
Application April 18, 1955, Serial No. 502,039
3 Claims. (Cl. 51—185)

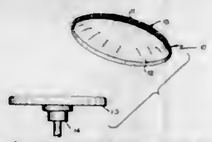


1. A flexible base for an abrasive coated sheet comprising a paper sheet having a large number of relatively small openings throughout the sheet, said sheet having a basis weight of between about 30 to 150 pounds per ream of 480 sheets, 24 by 36 inches, each of the openings in said sheet having an area within the range of from about .003 to .030 square inch and the total area of the openings comprising from about 20 to 55 percent of the total area of said sheet, said perforated sheet being impregnated with a butadiene acrylonitrile elastomer in an amount not greater than about 100 percent, by weight, of the basis weight of the paper sheet, and a barrier coating of a plasticized vinyl chloride covering said perforated sheet and extending through the openings therein to protectively cover the surfaces of said sheet and the opening-defining edges therein, said barrier coating being present in an amount of from about 2 to 40 pounds per ream of the perforated paper sheet.

2,838,891
COATED ABRASIVES
George L. Haywood, Latham, N. Y., assignor to Norton Company, Troy, N. Y., a corporation of Massachusetts
Application April 8, 1957, Serial No. 651,463
1 Claim. (Cl. 51—195)

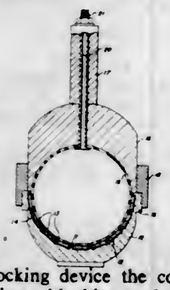
A wrinkle-free, non-interrupted coated abrasive disc which has been permanently deformed from a normally planar form to a form wherein the periphery of said disc is curved downwardly a substantially uniform distance below the plane containing the center of said disc, said curvature being substantially nearer the periphery than the center of said disc, comprising: a fibrous backing

member; adhesive means on one side of said backing member firmly bonding thereto abrasive grain; a plurality of fine fractures in said adhesive means extending through to said backing member; and a plurality of fibers in said



backing member in the areas covered by said fine fractures permanently displaced from the positions they occupied in said backing member when said member was in normally planar form.

2,838,892
LENS BLOCKING DEVICE
Joseph A. Blash, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application June 28, 1956, Serial No. 594,603
5 Claims. (Cl. 51—277)



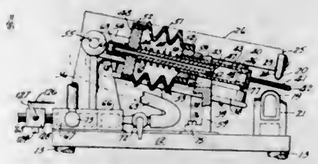
1. In a lens blocking device the combination with a blocking body having a blocking surface on which a plurality of lens blanks are adapted to be mounted through the use of pitch for an abrading operation of their exposed surfaces, of a hollow blocking tool filled with a fluid and having a resilient wall adapted to engage all of the exposed surfaces of the lens blanks on said blocking surface when the tool is brought down against said blanks, whereby said resilient wall takes a shape substantially complementary to that of the blocking surface and presses all of said lens blanks into contact therewith regardless of any difference in thickness between the blanks.

2,838,893
METHOD AND DEVICE FOR PROCESSING AMPULS AND THE LIKE
Helmut Sickel, Hamburg, Germany
Application March 1, 1952, Serial No. 274,464
Claims priority, application Germany March 5, 1951
35 Claims. (Cl. 53—37)

6. Method for processing ampuls and the like of the character described, which substantially comprises conveying said ampuls successively to the various treating means at successive treating stations arranged along the path for conveying ampuls, keeping the spears of said ampuls uniformly oriented in adjusted position by supporting said ampuls at said treating stations by a plurality of equal ampul supporting means uniformly supporting said ampuls at spaced points along their length, one of said spaced supporting points being situated above the bulge at said spear below the point of prospective sealing, the other of said spaced supporting points being situated at any point along the length of said ampul below said first supporting point, thereby warranting immediate and accurate operative relation of said ampul spears to the respective treating means at said treating stations, and subjecting said ampuls at said treating stations to the respective treatments at and through said uniformly oriented ampul spears in a continuous correlated cycle of operation.



2,838,894
APPARATUS FOR EVACUATING AND SEALING BAGS
Edward Paikens and Douglas M. Skoglund, Minneapolis, Minn., assignors to Kenfield Corporation, Minneapolis, Minn., a corporation of Minnesota
Application September 26, 1956, Serial No. 612,248
8 Claims. (Cl. 53—79)

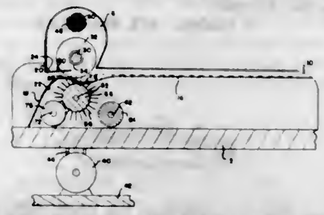


4. A vacuum system for operating bag evacuating and heat-sealing apparatus having clamping and sealing jaws and an evacuating nozzle to remove fluid from a filled bag before sealing, said system comprising a vacuum power mechanism connected with said clamping and sealing jaws for bringing them into engagement with unsealed margins of a bag, said bag having an evacuating nozzle inserted through the unsealed margin and lying between the clamping and sealing jaws, a vacuum power mechanism connected to said evacuating nozzle for retracting said nozzle from the unsealed bag margins and from the clamping and sealing jaws, a pair of passageways leading from a common source of fluid evacuation respectively to said nozzle and to said second mentioned power mechanism, and valve means in the passageway leading to the second mentioned power mechanism restricting the passage of fluid therethrough to delay actuation of said second mentioned power mechanism whereby the nozzle will not be retracted until said bag has become evacuated of its fluid.

2,838,895
CUTTING MACHINE
Arthur G. Settel, Bronx, N. Y.
Application March 30, 1955, Serial No. 498,017
9 Claims. (Cl. 53—111)

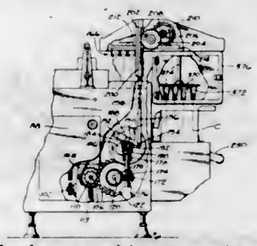
1. A machine for cutting fur bearing skins comprising a plurality of cutting elements mounted parallel to each other, a plurality of pointed elements mounted around an axle and extending radially therefrom so that the ends thereof pass between said cutting elements as said axle is rotated, a shelf for guiding a fur bearing skin to the pointed elements so said skin will be carried by them to said cutting elements, said pointed elements being adapted

to penetrate the hair and hold the leather side of the skin against said cutting elements and to carry the cut fur bearing skin past said cutting elements, the cutting edges of said cutting elements passing only between the pointed ends of said pointed elements so that only the leather of said fur bearing skin is cut by said cutting elements, and fingers on the opposite side of said cutting elements from said shelf adapted to disengage the cut fur bearing skin from said pointed elements and guide it out of the machine.



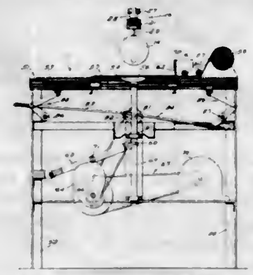
5. A machine for cutting fur bearing skins comprising a plurality of cutting elements mounted parallel to each other, a plurality of pointed elements mounted around an axle and extending radially therefrom so that the ends thereof pass between said cutting elements as said axle is rotated and a shelf for guiding a fur bearing skin to the pointed elements so said skin will be carried by them to said cutting elements, said pointed elements being adapted to penetrate the hair of said fur bearing skin and hold the leather side of the skin against said cutting elements and to carry the cut fur bearing skin past said cutting elements, the cutting elements passing only between the pointed ends of said pointed elements so that only the leather of said fur bearing skin is cut by said cutting elements, and means for projecting a card under the cut skin at the same rate as said skin to receive said cut skin.

2,838,896
CASE LOADER
John F. Currivan, East Hampton, and William C. Kerker, Hopatcong, N. J., assignors to Lynch Corporation, Anderson, Ind., a corporation of Indiana
Application September 21, 1954, Serial No. 457,386
2 Claims. (Cl. 53—166)



1. A case loader comprising a continuously driven bottle feed conveyor having guide means for orienting bottles carried thereon into spaced parallel rows, a bottle lift platform positioned at the discharge end of said conveyor for receiving bottles and defining thereon a loading pattern, means for raising said platform above the traveling level of said conveyor to elevate the loading pattern in separated relation from the forward feeding pressure exerted by the conveyor-fed bottles therebehind, a transfer head overlying said platform and having bottle-gripping means operative to grasp the top portions of the bottles of said loading pattern when elevated by said platform and to hold them as a unitary group in downwardly suspending relation therefrom, means for moving said transfer head to a case loading station for suspending said loading pattern in fixed position thereover, and elevator means at said case loading station for raising an empty case upwardly in surrounding relation about said loading pattern, the height of travel of said elevator being predetermined so as to position the case bottom closely adjacent the bottoms of the bottles of said loading pattern.

2,838,897
WRAPPING MACHINE
Jean S. Ponten, Oakland, and Olaf W. Ponten, Berkeley, Calif.
Application March 3, 1953, Serial No. 339,992
9 Claims. (Cl. 53—226)



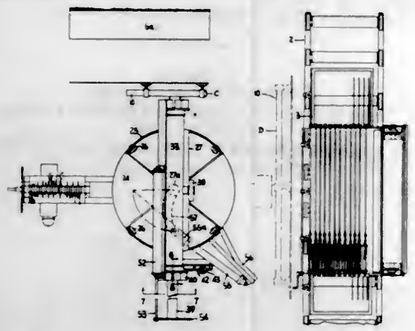
1. An improved wrapping machine comprising a cup adapted to support an object to be wrapped and a pliable film upon said cup beneath an object to be wrapped, a pair of plates disposed on opposite sides of said cup and mounted for reciprocation into and out of engagement with each other, drive means, connecting means joined between said drive means and said cup for lowering said cup between said plates and joined between said drive means and said plates for moving same together as said cup is lowered whereby the object will be gravitally lowered and whereby said pliable film is gathered thereby about the object to be wrapped, heating means upon adjacent edges of said plates for heating said gathered film to seal same about said object to be wrapped, and means for resiliently and forcibly urging said plates towards each other and maintaining same in relatively closed position whereby the heaters may seal said film.

9. In a wrapping machine having a vertical reciprocating object-supporting member and means for wrapping an object with a sheet of wrapping material, the combination therewith of means for conveying a plurality of objects to be wrapped to adjacent said object-supporting member, said means including a vertically disposed member, a horizontal arm carried by said member, a plurality of fingers carried at the end of said arm, means for periodically rotating said shaft from a first position to a second position in which said fingers overlie said object-supporting member and for returning the shaft to said first position, means for raising and lowering said arm, and means actuable upon said raising and lowering for closing and opening said fingers whereby an object may be grasped thereby and released when said fingers are over said object-supporting member.

2,838,898
GLASS HANDLING MECHANISM
William Owen, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application May 31, 1952, Serial No. 291,028
8 Claims. (Cl. 53—244)

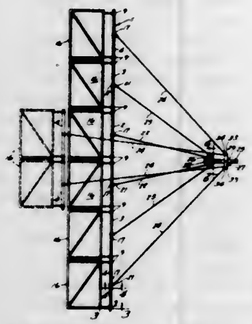
2. In a glass handling mechanism for stacking glass sheets in spaced relation within a container, in combination, a rotating and reciprocating ram having a device at one end thereof for positioning glass sheets within the container, a control mechanism for the ram causing progressive shortening of the forward stroke of the ram

as each glass sheet is disposed within the container, a plurality of spaced glass separator members mounted on the container for movement relative thereto and normally disposed in the path of movement of the glass into the



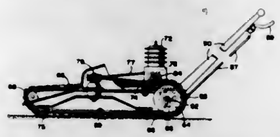
container, means releasably holding the glass separators out of the path of movement of the glass and selectively actuated to release the individual separators for return to normal position in front of the glass sheet after each glass sheet is disposed within the container.

2,838,899
DRAWBAR STRUCTURE
John R. Kovar, Anoka, Minn.
Application October 3, 1955, Serial No. 538,015
1 Claim. (Cl. 55—84)



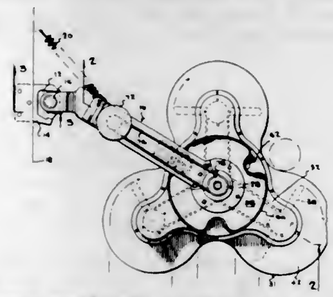
In a device of the class described, a relatively long drawbar comprising a central drawbar section, a pair of intermediate sections, and a pair of outer sections, each of said sections having an axial recess at one end and an axially extending male element at its other end, all but one of said male elements being adapted to be received in the recess of the adjacent section, anchoring means on each of said sections for attachment of a cultivator implement thereto, and mechanism for securing the drawbar to a pulling means, said mechanism comprising a rigid draft member in forwardly spaced relationship to the drawbar, a pair of relatively short equalizer bars pivotally mounted intermediate their ends to said draft member on generally vertical axes spaced in the direction of movement thereof, a pair of forwardly converging flexible draft elements secured at their front ends to one of said equalizer bars intermediate the center and opposite ends thereof and at their rear ends to said central section, a second pair of forwardly converging flexible draft elements secured at their front ends to the outer ends of said one of the equalizer bars and at their rear ends each to a different one of said intermediate drawbar sections, and a third pair of forwardly converging flexible draft elements each secured at its front end to a different end portion of the other of said equalizer bars and at its rear end to one of the outer drawbar sections.

2,838,900
ROTARY MOWER WITH ENDLESS TREAD SUPPORTING MEANS
Myron P. Laughlin, St. Petersburg, Fla.
Original application December 4, 1951, Serial No. 259,833, now Patent No. 2,742,751, dated April 24, 1956. Divided and this application October 27, 1955, Serial No. 543,085
3 Claims. (Cl. 56—25.4)



1. In a rotary lawnmower the combination which includes a platform, rotary cutter means disposed below the platform, power means mounted on said platform and operatively associated with said cutter means to drive the same, longitudinally disposed endless ground tread means mounted on said platform, said tread means having spaced upper and lower runs, said lower run being disposed below and parallel to said cutter means so as to contact and traverse the ground and support the platform and cutter means in spaced relation to the ground and serving also to maintain said cutter means in true parallel position with respect to the lawn being cut, said cutter means when driven rotating in a plane disposed between said upper and lower runs.

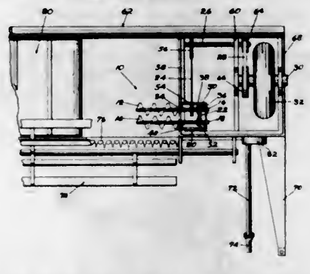
2,838,901
TRACTOR MOUNTED ROTATING DISK CUTTING ASSEMBLY WITH OVERLOAD RELEASE MEANS
Herbert W. Davis, Hackettstown, N. J.
Application May 10, 1957, Serial No. 658,407
5 Claims. (Cl. 56—25.4)



1. A mower attachment comprising an arm adapted to be positioned along and at an angle with respect to one side of a work vehicle frame, means on one end of said arm connecting said arm to said frame side for movement about a vertical axis, spring means carried by said arm and adapted to be operatively connected to said frame side for biasing said arm toward the angular position, a vertically disposed driven shaft rotatably journaled at its midportion in said arm adjacent the other end thereof and having the portion adjacent the upper end projecting above said arm and having the portion adjacent the lower end projecting below said arm, a plurality of vertically disposed stub shafts positioned in spaced relation about said driven shaft lower end portion, a weed cutter on the lower end of each of said stub shafts, said cutters lying in a common horizontal plane, an upstanding housing enclosing said stub

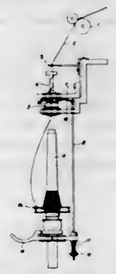
shafts, said driven shaft lower end portion, and said cutters and connected to said driven shaft midportion for free rotation about said midportion as an axis, the lower end of said housing being open, said stub shafts being rotatably supported in said housing, means connecting all of said stub shafts to said driven shaft for simultaneous rotation with said driven shaft, a drive shaft carried by said arm, means drivingly connecting said drive shaft to said upper end projecting portion of said driven shaft, and cooperating releasable latching means on said arm and said housing for holding said housing against rotation, the portion of said housing enclosing any of said cutters upon encountering a fixed object effecting the release of said latching means and permitting free rotating movement of said housing portion about said object.

2,838,902
WINDROW EDGE ALIGNER
Oscar W. Akerson, Webster, S. Dak.
Application May 21, 1956, Serial No. 586,027
3 Claims. (Cl. 56—189)



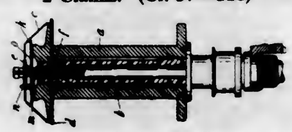
1. In a windrow edge aligner, the combination which comprises a frame, rectangular-shaped in plan having side and end rails, spaced parallel shafts extended through the frame and rotatably mounted in side rails thereof, said shafts having ends extended from one side of the frame and said extended ends having screw conveyors thereon, aligned sprockets positioned in the frame and mounted on said shafts, an endless chain trained over the sprockets, and a pulley on one of said shafts and positioned to receive an endless belt of a power source.

2,838,903
RING SPINNING MACHINES
Joseph Sutter, Raddon, France
Application February 9, 1956, Serial No. 564,533
Claims priority, application Germany April 22, 1955
4 Claims. (Cl. 57—51)



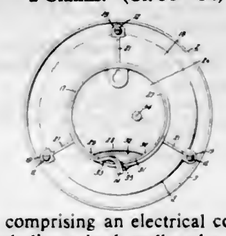
1. In a spinning machine, yarn twisting means disposed between yarn drawing means and a traveller for twisting yarn passing between said yarn drawing means and the traveller, said yarn twisting means comprising a rotary twisting element adapted to engage such passing yarn and substantially twist it during its passage between said yarn drawing means and said element, said element having a shaft portion adapted for the reception spirally therearound of at least one turn of the passing yarn, and having a laterally extending arm, at the end of the shaft portion operatively nearest to said drawing means, for entraining the yarn as the twisting element rotates.

2,838,904
FLYER FOR TEXTILE MACHINES
Frank Ridgway, Stockport, England, assignor to Arundel, Coulthard & Company Limited, Stockport, England, a British company
Application November 18, 1954, Serial No. 469,698
Claims priority, application Great Britain February 17, 1954
2 Claims. (Cl. 57—116)



1. A flyer particularly for use in machines for the uptwisting of yarn from double flanged bobbins, comprising a metal cap having a rolled over edge with a peripheral gap therein, which revolves co-axially around the upper flange of the bobbin, a guide made of wire with its ends pointing in opposite directions and with a double hair pin bend in planes at right angles to one another located between such ends but nearer to one end than the other, the ends of the guide projecting into the rolled over edge of the cap, the open side of the guide facing the desired direction to give the guide self threading properties.

2,838,905
ELECTRIC CLOCK CORD STORAGE DEVICE
Chester B. Marble, Ashland, Mass., assignor to General Electric Company, a corporation of New York
Original application November 2, 1954, Serial No. 466,371, now Patent No. 2,789,412, dated April 23, 1957. Divided and this application March 16, 1956, Serial No. 571,969
2 Claims. (Cl. 58—54)



1. A clock comprising an electrical cord and a casing, said casing including a back wall and a flange projecting rearwardly beyond said back wall, a rib extending transversely between spaced points on said flange to provide a confined space in conjunction with a portion of said flange between said spaced points, said portion of said flange having a plurality of notches therein for receiving a loop of said cord, said rib confining said cord and preventing any substantial inward movement thereof.

2,838,906
TOGGLE TYPE LINKAGE WITH DETACHABLE PIVOTS
Louis Edmond Valcourt, East Providence, R. I., assignor to Kestenman Bros. Mfg. Co., Providence, R. I., a corporation of Rhode Island
Application March 1, 1955, Serial No. 491,453
3 Claims. (Cl. 59—79)

1. In an expansible bracelet linkage comprising toggle-like units of upper and lower link-elements pivoted to-

gether at the center and pivotally connected at their ends to the ends of corresponding units with ornamental sheet-metal shells covering the exposed faces of said link-elements and crimped around their edges, the combination therewith of improved means for disconnecting certain of said link-units to provide for shortening the length of the bracelet or inserting additional elements therein to lengthen it, an egg-shaped opening at the end of one link-element and a headed stud having a reduced neck portion located at the end of an adjacent element, said egg-shaped opening having its larger end dimensioned to permit the head of said stud to pass therethrough and its smaller end shaped to closely surround the neck of said stud, a latch-member slidably mounted on the exposed face of said element having the opening to adapt it to slide thereacross, said latch-member formed with a circular recess at one



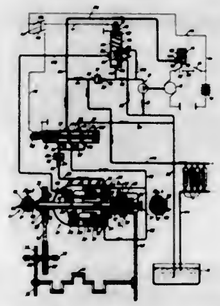
end conforming to the contour of the larger end of said opening in the link-element, said latch-member also having a straight edge adjacent its recess adapted to engage the neck of the stud under its head to lock it in place in the smaller end of said opening when said latch-member is slid across the opening, an aperture in said shell and manually-operable means on said latch-member accessible without removing the ornamental shell or disassembling other parts of the linkage whereby said latch may be engaged to slide it in one direction for releasing it from under the head of the stud to permit said head to pass through the opening and for sliding said latch-member in the opposite direction to engage it under the head of the stud to secure it against removal from the opening at the end of an adjacent link-element, said means comprising an extension extending through said aperture.

2,838,907
POWER UNITS COMPRISING AN INTERNAL COMBUSTION ENGINE AND AN EXHAUST DRIVEN TURBO-SUPERCHARGER
William Geoffrey Cowland, London, England, assignor to D. Napier & Son Limited, London, England, a company of Great Britain
Application February 3, 1953, Serial No. 334,846
Claims priority, application Great Britain February 7, 1952
3 Claims. (Cl. 60—13)



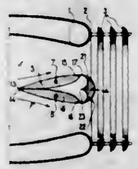
1. A power unit comprising a multi-cylinder internal combustion engine, at least two exhaust conduits each individually connected to and in constant communication with the exhaust port of at least one cylinder to receive exhaust gas therefrom during successive periods which do not overlap, a turbo supercharger including a compressor connected to supply the gaseous charge to the engine cylinders, and a turbine having nozzles through which the exhaust gas is delivered to the turbine rotor and including at least two sections connected respectively to the exhaust conduits, an interconnection between each exhaust conduit and one of the other exhaust conduits at a location remote from and independent of the connection between said conduits and their respective exhaust ports, and valve apparatus controlling the interconnections and operable to selectively establish or interrupt communication between each of the conduits and at least one of the other conduits.

2,838,908
STARTING AND CONTROL SYSTEM FOR A POWER PLANT
Hans-Joachim M. Forster, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application June 17, 1954, Serial No. 437,427
Claims priority, application Germany June 18, 1953
12 Claims. (Cl. 60—18)



1. In a starting and control system for a power plant of the character described, the combination comprising an internal combustion engine, fluid-operable controlling mechanisms, a main pump of the volumetric type geared to said engine, an auxiliary pump, a source of power independent of said engine connected to said auxiliary pump, feed conduits connecting each of said pumps to said fluid-operable controlling mechanisms, conduits for establishing an unrestricted communication between the outlet of said auxiliary pump and the inlet of said main pump and for establishing an unrestricted communication between the outlet of said main pump and the inlet of said auxiliary pump, and starter means rendering said conduits operative whereby said auxiliary pump will operate said main pump as a fluid motor to start said engine.

2,838,909
MEANS FOR THE DEFLECTION OF FLUID JETS
Henri L. P. Meulien, Courbevoie, France, assignor to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, Paris, France, a French company
Application July 6, 1953, Serial No. 366,321
Claims priority, application France July 17, 1952
6 Claims. (Cl. 60—35.54)



1. A device for deflecting a jet formed by a nozzle comprising a body within the jet, having a stationary part

and two movable members mounted for angular displacement relatively to each other and to said part and extending upstream of said part, the arrangement of said members and said part being symmetrical about the axis of said nozzle, said body being so designed that, in one relative position of said members and said part, the body has a streamlined shape allowing substantially undisturbed flow of the jet past said body whereas an angular displacement of said members from said relative position exposes to the jet two fluid intercepting surfaces adapted to deflect the jet and located on opposite sides of said axis, actuating means for displacing said members from said relative position, and resilient means for returning said members to said relative position upon release of said actuating means, said body containing an inner chamber bounded by said movable members and said stationary part, the arrangement being such that, when said members are displaced from said relative position, slot-like gaps are formed between said members and said part, said gaps connecting said chamber with the inside of the nozzle.

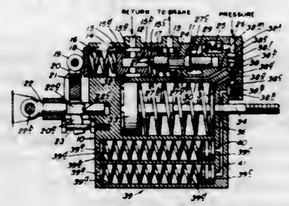
2,838,910
HYDRAULIC PUMPING JACK
Ray Bacchi, Daly City, Calif., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application August 18, 1955, Serial No. 529,241
1 Claim. (Cl. 60—52)



A pumping jack comprising a jack cylinder, a piston reciprocable in said cylinder, an oil pressure pump, a sump tank, means connecting said sump tank and the inlet of said pump, a main valve, means connecting the outlet of said pump to said main valve, means effective in one position of said main valve for connecting the outlet of said pump to said cylinder beneath said piston, means effective in another position of said main valve for connecting the outlet of said pump to said sump tank, a pilot valve, means for positioning said main valve in accordance with the position of said pilot valve, a conduit connected to said cylinder beneath said piston for transmitting pressure to urge said pilot valve in one direction, a branch line connected to said conduit and extending through said pilot valve to said main valve for control of flow in said branch line by said pilot valve, a check valve in said branch line between said conduit and said pilot valve permitting flow only toward said pilot valve, an accumulator in said branch line between said check valve and said pilot valve, and means including a pipe connected to said cylinder at a point traversed by said piston for transmitting pressure to urge said pilot valve in the opposite direction.

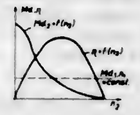
2,838,911
COMBINATION MASTER CYLINDER AND POWER BRAKE VALVE
Ralph L. Vick, Granada Hills, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application October 18, 1954, Serial No. 462,936
6 Claims. (Cl. 60—54.6)

1. In combination: a power brake valve having a power pressure inlet chamber, an exhaust port, a delivery port, and valve means movable from an "off" position in which it connects said delivery port to said exhaust port to an "on" position in which it transfers connection of said delivery port from said exhaust port to said pressure inlet chamber, said valve means having a pressure face exposed to delivery port pressure for opposing movement thereof into "on" position; a master cylinder having a delivery port and a master piston movable in response to manual force applied thereto to deliver fluid from said port; valve actuating means mechanically responsive to



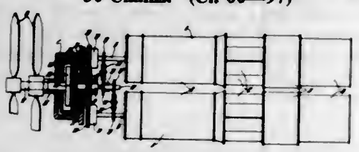
the reaction force opposing manual force applied to said master piston for urging said valve means toward "on" position with a force proportional to the reaction force resisting movement of said master piston in said cylinder; an inlet pressure port, and check valve means connecting it to said pressure inlet chamber for flow thereinto: and pressure-responsive valve means normally connecting said master cylinder delivery port to said power valve delivery port and disconnecting said delivery ports from each other in response to a pressure in said pressure inlet port exceeding the pressure in said brake valve delivery port.

2,838,912
FLUID DRIVE OF FOETTINGER TYPE
Otto Grebe, Olpe, Germany, assignor to Elektro Mechanik G. m. b. H., Olpe, Westphalia, Germany
Application May 23, 1955, Serial No. 510,335
Public Law 619, August 23, 1954
Patent expires August 23, 1974
2 Claims. (Cl. 60—54)



1. A hydro-dynamic torque converter comprising a rotary bladed pump member, a rotary bladed turbine member and a stationary bladed reaction member arranged so as to establish a toroidal fluid circuit, the fluid in said circuit being a mixture of oil and magnetizable particles, the blades on said members and the portions of said members themselves in the vicinity of the blades where turbulence is most likely to occur being made of non-magnetizable material, a coil disposed within the central space defined by said toroidal fluid circuit, and a D. C. current source for energizing said coil to magnetize said particles and to set up in said fluid circuit a closed path of magnetic lines of force extending around said coil, said lines of force passing through said magnetized fluid mixture within the vicinity of said non-magnetic blades and non-magnetic portions of said pump, turbine and reaction members and serving to prevent any movement of the magnetized particles in said fluid mixture transversely out of said fluid stream thereby preventing turbulence in said mixture.

2,838,913
AIRCRAFT POWER SYSTEM AND CLUTCH CONTROL THEREFOR
Victor W. Peterson and Herbert H. Schnepel, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 15, 1950, Serial No. 174,052
30 Claims. (Cl. 60—97)

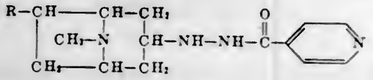


1. In combination, a driving shaft, a driven shaft, a friction clutch between the shafts adapted to couple the shafts during rotation of the driving shaft, means connected to the clutch to engage the clutch, a hydraulic motor connected to the clutch for providing thrust to disengage the clutch, and means responsive to rotation of the driven shaft above a predetermined speed for increasing the clutch-engaging force and thereby the friction of the clutch to provide full-load torque-carrying capacity, the last-named means including means for at least partially venting the hydraulic motor.

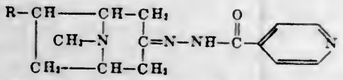
8. An aircraft propulsion plant comprising, in combination, a propeller assembly, two power units, a gear unit connecting the power units to the propeller assembly, a clutch between each power unit and the gear unit, a starter, means for coupling the starter to either power unit, hydraulic means for engaging the clutches, a pump, means for driving the pump by the starter and the power unit coupled thereto, means for driving the pump by the propeller assembly, a control valve supplied from the pump and controlling the hydraulic means, and means responsive to the speed of the power unit for conditioning the control valve for engagement of the corresponding clutch.

2,838,914
ISONICOTINIC ACID HYDRAZIDE DERIVATIVES
Jack Bernstein, New Brunswick, and William A. Lott, Maplewood, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application July 3, 1957
Serial No. 669,709
15 Claims. (Cl. 260—292)

1. A compound selected from the group consisting of bases of the general formulae



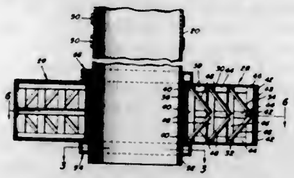
and



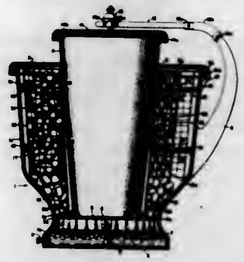
and salts thereof, wherein R is selected from the group consisting of hydrogen, lower alkyl, hydroxy, and lower alkoxy.

2,838,915
REMOVABLE PONTOON MOUNTING
Louis J. Roussel, New Orleans, La., assignor to Universal Drilling Company, Inc.
Application April 9, 1956, Serial No. 576,979
3 Claims. (Cl. 61—46.5)

1. In combination with a caisson having a lower end thereof intended to project down into the bottom of a body of water to support a load imposed upon said caisson, a bearing pontoon, said bearing pontoon having a central opening receiving said caisson, said bearing pontoon being freely slidably mounted on the lower part of said caisson for limited vertical movement, said caisson extending down through said pontoon and having rigidly secured thereon upper and lower abutments of a size to freely pass through said pontoon, said pontoon being disposed intermediate said abutments, an upper load transferring ring carried by said caisson intermediate said upper abutment and the upper surface of said pontoon, said upper load transmitting ring having an internal diameter of a size to prevent passage upwardly beyond said upper abutment and an external diameter which is larger than the diameter of the central opening, and a lower retaining ring disposed beneath said pontoon and above said lower abutment, said lower retaining ring having an inner diameter of a size to prevent downward movement of said lower retaining ring over lower abutment and an external diameter of a size to prevent passage of said lower retaining ring through the central opening whereby said lower retaining ring serves to retain said pontoon on said caisson.



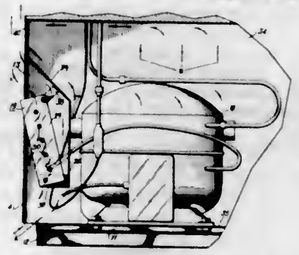
2,838,916
DEVICE FOR REFRIGERATING BEVERAGE CONTAINERS
Leonel Planes y Sola, Havana, Cuba
Application August 29, 1956, Serial No. 606,882
11 Claims. (Cl. 62—77)



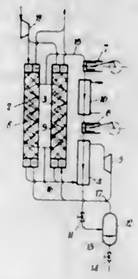
1. In a refrigerator, in combination, a casing providing a central area, a beverage glass positioned in said central area, a rotatable perforated disc mounted in said casing for supporting said beverage glass, said beverage glass projecting outwardly and above the top of the casing, a plurality of refrigerant baskets removably positioned in said casing and surrounding said beverage glass and adapted to contain a refrigerant, and means for maintaining said baskets in position surrounding said beverage glass.

2,838,917
REFRIGERATION CABINET
Harold R. Smithson, Westtown, Pa., assignor to Esco Cabinet Company, West Chester, Pa., a corporation of Pennsylvania
Application May 3, 1955, Serial No. 505,678
5 Claims. (Cl. 62—117.4)

1. In a refrigerating apparatus, the combination comprising a freezer cabinet providing an enclosure, a refrigerant conduit section mounted upon the wall structure of said cabinet exteriorly of the inner surface thereof and in heat exchange relationship with the atmosphere surrounding the same, insulating material within the cabinet wall portion upon which said refrigerant conduit section is mounted, a second conduit section mounted in the wall area enclosed by said insulation and in heat exchange relation with the interior of the cabinet and interconnected to receive refrigerant from said first conduit section, a flow-restricting device interconnecting said conduit sections, a compressor interconnected with said second conduit section to receive refrigerant therefrom, a condenser mounted to receive refrigerant from said compressor and conduct it toward said first conduit section in its refrigeration cycle, said condenser comprising a convection air-cooled unit mounted in an open space beneath an overhanging ledge of said cabinet structure and communicating through its lower end with the air space outside said cabinet, a vertically extending baffle plate lying inwardly of said condenser beneath said ledge and having an angularly bent extension at its upper end overlying said condenser and terminating below and substantially in line with a vertical wall portion at the outer edge of said overhanging ledge.

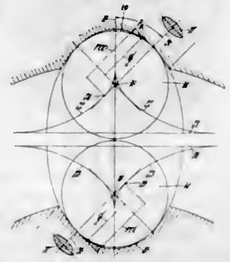


2,838,918
PROCESS FOR THE PARTIAL LIQUEFACTION OF GAS MIXTURE BY MEANS OF PRESSURE AND INTENSE COOLING
Rudolf Becker, Munich-Solln, and Wilhelm Hartmann, Munich, Germany, assignors to Gesellschaft für Linde's Eismaschinen Aktiengesellschaft, Hollriegelskreuth, near Munich, Germany
Application July 27, 1954, Serial No. 446,098
Claims priority, application Germany August 12, 1953
4 Claims. (Cl. 62—175.5)



1. A process for the partial liquefaction of gas mixtures by means of pressure and intense cooling, with concentration of the less readily-boiling components of said mixtures, and in which the work-performing expansion of compressed gases is utilized to generate cold, comprising the steps of compressing a gas mixture to a relatively low pressure of a few atmospheres, cooling the compressed mixture in a first, reversible heat-exchange zone, re-heating a minor part of the cooled, compressed mixture in heat-exchange with said mixture to approximately the temperature of the latter, compressing said minor part to high pressures of approximately 200 atmospheres, cooling the highly compressed gas mixture, expanding the resulting cooled high pressure gas mixture in a work-performing manner to approximately liquefaction pressures, partially liquefying said minor part by cooling the same in heat-exchange with the remainder of the cold, compressed gas mixture, in a second heat-exchange zone, and by throttling, expanding said remainder in a work-performing manner after said second heat-exchange zone, combining the resulting expanded gases with the non-liquefied portion of the said minor part, and leading the resulting cold, expanded mixture through said first reversible heat-exchange zone to provide a source of cold for the latter.

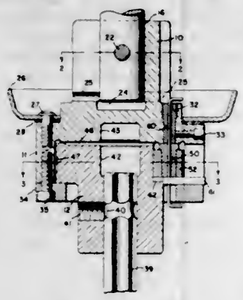
2,838,919
TORQUE TRANSMITTING UNIVERSAL JOINTS
William Cull, Shipley, England, assignor to Unipower Rzeppa Limited, Shipley, England
Application April 2, 1956, Serial No. 575,652
Claims priority, application Great Britain April 7, 1955
7 Claims. (Cl. 64—21)



1. A torque transmitting universal joint of the type referred to comprising an at least partly spherical inner member, an at least partly spherical hollow outer member, meridian race grooves in both said members, a series of drive transmitting balls engaged in said race grooves, and a spherically concentric cage for locating the balls positioned between said members, the cross section of each of said race grooves having a curvature other than that of the balls such as to provide localized elliptical contact areas with the balls and without contact between the balls and the roots of said grooves, the whole of each of said elliptical contact areas lying in a path inwards of the race groove margins and disposed so as to afford a predetermined pressure angle of operation and a track convergence angle of 2ω in the plane of the pressure angle, the contact areas between ball and race groove lying out of the critical plane containing the intersection of the driving axes of the members but on the same side of said plane by an amount equal to $d/2$ sine ω where d is the diameter of the ball, and spaced apart around the ball in the plane of the pressure angle by an angle of $180°-2\omega$, said pressure angle being the angle between the line of pressure passing through the centre of the ball and the centre of a track contact ellipse and a line passing through the centre of the ball and radial to the ball pitch circle when the latter is projected into the aforesaid critical plane containing the intersection of the axes of the inner and outer members and also bisecting the angle between said axes, the cross section of said meridian race grooves being constant but of varying depth arranged so as to cause the meridian pitch circles of the inner and outer race tracks to cross each other in the pressure angle plane where it contains the aforesaid critical plane at an included angle of 2ω when the axes of the inner and outer members are aligned, the angle ω being greater than the angle of friction for the balls and tracks, and the transmission torque by reason of said track convergence in the pressure angle plane has a component of force at right angles to an orbital plane passing through each ball centre and bisecting

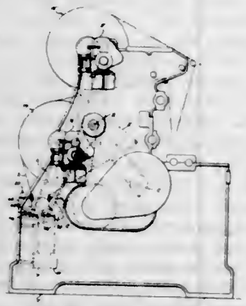
the angle of convergence of the mating tracks, which forces balance only when the ball centres are contained in the critical plane bisecting the angles between the driving axes of the members, whereby the cage and ball system of the joint is at all times held in the correct geometrical relationship with the driving axes of the members.

2,838,920
SHEAR PIN ASSEMBLY
Walter C. Hill, Jr., Wilmington, Hardy W. Smith, Claymont, and Winfield C. Twitchell, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 9, 1957, Serial No. 651,703
3 Claims. (Cl. 64—28)



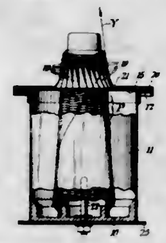
2. In a rotary coupling having a power input member and a power output member the combination comprising a pair of bushings with faces opposed in close clearance, the first of said bushings being fixedly mounted on said power input member and the second of said bushings being pivotally mounted in a vertical plane upon said power output member, a straight shear pin disposed within said bushings, said shear pin constituting the sole connection between said power input member and said power output member, and key means mounted on said power input member in a position supporting said second of said bushings when said shear pin is intact and displaceable out of said position supporting said second of said bushings upon severance of said shear pin.

2,838,921
LETOFF CONTROL MECHANISM
Albert E. Winslow, Greenville, S. C., and Morris M. Waldrop, East Providence, R. I., assignors to J. P. Stevens & Co., Inc., a corporation of Delaware
Application August 26, 1953, Serial No. 376,650
9 Claims. (Cl. 66—86)



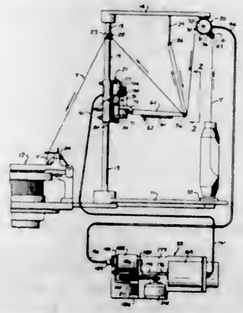
1. The combination with a warp letoff mechanism incorporating an adjustable drive means governing the linear letoff speed, of a control means for said letoff mechanism comprising a sun gear, a planet gear and a ring gear forming a three component planetary gear train in which all of the components are movably mounted, driving means for one of said components responsive to the operating speed of said drive means, driving means for another of said components responsive to the linear letoff speed, and means connecting the third component of said planetary gear train for adjusting said drive means from the movement of said third component resulting from the relative movement of the first two components of said gear train.

2,838,922
YARN CONTROL DEVICE
John Gift, Greensboro, N. C., assignor to Rosedale Knitting Company, Reading, Pa., a corporation of Pennsylvania
Application September 7, 1955, Serial No. 532,923
9 Claims. (Cl. 66—125)



1. In a device for controlling hard twisted or covered rubber core yarn against snagging and over-feeding incident to withdrawal endwise from a spirally-wound conical or a cylindrical supply package, a centrally apertured disk of resilient sheet material with integrally formed annularly-arranged tongues extending inwardly from a peripheral margin to the aperture, said tongues flexing upwardly upon impalement of the disk downwardly over the supply package to frictionally bear against the yarn winding around the upper end of the package; and a support by which the disk is sustained in operative relation to the package.

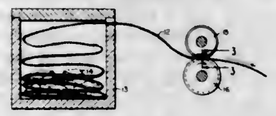
2,838,923
YARN TENSION CONTROLLED YARN FEEDING APPARATUS
Frederic H. Lassiter, Winston-Salem, N. C.
Application February 7, 1955, Serial No. 486,530
10 Claims. (Cl. 66—132)



1. Apparatus for feeding yarn to a variable-speed take-up means comprising a rotatable element about which at least a portion of said yarn is moved and from which said yarn extends to said take-up means, a sensing element resting upon the yarn at a point between the rotatable element and the take-up means, and means responsive to variations in the position of the sensing element caused by

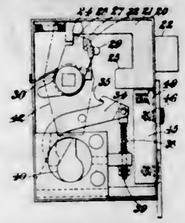
variations in the effective length of the portion of the yarn extending between the rotatable element and the take-up means, for automatically driving the rotatable element at a speed corresponding to the speed at which the yarn is taken up while maintaining the yarn under a predetermined tension, said means for automatically driving the rotatable element comprising a rotatable cylindrical member, driving connections between the cylindrical member and said rotatable element, a constantly driven disk mounted on an axis substantially radially of the axis of the said cylindrical member and spaced from said cylindrical member, a power transmission unit disposed between the cylindrical member and said disk, said transmission unit being movable substantially parallel to the axis of said cylindrical member and having means for transmitting rotation from the disk to the cylindrical member, and means responsive to variations in the movement of said sensing element either side of a predetermined position for imparting corresponding movement to the transmission unit to correspondingly vary the rate of rotation transmitted to the cylindrical member from the disk by said transmission unit and to correspondingly vary the rate of rotation of the rotatable element.

2,838,924
PROCESS OF MAKING LEATHER WELTING AND PRODUCT
Harold F. Davenport and John D. Hopkins, Bridgewater, Mass.
Application September 16, 1955, Serial No. 534,681
3 Claims. (Cl. 69—21)



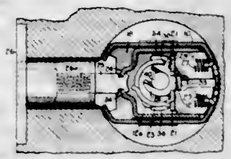
1. The process of making leather welting of uniform dimensions, which comprises the steps of cutting tanned split leather containing fat liquor into a strip of approximately the desired size, hardening the fat liquor in the strip by chilling the strip to below-freezing temperature, and then continuously mold-forming the chilled strip, thereby reducing its cross sectional area and imparting to it a smooth surface texture.

2,838,925
LOCKS
Headley Townsend Backhouse, Fort Charlotte Heights, Nassau, British West Indies
Application November 22, 1955, Serial No. 548,490
6 Claims. (Cl. 70—150)



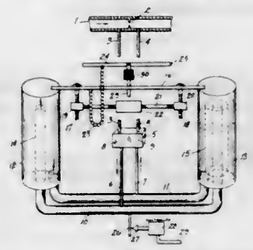
1. A lock comprising a casing, a bolt slidable along a path within the casing between a locking position in which a part of the bolt projects from the casing and an unlocking position in which the said part is withdrawn at least partly into the casing, an arm supported for rotation within the casing and having means for connection to an external handle for effecting such rotation, the arm being rotatable in one direction from a neutral position to engage and withdraw the bolt into the unlocking position and in the other direction to a holding position in which it lies as a strut in the path of the bolt and acts as a positive stop to hold the bolt in the locking position, a catch within the casing engageable with the locking arm when the arm is moved into the holding position and operable by such engagement to retain the arm in that position, the catch being releasable from the arm by means of a removable key and spring means urging the catch into engagement with the arm as aforesaid.

2,838,926
HOLD-BACK FOR CYLINDRICAL LOCK
Raymond W. Schmid, Havertown, Pa., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application November 18, 1954, Serial No. 469,669
4 Claims. (Cl. 70—216)



2. In a lock of the class described, a lock housing, a latchbolt retractor in said housing, a sleeve rotatable on said housing to move said retractor to latchbolt retracting position, a locking member rotating with said sleeve, means for moving said locking member relatively to said sleeve when the sleeve is in position corresponding to the throw position of the latchbolt and in position corresponding to the retracted position of the latchbolt, and a lug on said locking member coacting with a part of said housing when the locking member moves relatively to the sleeve whereby to lock the sleeve in each of said positions.

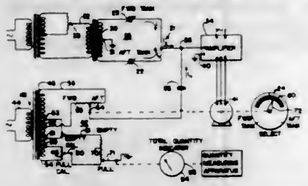
2,838,927
GAS DENSITY MEASURING DEVICE
Robert B. Gray, Erie, Pa., assignor to American Meter Company, Incorporated, Erie, Pa., a corporation of Delaware
Application March 29, 1955, Serial No. 497,639
3 Claims. (Cl. 73—30)



1. In a device for measuring gas density at flowing pressure in a gas line, a support, an inlet way in the support connected to an upstream point in the gas line, an outlet way in the support connected to a downstream point in the gas line, resilient inlet and outlet tubes vertically depending from the support and having upper ends connected respectively to the inlet and outlet ways, a rigid structure fixed to and supported by and sealed to the lower ends of the tubes having a sealed chamber spaced on one side of the tubes and a counter-balance weight spaced on the other side of the tubes whereby the structure functions as a scale beam and the tubes serve as the pivot for the beam, said structure having a line leading

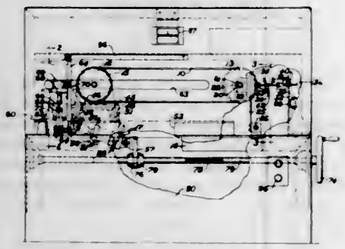
from the lower end of the inlet tube to the chamber and another line leading from the chamber back to the lower end of the outlet tube whereby a sample of gas flows through the chamber, and means for adding known weights to the structure to rebalance the structure to compensate for the weight of gas in the chamber.

2,838,928
CENTER OF GRAVITY RESPONSIVE APPARATUS
Raymond L. Bergeson, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 1, 1955, Serial No. 498,730
6 Claims. (Cl. 73—65)



1. In a control system, first responsive means responsive to the quantity of fluid in a first tank and having an output signal indicative thereof, second responsive means responsive to the quantity of fluid in a second tank and having an output signal indicative thereof, means combining said signals to provide a signal indicative of the actual quantity difference in the first and second tanks, means responsive to the total quantity of fluid in the first and second tanks, circuit means having a variable voltage source adjusted by said last mentioned means and providing a signal indicative of the desired quantity difference in the first and second tank units as total quantity changes, amplifier means, means applying said signals to said amplifier motor means, said amplifier means controlling said motor means in accordance with the resultant of said signals indicative of actual quantity difference and desired quantity difference, rebalance means connected in said circuit means and adjusted by said motor means for modifying said desired quantity difference signal to balance said signal indicative of actual quantity difference to establish a null condition, and means responsive to the amount of rebalance and thus the deviation between actual quantity difference and desired quantity difference.

2,838,929
TESTING ENDLESS BELTS FOR VIBRATION
Herman Freeder, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application March 23, 1955, Serial No. 496,231
5 Claims. (Cl. 73—67)



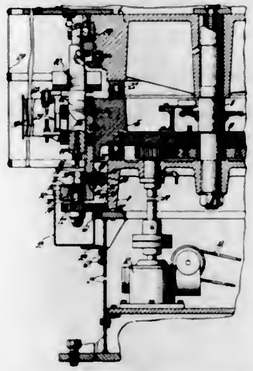
4. A machine for testing endless belts for structural vibration-producing characteristics, the machine comprising a pair of laterally spaced pulleys mounted to receive an endless belt trained around said pulleys, means for tensioning a belt on said pulleys, means for driving one of said pulleys to advance the belt lengthwise under tension around said pulleys, means for supporting the other of said pulleys for oscillation in response to movement of the belt, means connected with the latter said pulley-supporting means for generating an electrical signal proportional to the magnitude of said oscillations of the pulley supported thereby, and means for visually indicating said signal as a measure of the vibration-producing characteristics of the belt on said pulleys.

2,838,930
DEVICE FOR NON-DESTRUCTIVE TESTING OF MATERIALS BY MEANS OF SUPERSONIC PULSES
Josef Krautkrämer and Herbert Krautkrämer, Koln-Lindenthal, Germany assignors to Sperry Products Inc., Danbury, Conn.
Application November 10, 1955, Serial No. 546,204
1 Claim. (Cl. 73—67.8)



An apparatus for the non-destructive testing of materials, comprising means for transmitting a supersonic ray into a workpiece to be tested whereby a fault within the material which is small relative to the area of the back surface will cause a scattering reflection which is a function of the size of the fault, the back surface causing a beam reflection, and a reflector of predetermined area engaging the back surface of the material, said reflector also being small relative to the area of the back surface so that a scattered reflection will be set up which is a function of the area of the reflector, whereby the size of the fault may be compared to the size of the reflector.

2,838,931
MACHINE FOR TESTING HYDRAULIC TAPPETS
Merton V. Albaugh, Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 4, 1954, Serial No. 466,782
2 Claims. (Cl. 73—119)



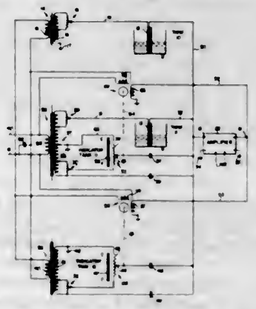
1. In an hydraulic tappet testing machine including means responsive to the rate of leak-down of tappets of the type which include a cylinder and a piston reciprocable and rotatable in said cylinder, a stationary support, a carriage rotatably mounted on said support, two members arranged on said carriage to receive the tappet therebetween, one of said members engaging the tappet piston to axially load the tappet, the mutual contact area between said loading member and said tappet piston being larger than that of point contact, said member being movable relative to said carriage, the other of said members being adapted to engage the tappet cylinder, a gear train operatively connecting said other member to said stationary support and rotatably engaging said carriage, whereby rotation of the carriage effects rotation of said last named member relative to said carriage and consequent rotation of the tappet cylinder relative to the tappet piston and driving means for rotating said carriage.

2,838,932
ANEMOMETER
James G. Dwyer, Deerfield, Ill., assignor to F. W. Dwyer Mfg. Co., a corporation of Illinois
Application February 10, 1954, Serial No. 409,443
6 Claims. (Cl. 73—189)



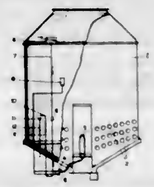
1. In an assembly comprising a Pitot tube and a hollow supporting tube serving as a mast for said Pitot tube and communicating therewith, the improvement in the mast wherein it is formed with a lower portion, a flat lower horizontal plate secured to said lower portion, a flat upper horizontal plate having an aperture therein, means spacing said plates, and an upper tube portion secured to said upper plate and communicating by means of said aperture with the region between said plates, said upper tube portion including intermediate stop means therein isolating the top and bottom parts thereof, the arrangement being such that the top part of the upper tube is subjected to velocity pressure and the bottom part of the upper tube is subjected to static pressure.

2,838,933
PLURAL TANK LIQUID LEVEL GAUGE
Reginald M. Williamson, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 16, 1955, Serial No. 488,541
11 Claims (Cl. 73—304)



1. Fluid quantity indicating apparatus, comprising: a plurality of bridge circuits each having a capacitance fluid quantity sensing element and a rebalance capacitance arm including fluid quantity indicating means, each of said bridge circuits being associated with a different fluid container, a plurality of alternating current voltage sources each of which possesses a different characteristic peculiar to alternating current connected one source to each of said bridge circuits to supply an operating voltage thereto, an electronic amplifier having an input and an output, means connecting the input of said amplifier to the output of each of said plurality of bridge circuits, and a plurality of drive means each of which is sensitive to a voltage which possesses a different one of said characteristics peculiar to alternating current and is arranged with the rebalance arm of one of the bridge circuits to cause the bridge to be balanced, said indicating means indicating the quantity of fluid in each individual container.

2,838,934
HEAT TRANSMISSION INDICATING SYSTEM FOR SUGAR SOLUTION
Hermanus A. Ditmar Jansse, Naarden, Netherlands, assignor to Ditmar Zonen N. V., Naarden, Netherlands, a corporation of the Netherlands
Application September 8, 1955, Serial No. 533,159
Claims priority, application Netherlands September 11, 1954
4 Claims. (Cl. 73—349)



1. In a boiling pan for concentrating and crystallizing sugar solutions having means for feeding a sugar solution to the boiling pan, means for discharging crystallized sugar syrup therefrom, means for evacuating air from the boiling pan, and means for heating the sugar solution in said pan, the combination of means for continuously indicating changes in the heat transmission properties of the sugar solution while said solution is being concentrated and crystallized, said last-named means being disposed centrally of the lower portion of said pan and comprising an element having an inner jacket and an outer jacket defining an annular space therebetween, means including a feed line for feeding water at a constant rate to a first end of said annular space, means including a discharge line for withdrawing said water from the second end of said annular space after said water has flowed from said first end to said second end of said space in contact with said outer jacket the outer surface of which is in contact with the sugar solution in said pan, and means for registering the difference between the temperature of the water supplied to said first end and the temperature of the water removed from said second end.

2,838,935
TEMPERATURE MONITORING DEVICE
Salvatore A. Di Cecio, Nicholas William Dand, and Lyckourgos Pappadopulos, New York, N. Y., assignors to Self Winding Clock Company, Inc., New York, N. Y., a corporation of Delaware
Application September 21, 1954, Serial No. 457,478
1 Claim. (Cl. 73—362)

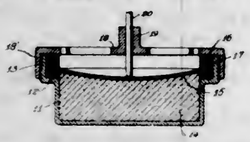
A temperature monitoring device comprising a tubular casing closed at one end and open at the other end, a temperature responsive device in said casing, having an enlarged head end and an elongated body portion, a

washer encompassing said body portion, means resiliently urging one end of said temperature responsive device against the closed end of the casing, said means comprises a coil spring encompassing the body portion of said temperature responsive device, a sleeve extending through said casing, and protruding beyond the open end thereof, said spring being positioned between said washer and the other end of said sleeve, means on the open end of the casing to move the sleeve inwardly, thereby compressing said spring against said washer to retain the enlarged head of the temperature responsive device against the closed end of the casing, a support having a bore through which said casing extends, said support com-



prising a fitting and a cap adapted to be mounted on one end thereof, said bore extending through said fitting and said cap and having an enlarged diameter portion, a shoulder defined in the bore in said fitting, a resilient seal encompassing said casing, a stop affixed to said casing in the enlarged diameter portion of said bore, said stop comprising a sleeve having a flange at one end, and resilient means in said bore reacting against said flange resiliently to urge outwardly the casing to which the sleeve is affixed, and to urge the end of said sleeve remote from the flange against the resilient seal to compress the latter against said shoulder for dependable sealing action between said casing and said bore.

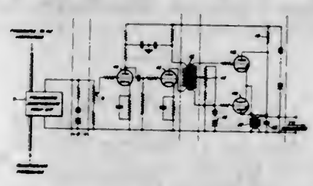
2,838,936
THERMAL RESPONSIVE UNIT
Alonzo C. Goodrich, Winnetka, Ill.
Application July 13, 1953, Serial No. 367,601
2 Claims. (Cl. 73—363)



1. A thermally responsive unit comprising a housing having an inner cylindrical wall filled with a solid fusible thermally expansible material, said housing including a shoulder, a rubber ring on said shoulder the inner margin of which forms a continuation of the cylindrical wall of said housing, a retainer member mounted on said housing and extending over the opposite side of said ring from said shoulder and retaining said ring in sealing engagement with said shoulder, and a bimetal concavo-convex diaphragm member mounted within said ring and forming one wall of said housing, the wall of said ring being sufficiently free to accommodate free movement of said diaphragm from its concave to its convex positions.

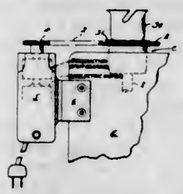
2,838,937
PRESSURE INDICATORS AND RECORDERS
Wilfred Percival Mansfield and Albert Henry Cornish, Slough, England, assignors, by mesne assignments, to The British Internal Combustion Engine Research Association, Slough, England
Application March 11, 1954, Serial No. 415,652
Claims priority, application Great Britain December 14, 1949
11 Claims. (Cl. 73—391)

1. In a pressure recorder, the combination comprising a pick-up device adapted to initiate a series of signals, means to present the fluid pressure to be recorded and a known variable pressure to said pick-up device, output means connected with said pick-up device to provide output signals, a pair of gas-filled discharge tubes each connected to actuate the recording means in the same manner when discharging, a circuit connecting the discharge tubes and the output means to simultaneously



feed the signals to both tubes and including control means to cause successive alternate signals beginning with the first of said signals to discharge one tube and to cause successive alternate signals beginning with the second of said signals to discharge the other tube, and recording means operative in response to the discharge of the tubes.

2,838,938
ENGINE STARTER MECHANISMS
Columbus R. Sacchini, Willoughby, and Donald R. Tomko, Cleveland, Ohio, assignors, by mesne assignments, to Curtiss-Wright Corporation, Marquette Metal Products Division, Cleveland, Ohio, a corporation of Delaware
Application November 14, 1955, Serial No. 547,170
9 Claims. (Cl. 74—7)

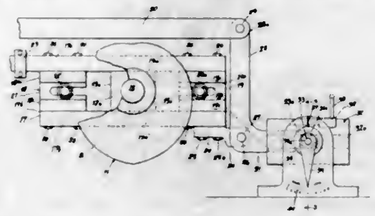


1. An internal combustion engine starter mechanism comprising an electric motor, a spring clutch unit having concentric input and output external drum members axially adjacent to each other, means torque-connecting the input drum member to the electric motor in a manner to be turned thereby at a lower speed than the minimum speed the crankshaft can turn when the engine is self operated, means permanently connecting the output drum member with the engine crankshaft so as to turn at whatever speed the crankshaft turns, a contracting-to-grip clutch spring having free end coils in interference fitting, hence self energizing, relationship to an external peripheral surface portion of the input drum member, the spring being permanently anchored to the output drum member, and the clutch spring having such spring index as to be automatically released from said input drum member surface portion by centrifugal force when the engine is self operated and its crank shaft is turned thereby at said minimum speed or at higher speeds.

2,838,939
ADJUSTING STROKE MECHANISM
Kurt Schlegel, Mamaroneck, N. Y.
Application June 15, 1954, Serial No. 436,969
7 Claims. (Cl. 74—110)

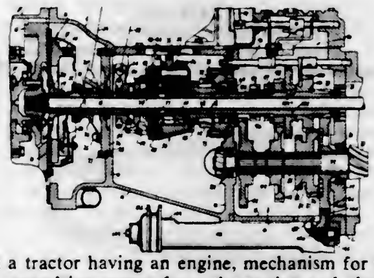
1. An adjusting mechanism for varying the length of reciprocating movements of a reciprocating member, said member having a portion movable in a straight line path of reciprocating movement of given length, a movement-

transmitting means connected with and movable by a portion of said reciprocating member and comprising a lever pivoted intermediate its ends to provide dual arms arranged in fixed relationship to each other, one of said arms being initially positioned at one side of said pivot in perpendicular relationship to said line of reciprocating movement and comprising a movement-transmitting arm and the other arm being disposed at the opposite side of said pivot and comprising an adjusting arm, and a pivoted adjusting means engaging said adjusting arm for guiding movement of said adjusting and movement-transmitting arms to cause said initially positioned transmitting arm



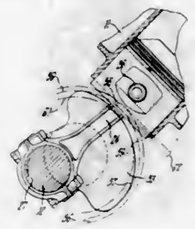
to be maintained during such transmitting movement in positions perpendicular to said straight line path of reciprocating movement or to be moved into angular relationship thereto whereby said element may be used to transmit to design-producing mechanism a reciprocating movement comprising an exact reproduction in length of said straight line path of reciprocating movement or a variation in such length, said adjusting means being provided with indications showing the initial perpendicular positioning of said movement-transmitting arm and the extent of angular movement thereof away from said initial perpendicular position.

2,838,940
TRACTOR TRANSMISSION WITH PLURAL POWER TAKE-OFF SHAFTS
William E. Swenson and Fred C. Nielsen, St. Paul, Minn., assignors to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota
Application March 23, 1956, Serial No. 573,374
11 Claims. (Cl. 74—15.2)



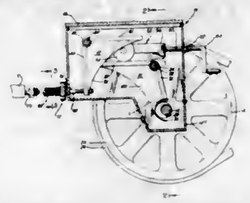
1. In a tractor having an engine, mechanism for transmitting propulsion power from the engine and also supplying torque therefrom along at least two separate paths for the operation of auxiliary equipment by the tractor, said mechanism comprising a change speed transmission unit having cooperating gear trains of different speed ratios for transmitting propulsion power from the engine, means including a manually operative clutch for selectively connecting said change speed transmission to the engine, a first shaft connected to and driven by the engine independently of said cluch and transmission unit and constituting one of said paths along which torque is transmitted for operating auxiliary equipment, and a second shaft and means operatively connecting the same to one of the gear trains of said transmission unit for operation as the second path for supplying torque for operation of auxiliary equipment.

2,838,941
INTERNAL COMBUSTION ENGINE COUNTERWEIGHT AND CYLINDER CONSTRUCTION
Joseph D. Turlay, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application November 12, 1952, Serial No. 319,952. Divided and this application March 29, 1956, Serial No. 574,733
6 Claims. (Cl. 74—44)



2. An engine comprising a row of cylinders having reciprocal pistons therein, a crankshaft mounted for operation along one end of said row of cylinders, said crankshaft being formed to provide crank arms for each of said cylinders, connecting rods connecting said crank arms to said pistons, said crankshaft also being formed to provide counterweights in opposed relation to said cylinders, said counterweights having outer edges approaching the inner ends of said pistons when said pistons approach inner dead centers during the operation of said engine, said outer edges of said counterweights being contoured to clear said piston ends by a uniform distance as said pistons approach and recede from inner dead centers during the operation of said engine.

2,838,942
RECIPROCATORY DRIVE MECHANISMS
Lloyd E. Gilbert, San Jose, Calif.
Application July 10, 1956, Serial No. 596,893
4 Claims. (Cl. 74—54)

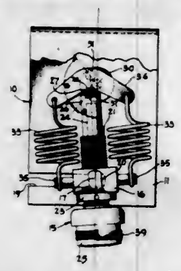


1. A reciprocatory drive mechanism for concentrator tables or the like which comprises a drive shaft, an eccentric mounted on said shaft for rotation therewith, a first bell crank mounted with one arm in operative engagement with said eccentric, a second bell crank with one arm disposed in spaced relation to the second arm of said first bell crank, a roller interposed between the spaced arms of said first and second bell cranks to transmit motion therebetween, a pull rod pivotally connected to the second arm of said second bell crank and adapted to transmit force to the concentrator table, and spring means urging said pull rod in one direction whereby force is transmitted through said pull rod and said cranks to urge said first bell crank into resilient engagement with said eccentric.

2,838,943
HEAT MOTOR FOR PRODUCING ROTARY MOTION

Edward E. Modes, Mullapudi M. Reddi, and William E. Lauterbach, Chicago, Ill., assignors to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application December 9, 1955, Serial No. 552,054
6 Claims. (Cl. 74—99)

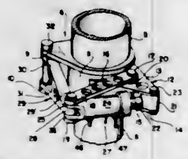


3. In a heat motor, a housing, a collar rockingly carried in said housing, a crank journaled in said housing for rotatable movement with respect thereto about an axis parallel to the axis of rocking movement of said collar and spaced from said collar, a thermal element adjustably carried in said collar, means holding said thermal element in adjusted relation with respect to said collar, said thermal element having an extensible power member having operative engagement with said crank, electrically energizable means for heating said thermal element to effect extensible movement of said power member, a rigid yoke having engagement with said crank on the opposite side thereof from said power member and extending to opposite sides of said crank, and separate springs connected between each end of said yoke and said collar for maintaining said crank in engagement with said power member and returning said power member and rotatably moving said crank on its return stroke.

2,838,944
LINKAGE MECHANISM

Giles A. Kendall, Van Nuys, Calif., assignor to Menasco Manufacturing Company, Burbank, Calif., a corporation of California

Application May 28, 1957, Serial No. 662,066
5 Claims. (Cl. 74—99)

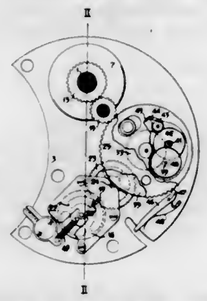


1. A linkage mechanism for converting a linear input into a rotational output comprising a support member, a movable member supported by said support member for rotation and bodily movement relative to said support member, a rotatable arm supported for rotation by said support member, an anchor link pivotally connected to a fixed arm secured to and extending from said support member, a variable truss connected between said rotatable arm and said anchor link, said variable truss comprising a pair of links both pivotally connected to said anchor link at the same point and both being pivotally connected to said rotatable arm at spaced pivot points, means for varying the length of one of the links of said pair to rotate said rotatable arm, and linkage means for transmitting the rotation of said rotatable arm to said movable member while permitting bodily movement of said movable member relative to said support member.

2,838,945
DEVICES DRIVEN BY A SHAFT AT A VARIABLE SPEED AND ADAPTED TO SUPPLY IMPULSES UNIFORMLY SPACED IN TIME

Johann Arni, Geneva, Switzerland, assignor to Anstalt Merces, Vaduz, Liechtenstein, a corporation of Liechtenstein

Application July 26, 1957, Serial No. 674,512
Claims priority, application Switzerland, January 31, 1957
6 Claims. (Cl. 74—111)

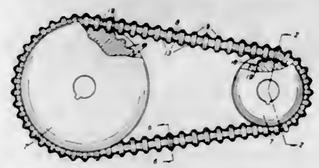


1. A device driven by a variable speed shaft and adapted to supply impulses uniformly spaced in time, comprising a slipping transmission device, located between said variable speed shaft and a rotary member of which the speed of rotation is controlled by an escapement device, said rotary member co-operating with at least one movable element for moving it by uniform impulses, said rotary member driving, through the medium of a resilient element, a rotary part of which the speed of rotation is limited by said escapement device, a locking mechanism for said rotary member, said locking mechanism being controlled by said rotary part driven in such a manner as to lock it and release it periodically and enable it to turn through a determined angle at each unlocking, said locking mechanism ensuring the unlocking each time said driven part has effected a rotation through a determined angle, and the locking each time the rotary member has turned through a predetermined angle.

2,838,946
POWER TRANSMISSION SYSTEM

Elmer C. Kiekhaefer, Cedarburg, Wis.

Application October 22, 1954, Serial No. 463,999
2 Claims. (Cl. 74—229)

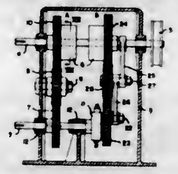


1. A power transmission system comprising: a drive sheave and a driven sheave each having a periphery which in progressive radial cross section forms a series of progressively increasing and decreasing semi-circular peripheral recesses which merge together to form a channel defining alternately spaced first grooves and first ridges; and a belt connecting said drive and said driven sheaves in a manner such that said drive sheave transmits its power to said driven sheave, said belt having a circular peripheral surface of progressively increasing and decreasing diameter to form alternately spaced second ridges and second grooves respectively adapted to engage substantially the entire surface area presented by said first grooves and said first ridges respectively of said drive and said driven sheaves.

2,838,947
VARIABLE SPEED TRANSMISSION

Albert J. Sarka, Maple Heights, Ohio, assignor to Wean Equipment Corporation, Euclid, Ohio, a corporation of Ohio

Application June 25, 1956, Serial No. 593,620
12 Claims. (Cl. 74—394)

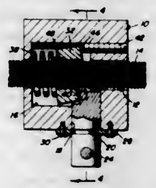


1. A variable speed transmission comprising a driving shaft, a driven shaft and two driving connections between the shafts, each of such driving connections including an overrunning clutch so that at any instant the driving connection which tends to drive the driven shaft at higher speed is effective for driving the driven shaft, one of such driving connections tending to drive the driven shaft at constant speed, the other of such driving connections tending to drive the driven shaft at variable speed at times higher and at times lower than said constant speed, whereby the driven shaft is driven at a speed which is always at least as high as said constant speed and at times higher.

2,838,948
LOCK MECHANISM FOR VISE OR CLAMP

Carl Oscar Lassy, Plainville, Conn.

Application July 31, 1957, Serial No. 675,333
5 Claims. (Cl. 74—424.8)



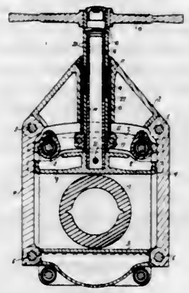
1. A locking mechanism for the jaw-carrying bar of a clamping vise comprising a hollow frame, a threaded jaw-carrying bar slidably extending through said frame, a tiltable nut disposed in said frame, said nut having diagonally disposed segmental threads for engagement with the bar when the nut is arranged in perpendicular relation thereto, said nut also having recessed areas arranged diagonally for registry with the bar when the nut is tilted, spring means biasing said nut to a tilted position, and cam means engaged with the nut for permitting the nut to move to a tilted position and for moving the nut into perpendicular relation to the bar for locking the nut and the bar together for moving the bar longitudinally for selective movement of the movable jaw for clamping engagement with a workpiece, said cam means including an operating handle disposed exteriorly of the frame.

2,838,949
SCREW JACK

Gail G. Grigsby, Desloge, Mo.

Application December 13, 1954, Serial No. 474,929
2 Claims. (Cl. 74—424.8)

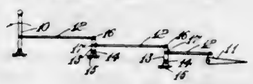
1. A screw jack of the character described, comprising, an outer screw member formed with a helical internal ball-race providing a first thread, an intermediate sleeve formed with an external helical ball-race providing a second thread matching said first thread and with an internal helical ball-race providing a third thread, an inner screw member formed with an external helical ball-race providing a fourth thread matching said third thread, said sleeve and screw members being coaxial, balls rollable in the pair formed by said first and second threads connecting the same to form a screw coupling, and balls rollable in the pair formed by said third and fourth threads connecting the same to form a second screw coupling, said intermediate sleeve being formed with passages therethrough joining the adjacent termini of said second and third threads whereby the balls may pass from one of said threads to the other, each of said pairs of threads providing a return path for balls from the other.



2,838,950
MECHANICAL AND HYDRAULIC REMOTE CONTROL SYSTEMS

Alexander Symon, Norman Frederick Harpur, and Charles John Edwin Carter, Bristol, and John Malcolm Williams, Middlesex, England, assignors, by mesne assignments, to Bristol Aircraft Limited, Bristol, England, a British company

Application April 6, 1953, Serial No. 347,312
(Filed under Rule 47(a) and 35 U. S. C. 116)
Claims priority, application Great Britain April 7, 1952
17 Claims. (Cl. 74—469)

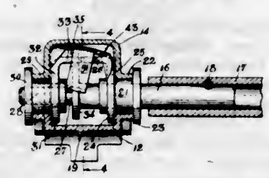


1. An elastic remote control system for transmitting movement from an input member to an output member and having an end which is substantially free so as to be subject to vibrational movements relatively to a node in the system, in which the stiffness of the transmission varies along the system from the free end to the node approximately in proportion to the fourth power of the distance from a point adjacent the free end of the system.

2,838,951
GEAR SHIFT NEUTRALIZER

James B. Dick, Birmingham, Ala.

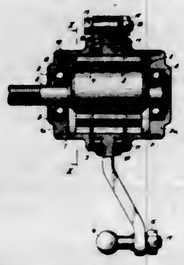
Application July 3, 1956, Serial No. 595,786
7 Claims. (Cl. 74—473)



7. In combination with a transmission box having a removable cover, an operating shaft extending rotatably and slidably through said box, a collar affixed to said shaft within said box, two pairs of opposed lock arms in said box and selectively operable by said shaft, an

actuator arm extending from either side of said box and each operable by movement of one of said pairs of lock arms, the provision of means mountable within said box selectively locking one pair of lock arms while releasing the other pair for movement, said means comprising a rectangular body, slightly downwardly directed longitudinal end portions, a downwardly and outwardly extending guide and lock member formed integrally with the outermost portion of each longitudinal side of said body, said guide and lock members at either end of said body lying in planes parallel to each other, said guide and lock members at either side of said body lying in the same plane, an outwardly bowed arm formed integrally with the central portion of each longitudinal side of said body, and an inwardly directed fork formed integrally with the lower end of each arm, said guide and lock members each being provided with an outwardly extending arcuate outer face.

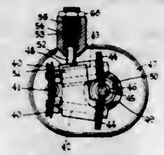
2,838,952
STEERING GEARS OF ALL KINDS, ESPECIALLY FOR MOTOR DRIVEN VEHICLES
Kurt Seeliger, Muschede, Kreis Arnsberg, Germany, assignor to the joint heirs of Georg Puls, represented by (Mrs.) Gerdi Puls, Burgkunstadt, Oberfranken, Germany
Application August 26, 1954, Serial No. 452,369
Claims priority, application Germany August 29, 1953
4 Claims. (Cl. 74—498)



1. A steering gear comprising a drive shaft, cam means on said drive shaft, an externally toothed cylindrical member surrounding said cam means in eccentrical relationship with the axis of said shaft and adapted to be rotated about said axis by said cam means upon rotation of said shaft, said member having a central toothed zone and a pair of lateral toothed zones flanking said central zone, a housing comprising a pair of internally toothed cylindrical portions concentrically surrounding said axis and meshing with said lateral toothed zones, respectively, an internally toothed cylindrical collar rotatably positioned intermediate said housing portion, said collar concentrically surrounding said axis and meshing with said central toothed zone, a steering lever, and coupling means operatively linking said lever with said collar.

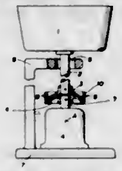
2,838,953
POWER-OPERATED RADIO ANTENNA
Joseph H. Cone, Bridgeport, Conn., assignor to Casco Products Corporation, Bridgeport, Conn., a corporation of Connecticut
Application October 8, 1953, Serial No. 384,823
12 Claims. (Cl. 74—501)

12. An antenna having an elongate, longitudinally extendible and retractable section and an elongate uniformly thick driving strip connected to said section to actuate the same; a pair of juxtaposed friction drive wheels engaging opposite sides of the driving strip to move the strip axially, one of said drive wheels being shiftable transversely of its axis towards and away from the driving strip; spring means yieldably holding said one drive wheel in engagement with said driving strip under a predetermined constant continuous force enabling intentional slippage between said strip and wheels to occur



when a predetermined load on the strip is exceeded; and means for adjusting said spring means to vary the force exerted by it on said drive wheel.

2,838,954
PRECESSION CONTROL MEANS FOR UPRIGHT CENTRIFUGAL SPINNER
Frank R. Higley, Cleveland Heights, Ohio
Application February 21, 1952, Serial No. 272,873
1 Claim. (Cl. 74—573)



In combination with a device adapted to spin erectly, a driving member rotatable on an upright axis, said device and said driving member having cooperative bearing faces through which said device is mounted on said member for support and frictional spinning drive, said bearing faces being formed to provide a point in said axis located below the center of mass of said device and about which the device may have precession accompanied by slippage between said faces while being spun by said driving member, whereby said precession will be accompanied by torque components at said faces effective toward diminishment of said precession, and brake means arranged to be applicable to said device independent of said driving member, whereby said torque components may be continued during deceleration of said device by said brake means.

2,838,955
VIBRATION DAMPER
Lewis D. Burch, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 30, 1954, Serial No. 426,785
11 Claims. (Cl. 74—574)



1. A vibration damper including a rotary housing member having an annular chamber formed therein,

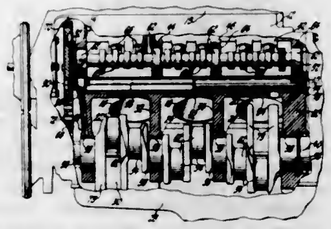
a free floating flywheel member disposed within said chamber in spaced relation to the side walls thereof, said flywheel being spaced relative to said housing to provide a clearance therebetween varied at a uniform rate between the inner and outer peripheries of said chamber, and viscous fluid means forming a fluid film within said clearance having constant resistance to relative motion between said flywheel and housing members and being adapted to dissipate vibrational forces passing therebetween.

2,838,956
VARIABLE THROW CRANK
Alfred J. Schneider, Cheshire, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a corporation of Maryland
Application April 2, 1954, Serial No. 420,565
8 Claims. (Cl. 74—600)



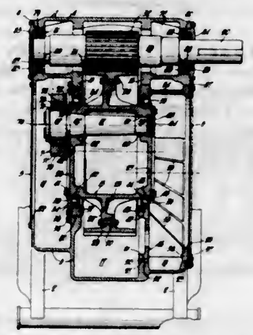
1. Crank structure comprising, a driving shaft rotatable about its axis, a carrier member fixed on said shaft having a broadside surface, a carried member having a broadside surface facing a broadside surface of said carrier member, a revolving crank pin in fixed position on said carried member, pivotal bearing structure between said members permitting adjustive turning of one of said members relatively to the other member to selective relative rotary settings, and detent means housed inaccessibly between said members cooperative with at least one of said broadside surfaces in a manner yieldably to oppose said relative turning without positively locking said members together thereby releasably to maintain said members in their said selective relative settings.

2,838,957
ENGINE BALANCING MEANS
Ralph S. Johnson, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 14, 1954, Serial No. 436,489
12 Claims. (Cl. 74—604)



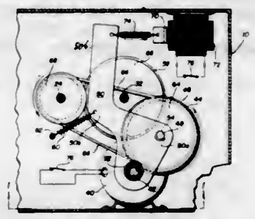
1. A balance shaft adapted to be rotatably supported in an engine for balancing rotating couples produced during operation of said engine, said shaft comprising a tubular member having a passage extending longitudinally therethrough, a first weight eccentrically disposed in said passage and connected to said tubular member to rotate therewith, a second weight disposed in said passage and connected to said tubular member to rotate therewith, said second weight being longitudinally displaced from said first weight and eccentrically disposed on the diametrically opposite side of said passage.

2,838,958
DRIVE FOR RECIPROCATING MEMBER
William J. Redman, Pittsburgh, Pa., and John S. Fuller, Dallas, Tex., assignors to United States Steel Corporation, a corporation of New Jersey
Application May 3, 1954, Serial No. 427,190
12 Claims. (Cl. 74—606)



1. A pitman drive comprising a housing having a pair of axially spaced partition walls respectively provided with an opening centrally of said housing, a hub extending axially of said partition wall openings, a pair of bearing assemblies mounting said hub for rotation in said openings, a drive pin having an eccentric connection directly with said hub for rotation thereby along a circular path positioned inwardly of said bearing assemblies, a drive gear mounted on said hub substantially centrally of said bearing assemblies, and a pitman connected with and actuated by said drive pin.

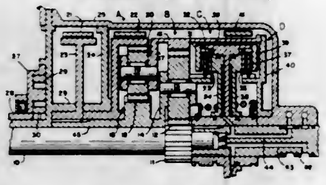
2,838,959
TRANSMISSION FOR MAGNETIC SOUND RECORDING MACHINES
Ralph A. Schuyler, Los Altos, Calif., assignor to Monte Verde Industries, Redwood City, Calif., a corporation of California
Application April 1, 1957, Serial No. 649,871
6 Claims. (Cl. 74—721)



1. A power transmission arrangement for selectively driving either of a pair of shafts in opposite directions from a uni-directionally operating drive shaft comprising a bell crank mounted for rotation about an axis coincident with the axis of said drive shaft, a first rotary member rotatably mounted upon said bell crank with its periphery in operative contact with said drive shaft, a second rotary member mounted upon one of said driven shafts for rotation therewith, a third rotary member mounted upon the other one of said driven shafts for rotation therewith, means including an endless power

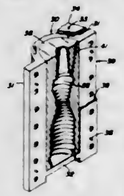
transmission member for transmitting rotary power from said first to said third rotary member, spring means yieldably urging said bell crank into a position wherein said first rotary member is in driving contact with said second rotary member, and said first and third rotary members are sufficiently approached to render said endless transmission member ineffective, and means operable to turn said bell crank against the urgency of said spring means into a position wherein said first rotary member is withdrawn from said second rotary member, and said first and third rotary members are sufficiently removed from each other to render said endless transmission means effective.

2,838,960
TRACTOR TRANSMISSION
Howard W. Simpson, Dearborn, Mich.
Application October 1, 1956, Serial No. 613,200
7 Claims. (Cl. 74—759)



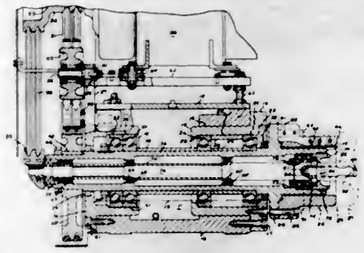
1. In a power transmission, first and second planetary gear sets, each set comprising a sun gear, a ring gear and a rotatable carrier on which are mounted planet gears each meshing with both the said sun and ring gear, means for holding the ring gear of the first gear set as a reaction member, first means for coupling the first set carrier and second set ring gear to an output shaft, second means for coupling the first set sun gear and second set carrier to said output shaft and a driving connection between an input shaft and the sun gear of the second gear set; means for holding the second set carrier as a reaction member and means for holding the second set ring gear as a reaction member, said coupling and holding means being adapted, upon successive operation, to provide at least three forward speed reduction ratios and one reverse reduction ratio, the numerical value of the reverse ratio being always one less than that of the second speed ratio.

2,838,961
METHOD OF MAKING DIES
John E. Daigleish and Carl G. Richter, Cleveland, Ohio
Application January 20, 1954, Serial No. 405,268
5 Claims. (Cl. 76—107)
(Granted under Title 35, U. S. Code (1952), sec. 266)



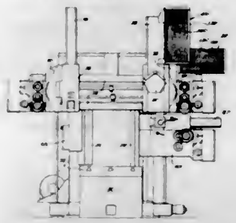
1. A method of forming a grooved plate which comprises attaching to one side of a pattern plate conforming in contour to the completed grooved plate plastic molding strips of the desired number and shape to simulate the surface of the completed plate, coating said strips with low melting point alloy material at a temperature insufficient to melt said plastic strips to form a grooved metal mold, removing the mold from the plate and the plastic strips from the mold, filling the mold grooves and contiguous joining spaces with a single mass of hardenable plaster, removing the mold from the plaster without disturbance of the plaster surface, spraying the plaster with a hardenable substance to form a permanent grooved shell, removing the plaster, and backing the shell by deposition of a molten hardenable substance on the side of the shell opposite to the side of plaster application.

2,838,962
MACHINE TOOL
Charles L. Curtis, Sidney, Ohio, assignor to Curtis Corporation, Dayton, Ohio, a corporation of Ohio
Application August 25, 1953, Serial No. 376,487
3 Claims. (Cl. 77—3)



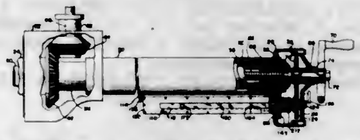
1. A machine tool, including a body having an internal chamber containing a lubricant, a through bore in said body intersecting said chamber, open ended bushings installed in said bore at opposite ends thereof, rolling bearings mounted in said bushings, a hollow spindle mounted in said bearings and extending through and beyond the ends of said bushings, spaced apart rolling bearings in said spindle, shaft means rotatably mounted in said last named bearings and extending at its opposite ends substantially through and beyond said spindle, means for rotating said spindle and said shaft means at corresponding ends thereof, and work tools on the opposite corresponding ends thereof.

2,838,963
PROGRAMMING CONTROL MECHANISM
Albert E. Good, Madeira, and Theodore D. Foster, Montgomery, Ohio, assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application February 28, 1957, Serial No. 643,040
11 Claims. (Cl. 77—4)



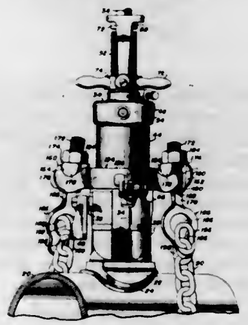
5. In an automatic programming device for apparatus having means for effecting a plurality of functions; the combination of a control panel having a group of electrical contacts electrically connected to respective function effecting means, a plurality of means for determining respective functions electrically connected, respectively, to another group of electrical contacts of said control panel, sequence switch means having a plurality of contacts insulated from each other and electrically connected, respectively, to still another group of electrical contacts of said control panel, said switch means having other contacts engageable in a sequential manner with the first mentioned switch means contacts to energize the latter, means for sequentially actuating said second mentioned switch means contacts upon energization of said function determining means, and electrical connector means for releasably interconnecting any contact of the first and second mentioned groups with a contact of the third mentioned group.

2,838,964
DRILLING MACHINE
William C. Albertson, Jr., Lakewood, and Walter J. Hood, Shaker Heights, Ohio, assignors to Mueller Co., Decatur, Ill., a corporation of Illinois
Application May 1, 1956, Serial No. 581,917
13 Claims. (Cl. 77—34.4)



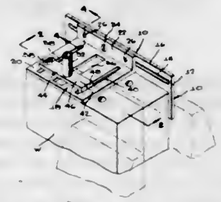
1. In a machine having a translatable and rotatable element and a non-translatable element engaged therewith and rotatable relative thereto for effecting translation thereof, the combination of indicator mechanism for showing the extent of translation of the translatable element comprising: a pair of parallel, non-translatable, relatively-rotatable members; a part threadedly engaged with one of said member for movement longitudinally thereof on relative rotation therebetween and drivenly engaged with the other of said members for rotation thereby and for slidable movement longitudinally therealong; and means for driving one of said members with one of the elements and for driving the other of said members with the other of the elements, whereby the position of said part longitudinally along said one member indicates the extent of translation of the translatable element.

2,838,965
MACHINE FOR DRILLING AND TAPPING MAINS
Frank H. Mueller and John J. Smith, Decatur, Ill., assignors to Mueller Co., Decatur, Ill, a corporation of Illinois
Original application February 19, 1952, Serial No. 272,354, now Patent No. 2,745,669, dated May 15, 1956. Divided and this application April 14, 1954, Serial No. 423,058
4 Claims. (Cl. 77—40)



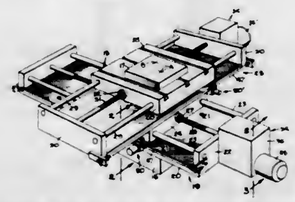
1. In a drilling machine having a barrel adapted to have its inner end sealed against a main and flexible means adapted to engage the wall of the main opposite the barrel and to have its ends secured to the latter, the combination comprising: a stem constituting at least one of the ends and having an inner portion provided with a flat side and an outer threaded portion contained within the longitudinal-projected outline of said inner portion; anchoring means on the barrel providing an opening having a flat side wall and in which opening the stem is longitudinally movable to tension said flexible means, said anchoring means presenting an abutment surface for engagement with a washer on said stem; and a washer on said stem engaging said abutment surface and having a portion depending within said opening, the opening in said washer having a flat side wall for cooperation with said flat stem side to prevent turning of said washer on said stem and said depending washer portion having a flat side for cooperation with said flat side wall in said anchoring means opening to prevent turning of said washer in the latter, said washer also having an abutment surface for a tensioning nut threaded on said stem threaded portion.

2,838,966
ADJUSTABLE DOWELING JIG
Robertson F. Campbell, Monroeville, Pa.
Application August 26, 1955, Serial No. 530,811
1 Claim. (Cl. 77—62)



In a doweling jig, a vertical work engaging plate having an upper edge, a horizontal bed plate having an inner edge, a vertical longitudinal flange fixed on said inner edge and bearing slidably against a side of said work engaging plate, bolt and slot means connecting said flange to the work engaging plate, a carriage, means mounting said carriage on said bed plate for adjustment toward and away from said vertical flange, said carriage having an opening, and a tubular vertical boring tool guide bushing fixed on said carriage and registered with said opening, said bed plate having a transversely elongated boring tool receiving opening beneath said bushing, said mounting means comprising transverse slots in said carriage, a depending flange on the carriage engaging one of the slots, and a bolt on said carriage engaging another of said slots.

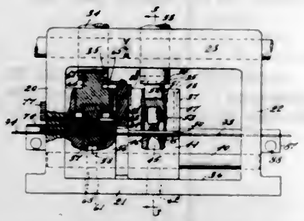
2,838,967
POSITIONING APPARATUS
Arthur A. Meyer, Beloit, Wis., assignor to Warner Electric Brake & Clutch Company, South Beloit, Ill., a corporation of Illinois
Application October 4, 1954, Serial No. 459,977
9 Claims. (Cl. 77—63)



9. In a positioning apparatus, the combination of, two members mounted to shift back and forth relative to each other along a predetermined path, a pattern blank mounted on one of said members and extending longitudinally of said path, forming mechanism movable with the other one of said members along and adjacent said blank and

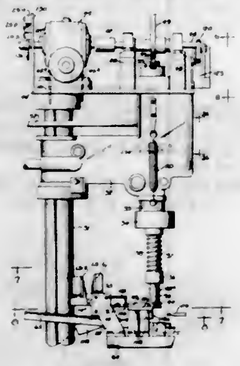
operable when actuated to form on the blank a control element extending transversely of said path, a feeler on said other member engageable with said blank and shiftable transversely of said path upon engagement with said control element, power actuated feed mechanism acting between said members to shift the same relative to each other along said path, and means controlling said feed mechanism in response to transverse shifting of said feeler.

2,838,968
METAL STITCHING
Arthur L. Amend, Oakford, Pa.
Application November 23, 1955, Serial No. 548,642
1 Claim. (Cl. 78—1)



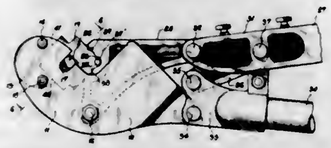
In a stitching machine, a punch having a contour which provides enlargements at the two ends, a cooperating die having an opening provided with the contour of the punch adapted to shear a stitch when the punch advances, the die having lateral walls which engage and hold the stitch, forward staking surfaces on the forward face of the die, projections on the punch for engaging and advancing the die as the punch advances beyond a predetermined position, there being relative movement between the punch and the die before the predetermined position is reached, and a staking anvil cooperating with the punch and the die.

2,838,969
ASSEMBLING AND RIVETING APPARATUS
Charles A. Simmons, Sr., Albany, N. Y., assignor to Simmons Fastener Corporation, Menands, N. Y., a corporation of New York
Application February 4, 1955, Serial No. 486,123
15 Claims. (Cl. 78—49)



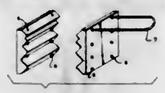
1. Apparatus for assembling sliders of the character described, which comprises a die having a tab-receiving space and a stop at one extremity of said space, means for feeding apertured pull-tabs one-by-one into said space and against the stop, the die also having a groove aligned with the tab opening in the stopped position of the tab, means for moving notched bails one-by-one along said groove and through the opening of a tab is said space, a stop engageable by the bail to locate it in a stopped position wherein a notch of the bail is in the tab opening, a plunger adapted to be advanced toward and retracted from the die, a mandrel carried by the plunger, means for loading slider bodies one-by-one into the mandrel, each body having opposed openings and being held by the mandrel with said last openings aligned with a lateral member on the bail in its stopped position, means for advancing the plunger to project said lateral member through the opposed openings in the body and press the body against the bail on the die, a spinner engageable with the end of said lateral member to spin it over the body, and means for removing the assembled slider from the mandrel.

2,838,970
REPLACEABLE DIE NEST CRIMPING TOOL
Stephen A. Motches and Asa Ren Lee, Roselle, N. J., assignors to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Application August 26, 1955, Serial No. 530,701
12 Claims. (Cl. 81—15)



3. A crimping tool including a head portion provided with a fixed jaw having an L-shaped marginal recess therein, a shiftable pressure jaw pivoted to the head in spaced relation to said fixed jaw and provided with an L-shaped recess presenting plane surfaces at right angles to each other, and a removable multi-die block secured in said head in nested engagement with said fixed jaw in abutting engagement with said fixed jaw, said multi-die block being provided with an L-shaped recess in each of its corner-defining portions square therewith and adapted to coact with the recess in said shiftable jaw to form a work-receiving space rectangular in cross section when the shiftable die is in bearing engagement with the removable die block.

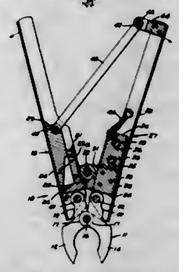
2,838,971
FACE PLATES FOR VISE JAWS
Abraham J. Shekter, Coral Gables, Fla.
Application October 13, 1955, Serial No. 540,314
2 Claims. (Cl. 81—39)



1. A clamping attachment for a vise having jaws with opposed faces comprising spaced blocks having opposed faces, the faces of the blocks being provided with parallel notches, means for supporting the blocks on such vise jaws in a position where the notches are vertical in one position and horizontal in another position, the blocks being provided with a plurality of transverse parallel spaced holes, and said means comprising a pin having spaced arms for traversing the holes in the blocks and resting on top of such vise jaws.

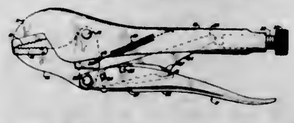
2,838,972
SELF LOCKING PLIERS
Dain W. Heald, Temple City, Calif.
Application December 23, 1955, Serial No. 555,099
6 Claims. (Cl. 81—339)

1. A self-locking pliers, comprising: two jaws, two levers, each of said levers being integral with a different one of said jaws; a pivot joining said jaws, each jaw and its integral lever being on a single side of the pivot, whereby spreading the levers moves the jaws together; a first handle having a channel therein; a second handle; said handles being pivotally joined by a fulcrum, said handles being on opposite sides of the fulcrum whereby spreading one pair of adjacent ends of said handles moves the other pair of adjacent ends together, one pair of adjacent ends of the handles being attached to the levers, each lever being attached to a different one of said handles, whereby pressing the handles together on the end of the handles remote from the jaws moves the jaws together; a wedge slidably fitted in said channel; a slop-



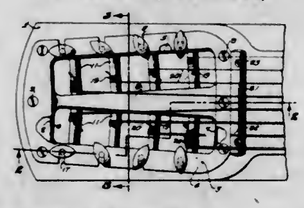
ing locking surface on said wedge; a locking pin slidably disposed in said channel; a locking surface on said locking pin adapted to engage said locking surface on the wedge; a cam on said second handle engaging the locking pin to force it toward the wedge, said locking pin and cam being on the side of the fulcrum nearest the jaws; and a link attached to and interconnecting the wedge and the second handle on the opposite side of the fulcrum from the jaws; whereby pressing together the ends of the handles remote from the jaws closes the jaws, and forces the locking wedge under the locking pin to prevent the jaws from opening, and whereby pulling apart said handle ends pulls said locking wedge from beneath said locking pin to permit the jaws to open.

2,838,973
RELEASING MEANS FOR SELF-LOCKING PLIER TYPE TOGGLE WRENCH
William Petersen, De Witt, Nebr.
Application November 30, 1956, Serial No. 625,525
5 Claims. (Cl. 81—370)



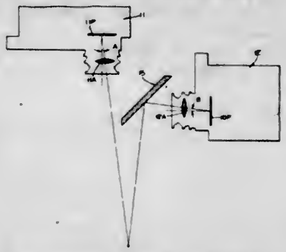
1. A plier type toggle wrench comprising an elongated handle having a fixed jaw at one end, an opposing jaw pivotally mounted on said handle, resilient means for moving said pivoted jaw away from said fixed jaw and a toggle mechanism for moving said pivoted jaw toward said fixed to work clamping position, said toggle mechanism comprising a primary actuating lever pivotally mounted at one end on said pivoted jaw and disposed in the plane of said handle, a secondary actuating lever pivotally mounted at one end on said pivoted jaw at the same point as said primary lever, a link pivotally connected adjacent one end to said secondary lever, the opposite end of said link engaging an abutment on said handle, a transverse slot in said secondary lever between the pivoted end thereof and the pivotal connection with said link, a cross pin fixed to said primary lever and extending through said slot to permit limited pivotal movement between said primary lever and said secondary lever and a longitudinally extending lug on the pivotally connected end of said link, said secondary lever and said link providing a toggle so proportioned as to pass over dead center and lock with said jaws in work clamping position, said lug engaging said cross pin when said toggle is in locking position whereby upon movement of said primary lever away from said handle and relative to said secondary lever, said cross pin will move in said slot and apply a force to said lug greater than that applied to said primary lever to move said link and secondary lever to break said toggle and release said jaws from clamping position.

2,838,974
TUNING HEAD FOR STRINGED INSTRUMENTS
Clarence Leo Fender, Fullerton, Calif.
Application November 4, 1955, Serial No. 544,957
5 Claims. (Cl. 84—306)



1. A tuning head for stringed instruments, comprising: a head structure having a recess therein; a peg box having side and end walls dimensioned to fit within said recess, a marginal flange overlying the margins of said recess, a central longitudinal rib defining with said side walls a pair of channels, and a plurality of journal openings in said rib and side walls; a mounting plate disposed outwardly of each side wall; a series of tensioning units carried by each mounting plate and including peg shafts projecting horizontally therefrom and journaled in said openings; and peg handles projecting upwardly from said tensioning units.

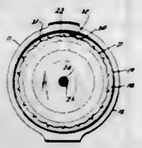
2,838,975
MEANS FOR MAKING STEREOSCOPIC PICTURES
Grover Laube and Sol Halprin, Los Angeles, Calif., assignors to Twentieth Century Fox Film Corporation, New York, N. Y., a corporation of Delaware
Application March 19, 1954, Serial No. 417,392
6 Claims. (Cl. 88—16.6)



1. In an arrangement of the character described, a pair of cameras each having their image planes extending substantially perpendicularly, a common supporting base for said cameras, each of said cameras having planar film therein, the plane of which defines said image plane, each of said cameras comprising a light tight box with a cylindrical opening therein through which light may enter and impinge on said film, a lens holder rotatably mounted in said cylindrical opening, the axis of said cylindrical opening extending perpendicular to said image plane, a lens mounted on said holder with the principal axis of said lens off-centered with respect to said axis whereby rotation of said holder in said opening changes the angle of incidence defined by said principal axis and

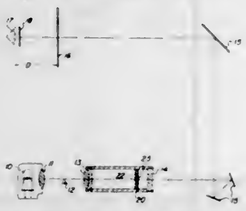
said plane, a focusing lens for each camera having the central optical axis thereof making an acute angle with respect to the normal of the corresponding image plane. and a tiltable mirror disposed on said base between said cameras for projecting the optical axis of one of the cameras to a remote point of convergence with the optical axis of the other camera.

2,838,976
CONTAINER WITH ANIMATED DISPLAY
Joseph B. Berger and David Berger, Brooklyn, N. Y.
Application September 19, 1956, Serial No. 610,794
1 Claim. (Cl. 88—18.8)



In a device of the character described, a cover having inner and outer plies, a flanged plate arranged in fixed position between the plies and having a stud affixed centrally thereto, a disk having a multiplicity of figures arranged in side by side relation and extending continuously in annular form on the forward face thereof, said disk having a tubular shaft mounted for rotation on said stud with the shaft extending through the forward face of said cover and having a handle affixed thereto for manually turning the shaft, said inner and outer plies and said plate being secured together at their peripheries, said outer ply having an opening through which said figures are visible, said disk having radial projections extending outwardly therefrom centrally between each adjacent pair of figures, and means carried by the flange of said plate projecting into the path of movement of said projections for momentarily arresting said disk during rotation thereof each time a figure is in registry with said opening to provide an animated display with the rotation of said disk.

2,838,977
STEREO CONTOUR PROJECTOR
Allen R. Fultz and Bert V. Stevens, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application June 30, 1954, Serial No. 440,314
5 Claims. (Cl. 88—24)



1. A stereo optical system for a contour projector comprising means for illuminating an object to be viewed, an image display screen, a telecentric lens system for receiving light from the object and projecting an image thereof on the screen, said telecentric lens system including a first objective for receiving the light from the object and an aperture plate with two horizontally spaced apertures as the telecentric stop of the lens system located in the rear focal plane of said objective and a pair of anaglyph filters respectively over the apertures for distinguishing the two beams passing through the apertures.

2,838,978
FOUR LENS PHOTOGRAPHIC OBJECTIVE
Jiro Mukai, Musashino City, Tokyo, Japan, assignor to Canon Camera Company, Inc., Otaku, Tokyo, Japan, a corporation of Japan
Application May 23, 1956, Serial No. 586,691
Claims priority, application Japan November 12, 1955
1 Claim. (Cl. 88—57)

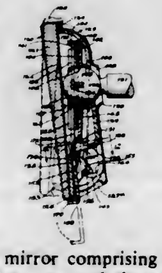


A photographic objective corrected for spherical and chromatic aberration, coma, astigmatism, field curvature and distortion, comprising a single element front component L_1 in the form of a collective meniscus with its convex surface having the curvature r_1 toward the object side of the objective, a second single element component L_2 is a dispersive biconcave element air spaced from the first component with its stronger concave surface of curvature r_4 towards the image side, and a third component spaced from the second component comprises a dispersive element L_3 cemented to a collective element L_4, the cemented surface of the convex curvature r_6 facing the object side, wherein the radii of curvature $r_{subscript}$ of the lens elements $L_{subscript}$, the distances $d_{subscript}$ along the optical axis, the refractive indices $n_{subscript}$ and the Abbe numbers $\nu_{subscript}$ of the lens elements, the subscripts increasing in the direction from the object to the image side of the objective, are as follows:

[f=1 2α=46° F=2.8.]

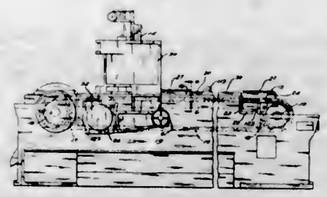
Lenses	Radii	Thickness Spacings	Refractive Index	Abbe Number
L_1	r_1=0.379 r_2=9.205	d_1=0.097 d_2=0.072	n_1=1.6583	ν_1=57.3
L_2	r_3=−0.741 r_4=0.310	d_3=0.027 d_4=0.061	n_2=1.5930	ν_2=34.3
L_3	r_5=∞ r_6=0.348	d_5=0.021	n_3=1.5111	ν_3=60.6
L_4	r_7=−0.549	d_6=0.136	n_4=1.6910	ν_4=54.8

2,838,979
REAR VISION MIRROR
Lynn C. Meade, Buffalo, N. Y., assignor, by mesne assignments, to Standard Mirror Company, Inc., Buffalo, N. Y., a corporation of New York
Application November 26, 1954, Serial No. 471,373
4 Claims. (Cl. 88—77)



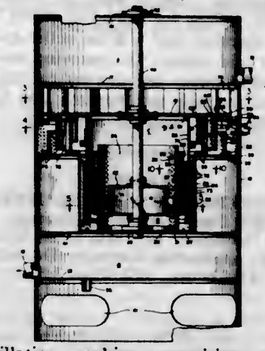
1. A rear vision mirror comprising a supporting stem having a ball fixed to one end thereof, a first ball engaging plate having a hole surrounded by a seat engaging the stem side of said ball, a second ball engaging plate having a seat engaging the side of said ball opposite its stem, means securing said ball engaging plates together in compressive relation to said ball, a mirror supporting panel plate having an opening in register with the opening of said first ball engaging plate and surrounding the stem side of said ball, a pivotal connection between said mirror panel supporting plate and said first ball engaging plate, the axis of said pivotal connection being generally horizontal and generally parallel with said mirror panel supporting plate, a seat provided on said first ball engaging plate remote from said axis, a seat provided on said mirror panel supporting plate in spaced opposing relation to said last seat and one of said last two seats being in spaced opposing relation to said axis, a toggle member having opposite parts pivoted in said last two seats and swingable through a dead center relation to said axis as said mirror supporting panel is swung about said axis, a reflective mirror panel, means fixing the margin of said mirror panel to the margin of said mirror panel supporting plate, and a finger piece fast to one of said ball engaging plates and projecting vertically therefrom in close proximity to the corresponding edge of said reflective mirror panel in one extreme position of the latter about said axis, whereby upon seizing said finger piece and said means fixing the margin of said reflective mirror panel to the margin of said mirror panel supporting plate said reflective mirror panel and ball engaging plates can be adjusted about said ball without disturbing the adjustment of said reflective mirror panel about said axis with reference to said ball engaging plates.

2,838,980
CONTINUOUS BROACHING MACHINES
Walter F. Babcock, Cleveland, Ohio, assignor to The Foote-Burt Company, Cleveland, Ohio, a corporation of Ohio
Application October 3, 1956, Serial No. 613,623
4 Claims. (Cl. 90—33)



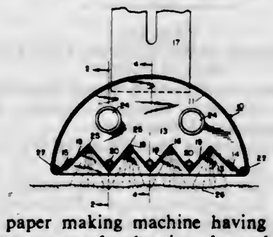
1. A broaching machine comprising a work holder mounted on an axis for rotation, an endless chain, means mounting said chain for travel of one of its runs past said work holder in a direction substantially parallel to said axis, an indexing mechanism so constructed that when started will rotate said work holder a certain portion of a revolution and stop, trigger means adapted to be actuated for starting said indexing mechanism, broaching blocks mounted on said chain, at least one spacer block between certain adjacent broaching blocks, means correlating the movement of said chain to said indexing mechanism so that said indexing mechanism is operated during the travel of a spacer block past said work holder, means on said broaching and spacing blocks for detachably receiving lugs for operating said trigger means to initiate an indexing operation whereby lugs on said broaches that precede a spacer block can initiate a single indexing cycle with a single intervening spacer block and lugs on all but the last spacer blocks, when two or more are employed, can initiate a plurality of indexing cycles between broaches, and lugs in said detachable receiving means in accordance with the disposition of said intervening spacer blocks.

2,838,981
CELLULOSE FIBRILLATING MACHINE
David A. Dent, Chicago, Ill.
Application March 2, 1956, Serial No. 569,039
15 Claims. (Cl. 92—1.4)



1. A fibrillating machine comprising, a tank having axially-spaced inlet and outlet ports, a flat disk transversely spanning the tank above the outlet port and formed with an annular series of apertures, a plurality of axially-spaced variable-length concentric cylindrical elements fixed to the disk, a shaft journaled in the tank, a second flat disk fixed to the shaft in axially-spaced relationship to the first disk and being of a diameter less than the inside diameter of the tank, a ring fixed on the inner periphery of the tank in radial alinement with the second disk and formed with an annular series of apertures, a second ring fixed on the inner periphery of the tank in axially-spaced relationship above the first ring, a series of angularly-disposed baffles fixed on the inner face of the tank intermediate the two rings, a plurality of axially-spaced variable-length concentric cylindrical elements fixed on the second disk and interposed between the respective elements on the first disk and thereby forming a circuitous passage between the tank ports, means for rotating the shaft, and pronged means variously fixed on the upper faces of the second disk and the opposed ring and on the opposed faces of the cylindrical elements to so restrict the passage as to accelerate the fibrillating of the cellulosic pulp entering the tank inlet port and being forced through the passage, for discharge through the apertures in the first-mentioned disk.

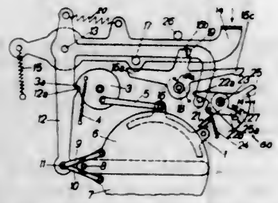
2,838,982
APPARATUS FOR APPLYING DRIED STEAM TO A PULP MAT TO EVAPORATE WATER THEREFROM
Joseph H. Dupasquier, Gladstone, Oreg.
Application November 7, 1955, Serial No. 545,315
2 Claims. (Cl. 92—38)



1. In a paper making machine having a Fourdrinier wire section, means for heating the pulp mat on the Fourdrinier wire to facilitate the withdrawal of moisture therefrom, said means including a completely enclosed steam chamber positioned above said wire and extending transversely from one side of said wire to the other, said chamber having a bottom wall formed into a series of identical, V-shaped sections forming alternate ridges and

valleys extending from one end of said chamber to the other, said ridges lying in a substantially horizontal plane parallel to said wire and said valleys similarly lying in a substantially horizontal plane parallel to said wire, each of said ridges having a row of steam jet orifices discharging downwardly, means for delivering steam under pressure into said chamber, and a drain outlet and tap at an end of each of said valleys for removing moisture from said valleys and chamber and thereby causing the steam discharged onto the pulp mat beneath said bottom wall of said chamber to be relatively dry.

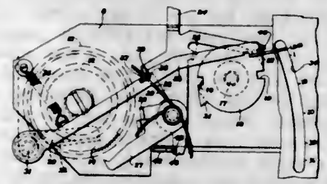
2,838,983
PHOTOGRAPHIC LENS SHUTTER
Erich Burger, Munich, Germany
Application November 18, 1952, Serial No. 321,197
Claims priority, application Germany December 8, 1951
11 Claims. (Cl. 95—11.5)



1. A photographic camera shutter and flash actuating mechanism comprising a manually actuated release lever, an intermediate lever, resilient means coupling said intermediate lever to said release lever latch means operatively coupled to said intermediate lever for holding said intermediate lever motionless until said manually actuated release lever moves a distance sufficient to tension and cock said intermediate lever, said release lever including actuating means which contacts said latch means to release said intermediate lever after said release lever has moved said tensioning distance, a flash-controlling switch means including a pair of contacts, a shutter-driving means, said intermediate lever including means for releasing said shutter-driving means and means for actuating said switch means, preselectable means for adjusting the position of a contact of said switch means to cause said switch to close at times varying from before the time of release of said shutter-driving mechanism to times relating to full shutter opening and thereafter, and said preselectable means being operatively engaged with said latch means when it is set for a daylight exposure to permit said intermediate lever to freely follow the movement of said manually actuated release lever and to prevent inadvertent closure of said switch.

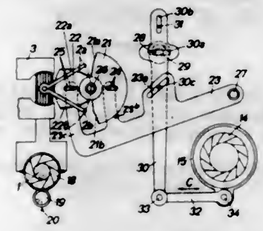
2,838,984
FIRST EXPOSURE POSITIONING AND COUNTER MECHANISM
Norman N. Lareau and David E. Beach, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application December 26, 1956, Serial No. 630,481
12 Claims. (Cl. 95—31)

3. In a roll-film camera having a supply roll and a take-up drum, the combination of: film winding means for moving a film from said supply roll to said take-up drum; locking means cooperating with said film winding means to selectively lock said film winding means in successive film exposure positions; a follower pivotally mounted on said camera about one end and having its opposite end adapted to ride on said take-up drum, said follower adapted to be pivotally movable by the build up of film on said take-up drum; a member having one end connected to said follower and adapted to be pivotally movable therewith; and means carried by said member cooperating with said locking means to withhold said locking means from said film winding means as said film is



wound on said take-up drum, and to automatically release said locking means to lock said film winding means when said film has been advanced to a first exposure position.

2,838,985
AUTOMATIC EXPOSURE REGULATOR FOR PHOTOGRAPHIC APPARATUS
Michael Burger and Erich Burger, Munich, Germany
Application August 4, 1953, Serial No. 372,243
Claims priority, application Germany August 11, 1952
2 Claims. (Cl. 95—64)

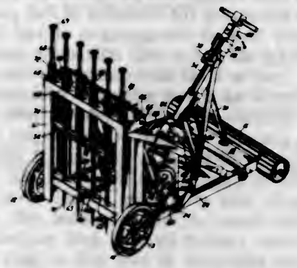


1. An automatic exposure regulator for photographic apparatus, preferably for motion picture cameras, having means for controlling the exposure of the film, comprising a galvanometer including a bifurcated pointer structure with downturned terminal ends, said pointer being deflected in accordance with the degree of incident light, a scissors-like organ positioned adjacent to said pointer structure and including opposed blades straddling the respective terminal ends of said bifurcated lever whereby rotation of said blades serves to clamp one or the other of said terminal ends therebetween, a second pivoted control lever, link means connecting said second lever with said film exposure control structure, and a third pivoted lever connected to operate the respective blades of said scissors-like organ, and means interconnecting said second and third levers for controlling the movement of said second lever in accordance with the clamping action of said blades on one or the other arm of said bifurcated indicator.

2,838,986
SOD PERFORATING MACHINE
Earl M. Fessel, Seattle, Wash.
Application July 11, 1955, Serial No. 521,008
6 Claims. (Cl. 97—36)

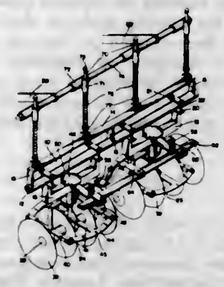
3. A sod perforating machine, comprising: a free rolling carriage, a gang of reciprocal spikes on said carriage mounted for swinging motion from a substantially upright position to a position of forward inclination, means to raise said gang of spikes, a driven crank on said carriage, link means between said crank and said gang of spikes to swing the latter forwardly of said carriage, and

spring means to drive said spikes into the sod to thereby anchor the same, said crank and link means operable



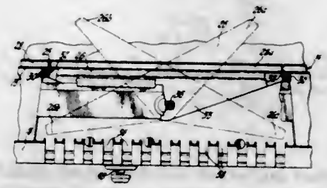
between said carriage and said anchored gang of spikes to draw said carriage forward over the sod.

2,838,987
POWER LIFT DISC CULTIVATOR FOR TRACTORS
Ollie L. Burton, Renton, Wash.
Application October 12, 1953, Serial No. 385,405
2 Claims. (Cl. 97—47.63)



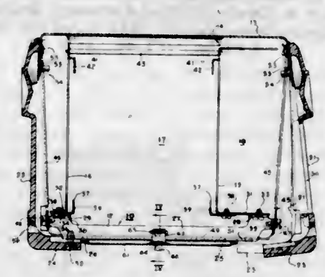
1. A disc cultivator for use with a tractor, comprising: a supporting frame including a common tie bar and a pair of separate supporting bars positioned below the tie bar at either side of the middle thereof and clamp means at each end of the supporting bars manually adjustable to clamp the tie bar at various locations permitting adjustable spacing of the supporting bars; a pair of separate banks of discs positioned one under each supporting bar and each bank having a series of juxtaposed discs rotatably mounted on a common shaft; a secondary frame for each bank of discs including bearings for said common shaft and an upstanding central pivot shaft; a bearing depending from each supporting bar in which the corresponding pivot shaft is positioned and manually adjustable means on the pivot shafts for locking the banks of discs relative the supporting bars at various angles of presentation relative the direction of movement of the cultivator; flexible draft means leading directly forward from each secondary frame and attachable to the tractor; a rigid connecting arm extending rearwardly from each supporting bar and fixedly secured thereto, a rigid transverse bar extending between the rear ends of said connecting arms and connected thereto by adjustable connecting means with the points of connection adjustable along the transverse bar, a rigid draft bar having its front end attachable to a tractor hitch and having it rear end connected to the middle of said transverse bar by means permitting pivoting of the draft bar relative to the transverse bar about an upright axis and securing the transverse bar, connecting arms and secondary frames against tipping out of a generally horizontal position.

2,838,988
AUTOMOBILE VENTILATOR
Harry M. Townsend, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 17, 1954, Serial No. 430,156
4 Claims. (Cl. 98—2)



1. In a vehicle, ventilating apparatus of the character described, including; an outer body panel having a ventilating opening therein facing in a generally vertical plane; a shutter for closing the ventilating opening; means for mounting said shutter intermediate its ends on a vertical axis spaced inwardly from the body panel for pivotal movement selectively in either of two opposite directions; an arm mounted at said axis for pivotal movement with said shutter about said axis and extending in a direction generally parallel to the plane of the shutter to a location at one side of said axis; an oscillatable lever; means providing a bodily movable connection between said lever and arm; and operating means inside the vehicle for oscillating said lever to pivot said shutter between a closed position in which it covers said ventilating opening and a selected open position.

2,838,989
TOASTER APPARATUS
Earl K. Clark and Bernard F. Parr, Mansfield, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 27, 1954, Serial No. 477,902
1 Claim. (Cl. 99—401)



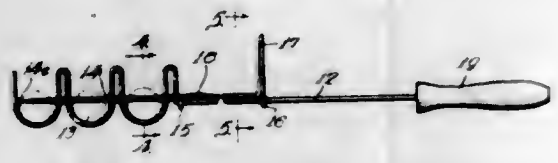
In a toaster casing, the combination of a pair of laterally spaced frames forming a base, a shell of inverted U-shape disposed above the base and having lower marginal portions and open ends, said shell having inwardly extending generally vertical flanges formed about the open ends thereof and generally horizontal flanges extending inwardly from its lower marginal portions, a pair of transverse partitions fixed to the frames and defining a toasting chamber within the shell, a pair of end covers for the open ends of the shell including respective foot portions extending beneath the frames and forming supports therefor, respective clips secured to upper portions of the covers and coupling the latter to upper regions of said vertical flanges of the shell, a plurality of fastening devices securing said vertical flanges of the shell to the ends of said frames and a plurality of screws securing said foot portions of the end covers, said horizontal flanges and the frames together.

2,838,990

ROASTING RACK FOR WIENERS AND THE LIKE

Edward J. Stiburski, East Chicago, Ind., assignor to Ekco Products Company, Chicago, Ill., a corporation of Illinois

Application June 10, 1953, Serial No. 360,684
1 Claim. (Cl. 99—419)



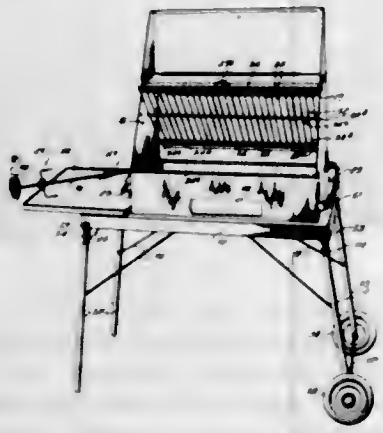
A culinary implement including an elongated shank, a pair of spaced arms forming a forward extension of said elongated shank and substantially aligned therewith, each said arm being formed with a plurality of axially spaced integral troughs, the troughs of one arm being in transverse alignment relative to the shank with the troughs of the other arm to form supports therebetween for receiving a plurality of food articles in spaced relationship, and a control member slidably supported for fore and aft movement on the shank between a first extended position and a second retracted position, said control member having a forward extension rigid and substantially aligned therewith and movable to overlie said supports in said extended position and to be clear of said supports in said retracted position and with which said articles, while in supported position, have engagement to prevent removal of the articles from the supporting troughs when the control member is in its first position whereby said articles are sequentially releasable from the supporting troughs as the control member is moved from the first position toward its second position.

2,838,991

PORTABLE COOKING STOVE AND STAND

Erwin S. Kleinmann, Arthur C. Keller, Dubart A. Moore, Clyde R. Horn, and Albert E. Lindblom, Dallas, Tex., assignors to Dearborn Stove Company, Dallas, Tex.

Application November 25, 1953, Serial No. 394,418
1 Claim. (Cl. 99—421)



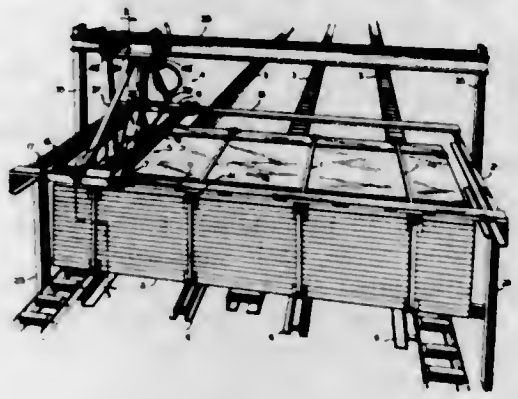
In a portable cooking stove, the combination comprising a casing having opposed end and side walls, the latter having opposed flanges, said end walls each provided with a pair of spaced apart vertical slots having notches in one edge thereof, the slots in one end of said casing being aligned with corresponding slots in the opposite end thereof, a rod extending through each pair of aligned slots and through said casing, means joining the ends of said rods exteriorly of said casing at each end thereof and defining handles for lifting said casing and for engaging said rods selectively with the notches in said slots to raise and lower said rods, a fire pan having opposed side flanges resting on said rods within said casing and movable therewith, said fire pan having an apertured false bottom and an open sided chamber below said false bottom for the reception of fuel residue passing downwardly through the apertures of said false bottom, a supporting rail for a grill affixed to and coextensive with the rear wall of said casing and having a longitudinal slot in each end, said grill composed of a plurality of transverse rods, the endmost rods having their rear ends extended and bent at right angles to said transverse rods for reception in the slots of said supporting rail to permit hinging and lateral sliding displacement of said grill, said grill being supported at its opposite side on the flange of the companion side wall of said casing, means carried by said grill receivable in apertures in the end walls of said grill to hold the latter in raised position, a longitudinally movable spit shaft rotatable in said casing above said grill, means for rotating said spit shaft, means for locking the latter against rotation, and a pair of spit forks adjustably mounted on said spit shaft, each comprising a substantially U-shaped mounting member whose legs are formed with aligned holes receiving said spit shaft and a substantially U-shaped fork member affixed at its bight portion to the legs of said mounting member, the ends of said fork lying parallel with said spit shaft, means for securing said mounting member in adjusted positions on said spit shaft, means for holding said spit shaft against rotation, comprising a disc mounted on one end of said spit shaft and having a plurality of annularly spaced apertures therein and means protruding from one end of said stove casing adapted to be selectively received in the aperatures of said disc when said spit shaft is shifted longitudinally in said casing.

2,838,992

APPARATUS FOR APPLYING METAL BANDS ABOUT AN ARTICLE OR ARTICLES

Ray C. Demler, Tacoma, Wash., assignor to International Packaging Corporation, Tacoma, Wash., a corporation of Washington

Application September 2, 1952, Serial No. 307,482
9 Claims. (Cl. 100—32)



1. An apparatus for tightening a band member about an object so that the oppositely disposed ends of said band member may be fastened together, comprising a track member, a frame member slidable upon said track member, a first clamp member pivotally attached to one side of said frame member, a second clamp member pivotally attached to an oppositely disposed side of said frame member, said second clamp member being movable toward said first clamp member, said first and second clamp members being substantially in alignment with each other, and motor means connected to said second clamp member for moving said second clamp member toward said first

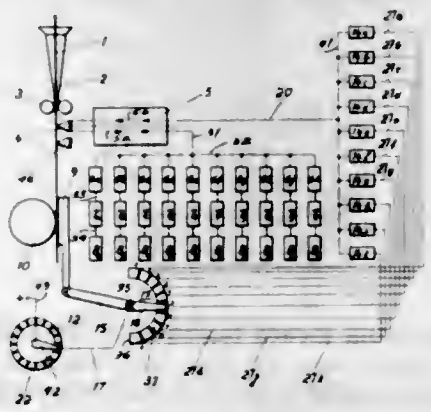
clamp member to thereby tension said band member and to permit overlapping of said oppositely disposed ends of said band member.

2,838,993

SELECTIVE PRINTER RESPONSIVE TO SOUND TRACK ON RECORD CARD

Kurt Hinrichs, Oldenburg, Germany, assignor to Exacta Buromaschinen G. m. b. H. Köln, Koln-Deutz, Germany

Application November 1, 1955, Serial No. 544,285
Claims priority, application Germany November 2, 1954
20 Claims. (Cl. 101—93)



1. In a bookkeeping machine using cards having soundtrack record carrier means adapted to have recordings thereon corresponding to different characters, in combination, pickup means for successively sensing recordings on the soundtrack record carrier means of the card and for producing signals having predetermined characteristics associated with the respective sensed recordings; marking means having a plurality of said characters thereon and being movable between a plurality of positions, said marking means being adapted to mark on the card, in each of said positions one of said different characters corresponding to one of the characters represented by a recording on said soundtrack record carrier means; means connected to said pickup means and being selectively responsive to signals produced by the same; and operating means controlled by said selectively responsive means and connected to said marking means for moving the same between its positions in accordance with the predetermined characteristics of the respective signals whereby a character is marked on said card corresponding to the character represented by the recording on the soundtrack record carrier means sensed by said pickup means.

2,838,994

ELEMENTS FOR USE IN PRACTICE OF SPIRIT DUPLICATION PROCESS

Richard C. Lebl, North Riverside, Joseph Savit, Maywood, and Robert T. Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois

No Drawing. Application April 11, 1956
Serial No. 577,453
15 Claims. (Cl. 101—149.4)

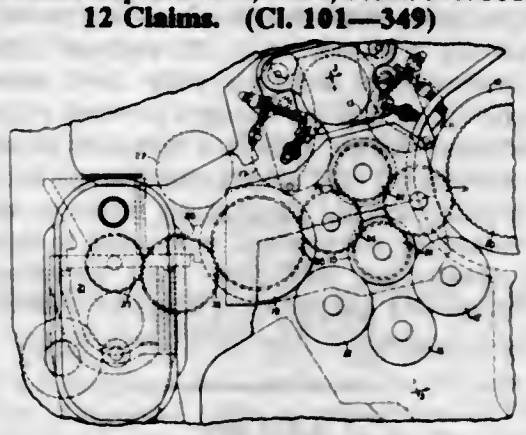
6. An imaged duplicating master comprising a master sheet and an image on the surface of the master sheet containing a coupler capable of reaction with a diazo compound to form an azo dyestuff, a compound selected from the group consisting of a diazo and an amine capable of diazotization, and a diazo-coupler complex compound, said materials being soluble in a medium selected from the group consisting of alcohol and water and mixtures thereof, said materials being stabilized against coupling reaction to form the azo dyestuff at the pH of the imaging materials.

2,838,995

INK MOTION

Emory W. Worthington, York, Pa., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York

Application September 9, 1955, Serial No. 533,476
12 Claims. (Cl. 101—349)



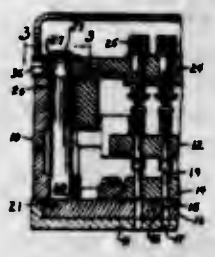
1. In a printing machine ink motion, a pair of form rollers for inking a plate cylinder, means for supplying ink to the form rollers and comprising for each form roller two drums, means for supporting the four said drums with their axes substantially coplanar, and means for reciprocating the said drums axially comprising a rotary shaft substantially coplanar with the axes of the four said drums and a reciprocating mechanism connecting the shaft to each said drum for axially reciprocating the same.

2,838,996

PAGE CUT-OFF FOR INKING MECHANISM

Emory W. Worthington, Dobbs Ferry, and Patrick A. Walsh, New York, N. Y., assignors to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York

Application July 28, 1954, Serial No. 446,212
4 Claims. (Cl. 101—365)



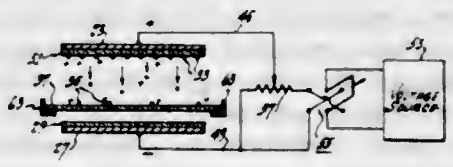
1. In a printing machine ink pumping mechanism, having a page cut off member comprising a horizontally slidable ported bar movable within a housing between two positions for respectively discharging ink and bypassing it back to a reservoir, operating mechanism comprising for each such page cut-off bar, a rotatable vertical shaft, a pin and slot connection inside the housing, formed in the shaft and bar respectively and substantially coplanar with the upper surface of the bar, and a manually turnable end upon the said shaft extending upwardly beyond the ink level within the housing and accessible from the exterior of the housing.

2,838,997

ELECTROSTATIC IMAGE COPYING METHOD

Alexander J. Moncrieff-Yeates, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware

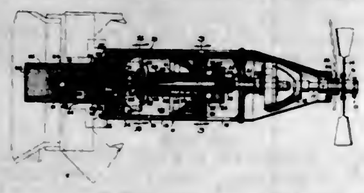
Application October 30, 1953, Serial No. 389,246
2 Claims. (Cl. 101—426)



1. A method of producing a plurality of powder images from a single electrostatic image which comprises repeat-

ing the following steps for each of said powder images: charging in one polarity of charge a layer of powder having a bulk resistivity of at least 10^{10} ohm-centimeters, attracting the powder to a surface of a dielectric body, bringing the electrostatic image having the opposite polarity of charge into closely spaced relation to the charged powder on the dielectric body, for each of said powder images interposing a dielectric copy sheet between the electrostatic image and the charged powder; and applying a unidirectional electric field in a direction for attracting said powder toward said electrostatic image between the charged powder and the electrostatic image to attract the powder toward the electrostatic image and to deposit said attracted powder on said copy sheet for producing a powder image said electric field being in addition to the electric field produced by the electrostatic image.

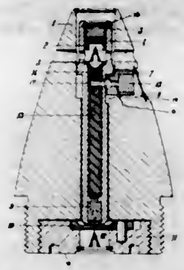
2,838,998
HYDROSTATIC TAIL FUSE
Harry H. Deringer, United States Navy
Application July 7, 1941, Serial No. 401,325
12 Claims. (Cl. 102—7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A hydrostatic fuse for a bomb adapted to be released from an aircraft, comprising a casing having a detonator charge arranged therein, a percussion device disposed within said casing and adapted to fire said detonator charge, means for releasably maintaining said percussion device in an unarmed position, a releasably locked shaft rotatably secured to said casing and having an air impeller secured thereto adapted to rotate the shaft during the travel of the bomb through the air, means including an arming wire for releasing said shaft for rotation as the bomb falls away from the aircraft, a second rotatable shaft disposed within said casing, means including a plurality of gears for causing said second rotatable shaft to be operated by the first named shaft at a reduced speed with respect to the first named shaft, means controlled by said second shaft for releasing said percussion device for operation, and means responsive to the pressure of the water within which the bomb is dropped for causing the detonator charge to be fired by said percussion device when the bomb has reached a predetermined depth of submergence therein.

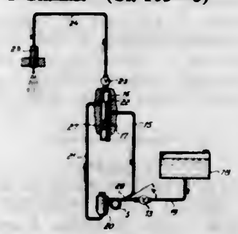
2,838,999
SENSITIVE FUSES
Giannino Corsi, Rome, Italy, assignor to Bombrini Parodi-Delfino, Rome, Italy, an Italian company
Application March 2, 1955, Serial No. 491,585
Claims priority, application Italy April 27, 1954
3 Claims. (Cl. 102—72)

1. A percussion fuse for projectiles having a mechanism for self-destruction after a predetermined time comprising a fuze body provided with an axial bore and a rear recess in a continuation of said bore, a plug screwed in said recess and provided with a rear holed needle axially positioned in said plug, a hollow striking pellet coaxially arranged in said axial bore of said fuse body, said striking pellet containing an ignition train comprising a fore priming cap, a delay charge, a match and a rear priming cap, said elements comprising said ignition train being in alignment and directly succeeding one another, said ignition train further containing a holed needle interposed between said fore priming cap and said delay charge, said rear priming cap being in ignition relation with said holed needle of said plug, said hollow striking pellet having a wall provided with a transverse bore opening at the bottom of said delay charge, said fuse body being provided with a transverse bore registering with the transverse bore of said striking pellet, a metallic latching element slidably arranged in said transverse bore of the fuse body and engaging said striking pellet preventing it from moving rearward with respect to the



fuze body, retaining means fastened to the said fuze body at said transverse bore of the fuze body to keep said latching element inside said transverse bore and to hinder the sliding of said latching element and removal thereof from the fuze body under the action of centrifugal force until the delay charge of said ignition train has been ignited, burnable means contained in said latching element and arranged to be ignited by the flash of said delay charge, whereby the ignition of the burnable means causes the removal of said reatining means and the expulsion of the latching element from the fuze body under the action of centrifugal force.

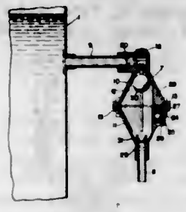
2,839,000
FUEL INJECTION DEVICE
Josef Faust, Siegburg, Germany, assignor to Klöckner-Humboldt-Deutz Aktiengesellschaft, Koln-Deutz, Germany
Application February 11, 1954, Serial No. 409,609
Claims priority, application Germany February 14, 1953
3 Claims. (Cl. 103—5)



1. In combination in a feeding arrangement for use in connection with a fuel injection pump having a fuel intake opening and an overflow opening and being arranged for supplying fuel to an internal combustion engine: a fuel reservoir, a body provided with first conduit means, a fuel filter having a casing with a recess therein and also having an inlet connected with said fuel reservoir, said fuel filter also having an outlet connected with one end portion of said first conduit means for conveying fuel thereto, said body being provided with second conduit means having one end portion thereof connected to said intake opening of said pump for discharging fuel thereinto, connecting means effecting communication between the other end portions of said first and second conduit means, said connecting means being formed by coiled conduit means mounted in said recess

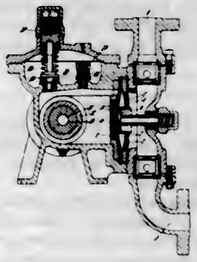
of the casing of said filter, and third conduit means having one end portion thereof connected to said overflow opening for receiving overflow fuel from said fuel injection pump and having its other end portion leading into said first conduit means at an acute angle with regard to the longitudinal axis of said first conduit means so that the legs of said angle open in a direction opposite to the desired direction of flow of fuel in said first conduit means toward said fuel intake opening.

2,839,001
AIR VOLUME CONTROL MECHANISM
Howard A. Tubbs, Whitewater, Wis.
Application September 27, 1954, Serial No. 458,303
5 Claims. (Cl. 103—6)



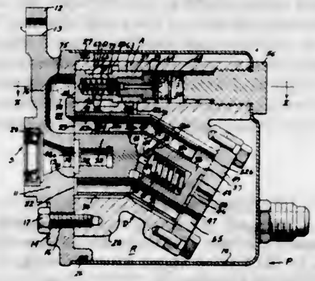
1. In a fluid pressure system having a pump to supply liquid to a liquid supply tank and an air volume control to supply air to said tank, a conduit connecting said control to the tank, a freely movable ball check valve disposed in said conduit and providing for unrestricted flow of air through the conduit in either direction but restricting the flow of liquid from the tank to the control, a check valve secured to the control to admit air to said control, means connecting said pump to the tank, a second conduit extending between the control and the suction side of the pump, and a second valve disposed in the control and adapted to close off the second conduit to prevent air from entering the suction of the pump from the control when the control is substantially drained of liquid, the said first named conduit being the sole connection between the control and tank and the second conduit being the sole connection between the control and said pump.

2,839,002
PUMPS
Ernest Williams, Tunbridge Wells, England
Application May 13, 1955, Serial No. 508,284
Claims priority, application Great Britain May 13, 1954
8 Claims. (Cl. 103—37)



1. A pump mechanism comprising a hydraulically operable diaphragm for pumping liquids or gases, a hollow plunger for acting upon the hydraulic fluid controlling said diaphragm, means for causing said plunger to carry out reciprocating movements, a passage extending from the fluid space through the interior of said plunger to a reservoir at atmospheric pressure, a control member over which said hollow plunger slides during its reciprocating movements, said plunger being provided with port openings which form part of said passage and which are closed by said control member during the application of pressure to said diaphragm but which are uncovered during part of the stroke of the plunger whereby the fluid pressure is released at least once during each cycle of the pump, and means for adjusting the position of said control member with respect to said plunger so as to vary the point in the stroke of the plunger at which said port openings are uncovered and thereby effect a corresponding variation in the effective capacity of the pump.

2,839,003
COMBINATION FLOW CONTROL AND RELIEF VALVE
John E. Thrap, East Cleveland, and Robert C. Roller, Cleveland Heights, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 20, 1956, Serial No. 566,510
6 Claims. (Cl. 103—42)



1. In combination, a sleeve pump comprising a housing having an inlet and an outlet, fluid displacement means in said housing comprising a pair of apertured cylinder blocks journaling an angularly bent sleeve-type piston and, in turn, journaled for rotation in said housing on intersecting axes disposed on the same angle as said sleeve-type piston, said housing having porting means at one end of each said cylinder block cooperating with an adjoining end surface of a corresponding cylinder block, loading means in said housing between the cylinder blocks for loading the cylinder blocks against the porting means and including a pressure-control chamber receiving an induced flow of fluid pressurized by the pump and passing through the clearance spaces between said piston and said cylinder blocks, a recirculating by-pass between said outlet and said inlet, and a flow control valve in said outlet in control of said by-pass, a passage communicating with said pressure control chamber, said valve having auxiliary means in control of said passage to reduce the pressure in said pressure control chamber whenever maximum volumetric efficiency is not required, thereby to unbalance the cylinder blocks and effect a direct by-pass at said porting means.

2,839,004
PUMP
Charles C. Carlisle, Tulsa, Okla.
Application October 29, 1953, Serial No. 389,035
12 Claims. (Cl. 103—46)

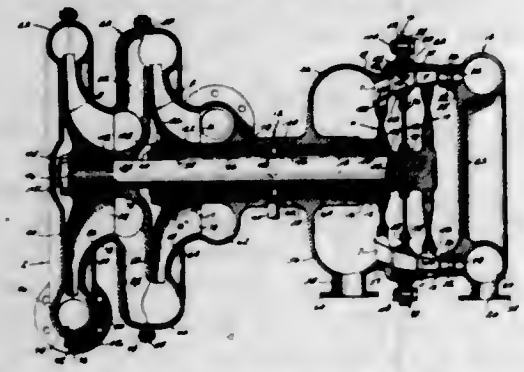
1. A double acting pump including a pump cylinder, means dividing the pump cylinder into separate pump chambers at opposite ends thereof, a combination power and pump piston having reciprocatory movement in the pump cylinder, and having a head reciprocatable in one of the pump chambers and cooperating with said dividing means to provide a power chamber intermediate the pump chambers and between said head and said dividing means, means for admitting pressure fluid to the power chamber to act on said head to effect movement of the

combination power and pump piston in one direction, said combination power and pump piston being tubular and having an open end at said head and closed at the other, said dividing means including an axial tube in one end of the pump cylinder and extending into the open end of said piston and cooperating with the wall of the



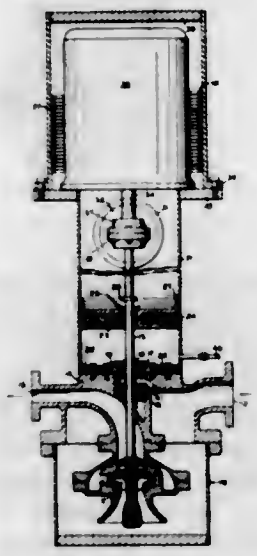
pump cylinder in giving the pump chamber at that end an annular cross-section of substantially the same area as the cross-sectional area of the pump chamber at the other end of the cylinder and provide a power chamber within said pump piston, and means for admitting a pressure fluid through said axial tube into the last named power chamber to act upon said closed end to move said combination power and pump piston in the opposite direction.

2,839,005
TURBINE DRIVEN PUMP
Herbert E. Means, Hartford, Conn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application October 14, 1953, Serial No. 385,944
3 Claims. (Cl. 103—87)



1. A turbine driven liquid pump including a housing, a first shaft, first bearing means in said housing comprising axially spaced aligned bearing members having a bore therethrough of smaller diameter than the inside diameter of said housing, said first shaft being mounted for rotation in said first bearing means and forming with said housing an annular chamber between said bearing members, a passage through said housing into said chamber, a first turbine rotor having turbine blades fixed to one end of said shaft, a first liquid pump impeller fixed to the other end of said shaft, said housing forming a first liquid pump casing around said first liquid pump impeller having an inlet and outlet, said housing forming a first turbine casing around said first turbine rotor, said first shaft having a bore therethrough, second bearing means in said bore comprising axially spaced aligned bearing elements, a second shaft mounted for rotation in said second bearing means and spaced from said first shaft by said second bearing means to form a second annular chamber between said bearing elements, a second turbine rotor having turbine blades fixed to one end of said second shaft, a second liquid pump impeller fixed to the other end of said second shaft, said housing forming a second liquid pump casing around said second liquid pump impeller having an inlet and outlet, said housing forming a second turbine casing around said second turbine rotor, the outlet of one liquid pump casing being connected to the inlet of the other liquid pump casing, means for lubricating said first and second bearing means, said last named means including a conduit connected to the outlet of a liquid pump casing for supplying the pumped fluid from said outlet through said passage into said first chamber, and means for supplying said pumped fluid to said bearing elements comprising passage means through said first shaft between said bearing members for connecting said second chamber with said first chamber.

2,839,006
PUMPS FOR HIGH VAPOR PRESSURE LIQUIDS
Hays C. Mayo, Bayside, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application July 12, 1956, Serial No. 597,369
8 Claims. (Cl. 103—87)

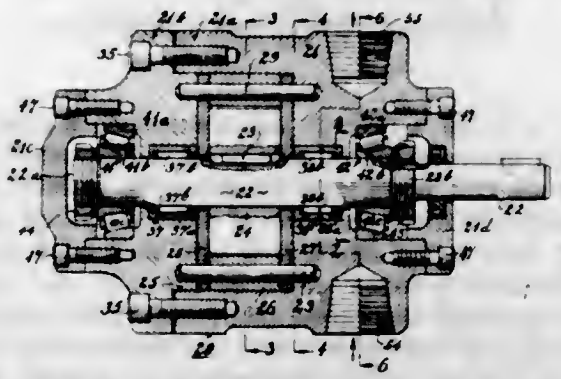


1. A pump system comprising a pump having a casing provided with an inlet side and an outlet side, a rotary pumping element in said casing adapted to receive liquid from said inlet side under inlet pressure and transfer it to said outlet side at an augmented outlet pressure, a shaft mounting said rotary pumping element, journal means in said casing, said shaft extending through said journal means and outwardly of said casing, an electric motor connected to said shaft to drive said shaft and said rotor element, a pressure tight container connected to said pump casing and housing said motor and the extending end of said shaft, said motor in open communication with the full length of said container, and heating means in said container positioned adjacent the pump end thereof and adapted to be contacted by liquid leaking out through said journal means when the liquid reaches the level of said heating means to vaporize said leaking liquid to maintain a pressure throughout said container at least equal to the pressure effective to cause the leakage.

2,839,007
ROTARY FLUID PRESSURE DEVICE
Elek K. Benedek, Chicago, Ill.; Melba L. Benedek, administratrix of said Elek K. Benedek, deceased, assignor to Melba L. Benedek
Application April 16, 1952, Serial No. 282,529
1 Claim. (Cl. 103—135)

A rotary fluid pressure device comprising a housing, a chamber in said housing, a rotor shaft extending through said chamber and mounted for rotation, a vaned pump rotor mounted on said shaft for rotation with said shaft, said rotor having fluid pumping means carried thereby for cooperation with said housing to provide pumping pressures within at least a portion of said chamber, said rotor having limited small axial clearance relative to the chamber in said housing, and means freely adjustably mounting said shaft relative to said housing to permit end-

wise axial adjustment of the position of said shaft relative to said housing and to provide axial slack take-up between said shaft and said housing, said means comprising a straight cylindrical needle roller bearing carried by said housing on each side of said chamber and rotatably carrying said shaft relative to said chamber, and oposed axial thrust bearing members each having one race member thereof secured in said housing against axial movement toward said chamber and the other race member slidably



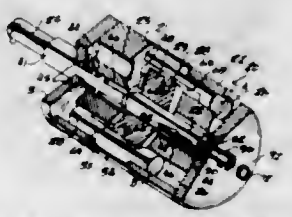
mounted on said shaft for axial adjustment therealong by an adjusting nut, said shaft and said housing and said bearings being free of cooperating abutment shoulders except at the two adjusting nuts at their sides facing toward said chamber and in cooperation with the said other race of the respective axial thrust bearing whereby said shaft may be axially freely adjusted relative to said housing by said adjusting nuts without other restriction against axial movement.

2,839,008

PUMP OR MOTOR

Hamill Stansfield and James Edge, Allentown, Pa., assignors to Carney-Stansfield Co., a corporation of Pennsylvania

Application July 20, 1955, Serial No. 523,221
5 Claims. (Cl. 103—173)



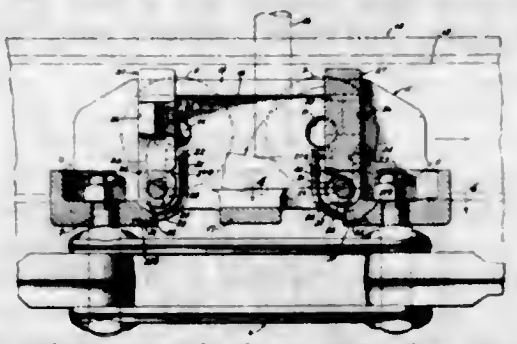
1. In a pressure fluid pump or the like, the combination comprising a housing defining a plurality of pairs of aligned cylinders arranged in circumferentially spaced relation, a shaft rotatably mounted in said housing, a barrel cam mounted on said shaft intermediate the opposed ends of said cylinders, a double acting piston reciprocably mounted in each of said pairs of cylinders, each piston having an intermeidate segmental recess for cooperating with said barrel cam to prevent rotation of said piston in said cylinders, means on said piston and within said recess for operatively engaging said cam, said housing having a first pressure fluid port intermediate said pairs of cylinders and a second pressure fluid port alined axially with said shaft, and means for distributing pressure fluid to and from said cylinders through said housing ports as an incident to the relative rotation of said shaft and said housing comprising a pair of sleeves axially alined in said housing corresponding to said pairs of cylinders and journaling said shaft for rotation, said sleeves having a plurality of ports communicating with said cylinders and a plurality of ports communicating with said first housing port, said shaft having a passage extending substantially axially therein and in communication with said second housing port, and said shaft having segmental cut-out portions for connecting said sleeve ports from said cylinders alternately to said first housing port and to said second housing port as said shaft rotates.

2,839,009

PUSHER ASSEMBLY

Paul M. Francis, Danville, Ill., assignor to Link-Belt Company, a corporation of Illinois

Application April 25, 1956, Serial No. 580,667
10 Claims. (Cl. 104—172)



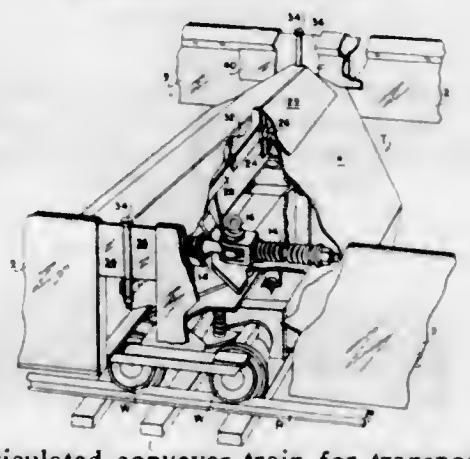
1. In a pusher assembly for a drive line conveyor, a body member having laterally spaced mounting slots closed at one end to provide laterally spaced bearing supports, a dog having laterally extending shaft portions insertable into said slots in journaled relationship with said bearing supports, and a normally stressed spring carried by said dog and engaging said dog and a surface portion of said body member that is arranged at an angle with the lengths of said slots to retain said shaft portions in said journaled relationship and to bias said dog into an upstanding position with respect to said body member.

2,839,010

ARTICULATED CONVEYER TRAIN

Harry J. Harbulak, Huntington, W. Va., assignor to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Application June 23, 1955, Serial No. 517,570
9 Claims. (Cl. 105—4)



1. An articulated conveyer train for transporting lading comprising a plurality of cars connected together for pivotal movement relative to each other, drop bottom doors for releasing lading from the cars, end walls sloping upwardly from the doors for directing lading toward the doors, the upper edges of adjacent end walls being spaced apart above the connection between the cars, and a hood plate resting upon and slidably supported by the sloping end walls and spanning the space between the adjacent end walls, said hood plate, end walls and drop bottom doors forming continuous lading supporting surfaces.

2,839,011

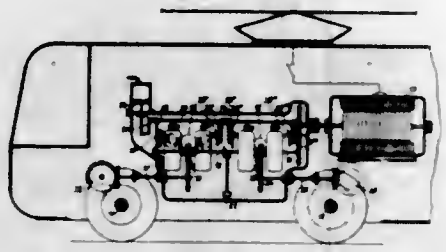
DRIVE FOR USE IN CONNECTION WITH ELECTRICALLY OPERATED SELF PROPELLED VEHICLES

Fritz Karl Kugel, Heidenheim (Brenz), Germany, assignor to J. M. Voith G. m. b. H., Maschinenfabrik Heidenheim, Germany

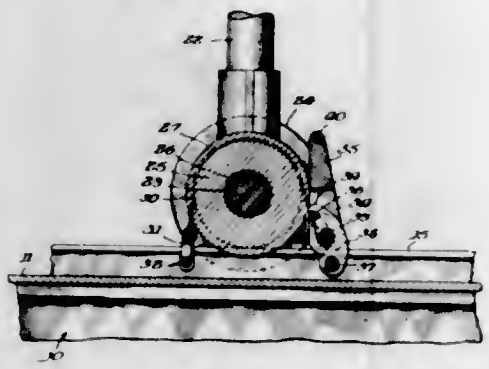
Application November 13, 1952, Serial No. 320,181
Claims priority, application Germany November 17, 1951
25 Claims. (Cl. 105—96.2)

1. For use in connection with electric induction motor means, especially squirrel-cage rotor-induction motor

means, the combination of: infinitely variable hydrodynamic power conveying means arranged for driving connection with said motor means and including at least one hydraulic torque converter; said torque converter having at least one driving bladed rotor element, at least one driven bladed rotor element and at least one stationary bladed element; said bladed elements being relatively positioned to form a working chamber for the transmission of work liquid from one rotor element to the other; means associated with said working chamber for keeping said working chamber totally and permanently filled with work liquid while the converter is in operation; and control means positioned in said working chamber and operable infinitely to vary the flow of liquid in said working chamber.



2,839,012
HOLDING DEVICE FOR FREIGHT VEHICLE
Jack E. Gutridge, Munster, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application September 16, 1953, Serial No. 380,547
2 Claims. (Cl. 105—368)



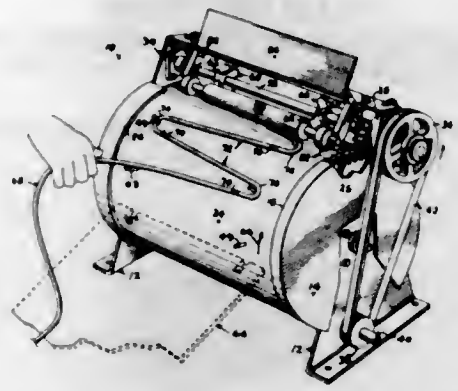
1. In a freight vehicle adapted to carry a truck trailer including a dolly wheel structure having an axle and a roller on the axle, a floor, a pair of rails positioned on the floor and secured thereto, and a device to secure the dolly wheel structure to the rails comprising a strap adapted to embrace the roller and a part secured to one end of the strap and anchored to the rails and a first pin positioned between and anchored to the rails and a second pin secured to the other end of the strap and a member including a pair of arms and having the free ends of the arms pivotally connected to the second pin and a third pin extending between the arms of the member intermediate their ends and an element having one end pivotally connected to the first pin and having a hook on its other end engaging the third pin and rotation of the member toward the roller causing the strap to be drawn taut about the roller, a line through the centers of the first and third pins passing along the side of the center of the second pin adjacent the roller and the device being removable from the roller and rails by moving the member away from the roller and moving the hook off the third pin and turning the part and the third pin at right angles and lifting them upwardly.

2,839,013
STEEL LINED CAR WITH INTEGRAL LADING STRAP ANCHOR
Bruce C. Gunnell, Alexandria, Va., and Frederick G. Stewart, Washington, D. C.,
Application May 27, 1954, Serial No. 432,857
4 Claims. (Cl. 105—369)



1. A wall for a railway car comprising a plurality of vertically disposed spaced side posts, a flat metallic lining secured to said posts, and covering the interior of said wall, vertically arranged rows of pairs of spaced openings through said lining adjacent a side post, said side post being located between adjacent rows of said pairs of spaced openings, the openings of each pair, confronting and in registry with each other, and the material between each pair of said confronting openings forming a lading band anchor, the pairs of openings in the row on one side of said post being staggered in relation to the pairs of openings in the row on the other side of said post.

2,839,014
CANDY CANE FORMING MACHINE
John D. Fine, Oklahoma City, Okla.
Application February 28, 1957, Serial No. 643,131
13 Claims. (Cl. 107—4)



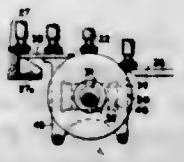
13. A machine for forming a pliable rope of candy into candy canes, including: a frame; a hollow cylindrical drum horizontally journaled by said frame; a shaft journaled by said frame above said drum in parallel spaced relation with the periphery of the latter; means for rotating said shaft and said drum; cam means carried by said frame within said drum, the peripheral wall of said drum having a plurality of perforations for forming two rows of perforations in circumferentially spaced-apart and angularly staggered relation, said two rows of perforations disposed in radial alignment with said cam means; a plurality of similar mandrels each having one end slidably contacting said cam means and projecting radially outwardly through the respective perforations in said drum; spring means carried by each of said mandrels for urging the inwardly disposed end of each of said mandrels into contact with said cam means, whereby a pliable rope of candy may be manually wound around the outwardly and upwardly disposed mandrel ends in a zig-zag manner at one position of the drum and whereby the spring means withdraws the outwardly disposed ends of the mandrels into the periphery of the drum at a point angularly removed from the point of reception of the rope of candy for releasing the latter; and cutter means carried by said shaft and adapted to cut a rope of candy wound around the outer ends of said mandrels at selected points adjacent the mandrel ends while the drum is rotating.

2,839,015

ADJUSTABLE PRESSURE ROLL FOR ROTARY TABLET PRESS HAVING SELF ACCOMMODATING BRIDGE

Raymond G. Frank, Elkins Park, Pa., assignor to F. J. Stokes Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application December 12, 1955, Serial No. 552,494
6 Claims. (Cl. 107—17)



6. In a tablet press, an eccentric shaft, a roll journaled on said shaft, a bridge having a portion defining a flat surface extending from the edge of said roll in a plane tangent to the edge of said roll, journal means supporting said bridge on said eccentric shaft for confining movement of said bridge relative to said shaft in a direction at right angles to the eccentric axis of said shaft and parallel to said tangent plane, and guide means for confining relative movement of said bridge with respect to said press in a direction at right angles to said tangent plane.

2,839,016

CAR ROOF WITH INTEGRAL RUNNING BOARD

Erwin J. Hasten, Jr., Chicago, Ill., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application May 3, 1956, Serial No. 582,395
9 Claims. (Cl. 108—5.4)



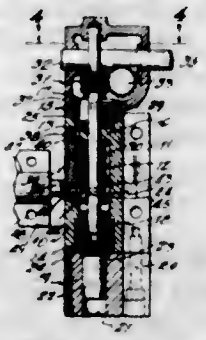
2. A railway car roof, comprising side plates, longitudinally disposed roof sheets, arranged on opposite sides of the roof, the inner side margins of said roof sheets having vertical flanges secured together in flatwise abutting relation at the ridge of the roof, lateral flanges issuing from the upper edge of said vertical flanges providing an integrally formed running board for the car roof, and vertical flanges issuing from the outer margins of the lateral flanges downwardly, thereby providing a central box girder longitudinally of the roof which girder also provides a running board, the outer side margins of said roof sheets being secured to said side plates.

2,839,017

TEAR GAS GUN

Elmer O. Smith, Fort Worth, Tex.

Application July 12, 1952, Serial No. 298,497
1 Claim. (Cl. 109—32)



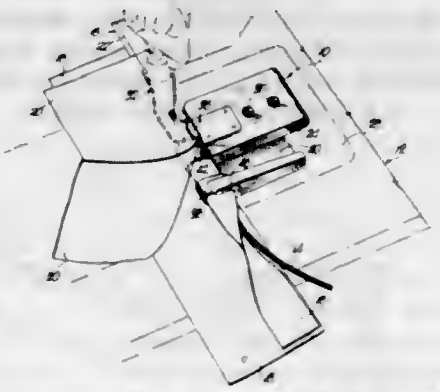
In a device for exploding a tear gas shell, for use against unauthorized breaking and entry, the combination of a housing adapted to be installed on a door, a cylindrical chamber formed longitudinally in the housing, a firing pin operatively arranged in the chamber, a shell housing having a cylindrical chamber normally aligned with the cylindrical chamber of the housing and hinged eccentrically thereto, means for securing the shell housing against rotation with respect to the housing, a first cam positioned in the housing and surrounding the firing pin, the cam having longitudinally offset portions for engagement with a cam follower on the firing pin whereby the firing pin is movable longitudinally upon rotating it relative to the cam, a sliding bolt arranged transversely in the housing and extending outwardly therefrom for engagement with an adjacent door jamb to lock the door, a rotatable shaft in the housing having a gear thereon, gears on the firing pin and the sliding bolt meshing with the first mentioned gear for rotating the firing pin relative to the cam while simultaneously acting upon the sliding bolt to move it longitudinally, a compression spring surrounding the firing pin and acting on the firing pin and the housing to move the firing pin longitudinally in the housing whereby it is capable of being advanced relative to a shell positioned in the shell housing, a second cam on the firing pin having a longitudinally and radially outwardly tapered surface comprising a segment thereof and having a cavity formed therein opposite the tapered surface, a hinged arm in the housing having a detent stud thereon for selective engagement with the cavity, or alternatively, the tapered surface, and a spring biased sliding bolt, adapted to be installed on the jamb, for yieldable engagement with the hinged arm whereby the detent stud is maintained in engagement with the second cam, the arrangement being such that the second cam is movable, upon rotation of the firing pin, from a first position in which the firing pin is retained in its retracted position relative to the shell, against the action of the spring, to a second position in which the firing pin is released whereby it is advanced relative to the shell and the hinged arm is deflected outwardly by the action of the tapered surface.

2,839,018

SEWING MACHINE ATTACHMENT

Troy F. Mulkey, Independence, Mo.

Application October 1, 1956, Serial No. 613,302
1 Claim. (Cl. 112—139)



A sewing machine attachment usable therewith in sewing a cord in place within a binding strip and joining the strip to a pair of panels therebetween with a single line of stitching, said attachment including a mounting block provided with a front, vertical, elongated guide edge and adapted to be mounted on the machine adjacent the stitching mechanism; a plate secured to and extending laterally from the block; a binder on the plate for receiving the strip and said cord and holding the strip folded about the cord as the same are fed toward said stitching mechanism, said binder including a first loop integral with and extending forwardly from the plate beyond said front edge of the block for receiving the folded strip, the axis of said loop being substantially parallel with said edge of the block and a finger integral with the plate, extending into said first loop and adapted to engage the cord for pressing the latter into the fold of the strip; a second loop on the block, ex-

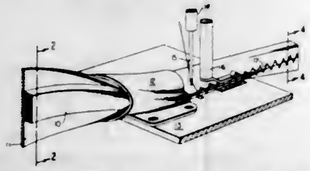
tending forwardly from said guide edge and disposed in coaxial alignment with said first loop for receiving said folded strip, said vertical edge on the block being disposed for engagement by one longitudinal edge of the lowermost of said panels; and a hook element on the block and extending forwardly from the upper margin of said vertical edge thereof for engagement by one longitudinal edge of the uppermost panel and adapted to partially overlap the same.

2,839,019
HOOK FOR DOUBLE STITCH SEWING MACHINE
Karl Wilhelm Heimann and Karl Werle, Kaiserslautern, Germany, assignors to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Germany, a corporation of Germany
Application May 11, 1954, Serial No. 429,068
Claims priority, application Germany May 13, 1953
8 Claims. (Cl. 112—228)



1. In a revoluble hook, for use in connection with a double stitching sewing machine, in combination, an arcuate walled body having an internal arcuate recess forming a guideway and including an integral first ridge alongside a portion of said recess, said walled body being cut away forming an edge near another portion of said recess, and an elongated hook bow removably connected to said body, said hook bow comprising an arc shaped part flattened in a plane perpendicular to the arc and having extensions near the opposite ends, said flattened part of said hook bow defining a flange projecting inwardly over said edge into the interior of said walled body and forming a second ridge along said other portion of said recess disposed substantially diametrically opposite said first ridge, said extensions engaging externally said walled body.

2,839,020
CUSHION STRIPPING AND PROCESS
John D. Hopkins, Bridgewater, Mass.
Application April 9, 1956, Serial No. 577,026
4 Claims. (Cl. 112—262)



3. The process of making cushion stripping which consists in progressively deforming a resilient compressible core, simultaneously wrapping a ribbon of sheet cover material about the deformed core with the edges of the ribbon in contiguous relation, uniting the said edges, and then removing the deforming force from the core and thus by its resilient action restoring the stripping to a cross section determined by the undeformed core.

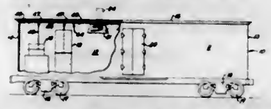
2,839,021
AUTOMATIC TENSION SYSTEM FOR FUELING AT SEA
Joseph C. Patterson, Jr., Falls Church, Va.
Application November 4, 1953, Serial No. 390,227
7 Claims. (Cl. 114—.5)

1. A ship having a winch on each side, a cable extending from each winch to a mass remote from each side of said ship, each winch maintaining its cable in a taut condition, a hydraulic motor-pump unit connected in driving relation to each winch, a high pressure accumulator, a low pressure accumulator, conduits interconnecting said accumulators in parallel branches through



each unit whereby when ship roll causes the unit on one side of the ship to pump and charge the high pressure accumulator the other unit which is working at the same time is discharging said high pressure accumulator and means to maintain the pressure in the high pressure accumulator at a predetermined value.

2,839,022
VISUAL CARGO SHIFTING INDICATOR
Clark Luke, Schenley, Pa.
Application May 2, 1957, Serial No. 656,611
10 Claims. (Cl. 116—114)

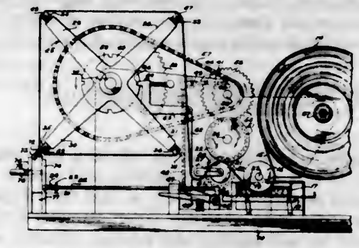


1. A visual cargo shifting indicator comprising a mounting plate for attachment to a wall of a cargo carrying vehicle, a rotatably mounted shaft extending through said plate and the wall of the vehicle and projecting inwardly of said plate, a rigid signal flag fixed to said shaft exteriorly of the vehicle, a ratchet arm including a hub fixed to said shaft adjacent the inner surface of said plate, ratchet teeth on the periphery of said hub, a locking pawl pivotally mounted on said plate and having teeth engageable with said ratchet teeth to prevent rotation of said shaft in one direction and permit rotation in the opposite direction, a tension spring connected to said pawl and said plate for yieldably holding said pawl in engagement with said hub, a second tension spring having one end attached to said ratchet arm and the opposite end adjustably attached to said plate whereby the tension in said second spring may be varied, a pair of oppositely extending actuating arms fixed to said shaft, a cable extending around the interior of said vehicle and movably supported by pulleys, one end of said cable being attached to one of said actuating arms and the opposite end of said cable being attached to the other actuating arm, a plurality of hooks fixed to said cable at spaced points and flexible means connecting one or more of said hooks with one or more cargo units whereby upon shifting of the cargo in any direction a pull will be exerted on said cable to rotate said shaft against the action of said second tension spring and move said flat to upright visible position, the teeth on said pawl engaging said ratchet teeth to hold said flag in visible position and upon release of said cable from the cargo and disengagement of said pawl said second spring will return said flag to inoperative position.

2,839,023
APPARATUS FOR DISPENSING AND SEVERING UNIFORM LENGTHS OF TAPE
Edward F. Eger and Harry W. Heidergott, Indianapolis, Ind., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 22, 1956, Serial No. 617,574
4 Claims. (Cl. 118—12)

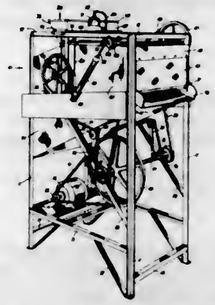
1. An apparatus for metering predetermined lengths of adhesive coated tape comprising a multi-arm takeup device having areas on the extremity of each arm for

engaging the tape, a drive means, a clutch mechanism for connecting the drive means to the takeup device, means for operating the clutch for one revolution, cam means controlled by the operating means for holding



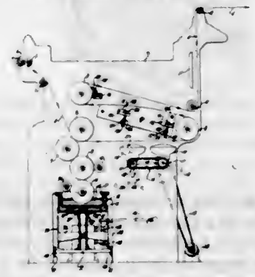
and precisely locating said takeup device, a severing device for shearing said tape, and means operated by said operating means during the single revolution of the clutch mechanism for precluding operation of said severing means.

2,839,024
MACHINE FOR WAX COATING COMESTIBLES
Robert N. Maynard, Gasport, N. Y., assignor, by mesne assignments, to S. C. Johnson & Son, Inc., Racine, Wis., a corporation of Wisconsin
Application February 14, 1955, Serial No. 487,762
1 Claim. (Cl. 118—18)



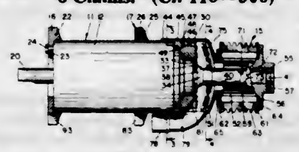
An apparatus for applying a wax-coating to comestibles, comprising in combination a table of rotatable cylindrical brushes for conveying and rotating comestibles deposited thereon; rotary applicator means disposed above said table of brushes for coating the comestibles carried by the latter; liquid dispensing means including a fluid reservoir, a plurality of discharge orifices in said reservior positioned over said applicator means each having a valve seat therein, a plurality of reciprocal valve rods positioned vertically above said valve seats each having an annular tapered portion thereon for engagement with its respective valve seat, each of said valve rods having a portion thereof extending beyond its annular tapered portion of sufficient length so that said extended portions protrude at all times downwardly through each of said orifices, a central valve rod control bar for withdrawing simultaneously said tapered portions of said valve rods from engagement with their respective valve seats, adjustable means on said valve rod control bar for each of said valve rods for limiting said valve rods downward movement with respect to said control bar, a helical spring circumscribing each of said valve rods positioned at one end against said control bar and at the other end by a stopping means on said valve rod, an oscillation producing actuator means operatively connected to said valve rod control bar so as to periodically withdraw said valve rods from engagement with said valve seats during operation of said actuator means, said actuator means comprising a pressure responsive diaphragm actuated by a periodic variable pressure generator; and a central driving means for rotating said cylindrical brushes and said applicator means and for supplying energy to said variable pressure generator whereby inactivation of said central driving means stops the rotation of said table of cylindrical brushes and applicator means and simultaneously seats the tapered portion of said valve rods in their respective valve seats to stop the flow of liquid from said reservoir.

2,839,025
WAX CARBON PRINTING PRESS
William F. Burke and Robert L. Essex, Athens, Ohio, assignors, by mesne assignments, to Royal McBee Corporation, a corporation of New York
Application July 17, 1953, Serial No. 368,666
5 Claims. (Cl. 118—69)



1. In a rotary press having printing and impression cylinders operable for printing wax carbon onto a continuous moving web, a fountain cradle, a fountain removably supported by the cradle for containing a supply of wax carbon, thermostatically controlled heating elements mounted upon the cradle for heating wax carbon contained in the fountain, a jack adjustably supporting the cradle at a desired elevation and operable to adjust the cradle to maintain the proper degree of contact between said wax carbon and the fountain roller and further operable to lower the cradle to a fountain removing position, rollers mounted in association with the fountain for transferring wax carbon from the fountain onto the printing cylinder, means for adjusting the engagement of the rollers with each other and with the printing cylinder for controlling the film of wax carbon applied to the printing cylinder press, primary drive means for rotating the rollers in timed relation to the printing cylinder and other units of the press, secondary means for rotating the rollers and printing cylinder independently of the primary drive means, and interconnected clutch means associated with the primary and secondary drive means for automatically disconnecting one drive when the other is connected to drive the rollers.

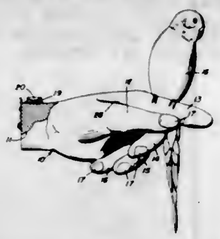
2,839,026
PIPE LINING MACHINE
Francis M. Matheny, Lynwood, Calif., assignor to Pipe Linings, Inc., a corporation of Delaware
Application October 24, 1955, Serial No. 542,220
8 Claims. (Cl. 118—306)



7. A conduit-lining machine, comprising a motor having a casing, a hopper body mounted on the motor casing

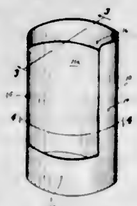
and projecting axially beyond one end of said casing providing a mortar chamber, a drive shaft projecting from the motor through said mortar chamber, a mortar dispensing head carried by the outer end of said shaft, said hopper body having an apertured tubular extension within said dispensing head, and means providing a mortar inlet means communicating with said chamber, said motor, said hopper body and said head being in axial alignment.

2,839,027
ACCESSORY FOR USE WITH BIRDS
Peter Lanza, Newark, N. J.
Application September 28, 1956, Serial No. 612,803
4 Claims. (Cl. 119—26)



1. In a bird training accessory, a body member having the configuration of a person's hand and shaped to include a wrist portion and a plurality of fingers, and means for releasably attaching the body member to a supporting structure, said means comprising vertically disposed strips and a horizontally disposed strip secured to an end of said body member, said strips adapted to have portions thereof arranged in engagement with the supporting structure.

2,839,028
LIVESTOCK FEEDER OR WATERER
Marion Lee Routh, Diagonal, Iowa
Application March 10, 1955, Serial No. 493,361
1 Claim. (Cl. 119—52)



In a livestock feeder or waterer, a circular walled container having an open top and a bottom; said container having a rectangular opening in its circular wall located a substantial distance above its bottom to provide a circular ledge directly below the said opening; said opening having a width less than one-half of the circumference of said container, and a concave rectangular part inside the circular wall of said container having dimensions substantially that of the dimensions of said opening, back of said opening and extending downwardly to a horizontal plane below the horizontal plane of the said opening.

2,839,029
PENCIL LEAD CONNECTING MECHANISM
Zachary Meinikoff, Los Angeles, Calif.
Application March 4, 1954, Serial No. 414,155
5 Claims. (Cl. 120—18)

1. A connecting mechanism between the lead of a pencil and the protracting and retracting mechanism of said pencil comprising a tube through which a pencil lead is movable axially, said tube having an internally tapered end portion, and a resilient interconnecting unit having a large diameter section and a smaller diameter section and slidably positioned within said tube, said large diameter section being greater than and said smaller diameter section being smaller than the smallest inside diameter of said



tube internally tapered end portion whereby said unit is firmly held by said tapered end portion, said smaller diameter section projecting outwardly of said tube through said tapered end portion when said larger diameter section is held firmly by said tapered end portion, whereby said unit is attachable to said protracting and retracting mechanism by rotation of said mechanism when said unit is held firmly by said tapered end portion.

2,839,030
WRITING INSTRUMENTS
Cecil Zang, London, England
Application January 18, 1955, Serial No. 482,639
1 Claim. (Cl. 120—42.03)



A writing instrument comprising an outer casing, a writing member which is housed within the casing, a spring for urging said writing member into a position in which its writing end is inside said casing, a plunger adapted to displace said writing member into a writing position in which said writing end is outside said casing and provided with a shoulder, a clip adapted to hold said writing instrument in a pocket, a platform extending from said clip transversely entirely through said casing to provide the sole connection of said clip to said casing and having an aperture through which said plunger can pass, said platform being movable transversely with respect to said casing, and a spring tongue on said clip tending to urge said platform to move outwardly of said casing whereby an edge defined by said aperture will engage said shoulder whenever said plunger has been depressed sufficiently to place said writing member in said writing position and can be disengaged from said shoulder by movement of said platform inwardly of said casing.

2,839,031
MOTION STORAGE DEVICE
Charles E. Gregory, Plainville, Conn., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application February 23, 1952, Serial No. 273,020
8 Claims. (Cl. 121—41)

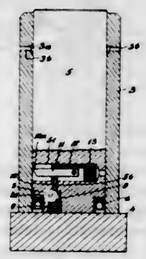
4. A motion storage device comprising a first shaft rotatable in opposite directions from a predetermined neutral position, a second shaft, a single control arm pivotally mounted on said second shaft and movable between a neutral position and two extreme positions at opposite

sides of the neutral position, a circular member having a notch in the periphery thereof, means drivingly connecting said first shaft to said member, said control arm having a single tooth at one end thereof, pin means projecting laterally from said control arm, a spring member affixed at one end to said second shaft and having the opposite end thereof acting directly upon said laterally projecting pin means so as to bias the control arm in a direction to cause the single tooth at the one end of



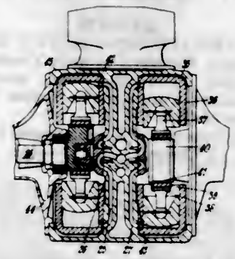
the control arm to enter said notch when said notch is aligned with said tooth to effect pivotal adjustment of the control arm to its neutral position upon the first shaft being adjusted to its predetermined neutral position, and the single tooth of said control arm being so arranged as to be directly actuated by said circular member so as to position said control arm to one of said extreme positions upon rotation of said first shaft in one direction from the neutral position and to the other extreme position upon rotation of the first shaft in the opposite direction from the neutral position.

2,839,032
HYDRAULIC OR PNEUMATIC RAMS
Lionel Arthur Reynolds, Bassetts Pole, Sutton Coldfield, England, assignor to Tangyes Limited, Smethwick, England, a British company
Application October 16, 1956, Serial No. 616,205
3 Claims. (Cl. 121—46)



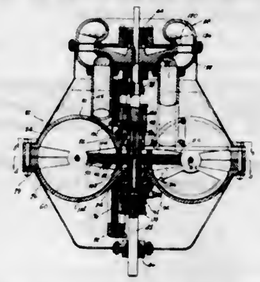
1. In a fluid pressure ram having a cylinder with walls forming a fluid chamber and a ram therein, means for limiting the stroke of the ram within the cylinder comprising a transverse passageway in said ram with a transversely spring loaded guide block slidably mounted in the passageway, a trigger pivotally mounted in said guide block, said walls of said cylinder being formed internally with an annular groove and one or more ports in communication with said groove, said trigger being arranged for rocking movement by engagement with the sides of said groove, and valve means having an operative connection with said trigger for effecting the communication of said fluid chamber of said cylinder with said transverse passageway when said trigger is rocked to effect the opening of said valve means at the limit of the permitted stroke of said ram whereby connection is established between said fluid chamber and said ports.

2,839,033
POWER TRANSMISSION MECHANISMS FOR HYDRAULICALLY PROPELLED VEHICLES
Albert H. Kersey and John P. Creighton, Castle Bromwich, near Birmingham, England, assignors to Ford Motor Company Limited, London, England
Application November 14, 1955, Serial No. 546,733
Claims priority, application Great Britain November 19, 1954
2 Claims. (Cl. 121—182)



1. In a vehicle hydraulic transmission comprising an hydraulic multi-cylinder motor, an output member driven thereby and a rotary flow-distribution valve for controlling the flow of fluid to and from the motor cylinders the improvement which consists of an axially floating flow-distribution member in the flow distribution valve having two axially oppositely disposed end faces and acting on one of said end faces as a seal between parts rotating in respect to each other and held in the sealing position by a fluid pressure on the opposite end face thereof which is at all times at a pressure equivalent to the pressure of the fluid being fed to the motor.

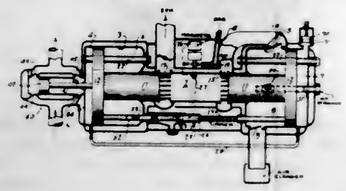
2,839,034
ROTARY INTERNAL COMBUSTION ENGINE
Robert Donald Graf, Paterson, N. J.
Application June 28, 1957, Serial No. 668,658
4 Claims. (Cl. 123—13)



1. In an internal combustion engine, a vertically disposed driven shaft, a horizontally disposed hub circumposed about the intermediate portion of and connected to said shaft for rotation therewith, opposed blades projecting from said hub, a vertically disposed disc positioned so that a portion between the periphery and the midpoint extends into each of the spaces on opposite sides of said blades with the periphery contiguous to said hub, said disc having a slot extending inwardly from the periphery to a point adjacent its midpoint for passage therethrough of said blades upon rotation of said driven shaft, a rotatable stub shaft extending through and secured to the midpoint of said disc, means connecting said stub shafts to said driven shaft for rotation of said stub shafts so as to bring the slot of said disc in registry with the blades when rotation of said driven shaft has brought the respective blades to positions proximate to said disc, each of said blades being provided with a longi-

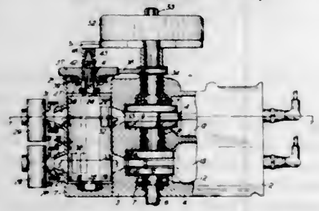
tudinally extending passageway and a discharge port extending from said passageway and opening out of one face of said blade, means for conveying a combustible fuel-air mixture through said passageway and ejecting said mixture out of said discharge ports, and an exhaust means in communication with the face of said disc remote from the discharge port face of said blades for withdrawing the combustion gases.

2,839,035
HIGH STABILITY FREE PISTON MACHINE
Robert Pritchard Ramsey, Mount Vernon, Ohio, and Shao Lee Soo, Princeton, N. J., assignors to The Cooper-Bessemer Corporation, Mount Vernon, Ohio, a corporation of Ohio
Application December 28, 1955, Serial No. 555,845
1 Claim. (Cl. 123—46)



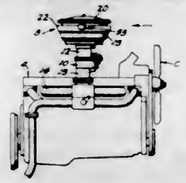
The method of controlling the operation of a free piston machine having piston controlled exhaust and scavenging ports which comprises, storing and releasing energy in bounce cylinders on an outward stroke in a quantity at least two times the net quantity of energy derived from the power cylinder by combustion, and storing and releasing energy in other cylinder spaces in a quantity in excess of that imparted to the pistons by combustion in the power cylinder, the quantity of energy available to cause an outward stroke of the pistons being at least enough to cause more than one stroke of the pistons of a length sufficient to uncover said piston controlled ports on the outward stroke and to compress a charge to an ignitable point on an inward stroke in the absence of any energy imparted by combustion.

2,839,036
ROTARY VALVE TIMING MECHANISM
Charles D. Strang, Oshkosh, Wis., assignor to Kiekhaefer Corporation, Cedarburg, Wis., a corporation of Wisconsin
Application May 7, 1956, Serial No. 583,288
2 Claims. (Cl. 123—73)



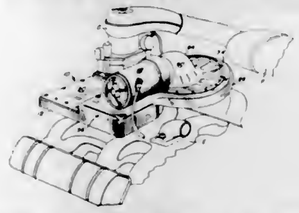
1. In a two-cycle internal combustion engine, the combination of: a crankcase; a crankshaft rotatably mounted within said crankcase; a rotary valve connected to said crankcase for controlling the introduction of a fuel mixture therein; an axial splined shaft for said rotary valve; a sleeve member having a threaded periphery and a splined bore for receiving said splined shaft for axial movement of said sleeve member on said shaft; a pulley rotatively driven by said crankshaft and having an axial threaded bore adapted to receive said threaded periphery of said sleeve member, a magneto mounted on said crankshaft and having a stator plate adapted upon pivotal movement to advance the spark as the engine speed is increased; a cam mounted on the stator plate of said magneto; and a cam follower formed by one end of said sleeve member adapted to engage said cam whereby upon pivotal movement of said magneto stator plate said sleeve member is movable axially providing for angular displacement of said rotary valve with respect to said pulley and said crankshaft.

2,839,037
MEANS AND ARTICLE FOR IMPROVING COMBUSTION IN INTERNAL COMBUSTION ENGINES
James A. McKeever, Glendale, Calif.
Application August 3, 1956, Serial No. 601,951
6 Claims. (Cl. 123—119)



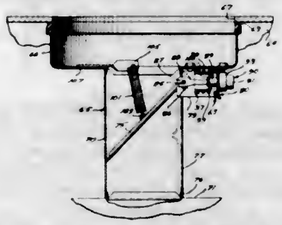
1. Means for improving combustion in an internal combustion engine, comprising a supporting sheet of material, at least one surface of which is coated with a film of a catalytic material containing titanium dioxide, and means for positioning said sheet in a stream of air entering the engine cylinders of an internal combustion engine.

2,839,038
SUPERCHARGER FOR INTERNAL COMBUSTION ENGINE
Clarence Eugene Middlebrooks, Jr., Atlanta, Ga.
Application July 22, 1957, Serial No. 673,287
19 Claims. (Cl. 123—119)



1. A housing for a supercharger for an internal combustion engine having an intake manifold and a carburetor, said housing comprising a flat compartmented casting including a rectangular inlet compartment having a bottom wall with side walls extending upwardly therefrom, an opening in the top thereof, said opening having an inwardly directed flange about the margin thereof, said flange being adapted to have an apertured cover plate secured thereto, such cover plate having such carburetor mounted over such aperture with the carburetor outlet in communication therewith, one side wall of said rectangular intake compartment being apertured, a duct extending perpendicularly out from said apertured side over said aperture, said duct having a circular opening on its top near its outward end, said circular opening communicating with a flat substantially inverted bell-shaped impeller housing disposed concentrically over said opening, said impeller housing being supported by said duct, said impeller housing having an open top with an inwardly directed peripheral flange therearound, said flange adapted to receive impeller supporting and driving means so that such impeller may be disposed concentrically in said impeller housing, said impeller housing having an outlet in the periphery thereof, said last-named outlet communicating with a rectangular outlet compartment, said outlet compartment having a top wall with side walls extending downward therefrom and an open bottom having an inwardly directed flange thereabout, said last-named flange adapted to have secured thereto an apertured closure plate having the inlet fitting of such engine inlet manifold secured about said last-named opening, said inlet compartment and said outlet compartment having a common side wall.

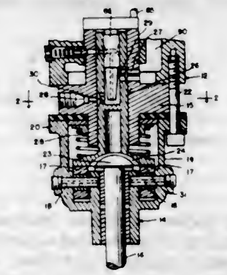
2,839,039
THERMOSTATICALLY CONTROLLED CARBURETOR AIR INTAKE
Frank E. Obermaier, Oak Park, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
Application January 24, 1956, Serial No. 561,035
3 Claims. (Cl. 123—122)



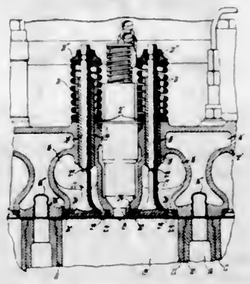
2. In a sensing and control device for the supply of air to the carburetor of an internal combustion engine, an air intake duct having communication with the carburetor of an internal combustion engine for supplying air thereto and having an end open to air at outside temperatures and also having a port in the wall thereof open to air at under hood temperatures, a damper pivotally carried within said intake duct, and a spring biasing said damper into position to block the passage of outside air to said duct and accommodate the passage of heated air to said duct at under hood temperatures, a thermal element on the outside of said intake duct and having an extensible power member extending within said duct and having operative connection with said damper to move said damper into position to block the passage of heated air to said duct upon predetermined increases in temperature, and means for mounting said thermal element on said air intake duct for ready removal therefrom to accommodate the substitution of thermal elements calibrated for different temperature ranges of operation to change the operating temperature range of said damper including a bracket mounted on the outside of said duct and having said thermal element rockingly mounted thereon and an overtravel spring retaining said thermal element to said bracket and accommodating movement of said thermal element with respect to said bracket upon overtravel of said power member.

2,839,040
FUEL INJECTOR APPARATUS FOR INTERNAL COMBUSTION ENGINE
Carl F. High, Detroit, Mich.
Application December 29, 1954, Serial No. 478,250
16 Claims. (Cl. 123—140)

1. In a fuel injection apparatus for an internal combustion engine having an intake manifold provided with an air throttle, a fuel supply tank, a fuel injection pump structure ported for fuel intake and discharge and comprising a pump, a metering valve, control means for said metering valve, and a pump casing having a fuel inlet chamber connected with said fuel supply tank and with said fuel pump intake, said pump casing provided with a control chamber for housing said fuel metering control means and an intermediate chamber for housing said metering valve and vented to said control chamber, a fuel return line connecting the pump and tank, said intermediate chamber connected with said fuel return line, and means venting said control chamber to the engine intake manifold on the atmosphere side of the air throttle.



2,839,041
VALVE FOR INTERNAL COMBUSTION ENGINE
John Dickson, Bloomfield Hills, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 3, 1956, Serial No. 625,660
7 Claims. (Cl. 123—188)

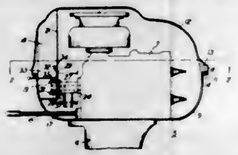


1. A poppet valve for an internal combustion engine comprising a valve stem adapted to reciprocably mount said valve member in said engine and a flared valve head adapted to control the flow of gases through a passage opening on a combustion chamber within said engine, said valve head having a first surface thereon opposite said valve stem and facing said combustion chamber, a second surface thereon facing said gas passage and a peripheral portion having a surface thereon intermediate said first and second surfaces and adapted to sealingly engage a valve seating surface carried by said engine and defining the opening of said passage on said combustion chamber, and said valve head having a first annular groove opening on said first surface and a second annular groove opening on said second surface, said first and second grooves being formed adjacent the peripheral portion of said valve head and being of a depth and width to isolate cyclic expansion and contraction of said first and second surfaces due to engine operating thermal conditions imposed thereon from said peripheral portion and surface.

2,839,042
AIR INTAKE SILENCER
Daniel A. Armstrong, Thiensville, and Lesley J. Ford, Port Washington, Wis., assignors to Kiekhaefer Corporation, Cedarburg, Wis., a corporation of Wisconsin
Application August 22, 1955, Serial No. 529,710
5 Claims. (Cl. 123—198)

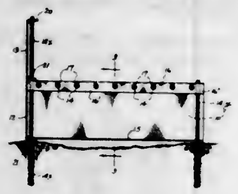
1. An air intake silencer for the carburetor of an internal combustion engine encased within a cowl com-

prising: a first plate member cooperating with said cowl to form a first pocket; and a second plate member having an opening in register with the air inlet of said carburetor, said second plate member cooperating with said cowl to



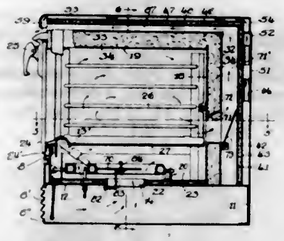
form a second pocket in register with said first pocket to define a silencing chamber, and a portion of said second plate member being spaced from said first plate member to provide an air inlet into said silencing chamber.

2,839,043
CAMP STOVE
Harvey A. La Born, near Bothell, Wash.
Application July 25, 1955, Serial No. 523,965
1 Claim. (Cl. 126—30)



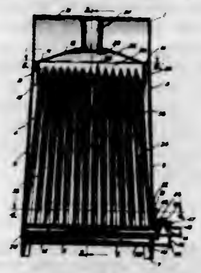
A camp stove of the character described comprising a backwall forming section and opposite sidewall forming sections, all sections being substantially of the same height and having inturned flanges along their top and lower edges, and the flanges of said backwall forming section being overlapped at their ends with the rearward end portions of said opposite sidewall forming sections, said overlapping portions of the flanges of the backwall forming section and sidewall forming sections being formed with holes therethrough in vertical alignment and in registration, anchor pins extending downwardly through said aligned holes and functionally joining the said sections together, said flanges which are formed along the top edges of said sidewall forming sections having downturned inner edge portions formed with holes at regular intervals therealong, and grid forming rods extending between said sidewall forming sections with opposite end portions thereof contained in corresponding holes of said downturned edge portions for the functional support of said rods, said inturned flanges formed along the top and lower edges of the sidewall forming sections having holes formed therein at their forward ends and in vertical alignment, anchor pins projecting downwardly through the vertically aligned holes in the forward end of each sidewall section to retain said sections in proper spacing, said first and second mentioned anchor pins being adapted to be withdrawn for the moving of said sidewall forming sections apart for release of said rods therefrom, an additional section identical to the said backwall forming section and removably applied to the upper ends of the first mentioned anchor pins to serve as a shield, said back forming section and said additional section having inturned end flanges, and said sidewall forming sections being of such size that they may, upon disassembly of the stove after withdrawal of said pins therefrom, be received within the back forming section, and said grid forming rods and said anchor pins being adapted to be received lengthwise within said back forming section along with said sidewall sections, and said additional section is applicable to the back forming section to act as a closure member.

2,839,044
OVEN
Thomas Esta Phares, Shelbyville, Ind., assignor to Chambers Corporation, a corporation of Indiana
Application October 14, 1950, Serial No. 190,071
7 Claims. (Cl. 126—39)



3. An oven having smooth imperforate top, back, and end panels, a front wall, an opening in said front wall, a door normally closing said opening, and an air inlet in said front wall separate from said opening, a cooking compartment within said oven spaced from said top and back panels to form a passageway for the flow of hot exhaust gas, said cooking compartment being spaced above said front wall air inlet, a burner in said cooking compartment, and a flue opening extending through one wall of said cooking compartment and communicating with said hot exhaust gas passageway to permit hot exhaust gas from said cooking compartment to flow into said passageway, said front wall having an upper edge displaced from the lower surface of said imperforate top panel to form an opening therebetween for the escape of exhaust gas after it has passed around the back and top walls of said cooking compartment, said last mentioned opening being independent of said first mentioned opening.

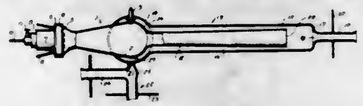
2,839,045
FLUID BURNING AIR HEATER
Charles L. Gulley, Warrensburg, Mo.
Application September 21, 1955, Serial No. 535,658
1 Claim. (Cl. 126—90)



A heater of the character described comprising, a casing substantially rectangularly shaped in longitudinal section and forming a heating chamber, a bottom in said casing having openings extending longitudinally and respectively spaced from the side walls of said casing, an elongated burner extending longitudinally in said heating chamber having spaced rows of perforations for the fuel supplied thereto, an inner shell enclosed by said casing having side and end walls, said side walls of the inner shell being corrugated to form flue portions supported on said bottom on each side of the burner, said flue portions defining spaces between the walls thereof and aligning with the perforations in the burner so that the hot

gases from the burner will be directed thereinto, said flue portions being tapered upwardly from bottom to top defining a larger heating space therearound at the top of the casing, said top of the casing having an opening therein, a housing secured in said opening and having downwardly and inwardly tapered side walls, each of said last named side walls having openings arranged in a longitudinal row, the upper ends of said flue portions being secured in said last named openings and said housing forming a chamber, said chamber having a vent for carrying off fumes from said burner, the top of said housing having vents through which heated air from the heating chamber will flow, legs for said casing providing a space underneath thereof, dampers pivotally mounted on said legs and covering said openings in the bottom of the casing, a fuel supply connection to said burner including a valve, and means connecting said valve with said dampers whereby regulation of said valve will regulate flow of air to said heating chamber through said openings in the bottom of the casing.

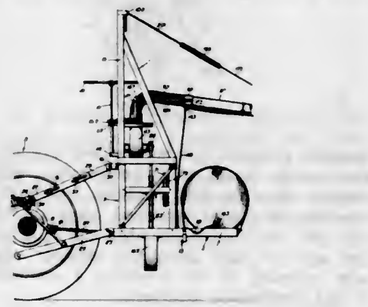
2,839,046
HEATING AND VENTILATING APPARATUS
Wunibald I. E. Kamm, Hoboken, N. J., assignor to the United States of America as represented by the Secretary of the Air Force
Application March 23, 1954, Serial No. 418,247
8 Claims. (Cl. 126—110)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A space heating and ventilating apparatus comprising a pulse type jet combustion chamber having an exhaust tube extending therefrom, a casing forming a resonnant chamber in tuned relation with the pulse jet frequency and substantially enclosing said exhaust tube, including the exhaust end thereof, and said combustion chamber, one end of the casing being spaced from the exhaust end of the exhaust tube and having an exhaust opening therein, said casing having a second opening from the space surrounding the combustion chamber, a pipe adapted to extend to a space to be heated and communicating with the second opening, and the second opening being disposed at substantially a pressure antinode whereby on firing in the combustion chamber to expel the discharge gases out said exhaust tube into said resonant chamber an oscillating column of air is established by the increase in pressure in the resonant chamber to discharge a jet of the heated air surrounding the combustion chamber through the second opening and the pipe into the space to be heated and on reduction of pressure in the resonant chamber a successive charge of air from the space to be heated is drawn through the pipe and the second opening to the space surrounding the combustion chamber.

2,839,047
WEED BURNER APPARATUS FOR TRACTORS
Kenneth R. Davisson, Severance, and George R. Smith, Greeley, Colo.; said Davisson assignor to said Smith
Application March 11, 1955, Serial No. 493,734
1 Claim. (Cl. 126—271.2)

A weed burning apparatus adapted to be supported from the power lift of a tractor having a power takeoff, said apparatus comprising a vertically disposed skeletonized supporting frame adapted to be supported from the power lift, a blower mounted on said frame, step-up drive means for said blower supported on said frame and adapted to be driven from the power take-off, an elongated tubular boom supported from said frame and communicating with the blower, said boom having a flexible portion therein adjacent the inner end thereof, swivel means connecting the boom to the frame for permitting swinging movement thereof about a vertical axis, lift means interconnecting the upper end of the frame with the boom for raising and lowering the boom, means associated with said swivel for rotating the boom about a vertical axis, stabilizing means mounted on said swivel means and extending upwardly alongside the flexible portion of the boom for preventing tilting movement of the boom about the longitudinal axis thereof and maintaining the boom in the same vertical plane as the swivel means, a burner head on the outer end of the boom for receiving combustion supporting air from the blower through the hollow boom, and fuel supply means mounted on said frame and boom for supporting fuel to the burner head, said fuel supply means including a pump

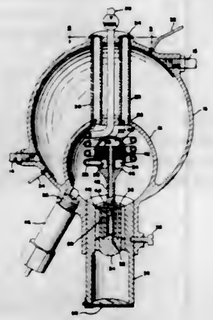


adapted to be driven from the power take-off, said swivel means including a horizontal plate mounted on the inner end of the boom, a recessed circumferential flange on the discharge of the blower rotatably receiving said plate, said stabilizing means including a pair of uprights disposed on opposite sides of the flexible portion of the boom and being rigid with the plate for rotational movement therewith, and a pair of bars pivotally connected to the upper ends of the uprights and being connected to the boom outwardly of the flexible portion, said means for rotating the boom including a segment of an annular flange mounted horizontally on said uprights above the plate, a length of sprocket chain rigid with the periphery of the annular flange, a sprocket gear rotatably supported on said frame in meshing engagement with the chain, and handle means connected to said gear for rotation thereof, said handle means being disposed for access by the operator of the tractor.

2,839,048
FLUID HEATER
Harold M. Jacklin, Jr., Kensington, Md.
Application September 8, 1952, Serial No. 310,940
3 Claims. (Cl. 126—350)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In combination, a cold climate heat generator comprising a first shell, a second shell in said first shell thereby providing a fluid space between said shells, fluid inlet and outlet connections in said first shell, a combustion chamber formed by the internal walls of said second shell, exhaust tubes extending from said combustion chamber in said second shell through said first shell to the atmosphere, a third shell having a fuel and catalyst chamber positioned in said combustion chamber, a cracking coil in said combustion chamber connected at one end to said fuel and catalyst chamber and adapted for connection at its other end to a source of fuel supply, means mounting said first and second shells on an air inlet tube, said air inlet tube having an air outlet open-

ing into said combustion chamber, a cylindrical member supported in the outlet of said tube thereby forming air passageways between said member and the inner walls of said tube, a fuel passageway having the fuel inlet and outlet thereof formed in said cylindrical member, means mounting said third shell on said cylindrical member for providing communication between said fuel and catalyst



chamber and said fuel inlet in said cylindrical member, and heating means in communication with said combustion chamber for initiating combustion of fuel, whereby the fuel is vaporized upon transiting said coil and fuel and catalyst chamber and is delivered to said fuel outlet in said cylindrical member where it mixes with incoming air for providing a combustible mixture in said combustion chamber.

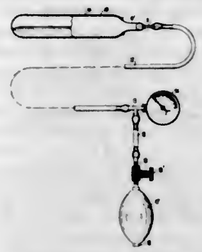
2,839,049
ABRASIVE CYTOLOGIC BRUSH
Kenneth S. MacLean, New York, N. Y.
Application March 25, 1954, Serial No. 418,551
14 Claims. (Cl. 128—2)



1. A cytologic instrument comprising a device having a holder which is provided with means for removing cells by abrasion from a part of a patient's body, said holder having provision to guide said abrasive means during the insertion thereof into and the removal thereof from the patient's body, and means for releasably securing said abrasive means to said holder, whereby to provide said instrument with a new abrasive means for each patient-use thereof, said securing means comprising a chuck provided on said holder for releasably holding said brasive means in operative disposition thereof.

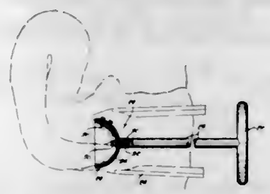
2,839,050
DEVICE FOR MEASURING THE TONUS OF THE MUSCULAR SYSTEM OF THE FLOOR OF THE VAGINA, PELVIS AND ADJACENT AREAS
Kurt Sokol, Bremen, Germany
Application November 7, 1956, Serial No. 620,931
5 Claims. (Cl. 128—2)

1. An apparatus for exercising and diagnostically measuring the tonus of the muscle system of the floor of the vagina, pelvis and adjacent areas, which comprises in combination: an inflatable insertion member adapted to be inserted into the vagina and comprising an elastic self-supporting hollow cylindrical body closed at the front end and having an opening at the rear end, said insertion member being subdivided into a plurality of chambers, hose means extending through said opening into each of said chambers, blowing means having associated therewith three-way valve means and communicating with said hose means for selectively blowing air into each of



said chambers, and gauge means communicating with said hose means for measuring the air pressure in each of said chambers.

2,839,051
CERVICOTOME
Martin H. Chester, Gardena, Calif.
Application February 24, 1956, Serial No. 567,602
18 Claims. (Cl. 128—2)



1. A device for obtaining a tissue biopsy comprising: a cup-shaped means, and a thin curved blade fastened on and in spaced relation to the inside surface of said cup-shaped means.

2,839,052
APPLIANCE FOR TREATING INFECTIONS
William L. Verch, Yonkers, N. Y., and Meyer I. Block, Miami, Fla.
Application January 22, 1953, Serial No. 332,628
3 Claims. (Cl. 128—66)



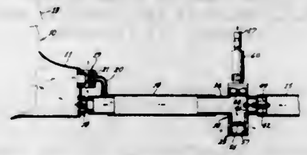
1. In a device of the character described for treating mastitis in animals, the combination of a receptacle appliance for receiving water at approximately 55° F. and having it pass upwardly therethrough in a circuitous path, said receptacle appliance adapted to receive the infected part of an animal, a water inlet near the base of said receptacle, water supply therefor, a single nozzle element fastened near the base of said receptacle and being connected to said water supply, said nozzle element having two exit openings at different positions to guide the water around the base of said receptacle, one of said exits being at a different height from the base of said receptacle than the other exit thus to cause said water to swirl in turbulent fashion within said container and around the infected part of the animal.

2,839,053
BREATHING APPARATUS FOR DIVERS
Robert L. Lorenz, Santa Monica, Calif.
Application September 21, 1953, Serial No. 381,303
13 Claims. (Cl. 128—142)



1. An underwater breathing apparatus, comprising: a demand valve adapted to be connected to a source of high pressure air, and including an air chamber and regular means for supplying air from said source to said air chamber at a pressure substantially equal to the submergence pressure of the water in which said demand valve is immersed; a mouthpiece; an air supply tube leading from the demand valve to said mouthpiece; said mouthpiece including a valve element manipulable by the user to control supply of air from said demand valve to the user's mouth; and an exhalation check valve immediately adjacent said mouthpiece.

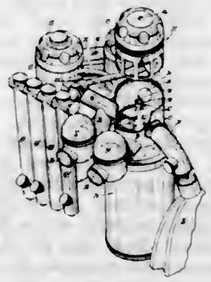
2,839,054
RAPID DECOMPRESSION RELIEF VALVE
Bob A. Kindred, Duarte, Calif., assignor to Sierra Engineering Co., Sierra Madre, Calif., a corporation of California
Application December 7, 1956, Serial No. 626,894
8 Claims. (Cl. 128—142)



5. A pilot's rapid decompression relief system for use in airplane cabins held at pressure equivalent to an altitude less than flight altitude comprising an oro-nasal mask, a mask supply line, a main source of oxygen supply at substantially cabin pressure, an auxiliary source of oxygen supply, an inflow check valve in the main supply line, an outflow check valve from the mask and a pressure compensating line between the main supply line and the downstream side of said outflow check valve, and a rapid decompression valve group comprising a valve body having a chamber therein, a main supply passage and a main supply line therefrom adapted to be connected to said main supply, an inflow check valve in said passage normally open when said main supply line is connected and adapted to be released upon disconnection of said main supply line, a free flowing main supply passage from said chamber to the mask supply line, a relief passage from said chamber to the exterior and an outflow check valve in said relief passage normally closed under a pressure of substantially one pound per square inch, an auxiliary supply passage, a normally closed auxiliary supply line connected thereto and an inflow check valve in said auxiliary passage operable when the main supply line is disconnected and the auxiliary supply line is activated.

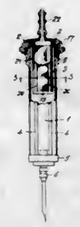
2,839,055
APPARATUS FOR THE ADMINISTRATION OF ANAESTHETICS
Henry Rex Marrett, Coventry, England, assignor to Airmed Limited, Harlow, England
Application July 8, 1955, Serial No. 520,842
Claims priority, application Great Britain July 16, 1954
13 Claims. (Cl. 128—188)

1. In apparatus for administering inhalent gas mixtures, having a carbon dioxide absorber, a re-breathing bag and patient's inspiratory and expiratory conduits, a rotary valve controlling the flow of gas between the patient's inspiratory and expiratory conduits, a housing for said valve, a partition in said housing dividing it into upper and lower compartments, ports in said partition, passages connecting said upper compartment to said patient's inspiratory conduit and to said bag, passages connecting said lower compartment to said patient's expira-



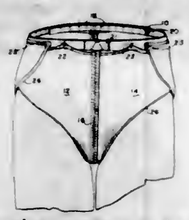
tory conduit and to said carbon dioxide absorber, said rotary valve having a base and a peripheral wall, ports in said base adapted to be brought into and out of communication with said ports in said partition by rotation of said valve and ports in said peripheral wall adapted to be brought into and out of communication with said passages connecting said upper compartment to said patient's inspiratory conduit and to said bag by rotation of said valve.

2,839,056
DEVICE FOR ADMINISTERING AND TRANSFUSING BLOOD, SERUMS, PLASMAS AND OTHER MEDICINAL PREPARATIONS
Felicien Alexandre Mailly, Ermont, France, assignor to Etablissements Jouan S. A., Paris, France, a body corporate of France
Application March 1, 1955, Serial No. 491,499
5 Claims. (Cl. 128—214)



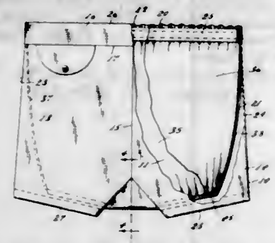
1. A device for administering blood transfusions to humans comprising a substantially circular elongated chamber, a bottom closure member, a chambered top closure member, said chamber and top closure member being formed of molded nylon, and a filter, the filter being suspended from the top of the top closure member, a collar on the chamber carrying external screw threads, internal screw threads in the chamber of the top closure member, the chamber and top closure member being secured together by the interengagement of said screw threads, the suspended filter depending into the chamber, the upper edge of the chamber having a sealing lip and the inner surface of the top closure member having a corresponding lip, said lips being formed of nylon and integrally molded with the particular member carrying the respective lips, the upper edges of said lips having relative flexibility and directly interengaging when the top closure member is secured to the chamber.

2,839,057
PROTECTIVE GARMENT
Marion Henry Argyll, Washington, D. C.
Application February 3, 1956, Serial No. 563,321
5 Claims. (Cl. 128—288)



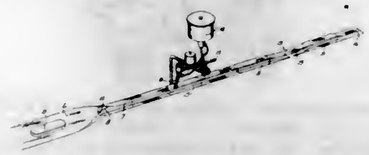
1. A sanitary nether garment to be used by incontinent females or the aged comprising: a waist encircling band; a pair of elongated fluid resistant fabric panels; means permanently securing one of said panels to the other of said panels; securing means for fastening first corresponding longitudinal ends of said panels to said waist band; second securing means for fastening second corresponding longitudinal ends to said waist band; slide fastener means for separably securing adjacent longitudinally extending edges of one of said panels to the other of said panels; and means for locking the movable slide of said fastener means in a desired closed position including fastening means securable to said waist band.

2,839,058
BABY PANTY
Barton R. Biever, Schuylkill Haven, Pa., assignor to Alpha Mills Corporation, Schuylkill Haven, Pa., a corporation of Pennsylvania
Application March 14, 1956, Serial No. 571,413
1 Claim. (Cl. 128—288)



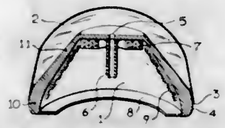
An infant's garment comprising an outer garment portion having a front panel part with an upper marginal waist portion and side margins, a rear panel part with an upper marginal waist portion and side margins respectively connected to the side margins of the front panel part, one of said waist portions having a contracted elastic band therealong, said front panel part having a lower central terminal crotch tab and said rear panel part having a lower central terminal crotch tab, members for releasably holding said crotch tabs in engagement to provide a closed crotch for the outer garment portion, a separate inner garment portion of waterproof material from its upper to its lower extremities interiorly disposed with respect to said outer garment portion and having a plurality of connected panel parts connected along their upper margins to the upper margins of the front and rear panel parts of the outer garment portion, said inner panel parts having lower margins secured to the crotch tabs and separable therewith, said inner garment portion having lower marginal parts connecting said tabs on each side, said inner garment portion being free from attachment to said outer garment portion at its other locations, and said last marginal parts each having a contracted elongatable member therealong.

2,839,059
METHOD AND APPARATUS FOR ADHESIVELY CONNECTING THE MARGINS OF A SANITARY NAPKIN WRAPPER ABOUT THE PAD
Curt G. Joa, Sheboygan Falls, Wis.
Application October 5, 1955, Serial No. 538,587
6 Claims. (Cl. 128—290)



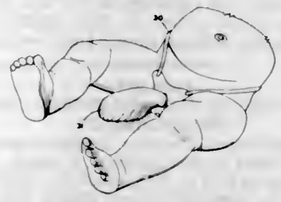
1. A method of wrapping which comprises lapping the margins of a fabric wrapping material about an article to be wrapped and adhesively joining lapping marginal portions of the wrapping material by spraying a fine mist of adhesive externally upon the strands of the outwardly exposed lapping margin and therethrough into contact with the strands of the underlying margin, the adhesive being absorbed in and adsorbed on said strands as discrete particles whereby to unite said margins by adhesive connection of their contacting strands without substantial stiffening of the wrapper, no perceptible film of adhesive being formed thereon.

2,839,060
SANITARY PROTECTIVE DEVICE
Arthur Ormo, St. Augustine, Fla.
Application March 29, 1957, Serial No. 649,332
4 Claims. (Cl. 128—294)



4. A device of the character described, comprising of a flexible, conically walled cup, having a central opening formed therein; side walls of said cup being thick in the outer lip area, thinner near the top; circular ridges, encircling said central opening, connected to the inner surface of the cup, some adjacent to the inner edge, and some adjacent to the outer edge, projecting inwardly; a tube, connected to the inside of the cup, projecting inwardly, its hole in alignment with the said central opening of the cup; an adhesive layer on the inner surface of the cup, positioned between the inner and outer ridges; and a sac, externally covering said central opening and connected to the outer surface of the cup.

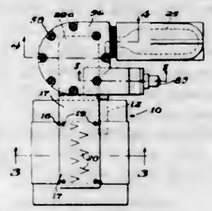
2,839,061
URINE COLLECTING DEVICE
Frances H. Inscho, Lee Township, Calhoun County, Mich.
Application March 9, 1955, Serial No. 493,219
3 Claims. (Cl. 128—295)



1. A device for collecting a speciment of an infant's urine for analysis, including in combination: a sheet-form body member of size and shape enabling it to be

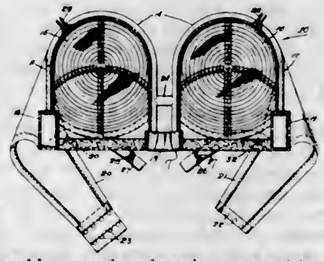
applied to the inguinal region of an infant and to be worn for a substantial period of time, said body member having concavo-convex cross-section and a funnel-like formation in its central region which extends relatively forwardly from and emerges smoothly with its convex side, said funnel-shaped portion terminating in an opening, and a cylindrical collar extending about said opening in continuation of said funnel portion, said body member being form-sustaining yet sufficiently flexible that it will yield when worn, the body member having configuration such that when the device is snugged against the body of the infant wearer it tends to seal therewith along its edges; a one-piece collecting receptacle of resilient and flexible material releasably secured to the cylindrical collar; and strap means for securing the body member in place on the inguinal portion of the infant wearer.

2,839,062
PNEUMATIC TOURNIQUET CUFF
David M. Jordan, North Attleboro, Mass., assignor, by mesne assignments, to Kidde Manufacturing Co., Inc., Bloomfield, N. J., a corporation of New Jersey
Application June 23, 1953, Serial No. 363,581
9 Claims. (Cl. 128—327)



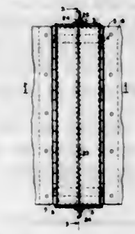
3. A pneumatic tourniquet comprising an assembly including a stiff resilient backing member in the form of a sheet permanently biased to a generally cylindrical configuration, an expansible inflatable bladder disposed adjacent the inner face of said backing member and substantially coextensive in area therewith, and a textile fabric sleeve loosely enclosing said backing member and bladder, an elongated rigid metallic support member extending transversely across a narrow zone of the outer face of said assembly and secured thereto, said support member having a plurality of barbs extending outwardly therefrom, a flexible substantially inextensible strap secured to said assembly having a free end adapted to be wrapped around said assembly and to be releasably engaged by said barbs to limit the radial expansion of said assembly during use.

2,839,063
BRASSIERE
Norma M. Davis and George W. Davis, Chicago, Ill.
Application November 13, 1956, Serial No. 621,669
2 Claims. (Cl. 128—472)



1. A shoulder strapless brassiere comprising a body member of tough, fairly rigid yet pliable material of the class consisting of bone, metal and plastic, said body member formed into a pair of U-shaped members, a lower connecting member extending between the inner bottom portions of said U-shaped members and an upper connecting member spaced above said lower connecting member and extending between said U-shaped members, fabric attached to and covering said body member, said fabric forming with said U-shaped members a pair of breast receiving cups, a back band attached to said fabric adjacent the outer bottom portion of each U-shaped member, means on each band for detachably attaching said bands at their outer ends, a pair of diagonal bands, each diagonal band attached at its upper end to said fabric adjacent but short of the top of a U-shaped member, and attached at its lower end to the adjacent back band intermediate its end, said lower and said upper connecting members bearing against the user and acting as a sternal lock and providing a primary vector for support of the brassiere, said diagonal bands by virtue of their said points of attachment to said fabric and to said back bands providing winged vectors inextricably coordinating, cooperating and integrating with said primary vector to suport the brassiere on the wearer without shoulder straps.

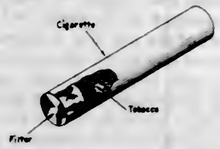
2,839,064
BINDER
Walter Easter Haskin, New York, N. Y., assignor to Pressed and Welded Steel Products Company, Inc., Long Island City, N. Y., a corporation of New York
Application November 19, 1954, Serial No. 470,081
6 Claims. (Cl. 129—1)



1. A binder designed for public use in the display of a paper bound telephone directory or the like, comprising a flat metal back plate formed with perpendicular side and end walls, said side walls having side covers hingedly attached thereto and said end walls having aligned apertures therein, the said end walls also being provided with aligned key-hole shaped apertures, a depressible platform plate formed with an arched surface and perpendicular end walls with aligned elongated apertures nested inside the back plate, resilient springs engaging said back plate and said platform plate to impart an outward thrust to said platform plate, a rod disposed longitudinally of the binder and mounted at each end in a support and extending through all of said aligned apertures in said backplate and platform plate to lock the platform plate in position in the backplate; a flat metal tongue adapted to be inserted between the leaves of a book and having a narrow body portion projecting through the said key-hole apertures in the end walls of the back plates and having widened end portions extending beyond said end walls, said keyhole apertures having a length at least equal to the width of said widened portions and said platform plate being normally supported by said springs in a position partially to cover said keyhole apertures except for a portion thereof of a length equal to the width of said body portion, whereby when not in use a book mounted in the binder is enabled to lie flat on one side in a closed position and when opened for reading and the leaves are turned from side

to side the binder is enabled to rotate on said rod to automatically level the leaves in a horizontal plane to greatly facilitate reading.

2,839,065
FILTER FOR TOBACCO SMOKE
Robert M. Milton, Buffalo, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application May 21, 1956, Serial No. 585,952
18 Claims. (Cl. 131—10)



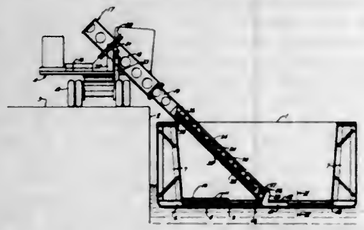
1. A smoking preparation comprising tobacco and at least one activated crystalline molecular sieve.

2,839,066
END WRAP IMPREGNATED WITH A FATTY ACID ESTER OF A POLYHYDRIC ALCOHOL
Judson H. Sanders, Wyoming, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio
No Drawing. Application February 11, 1955
Serial No. 487,689
4 Claims. (Cl. 132—46)

1. An end wrap for aligning and conditioning hair during a waving process which comprises a porous fabric impregnated with an oleaginous material and a perfume soluble in said oleaginous material, said oleaginous material comprising a partial ester of a polyhydric alcohol and a fatty acid containing from 12 to 18 carbon atoms in the alkyl chain.

3. An end wrap for aligning and conditioning hair during a waving process which comprises a porous fabric impregnated with sorbitan monolaurate, a perfume soluble therein, and lanolin.

2,839,067
METHOD OF CLEANING BARGE BOTTOMS
Robert M. Wilkinson, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 14, 1956, Serial No. 565,438
1 Claim. (Cl. 134—8)



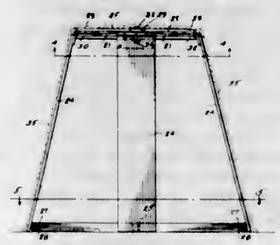
A method of removing accumulations of material from the spaces between the parallel deck channels of a barge which comprises arranging an extensible boom in a vertically inclined position relative to the barge with its lower end adjacent the deck of the barge at a point centrally thereof and with its upper end upwardly and outwardly of the upper edge of one side of the barge, supporting said upper boom end for pivotal movement about a stationary horizontal axis parallel to the longitudinal centerline of the barge, connecting a shovel to said lower boom end for pivotal movement about a second and movable horizontal axis parallel to said stationary axis, and extending said boom to move said second axis toward the other side of the barge and to thereby move said shovel through one of said spaces in a direction parallel to said channels for removing the material accumulated therein.

2,839,068
FLUSH CAPS
Roland A. Cassia, White Plains, N. Y.
Application October 4, 1954, Serial No. 460,187
9 Claims. (Cl. 134—102)



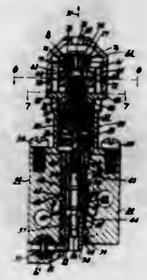
2. A flush cap comprising a plate having a downwardly extending flange, said flange having two tabs extending inwardly in a plane parallel to that of the plate, a water pipe extending through and above the plate and having internal threads for receiving a water hose, an air inlet pipe extending through said pipe above said plate with the outer end of the air inlet pipe extending progressively away from the first-named pipe, a valve in the outer end of the air inlet pipe, said valve comprising a stem extending along the axis of the pipe and including means for allowing air to flow through the air inlet pipe when the stem is depressed and for blocking flow in the air inlet pipe when the stem is in normal position, and a gasket covering that wall of said plate which is inside said cap, there being sufficient internal threads in the water pipe above the air inlet pipe so that a water hose may be placed in the water pipe without blocking the air inlet.

2,839,069
PORTABLE ICE FISHING SHELTER
Charles E. Hickman, Saranac, Mich.
Application February 1, 1954, Serial No. 407,477
1 Claim. (Cl. 135—4)



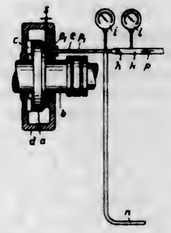
A frame for a portable ice fishing shelter comprising a base formed of a pair of crossed brace members and having a centrally disposed opening, a head plate, four inner hinges equidistantly affixed to the peripheral portion of said head plate, said inner hinges each having an inner and an outer leaf, four outer hinges each having an inner and an outer leaf and each having its inner leaf affixed to the outer leaf of one of said inner hinges, props each affixed at one end to each of the outer leaves of the outer hinges, and each detachably connected at its other end to an outer end portion of one of said brace members, a cross-shaped clamp having a central opening mounted below said head plate, a similar clamp mounted above said head plate, and a bolt extending through the openings in said clamps and said head plate, said clamps defining arms normally encompassing said inner hinges and the inner plate of each of said outer hinges whereby the entire structure is rigidly maintained as a unit, and whereby said arms may be rotated to positions between adjacent interconnected hinges to permit movement of said props to a parallel collapsed position.

2,839,070
GOVERNOR VALVE ASSEMBLY
Kenneth L. Berninger, Dayton, Darrell E. Royer, Vandalia, and William A. Weis, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 12, 1952, Serial No. 319,866
6 Claims. (Cl. 137—19)



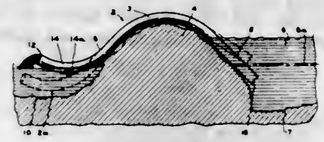
3. In a governor valve assembly, the combination including, a valve body having a through bore, a centrifugally responsive valve element movable longitudinally along said bore, resilient means for opposing movement of said valve element away from a neutral position by centrifugal force, and means operatively connected with said valve element and independent of longitudinal movement thereof for alternately rotating said valve element in opposite directions about its axis to reduce the static friction to relative longitudinal movement between the valve element and the valve body.

2,839,071
SAFETY DEVICE FOR ROTARY MACHINES OR ENGINES WITH THRUST BEARINGS
Arthur Rosch, Berlin-Grunewald, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application May 20, 1955, Serial No. 509,962
In Germany October 1, 1948
Public Law 619, August 23, 1954
Patent expires October 1, 1968
6 Claims. (Cl. 137—37)



1. A pressure modulating device for a control fluid used in the control of a machine or prime mover, said control fluid being independent of the lubricant employed in the bearings of said machine or prime mover, a pressure-responsive organ, conduit means between a housing of at least one of said bearings and said pressure-responsive organ, a shaft journalled in said bearing, a thrust disk on said shaft within said bearing housing, said conduit means ending in said housing opposite said disk with a narrow gap left between the end of said conduit means and said disk, means operatively connected with said pressure-responsive organ and being adapted to cause said machine or prime mover to be relieved from its load when said pressure-responsive organ is actuated by a change in pressure of said control fluid due to change in the width of said gap as a result of excessive wear in said bearing.

2,839,072
IRRIGATION SIPHONS
Manuel M. Leyva, Peoria, Ariz.
Application January 31, 1955, Serial No. 485,188
1 Claim. (Cl. 137—146)



An irrigation siphon for removing water from irrigation ditches of the type having banks with sloping sides, comprising an elongated tubular body of uniform diameter substantially throughout its length bent intermediate its ends to have substantially a U-shape providing a central portion and end portions forming legs extending from said central portion outwardly and forming an obtuse angle substantially conforming to the slope of a ditch bank on which the siphon is to be used, one of said legs being a straight section and providing an intake opening for the siphon, and the other leg having a straight section and an outlet section formed by a goose-neck trap bend disposed out of the plane of said straight sections.

2,839,073
VALVE FOR INFLATABLE ARTICLES
Frederick W. Marsh, Agawam, Mass., assignor to Kestral Corporation, Springfield, Mass., a corporation of Massachusetts
Application March 21, 1956, Serial No. 573,037
7 Claims. (Cl. 137—232)

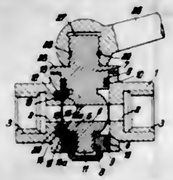


1. A valve construction for inflatable articles comprising a tube formed of resilient plastic material and provided at one end with a radially outwardly extending flange substantially flush with said one end, and at the other end with a check valve opening under a relatively low oral pressure exerted through the flanged end of the tube, a plug closure making a releasable compression fit in the said one end portion of the tube under a pressure substantially in excess of the desired inflation pressure and means surrounding the plug engaged portion of the tube closely adjacent the flange to prevent cross-sectional distortion of that portion of the tube surrounded thereby, by reason of stress applied to the flange.

2,839,074
VALVES
Rudolf Kaiser, Ettlingen, Baden, Germany
Application April 17, 1956, Serial No. 578,755
Claims priority, application Germany April 19, 1955
18 Claims. (Cl. 137—315)

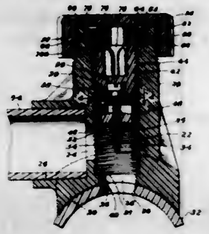
1. A valve comprising, in combination, an elongated valve housing formed with a longitudinal bore through which a fluid is adapted to flow and formed with a transverse bore extending through said valve housing transversely across said longitudinal bore; annular sealing means located in said housing on one side of the axis of said transverse bore in a position surrounding and coaxial with said longitudinal bore of said housing; and

an elongated valve member turnable in said transverse bore of said housing about a transverse turning axis, said valve member being formed with a passage which is aligned with said longitudinal bore when said valve member is in an open position and which extends across said longitudinal bore when said valve member is turned about said transverse turning axis to a closed position, said valve member having an outer convexly curved surface portion engaging said sealing means



when said valve member is in said open and closed positions, and said valve member having a face portion of substantially less curvature than said convexly curved portion thereof directed toward said sealing means when said valve member is turned about said transverse turning axis to a third position located beyond said open and closed positions thereof, so that when said valve member is in said third position thereof it may be removed from said housing in the direction of said transverse turning axis.

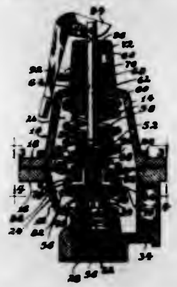
2,839,075
SERVICE T FOR PLASTIC MAINS
Frank H. Mueller, Decatur, Ill., assignor to Mueller Co., Decatur, Ill., a corporation of Illinois
Application February 16, 1954, Serial No. 410,587
7 Claims. (Cl. 137—318)



1. A fitting attachable to plastic pipes comprising: a plastic service T having a throughbore and a lateral outlet, one end of said T being shaped for engagement with and solvent-welding to a plastic main; an interior thread in said bore; a plug having an exterior thread engaged with said bore thread; a circular cutter of smaller diameter than, and coaxially fixed to one end of, said plug for projection out of the inlet end of said bore at said one T end and cutting a hole in the main by screwing said plug theretoward; interengageable stop means on said plug and in said bore inlet end for limiting the extent of projection of said cutter out of said bore; interengageable stop means on said plug and in the other end of said bore for preventing removal of said plug from said bore other end; and an imperforate closure cap threaded onto the other end of said T.

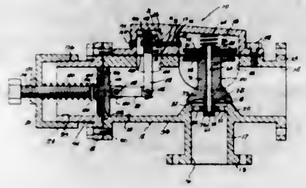
2,839,076
QUICK-OPENING PRESSURE RELIEF VALVE
Frank H. Mueller, Decatur, Ill., assignor to Mueller Co., Decatur, Ill., a corporation of Illinois
Application March 24, 1953, Serial No. 344,315
16 Claims. (Cl. 137—469)

1. In a pressure relief valve having an outlet for relieving a pressure system, an inlet connectable thereto, valve means having opposed sealing surfaces controlling said outlet and urged to open position by pressure in the system, and means yieldingly urging the valve means to closed position, the combination of pressure responsive means connected to the valve means and operable by reduced pressure to urge the valve means to open, and duct means for communicating to said pressure responsive



means the reduced pressure of the fluid stream flowing between the sealing surfaces of the valve means when the latter is open for effecting a greater opening of the valve means after its initial opening by system pressure than the valve opening obtainable by system pressure alone, the inlet end of said duct means being located so as to be out of communication with the valve inlet when the valve means is closed.

2,839,077
PRESSURE REGULATOR ASSEMBLY
Alv B. Kristensson, Hedvigsdal, Sweden
Application September 28, 1956, Serial No. 612,755
1 Claim. (Cl. 137—491)



In a pressure responsive constant fluid pressure regulator, an elongated casing having a main axial bore and having inner outlet end and an outer end and a side wall, a lateral inlet arm on said side wall having an inlet bore communicating with said main bore, said inner end of the casing being adapted to be connected to a fluid system to be regulated and said arm being adapted to be connected to a source of fluid pressure, said casing side wall having a first opening opposite said inlet arm and a second opening located between said first opening and the outer end of the casing, a first flexible diaphragm extending across said first opening, a main valve extending across said main bore and having a head on one end engaging the adjacent side of said diaphragm and secured thereto, an annular face on the other end of said valve, a boss on the casing side wall at and closing said inlet bore, said boss having an annular valve seat facing said annular face and a perforated wall providing restricted communication between said inlet bore and said main bore only while said face is unseated from said seat, said valve having an axial bore extending therethrough having a restricted end opening into said inlet bore, a housing secured to the outer side of the valve casing side wall over said first and second openings, said housing having a first chamber registered with said first opening and freely receiving the head of said main valve, a spring compressed between a portion in said first chamber and

said head and urging said first valve toward its seat, said housing having a second chamber registered with said second opening, a partition wall separating said first and second chambers, a longitudinal bore extending through said partition wall and communicating with said first and second chambers and through said second chamber with said main bore, a spring urged valve in said longitudinal bore including a seat in said first chamber and a stem having a valve element in said second chamber, a lever extending across said main bore having an outer end portion pivoted in said second chamber and an inner end, an abutment element on said outer end portion of said lever for engagement with the head on said stem for moving the stem in a direction to unseat said valve element, a second flexible diaphragm secured across the outer end of said casing, a diaphragm head engaged with the inner side of said second diaphragm, means articulating said diaphragm head to the inner end of said lever, a longitudinally adjustable cap mounted on the outer end of the casing, an axial shaft threaded through said cap and having an inner end close to and normally spaced from said second diaphragm, and a coil spring circumposed on said shaft and compressed between said cap and said second diaphragm.

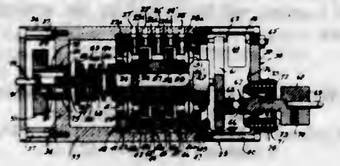
2,839,078
RELIEF VALVE
Frank C. Lornitzo, Pawtucket, R. I., assignor to Pantex Manufacturing Corporation, a corporation of Delaware
Application July 3, 1953, Serial No. 365,873
3 Claims. (Cl. 137—508)



1. A hydraulic relief valve comprising a valve body having a relief pressure port and return port, a slidable valve seat in said body having a surface area at all times exposed to relief port pressure tending to move said valve seat to open position, said valve seat having an axial passageway therethrough leading from said pressure port and provided with radial openings intermediate the ends thereof communicating with the return port for the flow of fluid from said pressure port to said return port, said valve seat being in slidable contact with said valve body on the side of said radial openings remote from said pressure port, a closing plug normally closing said passageway at the pressure port end thereof, a second closure normally closing the other end of said passageway, a spring in engagement with said second closure urging the valve seat to closed position in opposition to said fluid pressure acting on said valve seat and means providing a communication from the relief port to the side of the second closure engaged by said spring.

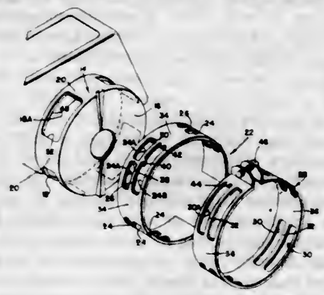
2,839,079
SERVO-VALVE
Stanley H. Holmes, Chicago, Ill.
Application May 25, 1955, Serial No. 510,969
5 Claims. (Cl. 137—622)

4. In an hydraulic actuator control valve, a hollow cylinder having regions of differing inside diameters, and fluid ports therein, alternate regions being of substantially the same diameter, a piston reciprocably disposed in said cylinder, said piston having regions of differing outside diameters corresponding to the regions of the cylinder, means sealing said piston and said cylinder and resiliently mounting said piston coaxially within said cylinder for resilient axial dsplacement, means biasing said piston in one axial direction, an actuating plate pivotally coupled to the piston, displacement sensing means pivotally con-



nected to the actuating plate to displace said piston, said last mentioned means including a displacement sensing member, means biasing said member towards said actuating plate, a yieldable fulcrum for said actuating plate compensating for overtravel of said displacement sensing means and pivot means coupling the same to said actuating plate whereby displacement of the sensing means operates to displace the piston and thereby control fluid flow through the valve.

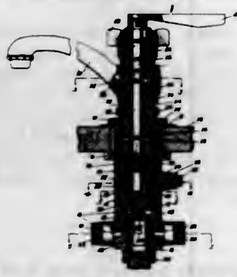
2,839,080
AIR ADJUSTING DEVICE FOR A FURNACE HEATING UNIT
Charles V. Copeland, Fort Wayne, Ind., assignor to Wayne Home Equipment Company, Fort Wayne, Ind., a corporation of Indiana
Application January 16, 1953, Serial No. 331,697
6 Claims. (Cl. 137—625.4)



1. An air-adjusting device for a fuel-burning unit and comprising a cylindrical air-intake housing having a plurality of annularly arranged circumferentially extending inlet ports in the outer peripheral surface thereof, the adjacent end of said ports being separated by the solid material of said housing, an inner sheet metal adjusting band slidably received on the ported periphery of said housing and having adjusting openings which match said ports, and an outer sheet metal adjusting band slidably received on the outer periphery of said inner band and having adjusting apertures which match said ports, said ports, openings and apertures being of such size that said bands may be adjusted to open or close completely the housing ports, the outer band having a radially inwardly projecting abutment lug at one end of one of said apertures engageable with the circumferentially spaced end edges respectively of one port whereby the circumferential movement of said outer band is limited to the arcuate dimension of the one port, said inner band having an abutment interposed midway between the circumferentially spaced ends of one opening, said lug of the outer band being engageable with said abutment to move said inner band on said housing and being further engageable

with one of said ends of said one opening to move said inner band in the opposite direction, said inner band having a radially inwardly projecting stop interposed midway between the ends of said one opening engageable with one end edge of said one port, and a second stop on said inner band adjacent one end of said one opening and engageable with the other end edge of said port whereby the circumferential movement of said inner band on said housing will be limited by the spacing between said stops.

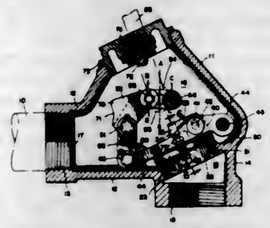
2,839,081
SWING SPOUT COMBINATION FAUCET
Richard H. Wolf, Gary, Ind.
Application May 10, 1954, Serial No. 428,486
9 Claims. (Cl. 137—625.41)



4. In a valve structure, a hollow cylindrical housing having a liquid supply chamber of reduced diameter communicating concentrically with one end thereof, a valve seat at the juncture of said supply chamber with said housing, a hollow sleeve concentrically arranged in said housing, spaced apart outwardly directed flanges on the lower portion of said sleeve in sealed engagement with the inner walls of said housing, the portion of said sleeve between said flanges being of reduced diameter to provide a water jacket between said sleeve and said walls, the lower end of said sleeve spaced from said valve seat whereby to provide a mixing chamber in said housing between said seat and said sleeve end, a shaft mounted for reciprocatory movement within said sleeve and being of less diameter than the internal diameter of said sleeve whereby to provide a longitudinal passage in said sleeve, a head on the lower end of said shaft disposed in said mixing chamber and having its sides spaced from the side wall of said chamber, said head adapted to seat against the adjacent end of said sleeve when moved to its limit in one direction and against said valve seat when moved to its limit in the opposite direction, said sleeve having spaced apart upper and lower openings therein between said flanges establishing communication between said passage and said water jacket, liquid flow preventing means on said shaft and sleeve between said upper and lower openings, a spout connected to the opposite end of said sleeve and in communication with said passage, a valve in said sleeve to control the flow of liquid to said spout, and means operable from the exterior of said housing for moving said shaft.

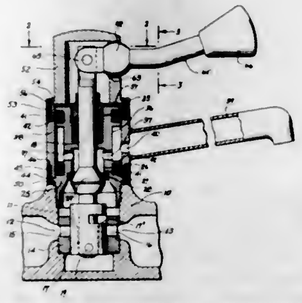
2,839,082
TRAIN LINE END VALVE
Edward B. Moore, La Grange Park, and Elwood H. Stonich, Chicago, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware
Application March 9, 1956, Serial No. 570,436
8 Claims. (Cl. 137—630.15)

1. An end valve structure for a railway car steam train line, said structure comprising a casing defining a valve chamber and inlet and outlet ports communicating therewith, a main valve positioned in said casing to open and close said outlet port, and power multiplying operating means for opening said main valve comprising a valve lever pivoted at one end to the casing and at an intermediate position to said main valve, a rock shaft mounted in said casing above the valve to oscillate about an axis extending transversely of said lever and is formed with a portion which is radially offset in one direction relative to the oscillatory axis of the rock shaft, a crank arm formed on said offset portion with its free end extending



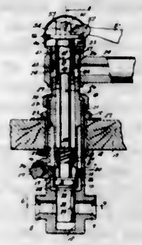
radially therefrom to a position slightly beyond the said axis of the rock shaft, means for operatively connecting the rock shaft to the free end of said valve lever comprising a pair of pivotally connected links, one of which is connected to the free end of said valve lever and the other of which extends into the space defined by said offset portion of the rock shaft and is pivotally attached to the free end of said crank arm.

2,839,083
VALVE HANDLE
Alfred M. Moen, Seattle, Wash.
Application November 8, 1954, Serial No. 467,328
1 Claim. (Cl. 137—636.2)



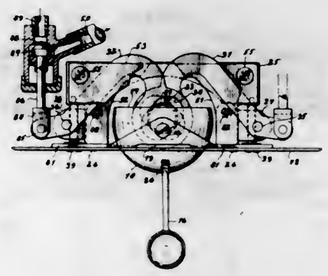
A mixing faucet comprising a valve housing, a valve chamber in said valve housing, a plurality of inlets extending through the housing into the valve chamber, an outlet at one end of the valve chamber, a valve means contained in the valve chamber, a stem connected to the valve means and extending therefrom through said outlet, said valve means being rotatably and reciprocally movable within the valve chamber to open and close said inlets to regulate mixture and volume, a cylindrical stem housing rotatably positioned on the valve housing and the free end of said stem extending thereinto, a round opening through the sidewall of the stem housing, a lever extended through said opening and pivotally connected at its inner end to the free end of the stem, a ball like portion on the lever intermediate its end adapted to engage the stem housing about the opening therein to provide a fulcrum whereby up and down movement at the outer end portion of the lever will effect longitudinal movement of the stem and valve means, said ball like portion and opening in the stem housing being of substantially the same diameter whereby a minimum of clearance is provided therebetween.

2,839,084
FLOW CONTROL VALVE
Richard H. Wolf, Gary, Ind.
Application June 3, 1955, Serial No. 513,019
7 Claims. (Cl. 137—636.2)



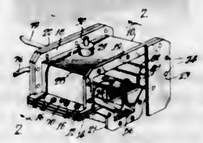
1. In a valve structure, a hollow cylindrical core having a fluid inlet at one end and a lateral outlet opening at its opposite end, a shaft of less diameter than said core mounted for rotary and longitudinal movement therein to control the flow of fluid from said inlet end to the space between said shaft and the walls of said core, a head on said shaft having a shoulder disposed within the edges of said outlet opening, a hollow cylinder enclosing said head and having its walls interposed between said head and the adjacent inner walls of said core, said cylinder having a lateral port in communication with said outlet opening and normally overlying said head, and means for sliding said cylinder to position portions of said port beyond said shoulder.

2,839,085
MIXING VALVE
Otto Harke, Woodside, N. Y.
Application August 15, 1955, Serial No. 528,391
9 Claims. (Cl. 137—636.2)



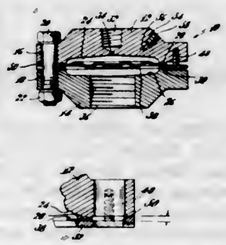
1. The combination with two valves of control mechanism for governing the opening and closing thereof to regulate the quantity and composition of a mixture of two fluids, the said control mechanism comprising individual rocker levers for actuating the valves, the pivotal axes of the rocker levers lying in a common plane and being parallel, one end of each rocker lever being operatively associated with its valve to open and close the valve and the other ends of the two rocker levers overlapping each other, the overlapping ends of the rocker levers being provided with cam slots which are angularly disposed with respect to the plane containing the pivotal axes of the rocker levers and which overlie each other in intersecting relation, a cylindrical cam passing through the said cam slots at their intersection, and means for selectively moving the cylindrical cam along any line lying within the pair of vertical angles which are formed by the intersecting longitudinal axes of the cam slots and which contain the line passing through the said intersection perpendicular to the aforesaid plane, to move the valve-actuating rocker levers independently, or simultaneously and equally, or simultaneously in varying proportions, depending on the angle of the line of movement of the cylindrical cam.

2,839,086
LIMP DIAPHRAGM ACTUATOR
Joseph F. Engelberger, Monroe, Conn., assignor, by mesne assignments, to Consolidated Controls Corp., a corporation of New York
Application May 6, 1955, Serial No. 506,488
9 Claims. (Cl. 137—784)



1. A pressure responsive actuator, comprising a rectangular diaphragm, a body member, means for securing two opposed sides of said diaphragm to said body member, the other two sides of said diaphragm being movable with respect to said body member, and an output member connected to said diaphragm intermediate said secured opposed sides thereof and movable therewith.

2,839,087
ATTACHMENT FOR USE IN PRESSURE GAUGES
Rolf H. Ochsner, Trumbull, Conn., assignor to Manning, Maxwell & Moore, Incorporated, Stratford, Conn., a corporation of New Jersey
Application June 7, 1956, Serial No. 589,967
6 Claims. (Cl. 137—791)



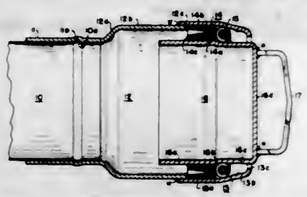
2. In a device for transmitting pressure from one side of a diaphragm to the other, a two-part housing, each part having a port, a diaphragm located between the parts dividing the housing into two chambers, one at each side of the diaphragm, and means clamping the parts together, an annulus located between the parts against one side of the diaphragm, and screw bolts for fastening the annulus and hence the diaphragm to one of the parts independently of the other, said annulus having an inner edge of smaller diameter than the diameter of the diaphragm so that it overlaps the edge of the diaphragm, and an outer edge substantially coextensive with the parts, portions at least of the outer edge of said annulus having a greater effective thickness than the inner edge, said annulus having bolt holes inwardly of said portions and said part to which the annulus is bolted having threaded holes for receiving the bolts, said screw bolts extending through the holes in the annulus into the threaded holes in the part and being turned down against the annulus so as to cant the inner edge of the annulus against the subjacent diaphragm.

2,839,088
BITUMINIZED FIBER PIPE
Donald W. Biklen, Park Ridge, N. J., assignor to Orangeburg Manufacturing Co., Inc., Orangeburg, N. Y., a corporation of New York
Application June 1, 1955, Serial No. 512,515
2 Claims. (Cl. 138—47)



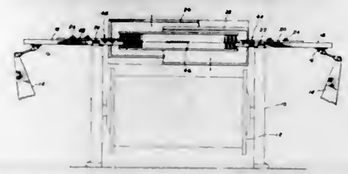
1. A bituminized fiber pipe having a coating on a portion of the surface thereof of a metal, and a marking of a material selected from the class consisting of inks, paints and lacquers on the metal coating of a color contrasting to the color of the metal, the metal coating forming a barrier between the bituminized fiber pipe and the marking preventing the bitumen of the pipe from chemically attacking the marking, whereby the marking is protected against chemical attack and bleeding into by the bitumen of the pipe.

2,839,089
PACKED SAFETY LOCK PIPE COUPLING WITH REMOVABLE GRIP ANNULUS
Clyde E. Rickard and Gustav A. Hempel, Pittsburgh, Pa., assignors to McDowell Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 9, 1954, Serial No. 415,056
3 Claims. (Cl. 138—89)



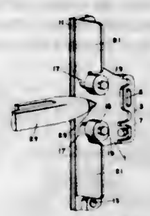
1. In a quick-release safety-lock positive-holding fluid coupling having a housing body for removably receiving a nose member therein, wherein the housing body has an internal operating surface defined by an annular portion to position a fluid-sensitive annular gasket and by a cone-shaped throat portion that converges outwardly from the annular portion to operatively carry and position a flexible grip annulus therein in a cooperating fluid-pressure-sensitive grip-applying relation with the gasket, the combination of an annular inner sealing surface portion for the gasket and an annular outer engaging surface portion of smaller diameter for the grip annulus on said nose member, said inner sealing and outer engaging portions each being of substantial axial length, said annular outer engaging surface being radially-inwardly offset and extending longitudinally-outwardly beyond said inner sealing surface, a stop shoulder connecting said inner sealing and outer engaging surface portions to limit the maximum inward position of the grip annulus on said nose member, said inner sealing surface portion having a diameter that is greater than an internal diameter of the grip annulus and said outer engaging surface portion having a diameter that is substantially the same as an internal diameter of the grip annulus when the grip annulus is operatively carried and positioned by the cone-shaped throat portion in an engaging position with said outer engaging surface portion to prevent an outward removal of said nose member from within the housing body; a cylindrical portion radially-inwardly offset from and extending longitudinally from the internal operating surface which positions the annular gasket within said housing body, an end of said radially-inwardly offset cylindrical portion and adjacent said internal operating surface, forming an inner positioning limit portion for a lip edge of said annular gasket; said cylindrical portion terminating in a radially-inwardly offset stop limit portion which cooperates with the forward edge of said inner sealing surface portion and limits maximum inward movement of said nose member within the housing body, said offset cooperating portion being spaced from the axially innermost end of said gasket a distance greater than the axial length of said inner sealing surface portion, said inner sealing surface of said nose member being longitudinally-parallel to and radially-inwardly-spaced from said cylindrical portion and said internal operating surface of said housing body, the radial depth of the space defined by the said inner sealing surface and said internal operating surface being less than the radial depth of the convolutions of the grip annulus and thereby preventing the annulus from sliding inwardly on said inner sealing surface; and a radially-inwardly offset outer portion on said nose member outwardly beyond said outer engaging surface portion, said offset portion being of such a radial depth as to define with respect to the outer end portion of the housing body a radially circumferentially extending space having a radial dimension at any point at least as great as one-half the width of the convolutions of the grip annulus, the distance from the said cooperating portion of the said stop limit portion to the axially outer end of the said gasket being greater than the axial distance from the inner end of said nose member to the radially inwardly offset portion, to permit an outward removal of the grip annulus from the cone-shaped throat portion when said nose member is moved inwardly to said stop limit portion within the housing body, whereby its outer engaging surface portion is positioned out of engagement with the grip annulus.

2,839,090
WIRE CLOTH LOOM
Clarence Eugene Webber and Lester K. Watson, Jr., York, Pa., assignors to New York Wire Cloth Company, York, Pa., a corporation of Delaware
Application March 6, 1957, Serial No. 644,416
25 Claims. (Cl. 139—127)



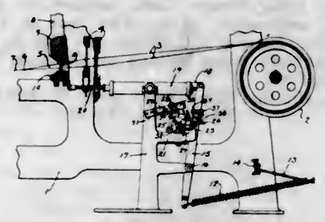
1. Wire cloth selvage forming mechanism comprising a wire cloth weaving loom including gripper carriers operable to insert cut weft wires of uniform length successively within the shed of the loom, the length of the weft wires being greater than the width of the wire cloth woven by the loom and the opposite ends of said wires respectively projecting beyond the opposite edges of the weave in the loom when initially inserted in the shed, in combination with a plurality of tucking blades, means supporting said blades respectively adjacent opposite edges of the weave for rectilinear reciprocable movements substantially within the plane of the weave, and means operable simultaneously to actuate said blades initially to engage and bend said projecting ends of the last inserted weft wire toward the shed opening and then into said shed opening, thereby to form curved ends on the weft wires and smooth selvage edges.

2,839,091
SHUTTLE-GUIDES FOR CHANGE-BOX LOOMS
Sherwood O. Dodge, Medford, Mass., assignor to H. F. Livermore Corporation, Allston, Mass., a corporation of Delaware
Application January 14, 1955, Serial No. 481,770
1 Claim. (Cl. 139—155)



In a change-box loom having a picker and a plurality of shuttle boxes with shuttles therein, a box-guide comprising in combination a body portion, a box-guiding surface thereon, shuttle-point guides on the body portion extending parallel to the box-guiding surface and spaced apart for passage of the picker between the ends of such guides, studs fixed in the body portion adjacent such ends, and rolls rotatably mounted on such studs and each intervening between the end of a guide and the path of the picker and extending past the plane of the guide's working surface and adapted to be engaged by the point of a shuttle being shifted out of working position by the box change.

2,839,092
SUPERVISORY CONTROL CIRCUIT
Bruce B. Purdy and Adrian T. Godschalx, Appleton, Wis.
Application February 11, 1955, Serial No. 487,522
13 Claims. (Cl. 139—336)



1. In a control for a loom having a lay that reciprocates toward and away from a beat line the combination of a switch actuator movable in response to advance of the lay toward the beat line within a range of positions corresponding to possible beat line position which range includes a permissible zone of positions corresponding to permissible positions for the beat line and zones of positions to each side of the permissible positions corresponding to unwanted positions for the beat line; switch means operable by movement of said switch actuator and operated to a predetermined switch means position upon said actuator being disposed in a zone of unwanted positions; a timing switch opened and closed in a regular sequence related to the lay stroke; electrically operable means for the control of the loom; and circuit connections joining said switch means and said timing switch with said electrically operable means to cause an operation of the latter when said switch means is placed in said predetermined position in response to said actuator having been in the zone of unwanted positions while corresponding to beat line position.

2,839,093
VACUUM FILLING MACHINE
Edward J. McCarthy, Braintree, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Application June 9, 1955, Serial No. 514,297
18 Claims. (Cl. 141—51)

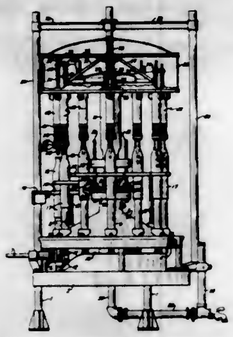


7. In a vacuum filling machine, in combination, container supporting means including an elevating platform, vacuum filling means including a vacuum filling head having a suction opening and a material inlet opening and provided with a depending shroud portion, means for elevating said container supporting platform into sealing engagement with said shroud portion to form a vacuum chamber enclosing said container with the mouth of the container in non-sealing relation to the filling head and said material inlet opening, load preforming means including a volumetric vacuum filled receptacle operatively connected to said material inlet and provided with a filling head having a suction opening and a supply inlet connected to a supply of material for measuring said predetermined load, said container vacuum filling means including means for evacuating the chamber and for withdrawing the preformed load from the receptacle into the container, means for evacuating the receptacle to withdraw material from the supply into the receptacle, normally closed valve means in said supply inlet and said material inlet respectively, means for operating said valves to open the supply valve during the receptacle filling operation and for opening the material inlet valve during the container filling operation, and means for opening said receptacle to the atmosphere during the withdrawal of the material therefrom into the container.

2,839,094
VALVE FOR LIQUID FILLING APPARATUS
Ralph B. Reno, Pittsburgh, Pa., assignor to Horix Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 15, 1956, Serial No. 615,885
20 Claims. (Cl. 141—84)

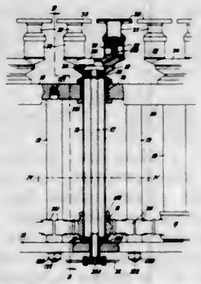
1. In a container filling apparatus having means for raising and lowering a container to be filled and having a liquid containing tank above the container, a filling valve comprising a nozzle secured to the bottom of the tank and extending vertically downward therefrom above the container, a sleeve slidably received within the nozzle, a filling tube slidably received within the sleeve and having its upper end communication with the interior of the tank and having a discharge opening at its lower end, locking means supported by the nozzle for securing the filling tube against downward movement relative to the nozzle, releasing means on the sleeve responsive to the

upward movement of the container for releasing the locking means, and lowering means operative after the lock-



ing means have been released for lowering the filling tube into the container.

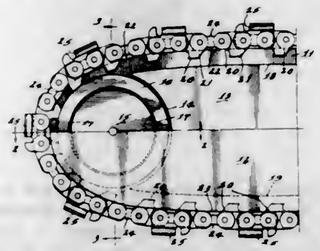
2,839,095
BOTTLE FILLING MACHINES AND LIFT DEVICES THEREFOR
Douglas P. S. Fox, Shenfield, and William A. Clarke, Hutton, England
Application September 13, 1955, Serial No. 534,114
Claims priority, application Great Britain September 24, 1954
7 Claims. (Cl. 141—149)



3. In a multi-stage multi-head rotary bottle filling machine, control means, first-stage means operated by said control means for lifting a plurality of bottle platforms through a predetermined stroke and second-stage means connected to said first-stage means and operated by said control means for lifting said bottle platforms through a variable stroke after the stroke of the first-stage means is completed.

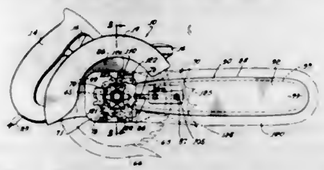
2,839,096
SAW CHAIN GUIDE BAR
John N. Cutrone, Chicago, Ill., assignor to Chain Tools, Incorporated, Chicago, Ill., a corporation of Illinois
Application November 8, 1955, Serial No. 545,719
1 Claim. (Cl. 143—32)

In combination with an endless saw chain having center links, opposed pairs of outer horizontally extending links connecting the center links, cutting teeth on some of said links, the center links having guide portions extending inwardly of the inner margins of said connecting links a predetermined distance, a guide bar assembly comprising a pair of outer plates and an intermediate plate of lesser width and length secured to and between the outer plates thereby providing a narrow peripheral groove between opposed marginal surfaces of the outer plates to receive and guide said guide portions throughout the entire course of travel of the chain along both longitudinal portions of the guide bar as well as around the free end of the bar, the peripheral edges of said outer plates being spaced outwardly from the longitudinal margins of the intermediate plate along the longitudinal portions of the guide bar a greater distance than said predetermined distance whereby the said peripheral edges of the outer plates constitute glide bearing surfaces for the inner margins of the connecting links and simultaneously hold said guide portions of the center links out of contact with said intermediate plate, an inner circular race member fixed between and secured to said outer plates adjoining the free end of the bar beyond the adjacent end of the



intermediate plate, a rotatable ring surrounding said race member and anti-friction elements between the ring and race member, a substantial portion of the periphery of the ring at the free end of the bar being embraced by the marginal portions of the outer plates, the distance between the periphery of said portion of the ring and the adjacent peripheral margins of the outer plates being less than said predetermined distance whereby the ring engages the guide portions of the center links at the free end of the bar and simultaneously holds the connecting links out of contact with the peripheral edges of the outer plates at the free end of the bar.

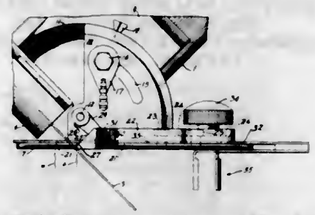
2,839,097
CHAIN SAW ATTACHMENT FOR PORTABLE CIRCULAR SAW
James O. Siria, Fresno, Calif., assignor, by direct and mesne assignments, of one-third each to Edward C. Mosesian, Newton J. Caffejian, and Charles J. Vagim, as copartners, doing business as Cenatron Industries, Fresno, Calif.
Application May 7, 1956, Serial No. 583,148
5 Claims. (Cl. 143—32)



1. In a manually operable, portable power driven circular saw including a housing having an end; a motor mounted within the housing; a saw blade mounting shaft having driven connection to the motor and having an end extended from said end of the housing; a substantially semi-circular, transversely U-shaped guard having an inner flange mounted on said end of the housing and an outer flange in outwardly spaced relation to the inner flange, the flanges defining a saw blade receiving channel therebetween, said shaft being extended outwardly from the inner flange and being adapted to receive a circular saw blade thereon with a portion of said blade disposed within the channel of the guard and a portion extended from the guard for workpiece engagement; a drive sprocket mounted on the shaft for rotation therewith in a plane between the flanges of the guard; an elongated bar having a peripheral edge providing an edgewardly disposed groove; a mounting block borne by the

housing adjacent to the shaft having an edge radially extended from the shaft, said mounting block having a forward portion in spaced relation to the housing and to the guard and having an oppositely disposed edge adjacent to the shaft and providing an outwardly disposed side inwardly spaced from the extended end of the shaft; spacing means between the forward portion of the block and the bar; screw-threaded fastening means releasably securing the block and the bar on the housing with the peripheral groove of the bar disposed in a plane normal to the shaft, disposed between the flanges of the guard, and transversely intersecting the sprocket; and a saw chain extended around the sprocket and the edge of the bar for circuitous travel around the bar incident to rotation of the sprocket.

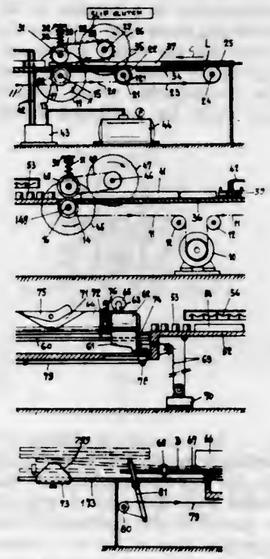
2,839,098
CUT-LINE INDICATOR FOR PORTABLE CIRCULAR SAW
Whitfield Moretti, Millers Falls, and Robert Cranmore, Shelburne Falls, Mass., assignors to Millers Falls Company, Greenfield, Mass., a corporation of Massachusetts
Application December 28, 1956, Serial No. 631,282
5 Claims. (Cl. 143—43)



1. An automatically compensating cut-line indicator device for a powered circular hand saw of the type having a motor frame, a work contacting plate, a saw blade intersecting the plane of the plate, and adjustable tilting mechanism between said frame and plate for angularly fixing said blade relative to the plate to effect a bevel cut; said device comprising a member reciprocably mounted on said work plate for movement in a direction transversely related to the plane of said saw blade and provided with an indicator sighting portion lying in contiguous relation to the plane of the blade and forwardly of the cutting edge thereof, and means rotatable with said frame on the pivotal axis of said tilting mechanism including camming means engaging said member outwardly of said pivotal axis for moving said reciprocable member in response to tilting movement between said frame and work plate.

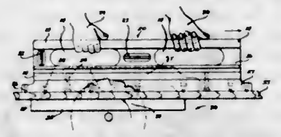
2,839,099
MACHINE PLANTS FOR THE CONTINUOUS AUTOMATIC PRODUCTION OF PLANKS OF PREDETERMINED LENGTH
Walter Müller, Auw, Switzerland
Application May 4, 1955, Serial No. 506,023
Claims priority, application Switzerland May 6, 1954
3 Claims. (Cl. 143—47)

1. In a board processing machine having means for continuously feeding a board in one direction, board severing means comprising in combination, a slide, a carriage movable on said slide in said direction of feeding and opposite thereto, a power saw mounted on said carriage, and being movable with said carriage and also in a transverse movement at right angles to the direction of board feeding into, and respectively out of, the feeding path of said board for board severing, abutment means connected to said carriage and operable to be releasably engaged by the leading edge of said board for moving said saw in said direction of feeding, retracting means operable for returning said saw in a direction opposite to said feeding direction upon release of the



leading edge from the abutment means, and guiding means operable for guiding said saw during the transverse movement.

2,839,100
WOODWORKING ACCESSORY
Fabian D. Valicenti, Sharon, Pa.
Application March 15, 1956, Serial No. 571,801
1 Claim. (Cl. 143—51)

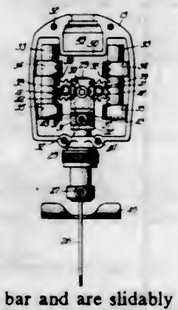


A safety device for feeding workpieces to power driven woodworking tools and the like comprising an upper rigid elongated member providing a hand grip portion, a lower rigid elongated rail-like member detachably secured longitudinally to the bottom edge of said first-mentioned member, said rail-like member having a plurality of longitudinally spaced and vertically disposed apertures therein, and a tine secured in each of said apertures and having a pointed end projecting a predetermined fixed distance downwardly of the lower face of said lower member, each of said apertures comprising a threaded lower portion and a counterbored upper portion with a shoulder therebetween, and each of said tines comprising a headed screw received in its bore with the head thereof engaging the shoulder of its bore to thereby predetermine the extent of projection of the lower pointed end of the screw.

2,839,101
PORTABLE POWER-DRIVEN RECIPROCATING SAW
Hugo W. Bork, Chicago, Ill., assignor to Skil Corporation, Chicago, Ill., a corporation of Delaware
Application February 7, 1956, Serial No. 563,993
5 Claims. (Cl. 143—68)

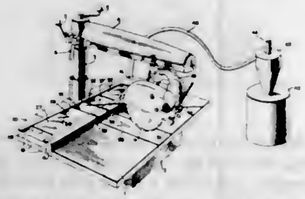
1. In a portable power-driven reciprocating saw of the type characterized by a casing, an electric motor mounted in the casing, a drive pinion on the motor, a reduction

gear journaled in the casing in mesh with the drive pinion, a vertical saw-blade holding bar slidably mounted for vertical reciprocation in a bearing in the casing, and a power transmitting connection between the motor and the bar for converting the rotary movement of the motor into a reciprocatory movement of the bar; the provision of vibration counteracting means comprising a pair of vertical rods which are positioned in the casing at op-



posite sides of the bar and are slidably mounted for vertical reciprocation in bearings in the casing, the opposite sides of the bar and the confronting sides of the rods being provided with teeth, and a pair of idler pinions which are journaled for oscillatory movement in the casing at opposite sides of the bar, between the bar and the rods, in mesh with both the teeth on the bar and the teeth on the rods, for causing the rods to be reciprocated by the bar in opposition to the latter.

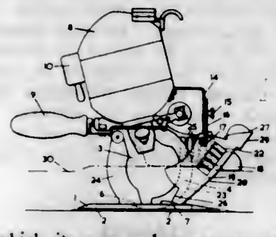
2,839,102
DUST COLLECTING ATTACHMENTS FOR POWER SAWS
George S. Kido, Madison, Wis.
Application March 6, 1957, Serial No. 644,264
8 Claims. (Cl. 143—157)



2. A dust collecting attachment for power saws of the type in which a rotating circular blade is pulled through a workpiece from behind a kerfed guide fence, said attachment comprising a hollow casing adapted to be positioned behind the guide fence and having a kerfed front wall engaged with the guide fence, the kerf in said front wall being adapted to be aligned with the kerf in the guide fence for admitting sawdust into the casing from the kerf in the guide fence, in combination with suction means connected to the hollow interior of the casing for exhausting sawdust therefrom.

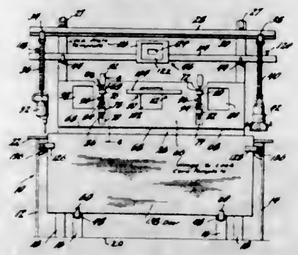
2,839,103
SAFETY GUARDS FOR ROTARY BLADE FABRIC CUTTERS
Joseph Edward Prince and Stanley Haynes, Wrexham, Wales, assignors to British Celanese Limited, a corporation of Great Britain
Application November 4, 1955, Serial No. 545,099
Claims priority, application Great Britain November 16, 1954
2 Claims. (Cl. 143—159)

1. A transportable rotary-knife fabric cutting machine of the type having a circular knife mounted for rotation on a horizontal spindle above a mobile base plate, said machine comprising at least one plate-like guard pivoted about an axis parallel to and in front of the knife spindle and extending both to the front and to the rear of said axis, said guard being freely swingable to and from a



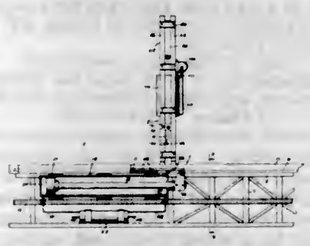
position in which its rear end covers an otherwise exposed portion of edge of the knife between said axis and the base plate and being loaded to swing into said position, and being swingable out of said position by pressure on its front end, remote from said edge.

2,839,104
ROUTING MACHINE DOOR CRAFTER
Earl E. Stiefel, Kerrville, Tex.
Application June 11, 1956, Serial No. 590,767
14 Claims. (Cl. 144—27)



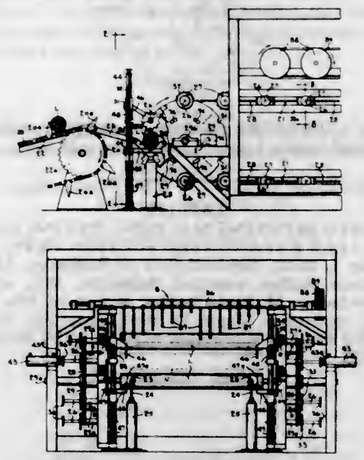
2. In a device for facilitating setting of hinges on doors, a stand having a table top, means for supporting a door on one side edge thereof in a substantially vertical plane, a template hingedly mounted on the stand having means for guiding a routing tool in routing seats for hinges and means on the stand for movably supporting a routing tool in the vicinity of the door to be routed.

2,839,105
SHAKE RIVING MACHINES
Harvey A. Gantenbine, Woodside, Calif.
Application January 20, 1956, Serial No. 560,304
6 Claims. (Cl. 144—194)



1. A machine for riving shakes comprising a platform for carrying a block of wood, hydraulic means for intermittently advancing the same a predeterminate distance with each operation of riving shakes, a multiple knife arranged for riving a plurality of shakes in each operation, said knife being above said platform, a ram carrying said knife, hydraulic means for vertically reciprocating the ram, electrically operated valves operating said first and second mentioned means, and an electric circuit for actuating said valves and synchronizing the movements of the same.

2,839,106
APPARATUS FOR ROTATING AND TRANSPORTING LOGS DURING BROADSIDE ATTACK BY BARK-REMOVING CHAINS
Willard G. Mueller, Winter, Wis., assignor to Northern Wood Barking Mfg. Co., Chippewa Falls, Wis., a corporation of Wisconsin
Application May 14, 1956, Serial No. 584,617
6 Claims. (Cl. 144—208)

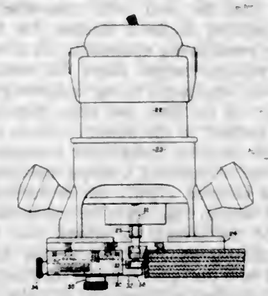


1. In a log-barking apparatus, the combination of an endless conveyor having spaced conveyor portions, each of said conveyor portions having alined sets of spaced revoluble independent carriers, means for connecting opposite ends only of a log to alined carriers of the conveyor, means for rotating said carriers as the conveyor moves such logs on said carriers through its upper run, and a plurality of spaced sets of rotary beaters disposed transversely of said conveyor and mounted above the upper run thereof, each set of beaters having a plurality of flexible beater elements spaced lengthwise of such logs on said carriers for removing bark therefrom, and means for driving said conveyor.

4. In a device for raising and positioning an object having a longitudinal axis, a pair of spaced fluid-pressure-operated jacks for receiving opposite ends of such object, valve means for controlling the operation of said jacks, a pair of fingers for engaging opposite sides of each end of such object as it is raised, and an electrical control for said valve means rendered operative to stop the upward travel of said jacks by reason of said fingers being positioned at equal distances from the longitudinal axis of such object when each end of such object reaches a predetermined elevated position whereby said jacks will hold such object with each end in such predetermined elevated position.

2,839,107
COMBINATION STRAIGHT AND BEVEL CUTTER
Arthur N. Emmons, Nedrow, N. Y., assignor to The Porter-Cable Machine Company, Syracuse, N. Y., a corporation of New York
Application March 25, 1957, Serial No. 648,172
3 Claims. (Cl. 144—218)

3. A rotary cutter formed with a first straight cutting edge extending parallel to the axis of the cutter, said cutter being formed with a second straight cutting edge extending in angular relation to the axis of the cutter, the



intermediate portion of said second cutting edge being spaced from the axis of the cutter on the same radius as first cutting edge.

2,839,108
END THRUST ROTARY PLANING TOOL
Carl R. Retz, Chippewa Falls, Wis.
Application May 3, 1956, Serial No. 582,409
6 Claims. (Cl. 144—219)



4. A circular tool for planing wood and the like by rotary support of the tool and including a series of peripheral flanges spaced lengthwise and having flat faces to define a plane normal to the axis of rotation and in predetermined spaced relation to a work table, the forward ends of said flanges respecting rotation of the flanges being advanced radially of the periphery of the tool and axially of the lower face of the tool to provide a series of cutting teeth each with its surfaces trailing the cutting edges for a short distance with zero clearance, said flanges having an outer radius slightly less than the radial dimensions of said cutting teeth whereby the radial cuts successively allowed the several teeth are safely limited by said lesser radius, said flanges serving to clear the surface of the work in a series of evenly spaced overlapping strokes as determined by the clearance provided by the teeth at the periphery of the tool and said flanges further serving to hold the work to the work table at all times.

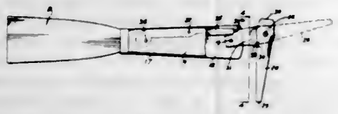
2,839,109
WOODWORKING PLANE
Jack K. Wilson, Norman E. Wilson, and Robert S. Wilson, Springfield, Mo.
Application August 17, 1956, Serial No. 604,847
1 Claim. (Cl. 145—5)



A woodworking plane comprising: a supporting body of channeled formation including a planiform base and side walls extending from end to end of and projecting upwardly from the opposite longitudinal edges of said base, said base having intermediate its ends a transverse slot extending perpendicularly to the length of the base, said body including, rearwardly from the slot, an up-

wardly projecting stud integral with the base and inclined out of verticality in a direction toward the leading end of the base, the base having an upper surface formed, rearwardly from the stud, with transverse, parallel, low serrations defining inclined notches, the back walls of said notches constituting abutments, all of said serrations being at a uniform height above the bottom surface of said base, the abutments being uniformly spaced apart longitudinally of the base and being disposed in a common plane parallel to the bottom surface of the base, a blade support member comprising a single piece of flat metal material of inverted L-shape including at its front end a flange inclined slightly out of verticality and supported at its bottom edge upon the top surface of the base forwardly of the several serrations, said blade support member including an elongated tongue having a front end integral with the upper edge of the flange, said tongue and flange extending substantially at right angles to each other, the tongue having a back edge portion engageable in a selected notch in contact with the abutment defined by the back wall of said notch; a wide, rectangular blade having a leading, sharpened edge extending into the slot of the base, said blade being formed intermediate its ends with a longitudinal center slot receiving said stud, the blade having a wholly planiform bottom surface resting upon the blade support member at the juncture between the tongue and flange of said blade support member; a retaining plate overlying the blade and having an underside formed with transverse, downwardly projecting, low ribs bearing against the top surface of the blade one in front of the stud and one rearwardly from the stud, the second-named rib bearing against the blade in proximity to the location at which the blade bears against the blade support member; and a nut threaded upon the stud, the stud projecting above the retaining plate and the nut bearing against the top surface of the retaining plate for clampably engaging the blade between the retaining plate and the blade support member and base.

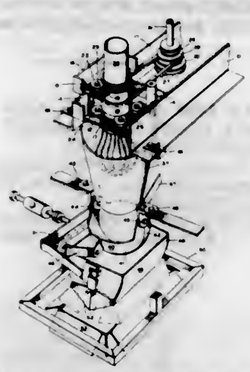
2,839,110
FOLDING BLADE SHEATHED NAIL SET
Herbert C. Carpenter, Fresno, Calif.
Application July 29, 1955, Serial No. 525,209
5 Claims. (Cl. 145—46)



1. In combination: a handle; a supporting member pivoted on one end of the handle to occupy folded and extended positions; spring means in the handle for releasably securing said member in either of said positions; a nail set pivoted on said member to occupy a folded position in which it is substantially alined with said member, and an extended position in which it is substantially at right angles to said member; and coacting means on the nail set and said member for releasably securing the nail set in extended position.

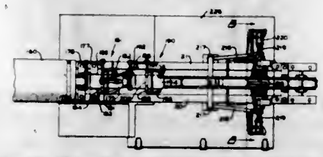
2,839,111
ROTARY COCONUT FILLING DEVICE
James M. Mitchell, Hackensack, N. J., assignor to General Foods Corporation, New York, N. Y., a corporation of Delaware
Application February 16, 1956, Serial No. 565,911
12 Claims. (Cl. 146—1)

1. In a rotary coconut filling device, means for conveying grated coconut, rotary means receiving grated coconut from said conveying means, said rotary means including a rotary head defined by spaced wire-like members receiving coconut therein for distribution outwardly



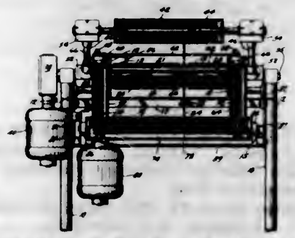
between said wire-like members, means for rotating said rotary head, and a hopper surrounding said head.

2,839,112
TOMATO SKINNING MACHINE HAVING RADIALLY EXPANDABLE SUCTION CUPS
Benjamin I. Buck, deceased, late of Baltimore, Md., by H. Beale Rollins, executor, Baltimore, Md., assignor of one-half to H. Beale Rollins, Baltimore, Md.
Original application March 30, 1954, Serial No. 419,713. Divided and this application May 17, 1955, Serial No. 509,032
6 Claims. (Cl. 146—48)



1. A tomato skinning machine comprising oppositely disposed radially expandable suction actuated devices for withdrawing the skin from the tomatoes, a source of reduced pressure, conduit means for connecting said source with said devices, spring-biased valve means in said conduit means for venting the latter to the atmosphere so as to break the suction on said devices upon being moved away from the tomato being skinned, and trip means mounted on the suction actuated devices and movable therewith for tripping the spring-biased valve to venting position.

2,839,113
BACON CONVERTER
Ray T. Townsend, Des Moines, Iowa, assignor to Townsend Engineering Company, Des Moines, Iowa, a corporation of Iowa
Application November 14, 1955, Serial No. 546,433
3 Claims. (Cl. 146—78)



2. In a machine of the character disclosed, a frame, means for advancing a slab of meat along said frame

comprising a conveyor and a pressure roll on said frame opposing said conveyor, means for cutting excess fat from one face of said slab and thereby reducing the thickness thereof comprising a knife blade located on the downstream side of said conveyor from said pressure roll, supported on said frame in a plane parallel to and spaced from said conveyor, means for imparting orbital movement to said blade as a whole in said plane, and means for cutting excess fat from one marginal side of said slab and thereby reducing the width thereof comprising a disc-shaped knife located on the downstream side of said conveyor from said pressure roll and arranged at substantially the right angles to said first knife blade, said disc-shaped knife being carried by the downstream shaft of said conveyor and being of greater diameter than the portion of the conveyor passing around said shaft, and said conveyor being formed in two sections, one on each side of said disc-shaped knife.

2,839,114
EXPANDIBLE CARD CASE
Harold Moscowitz, Brooklyn, and Leonard Moscowitz, Manhasset, N. Y.
Application April 3, 1957, Serial No. 650,483
1 Claim. (Cl. 150—39)



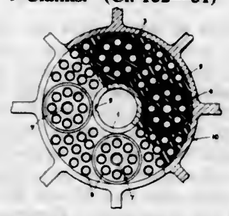
In a wallet having an outside currency receiving pocket including spaced inside and outside parallel walls foldable about a central transverse axis, a card case secured to said inside wall adapted to removably receive a selected number of card holders therein, said card case having an outside cover hingedly connected at one end to said inside wall, card holder fastening means carried by said one end of said outside cover for supporting said card holder, and an adjustable closure flap connected with said card case for securing said card case in a closed position with respect with said inside wall of said wallet, said flap comprising yieldable resilient length-adjustment means for automatically controlling the capacity of said card case within predetermined limits in response to adjustment of the number of card holders carried within said card case, said yieldable resilient means including an elastic band secured at one end to said flap and secured at the opposite end of said inside wall of said wallet, said elastic band being of substantially the same width as said flap and said outside cover of said card case.

2,839,115
CONE-GRIP, DISTORTED THREAD LOCK-NUT
Harcourt Lester Forgeard, Hagley, England
Application June 9, 1955, Serial No. 514,159
3 Claims. (Cl. 151—19)



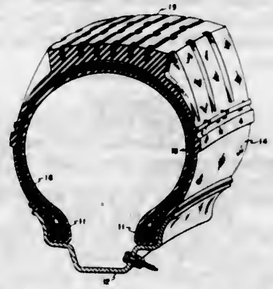
1. A lock-nut comprising a main body having an axial unthreaded bore the diameter of which increases gradually from the portion of the bore midway between its ends out to each end thereof, and a separately formed tubular bush of axial length substantially equal to that of the main body disposed within said bore and having its outer peripheral surface conforming to the interior surface of the bore in the main body, the interior of the bush being screw-threaded for engagement with the screw thread on the shank of a bolt, said bush having at least one end face thereof of dished formation which provides an annular recess surrounding the opening in the end of the bush and said bush having at each end at least one slit to permit radial expansion or contraction thereof, cooperating means on the bush and on the main body for preventing relative rotation therebetween, the bush being displaceable axially relatively to the body of the nut, by tightening of the nut on a bolt against an abutment with the dished end face of the bush adjacent the abutment, to draw the half of the bush remote from the abutment into wedging engagement between the interior surface of the main body of the nut and the bolt shank and force the other half of the bush away from the interior surface of the main body and towards the bolt shank while the underface of the end of this half of the bush is forced firmly against the abutment so that the load on the bush caused by the tensile stress generated in the bolt shank is transmitted to the abument partly from the first-mentioned half of the bush through the main body of the nut and partly from the other half of the bush through direct contact with the abutment.

2,839,116
FLEXIBLE HUB
Johann Friedl, Donauwoerth, Germany, assignor of one-half to Paul O. Tobeler, doing business under the name of Trans-Oceanic, Los Angeles, Calif.
Application April 25, 1955, Serial No. 503,645
9 Claims. (Cl. 152—31)



1. A flexible hub comprising an outer ring, an inner ring within and concentric to said outer ring, a plurality of spacer rings tangent to the outer circumference of said inner ring and to the inner circumference of said outer ring, and a resilient material between said last-mentioned outer circumference and said last-mentioned inner circumference substantially surrounding said spacer rings and holding said spacer rings in spaced relationship, said resilient material in substantially continuous contact with the external circumferential surfaces of said spacer rings.

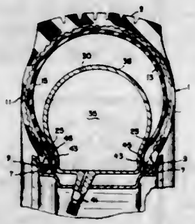
2,839,117
SELF CLEANING BUTYL VULCANIZATES
Robert E. Clayton, Roselle Park, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application December 29, 1955, Serial No. 556,347
19 Claims. (Cl. 152—330)



11. A tubeless tire containing as a self-cleaning sidewall thereof, a vulcanized rubbery polymeric composition

of improved weathering and discoloring resistance comprising about 100 parts by weight of a copolymer of about 90 to 99 weight percent of an isoolefin of about 4 to 7 carbon atoms and about 1 to 10 weight percent of conjugated diolefin of about 4 to 10 carbon atoms, about 20 to 150 parts by weight of calcium oxide, about 25 to 100 parts by weight of titanium dioxide, and about 5 to 30 parts by weight of zinc oxide.

2,839,118
COMBINATION TUBELESS AND SAFETY TUBELESS TIRE
Clarence U. Gramelspacher, Jasper, Ind.
Application December 20, 1952, Serial No. 327,145
5 Claims. (Cl. 152—341)



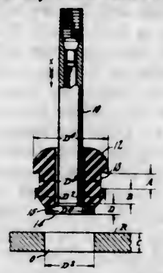
1. As an article of manufacture for use in converting a tubeless tire to a safety tubeless tire, a tire casing having a tread portion and side walls forming an air chamber, said casing having an inner liner wall of butyl rubber contiguous with the side walls of the casing and extending beneath the tread portion forming an air-impermeable sealant inner wall, an open-ended insert having flare side wall portions of lesser peripheral dimension than the tire inner side wall of said tire casing for insertion in said tire to provide a diaphragm therefor, an air vent in said diaphragm, said diaphragm consisting of rubberized fabric having an inner reinforcing section of wire cloth, a tubular closure member for positioning in overlapping engagement with said open-ended insert, said tubular closure member carrying a valve stem and valve for admitting fluid pressure to the tire.

2,839,119
TIRE CORDS AND FABRICS AND TIRES INCLUDING THE SAME
Folsom E. Drummond, Washington, D. C., and Leo J. Novak, Dayton, Ohio, assignors to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
No Drawing. Application June 24, 1953
Serial No. 363,942
3 Claims. (Cl. 152—359)

3. A pneumatic tire which comprises rubber and reinforcing cords, said cords consisting of regenerated cellulose impregnated with dextran and having an outer coating of rubber.

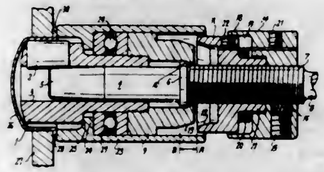
2,839,120
TUBELESS TIRE VALVE
Georgie P. McCord, Oaklandon, Ind., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 15, 1955, Serial No. 534,560
4 Claims. (Cl. 152—427)

1. A valve for use with a rim for a tubeless tire comprising, a rigid hollow stem adapted to receive a check valve therein, a resilient rubber grommet surrounding said stem, said grommet having a circumferentially extending groove formed in the outer surface thereof intermediate its ends, said grommet being bonded to said stem only around the inner end portion of said grommet at a point spaced axially from said circumferentially ex-



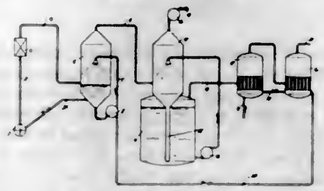
tending groove, but being otherwise disconnected from said stem.

2,839,121
EXPANDING TOOL WITH AUTOMATIC RESET
Luther Roy Mock and Eldo K. Koppelmann, Moberly, Mo., assignors to Madison-Faessler Tool Co., a corporation of Missouri
Application September 28, 1953, Serial No. 382,691
6 Claims. (Cl. 153—82)



1. In an expanding tool of the character described having a roller cage, expanding rollers mounted therein, and a tapered rotary mandrel engaging said rollers, the rollers being arranged in planetary relation to said mandrel to feed the mandrel axially to expand the rollers; a release element movably threaded on said mandrel and having a clutch face engageable with a complementary face of said cage, and resilient means connected between said release element and said mandrel operating to oppose rotary movement of said release element relative to said mandrel, the release element being movable axially with said mandrel to cause engagement of said clutch faces; whereby said release element rotates on its thread relatively to said mandrel against the loading of said resilient means to release the mandrel from the rollers, whereupon said resilient means will rotate said release element to its original position on said mandrel.

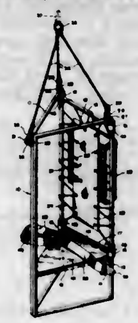
2,839,122
APPARATUS FOR TREATING SOLUTIONS CONTAINING DRY SUBSTANCES HAVING HIGH CALORIFIC VALUE
Pierre Robert Laguilharre, Enghien-Les Bains, France
Application September 10, 1952, Serial No. 308,896
Claims priority, application France September 29, 1951
2 Claims. (Cl. 159—4)



1. In a system for burning liquids containing combustile substances, a furnace, a boiler, a spray evaporator

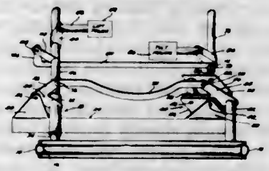
tank having a spray head and also having a hot gas inlet connected to said boiler, and further having a bottom discharge outlet for concentrated combustible fuel connected to said furnace, a tubular evaporator unit having an inlet for weak combustible liquors to be concentrated and having a liquor outlet connected to said spray head of said spray evaporator tank, a two-piece re-cycling recuperating condenser comprising a base vat and a recuperating consender tank mounted above said vat and having a lower terminal pipe connection extending into said vat, a hot gas duct connecting the top of said evaporator tank to a point in said recuperating condenser tank, an exhaust duct at the top of said condenser tank for discharging non-condensable gases therethrough, said condenser tank having a spray head, said vat having an outlet near its bottom connected to said spray head of said condenser tank, and a connection for vapors from the upper part of said vat to said tubular evaporator unit.

2,839,123
BOATSWAIN'S CHAIR
Charles D. Summitt, U. S. Military Academy, West Point, N. Y.
Application September 24, 1956, Serial No. 611,800
8 Claims. (Cl. 155—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



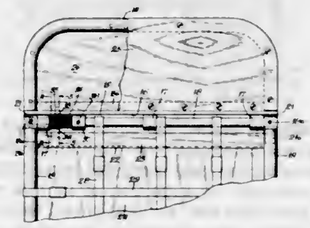
2. A chair for suspending a passenger comprising, a pair of rectangular frames, spacer members hingedly inter-connecting one side of each of said rectangular frames, releasable means for fastening the other side of each of said frames in abutting relation, a cross member fixed in each of said frames, and a seat pivotally mounted on one of said spacer members and adapted to rest on said cross members.

2,839,124
MULTI-MOTION SEAT ADJUSTER WITH MULTIPLE DRIVE MOTORS
Charles F. Desmond, Williamsville, and Edmund E. Barmasse, Buffalo, N. Y., assignors to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application January 16, 1956, Serial No. 559,472
8 Claims. (Cl. 155—14)



1. A seat construction in which a seat is adjustably supported from an associated base structure, comprising a seat frame, supporting means including a pair of laterally spaced supporting members, means relatively slidably supported by said members for supporting said seat frame for controlled fore and aft movement with respect to said supporting members, front and rear means connected to the base structure and supporting the associated supporting member at each side of said seat and including a front bell crank means and a rear bell crank means and a connecting link means interconnecting said bell crank means, means for imparting a controlled rotation to said first bell crank means for effecting a controlled elevational adjustment to said associated supporting member with respect to said base structure, a supporting bracket means for pivotally supporting said rear bell crank means about an axis, said supporting bracket means being pivotally supported by said base structure and adapted to swing with respect thereto to change the location of said axis of said rear bell crank means, and actuating means for causing said bracket means to so swing.

2,839,125
ADJUSTABLE HEAD ROLL FOR SEAT STRUCTURE
Joseph J. Brandon, Chicago, Ill., assignor to Coach and Car Equipment Corporation, Chicago, Ill., a corporation of Illinois
Application May 19, 1954, Serial No. 430,781
6 Claims. (Cl. 155—177)

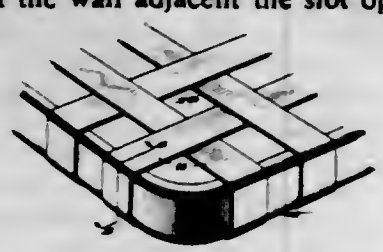


1. A seat back structure, comprising in combination, a back rest section, a head rest section including a hinge bar fixed to the back rest section for hingedly attaching the head rest section to the upper portion of the back rest section with capacity for angular adjustment forwardly thereof, and means for retaining the head rest section in various adjusted positions comprising a series of axially arranged friction members in the form of flat plates formed with axial openings by means of which they are slidably mounted on an end portion of said hinge bar for axial movement thereon; one group of alternate plates being locked to the said hinge bar against rotation thereon and another group of alternate plates being rotatably mounted on the said hinge bar and have edge portions engaging a portion of the head rest section, whereby the last mentioned group of plates are rotatably movable with the head rest section about said hinge bar, and pre-adjusted spring means positioned to exert uniform axial pressure against said friction members to hold them in constant frictional engagement with each other.

2,839,126
ATTACHMENT OF WEBBING STRIP OR THE LIKE, AND NOVEL FRAME SUPPORT AND ATTACHING MEANS
Ralph A. O'Neill, Huntington, W. Va.
Application December 14, 1953, Serial No. 398,063
9 Claims. (Cl. 155—178)

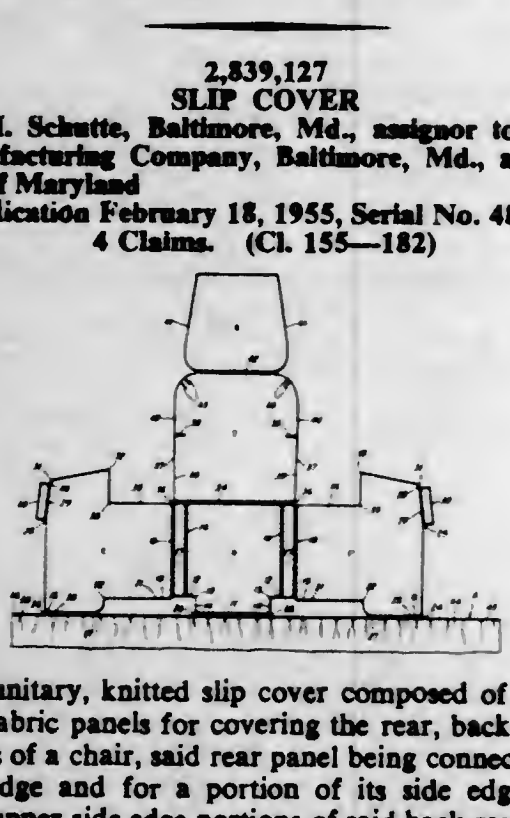
1. In combination, a metal frame having a hollow portion extending longitudinally therein, the hollow portion having a slot opening extending longitudinally therein and defining flanges in a wall of the hollow portion, a barrel clip having a strip connectedly attached thereto lying within the hollow portion and slidably movable

therein, the strip passing through the slot opening, and the flanges of the wall adjacent the slot opening contact-



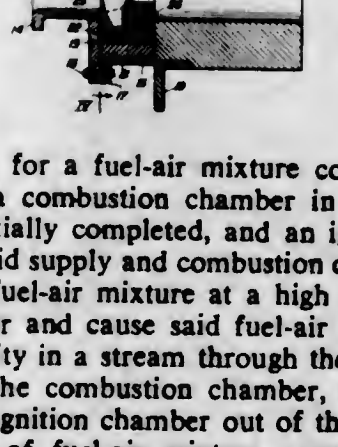
ing the barrel clip to releasably secure the strip to the frame.

2,839,127
SLIP COVER
Ethel M. Schutte, Baltimore, Md., assignor to S. & E. Manufacturing Company, Baltimore, Md., a corporation of Maryland
Application February 18, 1955, Serial No. 489,047
4 Claims. (Cl. 155—182)



1. A unitary, knitted slip cover composed of complete knitted fabric panels for covering the rear, back-rest, seat and arms of a chair, said rear panel being connected along its top edge and for a portion of its side edges to the top and upper side edge portions of said back-rest panel to form a pocket for substantially the whole of the chair back above the arms, the remaining portions of the side edges and the bottom edge of the rear panel being free, the side edges of said backrest panel from the lowermost points of connection with said rear panel and for a substantial distance being free and having transversely cut therethrough a pair of oppositely disposed slits which are located between the upper and lower ends of such edge portions and which have free side edges so that such edge portions can be expanded and together with the side edges of the slits provide self-conforming edges capable of snugly fitting into the junctures between the chair back and the chair arms, the lower portions of the side edges of said backrest panel from the lower ends of the intermediate free side edge portions thereof to the bottom end of the back rest panel being located below the chair arms and being connected to the rear edges of the inner covering portions of said arm panels, said arm panels having an inner portion for covering the inner faces of the chair arms, a central portion for covering the top surfaces of the chair arms, and an outer portion for covering the outer faces of the chair arms, said central portions commencing at points below the junctures between the chair back and the chair arms and the rear edges of said central and outer portions of said arm panels being free, said inner and central portions of the arm panels having substantially the same length, and said outer portions being substantially longer than said inner and central portions and having such length as to form rear extensions adapted to be drawn around the rear of the chair and front extensions adapted to cover the front faces of the chair arms, the free rear edges of said central portions and the adjacent, free, longitudinally extending edges of said rear extensions snugly fitting into the junctures between the chair back and the chair arms and coacting with said intermediate side edge portions of the back-rest panel to cover the chair in such regions, fastening means for securing the rear edges of said rear extensions to the back of the chair and fastening means for securing said rear panel to the back of the chair in overlapped relation to said rear extensions, the front edges of the front extensions on the outer portions of said arm panels being connected to the front edges of said central and inner portions, the inner edges of said inner portions being connected to the side edges of said seat panel, the rear edge of said seat panel being connected to the bottom edge of said back-rest panel and the front edge of said seat panel being connected to a skirt panel, and a skirt panel connected at its central portion to the front edge of said seat panel and at the spaced portions thereof adjacently to said central portion to the outer edges of said arm panels and having two free ends to be drawn around in overlapping relation at the rear of the chair, said skirt panel including a body portion of knitted fabric and a non-stretchable member extending along the top edge of said body portion, and means fo radjustably connecting the ends of said nonstretchable member together, said skirt panel, by itself, anchoring to the chair the front edge of said seat panel, the outer edges of said arm panels and the lower end of said rear panel.

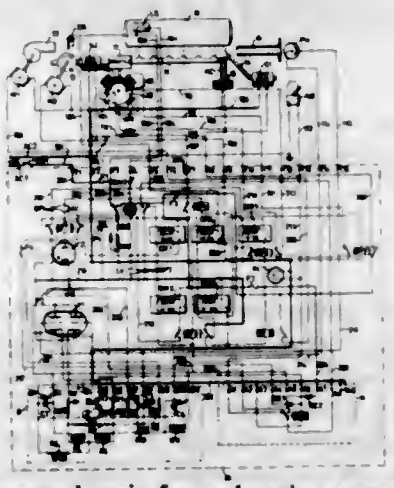
2,839,128
BURNER
Edwin J. Schweitzer, Plymouth Township, Norristown County, and Wallace E. Sountag, Drexel Hill, Pa., assignors to Thermal Research and Engineering Corporation, Conshohocken, Pa., a corporation of Delaware
Application March 25, 1953, Serial No. 344,512
2 Claims. (Cl. 158—7)



1. A burner for a fuel-air mixture comprising a supply chamber, a combustion chamber in which combustion is substantially completed, and an ignition chamber intermediate said supply and combustion chambers, means to supply the fuel-air mixture at a high velocity to said supply chamber and cause said fuel-air mixture to pass at a high velocity in a stream through the ignition chamber and into the combustion chamber, an igniter positioned in said ignition chamber out of the path of travel of the stream of fuel-air mixture operable to initially ignite the fuel-air mixture at the start of operation of the burner, a terminal ring adjacent the inlet end of the combustion chamber having a central opening through which the stream of fuel-air mixture is discharged into said combustion chamber, said central opening in the terminal ring being of smaller diameter than the combustion chamber and supply chamber and defining an annular flame retaining wall at the entrance to the combustion chamber operable to maintain a substantially quiescent zone of burning fuel-air mixture at the downstream side of said flame retaining wall and circumferentially of the high velocity stream of fuel-air mixture entering the combustion chamber, a container ring positioned about said ignition chamber intermediate said supply chamber and said terminal ring and having a central opening therein through which the stream of fuel-air mixture passes, said container ring central opening converging inwardly from said supply chamber to the central opening of said terminal ring, a central flame holder in the ignition chamber carried within the container ring and positioned adjacent the upstream side of the terminal ring, said container ring having alined

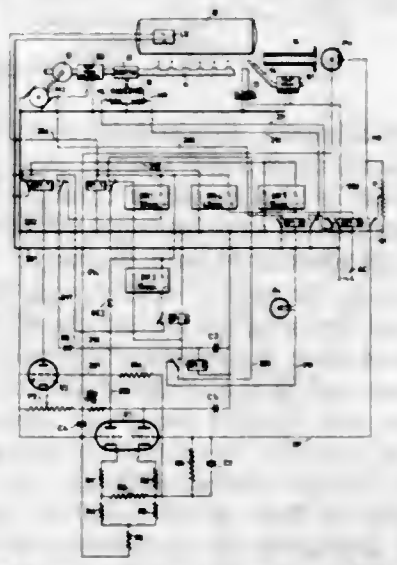
slots extending radially of said container ring central opening, one of which slots is located adjacent said igniter, said central flame holder being positioned within said slots and extending diametrically across said container ring central opening and being cut away at said one of said slots adjacent said igniter to provide communication between said igniter and said container ring central opening, said central flame holder having at the downstream side thereof a flame holding surface extending diametrically at least partially across the stream of fuel-air mixture passing through said terminal ring and creating at the downstream side of said central flame holder and within the central opening of said terminal ring a substantially quiescent zone of burning fuel-air mixture substantially removed from the path of high velocity fuel-air mixture passing thereby, and said quiescent zones of burning fuel-air mixture downstream of the central flame holder and the annular flame retaining wall operating to ignite the high velocity stream of fuel-air mixture entering the combustion chamber through the central opening in said terminal ring.

2,839,129
SAFETY CONTROL UNIT FOR OIL BURNERS AND THE LIKE
Donald St. Clair, Saint Albans, N. Y., assignor to Clairdon, Inc., Paterson, N. J., a corporation of New Jersey
Application April 12, 1956, Serial No. 577,727
13 Claims. (Cl. 158—28)



1. A safety control unit for a heating system provided with a burner, a pilot nozzle adjacent said burner, igniter means adjacent said pilot nozzle, first valve means for admitting fuel to said pilot nozzle, second valve means for admitting fuel to said burner, photoelectric scanning means positioned to be excited in the lighted condition of either said pilot nozzle or said burner, and switch means adapted to be closed in a condition of said system calling for the lighting of said burner; said unit comprising a housing, conductors extending from said housing for connection to said system and forming part of a starting circuit adapted to be closed by operation of said switch means, a test circuit adapted to be closed by operation of said scanning means, a first operating circuit closable to energize said first valve means and igniter means and a second operating circuit closable to energize said second valve means, amplifier means having input connections in said test circuit, a plurality of quick-acting relays provided with respective sets of contacts, said relays including a principal relay connected in said starting circuit, a flame-failure relay connected to the output of said amplifier means and an alarm relay connected to be controlled by the contacts of said flame-failure relay, said alarm relay having an unoperated condition in which its contacts prevent completion of either of said operating circuits, contacts of said flame-failure relay being connected to control said alarm relay so as to close a main energizing circuit for the latter in the excited condition of said scanning means, a plurality of thermal relays provided with respective sets of contacts and having delay periods of the order of tens of seconds, means including contacts of certain of said thermal relays and of said principal and flame-failure relays for sequentially closing said first and second operating circuits upon operation of said switch means and of said scanning means, respectively, means including contacts of other of said thermal relays for closing an interim energizing circuit for said alarm relay for a limited interval following closure of said first operating circuit and before excitation of said scanning means, and an alarm circuit closable by contacts of said principal relay and of said alarm relay for giving an alarm in an operated condition of said principal relay coinciding with the unoperated condition of said alarm relay.

2,839,130
PHOTOELECTRIC CONTROL UNIT FOR OIL BURNERS AND THE LIKE
Donald St. Clair, St. Albans, N. Y., assignor to Clairdon, Inc., Paterson, N. J., a corporation of New Jersey
Application June 13, 1956, Serial No. 591,176
8 Claims. (Cl. 158—28)

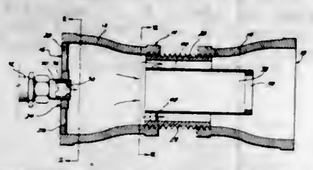


1. In a heating system, in combination, a burner, fuel-supply means for feeding fuel to a burner, a pilot nozzle adjacent said burner, igniter means for lighting said pilot nozzle, switching means operable in response to the need for operation of the said burner, first relay means operable under the control of said switching means for establishing a first operating circuit for the actuation of said igniter means, photoelectric scanner means positioned to be excited in the lighted condition of said pilot nozzle and of said burner, adjuster means including contacts of said first relay means for adjusting said scanner means to a condition of relatively high sensitivity in the operated condition of said first relay means and to a condition of relatively low sensitivity in the unoperated condition of said first relay means, timer means responsive to operation of said switching means for measuring a time interval sufficient for the lighting of said pilot nozzle, second relay means controlled by said scanner means for inactivating said first relay means following the lighting of said pilot nozzle, third relay means controlled by said second relay means for establishing a second operating circuit for the actuation of said fuel-supply means, and circuit-breaker means jointly controlled by said timer means and by said second relay means for inactivating both said first and third relay means in the unexcited condition of said scanner means at the end of said time interval.

2,839,131
GAS BURNER
Darwin G. Pattinson, Hutchinson, Kans.
Application January 16, 1956, Serial No. 559,435
1 Claim. (Cl. 158—99)

A gravity burner for producing a steady, substantially noiseless, pressure flame utilizing gas pressure alone, com-

prising an elongated, hollow body having a discharge end and an opposed air inlet end, said body including a pair of identical, substantially frusto-conical, front and rear tubular end elements, progressively increasing in diameter as the discharge end and the air inlet end respectively are approached, and a cylindrical, open-ended median member having a uniform internal diameter, said member being coaxial with the end elements and having its ends attached therewithin; screw threads connecting the member with said elements; a spider entirely within the body at said air inlet end and having a central hub provided with a plurality of radial spokes integrally interconnecting the hub and the rear one of said elements; a nozzle extending through said hub for directing gas into the body along the longitudinal axis thereof; screw threads connecting the hub and said nozzle; an elongated, cylindrical open-ended tube having a uniform internal



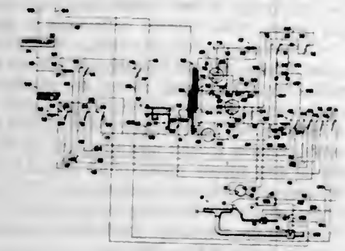
and external diameter, disposed coaxially with said member and spaced from said nozzle, said tube extending from one end of the member, through the latter, and into the front one of said elements, terminating inwardly in spaced relationship to said discharge end for receiving gas and air from the nozzle and the air inlet respectively and directing the air and gas admixture through said discharge end; a plurality of radial spacers adjacent said one end of the member and the proximal end of the tube, said spacers integrally interconnecting the tube and the member therebetween, there being a space within the member surrounding the tube to provide a generally annular flow of air from the inlet to said discharge end, dependent on the pressure of gas emanating from said nozzle, whereby to provide improved combustion efficiency; and a flame stabilizing ring screw-threaded within the tube at the forward end of the latter.

2,839,132

BURNER CONTROL APPARATUS

James C. Blackett, St. Louis Park, and Fred T. Deziel, Bloomington, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application March 4, 1957, Serial No. 643,720
7 Claims. (Cl. 158—124)



7. In combination; cycling relay means having switch means and constructed and arranged to cycle between an energized and a de-energized state in accordance with a given condition; a direct current source of voltage, a first capacitor, a second capacitor, further relay means having switch means, interlock relay means having switch means; circuit means controlled by said cycling relay switch means to alternately connect said first capacitor to said source of voltage to change said first capacitor and then connect said charged first capacitor to said second capacitor, said second capacitor having a charge maintained thereon so long as said cycling relay switch means continues to cycle; initial circuit means controlled by said interlock relay switch means connecting said further relay means to said second capacitor, maintaining circuit means controlled by said further relay switch means connecting said further relay means to said second capacitor; initial circuit means controlled by said further relay switch means connecting said interlock relay means to a source of voltage, and maintaining circuit means controlled by said interlock relay switch means connecting said interlock relay means to the source of voltage.

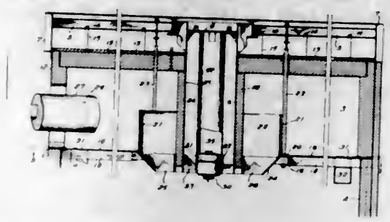
2,839,133

SPRAY DRYING PROCESS

Armin G. Brendel, Suffern, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Original application July 21, 1949, Serial No. 105,943, now Patent No. 2,644,516, dated July 7, 1953. Divided and this application January 27, 1953, Serial No. 333,549

1 Claim. (Cl. 159—48)



A method of spray drying an aqueous two-phase slurry composed of water containing small globules of a hydrated siliceous gel which comprises generating hot gases having a temperature of about 1600°–2300° F. by burning fuel in juxtaposition to the outer edge of the upper surface of a horizontal metal partition having a centrally located outlet therein and passing them thereacross in a spiral path to said centrally located outlet, thereby simultaneously heating said partition uniformly to heat-radiating temperatures and partially cooling said gases to about 600°–1400° F., passing the partially cooled gases downwardly through said outlet while simultaneously projecting into the gases passing through said outlet a spray of droplets of said two-phase hydrated silica gel slurry and passing the resulting mixture downwardly from said outlet while subjecting it to the radiant heat emitted by the opposite side of said partition and thereby simultaneously evaporating the water from the slurry and converting the silica to a hardened gel.

2,839,134

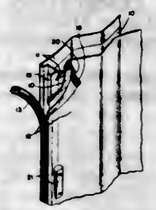
SLIPCOVER FOR ACCORDION TYPE FOLDING CLOSURES

Robert H. McConville, New Castle, Ind., assignor to New Castle Products, Inc., New Castle, Ind., a corporation of Indiana

Application July 7, 1954, Serial No. 441,783
4 Claims. (Cl. 160—84)

1. A foldable closure including an accordion foldable frame provided with post-like end members, a flexible permanent cover attached to said frame and end members on each side of said frame, and a slipcover overlying each permanent cover, said slipcovers each being formed from flexible material the upper and lower edges of which are stiffened by applied tapes formed from self-sustaining material, said tapes being horizontally

folded over the top and bottom edges of a permanent cover in slipcover retaining relation therewith, the end



margins of said slipcovers being fastened to said end members.

2,839,135

ROLLING DOOR

James Anderson, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a corporation of Ohio

Application February 16, 1956, Serial No. 565,883
10 Claims. (Cl. 160—133)



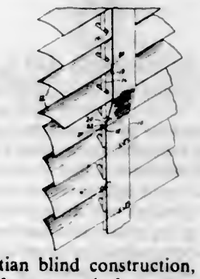
1. In a rolling door or curtain; a transversely extending relatively narrow elongated flexible slat, a vertically extending guide receiving each end of said slat, a roller on each end of said slat adapted for engaging the guide upon lateral deflection of the slat, a bracket pivotally connected at each end of the slat within the adjacent guide, a pair of rollers on each said bracket on opposite sides of the axis of the slat, and abutment members carried by each guide adapted for engagement by said rollers upon deflection of said slat thereby to limit the deflection of the slat under wind pressure or the like without substantially increasing the frictional engagement of the slat with the guides.

2,839,136

VENETIAN BLIND CONSTRUCTION

Samuel M. Reichel, Baltimore, Md.

Application May 14, 1957, Serial No. 659,023
4 Claims. (Cl. 160—178)



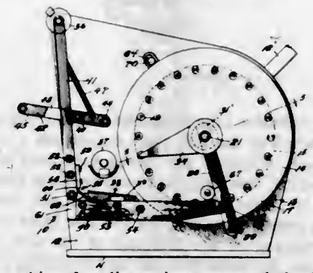
1. In a Venetian blind construction, the combination, with the vertical tapes and slats supported in vertically spaced relation between the vertical tapes, of cross tapes for supporting the slats connected at their opposite ends to the respective vertical tapes; and incisions within the edges of said cross tapes forming multiple flaps, said flaps being disposed with free ends directed medially, relative to the longitudinal axis of the cross tapes, and with attached ends of flaps directed toward the nearest end of respective cross tape, the under surface of said flaps, when in elevated position, forming abutments for their associated slat, said abutments being disposed for supporting their associated slat in inclined positions, independently of the remaining slats of the blind, said flaps resuming their neutral positions and forming no projections above the level of their respective cross tape when not serving as abutments for their respective slat.

2,839,137

MACHINE FOR DISPENSING TAPE

Harris F. Hanscom, Barrington, R. I., assignor to H. F. Hanscom & Company, Inc., a corporation of Rhode Island

Application April 16, 1956, Serial No. 578,456
8 Claims. (Cl. 164—43)



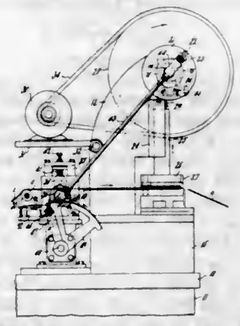
1. A machine for dispensing tape and the like in predetermined lengths comprising a rotatably mounted wheel over which the tape passes to be measured, said wheel being rotated in one direction by the tape traveling through said machine, a tape severing means actuated by said wheel and means carried by said wheel for coupling said wheel to said severing means to be actuated thereby during a predetermined angular rotation of said wheel in the said one direction, and means operable to automatically rotate said wheel in the other direction to initial position upon the said severing of said tape.

2,839,138

INTERMITTENT FEED MECHANISM

Kurt E. Wilhelm, Warren, R. I., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

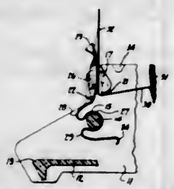
Application August 6, 1952, Serial No. 302,933
9 Claims. (Cl. 164—49)



1. Apparatus of the class described comprising in combination, power operated reciprocating mechanism, a ro-

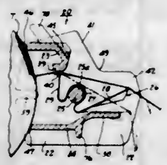
tating member, means for intermittently turning said member from said mechanism, including a gear segment connected to said mechanism to be rocked back and forth thereby, a gear that is turned back and forth by the gear segment, an electrically actuated coupling between said gear and member, and electrical means for synchronizing the operation of said coupling to that of said reciprocating mechanism and operable to couple the gear positively to said member throughout the forward movement of the gear segment and to release them throughout the backward movement of such gear segment.

2,839,139
TAPE HOLDER AND DISPENSER
Clarence W. Vogt, Weston, Conn.
Application July 15, 1954, Serial No. 443,630
16 Claims. (Cl. 164—84.5)



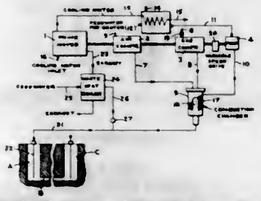
1. In an adhesive tape dispenser, at least one side plate, means adjacent to the side plate to support a roll of the adhesive tape, deformed pin means supported by the side plate, a resilient snubbing and cutting blade formed with a channel for pivotal mounting on the pin means, tape positioning means supported by the side plate and adapted to be engaged by the free end of the tape extending from the roll, the deformed pin means having a first surface portion at a different radial distance from the pin axis than a second surface portion, the surface portions engaging and deforming the channel to hold a portion of the blade against the free end of the tape on the tape positioning means, the tape free end when grasped for dispensing tape urging the blade away from the tape positioning means and causing the blade to pivot on the deformed pin means.

2,839,140
TAPE DISPENSER
Clarence W. Vogt, Weston, Conn.
Application November 1, 1954, Serial No. 465,903
13 Claims. (Cl. 164—84.5)



1. A device for dispensing and cutting plastic and fibrous adhesive tapes comprising a frame having a pair of side plates, a snubbing bar extending between said plates, a springy cutting blade pivotally mounted between said plates, said blade having a V-shaped piercing point at one end having edges disposed at an angle between about 90° and 120°, a stop member engageable with said blade behind the piercing point to limit pivoting movement of said blade in one direction to a position at an acute angle to the tape extending between said snubbing bar and said point, and means actuated by pivoting movement of said blade toward said position for pressing said tape resiliently against said snubbing bar to restrict withdrawal of said tape.

2,839,141
METHOD FOR OIL RECOVERY WITH "IN SITU" COMBUSTION
Hellmuth Walter, Upper Montclair, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application January 30, 1956, Serial No. 562,105
8 Claims. (Cl. 166—11)



1. The method of recovering oil from an oil bearing formation having at least one input well and a producing well therein in spaced relation to each other which consists in generating at the surface above said oil bearing formation a heat carrying and driving medium at pressures lower than the separation pressure of the overburden and temperatures between 400° F. and 800° F. and having a composition including superheated steam between 30 and 50 percent by weight of the medium and oxygen in excess of 6 percent by weight of the medium, continuously injecting said medium down said input well to progressively drive residual oil in said formation towards said producing well and to simultaneously and progressively heat said formation between said input well and said producing well between 400° F. to 800° F. until an exothermic reaction will occur between oxygen and hydrocarbon matter in said heated portions to deliver additional heat to said heat carrying and driving medium, and recovering oil from said producing well.

2,839,142
PERMANENT WELL COMPLETION METHOD
Theodore A. Huber, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application May 5, 1954, Serial No. 427,715
6 Claims. (Cl. 166—46)



1. A method for completing and servicing a cased well in which a tubing string is permanently arranged in a casing with its lower open end at a level above the highest of a plurality of hydrocarbon productive strata without killing the well which comprises obtaining production of hydrocarbons from a first interval in said casing until production of said hydrocarbons declines, lowering a movable barrier through said tubing, placing said barrier at a level in said casing above said first interval but below a second hydrocarbon productive interval, obstructing said casing with said barrier to terminate production from said first interval, lowering a perforator through said tubing to a level adjacent said second interval, perforating said casing in said second interval with said perforator and obtaining production of hydrocarbons from said second interval, moving said barrier from said level above said first interval, placing said barrier at a level above said second interval but below a third hydrocarbon productive interval obstructing said casing with said barrier to terminate production from said second interval, lowering said perforator through said tubing to a level adjacent said third interval, and then perforating said casing in said third interval and obtaining production of hydrocarbons from said third interval, the perforations in all of said intervals remaining open into the well, said movable barrier obstructing flow from the first interval while production is being obtained from the second interval and said movable barrier obstructing flow from the first and second intervals while production is being obtained from the third interval.

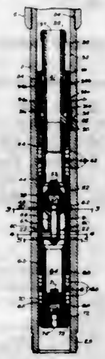
2,839,143
DISCONNECTING OF WELL PIPE OR TUBING JOINTS
Ford I. Alexander, Arcadia, Calif.
Application January 16, 1956, Serial No. 559,320
11 Claims. (Cl. 166—46)



1. The method of breaking a predetermined threaded pin and box sections joint deep within a well between stands of a string of pipe stuck in the well, said pipe string having numerous other threaded joints above said predetermined joint; said method including lowering a cooling unit downwardly within said string and past said other joints to the location of said predetermined joint, applying force to the upper end of said string above said other joints in a direction tending to break the joint, and then actuating said cooling unit to locally cool the pin section of said predetermined joint below the temperature of its box section from the inside thereof to a temperature well below the ambient temperature at said joint to initiate unscrewing of that joint by said force as a result of the contraction caused by said cooling.

2,839,144
WELL FLOW DEVICE
Isaac L. Ault, Morgan City, La., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
Application July 22, 1953, Serial No. 369,626
1 Claim. (Cl. 166—148)

An oil well flow control assembly for simultaneously flowing well fluids from an upper and a lower producing formation into a single string of production tubing, said assembly comprising a tubular housing connectable at its upper end to the lower end of a production tubing, said housing having upper ports for admission of well fluids from an upper producing formation and lower ports for admission of well fluids from a lower producing formation and an annular locking recess therein near the upper end thereof, a tubular body having lower and upper central flow passages and radial ports intermediate said lower and upper central flow passages, said tubular body being introduceable into and removable from said housing through production tubing, locking means secured to the outside of said tubular body engageable with said annular recess in said housing, a lower choke secured in the lower end of said tubular body within said lower flow passage to control the flow of fluids into said assembly from a lower producing formation, a lower check valve secured in the lower end of said tubular body below said lower choke to prevent back flow of fluids into a lower producing formation from above said lower check valve, a valve body positioned within said tubular body at the lower end of said upper flow passage, the outside of said valve body being spaced apart from the inside of said tubular body to form an annular flow passage around

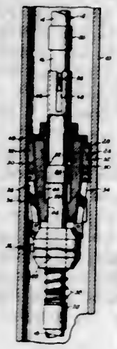


said valve body, an upper choke secured to the upper end of said valve body, an upper check valve secured within said valve body below said upper choke, means provided with radial and axial ports secured within said tubular body and connected to the lower end of said valve body to provide fluid communication between the interior of said valve body and said radial ports of said tubular body and fluid communication between the lower end of said annular flow passage and said lower flow passage in said tubular body, annular packing means around said tubular body above said radial ports in said tubular body to form a fluid-tight seal between the outside of said tubular body and the inside of said housing, annular packing means around said tubular body below said radial ports in said tubular body to form a fluid-tight seal between the outside of said tubular body and the inside of said housing, and an annular shoulder around the upper end of said locking means to permit the engagement of a fishing head with the upper end of said oil well flow control assembly.

2,839,145
TUBING CATCHING APPARATUS
Victor York, Whittier, Calif.
Application August 12, 1954, Serial No. 449,302
6 Claims. (Cl. 166—209)

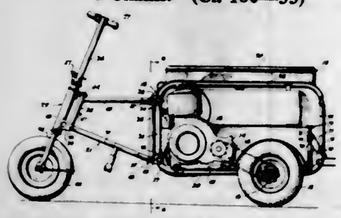
1. In a tubing catching apparatus, the combination of: a tubing catcher body; outwardly movable jaws carried by said tubing catcher body; inertia means connected to said jaws and vertically movable relative to said tubing catcher body for moving said jaws outwardly relative to said tubing catcher body in response to sudden downward movement of said tubing catcher body; a tubing section extending through said tubing catcher body and through said inertia means and connectible in a tubing string; and a lost-motion connection between said tubing section and said tubing catcher body permitting limited

relative longitudinal movement while preventing relative rotation therebetween, said inertia means comprising a



relatively heavy mass guided solely by said tubing section.

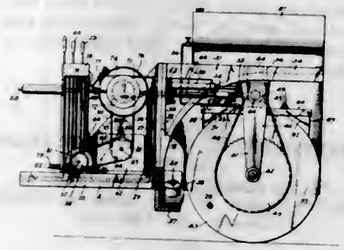
2,839,146
KNOCKDOWN MOTOR VEHICLE OF SCOOTER TYPE
Victor Albert Bouffort, Bondy, France
Application April 19, 1957, Serial No. 653,814
5 Claims. (Cl. 180—33)



1. In a motor scooter, the combination of a chassis for a driving wheel and an engine; a box-like frame mounted on said chassis including upper and lower horizontal sections at the front thereof; casing means mounted on said frame to provide an enclosure; a pair of spaced vertical lugs on said upper and lower sections each having an aperture extending horizontally therethrough; a front frame including upper and lower horizontal sleeves each positioned between a pair of said lugs, structural means connecting said sleeves, a front section disposed in a vertical plane, upper and lower members having the rear ends respectively secured to said upper and lower sleeves and having the front end secured to said front section; a steering head including a tube; a fork having a tubular section in said tube, a front wheel mounted on said fork; and a steering post having handle bars at its upper end and having its lower portion disposed in said tubular section for turning said fork; means for detachably securing said front section to said tube; means for detachably securing said sleeves to said lugs; and means for detachably connecting said post and said tubular fork section, said front frame and said steering head components being dimensioned to be stored in said enclosure when detached.

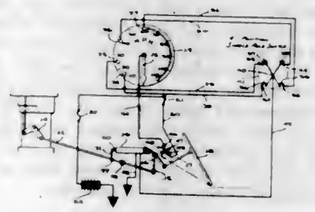
2,839,147
DOUBLE-DRIVE TANDEM ROLLER
Dean Fletcher, Spring Valley, Calif.
Application June 20, 1955, Serial No. 516,445
2 Claims. (Cl. 180—50)

1. A double-drive roller comprising a body frame, an upwardly offset rear portion carried by said body frame, a rear steerable fork carried by said rear portion, a pair of rear rollers rotatably carried by said fork, a vertical plate fixedly carried by the front of said rear portion of said body frame, a front frame, said front frame including a rear plate confronting said vertical plate, said plates being pivotally mounted relative to each other about a longitudinally extending axis, said pivot mounting comprising a horizontal pivot extending through said vertical and rear plates longitudinally of said body and front frames, a transversely disposed upwardly concaved arcuate flange carried by said vertical plate and extending forwardly therefrom beneath said rear plate of said front frame, rollers carried by said flange bearing against the front face of said rear plate to thereby hold said rear plate



against the forward side of said vertical plate, a front steerable fork carried by said front frame, a pair of front rollers carried by said front steerable fork, a motor carried by said rear portion, means connecting said motor to said front and rear rollers, said means including a front drive shaft and a rear drive shaft, said front drive shaft extending rotatably through said vertical plate, said rear plate including an arcuate opening, said drive shaft extending through said arcuate opening to permit pivotal movement of said front and rear plates relative to each other without lateral movement of said drive shaft, and means for turning said front and rear forks.

2,839,148
VEHICLE SPEED CONTROL SYSTEM
Olan R. Dowdell, Grand Junction, Colo.
Application February 10, 1956, Serial No. 564,724
2 Claims. (Cl. 180—82.1)



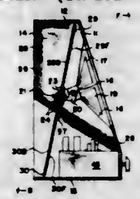
1. In a speed limiting device for a vehicle, a throttle-operating rod, a speedometer having a movable conductive speed-responsive element, a plurality of contacts spaced on said speedometer so as to be engaged by said element at different vehicle speeds, a solenoid having an armature member arranged to limit movement of the throttle-operating rod when the solenoid is energized, and an energizing circuit comprising circuit means connected between one terminal of said solenoid and said movable speed-responsive element, respective branch circuits connected between said contacts and the remaining terminal of said solenoid, and respective manually controlled speed selecting switches connected in said branch circuits.

2,839,149
METHOD OF AND APPARATUS FOR MULTIPLYING AND INTEGRATING VARIABLES
Raymond G. Piety, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application May 19, 1950, Serial No. 162,986
29 Claims. (Cl. 181—.5)



23. Apparatus for interpreting seismic signals comprising a transducer to detect vibrations incident thereon, means responsive to said transducer to establish a first signal representative of vibrations incident upon said transducer, means to establish a quantity representative of a preselected vibration pattern, means to multiply a portion of said first signal by said quantity, and means to vary continuously and progressively the portion of said first signal which is multiplied by said quantity.

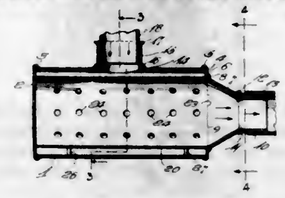
2,839,150
LOUD SPEAKER HAVING MEANS FOR UTILIZING THE BACK WAVE
Robert Ruben Perlman, New York, N. Y.
Application February 2, 1954, Serial No. 407,645
4 Claims. (Cl. 181—31)



2. An acoutical reproducing system comprising a substantially centrally clamped vibratile plate having exposed half surfaces, a first sound absorbent chamber located in juxtaposition with substantially one half the surface area of one side of said plate, a second sound absorbent chamber located in juxtaposition with the remaining one half surface area of the opposing side of said plate, a source of acoustical energy comprising a loud speaker capable of radiating a forward and a back wave of acoustical energy, one of the exposed half surfaces of said plate being acoustically coupled to said source of acoustical energy so as to be activated by said back wave, the other of said exposed half surfaces being exposed to the outside atmosphere.

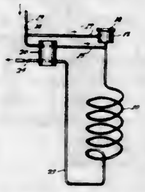
2,839,151
ACOUSTICAL FILTERS FOR THE EXHAUST OF INTERNAL COMBUSTION ENGINES
Ray V. Hamilton, Washington, D. C., assignor to Gichner, Inc., Washington, D. C.
Application July 3, 1953, Serial No. 365,843
1 Claim. (Cl. 181—57)

An improvement in sound filters for the exhaust of internal combustion engines comprising an elongated tube, a plate fixedly mounted on and extending across an end of said tube for closing the same, a second plate having a central opening and fixedly mounted across the other end of said tube, an exhaust tube mounted on and extending from said second plate with the bore thereof in communication with said second plate opening, said first-mentioned tube having an opening provided in a medial side portion thereof, an inlet tube fixedly mounted on and extending substantially perpendicular from the side of said first-mentioned tube with the bore thereof being in communication with said tube side opening and adapted for being connected to the exhaust pipe of the internal combustion engine, a second elongated tube having a plurality of openings provided throughout the wall of the same and having one end connected to and closed by said first-mentioned plate and its opposite end extending through said second plate opening and being in communication with the bore of said exhaust tube, said



second tube being formed from sheet material with the meeting sides thereof overlapping and extending from said second tube, and means connecting the overlapping sides of said second tube to the interior face of said first tube with said tubes positioned concentric to one another but spaced apart by said overlapping sides extending from said second tube dividing said first-mentioned casing into two longitudinal sections extending the entire length of said first-mentioned casing whereby the exhaust from said first inlet tube is caused to travel in at least two divergent directions before reaching said exhaust tube being muffled thereby.

2,839,152
CHROMATOGRAPHY METHOD AND APPARATUS
Joseph H. Tracht, Pittsburgh, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application October 23, 1956, Serial No. 617,731
2 Claims. (Cl. 183—2)

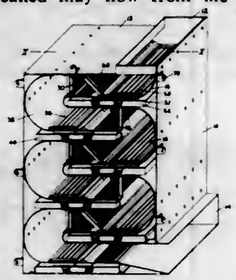


1. A method for separating fluid mixtures by partition chromatography which comprises injecting a charge mixture to be separated into the self-sealing charge inlet of a partition chromatography column, introducing carrier gas into the partition column at super-atmospheric inlet pressure at a point immediately below the charge inlet, simultaneously introducing carrier gas and maintaining the same super-atmospheric pressure on the opposite side of the charge inlet from the first mentioned point of introduction of carrier gas so as to provide substantially equal pressures on each side of the self-sealing charge inlet, and withdrawing an effluent from the partition column comprising carrier gas and separated components of the charge mixture.

2,839,153
GAS CLEANING APPARATUS
William J. Mollner, Pittsburgh, Pa.
Application October 2, 1956, Serial No. 613,586
15 Claims. (Cl. 183—13)

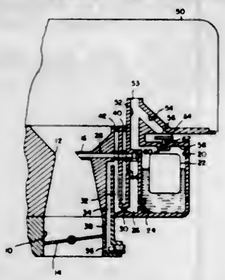
1. Apparatus for removing finely divided solids from gases comprising a succession of similar units each com-

prising a duct-like passage having a gas entering end and a gas discharge end and having an opening in the bottom near each end thereof, a gas pervious curtain of bristles across the passage between said openings, and an enclosure under the passage forming a dust-receiving bypass through which some of the gas to be cleaned may flow from the opening at the



gas entering end of the duct-like passage and return to the duct-like passage through the other opening at the discharge end of the duct-like passage to mingle with the gas which has passed through the curtain in preparation for entering the succeeding similar unit, and a movable closure for the said enclosure to provide for the removal of dust therefrom.

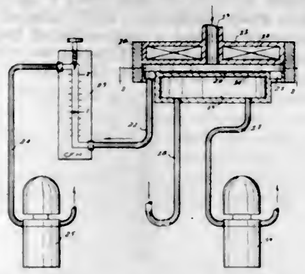
2,839,154
CARBURETOR ASSEMBLY
Melvin F. Sterner, Bloomfield Hills, Mich., assignor to Holley Carburetor Company, Detroit, Mich., a corporation of Michigan
Application November 28, 1955, Serial No. 549,334
7 Claims. (Cl. 183—20)



1. A carburetor for an internal combustion engine having a barrel including a venturi, a fuel bowl, a nozzle in the venturi of said barrel, a passage connecting said bowl and nozzle, an air cleaner disposed at the inlet end of said barrel, an always open air passage extending upwardly from the upper part of said bowl to a position within said air cleaner adjacent the inlet end of said barrel to subject the fuel in said bowl to an air pressure equal to atmospheric pressure less the pressure drop through said air cleaner, a vent passage connecting said air passage at a point below the top thereof to atmosphere, and a check valve in said vent passage disposed to prevent entrance of air into said air cleaner through said vent whenever the engine is running and irrespective of throttle position.

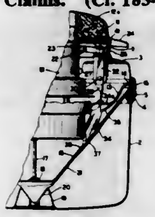
2,839,155
THERMAL PRECIPITATOR
Roy A. Martin, Atlanta, Ga.
Application January 5, 1956, Serial No. 557,566
12 Claims. (Cl. 183—32)

1. A thermal repulsion separation device including a housing, an electrically heated hot plate forming one surface of a separation chamber within said housing, a water cooled cold plate forming another surface of said



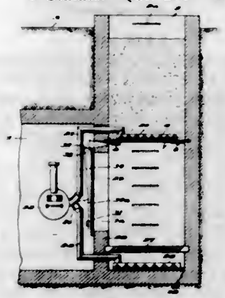
separation chamber, and a recess formed in said last mentioned surface for the reception of a removable sample collecting disc.

2,839,156
SUCTION CLEANER MOTOR PROTECTIVE CONSTRUCTION
Eugene F. Martinec, East Cleveland, Ohio, assignor to Health-Mor, Inc., Chicago, Ill., a corporation of Illinois
Application September 21, 1956, Serial No. 611,280
3 Claims. (Cl. 183—37)



1. A suction cleaner including a cleaner tank, a motor in the tank, a removable air-pervious filter member located in the tank, an electric switch for the motor, a switch-actuation pedal adjacent the switch, a lever between the pedal and the filter member, the lever having positions blocking and unblocking movement of the pedal, the lever having a pedal-contacting end and a filter-contacting end, spring means biasing the lever to the blocking position, and the lever being moved to unblocking position by contact with the filter member against the force of the spring means.

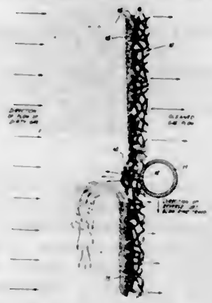
2,839,157
SAND OR EARTH FILTER FOR SHELTERS
Siegfried Joachim Schuster, Lubeck, Germany, assignor to Otto Heinrich Drager, Lubeck, Germany
Application July 31, 1956, Serial No. 601,234
Claims priority, application Germany August 18, 1955
8 Claims. (Cl. 183—41)



1. In the combination of an air raid shelter and an escape shaft externally of said shelter and communicat-

ing therewith, upper and lower earth filter supporting means mounted in said shaft, and means for manually displacing the upper supporting means for dumping the filter material on top of the lower supporting means to open said shaft for escape purposes.

2,839,158
FILTER MEDIUM FOR DUST FILTERS
Thomas V. Reinauer, Westfield, N. J., assignor, by mesne assignments, to Metals Disintegrating Company, Inc., Elizabeth, N. J., a corporation of New Jersey
Application December 20, 1955, Serial No. 554,259
13 Claims. (Cl. 183—51)



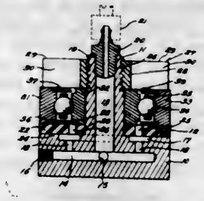
1. A filter medium for separating suspended particles from a gas, comprising in combination a flexible elastic, fibrous filter material, said material having a tensile strength to resist tearing, and a coating of non-volatile, liquid siloxane on fibers of said material to limit seepage of dust particles of less than 4 microns in size through said filter medium.

2,839,159
LUBRICATION OF INDUSTRIAL MACHINERY
John G. Peters, Audubon, N. J., and Claude R. Summers, Jr., Havertown, Pa., assignors to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application December 14, 1953
Serial No. 398,224
3 Claims. (Cl. 184—1)

1. In the lubrication of the bearings of industrial machinery of the type of steam turbines and steam-heated drying rolls, wherein the bearings tend to become heated and are cooled and lubricated by the circulation of large quantities of lubricating oil pumped through the bearings, thereby contaminating the oil with water and forming acidic oxidation products of the oil, the method of prolonging the service life of the lubricating oil and reducing the corrosive effects of the acidic oxidation products of the oil which comprises immersing metallic magnesium in the circulating oil, said oil containing 2,6-ditertiarybutyl-4-methyl phenol, the metallic magnesium being electrically insulated from the metals of the circulating lubricating oil system.

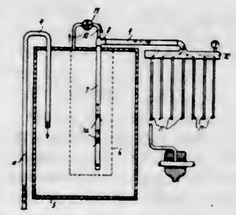
2,839,160
LUBRICATOR FOR SEALED FRICTIONLESS BEARINGS
Daniel M. Wright, Cincinnati, Ohio
Application June 14, 1956, Serial No. 591,482
5 Claims. (Cl. 184—1)

1. A lubricating device for sealed frictionless bearings comprising a base member having a planar major surface, a post fixed to the central portion of the member and projecting from said surface at right angles thereto, an annular recess formed in the surface of the member concentric with the post, a resilient, ring-shaped disc surrounding the post and in face-to-face contact with said major surface, said disc having a circular row of spaced openings formed therethrough in registry with the recess, all of said holes being positioned for communication with the annular open space between the shield and a race of the bearing, a bearing hold down means cooperative with



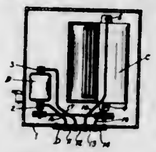
the upper surfaces of both bearing races and the top of the post and adapted to press the bottom sides of the bearing races against the resilient disc, and means in the base member for introducing lubricant under pressure into the recess.

2,839 161
PRESSURE LUBRICATING SYSTEM
Harold O. Smith, Kirkwood, Mo., assignor to Centrifugal & Mechanical Industries, Inc., St. Louis, Mo., a corporation of Missouri
Application October 14, 1954, Serial No. 462,308
7 Claims. (Cl. 184—7)



1. In a lubricating system for a machine having a plurality of bearings, an oil pump, oil pipes leading to the several bearings, and a sump arranged to receive the oil drained from the bearings and to which sump the suction tube of said pump is connected; a closed oil reservoir, a supply pipe leading from the discharge of said pump to said reservoir to supply a quantity of oil thereto, said bearings being located below the oil level in said reservoir, a delivery pipe leading from said reservoir and extending above the top thereof and connected to the several oil pipes leading to the bearings, means providing a by-pass passage from the top of said reservoir to a point of said delivery pipe substantially at the level of said top of said reservoir, and means restricting flow of oil through said passage in one direction while permitting free flow of air in the opposite direction.

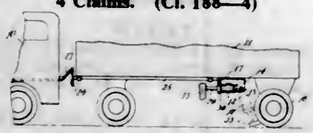
2,839,162
LUBRICATING SYSTEM
Herbert Formento, Port Washington, N. Y.
Application August 7, 1952, Serial No. 303,103
1 Claim. (Cl. 184—105)



In a machinery arrangement including a closed housing having therein a motor provided with a plurality of bearings which by reason of the position of the motor in

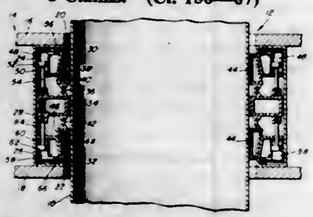
the housing are difficult of access even upon entry being made into the housing, a plate removably secured to and closing an aperture in said housing, said aperture and its closure plate being located above the uppermost motor bearing enclosed in the housing, a plurality of lubricant conducting conduits each having an end secured to the plate and each having an end detachably secured to a bearing of said motor, means accessible from the front of the plate exteriorly of the housing normally closing the ends of said conduits secured in said plate, and said closing means being quickly and easily manually openable exteriorly of said housing whereby a lubricant may be selectively delivered into said conduits for gravity flow to said bearings for the controlled lubrication thereof.

2,839,163
EMERGENCY BRAKE FOR VEHICLES
William J. Kelly, Jr., and William W. Larkin, Pittsburgh, Pa.
Application March 23, 1955, Serial No. 496,154
4 Claims. (Cl. 188—4)



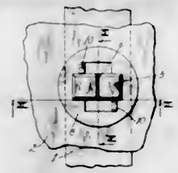
1. An emergency brake for wheeled vehicles comprising a cylinder pivotally suspended beneath the vehicle frame in front of a wheel, a resiliently mounted plunger reciprocable in said cylinder, latch means holding the cylinder with the plunger adjacent the vehicle frame, release means actuating the latch means to release the cylinder, a shoe on the end of the plunger remote from the cylinder pivot, said shoe being adapted to contact the road surface in advance of a wheel and reciprocate the plunger in the cylinder to bring the shoe into simultaneous contact with the road surface and the wheel at a portion thereof other than the road engaging portion whereby the shoe and wheel are in simultaneous contact with the road.

2,839,164
SLIP CONSTRUCTION
Louis J. Roussel, New Orleans, La., assignor to Universal Drilling Company, Inc.
Application April 9, 1956, Serial No. 576,978
5 Claims. (Cl. 188—67)



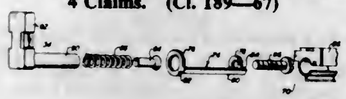
1. A slip construction for locking caissons in position, said slip construction comprising a supporting frame, vertically spaced fixed annular bowls carried by said supporting frame, said bowls including a lower bowl having a downwardly and inwardly sloping inner peripheral surface, and an upper bowl having an upwardly and inwardly sloping surface, a caisson freely passing through said bowls in spaced relation to said surfaces, a slip support disposed between said bowls for vertical movement, upper and lower slips pivotally carried by said slip support in engagement with said surfaces, and means supported by said supporting frame and connected to said slip support for vertically shifting said slip support to selectively wedge said slips between said bowls and said caisson to prevent movement of said caisson relative to said supporting frame, said supporting frame including upper and lower load receiving plates directly overlying and directly underlying said upper bowl and said lower bowl, respectively.

2,839,165
QUICK RELEASE FASTENING
John De Gasso, Chicago, Ill.
Application November 16, 1954, Serial No. 469,100
4 Claims. (Cl. 189—36)



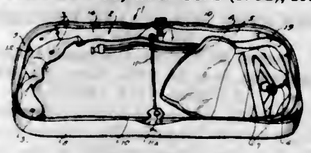
1. A quick release fastening assembly, including a base member having a threaded opening, a bolt with a transversely elongated head threaded in said opening, a plate having an elongated aperture therein to fit over the head of said bolt, a washer secured to said plate and having a similar aperture in alignment with the plate aperture, and upstanding lugs on the washer at opposite sides of its aperture near the ends of the aperture to limit movement of the bolt head.

2,839,166
SLIDING PIVOT WINDOW STRUCTURE
John Ringle III, Wausau, Wis., assignor to Marmet Corporation, Wausau, Wis., a corporation of Wisconsin
Application December 19, 1956, Serial No. 629,399
4 Claims. (Cl. 189—67)



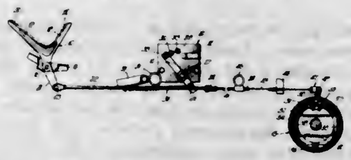
1. In a sliding pivot window structure having a sash movable with respect to a frame, a sliding shoe mounting arrangement comprising, an integral bottom rail extrusion having, in cross section, a C-shaped mount extending along the length of said rail a saddle having a ring located in said mount and a projection engaging the end of said mount, a shoe engaging a channel in a frame jamb, having a pivot pin located in said C-shaped portion, and spring means urging said shoe, in cooperation with said saddle, into contact with said frame jamb.

2,839,167
DUAL PURPOSE CLOTHING BAG
L. D. Thorlough Smith, Springfield, Ohio
Application February 8, 1957, Serial No. 639,123
4 Claims. (Cl. 190—43)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a clothes container having an outer traveling case manually foldable into a closed position and extensible into an open, flat position, an inner clothes bag releasably positioned in said outer traveling case, means supporting the side and end portions of said outer traveling case in substantially upright position, said inner clothes bag comprising a flexible container having a substantially full-length front flap cover and a zipper for opening and closing said front flap cover, and elongated retaining means hingedly mounted at one end on one of the substantially upright side portions of said outer traveling case and swingable transversely across an intermediate portion of said inner clothes bag to lock said inner closed bag in position in said outer traveling case.

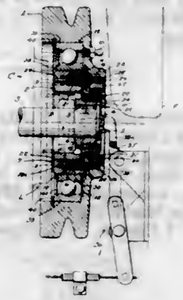
2,839,168
PEDAL CONTROL MECHANISM FOR ELECTRIC POWERED VEHICLES
Dale L. Cosper, South Bend, Ind., assignor to Versal, Inc., South Bend, Ind., a corporation of Indiana
Application October 27, 1955, Serial No. 543,091
3 Claims. (Cl. 192—2)



1. In a vehicle of the electric powered type. the combination with an electric switch lever and a brake actuating lever, of a pedal control lever supported for oscillating movement to and from an operating position for effecting movement of the vehicle to a brake applied position for stopping movement of the vehicle and holding the same at rest, a member connecting the pedal control lever with the brake actuating lever, said member also having connection with the electric switch lever, brake means adapted to be operated by the brake actuating lever, a switch panel presenting a plurality of switch contacts for coaction with the electric switch lever whereby to control the speed of the car, said pedal control lever and connecting member being so arranged and having such connection with the electric switch lever as to effect release of the brake means and engagement of the electric switch lever with one of said contacts when the pedal control lever is located in operating position, and to render the brake means operative for applying the brakes and to locate the electric switch lever out of engagement with the contacts when the pedal control lever is in the brake applied position, and a brake adjusting sleeve interposed in the connecting member for adjusting the length of said member and which additionally provides a lost motion connection for the brake means.

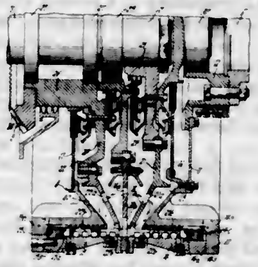
2,839,169
SPRING CLUTCH MECHANISMS
Columbus R. Secchini, Willoughby, and Donald R. Tomko, Cleveland, Ohio, assignors, by mesne assignments, to Curtiss-Wright Corporation, Marquette Metal Products Division, Cleveland, Ohio, a corporation of Delaware
Application May 5, 1954, Serial No. 427,742
7 Claims. (Cl. 192—37)

1. A spring clutch mechanism comprising a driving rotary member adapted to be rotated continuously, a rotary driven member coaxial therewith, each of the members having an internal approximately cylindrical clutch drum surface, a helical generally cylindrical clutch spring bridging said surfaces and with free coils at one end portion normally out of clutching contact with said drum surfaces, means permanently connecting the opposite end portion of the spring to the driving member to cause the spring to turn therewith, an actuator sleeve slidable on the driven member, key constituting means preventing the actuator sleeve from turning relative to the driven member, the sleeve having a shoulder for energizing engagement with the clutch spring to expand its coils into clutching contact with said cylindrical drum surfaces, said sleeve having a cylindrical external surface portion in position radially to support the free coils of the clutch



spring in centered relationship to the clutch drum surfaces but out of contact therewith, spring means acting continuously on the sleeve axially thereof in a direction to cause the shoulder of the sleeve to engage the clutch spring, and control means arranged to move the sleeve axially in a direction to oppose the spring means whereby to maintain the clutch mechanism in a non-torque-transmitting condition.

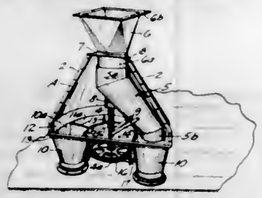
2,839,170
REVERSING CLUTCH MECHANISM WITH MAGNETIC PARTICLE CLUTCHING MEDIUM
Arthur F. Grant, Cleveland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 30, 1956, Serial No. 625,480
6 Claims. (Cl. 192—51)



1. A reversing clutch mechanism comprising, in combination a power input shaft and a power output shaft mounted for rotation relative to each other, a rotor of magnetic material non-rotatably secured to said power output shaft, a second rotor of magnetic material rotatably mounted with respect to said power output shaft, a reversing gear mechanism drivingly connecting said second rotor to said shaft, and a third rotor of magnetic material non-rotatably secured to said power input shaft, said third rotor embracing said first and second rotors and defining a chamber adapted to retain a magnetic particle material, said rotors having opposed radially spaced face portions, a first means alternatively energizable to establish a magnetic field interconnecting the face portions of said first and third rotors, a second means alternatively energizable to establish a magnetic field interconnecting the face portions of said second and third rotors, and magnetic particle material within said chamber in an amount limited to that required to form a load trans-

mitting bond between the face portions of said third rotor and one of said first and second rotors whenever a magnetic field is established therebetween by one of said means, and fan means associated with said rotors and adapted to transfer the magnetic particle material from between said third rotor and said one of said first and second rotors and toward the other of said first and second rotors whenever said one means is de-energized and the other of said means is energized to establish a magnetic field therebetween.

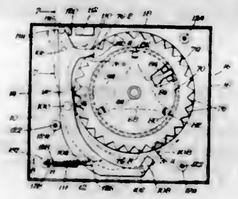
2,839,171
SELECTIVE DISTRIBUTING SPOUT FOR ELEVATOR BINS AND THE LIKE
Merlyn W. Ponto, Minneapolis, Minn., assignor to Minneapolis Sheet Metal Works, Incorporated, Minneapolis, Minn., a corporation of Minnesota
Application March 22, 1956, Serial No. 573,212
2 Claims. (Cl. 193—23)



1. A selective distributing spout unit for servicing a plurality of clustered storage bins comprising, an upwardly tapered sealed housing having a receiver-hopper rigidly connected to the upper end thereof, said hopper having sealed communication with the upper interior of said housing through an axial discharge sleeve, a vertical shaft journalled axially within said housing and disposed axially of said discharge sleeve and having a distributing spout affixed thereto in a diagonal relation generally conforming to the taper of said housing and confined wholly within said housing, said spout having an elbow at is upper end terminating in a tubular extremity axially disposed of and having communication with said discharge sleeve, a plurality of upright, interconnected bin-conduit, receiving funnels arranged in annular formation at the bottom of said housing and rigidly connected therewith and supported thereby, the open upper extremity of said funnels lying in a substantially common horizontal plane, a medium constituting a bottom for said housing and having means for cooperating with the peripheries of said funnels to form a sealed closure for the lower end of said housing and said spout having a lower discharge end terminating slightly above the common horizontal plane defined by the upper edges of said annularly arranged funnels for selective discharge thereto, said housing being composed of two vertically and longitudinally split sections, means for rigidly securing said sections together in an integral unit, one of said sections being substantially greater in circumference than the other and having said hopper rigidly attached to its upper end and also having a bottom partition element rigidly secured to the inner peripheral portions of said funnels and supporting said shaft and spout, and the section of smaller circumference also having a plurality of said funnels thereon and supported thereby.

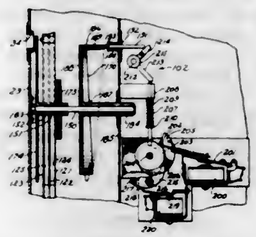
2,839,172
CALENDAR BANK
Anton J. Kolsky, Berwyn, and Walter L. Bilger, Melrose Park, Ill.
Application March 16, 1954, Serial No. 416,536
9 Claims. (Cl. 194—1)

1. In a step by step registering device of the type having indicator means comprising a plurality of interconnected movable indicator elements arranged to be mechanically displaced one step at a time in a predetermined sequence in response to energy delivered by the insertion of a coin or the like; and a primary oscillating displacement member positioned to engage the inserted coin and to be displaced through a predetermined advance stroke during insertion of the coin, and through a subsequent return stroke to initial position; the novel combination of a transmission from said primary displacement member for moving one element of said indicator



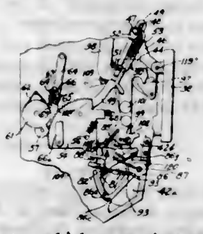
means through the major part of a complete step during the advance stroke of said primary displacement member, and for completing the step during the return stroke of said displacement member; and energy storing means in the nature of a spring tensioned by the advance stroke of said primary displacement member and storing only sufficient energy to assure completion of the return stroke; whereby the force and energy required to be delivered by the user in inserting the coin are each reduced to a minimum.

2,839,173
PREPAID ENTERTAINMENT DISTRIBUTION SYSTEM
David L. Loew, Beverly Hills, Carl Leserman, Los Angeles, Lorenzo Del Riccio, Beverly Hills, and Robert E. Gottfried, West Los Angeles, Calif., assignors to International Telemeter Corporation, a corporation of Delaware
Original application January 19, 1950, Serial No. 139,358, now Patent No. 2,769,023, dated October 30, 1956. Divided and this application September 1, 1951, Serial No. 244,774
9 Claims. (Cl. 194—9)



1. In a receiving system of the character described for receiving program signals as well as a series of code signals representative of the value of the transmitted program and a series of code signals identifying the program, means for receiving the first and second mentioned code signals and deriving therefrom respectively a first series of pulses representing the monetary value of the program and a second series of pulses for identifying the program, coin operated mechanism, said mechanism incorporating means for developing a third series of pulses representative of the amount of coinage deposited in said mechanism, comparator means operated by said first and third series of pulses jointly, recording means, said comparator means incorporating means for rendering said recording means effective to produce a recording in accordance with said second series of pulses when said first series and said third series of pulses are in predetermined amounts.

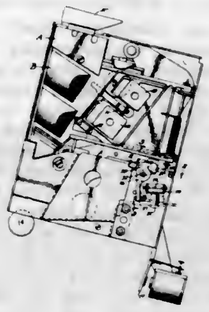
2,839,174
PARKING METER
Robert J. Ballman, Springfield Township, Hamilton County, Ohio, and William N. Woodruff, Phoenix, Ariz., assignors to The Herschede Hall Clock Company, Cincinnati, Ohio, a corporation of Ohio
Application April 19, 1954, Serial No. 423,934
4 Claims. (Cl. 194—54)



1. A parking meter which comprises a hollow frame member having a downwardly extending coin chute therein, there being an entry opening at the upper end of the coin chute, a coin discharge opening at the lower end of the chute, and an ejector opening in the side of the frame member therebetween, a gate for closing the coin entry opening, a coin ejector door for closing the coin ejector opening, means for urging said gate to chute closing position, the gate being swingable away from the coin entry opening when engaged by a coin, a coin-holding member in said chute for holding the coin in a position opposite the door, a trigger carrier linked to the gate to swing away from and toward the coin chute as the gate is opened and closed, a trigger member carried by the trigger carrier and swinging therewith out of and into the coin chute as the gate opens and closes, said trigger member being engageable by a coin of predetermined size at said position to arrest free swinging of the trigger member into the coin chute, time registering mechanism connected to said trigger to be actuated when the trigger is brought against a coin of the predetermined size, means connected to said time registering mechanism for swinging the coin-holding member away from coin-holding position when the mechanism is actuated to release the coin, and a link connecting the gate and the door to cause the gate and door to open and close together, whereby, when an offsize coin is inserted through the coin receiving opening, the offsize coin is held by the coin-holding member until an additional coin is inserted, and the offsize coin is released through the ejector opening when the additional coin is inserted.

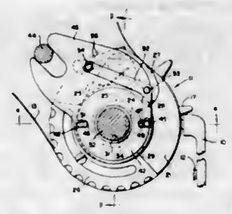
2,839,175
COIN TESTING DEVICE
William A. Patzer, Chicago, Ill., assignor, by mesne assignments, to Seth B. Atwood, Rockford, Ill.
Application December 1, 1954, Serial No. 472,364
1 Claim. (Cl. 194—102)

In a coin testing device, a coin chute having a pair of spaced walls between which coins of a predetermined denomination are adapted to travel during passage through the device, one of said walls having an elongate slot extending transversely across the coin chute, a plate having a shelf shiftable through said slot between blocking position with the shelf positioned in the path of the coins and unblocking position with the shelf withdrawn from the path of the coins to enable the coins to travel downwardly through the coin chute, the top surface of the shelf, when in blocking position, being inclined downwardly from the position adjacent the slot toward the opposite wall and tilted laterally from one end to the other for crosswise displacement of the coins coming to rest on the shelf, said space between the walls being clear adjacent the lower end of the tilted shelf for at least a distance upwardly from the shelf corresponding to the diameter of the coins of the predetermined denomination to enable automatic displacement of the coins from the shelf when in the blocking position, means constantly urging the plate toward blocking position but with a force insufficient to prevent the plate from being displaced from blocking to unblocking position responsive to engagement between the coin and the inclined surface of the shelf, means for normally holding the plate in blocking position, pins normally spaced one from the other by a distance slightly less than the diameter of the coins of predetermined de-



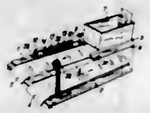
nomination and spaced upwardly from the shelf by an amount greater than the diameter of the coins of predetermined denomination, at least one of said pins being mounted for shifting movement in the direction away from the other responsive to camming action of the coins of predetermined denomination to enable passage therebetween, an operative connection between said displaceable pin and said holding means for releasing said shelf plate in response to displacement of the pin, and means constantly urging said pin and holding means towards normal position.

2,839,176
ADJUSTABLE PLATEN ROLL
Albert W. Metzner, Dayton, Andrew J. Kozul, Troy, and William C. Boesch, Dayton, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application September 7, 1954, Serial No. 454,467
12 Claims. (Cl. 197—133)



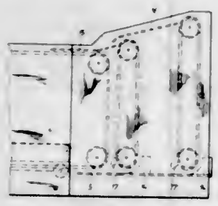
1. In a typewriting or like machine, a platen shaft, a bushing in surrounding eccentrically disposed relation to said shaft, means for mounting said bushing on said shaft for relative lateral bodily shifting motion, a pin wheel body rotatably mounted on said bushing, a platen having one end interengaged with and supported by said body, relatively stationary anchor means, and manipulative means on said anchor means and connected to said bushing for lateral bodily shifting of said bushing.

2,839,177
TOTE BOX TRANSFER APPARATUS
Theobald Immesberger, Kaiserslautern, Germany, assignor to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Germany, a German joint-stock company
Application May 2, 1955, Serial No. 505,434
Claims priority, application Germany May 3, 1954
5 Claims. (Cl. 198—21)



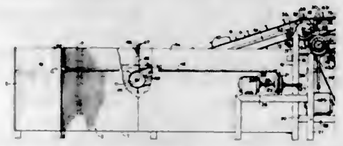
1. Apparatus for transferring "tote" boxes laterally from one conveyor to another running beside it, comprising a plate member for bridging the gap between the two conveyors at the transfer point, a motor, a switch for energizing said motor and operated by a "tote" box approaching the transfer point, pivotal means at said transfer point and operated by said motor for laterally displacing said tote box from one conveyor to the other independently of the forward movement of the conveyor on which said box is mounted, means for de-energizing said switch and for reversing said motor and said pivotal means after a predetermined pivotal displacement of said means, an approach catch for preventing a following box reaching the transfer point while the latter is occupied by a box being transferred and catch means engaged by a transferred box, departing from said transfer point, for preventing re-energizing of said switch until said transferred box is clear of said transfer point, wherein said pivotal means comprises a pair of arms at one side of the conveyor bringing boxes to the loading point and spaced longitudinally of said conveyor, a driving gear between said motor and said arms operating to angularly displace said arms in opposed directions to engage a side of a box for its lateral transfer from one conveyor to the other across said plate, and including a double armed lever on the end of one arm of which is arranged the approach catch and on the end of its opposed and shorter arm is disposed a wedge-shaped attachment which is downwardly displaceable by a "tote" box running into the transfer point, and further including a resetting lever and a release member for said lever and displaceable with said driving gear.

2,839,178
CONVEYORS
Herbert Marohn, Heinrich Eckhard, and Theobald Immesberger, Kaiserslautern, Pfalz, Germany, assignors to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Germany, a German joint-stock company
Application July 26, 1956, Serial No. 600,311
Claims priority, application Germany July 30, 1955
4 Claims. (Cl. 198—85)



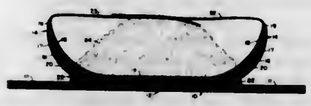
1. In a transport system, for use in connection with containers having two axles spaced apart from each other, the combination comprising two endless chains arranged parallel to each other, each chain having two superposed horizontal portions and two vertical portions, a lifting mechanism adjacent one of the vertical portions of said chains, and a lowering mechanism adjacent the opposite vertical portions of said chains, said chains comprising pushing members for impelling said containers, trackways for said containers arranged adjacent the horizontal portions of said chains and below said lowering mechanism and above said lifting mechanism, said lifting and lowering mechanisms and said trackways forming a closed path for said containers, said lifting and lowering mechanisms each being composed of two pairs of endless conveyors, each pair being operable to suspend the container from one of its axles, each pair of each conveyor moving within the endless path at a speed different from that of the other pair of the same conveyor whereby the container will be tilted from the horizontal during lifting and lowering.

2,839,179
CONVEYOR FOR TOMATO SKINNING MACHINE
Benjamin I. Buck, deceased, late of Baltimore, Md., by H. Beale Rollins, executor, Baltimore, Md., assignor of one-half to H. Beale Rollins, Baltimore, Md.
Original application March 23, 1950, Serial No. 151,469, now Patent No. 2,703,123, dated March 1, 1955. Divided and this application February 23, 1955, Serial No. 489,855
2 Claims. (Cl. 198—131)



1. A conveyor for use in a tomato skinning machine comprising a pair of parallel spaced chains on which the tomato seats, a plurality of arched flights connecting said chains at spaced intervals, each flight comprising two upright posts, one secured to each chain, and a transverse member, having a forwardly-facing concave recess, connecting the upper ends of said posts at such distance from the chains that said transverse member may engage the equatorial region of a tomato seated on said chains, and means for driving said chains, whereby lifting, slicing and slitting devices may act on a tomato while seated on said chains.

2,839,180
FLEXIBLE CONVEYOR BELTS
Harry Ackers, Leyland, England, assignor to BTR Industries Limited, a British company, and Rownson, Drew & Clydesdale Limited, London, England, a British company
Application October 25, 1954, Serial No. 464,457
Claims priority, application Great Britain October 28, 1953
1 Claim. (Cl. 198—201)



A flexible conveyor belt comprising a body which, when free and unconstrained, has a section of channel form providing a flat base and upstanding side walls with the base of the channel leading internally and externally into the side walls through portions of smooth curvature of substantial radius, which portions and side walls are both sufficiently stiff that the sides are self-supporting and sufficiently flexible to enable the side walls of the channel to flatten, by increase in the radius of curvature of said portions, outwardly and towards the plane of the base thereby to facilitate passage of the belt around a drum and, flexibly attached to the free edges of the two side walls of the body respectively, two inwardly extending flexible flaps which form continuations of the side walls and overlie the channel when the side walls are upstanding and when the side walls are bent outwardly towards the plane of the base as aforesaid still extend inwardly and lie against at least the inner surfaces of the side walls.

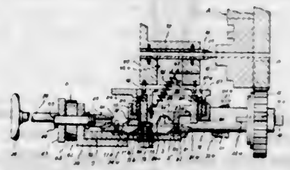
2,839,181
MOVABLE TUBULAR CONVEYOR BELT
Elmer J. Renner, Aurora, Ill., assignor to Stephens-Adamson Mfg. Co., a corporation of Illinois
Application December 31, 1954, Serial No. 479,164
2 Claims. (Cl. 198—201)



1. A tubular conveyor belt for conveying bulk materials and of the type that is arranged for cooperation with supporting and guiding rollers, comprising an endless ribbon-like base member including longitudinal side edges separated by a center portion, said base member being engaged by the supporting and guiding rollers, an endless flexible tube that is coextensive with and is affixed to said base member, said tube being formed by a one-piece ribbon-like member including longitudinally extending edges separated by a center portion, said tube forming member being formed with zipper-like interlocking teeth along its said longitudinally extending edges and said teeth extending outwardly of said external surface of said tube, whereby when said teeth of said tube forming member are interlocked, said tube is formed, said tube including an internal surface against which the bulk material bears and an external surface, said internal surface of said tube being smooth laterally of said tube between said longitudinally extending edges of said tube forming member, whereby, when said teeth are in interlocking relation, said internal surface is disposed in a smooth and generally rounded configuration transversely of said tube, and a spacer element separating said tube from said base member, said spacer element being coextensive with said base member and said tube, said base member and said tube being secured to said spacer element, said spacer element being of substantial thickness to separate said external surface of said tube and said base member a substantial distance, whereby the internal surface of said tube, when said tube forming member is opened up to ribbon-like condition, presents a smooth surface that is substantially planar in transverse cross section, and whereby, when said teeth of said tube are urged toward each other, tension stresses created in said tube forming member by the bringing together of said longitudinally extending edges of said tube forming member, and tending to separate said tube from said base member, are distributed laterally of said spacer element.

2,839,182
TYPOGRAPHICAL COMPOSING AND CASTING MACHINES
Robert E. Tackitt, Houston, Tex., assignor of one-half to Earl L. Whittington, Houston, Tex.
Application January 24, 1955, Serial No. 483,557
22 Claims. (Cl. 199—59)

2. In a typographical composing and casting machine, a mold disk having a plurality of molds attached thereto, said disk being movable for using one of the molds at a time to make type, manually operative means for changing from the mold in use to another of the molds, a pair of type trimming knives for trimming the sides of the type formed in the particular mold in use, one of said knives being movable and the other fixed, setting means for setting the knives to correspond with the size of the type in the particular mold in use, an operating shaft having a handle at one end and being connected to said manually operated mold changing means at the other end, a drive connected to said shaft and said setting means for effecting the simultaneous setting of said knives and changing of the mold on the manipulation of said shaft with said handle, said drive between said shaft and said setting means including a bevel gear in engagement with a pinion gear which is operated upon rotation of said shaft, said setting



means including a cam member operatively associated with one of said knives, and a plurality of cam buttons circularly mounted on said bevel gear whereby rotation of said bevel gear moves the cam buttons successively into engagement with said cam member, said cam member being arcuate and having a curvature corresponding to the circular path of said cam buttons, each cam member having associated therewith a pair of alignment studs, and each cam button having associated therewith a pair of alignment pins, the ends of which are adapted to be positioned in contact with the ends of the alignment studs when the cam button with which the pins are associated is in contact with the maximum portion of the cam surface of the cam member.

2,839,183
GARMENT BAG
Joseph M. La Rosa, McKeesport, Pa.
Application August 26, 1957, Serial No. 680,276
1 Claim. (Cl. 206—7)



A garment bag construction comprising an elongated generally rectangular bag having an open bottom end and a closed upper end with a small opening therein for receiving the supporting hook of a garment hanger employed for disposing garments within the bag, said bag having a peripheral tear strip disposed therein in adjacent relation to the upper end but spaced therefrom whereby the tear strip may be employed for severing the lower portion of the garment bag thus leaving the upper portion of the garment bag for protecting shoulder portions of garments within the bag, said tear strip being defined by a pair of vertically spaced parallel perforated score lines, said score lines being discontinued for a minor portion in the front and rear of the bag, and a pair of diagonal cut lines interconnecting the discontinuous portion of the score lines thereby providing an opening for insertion of gripping fingers for gripping the material between the score lines whereby the material between the score lines may be removed by exerting lateral pulling force on the material between the score lines, the outer

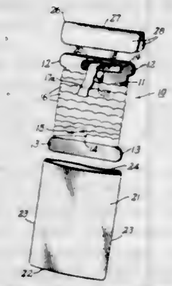
ends of the diagonal cut lines being each provided with a score line extending vertically therefrom for permitting the material between the vertical score lines to be pulled outwardly for inspection of the garment disposed within the garment bag.

2,839,184
MATCH BOOK SLIP COVERS
Lois April, New York, N. Y.
Application October 8, 1956, Serial No. 614,705
1 Claim. (Cl. 206—29)



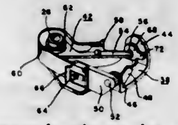
In combination, a match supply of the class herein set forth including a match assembly, a folder therefor having front and rear panels and a lip, a cover for said match supply comprising a flexible body with a short pocket at one end thereof extending the full width of the body and receiving the front panel of the folder and the lip in exposed condition, an elongated pocket on the other end of the body extending the full width of the body and receiving the rear panel of the folder, said pockets being disposed in confronting relation and opening in opposite directions away from the ends of the body on which they are disposed, the flexible body being of rectangular configuration and including front and back panels integrally connected intermediate the ends of the body and respectively proportioned to overlie the front and back panels of the folder, said short pocket being formed on the inner surface of the back panel of the cover, said elongated pocket being formed on the inner surface of the front panel of the cover, said pockets being defined by inwardly folded end portions of the back and front panels of the cover, said body being formed with side hems, and a rectangular spring wire frame enclosed in the side hems, said frame being tensioned normally to form the cover into a substantial U-shape to bias the folder front panel to a normally closed position inside the lip.

2,839,185
DISPLAY PACKET
Jacques H. Isaacs, White Plains, N. Y., assignor to Mort. and Jack Isaacs, Inc., New York, N. Y., a corporation of New Jersey
Application September 25, 1956, Serial No. 611,960
1 Claim. (Cl. 206—45.33)



A display packet assembly for lengths of lace or the like whereby a restricted portion of said length may be exposed externally of said packet while the remainder of said length remains protected internally of said packet, said assembly comprising a lace holding card having an incision defining a slot and a corresponding tongue bendable into said slot, a length of lace convoluted about said card, an extended portion of said lace lying beneath said tongue and over said slot, an open end envelope enclosing said card assembly, said end of said lace protruding through said open end of said envelope and capping means overlaying said envelope and said tongue and slot, said capping means operating to retain said open end of said envelope in folded position and to compress said extended portion of said lace between said tongue and said slot.

2,839,186
DISTRIBUTOR STRUCTURE PACKAGE
Verle E. McCarty, Markleville, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 21, 1956, Serial No. 592,796
1 Claim. (Cl. 206—46)

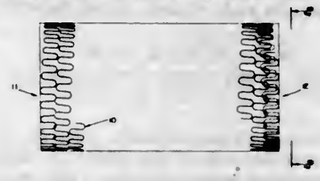


In a replacement breaker point assembly for a distributor having a movable breaker plate with a pivot pin extending from the plate and attached thereto, the combination comprising; a contact support plate adapted for assembly to the breaker plate and having two spaced upwardly extending flanges thereon, a stationary contact mounted on and carried by one of said flanges, a breaker arm, a movable contact carried by one end of said breaker arm, a curved and calibrated spring attached to said breaker arm in spaced relation to said movable contact and connected to the other of said flanges on said support plate for urging the movable contact into predetermined pressure engagement with the fixed contact and acting as the sole means of support for the breaker arm with respect to said plate, said breaker arm having a pivot opening spaced from said movable contact and in alignment with an opening in the support plate, said pivot opening and said opening in the support plate being adapted to pass over said pivot pin when the support plate is assembled to the breaker plate for pivotally mounting the breaker arm on the pivot pin, and removable means for maintaining alignment between the movable and stationary contacts and between said pivot opening and said opening in said support plate, said means consisting of an annulus of rigid material wherein the annulus is sized to have an inner opening of substantially the same diameter as that of said contacts to pass over and simultaneously embrace the outer surfaces of the movable and stationary contacts when the contacts are held in engagement by the spring, said means being disposable when the support plate is assembled to the breaker plate with the breaker arm mounted on said pivot pin.

2,839,187
BULK ROLL OF ZIGZAG SPRING WIRE AND METHOD OF MAKING SAME
Harry H. Norman and Harry B. Sklar, Los Angeles, Calif., assignors to Zig Zag Spring Company, Los Angeles, Calif., a partnership
Application September 1, 1955, Serial No. 532,047
4 Claims. (Cl. 206—59)

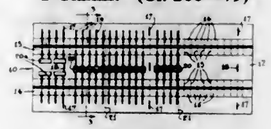
1. A bulk supply roll of longitudinally arched zigzag spring wire which in its unstressed condition is uniformly arched to a single radius of curvature consisting of a plurality of courses of wire helically wound first in one direction from one end of the roll to the other and then in the other direction from said other end to the first-mentioned end, portions of the wire between reversals

of the direction of the helices at the ends of the roll extending approximately 180° around the circumference of the roll, said portions in each course partially overlapping the corresponding portion in the subjacent course but being in staggered relation thereto, the innermost convolutions of the roll having a radius of curvature



less than the radius of curvature of the arch of the spring wire when in unstressed condition so that these convolutions tend to expand against outer convolutions wound thereover, the outermost convolutions of the roll having a radius of curvature greater than the radius of curvature of the arch of the spring wire when in unstressed condition so that these convolutions tend to contract against inner convolutions therebeneath.

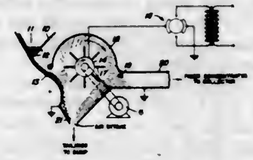
2,839,188
PACKAGING MEANS FOR SMALL ELECTRIC UNITS
Wilbert R. Cipriani, Bridgeport, and Barton L. Weller, Easton, Conn., assignors to Vitramon, Incorporated, Stepney, Conn.
Application December 6, 1954, Serial No. 473,215
2 Claims. (Cl. 206—79)



1. A package comprising a plurality of small electric units each having a body and rod-like terminals extending therefrom, and a holder holding said units by their terminals in said package, said holder comprising a normally flat base sheet of bendable material, a support sheet of bendable deformable material superimposed upon said base sheet, an elongate ridge formed in said support sheet upstanding therefrom, said support sheet being attached to said base sheet at least at spaced points along both sides of said ridge, said ridge having longitudinally spaced transverse slits extending the full height of said ridge, said slits dividing said ridge into sections joined by said support sheet, the edges of said sections adjacent each said slit before the insertion of said units into said holder being linear and in abutting relation throughout the height of said ridge, said holder frictionally engaging said terminals between opposed edges of said slits, said terminals being substantially embedded in said edges; whereby said holder may be arched longitudinally about the bottoms of said slits to spread apart the adjacent sections for freely inserting said rod-like terminals into said slits, and said terminals will be frictionally engaged between and embedded in the edges of said slits when said holder is returned to normal shape with its base sheet flat.

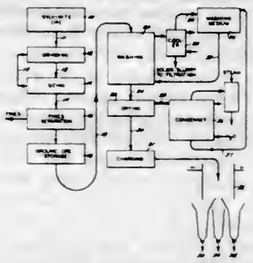
2,839,189
ELECTROSTATIC SEPARATION METHOD
Herbert B. Johnson, Rochester, N. Y., assignor to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey
Application February 1, 1954, Serial No. 407,275
7 Claims. (Cl. 209—127)

1. The method of separating a mixture of materials comprising the steps of feeding a thinly distributed stream of said mixture to a conveying electrode, subjecting said mixture on said conveying electrode to an electrostatic field between said conveying electrode and a spaced rotating electrode roll of opposite polarity while maintaining a high difference of electrical potential between



said electrodes, for preferentially separating and attracting one component of said mixture toward said rotating electrode, confining the area around said rotating electrode to set up a whirling current of air, and pneumatically removing and collecting the separated component from said area.

2,839,190
METHOD OF SEPARATING SYLVITE FROM SYLVINITE ORE
James E. Lawver, Lakewood, Colo., assignor to International Minerals & Chemical Corporation, a corporation of New York
Application July 30, 1954, Serial No. 446,837
9 Claims. (Cl. 209—127)



1. The method of beneficiating potash ores containing sylvite comprising comminuting the ore, washing the comminuted ore with a substantially nonaqueous, nonresidue forming organic liquid medium in which at least the sylvite component of the ore constituents is substantially insoluble, drying the washed ore, selectively inducing transfer of electrons to the washed particles thereby creating a charge thereon, subjecting the charged ore to the attractive and repulsive forces of a high potential electrostatic field, and recovering a product rich in sylvite content and a product low in sylvite content.

2,839,191
PHOSPHATE ROCK BENEFICIATION PROCESS
Louis T. Monson, Puente, and Roy W. Wagoner, Alhambra, Calif., assignors to Petrolite Corporation, Los Angeles, Calif., a corporation of Delaware
No Drawing. Application September 11, 1956
Serial No. 609,054
13 Claims. (Cl. 209—166)

1. A concentration process using differential surface wettability principles for separating siliceous impurities from phosphate rock, characterized by subjecting the rock to the action of a material selected from the class consisting of (1) a liquid reagent which includes: (A) a reaction product obtained by (1) first reacting tall oil and a polyethylenepolyamine to provide an intermediate, said reaction including a reaction temperature between 270° and 300° C., the molal proportion of polyamine to tall oil being between about 0.6:1 and 0.8:1, then (2) reacting such intermediate with dichloroethylether, the

molal proportion of dichloroethylether to tall oil being between about 0.25:1 and 1:1; (B) a high-boiling petroleum distillate, the proportion of such petroleum distillate in the finished reagent being between about 25% and 75%; and a minor proportion of a depressor for phosphate rock, (C) which depressor is a reaction product obtained by (1) first reacting tall oil and an oxyalkylated polyethylenepolyamine, said reaction including a reaction temperature between 270° and 300° C., the molal proportion of oxyalkylated polyamine to tall oil being between about 0.6:1 and 0.8:1, the oxyalkylated polyamine being derived by reacting the polyamine with a material selected from the class consisting of ethylene oxide and propylene and ethylene oxides, using not more than about 2 mols of total alkylene oxide for each mol of polyamine; and then reacting such tall oil-oxyalkylated polyethylenepolyamine reaction product with dichloroethylether, the molal proportion of dichloroethylether to tall oil being between about 0.25:1 and 1:1; and (II) partial neutralization products thereof.

2,839,192
CONCENTRATION OF SYLVITE FROM ITS ORES
Louis T. Monson, Puente, Calif., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 5, 1956
Serial No. 614,092
13 Claims. (Cl. 209—166)

1. A concentration process using differential wettability principles for separating sylvite from its ores, characterized by subjecting the ore to the action of a material selected from the class consisting of (I) *a* liquid reagent which includes: (A) a reaction product obtained by (1) first reacting tall oil and a polyethylenepolyamine to provide an intermediate, said reaction including a reaction temperature between 270° and 300° C., the molal proportion of polyamine to tall oil being between about 0.6:1 and 0.8:1, then (2) reacting such intermediate with dichloroethylether, the molal proportion of dichloroethylether to tall oil being between about 0.25:1 and 1:1; (B) a high-boiling petroleum distillate, the proportion of such petroleum distillate in the finished reagent being between about 25% and 75%; and a minor proportion of a depressor (C), which depressor is a reaction product obtained by (1) first reacting tall oil and an oxyalkylated polyethylenepolyamine, said reaction including a reaction temperature between 270° and 300° C., the molal proportion of oxyalkylated polyamine to tall oil being between about 0.6:1 and 0.8:1, the oxyalkylated polyamine being derived by reacting the polyamine with a material selected from the class consisting of ethylene oxide and propylene and ethylene oxide, using not more than about 2 mols of total alkylene oxide for each mol of polyamine; and then reacting such tall oil-oxyalkylated polyethylenepolyamine reaction product with dichloroethylether, the molal proportion of dichloroethylether to tall oil being between about 0.25:1 and 1:1; and (II) partial neutralization products thereof.

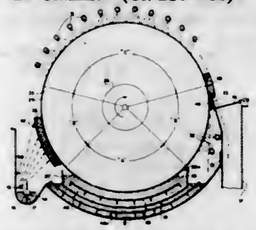
2,839,193
RESONANT OSCILLATING DEVICE
Ernst Johannes Bruderlein, Rheinhausen, Lower Rhine, Germany, assignor to Aktiengesellschaft fuer Unternehmungen der Eisen- und Stahlindustrie, Essen, Germany
Application December 17, 1956, Serial No. 628,686
Claims priority, application Germany December 20, 1955
8 Claims. (Cl. 209—365)

1. A resonant oscillatory device, comprising a body to be vibrated, a frame structure somewhat larger than and around said body, said frame structure being resiliently mounted on a relatively stationary base, means to suspend said body for vibratory movement in and adjacent said frame structure, kinetic coupling means between said body and said frame structure, said body and said frame structure forming masses oscillating in opposite directions when subjected to vibratory actions via said coupling means, a plurality of mounting members on said body, the ends of some of said members extend-



ing over the top of the respective sides of said frame structure, and the ends of the others of said traverse members extending below said sides, a pair of elastic organs being inserted between said member ends and said frame structure, one half of said pair being on top and the other half below said frame structure, whereby said elastic organs of each pair cooperate in the oscillating directions.

2,839,194
CONTINUOUS FILTRATION PROCESS AND APPARATUS THEREFOR
Edwin B. Lopker and Emil M. Stoltz, Jr., Joliet, Ill., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application January 8, 1957, Serial No. 633,099
20 Claims. (Cl. 210—66)



1. In the filtering of suspensions of solids wherein a feed slurry is subjected to filtration through a filter cloth and a filter cake is formed on the medium and removed in a continuous operation, the improvement which comprises continuously removing an outer portion of the cake, continuously removing an inner portion of the cake, continuously forming and maintaining a slurry of the inner portion of the cake separate from the feed slurry and continuously applying said slurry of the inner portion of the cake to the outer surface of the filter cake newly formed from the feed slurry.

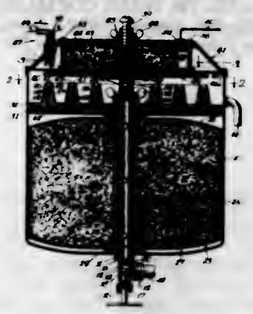
2,839,195
WATER CONDITIONING UNITS FOR STEAM EMITTING PRESSING DEVICES
Alfred E. Reimers, Clearbrook, and Walter K. Tavender and Leonard J. McCormack, Jr., Winchester, Va.
Application March 11, 1954, Serial No. 415,566
3 Claims. (Cl. 210—94)



1. A water conditioner unit for steam-emitting pressure devices comprising, in combination, an elongated hose unit formed into a contracted hose body comprising a plurality of coils composed of substantially transparent material, said coiled hose body being substantially filled with a water conditioning material in comminuted form and having a given color observable through the said

transparent material of said hose body, said water-conditioning material having an affinity for materials that are objectionable for passage through a steam-emitting pressing device and are conventionally contained in water supplied from water mains, said water-conditioning material being adapted to change its color upon exhaustion, an inlet connection pipe at one end for feeding from a water supply to said hose body water to be reconditioned, an outlet connection pipe at the opposite end of said hose body for connection to a steam-emitting pressing device and passing reconditioned water from said body thereto, a relatively short anchoring bracket element contacting with said connecting pipes for supporting said hose body, and means comprising a wad of shredded copper positioned at the said outlet end of said coiled hose body in the path of movement of reconditioned water for preventing the outward passage with the reconditioned water of comminuted material from said hose body.

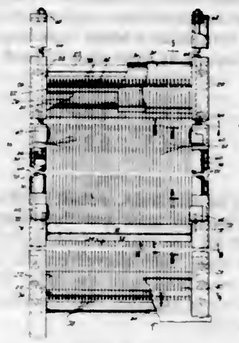
2,839,196
OIL RECLAIMER
William C. Schwalge, Prairie View, Ill.
Application August 9, 1955, Serial No. 527,286
9 Claims. (Cl. 210—180)



1. In an oil reclaimer: a vaporizing chamber having a floor and a removable closure; a plurality of elongated, elevated oil conducting channels in said chamber above and substantially parallel to said floor; separate inclined vaporizing surfaces extending downwardly from each of said channels toward said floor so that oil overflowing from the channels passes over said vaporizing surfaces; means for admitting oil to said channels for flow over said vaporizing surfaces; heating means in said chamber for heating the oil in said channels and flowing over said surfaces to vaporize impurities therefrom; an oil outlet to receive oil from said vaporizing surface; and vent means to permit vaporized impurities to escape from the chamber.

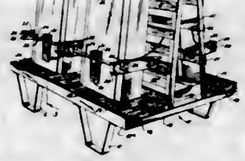
2,839,197
SCREEN
Carl H. Nordell, Crystal Bay, Nev., assignor of fifteen percent to Louise N. Millspaugh, Long Beach, and fifteen percent to Anne N. Kaspar, Scotia, Calif.
Application August 20, 1954, Serial No. 451,130
18 Claims. (Cl. 210—499)

1. A screen for separating undesired solids from a flowing liquid stream comprising, a generally rectangular frame including two side members and upper and lower cross members, which together with the side members define the outlines of the space through which the liquid may flow; a plurality of spaced parallel flat metallic ribbons secured to the lower cross member against upward longitudinal movement, means carried by the upper cross member to apply longitudinal tension individually to each of the ribbons, said means comprising leaf springs, means connecting the springs respectively to the upper ends of the ribbons conformed to apply the resilient forces of the spring at points adjacent the longitudinal center lines of



the ribbons, and means to hold the leaf springs flexed to cause them continuously to apply substantial tension to the ribbons.

2,839,198
SHIPPING AND STORAGE CARRIER FOR SHEET MATERIAL
Fernand J. Lefevre, Brackenridge, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application June 7, 1954, Serial No. 434,961
10 Claims. (Cl. 211—41)

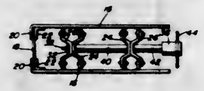


1. A carrier for stacked sheets of fragile material comprising a support for said stacked sheets, a pair of spaced brackets engaging said support and extending outwardly therefrom, said brackets being positioned to engage opposite sides of said stack and having the terminal ends thereof disposed beyond the front of said stack, a clamping member extending between said spaced brackets and detachably secured thereto adjacent the terminal ends thereof, said clamping member being spaced from the front of the stacked sheets positioned between said brackets and adapted to clamp said brackets against the sides of said stack, and a wedge spaced from said brackets and engaging said clamping member and the front of said stack for clamping said stack against said support.

2,839,199
FILLER AND BOOK SUPPORT
John W. Peszlen, Detroit, Mich.
Application August 25, 1953, Serial No. 376,380
1 Claim. (Cl. 211—43)

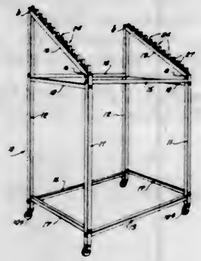
A filler and book support comprising: a pair of spaced, opposed vertical side walls including inturned vertical marginal flanges, angle members mounted on the inner faces of the side walls in spaced, opposed relation to the flanges and defining open-end channels in conjunction

therewith, a removable end wall having its vertical marginal portions slidably engaged in the channels, and means connecting the side walls for adjustment toward or away from each other in parallelism, said means comprising a pair of spaced, parallel lazy tongs including crossed links operatively connected at their ends to said side walls, a



nut fixed on one of said links, a shaft pivotally adjustably connecting the crossed links and threadedly engaged in the nut, a head on one end of said shaft, an operating handle on said head, and sleeves on the shaft engaged with the lazy tongs and with the head for frictionally clamping the links in adjusted position when the shaft is tightened in the nut.

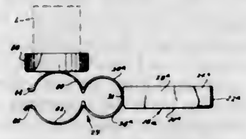
2,839,200
HANGER FOR BLUE-PRINTS
Kenneth V. Easterwood, Waco, Tex.
Application March 25, 1954, Serial No. 418,531
1 Claim. (Cl. 211—45)



A blue print rack comprising a frame having a pair of front legs and a pair of rear legs supported on casters, the rear legs extending above the front legs, a pair of horizontal, vertically spaced cross members extending between the legs of the pair of front legs, a pair of horizontal, vertically spaced cross members extending between the legs of the pair of rear legs, a pair of horizontal, vertically spaced cross braces connecting a front leg and a rear leg of each pair of legs at the sides of the frame, a threaded pin extending axially from each end of each of the cross members and cross braces receivable in holes in respective front and rear legs of the frame, each pin having a nut threaded thereon to secure said members, an inclined support extending from the upper end of each of the rear legs to the upper end of an adjacent front leg, a series of longitudinally spaced, substantially U-shaped holders affixed to each of the inclined supports, and means retained in and extending from a hanger of one support to a hanger of the opposite support for suspending blue prints.

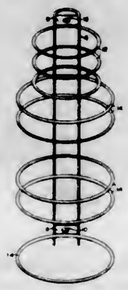
2,839,201
TRAY FOR GAS TANK CAP
Martin Auster, East Rockaway, N. Y.
Application December 2, 1954, Serial No. 472,594
2 Claims. (Cl. 211—86)

1. A tray attachment for the delivery hose of a service station gasoline pump comprising a substantially square-shaped tray member adapted to receive a vehicle gasoline tank cap, and hose-engaging clamp means on said tray member, said tray member including a flat bottom and low walls extending upwardly from the periphery of the bottom, the clamp means being secured to one of said walls and extending laterally therefrom, the clamp means being formed from a single length of springable material shaped to include, midway between its ends, a bight portion fixedly connected to the tray member, said length of material at opposite ends of the bight portion being shaped to include oppositely bowed, inner clamp arms, the length of material at its ends being formed with oppositely bowed outer clamp arms integrally connected at



their inner ends to the outer extremities of the inner clamp arms, the outer clamp arms being struck on a common radius greater in length than the radius about which the inner clamp arms are struck, said attachment further including means carried by one of the outer clamp arms adapted to support a container of lubricant or the like.

2,839,202
TOWEL AND/OR WASH CLOTH HOLDER
Alfred E. Arnett, Wichita, Kans.
Application February 3, 1955, Serial No. 485,878
7 Claims. (Cl. 211—106)

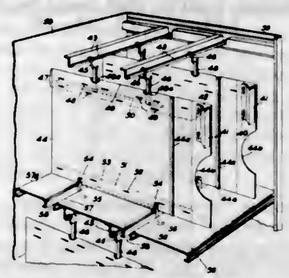


6. Means to hold and store cloth articles used to wash and/or dry the body, comprising, a portion disposable in an upright position on a vertical surface, and more than two shelf members rigidly attached to said upright disposable portion and projecting outwardly therefrom, said shelf members being unadjustably spaced and substantially parallel, two adjacent ones of said shelf members being spaced apart a distance to snugly receive and hold a relatively small one of said cloth articles in folded condition and spaced apart a distance greater than two other adjacent ones of said shelf members, and said last-named adjacent shelf members being spaced apart a distance to snugly receive and hold folded a relatively large one of said cloth articles.

2,839,203
FILING SYSTEMS
Otto Alfred Becker, Saarbrucken, Saar Territory
Application April 21, 1953, Serial No. 350,141
Claims priority, application France April 24, 1952
15 Claims. (Cl. 211—184)

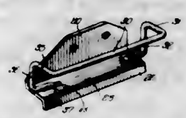
1. A filing system comprising a cabinet, vertically spaced shelves extending across the cabinet, guide rails attached to each shelf adjacent thereto and extending lengthwise thereof, substantially vertical partition means comprising anchors at their bottoms and slidably engaging said guide rails, suspenders at the tops of said partition means and elastic portions between said anchors and said suspenders, carrier rails in said cabinet above

said partition means and engaged by said suspenders, the vertical dimension of said partition means prior to



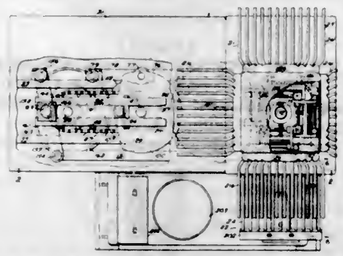
their assembling in said cabinet being less than the vertical spacing of said carrier rails and said guide rails.

2,839,204
COUPLER OPERATING ROD BRACKET
Parker J. Lahey, Chicago, Ill., and George R. O'Leary, Highland, Ind., assignors to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application March 4, 1957, Serial No. 643,599
5 Claims. (Cl. 213—171)



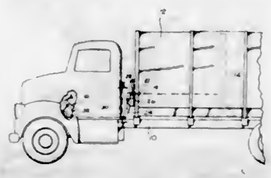
4. A supporting bracket for an operating rod adapted to operate at car coupler upon manual operation of said rod, said bracket comprising a pressed mounting plate having an upright portion for attaching said bracket to a car, a lower flange issuing from the lower edge of said upright portion, said flange having spaced openings therethrough adjacent the ends of said flange, one of said openings being elongated, a bar having a horizontal portion spaced from and parallel to said flange and end portions, one end portion being removably secured to said flange through one of said openings, and the other end portion terminating in a curve extending through said elongated opening.

2,839,205
APPARATUS FOR TRANSFERRING ARTICLES
Max E. Toby, San Francisco, and Daniel J. Toby, San Mateo, Calif., assignors to Package Enterprises, Inc., Oakland, Calif., a corporation of California
Application February 17, 1955, Serial No. 488,832
8 Claims. (Cl. 214—2)



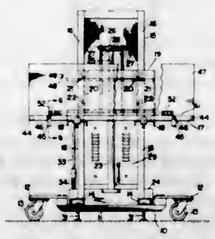
3. Apparatus for conveying articles from a dispenser to a horizontally remote and vertically offset scale having a plurality of fingers providing a weighing platform comprising: a plurality of support members on which said articles may be deposited from the dispenser all lying substantially in a horizontal plane, each of said members having horizontally spaced fingers, means for indexing sequential ones of said members for a prescribed number of degrees of rotation about a substantially vertical axis from said dispenser to said scale and with the fingers of said platform and support members in interleaving relation, and means for lowering sequential ones of said members as such member overlies said scale platform whereby an article supported thereon may be transferred from said support member to said platform.

2,839,206
GARBAGE TRUCK PACKING PLATE CONTROL
Leonard Sherman Gilleo, Portland, Oreg.
Application November 21, 1955, Serial No. 547,951
1 Claim. (Cl. 214—82)



In a garbage truck provided with a receptacular body having a bottom and end walls and having mounted therein a reciprocable packing plate connected through clutch means to a motor: packing plate control apparatus comprising a plunger, means for mounting the plunger through one end wall of said body above the bottom thereof with one end of said plunger projecting inwardly of said body and stationed in the path of travel of the packing plate for actuation of the plunger by said packing plate at a predetermined limit of travel of the latter and with the other end of said plunger projecting exteriorly of said body, said plunger having reciprocable axial movement in the same direction of movement as said packing plate, a bracket mounted exteriorly on said one end wall, a lever fulcrumed intermediate its ends in said bracket and being disposed in a plane substantially parallel with said end wall, one end of said lever being positioned for contact by the opposite end of the plunger upon actuation of the plunger by the packing plate, and flexible link means interconnecting the other end of the lever and the clutch means for operating the same upon movement of the lever.

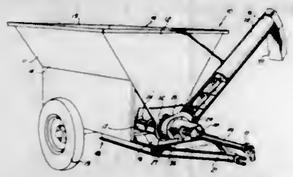
2,839,207
SIDE-LOADING LIFT-TRUCK
Harold Isaacs, University Heights, Ohio, assignor to Edith Isaacs, University Heights, Ohio
Application December 26, 1956, Serial No. 630,638
1 Claim. (Cl. 214—84)



In a lift-truck, the combination of a base, a vertically extending guide mounted on said base, a load-supporting member movably mounted on said guide for movement in a vertical plane, said member having a laterally projecting portion providing a horizontal load-supporting

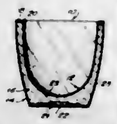
surface, ground-engaging wheels supporting said base for horizontal movement in a direction transverse to the plane of vertical movement of said projecting portion, and a push bar slidably secured to said guide and selectively movable into and out of the path of vertical movement of said projecting portion.

2,839,208
MATERIAL UNLOADING VEHICLE
Elmer K. Hansen, Sioux City, Iowa
Application March 22, 1956, Serial No. 573,147
3 Claims. (Cl. 214—522)



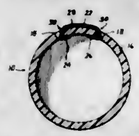
1. A material unloading vehicle comprising an upright longitudinally extended material container having a discharge opening in one end thereof, first auger means arranged in said container opposite said opening for moving material through said opening, a housing mounted on said container and having a first portion thereof arranged opposite said opening for receiving material moved therethrough, said housing having a second portion angularly arranged relative to said first portion and extended in a direction away from said container, second auger means mounted on said housing in material communication with said second portion for moving material outwardly thereof, a first shaft journaled on said housing and extended through said first portion for driving said first auger means, a second shaft journaled on said housing and extended through said second portion for driving said second auger means, coacting means on said shafts providing for a driving of one shaft in response to rotation of the other shaft, and an impeller member on said first shaft and within said first housing portion for moving material therefrom to the second housing portion.

2,839,209
CERAMIC STRUCTURE AND METHOD FOR MAKING SAME
Frank P. Lester and Marianne H. Lester, Hartsdale, N. Y.
Continuation of application Serial No. 409,868, February 12, 1954. This application March 1, 1955, Serial No. 491,261
3 Claims. (Cl. 215—13)



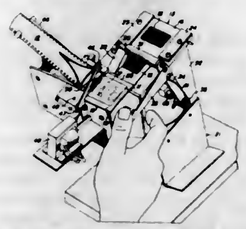
1. A ceramic structure having at least one wall comprising at least two spaced overlying layers of ceramic material consisting essentially of 12 parts powdered glass, 9½ parts Bedminster clay, 26 parts Jordan clay, 7½ parts Victoria clay, 4 parts Layton clay, 10 parts Exeter clay, 8 parts syanite, 10 parts aluminum silicate, 3 parts Barker talc, 11 parts Hudson flint No. 103, and 32½ liters of water containing 153 cc. sodium silicate and 130 grams of sodium carbonate for each 100 pounds of water, said layers being integrally formed one with the other, means sealing the space between said layers and a low density insulating material substantially filling said space.

2,839,210
CONTAINER CAP
Max R. England, Jr., Ottumwa, Iowa
Application April 19, 1955, Serial No. 502,364
5 Claims. (Cl. 215—46)



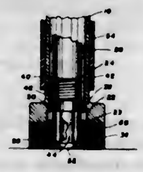
5. A closure for a container having a neck, said closure comprising an integrally formed arcuate cap shaped internally to engage the neck of a container, said cap provided with a pair of spaced openings in its outer surface, an arcuate tab member formed with a body portion terminating at each respective end in a clip portion, said tab member mounted to the outer surface of said cap by the frictional engagement of said clip portions with said respective openings, the curvature of said tab member shaped to conform to the curvature of said cap, and friction material applied to the outer surface of said tab member.

2,839,211
HAND CUTTER
Henry N. Fairbanks and Orla E. Thayer, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application February 14, 1956, Serial No. 565,503
8 Claims. (Cl. 216—29)



1. In a film mounting device, the combination with a mounting station, a film guide along which a film strip is moved to position an image area of said strip in registry with said station, means to sever said positioned image area from said strip, a supply of mounts, a guide connecting said supply and said station and along which mounts may be moved individually into position at said station to receive the severed image area, a projection formed on the top surface of each mount, and means movable into engagement with said projection to move a mount along the mount guide to said station.

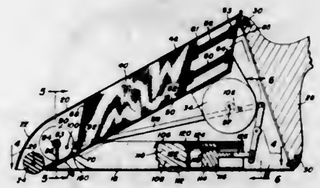
2,839,212
APPLICATOR FOR GUMMED REINFORCEMENTS
Eugene Forshey, San Diego, Calif.
Application August 2, 1955, Serial No. 526,040
1 Claim. (Cl. 216—34)



An applicator for annular gummed reinforcement patches, said applicator comprising: a housing having a pressure head at one end, and a bore extending through

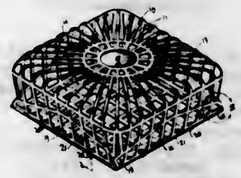
said pressure head and a major portion of the housing; a magazine telescoped in said bore and extending outwardly beyond said pressure head when in operative position; an enlargement on the outer end of said magazine to prevent inadvertent removal of reinforcement patches stacked thereon during use of the applicator; and a guiding pin telescopically and resiliently mounted on the outer end portion of said magazine, said guiding pin being hollow and having a tip of resilient material, said tip being removable to adapt the guiding pin for insertion over the upper ends of vertical page-holding pins found in certain notebooks of loose-leaf type.

2,839,213
LIVESTOCK NUMBERING MACHINE
Willie B. Ory, Farwell, Tex.
Application July 13, 1956, Serial No. 597,803
9 Claims. (Cl. 216—51)



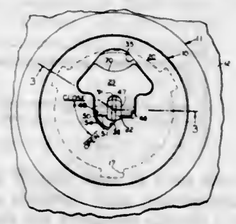
1. A portable livestock numbering machine comprising a body, a label magazine in said body, a pair of rails with which the discharge end of said magazine is in registry, a label extractor in said body and arranged to withdraw labels from said magazine and propel them along said rails, an adhesive applicator between said rails, and means responsive to the passing of labels along said rails for actuating said adhesive applicator to deposit a charge of adhesive onto each label as it passes from said body, and power operated pitman means in said body for operating said extractor.

2,839,214
BASKET FOR BERRIES AND THE LIKE
Walton B. Crane, South Pasadena, Calif., assignor to Allied Plastics Company, Los Angeles, Calif., a copartnership
Application May 9, 1955, Serial No. 506,997
5 Claims. (Cl. 220—4)



1. A basket for containing berries or the like comprising: a polygonal top panel, side panels integrally and flexibly joined along their normally upper edges to the side edges of the top panel, the top panel being generally dome-shaped so as to project above the upper edges of the side panels whereby to permit the basket to be filled with berries to a level above said upper edges and thereby afford an over filled appearance to the basket, the planes of the side panels diverging in a downward direction away from said dome-shaped top panel prior to filling of the basket whereby one basket may be nested inside of another, the side panels being separated at the corners of the basket whereby said side panels may be sprung inwardly to bring adjacent side panels together at said corners, means for retaining the side panels in said inwardly sprung positions, a separate bottom panel, and means for attaching said bottom panel to the normally lower edges of the side panels.

2,839,215
FILLER CAP ASSEMBLY
Chester C. De Pew, Farmingdale, N. Y., assignor, by direct and mesne assignments, to Chester Corp., Wilton, Conn., a corporation of Connecticut
Application July 8, 1955, Serial No. 520,736
2 Claims. (Cl. 220—25)



1. A filler cap assembly for a tank, and an apertured adapter therefor provided with a downwardly curved annular flange and a slotted ring at the lower end of the flange, said assembly including a closure plate provided with a downwardly and inwardly inclined outer peripheral surface having an annular groove therein and formed along its upper and lower outer edges, respectively, with downwardly and upwardly inclined shoulders giving the groove a generally dovetailed contour, and a resilient O ring in the groove, said O ring having a cross-sectional diameter greater than the distance between the upper and lower shoulders, said shoulders preventing movement of the O ring out of the slot when its circumference or cross-sectional diameter increases or decreases due to expansion or shrinkage, means for compressing the O ring against the downwardly curved portion of the annular flange, said curved portion having a radius less than the cross-sectional radius of the O ring, said means including a stud rotatably mounted centrally of the closure plate, a clamping plate formed with outwardly extending clamping fingers and secured at the lower end of the stud, spaced lugs carried around the lower periphery of the closure plate which are contacted on one side thereof by the clamping fingers when the clamping plate is rotated to unlocked position to permit the lugs and fingers to pass through the adapter slots, the opposed vertical edges of said lugs contacting the opposed edges of said adapter slots and preventing rotation of the closure plate in either direction during rotation of the stud and clamping plate to locked and unlocked position, the clamping plate being provided with shoulders forming stops which contact the opposite sides of said lugs when the clamping plate is rotated to locked position, a handle pivoted at the upper end of the stud and provided with a camming surface to draw the fingers upwardly into engagement with the adapter ring and move the O ring downwardly into firm engagement with the curved adapter flange.

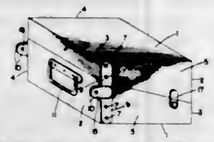
2,839,216
ARRANGEMENT FOR THE CLOSING RING OF A FLOATING ROOF FOR MINERAL OIL TANKS AND TANKS FOR SIMILAR PRODUCTS
Robert Albert Maurice Schenck, Antwerp, Belgium
Application April 26, 1956, Serial No. 580,824
Claims priority, application Belgium March 1, 1956
5 Claims. (Cl. 220—26)

5. Floating roof arrangement for a liquid storage tank, comprising a substantially flat cylindrical body floating centrally on the surface of the liquid contained in said storage tank, a plurality of flexible ring segments

made of steel joined together by means of vertical flexible strips made of synthetic rubber, to form an expansible ring arrangement applied against the inner face of said storage tank so as to fit tightly all along the periphery of said inner face, the upper and lower edges of said ring segments being bent inwards, a plurality of lips projecting inwards from said ring arrangement at spaced points along its periphery, each of said lips being provided with a suspension element, a plurality of lips projecting outwards from the cylindrical surface of said floating body at correlated spaced points along said cylindrical periphery, said outwards projecting lips corresponding one with each of said inwards projecting lips of said ring arrangement, said outwards projecting lips each comprising a circular elongated slot sloping at about 45° and receiving the corresponding one of said suspension elements of said inwards projecting lips of said ring arrangement, the width of said slot being substantially equal to the diameter of said corresponding suspension element engaged in said slot, all of said lips extending in vertical planes, and an annular membrane fixed between the upper edge of said ring arrangement and the upper edge of said cylindrical floating body, said membrane being made of synthetic rubber.

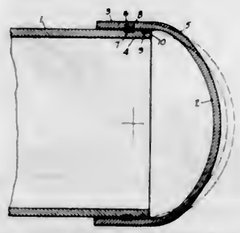


2,839,217
PORTABLE CONTAINER FOR MILITARY CAPS
Arthur G. Trudeau, Middlebury, Vt., assignor to Louisville Cap Corporation, Louisville, Ky., a corporation of Kentucky
Application November 23, 1956, Serial No. 623,978
1 Claim. (Cl. 220—32)



In a container of the character described, a body comprising a bottom, a vertical front and rear walls, and vertical side walls, the rear wall being of greater height than the front wall, and the side walls having upper edges which slope from the upper edge of the rear wall to the upper edge of the front wall, a cover comprising a top, vertical front and rear walls, and vertical side walls, the rear wall of the cover being of the same height as the front wall of the body, the front wall of the cover being of the same height as the rear wall of the body, and the side walls being identical with the side walls of the body, and means for pivotally connecting the cover to the body, whereby the cover may be swung from a position in which its top is coplanar with the bottom of the cover to a closed position in which the front wall of the cover is coplanar with the front wall of the body, the rear wall of the cover is coplanar with the rear wall of the body, and the side walls of the cover are coplanar with the side walls of the body, thereby providing a closed container of uniform height, said means comprising flat hinge plates secured to the side walls of the body adjacent the rear wall of the body, said hinge plates having ears which project rearwardly from the upper ends of said hinge plates when the body of the container is disposed with its bottom on a flat horizontal surface, and identical flat hinge plates secured to the side walls of the cover adjacent the rear wall of the cover, said last-named hinge plates having ears which project rearwardly from the lower ends of said last-named hinge plates when the cover is in closed position over the body, said last-named hinge plates being offset laterally from the planes of said first-named hinge plates, and pivot pins interconnecting the ears of the first and last-named hinge plates, said pins having their axes midway of the height of the container when in closed condition.

2,839,218
PRESSURE VESSEL CLOSURE
Frederick K. Zerbe, Houston, Tex., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application July 6, 1954, Serial No. 441,471
1 Claim. (Cl. 220—46)



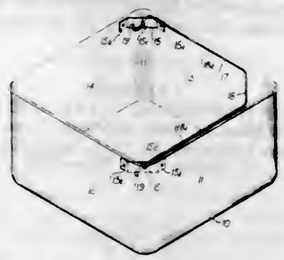
In a high pressure vessel having a cylindrical shell and end closures therefor, a removable closure at one end of said shell comprising, a substantially ellipsoidal head member having a substantially cylindrical skirt portion loosely overlying the end of said shell and telescoping the same in radially spaced relation thereto, said head member being flexible at the operating pressures for said vessel to effect an elastic deformation of the head toward a hemispherical shape under load, sealing means disposed circumferentially of the vessel and bridging the space between said head skirt and said shell near the outer end of the latter, and a removable locking band disposed in mating annular grooves in said shell and said head skirt spaced farther from the end of the shell than said sealing means, whereby the higher the pressure in said vessel the greater the deformation of said head member and the greater the confinement of said sealing means between said head skirt and said shell to effect a tight seal therebetween.

2,839,219
RESINOUS POLYAMIDE COMPOSITION AND PROCESS OF PREPARING THE SAME
James H. Groves, Lombard, and Gerald G. Wilson, Kankakee, Ill.; said Wilson assignor to General Mills, Inc., a corporation of Delaware
No Drawing. Application November 30, 1953
Serial No. 395,264
8 Claims. (Cl. 220—81)

1. A resin composition having a substantially stable melting point when held in a molten state, comprising a homogeneous blend of from 60 to 75% by weight of polyamide Resin A and from 25 to 40% by weight of a polyamide Resin B, said Resin A being the reaction product of a polymeric fat acid and a polyalkylene polyamine, the polyalkylene polyamine being employed in a ratio of 1.3 to 3.0 equivalents of amine per equivalent of carboxylic acid, said Resin A having been subjected to a bodying treatment at 200° to 300° C. to effect an increase in Gardner-Holdt viscosity of at least one letter, said Resin B being the reaction product of an alkylene diamine and a mixture of a polymeric fat acid and a polycarboxylic acid selected from the group consisting of aliphatic and aromatic polycarboxylic acids in

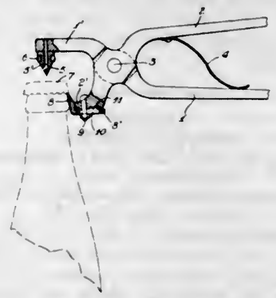
which the carboxyl groups are separated by from 3 to 8 carbon atoms, the blend of Resin A and Resin B having been treated at a temperature within the approximate range of 200° to 220° C. for a time sufficient to effect an amide interchange between the resins.

2,839,220
PAILS
Vincent A. Carlin, Milwaukee, Wis.
Application August 12, 1957, Serial No. 677,536
4 Claims. (Cl. 220—95)



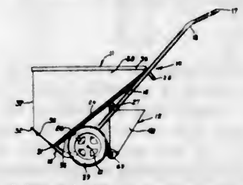
1. A pail comprised of side walls defining a non-circular enclosure closed off at one end with a bottom wall; such side walls at their areas of juncture defining corner areas; brackets secured to the side walls in the corner areas and having apertures therein; a singular handle having arm portions generally following two contiguous side walls and a hand grip portion interconnecting the arm portions; the arm portions terminating with free ends which are bent into generally S-shaped configurations with the upper legs of the S passing over the brackets, the intermediate legs of the S passing through the bracket apertures and serving as the pivots for effecting swinging of the handle and the lower legs of the S doubling back and passing beneath the brackets, whereby such lower legs engage the brackets to limit swinging movement of the handle in either handle raising or handle lowering direction.

2,839,221
DEVICE FOR TAPPING UNDER PRESSURE A GAS CONTAINING LIQUID FROM A BOTTLE OR A CAN, FOR INSTANCE BEER
Pierre Demaret, Binche, Belgium
Application January 30, 1956, Serial No. 562,350
Claims priority, application Belgium February 25, 1955
5 Claims. (Cl. 222—82)



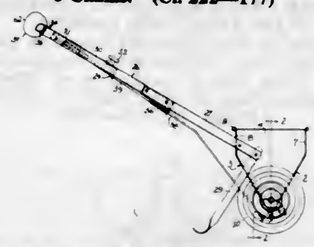
1. A device for tapping pressurized liquid containers comprising handle means, apertured piercing means carried by said handle means adaptable for perforating the cover of a container and for discharging the liquid contained therein therethrough, cover gripping means carried by said handle means, said cover gripping means including a prong reduced to the form of a narrow tooth located on a straight line extending from the apertured piercing means in the longitudinal direction of said handle means, and serving as a fulcrum for effecting perforation of the cover by said piercing means in response to urging of said piercing means and of said gripping means by said handle means towards the top and the bottom parts, respectively, of the cover.

2,839,222
MULTI-PURPOSE WHEELED IMPLEMENT
Clement J. Thelander, Sterling, Ill., assignor to Buffalo Eclipse Corporation, North Tonawanda, N. Y., a corporation of New York
Application November 16, 1955, Serial No. 547,109
9 Claims. (Cl. 222—177)



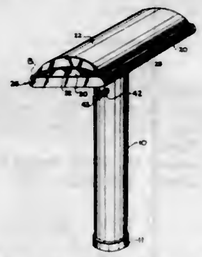
1. A wheeled household tool comprising a hand truck including a frame having a handle portion at its upper end and support wheels mounted at the lower end thereof, a spreader attachment including a spreader hopper having an open top, a dispensing mechanism at the lower end of said hopper including an operating roller disposed outside of said hopper, means for attaching said spreader hopper to one side of said frame intermediate the ends of the latter with the operating roller in engagement with one of said wheels to operate the dispensing mechanism as the cart is advanced, a storage bin for loose material, and means attaching said storage pin to said frame at the other side thereof.

2,839,223
SEED AND FERTILIZER SPREADER
Harry A. Liljenberg, Cleveland, Ohio, assignor to Modern Tool & Die Company, Cleveland, Ohio, a corporation of Ohio
Application September 6, 1956, Serial No. 608,403
6 Claims. (Cl. 222—177)



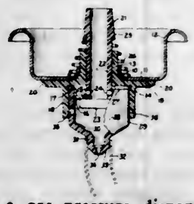
1. A spreader for distributing material comprising a wheeled hopper having discharge openings, a handlebar assembly attached to said hopper, said handlebar assembly including freely rotatably supported handle means crosswise thereof, shiftable shutter means arranged to be shifted to open and close the discharge openings, spring-actuated control means for said shutter means coupled therewith for yieldingly shifting same to open the discharge openings, and shifting means coupled only with the freely rotatable handle means, said shifting means arranged to permit independent rotation of the rotatably supported handle means and independent action of the spring-actuated shutter control means and said shifting means by substantial rotation of the handle means adapted to be shifted into engagement with the spring-actuated shutter control means and actuate same to effect closing of the discharge openings.

2,839,224
LATHER DISPENSER IN A RAZOR
John Lipka, New York, N. Y.
Application April 30, 1956, Serial No. 581,696
2 Claims. (Cl. 222—191)



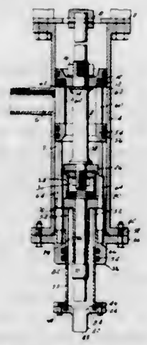
1. A dispensing means for safety razors comprising a hollow handle having a movable spring-pressed sealing disk, said disk constituting a partition for dividing the handle into upper and lower chambers, said disk serving as the floor of the upper chamber for holding a supply of lather, a coil spring in the lower chamber urging said movable sealing disk upwardly, a post detachably connected to the handle, a flat hollow box-like member for holding and dispensing lather connected to the handle by said post, said box-like member having opposed lather dispensing slots, means of communication between the upper chamber and the hollow box-like member for supplying lather to the interior of said box-like member, said means of communication including a port leading from the top of said upper chamber, said post having a longitudinal bore communicating with the bore leading from the top of the upper chamber, and a diametral bore in the post communicating with said longitudinal bore, said diametral bore communicating at both ends with the interior of the box-like member, and manually actuated valve mechanism interposed between the bore leading from the upper chamber and the longitudinal bore in the post for controlling passage of lather through said bores.

2,839,225
DISPENSER VALVE PROVIDING CONTROLLED FLOW AND QUICK GASSING
Jack W. Soffer, St. Louis, Mo., and Donald M. Kitterman, Kansas City, Kans., assignors to Development Research, Inc., St. Louis, Mo., a corporation of Missouri
Application June 18, 1956, Serial No. 591,900
1 Claim. (Cl. 222—394)



For use with a gas pressure dispensing container, a combined gassing and discharge valve mechanism including an apertured top container wall, a substantially rigid valving member having a stem portion penetrating said apertured top wall and supported exterior of the container, the valving member having a head within the container, a substantially rigid hollow nipple having an upper rim, a cylindrical side wall including a gassing aperture and a bottom wall having a nipple inlet orifice, and a dip-tube secured thereto and communicating therewith, together with a unitary elastic annular seal member positioned against the inner surface of the top wall of the container, the seal member having a valve seat portion at its underside, a groove around the valve seat portion wherein the nipple rim is received, an elastic skirt portion radially outward of said groove and extending downward into the container, the skirt portion having an unsupported outer surface exposed in its entirety to the gas pressure within the container and an inner surface grasping the outer surface of the cylindrical nipple wall and closing over the gassing aperture thereof, the nipple being supported within the container by said elastic skirt portion, the seal member further having an unsupported free-edged flexible flange presented against the inner surface of the container top wall radially outward of the skirt portion and held in place against said inner wall surface by gas pressure within the container.

2,839,226
ANTI-DRIP DISPENSING VALVE AND NOZZLE
William M. Ross, Memphis, Tenn.
Application November 21, 1955, Serial No. 547,961
12 Claims. (Cl. 222—446)

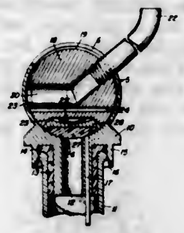


1. A dispensing device comprising a fixed casing defining a chamber having an inlet, a nozzle having an outlet, means mounting said nozzle in said casing for telescoping movement between inwardly retracted and outwardly extended positions with respect to the fixed casing, a valve in said chamber for controlling flow of fluid from said inlet to said nozzle outlet, a valve seat movable in said casing, said valve being engageable with said valve seat and movable between open and closed position with respect to said valve seat, and means connecting said valve and nozzle for extending and retracting the nozzle respectively in accordance with the opening and closing movement of said valve, said valve seat being engaged for movement by said valve when said nozzle is moved to the retracted position.

2,839,227
BOTTLE CLOSURE
Joseph D. Wilson and Cecil P. Burlinson, Sacramento, Calif.
Application August 4, 1955, Serial No. 526,471
2 Claims. (Cl. 222—484)

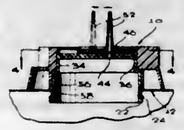
1. A dispensing closure of the character described comprising: a cap for mounting on a bottle and including a tubular stem engageable therein, a resilient sleeve on said stem for sealing the bottle and frictionally securing the cap thereon, a substantially circular housing integral with the cap and communicating with the stem, said housing having a peripheral, circumferentially extending slot therein, an air tube in the cap communicating with the housing, a core mounted for oscillation in the housing and having a radial passage therethrough for communication with the tubular stem, a pouring spout on the core communicating with the passage and operable in

the slot, said core further having a vent therein for communicating with the tube and the slot when the passage is in communication with the stem, and a valve on the core for closing and sealing the stem when the passage is out of communication therewith, said core still further



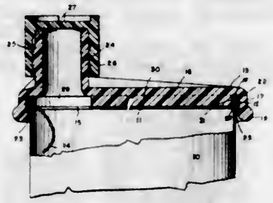
having a peripheral recess therein, said valve comprising a backing plate mounted in the recess, a resilient sealing element mounted on said backing plate, and a bowed spring in the recess engaged with the backing plate for yieldingly urging the sealing element outwardly against the housing.

2,839,228
DISPENSING DEVICE
Bernard B. Levine, New York, N. Y.
Application August 30, 1957, Serial No. 681,345
4 Claims. (Cl. 222—537)



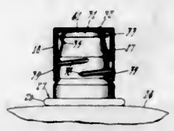
1. A dispensing device for attachment to a container top provided with a discharge opening comprising a cap adapted to be mounted on said container top so as to bridge and close the discharge opening thereof, a neck rising from said cap and having opposed side walls and an end wall extending between each of the adjacent ends of said side walls, a shelf positioned below and spaced from the upper end of said neck and bridging the space between said side and end walls, said shelf having on its upper face a groove extending along the portion thereof adjacent each of said neck side walls, there being a dispensing hole in the portion of said shelf between said grooves and spaced from one of said neck end walls, a slide member of a width so as to fit between said neck side walls and of a length less than the length of said shelf positioned within said neck adjacent to and spaced above said shelf with one end edge contiguous to said one neck end wall, a runner extending along each of the side edges of said slide member and depending therefrom, a web extending along and depending from the portion of said slide member between and spaced from said runners, the runners of said slide member resting within and slidably engaging said grooves with the web of said slide member supported upon and frictionally engaging the intermediate portion of said shelf, an upstanding dispensing nozzle on the medial portion of said slide member normally in registry with said shelf dispensing hole, said slide member being selectively movable in response to a manually applied force from the position in which said nozzle is in registry with said hole to a position in which said nozzle is out of registry with said hole, and means carried by said neck side walls and engaging said runners for holding the slide member in either of its selected positions.

2,839,229
SEAMED METAL CONTAINER WITH PLASTIC COVER FOR THE SEAM AND PLASTIC POURING SPOUT
Edward E. Scheswohl, Philadelphia, Pa., assignor to Crown Cork & Seal Company, Inc., Philadelphia, Pa., a corporation of New York
Application June 14, 1955, Serial No. 515,276
8 Claims. (Cl. 222—567)



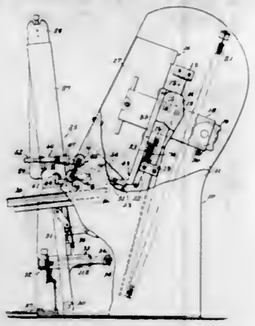
1. A container having a body and a metal end secured thereto by an upstanding seam, said metal end having a substantially flat upper surface provided with an opening therein, and a cover of plastic material having a groove for frictionally form-fittingly, resiliently receiving said seam to form a sealing fit therewith, said cover having an upstanding pouring spout communicating with an opening in said end, said cover having a portion presenting a substantially flat surface for engaging the flat surface of the upper end of said metal end in substantially surrounding relation to said opening to provide a seal therefor.

2,839,230
DISPENSING NOZZLE WITH NON-DRIP COLLAR
Ralph K. Pottle, Georgetown, Conn., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 9, 1954, Serial No. 422,072
3 Claims. (Cl. 222—571)



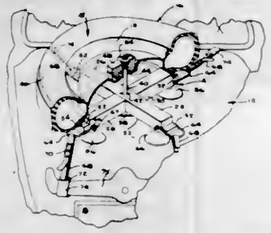
1. A dripless sealable nozzle of resilient plastic material for dispensing a corrosive liquid from a sheet metal container, comprising an upstanding tubular member having an unobstructed outer wall and a smooth walled central bore terminating at its outer end in a relatively wide dispensing mouth, said nozzle member having a laterally extending peripheral flange on its inner end for securing the nozzle to the open end of said container, a thin laterally extending annular collar integrally formed on the outer end of said nozzle, said collar including a flat narrow upper sealing face surrounding the nozzle mouth and thence tapering downwardly and outwardly in a smooth annular face terminating in a sharp peripheral edge spaced laterally outwardly from and overhanging the immediately subjacent upstanding unobstructed outer nozzle wall to constitute a stop barrier preventing the gravital flow of residual liquid against said nozzle wall, and a gasketless cap for closing said nozzle, said cap having a flat top wall for sealing engagement against said narrow sealing face of said thin collar without an interposed gasket.

2,839,231
SLEEVE PRESS OPERATING MEANS
Louis N. Strike, Salt Lake City, Utah, assignor, by mesne assignments, to The American Laundry Machinery Company, a corporation of Ohio
Application January 3, 1956, Serial No. 557,036
11 Claims. (Cl. 223—73)



1. In a sleeve press, the improvement therewith comprising setting means for a pressing member of said press, said means comprising a pivoted arm having a handle, means carried by said arm to generate a beam of light for gaging the adjusted position of the arm, and a brake for said arm to hold the same in adjusted position to enable release of the handle thereof by the operator.

2,839,232
SPARE TIRE AND WHEEL ASSEMBLY CARRIER
Charles K. Homeier, Oak Park, Ohio
Application June 29, 1956, Serial No. 594,941
2 Claims. (Cl. 224—42.12)



1. In combination a spare wheel and tire assembly, said wheel having a rim including a tire retaining flange, a base having a center portion and radial arms having terminal ends having upwardly opening notches therein, said assembly overlying said base with the related tire retaining flange engaged in said notches whereby said assembly is maintained in centered relation to said base, assembly clamping means on said base engaged over said wheel, and mounting means on and depending from said arms, bolts extending crosswise through said arms at their terminal ends, said bolts having ends extending beyond the opposite sides of the arms, U-shaped strap loops having legs terminating in apertured portions journaled in said bolt ends, and loop retaining nuts on said bolt ends.

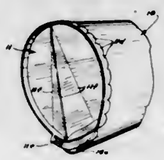
2,839,233
STEP LADDER
Roxton C. McKinnie, Los Angeles, Calif.
Application June 22, 1956, Serial No. 593,090
1 Claim. (Cl. 228—29)

In a step ladder including a pair of front legs supporting a plurality of steps therebetween and a pair of rear legs secured at their upper ends adjacent said front legs for scissoring movement from an open to a closed position, and a co-operating pail shelf, the combination comprising: shelf support means secured to said pail shelf and pivoted between said rear legs for arcuate swinging movement of said shelf about a horizontal axis from a substantially horizontal position, when said ladder is open, towards a vertical position as said ladder is closed, said shelf support means extending towards said front legs and terminating under one of said steps; spreader means disposed between said front and rear legs below said pail shelf, said spreader means comprising pivoted link members having their free ends respectively pivoted to said front and rear legs; and shelf lever means pivoted at one end adjacent to said pail shelf at a point horizontally



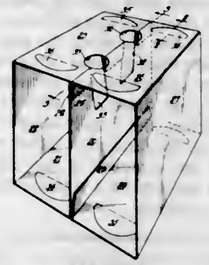
beyond both said front and rear legs so that the point at which said shelf support means is pivoted between said rear legs lies between said one end of said lever means and said one of said steps, said lever means being pivoted at its other end to the one of said pivoted link members pivoted to said rear legs, at an intermediate point thereon, whereby the load upon said pail shelf is transmitted to said spreader means, thereby relieving strain upon said rear legs at the pivot point of said shelf support means, and whereby movement of said pail shelf from a horizontal position towards a vertical position causes said link members to fold together to close simultaneously the front and rear legs of said ladder.

2,839,234
CONTAINER WITH POURING SPOUT AND OPENING
John G. O'Neil, Minneapolis, Minn., assignor to Weinon Corporation, St. Paul, Minn., a corporation of Minnesota
Application November 30, 1951, Serial No. 259,185
2 Claims. (Cl. 229—7)



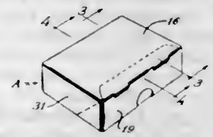
1. A cylindrical container made of strong heavy paper or light cardboard having a cap thereon of flexible material with a depending flange extending about the top portion of said container, said flange having a portion thereof forming a tab of appreciable circumferential extent, the top of said cover having creases formed therein, two of which extend from approximately the ends of said tab and converge to a point diametrically opposite the center of said tab and the other of which extends from substantially the center of said tab and across said cover whereby said tab can be lifted and said container and said top compressed transversely of said creases without creasing the cylindrical wall of said container to form a semi-cylindrical spout at said tab, said cover folding upwardly along said creases.

2,839,235
CAN HOLDER AND BLANK THEREFOR
Francis A. Childsey, Jr., Wayne, Pa., assignor to Container Corporation of America, Chicago, Ill., a corporation of Delaware
Application December 7, 1955, Serial No. 551,551
2 Claims. (Cl. 229—40)



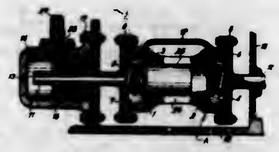
1. A paperboard holder for two rows of chime end cans comprising top, bottom and side walls formed into an open end tube, said top and bottom walls each being composed of two partial wall panels, a central partition panel integrally joined to one of the bottom partial wall panels along its inner edge, an attaching strip integrally joined to the other of the bottom partial wall panels along its inner edge, said attaching strip being secured to said partition panel, an inwardly extending flange member integrally joined to each of the top partial wall panels along its inner edge, said flange members being integrally joined and secured to each other in face-to-face relation, said partition panel being secured to one of said flange members, and can-retaining tab means formed integrally with each of said partial wall panels.

2,839,236
CARTON CLOSURE
Robert M. Dunning, St. Paul, Minn., assignor to Waldorf Paper Products Co., Ramsey County, Minn., a corporation
Application October 14, 1953, Serial No. 386,040
8 Claims. (Cl. 229—45)



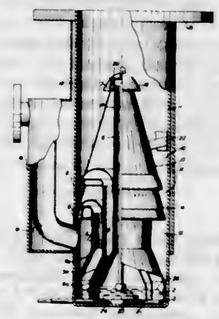
1. A carton lock for locking a carton cover to a carton body, the carton including a carton body, the carton body including a bottom and rectangularly arranged side walls thereon, a flange foldably connected to the upper edge of one of said side walls, and projecting means on said flange and foldable therewith extending beyond the line of fold connecting the flange and said one side wall, and extending outwardly from said one side wall when said flange is folded inwardly, a carton cover hingedly connected to the side wall opposite said one side wall, the carton cover including a cover panel, a side wall panel depending from an edge thereof and designed to telescope over said one side wall of said carton body, means cooperable between said cover panel and said depending side wall panel for holding said depending panel in substantially right angular relation to said cover panel, said last named means holding said depending panel in close proximity to said one side wall of said carton body as these panels are telescoped with said one side wall panel and flange inwardly of said cover panel and said depending side wall panel, and shoulder means on said depending panel over which said projecting means may pass during this telescoping operation, said shoulder means engaging said projecting means when the carton body and carton cover are fully telescoped to resist opening of said carton.

2,839,237
ELECTRIC OSCILLATING COMPRESSOR, PARTICULARLY FOR SMALL REFRIGERATORS
Heinrich Dölz, Berlin-Schoneberg, Germany, assignor to Sofix Aktiengesellschaft, Vaduz, Lichtenstein, a corporation of Lichtenstein
Application September 16, 1955, Serial No. 534,797
Claims priority, application Germany September 27, 1954
10 Claims. (Cl. 230—55)



1. An electric oscillator driven compressor comprising, in combination, a compressor and an electric reciprocating motor having a driving armature reciprocated rectilinearly, said compressor comprising a cylinder connected to said armature of the electric reciprocating motor to be reciprocated thereby, a freely movable piston slidably mounted in said cylinder and acted upon by forces of inertia so as to reciprocate relative to said cylinder for compressing a gaseous medium within said cylinder in at least one direction of its reciprocating movement, inlet and outlet means for said medium, and means for controlling at least said outlet means.

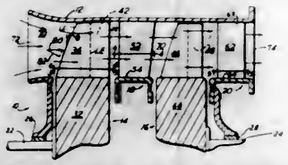
2,839,238
FRACTIONATING OIL DIFFUSION PUMPS
Wilhelm Bock, Hanau (Main), Germany, assignor to W. C. Heraeus G. m. b. H., Hanau (Main), Germany, a German body corporate
Application October 14, 1954, Serial No. 462,318
Claims priority, application Germany October 21, 1953
13 Claims. (Cl. 230—101)



1. In a multi-stage oil diffusion pump comprising a vacuum-tight housing forming the outer wall of a series of interconnected oil diffusion chambers including a high vacuum stage, a fore-vacuum stage and at least one intermediate pressure stage, a sump containing an organic oil bath in the bottom part of the housing, heating means mounted in said sump and adapted to produce oil vapors constituting the operating medium of the pump, diffusion nozzles, and a plurality of oil vapor guide tubes each terminating in a diffusion nozzle in a respective one of said stages, said tubes being nested in each other and in said housing whereby the end portions thereof are immersed in the oil bath dividing the oil bath into adjacent and

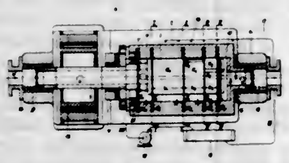
intercommunicating vertical zones: a substantially horizontally arranged dividing element in said sump for separating the oil bath into superposed horizontal layers, said element forming a baffle means deflecting vapor bubbles produced by said heating means in the horizontal oil bath layer below the element to at least one of said oil vapor guide tubes other than the guide tube leading to the high vacuum stage.

2,839,239
SUPERSONIC AXIAL FLOW COMPRESSORS
Edward A. Stalker, Bay City, Mich.
Application June 2, 1954, Serial No. 433,890
9 Claims. (Cl. 230—122)



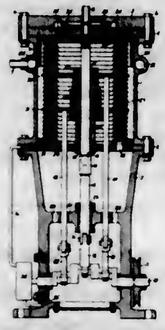
4. In combination in an axial flow compressor for an elastic fluid, a case, an axial flow rotor in said case having an axis of rotation, a plurality of stator blades positioned in said case downstream adjacent to said rotor with stator flow passages between said stator blades, said rotor including a hub and a plurality of peripherally spaced main blades thereon with rotor flow passages therebetween for conduction of said fluid at supersonic speed relative to said rotor, said case, said hub and said blades cooperating to provide each said rotor passage with a front portion of decreasing cross sectional area rearwardly therealong succeeded by a portion of rearwardly increasing cross sectional area defining a throat between the front and rear sides of said rotor, each said rotor blade having its leading edge inclined rearwardly by at least 30 degrees to a radial line from said axis through said edge to provide velocity components of said fluid of subsonic values normal to said edge, an auxiliary element in each said rotor passage extending radially thereacross from the top to the bottom thereof with the leading edge of each said element positioned downstream from said throat and directed substantially more normal to said axis and said flow in said rotor passage than the leading edge of each of said main blades to precipitate a shock wave at each said element and reduce said supersonic velocity to a subsonic value for entrance into said stator flow passages, and means mounting said rotor in said case for rotation of said rotor blades at a tip speed relative to said case greater than the velocity of sound in said fluid immediately ahead of said rotor blades.

2,839,240
COMPRESSION AND EXPANSION MACHINES FOR GASEOUS BODIES
Karl Bechtold, Ausmahle Bezirk Hamburg, Germany
Application February 28, 1956, Serial No. 568,391
Claims priority, application Germany March 3, 1955
3 Claims. (Cl. 230—140)



1. A rotating compression and expansion machine comprising a rotatable piston disposed eccentrically in a rotatable drum for simultaneous uniform rotation therewith, said piston being provided with radially movable slides engaging the internal surface of said drum, a plurality of separation plates of different axial spacings secured to said piston and subdividing the space between the external surface of said piston and the internal surface of said drum in the axial direction into a plurality of axially-aligned chambers of crescent-shaped cross-section, said plates being provided with pairs of radial slots communicating with said chambers and said drum being provided with radial grooves for receiving the peripheral portions of said plates, said radial grooves being filled with a sealing fluid in which said peripheral portions are immersed upon rotation of said drum, the slots in the separation plates interconnecting the axially-aligned chambers and being relatively circumferentially offset so that gaseous fluid drawn into the chamber at one end of said drum is caused to pass seriatim in a sinuous path through said axially-aligned chambers.

2,839,241
SEALING DEVICE
Lowell M. Kurtz, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application January 16, 1945, Serial No. 573,062
8 Claims. (Cl. 230—172)

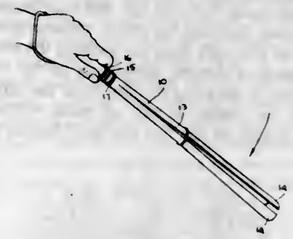


1. A reciprocating compressor comprising a stationary member having a cylinder therein, a piston in said cylinder, means for reciprocating said piston to compress gas upon movement toward one end of said cylinder, a longitudinally expansible cylindrical bellows having one end sealed to said piston and its other end sealed to said stationary member near the other end of said cylinder for providing a fluid-tight seal between said piston and the wall of said cylinder, said bellows being alternately expanded and contracted by the reciprocation of said piston, reciprocable supporting means for dividing said bellows into a plurality of sections whereby the resonant frequency of vibration of each of said sections is substantially higher than the rate of reciprocation of said piston, and means for reciprocating said supporting means in synchronism with said piston and with strokes proportioned in accordance with the spacing of said sections to provide uniform contraction and expansion of said bellows and thereby minimize danger of breakage of said bellows.

2,839,242
ANIMAL TRAINING DEVICE
Harland W. Meistrell, Great Neck, N. Y.
Application May 18, 1955, Serial No. 509,331
5 Claims. (Cl. 231—2)

1. An animal training device comprising an elongated tubular member having a handle section at one end, and an application section forming the other end, said application section being formed with a plurality of parallel elongated slits extending up to the handle section, said

elongated slits dividing said application section into a plurality of arcuate sections which are normally in edge-



to-edge contact and being adapted to be brought forcibly into contact with the animal's body so as to produce a rattling of said arcuate sections.

2,839,243
COMBINATION COIN CONTAINER AND RULER
Ralph B. Miller, Kansas City, Mo.
Application September 20, 1956, Serial No. 610,920
6 Claims. (Cl. 232—5)



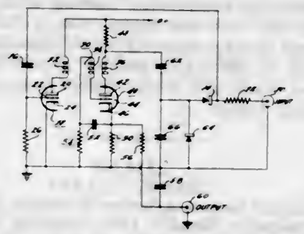
5. A device of the character described including an elongated body member having a coin storage passageway extending longitudinally of said body member and having ends terminating short of the ends of said body member, said body member having a coin insert recess in a side face thereof and connected with one end of said coin storage passageway to provide a coin pass therebetween, said coin insert recess having a ramp sloping inwardly from said side face of the body member and forming a stop shoulder at said one end of the coin storage passageway and forming one side of the coin pass, a resilient lip portion carried by said body member and forming the opposite side of said coin pass and yieldable outwardly from said ramp to pass a coin from the coin recess into the coin storage passageway, a lug on said resilient lip portion and projecting into the coin storage passageway at a point spaced from the stop shoulder to guard the coin pass and divert the coin into contact with the stop shoulder and prevent return of the coin through said pass after it has once cleared the stop shoulder, the opposite end of said coin storage passageway having a coin discharge opening, and closure means carried by said body member for closing the coin discharge opening.

2,839,244
ELECTRONIC MULTIPLIER AND DIVIDER
Rawley D. McCoy, Bronxville, and Leo Wiesner, Kew Gardens, N. Y., assignors to Reeves Instrument Corporation, New York, N. Y., a corporation of New York
Application June 20, 1952, Serial No. 294,752
15 Claims. (Cl. 235—61)



14. An electronic computer system for dividing an applied numerator voltage by an applied denominator voltage comprising in combination a symmetrical electronic gate circuit including first and second triode tubes and having first and second inputs, means adapted for coupling said denominator voltage to the first input of said gate circuit, means adapted for coupling another voltage equal in magnitude and opposite in polarity to said denominator voltage to the second input of said gate circuit, integrating means coupled to the output of said gate circuit, means adapted for coupling a numerator voltage to said integrating means, said integrating means being responsive to said numerator voltage and the output from said gate circuit, and electronic control means coupled in a feedback relationship between the output of said integrating means and said gate circuit, said electronic control means producing a first alternating output voltage coupled to one of said triode tubes and a second alternating output voltage coupled to said other triode tube, said second alternating output voltage being of opposite phase to said first alternating output voltage, said first and second alternating output voltages controlling the time interval during which said gate circuit couples the two applied voltages to its first and second inputs, respectively to said integrating means for maintaining the average current flowing through said integrating means substantially zero, the average value of one of said alternating output voltages varying according to the quotient of said numerator and denominator voltages.

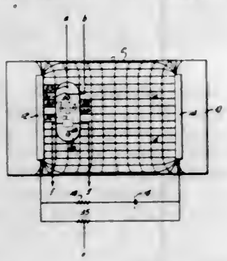
2,839,245
ANALOG DIVISION DEVICE
Robert E. Wilson, Moorestown, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 1, 1952, Serial No. 318,175
11 Claims. (Cl. 235—61)



1. A system for obtaining a voltage proportional to the reciprocal of an input voltage comprising a blocking oscillator having a frequency determined by the frequency of pulses applied thereto, means to derive two outputs from said blocking oscillator, means to convert a first of said outputs into sawooth pulses, means to which said sawtooth pulses and input voltage are applied to produce pulses having a frequency inversely proportional to the amplitude of said input voltage, means to apply said

produced pulses to said blocking oscillator, and means to integrate the second of said outputs to provide a voltage proportional to the reciprocal of said input voltage.

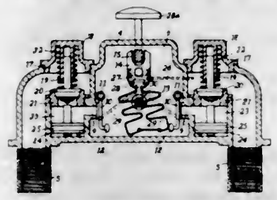
2,839,246
AUTOMATIC FIELD PLOTTER
David H. Andrews, Glen Cove, N. Y.
Application September 20, 1955, Serial No. 535,540
8 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



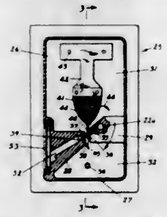
1. An apparatus for automatically plotting the field of a system which obeys Poissons' and Laplace's equations comprising a sheet of electrically conductive paper; electrodes on said sheet which are analogous two dimensional replicas of and in similar geometric relationship as the corresponding elements of said system; means connected between said electrodes for providing a potential gradient therebetween; first and second conductive probes adapted to sense potentials on respective points on said paper when in contact therewith, one of said probes also being adapted to write upon said paper; a movable member upon which said probes are mounted in spaced relation, said member including a plurality of wheels freely rotatable only in planes substantially parallel to an axis of said member and a third freely pivotable wheel for steering said member; means for effecting movement of said member; a source of reference potential; a circuit coupled to the first and second probe and to a point on said reference potential source and responsive to the potentials thereof for providing a first output voltage which is a given proportion of the potential from said point and for providing a second output voltage which is the difference of a first proportion of the potential sensed by said first probe and a second proportion of the potential sensed by the second probe, one of said first and second proportions being much larger than the other of said first and second proportions, means responsive to the magnitude and polarity of a voltage applied thereacross for turning said steering wheel; means for applying said first and second output voltages across said wheel turning means in series opposition and with a polarity to direct said member toward a portion on said sheet where said second output voltage equals said first output voltage.

2,839,247
MIXING VALVES
Emanuel Jorgensen, Sunicroft, Dudley, England
Application March 5, 1956, Serial No. 569,536
Claims priority, application Great Britain March 21, 1955
1 Claim. (Cl. 236—12)

A mixing valve mechanism for hot and cold liquids, comprising in combination a hollow body part defining a mixing chamber provided with a pair of inlets for the hot and cold liquids respectively, and with a liquid outlet, a pair of flap valves freely pivoted in the mixing chamber to co-operate respectively with the inlets for permitting liquid flow into the mixing chamber through the inlets whilst preventing return flow of liquid from the mixing chamber to the inlets, a thermally sensitive element mounted in the mixing chamber between the flap valves in a position from which it is movable by thermal deformation to bear against and move the valves alternatively for varying the proportional flows of hot and cold liquids into the mixing chamber through the inlets, means operable from the exterior of the body part for varying the setting of the thermally sensitive element depending on the temperature at which liquid is required to flow from the mixing chamber through the outlet, a pair of main valves for controlling the supply of the hot and cold liquids to the corresponding inlets, hydraulically operable devices for actuating the main valves, chambers in which the main valves are arranged and through which the hot and cold liquids can be supplied to the corresponding inlets, passage means connecting the hydraulically operable devices to the valve chamber through which cold liquid is supplied to the corresponding inlet, and from which cold liquid has access through the passage means to the hydraulically operable devices for operating the latter, and a manually operable valve for controlling the flow of cold liquid through the passage means.



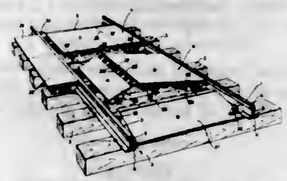
2,839,248
PNEUMATIC CONDITION RESPONSIVE SYSTEM
Miles Lowell Edwards, Portland, Oreg.
Application April 26, 1954, Serial No. 425,668
6 Claims. (Cl. 236—87)



1. A fluid pressure device comprising a housing, an outlet chamber in said housing, a sensing chamber communicating with said outlet chamber, a nozzle in said housing between said outlet chamber and sensing chamber and directed obliquely into said sensing chamber, a receiving orifice in said housing between said outlet chamber and said sensing chamber, said orifice being aligned with said nozzle and directed obliquely into said outlet chamber, a condition responsive element in said sensing chamber, and a vane on said element movable transversely between said nozzle and receiving orifice, said vane being disposed in a plane oblique to the direction of said nozzle and receiving orifice to deflect fluid from said nozzle into said sensing chamber and to deflect fluid expelled from said receiving orifice into said outlet chamber.

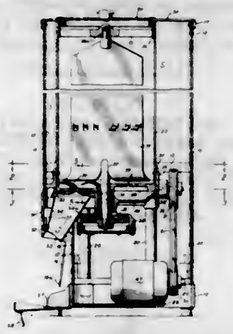
2,839,249
RAILROAD TRACK CROSSING
Frank S. Curtis, Alliance, Ohio
Application June 19, 1956, Serial No. 592,278
4 Claims. (Cl. 238—8)

4. A track crossing for a railroad track having ties and rails with head and flange portions, including adjacent sections between the rails, each section having a side adjacent each rail and having a pair of opposite ends extending transversely of the rails, each section including two plates, each plate having a single edge abutting a corresponding edge on the other plate, the abutting edges of plates of adjacent sections being unaligned with each other, end members at opposite ends of the assembled sections, each member having an end abutting one end of an adjacent section and having a side adjacent each rail, the plates having spaced interfitting lugs along the abutting edges, the lugs on one plate being staggered with respect to and interfitting the lugs on the other plate, the lugs being below the under surface of adjacent plates,



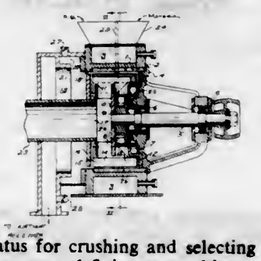
each section having spaced lugs on opposite ends, each end member having spaced lugs on the plate-abutting end, the lugs on opposite ends of one section being staggered with respect to and interfitting the lugs on corresponding ends of adjacent sections and of adjacent end members, the plates having bosses along the sides adjacent the rails fitting between the head and flange of the corresponding rails, each end member having a boss extending from one side at a point near the abutting end of the adjacent section and fitting between the head and flange of one rail, and each end member having a second boss extending from the other side at a point remote from the abutting end of the adjacent section and fitting between the head and flange of the other rail.

2,839,250
ICE CHIPPER
Emory W. Brockman, Bala-Cynwyd, Pa., and Seymour C. Kantor, Forest Hills, N. Y.
Application October 13, 1954, Serial No. 462,079
4 Claims. (Cl. 241—36)



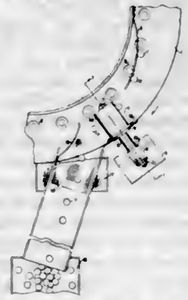
1. In a device of the character described, a framework; a motor mounted on said framework and having a shaft; a sub-frame carried by said framework; a first driven shaft mounted on said sub-frame; a vertical shaft mounted on said sub-frame; gearing between said driven and vertical shafts; a paddle fixedly mounted at its lower end on said vertical shaft to be rotated thereby; a hopper surrounding said paddle and supported on said framework; said paddle being vertically disposed centrally of the hopper and extending laterally well out toward the side wall of the hopper, a second driven shaft mounted in said sub-frame; a cutter bar driven by said second shaft, said bar having cutting portions in communication with the interior of said hopper, said bar being revolvably mounted in said sub-frame; a spout adapted to receive ice discharged from said cutter bar and supported subjacent said bar; and driving means extending between said motor shaft and said first and second driven shafts whereby said driven shafts may be rotated by said motor.

2,839,251
MACHINE FOR CRUSHING, SELECTING AND SIFTING MATERIALS
Pierre Raoul Hippert, Billancourt, France, assignor of one-half to Societe Anonyme Les Ateliers Reunis Broyeurs Forplex, a corporation of France
Application March 16, 1953, Serial No. 342,583
Claims priority, application France March 19, 1952
9 Claims. (Cl. 241—56)



2. In apparatus for crushing and selecting solid materials, casing structure defining a crushing and selecting chamber with an inner cylindrical crushing surface, said chamber having oppositely located end walls and a side wall interconnecting said end walls and defining the periphery of said chamber, a driving shaft rotatably mounted in one of said end walls, an axial air suction duct mounted in the opposite end wall and communicating with said chamber, a revoluble body mounted in said chamber and connected with said driving shaft for rotation thereby, radial vanes mounted on said body and extending from said body into close proximity to the internal cylindrical crushing surface of said chamber, said vanes defining segmental pockets communicating with the axial air suction, crushing means mounted on the outer edge of said radial vanes for co-operating with the crushing surface of said chamber, and an inlet for air and material provided in said side wall over a minor fraction of the periphery of said chamber, said pockets successively coming into register with said inlet during the rotational movement of said revoluble body.

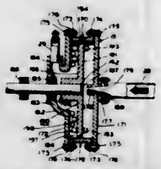
2,839,252
GRADING AND REJECTING DEVICE
Victor C. Hall, Media, Pa., assignor, by mesne assignments, to F. J. Stokes Corporation, Philadelphia, Pa., a company of Pennsylvania
Application November 2, 1954, Serial No. 466,378
4 Claims. (Cl. 241—79)



1. An improved device for grading small hard objects to separate imperfect objects which are structurally weak,

have low density or are oversized, which device comprises a roller of resilient material, means for mounting said roller in spaced position above a hard base on which the objects travel in passing under the roller, said roller being adjustable to provide the required pressure on the objects and said resilient material being such that said imperfect objects are crushed while the remaining objects are not injured, and means for separating the remaining objects from the crushed objects.

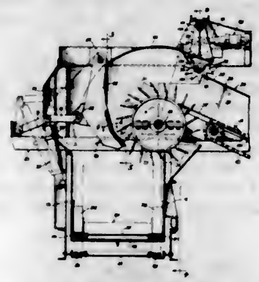
2,839,253
IN-LINE PNEUMATIC-MECHANICAL UNIT PULVERIZERS
John I. Yellott, New York, N. Y., assignor to Bituminous Coal Research, Inc., Washington, D. C., a corporation of Delaware
Application January 12, 1955, Serial No. 481,346
9 Claims. (Cl. 241—101)



1. In a pressurized combustive air feed line of uniform diameter, for feeding a streaming entrainment of combustive air-borne fuel particles into a pressurized combustor, the improvement comprising a pneumatic-mechanical unit pulverizer in the feed line, the pulverizer consisting of a rotor encased in a hermetic casing; driving means for the rotor; an entrant, of a diameter not over one-half the diameter of the feed line, axially disposed in one face of the casing, said entrant receiving the upstream section of the feed line and oriented to direct the pressurized streaming entrainment against an apposing face of the rotor, the axis of the apposed rotor face being provided with an impact surface having the hardness and wear-resistance characteristics of tungsten carbide; cooperating concentric rows of impact blades on at least one face of the rotor and an apposed face of the casing; and a discharge outlet in the casing hermetically coupled to the downstream section of the feed line, the outlet being so constituted and arranged as to cause the streaming entrainment to radially traverse the bladed face of the rotor, whereby when the rotor is driven, and a streaming entrainment of combustive air-borne fuel particles is delivered to the combustor through the feed line, the particles are subjected to myriads of impacts between the fixed and rotating blades and are thereby reduced in size and are fluidized in the carrier air stream.

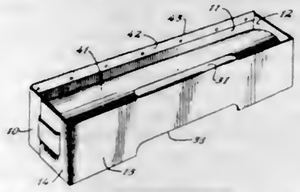
2,839,254
ICING MACHINE
Frederick L. Smith, Maywood, Ill., assignor to Link-Belt Company, a corporation of Illinois
Application March 20, 1956, Serial No. 572,732
13 Claims. (Cl. 241—154)

4. Apparatus for icing railway refrigerator cars, comprising a cylindrical member mounted for rotation about a horizontal axis and having a plurality of picks mounted thereon to extend outwardly therefrom, means for rotating said member, means for moving cakes of ice tangentially of the upper portion of said member for engagement by said picks to break the cakes into pieces of ice of a given average size, primary crushing means selectively movable into and out of an operative position in the tangential path of movement of said cakes for cooperating with said picks to break said cakes into pieces of ice of a smaller average size, and secondary crushing means selectively movable into and out of operative, interpositioned relationship with said picks at



a location that is spaced circumferentially from the point of tangency of said path for cooperating with said picks to provide pieces of ice of a still smaller average size.

2,839,255
WAXED PAPER HOLDER
Reynolds Guyer, White Bear, Minn., assignor to Waldorf Paper Products Company, St. Paul, Minn., a corporation of Minnesota
Application May 18, 1955, Serial No. 509,145
6 Claims. (Cl. 242—55.5)



1. A roll support for supporting an elongated roll of material wound upon a hollow cylindrical core, the support comprising panels foldably connected together and forming a rectangular sleeve including side walls and end walls foldably connected into rectangular relation, the end walls having spaced parallel slots therein, and roll supporting means incuding U-shaped members having parallel sides extending through said slots and into the hollow core to rotatably support the same.

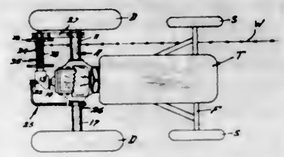
2,839,256
RECORDING APPARATUS
Edwin Arthur Boyan, Dayton, and Frederick C. Geiler, Oakwood, Ohio, assignors to Industrial Analyzer Corporation, Dayton, Ohio, a corporation of Ohio
Application February 2, 1955, Serial No. 485,796
4 Claims. (Cl. 242—56)



1. In a web feeding device for recording apparatus, means for feeding a web along a predetermined path, a combination severing and web presenting device comprising a fixed anvil having an edge adjacent and laterally

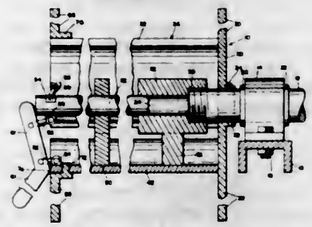
disposed in relation to the web in the path of feeding and near the line of severance, and a rotatable receptacle having a hollow cylindrical cavity with an opening in position to receive the web, and a blade having a serrated edge mounted integrally with the receptacle on one edge of the opening, the blade being so disposed that upon rotation of the receptacle the blade carries the web to the anvil, severs it along the edge of the anvil and carries the severed end of the portion within the receptacle to a position displaced from the path of feeding.

2,839,257
WIRE REEL
Veri I. Chicane, Cottonwood, Idaho
Application December 14, 1953, Serial No. 398,079
2 Claims. (Cl. 242—86.5)



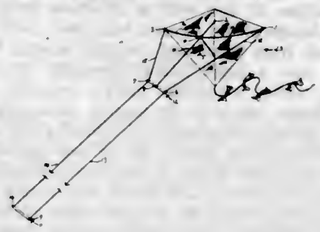
1. In combination with a tractor having a rearwardly presented horizontal power shaft; a wire reel comprising a transverse normally horizontal shaft supported at one end on said tractor for vertical tilting movement about the axis of said power shaft to an axially vertical position; a transmission including a ratio compensating device operably connecting said power shaft and said wire reel; a wire spool having spaced side plates fixed for rotation with said second named shaft; an arbor intermediate said plates and having one end pivotally secured to its companion side plate and the opposed end releasably secured to the opposed side plate for movement of the releasably secured end inwardly to define a tapering configuration toward said releasably secured end; and means on the tractor releasably supporting said second named shaft for rotation at its end opposed to said power shaft in a normal horizontal position.

2,839,258
WIRE WINDING SPOOL MECHANISM
Delbert G. Jacobson, Castlewood, S. Dak.
Application November 2, 1955, Serial No. 544,402
1 Claim. (Cl. 242—110.2)



In a collapsible winding spool, the combination which comprises a driving shaft, a sleeve having a bore extended longitudinally therethrough threaded on the driving shaft, a guide rod slidably mounted in the bore of the sleeve and aligned with the driving shaft, a stationary flange fixedly mounted on the driving shaft, a stationary segment, arcuate in cross section, integral with and extended from the stationary flange, means for supporting the sleeve from the stationary segment, means for supporting the guide rod from the stationary segment, a plurality of movable segments, also arcuate in cross section, positioned to coact with the stationary segment to provide a mandrel, links pivotally connecting the movable segments to the guide rod, a bell crank pivotally connected to the stationary segment, means pivotally connecting one end of the bell crank to the guide rod whereby the guide rod is actuated by the bell crank to, selectively, collapse or expand the removable segments relative to the stationary segment, a removable flange positioned on the extended ends of the segments, and means for anchoring the removable flange on the stationary segment.

2,839,259
KITE CONTROL MECHANISM
Robert L. Mayne, New York, N. Y.
Application March 27, 1956, Serial No. 574,218
4 Claims. (Cl. 244—153)



1. A control mechanism for a kite comprising a bridle, a control rod and right and left-hand control cords each attached at their upper ends to the bridle approximately midway of the ends of the bridle and at their lower ends to the ends, respectively, of the control rod, and a lead cord connecting approximately the midpoint of the bridle to the mid point of the control rod, the control cords being threaded through eyes positioned at points near the outer lateral edges of the flying surface of the kite and the control cords being of such a length as, when the kite is in normal flight, to be slack when so threaded and attached but only slightly longer than necessary to avoid being under tension.

2,839,260
NON-DISPLACEABLE RECEPTACLE
Leon John Jacobi, Jr., Grosse Pointe, Mich.
Application February 8, 1954, Serial No. 408,651
3 Claims. (Cl. 248—146)



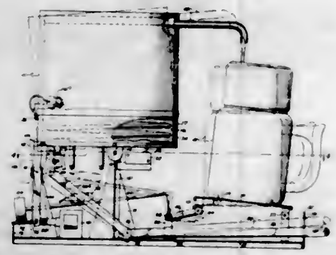
1. A laterally non-displaceable separable receptacle unit comprising a receptacle having a raised bottom with a supporting edge thereon defining a recess beneath said bottom, upper and lower separable holding components disposed within said recess, said upper component being connected to said receptacle, said lower component having a portion extending upwardly into sliding separable engagement with said upper component, and a suction cup secured to said lower component and adapted to releasably anchor said lower component to a smooth sustaining surface, said components also having releasable interlocking elements thereon disposable selectively in locked and unlocked positions respectively, said elements including yielding frictionally-engaging portions spaced axially apart from one another on different levels in said unlocked position when said suction cup is in anchoring engagement with said sustaining surface and interlockingly engageable with one another when said suction cup is moved upward above the level of said supporting edge farther into said recess and out of anchoring engagement with said sustaining surface.

2,839,261
GARMENT HANGER UNIT
Verner E. Sprouse and Trueman P. Jordan, Columbus, Ind., assignors to Versco Corporation, Columbus, Ind., a corporation of Indiana
Application May 2, 1955, Serial No. 505,122
1 Claim. (Cl. 248—303)



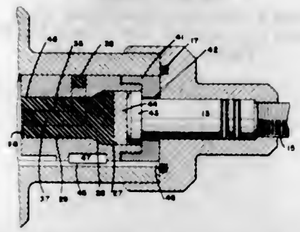
A garment hanger unit for attaching to a wall comprising a generally horizontally disposed channel having a web for bearing against said wall, an upper flange and a lower flange extending respectively from top and bottom portions of said web in directions away from the wall; a hanger made of wire bent upon itself forming a hook end, from which end the wire extends by separate lengths into a hook shape, upwardly through shank lengths, thence extending sharply inwardly over said lower flange, upwardly by lengths contacting said web, turning laterally in opposite directions along and in contact with the upper portion of the web against the under side of said upper flange by separate lengths for substantially equal distances, and finally terminating by lengths, each turned substantially at right angles from those separate lengths and in compressive contact with the underside of said upper flange; and means carried by said web gripping said web contacting lengths of the wire intermediate said upper and lower flanges and retaining said hanger against shifting along and away from said web in cooperation with the wire lengths extending inwardly and outwardly over and under said lower and upper flanges respectively.

2,839,262
LIQUID HEATER AND DISPENSER WITH WEIGHER
John T. Hellyer, Batavia, Ill., assignor of one-half to Robert S. Strom, Wheaton, Ill.
Application July 18, 1955, Serial No. 522,451
16 Claims. (Cl. 249—63)



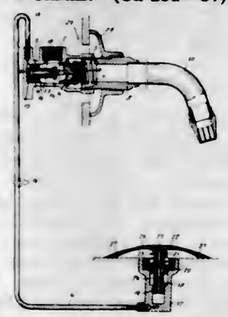
10. A liquid dispenser comprising a support, a tank, adapted to contain liquid, pivotally mounted on a transverse horizontal axis on said support and normally biased to tilt rearwardly about said axis, a continuously open discharge spout connected in open communication with the upper portion of the tank, means for limiting rearward tilting movement of the tank, said tank being tiltable to a forward position for discharging liquid through said spout, a liquid supply conduit operably connected to the tank, valve means for controlling liquid flow through said conduit, means for opening said valve means to admit liquid to the tank in direct response to forward tilting of said tank incident to discharging liquid through said spout, mean for tilting the tank forwardly to liquid discharging position, weighing mechanism including a receptacle receiving platform pivotally mounted on the support in a position for registration with the discharge end of the spout, said mechanism being actuatable in response to the discharge of a predetermined quantity of liquid into the receptacle, means operable, when said tank is tilted forwardly to liquid discharging position, for locking said tank in said position, and means operable in response to actuation of said weighing mechanism for disengaging said locking means and permitting said tank to move to its rearwardly tilted position.

2,839,263
BLOWOUT PREVENTER
James W. Kisling III, Houston, Tex.
Application September 4, 1953, Serial No. 378,576
2 Claims. (Cl. 251—1)



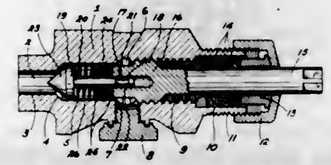
1. A blowout preventer ram construction for sealing against an elongate member, said ram construction including a ram body having a bore extending longitudinally of said body, a groove extending diametrically across the front of said body and intersecting said bore on each side thereof on the front of said body, said groove being smaller in vertical height than the vertical height of said bore at the front of said body, said groove extending along each side of said body, a connecting groove extending transversely over half of said body and intersecting said side grooves between the ends of said body, a resilient packing member fitting in said bore and said grooves and shaped to conform therewith, said packing member having a substantially vertical rear surface and a substantially vertical front surface, and ram closing means for applying a closing force directly to said rear surface to move said packing member and the ram body therewith to a closing position in which said front surface engages said elongate member, the area of said rear surface being larger than the area of said front surface of said packing member to provide a resultant closing force which acts on the body in the same direction as the direction of the closing force which is applied to the packing member.

2,839,264
FOOT-ACTUATED COCK
René Trubert, Viroflay, France
Application May 27, 1955, Serial No. 511,717
Claims priority, application France June 3, 1954
3 Claims. (Cl. 251—57)



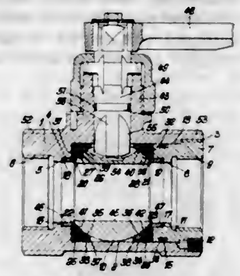
1. A pedal-operated cock, notably for tapping water or other fluids from pressure supply systems, or installations, comprising a cock body, a fluid inlet passage and a fluid outlet pasage in said cock body, a cock plug seat in said cock body which is positioned intermediate said inlet and outlet passages, a main plug in said outlet passage, resilient means normally urging said main plug against said seat so as to close said cock, a cylinder provided in said cock body which is aligned with and positioned on the side of the inlet passage opposite said fluid outlet passage, a piston in said cylinder, a chamber of relatively small dimensions on the side of said piston which is opposite to said outlet passage, a tubular shank formed integral with said piston, a rod connected to said main plug and received with certain diametral and axial clearance within said tubular shank, means for checking the fluid flowing through said axial clearance, a control cylinder remote from said cock, thread-like pipe line means for hydraulically connecting said chamber to said control cylinder, a piston reciprocable in said control cylinder, a control pedal connected to said piston and adapted to be depressed by the foot when it is desired to operate said cock, and spring means for normally urging said control pedal to its inoperative cock-closing position.

2,839,265
DOUBLE FLUID SEAL VALVE
James C. Hobbs, Coral Gables, Fla.
Application March 16, 1954, Serial No. 416,579
1 Claim. (Cl. 251—85)



A double fluid seal comprising a valve body having a fluid passage defined in part by a substantially cylindrical surface and an adjoining substantially conical surface, a first, imperforate, circumferentially continuous member having a transverse, annular, flat, outer end surface, and an axially elongated cylindrical side surface adjacent thereto and having sliding engagement with the cylindrical surface of the body, and a sealing surface on its inner end to engage said conical surface on the body, a second imperforate, circumferentially continuous member disposed adjacent to the outer end of said first member, one of said members having an axial recess extending thereinto from one end and having a pin extending transversely through said recess, the other of said members having an axial portion projecting into said axial recess and having a groove to receive said pin, said pin serving to connect said first and second members for relative rotational and limited axial movement, annular, deformable packing between said members and remote from said conical surface and engageable with said cylindrical surface of the body, spring means between said packing and the first member and engaging the outer end surface of said first member and serving to urge said first member axially away from said packing means and said second member and to urge said packing means against said cylindrical surface to form a seal, and an axially movable rigid member integral with said second member and serving when moved toward said first member to urge the sealing surface of the latter into circumferentially continuous, fluid sealing contact with said conical surface thereby forming a first seal, and to move said imperforate members toward opposite sides of said packing and to deform the latter into circumferentially continuous fluid sealing contact with said cylindrical surface of the body thereby forming a second seal.

2,839,266
VALVE
Rudolf Kaiser, Ettlingen, Baden, Germany
Application June 4, 1956, Serial No. 589,213
Claims priority, application Germany February 3, 1956
3 Claims. (Cl. 251—171)

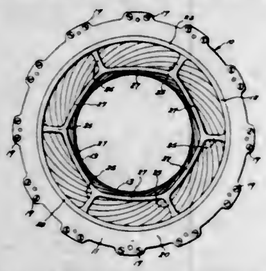


1. In a valve, in combination, a pair of rigid coaxial guide rings axially spaced from each other and respectively having directed toward each other a pair of annular concave guide faces respectively forming different parts of a sphere of given diameter; a pair of coaxial elastic sealing rings of substantially rectangular cross-section respectively surrounding and engaging said guide rings, respectively extending toward each other beyond said guide faces of said guide rings, and respectively having convex rounded inner annular portions respectively located in their unstressed condition between and beyond said guide faces and extending into the space which would be occupied by a sphere of said given diameter engaging said guide faces; a pair of rigid coaxial supporting rings having a flat annular face normal to the axis thereof and located adjacent to inner side faces of said sealing rings which are directed toward each other for supporting said sealing rings and respectively having inner annular concave faces respectively forming additional parts of said sphere of given diameter; an axially bored valve member having an outer convex face forming part of a sphere of said given diameter and slidably engaging said guide faces of said guide rings and said inner annular faces of said supporting rings, said valve member having a valve opening position where the axis of its bore coincides with the axis of said rings and where said convex rounded inner annular portions of said sealing rings are compressed by and press against the outer face of said valve member, said annular portions of said sealing rings expanding so as to enter partly into said bore during turning of said valve member from said valve opening position thereof to a valve closing position where the axis of said bore is normal to the axis of said rings; and elongated tubular valve housing means including a housing having a bore with an axis coinciding with the axis of said rings, and means for engaging and pressing said guide rings toward each other and against said outer face of said valve member, and for engaging outer side faces of said sealing rings which are directed away from each other to prevent said sealing rings from moving apart from each other and to cause said sealing rings to engage said flat annular faces of the adjacent supporting rings, respectively, and to press the latter resiliently against said spherical valve member.

2,839,267
IRIS VALVE CONSTRUCTION
Henry J. Sieradzki, Garden City, N. Y., assignor to Lundy Manufacturing Corporation, Long Island City, N. Y., a corporation of New York
Application October 19, 1955, Serial No. 541,408
5 Claims. (Cl. 251—212)

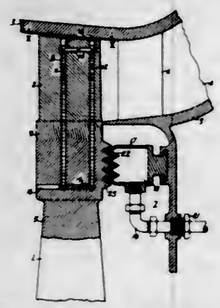
5. In a circular iris-type valve closure including a plurality of movable blades, means for actuating said

blades to an open and a closed position to control a circular area and supporting spider means lying substantially in a plane parallel to said blades and overlying said area for preventing distortion of said blades under the existence of a substantial pressure differential on either side of said blades when in a closed position, the improvement comprising: said spider means including a first plurality of supporting members which are substantially radially arranged with respect to said area, and extending only partially toward the center of said area, a



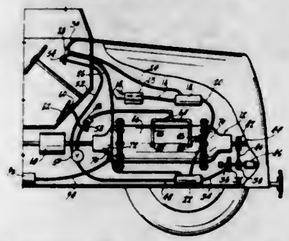
second plurality of supporting members associated with said first plurality at the inner ends thereof, said second plurality of supporting members each having a radius of curvature which extends to a point other than the center of said area, all of said last mentioned points lying on a common circle, the center of said common circle being disposed substantially at the center of said controlled area whereby said second plurality of supporting members may define a centrally disposed portion of said controlled area which is free of obstruction.

2,839,268
GAS TURBINE
Robert C. Allen, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a corporation of Delaware
Application January 18, 1950, Serial No. 139,274
1 Claim. (Cl. 253—39.15)



In an elastic fluid turbine, a bladed structure having relative to fluid flow through said turbine axially facing upstream and downstream faces and comprising a plurality of circumferentially spaced blades fastened to a rotatable member, a stationary heat exchanger disposed in close proximity to the upstream face of said bladed structure, each of said blades being relatively thin between its leading and trailing faces compared to its chordwise length, said bladed structure having a plurality of closed loop passages each disposed at least in part within one of said blades, each of said loop passages comprising a first radially extending cavity disposed in relatively close proximity to the upstream face of said bladed structure and said heat exchanger, a second radially extending cavity spaced a substantial distance away from said first cavity in a direction away from said heat exchanger, said spaced blades and said first and second cavities extending radially outward a substantial distance beyond said heat exchanger, and said first and second cavities being connected together at their respective end portions by an axially extending cavity, each of said cavities having a cross sectional configuration that is circular, each of said cavities containing a coolant selected to be in a liquid state at turbine operating temperatures, said heat exchanger and said upstream face of said bladed structure having interposed circumferentially extending corrugations to provide concentrated cooling of said coolant in a portion of said first cavity in close proximity to said heat exchanger to cool said coolant in said portion of said cavity and increase the density thereof above that of said coolant in the remainder of said closed loop passage whereby centrifugal force acting upon said coolant in said portion of said first cavity is increased and positive displacement and circulation of said coolant through said loop is promoted.

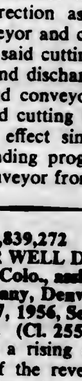
2,839,269
AIR TURBINE MOTOR FOR MOTOR VEHICLES
George A. Gillen, Jersey City, N. J.
Application March 7, 1955, Serial No. 492,579
1 Claim. (Cl. 253—55)



In a fluid pressure turbine, an elongated hollow cylindrical housing closed at its ends by heads, said housing having a pair of spaced inlets at the top for passage of air fluid into the housing and having an outlet at the bottom in one of said heads for the discharge of said fluid from the housing, a rotor disposed in said housing centrally thereof, leaving a space therearound, said rotor including a shaft disposed axially of the housing and pairs of curved bucket-like blades spaced and secured along the shaft, the blades of each pair being disposed in opposite directions, a supply of motive fluid, pairs of nozzles disposed in said inlets for injecting said motive fluid into the housing against the surfaces of the blades, one pair of nozzles injecting motive fluid against the blades of one pair of blades, the other pair of nozzles injecting motive fluid against the blades of the other pair of blades.

2,839,270
RELEASABLE CONNECTIONS FOR DRAIN HOLE DRILLING EQUIPMENT
John S. McCune and William E. Hanks, Long Beach, Calif., assignors to Oilwell Drain Hole Drilling Co., Long Beach, Calif., a corporation of California
Application June 1, 1954, Serial No. 433,527
22 Claims. (Cl. 255—1.6)

1. Apparatus comprising a whipstock unit adapted to be lowered into a well and having an inclined face for deflecting a drilling bit laterally to drill a laterally extending drain hole, a support unit adapted to support said whipstock unit in the well, said whipstock unit being movable vertically relative to said support unit between a plurality of different elevations for drilling a plurality of drain holes, a latch element carried by one of said units, means forming a plurality of shoulders on the other unit engageable by said latch element in a relation to support said whipstock unit at said different elevations respectively relative to the support unit, and means operable to retract said latch element, while the apparatus



is in a well, to an inactive position in which the latch element no longer supports said whipstock unit.

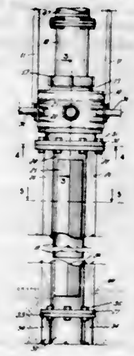
2,839,271
TUNNELING MACHINE
Charles W. Kandle, Chicago, Ill.
Application May 2, 1955, Serial No. 505,119
6 Claims. (Cl. 255—20)



1. An earth drill for cutting a relatively large bore concentric with a previously drilled smaller bore to enlarge the same progressively from end to end, comprising a drive motor, a spiral conveyor connected at one end to said drive motor for rotation thereby and extending axially of said smaller bore, a non-rotary cylindrical casing in said bore and housing said conveyor with the end facing said motor constituting the discharge end for spoil and the opposite end constituting a spoil inlet for said conveyor, a cutting head detachably secured to said conveyor at the spoil inlet end thereof to rotate therewith, said head including a spiral flight of progressively increasing diameter from a lead end adjacent said conveyor to the outer end thereof with the flight winding spirally in the same direction as said spiral conveyor whereby when said conveyor and cutting head are driven as a unit the spoil from said cutting head is fed into the inlet for said conveyor and discharged from the opposite end of the casing by said conveyor, and means to feed said conveyor, casing and cutting head as a unit axially of said smaller bore to effect simultaneous drilling by said head and corresponding progressive withdrawal of said casing and spiral conveyor from said smaller bore.

2,839,272
MEANS FOR WELL DRILLING
Odie Colquitt, Denver, Colo., assignor to The Winter-Weiss Company, Denver, Colo.
Application March 7, 1956, Serial No. 569,987
3 Claims. (Cl. 255—24)

1. Means for aerating a rising column of mud in a well drilling apparatus of the reverse flow type having a stationary vertical suction pipe suspended over a well comprising: an annular hollow swivel core slidably surrounding said suction pipe; an annular swivel housing surrounding said swivel core, the interior of said housing being in communication with the hollow interior of said swivel core; thrust bearings between said housing and said core, said bearings allowing rotation of said core in said housing and preventing relative axial movement therebetween; means for supporting said housing on said suction pipe; means for admitting air under pressure to said housing; a Kelly tube suspended from said core about said suction pipe for conducting mud to the interior of said suction pipe; a longitudinally extending air conduit on the exterior of said Kelly tube in communication at its upper extremity with the hollow interior of said core; a plurality of connected sections of drill pipe secured to and suspended from said Kelly tube for conducting mud into the interior of said Kelly tube; a longitudinally extending air tube mounted on the exterior of each section of drill pipe, said air tubes being in



communication with each other and with the air conduit on said Kelly tube; a cylindrical air manifold surrounding one of the lowermost sections of drill pipe, said manifold being of larger diameter than said latter section; means sealing each extremity of said air manifold to said latter section to form a closed, cylindrical air chamber thereabout, the air tubes of the superimposed sections being in communication with said chamber to supply air thereto from the hollow interior of said swivel core, there being jet openings in the wall of said latter drill pipe section directing air jets from said chamber into the interior of said latter section; and a tubular drilling string attached to and suspended from said latter section for conducting mud from said well to said connected sections of drill pipe.

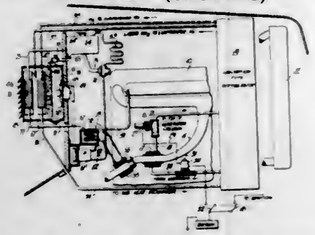
2,839,273
ROCK DRILLING APPARATUS
Arthur Trevena Holman, Chyverton, Truro, and Morris Oram and Eric Basil James, Camborne, England
Continuation of application Serial No. 232,172, June 18, 1951. This application May 20, 1955, Serial No. 509,996
4 Claims. (Cl. 255—50)



4. A drilling and dust eduction system for mines comprising in combination, a drill bit having a cutting face and at least one interior opening therein communicating with its cutting face, a drill steel having a longitudinal passage aligned with said opening, said opening being smaller in cross-sectional area at its entry than the longitudinal passage in the drill steel, a percussive drill carrying said drill steel on the forward portion thereof, a

passage extending in a straight line completely through said percussive drill aligned with and having the rear portion thereof of larger cross-sectional area than the cross-sectional area of the longitudinal passage in said drill steel, a dust separator located at a position remote from said percussive drill, a conduit running from said percussive drill to said separator, said conduit having a greater cross-section than said longitudinal passage, and a vacuum generator associated with said dust separator to maintain a partial vacuum throughout said system.

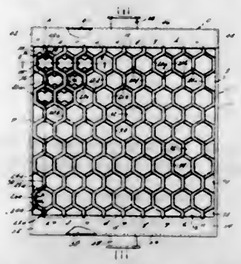
2,839,274
AIR CONDITIONING SYSTEM FOR AUTOMOBILES
Paul William Polin, Chicago, Ill., assignor to Polin Enterprises, Inc., a corporation of Illinois
Application September 6, 1952, Serial No. 308,221
13 Claims. (Cl. 257—3)



4. For use in an automotive vehicle having a heat engine for driving the same and having a passenger compartment, the combination of a continuous absorption type refrigerating system having a cooling unit in the passenger compartment, means for operating said refrigerating system from the waste heat of said engine, a liquid circulating system having an organic liquid therein which has a strong affinity for water and has a boiling point substantially higher than water so that said liquid may be concentrated by heating the same, said system including a porous air permeable finely reticulated filter member having a liquid inlet and liquid outlet and adapted to have said water absorbing liquid passing through said member in contact with a great number of tortuous surfaces of the filter, said filter forming a great number of tortuous paths through which air to be dehumidified may pass in intimate contact with the hygroscopic organic liquid wetting said surfaces, said member being disposed in said passenger compartment, liquid heating means and atmosphere cooled cooling means in said liquid system connected serially between the outlet and inlet of said air permeable member, means for circulating said liquid in said system, said liquid heating means having a vent for discharging vaporized water means for introducing air into said passenger compartment by passing said air through said filter and also in heat exchange contact with said cooling unit so as to reduce the moisture content thereof and to cool the same and means for heating said liquid heating means from the waste heat of said engine whereby waste heat of said engine both removes moisture from the air in said passenger compartment and also reduces the temperature thereof to provide an air-conditioning system having an overall efficiency substantially higher than is possible with a refrigerating system alone.

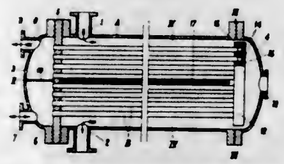
2,839,275
HEAT EXCHANGER
Robert H. Shaw, East Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application October 26, 1954, Serial No. 464,751
9 Claims. (Cl. 257—154)

9. In a heat exchanger, a gas flow chamber having top and bottom walls provided with vertically aligned holes therein arranged in a plurality of lines extending lengthwise of said chamber, a first row of tubes extending between the first hole of each line of holes of said top and corresponding holes in said bottom, said first row of tubes having polygonic extensions spaced along the length of the tubes and extending to the left and all lying in a plane perpendicular to the direction of gas flow through said heat exchanger, a second row of tubes extending between the second hole of each line of holes of said top and the corresponding hole in said bottom, said second row of tubes having polygonic extensions located opposite the extensions in said first row of tubes but extending to the right and all lying in a plane perpendicular to the direction of gas flow through said heat exchanger,



the tubes in the corresponding holes of each line of holes forming banks of tubes running lengthwise of said chamber, the left and right polygonic extensions of which are complemental and define a plurality of polygonic gas flow passages extending from front to rear of said gas chamber, said extensions having parallel side walls and the parallel side walls of the extensions in one bank overlapping the adjacent side walls of the next bank, some of said passages having a tubular metal shell fitted therein extending lengthwise of said chamber and having corresponding parallel side walls, said shell having fins located therein, each fin extending from one parallel side wall of the shell to the other, said fins being corrugated with the corrugations running lengthwise of the shell.

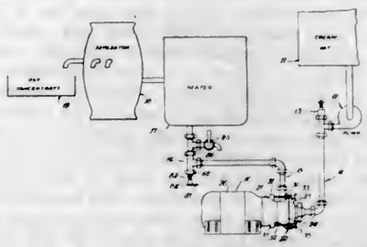
2,839,276
HEAT EXCHANGER
Giovanni Rossi, Milan, Italy
Application May 25, 1954, Serial No. 432,225
Claims priority, application Italy May 25, 1953
2 Claims. (Cl. 257—222)



1. A heat exchange apparatus, comprising, in combination, an elongated fluid-tight housing having opposite end walls and defining a chamber; a plurality of first and second tubular members in said chamber and extending in the direction of its length, each of said tubular members being connected in the region of one end thereof to one of said end walls and having an opposite end spaced from the other of said end walls; combined connecting and conduit means in said chamber, connecting said opposite ends of said tubular members and placing discrete assemblies of first tubular members in communication with discrete assemblies of second tubular members, each of said assemblies including a plurality of tubular members arranged in a row, the axes of the tubular members of an assembly of first tubular members and the axes of the

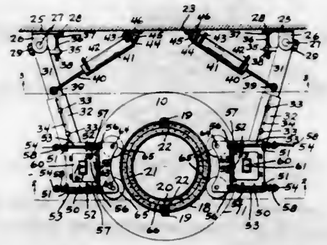
tubular members of the corresponding assembly of second tubular members lying in a common plane, said combined connecting and conduit means being independent of said housing and movable relative thereto in the direction of its length, said combined connecting and conduit means being constituted by an integral plate member arranged in said chamber normally to the direction of the length thereof, said plate member being formed with a plurality of substantially parallel bores therethrough, each adapted to receive in the region of one end thereof one of said tubular members and with a plurality of transverse passages between the outer faces of said element placing discrete assemblies of bores in communication with each other, each of said last-mentioned assemblies being constituted by bores adapted to receive a discrete assembly of first tubular members and the corresponding assembly of second tubular members, whereby a fluid medium introduced into said one end of any one of said first tubular members may flow therethrough, through said combined connecting conduit means, and through a second tubular member which is included in that assembly of second tubular members which is placed in communication by said combined conduit and connecting means with that assembly of first tubular members in which said one first tubular member is included while another fluid medium flows through said chamber exteriorly of said tubular members thereby permitting heat exchange to take place between the fluid media and whereby said combined connecting and conduit means may move relative to said housing in the direction of its length during lengthwise expansion and contraction of said tubular members; and a plurality of closure means in each of said bores, respectively, in the region of the opposite ends thereof, said closure means being removable from said bores so as to permit cleaning thereof and of said tubular members.

2,839,277
MEANS FOR DESTABILIZING CREAM
Alfred H. Rishol, Evanston, Ill., Charles J. Rayman, Cedar Rapids, Iowa, and Robert T. Ziel, Chicago, Ill., assignors to Cherry-Burrell Corporation, Chicago, Ill., a corporation of Delaware
Application February 17, 1954. Serial No. 410,976
1 Claim. (Cl. 259—9)



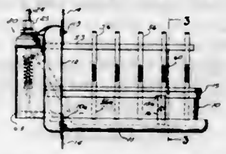
In a system of the class described, the combination of a liquid supply duct with an air inlet valve therein, a liquid discharge duct with a liquid retarder therein, and a liquid agitation unit interposed between and connected with said ducts, said agitation unit comprising a casing with a chamber therein and a perforate impeller blade rotatably mounted therein, said air inlet valve being held resiliently in closed position and adapted to be opened by reduction of pressure within said liquid supply duct, said liquid retarder comprising a valve member interposed in said discharge duct, said valve member having a relatively conical valve seat at its upstream side, a tapered valve pin adjustable with respect thereto, and a lateral port at the downstream side thereof.

2,839,278
VIBRATING DEVICE
Ernest D. Rowe, Canton, S. Dak.
Application August 24, 1953, Serial No. 376,064
1 Claim. (Cl. 259—72)



A vibrating mechanism for vibrating a rotating mass comprising carriages, means for imparting vibratory action to said carriages, said carriages having discs journalled thereto, said discs being adapted to contact said rotary mass, a platform upon which said mass is mounted, arms to which said carriages are pivoted, supports upon which said arms are pivoted, means for adjustably positioning said carriages on said arms, said carriages including vertical plate members, the means for vibrating the carriages also vibrating said plate members attached thereto, said carriages including vertically positioned bar portions, springs positioned adjacently to said bar portions and said plates for providing a resilient vibrating action, said discs being attached to said plates.

2,839,279
HUMIDIFIER
Marion I. Levy, Shaker Heights, and John E. Harris, Lakewood, Ohio, assignors to National U. S. Radiator Corporation, Cleveland, Ohio, a corporation of Maryland
Application June 13, 1956, Serial No. 591,081
4 Claims. (Cl. 261—104)

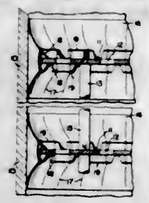


1. In a humidifier, a support frame having means for attachment to a wall of a chamber, a liquid reservoir pan, a portion of said frame providing pivotal mounting means engaging said pan intermediate its ends and holding said pan for limited oscillation relative to said frame, liquid supply means for said reservoir pan and operatively connected with the latter for control of the liquid supply responsive to oscillation of said pan, an evaporator plate support bar having a mounting on said frame near one end of said pan, a strut operatively connected between said pan and said bar at a point removed from said mounting, and evaporator plates mounted on said bar and extending downwardly into the liquid in said reservoir, said mounting and said strut holding said plates at all times out of contact with said pan.

2,839,280
PLATE TRAY DEFLECTOR
Willard S. McVay and Walter R. Sterrett, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
Application October 23, 1953, Serial No. 388,010
2 Claims. (Cl. 261—113)

1. A snap-on deflector for attachment to the periphery of a fluid-contacting plate tray mounted within a column

housing said plate tray comprising a unitary resilient strip of metal provided with a multiplicity of lateral slits disposed inwardly of the edges and with plate tray-engaging



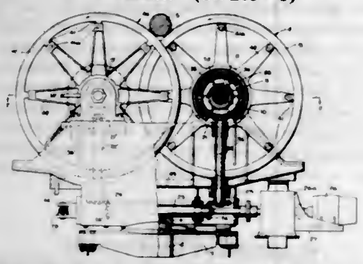
means on one side of said strip disposed apart laterally of said strip a distance substantially equal to the thickness of said plate tray.

2,839,281
BORING TYPE MINING MACHINE HAVING AN ADJUSTABLE BORING HEAD
Paul L. Alspaugh and John W. Helmaster, South Charleston, and Roy L. McNeill, Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York
Original application May 11, 1953, Serial No. 353,932. Divided and this application September 16, 1954, Serial No. 456,364
4 Claims. (Cl. 262—7)



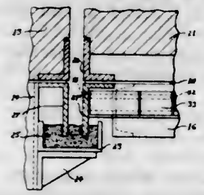
1. A bore-mining machine comprising a self-propelled carriage, a driving head having front face cutting means positioned and mounted thereon to continuously cut a bore shaped to receive said carriage, said driving head being mounted on said carriage to pivot about a horizontal-transverse trunnion axis thereof, means for adjusting the relative tilt of said driving head and its cutting means about said trunnion axis with respect to said carriage to regulate the vertical component of the course of the machine, and means for tilting said trunnion axis with respect to the carriage for counteracting the tendency of the machine to spiral in operation.

2,839,282
FURNACE WORK ADVANCING MECHANISM
Quentin M. Bloom, Huntingdon Valley, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application October 22, 1953, Serial No. 387,737
3 Claims. (Cl. 263—3)



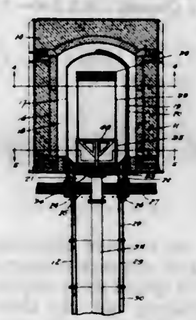
1. Improved means for advancing and rotating elongated, cylindrical work pieces in end-to-end relation comprising a pair of wheels rotating about an axis inclined at an angle to said end-to-end work pieces said wheels being displaced radially a distance so that their peripheries overlap to form a work supporting portion, each wheel having a rim portion successively engaging the under side of the work pieces moving past said wheels and formed at its periphery with a circumferential trough having its opening facing radially inwardly with its side portions connected at the periphery of the wheel and having spaced apart inner edges, means for rotating said wheels with an angular velocity sufficient to maintain a body of water in at least a portion of said troughs, and means for continuously passing cooling water into said troughs and thereby causing water to overflow from said troughs and reduce the extent to which the water in the troughs is heated.

2,839,283
TUBULAR END SEAL FOR FURNACE CARS
Robert E. Buckholdt, Salem, Ohio, assignor to Edgar H. Kendall
Application March 15, 1956, Serial No. 571,822
1 Claim. (Cl. 263—28)



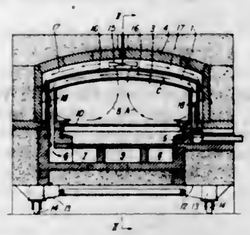
In a bogie type pusher furnace of the kind having an elongated tunnel-like heating chamber and a plurality of bogie carts adapted to be moved through the lower portion of said chamber in end-to-end relation thereby forming the bottom wall of said chamber, the improvement which consists of forming each of said bogie carts with a horizontally disposed structural steel frame for supporting a load-bearing hearth thereon and being in turn supported on the bogie wheels, each end of said frame having an end surface with a protruding transversely disposed lower portion and a contiguous transversely disposed upper portion inclined upwardly and inwardly toward the center of the cart, the arrangement being such that upon two of said carts being assembled in end-to-end relation said lower transverse portions of the adjacent end surfaces of the two carts are in pushing contact while there is provided above said contact a generally enlarged interstice which is generally V-shape in cross section as viewed in a plane longitudinal of the carts, a transversely disposed cylindrical member lying loosely in said interstice and contacting the inclined walls thereof to provide a fluid seal between the contacting ends of the carts, means for securing said member to one of said carts, said frame on each of said carts being formed with a pair of spaced side rails longitudinally co-extensive with said lower transverse portions of said end surfaces, the end portions of said side rails extending above said lower transverse portions of said end surface on each end of said carts being thus operative to provide end stops for said cylindrical member, said securing means comprising a relatively small diametered rod extending longitudinally and loosely passing through said cylindrical member and having its ends secured in one of said end portions of said side rails, said longitudinally extending side rails having depending leg portions, troughs attached to the opposite longitudinally extending wall of said heating chamber and being filled with loose granular material, and said depending leg portions adapted to extend into said troughs whereby a continuous fluid seal is provided about the periphery of each of said carts when said carts are in end-to-end relation in said heating chamber and the structural frame and bogie wheels of said carts are protected from the heat of said chamber.

2,839,284
ELEVATOR HEAT TREATMENT FURNACE
Wesley R. Gilbert, Cranston, R. I., assignor to C. I. Hayes, Inc., a corporation of Rhode Island
Application April 11, 1955, Serial No. 500,362
1 Claim. (Cl. 263—37)



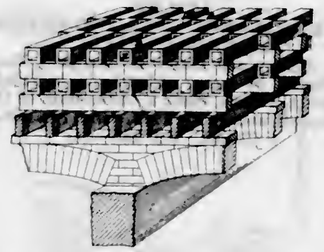
An elevator-type furnace for heat treating metal articles in a hydrogen atmosphere or the like, said furnace comprising an upper heat treatment chamber, a cooling chamber and a lower loading and unloading chamber, said cooling chamber being intermediate the upper and lower chambers, said heat treatment chamber having a retort spaced from the walls thereof, said retort having a throat portion, said throat portion and the inner walls of the cooling chamber forming a vertical passageway, said retort and said passageway comprising a continuous, unbroken, air-tight enclosure whereby to prevent contamination of said heat treatment and cooling chamber by inwardly seeping air.

2,839,285
HEAT TREATMENT FURNACES
George Moston Vickers, Cambridge, England, assignor to Vickers Furnaces Limited, Radlett, Hertfordshire, and Modern Mechanisation Limited, London, England
Application November 24, 1954, Serial No. 471,058
5 Claims. (Cl. 263—42)



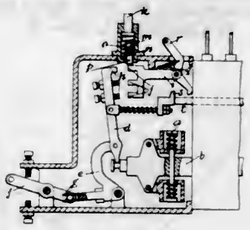
1. An annealing lehr or like furnace of the kind having a furnace chamber having inner surfaces; and a plurality of ducts for heating gases, each extending within said furnace chamber and spaced from said inner surfaces thereof up one side, transversely across the top and down the other side of said furnace chamber, a conveyor having its operative run extending through the furnace chamber and two discharge flues for the gases extending lengthwise of the chamber and below said run of the conveyor, and each of said discharge flues having an inner wall forming part of the wall of said furnace chamber, wherein each of said ducts is a heat radiant tube, which is entirely separate from the inner surfaces of said chamber throughout each of its upwardly, transversely and downwardly extending portions and in which each radiant tube is equipped with a separate burner at the lower end of its upwardly extending portion, some of said tubes being arranged to have their inlets on one side of the chamber and others on the opposite side thereof, the outlets being similarly disposed some on one side and some on the other side of the chamber.

2,839,286
CHECKER CONSTRUCTION FOR OPEN HEARTH FURNACES
Clarence G. Poth, Massillon, Ohio
Application June 23, 1954, Serial No. 438,647
4 Claims. (Cl. 263—51)



1. A checker construction for open hearth furnaces, comprising oblong rectangular hollow tile elements having at least one central channel defined in each element, said channels extending the length of said tile elements and through two ends thereof, the tile elements being laid up in successive courses with the tiles in each course disposed in parallel ranks and parallel files, the tile elements in each rank being spaced apart about the width of one of said tile elements and at least one end of the tiles in each file being spaced about one to two tile lengths apart, the channels of the tiles in the same level and file being coaxial.

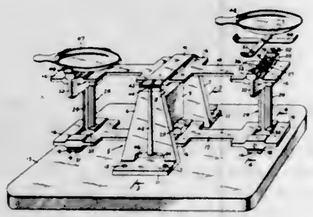
2,839,287
MEANS FOR CONTROLLING A FUEL INJECTION PUMP FOR AN INTERNAL COMBUSTION ENGINE
Fraser Mackie Evans, Acton, London, England, assignor to C. A. V. Limited, London, England
Application March 25, 1955, Serial No. 496,871
Claims priority, application Great Britain March 29, 1954
1 Claim. (Cl. 264—3)



Means for controlling a fuel injection pump for an internal combustion engine, comprising in combination a slidable control bar for varying the output of the pump, a centrifugal governor adapted to be driven by the engine, a first lever through which said control bar is connected to said governor, a second and manually operable lever on which said first lever is pivoted, and which serves to determine the speed at which said governor becomes operative, at least two projections on said first lever, at least two stops with which said projections co-operate respectively for limiting the fuel increasing movements that can be imparted to said control bar by said first lever in response to successive movements of

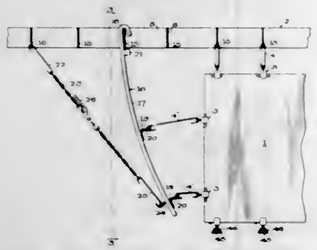
said second lever, a third lever on one end of which said stops are provided, a manually operable push piece, a spring-loaded catch piece through the medium of which said third lever is movable by said push piece into a position in which said stops are ineffective, and retaining means for engaging said catch piece to retain it in the depressed position to which it is movable by said push piece, said catch piece being releasable from said retaining means by the first lever.

2,839,288
EVEN-BALANCE, OVER-AND-UNDER WEIGHING SCALES
Harlan A. Hadley and Lester D. Singleton, Burlington, Vt., assignors, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Application January 27, 1954, Serial No. 406,422
6 Claims. (Cl. 265—54)



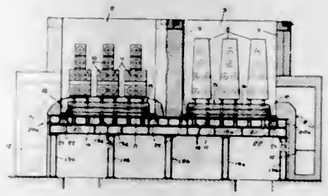
1. In a weighing scale of the class described wherein the weighing scale elements include a lever, a check link and means operatively connecting said lever and said check link to each other, the lever and the check link being identical in configuration and interchangeable with each other in use as lever and check link and each comprising a bar having a plurality of openings therein, and metal bands across said openings for connecting said lever and said check link to other weighing scale elements.

2,839,289
FRAME TO SUPPORT METAL SHEETS UNDER TENSION DURING HEAT TREATMENT
Martin L. Holscher, Opportunity, Wash., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
Application September 30, 1954, Serial No. 459,499
13 Claims. (Cl. 266—4)



1. An apparatus for applying tension to a plurality of suspended metal sheets during treatment thereof, comprising means for suspending said sheets, an elongated flexible frame, means for supporting said frame at the upper extremity thereof in a position spaced from the ends of the said sheets, the remaining portion of said frame adapted to be stressed within the elastic limit of the material of said frame, and means for attaching said frame to the ends of said metal sheets while the frame is in said stressed condition.

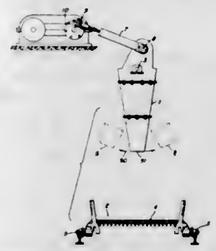
2,839,290
SOAKING PITS
Quentin M. Bloom, Huntingdon Valley, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application January 6, 1954, Serial No. 402,492
6 Claims. (Cl. 266—5)



1. A soaking pit structure comprising a plurality of side by side soaking pits each proportioned to receive a single short row of spaced apart vertical ingots with each pit having a refractory side wall close to each side of said row and an end wall close to each end of said row, each of said side walls being provided with a plurality of fluid fuel burners directed toward each of the ingots between them and spaced over an area of said walls substantially equal to the area of the ingots and the configuration of the ingots and operative to pass a large portion of the heat generated by the burners in the form of radiant heat without flame impingement to the sides of ingots between and facing said side walls.

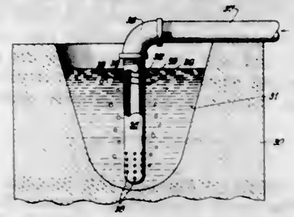
4. A soaking pit structure comprising vertical walls surrounding a soaking pit chamber, a removable cover normally closing the upper end of said chamber, means for passing heating gases into and out of said chamber, a first supporting structure beneath and supporting said walls, a second supporting structure directly beneath said chamber and having its outer edge displaced inwardly from said walls, bricks forming a destructible bridge forming a third bottom wall supporting structure extending between said first and second supporting structures, and refractory material supported by said bridge and second supporting structure and forming the pit bottom wall, whereby said bottom wall may be removed through said chamber for repair or reconstruction upon breaking said destructible bridge.

2,839,291
SWINGING SPOUT AND DRIVE THEREFOR
Alfred Teplitz, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application March 11, 1955, Serial No. 493,745
11 Claims. (Cl. 266—21)



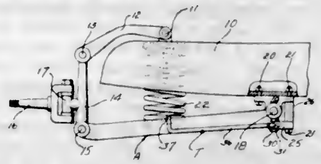
10. In a sintering apparatus, a traveling grate, a swinging spout having a pivotal support for oscillating movement over an arcuate path positioned above and extending transversely between the edges of said grate, and a drive for oscillating said spout comprising a drive member operating at a constant angular velocity, and a drive connecting said drive member with the swinging spout including means for maintaining the velocity of swinging movement of the spout at a substantially constant and maximum value over a substantial and central portion of its path of swinging movement, and for reversing its movement at the ends of said path.

2,839,292
REFRACTORY RESERVOIR FOR ALUMINUM
Harry T. Bellamy, Evanston, Ill.
Application August 9, 1954, Serial No. 448,609
3 Claims. (Cl. 266—34)



1. In combination, a refractory reservoir for molten aluminum and a tube disposed therein below the normal level of the molten aluminum, said tube being made from a ferrous metal coated with an intermediate layer of molybdenum and an external layer of ceramic composition whereby said tube is protected from corrosion by molten aluminum and from oxidation.

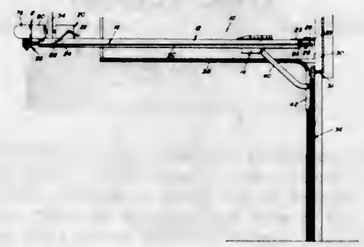
2,839,293
AUXILIARY SPRING FOR WHEEL MOUNTING
Raymond P. Cover, Stamford, Conn.
Application June 28, 1955, Serial No. 518,513
9 Claims. (Cl. 267—15)



1. In a combination of the class described, an automobile frame, a wheel supporting arm, a bearing member, securing means securing said bearing member to said frame, means pivoting said wheel supporting arm on said bearing member, a spring between said arm and said frame for yieldingly resisting said pivotal movement under load, a torsion rod, a bearing support for said torsion rod also secured to said frame by said securing means, means mounting said torsion rod for torsional rotation on said bearing support, adjusting means secured to said torsion rod in the axis of its rotation relatively to its bearing support, means fastening said adjustment means to said bearing support in any one of a series of positions, and an angular extension at one end of said rod having a portion fitting against a part of said arm to bolster said first spring in resisting pivotal movement of said arm under load.

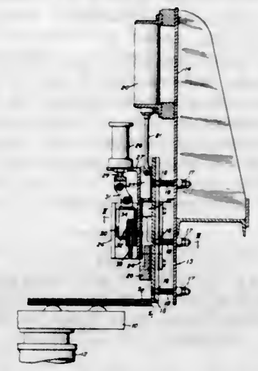
2,839,294
AUTOMATIC OPENING AND CLOSING MEANS FOR OVERHEAD DOORS
James N. McNinch, Sterling, Ill.
Application May 16, 1955, Serial No. 508,423
1 Claim. (Cl. 268—59)

In combination with a carriage reciprocably movable along a drive track, an operating mechanism including driven means attached to said carriage for reciprocating the same along said guide track, driving means operably connected to said driven means for reciprocating the same to reciprocate the carriage, electrical control means stopping said drive means, control actuating means carried by the carriage and said driven means operating said control means to stop said driving means when the carriage reaches either limit of its reciprocal movement, said driven means comprising an elongated flexible cable having its ends attached to opposite ends of said carriage and its intermediate portion entrained around rotatable roller elements at points beyond the limits of reciprocal movement of said carriage, said control means comprising a pair of switch levers for stopping said driving means to



establish the limits of reciprocal movement of the carriage and disposed at one end of the guide track, one in the path of movement of the carriage and the other overlying a run of said cable, a cam member on said one run for operatively engaging one of the switch levers, and a cam plate on the carriage for operatively engaging the other of said switch levers, and means adjustably mounting said cam plate on said carriage for extension outwardly of the carriage different distances for variably engaging said other switch lever in different positions of the carriage to vary the limits of reciprocal movement of the carriage.

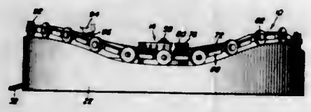
2,839,295
STOP FOR DOUBLE-DRAFT PILING OF SHEETS
Harry M. Bernard, Jr., Kennywood, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application September 29, 1955, Serial No. 537,522
5 Claims. (Cl. 271—86)



1. A stop mechanism for double draft piling of sheets comprising a first frame, a spring loaded vertical outer stop plate mounted on said first frame, a second frame movably mounted on said outer stop plate, an intermediate stop plate carried by said second frame, said second frame having an extended position in which said intermediate stop plate overlies said outer stop plate and another position in which said intermediate stop plate is retracted, a third frame movably mounted on said second frame, an inner stop plate carried by said third frame, said third frame having an extended position in which said inner

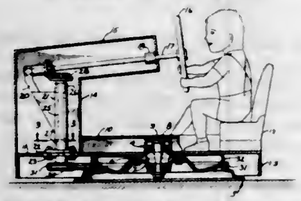
stop plate overlies said intermediate stop plate and another position in which said inner stop plate is retracted, and respective power means connected to said second and third frames for moving them between said positions.

2,839,296
TOY ROUNDABOUT
Charles Ephraim Paul, Buffalo, N. Y., assignor of fifty percent to Lena Paul, Buffalo, N. Y.
Application December 31, 1954, Serial No. 479,141
1 Claim. (Cl. 272—31)



A toy comprising an enlarged circular undulated trackway, a central turret, a plurality of radially extending arms attached to said turret, a rotatable wheel on the outer end of each arm engaging the upper surface of the trackway, simulated vehicles having a flat upper surface pivotally interconnecting the outer ends of said arms adjacent the wheels for retaining the arms in spaced relation and forming a generally continuous articulated member, simulated objects removably mounted on said vehicles, and means for rotating said turret thereby moving the arms and wheels around the trackway, a central support member, a plurality of spokes extending radially from said central support member to said trackway for rigidly interconnecting the central support member and the trackway, said central support member having a socket therein, a vertical post rotatably journaled in said socket, said turret mounted on said post for rotation therewith, a ring gear mounted on said turret in engagement with the rotating means, and means interconnecting said arms and turret for permitting vertical swinging movement of said arms, said arm and turret interconnecting means including a spherical ball on the end of each arm, a pair of separable clamp plates with one of said plates being secured to said post for rotation therewith, the facing surfaces of said plates having a plurality of complemental recesses for receiving said ball ends, said recesses being substantially semi-spherical in shape for permitting angular movement of the arms in relation to the plates and preventing longitudinal movement of the arms, said one plate having a rigid upstanding peripheral guide plate surrounding said clamp plates in concentric spaced relation, said guide plate having a plurality of closed end slots vertically disposed therein for receiving the arms thereby guiding and limiting the vertical swinging movement of said arms and transmitting rotational force to the arms from the turret.

2,839,297
SINGLE OCCUPANT ROUNDABOUT
Robert E. Switzer, Bakersfield, Calif.
Application May 14, 1956, Serial No. 584,611
2 Claims. (Cl. 272—33)



1. In a portable amusement device the combination of a floor mounting base section; a bearing secured in said base section; a plate rotatably secured to said bearing; a platform mounted on said plate; aprons extending down from said platform to close spaced relationship with said floor, said aprons forming a surrounding machinery mounting area beneath said platform; a stationary pulley formed in said base section; a rotatable pulley adjustably mounted in said machinery mounting area; a flexible belt operatively engaging said stationary and said rotatable pulleys; a vertically disposed shaft secured to said rotatable pulley and extending above said platform a vertical column surrounding said shaft; a tubular section extending over a portion of said platform and attached to said vertical column; a shaft mounted in said tubular section; gears connecting said vertically disposed shaft and said shaft mounted in the tubular section; a steering wheel secured to said shaft mounted in said tubular section; a seat adjustably secured to said platform.

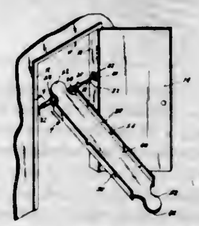
2,839,298
SEESAW OR TEETER BOARD
John Joseph Manocchia, Cranston, R. I.
Application August 24, 1956, Serial No. 606,027
5 Claims. (Cl. 272—54)



5. The combination with a seesaw board member of inverted channel-like construction open longitudinally on its underside and constructed of sheet metal, and a pipe frame support therefor, of an axle non-rotatably secured above and fixed to said pipe frame support, spaced antifriction bearing means mounted within and suspended from the board member and pivotally mounting the latter on said axle, seats mounted for vertical movement on the outer ends of said board member and arranged to be depressed when a rider is seated thereon, and safety fall preventing mechanism which will function at the time and under the particular conditions hereinafter recited to arrest the deadfall descent of the end portion of said board member occupied by a player whenever a second player vacates the seat on the opposite end portion of said board member during the course of its teetering movements, said safety mechanism comprising a latch block having flanged shoulders at opposite sides thereof and loosely mounted for free pivotal movement on said axle, a torsion spring couple mounted on said axle one at each side of said latch block and both springs being connected thereto and to said axle, spring-loaded retractable rod members suspended from the board member at opposite sides of said latch block and extending therefrom in opposite directions lengthwise of the board member to terminate at their outwardly directed ends beneath said seat members, plate means on said rod ends, actuator pins fixed to said seat members and projecting downwardly from the center thereof, and pivoted levers suspended from the board member beneath said seat members and having a portion bearing against the bottom ends of said actuator pins, said levers each having a lower cam portion for engaging said plate means of the rod members, the spring loading of said rod members operatively maintaining said levers engaged with said actuator seat pins and the plate means on the rod members, said seat supporting springs acting in consort with the spring loading of said rod members to lift the particular seat from its depressed position when vacated by a rider and simultaneously push the associated rod member from a retracted position toward the axle to engage and latch beneath a flanged shoulder adjacent thereto of the latch block to produce appropriate twisting of said spring couple whereby its torsional action will apply sufficient force

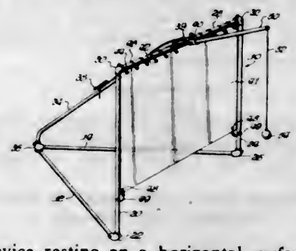
to counteract and arrest the downward movement of the occupied end of the board member, said mechanism being capable of functioning at any time that the board member is horizontal or when either end portion thereof occupies a position below a substantially horizontal plane which extends through and contains the shoulders of said latch block.

2,839,299
CONVERTIBLE SLIDE
George Weiss, Brooklyn, N. Y.
Application June 7, 1954, Serial No. 434,971
1 Claim. (Cl. 272—56.5)



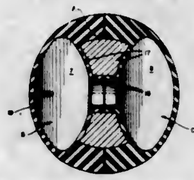
An amusement device comprising spaced vertical supports a horizontal bar supported by and between said supports, said bar being adjustable as to length so as to extend the full distance between said supports, means at opposite ends of the bar frictionally engaging said supports, a board connected to said bar, said board including an elongated, flat plate having reduced ends defining seats for users supported thereon, said connection including loops spaced longitudinally of said bar, transversely spaced eyes secured to said plate adjacent one end thereof, and links connected between the eyes and loops, for connection of the board to said bar in an inclined condition for use as a sliding board.

2,839,300
BASEBALL BATTING PRACTICE DEVICE
Donald Louis Blaha, Berwyn, Ill., and Keith Fredrick Mainland, Falls Church, Va.; said Mainland assignor to Albert Giusfredi, Riverside, Ill.
Application January 20, 1956, Serial No. 560,421
6 Claims. (Cl. 273—26)



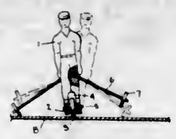
1. A device resting on a horizontal surface for baseball batting practice in a restricted space, the device comprising in combination: a vertically upstanding frame having a top horizontal bar, two vertical bars, and a plurality of base horizontal bars extending rearwardly of the vertical bars; a flexible material suspended from the top horizontal bar and held by slack non-stretchable means between the vertical frame bars to form a surface which is yieldable from a position in the vertical frame to a taut position; an adjustably fixed arm attached to the top horizontal bar extending forwardly; a ball; and a flexible non-stretchable cord depending in spaced relation to the frame from a point on the arm and connected at its lower end to the ball, the length of the cord being at least as great as the length of the arm between the top bar and said point and less than the vertical distance from the point on the arm to the horizontal surface and less than the distance from the point on the arm to any point on the bottom edge of the surface of flexible material, whereby the cord will guide the ball in a path into contact with the surface of flexible material when the ball is properly struck toward said surface and will guide the ball back along said path as it rebounds from said surface of flexible material.

2,839,301
LAWN BOWLING BALL
Ted Hunter, Worth, Ill.
Application January 3, 1957, Serial No. 632,313
6 Claims. (Cl. 273—63)



3. A lawn-bowling type ball formed of a rubber-like composition comprising a central annular main section of predetermined compressibility and a pair of diametrically-opposed more-readily compressible portions disposed on an axis normal to the main section, the diameter of the annular main section being slightly greater than the diameter of the normally-disposed more-readily compressible sections.

2,839,302
TOY OR GAME DEVICE
Hans Almoslino, Hollis, N. Y.
Application June 21, 1956, Serial No. 592,865
3 Claims. (Cl. 273—108)

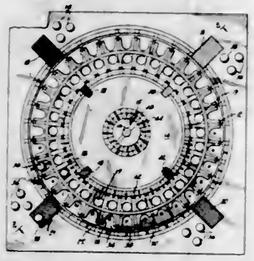


3. A toy comprising an inclined plane, a figurine having a slot in the base thereof, a wheel rotatably mounted in said slot, an inclined pole extending outwardly from each side of the figurine and a friction disk disposed adjacent the outer end of each pole whereby said figurine is adapted to glide down said plane in a back and forth fashion.

2,839,303
GAME APPARATUS WITH ROTATABLE MARBLE TRANSPORTING DISCS
David S. Baker, New York, N. Y.
Application November 4, 1955, Serial No. 544,990
2 Claims. (Cl. 273—134)

1. In a game apparatus, in combination, a base, a post secured to said base and extending upwardly thereof from its center, a lower disc rotatably mounted on said post and manually rotatable relative to said base, said disc having formed therein regularly annularly spaced holes adapted to receive and transport a playing piece, such as a marble, upon manipulation by a player of the game, said base having associated therewith hazard or penalty pockets also annularly arranged but in lesser frequency than the holes in said disc but being receptive of marbles carried by said disc into registry therewith whereby any marble transported by said disc will fall into one of said penalty pockets when a disc hole registers with a pocket,

a second disc rotatably mounted on said post and separated from said first disc by means permitting individual rotation of said discs without interference therebetween, said second disc having marble receptacles therein from which the marbles can be removed by manual effort only, and a counter having slow and fast scales, the arrangement of the receptacles in the second disc and the holes in the first disc being such that advance of a marble while reposing in the second disc is determined by said slow scale for determining the rotative advance of said second



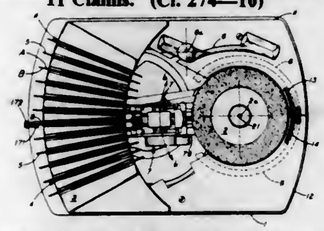
disc, while, if the player chooses to expedite the advance of his marble, he may manually remove it from the second or slow disc and place it in a hole in the first or fast disc whose rotative advance is determined by said fast scale whereby the player moving his marble from the slow disc to the fast disc takes the chance of his so-moved marble being carried to a penalty pocket automatically should the counter so dictate, said counter including a manually operable spinner registrable with said scales to determine the rotative advance of said discs.

2,839,304
FLEXIBLE GOLF TEE
Lester Lerick, White Plains, N. Y.
Application July 15, 1955, Serial No. 522,224
1 Claim. (Cl. 273—207)



A flexible golf tee comprising a head and a base connected with a resilient element, said head comprising a top transverse surface adapted to support a golf ball and an inner transverse shoulder parallel to and spaced from the top surface including an axial projection of smaller transverse dimension than the shoulder symmetrical about the axis of the head extending from the shoulder toward the base, said base including a tapered end adapted for insertion into the ground and an outer transverse shoulder remote from the end opposite and normally parallel to the said inner transverse shoulder including a projection axially aligned with the first said projection and extending from the second said shoulder toward the first said projection, said resilient element being radially spaced from and encompassing the said projections, the axial extent of the said projection being such that the said element biases the projections away from each other in spaced relationship and whereby the pressure required to force the tee into the ground causes the projections to contact each other against resilient opposition from the resilient element.

2,839,305
SELECTIVE RECORD CHANGER
Lloyd J. Andres, Itasca, Ill., assignor, by mesne assignments, to Fidelitone, Incorporated, a corporation of Illinois
Application May 31, 1951, Serial No. 229,098
11 Claims. (Cl. 274—10)



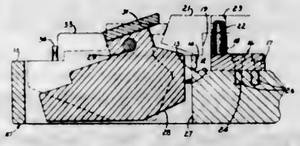
1. In a record changer of the character described means forming a base, a turntable secured to said base for rotation about an axis vertical thereto, a record magazine secured to said base in spaced relation with said turntable for retaining therein a plurality of disc records in vertical equi-angular spaced relation, each of said records being supported in equi-distant radial position with respect to said axis, a fixed selector secured to said base including a plurality of movable abutments retained in said equi-angular spaced relation and normally positioned equi-distant from said axis, each of said abutments corresponding to a different one of said records and supported for predetermined displacement toward said axis for selecting the respective ones of said records, a record transfer means pivotally secured to said base and mounted for lateral oscillatory movement about said axis for scanning said records in said magazine when oscillated, drive means for oscillating said transfer means, a pair of pawls pivotally mounted on said transfer bar for movement past the ones of said abutments corresponding to nonselected records and for engagement with the ones of said abutments which are displaced toward said axis and correspond to selected records, said pawls being normally spaced apart by a distance substantially equal to the thickness of each of said abutments, spring means for biasing said pawls in opposite directions toward said normal positions so that the selected ones of said abutments are adapted to be engaged and held by said pawls irrespective of the direction of movement of said transfer means relative to said abutments thereby to arrest and hold said transfer means in register with a selected record in said magazine corresponding to a selected displaced abutment.

2,839,306
RECORD AND METHOD OF MAKING THE SAME
James W. Bayless, Los Angeles, Calif., assignor to Capitol Records, Inc., Los Angeles, Calif., a corporation of California
Application May 7, 1951, Serial No. 224,979
4 Claims. (Cl. 274—42)



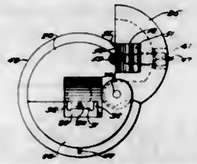
1. A phonograph record comprising a relatively thin disk including an integral center push-out section, said center push-out section having a small center hole and including spaced openings the outer peripheries of which correspond to arcuate portions of a large circle concentric with the center hole, said openings defining a plurality of tabs therebetween, one opening being diametrically opposed to each of said tabs, said tabs being provided with grooves so that the material of the record is of least thickness outside of said relatively large circle thereby defining a break-out line for said tabs, whereby said push-out center may be removed upon the application of finger pressure thereto to form a relatively large center hole in said record.

2,839,307
CENTRIFUGAL CHUCK
Ralph P. Garrison, James O. Garrison, and David D. Walker, Dayton, Ohio, assignors to Garrison Machine Works, Inc., Dayton, Ohio, a corporation of Ohio
Application November 3, 1953, Serial No. 389,946
10 Claims. (Cl. 279—1)



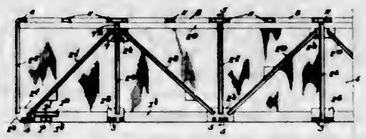
1. A chuck, including a rotary body having a central axis, means for locating a work piece in concentric relation to said body, a series of centrifugally responsive clamp jaws carried by said body and movable in planes radial to the axis of said body to engage and disengage the peripheral edge of the work piece and radially adjustable mounts for said clamp jaws.

2,839,308
ROTATABLE WORK HOLDERS FOR IRREGULARLY SHAPED PARTS
George Svoboda, Berwyn, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application August 30, 1955, Serial No. 531,517
2 Claims. (Cl. 279—106)



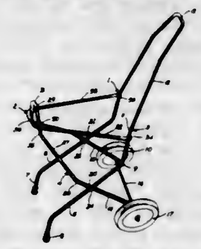
1. A quick acting work holder for supporting an irregularly shaped article for rotation comprising a body member capable of being supported in a lathe for rotation about an axis and having a fixed jaw thereon, said body member and said fixed jaw having aligned cylindrical outer surfaces concentric with said axis and said fixed jaw having a seat conforming to a portion of said article for supporting the article in a predetermined position relative to said axis, a movable jaw mounted on said body member for pivotal movement to a closed position about a second axis parallel to said first-mentioned axis for holding the article against the fixed jaw, said movable jaw in its closed position having a cylindrical outer surface aligned and concentric with the cylindrical surfaces of said body member and said fixed jaw, a ring slidably mounted on said body member for movement from an inoperative position in spaced relation to said movable jaw to an operative position encircling the jaws for locking the movable jaw in closed position, a clamping member having portions thereof conforming to and engageable with other portions of the article, a rotatable actuating member threadedly supported on the movable jaw for swivelly supporting the clamping member thereon, said actuating member being manually actuable to cause the clamping member to clamp the article against the seat on the fixed jaw, and means on said body member and said jaws for limiting the movement of the locking ring to and from its operative and inoperative positions.

2,839,309
TRUSSED SKIDS FOR KNITTING MACHINES, OR THE LIKE
Guy M. Turner, Greensboro, N. C.
Application June 27, 1951, Serial No. 233,767
10 Claims. (Cl. 280—12)



1. A knock-down portable skid box for transporting machinery, comprising a base including opposed parallel angle-bar skids having upturned ends, said skids being rigidly spaced apart by a plurality of longitudinally adjustable structural members secured therebetween; a pair of detachable side members each including a plate, vertical and diagonal truss reinforcing members secured on said plate, and terminal plates secured on the first plate and spaced along the bottom of the first plate to overlap the skids, the terminal plates and skids having registering holes adapted to permit bolting of the sides of the base; a plurality of covers adapted to overlie the upper edges of the sides and to be removably secured to each other and to the sides, each of said covers including a frame and having diagonally crossed reinforcement bars; and removable means to secure the said base, side members and covers together; said angle-bar skids having at spaced intervals elongated cuts; a jacking pocket at each cut comprising a length of angle-bar fixed in the cut with its bend diagonally opposite and parallel to the bend in the skid bar; and reinforcing members strengthening the bond between the edges of the cut and the inserted length of bar.

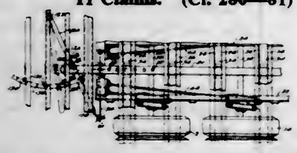
2,839,310
COLLAPSIBLE CART
Edwin B. Livingston and Richard W. Livingston, Jackson County, Mo.
Application December 31, 1956, Serial No. 631,919
5 Claims. (Cl. 280—41)



1. A collapsible cart comprising, laterally spaced pairs of leg members with the legs of each pair hingedly connected intermediate their ends whereby one leg of each pair is inclined downwardly and forwardly and the other leg of each pair is inclined downwardly and rearwardly from said hinged connection when in erected position, wheels at the lower ends of said other legs, said one leg of each pair having a ground engaging member on the lower end thereof, forwardly and upwardly extending portions on said other legs above said hinge connections and terminating in upwardly turned converging portions connected at the upper ends thereof, upwardly and rearwardly extending sections on said one leg of each pair above said hinge connection, a handle member connecting the upper ends of said sections, a load support having side members hinged at their rear ends to said sections in upwardly spaced relation to the hinge connections of

the pairs of legs, said side members extending forwardly of the hinge thereof, and a crossbar connecting the forward ends of said side members, the width of the upper ends of the upturned converging portions on said upwardly and forwardly extending portions of said other legs being slightly less than the spacing between said side members adjacent the crossbar of the load support and the distance of said upturned portions from the hinged rear ends of the side members being slightly less than the length of said side members whereby said upwardly turned converging portions extend upwardly between the side members of the load support and engage the crossbar and said side members rest on said converging portions providing a separable engagement to retain the cart in load carrying position.

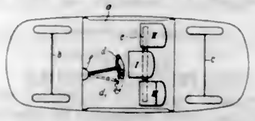
2,839,311
ADJUSTABLE WHEEL MOUNTING FOR TRAILERS AND THE LIKE
Hans Locker, Utica, Mich., assignor to Fruehauf Trailer Company, Detroit, Mich., a corporation of Michigan
Application March 15, 1954, Serial No. 416,136
11 Claims. (Cl. 280—81)



8. A trailer comprising a wheeled subframe having longitudinal ways, a trailer body having longitudinal frame members supported by and movable on said ways, a longitudinal locator member fixed to and movable with the body provided with longitudinally spaced holes therein, a preselector bar on and slidably movable relative to said locator member having an opening therein disposed to register successively with said holes when the bar is moved back and forth relative to said member, a vertically movable pin carried by said subframe positioned to enter a selected one of said holes through said opening to fasten the body to said subframe, spring means coacting with said pin to urge the same in the direction of said locator member and in a selected one of said holes, a pivoted lever connected to the pin for disengaging the same from said locator member against the action of said spring means, a catch positioned to engage said lever when the pin is fully retracted from said locator member for holding said pin in the retracted position, said catch being offset laterally with respect to said lever so that the latter must be flexed to one side in order to engage the same with said catch, and cam means on said preselector bar adjacent said opening engageable with said pin as the latter moves into register with said opening and operable by such engagement to actuate the pin and the lever connected thereto so as to release said lever from said catch and to permit said spring means to engage the pin with said locator member immediately when the opening in said preselector bar moves fully into register with said pin.

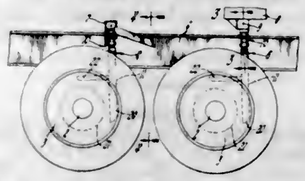
2,839,312
COMBINED SEATING AND STEERING ARRANGEMENT FOR VEHICLES
Béla Barényi, Stuttgart-Hohenheim, and Werner K. H. F. Grümkow, Stuttgart-Sillenbuch, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Untertürkheim, Germany
Application May 18, 1955, Serial No. 509,276
Public Law 619, August 23, 1954
Patent expires October 27, 1969
9 Claims. (Cl. 280—87)

1. A motor vehicle of such width as to permit side-by-side arrangement of three seats, comprising a center seat and two side seats arranged laterally of the two sides thereof, wherein said center seat and one of said side seats are slidably arranged transversely of the vehicle and



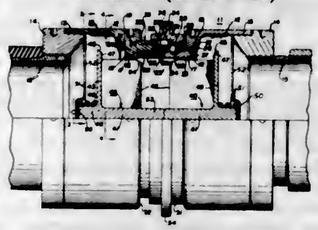
the lateral third seat is arranged at one side of the two aforementioned slidably arranged seats and acts as an emergency seat being foldable to a position out of the line of transverse movement of said center seat.

2,839,313
DOUBLE ARTICULATED ROCK EJECTOR FOR VEHICLE DUAL WHEELS
John A. Walko, Cleveland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 24, 1957, Serial No. 636,129
9 Claims. (Cl. 280—158)



1. A rock ejector for use with a vehicle having dual vehicle wheels comprising, an ejector bar, a link structure supporting said bar from the vehicle, said link structure including link means articulated at a plurality of spaced points for transverse swinging movement of at least a portion of said link structure relative to said bar.

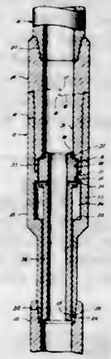
2,839,314
QUICK DETACHABLE COUPLER
Malcolm S. Clark, Union City, Pa., assignor to Snap-Tite, Inc.
Application June 8, 1954, Serial No. 435,188
1 Claim. (Cl. 284—18)



A detachable coupling comprising separable male and female members, said male member having an enlarged bore and a nipple with a smaller coaxial bore communicating therewith and forming a metallic valve seat flange at the juncture of said bores normal to the axis thereof, said female member having an enlarged bore of substantially the same size as said enlarged bore of said male member, said female member having a nipple receiving coaxial bore smaller than said enlarged bore for telescopically receiving said nipple of said male member, all of said bores including cylindrical walls parallel to the axis of said coupling, said female member having an annular flange extending radially inward at the juncture of its larger and smaller bores to form a metallic valve seat normal thereto and a valve guide

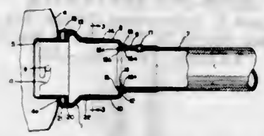
parallel with the axis of said female member, said annular flange of said female member defining an opening having a diameter substantially equal to the diameter of the smaller bore in said male nipple, each of said male and female members having an annular radially extending rib in the enlarged bore thereof spaced from said annular flange thereof, said rib defining an opening of smaller diameter than said flange opening to define an annular recess between said rib and flange in said larger bore of each of said members, a rubber-like O-ring contained in each of said recesses, interchangeable valves in said male and female members and each including a valve stem having radial vanes, the vanes of said male member slidably engaging the smaller bore of said male member, the vanes of said female member slidably engaging the walls of said opening in said annular flange in said female member, each of said valves having an enlarged metallic head operating in the enlarged bore of its respective member and biased to its respective metallic seat formed by said flange, the periphery of each valve head having a beveled surface confined between first and second stepped parallel surfaces, one of said parallel surfaces being movable with the valve under said annular rib to confine said O-ring in its recess, said beveled surface and said other parallel surface being movable with the valve into engagement with said O-ring to compress the same until stopped by said metallic valve head engaging its metallic seat, and latching mechanism for holding said members in coupled telescopic relation, and means on said valves contacting each other to open said valves when said male and female members are coupled together.

2,839,315
SAFETY JOINT WITH SHEAR PIN RELEASE MEANS
Bryant P. Arterbury and George M. Clark, Houston, Tex., assignors of thirty-three and one-third percent to Roy L. Arterbury, Houston, Tex.
Application December 30, 1954, Serial No. 478,729
1 Claim. (Cl. 285—3)



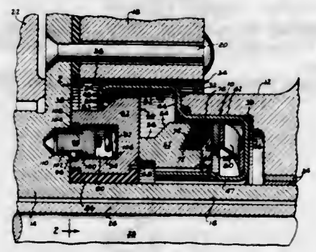
A tubular safety joint threadably connectable into a well bore pipe string and including threadedly connected upper and lower sections respectively having lower and upper end portions having transversely non-circular and longitudinally co-planar inner surfaces, an enlarged chamber within said lower section below said upper end portion terminating downwardly in a stop shoulder, a reduced diameter bore in said lower section extending below said stop shoulder, a sleeve having a bore therethrough of lesser diameter than the inner diameter of said pipe string and a transversely non-circular head part slidably engaging said surfaces simultaneously, frangible means to latch said sleeve in said position, means sealing said sleeve in said upper section, said head having lateral port means through its wall below the top thereof and being of a lesser length from the top thereof to the bottom thereof than the length of said chamber whereby means may be dropped through said string to close said sleeve bore and pressure may be exerted thereon to sever said frangible means and said sleeve may be forced downwardly by said pressure fluid from above to seat the bottom of said head on said stop shoulder, said downwardly acting pressure fluid being directed into said chamber after the top of said head passes below the bottom of said upper end portion, and thence through said port means into said sleeve and down said sleeve.

2,839,316
DETACHABLE SUCTION CLEANER SWIVEL COUPLING
Elmer J. Kasper, Cleveland, Ohio, assignor to Royal Appliance Mfg. Co., Cleveland, Ohio, a corporation of Ohio
Application March 3, 1954, Serial No. 413,939
2 Claims. (Cl. 285—7)



1. A swivel coupling on an attachment hose for connection with a suction cleaner having an outer surface with a suction port therein, the coupling including a rigid tube on one end of the hose, a first sleeve connected to the tube, the first sleeve having an end flanged inwardly, the tube having an outwardly opening channel receiving the inwardly flanged end of the sleeve, the first sleeve having an end portion releasably insertable within the suction port, the first sleeve also having an outwardly extending annular shoulder adjacent said portion, a resilient sleeve surrounding the first sleeve including the shoulder and having one end overlapping the connection with the tube in an airtight manner, the resilient sleeve also having another end terminating in a compressible channel portion abutting the side of the shoulder facing said end portion of the sleeve, the channel portion having an outer diameter substantially equal to that of the shoulder, and the distance between the shoulder and the outer surface of the cleaner being slightly less than the width of the uncompressed channel portion of the resilient sleeve when the first sleeve is inserted in the suction port.

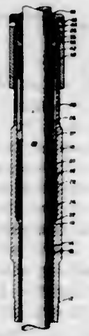
2,839,317
ROTARY MECHANICAL SEAL WITH SELF-LOCKING SEAT
Paul T. Haake, Park Ridge, Ill., assignor to Crane Packing Company, Chicago, Ill., a corporation of Illinois
Application November 1, 1954, Serial No. 466,113
3 Claims. (Cl. 286—11.13)



1. In a rotary mechanical seal for relatively movable elements, said seal having relatively rotatable sealing members, means for flexibly sealing one of said members

with respect to one of said elements, press-fit means for sealing and securing the other ealing member to the other element, an axially fixed abutment against which the said other sealing member constantly bears, and auxiliary means for securing the said other sealing member to the said other element, said auxiliary means comprising a pin having a portion of larger diameter at one end region thereof, there being a recess in the said other member to receive the said larger diameter portion, means on the said other member adapted to engage the larger diameter portion to prevent egress of the pin from the recess in the said other member, and a recess in the said other element to receive the end of the pin opposite the larger diameter portion, and resilient means in the recess in the said other member bearing against the pin and urging the pin out of the recess in the said other member.

2,839,318
STUFFING BOX FOR OIL WELLS WITH BLOW-OUT PREVENTER
Frank F. Ackermann, Odessa, Tex.
Application March 25, 1957, Serial No. 648,393
5 Claims. (Cl. 286—34)



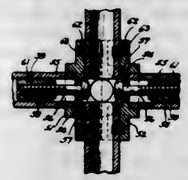
5. In a stuffing box having a vertically disposed generally cylindrical body, a rod coaxial with the body, packing between the rod and the bore of said body, a flange within said bore at the lower end of the packing, means at the lower end of the body for attaching said tubular body to a pipe, a plunger at the upper end of the packing, and means for forcing the plunger against the packing; the improvement comprising: an annular groove in the bore of body adjacent the flange, the upper extreme of said groove having a shoulder normal to the axis of the body, said shoulder being substantially below said plunger, and the bore between said shoulder and said plunger being smooth surfaced and cylindrical so that the packing may slide down easily.

2,839,319
ROD CLAMP
John P. Hobart, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 19, 1955, Serial No. 534,996
10 Claims. (Cl. 287—3)



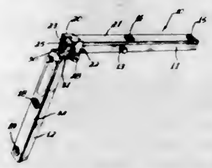
1. In a rod clamp, a first channel member having a wide flange, a second channel member having a wide flange, said members being positioned with the wide flanges facing each other and having portions in overlapping relation, said overlapping flange portions having aligned pivot apertures, a pin extending through said pivot apertures to provide a pivotal mounting for the clamp, a rod aperture in the base of each of the channel members providing a pair of aligned rod apertures to freely receive a rod when said channel members are at right angles to the rod, and means to rotate said members to a gripping position to grip the rod.

2,839,320
PIPE CONNECTORS
John W. Hill, Chicago, Ill., assignor to The Globe Company, Chicago, Ill., a corporation of Illinois
Application December 7, 1954, Serial No. 473,558
11 Claims. (Cl. 287—54)



1. A pipe connector comprising a pair of pipe clamping members having cooperative channel portions for receiving the ends of pipes therebetween, one of said clamping members having on the outer side thereof a seat portion for receiving the end of an anchoring pipe thereagainst, split expansible anchoring means movable toward and away from said last mentioned clamping member and separate from said clamping members for being positioned in said anchoring pipe, said anchoring means having a longitudinally extending opening therethrough gradually decreasing in size toward the outer end thereof, and a fastener member extending through said clamping member for engagement with said anchoring means to expand the outer portion of said anchoring means into engagement with the pipe walls thereabout, said fastener member being limited in movement toward said anchoring means and being adjustable with respect to said anchoring means to force the ends of said anchoring pipe against its seat and the clamping members substantially together about the ends of said other pipes.

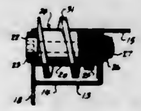
2,839,321
LAMP SUPPORTS
Guenther Selig, Chicago, Ill., assignor to Remsel Industries, Inc., Chicago, Ill., a corporation of Illinois
Application December 9, 1955, Serial No. 552,075
2 Claims. (Cl. 287—99)



1. In hinged structure of the kind described including respective hinged parts having adjacent inner ends, a latch for latching such adjacent parts at such inner ends and comprising, a depressable spring detent provided adjacent the inner end on one such part and having a reduced portion, and an enlarged portion terminating in a shoulder separating said portions of the detent, the enlarged portion of said detent constituting a catch, means on the other of said parts affording a hold down collar adjacent the inner end thereof and adapted to be held by said catch,

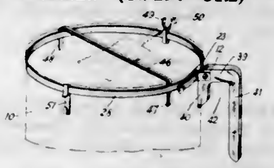
said collar being formed with a slot opening at one edge spaced forwardly of the inner end of said other part so as to provide spaced apart ears at such edge forwardly of said inner end of said other part and said slot extending rearwardly therefrom away from the inner end of said other part, said ears being spaced apart sufficiently to pass said reduced portion of the detent but insufficiently to pass said shoulder and enlarged portion of the detent, said slot and the reduced portion of said detent being disposed on an arc having the hinge axis as its center and said slot in the portion rearwardly of said ears being enlarged to the size of said enlarged portion of the detent, so that by forwardly advancing said slot and said reduced portion of the detent about said arc and engaging said ears with said shoulder and then further advancing the slot and the detent forwardly toward one another the detent is depressed until the ears pass forwardly beyond said reduced portion of the detent whereupon the detent recovers with the enlarged portion thereof disposed in the rear portion of the slot and is embraced by said ears at the forward portion thereof.

2,839,322
SECURING DEVICE
William B. Kirk, Fort Worth, Tex., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application August 30, 1955. Serial No. 531,553
6 Claims. (Cl. 292—251)



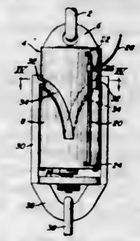
1. A locking device for a pair of relatively movable structural elements, said device comprising an axially bored rotatable element, said rotatable element including an engaging member extending in helical manner along the axis of said rotatable element, means rotatably supporting said rotatable element upon one of said structural elements, said means including a pair of spaced apart bushings, an axial member disposed through the bore of said rotatable element and having a head portion operable for rotation within one of said bushings, and an element secured to said axial member and adapted for rotation within the other of said bushings whereby said rotatable element, said axial member and said element are adapted for common rotation, said engaging member of said rotatable element being adapted upon operation of the head portion of said axial element to enter into an engaging slot in the other of said structural elements whereby relative movement between said structural elements is effected.

2,839,323
ADJUSTABLE AND DETACHABLE HOLDER FOR CONTAINERS
Frank B. Jamieson, Ridgefield, Conn.
Application June 18, 1953, Serial No. 362,644
5 Claims. (Cl. 294—31.2)



1. A detachable handle means for containers comprising a handle structure; a handle supporting member attached to the inner end of said handle structure; a resilient clamp band having one end engaged in said member and held by the latter against movement, said clamp having a free end extending through said member and overlapping said one end; and the free end of said band having longitudinally spaced, transversely extending teeth on its outer surface; and a cam pivoted on said supporting member adjacent the free end of said band and having teeth engageable with the teeth on said band, said cam having an operating finger piece extending therefrom to rotate said cam to interengage said teeth to draw said free end of said band through said member to tighten and lock said band about a container.

2,839,324
DEVICE FOR TURNING SUSPENDED LOADS
George A. Spencer, Pleasant Grove, Utah, assignor to United States Steel Corporation, a corporation of New Jersey
Application December 16, 1955, Serial No. 553,560
2 Claims. (Cl. 294—82)



1. In a non-rotatable lift-crane hook the improvement therewith of a device for turning a load suspended from said hook about its vertical axis which comprises a fluid pressure cylinder suspended from said hook, a piston having a piston rod attached thereto vertically slidable in said cylinder, the free end of said piston rod projecting outwardly of an opening in the bottom of said cylinder, spring means in said cylinder urging said piston upwardly, a vertically disposed by-pass conduit on the exterior of said cylinder communicating at one end with the interior of said cylinder adjacent the bottom thereof and communicating at its other end with the interior of said cylinder adjacent the top thereof, a remotely operated valve in said by-pass conduit for controlling the passage of pressure fluid through said conduit, a helical cam surface on the exterior surface of the wall of said cylinder, a substantially U-shape yoke bracket rotatably carried by the projecting end of said piston rod and slidingly engaging said cylinder, cam follower means on said bracket slidably engaging said cam surface, and load carrying means on said yoke bracket.

2,839,325
TONGS
Roger E. Jeanfavre, Litchfield, Conn., assignor to The Turner & Seymour Mfg. Company, Torrington, Conn.
Application September 26, 1957, Serial No. 686,305
2 Claims. (Cl. 294—99)

1. A tongs-like article comprising in combination superimposed spaced apart handle portions connected at adjacent ends by a resilient portion normally holding the tongs in open condition, said handle portions carrying on their ends remote from said resilient portion, resilient jaw portions having opposed inwardly extending edge portions adapted to be brought into close relationship for grasping an object and also adapted to be brought into an overlapping closed relationship for storage, one of said edge portions having a serrated edge including teeth, the other of said edge portions being formed with an aperture, one of said teeth being offset in a direction toward the apertured edge portion when the edge por-

tions overlap, such offset tooth being adapted to engage said aperture when the edge portions are moved into



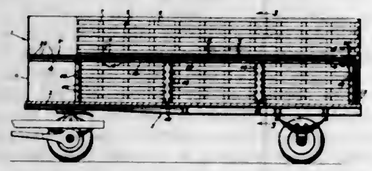
overlapping relationship whereby the jaw portions are secured in closed relationship.

2,839,326

DECK AND WALL FORMING BOARD EQUIPMENT FOR TRAILER BODIES AND MEANS FOR LOCKING THE BOARDS TO THE BODIES

Walter F. Simpkins, Jonesboro, Ark., assignor of twenty-five percent to Frank Snellgrove, Jonesboro, ten percent to Arvel L. Wall, Bay, twenty-one and two-thirds percent to George P. Simpkins, Jonesboro, and twenty-one and two-thirds percent to Mary Elizabeth Thompson, Marked Tree, Ark.

Application December 18, 1956, Serial No. 629,008
8 Claims. (Cl. 296—24)



1. In a truck body having a bed, sides and a tail gate, deck and wall forming equipment comprising a set of boards, interlocking means on said sides and the ends of said boards for attaching the set to said sides transversely of said body in deck forming position, and means on said sides and tail gate interlocking with the means on the ends of the boards to attach the boards to said sides and tail gate in stacked wall forming position to provide with said bed a bin in the bottom of said body, the interlocking means first mentioned comprising a pair of horizontal bars on said sides having key hole slots therein with narrow ends facing forwardly of said body, and headed studs on the ends of the boards insertable in said slots and interlocking with said narrow ends in response to sliding of the boards on the bars.

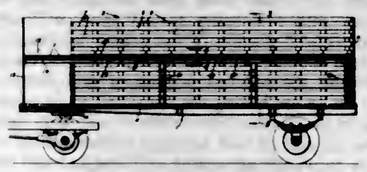
2,839,327

INTERLOCKING MEANS FOR MOUNTING DECK AND WALL BOARDS IN A VEHICLE BODY

Walter F. Simpkins, Jonesboro, Ark., assignor of twenty-five percent to Frank Snellgrove, Jonesboro, ten percent to Arvel L. Wall, Bay, twenty-one and two-thirds percent to George P. Simpkins, Jonesboro, and twenty-one and two-thirds percent to Mary Elizabeth Thompson, Marked Tree, Ark.

Application December 31, 1956, Serial No. 631,804
7 Claims. (Cl. 296—24)

1. Means for mounting boards in deck and wall formation in a truck body having sides, said means comprising a pair of bars secured horizontally to the sides of said body, bars secured vertically to the sides of said body, said bars having hollow ribs thereon having sides provided with rectangular slots therein and also having sides provided with bayonet slots therein opening into the rectangular slots, and outwardly extending studs



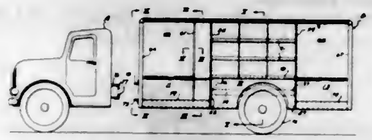
on the ends of the boards having enlarged heads insertible through said rectangular slots into said ribs to enter said studs in said bayonet slots for sliding along the latter to interlock the studs therewith.

2,839,328

LOAD CARRYING VEHICLE BODY

Thomas W. Prickett and Wooten E. Duncan, Birmingham, Ala., assignors to Highway Trailers and Utilities of Alabama, Inc., a corporation of Alabama

Application August 25, 1954, Serial No. 452,048
2 Claims. (Cl. 296—28)



1. In a vehicle for carrying cased goods, a combined load carrying and draft sustaining chassis and body frame generally of inverted U-shape as viewed in transverse section and formed of plate-like members which extend substantially the length of the frame immediately on either side of the longitudinal center thereof, said frame being relatively narrow and being the principal load carrying member in the chassis and body, a pair of vertically extending transverse plates secured to the longitudinal plates and projecting outwardly on either side thereof, said pair of vertically extending plates forming lower, transverse walls for cargo compartments located at opposite ends of the frame, means secured to the U-shaped frame forming bottoms for said compartments and located below the top of said U-shaped frame, an open intermediate cargo compartment between the pair of transverse plates and the end compartments, a bottom for the intermediate cargo compartment located above the top of said U-shaped frame and extending across substantially the entire width of the vehicle, a plurality of vertically spaced, horizontal unobstructed plates in said intermediate compartment above said bottom and extending across substantially the entire width of the vehicle whereby cased goods may be loaded for carrying on any portion of the bottom and the vertically spaced plates from either side of the vehicle, and longitudinally extending plate-like members separating said compartments at the ends of the frame into separate opposed compartments which lie on either side of the center line of the body.

2,839,329

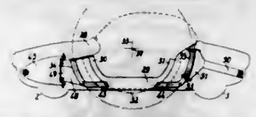
VEHICLE FRAME CONSTRUCTION

Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany

Application March 8, 1955, Serial No. 492,831
15 Claims. (Cl. 296—28)

1. In a passenger car, in combination, a car frame having a width exceeding the tread base of the car and

comprising a pair of longitudinal supports limiting the frame in lateral directions, at least one end of said supporting members being bent upwardly at a point near the wheels of the car and intermediate the wheels and the center of the car, at least one transverse wall located sub-



stantially between the bent ends of said longitudinal supports and being connected thereto, said transverse wall comprising two individual walls and means for connecting said two walls so as to form a rigid double wall, said double wall constituting the sole transverse support of said frame.

2,839,330

MOUNTING AND HOLDDOWN MEANS FOR TRUCK BODY DECKS

Walter F. Simpkins, Jonesboro, Ark., assignor of twenty-five percent to Frank Snellgrove, Jonesboro, ten percent to Arvel L. Wall, Bay, twenty-one and two-thirds percent to George P. Simpkins, Jonesboro, and twenty-one and two-thirds percent to Mary Elizabeth Thompson, Marked Tree, Ark.

Application December 18, 1956, Serial No. 629,009
5 Claims. (Cl. 296—28)



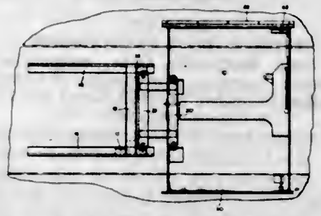
1. In combination with a trailer body having sides and a slat tailgate and a set of boards extending across said body and forming a deck therein, a pair of horizontal bars inside said body fixed to and extending along said sides and supporting the ends of said boards thereon, a pair of elongated holddown members in said body extending horizontally along said sides above the ends of the boards and swingable downwardly onto the ends of the boards into holddown positions, said members each including a horizontal rock shaft for swinging said members operatively connected to said members and extending through the slat tailgate rearwardly thereof, crank means on each rock shaft in the rear of the tailgate for rocking the shaft, and locking means for said crank means.

2,839,331

SLIDING DOOR FOR VEHICLES

Hugo Albert Guy Smith, Sutton Coldfield, England, assignor to Weathershields Limited, Birmingham, England, a British company

Application June 1, 1955, Serial No. 512,466
4 Claims. (Cl. 296—47)



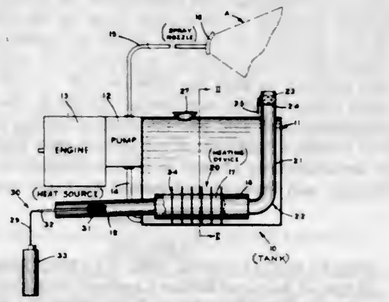
1. In a motor vehicle, a flush fitting sliding door assembly comprising a horizontally slidable door adapted, when closed, to fit into an opening in a wall of said vehicle, tracks on said vehicle for guiding the upper and lower ends of one vertical edge of said door, said tracks being inclined at a small angle to the plane of said opening, a carriage guided for horizontal movement on said wall parallel to the plane of the opening and adjacent one edge of the opening, a strap of substantial depth pivoted to said carriage about a vertical axis, and to the second vertical edge of the door, about a second vertical axis, a lug on said strap projecting beyond said second vertical edge and carrying a peg, a plate guided for horizontal reciprocating movement on said door parallel to its plane and having a cam slot in which said peg engages, and means for causing movement of said plate relative to said door whereby the engagement of said peg and slot causes transverse horizontal movement of said second vertical edge of the door into and out of the plane of the opening.

2,839,332

MEANS FOR APPLYING A LIQUID MATERIAL TO A SURFACE

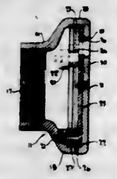
Frank G. Sackett, Kalamazoo, Mich.

Application June 23, 1953, Serial No. 363,437
1 Claim. (Cl. 299—35)



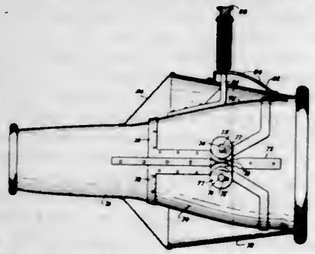
An apparatus for applying a quick drying, highly viscous and undiluted liquid asphalt material to a surface located at a substantial distance from the means containing the asphalt material, the combination comprising: tank means defining a chamber for said asphalt; an elongated, substantially horizontal casing defining a heating compartment within said chamber near to, and spaced from, the lower wall thereof; a plurality of spaced fins embracing said casing and extending outwardly therefrom into said chamber; an exhaust stack communicating with one end of said compartment and extending upwardly through, and out of, said chamber; an inlet pipe communicating with the other end of said compartment and extending out of said chamber, said stack and said pipe being substantially smaller in cross-sectional areas than said compartment, and said stack and said pipe combining with said compartment to form a single, L-shaped passageway disposed substantially completely within said chamber, whereby a maximum heat transfer and a gravity draft are effected; heat generating means, including a gasoline burning torch mounted upon an elongated handle, removably insertable into the extended end of said pipe for introducing heat into said compartment; a perforated damper mounted in the upper end of said stack for controlling the draft through said passageway; a pump capable of developing a pressure in excess of 600 p. s. i., and conduit means connecting said input of said pump to the lower end of said tank; an elongated, flexible conduit connected at one end to the output of said pump; a spray nozzle connected to the other end of said flexible conduit; and an engine drivingly connected to said pump and capable of causing said pump to develop a pressure in excess of 600 p. s. i. at said nozzle.

2,839,333
INLET FITTING
Jack M. Ulanovsky and Richard O. Lightfoot, Los Angeles, Calif., assignors to Paddock Pool Equipment Co., Los Angeles, Calif., a corporation of California
Application December 9, 1954, Serial No. 474,205
4 Claims. (Cl. 299—139)



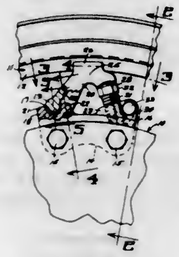
1. An inlet fitting comprising: a casing having a fluid passage extending therethrough, a first apertured plate extending across one end of the passage and rigidly fixed to the casing, a second apertured plate bearing flatly against and rotatably adjustable on the first plate, said plates each having a plurality of spaced openings therethrough, the openings in said plates being similarly located relative to the axis of rotatable adjustment of the second plate so that all of the openings in the latter plate are registered with openings in the first plate in one relative position of the second plate on the first plate to form a plurality of forward discharge openings and said second plate being adapted to be angularly adjusted from said position to vary the effective size of said openings, there being at least one lateral discharge opening communicating with said passage directly behind said plates, said angular adjustment of the second plate being adapted to simultaneously control in inverse proportion fluid flow through said forward and lateral discharge openings.

2,839,334
FOAM NOZZLE FOR FIRE EXTINGUISHMENT
Hyman Lacks and Milton Lambert, New York, N. Y.
Application December 6, 1954, Serial No. 473,496
16 Claims. (Cl. 299—141)
(Granted under Title 35, U. S. Code (1952), sec. 266)



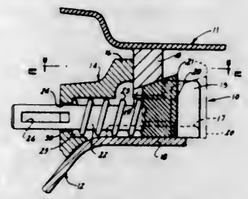
11. A nozzle for providing streams of a fire extinguishing foam fluid selectively in different patterns comprising a tube having a bore therethrough between an entrance end and a restricted discharge end, said tube having, intermediate of its ends, a plurality of openings in its wall arranged peripherally about the tube, closure elements articulately connected to said tube, and each movable between a closed position in which it closes a related opening in the tube wall and another and open position in which it uncovers its related opening in the tube wall and then has a part extending into the tube passage to create turbulence in the stream passing end to end through said tube, and screen means disposed exteriorly of and on said tube, covering said openings and clearing said closure elements as the latter move between said positions, for causing a turbulence that increases the foaming of that part of said stream which passes through each of said openings.

2,839,335
ADJUSTABLE TREAD WHEEL CLAMP
Robert B. Temple, Detroit, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application May 14, 1956, Serial No. 584,605
8 Claims. (Cl. 301—9)



1. A releasable clamp for an adjustable tread wheel of the type having an inclined rail on its rim acting to adjust the latter axially upon relative rotation of a coaxial body, said clamp comprising a jaw pivotally mounted on a peripheral portion of said wheel body, said jaw including guide elements outwardly straddling said rail and a portion releasably clamping said rail radially upon outward swinging of the jaw, and an actuator in operative threaded engagement between said wheel body and jaw to swing the latter about its pivot upon rotation of the actuator.

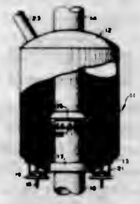
2,839,336
QUICK ACTING WHEEL CLAMP
Edward Fifield, Detroit, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application May 14, 1956, Serial No. 584,852
5 Claims. (Cl. 301—9)



1. A quick acting clamp for a variable tread wheel of the type having a rim shiftable axially of a coaxial wheel body by the relatively rotative coaction of camming members carried for rotation with the rim and body, respectively, comprising a clamp head slidable axially on said wheel body into and out of clamping engagement with said rim, a stem secured to said head and extending axially outwardly of said body, said stem having an opening therein and said wheel body having a fixed abutment surface adjacent said opening, and a manually actuable wedge received in said opening in releasably wedged engagement with said abutment surface.

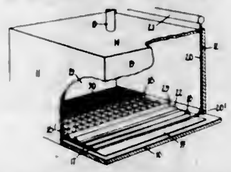
2,839,337
PEBBLE HEAT EXCHANGER
Lloyd E. Dean, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application December 21, 1953, Serial No. 399,329
20 Claims. (Cl. 302—17)

1. An improved pebble feeder comprising, in combination, a closed, upright, elongated shell; pebble inlet means in the upper end portion of said shell; pebble entrainment means extending through said shell and comprising an elevator conduit section open in its lower end, a lift gas inlet conduit section coaxially disposed with respect to said elevator conduit section and open on its upper end, said lift gas inlet being the sole means for introducing lift gas into said elevator conduit, passage means from the interior of said shell into an in-line passage formed by said elevator conduit section and said lift gas inlet conduit section, on a horizontal plane intermediate the ends of said shell, each of said passage



means having a smaller area at one end than the opposite end; means adapted to control the area of each of said passage means through which pebbles are permitted to pass and drive means containing at least one rotary moving part in the operation of which two surfaces slide with respect to each other, all of said rotary moving parts being located outside said closed, elongated shell.

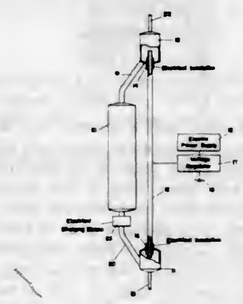
2,839,338
SHOT BLASTING CHAMBERS, STORAGE CHAMBERS AND THE LIKE
Ted Adamson Arnold, Mitcham, Victoria, Australia, assignor to William H. Mead, Oakland, Calif.
Application September 15, 1954, Serial No. 456,257
8 Claims. (Cl. 302—36)



1. In a chamber of the kind described, a substantially horizontal collector floor comprising a large number of relatively small downwardly convergent receptacles of hopper-like form arranged side-by-side in closely spaced relationship and having their upper ends communicating freely with the interior of the chamber, the aggregate area of the open upper ends of the receptacles being not substantially less than the area of the floor occupied by the receptacles, the said receptacles being arranged in parallel rows disposed side by side, means forming below each said row a corresponding laterally extending pneumatic discharge duct, each of the said receptacles having, at its lower end, a discharge opening which communicates freely with the respective duct, and air inlet means freely connecting the interior of the chamber to that end portion of each duct which is remote from the discharge end thereof, the cross-sectional area of such air inlet means being so related to the aggregate area of the discharge openings of the intervening receptacles in the respective row thereof, that a relatively large proportion of the total volume of air enters the duct through the said air inlet means.

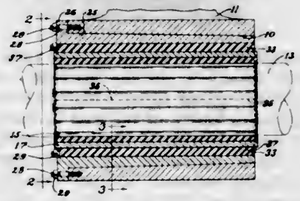
2,839,339
PROCESS AND APPARATUS FOR ELEVATING GRANULAR SOLIDS
Ivor W. Mills, Glenolden, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application August 17, 1956, Serial No. 604,805
9 Claims. (Cl. 302—66)

1. Process for elevating granular solids having particle size greater than 20 mesh wich comprises: suspending such solids in a lifting gas in an engaging zone; passing the suspension upwardly through a confined lifting zone in the presence of granular solids having particle size less than 20 mesh; discharging solids from said lifting zone into a disengaging zone; gravitating solids from said disengaging zone through a downflow path to said engaging zone; and maintaining an electrical charge on the wall of the lifting zone, which charge is opposite in



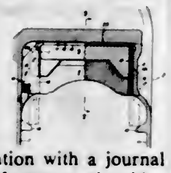
sign to the electrical charge on the solids, whereby said solids having particles size less than 20 mesh are caused to deviate from their normal course of travel by the attractive force of the opposite charges and become more concentrated in the peripheral portions of the lifting zone than in the absence of such attractive force, said lifting zone having substantially rectilinear axis and being substantially unconstricted throughout the region in which said charge is applied.

2,839,340
RESILIENT RUBBER JOURNAL BEARING ASSEMBLY
John Sylvanus Merchant, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application March 25, 1954, Serial No. 418,528
5 Claims. (Cl. 308—26)



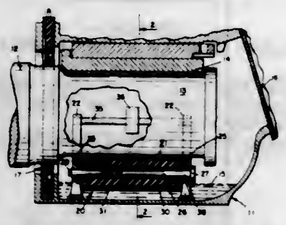
1. A journal bearing assembly comprising a generally cylindrical tubular rigid inner shell, a resilient rubber journal layer on the bore of said inner shell adapted to embrace a shaft journal, the journal layer including a plurality of longitudinally extending grooves formed in circumferentially spaced positions in the bearing layer and dividing the bearing layer into a plurality of lands to engage the shaft, the grooves providing lubricant-conducting passages intermediate the lands, an outer shell concentrically surrounding the inner shell a spaced distance from the inner shell and being substantially equal in length to the inner shell and an intervening circumferentially continuous body of resilient rubber between said outer shell and said inner shell and vulcanized to each of said shells and in its free state extending substantially the full length of each of said shells, the outer shell being divided longitudinally and circumferentially contractible to permit compression of said body of rubber upon installation of the outer shell in a housing structure.

2,839,341
JOURNAL BOX WEAR PLATE
Emil H. Blattner, Williamsville, N. Y., assignor to The Symington-Gould Corporation, Depew, N. Y., a corporation of Maryland
Application April 19, 1956, Serial No. 579,347
6 Claims. (Cl. 308—54)



1. The combination with a journal box having a pair of lugs instanding from opposite side walls and a roof, of a removable wear plate formed of relatively hard resilient material and comprising a top portion abutting and extending across said roof between said lugs, a pair of arms depending from opposite ends of said top portion and each yieldably urged into tight engagement with an inwardly directed surface of one of said lugs, and flanges outstanding from opposite sides of each of said arms and engaging outboard and inboard sides of the associated of said lugs, said wear plate being held against displacement vertically and longitudinally of said box by said engagement of said flanged arms with said lugs.

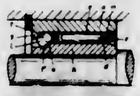
2,839,342
JOURNAL LUBRICATOR
Curtis D. Foos, Los Angeles, Calif.
Application July 19, 1954, Serial No. 444,065
5 Claims. (Cl. 308—91)



1. A journal lubricator device adapted to fit in a journal box beneath an axle projecting thereinto, comprising a pair of laterally spaced plates adapted to stand upright beneath and transversely of the axle in the journal box, said plates being formed of resilient material and each having a recessed upper edge to freely receive the journal, a roller rotatably mounted between said plates for peripheral engagement with said axle, a pair of resilient rods connecting said plates, and a block on each rod, said blocks being of a size to substantially extend from the side of the journal box to the axle whereby to provide abutment means limiting lateral displacement of the axle when said device is installed in a journal box beneath an axle projecting thereinto.

2,839,343
RADIAL NEEDLE AND AXIAL ROLLER BEARING
Emil Beusch, Herzogenaurach, Germany, assignor to Industriewerk Schaeffler O. H. G., Herzogenaurach, Bavaria, Germany, a firm
Application April 19, 1954, Serial No. 424,395
Claims priority, application Germany April 24, 1953
14 Claims. (Cl. 308—174)

1. A combined radial needle bearing with needle bearing elements and axial roller bearing with roller bearing elements for absorbing the radial forces essentially only by said radial bearing and the axial forces essentially only by said axial bearing comprising an outer bearing ring and an inner bearing ring forming therebetween the raceways for said needle bearing elements and said roller bearing elements, the raceways for said needle bearing and the raceways for said roller bearing in said rings merging directly into each other uninterruptedly and at least the raceways formed by one of said ring hav-



ing essentially like diametric dimensions, and cage means for at least the bearing elements of one of said bearing so as to positively limit the function of each bearing to the absorption of essentially only those forces capable of ready transmission thereby, said axial roller bearing being disposed in the axial direction near the outside of said combined bearing.

2,839,344
SPECIALIZED MONOCOQUE CONSTRUCTION FOR RADAR INDICATORS
Frank M. Krantz, Ellicott City, and Richard F. Huelskamp, Baltimore, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 9, 1956, Serial No. 583,890
4 Claims. (Cl. 312—7)



2. A vertical casing for a radar indicator comprising a unitary frame including a vertical rectangular frame member and a vertical U-shaped frame member, said latter frame member having one leg thereof intersecting said rectangular frame substantially midway its width and forming a column for said rectangular frame, each of said frame members being formed of tubular members rectangular in cross section, a pair of interior panel members L-shaped in top plan arranged one on each side of said U-shaped frame member and forming therewith a structure substantially T-shaped in top plan, means on said interior panels for mounting indicator components thereon, and readily removable exterior panel members mounted on said structure and forming outer walls of said casing.

2,839,345
CABINET MECHANISM FOR DISPENSING PREDETERMINED LENGTHS OF A WEB SUCH AS TOWELLING
John B. Engel and Lawrence E. Plettner, Green Bay, Wis., assignors to Bay West Paper Company, Green Bay, Wis., a corporation of Wisconsin
Application January 23, 1952, Serial No. 267,832
11 Claims. (Cl. 312—39)

1. In a device of the character described for dispensing a severable web from a supply roll, the combination

with a dispensing roll and means for the manual operation thereof, of a severing means past which such web is fed by said roll, a stop member mounted for movement and connected with said roll to be actuated on a given path as the roll rotates, a second stop member having a mounting upon which it is movable for advance from a retracted position to second and third positions, the second stop member having a portion which, in said first position, is temporarily in the path of the first stop member to receive motion therefrom for the advance of the second stop member to said second position



during a given rotation of said roll, and having a stop portion which, in said third position, is in the path of the first stop member to arrest further roll rotation, a mounting on which the second stop member is movable between said retracted position and said second and third positions, means to effect a movement of the second stop member from said second position to said third position, and a resetting device connected with the second stop member for retracting it from said third position to its retracted position, whereby a further dispensing operation is permitted to said roll.

2,839,346
ROLLED PAPER DISPENSER
Harold L. Lawalin, Indianapolis, Ind.
Application October 6, 1955, Serial No. 538,966
1 Claim. (Cl. 312—39)



A box adapted to contain at least two progressively usable rolls of paper, an upper roll in readiness for use, and a lower roll which is adapted for current use and which, when it is exhausted, will be replenished by the upper roll, the relatively narrow horizontally disposed shelf having one longitudinal edge portion pivotally mounted on one of the walls of the box and projecting into the space of the box and dividing the box into upper and lower compartments, one for each roll of paper, said shelf being normally in an up position and providing the sole supporting means for the upper roll of paper and being lowered in part by the weight of the roll of paper and in part by the forces of gravity, a vertically disposed trip plate having its upper end hingedly mounted on one wall of said box and depending into the lower compartment, said trip plate being spring biased and normally interposed between said one wall and an end portion of the roll of paper in the lower compartment and adapted to be acted on by the spring means and swung to a shelf-tripping position when the roll of paper with which it is cooperating has been used up, and a trigger latch carried by and rising from and above the hinged upper end of said trip plate, said latch having its upper end releasably underlying and engaged with an end portion of said shelf.

2,839,347
BREAKER FRAME CONSTRUCTION
Robert D. Strub, Coralville, Iowa, assignor to Amana Refrigeration, Inc., Amana, Iowa, a corporation of Iowa
Application February 21, 1956, Serial No. 566,861
2 Claims. (Cl. 312—214)

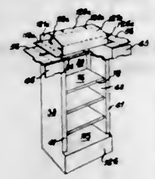


2. In a refrigerator door, a deep drawn substantially rectangular one piece shell, a deep drawn substantially rectangular one piece pan mounted in said shell in spaced relation thereto and projecting for the major portion of its depth beyond the inner side of said shell, said pan being of materially less height and width than said shell and the latter having at its inner side a peripheral flange extending inwardly thereof substantially perpendicular to its top and bottom and side walls, said pan being open at its inner side and having the terminal edge portions of its top and bottom and side walls offset outwardly, and a one piece breaker frame extending between said shell pan having at its outer end a peripheral flange seating on and secured to said flange of said shell, said frame having at its inner end a perpiheral channel opening toward and receiving said outwardly offset terminal edge portions of said walls of said pan in nested relation effective for supporting the inner portion of said frame and concealing said offset terminal edge portions, said breaker frame having at the lower portions of the side walls thereof integral extensions projecting therebeyond substantially in the planes of the side walls of said pan and being provided with a transverse reinforcing wall integrally connecting the upper portions of said extensions, and a horizontal shelf mounted in said pan and extending therebeyond between said extensions, said shelf having an upwardly opening lengthwise groove adjacent its outer edge receiving the lower portion of said reinforcing wall for imparting rigidity to and reinforcing the latter.

2,839,348
CABINET
Nunzie E. Giannini, Passaic, N. J., assignor to Eastern Corrugated Container Corporation, Inc., Clifton, N. J., a corporation of New Jersey
Application February 6, 1957, Serial No. 638,586
4 Claims. (Cl. 312—263)

2. A cabinet formed from flexible sheet material and comprising a pair of identical side wall members each

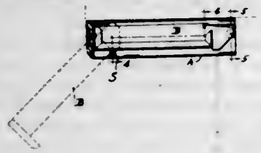
defining a side wall panel portion, a first back member in interlocking engagement with the back edge of the side wall panel portion of said side wall members, said side wall members having retroverted panel portions extending interiorly of the enclosure defined by said side wall panel portions and said first back member lying substantially parallel to said side wall panel portions, an interior second back member in interlocking engagement with said retroverted panel portions, and top and bottom end members each having panel portions interlocking respectively with the top and bottom edges of said retroverted portions, said first back member having flaps at its top and bottom ends, and said top and bottom members having flaps extending from said panel portions, said flaps of the end members and said flaps of the first back member being folded inwardly of said enclosure to meet to define the top and bottom end surfaces of the cabinet and having vertically-extending end tongue portions bearing against the panel portions of said end members, whereby the panel portion of each end member is parallel to and spaced inwardly of the adjacent cabinet end surface with said end tongue portions extending substantially at right angles to said last-named panel portion and the adjacent end surface, and a plurality of shelves in spaced apart relationship engaged with said retroverted panel portions in parallel relationship with the panel portions of the top and bottom members.



2,839,349
KNIFE DRAWER UNIT

Paul C. Culver, Crisfield, Md., assignor, by mesne assignments, to Leo Lemchen and Matthew A. Waimon, both of East Orange, N. J.

Application June 24, 1954, Serial No. 439,047
1 Claim. (Cl. 312—323)

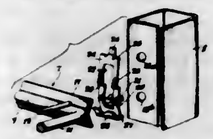


A cutlery holder unit, including, in combination, a skeleton metal frame open at the top, bottom, front and back, comprising, spaced side walls of channel formation providing inwardly directed upper and lower flanges, guides integrally pressed outwardly of the side walls forming tracks including horizontal rear portions and downwardly inclined front portions, a pair of rear transverse strap members in vertical registry and rigidly connecting the rear portions of the upper and lower flanges of the side walls, a pair of front straps connecting the front portions of the upper and lower flanges, the front strap connecting the lower flanges being offset inwardly of the upper front strap to provide drawer stop abutment clearance, a stop abutment on the inner face of each side wall and located in a vertical plane between the front offset straps and adjacent and below the downwardly inclined portions of the said integrally pressed outwardly guides, a drawer slidable in said frame and having a bottom wall, a rear wall and a front wall whose inner face engages the upper front strap of the frame to limit inward movement of the drawer, said drawer also having side walls provided with extensions projecting beyond the useable storage space of the drawer as defined by said rear wall, a roller on each side wall adjacent the respective extension for travelling in a related guide, each extension having a vertical edge disposed below the bottom wall of said drawer and providing a stop shoulder for engagement with said stop abutments when the drawer is pulled fully out of the frame and the rollers rest in the terminal portions of the downturned guides and the upper corners of extensions engage beneath the upper flanges of the frame, and the rear end of each extension being provided with a relatively flat adjustable take-up button cooperating with the respective frame side wall members for limiting lateral movement of the drawer about a vertical axis intersecting the axis of said rollers when the drawer is being moved along the guides.

2,839,350
ADJUSTABLE SHELF AND A MOUNTING MEANS THEREFOR

Frederick M. Hill, Pittsburgh, Pa., and Walter E. Goebel, Norwalk, Conn., assignors to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application May 10, 1956, Serial No. 583,978
7 Claims. (Cl. 312—351)

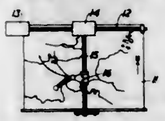


7. In a cabinet having shelf supporting walls with vertically spaced apertures, a shelf having on one side mounting pins for insertion in the apertures of one wall and a reinforcing strip fixed to its opposite edge, removable shelf supporting clamps for mounting on the other wall, said clamps comprising an aperture engaging portion adjacent one end adapted to engage one aperture of a plurality of apertures in said other wall and a portion adjacent the other end bent outwardly and shaped to snap into a second aperture in said other wall, an offset resilient portion in the body of said clamp shaped to releasably receive the lower and upper edges of said reinforcing strip in a resilient clamping action.

2,839,351
COURSE-INDICATING APPARATUS

Albert Ernest Cutler, Crawley, England, assignor to Communications Patents Limited

Application September 22, 1954, Serial No. 457,692
Claims priority, application Great Britain October 1, 1953
5 Claims. (Cl. 346—8)



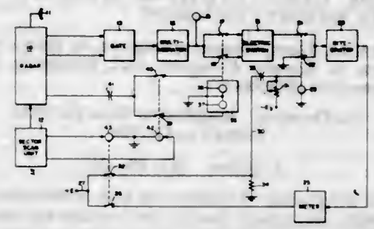
1. Apparatus for indicating the course and altitude of aircraft which comprises means providing a surface over which curves may be traced, a member supported for movements thereof parallel to ordinates and parallel to abscissae of said surface, a first element supported by said member adjacent said surface for movement of said first element to trace a curve over said surface according to the composite of the movements of said member parallel to said ordinates and abscissae, electric motor means actuated by electric signals derived from movement of an aircraft along a ground track and operatively connected to said member for effecting said composite movement of said member to move said element to trace a curve over said surface representing said ground track of said aircraft, a second element supported by said member for movement with said member in said composite movement thereof and for movement of said second element relative to said member to and from positions disposed transversely of said ground track curve, and a second electric motor means actuated by electric signals derived from altitude movements of said aircraft and operatively connected to said second element for effecting said movement of said second element transversely of said ground track curve to positions indicating relative to said ground track curve the altitude of said aircraft.

2,839,352
RADAR BEARING ERROR INDICATING SYSTEM

Robert S. Kertcher, Ventura, and Oliver La Plant and Herman W. Hutchcraft, Oxnard, Calif., assignors to the United States of America as represented by the Secretary of the Navy

Application November 4, 1955, Serial No. 545,140
9 Claims. (Cl. 343—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A radar bearing error indicating system for use in conjunction with a sector scanning radar which comprises gate means, means for impressing a video output voltage and a range gate voltage on said gate means, multivibrator means connected to the output of said gate means, electronic switch means, a first plurality of switches each of which has one side thereof connected to the output of said multivibrator means and the other side thereof connected to said electronic switch means, means for operating said first plurality of switches, integrating means, a second plurality of switches each of which has one side thereof connected to said integrating means, one of said second plurality of switches having the other side thereof connected to the output of said electronic switch means, another of said second plurality of switches having the other side thereof connected to ground, and means for operating said second plurality of switches whereby the output voltage of said integrating means is of such polarity and magnitude as to accurately represent the direction and amount of bearing error in a sector scanning radar.



CHEMICAL

2,839,353
HIGH SPEED PEROXIDE TEXTILE BLEACHING PROCESS

Walter F. Coleman, Evanston, Ill., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 26, 1956
Serial No. 580,731
13 Claims. (Cl. 8—111)

9. The method of bleaching a cotton textile comprising dampening said textile with from 50 to 150% of its dry weight of an aqueous solution containing alkali equivalent to from 1 to 6% caustic soda, then subjecting the dampened textile to the direct action of saturated steam at a temperature of from 275 to 400° F. and at a pressure corresponding to said temperature; dampening the so-treated textile with from 50 to 150% of its dry weight of an aqueous alkaline hydrogen peroxide solution containing from 0.05 to 3% hydrogen peroxide, and bleaching the textile dampened with the hydrogen peroxide solution by subjecting it to the direct action of saturated steam at a temperature of from 275 to 400° F. and at a pressure corresponding to said last named temperature, the time periods for both of said steaming treatments not exceeding a total of 60 seconds.

2,839,354
SPINNING

Gregory M. Moelter, Basking Ridge, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

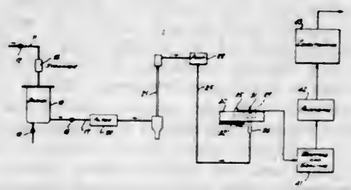
No Drawing. Application March 22, 1956
Serial No. 573,072
2 Claims. (Cl. 18—54)

1. In a dry spinning process for the production of filamentary material by forcing a dope comprising a solution of cellulose triacetate having an acetyl value of at least 59% by weight in a member of the group consisting of methylene chloride and mixtures of methylene chloride and lower aliphatic alcohols through the apertures in a spinnerette into an evaporative medium, the improvement which comprises wiping the face of the spinnerette with an emulsion of mineral oil, water and emulsifying agent, the mineral oil having a Saybolt Universal viscosity of between 40 and 150 seconds at 100° F. to improve the starting up of the spinning operation and the uniformity of spinning.

2,839,355
STERILIZATION OF SURGICAL DRESSINGS

William L. George, Middlesex, N. J., assignor to Johnson & Johnson, a corporation of New Jersey

Application May 8, 1956, Serial No. 583,529
3 Claims. (Cl. 21—58)



1. In the method of sterilizing a fibrous surgical dressing by treatment with vapors of water and formaldehyde in a wrapping which is bacteria-impermeable but permeable to said vapors, which dressing is susceptible to undesirable loss of loft upon prolonged wetting with an aqueous liquid, the improvement which comprises providing in said dressing aqueous formaldehyde liquid in an amount and concentration to provide formaldehyde in an amount in the range of 0.4 to 1.5% based on the weight of the dressing plus the wrapping, and water in an amount in the range of 3 to 10% based on the weight of the dressing, wrapping the said dressing within 1 sec. to 3 min. and maintaining at a temperature in the range of 50 to 200° F. at a moisture content within the said range of 3 to 10% for a time in the range of one hour

to 3 weeks, whereby there is obtained a non-deteriorated fibrous surgical dressing which is sterile and individually wrapped in bacteria-impermeable material.

2,839,356

PROCESS OF REMOVING ACIDIC CONSTITUENTS FROM GASES UTILIZING SCREENED LOW BULK WEIGHT LUX MEANS

Alfred Karl, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application June 14, 1954
Serial No. 436,720

3 Claims. (Cl. 23—3)

1. In the process of removal of acid constituents from gas which comprises, passing gas containing hydrogen cyanide, hydrogen sulphide, nitric oxide and other like acid constituents through a solid purifier mass of the "Lux" mass type in a purifier tank to remove said constituents from said gas by contact with said mass, the step of introducing said Lux mass into the tank by vibratory screening the "Lux" mass, as generally formed originally in grain sizes between several millimeters and O, directly into the tank from above the same by a screen with a mesh size of about 2 mm. while vibrating at a frequency of about 1500 C./S. so as to deliver the undersizes that pass through the screen during its vibration in the form of a bulk weight that is below 800 kg./m.³.

2,839,357

SOLVENT EXTRACTION PROCESS FOR URANIUM RECOVERY

Herbert M. Clark, Troy, N. Y., and Dick Duffey, La Fontaine, Ind., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 7, 1949
Serial No. 75,065

16 Claims. (Cl. 23—14.5)

1. A process for the separation of uranyl nitrate from an aqueous solution containing uranyl nitrate and a heteropoly acid of molybdenum, and which is at least 0.5 M in nitric acid, which comprises neutralizing at least part of the nitric acid of said solution to provide an acidity of less than 0.5 M, incorporating a salting-out agent in said solution, contacting the resultant aqueous solution with a liquid organic solvent which is substantially immiscible with said aqueous solution and which contains at least one atom capable of donating an electron pair to a coordination bond, and separating an aqueous raffinate phase and an organic solvent extract phase containing uranyl nitrate and only a minor amount of the molybdenum values.

2,839,358

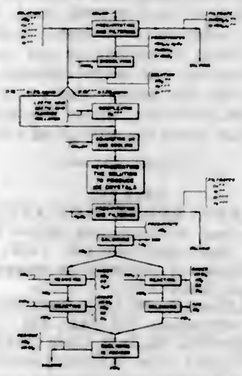
PROCESS OF RECOVERING URANIUM

Thomas Duane Price, Oak Ridge, Tenn., and Nylan M. Jeung, Berkeley, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application November 30, 1944, Serial No. 565,997

11 Claims. (Cl. 23—14.5)

1. The process of reclaiming uranium from a solution containing heavy metal impurities including iron and copper comprising the steps of adjusting the pH of said solution within the approximate range of 1 to 3, refrigerating the acid solution until ice crystals are formed therein, treating said refrigerated solution with hydrogen



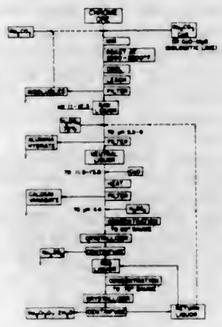
peroxide to precipitate the uranium as uranium peroxide away from the heavy metal impurities in the solution, freezing and thawing and then separating the uranium peroxide precipitate so formed from the solution.

2,839,359

PROCESS FOR TREATING CHROMIUM-BEARING ORES

Clayton L. Dunning, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application August 21, 1953, Serial No. 375,646
15 Claims. (Cl. 23—56)



1. In a process for treating chromium-bearing ores for the purpose of recovering chromium values in good degree of purity which ores contain contaminants in the form of vanadium and aluminum compounds, and wherein the said chromium values and impurities are removed from the ore by first roasting said ore, and then leaching them therefrom to form a liquor, the improvement that comprises treating said liquor to effect removal of substantially all of said aluminum impurities and thereafter effecting removal of vanadium impurities at a pH of between about 11.5–13 by supplying calcium oxide in the said liquor while heating the said liquor at a temperature of about 50° to 70° C. for from about 30 to about 60 minutes, and separating the purified liquor from the precipitate so formed.

2,839,360

METHOD FOR REDUCING THE CONCENTRATION OF ALKALI METAL SALTS IN CALCIUM CHLORIDE BRINES

J. R. Gump, Alma, and Herbert C. Wohlers, St. Louis, Mich., assignors to Michigan Chemical Corporation, St. Louis, Mich., a corporation of Michigan

No Drawing. Application February 24, 1955
Serial No. 490,427

7 Claims. (Cl. 23—90)

1. The method for reducing the concentration of alkali metal salts in calcium chloride brines, comprising the steps of cooling the calcium chloride brine substantially independently of the concentration of calcium chloride in the brine to a temperature above the point at which calcium chloride crystallizes but below the temperature at which the concentration of sodium chloride capable of remaining in solution in the brine is less than the concentration of sodium chloride in the brine, separating the insoluble sodium chloride from the brine, removing water from the brine to increase the concentration of calcium chloride in the brine to between 63–70 percent by weight, maintaining the temperature of the brine above the point at which calcium chloride crystallizes but below its boiling point whereby the potassium chloride in the brine in excess of 2.32 percent by weight at the lower concentration to 1.61 percent by weight at the higher concentration forms into an insoluble double salt of $KCl.CaCl_2$, and then separating the insoluble double salt from the concentrated brine solution.

2,839,361

DEFLUORINATION OF PHOSPHATE ROCK

Clinton A. Hollingsworth, Lakeland, Fla., and John C. Williams, Catasauqua, Ohio, assignors to Smith-Douglass Company, Incorporated, Norfolk, Va., a corporation of Virginia

No Drawing. Application October 14, 1954
Serial No. 462,376

2 Claims. (Cl. 23—108)

1. The method of defluorinating phosphate rock which comprises subjecting the rock with a silica content of from 2 to 6% to calcination at a temperature of at least 2600° F. without substantial fusion in the presence of water vapor and of a reagent mixture consisting essentially of sodium chloride and phosphoric acid, the mol ratio of the sodium and phosphorus contents (calculated as Na_2O and P_2O_5 respectively) of the reagent mixture being between 1.6 and 2.8 and the CaO, Na_2O, P_2O_5 and SiO_2 content of the combined phosphate rock and reagent mixture being such that the mol ratio of these constituents in the molar formula

$$\frac{\text{Mols CaO}+\text{Na}_2\text{O}-3\text{P}_2\text{O}_5}{\text{Mols SiO}_2}$$

is between 1.3 and 2.8, and maintaining the calcining charge at said calcining temperature for a sufficient period of time to produce a phosphate product having high fertilizer availability and containing less than one part of fluorine for each 100 parts of phosphorus.

2,839,362

WITHDRAWN

2,839,363

WITHDRAWN

2,839,364

CLARIFYING TITANIUM SULPHATE SOLUTIONS

John J. Libera, East St. Louis, Ill., and Eckard J. Poetz and Arthur V. Schopp, Jr., St. Louis, Mo., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 25, 1953
Serial No. 394,488
1 Claim. (Cl. 23—117)

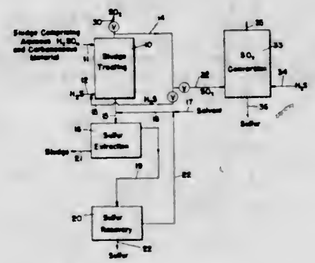
A method for treating a titaniferous ore containing sulfide compounds which comprises digesting said ore in sulfuric acid, dissolving the resulting soluble constituents of said reaction mass in an aqueous solvent, reducing the ferric iron values in said solution to ferrous iron without removing the insoluble constituents of said reaction mass, said sulfide compounds thus forming H_2S, removing by aeration said H_2S from said solution, dissolving in said solution an antimony compound soluble in said solution and subsequently adding a sulfiding agent to the solution and forming a precipitate of antimony sulfide, said antimony sulfide precipitate being present in said solution in sufficient amount to produce the required bulk to clarify said solution.

2,839,365

TREATMENT OF SULFURIC ACID SLUDGE

Peter B. Murray, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application June 25, 1956, Serial No. 593,587
6 Claims. (Cl. 23—178)



1. Process for treating sulfuric acid sludge which comprises contacting sludge produced in sulfuric acid treatment of petroleum hydrocarbons with added hydrogen sulfide at a temperature within the approximate range from 40° F. to 250° F., thereby forming elemental sulfur, and separating elemental sulfur from the sludge.

2,839,366

PROCESS FOR THE MANUFACTURE OF BORON NITRIDE

Jonas Kamlet, Easton, Conn., assignor to National Distillers and Chemical Corporation, a corporation of Virginia

No Drawing. Application June 18, 1953
Serial No. 362,673
6 Claims. (Cl. 23—191)

1. A process for the manufacture of boron nitride which comprises the steps of reacting from two to five moles of boric anhydride with two moles of a member of the group of alkali metal cyanides consisting of sodium cyanide and potassium cyanide, at temperatures between 800° C. and 1500° C., until evolution of carbon monoxide is substantially complete, thereafter cooling, solidifying and comminuting the solidified reaction mixture, thereafter separating the water-insoluble boron nitride from the water-soluble alkali metal borates and thereafter stabilizing the boron nitrides by heating at a temperature of from 1900° C. to 2200° C.

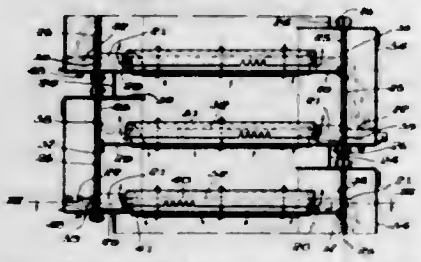
2,839,367
PREPARATION OF CRYSTALLINE BORON
David R. Stern, Fullerton, and Lahmer Lynds, North Hollywood, Calif., assignors to American Potash & Chemical Corporation, a corporation of Delaware
No Drawing. Application April 9, 1957
Serial No. 651,577
5 Claims. (Cl. 23—209)

1. A process for producing elemental boron comprising passing a boron halide and hydrogen over a heated filament element to decompose the boron halide and deposit elemental boron on the filament, the filament element being one selected from the group consisting of titanium and zirconium and being at a temperature of about 1000° C.

2,839,368
SPOT TESTING
Paul W. McConnaughey, Wilkinsburg, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application May 24, 1956
Serial No. 586,934
5 Claims. (Cl. 23—230)

1. A method of spot testing comprising depositing on a carrier a colorimetric reagent as a suspension in a liquid that is not a solvent for said reagent, whereby a uniform deposit of reagent is obtained, and developing a color characteristic of the test being conducted by reacting said reagent as thus deposited with material under test.

2,839,369
AMMONIA STILL APPARATUS
Frederick C. Mullins, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
Application June 14, 1956, Serial No. 591,469
6 Claims. (Cl. 23—263)



1. Coke oven by-product recovery equipment comprising: an ammonia still having a free leg comprising an upper shell portion with superposed bubble cap trays therein and a fixed leg comprising a lower shell portion with superposed bubble cap trays therein with the trays spaced from each other in each leg so that the distance between the tray above and the tray below every one of the trays is a minimum of at least three feet, said fixed leg communicating above its trays with the free leg below its trays for passage of vapors from the fixed leg to the free leg of the still, means for inlet of ammoniacal gas liquor to the still at an upper tray of the free leg, means for off-flow of ammonia vapors from the still at a level above said inlet means to the free leg, means for inlet of steam to the fixed leg below the trays therein, means for continuous withdrawal of gas liquor from a lower tray of the free leg to the exterior of the still shell, means for continuous supply of lime slurry to said withdrawn liquor, means for continuously mixing and introducing said lime slurry and said withdrawn gas liquor to said fixed leg at an upper tray therein, means for withdrawal of ammonia still waste from the fixed leg at a level below the trays therein, and overflow weir means interconnecting said trays for serial downflow of gas liquor over the trays of the free and fixed legs, said overflow weir means comprising framed access passageways individualized each to one of the respective bubble cap trays, each framed passageway comprising a frame which is of a minimum length and height of at least three feet and is firmly connected to the shell portions surrounding the trays at the perimeter thereof, and which provides a passageway that extends from, and is unobstructed from, the region of the base of the next subadjacent tray upwardly to a region between the top of the bubble caps of its respective tray and the base of the next tray above, an overflow conduit for each frame projecting beyond the exterior of the shell and detachably secured to the respective frames individually, said conduits each being of a height and perimetrical length corresponding to the height and length of its frame to correspond with the proportion of the diameter of the surfaces of the trays required for service as their weirs, a weir plate detachably connected to each frame intermediate the same and the conduit therefor, each weir plate being of the same perimetrical length as its frame and having an upper terminal outflow edge and a lower terminal inflow edge with the upper terminal outflow edge located at a spaced distance above the top of the tray individualized to its frame and at a region above said tray and below the portion of the frame above said cap tops of said tray for maintaining a liquid seal at said caps by outflow from the tray to the conduit, and with the lower terminal inflow edge of each weir plate located at a spaced distance below the base of the tray individualized to its frame, at a level above the portion of its frame that is in the region of the base of the next tray below but below the upper outflow edge for the weir plate for said tray below, for inflow from the conduit to said tray below while concurrently sealing off steam vapors from flowing from said tray below to said conduit.

2,839,370
ALUMINUM ETCHING
Donald Gardner Foulke, Watchung, and Oscar Kendle Irgens, Rumson, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application May 4, 1956
Serial No. 582,662
9 Claims. (Cl. 41—42)

1. The process for etching articles of aluminum and aluminum base alloys which comprises bathing said articles in an aqueous alkaline aluminum etching solution containing at least 0.01 ounce per gallon of at least one primary carbinol of the group consisting of pentaerythritol, tetrahydrofurfuryl alcohol, and 1,2,4-butanetriol.

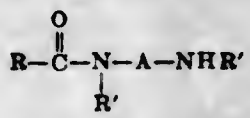
2,839,371
GASOLINE COMPOSITION
Harrison W. Sigworth, El Cerrito, and Eddie G. Lindstrom and Maurice R. Barusch, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application April 8, 1954
Serial No. 421,964
5 Claims. (Cl. 44—63)

1. A gasoline composition capable of reducing deposits normally formed in the induction system of a spark-ignition engine which comprises a major portion of a hydrocarbon base fuel boiling within the gasoline boiling range having incorporated therein a small amount, sufficient to reduce said deposits, of a 1,2 substituted imidazoline bicarbonate in which the 1-substituent is a radical selected from the group consisting of hydroxyethyl and aminoethyl radicals and the 2-substituent is an acyclic hydrocarbon radical containing 11 to 17 carbon atoms.

2,839,372
GASOLINE COMPOSITION
Eddie G. Lindstrom and Maurice R. Barusch, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application April 19, 1954
Serial No. 424,243
8 Claims. (Cl. 44—66)

1. A gasoline composition capable of reducing deposits normally formed in the induction system of a spark-

ignition engine, which comprises a major proportion of a hydrocarbon base fuel boiling within the gasoline boiling range and having incorporated therein a small amount, sufficient to reduce said deposits, of an oil-soluble acyclic amino alkylene amide of the formula



wherein R is an acyclic hydrocarbon radical containing 11 to 17 carbon atoms, A is an alkylene radical containing 2 to 4 carbon atoms, and in the two occurrences of R' one is hydrogen and the other is a C_2–C_4 amino alkyl group.

2,839,373

GASOLINE COMPOSITION

Maurice R. Barusch and Eddie G. Lindstrom, Richmond, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application April 19, 1954
Serial No. 424,244
9 Claims. (Cl. 44—66)

1. A gasoline composition capable of reducing deposits normally formed in the induction system of a spark-ignition engine which comprises a major proportion of a hydrocarbon base fuel boiling within the gasoline boiling range having incorporated therein a small amount, sufficient to reduce said deposits, of an oil-soluble N-aliphatic-substituted amino alkylene amide of a higher fatty acid containing a terminal hydroxyl group in the aliphatic substituent, said alkylene and said aliphatic radicals containing from 2 to 4 carbon atoms.

2,839,374

EXPLOSIVE COMPOSITIONS

James Taylor, London, England, and Thomas James Reid, Ardrossan, Scotland, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application November 2, 1953
Serial No. 389,887
Claims priority, application Great Britain November 19, 1952
5 Claims. (Cl. 52—7)

1. A safety ammonium nitrate blasting explosive powder consisting essentially of about 5 to 12% by weight trinitrotoluene, about 28 to 65% by weight ammonium nitrate, and greater than 35% by weight sodium chloride, wherein the ammonium nitrate and trinitrotoluene consist of fine particles in intimate admixture and wherein at least 10% by weight of the sodium chloride is retainable on a 120 B. S. S. sieze and not more than 25% by weight of the sodium chloride passes a 120 B. S. S. sieve.

2,839,375

NITROGEN-PHOSPHORUS COMPOSITION

Curtis G. Christian, Anaheim, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

No Drawing. Application January 27, 1955
Serial No. 484,567
8 Claims. (Cl. 71—32)

1. The process which comprises (1) contacting elemental phosphorus with a gas mixture comprising between about 0.1 and about 5 volume percent of oxygen and at least about 5 volume percent of ammonia at a reaction temperature below about 150° C., (2) subjecting the reaction product so obtained to a temperature above about 300° C. for a period of time between about 0.05 and about 5 seconds, and (3) heating the product of step (2) with anhydrous ammonia at a reaction temperature above about 50° C. and under autogenic pressure for a period of time sufficient to effect the formation of a water-soluble amorphous solid having a total nitrogen content of about 28–30 percent by weight and a total phosphorus content of about 28–30 percent by weight.

2,839,376

NITROGEN-PHOSPHORUS COMPOSITION

Curtis G. Christian, Anaheim, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

No Drawing. Application January 27, 1955
Serial No. 484,575
7 Claims. (Cl. 71—31)

1. The process which comprises contacting elemental phosphorus with a gas mixture comprising between about 0.1 and about 5 volume percent of oxygen and at least about 5 volume percent of ammonia at a reaction temperature below about 150° C., and thereafter subjecting the reaction product so obtained to a temperature above about 300° C. for a period of time between about 0.05 and about 5 seconds, whereby there is obtained a substantially non-hygroscopic amorphous white solid product having very limited solubility in water and containing nitrogen and phosphorus in an atomic ratio of about 1.5:1.0.

2,839,377

DEFLUORINATION OF PHOSPHATE ROCK

Clinton A. Hollingsworth, Lakeland, Fla., and John C. Williams, Catasauqua, Pa., assignors, by mesne assignments, to Smith-Douglass Company, Incorporated, Norfolk, Va., a corporation of Virginia

No Drawing. Application February 28, 1951
Serial No. 213,284
4 Claims. (Cl. 71—45)

1. The method of defluorinating phosphate rock which comprises subjecting the rock with a silica content not exceeding 6% to calcination at a temperature of at least 2600° F. without substantial fusion in the presence of water vapor and of a reagent mixture consisting essentially of the reaction product of sodium carbonate and phosphoric acid, the mol ratio of the Na_2O to P_2O_5 content of the reaction product being between 1.6 and 2.8, and the CaO, Na_2O, P_2O_5 and SiO_2 content of the combined phosphate rock and reagent mixture being such that the mol ratio of these constituents in the formula

$$\frac{\text{Mols } CaO+Na_2O-3P_2O_5}{\text{Mols } SiO_2}$$

is between 1.3 and 2.8, and maintaining the calcining charge at said calcining temperature for a sufficient period of time to produce a phosphate product having high fertilizer availability and containing less than one part of fluorine for each 40 parts of phosphorus.

2,839,378

METHOD OF MAKING METAL FLAKES

Walter R. McAdow, Grosse Pointe Farms, Mich., assignor, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application April 15, 1955
Serial No. 501,731
13 Claims. (Cl. 75—.5)

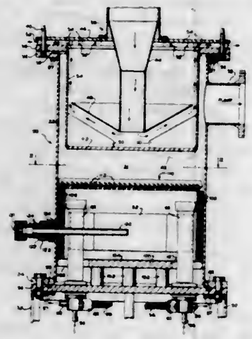
1. The method of producing transparent mirror-flake particles particularly adapted for use as metallized flakes in a metallized coating containing a film-forming material, comprising depositing a high light-reflecting metal in a continuous film having a uniform thickness within the range of about 3 millionths of an inch to about 25 millionths of an inch on a base coated with a layer which can be softened or dissolved when contacted with a liquid inert to said metal, treating the base with the said metal film thereupon with said inert liquid to release said metal

film from said base and agitating said inert liquid to release said metal film from said base and to comminute the released metal film to thereby produce flakes which are transparent in visible light.

2,839,379
METAL AGGREGATE
Hendrik de W. Erasmus, Lewiston, N. Y., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application August 19, 1955
Serial No. 529,576
5 Claims. (Cl. 75—.5)

1. A highly compacted, uniformly porous, strongly cohesive, fine grained, non-friable, coalesced metal aggregate containing in excess of 98 percent chromium and less than 2 percent of reduced non-volatile metals together with incidental impurities.

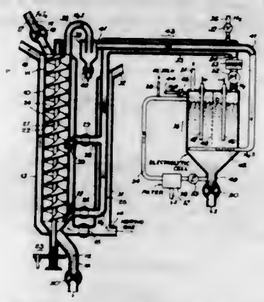
2,839,380
PRODUCTION OF CALCIUM METAL
Sigmund Jaffe, Plainfield, and John M. Parks, Summit, N. J., assignors to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
Application June 13, 1955, Serial No. 514,891
21 Claims. (Cl. 75—10)



1. The method of producing calcium by the thermal dissociation of calcium carbide containing lime as an impurity, comprising heating a charge of said calcium carbide to reaction temperature to cause dissociation of said calcium carbide and evolve calcium vapor from said charge, said heating producing a side reaction of said lime with said calcium carbide to form extraneous gases including carbon monoxide, passing the calcium vapors and said extraneous gases through a preliminary, purification zone in which the calcium vapors and said extraneous gases react to form solidified, reaction products, removing said solidified reaction products from the remaining calcium vapors and thereafter separately collecting the calcium product.

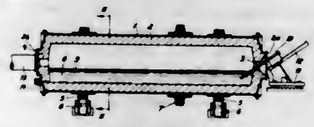
2,839,381
REDUCTION OF METALLIC SULFIDE ORES
Royal Lee, Elm Grove, Wis., assignor to Lee Foundation for Nutritional Research, Milwaukee, Wis., a corporation of Wisconsin
Application January 3, 1955, Serial No. 479,383
8 Claims. (Cl. 75—33)

1. The method of reducing a metallic sulfide ore, which comprises subjecting the ore in divided condition to the action of hydrogen in a reduction zone at an elevated reaction temperature below the melting point of the metal to obtain powdered metal and hydrogen sulfide, withdrawing the hydrogen sulfide from the reduction zone, decomposing the withdrawn hydrogen sulfide to obtain hydrogen, and returning the recovered hydrogen to the



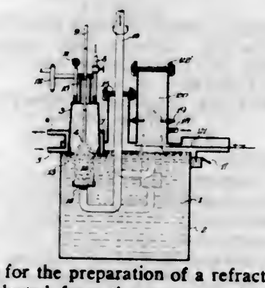
reduction zone, the steps of the method being conducted in a closed cycle.

2,839,382
METHOD OF REFINING METALS
Rudolf F. Graef, Oberhausen, Germany, assignor to Hüttenwerk Oberhausen Aktiengesellschaft, Oberhausen, Germany
Application March 20, 1956, Serial No. 572,686
Claims priority, application Germany June 13, 1952
4 Claims. (Cl. 75—60)



1. A method of refining metals in a ceramic-lined drum rotatable about a substantially horizontal axis, which includes the steps of: introducing the metal bath to be refined into said drum; rotating said drum about said horizontal axis at a circumferential velocity of the inside wall of said drum within a range of from 0.15 centimetre per second to 30 centimetres per second; and while said drum is being rotated introducing an oxygen enriched air blast into said bath through nozzle means immersing below the upper surface of said bath.

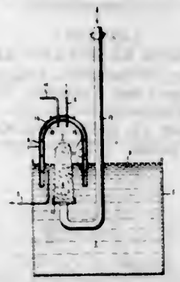
2,839,383
METHOD OF PRODUCING REFRACTORY METALS
Robert Myers McKinney, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application February 26, 1953, Serial No. 339,069
12 Claims. (Cl. 75—84.5)



4. A process for the preparation of a refractory fourth group metal selected from the group consisting of titanium, zirconium and haxium by the interaction of a chloride of said metal and a reducing metal selected from the group consisting of the alkali metals and the

alkaline earth metals including magnesium which comprises simultaneously feeding a chloride of the metal and the reducing metal in reactive proportions into the reaction zone of an enclosed inverted vessel the bottom of which is sealed by contact with a molten salt bath, maintaining a protective salt coating on the reactor walls adjacent the reaction zone, withdrawing the refractory metal sponge product in solid, elongated coherent mass sponge form from said vessel by downward movement into said salt bath as formed, imparting lateral movement to the withdrawn product, removing the metal sponge from the bath after said lateral movement by passing it upwardly and out of said bath and separating the thus produced refractory metal from the associated salt and residues.

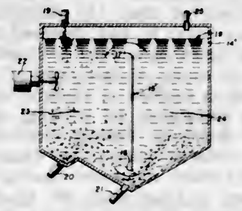
2,839,384
METHOD FOR PRODUCING FOURTH GROUP METALS
Robert Myers McKinney, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application October 26, 1954, Serial No. 464,882
10 Claims. (Cl. 75—84.5)



1. A method for the production of a metal selected from the group consisting of titanium, zirconium and hafnium in solid form and free of occluded by-product salt by reaction of the tetrachloride of said metal with a reducing metal selected from the group consisting of alkali and alkaline earth metals which comprises injecting a stream of the tetrachloride into a reaction vessel containing vapors of said reducing metal and above a pool body of molten by-product reducing metal chloride which seals the bottom of said vessel, charging said stream toward a solid target surface of a supported, movable body of the solid metal being produced which extends above the surface of said pool and into the zone of reaction within said reaction vessel and during the reduction is maintained within the reaction zone at a substantially constant distance from the point of said tetrachloride injection, maintaining all surfaces of said target exposed to the said vapors within the said vessel at a temperature not lower than the melting point of the chloride salt being produced, cooling the interior surfaces of said vessel to maintain thereover a solid coating of reducing metal chloride by-product, simultaneously maintaining the supply of reducing metal within the vessel by adding it at substantially its rate of consumption, and withdrawing said target and solid metal product from said vessel through said pool to recover said product.

2,839,385
METHOD OF PRODUCING TITANIUM METAL
Carl Marcus Olson, Kennett Square, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 8, 1954, Serial No. 473,905
3 Claims. (Cl. 75—84.5)

1. A process for preparing titanium metal in particulate form which comprises initially reacting at temperatures ranging from 720° C. to 1300° C. in an inert atmosphere within a closed reactor titanium tetrachloride with particulate titanium metal suspended in molten magnesium chloride being circulated within said reactor, terminating addition of said tetrachloride reactant to the reactor upon production of a titanium subchloride having a chlorine to titanium atomic ratio between 2 and 3 inclusive admixed with said molten chloride, reacting the resulting titanium subchloride with an equivalent quantity of par-



ticulate magnesium metal suspended in said circulating magnesium chloride to produce particulate titanium metal and molten magnesium chloride, removing a portion of the products for recovery of particulate titanium metal therefrom, and utilizing the remainder of said particulate titanium metal containing products for the preparation of further quantities of titanium subchloride reactant by reaction with additional titanium tetrachloride subsequently introduced to said reactor.

2,839,386
METHOD OF PRODUCING TITANIUM
Ernest Davies, Widnes, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application February 25, 1957
Serial No. 641,826
Claims priority, application Great Britain
February 27, 1956
4 Claims. (Cl. 75—84.5)

1. In a process for the manufacture of titanium by the reaction of titanium tetrachloride with metallic sodium and isolating the titanium therefrom, the improvement whereby a pure titanium is separated from the product mixture in a single filter vessel, which comprises feeding to the said filter vessel the ground product mixture and dilute aqueous mineral acid so that a concentration of between 15% and 25% by weight of sodium chloride in solution is maintained while the solution is filtered continuously, and finally washing the retained titanium with water.

2,839,387
METHOD FOR THE CYANIDATION OF PRECIOUS METALS
Reginald William Burton, Alice Arm, British Columbia, Canada, assignor to The Mining Corporation of Canada Limited, Toronto, Ontario, Canada, a corporation of Canada
No Drawing. Application May 28, 1954
Serial No. 433,303
6 Claims. (Cl. 75—105)

1. In the cyanidation of precious metals, the improvement which consists in dissolving a metal selected from the group consisting of gold and silver in the presence of a small amount, of the order of a few pounds per ton of cyanide solution, of a polyamine selected from the group consisting of diethylene triamine, triethylene tetramine, and tetraethylene pentamine, while maintaining the concentration of calcium hydroxide below about 0.1 pound per ton of solution.

2,839,388
SEPARATION OF ZINC AND COPPER

George Frederick Van Hare, Jr., North Kansas City, and Oscar Stephen Kunz, Jr., Kansas City, Mo., assignors to Chemical Construction Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 16, 1955
Serial No. 553,414
8 Claims. (Cl. 75—108)

1. In treating a zinciferous ammoniacal-ammonium carbonate liquor containing (*a*) at least about 20 gms. per liter of dissolved zinc, (*b*) dissolved copper in amount at least equal to said dissolved zinc but less than about four times the amount of dissolved zinc, and (*c*) ammonia in excess of that required to hold said copper and zinc in solution at ambient temperature as metal ammine complexes, by evolving ammonia and carbon dioxide therefrom, thereby selectively precipitating zinc values while retaining copper values in solution: the improvement which comprises: heating said solution to a temperature of from about 60° to about 95° C., but not above the boiling point, for sufficient time to initiate volatilization of ammonia, carbon dioxide and water vapor therefrom; continuing said heating and gas evolution for sufficient time to evolve substantially all ammonia and carbon dioxide not associated with zinc and copper in a metal complex and cause precipitation of whitish substantially copper-free zinciferous solids; further continuing said heating and gas evolution with concomitant precipitation; during said gas evolution maintaining in said solution a water content at least 40% in excess of that which would otherwise be produced by water vapor evolution; stopping said heating and precipitation prior to noticeable co-precipitation of copper-bearing solids and collecting resultant precipitate in which zinc is substantially the only metal.

2,839,389
RECOVERY OF GOLD FROM AQUEOUS CYANIDE SOLUTION

Norman Frank Kember, Walton-on-Thames, and John Aveston, Kingston-on-Thames, England, assignors to National Research Development Corporation, London, England, a corporation of Great Britain

No Drawing. Application May 4, 1956
Serial No. 589,843
Claims priority, application Great Britain December 16, 1955
3 Claims. (Cl. 75—118)

1. A method of recovering gold from gold-bearing aqueous cyanide liquor containing the complex cyanide of a base metal of the class consisting of copper, iron and nickel, comprising treating the liquor with a cross-linked polystyrene anion exchange resin which is predominantly weakly basic in character but contains from 6% to 10% of strongly basic quaternary ammonium groups, and treating the resin and adsorbed gold with an eluting agent to recover gold from the resin.

2,839,390
CYCLIC PROCESS OF EXTRACTING LEAD AND ZINC METALS

Torrence D. Galloway, Metaline Falls, Wash.

Application July 23, 1954, Serial No. 445,212
6 Claims. (Cl. 75—120)

1. A cyclic process of extracting lead and zinc metals from lead sulfides and zinc sulfides such as galena and sphalerite which comprises the steps of first reacting the lead and zinc sulfides with a 20% to 50% solution of oxalic acid in water at a temperature of about 130 degrees C and a pressure of about 30 lbs. per square inch thereby converting the lead and zinc sulfides to lead and zinc oxalates, drawing off evolved hydrogen sulfide, then releasing the pressure and removing additional hydrogen sulfide evolved, thereafter filtering the resulting product and reacting the filter cake with a saturated solution of calcium acetate in water, thereby converting lead oxalates and zinc oxalates present to water soluble lead acetate and zinc acetate, filtering the product again, then adding metallic zinc to the solution obtained by filtering thereby precipitating lead as metal, removing the solution remaining from the precipitated lead and thereafter precipitating the zinc from said last named solution by adding calcium hydroxide to the solution.

2,839,391
CHROMIUM-MANGANESE ALLOY AND PRODUCTS

Donald L. Loveless, Baltimore, Md., assignor to Armco Steel Corporation, a corporation of Ohio

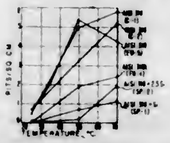
No Drawing. Application October 21, 1954
Serial No. 463,800
9 Claims. (Cl. 75—126)

1. Austenitic alloy steel of improved hot-rolling characteristics essentially comprising 12–30% chromium, 4–20% manganese, up to 35% nickel, up to 1.5% carbon, about .06% to .60% nitrogen. 0.00005 to 0.005% boron, and remainder substantially all iron.

2,839,392
CORROSION RESISTANT ALLOY

Michael A. Streicher, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 28, 1955, Serial No. 524,884
2 Claims. (Cl. 75—128)



2. A pit corrosion resistant stainless steel comprising from about 16% to about 20% of chromium; about 8% to about 14% nickel; about 1.5% to about 4.0% molybdenum; about 1.5% to about 4.0% silicon; about 0.1% to about 0.3% nitrogen; carbon below about 0.08%; the balance being substantially iron.

2,839,393
ADDITION AGENT AND METHOD FOR TREATING CAST IRON

Shungo Kawabata, Ashiya City, Japan, assignor to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 24, 1957
Serial No. 654,667
6 Claims. (Cl. 75—130)

1. The method for improving molten cast iron which comprises mixing a powdered material from the group consisting of magnesium, magnesium alloys and calcium carbide with about 20% to about 35% of a synthetic resin binder, briquetting the mixture and adding the resulting briquettes to molten cast iron.

2,839,394
MAGNESIUM ALLOYS

Rene Lucien, Paris, and Emile Tetart, Louvie-Juzon, France, assignors to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M., Fribourg, Switzerland, a corporation of Switzerland

No Drawing. Application May 26, 1954
Serial No. 432,576
Claims priority, application France November 9, 1953
2 Claims. (Cl. 75—168)

1. The method for improving molten cast iron which

sium, zinc, aluminium, glucinum, the said alloys having the following composition:

Zinc	6 to 7%.
Lanthanum, practically pure	0.5 to 1.5%.
Aluminium	About 0.5%.
Beryllium	About 0.01%.
Silicon	Up to 0.15% max.
Magnesium	The remainder.

2,839,395
MAGNESIUM ALLOYS

Rene Lucien, Paris, and Emile Tetart, Louvie-Juzon, France, assignors to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M., Fribourg, Switzerland, a corporation of Switzerland

No Drawing. Application November 10, 1954
Serial No. 468,157
Claims priority, application France August 11, 1954
1 Claim. (Cl. 75—168)

Alloys of magnesium consisting of 5–7% zinc, about 0.5% aluminum, about 0.01% beryllium, up to 0.15% silicon, and 0.5–2% rare earth metals in the proportions

	Percent
Lanthanum	25–35
Neodymium	40–65
Praseodymium	8–12
Samarium	0.5
Cerium	2–10

and the balance magnesium.

2,839,396
ALLOY

Peter R. Marsh, Montclair, N. J., assignor to Driver-Harris Company, Harrison, N. J., a corporation of New Jersey

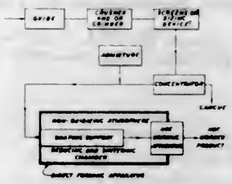
No Drawing. Application February 10, 1956
Serial No. 564,614
4 Claims. (Cl. 75—171)

1. A ductile, low-growth, high electrical resistance and negligible temperature coefficient of resistance alloy consisting essentially of 15% to 25% chromium, 4% to 6% aluminum, 1% to 2% silicon, 0.03% to 0.25% carbon, 1% maximum manganese, balance essentially nickel.

2,839,397
METHOD OF FORMING SUBDENSITY METAL BODIES

Patrick Edgar Cavanagh, Oakville, Ontario, Canada, assignor to Ontario Research Foundation, Toronto, Ontario, Canada, a corporation of Ontario

Original application December 23, 1952, Serial No. 327,575. Divided and this application February 24, 1954, Serial No. 412,307
4 Claims. (Cl. 75—222)

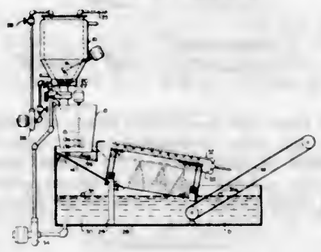


3. The method of forming a rolled ferrous product for a maximum density portion and a portion bonded in situ thereto of lesser density, comprising hot rolling for subdensity ferrous bodies to produce a maximum density portion for an elongation characteristic of less than about ten percent.

2,839,398
PRODUCTION OF PITH FREE PAPER PULP FROM BAGASSE

Harold D. Stuck, Andover, Mass., assignor to Process Evaluation and Development Corporation, New York, N. Y., a corporation of Delaware

Application September 27, 1952, Serial No. 311,925
4 Claims. (Cl. 92—9)



1. The process of converting bagasse or the like to pith-free uniform high grade bright colored paper pulp comprising the steps of: treating the bagasse in an aqueous solution of enzymes selected from the group consisting of carbohydrate-active enzymes and protein-active enzymes to loosen the pith cells from the fiber bundles; agitating the bagasse violently in an aqueous slurry to detach the pith cells from the fiber bundles; digesting the fiber bundles first in a kraft-type solution containing by weight about 3% NaOH and 1.5% Na_2S and comprising additionally by weight about 2–5% sodium peroxide with a stabilizer therefor and about 0.2–1.0% ammonium nitrate, under a saturated steam pressure of about 150 p. s. i. g.; then draining off solution unadsorbed by the fibers and adding an aqueous solution comprising by weight about 1.0–2.5% sodium pyrophosphate peroxide, continuing the digestion under a saturated steam pressure of about 175 p. s. i. g.; and terminating the second digestion by suddenly releasing the pressure to cause an explosive expansion of the fiber bundles to pulp.

2,839,399
CONTROLLING OF ODOR IN THE PREPARATION OF WOOD PULP

William M. Gearhart and John B. Thompson, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application July 29, 1955
Serial No. 525,344
3 Claims. (Cl. 92—13)

1. A method for diminishing the odor in the alkaline digestion of wood in which wood chips are cooked with an alkaline liquor which comprises incorporating in the cooking liquor at least 0.5 pound per ton of dry wood of a mixture of N,N'-di-secondary butyl-p-phenylenediamine and a material selected from the group consisting of aniline and secondary butyl aniline to substantially diminish the odor in the cooking operation.

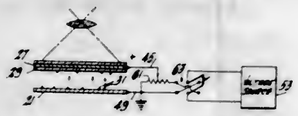
2,839,400
ELECTROSTATIC PRINTING

Alexander J. Moncrieff-Yeates, Princeton Junction, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 30, 1953, Serial No. 389,347
6 Claims. (Cl. 96—1)

6. A method of electrostaitic printing which comprises applying a blanket electrostatic charge to the surface of a photo-conductive insulating material coated on a conducting sheet, projecting a light image upon said photo-conductive coating thereby producing an electrostatic image, exposing a layer of dry nylon powder to negative ions from a corona discharge thereby charging the

powder, rolling a roller having a positive polarity of about 400 volts about ⅛ inch away from said powder layer thereby attracting a coating of powder to the roller surface, applying a negative polarity of about 200 volts to said coated roller, rolling said coated roller about ⅛



inch away from said electrostatic image whereby powder coated on said roller is attracted to and deposits in the configuration of said electrostatic image, transferring the deposited powder image to a record-receiving surface, and then fixing said transferred powder image thereon.

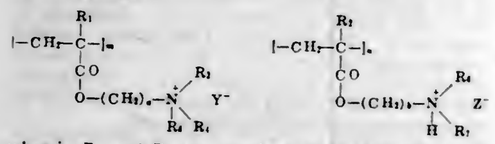
2,839,401

PHOTOGRAPHIC SILVER HALIDE EMULSIONS CONTAINING COPOLYMERIC MORDANTS

Russell Houston Gray and Vincent Joseph Webers, Middletown Township, Monmouth County, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 29, 1954
Serial No. 478,544
5 Claims. (Cl. 96—96)

1. A photographic silver halide emulsion in a water-permeable colloid containing in mordanting amounts a linear addition copolymer consisting essentially of intralinear quaternary ammonium and tertiary amine salt units of the formulae:



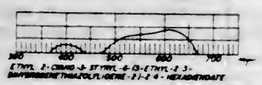
wherein R_1 and R_2 are members taken from the group consisting of hydrogen and alkyl groups of 1 to 2 carbon atoms, R_3 and R_4 when separate are alkyl radicals of 1 to 6 carbon atoms and when joined form a cyclic radical comprising 4 to 6 carbon atoms, R_5 is an alkyl radical of 1 to 18 carbon atoms, R_6 and R_7 when separate are alkyl radicals of 1 to 6 carbon atoms and when joined together form a cyclic radical comprising 4 to 6 carbon atoms, *a* and *b* are positive integers of 2 to 4 inclusive, *m* and *n* are the number of monomer units in the copolymer and Y^- and Z^- are non-photographically active anions; said monomer units *m* and *n* being present in the mol percent ratio of 65 to 25% of the former to 35 to 75% of the latter.

2,839,402

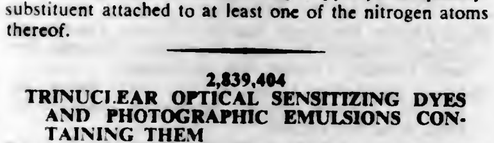
SENSITIZED SILVER HALIDE EMULSIONS

Harry Derek Edwards, Frank Peter Doyle, and Stanley John Palling, Barnet, England, assignors, by mesne assignments, to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application February 4, 1952, Serial No. 269,894
Claims priority, application Great Britain February 12, 1951
8 Claims. (Cl. 96—102)



1. A photographic light-sensitive gelatino silver halide emulsion sensitised with a dyestuff selected from the group consisting of those represented by the following general formula:



wherein R represents an aryl group; R^1 represents a member selected from the group consisting of a hydrogen atom, alkyl, aryl, and aralkyl; R^2 represents a member selected from the group consisting of a cyano group and carbalkoxy; R^3 and R^4 represent a member selected from the group consisting of a hydrogen atom, alkyl, and aralkyl; R^5 represents a member selected from the group consisting of alkyl and aralkyl; Z represents the residue of a heterocyclic nucleus; *p* represents a member selected from the group consisting of zero and 1, and *m* represents a member selected from the group consisting of zero and the small positive integers.

2,839,403

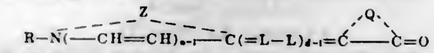
MEROCYANINE DYES AND PHOTOGRAPHIC EMULSIONS CONTAINING THEM

Edward B. Knott, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application August 30, 1955, Serial No. 531,385
12 Claims. (Cl. 96—105)



1. A photographic silver halide emulsion sensitized with a compound selected from those represented by the following general formula:



wherein R represents an alkyl group, *d* represents a positive integer of from 1 to 3, *n* represents a positive integer of from 1 to 2, L represents a methine group, Z represents the non-metallic atoms necessary to complete a heterocyclic nucleus containing from 5 to 6 atoms in the heterocyclic ring, and Q represents the non-metallic atoms necessary to complete a heterocyclic nucleus of the 2-thiohydantoin series, said heterocyclic nucleus of the 2-thiohydantoin series having a pyridyl or quinolyl substituent attached to at least one of the nitrogen atoms thereof.

2,839,404

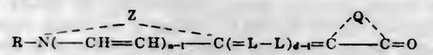
TRINUCLEAR OPTICAL SENSITIZING DYES AND PHOTOGRAPHIC EMULSIONS CONTAINING THEM

Edward B. Knott, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application October 12, 1955, Serial No. 540,080
12 Claims. (Cl. 96—105)



1. A photographic silver halide emulsion sensitized with a compound selected from those represented by the following general formula:



wherein R represents an alkyl group, *d* represents a positive integer of from 1 to 3, *n* represents a positive integer of from 1 to 2, L represents a methine group, Z represents the non-metallic atoms necessary to complete a heterocyclic nucleus of the rhodanine series having a pyridyl or quinolyl substituent attached to the nitrogen atom thereof.

2,839,405

INORGANIC SALT ANTIFOGGANTS FOR PHOTOGRAPHIC EMULSIONS

Jean Elmore Jones, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 8, 1955
Serial No. 493,047
3 Claims. (Cl. 96—107)

1. A light-sensitive silver bromoiodide emulsion sensitized with sulfur compounds, gold salts and an ethylene oxide polymer having a molecular weight of at least 300, said emulsion containing an inorganic acid salt of cadmium as a fog inhibiting agent.

2,839,406

COMBINED INFUSION DEVICE, DRIP TRAY, AND PACKAGE

Martin B. Steinthal, New York, N. Y.

Application March 23, 1953, Serial No. 344,162
2 Claims. (Cl. 99—77.1)



1. A device for preparing a beverage by infusion and for preventing drippage of liquid comprising in combination a liquid permeable container, a substance in said container for infusion with liquid upon immersion therein, a flexible supporting element secured to said container, a tray of liquid proof paper of substantially the same shape as said container and slightly larger, upstanding marginal flanges on said tray providing a continuous rim, an aperture in one flange slidably receiving said supporting element and a knot on the outer end of said element to limit movement of said element through said aperture in one direction whereby, said tray may be grasped in the fingers of one hand and said element in the fingers of the other hand and by upward movement of said element through said aperture, said container may be raised from a cup of liquid into position within the rim of said tray and said container placed on a supporting surface with drippage from said container collecting in said tray.

2,839,407

CREAM TABLET AND PROCESS FOR THE MANUFACTURE OF IT

Henry Secher Brochner, Copenhagen, Denmark, assignor to Ordex Laboratorium ved ingeniør C. O. Rasmussen, Copenhagen, Denmark, a Danish firm

No Drawing. Application April 22, 1955
Serial No. 503,355
4 Claims. (Cl. 99—78)

1. A compressed cream tablet having a high degree of solubility in warm drinks containing the basic constituents of milk, butter fat, carbohydrates and protein in the proportions 30–60% butter fat, 6–12% protein and at least 20% carbohydrates.

2,839,408

METHOD OF PRODUCING CONDENSED PHOSPHORIC ACIDS

Edward J. Griffith, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 4, 1957
Serial No. 643,530
2 Claims. (Cl. 204—103)

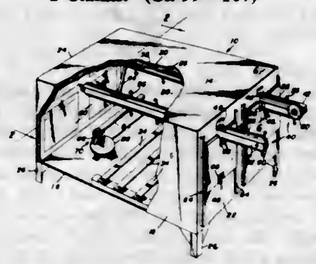
1. The method of preparing a condensed phosphoric acid by passing a direct current between non-reactive electrodes through a less condensed phosphoric acid having a mole ratio of H_2O/P_2O not greater than 3.

2,839,409

APPARATUS AND PROCESS FOR PREPARING MEAT

Abraham J. Matlen, Detroit, Mich.

Application February 2, 1951, Serial No. 209,117
2 Claims. (Cl. 99—107)



1. The method of preparing meat for serving which comprises maintaining said meats under refrigeration, preparing an atmosphere charged with flavoring material, said atmosphere being maintained at a temperature of the order of 135° F. to 225° F., transferring the meat from refrigeration to said flavoring atmosphere, maintaining an atmosphere about said meat which inhibits condensation of moisture on the surface of said meat during the transfer to said flavoring atmosphere, said meat being retained in said flavoring atmosphere for a period of the order of one to four hours, removing said meat from said flavoring atmosphere and subjecting said meat to a broiling temperature for a period of the order of four to ten minutes.

2,839,410

METHOD FOR PRESERVING FISH

Öyvind Helgerud, Oslo, and Alf Olsen, Fagertun per Drammen, Norway, assignors to A/S Protan, Drammen, and Öyvind Helgerud, Oslo, Norway

No Drawing. Application June 21, 1955
Serial No. 517,058
Claims priority, application Norway July 5, 1954
1 Claim. (Cl. 99—195)

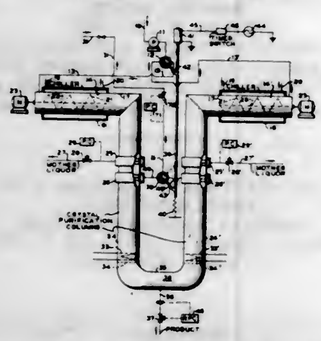
The method of preserving fish and other marine animals comprising adding a water soluble hydrocolloid selected from the group consisting of sodium alginate, carrageenin, carboxymethyl cellulose, carob bean flour, agar, polyvinylalcohol and mixtures of these, in an amount of about 1.5% to about 4% to an aqueous salt solution having a concentration of about 2.5% to 4%, said solution containing a salt selected from the group consisting of sodium chloride, sodium hexametaphosphate, sodium sulfate and mixtures of these, whereby said hydrocolloid thickens said salt solution to a viscosity of up to about 3000 centipoises at room temperature, and block freezing said fish and other marine animals in said thickened solution of salt and water soluble hydrocolloid, said combination of salt and hydrocolloid producing a thawing temperature of said frozen block of fish of about −2 to about −3° C.

2,839,411

PROCESS AND APPARATUS FOR THE PURIFICATION OF CRYSTALS

Macedonio A. Vela, Dewey, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application October 26, 1955, Serial No. 542,878
16 Claims. (Cl. 99—205)



1. In a process wherein crystals are purified, which process comprises, passing crystals through a filtration section and a reflux section into a melting section of a purification zone, melting crystals in said melting section, withdrawing a portion of the resulting melt, and passing another portion of said melt into said reflux section in a direction countercurrent to the movement of crystals therethrough; the improvement which comprises: alternately passing a first stream of said crystals through a first purification zone and then passing a second stream of said crystals through a second purification zone; passing melt from the melting section of said first purification zone into the reflux section of said second purification zone while crystals are being moved through said first purification zone; and passing melt from the melting section of said second purification zone into the reflux section of said first purification zone while crystals are being moved through said second purification zone.

2,839,412

WATER AND OIL EMULSION DUPLICATING INK

Edward J. Igler, Carpentersville, and Clarence J. Shoemaker, Elmhurst, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois

No Drawing. Application September 21, 1956
Serial No. 611,342
4 Claims. (Cl. 106—29)

1. A water-in-oil emulsion duplicating ink composition formed of an oil as a continuous phase and an aqueous pigment dispersion as the dispersed phase and a non-gelling aluminum stearate as the emulsifying agent in which the materials are present in the ratio of 50 parts by weight of oil and 50 parts by weight of pigmented aqueous dispersion to 90 parts by weight of oil and 10 parts by weight of pigmented aqueous dispersion and in which the non-gelling aluminum stearate is present in an amount within the range of 0.2% to 5.0% by weight of the ink composition.

2,839,413

REFRACTORY BODY CONTAINING BORON NITRIDE

Kenneth M. Taylor, Lewiston, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware

No Drawing. Application March 12, 1956
Serial No. 570,667
20 Claims. (Cl. 106—44)

1. A bonded boron nitride body consisting essentially of 3% to 92% by weight boron nitride and 97% to 8% of a silcon nitride bond.

2,839,414

LOW LOSS CERAMIC INSULATORS

Robert D. Fenity, Cameron G. Harman, and Eugene Wainer, Cleveland, Ohio, assignors to The Star Porcelain Company, Trenton, N. J., a corporation of New Jersey

No Drawing. Application August 11, 1955
Serial No. 527,868
1 Claim. (Cl. 106—46)

A ceramic low loss insulator body consisting essentially of from about 50 to about 80% by weight crystalline wollastonite and a glass phase and having a fired composition consisting essentially of between about 45% and about 55% by weight SiO_2, between about 28% and about 38% CaO, between about 2% and about 10% Al_2O_3, between about 1% and about 8% TiO_2 and between about 3% and about 13% PbO.

2,839,415

CERAMIC PRODUCTS

Archibald R. Gmeiner, Waupaca, Wis., assignor to Kimberly-Clark Corporation, Neenah, Wis., a corporation of Delaware

No Drawing. Application September 13, 1955
Serial No. 534,167
4 Claims. (Cl. 106—71)

1. A method of making structural clay products comprising the steps of mixing comminuted clay particles in a pug mill with waste sulfite liquor and tempering water, said waste sulfite liquor being present in the pug mill in an amount of from about 0.1 to 1.0 percent solids by weight of the finished clay product, said waste sulfite liquor being selected from the class consisting of calcium, magnesium and ammonium base liquors and having been concentrated prior to introduction into the pub mill to provide a solids content for the liquor of from about 25 to 65 percent, said clay, tempering water and waste sulfite liquor being mixed together in the pub mill over a period of time sufficient to achieve uniform dispersal of the constituents of the mix, forming said mix under pressure, and drying and firing the shaped clay products.

2,839,416

ACID-PROOF WATER-GLASS CEMENTS CAPABLE OF SWELLING

Karl Dietz, Kronberg (Taunus), Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application October 26, 1955
Serial No. 543,019
Claims priority, application Germany November 2, 1954
8 Claims. (Cl. 106—84)

1. Alkali water-glass compositions capable of swelling and consisting essentially of alkali water-glass and at least one cyanamide of a bivalent metal in an amount ranging from 0.1 to 10 percent, calculated on the weight of the solid components of said compositions.

2,839,417

STABILIZED SOIL COMPOSITIONS CONTAINING REACTION PRODUCTS OF LIGNIN WITH POLYALKYLENE POLYAMINES

William F. Tousignant and Harold F. Bysima, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application May 7, 1956
Serial No. 582,936
6 Claims. (Cl. 106—123)

1. Stabilized and hardened soil composition which comprises an argilliferous soil having incorporated therein a minor proportion of between about 0.25 and about 2.0 percent by weight, based on the weight of the composition, of a cementatory caustic treated and solubilized polymeric alkylene polyamine precipittae of lignin sulfonic acids

in which precipitate the polymeric alkylene polyamine constituent is the reaction product between a lower alkylene chloride and a polyamine having the general formula:

$$H_2N-(C_nH_{1n}\underset{\displaystyle H}{\underset{|}{N}}-)_xH$$

wherein n is an integer from 2 to 3 and x has a numerical value of at least 2.

2,839,418

CELLULOSE ORGANIC ACID ESTER PLASTICS CONTAINING HYDROQUINONE MONO-SALICYLATE

Lester W. A. Meyer and Margaret H. Broyles, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 13, 1954
Serial No. 422,982
3 Claims. (Cl. 106—182)

1. A cellulose organic acid ester plastic comprising a cellulose organic acid ester selected from the group consisting of cellulose acetate, cellulose propionate, cellulose butyrate, cellulose acetate-propionate and cellulose acetate-butyrate, a plasticizer therefor, and, as an agent for inhibiting deterioration of the plastic by ultraviolet light, approximately 0.5% to 5%, based on the weight of the cellulose ester, of hydroquinone mono-salicylate.

2,839,419

WATER-SOLUBLE THERMOPLASTIC CELLULOSE ETHER COMPOSITIONS

Francis E. Windover, Arthur W. Anderson, and George K. Greminger, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 11, 1956
Serial No. 597,089
3 Claims. (Cl. 106—188)

1. A thermoplastic composition consisting essentially of (*a*) from 2 to 90 percent by weight of a water-soluble, thermoplastic hydroxyalkyl alkyl cellulose ether in which the hydroxyalkyl group contains from 2 to 3 carbon atoms and the alkyl group contains from 1 to 3 carbon atoms and which has a melting point which is at least 10 degrees centigrade below the decomposition temperature, and (*b*) correspondingly from 98 to 10 percent of a plasticizer selected from the group consisting of glycerol mono-2-hydroxyalkyl ether, glycerol bis (2-hydroxyalkyl) ether, and glycerol tris (2-hydroxyalkyl) ether wherein each 2-hydroxyalkyl group contains from 2 to 3 carbon atoms.

2,839,420

PIGMENTED YARN

Alden W. Hay, Madison, N. J., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application July 7, 1955
Serial No. 520,629
11 Claims. (Cl. 106—193)

1. A pigmented black yarn having incorporated therein carbon black in amount sufficient in itself to make said yarn black and a small proportion, in relation to the amount of said carbon black, of an inert white pigment, the amount of said inert white pigment being sufficient only to give the yarn a deeper black shade as compared with a yarn containing the same proportion of carbon black and no white pigment.

2,839,421

AN ALKOXY ALUMINUM CHELATE, A DISPERSION OF IT IN AN ORGANIC LIQUID AND A WATER REPELLANT POROUS OBJECT

Charles J. Albisetti, McDaniel Heights, Del., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 6, 1955
Serial No. 499,769
8 Claims. (Cl. 106—287)

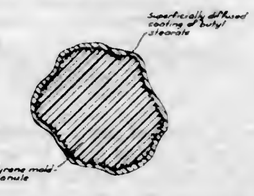
2. An alkoxy aluminum chelate composition having the average empirical formula $(R)_xAl(OR')_y$ wherein R' is alkyl of 1 to 4 carbon atoms, R is the anion of a bidentate chelating agent having one acidic hydrogen and containing an alkyl straight chain of at least 12 carbons, said anion being linked to aluminum through oxygen and at most one nitrogen, x and y are each at least 0.5 and together total 3.

2,839,422

METHOD FOR LUBRICATING POLYSTYRENE GRANULES AND ENHANCED MOLDING GRANULES THEREBY OBTAINED

Carlton E. Beyer and Robert B. Dahl, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application February 17, 1956, Serial No. 566,208
6 Claims. (Cl. 117—4)



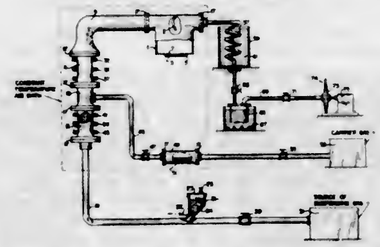
2. Method for the preparation of enhanced lubricated polystyrene granules for injection molding purposes which comprises extruding polystyrene into a strand; dipping said strand at a temperature between about 250 and 350° F. into an aqueous bath at a temperature between about 100 and 160° F. in which there is immiscibly provided butyl stearate in a substantially non-emulsified condition; withdrawing said strand from said bath so as to contain a superficially diffused coating of said butyl stearate in an amount between about 0.1 and 1.0 percent by weight, based on the weight of the strand; and cutting said strand into granules suitable for injection molding purposes.

2,839,423

METHOD OF COATING ALKALINE EARTH METAL WITH PROTECTIVE METAL

Howard J. Homer and John R. Whitacre, Dayton, Ohio, assignors to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application June 3, 1955, Serial No. 513,014
8 Claims. (Cl. 117—50)



1. In a process of providing a protective metal coating on particles of alkaline-earth metal in powder form, the

steps of suspending particles of the metal in a flowing stream of a gas which is inert to the metal particles, passing the flowing stream of inert gas and particles into a heating zone to heat the particles while they are suspended, providing a source of a metal bearing gas which is heat decomposable to deposit a metal which resists the corrosive influence of the air, heating the particles while suspended in the heating zone to a temperature at which said metal bearing gas decomposes, passing a stream of the metal bearing gas into contact with the heated particles in said zone whereby said metal bearing gas decomposes to deposit metal on the particles, exhausting the coated particles from the said zone with the suspending gas, and thereafter separating the particles from the gas.

2,839,424

METHOD OF PROVIDING GLASS FIBERS WITH PLURAL SUPERIMPOSED DIFFERENT OXIDE COATINGS AND PRODUCTS THEREBY PRODUCED

Dominick Labino, Toledo, Ohio, assignor to L-O-F Glass Fibers Company, Toledo, Ohio, a corporation of Ohio

Application August 10, 1955, Serial No. 527,610
15 Claims. (Cl. 117—65)



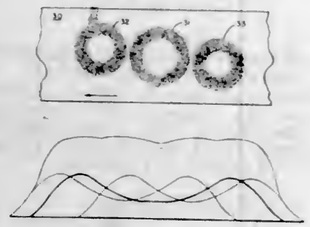
1. A mass of fibers of micro diameter which fibers are composed of silica, said fibers having a first coating of an oxide of a metal selected from the second group of the periodic table and a second coating of a temperature-resistant water insoluble oxide of a metal selected from the group consisting of chromium, cobalt, aluminum, tin and iron.

2,839,425

APPARATUS AND METHOD OF COATING ARTICLES

James W. Juvinall, Indianapolis, Ind., assignor to Ransburg Electro-Coating Corp., a corporation of Indiana

Application November 23, 1951, Serial No. 257,741
Claims priority, application Great Britain March 13, 1951
10 Claims. (Cl. 117—93)



1. A method of coating the surface of an article, comprising moving the article over a predetermined path with its surface presented to receive three annular sprays of coating material capable of producing on such surface parallel bands each having two transversely spaced portions of maximum thickness, said sprays being spaced from each other laterally of the path of article movement, two of said sprays having approximately equal diameters smaller than the diameter of the third spray, with all of said sprays being so disposed transversely of the article-path that the individual bands they respectively produce partially overlap each other to produce a composite band having a width greater than but less than twice the width of any individual band, with the portions of maximum thickness of the individual bands being arranged transversely of the composite band to present in order one maximum thickness portion of the first smaller band, one maximum thickness portion of the larger band, one maximum thickness portion of the second smaller band, the other maximum thickness portion of the first smaller band, the other maximum thickness portion of the larger band and then the other maximum thickness portion of the second smaller band.

2,839,426

METHOD OF COATING CARBONACEOUS ARTICLES WITH SILICON NITRIDE

Russell W. Gerby, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application January 21, 1954, Serial No. 405,510
2 Claims. (Cl. 117—106)



1. A process for improving the resistance to oxidation at high temperatures of a normally fragile graphite article having normally occurring anastomozed pores and imparting abrasion resistance thereto, comprising placing said graphite article in a nitrogen containing furnace, providing in said furnace powdered silicon metal of mesh size 20+100 in contact with the nitrogen in said furnace and aluminum oxide, and heating the contents of said furnace to between 1000° C. and 1600° C. to enable said silicon metal to vaporize and form silicon nitride, and maintaining said temperature for approximately 48 hours to allow a suitable accumulation of silicon nitride deposit to form on exposed surfaces of said article, whereby said silicon nitride is present in the anastomozed pores of said article on the surface thereof and bonded to the anastomozed pores and surface of said article.

2,839,427

COATED ARTICLE

Wilbert C. Bradshaw, Jr., Fresno, Calif.

No Drawing. Application July 12, 1954
Serial No. 442,913
3 Claims. (Cl. 117—131)

1. The combination of an object having a surface which it is desired to protect from the air and air borne impurities, and a substantially non-drying protective coating borne by the surface comprising a layer of a mixture of lithium grease and petrolatum containing powdered solid material dispersed throughout said layer, the lithium grease being present in about 40% to 60% by weight of the total mixture and the petrolatum being present in about 50% to 30% by weight of the mixture, the layer having an inner surface against the surface of the object to be protected and an outer surface and the density of the powdered solid material being substantially greater at the outer surface than at the inner surface.

2,839,428

METHOD OF INHIBITING OXIDATION OF TIN-PLATE

Aner N. Laubscher, Penn Township, Allegheny County, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application April 26, 1956
Serial No. 580,700
2 Claims. (Cl. 117—132)

1. A method of inhibiting oxidation of a tin surface comprising applying thereto a coating of a liquid polymer of polyalkylene glycols having a viscosity of less than 500 centipoises at 25° C., a vapor pressure less than 10 mm. of mercury at 227° C., a molecular weight of about 625 and effective to impart to said surface a coefficient of friction less than about .3.

2,839,429

TREATMENT OF CELLULOSIC TEXTILE MATERIALS

John Thompson Marsh, Hale, George Bell, Manchester, and Alec Geoffrey Thompson, Whitefield, England, assignors to Tootal Broadhurst Lee Company Limited, Manchester, England, a British company

No Drawing. Application August 31, 1953
Serial No. 377,714
Claims priority, application Great Britain October 31, 1949
5 Claims. (Cl. 117—139.4)

1. The process for improving the wet crease-resistance properties of a cellulosic fabric comprising the steps of impregnating said material with an aqueous medium consisting essentially of water, a crystalloidal intermediate condensation product selected from the group consisting of urea-formaldehyde, melamine-formaldehyde and mixtures thereof, and a polysiloxane oil curable by heat to a solid infusible state selected from the group consisting of methyl hydrogen polysiloxane and ethyl hydrogen polysiloxane, said condensation product being present on said fabric in an amount of about 4 parts by weight for each part of said polysiloxane oil, drying the impregnated fabric and then subjecting said fabric to heat sufficient to render said condensation product insoluble and said polysiloxane oil infusible.

2,839,430

ANTISTATIC AGENTS FOR HYDROPHOBIC FIBER

Robert William Rimmer, Newark, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 26, 1955
Serial No. 530,887
8 Claims. (Cl. 117—139.5)

1. The interpolymers obtained by polymerizing, at a temperature not exceeding 100° C. and in the presence of a free-radical polymerization catalyst, a mixture of an acrylamide and of an ester of the formula

$$CH_2=\underset{R}{C}-\underset{O}{\overset{\|}{C}}-(OCH_2CH_2)_n-OR'$$

wherein R′ designates an alkyl radical of 1 to 6 C-atoms, R stands for a member of the group consisting of hydrogen and methyl, while the subscript *n* has a value not less than 4 and not greater than 20, the acrylamide being present in proportion of 2 to 25% by weight based on the weight of said ester.

4. A process of improving the electrostatic qualities of hydrophobic textile fiber, which comprises impregnating the same with an interpolymer as defined in claim 1.

2,839,431

ANTISTATIC AGENTS FOR HYDROPHOBIC FIBER

Robert William Rimmer, Newark, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 26, 1955
Serial No. 530,888
8 Claims. (Cl. 117—139.5)

3. A process of producing an interpolymer useful for treating textile fiber, which comprises polymerizing a mixture of glycidyl methacrylate and of an ester of the formula

$$CH_2=\underset{R}{C}-\underset{O}{\overset{\|}{C}}-(OCH_2CH_2)_n-OR'$$

wherein R′ designates an alkyl radical of 1 to 6 C-atoms, R stands for a member of the group consisting of hydrogen and methyl, while the subscript *n* has a value not less than 4 and not greater than 20, the polyalkyleneoxy ester constituting the major proportion of the mixture by weight, at a temperature not exceeding 100° C. in the presence of 2-mercapto ethanol.

2,839,432

WASHABLE WALLPAPER COATINGS

Martin Salo and Harold F. Vivian, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 17, 1954
Serial No. 437,564
4 Claims. (Cl. 117—155)

3. A method of producing a washable wallpaper comprising coating wallpaper with a lacquer containing from 60–70% by weight cellulose acetate butyrate having an acetyl content of from 5–18% and a butyryl content of above about 35%, 5–15% of silica aerogel, 5–25% of an alkyd resin having an acid number not exceeding 2.0 formed from 1,2-propylene glycol, and adipic acid and a solvent mixture containing volatile organic solvents which dissolve all the components of the lacquer and drying the coating.

2,839,433

ARC FLASH PREVENTING COATING FOR WELDING RODS

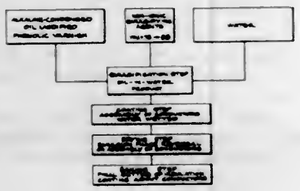
William B. Kriewall, Flushing, N. Y., assignor to Eutectic Welding Alloys Corporation, Flushing, N. Y., a corporation of New York

Application September 13, 1954, Serial No. 455,759
7 Claims. (Cl. 117—204)



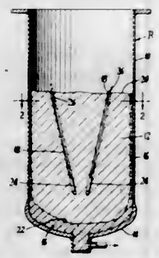
1. A covered electrode for use in arc welding operations and including a conductive metallic core, a first covering comprising an intimate mixture of conventional electrode covering ingredients adapted to function as fluxing agents, slag-forming agents, arc stabilizers, deoxidizers, shielding gas formers, and alloying constituents, a second overlying covering material forming an external coating and consisting essentially of a mixture in parts by weight of approximately equal parts of silica and manganese dioxide held together in an adherent mass by a conventional binder material which is compatible with formation of a heavy blanket of molten flux from said second overlying covering material and prevents premature disintegration of said second coating until optimum deposition temperatures are reached, said second coating being at least as thick as said first coating and the radial thickness of the total flux covering on said core being a minimum of twice the overall thickness of said metallic core.

2,839,434
EMULSION INSULATING VARNISH AND METHOD OF COATING AN ASSEMBLY OF ELECTRICAL CONDUCTORS
Joseph Paul Haughney, Chicago, and Albert Beveridge Scott, Homewood, Ill., assignors to The Sherwin-Williams Company, Cleveland, Ohio, a corporation of Ohio
Application October 6, 1955, Serial No. 539,004
4 Claims. (Cl. 117—232)



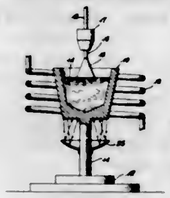
1. A method of insulating an assembly of electrical conductors which comprises initially wetting said assembly with the aqueous phase of an oil-in-water emulsion wherein the disperse oil phase comprises a liquid drying oil modified alkaline condensed phenol-aldehyde varnish, and the continuous phase comprises a major proportion of water and not less than 3%, based on the weight of said varnish solids, of a non-ionic surface active agent having a hydrophilic number of from 65 to 90, evaporating the volatile solvent and water to wet the conductor with the said resin and curing the said oil modified resin on and about the surface of said conductor assembly at an elevated temperature after having wetted the same with said resin.

2,839,435
METHOD OF REACTOR PRODUCT REMOVAL BY EXPLOSIVE MEANS
Arthur D. Boswell, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application April 5, 1955, Serial No. 499,339
5 Claims. (Cl. 134—17)



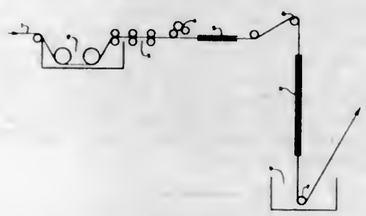
1. A method of removing from a chamber an adhering solidified mass having a free and accessible surface exposed within said chamber and an inaccessible surface remote from said accessible surface comprising providing in said mass a plurality of cavities having extensions disposed to converge through said mass toward a common point adjacent said inaccessible surface, inserting within each of said cavities an explosion-producing charge and setting off said charge so as to exert a blow-out thrust on a major portion of said mass, whereby said mass is removed and cracked into relatively small particles.

2,839,436
METHOD AND APPARATUS FOR GROWING SEMICONDUCTOR CRYSTALS
Boyd Cornelison, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application April 19, 1955, Serial No. 502,340
8 Claims. (Cl. 148—1.5)



1. A method of growing crystals from a melt that comprises maintaining the melt at a temperature at which a crystal will grow therefrom, bringing a seed crystal into contact with the surface of the melt and withdrawing it at a rate such as will draw a crystal thereon, and applying supplemental heat to a central portion at the bottom of said melt to produce a substantially planar interface between said crystal and said melt during the crystal growing process.

2,839,437
METHOD OF PRODUCING A DULL FINISHED FUSED TIN COATING
Joseph M. Manko, Edgeworth, Pa., assignor to Jones & Laughlin Steel Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application April 21, 1955, Serial No. 503,013
5 Claims. (Cl. 148—6.14)



1. A method of producing a dull finished fused tin coating on electrolytic tin plate comprising applying to the matte tin coating a dilute aqueous solution of an oxidizing agent selected from the group consisting of alkali metal nitrites, alkali metal nitrates, alkali metal chlorates and hydrogen peroxide, and mixtures thereof, drying the solution on the tin coating, then heating the tin coating to a temperature sufficient to flow the tin, and then quenching the tin plate so as to solidify the tin coating.

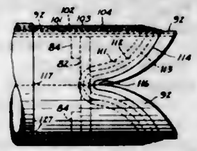
2,839,438
WASH PRIMER FOR METAL SURFACES
Harold Rosenbloom, Pittsburgh, Pa., assignor to Thompson and Company, Oakmont, Pa., a corporation of Pennsylvania
No Drawing. Application April 27, 1953
Serial No. 351,465
3 Claims. (Cl. 148—6.15)

1. The combination with a wash primer consisting essentially of lead chromate and a solution in a polar solvent of an hydroxyl-containing polyvinyl acetal and phosphoric acid, of at least one strong mineral acid of the group consisting of hydrochloric, sulfuric and nitric acids, the amount of acid, in percent by weight based on the non-volatile solids content of the primer, being from about 0.04 to about 0.16 percent of HCl, not over about 0.4 percent of H_2SO_4, and from about 0.032 to about 9 percent of HNO_3.

2,839,439
METHOD AND COMPOSITION FOR PRODUCING PHOSPHATE COATINGS ON METAL
John Marvin Stapleton, Detroit, Mich., assignor to Detrex Chemical Industries, Inc., a corporation of Michigan
No Drawing. Application June 7, 1955
Serial No. 513,907
4 Claims. (Cl. 148—6.15)

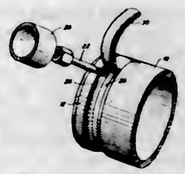
1. In a method of producing an adherent uniform phosphate coating on a ferrous metal, the steps which comprise spraying said metal with an aqueous solution of alkali metal dihydrogen phosphate, and accelerating the coating action by incorporating into the solution an accelerator consisting of about 0.4 to 0.76% by weight nitrate and about .0002 to .0005% by weight molybdate ions.

2,839,440
METHOD OF MAKING AN AIR CUSHION ASSEMBLY
Paul O. Pfeiffer, Charles O. Siemmons, and Julius R. King, Akron, Ohio, assignors to The General Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application July 23, 1956, Serial No. 599,541
10 Claims. (Cl. 154—85)



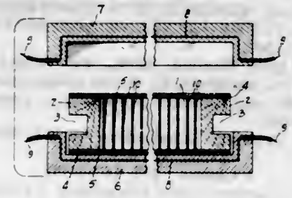
6. The method of making an elongated inflatable cushion which comprises forming cord reinforced sheet material into an open ended multiple layer tube, supporting the tube in substantially cylindrical form, trimming the cord material layers one at a time at one end of the cylindrical tube to provide staggered end edges on the cord material layers, flattening the tube and applying binding strips across the staggered end edges of the flattened tube, the binding strips each extending over the tube end and across a plurality of said staggered end edges.

2,839,441
METHOD OF WELDING TOGETHER TWO PLASTIC OBJECTS
Robert J. Kent, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 8, 1955, Serial No. 533,048
3 Claims. (Cl. 154—116)



1. The method of welding two plastic objects together which comprises beveling the abutting edges of said objects to form a V-shaped groove, applying a plastic rod in said groove, simultaneously heating said rod and the surfaces of said groove to produce a first weld substantially filling said V-shaped groove, cutting a broader semi-oval groove centered about the center line of said V-shaped groove to a depth including a substantial portion of the said first weld, applying a plastic semi-oval rod substantially conforming with said semi-oval groove in said semi-oval groove and simultaneously heating said rod and the surfaces of said semi-oval groove to produce a second weld substantially filling said semi-oval groove whereby a strong, tight double weld between said two plastic objects is obtained.

2,839,442
PROCESS OF MAKING A LIGHTWEIGHT STRUCTURAL PANEL
Robert W. Whitaker, Wauwatosa, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application February 23, 1955, Serial No. 489,838
6 Claims. (Cl. 154—118)



1. A process for making a structural panel having an open cell core and a fiber reinforced facing material extending continuously over the core, which comprises the steps of assembling an edging material along the edges of the core, applying a thin film of a liquid uncured resin to a face of said core and the corresponding face of the edging material, curing the resin film to seal the cells of the core and seal the joint between the core and the edging material, applying a quantity of liquid uncured resin and a layer of fiber reinforcement to the face of the core and to the corresponding face of the edging material, curing said second named resin to bond the reinforcement to the core and provide a lightweight strong panel.

2,839,443
ADHESION OF TEXTILE FABRIC TO BUTYL RUBBER
John J. Fleming, Grosse Pointe Woods, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application November 5, 1954
Serial No. 467,235
4 Claims. (Cl. 154—139)

1. An adhesive composition for adhering a synthetic rubbery copolymer of an isoolefin having 4 to 7 carbon atoms with 0.5 to 10% of an open-chain conjugated diolefin having 4 to 8 carbon atoms to textile materials, comprising 100 parts of said synthetic rubber pre-reacted with sufficient curative selected from the group consisting of sulfur, ultra accelerators of sulfur vulcanization, dinitrosobenzenes, p-quinone dioxime with an oxidizing agent, and 4-hydrocarbon-2,6-dimethylolphenols to increase the Linhorst plasticity number by from 0.002 to 0.050 units, from 15 to 50 parts of a novolac phenol-formaldehyde resin and a methylene-yielding hardening agent therefor selected from the group consisting of hexamethylenetetramine and para-formaldehyde, and sufficient additional curative selected from the aforesaid group to vulcanize the said pre-reacted rubber.

2. A method of adhering a synthetic rubbery copolymer of an isoolefin having 4 to 7 carbon atoms with 0.5 to 10% of an open-chain conjugated diolefin having 4 to 8 carbon atoms to a synthetic textile which is a resinous, thermoplastic, linear polymer of a hexamethylenediamine salt of adipic acid, comprising preparing an adhesive by pre-reacting 100 parts of said rubber with from

0.25 to 3 parts of a 4-hydrocarbon-2,6-dimethylolphenol and from 0.1 to 10 parts of a heavy metal chloride at a temperature of from 235° F. to 450° F., mixing said pre-reacted rubber with from 15 to 50 parts of a cashew nut shell oil modified novolac phenol-formaldehyde resin and hexamethylenetetramine as a methylene-yielding hardening agent therefor, and with sulphur and an ultra accelerator of sulphur vulcanization as additional curative in amounts sufficient to vulcanize the said pre-reacted rubber, interposing the resulting adhesive composition between the said textile and a vulcanizable body of the said rubber to be adhered thereto, and curing the resulting laminate to firmly adhere the said body to the said textile.

2,839,444

FUNGICIDAL COMPOSITION COMPRISING 2, 4, DINITROFLUOROBENZENE AND METHODS OF USING SAME

Waldo B. Ligett, Pontiac, Mich., and Alfred J. Kolka, Clairton, Pa., assignors, by mesne assignments, to Pittsburgh Coke and Chemical Company, a corporation of Pennsylvania

No Drawing. Application April 1, 1954
Serial No. 420,436
6 Claims. (Cl. 167—30)

1. A soil treatment agent comprising 2,4-dinitrofluorobenzene, a solid dispersant, and a surface-active agent.

2,839,445

FUNGICIDAL AND ANTI-OXIDANT COMPOSITIONS COMPRISING 1,3-DITHIOLANES

John F. Harris, Jr., Dunlinden Acres, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 11, 1954
Serial No. 403,447
17 Claims. (Cl. 167—33)

1. A 1,3-dithiolane having a carboxyl group joined, through an extranuclear saturated aliphatic hydrocarbon chain of at least one carbon, to carbon of the dithiolane nucleus.

17. A process for the control of fungi comprising applying to organic matter subject to fungus attack, a 1,3-dithiolane, hydrocarbon except for carboxyl oxygen and dithiolane ring sulfur, and having a carboxyl group joined through an extranuclear saturated aliphatic hydrocarbon chain of at least one carbon, to carbon of the dithiolane nucleus.

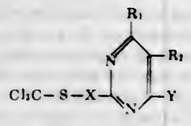
2,839,446

NEW PYRIMIDINE DERIVATIVES

Alfred Margot and Hans Gysin, Basel, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application February 8, 1957
Serial No. 638,922
Claims priority, application Switzerland February 15, 1956
6 Claims. (Cl. 167—33)

5. A fungicidal agent comprising as essential active ingredient a compound corresponding to the formula



wherein X represents a member selected from the group consisting of O and S, Y represents a member selected from the group consisting of hydrogen, hydroxyl, halogen, lower alkyl, —$OSCCl_3$ and —$SSCCl_3$, R_1 taken separately represents a lower alkyl radical, R_2 taken separately represents a member selected from the group consisting of hydrogen, and a lower alkyl radical, and R_1 and R_2 together represent a member selected from the group consisting of the trimethylene, tetramethylene and divinylene radical.

2,839,447

INTRAVENOUS ULTRASHORT-ACTING ANESTHETIC COMPOSITION

Heinrich Gruber, Berlin, Germany, assignor to Riedel-de Haen Aktiengesellschaft, Seelze, near Hannover, Germany, a German firm

No Drawing. Application January 7, 1955
Serial No. 480,587
5 Claims. (Cl. 167—52)

1. A liquid anesthetic agent for intravenous injection comprising an aqueous solution of from 4 to 7% by weight of the sodium salt of the 5-beta-bromallyl-5'-isopropyl-N-methyl-barbituric acid, from 4 to 6% by weight of 1-phenyl-2.3-dimethyl-pyrazolone, from 2 to 5% by weight of diethyl-ether, and 5% by weight of a liquid selected from the group consisting of glycerol and of 1,2 propanediol and of 1,3 butanediol.

2,839,448

DENTIFRICE CONTAINING A STANNOUS COMPOUND AND A CARBOXYLATED ALKYL CELLULOSE ETHER

Richard E. Hager, North College Hill, and Carroll R. Reiss, Green Township, Hamilton County, Ohio, assignors to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio

No Drawing. Application February 9, 1955
Serial No. 487,211
8 Claims. (Cl. 167—93)

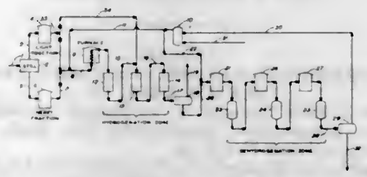
2. A toothpaste comprising a water-soluble stannous compound and at least one water-soluble salt of a carboxylated alkyl cellulose ether, said toothpaste being free from natural gum binders.

2,839,449

HYDROCARBON CONVERSION PROCESS

Gordon R. MacPherson and Charles J. Carlton, Berkeley, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application April 13, 1954, Serial No. 422,716
12 Claims. (Cl. 196—28)



1. A process for upgrading cracked naphtha which comprises fractionally distilling the naphtha to separate an overhead fraction having an ASTM-D-86 90% point in the range from 275 to 350° F. and a bottoms fraction, separately contacting the overhead fraction and hydrogen and the bottoms fraction and hydrogen with a cobalt-molybdenum catalyst in a hydrogenation zone under conditions of temperature and space velocity sufficiently severe in each case to reduce the sulfur content and the nitrogen content of the liquid product below about 0.2% by weight and 5 parts per million, respectively, said conditions being substantially less severe in the case of the overhead fraction, separately contacting the hydrogenated overhead fraction and hydrogen and the hydrogenated bottoms fraction and hydrogen with a platinum catalyst under dehydrogenating conditions sufficiently severe in each case to produce a liquid product having an F-1 clear

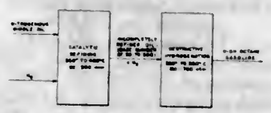
octane rating above 80, said conditions being substantially less severe in the case of the hydrogenated bottoms fraction.

2,839,450

PRODUCTION OF GASOLINES HAVING HIGH KNOCK RATES FROM NITROGENOUS MIDDLE OILS

Willi Oettinger, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application March 21, 1955, Serial No. 495,816
Claims priority, application Germany March 26, 1954
6 Claims. (Cl. 196—53)



1. A process for the production of a high octane gasoline from a nitrogenous middle oil having a base number of more than 900, which comprises subjecting said nitrogenous middle oil to an incomplete refining by catalytic refining with hydrogen at temperatures of 350° to 460° C. and pressures of 10 to 300 atmospheres wherein the conditions of temperature, pressure and throughput are so correlated that the incompletely refined product has a base number of between 20 and 500, and then subjecting said incompletely refined product to a destructive hydrogenation at 330° to 550° C. under a pressure of 150 to 700 atmospheres in the presence of at least one compound of a heavy metal of the 5th to 8th groups of the periodic system which is applied to at least one silicate as a carrier.

2,839,451

STRIPPING IN FLUID COKING

John Frederick Moser, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application November 15, 1955, Serial No. 546,896
2 Claims. (Cl. 202—23)



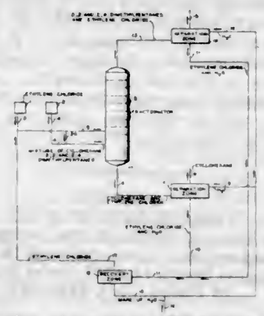
1. In a process for coking a heavy hydrocarbon oil which comprises the steps of contacting the oil coking charge stock at a coking temperature with a body of inert particles having an average particle size in the range of 100 to 400 microns maintained in the form of a dense, turbulent, fluidized bed in a reaction zone having a lower confined stripping section, removing product vapors from the reaction zone, circulating the particles through an extraneous heating zone wherein a portion of the particles are heated and back to the reaction zone to supply heat thereto, and wherein oversized particles larger than specified accumulate and have to be removed, the improvement which comprises the steps of screening the oversized particles in an annular screening zone above an annular stripping zone; withdrawing the oversized particles from the stripping section through a confined conducting zone countercurrent to injected fluidizing gas for the dense bed, said conducting zone extending central of the stripping section and defining the annular stripping zone, sending predominately all the circulating particles from the coker into the annular stripping zone free of oversized particles, stripping them with an auxiliary inert gas at a superficial velocity lower than that of the fluidizing gas and circulating the thus stripped coke from the annular zone to the external heating zone.

2,839,452

DISTILLATION OF HYDROCARBONS WITH ETHYLENE CHLORIDE

William T. Nelson, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 14, 1954, Serial No. 475,180
10 Claims. (Cl. 202—42)



1. The separation of a cycloparaffin from its admixture with at least one compound selected from the group consisting of a close-boiling normal paraffin and isoparaffin which comprises adding to said admixture at least one compound selected from the group consisting of methylene chloride and ethylene chloride and distilling said admixture, said compound boiling within 30° C. of said chloride, thereby distilling overhead an azeotrope of the selected chloride with the selected paraffin and leaving at least the major portion of the said cycloparaffin undistilled.

2,839,453

COKING RETORT OVEN WITH GRADUATED LINER WALL

Joseph Becker, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware

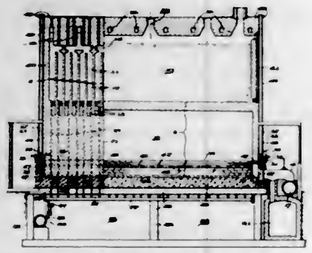
Application October 20, 1953, Serial No. 387,222
5 Claims. (Cl. 202—223)



1. A horizontal coking retort oven battery comprising, in combination: a series of alternate horizontal coking chambers and intermediate heating walls therefor ar-

ranged side-by-side in a row, each of said horizontal coking chambers being tapered to widen from one horizontal pusher side toward the other coke side of the battery to facilitate horizontal pushing of coked charges out of the chambers through their wider ends, and each of said heating walls comprising vertical combustion flues with inlet means for gas and air thereto for upflow combustion therein, and liner wall portions on opposite sides of the heating walls, between the flue spaces therein and the coking chamber spaces on the opposite sides of the respective walls, which liner wall portions are of a thickness at the pusher side of the oven within the range of 3½ to 5 inches and form the side faces of the adjacent coking chambers and conduct the coking heat directly from the combustion flues in the heating walls to coal charges in the adjacent chambers, liner wall portions that are disposed at different elevations upwardly along the respective heating walls in regions further along toward the wider coke side of the oven chambers being of one to one and one half inches less thickness relative to the thickness of liner wall portions in corresponding horizontal planes of the same heating wall in regions nearer the narrower pusher side of the chambers, to provide for increasing the capacity of the coking chambers faster heat input into the wider parts than thereof into the narrower parts of the tapered horizontal coke oven chambers.

2,839,454
COKING RETORT OVEN
Joseph van Ackeren, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
Application March 14, 1957, Serial No. 646,095
20 Claims. (Cl. 202—267)



1. A regenerative coke oven battery, comprising: an upper masonry mass of brick constituting a series of alternate horizontal coking chambers and intermediate heating walls arranged side by side in a row, each heating wall comprising vertical combustion flues, and a lower masonry mass of brick constituting a series of crosswise extending regenerators separated by oven supporting regenerator walls below and parallel to the coking chambers and heating walls and resting on a concrete oven supporting mat with horizontal sole flue channels interposed between the bottoms of the regenerators and the top of the concrete mat, said upper and lower masonry mass being composed of silica brick from the oven roof down to a lower level between the 1200° F. middle height of the regenerators and 750° F. level of the tops of the horizontal sole flue channels and said lower masonry mass being composed of superposed interlocked tiers of clay brick from said lower level down to the top of said concrete mat with overlapping anchoring parts and channels therefor in the bricks of adjacent tiers to restrain the clay bricks from movement under thrust imposed thereon when the silica masonry above expands under heat, said concrete mat having a concrete extension, in the form of a continuous curb alongside the side faces of the battery, extending up to said lower level to terminate at its top at the level of the top of said clay brick, and buckstays anchored at their lower ends at said lower level to the concrete of the mat at the top of said curb and extending upwardly to the top of the battery alongside the ends of said regenerator walls and heating walls at opposite sides of the battery and provided with tie means for drawing them together at the top of the battery, for bracing the silica portion of the oven masonry mass separately and independently of the clay portion of the oven masonry.

2,839,455
ANODIZING OF ALUMINUM COATED OBJECTS
Harry La Tour and D Cameron Perry, Middletown, Ohio, assignors to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
No Drawing. Application July 21, 1951
Serial No. 238,020
7 Claims. (Cl. 204—28)

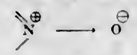
2. A process of anodizing ferrous articles having an aluminum coating of substantially 0.001 to 0.002 inch thickness which comprises making said articles the anodes in an electrolyte having an oxidizing effect under electrolytic conditions, having a temperature of substantially 160° to 212° F. and employing an initial current density of at least substantially 200 amperes per square foot and a time of treatment of substantially 15 to 60 seconds, the said electrolyte comprising in water solution an acidic material chosen from a class consisting of acetic, sulfuric, nitric, phosphoric, citric and chromic acids and mixtures thereof, and a base chosen from a class consisting of ammonium, sodium, magnesium and potassium hydroxides and mixtures thereof, the said electrolyte having a pH substantially in the range of 6 to 8.

2,839,456
ELECTROPLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 16, 1956
Serial No. 622,529
6 Claims. (Cl. 204—49)

1. The process for producing bright nickel deposits which comprises electrodepositing nickel from an aqueous acidic solution of at least one nickel salt in which there is dissolved from about 0.1 to about 10 grams per liter of a heterocyclic organic compound of the group consisting of 2-(4-pyridyl) ethyl sulfonic acid and the alkali metal, magnesium, ammonium, and nickel salts thereof, and from about ¼ to about 80 grams per liter of a water-soluble sulfo-oxygen compound of the group consisting of unsaturated aliphatic sulfonic acids, mononuclear and binuclear aromatic sulfonic acids, mononuclear aromatic sulfinic acids, the alkali metal, magnesium, ammonium, and nickel salts of said acids, and mononuclear aromatic sulfonamides and sulfonimides.

2,839,457
ELECTROPLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 16, 1956
Serial No. 622,530
5 Claims. (Cl. 204—49)

1. The process for producing bright nickel deposits which comprises electrodepositing nickel from an aqueous acidic solution of at least one nickel salt in which there is dissolved from about 0.01 to about 1 gram per liter of an aromatic N-oxide compound possessing a polar nitrogen-oxygen bond having the structural formula



in which the nitrogen atom forms part of a heterocyclic

ring, and from about ¼ to about 80 grams per liter of a water-soluble sulfo-oxygen compound of the group consisting of unsaturated aliphatic sulfonic acids, mononuclear and binuclear aromatic sulfonic acids, heterocyclic sulfonic acids, mononuclear aromatic sulfinic acids, the alkali metal, magnesium, ammonium, and nickel salts of said acids, and mononuclear aromatic sulfonamides and sulfonimides.

2,839,458
ELECTROPLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 16, 1956
Serial No. 622,531
4 Claims. (Cl. 204—49)

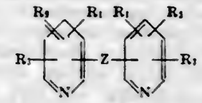
1. The process for producing bright nickel deposits which comprises electrodepositing nickel from an aqueous acidic solution of at least one nickel salt in which there is dissolved from about 0.05 to about 5 grams per liter of an organic phosphinic acid of the group consisting of mononuclear and binuclear aromatic phosphinic acids, and from about ¼ to about 80 grams per liter of a water-soluble sulfo-oxygen compound of the group consisting of unsaturated aliphatic sulfonic acids, mononuclear and binuclear aromatic sulfonic acids, heterocyclic sulfonic acids, mononuclear aromatic sulfinic acids, the alkali metal, magnesium, ammonium, and nickel salts of said acids, and mononuclear aromatic sulfonamides and sulfonimides.

2,839,459
ELECTROPLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 16, 1956
Serial No. 622,532
6 Claims. (Cl. 204—49)

1. The process for producing bright nickel deposits which comprises electrodepositing nickel from an aqueous acidic nickel electroplating solution in which there is dissolved from about 0.005 to about 1 gram per liter of an aromatic heterocyclic carbon-nitrogen compound having a six-membered cyclic nucleus containing from 1 to 3 nitrogen atoms and at least one amino group attached to a carbon atom in a position alpha to the heterocyclic nitrogen, and from about ¼ to about 80 grams per liter of a water-soluble sulfo-oxygen compound of the group consisting of unsaturated aliphatic sulfonic acids, mononuclear and binuclear aromatic sulfonic acids, heterocyclic sulfonic acids, mononuclear aromatic sulfinic acids, the alkali metal, ammonium, magnesium, and nickel salts of said acids, and mononuclear aromatic sulfonamides and sulfonimides.

2,839,460
ELECTROPLATING
Donald Gardner Foulke, Watchung, and Otto Kardos, Red Bank, N. J., assignors to Hanson-Van Winkle-Munning Company, a corporation of New Jersey
No Drawing. Application November 16, 1956
Serial No. 622,533
6 Claims. (Cl. 204—49)

1. The process for producing bright nickel deposits which comprises electrodepositing nickel from an aqueous acidic solution of at least one nickel salt in which there is dissolved from about ¼ to about 80 grams per liter of a water-soluble sulfo-oxygen compound of the group consisting of unsaturated aliphatic sulfonic acids, mononuclear and binuclear aromatic sulfonic acids, heterocyclic sulfonic acids, mononuclear aromatic sulfinic acids, the alkali metal, ammonium, magnesium, and nickel salts of said acids, and mononuclear aromatic sulfonamides and sulfonimides and from about 0.001 to about 1 gram per liter of a bis-pyridyl having the structure

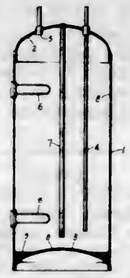


in which Z is a linkage of the group consisting of a carbon-carbon covalent bond, methylene, hydroxymethylene, ethylene, hydroxyethylene, and dihydroxyethylene, and R_1, R_2 and R_3 are substituents selected from the group consisting of hydrogen, methyl, ethyl, and propyl radicals.

2,839,461
ELECTROLYTIC RECOVERY OF NICKEL
Louis Secondo Renzoni, Copper Cliff, Ontario, and Wilbur Vernon Barker, Port Colborne, Ontario, Canada, assignors to The International Nickel Co., Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application February 1, 1954
Serial No. 407,585
Claims priority, application Canada October 29, 1953
11 Claims. (Cl. 204—113)

1. A method for producing electrolytic nickel which comprises in combination the steps of anodically corroding by direct electrolytic action at high anode efficiency in the anode compartment of a divided cell a unitary and conductive anode of nickel matte characterized in having a sulfur content of about 20% to about 32% by passing a current through said anode of nickel matte while it is in contact with an aqueous sulfate-chloride anolyte containing from about 65 to about 115 grams per liter of sulfate radical and from about 20 to about 55 grams per liter of chloride radical and maintaining the pH of said anolyte at a pH of about 1.8 to about 2.1, to thereby produce an impure nickel-rich anolyte and an anode sludge comprised mainly of elemental sulfur; removing said impure anolyte from said anode compartment; purifying said impure anolyte; introducing said purified anolyte into the cathode compartment of a divided cell to thereby provide a catholyte; and electrodepositing nickel from said catholyte onto a cathode in said cathode compartment.

2,839,462
HOT WATER TANK AND METHOD OF INCREASING THE EFFECTIVENESS OF CATHODIC PROTECTION OF THE SAME
Forrest W. Nelson, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application August 16, 1954, Serial No. 449,956
2 Claims. (Cl. 204—147)



1. A method of increasing the cathodic protection of a corrosion-resistant lined water storage vessel connected to a source of naturally soft water and with said water

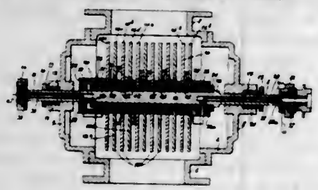
having a concentration of dissolved solids of less than 100 p. p. m. and being capable of conducting a given electric current between an anode disposed within the vessel and any exposed metal areas of the latter but with said given current being incapable of protecting said metal areas from corrosion, comprising, introducing into said vessel a solid electrolyte material selected from the group consisting of calcium sulphate, magnesium carbonate and calcium hydroxide, and with said electrolyte being capable of increasing the dissolved solids content of said water whereby the current density of said water may be increased; flowing water from said source into said vessel and into contact with said material so that the dissolved solids content of the water within the vessel is increased to a range of about 150 to 400 p. p. m. for a period of time sufficient for the increased current to polarize the cathodic metal areas of the vessel exposed to water, and thereafter flowing additional water from said source into and through the vessel with said concentration of dissolved solids and said current density returning to their initial values whereby the polarized condition of the cathodic areas is subsequently maintained by the lesser current to protect the metal areas of the vessel from corrosion.

2,839,463

DEVICE FOR TREATMENT AND PARTICULARLY STERILISATION OF LIQUIDS

Jean Justin Leon Veilas and Lorenzo Casanovas Puig, Toulouse, Haute-Garonne, France

Application August 16, 1954, Serial No. 449,976
Claims priority, application France December 11, 1953
3 Claims. (Cl. 204—212)



1. In a device for the continuous treatment and in particular the sterilization, coagulation, oligodynamics and selection of the microbic fauna of a liquid, the combination of: a rotatable shaft, a driving motor for rotating said shaft, a casing carrying said shaft, the major portion of said shaft being located inside said casing, inlet and outlet connections connected to said casing for respectively admitting fluid into and discharging fluid from said casing, two sets of spaced electrodes rotatably connected to said shaft, the electrodes of one of said sets being spaced from and alternate with the electrodes of the other set, two current conducting means respectively directly connected to the central portion of both sets of electrodes and arranged to feed electric current of one polarity to the electrodes of one of said sets and current of a different polarity to the electrodes of the other set, each of said current conducting means including resilient conductors resiliently interposed between and electrically connected to each two adjacent electrodes of the respective set of electrodes pertaining to the respective conducting means.

2,839,464

TEXTILE OIL

Lorne W. Sproule, Sarnia, Ontario, and James H. Norton, Corunna, Ontario, Canada, assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application February 16, 1954
Serial No. 410,738
1 Claim. (Cl. 252—8.9)

A mineral oil base textile oil composition free of components yielding in aqueous solution anions which form calcium compounds of low water solubility, consisting essentially of a major proportion of a mineral oil distillate having a viscosity of 100 SSU at 100° F. and a viscosity index of 70, 10 weight percent of a polyethylene glycol ester of oleic acid containing about 13 moles of ethylene oxide per mole of oleic acid, 3 weight percent of nonyl phenyl polyethylene ether alcohol averaging about 4.5 oxyethylene groups per molecule, 4 weight percent of sorbitan monooleate, and 0.7 weight percent of water.

2,839,465

WATER DISPERSIBLE CORROSION INHIBITOR

Loyd W. Jones, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

No Drawing. Application February 4, 1953
Serial No. 335,161
13 Claims. (Cl. 252—8.55)

1. A brine-dispersible corrosion-inhibiting composition comprising from about 10 to 80 percent by volume of an oil-soluble, water-insoluble corrosion inhibitor, from about 10 to 80 percent by volume of a distilled petroleum fraction, from about 2 to 10 percent by volume of a mutual solvent for water and the distilled petroleum fraction, and from about 2 to 10 per cent by volume of a dispersing agent having the formula ROW, wherein R is a non-aromatic hydrocarbon radical containing at least 12 carbon atoms, O is oxygen and W is a polyglycol containing at least 4 ether linkages.

2,839,466

FLOODING COMPOSITION

D'Arcy A. Shock and John D. Sudbury, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application March 30, 1955, Serial No. 498,040
5 Claims. (Cl. 252—8.55)

1. A flooding process for recovering oil from a subterranean oil-bearing formation which consists in flooding said formation with an aqueous composition comprising water as the major component having incorporated therein 25 to 200 p. p. m. of an alkaryl sulfonic acid which has a molecular weight of not less than 400 and 25 to 200 p. p. m. of a water soluble carboxylic acid containing from 1 to 7 carbon atoms, characterized further in that the alkaline earth metal salt of said carboxylic acid is water soluble.

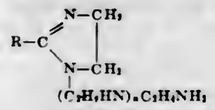
2,839,467

BACTERICIDAL COMPOSITIONS AND METHOD OF BACTERIA CONTROL COMPRISING CERTAIN MIXTURES INCLUDING CERTAIN HYDROCARBYL IMIDAZOLINE MIXTURES

Charles Bryce Hutchison, Webster Groves, and William J. Ries, Clayton, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

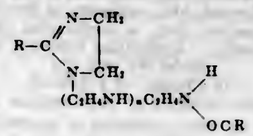
No Drawing. Application August 3, 1955
Serial No. 526,322
14 Claims. (Cl. 252—8.55)

1. In a flooding process for the recovery of oil from oil-bearing strata taking place in the presence of anaerobic sulfate-reducing bacteria and soluble ferrous salts, the improvement which comprises flooding the oil-bearing strata with an aqueous liquid containing a bactericide consisting essentially of a mixture of not less than 40% and not over 60% by weight of an amino imidazoline of the structure



in which R is a hydrocarbon radical having not less than 13 carbon atoms and not over 22 carbon atoms, and *n* is

an integer not greater than 2 and including zero; and not less than 40% and not over 60% by weight of an amido imidazoline of the structure



where each R in the amido imidazoline structure is a hydrocarbon radical having not less than 13 carbon atoms and not over 22 carbon atoms; with the proviso that said mixture is neutralized with a low molal water soluble carboxy acid having not over 6 carbon atoms in the approximate ratio of 2 moles of acid for each mole of imidazoline compound present.

2,839,468

JET TURBINE LUBRICANT COMPOSITION

William T. Stewart, El Cerrito, and George J. Benoit, Jr., San Anselmo, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application May 10, 1956
Serial No. 583,921
3 Claims. (Cl. 252—32.5)

1. A lubricant composition comprising (*a*) from 90 to 98% by weight of a mixture of methyl-2-ethylhexyl diethers of poly(oxyethylene - 1,2 - oxypropylene) glycols having approximately equimolar proportions of said oxyethylene and 1,2-oxypropylene groups, and having a molecular weight between about 350 and 700, a viscosity between 5,000 and 12,000 cs. at —65° F. and 2.5 and 3.5 cs. at 210° F., a pour point below —65° F., and a flash point above 350° F., (*b*) from 0.5 to 3% of phenyl-α-naphthylamine, (*c*) from 0.1 to 0.5% by weight of a blend of an alkylamine acid alkyl phosphate with an alkyl dihydrogen phosphate wherein the amine salt component is present to the extent of from 25 to 95% by weight, the alkyl groups in said ester containing from 8 to 18 carbon atoms each, (*d*) from 0.5 to 5% by weight of tricresyl phosphate, (*e*) from 0.01 to 0.1% by weight of quinizarin, and (*f*) from 0.0001 to 0.02% by weight of dimethyl silicone polymer foam inhibitor.

2,839,469

ANTI-WEAR OIL COMPOSITIONS

Paul E. Pfeifer, Crystal Lake, and Kenneth Boldt, Cary, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application December 29, 1954
Serial No. 478,502
9 Claims. (Cl. 252—32.7)

1. A crankcase lubricant having the following composition:

Component:	Weight, percent
An oleaginous lubricating oil base	97.8–86.5
High molecular weight polymeric esters of methacrylic acid and the higher fatty alcohols	0.1–7.5
Barium dibutyl phenol sulfide admixed with calcium petroleum sulfonate	1.5–4.0
Zinc organic - substituted dithiophosphate having the general formula: $(RO)_2PSSZn$ where R is a hydrocarbon substituent having 5–40 carbon atoms	0.5–1.0
Oil-soluble ammonium sulfonate selected from the group consisting of petroleum mahogany sulfonates and alkaryl sulfonates	0.1–1.0

2,839,470

PREPARATION OF BASIC POLYVALENT METAL SALTS OF ORGANIC ACIDS

Grant E. Warren, deceased, late of Martinez, Calif., by Eleanore R. Warren, executrix, Martinez, Calif., Henry W. Anderson, Houston, Tex., and Hyman Ratner, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 6, 1957
Serial No. 638,478
19 Claims. (Cl. 252—33)

16. In a method for preparing an oil-soluble polyvalent metal salt of an organic acid, the step comprising reacting, as the only chemically reactive organic material, an oil-soluble organic acid compound containing at least 12 carbon atoms and selected from the class consisting of (1) the petroleum sulfonic acids, (2) carbocyclic carboxylic acids and (3) salts of these acids with alkali metals and with alkaline earth metals, in the presence of a substantial aqueous phase comprising a weight of water equal to not less than 2% of the weight of said organic acid compound, with a polyvalent metal carbonate which is formed in situ by the reaction of a polyvalent metal base and carbon dioxide, at least a part of said polyvalent metal base being in the free state.

2,839,471

EXTREME PRESSURE LUBRICANTS

Robert W. Scott, Westfield, and Fred B. Fischl, Springfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 17, 1955
Serial No. 509,093
1 Claim. (Cl. 252—33.4)

A storage-stable gear oil composition comprising: a major proportion of a mineral lubricating oil and 10 wt. percent of a treated phosphosulfurized additive; said additive being formed by reacting a deasphalted bright stock having an SSU viscosity of 170 at 210° F. with 17.5 wt. percent of phosphorus pentasulfide at 425° F. for about 10 hours, then reacting the phosphosulfurized material so obtained for one hour at 350°–380° F. simultaneously with (1) about 9.5–10 wt. percent of commercial dipentene, (2) 0.67 wt. percent of a 40 wt. percent concentrate in oil of a calcium-barium tertiary octophenol sulfide having a barium/calcium ratio of about 1.2, and (3) 0.33 wt. percent of a sulfonate concentrate selected from the group consisting of a 50 wt. percent concentrate in oil of a sodium sulfonate having a molecular weight of about 470 and prepared from a sulfonated polypropylene alkylated benzene, and a 30 wt. percent concentrate in oil of a calcium sulfonate having a molecular weight of about 950 and prepared from a sulfonated polypropylene alkylated benzene.

2,839,472

NON-AQUEOUS ELECTRO-CONDUCTIVE ELECTROLYTE

Michael Nevalonny, Farmingdale, N. J.

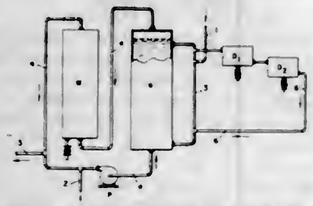
No Drawing. Application August 31, 1955
Serial No. 531,821
5 Claims. (Cl. 252—62.2)

1. A non-aqueous bi-directionally electro-conductive electrolyte consisting essentially of:

10 g. sodium boroformate
30 g. boric acid
7 mg. curcumine
2.5 g. potassium acetate
1000 cc. triethylene glycol
20 cc. triethanol amine

and having a viscosity of 45 to 50 centipoises at 26° C., and having a resistivity of 9,500 to 10,000 ohm-cm. at 26° C.

2,839,473
METHOD OF PURIFYING A CUPROUS SALT CATALYST IN THE SYNTHESIS OF ACRYLONITRILE
Daniel Porret, Monthey, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
Application December 4, 1952, Serial No. 324,108
Claims priority, application Switzerland December 7, 1951
9 Claims. (Cl. 252—411)



1. A method of purifying and prolonging the period of activity of a cuprous salt catalyst in the synthesis of acrylonitrile from hydrocyanic acid and acetylene in a synthesis zone, which comprises removing at least part of the reaction mixture from the synthesis zone, at a temperature of 70–100° C. and before any separation has taken place in such reaction mixture, and cooling the thus-removed part to a temperature below 70° C. and at which the cuprous salt catalyst is still in substantially liquid form, whereby polymerization products come out of solution in the catalyst and are precipitated therefrom with concomitant purification of said catalyst.

2,839,474
CATALYSTS AND CATALYTIC PROCESSES
Carl E. Johnson, Griffith, and Wilford J. Zimmerschied, Crown Point, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application August 21, 1953
Serial No. 375,808
7 Claims. (Cl. 252—428)

1. The process of preparing a solid material which is catalytically active for the polymerization of propylene, which process comprises heating a halide of titanium selected from the group consisting of titanium fluorides, chlorides and bromides with a lower alkyl ester containing not more than 6 carbon atoms per alkyl group of an acid selected from the group consisting of orthophosphoric and triphosphoric acids, the molar ratio of halogen as halide in said reaction mixture to alkyl groups being between about 0.3 and about 1, said heating being conducted at a temperature sufficient to effect substantial evolution of alkyl halide from said reaction mixture, continuing said heating until said reaction mixture is substantially free of halogen, and recovering a solid catalytic material thus produced.

2,839,475
PRODUCTION OF SILICA-CONTAINING CATALYSTS OF HIGH PORE DIAMETER
William B. Innes, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application April 8, 1955
Serial No. 500,271
5 Claims. (Cl. 252—451)

2. A method of producing silica gel catalysts of high pore diameter and high pore volume having good attrition resistance which comprises forming a hydrated silica gel capable of hardening to a dried gel of high pore volume by acidifying an aqueous solution of commercial alkali metal silicate at a temperature between about 60° and 90° C. during a time of about 20–35 minutes, impregnating the resulting gel with an activating metal oxide, and drying and hardening the resulting activated gel.

2,839,476
CERTAIN NON-IONIC SURFACTANTS AND METHOD OF MAKING SAME
Melvin De Groote, University City, and Owen H. Pettingill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 7, 1955
Serial No. 486,674
19 Claims. (Cl. 260—2)

1. A cogeneric mixture of oxyalkylation derivatives of a member of the class consisting of glycols in which one hydroxyl group is tertiary and the other hydroxyl group is not tertiary, and its low stage oxyethylation addition products; said glycols having not over 22 carbon atoms; said low stage oxyethylation step involving not more than 4 moles of ethylene oxide per mole of glycol, followed by conversion into a surface active mixture; said conversion into a surface active mixture being by virtue of a first stage oxyalkylation involving (*a*) at least one member of the class consisting of propylene oxide and butylene oxide to provide an intermediate and a second stage oxyalkylation involving (*b*) ethylene oxide; said intermediate prior to oxyethylation being characterized by water insolubility; said final product being characterized by the fact that hydrophobe property of the intermediate is offset to a significant degree by the final stage oxyethylation; the average molecular weight of said cogeneric mixture being not over 10,000, and not less than 400.

2,839,477
CERTAIN NON-IONIC SURFACTANTS AND METHOD OF MAKING SAME
Melvin De Groote, University City, and Owen H. Pettingill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 7, 1955
Serial No. 486,675
11 Claims. (Cl. 260—2)

1. A cogeneric mixture of oxyalkylation derivatives of a member of the class consisting of 2-methyl-2,4-pentanediol and its low stage oxyethylation addition products; said low stage oxyethylation step involving not more than 4 moles of ethylene oxide per mole of 2-methyl-2,4-pentanediol, followed by conversion into a surface active mixture; said conversion into a surface active mixture being by virtue of a first stage oxyalkylation involving (*a*) at least one member of the class consisting of propylene oxide and butylene oxide to provide an intermediate and a second stage oxyalkylation involving (*b*) ethylene oxide; said intermediate prior to oxyethylation being characterized by water insolubility; said final product being characterized by the fact that hydrophobe property of the intermediate is offset to a significant degree by the final stage oxyethylation; the average molecular weight of said cogeneric mixture being not over 10,000, and not less than 400.

2,839,478
CELLULAR CARBON MONOXIDE-OLEFINE COPOLYMER-POLYISOCYANATE PRODUCTS AND PROCESS OF PRODUCING SAME
Hugo Wilms, Leverkusen, Otto Bayer, Leverkusen-Bayerwerk, Wilhelm Bunge, Leverkusen, and Ludwig Bruns, Opladen-Lutzenkirchen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application January 18, 1955
Serial No. 482,667
Claims priority, application Germany January 19, 1954
8 Claims. (Cl. 260—2.5)

1. A method for making foamed plastics which comprises reacting a composition selected from the group consisting of water and a neutral carbon monoxide-olefine copolymer having terminal hydroxyl groups, water and a carbon monoxide-olefine copolymer having terminal hydroxyl and carboxyl groups and an acid number of not more than 30, and a carbon monoxide-olefine copolymer having terminal hydroxyl and carboxyl groups and an acid number of more than 30 with an organic polyisocyanate having NCO groups in an amount at least equivalent to the sum of the hydroxyl groups, carboxyl groups and water in said composition, said olefine having from 2 to 4 carbon atoms.

2,839,479
POLYMERIC COMPOSITION OF AN ACRYLIC ACID ESTER AND CELLULOSE ACETATE AND METHOD OF PREPARATION
John R. Caldwell and Russell Gilkey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application February 23, 1954
Serial No. 412,058
3 Claims. (Cl. 260—17)

1. A polymeric composition formed by the polymerization of 70–25 weight percent of an ester of acrylic acid and a saturated monohydric aliphatic alcohol containing from one to six carbon atoms polymerized in intimate mixture with 20–75 weight percent of a water soluble cellulose acetate having an acetyl content of from 13 to 19% dissolved in water to give a solution of 5–30% concentration, agitating the mixture at a temperature of 40–120° C. and hardening by contacting with a hardener selected from the class consisting of formaldehyde, trimethylol nitromethane, dimethylol urea and trimethylol melamine.

2,839,480
COMPOSITIONS OF MATTER COMPRISING AN ETHOXYLINE RESIN AND AN ALKYLENE POLYAMINE CONTAINING AT LEAST TWO TERTIARY AMINO GROUPS
Gustav Heinrich Ott, Arlesheim, Adrian Marxer and Heinz Zumstein, Basel, and Kurt Brueger, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application August 1, 1955
Serial No. 525,815
Claims priority, application Switzerland August 10, 1954
17 Claims. (Cl. 260—18)

1. A composition of matter comprising a resinous polyglycidyl ether of a polyhydric phenol and, as hardening agent, a polyalkylene polyamine in which at least the two end nitrogen atoms are those of alkyl tertiary amino groups and which is free from other substituents capable of reacting with epoxide groups, the alkyl groups of the tertiary amino groups containing 1–2 carbon atoms.

2,839,481
COMBINATIONS OF KETONE FORMALDEHYDE REACTION PRODUCTS AND GLYCIDYL ETHER OF POLYHYDRIC PHENOLS OR POLYHYDRIC ALCOHOLS
Mortimer T. Harvey, South Orange, and Peter L. Rosamilia, Newark, N. J., assignors to Harvel Research Corporation, Irvington, N. J., a corporation of New Jersey
No Drawing. Application February 28, 1958
Serial No. 718,138
22 Claims. (Cl. 260—19)

1. A novel composition of matter comprising (A) ketone-formaldehyde organic reaction product liquid at a temperature below 300° F. and (B) glycidyl ether of a compound selected from the group consisting of polyhydric phenols and polyhydric alcohols, said B being liquid at a temperature below 350° F., the ratio by weight of A to B being 100 parts of A to 5–2000 parts of B.

8. A novel composition of matter produced by heat combining (*a*) a composition defined in claim 1 and (*b*) a monocarboxylic fatty acid having a maximum of 24 carbon atoms.

2,839,482
WAX-SILICONE-RESIN POLISH
Henry C. Geen, Grand Rapids, Mich., and James D. Quist, deceased, late of Holland, Mich., by Hazel M. Quist, executrix, Holland, Mich., assignors, by mesne assignments, of one-half to S. C. Johnson & Son, Inc., a corporation of Wisconsin, and one-half to Simoniz Company, a corporation of Delaware
No Drawing. Application February 25, 1954
Serial No. 412,646
29 Claims. (Cl. 260—23)

1. A polishing composition adapted to be applied to a surface to give a glossy protective coating thereto, comprising: about 3–5 parts by weight of a liquid, substantially non-volatile, linear polydialkylsiloxane having a viscosity of about 50 to 100,000 centistokes at 25° C. to improve ease of spreading and polishing; a wax, the siloxane and wax being in such proportions as to avoid substantial haziness in said coating; a major proportion of a liquid, volatile organic solvent; and about 1–3 parts by weight of a thermoplastic, substantially non-crosslinked resin, substantially non-volatile at ordinary room temperatures, compatible with the wax, at least miscible with the solvent, and substantially incompatible with the siloxane, the resin being present in sufficient proportions to improve the gloss but in an amount less than that imparting substantial stickiness to said coating, and the solvent being present in sufficient quantity to function as a mutual solvent-dispersant for the siloxane, the wax, and the resin.

2,839,483
INCREASING THE PARTICLE SIZE OF SYNTHETIC RUBBER LATICES BY UTILIZING VOLATILE BASE SALTS
Louis H. Howland, Watertown, and Alfred Nisonoff, Waterbury, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application June 30, 1954
Serial No. 440,561
12 Claims. (Cl. 260—23.7)

1. The method which comprises preparing an alkaline synthetic rubber latex aqueous emulsion polymerizate of material selected from the group consisting of butadienes-1,3 and mixtures of butadienes-1,3 with compounds which contain a single $CH_2=C<$ group and are copolymerizable with butadienes-1,3 having a pH above 9, and containing 3 to 10 parts per 100 parts of rubber of the latex of alkali-metal soap of soap-forming monocarboxylic acid having 10 to 20 carbon atoms per molecule, and containing a volatile base salt which is a salt of a volatile base selected from the group consisting of ammonia and amines that are removable from aqueous solution by distillation and of an acid which has an ionization constant greater than 1×10^{-5} and which is stronger than said soap-forming acid and which is more soluble in water than said soap-forming acid and which is not volatilized from aqueous solution on distillation of the volatile base from an aqueous solution of the volatile base salt, said volatile base salt being present in amount to react with $^{2}/_{10}$ to $^{7}/_{10}$ of said alkali-metal soap on removal of the volatile base, distilling the volatile base of said volatile base salt from the latex, whereby enough acid of the volatile base salt is liberated to react with said $^{2}/_{10}$ to $^{7}/_{10}$ of the soap present to form the alkali-metal salt of said acid and free soap-forming monocarboxylic acid and reduces the pH of the latex without coagulating the latex, heating the thus treated latex for at least one hour at a temperature from 40° C. to 100°

C. to increase the particle size of the latex and thereafter adding alkali to the latex to raise the pH of the latex at least one unit and to assure a pH above 9 to increase the stability of the same.

2,839,484

PROCESS FOR THE PRODUCTION OF STABLE AQUEOUS SOLUTIONS OF HARDENABLE CONDENSATION PRODUCTS OF MELAMINE, THIOUREA, AND FORMALDEHYDE AND PRODUCT OBTAINED

Alfred Renner, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 27, 1956
Serial No. 606,223
Claims priority, application Switzerland
September 7, 1955
12 Claims. (Cl. 260—29.4)

1. A process for the production of stable solutions of hardenable condensation products of melamine, thiourea and formaldehyde, and which solutions have a solids content of 40–65 percent, which comprises heating melamine and thiourea in a molecular radio within the range of 1:0.05 to 1:0.5 with formaldehyde in aqueous alkaline solution at a pH value within the range of 7.0 to 10.0, which solution has a solids content below 40 percent, concentrating said solution by distillation to give a solids content of 40–65 percent, then heating the concentrated solution at a temperature not substantially exceeding 100° C. until a test portion of the resin solution, when diluted with water at 20° C. to a solids content of 30–40 percent, produces slight turbidity, and then cooling the resin solution to room temperature and adjusting to a pH value of 8.5 to 10.0, the formaldehyde in said process being used in a proportion such that 0.5 to 1.0 molecular proportion thereof is present for each $—NH_2$ equivalent in the mixture of melamine and thiourea.

2,839,485

RESIN COMPOSITIONS PLASTICIZED WITH DIALKYL ESTERS OF A MIXTURE OF DIACIDS

Christian W. Johnston, Severna Park, and Robert A. Meara, Baltimore, Md., assignors to National Distillers and Chemical Corporation, a corporation of Virginia

Application June 15, 1954, Serial No. 436,962
8 Claims. (Cl. 260—31.8)

1. A composition of matter comprising 100 parts by weight of a vinyl resin selected from the group consisting of polymethylmethacrylate resin, vinyl chloride resins, and polyvinyl acetals, and from 5 parts to 100 parts by weight of a plasticizer consisting essentially of dialkyl esters, in which the alkyl group has from 4 to 8, inclusive, carbon atoms, of a mixture of C_{1c} aliphatic isomeric diacids consisting essentially of about 60–88% α-ethylsuberic acid, and the remainder of the diacids consisting of a mixture of α,α'-diethyladipic acid and sebacic acid.

2,839,486

SPINNING SOLUTIONS CONTAINING ACRYLONITRILE POLYMERS. DIMETHYLFORMAMIDE, AND AN ACETAL, AND PROCESS OF MAKING SAME

Ernst Pirot, Erlenbach (Main), Germany, assignor to Vereinigte Glanzstoff-Fabriken Aktiengesellschaft, Wuppertal-Elberfeld, Germany, a German joint-stock company

No Drawing. Application March 18, 1955
Serial No. 495,333
Claims priority, application Germany March 18, 1954
10 Claims. (Cl. 260—32.6)

1. A spinning solution of a polymer selected from the class consisting of homopolymers of acrylonitrile and copolymers of a monomeric mixture of which at least 80 percent is acrylonitrile and the balance is an ethylenically unsaturated compound comprising as the solvent a mixture of 85–95 parts dimethylformamide and 15–5 parts of at least one acetal of an aldehyde which is a member of the group consisting of formaldehyde and acetaldehyde and a lower monohydric alkanol having from 1 to 4 carbon atoms.

2,839,487

COMPOSITION COMPRISING FURFURAL-KETONE-AMINE REACTION PRODUCTS AND AN EPOXY RESIN

Peter L. Rosamilia, Newark, and Mortimer T. Harvey, South Orange, N. J., assignors to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application August 9, 1954
Serial No. 448,766
20 Claims. (Cl. 260—42)

1. A reaction product of an amine containing at least one active hydrogen in an amino group thereof and an organic product liquid at 300° F. and selected from the group consisting of (*a*) reaction products produced by reacting under alkaline conditions furfural and a ketone having at least two hydrogen atoms on an alpha carbon and (*b*) homoploymers of (*a*).

11. A resin produced by heat curing an intimate combination of a reaction product defined in claim 10 and an epoxy resin liquid at 300° F., said resin being substantially solid at 500° F., said epoxy resin being a glycidyl ether of a phenol.

2,839,488

COMPOSITIONS CONTAINING EPOXY RESINS AND FURFURAL-KETONE REACTION PRODUCTS

Mortimer T. Harvey, South Orange, and Peter L. Rosamilia, Newark, N. J., assignors to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application October 18, 1957
Serial No. 690,918
14 Claims. (Cl. 260—42)

1. A composition of matter obtained by making a mixture of material B liquid at 300° F. and selected from the group consisting of monomeric and polymeric glycidyl ethers of polyhydric phenols and aliphatic polyhydric alcohols and material A liquid at 300° F. and selected from the group consisting of (*a*) furfural-ketone organic reaction products and (*b*) homopolymers of (*a*) and subjecting said mixture to the action of an amine.

2,839,489

METHOD OF MAKING POLYEPOXIDE MODIFIED OXYALKYLATION DERIVATIVES, SAID DERIVATIVES OBTAINED IN TURN BY OXYALKYLATION OF PHENOL-ALDEHYDE RESINS AND PRODUCT RESULTING THEREFROM

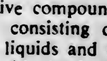
Melvin De Groote, St. Louis, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application November 19, 1953, Serial No. 393,222, now Patent No. 2,792,355, dated May 14, 1957. Divided and this application January 22, 1957, Serial No. 635,150
3 Claims. (Cl. 260—43)

1. A two-step manufacturing method, the first step involving an intermediate (ABA) which, in turn, represents the reaction products of (A) an oxyalkylated phenol-aldehyde resin containing a plurality of active hydrogen atoms, and (B) a phenolic polyepoxide containing at least two 1,2-epoxy rings free from reactive functional groups other than 1,2-epoxy and hydroxyl groups, and cogenerically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said epoxides being selected from the class consisting of (*a*) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (*b*) compounds containing a radical in which two phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



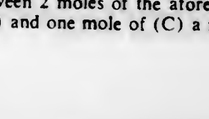
the divalent



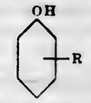
radical, the divalent sulfone radical, and the divalent monosulfide radical —S—, the divalent radical

$$—CH_2SCH_2—$$

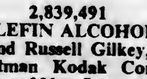
and the divalent disulfide radical —S—S—; said phenolic portion of the diepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; said oxyalkylated phenol-aldehyde resins, reactant (A) being the products of oxyalkylation of (*aa*) an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide, and (*bb*) a fusible, organic solvent-soluble, water-insoluble phenol-aldehyde resin; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in substantial absence of trifunctional phenols; said phenol being of the formula



in which R is selected from the group consisting of phenyl and saturated hydrocarbon radicals having not more than 24 carbon atoms and substituted in the 2,4,6 position; said oxyalkylated resin being characterized by the introduction into the resin molecule of a plurality of divalent radicals having the formula $(R_1O)_n$, in which R_1 is a member selected from the class consisting of ethylene radicals, propylene radicals, butylene radicals, hydroxypropylene radicals, and hydroxybutylene radicals, and *n* is a numeral varying from 1 to 120; with the proviso that at least 2 moles of alkylene oxide be introduced for each phenolic nucleus, and that the resin by weight represent at least 2% of the oxyalkylated derivative; the ratio of reactant (A) to reactant (B) being in the proportion of two moles of (A) to one mole of (B); with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and solids melting below the point of pyrolysis; with the final proviso that the reaction product be a member of the class of solvent-soluble liquids and solids melting below the point of pyrolysis; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction; said second step being the reaction product between 2 moles of the aforementioned intermediate (ABA) and one mole of (C) a non-aryl hydrophile polyepoxide containing at least two 1,2-epoxy rings and having two terminal 1,2-epoxy rings obtained by replacement of an oxygen-linked hydrogen atom in a water-soluble polyhydric alcohol by the radical



said polyepoxides being free from reactive functional groups other than 1,2-epoxy and hydroxyl groups and characterized by the fact that the divalent linkage uniting the terminal oxirane rings is free from any radical having more than 4 uninterrupted carbon atoms in a single chain; said final product being a member of the class consisting of non-thermosetting organic solvent-soluble liquids and solids melting below the point of pyrolysis with the final proviso that the reaction product be a member of the class of solvent-soluble liquids and solids melting below the point of pyrolysis; and said reaction between (ABA) and (C) being conducted below the pyrolytic point of the reactants and the resultants of reaction.

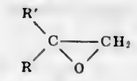
2,839,490

POLYESTER-MONOMER SOLUTIONS CATALYZED WITH ARALKYLENE OXIDES AND PROCESS FOR MAKING SAME

Leonard C. Grotz and F. Carol Gundersen, Charleston, W. Va., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application February 23, 1956
Serial No. 567,090
12 Claims. (Cl. 260—45.4)

1. The method of accelerating the gelation and cure of a 100% polymerizable liquid mixture whose principal polymerizable components are composed essentially of a homogeneous solution of (*a*) unsaturated alkyd resin whose molecules contain a plurality of polymerizably-reactive $\Delta^{2,3}$-enedioyl groups and (*b*) copolymerizable ethylenically-unsaturated liquid monomeric material, said method comprising the step of adding to said polymerizable liquid mixture a small effective amount around 0.5% up to 15% by weight thereon of at least one organic oxide having the general formula



wherein R is a monocyclic aromatic radical of up to 10 carbons in which the R—C bond extends to a carbon atom of the ring of said radical, and wherein R' is selected from the group consisting of hydrogen and aliphatic hydrocarbon radicals having up to 3 carbons.

2,839,491

ACRYLAMIDE-OLEFIN ALCOHOL COPOLYMERS

John R. Caldwell and Russell Gilkey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 23, 1953
Serial No. 344,220
4 Claims. (Cl. 260—45.5)

1. A graft copolymer of from 75 to 90% by weight of acrylonitrile and from 25 to 10% by weight of a preformed terpolymer of a mixture of monomers consisting of methyl acrylate, vinyl alcohol and an N-alkyl acrylamide wherein the alkyl group contains from 1 to 4 carbon atoms, the said terpolymer having been obtained by heating in the proportions of 1 part by weight of a binary copolymer consisting of from 30 to 80% by weight of methyl acrylate and from 70 to 20% by weight of vinyl acetate with from 0.5 to 2 parts by weight of a primary monoalkylamine containing from 1 to 4 carbon atoms, in a reaction medium consisting of a saturated mono-

hydric aliphatic alcohol containing from 1 to 3 carbon atoms, until from 50 to 90% by weight of the said methyl acrylate units had been converted to the corresponding N-alkyl acrylamide units and substantially 100% by weight of the said vinyl acetate units had been converted to vinyl alcohol units.

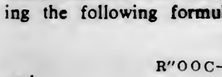
2,839,492

HEAT STABLE AROMATIC LINEAR POLYESTERS

John R. Caldwell and Russell Gilkey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 23, 1954
Serial No. 451,692
17 Claims. (Cl. 260—45.85)

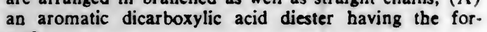
1. A process for preparing a heat stable essentially linear high-melting, aromatic acid polyester which is stable in the molten condition in the range of 200°–280° C; comprising condensing in the presence of from about 0.0005 up to about 0.01 mole proportion of a heat stabilizer selected from the group consisting of those having the following formulas:



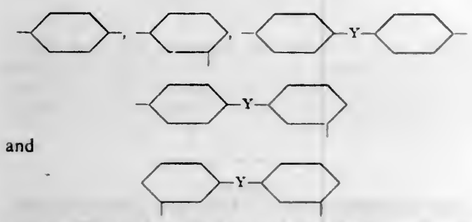
and



wherein R′ and R″ each represents a radical selected from the group consisting of alkyl and hydroxyalkyl radicals containing from 1 to 10 carbon atoms which are arranged in branched as well as straight chains, (A) an aromatic dicarboxylic acid diester having the formula:

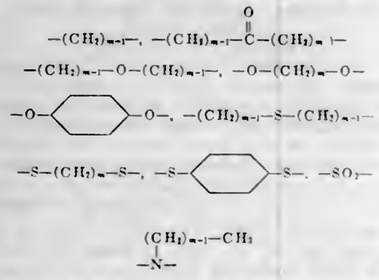


wherein R_1 and R_4 each represents a member selected from the group consisting of an alkyl radical containing from 1 to 10 carbon atoms and an omega-hydroxyalkyl radical containing from 2 to 12 carbon atoms, R_2 and R_3 each represents $(CH_2)_{n-1}$ wherein n is a positive integer of from 1 to 5 inclusive and X represents a divalent aromatic radical selected from the group consisting of those radicals having the following formulas:



and

wherein Y represents a divalent radical selected from the group consisting of



and

wherein m is a positive integer of from 1 to 5 inclusive, with (B) a dioxy compound selected from the group consisting of those compounds having the following formulas:



and

wherein p represents a positive integer of from 2 to 12 inclusive, R_5 and R_6 each represents a substituent selected from the group consisting of a hydrogen atom and an acyl radical containing from 2 to 4 carbon atoms, R_7 represents an alkylene radical containing from 2 to 4 carbon atoms and q represents a positive integer of from 1 to 10 inclusive, the dioxy compound being employed in such a proportion that there is at least an equivalent amount of oxy substituents in proportion to the carboxy substituents in the over-all combination of the aromatic diesters and the dioxy compounds, (C) and in the further presence of a catalytic condensing agent, (D) at an elevated temperature which is increased gradually during the course of the condensation up to a temperature of from about 225° to about 310° C., (E) the condensation being conducted in an inert atmosphere, (F) and conducting the condensation at a very low pressure of the inert atmosphere during the latter part of the condensation.

2,839,493

ALKYL-CYCLOALKYL PHENOLS AND RUBBER COMPOSITIONS INCLUDING SAME AS ANTI-OXIDANTS

Arthur Lambert and Gwyn Effion Williams, Blackley, Manchester, England, assignors to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application October 5, 1953
Serial No. 384,335

Claims priority, application Great Britain October 16, 1952

6 Claims. (Cl. 260—45.95)

1. 2-alpha-alkylcycloalkyl-4:6-dimethylphenols in which the alkyl substituent has not more than 4 carbon atoms and the cycloalkyl substituent is selected from the group consisting of cyclopentyl, methylcyclopentyl, cyclohexyl and methylcyclohexyl.

2,839,494

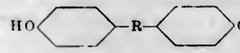
RESINOUS CONDENSATION PRODUCTS AND THEIR PRODUCTION

Johannes Reese, Wiesbaden-Biebrich, Germany, assignor to Chemische Werke Albert, Wiesbaden-Kastel (Amoneburg), Germany, a corporation of Germany

No Drawing. Application March 24, 1955
Serial No. 496,591

12 Claims. (Cl. 260—47)

1. A process for the preparation of resinous condensation products which comprises mixing and reacting in an alkaline medium a diphenol having the formula:



wherein R is a saturated hydrocarbon radical of 1 to 6 carbon atoms and 0.8–1.2 mol proportions of a halogen acetic acid near the boiling point of water, and then reacting the formed reaction mixture in an alkaline medium with 0.8–1.2 mol proportions of a halogen compound selected from the group consisting of epi-halogenhydrin and di-halogenhydrin at a substantially lower temperature, the amount of alkali employed being at least stoichiometrically equivalent to the halogen and carboxyl content of the reaction mixture.

2,839,495

PROCESS FOR RESINIFYING POLYEPOXIDES AND RESULTING PRODUCTS

James E. Carey, Maplewood, N. J., assignor to Shell Development Company, New York, N. Y., a Delaware corporation

No Drawing. Application November 7, 1955
Serial No. 545,541
20 Claims. (Cl. 260—47)

1. A process for resinifying and curing a polyepoxide having a 1,2-epoxy equivalency of at least 1.1 which comprises mixing and reacting the polyepoxide with a polycarboxylic acid anhydride and an activator therefor comprising the addition product of BF_3 and a member of the group consisting of the amines and phenols.

2,839,496

EPOXIDE RESINS AND 1,4,5,6,7,7 HEXACHLORO 2-(2,3-EPOXYPROPOXYMETHYL) BICYCLO (2.2.1) HEPT-5-ENE

Wilbur L. Bressler and John C. Smith, Lake Jackson, Tex., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 4, 1956
Serial No. 588,981
12 Claims. (Cl. 260—47)

1. A resinous composition, which comprises from 25 to 75 weight percent 1,4,5,6,7,7-hexachloro-2-(2,3-epoxypropoxymethyl)bicyclo(2.2.1)hept-5-ene intimately incorporated with 25 to 75 weight percent of an epoxide resin composition resulting from the reaction of p,p′-isopropylidenediphenol and epichlorohydrin with caustic.

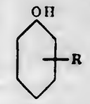
2,839,497

CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE SALTS AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 2, 1953, Serial No. 329,482. Divided and this application April 9, 1956, Serial No. 576,817
8 Claims. (Cl. 260—53)

1. A two-step manufacturing process including the method of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is a saturated aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic non-hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable; and followed by neutralization with gluconic acid.

2,839,498

CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 2, 1953, Serial No. 329,483. Divided and this application April 9, 1956, Serial No. 576,818
8 Claims. (Cl. 260—53)

1. A two-step manufacturing process including the method of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is a saturated aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (*b*) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable and followed by neutralization with gluconic acid.

2,839,499

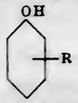
CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESIN SALTS AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 2, 1953, Serial No. 329,486. Divided and this application April 9, 1956, Serial No. 576,821
8 Claims. (Cl. 260—53)

1. A two-step manufacturing process including the method of condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol;

said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is a saturated aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable; and followed by neutralization with gluconic acid.

2,839,500

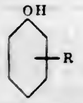
GLUCONIC ACID SALTS OF CERTAIN AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS, AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 26, 1953, Serial No. 333,386, now Patent No. 2,771,445, dated November 20, 1956. Divided and this application April 9, 1956, Serial No. 576,822

13 Claims. (Cl. 260—53)

1. A three-step manufacturing process including the method of first condensing (*a*) an oxyalkylation-susceptible, fusible, nonoxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6-position; (*b*) a basic nonhydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and followed by the third step of neutralizing with gluconic acid.

2,839,501

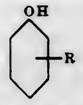
GLUCONIC ACID SALTS OF CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS, AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 26, 1953, Serial No. 333,387, now Patent No. 2,771,446, dated November 20, 1956. Divided and this application April 9, 1956, Serial No. 576,823

13 Claims. (Cl. 260—53)

1. A three-step manufacturing process including the method of first condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydrolylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and followed by the third step of neutralizing with gluconic acid.

2,839,502

GLUCONIC ACID SALTS OF CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS, AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

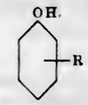
No Drawing. Original application January 26, 1953, Serial No. 333,388, now Patent No. 2,771,447, dated November 20, 1956. Divided and this application April 9, 1956, Serial No. 576,824

13 Claims. (Cl. 260—53)

1. A three-step manufacturing process including the method of first condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula

in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and followed by the third step of neutralizing with gluconic acid.

ble, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic nonhydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical and any substituted tetrahydropyrimidine radical, and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and followed by the third step of neutralizing with gluconic acid.

2,839,503

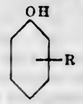
GLUCONIC ACID SALTS OF CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS, AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 26, 1953, Serial No. 333,389, now Patent No. 2,771,448, dated November 20, 1956. Divided and this application April 9, 1956, Serial No. 576,825

13 Claims. (Cl. 260—53)

1. A three-step manufacturing process including the method of first condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) a basic hydroxylated polyamine having at least one secondary amino group and having not over 32 carbon atoms in any radical attached to any amino nitrogen atom, and with the further proviso that the polyamine be free from any primary amino radical, any substituted imidazoline radical, and any substituted tetrahydropyrimidine radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule; and with the further proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and followed by the third step of neutralizing with gluconic acid.

2,839,504

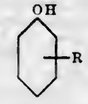
GLUCONIC ACID SALTS OF CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS, AND METHOD OF MAKING SAME

Melvin De Groote, St. Louis, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Original application January 26, 1953, Serial No. 333,390, now Patent No. 2,771,449, dated November 20, 1956. Divided and this application April 9, 1956, Serial No. 576,826

13 Claims. (Cl. 260—53)

1. A three-step manufacturing process including the method of first condensing (*a*) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol-forming re-activity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (*b*) cyclic amidines selected from the class consisting of substituted imidazolines and substituted tetrahydropyrimidines in which there is present at least one basic secondary amino radical and characterized by freedom from any primary amino radical; and (*c*) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction, with the proviso that the condensation reaction be conducted so as to produce a significant portion of the resultant in which each of the three reactants have contributed part of the ultimate molecule by virtue of a formaldehyde-derived methylene bridge connecting the amino nitrogen atom with a resin molecule;

and with the further proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by an oxyalkylation step by means of an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycide and methylglycide; and followed by the third step of neutralizing with gluconic acid.

2,839,505

POLYMERS OF O-P-TOLUYL-BENZOIC ACIDS

Sidney D. Ross, Williamstown, and Meyer Schwarz, North Adams, Mass., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

No Drawing. Application February 4, 1955
Serial No. 486,281
4 Claims. (Cl. 260—63)

1. A process for polymerizing an o-p-toluyl benzoic acid which comprises heating said acid in the presence of a strong dehydrating acid at a temperature in the range of from about 50° C. to a refluxing temperature of the group consisting of polyphosphoric acid and anhydrides of perfluorinated aliphatic acids, and separating the polymerized product from the reaction mixture.

2,839,506

ANTISTATIC TREATMENT FOR HYDROPHOBIC SYNTHETIC FIBER-CONTAINING MATERIALS

Theodore F. Cooke, Martinsville, and Louis J. Moretti, Somerville, N. J., and William J. van Loo, Jr., Rye, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application November 16, 1953
Serial No. 392,482
6 Claims. (Cl. 260—67.6)

5. A heat-activatable antistatic composition for use on textile materials that contain hydrophobic synthetic fibers that are normally subject to the accumulation of static electricity selected from the group consisting of nylon, cellulose acetate, polyethylene glycol terephthalate, and acrylonitrile polymers, which consists of a water-soluble, curable melamine-formaldehyde condensation product, and between 22 and about 90%, based on the dry weight of the resin, of a curing agent consisting of magnesium chloride.

2,839,507

PRODUCTION OF COPOLYMER OF A 2-ARYL-ALKENE-1 AND AN ALPHA, BETA-OLEFINIC ALDEHYDE, AND DERIVATIVES THEREOF

Edward C. Shokal, Walnut Creek, and Paul A. Devlin, Berkeley, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application September 21, 1953
Serial No. 381,462
6 Claims. (Cl. 260—73)

1. A process for the production of a resinous copolymer which comprises copolymerizing acrolein with 2-phenylpropene by heating at about 50° C. to 200° C. in the presence of a peroxy polymerization catalyst a liquid mixture of the two reactants having present therein a mol ratio of the hydrocarbon to the aldehyde of about 50:50 to 98:2.

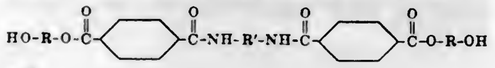
2,839,508

COPOLYESTERS OF A GLYCOL, AN ALKYLENE DIAMINE DICARBOXYLATE AND A SULFONE ESTER

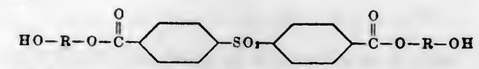
Jack L. R. Williams and Thomas M. Laakso, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 26, 1955
Serial No. 504,103
12 Claims. (Cl. 260—75)

1. A highly polymeric copolyester having an inherent viscosity of 0.4, a melting point above 200° C. and resulting from heating at 100–300° C. a mixture of bifunctional reactants consisting functionally of at least two molar proportions of alkylene glycol, and one molar proportion of a mixture of 5–95 mole percent of N,N'-bis(p-carboxybenzoyl)alkylene diamine, and 95–5 mole percent of bis(p-carboxyphenyl)sulfone, each of said alkylene groups containing 2–10 carbon atoms, said highly polymeric copolyester resulting solely from the condensation polymerization of glycol diesters of the formulas



and



with the liberation of glycol of the formula

HO—R—OH

R and R' representing alkylene groups of 2–10 carbon atoms.

2,839,509

VINYL CHLORIDE-DIALKYL MALEATE COPOLYMERIZATION PROCESS

Harold K. Garner, Packanack Lake, N. J., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 28, 1955
Serial No. 504,660
3 Claims. (Cl. 260—78.5)

1. The method of making a thermoplastic, resinous binary copolymer of vinyl chloride and a dialkyl maleate having at least eight carbon atoms in each alkyl group, which comprises forming a homogeneous, water-immiscible solution of the monomeric dialkyl maleate and an oil-soluble catalyst of free radical polymerization, separately forming a homogeneous aqueous solution of water-soluble suspension agent and water, dispersing said first-named solution in said second-named solution to form a suspension of droplets of water-immiscible phase, all of which droplets are homogeneous and of identical composition, in the homogeneous aqueous phase, incorporating at least a part of the monomeric vinyl chloride in the suspension prior to initiation of the polymerization step, subjecting the suspension to suspension polymerization, the monomers subjected to suspension polymerization containing from 55% to 98% of vinyl chloride and from 2% to 45% of dialkyl maleate, and recovering from the resulting mixture a binary copolymer of said vinyl chloride and said dialkyl maleate.

2,839,510

1,2,4- AND 1,3,5-TRIMETHYLENECYCLOHEXANES AND 1,3,5,7-TETRAMETHYLENECYCLOOCTANE, THEIR PREPARATION FROM ALLENE, AND POLYMERS OF 1,2,4-TRIMETHYLENECYCLOHEXANE

Richard E. Benson, Claymont, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 10, 1956
Serial No. 615,015
19 Claims. (Cl. 260—82.1)

1. A trimethylenecyclohexane in which at most two of the methylene groups are attached to adjacent ring carbon atoms and in which the methylene groups are the only substituents on the ring carbons.

5. A polymer of trimethylenecyclohexane isomers in which at most two of the methylene groups are attached to adjacent ring carbon atoms and in which the methylene groups are the only substituents on the ring carbons.

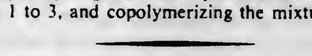
2,839,511

CYANO ETHER-ESTER COPOLYMERS

James O. Harris, St. Albans, W. Va., and Myron H. Wilt, Monroeville, Pa., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 5, 1956
Serial No. 576,244
6 Claims. (Cl. 260—85.5)

1. The process which comprises adding 0.05 to 0.5% of an unsaturated polymerizable carboxylic acid to a substantially pure cyanc ether-ester having the formula



where R, R', R'' and R''' are selected from the group consisting of hydrogen and methyl radicals, *n* is an integer of from 1 to 3, and copolymerizing the mixture.

2,839,512

VINYLPYRIDINE LONG CHAIN ACRYLIC ESTER COPOLYMERS AND THEIR PREPARATION

Emmett R. Barnum, Lyman E. Lorensen, and John Zachar, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 30, 1955
Serial No. 556,385
6 Claims. (Cl. 260—86.1)

1. An oil-soluble copolymer of (1) a monovinyl-substituted pyridine of the group consisting of pyridines substituted on one of the ring carbon atoms with, as the sole substituted substituent, a vinyl group, and derivatives of the aforedescribed vinylpyridines having a lower alkyl group substituted on a ring carbon atom and (2) a mixture of a C_{16} to C_{20} alkyl ester of an acrylic acid of the group consisting of acrylic acid and methacrylic acid and a C_{10} to C_{14} alkyl ester of an acrylic acid of the group consisting of acrylic acid and methacrylic acid in mole ratios varying from 1:1 to 1:3, said copolymer having the monovinyl pyridine and the combined acrylic acid esters in a mole ratio varying from 1:10 to 5:1 and a molecular weight from 5×10^4 to 2.5×10^6.

2,839,513

FLUORINATED ACRYLATE ESTERS AND POLYMERS THEREOF

Arthur H. Ahlbrecht, Ramsey County, William S. Friedlander, St. Croix County, and Wayne A. Severson, Ramsey County, Minn., assignors to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application July 25, 1956
Serial No. 599,913
7 Claims. (Cl. 260—86.1)

1. The compound 1,1,6-trihydro-4-oxaperfluorohexyl acrylate having the formula:

$$CH_2{:}CHCOOCH_2C_2F_4OCF_2CF_2H$$

2,839,514

COPOLYMER OF ALLYL GLYCIDYL MONOETHER AND STYRENE

Edward C. Shokal, Walnut Creek, Paul A. Devlin, San Francisco, and De Loss E. Winkler, Orinda, Calif., assignors to The Shell Development Company, San Francisco, Calif., a corporation of Delaware

No Drawing. Application May 23, 1950
Serial No. 163,778
2 Claims. (Cl. 260—88.1)

1. A copolymer of only allyl glycidyl monoether and styrene, said copolymer containing a three-membered epoxy ring and having an epoxy value up to 90% of the theoretical value of said ether.

2,839,515

COPOLYMERS OF ETHYLENE AND ALPHA UNSATURATED OLEFINS

James M. Davison, South Charleston, and John F. Erdmann, St. Albans, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 17, 1955
Serial No. 541,056
14 Claims. (Cl. 260—88.1)

1. A normally solid copolymer of ethylene and between 0.2 percent and 3 percent by volume thereof of an alpha unsaturated olefin having at least three carbon atoms, said copolymer having a density at 25° C. substantially between 0.915 and 0.919.

11. Process for preparing copolymers of ethylene and an alpha unsaturated olefin having at least three carbon atoms which comprises reacting in the presence of an ethylene polymerization catalyst selected from the group consisting of oxygen and a peroxide a mixture of ethylene and between 0.2 percent and 3 percent by volume thereof of the alpha unsaturated olefin at a pressure between about 20,000 and 40,000 pounds per square inch and a temperature between 160° C. and 350° C.

2,839,516

PREPARATION OF POLYVINYLAMINE

Cyrus A. Weisgerber, Chadds Ford, Pa., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 16, 1954
Serial No. 475,819
7 Claims. (Cl. 260—88.3)

7. A process of preparing a substantially pure polyvinylamine having a primary amino nitrogen content comparable to the primary amino nitrogen content of a polyvinylamine prepared by the hydrazinolysis of a poly-N-vinylphthalimide which comprises heating a mixture of poly-N-vinyldiglycolimide, water, and strong mineral acid to reflux temperature at a pressure from about 1 to about 16 atmospheres, continuing the heating until the poly-N-vinyldiglycolimide is substantially converted to the corresponding polyvinylamine salt, and precipitating the polyvinylamine salt from the reaction mixture by treatment with a solvent.

2,839,517

POLYPROPENYLBENZENE

Lester S. Cohen and Joseph R. Zietz, Jr., Baton Rouge, La., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 3, 1953
Serial No. 372,186
4 Claims. (Cl. 260—93.5)

1. A hard, white polybetamethyl styrene having an average molecular weight of about 3,000 and a melting point above about 250° C., said polybetamethyl styrene being formed by polymerization of betamethyl styrene at a temperature below about −100° C. in the presence of a Friedel-Crafts catalyst selected from the group consisting of aluminum chloride, aluminum bromide, aluminum iodide and boron trifluoride.

2,839,518

MANUFACTURE OF POLYETHYLENE OF CONTROLLED MOLECULAR WEIGHT

Donald Lee Brebner, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 22, 1955
Serial No. 496,069
4 Claims. (Cl. 260—94.9)

1. In the process of polymerizing ethylene to linear homopolymers having a density within the range of 0.95 to 0.98 in the presence of an inert liquid hydrocarbon

medium at temperatures of 20 to 100° C. with an initiator system comprising a titanium halide and a lithium aluminum alkyl, the steps which comprise charging a quantity of initiator being less than 5 weight percent of the ethylene charged, said initiator containing titanium to lithium aluminum alkyl in an equivalent weight ratio of 2 to 4.5, continuing the polymerization until the catalyst loses activity, and thereafter separating from the polymerization mixture an ethylene homopolymer, said homopolymer having a melt index as determined by ASTM-D-1238-52-T of 0.00 when said ratio is 2 and a melt index of 1.0 when said ratio is 4.5, the melt index and said ratio being interdependent.

2,839,519

ETHYLENE POLYMERIZATION

Leslie Seed, Northwich, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application February 28, 1956
Serial No. 568,172
Claims priority, application Great Britain
January 16, 1957
7 Claims. (Cl. 260—94.9)

1. Process for the manufacture of solid polymers of ethylene having densities greater than 0.925 grammes per cubic centimetre which comprises subjecting gaseous ethylene to a pressure greater than 500 atmospheres and to a temperature less than 150° C., in the presence of an α-substituted acyl peroxide polymerization catalyst and of a chain-transfer agent in amount sufficient only to effect chain transfer and in the absence of any significant amount of added liquid medium whereby said process is carried out under essentially liquid-free conditions.

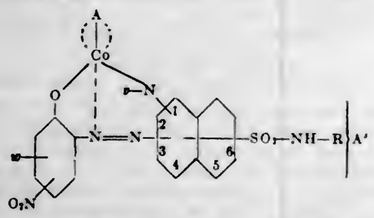
2,839,520

COBALTIFEROUS AZO DYESTUFFS

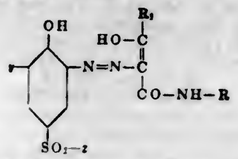
Reinhard Neier, Basel, Switzerland, assignor, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application December 2, 1955
Serial No. 550,790
Claims priority, application Switzerland
December 15, 1954
6 Claims. (Cl. 260—145)

1. Cobalt-containing azo dyestuffs and mixtures of cobalt-containing azo dyestuffs which correspond to the general formula



wherein *v* stands for a member selected from the group consisting of hydrogen and methyl, *w* stands for a member selected from the group consisting of hydrogen, chlorine, methyl and nitro, R stands for a member selected from the group consisting of 3'-methoxypropyl and 2'-hydroxypropyl, wherein the —N—*v* group is in one of the 1 and 2 positions of the napthalene nucleus and in ortho-position to the azo group, the —SO_2—NH—R group is in one of the 4, 5 and 6 positions of the naphthalene nucleus, and wherein the radical A stands for a member selected from the radical A', a radical different from A' and having the same general formula, the radical of a monoazo compound obtained by coupling a diazotized 2-amino-1-hydroxybenzenesulfonic acid amide with 2-(3'-chloro--phenylaminonaphthalene, and the radical of a monoazo compound of the general formula



wherein *y* stands for a member selected from the group consisting of hydrogen, methyl and acetylamino, *z* stands for a member selected from the group consisting of lower alkyl, amino, lower alkylamino, lower hydroxyalkylamino, lower alkoxyalkylamino, cycloalkylamino, lower aralkylamino, mononuclear arylamino, lower dihydroxyalkylamino, morpholino and piperidino radicals, R_1 stands for an alkyl radical containing from 6 up to 18 carbon atoms, and wherein R_2 stands for a member selected from the group consisting of acetyl and benzoyl.

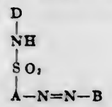
2,839,521

AZO DYESTUFFS CONTAINING HEAVY METAL

Guido Schetty, Basel, Switzerland, assignor to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

No Drawing. Application April 19, 1955
Serial No. 502,510
Claims priority, application Switzerland April 21, 1954
9 Claims. (Cl. 260—147)

1. A complex heavy metal compound of a monoazo dyestuff having the general formula:



wherein A represents a benzene nucleus containing the —SO_2—NH—D radical in ortho-position to the azo group, B represents a radical selected from the group consisting of a hydroxynaphthalene radical bound to the azo group in ortho-position to the hydroxyl group and a 5-pyrazolone radical bound to the azo group in 4-position, and D represents an organic radical selected from the group consisting of the lower α-carboxyalkyl, o-carboxyphenyl and o-hydroxyphenyl radicals, said compound containing one atom of metal in complex combination per molecule of monoazo dyestuff.

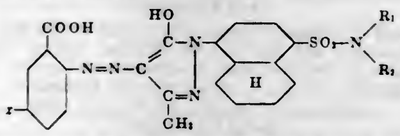
2,839,522

MONOAZO DYESTUFFS OF THE PYRAZOLONE SERIES AND THEIR CHROMIUM COMPLEX COMPOUNDS

Piero Maderni, Binningen, near Basel, and Otto Senn, Arlesheim, near Basel, Switzerland, assignors to Sandoz A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application November 29, 1956
Serial No. 624,987
6 Claims. (Cl. 260—147)

1. A member selected from the group consisting of a monoazo dyestuff of the pyrazolone series which corresponds to the formula



wherein *x* represents a member selected from the group consisting of a hydrogen atom, a sulfonic acid amide group, a sulfonic acid lower alkylamide group, a sulfonic acid lower dialkylamide group, a sulfonic acid lower hydroxyalkylamide group, a sulfonic acid lower alkoxyalkylamide group, a sulfonic acid morpholide group, a sulfonic acid cyclohexylamide group, a sulfonic acid benzlyamide group, a sulfonic acid arylamide group of the benzene series free from carboxylic acid and sulfonic acid groups and a sulfonic acid arylamide group of the naphthalene series free from carboxylic acid and sulfonic acid groups, R_1 represents a member selected from the group consisting of a hydrogen atom and a lower alkyl group, and R_2 represents a member selected from the group consisting of a hydrogen atom, a lower alkyl radical, a lower hydroxyalkyl radical, a lower alkoxyalkyl radical, an aryl radical of the benzene series and, together with R_1 and —N< a morpholyl radical, and the chromium complex compound thereof.

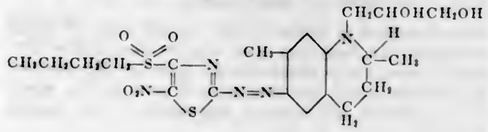
2,839,523

2-AMINO-4-ALKYLSULFONYL-5-NITROTHIAZOLE AZO COMPOUNDS

Edmund B. Towne, Joseph B. Dickey, and Melvin S. Bloom, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 1, 1955
Serial No. 498,752
1 Claim. (Cl. 260—155)

The azo compound having the formula:



2,839,524

ERYTHROMYCIN COMPOUNDS

Richard V. Heinzelman and Maxton F. Murray, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application October 12, 1954
Serial No. 461,906
10 Claims. (Cl. 260—210)

1. The carboxylic acid mono ester of erythromycin and an aromatic sulfo carboxylic inner anhydride selected from the class consisting of (1) o-sulfobenzoic anhydride in which the benzene nucleus may carry substituents selected from the class consisting of lower alkyl, halogen, nitro, and amino groups, and (2) 8-sulfo-1-naphthoic anhydride.

5. The process which comprises condensing erythromycin and an aromatic sulfo carboxylic inner anhydride selected from the class consisting of (1) o-sulfobenzoate anhydride in which the benzene nucleus may carry substituents selected from the class consisting of lower alkyl, halogen, nitro, and amino groups and (2) 8-sulfo-1-naphthoic anhydride in an inert solvent at a temperature between about minus ten and about sixty degrees centigrade.

2,839,525

3-AMINORIBOSE AND METHOD FOR ITS PREPARATION

Peter W. Fryth, New York, and Coy W. Waller, Nanuet, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 16, 1953
Serial No. 368,510
9 Claims. (Cl. 260—211)

1. Compounds selected from group consisting of the 3-aminoribose of the formula:

CHO—CHOH—$CHNH_2$—CHOH—CH_2OH

acid addition salts, glycosides and N-lower alkanoyl and N-benzoyl derivatives thereof.

2,839,526

WATER-SOLUBLE CARBOXYALKYL CELLULOSE DERIVATIVE AND METHOD OF MANUFACTURE

Herbert C. Miller, Jr., Hopewell, Va., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 30, 1954
Serial No. 478,932
4 Claims. (Cl. 260—232)

1. In a process for converting fibrous carboxyalkyl cellulose derivatives into free-flowing substantially granular powder which comprises agitating a loose fibrous mass comprising a water-soluble carboxyalkyl cellulose derivative moist with an aqueous alcohol and containing water and alcohol in such proportions that the mass would normally dry to a loose fibrous product, simultaneously introducing thereto a dispersed stream of aqueous fluid until the amount of water introduced is sufficient to form with the aqueous alcohol present in the mass an active solvent for the carboxyalkyl cellulose derivative, said active solvent containing at least about 67.5% by weight of water, maintaining the total liquid content in the mass below about 4 parts by weight based on the dry weight of the carboxyalkyl cellulose derivative, continuing agitation until the fibrous structure of the mass is substantially destroyed and the carboxyalkyl cellulose derivative is converted into a mass of separate, discrete gel particles, discontinuing agitation while the mass is still substantially in the form of separate, discrete gel particles and before said gels coalesce into doughy masses: the improvement which comprises classifying the gel particles to obtain in dry form substantially 100% through a U. S. standard series sieve No. 12 with not more than about 20% through a U. S. standard series sieve No. 100, whereby the product so converted, dried and classified in addition to being a free-flowing substantially granular powder is quickly soluble in water and substantially dust-free.

2,839,527

SULFANILAMIDO ISOXAZOLE DERIVATIVES

Marc Cole, Bayonne, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application September 14, 1956
Serial No. 609,818
7 Claims. (Cl. 260—239.9)

1. N^1-carbonyl derivatives of 3,4-dimethyl-5-sulfanilamido isoxazole wherein the substituent group on the N^1-atom is a member of the group consisting of carbalkoxy groups having up to 12 carbon atoms, carbaralkoxy groups having 8 to 9 carbon atoms, and carbocycloalkoxy groups having 6 to 7 carbon atoms.

2,839,528

PROCESS FOR THE PARTIAL ELIMINATION OF OXO GROUPS IN STEROIDS

Albert Wettstein, Basel, Charles Meystre, Arlesheim, and Jean-René Billeter, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application October 7, 1953
Serial No. 384,782
Claims priority, application Switzerland October 15, 1952
11 Claims. (Cl. 260—239.55)

1. A process for the partial removal of oxo-groups, which comprises heating a member of the group consisting of an 11,12-diketo-steroid, enols and enolates thereof, said 11,12-diketo-steroid being a member of the group consisting of steroids of the oestrane, androstane, testane, aetiocholane, pregnane, spirostane, furostane, bufostane, cholane, cholestane, nor- and bisnor-cholestane and ergostane series, to a temperature above about 160° C. with a member of the group consisting of hydrazine and derivatives thereof in the absence of a basic alkali metal compound.

2,839,529
ISOTHIAZOLE COMPOUNDS
Arthur Adams, Upminster, and Ronald Slack, Chelsea, London, England, assignors to May & Baker Limited, Dagenham, England, a British company
No Drawing. Application July 8, 1957
Serial No. 670,360
Claims priority, application Great Britain July 12, 1956
5 Claims. (Cl. 260—239.95)

1. A member of the class consisting of the isothiazole compounds represented by the formula:



wherein R_1 is selected from hydrogen and methyl, one of R_2 and R_3 is a hydrogen atom and the other is a p-aminobenzenesulphonamido group linked to the isothiazole ring by the sulphonamido nitrogen atom.

2,839,530
NOVEL CHEMICAL COMPOUNDS
Raymond Jacques Horclois, Malakoff, France, assignor to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate
No Drawing. Application November 19, 1956
Serial No. 622,744
Claims priority, application France November 23, 1955
1 Claim. (Cl. 260—243)

As a new composition of matter, a substance selected from the group consisting of the organic nitrogenous base 10 - [2,4 - bis(dimethylamino) - 1 butyl]phenthiazine, and acid addition salts of said organic nitrogenous base that contain a pharmaceutically acceptable anion.

2,839,531
PROCESS FOR PREPARING 2-BENZTHIAZYL-SULFENO MORPHOLIDE
Vincent Kerrigan and Arthur Lambert, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application September 19, 1955
Serial No. 535,267
4 Claims. (Cl. 260—247.1)

1. A process for the manufacture of 2-benzthiazyl sulphenomorpholide which comprises adding a metal salt of 2-mercaptobenzthiazole in an inert non-ionizing organic solvent to a substantially equal molecular proportion of N-chloromorpholine in the same non-ionizing solvent and reacting said metal salt of 2-mercaptobenzthiazole in said N-chloromorpholine in admixture to a temperature between 40° and 70° C., and thereafter recovering the resulting 2-benzthiazyl sulphenomorpholide from the reaction mixture.

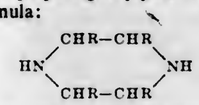
2,839,532
PYRIDAZONE COMPOUNDS AND PROCESS OF MAKING SAME
Jean Druey, Riehen, and Paul Schmidt, Therwil, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application April 26, 1954
Serial No. 425,738
Claims priority, application Switzerland April 30, 1953
13 Claims. (Cl. 260—250)

1. A process for the manfacture of pyridazone-(3) compounds, which comprises reacting a hydrazine which contains at least three hydrogen atoms attached to the nitrogen atoms, said hydrogen atoms being the only reactive groups of the hydrazine, with the two components (*a*) an α-dioxo compound selected from the group consisting of glyoxal, α-diketones and α-ketoaldehydes, the reactive groups of which being the two oxo groups, and bisulfite derivatives of said dioxo compounds, (*b*) a compound selected from the group consisting of an α-substituted acetic acid containing an α-methylene group, the only reactive grouping of which besides the carboxyl group being said α-methylene grouping, and lower alkyl esters thereof, the reaction being carried out in the presence of a basic condensing agent for ring closure.

11. A 4-cyano-pyridazone-(3), being unsubstituted in 1-position and having in each of the 2-, 5- and 6-positions a member of the group consisting of hydrogen, lower alkyl, phenyl, halogeno-phenyl, lower alkyl-phenyl and lower alkoxy-phenyl.

2,839,533
METHOD FOR THE PREPARATION OF PIPERAZINES
Joseph J. Scigliano and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application March 12, 1956
Serial No. 570,715
7 Claims. (Cl. 260—268)

1. Method for preparing a piperazine product having the general formula:



wherein each R is independently selected from the group consisting of a hydrogen atom and an alkyl radical containing from 1 to 4 carbon atoms, from an alkanolamine hydrohalide which contains from 2 to 8 carbon atoms in its molecule and which is represented by the general formula:

$$HO—CHR—CHR—NH_2.HX$$

wherein, within the foregoing limitation, each R is independently selected from the group consisting of a hydrogen atom and a substituent alkyl radical containing from 1 to 4 carbon atoms and X is a halogen, which comprises dispersing the alkanolamine hydrohalide in an inert liquid dispersant vehicle; cyclizing the alkanolamine hydrohalide by heating it to a temperature between about 200 and 350° C. while it is maintained in liquid dispersion in the inert vehicle until substantial portions of the alkanolamine hydrohalide are converted to a piperazine hydrohalide product in the reaction mass; and thereafter recovering a piperazine product therefrom.

2,839,534
PRODUCTION OF 2-CHLOROPYRIDINE
Marvin O. Shrader, Harold Lloyd Dimond, and Joachim C. E. Schult, Pittsburgh, Pa., assignors to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 31, 1956, Serial No. 607,522
12 Claims. (Cl. 260—290)

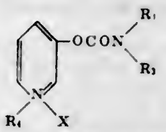
1. A process of producing 2-chloropyridine comprising chlorinating pyridine in the vapor phase at a temperature of 300° C. to 450° C. in the presence of sulfur dioxide in a molar proportion in excess of the molar amount of pyridine.

2,839,535
PROCESS FOR THE MANUFACTURE OF NITRILES
David James Hadley, Epsom Downs, and Barrie Wood, Epsom, England, assignors to The Distillers Company Limited, Edinburgh, Scotland, a British company
No Drawing. Application November 14, 1955
Serial No. 546,777
Claims priority, application Great Britain December 9, 1954
14 Claims. (Cl. 260—294.9)

1. In a process for the production of a cyanopyridine from the corresponding picoline wherein a reaction mixture of the picoline in the vapour phase with ammonia and molecular oxygen is passed at a temperature of about 260° C. to about 380° C. over a vanadium oxide catalyst supported on alumina, the improvement which comprises preparing the catalyst by heating activated alumina to a temperature in the range from 1000° to 1450° C., cooling the thus thermally pre-treated activated alumina, charging the cooled activated alumina with a vanadium compound to be converted into vanadium oxide and effecting the conversion into vanadium oxide in situ in the pre-treated activated alumina by heating in air, the charge of resultant vanadium oxide on the alumina amounting to about 5 to 10% by weight.

2,839,536
SALTS OF DISUBSTITUTED CARBAMIC ACID ESTERS AND PROCESS FOR THE MANUFACTURE THEREOF
Otto Schnider and Rene Urban, Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application August 21, 1956
Serial No. 605,417
Claims priority, application Switzerland September 16, 1955
6 Claims. (Cl. 260—295)

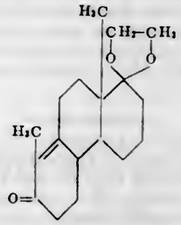
1. A compound selected from the group having the formula



wherein R_1 and R_2 each represents a member of the group consisting of phenyl and monohalophenyl, R_4 represents an alkyl radical having 10 to 12 carbon atoms, and X represents a pharmaceutically acceptable anion of an acid.

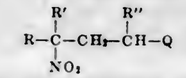
2,839,537
TRICYCLIC DIKETONE AND PROCESS OF MANUFACTURE
Karl Miescher, Riehen, Georg Anner and Peter Wieland, Basel, and Hellmut Ueberwasser, Riehen, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.
No Drawing. Application May 6, 1953
Serial No. 353,426
Claims priority, application Switzerland May 12, 1952
5 Claims. (Cl. 260—340.9)

5. A ketone of the formula



2,839,538
SUBSTITUTED BUTYROLACTONES
Joseph W. Nemec, Philadelphia, Pa., assignor to Rohm & Haas, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application August 26, 1953
Serial No. 376,739
7 Claims. (Cl. 260—343.6)

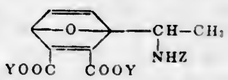
1. A process for preparing substituted butyrolactones which comprises reacting by heating together for 24 to 240 hours in liquid phase and continuing reacting until the nitro group is split out and cyclizing occurs water, a strong acid as catalyst, and a tertiary nitro compound of the formula



wherein R and R′ are members of the class consisting of alkyl groups of not over five carbon atoms and carboxylic substituted alkyl groups when taken individually and when taken together saturated alkylene chains of four to five carbon atoms forming a carbocycle with the adjoining carbon atom, R″ is a member of the class consisting of hydrogen, lower alkyl groups, and carbalkoxyalkyl groups, and Q is a carboxylic group.

2,839,539
FURAN INTERMEDIATES USEFUL TO MAKE PYRIDOXINE
Niels Elming and Jörgen Tormod Nielsen, Copenhagen, Denmark, and Niels Konrad Friedrich Wilhelm Clauson-Kaas, Haifa, Israel, assignors to A/S Sadolin & Holmblad, Copenhagen, Denmark
No Drawing. Application November 15, 1955
Serial No. 547,016
Claims priority, application Great Britain November 29, 1954
12 Claims. (Cl. 260—346.2)

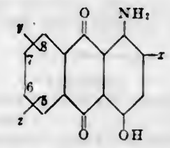
11. A compound of the general formula



wherein Y is selected from the group consisting of lower alkyl groups and the cyclohexanoyl group, and wherein Z is an acyl radical selected from the group consisting of lower alkanoyl, benzoyl, naphthoyl, α-toluyl, β-phenylpropionyl, and cyclohexanoyl.

2,839,540
1 - AMINO - 4 - HYDROXYANTHRAQUINONE SULFONIC ACIDS AND A PROCESS FOR THEIR MANUFACTURE
Albin Peter, Binningen, and Erhard Wydler, Basel, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust
No Drawing. Application September 13, 1954
Serial No. 455,754
Claims priority, application Switzerland September 16, 1953
6 Claims. (Cl. 260—373)

1. A 1-amino-4-hydroxyanthraquinone sulfonic acid which corresponds to the formula



wherein *x* stands for a member selected from the group consisting of a bromine atom and a sulfonic acid group, *y* stands for a member selected from the group consisting of a halogen atom in one of the positions 6 and 7 and a sulfonic acid group in one of the positions 5, 6, 7 and 8, and *z* stands—when *y* denotes a halogen atom—for a member selected from the group consisting of a hydrogen and a halogen atom in one of the positions 7 and 6, and—when *y* denotes a sulfonic acid group—for a hydrogen atom, at least one of *x*, *y* and *z* being a sulfonic acid group.

2,839,541

PHENOLS FROM AROMATIC KETONES

Donna Stevens and Guy H. Harris, Concord, and Marshall B. Pearlman, Los Angeles, Calif., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 2, 1955
Serial No. 550,793
9 Claims. (Cl. 260—383)

1. The method which comprises heating an aromatic ketone free from carboxyl groups in contact with a water-soluble cupric salt and water to a temperature from 200° to 400° C., and under sufficient pressure to maintain the ketone in a liquid condition, thereby to produce a phenolic compound, said ketone having at least one and not over two carbonyl groups extending between a benzene ring and another carbon atom, there being at least one unsubstituted position on a benzene ring adjacent to the point of attachment of the carbonyl group.

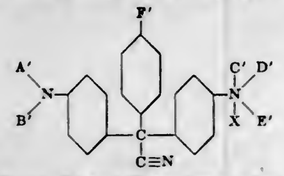
2,839,542

QUATERNARY AMMONIUM SALTS OF AMINO-TRIPHENYLMETHANE ACETONITRILES

Lyman Chalkley, Prince Georges County, Md.

No Drawing. Application March 14, 1955
Serial No. 494,271
9 Claims. (Cl. 260—391)

9. The chemical compound having the formula:



where A', B', C', D' and E' are lower alkyl groups, X is an anion and F' is a member of the group consisting of a di-lower alkylamino group and hydrogen.

2,839,543

PROCESS FOR PREPARING CYANIDES OF TRIARYLMETHANE DYES

Lyman Chalkley, Washington, D. C.

No Drawing. Application December 2, 1955
Serial No. 550,774
13 Claims. (Cl. 260—394)

1. A process for preparing a cyanide of a triphenylmethane dye having a member selected from the class consisting of $—SO_3X$ and $—CO_2X$ attached to a phenyl nucleus in a position ortho to the central methane carbon atom, X being a cation, comprising: confining a solution of said dye and an alkali metal cyanide in a sealed vessel, heating said solution to react said cyanide with said dye to form the cyanide of said dye wherein the nitrile group is attached to the central methane carbon atom, and separating said dye cyanide from the reaction mixture.

2,839,544

COUNTERCURRENT EXTRACTION OF STEROIDS

John W. Greiner, Kalamazoo Township, Kalamazoo County, and Glen A. Fevig, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application September 4, 1956, Serial No. 607,854
18 Claims. (Cl. 260—397.25)

1. A process for the separation and purification of stigmasterol and sitosterols by the extraction of sitosterols from a starting solid stigmasterol and sitosterols mixture consisting essentially of stigmasterol and sitosterols, which comprises contacting the starting solid stigmasterol and sitosterols mixture with a selective organic solvent having the following characteristics; (1) a greater solvent affinity for the sitosterols as determined on a test portion of said starting solid stigmasterol and sitosterols mixture by employing a volume of the organic solvent which dissolves approximately one-half of the solids of the test portion of the said starting solid stigmasterol and sitosterols mixture, and (2) a relative distribution coefficient (β) in said test greater than 1.5, said relative distribution coefficient (β) being determined according to the formula:

$$\beta=\frac{S_c\times NS_{ml}}{NS_c\times S_{ml}}$$

wherein S_c is the stigmasterol content in percent of the undissolved solids, NS_c is the non-stigmasterol content in percent of the undissolved solids (by difference), S_{ml} is the stigmasterol content in percent of the dissolved solids in the mother liquor, and NS_{ml} is the non-stigmasterol content in percent of the dissolved solids in the mother liquor (by difference), to cause selective extraction of the sitosterols from the stigmasterol, separating the solid material phase which is enriched in stigmasterol content from the organic solvent phase which is enriched in sitosterols content, and continuing the extraction process in a countercurrent manner.

2,839,545

PROCESSES OF PHOSPHORYLATING PHOSPHATIDES AND PRODUCTS THEREOF

Douglas J. Hennessy, Teaneck, N. J., and Raymond J. Moshy, New York, N. Y., assignors to American Lecithin Company, Inc., Woodside, N. Y., a corporation of Ohio

No Drawing. Application November 24, 1953
Serial No. 394,220
7 Claims. (Cl. 260—403)

1. A process of producing peroxidized, neutralized, viscous water-dispersible, golden to light brown colored, phosphorylated phosphatides having a reduced number of double bonds per molecule by first treating the phosphatide with an organic peracid selected from the group consisting of peracetic, perpropionic and perlactic acids to produce a modified phosphatide susceptible to phosphorylation without charring, followed by phosphorylating the phosphatide with phosphorus pentoxide to produce a phosphatide having greatly increased miscibility in water and retaining its phosphatide molecular structure without substantial destruction and charring.

6. A phosphorylated, peroxidized phosphatide having less than 50% of the original number of double bonds and only about 15% to 20% of the double bonds of the original phosphatide, being highly miscible in water and aqueous compositions and retaining substantially its original complex molecular structure without any destruction, charring and breakdown into tarry and gummy products, produced by successive treatments of the phosphatide with a peracid selected from the group consisting of perpropionic, peracetic and perlactic acids followed by treatment with phosphorus pentoxide in accordance with the process of claim 1.

2,839,546

TREATMENT OF BLEACHED PHOSPHATIDES WITH METAL SALTS

Paul F. Davis, Chicago, Ill., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application March 14, 1957
Serial No. 645,886
8 Claims. (Cl. 260—403)

1. The process which comprises: adding an aqueous solution of a water soluble salt of a metallic cation selected from the group consisting of manganous manganese, cobalt, nickel and iron, in the amount of at least 5 p. p. m. by weight to a peroxide-treated phosphatide composition which has been rendered mildly alkaline; and heating the resultant mixture at a temperature within the range of 100° F. and 200° F. until the peroxide value thereof has been reduced.

2,839,547

PROCESS FOR THE PRODUCTION OF AMINOCARBOXYLIC ACIDS

Clau Berther, Chur, Switzerland, assignor to Inventa A.-G. für Forschung und Patentverwertung, Lucerne, Switzerland

No Drawing. Application July 27, 1956
Serial No. 600,399
Claims priority, application Switzerland July 30, 1955
11 Claims. (Cl. 260—404)

1. In the process of manufacturing aminocarboxylic acid, the steps comprising treating an aliphatic ω-cyanocarboxylic acid with an anion exchanger operable to block off the carboxyl groups against reactivity and to bind the resulting aminocarboxyl molecules against migration, and reducing the cyano groups into amino groups in the presence of a hydrogenation catalyst while the carboxyl groups are so blocked off and the aminocarboxyl molecules are so bound.

2,839,548

PROCESS FOR PURIFYING AMINO ACIDS

Clau Berther, Chur, and Marco Itin, Trins, Switzerland, assignors to Inventa A.-G., für Forschung und Patentverwertung, Lucerne, Switzerland

No Drawing. Application November 6, 1956
Serial No. 620,595
Claims priority, application Switzerland
November 12, 1955
4 Claims. (Cl. 260—404)

2. A process for removing acid impurities from an amino carboxylic acid soluble in a solvent of the class consisting of water and alcohol, which comprises subjecting a solution of the amino acid to treatment in an anionic exchanger, washing the anionic exchanger in which the amino acid is adsorbed with a solvent from the group consisting of water, alcohol and mixture of water and alcohol, and eluting the adsorbed acid in the anionic exchanger with an aqueous suspension containing carbon dioxide under pressure of 20–150 atmospheres.

2,839,549

BODIED RESINOUS POLYAMIDES

Gerald G. Wilson, Kankakee, Ill., assignor to General Mills, Inc., a corporation of Delaware

No Drawing. Application November 18, 1953
Serial No. 393,018
7 Claims. (Cl. 260—404.5)

1. A polyamide resin containing the polyacyl group of a polymeric fat acid and the polyamino group of a polyalkylene polyamine, the polyamide containing from 1.3 to 3.0 amino groups per carboxyl group and having been subjected to a bodying treatment at 200–300° C. for a period of from 6–30 hours to effect an increase in viscosity, said polyamide resin having an acid number of not greater than 10 before said bodying treatment.

2,839,550

PROCESS FOR THE MANUFACTURE OF CONDENSATION PRODUCTS OF MONO-UNSATURATED FATTY ACIDS OR ESTERS OF THE SAME

Gerrit Lucas Wiggerink and Everhardus Wilhelmus Jonker, Gouda, Netherlands, assignors to N. V. Koninklijke Stearine Kaarsenfabrieken "Gouda-Apollo," Gouda, Netherlands, a corporation of the Netherlands

No Drawing. Application February 11, 1954
Serial No. 409,761
Claims priority, application Netherlands
February 20, 1953
8 Claims. (Cl. 260—404.8)

1. A process of manufacturing condensation products which comprises heating a fatty material selected from the group consisting of mono-unsaturated higher fatty acids, esters of said fatty acids, mixtures of said fatty acids and esters thereof with saturated fatty acids and esters, and mixtures of said fatty acids and esters with minor amounts of more unsaturated fatty acids and esters, with a dienophilic compound selected from the group consisting of maleic acid, maleic anhydride and methacrylic acid, in the presence of a catalyst selected from the group consisting of iodine, hydroiodic acid, iodine mono-chloride, iodine trichloride, iodine mono-bromide, iodine fluoride, iodoform, hydroiodic acid salts of organic bases and zinc iodide.

2,839,551

PROCESS FOR THE SEPARATION OF SATURATED AND UNSATURATED FATTY ACIDS OR THEIR VOLATILE ESTERS WITH THE SIMULTANEOUS PREPARATION OF CONDENSATION PRODUCTS OF THE UNSATURATED FATTY ACIDS

Gerrit Lucas Wiggerink and Everhardus Wilhelmus Jonker, Gouda, Netherlands, assignors to N. V. Koninklijke Stearine Kaarsenfabrieken "Gouda-Apollo," Gouda, Netherlands, a corporation of the Netherlands

No Drawing. Application February 11, 1954
Serial No. 409,762
Claims priority, application Netherlands
February 20, 1953
11 Claims. (Cl. 260—419)

1. A process for the separation of mixtures of saturated and unsaturated fatty materials selected from the group consisting of higher fatty acids and esters thereof into saturated and unsaturated fatty materials, which comprises heating at a temperature within the range of from 120° to 300° C. a mixture consisting of not more than about 10% of fatty material containing at least two double bonds per fatty acid molecule, not more than 60% of unsaturated fatty material in total and at least 40% of saturated fatty material, with an excess of maleic anhydride, calculated on unsaturated fatty material, in the presence of a catalyst selected from the group consisting of iodine, hydroiodic acid, iodine monochloride, iodine trichloride, iodine monobromide, iodine fluoride, iodoform, hydroiodic acid salts of organic bases, and zinc iodide, continuing the reaction until the unsaturated fatty materials have substantially completely reacted with the maleic anhydride, and separating the nonreacted fatty material from the adducts formed.

2,839,552

CYCLOMATIC MANGANESE COMPOUNDS

Hymin Shapiro, Detroit, Earl G. De Witt, Royal Oak, and Jerome E. Brown, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 8, 1955
Serial No. 527,124
3 Claims. (Cl. 260—429)

1. Hydrocarbon cyclomatic manganese compounds having the general formula

RMnR'

wherein R and R' are cyclomatic hydrocarbon radicals selected from the group consisting of cyclopentadiene and hydrocarbon substituted cyclopentadienes having from 5 to about 17 carbon atoms which embody a group of 5 carbons having the general configuration found in cyclopentadiene, said compound being further characterized in that the cyclomatic hydrocarbon radicals are bonded to the manganese through the carbons comprising the cyclopentadienyl-group configuration.

2,839,553

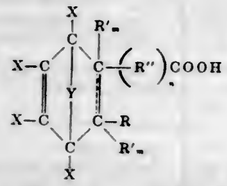
POLYHALOGENO BICYCLIC ACIDS

Samuel B. Soloway, Denver, Colo., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application March 14, 1955
Serial No. 494,277
8 Claims. (Cl. 260—429.9)

1. A chemical compound of the class consisting of (*a*)

the acids having the structure represented by the chemical formula



in which each X represents an atom of a halogen, Y represents one of the class consisting of the alkylidene and halogen-substituted alkylidene groups, each R and R′ represent one of the class consisting of hydrogen and the hydrocarbon groups, R″ represents an aliphatic radical, one valency of which is satisfied by attachment to the depicted halogeno-substituted polycyclic group and another valency of which is satisfied by attachment to the depicted carboxyl group, *n* and *m* each represents a number selected from the group consisting of 0 and 1 with the proviso that both *m*'s have the same value, and (*b*) the salts of the said acids.

2,839,554

ESTERS OF ANTIMONY

John H. Haslam, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 28, 1953
Serial No. 370,872

6 Claims. (Cl. 260—446)

1. A process for the preparation of organic esters of antimony which comprises reacting, under substantially anhydrous conditions and at temperatures ranging from 25–120° C., a halide of antimony of the type SbX_v, wherein X is selected from the group consisting of chlorine, bromine and iodine, and *v* is a number representing one of the two normal valences of antimony, with a hydroxy compound and while supplying anhydrous ammonia to the reaction mixture, said hydroxy compound being selected from the group consisting of primary alcohols, secondary alcohols and phenols and said primary and secondary alcohols being further characterized as having the carbon atoms next adjacent to the hydroxyl bearing carbon atom free of double bonds.

2,839,555

PRODUCTION OF ALKALI METAL ALUMINIUM ALKYLS

George Robert Fulton, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application November 15, 1954
Serial No. 469,037

Claims priority, application Great Britain
November 18, 1953

9 Claims. (Cl. 260—448)

1. A process for the production of an alkali metal aluminium alkyl which comprises reacting an alkali metal aluminium hydride substantially in the absence of moisture and oxygen, with at least one olefine containing less than 13 carbon atoms and having the general formula $R.CH:CH_2$ in which R is a monovalent radical selected from the group consisting of hydrogen and alkyl radicals, in the presence of a Friedel-Crafts type catalyst selected from the group consisting of aluminium halides, zinc chloride and ferric chloride, said reaction being carried out at an elevated temperature which is not less than 50° C., and not in excess of the temperature at which said hydride decomposes and loss of olefine from said alkyl occurs.

2,839,556

PRODUCTION OF ALUMINUM HYDROCARBONS

Karl Ziegler and Roland Koester, Mulheim an der Ruhr, Germany; said Koester assignor to said Ziegler

No Drawing. Application July 27, 1953
Serial No. 370,655

Claims priority, application Germany July 28, 1952
29 Claims. (Cl. 260—448)

1. Process for the production of organic aluminum compounds selected from the group consisting of lower aluminum trialkyls and aluminum triphenyl, which comprises heating an organic aluminum fluoride selected from the group consisting of lower aluminum alkyl fluorides and aluminum phenyl fluorides with an alkali metal fluoride and recovering an alkali aluminum fluoride and an organic aluminum compound selected from the group consisting of lower aluminum trialkyls and aluminum triphenyl.

2,839,557

PROCESS OF PREPARING HALOGENOHYDROCARBON SILANES

Albrecht Zappel, Opladen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 2, 1955
Serial No. 485,823

Claims priority, application Germany February 5, 1954

4 Claims. (Cl. 260—448.2)

1. Process for producing halogenohydrocarbon-silicon compounds which comprises reacting a perhalogenated olefin with a compound containing at least one SiH group, the remaining valences of the silicon in the compound being satisfied with a member selected from the group consisting of halogen atoms, hydrogen atoms, alkyl radicals, aryl radicals, and aralkyl radicals, in the presence of an ozone solution at temperatures of between about 0–100° C. and at superatmospheric pressure.

2,839,558

OXYALKYLENE COMPOUNDS

Willard H. Kirkpatrick, Sugar Land, and Alice Walker, Houston, Tex., assignors to Visco Products Company, Houston, Tex., a corporation of Delaware

No Drawing. Original application February 16, 1952, Serial No. 271,978. Divided and this application September 14, 1954, Serial No. 456,076

8 Claims. (Cl. 260—448.8)

1. An organic ester of a member from the group consisting of carboxylic organic acids and carboxylic acid anhydrides and a polyoxyalkylene polyol oxysilane, there being 1 to 6 carbon atoms in each oxyalkylene group of said ester and up to 4 polyoxyalkylene groups attached to each silicon atom, any group other than oxyalkylene groups attached to said silicon atom being from the class consisting of hydrocarbyl and hydrocarbyloxy groups, and the resultant compound being soluble in sulfur dioxide extract, the major portion of the molecular weight of the esters being attributable to oxyalkylene groups from the group consisting of oxy-1,2-propylene groups and both oxyethylene and oxy-1,2-propylene groups in a weight ratio of oxyethylene to oxy-1,2-propylene not exceeding 4:1.

2,839,559

PREPARATION OF ORGANIC ISOCYANATES

Edgar E. Hardy, New Martinsville, W. Va.

No Drawing. Application October 30, 1956
Serial No. 619,122

13 Claims. (Cl. 260—453)

1. A method for preparing a polyisocyanate comprising reacting a primary polyamine selected for the group consisting of aromatic, aliphatic and cycloaliphatic primary polyamines with sulfur dioxide, said polyamine having amino groups as its only groups reactive with sulfur dioxide, and thereafter reacting the resulting sulfur dioxide salt of the polyamine with a carbonyl halide to form a polyisocyanate.

2,839,560

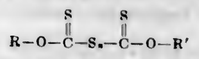
PRODUCTION OF ORGANIC XANTHOGEN SULFIDES

Paul F. Warner and Archie D. Adams, Phillips, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware

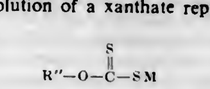
Application May 9, 1955, Serial No. 506,857

15 Claims. (Cl. 260—455)

1. A process for the preparation of an organic xanthogen sulfide which can be represented by the formula



wherein R and R′ are organic radicals selected from the group consisting of alkyl, cycloalkyl, aryl, alkaryl, and aralkyl groups, *n* is an integer which can be one of 3 and 4, R and R′ can be different, and each R and R′ can contain from 1 to 10 carbon atoms; which process comprises, reacting at a temperature within the range of 40 to 140° F. an aqueous solution of a xanthate represented by the formula



wherein R″ can contain from 1 to 10 carbon atoms and is selected from the above named group of organic radicals and M is selected from the group consisting of sodium, potassium, lithium, rubidium, caesium, and ammonium, with a chloride of sulfur selected from the group consisting of sulfur monochloride and sulfur dichloride, by continuously adding a stream of said xanthate and a stream of said chloride of sulfur to a reaction zone in the presence of an organic solvent capable of dissolving said organic xanthogen sulfides, measuring the pH of the resulting aqueous phase in said reaction zone, and adding and reacting said reagents in substantially stoichiometrically balanced amounts by controlling the rate of addition of one of said reagents responsive to the pH of said resulting aqueous phase in said reaction zone, so as to maintain the pH of said aqueous phase within the range of 7 to 8.

2,839,561

DITHIOCARBONIC ACID ESTERS AND PRODUCTION

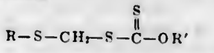
Gerhard Schrader, Opladen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application January 31, 1956
Serial No. 562,597

Claims priority, application Germany February 10, 1955

8 Claims. (Cl. 260—455)

1. Alkyl- and aryl-thiomethyl-dithiocarbonic acid esters of the general formula



wherein R stands for a member selected from the group consisting of an alkyl, a phenyl, an alkaryl and an aralkyl radical and R′ is a lower alkyl radical.

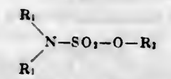
2,839,562

DERIVATIVES OF AMINOSULFONIC ACID

Richard Wegler and Hans Kukenthal, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 12, 1954
Serial No. 412,403
(Filed under Rule 47(a) and 35 U. S. C. 116)
Claims priority, application Germany February 13, 1953
8 Claims. (Cl. 260—456)

1. An aminosulfonic aryl ester having the formula



in which R_1 is an alkyl radical having from 1–4 carbon atoms, R_2 is a member selected from the group consisting of phenyl, halogen-substituted phenyl, nitro-substituted phenyl, lower alkyl-substituted phenyl and naphthyl.

2,839,563

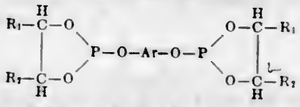
PHOSPHITES

Ingenuin Hechenbleikner, Adams, Mass., assignor to Shea Chemical Corporation, Jeffersonville, Ind., a corporation of Tennessee

No Drawing. Application December 28, 1955
Serial No. 555,762

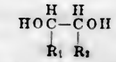
6 Claims. (Cl. 260—461)

1. Compounds having the formula:



wherein R_1 and R_2 are selected from the group consisting of hydrogen and a lower alkyl group and Ar is an aromatic radical selected from the group consisting of benzene and naphthalene hydrocarbon radicals and having its two free valences on the ring directly attached to the oxygen atoms and such hydrocarbon radicals substituted by a lower alkyl group.

6. A process of preparing the compounds of claim 1 comprising reacting two mols of a glycol having the formula:



with one mol of a phosphite having the formula $(ArO)_3P$ wherein R_1, R_2 and Ar are defined as in claim 1.

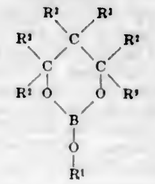
2,839,564

CYCLIC ESTERS OF BORIC ACID

Philip James Garner, Hooton, England, assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application February 17, 1953
Serial No. 337,427
Claims priority, application Great Britain
February 21, 1952
14 Claims. (Cl. 260—462)

1. Cyclic esters of boric acid having the general formula



wherein each R^2 and R^3 is a member of the group consisting of hydrogen and alkyl groups, and R^1 is an alkyl group.

2,839,565
ISOPROPYL BORATE CONTAINING COMBINED BORIC OXIDE
Frank Henderson May, Whittier, Calif., assignor to American Potash & Chemical Corporation, a corporation of Delaware
No Drawing. Application November 10, 1954
Serial No. 468,159
1 Claim. (Cl. 260—462)

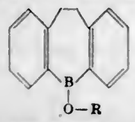
As a new compound, isopropyl borate of the formula

$$(C_3H_7O)_2B.B_2O_3$$

2,839,566
PREPARATION OF HETEROCYCLIC ORGANOBORON COMPOUNDS
Robert L. Letsinger, Wilmette, Ill., and Ivan H. Skoog, St. Paul, Minn., assignors to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application June 27, 1955
Serial No. 518,405
6 Claims. (Cl. 260—462)

1. A method of preparing stable heterocyclic boron compounds which comprises contacting o,o'-dilithio(1,2-diphenyl)-ethane with a trio-lower alkoxyborane, hydrolyzing the resulting reaction product with an aqueous solution of hydrochloric acid, heating the hydrolysis product with ethanolamine and recovering the 5-(2-aminoethoxy)-10,11-dihydrodibenzo-[b,f]-borepine that forms.

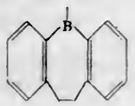
4. A compound having the formula



where R is a member of the group consisting of

$$—CH_2CH_2NH_2$$

and

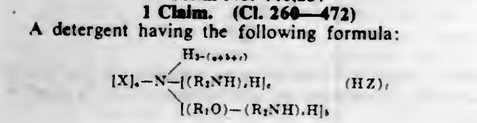


2,839,567
3-FORMYL-3α-METHYL-6-(β-CARBOXYETHYL)-7-KETO-$\Delta^{2,5a(6)}$-OCTAHYDROPENTANTHRENE ESTER
Lloyd B. Barkley, Brentwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application June 14, 1954
Serial No. 436,722
2 Claims. (Cl. 260—468)

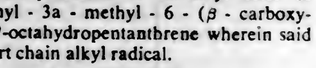
1. The dextro-rotatory isomer of an alkyl ester of anti-trans-3-formyl-3a-methyl-6-(β-carboxyethyl)-7-keto-$\Delta^{2,5a(6)}$-octahydropentantbrene wherein said alkyl radical is a short chain alkyl radical.

2,839,568
SURFACE ACTIVE POLYETHYLENE AND POLYPROPYLENE IMINE N-ARYL CARBAMATES
Herman S. Bloch, Chicago, Ill., and Donald R. Strehlau, Drexel Hill, Pa., assignors to Universal Oil Products Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application June 29, 1954
Serial No. 440,257
1 Claim. (Cl. 260—472)

A detergent having the following formula:



in which X is a urethano group having the structure corresponding to the formula:



wherein Ar is a poly-substituted benzene hydrocarbon group, R is an alkyl group containing from 8 to about 20 carbon atoms, R' is an alkyl group containing from 1 to 2 carbon atoms, n is a whole number selected from 0, 1 and 2, R_1 and R_2 are independently selected from divalent alkylene groups containing from 2 to 3 carbon atoms, a is selected from 1 and 2, b and c are selected from 0, 1, and 2, $b+c$ being at least 1, $a+b+c$ being a whole number less than 4, Z is an acid-derived anion, t is selected from 0, 1 and a whole number having a value from 1 to $1+s(b+c)$ and s is a whole number selected from 5 to about 150, further characterized in that the total number of (R_2NH) units in said detergent is not greater than about 150.

2,839,569
PURIFICATION OF OXO ALCOHOLS BY ANION EXCHANGE RESINS
Margaret D. Kramer, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application June 27, 1951, Serial No. 233,801
8 Claims. (Cl. 260—475)

1. In a carbonylation process wherein olefins, carbon monoxide and hydrogen are contacted in an initial carbonylation zone with a cobalt carbonylation catalyst under conditions to produce oxygenated reaction products comprising aldehydes and wherein said reaction products are further subjected to a hydrogenation reaction in the presence of a hydrogenation catalyst in a hydrogenation zone to produce an alcohol product having one more carbon atom than said olefin and wherein said alcohol product is contaminated with minor amounts of sulfur-containing impurities, the improvement which comprises contacting said alcohol product with a synthetic highly alkaline ion exchange resin of the cross linked-polymeric quaternary ammonium type.

2,839,570
PROCESS FOR THE PRODUCTION OF 1-ACYLOXY-2-METHYL-3-PHYTYL-4-HYDROXY NAPHTHALENES
Herbert Lindlar, Basel, Switzerland, assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey
No Drawing. Application August 5, 1954
Serial No. 448,154
Claims priority, application Switzerland August 12, 1953
12 Claims. (Cl. 260—476)

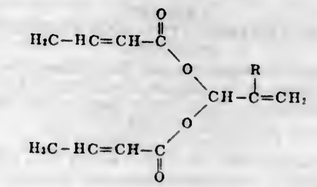
1. A process for the production of 1-acyloxy-2-methyl-3-phytyl-4-hydroxy naphthalenes which comprises condensing a 1-acyloxy-2-methyl-4-hydroxy naphthalene with a member of the group consisting of phytol, isophytol, ethers of said compounds and esters of said compounds, in the presence of an acidic condensing agent.

2,839,571
ESTER PRODUCTS
Christian W. Johnston, Chicago, Ill., and Robert A. Meara, Baltimore, Md., assignors to National Distillers and Chemical Corporation, a corporation of Virginia
No Drawing. Application August 12, 1955
Serial No. 528,121
4 Claims. (Cl. 260—485)

1. An alkyl ester of a mixture of C_{10} isomeric aliphatic diacids consisting essentially of about 60–88% α-ethylsuberic acid, and the remainder of the diacids consisting of a mixture of α,α'-diethyladipic acid and sebacic acid.

2,839,572
ALLYLIDENE DICROTONATES AND PROCESS FOR THEIR PRODUCTION
Howard R. Guest, Charleston, and Harry A. Stansbury, Jr., South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application March 29, 1956
Serial No. 574,624
5 Claims. (Cl. 260—486)

1. Compounds having the formula:



wherein R is a member selected from the class consisting of hydrogen, lower alkyl and halogen.

2,839,573
CHEMICAL PROCESS FOR PRODUCING β-CHLORO ETHANE SULFONATES
Willard E. Catlin, Woodstown, and Alfred M. Jenkins, Pennsgrove, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application September 6, 1956
Serial No. 608,207
6 Claims. (Cl. 260—513)

1. A process for the preparation of a β-chloro ethane sulfonate which comprises fusing carbyl sulfate with a salt selected from the class consisting of the alkali metal chlorides and ammonium chloride and thereafter neutralizing the fused reaction mass with a compound selected from the class consisting of the alkali metal, alkaline earth metal, and ammonium hydroxides, oxides, and carbonates, the molar ratio of salt to carbyl sulfate being at least about 1:1.

2,839,574
PRODUCTION OF LYSINE AND INTERMEDIATES
Marcel Servigne, Sceaux, and Etienne Szarvasi, Clichy, France, assignors to l'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Paris, France
No Drawing. Application October 1, 1954
Serial No. 459,836
Claims priority, application France October 2, 1953
2 Claims. (Cl. 260—518)

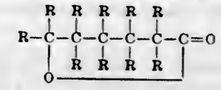
1. A method for the synthesis of N-α-benzoyl-dl-lysine, consisting in starting from bromo-1-chloro-4-butane, in condensing it with sodium diethyl-acetamidomalonate for transforming it into δ-chloro-butyl-diethylacetamidomalonate, in decarboxylating this substance with a non-oxidizing mineral acid, in benzoylating in situ the intermediate α-amino-ε-chlorocaproic acid salt formed, for transforming it into α-benzoylamino-ε-chlorocaproic acid and finally in subjecting this acid to ammonolysis for obtaining N-α-benzoyl-dl-lysine.

2,839,575
OXIDATION OF ALKYL-SUBSTITUTED BENZENE CARBOXYLIC ACIDS
Lloyd C. Fetterly, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application May 27, 1954
Serial No. 432,911
9 Claims. (Cl. 260—524)

1. A process for the production of benzene dicarboxylic acids which comprises intimately contacting in substantially anhydrous liquid phase at a temperature of from about 100° C. to about 250° C., a molecular oxygen-containing gas and a mixture comprising an alkyl-substituted benzene monocarboxylic acid and from about 0.01% to about 2% by weight of said benzene monocarboxylic acid of at least one member of the group consisting of nitrogen dioxide, nitrohydrocarbons and hydrocarbyl nitrites which ionize to give —ONO and $—NO_2$ ions.

2,839,576
PROCESS FOR THE PRODUCTION OF EPSILON-HALOCAPROIC ACIDS
Benjamin Phillips and Paul S. Starcher, Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Application November 23, 1955
Serial No. 548,753
12 Claims. (Cl. 260—539)

1. A process for the production of an epsilon-halocaproic acid which consists of reacting an epsilon-caprolactone characterized by the structural formula:



wherein R represents members selected from the group consisting of hydrogen and lower alkyl groups and an anhydrous hydrogen halide in the presence of a Friedel-Crafts catalyst.

2,839,577
PROCESS FOR THE PREPARATION OF THE OPTICALLY ACTIVE FORMS OF THREO-1-(P-NITROPHENYL)-2-AMINO-1:3-DIHYDROXYPROPANE
János Kollonitsch, Budapest, and Oszkár Fuchs, Dunakeszi, Hungary, assignors to Chinoin Gyogyszer-és Vegyészeti Termékek Gyara Részvénytársaság, Budapest, Hungary
No Drawing. Application June 21, 1955
Serial No. 517,066
Claims priority, application Hungary June 29, 1954
6 Claims. (Cl. 260—570.6)

1. Process for the preparation of optically active forms of threo-1-(p-nitrophenyl)-2-amino-1:3-dihydroxy propane comprising mixing an optically active form of a lower alkyl ester of threo-2-(p-nitrophenyl)-serine with an alkaline earth metal borohydride in a medium selected from the group consisting of ether and tetrahydrofurane at temperatures of −10° to +80° C. and a short-chain alkanol at temperatures between −10° and −50° C. to effect a reaction between the same whereby the threo-2-(p-nitrophenyl)-serine ester is reduced.

2,839,578
TREATMENT OF AROMATIC AMINO COMPOUNDS
Marshall R. Brimer, Kingsport, Tenn., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application February 24, 1954
Serial No. 412,368
3 Claims. (Cl. 260—577)

1. A process for treating an aromatic amino compound from the group consisting of amino diethyl aniline and amino diethyl toluene to obtain the compound in crystalline form, which comprises incorporating the compounds into a mixed solvent of hydrocarbon and alcohol, the hydrocarbon being from the group consisting of benzene, toluene and hexane and the alcohol being from the group consisting of isopropanol, normal propanol and normal butyl alcohol, also incorporating aqueous hydrochloric acid with the aforementioned ingredients for converting the compound to the hydrochloride, subjecting the afore-

mentioned ingredients to distillation with reflux whereby a substantial portion of any water present is removed as an azeotrope of the solvent and water, separating water from the solvent, returning at least a part of the separated solvent to said distillation and after the removal of a substantial portion of the water as aforementioned, cooling the constituents whereby crystals of the aromatic amino compound form, separating the crystals and washing and drying them whereby a relatively pure, free-flowing product is obtained.

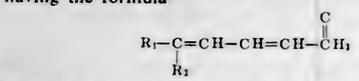
2,839,579

PROCESS FOR THE PRODUCTION OF KETONES

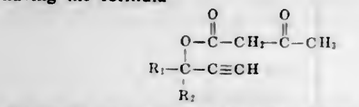
Walter Kimel, Highland Park, and Norbert William Sax, Little Falls, N. J., assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application June 27, 1956
Serial No. 594,121
10 Claims. (Cl. 260—595)

1. A process for the production of unsaturated ketones having the formula



wherein R_1 represents a member of the group consisting of lower alkyl and lower alkenyl and R_2 represents lower alkyl which comprises catalytically pyrolyzing an ester having the formula



wherein R_1 and R_2 have the significance defined above, in the presence of aluminum tri(lower alkoxide) and a lower fatty acid.

2,839,580

PREPARATION OF DIETHYL KETONE

Vincent L. Hughes, Clark Township, Union County, and Robert S. Brodkey, Roselle, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application January 11, 1956, Serial No. 558,478
9 Claims. (Cl. 260—597)

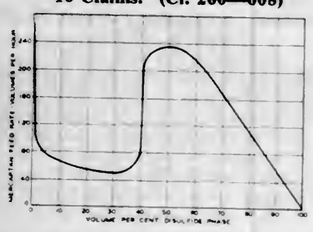
1. A process of preparing diethyl ketone which comprises reacting ethylene, carbon monoxide and a hydrogen donor in the presence of a catalytic amount of a rhodium-containing catalyst capable of being dissolved in the reaction mixture under the conditions of reaction, said conditions of reaction including a temperature of about 100° to 300° C., and pressures of about 1500 to 5000 p. s. i. g., and recovering diethyl ketone in good yields.

2,839,581

LIQUID REAGENT DISULFIDE PROCESS

Paul F. Warner, Phillips, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware

Application July 31, 1956, Serial No. 601,272
16 Claims. (Cl. 260—608)



1. In a process for the oxidation of a mercaptan containing a single SH group to the corresponding disulfide in the presence of a separate oxidizing reagent phase comprising a solution of a cupric halide in an organic solvent containing 3 to 30 weight percent water dissolved therein, the improvement which comprises maintaining a volume ratio of the product disulfide phase to the said reagent phase during regeneration of said reagent with a free oxygen-containing gas, between 30:70 and 85:15, the disulfide phase being the continuous phase.

2,839,582

ETHERS OF CHLORINATED AND FLUORINATED PHENOLS

William L. Howard, Stanley R. McLane, Jr., and Robert L. Weintraub, Frederick, Md.

No Drawing. Application October 29, 1954
Serial No. 465,765
17 Claims. (Cl. 260—612)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A chemical compound possessing biological activity selected from the group consisting of: alkyl ethers of 2,4-dichlorophenol having an even number of carbon atoms in the range 8 to 18 in a straight chain in the alkyl group; the n-hexadecyl ether of 2,4,5-trichlorophenol, the n-dodecyl, n-tetradecyl and n-hexadecyl ethers of 4-fluorophenol, the n-dodecyl, n-tetradecyl and n-hexadecyl ethers of 2,4-difluorophenol and the n-dodecyl, n-tetradecyl and n-hexadecyl ethers of 2-methyl-4-fluorophenol.

2,839,583

PROCESS FOR THE PREPARATION OF DI-(P-ANISYL)-IODONIUM HALIDE

John Thomas Plati, Rutherford, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application February 28, 1957
Serial No. 642,969
4 Claims. (Cl. 260—613)

4. A process which comprises forming an iodous reagent by reacting iodine and iodine pentoxide in a proportion of about one mol of iodine per one and one half to two and one half mols of iodine pentoxide in concentrated sulfuric acid, thoroughly extracting the sulfuric acid from the reaction liquor with an excess of glacial acetic acid, suspending the separated iodous reagent in fresh glacial acetic acid, reacting said iodous reagent with at least ten molecular proportions of anisole and precipitating crystalline di-(p-anisyl)-iodonium bromide with an excess of aqueous sodium bromide.

2,839,584

2,6-BIS(3-METHOXY-4-HYDROXYBENZYL) CYCLOHEXANOL

John D. Garber, Cranford, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 24, 1954
Serial No. 477,599
1 Claim. (Cl. 260—613)

2,6-bis(3-methoxy-4-hydroxybenzyl) cyclohexanol.

2,839,585

CONVERSION OF RETINENE-PHENOLIC MATERIAL COMPLEXES TO VITAMIN A

Orris D. Hawks, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 5, 1955
Serial No. 499,520
10 Claims. (Cl. 260—617)

1. The process of converting a complex consisting of retinene and a phenolic material to vitamin A alcohol which comprises admixing said complex, an alkali metal borohydride selected from the class consisting of sodium borohydrides and potassium borohydrides, and a liquid carrier substantially inert to said borohydride, and thereafter hydrolyzing the resulting reaction product.

2,839,586

MANNICH BASE SYNTHESIS OF BISPHENOLS

Henry E. Fritz, South Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application May 23, 1956
Serial No. 586,647
6 Claims. (Cl. 260—619)

1. The method of producing polyphenylols, which comprises reacting a Mannich base of a monohydric phenol with at least one equivalent, per Mannich group present in the Mannich base, of monohydric phenols, said monohydric phenols having at least one active unhindered position and said positions being ortho and para to the hydroxyl group, at a temperature of from about 90° C. to about 350° C. for a period of time sufficient to obtain reaction between the reactants and formation of the polyphenylol.

2,839,587

PRODUCTION OF ORTHO-METHYLOLPHENOLS

Alaric Louis Jeffrey Raum, Teddington, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company

No Drawing. Application April 25, 1955
Serial No. 503,774
Claims priority, application Great Britain April 30, 1954
8 Claims. (Cl. 260—621)

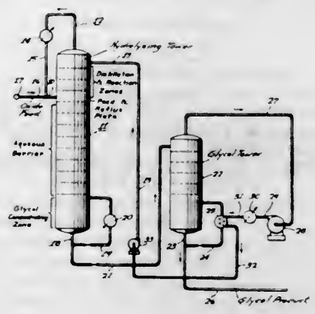
1. A process which comprises condensing a molar excess of a monohydric phenol selected from the group consisting of phenol, meta-cresol and meta-ethyl phenol with formaldehyde in an aqueous reaction mixture having a pH value in the range 4 to 7 and in the presence of a salt of a divalent electro-positive metal with an organic acid, which salt is at least partially soluble in the reaction mixture, by heating the reaction mixture to a temperature not above the reflux temperature of the mixture to give a product containing ortho-methylol phenols, and discontinuing the heating when substantially all the formaldehyde has reacted.

2,839,588

PREPARATION OF ALKYLENE GLYCOL

Almon S. Parker, Bethel, Pa., assignor to Gulf Oil Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

Application December 30, 1953, Serial No. 401,311
8 Claims. (Cl. 260—635)



1. A process for preparing a mono-alkylene glycol substantially free of poly-glycol, the said process comprising introducing water and a hydrolyzable alkylene oxide having inclusively from 2 to 5 carbon atoms per molecule in which at most one carbon atom separates the carbon atoms which are linked to the oxygen atom, into a plurality of distillation-reaction zones maintained at an elevated temperature and pressure, effecting hydrolysis of the selected alkylene oxide in the distillation-reaction zones, distilling unreacted alkylene oxide and water from the distillation-reaction zones, flowing water countercurrently to distillate oxide in said zones to provide an aqueous barrier between zones in which oxide and zones in which glycol are in substantial concentration, condensing the overhead oxide and water vapors, recycling substantially the entire condensate to the distillation-reaction zones, withdrawing as distillate bottoms product an aqueous solution of mono-alkylene glycol from the said zones.

2,839,589

CHLORINATION PROCESS

David Brown, New York, N. Y., assignor to Chempatents, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 22, 1954
Serial No. 470,513
3 Claims. (Cl. 260—654)

1. In a process for the preparation and recovery of chlorinated hydrocarbons and hydrogen chloride by the thermal chlorination of an organic reactant of the class consisting of aliphatic hydrocarbons having 3 carbon atoms in the molecule, partial chlorination products of said aliphatic hydrocarbons, and mixtures thereof with chlorine in an amount of 1 mol of chlorine per about 0.2 to about 0.7 atoms of carbon contained in said organic reactant, said chlorination being carried out in the range of about 500 to 700° C., and recovering the desired products, the improvement of preheating the new feed rapidly substantially to reaction temperature by blending with hot reacted gases from said thermal chlorination, the volume ratio of hot reacted gases to new feed exceeding 1.

2,839,590

PRODUCTION OF CYCLOHEXENES

Lloyd C. Fetterly, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application March 14, 1955
Serial No. 494,251
10 Claims. (Cl. 260—666)

1. A process for the preparation of cyclohexene which comprises passing phenylcyclohexane over an aluminous siliceous natural clay, having an average pore diameter of at least 80 Angstrom units at a temperature of about 350–650° C. and a contact time of not over about 0.1 second, and recovering cyclohexene from the cracked product.

2,839,591

PREPARATION OF m- AND p-DIISOPROPYLBENZENE BY ISOMERIZING DIISOPROPYLBENZENES IN THE PRESENCE OF ALUMINUM CHLORIDE

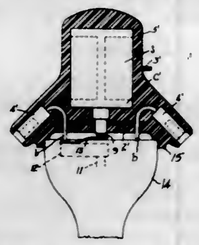
Herman I. Enos, Jr., Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 29, 1953
Serial No. 364,961
7 Claims. (Cl. 260—668)

1. In the method of converting a diisopropylbenzene including mixtures of the isomers thereof into a mixture of m- and p-diisopropylbenzenes from which the m-diisopropylbenzene is separable in a substantially pure state by distillation, the step which comprises contacting said diisopropylbenzene substantially free of trimethylindane with 0.1 to 2 mole percent of the reaction mixture of aluminum chloride at a temperature in the range of 65–115° C. until the reaction mixture is substantially free of o-diisopropylbenzene.

ELECTRICAL

2,839,592
IGNITION DEVICES
Wilbur M. Kohring, Cleveland, Ohio
Application July 1, 1953, Serial No. 365,395
4 Claims. (Cl. 123—148)



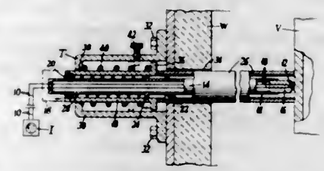
1. As an article of manufacture, a hermetically sealed ignition device providing coil and distributor elements together, and including an insulation plate, a plurality of contacts carried in said plate, lead connections from said contacts at the other side of said plate extending laterally and downwardly inclined for the spark plug connections, a center contact in said plate for alignment with a distributor shaft's rotor contactor, an ignition coil having a core and windings and a connection to said center contact, and molded-on insulation covering said coil and insulation plate and connections in a compact unit.

2,839,593
GAS CONVERSION ASSEMBLY FOR A VAPORIZING OIL BURNER
Cyril Charles Young, Kansas City, Mo.
Application April 23, 1953, Serial No. 350,666
2 Claims. (Cl. 136—4)



2. In a burner assembly having a combustion chamber, the improvement of a closed annular hollow ring having appreciable longitudinal extent and extending into said combustion chamber, a thermocouple generating unit adapted to be exposed to thermal energy, means supporting one end of said unit centrally disposed and concentrically spaced with respect to said annular hollow ring on the longitudinal axis thereof forming an air passage inwardly of said hollow ring, said hollow ring having a curved end wall with a row of circumferentially spaced openings formed therein extending inwardly and rearwardly to direct a gas fuel across said one end of said thermocouple unit to provide a flame shield therefor, means carrying a supply of pilot burner gas to said ring for combustion at said circumferentially spaced openings in said end wall, and main burner gas means including means carrying a supply of main burner gas and further including means forming an independent longitudinally extending passage through said ring having an outlet opening adjacent said row of circumferentially spaced openings in said end wall for carrying a main supply of gas fuel to said outlet opening for combustion in said combustion chamber.

2,839,594
CONTACT THERMOCOUPLE ASSEMBLY
Ernst O. Schneidersmann, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application June 24, 1955, Serial No. 517,791
7 Claims. (Cl. 136—4)

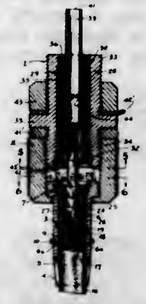


4. A thermocouple assembly adapted to be inserted through an opening in a furnace wall for measuring the surface temperature of a hot body in an atmosphere of hot combustion products comprising, in combination, a housing adapted to be mounted on the exterior of said furnace wall having a passage therethrough in alignment with said opening; an outer elongated tube reciprocally mounted within and extending through said passage and said opening, whereby an end of said tube passes into said furnace to contact the surface of said hot body therein; an inner elongated tube concentrically positioned and slidably mounted within said outer tube and having a refractory bushing positioned in one end thereof, said refractory bushing containing a thermocouple junction for thermally engaging the surface of said hot body; electrical circuit means passing from said thermocouple junction and through said inner tube to a temperature indicating means remotely positioned from said furnace; helical spring means disposed between said outer elongated tube and said inner elongated tube, whereby said inner tube is urged forwardly into said furnace and whereby said bushing is urged under substantially uniform pressure against the surface of said hot body; and pressure means provided between said housing and said outer elongated tube, whereby said outer tube is urged forwardly into said furnace and against the surface of said hot body under a substantially uniform pressure to protect said thermocouple junction from said atmosphere of hot combustion products.

2,839,595
ELECTRICAL CONNECTORS
Gordon P. Felts, Sierra Madre, Robert W. Seeger, Covina, and Maxwell H. Lewis, Altadena, Calif., assignors, by direct and mesne assignments, to Microdot Inc., a corporation of California
Application December 12, 1952, Serial No. 325,588
11 Claims. (Cl. 174—89)

6. In combination, a plug connector element for cables and a socket connector element, said plug connector element comprising an outer conductive container, an inner insulating sleeve, an electrically conductive wire positioned in said sleeve, a pin positioned in said sleeve and protruding outside said sleeve, said pin being in electrical contact with said wire, the end of said wire being disposed between said pin and said sleeve, a conductive braided shield positioned about said sleeve and in contact with said outer container, said pin placing said sleeve and said braided shield in compression against said container; said socket connector element including a conductive stud having an internal bore, an insulating sleeve positioned in said bore, an electrically conductive tube positioned in said sleeve, the end of said pin protruding from said first-mentioned sleeve being positioned in one

end of and in electrical contact with said last-named electrically conductive tube, and electrically conductive means for connecting the outer container and the stud



of said plug and socket connector elements, whereby said braided shield is electrically connected to said conductive stud.

2,839,596
SPLICE SLEEVE
Donald E. Cheney, Lombard, and George C. Motsinger, Chicago, Ill., assignors to Reliable Electric Company, Chicago, Ill., a corporation of Illinois
Application July 22, 1955, Serial No. 523,714
3 Claims. (Cl. 174—92)



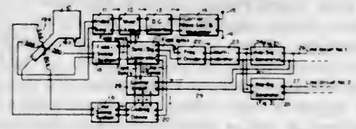
1. A weatherproof sleeve to enclose a cable splice comprising a generally tubular member of resilient material, the interior cross sectional size of said member between the end portions thereof being larger than that of the end portions, said member having a longitudinal slit to admit a continuous length of cable to the interior of the member, a pair of longitudinal flanges extending one from each slit edge and adapted to be forced together to seal said slit, a pair of clamping bars associated with said flanges, means for forcing said clamping bars together to clamp said flanges therebetween, and a pair of spaced hose clamps on each end portion of said member to provide a seal between said end portions and the enclosed cable, said hose clamps being of the split type with the free ends thereof affixed to said clamping bars.

2,839,597
AERIAL CABLE CLAMP
William L. Hendrix, Brighton, Mass.
Application July 11, 1955, Serial No. 521,290
3 Claims. (Cl. 174—146)



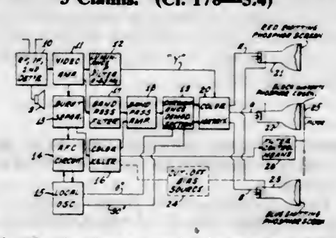
3. A hanger-spacer clamp for an aerial electric power cable of the secondary distribution type described comprising a rigid light weight unitary bar adapted to span the cable conductors and integrally formed of non-reacting, non-conducting material, annular recesses within the bar at and intermediate the ends thereof, said recesses proportioned at their side walls for sidewise entry and removal and at their bottom walls for snugly embracing the cable conductors, and detent means at one side wall and normally projecting toward the other side wall of said recesses and thereby rigidly confining and positively locking said conductors in and against escape from the bar recesses, said detent means shiftable away from said other and to said one of said side walls and whereby to clear said recesses for said sidewise entry and removal of said conductors.

2,839,598
SUBSCRIPTION TELEVISION SYSTEM
Alexander Ellett, River Forest, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application October 6, 1951, Serial No. 250,096
1 Claim. (Cl. 178—5.1)



A transmitter for a subscription-type television signalling system comprising: apparatus for producing a television signal; a coding device coupled to said apparatus for establishing said transmitter in a first operating mode during spaced operating intervals and in a second operating mode during intervening intervals in accordance with a coding schedule, effectively to code said television signal; key-signal generating apparatus for developing a first key signal having a predetermined characteristic during said spaced operating intervals and a predetermined different characteristic during said intervening intervals, and for concurrently developing asecond key signal having said predetermined characteristic during said intervening intervals and said predetermined different characteristic during said spaced operating intervals, whereby said first and second key signals are each indicative of said coding schedule; a plurality of separate but adjacent wire line circuits; and means including a pair of said wire line circuits for respectively distributing said key signals to subscriber receivers while precluding inductive coupling of said key signals into others of said wire line circuits.

2,839,599
MONOCHROME OR COLOR TELEVISION IMAGE DISPLAY SYSTEMS
David W. Epstein, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 28, 1954, Serial No. 432,968
3 Claims. (Cl. 178—5.4)



1. A bi-reflective image projection system for use with television systems in which monochromatic or color signals appear comprising, a plurality of bi-reflective optical units each of which contains an image producing means, a plane mirror, a concave mirror, and a correcting lens,

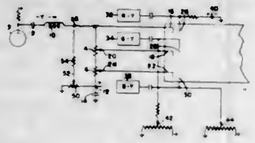
said plane mirror adapted to reflect the image of its corresponding image producing means onto said concave mirror, said concave mirror adapted to reflect the image reflected by said plane mirror onto it through said correcting lens, a pair of interleaved dichroic mirrors located in the optical path of each of said correcting lenses, one of said image producing means adapted to produce a monochromatic image, a filter positioned in front of said last-named image producing means for passing light from said monochromatic image corresponding to one of a set of primary color components of a televised object when said color television signals appear, the others of said plurality of image producing means being adapted to simultaneously produce images corresponding to others of said set of primary color components when said color television signals appear, each of the images of said plurality of image producing means thereupon forming an output image which is a composite colored image, means coupled to said television system for rendering said filter ineffective when said monochrome signals appear, means for preventing said other image producing means from cooperating to produce an output image when said monochrome signals appear, and means coupled to said television system for removing said interleaved dichroic mirrors from the optical path of said monochromatic image producing means when said monochrome signals appear in said system, the image produced by said monochromatic image producing means thereupon solely producing an output image.

2,839,600

BRIGHTNESS CONTROL FOR COLOR TELEVISION RECEIVER

Michael Graser, Jr., Syracuse, N. Y., assignor to General Electric Company, a corporation of New York

Application July 1, 1955, Serial No. 519,447
4 Claims. (Cl. 178—5.4)



1. Apparatus for reproducing images from video signals comprising, in combination, means for forming a plurality of partial images, said means including a plurality of electron guns, each gun having a pair of beam intensity control electrodes, a source of video signals corresponding to luminosity, means for coupling the luminosity signals produced by said source to corresponding control electrodes of each of said guns in predetermined ratios, a plurality of sources of color difference signals, means for applying each of said color difference signals to a separate one of the other control electrodes of said electron guns, a source of direct-current potential, means for varying said source of direct-current potential and means for applying variations in said direct-current potential to the means by which the luminosity signals are applied to the guns.

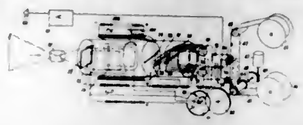
2,839,601

METHODS OF AND APPARATUS FOR RENDERING VISIBLE MAGNETIC AND ELECTRIC FIELD PATTERNS

Gustav Fries, Ostheim, Kreis Hanau (Main), Germany, assignor to Julius Cato Vredenburg-Inglesby, London, England

Application September 24, 1951, Serial No. 248,064
Claims priority, application Germany September 27, 1950
6 Claims. (Cl. 178—6.6)

6. Apparatus for recording moving phenomena in the form of sequence of individual picture records on a tape-like carrier, comprising means for producing a stationary optical image representing said phenomena, a photocathode for converting said optical image into an electron image, means for scanning the electron image line by line through a gap, a plurality of collector anodes arranged side by side along the length of said gap for sub-dividing each line of the electron image into image



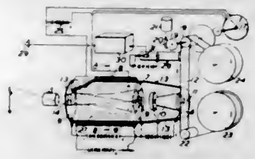
points, means for transmitting the output of the individual collector electrodes through amplifiers to the corresponding number of recording heads, said recording heads being arranged side by side, and means for continually feeding a tape-like magnetizable carrier past said array of recording heads whereby the image is recorded line by line on the carrier.

2,839,602

METHOD OF AND APPARATUS FOR RECORDING PICTURES

Gustav Fries, Ostheim, Kreis Hanau (Main), Germany, assignor to Julius Cato Vredenburg-Inglesby, London, England

Application October 9, 1951, Serial No. 250,471
14 Claims. (Cl. 178—6.7)



1. Apparatus for recording pictures, comprising an image-converter tube equipped with a slot-like Lenard window in a wall surface of its evacuated envelope and with a photo-cathode facing said window, means for producing images on said photocathode to cause said photocathode to produce cathode-ray images in said tube and for focussing said cathode-ray images and accelerating them towards said wall surface, means for moving an electron-sensitive record carrier past the outer side of said window transversely to the longitudinal direction of the window, and means for producing a sweep movement of the cathode-ray images in the same direction as and in synchronism with the movement of said carrier.

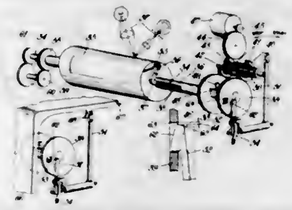
2,839,603

FACSIMILE TELEGRAPH SCANNING MECHANISM

John Victor Foll, Peter William Sieber, and Alan Arthur Kirchel, Beckenham, England, assignors to Muirhead & Co. Limited, Beckenham, England

Original application July 11, 1955, Serial No. 521,151. Divided and this application November 13, 1956, Serial No. 621,745
3 Claims. (Cl. 178—7.1)

1. Facsimile scanning mechanism comprising a message drum, a synchronous motor, gearing to transmit the drive from said motor to said drum, an optical systems, a lead-screw to produce relative axial movement between said drum and said optical system, a clutch interposed in said gearing, said gearing including a gear having a slot in its face and coupled to said drum, an arresting lever having a lug adapted to engage said slot in said gear to stop said drum, a spring urging said arresting lever into said slot, a control lever arranged to disengage said clutch and then to allow said arresting lever to enter said slot when moved to the "stop" position,



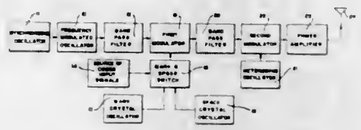
said arresting lever lug being so chamfered and of such a length in relation to the slot, that it can only fully enter said slot to stop said drum when the speed of said drum has fallen below a predetermined level.

2,839,604

PULSE-CODE COMMUNICATION SYSTEM

Robert J. Shank, Encino, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application October 5, 1956, Serial No. 614,273
11 Claims. (Cl. 178—66)



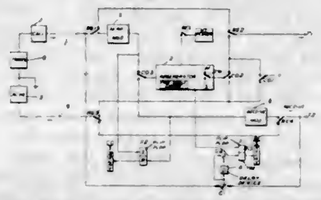
1. A pulse-code communication system for transmitting pulse-coded mark and space intelligence signals between a transmitting station and a receiving station comprising a transmitting station including means for generating a carrier wave, means coupled to said generating means for modulating the frequency of said carrier wave as a predetermined function of time from a first predetermined frequency to a second predetermined frequency to represent a mark signal and for modulating the frequency of said carrier wave as a substantially linear function of time from said second to said first frequency to represent a space signal, and means coupled to said modulating means for transmitting said modulated carrier wave; a receiving station including means for receiving said modulated carrier wave, a first frequency responsive delay network coupled to said receiving means for delaying said carrier wave a first predetermined time interval when its frequency corresponds to said first frequency and for delaying said carrier wave a second predetermined time interval when its frequency corresponds to said second frequency, and a second frequency responsive delay network coupled to said receiving means for delaying said carrier wave by said first time interval when its frequency corresponds to said second frequency and for delaying said carrier wave by said second time interval when its frequency corresponds to said first frequency, and said predetermined time intervals being selected in such a manner that said first delay network compresses a mark signal into a period of time shorter than that of the transmitted mark signal to derive a mark pulse and stretches a space signal into a period of time longer than that of the transmitted space signal, while said second delay network compresses a space signal into a period of time shorter than that of the transmitted space signal to derive a space pulse and stretches a mark signal into a period of time longer than that of a transmitted mark signal.

2,839,605

TELEGRAPH REPEATERS

Desmond Sydney Ridler and Donald Adams Weir, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application June 24, 1953, Serial No. 363,846
Claims priority, application Great Britain June 27, 1952
7 Claims. (Cl. 178—71)



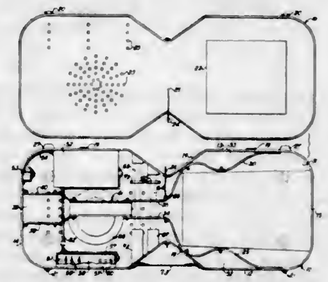
1. A circuit for a half-duplex telegraph working between two telegraph stations separated by a central switching exchange, each station comprising a pair of communication channels extending to said exchange, one of said channels for transmitting signals and the other for receiving signals, a regenerative repeater adapted to be taken into use by either of said stations and to repeat regenerated telegraph signals to the other of said stations, by-pass connection means for normally by-passing said repeater and interconnecting said channels to said exchange switch means for switching said by-pass means out of by-pass relation with said repeater and for interconnecting said stations with said repeater, said switch means comprising means responsive to a joint signal from said other station having a particular characteristic and to a signal from the transmitting station having a particular characteristic.

2,839,606

COMBINATION MUSICAL INSTRUMENT CASE AND PUBLIC ADDRESS SYSTEM

Rundlette K. Palmer, Fredericksburg, Va.

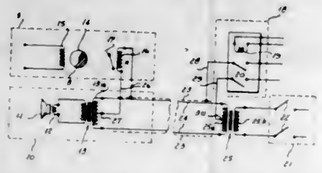
Application May 22, 1956, Serial No. 586,565
3 Claims. (Cl. 179—1)



1. A combination musical instrument case and public address system comprising an elongated container having a bottom wall, side and end walls, a compartment in one end of said container for receiving the body of a stringed musical instrument, said compartment being defined by opposed partitions conforming substantially to the shape of said body and secured to said bottom and side walls, an inclined false bottom in said compartment for supporting said instrument, said partitions terminating substantially midway of the length of said container in spaced parallel portions for receiving a portion of the neck of said instrument, a second compartment in the opposite end of said container for receiving the head of said instrument, said second compartment being defined by spaced partitions secured to said bottom wall and the adjacent end wall, a bridge for receiving and supporting the remaining portion of said neck and comprising a

channel member pivotally connected at one end to the parallel portions of said first mentioned partitions and detachably connected at the opposite end to the partitions forming said second compartment, said bridge being swingable to provide access therebeneath, said first mentioned partitions cooperating with said side walls to provide additional compartments for receiving accessories, an audio amplifier disposed in said container adjacent said bridge and secured to one side wall, a grille opening in said bottom wall opposite said bridge, a loudspeaker disposed over said opening beneath said bridge and secured to said bottom wall, a power supply connector in one end wall connected to said amplifier, a recess in the opposite side wall, a panel mounted in said recess, amplifier controls and audio input jacks carried by said panel, spaced openings in said opposite side walls, receptacles in said container communicating with said openings, an extensible and retractable music stand and an extensible and retractable microphone mounted in said container, said music stand and said microphone being extensible through said openings when in operative position and being retractable into said receptacles when in inoperative position, electrical connections between said amplifier, loudspeaker, controls, jacks and microphone, a cover for said container hingedly mounted on said one side wall, a music receiving pocket carried by said cover, ventilating apertures in said cover, means to prevent opening said cover beyond a predetermined point and means to latch said cover in closed position.

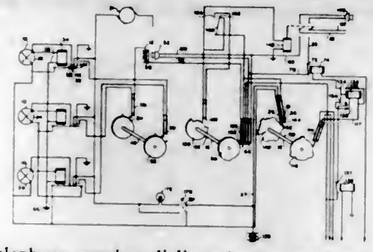
2,839,607
PUBLIC ADDRESS LOUD SPEAKER AND CLOCK SYSTEM
Clarence A. McKee, Rye, N. Y.
Application February 15, 1955, Serial No. 488,331
11 Claims. (Cl. 179—2)



1. In an installation wherein a master clock synchronizing means and sound transmitting mechanism are installed at a central station and an electrically operated secondary clock synchronizing means and a sound reproducing device are located at a distant station, the improvement which consists in electrically connecting the master clock synchronizing means and sound transmitting mechanism at the central station directly to the secondary clock synchronizing means and sound reproducing device respectively at the distant station through current conductors not exceeding three in number embodied in a single cable between said stations, said secondary clock synchronizing means and said sound reproducing device being simultaneously operable over said current conductors.

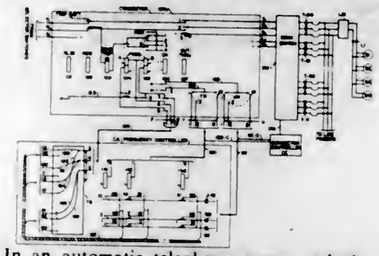
2,839,608
TELEPHONE SIGNALING DEVICE
Harold W. Moyer, Laurys Station, Pa., assignor of one-half to Leon A. Marsh, Walnutport, Pa.
Application May 12, 1954, Serial No. 429,243
6 Claims. (Cl. 179—5)

1. A telephone signaling device for use in sending an alarm signal over telephone lines comprising: means for closing an electrical circuit upon the occurrence of a predetermined condition, a signal generating element, a telephone number selecting element, a telephone number dialing element; means for disconnecting said signal generating element from said telephone lines during operation of said telephone number selecting element and



said telephone number dialing element, said means including a driven cam.

2,839,609
TERMINAL-PER-STATION PARTY-LINE TELEPHONE SYSTEM
Edward J. Leonard, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application April 4, 1955, Serial No. 498,908
4 Claims. (Cl. 179—17)

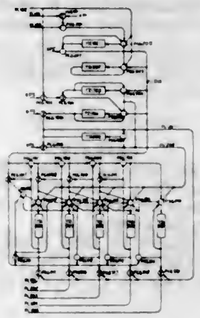


1. In an automatic telephone system, telephone lines each having one or more stations thereon, with each station of a multi-station line occupying a separate station position thereon, a group of callable switchboard terminals corresponding respectively to stations on the said telephone lines and connected respectively to the lines serving such stations, a group of equivalent connector-stage trunks, switching means, means including switch-control means controllable over any calling trunk for directing the switching means to connect such calling trunk to any desired called one of the said callable terminals, each trunk including individual station-selecting means settable according to any one of the said station positions, means controlled by the station-selecting means for selectively signalling the called station on the connected called line, a station-controller common to all said trunks and means for temporarily associating it individually with any calling one of them, means for conditioning the station controller according to the callable terminal to which the temporarily associated trunk is connected by the switching apparatus, and means responsive to the said conditioning of the station controller for setting the station-selecting means of the temporarily associated trunk according to the station location occupied on the called line by the called station.

2,839,610
APPARATUS FOR THE RECEPTION OF PULSE CODED INFORMATION
Sidney Walter Broadhurst, Kingsbury, London, and Lionel Roy Frank Harris, Kenton, England
Application February 23, 1955, Serial No. 489,994
Claims priority, application Great Britain February 24, 1954
11 Claims. (Cl. 179—18)

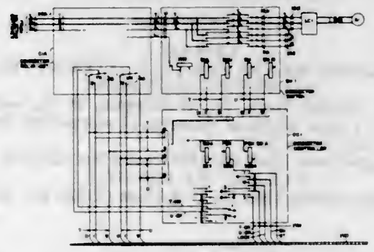
1. Apparatus for the reception of pulse coded information from a number of sources in which information

from source is received by the apparatus only at a predetermined time in a recurring time cycle, said apparatus comprising in combination a pulse storage system, means for inserting into the storage system a first pulse indicative of the commencement of reception of a train of pulse coded information from a source, first timing means for timing each pulse of said pulse train, means for causing the storage under the control of said timing means, of a second pulse for each pulse of the said pulse train whose duration is of a predetermined value and for



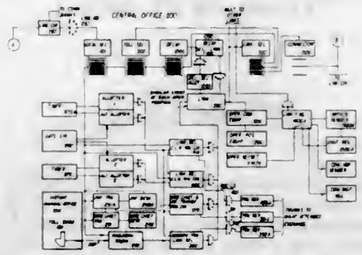
producing an output characteristic of such second pulse, further means for inserting into the storage system a third pulse indicative of the commencement of an interval between successive trains of pulse coded information, means for timing the duration of storage of said third pulse and of providing a characteristic output in the event that the duration of storage is of a predetermined value, and further means for providing an output on the termination of the transmission of pulse coded information from a source.

2,839,611
PBX LINE-HUNTING SYSTEM
Robert W. Hutton and Edward J. Leonard, Chicago, Ill., assignors to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application March 24, 1955, Serial No. 496,468
7 Claims. (Cl. 179—18)



1. In a switching system, a switchboard including switching apparatus terminating lines in a given fixed correspondence to respective line numbers each of which includes a tens digit and a units digit, registering means in the switchboard for registering the tens and units digits of the line number of any called one of the lines, indicating means controlled thereby for indicating the tens location and units location of the called line, switch-operating means normally responsive jointly to the tens and units location indications for operating the switching apparatus to make connection to the called line, a detecting means and means for assigning it to any desired line-number setting of the registering means, means responsive to the registering means being set in accordance with the said any desired line number for operating the detecting means to cancel the said units-location indication, whereby the operation of the switching apparatus is held in abeyance, test means controlled by the detecting means for testing selected ones of a group of lines having a common tens digit in their line numbers, selecting means including the test means for selecting an idle one of the tested lines, and means controlled by the selecting means for substituting an indication of the units location of the selected idle line for the cancelled units location indication, the said switch-operating means thereupon operating the switching apparatus to make connection with the last-said selected idle line.

2,839,612
TOLL SWITCHING SYSTEM
George B. Quatman, Lima, Ohio, assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application June 22, 1953, Serial No. 363,133
17 Claims. (Cl. 179—27)

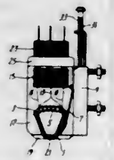


14. In a telephone system, an operator position, a plurality of links at said position, link selecting trunk circuits having access to said links, means in said link selecting trunk circuit controlled in response to the extension thereto of an incoming call for selecting any idle one of said links at said position, means in said link operated incident to said selection thereof for extending said incoming call on said link selecting trunk circuit by way of said selected link to said operator position to be answered, a key at said position operated to convert said links at said position for delay call operation, means controlled incident to said operation of said key for applying a busy marking potential to said control conductors in order to mark said links busy to said link selecting trunk circuits, a plurality of delay selectors, a delay selector link finder associated with each of said selectors, means selectively controlled by the operator at said position for selecting one of said delay selector link finders and for operating said selected link finder to connect with a predetermined one of said links, means at said position operated incident to said connection of said link finder to said link for indicating to the operator thereat that said delay selector is connected to said link, and means at said position for directively controlling said delay selector to extend an outgoing call from said position by way of said link and said delay selector link finder and said delay selector to a desired called destination.

2,839,613
MAGNETIC TRANSDUCER HEAD
George B. Greene, Berkeley, Calif., assignor to Marchant Research, Inc., a corporation of California
Application July 7, 1952, Serial No. 297,441
3 Claims. (Cl. 179—100.2)

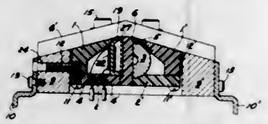
1. A transducer head for use with a magnetizable recording medium comprising a ferro-magnetic core structure forming a loop complete except for a single gap

having substantially parallel sides, said core structure comprising a plurality of substantially concentric cylin-



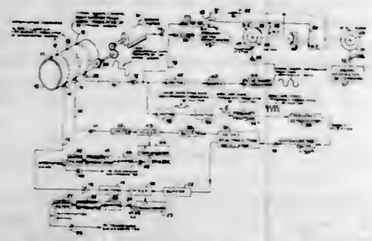
drical laminations, and a winding disposed on a segment of said core structure displaced from said gap.

2,839,614
MAGNETIC RECORDING HEAD
Leslie C. Merrill, Lisle Township, Du Page County, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application June 18, 1953, Serial No. 362,631
4 Claims. (Cl. 179—100.2)



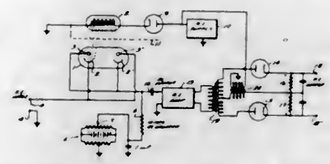
1. A multiple magnetic recording head assembly comprising a non-magnetic centerpiece provided with only first and second groups of spaced slots, one group on either side thereof, two groups of electromagnets, one group being disposed on each side of said centerpiece, said magnets within each group being aligned along said centerpiece, first and second side pieces disposed in confronting relation on either side of said centerpiece and provided with respective upper bearing surfaces, said side pieces urging said magnets toward said centerpiece, two groups of equally spaced ferromagnetic inserts disposed within said centerpiece slots, each insert being arranged in spaced, confronting relationship to respective first poles of said magnets to define recording gaps therewith and in contact with respective opposite poles of said magnets to complete the magnetic circuits, said magnets and corresponding inserts being arranged in staggered relation along said centerpiece to provide a series of parallel recording tracks.

2,839,615
MAGNETIC RECORD REPRODUCTION
Everett R. Sarratt, Paterson, N. J., assignor to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application April 20, 1954, Serial No. 424,329
9 Claims. (Cl. 179—100.2)



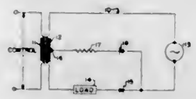
1. Apparatus for reproducing a low frequency information signal from a record on which is recorded a low frequency carrier frequency modulated by the information signal comprising: in combination, reproducing means for reproducing from the recording an electrical signal corresponding to the recorded low frequency carrier modulated in frequency by the information signal, multiplying means connected to said reproducing means for multiplying the frequency of the carrier in said reproduced electrical signal to produce a frequency modulated higher frequency signal consisting of a higher frequency carrier which is modulated in frequency by the information signal, circuit means connected to said multiplying means for passing the frequency modulated higher frequency signal, a frequency demodulator connected to said circuit means and operative to recover the information signal from the higher frequency carrier, and a filter connected to the output of the frequency demodulator for passing the information signal and rejecting the higher frequency carrier.

2,839,616
PHOTOELECTRIC CONVERTER SYSTEM
Raymond A. MacMillan, Greenwood, Mass., assignor to the United States of America as represented by the Secretary of the Air Force
Application January 15, 1954, Serial No. 404,403
6 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A converter comprising a pair of photocells each having a photocathode and an anode, a pair of direct current input terminals, a load resistance, means connecting one of said cells and said load resistance in series across said terminals, a connection consisting entirely of a conductor of negligible impedance between the photocathode of the other cell and the anode of said one cell, a connection consisting entirely of a conductor of negligible impedance between the anode of the other cell and the photocathode of said one cell, means for applying a periodically varying illumination equally to said cathodes and an output circuit connected across said load resistance.

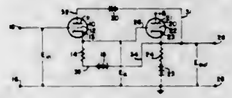
2,839,617
BIASING MEANS FOR SELF-SATURATING MAGNETIC AMPLIFIER
Charles Mitchell Davis, Jr., Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application April 20, 1954, Serial No. 424,528
3 Claims. (Cl. 179—171)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a self-saturating magnetic amplifier half-wave section having saturable reactor core means with control winding means thereon energized from a control source and a load winding thereon serially interconnecting a load to an A. C. power source through a unidirectional conductive device which is phased to pass half-wave current of one polarity from said source in one direction through said load winding, a biasing circuit connected across the A. C. power source to pass therefrom half-wave current of a polarity opposite to said one polarity and comprising, in series circuit connection, a portion of

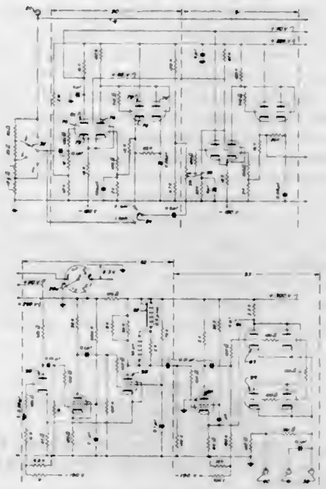
said load winding, and impedance means of such character as to pass said opposite-polarity half-wave current through said load winding portion in a direction opposite to said one direction, whereby reference flux level is established in said half-wave section.

2,839,618
HIGH INPUT IMPEDANCE SIGNAL-MONITORING APPARATUS
William J. Heacock, Jr., Levittown, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application February 14, 1955, Serial No. 487,851
7 Claims. (Cl. 179—171)



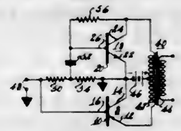
1. Apparatus for monitoring electrical signals with a minimum of loading on the signal source, the apparatus comprising: first and second cathode-follower stages coupled in cascade for translating the signal being monitored, the first stage including an electron-discharge device having an anode, a control electrode, and a cathode; a first circuit means for applying signal variations from an output terminal of the second stage to said anode for minimizing anode-to-cathode potential variations within the electron-discharge device of the first stage; a second circuit means for applying signal variations from the same output termnial of the second stage to said cathode for minimizing anode-to-cathode current flow variations within the electron-discharge device of the first stage; the output terminal of the second stage also serving as a terminal for supplying the translated signal to a utilization device.

2,839,619
PULSE AMPLIFIER
Charles Wilkin Johnstone, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application April 5, 1955, Serial No. 499,542
3 Claims. (Cl. 179—171)



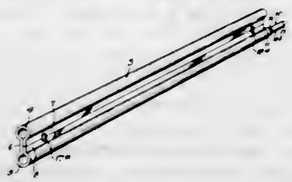
1. A non-overloading pulse amplifier comprising first and second amplifier tubes each having at least a cathode, a control electrode and an anode, a cathode follower having at least a cathode, a control electrode and an anode and a diode having a cathode and an anode; said amplifier tubes being cathode coupled by a common load resistor, means for coupling the anode of the second amplifier tube to the control electrode of the cathode follower, means for coupling the cathode of the cathode follower to an output terminal and to the control electrode of the second amplifier tube, means for coupling the inter-electrode space of said diode in shunt with the grid-cathode space of the cathode follower, and means for impressing input pulses on the control electrode of the first amplifier tube.

2,839,620
TRANSISTOR AMPLIFIER CIRCUITS
Frederick D. Waldhauer, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 26, 1955, Serial No. 524,477
11 Claims. (Cl. 179—171)



2. In a push-pull signal amplifier, the combination with a pair of transistors of opposite conductivity types each including a base, an emitter and a collector electrode, of signal input means connected for simultaneously applying an input signal to the base electrodes of said transistors, means providing a balanced output circuit for deriving a push-pull output signal from said amplifier connected between the collector electrode of one of said transistors and the emitter electrode of the other of said transistors and defining a signal conveying series path with the collector and emitter electrodes of each of said transistors, and means connecting said pair of transistors in parallel for direct-current including a direct-current supply source having a pair of terminals one of which is connected with the emitter of said one of said transistors and the collector of said other transistor and the other of which is connected to an intermediate point of said output circuit.

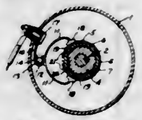
2,839,621
ELECTRICAL TROLLEY AND CONDUCTOR APPARATUS
Robert W. Boldt, Park Ridge, Ill., assignor, by mesne assignments, to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application February 25, 1953, Serial No. 338,782
1 Claim. (Cl. 191—33)



A conductor bar of sheet metal for electrical trolleys having a pair of hollow tubular loop portions and a central web portion interconnecting and between said tubular portions of a width greater than the internal diameter of said tubular portions, said web portion being of double thickness with one thickness being continuous and the other being split and having longitudinally extending side edges, said side edges lying side by side in close proximity to each other in said web portion between said tubular loop portions and the diameters of said

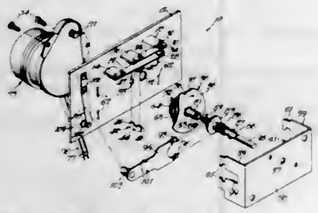
hollow tubular portions being substantially equal whereby said tubular portions may be used interchangeably for contact with an electrical trolley by reversing the conductor bar to expose one or the other of said tubular portions to the trolley.

2,839,622
DISTRIBUTORS FOR IGNITION SYSTEMS
Alfred H. Billings, San Francisco, Calif., assignor to Oscar Goebel and Paula E. Goebel, both of San Francisco, Calif.
Application September 25, 1956, Serial No. 611,904
3 Claims. (Cl. 200—24)



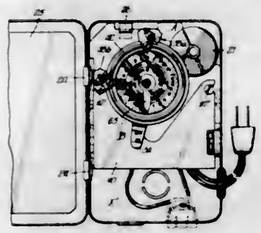
1. In a distributor for the circuit of an ignition system the combination with a camshaft and a base, a generally cylindrical rotating member on said shaft in said base, a generally insulating body forming said member, circumferentially spaced contacts in the periphery of said member being spaced apart to correspond to the desired cam-dwell for closing and breaking the circuit of said ignition system, means to electrically connect said contacts to the camshaft, and a stationary brush in said base bearing against the periphery of said rotating member, said brush including spring arms extended toward the periphery of said member, and a shoe formed on the end of each arm, bearing against said periphery, the width of each shoe being less than a spacing between adjacent contacts, and said shoes being spaced from one another generally at greater distance than the width of a spacing and a contact.

2,839,623
TIME SWITCH MECHANISM
Anthony D. Stolle, Chicago, Ill., assignor to International Register Company, Chicago, Ill., a corporation of Illinois
Application January 23, 1956, Serial No. 560,574
8 Claims. (Cl. 200—33)



1. In time switch mechanism of the class described, the combination of a set of main contacts, a rotatable circular cam having a cam track adapted to control said main contacts, said cam track having a recess therein rotatable into a contact actuating position where it causes actuation of said main contacts, a rotatable setting shaft connected with said rotatable cam, a manually rotatable and axially shiftable setting knob mounted on said setting shaft and operatively connected with said cam whereby the manual rotation of said setting knob in either direction is operative to rotate said cam in either direction to place said contact actuating recess in a preselected timing position spaced angularly from said contact actuating position, time driven means connected for rotating said cam in one direction at a timed rate from said preselected timing position which has been established through said knob into said contact actuating position, means mounting said setting knob for axial shifting movement from an inner position adjacent to said cam to an outer position more removed from said cam, a lever disposed adjacent to said setting shaft, pivot means defining a pivot axis for said lever extending substantially at right angles to the axis of said setting shaft, means responsive to axial shifting movement of said setting knob from said inner position to said outer position for imparting swinging movement to one end of said lever, a set of supplemental contacts responsive to swinging movement of the other end of said lever and movable to closed circuit position in response to axial shifting movement of said setting knob into its outer position, and spring means continuously opposing the axial shifting movement of said setting knob from said inner position to said outer position, whereby through the axial shifting movement of said setting knob said supplemental contacts can be moved to closed circuit position either preliminary to or concurrently with the rotative setting adjustment of said cam effected by manual rotation of said setting knob, but, whereby after said setting knob is released upon completing the cam setting operation said supplemental contacts are automatically restored to open circuit position by the action of said spring means operating to axially shift said setting knob back to its inner position.

2,839,624
SHORT INTERVAL TIME SWITCH
Anthony Dan Stolle, Chicago, Ill., assignor to International Register Company, Chicago, Ill., a corporation of Illinois
Application April 22, 1954, Serial No. 424,867
9 Claims. (Cl. 200—38)



1. In a time switch, the combination of switch contact means, spring biased switch actuating means normally holding said switch contact means in a first position, a continuously rotating time driven dial, and a switch actuating tripper carried by said dial and arranged to actuate said switch actuating means in opposition to its spring bias for moving said switch contact means to a second position, said spring biased switch actuating means automatically returning said switch contact means to said first position after completion of the switch actuating operation by said switch actuating tripper, said switch actuating tripper comprising an adjustable tripping cam arranged to impart movement to said switch actuating means and operable by movement to different positions of adjustment on said tripper to vary the length of time that said switch contact means will remain in said second position.

2,839,625
MECHANISM FOR CONTROLLING DEVICES ON SEWING MACHINES
Karl Winz, Kaiserslautern, Germany, assignor to G. M. Pfaff A.-G., Kaiserslautern, Pfalz, Germany, a corporation of Germany
Application August 13, 1954, Serial No. 449,580
Claims priority, application Germany August 17, 1953
1 Claim. (Cl. 200—52)

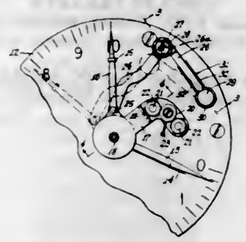
A mechanism, for use in connection with a sewing machine having an oscillating element and a movable

device in driving connection with said oscillating element, said mechanism comprising in combinaton, an actuator secured to said element and oscillating therewith about an axis and having an end portion describing an arc about said axis, two sets of electric contacts normally closed including contact members oppositely disposed about said actuator portion and projecting into said arc, said actuator being operable to engage in each direction



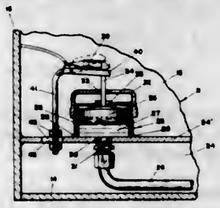
of oscillation with its end portion a member to open the contact thereof, each contact set comprising a housing, said member including a plate having an aperture defining a seat and a spring pressed metallic sphere fitting on said seat to close an electric circuit and projecting for a short distance through said aperture into the path of said actuator portion and engageable thereby to be removed from its seat to interrupt said circuit.

2,839,626
ADJUSTABLE METER CONTACT
Knud J. Knudsen, Woodbury, Conn., assignor to The Lewis Engineering Company, Naugatuck, Conn., a corporation of Connecticut
Application September 21, 1955, Serial No. 535,689
5 Claims. (Cl. 200—56)



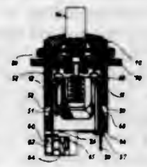
1. In an instrument having an element movable along a path and forming part of an electrical switch, and a contact forming the other part of the electrical switch, the invention which comprises means for adjusting and setting said contact in the desired location in the path of movement of the element, said means including an arm carrying the contact, a rotatable member accessible from the exterior of the instrument, and linkage interconnecting the rotatable member and the arm so that rotation of the member in one direction causes oscillation of the arm.

2,839,627
LEVEL SENSITIVE SWITCHING MEANS
Manley R. Sackett, Spokane, Wash.
Application May 18, 1953, Serial No. 355,840
6 Claims. (Cl. 200—61.52)



5. In a level sensitive switch actuator for mobile equipment the combination with a pendulous frame swivel-mounted on a normally horizontal fixed axis supported on the equipment and disposed parallel with the plane of tilt to be corrected and having an arrestor to decelerate its swivel movement; of a pair of reservoirs supported on the frame and spaced from each other parallel to said axis and containing switch actuating floats; a conduit intercommunicating said reservoirs; a liquid confined in said reservoirs and conduit and supporting said floats and free flowing to seek a level in the course of tilting movement of said equipment; and a manually operable displacement member movable into and out of the liquid body to provide means for selectively adjusting the liquid level in the reservoirs.

2,839,628
ELECTRIC SNAP ACTION OR TUMBLER SWITCH
Ernö Reich, Rudolf Marton, and Ferenc Szika, Budapest, Hungary, assignors to "Licencia" Talalmanyokat Ertekesito Vallalat, Budapest, Hungary
Application June 21, 1955, Serial No. 517,034
Claims priority, application Hungary June 26, 1954
8 Claims. (Cl. 200—67)

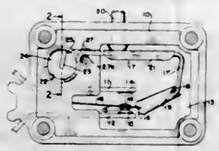


1. A snap action electric switch assembly comprising a housing having side walls and a top wall, a passage in said top wall, a pair of electrically separated stationary connection contact means and at least one pair of electrically separated stationary connection counter-contact means positioned in said housing, a pair of electrically separated movable contact means each conductively mounted on one of said stationary connection contact means for reverse pivotal joint movement around a first axis between angularly spaced rest positions and adapted to contact with one of said stationary connection counter-contact means in at least one of said rest positions, operating handle means passed through said passage in said top wall and non-conductively mounted on said pair of stationary connection contact means for reverse pivotal movement around a second axis different from said first axis, a spring-loaded toggle mechanism inserted between said pair of movable contact means and said operating handle means and adapted to snap over said pair of movable contact means from one of said rest positions into the other upon cocking said operating handle means, said pair of stationary connection contact means, said pair of movable contact means, said spring-loaded toggle mechanism, and said operating handle means forming a constructional unit adapted to be mounted in and removed from said housing as a whole.

2,839,629
SWITCH OR THE LIKE
Theodore Y. Korsgren, Jr., Woodbury, Conn., assignor to Haydon Switch, Incorporated, Waterbury, Conn., a corporation of Connecticut
Application November 15, 1956, Serial No. 622,455
10 Claims. (Cl. 200—67)

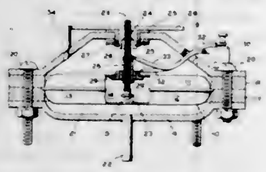
1. In a switch of the type having a casing, a pair of fixed contacts mounted in said casing and disposed in spaced relation, a movable spring contact element mounted at one end in said casing and extending between said fixed contacts, a spring-like actuating member mounted in said casing and having a tip portion spaced outwardly of said spring contact element, and a toggle

element interconnecting said spring contact and actuating member; the improvement in said casing and actuating member characterized by said casing having a generally circular transverse opening therein extending from one side to the other of said casing, a first plurality of circumferentially spaced integral bosses projecting radially inward from the wall of said opening and forming a first plurality of spaced abutment surfaces, said abutment surfaces defining an internal shoulder within said opening, a second plurality of circumferentially spaced integral bosses projecting radially inward from said wall and forming a second plurality of spaced abutment surfaces, said second plurality of abutment surfaces defining



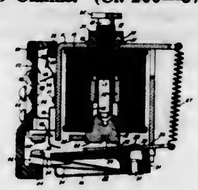
a second internal shoulder spaced from and facing said first shoulder, said bosses being so arranged that the bosses of one plurality thereof are aligned with the spaces between the bosses of the other plurality thereof, said actuating member having a generally circular anchor portion formed of resilient material and having a normal diameter greater than the diameter of the reduced opening defined by said bosses, said anchor portion being deformable to a reduced diameter for insertion axially into said opening and being of a width to be received between said shoulders, said casing having a recess therein connecting said opening and adapted to receive said actuating member upon insertion of said anchor portion into said opening.

2,839,630
PRESSURE-RESPONSIVE SWITCH
Louvan E. Wood, Glenarm, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application June 20, 1955, Serial No. 516,461
10 Claims. (Cl. 200—83)



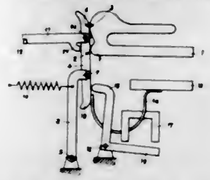
1. In a pressure-responsive switch, an aneroid cell made up of a pair of reversely dished shells connected to one another at their peripheral edges and defining an aneroid chamber therebetween, said shells being formed of metallic sheets having substantially the same gauge thickness, one only of said shells being free to respond to changes in pressure and hence to function as a pressure-responsive diaphragm, the other of said shells being formed with an opening substantially centrally thereof, contact and terminal-supporting means projecting through said opening into the interior of said chamber, an airtight seal through which said contact-supporting means projects, housing members supporting said cell from the peripheral edge thereof and also backing up said contact and terminal-supporting means, and means for moving said contact and terminal-supporting means bodily in a contact-settling direction without imparting rotation thereto, said diaphragm being substantially free of attachments or the like tending to "load" the diaphragm.

2,839,631
ELECTROMAGNETIC DEVICE
Neil O. Rice, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 28, 1954, Serial No. 446,325
9 Claims. (Cl. 200—87)



1. An electromagnetic device comprising an alternating current electromagnet having an adjustable core member of predetermined diameter and including means to provide magnetic fields of different phase, and a movable armature wider than said predetermined diameter pivotally connected to said electromagnet and held by the attraction of said magnetic fields in a position to define with said core member an air gap of tapering length, said gap providing air paths of different average lengths for said magnetic fields, said core member being adjustable with respect to said armature to change the average length of air path of one of said magnetic fields with respect to the average length of air path of the other magnetic fields.

2,839,632
CIRCUIT BREAKER
Claude Varichon, Lyon, France, assignor to Compagnie Generale d'Electricite, Paris, France, a corporation of France
Application November 10, 1955, Serial No. 546,208
6 Claims. (Cl. 200—87)

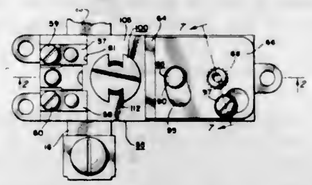


1. A control mechanism for the contacts of a rapid-action low-voltage circuit breaker comprising principal contact means, arcing contact means and movable contact means, means for pivotally supporting said movable contact means at said circuit breaker intermediate the two ends of said movable contact means to provide one end part thereof pivotally disposed adjacent said arcing contact means and adapted to be in current conducting engagement therewith, electromagnetic control means including an electromagnet with an armature for increasing the contact pressure between said one part of the movable contact means and said arcing contact means during operation of the circuit breaker to interrupt a short-circuit current, and linkage means for connecting said armature with the other end part of said movable contact means to increase said contact pressure upon energization of said electromagnet by rotation of said movable contact means about said pivot means.

2,839,633
CIRCUIT BREAKING DEVICE
David F. Moyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 28, 1954, Serial No. 446,210
11 Claims. (Cl. 200—113)

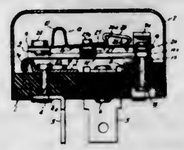
1. In a circuit breaking device having a movable thermally responsive element to actuate the device, the

improvement comprising, spring means engaging said element to resist movement thereof in one direction, plug means positioned between said spring means and a fixed stop to regulate the compressive effectiveness of the spring means and removable for exchange with other plug means of different length to change the compressive effectiveness of the spring means and thereby its resistance to movement of the said thermal element, and a heat conductive mass having a high capacity of heat absorption engaged by the thermal element when the said



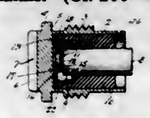
element is inactive at normal ambient temperature to absorb heat from the element during initial actuating heating thereof to delay its initial temperature rise for actuation of the said device only until the thermal element moves out of engagement with the said mass, the said mass being removable for exchange with other heat conductive masses of other mass size to change thereby the heat rise thermal characteristic of the thermal element only until the thermal element moves out of engagement with the mass.

2,839,634
ELECTRIC SWITCH
Joseph C. Clark, Orlando, Fla., assignor to Johnson Electronics, Inc., Casselberry, Fla., a corporation of Florida
Application January 30, 1956, Serial No. 562,233
5 Claims. (Cl. 200—113)



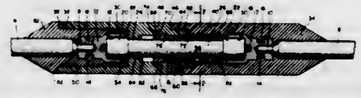
1. A self-actuating flasher switch comprising an insulating base, an elongated conductive switch arm having spaced flexible and resiliently extensible side pieces interconnected by a pair of spaced end pieces, first connecting terminal means affixing one of said end pieces to said base, a movable electric contact affixed to the other of said end pieces, a second connection terminal on said base, a stationary contact on said base engaged by said movable contact, elongated electroresponsive means supported at one end by said stationary contact and at the other end by said second connection terminal and disposed adjacent and extending generally parallel to said switch arm, a first incompressible toggle link formed integrally with one end piece and disposed generally between said side pieces and having a movable end portion spaced from said one end piece, an insulating button rockably attached to said movable end portion and engaged against said electroresponsive means, said first toggle link being biased in a direction to cause said button to deflect said electroresponsive means upon expansion thereof, and a second incompressible toggle link interposed between said first toggle link and the other of said end pieces, said second toggle link being provided with spaced grooves for respectively receiving said first toggle link and said other end piece, said toggle links constituting a toggle movable from one overcenter position to another for imparting transverse snap action movement to said movable contact alternately to and from said stationary contact in a direction generally opposite to the direction of overcenter movement of said toggle and for wiping said movable contact on said stationary contact.

2,839,635
LIGHTNING ARRESTERS
Walter C. Hasselhorn, Evanston, Ill., assignor, by mesne assignments, to Cook Electric Company, Chicago, Ill., a corporation of Delaware
Application November 1, 1956, Serial No. 619,903
8 Claims. (Cl. 200—118)



1. A button-type lightning arrester comprising two parts, one of which is grounded and the other of which includes an electrode adapted for connection to a line terminal, means for positioning said electrode with respect to said grounded part, a second electrode spaced from said first electrode to form a discharge gap, and means for connecting said second electrode electrically to said grounded part, said means including a bimetallic plate supported at its periphery by a relatively flat surface shoulder on one side and a tapered shoulder on the other side whereby the periphery of said bimetallic plate will engage said tapered shoulder to restrict the warping of said bimetallic plate when it is flexed by the heat of a discharge at said gap.

2,839,636
ELECTRICAL CONNECTION
Robert R. Brown, Mountainside, N. J., assignor to Elastic Stop Nut Corporation of America, Union, N. J., a corporation of New Jersey
Application November 17, 1955, Serial No. 547,358
14 Claims. (Cl. 200—133)

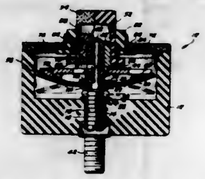


1. An electrical connection between a plurality of cables each of which has a conductor covered with insulating material, comprising an electrically conductive connector element in electrical contact with each said conductor, first and second casings of insulating material bonded to the insulating material of said cables, and an assembly including an electrical circuit element having a terminal in separable engagement with each said connector element and a third casing of insulating material having portions separably overlapping and providing water seals with corresponding portions of said first and second casings and being in interference fit therewith, said third casing having a lengthwise opening and an annular shoulder at one end of said opening and said circuit element having a first portion in said opening and in snug engagement with the wall of said opening and a second portion of larger diameter than said opening abutting said shoulder to position said circuit element with respect to said third casing.

2,839,637
THERMALLY RESPONSIVE DEVICE
Henry David Epstein, Boston, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application April 8, 1957, Serial No. 651,469
8 Claims. (Cl. 200—138)

2. In combination: a composite, snap-acting element automatically snappable from a first condition to a tripped

condition in response to temperature change in one direction; a member; means mounting said member for movement from a first position to a second position; means yieldingly biasing said member from said first position toward said second position; said snap-acting element, in said tripped condition, engaging and retaining said member in said first position against the yielding



bias of said biasing means and, in said first condition, permitting movement of said member under said yielding bias from said first position toward said second position; and stop means operatively associated with said member for preventing movement of said member under said yielding bias past said second position and into engagement with said snap-acting element when the latter is in said first condition.

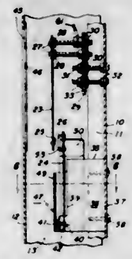
2,839,638
THERMALLY RESPONSIVE SWITCH STRUCTURES
Henry David Epstein, Boston, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application March 28, 1957, Serial No. 649,206
4 Claims. (Cl. 200—138)



2. A composite, thermally responsive, snap-acting element; said element carrying a pair of electrical contacts and being responsive to temperature change in one direction automatically to snap from a first condition to a second condition; said contacts being electrically connected to said element and disposed in mutually spaced, diametrically opposed relation to each other; a pair of extensions carried by said element; said extensions being disposed in mutually spaced, diametrically opposed relation to each other; and each of said extensions extending from said element in a direction substantially perpendicular to a line joining said contacts and in a direction away from the other extension.

2,839,639
THERMAL SWITCH FOR FIRE ALARMS AND THE LIKE
Saul H. Adlerstein, Brooklyn, N. Y., assignor of one-half to Samuel Lokin, Brooklyn, N. Y.
Application April 23, 1957, Serial No. 654,498
9 Claims. (Cl. 200—138)

1. In a device of the character set forth, the combination of a support, an elongated body of metal mounted on the support and having a flat longitudinally extending face, a first flat bi-metal thermostat strip having a length at least equal to the length of said body and extending in laterally opposed parallel relation to the latter, means connecting one end of said strip in heat conducting relation to one end of said body with the major portion of the strip in closely spaced relation to said flat face of the body, a second flat bi-metal thermostat strip with means supporting it by one of its ends from said support with the free ends of said first and second strips in laterally overlapping but spaced relation, and coacting electrical contacts on said overlapped free ends of the two strips, said first and second strips having the same bowing characteristics and being arranged to bow in the same direction under changes in temperature of the ambient air, and said metal body having such dimen-



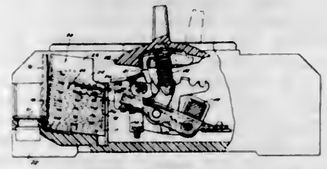
sions as to provide a relatively large metal mass the temperature of which will rise slowly upon a sudden rise in the temperature of the ambient air, the size of said metal body, its close proximity to said first strip and the heat-conducting connection between them causing said first strip to bow more slowly than said second strip upon a sudden rise in temperature.

2,839,640
THERMOSTATS
Henry David Epstein, Boston, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application April 24, 1957, Serial No. 654,684
31 Claims. (Cl. 200—138)



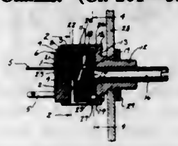
1. A thermostat comprising a metal support having a hole therein, a metal post having a press fit in the hole, at least one of these parts having a relatively soft metal surface providing a smear weld between the post and the support, and a thermostatic element mounted on the post, said smear weld allowing for axial adjustment of the post in the hole by pressing for calibration purposes and acting to hold the post accurately positioned after adjustment.

2,839,641
ARC SHIELD FOR CIRCUIT BREAKER ARC QUENCHER
William Harold Edmunds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application September 30, 1954, Serial No. 459,250
4 Claims. (Cl. 200—144)



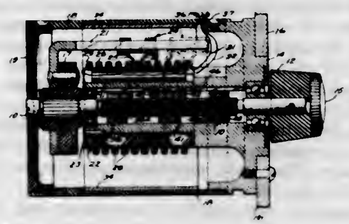
1. A circuit interrupter having a pair of cooperating contacts with an engaged and disengaged position; said circuit interrupter automatically opened on the occurrence of a fault current existing on the line being protected by said circuit interrupter; an arc chute surrounding said pair of cooperating contacts; said arc chute being comprised of a plurality of spaced plates; an insulated housing for said plurality of spaced plates forming a substantially U-shaped member having a base; said base forming the back of said arc chute structure and extending in a direction substantially parallel to the plane of movement of said cooperating contacts; said housing having a plurality of openings in the back thereof; a flexible arc shield made of insulated material sealing off said openings when said cooperating contacts are in the engaged position; said flexible arc shield bent away from said openings on the occurrence of circuit interruption to permit hot gases to exhaust from said arc structure through said openings.

2,839,642
VARIABLE RESISTANCE DEVICE
Clarence R. Dickinson, Greendale, and Bernhard F. Tellkamp, Muskego, Wis., assignors to Allen-Bradley Company, Milwaukee, Wis., a corporation of Wisconsin
Application October 13, 1953, Serial No. 385,848
5 Claims. (Cl. 201—55)



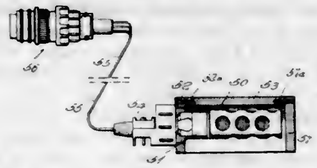
1. In a variable resistance apparatus the combination of a base having a front face with an arcuate resistance track, side faces extending rearwardly from the front face, and an extension rearward of said side faces that has sidewardly facing orientating walls set back from said side faces to form a rearwardly facing ledge; a cover formed of a thin metallic sleeve that is flanged inwardly at the rear with inner edges of the flanging closely conforming with said orientating walls, said cover encircling said base with the flanging seated upon said ledge and positioned by the conformance of said flanging inner edges with said orientating walls whereby the inner surface of said sleeve extends forwardly from the ledge at a predetermined spaced distance from said side faces of said base to present a gap therebetween; clamping means on said base holding said flanging against said ledge; a shaft supporting member to the front of said base mounted on said cover; and an operating shaft assembly borne by said shaft supporting member including a sliding contact bearing upon said resistance track.

2,839,643
PRECISION POTENTIOMETER
Americo A. Vercesi, Scarsdale, N. Y., assignor to Ford Instrument Co. Division of Sperry Rand Corporation, Long Island City, N. Y., a corporation of Delaware
Application September 17, 1956, Serial No. 610,301
4 Claims. (Cl. 201—56)



1. A precision potentiometer comprising a stationary drum having a helical thread on its periphery, a resistance wire helically disposed upon the outer face of the helical thread, a stationary conductive sleeve concentrically surrounding the drum, an arm disposed within the space between the drum and sleeve and rotative concentrically about the drum, a pick-off contact member slidably mounted on said arm and having a radial extension engaging in said helical thread, a flexible finger on the contact member resiliently bearing against the resistance wire, and a second flexible finger on the contact member resiliently bearing against the inner surface of the sleeve.

2,839,644
APPARATUS FOR DETERMINING HUMIDITY CONDITIONS IN MATERIALS
Carlton E. Ohlheiser, Silver Spring, Md., assignor to The American Instrument Company, Silver Spring, Md., a corporation of Maryland
Original application November 3, 1948, Serial No. 58,146, now Patent No. 2,655,734, dated October 20, 1953. Divided and this application October 16, 1953, Serial No. 386,499
5 Claims. (Cl. 201—63)



1. A humidity sensing device comprising a substantially semi-cylindrical casing open at one side thereof and terminating in substantially semi-circular end plates conforming in contour with said substantially semi-cylindrical casing, and forming a substantially semi-cylindrical housing, a socket mounted in one of said end plates, a humidity sensing element of the electrical winding type extending longitudinally of said housing and supported in said socket and electrical connections extending exteriorly of said housing and connected with said socket for establishing electrical connections to the electrical winding of said humidity sensing element, said semi-cylindrical housing being spaced from said humidity sensing element sufficiently to allow the accumulation of air completely around the humidity sensing element for measurement of the average humidity conditions within the area of the open side of said housing.

2,839,645
PHOTOCELL STRUCTURE
Frank A. Hester, New York, N. Y., assignor to Clairex Corporation, New York, N. Y., a corporation of New York
Application June 14, 1954, Serial No. 436,480
8 Claims. (Cl. 201—63)



1. A photocell comprising a transparent plastic body, a photoconductive crystal embedded in said body and exposed to rays transmitted through one end of the body, a transparent mass of semifluid material disposed between the crystal and body, a pair of heat resistant electrodes in contact with the crystal, and a plurality of lead wires electrically connected to said electrodes, said

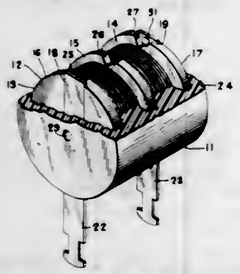
mass serving as a buffer to insulate the crystal from mechanical shocks and strains transmitted through the body.

2,839,646
PHOTOCELL STRUCTURE
Frank A. Hester, New York, N. Y., assignor to Clairex Corporation, New York, N. Y., a corporation of New York
Application November 14, 1955, Serial No. 546,494
3 Claims. (Cl. 201—63)



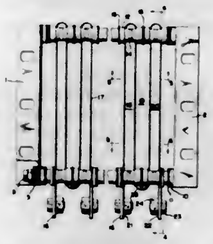
1. A cell having electrical conductivity responsive to the intensity of rays incident thereon, comprising a transparent cylindrical body, an opaque coating covering the body with one end of the body being uncoated to leave a window therein transparent to said rays, a rigid flat opaque cylindrical platform embedded in the body, said platform having a flat ray reflective end surface disposed parallel to said one end of the body, a pair of electrodes painted on opposite sides of the platform, a crystal element disposed on the body and spaced from said reflective surface thereof, solder means securing the crystal element to the platform, a cap transparent to said rays embedded in said body over said platform and spaced from said crystal element, said cap enclosing the crystal element in a gas-tight chamber in said body, a pair of electrically conductive wires extending through said body and terminating at the opposite flat end of the platform, said wires being electrically connected to said electrodes, said electrodes having a heat conductivity characteristic substantially less than that of said conductive members, and a gaseous medium chemically inert with respect to the crystal element filling said chamber, so that the crystal element is insulated by said cap and said electrodes from thermal and mechanical shocks applied to the body.

2,839,647
BOBBIN RESISTOR
Stanley O. Dorst, North Adams, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application July 1, 1953, Serial No. 365,460
3 Claims. (Cl. 201—64)



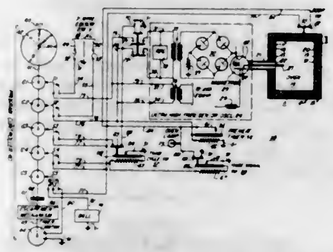
1. An electrical resistor having a compact resistor bobbin comprising an elongated core with a plurality of outwardly projecting integral flanges, each between about 1/32 and 1/16 inch thick and defining between them resistance-winding-receiving grooves, said bobbin being a single mass of aluminum coated on its external surfaces with an in situ formed adherent insulating oxide layer, with electrical resistance windings in the grooves, the combination being encased in an in situ cured resin of the class consisting of phenol-formaldehyde, urea-formaldehyde, melamine-formaldehyde and aniline-formaldehyde resins.

2,839,648
RESISTOR MOUNTING STRUCTURE
Robert E. Du Bois, Hammond, Ind.
Application July 5, 1956, Serial No. 596,058
4 Claims. (Cl. 201—69)



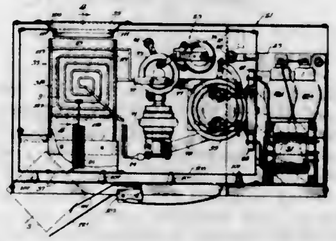
1. A resistor structure comprising frame members, means interconnecting said frame members and holding them in rigid spaced relationship, terminal means carried by certain of said interconnecting means, resistor means abutting said interconnecting means, said resistor means being constrained to move longitudinally of itself by said interconnecting means, and means to removably secure said resistor means to the structure only at said terminal means.

2,839,649
CONTROL CIRCUITS FOR ELECTRONIC RANGES
Edward L. Macoicz, Chicago, Ill., assignor to General Electric Company, a corporation of New York
Application May 17, 1956, Serial No. 585,456
11 Claims. (Cl. 219—10.55)



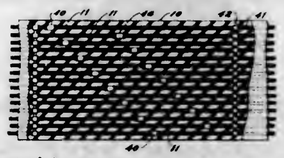
1. In heating apparatus including a metallic enclosure adapted to serve as an oven, and an oscillator operative to supply electromagnetic wave energy to the interior of said enclosure in order to heat a dielectric body positioned therein; the control circuit combination comprising a source of electric power, auxiliary equipment operatively associated with said oscillator and operative to condition said oscillator for operation, a relay operative to connect said power source to said oscillator in order to effect operation of said conditioned oscillator, a signal device operative to indicate a given condition of said oven, a program controller having an off position and a signal position and a variable on position, said program controller in its variable on and signal positions effecting operation of said auxiliary equipment and in its off position effecting restoration of said auxiliary equipment, said program controller in its variable on position effecting operation of said relay and in its off and signal positions effecting restoration of said relay, said program controller in its signal position effecting operation of said signal and in its off and variable on positions effecting restoration of said signal, a manually operable device for selectively operating said program controller into any one of its positions, and timing means responsive to operation of said program controller into its variable on position for returning the same back into its signal position in a corresponding variable time interval.

2,839,650
SANDWICH HEATING MACHINE
Jerome R. White and Kurt R. Thuler, Chicago, and Jack C. Webb, Winnetka, Ill., assignors to The Jack Webb Corporation, Chicago, Ill., a corporation of Illinois
Application February 14, 1956, Serial No. 565,394
7 Claims. (Cl. 219—10.67)



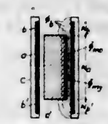
5. A high frequency system which is adapted to effect the rapid heating of food products or the like comprising a guideway of insulating material having parallel side walls between which the article to be heated is disposed during the heating operation, a high frequency generator circuit, a pair of high frequency heating coils which are connected in parallel in said circuit, said coils having generally rectangular convolutions of increasing size which are positioned in a single plane, said coils defining an area substantially coextensive with said article, said coils being arranged in parallel planes outside of the side walls of said guideway.

2,839,651
HEATING RUBBER-COVERED CONVEYOR BELTS
Lewis C. Erickson, Duluth, Minn., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application January 14, 1954, Serial No. 403,949
6 Claims. (Cl. 219—10.69)



1. Bulk material conveyor apparatus comprising conveyor frame stringers, a head pulley and a tail pulley on said stringers, a series of belt-troughing idler rolls on said stringers intermediate said head pulley and said tail pulley, a series of transverse idler rolls on said stringers opposite said belt-troughing idler rolls, an endless flexible rubber-covered conveyor belt trained about said head pulley and said tail pulley to provide a load-carrying reach supported by said belt-troughing idlers and a return reach supported by said transverse idler rolls, said belt having transverse flexibility to conform to the troughed contour of said troughing idler rolls and said belt having a flexible dielectric rubber body and a series of laterally spaced flexible metal reinforcing members entirely encased in said rubber body and extending longitudinally through the body, the opposite ends of said reinforcing members being interconnected to include each said metal reinforcing member in a closed electrical circuit, and endless permeable metal core encircling one reach of the belt in spaced relation thereto so that the core is magnetically linked with a circuit formed by said internal reinforcing members and so that the belt is movable longitudinally relative to the core, and a coil wrapped on said core to induce magnetic flux in said core, said coil being adapted for the reception of electrical energy and through the agency of said core to induce a heating current lengthwise through said metal reinforcing members whereby said surrounding rubber body is heated by conduction from said metal reinforcing members.

2,839,652
LOW FREQUENCY INDUCTION FURNACE
Ludwig Dreyfus, Vasteras, Sweden, assignor to Allmänna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application November 19, 1956, Serial No. 622,911
Claims priority, application Sweden November 22, 1955
2 Claims. (Cl. 219—10.75)

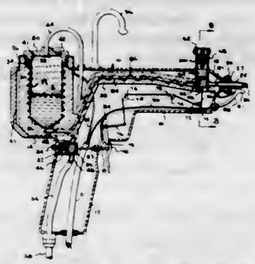


1. Low frequency induction furnace comprising a cylindrical coil energized by a single-phase alternating source, at least one of the ends of said coil projecting beyond the length of the charge to be heated characterised in that the coil is divided by additional taps into a main section comprising N_a turns and covering the length of the charge to be heated and one projecting section comprising N_b turns for bar heating, and two projecting sections N_b and N'_b for billet heating and in that the main section and the projecting sections are fed separately by voltages E_a and E_b and E'_b respectively in phase agreement of such values that

$$\frac{E_b}{N_b f_b} = \frac{E_a}{N_a f_a} = \frac{E'_b}{N'_b f'_b}$$

wherein f is the winding factor of the sections.

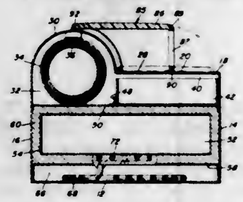
2,839,653
EJECTOR TYPF, ELECTRICAL SOLDERING GUN
Rodney L. Kane, Chicago, Ill.
Application August 16, 1957, Serial No. 678,494
5 Claims. (Cl. 219—27)



1. An electrical soldering gun comprising a body including a handle, a casing, and a barrel all connected in communication with each other; a solder pot within the casing; a nozzle projecting forwardly from the barrel; a conduit for molten solder extending from the pot to the nozzle; a pressure fluid conduit extending into the pot for creating pressure therein to force solder from the pot through the solder conduit and nozzle; valve means for controlling flow through the respective conduits; a

valve operator mounted on the body and connected to the respective valve means; and electrical resistance means extending in proximity to the pot for heating solder confined therein, said electrical resistance means extending also in proximity to the solder conduit and nozzle for maintaining in molten condition solder flowing through the solder conduit and nozzle, the electrical resistance comprising a resistance wire coiled spirally about the pot, and continuing in spiralling fashion along the length of the solder conduit and nozzle, said electrical resistance means further including a nose-like projection disposed exteriorly of and mounted upon the barrel, adjacent the nozzle, in laterally spaced relation to the nozzle so as to be applicable to solidified solder for melting the same, said nose-like projection being connected in circuit with the spiralling resistance element.

2,839,654
LUNCH BOX WITH HEATING UNIT
Richard M. Jones and Dollin L. Robinson, Jr., Long Beach, Calif.
Application August 7, 1956, Serial No. 602,618
3 Claims. (Cl. 219—35)



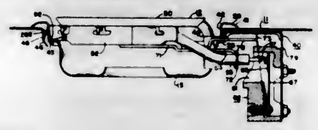
1. A lunch box comprising a container having walls and a door, an insulated oven having a heating element, a food storage compartment above said oven having one wall common to said oven, a liquid bottle compartment in said container and alongside of said storage compartment, a handle on the container top wall and including a handle member with two ends, a link connecting one end to said top wall above said storage compartment, and means slidably connecting the other end of said handle member to said top wall so that the handle is movable to an inoperative position flush against said top wall, said heating element being of the electrical type, an electric wire connected thereto, and a wire storage compartment in said container.

2,839,655
ELECTRIC HEATER APPARATUS
George E. Price, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 31, 1956, Serial No. 601,253
4 Claims. (Cl. 219—37)



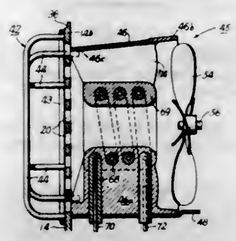
1. An electric heater structure comprising a platform having an opening therein, a wall depending from said platform at one side of said opening, an electric heater supported in said platform opening, said depending wall having an aperture therein, a horizontal bar attached to said heater and extending from one side thereof through said aperture to form a swiveling connection between said heater and said wall, latching means at the opposite side of said platform opening engageable with a portion of said heater for retaining the latter in a horizontal position in the platform opening and spring means connected between the outer end of said bar and said wall for biasing said heater horizontally into latching engagement with said latching means, said spring means being so constructed and arranged as to prevent withdrawal of said bar from said aperture.

2,839,656
RANGE APPARATUS
Paul M. Weyrick, Ashland, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 3, 1956, Serial No. 625,744
6 Claims. (Cl. 219—37)



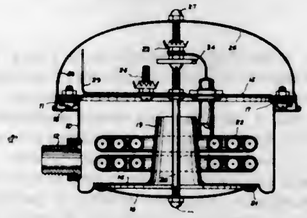
1. An electrical heating unit structure comprising a thin metal platform having an opening therein, a heater supporting ring disposed in said opening and having a flange overlying the periphery of said opening, a heater removably supported in said opening by said ring, said heater having terminals extending beneath and to one side thereof, said terminals extending laterally beyond the edge of the opening, a stationary terminal block supported beneath said platform and containing contact members abutted by said terminals and readily detachable means for securing said block to said platform, said means being attached to the latter at the edge of said opening and at a point concealed by said ring when viewed from above.

2,839,657
SPACE HEATER
Lowell R. Mast, East Rochester, N. Y., assignor to Commercial Controls Corporation, Rochester, N. Y.
Application November 1, 1956, Serial No. 619,753
14 Claims. (Cl. 219—39)



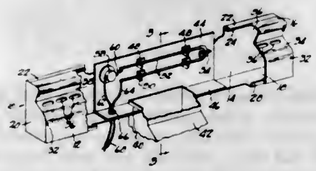
14. In an electric space heater, the combination of a base, a front wall and a back wall, a pair of opposing side plates extending between said front and back walls, a cover member U-shaped in cross-section and adapted to rest on said front and back walls and side plates, a base plate secured to said side plates and extending across said heater to divide it into upper and lower compartments, a tubular baffle in said upper compartment, an encased heating element in said baffle, a fan adapted to pass air over said element to be heated thereby, means forming apertures in one of said end walls in said upper compartment for egress of heated air, means forming a louvered aperture in another wall of said upper compartment for ingress of unheated air, said baffle being spaced from said side walls to form an insulating chamber between the surface of said baffle and said side walls, the terminals of said heating coil being disposed in said lower compartment, all water susceptible electrical parts in said lower compartment being spaced from said base and said side plates and walls, said base being substantially weather impervious but having an aperture for moisture drainage, whereby moisture may drain from said lower compartment before rising to the level of said water susceptible parts.

2,839,658
WATER HEATER
Alfred Oliver Cromwell Ives, Kensington, Western Australia, Australia, assignor to Values Pty. Limited, Perth, Western Australia, Australia, a corporation of Western Australia
Application December 6, 1956, Serial No. 626,665
Claims priority, application Australia December 12, 1955
4 Claims. (Cl. 219—39)



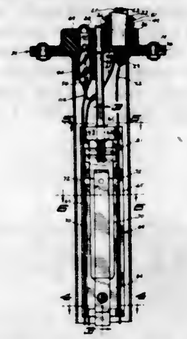
1. An electric water heater of the instantaneous flow type comprising a container closed at the top by means of a cover plate, a water inlet positioned close to the bottom of the container and adapted to be connected to a water supply through a manually operated control valve, a shower rose fitted into the bottom of the container so that the perforated portion projects therefrom and the inlet end of the rose is close to the top and in direct communication with the interior of the container so that when the control valve is opened the water flows freely through the water inlet, the container and the rose, and a sheathed electric heating element positioned within the container around the inlet end of the rose, the terminals of the element projecting through said cover plate and being connected to an electric power supply through a manually operated switch.

2,839,659
HEATING SYSTEM AND HEAT DIFFUSER THEREFOR
Louis C. Cotts and Henry G. Brenner, Michigan City, Ind.
Application October 28, 1957, Serial No. 692,872
23 Claims. (Cl. 219—39)



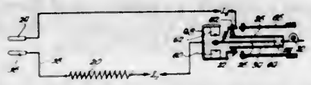
6. An air diffuser comprising a housing including top, bottom, front, back and end walls and having an air inlet opening and an air outlet opening, said air outlet extending substantially full length of said housing intermediate the height thereof at said front wall, whereby the part of said housing above said outlet constitutes a conversion chamber for converting velocity pressure to static pressure, and an electrical heating element in said housing, said housing being horizontally elongated with said air outlet extending substantially full length thereof and said heating element being of shorter length and at least partially located in said conversion chamber and adjacent to said inlet to intercept air flowing from said inlet.

2,839,660
IMMERSION HEATER
John G. Davies, Minneapolis, Minn., assignor to Carroll H. Neely, Cresco, Iowa
Application August 13, 1956, Serial No. 603,643
9 Claims. (Cl. 219—41)



3. In an immersion heater, a body member having a flanged open end, a cooperating cap member having a periphery congruent therewith, a resilient seal member between said cooperating cap and said flanged end and likewise having a periphery congruent therewith, means securely drawing said cap member, flanged end and resilient seal member into cooperating fluid-tight abutment and said cap having an aperture through which a connecting cable is adapted to extend and said cable being anchored to said seal member interior thereof by frictional engagement with said seal.

2,839,661
COFFEE MAKER AND SWITCH THEREFOR
Charles D. Visos, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application July 27, 1954, Serial No. 446,135
11 Claims. (Cl. 219—44)

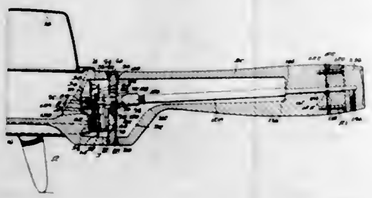


1. In a coffee maker of the vacuum type having a lower bowl and an upper bowl, the improvement comprising: a heater for the lower bowl, and an energizing means for the heater including a single three-position switch for selectively setting a coffee brewing cycle either for regular-type coffee or for instant-type coffee, said switch including a movable contact arranged for movement to a first regular-type coffee brewing position and to a second instant-type coffee brewing position and to a third coffee-keep-warm position, and thermostatically controlled means operatively associated with said switch and movable contact for terminating heating after the coffee has been brewed with said contact in either said first or second position and for thereafter moving said contact to said third position and initiating heating for keeping the coffee warmed.

2,839,662
ELECTRIC COOKING UTENSIL
John P. Theisen, Jacksonville, Ill., assignor, by mesne assignments, to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application October 18, 1954, Serial No. 462,728
5 Claims. (Cl. 219—44)

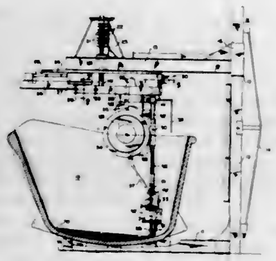
1. In combination, an electrically energized cooking vessel of metal having formed integrally therewith a housing extending outwardly from one side of the vessel

and surrounding a cavity within which is mounted thermostatically controlled switch means for said electrically energized vessel; an elongated hollow handle of heat insulating material for connection at a pre-selected attitude to said cooking vessel, one end of said handle adapted to be connected to said vessel, the extended end of said handle carrying thereat a selectively adjustable thermostat control knob rotatable about an axis extending longitudinally of said handle; a ring-like spacer member disposed between the terminal end of said outwardly extending housing on said vessel and the terminus of said one end of said handle, with one side of said spacer facing



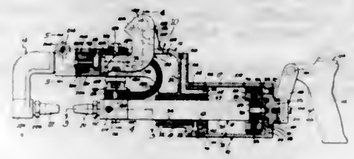
the terminus of the housing and the other side of said spacer facing the terminus of the handle; one pair of said facing sides, of the housing and spacer and of the handle and spacer, having formed therein a pair of similarly shaped and opposed recesses; a liquid-tight gasket disposed between said one pair of facing sides, and arranged to enter the similarly shaped recesses in said one pair of facing sides, and liquid-tight gasket means disposed between the other said pair of facing sides; and means clamping the handle, spacer, vessel, and gaskets therebetween together to provide a liquid-tight cooking vessel that is immersible in liquid for cleaning purposes.

2,839,663
WELDING APPARATUS
James T. McCollom, Anaconda, Mont., assignor to The Anaconda Company, a corporation of Montana
Application March 6, 1957, Serial No. 644,333
8 Claims. (Cl. 219—76)



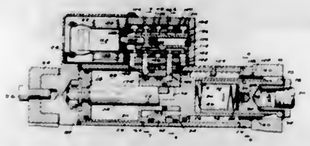
1. Apparatus for depositing a refractory metal lining on the interior surface of a ladle for molten metal comprising a fixed horizontal plate positioned to overlie said ladle, a beam mounted substantially parallel to and closely adjacent said plate, said beam being rotatable in a plane parallel to said plate about an axis normal to and disposed centrally of said plate, a driving wheel mounted on said beam and engaging said plate for rotating said beam, a carriage mounted for movement along said beam, and arc welding apparatus suspended from said carriage and adapted to extend into welding position with respect to the inside surface of said ladle.

2,839,664
SPOT WELDING GUN
Ralph D. Fagge, Detroit, Mich.; Sophie A. Fagge, administratrix of the estate of said Ralph D. Fagge, deceased
Application January 3, 1955, Serial No. 479,301
5 Claims. (Cl. 219—89)



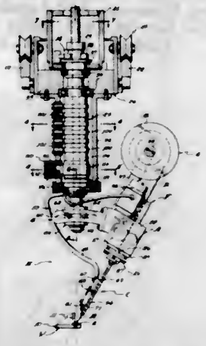
1. A spot welding gun comprising a frame structure having an elongated rectilinear guideway extending therealong, a stationary electrode holder mounted on said frame structure, a reciprocatory motor mounted on said frame structure and having a reciprocating plunger structure mounted with its axis of reciprocation disposed parallel to said guideway and movable toward and away from said stationary electrode holder, a movable electrode holder mounted on said plunger structure in alignment with said stationary electrode holder, a current-conducting jumper seat mounted on each of said structures, a flexible current-conducting jumper disposed between said structures and having opposite end portions engaging said seats, a clamping device securing each jumper end portion to its respective seat, and a guide element secured to said plunger structure and extending into close proximity to the said guideway for travel therealong during reciprocation of said plunger structure whereby to prevent rotation of said movable electrode holder during reciprocation thereof and during replacement of electrodes in said movable electrode holder.

2,839,665
PNEUMATICALLY OPERATED WELDER HEAD CONSTRUCTION
Eugene A. Wolfbauer, Mount Clemens, Mich., assignor to Savair Valve & Equipment Company, Detroit, Mich., a corporation of Michigan
Application February 28, 1955, Serial No. 490,845
12 Claims. (Cl. 219—89)



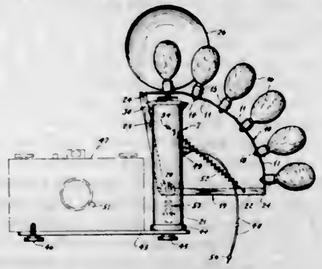
1. In combination, a cylinder having a wall at each of its opposite ends, piston means in said cylinder having a rod connected thereto and extending outwardly through one of said end walls, said one end wall being provided with an opening therethrough in which said rod is slidably received in bearing engagement, said opening being defined in part by a plurality of circumferentially spaced circular segment surfaces embracing the outer surface of the rod, the portion of said opening between said segment surfaces being spaced radially outwardly from the outer surface of the rod to provide a clearance space for the passage of air therethrough, means for introducing air under pressure into said cylinder alternately on opposite sides of said piston means to reciprocate the rod, whereby when said rod moves outwardly of said one end wall, air from within the cylinder is exhausted through said clearance space and the rod is thereby lubricated by any oil contained in said air under pressure.

2,839,666
WELDING HEAD
Ernie L. Launder, Montebello, Allen W. Loudon, Downey, and Max Frederick, Jr., Whittier, Calif., assignors to H. & L. Tooth Company, Montebello, Calif., a corporation of California
Application December 31, 1956, Serial No. 631,573
15 Claims. (Cl. 219—130)



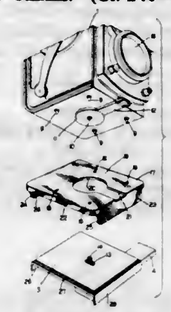
1. A head for a welding machine of the character described and adapted to apply a weld to the periphery of rectangular assemblies of parts and the like, including, a rod feeding means, mounting means carrying the feeding means laterally offset from a vertically disposed axis of rotation, and a rod guiding means carried by the feeding means and depending therefrom on an axis angularly related to and intersecting the axis of rotation of said mounting means at the point of weld.

2,839,667
PHOTOGRAPHER'S MULTI FLASH LAMP
Steve Cannella, New York, N. Y.
Application September 7, 1954, Serial No. 454,448
2 Claims. (Cl. 240—1.3)



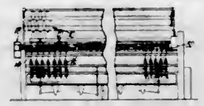
1. A multiple flash-bulb flash gun for attachment to a photographic camera comprising, a battery case, a battery within said case, a reflector secured to the upper rear portion of said case, a swingable bracket member secured to the case at a point spaced from the bottom thereof and extending upwardly toward the top of the case, an arcuate plate carried upon the free end of the bracket so as to overlie the top of the battery case, a plurality of spaced socket members secured to the arcuate plate, said sockets being disposed with their longitudinal axes normal to the upper face of the plate and extending below the plate in the direction of the case, a switch secured to the top of the case and underlying the plate sockets, means for pivotally shifting the bracket to bring the sockets into successive contact with the switch, a plurality of flash bulbs in said sockets and a synchronizing cable attached to the battery case and connected to the battery.

2,839,668
CAMERA PHOTOGRAPHIC FLASHLIGHT ATTACHMENT
James M. Mills, Canton, Ohio
Application November 14, 1955, Serial No. 546,321
3 Claims. (Cl. 240—1.3)



1. In a camera having a threaded aperture in one outer surface and a plurality of dowel pins symmetrically disposed about the aperture on said surface, a photographic flashlight attachment detachably mounted on the camera, the attachment including a platform having a screw rotatably mounted thereon engageable with the threaded aperture for holding the platform in contact with the ends of the dowel pins and spaced from said outer surface of the camera by a distance equal to the length of the pins, an adapter plate detachably mounted on the platform in the space between said one surface and the platform, the adapter plate having an aperture registrable with the threaded aperture and having other dowel-pin-receiving apertures registrable with the dowel pins on the camera, and the adapter plate having at least one flange abutting one side of the platform, whereby the adapter plate retains the flashlight attachment against rotation with respect to the camera about the screw.

2,839,669
THREAD ILLUMINATOR
Carl Otto Meiners, Oldenburg, Germany, and Walter Lessing and Walter Benno Lessing, London, England, assignors to Meiners Optical Devices Limited, London, England
Application October 11, 1954, Serial No. 461,318
Claims priority, application Great Britain October 15, 1953
4 Claims. (Cl. 240—2)



1. In a textile machine having a double-sided machine frame, thread guides and bobbins mounted on both sides of the frame, threads running from said guides to said bobbins, the said threads being arranged in two substantially parallel rows extending lengthwise of the frame one on each side thereof, an illuminator mounted on the frame so as to project two beams of light of similar characteristics along the length of the frame in parallel paths and thus illuminate the said rows of threads, the illuminator comprising a housing, a source of light in said housing having a brightness of at least substantially 2,000 stilb and emitting short wave rays not extending substantially beyond the blue and blue-green range of the spectrum, two outlets in the housing for the said beams, and two optical systems in the housing each located beneath the source and one of the outlets and each for projecting one of the beams along the length of the frame in the

path of one row of threads, each optical system being such that each said beam converges to a focus at a distance from the source not shorter than half the length of the frame, each optical system including a collector lens between the source and the respective outlet in the housing, whereby a comparatively lower stilb-value source can be used provided that the brightness at each said outlet is not substantially less than 2,000 stilb.

2,839,670
ILLUMINATED COVER PLATE FOR ELECTRICAL OUTLETS
Lewis Gladstone, Springfield Gardens, N. Y.
Application January 18, 1957, Serial No. 635,047
3 Claims. (Cl. 240—2)



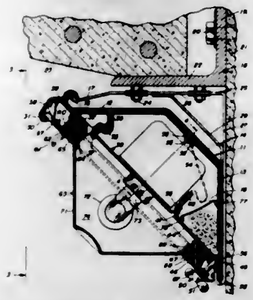
1. An ornamental illuminated cover for an electrical outlet, comprising a flat plate formed of transparent material and having wholly flat front and rear sides, an opaque light reflective coating on said rear side, said plate having a pair of spaced parallel recesses formed in the rear side thereof, the bottom of each recess being covered with an opaque material, said plate having a rectangular opening formed therein between said recesses for passage of a handle of a switch therethrough, said opening having walls beveled with respect to said front and rear sides, a gas discharge lamp wholly contained within each of the recesses between the planes of the front and rear sides, the lamps transmitting light rays through the plate to the perimeter thereof, said light rays passing parallel to said sides and being wholly confined therebetween, said perimeter having a wall portion disposed at an acute angle to the flat rear side, said rays being internally reflected from said walls, said wall portion and said flat rear side adjacent to said perimeter and said opening so that only said wall portion of the perimeter and the beveled walls of the opening are illuminated while said flat front side is otherwise free of illumination by said rays.

2,839,671
LIGHT-DIFFUSING UNIT
James L. Cullen, Glendale, Calif., assignor to Harry H. Shearin, San Marino, Calif.
Application January 13, 1956, Serial No. 558,954
13 Claims. (Cl. 240—9)



7. A light-diffusing unit for ceilings and the like, comprising: an integral unit of translucent material having parallel spaced top and bottom faces, each unit comprising a plurality of thin-walled, curvilinear elements having light-diffusing surfaces disposed perpendicular to said top and bottom faces, said curvilinear elements being arranged in rows in spaced relation; thin web elements interconnecting said curvilinear elements and having light-distributing surfaces lying perpendicular to said top and bottom faces and spaced above the bottom face whereby light from a source spaced from said top face is diffused by said curvilinear surfaces and distributed by said distributing faces.

2,839,672
TUNNEL LIGHTING FIXTURE
Mitchell Bobrick, Los Angeles, Calif., assignor to Sunbeam Lighting Company, Los Angeles, Calif., a firm
Application July 29, 1957, Serial No. 674,838
7 Claims. (Cl. 240—9)

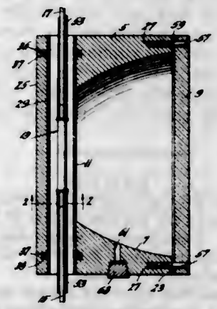


1. A tunnel lighting fixture comprising a plurality of elongated sections of extruded metal housing of generally hemi-hexagonal cross-section disposed in end-to-end relation and adapted to be supported on brackets attached to the structural members of a tunnel-like structure, said housing having a top wall, a vertical wall, and a back wall defining a longitudinal interior space for enclosing mounted fluorescent light tubes, electrical accessories, and electrical conduits, said housing top wall having an integral external hooked supporting groove having its open portion facing the said supporting brackets and arranged to engage a protruding arm of said bracke:, the outer edge of said housing top wall having an integral overhanging drip ledge, said drip ledge including a hinge holding means for a closure to said housing, an elongated fixture pan mounted within each section of said housing supported by said housing walls, said fixture pan being adapted for mounting thereon fluorescent light and the accessories therefor; a closure for each section of said housing, said closure being hingedly mounted to the underside of the outer end of said top wall beneath said drip ledge, said closure including a mounted formed plastic light diffuser plate; means for removably fastening the lower edge of said closure to the lower edge of said vertical wall of said housing; and molded resilient partition gaskets disposed between adjacent extruded metal housing sections, said gasket being provided on both sides with channels arranged to sealingly engage the respective ends of said adjacent abutting extruded sections.

2,839,673
UNDERWATER LAMP
Kenneth H. Wilcoxon, Cabin John, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application April 30, 1956, Serial No. 581,813
8 Claims. (Cl. 240—26)
(Granted under Title 35, U. S. Code (1952), sec. 266)

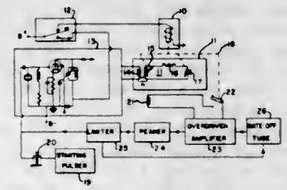
1. A light unit adapted for use under water, comprising an outer casing member having a wall means providing a concave reflector within said member, said casing member having a bore extending through said wall means and intersecting the surface of the reflector adjacent the rear of the surface, a light-pervious open ended tube in said bore and having an outer diameter substantially equal to the diameter of the bore, said tube extending through

and intersecting part of said surface, a high intensity elongated electric bulb within said tube, said bulb having



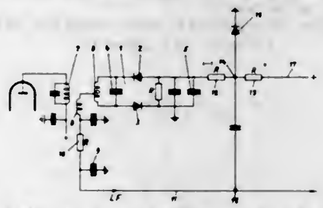
end terminals, and connectors to each of said terminals extending therefrom to outside said wall means.

2,839,674
FREQUENCY SHIFT TRANSMITTER SYSTEM
Hyman N. Laden, Silver Spring, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 22, 1953, Serial No. 387,819
5 Claims. (Cl. 250—8)



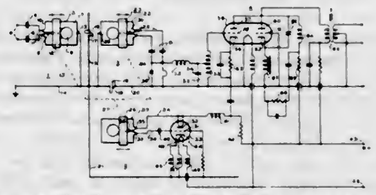
5. A transmitter system comprising an oscillator requiring shock-excitation to cause it to generate alternating current, an antenna system, means coupling said oscillator to said antenna system, a shock-excitation means for said oscillator comprising means coupled to said antenna system and responsive to circulating currents existing therein, and means coupling the output of said shock-excitation means to said oscillator.

2,839,675
ATTENUATOR OF NOISE IN RADIO SETS
Hubert Neumann, Pforzheim, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application July 15, 1953, Serial No. 368,170
Claims priority, application Germany July 18, 1952
2 Claims. (Cl. 250—20)



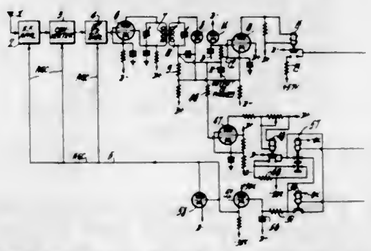
1. In a frequency modulation receiver having a frequency-discriminating circuit and an audio-frequency circuit coupled to the output of said discriminator circuit, means for preventing noises originating in said receiver from reaching the audio circuit during those periods when no signal is being received, comprising an element having a conducting and a non-conducting condition, means coupling a terminal of said element to an output of said discriminator circuit and in the path of said audio circuit, a common negative terminal, means coupling a second terminal of said element to said common negative terminal, a source of positive voltage, means coupling said souce to said element for rendering it conducting during periods of no signal reception thereby coupling the output of said discriminator to said common negative terminal and preventing noises from reaching the audio circuit, means coupled between said discriminator circuit and said element for producing a negative voltage in response to input signals, the negative voltage having a value sufficient to overcome the positive voltage and thereby render said element nonconducting, whereby the path between the output of the discriminator circuit and the audio circuit is uninterrupted.

2,839,676
HIGH FREQUENCY TUNERS
Jack J. Bernstein, Levittown, N. Y., assignor to Ebert Electronics Company, New York, N. Y., a partnership
Application February 5, 1954, Serial No. 408,425
6 Claims. (Cl. 250—20)



1. In combination, a local oscillator, a mixer, each of said local oscillator and said mixer including a tuner, means for gang tuning said tuners in tracking relation, means for solely electromagnetically coupling said tuners, each of said tuners including a sheet of metal having a relatively extensive aperture and a relatively narrow elongated slot extending from an edge of said sheet to said aperture, said slot having a width of substantially .015" and a length of substantially 1", said aperture having a periphery of substantially 1.5" long, said means for tuning each of said tuners being a slider including at least one metallic strip, means for slidably moving said at least one metallic strip over said sheet of metal in noncontacting relation to said sheet and parallel with the direction of elongation of said slot, said at least one metallic strip having an area adequate at least entirely to cover said aperture.

2,839,677
AUTO ALARM SYSTEM
Lloyd A. Ottenberg, Forest Hills, and Edward W. Mahland, Hollis, N. Y., assignors to Radio Corporation of America, a corporation of Delaware
Application August 10, 1954, Serial No. 448,950
16 Claims. (Cl. 250—20)



1. In an auto alarm receiver, an automatic gain control circuit comprising signal-responsive means operating

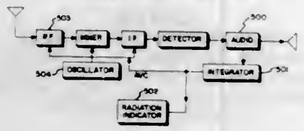
only in response to the presence of a signal in said receiver to establish a gain-reducing circuit for said receiver, and other signal-responsive means operating only in response to the continued presence of said signal in said receiver at the end of a predetermined time interval beginning with the onset of said signal to establish at the end of said time interval an altered gain-reducing circuit for said receiver.

2,839,678

COMBINED RADIO RECEIVER AND RADIATION ALARM UTILIZING TRANSISTOR AS RADIO AMPLIFIER AND RADIATION DETECTOR

Gerhard H. De Witz, Los Angeles, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application October 4, 1954, Serial No. 459,881
3 Claims. (Cl. 250—20)



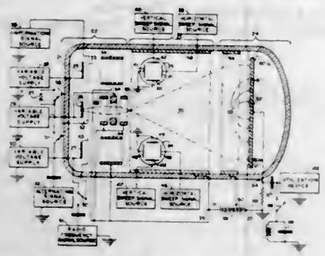
1. Apparatus for receiving radio frequency electromagnetic waves and for simultaneously detecting the presence of nuclear radiation, said apparatus including, in combination: radio frequency electromagnetic wave receiving apparatus having a plurality of intercoupled translating devices including an R. F. amplifier, a mixer having first and second input terminals and an output terminal, a local oscillator coupled to said first input terminal, said R. F. amplifier coupled to said second input terminal, an I. F. amplifier coupled to said output terminal, a detector coupled to said I. F. amplifier, an audio amplifier coupled to said detector, and an audible indicator coupled to said audio amplifier, at least one of said translating devices including a transistor and having the characteristic of being sensitive simultaneously to nuclear radiation and to wave signal energy, said at least one device being exposable to a particle-permeable area contiguous therewith; a pulse integrator coupled to said audio amplifier; a radiation indicator coupled to said pulse integrator; and the output from said pulse integrator being further coupled to the respective inputs of said R. F. amplifier and said I. F. amplifier to provide automatic control effects.

2,839,679

HALF-TONE MEMORY TUBE

Franklin H. Harris, Accokeek, Md.

Application May 16, 1952, Serial No. 288,365
9 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



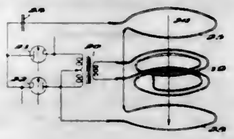
1. In a charge storage device, selectively exploring charge reading means operative to detect the charge on a predetermined elemental reading area, and a charge storage target having a face positioned operatively with respect to the charge reading means comprising substantially discrete dielectric surface portions and conducting surface portions, said substantially discrete dielectric surface portions being relatively small with respect to said elemental reading area, said substantially discrete dielectric surface portions having surface capacity distributed throughout a substantial continuous range, said dielectric portions being distributed over the target surface with at least random uniformity in a density presenting in any elemental reading area said substantial range of surface capacity.

2,839,680

PROCESS AND DEVICE FOR TESTING MATERIALS BY MEANS OF ENERGY-RICH X-RAYS

Rolf Wideroe, Ennetbaden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application May 12, 1953, Serial No. 354,500
Claims priority, application Switzerland May 14, 1952
6 Claims. (Cl. 250—27)



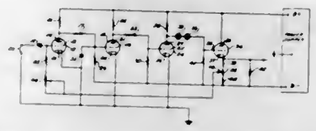
1. A magnetic induction accelerator of the double ray type comprising a chamber within which successive electron streams are accelerated respectively in opposite directions around an orbit, at least one pair of anticathodes located in both radially and axially displaced positions from the orbit of electron acceleration, a first coil so oriented as to cause the accelerated streams of electrons to be displaced radially from the orbit of acceleration, a circuit for periodically energizing said coil, said circuit including a pair of electric discharge devices connected in back-to-front relation and a condenser in series therewith connected periodically to said coil through said electric discharge devices in alternation for discharge into said coil, means for charging said condenser between successive discharges thereof, a second coil so oriented as to the cause the accelerated streams of electrons to be displaced from the plane of the orbit of acceleration, said second coil being connected for periodic energization by said condenser simultaneously with energization of said first coil whereby said accelerated electron streams are caused to be deflected both radially and axially of the plane of the orbit and thereby to strike said anticathodes.

2,839,681

TIME RATE OF CHANGE OF RADAR RANGE VOLTAGE

Frederick W. Schatz, Whitesboro, and Frederick A. Reibert, Syracuse, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application November 23, 1953, Serial No. 393,971
1 Claim. (Cl. 250—27)



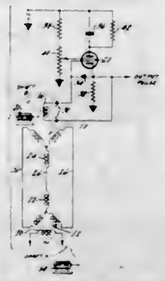
A system for converting a varying direct current range signal into a signal proportional to relative velocity comprising: first and second input terminals, said first terminal being adapted to be connected to receive said range signal and said second terminal being connected to ground; a first triode having a plate connected through a first plate resistor to a positive terminal of a direct current source, a cathode connected to ground, and a control grid; a second triode having a plate connected through a second plate resistor to said posiitve terminal, a cathode connected to ground, and a control grid connected through a first biasing resistor to a negative terminal of said direct current source and through a grid leak condenser to ground; a third triode having a plate connected through a third plate resistor to said positive terminal, a cathode connected to ground, and a control grid connected through a second biasing resistor to said negative terminal; a fourth triode having a plate connected directly to said positive terminal, a cathode connected through a cathode circuit to said negative terminal, said cathode circuit comprising a fixed resistor in series with a resistor having a variable tap, and a control grid connected through a third biasing resistor to said negative terminal; a condenser coupling said first input terminal to the grid of said first triode; a first coupling resistor coupling the plate of said first triode to the control grid of said second triode; a second coupling resistor coupling the plate of said second triode to the control grid of said third triode; a pair of series connected voltage regulator tubes coupling the plate of said third triode to the control grid of said fourth triode whereby all of the voltage on the plate of said third triode is applied across said third biasing resistor; an output terminal connected to the cathode of said fourth triode; an output resistor connected between said output terminal and said negative terminal; a feedback circuit, in which the current flow is very small compared to the current flow through said fourth triode, connected between said variable tap and the control grid of said first triode, said feedback circuit comprising a fixed resistor connected in series with a variable resistor, the resistance of said feedback circuit being very large in comparison to the resistance of said cathode circuit; whereby the voltage at said last mentioned control grid is maintained substantially constant and the voltage at said output terminal is proportional to velocity; said variable tap of said cathode circuit being positioned to obtain a zero voltage at said output terminal when said range signal is zero, a negative velocity voltage at said output terminal when there is an increase in said range signal, and a positive velocity voltage at said output terminal when there is a decrease in said range signal.

2,839,682

NULL DETECTOR

William E. Woods, Haddonfield, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application October 31, 1955, Serial No. 543,912
11 Claims. (Cl. 250—27)



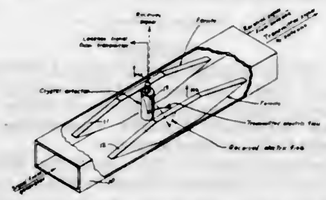
1. A circuit comprising a gas tube having at least an anode, a control grid and a cathode, a capacitor having one end connected to said anode, a first resistor having one end connected to said cathode, means to apply a source of A.-C. voltage between the other ends of said capacitor and said first resistor, means to modulate said A.-C. voltage, means to apply said A.-C. voltage in a modulated form between said control grid and said cathode, a second resistor connected across said capacitor, and output means connected to said first resistor.

2,839,683

MICROWAVE DUPLEXER-DETECTOR

John C. Cacheris, Bethesda, Md., assignor to the United States of America as represented by the Secretary of the Army

Application October 9, 1956, Serial No. 614,998
1 Claim. (Cl. 250—31)
(Granted under Title 35, U. S. Code (1952), sec. 266)



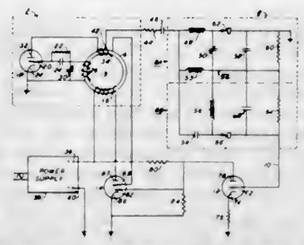
In a transmitting and receiving system having a source of microwave energy and an antenna for transmitting and receiving microwave energy, an improved duplexer detector comprising in combination: a section of rectangular waveguide having a first end and a second end, microwave energy from said source being applied to said first end, said antenna being coupled to said second end, a pair of ferrite slabs having tapered ends disposed in said rectangular waveguide adjacent and parallel the short sides of said waveguide in spaced opposed relation, means producing a transverse magnetic field through said slabs for shifting a major portion of the transmitted energy to one side of the waveguide and for shifting a major portion of the received energy to the opposite side of the waveguide, and a crystal in said waveguide placed adjacent one of said slabs at a point closer to said opposite side such that the detected signal at the output of said crystal indicates a relatively small portion of the microwave energy passing through said waveguide from said first end to said second end, and a relatively large portion of the microwave energy passing through said waveguide from said second end to said first end.

2,839,684

AUTOMATIC FREQUENCY CONTROL

William R. Smith-Vaniz, Jr., Stamford, Conn., assignor to C. G. S. Laboratories, Inc., Stamford, Conn., a corporation of Connecticut

Application May 6, 1954, Serial No. 427,970
6 Claims. (Cl. 250—36)



1. Automatic frequency control apparatus comprising electric oscillation producing means having a frequency-selective network including an electrically-controllable impedance element, a frequency-sensitive network comprising a high-pass series-resonant filter circuit including a first inductor in series with a first capacitor and resonant to a frequency above the desired controlled frequency and

a low-pass series-resonant filter circuit including a second capacitor in series with a second inductor and resonant to a frequency below the desired controlled frequency, means coupling said oscillator to said frequency-sensitive network, first and second detection means connected to said high-pass and low-pass filter circuits, respectively a first resistor and a first condenser connected in parallel across said low pass filter circuit, a second resistor and a second condenser connected in parallel across said high pass filter circuit, said first and second resistors being connected in series so as to combine the signals from said filter circuits in opposition, and feedback means coupling the output of said series resistors and to said electrically-controllable impedance element.

2,839,685
FIXED FREQUENCY OSCILLATOR
Dunford A. Kelly, Los Angeles, Calif., assignor, by direct and mesne assignments, to Harvey O. Riggs and International Electronic Research Corporation, both of Burbank, Calif., as joint owners
Application May 13, 1955, Serial No. 508,167
7 Claims. (Cl. 250—36)



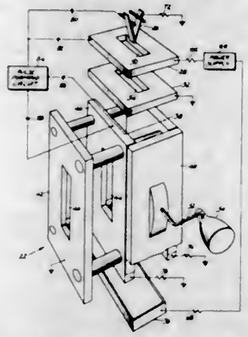
6. In an oscillator, the combination of: an amplifier having a high impedance input side and a lower impedance output side, said amplifier utilizing a first stage amplifying device having a control grid; degenerative feedback circuit means coupling said output side to said control grid; a low impedance voltage amplitude limiting device; means for deriving a positive feedback voltage from the output side of said amplifier and impressing it on said amplitude limiting device; and coupling means including a voltage step-up device and a tuned circuit fed by the output of said amplitude limiting device and whose output is coupled to said control grid.

2,839,686
TRANSISTOR CIRCUIT
Howard E. Tompkins, Ridley Park, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application October 31, 1956, Serial No. 619,550
10 Claims. (Cl. 250—36)



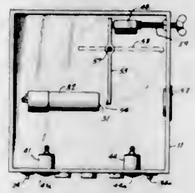
1. A free-running multivibrator comprising: a PNP junction transistor and an NPN junction transistor each having emitter, base and collector; a source of direct-current potential having its positive terminal connected directly to the emitter of the PNP transistor and its negative terminal connected directly to the emitter of the NPN transistor; a first resistance connecting the negative terminal of said source to the collector of said PNP transistor; a second resistance connecting the positive terminal of said source to the collector of said NPN transistor; means, including a first capacitor, connecting the base of said PNP transistor to the collector of said NPN transistor; means, including a second capacitor, connecting the collector of said PNP transistor to the base of said NPN transistor; a third resistance connecting the collector of said PNP transistor to that side of said first capacitor which is connected to the base of said PNP transistor; a fourth resistance connecting the collector of said NPN transistor to that side of said second capacitor which is connected to the base of said NPN transistor; and means for deriving output signals from the collector of at least one of said transistors.

2,839,687
MASS SPECTROMETER
William C. Wiley, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application October 29, 1953, Serial No. 389,091
10 Claims. (Cl. 250—41.9)



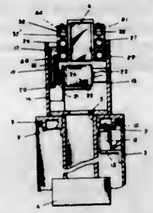
1. A mass spectrometer, including, a backing plate, a first electrode disposed relatively close to the plate, a second electrode disposed relatively close to the first electrode, means for providing a plurality of ions in the region between the backing plate and the first electrode, means for applying a moderate accelerating force on the ions between the backing plate and the first electrode to produce a movement of the ions past the first electrode, means for applying a considerably increased accelerating force on the ions between the first and second electrodes to produce a movement of the ions past the second electrode and to impose substantially constant velocities on the ions of a given mass, means for providing a magnetic field in a direction substantially perpendicular to the direction of ion travel to produce an angular movement of the ions, means disposed at a particular angular distance from the second electrode to detect the ions, and means for indicating the times at which the ions are detected.

2,839,688
RADIATION DETECTOR
Nicholas Anton, Brooklyn, N. Y.
Application December 1, 1955, Serial No. 550,410
5 Claims. (Cl. 250—83.6)



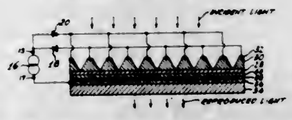
4. A self-checking radiation detecting instrument comprising a radiation detector apparatus, an indicator circuit adapted to be coupled to said apparatus for providing an indication only in response to exposure of said apparatus to radiation exceeding a predetermined level, a source of radiation within said instrument, means for selectively positioning said source in a location adjacent to said detector apparatus at which said apparatus will be responsive to said source, said source in said position having a radiation level of a lower order of magnitude than that of said predetermined level, and means for causing said indicator circuit to provide an indication in response to said latter lower level of radiation.

2,839,689
SUNFOLLOWER
George M. Trinite, Jr., Baltimore, Md., assignor to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Maryland
Application February 2, 1954, Serial No. 407,789
9 Claims. (Cl. 250—203)



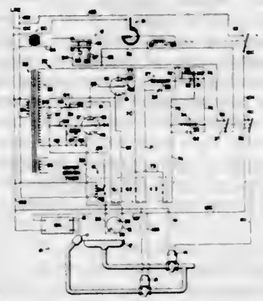
1. A sunfollower for tracking the sun and controlling the movement of a body relative thereto comprising, a plurality of coarse-eye photoelectric cells mounted on said body and responsive to light rays over a wide sector of space to produce an output voltage proportional to the energy of the light rays received by the coarse-eye cells, a plurality of fine-eye photoelectric cells mounted on said body and responsive to light rays within a relatively narrow sector of space located within said wide sector to produce an output voltage proportional to the energy of the light rays received by the fine-eye cells, a normally inoperative electronic valve responsive to the outputs from said fine-eye photoelectric cells to allow current flow through said valve, said coarse-eye photoelectric cells connecting with said electronic valve and being responsive to current flow therethrough to be varied in light responsiveness in proportion to variations in said current flow, whereby said fine-eye photoelectric cells alone operate to provide output voltages while the sunfollower is closely tracking the sun, and drive means responsive to the output voltages from said photoelectric cells for directing the movement of the body relative to the sun.

2,839,690
CIRCUIT FOR ENERGIZING LIGHT AMPLIFIER DEVICES
Benjamin Kazan, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 17, 1955, Serial No. 547,411
5 Claims. (Cl. 250—213)



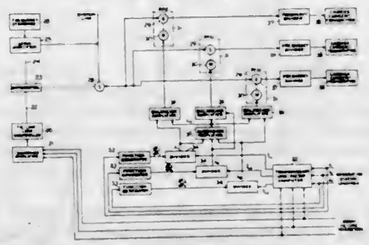
1. Apparatus for reproducing radiant energy images having a plurality of intensity gradations including an electroluminescent body which contains a layer which luminesces in response to applied electrical field and a photoconductive body coupled to said electroluminescent body, said photoconductive body including a plurality of individual electrical contacts, means for applying an electric field to said bodies in series, said field being applied in one polarity to alternate contacts and of opposite polarity to intermediate contacts for providing a unilateral field across elemental areas of said photoconductive body and an alternating field across said electroluminescent body.

2,839,691
CONDITION DETECTING APPARATUS
Balthasar Hubert Pinckaers, Hopkins, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 12, 1955, Serial No. 552,462
8 Claims. (Cl. 250—214)



1. Flame detector comprising: an electron discharge device having a cathode, an anode, and a control electrode; flame sensing means connected to said cathode and control electrode and arranged to bias said discharge device substantially to cut off when said flame sensing means does not sense flame; a first relay having a coil, a second relay having a coil; cycling switch means having a first and second switch both of which are closed during a first portion of a cycle and open the remainder of the cycle, and having a third switch which is open during said first portion of the cycle and closed said remainder of the cycle; means controlled by said first switch arranged to control the bias of said discharge device to render said discharge device conductive when said first switch is closed during said first portion of the cycle even though said flame sensing means does not sense flame, means controlled by said second switch connecting the coil of said first relay to said anode and cathode to be energized during said first portion of the cycle; and means controlled by said third switch connecting the coil of said second relay to said anode and cathode to be energized during said remainder of the cycle only when said flame sensing means senses flame.

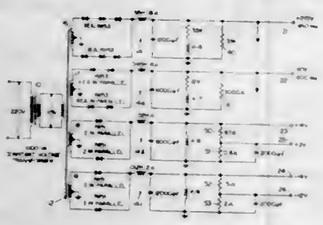
2,839,692
ELECTRIC POWER CONTROL SYSTEM
Leon K. Kirchmayer, Scotia, N. Y., assignor to General Electric Company, a corporation of New York
Application July 31, 1956, Serial No. 601,298
51 Claims. (Cl. 307—57)



51. An electric power control system for controlling the generation of a power system having a plurality of generating stations and a plurality of generators in each said generating station, the control system comprising means for producing a load deviation signal proportional to the difference between the actual load and a prescheduled load on tie line means interconnecting said power system, means for combining said load deviation signal with a frequency deviation signal proportional to the

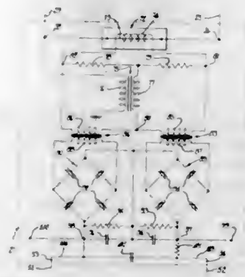
difference between the system frequency and a standard frequency to produce a system control signal for all generating stations whose frequency varies from said system frequency in accordance with the amplitude and polarity of said combined deviation signals, means for modifying said system control signal to provide station control signals whose varying frequencies represent changes in incremental costs of generated power of said stations necessary to cause generation by all stations at equal incremental costs of delivered power, means at each said generating station for comparing the frequency of said station control signal with said system frequency to reproduce said combined deviation signals, means for each generator in each said station for selecting a proportionate amount of said combined deviation signals and producing a control signal for each generator whose frequency varies from said system frequency in accordance with said selected proportionate amount of said combined deviation signals, means at each said generating station for producing a required output signal proportional to the output of each generator therein when all generators are operating at equal incremental costs of generated power, means for comparing said required output signal for each generator with a signal proportional to the actual output of said generator and producing an output difference signal which is proportional to the difference between said required output and said actual output signals, means responsive to said output difference signal for varying the frequency of said control signal for each generator in accordance therewith, means for each said generator for comparing the frequency of said control signal with said system frequency to produce an output proportional to the difference therebetween, and means connected to receive said output for varying the generation of each said generator in response to the output of the corresponding comparison means for maintaining said system frequency at its standard value and said tie line load at its prescheduled value.

2,839,693
ELECTRONIC COMPUTER POWER SUPPLY CIRCUITS
Richard C. Weise, Philadelphia, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Original application March 4, 1955, Serial No. 492,062. Divided and this application July 5, 1956, Serial No. 595,884
2 Claims. (Cl. 307—150)



2. In an electronic computer a power supply system comprising in combination, a multiplicity of separate computer circuits coupled to potential output terminals in said system, each computer circuit requiring a substantially constant potential source providing a particular voltage level, each separate computer circuit having substantially varying load conditions subject to change with different data input and computer program conditions, a single power transformer having an input winding and separate low resistance secondary windings for the various potential sources, a low resistance full wave rectifier circuit for each potential comprising diffusion junction crystal diodes, a single low impedance filter choke coupled to each rectifier circuit, a filter capacitor coupled to each potential output terminal, bleeder resistor devices coupled across the filter capacitors which pass only a small percentage of the output current capabilities of the potential sources, and power line variation reducing means coupled to the input winding of said transformer.

2,839,694
LOAD SENSING SYSTEM
Stephen H. Fairweather, South Euclid, and Kurt Seldner, Cleveland, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 15, 1954, Serial No. 443,483
2 Claims. (Cl. 307—153)

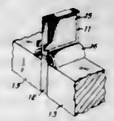


1. Load sensing apparatus for sensing the power flow in an alternating current supply line, comprising: current and voltage transformers having primaries connected to said line and secondaries across which voltages are developed respectively proportional to and in fixed phase relation to supply line voltage and current, a pair of resistors connected in series across the secondary of said current transformer, means connecting one end of the secondary of said voltage transformer to the junction between said resistors, a first coupling transformer having a primary connected between the other end of the secondary of said voltage transformer and one end of the secondary of said current transformer and having a secondary across which a voltage is developed equal to the vector sum of a voltage proportional to and in phase with current and a voltage proportional to and in phase with voltage, a second coupling transformer having a primary connected between said other end of the secondary of said voltage transformer and the other end of the secondary of said current transformer and having the secondary across which a voltage is developed equal to the vector difference between a voltage proportional to and in phase with voltage and a voltage proportional to and in phase with current, first rectifier means connected to said secondary of said first coupling transformer, second rectifier means connected to the secondary of said second coupling transformer, and means combining the outputs of said rectifiers to give a signal indicative of power.

2,839,695
FREQUENCY CONTROLLABLE PIEZO-ELECTRIC RESONATOR
Donald H. Robey, San Diego, Calif.
Continuation of application Serial No. 330,604, January 9, 1953. This application January 31, 1957, Serial No. 637,596
9 Claims. (Cl. 310—8.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

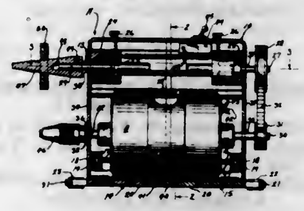
1. A resonator having a controllably variable resonant frequency comprising a longitudinally vibratable piezo-

electric element having a backing member secured thereto



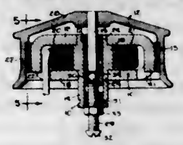
in end to end relationship therewith, and means for variably clamping said backing member laterally thereof.

2,839,696
MOTOR DRIVE FOR DENTAL TOOLS
Irvie H. Dunham, Racine, Wis., assignor to Rae Motor Corporation, Racine, Wis., a corporation of Wisconsin
Application October 17, 1952, Serial No. 315,378
2 Claims. (Cl. 310—89)



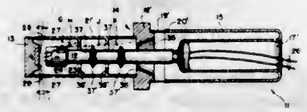
1. A substantially rectangular casing assembly, for a motor drive unit for dental tools and the like of the type having a rounded electric motor housing and a pair of spaced parallel tool driving shafts comprising; two mating sections providing top, bottom, side and end walls, the bottom inner surface of each section being arcuate in shape and forming with the mating section a continuous cradle to receive said rounded electric motor housing, means for holding said motor housing to said cradle, the respective end wall of each casing having a pair of aligned openings therethrough to receive the respective ends of said pair of tool driving shafts and to accurately position said shafts in said casing, and means for detachably securing the two mating sections together.

2,839,697
MAGNETIC TORQUE PRODUCING DEVICE
William C. Pierce and Paul A. Harter, Beloit, Wis., assignors to Warner Electric Brake & Clutch Company, South Beloit, Ill., a corporation of Illinois
Application December 8, 1953, Serial No. 396,866
6 Claims. (Cl. 310—93)



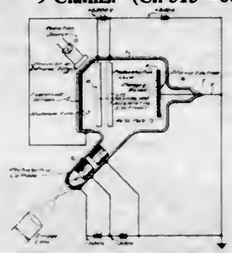
1. In a magnetic torque producing device, the combination of a sleeve, a rotary shaft having one end portion journaled in and slidable axially relative to one end portion of said sleeve, a magnetic coupling comprising relatively rotatable elements fast on said sleeve and the other end portion of said shaft respectively and having opposed concentric faces overlapping each other by varying amounts according to the relative axial positions of said sleeve and shaft whereby to determine the torque output of the coupling, an elongated member having one end portion projecting into the other end of said sleeve and providing an abutment on its inner end coacting with the inner end of said shaft to limit the inward movement of the latter and thereby determine the extent of overlapping of said magnetic faces, and threads on said sleeve and said member respectively coacting with each other to hold said abutment in various selected positions of adjustment within the sleeve and provide different amounts of overlap of said faces, the other end portion of said member projecting exteriorly of said sleeve where it is easily accessible for turning the member and shifting the axial position thereof relative to the sleeve.

2,839,698
ELECTRON SHIELDING IN X-RAY TUBES
Locklin S. Bell, Milwaukee, Wis., assignor to General Electric Company, a corporation of New York
Application July 1, 1955, Serial No. 519,480
11 Claims. (Cl. 313—55)



1. In an X-ray generating tube, having an electron emitting cathode and a cooperating anode facing the cathode and therewith enclosed in a sealed envelope, the cathode being supported on an insulating cathode mounting portion of said envelope, the combination, with said cathode, of electron shielding means on said envelope and comprising a flange disposed at the anode remote end of the cathode, between the cathode and said insulating portion of the envelope, said flange defining an opening of area comparable with the transverse area of the cathode and sized to permit the cathode to be snugly yet freely passed through the opening, during assembly of the cathode in the envelope, whereby said flange may extend inwardly sufficiently to intercept substantially all electrons traveling toward said cathode mounting portion of the envelope, along outwardly curving paths alongside of the cathode.

2,839,699
IMAGE CONVERTER TUBE
Constantin S. Szegho and William O. Reed, Chicago, Ill., assignors to The Rauland Corporation, Chicago, Ill., a corporation of Illinois
Application February 19, 1948, Serial No. 9,494
9 Claims. (Cl. 313—66)

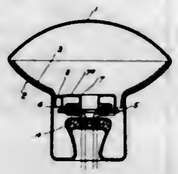


1. An electronic storage device comprising an evacuated envelope enclosing a storage electrode, a fluorescent screen exposed to emissions from the storage electrode, a photosensitive cathode in the envelope arranged to emit a photoelectric beam to impinge on the storage electrode, and means for releasing energy from the storage electrode.

2,839,700
ELECTRONIC ILLUMINATING LAMPS
Roger François Désiré Navarre, alias Malherbe, Paris, France, assignor to Société dite: Sebel S. A., Tangier, a company of Tangier
Application January 13, 1956, Serial No. 559,028
Claims priority, application France January 15, 1955
11 Claims. (Cl. 313—82)

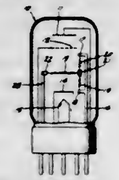
1. An electronic illuminating lamp comprising a transparent evacuated bulb, a substantially flat annular ther-

mionic cathode and an anode within said bulb, means to produce a beam of electrons between the cathode and the anode, a coating layer carried on the interior of said bulb in the path of the beam of electrons and comprising at least one substance capable of transforming the kinetic energy of the electrons impinging on to said coating layer into luminous energy, an electronic lens comprising



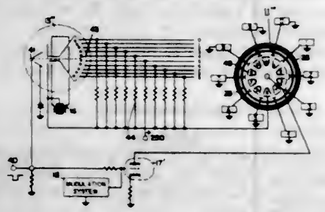
an annular diaphragm disposed substantially parallel to said cathode and coaxially to the latter, the annular surface of said diaphragm being provided with an annular opening whose radial width is substantially equal to the distance separating said diaphragm from said cathode, and means to maintain said diaphragm at the potential of said anode.

2,839,701
VACUUM TUBE PICK-UP
Marian E. Bourns, Riverside, Calif.
Application August 3, 1953, Serial No. 372,072
2 Claims. (Cl. 313—146)



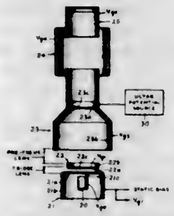
1. A mechanically modulated vacuum tube comprising a rigid envelope, a cathode and a plate mounted within said envelope in spaced relation, a grid interposed between said cathode and plate and supported for movement with respect thereto, mass means attached to said grid, and means yieldingly suspending said mass means between said cathode and said plate, said mass means being movable responsive to acceleration to vary the electrical output of said tube as a function of the acceleration forces.

2,839,702
MODULATED DISTRIBUTION SYSTEM
Sin-Pih Fan, Marlton, N. J., and Saul Kuchinsky, Philadelphia, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application July 24, 1953, Serial No. 370,134
4 Claims. (Cl. 315—9)



1. A modulated current distribution system comprising in combination, a multiposition beam switching tube having crossed electric and magnetic fields and structure adapted to selectively direct an electron beam to any one of its positions, electrodes in said beam tube defining a discharge path, a controllable electron discharge device having the discharge path thereof connected in series with said beam tube discharge path to control the beam current therethrough, modulating means controlling said discharge device to modulate said beam current in accordance with a desired pattern, and output electrodes in said beam tube having connections for distributing the modulated beam current to a plurality of channels, the electrodes of said beam tube including a plurality of substantially U shaped target electrodes, a plurality of substantially V shaped spade electrodes, and a cylindrical cathode, the spade electrodes concentrically surrounding the cathode with the open ends directed away from the cathode, the target electrodes concentrically surrounding the cathode with the open ends directed toward the cathode and overlapping the open ends of two adjacent spade electrodes, said electrode structure being compatible with a high degree of modulation of the beam unaccompanied by positional instability thereof.

2,839,703
HIGH RESOLUTION IMAGE CATHODE RAY TUBE SYSTEM
Wilfrid F. Niklas, Flushing, N. Y., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York
Application January 3, 1956, Serial No. 557,017
8 Claims. (Cl. 315—15)

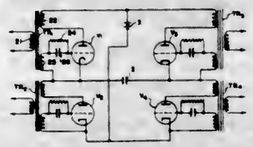


1. A cathode ray tube system adapted by intensity modulation of the tube to produce a high resolution final image on the screen thereof; said system comprising; an electron gun having a cathode, a first intensity modulating electrode having formed therein forward of said cathode an aperture centered on the axis of the electron beam, a second electrode having formed therein an aperture axially disposed forward of said first electrode aperture in coaxial relation therewith and of larger diameter than said first electrode aperture, said second electrode having a configuration which permits a potential gradient derived from ultor potential to form a positive electron lens in the vicinity of the center of said second electrode aperture, and a third electrode including a cylindrical skirt whose portion nearest to said center is in close spatial relation thereto; said system also comprising a potential source adapted to supply to said third electrode said ultor potential at a level which, in the presence of increasing screen current, imparts a backwardly directed axial shift to the disc of least confusion of the electron beam of the tube.

2,839,704
SWITCHING CIRCUIT
Arthur Schlang, Valley Stream, N. Y., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application August 2, 1955, Serial No. 525,853
6 Claims. (Cl. 315—21)

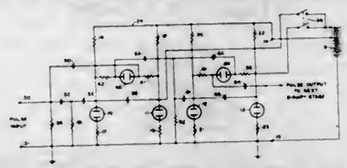
1. The method of applying voltage differences of successively changing polarity between the halves of a color switching grid in a cathode-ray tube which comprises connecting said halves one to each of two opposite junctions of a four-arm bridge circuit each of whose arms

includes a vacuum tube, connecting a unidirectional potential source across the other two junctions of said bridge circuit, and causing the tubes in opposite pairs of said



arms to conduct together according to a common cyclical function of time with the tubes of said two pairs in different phases of said function.

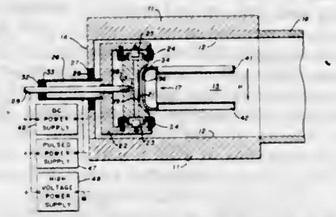
2,839,705
BINARY COUNTING CHAIN
Gerald R. Paul, Webster, N. Y., assignor to General Dynamics Corporation, Rochester, N. Y., a corporation of Delaware
Application February 21, 1957, Serial No. 641,744
5 Claims. (Cl. 315—84.5)



1. In a binary pulse counting chain having a plurality of binary stages in which each stage is comprised of an input circuit and a pair of electronic devices arranged to become alternately and successively conductive when counting each pulse connected to the input circuit of the respective stage, the coupling network for connecting a pulse to be counted between the respective input circuit of successive binary stages whenever a predetermined one of the devices of a respective stage is conductive comprising, a gaseous discharge tube for each stage having at least two electrodes and a minimum applied voltage characteristic for conduction, means connecting one electrode of a respective one of the tubes to one of the devices and the other electrode of the respective tube to the other of the devices of a given stage in a circuit to provide a potential across each tube that is greater than said minimum voltage characteristic only when a predetermined one of the devices of a respective stage is conductive, means to connect the pulses to be counted from the input circuit of one stage to one electrode of said tube, and means to connect the other electrode of said tube to the pulse input circuit of the next successive stage.

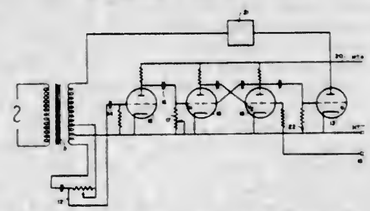
2,839,706
PULSED ION SOURCE
Carl E. Anderson, New Haven, Conn., and Kenneth W. Ehlers, Lafayette, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application July 16, 1956, Serial No. 598,218
7 Claims. (Cl. 315—111)

5. An ion source comprising an anode block having an elongated opening therethrough, means establishing a magnetic field having lines of force longitudinally through said anode opening, a pair of cold cathodes disposed in alignment along said field with one at each end of said anode aperture, means admitting gas into said anode opening, high voltage pulsed power supply means establishing said cathodes at a relatively negative potential with respect to said anode for producing a pulsed high voltage arc discharge through said anode opening, an accelerating electrode communicating with the interior of said anode opening over a substantial length thereof and having an elongated ion exit slit therein, high voltage power supply means maintaining said accelerating electrode at a highly negative potential relative to said anode



whereby ions are withdrawn from said pulsed arc discharge in a beam traveling transverse to said magnetic field, and a pair of neutralizing plates disposed immediately adjacent said ion beam and electrically connected to said accelerating electrode for supplying electrons to space charge neutralize said beam.

2,839,707
ELECTRICAL APPARATUS
Michael Henry Spearing, Epsom Downs, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
Application May 1, 1956, Serial No. 581,978
Claims priority, application Great Britain May 13, 1955
8 Claims. (Cl. 315—163)

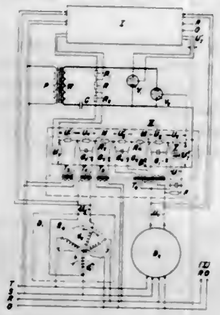


1. Electrically actuated controlling apparatus comprising a thyratron adapted to be supplied with alternating current, means connected thereto and operated thereby for correcting the magnitude of a physical quantity, subject to variation from a datum value, detecting means providing an error signal to which said thyratron is responsive, said thyratron producing an output current having a component proportional at any instant to the departure of the physical quantity from its datum value, and a multivibrator in circuit with said thyratron and adapted (*a*) to operate at a frequency synchronized with or locked to a multiple or sub-multiple of the alternating current supply, (*b*) to receive the error signal from the detecting means, and (*c*) to produce an anode circuit voltage which is applied to the thyratron grid as a striking signal, whereby the mark to space ratio of the anode circuit current of the multivibrator is controlled by the error signal thereby controlling the instant at which the thyratron strikes in each positive half-cycle.

2,839,708
DOUBLE RAY BETATRON
Rolf Wideröe, Ennetbaden, and Hans Nabholz, Baden, Switzerland, assignors to Aktiengesellschaft Brown, Boveri & Cie., Baden, Switzerland, a joint-stock company
Application April 8, 1955, Serial No. 500,245
Claims priority, application Switzerland April 14, 1954
5 Claims. (Cl. 315—196)

1. A magnetic induction accelerator comprising an evacuated chamber within which charged particles such

as electrons may follow a closed orbital path, means including an exciter coil and an associated magnetic circuit adjacent said chamber for producing a cyclically varying magnetic field of alternating polarity, said field having such spatial distribution as to normally confine the electrons to said orbital path while continuously accelerating them along said path, means including electron emissive cathode means operated in timed relation with the variation in said magnetic field for periodically injecting electron streams into said chamber for acceleration respectively in opposite directions along said path, the direction of acceleration of a particular stream being dependent upon the polarity of said magnetic field, an auxiliary winding encompassing at least a part of said alternating magnetic field for removing the accelerated streams of



electrons from their orbit by expansion or contraction of each said accelerated electron stream, said auxiliary winding being connected in series circuit with a condenser and two parallel arranged grid-controlled thyratron tubes connected in back-to-front relation, means for effecting a primary ignition of each of said thyratron tubes in each half respectively of the cycle of said alternating magnetic field thereby to energize said auxiliary winding from said condenser to effect removal of the corresponding accelerated electron stream from the orbit, and means for effecting a supplementary ignition of each said thyratron tube following the principal ignition thereof and prior to acceleration of the next stream of electrons in the opposite direction thereby to periodically recharge said condenser.

2,839,709
PROTECTIVE CIRCUIT
William H. Baumgartner, Glenside, and Richard C. Weise, Philadelphia, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application October 27, 1955, Serial No. 543,138
2 Claims. (Cl. 317—9)



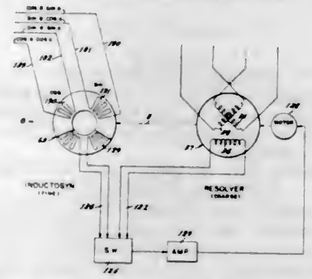
1. A protective circuit for electrical apparatus, said protective circuit comprising: a pair of leads energizable by a source voltage; first, second and third branch circuits connected in parallel between said leads, said first branch circuit comprising the winding of a first relay in series with the normally-closed contacts of a second relay and in further series with the normally-closed contacts of a third relay, said first branch circuit also including, in shunt with the first-relay winding, the winding of a fourth relay, said first branch circuit also including, in shunt with said third-relay contacts, the normally-open contacts of a plurality of sensing relays, said sensing-relay contacts being connected in series, said first relay having normally-open contacts which when closed connect a power supply to said apparatus, the windings of said sensing relays being parallel connected to pass current therethrough in response to said power supply being connected to said apparatus, said second branch circuit comprising the winding of a time-delay relay whose actuation in response to said source voltage lags behind that of said sensing relays in response to said power supply, said third branch circuit comprising the normally-open contacts of said time-delay relay in series with the winding of said third relay, said third branch circuit also including, in shunt with said third-relay winding, the normally-closed contacts of said fourth relay serially connected to the winding of said second relay, said second relay being of a type which when energized latches in open-contact position; and means for unlatching said second-relay contacts, said unlatching means comprising a release winding on said second relay separately energizable under the control of a separate control switch.

2,839,710
RECTIFIER ASSEMBLIES
Roger Doucot, Sevran, France, assignor to Compagnie des Freins et Signaux Westinghouse, Paris, France
Application January 13, 1956, Serial No. 559,019
Claims priority, application France May 12, 1955
9 Claims. (Cl. 317—234)



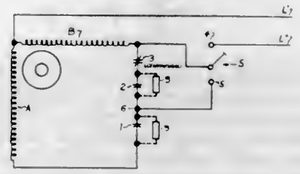
1. A rectifier assembly comprising, a frame having two end members and two elongated supporting members substantially angle-shaped in cross section secured to said end members in spaced parallel relation, said supporting members constituting opposing continuous grooves, a plurality of rectifier elements having opposed perimeter portions received within the grooves, said rectifier elements being transversely disposed relative to said supporting members; means for making circuit connections with said rectifier elements including substantially U-shaped spacing members interposed between said elements, and resilient means interposed between an end member and said rectifier elements to hold said elements and circuit making connections in assembled arrangement in said frame.

2,839,711
AUTOMATIC SHAFT CONTROL
Robert W. Tripp, Bronxville, N. Y., assignor, by mesne assignments, to Inductosyn Corporation, Carson City, Nev., a corporation of Nevada
Application October 17, 1955, Serial No. 540,748
13 Claims. (Cl. 318—162)



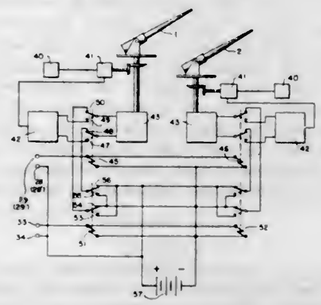
1. A digital-to-analog converter comprising means for supplying a digital input in terms of angular position of a shaft, a stepping switch, means responsive to said digital input to operate said switch to different positions, a plurality of data elements having different ranges of operation, each of said data elements having quadrature windings, a source of sine and cosine signal voltages for the quadrature windings respectively of each of said data elements controlled by said switch, and a servo amplifier and motor for said shaft controlled by said data elements.

2,839,712
ELECTRIC MOTOR
Wilbur R. Appleman, Dayton, Ohio, assignor, by mesne assignments, to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
Application September 15, 1955, Serial No. 534,420
8 Claims. (Cl. 318—211)



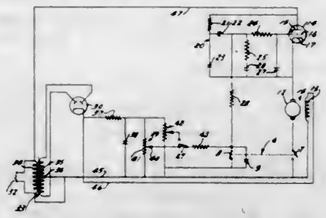
1. A control circuit for an electric motor comprising, a main motor winding, a phase winding, a power line having one side thereof connected to said windings, condensers, a centrifugal switch, said condensers and said centrifugal switch being connected in series and with said phase winding across said main winding forming a start circuit having a predetermined capacity, and switch control means connected to said main winding and selectively operable to engage the other side of said power line for operation of the motor or to engage in said starting circuit to reorient said condensers and connect them and the phase winding to staid main winding to form a braking circuit with an increased capacity relative said starting circuit whereby immediate effective braking of the motor is obtained.

2,839,713
ELECTRIC CONTROL SYSTEM FOR SUPERVISING RELATIVELY MOVABLE MEMBERS
Karl Nial Andersson, Grondal, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden
Application February 15, 1954, Serial No. 410,134
20 Claims. (Cl. 318—286)



1. An electric safety control system for controlling the relative movements of two elongated members each pivotally mounted for angular movements relative to a reference plane and to each other, the said members being disposed in a spatial relationship in which the two members are capable of approaching each other beyond a predetermined zone of approach, the said control system comprising two electric detecting means each coacting with one of said members and each other for detecting the relative position of said members, electric actuating means operatively connected with said members for movement of the said members relative to each other, and electric control means connected in an energizing circuit with said detecting means and said actuating means, said control means being controlled by the relative position of said members as detected by the detecting means and controlling the actuating means so as to render the actuating means operative for effecting relative movements of said members outside said predetermined zone of approach and preventing such relative movements beyond the said predetermined zone of approach.

2,839,714
GRID PHASE SHIFT CIRCUITS
Armand G. Mueller, Wauwatosa, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application November 18, 1955, Serial No. 547,708
9 Claims. (Cl. 318—331)

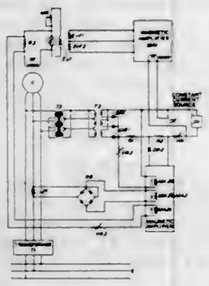


1. In a motor control circuit having a grid controlled gaseous discharge tube for rectifying and controlling the voltage supply from an A. C. source, a resistor capacitor network for producing substantially a 90° lag in phase between the anode and grid voltages comprising; a first RC circuit including a first resistor connected in series with a first capacitor directly across said tube for deriving a voltage e_1 directly from the anode and lagging said anode voltage, a second RC circuit including a second resistor and capacitor coupled to said first capacitor and to the grid of said tube for shifting the phase of e_1 to lag the anode voltage by approximately 90°, a control circuit including a source of D. C. control potential, a resistance element connected between said source and said RC circuits, and a D. C. blocking condenser connecting said RC circuits and connected between the resistance element and said first RC circuit for blocking said D. C. potential.

2,839,715
REGULATING SYSTEMS FOR DYNAMO ELECTRIC MACHINES
Norman Harry Shaw, Stafford, England, assignor to The English Electric Company Limited, London, England, a British company
Application June 6, 1955, Serial No. 513,497
Claims priority, application Great Britain June 16, 1954
3 Claims. (Cl. 322—25)

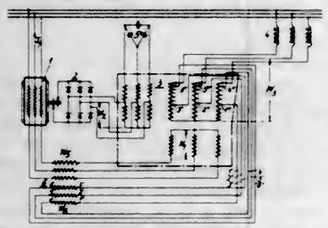
1. A regulating system for a synchronous generator comprising, in combination, means for supplying exciting current to the generator, means for producing a first electrical control signal dependent on generator output voltage, means for producing an electrical reference signal, circuit means for comparing the two signals and for producing an output signal in accordance with the difference, amplifying means responsive to said output signal arranged to control said exciting current supplying means so as to vary the generator excitation in a corrective sense in accordance with said output signal, means for producing a second electrical control signal dependent on the magnitude of generator load current, means for producing a third electrical control signal dependent on generator exciting current, and a magnetic amplifier hav-

ing first, second and third control windings energized in accordance with said first, second and third electrical control signals respectively, the second control-winding being arranged to oppose the other two control windings, and an output winding connected to said cir-



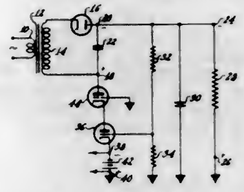
cuit means so as to inject an overriding control signal into said circuit means in a sense to cause the output signal to boost the generator excitation when the energization of said second control winding exceeds the combined energization of the other two control windings.

2,839,716
EXCITATION SYSTEM FOR SYNCHRONOUS MACHINES
Hermann Harz, Berlin-Siemenstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemenstadt, Germany, a German corporation
Application April 18, 1956, Serial No. 579,054
Claims priority, application Germany April 23, 1955
13 Claims. (Cl. 322—25)



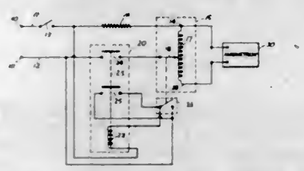
1. With a synchronous machine having a load circuit connected to an alternating-current line and having a direct-current field circuit, in combination, a field excitation system comprising a rectifier outputwise connected to said field circuit, a main excitation transformer having a secondary winding connected to said rectifier and having first and second primary winding means, reactive impedance means connected in series with said first primary winding means across said line for load-independent excitation of said primary winding means from the line voltage, said second primary winding means being connected in said load circuit and directly excited by the load current of said machine to provide said main transformer with a first load-responsive component of excitation current, an auxiliary transformer having a primary winding connected in said load circuit and with said second primary winding means and having a secondary winding connected to said first primary winding means of said main transformer to supply thereto a second load-responsive component of excitation current, whereby said first and second load-responsive current components provide said main transformer with resultant excitation proportional to the geometric sum of said two components, said first component being larger than said second component so that said respective components form coarse and fine steps of load-responsive excitation for said machine.

2,839,717
VOLTAGE REGULATOR
Maurice M. Mandelkehr, Camden, and Charles L. Olson, Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application February 25, 1954, Serial No. 412,435
9 Claims. (Cl. 323—22)



1. In apparatus of the type wherein a source of unregulated unidirectional voltage is regulated to provide a substantially constant output voltage across a pair of output terminals, means comprising a control device to sample said output voltage, amplifying means having a control grid, means fixing said control grid at a desired voltage with respect to one of said output terminals, and means connecting said source, said amplifying means, said control device and said output terminals in a series circuit.

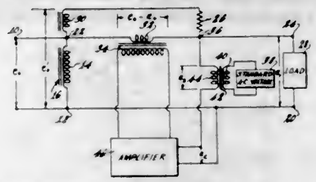
2,839,718
AUTOTRANSFORMER VOLTAGE REGULATOR
Alvin S. Luftman, Allston, John T. Goodway, Roslindale, and Charles H. Peterson, Bedford, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application February 1, 1954, Serial No. 407,430
8 Claims. (Cl. 323—43.5)



1. In combination, input terminals responsive to electrical input energy, an autotransformer including a single winding and having an adjustable sliding member connected to one of said input terminals and contacting said single winding between certain limits, an output transformer having primary and secondary windings, a portion of said primary winding being connected to the other of said input terminals, an electromechanical device energized by said input energy and energized only in response to attainment of one only of said limits for connecting said autotransformer winding in parallel with a fixed portion of said primary winding, and output terminals connected to the ends of said secondary winding.

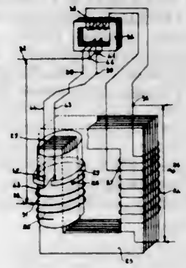
2,839,719
VOLTAGE AND WAVEFORM REGULATOR
Maurice Artzt, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 10, 1956, Serial No. 584,111
11 Claims. (Cl. 323—45)

1. A regulator circuit for regulating a source of A.-C. supply voltage comprising means to step-up said supply voltage, a pair of output terminals, an impedance, circuit means to apply said stepped-up voltage between said output terminals through said impedance, a source of standard A.-C. voltage, means to compare said standard A.-C. voltage with the voltage between said output terminals whereby to obtain an error signal, means to amplify said error signal, and means connected in shunt with said circuit means and said impedance to apply said



amplified error signal from said source of A.-C. supply voltage to one of said output terminals.

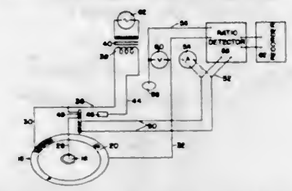
2,839,720
TRANSFORMER INCLUDING A ROTARY OR THE LIKE MOVABLE WINDING
Maurice Raymond Auguste Le Cadre, Grenoble, France
Application April 15, 1957, Serial No. 653,002
Claims priority, application France October 19, 1956
3 Claims. (Cl. 323—47)



1. A transformer adapted to produce gradually adjustable voltages comprising a main magnetic circuit including two interconnected elements, an auxiliary magnetic circuit, a primary winding on the first element of the main magnetic circuit, a primary winding on the auxiliary magnetic circuit, means feeding said primary windings with alternating current, a conductive ring slotted to form a transverse gap, surrounding the second element of the first magnetic circuit, a revoluble secondary winding mounted on said second element of the first magnetic circuit one end of which slidingly engages the conductive ring, a brush engaging permanently a point of the revoluble secondary winding located along a predetermined generating line thereof, a secondary winding carried by the auxiliary magnetic circuit, a crossed connection between the ends of said secondary winding on the auxiliary magnetic circuit and the terminals of the conductive ring to either side of the gap therein, an output circuit connected across the brush and the medial point of the secondary winding on the second magnetic circuit and means for adjusting the angular setting of the revoluble secondary winding about the first magnetic circuit.

2,839,721
APPARATUS FOR LOGGING THE OCEAN FLOOR
Leendert deWitte, Laguna Beach, Calif., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
Application October 21, 1955, Serial No. 541,902
2 Claims. (Cl. 324—1)

1. In an apparatus for determining the resistivity of geological strata underlying a body of water, including an exploring electrode, a guard electrode electrically insulated from the exploring electrode, a cable connected to said electrodes for dragging said electrodes along the bottom of the body of water, a source of electrical energy connected in parallel to said electrodes to direct current to said electrodes and maintain said electrodes at substantially equal potentials, a return electrode connected to said energy source for positioning in the body of water in spaced relation to said first-mentioned electrodes, a circuit for measuring the difference in potential between



the body of water and said first-mentioned electrodes, and a circuit for measuring the flow of current through said exploring electrode, the improvement which comprises arranging the guard electrode around the exploring electrode in a horizontal plane, with said guard electrode being in the form of a slightly dished, elliptically-shaped disk.

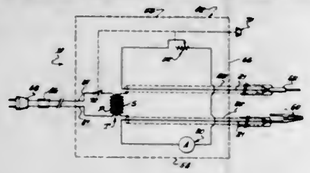
2,839,722
METHOD AND APPARATUS FOR DETECTING STRAY CURRENT CORROSION
Glenn A. Marsh, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application December 21, 1955, Serial No. 554,455
6 Claims. (Cl. 324—30)

1. An electrical apparatus for detecting subterranean stray electric current, which comprises a first metallic, corrosion-sensitive, electrical resistance element and a second metallic, corrosion-sensitive, electrical resistance element serially interconnected, thereby forming a first resistance branch, said resistance elements being substantially identical in cross-sectional area, composition, and electrical resistance characteristics, and being susceptible to corrosion, a metallic tubular shield surrounding only one of said resistance elements, in spaced relationship therewith and adapted to shield said resistance element from the corrosive effect of said stray electrical current, the ends of said shield being fitted with perforate closures, the other of said resistances being disposed in spaced relationship, outside of said shield, and electrical conductor means for connecting said resistance branch in parallel with a second resistance branch, whereby there is provided an electrical bridge.

2,839,723
IMPEDANCE MEASURING DEVICE
William R. De Armond, Torrance, Calif., assignor to Amelco, Inc., a corporation of California
Application December 27, 1954, Serial No. 477,676
1 Claim. (Cl. 324—51)

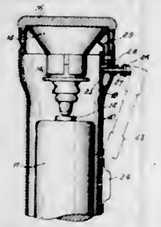
An instrument for measuring low impedances, comprising, in combination: a transformer having primary and secondary windings adapted to step down a source of alternating voltage to a given value available at said secondary winding; first and second current conductors having probe members connected to one set of their ends respectively and having their other ends connected directly to said secondary winding so that alternating cur-

rent is available at said probe members, said secondary winding having a low impedance; first and second measuring conductors passing to the probe members and insulated from said current conductors throughout their length up to said probe members, one set of ends of



said measuring conductors being connected directly to said probe members respectively; and an A.-C. voltage indicating device, the other ends of said measuring conductors being connected across said voltage indicating device whereby relatively small impedance values across which said probe members are applied may be detected.

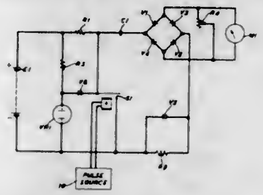
2,839,724
FLASHLIGHT AND ELECTRICAL TESTER
John Chandler and John William Chandler, London, England, assignors to D. S. Plugs Limited, Salford, England
Application October 19, 1954, Serial No. 463,236
Claims priority, application Great Britain October 26, 1953
2 Claims. (Cl. 324—53)



1. An electrical flashlight comprising an electrically conductive casing constituting a ground for a contained battery unit, an electrically conductive bulb holder mounted in one end of the casing and insulated therefrom, an electrical contact affixed to the bulb holder, switch means including a longitudinally slidable permanently grounded contact member flexibly engageable with one face of the affixed contact and slidable into and out of such engagement, a normally protruding conductive plunger mounted in and insulated from the casing opposite the engaging end of the grounded contact member and adapted when depressed to engage the said end of the grounded contact member and flex it from contact with the affixed contact and thereby open the switch contacts, and an auxiliary contact carried by the plunger in position to engage the other face of the affixed contact when the plunger is depressed to a position to flex the grounded contact member and open said switch contacts.

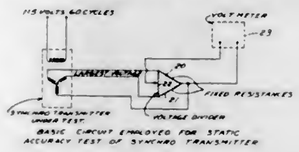
2,839,725
PULSE RATE MEASURING SYSTEM
Charles W. Haas, Morris Plains, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 24, 1955, Serial No. 542,261
5 Claims. (Cl. 324—78)

1. A pulse rate measuring device comprising a condenser, a full wave rectifying meter means, a charging resistor, a discharge resistor, an asymmetrical circuit element in shunt with said discharge resistor and connected to define a low impedance path for condenser charging currents, said discharge resistor being equal in resistance to said charging resistor, a charging circuit for said condenser including said charging resistor, said meter means and said asymmetrical circuit element, a discharge path



for said condenser including said discharge resistor and said meter means, and means responsive to the pulses to be measured for effecting alternate charge and discharge of said condenser.

2,839,726
SYNCHRO ACCURACY COMPENSATION (TAPPED IMPEDANCES)
Kimon C. Demetriou, Malibu, Calif., assignor to Sperry Rand Corporation, a corporation of Delaware
Application October 19, 1954, Serial No. 463,270
2 Claims. (Cl. 324—158)

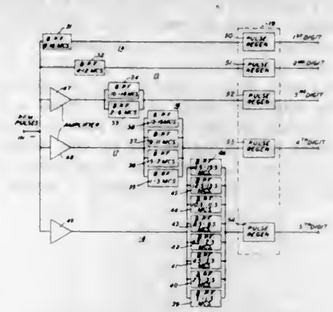


1. A method of reducing a second harmonic error in an electrical instrument of the type having relatively rotatable inductively coupled elements, one of which carries basic, symmetrical, three-phase, Y-connected, distributed windings with the coils in the different phases equally distributed and having the same number of turns, which method comprises providing each of the basic phase windings with tap connections by which the number of turns in any one phase winding can be unbalanced in relation to the number of turns in the other phase windings, and manipulating the tap connections of the windings of the three phases in sequence while charting the static accuracy of the instrument, to determine which phase winding when unbalanced in relation to the other phase windings will reduce the second harmonic error to a minimum.

2,839,727
ENCODER FOR PULSE CODE MODULATION
John C. Lozier, Short Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 11, 1953, Serial No. 336,277
16 Claims. (Cl. 332—1)

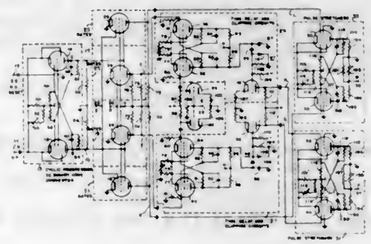
1. Encoding apparatus for representing instantaneous amplitudes of a signal wave by permutation pulse code groups of a fixed number of code elements in accordance with a digital code, said apparatus comprising means for recurrently sampling the instantaneous amplitude of said signal, a source of oscillatory energy, means for modulating the frequency of said energy as a function of said sampled amplitudes, coding means connected to receive the energy frequency modulated by said last-named means, said coding means comprising a plurality of parallel paths each having band-pass filter characteristics, one for each of said code elements, and each having an acceptance only for energy modulated by signals lying within

an amplitude range which, for that code element, is represented by a code element of a particular kind, and means



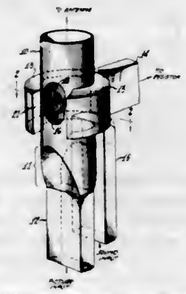
for deriving said permutation code groups from the outputs of said paths.

2,839,728
PULSE CODE MODULATION SYSTEM
Donald L. Jacoby, Elberon, Bernard J. Keigher, Shrewsbury, and Alfred Mack, Little Silver, N. J., assignors to the United States of America as represented by the Secretary of the Army
Application February 6, 1956, Serial No. 563,816
6 Claims. (Cl. 332—1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



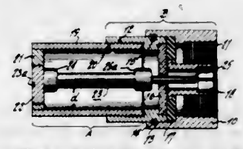
1. A narrow band pulse code modulation system comprising a multivibrator converter system for converting a cyclic progression code input to four digit positive and negative binary pulse code modulated outputs, a first pair of gate means connected to the positive pulse code output of said converter to separate the first and third digit pulses from the second and fourth digit pulses thereof, a second pair of gate means connected to the negative pulse code output of said converter to separate the first and third digit pulses from the second and fourth digit pulses thereof, a first delay circuit connected to one of said first pair of gate means and operative to delay said first and third digit pulses into time coincidence with said second and fourth digit pulses, a second delay circuit connected to one of said second pair of gate means and operative to delay said first and third digit pulses into time coincidence with said second and fourth digit pulses, a first pulse stretcher circuit responsive to the delayed outputs of said first and second delay circuits, a second pulse stretcher circuit responsive to the undelayed outputs of said first and second pairs of gate means, first and second modulator circuits including a source of alternating current and connected respectively to the outputs of said first and second pulse stretcher circuits, and voltage combining means connected to the outputs of said first and second modulator means.

2,839,729
MULTI-MODE WAVEGUIDE SYSTEM
John J. Gibson, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application February 15, 1954, Serial No. 410,302
The terminal fifteen years of the term of the patent to be granted has been disclaimed
11 Claims. (Cl. 333—6)



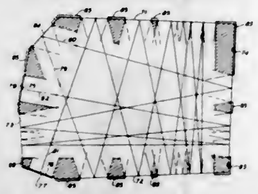
1. Means to provide separate couplings for each of three decoupled signals in a single waveguide, comprising, a generally circular waveguide, a rectangular waveguide having one cross-sectional dimension smaller than the cross-sectional dimension of said generally circular waveguide, a waveguide transition connecting one end of said generally circular waveguide to one end of said rectangular waveguide, a magic T having a main waveguide, an E-plane arm and an H-plane arm connected together at a junction, said main waveguide being formed around said generally circular waveguide, and means coupling energy from said main waveguide at points equi-distant from said junction to points on opposite sides of said generally circular waveguide.

2,839,730
TRANSMISSION LINE TERMINATION
Albert L. Rosenberg, Jr., Camden, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 15, 1954, Serial No. 456,200
5 Claims. (Cl. 333—22)



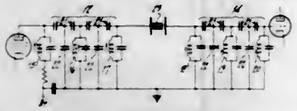
1. A structure for terminating the end of a coaxial line comprising, in combination, a resistor; first connection means for conductively connecting one end of said resistor to the inner conductor of said coaxial line at said end thereof; a conductive tubular member spaced from and surrounding said resistor; second connecting means for conductively connecting one end of said tubular member to the outer conductor of said coaxial line at said end thereof; third connecting means for providing an electrical connection between the other end of said resistor and said tubular member, said third connecting means comprising a conductive cap fastened to said other end of said tubular member, and comprising adjustable means mounted in said cap for adjusting the spacing between said other end of said resistor and said tubular member; said resistor having a resistance equal to the characteristic impedance of said coaxial line, and, when connected in the manner described, a distributed inductive reactance that provides a mismatch at said end of said transmission line; and said adjustable means serving to balance out said inductive reactance by adjusting the distributed capacitance between said resistor and said tubular member.

2,839,731
MULTI-FACET ULTRASONIC DELAY LINE
Herbert J. McSkimin, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 14, 1953, Serial No. 331,299
4 Claims. (Cl. 333—30)



1. An ultrasonic delay line bounded by a plurality of edge surfaces normal to a common plane, a first pair of said surfaces disposed at a slight angle of inclination to each other with respect to a longitudinal axis of said line, a second pair of said surfaces disposed at a slight angle of inclination with respect to a transverse axis of said delay line, means for transmitting a beam of ultrasonic radiations for internal reflection the length of said first pair of surfaces and back, means comprising an obliquely disposed edge surface for deflecting said beam onto said second set of surfaces for internal reflection the length of said second pair of surfaces and back, and means for receiving the beam of ultrasonic radiation reflected the length and back of said second pair of surfaces, wherein said ultrasonic transmitting and receiving means are substantially normally disposed to the projected path of said beam.

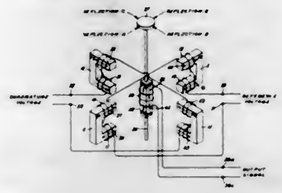
2,839,732
SINGLE-SIDEBAND FILTER
Daniel Hochman, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 31, 1955, Serial No. 485,111
The terminal fifteen years of the term of the patent to be granted has been disclaimed
3 Claims. (Cl. 333—72)



1. A filter comprising a series arm and a pair of parallel arms, one on each side of said series arm, each of said parallel arms including a plurality of parallel tuned circuits capacitively coupled together, said parallel arms together providing a passband having a lower frequency limit and an upper frequency limit, and said filter including solely a single piezoelectric crystal, said crystal being in said series arm and having an antiresonant frequency within said passband immediately adjacent to said upper frequency limit and a series resonant frequency within said passband and slightly lower than said antiresonant frequency, and said piezoelectric crystal further having a static capacity that is substantially lower than the coupling capacity of said tuned circuits.

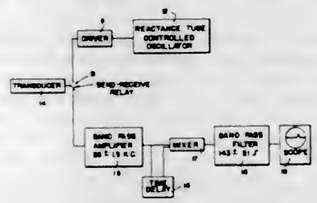
2,839,733
TRACER HEAD
Merton O. Bassett, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application May 13, 1954, Serial No. 429,627
5 Claims. (Cl. 336—30)

1. A tracer head for a tracer control system comprising in combination, a pair of alternating voltage supply terminals, a first pair of magnetic core members mounted in spaced-apart relationship to provide an air gap and with their magnetic axes occupying a first common plane, a pair of primary coils each mounted on a different one of said core members and connected to be supplied from said terminals, a pair of quadrature alternating voltage supply terminals, a second pair of magnetic core members mounted in spaced-apart relationship to provide an air gap and with their magnetic axes occupying a plane intersecting said first plane at right angles and passing through said first air gap, a second pair of primary coils each mounted on a different one of said second pair of core members and connected to be supplied from said quadrature voltage supply terminals, a stylus member



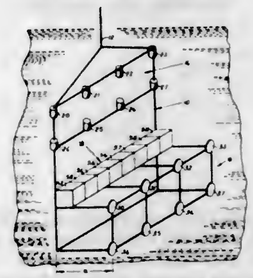
provided with a third magnetic member disposed in said air gaps at the intersection of said planes for vectorially combining the net magnetic fluxes from both said pairs of magnetic members, a pair of output terminals, a secondary winding mounted on said third magnetic member and electrically connected to said output terminals, and means pivotally mounting said stylus member to provide for a deflection of the magnetic axis of said third magnetic member in any radial direction from an initial position in response to different radially directed deflections of said stylus member thereby to cause to be induced in said secondary winding and supplied to said output terminals a resultant voltage of which the phase varies with the direction of said deflection.

2,839,734
FREQUENCY SLOPE DETECTION SONAR
William T. Hanley, Washington, D. C.
Application May 1, 1950, Serial No. 159,353
5 Claims. (Cl. 340—3)
(Granted under Title 35, U. S. Code (1952), sec. 266)



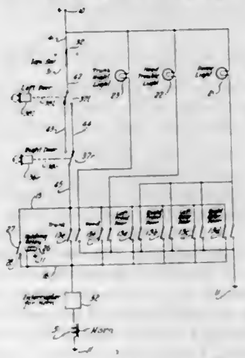
1. A frequency slope detection sonar system comprising a transducer for receiving a frequency swept pulse signal, a receiver portion, said receiver portion including a broad band pass amplifier connected to the transducer for amplifying and passing said pulsed sweep frequency signal therethrough, a mixer connected to the output of the amplifier, time delay means also connected to the output of the amplifier, the output of the time delay means likewise connected to the input of the mixer, whereby a portion of the pulsed sweep frequency signal is fed directly to the mixer while a second portion of said signal is delayed a predetermined period of time, a narrow band pass filter in series with said mixer having a band width substantially equal to the frequency change of the pulsed sweep frequency signal during the delay period, and indicating means to display the received signal.

2,839,735
UNDERWATER SOUND REFLECTOR
Lester Clare Van Atta, Pacific Palisades, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application June 8, 1955, Serial No. 514,039
4 Claims. (Cl. 340—3)



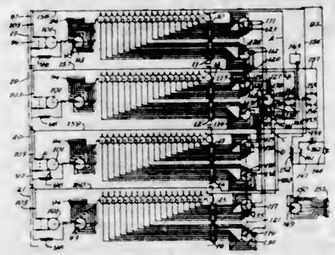
3. An underwater sound device comprising a first lineal array including a plurality of receiving elements, each capable of converting respective portions of a sound wave incident thereon into electrical signals; means for amplifying said electrical signals; and a second similar lineal array disposed parallel to said first array, said second array having a number of transmitting elements equal to the number of receiving elements in said first array, each of said transmitting elements being responsive to the amplified electrical signal from the symmetrically disposed receiving element of said first array relative to the geometrical centers of said arrays.

2,839,736
ANTI-THEFT ALARM SYSTEM
Ronald Tinsley, Oak Park, and Umberto Rafaels, Chicago, Ill.
Application December 13, 1955, Serial No. 552,784
1 Claim. (Cl. 340—63)



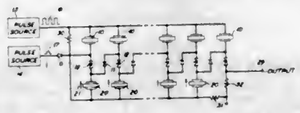
An alarm system for a motor vehicle having a pair of doors and a current supply comprising: a normally-open first switch operatively associated with a part of the vehicle subject to tampering, said switch being adapted to close its contacts when the part is tampered with, a lock for each door, a pair of single-pole, double-throw switches each having its blade operatively connected with a respective one of the locks for movement of the blade from the first pole to the second pole upon actuation of the lock between locked and unlocked positions respectively, a lead connecting the first pole of one switch to the second pole of the other switch, a lead connecting the second pole of said one switch to the first pole of said other switch, circuit means connecting one side of the supply to one of said blades, a lead connecting said other blade to one side of said first switch, a signalling device, and circuit means connecting the other side of said first switch and said device in series with the other side of the supply to activate the device upon closing of said first switch.

2,839,737
REMOTE CONTROL TELEMETERING UNIT
Herbert F. Dalglish, St. Paul, Minn.
Application May 14, 1954, Serial No. 429,863
9 Claims. (Cl. 340—150)



1. A remote control system for controlling thermocouple circuits, the system including a remote control unit and a selector unit, the remote control unit including a series of distributor switches and a control switch, said distributor switches having switch arms mounted for rotation in unison, said control switch having a rotatable disc including an insulation segment, said selector unit including a selector switch, each of said switches including a similar number of angularly spaced contacts with which said arms and said insulation segment are successively engaged, a series of thermocouple circuits connected to said remote control unit each including a common wire and a series of individual wires connected to said common wire which are at points spaced along said common wire, said individual wires of each circuit being connected to the contacts of a corresponding distributor switch, a drive means for rotating the arms of said distributor switches and the disc of said control switch, a circuit to said drive means including the arm of said selector switch, the disc of said control switch and a source of power, an indicator in said selector unit capable of providing an indication of current flow, a second selector switch in said selector unit having a switch arm and a series of contacts successively engaged by said switch arm, means connecting the contacts of said second selector switch to corresponding switch arms of said distributor switches, a circuit to said indicator including the switch arm of said second selector switch, the switch arm of a selected distributor switch, an individual thermocouple wire, the common thermocouple wire and a means connecting the common thermocouple wire to said indicator.

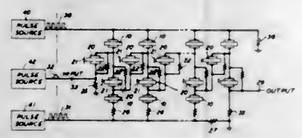
2,839,738
ELECTRICAL CIRCUITS EMPLOYING FERROELECTRIC CAPACITORS
Robert M. Wolfe, Colonia, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 10, 1956, Serial No. 627,380
8 Claims. (Cl. 340—173)



6. An electrical circuit comprising a normal ferroelectric capacitor in series connection with a biased ferroelectric capacitor, said biased ferroelectric capacitor having

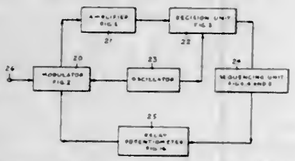
the capability of spontaneously reestablishing its state of stable remanent polarization, a diode between said capacitors, and means for applying pulses across said capacitors and diode.

2,839,739
ELECTRICAL CIRCUITS EMPLOYING FERROELECTRIC CAPACITORS
John R. Anderson, Dayton, Ohio, and Robert M. Wolfe, Colonia, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 10, 1956, Serial No. 627,381
21 Claims. (Cl. 340—173)



5. In a shift register circuit, a plurality of pairs of first ferroelectric capacitors, a second ferroelectric capacitor between said first capacitors of each pair, said second capacitors comprising a dielectric of a ferroelectric material having an internal bias, and means for applying shift pulses across said pairs of first capacitors and said interposed second capacitors.

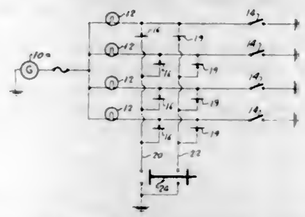
2,839,740
ANALOG-TO-DIGITAL CONVERTER
John Wilson Haanstra, San Jose, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 27, 1954, Serial No. 406,435
20 Claims. (Cl. 340—204)



1. In a measuring system wherein an electrical quantity to be measured is compared in opposed relation with an electrical quantity progressively changing by increments in accordance with the concurrent progressively changeable condition of a register means adapted upon completion of measuring to manifest by its then attained condition the value of said quantity to be measured, the improvement with said system comprising, first and second channels adapted to be supplied with an alternating signal component, electric circuit means in said first channel responsive to traversal of a null in the difference between said quantities to provide at an output therefor a modification in a time characteristic of said alternating signal component, and means adapted by comparing the time characteristic of the second channel component with that of the first channel component derived from the output of said electric circuit means to change the then existing condition of said register means in response to the occurrence of said modification.

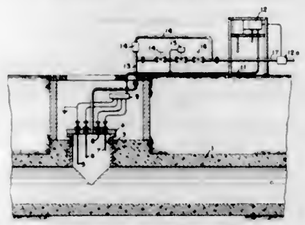
2,839,741
INDICATOR LAMP TEST CIRCUIT
Robert E. Kratville, Torrance, Calif., assignor to Theodore W. Hallerberg, Los Angeles, Calif.
Application February 24, 1956, Serial No. 567,534
2 Claims. (Cl. 340—213)

1. In a warning system or the like comprising a power source, a plurality of parallel indicating circuits each connected to said power source and including a warning lamp in series with a condition-responsive fault switch, the improvement comprising a first group of unidirectional conductors connected to each indicating circuit in parallel with the fault switch therein, a second group of



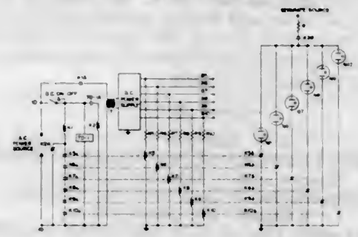
oppositely conducting uni-directional conductors connected to each indicating circuit in parallel with the fault switch therein and with said first group, and a single switch to complete a circuit through all of said uni-directional conductors and said warning lamps to test the lamps.

2,839,742
APPARATUS FOR PURGING FLUIDS FROM LIQUID COOLING SYSTEMS
Fred Sumner, Whitby, Ellesmere Port, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application July 10, 1956, Serial No. 596,859
Claims priority, application Great Britain July 14, 1955
7 Claims. (Cl. 340—242)



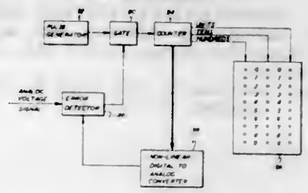
1. Apparatus for purging a foreign liquid from the predominant liquid flowing in a conduit, the liquids being immiscible with each other and having different electrical resistances, said apparatus comprising in combination: means defining a collection space having an opening in communication with the conduit and arranged to trap the foreign liquid flowing therein, said collection space being normally filled by the predominant liquid flowing through the conduit, a fluid discharge conduit in communication with said space, a normally closed electrically operated valve in said conduit, first and second electrodes disposed at different levels in said space and normally immersed in the predominant liquid therein, said first electrode becoming immersed in the foreign liquid when a predetermined small amount thereof has collected in the space and said second electrode becoming immersed in the foreign liquid when a larger predetermined amount has collected in the space, an electrical circuit including said electrodes and relay means electrically connected thereto, the arrangement of said electrodes forming interlock means for said relay means, said circuit being in a first operative condition when both electrodes are in contact with the predominant liquid and in a second operative condition when both electrodes are immersed in the foreign liquid, and electrical control means energized by the output of said circuit for opening said valve when said electrical circuit is in one of said operative conditions and for closing said valve when said electrical circuit is in the other operative condition.

2,839,743
FAULT INDICATOR DEVICE FOR POWER SUPPLY SYSTEM
William H. Baumgartner, Glenside, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application February 23, 1956, Serial No. 567,347
2 Claims. (Cl. 340—253)



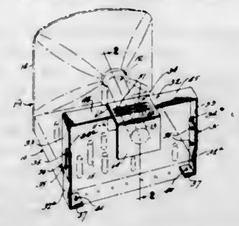
1. A protective system for interrupting, under certain abnormal conditions, the voltages supplied to a plurality of circuits and for indicating the particular circuit in which the abnormality occurred comprising in combination a source of alternating current, a direct current generator for producing said voltages, a starting relay having an energizing circuit and adapted to connect the generator to the source, a plurality of indicating devices, a plurality of sensing relays each having its energizing winding actuated by one of said voltages, said sensing relays having when energized a first plurality of closed contacts and a second plurality of open contacts, said closed contacts being connected in series relationship to one another and to said energizing circuit of said starting relay, said open contacts of each of said sensing relays being connected in series with each of said indicating devices, a continuously available power source for energizing said devices, each of said sensing relays being individually responsive to the magnitude of the energizing voltage associated therewith and adapted under certain abnormal conditions to open its said closed contacts in series with the energizing circuit of said starting relay thereby inactivating said direct current supply and simultaneously to close its said open contacts in series with an indicating device in order to produce a sustained indication of the circuit in which the abnormality occurred.

2,839,744
NON-LINEAR ANALOG-TO-DIGITAL CONVERTER
George M. Slocomb, Altadena, Calif., assignor to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application October 1, 1956, Serial No. 613,151
4 Claims. (Cl. 340—347)



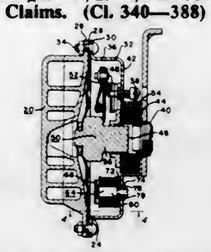
1. A converter for producing a voltage across a pair of output terminals that is a non-linear function of a multiple digit input number manifestation, said apparatus comprising a first group of ten variable resistors, each connected at one end to one of the output terminals, a low impedance source of potential having one end connected to the other of the output terminals, switching means for selectively coupling the respective resistors to one or the other of the two ends of the potential source in response to the value of the most significant digit of said multiple digit number manifestation, a plurality of additional groups of resistors including one group for each of the remaining digits of said input number manifestation, a summing resistor coupling one end of each of the resistors in said additional groups to said one of the output terminals to which the first group of resistors are connected, means for selectively coupling the respective resistors of said additional groups to one or the other of the two ends of the potential source in response to the value of the remaining digits of said multiple digit number manifestation, attenuator means including ten variable resistors and switching means for connecting selected ones of the respective resistors in shunt between said other of the output terminals connected to the one end of the potential source and the common junction between the summing resistor and said additional groups of resistors, and means for activating said last-named switching means to selectively couple a particular shunting resistor in response to the value of the most significant digit of said multiple digit number manifestation.

2,839,745
APPLIANCE FOR EASE OF HANDLING AND PROTECTION OF PARTS OF A TELEVISION CHASSIS DURING TRANSPORTATION, REPAIR, AND TESTING OF THE SAME
John C. Pyle, Denver, Colo.
Application June 7, 1954, Serial No. 435,021
6 Claims. (Cl. 340—367)



1. In combination with a television chassis having a base frame portion and a picture tube supported thereby including a screen and neck portions, a handling and stabilizing appliance including side walls having means for detachably connecting at their lower ends with the rear end portion of the television chassis frame, said side walls when attached to the chassis extending normally vertically upwardly therefrom, and a top wall portion connected to the upper ends of the side wall portions spaced above the normal neck portion of the picture tube.

2,839,746
ELECTROMAGNETIC DEVICE
Lyman A. Rice, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 20, 1956, Serial No. 604,914
7 Claims. (Cl. 340—388)



7. In an electric horn, the combination comprising; a cup-shaped base having a substantially flat bottom wall,

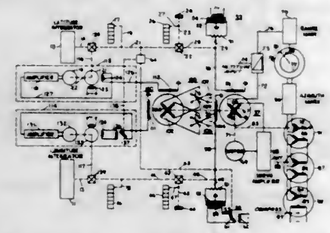
a flexible diaphragm attached to said base in spaced relation to said wall, a well in said wall, an electromagnetic coil winding disposed in said well, an armature attached to said diaphragm arranged to be moved when said electromagnetic coil winding is energized and a means including a relay positioned between said diaphragm and base for controlling the energization of said coil winding, said relay including a stationary contact supported by said base and an armature that has its movement in one direction limited by said diaphragm.

2,839,747

NAVIGATIONAL FIX COMPUTER

John W. Gray, White Plains, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application June 30, 1948, Serial No. 36,214
8 Claims. (Cl. 343—7)



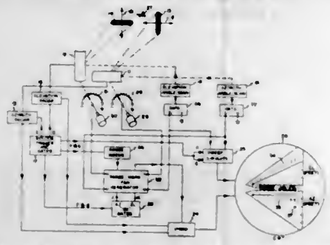
1. A fix computer for a navigational system provided with indicators for continuously integrating and indicating present latitude and longitude on a moving vehicle comprising, an indicator for indicating the latitude of a recognizable object contiguous to the path of travel of the vehicle, an indicator for indicating the longitude of said recognizable object, a cathode ray tube presenting on its screen a range and azimuthal display of a field of view including an image of said recognizable object, means operative conjointly by said present latitude and longitude indicators and the indicators of latitude and longitude of said recognizable object to provide range and azimuth markers on said cathode ray tube screen representative of the position of said object with respect to the indicated position of said vehicle and means for varying the position of said present latitude and longitude indicators at such mutually interdependent rates that the position of a selected one of said markers may be varied without altering the position of the other.

2,839,748

ANTENNA BEAM ANGLE INDICATION SYSTEM

Arthur L. Brockway, Jr., Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

Application August 20, 1951, Serial No. 242,700
10 Claims. (Cl. 343—11)



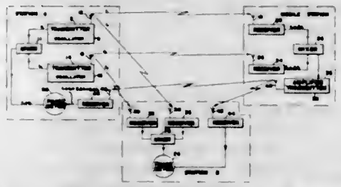
1. In a radar system having an antenna scanning in one coordinate and a cathode-ray tube display of said coordinate and range, means for displaying on said tube the position of an element movable in said coordinate comprising means for developing a voltage corresponding to the scanning position of said antenna, means for sensing the position of said element in said coordinate, means for producing a composite signal of said voltage modified by a variable derived from said sensing means representative of said position, means responsive to a first predetermined level of said signal for initiating an intensity indication on said display, means responsive to a second predetermined level of said signal for terminating said intensity indication and means for independently adjusting said predetermined levels.

2,839,749

PRECISION ELECTRONIC NAVIGATION SYSTEM

Henry Carleton, Silver Spring, Md.

Application July 8, 1952, Serial No. 297,794
9 Claims. (Cl. 343—105)
(Granted under Title 35, U. S. Code (1952), sec. 266)



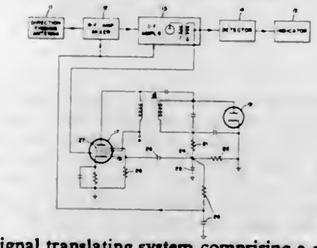
3. A precision electronic navigation system for determining the position of a mobile station with respect to a pair of fixed stations comprising means for generating and transmitting a first continuous wave signal and a second continuous wave signal at a first station, sum mixer means to combine portions of the first and second generated continuous wave signals at the first station to produce a third continuous wave signal, means at a second mobile station to receive and combine said first and second continuous wave signals at said second station to produce a fourth continuous wave signal, means for transmitting into space the fourth continuous wave signal at said second station, means to receive and combine the first and second continuous wave signals at a third station to obtain said third continuous wave signal, means at said first and third stations to receive said fourth continuous wave signals, and phase comparator means for comparing the phase of the third and fourth continuous wave signals at the first and third stations to produce indications of the distances between the second mobile station and the first and third stations respectively whereby the position of the mobile station may be determined.

2,839,750

A. G. C. DEGENERATIVE CONTROL MEANS

Dominic M. Kaltenbacher, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

Application November 21, 1952, Serial No. 321,839
7 Claims. (Cl. 343—115)



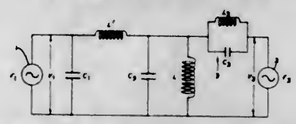
1. A signal translating system comprising a main signal channel with a utilization device and an auxiliary signal channel, means responsive to signal variations in said auxiliary channel for modifying the translating characteristic of said main signal channel, and degenerative means in said auxiliary channel selectively responsive to predetermined frequency components of said signal for diminishing said frequency components in said auxiliary channel, said degenerative means comprising a degenerative feedback loop having frequency selective filtering means incorporated therein.

2,839,751

TRANSMITTING APPARATUS FOR INDUCTIVE PROSPECTING

Vaino Ronka, Helsinki, Finland, assignor to Canadian Airborne Geophysics Limited, Toronto, Ontario, Canada, a Canadian company

Application September 13, 1954, Serial No. 455,553
5 Claims. (Cl. 343—207)



1. In the art of electromagnetic prospecting, apparatus for transmitting from the same location two alternating electromagnetic fields of markedly different frequencies, comprising an electrical circuit including a single transmitting inductor, a capacitor in parallel therewith, another inductor, a larger capacitor in parallel with the transmitting inductor through said other inductor, means for simultaneously supplying electrical currents at said two different frequencies to said circuit, the larger capacitor at the higher frequency having low impedance whereby the transmitting inductor, said other inductor, and the smaller capacitor are effectively in parallel with one another at the higher frequency, the smaller capacitor and said other inductor resonating with the transmitting inductor at the higher frequency, and the smaller capacitor at the lower frequency having sufficiently high impedance to be of negligible effect, the larger capacitor and said other inductor resonating with the transmitting inductor at the lower frequency.

2,839,752

ANTENNA WITH VARIABLE INDUCTANCE FOR TUNING

Marvin Webster, Mill Valley, Calif.

Application July 19, 1954, Serial No. 444,050
12 Claims. (Cl. 343—745)

1. A variable inductance comprising a tubular member of insulating material having a longitudinal series of substantially parallel slots, generally regularly spaced and transverse to the tube axis, cut through the wall thereof, a conductor anchored to the tubular member substantially adjacent to one end slot of the series and wrapped around said tubular member so that each conductor turn rests in one of the slots and the conductor is generally helically wound about the periphery of the tubular member, said wrapped conductor being free from insulating covering in the region of its contact with the cut slots, said wrapped conductor also being anchored to the tubular member at a point generally adjacent to the slot forming the other end of the series, a connector establishing electrical connection from one anchored end of the wrapped conductor to a first main conductor, a second main conductor supported from the tubular member at the end opposite that at which the connector is secured to the wrapped conductor, and adapted to extend internally of the tubular member for at least a portion of



its length and to be adjustable longitudinally internally thereof, a circular coupling means connecting to the second main conductor and secured at the end thereof positioned within the tubular member, said circular coupling means comprising an helically wound conductor looped into substantially circular configuration so that its ends are in substantial contact and the looped configuration forms the circularly wound conductor into a generally toroidal formation with the toroid axis substantially parallel to the axis of the tubular member, means to secure the looped conductor in the toroidal form, and means to support the second main conductor and the circular coupling means in longitudinally adjustable positions within the tubular member relative to the conductor wound thereon to determine the number of turns of the conductor wound upon the tubular member included between the contactor and the connector as determined by the longitudinal penetration of the circular coupling means within the tubular member.

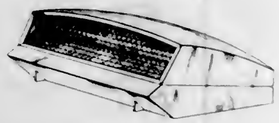
DESIGNS

JUNE 17, 1958

183,036
SPRAY CAP UNIT
Donald F. Armour, Bloomfield, Conn., assignor to Plax Corporation, Bloomfield, Conn., a corporation of Delaware
Application June 24, 1957, Serial No. 46,693
Term of patent 14 years
(Cl. D83—1)



183,037
DISPLAY BOX FOR WATCHES OR THE LIKE
Arthur R. Botham, New York, N. Y., assignor to The Bulova Watch Company, Flushing, N. Y., a corporation of New York
Application January 2, 1958, Serial No. 49,116
Term of patent 7 years
(Cl. D80—5)



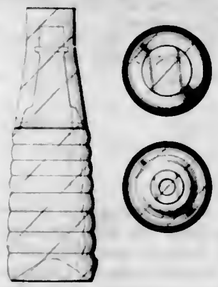
183,038
VIBRATING MASSAGE MACHINE
Lloyd A. Christensen, Lowell C. Christensen, William A. Christensen, and Weston W. Christensen, Lohrville, Iowa
Application February 25, 1957, Serial No. 44,975
Term of patent 14 years
(Cl. D83—1)



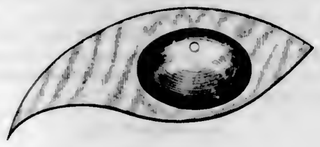
183,039
BIDET
Henry Dreyfuss, New York, N. Y., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application June 5, 1957, Serial No. 46,500
Term of patent 14 years
(Cl. D4—5)



183,040
DECANTER
Ernest L. Du Pree, Weston, Conn., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application October 31, 1956, Serial No. 43,614
Term of patent 14 years
(Cl. D58—8)



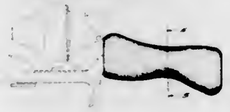
183,041
LAVATORY OR SIMILAR ARTICLE
Julian G. Everett, New York, N. Y., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
Application November 25, 1957, Serial No. 48,660
Term of patent 14 years
(Cl. D4—2)



183,042
GARDEN HOSE VALVE
Elmer A. Fuglie, Winona, Minn., assignor to Winona Tool Manufacturing Company, a partnership
Application August 17, 1953, Serial No. 26,492
Term of patent 14 years
(Cl. D91—3)



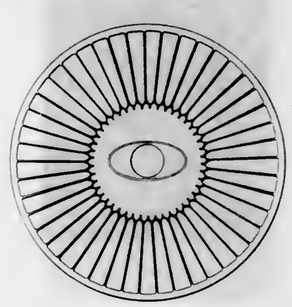
183,043
FISHING ROD HANDLE
Harry M. Gephart, Elmhurst, Ill., assignor to M-B Corporation, New Holstein, Wis., a corporation of Wisconsin
Application August 12, 1957, Serial No. 47,321
Term of patent 7 years
(Cl. D31—4)



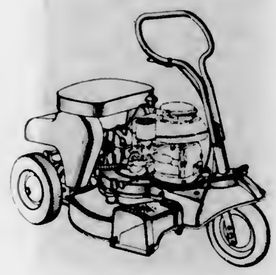
183,044
TOP WELL COVER
Edward E. Glowacke, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 6, 1957, Serial No. 46,510
Term of patent 7 years
(Cl. D14—27)



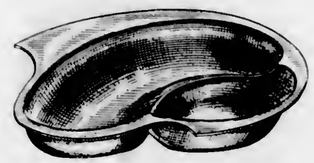
183,045
RECORD LOCATOR
Harold R. Gullixson, Greensboro, N. C.
Application March 29, 1957, Serial No. 45,501
Term of patent 14 years
(Cl. D33—3)



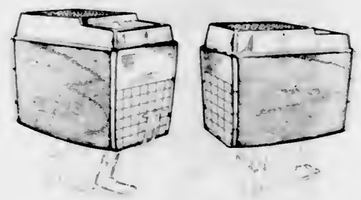
183,046
RIDING POWER MOWER
Henry L. Heineke, Springfield, Ill.
Application October 9, 1957, Serial No. 48,021
Term of patent 14 years
(Cl. D40—1)



183,047
DISH OR SIMILAR ARTICLE
Harris J. Helmer, Platteville, Wis.
Application September 9, 1957, Serial No. 47,658
Term of patent 14 years
(Cl. D44—15)



183,048
BEVERAGE DISPENSER
Clare E. Hodgman, Mamaroneck, N. Y., assignor to The Coca Cola Company, Atlanta, Ga., a corporation of Delaware
Application April 18, 1957, Serial No. 45,787
Term of patent 14 years
(Cl. D2—3)



183,049
DISPLAY CASE
Frederick S. Holderle, Harvey C. R. Holderle, and Norbert F. W. Holderle, Rochester, N. Y.
Application March 11, 1957, Serial No. 45,194
Term of patent 14 years
(Cl. D80—11)



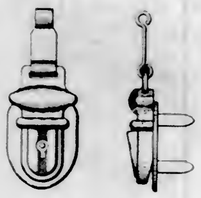
183,050
FLOOR MACHINE HOUSING UNIT
William E. Holt, Oakland, Calif.
Application April 11, 1957, Serial No. 45,686
Term of patent 14 years
(Cl. D9—2)



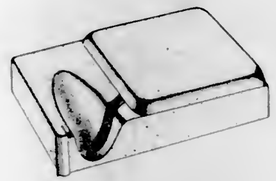
183,051
SPHYGMOMANOMETER
Erich Kallmeyer, Berlin-Grunewald, Germany
Application September 2, 1955, Serial No. 37,772
Term of patent 14 years
(Cl. D83—1)



183,052
LOCKABLE PORTFOLIO CLASP
Abraham Levine, Mendham, N. J.
Application December 3, 1957, Serial No. 48,753
Term of patent 14 years
(Cl. D50—7)



183,053
DISPENSER FOR PRESSURE SENSITIVE TAPE
Gilbert W. Lindemann and Raymond B. Kruskopf, St. Paul, Minn.
Application September 14, 1956, Serial No. 42,930
Term of patent 14 years
(Cl. D74—1)



183,054
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application August 1, 1957, Serial No. 47,179
Term of patent 14 years
(Cl. D92—1)



183,055
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 3, 1957, Serial No. 47,574
Term of patent 14 years
(Cl. D92—1)



183,056
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 3, 1957, Serial No. 47,575
Term of patent 14 years
(Cl. D92—1)



183,057
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 17, 1957, Serial No. 47,762
Term of patent 14 years
(Cl. D92—1)



183,058
PUFFED TEXTILE FABRIC
Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York
Application September 17, 1957, Serial No. 47,763
Term of patent 14 years
(Cl. D92—1)



183,059
MOTOR VEHICLE
Thomas F. Moroney, Jr., Shrewsbury, Mass.
Application December 5, 1957, Serial No. 48,788
Term of patent 14 years
(Cl. D14—3)



183,060
TEXTILE FABRIC OR SIMILAR ARTICLE
Morris Moskowitz, New York, N. Y.
Application November 14, 1957, Serial No. 48,465
Term of patent 3½ years
(Cl. D92—1)



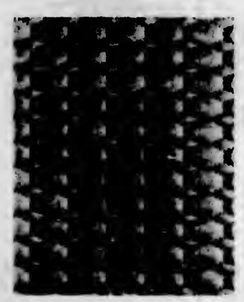
183,061
TEXTILE FABRIC OR SIMILAR ARTICLE
Pierre Pizzella, New York, N. Y., assignor to Staron, Inc., New York, N. Y., a corporation of New York
Application March 14, 1958, Serial No. 50,030
Term of patent 3½ years
(Cl. D92—1)



183,062
EMBOSSED PLASTIC SHEET MATERIAL
Walter J. Platte, St. Louis, Mo., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application May 24, 1957, Serial No. 46,339
Term of patent 14 years
(Cl. D87—3)



183,063
PUFFED TEXTILE FABRIC
Charles A. Rudolph, Cornelia, Ga., assignor to Chicopee Mills, Inc., a corporation of New York
Application August 5, 1957, Serial No. 47,235
Term of patent 14 years
(Cl. D92—1)



183,064
WITHDRAWN

183,065
BATH BRUSH FRAME
Murray Schotland, New York, N. Y.
Application December 31, 1957, Serial No. 49,081
Term of patent 14 years
(Cl. D9—2)



183,066
EYEGLASS FRAME
Edward W. Smith, Charleston Heights, S. C., assignor to Alexander Kono, doing business as Kofra, Charleston Heights, S. C.
Application September 7, 1956, Serial No. 42,872
Term of patent 14 years
(Cl. D57—1)



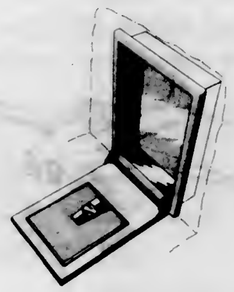
183,067
UPHOLSTERY FABRIC
Edward A. Smith, Haworth, N. J.
Application September 5, 1957, Serial No. 47,612
Term of patent 14 years
(Cl. D92—1)



183,068
FLUORESCENT FIXTURE OR THE LIKE
Joseph H. Spaulding, South Fort Mitchell, Ky., and Edward G. McAuley and James F. Mariol, Cincinnati, Ohio; said McAuley and said Mariol assignors to said Spaulding
Application April 5, 1957, Serial No. 45,596
Term of patent 14 years
(Cl. D48—31)



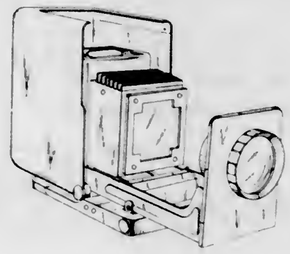
183,069
BUILT-IN FOLD DOWN BATHROOM SCALE
Walter A. Spear, Cincinnati, Ohio, assignor to NuTone, Inc., Cincinnati, Ohio, a corporation of New York
Application October 3, 1957, Serial No. 47,957
Term of patent 14 years
(Cl. D52—10)



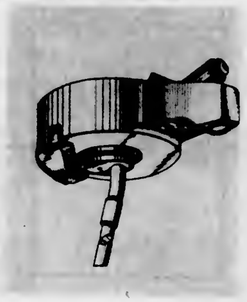
183,070
SPRAY GUN
Ward J. Stillson, Lansing, Mich., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application October 10, 1957, Serial No. 48,058
Term of patent 14 years
(Cl. D62—2)



183,071
SLIDE PROJECTOR OR SIMILAR ARTICLE
Yoshizo Tashima, Osaka, Japan
Application November 29, 1956, Serial No. 43,984
Term of patent 14 years
(Cl. D61—1)



183,072
DISPENSING UNIT FOR A BEVERAGE CONTAINER OR THE LIKE
Richard K. Wentz, Baltimore, Md.
Application April 9, 1956, Serial No. 40,987
Term of patent 14 years
(Cl. D2—3)



183,073
SELF-PROPELLED SWATHER
Allen Andrew White, Peabody, Kans., assignor to Hesston Manufacturing Co., Inc., Hesston, Kans., a corporation of Kansas
Application May 27, 1957, Serial No. 46,358
Term of patent 14 years
(Cl. D40—1)



183,074
FISHING LURE
James M. Woodley, Maplewood, La.
Application May 8, 1957, Serial No. 46,069
Term of patent 14 years
(Cl. D31—4)



183,075
PLASTIC SHEET MATERIAL
Russel Wright, New York, N. Y.
Application November 18, 1957, Serial No. 48,528
Term of patent 14 years
(Cl. D87—3)



183,076
AIRCRAFT
Mitchell Zurawinski, Niagara Falls, and Marvin M. McEuen, Kenmore, N. Y., assignors to Bell Aircraft Corporation, Wheatfield, N. Y.
Application October 2, 1956, Serial No. 43,174
Term of patent 14 years
(Cl. D71—1)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 17TH DAY OF JUNE, 1958

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Barret, William M., to Engineering Research Corp. Transmitting and receiving apparatus and method for electromagnetic prospecting. Re. 24,489, 6–17–58, Cl. 324—6.
Cross Co., The: *See*—
Cross, Ralph E., and Jessen. Re. 24,491.
Cross, Ralph E., and W. H. Jessen, to The Cross Co. Apparatus for recording and controlling machine tool operation. Re. 24,491, 6–17–58, Cl. 340—267.
Demurjian, Ashod C. Standoff terminals. Re. 24,488, 6–17–58, Cl. 174—166.
Engineering Research Corp.: *See*—
Barret, William M. Re. 24,489.
Heisenberg, Erwin, and A. Watzl, to Vereinigte Glanzstoff-Fabriken A. G. Method of polycondensing diglycol esters of terephthalic acid. Re. 24,490, 6–17–58, Cl. 260—75.
Jessen, Werner H.: *See*—
Cross, Ralph E., and Jessen. Re. 24,491.
Leach, Mark. Vibrating couch construction. Re. 24,487, 6–17–58, Cl. 128—33.
Vereinigte Glanzstoff-Fabriken A. G.: *See*—
Heisenberg, Erwin, and Watzl. Re. 24,490.
Watzl, Anton: *See*—
Heisenberg, Erwin, and Watzl. Re. 24,490.

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Armour, Donald F., to Plax Corp. Spray cap unit. 183,036, 6–17–58, Cl. D83—1.
Bell Aircraft Corp.: *See*—
Zurawinski, Mitchell, and McEuen. 183,076.
Botham, Arthur R., to The Bulova Watch Co. Display box for watches or the like. 183,037, 6–17–58, Cl. D80—5.
Bulova Watch Co., The: *See*—
Botham, Arthur R. 183,037.
Christensen, Lloyd A., L. C., W. A., and W. W. Vibrating massage machine. 183,038, 6–17–58, Cl. D83—1.
Christensen, Lowell C.: *See*—
Christensen, Lloyd A., L. C., W. A., and W. W. 183,038.
Christensen, Weston W.: *See*—
Christensen, Lloyd A., L. C., W. A., and W. W. 183,038.
Christensen, William A.: *See*—
Christensen, Lloyd A., L. C., W. A., and W. W. 183,038.
Coca Cola Co., The: *See*—
Hodgman, Clare E. 183,048.
Crane Co.: *See*—
Dreyfuss, Henry. 183,039.
Dreyfuss, Henry, to Crane Co. Bidet. 183,039, 6–17–58, Cl. D4—5.
Du Pree, Ernest L., to Schenley Industries, Inc. Decanter. 183,040, 6–17–58, Cl. D58—8.
Everett, Julian G. Lavatory or similar article. 183,041, 6–17–58, Cl. D4—2.
Food Machinery and Chemical Corp.: *See*—
Stillson, Ward J. 183,070.
Fuglie, Elmer A., to Winona Tool Mfg. Co. Garden hose valve. 183,042, 6–17–58, Cl. D91—3.
General Motors Corp.: *See*—
Glowacke, Edward E. 183,044.
Gephart, Harry M., to M-B Corp. Fishing rod handle. 183,043 6–17–58, Cl. D31—4.
Glowacke, Edward E., to General Motors Corp. Top well cover. 183,044, 6–17–58, Cl. D14—27.
Goodrich, B. F., Co., The: *See*—
Platte, Walter J. 183,062.
Gullixson, Harold R. Record locator. 183,045, 6–17–58, Cl. D33—3.
Heineke, Henry L. Riding power mower. 183,046, 6–17–58, Cl. D40—1.
Helmer, Harris J. Dish or similar article. 183,047, 6–17–58, Cl. D44—15.
Hesston Mfg. Co., Inc.: *See*—
White, Allen A. 183,073.
Hodgman, Clare E., to The Coca Cola Co. Beverage dispenser. 183,048, 6–17–58, Cl. D2—3.
Holderle, Frederick S., H. C. R., and N. F. W. Display case. 183,049, 6–17–58, Cl. D80—11.
Holderle, Harvey C. R.: *See*—
Holderle, Frederick S., H. C. R., and N. F. W. 183,049.
Holderle, Norbert F. W.: *See*—
Holderle, Frederick S., H. C. R., and N. F. W. 183,049.
Holt, William E. Floor machine housing unit. 183,050, 6–17–58, Cl. D9—2.
Kallmeyer, Erich. Sphygmomanometer. 183,051, 6–17–58, Cl. D83—1.
Kofra: *See*—
Smith, Edward W. 183,066.
Kono, Alexander: *See*—
Smith, Edward W. 183,066.
Kruskopf, Raymond B.: *See*—
Lindemann, Gilbert W., and Kruskopf. 183,053.
Legion Utensils Co., Inc.: *See*—
Scavullo, Angelo C. 183,064.
Levine, Abraham. Lockable portfolio clasp. 183,052, 6–17–58, Cl. D50—7.
Lindemann, Gilbert W., and R. B. Kruskopf. Dispenser for pressure sensitive tape. 183,053, 6–17–58, Cl. D74—1.
M-B Corp.: *See*—
Gephart, Harry M. 183,043.
Mariol, James F.: *See*—
Spaulding, Joseph H., McAuley, and Mariol. 183,068.
McAuley, Edward G.: *See*—
Spaulding, Joseph H., McAuley, and Mariol. 183,068.
McCord, Douglas D. Puffed textile fabric. 183,054, 6–17–58, Cl. D92—1.
McCord, Douglas D. Puffed textile fabric. 183,055, 6–17–58, Cl. D92—1.
McCord, Douglas D. Puffed textile fabric. 183,056, 6–17–58, Cl. D92—1.
McCord, Douglas D. Puffed textile fabric. 183,057, 6–17–58, Cl. D92—1.
McCord, Douglas D. Puffed textile fabric. 183,058, 6–17–58, Cl. D92—1.
McEuen, Marvin M.: *See*—
Zurawinski, Mitchell, and McEuen. 183,076.
Moroney, Thomas F., Jr. Motor vehicle. 183,059, 6–17–58, Cl. D14—3.
Moskowitz, Morris. Textile fabric or similar article. 183,060, 6–17–58, Cl. D92—1.
Nu Tone, Inc.: *See*—
Spear, Walter A. 183,069.
Pizzella, Pierre. Textile fabric or similar article. 183,061, 6–17–58, Cl. D92—1.
Platte, Walter J., to The B. F. Goodrich Co. Embossed plastic sheet material. 183,062, 6–17–58, Cl. D87—3.
Plax Corp.: *See*—
Armour, Donald F. 183,036.
Rudolph, Charles A. Puffed textile fabric. 183,063, 6–17–58, Cl. D92—1.
Schenley Industries, Inc.: *See*—
Du Pree, Ernest L. 183,040.
Schotland, Murray. Bath brush frame. 183,065, 6–17–58, Cl. D9—2.
Smith, Edward A. Upholstery fabric. 183,067, 6–17–58, Cl. D92—1.
Smith, Edward W., to A. Kono, d. b. a. Kofra. Eyeglass frame. 183,066, 6–17–58, Cl. D57—1.
Spaulding, Joseph H., E. G. McAuley, and J. F. Mariol; said McAuley and said Mariol assors. to said Spaulding. Fluorescent fixture or the like. 183,068, 6–17–58, Cl. D48—31.
Spear, Walter A., to Nu Tone, Inc. Built-in fold down bathroom scale. 183,069, 6–17–58, Cl. D52—10.
Stillson, Ward J., to Food Machinery and Chemical Corp. Spray gun. 183,070, 6–17–58, Cl. D62—2.
Tashima, Yoshiso. Slide projector or similar article. 183,071, 6–17–58, Cl. D61—1.
Wentz, Richard K. Dispensing unit for a beverage container or the like. 183,072, 6–17–58, Cl. D2—3.
White, Allen A., to Hesston Mfg. Co., Inc. Self-propelled swather. 183,073, 6–17–58, Cl. D40—1.
Winona Tool Mfg. Co.: *See*—
Fuglie, Elmer A. 183,042.
Woodley, James M. Fishing lure. 183,074, 6–17–58, Cl. D31—4.
Wright, Russel. Plastic sheet material. 183,075, 6–17–58, Cl. D87—3.
Zurawinski, Mitchell, and M. M. McEuen, to Bell Aircraft Corp. Aircraft. 183,076, 6–17–58, Cl. D71—1.

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ACF Industries, Inc.: *See*—
Harbulak, Harry J. 2,839,010.

A/S Protan & Helgerud, Oyvind. *See*—
Helgerud, Oyvind, and Olsen. 2,839,410.

A/S Sadolin & Holmblad, *See*—
Elming, Niels, Nielsen, and Clauson-Kaas. 2,839,539.

Ackerman, Frank F. Stuffing box for oil wells with blow-out preventer. 2,839,318, 6–17–58, Cl. 286—34.

Ackers, Harry, to BTR Industries Ltd., and Rownson Drew & Clydesdale Ltd. Flexible conveyor belts. 2,839,180, 6–17–58, Cl. 198—201.

Adams, Archie D.: *See*—
Warner, Paul F., and Adams. 2,839,560.

Adams, Arthur, and R. Slack, to May & Baker Ltd. Isothiazole compounds. 2,839,529, 6–17–58, Cl. 260—239.95.

Adlerstein, Saul H., ½ to S. Lokin. Thermal switch for fire alarms and the like. 2,839,639, 6–17–58, Cl. 200—138.

Advance Glove Mfg. Co.: *See*—
Tassle John W. D. 2,838,759.

Ahlbrecht, Arthur H., W. S. Friedlander, and W. A. Severson, to Minnesota Mining and Mfg. Co. Fluorinated acrylate esters and polymers thereof. 2,839,513, 6–17–58, Cl. 260—86.1.

Aircraft Armaments, Inc.: *See*—
Trinite, George M., Jr. 2,839,689.

Airmed Ltd.: *See*—
Marrett, Henry R. 2,839,055.

Air Reduction Co., Inc.: *See*—
Jaffe, Sigmund, and Parks. 2,839,380.

Akerson Oscar W. Windrow edge aligner. 2,838,902, 6–17–58, Cl. 56—189.

Akt., fuer Unternehmungen der Eisen- und Stahlindustrie.: *See*—
Bruderlein, Ernst J. 2,839,193.

Aktiebolaget Bofors: *See*—
Andersson, Karl N. 2,839,713.

Albaugh, Merton V. to General Motors Corp. Machine for testing hydraulic tappets. 2,838,931, 6–17–58, Cl. 73—119.

Albertson, William C., Jr., and W. J. Hood, to Mueller Co. Drilling machine. 2,838,964, 6–17–58, Cl. 77—34.4.

Albiatetti, Charles J., to E. I. du Pont de Nemours & Co. Alkoxy aluminum chelate, a dispersion of it in an organic liquid and a water repellant porous object. 2,839,421, 6–17–58, Cl. 106—287.

Alexander, Ford L. Disconnecting of well pipe or tubing joints. 2,839,143, 6–17–58, Cl. 166—46.

Allen-Bradley Co.: *See*—
Dickinson, Clarence R., and Teilkamp. 2,839,642.

Allen, Oliver L., to Electrolux Corp. Vacuum cleaner nozzle. 2,838,783, 6–17–58, Cl. 15—417.

Allen, Robert C., to Allis-Chalmers Mfg. Co. Gas turbine. 2,839,268, 6–17–58, Cl. 253—39.15.

Allied Plastics Co.: *See*—
Crane, Walton B. 2,839,214.

Allin, George S., Jr., and G. E. Bock, to Pullman-Standard Car Mfg. Co. Moldboard tilt adjusting arrangement. 2,838,857, 6–17–58, Cl. 37—144.

Allis-Chalmers Mfg. Co.: *See*—
Allen, Robert C. 2,839,268.

Allmanna Svenska Elektriska Aktiebolaget: *See*—
Dreyfus, Ludwig. 2,839,652.

Almoslino, Hans. Toy or game device. 2,839,302, 6–17–58, Cl. 273—108.

Alpha Mills Corp.: *See*—
Biever, Barton R. 2,839,058.

Alspaugh, Paul L., J. W. Helmaster, and R. L. McNeill, to Union Carbide Corp. Boring type mining machine having an adjustable boring head. 2,839,281, 6–17–58, Cl. 262—7.

Amana Refrigeration, Inc.: *See*—
Straub Robert D. 2,839,347.

Amelco, Inc.: *See*—
De Armond, William R. 2,839,723.

Amend, Arthur L. Metal stitching. 2,838,968, 6–17–58, Cl. 78—1.

American Can Co.: *See*—
Pottle, Ralph K. 2,839,230.

American Cyanamid Co.: *See*—
Brendel Armin G. 2,839,133.
Cooke, Theodore F., Moretti, and van Loo. 2,839,506.
Fryth, Peter W., and Waller. 2,839,525.
Innes William B. 2,839,475.

American Instrument Co., The: *See*—
Ohlheiser, Carlton E. 2,839,644.

American Laundry Machinery Co., The: *See*—
Strike, Louis N. 2,839,231.

American Lecithin Co., Inc.: *See*—
Hennessy, Douglas J., and Moshy. 2,839,545.

American-Marietta Co.: *See*—
McAdow, Walter R. 2,839,378.

American Meter Co., Inc.: *See*—
Gray, Robert B. 2,838,927.

American Potash & Chemical Corp.: *See*—
May, Frank H. 2,839,565.
Stern, David R., and Lynds. 2,839,367.

American Radiator & Standard Sanitary Corp.: *See*—
Hill, Frederick M., and Goebel. 2,839,350.

American Steel Foundries: *See*—
Good, Albert E., and Foster. 2,838,963.

Anaconda Co., The: *See*—
McCollom, James T. 2,839,663.

Anderson, Arthur W.: *See*—
Windover, Francis E., Anderson, and Greminger. 2,839,419.

Anderson, Carl E., and K. W. Ehlers, to United States of America, Atomic Energy Commission. Pulsed ion source. 2,839,700, 6–17–58, Cl. 315—111.

Anderson, David E. Gauge assembly. 2,838,841, 6–17–58, Cl. 33—174.

Anderson, Henry W.: *See*—
Warren, Grant E., Anderson, and Ratner. 2,839,470.

Anderson, James to The Kinnear Mfg. Co. Rolling door. 2,839,135, 6–17–58, Cl. 160—133.

Anderson, John R., and R. M. Wolfe, to Bell Telephone Laboratories, Inc. Electrical circuits employing ferroelectric capacitors. 2,839,739, 6–17–58, Cl. 340—173

Andersson, Karl N., to Aktiebolaget Bofors. Electric control system for supervising relatively movable members. 2,839,713, 6–17–58 Cl. 318—286.

Andres, Lloyd J., to Fidelitone, Inc. Selective record changer. 2,839,305, 6–17–58, Cl. 274—10.

Andrews, David H. Automatic field plotter. 2,839,246, 6–17–58, Cl. 235—61.

Anner, Georg.: *See*—
Miescher, Karl, Anner, Wieland, and Ueberwasser. 2,839,537.

Anstalt Merces: *See*—
Arni, Johann. 2,838,945.

Anton, Nicholas. Radiation detector. 2,839,688, 6–17–58, Cl. 250—83.6

Appleman, Wilbur R., to The Reliance Electric and Engineering Co. Electric motor. 2,839,712, 6–17–58, Cl. 318—211.

April, Lois. Match book slip covers. 2,839,184, 6–17–58, Cl. 206—29.

Argyll, Marion H. Protective garment. 2,839,057, 6–17–58, Cl. 128—288.

Armco Steel Corp.: *See*—
La Tour, Harry, and Perry. 2,839,455.
Loveless, Donald L. 2,839,391.

Armstrong, Daniel A., and L. J. Ford, to Kiekhaefer Corp. Air intake silencer. 2,839,042, 6–17–58, Cl. 123—198.

Armstrong, Robert T.: *See*—
Keight, Albert W., and Armstrong. 2,838,792.

Arnett, Alfred E. Towel and/or wash cloth holder. 2,839,202, 6–17–58, Cl. 211—106

Arni, Johann, to Anstalt Merces. Devices driven by a shaft at a variable speed and adapted to supply impulses uniformly spaced in time. 2,838,945, 6–17–58, Cl. 74—111.

Arnold, Ted A., to W. H. Mead. Shot blasting chambers, storage chambers and the like. 2,839,338, 6–17–58, Cl. 302—30.

Arterbury, Bryant P., and G. M. Clark, 33⅓ to R. L. Arterbury. Safety joint with shear pin release means. 2,839,315, 6–17–58, Cl. 285—3.

Arterbury, Roy L.: *See*—
Arterbury, Bryant P., and Clark. 2,839,315.

Artzt, Maurice, to Radio Corp. of America. Voltage and waveform regulator. 2,839,719, 6–17–58, Cl. 323—45.

Arundel, Coulthard & Co. Ltd.: *See*—
Ridgway, Frank. 2,838,904.

Ass, Ren L.: *See*—
Morches, Stephen A., and Ass. 2,838,970.

Atwood, Seth B.: *See*—
Patzer, William A. 2,839,175.

Aubuchon, William F., to Scovill Mfg. Co. Holders for slide fasteners. 2,838,831, 6–17–58, Cl. 29—284.

Ault, Isaac L., to Socony Mobil Oil Co., Inc. Well flow device. 2,839,144, 6–17–58, Cl. 166—148.

Auster, Martin. Tray for gas tank cap. 2,839,201, 6–17–58, Cl. 211—86.

Aveston, John: *See*—
Kember, Norman F., and Aveston. 2,839,389.

B T R Industries Ltd., and Rownson Drew & Clydesdale Ltd.: *See*—
Ackers, Harry. 2,839,180.

Babcock, Walter F., to The Foote-Burt Co. Continuous broaching machines. 2,838,980, 6–17–58, Cl. 90—33.

Bacchi, Ray, to Baldwin-Lima-Hamilton Corp. Hydraulic pumping jack. 2,838,910, 6–17–58, Cl. 60—52.

Bachmann, Oskar. Device for fusing electrodes into tubes. 2,838,878, 6–17–58, Cl. 49—7.

Backhouse, Headley T. Locks. 2,838,925, 6–17–58, Cl. 70—150.

Badische Anilin- & Soda-Fabrik Atk.: *See*—
Oettinger, Willi. 2,839,450.

Bailey, Alfred H., and J. C. Blaine, to Libbey-Owens-Ford Glass Co. Flow spout construction. 2,838,880, 6–17–58, Cl. 49—55.

Baker, David S. Game apparatus with rotatable marble transporting discs. 2,839,303, 6–17–58, Cl. 273—134.

Baldwin-Lima-Hamilton Corp.: *See*—
Bacchi, Ray. 2,838,910.

Ballman, Robert J., and W. N. Woodruff, to The Herschede Hall Clock Co. Parking meter. 2,839,174, 6–17–58, Cl. 194—54.

Balsiger, Harold E., and W. E. Happel, to Landis Tool Co. Piston grinders. 2,838,884, 6–17–58, Cl. 51—101.

Bancroft Brillotex International S. A.: *See*—
Roer, Arpad. 2,838,804.

Banks, Joseph T. Rotating roll box for cotton gins. 2,838,803, 6–17–58, Cl. 19—55.

Barényi, Béla, and W. K. H. F. Grämkow, to Daimler-Benz Akt. Combined seating and steering arrangement for vehicles. 2,839,312, 6–17–58, Cl. 280—87.

Barker, Wilbur V.: *See*—
Renzoni, Louis S., and Barker. 2,839,461.

Barkley, Lloyd B., to Monsanto Chemical Co. 3-formyl-3α-methyl-6-(β-carboxyethyl)-7-keto-$\Delta^{2,8(9)}$ octahydropentanthrene ester. 2,839,567, 6–17–58, Cl. 260—468.

Barmasse, Edmund E.: *See*—
Desmond, Charles F. and Barmasse. 2,839,124.

Barnum, Emmett R., L. E. Lorensen, and J. Zachar, to Shell Development Co. Vinylpyridine long chain acrylic ester copolymers and their preparation. 2,839,512, 6–17–58, Cl. 260—86.1.

Barusch, Maurice R.: *See*—
Lindstrom, Eddie G., and Barusch. 2,839,372.

Barusch, Maurice R.: *See*—
Sigworth, Harrison W., Lindstrom, and Barusch. 2,839,371.

Barusch, Maurice R., and E. G. Lindstrom, to California Research Corp. Gasoline composition. 2,839,373, 6–17–58, Cl. 44—66.

Bassett, Merton O., to General Electric Co. Tracer head. 2,839,733, 6–17–57, Cl. 336—30.

Bates Eric B.: *See*—
Reynolds Peter W., and Bates. 2,838,802.

Batzdorff, Alfred, to Rohm & Haas Co. Chalkboard having curved writing surface. 2,838,853, 6–17–58, Cl. 35—63.

Baumgartner, William H., and R. C. Weise, to Burroughs Corp. Protective circuit. 2,839,709, 6–17–58, Cl. 317—9.

Baumgartner, William H., to Burroughs Corp. Fault indicator device for power supply system. 2,839,743, 6–17–58, Cl. 340—253.

Bay West Paper Co.: *See*—
Engel, John B., and Plettner. 2,839,345.

Bayer, Otto: *See*—
Wilms, Hugo, Bayer, Bunge, and Bruns. 2,839,478.

Bayless, James W., to Capitol Records, Inc. Record and method of making the same. 2,839,306, 6–17–58, Cl. 274—42.

Beach, David E.: *See*—
Lareau, Norman N., and Beach. 2,838,984.

Bechtold, Karl. Compression and expansion machines for gaseous bodies. 2,839,240, 6–17–58, Cl. 230—140.

Beck, Douglas J., to Kestral Corp. Inflatable figure toy. 2,838,872, 6–17–58, Cl. 46—87.

Becker, Joseph, to Koppers Co., Inc. Coking retort oven with graduated liner wall. 2,839,453, 6–17–58, Cl. 202—323.

Becker, Otto A. Filing systems. 2,839,203, 6–17–58, Cl. 211—184.

Becker, Rudolf, and W. Hartmann, to Gesellschaft für Linde's Eismaschinen Akt. Process for the partial liquefaction of gas mixture by means of pressure and intense cooling. 2,838,918, 6–17–58, Cl. 62—175.5.

Bell, George: *See*—
Marsh, John T., Bell, and Thompson. 2,839,429.

Bell, Locklin S., to General Electric Co. Electron shielding in X-ray tubes. 2,839,698, 6–17–58, Cl. 313—55.

Bell Telephone Laboratories, Inc.: *See*—
Lozier, John C. 2,839,727.
Anderson, John R., and Wolfe. 2,839,739.
Haas, Charles W. 2,839,725.
Kent, Robert J. 2,839,441.
McSkimin, Herbert J. 2,839,731.
Wolfe, Robert M. 2,839,738.

Bellamy, Harry T. Refractory reservoir for aluminum. 2,839,292, 6–17–58, Cl. 266—34.

Bendit, George J., Jr.: *See*—
Stewart, William T., and Bendit. 2,839,468.

Bendix Aviation Corp.: *See*—
Brockway, Arthur L., Jr. 2,839,748.
Gregory, Charles E. 2,839,031.
Kaltenbacher, Dominic M. 2,839,750.
Vick, Ralph L. 2,838,911.
Wiley, William C. 2,839,687.
Wood, Louvan E. 2,839,630.

Benedek, Elek K., deceased: M. L. Benedek, administratrix, to M. L. Benedek. Rotary fluid pressure device. 2,839,007, 6–17–58, Cl. 103—135.

Benedek, Melba L.: *See*—
Benedek, Elek K. 2,839,007.

Bensch, Emil, to Industriewerk Schaeffler & K. G. Radial needle and axial roller bearing. 2,839,343, 6–17–58, Cl. 308—174.

Benson, Richard E., to E. I. du Pont de Nemours and Co. 1,2,4- and 1,3,5-trimethylenecyclohexanes and 1,3,5,7-tetramethylenecyclooctane, their preparation from allene and polymers of 1,2,4-trimethylenecyclohexane. 2,839,510, 6–17–58, Cl. 260—82.1.

Berger, David: *See*—
Berger, Joseph B. and D. 2,838,976.

Berger, Joseph B. and D. Container with animated display. 2,838,976, 6–17–58, Cl. 88—18.8.

Bergeson, Raymond L., to Minneapolis-Honeywell Regulator Co. Center of gravity responsive apparatus. 2,838,928, 6–17–58; Cl. 73—65.

Bergstad, Ralph H., and D. D. Butler, to United States of America, Navy. Tactical training device for simulating radar displays. 2,838,848, 6–17–58, Cl. 35—10.4.

Bernard, Harry M., Jr., to United States Steel Corp. Stop for double-draft piling of sheets. 2,839,295, 6–17–58, Cl. 271—86.

Berninger, Kenneth L., D. E. Royer, and W. A. Weis, to General Motors Corp. Governor valve assembly. 2,839,070, 6–17–58, Cl. 137—19.

Bernstein, Jack, and W. A. Lott, to Olin Mathieson Chemical Corp. Isonicotinic acid hydrazide derivatives. 2,838,914, 6–17–58, Cl. 260—292.

Bernstein, Jack J. to Ebert Electronics Co. High frequency tuners. 2,839,676, 6–17–58, Cl. 250—20.

Berther, Clau, to Inventa A.-G. für Forschung und Patentverwertung. Process for the production of aminocarboxylic acids. 2,839,547, 6–17–58, Cl. 260—404.

Berther, Clau, and M. Itin, to Inventa A.-G. für Forschung und Patentverwertung. Process for purifying amino acids. 2,839,548, 6–17–58, Cl. 260—404.

Bethco Bedding Corp.: *See*—
Goodman, Donald B., and Collins. 2,838,771.

Beyer, Carlton E., and R. B. Dahl, to The Dow Chemical Co. Method for lubricating polystyrene granules and enhanced molding granules thereby obtained. 2,839,422, 6–17–58, Cl. 117—4.

Biever, Barton R., to Alpha Mills Corp. Baby panty. 2,839,058, 6–17–58, Cl. 128—288.

Biklen, Donald W., to Orangeburg Mfg. Co., Inc. Bituminized fiber pipe. 2,839,088, 6–17–58, Cl. 138—47.

Bilger, Walter L.: *See*—
Kolsky, Anton J., and Bilger. 2,839,172.

Billeter, Jean-Rene: *See*—
Wettstein, Albert, Meystre, and Billeter. 2,839,528.

Billings, Alfred H., to O. and P. Goebel. Distributors for ignition systems. 2,839,622, 6–17–58, Cl. 200—24.

Bituminous Coal Research, Inc.: *See*—
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Blackett, James C., and F. T. Deziel, to Minneapolis-Honeywell Regulator Co. Burner control apparatus. 2,839,132, 6–17–58, Cl. 158—124.

Blaha, Donald L., and K. F. Mainland; said Mainland assor. to A. Giustredi. Baseball batting practice device. 2,839,300, 6–17–58, Cl. 273—26.

Blaine, John C.: *See*—
Bailey, Alfred H., and Blaine. 2,838,880.

Blash, Joseph A., to Eastman Kodak Co. Lens blocking device. 2,838,892, 6–17–58, Cl. 51—277.

Blattner, Emil H., to The Symington-Gould Corp. Journal box wear plate. 2,839,341, 6–17–58, Cl. 308—34.

Bloch, Herman S., and D. R. Strehlau, to Universal Oil Products Co. Surface active polyethylene and polypropylene amine N-aryl carbanates. 2,839,568, 6–17–58, Cl. 260—472.

Block, Meyer I.: *See*—
Verch, William L., and Block. 2,839,052.

Bloom, Melvin S.: *See*—
Towne, Edmund B., Dickey, and Bloom. 2,839,523.

Bloom, Quentin M., to Selas Corp. of America. Furnace work advancing mechanism. 2,839,282, 6–17–58, Cl. 263—3.

Bloom, Quentin M., to Selas Corp. of America. Soaking pits. 2,839,290, 6–17–58, Cl. 266—5.

Bobel, William S.: *See*—
Zeolia, Mario N., and Bobel. 2,838,809.

Bobrick, Mitchell to Sunbeam Lighting Co. Tunnel lighting fixture. 2,839,672, 6–17–58, Cl. 240—9.

Bock, George E.: *See*—
Allin, George S., Jr., and Bock. 2,838,857.

Bock, Wilhelm, to W. C. Heraeus, G. m. b. H. Fractionating oil diffusion pumps. 2,839,238, 6–17–58, Cl. 230—101.

Boer, Arpad, to Bancroft Brillotex International S. A. Fiber opening machine. 2,838,804, 6–17–58, Cl. 19—65.

Boldt Kenneth: *See*—
Pfeifer, Paul E., and Boldt. 2,839,469.

Boldt, Robert W., to Borg-Warner Corp. Electrical trolley and conductor apparatus. 2,839,621, 6–17–58, Cl. 191—33.

Bombrini Parodi-Delfino: *See*—
Corsi, Giannino. 2,838,999.

Borg-Warner Corp.: *See*—
Boldt, Robert W. 2,839,621.

Boring, Frank M. Sounding toy. 2,838,871, 6–17–58, Cl. 46—52.

Bork, Hugo W., to Skil Corp. Portable power-driven reciprocating saw. 2,839,101, 6–17–58, Cl. 143—68.

Boswell, Arthur D., to Union Carbide Corp. Method of reactor product removal by explosive means. 2,839,435, 6–17–58, Cl. 134—17.

Bouffort, Victor A. Knockdown motor vehicle of scooter type. 2,839,146, 6–17–58, Cl. 180—33.

Bourns, Marlan E. Vacuum tube pick-up. 2,839,701, 6–17–58, Cl. 313—146.

Boyan, Edwin A., and F. C. Geller, to Industrial Analyzer Corp. Recording apparatus. 2,839,256, 6–17–58, Cl. 242—56.

Bradshaw, Wilbert C., Jr. Coated article. 2,839,427, 6–17–58, Cl. 117—131.

Brandon, Joseph J., to Coach and Car Equipment Corp. Adjustable head roll for seat structure. 2,839,125, 6–17–58, Cl. 155—177.

Brebner, Donald L., to E. I. du Pont de Nemours and Co. Manufacture of polyethylene of controlled molecular weight. 2,839,518, 6–17–58, Cl. 260—94.9.

Brendel, Armin G., to American Cyanamid Co. Spray drying process. 2,839,133, 6–17–58, Cl. 159—48.

Brennan, John R. Brushing device. 2,838,763, 6–17–58, Cl. 4—1.

Brennan, Joseph B. Method and apparatus for casting. 2,838,814, 6–17–58, Cl. 22—57.2.

Brennan, Joseph K., to Packette Corp. Can group attaching plate. 2,838,818, 6–17–58, Cl. 24—81.

Brenner, Henry G.: *See*—
Cotta, Louis C., and Brenner. 2,839,659.

Bressler, Wilbur L., and J. C. Smith, to The Dow Chemical Co. Epoxide resins and 1,4,5,6,7,7 hexachloro 2-(2,3-epoxypropoxymethyl) bicyclo (2,2,1) hept-5-ene. 2,839,496, 6–17–58, Cl. 260—47.

Bridgeport Fabrics, Inc.: *See*—
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Brimer, Marshall R., to Eastman Kodak Co. Treatment of aromatic amino compounds. 2,839,578, 6–17–58, Cl. 260—577.

Bristol Aircraft Ltd.: *See*—
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Prince, Joseph E., and Haynes. 2,839,103.

British Internal Combustion Engine Research Assn., The: *See*—
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Britton, Edgar C.: *See*—
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Broadhurst, Sidney W., and L. R. F. Harris. Apparatus for the reception of pulse coded information. 2,839,610, 6–17–58, Cl. 179—18.

Brochner, Henry S., to Ordex Laboratorium ved ingenior C. O. Rasmussen. Cream tablet and process for the manufacture of it. 2,839,407, 6–17–58, Cl. 99—78.

Brockman, Emory W., and S. C. Kantor. Ice chipper. 2,839,250. 6–17–58, Cl. 241—36.

Brockway, Arthur L., Jr., to Bendix Aviation Corp. Antenna beam angle indication system. 2,839,748, 6–17–58, Cl. 343—11.

Brodkey, Robert S.: *See*—
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Brown, David, to Chempatents, Inc. Chlorination process. 2,839,589, 6–17–58, Cl. 260—654.

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Brown, Robert R., to Elastic Stop Nut Corp. of America. Electrical connection. 2,839,636, 6–17–58, Cl. 200—133.

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Broyles, Margaret H.: *See*—
Meyer, Lester W. A., and Broyles. 2,839,418.

Bruderlein, Ernst J., Akt., fuer Unternehmungen der Eisen-und Stahlindustrie. Resonant oscillating device. 2,839,193, 6–17–58, Cl. 209—365.

Brudney, Harry, to Dollac Corp. Doll's eyes. 2,838,874, 6–17–58, Cl. 46—169.

Brugger, Kurt: *See*—
Ott, Gustav H., Marxer, Zumstein, and Brugger. 2,839,480.

Bruns, Ludwig: *See*—
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Bryant Chucking Grinder Co.: *See*—
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Cann, Roald, and Lovely. 2,838,888.
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Lovely, John W. 2,838,887.

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Craig, Norman L., and Brydges. 2,838,779.

Buck, Benjamin I., deceased, by H. B. Rollins, executor, ½ to H. B. Rollins. Tomato skinning machine having radially expandable suction cups. 2,839,112, 6–17–58, Cl. 146—48.

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Buckholdt, Robert E., to E. H. Kendall. Tubular end seal for furnace cars. 2,839,283. 6–17–58, Cl. 263—28.

Buffalo Eclipse Corp.: *See*—
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Bulsse, Charles. Earth scooping bucket attachment for breaking hardened ground or the like. 2,838,856, 6–17–58, Cl. 37—142.

Bunford, Max A.: *See*—
Duval, Jean P. 2,838,815.

Bunge, Wilhelm: *See*—
Wilms, Hugo, Bayer, Bunge, and Bruns. 2,839,478.

Burch, Lewis D., to General Motors Corp. Vibration damper. 2,838,955, 6–17–58, Cl. 74—574.

Burger, Erich: *See*—
Burger, Michael and E. 2,838,985.

Burger, Erich. Photographic lens shutter. 2,838,983, 6–17–58, Cl. 95—11.5.

Burger, Michael and E. Automatic exposure regulator for photographic apparatus. 2,838,985, 6–17–58, Cl. 95—64.

Burke, William F., and R. L. Essex, to Royal McBee Co. Wax carbon printing press. 2,839,025, 6–17–58, Cl. 118—69.

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Wilson, Joseph D., and Burlinson. 2,839,227.

Burreson, Zina A. M., to Dominion Electric Corp. Steam iron safety filler cap. 2,838,859, 6–17–58, Cl. 38—77.

Burroughs Corp.: *See*—
Baumgartner, William H. 2,839,743.
Baumgartner, William H., and Weise. 2,839,709.
Fan, Sin-Pih, and Kuchinsky. 2,839,702.
Tompkins, Howard E. 2,839,686.
Weise, Richard C. 2,839,693.

Burton, Ollie L. Power lift disc cultivator for tractors. 2,838,987, 6–17–58, Cl. 97—47.63.

Burton, Reginald W., to The Mining Corp. of Canada Ltd. Method for the cyanidation of precious metals. 2,839,387, 6–17–58, Cl. 75—105.

Butler, Donald D.: *See*—
Bergstad, Ralph H., and Butler. 2,838,848.

Bylsma, Harold F.: *See*—
Tousignant, William F., and Bylsma. 2,839,417.

C. A. V. Ltd.: *See*—
Evans, Fraser M. 2,839,287.

C. G. S. Laboratories, Inc.: *See*—
Smith-Vaniz, William R., Jr. 2,839,684.

Cacheris, John C., to United States of America, Army. Microwave duplexer-detector. 2,839,683, 6–17–58, Cl. 250—31.

Caffejian, Newton J.: *See*—
Siria, James O. 2,839,097.

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Caldwell, John R., and R. Gilkey, to Eastman Kodak Co. Acrylamide-olefin alcohol copolymers. 2,839,491, 6–17–58, Cl. 260—45.5.

Caldwell, John R., and R. Gilkey, to Eastman Kodak Co. Heat stable aromatic linear polyesters. 2,839,492, 6–17–58, Cl. 260—45.85.

California Research Corp.: *See*—
Barusch, Maurice R., and Lindstrom. 2,839,373.
Lindstrom, Eddie G., and Barusch. 2,839,372.
MacPherson, Gordon R., and Carlton. 2,839,449.
Sigworth, Harrison W., Lindstrom, and Barusch. 2,839,371.
Stewart, William T., and Bendit. 2,839,468.

Callery Chemical Co.: *See*—
Letsinger, Robert L., and Skoog. 2,839,566.

Campbell, Robertson F. Adjustable doweling jig. 2,838,966, 6–17–58, Cl. 77—62.

Canadian Airborne Geophysics Ltd.: *See*—
Ronka, Vaino. 2,839,751.

Cann, Roald, to Bryant Chucking Grinder Co. Compensating radial work support for an internal centerless grinder. 2,838,885, 6–17–58, Cl. 51—103.

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Cannella, Steve. Photographer's multi flash lamp. 2,839,667. 6–17–58, Cl. 240—1.3.

Canon Camera Co., Inc.: *See*—
Mukai, Jiro. 2,838,978.

Capitol Records, Inc.: *See*—
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Carborundum Co., The: *See*—
Taylor, Kenneth M. 2,839,413.

Carey, James E., to Shell Development Co. Process for resinifying polyepoxides and resulting products. 2,839,495, 6–17–58, Cl. 260—47.

Carleton, Henry. Precision electronic navigation system. 2,839,749, 6–17–58, Cl. 343—105.

Carlin, Vincent A. Falls. 2,839,220. 6–17–58, Cl. 220—95.

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Caron, Claude: *See*—
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Carpenter, Herbert C. Folding blade sheathed nail set. 2,839,110, 6–17–58, Cl. 145—46.

Carter, Charles J. E.: *See*—
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Casco Products Corp.: *See*—
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Cassia, Roland A. Flush caps. 2,839,068, 6–17–58, Cl. 134—102.

Catlin, Willard E., and A. M. Jenkins, to E. I. du Pont de Nemours and Co. Chemical process for producing β-chloro ethane sulfonates. 2,839,573, 6–17–58, Cl. 260—513.

Cavanagh, Patrick E., to Ontario Research Foundation. Method of forming subdensity metal bodies. 2,839,397, 6–17–58, Cl. 75—222.

Celanese Corp. of America: *See*—
Hay, Alden W. 2,839,420.
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Keight, Albert W., and Armstrong. 2,838,792.
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Scott, Alexander G., and Weber. 2,838,793.

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Smith, Harold O. 2,839,161.

Chain Tools, Inc.: *See*—
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Chalkley, Lyman. Quaternary ammonium salts of aminotriphenylmethane acetonitriles. 2,839,542, 6–17–58, Cl. 260—391.

Chalkley, Lyman. Process for preparing cyanides of triarylmethane dyes. 2,839,543, 6–17–58, Cl. 260—294.

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Chandler, John and J. W. 2,839,724.

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Chempatents, Inc.: *See*—
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Cheney, Donald E., and G. C. Motsinger, to Reliable Electric Co. Splice sleeve. 2,839,596, 6–17–58, Cl. 174—92.

Cherry-Burrell Corp.: *See*—
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Chezem, Jimmie A. Bed cover retainer assembly. 2,838,770, 6–17–58, Cl. 5—320.

Chicane, Verl I. Wire reel. 2,839,257, 6–17–58, Cl. 242—86.5.

Chidsey, Francis A., Jr., to Container Corp. of America. Can holder and blank therefor. 2,839,235, 6–17–58, Cl. 229—40.

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Christian, Curtis G., to Collier Carbon and Chemical Corp. Nitrogen-phosphorus composition. 2,839,376, 6–17–58, Cl. 71—32.

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Cipriani, Wilbert R., and B. L. Weller, to Vitramon Inc. Packaging means for small electric units. 2,839,188, 6–17–58, Cl. 206—79.

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Hester, Frank A. 2,839,646.

Claret, Rene, to Office National d'Etudes et de Recherches Aeronautiques O. N. E. R. A. Apparatus for determining the direction of the apparent vertical on board a movable body. 2,838,843, 6–17–58, Cl. 33—206.

Clark, Earl K., and B. F. Parr to Westinghouse Electric Corp. Toaster apparatus. 2,838,989, 6–17–58, Cl. 99—401.

Clark, George M.: *See*—
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Clark, Herbert M., and D. Duffey, to United States of America, Atomic Energy Commission. Solvent extraction process for uranium recovery. 2,839,357, 6–17–58, Cl. 23—14.5.

Clark, Joseph C., to Johnson Electronics, Inc. Electric switch. 2,839,634, 6–17–58, Cl. 200—113.

Clark, Malcolm S., to Snap-Tite, Inc. Quick detachable coupler. 2,839,314, 6–17–58, Cl. 284—18.

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Clauson-Kaas, Niels K. F. W.: *See*—
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Clevite Corp.: *See*—
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Cole, Marc, to Hoffmann-La Roche Inc. Sulfanilamido isoxazole derivatives. 2,839,527, 6–17–58, Cl. 260—239.9.

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Commonwealth Engineering Co., of Ohio, The: *See*—
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Conrad, George. Scarifying attachment for bulldozer blades. 2,838,858, 6–17–58, Cl. 37—145.

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Continental Oil Co.: *See*—
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Cooke, Theodore F., L. J. Moretti, and W. J. van Loo, Jr., to American Cyanamid Co. Antistatic treatment for hydrophobic synthetic fiber-containing materials. 2,839,506, 6–17–58, Cl. 260—67.6.

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Copeland, Charles V., to Wayne Home Equipment Co. Air adjusting device for a furnace heating unit. 2,839,080, 6–17–58, Cl. 137—625.4.

Cornelison, Boyd, to Texas Instruments Inc. Method and apparatus for growing semiconductor crystals. 2,839,436, 6–17–58, Cl. 148—1.5.

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Corsi, Giannino, to Bombrini Parodi-Delfino. Sensitive fuses. 2,838,999, 6–17–58, Cl. 102—72.

Cosper, Dale L., to Versal, Inc. Pedal control mechanism for electric powered vehicles. 2,839,168, 6–17–58, Cl. 192—2.

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Cover, Raymond P. Auxiliary spring for wheel mounting. 2,839,293, 6–17–58, Cl. 267—15.

Cowland, William G., to D. Napier & Son Ltd. Power units comprising an internal combustion engine and an exhaust driven turbo-supercharger. 2,838,907, 6–17–58, Cl. 60—13.

Cowlin, Donald G. Tumbler drier. 2,838,846, 6–17–58, Cl. 34—87.

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Crane Packing Co.: *See*—
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Crane, Walton B., to Allied Plastics Co. Basket for berries and the like. 2,839,214, 6–17–58, Cl. 220—4.

Cranmore, Robert: *See*—
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Cull, William, to Unipower Rzeppa Ltd. Torque transmitting universal joints. 2,838,919, 6–17–58, Cl. 64—21.

Cullen, James L., to H. H. Shearin. Light-diffusing unit. 2,839,671, 6–17–58, Cl. 240—9.

Culp, David W.: *See*—
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Culver, Paul C., to L. Lemchen, and M. A. Waimon. Knife drawer unit. 2,839,349, 6–17–58, Cl. 312—323.

Currivan, John F., and W. C. Kerker, to Lynch Corp. Case loader. 2,838,896, 6–17–58, Cl. 53—166.

Curtis, Charles L., to Curtis Corp. Machine tool. 2,838,962, 6–17–58, Cl. 77—3.

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Dabringhaus, Gustav H., Jr. Tool holder and method of making same. 2,838,826, 6–17–58, Cl. 29—96.

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De Long, Chancey E., W. W. Hunt, and S. G. Ludington, to The Dow Chemical Co. Process for making fire-resistant cellular vinyl aromatic polymer articles. 2,838,801, 6–17–58, Cl. 18—48.
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Fox, Douglas P. S., and W. A. Clarke. Bottle filling machines and lift devices therefor. 2,839,095, 6–17–58, Cl. 141—149.
Francis, Paul M., to Link-Belt Co. Pusher assembly. 2,839,009, 6–17–58, Cl. 104—172.
Frank, Raymond G., to F. J. Stokes Corp. Adjustable pressure roll for rotary tablet press having self accommodating bridge. 2,839,015, 6–17–58, Cl. 107—17.
Frederick, Max Jr.: *See*—
Launder, Ernie L., Loudon, and Frederick. 2,839,666.
Freeder, Herman, to The B. F. Goodrich Co. Testing endless belts for vibration. 2,838,929, 6–17–58, Cl. 73—67.
Friedl, Johann, ½ to P. O. Tobeler, doing business under the name Trans-Oceanic. Flexible hub. 2,839,116, 6–17–58, Cl. 152—31.
Friedlander, William S.: *See*—
Ahlbrecht, Arthur H., Friedlander, and Severson. 2,839,513.
Fries, Gustav, to J. C. Vredenburg-Inglesby. Methods of and apparatus for rendering visible magnetic and electric field patterns. 2,839,601, 6–17–58, Cl. 178—6.6.
Fries, Gustav, to J. C. Vredenburg-Inglesby. Method of and apparatus for recording pictures. 2,839,602, 6–17–58, Cl. 178—6.7.
Fritz, Henry E., to Union Carbide Corp. Mannich base synthesis of bisphenols. 2,839,586, 6–17–58, Cl. 260—619.
Fruehauf Trailer Co.: *See*—
Locker, Hans. 2,839,311.
Fryth, Peter W., and C. W. Waller, to American Cyanamid Co. 3-aminoribose and method for its preparation. 2,839,525, 6–17–58, Cl. 260—211.
Fuchs, Oszkar: *See*—
Kollonitsch, Janos, and Fuchs. 2,839,577.
Fuller, John S.: *See*—
Redman, William J., and Fuller. 2,838,958.
Fulton, George R., to Imperial Chemical Industries Ltd. Production of metal alkyls. 2,839,555, 6–17–58, Cl. 260—448.
Fultz, Allen R., and B. V. Stevens, to Eastman Kodak Co. Stereo contour projector. 2,838,977, 6–17–58, Cl. 88—24.
Galloway, Torrence D. Cyclic process of extracting lead and zinc metals. 2,839,390, 6–17–58, Cl. 75—120.
Ganine, Peter. Method of making a musical comb. 2,838,834, 6–17–58, Cl. 29—529.
Gantenbine, Harvey A. Shake riving machines. 2,839,105, 6–17–58, Cl. 144—194.
Garber, John D., to Merck & Co., Inc. 2,6-bis (3-methoxy-4-hydroxybenzyl) cyclohexanol. 2,839,584, 6–17–58, Cl. 260—613.
Garner, Harold K., to United States Rubber Co. Vinyl chloride-dialkyl maleate copolymerization process. 2,839,509, 6–17–58, Cl. 260—78.5.
Garner, Philip J., to Shell Development Co. Cyclic esters of boric acid. 2,839,564, 6–17–58, Cl. 260—462.
Garrison, James O.: *See*—
Garrison, Ralph P. and J. O., and Walker. 2,839,307.
Garrison Machine Works, Inc.: *See*—
Garrison, Ralph P. and J. O., and Walker. 2,839,307.
Garrison, Ralph P. and J. O., and D. D. Walker, to Garrison Machine Works, Inc. Centrifugal chuck. 2,839,307, 6–17–58, Cl. 279—1.
Gasdorf, Gus, and R. L. Stratton, to D. W. Culp. Mooring device. 2,838,839, 6–17–58, Cl. 33—136.
Gearhart, William M., and J. B. Thompson, to Eastman Kodak Co. Controlling of odor in the preparation of wood pulp. 2,839,399, 6–17–58, Cl. 92—13.
Geen, Henry C., and J. D. Quist, deceased, by H. M. Quist, executrix, ½ to S. C. Johnson & Son, Inc., and ½ to Simoniz Co. Wax-silicone-resin polish. 2,839,482, 6–17–58, Cl. 260—23.
Geigy, J. R., A.-G.: *See*—
Margot, Alfred, and Gysin. 2,839,446.
Schetty, Guido. 2,839,521.
Geiler, Frederick C.: *See*—
Boyan, Edwin A., and Geiler. 2,839,256.
General Dynamics Corp.: *See*—
Kirk, William B. 2,839,322.
Paul, Gerald R. 2,839,705.
General Electric Co.: *See*—
Bassett, Merton O. 2,839,733.
Bell, Locklin S. 2,839,698.
Erickson, Clifford E. 2,838,845.
Graser, Michael, Jr. 2,839,600.
Kurtz, Lowell M. 2,839,241.
Macoicz, Edward L. 2,839,649.
Marble, Chester B. 2,838,905.
Rice, Neil O. 2,839,631.
General Foods Corp.: *See*—
Mitchell, James M. 2,839,111.
General Mills, Inc.: *See*—
Groves, James H., and Wilson. 2,839,219.
Wilson, Gerald G. 2,839,549.
General Motors Corp.: *See*—
Albaugh, Merton V. 2,838,931.
Berninger, Kenneth L., Royer, and Weis. 2,839,070.
Burch, Lewis D. 2,838,955.
Dickson, John. 2,839,041.
Grant, Arthur F. 2,839,170.
Hobart, John P. 2,839,319.
Johnson, Ralph S. 2,838,957.
Kapanka, William F. 2,838,785.
Moyer, David F. 2,839,633.
Peterson, Victor W., and Schnepel. 2,838,913.
Rice, Lyman A. 2,839,746.
Townsend, Harry M. 2,838,988.
Turlay, Joseph D. 2,838,941.
Walko, John A. 2,839,313.
Wallis, Cyril T. 2,838,782.
McCarty, Verle E. 2,839,186.
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Gray, John W. 2,839,747.
General Telephone Laboratories, Inc.: *See*—
Quatman, George B. 2,839,612.
General Tire & Rubber Co., The: *See*—
Pfeiffer, Paul O., Siemmons, and King. 2,839,440.
George, William L., to Johnson & Johnson. Sterilization of surgical dressings. 2,839,353, 6–17–58, Cl. 21—58.
Gerby, Russell W., to Union Carbide Corp. Method of coating carbonaceous articles with silicon nitride. 2,839,426, 6–17–58, Cl. 117—106.
Gesellschaft fur Linde's Eismaschinen Akt.: *See*—
Becker, Rudolf, and Hartmann. 2,838,918.
Giannini, Nunzie F., to Eastern Corrugated Container Corp. Inc. Cabinet. 2,839,348, 6–17–58, Cl. 312—263.
Gibson, John J., to Radio Corp. of America. Multi-mode waveguide system. 2,839,729, 6–17–58, Cl. 333—6.
Gichner, Inc.: *See*—
Hamilton, Ray V. 2,839,151.
Gift, John, to Rosedale Knitting Co. Yarn control device. 2,838,922, 6–17–58, Cl. 66—125.
Gilbert, A. C., Co., The: *See*—
Schneider, Alfred J. 2,838,956.
Gilbert, Lloyd E. Reciprocatory drive mechanisms. 2,838,942, 6–17–58, Cl. 74—54.
Gilbert, Wesley R., to C. I. Hayes, Inc. Elevator heat treatment furnace. 2,839,284, 6–17–58, Cl. 263—37.
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Caldwell, John R., and Gilkey. 2,839,479.
Caldwell, John R., and Gilkey. 2,839,491.
Caldwell, John R., and Gilkey. 2,839,492.
Gillen, George A. Air turbine motor for motor vehicles. 2,839,269, 6–17–58, Cl. 253—55.
Gilleo, Leonard S. Garbage truck packing plate control. 2,839,206, 6–17–58, Cl. 214—82.
Giusfredi, Albert: *See*—
Blaha, Donald L., and Mainland. 2,839,300.
Gladstone, Lewis. Illuminated cover plate for electrical outlets. 2,839,670, 6–17–58, Cl. 240—2.
Glidden Co., The: *See*—
Davis, Paul F. 2,839,546.
Grotz, Leonard C., and Gundersen. 2,839,490.
Globe Co., The: *See*—
Hill, John W. 2,839,320.
Gmeiner, Archibald R., to Kimberly-Clark Corp. Ceramic products. 2,839,415, 6–17–58, Cl. 106—71.
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Purdy, Bruce B., and Godschalx. 2,839,092.
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Goebel, Paula E.: *See*—
Billings, Alfred H. 2,839,622.
Goebel, Walter E.: *See*—
Hill, Frederick M., and Goebel. 2,839,350.
Good, Albert E., and T. D. Foster, to American Steel Foundries. Programming control mechanism. 2,838,963, 6–17–58, Cl. 77—4.
Goodman, Donald B., and E. Collins, to Bethco Bedding Corp. Semi-yieldable reversible mattress. 2,838,771, 6–17–58, Cl. 5—345.
Goodrich, Alonzo C. Thermal responsive unit. 2,838,936, 6–17–58, Cl. 73—363.
Goodrich, B. F., Co., The: *See*—
Erickson, Lewis C. 2,839,651.
Freeder, Herman. 2,838,929.
Merchant, John S. 2,839,340.
Goodway, John T.: *See*—
Luftman, Alvin S., Goodway, and Peterson. 2,839,718.
Goss, Robert V., and R. W. Lowe, to Toefco Engineering Co. Method of making bearings. 2,838,829, 6–17–58, Cl. 29—149.5.
Gottfried, Robert E.: *See*—
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Graef, Rudolf F., to Hüttenwerk Oberhausen Akt. Method of refining metals. 2,839,382, 6–17–58, Cl. 75—60.
Graf, Robert D. Rotary internal combustion engine. 2,839,034, 6–17–58, Cl. 123—13.
Gramelspacher, Clarence U. Combination tubeless and safety tubeless tire. 2,839,118, 6–17–58, Cl. 152—341.
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Grant, Arthur F., to General Motors Corp. Reversing clutch mechanism with magnetic particle clutching medium. 2,839,170, 6–17–58, Cl. 192—51.
Graser, Michael, Jr., to General Electric Co. Brightness control for color television receiver. 2,839,600, 6–17–58, Cl. 178—5.4
Gray, John W., to General Precision Laboratory Inc. Navigational fix computer. 2,839,747, 6–17–58, Cl. 343—7.
Gray, Robert B., to American Meter Co., Inc. Gas density measuring device. 2,838,927, 6–17–58, Cl. 73—30.
Gray, Russell H., and V. J. Webers, to E. I. du Pont de Nemours and Co. Photographic silver halide emulsions containing copolymeric mordants. 2,839,401, 6–17–58, Cl. 96—96.
Grebe, Otto, to Elektro Mechanik G. m. b. H. Fluid drive of Foettinger type. 2,838,912, 6–17–58, Cl. 60—54.
Greene, George B., to Marchant Research, Inc. Magnetic transducer head. 2,839,613, 6–17–58, Cl. 179—100.2.
Gregory, Charles E., to Bendix Aviation Corp. Motion storage device. 2,839,031, 6–17–58, Cl. 121—41.
Greiner, John W., and G. A. Fevig, to The Upjohn Co. Countercurrent extraction of steroids. 2,839,544, 6–17–58, Cl. 260—397.25.
Greminger, George K., Jr.: *See*—
Windover, Francis E., Anderson, and Greminger. 2,839,419.
Griffin Wheel Co.: *See*—
Strom, Charles F. 2,838,816.
Griffith, Edward J., to Monsanto Chemical Co. Method of producing condensed phosphoric acids. 2,839,408, 6–17–58, Cl. 204—103.
Grigsby, Gail G. Screw jack. 2,838,949, 6–17–58, Cl. 74—424.8.
Grotz, Leonard C., and F. C. Gundersen, to The Glidden Co. Polyester-monomer solutions catalyzed with aralkylene oxides and process for making same. 2,839,490, 6–17–58, Cl. 260—45.4.
Groves, James H., and G. G. Wilson; said Wilson assor. to General Mills, Inc. Resinous polyamide composition and process of preparing the same. 2,839,219, 6–17–58, Cl. 220—81.
Gruber, Heinrich, to Riedel-de Haen Akt. Intravenous ultra-short-acting anesthetic composition. 2,839,447, 6–17–58, Cl. 167—52.
Guest, Howard R., and H. A. Stansbury, Jr., to Union Carbide Corp. Allylidene dicrotonates and process for their production. 2,839,572, 6–17–58, Cl. 260—486.
Guida, Nicholas, to Visa-Matic Corp. Optical display device having polarizing means. 2,838,864, 6–17–58, Cl. 40—130.
Gulf Oil Corp.: *See*—
Parker, Almon S. 2,839,588.
Peters, John G., and Summers. 2,839,159.
Gulf Research & Development Co.: *See*—
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Gulley, Charles L. Fluid burning air heater. 2,839,045, 6–17–58, Cl. 126—90.
Gump, J. R. Alma, and H. C. Wohlers, to Michigan Chemical Corp. Method for reducing the concentration of alkali metal salts in calcium chloride brines. 2,839,360, 6–17–58, Cl. 23—90.
Gundersen, F. Carol: *See*—
Grotz, Leonard C., and Gunderson. 2,839,490.
Gunnell, Bruce C., and F. G. Stewart. Steel lined car with integral lading strap anchor. 2,839,013, 6–17–58, Cl. 105—369.
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Gutridge, Jack E., to Pullman-Standard Car Mfg. Co. Holding device for freight vehicle. 2,839,012, 6–17–58, Cl. 105—368.
Guttman, Jacob. Metal awning. 2,838,811, 6–17–58, Cl. 20—57.5.
Guyer, Reynolds, to Waldorf Paper Products Co. Waxed paper holder. 2,839,255, 6–17–58, Cl. 242—555.
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Margot, Alfred, and Gysin. 2,839,446.
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Launder, Ernie L., Loudon, and Frederick. 2,839,666.
Haake, Paul T., to Crane Packing Co. Rotary mechanical seal with self-locking seat. 2,839,317, 6–17–58, Cl. 286—11.13.
Haanstra, John W., to International Business Machines Corp. Analog-to-digital converter. 2,839,740, 6–17–58, Cl. 340—244.
Haas, Charles W., to Bell Telephone Laboratories, Inc. Pulse rate measuring system. 2,739,725, 6–17–58, Cl. 324—78.
Hadley, David J., and B. Wood, to The Distillers Co. Ltd. Process for the manufacture of nitriles. 2,839,535, 6–17–58, Cl. 260—294.9.
Hadley, Harlan A., and L. D. Singleton, to Toledo Scale Corp. Even-balance, over-and-under weighing scales. 2,839,288, 6–17–58, Cl. 265—54.
Hager, Richard E., and C. R. Reiss, to The Procter & Gamble Co. Dentifrice containing a stannous compound and a carboxylated alkyl cellulose ether. 2,839,448, 6–17–58, Cl. 167—93.
Hakanson, Hans E. W., to Gusums Bruks Aktiebolag. Press-button of plastic or like material. 2,838,820, 6–17–58, Cl. 24—216.
Hall, Carlton H., ¼ to S. S. Thompson and E. F. Thomas. Hypodermic needle sharpener. 2,838,883, 6–17–58, Cl. 51—92.
Hall, Victor C., to F. J. Stokes Corp. Grading and rejecting device. 2,839,252, 6–17–58, Cl. 241—79.
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Kratville, Robert E., and Hallerberg. 2,839,741.
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Halvorson Trees, Inc.: *See*—
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Hamilton, Ray V., to Gichner, Inc. Acoustical filters for the exhaust of internal combustion engines. 2,839,151, 6–17–58, Cl. 181—57.
Hammond, Romeyn S., and J. A. Siegfried, to Marketing Specialist, Inc. Toy vehicle. 2,838,875, 6–17–58, Cl. 46—201.
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Hanscom, Harris F., to H. F. Hanscom & Co., Inc. Machine for dispensing tape. 2,839,137, 6–17–58, Cl. 164—43.
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Foulke, Donald G., and Kardos. 2,839,456.
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Hardesty, George K. C. Illuminated panel-metal lamination conducts electric current. 2,838,865, 6–17–58, Cl. 40—130.
Hardy, Edgar E. Preparation of organic isocyanates. 2,839,559, 6–17–58, Cl. 260—453.
Harke, Otto. Mixing valve. 2,839,085, 6–17–58, Cl. 137—636.2.
Harman, Cameron G.: *See*—
Penity, Robert D., Harman, and Wainer. 2,839,414.
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Symon, Alexander, Harpur, Carter, and Williams. 2,838,950.
Harris, Franklin H. Half-tone memory tube. 2,839,679, 6–17–57, Cl. 250—27.
Harris, Guy H.: *See*—
Stevens, Donna, Harris, and Pearlman. 2,839,541.
Harris, James O., and M. H. Wilt, to Monsanto Chemical Co. Cyano ether-ester copolymers. 2,839,511, 6–17–58, Cl. 260—85.5.
Harris, John E., and M. I. Levy, to National U. S. Radiator Corp. Humidifier. 2,839,279, 6–17–58, Cl. 261—104.
Harris, John F., Jr., to E. I. du Pont de Nemours and Co. Fungicidal and anti-oxidant composition comprising 1,3-dithiolanes. 2,839,445, 6–17–58, Cl. 167—33.
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Harvey, Mortimer T., and Rosamilia. 2,839,488.
Rosamilia, Peter L., and Harvey. 2,839,487.
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Rosamilia, Peter L., and Harvey. 2,839,487.
Harvey, Mortimer T., and P. L. Rosamilia, to Harvel Research Corp. Combination of ketone formaldehyde products and glycidyl ether of polyhydric phenols or polyhydric alcohols. 2,839,481, 6–17–58, Cl. 260—19.
Harvey, Mortimer T., and P. L. Rosamilia, to Harvel Research Corp. Compositions containing epoxy resins and furfural-ketone reaction products. 2,839,488, 6–17–58, Cl. 260—42.
Harz, Hermann, to Siemens-Schuckertwerke Akt. Excitation system for synchronous machines. 2,839,716, 6–17–58, Cl. 322—25.
Haskin, Walter E., to Pressed and Welded Steel Products Co., Inc. Binder. 2,839,064, 6–17–58, Cl. 129—1.
Haslam, John H., to E. I. du Pont de Nemours and Co. Esters of antimony. 2,839,554, 6–17–58, Cl. 260—446.
Hasselhorn, Walter C., to Cook Electric Co. Lightning arresters. 2,839,635, 6–17–58, Cl. 200—118.
Hassler, David H. Breaker point gauge. 2,838,842, 6–17–58, Cl. 33—181.
Hasten, Erwin J., Jr., to Standard Railway Equipment Mfg. Co. Car roof with integral running board. 2,839,016, 6–17–58, Cl. 108—5.4.
Hauebney, Joseph P., and A. B. Scott, to The Sherwin-Williams Co. Emulsion insulating varnish and method of coating an assembly of electrical conductors. 2,839,434, 6–17–58, Cl. 117—232.
Hawks, Orris D., to Eastman Kodak Co. Conversion of retinene-phenolic material complexes to vitamin A. 2,839,585, 6–17–58, Cl. 260—617.
Hay, Alden W., to Celanese Corp. of America. Pigmented yarn. 2,839,420, 6–17–58, Cl. 106—193.
Haydon Switch Inc.: *See*—
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Hayes, C. I., Inc.: *See*—
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Heacock, William J., Jr., to Haseltine Research, Inc. High input impedance signal-monitoring apparatus. 2,839,618, 6–17–58 Cl. 179—171.

Heald, Dain W. Self locking pliers. 2,838,972, 6–17–58, Cl. 81—339.

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Heinselman, Richard V., and M. F. Murray, to The Upjohn Co. Erythromycin compounds. 2,839,524, 6–17–58, Cl. 260—210.

Helgerud, Öyvind, and A. Olsen, to A/S Protan and O. Helgerud. Method for preserving fish. 2,839,410, 6–17–58. Cl. 99—195.

Hellyer, John T., ¼ to R. S. Strom. Liquid heater and dispenser with weigher. 2,839,262, 6–17–58, Cl. 249—63.

Hempel, Gustav A.: *See*—
Rickard, Clyde E., and Hempel. 2,839,089.

Hendrix, William L. Aerial cable clamp. 2,839,597, 6–17–58, Cl. 174—146.

Hennessy, Douglas J., and R. J. Moshy, to American Lecithin Co., Inc. Processes of phosphorylating phosphatides and products thereof. 2,839,545, 6–17–58, Cl. 260—403.

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Weisgerber, Cyrus A. 2,839,516.

Herschede Hall Clock Co., The: *See*—
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Hertz, David B., to Celanese Corp. of America. Plastic sheet material. 2,838,800. 6–17–58, Cl. 18—48.

Hester, Frank A., to Clairex Corp. Photocell structure. 2,839,645, 6–17–58, Cl. 201—63.

Hester, Frank A., to Clairex Corp. Photocell structure. 2,839,646, 6–17–58. Cl. 201—63

Hickey, Earl H. Fish holding table. 2,838,787, 6–17–58, Cl. 17—8.

Hickman, Charles E. Portable ice fishing shelter. 2,839,069, 6–17–58, Cl. 135—4.

High, Carl F. Fuel injector apparatus for internal combustion engine. 2,839,040, 6–17–58, Cl. 123—140.

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Higley Frank R. Precession control means for upright centrifugal spinner. 2,838,954, 6–17–58, Cl. 74—573.

Hill, Frederick M., and W. E. Goebel, to American Radiator & Standard Sanitary Corp. Adjustable shelf and a mounting means therefor. 2,839,350, 6–17–58, Cl. 312—351.

Hill, John W., to The Globe Co. Pipe connectors. 2,839,320, 6–17–58, Cl. 287—54.

Hill, Walter C., Jr., H. W. Smith, and W. C. Twitchell, to E. I. du Pont de Nemours and Co. Shear pin assembly. 2,838,920. 6–17–58, Cl. 64—28.

Hinrichs, Kurt, to Exacta Buromaschinen G. m. b. H. Selective printer responsive to sound track on record card. 2,838,993, 6–17–58 Cl. 101—93.

Hippert, Pierre R., ½ to Societe Anonyme Les Ateliers Reunis Broyeurs Forplex. Machine for crushing, selecting and sifting materials. 2,839,251, 6–17–58, Cl. 241—56.

Hobart, John P., to General Motors Corp. Rod clamp. 2,839,319. 6–17–58. Cl. 287—3.

Hobbs, James C. Double fluid seal valve. 2,839,265, 6–17–58, Cl. 251—85.

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Katzen, Raphael. Map globe support. 2,838,852, 6–17–58, Cl. 35—46.

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Kersey, Albert H., and J. P. Creighton, to Ford Motor Co. Ltd. Power transmission mechanisms for hydraulically propelled vehicles, 2,839,033, 6–17–58, Cl. 121—182.

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Kolsky, Anton J., and W. L. Bilger. Calendar bank. 2,839,172, 6–17–58, Cl. 194—1.

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La Born, Harvey A. Camp stove. 2,839,043, 6–17–58, Cl. 126—30.

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Lahey, Parker J., and G. R. O'Leary, to Standard Railway Equipment Mfg. Co. Coupler operating rod bracket. 2,839,204, 6–17–58, Cl. 213—171.

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La Rosa, Joseph M. Garment bag. 2,839,183, 6–17–58, Cl. 206—7.

Lassiter, Frederic H. Yarn tension controlled yarn feeding apparatus. 2,838,923, 6–17–58, Cl. 66—132.

Lassy, Carl O. Lock mechanism for vise or clamp. 2,838,948, 6–17–58, Cl. 74—424.8.

La Tour, Harry, and D. C. Perry, to Armco Steel Corp. Anodizing of aluminum coated objects. 2,839,455, 6–17–58, Cl. 204—28.

Laube, Grover, and S. Halprin, to Twentieth Century Fox Film Corp. Means for making stereoscopic pictures. 2,838,975, 6–17–58, Cl. 88—16.6.

Laubscher, Aner N., to United States Steel Corp. Method of inhibiting oxidation of tin-plate. 2,839,428, 6–17–58, Cl. 117—132.

Laughlin, Myron P. Rotary mower with endless tread supporting means. 2,838,900, 6–17–58, Cl. 56—25.4.

Launder, Ernie L., A. W. Loudon, and M. Frederick, Jr., to H. & L. Tooth Co. Welding head. 2,839,666, 6–17–58, Cl. 219—130.

Lauterbach, William E.: *See*—
Modes, Edward E., Reddi, and Lauterbach. 2,838,943.

Lawalin, Harold L. Rolled paper dispenser. 2,839,346, 6–17–58, Cl. 312—39.

Lawver, James E., to International Minerals & Chemical Corp. Method of separating sylvite from sylvinite ore. 2,839,190, 6–17–58, Cl. 209—127.

Lebl, Richard C., J. Savit, and R. T. Florence, to A. B. Dick Co. Elements for use in practice of spirit duplication process. 2,838,994, 6–17–58, Cl. 101—149.4.

Le Cadre, Maurice R. A. Transformer including a rotary or the like movable winding. 2,839,720, 6–17–58, Cl. 323—47.

Lee Foundation for Nutritional Research: *See*—
Lee, Royal. 2,839,381.

Lee, Royal, to Lee Foundation for Nutritional Research. Reduction of metallic sulfide ores. 2,839,381, 6–17–58, Cl. 75—33.

Lefevre, Fernand J., to Pittsburgh Plate Glass Co. Shipping and storage carrier for sheet material. 2,839,198, 6–17–58, Cl. 211—41.

Leitz, Ernst, G. m. b. H.: *See*—
Rinker, Wilhelm, and Jung. 2,838,840.

Lemchen, Leo: *See*—
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Lengyel, John F., to Scovill Mfg. Co. Waste fitting assembly. 2,838,769, 6–17–58, Cl. 4—287.

Lentz, Guy E.: *See*—
Farrar Jack R., and Lentz. 2,838,775.

Leonard, Edward J.: *See*—
Hutton, Robert W., and Leonard. 2,839,611.

Leonard, Edward J., to International Telephone and Telegraph Corp. Terminal-per-station party-line telephone system. 2,839,609, 6–17–58, Cl. 179—17.

Lerick, Lester. Flexible golf tee. 2,839,304, 6–17–58, Cl. 273—207.

Leserman, Carl: *See*—
Loew, David L., Leserman, Del Riccio, and Gottfried. 2,839,173.

Lessing, Walter: *See*—
Meiners, Carl O., and W. and W. B. Lessing. 2,839,669.

Lessing, Walter B.: *See*—
Meiners, Carl O., and W. and W. B. Lessing. 2,839,669.

Lester, Frank P. and M. H. Ceramic structure and method for making same. 2,839,209, 6–17–58, Cl. 215—13.

Lester, Marianne H.: *See*—
Lester, Frank P. and M. H. 2,839,209.

Letsinger, Robert L., and I. H. Skoog, to Callery Chemical Co. Preparation of heterocyclic organoboron compounds. 2,839,566, 6–17–58, Cl. 260—462.

Levine, Bernard B. Dispensing device. 2,839,228, 6–17–58, Cl. 222—537.

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Harris, John E. and Levy. 2,839,279.

Lewis Engineering Co., The: *See*—
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Lewis, Maxwell H.: *See*—
Felts, Gordon P., Seeger, and Lewis. 2,839,595.

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Libbey-Owens-Ford Glass Co.: *See*—
Bailey, Alfred H., and Blaine. 2,838,880.

Libera, John J., E. J. Puetz, and A. V. Schopp, Jr., to National Lead Co. Clarifying titanium sulphate solutions. 2,839,364, 6–17–58, Cl. 23—117.

Lica, Clarence E., to Teletype Corp. Adjustable profile template. 2,838,838, 6–17–58, Cl. 33—23.

"Licencia" Talalmanyokat Ertekesito Vallalat: *See*—
Reich, Erno, Marton, and Szika. 2,839,628.

Licentia Patent-Verwaltungs-G. m. b. H.: *See*—
Roach, Arthur. 2,839,071.

Ligett, Waldo B., and A. J. Kolka, to Pittsburgh Coke and Chemical Co. Fungicidal composition comprising 2,4, dinitrofluorobenzene and methods of using same. 2,839,444, 6–17–58, Cl. 167—30.

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Lillie, Walter. Convertible straight and flared skirt. 2,838,760, 6–17–58, Cl. 2—211.

Liljenberg, Harry A., to Modern Tool & Die Co. Seed and fertilizer spreader. 2,839,223, 6–17–58, Cl. 222—177.

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Lindlar, Herbert, to Hoffmann-La Roche Inc. Process for the production of 1-acyloxy-2-methyl-3-phytyl-4-hydroxy naphthalenes. 2,839,570, 6–17–58, Cl. 260—476.

Lindstrom, Eddie G.: *See*—
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Sigworth, Harrison W., Lindstrom and Barusch. 2,839,371.

Lindstrom, Eddie G., and M. R. Barusch, to California Research Corp. Gasoline composition. 2,839,372, 6–17–58, Cl. 44—66.

Link-Belt Co.: *See*—
Francis, Paul M. 2,839,009.
Smith, Frederick L. 2,839,254.

Lipka, John. Lather dispenser in a razor. 2,839,224, 6–17–58, Cl. 222—191.

Livermore, H. F., Corp.: *See*—
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Livingston, Edwin B., and R. W. Collapsible cart. 2,839,310, 6–17–58, Cl. 280—41.

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Livingston, Edwin B., and R. W. 2,839,310.

Locker, Hans, to Fruehauf Trailer Co. Adjustable wheel mounting for trailers and the like. 2,839,311, 6–17–58, Cl. 280—81.

Lockwood, Harry A. Method and apparatus for forming a desiccator capsule. 2,838,795, 6–17–58, Cl. 18—19.

Loew, David L., C. Leserman, L. Del Riccio, and R. E. Gottfried, to International Telemeter Corp. Prepaid entertainment distribution system. 2,839,173, 6–17–58, Cl. 194—9.

Lokin, Samuel: *See*—
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Lopker, Edwin B., and E. M. Stoltz, Jr., to Olin Mathieson Chemical Corp. Continuous filtration process and apparatus therefor. 2,839,194, 6–17–58, Cl. 210—66.

Lorensen, Lyman E.: *See*—
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Lorenz, Robert L. Breathing apparatus for divers. 2,839,053, 6–17–58, Cl. 128—142.

Lornitzo, Frank C., to Pantex Mfg. Corp. Relief valve. 2,839,078, 6–17–58, Cl. 137—508.

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Louisville Cap Corp.: *See*—
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Loveless, Donald L., to Armco Steel Corp. Chromium-manganese alloy and products. 2,839,391, 6–17–58, Cl. 75—126.

Lovely, John W.: *See*—
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Lovely, John W., to Bryant Chucking Grinder Co. Compensating radial work support for an internal centerless grinder. 2,838,886, 6–17–58, Cl. 51—103.

Lovely, John W., to Bryant Chucking Grinder Co. Compensating radial work support for an internal centerless grinder. 2,838,887, 6–17–58, Cl. 51—103.

Lowe, Robert W.: *See*—
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Lozier, John C., to Bell Telephone Laboratories, Inc. Encoder for pulse code modulation. 2,839,727, 6–17–58, Cl. 332—1.

Lucien, Rene, and E. Tetart, to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M. Magnesium alloys. 2,839,394, 6–17–58, Cl. 75—168.

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Ludington, Samuel G.: *See*—
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Luftman, Alvin S., J. T. Goodway, and C. H. Peterson, to Raytheon Mfg. Co. Autotransformer voltage regulator. 2,839,718, 6–17–58, Cl. 323—43.5.

Luke, Clark. Visual cargo shifting indicator. 2,839,022, 6–17–58, Cl. 116—114.

Lundy Mfg. Corp.: *See*—
Sieradzki, Henry J. 2,839,267.

Lusser, Robert. Device for demonstrating mathematical probability. 2,838,851, 6–17–58, Cl. 35—30.

Lussier, Alphonse. Reciprocating electric shaver having multiple shearing surfaces on outer and inner cutters. 2,838,836, 6–17–58, Cl. 30—41.

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Currivan, John F., and Kerker. 2,838,896.

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Stern, David R., and Lynds. 2,839,367.

Maccarone, Fred. Narrow shank shoe and process of making the same. 2,838,855, 6–17–58, Cl. 36—30.

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MacLean, Kenneth S. Abrasive cytologic brush. 2,839,049, 6–17–58, Cl. 128—2.

MacMillan, Raymond A., to United States of America, Air Force. Photoelectric converter system. 2,839,616, 6–17–58, Cl. 179—171.

Macolez, Edward L., to General Electric Co. Control circuits for electronic ranges. 2,839,649, 6–17–58, Cl. 219—10.55.

MacPherson, Gordon R., and C. J. Carlton, to California Research Corp. Hydrocarbon conversion process. 2,839,449, 6–17–58, Cl. 196—28.

Maderni, Piero, and O. Senn, to A. G. Sandoz. Monoazo dyestuffs of the pyrazolone series and their chromium complex compounds. 2,839,522, 6–17–58, Cl. 260—147.

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Mahland, Edward W.: *See*—
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Mailly, Felicien A., to Etablissements Jouan S. A. Device for administering and transfusing blood, serums, plasmas and other medicinal preparations. 2,839,056, 6–17–58, Cl. 128—214.

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Malherbe, France: *See*—
Navarre, Roger F. D., and Malherbe. 2,839,700.

Mandelkehr, Maurice M., and C. L. Olson, to Radio Corp. of America. Voltage regulator. 2,839,717, 6–17–58, Cl. 323—22.

Manko, Joseph M., to Jones & Laughlin Steel Corp. Method of producing a dull finished fused tin coating. 2,839,437, 6–17–58, Cl. 148—6.14.

Manning, Maxwell & Moore, Inc.: *See*—
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Mansfield Sanitary Pottery, Inc.: *See*—
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Mansfield, Wilfred P., and A. H. Cornish, to The British Internal Combustion Engine Research Association. Pressure indicators and recorders. 2,838,937, 6–17–58, Cl. 73—391.

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Margot, Alfred, and H. Gysin, to J. R. Geigy A.-G. New pyrimidine derivatives. 2,839,446, 6–17–58, Cl. 167—33.

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Marrett, Henry R., to Airmed Ltd. Apparatus for the administration of anaesthetics. 2,839,055, 6–17–58, Cl. 128—188.

Marsh, Frederick W., to Kestral Corp. Valve for inflatable article. 2,839,073, 6–17–58, Cl. 137—232.

Marsh, Glenn A., to The Pure Oil Co. Method and apparatus for detecting stray current corrosion. 2,839,722, 6–17–58, Cl. 324—30.

Marsh, John T., G. Bell, and A. G. Thompson, to Tootal Broadhurst Lee Co. Ltd. Treatment of cellulosic textile materials. 2,839,429, 6–17–58, Cl. 117—139.4.

Marsh, Leon A.: *See*—
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Marsh, Peter R., to Driver-Harris Co. Alloy. 2,839,396, 6–17–58, Cl. 75—171.

Martin, Roy A. Thermal precipitator. 2,839,155, 6–17–58, Cl. 183—32.

Martinec, Eugene F., to Health-Mor, Inc. Suction cleaner motor protective construction. 2,839,156, 6–17–58, Cl. 183—37.

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Mast, Lowell R., to Commercial Controls Corp. Space heater. 2,839,657, 6–17–58, Cl. 219—39.

Matheny, Francis M., to Pipe Linings, Inc. Pipe lining machine. 2,839,026, 6–17–58, Cl. 118—306.

Matlen, Abraham J. Apparatus and process for preparing meat. 2,839,409, 6–17–58, Cl. 99—107.

Matlock, Perry W. Safety devices for swimming pools and the like. 2,838,767, 6–17–58, Cl. 4—172.

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May, Frank H., to American Potash & Chemical Corp. Isopropyl borate containing combined boric oxide. 2,839,565, 6–17–58, Cl. 260—462.

Maynard, Robert N., to S. C. Johnson & Son, Inc. Machine for wax coating comestibles. 2,839,024, 6–17–58, Cl. 118—18.

Mayne, Robert L. Kite control mechanism. 2,839,259, 6–17–58, Cl. 244—153.

Mayo, Hays C., to The M. W. Kellogg Co. Pumps for high vapor pressure liquids. 2,839,006, 6–17–58, Cl. 103—87.

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McCarthy, Edward J., to Pneumatic Scale Corporation Ltd. Vacuum filling machine. 2,839,093, 6–17–58, Cl. 141—51.

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McCollom, James T., to The Anaconda Co. Welding apparatus. 2,839,663, 6–17–58, Cl. 219—76.

McConnaughey, Paul W., to Mine Safety Appliances Co. Spot testing. 2,839,368, 6–17–58, Cl. 23—230.

McConnell, Thomas M. Scheduling device. 2,838,862, 6–17–58, Cl. 40—124.

McConville, Robert H., to New Castle Products, Inc. Slip-cover for accordion type folding closures. 2,839,134, 6–17–58, Cl. 160—84.

McCord, Georgie P., to United States Rubber Co. Tubeless tire valve. 2,839,120, 6–17–58, Cl. 152—427.

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McKinney, Robert M., to E. I. du Pont de Nemours and Co. Method of producing refractory metals. 2,839,383, 6–17–58, Cl. 75—84.5.

McKinney, Robert M., to E. I. du Pont de Nemours and Co. Method for producing fourth group metals. 2,839,384, 6–17–58, Cl. 75—84.5.

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McSkimin, Herbert J., to Bell Telephone Laboratories, Inc. Multi-facet ultrasonic delay line. 2,839,731, 6–17–58, Cl. 333—30.

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Johnston, Christian W., and Meara. 2,839,571.

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Meiners Optical Devices Ltd.: *See*—
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Meister & Co.: *See*—
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Merrill, Leslie C., to United States of America, Atomic Energy Commission. Magnetic recording head. 2,839,614, 6–17–58, Cl. 179—100.2.

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Epstein, Henry D. 2,839,638.
Epstein, Henry D. 2,839,640.

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Meyer, Arthur A., to Warner Brake & Clutch Co. Positioning apparatus. 2,838,967, 6–17–58, Cl. 77—63.

Meyer, Lester W. A., and M. H. Broyles, to Eastman Kodak Co. Cellulose organic acid ester plastics containing hydroquinone monosalicylate. 2,839,418, 6–17–58, Cl. 106—182.

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Middlebrooks, Clarence E., Jr. Supercharger for internal combustion engine. 2,839,038, 6–17–58, Cl. 123—119.

Miescher, Karl, G. Anner, P. Wieland, and H. Ueberwasser, to Ciba Pharmaceutical Products, Inc. Tricyclic diketone and process of manufacture. 2,839,537, 6–17–58, Cl. 260—340.9.

Miller, Herbert C., Jr., to Hercules Powder Co. Water-soluble carboxyalkyl cellulose derivative and method of manufacture. 2,839,526, 6–17–58, Cl. 260—232.

Miller, John L. Adjustable spreader bar. 2,838,823, 6–17–58, Cl. 26—55.

Miller, Ralph B. Combination coin container and ruler. 2,839,243, 6–17–58, Cl. 232—5.

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Mills, Ivor W., to Sun Oil Co. Process and apparatus for elevating granular solids. 2,839,339, 6–17–58, Cl. 302—66.

Mills, James M. Camera photographic flashlight attachment. 2,839,668, 6–17–58, Cl. 240—1.3.

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Pinckaers, Balthasar H. 2,839,691.
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Minneapolis-Moline Co.: *See*—
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Minnesota Mining and Mfg. Co.: *See*—
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Mock, Luther R., and E. K. Koppelmann, to Madison Faessler Tool Co. Expanding tool with automatic reset. 2,839,121, 6–17–58, Cl. 153—82.

Modern Mechanisation Ltd.: *See*—
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Modern Tool & Die Co.: *See*—
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Modine Mfg. Co.: *See*—
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Moelter, Gregory M., to Celanese Corp. of America. Spinning. 2,839,354, 6–17–58, Cl. 18—54.

Moen, Alfred M. Valve handle. 2,839,083, 6–17–58, Cl. 137—636.2.

Molle, Ernest D., to The Sherwin-Williams Co. Multiple color paint tray. 2,838,781, 6–17–58, Cl. 15—121.1.

Mollner, William J. Gas cleaning apparatus. 2,839,153, 6–17–58, Cl. 183—13.

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Monckieff-Yeates, Alexander J., to Radio Corp. of America. Electrostatic printing. 2,839,400, 6–17–58, Cl. 96—1.

Monsanto Chemical Co.: *See*—
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Griffith, Edward J. 2,839,408.
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Monson, Louis T., to Petrolite Corp. Concentration of sylvite from its ores. 2,839,192, 6–17–58, Cl. 209—166.

Monson, Louis T., and R. W. Wagoner, to Petrolite Corp. Phosphate rock beneficiation process. 2,839,191, 6–17–58, Cl. 209—166.

Monte Verde Industries: *See*—
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Moore, Dubart A.: *See*—
Kleinmann, Erwin S., Keller, Moore, Horn, and Lindblom. 2,838,991.

Moore, Edward B., and E. H. Stonich, to Vapor Heating Corp. Train line end valve. 2,839,082, 6–17–58, Cl. 137—630.15.

Moretti, Louis J.: *See*—
Cooke, Theodore F., Moretti, and van Loo. 2,839,506.

Moretti, Whitfield, and R. Cranmore, to Millers Falls Co. Cut-line indicator for portable circular saw. 2,839,098, 6–17–58, Cl. 143—43.

Morse, Charles L. Marble runway game. 2,838,870, 6–17–58, Cl. 46—43.

Moscowitz, Harold and L. Expandible card case. 2,839,114, 6–17–58, Cl. 150—39.

Moscowitz, Leonard: *See*—
Moscowitz, Harold and L. 2,839,114.

Moser, John F., Jr., to Esso Research and Engineering Co. Stripping in fluid coking. 2,839,451, 6–17–58, Cl. 202—23.

Mosesian, Edward C.: *See*—
Siria, James O. 2,839,097.

Moshy, Raymond J.: *See*—
Hennessy, Douglas J., and Moshy. 2,839,545.

Motches, Stephen A., and R. L. Asa, to The Thomas & Betts Co. Replaceable die nest crimping tool. 2,838,970, 6–17–58, Cl. 81—15.

Motsinger, George C.: *See*—
Cheney, Donald E., and Motsinger. 2,839,596.

Moyer, David F., to General Motors Corp. Circuit breaking device. 2,839,633, 6–17–58, Cl. 200—113.

Moyer, Harold W., ½ to L. A. Marsh. Telephone signaling device. 2,839,608, 6–17–58, Cl. 179—5.

Mueller, Armand G., to Square D Co. Grid phase shift circuits. 2,839,714, 6–17–58, Cl. 318—331.

Mueller Co.: *See*—
Albertaou William C., Jr., and Hood. 2,838,964.
Mueller, Frank H. 2,839,075.
Mueller, Frank H. 2,839,076.
Mueller, Frank H., and Smith. 2,838,965.

Mueller, Frank H., to Mueller Co. Service tee for plastic mains. 2,839,075, 6–17–58, Cl. 137—318.

Mueller, Frank H., to Mueller Co. Quick-opening pressure relief valve. 2,839,076, 6–17–58, Cl. 137—469.

Mueller, Frank H., and J. J. Smith, to Mueller Co. Machine for drilling and tapping mains. 2,838,965, 6–17–58, Cl. 77—40.

Mueller, Willard G., to Northern Wood Barking Mfg. Co. Apparatus for rotating and transporting logs during broadside attack by bark-removing chains. 2,839,106, 6–17–58, Cl. 144—208.

Muirhead & Co. Ltd.: *See*—
Poll, John V., Sieber, and Kirchel. 2,839,603.

Mukai, Jiro, to Canon Camera Co., Inc. Four lens photographic objective. 2,838,978, 6–17–58, Cl. 88—57.

Mulkey, Troy F. Sewing machine attachment. 2,839,018, 6–17–58, Cl. 112—139.

Müller, Walter. Machine plants for the continuous automatic production of planks of predetermined length. 2,839,099, 6–17–58, Cl. 143—47.

Mullins, Frederick C., to Koppers Co., Inc. Ammonia still apparatus. 2,839,369, 6–17–58, Cl. 23—263.

Munger, Stanley H., H. Smithies, and H. B. Whitfield, Jr., to E. I. du Pont de Nemours and Co. Extrusion apparatus. 2,838,794, 6–17–58, Cl. 18—12.

Murray, Maxton F.: *See*—
Heinzelman, Richard V., and Murray. 2,839,524.

Murray, Peter B., to Sun Oil Co. Treatment of sulfuric acid sludge. 2,839,365, 6–17–58, Cl. 23—178.

Muse, Marlin F. Tube end forming tool with pivotal mandrel. 2,838,773, 6–17–58, Cl. 7—14.1.

N. V. Koninklijke Stearine Kaarsenfabrieken "Gouda-Apollo": *See*—
Wiggerink, Gerrit L., and Jonker. 2,839,550.
Wiggerink, Gerrit L., and Jonker. 2,839,551.

Nabholz, Hans: *See*—
Wideroe, Rolf, and Nabholz. 2,839,708.

Napier, D., & Son Ltd.: *See*—
Cowland, William G. 2,838,907.

Naramore, Robert W., to Bridgeport Fabrics, Inc. Beading strip. 2,838,813, 6–17–58, Cl. 20—69.

National Distillers and Chemical Corp.: *See*—
Johnston, Christian W., and Meara. 2,839,485.
Johnston, Christian W., and Meara. 2,839,571.
Kamlet, Jonas. 2,839,366.

National Lead Co.: *See*—
Libera, John J., Puetz, and Schopp. 2,839,364.

National Research and Development Corp.: *See*—
Kember, Norman F., and Aveston. 2,839,389.

National U. S. Radiator Corp.: *See*—
Harris, John E., and Levy. 2,839,279.

Navarre, Roger F. D., alias Malherbe, to Societe dite: Sebel S. A. Electronic illuminating lamps. 2,839,700, 6–17–58, Cl. 313—82.

Neely, Carroll H.: *See*—
Davies, John G. 2,839,660.

Neier, Reinhard, to Saul & Co., as nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. Cobaltiferous azo dyestuffs. 2,839,620, 6–17–58, Cl. 260—145.

Nelson, Forrest W., to A. O. Smith Corp. Hot water tank and method of increasing the effectiveness of cathodic protection of the same. 2,839,462, 6–17–58, Cl. 204—147.

Nelson, William T., to Phillips Petroleum Co. Distillation of hydrocarbons with ethylene chloride. 2,839,452, 6–17–58, Cl. 202—42.

Nemec, Joseph W., to Rohm & Haas Co. Substituted butyrolactones. 2,839,538, 6–17–58, Cl. 260—343.6.

Neumann, Hubert, to International Standard Electric Corp. Attenuator of noise in radio sets. 2,839,675, 6–17–58, Cl. 250—20.

Nevalonny, Michael. Non-aqueous electro-conductive electrolyte. 2,839,472, 6–17–58, Cl. 252—62.2.

Newburg, Ferdinand F.: *See*—
Kenney, William H., and Newburg. 2,838,822.

New Castle Products, Inc.: *See*—
McConville, Robert H. 2,839,134.

New England Lead Burning Corp.: *See*—
Weiss, George. 2,839,299.

New York Wire Cloth Co.: *See*—
Webber, Clarence E., and Watson, Jr. 2,839,090.

Nielsen, Fred E.: *See*—
Swenson, William E., and Nielsen. 2,838,940.

Nielsen, Jörgen T.: *See*—
Elming, Niels, Nielsen, and Clauson-Kaas. 2,839,539.

Niklas, Wilfrid F., to Columbia Broadcasting System, Inc. High resolution image cathode ray tube system. 2,839,703, 6–17–58, Cl. 315—15.

Nisonoff, Alfred: *See*—
Howland, Louis H., and Nisonoff. 2,839,483.

Nordell, Carl H., 15% to L. N. Millspaugh and 15% to A. N. Kaspar. Screen. 2,839,197, 6–17–58, Cl. 210—499.

Nordstrom, Carl E., to Teletype Corp. Burring tool. 2,838,828, 6–17–58, Cl. 29—103.

Norman, Harry H., and H. B. Sklar, to Zig Zag Spring Co. Bulk roll of zigzag spring wire and method of making same. 2,839,187, 6–17–58, Cl. 206—59.

Northern Wood Barking Mfg. Co.: *See*—
Mueller, Willard G. 2,839,106.

Norton Co.: *See*—
Haywood, George L. 2,838,891.

Norton, James H.: *See*—
Sproule, Lorne W., and Norton. 2,839,464.

Novak, Leo J.: *See*—
Drummond, Folsom E., and Novak. 2,839,119.

Obermaier, Frank E., to The Dole Valve Co. Thermostatically controlled carburetor air intake. 2,839,039, 6–17–58, Cl. 123—122.

Ochsner, Rolf H., to Manning, Maxwell & Moore, Inc. Attachment for use in pressure gauges. 2,839,087, 6–17–58, Cl. 137—791.

Oehmig, Robert G. Weatherstripped threshold. 2,838,812, 6–17–58, Cl. 20—64.

Oettinger, Willi, to Badische Anilin- & Soda-Fabrik Akt. Production of gasolines having high knock rates from nitrogenous middle oils. 2,839,450, 6–17–58, Cl. 196—53.

Office National d'Etudes et de Recherches Aeronautiques O. N. E. R. A.: *See*—
Claret, Rene. 2,838,843.

Ohlheiser, Carlton E., to The American Instrument Co. Apparatus for determining humidity conditions in materials. 2,839 644, 6–17–58 Cl. 201—63.

Oilwell Drain Hole Drilling Co.: *See*—
McCune, John S., and Hanks. 2,839,270.

O'Leary, George R.: *See*—
Lahey, Parker J., and O'Leary. 2,839,204.

Olin Mathieson Chemical Corp.: *See*—
Bernstein, Jack, and Lott. 2,838,914.
Lopker, Edwin B., and Stoltz. 2,839,194.

Olsen, Alf: *See*—
Helgerud, Oyvind, and Olsen. 2,839,410.

Olson, Carl M., to E. I. du Pont de Nemours and Co. Method of producing titanium metal. 2,839,385, 6–17–58, Cl. 75—84.5.

Olson Charles L.: *See*—
Mandelkehr, Maurice M., and Olson. 2,839,717.

O'Neil, John G., to Weinon Corp. Container with pouring spout and opening. 2,839,234, 6–17–58, Cl. 229—7.

O'Neill, Ralph A. Attachment of webbing strip or the like, and novel frame support and attaching means. 2,839,126, 6–17–58 Cl. 155—178.

Ontario Research Foundation: *See*—
Cavanagh, Patrick E. 2,839,397.

Oram, Morris: *See*—
Holman, Arthur T., Oram, and James. 2,839,273.

Orangeburg Mfg. Co., Inc.: *See*—
Biklen, Donald W. 2,839,088.

Ordex Laboratorium ved Ingenior C. O. Rasmussen: *See*—
Brochner, Henry S. 2,839,407.

Ormo, Arthur. Sanitary protective device. 2,839,060, 6–17–58, Cl. 128—294.

Orr, Willie B. Livestock numbering machine. 2,839,213, 6–17–58, Cl. 216—51.

Ott, Gustav H., A. Marxer, H. Zumstein, and K. Brugger, to Ciba Ltd. Compositions of matter comprising an ethoxyline resin and an alkylene polyamine containing at least two tertiary amino groups. 2,839,480, 6–17–58, Cl. 260—18.

Ottenberg, Lloyd A., and E. W. Mahland, to Radio Corp. of America. Auto alarm system. 2,839,677, 6–17–58, Cl. 250—20

Outboard Marine Corp.: *See*—
Richardson, William A. 2,838,833.

Owen, William, to Pittsburgh Plate Glass Co. Glass handling mechanism. 2,838,898, 6–17–58, Cl. 53—244.

Pachmayr, Frank A.: *See*—
Farrar, Jack R., and Lentz. 2,838,775.

Package Enterprises, Inc.: *See*—
Toby, Max E. and D. J. 2,839,205.

Packette Corp.: *See*—
Brennan, Joseph K. 2,838,818.

Paddock Pool Equipment Co.: *See*—
Ulanovsky, Jack M., and Lightfoot. 2,839,333.

Paikens, Edward, and D. M. Skoglund, to Kenfield Corp. Apparatus for evacuating and sealing bags. 2,838,894, 6–17–58, Cl. 53—79.

Palling, Stanley J.: *See*—
Edwards Harry D., Doyle, and Palling. 2,839,402.

Palmer, Rundlette K. Combination musical instrument case and public address system. 2,839,606, 6–17–58, Cl. 179—1

Pan American Petroleum Corp.: *See*—
Jones, Loyd W. 2,839,465.

Pantex Mfg. Corp.: *See*—
Lornitzo, Frank C. 2,839,078.

Pappadopulos, Lyckourgos: *See*—
Di Cecio, Salvatore A., Dand, and Pappadopulos. 2,838,935.

Paris, Francois G.: *See*—
Desbenoit, Christian L. A., Deltel, and Paris. 2,838,869.

Parker, Almon S., to Gulf Oil Corp. Preparation of alkylene glycol. 2,839,588, 6–17–58, Cl. 260—635.

Parks John M.: *See*—
Jaffe Sigmund, and Parks. 2,839,380.

Parr, Bernard F.: *See*—
Clark, Earl K., and Parr. 2,838,989.

Patterson Joseph C., Jr. Automatic tension system for fueling at sea. 2,839,021, 6–17–58, Cl. 114—5.

Pattinson Darwin G. Gas burner. 2,839,131, 6–17–58, Cl. 158—99.

Patzer, William A., to Seth B. Atwood. Coin testing device. 2,839,175, 6–17–58, Cl. 194—102.

Paul, Charles E., 50% to L. Z. Paul. Toy whip. 2,838,863, 6–17–58, Cl. 40—126.

Paul, Charles E., 50% to L. Paul. Toy roundabout. 2,839,296, 6–17–58, Cl. 272—31.

Paul, Gerald R., to General Dynamics Corp. Binary counting chain. 2,839,705, 6–17–58, Cl. 315—84.5.

Paul, Lena Z.: *See*—
Paul, Charles E. 2,838,863.

Paul, Lena: *See*—
Paul, Charles E. 2,839,296.
Pazandak, Louis A., to Halvorson Trees, Inc. Method and machine for constricting collar onto shaft. 2,838,789, 6–17–58. Cl. 18—1.
Perqueriaux, Claude: *See*—
Desbenoit, Christian L. A., Deltel, Caron, and Paris. 2,838,869.
Penity, Robert D., C. G. Harman, and E. Wainer, to The Star Porcelain Co. Low loss ceramic insulators. 2,839,414, 6–17–58. Cl. 106—46.
Periman, Robert R. Loud speaker having means for utilizing the back wave. 2,839,150, 6–17–58, Cl. 181—31.
Perry, D Cameron: *See*—
La Tour, Harry, and Perry. 2,839,455.
Peszlen, John W. Filler and book support. 2,839,199, 6–17–58, Cl. 211—43.
Peter, Albin, and E. Wydler, to Saul & Co., as Nominee of Fidelity Union Trust Co., executive trustee under Sandoz Trust. 1-amino—4-hydroxyanthraquinone sulfonic acids and a process for their manufacture. 2,839,540, 6–17–58, Cl. 260—373.
Peters, John G., and C. R. Summers, Jr., to Gulf Oil Corp. Lubrication of industrial machinery. 2,839,159, 6–17–58, Cl. 184—1.
Petersen, William. Releasing means for self-locking plier type toggle wrench. 2,838,973, 6–17–58, Cl. 81—370.
Peterson, Charles H.: *See*—
Luftman, Alvin S., Goodway, and Peterson. 2,839,718.
Peterson, Victor W., and H. H. Schnepel, to General Motors Corp. Aircraft power system and clutch control therefor. 2,838,913, 6–17–58, Cl. 60—97.
Petrolite Corp.: *See*—
De Groote, Melvin. 2,839,497–504.
De Groote, Melvin, and Pettingill. 2,839,476.
De Groote, Melvin, and Pettingill. 2,839,477.
De Groote, Melvin, and Shen. 2,839,489.
Hutchison, Charles B., and Ries. 2,839,467.
Monson, Louis T. 2,839,192.
Monson, Louis T., and Wagoner. 2,839,191.
Pettingill, Owen H.: *See*—
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Pettingill, Owen H.: *See*—
De Groote, Melvin, and Pettingill. 2,839,477.
Pfaff, G. M., A.-G.: *See*—
Heimann, Karl W., and Werle. 2,839,019.
Immesberger, Theobald. 2,839,177.
Marohn, Herbert, Eckhard, and Immesberger. 2,839,178.
Winz, Karl. 2,839,625.
Phares, Thomas E., to Chambers Corp. Oven. 2,839,044, 6–17–58, Cl 126—39.
Pfeifer, Paul E., and K. Boldt, to The Pure Oil Co. Anti-wear oil compositions. 2,839,469, 6–17–58, Cl. 252—32.7.
Pfeiffer, Paul O., C. O. Stemmons, and J. R. King, to The General Tire & Rubber Co. Method of making an air cushion assembly. 2,839,440. 6–17–58, Cl. 154—85.
Phillips, Benjamin, and P. S. Starcher, to Union Carbide Corp. Process for the production of epsilonhalocaproic acids. 2,839 576, 6–17–58, Cl. 260—539.
Phillips Petroleum Co.: *See*—
Dean, Lloyd E. 2,839.337.
Nelson, William T. 2,839,452.
Vela Macedonio A. 2,839,411.
Warner, Paul F. 2,839,581.
Warner, Paul F., and Adams. 2,839,560.
Pierce, William C., and P. A. Harter, to Warner Electric Brake & Clutch Co. Magnetic torque producing device. 2,839,697, 6–17–58, Cl. 310—93.
Piety, Raymond G., to Phillips Petroleum Co. Method of and apparatus for multiplying and integrating variables. 2,839,149, 6–17–58, Cl. 181—0.5.
Pinckaers, Balthasar H., to Minneapolis-Honeywell Regulator Co. Condition detecting apparatus. 2,839,691, 6–17–58, Cl. 250—214.
Pipe Linings, Inc.: *See*—
Matheny, Francis M. 2,839,026.
Pirot, Ernst, to Vereinigte Glanzstoff-Fabriken Akt. Spinning solutions containing acrylonitrile polymers, dimethylformamide and an acetal, and process of making same. 2,839 486, 6–17–58, Cl. 260—32.6.
Pittsburgh Coke ad Chemical Co.: *See*—
Ligett, Waldo B., and Kolka. 2,839,444.
Shrader, Marvin O., Dimond, and Schuit. 2,839,534.
Pittsburgh Plate Glass Co.: *See*—
Englehart, Oscar D., and Mazzoni. 2,838,810.
Lefevre, Fernand J. 2,839,198.
Owen, William. 2,838 898.
Zeolla, Mario N., and Bobel. 2,838,809.
Planes y Sola, Leonel. Device for refrigerating beverage containers. 2,838,916, 6–17–58, Cl. 62—77.
Platt, John T., to Hoffmann-La Roche Inc. Process for the preparation of di-(p-anisyl)-iodonium halide. 2,839,583, 6–17–58, Cl. 260—613.
Plaul, Carl O.: *See*—
Cooley, Laurel E., Sr., L. E. Cooley, Jr., and Plaul. 2,838,784.
Plettner, Lawrence E.: *See*—
Engel, John B., and Plettner. 2,839,345.
Plumat, Emile, to Union des Verreries Mecaniques Belges Societe Anonyme. Apparatus for the manufacture of glass beads. 2,838,881, 6–17–58, Cl. 49—58.
Pneumatic Scale Corp. Ltd.: *See*—
McCarthy, Edward J. 2,839,093.
Polin Enterprises, Inc.: *See*—
Polin, Paul W. 2,839,274.
Polin, Paul W., to Polin Enterprises, Inc. Air conditioning system for automobiles. 2,839,274, 6–17–58, Cl. 257—3.
Ponten, Jean S. and O. W. Wrapping machine. 2,838,897, 6–17–58, Cl. 53—226.
Ponten, Olaf W.: *See*—
Ponten, Jean S. and O. W. 2,838,897.
Ponto, Merlyn W., to Minneapolis Sheet Metal Works, Inc. Selective distributing spout for elevator bins and the like. 2,839,171, 6–17–58, Cl. 193—23.
Porret, Daniel, to Ciba Ltd. Method of purifying a cuprous salt catalyst in the synthesis of acrylonitrile. 2,839,473, 6–17–58, Cl. 252—411.
Portasilo Ltd.: *See*—
Shepherd, Donald W. 2,838,805.
Porter, Albert N. Accessories for toilet flush tank. 2,838,766, 6–17–58, Cl. 4—57.
Porter-Cable Machine Co., The: *See*—
Emmons, Arthur N. 2,839,107.
Poth, Clarence G. Checker construction for open hearth furnaces. 2,839,286, 6–17–58. Cl. 263—51.
Potter, James W. Method of installing fixture hangers on a ceiling structure. 2,838,832, 6–17–58, Cl. 29—428.
Pottle, Ralph K., to American Can Co. Dispensing nozzle with non-drip collar. 2,839,230, 6–17–58, Cl. 222—571.
Pressed and Welded Steel Products Co., Inc.: *See*—
Haskin, Walter E. 2,839 064.
Price, George E., to Westinghouse Electric Corp. Electric heater apparatus. 2,839,665, 6–17–58, Cl. 219—37.
Price, Thomas D., and N. M. Jeung, to United States of America, Atomic Energy Commission. Process of recovering uranium. 2,839,358, 6–17–58, Cl. 23—14.5.
Prickett, Thomas W., and W. E. Duncan, to Highway Trailers and Utilities of Alabama, Inc. Load carrying vehicle body. 2,839,328. 6–17–58, Cl. 296—28.
Prince, Joseph E., and S. Haynes, to British Celanese Ltd. Safety guards for rotary blade fabric cutters. 2,839,103, 6–17–58, Cl. 143—159.
Process Evaluation and Development Corp.: *See*—
Stuck, Harold D. 2,839,398.
Procter & Gamble Co., The: *See*—
Hager, Richard E., and Reiss. 2,839,448.
Sanders, Judson H. 2,839,066.
Proctor & Schwartz, Inc.: *See*—
Finnerty, Joseph N., and Volkert. 2,838,860.
Puetz, Eckard J.: *See*—
Libera, John J., Puetz, and Schopp. 2,839,364.
Puig, Lorenzo C.: *See*—
Vellas, Jean J. L., and Puig. 2,839,463.
Pullman-Standard Car Mfg. Co.: *See*—
Allin, George S., Jr., and Bock. 2,838,857.
Gutridge, Jack E. 2,839,012.
Puls, Georg: *See*—
Seeliger, Kurt. 2,838,952.
Puls, Mrs. Gerdi: *See*—
Seeliger, Kurt. 2,838,952.
Purdy, Bruce B., and A. T. Godschalx. Supervisory control circuit. 2,839,092, 6–17–58, Cl. 139—336.
Pure Oil Co., The: *See*—
Marsh, Glenn A. 2,839,722.
Pfeifer, Paul E., and Boldt. 2,839,469.
Pyle, John C. Appliance for ease of handling and protection of parts of a television chassis during transportation, repair and testing of the same. 2,839,745, 6–17–58, Cl. 340—367.
Quaker Oats Co., The: *See*—
Johnson, Herbert B. 2,839,189.
Quatman, George B., to General Telephone Laboratories, Inc. Toll switching system. 2,839,612, 6–17–58, Cl. 179—27.
Quist, Hasel M.: *See*—
Geen, Henry C., and Quist. 2,839,482.
Quist, James D.: *See*—
Geen, Henry C., and Quist. 2,839,482.
Radio Corp. of America: *See*—
Artzt, Maurice. 2,839,719.
Epstein, David W. 2,839,599.
Gibson, John J. 2,839,729.
Hochman, Daniel. 2,839,732.
Kazan, Benjamin. 2,839,690.
Mandelkehr, Maurice M., and Olson. 2,839,717.
Moncrieff-Yeates, Alexander J. 2,838 997.
Moncrieff-Yeates, Alexander J. 2,839 400.
Ottenberg, Lloyd A., and Mahland. 2,839,677.
Rosenberg, Albert L., Jr. 2,839,730.
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Rae Motor Corp.: *See*—
Dunham, Irvie H. 2,839,696.
Rafaels, Umberto: *See*—
Tinsley, Ronald, and Rafaels. 2,839,736.
Ramsey, Robert P., and S. L. Soo, to The Cooper-Bessemer Corp. High stability free piston machine. 2,839,035, 6–17–58. Cl. 123—46.
Ransburg Electro-Coating Corp.: *See*—
Juvinall, James W. 2,839,425.
Ratner, Hyman: *See*—
Warren, Grant E., Anderson, and Ratner. 2,839,470.
Rauland Corp., The: *See*—
Szegho, Constantin S., and Reed. 2,839,699.
Raum, Alaric L. J., to The Distillers Co, Ltd. Production of ortho-methyiolphenols. 2,839,587, 6–17–58, Cl. 260—621.
Rayman, Charles J.: *See*—
Rishoi, Alfred H., Rayman, and Ziel. 2,839,277.
Raytheon Mfg. Co.: *See*—
Luftman, Alvin S., Goodway, and Peterson. 2,839,718.
Reddi, Mullanudi M.: *See*—
Modes, Edward E., Reddi, and Lauterbach. 2,838,943.
Redman, William J., and J. S. Fuller, to United States Steel Corp. Drive for reciprocating member. 2,838,958, 6–17–58, Cl. 74—606.
Reed, Daniel J., to A. O. Smith Corp. Method and apparatus for pressure curing of materials. 2,838,796, 6–17–58, Cl. 18—19.

Reed, William O.: *See*—
Szegho, Constantin S., and Reed. 2,839,699.
Reese, Johannes, to Chemische Werke Albert. Resinous condensation products and their production. 2,839,494, 6–17–58, Cl. 260—47.
Reeves Instrument Corp.: *See*—
McCoy, Rawley D., and Wiesner. 2,839,244.
Reibert, Frederick A.: *See*—
Schatz, Frederick W., and Reibert. 2,839,681.
Reich, Ernö, R. Marton, and F. Szika, to "Licencia" Talalmanyokat Ertekesito Vallalat. Electric snap action or tumbler switch. 2,839,628, 6–17–58, Cl. 200—67.
Reichel, Samuel M. Venetian blind construction. 2,839,136, 6–17–58. Cl. 160—178.
Reid, Thomas J.: *See*—
Taylor James, and Reid. 2,839,374.
Reimers, Alfred E., W. K. Tavender, and L. J. McCormack, Jr. Water conditioning units for steam emitting pressing devices. 2,839,195, 6–17–58, Cl. 210—94.
Reinauer, Thomas V., to Metals Disintegrating Co., Inc. Filter medium for dust filters. 2,839,158, 6–17–58, Cl. 183—51.
Reiss, Carroll R.: *See*—
Hager, Richard E., and Reiss. 2,839,448.
Rekettye, Paul, to The Sun Rubber Co. Process and apparatus for making inflated hollow articles by rotational casting. 2,838,798, 6–17–58, Cl. 18—39.
Reliable Electric Co.: *See*—
Cheney, Donald E., and Motsinger. 2,839,596.
Reliance Electric and Engineering Co., The: *See*—
Appleman, Wilbur R. 2,839,712.
Remsel Industries, Inc.: *See*—
Selig Guenther 2,839,321.
Renner, Alfred, to Ciba Ltd Process for the production of stable aqueous solutions of hardenable condensation products of melamine, thiourea and formaldehyde and product obtained. 2,839,484, 6–17–58. Cl. 260—29.4.
Renner Elmer J., to Stephens-Adamson Mfg. Co. Movable tubular conveyor belt. 2,839,181, 6–17–58, Cl. 198—201.
Reno, Ralph R., to Horix Mfg. Co Valve for liquid filling apparatus. 2,839 094. 6–17–58. Cl. 141—84.
Renzoni, Louis S., and W. V. Barker, to The International Nickel Co., Inc. Electrolytic recovery of nickel. 2,839,461, 6–17–58, Cl. 204—113.
Retz, Carl R. End thrust rotary planing tool. 2,839,108, 6–17–58, Cl. 144—219.
Reynolds, Lionel A., to Tangyes Ltd. Hydraulic or pneumatic rams 2,839,032, 6–17–58, Cl. 121—46.
Reynolds, Peter W., and E. B. Bates, to Imperial Chemical Industries Ltd. Production of compressed pellets or tablets from finely divided solid materials. 2,838,802, 6–17–58, Cl. 18—55.
Rice, Lyman A., to General Motors Corp. Electromagnetic device. 2,839,746, 6–17–58, Cl. 340—388.
Rice, Neil O. to General Electric Co. Electromagnetic device. 2,839,631, 6–17–58, Cl. 200—87.
Richards, James R.: *See*—
Stephenson, Edward B., Trent, and Richards. 2,838,850.
Richardson, William A., to Outboard Marine Corp. Method of manufacturing a chain saw cutter bar. 2,838,833, 6–17–58. Cl. 29—463.
Richter, Carl G.: *See*—
Daigleish, John E., and Richter. 2,838,961.
Rickard, Clyde E., and G. A. Hempel, to McDowell Mfg. Co. Packed safety lock pipe coupling with removable grip annulus. 2,839,089, 6–17–58, Cl. 138—89.
Ridgway, Frank, to Arundel, Coulthard & Co. Ltd. Flyer for textile machines. 2,838,904, 6–17–58. Cl. 57—116.
Ridler, Desmond S., and D. A. Weir, to International Standard Electric Corp. Telegraph repeaters. 2,839,605, 6–17–58, Cl. 178—71.
Riedel-de Haen Akt.: *See*—
Gruber, Heinrich. 2,839,447.
Ries, William J.: *See*—
Hutchison, Charles B., and Ries. 2,839,467.
Rigga, Harvey O.: *See*—
Kelly, Dunford A. 2,839,685.
Rimmer, Robert W., to E. I. du Pont de Nemours and Co. Antistatic agents for hydrophobic fiber. 2,839,430, 6–17–58. Cl. 117—139.5.
Rimmer, Robert W., to E. I. du Pont de Nemours and Co. Antistatic agents for hydrophobic fiber. 2,839,431, 6–17–58, Cl. 117—139.5.
Ringle, John, III., to Marmet Corp. Sliding pivot window structure. 2,839,166, 6–17–58, Cl. 189—67.
Rinker, Wilhelm, and W. Jung, to Ernst Leitz G. m. b. H. Comparison measuring apparatus for borings. 2,838,840, 6–17–58, Cl. 33—148.
Rishoi, Alfred H., C. J. Rayman, and R. T. Ziel, to Cherry-Burrell Corp. Means for destabilizing cream. 2,839,277, 6–17–58, Cl 259—9.
Robey, Donald H. Frequency controllable piezo-electric resonator. 2,839,695, 6–17–58. Cl. 310—8.2.
Robinson, Dollin L., Jr.: *See*—
Jones, Richard M., and Robinson. 2,839,654.
Rohm & Haas Co.: *See*—
Batzdorff, Alfred. 2,838,853.
Nemec, Joseph W. 2,839,538.
Roller, Robert C.: *See*—
Thrap, John E., and Roller. 2,839,003.
Rollins, H. Beale: *See*—
Buck, Benjamin I., and Rollins. 2,839,112.
Buck, Benjamin I., and Rollins. 2,839,179.
Ronka, Valno, to Canadian Airborne Geophysics Ltd. Transmitting apparatus for inductive prospecting. 2,839,751, 6–17–58. Cl. 343—207.
Rosamilia, Peter L.: *See*—
Harvey, Mortimer T., and Rosamilia. 2,839,481.
Harvey, Mortimer T., and Rosamilia. 2,839,488.
Rosamilia, Peter L., and M. T. Harvey, to Harvel Research Corp. Composition comprising furfural-ketone-amine reaction products and an epoxy resin. 2,839,487, 6–17–58. Cl. 260—42.
Rosch, Arthur, to Licentia Patent-Verwaltungs-G. m. b. H. Safety device for rotary machine or engines with thrust bearings. 2,839,071, 6–17–58, Cl. 137—37.
Rosedale Knitting Co.: *See*—
Gift, John. 2,838,922.
Rosenberg, Albert L., Jr., to Radio Corp. of America. Transmission line termination. 2,839,730, 6–17–58, Cl. 333—22.
Rosenbloom, Harold, to Thompson and Co. Wash primer for metal surfaces. 2,839,438, 6–17–58, Cl. 148—6.15.
Ross, Sidney D., and M. Schwarz, to Sprague Electric Co. Polymers of o-p-toluyl-benzoic acids. 2,839,505, 6–17–58, Cl. 260—63.
Ross, William M. Anti-drip dispensing valve and nozzle. 2,839,226, 6–17–58. Cl. 222—446.
Rossi, Giovanni. Heat exchanger. 2,839,276, 6–17–58, Cl. 257—222.
Roussel, Louis J., to Universal Drilling Co., Inc. Removable pontoon mounting. 2,838,915, 6–17–58, Cl. 61—46.5.
Roussel, Louis J., to Universal Drilling Co., Inc. Slip construction. 2,839,164, 6–17–58, Cl. 188—67.
Routh, Marion L. Livestock feeder or waterer. 2,839,028, 6–17–58. Cl. 119—52.
Rowe, Ernest D. Vibrating device. 2,839,278, 6–17–58, Cl. 259—72.
Royal Appliance Mfg. Co.: *See*—
Kasper, Elmer J. 2,839,316.
Royal McBee Co.: *See*—
Burke, William F., and Essex. 2,839,025.
Royer Darrell E.: *See*—
Berninger, Kenneth L., Royer, and Weis. 2,839,070.
S. & E. Mfg. Co.: *See*—
Schutte, Ethel M. 2,839,127.
Sabine, Hale P., to The Celotex Corp. Fireproof acoustical correction panels. 2,838,806, 6–17–58, Cl. 20—4.
Sacchini, Columbus R., and D. R. Tomko, to Curtiss-Wright Corp., Marquette Metal Products Division. Engine starter mechanisms. 2,838,938, 6–17–58, Cl. 74—7.
Sacchini, Columbus R., and D. R. Tomko, to Curtiss-Wright Corp., Marquette Metal Products Division. Spring clutch mechanisms. 2,839,169, 6–17–58, Cl. 192—37.
Sackett, Frank G. Means for applying a liquid material to a surface. 2,839,332. 6–17–58, Cl. 299—35.
Sackett, Manley R. Control for leveling device. 2,838,844, 6–17–58, Cl. 33—209.
Sackett, Manley R. Level sensitive switching means. 2,839,627. 6–17–58. Cl. 200—61.52.
St. Clair, Donald, to Clairdon, Inc. Safety control unit for oil burners and the like. 2,839,129, 6–17–58, Cl. 158—28.
St. Clair, Donald, to Clairdon, Inc. Photoelectric control unit for oil burners and the like. 2,839,130, 6–17–58, Cl. 158—28.
Salo, Martin, and H. F. Vivian. Eastman Kodak Co. Washable wallpaper coatings. 2,839,432, 6–17–58, Cl. 117—155.
Sanders, Judson H., to The Procter & Gamble Co. End wrap impregnated with a fatty acid ester of a polyhydric alcohol. 2,839,066. 6–17–58. Cl. 132—46.
Sandoz A. G.: *See*—
Maderni, Piero, and Senn. 2,839,522.
Sandoz Trust: *See*—
Neier, Reinhard. 2,839,520.
Peter, Albin, and Wydler. 2,839,540.
Sarka, Albert J., to Wean Equipment Corp. Variable speed transmission. 2,838,947. 6–17–58, Cl. 74—394.
Sarratt, Everett R., to Clevite Corp. Magnetic record reproduction. 2,839,615, 6–17–58, Cl. 179—100.2.
Saul & Co.: *See*—
Neier, Reinhard. 2,839,520.
Peter Albin, and Wydler. 2,839,540.
Savair Valve & Equipment Co.: *See*—
Wolfbauer, Eugene A. 2,839,665.
Savit, Joseph: *See*—
Lebl, Richard C., Savit, and Florence. 2,838,994.
Sax, Norbert W.: *See*—
Kimel, Walter, and Sax. 2,839,579.
Schatz, Frederick W., and F. A. Reibert, to United States of America, Navy. Time rate of change of radar range voltage. 2,839,681, 6–17–58, Cl. 250—27.
Schenck, Robert A. M. Arrangement for the closing ring of a floating roof for mineral oil tanks and tanks for similar products. 2,839,216, 6–17–58, Cl. 220—26.
Scheswohl, Edward E., to Crown Cork & Seal Co., Inc. Seamed metal container with plastic cover for the seam and plastic pouring spout. 2,839,229, 6–17–58, Cl. 222—567.
Schetty, Guido, to J. R. Geigy A.-G. Azo dyestuffs containing heavy metal. 2,839,521, 6–17–58, Cl. 260—147.
Schlang, Arthur, to Chromatic Television Laboratories, Inc. Switching circuit. 2,839,704, 6–17–58, Cl. 315—21.
Schlegel, Kurt. Adjusting stroke mechanism. 2,838,939, 6–17–58, Cl. 74—110.
Schmid, Raymond W., to The Yale & Towne Mfg. Co. Holdback for cylindrical lock. 2,838,926, 6–17–58, Cl. 70—216.
Schmidt, Paul: *See*—
Druey, Jean, and Schmidt. 2,839,532.
Schneider, Alfred J., to The A. C. Gilbert Co. Variable throw crank. 2,838,956, 6–17–58, Cl. 74—600.
Schneidersmann, Ernst O., to Union Carbide Corp. Contact thermocouple assembly. 2,839,594, 6–17–58, Cl. 136—4.
Schnepel, Herbert H.: *See*—
Peterson, Victor W., and Schnepel. 2,838,913.
Schnider, Otto, and R. Urban, to Hoffmann-La Roche Inc. Salts of disubstituted carbamic acid esters and process for the manufacture thereof. 2,839,536, 6–17–58, Cl. 260—295.
Schoenfield, Donald B.: *See*—
Schoenfield, Milton H. and D. B. 2,838,777.

Schoenfield, Milton H. and D. B. Window screen cleaning implement. 2,838,777, 6–17–58, Cl. 15—27.

Schopp, Arthur V., Jr.: *See*—
Libera, John J., Puetz, and Schopp. 2,839,364.

Schrader, Gerhard, to Farbenfabriken Bayer Akt. Dithiocarbonic acid esters and production. 2,839,561, 6–17–58, Cl. 260—455.

Schuller, Werner. Apparatus for drawing glass filaments. 2,838,879, 6–17–58, Cl. 49—17.

Schult, Joachim C. E.: *See*—
Shrader, Marvin O., Dimond, and Schult. 2,839,534.

Schuster, Siegfried J., to O. H. Drager. Sand or earth filter for shelters. 2,839,157, 6–17–58, Cl. 183—41.

Schutte, Ethel M., to S. & E. Mfg. Co. Slip cover. 2,839,127, 6–17–58, Cl. 155—182.

Schuyler, Ralph A., to Monte Verde Industries. Transmission for magnetic sound recording machines. 2,838,959, 6–17–58, Cl. 74—721.

Schwalge, William C. Oil reclaimer. 2,839,196, 6–17–58, Cl. 210—180.

Schwartz, Louis. Mattress cover and method of making same. 2,838,772, 6–17–58, Cl. 5—354.

Schwarz, Meyer: *See*—
Ross, Sidney D., and Schwarz. 2,839,505.

Schweitzer, Edwin J., and W. E. Sonntag, to Thermal Research and Engineering Corp. Burner. 2,839,128, 6–17–58, Cl. 158—7.

Scigliano, Joseph J., and E. C. Britton, to The Dow Chemical Co. Method for the preparation of piperazines. 2,839,533, 6–17–58, Cl. 260—268.

Scott, Albert B.: *See*—
Haughney, Joseph P., and Scott. 2,839,434.

Scott, Alexander G., and H. Weber, to Celanese Corp. of America. Method and apparatus for melt spinning. 2,838,793, 6–17–58. Cl. 18—8.

Scott, Robert W., and F. B. Fischl, to Esso Research and Engineering Co. Extreme pressure lubricants. 2,839,471, 6–17–58, Cl. 252—33.4.

Scovill Mfg. Co.: *See*—
Aubuchon, William F. 2,838,831.
Lengyel, John F. 2,838,769.

Seed, Leslie to Imperial Chemical Industries Ltd. Ethylene polymerization. 2,839,519, 6–17–58, Cl. 260—94.9.

Seeger, Robert W.: *See*—
Felts, Gordon P., Seeger, and Lewis. 2,839,595.

Seeliger, Kurt, to joint heirs of Georg Puls, represented by Mrs. Gerdi Puls. Steering gears of all kinds, especially for motor driven vehicles. 2,838,952, 6–17–58, Cl. 74—498.

Selas Corp. of America: *See*—
Bloom, Quentin M. 2,839,282.
Bloom, Quentin M. 2,839,290.

Seldner, Kurt: *See*—
Fairweather, Stephen H., and Seldner. 2,839,694.

Self Storing Window Co., Inc.: *See*—
Knollenberg, Allen V. 2,838,825.

Self Winding Clock Co., Inc.: *See*—
DiCecio, Salvatore A., Dand, and Pappadopulos. 2,838,935.

Selig, Guenther, to Remsel Industries, Inc. Lamp supports. 2,839,321, 6–17–58, Cl. 287—99.

Senn, Otto: *See*—
Maderni, Piero, and Senn. 2,839,522.

Servigne, Marcel, and E. Szarvasi, to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Production of lysine and intermediates. 2,839,574, 6–17–58, Cl. 260—518.

Settel, Arthur G. Cutting machine. 2,838,895, 6–17–58, Cl. 53—111.

Severson, Wayne: *See*—
Ahlbrecht, Arthur H., Friedlander, and Severson. 2,839,513.

Shank, Robert J., to Hughes Aircraft Co. Pulse-code communication system. 2,839,604, 6–17–58, Cl. 178—66.

Shapiro, Hymin, E. G. De Witt, and J. E. Brown, to Ethyl Corp. Cyclomatic manganese compounds. 2,839,552, 6–17–58 Cl. 260—429.

Shaw, Norman H., to The English Electric Co. Ltd. Regulating systems for dynamo electric machines. 2,839,715, 6–17–58, Cl. 322—25.

Shaw, Robert H., to United Aircraft Corp. Heat exchanger. 2,839,275, 6–17–58, Cl. 257—154.

Shea Chemical Corp.: *See*—
Hechenbleikner, Ingenuin. 2,839,563.

Shearin, Harry H.: *See*—
Cullen, James L. 2,839,671.

Shekter, Abraham J. Face plates for vise jaws. 2,838,971, 6–17–58, Cl. 81—39.

Shell Development Co.: *See*—
Barnum, Emmett R., Lorensen, and Zachar. 2,839,512.
Carey, James E. 2,839,495.
Fetterly, Lloyd C. 2,839,575.
Fetterly, Lloyd C. 2,839,590.
Garner, Philip J. 2,839,564.
Shokal, Edward C., and Devlin. 2,839,507.
Shokal, Edward C., Devlin, and Winkler. 2,839,514.
Soloway, Samuel B. 2,839,553.
Sumner, Fred. 2,839,742.
Warren, Grant E., Anderson, and Ratner. 2,839,470.

Shen, Kwan-Ting: *See*—
De Grote, Melvin, and Shen. 2,839,489.

Shepherd, Donald W., to Portasilo Ltd. Silos and like storage containers. 2,838,805, 6–17–58, Cl. 20—1.4.

Sherwin-Williams Co., The: *See*—
Haughney, Joseph P., and Scott. 2,839,434.
Molle, Ernest D. 2,838,781.

Shock, D'Arcy A., and J. D. Sudbury, to Continental Oil Co. Flooding composition. 2,839,466, 6–17–58, Cl. 252—8.55.

Shoemaker, Clarence J.: *See*—
Igler, Edward J., and Shoemaker. 2,839,412.

Shokal, Edward C., and P. A. Devlin, to Shell Development Co. Production of copolymer of a 2-arylalkene-1 and an alpha, beta-olefinic aldehyde, and derivatives thereof. 2,839,507, 6–17–58, Cl. 260—73.

Shokal, Edward C., P. A. Devlin, and D. E. Winkler, to Shell Development Co. Copolymer of allyl glycidyl monoether and styrene. 2,839,514, 6–17–58, Cl. 260—88.1.

Shrader, Marvin O., H. L. Dimond, and J. C. E. Schult, to Pittsburgh Coke & Chemical Co. Production of 2-chloropyridine. 2,839,534, 6–17–58 Cl. 260—290.

Shur, Ira, to Waldes Kohinoor, Inc. Snap fasteners. 2,838,821, 6–17–58, Cl. 24—217.

Sickel, Helmut. Method and device for processing ampuls and the like. 2,838,893, 6–17–58, Cl. 53—37.

Sieber, Peter W.: *See*—
Foll, John V., Sieber, and Kirchel. 2,839,608.

Siegfried, Jean A.: *See*—
Hammond, Romeyn S., and Siegfried. 2,838,875.

Siemens-Schuckertwerke Akt.: *See*—
Harz, Hermann. 2,839,716.

Sieradzki, Henry J., to Lundy Mfg. Corp. Iris valve construction. 2,839,267, 6–17–58, Cl. 251—212.

Sierra Engineering Co.: *See*—
Kindred, Bob A. 2,839,054.

Sigworth, Harrison W., E. G. Lindstrom, and M. R. Barusch, to California Research Corp. Gasoline composition. 2,839,371, 6–17–58. Cl. 44—63.

Silverman, Alexander. Method of producing glass. 2,838,882, 6–17–58, Cl. 49—77.

Simmons, Charles A., Sr., to Simmons Fastener Corp. Assembling and riveting apparatus. 2,838,969, 6–17–58, Cl. 78—49.

Simmons Fastener Corp.: *See*—
Simmons, Charles A., Sr. 2,838,969.

Simonis Co.: *See*—
Geen, Henry C., and Quist. 2,839,482.

Simpkins, George P.: *See*—
Simpkins, Walter F. 2,839,326.
Simpkins, Walter F. 2,839,327.
Simpkins, Walter F. 2,839,330.

Simpkins, Walter F., 25% to F. Snellgrove, 10% to A. L. Wall, 21¾% to G. P. Simpkins, and 21¾% to M. E. Thompson. Deck and wall forming board equipment for trailer bodies and means for locking the boards to the bodies. 2,839,326, 6–17–58, Cl. 296—24.

Simpkins, Walter F., 25% to F. Snellgrove, 10% to A. L. Wall, 21¾% to G. P. Simpkins, and 21¾% to M. E. Thompson. Interlocking means for mounting deck and wall boards in a vehicle body. 2,839,327, 6–17–58, Cl. 296—24.

Simpkins, Walter F., 25% to F. Snellgrove, 10% to A. L. Wall, 21¾% to G. P. Simpkins, and 21¾% to M. E. Thompson. Mounting and holddown means for truck body decks. 2,839,330, 6–17–58, Cl. 296—28.

Simpson, Howard W. Tractor transmission. 2,838,960, 6–17–58, Cl. 74—759.

Singleton, Lester D.: *See*—
Hadley, Harlan A., and Singleton. 2,839,288.

Sirla, James O., ⅓ each to E. C. Mosesian, N. J. Caffejian, and C. J. Vagim, as co-partners doing business as Cenatron Industries. Chain saw attachment for portable circular saw. 2,839,097, 6–17–58, Cl. 143—32.

Sklar, Harry B.: *See*—
Norman, Harry H., and Sklar. 2,839,187.

Skil Corp.: *See*—
Bork, Hugo W. 2,839,101.

Skoglund, Douglas M.: *See*—
Palkens, Edward, and Skoglund. 2,838,894.

Skoog, Ivan H.: *See*—
Letsinger, Robert L., and Skoog. 2,839,566.

Slack, Ronald: *See*—
Adams, Arthur, and Slack. 2,839,529.

Slemmons, Charles O.: *See*—
Pfeiffer, Paul O., Slemmons, and King. 2,839,440.

Slocomb, George M., to Consolidated Electrodynamics Corp. Non-linear analog-to-digital converter. 2,839,744, 6–17–58, Cl. 340—347.

Smith, A. O., Corp.: *See*—
Nelson, Forrest W. 2,839,462.
Reed, Daniel J. 2,838,796.
Whitaker, Robert W. 2,839,442.
Zerbe, Frederick K. 2,839,218.

Smith, Bonnie, Jr. Basic electrical circuit for light driven toys. 2,838,876, 6–17–58, Cl. 46—244.

Smith-Douglass Co., Inc.: *See*—
Hollingsworth, Clinton A., and Williams. 2,839,361.
Hollingsworth, Clinton A., and Williams. 2,839,377.

Smith, Elmer O. Tear gas gun. 2,839,017, 6–17–58, Cl. 109—32.

Smith, Frederick L., to Link-Belt Co. Icing machine. 2,839,254, 6–17–58, Cl. 241—154.

Smith, George R.: *See*—
Davisson, Kenneth R., and Smith. 2,839,047.

Smith, Hardy W.: *See*—
Hill, Walter C., Jr., Smith, and Twitchell. 2,838,920.

Smith, Harold O., to Centrifugal & Mechanical Industries, Inc. Pressure lubricating system. 2,839,161, 6–17–58, Cl. 184—7.

Smith, Harry F., to Mansfield Sanitary Pottery, Inc. Water closet tank and bowl combination. 2,838,704, 6–17–58, Cl. 4—12.

Smith, Hugo A. G., to Weathershields Ltd. Sliding door for vehicles. 2,839,331, 6–17–58, Cl. 296—47.

Smith, John C.: *See*—
Bressler, Wilbur L., and Smith. 2,839,496.

Smith, John J.: *See*—
Mueller, Frank H., and Smith. 2,838,965.

Smith, L. D. Dual purpose clothing bag. 2,839,167, 6–17–58, Cl. 190—43.

Smithies, Henry: *See*—
Munger, Stanley H., Smithies, and Whitfield. 2,838,794.

Smithson, Harold R., to Esco Cabinet Co. Refrigeration cabinet. 2,838,917, 6–17–58, Cl. 62—117.4.

Smith-Vanis, William R., Jr., to C. G. S. Laboratories, Inc. Automatic frequency control. 2,839,684, 6–17–58, Cl. 250—36.

Snap-Tite, Inc.: *See*—
Clark, Malcolm S. 2,839,314.

Snellgrove, Frank: *See*—
Simpkins, Walter F. 2,839,326.
Simpkins, Walter F. 2,839,327.
Simpkins, Walter F. 2,839,330.

Societe Anonyme Les Ateliers Reunis Broyeurs Forplex: *See*—
Hippert, Pierre R. 2,839,251.

Societe des Usines Chimiques Rhone-Poulenc: *See*—
Horclois, Raymond J. 2,839,530.

Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M.: *See*—
Lucien, Rene, and Tetart. 2,839,394.
Lucien, Rene, and Tetart. 2,839,395.

Societe dite: Sebel S. A.: *See*—
Navarre, Roger F. D. 2,839,700.

Societe Nationale d'Etude et de Construction de Moteurs d'Aviation: *See*—
Desbenoit, Christian L. A., Deitel, and Paris. 2,838,869.
Meullen, Henri L. P. 2,838,909.

Socony Mobil Oil Co., Inc.: *See*—
Ault, Isaac L. 2,839,144.

Soffer, Jack W., and D. M. Kitterman, to Development Research, Inc. Dispenser valve providing controlled flow and quick gassing. 2,839,225, 6–17–58, Cl. 222—394.

Sonx Aktiengesellschaft: *See*—
Dölz, Heinrich. 2,839,237.

Sokol, Kurt. Device for measuring the tonus of the muscular system of the floor of the vagina, pelvis and adjacent areas. 2,839,050, 6–17–58, Cl. 128—2.

Soloway, Samuel B., to Shell Development Co. Polyhalogeno bicyclic acids. 2,839,553, 6–17–58, Cl. 260—429.9.

Sonntag, Wallace E.: *See*—
Schweitzer, Edwin J., and Sonntag. 2,839,128.

Soo, Shao Lee: *See*—
Ramsey, Robert P., and Soo. 2,839,035.

Spearing, Michael H., to The Distillers Co. Ltd. Electrical apparatus. 2,839,707, 6–17–58, Cl. 315—163.

Spencer, George A., to United States Steel Corp. Device for turning suspended loads. 2,839,324, 6–17–58, Cl. 294—82.

Sperry Products Inc.: *See*—
Krautkrämer, Josef, and Herbert.
Demetrion, Kimon C. 2,839,726.

Sprague Electric Co.: *See*—
Dorst, Stanley O. 2,839,647.
Rosa, Sidney D., and Schwarz. 2,839,505.

Sproule, Lorne W., and J. H. Norton, to Esso Research and Engineering Co. Textile oil. 2,839,404, 6–17–58, Cl. 252—8.9.

Sprouse, Verner E., and T. P. Jordan, to Vernco Corp. Garment hanger unit. 2,839,261, 6–17–58, Cl. 248—303.

Square D Co.: *See*—
Mueller, Armand G. 2,839,714.

Stack, Emmet G. Grain door. 2,838,807, 6–17–58, Cl. 20—35.

Stack, Emmet G. Grain door. 2,838,808, 6–17–58, Cl. 20—35.

Stalker, Edward A. Supersonic axial flow compressors. 2,839,239, 6–17–58, Cl. 230—122.

Standard Mirror Co., Inc.: *See*—
Meade, Lynn C. 2,838,979.

Standard Oil Co.: *See*—
Johnson, Carl E., and Zimmerschied. 2,839,474.

Standard Railway Equipment Mfg. Co.: *See*—
Hasten, Erwin J., Jr. 2,839,016.
Lahey, Parker J., and O'Leary. 2,839,204.

Standard Register Co., The: *See*—
Metzner, Albert W., Kosul, and Boesch. 2,839,176.

Stansbury, Harry A., Jr.: *See*—
Guest, Howard R., and Stansbury. 2,839,572.

Stanafield, Hamill, and J. Edge, to Carney-Stanafield Co. Pump or motor. 2,839,008, 6–17–58, Cl. 103—173.

Stapleton, John M., to Detrex Chemical Industries, Inc. Method and composition for producing phosphate coatings on metal. 2,839,439, 6–17–58, Cl. 148—6.15.

Star Porcelain Co., The: *See*—
Penity, Robert D., Harman, and Wainer. 2,839,414.

Starcher, Paul S.: *See*—
Phillips, Benjamin, and Starcher. 2,839,576.

Stein'hal, Martin B. Combined infusion device, drip tray and package. 2,839,406, 6–17–58, Cl. 99—77.1.

Stephens-Adamson Mfg. Co.: *See*—
Renner, Elmer J. 2,839,181.

Stephenson, Edward B., H. M. Trent, and J. R. Richards. Virtual target for echo ranging apparatus. 2,838,850, 6–17–58, Cl. 35—25.

Stern, David R., and L. Lynds, to American Potash & Chemical Corp. Preparation of crystalline boron. 2,839,367, 6–17–58. Cl. 23—209.

Sterner, Melvin F., to Holley Carburetor Co. Carburetor assembly. 2,839,154, 6–17–58, Cl. 183—20.

Sterrett, Walter R.: *See*—
McVay, Willard S., and Sterrett. 2,839,280.

Stevens, Bert V.: *See*—
Fults, Allen R., and Stevens. 2,838,977.

Stevens, Donna, G. H. Harris, and M. B. Pearlman, to The Dow Chemical Co. Phenols from aromatic ketones. 2,839,541, 6–17–58, Cl. 260—383.

Stevens, J. P., & Co., Inc.: *See*—
Winslow, Albert E., and Waldrop. 2,838,921.

Stewart, Frederick G.: *See*—
Gunnell, Bruce C., and Stewart. 2,839,013.

Stewart, William T., and G. J. Bendit, Jr., to California Research Corp. Jet turbine lubricant composition. 2,839,468, 6–17–58, Cl. 252—32.5.

Stiburski, Edward J., to Ekco Products Co. Roasting rack for wieners and the like. 2,838,990, 6–17–58, Cl. 99—419.

Stiefel, Earl E. Routing machine door crafter. 2,839,104, 6–17–58, Cl. 144—27.

Stokes, F. J., Corp.: *See*—
Frank, Raymond G. 2,839,015.
Hall, Victor C. 2,839,252.

Stolle, Anthony D., to International Register Co. Time switch mechanism. 2,839,623, 6–17–58, Cl. 200—33.

Stolle, Anthony D., to International Register Co. Short interval time switch. 2,839,624, 6–17–58, Cl. 200—38.

Stoltz, Emil M., Jr.: *See*—
Lopker, Edwin B., and Stoltz. 2,839,194.

Stonich, Elwood H.: *See*—
Moore, Edward B., and Stonich. 2,839,082.

Strang, Charles D., to Kiekhaefer Corp. Rotary valve timing mechanism. 2,839,036, 6–17–58, Cl. 123—73.

Stratton, Rolland L.: *See*—
Gasdorf, Gus, Stratton, and Culp. 2,838,839.

Strehlau, Donald R.: *See*—
Bloch, Herman S., and Strehlau. 2,839,568.

Streicher, Michael A., to E. I. du Pont de Nemours and Co. Corrosion resistant alloy. 2,839,392, 6–17–58, Cl. 75—128.

Strike, Louis N., to The American Laundry Machinery Co. Sleeve press operating means. 2,839,231, 6–17–58, Cl. 223—73.

Strom, Charles F., to Griffin Wheel Co. Permanent mold with sand dome. 2,838,816, 6–17–58, Cl. 22—128.

Strom, Robert S.: *See*—
Hellyer, John T. 2,839,262.

Strub, Robert D., to Amana Refrigeration, Inc. Breaker frame construction. 2,839,347, 6–17–58, Cl. 312—214.

Stuck, Harold D., to Process Evaluation and Development Corporation. Production of pith free paper pulp from bagasse. 2,839,398, 6–17–58, Cl. 92—9.

Sudbury, John D.: *See*—
Shock, D'Arcy A., and Sudbury. 2,839,466.

Summers, Claude R., Jr.: *See*—
Peters, John G., and Summers. 2,839,159.

Summitt, Charles D. Boatswain's chair. 2,839,123, 6–17–58, Cl. 155—2.

Sumner, Fred, to Shell Development Co. Apparatus for purging fluids from liquid cooling systems. 2,839,742, 6–17–58, Cl. 340—242.

Sun Oil Co.: *See*—
Mills, Ivor W. 2,839,339.
Murray, Peter B. 2,839,365.

Sun Rubber Co., The: *See*—
Rekettye, Paul. 2,838,798.

Sunbeam Corp.: *See*—
Jepson, Ivar. 2,838,835.

Sunbeam Light Co.: *See*—
Bobrick, Mitchell. 2,839,672.

Sutter, Joseph. Ring spinning machines. 2,838,903, 6–17–58, Cl. 57—51.

Svoboda, George, to Western Electric Co., Inc. Rotatable work holders for irregularly shaped parts. 2,839,308, 6–17–58, Cl. 279—106.

Swenson, William E., and F. C. Nielsen, to Minneapolis-Moline Co. Tractor transmission with plural power take-off shafts. 2,838,940, 6–17–58, Cl. 74—15.2.

Switzer, Robert E. Single occupant roundabout. 2,839,297, 6–17–58, Cl. 272—33.

Symington-Gould Corp., The: *See*—
Blattner, Emil H. 2,839,341.

Symon, Alexander, N. F. Harpur, C. J. E. Carter, and J. M. Williams, to Bristol Aircraft Ltd. Mechanical and hydraulic remote control systems. 2,838,950, 6–17–58, Cl. 74—469.

Szarvasi, Etienne: *See*—
Servigne, Marcel, and Szarvasi. 2,839,574.

Szegho, Constantin S., and W. O. Reed, to The Rauland Corp. Image converter tube. 2,839,699, 6–17–58, Cl. 313—66.

Szika, Ferenc: *See*—
Reich, Erno, Marton, and Szika. 2,839,628.

Tackitt, Robert E., ½ to E. L. Whittington. Typographical composing and casting machines. 2,839,182, 6–17–58, Cl. 199—59.

Tangyes Ltd.: *See*—
Reynolds, Lionel A. 2,839,032.

Tassie, John W. D., to Advance Glove Mfg. Co. Glove. 2,838,759, 6–17–58, Cl. 2—167.

Tavender, Walter K.: *See*—
Reimers, Alfred E., Tavender, and McCormack. 2,839,195.

Tax, Herman R. Method of making an orthopedic shoe. 2,838,776, 6–17–58, Cl. 12—142.

Taylor, James, and T. J. Reid, to Imperial Chemical Industries Ltd. Explosive compositions. 2,839,374, 6–17–58, Cl. 52—7.

Taylor, Kenneth M., to The Carborundum Co. Refractory body containing boron nitride. 2,839,413, 6–17–58, Cl. 106—44.

Taylor, William A. Doll with removable or interchangeable heads. 2,838,873, 6–17–58, Cl. 46—164.

Teletype Corp.: *See*—
Lica, Clarence E. 2,838,838.
Nordstrom, Carl E. 2,838,828.

Tellkamp, Bernhard F.: *See*—
Dickinson, Clarence R., and Tellkamp. 2,839,642.

Temple, Robert B., to Kelsey-Hayes Co. Adjustable tread wheel clamp. 2,839,335, 6–17–58, Cl. 301—9.

Teplitz, Alfred, to United States Steel Corp. Swinging spout and drive therefor. 2,839,291, 6–17–58, Cl. 266—21.

Terrell Machine Co., The: *See*—
Ferguson, Richard. 2,838,824.
Terry, Walter J. Dental drill. 2,838,837, 6–17–58, Cl. 32—28.
Tetart, Emile: *See*—
Lucien, Rene, and Tetart. 2,839,394.
Lucien, Rene, and Tetart. 2,839,395.
Texas Instruments Inc.: *See*—
Cornelison, Boyd. 2,839,436.
Thayer, Orla E.: *See*—
Fairbanks, Henry N., and Thayer. 2,839,211.
Theis, Irene H. Molds for forming plaques. 2,838,791, 6–17–58, Cl. 18—5.1.
Thelander, Clement J., to Buffalo Eclipse Corp. Multi-purpose wheeled implement. 2,839,222, 6–17–58, Cl. 222—177.
Thermal Research and Engineering Corp.: *See*—
Schweitzer, Edwin J., and Sonntag. 2,839,128.
Thisen, John P., to Knapp-Monarch Co. Electric cooking utensil. 2,839,662, 6–17–58, Cl. 219—44.
Thomas & Betts Co., The: *See*—
Motches, Stephen A., and Asa. 2,838,970.
Thomas, Ethyl F.: *See*—
Hall, Carlton H. 2,838,883.
Thomas, Stephen S.: *See*—
Hall, Carlton H. 2,838,883.
Thompson, Alec G.: *See*—
Marsh, John T., Bell, and Thompson. 2,839,429.
Thompson and Co.: *See*—
Rosenbloom Harold. 2,839,438.
Thompson, John B.: *See*—
Gearhart, William M., and Thompson. 2,839,399.
Thompson, Mary E.: *See*—
Simpkins, Walter F. 2,839,326.
Simpkins, Walter F. 2,839,327.
Simpkins, Walter F. 2,839,330.
Thompson Products, Inc.: *See*—
Fairweather, Stephen H., and Seidner. 2,839,694.
Thrap, John E., and Roller. 2,839,003.
Thrap, John E., and R. C. Roller, to Thompson Products, Inc. Combination flow control and relief valve. 2,839,003, 6–17–58, Cl. 103—42.
Thuler, Kurt R.: *See*—
White, Jerome R., Thuler, and Webb. 2,839,650.
Tinsley, Ronald, and U. Rafaels. Anti-theft alarm system. 2,839,736, 6–17–58, Cl. 340—63.
Title, Jack. Stretchable garment. 2,838,761, 6–17–58, Cl. 2—224.
Tobeler, Paul O.: *See*—
Friedl, Johann. 2,839,116.
Toby, Daniel J.: *See*—
Toby, Max E. and D. J. 2,839,205.
Toby, Max E. and D. J., to Package Enterprises, Inc. Apparatus for transferring articles. 2,839,205, 6–17–58, Cl. 214—2.
Toefco Engineering Co.: *See*—
Goss, Robert V., and Lowe. 2,838,829.
Toledo Scale Corp.: *See*—
Hadley, Harlan A., and Singleton. 2,839,288.
Tomko, Donald R.: *See*—
Sacchini, Columbus R., and Tomko. 2,838,938.
Sacchini, Columbus R., and Tomko. 2,839,169.
Tompkins, Howard E., to Burroughs Corp. Transistor circuit. 2,839,686, 6–17–58, Cl. 250—36.
Tootal Broadhurst Lee Co. Ltd.: *See*—
Marsh, John T., Bell, and Thompson. 2,839,429.
Tousignant, William F., and H. F. Bylsma, to The Dow Chemical Co. Stabilized soil compositions containing reaction products of lignin with polyalkylene polyamines. 2,839,417, 6–17–58, Cl. 106—123.
Towne, Edmund B., J. B. Dickey, and M. S. Bloom, to Eastman Kodak Co. 2-amino-4-alkylsulfonyl-5-nitrothiazole azo compounds. 2,839,523, 6–17–58, Cl. 260—155.
Townley, Bernard R. Protective device. 2,838,758, 6–17–58, Cl. 2—49.
Townsend Engineering Co.: *See*—
Townsend, Ray T. 2,839,113.
Townsend, Harry M., to General Motors Corp. Automobile ventilator. 2,838,988, 6–17–58, Cl. 98—2.
Townsend, Ray T., to Townsend Engineering Co. Bacon converter. 2,839,113, 6–17–58, Cl. 146—78.
Tracht, Joseph H., to Gulf Research & Development Co. Chromatography method and apparatus. 2,839,152, 6–17–58, Cl. 183—2.
Trans-Oceanic: *See*—
Friedl, Johann. 2,839,116.
Trent, Horace M.: *See*—
Stephenson, Edward B., Trent, and Richards. 2,838,850.
Trinite, George M., Jr., to Aircraft Armaments, Inc. Sunfollower. 2,839,689, 6–17–58, Cl. 250—203.
Tripp, Robert W., to Inductosyn Corp. Automatic shaft control. 2,839,711, 6–17–58, Cl. 318—162.
Trubert, Rene. Foot-actuated cock. 2,839,264, 6–17–58, Cl. 251—57.
Trudeau, Arthur G., to Lonisville Cap Corp. Portable container for military caps. 2,839,217, 6–17–58, Cl. 220—32.
Tubbs, Howard A. Air volume control mechanism. 2,839,001, 6–17–58, Cl. 103—6.
Turlay, Joseph D., to General Motors Corp. Internal combustion engine counterw ght and cylinder construction. 2,838,941, 6–17–58, Cl. 74—44.
Turner, Guy M. Trussed skids for knitting machines, or the like. 2,839,309, 6–17–58, Cl. 280—12.
Turner & Seymour Mfg. Co., The: *See*—
Jeanfavre, Roger E. 2,839,325.
Twentieth Century Fox Film Corp.: *See*—
Laube, Grover, and Halprin. 2,838,975.
Twitchell, Winfield C.: *See*—
Hill, Walter C., Jr., Smith, and Twitchell. 2,838,920.
Ueberwasser, Hellmut: *See*—
Miescher, Karl, Anner, Wieland, and Ueberwasser. 2,839,537.
Ulanovsky, Jack M., and R. O. Lightfoot, to Paddock Pool Equipment Co. Inlet fitting. 2,839,333, 6–17–58, Cl. 299—139.
Union Carbide Corp.: *See*—
Alspaugh, Paul L., Helmaster, and McNeill. 2,839,281.
Boswell, Arthur D. 2,839,435.
Davison, James M., and Erdmann. 2,839,515.
Erasmus, Hendrik de W. 2,839,379.
Fritz, Henry E. 2,839,586.
Guest, Howard R., and Stansbury. 2,839,572.
Gerby, Russell W. 2,839,426.
Milton, Robert M. 2,839,065.
Phillips, Benjamin, and Starcher. 2,839,576.
Schneidersmann, Ernst O. 2,839,594.
Union des Verreries Mecaniques Belges Societe Anonyme: *See*—
Plumat, Emile. 2,838,881.
Unipower Rzeppa Ltd.: *See*—
Cull, William. 2,838,919.
United Aircraft Corp.: *See*—
Shaw, Robert H. 2,839,275.
United States of America
Air Force: *See*—
Kamm, Wunibald I. E. 2,839,046.
MacMillan, Raymond A. 2,839,616.
Army: *See*—
Cacheris, John C. 2,839,683.
Falkenstein, Otis P. 2,838,819.
Jacoby, Donald L., Keigher, and Mack. 2,839,728.
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Anderson, Carl E., and Ehlers. 2,839,706.
Clark, Herbert M., and Duffey. 2,839,357.
Johnstone, Charles W. 2,839,619.
Means, Herbert E. 2,839,005.
Merrill, Leslie C. 2,839,614.
Price, Thomas D., and Jeung. 2,839,358.
Navy: *See*—
Bergstad, Ralph H., and Butler. 2,838,848.
Davis, Charles M., Jr. 2,839,617.
Finkel, Seymour S. 2,838,849.
Kertcher, Robert S., La Plant, and Hutcheraft. 2,839,352.
Krantz, Frank M., and Huelskamp. 2,839,344.
Laden, Hyman N. 2,839,674.
Schatz, Frederick W., and Reibert. 2,839,681.
Wilcoxon, Kenneth H. 2,839,673.
Wilson, Robert E. 2,839,245.
Woods, William E. 2,839,682.
United States Rubber Co.: *See*—
Dosmann, Lucian P. 2,838,854.
Fleming, John J. 2,839,443.
Garner, Harold K. 2,839,509.
Hartman, Eugene H. 2,838,790.
Howland, Louis H., and Nisonoff. 2,839,483.
McCord, Georgie P. 2,839,120.
Wilhelm, Kurt E. 2,839,138.
United States Steel Corp.: *See*—
Bernard, Harry M., Jr. 2,839,295.
Laubscher, Aner N. 2,839,428.
Redman, William J., and Fuller. 2,838,958.
Spencer, George A. 2,839,324.
Teplitz, Alfred. 2,839,291.
Wilkinson, Robert M. 2,839,067.
Upjohn Co., The: *See*—
Greiner, John W., and Fevig. 2,839,544.
Heinzelman, Richard V., and Murray. 2,839,524.
Universal Drilling Co., Inc.: *See*—
Roussel, Louis J. 2,838,915.
Roussel, Louis J. 2,839,164.
Universal Oil Products Co.: *See*—
Hoch, Herman S. and Strehlau. 2,839,568.
Urban, Rene: *See*—
Schnider, Otto, and Urban. 2,839,536.
Vagim, Charles J.: *See*—
Siria, James O. 2,839,097.
Valcourt, Louis E., to Kestenman Bros. Mfg. Co. Toggle type linkage detachable pivots. 2,838,906, 6–17–58, Cl. 59—79.
Valicenti, Fabian D. Woodworking accessory. 2,839,100, 6–17–58, Cl. 143—51.
Valnes Pty. Ltd.: *See*—
Ives, Alfred O. C. 2,839,658.
Van Ackeren, Joseph, to Koppers Co., Inc. Coking retort oven. 2,839,454, 6–17–58, Cl. 202—267.
Van Atta, Lester C., to Hughes Aircraft Co. Underwater sound reflector. 2,839,735, 6–17–58, Cl. 340—3.
Van Hare, George F., Jr., and O. S. Kunz, Jr., to Chemical Construction Corp. Separation of zinc and copper. 2,839,388, 6–17–58, Cl. 75—108.
Van Loo, William J., Jr.: *See*—
Cooke, Theodore F., Moretti, and van Loo. 2,839,506.
Vapor Heating Corp.: *See*—
Moore, Edward B. and Stonich. 2,839,082.
Varichon, Claude, to Compagnie Generale d'Electricite. Circuit breaker. 2,839,632, 6–17–58, Cl. 200—87.
Vela, Macedonio A., to Phillips Petroleum Co. Process and apparatus for the purification of crystals. 2,839,411, 6–17–58, Cl. 99—205.
Vellas, Jean J. L., and L. C. Puig. Device for treatment and particularly sterilisation of liquids. 2,839,463, 6–17–58, Cl. 204—212.
Vercesi, Americo A., to Ford Instrument Co. Division of Sperry Rand Corp. Precision potentiometer. 2,839,643, 6–17–58, Cl. 201—56.

Verch, William L., and M. I. Block. Appliance for treating infections. 2,839,052, 6–17–58, Cl. 128—66.
Vereinigte Glanzstoff-Fabriken Akt.: *See*—
Pirot, Ernst. 2,839,486.
Vernco Corp.: *See*—
Sprouse, Verner E., and Jordan. 2,839,261.
Versal, Inc.: *See*—
Cosner, Dale L. 2,839,168.
Vick, Ralph L., to Bendix Aviation Corp. Combination master cylinder and power brake valve. 2,838,911, 6–17–58, Cl. 60—54.6.
Vickers Furnaces Ltd.: *See*—
Vickers, George M. 2,839,285.
Vickers, George M., to Vickers Furnaces Ltd., and Modern Mechanisation Ltd. Heat treatment furnaces. 2,839,285, 6–17–58, Cl. 263—42.
Visa-Matic Corp.: *See*—
Guida, Nicholas. 2,838,864.
Visco Products Co.: *See*—
Kirkpatrick, Willard H., and Walker. 2,839,558.
Visos, Charles D., to Knapp-Monarch Co. Coffee maker and switch therefor. 2,839,661, 6–17–58, Cl. 219—44.
Vitramon, Inc.: *See*—
Cipriani, Wilbert R. and Weller. 2,839,188.
Vivian, Harold F.: *See*—
Salo, Martin, and Vivian. 2,839,432.
Vogt, Clarence W. Tape holder and dispenser. 2,839,139, 6–17–58, Cl. 164—84.5.
Vogt, Clarence W. Tape dispenser. 2,839,140, 6–17–58, Cl. 164—84.5.
Voith, J. M. G. m. b. H.: *See*—
Kugel, Fritz K. 2,839,011.
Volkert, William F. Jr.: *See*—
Flinner, Joseph N. and Volkert. 2,838,860.
Von Arx, P. & Co., A.-G.: *See*—
Von Arx, Paul. 2,838,778.
Von Arx, Paul, to von Arx, P. & Co., A.-G. Machine for simultaneous treatment of the inside and outside surfaces of metal tubes. 2,838,778, 6–17–58, Cl. 15—104.03.
Vredenburg-Inglesby, Julius Cato: *See*—
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Fries Gustav. 2,839,602.
Wadely, Harold E., to The Firth Carpet Co., Inc. Luminous pile fabric floor covering. 2,838,762, 6–17–58, Cl. 2—278.
Wagoner, Roy W.: *See*—
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Waimon, Mathew A.: *See*—
Culver Paul C. 2,839,349.
Waldes Kohinoor, Inc.: *See*—
Shur, Ira. 2,838,821.
Waldhauer, Frederick D., to Radio Corp. of America. Transistor amplifier circuits. 2,839,620, 6–17–58, Cl. 179—171.
Waldorf Paper Products Co.: *See*—
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Waldrop Morris M.: *See*—
Winslow, Albert E., and Waldrop. 2,838,921.
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Kirkpatrick, Willard H., and Walker. 2,839,558.
Walker, David D: *See*—
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Simpkins, Walter F. 2,839,326.
Simpkins, Walter F. 2,839,327.
Simpkins, Walter F. 2,839,330.
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Walter, Hellmuth, to Worthington Corp. Method for oil recovery with "in situ" combustion. 2,839,141, 6–17–58, Cl. 166—11.
Ward, Jarrett M. Apparatus for extracting crab meat. 2,838,786 6–17–58, Cl. 17—2.
Warner Brake & Clutch Co.: *See*—
Meyer, Arthur A. 2,838,967.
Warner Electric Brake & Clutch Co.: *See*—
Pierce William C. and Harter. 2,839,697.
Warner, Paul F., and A. D. Adams, to Phillips Petroleum Co. Production of organic xanthogen sulfides. 2,839,560, 6–17–58, Cl 260—455.
Warner, Paul F., to Phillips Petroleum Co. Liquid reagent disulfide process. 2,839,581, 6–17–58, Cl. 260—608.
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Warren, Grant E., Anderson, and Ratner. 2,839,470.
Warren, Grant E., deceased (by E. R. Warren, executrix), H. W. Anderson, and H. Ratner, to Shell Development Co. Preparation of basic polyvalent metal salts of organic acids. 2,839,470, 6–17–58, Cl. 252—33.
Watson, Lester K., Jr.: *See*—
Webber, Clarence E., and Watson. 2,839,090.
Wayne Home Equipment Co.: *See*—
Copeland, Charles V. 2,839,080.
Wean Equipment Corp.: *See*—
Sarka, Albert J. 2,838,947.
Weathershields Ltd.: *See*—
Smith, Hugo A. G. 2,839,331.
Webb, Jack C.: *See*—
White, Jerome R., Thuler, and Webb. 2,839,650.
Webb, Jack, Corp., The: *See*—
White, Jerome R., Thuler, and Webb. 2,839,650.
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Scott, Alexander G., and Weber. 2,838,793.
Webers, Vincent J.: *See*—
Gray, Russell H., and Webers. 2,839,401.
Webster, Marvin. Antenna with variable inductance for tuning. 2,839,752, 6–17–58, Cl. 343—745.
Wegler, Richard, and H. Kukenthal, to Farbenfabriken Bayer Akt. Derivatives of aminosulfonic acid. 2,839,562, 6–17–58, Cl. 260—436.
Weinon Corp.: *See*—
O'Neil, John G. 2,839,234.
Weir, Donald A.: *See*—
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Weis, William A.: *See*—
Berninger, Kenneth L., Royer, and Weis. 2,839,070.
Weise, Richard C.: *See*—
Baumgartner, William H., and Weise. 2,839,709.
Weise, Richard C., to Burroughs Corp. Electronic computer power supply circuits. 2,839,693, 6–17–58, Cl. 307—150.
Welsgerber, Cyrus A., to Hercules Powder Co. Preparation of polyvinylamine. 2,839,516, 6–17–58, Cl. 260—88.3.
Welss, George, to New England Lead Burning Corp. Convertible slide. 2,839,299, 6–17–58, Cl. 272—56.5.
Weller, Barton L.: *See*—
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

June 17, 1958 Volume 731 Number 3

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 75,365 (ALLIGATOR BRAND AND DESIGN), Ferguson Waterproof Co., Oiled clothing; **TM 251,201** (ALLIGATOR), The Alligator Co., Coats, jackets, etc., all made of waterproofed fabric such as silk, **filed** May 8, 1958, D. C., S. D. N. Y., Doc. 133/156, *The Alligator Co.* v. *Wales Manufacturing Co.*

TM 251,201. (See TM 75,365.)

TM 281,423 (HUB CITY), **Lefkowits-Elias** Co., Canned vegetables, malt syrup, **food-flavoring, etc., filed** Dec. 28, 1939, D. C., W. D. Ky. (Louisville), Doc. 34, *Grocers Baking Co.* v. *E. L. Sigler.* Final judgment; petition dismissed Feb. 15, 1943 (notice received May 7, 1958). **Same, appeal,** filed Dec. 5, 1942, C. C. A., 6th Cir., Doc. 9133, *Grocers Baking Co.* v. *E. L. Sigler.* Judgment of District Court reversed May 5, 1942.

TM 311,986 (FREEZOMINT), Societe Anonyme de la Grande Distillerie E. Cusenier Fils Aine & Cie, Creme de menthe, **filed** Mar. 25, 1953, D. C., S. D. N. Y., Doc. 83/361, *Societe Anonyme de la Grande Distillerie E. Cusenier Fils Aine & Cie, et al.* v. *Julius Wile Sons & Co., Inc.* Complaint dismissed May 7, 1958.

TM 554,811 (DACRON), E. I. du Pont de Nemours & Co., Synthetic fibers for generalized use in industrial arts; **TM 555,085**, same, Yarns of synthetic fibers, **filed** Apr. 25, 1958, D. C., S. D. N. Y., Doc. 132/312, *E. I. du Pont de Nemours & Co.* v. *Pilzer Mfg. Co., Inc.* Final consent decree for permanent injunction May 7, 1958.

TM 555,085. (See TM 554,811.)

CONDITION OF TRADEMARK APPLICATIONS AS OF APRIL 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]	11,733
Date of oldest new application	Sept. 5, 1957
Date of oldest amended application	Sept. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application: New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	10-16-57	9-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	9-5-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	10-4-57	12-9-57
Renewals (All Classes)	3-26-58	4-25-58
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Applications Filed During the Month of April 1958—1,965

Registrations Issued	352—No. 662,932 to No. 663,283
Renewals Issued	81

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1 — Raw or Partly Prepared Materials

SN 17,161. The Cottage Gardens, Lansing, Mich. Filed Oct. 9, 1956. Sec. 2(f).

SUPERBLOOM

For Flowering Plants (Peony Plants Particularly).
First use Mar. 1, 1932.

SN 35,175. The Dri-Rite Company, Chicago, Ill. Filed Aug. 8, 1957.

SANI-CAT

For Ground Clay, Fuller's Earth, and Diatomaceous Earth for Use as an Absorbent in Animal Pans.
First use May 31, 1950.

SN 37,372. Mrs. Clay M. Robinson, d. b. a. Blossom Gift Nursery, Sandy, Utah. Filed Sept. 17, 1957.

BLOSSOM-GROW

For African Violet Potting Soil.
First use February 1955.

SN 40,176. Kahn Bros. Co., Chicago, Ill. Filed Nov. 6, 1957.
For Grass Seed.

GLENVIEW

First use Oct. 29, 1957.

SN 40,177. Kahn Bros. Co., Chicago, Ill. Filed Nov. 6, 1957.
For Grass Seed.

ESSEX PARK

First use Oct. 18, 1957.

SN 41,416. Roy H. Weller, Farmington, Pa. Filed Nov. 26, 1957.

PENFIELD

For Christmas Trees.
First use Nov. 9, 1957.

Class 2 — Receptades

SN 696,521. Embalming Burial Case Company, Burlington, Iowa. Filed Oct. 17, 1955. Sec. 2(f).

SEAL-TITE

For Vaults and Caskets.
First use in March 1932 on vaults.

SN 35,932. Geo. B. Hart Inc., Rochester, N. Y. Filed Aug. 21, 1957.

FOLAFORM

For Flower or Foliage Holder for Cut Plant Components.
First use Aug. 16, 1957.

SN 36,591. Knapp-Monarch Company, d. b. a. Kwik-Way Mfg. Co., St. Louis, Mo. Filed Sept. 3, 1957.

CAMP COOLER

The word "Cooler" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 550,560 and 646,962.
For Thermally Insulated Food Chests.
First use Dec. 1, 1955.

Class 4 — Abrasives and Polishing Materials

SN 49,376. Mel-O-Wax Products, Inc., Wynnewood, Pa. Filed Apr. 9, 1958.

mel-O-wax

For Compounds for Polishing and Lubricating Leather.
First use Aug. 1, 1935.

Class 5 — Adhesives

SN 32,650. Automatic Service Supply Company, Detroit, Mich. Filed June 24, 1957.

ASSCO

For Adhesive Substance Which Seals, Bonds, Waterproofs, Mends and Repairs a Variety of Materials Such as China, Glass, Porcelain, Wood, Fabric, Ceramics, Metal, Leather, and Plastics.
First use May 1, 1956.

Class 6 — Chemicals and Chemical Compositions

SN 11,099. The Nippon Synthetic Chemical Industry Co., Ltd., Higashi-ku, Osaka, Japan. Filed June 27, 1956.



Owner of Japanese Reg. No. 415,555, dated Sept. 10, 1952.
For Acetic Acid, Vinyl Acetate, Polyvinyl Acetate, Polyvinyl Alcohol.

SN 15,126. Sara Harris, Miami Beach, Fla. Filed Sept. 5, 1956.

"ANT BUTTONS"

For Ant and Insect Killing Insecticide.
First use Feb. 26, 1929.

SN 18,310. Food Machinery and Chemical Corporation, New York, N. Y. Filed Oct. 29, 1956.

DIMAZINE

For Hydrazine Derivatives for Use as a Fuel, Anti-Oxidant, Intermediate for Plastics, Pharmaceuticals, and Agricultural Chemicals, and for Other Uses.
First use Aug. 1, 1956.

SN 26,369. Otto B. May, Inc., Newark, N. J. Filed Mar. 18, 1957.

Maypat

Owner of Reg. No. 528,336.
For Vat Dyestuffs for Printing and Dyeing Textiles.
First use in March 1954.

SN 29,177. William E. Sievers, Long Beach, Calif. Filed Apr. 30, 1957.

STIM-U-WELL

For Acid-in-Oil Solution Used for Treating Earth Formations of Oil Wells To Dissolve Calcium Carbonate Cementing Material, Wax, and Asphalt.
First use May 15, 1956.

SN 29,178. William E. Sievers, Long Beach, Calif. Filed Apr. 30, 1957.

de-wax all

For Solvent To Be Used in Oil Wells for Dissolving Wax, Asphalt and Other Similar Accumulations From the Earth Formation of the Well.
First use June 6, 1956.

SN 31,319. Great Products, Inc., Fenton, Mich. Filed June 4, 1957.

NS

For Stop-Leak Preparation in Pellet Form Consisting Essentially of Ginger Root Flour and Soluble Oil Adapted for Use in the Cooling Systems of Internal Combustion Engines.
First use Oct. 3, 1955.

SN 31,476. The Dow Chemical Company, Midland, Mich. Filed June 6, 1957.

LAVAMENTHE

For Aromatic Chemical for Use in Soaps, Cosmetics, Perfume Extracts, and Flavoring Extracts.
First use Apr. 10, 1951.

SN 33,278. Orchard Paper Co., St. Louis, Mo. Filed July 5, 1957.

ORCOPEL

For Insect-Repellents in the Nature of Paper Tissues.
First use May 1, 1957.

SN 34,102. Godfrey L. Cabot, Inc., Boston, Mass. Filed July 11, 1957.

CAB-XL

For Polyethylene in Composition Form for Further Use in the Industrial Arts.
First use May 31, 1957.

SN 35,087. Chemagro Corporation, New York, N. Y. Filed Aug. 7, 1957.

CO-RAL

For Insecticide Useful for the Control of External Parasites of Livestock, Including Cattle Grub, by Dermal Application as a Spray, Dip, or Dust.
First use July 31, 1957.

SN 35,708. Universal Oil Products Company, Des Plaines, Ill. Filed Aug. 16, 1957.

BHA

For Inhibitor To Retard Deterioration of Fats, Oils, and Waxes.
First use Mar. 4, 1957.

SN 35,994. Golden Bear Oil Co., Los Angeles, Calif. Filed Aug. 22, 1957.

BEARFLEX

For Plasticizers and Extenders for Polymers for Use in Poly (Vinyl Chloride) and Nitrite Rubbers.
First use July 18, 1957.

SN 38,474. Lever Brothers Company, New York, N. Y. Filed Oct. 7, 1957.

ALL

Owner of Reg. Nos. 506,398, 528,159, and 625,619.
For Laundry Bluing.
First use Sept. 17, 1957.

SN 38,692. The Gerson Stewart Corporation, Cleveland, Ohio. Filed Oct. 10, 1957.

GERSODINE

For Germicide for Industrial Use.
First use Sept. 5, 1957.

SN 39,185. Broemmel Pharmaceuticals, San Francisco, Calif. Filed Oct. 21, 1957.

OP-TEST

Owner of Reg. No. 628,132.
For Diagnostic Test Strip of Paper Treated With Sodium Fluorescein for Detecting Corneal Abrasions or Ulcers.
First use Aug. 29, 1957.

SN 39,365. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

NOBS

For Accelerator for the Vulcanization of Rubber.
First use Mar. 4, 1952.

Class 12 — Construction Materials

SN 13,385. Roto-Swing Door Company, Inc., Oklahoma City, Okla. Filed Aug. 3, 1956.

ROTO-MATIC

For Automatic Balanced Doors.
First use July 24, 1956.

SN 13,386. Roto-Swing Door Company, Inc., Oklahoma City, Okla. Filed Aug. 3, 1956.

ROTO-SWING

For Balanced Doors.
First use Jan. 24, 1956.

SN 17,444. The Eagle Window Sales, Inc., Lexington, Ky. Filed Oct. 15, 1956.

Cool-View

For Metal Awnings.
First use May 20, 1956.

SN 23,764. Walter H. Wheeler, Minneapolis, Minn. Filed Feb. 4, 1957.

"SMOOTH CEILINGS"

For Assemblage of Structural Members Comprising a Preassembled Column Head.
First use June 1, 1932.

SN 25,853. Winter Seal Corporation, Detroit, Mich. Filed Mar. 6, 1957. Sec. 2(f).

Winter Seal

Owner of Reg. No. 541,250.
For Windows, Doors, and Screens, Combination Storm Windows and Doors, Convertible to Screen Doors and Window Screens.
First use on or about Feb. 1, 1952; Oct. 27, 1945, as to "Winter-Seal."

SN 26,449. D & R Pilot Plants, Inc., Hazardville, Conn. Filed Mar. 19, 1957.

DuRafoam

For Rigid, Cellular, Thermoset Foamed Resin Material in the Form of Blocks and Slabs, Capable of Being Carved, Machined or Otherwise Shaped, for Structural and Similar Purposes.
First use Feb. 26, 1957.

SN 28,815. Taylor Concrete Company, Incorporated, Richmond, Va. Filed Apr. 24, 1957.

MORTAKRETE

For Dry Mixtures of Sand and Cement, of Sand and Mortar, and of Sand, Gravel, and Cement, With or Without the Addition of a Waterproofing Compound.
First use Mar. 4, 1957.

SN 28,986. Architectural Porcelain Constructors, Oakland, Calif. Filed Apr. 29, 1957.

DUOWAL

For Double-Faced Insulated Wall Panels.
First use Oct. 21, 1954.

SN 29,328. Western Elaterite Roofing Co., Denver, Colo. Filed May 2, 1957.

Elaterite

The lining indicates the color red.
For Composition Roofing Materials, Insulating and Sheathing Papers, Roofing Cements and Waterproofing Compounds.
First use on or about June 1, 1894.

SN 30,801. Mastro Lumber & Millwork Company, Union City, N. J. Filed May 27, 1957.

MASTRO

For Lumber, Window Frames, Doors, Door Frames, Sash and Millwork for Built In Kitchen Cabinets, Bookcases, Desks, Radiator Covers, Cupboards.
First use Apr. 1, 1948.

SN 32,664. Blue Diamond Corporation, Los Angeles, Calif. Filed June 26, 1957.

DIAMON-LITE

Owner of Reg. No. 607,173.
For Gypsum Plaster.
First use June 11, 1956.

SN 35,824. Tecon Products Ltd., Vancouver, British Columbia, Canada. Filed Aug. 19, 1957.

FIBRECELL

Owner of Canadian Reg. No. 108,585, dated Nov. 15, 1957.
For Premoulded Expansion Joint Filler.

SN 41,088. Florida Lightweight Products Co., Pembroke, Fla. Filed Nov. 21, 1957.

FLORILITE

For Lightweight Aggregate for Use in Concrete Constructions.
First use in November 1956.

SN 41,296. National Gypsum Company, Buffalo, N. Y. Filed Nov. 25, 1957.

THERMO-BLOC

For Perimeter Insulation Composed of Spun Mineral Wool.
First use about Sept. 10, 1957.

SN 41,297. National Gypsum Company, Buffalo, N. Y. Filed Nov. 25, 1957.

ACOUSTIGLAS

For Acoustical Ceiling Panels.
First use Sept. 9, 1957.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 27,093. Elgin Softener Corporation, Elgin, Ill. Filed Mar. 28, 1957. Sec. 2(f).

Elgin

Owner of Reg. Nos. 264,017 and 634,582.
For Swimming Pool Fittings and Equipment, and Liquid Transfer Fittings and Equipment—Namely, Multiport Valves of the Rotary Stem Plate Type and Multiport Valves of the Rotary Plug Type, Both Hand Operated and Motor Operated, With and Without Automatic Mechanism for Controlling the Operation Thereof, Other Valves for Water Softening and Water Conditioning Equipment and Ion Exchangers, Other Valves for Water Softener Regeneration Units and Automatic Mechanism for Operating the Same, Other Valves for Demineralizing Apparatus of the Ion Exchange Type, and Valves for Industrial and Domestic Water Softening Systems, Water Heaters, Liquid Filters, Deaerators, Aerators, and Boiler Water Conditioning Equipment.
First use August 1924.

SN 27,672. Crest Marine Hardware Co., Inc., San Francisco, Calif. Filed Apr. 8, 1957.

JET LINE

For Small Boat Hardware.
First use Aug. 3, 1956.

SN 36,857. James B. Clow & Sons, Inc., Chicago, Ill. Filed Sept. 9, 1957.

BELL-TITE

For Cast Iron Pipe.
First use on or before May 3, 1957.

SN 38,744. Flower City Specialty Company, Rochester, N. Y., to Elgan Company, Inc., Rochester, N. Y. Filed Oct. 11, 1957.

MONKEY LINK

The word "Link" is disclaimed apart from the mark, without prejudice to common law rights. Owner of Reg. Nos. 222,962 and 537,239.
For Repair Links for Tire Chains.
First use Sept. 21, 1921.

SN 40,723. Ekco-Alcoa Containers Inc., Wheeling, Ill. Filed Nov. 15, 1957.

PLUS PACK

For Metallic Foil Products—Namely, Pans, Plates, Dishes, Cups, and Trays.
First use Apr. 1, 1957.

SN 40,741. Butler Manufacturing Company, Kansas City, Mo. Filed Nov. 15, 1957. Sec. 2(f) as to "Butler."

DRIVE Fast

Owner of Reg. Nos. 285,197, 560,737, and others.
For Blind Rivets.
First use Oct. 21, 1957; May 1, 1930, as to "Butler."

SN 41,085. Everain Inc., North Baldwin, N. Y. Filed Nov. 21, 1957.

SET N' SPRAY

For Device for the Control of Spray Area of Spray Emitted From an Oscillating Lawn Sprinkler.
First use July 22, 1957.

SN 41,090. General Metals Corporation, San Francisco, Calif. Filed Nov. 21, 1957.

Reliability
ADEL

For "Line Supports" Used To Support Tubes and Electrical Cables (Including Clamps, Clips, Blocks and Straps) and Valves, Especially Designed for Use on Aircraft.
First use Dec. 13, 1956.

SN 41,193. Seeno Zipper Corp., New York, N. Y. Filed Nov. 22, 1957.

SEENO

For Slide Fasteners.
First use on or about Nov. 8, 1957.

SN 41,217. W. R. Ames Company, San Francisco, Calif. Filed Nov. 25, 1957.

LO-HI

For Complete Irrigation Systems, Irrigation Pipe, Pipe Couplers, Fittings, and Valves.
First use Apr. 11, 1955.

SN 41,336. United States Steel Corporation, Pittsburgh, Pa. Filed Nov. 25, 1957.

RANGER

For Barbed Wire.
First use as early as March 1908.

SN 41,344. Markwell Manufacturing Co. Inc., New York, N. Y. Filed Nov. 12, 1957.

RF

For Metal Staples for Use in Tacking, Binding, Stitching, and Similar Machines.
First use Nov. 11, 1933.

Class 14—Metals and Metal Castings and Forgings

SN 31,243. National Lead Company, New York, N. Y. Filed June 3, 1957.

Owner of Reg. Nos. 423,118 and 430,263.
For Die Castings.
First use October 1956.

SN 31,426. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed June 5, 1957.

-MC-

For Tool Steel in the Form of Billets, Bars, Sheets and Plates, Circles Stamped or Cut From Plates or Sheets, and Disk and Ring Forgings Forged on a Steam Hammer, Drop Hammer, or Press From Rolled or Preforged Stock, for Use in Fabricating Into Machinery Parts and Machine Tool Parts, Molds, Cavity Plates, Spacer Blocks, Die Casting Dies, Ejector Plates, Press Brake Dies, Tool Shanks, Rolls, Punches, Blanking, Stamping and Forming Dies, Springs, and Plastic Dies.
First use Mar. 30, 1955.

SN 31,435. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed June 5, 1957.

RED STAR VANADIUM

Applicant makes no claim to the word "Vanadium" except as used in combination with the words "Red" and "Star." Owner of Reg. No. 554,711.
For Tool Steel in the Form of Billets, Bars, Sheets and Plates, Circles Stamped or Cut From Plates or Sheets, and Disk and Ring Forgings Forged on a Steam Hammer, Drop Hammer, or Press From Rolled or Preforged Stock, for Use in Fabricating Into Springs, Mason's Tools, Jeweler's and Engraver's Tools, Dental Tools, Automobile Parts, Hand Tools, Machine Parts, Machine Tool Parts, Punches, Cutting Tools, Blanking, Stamping and Forming Dies, Forging Dies, Cutlery, Heading Dies and Grippers, Wood Working Tools, Rolls, Shear Blades, Striking Dies, Roll Thread Dies, Battering Tools, Mandrels, Embossing Dies, Draw Dies, Knives and Slitters.
First use Dec. 1, 1920.

SN 31,436. Vanadium-Alloys Steel Company, Latrobe, Pa. Filed June 5, 1957.

RED STAR TOOL

Applicant makes no claim to the word "Tool" apart from the mark as shown. Owner of Reg. No. 554,711.
For Tool Steel in the Form of Billets, Bars, Sheets and Plates, Circles Stamped or Cut From Plates or Sheets, and Disk and Ring Forgings Forged on a Steam Hammer, Drop Hammer, or Press From Rolled or Preforged Stock, for Use in Fabricating Into Springs, Mason's Tools, Jeweler's and Engraver's Tools, Dental Tools, Automobile Parts, Hand Tools, Machine Parts, Machine Tool Parts, Punches, Cutting Tools, Blanking, Stamping and Forming Dies, Forging Dies, Cutlery, Heading Dies and Grippers, Wood Working Tools, Rolls, Shear Blades, Striking Dies, Roll Thread Dies, Battering Tools, Mandrels, Embossing Dies, Draw Dies, Knives and Slitters.
First use Dec. 1, 1920.

SN 32,403. National Lead Company, New York, N. Y. Filed June 21, 1957.

Owner of Reg. Nos. 430,263 and 423,118.
For Die Castings.
First use Apr. 22, 1957.

SN 39,650. Latrobe Steel Company, Latrobe, Pa. Filed Oct. 28, 1957.

VISCOUNT

For Die Steel.
First use in January 1957.

Class 16—Protective and Decorative Coatings

SN 34,632. Red Spot Paint & Varnish Co., Inc., Evansville, Ind. Filed July 30, 1957.

GALVAN

For Galvanized Iron Primer in the Nature of a Paint To Prevent the Peeling of Paint From Surfaces.
First use Aug. 21, 1936.

SN 44,665. Union Carbide Corporation, New York, N. Y. Filed Jan. 24, 1958.

REPELAQUA

For Water Repellent.
First use on or about Dec. 16, 1957.

SN 44,674. Aluminum Company of Canada, Limited, Montreal, Quebec, Canada. Filed Jan. 27, 1958.

ALPASTE

Owner of Canadian Reg. No. 14/4498, dated Mar. 21, 1935.
For Paint Pigment.

SN 44,808. De Mert & Dougherty, Inc., Chicago, Ill. Filed Jan. 28, 1958.

EVERYTHIN

For Universal Coating Solvent.
First use on or about Nov. 1, 1957.

SN 44,971. Midwestern Color Works, Minneapolis, Minn. Filed Jan. 30, 1958.

TWEED-TEX

For Paint.
First use July 18, 1957.

Class 17—Tobacco Products

SN 38,957. Waitt & Bond, Inc., Newark, N. J. Filed Oct. 15, 1957. Sec. 2(f) as to "Blackstone."

The drawing is lined for red and gold. The horizontal lining is part of the mark and does not represent color. Owner of Reg. Nos. 207,484 and 367,814.
For Cigars.
First use Aug. 13, 1957; 1884 as to "Blackstone."

SN 39,864. Douwe Egberts Koninklijke Tabaksfabriek-Koffiebranderijen-Theehandel N. V., Slachtedijk, Joure, Netherlands. Filed Oct. 31, 1957.

Owner of Dutch Reg. No. 118,537, dated May 14, 1954.
For Tobacco Whether Manufactured or Not.

Class 18—Medicines and Pharmaceutical Preparations

SN 4,658. Nutritional Science Corporation, Lynwood, Calif. Filed Mar. 15, 1956.

NEPTON

For Blend of Sea Plant Concentrates Incorporated as an Ingredient in a Vitamin Food Supplement for the Therapeutic Correction of Dietary Deficiencies.
First use Apr. 12, 1955.

SN 13,899. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

ACHROSTATIN

Owner of Reg. Nos. 568,013, 659,239, and others.
For Antibiotic Preparation.
First use Aug. 3, 1956.

SN 13,900. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

ACHROSTAT

Owner of Reg. Nos. 568,013, 659,239, and others.
For Antibiotic Preparation.
First use Aug. 3, 1956.

SN 15,750. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

ACHROMIX

Owner of Reg. Nos. 568,013, 659,239, and others.
For Antibiotic Preparation.
First use Sept. 6, 1956.

SN 20,870. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed Dec. 11, 1956.

ANABOLIN

Owner of Reg. No. 502,101.
For Estrogen-Androgen Thyroid Preparation for Animal Use.
First use Dec. 3, 1956.

SN 25,507. American Home Products Corporation, d. b. a. Wyeth Laboratories, Division of American Home Products Corporation, New York, N. Y. Filed Mar. 5, 1957.

PRAZINE

For Tranquillizing Agent.
First use Feb. 26, 1957.

SN 25,974. Dainippon Pharmaceutical Co., Ltd., Higashi-ku, Osaka, Japan. Filed Mar. 12, 1957.

PANS

For Antiviral Agent and Chemotherapeutic Agent for Intravenous and Oral Use.
First use Apr. 5, 1956; in commerce Jan. 16, 1957.

SN 28,361. Magna, Inc., Bensenville, Ill. Filed Apr. 17, 1957.

MAGNA MIST

For Liquid for the Relief of Congestion in the Chest and Upper Respiratory Tract.
First use in October 1953.

SN 33,463. Carter Products, Inc., New York, N. Y. Filed July 10, 1957.

LONGULES

For Timed Disintegration Capsules Filled With a Medicament.
First use May 8, 1957.

SN 33,811. Hoffmann-La Roche Inc., Nutley, N. J. Filed July 16, 1957.

TIMESPAN

For Sustained Release Medication.
First use July 1, 1957.

SN 34,241. Jensen-Salsbery Laboratories Inc., Kansas City, Mo. Filed July 23, 1957.

CYTOHEP

For Infectious Canine Hepatitis Vaccine.
First use June 25, 1957.

SN 35,345. Hales & Hunter Co., Chicago, Ill. Filed Aug. 12, 1957.

FAST FRYER

For Poultry Feed Containing Vitamins and Minerals.
First use June 21, 1957.

SN 36,809. Sandoz, Inc., Hanover, N. J. Filed Sept. 6, 1957.

BEpHAN

For Medicinal Preparation Recommended for the Treatment of Hyperacidity and Gastric Ulcers.
First use Aug. 28, 1957.

SN 38,662. Dr. Karl Thomae G. m. b. H., Biberach an der Riss, Germany. Filed Oct. 1, 1957.

CAMPHIDONIUM

Owner of German Reg. No. 699,505, dated Jan. 29, 1957.
For Product for the Treatment of Hypertonia.

SN 40,003. Vick Chemical Company, New York, N. Y. Filed Nov. 1, 1957.

MEDI-POPS

For Medicated Confection for the Relief of Coughs.
First use 1947.

SN 40,681. Eli Lilly and Company, Indianapolis, Ind. Filed Nov. 14, 1957.

HYGROMIX

For Antibiotic Anthelmintic Used To Control and Eliminate Worms in Swine.
First use Feb. 28, 1957.

SN 40,707. Rohm & Haas G. m. b. H., Darmstadt, Germany. Filed Nov. 14, 1957.

JATROSIN

Owner of German Reg. No. 392,581, dated Oct. 6, 1928.
For Pharmacentical Products.

SN 40,724. F & F Laboratories, Inc., Chicago, Ill. Filed Nov. 15, 1957.

ASPIRIN-AL

For Aspirin.
First use about Nov. 7, 1957.

SN 40,739. Brunswick Laboratories, Inc., Chicago, Ill. Filed Nov. 15, 1957.

UNDELEX

For Ointment and Powder for Athlete's Foot.
First use May 1947.

SN 42,621. American Home Products Corporation, d. b. a. Wyeth Laboratories, Division of American Home Products Corporation, New York, N. Y. Filed Dec. 18, 1957.

LINDEMYCIN

For Antibiotic Preparation.
First use Nov. 20, 1957.

SN 42,623. American Home Products Corporation, d. b. a. Wyeth Laboratories, Division of American Home Products Corporation, New York, N. Y. Filed Dec. 18, 1957.

CYCLAMYCIN

For Antibiotic Preparation.
First use Nov. 20, 1957.

SN 42,920. Ralston Purina Company, St. Louis, Mo. Filed Dec. 23, 1957.

PURA-MYCIN

Owner of Reg. No. 606,295.
For Antibiotic for Poultry and Livestock.
First use Dec. 11, 1957.

Class 19 — Vehides

SN 29,559. Signal-Stat Corporation, Brooklyn, N. Y., now by change of name Hoda Corporation, to Signal-Stat Corporation, Brooklyn, N. Y. (a new corporation). Filed May 7, 1957.

Signal-Stat

Owner of Reg. No. 366,340.
For Hydraulic Wheel Cylinder Brake Cups.
First use Apr. 15, 1957.

SN 33,815. International Harvester Company, Chicago, Ill. Filed July 16, 1957.

WINDBREAKER

For Vehicle Heaters.
First use June 28, 1957.

SN 41,314. Shore-Calnevar, Inc., Los Angeles, Calif. Filed Nov. 25, 1957.

SPUTNIK

For Wheel Covers.
First use Nov. 20, 1957.

SN 41,364. Dunlop Rubber Company Limited, Birmingham, England. Filed Nov. 26, 1957.

PNEURIDE

Owner of British Reg. No. 762,959, dated Feb. 28, 1957.
For Vehicle Pneumatic Suspension Systems.

SN 41,538. General Motors Corporation, Detroit, Mich. Filed Nov. 29, 1957.

GUIDE

Owner of Reg. Nos. 194,519 and 627,685.
For Traffic Light Viewers, Mirrors, and Reflectors for Motor Vehicles.
First use in or before 1935 on reflectors.

SN 41,593. Universal Pak-Rak Incorporated, Taylor Center, Mich. Filed Nov. 29, 1957.

PAK-RAK

For Adjustable Frames for Trucks Having a Pick-Up Body.
First use Sept. 3, 1957.

SN 41,903. Ford Motor Company, Dearborn, Mich. Filed Dec. 6, 1957.

MEDALIST

For Automobiles.
First use Sept. 29, 1955.

SN 41,947. Societe Anonyme Dite: Messier, Paris, France. Filed Dec. 6, 1957.



Priority claimed under Sec. 44(d) on French Reg. No. 465,995, dated June 28, 1957 (Seine); Natl. Inst. No. 92,552.
For Airplanes, Helicopters and Lighter-Than-Air Craft, and All Aviation Apparatus; Landing Gears for Aircraft Including Wheels for Such Landing Gears; Braking Systems for Aircraft, Including Hydraulic Brakes, Hose, Connections, and Levers; Wheel Brakes for All Types of Vehicles; Resilient Struts, Legs, and Jacks for the Landing Gear of Aircraft; Resilient Shock Absorbers for Aircraft and for All Types of Vehicles; Tailskids for Aircraft; Radiators for Aircraft; Under-Carriage and Flaps Retraction Assemblies; Motor Cars, Motor Coaches and All Other Power-Driven Vehicles, and Parts Thereof.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 8,128. Gulton Industries, Inc., Metuchen, N. J., by change of name from Gulton Mfg. Corp. Filed May 11, 1956.

EIM

For Miniaturized Magnetic Amplifier Power Supplies, Transistorized D. C. Voltage Regulators, Computer Power Supplies, Strain Gauge Power Supplies, and Filament Power Supplies.
First use July 8, 1954.

SN 18,773. Marlun Manufacturing Co. Inc., Woodside, N. Y. Filed Nov. 5, 1956.

TRAVELER

For Electric Roasters, Broilers, and Rotisseries.
First use June 11, 1956.

SN 25,093. C. I. Hayes, Inc., Cranston, R. I. Filed Feb. 26, 1957.

HAYES HUMPBACK

For Electric Heat Treatment Furnaces.
First use in or about December 1946.

SN 27,217. Marathon Battery Company, Wausau, Wis. Filed Mar. 29, 1957.

THRIFTY

For Batteries.
First use Feb. 22, 1957.

SN 28,455. Milgo Electronic Corporation, Miami, Fla. Filed Apr. 18, 1957.

MEC

For Plug-In Transistor Networks.
First use Jan. 9, 1956.

SN 29,446. Erie Manufacturing Co., Erie, Pa. Filed May 6, 1957.

ROTA-GRATE

For Magnet Separating Devices for Removing Tramp Iron and Foreign Ferrous Materials From Non-Ferrous Materials.
First use Jan. 2, 1956.

SN 29,737. McGraw-Edison Company, Elgin, Ill. Filed May 9, 1957.

TOASTMASTER

Owner of Reg. Nos. 197,304, 550,056, and others.
For Electric Toasters.
First use on or about May 20, 1924.

SN 30,499. James R. Kearney Corporation, St. Louis, Mo. Filed May 22, 1957.

TRIP-O-DISCONNECT

For Fuse Switches.
First use Dec. 17, 1936.

SN 32,735. Irby B. Chambler, d. b. a. Electro-Alarm Safety Devices, Fresno, Calif. Filed June 27, 1957.

ELECTRO-ALARM

For Manufactured Goods—Namely, Crane Warning Devices; Electric Power Trouble Tracers; Polio Lung Alarm; Metal Locator; and Pedestrian Alarms; All of the Foregoing Utilizing Electrical Circuits as the Mode of Operation.
First use Jan. 1, 1949.

SN 33,353. Howard T. Hutchens, d. b. a. Carousel Sign Co., Lakeland, Fla. Filed July 8, 1957.



For Electrical Display Advertising Signs.
First use May 20, 1957.

SN 35,017. Lyle H. Van Dyke, Portland, Oreg. Filed Aug. 5, 1957.

Rush-A-Phone.
WITH
DIAL-A-MATIC
ADJUSTMENT

Owner of Reg. No. 518,863.
For Shoulder Rest for Telephone Receivers.
First use Mar. 10, 1957.

SN 35,795. Mercury Record Corporation, Chicago, Ill. Filed Aug. 19, 1957.

SEEING-EAR

For Stereophonic Tape Recordings.
First use on or about Aug. 1, 1957.

SN 35,917. Danbury-Knudsen, Incorporated, Danbury, Conn., to Amphenol Electronics Corporation, Chicago, Ill. Filed Aug. 21, 1957. Sec. 2(f).

DANBURY-KNUDSEN

For Radio Frequency Coaxial Relays and Switches, Antennas, Radio Frequency Wave Guide Components, Radio Frequency Gang, Rack and Panel Connectors.
First use June 1952; no later than 1932 as to door bell push buttons.

SN 36,434. Elcor, Incorporated, McLean, Va. Filed Aug. 29, 1957.

ISOFORMER

For Shielded Transformers.
First use May 24, 1957.

SN 37,226. Clevite Corporation, Inc., Cleveland, Ohio. Filed Sept. 16, 1957.

MULTIMORPH

For Dielectric Ceramic Elements for Use in Electrical, Electromechanical, and/or Electronic Applications.
First use Mar. 15, 1957.

SN 37,247. The Electric Auto-Lite Company, Toledo, Ohio. Filed Sept. 16, 1957.



Owner of Reg. Nos. 236,679, 653,030, and others.
For Electrical Conductors.
First use July 7, 1940.

SN 37,316. Herman Ulanet, Newark, N. J. Filed Sept. 16, 1957.



For Electrical Contact Screws.
First use Sept. 3, 1957.

SN 37,466. Westinghouse Electric Corporation, Pittsburgh, Pa. Filed Sept. 18, 1957.

PARABALLOON

For Antennas for Reception and Transmission of Electromagnetic Radiation.
First use on or about Mar. 4, 1957.

SN 37,532. The Wakefield Company, Vermilion, Ohio. Filed Sept. 19, 1957.

THE TECHNICIAN

For Electric Table Lamp.
First use Aug. 11, 1957.

SN 39,128. Burgess Battery Company, Freeport, Ill. Filed Oct. 18, 1957.

BEARCAT

For Electric Lanterns and Electric Dry Batteries.
First use Apr. 11, 1957.

SN 39,129. Burgess Battery Company, Freeport, Ill. Filed Oct. 18, 1957.

RADAR

Owner of Reg. Nos. 624,872, 644,111, and 644,112.
For Electric Lanterns and Electric Dry Batteries.
First use Apr. 11, 1957.

SN 39,609. Electrical Engineers Equipment Co., Melrose Park, Ill. Filed Oct. 28, 1957. Sec. 2(f).

ISOLATOR

Owner of Reg. No. 372,890.
For Electrical Disconnect Switches.
First use Mar. 1, 1932.

SN 39,957. G & M Battery Company, Inc., Detroit, Mich. Filed Nov. 1, 1957.

SEAWAY

For Batteries.
First use May 1, 1957.

SN 40,007. J. A. Wilson Lighting & Display Inc., Erie, Pa. Filed Nov. 1, 1957.

PARAGRID-TILE

For False Illuminated Ceilings and Ceiling Electrical Lighting Fixtures.
First use in June 1957.

SN 40,294. Welex, Inc., Fort Worth, Tex. Filed Nov. 7, 1957.

GEN-O-DRIVE

For Accessory Unit for Attachment to the Generator of an Automobile for Automatically Changing the Ratio of Generator Speed to Engine Speed at Different Engine Speeds.
First use July 26, 1957.

SN 40,301. Acoustic Research, Inc., Cambridge, Mass. Filed Nov. 8, 1957.

AR

For Loud Speakers for Hi-Fi Sound Systems.
First use Feb. 1, 1955.

SN 40,405. The Magnavox Company, Fort Wayne, Ind. Filed Nov. 12, 1957.

DIPLOMAT

For Television Receivers and Parts Thereof.
First use Sept. 25, 1957.

SN 40,406. The Magnavox Company, Fort Wayne, Ind. Filed Nov. 12, 1957.

WESTCHESTER

For Radio Receivers and Parts Thereof.
First use Oct. 1, 1957.

SN 40,408. The Magnavox Company, Fort Wayne, Ind. Filed Nov. 12, 1957.

INTERCONTINENTAL

For Radio Receivers and Parts Thereof.
First use Oct. 21, 1957.

SN 40,410. The Magnavox Company, Fort Wayne, Ind. Filed Nov. 12, 1957.

MAGNAVIEW

For Combination Television Receivers and Phonographs and Parts Thereof.
First use Oct. 15, 1957.

SN 40,423. British Industries Corporation, Port Washington, N. Y. Filed Nov. 12, 1957.



For Record Changers and Players and Parts Therefor, Amplifiers and Pre-Amplifiers, Vacuum Tubes and Loud Speakers.
First use in 1952.

SN 40,466. The Indiana Steel Products Company, Valparaiso, Ind. Filed Nov. 12, 1957.

MAGMAN

For Magnetic Separators for Separating Magnetic Material From Non-Magnetic Material; Lifting Magnets and Holding Magnets.
First use Oct. 11, 1957.

SN 40,491. The Philip Carey Manufacturing Company, Lockland, Cincinnati, Ohio. Filed Nov. 12, 1957.

TROUBADOOR

For Door Chimes.
First use Oct. 29, 1957.

SN 40,569. Essex Wire Corporation, Fort Wayne, Ind. Filed Nov. 13, 1957.

PARA-TEMP

For Electrical Wire and Cable.
First use on or about Nov. 1, 1957.

SN 40,570. Essex Wire Corporation, Fort Wayne, Ind. Filed Nov. 13, 1957.

PARASEAL

For Electrical Wire and Cable.
First use on or about Nov. 1, 1957.

SN 40,686. Motor Parts Depot, San Antonio, Tex. Filed Nov. 14, 1957.

APR

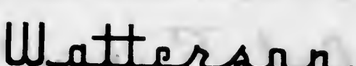
For Rebuilt Parts of Automobiles and Other Motor Powered Vehicles—Namely, Starters, Generators, and Starter Armatures.
First use Feb. 1, 1957.

SN 40,762. Insul-8-Corp., San Carlos, Calif. Filed Nov. 15, 1957.



For Electrical Conducting and Distributing System.
First use Apr. 13, 1955.

SN 40,926. J. W. Davis & Company, Dallas, Tex. Filed Nov. 19, 1957.



For Radios.
First use Sept. 1, 1933.

SN 40,966. Radio Corporation of America, New York, N. Y. Filed Nov. 19, 1957.



Owner of Reg. Nos. 302,712, 686,775, and others.
For Recording Tape, Pre-Recorded Tape and Accessories for the Foregoing Goods—Namely, Reels.
First use Mar. 1, 1954.

SN 41,099. The Indiana Steel Products Company, Valparaiso, Ind. Filed Nov. 21, 1957.

INDOX

For Ceramic Magnets.
First use Aug. 30, 1955.

SN 41,121. Teca Corporation, White Plains, N. Y. Filed Nov. 21, 1957.

TECA

Owner of Reg. Nos. 643,960 and 652,388.
For Dry Cell and Wet Storage Batteries, Electric Current Rectifiers, Generators for Electric Current, Switches and Switch Panels, Apparatus for Regulating Electric Current, Electric Bulbs, Pole Changers, Electro Motors, and Coaxial Probe Electrodes.
First use July 1941.

SN 41,855. Tokyo Shibaura Electric Company Limited, Kawasaki-Shi, Japan. Filed Dec. 5, 1957.



Owner of Japanese Reg. No. 404,029, dated Oct. 13, 1951.
For Electric Power Equipment, Electric Communication Equipment, Electric Lamps and Discharge Lamps, Electric Heaters and Cookers, Electron Tubes and Discharge Tubes, Electric Fans.

Class 22—Games, Toys, and Sporting Goods

SN 40,109. Alexander Doll Company, Inc., d. b. a. Madame Alexander, New York, N. Y. Filed Nov. 5, 1957.

"Little Miss Sunbeam"

For Dolls.
First use July 31, 1957.

SN 40,110. Alexander Doll Company, Inc., d. b. a. Madame Alexander, New York, N. Y. Filed Nov. 5, 1957.

"Little Sunbeam"

For Dolls.
First use July 31, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 631,636. Union Carbide Corporation, New York, N. Y., from Stellite American Corporation. Filed June 23, 1952.

STELLITE

Owner of Reg. No. 134,158.
For Textile Machine Parts—Namely, Thread Guides, Thread Lifters, Twister Rings, Loopers, Bobbin Cases, Clutches, Blades, Knives, Guide Plate Strips, Levers, Pawls, and Rolls.
First use about January 1921 on knives.

SN 18,173. Mermac Products, Inc., Chicago, Ill. Filed Oct. 25, 1956.

E-Z-KUT

For Centrifugally Expansible Wheels or Discs Adapted To Receive Endless Abrasive Belts Thereon.
First use Aug. 6, 1956.

SN 28,354. Kiekhaefer Corporation, Cedarburg, Wis. Filed Apr. 17, 1957.

POWER-FLO

For Transmission Mechanism for Outboard Motors.
First use Feb. 4, 1957.

SN 32,216. Thor Power Tool Company, Aurora, Ill. Filed June 18, 1957.

THOR

Owner of Reg. Nos. 561,048 and 632,643.
For Muffle Covers for Tools.
First use Oct 24, 1956.

SN 33,137. Detroit Harvester Company, Detroit, Mich. Filed July 3, 1957.

DURA

For Hydraulic Power Package Units Comprising an Electric Motor Driven Pump, Reservoir and Hydraulic Motor for General Power Actuation of Devices; Engine Clutch Controls; and Electric Motor Driven Pump Units.
First use in September 1914.

SN 34,150. S. C. Lawlor Company, Chicago, Ill. Filed July 22, 1957. Sec. 2(f).

LAWLOR

For Machines for Scrubbing, Cleaning, Waxing, and Polishing Floors and Other Surfaces, and Mop Wringers.
First use on or about 1920.

SN 34,187. Toledo Rotary Tool Company, Toledo, Ohio. Filed July 22, 1957.

ROTO-RASP

For Tools of Rasp-Type Construction for Wood Working and the Like.
First use Mar. 14, 1957.

SN 35,481. ABG-Werke G. m. b. H., Hamelin (Weser), Germany. Filed Aug. 1, 1957.

ALLGEMEINE BAUMASCHINEN GESELLSCHAFT

The wording "Allgemeine Baumaschinen Gesellschaft" is disclaimed apart from the mark as shown. Owner of German Reg. No. 619,686, dated Apr. 30, 1952.
For Machines and Implements for Building Streets and Roads—Namely, Concrete Finishing Machinery, Concrete Dividers, Concrete Mixers, Packing Machinery, Earth Moving Machinery, Building Hoists, Vibrators, Vibrator Tables, Silos, and Implements for Handling Building Material.

SN 38,580. The Falk Corporation, Milwaukee, Wis. Filed Sept. 23, 1957. Sec. 2(f).

FALK

For Fixed and Variable Speed Reducers and Increasers, Gears, Gear Drives, Backstops, Clutches, Bearings, Pillow Blocks, Overload Release Mechanisms for Transmissions, Couplings of the Rigid, Flexible, Brakewheel, and Controlled Torque Types, Vibration Dampeners and Detuners, Weldments, and Fabricated Metal Structures.
First use July 1925.

SN 40,713. Sperry Rand Corporation, New York, N. Y. Filed Nov. 14, 1957.

STATESMAN

For Typewriting Machines and Parts and Accessories Thereof.
First use Oct. 4, 1957.
Subj. to Intf. with SN 40,106.

SN 41,332. True-Trace Corporation, El Monte, Calif. Filed Nov. 25, 1957.

TRUE-TRACE

Owner of Reg. No. 641,370.
For Hydraulic Tracer Valves; Hydraulic Power Units; Mounting Brackets; Hydraulic Power Cylinders; Counterbalance Cylinders; Hand Tools, Particularly Wrenches; Milling Heads; and Machine Tools Converted to Contour Copying Tools.
First use Feb. 21, 1952, on hydraulic tracer valves.

SN 41,549. Albert Karelius & Sons, Inc., Alhambra, Calif. Filed Nov. 29, 1957.

VERMICU-PUMP Junior

The drawing is lined for the colors red and blue.
For Pumps for Pumping Various Plaster Finishes in a Fluid State.
First use May 23, 1957.

SN 41,550. Albert Karelius & Sons, Inc., Alhambra, Calif. Filed Nov. 29, 1957.

VERMICU-PUMP Fire Chief

The drawing is lined for the colors red and blue.
For Pumps for Pumping Fluids Such as Fireproof Plaster Materials.
First use July 22, 1957.

SN 41,626. De Paolo Engineering Co., Long Beach, Calif. Filed Dec. 2, 1957.

TURBO-INJECTOR

For Top Cylinder Oiler for Internal Combustion Engines.
First use Nov. 6, 1957.

SN 41,782. Spir-it, Inc., Malden, Mass. Filed Dec. 4, 1957.

POSTIR

For Cocktail Stirrers.
First use Oct. 18, 1957.

SN 41,891. Consolidated Sewing Machine Corp., New York, N. Y. Filed Dec. 6, 1957.

ELDORADO

For Sewing Machines and Sewing Machine Parts and Supplies.
First use Nov. 27, 1957.

SN 44,714. Kearney & Trecker Corporation, West Allis, Wis. Filed Jan. 27, 1958.

KTNC

For Profile Milling Machines With Numerical Controls.
First use Jan. 17, 1958.

SN 44,846. Spartan Saw Works, Inc., Springfield, Mass. Filed Jan. 28, 1958.

KUTALL

Owner of Reg. No. 356,643.
For Hack Saw Blades, Tool Bits, and Metal Cutting Band Saws.
First use Mar. 8, 1937.

SN 45,228. Underwood Corporation, New York, N. Y. Filed Feb. 3, 1958.

oxford

For Typewriters and Parts Thereof.
First use Oct. 10, 1957.

SN 45,484. The Long Company, Oak Hill, W. Va. Filed Feb. 7, 1958.

LO-ROPE

For Belt Conveyors and Parts Therefor.
First use Nov. 13, 1957.

Class 26—Measuring and Scientific Appliances

SN 26,564. Peerless Photo Products, Inc., Shoreham, N. Y. Filed Mar. 20, 1957.

DEVODARK

Owner of Reg. No. 553,382.
For Sensitized Photographic Paper.
First use Mar. 1, 1957.

SN 38,353. Hastings-Raydist, Inc., Hampton, Va. Filed Oct. 4, 1957.

ELECTROVERTER

For Devices for Converting Fluctuating to Constant Electrical Currents, Voltages, and Power.
First use May 7, 1947.

SN 42,757. John D. Bolesky, d. b. a. Motek Controls Company, Mansfield, Ohio. Filed Dec. 20, 1957.

WAND

For Thermostatically Operated and Thermally Responsive Electric Controls.
First use Oct. 30, 1957.

SN 42,796. Victor Adding Machine Co., Chicago, Ill. Filed Dec. 20, 1957.

ADD-TRACTOR

For Electric Counters.
First use on or about Feb. 5, 1957.

SN 42,841. Consolidated Electrodynamics Corporation, Rochester, N. Y. Filed Dec. 23, 1957.

MAGNEVAC

For Vacuum Gauges.
First use Nov. 14, 1957.

SN 42,907. Packard Instrument Company, Inc., Lyons, Ill. Filed Dec. 23, 1957.

TRI-CARB

For Apparatus for Detecting and Measuring Radioactivity.
First use June 1954.

SN 43,035. Arthur S. La Pine & Company, Chicago, Ill. Filed Dec. 26, 1957. Sec. 2(f).

LA PINE

Owner of Reg. No. 562,104.
For Stainless Steel Beakers for Laboratory Use.
First use Apr. 20, 1950.

SN 43,067. Calculator Equipment Corporation, Orange, N. J. Filed Dec. 27, 1957.

SCOTSMAN

For Calculating Machines.
First use Nov. 25, 1957.

SN 43,173. Manning, Maxwell & Moore, Incorporated, Stratford, Conn. Filed Dec. 30, 1957.

MAXITEST

Owner of Reg. No. 588,273.
For Test Gauges.
First use Dec. 9, 1957.

SN 43,177. The Microcard Corporation, West Salem, Wis. Filed Dec. 30, 1957.

MICROCARD

Owner of Reg. No. 534,191.
For Viewing Enlargers for Use With Publications on Which Printing, Pictures, Legends, and the Like, Are Produced in Reduced Size.
First use May 22, 1950.

Class 29—Brooms, Brushes, and Dusters

SN 39,654. Angus Mills, Inc., Vass, N. C. Filed Oct. 28, 1957.

ANGUS

Owner of Reg. Nos. 630,430 and 626,940.
For Cloths for General Household Cleaning.
First use Sept. 4, 1957.

Class 31—Filters and Refrigerators

SN 44,805. The Cuno Engineering Corporation, Meriden, Conn. Filed Jan. 28, 1958.

AQUA-PURE

For Filtering Apparatus and Components Thereof, Including Filter Cartridges.
First use Jan. 23, 1958.

SN 44,980. Rheem Manufacturing Company, Richmond, Calif. Filed Jan. 30, 1958. Sec. 2(f).

RHEEM

Owner of Reg. No. 560,354.
For Water Softening Apparatus.
First use Dec. 1, 1946.

SN 45,086. Weber Showcase & Fixture Co., Inc., Los Angeles, Calif. Filed Jan. 31, 1958.

TEXTURETONE

For Refrigerated Showcases.
First use Dec. 12, 1957.

SN 47,412. Norco, Inc., Los Angeles, Calif. Filed Mar. 10, 1958.

NORCO

For Gas Refrigerators.
First use on or about October 1954.
Subj. to Intl. with S. N. 42,437.

Class 32—Furniture and Upholstery

SN 7,944. Sears, Roebuck and Co., Chicago, Ill. Filed May 8, 1956.

KEN-SERV-ETTE

For Cabinets for Sewing Machines Also Useable as Storage Cabinets and Other Purposes.
First use on or about July 16, 1954.

SN 38,454. Herman Golubchik, d. b. a. Sleep-Crafters, Elizabeth, N. J. Filed Oct. 7, 1957.

RESIL-O-PEDIC

For Box Springs for Beds, Mattresses, Sofas, Couches, Divans, and Dual Purpose Sleeping Equipment Having Spring Pressure Adjustment.
First use May 27, 1957.

SN 39,738. National Store Fixture Co., Inc., Odenton, Md. Filed Oct. 29, 1957.

NEVAMAR KITCHENS

No claim is made to the word "Kitchens" apart from the mark as shown.
For Kitchen Cabinets and Kitchen Cabinet Sets.
First use Aug. 16, 1957.

SN 44,113. Port-a-crib, Inc., Manchester, Mo. Filed Jan. 16, 1958.

PORT-A-SIDE

For Portable Side Guards for Beds, Sofas, and the Like.
First use Jan. 1, 1956.

SN 46,737. Jersey City Foam Products Co., Jersey City, N. J. Filed Feb. 27, 1958.

CELLEX

For Cushions.
First use Nov. 19, 1957.

SN 47,096. Burton-Dixie Corporation, Chicago, Ill. Filed Mar. 5, 1958.

MOBILBED

For Beds.
First use Feb. 27, 1958.

SN 47,168. All-Steel Equipment Inc., Aurora, Ill. Filed Mar. 6, 1958.

TELEBACK

For Telephone Mounting Panels for Desks or the Like.
First use Feb. 10, 1958.

SN 47,216. Salmanson & Co., Inc., New York, N. Y. Filed Mar. 6, 1958.

Saga

For Articles of Furniture—Namely, Tables, Chairs, Buffet Servers, Console Servers, Chests, Cabinets, Bookcase Hutches, Sliding Door Hutches, Cocktail Tables, Step-End Tables, Step-Corner Tables, Corner Tables, Dinette Sets, Upholstered Chairs, and Upholstered Love Seats.
First use June 17, 1957.

SN 47,609. Sleep Aid Bedding Products, Inc., Newark, N. J. Filed Mar. 12, 1958.

SLEEP AID

For Mattresses.
First use in January 1956.

SN 48,009. Cambridge Rubber Company, Cambridge, Mass. Filed Mar. 19, 1958.

FOAMLITE

Owner of Reg. Nos. 645,564 and 531,231.
For Vinyl Foam Pillows.
First use Jan. 23, 1958.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 32,581. Chicago Fire Brick Company, Chicago, Ill. Filed June 25, 1957.

ECONOLITE

For Fire Walls, Arches, and Roofs of Industrial Furnaces.
First use May 31, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 21,166. Joy Manufacturing Company, Pittsburgh, Pa., to Stewart-Warner Corporation, Chicago, Ill. Filed Dec. 17, 1956.

SURGEPRUF

For Hoses per se and Hose Assemblies.
First use Jan. 31, 1955.

SN 35,296. Robbins Tire and Rubber Company, Inc., Tuscumbia, Ala. Filed Aug. 9, 1957. Sec. 2(f).

Robbins

Owner of Reg. No. 557,371.
For Inner Tubes and Tread Rubber.
First use Dec. 21, 1950.

Class 36—Musical Instruments and Supplies

SN 14,857. Contina Bureaux- und Rechenmaschinenfabrik, Aktiengesellschaft, Vaduz, Liechtenstein. Filed Aug. 30, 1956.

LIBELLE

Owner of Liechtenstein Reg. No. 582, dated Feb. 20, 1956.
For Phonograph Records, Covering, Wraps, and Envelopes for Phonograph Records.

SN 14,858. Contina Bureaux- und Rechenmaschinenfabrik, Aktiengesellschaft, Vaduz, Liechtenstein. Filed Aug. 30, 1956.

LIBRETTO

Owner of Liechtenstein Reg. No. 583, dated Feb. 20, 1956.
For Phonograph Records, Coverings, Wraps, and Envelopes for Phonograph Records; Phonographs and Tone Reproduction; Phonograph Accessories—Namely, Housings, Chassis, Tone Arms, Pickups, Amplifiers; Speed Change Devices Adapted To Be Placed Upon Turn Tables; Tone Controls.

Class 37—Paper and Stationery

SN 27,513. Orchard Paper Co., St. Louis, Mo. Filed Apr. 4, 1957.

COPYRIGHT PARADE

For Wrapping Paper and Paper Bags.
First use Mar. 20, 1957.

SN 28,190. Portco Corporation, Portland, Oreg. Filed Apr. 16, 1957.

PORTCO

For Waxed Paper.
First use Nov. 15, 1955.

SN 28,865. Merrill S. King, Layton, Utah. Filed Apr. 25, 1957.

KISCH POSIDENT

For Personal Identification Forms.
First use on or about Apr. 7, 1948.

SN 31,647. Fitchburg Paper Company, Fitchburg, Mass. Filed June 10, 1957.

TRANSPAR

For Specialty Papers—Namely, Translucent Parchment Lampshade Paper, Office Equipment Reproduction Paper, and Translucent Papers of the Same General Type for Printing, Advertising, and Decorative Purposes.
First use May 17, 1957.

SN 34,130. Fox River Paper Corporation, Appleton, Wis. Filed July 22, 1957.



For Writing Paper and Typewriting Paper.
First use June 18, 1957.

SN 37,024. Leatherlines, Inc., New York, N. Y. Filed Sept. 11, 1957.

PIC-A-PEN

For Pen Set Comprising Pen Stand and Pens.
First use May 4, 1957.

SN 38,600. Erving Paper Mills, Erving, Mass. Filed Oct. 9, 1957.

"Splend-aides"

For Paper Napkins, Paper Towels, and Toilet Paper.
First use July 2, 1948.

SN 12,845. (Miss) Texana, San Francisco, Calif. Filed July 25, 1956.

This Wonderful World!

For Itinerary Maps, Illustrated Articles Published in Magazines and Other Publications, Picture Postcards, and Advertising Brochures.
First use Sept. 23, 1954.

SN 31,949. Sexologia Magazine, Inc., New York, N. Y. Filed June 13, 1957.

Luz

Owner of Reg. No. 594,897.
For Monthly Magazines Published as a Guide to Sex Education.
First use on or about June 1, 1957.

SN 34,885. The Buttenheim-Dix Publishing Corporation, New York, N. Y. Filed July 15, 1957. Sec. 2(f).

CONTRACTORS AND ENGINEERS

For Monthly Periodical.
First use in 1920.

SN 34,887. The American School Publishing Corporation, New York, N. Y. Filed July 16, 1957. Sec. 2(f).

AMERICAN SCHOOL AND UNIVERSITY

For Annual Periodical.
First use in 1928.

SN 38,434. Counterpoint, d. b. a. Counterpoint Productions, Tempe, Ariz. Filed Oct. 7, 1957.

COUNTERPOINT

For Books.
First use Aug. 31, 1957.

SN 39,727. The Houston Chronicle Publishing Company, Houston, Tex. Filed Oct. 29, 1957.

Texas

Owner of Reg. No. 200,554.
For Weekly Magazine Section of a Newspaper.
First use May 26, 1957.

Class 38 — Prints and Publications

SN 10,256. Pauline Phillips, Hillsborough, Burlingame, Calif. Filed June 14, 1956.

Dear Abby

Applicant writes under the pseudonym "Abigail Van Buren."
For Daily Newspaper Column.
First use Jan. 9, 1956.

Class 39 — Clothing

SN 36,312. Pendleton Woolen Mills, Portland, Oreg. Filed Aug. 27, 1957. Sec. 2(f) as to "Pendleton."

Pendleton 49'er

Owner of Reg. Nos. 508,995, 550,641, and others.
For Women's Jackets.
First use Aug. 5, 1949; Dec. 31, 1910, as to "Pendleton."

SN 38,282. Hawkins Hosiery Mill, Marion, N. C. Filed Oct. 3, 1957.

Toddletex

For Infants' Hosiery.
First use Jan. 1, 1950.

SN 39,710. E. W. Bryan Limited, Leicester, England. Filed Oct. 29, 1957.



Owner of British Reg. No. 762,966, dated Feb. 28, 1957.
For Slipovers, Pullovers, Jerseys, Cardigans, Stockings and Socks (for Wear) All Being Knitted Articles of Clothing Made of or Containing Wool, Cotton, or Artificial Silk.

SN 39,763. Vogue Shoe, Inc., Los Angeles, Calif. Filed Oct. 29, 1957.

BON-BON

For Women's Shoes Made of Leather, Plastic, Fabrics or Combinations Thereof.
First use June 10, 1957.

SN 39,858. Coastal Footwear Corporation, Canovanas, Puerto Rico. Filed Oct. 31, 1957.

PLAYLITE

For Shoes for Men, Women, and Children.
First use during March 1950.

SN 40,171. Halper Brothers, Inc., New York, N. Y. Filed Nov. 6, 1957.

SELENE

For Hats and Hat Bodies.
First use Mar. 20, 1956.

SN 40,232. Halper Brothers, Inc., New York, N. Y. Filed Nov. 7, 1957.

Helios

For Hats and Hat Bodies.
First use Apr. 8, 1957.

SN 41,370. J. Freezer & Son, Inc., New York, N. Y. Filed Nov. 26, 1957.

Monocle Daytimer

Owner of Reg. No. 630,512.
For Children's, Misses', and Ladies' Shirts.
First use July 2, 1957.

Class 40—Fancy Goods, Furnishings, and Notions

SN 38,009. American Cutting and Binding Company, Chicago, Ill. Filed Sept. 30, 1957.

BETERBAC

For Belting.
First use in April 1956.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 25,897. H. P. Schneider, Inc., New York, N. Y. Filed Mar. 11, 1957.

AC-TIV PRODUCTS

The word "Products" is disclaimed apart from the mark as shown.
For Interlining Fabrics for Neckwear, of Wool, or Wool and Rayon.
First use Jan. 28, 1957.

SN 41,119. Shirley Fabrics Corporation, New York, N. Y. Filed Nov. 21, 1957.

SHANIDAR

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Oct. 1, 1956.

SN 41,164. D. B. Fuller & Co. Inc., New York, N. Y. Filed Nov. 22, 1957.

TATTLER

For Textile Fabrics in the Piece of Cotton and Rayon.
First use Apr. 25, 1957.

SN 41,450. D. B. Fuller & Co. Inc., New York, N. Y. Filed Nov. 27, 1957.

FIORI

For Textile Fabrics in the Piece of Cotton and Rayon.
First use June 3, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 15,277. Gregan Manufacturing Co., St. Louis, Mo. Filed Sept. 7, 1956.

BA-BEE MAID

For Nursing Bottle Holders.
First use July 27, 1956.

SN 36,586. Hanover Manufacturing Company, Hanover, Ill. Filed Sept. 3, 1957.

DISPOSO-T

For Clavical T-Splint.
First use July 2, 1957.

SN 36,925. Sales Imagineering Corporation Limited, Toronto, Ontario, Canada. Filed Sept. 9, 1957.

Pedi-Q

For Corn and Callous Removing Knife and Replacement Blades Therefor.
First use Aug. 15, 1956; in commerce Aug. 31, 1956.

SN 39,346. Tokyo Tsushin Kogyo Kabushiki Kaisha, d. b. a. Tokyo Tsushin Kogyo Ltd., Shinagawa-ku, Tokyo-to, Japan. Filed Oct. 22, 1957.

TRANSIEAR

Owner of Japanese Reg. No. 482,796, dated July 1, 1956.
For Hearing Aid.

SN 39,659. Orthopedic Equipment Company, Bourbon, Ind. Filed Oct. 28, 1957.

CHEM-O-HEAT

For Therapeutic Chemical Heat Pack.
First use Aug. 29, 1957.

SN 40,056. International Dental Products, Inc., New York, N. Y. Filed Nov. 4, 1957.

PALGINEX

For Dental Compound for Taking Impressions.
First use Sept. 30, 1957.

Class 46—Foods and Ingredients of Foods

SN 680,081. Kosher Star Sausage Mfg. Co., Chicago, Ill. Filed Jan. 18, 1955.



The drawing is lined for red. The Hebrew word shown means "Kosher." No claim is made to the exclusive use of "Kosher" and "Chicago, Ill." apart from the mark as shown. Owner of Reg. Nos. 321,024 and 220,484.
For Meats and Meat Products, viz., Salami, Bologna, Sausages, Cooked, Pickled, and Pressed Tongues, Pastrami, Pickled Beef, Cooked Corn Beef, and Cooked Cured Beef.
First use Mar. 13, 1934.

SN 682,298. Sinai Kosher Sausage Corp., Chicago, Ill. Filed Feb. 24, 1955.



The Hebrew word is "Sinai." No claim is made to the exclusive use of the geographical term "Chicago" apart from the mark as shown. Owner of Reg. No. 322,224.
For Meats and Meat Products, viz., Salami, Bologna, Sausages, Cooked, Pickled, and Pressed Tongues, Pastrami, Pickled Beef, Cooked Corned Beef, and Cooked and Cured Beef.
First use Apr. 26, 1934.

SN 698,592. Escalon Packers, Inc., Escalon, Calif. Filed Nov. 21, 1955.

Bonita

"Bonta" is an Italian word with several meanings such as "affability," "generosity," "kindness," "good will," and "benignity."
For Italian Food Specialties—Namely, Tomato Paste, Tomato Puree, and Pizza Sauce.
First use 1944.

SN 2,314. Societe Anonyme des Caves & des Producteurs Reunis de Roquefort, Roquefort, Aveyron, France, now by change of name Nouvelle Societe Anonyme des Proprietaires La Bergere. Filed Feb. 8, 1956.



Priority claimed under Sec. 44(d) on French Reg. No. 518, dated Nov. 29, 1955 (De Saint-Affrique); Natl. Inst. No. 65,721. "La Bergere" translated is "The Shepherdess." No claim is made to the geographical location "Roquefort Aveyron." Owner of U. S. Reg. No. 297,591.
For Cheese.

SN 18,522. Nebraska Consolidated Mills Company, d. b. a. Alabama Flour Mills, Omaha, Nebr. Filed Oct. 31, 1956.



The drawing is lined for red.
For Dog Meal.
First use August 1954.

SN 18,959. The Maryland Baking Company, d. b. a. Flare-Top Eat-it All Bakery, Baltimore, Md. Filed Nov. 8, 1956.

TAKE-OUT

For Ice Cream Cones.
First use on or about Nov. 9, 1948.

SN 20,816. A. & R. Scott, Limited, Colinton, Midlothian, Scotland. Filed Nov. 14, 1956. Sec. 2(f).

Scott's

Owner of Reg. No. 224,147.
For Rolled Oats for Human Consumption.
First use Jan. 1, 1909; in commerce Oct. 1, 1951.

SN 22,072. B. Rickenback, Greenwich, Conn. Filed Jan. 25, 1957. Sec. 2(f).

APPLBERRY

For Canned Blend of Apple Sauce and Red Raspberries.
First use Sept. 1, 1947.

SN 25,412. R. S. Farley, d. b. a. Flagmeadow Farm, Finksburg, Md. Filed Mar. 4, 1957.

FLAG MEADOW FARM

For Fluid Goat's Milk.
First use Aug. 17, 1947.

SN 28,470. Jules Weber, Inc., New York, N. Y. Filed Apr. 18, 1957.

LALANCE BRAND

The word "Brand" is disclaimed apart from the mark as shown.
For Canned Vegetables, Canned Fish, Olive Oil, for Food Purposes.
First use June 1906.

SN 30,143. Louis Burk Company, Philadelphia, Pa. Filed May 16, 1957. Sec. 2(f) as to "Burk's."



Owner of Reg. No. 230,488.
For Sausages, Canned Meats, Smoked Meats, and Lard.
First use Sept. 17, 1956.

SN 30,144. Louis Burk Company, Philadelphia, Pa. Filed May 16, 1957.

Burkette

For Smoked Pork Shoulder Butts.
First use Nov. 8, 1929.

SN 30,754. Jack M. Dinken, Chiyoda-ku, Tokyo, Japan. Filed May 27, 1957.



No claim is made to the exclusive use of the expression "Kobu-Nuts."
For Cocktail Snacks and Appetizers Made of Peanuts, Rice Paste, and Tangle.
First use Dec. 1, 1956.

SN 31,826. Destileria Serralles, Inc., Ponce, Puerto Rico. Filed June 12, 1957.

SERRAYEAST

For Dried Yeast for Use in Cattle and Poultry Feeds.
First use Oct. 18, 1944.

SN 33,616. Hardy Salt Company, St. Louis, Mo. Filed July 12, 1957.

Hardy **Sta-mix**

For Stabilizing Component of Salt Mixture for Incorporation in Feeds.
First use in April 1957.

SN 36,022. Rodriguez Hermanos de Cordoba, S. A., Cordoba, Spain. Filed Aug. 22, 1957.



Owner of Spanish Reg. No. 312,426, dated Feb. 25, 1957.
For Olive Oils for Culinary Use.

SN 36,401. Specialty Food Packing and Importing Co., Chicago, Ill. Filed Aug. 28, 1957.

PRIDE OF HOLLAND

For Olives, Chopped Olives, Broken Olives, Olive Butter, and Cocktail Onions.
First use July 10, 1957.

SN 38,920. Fred G. Hilvert Company, Inc., Distributors, d. b. a. Fred G. Hilvert Co., Phoenix, Ariz. Filed Oct. 15, 1957.

DIXIE ACRES

For Fresh Vegetables—Namely, Lettuce; and Fresh Melons.
First use Nov. 30, 1955.

SN 38,939. Northam Trading Co., Inc., New York, N. Y. Filed Oct. 15, 1957.

PERUGIA

For Canned Fish, Canned Tomatoes, Edible Olive Oil.
First use Oct. 4, 1957.

SN 39,064. Henri's Food Products Company, Inc., Milwaukee, Wis. Filed Oct. 17, 1957.



For Salad Dressing.
First use Mar. 26, 1947.

SN 39,065. Henri's Food Products Company, Inc., Milwaukee, Wis. Filed Oct. 17, 1957.

GAR-LÉ

For Salad Dressing.
First use Aug. 20, 1954.

SN 39,159. Esther Olive Schnee, d. b. a. Advance Feeds, Madison, S. Dak. Filed Oct. 18 1957.

ADVANCE FEEDS

No claim is made to the words "Feeds," "Feeding," "Breeding," and "Management" apart from the mark.
For Animal and Poultry Feeds for Horses, Cattle, Hogs, Sheep, Chickens, Ducks, Geese, and Turkeys.
First use July 15, 1957.

SN 39,288. Standard Brands Incorporated, New York, N. Y. Filed Oct. 21, 1957.

PHOS-FO-LAC

Owner of Reg. No. 271,141.
For Acid Salt—Namely, Phosphate and Lactate Mixture for Use With Sodium Bicarbonate for the Same Purpose as Baking Powder.
First use Dec. 26, 1929.

SN 39,770. Aktiengesellschaft Hermes, d. b. a. Hermes Ltd., Zurich, Switzerland. Filed Oct. 30, 1957.

Hermesetas

For Saccharine Tablets for Use as a Food Additive.
First use Mar. 1, 1932; in commerce Feb. 14, 1957.

SN 39,910. Standard Brands Incorporated, New York, N. Y. Filed Oct. 31, 1957.

ROYAL

Owner of Reg. Nos. 48,077, 571,015, and others.
For Baking Powder.
First use 1866.

SN 39,935. Aktiengesellschaft Hermes, d. b. a. Hermes Ltd., Zurich, Switzerland. Filed Nov. 1, 1957.

HERMESETAS

Owner of Swiss Reg. No. 139,706, dated Oct. 11, 1951.
For Saccharine Tablets for Use as a Food Additive.
First use Mar. 1, 1932; in commerce Feb. 14, 1957.

SN 40,454. H. K. Hart Confections, Inc., Union City, N. J. Filed Nov. 13, 1957.



For Soft Coated Bubble Ball Gum.
First use Aug. 23, 1957.

SN 40,908. Albert Ehlers, Inc., Brooklyn, N. Y. Filed Nov. 19, 1957.

LO-CAF

For Decaffeinated Instant Coffee.
First use Nov. 11, 1957.

SN 42,048. Old Judge Coffee Company, St. Louis, Mo. Filed Dec. 9, 1957.



For Coffee.
First use July 8, 1915.

SN 42,145. Leaf Brands, Inc., Chicago, Ill. Filed Dec. 10, 1957.

VANGUARD

For Chewing Gum.
First use Oct. 14, 1957.

SN 42,203. The Dan Dee Pretzel and Potato Chip Company, Cleveland, Ohio. Filed Dec. 11, 1957.

DAN-DEE

Owner of Reg. Nos. 261,450, 644,511, and others.
For Bacon Rinds.
First use Dec. 21, 1956.

SN 42,560. W & S Packing Company, d. b. a. W & S Packing Co., Salinas, Calif. Filed Dec. 16, 1957.

RECORD BREAKER

For Fresh Vegetables.
First use Apr. 3, 1936.

SN 42,830. Central Soya Company, Inc., Fort Wayne, Ind. Filed Dec. 23, 1957.

PIGLAC

For Feed for Pigs.
First use Oct. 15, 1957.

Class 50—Merchandise Not Otherwise Classified

SN 8,367. Ulano Products Company, Brooklyn, N. Y. Filed May 15, 1956.

DYSTRIP

For Laminated Sheet Material Including an Emulsion Laminate and a Resin Film Laminate From Which Color Separations Can Be Made From Keyline-Type Art Work.
First use Apr. 28, 1955.

Class 51—Cosmetics and Toilet Preparations

SN 694,214. Electronic Specialty Co., d. b. a. Shavex Company, Los Angeles, Calif., to Waring Products Corporation, New York, N. Y. Filed Sept. 6, 1955.

SHAVEX

Assignee owner of Reg. No. 220,720.
For Before Shave Lotion, Before Shave Powder Stick, and After Shave Lotion.
First use June 1955.

SN 17,312. Hans Schwarzkopf, Hamburg-Altona, Germany. Filed Oct. 11, 1956.

SCHWARZKOPF

Owner of German Reg. No. 85,675, dated Feb. 26, 1906.
For Preparations for Dyeing, Lacquering, and Bleaching Hair, Eyebrows and Eyelashes, Removing Gloss of Hair, Hair Lotions, Hair Tonic, Hair Fixatives, Skin Lotions, Skin Creams, and Cold Wave Preparations, Dental Cleaning Preparations for Oral Hygiene.

SN 26,645. Société Francaise des Cosmétiques Biologiques, Nice, France. Filed Mar. 21, 1957.

BIOTHERM

Priority claimed under Sec. 44(d) on French Reg. No. 5,970, dated Sept. 29, 1956 (Nice); Natl. Inst. No. 79,701.
For Cosmetic Skin Cream, Powder Base, Nail Cream, Lip Cream, Sun-Tan Cream, Deodorant (Liquid), After-Shave Cream, Hair Cream, Hair Lotion, Toothpaste.

SN 30,872. Yamahatsu Sangyo Kaisha Limited, Kita-ku, Osaka, Japan. Filed May 27, 1957.

MARRON
マロン

The Japanese characters shown below the word "Marron" are the Japanese phonetic equivalence of the same. Owner of Japanese Reg. No. 489,628, dated Oct. 12, 1956.
For Hair-Dyes.

SN 30,873. Yamahatsu Sangyo Kaisha Limited, Kita-ku, Osaka, Japan. Filed May 27, 1957.

パオン
PAON

The Japanese characters shown are the phonetic equivalent of "Paon." Owner of Japanese Reg. No. 379,100, dated Oct. 15, 1949.
For Hair-Dyes.

SN 31,357. Charles Stutzer, d. b. a. Royal Luxury Perfume Distributors, New York, N. Y. Filed June 4, 1957.

ENTENDU

Applicant believes that the most accurate translation of the French word "Entendu" is "Understand."
For Perfumes and Toilet Waters.
First use May 2, 1957.

SN 39,898. Revlon, Inc., New York, N. Y. Filed Oct. 31, 1957.

PERMA-CURL

For Hair Spray.
First use Oct. 18, 1957.

Class 52—Detergents and Soaps

SN 40,236. Klenzade Products, Incorporated, Beloit, Wis. Filed Nov. 7, 1957.

MED-I-KLEEN

For Powdered Detergent.
First use Sept. 23, 1957.

SERVICE MARKS

Class 100—Miscellaneous

SN 35,646. General Marine Corporation, Harvey, La. Filed Aug. 16, 1957.

BOATEL

Owner of Reg. No. 654,251.
For Steward and Maintenance Service—Namely, Preparing and Serving Meals to Work Crews of Offshore Craft and at Land Installations Owned and/or Operated by Others, and the Maintenance and Supplying of Crew Sleeping and Eating Quarters on Said Craft and at Said Installations.
First use Apr. 1, 1953.

SN 35,836. Ray A. Wilson, d. b. a. American Health Studios, Houston, Tex. Filed Aug. 19, 1957.



For Treatments of Persons To Effect Weight Gaining or Weight Reducing, Body Posture, and Body Contour, Through Means of Supervisory Exercises and Electromechanical Forced Exercise Treatments and Through the Use of Steam Baths and Body Massage.
First use in February 1949.

SN 36,129. The Western Hills Hotel, Inc., d. b. a. The Western Hills Hotel, Fort Worth, Tex. Filed Aug. 23, 1957.



For Hotel and Restaurant Services.
First use on or about June 14, 1957.

SN 41,134. Association of Missile and Rocket Industries, Washington, D. C. Filed Nov. 22, 1957.



For Association Services—Namely, Compilation of Statistics and Information Relating to the Missile and Rocket Industry, Promoting the Interests of Members of the Association, and Dissemination of Information to Members of the Association and to the Public.
First use Oct. 24, 1957.

SN 41,786. The Work-Factor Company, Incorporated, Haddon Heights, N. J. Filed Dec. 4, 1957.



No claim is made to the words "World Famous Since 1938" apart from their use in the mark as shown.
For Consultant Services Rendered to Others in the Following Fields: Management and Organization, Manufacturing and Engineering, Industrial Relations, and Marketing and Sales.
First use January 1952.

Class 101—Advertising and Business

SN 27,203. Gold Strike Stamp Company, Salt Lake City, Utah. Filed Mar. 29, 1957.

GOLD STRIKE

For Sales Promotion of Goods and Services of Others Through the Medium of Trading Stamps Which Are Redeemable in Merchandise.
First use Feb. 10, 1957.

SN 35,399. Travel Tabs, Inc., Portland, Oreg. Filed Aug. 12, 1957.



The representation of a trading stamp is disclaimed apart from the mark as shown.
For Promoting the Sale of the Goods and Services of Others by Means of Trading Stamps Redeemable in Merchandise, Cash, or Prepaid Vacations.
First use on or about Jan. 10, 1955.

SN 37,693. Stivers Office Service, Chicago, Ill. Filed Sept. 23, 1957.



Owner of Reg. Nos. 602,832 and 611,902.
For Maintaining a Staff of Trained Office Personnel To Provide Services for Clients on a Temporary Basis.
First use Nov. 15, 1956.

Class 102—Insurance and Financial

SN 619,437. American Independent Mutual Casualty Co., d. b. a. American Independent Mutual Casualty Company, Philadelphia, Pa. Filed Oct. 1, 1951.



For Underwriting of Health, Accident, and Hospitalization Insurance.
First use on or about Apr. 16, 1951; on or about May 15, 1943, as to the representation of the marching men.

SN 30,972. Earl M. Warner, d. b. a. Sacramento Land Company, Sacramento, Calif. Filed May 28, 1957.

SACRAMENTO LAND COMPANY

The drawing is lined for red.
For Real Estate Brokerage.
First use Jan. 1, 1947.

Class 103—Construction and Repair

SN 36,971. Loffland Brothers Company, Tulsa, Okla. Filed Sept. 10, 1957.



Applicant disclaims the words "Drilling" and "World-Wide" apart from the mark as shown.
For Oil and Gas Well Drilling.
First use May 15, 1957.

Class 105—Transportation and Storage

SN 22,743. Denver Chicago Trucking Company, Inc., Denver, Colo. Filed Jan. 17, 1957.

D·C

The mark is lined for green and gold but no claim is made to color as a feature of the mark.
For Transporting Freight by Motor Truck.
First use July 1, 1954.

SN 31,447. The Adley Express Company, New Haven, Conn. Filed June 6, 1957.

A MIGHTY SERVANT WHO NEVER SLEEPS

For Truck Transportation of Freight.
First use Jan. 1, 1935.

Class 106—Material Treatment

SN 26,618. The Flexene Corporation, New York, N. Y. Filed Mar. 21, 1957.

"FLEX-MASTER" EDGE

The word "Edge" is disclaimed apart from the subject mark.
For Cutting and Edging Tape of Others.
First use July 1946.

SN 33,827. Noland Camera Shop Inc., Hamilton, Ohio. Filed July 16, 1957.



No claim is made to exclusive right to use of the words "Photo Service" apart from the mark as shown.
For Development, Printing, and Enlargement of Photographs.
First use July 8, 1957.

Class 107—Education and Entertainment

SN 689,497. Sam Levine, Cleveland, Ohio. Filed June 14, 1955.

BOWLERS JACKPOT

For Title of Entertainment in the Form of a Television Program Devoted to Bowling.
First use on or about Jan. 15, 1950.

SN 23,543. Desilu Productions Inc., Hollywood, Calif. Filed Jan. 31, 1957.



For Title of a Continuing Television Program—Namely, Adventure Stories.
First use Jan. 10, 1956.

SN 28,234. William P. Black, Baton Rouge, La. Filed Apr. 16, 1957.

Buckskin Bill

For Title of Entertainment Rendered Through the Medium of Television, viz., Adventure Stories.
First use Aug. 15, 1955.

SN 32,900. Benton & Bowles, Inc., New York, N. Y. Filed July 1, 1957.

EQ

For Research Service Concerned With the Effectiveness of Proposed Advertising of Others.
First use May 21, 1957.

TRADEMARK REGISTRATIONS ISSUED

PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

662,932. CRYSTAL PINK. Hoover Granite Quarries, Inc. SN 4,956. Pub. 4–1–58. Filed 3–21–56.

662,933. BELEMAR FARM. E. T. Sproull. SN 17,128. Pub. 4–1–58. Filed 10–8–56.

662,934. ULON. Precision Fittings Limited. SN 20,853. Pub. 11–5–57. Filed 12–11–56.

662,935. STOCKMAN'S BLEND. Barzen of Minneapolis, Inc. SN 22,854. Pub. 4–1–58. Filed 1–18–57.

662,936. ALODUR. Treibacher Chemische Werke Aktiengesellschaft. SN 23,869. Pub. 4–1–58. Filed 2–5–57.

662,937. 6-WAY. Lowe's, Inc. SN 34,321. Pub. 4–1–58. Filed 7–24–57.

662,938. CROCHET. William Amer Company. SN 34,392. Pub. 4–1–58. Filed 7–26–57.

662,939. SHADONET. William Amer Company. SN 34,393. Pub. 4–1–58. Filed 7–26–57.

Class 2—Receptacles

662,940. NESTAWAY. Mid-West Metallic Products, Inc. SN 16,613. Pub. 4–1–58. Filed 9–28–56.

662,941. DISPENSETTE. Master Metal Products, Incorporated. SN 20,842. Pub. 4–1–58. Filed 12–11–56.

662,942. TRI-WAY. Geuder, Paeschke & Frey Co., to Jones & Laughlin Steel Corporation. SN 25,247. Pub. 4–1–58. Filed 2–28–57.

662,943. ABANA. Abana Products, Inc. SN 33,112. Pub. 4–1–58. Filed 7–3–57.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

662,944. THE JET SWING AND DESIGN. American Kleer-Vu Plastics, Inc. SN 36,270. Pub. 4–1–58. Filed 8–27–57.

Class 5—Adhesives

662,945. ALPCO. American Latex Products Corporation. SN 27,923. Pub. 4–1–58. Filed 4–11–57.

662,946. PATCO. Pathé Shipping Supplies Company. SN 32,770. Pub. 4–1–58. Filed 6–27–57.

662,947. DION. Chemical Process Company. SN 32,909. Pub. 4–1–58. Filed 7–1–57.

662,948. STAZ-TITE. Staz-Tite Products Co. SN 35,703. Pub. 4–1–58. Filed 8–16–57.

Class 6—Chemicals and Chemical Compositions

662,949. SCOTCH-EM. The Pennsylvania Salt Manufacturing Company, now by change of name to Pennsalt Chemicals Corporation. SN 688,177. Pub. 4–10–56. Filed 5–24–55.

662,950. 3-A-T AND DESIGN. American Cyanamid Company. SN 11,656. Pub. 4–1–58. Filed 12–2–57.

662,951. ELECTRO GLO. John F. Jumer, d. b. a. Electro Glo Company. SN 14,345. Pub. 4–1–58. Filed 8–21–56.

662,952. THERMOGAS. Rapid Thermogas Company. SN 14,762. Pub. 4–1–58. Filed 8–28–56.

662,953. REPELLEN-TISSUE AND DESIGN. Whitmire Research Laboratories, Inc. SN 21,967. Pub. 4–1–58. Filed 12–31–56.

662,954. MARINCATE. Merck & Co., Inc. SN 28,260. Pub. 4–1–58. Filed 4–16–57.

662,955. CLOREGAL. Geigy Chemical Corporation. SN 29,282. Pub. 4–1–58. Filed 5–2–57.

662,956. MULTI-SPRAY. M. F. A. Oil Company. SN 32,764. Pub. 4–1–58. Filed 6–27–57.

662,957. POLY-FLOC. Betz Laboratories, Inc. SN 33,680. Pub. 4–1–58. Filed 7–15–57.

662,958. DESIGN OF SCALES. Devoe & Raynolds Company, Inc. SN 35,749. Pub. 4–1–58. Filed 8–19–57.

662,959. PROFUME. The Dow Chemical Company. SN 35,754. Pub. 4–1–58. Filed 8–19–57.

662,960. IRIS. Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co. SN 35,765. Pub. 4–1–58. Filed 8–19–57.

662,961. HEX-O-BUNT. Panogen, Inc., to Morton Chemical Company. SN 35,947. Pub. 4–1–58. Filed 8–21–57.

662,962. AROBOND. Archer-Daniels-Midland Company. SN 36,043. Pub. 4–1–58. Filed 8–23–57.

662,963. CITROMULS. Chas. Pfizer & Co., Inc. SN 36,314. Pub. 4–1–58. Filed 8–27–57.

662,964. SEQOL. Chas. Pfizer & Co., Inc. SN 36,315. Pub. 4–1–58. Filed 8–27–57.

662,965. COPPERMYCIN. Chas. Pfizer & Co., Inc. SN 36,316. Pub. 4–1–58. Filed 8–27–57.

662,966. BLUEMYCIN. Chas. Pfizer & Co., Inc. SN 36,317. Pub. 4–1–58. Filed 8–27–57.

662,967. CYQUEST 40. American Cyanamid Company. SN 36,343. Pub. 4–1–58. Filed 8–28–57.

662,968. KOSMOS. United Carbon Company, Inc. (Maryland). SN 36,635. Pub. 4–1–58. Filed 9–3–57.

662,969. ACERBIN. Cerbini Research Corporation. SN 36,694. Pub. 4–1–58. Filed 9–5–57.

662,970. KYLOMUL. Minnesota Mining and Manufacturing Company. SN 36,725. Pub. 4–1–58. Filed 9–5–57.

662,971. FOAM-PACK. National Foam System, Inc. SN 36,911. Pub. 4–1–58. Filed 9–9–57.

Class 9—Explosives, Firearms, Equipments, and Projectiles

662,972. SABLE. J. L. Galef & Son, Inc. SN 27,787. Pub. 4–1–58. Filed 4–9–57.

Class 12—Construction Materials

662,973. "ROLANDSHUTTE." Calcium Aluminate Cement Corporation. SN 14,726. Pub. 4–1–57. Filed 8–28–56.

662,974. DYFOAM. Dyfoam Corporation. SN 21,430. Pub. 4–1–58. Filed 12–21–56.

662,975. DURALITH. Jack D. Cornair, d. b. a. Duralith Products. SN 22,426. Pub. 4–1–58. Filed 1–11–57.

662,976. GLAZEBOARD. Supradur Manufacturing Corp. SN 25,478. Pub. 4–1–58. Filed 3–4–57.

662,977. SPEED BOND. Atomized Materials Company, Inc. SN 27,562. Pub. 2–11–58. Filed 4–5–57.

662,978. FASHION VENTILATED PERMANENT AWNINGS AND DESIGN. Zephyr Ventilated Awning Company, Inc. SN 31,533. Pub. 4–1–58. Filed 6–6–57.

662,979. FIRE HALT. Blue Diamond Corporation. SN 32,731. Pub. 4–1–58. Filed 6–27–57.

662,980. "KANE QUALITY" AND DESIGN. Kane Manufacturing Corporation. SN 33,082. Pub. 4–1–58. Filed 7–2–57.

662,981. PACO. North State Pyrophyllite Company, Inc. SN 33,493. Pub. 4–1–58. Filed 7–10–57.

662,982. ALUMIFOAM. Alumiseal Corporation. SN 35,898. Pub. 4–1–58. Filed 8–21–57.

662,983. REUTEN TRU-WALL. Fred Reuten, Inc. SN 36,318. Pub. 4–1–58. Filed 8–27–57.

662,984. REUTEN TRU-BOW. Fred Reuten, Inc. SN 36,320. Pub. 4–1–58. Filed 8–27–57.

662,985. THERMALITE. Ehret Magnesia Manufacturing Company. SN 36,788. Pub. 4–1–58. Filed 9–6–57.

662,986. LOCK-SET. Gladding, McBean & Company. SN 36,881. Pub. 4–1–58. Filed 9–9–57.

662,987. HYDRACRETE. The Cement Marketing Company, Limited. SN 36,953. Pub. 4–1–58. Filed 9–10–57.

663,006. THORO LUBE. Plymouth Oil Company. SN 35,291. Pub. 4–1–58. Filed 8–9–57.

663,007. HYDRAU-VALVE. Plymouth Oil Company. SN 35,292. Pub. 4–1–58. Filed 8–9–57.

663,008. WESTERN MARK 7 AND DESIGN. Western Oil and Fuel Company. SN 35,959. Pub. 4–1–58. Filed 8–7–57.

663,009. IMPRUVOL 33. Koppers Company, Inc. SN 36,084. Pub. 4–1–58. Filed 8–23–57.

663,010. TRANS GARD. Louis Cohn, d. b. a. Sundisco Products. SN 36,164. Pub. 4–1–58. Filed 8–26–57.

663,011. KYLOVIS. Minnesota Mining and Manufacturing Company. SN 36,727. Pub. 4–1–58. Filed 9–5–57.

663,012. KYLOPOUR. Minnesota Mining and Manufacturing Company. SN 36,728. Pub. 4–1–58. Filed 9–5–57.

663,013. KYLOKEM. Minnesota Mining and Manufacturing Company. SN 36,729. Pub. 4–1–58. Filed 9–5–57.

663,014. SHELL PEBLUM. Shell Oil Company. SN 37,379. Pub. 4–1–58. Filed 9–17–57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

662,988. SHURE-SET. Portable Industries, Inc., now by merger Ramset Fasteners, Inc., to Olin Mathieson Chemical Corporation. SN 16,974. Pub. 4–1–58. Filed 10–4–56.

662,989. CAMARGE AND DESIGN. Camarge Trading Co. SN 32,580. Pub. 4–1–58. Filed 6–25–57.

662,990. HANDEE-BEND. Milton Manufacturing Co., Inc. SN 33,889. Pub. 4–1–58. Filed 7–17–57.

662,991. DEW-O-MATIC. Alexander Campbell, d. b. a. Campbell's Manufacturing Company. SN 34,340. Pub. 4–1–58. Filed 7–25–57.

662,992. CB AND DESIGN. Counter Balance, Inc. SN 34,401. Pub. 4–1–58. Filed 7–26–57.

662,993. NORANDA COPPER AND BRASS LTD AND DESIGN. Noranda Copper and Brass Limited. SN 34,449. Pub. 4–1–58. Filed 7–26–57.

662,994. BOTTOM BAKER. Chet's Famous Foods. SN 34,510. Pub. 4–1–58. Filed 7–29–57.

662,995. WATTS-O-MATIC. Watts Regulator Company. SN 34,572. Pub. 4–1–58. Filed 7–29–57.

662,996. REDI-RIM. Lyon Incorporated. SN 34,620. Pub. 4–1–58. Filed 7–30–57.

662,997. SEALACE. United States Casting Repair Corp. SN 34,751. Pub. 4–1–58. Filed 7–31–57.

662,998. BAKER. J. M. Baker Pattern Company, Inc. SN 34,765. Pub. 4–1–58. Filed 8–1–57.

662,999. RED TOP. Waterman Industries, Inc. SN 39,353. Pub. 3–25–58. Filed 10–22–57.

Class 14—Metals and Metal Castings and Forgings

663,000. SYNCHRO-PRINT. Fords (Finsbury) Limited. SN 22,805. Pub. 11–19–57. Filed 1–18–57.

663,001. NKK. Nippon Kokan Kabushiki Kaisha. SN 27,716. Pub. 4–1–58. Filed 4–8–57.

663,002. INLAND TI-CO AND DESIGN. Inland Steel Company. SN 32,251. Pub. 3–11–58. Filed 6–19–57.

Class 15—Oils and Greases

663,003. RUST-O-LENE F. O. Sinclair Refining Company. SN 14,494. Pub. 4–1–58. Filed 8–23–56.

663,004. CREST. Gulf Oil Corporation. SN 28,851. Pub. 4–1–58. Filed 4–25–57.

663,005. UNIVERSAL AND DESIGN. Universal Refining Products Co., Inc. SN 32,152. Pub. 4–1–58. Filed 6–17–57.

Class 16—Protective and Decorative Coatings

663,015. ACTOFLO. Enterprise Paint Manufacturing Company. SN 28,772. Pub. 3–4–58. Filed 4–24–57.

663,016. KRESON AND DESIGN. Robinco, Inc. SN 32,699. Pub. 4–1–58. Filed 6–26–57.

663,017. GARY'S FACTORY TESTED. Tobias Paint Mfg. Co. SN 34,329. Pub. 4–1–58. Filed 7–24–57.

663,018. COLTON AND DESIGN. Air Reduction Company, Incorporated. SN 35,022. Pub. 4–1–58. Filed 8–6–57.

663,019. PERMA-PLATE. Powell Paint Company. SN 35,804. Pub. 4–1–58. Filed 8–19–57.

663,020. SABREX ETC. AND DESIGN. North American Aviation, Inc. SN 38,077. Pub. 4–1–58. Filed 9–30–57.

663,021. POLY-FORM. Formulabs, Inc. SN 38,447. Pub. 4–1–58. Filed 10–7–57.

663,022. TILE-LIKE. Benjamin Moore & Co. SN 40,360. Pub. 4–1–58. Filed 11–8–57.

663,023. REZ. Monsanto Chemical Company. SN 40,483. Pub. 4–1–58. Filed 11–12–57.

663,024. CHIPLAC. R. T. Vanderbilt Company, Inc. SN 40,718. Pub. 4–1–58. Filed 11–14–57.

663,025. TOUCH 'N TONE. Master Bronze Powder Company, Inc. SN 40,768. Pub. 4–1–58. Filed 11–15–57.

663,026. VINYLIZED VELVET. Wm. F. Zummach, Inc. SN 40,793. Pub. 4–1–58. Filed 11–15–57.

663,027. CAMREX. Alex. Cameron & Sons Limited. SN 41,076. Pub. 4–1–58. Filed 11–21–57.

663,028. CASA LOMA. D. Goodman & Sons Limited. SN 41,094. Pub. 4–1–58. Filed 11–21–57.

Class 17—Tobacco Products

663,029. HAUPTMANN'S. Peter Hauptmann Tobacco Company. SN 34,698. Pub. 4–1–58. Filed 7–31–57.

Class 18—Medicines and Pharmaceutical Preparations

663,030. SURAVAL. C. H. Boehringer Sohn. SN 553. Pub. 10–23–56. Filed 1–12–56.

663,031. ORBACINE. John H. Winters, d. b. a. John Winters Co. SN 1,653. Pub. 4–1–58. Filed 1–27–56.

663,032. 4 IN 1. American Scientific Laboratories, Inc. SN 11,520. Pub. 2–26–57. Filed 7–5–56.

663,033. GEVRESTIN. American Cyanamid Company. SN 12,565. Pub. 4–1–58. Filed 11–15–57.

663,034. CORA-CAINE. Coralite Dental Products. SN 24,125. Pub. 2–25–58. Filed 2–11–57.

663,035. O. L. C. Glenhill Pharmacal Company. SN 30,331. Pub. 4–1–58. Filed 5–20–57.

663,036. COSMIN. R. J. Moran Co. SN 34,722. Pub. 4–1–58. Filed 7–31–57.

663,037. VITAKAPS-M. Abbott Laboratories. SN 36,761. Pub. 4–1–58. Filed 9–6–57.

663,038. PECLIN. Mead Johnson & Company. SN 37,281. Pub. 4–1–58. Filed 9–16–57.

663,039. ORPHENADRINE. N. V. Koninklijke Pharmaceutische Fabrieken v/h Brocades-Stheeman & Pharmacia. SN 37,363. Pub. 4–1–58. Filed 9–17–57.

663,040. DEVEXIN. American Cyanamid Company. SN 37,402. Pub. 4–1–58. Filed 9–18–57.

663,041. EUTAXIN. American Cyanamid Company. SN 37,403. Pub. 4–1–58. Filed 9–18–57.

663,042. ZORANE. American Cyanamid Company. SN 37,404. Pub. 4–1–58. Filed 9–18–57.

663,043. CIVIPEN. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation. SN 37,470. Pub. 4–1–58. Filed 9–19–57.

663,044. DECAPRYN. The Wm. S. Merrell Company. SN 37,509. Pub. 4–1–58. Filed 9–19–57.

663,045. PARENCILLIN. The Wm. S. Merrell Company. SN 37,510. Pub. 4–1–58. Filed 9–19–57.

663,046. KANTREX. Bristol Laboratories Inc. SN 37,552. Pub. 4–1–58. Filed 9–20–57.

663,047. KANAMYTREX. Bristol Laboratories Inc. SN 37,553. Pub. 4–1–58. Filed 9–20–57.

663,048. MILTROBEN. Carter Products, Inc. SN 37,632. Pub. 4–1–58. Filed 9–23–57.

663,049. RELSOR. Cosmos Drugs, Inc. SN 37,781. Pub. 4–1–58. Filed 9–25–57.

663,050. AKRATAN. Curtis Laboratories, Inc. SN 37,866. Pub. 4–1–58. Filed 9–26–57.

Class 19—Vehicles

663,051. GUIDE-O-MATIC. Barrett Electronics Corporation. SN 24,672. Pub. 4–1–58. Filed 2–19–57.

663,052. ROLL-IT. James M. Hicks, d. b. a. Marin-E-Products. SN 31,397. Pub. 4–1–58. Filed 6–5–57.

663,053. BASSICK BEAVER. The Bassick Company. SN 35,730. Pub. 4–1–58. Filed 8–19–57.

663,054. LEVELATOR. Crown Spring Company. SN 35,747. Pub. 4–1–58. Filed 8–19–57.

663,055. SNOW FLAKE AND DESIGN. Marine Fiber-Glass & Plastics, Inc. SN 35,790. Pub. 4–1–58. Filed 8–19–57.

663,056. TOTEM CRAFT AND DESIGN. Marine Fiber-Glass & Plastics, Inc. SN 35,791. Pub. 4–1–58. Filed 8–19–57.

663,057. SCO-PAN. Schofield Manufacturing Company. SN 35,885. Pub. 4–1–58. Filed 8–20–57.

Class 20—Linoleum and Oiled Cloth

663,058. FORECAST YOUR FEET NEVER TOUCH ITS BEAUTY. Congoleum-Nairn Inc. SN 33,210. Pub. 3–18–58. Filed 7–5–57.

Class 21—Electrical Apparatus, Machines, and Supplies

663,059. TELERAMA. The Magnavox Company. SN 699,648. Pub. 4–1–58. Filed 12–8–55.

663,060. SE AND DESIGN. The Superior Electric Co. SN 7,125. Pub. 4–1–58. Filed 4–25–56.

663,061. W MONOGRAM AND DESIGN. Waters Manufacturing, Inc. SN 9,508. Pub. 4–1–58. Filed 6–1–56.

663,062. CENSOR. John P. Martin, Jr., d. b. a. The Censor Company. SN 13,053. Pub. 4–1–58. Filed 7–30–56.

663,063. PIXTUBE. Picture Tube Center Corporation. SN 14,407. Pub. 4–1–58. Filed 8–22–56.

663,064. AMPSEAL. AMP Incorporated. SN 18,395. Pub. 4–1–58. Filed 10–30–56.

663,065. FIVE RAMS ETC. AND DESIGN. Pun Jong Sau, d. b. a. Hing Wah Battery Factory. SN 18,795. Pub. 4–1–58. Filed 11–5–56.

663,066. SOUNDCRAFT. Reeves Soundcraft Corp. SN 19,382. Pub. 4–1–58. Filed 11–16–56.

663,067. FLUOROFLOOD. General Electric Company. SN 21,689. Pub. 4–1–58. Filed 12–27–56.

663,068. AGENDASCOPE. Corcon, Inc. SN 21,992. Pub. 4–1–58. Filed 1–2–57.

663,069. POLYCLAD. S. A. F. A. Soc. An. Fabbrica Accumulatori. SN 22,032. Pub. 4–1–58. Filed 1–2–57.

663,070. CONTROL PAC AND DESIGN. Eagle Signal Corporation. SN 22,521. Pub. 4–1–58. Filed 1–14–57.

663,071. SUPERIOR. Eagle Electric Mfg. Co., Inc. SN 25,166. Pub. 4–1–58. Filed 2–27–57.

663,072. JG ITALIA AND DESIGN. Geloso S. p. A. SN 25,293. Pub. 4–1–58. Filed 2–26–57.

663,073. NECESSORIES. International Harvester Company. SN 25,618. Pub. 4–1–58. Filed 3–6–57.

663,074. AIRCOMATIC. Air Reduction Company, Incorporated. SN 26,587. Pub. 4–1–58. Filed 3–21–57.

663,075. ADD-A-PART. Westinghouse Electric Corporation. SN 28,910. Pub. 4–1–58. Filed 4–25–57.

663,076. METRO . . TUBE. Metropolitan Overseas Supply Corporation. SN 29,927. Pub. 4–1–58. Filed 5–13–57.

663,077. SCHULMERICH. Schulmerich Carillons, Inc. SN 30,366. Pub. 4–1–58. Filed 5–20–57.

663,078. OKOWELD. The Okonite Company. SN 31,245. Pub. 4–1–58. Filed 6–3–57.

663,079. DOUBLE DECKER. Trico Nonferrous Metal Products, Incorporated. SN 31,283. Pub. 4–1–58. Filed 6–3–57.

663,080. MALLORY M. MALLORY. Mallory Electric Corporation. SN 32,324. Pub. 4–1–58. Filed 6–20–57.

663,081. IONOVAC. DuKane Corporation. SN 32,590. Pub. 4–1–58. Filed 6–25–57.

Class 22—Games, Toys, and Sporting Goods

663,082. KIM. Beehler Arts Ltd., d. b. a. Kim Dolls. SN 32,165. Pub. 4–1–58. Filed 6–18–57.

663,083. FAIRY-GO-ROUND. Bromo-Mint Co., Inc., d. b. a. Kenner Products Company. SN 33,793. Pub. 4–1–58. Filed 7–16–57.

663,084. D BY DOUGLAS AND DESIGN. Douglas Company, Inc. SN 33,867. Pub. 4–1–58. Filed 7–17–57.

663,085. CITATION. Denison-Johnson, Inc. SN 35,986. Pub. 4–1–58. Filed 8–22–57.

663,086. GOODY-GOODY. Richard G. Krueger, Inc. SN 36,085. Pub. 4–1–58. Filed 8–23–57.

663,087. FISH HOUSE BAITS AND DESIGN. Sarah M. De Grasso, d. b. a. Fish House Baits. SN 36,167. Pub. 4–1–58. Filed 8–26–57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

663,088. CYCLON. Detroit Aluminum & Brass Corporation. SN 24,761. Pub. 4–1–58. Filed 2–20–57.

663,089. CERTI-SEAL. AMP Incorporated. SN 26,671. Pub. 4–1–58. Filed 3–22–57.

663,090. REPRESENTATION OF PINWHEEL WITH ARROWS. Müller & Schmidt Pfeilringwerk. SN 29,227. Pub. 4–1–58. Filed 5–1–57.

663,091. W AND DESIGN. T. D. Williamson, Inc. SN 30,869. Pub. 4–1–58. Filed 5–27–57.

663,092. DUPLICARD. Duplicard Addressing Machines. SN 31,094. Pub. 4–1–58. Filed 5–31–57.

663,093. PAYLOGGER The Frank G. Hough Co. SN 31,660. Pub. 4–1–58. Filed 6–10–57.

663,094. PERMAC BOWE. Böhler & Weber, Kommanditgesellschaft Maschinenfabrik. SN 33,048. Pub. 2–4–58. Filed 7–2–57.

663,095 BLUE TEMPER. Hi-Test Twist Drill Works, Inc. SN 33,876. Pub. 4–1–58. Filed 7–17–57.

663,096 CAPITOL Capitol Appliance Stores, Inc. SN 34,274. Pub. 4–1–58. Filed 7–23–57.

663,097. MICROMATIC. Popper & Sons, Inc., d. b. a. Perfektum Products Co. SN 34,369. Pub. 4–1–58. Filed 7–25–57.

663,098. DAMASCUS. William Dixon, Incorporated. SN 34,520. Pub. 4–1–58. Filed 7–29–57.

663,099. SELLERS ROTOR JET. Sellers Injector Corporation. SN 34,562. Pub. 4–1–58. Filed 7–29–57.

663,100. METERED MIST. Onsrud Machine Works, Inc. SN 34,986. Pub. 4–1–58. Filed 8–5–57.

663,101. TURF MAN. Jack H. Bergman, d. b. a. Jack H. Bergman Sales Co. SN 36,420. Pub. 4–1–58. Filed 8–29–57.

663,102. PORTOMATIC. Portable Air Cooler & Heater, Inc. SN 40,147. Pub. 4–1–58. Filed 11–5–57.

663,103. VARI-BOW. Mount Hope Machinery Company. SN 40,182. Pub. 4–1–58. Filed 11–6–57.

663,104. HYDROBON. Universal Oil Products Company. SN 40,195. Pub. 4–1–58. Filed 11–6–57.

663,105. HYDRECO. The New York Air Brake Company. SN 40,256. Pub. 4–1–58. Filed 11–7–57.

663,106. THE FLAYMASTER. The Universal Flaymaster Equipment Company, Limited. SN 40,276. Pub. 4–1–58. Filed 11–7–57.

663,107. O'BRIEN DICE-O-MATIC. The Aluminum Cooking Utensil Company, Inc. SN 40,413. Pub. 4–1–58. Filed 11–12–57.

663,108. INSERTOOTH. T. D. Williamson, Inc. SN 40,523. Pub. 4–1–58. Filed 11–12–57.

663,109. INSERTIP. T. D. Williamson, Inc. SN 40,524. Pub. 4–1–58. Filed 11–12–57.

663,110. VIBROFLEX. Apex Molded Products Company. SN 40,528. Pub. 4–1–58. Filed 11–8–57.

663,111. CC SINCE 1887 AND DESIGN. Cummins-Chicago Corp. SN 40,562. Pub. 4–1–58. Filed 11–13–57.

663,112. CUMMINS ETC. AND DESIGN. Cummins-Chicago Corp. SN 40,563. Pub. 4–1–58. Filed 11–13–57.

663,113. AMERICAN GIRL. Bulova Watch Company, Inc. SN 40,652. Pub. 4–1–58. Filed 11–14–57.

663,114. MADEMOISELLE. Bulova Watch Company, Inc. SN 40,653. Pub. 4–1–58. Filed 11–14–57.

663,115. MISS UNIVERSE. Bulova Watch Company, Inc. SN 40,655. Pub. 4–1–58. Filed 11–14–57.

663,116. TEMAC. Raymond J. Tester, d. b. a. Tester Manufacturing Company. SN 40,783. Pub. 4–1–58. Filed 11–15–57.

663,117. FABCO. Fabricated Products Company, Inc. SN 40,823. Pub. 4–1–58. Filed 11–18–57.

663,118. MO-AN-SPRAY. Archie R. Mullin. SN 40,864. Pub. 4–1–58. Filed 11–18–57.

663,119. HI BARB. Maurice E. Lindsay, d. b. a. Spindle Specialty Co. SN 40,953. Pub. 4–1–58. Filed 11–19–57.

663,120. FLEXO GUARD. Richardson Manufacturing Company. SN 40,968. Pub. 4–1–58. Filed 11–19–57.

Class 26—Measuring and Scientific Appliances

663,121. HELIGARON. Optische Werke G. Rodenstock. SN 16,469. Pub. 2–25–58. Filed 9–23–57.

663,122. EMES. Muller-Schlenker. SN 26,960. Pub. 4–1–58. Filed 3–26–57.

663,123. NK AND DESIGN. Norden-Ketay Corporation. SN 33,273. Pub. 4–1–58. Filed 7–5–57.

663,124. GAS-POINTER. Johnson-Williams, Inc. SN 33,976. Pub. 4–1–58. Filed 7–18–57.

663,125. DEPOLOX. Chlorator. SN 34,341. Pub. 4–1–58. Filed 7–25–57.

663,126. PATWIN. The Patent Button Company. SN 34,368. Pub. 4–1–58. Filed 7–25–57.

663,127. VARICORD. Photovolt Corporation. SN 34,735. Pub. 4–1–58. Filed 7–31–57.

663,128. TESWELLS. Warner-Lambert Pharmaceutical Company. SN 34,878. Pub. 4–1–58. Filed 8–2–57.

Class 29—Brooms, Brushes, and Dusters

663,129. SANIKLEEN. S. H. Kress and Company. SN 35,867. Pub. 4–1–58. Filed 8–20–57.

663,130. SAILOR BAILER. General Mills, Inc. SN 36,176. Pub. 4–1–58. Filed 8–26–57.

Class 31—Filters and Refrigerators

663,131. CAPRI. National Cooperatives, Inc. SN 28,060. Pub. 4–1–58. Filed 4–12–57.

663,132. FREEZER-MATE. Sears, Roebuck and Co. SN 40,271. Pub. 4–1–58. Filed 11–7–57.

663,133. HY-PUR. Salem-Brosius, Inc. SN 40,777. Pub. 4–1–58. Filed 11–15–57.

Class 32—Furniture and Upholstery

663,134. FIRM-N-DRI. Thayer, Inc. SN 25,202. Pub. 4–1–58. Filed 2–27–57.

663,135. SPRAGUE & CARLETON AND DESIGN. Sprague & Carleton, Inc. SN 26,886. Pub. 4–1–58. Filed 3–25–57.

663,136. FASHIONWOOD. Curtis Companies Incorporated. SN 32,059. Pub. 12–10–57. Filed 6–17–57.

663,137. LONGLINE. Castro Convertible Corporation. SN 33,123. Pub. 4–1–58. Filed 7–3–57.

663,138. VISISLEEVE. Visirecord, Inc. SN 34,480. Pub. 4–1–58. Filed 7–26–57.

663,139. NOSPRINGCO. Harry A. Lashua, d. b. a. Besrest Bedding Company. SN 35,180. Pub. 4–1–58. Filed 8–8–57.

663,140. BOCRA. Splinter Engineer Company. SN 38,096. Pub. 4–1–58. Filed 9–30–57.

663,141. CONSTANT COMFORT. Craig Manufacturing Company, Inc. SN 41,081. Pub. 4–1–58. Filed 11–13–57.

663,142. TOP BRASS. Stembridge Manufacturing Co. SN 41,324. Pub. 4–1–58. Filed 11–25–57.

663,143. TOYKEEPER. Wonder Furniture Corporation. SN 41,341. Pub. 4–1–58. Filed 11–25–57.

663,144. DESIGN OF PLAYING CARD. Geo. W. King Limited. SN 41,762. Pub. 4–1–58. Filed 12–4–57.

663,145. SADDLETONE. Monitor Furniture Co., Inc. SN 41,827. Pub. 4–1–58. Filed 12–5–57.

663,146. STATESMAN. Metalstand Company. SN 41,921. Pub. 4–1–58. Filed 12–6–57.

Class 34—Heating, Lighting, and Ventilating Apparatus

663,147. COMFORT CURTAIN. Lennox Industries, Inc. SN 24,609. Pub. 8–6–57. Filed 2–18–57.

663,148. HY–V. American Machine and Metals, Inc. SN 31,068. Pub. 4–1–58. Filed 5–31–57.

663,149. COOK-BOY. Kamkap, Inc. SN 33,880. Pub. 4–1–58. Filed 7–17–57.

663,150. ANEMOTHERM. Anemostat Corporation of America. SN 33,937. Pub. 4–1–58. Filed 7–18–57.

663,151. SCARFOGRAPH. Air Reduction Company, Incorporated. SN 34,107. Pub. 4–1–58. Filed 7–22–57.

663,152. EUREKA WILLIAMS GAS-O-MATIC AND DESIGN. Eureka Williams Corporation. SN 34,678. Pub. 4–1–58. Filed 7–31–57.

663,153. 'BRAZE-O-MATIC.' Castle Machines, Inc. SN 38,802. Pub. 4–1–58. Filed 10–14–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

663,154. COOL-PAK. John T. Hagy. SN 36,374. Pub. 4–1–58. Filed 8–28–57.

Class 36—Musical Instruments and Supplies

663,155. VINTAGE "33." Keel Manufacturing Corp. SN 28,524. Pub. 4–1–58. Filed 4–19–57.

663,156. RENE DUVAL. Buegeleisen & Jacobson, Inc. SN 36,845. Pub. 4–1–58. Filed 9–9–57.

663,157. EVERGREEN. Grove Press, Inc. SN 37,085. Pub. 4–1–58. Filed 9–12–57.

Class 37—Paper and Stationery

663,158. CORRO-TRIM. Gibraltar Corrugated Paper Company, Inc. SN 21,309. Pub. 4–1–58. Filed 12–19–56.

663,159. ZERAC. Nashua Corporation (Massachusetts corporation), to Nashua Corporation (Delaware corporation). SN 30,923. Pub. 4–1–58. Filed 5–28–57.

663,160. GB AND DESIGN. Gaylord Bros., Inc. SN 33,230. Pub. 4–1–58. Filed 7–5–57.

663,161. MANNERS THE BUTLER AND DESIGN. Kimberly-Clark Corporation. SN 34,058. Pub. 4–1–58. Filed 7–19–57.

663,162. CRYSTALJAC. Demco Library Supplies, Inc. SN 34,123. Pub. 4–1–58. Filed 7–22–57.

663,163. QUIK-PAC. Quik-Pac, Inc. SN 34,370. Pub. 4–1–58. Filed 7–25–57.

Class 38—Prints and Publications

663,164. "SENTIMENTALLY YOURS." Wynne Kaufman, d. b. a. Sentimentally Yours. SN 11,859. Pub. 4–1–58. Filed 7–10–56.

663,165. LITE GUARD. Muirson Label Co., Inc. SN 25,445. Pub. 4–1–58. Filed 3–4–57.

663,166. BY DOCCO CAMPUS CARDS AND DESIGN. Howard S. Cogan, d. b. a. Campus Cards. SN 35,495. Pub. 4–1–58. Filed 8–14–57.

663,167. HIT PARADE AND DESIGN. Hit Parade Program Service, Inc. SN 36,076. Pub. 4–1–58. Filed 8–23–57.

663,168. PROGRESS ETC. Massachusetts State Association of Master Plumbers, Inc. SN 36,722. Pub. 4–1–58. Filed 9–5–57.

663,169. CREDIT EXECUTIVE. New York Credit & Financial Management Association. SN 36,733. Pub. 4–1–58. Filed 9–5–57.

663,170. THE HANDY FAMILY. General Features Corporation. SN 37,428. Pub. 4–1–58. Filed 9–18–57.

663,171. AMUSEMENT VARIETY. The Ashtabula Printing Co. SN 38,316. Pub. 4–1–58. Filed 9–13–57.

Class 39—Clothing

663,172. ENVY. Chapman & Sons. SN 631,720. Pub. 2–10–53. Filed 6–25–52.

663,173. POLAR WEAR AND DESIGN. Arctic Feather & Down Co. SN 1,501. Pub. 11–12–57. Filed 1–26–56.

663,174. CO-ED SPORTS. Co-Ed Shoe Mfg. Co. Inc. SN 2,756. Pub. 4–1–58. Filed 2–16–56.

663,175. RADNOR. Cluett, Peabody & Co., Inc. SN 5,405. Pub. 4–1–58. Filed 3–29–56.

663,176. MERIT. Kramer Bros. Inc. SN 9,155. Pub. 4–1–58. Filed 5–28–56.

663,177. MISS SUPREME. Miss Supreme Inc., to Supreme Coat Company. SN 11,946. Pub. 4–1–58. Filed 7–11–56.

663,178. PAVANO. Federated Department Stores, Inc., d. b. a. Bloomingdale Bros. SN 23,135. Pub. 4–1–58. Filed 1–24–57.

663,179. BERKELEY SQUARE. Harry Goldye, d. b. a. Padi Clothes. SN 24,018. Pub. 4–1–58. Filed 2–7–57.

663,180. PECHE. Hudson Hosiery Company. SN 30,585. Pub. 4–1–58. Filed 5–23–57.

663,181. EXCEL-LON. Newport Knitting Co. Inc. SN 31,504. Pub. 4–1–58. Filed 6–6–57.

663,182. TOOTLE TOPPERS. Tootle Dry Goods Company. SN 31,878. Pub. 2–4–58. Filed 6–12–57.

663,183. ESCAPADE. Formaid Co. SN 32,242. Pub. 2–18–58. Filed 6–19–57.

663,184. MARI ORIGINALS. Mari Originals. SN 32,435. Pub. 4–1–58. Filed 6–20–57.

663,185. FAIR N FANCY. Blue Bell Inc. SN 32,729. Pub. 4–1–58. Filed 6–27–57.

663,186. DYNACURL. Franklin Leto & Co., Inc. SN 33,229. Pub. 3–11–58. Filed 7–5–57.

663,187. ULTISSIMO. The Joseph & Feiss Co. SN 33,247. Pub. 4–1–58. Filed 7–5–57.

663,188. ELEGANTE. The Joseph & Feiss Company. SN 33,481. Pub. 4–1–58. Filed 7–10–57.

663,189. TWINNUENDO. Malden Form Brassiere Company, Inc. SN 33,723. Pub. 4–1–58. Filed 7–15–57.

663,190. REFRAIN. Malden Form Brassiere Company, Inc. SN 33,724. Pub. 4–1–58. Filed 7–15–57.

663,191. CHORALE. Malden Form Brassiere Company, Inc. SN 33,726. Pub. 4–1–58. Filed 7–15–57.

663,192. ZAPETTI. The Associated Merchandising Corporation. SN 34,502. Pub. 4–1–58. Filed 7–29–57.

663,193. PICK-A-MOCC. Eastland Shoe Corp. SN 34,522. Pub. 4–1–58. Filed 7–29–57.

663,194. SKERMUDA. Samuel Parnes & Sons, Inc. SN 34,551. Pub. 4–1–58. Filed 7–29–57.

663,195. MINNYS. Minnie Sack. SN 34,557. Pub. 4–1–58. Filed 7–29–57.

663,196. WOOLYNELLA. Cal-Made Mfg. Co. SN 34,589. Pub. 4–1–58. Filed 7–30–57.

663,197. RAMPART. Joseph H. Cohen & Sons, Inc. SN 35,241. Pub. 4–1–58. Filed 8–9–57.

663,198. THE ROBOT. Joseph H. Cohen & Sons, Inc. SN 35,242. Pub. 4–1–58. Filed 8–9–57.

663,199. ITALIANO SILKON. A. Sagner's Son. SN 35,602. Pub. 4–1–58. Filed 8–15–57.

663,200. MR. HALLOWE'EN. Ben Cooper Inc. SN 35,745. Pub. 4–1–58. Filed 8–19–57.

663,201. SIRKASHAN AND DESIGN. Goodstein Bros. & Co., Inc. SN 35,927. Pub. 4–1–58. Filed 8–21–57.

663,202. GULLIVER'S TRAVELS. Spectator, Incorporated. SN 36,026. Pub. 4–1–58. Filed 8–22–57.

663,203. THE WESTERN PRINCE. Texas Harvest Hat Company. SN 36,253. Pub. 4–1–58. Filed 8–26–57.

663,204. THE CIMARRON AND DESIGN. Texas Harvest Hat Company. SN 36,254. Pub. 4–1–58. Filed 8–26–57.

663,205. THE PONCA CITY. Texas Harvest Hat Company. SN 36,255. Pub. 4–1–58. Filed 8–26–57.

663,206. THE LAREDO AND DESIGN. Texas Harvest Hat Company. SN 36,256. Pub. 4–1–58. Filed 8–26–57.

Class 40 — Fancy Goods, Furnishings, and Notions

663,207. ROCARD. Steels & Busks Limited. SN 29,501. Pub. 4–1–58. Filed 5–6–57.

Class 42 — Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

663,208. TINY TOTS. William Hollins & Company Limited. SN 27,606. Pub. 10–29–57. Filed 4–5–57.

663,209. PRIESTLEY'S. B. Priestley & Co., Inc. SN 29,300. Pub. 4–1–58. Filed 5–2–57.

663,210. FILT-RITE. William Skinner & Sons. SN 30,277. Pub. 4–1–58. Filed 5–17–57.

663,211. VISIONAIRE. Ehniger Mills, Inc. SN 30,314. Pub. 4–1–58. Filed 5–20–57.

663,212. SHIRLEY TWINS. Shirley Fabrics Corporation. SN 31,351. Pub. 4–1–58. Filed 6–4–57.

663,213. TULARTTE. Artvale, Inc. SN 31,623. Pub. 4–1–58. Filed 6–10–57.

663,214. NU-LOOK. Hugh Nelson-Columbia Carpet Mills, Inc. SN 34,053. Pub. 4–1–58. Filed 7–19–57.

663,215. PILLAR OF FASHION AND DESIGN. Crompton Company. SN 35,333. Pub. 4–1–58. Filed 8–12–57.

663,216. WINK. Collins & Aikman Corporation. SN 35,497. Pub. 4–1–58. Filed 8–14–57.

663,217. LAMETTA. The Warren Woolen Co. SN 35,607. Pub. 4–1–58. Filed 8–15–57.

663,218. ANTLER. Cone Mills Inc. SN 35,983. Pub. 4–1–58. Filed 8–22–57.

663,219. FLAXABIL. William Ewart & Son, New York, Ltd. SN 36,170. Pub. 4–1–58. Filed 8–26–57.

Class 43 — Thread and Yarn

663,220. NA NORTH AMERICAN RAYON. North American Rayon Corporation. SN 32,839. Pub. 4–1–58. Filed 6–28–57.

663,221. CRAFT SPUN. J. W. Landenberger & Co. SN 33,719. Pub. 4–1–58. Filed 7–15–57.

663,222. SKYLOFT. American Enka Corporation. SN 35,719. Pub. 4–1–58. Filed 8–19–57.

Class 44 — Dental, Medical, and Surgical Appliances

663,223. GUIDE-O-MATIC AND DESIGN. Medical Appliance Corp. SN 10,124. Pub. 4–1–58. Filed 6–13–56.

663,224. DR. SCHOLL'S ARCHLIFT METATARSAL ARCH SUPPORT. The Scholl Mfg. Co., Inc. SN 15,315. Pub. 4–1–58. Filed 9–7–56.

663,225. DOLORIMETER. Williamson Development Co., Inc. SN 24,656. Pub. 4–1–58. Filed 2–18–57.

Class 46 — Foods and Ingredients of Foods

663,226. VIMETS. Sofia M. Kalogris, d. b. a. Vimets Company. SN 11,375. Pub. 4–1–58. Filed 7–2–56.

663,227. TANGERINE TANGO. Foremost Dairies, Inc., d. b. a. Golden State Co., Ltd. SN 13,437. Pub. 11–12–57. Filed 8–6–56.

663,228. PRO-VI. Charles Cagnon, d. b. a. Cagnon Foods Company. SN 34,916. Pub. 4–1–58. Filed 8–5–57.

663,229. JUNE IN JANUARY. Escalon Packers, Inc. SN 37,005. Pub. 4–1–58. Filed 9–11–57.

663,230. VITA-GIFT. Flotill Products, Incorporated. SN 37,155. Pub. 4–1–58. Filed 9–13–57.

Class 47 — Wines

663,231. CORVETTE. E. & J. Gallo Winery. SN 36,878. Pub. 4–1–58. Filed 9–9–57.

Class 48 — Malt Beverages and Liquors

663,232. PENGUIN. Horlacher Brewing Company. SN 35,998. Pub. 4–1–58. Filed 8–22–57.

663,233. HEILEMAN'S OLD STYLE AND DESIGN. G. Heileman Brewing Co. SN 37,653. Pub. 4–1–58. Filed 9–23–57.

663,234. HEILEMAN'S AND DESIGN. G. Heileman Brewing Co. SN 37,655. Pub. 4–1–58. Filed 9–23–57.

663,235. GOETZ COUNTRY CLUB AND DESIGN. M. K. Goetz Brewing Company. SN 38,040. Pub. 4–1–58. Filed 9–30–57.

Class 49 — Distilled Alcoholic Liquors

663,236. STAND FAST. William Grant & Sons Limited. SN 20,185. Pub. 4–1–58. Filed 11–30–56.

663,237. FORTIFICATION AND DESIGN. Simpson Shepherd & Sons Limited. SN 37,454. Pub. 4–1–58. Filed 9–18–57.

Class 50 — Merchandise Not Otherwise Classified

663,238. K-LINE. Klein Manufacturing Company. SN 25,004. Pub. 4–1–58. Filed 2–25–57.

663,239. SOLOTEX. Bourges Color Corporation. SN 35,622. Pub. 4–1–58. Filed 8–16–57.

663,240. COLOTEX. Bourges Color Corporation. SN 36,275. Pub. 4–1–58. Filed 8–27–57.

663,241. BOURGES TEX. Bourges Color Corporation. SN 36,276. Pub. 4–1–58. Filed 8–27–57.

663,242. BI. Burnham Industries. SN 36,775. Pub. 4–1–58. Filed 9–6–57.

Class 51 — Cosmetics and Toilet Preparations

663,243. HEATH. James L. Younghusband. SN 3,258. Pub. 4–1–58. Filed 2–23–56.

663,244. SLOTAN. Coty, Inc. SN 9,447. Pub. 4–1–58. Filed 6–1–56.

663,245. PASSPORT TO PARIS. Coty, Inc. SN 9,773. Pub. 4–1–58. Filed 6–7–56.

663,246. LIQUID SATIN. Harper Method, Inc. SN 22,110. Pub. 10–15–57. Filed 1–4–57.

663,247. TEXAPON. Dehydag Deutsche Hydrierwerke GmbH. SN 23,542. Pub. 4–1–58. Filed 1–31–57.

663,248. DREI BLUMEN. Richard Hudnut. SN 31,215. Pub. 4–1–58. Filed 6–3–57.

663,249. CALIFORNIA RINSE. Middlebrooke Lancaster, Inc. SN 31,678. Pub. 4–1–58. Filed 6–10–57.

663,250. MODELINE. Marie Françoise Jeanne Masclet, born Gaffory. SN 34,968. Pub. 4–1–58. Filed 8–5–57.

663,251. PHYOTRICHINE. "Laboratoires des Produits Cosmétiques Jean-Marie," Société Congolaise à Responsabilité Limitée. SN 37,272. Pub. 4–1–58. Filed 9–16–57.

Class 52 — Detergents and Soaps

663,252. CLORONITE. Hagan Chemicals & Controls, Inc. SN 29,633. Pub. 4–1–58. Filed 4–8–57.

663,253. FREE 'N EASY. The Gillette Company, d. b. a. The Toni Company. SN 34,854. Pub. 4–1–58. Filed 8–2–57.

663,254. PRESTO-BRITE. Hubbs and Howe Company. SN 36,887. Pub. 4–1–58. Filed 9–9–57.

663,255. AVON. Avon Products, Inc. SN 36,949. Pub. 4–1–58. Filed 9–10–57.

663,256. FILTER QUEEN AND DESIGN. Health-Mor, Inc. SN 37,010. Pub. 4–1–58. Filed 9–11–57.

663,257. PRECISION-MECHANICAL. Fries & Fries, Inc. SN 37,084. Pub. 4–1–58. Filed 9–12–57.

Service Marks

Class 101 — Advertising and Business

663,258. TAPE IT AWAY! Ruth Thomas, d. b. a. Thomas Secretarial Service. SN 30,372. Pub. 4–1–58. Filed 5–20–57.

Class 102 — Insurance and Financial

663,259. SERVICE STRENGTH SECURITY AND DESIGN. Combined Insurance Company of America. SN 9,250. Pub. 4–1–58. Filed 5–29–56.

Class 103 — Construction and Repair

663,260. DESIGN OF ST. GEORGE AND THE DRAGON. McMahon Brothers, Inc. SN 31,771. Pub. 4–1–58. Filed 6–11–57.

Class 105 — Transportation and Storage

663,261. SEASHORE ELECTRIC RAILWAY. New England Electric Railway Historical Society, Inc. SN 29,989. Pub. 4–1–58. Filed 5–8–57.

Class 107 — Education and Entertainment

663,262. LOCKMASTERS. Lockmasters. SN 22,124. Pub. 4–1–58. Filed 1–4–57.

663,263. ALLIED YOUTH. Allied Youth, Inc. SN 24,552. Pub. 4–1–58. Filed 2–18–57.

Collective Membership Marks

Class 200

663,264. DESIGN OF GREEK LETTERS. The Tau Beta Pi Association, Inc. SN 19,542. Pub. 4–1–58. Filed 11–19–56.

663,265. DISTRIBUTIVE EDUCATION ETC. AND DESIGN. Distributive Education Clubs of America, Inc. SN 22,894. Pub. 4–1–58. Filed 1–22–57.

663,266. NTA AND DESIGN. National Travelers Association. SN 23,076. Pub. 4–1–58. Filed 1–23–57.

663,267. CHICAGO TRUCK DRIVERS ETC. Chicago Truck Drivers, Chauffeurs and Helpers Union of Chicago and Vicinity, Local 705 (Independent), d. b. a. Chicago Teamsters, Chauffeurs, and Helpers of Chicago and Vicinity. SN 32,432. Pub. 4–1–58. Filed 5–20–57.

Certification Mark

Class A — Goods

663,268. APPROVED FOR BETTER FOOT CARE ETC. AND DESIGN. The National Foot Health Council, Inc. SN 28,535. Pub. 4–1–58. Filed 4–19–57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

663,269. Morris White Fashions, Inc., New York, N. Y. SN 37,057. Filed 9–11–57.

DOUBLE DUTY

For Ladies' Handbags.
First use Mar. 1, 1956.

Class 12 — Construction Materials

663,270. Carlos Ruggles Lumber Co., Springfield, Mass. SN 34,308. Filed P. R. 7–24–57. Am. S. R. 2–12–58.



The drawing is lined for green and orange.
For Red Cedar Shingles.
First use at least since Nov. 26, 1942.

663,271. The Philip Carey Manufacturing Company, Lockland, Cincinnati, Ohio. SN 28,107. Filed P. R. 4-15-57. Am. S. R. 4-11-58.

WIND-TITE

For Asphalt Shingles.
First use Mar. 14, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

663,272. Julius Kupfer, Inc., Elmhurst, N. Y. SN 28,791. Filed P. R. 4-24-57. Am. S. R. 4-11-58.

party lites

For Ornamental Electric Lights for Outdoor and Indoor Use.
First use Feb. 1, 1957.

Class 32—Furniture and Upholstery

663,273. Anthony D. Glover, d. b. a. Glover Manufacturing Co., Austin, Tex. SN 19,962. Filed P. R. 11-27-56. Am. S. R. 10-23-57.

GLOVER PRODUCT

For Homemaking Unit Comprising Cabinet for Containing Sewing Machines and Ironing Boards for Teaching Homemaking, and Optical Dispensing Cabinet.
First use Dec. 1, 1951.

Class 37—Paper and Stationery

663,274. William Dale Winders, d. b. a. The Columbus Office Supply Company, Columbus, Ohio. SN 19,212. Filed P. R. 11-13-56. Am. S. R. 4-9-58.

Super-Snaps

For Multiple Copy Printed Business Forms.
First use Aug. 15, 1956.

663,275. Kee Lox Manufacturing Company, Rochester, N. Y. SN 27,955. Filed P. R. 4-11-57. Am. S. R. 4-7-58.

ERASAGUARD

For Typewriter Erasing Guards.
First use on or about Apr. 6, 1945.

Class 38—Prints and Publications

663,276. Picture Cover Bindings, Inc., New York, N. Y. SN 20,053. Filed P. R. 11-28-56. Am. S. R. 3-27-58.

Picture Covers
BORN THAT BOOKS MAY LIVE

For Book Binding Covers Provided With Visual Matter by Printing, Screening, and Printing and Screening.
First use Oct. 31, 1956.

663,277. Mid-America Publishing Corp., Kansas City, Mo. SN 21,925. Filed P. R. 12-31-56. Am. S. R. 4-2-58.

Flower & Garden

For Periodic Publication.
First use Dec. 21, 1956.

Class 46—Foods and Ingredients of Foods

663,278. Lee Seng Heng Fish's Gravy Factory, Aberdeen, Hong Kong. SN 18,797. Filed 11-5-56.



For Seasoning for Soups, Meats, Fish, Gravies, vegetables, Etc.
First use Feb. 10, 1953; in commerce June 24, 1954.

663,279. Robert A. Haley, d. b. a. Haley's Specialties Manufacturing Co., Kilgore, Tex. SN 20,459. Filed P. R. 12-5-56. Am. S. R. 3-17-58.



For Barbecue Sauce.
First use Mar. 19, 1954.

663,280. Herbert M. Magnus, d. b. a. Herly Foods, Maplewood, N. J. SN 38,757. Filed 10-11-57.

HERLY'S

For Frozen Food Specialties, to wit, Turnovers Filled With Shrimp, Chicken, Mushrooms, and Cheese.
First use Feb. 6, 1955.

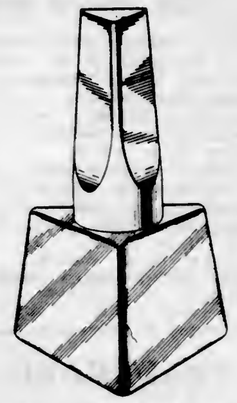
Class 51—Cosmetics and Toilet Preparations

663,281. Helene Curtis Industries, Inc., Chicago, Ill. SN 14,860. Filed P. R. 8-30-56. Am. S. R. 3-26-58.

CONDITIONOL

For Cold Wave Lotion, Neutralizer, and Hair Conditioner.
First use in or about April 1952.

663,282. Juliette Marglen, Inc., Ridgefield, N. J. SN 35,355. Filed 8-12-57.



The mark consists of the configuration of the container of the goods, comprising a short transparent tapering triangular bottle with a taller opaque cap or closure which is round at its base and tapers into triangular form above, as shown in the drawing.

For Preparations for Preserving and Beautifying Finger Nails and Toe Nails—Namely, Nail Polishes, Nail Enamels, Liquid Base Coating Materials, Liquid Top Coatings or Sealers, Thinners for Lacquers, for Base Coatings and for Sealers, Liquid Enamel Remover, and Cuticle Oil.
First use June 14, 1956, on nail preparations.

Class 52—Detergents and Soaps

663,283. Consolidated Foods Corporation, Chicago, Ill. SN 15,177. Filed P. R. 9-6-56. Am. S. R. 4-18-58.

EASY WASH

For Detergent for Household Use To Be Used for Washing and Cleaning Purposes.
First use July 16, 1956.

TRADEMARK REGISTRATIONS RENEWED

121,409. ACTION. Cl. 52. 4-30-18.
121,455. MIRACLE. Cl. 39. 4-30-18.
121,700. SUNSHINE AND DESIGN. Cl. 46. 5-21-18.
122,052. LIFETIME DIAMOND AND DESIGN. Cl. 13. 6-25-18.
122,085. PAPRGON. Cl. 42. 6-25-18.
122,196. PUNCH BOWL AND DESIGN. Cl. 45. 7-9-18.
122,209. BIRDMAN AND DESIGN. Cl. 46. 7-9-18.
122,528. CYMA. Cl. 27. 8-20-18.
122,535. BLUE GOOSE AND REPRESENTATION OF GOOSE. Cl. 1. 8-20-18.
353,926. BVG AND DESIGN. Cl. 14. 1-25-38.
354,267. GLADIATOR ETC. AND DESIGN. Cl. 12. 2-8-38.
354,537. SETTLER AND DESIGN. Cl. 18. 2-15-38.
354,699. DRACO. Cl. 7. 2-22-38.
355,136. CREOLE. Cl. 1. 3-8-38.
355,414. CRAFTSMAN FABRIC. Cl. 42. 3-15-38.
355,428. RECTANGLE DESIGN LINED FOR BLACK, RED AND YELLOW. Cl. 1. 3-15-38.
355,584. DE GASSER. Cl. 23. 3-22-38.
355,732. DISHO. Cl. 52. 3-29-38.
355,814. McNEIL. Cl. 18. 4-5-38.
355,874. DIX-MAKE. Cl. 42. 4-5-38.
355,875. TROIS NOTES DE CIRO AND DESIGN. Cl. 51. 4-5-38.
355,947. MACY'S. Cl. 32. 4-5-38.
355,970. A. D. C. Cl. 49. 4-5-38.
356,026. MORRIS WITHIN AN OVAL. Cl. 23. 4-12-38.
356,041. ILLINITE. Cl. 23. 4-12-38.
356,042. WEATHERCAP AND DESIGN. Cl. 12. 4-12-38.
356,069. ORO. Cl. 46. 4-12-38.
356,111. MACY'S. Cl. 40. 4-12-38.
356,207. DE VENOGE AND CIE AND DESIGN. Cl. 47. 4-19-38.
356,484. BIOFILTERS. Cl. 23. 4-26-38.
356,781. VECTRIN. Cl. 18. 5-10-38.
356,833. LOADOMETER. Cl. 26. 5-10-38.
356,846. HUNTS MAN. Cl. 46. 5-10-38.
356,943. MOMBLY PEG. Cl. 23. 5-17-38.
356,999. NUTRICHART. Cl. 38. 5-24-38.
357,060. PROFESSIONAL. Cl. 23. 5-24-38.
357,131. NESSLERIMETER. Cl. 26. 5-24-58.
357,426. ALLEY OOP. Cl. 22. 6-7-38.
357,530. SUN-DODGER. Cl. 42. 6-7-38.
357,535. JO-LO. Cl. 2. 6-7-38.
357,767. JO-LO. Cl. 13. 6-14-38.
357,822. DELSTEROL. Cl. 18. 6-14-38.
357,901. REPRESENTATION OF TAG LINED FOR YELLOW, RED AND BLACK. Cl. 46. 6-21-38.
357,963. LUBRIHIDE. Cl. 13. 6-21-38.
358,107. FIRE CHIEF AND DESIGN. Cl. 16. 6-28-38.
358,173. NICOTINIA. Cl. 51. 6-28-38.
358,184. COOKIE JAR. Cl. 17. 6-28-38.
358,196. CRESILVER. Cl. 44. 6-28-38.
358,263. PARAFLEX. Cl. 50. 7-5-38.

358,325. REPRESENTATION OF TWO FACED HEAD. Cl. 17. 7–5–38.
358,402. CORDON BLEU ETC. AND DESIGN. Cl. 47. 7–12–38.
358,450. IRISH AND DESIGN. Cl. 17. 7–12–38.
358,518. CALGON BOUQUET. Cl. 51. 7–19–38.
358,770. SAVA-WAVE. Cl. 39. 7–26–38.
358 918. FORMEZ. Cl. 39. 7–26–38.
359,177. EFFCO. Cl. 46. 8–9–38.
359,273. SANTOBRITE. Cl. 6. 8–9–38.
359,278. BOSSNAP. Cl. 37. 8–9–38.
359,285. GENCASEAL. Cl. 21. 8–9–38.
359,355. POP SCOTCH. Cl. 46. 8–16–38.
359,529. MURDOCK. Cl. 34. 8–23–38.
359,556. KIJAFA AND DESIGN. Cl. 47. 8–23–38.
359,678. RODEO. Cl. 26. 8–30–38.
359,680. DAIR-I-SAN. Cl. 52. 8–30–38.
359,709. HIZONE AND PYRAMID DESIGN. Cl. 51. 8–30–38.
359,715. KEYSTONE ETC. AND DESIGN. Cl. 21. 8–30–38.
359,940. DOUBLE KAY. Cl. 46. 9–6–38.
360,007. MID WEST AND REPRESENTATION OF TOBACCO LEAF. Cl. 17. 9–6–38.
360,061. SOL-REX. Cl. 21. 9–6–38.
360,219. GLENSPEY. Cl. 39. 9–13–38.
360,285. BOSTONIANS ETC. Cl. 39. 9–13–38.
360,470. VEGAN. Cl. 6. 9–20–38.
360,492. ITALIAN COLONY AND DESIGN. Cl. 47. 9–20–38.
360,518. CARNIVAL. Cl. 33. 9–20–38.
360,527. HYDRALASE. Cl. 6. 9–20–38.
360,574. COQUE D'OR. Cl. 51. 9–20–38.
360,591. ENZO CAL. Cl. 18. 9–20–38.
360,606. MITSIES. Cl. 39. 9–20–38.
360,633. LANELLA. Cl. 42. 9–20–38.
360,667. DON FERNANDO. Cl. 46. 9–20–38.
360,678. CRAVENETTE AND DESIGN. Cl. 22. 9–20–38.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

429,737. VEALE-WAY. Cl. 1. 5–13–47.
620,484. DIAMOND H AND LETTER H WITHIN DIAMOND. Cl. 46. 1–31–56.
639,788. SNAPS. Cl. 46. 1–8–57.
653,628. ENCORE. Cl. 11. 10–29–57.
659,326. DESIGN OF INDIAN HEAD. Cl. 31. 3–11–58.

Section 8

338,468. CLICQUOT CLUB. Cl. 49. 9–8–36.
342,000. RAYBELLE. Cl. 20. 12–29–36.
414,280. DAGMAR. Cl. 16. 6–5–45.

The following registrations issued Apr. 29, 1952

558,187. RAYBAKE. Cl. 16.
558,188. EDCO. Cl. 13.
558,193. CALVIZE. Cl. 16.
558 200. MARIE-BELLE. Cl. 39.
558,207. REPRESENTATION OF A BENZENE RING AND DISTILLATION FLASK. Cl. 6.
558,226. ARALUM AND DESIGN. Cl. 12.
558,230. BIO-STERITRON. Cl. 44.
558,232. LUXTILE (THE LETTER I DOTTED WITH STAR). Cl. 12.
558,234. TRINPETRO. Cl. 12.
558,235. G S FACTOR AND DESIGN. Cl. 18.
558,237. SPASMATRINE AND DESIGN. Cl. 18.
558,239. AFC WITHIN CIRCLE DESIGN. Cl. 42.
558,241. ATALCO. Cl. 52.
558 246. MORAVIAN MILLS. Cl. 46.
558,247. BURTWIST. Cl. 42.
558,249. GOLD MEDAL AND DESIGN. Cl. 1.
558,250. NORSAGA AND DESIGN. Cl. 42.
558,251. P M. Cl. 16.
558,253. CURLEYLOCKS. Cl. 4.
558,258. AQUA-GLIDE WITHIN DESIGN. Cl. 22.
558 266. ROLEAS. Cl. 4.
558,268. VELTENE. Cl. 52.
558,269. I M A WITHIN CIRCULAR DESIGN. Cl. 12.
558,270. AM-PHEN-AL. Cl. 18.
558,273. TEN 22. Cl. 52.
558,279. J. O. E. AND PICTURE OF EAGLE. Cl. 39.
558,280. BUDGET. Cl. 16.
558,287. NK WITHIN CROWN DESIGN. Cl. 46.
558,290. ALICE IN WONDERLAND. Cl. 22.
558,295. ALLUR-SHEEN. Cl. 42.
558,297. CONTOUR. Cl. 14.
558,303. RESILAX. Cl. 18.
558,324. NORDELLA. Cl. 42.
558,325. SUPER NYLO WORSTED. Cl. 43.
558,329. GROWCILLIN. Cl. 18.
558,331. MANORCREST COLOR KEYED TO MODERN LIVING AND DESIGN. Cl. 42.
558,332. MANORCREST. Cl. 42.
558,335. KLEETONE. Cl. 52.
558,336. TELA-LEENS. Cl. 26.
558 338. ACRILACE. Cl. 42.
558,341. KENBARK. Cl. 42.
558,343. POINTIL. Cl. 51.
558,355. CYANA. Cl. 43.
558,356. TELEMETER. Cl. 26.
558,363. A–1004. Cl. 6.
558,369. THE BACHELORS OF MUSIC. Cl. 107.
558,379. GEORGIA CRACKER AND DESIGN. Cl. 46.
558,381. COCOANUT. Cl. 46.
558,382. CAN-RITE. Cl. 46.
558,386. COBURN GLAZES AND DESIGN. Cl. 4.
558,389. TWIN-TWIST. Cl. 35.
558,390. TWIST-TWIN. Cl. 35.
558,392. SHELTER COVE. Cl. 46.
558,396. GLO-SNO. Cl. 50.
558,398. "THIS IS RADIO COLUMBUS." Cl. 104.
558,400. THE FIRST PIANO QUARTET AND REPRESENTATION OF FOUR PIANOS. Cl. 107.

Section 18

313,072. PRESIDENT. Cl. 49. 5–15–34.
372,028. PURE ROCK WATER AND DESIGN. Cl. 45. 10–17–39.
649,752. SPORTWHIRLS BY STELLA. Cl. 39. 8–6–57.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

120,545. BOYCO AND DESIGN. Cl. 2. 2–19–18. Boyle Manufacturing Company. United States Steel Corporation, Pittsburgh, Pa. Amended to appear:

BOYCO

141,498. BRILLO. Cl. 4. 4–26–21. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 19, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

141,499. SUPREME. Cl. 4. 4–26–21. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 19, heading, statement, column 1, line 2, and signature, after "Company" , *Inc.* should be inserted.

168,938. BRICO. Cl. 4. 5–29–23. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the heading, statement, column 1, line 2, and signature, after "Company" , *Inc.* should be inserted.

186,273. BRILLO AND DESIGN. Cl. 4. 7–8–24. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

187,866. BRILLO. Cl. 13. 8–12–24. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

197,859. BRICO AND DESIGN. Cl. 4. 4–28–25. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

198,487. SUPREME AND DESIGN. Cl. 4. 5–19–25. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

198,495. BRILLO (WORD IN HEBREW CHARACTERS). Cl. 4. 5–19–25. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, "Co." should be deleted and *Company, Inc.* should be inserted.

203,380. BRILLO. Cl. 16. 9–15–25. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

210,826. CUD-L-DOON ETC. Cl. 42. 3–23–26. I. A. Wyner & Co., Inc., New York, N. Y. Amended to appear:

CUD-L-DOON

213,047. BRILLO AND DESIGN. Cl. 4. 5–18–26. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

215,339. BRILLO AND DESIGN. Cl. 4. 7–13–26. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

236,478. BRILLO AND DESIGN. Cl. 4. 12–13–27. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, after "Company" , *Inc.* should be inserted.

291,010. BRILLO. Cl. 14. 1–26–32. Brillo Manufacturing Company, Inc., Brooklyn, N. Y. Corrected: In the certificate, lines 3 and 17, heading, statement, column 1, line 1, and signature, "Co." should be deleted and *Company, Inc.* should be inserted.

356,219. DAREX. Cl. 26. 4–19–38. Dewey and Almy Chemical Company. W. R. Grace & Co., Cambridge, Mass. Amended to appear:

DAREX

570,041. MONARCH. Cl. 12. 2–3–53. The Monarch Door, Inc., Folsom, Pa. Corrected: In the certificate, lines 3 and 14, heading, statement, column 1, line 1, and signature, after "Door," *Inc.* should be inserted.

651,578. ELECTRICAL DESIGN NEWS. Cl. 38. 9–10–57. Rogers Publishing Company, Englewood, Colo. Corrected: In column 2, line 1, "semi-" should be deleted.

659,355. KAOKORK. Cl. 35. 3–11–58. F. D. Farnam Co., Chicago, Ill. Corrected: In column 1, line 1, "Farnham" should be *Farnam*.

INDEX OF REGISTRANTS

JUNE 17, 1958

(Registered ; Renewed ; Canceled ; Amended, Disclaimed, Corrected, etc. ; New Certificates ; 12c Publications.)

AMP Inc., Harrisburg, Pa. 663,064, pub. 4–1–58. Cl. 21.
AMP Inc., Harrisburg, Pa. 663,089, pub. 4–1–58. Cl. 23.
Abana Products, Inc., Chicago, Ill. 662,943, pub. 4–1–58. Cl. 2.
Abbott Laboratories, North Chicago, Ill. 663,037, pub. 4–1–58. Cl. 18.
Air Reduction Co., Inc., New York, N. Y. 663,018, pub. 4–1–58. Cl. 16.
Air Reduction Co., Inc., New York, N. Y. 663,074, pub. 4–1–58. Cl. 21.
Air Reduction Co., Inc., New York, N. Y. 663,151, pub. 4–1–58. Cl. 34.
Allied Youth, Inc., Washington, D. C. 663,263, pub. 4–1–58. Cl. 107.
Alumatic Corp. of America, Milwaukee, Wis. 558,226, canc. Cl. 12.
Aluminum Cooking Utensil Co., Inc., The, New Kensington, Pa. 663,107, pub. 4–1–58. Cl. 23.
Aluminum Products Co., La Grange, Ill., to West Bend Aluminum Co., West Bend, Wis. 122,052, ren. 6–25–58. Cl. 13.
Alumiseal Corp., New York, N. Y. 662,982, pub. 4–1–58. Cl. 12.
Amer, William, Co., Philadelphia, Pa. 662,938–9, pub. 4–1–58. Cl. 1.
American Alcolac Corp., New York, N. Y. 558,241, canc. Cl. 52.
American Cyanamid Co., New York, N. Y. 558,355, canc. Cl. 43.
American Cyanamid Co., New York, N. Y. 662,950, pub. 4–1–58. Cl. 6.
American Cyanamid Co., New York, N. Y. 662,967, pub. 4–1–58. Cl. 6.
American Cyanamid Co., New York, N. Y. 663,033, pub. 4–1–58. Cl. 18.
American Cyanamid Co., New York, N. Y. 663,040–2, pub. 4–1–58. Cl. 18.
American Enka Corp., Enka, N. C. 663,222, pub. 4–1–58. Cl. 43.
American Fabrics Co., The, Bridgeport, Conn. 558,239, canc. Cl. 42.
American Home Products Corp., d. b. a. Wyeth Laboratories Division of American Home Products Corp., New York, N. Y. 663,043, pub. 4–1–58. Cl. 18.
American Kleer-Vu Plastics, Inc., Maspeth, N. Y. 662,944, pub. 4–1–58. Cl. 3.
American Latex Products Corp., Hawthorne, Calif. 662,945, pub. 4–1–58. Cl. 5.
American Machine and Metals, Inc., East Moline, Ill. 663,148, pub. 4–1–58. Cl. 34.
American Scientific Laboratories, Inc., Madison, Wis. 663,032, pub. 2–26–57. Cl. 18.
American Tobacco Co., The, New York, N. Y. 358,325, ren. 7–5–58. Cl. 17.
Anemostat Corp. of America, New York, N. Y. 663,150, pub. 4–1–58. Cl. 34.
Angelos, William G., d. b. a. Pop Scotch Co., Freeport, Ill. 359,355, ren. 8–16–58. Cl. 46.
Apex Molded Products Co., Philadelphia, Pa. 663,110, pub. 4–1–58. Cl. 23.
Appleton Electric Co. : *See*—
Goodrich Electric Co.
Aqua Glide Co., La Canada, Calif., to M. A. Pichel. 558,258, canc. Cl. 22.
Archer-Daniels-Midland Co., Minneapolis, Minn. 662,962, pub. 4–1–58. Cl. 6.
Arctic Feather & Down Co., Bloomfield, N. J. 663,173, pub. 11–12–57. Cl. 39.
Armstrong Cork Products Co., Lancaster, Pa. 342,000, canc. Cl. 20.
Artvale, Inc., New York, N. Y. 663,213, pub. 4–1–58. Cl. 42.
Ashtabula Printing Co., The, Ashtabula, Ohio. 663,171, pub. 4–1–58. Cl. 38.
Associated Merchandising Corp., The, New York, N. Y. 663,192, pub. 4–1–58. Cl. 39.
Atlantic Specialties : *See*—
Mercer, William G.
Atomized Materials Co., Inc., Pittsburgh, Pa. 662,977, pub. 2–11–58. Cl. 12.
Avon Products, Inc., New York, N. Y. 663,255, pub. 4–1–58. Cl. 52.
Bachelors Of Music, The, Chicago, Ill. 558,369, canc. Cl. 107.
Baker, J. M., Pattern Co., Inc., Providence, R. I. 662,998, pub. 4–1–58. Cl. 13.
Barbour Co., The, St. Louis, Mo. 558,251, canc. Cl. 16.
Barg, William, d. b. a. True Form Corset Co., Philadelphia, to True Form Foundations, Inc., Darby, Pa. 358,918, ren. 7–26–58. Cl. 39.
Barrett Electronics Corp., Northbrook, Ill. 663,051, pub. 4–1–58. Cl. 19.
Bartmann & Bixer, Inc., New York, N. Y. 558,341, canc. Cl. 42.
Barzen of Minneapolis, Inc., Minneapolis, Minn. 662,935, pub. 4–1–58. Cl. 1.
Bassick Co., The, Bridgeport, Conn. 663,053, pub. 4–1–58. Cl. 19.
Bausch & Lomb Optical Co., Rochester, N. Y. 359,678, ren. 8–30–58. Cl. 26.
Beehler Arts Ltd., d. b. a. Kim Dolls, New York, N. Y. 663,082, pub. 4–1–58. Cl. 22.
Bergman, Jack H., d. b. a. Jack H. Bergman Sales Co., New York, N. Y. 663,101. Cl. 23.
Bergman, Jack H., Sales Co. : *See*—
Bergman, Jack H.
Bernat, Emile, & Sons Co., Jamaica Plain, Mass. 558,325, canc. Cl. 43.
Besrest Bedding Co. : *See*—
Lashua, Harry A.
Bets Laboratories, Inc., Philadelphia, Pa. 662,957, pub. 4–1–58. Cl. 6.
Bigelow-Sanford Carpet Co., Inc., d. b. a. Universal Rugs and Carpets, Thompsonville, Conn., to Bigelow-Sanford Carpet Co., Inc., New York, N. Y. 558,331, canc. Cl. 42.
Bigelow-Sanford Carpet Co., Inc., d. b. a. Universal Rugs and Carpets, Thomsonville, Conn., to Bigelow-Sanford Carpet Co., Inc., New York, N. Y. 558,332, canc. Cl. 42.
Blinney & Smith Co., New York, N. Y. 558,249, canc. Cl. 1.
Black & Decker Mfg. Co., The, Towson, to Loadometer Corp., Baltimore, Md. 356,833, ren. 5–10–58. Cl. 26.
Bloomingdale Bros. : *See*—
Federated Department Stores, Inc.
Blue Bell Inc., Greensboro, N. C. 663,185, pub. 4–1–58. Cl. 39.
Blue Diamond Corp., Los Angeles, Calif. 662,979, pub. 4–1–58. Cl. 12.
Bochumer Verein fur Gusstahlfabrikation Aktiengesellschaft, Bochum, Germany. 353,926, ren. 1–25–58. Cl. 14.
Boehringer, C. H., Sohn, Ingelheim am Rhine, Germany. 663,030, pub. 10–23–56. Cl. 18.
Bohler & Weber, Kommanditgesellschaft Maschinenfabrik, Augsburg, Germany. 663,094, pub. 2–4–58. Cl. 23.
Bourges Color Corp., New York, N. Y. 663,239–41, pub. 4–1–58. Cl. 50.
Boyle Mfg. Co. United States Steel Corp., Pittsburgh, Pa. 120,545. Am. 7(d). Cl. 2.
Brantford Industries Ltd., Brantford, Ontario, Canada. 558,266, canc. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 141,498–9, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 168,938, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 186,273, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 187,866, cor. Cl. 13.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 197,859, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 198,487, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 198,495, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 203,380, cor. Cl. 16.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 213,047, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 215,339, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 236,478, cor. Cl. 4.
Brillo Mfg. Co., Inc., Brooklyn, N. Y. 291,010, cor. Cl. 14.
Bristol Laboratories Inc., Syracuse, N. Y. 558,329, canc. Cl. 18.
Bristol Laboratories Inc., Syracuse, N. Y. 663,046–7, pub. 4–1–58. Cl. 18.
Bromo-Mint Co., Inc., d. b. a. Kenner Products Co., Cincinnati, Ohio. 663,083, pub. 4–1–58. Cl. 22.
Buegeleisen & Jacobson, Inc., New York, N. Y. 663,156, pub. 4–1–58. Cl. 36.
Bulova Watch Co., Inc., Flushing, N. Y. 663,113–15, pub. 4–1–58. Cl. 23.
Burnham Industries, Watertown, Conn. 663,242, pub. 4–1–58. Cl. 50.
Cagnon, Charles, d. b. a. Cagnon Foods Co., New York, N. Y. 663,228, pub. 4–1–58. Cl. 46.
Cagnon Foods Co. : *See*—
Cagnon, Charles.
Calcium Aluminate Cement Corp., New York, N. Y. 662,973, pub. 4–1–58. Cl. 12.
Calgon, Inc., to Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. 358,518, ren. 7–19–58. Cl. 51.
California Packing Corp., San Francisco, Calif., to Pomona Products Co., Griffin, Ga. 121,700, ren. 5–21–58. Cl. 46.
Cal-Made Mfg. Co., Los Angeles, Calif. 663,196, pub. 4–1–58. Cl. 39.
Camarge Trading Co., Philadelphia, Pa. 662,989, pub. 4–1–58. Cl. 13.
Cameron, Alex., & Sons Ltd., Sunderland, England. 663,027, pub. 4–1–58. Cl. 16.
Camillus Cutlery Co., Camillus, N. Y. 356,943, ren. 5–17–58. Cl. 23.
Campbell, Alexander, d. b. a. Campbell's Mfg. Co., Pasadena, Calif. 662,991, pub. 4–1–58. Cl. 13.
Campbell's Mfg. Co. : *See*—
Campbell, Alexander.
Campus Cards : *See*—
Cogan, Howard S.
Can-Rite Food Products Co., Modesto, Calif. 558,382, canc. Cl. 46.
Capitol Appliance Stores, Inc., Detroit, Mich. 663,096, pub. 4–1–58. Cl. 23.
Carey, Philip Mfg. Co., The, Cincinnati, Ohio. 663,271. Cl. 12.

Carrieres Dumon et Produits Calcaires du Tournaisis Societe Anonyme, Vaulx-near-Tournai, Belgium, to Ciments D'Obourg Societe Anonyme, Obourg, Belgium. 354,267, ren. 2–8–58. Cl. 12.
Carter Products, Inc., New York, N. Y. 663,048, pub. 4–1–58. Cl. 18.
Castle Machines, Inc., Erie, Pa. 663,153, pub. 4–1–58. Cl. 34.
Castro Convertible Corp., New Hyde Park, N. Y. 663,137, pub. 4–1–58. Cl. 32.
Cement Marketing Co., Ltd., The, London, England. 662,987, pub. 4–1–58. Cl. 12.
Censor Co., The: *See*—
Martin, John P., Jr.
Cerbini Research Corp., New York, N. Y. 662,969, pub. 4–1–58. Cl. 6.
Chapman & Sons, Shreveport, La. 663,172, pub. 2–10–53. Cl. 39.
Chemical Process Co., San Francisco, Calif. 662,947, pub. 4–1–58. Cl. 5.
Chet's Famous Foods, Eugene, Oreg. 662,994, pub. 4–1–58. Cl. 13.
Chicago Smoked Fish Co., Chicago, Ill. 357,901, ren. 6–21–58. Cl. 46.
Chicago Teamsters, Chauffeurs, and Helpers of Chicago and Vicinity: *See*—
Chicago Truck Drivers, Chauffeurs and Helpers Union of Chicago and Vicinity.
Chicago Truck Drivers, Chauffeurs and Helpers Union of Chicago and Vicinity, d. b. a. Chicago Teamsters, Chauffeurs, and Helpers of Chicago and Vicinity, Chicago, Ill. 663,267, pub. 4–1–58. Cl. 200.
Chlorator, Groetzingen, Karlsruhe, Germany. 663,125, pub. 4–1–58. Cl. 26.
Ciments D'Obourg Societe Anonyme: *See*—
Carrieres Dumon et Produits Calcaires du Tournaisis Societe Anonyme.
Clipper Belt Lacer Co., Grand Rapids, Mich. 357,963, ren. 6–21–58. Cl. 13.
Club Razor Blade Mfg. Co.: *See*—
Club Razor & Blade Mfg. Corp.
Club Razor & Blade Mfg. Corp., to Club Razor Blade Mfg. Co., Newark, N. J. 357,060, ren. 5–24–58. Cl. 23.
Cluett, Peabody & Co., Inc., Troy, N. Y. 663,175, pub. 4–1–58. Cl. 39.
Coburn, W. E.: *See*—
Coburn, William E.
Coburn, William E., d. b. a. W. E. Coburn, Inglewood, Calif. 558,386, canc. Cl. 4.
Coed Shoe Mfg. Co. Inc., Wakefield, Mass. 663,174, pub. 4–1–58. Cl. 39.
Cogan, Howard S., d. b. a. Campus Cards, Ithaca, N. Y. 663,166, pub. 4–1–58. Cl. 38.
Cohen, Joseph H., & Sons, Inc., New York, N. Y. 663,197–8, pub. 4–1–58. Cl. 39.
Cohn, Louis, d. b. a. Sundisco Products, Kansas City, Kans. 663,010, pub. 4–1–58. Cl. 15.
Colgate & Co., Jersey City, N. J., and New York, N. Y., to Colgate-Palmolive Co., New York, N. Y. 121,409, ren. 4–30–58. Cl. 52.
Colgate-Palmolive Co.: *See*—
Colgate & Co.
Collins & Aikman Corp., New York, N. Y. 663,216, pub. 4–1–58. Cl. 42.
Columbus Office Supply Co., The: *See*—
Winders, William D.
Combined Insurance Co. of America, Chicago, Ill. 663,259, pub. 4–1–58. Cl. 102.
Commonwealth Shoe and Leather Co., Whitman, Mass. 360,285, ren. 9–13–58. Cl. 39.
Cone Mills Inc., New York, N. Y. 663,218, pub. 4–1–58. Cl. 42.
Congoleum-Nairn Inc., Kearny, N. J. 663,058, pub. 3–18–58. Cl. 20.
Consolidated Foods Corp., Chicago, Ill. 663,283. Cl. 52.
Cooper, Ben, Inc., Brooklyn, N. Y. 663,200, pub. 4–1–58. Cl. 39.
Coralite Dental Products, Chicago, Ill. 663,034, pub. 2–25–58. Cl. 18.
Corcon, Inc., New York, N. Y. 663,068, pub. 4–1–58. Cl. 21.
Cornair, Jack D., d. b. a. Duralith Products, Costa Mesa, Calif. 662,975, pub. 4–1–58. Cl. 12.
Cosmos Drugs, Inc., New York, N. Y. 663,049, pub. 4–1–58 Cl. 18.
Coty, Inc., New York, N. Y. 663,244–5, pub. 4–1–58. Cl. 51.
Counter Balance, Inc., Stoughton, Wis. 662,992, pub. 4–1–58. Cl. 13.
Craig Mfg. Co., Inc., New York, N. Y. 663,141, pub. 4–1–58. Cl. 32.
Cravenette Co., U. S. A., The, Hoboken, N. J. 360,678, ren. 9–20–58. Cl. 22.
Crescent Dental Mfg. Co., Chicago, Ill. 358,196, ren. 6–28–58. Cl. 44.
Crompton Co., New York, N. Y. 663,215, pub. 4–1–58. Cl. 42.
Crookes-Barnes Laboratories, Inc.: *See*—
Crookes Laboratories, Inc.
Crookes Laboratories, Inc., New York, N. Y., to Crookes-Barnes Laboratories, Inc., Wayne, N. J. 360,591, ren. 9–20–58. Cl. 18.
Crown Spring Co., Philadelphia, Pa. 663,054, pub. 4–1–58. Cl. 19.
Cummins-Chicago Corp., Chicago, Ill. 663,111–12, pub. 4–1–58. Cl. 23.
Curtis Companies Inc., Clinton, Iowa. 663,136, pub. 12–10–57. Cl. 32.
Curtis, Helene, Industries, Inc., Chicago, Ill. 663,281. Cl. 51.
Curtis Laboratories, Inc., Kansas City, Kans. 663,050, pub. 4–1–58. Cl. 18.
Dagmar Chemical Co., Stamford, Conn. 414,280, canc. Cl. 16.
Dawstell Laboratories, Jacksonville, Fla., to Harold F. Ritchie, Inc., Clifton, N. J. 354,537, ren. 2–15–58. Cl. 18.
De Grasso, Sarah M., d. b. a. Fish House Baits, Kansas City, Mo. 663,087, pub. 4–1–58. Cl. 22.
Dehydag Deutsche Dydrierwerke GmbH, Dusseldorf, Germany. 663,247, pub. 4–1–58. Cl. 51.
De Land, C. M., to Charles M. De Land, Jr., d. b. a. C. M. De Land, New York, N. Y. 355,414, ren. 3–15–58 Cl. 42.
De Land, Charles M., Jr.: *See*—
De Land, C. M.
Delaware Punch Co. of America, The: *See*—
Delaware Punch Co. of Texas, The.
Delaware Punch Co. of Texas, The, to The Delaware Punch Co. of America, San Antonio, Tex. 122,196, ren. 7–9–58. Cl. 45.
Demco Library Supplies, Inc., Madison, Wis. 663,162, pub. 4–1–58. Cl. 37.
Denison-Johnson, Inc., Mankato, Minn. 663,085, pub. 4–1–58. Cl. 22.
Descours, Genthon, Inc., to Lanella Corp., New York, N. Y. 360,633, ren. 9–20–58. Cl. 42.
Detroit Aluminum & Brass Corp., Hamtramck, Mich. 663,088, pub. 4–1–58. Cl. 23.
Devoe & Raynolds Co., Inc., Louisville, Ky. 662,958, pub. 4–1–58. Cl. 6.
Dewey and Almy Chemical Co. W. R. Grace & Co., Cambridge, Mass. 356,219. Am. 7(d). Cl. 26.
Distributive Education Clubs of America, Inc., Washington, D. C. 663,265, pub. 4–1–58. Cl. 200.
Dix, Henry A., & Sons Corp., New York, N. Y. 355,874, ren. 4–5–58. Cl. 42.
Dixon, William, Inc., Newark, N. J. 663,098, pub. 4–1–58. Cl. 23.
Dorr Co., Inc., The, New York, N. Y., to Dorr-Oliver Inc., Stamford, Conn. 356,484, ren. 4–26–58. Cl. 23.
Dorr-Oliver Inc.: *See*—
Dorr Co., Inc., The.
Douglas Co., Inc., Keene, N. H. 663,084, pub. 4–1–58. Cl. 22.
Dow Chemical Co., The, Midland, Wash. 558,363, canc. Cl. 6.
Dow Chemical Co., The, Midland, Mich. 662,959, pub. 4–1–58. Cl. 6.
Drake Steel Supply Co.: *See*—
Drake Supply Co.
Drake Supply Co., to Drake Steel Supply Co., Los Angeles, Calif. 354,699, ren. 2–22–58. Cl. 7.
Dubied, Edouard, & Cie., Societe Anonyme, Couvet, Neuchatel, Switzerland. 558,188, canc. Cl. 13.
Dukane Corp., St. Charles, Ill. 663,081, pub. 4–1–58. Cl. 21.
Duplicard Addressing Machines, Santa Ana, Calif. 663,092, pub. 4–1–58. Cl. 23.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 357,822, ren. 6–14–58. Cl. 18.
Duralith Products: *See*—
Cornair, Jack D.
Dyfoam Corp., New Castle, Pa. 662,974, pub. 4–1–58. Cl. 12.
Eagle Electric Mfg. Co., Inc., Long Island City, N. Y. 663,071, pub. 4–1–58. Cl. 21.
Eagle Signal Corp., Moline, Ill. 663,070, pub. 4–1–58. Cl. 21.
Eastland Shoe Corp., Freeport, Maine. 663,193, pub. 4–1–58. Cl. 39.
Eaton Carbon & Ribbon Corp., Brooklyn, N. Y. 653,628, canc. Cl. 11.
Eddy & Fisher, Inc., Providence, R. I. 338,468, canc. Cl. 49.
Ehret Magnesia Mfg. Co., Valley Forge, Pa. 662,985, pub. 4–1–58. Cl. 12.
Einiger Mills, Inc., New York, N. Y. 663,211, pub. 4–1–58. Cl. 42.
Electro Glo Co.: *See*—
Jumer, John P.
Elgin Foods, Inc., Melrose Park, Ill. 359,177, ren. 8–9–58. Cl. 46.
Elk River Coal and Lumber Co., Dundon, W. Va. 355,428, ren. 3–15–58. Cl. 1.
Enterprise Paint Mfg. Co., Chicago, Ill. 663,015, pub. 3–4–58. Cl. 16.
Escalon Packers, Inc., Escalon, Calif. 663,229, pub. 4–1–58. Cl. 46.
Eureka Williams Corp., Bloomington, Ill. 663,152, pub. 4–1–58. Cl. 34.
Ewart, William, & Son, New York, Ltd., New York, N. Y. 663,219, pub. 4–1–58. Cl. 42.
Fabricated Products Co., Inc., West Newton, Pa. 663,117, pub. 4–1–58. Cl. 23.
Fadiman, Edwin, New York, N. Y. 558,400, canc. Cl. 107.
Fageol, R. D., Co.: *See*—
Leibing Automotive Devices, Inc.
Farnam, F. D., Co., Chicago, Ill. 659,355, cor. Cl. 35.
Federated Department Stores, Inc., d. b. a. Bloomingdale Bros., New York, N. Y. 663,178, pub. 4–1–58. Cl. 39.
Feld, Hyman, New York, N. Y. 558,250, canc. Cl. 42.
Fish House Baits: *See*—
De Grasso, Sarah M.
Fisher Scientific Co., Pittsburgh, Pa. 357,131, ren. 5–24–58. Cl. 26.
Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co., Vernon, Calif. 662,960, pub. 4–1–58. Cl. 6.
Flotill Products, Inc., Stockton, Calif. 663,230, pub. 4–1–58. Cl. 46.
Fords (Finsbury) Ltd., Kempston, Bedford, England. 663,00, pub. 11–19–57. Cl. 14.
Foremost Dairies, Inc., d. b. a. Golden State Co., Ltd., San Francisco, Calif. 663,227, pub. 11–12–58. Cl. 46.
Formail Co., Boston, Mass. 663,183, pub. 2–18–58. Cl. 39.
Formulabs, Inc., Escondido, Calif. 663,021, pub. 4–1–58. Cl. 16.
Forstmann Woolen Co., Passaic, N. J. 558,324, canc. Cl. 42.
Fort Howard Paper Co., Green Bay, Wis. 359,278, ren. 8–9–58. Cl. 37.

Frank Veale Mfg. Co., Bradenton, Fla. 429,737, canc. Cl. 1.
Fries & Fries, Inc., Cincinnati, Ohio. 663,257, pub. 4–1–58. Cl. 52.
Galef, J. L., & Son, Inc., New York, N. Y. 662,972, pub. 4–1–58. Cl. 9.
Gallo, E. & J., Winery, Modesto, Calif. 663,231, pub. 4–1–58. Cl. 47.
Gaylord Bros., Inc., Syracuse, N. Y. 663,160, pub. 4–1–58. Cl. 37.
Gelgy Chemical Corp., Ardsley, N. Y. 662,955, pub. 4–1–58. Cl. 6.
Geloso S. p. A., Milan, Italy. 663,072, pub. 4–1–58. Cl. 21.
General Cable Corp., New York, N. Y. 359,285, ren. 8–9–58. Cl. 21.
General Electric Co., Schenectady, N. Y. 663,067, pub. 4–1–58. Cl. 21.
General Features Corp., New York, N. Y. 663,170, pub. 4–1–58. Cl. 38.
General Foods Corp., White Plains, N. Y. 639,788, canc. Cl. 46.
General Mills, Inc., Minneapolis, Minn. 663,130, pub. 4–1–58. Cl. 29.
Georgia Cracker Co., Atlanta, Ga. 558,379, canc. Cl. 46.
Geuder, Paeschke & Frey Co., Milwaukee, Wis., to Jones & Laughlin Steel, Pittsburgh, Pa. 662,942, pub. 4–1–58. Cl. 2.
Gibraltar Corrugated Paper Co., Inc., Jersey City, N. J. 663,158, pub. 4–1–58. Cl. 37.
Gibson, Guy T., Inc., to Parfums Ciro, Inc., New York, N. Y. 355,875, ren. 4–5–58. Cl. 51.
Gillette Co., The, d. b. a. The Toni Co., Boston, Mass. 663,253, pub. 4–1–58. Cl. 52.
Gladding, McBean & Co., Los Angeles, Calif. 662,986, pub. 4–1–58. Cl. 12.
Glenhill Pharmacal Co., Bellaire, Tex. 663,035, pub. 4–1–58. Cl. 18.
Glover, Anthony D., d. b. a. Glover Mfg. Co., Austin, Tex. 663,273. Cl. 32.
Glover Mfg. Co.: *See*—
Glover, Anthony D.
Goetz, M. K., Brewing Co., St. Joseph, Mo. 663,235, pub. 4–1–58. Cl. 48.
Golden State Co., Ltd.: *See*—
Foremost Dairies, Inc.
Goldye, Harry, d. b. a. Padi Clothes, Altoona, Pa. 663,179, pub. 4–1–58. Cl. 39.
Goodman, D., & Sons Ltd., Toronto, Ontario, Canada. 663,028, pub 4–1–58. Cl. 16.
Goodrich Electric Co., to Appleton Electric Co., Chicago, Ill. 359,715 ren. 8–3–58. Cl. 21.
Goodstein Bros. & Co., Inc., New York, N. Y. 663,201, pub. 4–1–58. Cl. 39.
Grace, W. R., & Co.: *See*—
Dewey and Almy Chemical Co.
Grand Aerie Fraternal Order of Eagles, Kansas City, Mo. 558,279, canc. Cl. 39.
Grant, William, & Sons Ltd., Dufftown, Scotland. 663,236, pub. 4–1–58. Cl. 49.
Gross, Leopold, to W. P. Tanner-Gross & Co. Inc., to Tanner-Evans-Siney Corp., also d. b. a. Tanner Milling Co., New York, N. Y. 122,209, ren. 7–9–58. Cl. 46.
Grove Press, Inc., New York, N. Y. 663,157, pub. 4–1–58. Cl. 36.
Guerlain, Inc.; *See*—
Guerlain Perfumery Corp. of Delaware.
Guerlain Perfumery Corp. of Delaware, Wilmington, Del. and New York, N. Y., to Guerlain, Inc., New York, N. Y. 360,574, ren. 9–20–58. Cl. 51.
Gulf Oil Corp., Pittsburgh Pa. 663,004, pub. 4–1–58. Cl. 15.
Haft & Co., Ltd., New York, N. Y. 357,530, ren. 6–7–58. Cl. 42.
Hagan Chemicals & Controls, Inc.: *See*—
Calgon, Inc.
Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. 663,252, pub. 4–1–58. Cl. 52.
Hagy, John T., Pittsburgh, Pa. 663,154, pub. 4–1–58. Cl. 35.
Haley, Robert A., d. b. a. Haley's Specialties Mfg. Co., Kilgore, Tex 663,279. Cl. 46.
Haley's Specialties Mfg. Co.: *See*—
Haley, Robert A.
Hamilton, J. D., Fruit Co., The, Wenatchee, Wash. 620,484, canc. Cl. 46.
Hanovia Chemical and Mfg. Co., Newark, N. J. 558,230, canc. Cl. 44.
Harper Method, Inc., Rochester, N. Y. 663,246, pub. 10–15–57. Cl. 51.
Hauptmann, Peter, Tobacco Co., St. Louis, Mo. 663,029, pub. 4–1–58. Cl. 17.
Health-Mor, Inc., Chicago, Ill. 663,256, pub. 4–1–58. Cl. 52.
Helleman, G., Brewing Co., Lacrosse, Wis. 663,233–4, pub. 4–1–58. Cl. 48.
Heng, Lee Seng, Fish's Gravy Factory, Aberdeen, Hong Kong. 663,278. Cl. 46.
Herly Foods: *See*—
Magnus, Herbert M.
Herzog Miniature Lamp Works, Inc., Long Island City, N. Y. 360,061, ren. 9–6–58. Cl. 21.
Hewitt Soap Co., Inc., The: *See*—
Werk, M., Co., The.
Hicks, James M., d. b. a. Marin-E-Products, Sausalito, Calif. 663,052, pub. 4–1–58. Cl. 19.
Hing Wah Battery Factory: *See*—
Pun, Jong S.
Hi-Test Twist Drill Works, Inc., New York, N. Y. 663,095, pub. 4–1–58. Cl. 23.
Hit Parade Program Service, Inc., Newark, N. J. 663,167, pub. 4–1–58. Cl. 38.
Hizone Products: *See*—
Jones, Hilton I.
Hockaday, Inc., Chicago, Ill. 448,280, canc. Cl. 16.
Hollins, William, & Co. Ltd., Nottingham, England. 663,208, pub. 10–29–57. Cl. 42.
Hooper, Wm. E., & Sons Co., Baltimore, Md. 358,107, ren. 6–28–58. Cl. 16.
Hoover Granite Quarries, Inc., Elberton, Ga. 662,932, pub. 4–1–58. Cl. 1.
Horlacher Brewing Co., Allentown, Pa. 663,232, pub. 4–1–58. Cl. 48.
Hough, Frank G., Co., The, Libertyville, Ill. 663,093, pub. 4–1–58. Cl. 23.
Hubbs and Howe Co., Buffalo, N. Y. 663,254, pub. 4–1–58. Cl. 52.
Hudnut, Richard, Morris Plains, N. J. 663,248, pub. 4–1–58. Cl. 51.
Hudson Hosiery Co., Charlotte, N. C. 663,180, pub. 4–1–58. Cl. 39.
Illinois Tool Works, Chicago, Ill. 356,041, ren. 4–12–58. Cl. 23.
Inland Steel Co., Chicago, Ill. 663,002, pub. 3–11–58. Cl. 14.
Insul-Mastic Corp. of America, Pittsburgh, Pa. 558,269, canc. Cl. 12.
International Harvester Co., Chicago, Ill. 558,297, canc. Cl. 14.
International Harvester Co., Chicago, Ill. 663,073, pub. 4–1–58. Cl. 21.
Interstate Shade Cloth Co., Hoboken, N. J. 122,085, ren. 6–25–58. Cl. 42.
Italian Swiss Colony, San Francisco, Calif. 360,492, ren. 9–20–58. Cl. 47.
Jackson Rt., & Co., Ltd., London, England. 313,072, canc. Cl. 49.
Jacobsen J. J., Co.: *See*—
Skjelborg, Axel H.
Johnson-Williams, Inc., Palo Alto, Calif. 663,124, pub. 4–1–58. Cl. 26.
Jones, Hadn: *See*—
Jones, Hilton I.
Jones, Hilton I., d. b. a. Hizone Products to Hadn Jones, d. b. a. Hizone Products, Wilmette, Ill. 359,709, ren. 8–30–58. Cl. 51.
Jones & Laughlin Steel Corp.: *See*—
Geuder, Paeschke & Frey Co.
Joseph & Feiss Co., The, Cleveland, Ohio. 663,187–8, pub. 4–1–58. Cl. 39.
Jumer, John P., d. b. a. Electro Glo Co., Chicago, Ill. 662,951, pub. 4–1–58. Cl. 6.
Kalogris, Sotia M., d. b. a. Vimets Co., Oceanside, N. Y. 663,226 pub. 4–1–58. Cl. 46.
Kalpakis Stella, d. b. a. Sportwhirl Mfg. Co., Minden, La. 649,752 canc. Cl. 39.
Kamkap, Inc., New York, N. Y. 663,149, pub. 4–1–58. Cl. 34.
Kane Mfg. Corp., Kane, Pa. 662,980, pub. 4–1–58. Cl. 12.
Kaufman, Wynne d. b. a. Sentimentally Yours, New York, N. Y. 663,164 pub. 4–1–58. Cl. 38.
Kee Lox Mfg. Co., Rochester, N. Y. 663,275. Cl. 37.
Keel Mfg. Corp., Freeport, N. Y. 663,155, pub. 4–1–58. Cl. 36.
Kelling Nut Co., The, Chicago, Ill. 359,940, ren. 9–6–58. Cl. 46.
Kenner Products Co.: *See*—
Bromo-Mint Co., Inc.
Kim Dolls: *See*—
Bechler Arts Ltd.
Kimberly-Clark Corp., Neenah, Wis. 663,161, pub. 4–1–58. Cl. 37.
King, Geo. W., Ltd., Stevenage, England. 663,144, pub. 4–1–58. Cl. 32.
Klein Mfg. Co., Burlington, Iowa. 663,238, pub. 4–1–58. Cl. 50.
Kleinert, I. B., Rubber Co., New York, N. Y. 358,770, ren. 7–26–58. Cl. 39.
Kleinert, I. B., Rubber Co., New York, N. Y. 360,606, ren. 9–20–58. Cl. 39.
Koppers Co., Inc., Pittsburgh, Pa. 663,009, pub. 4–1–58. Cl. 15.
Kops Bro., to Kops Bros., Inc., New York, N. Y. 121,455, ren. 4–30–58. Cl. 39.
Kops Bros., Inc.: *See*—
Kops Bro.
Kramer Bros. Inc., New York, N. Y. 663,176, pub. 4–1–58. Cl. 39.
Kress, S. H., and Co., New York, N. Y. 663,129, pub. 4–1–58. Cl. 29.
Krueger, Richard G., Inc., New York, N. Y. 663,086, pub. 4–1–58. Cl. 22.
Kupfer, Julius, Inc., Elmhurst, N. Y. 663,272. Cl. 21.
"Laboratoires des Produits Cosmetiques Jean-Marie," Societe Congolaise a Responsabilite Limitee, Vilvorde, Belgium. 663,251, pub. 4–1–58. Cl. 51.
Landenberger, J. W., & Co., Philadelphia, Pa. 663,221, pub. 4–1–58. Cl. 43.
Lanella Corp.: *See*—
Descours, Genthon, Inc.
Lashua, Harry A., d. b. a. Besrest Bedding Co., St. Petersburg, Fla. 663,139, pub. 4–1–58. Cl. 32.
Lazio, Tom, Fish Co., Inc., Eureka, Calif. 558,392, canc. Cl. 46.
Lebaron, E. L., Foundry Co., Brockton, Mass. 359,529, ren. 8–23–58. Cl. 34.
Leibing Automotive Devices, Inc., Detroit, Mich., to R. D. Fageol Co., Kent, Ohio. 355,584, ren. 3–22–58. Cl. 23.
Lennox Industries, Inc., Marshalltown, Iowa. 663,147, pub. 8–6–57. Cl. 34.
Leto, Franklin, & Co., Inc., New York, N. Y. 663,186, pub. 3–11–58. Cl. 39.
Lindsay, Maurice E., d. b. a. Spindle Specialty Co., Bakersfield, Calif. 663,119, pub. 4–1–58. Cl. 23.
Loadometer Corp.: *See*—
Black & Decker Mfg. Co., The.

Lockmasters, Rochester, N. Y. 663,262, pub. 4–1–58. Cl. 107.
Lowe, Joe, Corp., New York, N. Y. 357,535, ren. 6–7–58. Cl. 2.
Lowe, Joe, Corp., New York, N. Y. 357,767, ren. 6–14–58. Cl. 13.
Lowe, Joe, Corp., New York, N. Y. 558,381, canc. Cl. 46.
Lowe's Inc., Cassopolis, Mich. 662,937, pub. 4–1–58. Cl. 1.
Lyon Inc., Detroit, Mich. 662,996, pub. 4–1–58. Cl. 13.
M. F. A. Oil Co., Columbia, Mo. 662,956, pub. 4–1–58. Cl. 6.
Macy, R. H., & Co., Inc., New York, N. Y. 335,947, ren. 4–5–58. Cl. 32.
Macy, R. H., & Co., Inc., New York, N. Y. 356,111, ren. 4–12–58. Cl. 40.
Magnavox Co., The, Fort Wayne, Ind. 663,059, pub. 4–1–58. Cl. 21.
Magnus, Herbert M., d. b. a. Herly Foods, Maplewood, N. J. 663,280. Cl. 46.
Maiden Form Brassiere Co., Inc., New York, N. Y. 663,189–91, pub. 4–1–58. Cl. 39.
Maison De Venoge, Societe Anonyme, Epernay, France. 356,207, ren. 4–19–58. Cl. 47.
Maison De Venoge Societe Anonyme, Epernay, France. 358,402, ren. 7–12–58. Cl. 47.
Mallory Electric Corp., Detroit, Mich. 663,080, pub. 4–1–58. Cl. 21.
Marble, James E., Delawanna, N. J. 356,042, ren. 4–12–58. Cl. 12.
Margien, Juliette, Inc., Ridgefield, N. J. 663,282. Cl. 51.
Mari Originals, New York, N. Y. 663,184, pub. 4–1–58. Cl. 39.
Marine Fiber-Glass & Plastics, Inc., Seattle, Wash. 663,055–6, pub. 4–1–58. Cl. 19.
Marin-E-Products: *See*—
Hicks, James M.
Martin, John P., Jr., d. b. a. The Censor Co., Los Angeles, Calif. 663,062, pub. 4–1–58. Cl. 21.
Masclet, Marie F. J. (born Gaffory), Paris, France. 663,250, pub. 4–1–58. Cl. 51.
Massachusetts State Association of Master Plumbers, Inc., Boston, Mass. 663,168, pub. 4–1–58. Cl. 38.
Master Bronze Powder Co., Inc., Calumet City, Ill. 663,025, pub. 4–1–58. Cl. 16.
Master Metal Products, Inc., Buffalo, N. Y. 662,941, pub. 4–1–58. Cl. 2.
Mazzetti, Guido, Rome, Italy. 558,268, canc. Cl. 52.
McMahon Brothers, Inc., Binghamton, N. Y. 663,260, pub. 4–1–58. Cl. 103.
McNeil Laboratories, Inc., Philadelphia, Pa. 355,814, ren. 4–5–58. Cl. 18.
Mead Johnson & Co., Evansville, Ind. 663,038, pub. 4–1–58. Cl. 18.
Medical Appliance Corp., Boonton, N. J. 663,223, pub. 4–1–58. Cl. 44.
Mercer, William G., d. b. a. Atlantic Specialties, Westwood, Mass. 558,335, canc. Cl. 52.
Merck & Co., Inc., Rahway, N. J. 662,954, pub. 4–1–58. Cl. 6.
Merrell, Wm. S., Co., The, Cincinnati, Ohio. 663,044–5, pub. 4–1–58. Cl. 18.
Metal Textile Corp., Roselle, N. J. 558,253, canc. Cl. 4.
Metalstand Co., Philadelphia, Pa. 663,146, pub. 4–1–58. Cl. 32.
Metropolitan Overseas Supply Corp., New York, N. Y. 663,076, pub. 4–1–58. Cl. 21.
Mid-America Publishing Corp., Kansas City, Mo. 663,277. Cl. 38.
Middlebrooke Lancaster, Inc., Brooklyn, N. Y. 663,249, pub. 4–1–58. Cl. 51.
Mid-West Metallic Products, Inc., Cleveland, Ohio. 662,940, pub. 4–1–58. Cl. 2.
Midwest Plywood Co., Detroit, Mich. 558,232, canc. Cl. 12.
Mid-West Tobacco Co., The, Cincinnati, Ohio. 360,007, ren. 9–6–58. Cl. 17.
Milton Mfg. Co., Inc., Chicago, Ill. 662,990, pub. 4–1–58. Cl. 13.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 662,970, pub. 4–1–58. Cl. 6.
Minnesota Mining and Mfg. Co., St. Paul, Minn. 663,011–13, pub. 4–1–58. Cl. 15.
Miss Supreme Inc., to Supreme Coat Co., Worcester, Mass. 663,177, pub. 4–1–58. Cl. 39.
Modern-Militex Corp., New York, N. Y. 558,396, canc. Cl. 50.
Monarch Door, Inc., The, Folsom, Pa. 570,041, cor. Cl. 12.
Monitor Furniture Co., Inc., Jamestown, N. Y. 663,145. Cl. 32.
Monsanto Chemical Co., St. Louis, Mo. 359,273, ren. 8–9–58. Cl. 6.
Monsanto Chemical Co., St. Louis, Mo. 663,023, pub. 4–1–58. Cl. 16.
Moore, Benjamin, & Co., New York, N. Y. 663,022, pub. 4–1–58. Cl. 16.
Moran, R. J., Co., Boston, Mass. 663,036, pub. 4–1–58. Cl. 18.
Moravian Mills: *See*—
Southwick, Charles A., Jr.
Morris Machine Works, Baldwinsville, N. Y. 356,026, ren. 4–12–58. Cl. 23.
Morton Chemical Co.: *See*—
Panogen, Inc.
Mount Hope Machinery Co., Taunton, Mass. 663,103, pub. 4–1–58. Cl. 23.
Muirson Label Co., Inc., San Jose, Calif. 663,165, pub. 4–1–58. Cl. 38.
Muller-Schlenker, Schwenningen am Neckar, Germany. 663,122, pub. 4–1–58. Cl. 26.
Muller & Schmidt Pfeilringwerk, Solingen, Germany. 663,090, pub. 4–1–58. Cl. 23.
Mullin, Archie R., Neodesha, Kans. 663,118, pub. 4–1–58. Cl. 23.
N. V. Koninklijke Pharmaceutische Fabrieken v/h Brocades-Stheeman & Pharmacia, Amsterdam, Netherlands. 663,039, pub. 4–1–58. Cl. 18.
Nashua Corp., now by change of name Nashua Corp., Nashua, N. H. 663,159, pub. 4–1–58. Cl. 37.
National Automotive Fibres, Inc., Oakland, Calif. 558,247, canc. Cl. 42.
National Cooperatives, Inc., Albert Lea, Minn. 663,131, pub. 4–1–58. Cl. 31.
National Foam System, Inc., West Chester, Pa. 662,971, pub. 4–1–58. Cl. 6.
National Foot Health Council, Inc., The, Rockland, Mass. 663,268, pub. 4–1–58. Cl. A.
National Travelers Association, Monroe, N. Y. 663,266, pub. 4–1–58. Cl. 200.
NEA Service, Inc., Cleveland, Ohio. 357,426, ren. 6–7–58. Cl. 22.
Nelson, Hugh, Columbia Carpet Mills, Inc., Philadelphia, Pa. 663,214, pub. 4–1–58. Cl. 42.
New England Electric Railway Historical Society Inc., Newton Highlands, Mass. 663,261, pub. 4–1–58. Cl. 105.
New York Air Brake Co., The, New York, N. Y. 663,105, pub. 4–1–58. Cl. 23.
New York Credit & Financial Management Association, New York, N. Y. 663,169, pub. 4–1–58. Cl. 38.
New York Telecoin Corp., New York, N. Y. 558,356, canc. Cl. 26.
Newport Knitting Co. Inc., New York, N. Y. 663,181, pub. 4–1–58. Cl. 39.
Nippon Kokan Kabushiki Kaisha, Chiyoda-ku, Tokyo, Japan. 663,001, pub. 4–1–58. Cl. 14.
Noranda Copper and Brass Ltd., Montreal, East, Quebec, Canada. 662,993, pub. 4–1–58. Cl. 13.
Norden-Ketay Corp., Stamford, Conn. 663,123, pub. 4–1–58. Cl. 26.
North American Aviation, Inc., Los Angeles, Calif. 663,020, pub. 4–1–58. Cl. 16.
North American Rayon Corp., New York, N. Y. 663,220, pub. 4–1–58. Cl. 43.
North State Pyrophyllite Co., Inc., Greensboro, N. C. 662,981, pub. 4–1–58. Cl. 12.
Northrup, King & Co., Minneapolis, Minn. 558,287, canc. Cl. 46.
Nyanza Color & Chemical Co., Inc., New York, N. Y. 360,470, ren. 9–20–58. Cl. 6.
Okonite Co., The, Passaic, N. J. 663,078, pub. 4–1–58. Cl. 21.
Olin Mathieson Chemical Corp.: *See*—
Portable Industries, Inc.
Onsrud Machine Works, Inc., Niles, Ill. 663,100, pub. 4–1–58. Cl. 23.
Optical Development Corp., Chicago, Ill. 558,336, canc. Cl. 26.
Optische Werke G. Rodenstock, Munich, Germany. 663,121, pub. 2–25–58. Cl. 26.
Orenite Chemical Co., Wilmington, Del., and San Francisco, Calif. 558,207, canc. Cl. 6.
Oxman, Emanuel, d. b. a. Philadelphia Hat Co., Philadelphia, Pa. 558,200, canc. Cl. 39.
Pabco Products Inc.: *See*—
Paraffine Companies, Inc., The.
Padi Clothes: *See*—
Goldye, Harry.
Panogen Inc., Ringwood, to Morton Chemical Co., Chicago, Ill. 662,961, pub. 4–1–58. Cl. 6.
Paraffine Companies, Inc., The, San Francisco, Calif., now by change of name Pabco Products Inc. 558,193, canc. Cl. 16.
Paramount Textile Machinery Co., Kankakee, Ill. 358,263, ren. 7–5–58. Cl. 50.
Parfums Ciro, Inc.: *See*—
Gibson, Guy T., Inc.
Parfums Forvil & Dentifrices du Docteur Pierre Reunis, Societe Anonyme, Nanterre (Seine), France. 558,343, canc. Cl. 51.
Park, Benziger & Co., Inc., New York, N. Y. 355,970, ren. 4–5–58. Cl. 49.
Parke, Davis & Co., Detroit, Mich. 356,781, ren. 5–10–58. Cl. 18.
Parnes, Samuel, & Sons, Inc., New York, N. Y. 663,194, pub. 4–1–58. Cl. 39.
Patent Button Co., The, Waterbury, Conn. 663,126, pub. 4–1–58. Cl. 26.
Pathe Shipping Supplies Co., New York, N. Y. 662,946, pub. 4–1–58. Cl. 5.
Pauker Brothers, New York, N. Y. 360,219, ren. 9–13–58. Cl. 39.
Pennsalt Chemicals Corp.: *See*—
Pennsylvania Salt Mfg. Co.
Pennsylvania Salt Mfg. Co., now by change of name to Pennsalt Chemicals Corp., Philadelphia, Pa. 662,949, pub. 4–10–58. Cl. 6.
Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 662,963–6, pub. 4–1–58. Cl. 6.
Philadelphia Hat Co.: *See*—
Oxman, Emanuel.
Photovolt Corp., New York, N. Y. 663,127, pub. 4–1–58. Cl. 26.
Picture Cover Bindings, Inc., New York, N. Y. 663,276. Cl. 38.
Picture Tube Center Corp., Los Angeles, Calif. 663,063, pub. 4–1–58. Cl. 21.
Pittsburgh Plate Glass Co., Pittsburgh, Pa. 558,187, canc. Cl. 16.
Plymouth Oil Co., Pittsburgh, Pa. 663,006–7, pub. 4–1–58. Cl. 15.
Pomona Products Co.: *See*—
California Packing Corp.

Pop Scotch Co.: *See*—
Angelos, William G.
Popper & Sons, Inc., New York, N. Y. 663,097, pub. 4–1–58. Cl. 23.
Portable Air Cooler & Heater, Inc., San Francisco, Calif. 663,102, pub. 4–1–58. Cl. 23.
Portable Industries, Inc., Cleveland, Ohio, to Olin Mathieson Chemical Corp., East Alton, Ill. 662,988, pub. 4–1–58. Cl. 13.
Powell Paint Co., Compton, Calif. 663,019, pub. 4–1–58. Cl. 16.
Pun, Jong S., d. b. a. Hing Wah Battery Factory, Kowloon, Hong Kong. 663,065, pub. 4–1–58. Cl. 21.
Pure Rock Mineral Springs Corp., Ellenville, N. Y. 372,028, canc. Cl. 45.
Precision Fittings Ltd., Knaresborough, Yorkshire, England. 662,934, pub. 11–5–57. Cl. 1.
Priestley, B., & Co., Inc., New York, N. Y. 663,209, pub. 4–1–58. Cl. 42.
Procter & Gamble Co., The, Cincinnati, Ohio. 356,069, ren. 4–12–58. Cl. 46.
Quaker Oats Co., The: *See*—
United States Glass Co.
Quik-Pac, Inc., Auburn, Maine. 663,163, pub. 4–1–58. Cl. 37.
Rapid Thermogas Co., Des Moines, Iowa. 662,952, pub. 4–1–58. Cl. 6.
Reeves Soundcraft Corp., New York, N. Y. 663,066, pub. 4–1–58. Cl. 21.
Reuten, Fred, Inc., Closter, N. J. 662,983–4, pub. 4–1–58. Cl. 12.
Richardson Mfg. Co., Cawker City, Kans. 663,120, pub. 4–1–58. Cl. 23.
Ritchie, Harold F., Inc.: *See*—
Dawstell Laboratories.
Roberts-Modaber, Inc., Chicago, Ill. 558,273, canc. Cl. 52.
Robinco, Inc., Norristown, Pa. 663,016, pub. 4–1–58. Cl. 16.
Rocquin, Camille J., d. b. a. Wild Rose Nursery, New Orleans, La. 355,136, ren. 3–8–58. Cl. 1.
Rogers Publishing Co., Englewood, Colo. 651,578, cor. Cl. 38.
Ruggles, Carlos, Lumber Co., Springfield, Mass. 663,270. Cl. 12.
S. A. F. A. Soc. An. Fabbrica Accumulatori, Milan, Italy. 663,069, pub. 4–1–58. Cl. 21.
Sack, Minnie, Weehawken, N. J. 663,195, pub. 4–1–58. Cl. 39.
Sagner's, A., Son, Baltimore, Md. 663,199, pub. 4–1–58. Cl. 39.
Salem-Brosius, Inc., Pittsburgh, Pa. 663,133, pub. 4–1–58. Cl. 31.
Salsbury's, Dr., Laboratories, Charles City, Iowa. 558,235, canc. Cl. 18.
San Fernando Heights Orange Assn., San Fernando, Calif. 360,667, ren. 9–20–58. Cl. 46.
Schadt and Mathewson: *See*—
Schadt & Mathewson.
Schadt & Mathewson, to Schadt and Mathewson, Detroit, Mich. 122,535, ren. 8–20–58. Cl. 1.
Schofield Mfg. Co., Cleveland, Ohio. 663,057, pub. 4–1–58. Cl. 19.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 663,224, pub. 4–1–58. Cl. 44.
Schulmerich Carillons, Inc., Sellersville, Pa. 663,077, pub. 4–1–58. Cl. 21.
Schwob, Adolphe, Inc., New York, N. Y., to Tavannes Watch Co., S. A., Tavannes, Switzerland. 122,528, ren. 8–20–58. Cl. 27.
Sears, Roebuck and Co., Chicago, Ill. 663,132, pub. 4–1–58. Cl. 31.
Sellers Injector Corp., Philadelphia, Pa. 663,099, pub. 4–1–58. Cl. 23.
Sentimentally Yours: *See*—
Kaufman, Wynne.
Shell Oil Co., New York, N. Y. 663,014, pub. 4–1–58. Cl. 15.
Shepherd, Simpson, & Sons Ltd., London, England. 663,237, pub. 4–1–58. Cl. 49.
Shirley Fabrics Corp., New York, N. Y. 663,212, pub. 4–1–58. Cl. 42.
Sinclair Refining Co., New York, N. Y. 663,003, pub. 4–1–58. Cl. 15.
Skinner, William, & Sons, New York, N. Y. 663,210, pub. 4–1–58. Cl. 42.
Skjelborg, Axel H., New York, N. Y., to J. J. Jacobsen Co., Copenhagen, Denmark. 359,556, ren. 8–23–58. Cl. 47.
Smart & Final Iris Co.: *See*—
Fitzsimmons Stores, Ltd.
Smith Welding Equipment Corp., Minneapolis, Minn. 558,389, canc. Cl. 35.
Smith Welding Equipment Corp., Minneapolis, Minn. 558,390, canc. Cl. 35.
Southwick, Charles A., Jr., d. b. a. Moravian Mills, Hope, N. J. 558,246, canc. Cl. 46.
Spectator, Inc., Chicago, Ill. 663,202, pub. 4–1–58. Cl. 39.
Spindle Specialty Co.: *See*—
Lindsay, Maurice E.
Splinter Engineer Co., Silver Spring, Md. 663,140, pub. 4–1–58. Cl. 32.
Sportwhirl Mfg. Co.: *See*—
Kalpakis, Stella.
Sprague & Carleton, Inc., Keene, N. H. 663,135, pub. 4–1–58. Cl. 32.
Sproull, E. T., Bristolville, Ohio. 662,933, pub. 4–1–58. Cl. 1.
Standard Toykraft Products, Inc., Brooklyn, N. Y. 558,290, canc. Cl. 22.
Stanley, John T., Co., Inc., New York, N. Y. 359,680, ren. 8–30–58. Cl. 52.
Staz-Tite Products Co., Cleveland, Ohio. 662,948, pub. 4–1–58. Cl. 5.
Steel Pharmaceutical Co. Inc., New York, N. Y. 558,237, canc. Cl. 18.
Steels & Busks Ltd., Leicester, England. 663,207, pub. 4–1–58. Cl. 40.
Stembridge Mfg. Co., Chicago, Ill. 663,142, pub. 4–1–58. Cl. 32.
Stoddard, G. S., & Co., Inc., New York, N. Y. 558,270, canc. Cl. 18.
Sundisco Products: *See*—
Cohn, Louis.
Superior Electric Co., The, Bristol, Conn. 663,060, pub. 4–1–58. Cl. 21.
Supradur Mfg. Corp., Borough of Windgap, Pa. 662,976, pub. 4–1–58. Cl. 12.
Supreme Coat Co.: *See*—
Miss Supreme Inc.
Tanner-Evans-Siney Corp.: *See*—
Gross, Leopold.
Tanner-Gross & Co. Inc.: *See*—
Gross, Leopold.
Tanner Milling Co.: *See*—
Gross, Leopold.
Tau Beta Pi Association, Inc., The, Knoxville, Tenn. 663,264, pub. 4–1–58. Cl. 200.
Tavannes Watch Co., S. A.: *See*—
Schwob, Adolphe, Inc.
Tecumseh Products Co., Tecumseh, Mich. 659,326, canc. Cl. 31.
Tester, Raymond J., Iron River, Wis. 663,116, pub. 4–1–58. Cl. 23.
Texas Harvest Hat Co., Laredo, Tex. 663,203–6, pub. 4–1–58. Cl. 39.
Thayer, Inc., Gardner, Mass. 663,134, pub. 4–1–58. Cl. 32.
Thomas, Ruth, d. b. a. Thomas Secretarial Service, Washington, D. C. 663,258, pub. 4–1–58. Cl. 101.
Thomas Secretarial Service: *See*—
Thomas, Ruth.
Tobias Paint Mfg. Co., Cleveland, Ohio. 663,017, pub. 4–1–58. Cl. 16.
Tobin, Emma M.: *See*—
Tobin, Richard R.
Tobin, R. R., Tobacco Co.: *See*—
Tobin, Richard R.
Tobin, Richard R., d. b. a. R. R. Tobin Tobacco Co., Detroit, to E. M. Tobin, Grosse Point, Mich. 358,184, ren. 6–28–58. Cl. 17.
Tobin, Richard R., d. b. a. R. R. Tobin Tobacco Co., Detroit, to E. M. Tobin, Grosse Point, Mich. 538,450, ren. 7–12–58. Cl. 17.
Tootle Dry Goods Co., St. Joseph, Mo. 663,182, pub. 2–4–58. Cl. 39.
Toni Co., The: *See*—
Gillette Co., The.
Treibacher Chemische Werke Aktiengesellschaft, Treibach, Carinthia, Austria. 662,936, pub. 4–1–58. Cl. 1.
Trico Nonferrous Metal Products, Inc., Ambler, Pa. 663,079, pub. 4–1–58. Cl. 21.
Trinidad Lake Petroleum Co., Ltd., The, Brighton, Trinidad, British West Indies. 558,234, canc. Cl. 12.
True Form Corset Co.: *See*—
Barg, William.
True Form Foundations, Inc.: *See*—
Barg, William.
Truesdail, Roger W., Los Angeles, Calif. 356,999, ren. 5–17–58. Cl. 38.
United Broadcasting Co., Cleveland and Columbus, Ohio. 558,398, canc. Cl. 104.
United Carbon Co., Inc. (Maryland), Charleston, W. Va. 662,968, pub. 4–1–58. Cl. 6.
United States Casting Repair Corp., Philadelphia, Pa. 662,997, pub. 4–1–58. Cl. 13.
United States Glass Co., Pittsburgh, Pa., to The Quaker Oats Co., Chicago, Ill. 360,518, ren. 9–20–58. Cl. 33.
United States Steel Corp.: *See*—
Boyle Mfg. Co.
Universal Flaymaster Equipment Co., The, London, England. 663,106, pub. 4–1–58. Cl. 23.
Universal Oil Products Co., Des Plaines, Ill. 663,104, pub. 4–1–58. Cl. 23.
Universal Refining Products Co., Inc., New York, N. Y. 663,005, pub. 4–1–58. Cl. 15.
Universal Rugs and Carpets: *See*—
Bigelow-Sanford Carpet Co., Inc.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 663,024, pub. 4–1–58. Cl. 16.
Verley, Albert, & Co.: *See*—
Verley, Albert, Inc.
Verley, Albert, Inc., Chicago, Ill., to Albert Verley & Co., Linden, N. J. 358,173, ren. 6–28–58. Cl. 51.
Vimets Co.: *See*—
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Visirecord, Inc., New York, N. Y. 663,138, pub. 4–1–58. Cl. 32.
Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. 663,128, pub. 4–1–58. Cl. 26.
Warren Woolen Co., The, Stafford Springs, Conn. 663,217, pub. 4–1–58. Cl. 42.
Waterman Industries, Inc., Exeter, Calif. 662,999, pub. 3–25–58. Cl. 13.
Waters Mfg., Inc., South Sudbury, Mass. 663,061, pub. 4–1–58. Cl. 21.
Watts Regulator Co., Lawrence, Mass. 662,995, pub. 4–1–58. Cl. 13.
Waverly Growers Cooperative, Waverly, Fla. 356,846, ren. 5–10–58. Cl. 46.
Werk, M., Co., The, St. Bernard, to The Hewitt Soap Co., Inc., Dayton, Ohio. 355,732, ren. 3–29–58. Cl. 52.
West Bend Aluminum Co.: *See*—
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Western Oil and Fuel Co., Minneapolis, Minn. 663,008, pub. 4–1–58. Cl. 15.

Westinghouse Electric Corp., Pittsburgh, Pa. 663,075, pub. 4–1–58. Cl. 21.
White Laboratories, Inc., Newark, N. J. 558,303, canc. Cl. 18.
White, Morris, Fashions, Inc., New York, N. Y. 663,269. Cl. 3.
Whitmire Research Laboratories, Inc., St. Louis, Mo. 662,953, pub. 4–1–58. Cl. 6.
Wild Rose Nursery: *See*—
Rocquin, Camille J.
Williamson Development Co., Inc., West Concord, Mass. 663,225, pub. 4–1–58. Cl. 44.
Williamson, T. D., Inc., Tulsa, Okla. 663,091, pub. 4–1–58. Cl. 23.
Williamson, T. D., Inc., Tulsa, Okla. 663,108–9, pub. 4–1–58. Cl. 23.
Willow Fabrics, Inc., New York, N. Y. 558,295, canc. Cl. 42.
Winders, William D., d. b. a. The Columbus Office Supply Co., Columbus, Ohio. 663,274. Cl. 37.
Winters, John, Co.: *See*—
Winters, John H.
Winters, John H., d. b. a. John Winters Co., New York, N. Y. 663,031, pub. 4–1–58. Cl. 18.
Wolf, Jacques, & Co., Passaic, N. J. 360,527, ren. 9–20–58. Cl. 6.
Wonder Furniture Corp., Brooklyn, N. Y. 663,143, pub. 4–1–58. Cl. 32.
Wyeth Laboratories: *See*—
American Home Products Corp.
Wyner, I. A., & Co., Inc., New York, N. Y. 210,826. Am. 7(d). Cl. 42.
Younghusband, James L., Chicago, Ill. 663,243, pub. 4–1–58. Cl. 51.
Zendman, I., Inc., New York, N. Y. 558,338, canc. Cl. 42.
Zephyr Ventilated Awning Co., Inc., Kansas City, Kans. 662,978, pub. 4–1–58. Cl. 12.
Zummach, Wm. F., Inc., Milwaukee, Wis. 663,026, pub. 4–1–58. Cl. 16.

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NOTICES

Adjudicated Patents

(D. C. Minn.) Glendenning Patent No. 2,171,693 (223—95), for trousers hanger. Claims 1 and 2 *Held* not infringed. *Glendenning* v. *Mack et al.*, 159 F. Supp. 665; 116 USPQ 249.

(D. C. N. J.) Robinson Patent No. 2,555,607 (210—23), for separation of immiscible liquids. Claims 1, 3, and 10 *Held* invalid. *Selas Corp. of America* v. *Purolator Products, Inc.*, 159 F. Supp. 682; 116 USPQ 512.

(D. C. N. Y.) Getz Patent No. 2,594,008 (257—130), for cellular case for heat exchange units, *Held* invalid and not infringed. *Bishop & Babcock Mfg. Co.* v. *Fedders Quigan Corp.*, 159 F. Supp. 815; 116 USPQ 204.

(D. C. Ohio) Martin and Rekettye Patent No. 2,629,131 (18—26), for apparatus for the manufacture of hollow cast articles. Claims 18 and 31 to 33 *Held* valid and infringed. *Sun Rubber Co.* v. *National Latex Products Co.*, 159 F. Supp. 661; 116 USPQ 295.

(D. C. Ohio) Moliter Patent No. 2,629,134 (8—58.3), for method of manufacturing articles from vinyl resins. *Id.*

(C. A. D. C.) Rothe Design Patent No. 155,452 (155—115), for automobile grill, *Held* invalid and not infringed. *Roth* v. *Ford Motor Co.*, 253 F.2d 353; 116 USPQ 497.

Disclaimer

2,819,905.—*Clifford Stead*, North Smithfield, R. I. ROTARY MAGNETIC WORK HOLDERS. Patent dated Jan. 14, 1958. Disclaimer filed May 19, 1958, by the assignee, *The Taft-Peirce Manufacturing Company*.

Hereby enters this disclaimer to claim 1 of said patent.

Dedication

2,485,511.—*Walter A. Riggs*, Everett, Wash. SLIPOVER STYLE OF OUTER GARMENT. Patent dated Oct. 18, 1949. Dedication filed May 19, 1958, by the assignee, *Barney Beller Sales, Inc.*

Hereby dedicates to the public the remainder of the term of said patent.

New Applications Received During April 1958

Patents	6,609
Designs	416
Plant Pats	16
Reissues	10
Total	7,051

Issue

Patents	1,068	No. 2,839,753 to No.	2,840,820, incl.
Designs	36	No. 183,077 to No.	183,112, incl.
Plant Pats	3	No. 1,719 to No.	1,721, incl.
Reissues	3	No. 24,492 to No.	24,494, incl.
Total	1,110		

CONDITION OF PATENT APPLICATIONS AS OF APRIL 30, 1958

Total number of pending applications (excluding Designs)		209,451
Total number of pending Design applications		6,569
Total number of applications awaiting action (excluding Designs)		86,050
Total number of Design applications awaiting action		3,016
Date of oldest new application	May	6, 1957
Date of oldest amended application	Apr.	30, 1957

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, CALCULATORS, PUMPS AND MOTORS, TRANSPORTATION	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
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1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	9-6-57	8-14-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	8-5-57	8-16-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	10-23-57	9-18-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	8-5-57	8-9-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	8-2-57	7-29-57
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7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics	8-2-57	8-1-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Deposit and Collection Receptacles	9-18-57	9-3-57
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32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers	9-27-57	8-5-57
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*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during June 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents	Numbers 2,243,829, to 2,247,344, inclusive
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DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE WILLIAM H. DAVIS

No. 6350. Decided April 11, 1958

[— CCPA — ; — F.2d — ; 117 USPQ 297]

1. PATENTABILITY—PARTICULAR SUBJECT MATTER—RECYCLING CONDENSATE TO DESUPERHEAT.

Where appellant's process of fractional distillation included the reduction in pressure and the subsequent condensation of a distilled vapor and a reference disclosed an "evaporation" distillation process including the compression and subsequent condensation of vapor with recycling of a portion of the condensate into the compressed vapor to desuperheat the vapor, *Held* that "if it were found that the problem of removing superheat existed in appellant's process, it would not involve invention to desuperheat" as in the reference.

2. SAME—CONCEPT OR RECOGNITION OF PROBLEM—SKILLED ARTISAN BECOMING AWARE OF CONDITION CREATING THE PROBLEM.

"The essence of appellant's argument, of course, does not reside in a fine distinction between an evaporation and a fractional distillation process. Rather, it is in the contention that 'it was not obvious that pressure reduction in fractional distillation would cause a disadvantageous superheating condition to occur.' This is another way of saying that his invention resided in the *concept* or in the recognition of the problem to be solved. • • • We think the fallacy in appellant's argument is that in the light of normal and common techniques in the distillation art, the skilled artisan would become aware of any superheating condition which would occur, without any use of the inventive faculty."

3. SAME—KNOWN PRACTICE—TAKING PRESSURE AND TEMPERATURE MEASUREMENTS IN DISTILLATION SYSTEM.

"It is well known that pressure and temperature measurements are taken at numerous points in a distillation system."

APPEAL from the Patent Office. Serial No. 301,233.

AFFIRMED.

W. E. McCorquodale, Jr. for William H. Davis.

Clarence W. Moore (*Arthur H. Behrens* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

JOHNSON, *Chief Judge*, delivered the opinion of the court.

This is an appeal from a decision of the Patent Office Board of Appeals rejecting the single claim in appellant's application No. 301,233, filed July 28, 1952, for "Fractionation Process," as unpatentable over the prior art.

The claim reads as follows:

1. Process of fractionating a fluid mixture which comprises: feeding the mixture to a fractionating zone maintained under relatively high pressure; distilling overhead from the fractionating zone a component part of the feed mixture; reducing the pressure of the distilled vapor, whereby the vapor becomes superheated; introducing hereinafter specified condensate into the superheated vapor to desuperheat the same; passing the mixture while under reduced pressure to a cooling zone to effect condensation; returning a portion of the condensate to the upper part of said fractionating zone as reflux; and utilizing another portion of the condensate as said specified condensate which is introduced into the superheated vapor.

Appellant's alleged invention relates to a process of fractionally distilling a fluid mixture wherein the pressure maintained in the fractionating column is greater than that maintained in the condenser. In its broad aspects, appellant's process does not differ from the standard distillation processes well known in the art. Feed material is introduced into the fractionating column, low boiling point constituents are removed as vapor from the top of the column (the distillate) and higher boiling point constituents are removed from the bottom of the column (the "bottoms"). The distillate is passed through a condenser from which part of the condensate is returned to the top of the fractionating column as reflux and the remainder is removed from the system as product. Inasmuch as the pressure in the fractionating column is to be maintained at a level higher than that in the condenser, a pressure reducing valve is placed in the distillate line between the top of the column and the condenser. By means of this valve, the pressure of the distillate vapor is reduced to that prevailing in the condenser. This much appellant admits is old in the art. The distillate vapor, however, upon emerging from the pressure reducing valve, becomes superheated. As appellant points out, the heat transfer coefficient for desuperheating a vapor is much less than the coefficient for condensing vapor which is at its dew point. To avoid the necessity for a large heat transfer surface in the condenser (which would be required if the superheated vapor were passed directly from the pressure reducing valve into the condenser), appellant recycles a portion of the condensate to a point between the pressure reducing valve and the condenser. This condensate, which is cooler than the superheated vapor, reduces the temperature of said vapor and permits the use of a smaller condenser surface than would be necessary if the vapor were not desuperheated.

The references relied upon are:

Cleaver et al., 2,537,259, Jan. 9, 1951.
McCants, 2,565,568, Aug. 28, 1951.
Andersen, 2,619,453, Nov. 25, 1952.

McCants discloses a process for fractionally distilling an aqueous solution of formaldehyde in the presence of an acetone reflux. The pressure maintained in the fractionating column is relatively higher than that in the condenser. The distillate is passed through a pressure reducing valve and then through a condenser, part of the condensate being returned to the top of the fractionating column as reflux.

The Andersen patent relates to a vapor-compression distillation process (more properly described as an "evaporation" process). Insofar as pertinent, Andersen discloses passing vapor from the evaporator through a compressor and subsequently through a heat exchanger. Inasmuch as the vapors, upon being compressed, become superheated, Andersen recycles a portion of the condensate to a point between the compressor and the heat exchanger to reduce the temperature (desuperheat) of the compressed vapor to a point near its saturation temperature (dew point), but not beyond that point.

The Cleaver et al. disclosure, insofar as this appeal

is concerned, is merely cumulative of the Andersen disclosure and need not be further discussed.

The Examiner rejected appellant's claim as unpatentable over McCants in view of either Cleaver et al. or Andersen and the Board sustained this rejection. The Board was of the opinion that McCants disclosed everything recited in the appealed claim except the recycling step to desuperheat the vapor. The Board stated that it would be obvious to resort to the expedient of desuperheating as shown by Andersen and Cleaver et al., • • • if it were found that the problem of removing superheat existed in appellant's process • • •.

It found no patentable merit in appellant's argument that, in both Cleaver et al. and Andersen, the superheat in the vapors is caused by a compression step, which is the exact opposite of the expansion step which causes the superheating in appellant's process.

Appellant urges this same argument here, as well as the contention that Andersen and Cleaver et al. disclose evaporation processes whereas his process relates to fractional distillation. In regard to the above quoted portion of the Board's opinion, appellant states:

This is begging the question. The point is that it was not obvious that pressure reduction in fractional distillation would cause a disadvantageous superheating condition to occur and hence it would not be apparent to the ordinary skilled person that any improvement would be effected in a fractional distillation process by recycling a part of the condensate to the vapor.

In support of his argument that it was not obvious that pressure *reduction* would cause superheating, appellant draws our attention to the Examiner's disbelief "that superheating would occur *generally* in the type of fractional distillation to which [appellant's] improvement is directed." [Emphasis added.] The Examiner was of the opinion that "only certain materials will be superheated on adiabatic expansion, as other materials will be reduced below the dew point on expansion."

We have carefully considered appellant's arguments but we are not convinced that the Board erred in sustaining the Examiner's rejection.

As aforesaid, except for his desuperheating step, appellant's process was old in the art, as is shown by McCants. Andersen describes the expedient of recycling a portion of condensate to desuperheat vapor prior to condensation of that vapor, obviously for the same purpose as in appellant's process. We agree with the Board that, [1] if it were found that the problem of removing superheat existed in appellant's process, it would not involve invention to desuperheat as in Andersen. That Andersen's vapor becomes superheated due to compression thereof or that Andersen relates to an evaporation, as distinguished from a fractional distillation, process, is not deemed to be significant. There is no question but that the evaporation art is analogous to the distillation art. The Andersen disclosure is relied upon not for its overall teachings as to a fractional distillation process or an expansion step, but for its specific teaching of desuperheating a vapor prior to condensation thereof. The problem involved and the solution used to solve the problem are identical in the Andersen process and appellant's.

[2] The essence of appellant's argument, of course, does not reside in a fine distinction between an evaporation and a fractional distillation process. Rather, it is in the contention that "it was not obvious that pressure reduction in fractional distillation would cause a disadvantageous superheating condition to occur." This is another way of saying that his invention resided in the *concept* or in the recognition of the problem to be solved. See *In re Philip A. Shaffer, Jr.*, 43 CCPA (Patents) 758, 229 F.2d 476, 108 USPQ 326; *In re Pennington*, 44 CCPA (Patents) 789, 794, 241 F.2d 750, 113 USPQ 81. We think the fallacy in appellant's argument is that in the light of normal and common techniques in the distillation art, the skilled artisan would become aware of any superheating condition which would occur, without any use of the inventive faculty. [3] It is well known that pressure and temperature measurements are taken at numerous points in a distillation system. Such measurements must be taken if a still and its associated units are to be operated at maximum efficiency. It is hardly conceivable that one skilled in the art operating apparatus such as is shown in McCants would not take a pressure measurement at a point downstream of the pressure reducing valve or a temperature measurement at a point immediately upstream of the condenser. Unless this were done, the operator would not know if his pressure reducing valve were properly set or operating properly, nor would he know at what rate to pass his coolant through the condenser or what size condenser to use. Once having taken such measurements, the operator would immediately detect any superheating condition present, for superheating is a function of temperature and pressure. If it were found that superheating did exist, it would not involve invention to utilize a common recycling expedient to desuperheat, as is shown by Andersen and Cleaver et al.

For the foregoing reasons, the decision of the Board of Appeals is affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate was present at the hearing of this appeal but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

HAULTAIN *v.* DE WINDT

No. 6289. Decided April 11, 1958

[— CCPA — ; — F.2d — ; 117 USPQ 278]

1. INTERFERENCE — PRELIMINARY STATEMENT — PROOF OF EARLIER DATE THAN ALLEGED IN STATEMENT.

"• • • the earliest date the preliminary statement of De Windt alleges is the latter part of 1950, and proof of any earlier date will establish no date earlier than the date alleged in said statement."

2. SAME—DATE OF ACTS WITHIN A STATED TIME PERIOD IF LAST DAY OF PERIOD.

"• • •, where testimony merely places the acts within a stated time period, the inventor has not established a date for his activities earlier than the last day of the period."

3. SAME—CONSTRUCTION OF COUNTS—BELT WITH "RUBBER-LIKE SUPERFICIAL PORTION."

"The sketch clearly shows the structure defined by the count except for the 'rubber-like superficial portion' of the belt web. However, we believe this lack is overcome by the sample to which the letter refers. Counsel for Haultain argues vigorously that the outer surface of the belt is not rubber-like. We have examined the exhibit and find, despite the fact the surface has somewhat the texture of canvas, that the surface is also impregnated with a rubbery substance which forms a very thin film over the entire surface which, we feel, satisfies the abovementioned language."

4. SAME—REDUCTION TO PRACTICE—TESTS—EVIDENCE OF INSUFFICIENCY.

A test, involving a section inserted into an existing belt, relied on to establish a reduction to practice of a cleated belt, *Held* insufficient in view of an inter-office memorandum having a pertinent portion reading, "In July 1951, Ternstedt Eng Dept stated the test made on the sample seemed very good but that for test purposes a complete belt would give a far more satisfactory test. You see the pieces dropping on the conveyor are very slow and the sample piece of flight belt only carried approx one piece every 45 minutes."

5. SAME—PRIORITY—CLEATED BELT.

Decision of the Board of Patent Interferences awarding priority of invention on a cleated belt to the junior party is affirmed.

APPEAL from the Patent Office. Interference No. 86,827.

AFFIRMED.

Marcus Lothrop and *Bacon & Thomas* for Philip E. Haultain.

Pennie, Edmonds, Morton, Barrows and Taylor (*Merton S. Neill* and *Clarence M. Fisher* of counsel) for Herbert John De Windt.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from the decision of the Board of Patent Interferences in Interference No. 86,827, awarding priority to the junior party De Windt. The involved applications are De Windt's "Conveyor Flight Belt," filed May 29, 1953, Serial No. 358,482, assigned to the Ton-Tex Corporation, and Haultain's "Cleated Belt" filed June 9, 1952, Serial No. 292,472.

The single count involved is as follows:

A cleated belt comprising a belt web including reinforcing plies and a rubber-like superficial portion, *there being a gap* in said superficial portion to expose said reinforcing plies, a cleat member capable of vulcanization and including reinforcing plies bent into an L-shape, the leg of the L being disposed at a right angle to said web and the foot of the L being disposed parallel to said web in said gap in contact with said reinforcing plies, and a rubber-like superficial portion on said cleat member *merging smoothly* with said superficial portion of said web, said superficial portions, said cleat member and said web being vulcanized together. [Italics ours.]

The board awarded De Windt a conception date of October 16, 1951 and held that he actually reduced the invention to practice on June 4, 1952.

The Board awarded appellant, Haultain, a conception date of "early in 1952" but held that the evidence did not establish an actual reduction to practice by him.

The subject matter of the instant interference is the construction of a cleated conveyor belt. More specifically, the invention involves the use of an inverted "T" shaped, or double "L" shaped cleat. The inverted "T" is placed in a gap or depression formed in the belt surface. For example, in a five ply belt, one or two plies are removed transversely of the belt, forming a gap having a width sufficient to accommodate the base of the cleat, i. e., the top of the "T". The cleat is then vulcanized into the belt and becomes an integral part thereof.

Haultain contends that De Windt was not diligent between conception and reduction to practice; that the belts actually made by De Windt do not conform to the count, in that they lack a superficial rubber-like layer; that the tests run by De Windt do not constitute an actual reduction to practice and as such do not overcome Haultain's filing date; and that Haultain had an actual reduction to practice before the filing of his application.

De Windt contends that he had a conception and an actual reduction to practice before Haultain's filing date and that Haultain has no actual reduction to practice and must rely on his filing date. It is well to note that [1] the earliest date the preliminary statement of De Windt alleges is the latter part of 1950, and proof of any earlier date will establish no date earlier than the date alleged in said statement. Further [2] where testimony merely places the acts within a stated time period, the inventor has not established a date for his activities earlier than the last day of the period.

There is testimony of conception of the invention by De Windt in late July 1950. There is also testimony by various witnesses for De Windt who speak of sketches and samples being made following that date, but none of these samples or sketches was produced and we do not find the testimony at all convincing. We find no clear or convincing evidence which would establish conception by De Windt prior to August 17, 1951, when he prepared a sketch which was sent to one Meyers, a Ton-Tex sales manager, who received it on October 16, 1951, for delivery to Ton-Tex's patent counsel for search purposes. Chapman and Beaman, officials of Ton-Tex and familiar with the development of the De Windt work, both testified that they saw the sketch made by De Windt, apparently at Beaman's request, before it was sent to Meyers. Chapman and Beaman did not state *when* they saw the sketch, but did indicate that the particular sketch was the one they saw, and the record shows a carbon copy of a letter dated October 16, 1951, from Beaman to Meyers wherein the sketch is referred to. The letter also mentions a sample being forwarded under separate cover. The sample is identified as one of the exhibits before us. [3] The sketch clearly shows the structure defined by the count except for the "rubber-like superficial portion" of the belt web. However, we believe this lack is overcome by the sample to which the letter refers. Counsel for Haultain argues vigorously that the outer surface of the belt is not rubber-like. We have examined the exhibit and find, despite the fact the surface has somewhat the texture of canvas, that the surface is also impregnated with a rubbery substance which forms a very thin film over the entire surface which, we feel, satisfies the above-mentioned language. This evidence, we feel, fully supports the Board's finding that De Windt conceived at least as early as October 16, 1951.

De Windt claims that the earlier use of a "Dutchman," which is a section inserted into an existing belt, containing a single flight or cleat, alleged to have been made and tested by March 13, 1951, constituted an actual reduction to practice as of that date. [4] Assuming, without deciding, that the "Dutchman" embodied the invention here in issue, we agree with the Board that the test was legally insufficient in view of the inter-office memorandum, addressed to Chapman, the pertinent portion of which reads:

In July 1951, Ternstedt Eng Dept stated the test made on the sample seemed very good but that for test purposes a complete belt would give a far more satisfactory test. You see the pieces dropping on the conveyor are very slow and the sample piece of flight belt only carried approx one piece every 45 minutes.

Therefore, we agree that the alleged March 13, 1951, test does not establish an actual reduction to practice. *Balogh* v. *Crot*, 37 CCPA (Patents) 707, 176 F.2d 923, 83 USPQ 130; *Martin et al.* v. *Snyder*, 41 CCPA (Patents) 1010, 214 F.2d 177, 102 USPQ 306.

As indicated above, Ternstedt wished a complete belt in order to perform the required testing. Subsequently an estimate of cost and a three flight section were sent to Ternstedt. This too was inserted as a Dutchman. We feel this second test also fails to show an actual reduction to practice for the same reason as the first single flight belt section. Ternstedt was still not satisfied with the test of anything less than a complete belt.

Eventually, however, Chapman elected to send a complete belt to a Ford Motor Company plant, for which no charge was made. There appears to be a little confusion as to the exact date when the test belt was installed in the Ford plant, but there is a confirmatory paper from Ford dated May 16, 1952, wherein receipt of the test belt is acknowledged. That the Ford belt conformed to the count (and to the earlier-mentioned sample sent for a patent search) is deemed to be adequately corroborated by the testimony of Peddicord and Chapman.

The following testimony of Peddicord we think adequately establishes that the test belt was satisfactory and tested under actual working conditions:

• • • • • • •

Q105. Was that belt then delivered to Ford? A. That belt was delivered to Ford inside of the next two or three days, which was delivered by Mr. Peabody.

Q106. Did you ever see that belt in operation at the Ford Highland Park plant? A. I checked on this operation myself in the latter part of May of that year.

Q107. Do you recall whom you saw at the Ford plant at that time? A. As this program was— or, I should say, the original inquiry and talks were with Mr. Phil Grushaw; then on my visit for inspection in May of '52, Mr. Grushaw himself personally, and Mr. Peabody and myself, inspected the belt, which was in operation at that time.

Q108. How was it being used? A. This was being used as a conveyer for the valve-guide job off of an automatic machine.

Q109. Do you recall anything as to the speed of the belt? A. I would say this probably ran around approximately 80 to 100 feet per minute.

Q.110. And what was it doing with the parts that were being discharged on to it? A. These parts were being elevated into a box.

Q111. Did you have occasion to inspect the belt, stationary? A. As I recall we were there just before the noon break, and at my suggestion I asked Mr. Grushaw if it would be possible to wait, so that we might inspect this belt when it was stopped.

Q112. Did you do so? A. We did.

Q113. What was the condition of the belt? A. The condition of the belt was very oily, very dirty; but my principal interest in this belt was to check on the condition of the vulcanized flights.

Q114. And what was the condition of the flights? A. The belt did not show any separation of the flight vulcanized to the belt.

Q115. Then how would you characterize the condition and use of the belt at the Ford plant? A. I would say that the condition of the belt and the usage of the belt was very satisfactory.

• • • • • • •

Haultain attacks Peddicord's testimony, that he saw the belt at Ford in May of 1952, on the ground he made conflicting statements showing he was in California at the time. We have carefully read the testimony and are not persuaded it is self-contradictory in this respect or that Peddicord was an unreliable witness.

Haultain again argues that the Ford belt does not, upon inspection, appear to support the count due to the absence of a superficial rubber-like portion. The Board indicated that it felt the argument was of no merit and we agree.

The record next shows that on June 4, 1952, there was a verbal order for and a request from Ford for quotations on two 72 foot cleated belts, on June 6, 1952, the quotations were supplied, and on June 20, 1952, there was a written Ford order for the belts confirming the verbal order. The belts themselves were shipped to Ford on July 23, 1952.

The purchase by Ford of the two 72 foot belts tends to confirm our opinion that the belt had been successfully tested and operated, as testified by Peddicord, at least as early as June 4, 1952.

Haultain argues that De Windt was not diligent during a three or four month period during which Haultain conceived and reduced to practice the invention. As we view the case it is not necessary to consider diligence. For the reasons hereinafter given, we do not believe Haultain had an actual reduction to practice of the invention of the count; rather, he must stand on his filing date, June 9, 1952, for a constructive reduction to practice. This leaves De Windt as the first to conceive and the first to reduce to practice.

Haultain has submitted three Exhibits F, A–2, and A–3 as indicating his work. Exhibits F and A–2 do not meet the terms of the count. These exhibits were testified to as being indicative of the types of belts actually installed by Haultain and neither of these shows the "gap," as called for in the count, into which the cleat feet are set. Also, in our opinion, neither of them meets the smooth merger limitation of the count. We do not press as strict a definition of smooth merger as did the Board, but feel that the cleats of Exhibit A–2 and Exhibit F certainly do not merge smoothly with the web by any definition.

Therefore, Haultain must prove actual reduction to practice of a belt which is similar to his Exhibit A–3 embodiment if he is to meet the terms of the count, for that exhibit, in our opinion, does have a smooth merger and a "gap."

The record indicates three belts were made by Haultain with the "T" cleat, one for Westinghouse, one for Western Meat Company, and one for the Union Ice Company.

One Edutis testified he saw a belt "approximately like A–3 in operation." We are constrained to hold this is not positive enough identification to establish that the belt installed at Western was the same as A–3, or even nearly like it, for Exhibits F and A–2 are "approximately" like A–3. We find no other testimony indicating that A–3 was the type used at Western or elsewhere.

The Westinghouse belt is stated to be *exactly* the same as Exhibit F since that exhibit was cut therefrom. This belt does not meet the limitations of the count, for reasons above stated.

The only other belt made and put in operation by Haultain was the Union Ice Company belt. Mr. Nolting, a maintenance machinist for Union, testified that the Union belt most closely resembled Exhibit A–2 and produced photographs to prove his point. Our examination thereof indicates closer resemblance to F, but in either case, the count is not met. Therefore, Haultain must rely upon his filing date for constructive reduction to practice, which date is five days subsequent to De Windt's actual reduction to practice. This being so, the party De Windt must prevail.

[5] The decision of the Board is therefore affirmed.

AFFIRMED.

JACKSON, *J.*, retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

NEUFELD *v.* MARTE

No. 6340. Decided April 11, 1958

[— CCPA —; — F.2d —; 117 USPQ 291]

1. INTERFERENCE—EVIDENCE—LEADING QUESTIONS.
"• • • appellant attacks with fervor the grossly leading character of the questions propounded by Marte's counsel, pointing out that he objected on that ground twenty-two times and finally resigned himself to asking that the objection continue to apply. True, as in most every interference, many questions were leading, but it is also true that the essential facts of satisfactory testing of the invention of the count in the first quarter of the year 1951, long prior to appellant's filing date, were established by testimony which was not elicited by leading questions and which is consistent with other events which were documented."

2. SAME—REDUCTION TO PRACTICE—EVIDENCE—SUBSEQUENT ASSIGNEE'S INITIAL LACK OF INTEREST.
Held that no logic is seen in the contention that assignee's lack of interest in appellee's invention when first submitted to it casts doubt on testimony concerning a reduction to practice of the invention prior to the submission.

3. SAME—SAME—TESTS.
"Without intending to detract in the slightest from the standards which have heretofore been applied by this court in particular cases, we would point out that a certain amount of common sense must be applied in determining the extent of testing required for a reduction to practice • • •."

4. SAME—SAME—WINDSHIELD WASHER.
"• • •, we think even a windshield washer which would not operate properly in the snow and sleet could nevertheless be reduced to practice if it operated satisfactorily in the summer. Having in mind that all Marte's invention is intended to accomplish is a switching action simultaneous with the pushing of a pump plunger, we think weather tests are irrelevant."

5. SAME—SAME—TESTS—INVENTION OF THE COUNT.
"Some sort of contention is based on the theory Marte never tested a combination which contained a 'piston type pump' which, it is alleged, is what is shown in his application. This is neither here nor there because the invention of the count is what we are concerned with and all it requires of the pump is that it supply fluid to the nozzle and have a plunger on which to mount the switch."

6. SAME—PRIORITY—CONTROL SWITCH OF WINDSHIELD WIPER.
The Board of Patent Interferences' award of priority to the junior party, on a control switch for an electrically operated windshield wiper of an automobile which also has foot operated windshield washing equipment, is affirmed.

APPEAL from the Patent Office. Interference No. 87,383.

AFFIRMED.

Charles F. Meroni; *Hill, Sherman, Meroni, Gross & Simpson*; and *Rudolph L. Lowell* (*Robert B. Harmon* of counsel) for Leonard C. Neufeld.

Edwin T. Bean; *Bean, Brooks, Buckley and Bean*; and *Don T. Hatfield* for Herman L. Marte.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

Neufeld, the senior party in this patent interference, appeals from a decision of the Board of Patent Interferences awarding priority to the junior party Marte.

Neufeld filed his application, No. 256,690, on November 16, 1951, took no testimony and is standing on his filing date. Marte filed his application, No. 304,406, on August 14, 1952. The only issue is priority. The Board held that Marte had an actual reduction to practice before Neufeld filed and the question before us is whether a preponderance of the evidence supports this decision.

The common subject matter of the parties' applications has to do with a control switch for the electrically operated windshield wiper of an automobile which also has foot operated windshield washing equipment. Marte's application has been assigned to The Trico Products Corp., Buffalo, N. Y., and Neufeld's has been assigned to The Delman Co., Des Moines, Iowa. The disclosure of each application starts from the premise that it is old to provide an automobile with windshield wipers run by an electric motor and with a washer, that is to say means for squirting water onto the windshield, which is actuated by a pump having a plunger which extends through the floor of the car for foot operation.

Each party conceived the idea of attaching an electric switch to the top of the pump plunger so that both the wipers and the washer could be actuated by foot. Neufeld has the more involved switching arrangement. His switch is in a small box mounted on top of the pump plunger and has three positions, stop, slow and full speed. It is moved through these positions by a T-shaped pivoted pedal on top of the switch box which the operator can tilt with his foot and which he can also push down to pump washing fluid onto his windshield. Marte has a simpler concept. His switch is like a simple doorbell or elevator push-button mounted on top of the plunger, is normally open and is closed by stepping on it. The spring which holds it open is lighter than the spring holding the plunger up so with a light touch of the foot it is possible to close the switch to operate the wiper motor without squirting water. With a heavier tread they can both be operated simultaneously. Neufeld has eliminated the usual manual switch but Marte has wired his foot switch in parallel with it as a shunt so that the manual switch can be used in the ordinary way, in which case the foot switch would be inoperative.

The common subject matter in interference is defined by a single count which was a claim in the Neufeld application, suggested to Marte by the Examiner, made by him and reading as follows:

1. For use with a vehicle having a windshield wiping unit including a wiper and an electrical motor for operating said wiper, and a windshield washing unit including a nozzle and a pump assembly including a pump plunger for supplying fluid under pressure to said nozzle in which the fluid is supplied to the nozzle in response to an axial movement of the pump plunger, *a control switch in circuit with said motor, said switch including an actuating member mounted on said plunger and movable relative to said plunger for controlling the operation of said motor, said actuating member being movable as a unit with said plunger* providing for the supply of fluid under pressure to said nozzle. [Emphasis ours.]

The essence of the inventive subject matter is defined in the italicized portion.

In awarding priority of this invention to Marte on the basis of an actual reduction to practice, the Board gave the following concise and accurate summary of the evidence:

Marte claims the invention was reduced to practice by others acting on his behalf in the early months of 1951. Marte at the time was vice-president and general manager for Joe Toepfner, Inc., a dealer in Studebaker cars. Toepfner discontinued business in 1954.

In addition to Marte those who testified are: his mother-in-law, Mrs. Toepfner; his brother, Elmer Marte, who worked for Toepfner as shop foreman and later as service manager; Roland Toy, a service mechanic for Toepfner; and Ernest Simon, a laboratory technician who bought cars from Toepfner.

Elmer Marte identified Exhibit 1 as the control switch which he personally made in January 1951, at his brother's direction. Elmer Marte testified the switch was installed on his brother's demonstrator by Toy and that he and Toy drove the car, taking turns trying it, and that it worked fine (Record, p. 73). The witness further testified (p. 75) that the device was next installed on Mrs. Toepfner's car for a trip to Florida in March, 1951, but he did not test it. After the trip to Florida the switch was removed and next installed on another demonstrator, which he tested and found satisfactory.

There is clear testimony by Toy that he installed the switch, Exh. 1, on party Marte's demonstrator in January, 1951; that he later took it off and installed it on Mrs. Toepfner's car in March, 1951; and that the device was subsequently removed and installed on party Marte's next car in April, 1951. Toy tested the device on each of the three cars and testified it worked satisfactorily.

Mrs. Toepfner testified that party Marte accompanied her on the trip to Florida and drove the car, that he operated the device a great deal and that it worked beautifully (Qs. 13 and 20).

Simon visited the Toepfner shop and operated the device as installed on the first car. Asked what happened the witness answered "just what was expected of it" (Q31). See also Qs. 45–50.

Exhibit 1 is in court and we have examined it. As we have indicated, it has all the complexity of a doorbell push-button. It is interesting to note that this control switch, to be mounted on the plunger of a windshield washer pump, is quite obviously made by taking the top, bottom or treadle from a standard make of pump (one of which, having the same kind of top, is also in evidence), making a metal cap to fit over it with a sliding fit, like the cover on a pill box, the cap having an internal annular concentric contact rib, mounting a brass contact plate inside the cap between pieces of insulation so that said rib can touch it, positioning a coil spring around the rib to keep the contacts separated and securing the cap over the plunger top with a spring locking ring. A hole was bored in the edge of the plunger button and a piece of insulated wire soldered to the contact plate was run through it, this wire being long enough to be connected to the wiper motor circuit under the dash. This simple switch is well designed, though obviously not for production, is rugged and mere inspection is enough to show it would close an electric circuit of small voltage whenever stepped on. The only other function required of it is that it can be mounted on and move with the plunger rod of a windshield washer pump and since the part used for that purpose came from such a pump there cannot be much doubt about its capacity to be so mounted.

Judging from the Board's opinion, the main contentions which appellant is raising here were all raised before the Board and were fully answered by it. Considering them after a review of the record, we are of the opinion that all of appellant's points are decidedly lacking in persuasiveness. We shall review them with the brevity they merit. Appellant purports to organize the discussion in his brief around points numbered 1, 2 and 3 but point 2 is so general and nebulous and the discussion so wanders back and forth across all three points that we shall proceed according to our own analysis.

Appellant's first effort is to lead us away from the fact that all we have to consider is when Marte installed a simple two-pole foot switch in the existing windshield wiping and washing system of an automobile and made it work satisfactorily. It is first impressed upon us that the invention of the count is a "new combination structure" and that nothing was tested but a single element of that combination, namely the switch. We are told the Board erred in treating the count as being directed to a switch instead of a combination. This is an utterly unrealistic contention which asks us to put form ahead of substance and to treat as complex something which is very simple. The evidence shows that the switch, which was the only thing that had to be built because the rest of the "invention" was to be found on production line cars, was installed on three different cars and performed satisfactorily in each case. The wording of the count itself shows that everything was old except the mounting of a suitable switch on the pump plunger and connecting it in the wiper motor circuit. It would seem as though appellant is saying that Marte should have put in evidence a complete installation on a car instead of just the part which, when properly attached to the car, brings the invention into existence. We do not think his failure to do so was fatal to his case.

[1] Next appellant attacks with fervor the grossly leading character of the questions propounded by Marte's counsel, pointing out that he objected on that ground twenty-two times and finally resigned himself to asking that the objection continue to apply. True, as in most every interference, many questions were leading, but it is also true that the essential facts of satisfactory testing of the invention of the count in the first quarter of the year 1951, long prior to appellant's filing date, were established by testimony which was not elicited by leading questions and which is consistent with other events which were documented. The several witnesses also told consistent stories and counsel for appellant did not succeed in showing any important inconsistencies on cross-examination. If anything, he brought out that when the witnesses were not sure of an exact date or other fact they said so.

Much is attempted to be made of a letter which Trico Products Corp., now the assignee of the Marte application, wrote on March 11, 1952. On October 8, 1951, which incidentally was a month before Neufeld's filing date, Marte sent his switch to Trico saying he had had it on his demonstrator for his personal use and that "the customer reaction was so enthusiastic [1] decided to forward on to you to make available for all users." He also implied in concluding the letter that he would like to make a deal on his idea, but would leave it to Trico to be fair. He aptly referred to this as "a little unique approach." As is not unusual in matters of this kind, Trico failed to reply at once and after some prodding sent the March 11 letter showing a certain lack of enthusiasm and finding some things to criticize. It returned the switch to Marte, apologizing for the long delay. [2] The argument is that this lack of interest on the part of Trico casts doubt on all the testimony as to reduction to practice. We fail to see any logic in this contention. Even if at that time Trico was interested (as it turned out to be later) the last thing one would expect would be for Trico to heap praises on the device. The fact it said it might be dangerous (the stated reason for which appears to be partially contrary to fact) in no degree affects our opinion of the testimony showing satisfactory operation several months earlier. Trico's later behavior totally destroys the impression appellant tries to create with this letter. They acquired the very thing first submitted to them.

Appellant asks us to apply here requirements of testing made in other cases involving utterly different inventions, saying that a device in the automobile or airplane field, which may be subjected to different temperature and climatic conditions, must be tested under all such conditions. [3] Without intending to detract in the slightest from the standards which have heretofore been applied by this court in particular cases,

we would point out that a certain amount of common sense must be applied in determining the extent of testing required for a reduction to practice and that what was said in the cited case of *Burns* v. *Curtis*, 36 CCPA (Patents) 860, 172 F.2d 588, 80 USPQ 587, which involved a fuel pump for airplane engines does not necessarily apply to the facts here. When appellant complains that there was no testimony that Marte's device "would operate under conditions of snow, sleet or ice or even whether an anti-freeze fluid was employed," we are definitely unimpressed. This argument is, of course, tied to appellant's theory of what Marte invented. If we may again refer to the count, the washing unit, in which anti-freeze would be used, is not stated to be a part of what Marte invented but something his invention is "For use with." Anyway, [4] we think even a windshield washer which would not operate properly in the snow and sleet could nevertheless be reduced to practice if it operated satisfactorily in the summer. Having in mind that all Marte's invention is intended to accomplish is a switching action simultaneous with the pushing of a pump plunger, we think weather tests are irrelevant. Anti-freeze in the wash water could have no effect whatever on the switch. Arguments as extreme as this do not help appellant's case.

[5] Some sort of contention is based on the theory Marte never tested a combination which contained a "piston type pump" which, it is alleged, is what is shown in his application. This is neither here nor there because the invention of the count is what we are concerned with and all it requires of the pump is that it supply fluid to the nozzle and have a plunger on which to mount the switch. Furthermore, Marte's application nowhere refers to a piston type pump. This is appellant's interpretation of the drawing. He tells us that member 9 is a piston but the specification says at one point that it is a "liquid displacing member" and at another that it is a "plunger." Marte tested his switch mounted on a "plunger" and in construing his specification we go by what it says rather than by what appellant tells us it shows.

It is argued that there should be more drawings, sketches, written records, models, photographs and the like in evidence and that experts from Trico should have been called to testify. If such records do not exist, their absence in court cannot be held against Marte. Appellant has not shown that any existing evidence of that kind was not produced. When an automobile distributor asks his brother who is his shop foreman to make the simple device we have before us, the situation is not one in which drawings and records would normally be produced. The first contact with Trico was months after the date of the satisfactory uses which were proved.

[6] On the whole record, Marte proved his reductions to practice not only by a preponderance of the evidence but beyond any reasonable doubt. The decision of the Board is therefore affirmed.

AFFIRMED.

O'CONNELL, *J.*, was present at the hearing of this appeal, but, because of illness, did not participate in the decision.

JACKSON, *J.*, retired, recalled to participate was present at the hearing of this appeal but did not participate in the decision.

U. S. Court of Customs and Patent Appeals

IN RE WALTER D. TEAGUE, JR.

No. 6306. Decided April 11, 1958. Petition for rehearing denied May 2, 1958

[— CCPA — ; — F.2d — ; 117 USPQ 284]

1. CLAIMS—CLAIMING THE SAME INVENTION.

"When each of two inventors discloses the same invention and no other invention and sets out to claim it broadly without regard to differences of detail they are, perforce, claiming the same invention, regardless of the form of words employed."

2. SAME—SAME—SUBSTANTIALLY SAME OPERATION, RESULT, AND MEANS.

Despite certain differences between a claim to a lubricating system including an oil cooler and a by-pass valve therefor and a claim to a by-pass valve per se, *Held* that the claims were drawn to substantially the same invention, the claimed inventions operating in substantially the same manner to produce substantially the same result by substantially the same means.

3. SAME—SAME—CLAIMS TO A COMBINATION AND TO AN ELEMENT THEREOF.

On the issue of whether applicant's claims to a lubricating system including an oil cooler and a by-pass valve therefore were drawn to the same invention as a claim of a patent to a by-pass valve per se disclosed for use with an oil cooler, *Held* that the fact that no reference was finally applied against applicant's claims "to reject them on the ground of 'old combination' does not mean that they are directed to an invention necessarily different from the by-pass valve per se," and *Held* that the claim to the system employing the by-pass valve is for the same invention as a claim to the valve because it would be obvious to utilize applicant's claimed by-pass valve in a cooling system, the very purpose for which it was primarily designed.

4. SAME—CONSTRUCTION OF CLAIMS—TWO INCLUDES ONE—"ONE" CONSTRUED AS MEANING "AT LEAST ONE."

In construing a claim reciting "means responsive to flow through one of said inlet orifices," *Held* that the claim "reads on a means which is responsive to flow through • • • two orifices because flow through two includes flow through one," and that the claim "does not say 'only one' and so it must be construed as meaning 'at least one.'"

5. SAME—SAME—AMBIGUOUS CLAIM INTERPRETED IN LIGHT OF DISCLOSURE.

On the issue of whether appellant was claiming the same invention as a patentee, *Held* that, in view of an ambiguity in the claim, the language should be interpreted in the light of appellants' disclosure.

6. PRIORITY—RULE 131—APPLICATION AND REFERENCE PATENT CLAIMING SAME INVENTION.

Held that a cited reference patent, sought to be overcome under Rule 131, claimed the invention defined by the claims of appellant's application; and *Held* that the Board of Appeals' refusal of the claims is affirmed.

APPEAL from the Patent Office.

AFFIRMED.

Herbert L. Davis (*Emory C. Naylor* of counsel) for Walter D. Teague, Jr.

Clarence W. Moore (*George C. Rooming* of counsel) for the Commissioner of Patents.

Before JOHNSON, *Chief Judge*, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), *Associate Judges*

RICH, *J.*, delivered the opinion of the court.

This appeal is from a decision of the Patent Office Board of Appeals, rejecting claims 8, 9, 10 and 15 of appellant's application No. 130,157, filed November 30, 1949, for "Oil Cooler Emergency By-Pass Valve," as unpatentable over the prior art. Nine claims stand allowed.

The claims on appeal read as follows (all emphasis being ours):

8. A by-pass valve means comprising a casing, a longitudinal bore in said casing, a first inlet and outlet communicating with said bore, a second inlet and outlet communicating with said bore, a plunger slidably mounted in said bore and constructed and arranged to afford, in one position, thereof, communication between said first inlet and outlet and said second inlet and outlet, *an orifice in each of said inlets*, and *means responsive to flow through one of said inlet orifices* for moving said plunger to a second position whereby communication between said first inlet and outlet and said second inlet and outlet is closed and communication between said first inlet and said second outlet is established.

9. In a pressurized lubricating system including an oil cooler having delivery and return conduits, the combination with said delivery and return conduits of means for by-passing said oil cooler, comprising a valve casing having a bore, said casing having a first inlet and outlet in communication with said bore and adapted to be connected in and form a part of said delivery conduit, said casing having a second inlet and outlet in communication with said bore and adapted to be connected into and form a part of, said return conduit, a plunger slidably mounted within the bore of said casing, means for positioning said plunger in one position whereby communication between said first inlet and outlet and said second inlet and outlet is established and communication between said first inlet and said second outlet is closed, *said means being operative in response to a pressure differential existing upstream of said first inlet and downstream of said first outlet* to move said plunger to a second position whereby communication between said first and second inlets and outlets respectively, is closed and communication between said first inlet and second outlet is established.

10. In a pressurized lubricating system including an oil cooler having delivery and return conduits, the combination with said delivery and return conduits of means for by-passing said oil cooler comprising, a valve casing having a bore and first and second inlets and outlets adapted to be connected into said delivery and return conduits respectively, said first and second inlets and outlets being in communication with each other through said bore, a plunger slidably mounted in said bore, said plunger being constructed and arranged to establish communication between said first and second inlets and outlets respectively, in a first predetermined position and to establish communication between said first inlet and said second outlet in a second predetermined position, *a first orifice* in said delivery conduit upstream of said first inlet, *a second orifice* in said return conduit upstream of said second inlet, and *means responsive to the pressure differentials existing at said first and second orifices* to maintain said plunger in said first predetermined position or to move said plunger to said second predetermined position.

15. In a pressurized lubricating system, the combination comprising an oil cooler, a delivery conduit for delivering oil to said oil cooler, a return conduit for returning oil from said oil cooler, said valve means for by-passing said oil cooler, said valve means comprising a casing, a bore in said casing, a first inlet and outlet communicating with said bore and connected in said delivery conduit to form a part thereof, a second inlet and outlet communicating with said bore and connected in said return conduit to form a part thereof, a plunger slidably mounted in said bore and constructed and arranged to afford, in one position thereof, communication between said first and second inlets and outlets whereby the oil passes through said delivery conduit, oil cooler and return conduit, and *means including an orifice in each of said inlets for moving said plunger to a second position* within said bore to thereby close communication between said first inlet and outlet and said second inlet and outlet, and establish communication between said first inlet and second outlet whereby the oil by-passes said oil cooler.

The invention relates to a valve for automatically by-passing the oil radiator or cooler of an aircraft engine if leakage occurs in the cooler circuit and to the system employing the valve. Claim 8 is directed to the by-pass valve per se while claims 9, 10 and 15 are directed to the system including the valve. It seems clear, however, that any novelty in the system is dependent entirely on the valve. The system includes generally an oil sump, an oil pump, an oil cooler and a by-pass valve. In operation, the pump forces oil from the sump to the engine, then through a first fluid conduit in the by-pass valve, through the oil cooler, back through a second fluid conduit in the by-pass valve and back to the sump. The by-pass valve comprises a casing containing a longitudinal bore, a first inlet and outlet conduit and a second inlet and outlet conduit communicating with the bore and a plunger slidably mounted in the bore. Under normal operating conditions, when the by-pass valve is inoperative to by-pass the oil cooler, the plunger is so positioned in its casing that, while oil may pass through the first inlet and outlet and second inlet and outlet conduits, respectively (and consequently through the cooler), direct communication between the first inlet and second outlet conduits (i. e. by-passing) is closed. Restrictive orifices located in each of the inlet conduits create, when oil is forced past them, pressure differentials between the upstream and downstream sides thereof. Suitable communication is made from the upstream and downstream points adjacent each orifice to a second valve structure (a servo-valve) containing a piston so that the piston is balanced and held in normal position by the pressure differentials existing in the system under normal operating conditions. When a leak occurs in the oil cooler circuit, the pressure differential across the orifice in the second inlet conduit will be reduced, and this reduction will in turn unbalance the pressures maintaining the piston in the servo-valve in normal position. The piston will thus be moved by the unbalanced pressures and the plunger in the first valve, which is responsive to valving action produced by movement of the piston, will also be moved. The movement of the plunger will cut off communication between the first inlet and the first outlet and also between the second inlet and second outlet and, at the same time, establish direct communication between the first inlet and the second outlet, by-passing the oil cooler. The engine will thus continue to receive oil, notwithstanding the leak, and total loss of oil will be prevented. A combat plane could thus suffer damage to its oil cooler and associated plumbing without becoming a total loss.

The Examiner had originally rejected appellant's combination claims as unpatentable over a reference showing the general combination on the ground they were drawn to an old combination. Appellant filed an affidavit under Rule 131, which was accepted by the Examiner, showing completion of the invention in this country prior to September 12, 1945, and thus swore back of the old combination reference. Subsequently, the Examiner rejected the claims now on appeal on Jensen Patent No. 2,509,504, issued May 30, 1950 (after appellant filed, on an application filed November 6, 1945, which was subsequent to appellant's invention date by two months. Appellant attempted to rely on the above affidavit to overcome the Jensen patent under Rule 131 but was refused by the Examiner who maintained that since Jensen *claimed* the invention recited in the appealed claims, appellant could not proceed under Rule 131[1] but was restricted to action under Rule 205 on the ground that he could make certain claims of Jensen for interference purposes.[2] The Board agreed with the Examiner that appellant could not swear back of Jensen and accordingly affirmed the Examiner's rejection from which decision this appeal was taken.

The sole question before us is whether the Jensen patent claims "the rejected invention" as defined in the claims on appeal. If so, appellant can not swear back of Jensen under Rule 131; if not, he can.

[1] Patent Office Rule 131(a) provides in part that: "When any claim of an application is rejected on reference to a domestic patent which substantially shows or describes *but does not claim* the rejected invention, • • • and the applicant shall make oath to facts showing a completion of the invention in this country before the filing date of the application on which the domestic patent issued, • • • then the patent • • • cited shall not bar the grant of a patent to the applicant • • •." [Italics added.]

[2] Patent Office Rule 201(b) provides in part: "• • • interferences will also be declared between pending applications for patent, • • • and unexpired original or reissued patents, of different parties, *when such applications and patents contain claims for substantially the same invention* • • •." [Italics added.] Rule 205 provides for the copying of claims from a patent by an applicant in order to provoke an interference. Appellant has not done this, insisting the Jensen patent claims a different invention. His brief, however, proceeds on the assumption that the issue is whether he and Jensen claim "substantially the same subject matter" and that is the real issue.

The Board's opinion indicates that it based its decision on the issue here solely on claim 11 of Jensen, though the opinion is not entirely clear in this regard. However, counsel for the Commissioner and for Teague have argued the case with reference only to claim 11 of Jensen and we will accordingly restrict our discussion of the issue to this claim. The issue, therefore, is narrowed to whether or not the claims on appeal are drawn to substantially the same invention as that defined by Jensen's claim 11 which reads as follows:

> In a flow control device: walls defining a pair of fluid passages, each having an inlet portion and an outlet portion; means, including a port, interconnecting said passages; a valve controlling said port and having a first position whereat said port is closed, and a second position whereat said port is open and said valve closes one of said passages so that the fluid flow is from the inlet portion of one passage to the outlet portion of the other passage; yielding means urging said valve to the first position; a restricted orifice in each inlet portion of said passages; a servo-valve, said servo-valve being subjected to the differential of pressures across said orifices in such a manner that said valve is balanced by said pressures; yielding means urging the servo valve to an inoperative position, said servo valve being movable to another position upon unbalancing of said differential of pressures and when said servo-valve is in the last mentioned position fluid pressure is applied to the first mentioned valve to move same to its second position.

When one reads the disclosures of the Jensen patent and the Teague application, it is apparent at once that, in the broad aspect, these two inventors have disclosed only one invention. The indications are that each made the invention independently of the other in consequence of which the details of construction are dissimilar. By reason of the differences, Teague has his nine allowed claims which contain limitations distinguishing from the Jensen patent and, on the other hand, Jensen has several claims which Teague could not make for lack of supporting disclosure. These differing details are but parts of the same broad inventive concept and the claims before us are broad claims. Though it was evidently strenuously argued by Teague below that no Jensen claim could be read on his disclosure, the Board held to the contrary, at least as to Jensen claim 11, and Teague has not argued this point before us. Conversely, the claims on appeal clearly read on the Jensen disclosure and Teague, whatever he may have done below, makes no serious contention before us to the contrary, except as to claim 8, a point discussed hereinafter. With this tacit admission of cross reading, the Jensen patent and the Teague application necessarily disclose common subject matter and since, as we have just said, there is only one broad invention, it is difficult to see how a broad claim in the Teague application can be to a different invention from a broad claim in Jensen's patent. But for the esoteric lore that has grown up around patent claims, that should end the controversy. [1] When each of two inventors discloses the same invention and no other invention and sets out to claim it broadly without regard to differences of detail they are, perforce, claiming the same invention, regardless of the form of words employed.

We have, after careful study of appellant's arguments, come to the conclusion that the differences alleged to exist, as between the claims on appeal and what is claimed in claim 11 of the Jensen patent, are differences in words and not in substance and that, therefore, Jensen is claiming "the rejected invention" and his patent cannot be sworn back of under Rule 131. While an analysis of claims is a tedious undertaking, it seems to be the only feasible way to explain the basis for our ultimate conclusion. We find it convenient to commence with Teague's claim 10, perhaps the most detailed of those on appeal. We find that it differs from Jensen's claim 11 in the following general respects:

1. Claim 11 is directed to a flow control device, *per se* whereas claim 10 is directed to a pressurized lubricating *system*, including an oil cooler;

2. Claim 11 provides for yielding means urging the first valve to the first position whereas claim 10 merely provides for "a plunger slidably mounted in said bore, said plunger being constructed and arranged to establish communication between said first and second inlets and outlets respectively";

3. Claim 11 positively recites a "servo-valve" balanced by the differential of pressures across the orifices and "being movable to another position upon unbalancing of said differential of pressures" whereas claim 10 provides for "means responsive to the pressure differentials existing at said first and second orifices to maintain said plunger in said first predetermined position."

4. Claim 11 provides for "yielding means urging the servo-valve to an inoperative position" whereas claim 10 does not contain this limitation.

5. Claim 11 provides that when the servo-valve is in the second position, the first valve is moved to its second position by fluid pressure whereas claim 10 does not specifically recite what moves the plunger to its second position beyond saying it is a "means responsive to the pressure differentials."

[2] We are of the opinion that despite these differences these claims are drawn to substantially the same invention. The claimed inventions operate in substantially the same manner to produce substantially the same result by substantially the same means.

There is no question but that there is a marked similarity between the inventions *disclosed* by appellant and Jensen respectively. Both are concerned with a by-pass valve for use in connection with oil circulating systems of engines such as are used in aircraft. Both utilize two valve structures, the second or servo-valve being responsive to a differential of pressures created by means of orifices located in the two inlet conduits to the first valve to effect a movement of the first valve which causes oil flow to by-pass the cooler. The differences between the two relate primarily to structural details.

As to the first point, that claim 10 embraces a *system* whereas Jensen's claim 11 covers only the by-pass valve *per se*, appellant draws our attention to the fact that his combination claims were originally rejected by the Examiner on the ground of "old combination" and that it was not until he swore back of the reference applied for this rejection that his combination claims were not considered unpatentable on that ground. [3] The fact that no reference was finally applied against appellant's combination claims to reject them on the ground of "old combination" does not mean that they are directed to an invention necessarily different from the by-pass valve per se. This merely obscures the issue. We hold that the claim to the system employing the by-pass valve is for the same invention as a claim to the valve because it would be obvious to utilize appellant's claimed by-pass valve in a cooling system, the very purpose for which it is primarily designed. The invention of the valve was the invention of the system.

Skipping to point 3, that Jensen refers to his second valve as a "servo-valve" and appellant uses "means" to cover the corresponding structure is immaterial. In each case the element is responsive to a differential of pressures across two orifices positioned in the two inlets and causes a movement of the first valve to a position whereby communication between the first inlet and second outlet is established. While Jensen is more specific in that he recites that, in one position, the servo-valve is "balanced" by the differential of pressures and that movement to the second position is caused by an unbalancing of the pressures, this recitation is clearly not directed to an invention different from appellant's broader recitation that the means are "responsive to the pressure differentials existing at said first and second orifices to maintain said plunger in said first predetermined position or to move said plunger to said second predetermined position."

It is true that this court has held, in a case involving estoppel to copy claims from a patent for interference purposes, *In re Frey*, 37 CCPA (Patents) 1052, 182 F.2d 184, 86 USPQ 99, that

> • • • in the use of the word "covering" in the case of *Cryns v. Musher*, supra, there was no intention to hold that a broad claim which merely covers the invention of a patent claim is a claim to substantially the same invention as the patent claim, so as to avoid estoppel. • • •

See also *Emerson* v. *Beach*, 42 CCPA (Patents) 711, 717, 215 F.2d 290, 103 USPQ 45. While the issue involved in those cases is somewhat analogous to that involved in the instant case, we think it clear that in this case claim 10 is not a broad claim which "merely covers" the invention of Jensen's claim 11.

Nor do we think that the second, fourth and fifth differences direct these claims to different inventions. They are obvious expedients in the present context and do not go to the essence of what invention is claimed.

Claim 8, by comparison with claim 10, will be seen to differ in only two essential respects. First it is directed to a "by-pass valve means" rather than a system so that the first point of difference discussed above (as between claim 10 and Jensen's 11) is non-existent. We need say no more on this. The other difference is that instead of the "means responsive to the pressure differentials existing at said first and second orifices" to control the plunger position, claim 8 calls for "means responsive to flow through one of said inlet orifices," for the same purpose. While broader in scope, we are unable to say that claim 8 is not directed to the same invention as claim 10, which we have already said is directed to the same invention as claim 11 of Jensen. [4] Claim 8 reads on a means which is responsive to flow through (pressure differentials at) two orifices because flow through two includes flow through one. Claim 8 does not say "only one" and so it must be construed as meaning "at least one." That is the way we read it, though appellant apparently would have us do otherwise. In his brief Teague makes a very strenuous argument in an effort to show how claim 8 is to an entirely different invention than Jensen's claim 11. The main flaw in it is that it is based on a suppositious situation which is also entirely different from anything disclosed in Teague's application, which discloses no system or method of operation other than one in which response is to flow through both of the restricted orifices. All we wish to say further is that it has not escaped our notice that the hypothetical operation presented in an effort to show claim 8 is to a distinct invention assumes a preliminary closing of valve 86 which can happen only by response to the pressure differentials across two orifices and that further operation is produced by a different manually operated valve, thus defeating the whole purpose of the invention which is automatic operation.

Claim 9 is similar to claim 10 except that no limitation appears in the former as to the presence of orifices. In lieu thereof there is a broad recitation of

> • • • means being operative in response to a pressure differential existing upstream of said first inlet and downstream of said first outlet • • •.

Though no limitation as to the presence of orifices appears in this claim, the use of orifices in the field of fluid flow is a well-known expedient to create pressure differentials. And while the language of the quoted portion of this claim might conceivably be construed to be limited to a single pressure differential *between* a point upstream of the first inlet and downstream of the first outlet, the language used is indefinite and ambiguous enough to be reasonably construed to refer to *a* pressure differential upstream of the first inlet and *a* pressure differential downstream of the first outlet. [5] In view of this ambiguity, the language should be interpreted in the light of appellant's disclosure. *Cf. Neumair* v. *Malocsay*, 22 CCPA (Patents) 1349, 77 F.2d 622, 25 USPQ 468. When so construed, this claim is directed to substantially the same invention as is claim 11 of Jensen, for the other reasons set forth in discussing claim 10.

Appellant contends that in the second position of Jensen's valve, communication between the first and second inlets and outlets is *not* closed whereas in claim 9, this cutting-off of communication appears as a positive limitation. Appellant states in his brief that:

> • • • in the Jensen patent, there is provided the additional structure of a flap-valve • • • to close the cooler return conduit • • • while the "second inlet conduit" • • • of the Jensen improved by-pass valve is open through the Jensen structure • • • to the outlet • • •.

Appellant's argument in this regard is directed more towards form than towards substance. To restrict the inlet portion of Jensen's fluid passages to that portion of said passages on the downstream side of his flap-valves would be to ignore the real effect of his teachings. The flap-valve, of course, is not recited as a limitation in claim 11 and cannot be read into it to avoid the issue of priority.

Claim 15, while somewhat broader than claims 9 and 10, differs from claim 10 in only one respect. Instead of calling for means responsive to pressure differentials existing at orifices, it provides for

> • • • means including an orifice in each of said inlets for moving said plunger to a second position within said bore to thereby close communication between said first inlet and outlet, and establish communication between said first inlet and second outlet • • •.

While there is no express limitation to the use of pressure differentials across the two orifices to cause movement of the plunger, we think that such a system is fairly to be implied from the language set forth above. Note that the claim recites, in effect, that each of the two orifices is utilized to move the plunger to its second position. As stated above, the use of orifices in the field of fluid flow is a well-known expedient to create pressure differentials and how else could orifices be used to move the plunger?

[6] For the foregoing reasons the decision of the Board of Appeals is affirmed as to claims 8, 9, 10 and 15.

AFFIRMED.

O'CONNELL, *J.*, was present at the hearing of this appeal, but, because of illness, did not participate in the decision.

JACKSON, *J.*, retired, recalled to participate.

JOHNSON, *Chief Judge* (dissenting):

I concur in the conclusion reached by the majority except with respect to claim 8. That claim, as noted in the majority opinion, is broad enough to cover a system in which the position of the by-pass valve is controlled by the flow through a single orifice, as well as one in which it is controlled by flow through two orifices. Jensen's claim 11, on the other hand, is limited to a construction in which control is effected in accordance with the differential of pressures across two orifices.

It is apparent that appellant's claim 8 is much broader than Jensen's claim 11 and would cover structures differing radically from that to which the latter claim is limited. For example, claim 8 is readable on a system in which the movement of the valve is effected by exerting pressures from opposite sides of one of the orifices on opposite ends of the valve plunger and biasing the plunger by means of a spring assisting the pressure from the downstream side of the orifice, so that the valve will be held in normal operating position while the flow through the orifice is normal but will be shifted by the spring to by-passing position if there is a failure to flow through the orifice with a resultant equalization of the pressures on opposite sides of it. Clearly such a system would represent an invention entirely distinct from that of Jensen's claim 11.

The fact that a broad claim embraces the subject matter of a narrower one does not, in itself, establish that the two are drawn to the same invention, and this court has repeatedly so held. *In re Frey*, 37 CCPA (Patents) 1052, 182 F.2d 184, 86 USPQ 90; *Andrews* v. *Wickenden*, 39 CCPA (Patents) 860, 194 F.2d 729, 93 USPQ 27; *Emerson* v. *Beach*, 42 CCPA (Patents) 711, 215 F.2d 290, 103 USPQ 45. As clearly indicated by those cases, a difference in scope alone, if great enough, may be sufficient to preclude a holding that two claims are drawn to the same invention. While it is not expressly stated in those decisions it appears to be implicit therein that two claims differing only in scope are not directed to the same invention if the narrower one involves one or more features involving invention over what is claimed in the broader one. Here it seems apparent that the mere broad concept of controlling the valve position by the flow through a single orifice, as recited in appellant's claim 8, would not in any way suggest the specific control by differential pressures across two orifices, to which Jensen's claim 11 is limited. The latter claim, therefore, includes an inventive feature not found in the former and hence the two are not drawn to the same invention.

In evaluating claim 8 the majority appear to have given substantial weight to the fact that appellant does not actually disclose a system in which control of the valve is effected by one orifice only. In my opinion, that is not material here. Claim 8 is in no way ambiguous and must therefore be given the broadest interpretation it will reasonably support. *In re Eagen et al.*, 34 CCPA (Patents) 843, 159 F.2d 452, 72 USPQ 442, and cases there cited. As was said in *Graver Mfg. Co.* v. *Linde Co.*, 336 U. S. 271 (1949), "It would accomplish little to require that claims be separately written if they are not to be separately read." See also *In re Cresswell*, 35 CCPA (Patents) 917, 167 F.2d 632, 89 USPQ 147, and cases there cited. Claim 8, as conceded in the majority opinion, is broad enough to cover the control of the valve by one orifice alone, and the fact that appellant does not specifically disclose a single orifice control should have no bearing on the scope of that claim or on the question as to whether it is for the same invention as claim 11 of Jensen. The latter question should be determined by a comparison of the claims themselves rather than the specific disclosures on which they happen to be based.

It should be noted that the majority recognized, in connection with its consideration of claim 10, that this court has held, in a case involving estoppel to copy claims from a patent for interference purposes (*In re Frey*, supra), that

> • • • in the use of the word "covering" in the case of *Cryns* v. *Mascher*, supra, there was no intention to hold that a broad claim which merely covers the invention of a patent claim is a claim to substantially the same invention as the patent claim, so as to avoid estoppel. • • •

The majority characterizes the issue in that and like cases as "somewhat analogous" to that here involved but concludes that "claim 10 is not a broad claim which 'merely covers' the invention of Jensen's claim 11." In the majority's consideration of claim 8, however, it completely ignores the rule set forth in the Frey case and, in fact, flies squarely in the teeth of that rule. When the majority states, as it does, that

> Claim 8 reads on a means which is responsive to flow through (pressure differentials at) two orifices because flow through two includes flow through one. Claim 8 does not say "only one" and so it must be construed as meaning "at least one."

it is, in fact, saying that because claim 8 "covers" Jensen's claim 11, it is drawn to the same invention.

I am of the opinion that the issue involved in the Frey case, supra, is more than merely "somewhat analogous" to that here involved; in essence, *there is no difference* between the two issues. In both cases, the question to be asked is: "Are the claims drawn to substantially the same invention?" The ground rules that apply to one, therefore, should with equal force apply to the other.

Further to be noted is the fact that in *In re George E. Howard*, 19 CCPA (Patents) 759, 53 F.2d 896, 11 USPQ 280, this court approved the issuance of a patent to each of two inventors containing claims which differed only in scope, notwithstanding the fact that their disclosures were identical so far as the essential features claimed were concerned.

There is clearly nothing of record to show that the single-orifice control covered by appealed claim 8 is the equivalent, in patentable respects, of the specific two-orifice control to which Jensen's claim 11 is limited. In my opinion, therefore, Jensen does not claim the invention of appealed claim 8, and the decision of the Board with respect to that claim should be reversed.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,101,287, 2,180,266, 2,233,230, Re. 22,543, G. A. Tinnerman, Fastening device; **Re. 22,544**, same, Shelf support mounting, **filed** Aug. 30, 1954, D. C., N. D. Ohio (Cleveland), Doc. 7251, *Tinnerman Products, Inc.* v. *Prestole Corp.* Stipulation and order that Patent 2,180,266, Re. 22,543 and Re. 22,544 be withdrawn from suit without prejudice Apr. 30, 1958.

2,180,266. (See 2,101,287.)

2,233,230. (See 2,101,287.)

2,317,675, A. R. De Burgh, Conveyor system, **filed** May 12, 1958, D. C., W. D. N. C. (Statesville), Doc. 375, *Maria Luisa De Burgh, executrix Albert R. De Burgh* v. *Blowing Rock Chair Co.*

2,332,182, D. E. Stearns, Insulating testing device, **filed** supplemental report Aug. 3, 1950, D. C., S. D. Calif. (Los Angeles), Doc. 12032-HW, *Dick E. Stearns et al.* v. *Tinker & Rasor, Inc.* Judgment of District Court dated Feb. 9, 1956, vacated; claims 1 and 7 held valid; defendants have infringed claim 1 (notice May 8, 1958).

2,426,787, T. E. McFall, Extension table, **filed** June 23, 1955, D. C., W. D. Ky. (Louisville), Doc. 2956, *Estensole Corp.* v. *Ogden Mfg. Co.* Judgment dismissing plaintiff's complaint Jan. 16, 1957; notice of appeal filed Feb. 11, 1957; appeal dismissed by parties Sept. 12, 1957; order vacating judgment on joint motion of parties entered Dec. 2, 1957 (notice May 14, 1958).

2,427,950, H. Doll, Method and apparatus for determining the dip of strata traversed by a borehole; **2,669,688**, same, Resistivity apparatus for obtaining indications of permeable formations traversed by boreholes; **2,669,689**, same, Method and apparatus for determining earth formation factors; **2,669,690**, same, Resistivity method for obtaining indications of permeable formations traversed by a borehole; **2,582,314**, same, Electromagnetic well logging systems; **2,788,483**, same, Phase rejection networks, **filed** May 7, 1958, D. C., S. D. Tex. (Houston), Doc. 11818, *Schlumberger Well Surveying Corp.* v. *Welex, Inc.*

2,514,130, H. T. Jones, Locking wrench and plier, **filed** Mar. 4, 1958, D. C. Colo. (Denver), Doc. 5982, *Harold T. Jones* v. *Sears-Roebuck & Co.*

2,546,038, B. D. McIntyre et al., Shock absorber construction, **filed** May 12, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c839, *Monroe Auto Equipment Co.* v. *Blackstone Mfg. Co., Inc.*

2,582,314. (See 2,427,950.)

2,589,242, Glaser and Hornung, Elevator dispatching and control system, **filed** May 13, 1958, D. C., S. D. Tex. (Houston), Doc. 11830, *Otis Elevator Co.* v. *State Elevator Co., Inc.*

2,591,996, H. C. Arentzen, Moving-coil phonograph pickup, **filed** May 8, 1958, D. C., S. D. N. Y., Doc. 133/159, *Electro-Sonic Laboratories, Inc. et al.* v. *Grado Laboratories et al.*

2,607,061, L. K. Jackson, Bedframe and special caster receiving socket construction, **filed** May 9, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c832, *The Harvard Mfg. Co.* v. *Harris-Hub Co., Inc.*

2,640,763, Easley and Swayze, Etching; **2,828,194**, Hopkins and Easley, same, **filed** May 12, 1958, D. C. Conn. (New Haven), Doc. 7265, *The Dow Chemical Co.* v. *Park City Engraving Co., Inc.*

2,669,688. (See 2,427,950.)

2,669,689. (See 2,427,950.)

2,669,690. (See 2,427,950.)

2,687,994, Russell and Headland, Method of forming an oxide coating on tin; **2,724,526**, J. J. Russell et al., Tin plate baking pan; **2,773,817**, same, Composite metal and articles thereof; **2,771,410**, Russell and Headland, Method of forming an oxide coating on tin; **2,738,897**, J. J. Russell et al., Tin plate baking pan, **filed** May 13, 1958, D. C., E. D. Ill. (Chicago), Doc. 58c849, *The Ekco Products Co., Inc.* v. *Chicago Metallic Mfg. Co.*

2,696,633, W. J. Hincks, Hide stripping assembly, **filed** Mar. 19, 1958, D. C., N. D. Ohio (Toledo), Doc. 7966, *The Globe Co. et al.* v. *F. J. Arend & Son et al.* Patent held valid and infringed May 13, 1958.

2,724,526. (See 2,687,994.)

2,738,897. (See 2,687,994.)

2,745,641, W. H. Jacobs, Beverage dispenser, **filed** Aug. 10, 1956, D. C., S. D. N. Y., Doc. 112/51, *Jet Spray Cooler, Inc. et al.* v. *Harry M. Stevens, Inc.* Stipulation and order of dismissal with prejudice May 13, 1958.

2,758,391, W. E. Lanham, Bread cooling system; **2,822,942**, same, Roll dump and turn over, **filed** May 1, 1958, D. C., N. D. Ga. (Atlanta), Doc. 6449, *William E. Lanham* v. *Southern Bakeries Co., Inc.*

2,771,410. (See 2,687,994.)

2,773,817. (See 2,687,994.)

2,775,014, W. Gollobin, Cushioning accessory for earrings, **filed** May 14, 1958, D. C., S. D. N. Y., Doc. 133/253, *Leonard Lawrence* v. *Patricia Import, Inc.*

2,775,138, Schwartz and Hackett, Power transmission for material handling machines; **2,792,140**, D. M. Schwartz, Material handling machine; **2,833,361**, same, Vehicle and frame structure therefor, **filed** May 8, 1958, D. C., W. D. Pa. (Pittsburgh), Doc. 16970, *The Eimco Corp.* v. *Joy Mfg. Co.*

2,788,483. (See 2,427,950.)

2,792,140. (See 2,775,138.)

2,794,449, R. R. Matthews, Woven pile fabric, **filed** Dec. 23, 1957, D. C. N. J. (Trenton), Doc. 1275/57, *Firth Carpet Co., Inc.* v. *Highlstown Rug Co.* Stipulation of dismissal (notice May 12, 1958).

2,807,330, R. D. Rivers, Method and apparatus for filtering air, **filed** Jan. 24, 1958, D. C., W. D. Ky. (Louisville), Doc. 3534, *American Air Filter Co., Inc.* v. *Continental Air Filters, Inc.*

2,809,892, F. W. Chornock, Zinc bacitracin feed supplement, **filed** May 8, 1958, D. C., S. D. Iowa (Davenport), Doc. 2/405, *Commercial Solvents Corp.* v. *Grain Processing Corp.*

2,812,062, T. W. Hannon, Electrically heated screen construction, **filed** May 12, 1958, D. C., N. D. Ohio (Cleveland), Doc. 34485, *Hannon Electric Co.* v. *Screen Heating Transformers, Inc.*

2,822,942. (See 2,758,391.)

2,828,194. (See 2,640,763.)

2,832,966, L. E. Frey, Bed spring; **Reg. No. 641,027** (BLANKETUCK), same, Beds, bed springs, and bed frames, **filed** May 8, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c827, *Louis Elliott Frey et al.* v. *Columbia Bedding, Inc.*

2,833,361. (See 2,775,138.)

Re. 22,543. (See 2,101,287.)

Re. 22,544. (See 2,101,287.)

REISSUES

JUNE 24, 1958

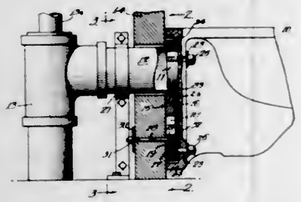
Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,492
SUPPORTING HANGER FOR A CLOSET BOWL

Arthur Gordon, deceased, late of Chicago, Ill., by Gerda E. Gordon, executrix, Chicago, Ill.

Original No. 2,688,755, dated September 14, 1954, Serial No. 348,668, April 14, 1953. Application for reissue August 29, 1956. Serial No. 606,943

7 Claims. (Cl. 4—252)



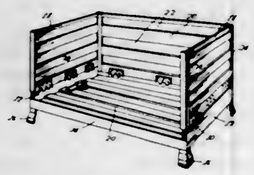
1. In a wall supported closet bowl with a waste pipe extension projecting through the wall to the side on which the closet bowl is to be mounted, a supporting hanger for securing the bowl to the wall comprising a first member rigidly attached to and supported by the waste pipe extension and having an opening therethrough, said member being mounted with its opening in surrounding relation to the waste pipe extension and having one face bearing against that side of the wall on which the bowl is to be hung; and a second member having anchored therein, to the exclusion of said first member, all of the means by which the bowl is fixedly attached to the supporting hanger, said second member being vertically adjustably secured to said first member and also bearing over part of its area against the wall on which the bowl is to be hung.

24,493
PALLET WITH A COLLAPSIBLE CONTAINER

James M. Phillips, Upper St. Clair Township, Allegheny County, Pa., assignor, by mesne assignments, to Salem-Brosius, Inc., Carnegie, Pa., a corporation of Pennsylvania

Original No. 2,756,894, dated July 31, 1956, Serial No. 209,817, February 7, 1951. Application for reissue July 25, 1957, Serial No. 675,240

3 Claims. (Cl. 220—6)



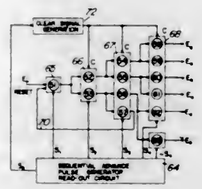
2. *A collapsible container comprising a base having a floor, flange means including side and end flanges projecting above the floor with the end flanges higher than the side flanges, side walls pivotally connected with the flange means for folding inwardly across the floor, said side walls in folded position being within the horizontal plane of the end wall flanges, end walls of a width less than the spacing of the base side flanges and pivotally connected to the base end flanges for folding down upon the side walls, side members on each end wall terminating above the base end flange and in alignment with the base side flange when the walls are in erected position, a member mounted on the inner face of each side wall at each end thereof overlapping each adjacent end wall side member, an inturned flange on each side wall member forming a stop for inward movement of the end wall in erected position and a stop portion on each end wall side member and disposed behind the side wall member flange resisting outward movement of the end wall in erected position, and a latch member mounted on the outside of each side wall adjacent each end wall side member for selective engagement with such side member to retain the container walls in erected position.*

24,494
AMPLIFIER SYSTEM USING SATURABLE MAGNETIC ELEMENTS

Robert W. Avery, Vestal Center, N. Y., assignor to Burroughs Corporation, a corporation of Michigan

Original No. 2,673,337, dated March 23, 1954, Serial No. 324,117, December 4, 1952. Application for reissue November 1, 1957, Serial No. 698,317

14 Claims. (Cl. 340—174)



1. A power amplifier system for binary electronic signals comprising in combination, a plurality of static magnetic elements *each having two distinct states of magnetic remanence* for magnetically storing binary signals each having read-in, output, and read-out circuits; an electrical circuit connecting said elements in a pyramided arrangement; and a shift circuit connected to said read-out circuits for transferring said signals from one tier of said pyramided arrangement to the next thereby affording greater available power output at a larger number of elements in an advanced position tier of said pyramided arrangement.

PLANT PATENTS

GRANTED JUNE 24, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,719
FUCHSIA

Horace M. Tiret, San Francisco, Calif.

Application October 25, 1957, Serial No. 692,510

1 Claim. (Cl. 47—60)

A new and distinct variety of fuchsia plant herein described and illustrated, characterized by its flaring formed pale blue colored corolla, combined with contrasting crimson sepals.

1,720
ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application October 28, 1957, Serial No. 692,992

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its habit of bearing flowers individually, several together and in clusters, the distinctive Rufous general color tonality of its buds whose petals have their outer edges lightly overcast with Eosine Pink and giving the buds a substantially brown effect, and the distinctive color of its open flowers of light Ochraceous-Salmon general color tonality, with the upper half of the flower petals lightly overcast with Pinkish Vinaceous and with the margins of the petals edged with Thulite Pink, while the reverse of the petals is Straw Yellow in general color tonality, with the lower half of the petals overcast with Empire Yellow and brightening the flower color as a whole.

1,721
APPLE TREE

Worth B. Mooney, deceased, late of New Lenox, Ill., by Mabel Ruth Runty, executrix, Manhattan, Ill., assignor to Stark Bro's Nurseries and Orchards Company, Louisiana, Mo., a corporation of Missouri

Application October 17, 1957, Serial No. 690,882

1 Claim. (Cl. 47—62)

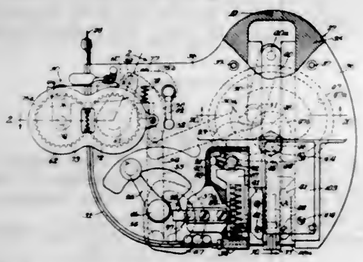
A new and distinct variety of apple tree, substantially as herein shown and described, characterized particularly as to novelty by its fruit which has substantially the same size and ripening season as the variety "Wealthy" (unpatented), but said fruit being distinguished from that of the variety "Wealthy" by a more attractive and uniform red color, a more tapered form, a more conic calyx tube, more conspicuous dots on the fruit skin, being more even-ripening, with firmer flesh and a much better flavor.

PATENTS

GRANTED JUNE 24, 1958

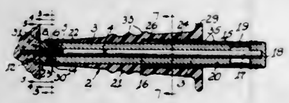
GENERAL AND MECHANICAL

2,839,753
STAPLING MACHINE
George H. Reed and William P. Porcelli, Chicago, Ill., assignors to Acme Steel Company, Chicago, Ill., a corporation of Illinois
Application April 15, 1955, Serial No. 501,482
8 Claims. (Cl. 1—2)



1. The combination in a wire stitching machine, of means including staple formers for bending a length of stitching wire into the form of a staple, said staple formers having means for guiding the staple legs, means for driving said staple through said formers into the work, and means including parts of said formers engaging the outer sides of said staple legs and means engaging the inner sides of said staple legs for causing said staple legs to curl as they are driven.

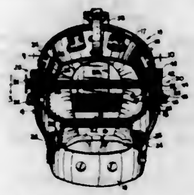
2,839,754
FASTENER DRIVING TOOL
Elmer F. Pfaff, Mantua, Ohio
Application March 22, 1957, Serial No. 647,796
4 Claims. (Cl. 1—47)



1. In a fastener driving tool an elongated guide member having an axial bore, a driving punch member shiftably arranged in the bore of said guide member adapted to engage a fastener when placed in the bore of the guide member, a housing encompassing the guide member and tubular friction means coupled with said driving punch member and encircling same in spaced relation with respect thereto, said tubular friction means extending into said houing and being engaged thereby.

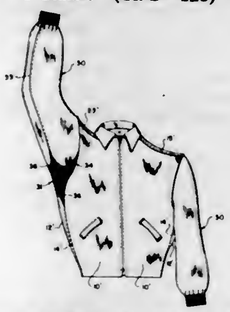
2,839,755
BASEBALL CATCHER'S MASK
John L. Steriss, New York, N. Y.
Application June 18, 1956, Serial No. 592,171
7 Claims. (Cl. 2—9)

1. A baseball mask for catchers and umpires comprising a rigid face-encircling frame having a forehead portion, a chin portion and mouth and eye openings, a resilient face pad lining the frame behind the frame and attached thereto, attaching members to secure the frame and pad over a person's face, an eye-protecting crossbar movably mounted on the frame across the eye opening and having end portions movably connected with the frame, quick release means to lock the crossbar across



the eye opening of the frame, and snap movement means to raise the crossbar from across the eye opening of the frame and hold the crossbar above said opening.

2,839,756
SLEEVE STRUCTURE FOR GARMENTS
Harry S. Geiss, New York, N. Y.
Application September 27, 1956, Serial No. 612,550
1 Claim. (Cl. 2—125)



A garment comprising a body portion, a sleeve having an attachment end and having in the armpit section upwardly diverging edges forming a V-shaped cut-out terminating at its attachment end, the body portion including a relatively non-stretchable material defining a shoulder and armhole structure, the front and back sections of the garment, being cut along downwardly converging lines to form a V-shaped cut-out in the armhole structure at the armpit, a coupling member stretchable in all directions in the form of a ring, said coupling member having integral oppositely projecting V-shaped projections of substantially the same shape and size as the V-shaped cut-outs in the sleeve and body portion, respectively, the edges of said projections merging with the respective edges of the ring along smoothly converging lines, the opposite sides of the coupling member being secured, respectively, to the attachment edge of the sleeve and the armhole section of the body portion, the edges of the V-shaped sections being secured to the edges of the cut-out sections in the sleeve and body portion, respectively, portions of the ring and portions of the projections at the armpit section extending into the front and back sections of the garment, the coupling member permitting unrestricted movement between the sleeve and body of the garment and freedom of movement of the shoulders of the wearer, and a cover member extending

from the armhole section of the body portion over the coupling member along at least the front, top and back of said portion of garment whereby the coupling member is covered and substantially invisible when the arm of the wearer is down.

2,839,757
HEAD COVERING GARMENT
Salvatore V. Gianola, New York, N. Y.
Application March 11, 1955, Serial No. 493,839
6 Claims. (Cl. 2—205)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A head covering garment comprising a hood member including top and side portions defining a face opening, a pocket in each side portion of said hood having a mouth proximate such face opening, and a baffle flap extending outwardly from each pocket through the mouth thereof, the dimensions of each of said flaps relative the dimensions of its pocket being such that a substantial portion of each of said flaps is retractible into its pocket through such mouth and a substantial portion of said flap can be positioned extending outside said pocket, and means to secure each of said flaps in its pocket.

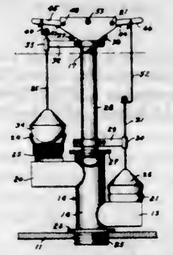
2,839,758
POCKET INSERT
Louis A. Bazzuri, South San Francisco, Calif.
Application March 19, 1956, Serial No. 572,269
3 Claims. (Cl. 2—279)



1. A pocket insert comprising a substantially flat frame adapted to fit in a coat pocket, and a substantially flat, endless adjustable band extending around the frame in tensioned relationship therewith, the band having a plurality of differently colored sections arranged transversely in adjoining relationship and the band being mounted for rotative adjustment on the frame.

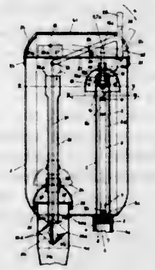
2,839,759
WATER FLUSH TOILET DOUBLE DUMP VALVE ASSEMBLY
James Martino, White Plains, N. Y.
Application June 27, 1957, Serial No. 668,486
2 Claims. (Cl. 4—37)

1. A selective dual ball dump valve assembly for water flush toilets comprising a central drain pipe having laterally extending valve seat branch pipes located at different elevations thereupon and angled less than one hundred and eighty degrees with respect to each other, said branch pipes having top valve seats, ball valves respectively overlying said valve seats and respectively having valve stems, and a selective lever arrangement secured to the upper end of the drain pipe and lying laterally outwardly



thereof, said lever arrangement having two levers respectively loosely connected to the stems of the respective ball valves and a common operating member selectively actionable upon said levers to lift said valves.

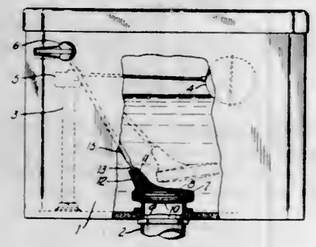
2,839,760
WATER DISTRIBUTING APPARATUS, WITH AUTOMATIC STOP, FOR FLUSHING PURPOSES, PARTICULARLY FOR WATER CLOSETS, OR FOR OTHER USES
Jean Vanderhoven, Herstal, Belgium
Application February 27, 1956, Serial No. 568,086
Claims priority, application Belgium February 26, 1955
4 Claims. (Cl. 4—41)



1. In a flush tank arrangement for water closets wherein the discharge valve shuts off automatically when the tank is empty, the combination of a discharge pipe, an operating tube, a bell shaped discharge valve secured to said operating tube and seating upon said discharge pipe to close the same, a lift member extending through the said operating tube, a supporting element on the bottom end of said lift member and supporting the lower edge of said operating tube whereby upward movement of said lift member will be transmitted to said operating tube and valve through said supporting element, a pivotally mounted control lever with one end connected to said lift member, an inlet tube for the admission of water into the flush tank extending through said tank from top to bottom thereof and having a downwardly facing seat on the upper end thereof, an inlet valve at the upper end of said inlet tube and having an upwardly facing seat engageable with said downwardly facing seat, a surge chamber within said inlet tube in constant communication with the lower end thereof to absorb shocks originating from water hammer and pressure surges and to restrain and regulate the pressure of the water during the admission of water into the tank when the tank is filling, a bell connected to said inlet valve outside of said inlet tube below the top of the tank to be acted upon by the rising water in the tank to close the inlet valve when the water reaches a predetermined level in the tank, and an extension on

said inlet valve positioned in the path of movement of the control lever to be depressed thereby so as to open the inlet valve when the control lever is operated to open the discharge valve.

2,839,761
FLUSH VALVES FOR WATER CLOSET TANKS
William A. Heidman, Jr., Grand Rapids, Mich.
Application December 6, 1955, Serial No. 551,312
11 Claims. (Cl. 4—56)



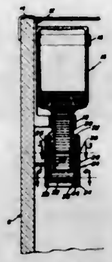
1. A flush tank valve assembly comprising a closet tank having an outlet pipe in the bottom with a valve seat on the top of the pipe, a handle pivotally mounted in the wall of the tank above the water level of the tank and to one side of the pipe, a valve rod rigidly connected to said handle and swingable therewith within said tank, said rod extending obliquely downwardly to over said pipe, and a hollow circular valve of deformable rubber mounted on the lower end of said rod, said valve having a convex lower surface of substantially greater radius than the radius of the circular outline of the valve and adapted to seat against the seat on said pipe and having an inclined upwardly projecting neck slidably adjustably receiving the lower end of said rod whereby the valve opens and closes in an arcuate swinging motion about the pivot of said handle and obliquely across the top of said pipe onto said seat, the radius of convexity of said convex surface being at least six times the radius of said pipe, the lower wall of said valve having an opening therein positioned within the outline of said pipe when said valve is seated, the connection between said neck and the top of the valve being off-center of the valve toward said handle and being flexible permitting limited tilting of the valve with respect to the rod.

2,839,762
PORTABLE POOLS
Ryutaro Nomura, Taisho-ku, Osaka, Japan
Application January 2, 1957, Serial No. 632,053
Claims priority, application Japan January 19, 1956
3 Claims. (Cl. 4—172)



1. A collapsible pool comprising a plurality of curved solid semi-rigid plastic side plates, a plurality of connecting pieces connecting said side plates in a closed figure, each connecting piece being of flexible plastic and having a recess on each end receiving the end of one of said side plates, and the flexible plastic forming said recess being adhered to the side piece within the recess, and a flexible plastic bottom secured to the outer periphery of the side plates and connecting pieces around the entire periphery of said closed figure.

2,839,763
DISPENSER FOR FLUSH TANK DEODORANT BOTTLE
William G. Newsom, La Grange, Ga.
Application August 15, 1955, Serial No. 528,445
2 Claims. (Cl. 4—227)



1. For use in a conventional-type flush tank and automatically operable and controllable by the rise and fall of the water in said tank; an intermittently operable liquid disinfectant holder and dispenser comprising: in combination, a vertically disposed liquid disinfectant containing bottle having a depending neck, a one-piece disinfectant receiving and dispensing cup removably capped over and axially and communicatively connected with said neck and having an elevated bottom and depending endless skirt-like wall portion encompassing said bottom and cooperating in defining an air trapping, confining and compressing pocket, a marginal edge portion of said bottom having a restricted air intake port communicating with said pocket, a correspondingly restricted compressed air ascending duct in said cup alined and registering at its lower end with said port and provided at its upper end with a restricted eccentrically disposed air discharge port opening into the upper end of the receptacle portion of said cup, a restricted disinfectant conduit also in said cup having a restricted intake opening located adjacent the interior surface of said bottom, the wall of said cup, at the upper closed end of said conduit having a disinfectant overflow and dispensing port, whereby when the water in said tank rises, after the tank has been customarily flushed, air trapped and compressed in said pocket, and forced into the receptacle portion of the cup by way of the intake port, ascending duct and discharge port, exerts pressure upon and compresses the disinfectant in the cup and forces a proportional amount of the disinfectant up the conduit and discharges the same into the tank water by way of said dispensing port, said cup having a neck extending and depending concentrically into the receptacle thereof between and spaced from the duct on one side thereof and the conduit on a diametrically opposite side thereof and terminating close to said bottom, whereby a minimal amount of the disinfectant is contained in said cup, said cup being detachably connected with said neck and functioning as a bottle cap and therefore allowing the bottle to be refilled with a fresh supply of disinfectant from time to time.

2,839,764
TOILET SEAT HINGE COVER
Louise M. Gardner, San Diego, Calif., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application July 20, 1956, Serial No. 599,103
1 Claim. (Cl. 4—237)

A cover device for covering the open space between the downwardly disposed edge of a toilet seat when raised to an upright position and the rearward upper rim of the toilet bowl, comprising: a sheet of waterproof and acid resistant elastomeric material having a generally semicircular cutout portion defined by a concave upper edge which is concavely directed away from the remaining lower portion of said sheet, said cutout being substantially the same as that of the inner aperture of a toilet seat adjacent the hinge section thereof, the sides of said sheet converging toward the bottom of said sheet and terminating in round corners at the bottom edge of said sheet; fastening means on said sheet adjacent said upper edge for removably attaching said sheet to the undersurface of said toilet seat, and said sheet being dimensioned in size from said top to bottom edges whereby when it is attached to said undersurface of said seat with



its concave upper edge aligning with the arc of the inner aperture of said seat adjacent the hinge assembly of said fixture, the bottom edge of said sheet will be disposed below the rounded rim of said bowl fixture when the seat is up and positioned slightly above the level of the water normally remaining in said bowl when said seat is down; said sheet of elastomeric material being substantially thicker adjacent its area of attachment to the undersurface of said seat around its concave upper edge to stiffen the area of attachment and prevent sagging between the individual points of attachment.

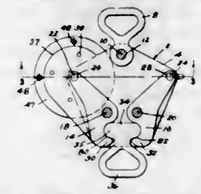
2,839,765
COMBINATION RAIL AND LADDER FOR BUNK BEDS
Vaughn J. Cogley, Covelo, Calif.
Application May 3, 1957, Serial No. 656,889
8 Claims. (Cl. 5—317)

1. A combined ladder and barrier railing structure for a bunk bed, comprising a ladder between the upper and lower bunk of the bunk bed, a railing between each side of the ladder and the respective end of the lower bunk of said bunk bed, and interlocking coacting elements on the respective side rails of the ladder and on said railings for interlocking the same in predetermined relative position.

2,839,766
TORSO SUPPORT
Lynn D. Hull, Villisca, Iowa
Application March 21, 1955, Serial No. 495,630
3 Claims. (Cl. 5—338)

1. As a new article of manufacture, an upper torso support for the reclining flat-on-his-stomach television or home movie viewer for supporting him with the screen substantially perpendicular to his line of vision, and comprising an elongated and relatively stiff load-supporting body for shiftable disposition on the floor and having a raised forward end adapted to be directed toward a television or moving picture screen, the major portion of said body inwardly of its sides being transversely smooth and increasing in depth from a point which is at least near its floor-adjacent rear end and extending in the direction of its raised forward end and toward the screen to be observed, whereby to provide an upwardly inclined top surface-provided torso support between and inwardly of the body sides, and a depending rearwardly extending pocket-like elbow and adjacent arm portion-receiving and confining seat at each side of the forward portion of said inclined torso-supporting top surface and each of said seats providing elbow-confining side walls and a bottom wall, whereby the user can comfortably lie stomach downward with chin cupped in his hands and watch the screen with the latter substantially perpendicular to his line of vision, the said elbow seats further functioning to anchor the support and user together for unitary horizontal user leg-induced shifting movement so long as elbows and seats are engaged.

2,839,767
LIFE RAFT RELEASE DEVICE
William C. Sieverts, Kingston, Mass.
Application January 18, 1956, Serial No. 559,886
6 Claims. (Cl. 9—33)



1. A coupling device for releasably holding together the lashings of a life raft, said device comprising a supporting frame, oppositely disposed elements for receiving said lashings, one of said elements fixed to the frame, two members carried by said frame for engaging and holding the other of said elements, said members being pivoted on said frame and each maintained in position by a removable pin, each of said members upon removal of its said pin adapted to swing on its said pivot under the turning force exerted thereon by said other element thereby to free said other element.

2,839,768
PIPE AND COIL CLEANER APPARATUS
Josef Suchecki, Brooklyn, N. Y., assignor to Herbert Horwitz, New York, N. Y.
Application March 15, 1957, Serial No. 646,437
2 Claims. (Cl. 15—3.51)

1. In apparatus for cleaning a liquid flow pipe, the combination comprising a first chamber having an output conduit in communication with the interior thereof,

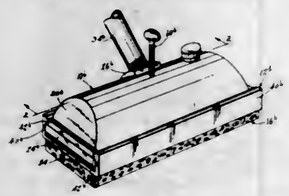
a second chamber having an output conduit in communication with the interior thereof, said conduits being adapted for connection to the ends of a pipe to be cleaned, means for supplying cleaning water, reciprocable valve means interconnecting said first and second chamber members with said water supply means and operative when actuated to alternately conduct water into one of said chamber members and then to the other, said valve means comprising means for discharging water from the chamber to which water is not being conducted, a quantity of hard beads in said chambers, screen means for preventing said beads from entering said valve means; automatic means controlled by said water supply means for periodically shifting said valve means to force said water and beads back and forth through the pipe to be cleaned, said automatic means comprising a water turbine in the water supply means upstream of said valve means, a cage member resiliently connected to said reciprocable valve means, and an eccentrically rotating pin actuated by said water turbine and disposed within said cage member.

2,839,769
BRUSHING MACHINE FOR CLEANING BOWLING PINS
Anthony C. Vacanti, Dunkirk, N. Y.
Application October 20, 1954, Serial No. 463,347
4 Claims. (Cl. 15—21)



1. In a device for cleaning bowling pins, a turntable, means for rotating said turntable, a container for receiving a bowling pin for cleaning, means releasably mounting said container on said turntable for rotation therewith, said container having a recessed bottom resting on the top surface of said turntable and a skirt below said bottom surrounding and depending below the top surface of said turntable, said releasably mounting means including lugs extending radially outwardly from the periphery of said turntable and also including means on said skirt for locking said skirt with said lugs, a base plate secured in said container, a plurality of flexible posts of unequal length attached to and rising upwardly from said base plate, and brushes carried by said posts and arranged in a pattern resembling the shape of a bowling pin.

2,839,770
AUTOMATIC SELF FEED WAX APPLIER
Joseph Boscarino, Jr., Brooklyn, N. Y.
Application May 12, 1955, Serial No. 507,860
4 Claims. (Cl. 15—131)



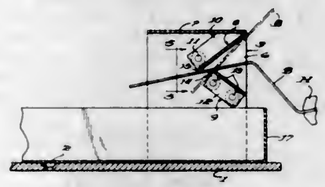
1. An applicator for liquid floor wax and like materials comprising a handle, a container for liquid wax attached thereto and having a bottom plate with at least one outlet opening for said wax in said bottom plate, a frame extending about and attached to said container, a floor-contacting distributor element carried by the frame below the bottom plate and a valve assembly in the container including a movable valve plate, means for raising and lowering the plate within the container, and at least one plug depending from the valve plate and engaging in said outlet opening to close the same in the lowermost position of the valve plate, said means for raising and lowering the plate comprising a spring plate underlying the valve plate and tensioned to normally flex upwardly in a transverse direction to raise the valve plate, a block extending upwardly from the valve plate, and a screw threaded in the container above the block and adapted, when threaded downwardly, to exert pressure against said block to shift the valve plate downwardly against the restraint of said spring.

2,839,771
BOTTLE BRUSH
Marion D. Hunter, North Hollywood, Calif.
Application June 24, 1955, Serial No. 517,715
3 Claims. (Cl. 15—164)



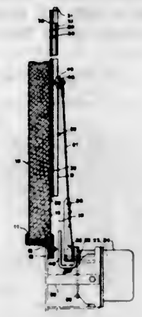
1. In a brush structure: a series of bristles; a flexible resilient convoluted generally spiral support for the bristles having turns extending in successive encompassing relationship; and a handle forming substantially a tangentially located extension at the outer turn of the support.

2,839,772
COOKS' SPATULA CLEANER AND HOLDER
Ulysses L. Lambert, Los Angeles, Calif.
Application June 6, 1955, Serial No. 513,232
6 Claims. (Cl. 15—236)



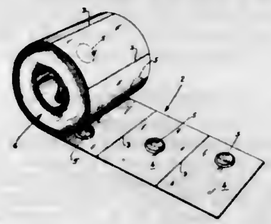
1. In a holding and cleaning device for cooks' spatulas, a horizontally disposed base having a front end and a rear end, and spatula holding and cleaning means mounted on said base and disposed at the front end thereof; said spatula holding and cleaning means comprising a pair of horizontally disposed, rigidly mounted scraping blades including an upper blade sloping downwardly and rearwardly and terminating in a horizontally disposed sharpened lower edge and an upwardly and rearwardly extending lower blade terminating in a horizontally disposed sharpened upper edge extending parallel to said first named sharpened edge and disposed forwardly of and at a slightly higher elevation than said first named sharpened edge; the said relative positions of the edges of said blades allowing a spatula blade to be inserted between them from the front of the device and then to be drawn back while pressing downwardly on the handle with resultant imposition of a desired extent of scraping pressure on both sides of the spatula blade.

2,839,773
Foster McMillen, Staten Island, N. Y., assignor to Kearfott Company, Inc., Little Falls, N. J., a corporation of New York
Application August 31, 1955, Serial No. 531,782
6 Claims. (Cl. 15—250.5)



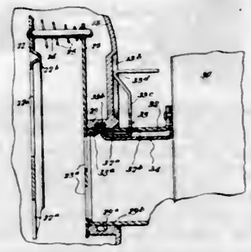
6. A heater, for use with an oscillatable window wiper having a wiper arm with one end of the arm connected to an actuating shaft, with the shaft disposed to swivel about an axis to oscillate the arm, the heater comprising: a J-shaped heating element encased in a thermosetting plastic, with the short wall of the J provided with a notch to permit the heater to be straddle-fitted over such actuating shaft and to enfold the swivel end of the wiper arm.

2,839,774
SHOE POLISHING DEVICES
Rufus R. Rand, Minneapolis, Minn.
Application June 16, 1955, Serial No. 515,878
1 Claim. (Cl. 15—258)



A composite shoe polishing kit comprising an elongated single-ply flexible strip of a porous material transversely scored at uniformly spaced intervals the length thereof, thereby to divide the strip into a plurality of connected applicator pads, the corresponding surfaces of said connected applicator pads each having a wafer of polishing paste secured thereto, said paste wafers being of limited size, and the wafers of adjacent applicator pads being laterally offset from one another lengthwise of said strip, thereby to prevent overlapping of said paste wafers, when the strip is wound into a roll for storage, and an elongated member removably wrapped about said roll to provide a covering member therefor, when the polishing kit is carried in a handbag or pocket, and to serve as a polishing cloth when removed from the roll.

2,839,775
VACUUM CLEANER CORD REEL MOUNTING
Clarence Ellegaard Hansen, Chicago, Ill., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application September 14, 1954, Serial No. 455,877
5 Claims. (Cl. 15—323)



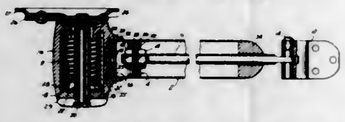
1. In a vacuum cleaner having a wall provided with a tubular exhaust port and a circular groove on the inner surface of said tube substantially concentric therewith for removably receiving a catch for an exhaust air conduit when said conduit is rotatably mounted in said port, cord reel mounting apparatus, comprising: an extended member adapted to enter said exhaust port; latch mechanism including a lever carried by the extended member and movable thereon, the lever having a catch portion adapted to engage said circular groove to retain the extended member in said port; means on said cleaner wall for restraining rotation of said catch portion in said groove, the latch including a rotation-restraining portion removably engageable with said restraining means to prevent substantial rotational movement of the catch portion in said groove and thus of the extended member in the port; and single spring means normally urging the lever outwardly into said engagement with said groove and said restraining means.

2,839,776
ALIGNING BRACKET FOR ACCORDION DOOR
Paul H. Nelson, Plainville, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut
Application January 14, 1957, Serial No. 634,081
3 Claims. (Cl. 16—1)



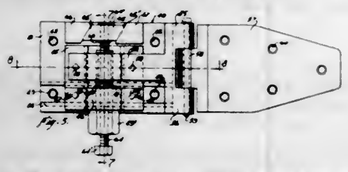
1. A pair of complementary brackets for aligning the lower free edge of an end panel of a folding door with the side edge of a door opening, said brackets each comprising a substantially flat base, a guide arm extending outwardly from one edge of the base at an acute angle to the plane of the base, and a second guide arm vertically spaced relative to the first arm and extending angularly of the first arm and inwardly from said one edge at an angle to the base corresponding generally to that of the first arm, and means on each base for respectively mounting the brackets in inverse relation on the face of the panel and on a member forming a side of a door opening whereby when the door is moved to closed position the second arm of one bracket is brought into sliding engagement with the first arm of the other bracket to cam the lower edge of the panel into aligned position and whereby the several arms will hold said lower edge in such aligned position.

2,839,777
DOOR CHECK
Stuart W. Parsons, New Britain, and George E. Gilpatrick, West Hartford, Conn., assignors to The Stanley Works, New Britain, Conn., a corporation of Connecticut
Application January 14, 1955, Serial No. 481,892
8 Claims. (Cl. 16—66)



1. In a door check having a cylinder and a piston mounted for reciprocation in the cylinder responsive to door movement and adapted to pressurize checking fluid in the cylinder to retard closing of the door, means forming an escape for fluid pressurized in the cylinder comprising a valve including an elastic wafer having a distensible portion with a minute aperture therein providing the sole passage through said valve through which checking fluid pressurized in the cylinder may escape and mounting means for the wafer forming an open pocket on the side of the wafer opposite from the piston and dimensioned to permit the wafer to distend and vary the size of the said valve aperture responsive to fluid pressure thereon, whereby variations in the closing force on the door are automatically compensated for by distension of said distensible portion and resultant expansion of said aperture in accordance with the pressure of said checking fluid.

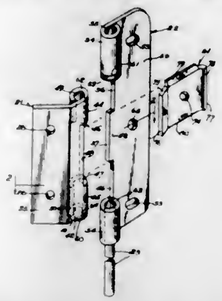
2,839,778
ADJUSTABLE HINGE
John L. Hutchinson and William F. McLellan, Brooklyn, and Auber A. Belliveau, Astoria, N. Y., assignors, by direct and mesne assignments, of 33⅓ percent to said Hutchinson, 33⅓ percent to said McLellan and 33⅓ percent to Alfred R. Pellegrino, Brooklyn, N. Y.
Application December 30, 1954, Serial No. 478,574
4 Claims. (Cl. 16—129)



2. An adjustable hinge assembly comprising a bottom part having a guideway portion along one side thereof, a slide part having a cooperating guideway portion matching with said bottom part guideway portion and slidable therealong, said slide part having a guideway portion thereon, a hinge member having a threaded transverse opening therein and a cooperating guideway portion slidable in the slide part guideway portion, a raised member at one end thereof, an adjusting screw journalled in said raised member and threadedly connected to said hinge member so that upon turning said screw, the hinge member will be adjusted transversely of the slide part and means for adjusting said slide part longitudinally of said bottom part, and means for releasably securing said bottom part and said slide part rigidly together in their adjusted positions.

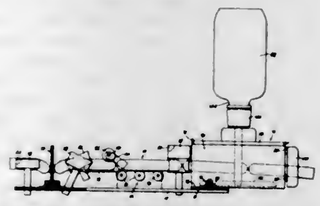
2,839,779
ADJUSTABLE DOOR STOP HINGE ASSEMBLIES
Charles W. Haag, Evansville, Ind., assignor to Whirlpool Corporation, a corporation of Delaware
Application September 13, 1956, Serial No. 609,737
2 Claims. (Cl. 16—191)

1. A refrigerator door stop hinge assembly, comprising a first hinge plate to be secured to a refrigerator door having a door seal thereon engaging a cabinet shell, said plate having a flat body with apertures for screw bolts to secure the body to the door, said body having a first pair of spaced pintle bearings, and being provided with a diagonal portion supporting said first bearings with their axis midway of the seal, and being cut away between said first bearings to provide a stop edge, a pintle in said first bearings, said stop edge terminating adjacent the outer surface of said pintle, a second hinge plate having a flat body with a pair of second bearings at one edge thereof and mounted on said pintle outwardly of the first bearings, said pintle supporting a nylon washer between each second bearing and each first bearing, said second plate body being cut away between its second bearings and terminating at an edge, which clears the first bearings, and which has a stop lug projecting between the first bearings, said second plate body having horizontal,



elongated, oval apertures for securing screws, permitting horizontal sliding only of the second plate on said securing screws to adjust the tightness of the door seal, and said second plate body having a third aperture for a self tapping screw to be inserted in said third aperture and driven into a hole drilled in the cabinet shell, when the door hinge is adjusted for seal tightness, said second plate body having a fourth aperture located adjacent its stop lug, a screw bolt for said fourth aperture, and a substantially rectangular apertured stop plate rotatable and securable on said latter screw bolt, said stop plate having one edge clearing the first body stop edge, and permitting the first body stop edge to engage the face of the second plate to stop the door at wide open position, said stop plate having its three other edges formed to engage the stop edge on the first plate at any one of three different door open positions, between right angle and wide open position.

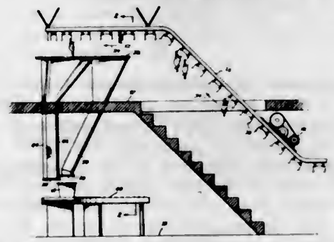
2,839,780
APPARATUS FOR SKINNING FRANKFURTERS
Daniel Douglas Demarest, Port Washington, Robert Merritt Perkins, Upper Montclair, William Karius, Union, and Carl Berendt, Millburn, N. J., assignors to Linker Machines, Inc., Newark, N. J., a corporation of New York
Application May 24, 1954, Serial No. 431,835
6 Claims. (Cl. 17—1)



1. A frankfurter peeling apparatus comprising means for feeding a string of frankfurters, frankfurter casing

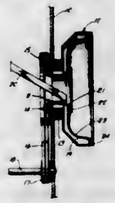
severing and peeling means positioned along said feeding means, and steaming means mounted along said feeding means forwardly of said severing and peeling means for steaming the casings of the frankfurters enroute to the severing and peeling means without substantially raising the temperature of the frankfurter meat contained within the casings, said steaming means including a steam box mounted along said feeding means, said steam box having admission and discharge openings in opposite walls of said box, supporting means mounted in said box to support a string of frankfurters passing therethrough from the admission opening to the discharge opening, the bottom of said box being formed to constitute a container for liquid produced by the condensation of steam in said box, and heating means adjacent the bottom of said box for converting condensed liquid to steam for causing the steam to be re-circulated within said steam box, whereby the frankfurters are briefly steamed as they pass through the box.

2,839,781
POULTRY SUSPENDING DEVICE
Donald S. Jarvis, Havertown, Pa.
Application January 2, 1957, Serial No. 632,134
3 Claims. (Cl. 17—44.1)



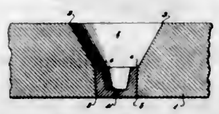
1. Apparatus for use in cutting up a dressed fowl, said apparatus including at least one movable, upwardly open loop adapted to receive, and detachably to engage, the free end of one leg of the fowl to suspend the fowl in position to be cut into various sections, and means for automatically disengaging said one leg from said loop, said means including a barrier extending below, and disposed transversely of the path of movement of, said loop and engageable with said one leg to disengage said one leg from said loop.

2,839,782
AN APPARATUS FOR FIBERIZATION
Wesley T. Tillotson, Wilmette, Ill., assignor to American Rock Wool Corp., Wabash, Ind., a corporation of Indiana
Application March 30, 1955, Serial No. 498,010
5 Claims. (Cl. 18—2.6)



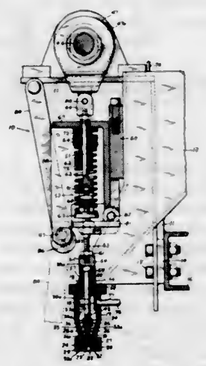
1. A fiberization unit for fiberizing molten fiber-forming material comprising a hollow distributing rotor for receiving the molten fiber-forming material on its inner surface, an encompassing hollow spinning rotor for receiving on its inner surface the molten fiber-forming material centrifugally ejected by the distributing rotor, said distributing rotor and said spinning rotor being joined together and rotatable as a unit and means for rapidly rotating said distributing rotor and said spinning rotor about a substantially horizontal axis with the distributing rotor forcibly impinging the material collected thereon onto the inner surface of the spinning rotor, the peripheral speed of said spinning rotor being substantially greater than that of the distributing rotor for fiberizing the molten fiber-forming material collected on the inner surface of the spinning rotor.

2,839,783
SPINNERETS FOR MELT-SPINNING HIGH POLYMERIC SUBSTANCES
Willem de Wolf, Arnhem, Netherlands, assignor, by mesne assignments, to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application October 30, 1950, Serial No. 192,969
Claims priority, application Netherlands
November 23, 1949
1 Claim. (Cl. 18—8)



A spinneret for the high pressure melt-spinning of high-polymeric substances comprising a base metal spinneret having holes therein and being provided with noble metal inlays inserted in said holes in the base metal bottom plate of the spinneret, said holes including two portions of different conicity, the conicity of that portion of the hole that is in direct contact with the noble metal inlay lying between 1° and 6°, said base metal being stainless steel and said noble metal being an alloy consisting of 70% gold and 30% platinum.

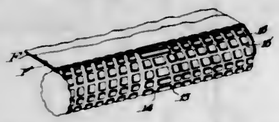
2,839,784
METHOD AND APPARATUS FOR THE PRODUCTION OF FILAMENTS
Harold Weber, Bloomfield, and Walter D. Paist, Berkley Heights, N. J., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application March 26, 1953, Serial No. 344,738
17 Claims. (Cl. 18—8)



1. Apparatus for the production of artificial filamentary products from particles of fusible filament-forming material, said apparatus comprising a chamber for receiving particles of fusible filament-forming material, a heated spinning jet at an opening of said chamber, a plurality of rams within said chamber, each of said rams having a working face for applying mechanical pressure directly against a layer of said particles on said jet to urge said

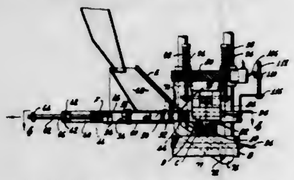
particles toward said spinning jet, and means for reciprocating said rams to apply said mechanical pressure continuously, said means being so constructed and arranged that said rams move alternatively with at least one ram exerting a pressure against said jet throughout the cycle of operation of said rams and with a plurality of rams exerting simultaneous pressures against said jet for a major portion of said cycle.

2,839,785
FILM ADVANCING ROLL
William Henry Stevens, Nashville, Tenn., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application November 10, 1953, Serial No. 391,345
2 Claims. (Cl. 18—15)



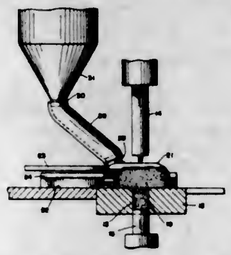
1. In apparatus for the simultaneous multisheet casting of regenerated cellulose film comprising in combination a plurality of tanks containing treating fluids and rotatably mounted, positively driven, cylindrical film advancing rolls over which a plurality of superimposed wet regenerated cellulose films pass into and out of said tanks, the improvement which comprises as the film advancing rolls in said combination rolls each having two spiral surface grooves of equal and opposite pitch, each spiral groove leading from a point midway from the ends of said roll and extending toward opposite ends of said roll and a plurality of straight surface grooves parallel to the longitudinal axis of said roll and spaced about the circumference thereof, the grooves being sufficiently wide and deep to permit deformation therein of wet films on said roll.

2,839,786
COMPRESSION MOLDING APPARATUS
John A. Alesi, West Los Angeles, Calif.
Application April 12, 1955, Serial No. 500,874
2 Claims. (Cl. 18—16)



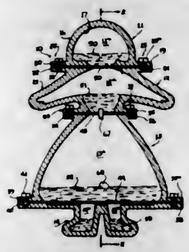
1. Compression molding apparatus, comprising: a base formed with a mold cavity; a male die carrier movable vertically toward and away from said base; a pair of horizontal rails extending from the rear of said base; a feed tray formed at its front end with a pair of sidewardly extending shafts; a roller and a cam wheel on each of said shafts; additional rollers mounted on each side of said feed tray, all of said rollers riding on said rails; a pair of vertical cam plates depending from said male die carrier, each of said plates being formed with a forwardly and downwardly inclined cam slot, said cam wheels being disposed within said slots so as to effect horizontal movement of said tray between its mold cavity charging position and its retracted position as said male die carrier travels vertically toward and away from said base; a normally downwardly and forwardly inclined ejection chute pivotally secured at its front end to the front portion of said feed tray; means interposed between said ejection chute and said feed tray for maintaining said chute in a normal position; means formed on said cam plates which abut said chute as said male die carrier rises towards its raised position so as to pivot the rear end of said chute upwardly relative to its normal position; and, resilient means interposed between said ejection chute and said feed tray for constantly biasing said chute towards its normal position.

2,839,787
APPARATUS FOR MOLDING POWDERED GRANULAR MATERIAL INTO PREFORMED ARTICLES
Everett G. Stevens, St. Louis, Mo., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 19, 1954, Serial No. 444,007
3 Claims. (Cl. 18—30)



1. An apparatus for molding granular material which comprises a mold having an upper horizontal surface running to a molding cavity formed therein, a shuttle mounted for movement along said horizontal surface into communication with said cavity, a hopper spaced above and offset from said cavity, a longitudinally stretchable elastic hose of a predetermined length interconnecting said hopper and said shuttle for restraining said shuttle from movement into communication with said cavity, and means for moving said shuttle against said restraining action of said hose to elongate said hose beyond said predetermined length and move said shuttle into communication with said cavity.

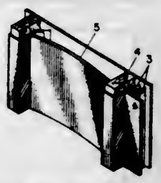
2,839,788
METHOD OF MAKING HOLLOW PLASTIC OR RUBBER ARTICLES
Matthew Dembiak, Wallington, N. J.
Application April 24, 1953, Serial No. 350,974
4 Claims. (Cl. 18—58.3)



2. A method of making a hollow unitary plastic article which comprises, providing a hollow mold including a plurality of sections, each conforming to a portion of the article to be made, placing a diaphragm of cured plastic material between each of two adjacent sections of the mold, placing liquid, thermal setting plastic in the separated sections, clamping said mold sections together with the diaphragms in between, moving the mold to cause the liquid plastic material to coat the interior of the sections and to cling to and fuse with adjacent surfaces of the diaphragms, heating the mold during such

movement, to set the coating and increasing the heat to cure the coated material and thereafter removing the mold sections.

2,839,789
INSULATING FRAME CONSTRUCTION
Horace B. Adams, Rockland County, N. Y.
Application February 28, 1955, Serial No. 490,790
4 Claims. (Cl. 20—4)



3. An insulated and vapor sealed frame construction wall comprising a plurality of studs at spaced intervals, a plurality of insulating panels slightly wider than the spaces between said studs pressed into said spaces and held therein by their own resilience, each of said insulating panels having attached to a stud-contacting edge thereof a flexible vapor sealing strip, said sealing strip being wrapped about the there-adjacent stud and being held in place by the edge of the resilient panel in the adjacent space between studs.

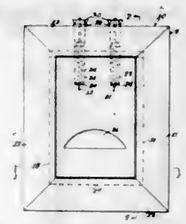
2,839,790
BUILDING SHEET CONSTRUCTION
Ova J. Collings, Kansas City, Mo.
Application April 5, 1954, Serial No. 420,866
3 Claims. (Cl. 20—4)



1. A building construction assembly having a peripheral margin and comprising a plurality of rectangular plates of wood each having a tongue of trapezoidal cross-section extending from each of one longitudinal and one end edge thereof and a groove of trapezoidal cross-section substantially complemental to said cross-section of said tongues formed in each of the other longitudinal and the other end edge thereof and provided with a piece of waterproof material covering one lateral face thereof and adhesively held thereon, said plates being in substantially co-planar mutually abutting relationship with each tongue of each plate other than those tongues disposed upon said peripheral margin being engaged within a groove of an abutting plate, said piece on each plate being rectangular, extended beyond each edge of the plate, extended partially around the tongues of the plate which are engaged with the grooves of an abutting plate, and extended into overlapping relationship with those other plates having tongues engaged in the grooves of the plate carrying said piece.

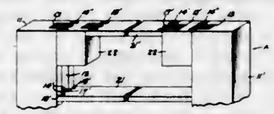
2,839,791
DOOR
Walter Lee, San Francisco, Calif.
Application April 24, 1957, Serial No. 654,848
1 Claim. (Cl. 20—16)

In an animal closure, a stationary rectangular frame including spaced parallel vertically disposed side members, spaced parallel horizontally disposed top and bottom members, the inner portions of said members being provided with V-shaped notches, said members cooperating to define therebetween a rectangular opening, a door mounted for movement into and out of closing relation with respect to said opening, a transparent panel mounted in said door, a strip of yieldable material extending outwardly from the sides and bottom of said door and projecting into said V-shaped notches, the upper end of said door being V-shaped in cross section and a strip of



yieldable material secured to the upper end of the door and adapted to project into the V-notch at the top of the door, there being registering openings in the top member of said frame and in said door, a support member positioned in each opening in said door and secured to said door, coil springs connected to said support members, brackets positioned in the openings in the top member of said frame and connected to the upper end of the coil springs, and securing elements extending upwardly from said brackets and connected thereto.

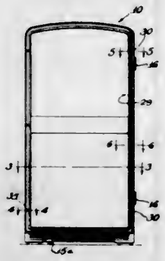
2,839,792
SLAB DOOR
Paul L. Sanders, Francis E. Haley, and Rupert G. Haley, Santa Monica, Calif.
Application September 13, 1954, Serial No. 455,484
3 Claims. (Cl. 20—35)



1. A joint for a slab door core, comprising: a frame bar having a longitudinal groove defined between spaced flanges having substantially parallel, opposed inner walls and having marginal walls disposed in a common plane normal to said inner walls; and a joining bar having at its end a central slot, tenon tongues on respective sides of said slot, projecting into said groove, and a pair of resilient abutment wings on respective sides of said tongues, in opposed embracing relation to the roots of the respective tongues, said wings at their tips having squared abutment shoulders set back from the tips of said tongues and in closed-joint abutting engagement with the said marginal walls of the respective flanges of said frame bar; said joining bar having lateral slots between said tongues and the inner faces of said wings whereby said inner faces are spaced outwardly from the outer faces of said tongues and from the planes of said inner walls of the groove, said outer tongue faces being substantially parallel, and said tongues being sprung toward one another by the embracing action of said flanges so as to exert yielding outward pressure against said inner walls of the groove such that said tongues are frictionally gripped by said flanges to secure said joint in assembled condition without the aid of fastening elements; said abutment shoulders of said wings being in freely shiftable association with said marginal faces of the frame bar against which they are abutted, whereby said wings are freely yieldable inwardly against

the pressure of facing sheets covering the outer faces of said bars, whereby to achieve a flush relation between the respective outer faces of said wings and said flanges.

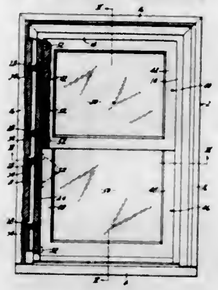
2,839,793
DOOR STRUCTURE
Robert E. Fields, Evansville, Ind., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application December 22, 1954, Serial No. 477,065
1 Claim. (Cl. 20—35)



In a decorative panel construction for refrigerator doors having an outer shell provided with a side wall formed of a channelled frame member extending about the top, bottom, and sides of the door, with the front and rear flanges of the channel turned inwardly, the improvement which comprises a front wall member having a central front wall portion provided with a peripheral rearwardly extending flange joined to the central portion by a curved portion forming a rearwardly extending shoulder extending completely about the front wall member, said rearward flange being received inside the front flange of said channelled frame member and attached thereto by welding, an adapter frame of a shape similar to the front wall member, said adapter frame being angular in cross section, and having an inwardly curved clamping flange extending over said curved portion of the front wall member, and also having a forwardly extending frame flange extending entirely about the said peripheral rearward extending flange of the front wall member with sufficient clearance to receive with a clamping action a covering of flexible decorative material covering the front wall member out to the channeled frame, said adapted frame having hinges mounted on said channeled frame at one side thereof, and said adapter frame fitting over the flexible decorative covering and drawing it tightly over the front wall member until the adapter frame encompasses and secures the flexible covering about the front wall member at the peripheral rearwardly extending flange thereof, and a plurality of expanding U-shaped fasteners concealed under said adapted frame and carried by the rear side of the attaching flange of said adapter frame and extending into apertures in the front flange of the channeled frame member to secure the adapter frame thereto on the side opposite to said hinges.

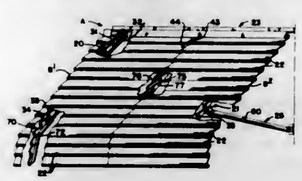
2,839,794
WINDOW CONSTRUCTION
Everett D. Bishop, Kansas City, Kans.
Application July 29, 1955, Serial No. 525,108
2 Claims. (Cl. 20—52.2)

1. A window structure including a frame having a pair of parallel jambs, a first slide track fixed to the first of said jambs, a second slide track, a plurality of screws attaching said second track to the second of said jambs, and a sash having its opposite edges respectively in sliding engagement with said tracks, said screws being at right angles to the tracks and lying in the plane of the sash, said screws being threaded in said second jamb, extending slidably through said second track, and having enlarged heads countersunk in the face of the track engaged by said sash, and compression springs disposed between said second track and second jamb, said sash and tracks having mating ribs and grooves whereby said sash must be moved transversely to said tracks in its own plane to disengage it from said tracks, the clearance be-



tween the heads of said screws and the adjacent edge of said sash being less than the transverse movement required to free the sash, said sash having a plurality of sockets formed in the edge thereof adjacent said track and adapted to be brought into registering relation with said screws when said sash is moved to one position, whereby said sash may be removed.

2,839,795
LOUVERED AWNINGS
Donald H. Ruggles, Tulsa, Okla., assignor to Ventaire Company, Tulsa, Okla., a firm composed of Donald H. Ruggles and John A. Tatroe
Application July 30, 1956, Serial No. 600,926
4 Claims. (Cl. 20—57.5)



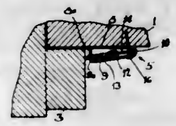
1. An awning including spaced-apart normally downwardly and forwardly inclined substantially parallel elongated support members, each having cut outs providing a plurality of equally spaced-apart forwardly-opening major recesses, two minor recesses opening downwardly from the upper face of each of said major recesses and downwardly and outwardly extending outer edges extending above said major recesses, and a plurality of awning covering sections of springy material, each having a body portion, a rear flange along the rear longitudinal edge of said body portion and a front flange along the front longitudinal edge of said body portion, said body portion having a decidedly bowed forward part extending outwardly of a front flange and spaced above the downwardly and outwardly extending outer edge of the body portion, with the rear flange of one covering section being accommodated in one major recess and one minor recess opening thereinto, and the front flange of the next adjacent covering section being accommodated in the other minor recess opening to said one major recess, said covering sections being under tension, whereby said covering sections may be sprung transversely into connection with said support members and upward surges of air upon the under side of said covering section will not dislodge them.

2,839,796
SEALING THRESHOLD
Henry N. Quoss, Dallas, Tex.
Application November 26, 1956, Serial No. 624,447
2 Claims. (Cl. 20—64)



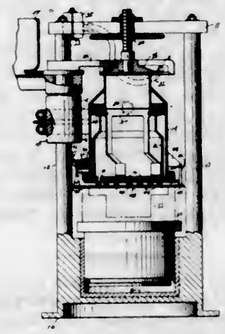
2. A threshold assembly comprising a threshold having a longitudinal upwardly opening recess extending its entire length, a sealing member of the same length made of resilient material having a bottom, a convex top narrower than the bottom, two inclined sides between the bottom and the top, mounted in the recess, the recess having a bottom and inwardly inclining sides rising therefrom to the top of the threshold forming V grooves therewith, arranged to receive and removably secure the sealing member therein, the convex top having its edges substantially even with the top of the recess when the sealing member is installed therein, the sealing member being hollow whereby its resiliency is increased, the sealing member being provided with a tab on each side running its entire length, the tabs being arranged to extend downwardly from the top of the sealing member and normally flare outwardly from the sides thereof, the tabs being pressed inwardly sufficiently to place the sealing member within the recess, the tabs thereupon springing outwardly to hold the sealing member within the recess.

2,839,797
WEATHER STRIP FOR HINGED DOORS
Thomas W. Anderson, Red Bluff, Calif.
Application February 8, 1957, Serial No. 638,965
2 Claims. (Cl. 20—68)



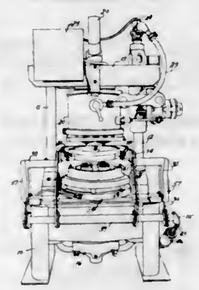
1. A weather strip for doors comprising an elongated channel member of substantially triangular shape in cross-section and having longitudinal, opposed, converging inner and outer sides joined by a longitudinal, curved portion, the inner converging side being secured to and extending alongside a hinged door and the outer converging side extending obliquely with respect to the inner side and the side of the door, the converging sides having inwardly protruding flanges of unequal widths, the inner edges of the flanges being spaced longitudinally to provide a longitudinal slot in the channel member, such slot being positioned closer to the outer side than the inner side, an elongated strip carrier mounted in the channel member, a flexible, elongated strip secured to the strip carrier, the strip extending through the slot in the channel member being arranged for outward and inward sliding movement, the strip being positioned in a plane extending substantially parallel to the outer side, and a plurality of yieldable spring members secured to the strip carrier and arranged to urge the carrier toward the slot, the spring members each having a central portion secured to the strip carrier and diverging spring legs engaging with the curved portion of the channel member and a plurality of openings in the opposed converging sides for the projection of securing means.

2,839,798
CORE BLOWING APPARATUS
Hans G. Hinrichs, Hillsdale, N. Y., assignor, by mesne assignments, to Archer-Daniels-Midland Company, Minneapolis, Minn., a corporation of Delaware
Application February 17, 1954, Serial No. 410,798
2 Claims. (Cl. 22—10)



1. In combination with a sand transfer chamber having an open base closed by a blow plate with a plurality of spaced sand discharge openings adapted to surmount a core box cavity, a vent plate having a greater number of spaced openings, means for separably supporting the vent plate below the blow plate with the openings of the blow plate aligned with some of the openings in the vent plate, said means including a pivotal connection between opposite edges of the vent plate and opposite sides of the sand chamber respectively, one of said pivotal connections including an eccentric pivot shaft adapted to be rotated to permit limited separation of the vent plate from the corresponding edge of the blow plate, and externally accessible means for rotating said eccentric pivot shaft.

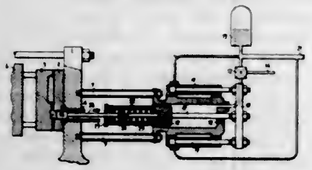
2,839,799
SAND BLOWING APPARATUS FOR MAKING MOLDS
Heinrich J. B. Herbruggen, Cleveland, Ohio, assignor, by mesne assignments, to Archer-Daniels-Midland Company, Minneapolis, Minn., a corporation of Delaware
Application February 14, 1955, Serial No. 487,963
2 Claims. (Cl. 22—36)



1. In a sand blowing apparatus having a frame including a flask supporting base surmounted by a sand transfer chamber and defining a flask-receiving work area therebetween, a flask supporting tray, fluid pressure actuated means on the frame for selectively moving said tray into and away from operative position in the flask-receiving work area, said sand transfer chamber having a base with a sand discharge opening therein, a main lift platen operatively carried by the flask supporting

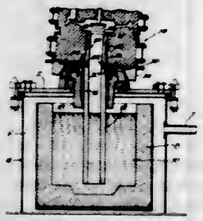
base, a supplementary platen operatively carried for relative vertical movement on said main lift platen, means on said platens for preventing relative rotational movement therebetween, said supplementary platen having a configuration adapted to support a bottom pattern plate for positioning into the flask, a flask platform fixedly carried by said main platen, said platform presenting a flask supporting surface that is a facsimile of the flask wall boundary and surrounding said supplementary platen, means carried by the flask supporting surface of said platform for aligning coaction with the flask when the latter is disposed on said tray in said flask work area, fluid pressure means for selectively raising the main lift platen whereby said platform is lifted into abutment with the bottom of said flask and said flask is positioned against the base of said sand transfer chamber, and other fluid pressure means for selectively positioning the supplementary platen and pattern plate into the flask to compact the sand therein.

2,839,800
METHOD OF AND APPARATUS FOR DAMPING SHOCKS IN DIE-CASTING MACHINES
Fritz Hodler, Territet, Switzerland
Application August 26, 1955, Serial No. 530,769
Claims priority, application Switzerland September 27, 1954
12 Claims. (Cl. 22—68)



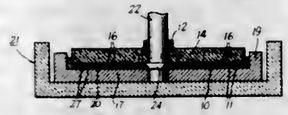
1. A die-casting machine comprising a die, an injection sleeve connected to said die, means for delivering molten metal to said sleeve, an injection piston mounted to reciprocate in said sleeve, a hydraulic system, a cylinder connected to said hydraulic system, a control piston mounted to reciprocate in said cylinder, said control piston being connected to said injection piston, means for delivering hydraulic flud under pressure from said hydraulic system into said cylinder, and a damping device for absorbing the kinetic energy of the hydraulic fluid simultaneously with the filling of the die with molten metal.

2,839,801
PRESSURE CASTING APPARATUS
Ellis J. Zickefoose, Chicago Heights, Ill., assignor to Griffin Wheel Company, Chicago, Ill., a corporation of Delaware
Application February 17, 1956, Serial No. 566,207
6 Claims. (Cl. 22—69)



1. In a pressure casting apparatus of the type in which the molten metal in a housing is forced through a gate into the casting cavity of a permanent mold formed of porous material in response to an increase of fluid pressure in the housing, a housing cover having a pouring tube aperture, a pouring tube extending downwardly through said aperture for the upward passage of molten metal from the ladle to the mold cavity, a downwardly movable plunger having a seat engageable with a complementary seat on the gate, said gate being formed of porous material to permit the leakage of air through the mold and gate into the interior of the gate to break any vacuum existing in the gate and pouring tube and permit the metal in the pouring tube to return to the ladle after the plunger moves into sealing engagement with the gate.

2,839,802
METHOD OF CASTING METAL
Morris M. Bean and Xarifa L. Bean, Yellow Springs, Ohio, assignors to Morris Bean & Company, Yellow Springs, Ohio
Application August 19, 1955, Serial No. 529,447
7 Claims. (Cl. 22—209)



1. Method for casting metal into a shaped article which comprises forming, in a drag, a lake of an amount of molten metal in excess of the amount required in the article, penetrating the lake with an expendable and substantially non-metallic cope forming a cavity with the drag and having permeability substantially throughout the mass of the cope for shaping the molten metal to the form of said article and displacing the surface metal in a generally upward direction so as to completely fill the article-forming cavity thus formed by the cope, and retaining the cope in the metal until the metal has solidified.

2,839,803
LINE-LURE FASTENER
Albert E. Wiselka, Sheridan, Wyo.
Application October 16, 1953, Serial No. 386,469
5 Claims. (Cl. 24—73)



1. A closed loop double-end link to securely and removably link together a plurality of looped end articles comprising, an elongated member of resilient material, an S fold in said member having opposed loops, and end portions of said member wrapped around the bight portions of said loops to form closed loops.

2,839,804
SHOELACE STRUCTURE
Rafael Benoit, New York, N. Y.
Application July 1, 1955, Serial No. 519,486
1 Claim. (Cl. 24—73)



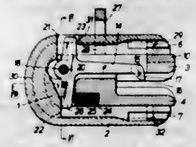
A shoelace device comprising an elastic lace adapted to pass through and span across opposed shoelace openings of a shoe, a stiff tip member secured to one end of the lace, said stiff tip member having two offset end portions disposed in substantially parallel planes and a connecting portion angularly disposed relative to the end portions between said end portions, said end portions being adapted to lie on and under a lace opening flap of a shoe when said connecting portion of the tip member is extending through a shoelace opening in the flap, and a flat anchor plate member having openings therein and being adapted to underlie one of the lace opening flaps of a shoe, said lace having another end extending through one of said openings and being fixed to the front face of the anchor plate member, and a plurality of additional laces each having two ends wtih one end extending through another of said openings and being fixed to the front face of the anchor plate member and spaced from the other laces, and additional tip members secured one to each of the free ends of the additional laces, all of said stiff tip members having flattened opposed side portions and being identical in construction.

2,839,805
FASTENING DEVICE
William A. Bedford, Jr., North Scituate, Mass., assignor to United-Carr Fastener Corporation, Cambridge, Mass., a corporation of Delaware
Application March 15, 1955, Serial No. 494,442
1 Claim. (Cl. 24—84)



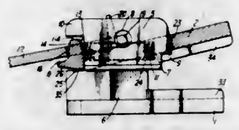
A resilient clip for attaching an article to an apertured panel, said clip comprising a pair of collateral legs joined at an acute angle at a nose portion, one of said legs having longitudinally spaced means formed thereon facing away from the other leg for resiliently gripping oppositely facing spaced edges of said article, said means comprising hook means for hooking over one of said edges, and shoulder means spaced longitudinally therefrom for snapping over the other edge, said other leg having outwardly facing shoulder means for snapping engagement with an edge of the aperture in the panel.

2,839,806
SLIDE FOR SLIDE FASTENERS
Friedrich Moser, Casvegno, Mendrisio, Switzerland, assignor to RI-RI-Werk A. G., Mendrisio, Switzerland
Application October 22, 1953, Serial No. 387,718
Claims priority, application Switzerland October 28, 1952
3 Claims. (Cl. 24—205.14)



1. In a slide for a slide fastener comprising a body formed with a longitudinally extending fastener receiving channel, an operatively U-shaped bracket having laterally spaced legs slidably mounted on said body at opposite sides thereof, respectively, for movement longitudinally thereof and having a part at one end of said body extending transversely thereof for connecting said legs, a pull for said slide carried by said bracket for sliding said slide selectively in either of opposite directions, such operations of said pull acting to slide said bracket relative to said body in the selected direction in which the pull is operated, the combination of a rigid operatively T-shaped member which adjacent the juncture of the stem and cross-arm of such T is swingably mounted on said body adjacent said transversely extending part of said bracket, said stem extending longitudinally of said body toward the open end of said bracket and adjacent its free end carrying a locking pawl for the slide; said bracket being formed to present oppositely facing abutments, one at one side of the axis of swinging of said T-shaped member and the other at the opposite side of said axis, cooperating with those portions of the cross-arm of such T which lie at opposite sides, respectively, of said axis for causing such sliding of said bracket relative to said body in either of said opposite directions by operation of the pull to swing said T-shaped member in each instance in the same direction to raise such stem for moving said pawl into unlocked position; and a compression spring carried by said body and acting on said T-shaped member for swinging said member in the opposite direction to lower said stem for moving said pawl into locked position when the pull is not being operated.

2,839,807
SLIDER FOR A SLIDING CLASP FASTENER
Joachim Backer, Whitchurch, Cardiff, and Henry D. Koppel, Rhiwbina, Cardiff, Wales, assignors to Aero Zipp Fasteners Limited, London, England, a company of Great Britain
Application November 15, 1955, Serial No. 547,006
Claims priority, application Great Britain September 5, 1955
6 Claims. (Cl. 24—205.15)

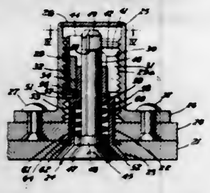


1. A slider for a sliding clasp fastener, comprising two opposed slider shields for guiding two fastener stringers through the slider, a riser element provided in fixed position on one of said slider shields and extending through an aperture in the other slider shield, a support on said riser element, the said support carrying said other slider shield displaceably in substantially parallel relationship to said one slider shield, a portion on said riser element, the said portion normally overhanging an edge of said other slider shield bordering the said aperture, an abutment on said other slider shield, spring means acting between the said abutment and the said riser element, the said spring means urging the said edge into a position underneath the said overhanging portion, and fulcrum means on the said other shield, the said other shield together with its fulcrum means being displaceable along the said support without substantial change of its general plane against the action of the said spring means to such an extent that the said edge clears the said overhanging portion of the riser element, the arrangement being such the spreading of the slider shields relatively to each other is effected by first displacing the said other shield along said support to clear the said overhanging portion so that the said other shield is no longer constrained to remain in the same general plane, and subsequently turning the said other shield relatively to the said one shield about the said fulcrum means.

2,839,808
FASTENING DEVICES
Victor F. Zahodiakin, Summit, N. J.
Application February 15, 1956, Serial No. 565,650
18 Claims. (Cl. 24—221)

18. A fastening device for clamping members together, said device extending through said members, comprising a socket element permanently secured to and projecting

rearwardly of a rear one of said members, and a stud element mounted in a hole of a front one of said members and projecting rearwardly thereof through said rear member and into said socket element, said stud element comprising an elongated stud having a head engaging at the front of said front member and having a bearing of major diameter partly within both of said members, said stud having a rearwardly extending shank of minor diameter coaxial with and projecting from said bearing, the rear end of said shank having radially projecting protuberances thereon, said stud element providing a bushing slidable on said stud, said bushing having an end thereof in underlying retained engagement with said stud head mounting said bushing rigidly on said front member when said stud is longitudinally tensioned rearwardly, said bushing having a forward hollow housing portion of major diameter adapted to pass the protuberances therethrough, and said bushing having a rearward neck portion projecting integrally and axially from said housing portion, said housing portion and neck portion having an intervening cross-wall therebetween and said cross-wall and neck having a diametric slot common to both for passing said protuberances therethrough, said neck having an internal minor diameter substantially equal to the minor diameter aforesaid of said shank whereby said stud has lateral support from said bushing at one end by said bearing and at



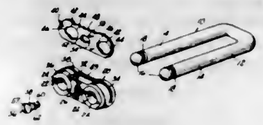
its other end by said neck, a coil spring in said housing around said shank and bearing at one end against said bearing and at its other end against said cross-wall thereby tending to slide the head end of the stud outwardly away from the underlying end of the bushing when the stud is in released condition, said neck having a peripheral groove next to said housing, a snap ring in said groove traversing said slot and thereby preventing outward withdrawal of said protuberances therebeyond, said housing having longitudinal channels on its exterior, said channels stopping short of the rearward end of said housing, a snap ring around said housing with tongues projecting into said channels thereby accommodating limited outward withdrawal of said bushing from said front member when the stud is released from engagement in said socket element, and a nut within said socket element and having threaded engagement therewith, said nut having an internal diameter enabling said bushing neck to enter within said nut in slidable engagement therewith, said nut being split and adapted to be contracted by wedging engagement of its threads with the threads of said socket element, and said nut having a key-hole slot for passing said protuberances therethrough to the upper end thereof and onto the end of said nut for exerting a longitudinal pull on said stud as said nut is screwed into tight engagement with said protuberances.

2,839,809
SEPARABLE LINK

Alden Y. Warner, Farmington, Wilbur J. Craven, East Hartford, and John Stacherl, New Britain, Conn., assignors to The Capewell Manufacturing Company, Hartford, Conn., a corporation of Connecticut

Application April 1, 1953, Serial No. 346,068
8 Claims. (Cl. 24—265)

1. A separable link comprising a U-shaped member including a pair of leg portions each provided with a groove extending at least partially therearound, a yoke member having a pair of spaced apertures into which said leg portions are adapted to extend, a third aperture disposed intermediate said pair of apertures and a transverse slot communicating with the three apertures, a transversely slidable locking plate in said slot extending between said spaced apertures and provided with a pair of elongated apertures through which said leg portions are extendable, said elongated apertures being sufficiently small adjacent one end to form bordering edge portions engageable with said grooves thereby to prevent removal of said plate and yoke from said U-shaped member and large enough adjacent their other ends to permit removal thereof, said locking plate having

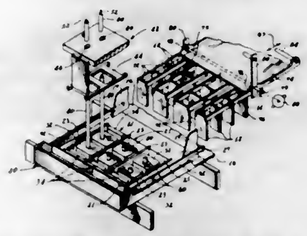


a third elongated aperture registrable with the third aperture of said yoke which is larger at one end than the other, and a longitudinally positionable member received by the yoke third aperture and extending through the plate third aperture, said longitudinally positionable member having one axial portion of a size commensurate with the size of the enlarged end of said yoke third aperture and another axial portion of a size commensurate with the smaller end of said yoke third aperture, whereby said locking plate may be retained in transversely shifted positions to prevent removal of said plate and yoke or may be shifted to permit removal thereof from said U-shaped member depending upon the longitudinal position of said last-named member.

2,839,810
AGGREGATE FEED APPARATUS FOR CONCRETE BLOCK MACHINES

John E. Kovach, Nutley, N. J., assignor to Bergen Machine & Tool Co., Inc., Nutley, N. J., a corporation of New Jersey

Application February 10, 1955, Serial No. 487,437
7 Claims. (Cl. 25—103)



1. A block-molding machine comprising a mold box, plates defining a mold cavity, a pallet closing the bottom of the mold cavity, a hopper for holding aggregate, a plate located under an opening at the bottom of the hopper, the plate being spaced from the hopper outlet, aggregate feed means comprising groups of blades extending between the level of the hopper outlet and the top of the plate which is below the hopper, the groups of blades being transversely spaced from one another to leave clearance between them for passing other structure of the block molding machine, a top plate extending from the upper edge of the mold cavity at both ends thereof and being flush with the plate that extends under the hopper outlet, operating mechanism for moving the blades back and forth between positions under the hopper outlet and positions over the mold cavity, and means for eliminating accumulation of aggregate left on the

top plate beyond the mold cavity by leakage of aggregate through the space between groups of blades, said means including a blade, independent of the groups of blades, located over the top plate of the mold at the end of the mold remote from the hopper, and different motion transmitting connections that reciprocate the groups of blades through the full stroke from the hopper to the mold cavity and said blade through a shorter stroke to pull loose material from the top plate into the mold cavity before successive mold-filling strokes of the groups of blades.

2,839,811
COMPOSITION AND METHOD FOR CURING CONCRETE, SAID COMPOSITION CONTAINING CYCLIZED RUBBER AND WAXES

Stephen W. Benedict, Cleveland Heights, and Paul T. Camp, Euclid, Ohio, assignors, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application July 22, 1955
Serial No. 523,943
6 Claims. (Cl. 25—154)

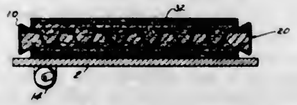
1. A coating composition comprising from about 18 to about 30 parts by weight of a combination of waxes comprising oxidized microcrystalline wax having a melting point above about 190° F. and unsaponifiable crystalline wax having a melting point below about 165° F., said waxes being present in a weight ratio from about 2:1 to 1:2, and from about 4 to about 15 parts by weight of a cyclized natural rubber, said waxes and cyclized rubber being dispersed in sufficient hydrocarbon solvent to partially solvate the microcrystalline wax and produce a mobile mixture containing up to about 60% solids and capable of being thinned with additional hydrocarbon solvent to a desired consistency for application to a surface to be coated.

5. In a process for curing concrete wherein the concrete is placed and allowed to harden, the step which comprises applying to the surface of the freshly placed wet concrete a non-aqueous coating composition comprising from about 18 to about 30 parts by weight of a combination of waxes comprising oxidized microcrystalline wax having a melting point above about 190° F. and unsaponifiable crystalline wax having a melting point below about 165° F., said waxes being present in a weight ratio from about 2:1 to 1:2, and from about 4 to about 15 parts by weight of a cyclized natural rubber, said waxes and cyclized rubber being dispersed in sufficient hydrocarbon solvent to partially solvate the microcrystalline wax and produce a mobile mixture containing up to about 60% solids and capable of being spread as a thin coating film.

2,839,812
METHOD OF MANUFACTURING A STRUCTURAL PANEL

Henry A. Berliner, Washington, D. C.

Application March 12, 1956, Serial No. 570,913
2 Claims. (Cl. 25—154)



2. The method of manufacture of a structural panel which consists in casting a relatively thin layer of an aggregate which forms a hard, high-strength concrete, while said layer is sufficiently firm that it will not slump but before it has set placing about its periphery a metallic frame member having an inwardly facing C-shaped cross section with the layer of aggregate within the cross-section of the peripheral metallic frame member, pouring a relatively thick layer of aggregate which forms a light-weight, low-strength concrete on the previously cast layer and within the surrounding peripheral metallic frame member, and casting a third relatively thin layer of aggregate which forms a hard, high-strength concrete on said second layer and within the surrounding peripheral frame, allowing said layers of cast aggregate to harden, and subjecting the cast aggregate to rapid vibratory movement during each pouring operation.

2,839,813
FABRIC SPREADING ROLLER

Heinrich Voegelin, Wyler, near Utzenstorf, Switzerland, assignor to Fritz Buser Maschinen- und Apparatebau, Wyler, near Utzenstorf, Switzerland

Application April 19, 1955, Serial No. 502,468
6 Claims. (Cl. 26—64)

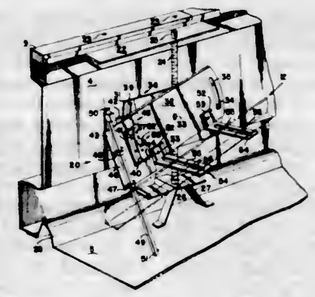


1. A temple roller for band-like webs, comprising an axle, several coil-like stretching elements arranged parallel to and in uniform distribution around said axle and mounted for joint rotation therearound, each of said stretching elements being adapted to be lengthened and shortened in the axial direction, a carrier arranged for rotation around said axle in a predetermined rotary path and engaged by one of the ends of respective of said elements, said engaging ends being mounted on said carrier for rotation in a plane at a bias to the axis of said axle and intersecting said axis at the center of rotation, and a support ring rotatably mounted on said axle and having arms extending therefrom, said arms having secured thereon the opposite ends of said stretching elements, and each stretching element consisting of a coil spring and, a supporting tube passing through the coil spring, one end of said tube being fixed to said carrier and the other end being longitudinally displaceably mounted on an arm of said support ring.

2,839,814
ADJUSTABLE BED MECHANISM FOR CASKETS

Edgar F. Harter, Springfield, Ohio, assignor to The Springfield Metallic Casket Co., Inc., Springfield, Ohio, a corporation of Ohio

Application May 21, 1956, Serial No. 586,180
4 Claims. (Cl. 27—12)



1. In casket-bed tilting mechanism, in combination, a bearing plate fixedly supported against tilting movement, a

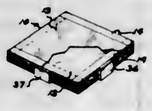
tilt plate having means for securing thereto an end of a casket-bed, pivot means supporting the tilt plate pivotally on the bearing plate, a bracket carried by the tilt plate, a hand-operable rod carried by the bracket in spaced relation with the pivot means, said rod being slidably and non-rotatably mounted on the bracket and having force-transmitting connection with the bracket for moving the bracket and tilt plate about the pivot means with respect to the bearing plate, and fastening means for securing the tilt plate to the bearing plate to prevent relative pivotal movement between the bearing plate and tilt plate.

2,839,815
FEATURES RESTORING AID
Samuel E. Reeves, Montrose, and Dennis L. Scott, Glendale, Calif.; said Reeves assignor to said Scott
Application April 27, 1953, Serial No. 351,454
3 Claims. (Cl. 27—21)



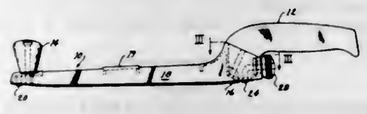
1. A features restoring aid for use by embalmers, comprising a plurality of self-penetrating bone entering screws; each of said screws having a conical, threaded, bone entering and engaging body portion, a head portion of greater diameter than the largest diameter of said body portion and a connector engaging neck portion disposed between said head and body portions, and a flexible metal strip connector means interconnecting said neck portions; said connector means comprising a thin, flexible metal strip having a plurality of spaced holes disposed along the length thereof through which said screws may be threadedly inserted with said body portion passing entirely through said holes with resultant capacity for selective spacing of the said screws and assembly of said strip and screws ready for use.

2,839,816
METHOD OF MAKING STACKED TYPE CAPACITORS
George P. McGraw, Jr., Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application January 12, 1953, Serial No. 330,725
9 Claims. (Cl. 29—25.42)



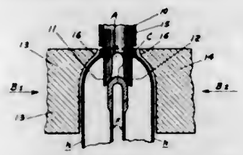
9. A method of making capacitors from sheets of dielectric, each sheet having a plurality of stripes of metal thereon arranged in spaced relation to each other and the side edges of the sheets to form bare margins along the edges of the stripes, which comprises the steps of arranging a plurality of said sheets in a stack with the corners of the sheets in superposed alignment and with the stripes of metal on adjacent sheets crossing each other at right angles and with the stripes on alternate sheets disposed in aligned and superposed relation to one another, coalescing the corners of the sheets of the stack, successively cutting through the stack of sheets along the middle of the bare margins of the stack to progressively sub-divide the stack into a plurality of smaller stacks of sheets with a single stripe on each sheet, and coalescing the unbonded corners of the sheets of the sub-divisions of the stack as they are formed after each cutting action.

2,839,817
ABRADING TOOL HOLDER
Leonard Garth Huxtable, New York, N. Y., and Eugene L. Staiger, Greenfield, Mass., assignors to Millers Falls Company, Greenfield, Mass., a corporation of Massachusetts
Application June 20, 1957, Serial No. 666,944
3 Claims. (Cl. 29—80)



1. A holder for an abrading blade, said holder comprising an elongated frame having undercut means at one end for engaging an inwardly facing edge of the abrading blade adjacent one end thereof, an open topped chamber defined by walls including a rear wall at the other end of said frame, undercut means extending from said chamber to engage an inwardly facing edge of the abrading blade adjacent its other end, said undercut means having an integral portion extending rearwardly within said chamber, the rear wall of said chamber being slotted to the top thereof, a knob threaded onto said rearwardly extending portion and grooved to receive opposite portions of the rear wall defining said slot, and a handle secured to said frame covering the top of said chamber and closing off the top of said slot across the said opposite portions to maintain the knob in said slot.

2,839,818
WIDENING BORE OF TUBULAR BEND
Andre Huet, Paris, France, assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application December 14, 1951, Serial No. 261,666
1 Claim. (Cl. 29—157.6)

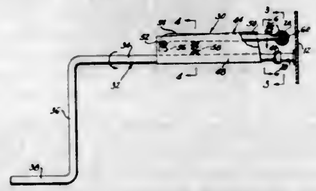


The method of narrowing the spacing of the tubular legs contiguous to the elbow of a 180° bend integrally formed in a metallic tube and having an open neck on the end of the elbow which comprises; suitably heating the crotch region of the bend; introducing into the neck of the elbow a punch having two convergent prongs separated by a relatively deep recess of a width less than the spacing of the adjacent inner wall surfaces of the tubular legs; exerting pressure on the punch and displacing it axially within the elbow toward the crotch thereof to bring the base of the recess between said prongs substantially into contact with the internal crotch region of the elbow and with the tube leg portions contiguous to said elbow and thereby move closer together the confronting wall portions of the tube legs contiguous to the elbow; and decreasing the spacing of the outwardly located portions of the tube legs contiguous to the elbow by applying oppositely acting forces against the external regions of the legs, whereby the combined action of the punch and said forces effects a decrease in the spacing of the axes of said tube legs.

2,839,819
WELDABLE SINTERED MOLYBDENUM
William N. Platte, Boston, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application July 12, 1957
Serial No. 671,408
2 Claims. (Cl. 29—182)

1. A sintered molybdenum compact that, as prepared, can be arc welded that consists of the compact prepared by blending within a hydrogen-reduced molybdenum powder about 0.2 to 0.5 percent by weight of titanium powder, said titanium powder being admixed with water in an amount of about 15 to 25 percent by weight based on the titanium, pressing the powder mixture to form a compact, and vacuum sintering the resultant compact at an elevated temperature of above about 1700° C. but below the melting point of said mixture.

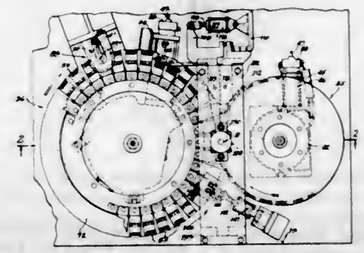
2,839,820
BRAKE SHOE SPRING TOOL
Samuel E. Bates, Texarkana, Tex.
Application November 14, 1956, Serial No. 622,211
3 Claims. (Cl. 29—227)



1. A tool for tensionally mounting a tension spring between a brake shoe and a laterally extending anchor pin on a backing plate of a wheel brake assembly comprising a crank including an elongated shaft terminating in mounting means for rotatably disposing said shaft on an end portion of an anchor pin for rotation about the longitudinal axis thereof, a rod member pivotally supported on an intermediate portion of the shaft normal to the longitudinal axis of said shaft for movement toward and away from said shaft, and spring means interposed between the shaft and rod urging the rod away from the shaft, means on said shaft for engaging said arm to limit its pivotal movement to a position where the arm is normally substantially parallel to the shaft, the terminal end portion of the rod extending beyond the means on the shaft for rotatably disposing the shaft on said anchor pin permitting the terminal end portion of the rod to be rotated in a plane intersecting an intermediate portion of the anchor pin about which the shaft is rotated facilitating engagement of a hook-end portion of the tension spring to be drawn into alignment with the intermediate portion of the anchor pin and disposed on or removed from said anchor pin, said means for rotatably supporting the shaft on an anchor pin comprising a socket portion opening longitudinally of the terminal end of the shaft.

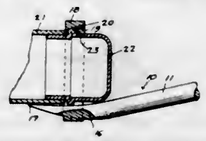
2,839,821
APPARATUS FOR FOLDING AND ASSEMBLING WIPER PADS IN METAL CLIPS
Joel R. Johnson, Chicago, Gust W. Mattson, Cicero, and James H. Tomlin, La Grange, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 29, 1954, Serial No. 446,614
8 Claims. (Cl. 29—235)

1. In an apparatus for folding wiper pads and assembling them in U-shaped clips, the combination of a pair of relatively thin flexible plates having smooth rounded edges, a movable member for supporting said plates with portions thereof including said edges extending from the member in a predetermined spaced and parallel relation with each other and for movement to a plurality of stations, means on said member for supporting and aligning a flat pad adjacent said edges, means at one station engageable with an intermediate portion of said pad for pushing it between the plates to fold it and cause it to be retained therebetween, means at a second station for moving the flexible plates ad-



jacent said edges toward each other to compress the folded pad therebetween, means at the second station for applying a U-shaped clip to and over the plates with the side walls of the clip disposed on the outside of the plates and the folded pad therebetween, means at a third station for ejecting the folded pad from between said plates to cause it to push the U-shaped clip off of said plates and into assembled relation with the pad, and means for moving the movable member from one station to the next.

2,839,822
GREASE CUP REMOVING TOOL WITH WEDGE AND FULCRUM
Waldo R. Dillingham, John H. Dillingham, and Thomas Dillingham, Hart, Mich.
Application April 27, 1956, Serial No. 581,045
1 Claim. (Cl. 29—245)



A tool for removing grease retainer cups from wheel hubs, said tool comprising a ring having a conical bore providing an inner surface to engage behind a bead on the exterior of a cup to be removed, an elongated handle having a portion extending through said ring and secured thereto along one edge thereof, the handle portion extending through said ring terminating in a sharpened edge and forming a fulcrum for said ring.

2,839,823
INSERTING TOOL FOR PUSH-IN INSERTS
Leo J. Brancato, Danbury, Conn., assignor to Heli-Coil Corporation, Danbury, Conn., a corporation of Delaware
Application May 25, 1955, Serial No. 511,026
5 Claims. (Cl. 29—275)

1. A tool for pushing a slightly oversized screw thread forming wire coil insert into a cylindrical hole while contracting said coil to the diameter of said hole, comprising a shell having a foot end, and a mandrel rotatable and axially movable in said shell so as to be retractable into and projectable from said foot end of said shell, the inner diameter of at least the lower portion of said shell

being substantially equal to the outer diameter of said coil for which the tool is destined, so as to provide in said shell portion a sliding fit for the coil prior to its being contracted, the lower part of said mandrel including a first, a second and a third portion, the diameter of said second or median portion being smaller than that of said first portion which fits slidingly into said lower shell portion, and being larger than the diameter of said third or ultimate end portion whereby a shoulder is formed be-



tween said third and said second portions, said second mandrel portion being of a diameter fitting the hole into which said coil is to be inserted, and said third portion having a diameter substantially as large as but not larger than the inner diameter to which said coil is to be contracted, said shoulder having a helical face of a pitch corresponding to the pitch of said coil when its convolutions bear upon one another, and forming a step for engagement with the upper end of said coil when said third portion is introduced into the interior of said coil.

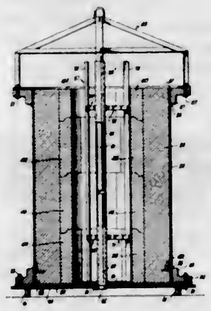
2,839,824
METHOD OF SEVERING PIN TYPE CONNECTORS FROM STRIPS THEREOF
Quentin Berg, New Cumberland, Pa., assignor to AMP Incorporated, a corporation of New Jersey
Original application March 24, 1950, Serial No. 151,795, now Patent No. 2,778,097, dated January 22, 1957. Divided and this application February 27, 1956, Serial No. 572,783
3 Claims. (Cl. 29—417)



1. The method of severing pin type connectors from a strip in which successive connectors are joined by a narrow tongue, including the steps of disposing the tongue across the edge of a shear blade in offset relation to the face of the shear blade, shearing the tongue and moving the pin nose relatively across the face of the shear blade in a direction to wipe the sheared portion toward the longitudinal axis of the pin while compressing the end of the connector opposite the pin end to extrude longitudinally metal of the pin to press the moving pin nose against the shear blade face thus to burnish the sheared portion.

2,839,825
CARBON BLACK PRODUCING FURNACE AND METHOD OF CONSTRUCTION
Clyde H. Edwards, Jr., and Travis S. Whitsel, Jr., Borger, Tex., assignors to Phillips Petroleum Company, a corporation of Delaware
Application April 8, 1954, Serial No. 421,762
4 Claims. (Cl. 29—455)

1. The method of constructing a carbon black producing furnace having an elongated cylindrical passage surrounded by a quantity of refractory material which comprises, in combination, the steps of initially securing a first cylindrical flange to a lower base assembly; mounting in an upright manner a cylindrical hollow metal shell on said base assembly inside first flange; mounting axial expandable guide means within said shell upon said lower base assembly and securing same thereto in its expanded position; securing a second cylindrical flange to an upper base assembly and mounting the combination upon said shell; welding said first and second flanges to said shell; mounting plural cylindrical layers of precast refractory sections upon said lower base assembly in spaced relation with the inner wall of said shell; centering said sections by said guide means, the latter adapted to maintain said sections in an upright cylin-



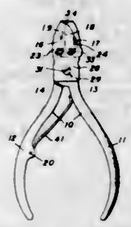
drical form and prevent inward displacement and misalignment thereof; filling the annular region between said refractory sections and said shell with castible refractory material by introducing said castable refractory material therein through the upper open end of said region; curing said refractory material; disassembling said shell from said upper and lower base assemblies; raising said guide means out of contact with the inner wall of said sections so as to collapse the said guide means; removing said guide means in its collapsed position from the interior of said refractory sections; and joining said shell to a plurality of similar interchangeable shells whereby the interior of said shells so joined form an elongated cylindrical passage.

2,839,826
METHOD OF MAKING HYDRODYNAMIC COUPLINGS
Eugene F. Farrell, Grosse Pointe, Mich., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 22, 1952, Serial No. 327,311
1 Claim. (Cl. 29—530)



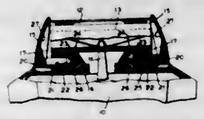
The method of making a fluid coupling element comprising the steps of providing an annular ferrous member; immersing the member in a bath of molten aluminum containing metal at a temperature and for a time sufficient to form a ferro-aluminum alloy film on the member, transferring the member without substantial cooling to a second bath of an aluminum containing metal at a lower temperature than the first bath to arrest further formation of the alloy immediately inserting the member partially within a mold of semi-toroidal shape and casting an aluminum containing metal in the mold and on the wetted surface of said member within the mold to form a permanent bond between the member and cast metal, and immersing the annular member and cast metal into a bath of liquid sodium silicate or other suitable impregnating material effective to penetrate into and fill the interstices in the bonded portions of said member and cast metal.

2,839,827
NAIL CLIPPER
Andrew M. David, Washington, D. C.
Application June 19, 1957, Serial No. 666,580
3 Claims. (Cl. 30—28)



1. In a nail clipper, the combination with a pair of pivoted operating handles having jaws provided with mutually coacting cutting edges, said jaws having bevelled sides arranged to form a relief recess between said bevelled sides when said jaws are closed, a guard carried by said one jaw, said guard arranged to extend from the outer edge of the one jaw to the corresponding outer edge of the opposite jaw when said jaws are open so as to span the mutually coacting cutting edges of said jaws and to form a pocket with said relief recess for retaining short lengths of nail and cuticle severed by said jaws, said guard having a rectangular tongue portion at its base, a forwardly extending curved cover portion which extends upwardly so that the guard member at its top is of sufficient width to completely enclose the relief recess when the jaws are in open position.

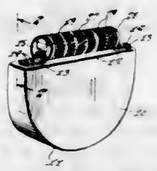
2,839,828
MEANS FOR RETAINING AND OPERATING A PIVOTED HAIRPOCKET
David R. Locke, Westport, Conn., assignor to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Application August 17, 1956, Serial No. 604,707
3 Claims. (Cl. 30—41)



1. In a shaver having a casing, cutter units housed within said casing, a pivoted plate forming an end wall of said casing, guide ways on the side walls of the casing, said guide ways opening into the top of the side walls, trunnion pins extending from opposite lower side of the plate and extending into said guide ways to permit the pins to be moved down into the lower ends of the guide ways whereby the plate is thus disposed in a pivotal position, and a spring pressed plunger disposed within the casing and adapted to engage the lower end of the plate in this position thereof to hold the plate in an open or closed position.

2,839,829
RAZOR WITH STATIONARY BLADE AND MOVABLE SHEAR PLATE
Raymond Knapp, Forest Hills, N. Y.
Application January 30, 1956, Serial No. 562,223
4 Claims. (Cl. 30—43)

1. A non-electric dry shaver comprising, in combination, a handle, a segmental cylindrical member, means mounting the opposite ends of said segmental cylindrical member upon said handle, a slotted hollow cylinder member open at both ends rotatably mounted upon said segmental circular member intermediate said mounting means, said segmental cylindrical member having a longitudinal groove defined by inwardly extending spaced parallel sides, the outer longitudinal edge of said sides defining tracks, blade holding means slidably supported upon said tracks for longitudinal movement through said cylinder, a pair of cutting blades carried upon opposite



sides of said blade holding means having edges in contact with the inside surface of said cylinder, said blade holding means comprising a blade holder of trapezoidal cross section having downwardly and outwardly sloping opposite sides, outwardly and upwardly extending clamps integral with the lower longitudinal edge of said opposite sloping sides with the lower ends of said clamps slidably received within said tracks of said segmental cylindrical member, and said cutting blades extending toward each other to cut on both the upward and downward strokes of the device.

2,839,830
EATING UTENSIL
Howard S. Neiman, Jr., Ocean City, N. J., assignor to George P. Pilling & Son Company, Philadelphia, Pa., a corporation of Pennsylvania
Application February 7, 1955, Serial No. 486,592
3 Claims. (Cl. 30—147)



1. An eating utensil comprising a pair of levers pivoted to each other and each comprising a handle portion and a blade portion, the handle portion of one of said levers being provided with a finger receiving loop while the handle portion of the other lever is provided with a thumb receiving elongated hook, said blade portions being provided with cooperating shearing edges and said blade portions having concave surfaces providing cooperatively when closed a spoon-shaped configuration, the blade portion of one of said levers being provided with a plurality of tines and the blade portion of the other of said levers being provided with a single tine merging smoothly with the outer edge and with the shearing edge of its blade portion.

2,839,831
SHEATHED KNIVES
Henry Baer, New York, N. Y., assignor to Ulster Knife Co., Inc., New York, N. Y., a corporation of New York
Application December 7, 1955, Serial No. 551,631
3 Claims. (Cl. 30—296)

1. In combination with a knife having a frame from one edge of which blades are outfoldable, a stiff wire shackle having a first pair of spaced approximately parallel registered reaches, each reach having a lower end and an upper end, a retroverted bend joining said lower ends, and a second pair of spaced approximately parallel

registered reaches, each reach of said second pair having an upper end and a lower end, a retroverted bend joining the upper end of each reach of the second pair to the upper end of a different reach of the first pair, the reaches so joined constituting a set of associated reaches, the reaches of each set of associated reaches lying in a plane approximately perpendicular to the planes in which the two pairs of reaches are respectively disposed, a tip at the lower end of each reach of the second pair, each tip being disposed at approximately right angles to its



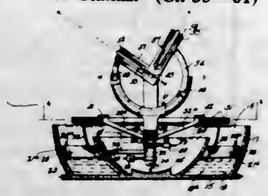
associated reach, said tips facing each other, and means at one end of the frame pivotally receiving said tips and permitting the shackle to swing into telescoped position against the frame in which the first named retroverted bend lies against the edge of the knife frame opposite to that from which the blades are outfoldable whereby when the shackle is swung into a position extending away from the frame the first named pair of reaches are closer to said edge from which the blades are outfoldable than to said opposite edge.

2,839,832
DUAL SIGHTS FOR DOUBLE-BARREL SHOTGUN
Harvey A. Williams, Davison, Mich.
Application September 14, 1955, Serial No. 534,274
2 Claims. (Cl. 33—51)



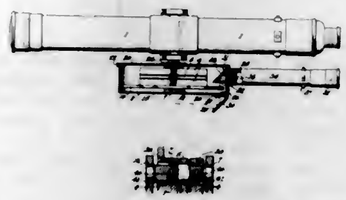
1. In combination, a double-barrel shotgun having a pair of substantially parallel laterally spaced barrels which converge forwardly toward each other, a rear sight positioned above and intermediate the barrels, and a pair of front sights positioned above and between the barrels and so spaced from each other that a line drawn through the rear sight and the left-hand front sight is parallel to a vertical plane containing the axis of the right-hand barrel when the gun is in shooting position and a line drawn through the same rear sight and the right-hand front sight is parallel to a vertical plane containing the axis of the left-hand barrel when the gun is in shooting position.

2,839,833
STABILIZED CELESTIAL NAVIGATION INSTRUMENT
Frederick H. Hagner, San Antonio, Tex.
Application March 26, 1952, Serial No. 278,598
15 Claims. (Cl. 33—61)



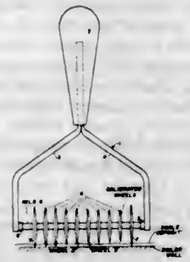
11. An instrument of the class described comprising a hollow base having a float receiving chamber, a compartment on said base within said chamber, a fluent material between the walls of said chamber and said compartment, a float supported by said material, means supported upon said float for measuring the position of celestial objects relative to an observer, and means suspended below said first mentioned means and positioned within said compartment for compensating for the force of Coriolis.

2,839,834
PRECISION PENDULUM-ACTUATED VERTICAL ARC OR CIRCLE FOR VERTICAL ANGLE MEASURING INSTRUMENTS
Rolland L. Hardy, Springfield, Va.
Application February 19, 1954, Serial No. 411,596
10 Claims. (Cl. 33—70)
(Granted under Title 35, U. S. Code (1952), sec. 266)



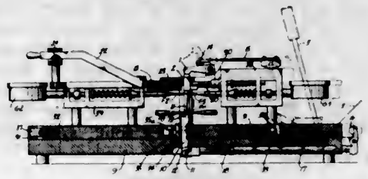
1. A device for minimizing torque transmitted to a normally horizontally arranged shaft in a vertical angle measuring instrument by rotating elements freely supported by said horizontal shaft comprising a liquid-tight cylindrical casing means fixedly connecting said casing to said horizontal shaft in axial alignment therewith, a central shaft freely mounted within said casing in axial alignment with said horizontal shaft and independently of the latter and said casing, a first pair of mutually spaced sector-shaped members having opposing plane surfaces and eccentrically mounted on said central shaft for free rotation thereon, means joining said pair of segments adjacent the peripheries thereof in registering relation, a second sector-shaped member having opposing plane surfaces and eccentrically rigidly secured to said central shaft in mutually spaced face relation with opposing plane surfaces of said pair of sector shaped members, apertures in said pair of sector shaped members to accommodate said joining means and to limit the motion of said second sector shaped members relative to said pair of sector shaped members, a transparent graduated dial plate mounted on an outer plane surface portion of one of said pair of sector shaped members adjacent a wall of said casing remote from the point of connection to said horizontal shaft, a first aperture in the planar wall of said casing which is remote from the point of connection to said horizontal shaft and adjacent the periphery of said graduated dial plate, a vibration damping medium contained within said casing, means mounted externally on said casing in cooperative relation with said first aperture for directing parallel light rays internally of said casing through said transparent graduated dial plate, an optical system mounted on said casing for observing said graduated dial plate, said first and second sector shaped members maintaining said central shaft and said graduated dial plate in a predetermined position whereby torque transmitted to said central shaft by friction in said central shaft bearing upon movement in a vertical plane of the rotating elements mounted on said horizontal shaft and said externally mounted optical system is opposed by said first and second sector shaped members to maintain said transparent graduated dial plate and said central shaft in a position to accurately measure vertical angles.

2,839,835
MEASURING DEVICE
William J. Zollinger, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill, a corporation of Ohio
Application September 25, 1956, Serial No. 611,847
4 Claims. (Cl. 33—169)



1. A thickness measuring device for measuring liquid or solid deposits on a surface comprising a pair of spaced guide wheels rotatably mounted on an axle, a holder in which said axle is mounted, a plurality of spaced measuring wheels rotatably mounted on said axle between said guide wheels, said measuring wheels being of smaller diameter than said guide wheels and differing from each other in diameter, said guide and measuring wheels each having its entire periphery provided with a continuous sharp edge, and wheels being of a material of sufficient hardness to cut through the deposits being measured.

2,839,836
GAUGES FOR INDIVIDUAL TURBINE BLADES
Fred H. Fuller, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application March 8, 1954, Serial No. 414,709
17 Claims. (Cl. 33—174)



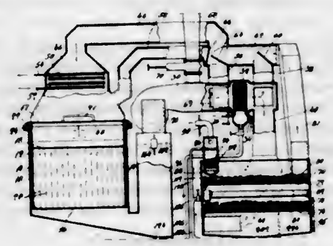
13. A gauge for determining the accuracy of a forged turbine blade such as includes a shank having a pair of opposite flat faces and an airfoil projecting from such shank with its longitudinal axis generally parallel to the shank's faces, both as to curvature of the surfaces of its airfoil and as to the shape and disposition of its shank relative to such airfoil, which gauge comprises two positioning members relatively movable in the direction of the blade's longitudinal axis, for engagement with the blade substantially at the opposite ends of such axis, to locate the blade longitudinally, but leaving the blade free to rotate limitedly about such axis with respect to said two positioning members, blade-rotating members directed towards the blade from opposite sides, and engageable with the blade as supported by the first two positioning members to rotate the blade about its longitudinal axis into a predetermined position, a common means to shift both of said positioning means, including certain of the blade-rotating means, substantially simultaneously into operative engagement with the blade, and contact gauge means shiftable into contact with the blade's airfoil, as thus located, to indicate the locations of the several such points of contact, with respect to intended locations thereof.

2,839,837
PIPE CALIPERING DEVICE
William E. Barnes, Beaumont, Tex., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
Application July 12, 1956, Serial No. 597,450
9 Claims. (Cl. 33—178)



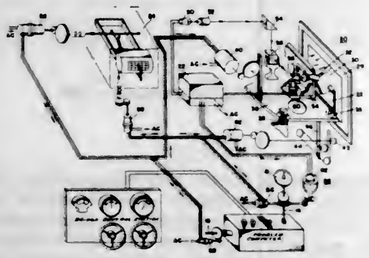
9. Register means for use with tubing calipers having independently movable feelers circumferentially spaced about a housing and a reciprocable motion-transmitting means in operating cooperation with said feelers, comprising a plurality of cylindrical registers operably mounted in visual position relative to said housing, and selected ratchet means for each register operably connected to the reciprocable motion transmitting means whereby each register is operated in response to a different degree of movement of the transmitting means.

2,839,838
APPARATUS FOR IMPREGNATING MULTI-LAYER PAPER INSULATION
Carl Georg Munters, Stocksund, Sweden
Original application October 2, 1947, Serial No. 777,534, now Patent No. 2,723,923, dated November 15, 1955. Divided and this application August 22, 1955, Serial No. 529,692
9 Claims. (Cl. 34—75)



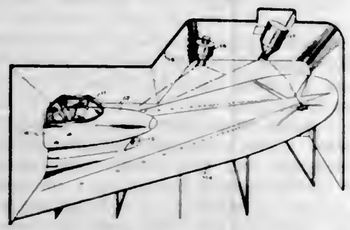
1. In an apparatus for treating material with an impregnating agent dissolved in a solvent, means forming a continuous passageway providing a closed circuit, a portion of said passageway forming a chamber for receiving material to be treated, means for producing flow of gas through said passageway including said chamber, means for heating the gas before introducing it into said chamber, a surface type condenser connected to said passageway for receiving gas emanating from said chamber, and containing solvent vapor, a contact type condenser connected to said passageway and constructed to spread a cooling liquid in a layer traversed by such gas emanating from said chamber, said cooling liquid having a higher temperature than the freezing point of the solvent, a heat exchanger, conduits connecting said heat exchanger and said contact type condenser for flow of cooling liquid therebetween, a refrigerating machine, conduits separated from said first mentioned conduits for connecting said refrigerating machine and said heat exchanger, and for flow of a refrigerant to cool said cooling liquid to a temperature below the freezing temperature of water, and a separating container in said first mentioned conduits to recover the condensed solvent from said cooling liquid by gravity separation.

2,839,839
BATHYTHERMOGRAPH SIMULATOR
Henry E. Hartig and George A. Brettell, Jr., San Diego, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application August 3, 1945, Serial No. 608,698
5 Claims. (Cl. 35—11)



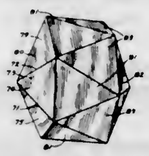
3. A bathythermograph simulator for use with a submarine diving trainer having an output representative of simulated depth of a submarine and an input representing water temperature information, said simulator comprising the combination of a graph representative of the relation between water temperature and depth, said graphical representation having thereon temperature indications and depth indications extending in mutually perpendicular directions, depth selecting means operatively connected to said output for selecting a depth indication on said graph corresponding to the simulated depth of said submarine, said depth selecting means comprising a vertically movable platform vertically movable by said connecting means to a position directly related to said selected depth indication on said graph, light directing means on said platform for projecting a beam of light to said graph, temperature indication responsive means for sensing a deviation of said light beam from a point on said graph corresponding to said selected depth, said temperature indication responsive means comprising photo-electric means mounted for horizontal movement on said platform for receiving light information reflected from said graph, positioning means responsive to said photo-electric means for moving said photo-electric means to the temperature indication corresponding to said point on said graph at said selected depth, and means for operatively connecting said positioning means to said input.

2,839,840
NIGHT LANDING SIMULATOR FOR TRAINING AIRCRAFT OPERATORS
Harold S. Hemstreet, Binghamton, N. Y., assignor to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application April 14, 1955, Serial No. 501,230
8 Claims. (Cl. 35—12)



7. Means for creating the illusion of night flight within visual contact of a pair of parallel rows of ground lights comprising, a pair of elongated parallel lamp housings each enclosing a substantially linear source of illumination, an elongated linear aperture in each of said housings, movable mounting means supporting said lamp housings with said elongated apertures in a common plane, first reversible motor means operable upon said movable mounting means to vary the distance between said parallel lamp housings, a plurality of transparent radial apertures in an otherwise substantially opaque plate disposed in a plane adjacent and parallel to the plane of said lamp housing apertures, said radial apertures converging to a common intersection point at one edge of said plate adjacent corresponding ends of said lamp housings and midway between said housings, said radial apertures fanning outwardly in opposite directions from said common point, all of said radial apertures being uniformly tapered from said point to uniformly greater widths at their outer extremities, cam operated means on said lamp housings for varying the width of said linear apertures in direct relation to the distance between said lamp housings, common support means for said radial aperture plate and said movable lamp housing means, second reversible motor means for moving said common support in lateral translation, third reversible motor means for moving said common support laterally along an axis at ninety degrees to the translational axis of said second motor means, and a fourth reversible motor means for rotating said common support about an axis normal to the plane of said radial aperture plate.

2,839,841
INSTRUCTIONAL BUILDING BLOCKS
John E. Berry, Minneapolis, Minn.
Application April 30, 1956, Serial No. 581,470
1 Claim. (Cl. 35—18)



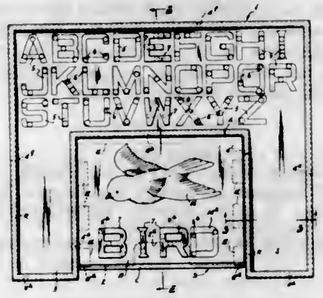
A plurality of identical tetrahedrons in which the planes of a first two adjacent faces of each tetrahedron make an angle of 60 degrees with each other, in which the planes of a second two faces of each tetrahedron make an angle of 60 degrees with each other, in which each face of each tetrahedron is constituted as an isosceles triangle, and 24 of which tetrahedrons are capable of being fitted together to form a solid, symmetrical, 24 faced polyhedron.

2,839,842
EDUCATIONAL BLOCK ASSEMBLAGE
George J. Keyko, Watertown, Conn., assignor to Teacher Toys, Inc., Hartford, Conn., a corporation of Connecticut
Application February 14, 1955, Serial No. 487,827
8 Claims. (Cl. 35—22)



1. A toy, comprising: a base member; a rigid post extending vertically from said base member; a single inner set of blocks, each of said blocks being of successively decreasing size and having an opening of the same size therein slightly larger than the periphery of said post to allow said blocks to be stacked in predetermined order on said post to form a rigid central body of stepped formation with the largest block engaging said base member; and a single outer set of blocks, each of said last-mentioned blocks having an opening corresponding in size and configuration to the outer periphery of the corresponding block of said inner set, whereby said outer set of blocks can be stacked only in predetermined order on said base member in telescoping relation to said inner set of blocks.

2,839,843
EDUCATIONAL APPARATUS
George J. Keyko, Watertown, Conn., assignor to Teacher Toys, Inc., Hartford, Conn., a corporation of Connecticut
Application January 18, 1955, Serial No. 482,473
5 Claims. (Cl. 35—35)



1. An educational apparatus for teaching the correct association of characters with an inscription including corresponding characters, comprising: a holder having a generally flat surface with the outlines of characters inscribed on said surface, said holder having a horizontal bottom wall and opposed upright side walls extending upwardly therefrom to form storage space for a plurality of inscription-bearing cards; movable play pieces corresponding in shape to said inscribed characters, said cards having inscriptions thereon upon which said play pieces are adapted to be superimposed; and means carried by said holder forming a support for one of said cards while in use, said card-supporting means including tabs projecting inwardly from said side walls in vertically spaced relation to said bottom wall.

2,839,844
MATHEMATICAL INSTRUCTION GAME
Carl F. Lehnkering, Shullsburg, Wis.
Application April 20, 1953, Serial No. 349,779
9 Claims. (Cl. 35—70)



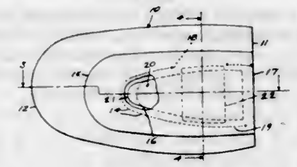
1. A set of blocks for numerical instruction, the set comprising a plurality of series of cubical blocks, the blocks of a given series having distinguishing means identifying them with each other, each series comprising a control block having the same number on each of its faces, and at least one secondary block having upon each of its faces a second number and a third number with an intervening "equals" symbol, said control block carrying a mathematical symbol indicating the relationship between the first number and the second number to produce the third number as an answer.

2,839,845
INTERCHANGEABLE ANTI-SLIP SHOE SOLE ATTACHMENT
Walter Charles Calvin Burton, Jr., Columbus, Ohio
Application March 5, 1957, Serial No. 644,080
1 Claim. (Cl. 36—7.7)



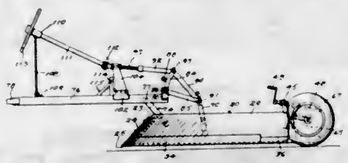
An interchangeable, anti-slip shoe sole attachment comprising an endless elastic band folded on itself, a flexible fabric material panel having the configuration of a shoe sole, an abrasive coating on the bottom of said panel, an elongated separable slide fastener, and a slider, one side of said slide fastener being fixedly secured to the upper portion of said panel adjacent the marginal edges thereof, the other side of said slide fastener being secured by stitches between the folded sides of said elastic band whereby said panel is detachably secured to said band by said fastener so that the panel may be replaced when it has worn out.

2,839,846
ARCH SUPPORTS
Mike Pappas, New York, N. Y.
Application May 22, 1957, Serial No. 660,900
1 Claim. (Cl. 36—71)



In an arch support, a pair of flexible plates, having a single aligned edge, one of said plates being larger than the other, a connection between said plates comprised of a line of stitching extending perpendicularly from the aligned edges of said plates conforming to the configuration of said plates and returning to said aligned edges, providing a pocket between said plates open at the aligned edges thereof, a plurality of flat flexible inserts positioned in said pocket, said line of stitching being broken at a longitudinal intermediate point to provide a second transverse opening to said pocket, and additional flat flexible inserts transversely positioned in through said second opening.

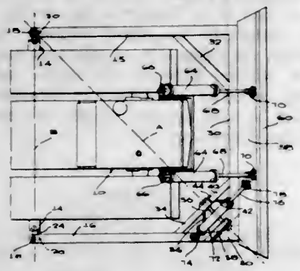
2,839,847
DITCHER
Alvin L. Meyer, Fairfield, Mont.
Application January 18, 1956, Serial No. 559,955
3 Claims. (Cl. 37—98)



1. A ditcher comprising a plow having a pair of rearwardly divergent sides, a pair of oppositely disposed wheels, means securing said wheels to opposite rear edges of said plow for vertical and horizontal adjustment thereon, a tongue, a pair of links fixed to and extending upwardly from the forward ends of said sides, means pivoting said tongue to the upper ends of said links in vertically

spaced relation to the forward portion of said plow, a second pair of links pivotally secured to said plow rearwardly of said first pair of links, and means extending between said tongue and said second pair of links for pivoting said tongue with relation to said plow whereby the forward portion of said plow is vertically adjusted with relation to the forward portion of said tongue.

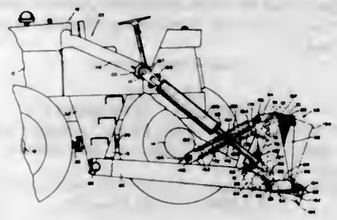
2,839,848
HYDRAULIC TILTING BLADE CONTROLS FOR BULLDOZERS
Theodore L. Mackey, Colorado Springs, Colo.
Application August 16, 1957, Serial No. 678,478
2 Claims. (Cl. 37—144)



1. In a bulldozer, a blade and mounting therefor comprising, in combination with a bulldozer frame, a pair of push arms at opposite sides of the frame mounted for up-and-down swinging movement about an axis extending transversely of the frame normally to the length thereof; a blade extending transversely between the forward ends of said arms, said blade having a rigid connection to one arm and a pivotal connection to the other arm; and means for rocking the blade about the axis of its pivotal connection to said other arm, said axis of the pivotal connection of the blade to said other push arm extending obliquely of the first named axis, the angle of the blade being at right angles to said push arms, said second axis bisecting the angle defined between the blade and said other push arm, said second axis including the first axis at the location of the connection of said one push arm to the frame, said means for rocking the blade about the second axis comprising a hydraulic cylinder pivotally connected to said other push arm and a ram extending from said cylinder and having a pivotal connection to the blade, the cylinder and ram overlying the second axis with the ram having its connection to the blade in closely spaced relation to the upper edge of the blade, the connection of the blade to said other arm comprising an elongated pin, diagonal brace members having registering openings receiving said pin, said brace members being rigid with the blade and said other push arm respectively, and correspondingly diagonally extending connector members spaced from the brace members and rigid with the blade and said other push arm, the connector members having registering openings receiving said pin.

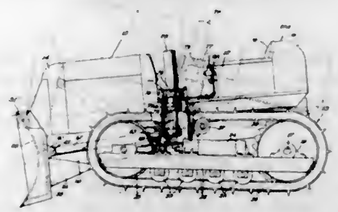
2,839,849
ADJUSTABLE BULLDOZER
Bruce V. Christensen, Berrien Springs, and Paul F. McAdams, St. Joseph, Mich., assignors to Clark Equipment Company, a corporation of Michigan
Application December 27, 1955, Serial No. 555,534
11 Claims. (Cl. 37—144)

1. In a bulldozer vehicle having a U-shaped frame comprising parallel side arms which are pivoted on the vehicle and a transverse base portion rigidly connecting said side arms forwardly of the vehicle body; a blade structure pivotally mounted on the front ends of said side arms forwardly of the transverse base portion, a selectively lockable telescoping strut member connecting one of said side arms to said blade structure, and fluid pressure responsive cylinder means substantially centrally



mounted on the transverse base portion and connected to the blade structure for tilting the blade structure about an axis transverse to the vehicle when the said strut member is not locked and for warping the blade structure when the said strut member is locked.

2,839,850
BODY MOUNTED BULLDOZER
Harry H. Washbond, Springfield, Ill., assignor, by mesne asignments, to Allis-Chalmers Manufacturing Company, a corporation of Delaware
Application May 9, 1951, Serial No. 225,363
12 Claims. (Cl. 37—144)

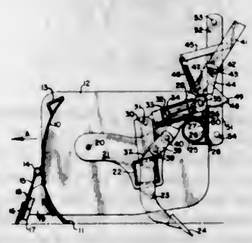


8. In a crawler tractor of the type having endless track running gear at each of its lateral sides, the combination comprising: a main body assembly; a track frame assembly for an endless track disposed at one side of said main body assembly; a first means pivotally connecting said track frame assembly to one side of said main body assembly for swinging movement about a rearwardly disposed transverse axis; an attachment rigidly secured to the forward end of said main body assembly including an earthworking tool disposed forwardly of said running gear; a horizontally disposed lever; a vertically disposed link having one end pivotally connected to said lever and having its other end pivotally connected to one of said assemblies; a second means pivotally connecting said lever to the other of said assemblies at a point spaced horizontally from the connection between said link and said one of said assemblies; and a vertically disposed extensible and contractible jack having its upper portion pivotally connected to said main body and its lower portion pivotally connected to said lever.

2,839,851
SCARIFIER AND SCRAPER
Martin Geiszler, Bell, Calif., assignor to Hydraulic Tool and Equipment Co., Inc., South Gate, Calif., a corporation of California
Application December 7, 1954, Serial No. 473,618
9 Claims. (Cl. 37—145)

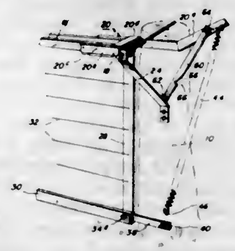
1. In a scarifier and scraper, a main scraper blade, a scarifier support pivotally mounted relative to said blade

so as to be movable upwardly and downwardly relative to the working edge of the blade, earth working teeth on said support and arranged to rout earth ahead of said blade, a fulcrum member having slide bearing means and being stationarily mounted relative to said blade, a lever having a pivotal axis and supported on said fulcrum member, said lever being connected with said scarifier support and movable on said slide bearing means laterally of said pivotal axis, a quadrant on said lever having an edge



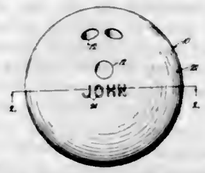
stop portion, a stop member mounted in stationary position relative to said blade, said slide bearing means on said fulcrum member permitting the pivotal axis of said lever to move toward said stop member, whereby said quadrant overrides said stop member during pivotal movement of said lever to raise said scarifier support and permit the edge stop portion of said quadrant to slide past said stop member and engage the same when said scarifier support is elevated to a position wherein said scarifier teeth are retracted upwardly out of the ground.

2,839,852
SPRING BIASED SELF-OPENING GATE
Henry C. Schloer, Greene, N. Y.
Application April 4, 1955, Serial No. 498,938
10 Claims. (Cl. 39—43)



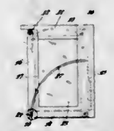
1. A vertically swinging-type gate of substantially parallelogram shape having top and bottom members and pivotally-connected interconnecting members adjacent the ends of said top and bottom members, a control-link member pivotally connected at one end to one end of said bottom member and having a pivot means adjacent its other end, an extension member rigidly connected to said top member and being disposed generally above said link member and having a gate-pivot means intermediate its ends and at substantially the same distance from said gate as said link-member pivot means, spring means for raising the gate connected to said extension member adjacent its outer end and adapted to be anchored adjacent said link-member pivot means, and a locking means for locking the gate in raised position and being operatively associated with said extension member and adapted to be anchored intermediate said link-member pivot means and said gate-pivot means.

2,839,853
BOWLING BALLS HAVING PERMANENT IDENTIFICATION INDICIA
Samuel J. Giangreco, Kansas City, Mo.
Application December 16, 1957, Serial No. 703,151
2 Claims. (Cl. 40—2.2)



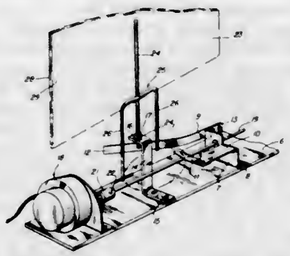
1. An article of manufacture comprising a bowling ball having an outer, rubber-like, hard cover portion provided with a series of channels in the outer face thereof corresponding to identification indicia each defined by a pair of side walls and a bottom having relatively initially rough surfaces; and a filler of tough, relatively elastic, crack-resistant, polymerized, synthetic resin material completely filling said channels and capable of withstanding shock incident to use of the ball, said material being physically and chemically bonded directly to the surfaces defining said channels.

2,839,854
VEHICLE PARKING SYSTEMS
André Martinet, Paris, France, assignor to Eric W. Dunn, New York, N. Y.
Application June 16, 1953, Serial No. 362,097
3 Claims. (Cl. 40—10)



1. Vehicle parking validating means for attachment to a vehicle, comprising a ticket bearing predetermined indicia on a face thereof and including means for designating the date and time when said vehicle is parked, means for removably attaching said ticket to said vehicle and including a frame member, means for releasably supporting said ticket on said frame member, and means for invalidating said ticket incident to its removal from said frame member.

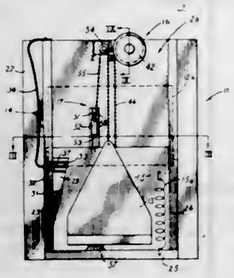
2,839,855
DISPLAYS
John M. Palmer, Larchmont, and Rudolf A. Schmidt, Flushing, N. Y.
Application April 26, 1956, Serial No. 580,871
1 Claim. (Cl. 40—33)



A unitary, mobile, display device comprising a three-dimensional housing having a top, bottom, side walls

and an opening in the front of the housing spaced equidistantly from and framed by the top, bottom and side walls, a vertically disposed rod having a horizontally mounted support attached to the upper portion thereof and a fork having a horizontal portion and two depending legs mounted inwardly of the lower end of said rod, a support bearing mounted on the rod above the lower end of the rod, pairs of brackets mounted on a base plate, said support bearing disposed between the brackets and below the opening in said housing and carrying a two-sided panel above the horizontal portion of the fork, a motor operated horizontal shaft mounted within the housing on said brackets and carrying a projection rotatable about a horizontal axis operatively engaging one of said forks, a vertically bendable stop spring affixed to one of said brackets having its free end upwardly angled, a horizontally bendable spring also mounted on said last mentioned bracket, both of said springs engageable by said legs whereby upon rotation of the shaft, the said projection engages one of said legs to initially impart a rotative movement to said rod and the other of said legs is thereupon engaged by the last mentioned spring to complete a 180° rotation of said rod and whereby the leg engaged by said projection will at the end of its movement be engaged by said stop spring to cause the panel to dwell in the framed opening.

2,839,856
AUTOMATIC DISPLAY APPARATUS
Richard E. Swank, Battle Creek, Mich.
Application March 9, 1956, Serial No. 570,496
15 Claims. (Cl. 40—36)



1. An apparatus for automatically, repeatedly and successively displaying a plurality of relatively flat objects, comprising: a frame structure; guide means on said structure defining a plurality of substantially parallel and vertical paths for said objects; an elevator disposed within said frame for raising said objects; a counterweight and means repeatedly effecting relatively slow upward movement of said counterweight followed by a relatively rapid downward movement thereof; means responsive to said downward movement for raising said elevator, said last-named means including a pulley supported upon said frame above said elevator for rotation about a horizontal axis; an elongated, flexible element extending around said pulley with one end secured to said elevator; catch means vertically, slidably supported upon said frame beneath said pulley and secured to the other end of said element, said catch means being engaged by said elevator during said downward movement of said counterweight whereby said elevator is raised; means subsequently effecting a lowering of said elevator; support means for receiving and supporting said objects in the raised position; and release means on said counterweight for disengaging said objects from said support means in a selected order as said counterweight is raised.

2,839,857
MULTIPLE FRAME FOR INTERCHANGEABLE PICTURES
Oscar Teller, New York, N. Y.
Application June 17, 1957, Serial No. 666,180
1 Claim. (Cl. 40—64)



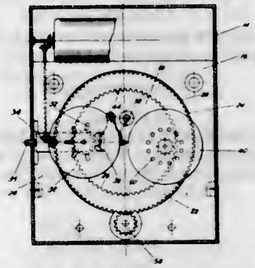
A framed picture comprising a frame bounding a display space in which a picture sheet may be positioned, said frame including a rectangular series of rails one of which is movable to a position providing access to the space for insertion and removal of the sheet; and a plurality of sheets mounted in said space for individual insertion and removal, for disposition of a selected sheet in position to be viewed within the space, said sheets respectively including means projecting therefrom to facilitate identification of the sheets, said identification means comprising tabs projecting outwardly from the several sheets, the several tabs being offset from one another transversely of the frame, the several grooves having slots communicating therewith, said tabs extending through the slots and projecting exteriorly of the frame, whereby on selection of a picture sheet, the tabs thereof may receive pressure from one's finger tending to shift the selected sheet out of registration with adjacent sheets.

2,839,858
NOVELTY DEVICES
Audra E. Williams, Holland, Tex.
Application April 28, 1955, Serial No. 504,432
2 Claims. (Cl. 40—68)



2. A device comprising: a pedestal; a solid emblem on said pedestal formed integral therewith and having front and rear planar surfaces, said pedestal and said emblem being formed of non-magnetic plastic material, said emblem having a transverse recess formed therein fully open at the rear surface of said emblem, said emblem having a reduced forward window in its front surface opening into said recess; a fixed shaft extending substantially centrally through said recess transversely of said pedestal; a plurality of wheels frictionally rotatably mounted on said shaft, narrow sections of the periphery of said wheels being visible through said window, said wheels having indicia on their periphery whereby said wheels may be rotated on said shaft to expose said indicia through said window; a cover mounted on the rear surface of the emblem openably closing the rear opening of the recess at the rear surface of the emblem; said pedestal being flared outwardly toward its lower end to provide an amplified planar base surface at such lower end; and a permanent magnet fixedly secured in said pedestal and having a face exposed in the plane of the planar base surface at the lower end of the pedestal; whereby said magnet will hold said planar surface in contact with a metallic surface to support the device in an upright position on said metallic surface.

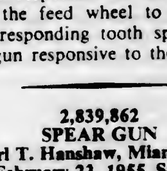
2,839,859
CALENDARS
Maier Berlin, Milan, Italy
Application September 27, 1954, Serial No. 458,591
Claims priority, application Italy March 16, 1954
4 Claims. (Cl. 40—112)



1. In a calendar device, in combination, a support; annular date indicia means turnably mounted on said support for movement relative thereto in such a manner as cyclically to indicate thirty-one days of the month; moving means connected to said date indicia means for moving the same through complete cycles of indications; day indicia means turnably mounted on said support for movement relative thereto in such a manner as cyclically to indicate the seven days of the week; coupling means connected to said date indicia means and said day indicia means and movable between a coupling position wherein said date indicia means and said day indicia means are coupled to each other in such a manner that said day indicia means is moved through one-seventh of its cycle during movement of said date indicia means through one-thirty-first of its cycle and an inoperative position wherein said date indicia means and said day indicia means are disconnected from each other, said coupling means including gear means formed along the inner annular edge of said annular date indicia means and a pinion carried by said day indicia means for rotation therewith, said pinion being capable of meshing with said gear means of said date indicia means, said coupling means further including mounting means for mounting said day indicia means for sliding movement toward and away from said inner annular edge of said date indicia means between two positions in which said pinion on said day indicia means and said gear means on said date indicia means are in and out of engagement with each other, respectively, said last-mentioned two positions constituting, respectively, said coupling and inoperative positions of said coupling means; biasing means for constantly biasing said coupling means into its coupling position; and operating means for moving said coupling means to its inoperative position against the action of said biasing means, whereby said moving means may, while said operating means is not actuated, move said date indicia means through the major portion of its cycle while simultaneously moving said day indicia means and whereby said moving means may, while said operating means is actuated, move said date indicia means through the end portion of its cycle without simultaneously moving said day indicia means through any portion of its cycle.

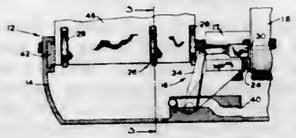
2,839,860
CAR VISOR CALENDAR
Clair V. Fry, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn., a corporation of Minnesota
Application February 23, 1956, Serial No. 567,171
2 Claims. (Cl. 40—121)

1. A removable visor record device having open ends including a one piece sheet-like body portion adapted to envelop the visor of an automobile in a single wrap, longitudinal scored grooves formed in said body portion to virtually divide said portion in two equal portions, one of which provides the front of said record device and the other the back thereof, the front portion having means for supporting a pencil and a calendar, the back portion having a record chart, a short free flap portion



extending from said back portion, a series of longitudinally extending scored grooves formed in said body between said short flap and said back portion to permit said record device to be adjustably attached to both sides of an automobile visor, and adhesive means for fastening said short flap and said body portion together to thereby secure said record device to the visor of an automobile.

2,839,861
EXTRACTOR FOR RECOIL-OPERATED, REVOLVER-TYPE AUTOMATIC GUN
Robert A. Rosenblum, Skokie, and Robert F. Windstrup, Chicago, Ill.
Application March 23, 1955, Serial No. 496,354
5 Claims. (Cl. 42—68)



1. In an automatic gun including a receiver, a unit axially slidable therein, a drum with chambers for cartridges rotatably disposed in the unit and provided with stations therein for the chambers including a firing station for discharge of the cartridges and an adjacent extraction station for removal of the cases of the cartridges from the drum, and a feed wheel secured to the drum for rotation therewith and provided with tooth spaces corresponding to the chambers, the unit being disposed for axial reciprocation in recoil and counterrecoil strokes responsive to the discharge, an ejection device comprising an extraction mechanism with a pawl disposed for axially slidable operation in the recoil unit to engage the extraction station cases for projection thereof to the corresponding tooth spaces responsive to the reciprocation, and means adjacent the feed wheel to axially restrain the cases in the corresponding tooth spaces and guide the cases from the gun responsive to the rotation.

2,839,862
SPEAR GUN
Earl T. Hanshaw, Miami, Fla.
Application February 23, 1955, Serial No. 489,986
6 Claims. (Cl. 43—6)

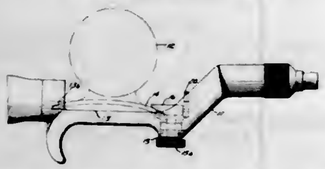
1. A spear gun comprising a pistol grip vertically split to form two sections having their confronting surfaces hollowed out to form a chamber, a trigger within the chamber, a cylinder for storage of gas under pressure removably positioned on said pistol grip, straps surrounding said cylinder having their ends secured to said pistol grip by bolts which pass through the sections of the pistol grip to draw the sections together and clamp the pistol grip to the cylinder, a barrel above said cylinder and aligned parallel thereto, a strap encircling said cylinder and attached to said barrel to secure said barrel to

to said cylinder, a valve block including a valve interposed between said cylinder and one end of said barrel,



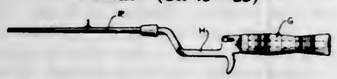
and means intercoupling said valve and said trigger to cause operation of said valve to release gas from said cylinder to said barrel when said trigger is actuated.

2,839,863
REEL CLAMP
Harold Heffel, Saginaw, Mich.
Application May 4, 1954, Serial No. 427,564
1 Claim. (Cl. 43—22)



In a fishing reel clamp for rod handles, the combination including: a handle provided with a reel seat having a well portion at the forward end thereof; a substantially cylindrical vertically slotted guideway perpendicular to the reel seat provided in the wall of said well portion; a connecting bore defined by and extending through said handle and in said reel seat within said well portion; a countersunk portion extending upwardly and partially through said handle in coaxial relationship to said bore; a transverse retainer bore defined by said handle and extending therethrough to intersect said countersunk portion; a wedge element seated in said well portion and having a guide insertable in said guideway; said wedge being provided with a depending threaded stem which is axially insertable through said connecting bore and into said countersunk portion; a stub nut provided with a threaded bore therethrough to engage said stem so as to controllably raise and lower said wedge as desired by rotating said stub nut, said stub nut being provided with an annular groove and seated in said countersunk portion; a set screw stop adjustably provided in upper limits of said guideway for containing said guide within said guideway; a set screw provided through said transverse retainer bore and engaging said annular groove of said stub nut so as to retain said stub nut in rotatable relationship within said countersunk portion.

2,839,864
HANDLES FOR IMPLEMENTS
Paul Martin, Cleveland, Ohio, assignor to himself as trustee
Application July 30, 1954, Serial No. 446,720
7 Claims. (Cl. 43—23)



1. A handle comprising an elongated core member, a plurality of individually molded synthetic plastic frustoconical discs each having an original high gloss molded peripheral surface, each disc having an axial passage snugly accommodating the core member, some of the discs being different in color than others of the discs, said discs being arranged in a row on said member in predetermined order and each with its ends in face to face relationship to those next adjacent to it, each disc having on at least one of its abutting end surfaces an ordinal symbol indicating its proper order in the row relative to the others, and all of said symbols facing toward the same end of the row when the discs are in properly assembled relation on the core, and an end element on the butt end of the core at the end of the row.

2,839,865
CONVERTIBLE APPLIANCE FOR SPORTSMAN
Joseph Lubanski, Pine Grove, Calif.
Application March 29, 1957, Serial No. 649,468
3 Claims. (Cl. 43—26)



3. In an appliance of the character involved, an elongated tubular case closed at one end and open at the other end for containing a plurality of sections of a fishing rod, closure cap means removably received on the open end of the case, and a handle member on said closure cap means including means thereon for supporting a fishing reel, said closure cap means and case including cooperating displaceable lock means for retaining said closure cap means on said case, said closure cap means including a body portion removably retained on the open end of said case, said lock means comprising an intermediately pivoted lever mounted longitudinally of an intermediate portion of the outer surface of the case, said lever including a lateral dog portion at one end thereof engageable with the outer surface of the body portion of the closure cap means, aperture means in the body portion of the closure cap means removably receiving the dog portion therein for preventing removal of the closure cap means from the case, and spring means extending between the lever and case normally biasing the dog portion toward the aperture means.

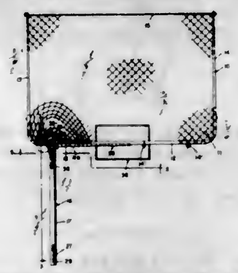
2,839,866
FISHING LURE
James E. Jay, Merriam, Kans.
Application February 1, 1956, Serial No. 562,824
2 Claims. (Cl. 43—41)



1. A fishing lure comprising a mesh bag having a closed front end and an open rear end, a rubber closure

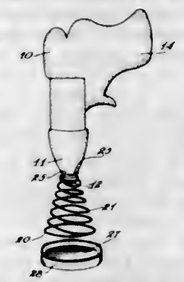
member molded to the rear open end of said mesh bag, said closure member having an elastic closure ring spaced from the open end of said mesh bag and extendable to receive a minnow into said mesh bag and retractable to partly close said mesh bag.

2,839,867
GROUND TRAP FOR BIRDS
Alfred D. Knutsen, Lansing, Mich.
Application April 5, 1957, Serial No. 650,940
8 Claims. (Cl. 43—62)



1. A ground trap for birds comprising a net assembly and an anchor assembly hingedly connected together for movement between a substantially flat and unfolded set position and a folded sprung position, a tension spring secured to one of said assemblies, said spring being anchored at one end to said one of said assemblies and releasably anchored at its opposite end to the same assembly when the trap is in the set position, means connecting said opposite end of the spring to the other assembly to cause the trap to assume the sprung position when said opposite end of the spring is released, and a trigger for releasing said opposite end of the spring.

2,839,868
BUBBLE GUNS
Richard A. Lathrop, Chicago, Ill.
Application May 27, 1957, Serial No. 661,850
3 Claims. (Cl. 46—8)



1. A bubble forming device comprising a hollow toy gun presenting a muzzle formed with an orifice, the gun being compressible to eject an air jet from said orifice, and a carrier for a bubble-forming film, said carrier being mounted on the muzzle of the gun with the film in the path of said air jet, said carrier being a coil spring expanding in outward direction, and the inner end coil of the spring being wound around said muzzle with gripping engagement.

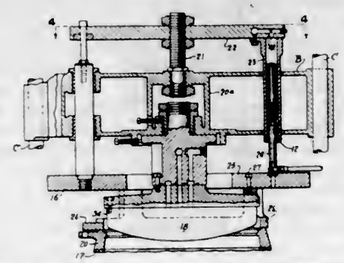
2,839,869
SPINNING TOPS
Jose Sanchez Lopez, Laredo, Tex.
Application July 15, 1955, Serial No. 522,250
5 Claims. (Cl. 46—65)

1. A spinning top comprising in combination, a plurality of substantially conical interfitting tops, varying in depth and diameter, each adapted to spin independently of the others, the top having the smallest depth and smallest diameter including an integral lid adapted to engage all peripheral edges of all of said interfitting tops except said lip top, the uppermost edge surface portions of each of said tops excepting that of said lip top lying



in the same horizontal plane and being flush with each other thereby providing a substantial, broad surface upon which the lid top may rest when nested, one of said tops being manually rotatable and serving as a principal top to support and enclose the other interfitting tops and to impart rapid rotary movement thereto simultaneously to cause the same to spin.

2,839,870
MACHINE FOR PRESS MOLDING GLASS ARTICLES
Robert R. Denman, Sylvania, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application January 10, 1956, Serial No. 558,335
13 Claims. (Cl. 49—35)

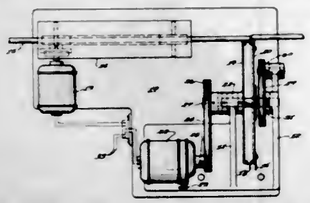


3. The combination of a mold assembly comprising a bottom mold, a ring mold mounted thereover and seated on the bottom mold, a press molding element mounted for up-and-down movement from and to a molding position for molding an article within the said mold assembly, said press molding element being shaped to enter and engage said ring mold while the latter is seated on the bottom mold and center the ring mold with respect to said bottom mold by horizontal movement of the ring mold during the downward movement of the said element and while the ring mold remains seated on the bottom mold, the ring mold and bottom mold having flat, horizontally disposed contacting surfaces permitting the said horizontal centering movement of the ring mold, means for applying a predetermined downward pressure on the ring mold during the centering thereof by the press molding element, and means for thereafter increasing said downward pressure during the final downward movement of the press molding element.

2,839,871
GLASS ROD AND TUBE CUTTING MECHANISM
Lewis M. Austin, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application May 26, 1955, Serial No. 511,238
11 Claims. (Cl. 49—48)

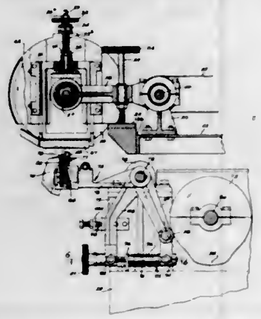
2. Apparatus for severing a glass rod into individual lengths, comprising means for continuously drawing the rod horizontally in the direction of its length, a scoring

blade, a carrier on which the blade is mounted, means for rotating the carrier about an axis parallel with said rod and thereby bringing the scoring edge of the blade in contact with the rod and advancing said edge lengthwise while in contact with the rod, said edge being substantially in a plane tangent to the rod at the point of



contact throughout the movement of said edge in contact with the rod, the blade being arranged at an angle to the direction of its movement while in contact with the rod and thereby causing the point of contact of the blade with the rod to advance with the rod while in contact therewith.

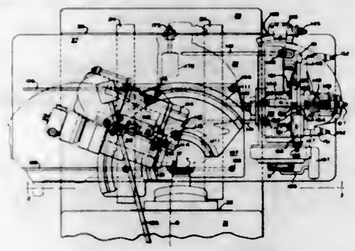
2,839,872
GLASS CANE AND TUBE SEVERING APPARATUS
Leon E. Cline, Vineland, N. J., assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application June 8, 1954, Serial No. 435,118
16 Claims. (Cl. 49—48)



1. Apparatus for severing lengths of glass rod from stock continuously drawn in the form of a rod and in the direction of its length, said apparatus comprising a scoring device mounted adjacent to the path of said stock and spaced laterally therefrom, automatic means for periodically applying a lateral force to the stock and thereby moving it laterally into contact with the scoring device and simultaneously placing a strain on the glass, said automatic means comprising a roll carrier, rolls journalled on the carrier in position to support and guide the stock, the rolls being on opposite sides of and in proximity to the scoring device, and means for moving the carrier and rolls in a direction to apply said lateral force to the stock.

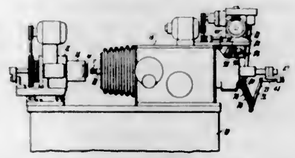
2,839,873
METHOD AND MACHINE FOR MAKING CURVED TOOTH GEARS
Meriwether L. Baxter, Jr., Brighton, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Application July 22, 1950, Serial No. 175,366
31 Claims. (Cl. 51—33)

4. In a gear making machine the combination of a work spindle and a rotatable cradle, a tool spindle rotatable on the cradle, a dresser spindle, means for alternately bringing the work spindle and the dresser spindle into working relationship with the tool spindle, a first drive means for the cradle, a second drive means for the tool spindle, and differential means connecting the work spindle with the first and second drive means, whereby the cradle and the tool spindle may be rotated by said



first drive means when the tool spindle and the dresser spindle are in operative relationship, and the work spindle may be rotated by both of said drive means when the work spindle and the tool spindle are in operative relationship.

2,839,874
MACHINE CONTROL MECHANISM
Paul Maker, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application April 23, 1956, Serial No. 580,037
8 Claims. (Cl. 51—50)

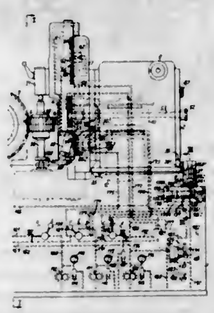


6. In a machine tool having a linearly movable part, a mechanism for reciprocating said part in a predetermined controlled mode, said mechanism comprising fluid actuated means to transmit power in opposite senses to said part, a fluid valve including a piston to control the flow of fluid to said power means, said piston having a power shut-off neutral position and being axially movable toward and away from said neutral position in opposite directions, a lever system including four levers pivotally connected to one another at points defining a parallelogram, one end of a first of said levers extending beyond its point of connection to a second of said levers and being pivotally connected to said valve piston, one end of a third of said levers extending beyond its point of connection to a fourth of said levers and being pivotally connected to said part at a point aligned axially with the valve piston, and means to produce movement along said axial line of the point of connection between the second and fourth levers.

2,839,875
MACHINE FOR THE GRINDING OF CYLINDRICAL, CONICAL AND CROWNED SPUR GEARS AND HELICAL GEARS BY THE GENERATING PRINCIPLE
Alfred Rickenmann, Kusnacht, near Zurich, Switzerland, assignor to Reishauer-Werkzeuge A. G., Zurich, Switzerland
Application September 17, 1956, Serial No. 610,262
Claims priority, application Switzerland November 18, 1955
3 Claims. (Cl. 51—95)

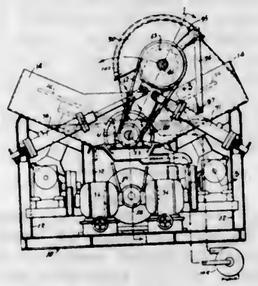
1. A machine for the grinding of cylindrical, conical and crowned spur and helical gears by the generating

principle, comprising in combination: a base, a grinding slide mounted slidably on the said base, a grinding worm rotatably journalled in the said grinding slide about an axis perpendicular to the direction in which the said grinding slide is slidable, a support mounted on the said base tiltably about a fulcrum axis parallel to the axis of the said grinding worm, a work piece carrier slide mounted slidably on the said support, centering means mounted on the said work piece carrier slide and adapted to center a work piece rotatably about an axis parallel to the direction in which said work piece carrier slide is slidable, a hydraulic network including one hydraulic copying system operatively connected to the said base and to the said grinding slide and adapted to impart to the said grinding



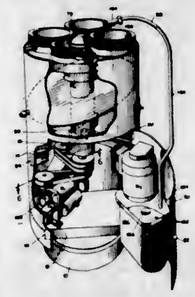
slide sliding movements of a comparatively large order of magnitude as required for the grinding of conical spur and helical gears, and another hydraulic copying system operatively connected to the said base and support and adapted to impart to the said support rocking movements of a comparatively small order of magnitude as required for the grinding of crowned spur gears and helical gears, a control template fixed to the said work piece carrier slide and controlling either of the said two hydraulic copying systems, and selector means operatively connected to the said hydraulic network having one position putting both the said hydraulic copying systems out of action for the grinding of cylindrical spur gears and helical gears and a second and third position putting alternatively one of the said two hydraulic copying systems in operation.

2,839,876
BURNISHING MACHINE
James J. Murtagh, Toledo, Ohio, and Clarence C. Kinker, Manitou Beach, Mich., assignors, by mesne assignments, to James J. Murtagh, Toledo, Ohio
Application December 12, 1956, Serial No. 627,768
3 Claims. (Cl. 51—99)



1. In a machine for finishing articles by the coaction of a rotatable flexible rubbing element and an abrasive-carrying liquid, the improvement comprising a plurality of spaced rotatable work-carrying tables, swinging arm means to mount said rubbing element for movements to cooperate with said work tables successively, means to introduce abrasive-carrying liquid between said rubbing element and articles carried by said work tables, and means to adjust the extent of swinging movement and thus the operative position of said rubbing element over each of said work tables.

2,839,877
LAPPING MACHINE
Stephen A. Boettcher, Evanston, Ill., assignor to Crane Packing Company, a corporation of Illinois
Application March 29, 1954, Serial No. 419,227
4 Claims. (Cl. 51—131)

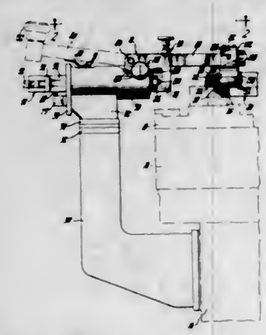


1. A lapping machine comprising in combination a framework, a lap plate mounted on said framework for rotation about a vertical axis, said lap plate having an upper annular lap surface, there being a central opening extending completely through said lap plate and defining the inner periphery of the lap surface, a plurality of rotatable work-receiving wear rings open at their upper and lower ends and resting frictionally on said lap surface, said rings overhanging the inner and outer peripheries of the lap surface, said wear rings being capable of slight universal movement induced by their frictional contact with the rotating lap surface, a plurality of freely rotatable antifriction members mounted on said framework above the plane of the lap surface, each of said antifriction members being positioned for running engagement with the outer periphery of a wear ring, a rotatable support for said lap plate carried by said framework and having a vertically extending bore therein in vertical alignment with the opening provided in said lap plate, a drive shaft rotatably journaled in said bore and projecting upwardly through the bore in said support, a driving hub mounted on the upper end of said drive shaft and having an outer surface of each of said wear rings in rotational driving relationship with respect thereto, a driving motor for said support mounted on said framework, means operatively connecting said motor and said support in driving relationship to rotate the support, and consequently the lap plate, in one direction, and a variable speed driving connection between said motor and shaft for driving the latter from the former throughout an infinite range of speed increments through a predetermined speed range.

2,839,878
MACHINE CONTROL AND TOLERANCE GAUGING DEVICE
Donald R. Peters, Brecksville, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 15, 1954, Serial No. 462,548
3 Claims. (Cl. 51—165)

3. For use with a machine tool adapted to work the inner periphery of a workpiece having a generally annular configuration, a machine tool control and work

gauging device, said device comprising, a support member, a slide member supported by said support member for axial movement relative thereto, an arm member pivotably mounted on slide member and having one end thereof extendable over said workpiece in radial relation thereto, rolling contact means mounted on said arm one end and being adapted to depend within said annular workpiece and engage the inner periphery thereof, means biasing said slide member and said arm member



and said rolling contact means so that said rolling contact means is engageable with the inner periphery of said workpiece whereby said slide member is adapted to be moved axially in accordance with said workpiece inner periphery, and adjustable gauging and limit stop means mounted on said slide member and said support member and disposed to gauge and signal working limits to said machine tool in accordance with the axial movement of said slide member.

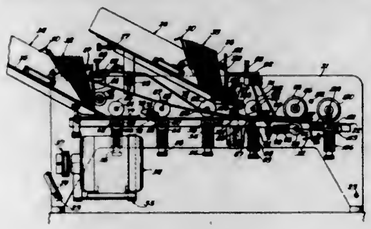
2,839,879
ABRASIVE DISC AND HOLDER THEREFOR
Matthew Eisenbeis, Des Plaines, Ill.
Application October 1, 1956, Serial No. 613,322
12 Claims. (Cl. 51—195)



1. In a disc holder of the character described, a mounting disc provided with a plurality of gripper tongues struck therefrom, a backing disc in contiguous relation with said mounting disc along the side thereof remote from said outwardly struck gripper tongues, said backing disc providing a plurality of filler tongues one for each of said gripper tongues and filling the spaces left thereby when struck from the mounting disc, and a shaft secured to said mounting and backing discs for rotatably driving the same.

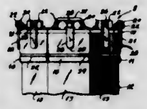
2,839,880
ENVELOPE INSERTING MACHINE
Frank E. Boughton, Chicago, Ill.
Application October 11, 1954, Serial No. 461,460
5 Claims. (Cl. 53—188)

5. In an envelope inserting device of the class described, the combination comprising, a substantially horizontal conveyor table means, first friction feed roller means disposed above said table and arranged to rotate on an axis disposed transversely to the line of advancement for envelope and insert materials along said table means, second friction roller means disposed in spaced parallelism to said first friction roller means for frictionally engaging and advancing said envelope and insert materials, periodically operable stop means arranged to extend through the plane of the table means and arrest advancement of said envelopes and inserts, the arrangement and spacing of said roller means and stop means being such that an envelope engaged by said stop means resides with its main body portion beneath said second roller means and its flap portion beneath said first roller means, first relief opening means formed through said table means beneath said first roller means, second relief opening means formed through said table means beneath said second roller means, and spring means extending



through said first relief opening means and terminating above the plane of said table means, said spring means serving as a resilient gap modulator for automatically accommodating the variations in envelope and insert thicknesses, said two named relief opening means serving automatically to relieve driving engagement between said two named roller means and said envelopes and inserts to substantially prevent undue buckling of the latter when the same are arrested by operation of said stop means.

2,839,881
CONTAINER CLOSING DEVICE
Frank A. David, Jr., St. Louis, Mo., assignor, by mesne assignments, to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application May 27, 1954, Serial No. 432,718
6 Claims. (Cl. 53—287)

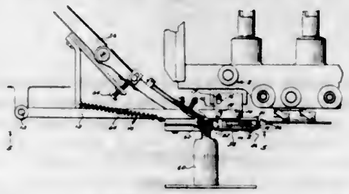


6. A closure flap holder for an upright container employing a top closure member having a multi-sided panel with foldably connected side flaps, the holder comprising a relatively flat supporting plate adapted to be positioned adjacent the upper face of the closure panel and having a plurality of flap retaining members with upper and lower portions, each retaining member being pivotally mounted to a radially disposed, relatively horizontal axis fixed adjacent the supporting plate, the lower end of each retaining member being adapted to be normally disposed downwardly by the force of gravity in a contacting, retaining position against the adjacent closure flap in its closed position, the lower end of each retaining member being freely movable upwardly about the fixed axis into a position substantially in co-planar relation with the relatively flat supporting plate.

2,839,882
CONTAINER CAPPING MACHINES
Emil N. de Bastos and Arthur W. Weller, Brooklyn, N. Y., assignors to Resina Automatic Machinery Co. Inc., Brooklyn, N. Y., a corporation of New York
Application October 28, 1955, Serial No. 543,552
3 Claims. (Cl. 53—315)

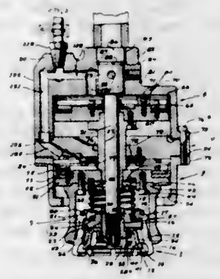
1. For use with container capping machine having means to feed a succession of caps and a succession of containers which meet at a capping location, and means for rotating said caps relative to said containers to

threadedly engage the same upon said containers, a device for aligning the caps with respect to the containers as the caps are threadedly engaged, said device comprising: a support means fixedly arranged with respect to said capping machine, a leveling element, radius rod means movably interconnecting said leveling element with respect to said support means; said leveling element being



movable through a substantially translational path of movement, and including an upper support member, and a pair of spaced side support members having oppositely disposed track means thereon in which said caps are successively and slidably engageable; whereby said caps may be maintained in substantially level position as the same are threadedly engaged upon said containers.

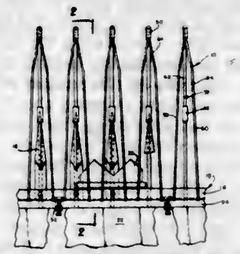
2,839,883
CAPSEAL APPLYING TOOL
Seward M. Roberts, San Mateo, Calif., and Swen H. Ericson, Chicago, Ill., assignors to American Flange & Manufacturing Co., Inc., New York, N. Y., a corporation of Delaware
Application April 13, 1953, Serial No. 348,428
14 Claims. (Cl. 53—348)



1. A tool of the character described comprising, a mounting member, a plurality of jaw elements mounted on said mounting member for swingable movement between contracted and expanded positions, a contracting member formed to overlie said jaw elements and to move the same into contracted position, a supporting shaft, said mounting member and said contracting member being mounted about said shaft for relative movement with respect to each other, pneumatic means acting on one of said members for moving said members toward each other and resilient means acting between said members to move said members apart solely by spring action on completion of the action of said pneumatic means.

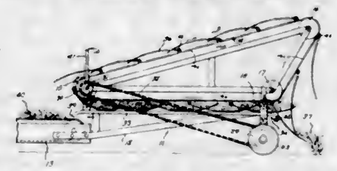
2,839,884
SICKLE GUARD EXTENSION FOR CUTTER BAR
Jerald W. Bishop, Downs, Kans., assignor to Richardson Manufacturing Company, Cawker City, Kans., a copartnership
Application December 23, 1955, Serial No. 555,022
8 Claims. (Cl. 56—318)

1. For use with a cutter bar assembly of a harvesting machine such as a combine including a transversely extending support, a plurality of sickle guards extending forwardly of said support in parallel spaced relation and a sickle extending transversely of said guards having cutting edges cooperative with stationary cutting edges on said guards; an attachment for retrieving and delivering crop heads cut off by said sickle rearwardly to a head collecting unit, said attachment comprising an elongated base member extending parallel with said transversely extending support of said cutter bar assembly, means for rigidly and detachably securing said base member to said cutter bar assembly support, a plurality of parallel spaced rods secured at their rear ends to said base member and extending transversely thereto in the direction of and underlying said guards, said rods being sloped upwardly



with the forward end thereof terminating in advance of and above the front ends of said guards, means providing a pocket member on each of said rods intermediate the ends thereof for receiving the forward end of the correspondingly positioned guard, and a pair of flexible tines secured at their front ends to the forward end of each of said rods, the tines of each pair extending backward in a downwardly sloped manner on opposite sides of the vertical plane containing the corresponding rod and guard and terminating rearwardly of the cutting edges of said sickle thereby to provide for backward movement on said tines of crop heads cut off by said sickle to a collecting unit located rearward of said cutter bar assembly.

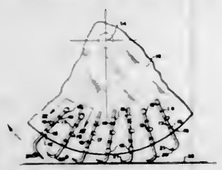
2,839,885
PICKUP DEVICE WITH ENDLESS BELT PICKUP REEL
Ralph J. Eischens, Porter, Minn.
Application September 9, 1955, Serial No. 533,293
3 Claims. (Cl. 56—364)



1. A straw pickup attachment comprising a frame having a forward end and a rearward end, and a pair of ground engaging wheels supporting the forward end of said frame above a ground surface, means on the rearward end of said frame for connection to the forward end of a farm vehicle, an endless belt arranged longitudinally of and supported on said frame, said belt having a horizontally disposed lower flight, an upper flight sloping upwardly from the end of said lower flight adjacent the rearward end of said frame toward the forward end of said frame and terminating at a point spaced vertically above and forwardly of the forward end of said frame, and an end flight sloping downwardly and rearwardly from the terminating point of the upper flight toward and merging with the end of the lower flight adjacent the forward end of said frame, a horizontally disposed platform carried by said frame and positioned below and spaced from the lower flight of said belt and having one end

adjacent the end of the lower flight coincident with the forward end of said frame and having the other end adjacent the end of the lower flight coincident with the rearward end of said frame, a plurality of tines arranged in spaced staggered relation along the exterior surface of said belt and each having one end connected to said belt for free pivotal movement about a horizontal axis, abutment means positioned transversely of said platform adjacent to and below said one end of said platform and carried by said platform, and means driving said belt in a direction to move the lower flight from the forward end to the rearward end of said frame, the upper flight from the rearward end to the forward end of said frame, and the end flight from the terminating point of the upper flight to the merging end of the lower flight, the tines on the portion of said belt when constituting the upper flight being adjacent to the belt and facing toward the rearward end of said frame, the tines on the portion of said belt when constituting the end flight swinging about their axes so as to depend from and face away from said belt, and the tines on the portion of said belt when constituting the lower flight being adjacent to the belt and facing toward the forward end of the frame, with the tines on the portion of said belt when constituting the end flight being engageable in turn with said abutment means to first rigidify the tines to act as a pickup element followed by elevation so as to be received in the space between the platform and the lower flight.

2,839,886
SIDE DELIVERY RAKE WHEEL
Cornelis van der Lely and Ary van der Lely, Maasland, Netherlands, assignors to C. van der Lely N. V., Maasland, Netherlands, a Dutch limited company
Application May 3, 1954, Serial No. 427,266
Claims priority, application Netherlands May 28, 1953
6 Claims. (Cl. 56—377)



1. In a device for laterally displacing material lying on the ground by means of at least one raking member provided with circumferential teeth and put into rotation by the contact of said teeth with the ground and/or the material lying thereon, the raking member being arranged for rotation about an axis of rotation, said raking member comprising a wheel disc, a plurality of bearings attached to said wheel disc and arranged adjacent the periphery thereof, a plurality of tooth bearing members each bearing a tooth extending beyond said wheel disc and each being journalled in at least one of said bearings, each of said tooth bearing members being rotatable about an axis defined by said bearings, the axis of each of said bearing members lying in a plane spaced from the axis of rotation of the raking member by a distance less than one half of the diameter of said wheel disc, each tooth being angularly disposed with respect to the axis of its bearing member.

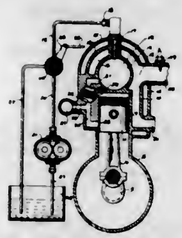
2,839,887
THREAD GUIDE
Francis B. Breazeale, Hendersonville, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application August 1, 1955, Serial No. 525,463
3 Claims. (Cl. 57—106)

1. In an up-twister including a rotatable spindle and a take-up device thereabove, the improvement that comprises a support, a pair of oppositely wound pigtail guides extending from said support in spaced relation-



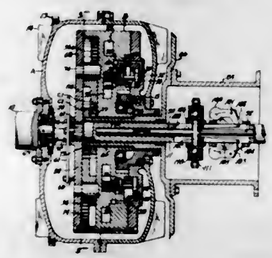
ship and means mounting said support for rotation to bring either of said guides into balloon gathering position between said spindle and said take-up device.

2,839,888
STEAM ENGINE
Marion Mallory, Detroit, Mich.
Application December 10, 1953, Serial No. 397,294
6 Claims. (Cl. 60—1)



1. An engine of the character described, comprising in combination, a cylinder surrounded in greater part by a passageway for receiving hot gases from an internal combustion mechanism, an internal combustion mechanism connected to said passageway, a piston reciprocable in said cylinder, a crank connected to said piston, means in the heat zone of said passageway for generating steam for said cylinder throughout 360° rotation of said crank, said means including a spherical compartment formed in the head of said cylinder and heated by the gases in said passageway, an injector is communication with said compartment for introducing a liquid to said compartment and a valve between said compartment and said cylinder, for intermittently introducing steam to said cylinder.

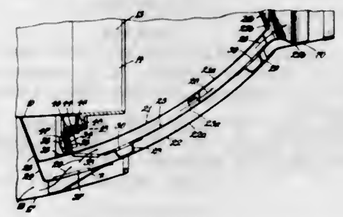
2,839,889
GEAR PUMP TYPE HYDRAULIC TRANSMISSION
Daniel F. McGill, Portland, Oreg.
Application March 19, 1954, Serial No. 417,331
9 Claims. (Cl. 60—19)



9. In a transmission, an input shaft connected with a driving member, an output shaft connected with a driven member, and a stationary member; said driving member comprising a fluid reservoir mounted for rotation on said stationary member, said driven member comprising a housing in said reservoir mounted for rotation

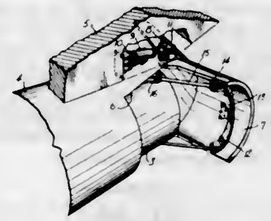
on said stationary member, a pump in said housing having two relatively movable pump elements for pumping hydraulic fluid, one of said pump elements being connected with said housing and the other pump element being connected with said driving member for operation of said pump by the relative rotation of said driving member with respect to said driven member; an overrunning brake mounted on said stationary member, a gear mounted on said overrunning brake, a hydraulic motor in said housing comprising a pair of meshing gears mounted on stub shafts in said housing at a distance from the axis of rotation of the housing, said motor gears having operative geared connection with said overrunning brake gear to rotate said housing by operation of said motor; said housing having ports and passages arranged to deliver hydraulic fluid from said pump to said hydraulic motor and to said reservoir, and valve means in said ports and passages arranged to direct fluid from said pump to said reservoir to interrupt driving connection between said driving and driven members, to direct fluid from said pump to said hydraulic motor for driving said driven member by said hydraulic motor in ratio drive, and to establish hydraulic lock in said pump for locking said driving member to said driven member in direct drive.

2,839,890
VARIABLE AREA JET NOZZLES FOR GAS TURBINE UNITS
Frederick William Walton Morley, Castle Donington, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application June 15, 1953, Serial No. 361,775
Claims priority, application Great Britain June 18, 1952
7 Claims. (Cl. 60—35.6)



1. A jet nozzle arrangement for a gas-turbine propulsion unit comprising a jet pipe having an inner skin and an outer skin member surrounding said inner skin so as to afford therebetween an annular space having an air inlet thereto; a nozzle at the outlet end of said jet pipe comprising a plurality of nozzle portions adapted to define a nozzle orifice and accommodated in part in said annular space and mounted on the outlet end of said jet pipe, each of said nozzle portions comprising a load-bearing structure which comprises a plurality of radially-spaced, sheet metal walls rigidly secured together, and an inner sheet metal wall radially spaced inwardly from said load-bearing structure to afford an air passage between said load-bearing structure and said inner wall, there being inlet-defining means communicating with said annular space and opening into said air passage adjacent a wall of the load-bearing structure and there being also outlet-defining means for said air passage so located in the nozzle portions that the flow of hot gases through the nozzle orifice induces a flow of cooling air through said air passage between the load-bearing structure and the inner wall, said inner wall being rigidly secured along one edge to the load-bearing structure and having a second edge thereof in sliding engagement with the load-bearing structure to be free to expand relative to the load-bearing structure; means for adjustably moving said nozzle portions to vary the orifice area of the nozzle; first co-operating gas-sealing means on said nozzle portions and said inner skin arranged at least in the position of said nozzle portions defining a minimum orifice area to prevent leakage air flow between the inner surfaces of the inner walls of said nozzle portions and the inner skin of the jet pipe and second gas-sealing means co-operating between the outer skin member of the jet pipe and the outer surfaces of the load-bearing structures of the nozzle portions at least in said minimum orifice area defining position of the nozzle portions.

2,839,891
THRUST REVERSERS FOR JET ENGINES
George T. Drakeley, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application November 27, 1953, Serial No. 394,728
7 Claims. (Cl. 60—35.54)

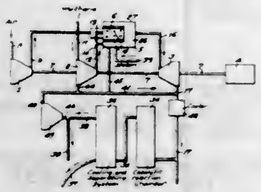


1. In combination with the tailpipe of a jet engine, deflector flaps mounted for movement between an inoperative position alongside the tailpipe and an operative position wherein they are disposed to the rear of and directed outwardly of the axis of said tailpipe, said deflector flaps being of a shape that, in their inoperative position, they partially encircle the tailpipe, and in their operative position they intercept, contain, and deflect outwardly gases discharging from the tailpipe, means to shift said flaps between such two positions, a baffle located intermediate each flap and the tailpipe, and when the flap is in its inoperative position embracing a material angular portion of the periphery of the tailpipe, pivot means directed generally chordally of the tailpipe, supporting each of said baffles, intermediate its ends, from the interior surface of the corresponding flap, and links connecting the ends of each baffle with a point fixed relative to the tailpipe, to swing the baffle into a position inclined outwardly and forwardly from the flap as the flap moves to its operative position, to intercept, contain, and direct forwardly the originally outwardly directed gases as they follow the interior surface of the flap.

2,839,892
GAS TURBINE CYCLE EMPLOYING SECONDARY FUEL AS A COOLANT, AND UTILIZING THE TURBINE EXHAUST GASES IN CHEMICAL REACTIONS
Henry Rosenthal, Yonkers, N. Y.
Original application October 4, 1947, Serial No. 778,001, now Patent No. 2,660,032, dated November 24, 1953. Divided and this application August 31, 1953, Serial No. 377,292
18 Claims. (Cl. 60—39.05)

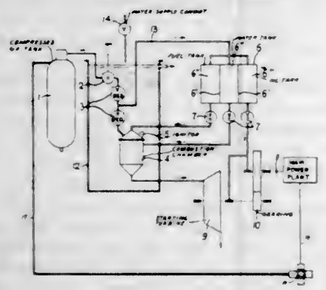
1. A process for making valuable products of incomplete oxidation of a fluid-fuel in conjunction with the operation of a gas turbine, which includes the steps comprising, passing under superatmospheric pressure a combustible fluid to be oxidized as a stream into a primary reaction zone, confined in a reaction chamber, also under superatmospheric pressure passing an oxidant into said zone as a stream, promoting exothermic reactions of said combustible fluid with said oxidant in said zone at a high

temperature, above 2000° F., passing the hot reaction products thus made directly and continuously from said zone to a secondary reaction zone of said chamber, immediately mixing it therein with additional reactants, including steam or water, thereby promoting chemical endothermic reaction in the mixture with the formation of carbon monoxide and hydrogen while lowering the temperature of the reacting fluid mixture to below 2000° F.



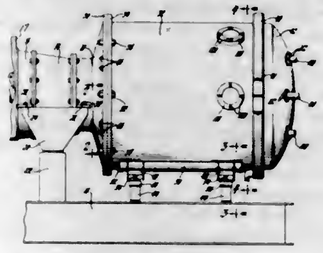
but above 750° F., passing the thus cooled reacting mixture immediately into a gas turbine and therein materially reducing the temperature of the latter mixture while simultaneously reducing its pressure, and finally passing the turbine exhaust gases, containing carbon monoxide and hydrogen into a reaction chamber in the presence of a catalyst, utilizing the sensible heat of the turbine exhaust for initiating catalytic reaction.

2,839,893
STARTING OF GAS TURBINE PLANTS
Max Rothemund, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Augsburg, Germany, a corporation of the German Republic
Application October 31, 1951, Serial No. 254,006
Claims priority, application Germany November 11, 1950
2 Claims. (Cl. 60—39.14)



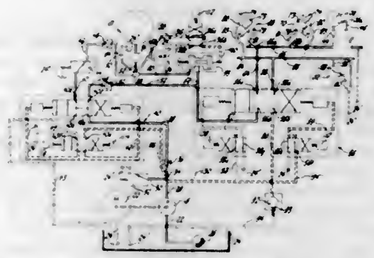
1. In self-contained starting apparatus for starting up a gas turbine power plant and the like, the combination which comprises a gas starting turbine for supplying power to start up said plant, a combustion chamber for supplying driving gas to said starting turbine, a fuel reservoir for supplying fuel to said combustion chamber for combustion therein, a lubricating oil reservoir for supplying lubricant to said turbine, a high pressure compressed air reservoir, a supply line including pressure reducing means for supplying air under reduced pressure from said high pressure air reservoir to said fuel and oil reservoirs for pressure feeding of fuel and oil therefrom to said combustion chamber and said turbine respectively, an additional supply line including further pressure reducing means for supplying combustion air at a further reduced pressure from said air reservoir into said combustion chamber, and means for heating said pressure reducing means with heat from said combustion chamber to prevent freezing of said pressure reducing means during expansion of said air therethrough, said means for heating including a tank of liquid in which said pressure reducing means and said combustion chamber are placed for heat transfer from said combustion chamber to said pressure reducing means through said liquid.

2,839,894
SUPPORTING ARRANGEMENT FOR A GAS TURBINE COMBUSTION CHAMBER
Leroy W. Shutts and Charles F. Hayes, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 31, 1952, Serial No. 328,906
16 Claims. (Cl. 60—39.31)



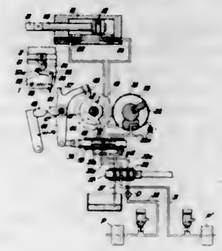
1. A gas turbine power plant including a supporting bed, a turbine including an external casing having an inlet end, combustion apparatus including an external air jacket having an outlet end removably secured to the inlet end of the casing, means for supporting the casing on the bed for free axial and peripheral expansion, and means for supporting the jacket for free axial and peripheral expansion comprising springs under the jacket slidably engaging the bed.

2,839,895
HYDRAULIC DRIVING APPARATUS
James R. Hemeon, Trenton, N. J., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Continuation of abandoned application Serial No. 307,019, August 29, 1952. This application May 8, 1956, Serial No. 583,476
8 Claims. (Cl. 60—51)



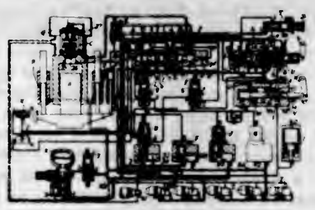
1. Hydraulic driving apparatus of the character described, including: a hydraulic accumulator; pump means for supplying said accumulator with hydraulic fluid under a predetermined pressure; hydraulically driven load means; hydraulic circuit means interconnecting said accumulator, pump means and load means; valve means in said circuit for directing the flow of hydraulic fluid therein, said valve means including a check valve and a directional control valve connected in series between said accumulator and load means; and control means having a portion operable to shift said directional valve and open said check valve concurrently to direct fluid from the accumulator to drive the load means in one direction with substantially the full impact force of the pressure developed in said accumulator and independently of said pump means, said control means having a portion operable to close said check valve and shift the directional valve to direct fluid to flow directly from said pump to drive said load means in another direction.

2,839,896
COMBINED HYDRAULIC AND MECHANICAL CONTROL APPARATUS
Erich Koch, Berlin-Charlottenburg, Germany, assignor to Jung Schleifmaschinen H. Gaub, Berlin-Tempelhof, Germany
Application February 15, 1955, Serial No. 488,272
Claims priority, application Germany February 22, 1954
19 Claims. (Cl. 60—52)



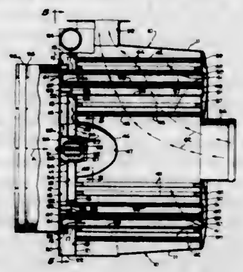
1. Control apparatus comprising, in combination, hydraulic moving means for moving a given member; a multiway valve hydraulically connected to said hydraulic moving means for controlling the flow of fluid to and from the same; a hydraulic motor hydraulically connected to said valve and hydraulic moving means, said hydraulic motor including a cylinder, a blade-type piston turnable in said cylinder about the axis thereof, and a first shaft fixed to said piston for turning movement therewith and extending outwardly beyond said cylinder; a second shaft; means supporting said second shaft for rotation about its axis; cam means carried by said second shaft for rotation therewith; gear means connected to said first and second shafts for transmitting turning movement of said first shaft to said second shaft; and mechanical control means operatively connected to said valve for operating the same and operatively connected to said cam means to be operated thereby.

2,839,897
CONTROL VALVES FOR HYDRAULIC PRESSES
John Maurice Towler, deceased, late of London, England, by Frank Hathorn Towler, executor, Otley, England, assignor to Electraulic Presses Limited, Rodley, near Leeds, England, a limited-liability company of Great Britain
Application March 26, 1956, Serial No. 573,971
Claims priority, application Great Britain March 30, 1955
7 Claims. (Cl. 60—52)



1. In combination with a hydraulic forging press having a main ram in a cylinder for effecting the forging stroke, one or more return rams and cylinders for effecting the return stroke of the main ram and a prefill and exhaust valve which is opened at the conclusion of the forging stroke to decompress the main cylinder and permit the main ram to make its return stroke, control means comprising two sets of primary pressure pumps connected by conduit means to deliver directly to the one or more of the return ram cylinders during the return stroke, a servo pressure liquid supply line having means for maintaining therein in a supply of liquid at a predetermined pressure, an admission valve connected to said conduit means and opened by the pressure therein to pass the delivery of one set of pumps to the main press cylinder for a forging stroke of the press ram, said admission valve being closed by servo pressure and operative when closed to cause said set of pumps to deliver directly to the one or more return cylinders, a servo operated reflux valve connected in said conduit means to control the rate at which liquid is displaced from the one or more return cylinders during each forging stroke and to divert the same to the main press cylinder, servo pressure operated unloading valves for loading and unloading each set of primary pressure pumps, a manually operable control valve, a servo pressure operated distributing valve controlled by the manually operable valve and conduit connections through which said distributing valve is operative to distribute servo pressure for effecting operation of the servo pressure operated valves in the system and primary pressure for opening the prefill-exhaust valve of the press.

2,839,898
MULTIPLE VORTEX TUBE GENERATOR COOLING UNIT
Frederick H. Green, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application June 29, 1950, Serial No. 171,147
21 Claims. (Cl. 62—2)

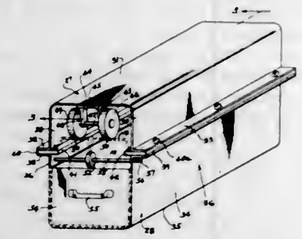


1. In an aircraft having a jet engine compressor and a ram air duct, a system for cooling and pressurizing an instrumentality: a delivery duct to take high pressure air from the outlet of said compressor; vortex tube means connected to said delivery duct; means arranged to conduct coolant air from said ram duct across outer surfaces of said vortex tube means; regulating means adapted to control the flow of high pressure air through said vortex tube means, said regulating means having parts acting as the pressure of air in said delivery duct decreases to increase the quantity of said tube means through which high pressure air is flowing; means for conducting cooled high pressure air from said tube means to a space of said instrumentality; and means forming an outlet orifice means for said space, said orifice means being characterized by limitation of flow from said space when sonic velocity of air through said orifice is reached.

ERRATUM

For Class 62—106 see:
Patent No. 2,840,507

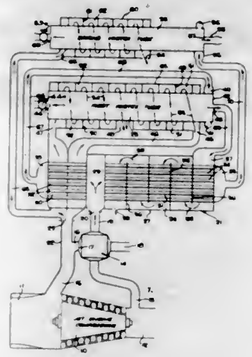
2,839,899
ICE CUBE EJECTOR MECHANISM
Ernest A. Bailiff and Adolph D. Corn, Evansville, Ind., assignors to Whirlpool Corporation, a corporation of Delaware
Application May 14, 1956, Serial No. 584,757
1 Claim. (Cl. 62—108.5)



An ice cube ejecting assembly comprising, an ice tray of resilient material having a resilient bottom, side walls and end walls, forming a tray tapering downwardly toward the bottom on all sides, the said tray being provided with an integral, resilient grid having a central partition extending down the middle of the tray and a multiplicity of transverse partitions extending from the central partition to the side walls, both said partitions being integrally joined to the bottom and side walls and being tapered upwardly, forming ice cube compartments tapering downwardly, a separate ejector housing of substantially rectangular shape having a lower compartment provided with a drawer for receiving ice cubes and having bottom, top, and side walls, said housing supporting a pair of inwardly extending guide rails above the lower compartment and adapted to support an inverted ice tray in an upper compartment on said guide rails, a transverse shaft carried by the side walls adjacent the front end of the housing below said guide rails and above said drawer, and having a roller located with its upper edge in substantially the same plane as the top of said guide rails, said roller engaging the central partition and supporting it at the point of the roller against downward movement of the central partition, and a pair of rollers carried by a shaft and a bracket, said bracket being attached to the top wall above said first-mentioned roller, and the said shaft being of such a length that it supports the latter two rollers in position to engage approximately at the center of each of the ice cube compartments, the said latter rollers being of sufficient size to deform the bottom of each ice cube compartment engaging said latter rollers downwardly when the inverted tray is inserted, causing the successive ejection of the ice cubes from the tapered ice cube pockets into the drawer as the inverted ice tray is slid inwardly between the upper and lower rollers.

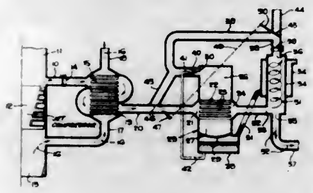
2,839,900
REGENERATIVE VORTEX COOLING SYSTEMS
Frederick H. Green, Palos Verdes Estates, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application August 31, 1950, Serial No. 182,455
19 Claims. (Cl. 62—136)

1. In a system for supplying cooled air in an aerial vehicle having a compressor, a ram air duct and heat exchange means employing ram air to cool compressed air from said compressor: first vortex tube means; second vortex tube means, said second vortex tube means having a cooled air outlet for delivery of the supply of cooled air; means establishing a first path of flow of compressed air from said heat exchange means to the inlet of said first vortex tube means, said path of flow having therein a first heat exchanger for passing said compressed air in heat exchange relation to ram air; means establishing a second path of flow of compressed air from said heat exchange means to the inlet of said second vortex tube, said second path of flow having therein a heat exchanger



with means for passing cooled air from the cooled air outlet of said first vortex tube in heat exchange relation to the compressed air moving in said second path of flow; and means for passing ram air in heat exchange relation to said vortex tubes.

2,839,901
EVAPORATIVE VORTEX TUBE REFRIGERATION SYSTEMS
Frederick H. Green, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California
Application May 26, 1950, Serial No. 164,506
20 Claims. (Cl. 62—138)



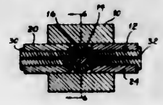
1. In means for cooling a stream of gaseous fluid derived from a source of gaseous fluid under pressure: a first cooling means comprising a heat exchanger adapted to pass the compressed fluid in heat exchange relation to other fluid; an evaporative cooler comprising walls forming first passages for the compressed fluid which has passed through said first cooling means and second passages for a coolant gaseous fluid in heat exchange relation to said first passages; a vortex tube having an inlet connected to the outlet of said first passages of said evaporative cooler, having a cooled fluid outlet for connection to a space to be cooled and having a hot fluid outlet connected to said second passages of said evaporative cooler so as to pass gaseous fluid therethrough; a source of evaporative liquid; and an aspirator arranged to be operated by gaseous fluid which is moving toward said second passages of said evaporative cooler and to introduce said evaporative liquid in finely divided condition into the coolant gaseous fluid which flows through said second passages of said evaporative cooler.

2,839,902
INDEXING MEANS FOR SPLINED CONNECTED MEMBERS AND THE LIKE
Earl W. Glover, Saginaw, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 18, 1956, Serial No. 616,769
4 Claims. (Cl. 64—6)



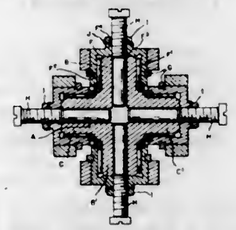
4. Indexing means for use with spline connected male and female members and comprising a wire clip receivable upon the end of said male member, said clip having substantially parallel spaced leg portions, a recess formed within the end of said male member for receiving one of said leg portions, the other of said leg portions of said clip being receivable within one of the splineways of said male member, and said female member having one of the splines thereof removed to provide an access for receiving said other leg portion upon the assembly of said members.

2,839,903
PINNING FOR HEAVY DUTY UNIVERSAL JOINT AND METHOD OF MAKING SAME
George B. Stillwagon, Jr., Dayton, Ohio, assignor of one-half to Kenneth G. Fraser, Dayton, Ohio
Application May 5, 1955, Serial No. 506,237
6 Claims. (Cl. 64—17)



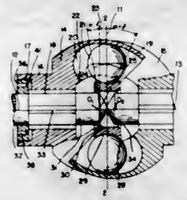
2. Pinning construction for universal joints comprising a block having right angular borings, a split pin having halves, a solid pin, the halves of said split pin being provided with curved portions midway of their ends, said pins being positioned in said right angular borings, the solid pin being nested between the semi-circular portions of said split pin, a bushing inserted in each end of each boring surrounding said pins and protruding beyond the confines of said block, upset heads on the ends of said pins for uniting the halves of said split pin and securing them within said bushings, and for securing said bushings in said block.

2,839,904
BALANCING MEANS FOR UNIVERSAL JOINTS
Robert C. Zeller, Defiance, Ohio, assignor to The Zeller Corporation, Defiance, Ohio, a corporation of Ohio
Application April 8, 1957, Serial No. 651,259
3 Claims. (Cl. 64—17)



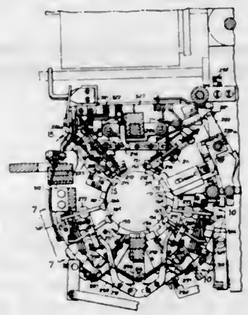
1. In a universal joint of the type comprising a center member having pairs of trunnions with their axes in the same plane at right angles to each other and rotary members having bifurcated end bearings engaging the respective pairs of trunnions; balancing means including a threaded socket secured to be coaxial with each trunnion, a screw adjustable in said socket to extend outward therefrom and locking means for said screw in each position of adjustment thereof whereby balancing may be accomplished by adjusting said screws into variable positions of extension.

2,839,905
CONSTANT VELOCITY UNIVERSAL JOINT
Nikola J. Trbojevich, Detroit, Mich.
Application May 28, 1956, Serial No. 587,794
13 Claims. (Cl. 64—21)



1. In a universal joint, bifurcated rotary head members arranged with the furcations thereof extending oppositely into inter-engagement with each other, the adjacent portions of said furcations having complementary arcuate race grooves therein concentric with points in the axis of rotation, torque transmitting balls between said members in said complementary grooves, an annular inner ring member in a plane transverse to said axis having a peripheral race groove therein engaging all of said balls, shafts axially adjustably secured to the respective rotary members and adapted for end point contact with each other, whereby clearance for assembly of the several elements is provided when the centers of said arcuate race members are coincident and said clearance may be taken up by adjustment of said rotary members on their respective shafts to space said centers from each other, and said ring member clearing said furcations and shafts in all positions.

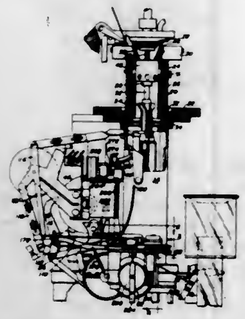
2,839,906
WIDENING AND NARROWING MEANS FOR CIRCULAR KNITTING MACHINES
Herman E. Crawford, Kernersville, N. C., assignor to H. E. Crawford Company, Incorporated, Kernersville, N. C., a corporation of North Carolina
Application December 28, 1954, Serial No. 477,977
23 Claims. (Cl. 66—48)



3. In a circular knitting machine; the combination with a needle cylinder having vertically movable needles and means for feeding yarns to the needles, of means to shog the needle cylinder, means to reciprocate said cylinder so as to knit a portion of a tubular fabric having a plu-

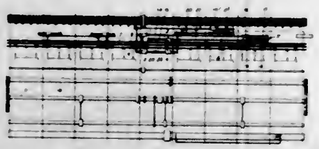
rality of independently knit yarns in a single course, means for decreasing the number of needles knitting upon each of a plurality of movements of the needle cylinder in one direction, and means for increasing the number of needles knitting upon each of a plurality of intervening movements of the needle cylinder in the other direction in the knitting of a single article.

2,839,907
AUTOMATIC LENGTH CONTROL MECHANISM FOR KNITTING MACHINES
Vaughn H. Butler, Harriman, Tenn., assignor to Burlington Industries, Inc., Greensboro, N. C., a corporation of Delaware
Application March 30, 1955, Serial No. 498,038
34 Claims. (Cl. 66—55)



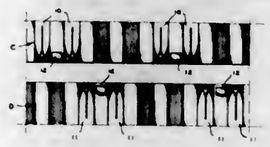
1. A circular knitting machine comprising a rotary needle cylinder, needle cams cooperative with said needle cylinder, a member movable at a rate proportional to actual fabric production, a member movable at a predetermined rate relative to the rotation of the needle cylinder, and means operative to effect relative axial movement between said needle cylinder and said needle cams in accordance with differential movements between said members.

2,839,908
STRAIGHT BAR KNITTING MACHINE
Patrick Gideon McCarthy, Loughborough, and Denis Winfield, Shepshed, England, assignors to William Cotton Limited, Baxter Gate, Loughborough, England
Application May 23, 1955, Serial No. 510,213
Claims priority, application Great Britain January 28, 1953
4 Claims. (Cl. 66—130)



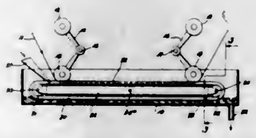
1. A straight bar knitting machine comprising in combination, a thread carrier, means for driving of the thread carrier comprising a horizontally slidable slide member carrying the thread carrier, a reciprocatable flexible element, a releasable driving connection between the slide member and the reciprocatable element, control means comprising a pair of control members at spaced locations in the travel of the reciprocatable element to make and break the releasable driving connection at said spaced locations so that travel of the thread carrier in opposite directions by the reciprocating element is commenced and terminated by control of the spaced control members and the reciprocatable element completes a constant amplitude of travel after each thread carrier travel, a pair of horizontal adjustable lead screws one above and a second below the horizontal path of the slide member, a screw nut on each of said spaced control members one mounting its control member on the upper lead screw for adjustable positioning of the control member horizontally above said path of the slide member and the other mounting its control member on the lower lead screw for adjustable positioning of this control member horizontally below said path of the slide member, whereby the amplitude of travel of the thread carrier is variable, anti-rebound stop means comprising a spring biased bolt on each spaced control member one for cooperating with a fixed stop on top of the slide member and the other for cooperating with a fixed stop on the underside of the slide member, cam operated means for operating on each anti-rebound bolt, a guide bar for each bolt to enable operation of each bolt by the cam operated means at any position of adjustment of the spaced control members, and auxiliary stop means comprising a spring biased bolt on each spaced control member one for cooperating with a fixed stop on top of the slide member and the other for cooperating with a fixed stop on the underside of the slide member.

2,839,909
KNITTED FABRIC
John E. Morgan, Tamaqua, Pa.
Application May 16, 1957, Serial No. 659,685
18 Claims. (Cl. 66—198)



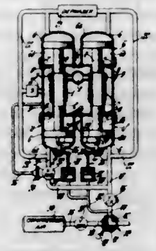
1. A heat insulating knitted fabric comprising a rib knitted fabric having longitudinally extending alternate ribs and valleys on both sides thereof and longitudinally spaced apart laterally extending groups of adjacent tuck strands overlying the valleys and underlying the ribs of said fabric, said ribs forming the side walls of air-entrapping cells the top and bottom walls of which are constituted by said tuck strands.

2,839,910
APPARATUS FOR THE WET TREATMENT OF YARNS IN WARP FORM
Lambertus Hendrik de Langen, Arnhem, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application December 2, 1953, Serial No. 395,709
Claims priority, application Netherlands January 12, 1953
6 Claims. (Cl. 68—181)



1. Apparatus for the wet treatment of yarns in warp form comprising a driven endless belt having flanges which define a trough, a conduit having an opening extending laterally across the belt at one portion thereof for supplying liquid to the trough, means adjacent another portion of the belt for receiving liquid discharged therefrom, said conduit and said liquid receiving means being so related as to maintain on the upper run of said belt between said flanges a liquid body which is static with respect to the belt and means to guide a warp of yarns in co-directional spaced relation to said belt above the upper run thereof a distance less than the height of the flanges.

2,839,911
FREE PISTON ENGINE
Warren H. Smith, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 14, 1956, Serial No. 584,744
9 Claims. (Cl. 60—97)

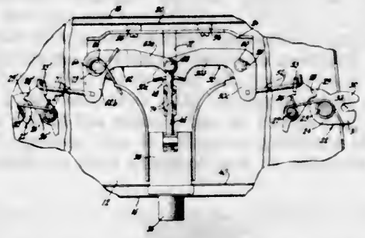


1. A free piston power plant comprising, in combination, two free piston units each including cylinder and piston means defining a power cylinder, an air compressor, and a rebound chamber, a conduit connecting the rebound chambers of the units, a starter including means for supplying air connected to the said conduit, the starter being adapted to supply air to the rebound chambers to start the units, a normally open valve in the conduit operative to close the conduit between the two units when closed, and means responsive to a condition indicative of operation of the units connected to the valve to close the valve.

5. A free piston power plant comprising, in combination, two free piston units each including cylinder and piston means defining a power cylinder, an air compressor, a rebound chamber, and means defining an air box connected to the compressor to receive air discharged therefrom and connected to the power cylinder to supply air thereto, a dephaser connected to the rebound chambers of both units adapted to bleed air between the rebound chambers to establish dephased operation of the units, a conduit connecting the rebound chambers of the units, a starter including means for supplying air connected to the said conduit, the starter being adapted to supply air to the rebound chambers to start the units, a normally open valve in the conduit operative to close the conduit between the two units when closed, and means responsive to air box pressure connected to the valve to close the valve.

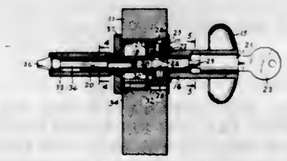
2,839,912
TAIL GATE LATCH
Russel G. Corbin, Inkster, and Bewley D. Priestman, Grosse Pointe Woods, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 14, 1955, Serial No. 540,513
10 Claims. (Cl. 70—141)

4. A station wagon tail gate latch of the character described, including: a pair of latches adapted to be disposed adjacent opposite sides of the station wagon; a mounting bracket disposed between said latches, said bracket having a guide slot therein; a first bell crank lever pivotally mounted on said bracket for limited sliding movement, said lever having one arm connected to one latch and another arm terminating in a turned flange with an opening; a second bell crank lever pivotally mounted on said bracket for limited sliding movement, said second lever having one arm connected to the other latch and another arm articulated to said other arm of the first lever; means on one of said levers engaging said guide slot for guiding movement of the levers; a rotatable



and axially shiftable control rod having an end portion extending through said opening and a winged intermediate portion adapted to engage said flange and swing both levers when the rod is shifted axially while it is rotated to one position, the winged portion sliding through the opening without swinging said levers when the rod is shifted axially while it is rotated to another position; means for shifting said rod axially; and locking means for rotating said rod.

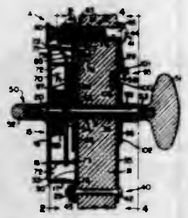
2,839,913
DOOR LOCK CLOSURE AND ASSEMBLY
Philip Friedman and George J. Friedman, New York, N. Y.
Application November 5, 1956, Serial No. 620,363
1 Claim. (Cl. 70—146)



The combination of a door having front and rear surfaces lying in substantially parallel planes and containing a bore substantially perpendicular to said planes, and a latch mechanism including an outer door handle assembly and an inner door handle assembly; said outer door handle assembly comprising a frame fitted into the said bore; a door knob attached to a hollow shaft, said hollow shaft having a stop and rotatably extending through the frame and the bore and being secured against rotation by the said stop, a shoulder on the said frame, and a spring disposed between the stop and the shoulder; a tumbler lock within the said door knob engaging a second shaft within the first said hollow shaft and having a hollow portion at its end near the inner door handle assembly and a seat on a portion thereof; an opening in the frame corresponding to an opening in the first said hollow shaft; a stop pin circled by a helical spring adapted to rest on the said seat and to move through the said openings when the second said shaft is rotated to move the seat away from the stop pin; and said inner door assembly comprising a hollow shaft engaging the first said shaft of the outer door handle assembly and having a handle and a nose-shaped latch portion; an inner latch shaft engaging the second said shaft of the outer door handle assembly, and said assemblies having means to secure them together through the said bore.

2,839,914
DISC-DIALING KEYLESS LOCK
Harrison B. Syler, Los Angeles, Calif.
Application November 21, 1955, Serial No. 548,072
3 Claims. (Cl. 70—156)

1. A combination lock including a housing; securing means for mounting said housing upon a closure, including a nut and bolt assembly having a bolt shank provided with a longitudinally-extending bore and extending through said housing and for extending through said closure, and a nut for said shank and provided with a central opening therethrough communicating with said bore, a shaft slidable in said opening and bore, an enlargement at the inner end of said shaft within said bore, means to urge said enlargement away from said nut; a reciprocable bolt carried by said housing and having a head normally extending outwardly of said housing; locking means including an arm depending from and fixedly se-



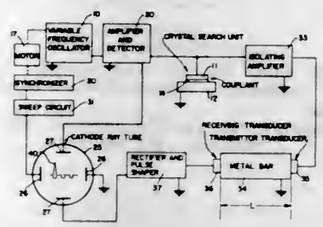
cured to said shaft and extending into said housing, and a reciprocating plate slidable in said housing and having an upper portion, with said arm selectively disposed with its lower end within the path of travel of said upper portion of said plate when the inner end of said shaft is in one position longitudinally of said bore and disposed with said lower end outwardly of the path of travel of said upper portion when said inner end of said shaft is in another position longitudinally of said bore; and means carried by said plate and bolt to permit retraction of said bolt upon reciprocation of said plate in one direction.

2,839,915
METHOD AND APPARATUS FOR MEASURING VISCOSITY, ETC., OF FLUID-LIKE MATERIALS
Wilfred Roth and Stanley R. Rich, West Hartford, Conn., assignors to Bendix Aviation Corporation, New York, N. Y., a corporation of Delaware
Application May 22, 1951, Serial No. 227,694
46 Claims. (Cl. 73—59)



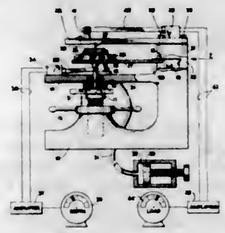
1. Apparatus for determining physical properties, including a function of viscosity, of fluid-like materials, particularly of liquid materials and thin films, which comprises an elongated body of solid material at least a portion of which is adapted to be contacted by said fluid-like material, a transducer for exciting an elastic wave in said elongated body having a major component of oscillation in shear with a contacting fluid-like material, and an electrical measuring device responsive to variations in the rate of attenuation of said oscillation in said elongated body.

2,839,916
ULTRASONIC THICKNESS GAUGE
Howard E. Van Valkenburg, Candlewood Isle, and Edward G. Cook, Brookfield, Conn., assignors to Sperry Products, Inc., Danbury, Conn., a corporation of New York
Application August 19, 1954, Serial No. 450,846
2 Claims. (Cl. 73—67.8)



1. Measuring means for a work piece, comprising an electrical system including a variable frequency electric oscillator, a first piezo-electric transducer engaging the work piece and energized by the oscillator for transforming electrical oscillations into mechanical oscillations, means for cyclically varying the frequency of the electrical oscillations through a predetermined range to establish resonance in the work piece, the frequency output from the electrical system including said first transducer being subject to variation as the capacitance of the electric system varies, and means for calibrating the resonance frequencies independent of said capacitance variations, said last-named means comprising a calibration test piece, a second piezo-electric transducer engaging one surface of the calibration piece for transmitting acoustic oscillations therethrough, a third piezo-electric transducer engaging an opposite surface of the calibration piece for receiving the acoustic oscillations passing therethrough, means for applying a portion of the oscillator output to said second transducer whereby the second transducer is subject to the said variations in frequency output of the electric system, means for electrically isolating the calibration means from the work piece measuring means, and a single indicating means for indicating the resonance points of the calibration piece and the work piece through said predetermined range.

2.839.917
HARDNESS TESTING MACHINE
Robert A. Webster, Santa Monica, Calif., assignor to Webster Instrument, Inc., a corporation of California
Application October 4, 1955, Serial No. 538,322
10 Claims. (Cl. 73—81)



1. A hardness testing machine comprising, in combination: a frame including a projecting portion adapted to hold a specimen; a cantilevered beam secured at its fixed end to said frame and having its free end in opposed, spaced relationship to said portion; penetrating means positioned to engage said specimen; expandable means po-

sitioned between said penetrating means and said free end of said cantilevered beam for applying a force between said penetrating means and said beam; and means operatively coupled to said cantilevered beam and responsive to movement of said free end of said cantilevered beam upon application of said force, for providing an indication of said force.

2,839,918
FLAW DETECTION
Robert C. Switzer, South Euclid, Ohio
No Drawing. Application April 6, 1949
Serial No. 85,749
2 Claims. (Cl. 73—104)

1. In a method of detecting the presence of flaws in the surface layers of a metallic article, the steps comprising applying to the surface of said article a solution containing an oil and a coloring material, maintaining the solution in contact with the surface for a period of time of sufficient duration that the solution may penetrate said flaws, removing from the surface the solution which has not penetrated said flaws, and applying to the surface a finely divided absorbent material, the presence of flaws in the surface layers of said metallic article being visibly indicated by a coloring of the absorbent material lying adjacent said flaws by the coloring material contained in the solution upon the seeping of the latter out of said flaws onto the surface of the article.

2,839,919
DYNAMOMETER BLOCK
Robert P. Lathrop, Chevy Chase, Md., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
Application January 19, 1956, Serial No. 560,134
3 Claims. (Cl. 73—141)



1. A dynamometer block comprising, in combination, a base portion and a superimposed horizontally extending vertically flexible load responsive beam to be loaded substantially midway of its length so that it flexes between its ends, means for pivotally connecting one end of the beam to the base and for anchoring said end against horizontal movement upon application of vertical load to the beam, means for supporting the other end of the beam on the base by a vertically elongated flexure member so as to allow said latter end of the beam to move horizontally upon flexure of the beam, and means located between the ends of the beam for measuring the deflection thereof in response to load.

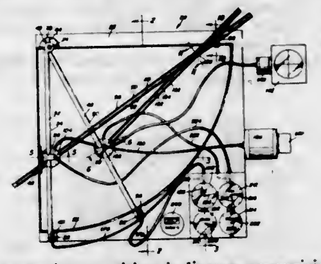
2,839,920
SEA STATE WAVE METER
Thomas G. MacAnespie, Middle River, Md., assignor to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland
Application January 5, 1956, Serial No. 557,585
5 Claims. (Cl. 73—170)

1. A stabilized sea state wave meter designed to float substantially upright in the water with the greater portion of its length submerged, comprising an elongated tube closed at each end, a damper plate fixed adjacent the lower end of the tube and thereby located a sufficient depth below the surface of the water as to be disposed in substantially non-vertically rising water, said damper plate having a diameter substantially greater than the diameter of said tube and disposed in a plane generally transverse to the center line of said tube, and means in said tube for sensing



fluctuations in hydraulic pressure indicative of the sea state.

2,839,921
POSITION INDICATOR
Albert Wood, Albuquerque, N. Mex., assignor, by direct and mesne assignments, to Engineering Development Co., Inc., Albuquerque, N. Mex., a corporation of New Mexico
Application September 21, 1955, Serial No. 535,710
10 Claims. (Cl. 73—178)

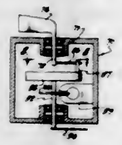


7. A comparison position indicator comprising arcuate rack means for representing the equator, a first arm carrying first gear means in engagement with said rack means, a second arm carrying second gear means in engagement with said rack means, a pivot point for representing the elevated pole, said first arm and said second arm being pivoted at said pivot point, a fireat circle track guide intercepting points representing departure and destination positions, a destination guide pivoted at said destination position, movable means connecting said destination guide to said second arm for representing true position, and slide means movably mounted on said first arm at said departure position engaging said track guide to move said first arm along said track guide corresponding to estimated ground speed, a rack on said second arm, said movable means including a latitude gear engaging said rack on said second arm, and means responsive to changes in latitude for driving said latitude gear engaging said latitude gear, a gyro compass having latitude correction means, said means for driving said latitude gear being connected to said latitude correction means.

2,839,922
AIRSTREAM DIRECTION INDICATOR
Joseph F. Manildi, Sherman Oaks, Calif., assignor to G. M. Giannini & Co., Inc., Pasadena, Calif., a corporation of New York
Application August 10, 1955, Serial No. 527,497
4 Claims. (Cl. 73—188)

1. In an instrument for indicating variations in a physical quantity, a frame, an input element mounted

for movement relative to the frame, sensing means responsive to variations in the physical quantity and tending to move the input element in accordance therewith, the input element and the sensing means comprising a first dynamical system having a first predetermined natural frequency of vibration, an output element mounted for movement relative to the frame, resilient coupling means acting between the input and output elements



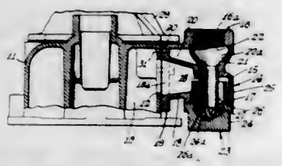
and exerting on each element a force tending to move it into a predetermined normal relation with respect to the other, the output element and the coupling means forming a second dynamical system having a second predetermined natural frequency of vibration, said second natural frequency being less than about one fifth of the first, damping means acting between the output element and the frame, and indicating means responsive to movement of the output element.

2,839,923

PRESSURE RELIEF MEANS FOR GAS METERS

Fairchild Whitworth, Fairfield, Conn., assignor to The Sprague Meter Company, Bridgeport, Conn., a corporation of Connecticut

Application March 11, 1955, Serial No. 493,665
1 Claim. (Cl. 73—199)



In combination with a gas meter having a housing provided with side walls forming a gas pressure chamber with one of said side walls having an opening therein, a detachable self-contained liquid sealing and vent unit, and means for securing said unit to said side wall to overlie and close said opening in the side wall and to vent said pressure chamber in response to excess pressure in said chamber, said unit comprising a body having an opening communicating with said opening in said side wall and aligned open-ended portions and forming an upper unit chamber having a downwardly sloping bottom wall with an aperture therein and opened to the atmosphere in one end thereof through one of said end portions, a cup member closing the other end portion of said body and forming therein a lower unit chamber, a body of liquid disposed in said cup member, and a conduit having one end in communication with the aperture in said sloping walls of said upper unit chamber and having its other end extending into said body of liquid and spaced from said cup member, said cup member having upwardly projecting walls surrounding said conduit in spaced relation thereto with the upper end of the chamber formed by the cup member in communication with said pressure chamber through said openings so that excess pressure within the pressure chamber will act on the liquid between said conduit and said upwardly projecting walls and force said body of liquid to be displaced allowing excess gas pressure to be vented through said conduit and into said upper unit chamber connected to the atmosphere and said sloping walls of said upper chamber allowing the displaced liquid to gravitate to its original position upon the relief of excess pressure within the said pressure device.

2,839,924

OUTSIDE THERMOMETER PARTICULARLY FOR MOTOR VEHICLES

Karl-Heinz Pauli, Preetz, Holstein, Germany

Application December 13, 1955, Serial No. 552,930
Claims priority, application Germany January 5, 1955
5 Claims. (Cl. 73—349)



1. An outside thermometer, particularly for use at motor vehicles, comprising, an outer casing provided with a transparent front wall, a rear wall and with a graduated scale on said transparent front wall; means forming a main chamber positioned within said outer casing; a shaft rotatably journalled in opposite walls of said main chamber and having one of its ends project therefrom into said outer casing behind said transparent front wall; a spiral spring of bimetal mounted upon said rotatable shaft within said main chamber and having one of its ends secured to a wall of said main chamber and its other end to said rotatable shaft; said rear wall of said outer casing having a recessed portion superposed over said main chamber and forming one wall of said main chamber; a cover mounted over said recessed portion forming a pair of antichambers of equal size; said antichambers being separated by a vertically extending partition located between said cover and said recessed portion of said rear wall; said recessed portion of said rear wall having passages therein located in the proximity of the upper end of said vertical partition providing communication between said main chamber and said antichambers, said cover being provided with a pair of outwardly bulging portions positioned on either side of the lower end of said vertically extending partition and forming passages directed toward the outside in opposite directions, said cover being further provided on either side of said partition between said pair of bulging portions with a passage leading to the outside; and a temperature indicator mounted on said projecting end of said rotatable shaft within said outer casing behind said transparent front wall provided with said graduated scale.

2,839,925

TEMPERATURE MEASURING SYSTEM

Paul Profos, Winterthur, Switzerland, assignor to Sulzer Frères, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application October 20, 1954, Serial No. 463,457
Claims priority, application Switzerland November 6, 1953
3 Claims. (Cl. 73—363)

1. A device for indicating the temperature of a medium flowing through a tubular element of relatively great wall thickness comprising, in combination, an expansible conduit of relatively small wall thickness, said conduit having ends connected with the tubular element at points spaced in the flow direction of the medium for

by-passing fluid through said conduit, means associated with the tubular element for inducing flow of medium



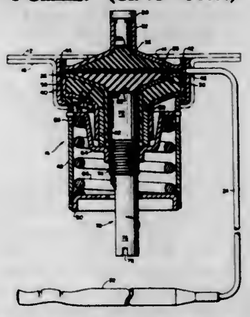
through said conduit, and means connected with said conduit and being responsive to the heat expansion and contraction of said conduit.

2,839,926

CONTROL DEVICE

John E. Woods, Cohasset, and Raymond G. Giles, Cochituate, Mass., assignors to Standard-Thomson Corporation, Waltham, Mass., a corporation of Delaware

Application March 7, 1956, Serial No. 570,148
6 Claims. (Cl. 73—368.4)



6. An actuator having, in combination, a rigid housing, a pair of flexible metal diaphragms supported in the housing to divide the space therein, an hermetically sealed metallic system including the space between the diaphragms and a portion remote from the housing, said system being entirely filled with a thermal liquid, the housing having a pair of sleeve bearings separated by both diaphragms, an actuator pin in one of the bearings, a piston-like member in the other bearing, first and second deformable bodies each having an appreciable bulk modulus substantially filling the balance of the divided spaces within the housing, a member adjustably threaded on the piston-like member, a spring engaged with said last-mentioned member and tending to urge the piston-like member into the housing, a container external to the housing, a third deformable body having an appreciable bulk modulus housed in the container, and a member engaged with said adjustably threaded member and received in said container to abut said third deformable body to limit the motion of said piston-like member into the housing at variable positions as a function of the volume of said third deformable body.

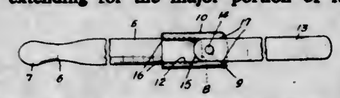
2,839,927

MEDICAL THERMOMETER WITH SHAKE-DOWN ATTACHMENT

Louis Futterman, White Plains, N. Y., assignor to Gem Thermometer Company, New York, N. Y., a partnership

Application August 27, 1954, Serial No. 452,623
3 Claims. (Cl. 73—373)

1. An attachment for a medical thermometer, said attachment having means for mounting the same on one end portion of a thermometer, an elongated spring member having one end pivoted to said means, said member, in one position, extending longitudinally of the greater portion of the length of a thermometer, and in another position extending for the major portion of its length



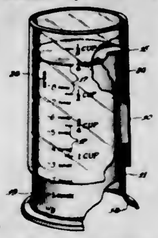
beyond said end of the thermometer to permit agitation of the thermometer, and said means including means, adjacent the pivot, for retaining the elongated spring member in alinement with the thermometer in both positions of said member.

2,839,928

ADJUSTABLE MEASURING DEVICE

Seymour F. Fohrman, Glencoe, Ill.

Application February 17, 1956, Serial No. 566,184
7 Claims. (Cl. 73—429)



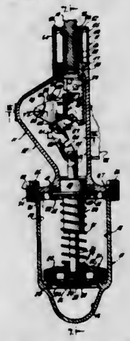
1. An adjustable measuring device comprising a tubular, relatively hard and rigid outer member open at both ends, and an inner substantially cylindrical, relatively softer, flexible and radially compressible, hollow, one-piece inner member telescopically adjustable within the outer member and having a closed upper end to form with the wall of the outer member a measuring cup of adjustable capacity, said inner member having also at the upper end of its outer surface an integral circumferential ridge which, in the separated relation of the inner and outer members, extends to a radial distance slightly greater than the inner radius of the outer member whereby, in the assembled relation of the parts, said ridge is pressed into sealing engagement with the wall of the outer member.

2,839,929

SOLENOID OPERATED TRIP MECHANISM

Wilbur F. Hurlburt, Jr., West Orange, N. J., assignor to Automatic Switch Co., Orange, N. J., a corporation of New York

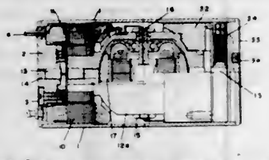
Application August 14, 1953, Serial No. 374,283
10 Claims. (Cl. 74—2)



1. In a mechanism for moving a valve stem or the like along a predetermined line, a handle, a linkage be-

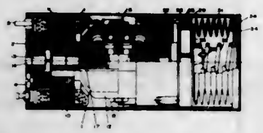
tween the handle and stem comprising a pair of links joined end to end by an intermediate pivot, one of said links having its outer end articulated to the handle and the other link having its outer end pivoted to the stem, said links being movable into and out of an overlying relation in which said intermediate pivot is substantially aligned with the line of stem movement, a housing enclosing said linkage, and releasable holding means within said housing and independent of said handle and linkage and adapted to bear laterally against said intermediate pivot to hold the links in overlying relation and thereby render said handle effective to move said stem.

2,839,930
GYROSCOPE
Paul F. Hayner, Pelham, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application November 12, 1953, Serial No. 391,479
7 Claims. (Cl. 74—5)



1. A gimbal for a gyroscope rotor comprising a pair of hollow spherical sections held in juxtaposition and providing a spherical housing for said rotor; means for pivotally supporting said rotor carried by each of said gimbal sections establishing the axis of spin for said rotor; trunnions carried by one of said gimbal sections on a diameter perpendicular to said axis of spin; and outwardly tapered holes in said trunnions coaxial with said diameter for pivotally engaging a suspension for said gimbal.

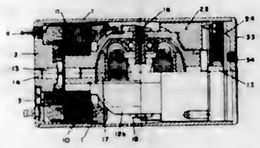
2,839,931
GYROSCOPE
Harold W. Pope, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application August 26, 1954, Serial No. 452,380
6 Claims. (Cl. 74—5)



1. A gyroscope comprising a gimbal; a rotor having an axis of spin and supported within said gimbal; a housing supporting said gimbal to permit its rotation about an axis perpendicular to said axis of spin; a fluid within said housing surrounding said gimbal; an expansible, evacuated chamber within said housing; and a resilience means within said chamber enabling said chamber to be expansible and compressible with changes in pressure within said housing to compensate for variations in volume of the component parts within said housing.

2,839,932
GYROSCOPE
Paul F. Hayner, Pelham, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application November 13, 1953, Serial No. 391,981
6 Claims. (Cl. 74—5.5)

1. A gyroscope comprising a gimbal; a rotor pivotally supported within said gimbal for rotation about its axis of spin; a housing for said gimbal pivotally supporting it to permit its movement about an axis perpendicular to said axis of spin; oil carried within said housing surrounding said gimbal for damping the movement thereof; an annular member secured to said gimbal and adapted to expand so as to decrease the space between said member and housing with increases in temperature thereby minimizing variations in the damping factor of said oil.

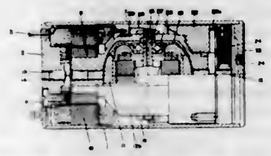


2,839,933
GYROSCOPE
George J. Shomphe, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application November 20, 1953, Serial No. 393,284
5 Claims. (Cl. 74—5.5)



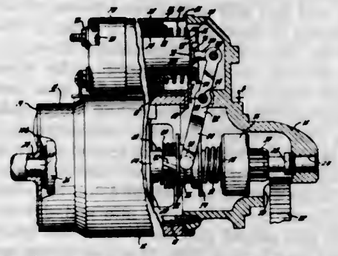
1. A gyroscope comprising a gimbal; a rotor supported within said gimbal with an axis of spin; a housing supporting said gimbal to permit its rotation about an axis perpendicular to said axis of spin; a fluid within said housing surrounding said gimbal for damping movement thereof; and a body within said housing having a plurality of minute cells each including a gas, said gas expanding or contracting to accommodate small amounts of said fluid in said cells as said housing changes in volume with temperature.

2,839,934
GYROSCOPE
George J. Shomphe, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application February 3, 1954, Serial No. 407,892
10 Claims. (Cl. 74—5.7)



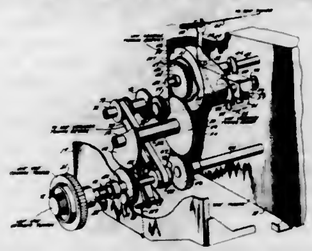
10. An end cap bearing support for a motor, comprising: a member having generally the shape of a truncated semitoroid, having an aperture through the center of said member for engaging a bearing for part of said motor for assembly to a shaft, having in the inner face of said member an annular groove deeper than the wall thickness of said member for providing axial resilience and resilience in the plane of said member and for enabling pre-spring-loading of said bearing when said end cap is assembled to said shaft, and having an outer perimeter grooved for circumferentially engaging another part of said motor.

2,839,935
ENGINE STARTER
Herman L. Hartzell, Edgewood, Perry W. House, Pendleton, Clarence E. Tice, Edgewood, and Clayton W. Smith, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 18, 1955, Serial No. 547,639
16 Claims. (Cl. 74—6)



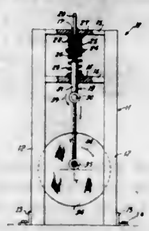
5. In starting apparatus for an internal combustion engine, an electric motor operable to start said engine, said motor having a field frame and a rotatable armature shaft extending therefrom, a pinion movable axially on said shaft into engagement with a gear of the engine to be started, means for connecting said pinion to the armature shaft for rotation therewith when the pinion engages said engine gear so that rotation of the armature shaft will rotate said gear, a pivoted lever operatively connected to the pinion at one end and movable to engage and disengage the pinion from the engine gear, means for operating said lever, an end housing member forming a closure for one end of the motor and surrounding the pinion and the end of the lever which is operatively connected thereto and a pivot pin for said lever adjustably mounted in said housing member and adjustable from the outside of said member, said pin having an eccentric surface on which said lever is mounted.

2,839,936
UNI-CONTROL TUNING MECHANISM FOR MULTI-BAND SIGNAL RECEIVERS AND THE LIKE
Ernest D. Dawson, Upper Darby, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application February 27, 1952, Serial No. 273,717
10 Claims. (Cl. 74—10.54)



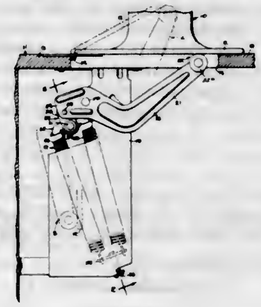
1. A manual control mechanism for driving a pair of high frequency signal tuners in sequence comprising in combination, a main tuning control shaft, a vernier tuning drive shaft, a main tuning control means for each of said high frequency tuners, a mechanical linkage including a driver segment gear having a smooth portion over part of its periphery and having a toothed portion over the remainder of its periphery coupling one of said main control means to said shaft during a portion of the rotation of said segment gear, and a further mechanical linkage including said segment gear coupling the other of said main control means to said shaft during a further portion of the rotation of said segment gear, a vernier coupling shaft, a vernier tuning control means for each of said tuners actuated by said coupling shaft, and a mechanical linkage connecting said vernier drive shaft to said coupling shaft.

2,839,937
MOTION TRANSLATING DEVICE
Virgil T. Calfee, Dallas, Tex., assignor to Powerscope, Inc., a corporation of Texas
Application November 21, 1955, Serial No. 548,076
14 Claims. (Cl. 74—61)



14. A motion translating device including a rotatable mass, having a first axis passing through its center of mass; means for rotating said mass about an axis, displaced from said first axis; a reciprocable member; means extending between and pivotally connected to said rotatable mass, and to said reciprocable member; and means for rotating said mass whereby it tends to rotate about said first axis.

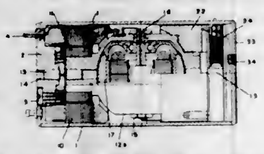
2,839,938
BALANCING MECHANISM
Axel W. Ahlgren and Harold H. Ring, Rockford, Ill., assignors to Amerock Corporation, Rockford, Ill., a corporation of Illinois
Application July 2, 1956, Serial No. 595,215
5 Claims. (Cl. 74—99)



1. A balancing mechanism for a device which is movable up and down between first and second positions, said mechanism comprising a frame, an elongated lever fulcrumed intermediate its ends on said frame to turn about a horizontal axis, means for coupling one end of said lever to said device, a generally upright link, a pivot joining the upper end of said link to the other end of said lever, an element pivotally mounted on the other end of said link, an anchor mounted on said frame and disposed below said link, a contractile spring connected to said anchor and said element and operable to urge said lever to turn in one direction about its fulcrum, and an abutment mounted on said link beneath said pivot to engage the lower edge surface of said lever as the latter turns against the action of said spring, said abutment being located to engage said surface when said fulcrum and said pivot are in a line generally perpendicular to the line of action of said spring whereby the spring thereafter acts on the lever through the abutment.

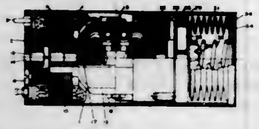
tween the handle and stem comprising a pair of links joined end to end by an intermediate pivot, one of said links having its outer end articulated to the handle and the other link having its outer end pivoted to the stem, said links being movable into and out of an overlying relation in which said intermediate pivot is substantially aligned with the line of stem movement, a housing enclosing said linkage, and releasable holding means within said housing and independent of said handle and linkage and adapted to bear laterally against said intermediate pivot to hold the links in overlying relation and thereby render said handle effective to move said stem.

2,839,930
GYROSCOPE
Paul F. Hayner, Pelham, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application November 12, 1953, Serial No. 391,479
7 Claims. (Cl. 74—5)



1. A gimbal for a gyroscope rotor comprising a pair of hollow spherical sections held in juxtaposition and providing a spherical housing for said rotor; means for pivotally supporting said rotor carried by each of said gimbal sections establishing the axis of spin for said rotor; trunnions carried by one of said gimbal sections on a diameter perpendicular to said axis of spin; and outwardly tapered holes in said trunnions coaxial with said diameter for pivotally engaging a suspension for said gimbal.

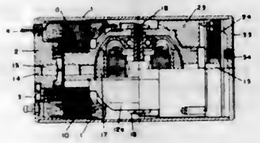
2,839,931
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1. A gyroscope comprising a gimbal; a rotor pivotally supported within said gimbal for rotation about its axis of spin; a housing for said gimbal pivotally supporting it to permit its movement about an axis perpendicular to said axis of spin; oil carried within said housing surrounding said gimbal for damping the movement thereof; an an-



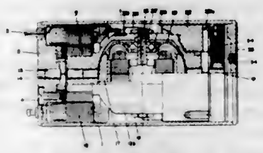
nular member secured to said gimbal and adapted to expand so as to decrease the space between said member and housing with increases in temperature thereby minimizing variations in the damping factor of said oil.

2,839,933
GYROSCOPE
George J. Shomphe, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
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5 Claims. (Cl. 74—5.5)



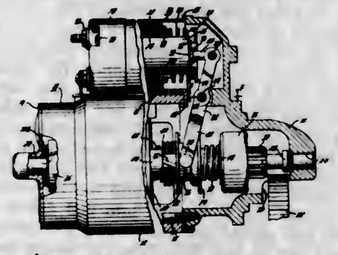
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2,839,934
GYROSCOPE
George J. Shomphe, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Incorporated, Nashua, N. H., a corporation of Delaware
Application February 3, 1954, Serial No. 407,892
10 Claims. (Cl. 74—5.7)



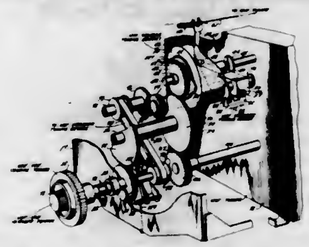
10. An end cap bearing support for a motor, comprising: a member having generally the shape of a truncated semitoroid, having an aperture through the center of said member for engaging a bearing for part of said motor for assembly to a shaft, having in the inner face of said member an annular groove deeper than the wall thickness of said member for providing axial resilience and resilience in the plane of said member and for enabling pre-spring-loading of said bearing when said end cap is assembled to said shaft, and having an outer perimeter grooved for circumferentially engaging another part of said motor.

2,839,935
ENGINE STARTER
Herman L. Hartzell, Edgewood, Perry W. House, Pendleton, Clarence E. Tice, Edgewood, and Clayton W. Smith, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 18, 1955, Serial No. 547,639
16 Claims. (Cl. 74—6)



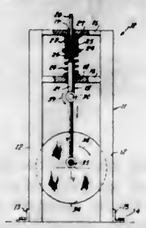
5. In starting apparatus for an internal combustion engine, an electric motor operable to start said engine, said motor having a field frame and a rotatable armature shaft extending therefrom, a pinion movable axially on said shaft into engagement with a gear of the engine to be started, means for connecting said pinion to the armature shaft for rotation therewith when the pinion engages said engine gear so that rotation of the armature shaft will rotate said gear, a pivoted lever operatively connected to the pinion at one end and movable to engage and disengage the pinion from the engine gear, means for operating said lever, an end housing member forming a closure for one end of the motor and surrounding the pinion and the end of the lever which is operatively connected thereto and a pivot pin for said lever adjustably mounted in said housing member and adjustable from the outside of said member, said pin having an eccentric surface on which said lever is mounted.

2,839,936
UNI-CONTROL TUNING MECHANISM FOR MULTI-BAND SIGNAL RECEIVERS AND THE LIKE
Ernest D. Dawson, Upper Darby, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application February 27, 1952, Serial No. 273,717
10 Claims. (Cl. 74—10.54)



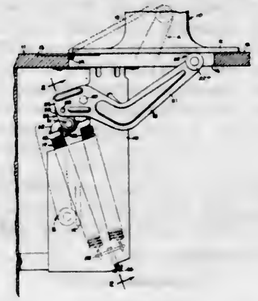
1. A manual control mechanism for driving a pair of high frequency signal tuners in sequence comprising in combination, a main tuning control shaft, a vernier tuning drive shaft, a main tuning control means for each of said high frequency tuners, a mechanical linkage including a driver segment gear having a smooth portion over part of its periphery and having a toothed portion over the remainder of its periphery coupling one of said main control means to said shaft during a portion of the rotation of said segment gear, and a further mechanical linkage including said segment gear coupling the other of said main control means to said shaft during a further portion of the rotation of said segment gear, a vernier coupling shaft, a vernier tuning control means for each of said tuners actuated by said coupling shaft, and a mechanical linkage connecting said vernier drive shaft to said coupling shaft.

2,839,937
MOTION TRANSLATING DEVICE
Virgil T. Calfee, Dallas, Tex., assignor to Powerscope, Inc., a corporation of Texas
Application November 21, 1955, Serial No. 548,076
14 Claims. (Cl. 74—61)



14. A motion translating device including a rotatable mass, having a first axis passing through its center of mass; means for rotating said mass about an axis, displaced from said first axis; a reciprocable member; means extending between and pivotally connected to said rotatable mass, and to said reciprocable member; and means for rotating said mass whereby it tends to rotate about said first axis.

2,839,938
BALANCING MECHANISM
Axel W. Ahlgren and Harold H. Ring, Rockford, Ill., assignors to Amerock Corporation, Rockford, Ill., a corporation of Illinois
Application July 2, 1956, Serial No. 595,215
5 Claims. (Cl. 74—99)



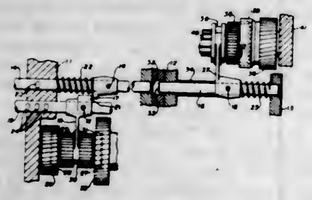
1. A balancing mechanism for a device which is movable up and down between first and second positions, said mechanism comprising a frame, an elongated lever fulcrumed intermediate its ends on said frame to turn about a horizontal axis, means for coupling one end of said lever to said device, a generally upright link, a pivot joining the upper end of said link to the other end of said lever, an element pivotally mounted on the other end of said link, an anchor mounted on said frame and disposed below said link, a contractile spring connected to said anchor and said element and operable to urge said lever to turn in one direction about its fulcrum, and an abutment mounted on said link beneath said pivot to engage the lower edge surface of said lever as the latter turns against the action of said spring, said abutment being located to engage said surface when said fulcrum and said pivot are in a line generally perpendicular to the line of action of said spring whereby the spring thereafter acts on the lever through the abutment.

2,839,939
CHANGE-SPEED GEAR
Lucien Charles Hippolyte Juy, Dijon, France
Application June 7, 1955, Serial No. 513,849
Claims priority, application France June 11, 1954
9 Claims. (Cl. 74—217)



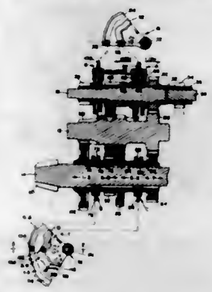
1. A change speed gear mechanism for a cycle, comprising a plurality of sprocket wheels of different diameters adapted to be rigidly mounted on a rear wheel axle of the cycle and axially aligned therewith, a supporting lug, means attaching one end of said lug to a part of the cycle frame, a carrying lever device hollow in construction and L-shaped in form, the leg of the L being connected to the opposite end of said lug, the base of the L being adjustable in length and connected at its end to a guide member, at least one roller rotatably connected to said guide member for supporting and guiding a drive chain for the cycle, means for adjusting the length of the base portion of said carrying lever so that said roller may be aligned with respective ones of said sprocket wheels, said adjusting means comprising a selector member adapted to slide in the hollow leg portion of said carrying lever, a hand manipulative cable connected to one end of said selector member, a telescoping housing member enclosing the base of said carrying lever and mounted between said guide member and the leg of said carrying lever, means enclosed by said housing member for adjustably tensioning said guide member relative to said carrying lever, means manually controlling the axial length of said adjustable tensioning means, force transmission means connected to the opposite end of said selector member and to said guide member, whereby longitudinal movement of said cable correspondingly moves said guide member, and means for stopping said selector member at positions where the roller is aligned with respective ones of said sprocket wheels, whereby the transverse displacement of the base of said carrying lever is controllable by said selector member and said adjustable tensioning means.

2,839,940
CONTROL APPARATUS FOR CLUTCHING DEVICES
Artis C. Bryan, Syracuse, N. Y., assignor to Truckstell Manufacturing Company, a corporation of Ohio
Application August 13, 1956, Serial No. 603,504
8 Claims. (Cl. 74—359)



1. Control apparatus for axial shifting of a first toothed clutch member and a second toothed clutch member relative to first and second complementarily toothed gear members, respectively, for enmeshing and disenmeshing the complementary teeth of the respective clutch members and gear members, comprising a first longitudinally movable rod, first shifting means carried by said first rod for axially moving the first clutch member into and out of enmeshment with the first gear member, a second longitudinally movable rod disposed alongside of the first rod, said first and second rods having abutting portions disposed in opposition to each other so that movement of the first rod in an enmeshing direction moving the first shifting means to a position for enmeshment of the first clutch member with the first gear member interengages said abutting portions and moves said second rod in a first direction, a third longitudinally movable member positioned relative to the second rod to be moved by said second rod moving in said first direction, second shifting means carried by said third rod for axially moving the second clutch member into and out of engagement with said second gear member, a first spring urging the second rod in said first direction, detent means for restraining the first rod against the urging of said first spring, and a second spring urging said third rod in an opposite direction, movement of the third rod in said opposite direction moving the second shifting means to move the second clutch member to a position disengaged from said second gear member, said second and third rods being unconnected to permit the rods to move away from each other, the arrangement providing that movement of the first rod in said enmeshing direction moves the second rod in said first direction to overcome the said detent means and relative to said third rod, that resilient urging of the first spring moves the second rod a further distance to move said third rod and said second shifting means to enmesh the second clutch member and second gear upon the complementary teeth of the second toothed clutch member and second gear member coming into enmeshing alignment, the said second spring resiliently urging the third rod and second shifting means to disenmesh the second clutch member and second gear member upon movement of the second rod in said second direction.

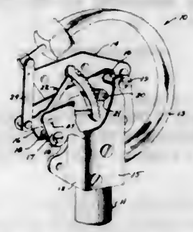
2,839,941
TRANSMISSION AND CONTROL THEREFOR
Vernon L. Rugen, Cedar Falls, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application August 13, 1956, Serial No. 603,538
10 Claims. (Cl. 74—359)



1. A transmission and control therefor, comprising: a pair of shafts; first and second drive means for driving one shaft from the other respectively at two different speed ratios and respectively including first and second shiftable members, each having a neutral position and an engaged position; a shifter movable through a normal speed-change range and along a defined path and having first and second zig-zag tracks and first and second followers running respectively in said tracks and connected

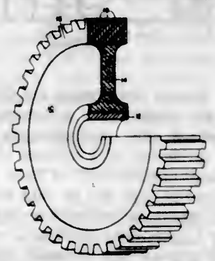
respectively to the first and second shiftable members; said first track having a neutral portion parallel to said path and retaining the neutral position of the first shiftable member and an adjoining active portion diverging from said path to incur the engaged position of said first shiftable member; said second track having a neutral portion parallel to said path and retaining the neutral position of the second shiftable member and an active portion diverging from said path to incur the engaged position of the second shiftable member; said active portion of each track being divergent in the zone of the neutral portion of the other track so that normally when one shiftable member is engaged the other must be in neutral; and said shifter being selectively movable beyond its normal range to a parking position and said shifter further having a first track extension running parallel to the path of shifter movement as a continuation of the first track active portion and a second track portion as an additional offset continuation of the second track neutral portion, whereby movement of the shifter to its parking position retains engagement of the first shiftable member via said first track extension and simultaneously conditions the second shiftable member for engagement via said second track extension.

2,839,942
INSTRUMENTS
Ambrose E. Le Van, Sellersville, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application May 25, 1955, Serial No. 511,081
1 Claim. (Cl. 74—434)



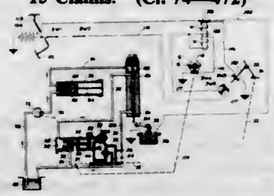
In a mechanical movement of a dial indicating instrument for translating and multiplying the movements of a motor element into relatively large angular displacements of a pointer carrying shaft; the combination of a metal pinion gear of relatively small pitch diameter adapted to be secured on the pointer carrying shaft, a sector gear having teeth thereon with the radius of the pitch circle of said teeth being relatively large, means rockably mounting said sector gear on an axis concentric with said pitch circle and with said teeth of the sector gear meshing with the teeth of said pinion gear, and means for connecting said sector gear to the motor element so that movement of the latter causes rocking of the sector gear, said sector gear including a metal arcuate portion concentric with said rocking axis, spaced radial spokes connecting said arcuate portion to said rocking axis, said arcuate portion being formed with a series of openings therein, and a molded nylon body enveloping said arcuate portion so as to completely underlie the bottom surface of said arcuate portion between said spokes and extending through said openings in the arcuate portion, said nylon body being generally similar in shape to said arcuate portion and having said teeth of the sector gear in its radially outer edge surface so that only a small percentage of the radial distance from said rocking axis to said pitch circle is formed by the material of said nylon body thereby to minimize the variations in the clearance between said pinion and sector gears resulting from temperature changes, and said arcuate portion of the metal blank resisting circumferential expansion and contraction of the nylon body to ensure accurate transmission of the motor element movement to the pointer carrying shaft.

2,839,943
MOLDED ARTICLE OF MANUFACTURE AND METHOD OF MAKING THE SAME
Lewis E. Caldwell, Greensburg, Pa., and Ernest O. Hausmann, Red Bank, N. J.; said Caldwell, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania, and said Hausmann, assignor to Continental-Diamond Fibre Division of The Budd Company, Inc., Newark, Del., a corporation of Delaware
Application May 28, 1954, Serial No. 432,976
3 Claims. (Cl. 74—445)



1. A gear comprising a molded outer rim portion of laminated sheet fibrous material bonded together with a thermoset resinous binder selected from the group consisting of phenol-formaldehyde resins, epoxy resins, melamine-formaldehyde resins, and polyester resins, the laminated sheet fibrous material being substantially at right angles to the axis of the gear, the sheet fibrous material being natural cotton fibrous material which has been chemically treated to remove substantially all dirt, starch sizing, natural oils and waxes to leave a fibrous material comprising substantially only pure cellulose, the chemically treated cotton cooperating with said thermoset resinous binder to provide a gear which has greater heat stability than a similar gear prepared from natural cotton composed of unpurified cellulose.

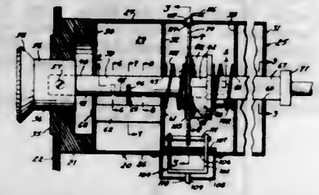
2,839,944
TRANSMISSION CONTROL SYSTEM
Nikolaus von Rucker, South Bend, Ind., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application August 3, 1955, Serial No. 526,256
13 Claims. (Cl. 74—472)



1. In a motor vehicle, a power control pedal, a transmission mechanism controlling means operable to establish a modified speed drive, and an electromagnetic system including a relay with double windings arranged to supplement one another and a solenoid having actuation thereof effected by the relay under its full strength to effect actuation of said controlling means, a source of electrical energy for said windings having a predetermined potential, and a switch in circuit with each relay winding and being sequentially operable relative to the other switch for cumulatively but not separately building up

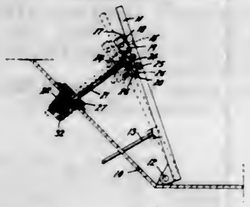
full strength in the relay windings to cause energization of the solenoid to effect actuation of said controlling means.

2,839,945
CONTROL DEVICE
Benson Zion, Philadelphia, Pa.
Application February 13, 1957, Serial No. 639,883
9 Claims. (Cl. 74—473)



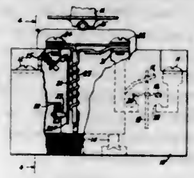
1. A control device comprising an elongate member mounted for both longitudinal movement and rotation about a longitudinal axis, said elongate member being provided with a guideway of a selected configuration extending both longitudinally and at least partially about said elongate member, one end of said elongate member being adapted for operative connection to a mechanism to be controlled by longitudinal movement of said elongate member, a hand grip on said elongate member adjacent to the other end thereof for manually moving said elongate member, constraining means mounted for cooperating engagement with said guideway to limit said elongate member to a predetermined longitudinal and rotative mobility defined by said guideway, a cammed element carried by said elongate member for movement with the latter, and cam follower means mounted for engagement with said cammed element and adapted for operative connection to an additional mechanism to be controlled, whereby said additional mechanism is controlled by movement of said cammed element with said elongate member.

2,839,946
ACCELERATOR PEDAL LATCHES
Jesse J. Morsch, Douglas, Wyo.
Application December 22, 1955, Serial No. 554,749
2 Claims. (Cl. 74—513)



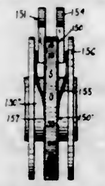
1. A device for maintaining an accelerator pedal in the depressed position relative to a floor board of an automotive vehicle comprising: an angle clip; means securing said clip to the bottom of the accelerator pedal so that said clip will project to one side of the pedal with the outer extremity of said clip lying in a vertical plane; a lever member pivotally mounted on said outer extremity and extending rearwardly alongside said pedal and having a flat pad portion; an elongated straight rod extending through said pad portion and forwardly and downwardly therefrom; lock nuts threaded upon the upper extremity of said rod and securing the latter in said pad portion; an axially elongated, externally threaded tubular bushing mounted on the floor board, the lower extremity of said rod extending into said bushing; a notch formed in said lower extremity and adapted to engage said bushing to maintain said pedal depressed; spring means constantly biasing said rod in a direction to prevent engagement of said notch with said bushing so as to allow normal free up and down movement of said pedal; and means for manually actuating said rod against the bias of said spring so that said notch will engage said bushing to maintain said pedal depressed when desired.

2,839,947
SHOCK-RESPONSIVE INERTIA MECHANISM
James A. Chamberlin and Alva L. Sweet, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application January 3, 1956, Serial No. 556,956
8 Claims. (Cl. 74—527)



1. In a device having a rotatable member subject to shock, means including a relatively movable inertia element normally in shock-transmitting relation with the rotatable member on one side of the axis thereof and having a tension-transmitting connection attached to the rotatable member on the other side of said axis to bias the member to rotate in a predetermined direction upon a sudden relative movement of the inertia element in response to shock.

2,839,948
CAM ASSEMBLY
Joseph N. Paul, Norwalk, Conn.
Application December 12, 1952, Serial No. 325,675
15 Claims. (Cl. 74—568)



15. A shaft structure carrying a cam body, and having associated with said body at the respective sides thereof angularly adjustable and removable lobes each having an axially acting positioning spring as an integral part thereof, said lobes projecting radially beyond the periphery of the body and said springs being constructed and arranged for placement and retention of said lobes in the same angular position on said body at the respective sides or faces of the latter or in different angular positions.

2,839,949
THROTTLE CONTROL LINKAGE ADJUSTMENT
Richard W. Buell, Webster A. Lobdell, and Gordon W. Wrinn, Detroit, Mich., assignors to Claude Sintz, Inc., Detroit, Mich., a corporation of Michigan
Application March 12, 1956, Serial No. 570,732
7 Claims. (Cl. 74—586)

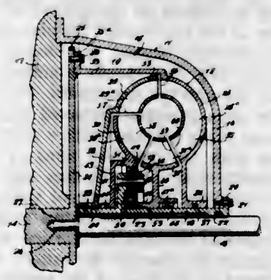
1. Adjustable linkage for interconnecting two members including first and second elongated elements having their outer ends respectively adapted for connection to the members, the inner end portion of one of said elements having a slot therein elongated in the direction of length of said one element and closed at both ends, said inner

end portion of said one element being bent at a substantial angle along a line intermediate the ends of said slot and extending across said slot, said other element extending through said slot in one direction inwardly of the bend and having a laterally turned inner extremity



extending through said slot in the opposite direction outwardly of the bend, and clamping means carried by said extremity of said other element for clamping the latter to said inner end portion of said one element in the slot thereof in selected positions of adjustment to vary the length of said linkage.

2,839,950
TRANSMISSION MECHANISMS
Robert C. Russell, South Euclid, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application May 1, 1953, Serial No. 352,478
11 Claims. (Cl. 74—677)



1. In a power transmission mechanism; a group of cooperating relatively rotatable bladed annular members defining a toroidal fluid circuit including pump means, first and second turbines and reaction means in series relation in said circuit with said first turbine and said reaction means disposed adjacent the discharge and inlet portions respectively of said pump means, and said second turbine being between said first turbine and said reaction means; said reaction means being inhibited against reverse rotation; rotatable power input means connected with said pump means; rotatable output shaft means; and torque amplification gearing connecting said second turbine with said output shaft means; said first turbine being direct-connected to said output shaft means.

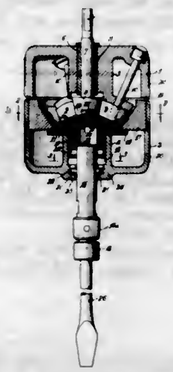
2,839,951
HYDROMECHANICAL TRANSMISSION FOR VEHICLES
Martin P. Winther, Gates Mills, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application June 21, 1954, Serial No. 438,253
9 Claims. (Cl. 74—677)

8. In a hydromechanical transmission, a rotatable input member, a hydraulic torque converter, a pair of first and second rotatable shaft members of which the first shaft member is adapted to be driven substantially directly by said input member and the second shaft member is adapted to be driven from said input member through said torque converter, a rotatable intermediate shaft, a rotatable output shaft, said intermediate shaft being between said first shaft member and said output shaft and being rotatable relative to said first and second shaft members, first and second planetary gear sets connecting said intermediate and output shafts with said first shaft member in tandem relation thereto and comprising cooperating gear members including control gear mem-



bers, rotation control devices effective on said control gear members for selectively rendering said gear sets operable either in a locked-up condition or as reduction gear devices, and countershaft means connecting said intermediate shaft with said second shaft member and disposed in by-pass relation to said first planetary gear set.

2,839,952
REVERSIBLE POWER TOOL DRIVE ATTACHMENT
Elmer J. Ondeck, Brookfield, Ill., assignor, by mesne assignments, to Supreme Products Corporation, Chicago, Ill., a corporation of Illinois
Application December 20, 1954, Serial No. 476,205
12 Claims. (Cl. 74—750)

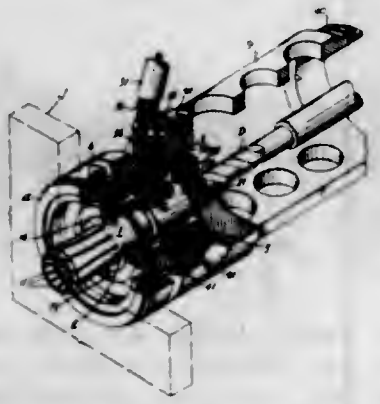


9. A device of the class described comprising first and second body sections mounted together end-to-end for rotation, one relative to the other, about a common axis, each of said sections having an axial passage therethrough and the second section having a hollow end portion opening toward the first section, an axially shiftable drive shaft rotatably journalled in the passage of the first section, a drivable ring element fast on the interior of said second section, a planetary transmission mounted on the first section and drivably engaged with said ring element, means for drivably connecting said drive shaft with said planetary transmissions upon axially inward shifting of the drive shaft relative to the first body section, and means for normally urging said drive shaft in the axially outward direction, a driven shaft having radially extending lugs axially shiftable in the axial passage of said second section, said first section having connected thereto an inner body defining axially spaced recesses receiving said lugs alternately in rotary drive relationship for rotation of the drive shaft in two directions selectively.

2,839,953
DRILL MOTOR COLLET MOUNTS

Randolph T. Hanger, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application October 24, 1955, Serial No. 542,202
11 Claims. (Cl. 77—13)

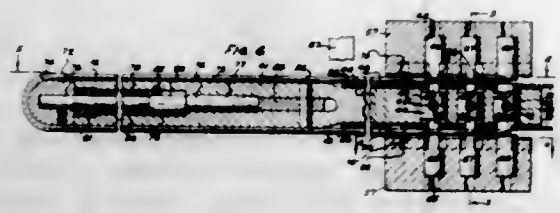


1. In combination with a portable drill or like tool which includes a tool body and a tool bit movable axially of the tool body, a jig having locating holes and capable of being exactly positioned with relation to a workpiece to be drilled, a frame means for securing said frame to the tool's body, an expansible collet supported and projecting from an end of said frame, surrounding and coaxial with the tool bit, and of a size when contracted to enter a locating hole of the jig, and means reacting between said collet and said frame for expanding the collet into coaxial engagement with the walls of such hole, when entered thereinto, to support and locate the frame, the tool body, and the tool bit, with relation to the jig and so with relation to the workpiece, and for contracting the collet for removal of the tool from the jig.

2,839,954
DEVICE FOR DEFORMING ONE OF A PLURALITY OF INTERFITTING PARTS TO LOCK SAID PARTS TOGETHER

Fred W. Doering, Cicero, John P. Jones, Chicago, and James C. Morison, La Grange, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application December 8, 1953, Serial No. 396,874
5 Claims. (Cl. 78—1)

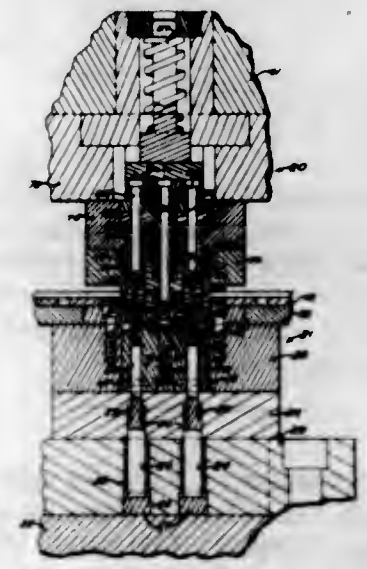


1. A device for deforming a U-shaped part of a plurality of interfitting parts to secure said U-shaped part to the other parts thereof comprising a first holder having two sets of punches disposed in opposite directions, a pair of second holders each having a set of punches cooperable with a set of the punches on said first holder for deforming portions of said U-shaped part, means mounting said second holders on opposite sides of said first holder and for movement of said holders and the sets of punches toward one another and with portions of said second holders engageable with a pair of pressure applying members for moving said second holders toward each other, means on said holders for supporting the interfitting parts therebetween in a first position relative to each other and for holding said other parts against movement in one direction, and means for moving said U-shaped part relative to said other parts to dispose said parts in a second position relative to each other.

2,839,955
ARTICLE-WORKING APPARATUS

Roy E. Lovendahl, Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application October 29, 1954, Serial No. 465,685
7 Claims. (Cl. 78—17)

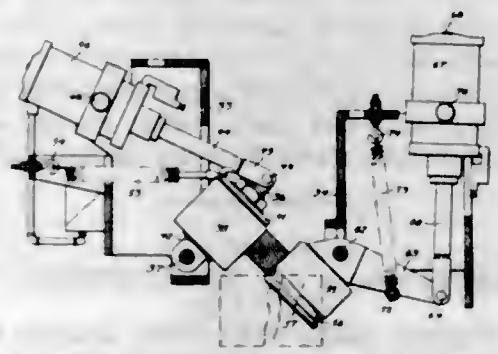


1. An embossing apparatus, which comprises a pair of embossing pins mounted in fixed positions, a pair of stripper sleeves mounted slidably on the pins, means for limiting sliding movement of the sleeves on the pins to such a position of the sleeves that the pins may extend a predetermined distance beyond the sleeves, a pair of tubular dowel-forming dies, means mounting the dies in alignment with the pins for moving the dies toward and away from the pins, a locater mounted slidably on the dies, said locater being provided with a pair of channels having sloping sides for centering arms of a U-shaped article individually relative to the dies and the pins, a second locater provided with a pair of sloping sides for centering the base of the article relative to the dies and pins, a spring-pressed wedging pin carried with the dies for pressing against the base of the article, and a block limiting movement of the base of the article by the pin.

2,839,956
AUXILIARY MANIPULATOR

Edward C. Peterson, Reading, Pa., assignor to Birdsboro Steel Foundry and Machine Company, Birdsboro, Pa., a corporation of Delaware

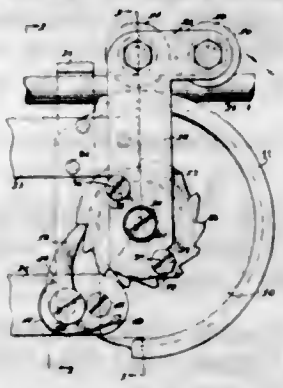
Application August 23, 1954, Serial No. 451,641
1 Claim. (Cl. 80—49)



An auxiliary manipulator for a rolling mill adapted to turn four-parallel sided stock having its bottom initially resting on a rolling mill table, said manipulator comprising a pair of opposed mill table elements movable toward and away from each other laterally of said table, arms individually corresponding to said mill table elements and having pivots on the same, the axes of said pivots being horizontal and longitudinal of said mill table, one of said arms extending downwardly from its corresponding pivot and the other of said arms extending upwardly from its corresponding pivot, cylindrical manipu-

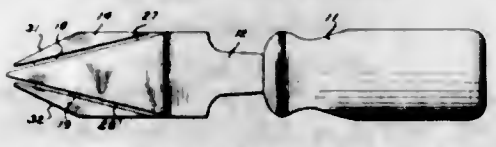
lator rollers of substantial axial extent journaled on the ends of said arms respectively on axes longitudinal of said arms, means for moving said pivoted arms and their rollers toward each other, one of said rollers contacting a lower corner of said stock by rotation of the corresponding arm on the pivot of that arm and the other of said rollers contacting the diagonally opposite upper corner of said stock by rotation of the corresponding arm on the pivot of that arm so that the cylindrical faces of said rollers extend from said corners obliquely outside the opposite sides of said stock respectively, said one of said cylindrical rollers having an annular narrow hooking groove around its cylindrical face adjacent the bottom thereof, said notch receiving the corresponding corner of said stock and restraining that corner against sliding axially of the notched roller throughout the time said stock is being turned axially of itself, the turning being promoted by further movement of said rollers and pivoted arms toward each other by said means and continuing until said roller axes are parallel to said opposite side faces of the stock and said side faces are flatly in contact with the corresponding cylindrical roller faces.

2,839,957
PAWL AND RATCHET ACTUATED ROLLER TYPE TUBE BENDER
Jacob S. Buckwalter and Clyde Mellinger, Lititz, Pa.
Application April 15, 1955, Serial No. 501,508
6 Claims. (Cl. 81—15)



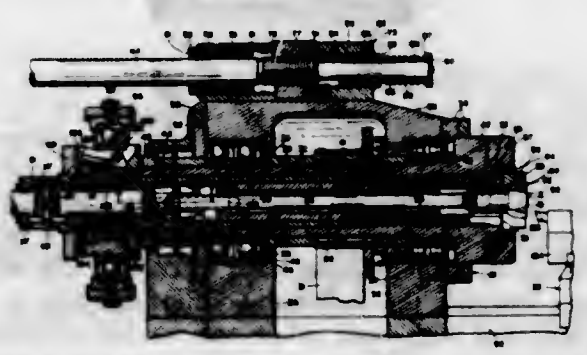
1. A tube bender comprising a plate providing a body and said body having an arcuate edge with a groove arcuate in cross section in said edge, a toothed ratchet wheel rotatably mounted on said body, a pair of rollers carried by an arm removably attached to said ratchet wheel and positioned to roll a tube into the groove in the end surface of the body, a hand lever pivotally mounted on said body, a pawl pivotally mounted on said hand lever and positioned to engage teeth of the ratchet wheel, and resilient means for urging the pawl into engagement with said teeth of the ratchet wheel.

2,839,958
BENDING TOOL FOR SHAPING ELECTRICAL CONDUCTORS
John H. Bundy, Lincoln, Nebr., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 25, 1956, Serial No. 618,332
2 Claims. (Cl. 81—15)



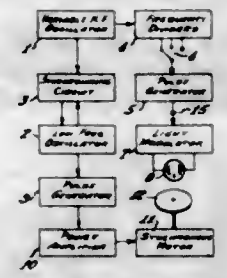
1. A tool for shaping preformed terminals, comprising a flat member having a tapered forward end for engaging a pair of terminals to fan them when the member is moved therebetween and also having a plurality of grooves diverging from said tapered forward end for receiving a plurality of other terminals positioned between said pair of terminals to fan said other terminals, said grooves being of a depth which decreases uniformly with distance from the tapered forward end, whereby said other terminals are cammed out of said grooves as the tool is moved between the pair of terminals.

2,839,959
LATHES
Eugene J. Naill, New Canaan, and Robert W. Reynolds, Norwalk, Conn., assignors to Machlett Laboratories, Incorporated, Springdale, Conn., a corporation of Connecticut
Application February 1, 1956, Serial No. 562,848
12 Claims. (Cl. 82—28)



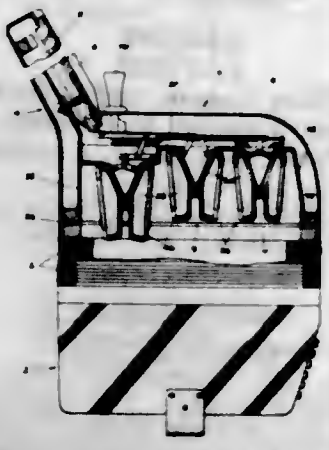
1. A lathe of the character described comprising a fixed support, a spindle mounted in the support for rotation about its axis, work-holding means carried by one end of the spindle for rotation therewith and angularly adjustable with respect to the axis of the spindle, control means connected with the work-holding means, and manually operable adjustment means mounted on the support and operatively connected with the control means for adjusting the work-holding means to a controlled angular relation with respect to the axis of the spindle.

2,839,960
ELECTRONIC SYNCHRONIZING SYSTEM FOR PRODUCING PITCH DISCS AND THE LIKE
Edward M. Jones, Cincinnati, Ohio, assignor to The Baldwin Piano Company, a corporation of Ohio
Application December 30, 1949, Serial No. 135,912
3 Claims. (Cl. 84—1.18)



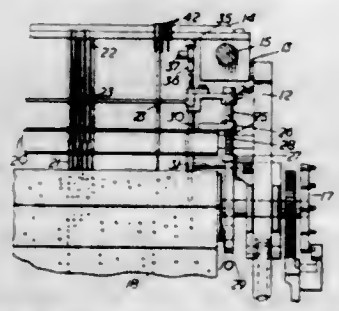
1. In a harmonic synthesizer, the combination of a source of fixed frequency oscillations, a first pulse generator in connection therewith, the frequency of the pulses generated thereby being determined by said source, a series of filters coupled to said first pulse generator and tuned respectively to the fundamental pulse frequency and its harmonics, said filters including variable impedance means and variable coupling means for controlling respectively the amplitude and phase relationship between said harmonics and the fundamental, a plurality of tuned circuits connected in series and coupled respectively to said filters, a variable oscillator, a second pulse generator in connection therewith and generating pulses at a frequency determined by said variable oscillator, a mixer circuit connected between said tuned circuits and said second pulse generator for mixing the resultant voltage of said circuits with the pulses from said second generator, and a low-pass filter coupled to said mixer circuit and operative to attenuate all frequencies above substantially one-half the frequency of the pulses from said first pulse generator.

2,839,961
ACCORDIONS
Karl Scherer, Trossingen, Wurttemberg, Germany
Application April 14, 1954, Serial No. 423,169
7 Claims. (Cl. 84—376)



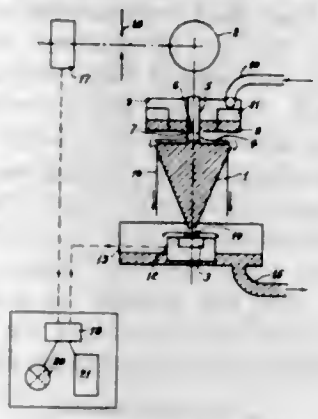
1. An accordion comprising an integral cellular unit having reed plates mounted for operation by a bellows, said cellular unit having side walls to enclose the unit and extending towards the bellows, additional walls to form cells connected with each other and having openings directed towards the bellows, the reed plates being attached to the unit at said openings, the cellular unit having an upper surface extending in a broken line and the cells therein being so formed that each has a second opening in said upper surface, the plane of each opening lying at an angle to a plane of reference farthest removed from the bellows frame, and the edges of said openings adjacent the plane of reference extending parallel thereto, and cell edges opposite to said reference plane and extending parallel thereto, the edges carrying the reed plates being arranged in parallel planes, and a plate serving as a carrier for the keyboard extending at an angle from the reference plane of the cellular unit and being integral with the same, said plate having openings for attaching the keyboard.

2,839,962
DROPPER JACQUARD MECHANISM
Frank Horsfield Haslam-Jones, West Bridgford, England, assignor to John Jardine Limited, New Basford, England
Application May 2, 1955, Serial No. 505,425
Claims priority, application Great Britain May 7, 1954
5 Claims. (Cl. 87—14)



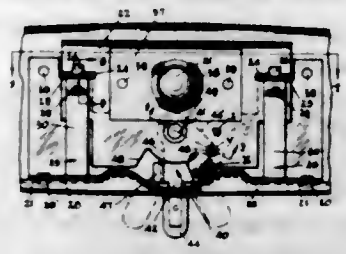
1. Dropper jacquard mechanism operable in a repeat cycle and having in combination, a jacquard cylinder. jacquard cards on the cylinder, variable numbers and patterns of perforations on the cards, an assembly of droppers adjacent the cylinder to be selected at each cycle by relative movement between the cylinder and the droppers such that some of the droppers become disposed in projected position and others remain in non-projected position as governed by said perforations, and control means for the droppers operable at each cycle and consisting of stop means for limiting projection of the droppers, means for moving the stop means to dispose them in effective position, a releasable detent for retaining the stop means in the effective position, means for releasing the detent, and spring means returning the stop means and consequently the droppers.

2,839,963
LIGHT TRANSMISSION INSPECTION DEVICE FOR LIQUIDS
Norman Leslie Moss, Eastham, and Horace Augustus Thomas, Bebington, England, assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine
Application December 6, 1954, Serial No. 473,420
Claims priority, application Great Britain December 18, 1953
13 Claims. (Cl. 88—14)



1. In an inspection device for liquid, wall means defining a liquid test chamber having an inspection axis, an outlet orifice in the wall means and on the axis to issue a stream of liquid from the chamber, a light transparent barrier interposed in the stream to be flushed thereby, a light source to form a beam of light along the axis and passing through the barrier, and light inspection means to receive the beam which issues from the source and passes through the stream, the liquid in the chamber and the barrier.

2,839,964
REAR VIEW MIRROR
Lucien G. Ponce, Weirton, W. Va., assignor to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Application April 8, 1954, Serial No. 421,863
11 Claims. (Cl. 88—98)

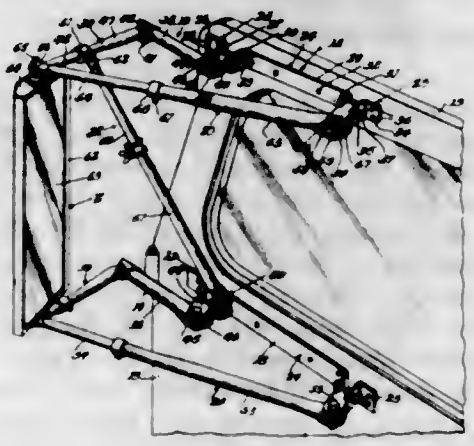


1. In a rear view mirror for automobiles, a substantially vertical support plate, a case surrounding said support plate and having an opening at the front thereof, a mirror element secured in and closing said opening, a mounting plate secured to said case, means for hingedly supporting said mounting plate on said support plate, means carried by said support plate for attachment to an automobile, means for forcing the mounting plate and vertical support plate angularly toward one another, and cam means disposed within the case between said mounting plate and said support plate for rocking the said case and mirror element as a unit relative to said support plate.

2,839,965
COLLAPSIBLE REAR VIEW MIRROR STRUCTURE FOR USE WITH A TRACTOR-TRAILER COMBINATION
Frances Budreck, Chicago, Ill., assignor to Power Brake Parts Mfg. Co., Chicago, Ill., a corporation of Illinois
Application August 30, 1955, Serial No. 531,328
1 Claim. (Cl. 88—98)

A collapsible rear view mirror structure adapted to be positioned exteriorly of one side of the driver's compart-

ment of a vehicle and comprising, in combination, a pair of vertically spaced upper and lower composite front arms respectively adapted to extend outwardly from said side of the compartment, means at the inner ends of said composite front arms for attaching the same to said side of the compartment for swinging movements in both vertical and horizontal planes, a pair of vertically spaced upper and lower rear arms having their outer ends pivotally connected to the outer ends of the respective upper and lower composite arms, means at the inner ends of said rear arms for attaching the same to said side of the compartment at points spaced rearwardly from the attachment points for the composite front arms for swinging movements in both vertical and horizontal planes, said composite front arms consisting of inner and outer arm sections having adjacent ends pivotally connected together for relative swinging movement between the sections in the common planes of the upper front and rear



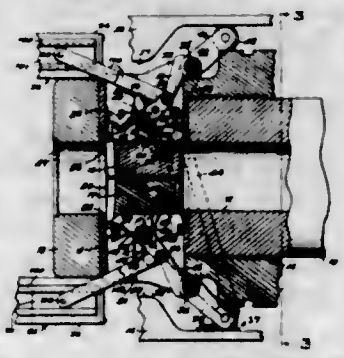
arms and lower front and rear arms respectively, the outer arm sections of said composite front arms consisting of telescoping parts which are distal and proximate respectively in relation to the adjacent inner sections of said composite front arms, means for locking the telescoping parts of each outer arm section in selected positions of adjustment, a rigid extensible strut pivotally connected at one end to the upper composite front arm medially thereof, means pivotally connecting the other end of said strut to the inner end of said lower front composite arm, said strut consisting of telescoping parts, means for locking the telescoping parts of said strut in selected positions of adjustment, said upper and lower rear arms being extensible and consisting of telescoping parts, means for locking the telescoping parts of said rear arms in selected positions of adjustment, and a mirror assembly extending between and connected to the outer ends of said upper and lower arms respectively.

2,839,966

SPLIT BREECH BLOCK

John G. Lord, Swarthmore, Pa., assignor to the United States of America as represented by the Secretary of the Army

Application August 18, 1955, Serial No. 529,369
7 Claims. (Cl. 89—22)



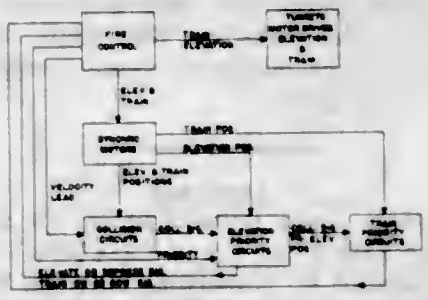
1. In a rapid-fire recoil operated gun, the combination comprising a breech ring, a two part breech block slidable horizontally in said breech ring in a vertical plane parallel to a similar plane passing through the horizontal axis of rotation of the gun, a link and lever system connecting said block parts for simultaneous movement to open and closed positions, a fixed cam having a rise, anti-friction means in said link and lever system riding said cam rise during recoil movement of the gun to move said block parts to open position and riding off said rise at the end of counter-recoil movement thereof, means connected to said block parts to initiate closing movement of said block parts by and in response to movement of a round of ammunition into the breech of said gun, and means to complete closing said block parts.

2,839,967

GUN INTERFERENCE ELIMINATOR

Clarence F. Hammer, Jr., Wilmington, Del., John A. Templeton, Silver Spring, Md., and John W. MacGregor, Columbus, Ohio, assignors to the United States of America as represented by the Secretary of the Navy

Application November 13, 1953, Serial No. 392,062
6 Claims. (Cl. 89—41)
(Granted under Title 35, U. S. Code (1952), sec. 266)



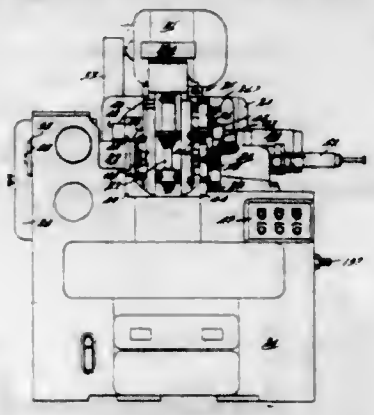
1. A gun interference eliminator for preventing a collision between two guns in adjacent turrets comprising, means including movable brush holders and fixed contact plates responsive to movement of said guns for producing a signal when the guns approach a collision zone, means controlled by the velocity of the guns for energizing various brushes on said brush holders, means operable at will for assigning a predetermined priority to one gun, means including said brush holders and fixed contact plates for comparing the positions of said guns, said means being energized by said signal, and means responsive to said last named means for producing a second signal to drive the non-priority gun out of the collision area.

2,839,968

HOBBING MACHINE

Alexander D. F. Moncrieff, Bloomfield Hills, Mich., assignor to Michigan Tool Company, Detroit, Mich., a corporation of Delaware

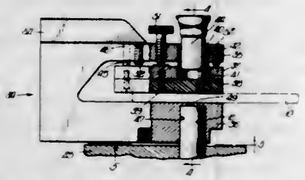
Application November 3, 1954, Serial No. 466,481
2 Claims. (Cl. 90—4)



1. In a hobbing machine, a hob carrier head assembly for mounting a hob on a generally vertically disposed axis for operation on a workpiece mounted on a gener-

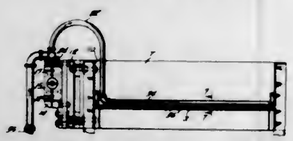
ally horizontal axis, said assembly comprising a base rotatably mounted on said machine for rotation in a generally vertical plane whereby said hob may be aligned at the correct helix angle of the gear to be cut, a slide mechanism rigidly connected to said base so as to be rotatable thereby and operable in a generally horizontal direction and parallel to said workpiece axis for sidefeeding said hob, a hob support bracket rotatably connected to said sidefeed slide and having a vertically disposed hob shifting slide thereon, said bracket being rotatable in a generally vertical plane whereby said hob may be aligned at the correct hob lead angle, a hob spindle housing slidably carried by said bracket so as to be shiftable in a generally vertical direction, a hob spindle mounted in said spindle housing, means for rotating said spindle, both manual and power operated means for shifting said hob spindle housing vertically on said hob shifter slide, said means comprising a screw journaled in said hob shifter slide and threadably attached to said hob spindle housing, a gear attached to said screw, a shaft bearing three gears and located so that one of said last named gears meshes with said gear on said screw, a manual handle on said shaft, a hydraulic piston and cylinder unit including a piston rod, a gear rack carried by said piston rod, said gear rack engaging a second of the said gears on said shaft, and a spring operated ratchet pawl mounted so as to engage the third said gear on said shaft.

2,839,969
SUPPORTING AND CENTERING CLAMPS FOR CAM BLANKS IN CAM CUTTING TOOLS
Clarence W. Anderson, Chicago, Ill.
Application April 26, 1954, Serial No. 425,645
3 Claims. (Cl. 90—59)



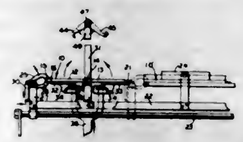
1. A clamp of the class described, comprising a member having a pair of parallelly disposed jaws, a clamping plate disposed between said jaws in the same plane therewith and in parallel relation thereto, means slidably connecting said clamping plate to one of said jaws for guided movement with respect thereto, and means carried by said one jaw for exerting pressure on said movable plate for shifting the latter in a clamping relation with the other jaw. said one jaw having a transverse side opening extending therethrough, the portion of said clamping plate aligned with said opening being transparent, and a mark on said transparent portion aligned with the axis of said opening.

2,839,970
SCREEN CLEANER
John E. Gaffney, Cranford, N. J.
Application July 29, 1955, Serial No. 525,099
6 Claims. (Cl. 92—31)



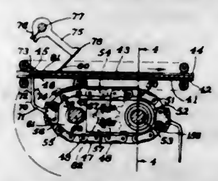
3. Traveling shower cleaner for a flat paper pulp screen mounted in a tank having a longitudinal vertical side wall, comprising a frame adapted to be secured to said tank side wall, upper and lower guide rods mounted on said frame parallel to said side wall, a carriage slidably mounted on said guide rods, a supply pipe rigidly secured to said carriage and extending up over said frame and down inside said side wall, and a shower pipe extending from said supply pipe across said screen transversely to said side wall.

2,839,971
BOX MAKING AND ASSEMBLING MACHINES
Louis Triolo, Brooklyn, N. Y.
Application September 3, 1954, Serial No. 454,058
3 Claims. (Cl. 93—39)



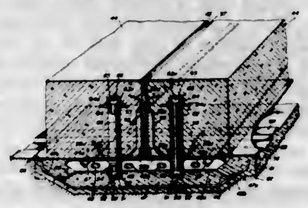
1. A box machine for forming a rectangular sleeve from a wrapped blank, the blank having opposed side wall and upper and lower wall sections divided by fold lines and an adhesive tab at the upper end of one of the side walls for joining the ends of the blank, said machine comprising a frame, a mandrel, a horizontally movable plunger mounted on the frame which carries the mandrel and which delivers the finished sleeve, a pair of presser plates pivoted on the frame below the mandrel on opposite sides thereof, said plates having slots therein which are parallel with their faces and which terminate in outwardly curved sections, a vertically movable yoke having pins in said slots which move the plates inwardly against the side faces of the mandrel, a movable presser block just below the mandrel, means for conveying the blank to overlie the presser plates, means for moving the yoke and the presser block in the direction of the mandrel to fold the intermediate and side walls of the blank around the mandrel, two movable feet mounted above the mandrel, one for moving the upper wall of the blank against the mandrel and the other for pressing the tab over the end wall.

2,839,972
APPARATUS FOR FOLDING TRAILING FLAPS
Raymond A. Labombarde, Nashua, N. H.
Application August 9, 1954, Serial No. 448,720
18 Claims. (Cl. 93—49)



1. Mechanism in a folding machine for folding a trailing articulated flap of a flat foldable article on a lateral fold line while the article is continuously advanced along a path of said folding machine at a predetermined speed; said mechanism comprising an endless carrier having a straight upper stretch extending substantially parallel to, but under, said article path and having an incoming and an outgoing curved end stretch each extending in a particircular path around an axis of rotation transverse to and under the said article path; means supporting said endless carrier in a plane normal to said article path; synchronized drive mechanism advancing said endless carrier with said upper stretch travelling at less speed than the speed of advance of said article and an upstanding flap folding finger, immovably mounted on said endless carrier and having a portion adapted to extend above the path of, and forwardly in the direction of travel, of said article near the end of said incoming parti-circular path, said portion being at a spaced distance from said axes of rotation and travelling around said incoming particircular path at greater speed than the speed of advance of said endless carrier to overfold a trailing flap on its lateral fold line and thereafter travelling at lesser speed than said article along the upper stretch of said endless carrier to lag behind and clear said lateral fold line before travelling around the outgoing curved end stretch of said carrier.

2,839,973
CONCRETE EXPANSION JOINTS
John Nicholas Heltzel, deceased, late of Warren, Ohio, by Union Savings & Trust Company and Carl J. Heltzel, executors, Warren, Ohio
Application January 3, 1955, Serial No. 479,529
7 Claims. (Cl. 94—18)

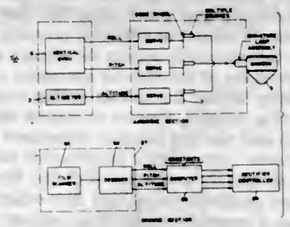


1. In a slab-formed roadway or runway construction, a subgrade embedded load-transfer member extending across an expansion joint from beneath adjacent slabs and comprising functionally integral top and bottom bar members and intermediate connecting members, said connecting members located at least adjacent opposite ends of the bar members, said top bar member having a vertical hole at opposite sides of the joint space between slabs, upwardly extending tension bars diametrically smaller than said holes and extending therethrough for anchoring connection in and to the related slabs, a bearing head secured to the lower end of each tension bar, head-retaining bearing means at the lower face of said top bar member, sleeve-like members extending upwardly and downwardly, respectively, from the top and bottom of said top bar member spacedly surrounding said tension bars, the upper ones of said sleeves removably supported by said top bar member, an upper bearing head on each of said tension rods, and supporting bearings carried by the top ends of the upper sleeves and receiving the respective upper bearing heads, said supporting bearings being embedded in the related slabs.

2,839,974
AUTOMATIC RECTIFICATION SYSTEM
Stewart Reiner, New Rochelle, and Sol Domeshek, Great Neck, N. Y., assignors, by direct and mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application January 8, 1954, Serial No. 403,085
10 Claims. (Cl. 95—12.5)

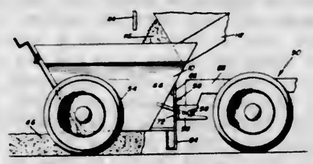
1. The method of rectifying aerial photographs comprising the steps of measuring the attitude of an aerial camera when a photograph is taken, converting said attitude information into a code comprising patterns of light and dark areas, recording said patterns on a film, decoding said patterns, converting the recorded patterns into a voltage, inserting said voltage into a computer for solving specific equations, and reading the solutions of the computations on dials for setting a photo-rectifier in accordance with said readings.

4. A photo-rectification device comprising aircraft attitude measuring means, a code wheel actuated by said means, a plurality of lamps illuminated selectively by said code wheel, a photographic film exposed to record the



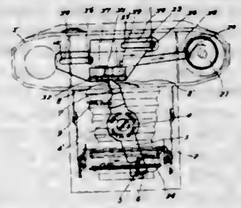
pattern of lamps illuminated, and means to scan and convert said pattern into a voltage proportional to such measured attitude.

2,839,975
WINDROW TYPE BOX
Robert M. Robinson, Owensboro, Ky.
Application January 8, 1954, Serial No. 402,867
3 Claims. (Cl. 94—44)



1. A device for distributing paving material in windrows, said device comprising a spreader box having a front wall, a pair of side walls, a rear wall that slopes downwardly and inwardly of the box, an unobstructed and open bottom, said front wall having a lower edge, said rear wall having a lower edge which is higher than said edge of said front wall to define a single discharge opening both on the bottom and rear of the box, a panel disposed at the rear of said opening and controlling the part of the discharge opening which is formed in said rear wall, a pair of tracks secured to said rear wall and in which said panel is mounted for movement, means connected to said panel to adjust said panel to vary the size of the opening which it controls, a pair of wheels to at least partially support the box, means connected to said side walls and mounting said wheels for rotation about a horizontal axis which is in a vertical plane that passes through the part of the discharge opening which is in said rear wall so that rocking motion of the box about said axis has minimal effect on the depth of the windrow being formed by the spreader box.

2,839,976
MECHANISM FOR SETTING SHUTTER BY FILM-WINDING OPERATION IN ROLLFILM CAMERA
Seiichi Mamiya, Bunkyo-ku, Tokyo-to, Japan
Application June 20, 1955, Serial No. 516,746
Claims priority, application Japan June 23, 1954
4 Claims. (Cl. 95—31)



1. In a rollfilm camera, a camera case having a hinged cover which supports in its open position a photographic

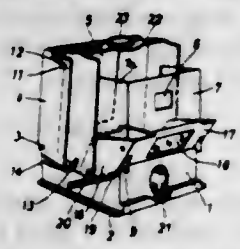
objective and a shutter of the setting type in a picture-taking position, a manually operable film-winding mechanism for advancing and positioning the film for successive exposures, a shutter-setting lever pivotally mounted on said cover for selectively setting the shutter as a function of the advancing of the film for successive exposures, means constantly biasing the shutter-setting lever toward an initial starting position thereby to restore the shutter-setting lever to said starting position subsequent to setting the shutter, means comprising a reciprocable first operating member operatively connected with the film-winding mechanism and reciprocable by said film-winding mechanism between a normal rest position and an operative position in a direction for engaging and pivotally actuating said shutter-setting lever in a direction for setting the shutter as a function of a film-advancing operation, means comprising deflectable means for operatively connecting said first operating member and said shutter-setting lever and arranged in an operative position so that said first member releasably engages and pivotally actuates the shutter-setting lever and releases it subsequently to setting the shutter during the travel of said operating member in said direction for setting the shutter and adapted to releasably engage the first operating member with the shutter-setting lever so that said lever is actuated in a direction for setting the shutter when said first operating member is substantially in its rest position prior to being reciprocated by said film-winding mechanism, said deflectable means being adapted to be deflected from its operative position upon return travel of the first operating member to its rest position thereby to allow the first operating member to assume its rest position upon the reciprocation thereof, and said shutter including a shutter-setting member disposed in an operative position in the path of said shutter-setting lever and restored to its operative-position between successive shutter-setting operations so as to be actuated by said shutter-setting lever when pivotally actuated by said first operating member in a direction for setting the shutter.

2,839,977

FOCUSING HOOD FOR REFLEX CAMERAS

Reinhold Heidecke and Wilhelm Knauf, Braunschweig, Germany, assignors to Franke & Heidecke, Fabrik Photographischer Prazisions-Apparate, Braunschweig, Germany, a German firm

Application January 11, 1956, Serial No. 558,548
Claims priority, application Germany January 13, 1955
11 Claims. (Cl. 95—47)



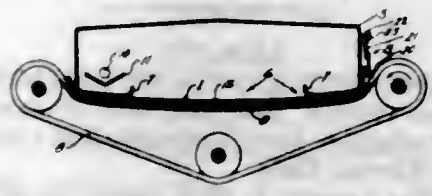
1. A collapsible and erectable focusing hood for a photographic camera, comprising a hollow four-sided stationary frame, a front wall member hinged to said stationary frame near one side thereof and adapted to be swung on its hinge from an upstanding position forming a front wall of an erected hood structure to a collapsed position lying substantially horizontally across said frame and forming a cover for parts beneath, said front wall member having side flanges extending rearwardly when in erected position to form partial side wall sections, two other side walls each pivotally connected near its upper end to one side flange of said front wall member, and pin and slot guide means connecting each of said other side walls near its lower end to one side of said frame, said guide means being shaped to guide the lower ends of said other side walls forwardly and downwardly as the upper ends thereof are swung rearwardly and downwardly by a swinging motion of said front wall member in a collapsing direction.

2,839,978

SLIP SCREEN STRUCTURE FOR DRY-TYPE DEVELOPING MACHINES

Frederick O. Trump, West Springfield, Mass., assignor to Tecnifax Corporation, Holyoke, Mass., a corporation of Massachusetts

Application May 18, 1954, Serial No. 430,591
4 Claims. (Cl. 95—94)



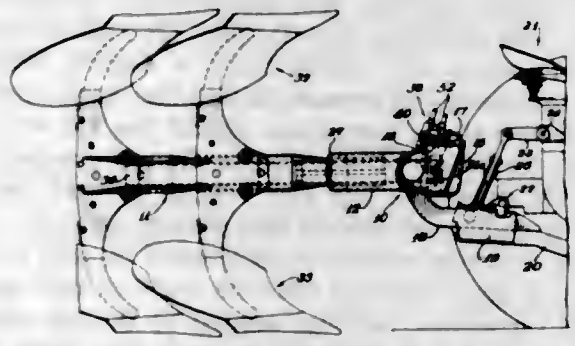
1. In a dry-type developing apparatus, having a perforated developing tank, a sealing sleeve embracing said tank and movable to advance exposed sensitized material from an infeed portion of said tank to an outfeed portion thereof; a foraminous slip screen interposed between said tank and said sleeve, said slip screen being surfaced with a material having the anti-friction characteristics of polytetrafluoroethylene, one end of said slip screen being removably secured at the infeed portion of said tank and the opposite end of said slip screen extending in free floating fashion beyond the outfeed portion of said tank.

2,839,979

TWO-WAY PLOW

Wayne G. Toland and Donald A. Murray, Stockton, Calif., assignors to International Harvester Company, a corporation of New Jersey

Application October 10, 1956, Serial No. 615,195
8 Claims. (Cl. 97—26)



1. In a two-way plow, a support, a plow carrier mounted on the support and rotatable about a longitudinal axis to alternately dispose the plows in operation, drive means extending between the support and the carrier for rocking the latter in opposite directions to positions for right and left-hand plowing, single releasable latch means mounted on the carrier for rotation therewith and cooperable with the support to lock the carrier in either operating position thereof, and link means connected to the carrier and to the latch means operative in either position of the latch means to release the latter and accommodate rotation of the carrier.

2,839,980

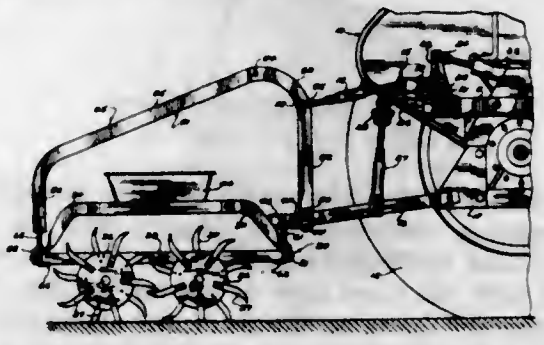
CONSTRUCTION FOR SECTIONAL IMPLEMENTS

Thomas Evans and Rex Cleveland, Louisville, Ky., and Robert E. Beach, Greenville, Ind., assignors to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota

Application October 27, 1953, Serial No. 388,496
9 Claims. (Cl. 97—47.6)

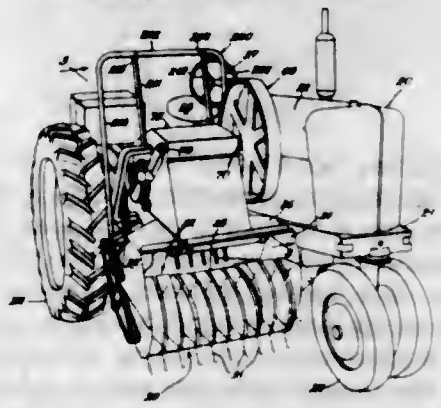
1. A straight draft ground working implement comprising a main draft frame adapted to be rigidly carried

on a traction device to extend rearwardly therefrom, a plurality of auxiliary frames, means mounting the auxiliary frames on said main frame in transverse alignment with respect to the longitudinal direction of draft, ground working tools on each auxiliary frame imposing a ground draft parallel to said direction of draft, said auxiliary frame mounting means effected by each auxiliary frame having vertically directed openings located fore and aft



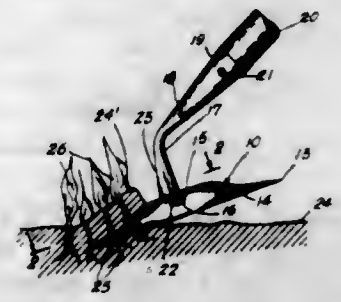
of the ground working tools thereon, fore and aft suspension rods rigid with the main frame extending vertically through said openings allowing free up and down floating movement of each auxiliary frame with respect to the main frame while restraining the auxiliary frame against side to side movement, said openings being considerably larger in diameter than said rods allowing the auxiliary frame limited relative universal movement.

2,839,981
MOUNTING MEANS FOR A BALER ON A TRACTOR
William H. Harstick and Patrick L. May, Memphis, Tenn., assignors to International Harvester Company, a corporation of New Jersey
Application December 13, 1955, Serial No. 552,833
3 Claims. (Cl. 97—47.15)



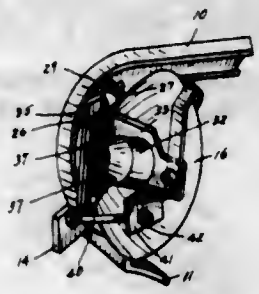
1. A mechanism for mounting and fastening an implement on a tractor comprising an arcuately swingable arm on said implement, transversely aligned spaced apart stationary supporting posts mounted on said implement and projecting upwardly therefrom, said posts having sockets in the tops thereof, an inverted U-shaped member having a top and downwardly extending sides, said sides straddling said implement and journalled thereon intermediate their ends for vertical sliding with respect to the implement, said sides having their bottom free ends adapted in certain positions thereof to engage the ground, means removably joining said U-shaped member top to said arcuately swingable arm whereby said implement may be raised and/or lowered relative to the ground depending upon the direction of movement of said arcuately swingable arm, means attaching said implement to said tractor when the implement is in raised position, and whereby after the implement is attached to the tractor the U-shaped member is removed from the arcuately swingable arm and placed in and across the sockets in the tops of the transversely aligned spaced apart stationary supporting posts in which position the bottoms of the sides of said U-shaped member are spaced from the ground.

2,839,982
GARDEN TOOL
William Noell, New Canaan, Conn.
Application July 8, 1955, Serial No. 520,782
1 Claim. (Cl. 97—68)



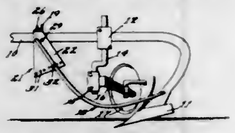
A garden tool, comprising a cutter disc in the form of an inverted dish, a handle bracket fixed centrally of the disc, outer peripheral edges of the disc being bevelled to form a cutter edge, the central portion of the disc being flat, the outer peripheral portion of the disc having a radially short straight wall portion substantially parallel to said flat central portion, the walls of the disc having an abrupt reversely curved central portion between said straight wall portion and the flat central portion thereof in abruptly raising soil therewith in the use of the tool, said handle bracket including a shank portion arranged perpendicularly to the central portion of the disc, the shank having an integral long conical handle receiving portion extending directly from and arranged angularly to said shank, and an outwardly contracted cutter edge extending the major portion of the length of the perpendicular portion of said shank.

2,839,983
ROTATABLE DISC MOLD BOARD PLOW
Loren Walsh, Noblesville, Ind., assignor of one-third to Bert E. Teal, Indianapolis, and one-third to Sarrah L. Collins, Noblesville, Ind.
Application February 7, 1955, Serial No. 486,555
5 Claims. (Cl. 97—121)



5. A plow comprising a beam having a bowed portion and a foot portion, a landside and a share assembly mounted on the foot portion of said beam, an adjustable support mounted on the bowed portion of said beam for movement through an angle in one plane, means operatively associated with said adjustable support and said beam for holding said support in an adjusted position, a bracket, a disc rotatably mounted on said bracket and being disposed to the rear of said share, adjustable means for mounting said bracket on said support to permit movement of the rotational axis of said disc through an angle in a plane normal to said one plane, a mold board between said share and said disc formed to provide a soil elevating surface extending between said share and a substantial portion of said disc, and means operatively associated with said support and said bracket for adjustably moving said disc linearly and longitudinally toward or away from said mold board.

2,839,984
TRASH SPRING MEMBER
Harvey Mack Knight, Virginia, Ill.
Application June 23, 1955, Serial No. 517,580
3 Claims. (Cl. 97—193)



3. In combination, a beam having a plow on its rear end, clamps mounted on said beam, a shank depending from each of said clamps, a support member secured to the lower end of each shank, an arm extending rearwardly from said support member, a plow coulter disc connected to said arm, a horizontally disposed bar provided with a plurality of openings therein, a J-shaped bolt depending from said bar and engaging said beam, a pair of brackets each including an upper horizontally disposed flange provided with openings registering with the openings in said bar, said brackets being adjustably connected to said bar, each of said brackets further including a vertically disposed plate portion provided with upper and lower sets of openings, curved spring members each including an upper transverse finger projecting through one of a plurality of upper openings in said plate portion, a securing element through said finger, said plate portion being further provided with a plurality of lower openings, a bolt extending through a lower opening in said plate portion and engaging said spring member, said last named bolt having a substantial L-shape, said spring member further including a portion arranged contiguous to the plow coulter disc for pressing down weeds, trash and the like to be cut, said spring member adapted to be adjusted to different positions, said spring member operating on one side only of the plow coulter disc whereby the spring member can move away and up from the plow coulter when desired.

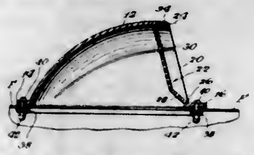
2,839,985
WINDSHIELD HEADER VENT
Arthur Ross, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 4, 1954, Serial No. 401,968
4 Claims. (Cl. 98—2)



1. In a vehicle, in combination, a passenger compartment, a windshield ahead of the passenger compartment including a windshield header on the windshield at the upper edge thereof having an air passage therethrough opening into the passenger compartment and a convertible top disposable over the passenger compartment and engageable and disengageable with the windshield header, the convertible top engaging the windshield header in such relation as to overlay and close the said passage.

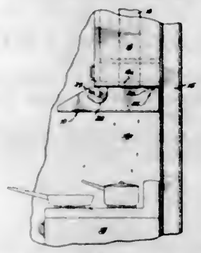
2,839,986
VENTILATOR FOR NON-POROUS FABRIC STRUCTURES
John Herman, Chicago, Ill.
Application September 11, 1957, Serial No. 683,279
6 Claims. (Cl. 98—37)

1. In a ventilator for an enclosure of the character described; a dome-shaped housing having a front open face, said dome-shaped housing tapering in width and height from front to rear, an integrally formed mounting flange encircling the base of said housing, a baffle secured to the housing and closing the front end of the same, said baffle spaced inwardly from the front edge of said housing, the upper portion of said baffle formed



with a plurality of perforations adapted to admit air while screening out extraneous objects, and the lower portion of said baffle positioned substantially in vertical alignment with the front edge of the top portion of said housing whereby the same affords means adapted to drain off excess moisture dripping from said front edge.

2,839,987
VENTILATING HOOD CONSTRUCTION
Ralph Pryne, Pomona, Calif., assignor, by mesne assignments, to Emerson-Pryne Company, Pomona, Calif., a corporation of Delaware
Application March 3, 1954, Serial No. 413,925
6 Claims. (Cl. 98—115)

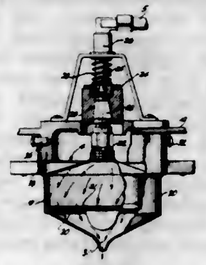


1. A ventilating hood construction for use in combination with a support structure having a downwardly facing underside of extended surface area meeting an upwardly extending forward face of the structure and a ventilating duct having an inlet opening, said hood construction comprising: a hood having a top wall with an extended surface area conforming substantially to the underside of the support structure and an exhaust opening in one wall conforming to the duct inlet opening, said exhaust opening being at a position spaced rearwardly from the forward edge of said top wall; mounting means adjacent to the forward face of the support structure and the top wall of the hood for pivotally mounting the hood on the support structure for swinging movement between a raised position in which said top wall of the hood is closely adjacent the underside of the support structure and the exhaust opening of the hood is in registration with the inlet opening of the ventilating duct, and a lowered position in which the hood is generally below and forwardly of said support structure, and releasable fastening means normally holding the hood in the raised position and releasable to allow said swinging movement.

2,839,988
FILTER HEAD FOR COFFEE MAKERS
Charles W. Tritt, Long Beach, Calif.
Original application May 31, 1955, Serial No. 511,967. Divided and this application September 4, 1956, Serial No. 607,759
4 Claims. (Cl. 99—307)

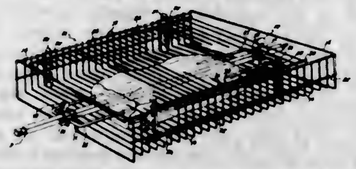
1. A cartridge for a beverage brewer including a housing, comprising the combination of an inverted cup shaped

body open at the lower end thereof, a perforated strainer removably mounted on the lower end of said body, a holder enclosing said body and supporting the same, a spout on the lower end of said holder, means releasably mounting the holder on said housing, a tubular fitting on



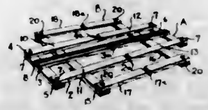
the upper end of said body and opening into the body, a block, means mounting the block in the housing, and means on the block releasably receiving said fitting with a sliding fit, a liquid conduit extending to said fitting to conduct liquid through the fitting and into said body.

2,839,989
BARBEQUE GRILL ATTACHMENT
William G. Persinger, Los Angeles, Calif., assignor to Laverne O. Persinger, Burbank, and Merle L. Persinger, Glendale, Calif.
Continuation of application Serial No. 464,249, October 25, 1954. This application October 17, 1956, Serial No. 616,560
24 Claims. (Cl. 99—421)



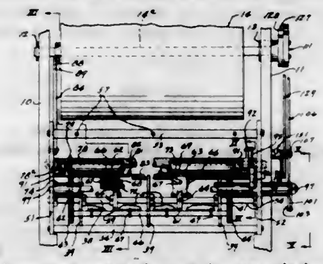
24. A rotatable food containing spit basket for articles of food mountable on a rotatable spit of a barbeque stand comprising, a spit, a generally rectangular shaped grill on the spit and rotatable therewith, first vertically spaced means on a first side of the grill, second vertically spaced means on a second side of said grill, said first side being oppositely disposed from said second side, and an upper grid having means near one side edge engaging with said first spaced means, said upper grid having means near the other side edge thereof engaging with said second spaced means for maintaining said upper grid on said basket shaped grill to close the same.

2,839,990
PAPER BALER
Charles O. Bailar, Menasha, Wis.
Application December 12, 1957, Serial No. 702,302
1 Claim. (Cl. 100—1)



A baler for bundling flat articles comprising a lower rectangular frame member formed of two spaced strips joined at their respective ends by two spaced cross-strips, an upper rectangular frame member formed of three spaced longitudinal members joined at their ends by spaced cross-members, the intermediate longitudinal member of said upper rectangular frame being provided with a continuous longitudinally extending groove for receiving therein a length of string and the like, said upper frame member being superposed on said lower frame member and attached thereto at contacting portions thereof, the spaced strips of said lower frame member being provided with aligned grooves at the medial portions thereof intersecting said continuous longitudinal groove in the said intermediate member of said upper rectangular frame, said three longitudinal spaced members of said upper rectangular frame member being provided at the intermediate portions thereof with aligned grooves extending transversely of the said continuous longitudinal groove and in alignment with the grooves in the said spaced strips of said lower frame member, said upper and lower frame members being provided with holes adjacent their corner portions for removably retaining vertically extending retaining members for aligning flat articles supported by the baler.

2,839,991
ROTARY NUMBERING ATTACHMENT FOR OFFSET PRINTING PRESS
Arnold H. Rothoff, Birmingham, Ala., assignor to Dixie Type and Supply Company, a partnership
Application March 24, 1955, Serial No. 496,543
8 Claims. (Cl. 101—77)



1. In a letter press attachment for association with a printing press having a rotating plate segment cylinder and a throw-off mechanism, an upstanding frame for said printing press, indexible printing mechanism mounted for rotation in said frame, an impression cylinder with which said printing mechanism cooperates, means mounting the impression cylinder for movement into and out of printing relation with the printing mechanism, a shaft on which the printing mechanism is mounted for bodily rotary movement into and out of printing relation with the impression cylinder, means to move the impression cylinder into and out of printing position during each revolution of the printing press, means to rotate the printing mechanism bodily about said shaft, means driven by the plate segment cylinder to index the printing mechanism upon each revolution thereof, means for feeding sheets to the printing press, means for actuating the throw-off mechanism upon malfunctioning of the sheet feeding means, means operable in response to the actuation of said throw-off mechanism to hold the impression cylinder out of printing position, and means operatively connecting the throw-off mechanism to the indexing means for the printing mechanism and effective upon actuation of the throw-off mechanism to render the indexing means inoperative.

2,839,992
OFFSET PRINTING MACHINE
Lawrence H. Morse, Mentor, Ohio, assignor to Addressograph-Multigraph Corporation, Cleveland, Ohio, a corporation of Delaware
Application November 14, 1955, Serial No. 546,549
11 Claims. (Cl. 101—218)

1. In a rotary offset printing machine having a master cylinder, an impression cylinder, and an offset cylinder

normally positioned to coact with the master cylinder to receive an inked image therefrom and to coact with the impression cylinder to transfer such image to a work sheet passed therebetween, means to support said offset cylinder for movement from said normal position to a second position to coact with the master cylinder to receive an inked

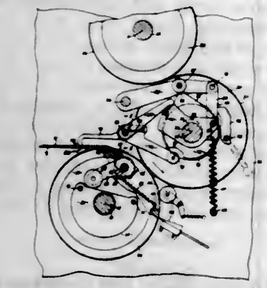


image therefrom but separated from the impression cylinder, and for movement to a third position where it is separated from both master and impression cylinders, means acting automatically consequent upon the absence of a work sheet to move said offset cylinder to one of said last-named positions, and manually operable means to selectively determine such second and third positions.

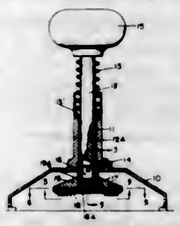
2,839,993
TAILOR TACKER
Sidney Orthwin, Dayton, Ohio
Application June 25, 1953, Serial No. 364,164
4 Claims. (Cl. 101—368)



1. A marker for duplicating connotations found on a garment pattern by impinging marks from a sheet of transfer material, said sheet having transfer material on both sides, upon a fabric having two layers, one layer being located below the transfer material and the other layer being located above the transfer material, said marker including a substantially U-shaped yieldable member, a punch fixedly mounted in one end of one leg of the U-shaped member, said punch being directed in a direction toward the other leg of the U-shaped member and normally held in spaced relation therefrom so that when the transfer material and the overlying and underlying fabric are positioned within the U-shaped member and rest upon said other leg the movement of the punch towards said other leg causes the transfer material to transfer a mark upon both layers of the fabric corresponding to the contour of the end of the punch, said other leg which constitutes an impact receiving member comprising throughout its upper area a smooth uninterrupted surface upon which the layers of the fabric may lie flat and in true parallel relationship.

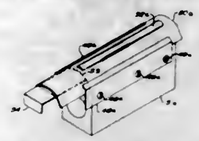
2,839,994
CHANGEABLE DOT STAMPING DEVICE
John A. Haag, Beaverton, Oreg.
Application March 25, 1955, Serial No. 496,686
1 Claim. (Cl. 101—372)

In a stamping device of the character described, a supporting frame having an open arched base, and a guideway extending upwardly from the central portion of the top of said arched base, a manually-operable, vertically movable, spring mounted plunger slidably supported in said guideway for limited up and down movement, a member mounted on the bottom of said plunger by a limited substantially universal joint and located within said arched base, said member having a downwardly-extending threaded stem, a plate removably mounted on said threaded stem, said plate having a central threaded boss engaging said stem, said plate being in raised position within said arched base when said plunger assembly is in normal raised position, said plate formed with symmetrically arranged perforations of identical size, identical marking pins selectively and removably placed in some of said performations in a desired grouping arrangement, the bottom ends of said pins extending below said plate, the top ends of said pins terminating in increased diameter portions to prevent said pins from dropping entirely through said perforations, the top face of said plate being beveled around each



of said perforations to receive and seat said top ends of said pins, the top ends of the pins being flush with the top face of said plate, and a cap carried on said plate and clamped between the top of said plate and the main portion of said member when said plate is screwed onto said stem of said member and thereby preventing said pins from being pushed upwardly with respect to said plate, the bottom ends of said pins being blunt to prevent the puncturing of a sheet of paper when contacted by said bottom ends, said bottom ends adapted for being inked by contact with an inking pad, whereby, when said bottom ends of said pins, after being inked, are pressed against a sheet of paper, said pins will produce a particular marking on said paper in accordance with the arranged grouping of said pins in said plate, and the placing of additional sheets of paper and carbons beneath said first mentioned sheet prior to said marking will cause said marking to be transferred simultaneously to said additional sheets.

2,839,995
PRINTING PLATE AND HOLDER THEREFOR
Robert O. Bradley and Bruce E. Robinson, Toledo, Ohio, assignors, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Application September 13, 1954, Serial No. 455,402
3 Claims. (Cl. 101—378)



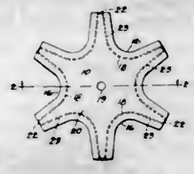
1. In a rotary printing device for labels, a thin, elongated, transversely curved printing plate having an embossed raised portion on the outer face thereof, and a handle secured to the inner face of said printing plate adjacent one end thereof and having a surface displaced from said inner face to form a shoulder projecting therefrom at the inner end of said handle, said plate being adapted for mounting on a holder by longitudinal movement therealong, and said shoulder limiting the movement of said plate along said holder.

2,839,996
DEMOLITION FIRING DEVICE
Robert M. Cate, Washington, D. C.
Application July 22, 1946, Serial No. 685,328
10 Claims. (Cl. 102—16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



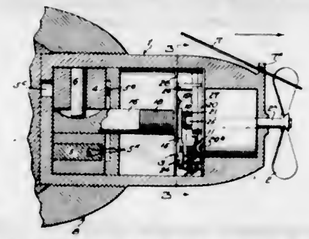
1. In a demolition firing device for underwater use, a body, a bore in said body, a firing piston reciprocably mounted in said bore, a firing pin carried by said piston, means carrying an explosive charge, means for locking said charge carrying means in one position, means in said charge carrying means for freely receiving the firing pin in said locked position, means biasing the charge carrying means against the action of said locking means and effective upon release of the locking means to move the charge carrying means into another position with the charge in the path of travel of the firing pin, a second bore in said body, means forming communication between said bores, a diaphragm secured across said second bore, and a cover secured over said diaphragm and exposed to the surrounding water, said cover having a small hole therein for providing a slow leak of said water against the diaphragm.

2,839,997
SHAPED CHARGES
Joseph H. Church, Austin, Minn., and Gregory J. Kessenich, Madison, Wis., assignors to the United States of America as represented by the Secretary of the Army
Application May 12, 1950, Serial No. 161,672
3 Claims. (Cl. 102—24)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A shaped explosive charge comprising a pair of identical star-shaped sheets of material having uniformly angularly spaced arms, means connecting said sheets in parallel axially spaced relation, said means comprising a strip of material having parallel edges secured to and extending along the respective contiguous edges of said star-shaped sheets to form therewith a completely closed star-shaped container, said strip of material having an inwardly projecting continuous channel generally V-shaped in radial cross section and between and parallel with its edges, and an explosive charge completely filling said closed container.

2,839,998
INERTIA AND AIR-OPERATED ARMING MECHANISM
Jacob Rabinow, Laurence M. Andrews, and John W. Bowling, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Army
Application January 15, 1948, Serial No. 2,533
8 Claims. (Cl. 102—81.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Safety arming mechanism for a projectile fuze of the type having an out-of-line powder train interrupter which is moved into aligned position to arm the fuze, comprising an air driven motor operatively connected with said interrupter to initiate movement thereof toward aligned position, means for releasing the connection of said motor from said interrupter after a predetermined initial motion of said interrupter, and spring means biased to continue said movement of the interrupter into fully aligned armed position.

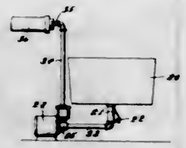
2,839,999
LIQUID FUEL PUMPING AND METERING DISTRIBUTOR WITH ROTATING PUMPING AND DISTRIBUTING PLUNGER
Robert L. Shallenberg, Westchester, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application December 20, 1955, Serial No. 554,239
10 Claims. (Cl. 103—2)



1. In a liquid fuel pumping and metering distributor, a casing having spaced-apart pump chambers, a cylindrical plunger-receiving bore extending between said chambers, a plurality of outlet ports communicative with the bore at positions spaced circumferentially thereabout, and inlet port means communicative wtih the bore at positions spaced circumferentially thereabout; a plunger disposed rotatively and axially reciprocally in the bore; and reversible flow fluid conducting means in said plunger, said reversible flow conducting means being disposed for alternately establishing communication of the chambers with the inlet port means during rotation of the plunger to deposit a fuel charge in each of such chambers during such communication therewith and thus expand such chambers attendant to axially displacing the plunger to contract the other chamber, and said reversible flow

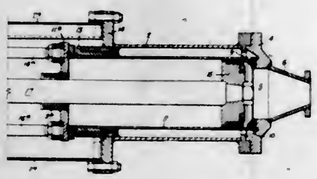
conducting means being also disposed for successively establishing communication of respective of the outlet ports with said chambers during contraction thereof.

2,840,000
AUTOMATIC DRAINAGE DEVICE
Frank V. Gramenzi, Camden, N. J.
Application December 22, 1954, Serial No. 477,095
3 Claims. (Cl. 103—26)



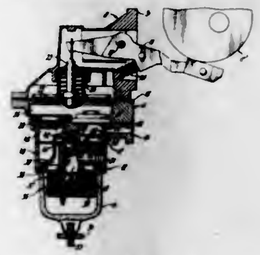
1. In an automatic drainage device for a tub, sink or the like, an inlet for the device, connected to the bottom of the tub, an outlet above the inlet, piping connecting the inlet and the outlet, an electrically operated pump operatively connected to the piping at a position below the inlet, a float chamber connected to the pump on the inlet side of said pump and positioned wholly above the pump, an air vent at the upper part of the float chamber, a float operated switch operatively connected to the pump to energize the pump when the float rises and having a float located in the float chamber, a check valve between the valve chamber and the pump opening upwardly under the action of water flow toward the float chamber and closing under the action of water flow away from the float chamber, and said check valve provided with a throttling opening draining the float chamber notwithstanding the fact that the check valve is closed.

2,840,001
RECIPROCATING PUMP
Campling William Meader, Totland Bay, Isle of Wight, England, assignor to Henry Balfour & Co. Limited, Leven, Fife, Scotland, a corporation of Great Britain
Application March 29, 1956, Serial No. 574,689
2 Claims. (Cl. 103—48)



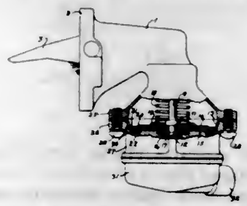
1. In a reciprocating pump for pumping mud, a chamber for the mud, a cylinder open at one end and axially movable through said chamber, one wall of said chamber having a discharge aperture therein, a piston axially movable within said cylinder, driving means to move said cylinder axially towards and away from said discharge aperture, and driving means to move said piston axially within said cylinder, the combination of a seal in annular form mounted on the wall of said chamber surrounding said discharge aperture, said seal having a cylindrical portion having an outside diameter slightly less than the inside diameter of said cylinder and projecting inwardly from said wall to be received in sealing engagement with the inner surface of said cylinder when said cylinder is moved to cause the open end thereof to surround said discharge aperture.

2,840,002
FUEL PUMPS OF THE DIAPHRAGM TYPE
Gordon B. Elder, Flint, and Gordon W. Harry, Flushing, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 8, 1954, Serial No. 461,146
3 Claims. (Cl. 103—150)



1. A fuel pump comprising a support body, a first cover attached to said body, a pumping diaphragm interposed between said support body and said first cover, means in said body and connected to said diaphragm for actuating said diaphragm, said first cover and said diaphragm defining a pumping chamber having inlet and outlet ports, one-way valves controlling said ports, an annular inlet passage formed in the lower face of said first cover and communicating with said inlet port, an annular outlet passage formed in the lower face of said first cover substantially concentric with and radially outwardly of said inlet passage and communicating with said outlet port, a second cover, means attaching said second cover to said first cover for rotational adjustment, an inlet passage formed in said second cover opening axially thereof and registering with a portion of said annular inlet passage in said first cover, a pulsator chamber formed in said second cover radially outwardly of said inlet passage in said second cover and in substantial axial alignment with said annular outlet passage, and a pulsator diaphragm interposed between said first and second covers, said pulsator diaphragm having a plurality of circumferentially spaced openings therein at least one of which provides communication between said inlet passage in said second cover and said annular inlet passage in said first cover.

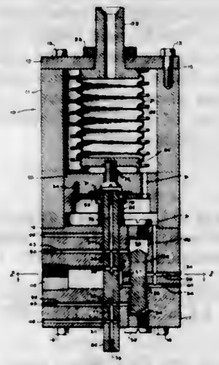
2,840,003
FUEL PUMP DIAPHRAGM ASSEMBLY
Eldon A. Johnson, St. Louis, and Jack M. White, Normandy, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application September 16, 1954, Serial No. 456,360
3 Claims. (Cl. 103—150)



1. A fuel pump comprising a casing forming a pumping chamber, said pumping chamber having its end wall portion provided with inlet and outlet openings, a diaphragm forming a pumping element and one wall of said chamber, said diaphragm having its outer peripheral portion secured to the casing, said diaphragm being provided with an inwardly projecting bight at its outer portion, backing plates disposed upon the inner and outer sides

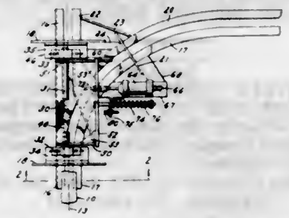
of a central portion of the diaphragm, a centrally positioned operating stem connected thereto, spring means on the stem normally urging said diaphragm into said pumping chamber, the peripheral edge of said inner plate being spaced a sufficient distance from the wall of said chamber to provide an annular area between said wall and said plate to permit said bight in said diaphragm to project therebetween in the direction of the pumping chamber, and said outer backing plate having a peripheral portion normally projecting into the concave portion of said bight and engaging the adjacent face of the diaphragm defining the bight for retaining said bight against substantial deflection regardless of pressure in said pumping chamber.

2,840,004
PUMP
Emmerich Guenther and Daniel M. Vesper, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application June 13, 1955, Serial No. 514,921
4 Claims. (Cl. 103—152)



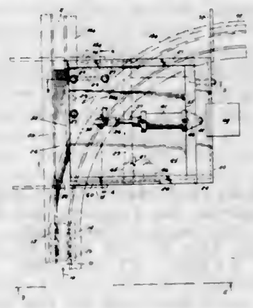
1. A pneumatically operated bellows pump comprising a housing having a chamber therein and a first fluid inlet in one end thereof; a bellows positioned within said chamber, said bellows being secured at one end to said one end of said housing so that said inlet communicates with the interior of said bellows; said housing having first and second passages therein extending in spaced relationship with one another; means sealing the two ends of said first passage; a first plunger positioned in said first passage, said first plunger having a circumferential groove therein; a second plunger positioned in said second passage; means connecting the second end of said bellows to one end of said second plunger; said second plunger having first, second, third and fourth openings therethrough, said first and second openings being connected and said third and fourth openings being connected; resilient means urging said bellows to an expanded position and also urging said fourth opening into communication with a region external of the housing; said housing having an inlet opening therein in communication with said second passage, a fifth opening between said inlet opening and first passage, a sixth opening between said first passage and said chamber external of said bellows, a seventh opening between a region exterior of said housing and said first passage, an eighth opening between a region exterior of said housing and said second passage, a ninth opening between said second passage and one end of said first passage, and a tenth opening between said second passage and the second end of said first passage, said openings being positioned so that fluid is transmitted from said inlet opening to said chamber external of said bellows through a path that includes said second opening, said groove and said sixth opening and so that fluid is vented alternately and sequentially through a path that includes said sixth opening and said groove.

2,840,005
PIVOTING PLATE SWITCH FOR DOUBLE RAIL CONVEYOR TRACKS
Frank J. Henderson, Detroit, and Martin Pachuta, Allen Park, Mich., assignors to Jervis B. Webb Company, Detroit, Mich., a corporation of Michigan
Application November 29, 1956, Serial No. 625,044
10 Claims. (Cl. 104—101)



1. A switch for use with a composite conveyor track having an upper track member for trolleys which support an endless driven member and a main lower double rail trackway suspended below the upper track for supporting load carrying trolleys which are propelled along the lower track by movement of the driven member and are movable out of the path of the upper track at a switch point for travel along a branch double rail trackway; said switch comprising a generally triangular plate-like tongue member having one edge portion shaped to form a section of one rail of said main trackway, and an intersecting edge portion shaped to form a section of one rail of said branch trackway, a switch pivot shaft, means supporting said pivot shaft above said upper track for pivotal movement on an axis lengthwise of said upper track, tongue member suspending structure secured to said shaft and extending laterally, downwardly and inwardly around one side of said upper track into connection with said tongue member within the area bounded by the rail forming portions thereof, and actuating means for pivoting said tongue member and suspending structure about said axis between main line and branch line positions.

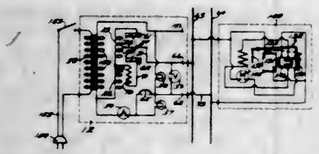
2,840,006
CONVEYOR TRACK SWITCH
Frank J. Henderson, Detroit, Mich., assignor to Jervis B. Webb Company, Detroit, Mich., a corporation of Michigan
Application July 14, 1953, Serial No. 367,903
5 Claims. (Cl. 104—102)



1. A track switch construction for use with an overhead trackway of the type having spaced horizontal rails and vertical guide flanges for supporting a wheeled trol-

ley, comprising a switch frame, a switch tongue having a pair of diverging, generally vertical guide surfaces each adapted to form a continuation of a vertical guide surface of said trackway and having wheel-supporting portions alongside the said vertical guide surfaces thereof, a reciprocable supporting member carried by said switch frame, and means suspending said switch tongue from said supporting member in spaced relation therewith for clearance between a trolley passing over said switch tongue and said switch frame, said suspending means being connected to said switch tongue within the area bounded by the wheel-supporting portions thereof for clearance between a trolley passing over said switch tongue and said suspending means.

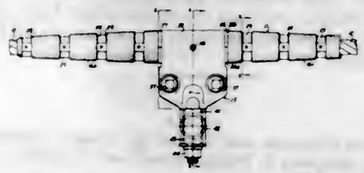
2,840,007
SELECTIVELY CONTROLLABLE REVERSING SYSTEM FOR TOY TRAIN CONTROL
Marshall H. Frisbie, Hamden, Conn., assignor to The A. C. Gilbert Company, New Haven, Conn., a corporation of Maryland
Application February 14, 1952, Serial No. 271,458
2 Claims. (Cl. 104—151)



2. An electrical system for starting, stopping and varying the speed and direction of running of toy railway rolling stock by manipulation of a remote control means supplying current to the railway track, comprising, track-borne toy rolling stock carrying a variable speed reversible alternating current propulsion motor having circuit connections by which to derive current from the track, a variable transformer connected to supply alternating current at variable voltage to a circuit including the track, control means for stopping said motor without or with reversal of the direction of subsequent running thereof including manually shiftable means to vary the voltage in said circuit and also manually operable means to interrupt said circuit, stop means mechanically associated with said voltage varying means in a manner to prevent manual shifting of the latter in current reducing direction beyond a position at which a predetermined minimum voltage is supplied to the track insufficient to propel the rolling stock, a stepping switch carried by said rolling stock having electric contacts operative to make and break and reverse circuit connections between said motor and the track, and a stroking electromagnet operative to step said switch to reverse said circuit connections responsively to cut off of current from said track including a solenoid deriving energizing current from the track so electrically wound that said electromagnet is insufficiently responsive to reduction of track voltage to said predetermined minimum to step said switch, whereby motor reversing stepping action of said switch responsive to shifting of said voltage varying means is prevented.

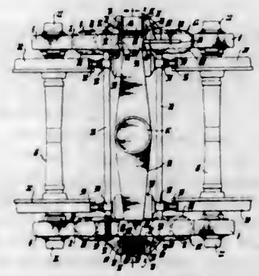
2,840,008
CABLE ATTACHMENT AND CARRIER
George D. Lodvick, San Francisco, and Walter Louis Martignoni, Oakland, Calif.
Application June 17, 1955, Serial No. 516,255
6 Claims. (Cl. 104—200)

5. In an attachment and carrier for a wire rope, a two-part resilient sleeve embracing the wire rope, the portion of the resilient sleeve embracing the wire rope having a contour corresponding to the contour of the wire rope, said sleeve having a middle portion and tapered end portions, a plurality of grooves formed in the tapered end portions of said sleeve, clamping means mounted in said grooves for fastening said sleeves to said cable, said clamping means being within the contour of said sleeve, a seat formed in the middle portion of said sleeve, a two-part bushing engaging said seat, the parts being so dimensioned that there are clearances between the adjacent edges thereof, a plurality of grooves in each of the bushing parts, clamping means mounted in said grooves in said bushing parts for pressing said bushing



parts into said seat to cause the bushing parts to snugly engage the sleeve to prevent the rotation of said bushing parts relative to the sleeve, a hanger assembly rotatably mounted on said bushing and adapted to support an object to be carried thereby, said hanger assembly including members embracing the bushing and adapted to frictionally engage the bushing, and means engaging the members for applying clamping pressure to the bushing for adjusting the ease of rotation of said hanger assembly with respect to said bushing.

2,840,009
RAILWAY VEHICLE TRUCK
Thomas B. Dilworth, Hinsdale, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 4, 1954, Serial No. 466,829
4 Claims. (Cl. 105—198)



1. In a railway vehicle truck, a side frame member having a window therein, a bolster end support resiliently supported on said side frame in the window thereof for lateral movement therein, a bolster end rotatably supported by said support, and abutting means on said frame and said bolster end support to limit lateral movement of said bolster end and bolster end support relative to said side frame member.

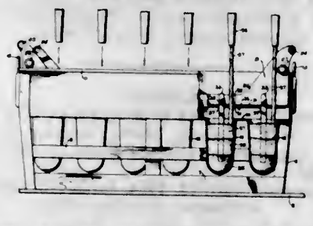
2,840,010
HATCH FRAME ARRANGEMENT
Thor R. Roen, Butler, Pa., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application November 16, 1955, Serial No. 547,101
3 Claims. (Cl. 105—377)

1. In a freight vehicle, a sheet metal roof, a substantially circular portion of said roof being cut therefrom, thereby providing a hatch opening in the roof and a cut out disk portion having a circular edge of the same diameter as said opening, and a hatch frame having a substantially circular bottom portion of relatively large diameter secured to the roof around the opening, an upstanding intermediate portion and an upper substantially circular portion of relatively small diameter terminating



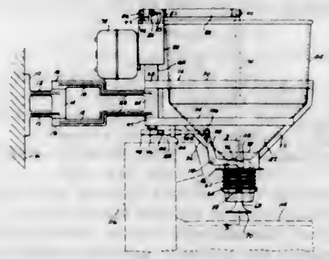
in a flange, said cut out disk portion of the roof having its peripheral margin downturned to form a flange terminating in said circular edge and being of slightly larger diameter than the flange of the hatch frame, and said cut out disk portion of the roof being fitted on said frame with its flange engaged over the frame flange.

2,840,011
STICK HOLDER
Marlin B. Rasmusson, Sacramento, Calif.
Application September 21, 1956, Serial No. 611,164
2 Claims. (Cl. 107—8)



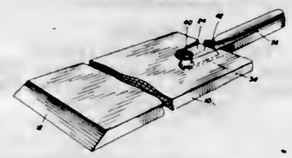
1. For use with a confection mold having a mold cavity therein, a stick holder adapted to be supported on said mold, a first plate on said stick holder having a stick-receiving first aperture therein substantially centered over said mold cavity with an edge of said first plate bounding said first aperture engageable with a stick passing through said aperture, a second plate on said stick holder having a stick-receiving second aperture therein substantially centered over said mold cavity, said second plate being slidably movable relative to said first plate into a predetermined position with an edge of said second plate bounding said second aperture engageable with said stick, and means providing openings in said first plate and said second plate adjacent said first and second apertures and overlying said mold cavity, said openings registering when said second plate is in said predetermined position.

2,840,012
DOUGHNUT MACHINE CUTTER
William O. Giles, Orlando, Fla.
Application May 25, 1956, Serial No. 587,324
2 Claims. (Cl. 107—14)



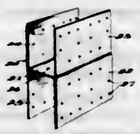
1. In a doughnut machine cutter assembly, a linkage for shifting a cutter sleeve in a downward direction to a cutting position at periodic intervals, comprising: a bell crank rocking on a horizontal axis and adapted at one end for engaging the cutter sleeve, thus to shift the sleeve downwardly responsive to rocking of the bell crank in one direction; an elongated, horizontally extending bar means having a sliding, pivotal connection at one end to the other end of the bell crank, said bar means being mounted for movement in the direction of its own length in a generally straight path; a gear box having input and output shafts extending therefrom, the input shaft being adapted for connecuon to a source of driving power; and an eccentric secured to the output shaft for rotation therewith, said eccentric peripherally contacting the other end of the bar means and shifting the bar means to rock the bell crank.

2,840,013
BAKER'S PEEL
Herbert F. Sells, Huntington, Ind.
Application August 2, 1954, Serial No. 447,273
2 Claims. (Cl. 107—67)



1. In a baker's peel, a blade having an opening therethrough located centrally therein near one end thereof and a protector clip having V-shaped sides extending inwardly and centrally of said blade end and closely fitting opposite sides thereof and having an eyelet extending through the opening in the blade and attached to both sides of the clip with the sides of the clip embedded in the underlying portions of the blade and flush with the surrounding portions thereof, the intermediate portion of said protector clip between the sides thereof being embedded in a recess in the adjacent rear edge of the peel, said recess extending through the full thickness of the peel and having outwardly flared sides closely fitting said intermediate clip portion.

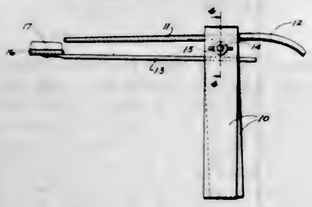
2,840,014
JOINT FOR A WOODEN TRUSS
Edward A. Wadsworth and Paul G. McKinley, West Palm Beach, Fla.; Sylvia Ruby Wadsworth, executrix of the estate of said Edward A. Wadsworth, deceased, assignor to said McKinley
Application October 12, 1956, Serial No. 615,712
12 Claims. (Cl. 108—23)



1. A wooden truss for supporting a peaked roof, said truss including a horizontal lower chord having attached to its opposite ends inwardly and upwardly directed upper chord members, said upper chord members meeting in a peak, said upper and said lower chord members being of rectangular cross-section and of substantially the same thickness, each of said chord members having upper and lower surfaces and opposite side surfaces, the lower chord having opposite end surfaces, said opposite end surfaces being beveled in a plane parallel to the direction of said adjacent upper chord member, said upper chord members at their meeting at said peak having adjacent end surfaces, the plane of said adjacent end

surfaces substantially vertical, said chord members all lying in the same plane, said upper chords being joined at the peak and said upper chords each being joined to said lower chord at the opposite ends thereof by couplings, said couplings having a central web portion and parallel side plates disposed on and connected to opposite edges of said central web portion, said side plates extending perpendicular to said web portion in either direction; in the joint at the peak, the vertical end surfaces of said upper chords abutting opposite faces of said central web portion and said side plates extending along and contacting the opposite side surfaces of said upper chords; and in the joint between the opposite end surfaces of said lower chord and said upper chords, the opposite faces of said web portion of each of said couplings being abutted by the lower surface of one of said upper chords upon one side and the end surface of said lower chord on the other side with said side plate portions extending along and contacting opposite side surfaces of said lower chords and upper chords.

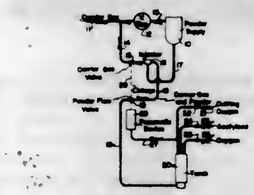
2,840,015
DRY FUEL BLOW TORCH
Arthur H. Edgerton, Rocky River, Ohio
Application May 23, 1956, Serial No. 586,735
3 Claims. (Cl. 110—3.5)



1. A blow pipe assembly comprising a pair of wood fiber bars constituting a handle, said bars being of rectangular cross-section and of a length approximately five times the width thereof, a machine screw pivotally connecting said bars to each other adjacent their upper ends, a tube frictionally engaged in one of said bars above said screw and in transverse parallel relation to the face thereof that defines the width of the bar, a rod frictionally engaged in the other of said bars below said screw and in transverse parallel relation to the face thereof that defines the width of the bar, a shallow circular dry fuel cup on one end of said rod, the free end of said tube being disposed superjacent the circumferential edge of said cup in aligned relation with said rod, and a flexible hose on the opposed end of said tube.

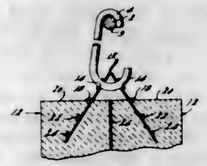
2,840,016
ADJUVANT POWDER CONTROL FOR FLAME CUTTING
Alfred F. Chouinard, Chicago, and Edward P. Spencer, Cary, Ill., assignors to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
Continuation of application Serial No. 317,912, October 31, 1952. This application June 11, 1956, Serial No. 590,421
4 Claims. (Cl. 110—22)

1. Apparatus for thermochemically cutting metal by the action of heating flames, a high pressure oxygen stream, and powdered adjuvant material delivered to the work with a carrier gas derived from a source thereof under pressure, comprising in combination theewith a hopper normally closed to atmosphere for containing a supply of powdered adjuvant material and provided with a gas inlet and an outlet, a pressure regulating valve upstream of said gas inlet for maintaining said adjuvant material under a constant predetermined gas pressure, conduit means including said outlet and an injector for effecting the entrainment of said adjuvant material in said carrier gas and for delivering said material and the carrier gas to the work, a portion of said conduit means for delivering carrier gas only from the source thereof to the injector, a first valve in said portion of the conduit means, motivating means for operating said valve to regulate the flow of carrier gas through said portion of



the conduit means and of adjuvant material through the remainder of said conduit means, and a second valve in said remainder of the conduit means simultaneously operable with said first valve by said motivating means, said valves insuring without loss of carrier gas the maintenance of said constant predetermined gas pressure on the supply of adjuvant material contained in said hopper when the adjuvant material is not flowing.

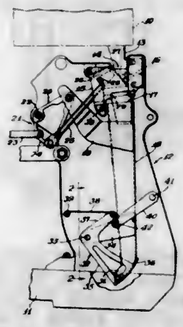
2,840,017
SUSPENSION MEANS FOR REFRACTORY TILE
Ernest B. Wolf, Detroit, Mich., assignor to Bigelow-Liptak Corporation, Detroit, Mich., a corporation of Michigan
Application April 13, 1954, Serial No. 422,868
4 Claims. (Cl. 110—99)



1. In a suspended furnace construction, the combination of, a longitudinally extending hanger bar, a plurality of tile hangers detachably suspended from said bar, a pair of refractory tiles disposed below each tile hanger, a hanger plate embedded and molded in each of said tiles, each of said hanger plates comprising an elongated plate-like member having an upper end extending upwardly from the tile, means on said upper end adapted to operatively connect the hanger plate to the tile hanger, an outwardly extending tab on said member disposed below said means, said member being embedded in the tile up to and into an abutting position with said tab, the embedded portion of said member being provided with a plurality of outwardly and upwardly extending tabs adapted to interlock said member in the refractory tile.

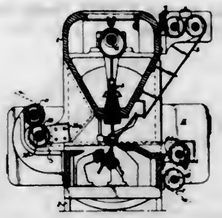
2,840,018
PLANTER VALVE MECHANISM
Hiram P. Smith, Chicago, Ill., and Clarence C. Haas, Richmond, Ind., assignors to International Harvester Company, a corporation of New Jersey
Application July 18, 1956, Serial No. 598,716
3 Claims. (Cl. 111—51)

1. In a planter including a housing and a seed guide in the housing open at the top and bottom for the passage of seed therethrough, means mounting the guide in the housing for generally vertical movement therein, comprising a link pivotally connected at one end to the housing and at its other end to the guide to accommodate swinging of the guide with the link about the pivot of the latter in the housing, a bell crank independent of said link fulcrumed on the guide near its lower end, a gate forming one arm of said bell crank and covering the opening at the bottom of the guide to catch seed passing therethrough, another link pivotally connected



at one end to the housing and at its other end to the other arm of the bell crank, and means mounted in said housing operatively connected to said guide for vertically moving the latter, said bell crank being rockable in response to movement of said guide to move the gate to and from a position over the opening at the bottom of said guide to periodically discharge seed therefrom.

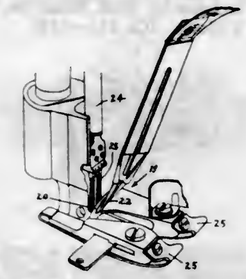
2,840,019
BACKING FABRIC FEED MEANS FOR TUFTING MACHINE AND METHOD
Max Marion Beasley, Chattanooga, Tenn.
Application August 29, 1955, Serial No. 531,107
9 Claims. (Cl. 112—79)



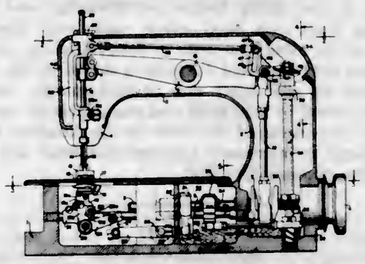
1. In a multiple needle tufting machine including needle mechanism and fabric feed rolls positioned fore and aft with respect thereto, separate drive means for the feed rolls operating to drive the aft feed roll at a speed that is greater than the speed of the fore feed roll and means drivingly interconnecting the feed rolls and tending to drive the aft feed roll at a speed greater than said first mentioned speed thereof.

2,840,020
APPARATUS FOR JOINING FABRIC
Daniel Wise, Reading, Pa.
Application October 1, 1956, Serial No. 613,111
1 Claim. (Cl. 112—152)

A sewing machine comprising, in combination, a supporting frame, a plurality of parallel vertically movable needles, a folding strip guide device angularly secured to said supporting frame with one end adjacent said needles and having at said end overturned converging edges adapted to deliver to said needles a doubled fabric strip with downwardly folded edges; a presser foot vertically movable in said frame, said presser foot comprising longitudinal sections each having an upper face and an elastic springy lower face, the sections being spaced from one another in direction of feed and on each side of said needles to receive therebetween said folded fabric strip, the sections each having a forward toe portion adapted to engage an edge portion of one of a pair of fabric members supported edge to edge beneath said presser foot, an elongated transverse loop mounted on one of said longitudinal sections of said presser foot and extending across the space between said sections, and positioned below the delivery end of said guide device.

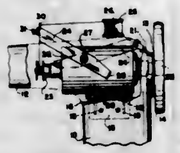


2,840,021
SEWING MACHINE
Friedrich Lutz, Stuttgart-Degerloch, Germany, assignor to Union Special Maschinenfabrik, G. m. b. H., Stuttgart, Wuerttemberg, Germany
Application February 17, 1954, Serial No. 410,871
Claims priority, application Germany March 25, 1953
11 Claims. (Cl. 112—159)



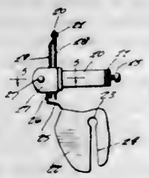
1. A sewing machine adapted to provide a zigzag line of stitching which comprises a hollow frame having a work supporting base, a vertical standard and an overhanging arm carrying a needle head, a main drive shaft journaled in said frame, means driven by said shaft for advancing work across said base, a reciprocable needle bar in said needle head carrying a needle at its lower end, a rock frame pivotally mounted in said needle head on a horizontally disposed pivot adjacent the lower end of said frame and provided with bearings for guiding said needle bar as it is reciprocated, said rock frame being arranged for swinging movement in a plane transverse to the direction of feed of the work, a needle thread take-up guide carried by said needle bar, a cooperating thread guide fixedly carried by said rock frame, connections from said shaft within said hollow frame for reciprocating said needle bar and for swinging said rock frame, said connections serving to reciprocate said needle bar a plurality of times as said rock frame is swung through one cycle of its swinging movement, a looper in said base cooperating with said needle in the formation of stitches, and connections from said shaft within said hollow frame for imparting loop seizing and shedding movements to said looper upon each revolution of said shaft and for shifting the zone of loop seizing and shedding movements of said looper in coordination with the swinging movements of said rock frame.

2,840,022
BOBBIN WINDER
Sidney J. Hamlett, Parma, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware
Application October 31, 1955, Serial No. 543,714
1 Claim. (Cl. 112—218)



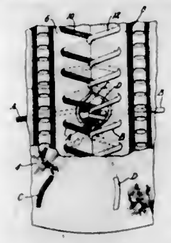
In a sewing machine head having a hand wheel connected to the operating shaft that is located in the horizontal arm of the head, a drive motor pivotally mounted on the side of the head and having a spindle both ends of which project from the motor housing and the axis of which is parallel to but spaced radially from said operating shaft, one of said spindle ends mounting a friction driving element adapted to engage the hand wheel connected to said operating shaft and the other of said spindle ends being adapted to mount a bobbin, spring means normally urging said motor toward said head to engage said driving element with said hand wheel, a lever pivoted to said head intermediate the ends of the lever and provided on one end thereof with a flange which when said lever is swung in one direction is interposed between said head and motor and directly engages said motor to exert a force thereon to move it against the action of said spring means and disengage said driving element from said hand wheel, said lever being provided at its other end with a flange portion mounting a thread guide adapted to guide a thread to the bobbin mounted on said other end of said spindle, and stop means carried by said head and engageable by said lever to limit movement of the latter in the direction wherein said flange is interposed between said head and motor or in the opposite direction.

2,840,023
NEEDLE GUARD
Michael Interrante, Brooklyn, N. Y.
Application September 28, 1955, Serial No. 537,104
4 Claims. (Cl. 112—261)



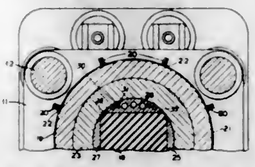
1. A needle guard comprising, in combination, a flat horizontal mounting block of substantially rectangular configuration having one rounded corner adjacent to one edge, a vertical bore extending perpendicularly through said block adjacent to said rounded corner for adjustably receiving the vertical footbar of a sewing machine, a shield pivotally secured at the opposite edge of said block for reciprocating rotational movement about a horizontal axis spaced outwardly from said mounting block and in a plane extending transversely of said block and normal to the plane defined by the footbar and needle of the machine when in position, and spring means for releasably retaining said shield in a desired rotated position.

2,840,024
BASEBALL SEWN COVERS
Otto R. Haas, Wenham, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application April 1, 1955, Serial No. 498,482
3 Claims. (Cl. 112—262)



1. A baseball having a sewed cover composed of two bilobate pieces joined together with the interconnecting section of each piece disposed between the lobes of the other and with stitches passing through the marginal portions along the abutting edges of the pieces, in which there are two threads, each passing over, through and under successively, the marginal portion of one piece exclusively, at the same angle to the edge of that piece, both under and over, and into sliding interlocking engagement with the other thread passing in the same manner, exclusively through the marginal portion of the other piece.

2,840,025
MOUNTING FOR RESILIENT PRESS PADS OF POLYGONAL CROSS-SECTION
Fred A. Dussling, Valley Stream, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application August 4, 1953, Serial No. 372,328
4 Claims. (Cl. 113—44)

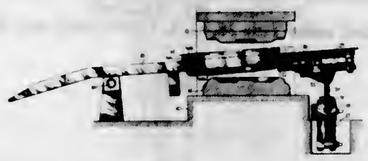


1. In a press or the like having a table member and a platen member movable towards and away from each other, the combination comprising a substantially rectangular-shaped press pad of resilient solid material adapted to be carried with one of said members and positioned to cooperate with a forming die on the other of said members as they are moved towards each other for forming the material, a mounting for said press pad, said mounting including a substantially circular holder open at both ends surrounding said press pad and laterally confining it, adapter segments to fit between the lateral walls of the press pad and the inner wall of said holder, and flexible means in gripping relation to said press pad connecting adjoining ends of said adapter segments.

2,840,026
PRESS SERVING MECHANISM
Walter S. Eggert, Jr., Philadelphia, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application August 30, 1955, Serial No. 531,441
1 Claim. (Cl. 113—50)

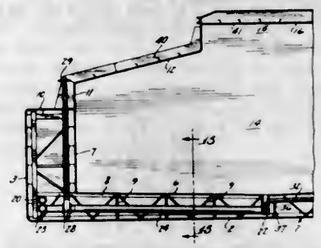
Press serving apparatus comprising in combination with the relatively movable dies of a vertical-axis press,

a slide hinged at one end away from the dies to permit the part of the slide at the dies to move up and down, the slide having a portion shaped to position and hold a workpiece while being operated upon by the dies and an open channel extending away from the positioning portion along which a workpiece can slide out of the press, a lift connected to the free end of the slide adjacent the



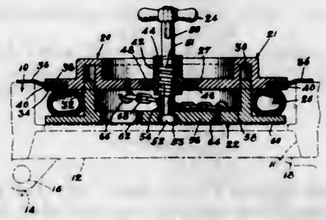
positioning portion for raising it to lift a workpiece out of forming position in the dies and holding it on a slope, and ejecting means mounted at the positioning portion at the free end of the slide and including an ejector which is held closely against the slide of the workpiece during its formation in the press and a power device for operating said ejector and removing the workpiece when the slide is tilted up.

2,840,027
BARGE CONSTRUCTION
Gale H. Chapman, Minneapolis, Minn., and Leslie B. Durant, New Orleans, La., assignors of fifty percent to Upper Mississippi Towing Corporation, Minneapolis, Minn., a corporation of Minnesota, and fifty percent to Alexander Shipyard, Inc., New Orleans, La., a corporation of Louisiana
Application July 23, 1953, Serial No. 369,850
2 Claims. (Cl. 114—73)



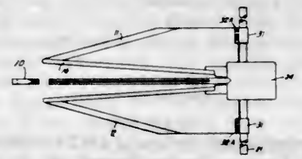
1. In a barge for transporting fluent cargo, an elongated hull having sides, ends and a bottom, longitudinally spaced transverse bulkheads dividing the hull into a plurality of transverse compartments each having smooth side walls and bottom walls, means supporting said bottom walls in upwardly spaced relation to the hull bottom, at least one drain well located in each compartment and extending into the space between the hull bottom and the compartment bottom wall, said drain wells being located substantially along the longitudinal axis of the hull, a first conduit means connected to each drain well and communicating with the exterior of the hull for withdrawing fluent cargo from the compartments, a first fluent material handling means for said first conduit means, a second conduit means connected with each drain well for removing cleansing fluids, a second fluent material handling means for said second conduit means, said drain wells in all compartments, except the aftermost, being located adjacent the forwardly facing side of a bulkhead, the drain well for the aftermost compartment being located intermediate the forward and after bulkheads of said aftermost compartment.

2,840,028
TEMPORARY PORTHOLE CLOSURE
Leonhard Kikas, Brooklyn, N. Y.
Application March 11, 1957, Serial No. 645,351
8 Claims. (Cl. 114—174)



1. A closure for temporarily sealing a porthole, comprising a pair of concentric clamping discs, manually operated means adjustably supporting said discs in predetermined spaced apart parallel relationship for axially shifting the discs toward and away from each other, and a gasket clampably engaged between and extending peripherally of the discs, said gasket being expandable in a direction radially outwardly of the discs responsive to movement of the discs toward each other for sealably engaging the wall of the porthole.

2,840,029
ANCHORS
Robert D. Ogg, Berkeley, Calif., assignor to Danforth Anchors, a corporation of California
Application June 2, 1955, Serial No. 512,715
5 Claims. (Cl. 114—208)



1. In a stock ctabilized, pivoted twin fluke anchor, a pair of twin flukes each having a fluke arm extending along their inner edge and being spaced by a narrow slot from the fluke adjacent the rear edge of the fluke, each fluke arm extending beyond the rear edge of the attached fluke and having an aperture at its rear end and adjacent the rear edge of the fluke to pass a stock, a crown including spaced crown plates and opposite spaced walls supporting said crown plates, each wall having a slot therein engaged in the narrow slot between the fluke arm and the rear edge of the fluke, a shank between the flukes, and a stock positioned at the rear of the flukes and extended through the apertures in the rear end of the fluke arms and in the walls of the crown and supporting shank.

2,840,030
BOAT ANCHOR
Lucille S. Parry, Cuyahoga Falls, Ohio, assignor of one-half to William Parry, Cuyahoga Falls, Ohio
Application July 26, 1955, Serial No. 524,363
4 Claims. (Cl. 114—208)

1. An anchor comprising a metal body, a plurality of support arms, means pivotally securing said support arms to said metal body adjacent an end thereof for pivotal movement from extended operative positions substantially normal to said metal body to collapsed positions closer towards the surface of said metal body, a disc segment secured to each of said support arms and movable therewith, said disc segments each having radially inner end portions lying flush against the end of said

metal body when said support arms are extended, said disc segments combining to form a substantially continuous dish-shaped disc when operatively positioned, and



screw means secured to said metal body and engaging said end portions of said disc segments when said support arms are extended to hold said disc segments operatively positioned.

2,840,031
ANCHORING APPARATUS
Arthur L. Kane and Alton L. Kemp, Youngstown, Ohio
Application November 25, 1955, Serial No. 548,879
8 Claims. (Cl. 114—208)



8. An anchor assembly comprising a single fluke having a diamond-shaped plan outline and a shank member, said outline thereby defining front and rear bills, said fluke having a slight curvature about an axis transverse to to said bills whereby said bills are turned downwardly, and the other opposite corners of said fluke defining water deflecting fin means.

2,840,032
PORTABLE SIGNALLING DEVICE
Charles E. Graham Reeves, Summit, N. J., assignor to Falcon Alarm Company, Inc., a corporation of New Jersey
Application May 10, 1956, Serial No. 584,138
3 Claims. (Cl. 116—112)



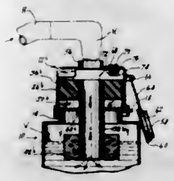
1. A self-powered, portable signalling device comprising a container, a supply of vaporizable liquid in said container, said vaporizable liquid having a density when in vapor form up to four times the density of air and being vaporizable at atmospheric pressure at temperatures as low as −20° F., a fitting removably connected to said container and having a first conduit which communicates with the interior thereof, a housing connected to said fitting, said fitting having a second conduit which communicates with the interior of said housing, a manually operable valve connected to and carried by said fitting, the conduits in said fitting being adapted to communicate with each other upon the opening of said manually operable valve, and a diaphragm-type horn carried by said housing and operatively communicating with said second conduit, the diaphragm of said diaphragm-type horn being substantially circular in shape and disposed in said housing, the diameter of said diaphragm being less then two and one-half inches.

2,840,033
ALARM DEVICE
Joseph H. Nitchman, Berea, Ohio
Application October 31, 1956, Serial No. 619,648
5 Claims. (Cl. 116—112)
(Granted under Title 35, U. S. Code (1952), sec. 266)



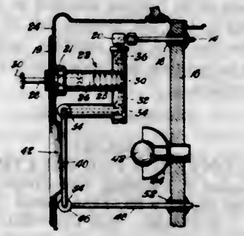
1. An alarm device comprising a hollow casing, a tank adapted to hold fluid under pressure within said casing, means mounted at one end of the casing to penetrate said tank, means slidably mounting said tank-penetrating means within said casing, a signal unit positioned at said one end of said casing for receiving the compressed gas, and a weighted mass fixed to said tank-penetrating means at the outer end thereof operative to position the device vertically with the weight downward whereby, on release of said device for free fall and on impact with an underlying fixed surface, the tank is penetrated and said signal unit will automatically be activated by the compressed gas.

2,840,034
WATER LEVEL INDICATOR FOR AUTOMOBILE RADIATORS
Spiro G. Danias, Forest Hills, N. Y.
Application December 8, 1955, Serial No. 551,812
3 Claims. (Cl. 116—118)



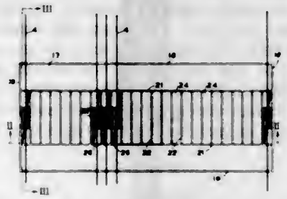
1. A cap for a liquid-containing automobile radiator having a cylindrical filler neck with a peripheral flange directed outwardly therefrom, comprising a flat, circular cap plate formed at its periphery with a depending flange adapted to engage said peripheral flange, a hollow dome of transparent material having a cylindrical wall and flat top supported concentrically on said cap plate and secured thereto, a cylindrical head disposed in said dome and movable axially therein, said head having a diameter substantially equal to the internal diameter of the dome and being guided and limited in movement by the cylindrical wall of the dome, said wall carrying indicia thereon indicative of the level of liquid in said radiator, said plate having a central opening therein, an elongated stem secured to said head and extending axially therefrom through said opening, and a cylindrical float, said stem being embedded axially in said float, said float having flat ends and a diameter substantially greater than the diameter of said head, so that the stem moves freely in said opening and said head moves freely in said dome without binding on the sides of the opening and dome respectively while said float is buoyed up by said liquid.

2,840,035
OIL CONDITION TESTING AND INDICATING DEVICE FOR AUTOMOBILES
Gordon G. La Porte, Tupper Lake, N. Y.
Application June 11, 1956, Serial No. 590,743
3 Claims. (Cl. 116—118)



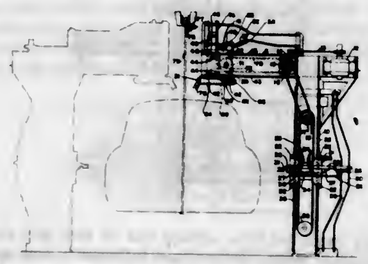
1. A device for testing the level of oil in the crank-case of an automobile engine comprising a suction pump attached to the rear of the instrument panel of an automobile, an inwardly opening check valve disposed at the intake duct of said pump and an outwardly opening check valve disposed at the outlet duct of said pump, conduit means connecting the intake end of the pump with the oil chamber in the crank-case of the engine, the entrance mouth of said conduit terminating above the point of minimum permissible level in said crank-case, a vertical sight tube disposed at the rear of said instrument panel and exposed to view at the front of said panel thru a slot therein, means connecting the discharge end of said pump to the top of said sight tube, conduit means connecting the other end of said sight tube with a chamber in said engine requiring lubrication located at a level below the discharge end of said sight tube, operating means for said pump comprising a cylinder, a piston therein and a piston rod connected to said piston and extending thru said instrument panel to the front thereof, whereat it may be operated by a person while seated in the automobile, whereby a few strokes of said piston rod exhausting the air in said first mentioned conduit suffices to draw oil from the crank-case to discharge for inspection thru the sight glass to indicate a safe level of oil, when said level is above said mouth of said conduit, said conduit means connecting the bottom end of said sight tube to an engine chamber serving to drain the oil from the sight tube to clear the same for another test.

2,840,036
STRAND OILER
George Wynn, Coraopolis, Pa., assignor to Jones & Laughlin Steel Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application March 5, 1954, Serial No. 414,480
2 Claims. (Cl. 118—234)



1. Apparatus for applying a film of oil to a strand of wire moving in an axial direction comprising an oil reservoir, means defining a path of travel of said strand over said oil reservoir, a ring enclosing said path and supported in said oil reservoir by said strand of wire when occupying said path, a pair of vertical plates positioned in said oil reservoir parallel to a plane through said path of travel and confining said ring, and a cylindrical weight having a circumferential annular groove positioned to ride on said ring between said plates with its axis perpendicular to said plates.

2,840,037
MECHANICAL MOVEMENT FOR COATING APPARATUS
Richard J. Verba, Fairview Park, Ohio, assignor, by mesne assignments, to Howard V. Schweitzer
Application April 2, 1954, Serial No. 420,702
4 Claims. (Cl. 118—315)

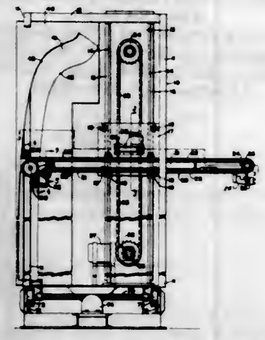


1. A device in which a surface treating head is to be moved across irregularly curved surfaces of passing objects and is to be maintained substantially normal to and at a substantially uniform distance from such surfaces, comprising a surface treating head, a carriage, a supporting beam extending substantially at right angles to but off-set from the path of passing objects, means for reciprocating the carriage along the supporting beam, fixed cam means extending along the direction of the supporting beam, control linkage means carried on said carriage and in following engagement with said fixed cam means, said control linkage means being operatively connected to the surface treating head to control the pivoting and reciprocating movements of the surface treating head relative to the carriage, the pivoting and reciprocating movements of the surface treating head each being a certain function of the reciprocating movement of the carriage along the supporting beam, a multiple-element structure included in said control linkage means, said multiple-element structure being movably mounted on the carriage so that the multiple-element structure can reciprocate to and from a datum position, moving substantially at right angles to the supporting beam, the surface treating head being pivotally connected to the multiple-element structure, and expansion means forming part of the multiple-element structure for varying the effective length of the multiple-element structure to change the datum position of the surface treating head without changing the datum position of the multiple-element structure and without causing either of said certain functions to cease to obtain.

2,840,038
GUN ARM COATING APPARATUS
Richard J. Verba, Fairview Park, Ohio, assignor to Howard V. Schweitzer, Broward County, Fla.
Application December 4, 1953, Serial No. 396,157
8 Claims. (Cl. 118—323)

1. In a coating machine, a carriage, a carriage track extending along a given path, means to reciprocate said carriage along said carriage track in said given path, a gun arm, means reciprocably mounting said gun arm on said carriage for reciprocating movement transverse to said given path, cam track means extending adjacent to said carriage track, follower means pivotally mounted on a first end of said gun arm and in following engagement with said cam track means whereby when said carriage is reciprocated said cam track means causes said follower

means to be pivoted relative to said gun arm and to be translated relative to said carriage, said latter translatory motion of said follower means causing said gun arm on which said follower means is pivoted to be correspondingly translated, a paint gun, paint gun mounting means



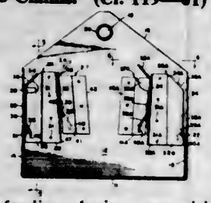
pivotally mounted on a second end of said gun arm and drive linkage means linking said follower means and said spray-gun mounting means for simultaneous angular motion, said drive linkage means including motion multiplying means.

2,840,039
PAINT SPRAY MASKING DEVICE
George Darnell, Scarsdale, Walter Davis, White Plains, and Sidney D. Yarm, East Meadow, N. Y., assignors to Lirita Corp., New York, N. Y., a corporation of New York
Application March 1, 1956, Serial No. 568,897
9 Claims. (Cl. 118—505)



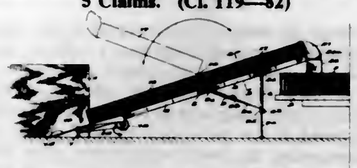
1. A device for masking prescribed surfaces of a ferrous metal body comprising a rigid masking body molded to conform to at least marginal portions of said prescribed surfaces and including plural resin-reinforced laminae, and a number of spaced-apart permanent magnet elements embedded between adjacent laminae along at least one edge of said masking body, the magnetic forces between said permanent magnet elements and said ferrous metal body being effective to maintain said one edge of said masking body in masking contact with said ferrous metal body.

2,840,040
VARIABLE POULTRY FEEDER
Herman B. Turner, Timberville, Va.
Application August 6, 1956, Serial No. 602,379
5 Claims. (Cl. 119—61)



1. A poultry feeding device comprising a receptacle having a bottom wall, end walls and side walls, said side walls comprising each a stationary lower panel and an upper movable panel, said upper panel being movable between a first position directly above and in alignment with the stationary panel and a second position substantially parallel to and inwardly offset from the first position, each stationary lower panel having an upper lip portion, each upper panel having an inwardly offset channel portion at its bottom adapted to removably contact and contain the lip portion of its corresponding lower panel in the said first position, and means at the end walls for supporting the upper movable panel in the said second position.

2,840,041
CONVEYOR FOR POULTRY
Charles V. Fleming, Gainesville, Ga.
Application January 25, 1956, Serial No. 561,223
5 Claims. (Cl. 119—82)



1. In a conveying device, a tunnel like conveyor comprising the combination of a plurality of frames comprising two longitudinal side members spaced apart and each side member comprising a plurality of units abutting each other end to end and being joined by hinges; a plurality of rollers mounted within said frames; a belt extending around said rollers; means for driving said rollers and belt; a cover for said frame consisting of a plurality of sections of framework made in the shape of an inverted U and covered with a material which is permeable to air and closed to the passage of live fowls therethrough, one end section having a tubular elbow to control the direction of discharge at the end of the conveyor; a discharge conduit, one end of which corresponds in size and shape to the open end of said elbow, a cage at the end of said conveyor distant from said elbow, the adjacent end of said cover being adapted to project into said cage and said conveyor belt projecting beyond the cover and also into said cage, whereby live fowl may alight on said conveyor belt before being moved into the space beneath said cover.

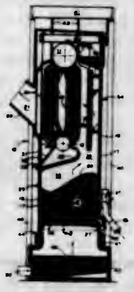
2,840,042
MECHANICAL PENCIL
Christ Andonov, Gary, Ind.
Application June 11, 1952, Serial No. 292,886
2 Claims. (Cl. 120—143)



1. In combination in a multilead pencil, a tubular housing, an offset tip fixedly secured to said housing, an index member coaxially rotatably mounted within said housing, said index member having a plurality of bores peripherally spaced about the rotational axis of said index member at the same radial distance from the central

axis of said housing, said tip having an axial bore positioned the same distance from the said central axis as the said plurality of bores, a lead propel-repel mechanism in each of said bores and having a clutch member and operable upon rotation of said clutch member to reciprocate a lead secured therein, a cap reciprocably and rotatably carried by said housing, actuating means in said cap reciprocable therewith and rotatable relative thereto for operative engagement with the clutch member of a selected one of said mechanisms in alignment with the bore in said tip when said cap is reciprocated toward said tip into a first positon, means locking said index member against rotation relative to said housing when said cap is in said first position, means on said housing for cooperation with said actuating means to maintain said actuating means in axial alignment with the bore of said tip, cooperating gear teeth on the external periphery of said actuating means and the internal periphery of said cap whereby rotation of said cap will rotate said actuating means to rotate said clutch member when said cap is in said first position and said actuating means is in engagement with said clutch member, and means connecting said cap to said index member for rotation thereof to change the selected mechanism in alignment with the bore of said tip, said last named means being operable only when said cap is moved away from said tip into a second positon in which actuating means is out of engagement with said clutch member.

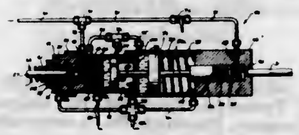
2,840,043
FLUID HEATER
Edwin Durham, Westfield, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application February 27, 1956, Serial No. 567,870
5 Claims. (Cl. 122—4)



1. A fluid heater comprising walls defining a fluid cooled furnace, means for burning high heat content fuel in said furnace, walls defining an enclosure positioned below said fluid cooled furnace and opening upwardly thereto, means forming catalytic elements in said enclosure, means for passing a low heat content carbon containing gas upwardly through said catalytic elements to oxidize the carbon containing gas and to raise its temperature, and means shielding said catalytic elements from destructive radiant heat effects caused by the combustion of said high heat content fuel in said fluid cooled furnace.

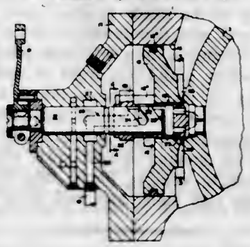
2,840,044
SERVO BRAKING CONTROL DEVICE FOR SELECTIVE SLOW AND HIGH SPEED BRAKING OPERATION
Joseph Carrion, Pontiac, Mich., assignor of fifteen percent to Murray H. Blumenfeld, New York, N. Y.
Application May 20, 1952, Serial No. 288,807
4 Claims. (Cl. 121—38)

1. In an automobile braking system, a braking pedal, a servomotor control device for selective slow and high speed braking operation, said device comprising a casing, having a pressure chamber at the front thereof and a main bore connecting with the rear of said pressure chamber, a slide valve slidably disposed within said main bore, a rod fixed to said slide valve and protruding rearwardly out of said casing, a spring coupling said rod and casing and normally urging said rod rearwardly to define a normal rear position of said slide valve, and means non-resiliently coupling said brake pedal and said rod, said slide valve having an axial valve bore extending to the front end thereof and a pair of axially spaced radial bores extending from said valve bore to the periphery of said slide valve, said casing having an intake conduit communicating with said main bore and adapted to be filled with hydraulic fluid under pressure, said casing also having a by-pass conduit connecting between the rear of



said pressure chamber and said main bore at a point located forwardly of the point of connection therewith of said intake conduit, the front end portion of said valve bore being of reduced diameter compared to the diameter of the main portion of said valve bore and the diameters of said radial bores and of said conduits, said slide valve being movable between its normal position and a front position through an intermediate position thereof, the front radial bore communicating with said intake conduit and said slide valve blocking said by-pass conduit in the intermediate position of said slide valve, the arrival of said slide valve in said intermediate position from said normal position being adapted to be signalled by the increased resistance to pedal pressure, the front radial bore communicating with the intake conduit and the rear radial bore communicating with the conduit in the front position of said slide valve.

2,840,045
CONTROL FOR HYDRODYNAMIC MACHINES
James K. Douglas, Shorewood, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin
Application August 8, 1956, Serial No. 602,787
3 Claims. (Cl. 121—41)



1. A control for a hydrodynamic machine having a case, a displacement varying member slideably fitted in said case, means for continuously urging said member in a given direction transversely of said case, and a source of pressure liquid, said control comprising a cylinder carried by said case, a cylinder head closing the outer end of said cylinder, a piston loosely fitted in said cylinder and having an axial bore extending therethrough, means fastening said piston to said member to cause said piston to move radially or to tilt in response to corresponding movements of said member, a piston ring arranged in said piston and forming a substantially liquid tight seal

between said piston and the wall of said cylinder, and means for directing liquid from said source to said cylinder to enable said piston to move said member in one direction against the force exerted by said urging means and for directing liquid from said cylinder to exhaust to permit said urging measn to move said member in the opposite direction, said liquid directing means including a valve member having one end journaled in said head and being substantially rigid radially therewith, the other end of said valve member journaled in a closely fitted valve body that extends through said bore in said piston in radially spaced relation therewith so that said relatively radially rigid valve member and valve body do not restrain said radial or tilting movements of said piston, and resilient means disposed between said valve body and the wall of said bore to maintain said valve body and said piston in substantially liquid tight relation.

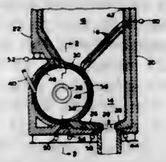
2,840,046
METALLIC SKEWBACK BEAM
Edward W. Pottmeyer, Pittsburgh, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application June 1, 1955, Serial No. 512,454
1 Claim. (Cl. 122—6)



In a fabricated metal skewback beam, in combination, an elongated hollow shell being substantially in the form of a right angle triangle in section, said shell having the front and bottom walls thereof of relatively uniform thickness with at least the lower front angle of convex curvature along the joint between the front and bottom walls thereof, the front wall of said shell being upwardly and rearwardly inclined, a solid partition fastened to the front and back walls and dividing the interior of said shell into upper and lower compartments extending across the thickness of said section, each such compartment having a separate set of inlet and outlet openings communicating therewith through said shell, said openings being adapted for the flow of a cooling liquid for the separate and respective cooling of said compartments, a baffle positioned at least in said lower compartment, said baffle being positioned generally along and rearwardly of the inside of said front angle to provide forward and rear circulatory sections in said lower compartment communicating with each other, the circulatory section nearer said front angle in said lower compartment being of lesser cross-sectional area than the cross-sectional area of said other circulatory section in said lower compartment, and nozzle means communicating with the inlet opening to said lower compartment to discharge incoming cooling liquid into the circulatory section between said baffle and said front angle.

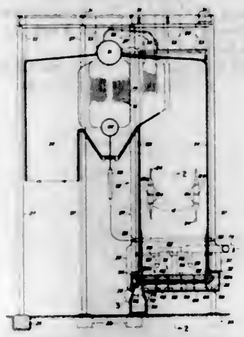
2,840,047
FUEL BURNING APPARATUS
Otto Lotz, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Original application May 31, 1952, Serial No. 290,876. Divided and this application March 29, 1956, Serial No. 574,725
20 Claims. (Cl. 122—235)

1. A fluid heating unit having a fluid circulation system and comprising upwardly extending walls including fluid cooled tubes defining a secondary furnace chamber, a cyclone furnace having a furnace chamber of substantially circular cross-section extending into said secondary furnace chamber and defined in part by a circumferential wall including intermediate portions of some of the fluid cooled tubes of said secondary furnace chamber walls, means forming a gas outlet at one end of said furnace chamber opening to said secondary furnace chamber, means for introducing a combustible mixture into said



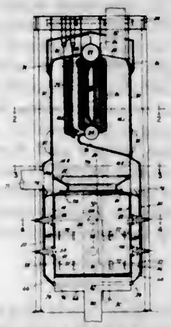
furnace chamber for discharge through said gas outlet into said secondary furnace chamber, some of the fluid cooled tubes of said circumferential wall absorbing heat from the hot gases therein and from the gases flowing through said secondary furnace chamber, and means connecting said fluid cooled tubes into said fluid circulation system.

2,840,048
GRATE ORGANIZATION
Henry Schroeder, Jackson Heights, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application June 29, 1956, Serial No. 594,744
6 Claims. (Cl. 122—235)



1. In a vapor generator the combination of a vertically disposed furnace, the inner surface of the walls of the furnace being lined with vertically disposed heat exchange tubes in side-by-side relation, a fixed foundation a support framework secured thereto and extending above said furnace, means interconnecting said framework with the upper portion of certain of said tubes to effectively support said furnace generally from its upper end and permit the same to expand downward, means operative to introduce into said furnace an ash bearing fuel of the type wherein at least portions of the fuel must be deposited and burned upon a grate in order to obtain complete combustion, a grate positioned at the bottom of the furnace operative to receive the fuel portions to support the same for burning and thereafter discharge the ash, said grate being supported by said tubes so as to move therewith, means for admitting air beneath the grate for passage upwardly through the grate, means disposed below said grate to receive said ashes and fixedly supported independently of the furnace, means interconnecting said last mentioned means and the lower end of the furnace in a substantially fluid tight manner and in a manner permitting limited relative movement therebetween in a vertical and horizontal direction, said seal means including a water seal.

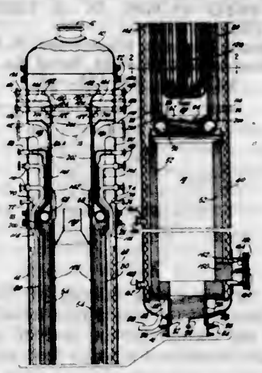
2,840,049
FLUID HEATING UNIT
Edwin Durham, Westfield, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application May 20, 1954, Serial No. 431,123
7 Claims. (Cl. 122—333)



6. In a fluid heating unit, in combination, wall means defining a vertically elongated chamber of substantially uniform horizontal cross-section having an upper convection zone, an intermediate radiant zone and a lower combustion zone, burner means arranged at vertically spaced positions for introducing streams of fuel and oxidizing medium into the combustion zone of said chamber, upright fluid heating tubes associated with said wall means, means forming an orifice baffle transversely dividing said chamber into said combustion and radiation zones, some of said fluid heating tubes forming in part said orifice baffle means, wing baffle means extending inwardly across a major portion of said orifice opening from one side of the chamber above and immediately adjacent said orifice baffle, means defining a gas outlet in a wall of said chamber above said wing baffle means and adjacent the side of the chamber from which said wing baffle means extends, and rows of fluid heating tubes extending upwardly across said convection zone above said wing baffle means whereby the heating gas flow from said combustion chamber passes upwardly at an accelerated velocity through said orifice baffle means and is sequentially directed toward one side of said intermediate radiant zone and turns around the end of said wing baffle to move in a generally horizontal direction through said convection heating zone.

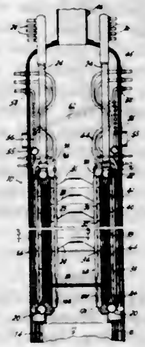
2,840,050
SYNTHESIS GAS REACTOR WITH FLUID COOLED JACKET FOR THE REACTION CHAMBER
Theodore S. Sprague, Hewlett, N. Y., and Earl E. Schoessow, Barberton, Ohio, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application September 10, 1954, Serial No. 455,306
6 Claims. (Cl. 122—338)

1. In a heat exchange unit, a vertically elongated upright pressure vessel, means forming a refractory lined gaseous reaction chamber in the lower part of the pressure vessel, a substantially imperforate corrugated plate metal liner spaced inwardly of the pressure vessel wall and secured thereto in the zone of the reaction chamber and providing a liquid jacket around the reaction chamber, a gas outlet at the upper part of the pressure vessel, and convection heat exchanger disposed between the reaction chamber and said outlet; the heat exchanger including means providing an upright gas pass, upright fluid conducting tubes disposed within the gas pass, means directing the high temperature reaction gases over said tubes, and means through which the heat exchanger and said liquid jacket are supplied with fluid to be heated; said corrugated metal liner and the liquid jacket being so constructed and arranged that there is free communication



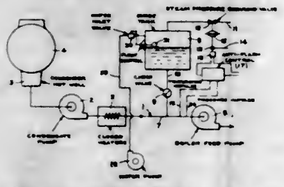
between the gas flow space of the pressure vessel and the jacket at a level above the level of the top of the reaction chamber.

2,840,051
CONVECTION FLUID HEAT EXCHANGE UNIT WITH INTEGRAL SOOT BLOWERS
Paul M. Brister, Madison, and John C. Singleton, Jr., Watchung, N. J., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application December 11, 1952, Serial No. 325,328
1 Claim. (Cl. 122—392)



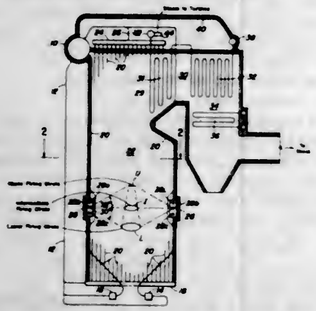
In vapor generating apparatus, in a bank of upright vapor generating tubes, said tubes being horizontally spaced apart for the flow of heating gases therebetween, an upper pressure vessel chamber to which the upper ends of all the tubes are connected, a lower pressure vessel chamber having lower ends of all the tubes connected thereto, a soot blower tube disposed within one of the first mentioned tubes so as to leave an annular space exteriorly of the soot blower tube and within its enclosing tube, intermediately disposed soot blower jet structures welded to the soot blower tube and its enclosing tube and forming soot blowing jet passages leading from the interior of the soot blowing tube through its enclosing tube and directed toward the remainder of the first mentioned tubes, and means for connecting the inlet of the soot blower tube with a source of soot blowing fluid, the soot blower tube having a part of reduced diameter at a position remote from its inlet.

2,840,052
CONTROL MEANS TO PREVENT FLASHING OF EMERGENCY FEEDWATER DELIVERED TO BOILER FEED PUMPS IN A CLOSED TYPE FEEDWATER SYSTEM
Igor J. Karassik, Maplewood, N. J.
Application August 17, 1954, Serial No. 450,463
3 Claims. (Cl. 122—451)



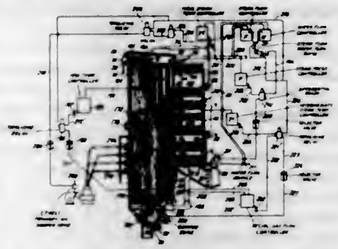
2. Means for preventing flashing of feedwater in a boiler feed system of the closed type including, in combination on the suction portion thereof, a condensate pump, a closed heater and a boiler feed pump having a suction inlet, said means comprising a surge tank adapted for connection to said suction inlet for delivering emergency feedwater thereto at a pressure exceeding the suction pressure at the suction inlet of said boiler feed pump in the event of failure of the condensate pump, pipe means providing communication between said surge tank and said suction inlet, valve means in said pipe line operative to preclude flow from said surge tank to said suction inlet when the condensate pump is operative in providing a predetermined fluid flow to said boiler feed pump, pressure fluid supply means connected to said surge tank to provide a source of pressure fluid thereto to increase the pressure in said surge tank, a diaphragm operated pressure reducing valve connected between said surge tank and said pressure fluid supply means, and means operatively connected to said suction inlet for actuating said pressure reducing valve responsive at a predetermined minimum pressure differential between the temperature of the suction feedwater in terms of its vapor pressure and the absolute pressure at the suction inlet including, means for determining the vapor pressure at the suction inlet, means for determining the absolute pressure at said suction inlet, and a switch mechanism actuated at said predetermined minimum pressure differential between said vapor pressure measuring means and said absolute pressure measuring means to actuate the diaphragm operated pressure reducing valve to open position.

2,840,053
COMBUSTION ZONE CONTROL
Virginius Z. Caracristi, Bronxville, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application January 16, 1953, Serial No. 331,605
2 Claims. (Cl. 122—478)



1. In a steam generator having an elongated furnace chamber equipped with water cooled walls and an outlet for the furnace gases at one end thereof; a superheater for superheating steam located adjacent said furnace outlet in position to absorb heat from said gases; at least two burner nozzles oppositely mounted in said furnace walls each firing a fluid fuel in directions tangential to an imaginary firing circle located within said furnace chamber; means for mounting said burner nozzles for tilting in an arc extending from an uppermost burner tilt position to a lowermost burner tilt position for increasing or decreasing the temperature of said superheated steam when tilting said burner nozzles upwardly or downwardly respectively; said means including a pivotally supported axis for tilting each nozzle in an arc falling in a plane located at one side of the longitudinal axis of said furnace and inclined in a direction toward said furnace axis at the furnace outlet side of said burner nozzles, whereby said firing circle decreases gradually in diameter as the burner nozzle is tilted toward the furnace outlet end from the lowermost position to the uppermost position thereof.

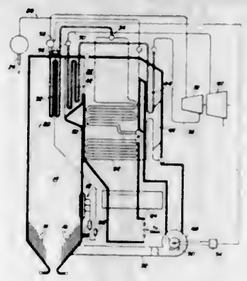
2,840,054
POWER GENERATING AND SUPERHEATING METHOD, AND APPARATUS THEREFOR
Will H. Rowand, Short Hills, N. J., assignor to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey
Application October 8, 1951, Serial No. 250,268
9 Claims. (Cl. 122—479)



1. In a once-through vapor generating and superheating unit having a primary section including a furnace with liquid heating tubes along its walls, furnace firing means, said tubes receiving heat radiantly transmitted from the furnace gases, a liquid to vapor transition section of the once-through type including tubes receiving heated liquid at their inlet ends and heated by the gases after they have left the furnace to complete the vaporization within a transition zone flow-wise ahead of the outlet ends of the tubes, means forming a gas pass leading from the furnace and having the transition section arranged therein to receive all of the gases exiting from the furnace, a recirculated gas system extracting furnace gases from a position downstream gas flow-wise of the transition section and introducing the recirculated gases into the gases in the furnace at a position affecting the heat absorption of a major portion of the length of said furnace wall tubes, and means operating to increase the flow of recirculated gases through said system when the transition zone tends to shift toward the furnace tubes and thereby preventing any substantial shifting of the transition zone in that direction.

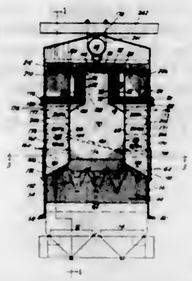
2,840,055
METHOD AND APPARATUS FOR GENERATING STEAM
Henry J. Blaskowski, New York, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application June 20, 1955, Serial No. 516,435
11 Claims. (Cl. 122—479)

5. In a reheat type steam generator the combination of a furnace lined with steam generating tubes and having a combustion gas outlet at one end, means for superheating and reheating the steam generated by the generator including a convection reheat heat exchanger and a convection superheat heat exchanger, means for conveying the combustion gases issuing from the furnace serially over these heat exchangers, means adapted to by-pass regulated quantities of combustion gases around said convection superheat heat exchanger and introduce the same into the furnace at a location where they are effective to raise the superheat and reheat steam temperatures over those obtainable without this recirculation



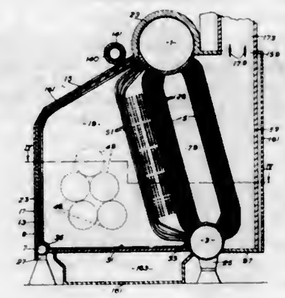
of combustion gases to thereby provide a control for the superheat and reheat steam temperatures over a substantial load range, said last named means including a heat exchanger over which the stream of bypassing gases are conveyed and which is connected in series with said reheater, said last named heat exchanger being effective as a supplement to said reheater and being constructed and arranged to retain a substantially constant temperature differential between the reheat and superheat temperature throughout the control range obtained by the recirculation of combustion gases, means for regulating the gas flow through the bypass and into the furnace.

2,840,056
STOKER FIRED STEAM GENERATING UNIT WITH DOUBLE CONVECTION SECTION
Charles R. Chan, Pompton Lakes, N. J., and Charles H. Woolley, deceased, late of Cranford, N. J., by Margaret S. Chamberlin, executrix, Cranford, N. J., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application September 14, 1954, Serial No. 455,884
2 Claims. (Cl. 122—480)



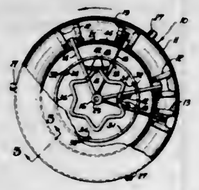
1. In a stoker fired steam generating unit, stoker means of rectangular grate area disposed near the base of the unit, a steam and water drum symmetrically arranged in the upper end of the unit, pairs of oppositely arranged upright exterior walls extending vertically upward from said stoker means in a uniform rectangular horizontal cross-section substantially corresponding to the grate area of said stoker means, steam generating tubes defining a pair of spaced walls disposed interiorly of the enclosure formed by said upright walls and combining therewith to form a pair of downflow gas passes at opposite sides of and wholly within said enclosure, said spaced walls also defining a vertically elongated upper furnace chamber section between and opening to the upper end of said downflow gas passes, the spaced walls terminating at their lower ends in laterally extending arches within the enclosure at positions intermediate the height of the unit and substantially superjacent the stoker means, steam generating tubes extending upwardly along said upright exterior walls, said last named tubes and the tubes defining said spaced walls having their upper ends connected to said steam and water drum, steam superheater tubes arranged in one of said downflow gas passes, economizer tubes arranged in the other of said gas passes, and dampers arranged to control the gas flow through each of said downflow gas passes.

2,840,057
APPARATUS FOR REGULATING VAPOR TEMPERATURE
Ronald E. Zoller, Hillfield Park, London, England, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application December 20, 1954, Serial No. 476,499
8 Claims. (Cl. 122—480)



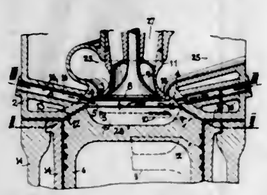
1. A vapor generating and superheating unit comprising walls defining a combustion chamber, baffle walls defining three parallel gas passages opening to said combustion chamber, vapor generating tubes positioned between said combustion chamber and the gas entrance end of said parallel gas passages, vapor generating tubes positioned within each of said parallel gas passages the edge portion of one of said tube banks being spaced from the baffle wall forming a side of one of said gas passages, each of said upright baffle walls being provided with a vapor generating tube-containing lateral extension ending adjacent the edge portion of one of said vapor generating tube banks, spaced tubes forming a main superheater projecting through a side wall of said vapor generator and extending across one of said gas passages to a position spaced from the baffle wall of said gas passage, spaced tubes forming an auxiliary superheater projecting through an opposite side wall of said vapor generator and extending across another of said gas passages to a position spaced from the other baffle wall of said gas passage, vapor generating tubes positioned in the third gas passage between said baffle walls, and means for controlling the distribution of gas flow through each of said gas passages to control the superheat temperature of said vapor and the pressure drop of gas flow through said unit at different vapor flow rates from said unit.

2,840,058
ALTERNATING PISTON TYPE INTERNAL COMBUSTION ENGINE
Kenneth E. Stringer, Irvington, N. J.
Application February 8, 1955, Serial No. 486,861
2 Claims. (Cl. 123—11)



1. An internal combustion engine comprising: a hollow torus shaped cylinder; a main power piston mounted to move within said cylinder; an auxiliary reaction piston mounted to move in said cylinder; connecting rods supporting said pistons; a link pivotally connected to each rod and to each other; a cam follower at the pivotal connection of said links; a drive shaft coupled to said main power piston to be moved thereby, a cam engaging said follower to vary the displacement between said pistons whereby the volume between said pistons in said cylinder is varied; and said cam being fixedly mounted with respect to the cylinder, the cam being of a symmetrical shape and positioned coaxial of the cylinder.

2,840,059
INTERNAL COMBUSTION ENGINES
Alfred Buchi, Winterthur, Switzerland
Application March 29, 1954, Serial No. 419,395
Claims priority, application Switzerland July 6, 1949
17 Claims. (Cl. 123—32)



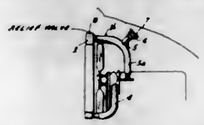
1. In an internal combustion engine the combination comprising a cylinder, a piston for said cylinder, said cylinder having a cylindrical sleeve portion, a cylinder head covering said cylinder and piston, said cylinder head having a valve orifice disposed substantially concentrically with the axis of said cylinder, valve means for opening and closing said orifice, a frustro-conically shaped valve seat in said cylinder head for said valve means, said cylinder head having a frustro-conically shaped depression therein with a conical wall surface commencing at said valve seat and flaring outwardly toward the crown of said piston substantially at the same angle to a plane normal to the cylinder axis as the surface of said valve seat, a contiguous wall surface to said conical wall surface in said cylinder head, said conical wall surface forming a circular intersection line with said contiguous wall surface, said circular intersection line lying in a plane normal to the cylinder axis and forming the largest diameter of the combustion space when said piston is in upper dead center, said piston having a depressed area in the crown thereof forming a cavity, said cylinder head depression and said cavity when brought together substantially registering with one another, said contiguous wall surface of said cylinder head from said circular intersecting line continuing outwardly at a smaller angle to a plane normal to the cylinder axis towards the upper end of said cylindrical sleeve whereby a combustion space of smaller diameter than the diameter of said cylinder is formed.

2,840,060
TWO-STROKE CYCLE INTERNAL COMBUSTION ENGINE OF THE OPPOSED PISTON TYPE COMPRISING TWO CRANK SHAFTS
Johan Erik Johansson, Gothenburg, Sweden, assignor to Aktiebolaget Gotaverken, Gothenburg, Sweden, a corporation of Sweden
Application December 21, 1956, Serial No. 629,818
Claims priority, application Sweden January 2, 1956
1 Claim. (Cl. 123—41)



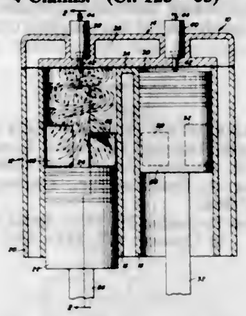
A reversible two-stroke cycle internal combustion engine of the opposed piston type comprising two crankshafts, a cylinder having exhaust ports and scavenging air ports, a first piston connected to one of said shafts and adapted to control said exhaust portions and a second piston connected to the other shaft and adapted to control said scavenging air ports, the axial extension of the exhaust ports from the bottom dead center of said first piston exceeding the corresponding extension of said scavenging ports, said first piston having such lead in phase relative to said second piston as to cause the exhaust ports during forward running and at low engine load to be uncovered before and covered substantially simultaneously with the scavenging air ports, and motion transmission means interconnecting said two shafts and including at least one resilient member operative in both directions of rotation and adapted upon increasing load on the engine to increase the lead in phase of said first piston relative to said second piston, the resiliency being of such magnitude as to ensure uncovering of the exhaust ports before the scavenging ports during astern running of the engine.

2,840,061
COOLING SYSTEMS OF VEHICLE ENGINES
Lucien Jules Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
Application July 7, 1954, Serial No. 441,824
Claims priority, application France August 6, 1953
3 Claims. (Cl. 123—41.48)



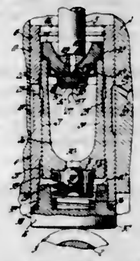
1. In a cooling system for internal combustion engines of the type having a radiator with a body portion, a header tank at the top of said body portion and a bottom tank at the bottom of said body portion, in combination, a first pipe connecting said header tank to the engine cylinder head and a second pipe connecting said bottom tank to the engine cylinder block, a filling pipe in fluid communicating relationship at its lower end with said second pipe and extending upwardly therefrom exteriorly of said header tank to a level above the uppermost portion of the interior of the header tank but out of communication therewith whereby said header tank communicates directly only with said body portion and said first pipe, a vent orifice in said uppermost interior portion of said header tank, and a relief valve in said vent orifice.

2,840,062
INTERNAL COMBUSTION ENGINE SYSTEM
Raymond J. Classen, Danforth, Ill.
Application May 17, 1955, Serial No. 508,945
4 Claims. (Cl. 123—65)



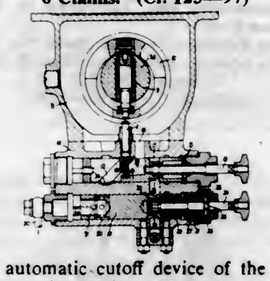
1. In an internal combustion engine, a cylinder, an inlet port in said cylinder, an exhaust port in said cylinder, a piston mounted in said cylinder for reciprocatory movement, said piston alternately covering and uncovering said ports to control the flow of gases into and out of said cylinder, said inlet port being disposed generally tangential to said cylinder, said inlet port having a flow axis disposed at an angle to the longitudinal axis of the cylinder and opening into the cylinder in a direction facing away from said piston in its bottom dead center position, said exhaust port being disposed generally tangential to said cylinder and having a flow axis which is normal to said longitudinal axis, said inlet and exhaust ports being disposed in side-by-side relation in one-half of the circumferential extent of said cylinder, the other half of said cylinder being imperforate.

2,840,063
HYDRAULIC VALVE LIFTER
William J. Purchas, Jr., Grand Rapids, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 17, 1955, Serial No. 516,112
3 Claims. (Cl. 123—90)



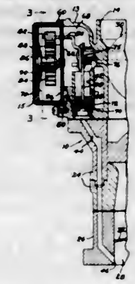
1. In a hydraulic valve lifter having a cup shaped cylinder, a plunger reciprocable in the cylinder and defining a hydraulic pressure chamber in the bottom end of the cup, and a spring acting between the cylinder and the plunger to enlarge said chamber, said cylinder being of fabricated construction including a tube and a separate end closure member fixed thereto, said member having a generally disk shaped portion abutting the adjacent end of the tube and an integral ring-like portion of reduced peripheral dimension extending into the tube to form a stop for the pluner, said last named portion embracing and locating the spring centrally of the axis of said tube.

2,840,064
AUTOMATIC CUT-OFF DEVICE
Max Hofer, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nurnberg A. G., Augsburg, Germany, a corporation of Germany
Application August 16, 1954, Serial No. 449,862
Claims priority, application Germany September 18, 1953
8 Claims. (Cl. 123—97)



1. In an automatic cutoff device of the character described for stopping an internal combustion engine at a predetermined number of R. P. M. and a predetermined minimum lubricating oil pressure which comprises in combination a hydraulically actuated servomotor for controlling fuel feed to said engine in accordance with the supply of hydraulic fluid to said servomotor, means responsive to the speed of said engine for interrupting said supply of said hydraulic fluid to said servomotor at said predetermined number of R. P. M., discharge means for rapidly withdrawing from said servomotor upon the operation of said speed responsive means hydraulic fluid supplied to said servomotor effecting rapid interruption of fuel feed to said engine, oil pressure responsive means for interrupting said supply of hydraulic fluid to said servomotor at said predetermined lubricating oil pressure, and means for bleeding off from said servomotor hydraulic fluid supplied thereto, said means for bleeding off having substantially less capacity than said means for withdrawing hydraulic fluid effecting more gradual operation of said servomotor in response to said oil pressure responsive means than in response to said speed responsive means.

2,840,065
HEAT CONTROL FOR AUTOMATIC CHOKE THERMOSTAT
Morris C. Brown, Pontiac, Mich., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application October 19, 1953, Serial No. 386,861
20 Claims. (Cl. 123—119)



1. In an automotive carburetor, a choke valve, a thermostat coacting with said valve to influence mixture ratio

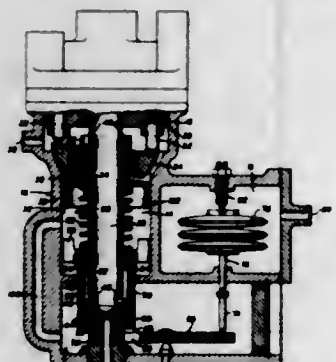
by a choking operation, means for directing a flow of heated fluid over said thermostat, movable means for controlling the heating effect of said flow on said thermostat, and means interconnecting said movable means with said thermostat, whereby the rate of temperature rise of said thermostat may be influenced by the temperature response of said thermostat.

2,840,066

FUEL INJECTION PUMPS

John Neville Morris, Birmingham, England, assignor of one-half to The S. U. Carburetter Co. Ltd., Birmingham, England, a British company, and one-half to Simmonds Aerocessories, Inc., Tarrytown, N. Y., a corporation of New York

Application February 24, 1956, Serial No. 567,608
Claims priority, application Great Britain February 25, 1955
11 Claims. (Cl. 123—140)



1. A fuel injection pump for internal combustion engines having an adjustable device controlling the delivery of one or more pump members, and a displaceable pressure responsive member for controlling the adjustable device disposed in a housing and forming with said housing a first and a second pressure chamber on respective sides of said member, comprising in combination, means for supplying a substantially unrestricted flow of fluid under pressure to said first chamber, a servo-valve-controlled passage interconnecting said two chambers, a servo-valve therefor, a restricted passage for venting said second chamber, fluid pressurizing means responsive to the speed of said pump for providing fluid under pressure with the pressure varying as a function of said speed, and means coupling said pressurizing means to said servo-valve for applying a force thereto proportional to said pressure in a manner tending to change the position of said servo-valve, whereby the delivery of said pump members is controlled as a function of the speed of said pump.

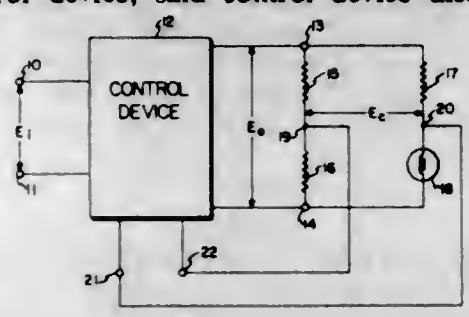
2,840,067

GLOW PLUG IGNITION SYSTEMS OR THE LIKE

David G. Carlson, San Fernando, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application September 23, 1954, Serial No. 457,878
6 Claims. (Cl. 123—145)

1. A glow plug ignition system including, in combination, a control device having first and second input terminals for coupling to a source of input voltage an input circuit coupled to said input terminals, first and second output terminals, and output circuit coupled to said output terminals, and first and second feedback terminals; first and second impedances coupled together in series between said first and second output terminals; a third impedance and a glow plug also coupled together in series between said first and second output terminals; the junction of said first and second impedances and the junction of said third impedance and said glow plug being coupled respectively to said first and second feedback terminals of said control device; said control device also including



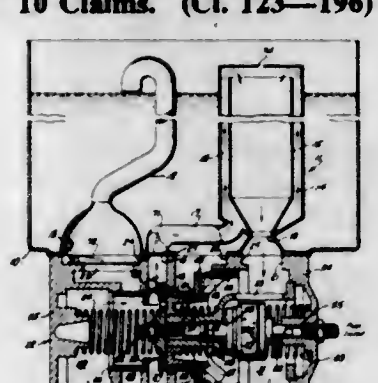
means coupled to said feedback terminals and responsive to voltages therefrom for varying the coupling between said input circuit and said output circuit of said control device.

2,840,068

OIL TANK WITH PRESSURIZED HOPPER

Harry T. Booth, Dayton, Thomas J. Lord, Middletown, and Paul R. Hughes, Englewood, Ohio, assignors to United Aircraft Products, Inc., Dayton, Ohio, a corporation of Ohio

Application December 20, 1956, Serial No. 629,566
10 Claims. (Cl. 123—196)



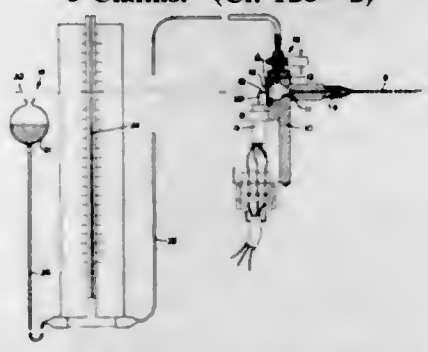
1. In an engine lubricant circulating system, a storage tank holding a lubricant supply, a hopper in said tank through which lubricant from the engine may be circulated in by-passing relation to the main body of lubricant in the tank proper, an outlet in common communication with the lower parts of the tank proper and said hopper, and means for pressurizing said hopper to maintain a pressure difference between said hopper and said outlet in excess of the pressure difference between the tank proper and said outlet.

2,840,069

PENETRATING INSTRUMENTS SUCH AS HYPODERMIC NEEDLES AND THEIR USE IN AN IMBIBITION PRESSURE METER

John Rupert Squire, Solihull, and David Stuart Rowe, Knowle, England, assignors to National Research Development Corporation, London, England, a British corporation

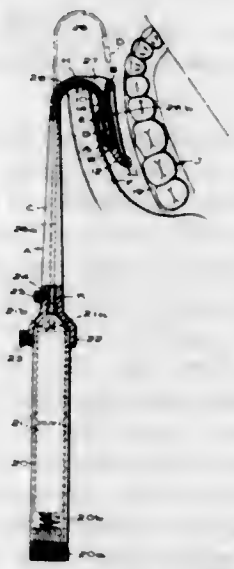
Application September 22, 1955, Serial No. 535,927
Claims priority, application Great Britain September 25, 1954
8 Claims. (Cl. 128—2)



3. A penetrating instrument comprising in combination a penetrating portion having an extremity pointed for in-

cision, and supporting means mounting said penetrating portion, the penetrating portion being composed of a tube of porous sintered metal the bore of which does not extend through the pointed extremity, the other end of the penetrating portion being adapted for engagement with the supporting means, and a part of the porous sintered metal adjacent the supporting means and extending slightly towards the pointed extremity being rendered impervious.

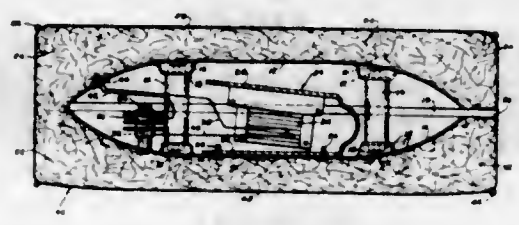
2,840,070
LIGHT-DIRECTING SURGICAL RETRACTOR INSTRUMENT
Benjamin F. Toffiemire, Lafayette, Calif.
Application March 9, 1956, Serial No. 570,498
2 Claims. (Cl. 128—11)



1. In a light-directing surgical retractor instrument: a spoon portion having a handle secured thereto to project therefrom; the spoon portion and handle providing a retractor which is engageable with a patient's tissue to retract the latter to expose an operative field; the spoon portion defining front and rear faces which are concave and convex, respectively; a socket provided in the spoon portion between these faces; a lamp mounted in the socket; the spoon portion being formed with an aperture in front of the socket and extending from the lamp to the front face of the spoon portion, with the aperture being positioned for the passage of light therethrough from the lamp to thereby illuminate the operative field forwardly of the front face of the spoon portion, while the tissue is held in retracted position; said aperture being funnel-shaped and flaring outwardly towards the front face of the spoon portion, with the peripheral wall of said aperture providing a protective guard in front of the lamp, which is disposed to prevent accidental breakage of the lamp in the event of an unavoidable impact in the course of operative procedure; and a reflector mounted in back of the lamp and being secured to the spoon portion to provide a closure over the aperture at the rear face of the spoon portion, thereby precluding the patient's tissue from being pressed into the aperture from the rear of the spoon portion.

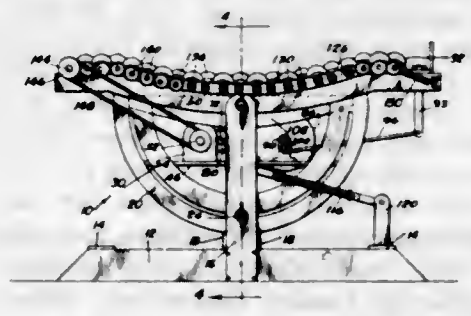
2,840,071
ELECTRICAL VIBRATING DEVICE IN COMBINATION WITH A CUSHION
Samuel L. McNair, Whitman, Mass.
Application November 25, 1957, Serial No. 698,795
6 Claims. (Cl. 128—33)

1. A vibrating cushion comprising, in combination, a flexible cover presenting a pair of outer surfaces, a resilient foam structure enclosed within said cover and formed by two substantially parallel foam cushion portions with inner surfaces in facing relationship and with outer surfaces in planar contact with said cover throughout the area of said outer surfaces thereof, and a vibration device positioned between said inner surfaces of said foam structure and including a first vibration transmitting member in contact with one of said inner surfaces of said foam cushion structure and a second vibration transmitting member in contact with the other of said inner surfaces of said foam cushion structure, said vibration transmitting members being in opposed relationship, said device also including means holding said vibration transmitting members in rigid predetermined opposing position with respect to each other whereby said vibration transmitting members vibrate in phase unison when vibrations are transmitted to one of them, said device



also including a vibration producing electric motor comprising a field coil and core assembly and also comprising a clapper having a portion thereof positioned to be magnetically attracted by, and biased against relative movement toward said coil and core assembly whereby upon energization of said coil relative motion takes place between said portion and said coil and core assembly, and said device also including means mounting said motor on one of said vibration transmitting members, whereby vibrations are produced by said motor and are transmitted by said vibration transmitting members through the respective foam cushion portions to the outer surfaces of said flexible cover.

2,840,072
MASSAGE BED
Austin J. Stearns, Seffner, Fla., assignor of one-half to Frank P. Ingram, Tampa, Fla.
Application August 24, 1954, Serial No. 451,937
14 Claims. (Cl. 128—57)

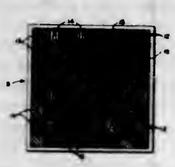


1. A massage apparatus comprising a stand, a pair of spaced frame support members pivotally adjustably secured to said stand, a platform secured to and extending between said support members, a frame carried by said support members, a pair of spaced side rails, means mounting said rails adjacent to the sides of said frame, a roller bed overlying and supported selectively by said frame and said side rails, and drive means connected with said platform and said roller bed for actuating said roller bed.

2,840,073
BINOCULAR VISUAL TRAINING DEVICE
Harry I. Zeltzer, Waltham, and Larry A. Siemon, Boston, Mass.
Application May 6, 1957, Serial No. 657,293
4 Claims. (Cl. 128—76.5)

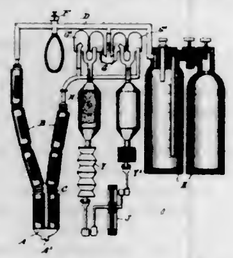
1. A device for aiding the learning of binocular vision, comprising a two-color game board comprised of colors A and black, game pieces of colors B and black, and at

least one pair of spectacles containing a transparent filter C for one eye and a transparent filter D for the other eye;



filter C substantially transmitting color B but not color A; filter D substantially transmitting color A but not color B.

2,840,074
APPARATUS FOR THE INHALATION OF GASES
Miguel Angel Loredo Serra, Havana, Cuba
Application May 12, 1955, Serial No. 507,936
Claims priority, application Cuba May 24, 1954
3 Claims. (Cl. 128—188)



1. In apparatus for the inhalation of gases comprising a closed circuit from which the outer atmosphere is excluded and within which the gas or gases are forced to circulate in a substantially continuous and uniform current by mechanical means included in the circuit, said circuit also including carbon dioxide absorbing means and a source of supply of the gas or gases to be inhaled, that improvement comprising a tubular breathing bag in said circuit and consisting of a plurality of rigid and relatively short tubular elements, a plurality of short and flexible connectors connecting said elements in series, each of said rigid tubular elements having a longitudinal portion of its wall perforated, a bellows within each of said rigid tubular member, said belows being open at the top and with its upper edges hermetically attached to said rigid tubular member so that said perforation in said rigid tubular member communicates the interior of the bellows with the external atmosphere, said tubular breathing bag also including a tubular member having a breathing passage located between its ends.

2,840,075
BLOOD TELLTALE SYRINGE
Morris Dann, Havertown, and John J. Peterson, Philadelphia, Pa., assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware
Application November 30, 1955, Serial No. 550,016
5 Claims. (Cl. 128—218)



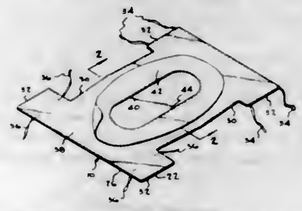
1. In an injection syringe cartridge comprising a transparent ampule adapted to contain an injectable drug, closed at its proximal end by a slidable plunger having a threaded connection for the push rod of a syringe and closed at its distal end by a fixed perforated stopper having a hollow injection needle fixed in its perforation and communicating at its proximal end with the interior of the ampule, said cartridge being adapted for both injection and aspiration, the improvement which comprises: an injection needle in the recited combination bent near its proximal end for a sufficient length and through a sufficient angle to bring its proximal end adjacent the wall of the ampule, whereby blood aspirated through the needle makes contact with the wall of the ampule and becomes visible therethrough.

2,840,076
SURGICAL INSTRUMENT FOR INTRADERMAL INJECTION OF FLUIDS
Noel Robbins, Chatham, N. J.
Application August 30, 1956, Serial No. 607,032
2 Claims. (Cl. 128—253)



1. A surgical instrument for intradermal injection of fluids comprising a tubular barrel handpiece having a smooth outer surface, a plurality of needles arranged in a row secured in a needle assembly and extending from said barrel, reciprocating means for the needle assembly carried by the barrel, a generally tubular finger piece overlying the barrel and having a smooth inner surface, a sheath extending from one end of the finger piece and having an elongated opening therein conforming to the shape of the needle assembly, the inner surface of the sheath being tapered towards its elongated opening, the smooth inner surface of the other end of the finger piece slideably receiving the smooth outer surface of the tubular barrel, and an adjustment screw threadedly engaged in the finger piece releasably locking the finger piece in position on the barrel and providing the sole means for adjustably securing the finger piece in position on the barrel, whereby the rotative and axial position of the finger piece may be adjusted with respect to the barrel to vary the effective length of the needle assembly, the tapered inner surface of the sheath cooperating with the row of needles to rotatively align the sheath in proper position even while the needles are being reciprocated.

2,840,077
COMBINATION CAST PROTECTOR AND DIAPER HOLDER
Willie A. Morgan, Lawton, Okla.
Application September 27, 1957, Serial No. 686,774
4 Claims. (Cl. 128—284)



4. A combination surgical cast protector and diaper holder, for application to a surgical cast having a trunk-encircling portion formed at its lower end with an opening, comprising: an cuter panel; an inner panel peripherally secured to the outer panel to cooperate with the outer panel in forming a cavity between the panels in which a diaper may be disposed, said inner panel having a centrally disposed opening adapted to be registered with that of the cast; and a protective flange secured to the inner panel in position extending about said opening thereof, so as to cooperate with the inner panel in embracing between them the portion of the cast that surrounds the cast opening, said outer panel including means at its opposite ends for connecting the ends of the outer panel together at opposite sides of the outer panel, in position receiving said trunk portion of the cast.

2,840,078
SANITARY NAPKIN AND HOLDER
Cuba I. Smith, China Lake, Calif.
Application August 9, 1955, Serial No. 527,295
1 Claim. (Cl. 128—290)



A holder for an insertable and removable sanitary disposable pad comprising an elongate fabric body having tapering elastic end portions and an intermediate portion fashioned into an open mouth pocket, the end portions of said pocket extending beyond the end portions of the fabric defining the mouth of the pocket to provide for reception and retention of corresponding end portions of the insertable and removable pad, said pocket being completely lined with a waterproof sheet material in a manner to adequately pocket and amply envelope the pad and to minimize undesirable seepage.

2,840,079
URINAL BAG
Thomas J. Conway and Alexander W. Keema, Wickford, R. I.
Application May 31, 1956, Serial No. 588,402
12 Claims. (Cl. 128—295)



1. A urinal bag comprising an elongated tubular waterproof receptacle having a diaphragm intermediate the ends of the receptacle providing upper and lower chambers, said diaphragm having openings therein, one of said openings being arranged for the passage of liquid from the upper to the lower chambers, a lip valve constructed to permit passage of liquid in one direction only controlling the said opening and arranged for the flow of liquid from the upper to the lower chamber and a tube extending upwardly from another one of said openings to a height to prevent liquid passing therethrough for the passage of air from the lower to the upper chamber as displaced by said liquid.

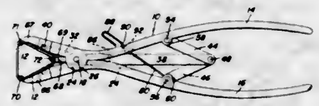
2,840,080
HYGIENIC PAD
Millard J. Clark, Seattle, Wash.
Application December 18, 1956, Serial No. 629,128
2 Claims. (Cl. 128—296)

1. A cleansing pad for use on the human body, comprising: a large sheet of light gauge wet-strength paper, which is folded once on its longitudinal median, each of the ends then being folded in toward each other and meeting on the transverse median of the sheet; said sheet thus forming a cleansing pad in which three of its margins present folded edges with only one margin presenting single-thickness plies; said pad wetted in a water solu-



tion containing 20% to 40% of propylene glycol; said pad, after being wetted, enclosed in an impervious transparent envelope having marginal collecting space for any of the water solution which may be pressed out of the pad momentarily; and a pocket carrier carton for enclosing a limited number of said pad-containing envelopes.

2,840,081
NAVEL CORD BANDER
Dale H. Moose, Port Lavaca, Tex.
Application February 5, 1957, Serial No. 638,271
5 Claims. (Cl. 128—303)



1. A surgical instrument for applying an elastic band to the navel cord of an infant, said surgical instrument comprising a pair of handles, means pivotally connecting said handles intermediate the ends of said handles, one pair of ends of said handles constituting jaws, band supporting and spreading fingers attached at approximately right angles to said jaws, a reciprocating arm, means attaching one end of said arm to said handles to reciprocate said arm in response to pivotal movement of said handles, said handles having grooves extending longitudinally therethrough in which said arm is disposed, and a finger at the end of said arm coacting with the first mentioned fingers to form a holder for the band, whereby said fingers are spread from each other simultaneously in response to pivotal movement of said handles in one direction.

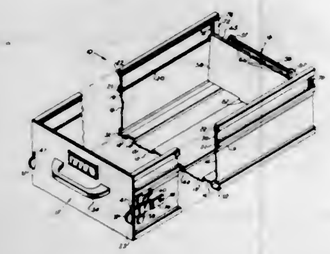
2,840,082
ELASTIC BAND EXPANDING DEVICE
Joseph E. Salvatore, Wildwood, N. J.
Application April 4, 1957, Serial No. 650,780
1 Claim. (Cl. 128—303)



An instrument for applying a resilient umbilical cord ligature, said ligature consisting of a band of latex tubing, comprising in combination two pivoted jaws, said jaws terminating in curved prongs adapted to be aligned contiguously through the action of a spring; said spring being fixedly attached at its lower end to one of said jaws and having its upper end free to move in a groove of second said jaw; finger holds actuating said jaws; a third jaw

adapted to undergo reciprocative movement between said pivoted jaws upon their divergence and approximation; a toggle joint actuating said third jaw and connected rotatably to said finger holds; said third jaw terminating in a curved prong adapted to make contiguous alignment with said prongs of said pivoted jaws; depressed surfaces disposed on upper ends of all said prongs, said depressed surfaces adapted to engage the lumen of said latex band, to retain said band thereon with all said jaws in contiguous relationship with one another, and to maintain said stretched band thereon when all said jaws are dispersed sufficiently to admit said umbilical cord within said stretched band.

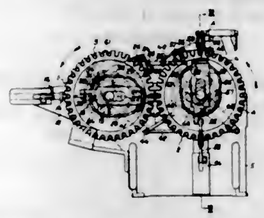
2,840,083
CARD CONTAINER
Harold B. Myers, Brooklyn, N. Y., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application September 1, 1954, Serial No. 453,630
3 Claims. (Cl. 129—16)



3. A container for cards and the like comprising a body portion having a base and sides defining a card pathway for loading and unloading cards, upper and lower parallel grooves extending along the inside of each of said container sides and connected by a third groove close to the rear of said container, the upper grooves being located above said card pathway, a front closure assembly supported in its closed position at the front of said container by pivots slidably guided in said upper grooves and having lateral projections adapted for slidable insertion into said upper grooves when said front closure assembly is in pivoted open position, a rear closure assembly mounted between said container sides and adapted for fore and aft movement along said container body having pivots slidably guided in said lower grooves in closed position and in said upper grooves in open position, and having lateral projections adapted for slidable insertion into said upper grooves when said rear closure assembly is in pivoted open position.

2,840,084
APPARATUS FOR SHAPING CIGAR BUNCHES OR THE LIKE
Karl Erik Granstedt, Stockholm, Sweden, assignor to Arenco Aktiebolag, Stockholm, Sweden, a Swedish joint-stock company
Application January 8, 1957, Serial No. 633,105
Claims priority, application Sweden, January 21, 1956
5 Claims. (Cl. 131—82)

1. An apparatus for shaping cigar bunches or the like comprising a carrier having an endless series of mould pockets adapted to receive the bunches and being movable to advance said pockets seriatim to a bunch delivery station, means for transferring the bunches seriatim from said delivery station, an ejector, means for periodically elevating said ejector into a top position to expel the bunches from said pockets and support them in a position from which they are transferred by said transferring means, and auxiliary means operatively associated with said ejector and said transferring means to remove remaining bunches from said ejector immediately before said ejector descends from its top position.



2,840,085
CIGAR OR THE LIKE AND METHOD OF MAKING THE SAME
Ernst Rolf Detert, Lubbecke, Westphalia, Germany, assignor to Firma Eduard Gerlach G. m. b. H., Lubbecke, Westphalia, Germany
No Drawing. Application September 28, 1955
Serial No. 537,303
9 Claims. (Cl. 131—140)

1. In a method of improving the color and burning characteristics of cigars and the like, the steps of treating the wrapper of a cigar or the like with a liquid colloidal system distributed therethrough at least one completely combustible coloring material adapted to color said wrapper and at least one ash-forming substance which upon burning forms a white ash; drying said wrapper treated with said colloidal system so as to cause adherence of said coloring material and said ash-forming substance to said wrapper, whereby said wrapper is given a desired color before the cigar or the like is smoked and whereby the ash of the cigar or the like upon smoking of the same is whitened; treating said wrapper with said coloring material and said ash-forming substance thereon with a solution of cellulose ethyl ether adapted to form a film upon drying; and drying said wrapper treated with said film-forming substance, thereby forming a film on said wrapper substantially covering said coloring material and said ash-forming substance.

2,840,086
HAIR WAVING METHOD AND NEUTRALIZING COMPOSITIONS
Ross Whitman, White Bear Lake, Minn., and Marion Den Beste, Prospect Heights, Ill., assignors to Rayette, Inc., St. Paul, Minn., a corporation of Minnesota
No Drawing. Application September 23, 1952
Serial No. 311,162
6 Claims. (Cl. 132—7)

1. A method of cold waving hair on the human head comprising softening the keratin of the hair at room temperature by applying thereto about 0.5 to about 3.0 N acid sulfite solution having a pH range from about 5.5 to about 7.5, and then setting the softened hair while deformed upon curling rods by applying thereto an aqueous acidic solution of hexamethylenetetramine.

2,840,087
HAIR SETTING COMPOSITION AND METHOD FOR USE OF SAME
Herman I. Hersh, Evanston, Ill.
No Drawing. Application December 19, 1952
Serial No. 327,030
4 Claims. (Cl. 132—7)

1. A stable aqueous composition for hair setting comprising water as the diluent and containing an amount ranging from 1–5 percent by weight of an organo silane

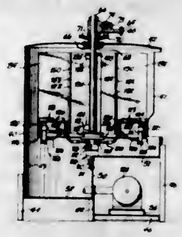
in a dissolved state in the aqueous medium wherein from one to three of the valence bonds of the silicon atom of the silane are satisfied by highly hydrolyzable ions selected from the group consisting of chlorine, bromine, methoxy, ethoxy and hydroxy ions with the remainder of the valence bonds being satisfied by an organic radical selected from the group of radicals consisting of methyl, ethyl, propyl, butyl, benzyl, phenyl, toluyl and naphthyl nuclei and in which ammonia is present in an amount to adjust the pH of the composition to between 7–10.

2,840,088
FINGERNAIL MASK
Arnold Kushner, New York, N. Y.
Application December 27, 1955, Serial No. 555,605
7 Claims. (Cl. 132—88.5)



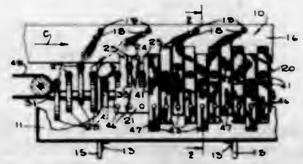
1. A finger nail mask having an upper plate with a plurality of spaced openings to form masks for the finger nails, and a lower plate to support the fingers against said openings, resilient cushioning means positioned between the central portions of the plate and a connection between said plates extending through the cushioning means and compressing said cushioning means between the plates.

2,840,089
CONTAINER WASHING MACHINE
Francis S. Faust, Buffalo, N. Y., assignor to R. G. Wright Company, Inc., Buffalo, N. Y., a corporation of New York
Application November 13, 1956, Serial No. 621,951
13 Claims. (Cl. 134—81)



1. In apparatus for washing, rinsing and draining containers having one end head provided with a cleanout opening and with at least one outwardly projecting nipple having a spring loaded valve head seating outwardly against an external end opening and having means adapted to anchor a fitting applied to said nipple, comprising a casing, a rotary carrier arranged in said casing to rotate about a central vertical axis and including an annular peripheral series of container holders each adapted to support one of said containers with said one end head at the bottom, a tubular ring fast to each of said container holders and having a vertical bore arranged to aline with the nipple of the container so supported, a vertical sleeve loosely arranged in said tubular ring and slidable vertically therein, said sleeve being adapted to fit against said nipple and having means arranged to attach to said anchor means to said nipple and having means arranged to engage and unseat said valve head, a flexible conduit leading to each sleeve, and valve means actuated in response to the movement of said carrier and successively supplying rinse and wash water to said flexible conduit.

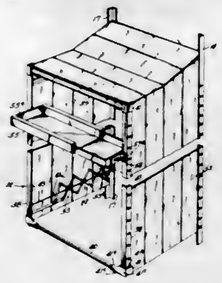
2,840,090
CONVEYOR
John A. Bradford, Wenatchee, Wash., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application April 22, 1954, Serial No. 424,863
18 Claims. (Cl. 134—151)



1. An article conveyor comprising a plurality of article supporting rods, means moving said rods for imparting a wave-like motion to the article contacting surfaces of the rods to advance the articles thereon, and article contacting means supported by the rods for movement therewith to direct the movement of articles advanced by the rods.

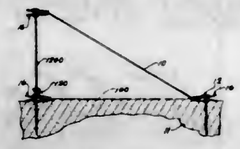
17. In an article washer including a frame having spaced side walls, a plurality of transversely extending parallel rods projecting through apertures in the side walls, means supporting the rods for vertical reciprocation in a wave-like relationship for advancing articles resting on the rods, means for deluging articles on the rods with liquid, and a tank beneath the rods for receiving the liquid deluged on the articles; the combination therewith of vertical article deflectors supported on the rods for movement therewith, one end of said deflectors extending into the tank at all times and the other end extending above the upper edge of the apertures in the side walls at all times to direct the deluging liquid into the tank.

2,840,091
NON-SAGGING LOADING DOCK CANOPY FRAME
Errol P. D'Azzo, Brooklyn, N. Y.
Application July 16, 1952, Serial No. 299,205
4 Claims. (Cl. 135—5)



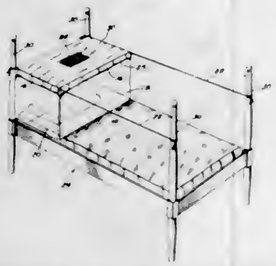
1. In combination, a means for supporting a canopy from the side portions of a doorway; the means comprising a pair of vertically spaced apart lazy tong arms on each side of the doorway, each arm consisting of an upper first link with one end pivoted to the support, a lower second link, a short third link, the lower second link and the short third link having a common pivot connection with the support, a fourth link pivoted to the outer end of the short third link, and a fifth link pivotally connected with the outer end of the second link and an outer portion of the fourth link, an inner end portion of the fifth link having a sliding and pivotal connection with the first link so that each lazy tong arm can be extended and retracted and thus extend and retract the canopy supported thereby.

2,840,092
BEACH PINS
Edward J. Hill, Birmingham, Mich.
Application February 1, 1955, Serial No. 485,514
1 Claim. (Cl. 135—5)



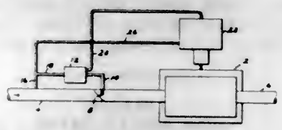
In combination, a beach cloth and a plurality of beach pins not less than four employable for holding said beach cloth spread upon the sand, said beach pins each comprising a pointed stake, an enlarged spool type pressure head fixed on said stake onto which pressure is applied to press said stake into the sand, a limit disc fixed on said stake in spaced relationship below said pressure head limiting the extent to which said beach pin may be pressed into the sand, and beach pin clamp means including levers adapted to releasably engage said beach cloth rotatably impaled through said levers on said stake between said pressure head and said limit disc, at least two of said beach pins having a socket formed in the pressure head thereof to telescopingly receive the extension pin of an extension pin element, and an extension pin element including an extension pin of substantial length having a lower end adapted to telescope into the said socket in the pressure head of said beach pin, a pressure head fixed on the top of said extension pin, a limit disc fixed on said extension pin in spaced relationship below said pressure head thereon, and an extension pin clamp means at the top of said extension pin element for releasably engaging said beach cloth to hold a side thereof in an elevated position, said extension pin clamp means being rotatably impaled on said extension pin between the pressure head and the limit disc thereof.

2,840,093
TENT
Ingram Roe Matthews, Springdale, Ark.
Application July 13, 1955, Serial No. 521,859
1 Claim. (Cl. 135—5.1)



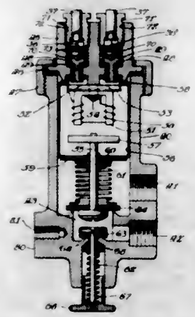
A vapor controller tent for controlling vapor conditions in an infant's crib, comprising a rectangular top panel of porous cloth, four rectangular side panels of transparent non-porous plastic material, each of said side panels being zig-zag stitched only at its top edge to its respective edge of said top panel, the side edges and the bottom edge of each of said side panels being free of connections to provide corner openings for air and vapor flow, and elastic cords extending from the corner portions of said top panel for attachment to the crib, the four edges of said top panel extending downwardly about three inches on all sides to provide a top enclosing cover of porous material, each of said side panels being independently adjustable to control the degree of enclosure of said tent.

2,840,094
SPEED CONTROL SYSTEM
John F. Taplin, West Newton, Mass., assignor to Fairchild Engine and Airplane Corporation, Bayshore, N. Y., a corporation of Maryland
Application August 1, 1955, Serial No. 525,760
11 Claims. (Cl. 137—29)



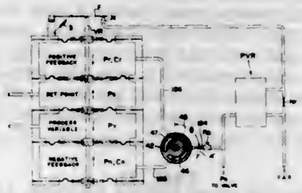
1. A system for regulating the speed of a prime mover having a means for controlling the flow of fluid to the prime mover from a source of fluid under pressure, comprising a speed responsive means driven by the prime mover for producing a control pressure responsive to the speed of the prime mover and a differential pressure responsive means for actuating said flow controlling means responsive to said control pressure and variably responsive to a pressure proportionate to the pressure of the fluid from said source upstream of the flow controlling means whereby the actuating means operates the flow controlling means a small amount in response to a given change in said control pressure when the pressure proportionate to the upstream pressure is large and a large amount when the pressure proportionate to the upstream pressure is small.

2,840,095
BURNER CONTROL SYSTEM
John H. Thornbery, Whitefish Bay, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Continuation of application Serial No. 771,900, September 3, 1947. This application October 23, 1953, Serial No. 388,039
5 Claims. (Cl. 137—66)



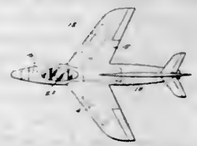
1. In combination, electrically operated control means, a housing enclosing said control means, a terminal connector on said housing having a pair of contact heads connected to said control means. a plurality of threaded openings in said terminal connector having their axes in alignment with said contact heads and at least one of said openings being aligned with one contact head for connecting one side of said control means to one side of a power source through concentric leads and at least one other of said openings being in alignment with said other contact head for connecting the other side of said control means to the other side of said power source through concentric leads.

2,840,096
PRESSURE DIVIDING APPARATUS
Robert Clark Du Bois, Fairfield, Conn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 14, 1955, Serial No. 501,225
15 Claims. (Cl. 137—86)



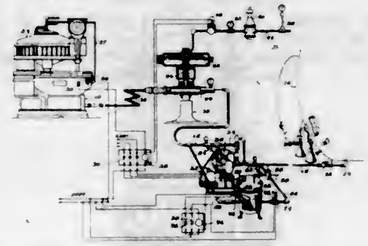
9. A pressure dividing means for altering the fluid pressure in a negative feedback chamber of an elastic-fluid-pressure-actuated controller without varying the lag between the controller's output control pressure and the pressure in a positive feedback chamber of said controller during sudden changes in the magnitude of an input fluid pressure acting on said controller comprising, two members, one of said members having a first port connected to the output control pressure of said controller, a port connected to said positive feedback chamber of said controller on one side of said first port and a port connected to said negative feedback chamber on the other side of said first port, said other member having a groove of circular horseshoe configuration in rotatable alignment with said ports on one of its faces, a means for rotating said other member with respect to said first mentioned member, said groove having a shallow restricting portion between the lower portion of the legs of the groove covering and on each side of said first port, means for biasing said members in close proximity with one another, said rotating member being operable to reduce the amount of shallow restriction between said first port and said port in said member connected to the negative feedback chamber while simultaneously increasing the amount of shallow restriction between said first port and said port connected to the positive feedback chamber.

2,840,097
TANK LEVEL EQUALIZER
Thomas P. Farkas, Bloomfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application December 30, 1953, Serial No. 401,327
22 Claims. (Cl. 137—98)



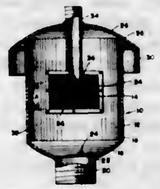
2. Means for regulating fluid flow from a plurality of simultaneously discharging tanks comprising means creating a signal for each tank varying with the liquid level in the respective tank, means producing a reference signal from said created signals, means connecting a created signal with said reference signal including means producing a resultant signal indicating departure of said created signal from said reference signal, flow control means for each tank, means connecting the resultant signal and the flow control means of each tank including means actuated by the resultant signal for actuating its connected flow control, means to regulate the flow from its associated tank to equalize the fluid level in the associated tank with the fluid level in other tanks.

2,840,098
LIQUID FILLING SYSTEM
Rudolph Henry Breeback, Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application November 25, 1953, Serial No. 394,314
15 Claims. (Cl. 137—170.1)



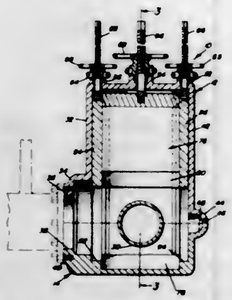
14. A filling system of the class described comprising a storage tank having a carbonated liquid therein, a filling machine having a reservoir for receiving the carbonated liquid from said storage tank, said carbonated liquid in the reservoir being under a superposed body of gas at a predetermined pressure, a pump having its inlet connected to said storage tank, and a non-fluctuating restriction having its inlet connected to the outlet of said pump and its outlet connected to the inlet of said filling machine, said pump cooperating with said restriction to establish a flow of liquid from the pump to the restriction at a substantially constant pressure.

2,840,099
WATER-LINE BREAKER
Halworth T. Brazier, Chicago, Ill.
Application November 2, 1955, Serial No. 544,395
1 Claim. (Cl. 137—216)



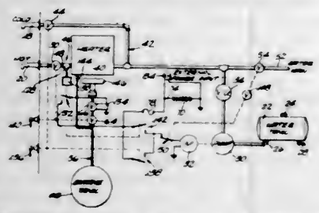
A water-line breaker for industrial use comprising an inlet pipe, a vertically disposed cylindrical housing enclosing a downwardly discharging open end of said inlet pipe and having an outlet opening axially aligned with and spaced beneath said open end of said inlet pipe, the upper extremity of said cylindrical housing being provided with an axially apertured hood arranged to accommodate said inlet pipe, said housing having a diameter of at least six times the diameter of said inlet pipe, the lower extremity of said cylindrical housing being dished and having said axial outlet opening therein, said outlet having a diameter substantially three times the diameter of said inlet pipe but less than the area of said housing, said cylindrical housing being provided with at least one overflow opening arranged substantially medially therein, and having a total overflow discharge area of at least five times the area of said inlet pipe, the plane of the open end of said inlet pipe being at an angle of substantially forty-five degrees with the axis of said pipe with the lower extremity thereof terminating above the medial area of said cylindrical housing with the open end thereof directed away from the opening in said housing, and said inlet pipe being integrally attached to said housing wherefore its open end is in permanently fixed relation with said overflow opening.

2,840,100
PIPE LINE TAPPING ASSEMBLY
Joe B. Stephenson, Edna, Tex., assignor of ten percent to William H. Hamblen and W. T. McNeil, both of Edna, Tex.
Application August 24, 1953, Serial No. 375,916
6 Claims. (Cl. 137—318)



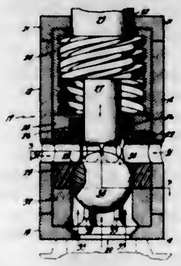
1. A valve device comprising a housing having upper and lower sections removably secured together, said upper and lower sections each having opposite end walls having cut-away portions for receiving a pipe line, said upper section including a top wall and side walls and shelves projecting inwardly of its end walls below said top wall, said shelves have spaced opposed edges, said lower section having a bottom wall and side walls, said lower section and said upper section side walls having cut-away portions cooperating to define apertures for the reception of a tool for cutting away a section of pipe within said housing, a first and a second valve plate slidably mounted in said housing for movement above and below said shelves, said valve plates being disposed in parallelism with the side walls of said housing, a third valve plate slidably disposed between and transversely of the first and second valve plates and including an enlarged upper head portion engageable with the opposed edges of said shelves, means connected with said valve plates to move the latter, whereby the first and second valve plates are movable to positions sealing off the apertures in said side walls and said third valve plate is movable to a position sealingly engaging said first and second valve plates and said shelves and the bottom wall of said lower section to block flow through the pipe line.

2,840,101
PLUMBING SYSTEM
Arthur D. Saylor, Los Angeles, Calif.
Application November 23, 1956, Serial No. 623,757
17 Claims. (Cl. 137—335)



1. A plumbing system comprising: a reservoir to hold water, pump means connected from said reservoir to maintain a substantially constant outlet pressure regardless of demand, a first valve connected from said pump means to permit flow of water only out of said reservoir, an alternative inlet having means to close it connected to the output side of said first valve, an electric motor to drive said pump means, a source of potential, means including an electric switch to connect said source to said motor, a tank to hold combustible gas, a hot water valve, a flash water heater having a conduit therein connected from the output side of said first valve to said hot water valve, a hot water outlet connected from said hot water valve, a cold water valve, a cold water conduit connected from the output side of said first valve to said cold water valve, a cold water outlet connected from said cold water valve, said flash water heater having a main burner inlet and a pilot light burner inlet, a gas valve connected between said tank and said main burner inlet, said pilot light outlet being connected to said tank through a pilot light conduit separate from said gas valve, and manually operable means to open and close said gas valve.

2,840,102
REPLACEMENT UNIT VALVE DEVICE, ADAPTED FOR USE IN FAUCETS, OR THE LIKE
Herbert M. Richter, North Bergen, N. J.
Application August 11, 1954, Serial No. 449,185
1 Claim. (Cl. 137—454.6)

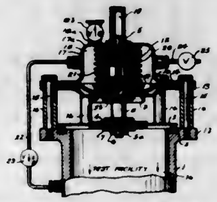


In a valve device, comprising a replacement unit adapted for use in a faucet, said device constituting a cylindrical casing; a water-cap at one end of said casing, having a hole therethrough for the flow of water into said casing; a stem-cap at the other end of said casing, having a hole therethrough for a valve-stem; and including the following structure sealed within the confines of said casing: an internally threaded bushing adjacent said stem-cap; a recessed, annular retaining disk; a resilient O-ring seated within said recessed disk; a valve-stem projecting through the hole in said stem-cap, and having a threaded stem portion in engagement with said threaded bushing, passing through said disk and O-ring, and being embraced by the latter; an aperture valve-disk adjacent said recessed disk, having a valve-seat penetrable by said valve-stem portion; radial passageways through said valve-disk, and said casing, and communicating with the aperture therein; a guide sleeve, between said valve-disk and water-cap, having spaced-part, vertically arranged guideways for a ball-valve, and providing passageways for the flow of water therebetween and said ball-valve, through said valve-seat, radial passageways and faucet; and a freely rotatable ball-valve for said valve-seat, reciprocably actuatable in one direction along said guideways by said valve-stem portion when rotated to move said ball away from said seat to allow water to flow through said faucet, and in an opposite direction by water pressure against said seat when said stem portion is reversed, thereby to check the flow of water from said faucet.

2,840,103
EXPLOSION RELIEF VALVE
Carl W. Gerhardt, Dayton, Ohio
Application December 28, 1954, Serial No. 478,218
15 Claims. (Cl. 137—467)
(Granted under Title 35, U. S. Code (1952), sec. 266)

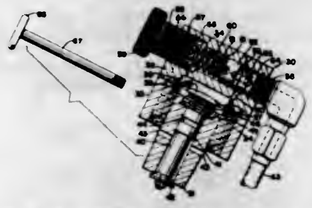
1. In combination with a test facility adapted to be subject to a sub-atmospheric pressure, an exhaust port in communication with the interior of said test facility to

open said test facility to atmosphere, a valve seat surrounding said exhaust port and facing outwardly away from the test facility, a poppet valve seated on said valve seat and movable outwardly from said seat to open said exhaust port to atmosphere, a plurality of spacer supports projecting outwardly from said test facility in radially spaced relation around the periphery of said poppet valve and seat to provide exhaust passages therebetween from said exhaust port when said exhaust valve is open, a closed diaphragm chamber fixed on said supports in outwardly spaced relation to said valve seat and facility having a flexible diaphragm facing said poppet valve to form a movable wall for said diaphragm chamber, an actuating connection between said diaphragm and said poppet valve



to effect simultaneous movement therebetween, the effective area of said poppet valve when seated on said valve seat exceeding the effective area of said flexible diaphragm, whereby equal reduction of pressures within the test facility and within said diaphragm chamber causes said poppet valve to be held on said valve seat by atmospheric pressure and a predetermined increase in sub-atmospheric pressure in said test facility over the sub-atmospheric pressure in said diaphragm chamber causes the atmospheric pressure against said diaphragm to unseat said valve to open said test facility to atmosphere, a suction conduit connected between said diaphragm chamber and said test facility, and a check valve in said suction conduit opening toward said test facility.

2,840,104
PRESSURE RELIEF VALVE
Homer J. Shafer, Mansfield, Ohio, assignor to Shafer Valve Company, Mansfield, Ohio, a corporation of Ohio
Application August 3, 1953, Serial No. 372,042
2 Claims. (Cl. 137—491)



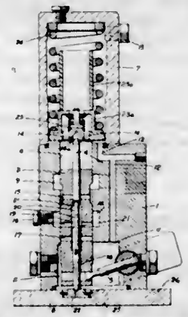
1. In a pilot valve assembly including upper and lower mating blocks forming a chamber therebetween and means clamping a diaphragm traversing said chamber and forming upper and lower parts between the blocks, a first pilot valve in the lower block having an element extending into the lower part of said chamber, a spring urging said element against the diaphragm normally to hold said valve closed, said upper block having a transverse passageway, a conduit connecting one end of said passageway with a source of pressure, a port connecting the side of said passageway to the upper part of said chamber, a bleeder connecting said upper chamber part with the atmosphere, a second pilot valve axially movable in said passageway normally closing off said conduit and said side port and adapted when fully opened to uncover said port, said conduit having a valve seat of substantially less area than said second pilot valve to cause a snap opening of the valve to fully open position, and adjustable spring means normally holding said second pilot valve closed.

2,840,105
VENTING DEVICE
James H. Routledge, Bellwood, Ill., assignor of forty percent to George C. Powell, Bellwood, Ill.
Application November 18, 1954, Serial No. 469,778
3 Claims. (Cl. 137—493)



1. A two-way valving and venting device for a liquid container comprising a hollow head having air intake and discharge orifices and an axially bored attaching neck the bore of which is in communication with the hollow portion of said head and consequently said orifices, a rigid lug having an end portion fixed to a predetermined portion of the wall of said bore, projecting radially into said bore and having a port, a flexible pressure responsive flap valve extending transverse of and cooperating with said bore in a manner to control flow of fluid through the bore and having a portion only of its periphery attached to a cooperating wall portion of said bore and a free peripheral portion opposite said attached portion and underlying and normally closing the port in said lug, whereby the free end of said flap valve can flex in a direction longitudinally of the port to open said port to allow flow of air through the bore in one direction and can also flex in the opposite direction in a manner to slide said free end radially of said port to also open said port and thus allow flow of air in said opposite direction.

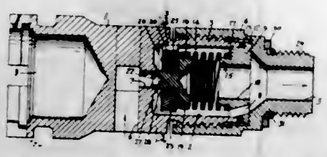
2,840,106
HYDRAULIC VARIABLE PRESSURE RELIEF VALVES
Frank Hathorn Towler, Rodley, and John Maurice Towler, Dob Park, near Otley, England, assignors to Electraulic Presses Limited, Rodley, England, a limited-liability company
Application August 13, 1953, Serial No. 373,972
Claims priority, application Great Britain August 22, 1952
4 Claims. (Cl. 137—538)



3. A hydraulic relief valve comprising, in combination, a valve body having a bore with inlet and outlet passages opening thereto, a sleeve member slidably fitted in said bore having radially disposed ports open to the respective passages, a valve spindle reciprocable in said

sleeve member between open and closed positions to establish or interrupt communication between said passages by way of said ports, said spindle having one end exposed to the pressure at the inlet passage and tending to shift it toward open position, spring means interposed between the valve body and the other end of said spindle to resist movement to open position, and means for shifting said sleeve member along said bore and relative to said spindle to determine the pressure at the inlet passage required to overcome the force of said spring means and effect movement of the valve spindle to open position.

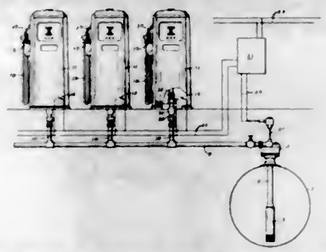
2,840,107
VARIABLE AREA SCHEDULING VALVE
John F. Campbell, Euclid, Ohio
Application January 31, 1955, Serial No. 484,989
3 Claims. (Cl. 137—540)



1. A variable area metering valve comprising two cylindrical body members axially threadedly joined together to provide a chamber having a cylindrical bore, an axial inlet passage to such chamber in one said member of substantially less diameter than such bore of such chamber, an axial outlet passage in the other said member, a spring seat member having a peripheral flange secured between the inner threaded end of one said body member and a shoulder in said other body member adjacent such outlet passage, symmetrically disposed passages through said seat member placing such chamber and outlet passage in communication, an axial pilot boss on said seat member, a valve needle member in such chamber having a body portion and a somewhat more narrow needle portion adapted to engage and close the exit end of said inlet passage to such chamber and an axial boss extending toward said boss on said seat member, a unitary compression spring member interposed between said needle member and said seat member having integral cylindrical end portions closely fitting said respective bosses, said spring member comprising a plurality of spring coils joined to said end portions at uniformly circumferentially spaced points to ensure compression and extension without tendency to cant, said needle portion including an axial cylindrical portion, and a baffle member press-fitted within such bore of such chamber provided with a central bore through which said cylindrical portion of said needle portion extends with sufficient clearance to admit a thin film of liquid therebetween, said baffle member having passages therethrough to admit fluid flow from said inlet passage to such chamber on the other side of said baffle, said spring being compressed normally to hold said needle in engagement with said inlet passage with the body of said needle member spaced from said baffle.

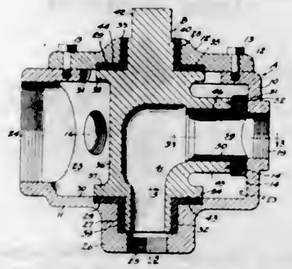
2,840,108
SAFETY DISCONNECT VALVE WITH SWIVEL JOINTS
Joseph D. Clymer, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana
Application November 1, 1955, Serial No. 544,224
4 Claims. (Cl. 137—565)

1. In a liquid dispensing system comprising a tank, a delivery pipe having a number of rigid branch pipes, connected to withdraw liquid from the tank and discharge it under pressure into said delivery pipe and branch pipes, a number of dispensing pedestals each having a rigid inlet pipe and a switch connected to start and stop said motor pump, the improvement which includes a valve body defining a valve port, a universal joint connecting a valve body to each branch pipe, valve means disposed in said body for movement with the flow of liquid therethrough to close said port, yieldable means for urging said valve means closed, a cylinder defined by said body outwardly of said port, a piston sealingly mounted for reciprocation in said cylinder toward and away from said port and defining an outlet passage, a hollow universal joint connected to said piston and to the inlet pipe of a pedestal,



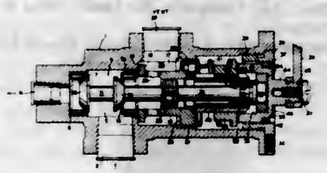
said piston having a normal position adjacent the port and being movable away from said port by lateral displacement or tipping of said pedestal relative to said branch pipe and means on the piston and engageable with said valve means in the normal position of the piston, for holding said valve means open and movable away from said valve means with said piston to permit closing of the valve means, when said piston is displaced from its normal position, so as to prevent the discharge of liquid from the associated branch pipe even though a pedestal switch is closed, said yieldable means serving to close and hold said valve closed independently of the operation of said motor pump.

2,840,109
ROTARY SELECTOR VALVE
Elbert R. Wadleigh, Culver City, Calif., assignor, by mesne assignments, to Win-Well Manufacturing Company, Tulsa, Okla., a corporation of Delaware
Application February 25, 1957, Serial No. 641,917
10 Claims. (Cl. 137—625.11)



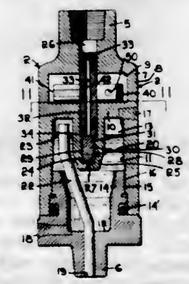
1. In a rotary gathering and sampling selector valve for merging all but a selected one of a multiplicity of inflows into a common service outflow while simultaneously segregating said one inflow and directing it separately through the valve to provide a sampling outflow, in combination: a casing having opposed interior end walls and an interior lateral wall cooperatively defining a valve chamber having a cylindrical bearing wall constituting at least a portion of said lateral wall, having a rotor axis to which said cylindrical bearing wall is concentric, having a multiplicity of radial inlet ports opening into said chamber through said cylindrical bearing wall and entirely surrounded thereby, having a relatively large radial service outlet port in said lateral wall, said outlet and inlet ports being spaced circumferentially about said lateral wall, and said casing having a sampling outlet port extending axially from one of said end walls, having a counterbore in the inner portion of said outlet port, and having a valve stem bore extending axially from the other of said end walls, said bore and counterbore being in axially opposed relation, centered on said rotor axis, and each having at its inner end a flat shallow counterbore disposed at the plane of the respective end wall; a pair of opposed gaskets of yieldable, resilient, wear resistant material, including respective cylindrical skirts in lining relation to said bore and counterbore respectively, and respective radial flanges projecting outwardly from the inner ends of the respective skirt portions and seated in said shallow flat counterbores respectively; a rotor of T-form, including a central body portion having axially opposed heads provided with respective end bearing shoulders seated against said radial flanges respectively and thereby sealed to the respective end walls of said casing, including respective end trunnions projecting axially beyond said heads and received in the respective gasket skirts, and including a lateral arm projecting radially from said central body and terminating in a bore having a smoothly finished cylindrical internal wall; said rotor having a transfer passage of elbow form, with one end thereof extending axially through one of said trunnions and communicating with said sampling outlet port, and with its other end joined to said lateral arm bore, the other of said trunnions being closed, and said rotor further including an actuating stem integral with and projecting from said other trunnion, journalled in the skirt of the adjoining gasket, and extending externally of the casing for actuation of the valve; an annular seal of yieldable, resilient, wear resistant material defining in said rotor a receiving port adapted to selectively communicate with one of said inlet ports, said seal including a cylindrical skirt received in said lateral arm bore and fitted to said cylindrical wall thereof in sealing engagement therewith, and a head projecting radially outwardly from the outer end of said skirt and having a segmental-cylindrical end face conforming to and seated against said cylindrical wall of the casing to seal said receiving port to the selected inlet port.

2,840,110
POSITIVE ACTION BUILD-UP AND VENT VALVE
Darrell E. Parsons, Davenport, Iowa, assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application March 15, 1955, Serial No. 494,483
3 Claims. (Cl. 137—625.27)



1. A valve comprising a housing, a valve seat, an elongated valve stem threaded in the housing for axial movement, a valve head on the stem movable into and out of engagement with the seat by axial movement of the stem, a sleeve member splined for axial movement on an end portion of the valve stem, a lever mounted on and extending radially from the sleeve member externally of the housing for turning the sleeve member and the associated valve stem together in either direction, bearing means in the housing engaging the sleeve member, said sleeve member having an annular shoulder at the outer end thereof butting against said bearing means, arranged to restrain outward axial movement of the sleeve member, a fixed elongated hollow member mounted on the housing in axial alignment with the sleeve member, a collar splined for axial movement on the hollow member and having a cam end face arranged to mate with a complementary cam end face on the sleeve member, and spring means bearing against the collar arranged to bias the cam face of the collar against the sleeve member, thereby biasing the shoulder of the sleeve member against the bearing means.

2,840,111
DAMPENER AND FLOATING BARRIER SEAL
Ralph Lynn Kerr, Columbus, Tex.
Application July 16, 1953, Serial No. 368,428
4 Claims. (Cl. 138—26)



1. A pulsation dampener for pressure gauges comprisa body, there being a liquid reservoir in said body, a liquid in said reservoir, there being an inlet in said body for conducting pressure impulses to said reservoir, there being an outlet communicating with said reservoir for conveying the effect of the pressure impulses therefrom, and means cooperating with the reservoir for dampening the pressure impulses, said last mentioned means including a threaded area in the outlet communicating with said reservoir, a restrictor within said outlet, and threads on said restrictor engageable with the threaded area in the outlet to form a restriction in the outlet, and a passage through said restrictor for communicating the restriction in the outlet with the pressure gauge.

2,840,112
CHECK RETURN FITTING
David Robert Yarnall and Walter J. Kinderman, Philadelphia, Pa., assignors to Yarnall-Waring Company, Philadelphia, Pa., a corporation of Pennsylvania
Application November 4, 1954, Serial No. 466,714
9 Claims. (Cl. 138—43)



1. A check return fitting for fibrous plastic packing to be introduced into a packing space, which fitting comprises a thimble having an elastic metal wall, a slit through said wall and a thimble cavity, said cavity accommodating a supply of the fibrous packing under pressure, and said slit having a width of between 0.030 inch and 0.125 inch and a length of at least five times the width, a face of said thimble having an area large enough and so disposed with respect to said slit that force of the pressure of said fibrous packing material received by said area elastically deforms said metal thimble wall until said slit is widened at least 0.1 percent for the fibrous packing to pass plastically through said slit into the packing space, the width of said slit being diminished by said thimble elastically taking a less distended position

when said thimble is relieved of pressure of the fibrous packing in said thimble cavity, said thimble thus resisting back flow of said plastic material from the packing space.

2,840,113
END CAPS OR CLOSURES FOR TUBULAR MEMBERS
John Simpson, Old Basford, and Leslie Parkin, Bobbers Mill, England, assignors to United-Carr Fastener Corporation, Cambridge, Mass.
Application May 5, 1955, Serial No. 506,282
Claims priority, application Great Britain May 6, 1954
1 Claim. (Cl. 138—89)



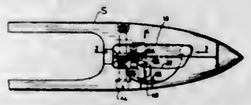
An end cap or closure for a tubular member comprising a cap member and a resilient attaching member secured therein and projecting therefrom, the cap member having a cup-shaped body with a closed end and an upstanding peripheral wall extending axially therefrom providing an annular face, the peripheral wall including adjacent said annular face inner and outer concentric annular ring portions defining therebetween an annular recess in said annular face, said resilient member having one end adapted resiliently to engage the interior surfaces of such a tubular member and an opposite end in resilient engagement in said end cap member, said resilient member having a circumferential groove intermediate said ends, and said inner ring portion being swedged into said circumferential groove to secure said end cap member to said resilient member.

2,840,114
LOOM HARNESS
Everett E. Sides, Greenville, S. C., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a corporation of Pennsylvania
Application September 1, 1955, Serial No. 532,009
4 Claims. (Cl. 139—96)



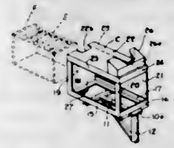
1. In loom harness, in the use of which the entering is done by automatic drawing-in machines having means for separating the heddles step by step, and in which loom harness the heddles are alternately of different forms in their proper disposition for the separation of the heddles by the separating means of the drawing-in machines, the means for visually indicating improper pairing of the heddles which comprises having, other than the form differences which are provided for the separation of the heddles, a visible end portion of each of the heddles of one form of a different shape from that of the corresponding end portion of each of the heddles of the other form.

2,840,115
SELF-THREADING SHUTTLE EYE
Howard S. Pellatt, Saylesville, R. I.
Application March 18, 1957, Serial No. 646,883
3 Claims. (Cl. 139—223)



1. In a loom shuttle, a self-threading shuttle eye comprising a body having a longitudinally-disposed thread passage with a longitudinal slot overlying said passage and communicating therewith, said body having a substantially flat upper surface and having an upper thread-guiding and retaining member overlying said flat upper surface and closely adjacent thereto and of substantial width and providing a relatively wide but vertically-restricted entrance thread passage.

2,840,116
QUILL FEEDING APPARATUS
Dixon F. Pearce, Greenville, and Ray L. Freeman, Roebuck, S. C.
Application September 13, 1956, Serial No. 609,753
2 Claims. (Cl. 139—245)



1. Apparatus for receiving an open top quill box carrying a plurality of full quills and for storing said quills in stacked relation above and adjacent the battery of a loom including, a substantially rectangular elongated frame adapted to receive said quill box, a quill discharge portion carried adjacent one end of said frame, a quill passageway between said frame and said quill discharge portion, means supporting said frame in a substantially horizontal position, and means pivotally attaching said frame to said means supporting said frame, whereby said frame may be tilted to a substantially vertical position so that the quills may be gravity fed into said discharge portion.

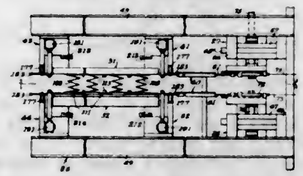
2,840,117
METHOD OF SELVAGE AND SEAM MANUFACTURE AND PRODUCTS THEREOF
Thomas M. Scruggs, Richmond Heights, Mo., assignor to Bemis Bro. Bag Company, St. Louis, Mo., a corporation of Missouri
Application May 21, 1954, Serial No. 431,513
6 Claims. (Cl. 139—383)



1. A leno-woven open-mesh web in which each of the two warp elements on opposite sides of a warpwise line

on which the web is to be cut includes two principal warp strands and at least one auxiliary strand of a material adapted for adhesion to the warp and filler strands of the web, said auxiliary strand being of a smaller diameter than said principal warp strands and being woven into the web coincident with one of said two principal warp strands so that it follows the same pattern as said one principal warp strand throughout the length of the web and lies contiguous to said one principal warp strand throughout the length of the strands.

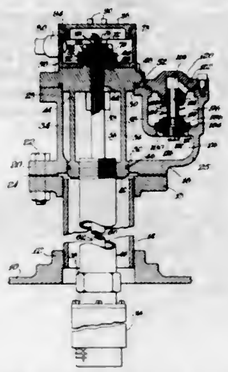
2,840,118
WIRE CRIMPING AND CUTTING MECHANISM FOR BED SPRING MACHINES
Charles H. Gail, Los Angeles, Calif., assignor to Spring Machinery Company, Los Angeles, Calif., a corporation of California
Original application October 26, 1948, Serial No. 56,635, now Patent No. 2,663,038, dated December 22, 1953. Divided and this application May 24, 1952, Serial No. 289,860
13 Claims. (Cl. 140—92.8)



2. In a machine for producing bed springs formed of rows of spring coils and helices connecting adjacent portions of the upper and lower turns of the spring coils of adjacent rows, said machine including two separate helix-forming and helix-feeding devices, a common drive for said devices to simultaneously form first and second helices from a straight wire stock, and to feed said helices along two parallel paths to connect first and second adjacent rows of spring coils, said drive including a normally open first clutch, first means for positioning and holding said adjacent rows of spring coils to receive said helices; second means controlled by said first means said second means closing said clutch for instituting the operation of said two helix-forming and helix-feeding devices, third means driven by one of said helix-forming devices, said third means opening said clutch after advancing said two helices into two respective positions in which said helices connect said first and second adjacent rows of spring coils, two pairs of pneumatically-operated cutters, one pair of cutters being aligned with said first helix, and the other pair being aligned with the second helix, fourth means for operating said cutters simultaneously and to cut off said first and second helices immediately adjacent to the ends of said rows of spring coils, said fourth means being initially actuated by said third means, and fifth means responsive to a deflection of either helix from their normal paths during feed thereof to open said clutch before said clutch normally is opened by said third means, said fifth means stopping the operation of both helix-forming and helix-feeding devices.

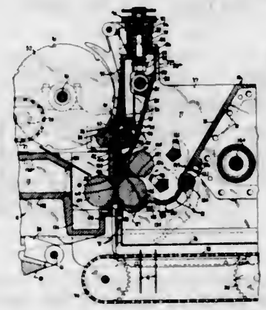
2,840,119
PUMPING ASSEMBLY
William Wesley Gavin, Salisbury, Md., assignor to Symington Wayne Corporation, Salisbury, Md., a corporation of Maryland
Application July 25, 1956, Serial No. 599,993
11 Claims. (Cl. 141—21)

1. A pumping assembly for installing a submerged pump within a fluid container, said assembly comprising an elongated casing, said casing having means at one end thereof for mounting said casing upon an opening in said container, a pumping conduit inserted through said casing into said container with adequate space between said conduit and said casing to facilitate insertion and withdrawal of said conduit and said pump, said pumping conduit having submerged pump connecting elements mounted at its end disposed within said container and terminating at its end disposed outside of said container in a hollow cover member, said hollow cover member having a transverse opening, a discharge head surrounding said hollow cover member and in conjunction therewith defining a chamber having upper and lower apertures and a portion extending transversely from said



hollow cover member, said chamber communicating with said transverse opening in said hollow cover member, a venting structure associated with said discharge head and including a venting passageway connecting an upper portion of said chamber with said space between said pumping conduit and said casing for venting said upper portion of said chamber to said container, a discharge outlet means incorporated in the side of said discharge head and connected to said chamber, and said hollow cover member having peripheral portions engaged in sealing relationship with the peripheral portions of said discharge head disposed adjacent said apertures.

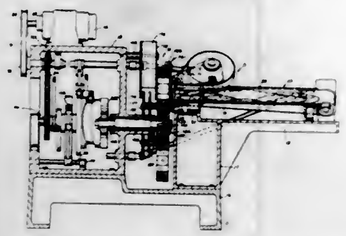
2,840,120
STORAGE BATTERY GRID PASTING MACHINE
Arthur D. Lund, Minneapolis, Minn., assignor, by mesne assignments, to The Electric Storage Battery Company, Philadelphia, Pa., a corporation of New Jersey
Application August 4, 1955, Serial No. 526,359
15 Claims. (Cl. 141—32)



4. A machine for applying a layer of paste to storage battery grid panels, comprising a grid panel passageway having a pasting zone, means for moving the panels through the passageway, a paste supply hopper, means for moving paste in a wide layer from the hopper to the pasting zone, said means comprising a paste applying

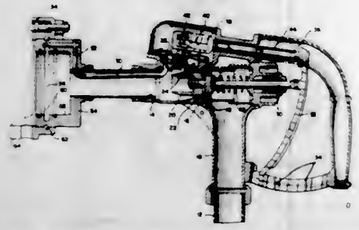
roller and a back-up roller located on opposite sides of the passageway at said pasting zone, means receiving paste from the hopper and for spreading it upon the paste applying roller, means for adjusting the amount of paste spread on the paste applying roller so as to provide a slight surplus, said back-up roller removing the surplus of paste pushed through the panel, and means for rotating the paste applying roller and back-up roller in opposite directions and at relatively different speeds with the back-up roller moving faster than the paste applying roller.

2,840,121
MACHINE FOR PACKING A PREDETERMINED WEIGHT OF BULK PRODUCTS
Eben H. Carruthers, Warrenton, Oreg.
Application November 12, 1953, Serial No. 391,528
17 Claims. (Cl. 141—164)



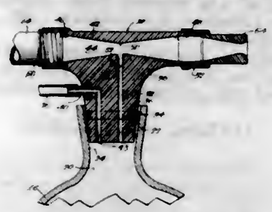
1. A machine for packing materials into a container of substantially constant cross-section comprising, in combination, a moulding tunnel at least part of the walls of which are movable for moulding the material into an elongated roll of substantially constant weight per unit of length, said weight per unit of length being substantially that to be placed in the container, a moulding chuck movable from an open to a closed position and into which the end of said roll of material is fed by said movable tunnel, means for opening and closing the chuck to mold the material within the chuck into a section of material of container size and shape, means for cutting off said section from said roll, and means for moving the movable walls of said tunnel.

2,840,122
LOCOMOTIVE TANK FILLING NOZZLE
Richard V. Klikunas and Donald L. Billian, Dayton, Ohio, assignors to Buckeye Iron & Brass Works, Dayton, Ohio, a corporation of Ohio
Application October 5, 1956, Serial No. 614,309
10 Claims. (Cl. 141—207)



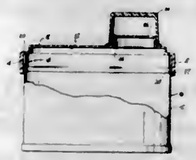
1. In an arrangement for operating an automatic vacuum trip liquid dispensing nozzle by the liquid level in a tank of the nature described; a generally cylindrical adapter member adapted for being mounted in the filling opening of the tank, a sleeve element within the adapter member, tube means carried by the sleeve and extending through the filling opening and down into the tank, the end of said tube communicating through the sleeve and adapter member with the outer surface of the latter, an automatic vacuum trip nozzle having a fitting on the outer end adapted for telescopically fitting over said adapter member, a vacuum relief tube in said nozzle running from the tripping mechanism thereof to the said fitting and terminating in an annular groove in the fitting which registers with the end of the tube in the said sleeve when the nozzle is mounted on the adapter member, and sealing rings in said recess on opposite sides of said annular groove.

2,840,123
HYDRAULIC ENGINE OIL ASPIRATOR
Gordon S. Metcalfe, Chicago, Ill.
Application July 24, 1956, Serial No. 599,768
3 Claims. (Cl. 141—285)



1. For hydraulically aspirating crankcase oil from an automotive vehicle engine, an oil receiving container defining an opening in the upper portion thereof, said container aside from said opening therein being impervious, an aspirating cap including a container closure element shaped to fit removably onto said container to tightly cover said opening therein, said aspirating cap being shaped internally to define therein a venturi passageway having an inlet and an outlet at opposite ends thereof opening outwardly of said container, means defining a water conduit connection communicating with said passageway inlet, said passageway being shaped between said inlet and said outlet to define a venturi throat within which the pressure is decreased as an incident to the flow of fluid through the passageway from said inlet to said outlet, said cap defining a suction passage communicating with said venturi throat and extending through said container closure element of the cap to communicate with the interior of said container when said closure element is disposed in closing relation to said opening, said cap defining an aspirating passage therein having an outlet end opening through said container closure element to communicate with the interior of said container, said aspirating passage having an inlet end opening outwardly of said container, and a flexible crankcase aspirating tube connected to said inlet end of said aspirating passage and extending away therefrom.

2,840,124
REUSEABLE DISPENSING COVER
Norman Greene, New York, N. Y.
Application July 13, 1953, Serial No. 367,460
4 Claims. (Cl. 141—381)



1. A reuseable dispensing cover for a vacuum sealed can of the type commonly used for vacuum packed coffee, said can being rigid and having a diameter which is large relative to its height and being open entirely across its top, said cover comprising top and side walls with the

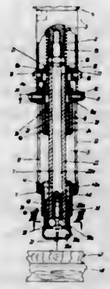
side wall so dimensioned as to fit snugly but removably around the top of the open can, the top wall of said cover being provided near its edge with a raised approximately cylindrical boss having a single large pour hole, a cap removably received over said boss to close the same, and the top wall of said cover being shouldered and stepped upwardly within the circumference thereof, to provide a hollow space above the contents of the can even when the can is level full, said cover being made of a single integrally molded piece of a flexible plastic having the physical characteristics of polyethylene and polyisobutylene and mixtures of the two.

2,840,125
PORTABLE POWER SAW HAVING OPPOSITELY RECIPROCATING BLADES
Charles E. Kirksey, Paducah, Ky., assignor of one-tenth to Waller, Threlkeld and Whitlow, Paducah, Ky., a partnership, and one-tenth to John E. Kirksey, Paducah, Ky.
Application May 10, 1955, Serial No. 507,323
6 Claims. (Cl. 143—68)



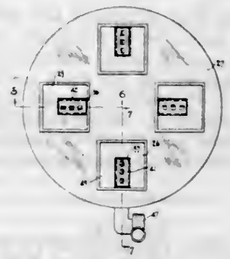
1. In a portable power saw, the combination of two cutting blades, each of said blades including an elongated toothed portion provided with integrally formed teeth, said teeth including cutting teeth and drag teeth, said toothed portions each having a planar inside surface for contiguous slidable engagement with the corresponding surface of the other, said toothed portions each having a planar logside surface which terminates at an upper ledge, said logside surface being provided with predeterminately arranged channels extending from bottom to top of the respective toothed portions, each of said channels being immediately adjacent a respective drag tooth.

2,840,126
POWER OPERATED AUTOMATIC SCREW DRIVER
Helmut Schmitt, Altenseelbach Kreis Siegen, Germany
Application December 2, 1955, Serial No. 550,802
Claims priority, application Germany December 6, 1954
4 Claims. (Cl. 144—32)



1. In an automatic screw driver, in combination, an elongated inner sleeve for guiding in its interior a spindle for rotation and axial movement, said inner sleeve having an open free end portion formed with a plurality of radial bores distributed about the axis of said inner sleeve; a plurality of bodies respectively located in said bores for free radial movement toward and away from said axis of said inner sleeve; an outer sleeve substantially coaxial with said inner sleeve and through which said inner sleeve extends; an intermediate sleeve substantially coaxial with said inner and outer sleeves and located between said inner and outer sleeves, said intermediate sleeve engaging the outer surface of said inner sleeve and covering said radial bores thereof; spring means engaging said intermediate and outer sleeves for urging the same in opposite directions along said inner sleeve away from each other; and means engaging said intermediate and outer sleeves for limiting the movement thereof away from each other while permitting said intermediate sleeve to move along said inner sleeve to a greater extent into said outer sleeve.

2,840,127
APPARATUS FOR MAKING WOOD SHAVINGS
Joseph L. Stokes and George Attle, Sault Ste. Marie, Ontario, Canada, assignors to Abitibi Power & Paper Company, Limited, Iroquois Falls, Ontario, Canada, a corporation of the Dominion of Canada
Application May 20, 1955, Serial No. 509,769
Claims priority, application Canada June 5, 1954
3 Claims. (Cl. 144—172)

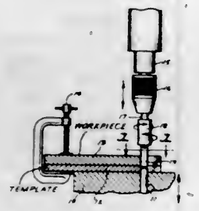


1. A wood shaving apparatus comprising a disc, means for rotating said disc about a vertical axis, at least two rotary cutter heads, means for rotating said cutter heads about axes perpendicular to and intersecting the axis of rotation of the disc, a plurality of rows of forwardly inclined cutting knives with their cutting edges lying parallel to the axis of rotation of each cutter head, said cutter heads being positioned so that the rows of cutting knives project successively through an aperture in said disc during the rotation of said cutter head, feeding hoppers for supplying wood to a position on said disc in which said cutting knives will cut platelets from the wood, shoulder portions on said disc, each of said apertures being narrower than the hoppers in a direction radially of the disc to define said shoulder portions of the disc to support the wood being cut and thereby to maintain the wood in spaced relationship with respect to the cutter heads but in contact with said cutting knives, one of said apertures extending to the outside of said hoppers and the other of said apertures extending to the inside of said hoppers, the knives passing through said apertures combining to cover the full width of said hoppers in a direction radially of the disc.

2,840,128
REVERSIBLE ACTION CUTTING BIT ASSEMBLY
George L. Slusser, Minneapolis, Minn.
Application May 10, 1957, Serial No. 658,282
2 Claims. (Cl. 144—241)

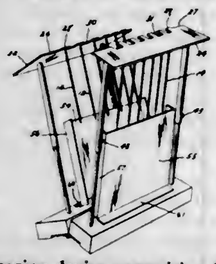
1. A cutting bit assembly comprising a shank to be rigidly secured to an arbor in longitudinal alinement therewith for rotation in either direction, a holder longitudinally alined with said shank, there being a cylindrical opening in an end portion of the holder opposite the shank and extending longitudinally thereof in off center relation thereto, a cutting bit extending longitudinally of the assembly constituted as a cylindrical hilt rotatably mounted in said cylindrical opening and fixed against longitudinal movement in said holder and a blade disposed exteriorly of the holder and having first and sec-

ond cutting edges in parallel relation to and situated at opposite sides, respectively, of the longitudinal axis of said cutting bit, and complemental stop means within the cylindrical opening and rigid with the cylindrical hilt and the holder, respectively, for limiting the extent of possible rotation of said cylindrical hilt in said holder, said complemental stop means being operable by reason of advancement of a work piece into cutting relation with said first and second cutting edges, respectively, in



response to rotation of said shank and holder, to arrest rotation of the cutting bit in the holder and retain the first and second cutting edges, respectively, at the side of the longitudinal axis of the shank toward which the cutting bit hilt is off center while said first and second cutting edges, respectively, are advancing to make a cut and at the opposite side of said longitudinal axis while the first and second cutting edges, respectively, are trailing.

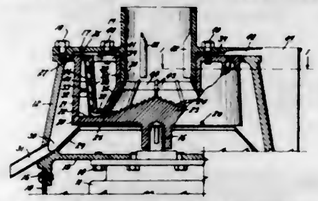
2,840,129
MUFFIN TEARING DEVICES
Arthur Jovis, New York, N. Y.
Application June 28, 1956, Serial No. 594,617
4 Claims. (Cl. 146—72)



2. A muffin tearing device comprising first and second base elements, hinge means interconnecting said first and second base elements, first and second guide rods extending upwardly of each of said base elements, first and second carriages slideably disposed for limited reciprocation upon said guide rods; said carriages each having meeting edges provided with mating projections and indentations, said projections having tine members thereon so disposed as to lie in substantially coplanar relation when said carriages are in abutted position and in non-coplanar relation upon movement of said base elements about said hinge means; and a muffin supporting pocket member mounted upon at least one of said bases for positioning a muffin in coplanar relation with respect to said tine members.

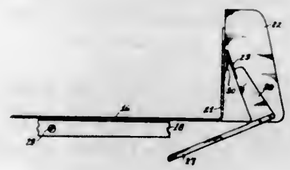
2,840,130
JUICE EXTRACTORS
Henry G. Schwarz, Menlo Park, Calif.
Application April 12, 1956, Serial No. 577,821
12 Claims. (Cl. 146—76)

1. A juice extractor comprising: a bowl-shaped rotor mounted on the upper extremity of a vertical motor shaft; a circular bottom in said rotor; a substantially cylindrical rotor side-wall arising from the periphery of said bottom, there being juice ports communicating between the interior and exterior of said rotor adjacent the periphery of said bottom; material pulping means on the upper midportion of said bottom; an endless annular band screen positioned in and secured to said rotor in spaced relation to said side wall and extending from the top of the latter to said bottom; and an annular stator concentrically



mounted over said bottom within the enclosure of said screen, said stator being closely spaced relative to said screen and to said bottom and provided with helical ridges thereabout, said screen acting to trap a relatively thin, rotating, annular wall of pulp about said stator to express the juice, and acting to urge the pulp to move upwardly along said ridges toward a discharge exit.

2,840,131
SLICING APPARATUS WITH SAFETY DEVICE TO GUARD THUMB OF HAND MOVING THE CARRIAGE
Jack Gilbert, New Windsor, Newburgh, N. Y., assignor to General Slicing Machine Co., Inc., Walden, N. Y., a corporation of New York
Continuation of application Serial No. 655,067, April 25, 1957. This application May 27, 1957, Serial No. 662,313
4 Claims. (Cl. 146—102)



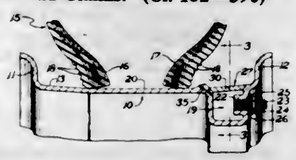
1. In a food slicing apparatus, a frame, a cutting member mounted thereon, presenting a cutting edge, a food carriage adapted to have a food mass rest thereon, movably mounted on the frame to one side of said cutting edge; said carriage being manually movable to and fro past the cutting edge from a first to a second predetermined position on the frame; said carriage having a part across it above the food-resting surface of such carriage, adapted to be grasped in one hand for moving the carriage; said part offering the hand free movement along it in a direction across the carriage towards and away from said cutting edge, a thumb bar movably mounted on the carriage and extending across it below and along said part; said bar being in such position that it can be contacted by the thumb of the hand of the operator when such thumb is directed substantially downward when said part of the carriage is grasped, a stop element on the frame at a predetermined point between said first and second positions of the carriage, a second element carried by the carriage, normally in a position to be intercepted by the stop element upon movement of the carriage from said first position, whereupon the carriage is halted from further movement away from said first position, means on the carriage associated with said second element and the thumb bar, for moving said second element to a position where it remains clear of the stop element at all positions of the carriage, upon movement of the thumb bar when the carriage is at its said first position and such thumb bar is held in its said moved position during movement of the carriage and means on the carriage for returning the second element to its normal rest position upon release of the thumb bar and for returning the thumb bar to its initial position.

2,840,132
RIM CARRYING DETACHABLE TIRE LUG
Richard L. Palmer and Frederick L. Palmer, Indianapolis, Ind., assignors, by mesne assignments, of nine-tenths to said Richard L. Palmer and one-tenth to said Frederick L. Palmer
Application March 8, 1957, Serial No. 644,945
10 Claims. (Cl. 152—225)



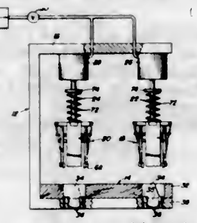
1. The combination with a tire mounted on a rim having side walls and lips extending annularly thereabout and turned laterally outwardly through a radius from said walls: of a pair of tire lug carrying structures, one on each side of said rim, each engaging over and held by said lip, comprising a jaw extending under said lip; a lever carrying said jaw; a second jaw extending over said lip; an arm carrying said second jaw; said arm being rockably carried by said lever swinging said jaws toward and away from each other; said first jaw having a nose bearing against the under side of said lip approximately in the zone of the curvature of said radius; said second jaw being curved from said arm and terminating in approximately a line edge, passing over said lip and downwardly to said wall in lateral opposition to said first jaw nose; a lug over said tire; lug carrying members extending one each toward one of said arms; and means interengaging said members with said arms.

2,840,133
TUBELESS TIRE AND RIM ASSEMBLY
William F. Billingsley, Silver Lake, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application July 27, 1955, Serial No. 524,731
22 Claims. (Cl. 152—396)



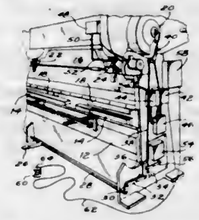
1. A rim for a tubeless pneumatic tire comprising a circumferentially extending base portion and integral side flange portions, the said base portion having a radial well extending circumferentially adjacent one of said flanges to accommodate tire beads during mounting or demounting thereof, valve means secured in sealing relationship to an opening in said rim adjacent said one flange and positioned to communicate with the interior of a tire when mounted on the rim, a rigid surface extending from said one flange to said base portion in the vicinity of said valve means facilitating passage of the tire beads over the inner end of said valve means, and removable means bridging said well and cooperating with said rigid surface to provide a seat for a bead of a tire mounted on the rim.

2,840,134
MODULE MOUNTING DEVICE HAVING CAM ACTUATED, PIVOTALLY MOUNTED TAB BENDING ARMS
Charles C. Rayburn, Fairfax County, and Harold M. Horsman, Alexandria, Va., assignors to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application October 25, 1954, Serial No. 465,618
6 Claims (Cl. 153—17)



1. A machine to connect an object having spaced groups of wires protruding from one end with a panel having a square aperture which is smaller than said end, and having said groups of wires passed therethrough near walls of the aperture, said machine comprising a support, a fixture on the support to retain said object and panel, a head, means connecting said head to the support for movement toward said fixture, said head including depending spaced guide members having lower end surfaces adapted to come to rest upon a surface of the panel and legs depending therefrom to contact junction portions of the panel wall forming the aperture and thereby hold the panel stationary, wire bending tools pivotally supported on said head and having wire guides approximately coplanar with said members' surfaces so that when the members are in contact with the panel said tools are brought along side of the wires which protrude through the panel aperture, and cam means slidable on said guide members for pivotally actuating said tools to engage the guides thereof with the wires and bend the latter against the surface of the panel.

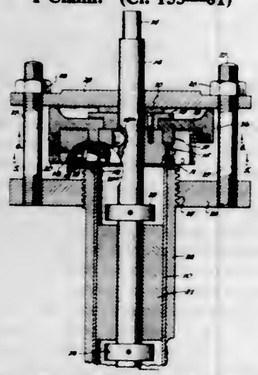
2,840,135
CONTROL FOR PRESS BRAKE
Alexander Fowler, Stamford, Conn.
Application March 4, 1955, Serial No. 492,259
20 Claims. (Cl. 153—21)



1. A control for a press brake comprising a driving shaft running continuously, a driven shaft running intermittently, a bed, a ram operated by said driven shaft, a friction clutch engageable to cause said shafts to move said ram toward said bed and back again, a limit switch and means to operate it at the "up" position of the ram, a limit switch and means to operate it at the "down" position of the ram, and a third limit switch together with adjustable means to cause operation of said switch

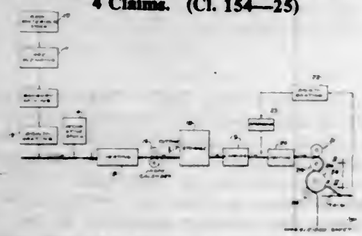
at a desired point corresponding to initial engagement of the work by the ram, an electrically controlled mechanism for causing either full engagement, slip engagement, or disengagement of the clutch, a manual switch, and circuitry interconnecting said limit switches, said mechanism, and said manual switch and so arranged that operation of the manual switch causes full clutch engagement until the ram reaches the work, and a succeeding movement of said manual switch causes slip engagement of said clutch for slow movement until the bottom limit switch is operated, whereupon the engagement of the clutch is changed from slip to full until the ram has been raised to top position, when the clutch is disengaged.

2,840,136
TUBE FLANGING APPARATUS HAVING SPIRAL CAM ACTUATED FLANGING ROLLERS
Henry J. Bellarts, Richland, Wash., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application July 27, 1956, Serial No. 600,640
1 Claim. (Cl. 153—81)



Apparatus for forming a flange on the end of a tube, said apparatus comprising a rotatable carrier, a plurality of flanging rollers positioned in angularly spaced relationship to one another about the axis of the carrier, gear segments individually supporting the rollers and being mounted in the carrier for movement about their own axes, and a worm gear in the form of a flat spiral rotatably mounted in the carrier in engagement with the gear segments and adapted when held stationary to cause rotation of the gear segments about their individual axes while said gear segments are rotated along with the carrier about the axis of the carrier, thereby varying the tilt of the axes of the rollers with respect to that of the carrier.

2,840,137
METHOD FOR PRODUCING CALENDERED COMPOSITION SHEET
Francis J. Wortz, Newport, Del., assignor to Congoleum-Nairn Inc., a corporation of New York
Application May 5, 1954, Serial No. 427,755
4 Claims. (Cl. 154—25)

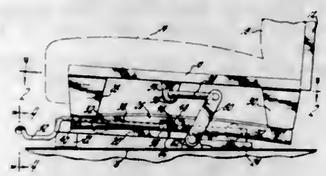


1. A method of making a marbleized sheet of composition material adapted for use as the wear-resistant surface layer of a flexible, smooth surface covering for floors and walls which comprises feeding to a calender lapped lengths of jaspe sheet material, calendering said lapped lengths transversely with respect to the jaspe streaks, whereby said streaks become distorted in passing through said calender to produce a calendered sheet having a wear surface with a marbleized appearance, separating marginal trim from the resulting calendered sheet, disintegrating said marginal trim to produce a supply of discrete pieces thereof not more than about 10 percent by weight of which passes a ⅛ inch screen and not more than about 10 percent by weight of which is retained on a ½ inch screen, and distributing said supply of pieces substantially uniformly across the lapped lengths of calendered jaspe sheet material being fed into said calender in an amount ranging from about 5 percent to about 17 percent by weight of the calendered sheet produced, thereby producing a calendered sheet containing the calendered trim in the wear surface and having a uniform marbelized appearance similar to that of the sheet from which the trim was separated.

2,840,138
WILTPROOFING PAPER AND METHOD OF CORRUGATING
Herbert N. Johnston and Benson G. Brand, Columbus, Ohio, and Willis B. Lincoln, Jr., Indianapolis, Ind., assignors, by direct and mesne assignments, to Inland Container Corporation (Indiana), Indianapolis, Ind., a corporation of Indiana
No Drawing. Application January 27, 1955
Serial No. 484,582
21 Claims. (Cl. 154—33.05)

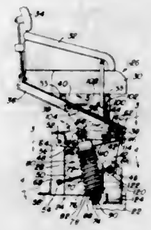
7. In a method of making corrugating material for corrugated fibreboard construction, the step of imparting wilt-resistant properties to said corrugating material comprising impregnating paper with molten plasticized resin, said plasticized resin comprising from about 30 to 90 percent of substantially petroleum hydrocarbon insoluble pine wood resin and the balance at least one fatty acid having from 8 to 18 carbon atoms as a plasticizer, and corrugating the impregnated paper.

2,840,139
SINGLE TRACK SEAT ADJUSTER
La Verne B. Ragsdale, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 20, 1955, Serial No. 502,691
8 Claims. (Cl. 155—14)



3. A seat adjuster of the character described, comprising: a seat frame; adjustment means for moving the seat frame longitudinally, said means including a single track structure mounted on a fixed support and connected to the seat frame adjacent the transverse center thereof; and a sway bar extending transversely of the seat frame adjacent the longitudinal center thereof, said bar being connected to said frame adjacent opposite sides thereof and being connected through link means to said fixed support at opposite sides of the seat frame to prevent pivoting of the seat frame around the adjustment means, the single track and the sway bar and link means comprising the sole support for the seat frame.

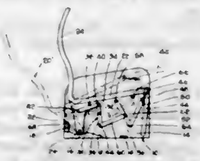
2,840,140
SEAT
Roy E. Harrington, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application April 1, 1954, Serial No. 420,283
11 Claims. (Cl. 155—51)



1. A seat suspension of the character described, comprising: a support; a seat proximate to the support; means mounting the seat on and for vertical movement relative to the support between upper and lower positions, said means including a U-shaped member having a transverse bight and a pair of spaced apart legs, said legs having coterminous free ends pivoted to the support on a common transverse axis, and means carrying the seat on said U-shaped member for movement of the seat and member in unison; stop means cooperative between the seat and the support and engageable to establish a limit for the upper position of the seat and U-shaped member relative to the support; a pair of elongated guide means, one on and lengthwise of each leg of the U-shaped member; a cross member carried at opposite ends in the guide means; adjusting means movably carried by the bight of the U-shaped member and connected to the cross member for moving said cross member selectively toward and away from the aforesaid pivot axis of the U-shaped member to the support for varying the moment arm between said axis and the cross member; and biasing means normally urging the seat to its limited upper position as established by the engaged stop means, said biasing means including a variable-load spring having a connection at one end to the cross member and further having a connection at its other end to the support, the configuration of the guide means and its disposition with respect to the connection of the spring to the support being such that adjustment of the cross member to vary the moment arm simultaneously varies the load on the spring with the seat in its limited upward position.

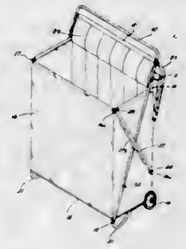
2,840,141
CHAIR WITH RECLINABLE SEAT AND BACK-REST AND COORDINATED LEG-REST
Anton Lorenz, Boynton Beach, Fla.
Application April 23, 1954, Serial No. 425,254
8 Claims. (Cl. 155—106)

1. An article of repose for supporting the body of a person, comprising in combination: a support, a unit including a seat and a back-rest rigid with each other, said unit being rockably mounted on said support, a controlling member swingably mounted on said support at an intermediate point between its upper and lower portions, a connecting link pivoted at different regions thereof to said unit and to the upper portion of said controlling member, the pivotal connection between said connecting link and said unit being below the plane of the seat, a leg-rest swingably mounted on the front portion of said seat, an arm swingably mounted on said support, a controlling bar pivoted at different regions thereof to said leg-rest and to said arm, and controlling means between



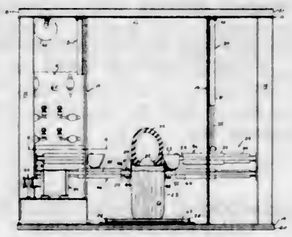
the lower portion of said controlling member and said arm for effecting movements of the latter and the leg-rest in coordination with the movements of said controlling member.

2,840,142
FOLDABLE BEACH CART
Donald H. Haug, Chicago, Ill., now by change of name Donald Jeffery Sands
Application November 18, 1955, Serial No. 547,740
5 Claims. (Cl. 155—154)



1. A foldable cart comprising a generally U-shaped frame, a foldable bag secured to said frame, a support frame pivotally secured to U-shaped frame, an axle carried by said U-shaped frame, a pair of wheels supported at opposed ends of said axle, means movable with said support frame and arranged to engage said axle in a releasably secured position, and an adjustably positionable spacing means arranged to position said U-shaped frame with respect to said support frame in one position of said cart.

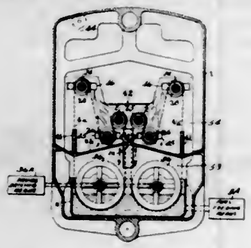
2,840,143
TIRE BEAD BREAKING PRESS ASSEMBLY
A. J. Skiles, South San Antonio, Tex.
Application January 10, 1956, Serial No. 558,389
5 Claims. (Cl. 157—1.26)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A tire bead breaking press comprising elevator means including horizontally mounted hydraulic plungers for lateral projection on opposite sides of a wheel having a rim on which the beads of a tire casing are seated, actuating means for vertically adjusting said elevator means for accommodating tires of different diametrical

sizes, breaking means on said plungers adapted to selectively engage the opposite side walls of the tire casing and push the beads free of the wheel rim, and control means for simultaneously or independently operating said hydraulic plungers.

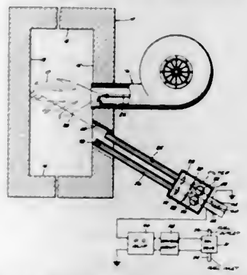
2,840,144
COMBUSTION DEVICE FOR FUEL OILS
Henri Schmitz, Vanves, France
Application September 20, 1954, Serial No. 457,222
Claims priority, application France September 21, 1953
4 Claims. (Cl. 158—4)



1. A combustion device for fuel oils comprising a boiler, means forming a fuel feeding chamber at the bottom of said boiler, means forming a combustion chamber in the upper part of said boiler, a fuel oil vat in said fuel feeding chamber, a means to supply fuel oil to said vat to at least a minimum level therein, at least one driving drum having a horizontal axis mounted in said vat with at least a part of the drum periphery beneath said minimum level, a partition separating said vat from said combustion chamber, at least one set of three guide rollers with horizontal and parallel axes mounted in said combustion chamber, the second roller of the set being located at a level lower than the first roller, the distance between the vertical planes passing through the horizontal and parallel axes of said first and second rollers being lower than the total amount of these roller radii, and the third roller being located at a higher level than the first roller, at least one endless incombustible mesh belt located within said boiler to constitute a carrier for said fuel oil and movable through said feeding and combustion chambers, said mesh belt passing about said drum to be driven and immersed into said vat under said minimum level and passing on said guide rollers within the combustion chamber so as to follow an upward path as it enters the combustion chamber, then a first downward path having its lower portion inclined to the vertical of the upper portion between said first and said second rollers, then another upward path between said second and said third rollers, said first downward and other upward paths constituting the combustion zone, then a second downward path towards said vat, slot-like apertures in said partition for permitting the passage of said belt therethrough, air-supply slots in said partition adjacent said first downward path of said belt, means for driving said drum, and baffle means in said combustion chamber for directing the flames onto the belt paths corresponding to said combustion zone.

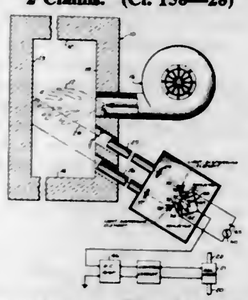
2,840,145
FLAME RESPONSIVE DEVICE USING PLUGGED COMPENSATORY TUBE
Joe T. Ator, San Fernando, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Application January 8, 1954, Serial No. 402,845
6 Claims. (Cl. 158—28)

1. In apparatus for detecting the presence of a flame, means for producing said flame, an enclosure having a body heated by said flame, said enclosure having a single aperture therein through which conditions in said enclosure may be determined, a first light tube aligned with said aperture and with said flame and said body, a second light tube aligned with said aperture, one end of said second light tube being plugged by a body heated by said flame, first photocell means in communication with said first light tube for producing an electrical quantity representative of the radiation from said flame and said body,



second photocell means in communication with said second tube for receiving radiation from said body which plugs said second light tube, said second photocell means producing an electrical quantity representative of the radiation from said body plugging said second tube, means for comparing the first and second electrical quantities to derive a third electrical quantity, means controlling the flow of fuel to said flame producing means in accordance with the said third electrical quantity.

2,840,146
FLAME DETECTING MEANS
William A. Ray, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California
Application October 26, 1953, Serial No. 388,099
2 Claims. (Cl. 158—28)

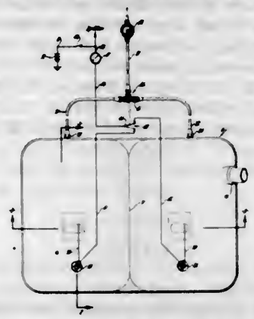


1. In apparatus for controlling the presence of a flame produced by a flame producing means, a body, flame producing means for producing a flame which is present in an enclosure having said body heated by said flame produced by flame producing means, first frequency selective means for separating energy radiated from said flame and having a frequency band characteristic of said flame, second frequency selective means for separating energy radiated from said body and having a frequency band characteristic of said heated body, and means for comparing the first mentioned energy with the second mentioned energy to control said flame producing means.

2,840,147
AUTOMOBILE FUEL TANK
Henry C. Almestad, Berkeley, Calif.
Application May 31, 1955, Serial No. 511,909
2 Claims. (Cl. 158—46.5)

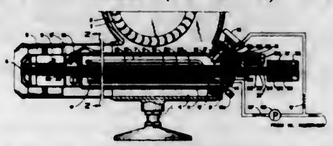
1. An automobile fuel tank comprising, a container having bottom and side and top walls defining a sealed

enclosure, said bottom wall being formed with a pair of side by side wells, a baffle plate extending across the interior of said container between said side walls and providing a closed top for said wells to define a first compartment above said plate and second and third compartments below said plate provided by said wells, a pair of float gauges having floats mounted for vertical displacement between the bottom of said wells and the top of said first compartment, said plate having openings com-



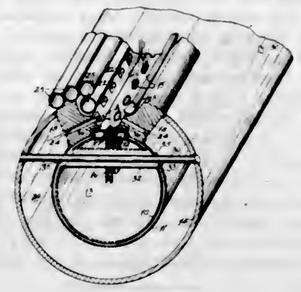
municating said second and third compartments with said first compartment and being dimensioned to pass said floats, a pair of fuel conduits connected to said bottom wall in communication with and positioned for draining said wells, a selector valve connected to said conduits for selecting the well from which fuel is drawn, and an electric selector switch connected to said float gauges and being connected for operation with said valve so as to select the gauge associated with the well from which fuel is drawn.

2,840,148
PRESSURE OIL BURNER FOR HEAVY OIL
Ivar Waldemar Akesson, Goteborg, Sweden, assignor to Chalmers Products Aktiebolag, Goteborg, Sweden, a Swedish joint-stock company
Application December 6, 1955, Serial No. 551,428
7 Claims. (Cl. 158—76)



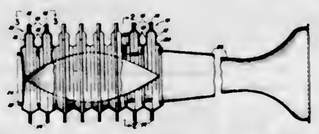
1. In a heavy-oil consuming pressure oil burner; the combination of an air fan operative to produce a stream of primary air, an air pipe connected to said fan for conducting said air stream into a furnace, a burner head centrally located in said air pipe near the outlet end thereof, an oil pump, an oil spraying nozzle disposed in said burner head for distributing fuel oil in said air stream, means for conducting oil from said pump to said nozzle including an oil preheater supported within said air pipe for heating the fuel oil on its passage from said pump to said spraying nozzle, said oil preheater comprising a spacious, elongated oil chamber of annular cross section located centrally within said air pipe and having heat emitting means therein, said burner head being supported at the forward end of said oil chamber means defining an oil outlet in the rear end of said oil chamber, said annular oil chamber defining a central opening extending therethrough and an oil feed pipe passing through the central opening of said annular oil chamber and having said spraying nozzle attached to its forward end and its rear end detachably connected to said oil chamber outlet so as to permit withdrawal of said oil feed pipe and nozzle without dismantling of the burner.

2,840,149
APPARATUS FOR PARTIAL COMBUSTION OF GASIFORM HYDROCARBONS
John H. Arnold, Summit, N. J., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey
Application October 20, 1951, Serial No. 252,320
4 Claims. (Cl. 158—99)



1. A burner assembly for effecting partial combustion of a gasiform hydrocarbon with an oxygen-containing gas to produce a gaseous product consisting essentially of carbon monoxide and hydrogen comprising an open-face combustion channel having a substantially flat bottom wall and outwardly flaring straight side walls, said bottom wall being part of cooling means hereinafter defined and having a plurality of ports formed therein arranged therealong for the introduction of said oxygen-containing gas, said side walls having a plurality of ports formed therein for the introduction of said gasiform hydrocarbon for admixture together with said oxygen-containing gas, means for defining individual passageways ending at said ports for supplying the respective reactant gases thereto, the flow axes of said passageways extending through said ports normal to the respective walls of said channel and lying in separate planes which intersect substantially beyond said ports, the angle of intersection between said planes containing said flow axes of said passageways being not less than 45° and not more than 90°, and cooling means disposed along the face of said bottom wall opposite the open-face of said channel, said ports in said bottom and side walls being not greater than ½ inch in diameter, and said passageways ending at said ports having a length at least 10 times said diameter.

2,840,150
GAS BURNER OF MULTI SECTION PORT CONSTRUCTION
Alonzo C. Jackson, Francis B. Jackson, and John A. Lasater, Chattanooga, Tenn., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application May 7, 1953, Serial No. 353,487
5 Claims. (Cl. 158—114)



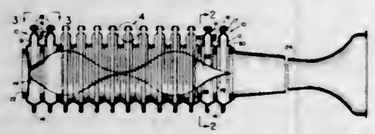
1. A gas burner fabricated entirely of sheet steel and comprising a unit made up of a plurality of similar, aligned, juxtaposed, interconnected sections, an inlet duct

connected to one of the endmost sections, each of said sections including a pair of generally V-shaped, parallel, aluminized sheet metal walls having their edges bent toward each other thereby forming a chamber with the edges of said walls forming the top of the V being spaced to form a slot of restricted section relative to that of the chamber for the egress of gas and the remaining edges being secured together in a fluid tight manner by crimping one edge over the other, the outlet edge of the slots formed in the several sections being coplanar, said sections being disposed with their walls parallel to one another with adjacent walls of adjacent sections being spaced and together with the end wall to which the inlet duct is secured having aligned openings, an outwardly raised rim formed about each of said openings with the rims formed on adjacent walls of adjacent sections being secured together by having one rim crimped over the other, and a spiral baffle positioned within said unit and extending through the aligned openings operable to evenly distribute to each of the sections the gas entering the unit through the inlet duct, said baffle being of a width substantially equal to the diameter of said openings.

2,840,151
GAS BURNER OF MULTI SECTION PORT CONSTRUCTION

Francis B. Jackson, Chattanooga, Tenn., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application September 6, 1955, Serial No. 532,537
3 Claims. (Cl. 158—114)



1. A gas burner fabricated entirely of sheet steel that is aluminized prior to burner assembly and comprising a unit made up of a plurality of similar, aligned, juxtaposed, fluidly centerconnected sections arranged in accordian fashion, an inlet duct connected to one of the endmost sections, each of said sections including a pair of generally V-shaped, parallel, aluminized sheet metal walls having their edges bent toward each other thereby forming a chamber with the edges of said walls forming the top of the V being spaced to form a slot for the egress of gas and the remaining edges being secured together in a fluid tight manner and the edge of the wall portions forming the slot being raw unprotected steel, said slot-forming edges being folded over away from said slot to form a rounded edged rim surrounding said slot, said sections being disposed with their walls parallel to one another with adjacent walls of adjacent sections and the end wall to which the inlet duct is secured having aligned openings, an outwardly raised rim formed about each of said openings, with the rims formed on adjacent walls of adjacent sections being secured together, and baffle means positioned within said unit and extending through the aligned openings operable to evenly distribute to each of the sections the gas entering the unit through the inlet duct.

2,840,152
GAS BURNER HEADS

Robert D. Reed, Tulsa, Okla., assignor to John Zink Company, Tulsa, Okla., a corporation of Delaware

Application February 7, 1956, Serial No. 563,958
2 Claims. (Cl. 158—116)

1. A gas burner comprising, a tubular member, a frustro-conical wall having its larger end coincident with said tubular member adjacent its downstream end and converging inwardly in proceeding from said downstream end, a second frustro-conical wall having its larger end coincident with the smaller end of the first frustro-conical wall, said second frustro-conical wall converging inwardly in proceeding upstream of the burner, said first frustro-conical wall having a first circumferential row of discharge ports and a second circumferential row of discharge ports between the first row and said tubular member with the axis of each discharge port diverging from the axis of the burner in proceeding downstream thereof, means for supplying a gaseous fuel to the upstream sides of said frustro-conical walls, the axis of each of the discharge ports of said first row being at an angle between ten and thirty-five degrees with respect to the axis of the burner and the axis of each of the discharge ports of said

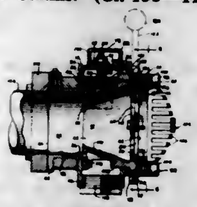


row being at an angle between fifty and eighty degrees with respect to the axis of the burner, said first row of discharge ports being of such number and size in relation to the number and size of the ports of the second row that a major portion of said gaseous fuel escapes therethrough to provide an elongated flame downstream of the burner, frustro-conical shield means carried by the burner adjacent the juncture of the first frustro-conical wall with said tubular member diverging in proceeding downstream of the burner, said shield means including an unapertured annular portion adjacent the first frustro-conical wall preventing air from sweeping over outlet ends of the ports forming said second row, and said shield means including circumferentially spaced fingers extending downstream beyond said unapertured annular portion.

2,840,153
FLUID PROPORTIONING APPARATUS

Donald A. Campbell and Jack V. Margason, Rockford, Ill., assignors to Eclipse Fuel Engineering Co., Rockford, Ill., a corporation of Illinois

Application April 3, 1957, Serial No. 650,331
19 Claims. (Cl. 158—119)



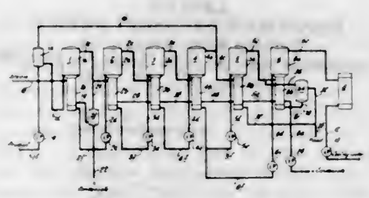
1. Proportioning apparatus for effecting a combustible mixture of fuel and air for delivery to a burner or the like comprising an outer casing having a generally cylindrical wall defining an open-ended bore the rear end of which constitutes a discharge outlet for the combustible mixture, a limited circumferential extent of said wall being hollow to define an arcuate gas entry chamber partially encompassing said bore, there being a gas inlet in communication with said chamber, an inner ring-shaped casing the annular wall of which is hollow to define a gas outlet chamber, said inner casing being closely nested within said bore and capable of limited rotational movement therein in either direction, a shutter plate extending across the forward end of the inner casing and movable with the latter, a cooperating stationary shutter plate extending across the forward

open end of said bore, there being a pair of cooperating shutter openings in said shutter plates defining a variable air inlet for the apparatus, there being a series of circumferentially spaced gas inlet ports formed in the cylindrical wall of the outer casing communicating with the gas entry chamber, there being an arcuate slot in the annular wall of said inner casing capable of selective progressive cumulative registry with said ports upon turning movement of the inner casing relative to the outer casing, said inner casing being movable between a retracted position wherein said shutter openings are out of registry with each other and said ports are out of registry with said arcuate slot, and an advanced position wherein said shutter openings are in full registry and said ports are all in registry with said slot, there being a gas discharge opening in the hollow wall of said inner casing establishing communication between said discharge outlet and the gas outlet chamber, and an operating handle for said inner casing.

2,840,154
MULTIPLE EFFECT EVAPORATOR

Henry G. Lankenau, Clifton, N. J., assignor to Chicago Bridge and Iron Company, Chicago, Ill., a corporation of Illinois

Application April 27, 1954, Serial No. 425,912
2 Claims. (Cl. 159—20)



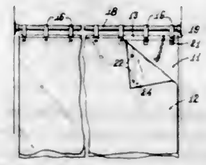
1. A multiple effect evaporator of the counter-flow type comprising a series of evaporative effects including at least one feed effect, each of which includes a vertically arranged tube-in-shell heat exchanger having a vertical tube bundle through the tubes of which the liquor to be evaporated passes and a shell side supplied with a condensible heating vapor for supplying heat through the tube walls to the liquor to be evaporated, each of said evaporative effects also including a vapor disengaging chamber mounted above said heat exchanger and connected to receive the heated liquor from said heat exchanger and separate said heated liquor from its vapors, vapor transfer conduits for conducting condensible vapors from the vapor disengaging chamber of each effect to the shell side of the heat exchanger of the next effect, a flash tank associated with a feed effect of said series and mounted at approximately the same level as the heat exchanger of said feed effect, said flash tank having a liquor inlet connection in its side wall, a conduit free from flow-restricting means interconnecting the bottom of said flash tank with the bottom of said heat exchanger whereby liquor can flow unrestrictedly from said flash tank into the lower ends of the tubes of the tube bundle of said feed effect, and a conduit effectively connecting the upper portion of said flash tank to the shell side of the heat exchanger of said feed effect.

2,840,155
SHOWER CURTAIN ASSEMBLY

Morton Lee Stern, Skokie, Ill.

Application April 2, 1957, Serial No. 650,198
2 Claims. (Cl. 160—124)

1. A shower curtain assembly comprising a substantially rectangular front sheet, a plurality of mutually spaced flexible hanger straps each secured at one of its ends to and extending upwardly from the upper margin of said sheet, said straps being adapted to be draped over a hanger rod, mutually spaced snap fastener elements on the back face of said margin, a complemental snap fastener element inwardly of the free end of each hanger strap adapted to be detachably engaged one with each fastener element on the front sheet to retain the straps draped over the hanger rod in a looped condition, a rear sheet of substantially the same width as the

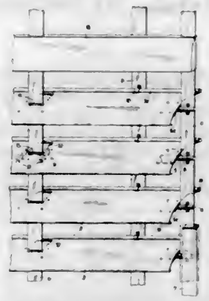


front sheet, a row of similarly spaced snap fastener elements provided along the front face of the upper margin of the rear sheet, and snap fastener elements complemental to the fastener elements on said rear sheet mounted one on the free end portion of each strap adapted to be detachably engaged with the fastener elements on the rear sheet to secure said rear sheet to the straps for direct suspension therefrom and at a point below the fasteners securing the strap to the front sheet.

2,840,156
VENETIAN BLIND

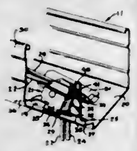
Fritz Griesser, Aadorf, Switzerland, assignor to Griesser A. G., Aadorf, Switzerland

Application November 5, 1956, Serial No. 620,556
Claims priority, application Switzerland November 11, 1955
4 Claims. (Cl. 160—133)



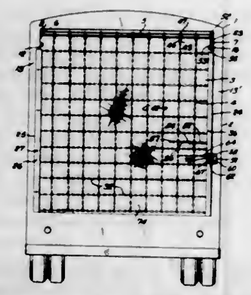
1. A Venetian blind comprising a winding shaft, a pair of guiding tapes and at least one further tape suspended from said shaft and adapted to be wound on to and unwound from said shaft for raising and lowering the blind, a plurality of slats the ends of which are pivotally connected to said guiding tapes and one of the longitudinal edges of which is pivotally connected to said further tape, said slats having cut-outs therein, at least one supporting tape also suspended from the winding shaft between said guiding tapes and adapted to be wound thereon and unwound therefrom together with the guiding tapes, said supporting tape extending through the cut-outs in said slats and being articulated along their longitudinal middle axis to said supporting tape, a transverse member arranged above the uppermost slat and anchored to said supporting tape and to said guiding tapes, said transverse member being windable on the winding shaft together with the slats, a pair of guiding rails for the guiding tapes and abutting means in said guiding rails serving as abutments for the said transverse member in the lowered position of the blind.

2,840,157
LIFT CORD SEPARATOR FOR VENETIAN BLINDS
Hans K. Lorentzen, Montclair, N. J., assignor to Levolor Lorentzen, Inc., Hoboken, N. J., a corporation of Delaware
Application April 1, 1955, Serial No. 498,555
7 Claims. (Cl. 160—173)



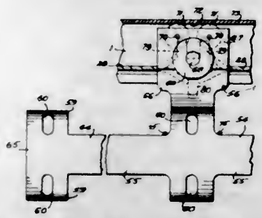
1. In a Venetian blind organization of U-shaped head channel, cord-lock unit mounted in the channel near the front wall thereof and receiving a pair of lift cords passing upwardly through an opening in the bottom of the channel, and separator extending between the cords immediately below the cord-lock unit, the improvement which comprises: the channel and cord-lock unit taken together comprising means for receiving and retaining the separator when the separator is inserted between the cords after the assembly of channel, cord-lock unit and cords has been completed; the separator being insertable between the cords after such assembly has been completed; and the separator comprising quick-attachable means for operatively engaging said first-mentioned means for securing the separator in position.

2,840,158
CHAIN CLOSURE FOR OPENINGS
Earnest M. Lee, Mission Hills, Kans., assignor to Roll-O-Matic Chain Company, Kansas City, Mo., a corporation of Missouri
Application May 26, 1954, Serial No. 432,411
2 Claims. (Cl. 160—327)



1. A chain closure for an opening provided between laterally spaced apart side jambs having facing sides, said chain closure including a stationary angle bar having one flange in a plane parallel with the said facing side of one of the jambs, said flange being provided with apertures spaced apart along the height of the stationary angle bar, means for attaching the stationary angle bar to said side jamb, a transverse rod adapted to extend across the upper portion of said opening, means for securing ends of the transverse rod to the facing sides of said side jambs, rings slidable loosely along said transverse rod and having collars on under sides thereof, swivels having shanks rotatably retained in said collars, a movable angle bar having a flange positioned similarly to the apertured flange of the stationary angle bar and provided with apertures in horizontally aligning registry with the apertures in said flange of the stationary angle bar, a bracket on the upper end of the movable angle bar and having a ring slidable on the transverse rod for suspending the movable angle bar, chains depending from said swivels and having links in horizontally aligning registry with the apertures in the flanges of said angle bars, swivels having shanks rotatable in said apertures of the flanges of the stationary and movable angle bars, transverse chains having end links connected with the last named swivels and having links crossing said registering links, said crossing links of the depending and transverse chains being contained freely one within the other, said movable angle bar being movable along the transverse rod from a position with the depending chains gathered at the side of the stationary angle bar with the transverse chains hanging in loops between said crossing links to a position at the opposite side of the opening to extend the transverse chains tautly across the opening between said jambs, and means for releasably securing the movable angle bar to said side jamb at the side of the opening opposite the stationary angle bar, said shanks of the swivels being adapted to turn within said collars of the rings and within the apertures of the flanges of the stationary and movable angle bars to keep the contained links in right angular planes with respect to the planes of the links in which they are contained to maintain free positioning of the links while the chains are tensioned between the side jambs of said opening.

2,840,159
DRAPERY SUSPENSION DEVICE
Baldwin King, Albany, Ga.
Application May 20, 1955, Serial No. 509,799
8 Claims. (Cl. 160—348)



1. Traverse equipment for curtains and draperies, comprising, in combination, a traverse rod, means within the rod defining a pair of vertically off-set tracks, one of which is a bottom track, the other of which is an upper track, a pair of curtain-supporting carrier means mounted in the traverse rod having a large roller engaging the bottom track and a pair of longitudinally disposed small rollers engaging the upper track, the rollers coacting with the respective tracks for providing continuously a three-point mounting for maintaining the carrier means continuously vertical independently of amount of load thereon for rolling thereon the carrier means being movable along the tracks in opposite directions and supportingly attached to upper portions of curtains or draperies, draw cord means attached to each curtain-supporting carrier means for rollably moving each of carrier means in opposite directions along the traverse rod, and means for mounting the cord rearwardly of the said rod for eliminating contact between the cord and carrier means for effecting unhampered operation of the carrier means and curtains in opening and closing directions.

2,840,160
SHOWER BATH CURTAIN
Raymond L. Tichenor, Alameda, Calif.
Application January 26, 1954, Serial No. 406,133
1 Claim. (Cl. 160—349)

The combination with a shower curtain of the character described comprising a sheet of thermoplastic material, of a plurality of circular suction cups of a thermoplastic material fusibly compatible with the thermoplastic material of said curtain sheet, secured to said sheet solely by a fusion bond of each cup directly to one face of said sheet adjacent an edge thereof; each of said cups having a flat rear wall and an arcuate edge wall, said flat rear wall being of sufficient flexibility, even when reinforced by fusion to said curtain, to insure that pressure against the curtain opposite the outside of said rear wall will



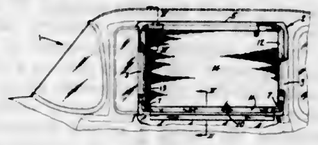
bring the center portion of the inside of said rear wall into contact with a flat rigid surface against which the cup is pressed before the other portions of the inner side of said rear wall contact said flat rigid surface; whereby expulsion of air from within said cup will be arrested while a substantial amount of air remains within said cup, and a suction bond formed between said cup and said flat rigid surface which is materially weaker than the fusion bond between said cup and said curtain.

2,840,161
KNOCKDOWN SCREEN KIT
John S. Alexander, Homestead, Russell M. Winnan, Miami, and Henry L. Majeske, Coral Gables, Fla., assignors to American Screen Products Co., Miami, Fla., a corporation of Florida
Application September 15, 1954, Serial No. 456,272
1 Claim. (Cl. 160—377)



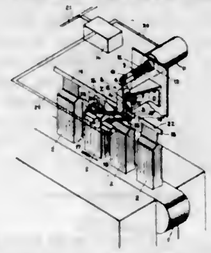
A knockdown screen frame comprising right angularly disposed hollow bars having mitered ends and inner spline grooves, corner lock means disposed within adjacent ends of said bars for holding same together as a rectangular frame, a hollow brace for extending across the frame with its ends being disposed adjacent opposed spline grooves whose inner edges are defined by anchor flanges, and a connector means disposed at each end of said brace comprising a member having side flanges frictionally engaged with the inner walls of said hollow brace bar, a U-portion engaged over the adjacent anchor flange and a flange seated on the base of the adjacent spline groove.

2,840,162
WINDOW SCREEN
Earl M. Moerdyk, Grand Rapids, Mich.
Application April 6, 1956, Serial No. 576,608
2 Claims. (Cl. 160—377)



1. A window screen unit for a window opening having top, bottom and side channels, comprising: first and second rigid, vertical support members arranged substantially parallel to each other; a horizontal support member located between two adjacent ends of said first and second support members; said support members having channels along their inner edges; pivotal connecting elements extending into and freely pivotally secured in said channels between the ends of said horizontal support members and the adjacent ends of said first and second support members; and a screen extending between said vertical support members and into the channels thereof and of said horizontal support member; the sides of said channels, except for the end portions in which said pivotal connecting members are pivotally secured, being pinched together in grasping relationship with the marginal edges of said screen; and a separate elongated, locking element extending between the ends of said vertical members, opposite said adjacent ends, for holding said screen unit in extended position, said locking element being removable whereby the two vertical members can be pivoted about said pivotal connecting elements into collapsed position against said horizontal support member.

2,840,163
APPARATUS FOR CUTTING THE STRIP AT THE TOPS OF BAGS
Walter Fischer, Hellmuehle, Wildegg, Switzerland, assignor to Getreideflocken A. G., Lenzburg, Switzerland
Application September 30, 1954, Serial No. 459,303
Claims priority, application Switzerland October 1, 1953
2 Claims. (Cl. 164—42)



1. In a bag closing apparatus, in combination, transporting means for transporting along a predetermined path a row of bags whose top ends are closed by a single continuous strip extending along and attached to the row of bags; cutting means located next to said path for cutting completely across said strip at least once between each pair of successive bags while the latter are moved along said path by said transporting means; a single electromagnetic operating means operatively connected to said cutting means for operating the same; electrical control means electrically connected to said operating means for controlling the latter with energizing impulses; a first switch located adjacent said path and connected electrically to said control means for impulse energizing the lat-

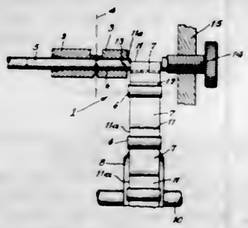
ter when said first switch is closed; first elongated switch operating means connected to said first switch for movement from a switch opening position, where said first switch operating means extends across the path of movement of the bags, to a switch closing position where the switch operating means has been engaged by a bag and moved thereby out of said path, whereby said control means is impulse energized by movement of said first switch operating means out of said path by a bag; a second switch located after said first switch along said path and connected electrically to said control means for impulse energizing the latter; a second elongated switch operating means connected to said second switch for movement from a switch closing position, where said second switch operating means extends across the path of movement of the bags, to a switch opening position where said second switch operating means has been engaged by a bag and moved thereby out of said path; and means connected to said second switch operating means for returning the same to said switch closing position thereof when said second switch operating means is not engaged by a bag so as to impulse energize said control means with said second switch when said second switch operating means extends across the path of movement of the bags.

2,840,164

DEVICE FOR CUTTING CIGARETTE FILTER RODS

Willy Rudszinat, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany

Application August 29, 1956, Serial No. 606,830
Claims priority, application Germany September 8, 1955
4 Claims. (Cl. 164—59)



1. A cutting device for cutting cigarette filter rods into filter tip sections of double finished length, including a rotatable filter tip section conveying drum, said conveying drum having on its circumference a plurality of axially extending grooves spaced by axially extending ridges, guiding means for guiding a filter rod axially against an end face of said drum and against an end face of one of said ridges, and cutting means associated with said guiding means for cutting a filter rod after it has been moved against one of said end faces of said ridges.

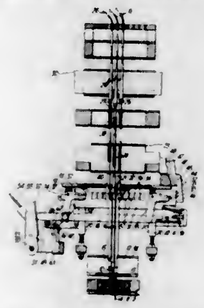
2,840,165

PUNCH MECHANISM FOR PUNCHING STATISTICAL RECORDS

Arthur Thomas, Wallington, England, assignor to Powers-Samas Accounting Machines Limited, London, England, a British company

Application January 21, 1955, Serial No. 483,331
Claims priority, application Great Britain February 25, 1954
7 Claims. (Cl. 164—114)

1. A punch mechanism for punching statistical records, comprising a set of axially hollow punches, a set bar unit including for each punch a set bar lockable in an active position thereof to cause its co-operating punch to be moved through a record, a punch unit movable towards and away from said punches for co-operation therewith and including a die and a stripper element between which a record is located for punching, a connecting member for each punch located between the punch and its set bar for lengthwise movement with and relative to said punch unit, a testing pin extending through each punch, said testing pin being movable lengthwise relative to the punch and operative on engagement thereof with an imperforate record portion moved by the punch unit towards the punches to effect lengthwise movement of the connecting member for the punch to an active position thereof relative to the punch, a rocking member common to all columns of punches and for each column of punches a parallel motion system including a latch member for co-operation with the connect-



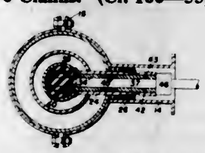
ing members for said column to retain in position a connecting member moved to the active position thereof by its testing pin, a link to effect rocking of said rocking member in one direction, and bell-cranks supporting said latch member and link in parallel relation, said bell-cranks being pivotally supported for movement with said punch unit whereby movement of the punch unit relative to a connecting member in the latched active position thereof and cooperating with an active set bar effects lengthwise movement of the link to effect rocking of said rocking member thereby to initiate a signal indicative that a punch is passed through an imperforate portion of a record.

2,840,166

APPARATUS FOR CLOSING WILD WELLS THROUGH A PRESSURE CHAMBER

John E. Eckel and John S. Hutchison, Tulsa, Okla., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application July 5, 1955, Serial No. 520,025
6 Claims. (Cl. 166—55)



1. An assembly for closing off fluid flow through the innermost of a plurality of concentric strings of casing which comprises a sleeve member extending through aligned openings in the walls of said casing strings into sealing engagement with the periphery of an opening in the wall of the innermost of said casings, a cylindrical case fitting within said sleeve and extending within said innermost casing, expansible sealing means supported on the inner end of said case and means for expanding said sealing means within said innermost casing.

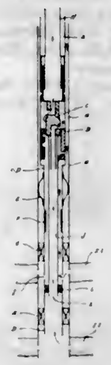
2,840,167

CROSS-OVER WELL APPARATUS

Cicero C. Brown, Houston, Tex.

Application August 10, 1953, Serial No. 373,231
4 Claims. Cl. 166—152)

1. A well apparatus adapted to be connected in a well tubing string and lowered therewith within a well casing, said apparatus including a cross over unit housing, a rotatable connection for connecting said housing to the tubing string, said housing having an axial bore with an intermediate bore portion of reduced internal diameter having a radial flow port communicating the bore of the housing with the annulus between the tubing and casing, the bore portion of said housing of reduced internal diameter having spaced upper and lower annular recesses in its bore wall spaced above said radial flow port and also having longitudinal passage means communicating the lower portion of said housing with said recesses, an outer conductor depending from the housing with its upper end communicable with said radial flow port and the passage means communicating with said recesses, the lower portion of said outer conductor having an inlet communicating with a first well fluid producing formation, an inner conductor extending axially within the outer conductor and having an inlet in its lower end communicating with a second well fluid producing formation, sealing means on said conductors sealing off between the respective inlets on said conductors and the well casing to prevent intermingling of the well fluids produced from said respective formations, a control element secured to the upper end of the inner conductor and movable axially within the housing, said control element having a first port for establishing



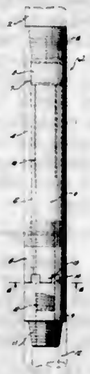
communication between the bore of the well tubing and the area within the housing exteriorly of the control element, said control element having an enlarged portion of enlarged exterior diameter immediately below said first port adapted to sealingly engage the bore wall of said bore portion of reduced internal diameter, a second port in said enlarged portion spaced below said first port for esablishing communication between the inner conductor and the area exteriorly of the control element, a closure in said control element between said ports, the control element being movable to position said second port in alignment with the lower of said annular recesses thereby communicating said inner conductor with the passage means in said reduced diameter bore portion and the radial flow port in said housing, the first port in said control element communicating with said upper annular recess when the second port is aligned with said lower annular recess whereupon said inner conductor communicates with said first port and said tubing string, the outer conductor simultaneously communicating with said radial flow port, the passage means in the bore portion of reduced internal diameter and the first port, thereby providing for intermingling flow of well fluid from both producing formations through the well tubing and the casing tubing annulus.

2,840,168

RELEASABLE COUPLING AND SAFETY SUB

Dan E. Berry, La Habra, Calif.

Application December 10, 1953, Serial No. 397,418
4 Claims. (Cl. 166—219)



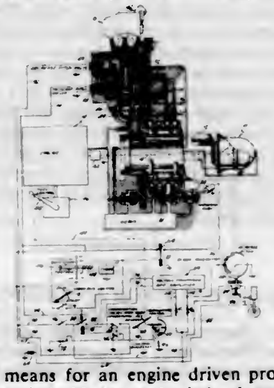
1. A releasable coupling and safety sub, comprising a barrel, a threaded connection on the upper end of the barrel, a mandrel extending into the barrel and slidable therein, a sub on the lower end of the mandrel, teeth on the barrel and teeth on the sub, said teeth interengaging in the telescoped position of the barrel and mandrel and disengaged in the extended position of the parts, upwardly facing lugs on the inside of the barrel, splines on the outer wall of the mandrel, said splines being arranged on the upper end portion of the mandrel, a portion of the outer wall of the mandrel below the splines being unobstructed to permit rotation of the barrel relative to the mandrel, said lugs being of lesser length than the splines, and a shoulder on the lower end of each of the splines against which the lugs strike while engaging the splines.

2,840,169

PROPELLER CONTROL SYSTEM

Thomas P. Farkas, Bloomfield, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

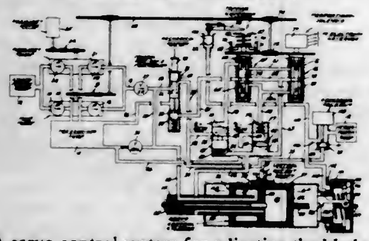
Application October 14, 1952, Serial No. 314,593
20 Claims. (Cl. 170—135.74)



4. Control means for an engine driven propeller having adjustable pitch blades and pitch changing means comprising in combination, a speed governor connected with the pitch changing means for changing the blade pitch to control engine speed, means for disabling said governor and increasing the blade pitch and means for disabling said governor and decreasing the blade pitch, a manually actuated engine fuel control, means independent of said fuel control for selecting the governor

speed setting, a first signal producing means and means connected with said blades for varying said signal in accordance with the position of the blades, a second signal producing means and means connected with said control for varying said second signal in accordance with the position of said engine control, means for comparing the two signals, means connecting said comparing means with said pitch increasing and pitch decreasing means including means responsive to the predominating signal of the compared signals for selectively operating said pitch increasing or pitch decreasing means, disabling said governor and changing the blade pitch to change the blade signal and make the other signal predominant whereby the blade pitch will cycle about a pitch selected by the engine control means.

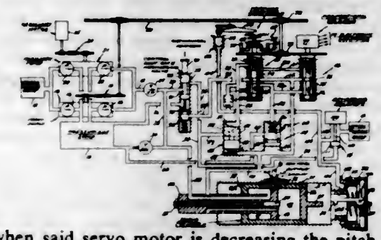
2,840,170
SERVO CONTROL SYSTEM FOR A VARIABLE PITCH PROPELLER
Stanley G. Best, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application April 28, 1954, Serial No. 426,061
13 Claims. (Cl. 170—160.2)



10. A servo control system for adjusting the blade pitch angle of an aeronautical propeller and comprising in combination, a reversible servo motor operatively connected to the propeller blades and having two chambers and adapted to be balanced and thereby reflect an unchanging pitch angle when fluid pressures within said chambers bear a predetermined relationship to each other, said motor also being adapted to operate and thereby cause a change in pitch angle when said fluid pressures are in other than said predetermined relationship, means for continuously introducing fluid under pressure to one of said chambers, means for continuously producing fluid pressure a fixed amount greater than the pressure within the other of said chambers, means for continuously producing fluid pressure a fixed amount less than the pressure within said other chamber, and a flow control valve connected with said other chamber and also connected with both of said pressure producing means to selectively connect the said other chamber to the first or last mentioned pressure producing means whereby said servo motor may be selectively operated to decrease or increase the blade pitch angle.

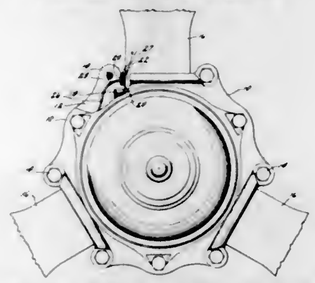
2,840,171
CONTROL SYSTEM FOR A VARIABLE PITCH PROPELLER
Chester M. Jedrziewski, Rockville, and Donald P. Ramaker, Glastonbury, Conn., assignors to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application October 28, 1955, Serial No. 543,465
13 Claims. (Cl. 170—160.2)

1. In an aeronautical propeller pitch control and servo system which includes an hydraulically operated servo motor adapted to effect blade angle changes toward high and low pitch in a range including the feathered angle and reverse pitch of the propeller, the combination comprising a source of fluid under pressure, a drain, valve means connected with said servo motor and having a pair of passageways respectively connected with the source and with the drain, the said valve means being operable to selectively connect the servo motor with said source or said drain either to increase or to decrease the pitch angle, flow limiting means in one of said passageways to limit the rate of servo motor opera-



tion when said servo motor is decreasing the pitch angle during normal operation and when the propeller is being removed from the feathered angle, and means for reversing the pitch of the propeller including a valve adapted to increase flow in said one passageway whereby to increase the rate of servo motor operation in decreasing the pitch angle.

2,840,172
SEALING MEANS
Anthony F. Dernbach, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware
Application January 2, 1957, Serial No. 632,222
5 Claims. (Cl. 170—160.23)

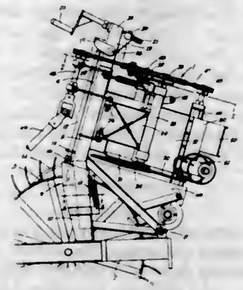


4. In combination with an aeronautical propeller having a plurality of radially extending pitch adjustable blades and a split hub having two parts with juxtaposed parting surfaces in the plane of the longitudinal axes of said blades and with the blade shanks extending between the inside and the outside of said hub, an endless seal surrounding each blade and received in a recess in the hub parts, a strip seal received in juxtaposed recesses in the parting surfaces of said hub parts, and extending from one endless seal to an adjacent endless seal, said endless seals being apertured to receive and completely surround the adjacent end portion of said strip seal to form a fluid tight joint between said strip and endless seals and means connecting said endless seals with said hub to prevent rotation of said seals relative to said hub.

2,840,173
TOPPING UNIT FOR SUGAR BEET HARVESTERS
Lewis Wallace Schmidt, Rio Vista, Calif.
Application April 9, 1957, Serial No. 651,675
12 Claims. (Cl. 171—37)

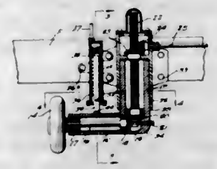
1. A topping unit, for a beet harvester which includes a spiked, beet pick-up wheel, and a secondary frame on which the wheel is journaled; said unit comprising an upstanding frame, means mounting the upstanding frame

in connection with the secondary frame for free up and down motion relative to the wheel, stop means operative to limit downward motion of the upstanding frame to a



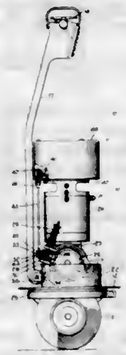
lowered position, and beet topping mechanism mounted on the upstanding frame adapted to cooperate with the wheel adjacent the top thereof when the upstanding frame is in said lowered position.

2,840,174
VEHICLE PARKING MEANS
Gaylard A. Rector, Cleveland, Ohio
Application February 25, 1955, Serial No. 490,600
2 Claims. (Cl. 180—1)



1. In combination, an automotive vehicle having a chassis frame having side members and a motor mounted on said frame, and vehicle wheels upon which said frame is mounted, a vertical tube fixed to each said side member and having an open lower end, an L-shaped tubular bracket having a vertical arm slidably engaged in said tube through its open lower end, means preventing rotation of the bracket in said tube, said bracket having a horizontal arm below said tube and having inner and outer ends, a horizontal shaft journaled in said horizontal arm having inner and outer ends, a parking wheel fixed on the outer end of the horizontal shaft, a first bevel gear fixed on the inner end of the horizontal shaft, a vertical splined shaft journaled in said vertical bracket arm having a lower end and an upper end, a second bevel gear fixed on the lower end of the splined shaft and meshed with said first bevel gear, the upper end of the splined shaft being above the upper end of said vertical bracket arm and positioned within said vertical tube, a third bevel gear splined on said splined shaft above the upper end of said vertical arm, means on said tube preventing said third bevel gear from subsiding along the splined shaft to said vertical arm, a drive shaft journaled in said tube and having an inner end, a fourth bevel gear on the inner end of the drive shaft meshed with said third bevel gear, and operating means connecting said drive shaft to the vehicle motor, and hydraulic jack means operatively connected between said chassis frame and said horizontal arm of the L-shaped bracket for depressing the bracket to engage the parking wheel with the ground and elevate a vehicle wheel above the ground.

2,840,175
INDUSTRIAL TRUCK HANDLE OPERATED CONTROL
Bronislaus I. Ulinski, Flossmoor, Ill., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application February 9, 1956, Serial No. 564,421
7 Claims. (Cl. 180—13)

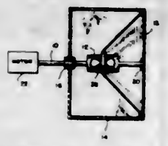


1. In a truck of the class described, a steering and traction unit mounted for rotation whereby to steer the truck and comprising a traction wheel, a motor on the upper end of the unit for driving the traction wheel, a steering handle pivoted on said steering and traction unit, a lever pivoted on said steering and traction unit and equipped with an operating surface, an actuating member movable with said steering handle in position to act against said operating surface as the handle rotates on its pivot between a vertical position and a horizontal position, said actuating member formed to move into contact with said operating surface of the lever for rotating the lever from an initial position to a second position during the first part of the handle rotation away from its vertical position, the continued rotation of said steering handle to its full horizontal position moving said actuating member to bypass and to leave said operating surface of the lever, a brake on said steering and traction unit, a spring pressing said brake toward locked or braking position, means whereby said lever when rotating to its said second position moves said brake to release position through yielding of the spring, said spring acting when the actuating member bypasses and leaves the operating surface of the lever to rotate said lever toward its initial position while moving the brake to locking position, switch means on said motor, a casing enclosing said switch means, an arm on said lever, a rod extending vertically from said arm into said casing whereby the lever when moving the brake to release position moves the switch means to circuit closing position, and a spring acting through said rod for pressing said lever to its initial position, said spring effecting movement of the switch means to circuit opening position independently of the spring that presses the brake.

2,840,176
ELECTRO-MECHANICAL MEANS OF GENERATING SUBSONIC ENERGY
Alfred Davis, Little Silver, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application August 2, 1955, Serial No. 526,088
2 Claims. (Cl. 181—.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

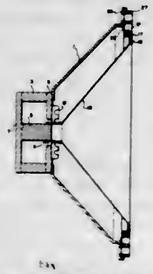
1. A compressional wave generator comprising a vibratable diaphragm having an aperture located therein, a rigid ring member fastened within said aperture, a rotatable shaft having a cylindrical drum thereon extending loosely within said ring, a plurality of identical, circum-

ferentially-spaced, endless camming grooves upon the surface of said drum, each groove having a cyclic progression along the axis of said shaft with respect to its circumference, and a plurality of circumferentially-



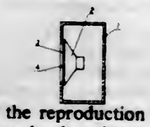
spaced cam-follower lugs extending inwardly from said ring and engaging said grooves, whereby upon rotation of said shaft said diaphragm is vibrated in accordance with the axial progression of said grooves to produce compressional waves.

2,840,177
LOUDSPEAKER DIAPHRAGM SUPPORT
Herbert Schoengold, Mount Vernon, N. Y., assignor, by mesne assignments, to Alexander I. Abrahams, New York, N. Y.
Application July 28, 1955, Serial No. 524,879
6 Claims. (Cl. 181—31)



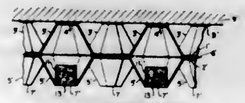
2. A loudspeaker including a frame, a vibrating diaphragm having a rim and means for suspending said vibrating diaphragm from said frame, said means including a strip of deformable material of open cellular structure connected with said frame and fixed to the rim of the diaphragm and extending therebetween, said material being deformable under the action of the vibrating diaphragm and characterized by compression and tension of the cells when the said material is deformed.

2,840,178
DEVICE FOR THE REPRODUCTION OF SOUND
Aleš Boleslav, Prague, Czechoslovakia, assignor to Tesla, narodni podnik, Prague, Czechoslovakia, a corporation of Czechoslovakia
Application January 3, 1955, Serial No. 479,635
Claims priority, application Czechoslovakia January 20, 1954
10 Claims. (Cl. 181—31)



1. A device for the reproduction of sound comprising a cabinet having a loudspeaker opening at the front thereof and being otherwise closed, a loudspeaker within said cabinet and extending across said opening in a directly radiating position, said loudspeaker having a diaphragm and a system for vibrating the latter, and means defining an acoustic impedance loading the front side of said loudspeaker diaphragm and consisting of two parallel elements, one of said elements being predominantly an acoustic resistance within the range of low frequencies and the other of said elements being predominantly an acoustic mass within the range of low frequencies, the values of said acoustic mass and acoustic resistance being related so that, in the resonance range of the loudspeaker, the loading acoustic impedance defined by said acoustic mass and acoustic resistance compensates the acoustic impedance of said closed cabinet and, in the range of medium frequencies, the value of the acoustic resistance is lower than the value of the reactance of said loudspeaker vibrating system, so that there is a minimum reduction in the average level of the acoustic signal radiated by said loudspeaker.

2,840,179
SOUND-ABSORBING PANELS
Miguel C. Junger, Cambridge, Mass.
Application June 17, 1954, Serial No. 437,492
16 Claims. (Cl. 181—33)



1. A sound absorbing and diffusing panel comprising a plurality of volume-enclosing chambers, said panel material being shaped to form apertures in said chambers facing toward the sound-emitting area, said chambers being so shaped that the cross-sectional areas of the enclosed volumes increase behind the apertures, tubes extending from the rims of the apertures part way into the chambers, and means for supporting the chambers in an adjoining relation so as to form a continuous layer thereof.

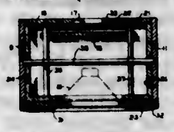
4. A sound absorbing and diffusing panel comprising two sheets of material, each impressed with a series of protrusions positioned to form matching parts of volume-enclosing chambers and joining surfaces between the protrusions, said sheets being attached to each other along the joining surfaces to form said chambers, one of said sheets being shaped to form apertures at the ends of its protrusions, and the surfaces of the panel having the protrusions of the sheets.

2,840,180
MEANS FOR REDUCING ACOUSTICAL ENERGY IN A FLUID TRANSLATING SYSTEM
Daniel Nobles, Upper Montclair, and Norman L. Meyerson, Glen Rock, N. J., assignors to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application March 23, 1955, Serial No. 496,200
6 Claims. (Cl. 181—42)



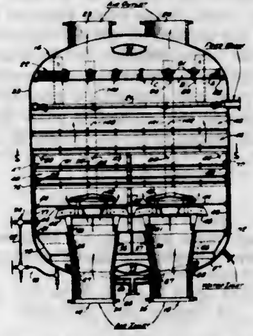
1. In a fluid translating system including a compressor having a discharge passage, a flow passage in said fluid translating system, and a connecting joint between said discharge passage and said flow passage, the combination of a sound absorbing and reducing means including a splitter panel disposed in said discharge passage parallel to the line of fluid flow, a liner annular in cross section mounted in said connecting joint, connecting means at one end of said splitter panel, said connecting means disposed between said discharge passage and said connecting joint for fixedly positioning said splitter panel in said discharge passage, and means on said panel and said liner to hold them in spaced relation to the inner walls of said passage and said connecting joint.

2,840,181
LOUDSPEAKER CABINET
Benjamin H. Whidman, San Francisco, Calif.
Application August 7, 1956, Serial No. 602,561
1 Claim. (Cl. 181—31)



A loudspeaker cabinet comprising a box having six walls including a front wall and a rear wall, said front wall having a circular aperture therein and said rear wall having a triangular aperture therein, a baffle wall within said box and extending from the top to the bottom thereof but stopping short of the sides thereof and disposed parallel to said front and rear walls, struts connecting said front and rear walls and extending through said baffle wall, and a bar connecting said side walls between said baffle wall and said front wall.

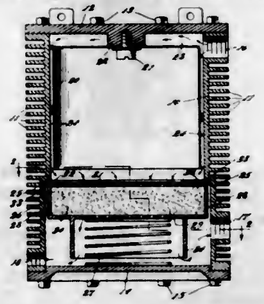
2,840,182
EVAPORATOR COOLER AND METHOD EFFECTED THEREBY
Earl E. Coulter, Deerfield, Ohio, Will H. Rowand, Short Hills, N. J., and Theodore S. Sprague, Hewlett, N. Y., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application July 29, 1954, Serial No. 446,464
11 Claims. (Cl. 183—26)



5. In a gas humidification method, establishing successively spaced zones of gas and liquid contact, maintaining humidifying liquid in said zones, maintaining gas flow through the liquid in said zones with the first gas contacted zones constituting a super zone of main humidification in which the predominant part of the total humidification takes place, washing the gas with higher purity liquid supplied to the contact zones beyond the super zone in a gas flow sense, separating liquid droplets from the gas beyond the washing zone, an excess of humidifying liquid being supplied to the super zone, and recirculating the humidifying liquid to the super zone at a rate inversely proportional to the rate of gas flow, said recirculation of liquid being limited to the super-zone.

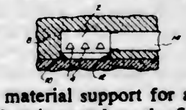
2,840,183
APPARATUS FOR COOLING AND CLEANING COMPRESSED AIR
Robert H. George, Melrose Park, Pa.
Application April 19, 1955, Serial No. 502,415
2 Claims. (Cl. 183—32)

1. Apparatus for cooling and cleaning compressed air comprising a housing having heat dispersal means on the outside of the side wall thereof and having an inlet opening at the top, and inverted cup shaped member secured within the housing, but below the top thereof thereby to provide a space at the top for the passage of the air, said cup shaped member being of an external diameter slightly less than that of the internal diameter of the portion of the housing in which it is positioned thereby to provide a narrow annular space for the downward passage of the air immediately adjacent the side wall of the housing, a filter unit positioned below the cup shaped member in the lower portion of said housing and normally seated on a shoulder in the side wall of the housing, said filter unit having foraminous top and bottom plates,



and filter material disposed between said plates, the arrangement being such that the air normally passes downwardly through the filter material, a spring supporting said filter unit whereby it may be forced downwardly in the event of choking or clogging of the filter material, the filter unit being of an external diameter slightly less than that of the internal diameter of the portion of the housing in which it is positioned thereby to provide an annular passageway through which the air may pass when the filter unit is forced downwardly, and the housing having an air outlet opening located near but above the bottom thereof, and a drainage outlet opening at the bottom thereof.

2,840,184
SUPPORT FOR FILTER MATERIAL
Gerhard K. E. H. Stampe and Hermann Otto Tietze, Lubeck, Germany, assignors to Otto Heinrich Drager, Lubeck, Germany
Application December 27, 1954, Serial No. 477,847
Claims priority, application Germany January 29, 1954
1 Claim. (Cl. 183—49)

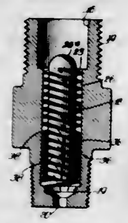


In an air filter material support for an air raid shelter in which an air duct is seated on the floor of a chamber and is covered on its sides and top by granular filter material so that air can be drawn through the filter material vertically downward and into the air duct which keeps out the filter material but passes purified air, the improvement comprising an air duct having a top wall and side walls, said side walls being partially spaced from the bottom of the chamber, aligned inverted V-shaped openings in said side walls, inverted V-shaped strips slidably mounted through each pair of aligned openings and extending through said air duct and projecting outwardly of said side walls, respectively, and an air outlet pipe connected to said air duct and extending outwardly of said chamber.

2,840,185
AEROSOL RECLASSIFIER
Carl A. Norgren, Denver, Colo., assignor to C. A. Norgren Co., a corporation of Colorado
Application May 3, 1955, Serial No. 505,785
6 Claims. (Cl. 183—79)

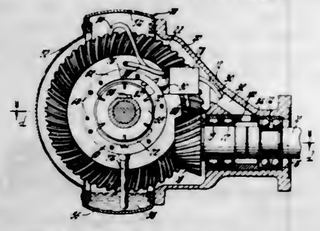
3. An aerosol reclassifier comprising, a body having

a stepped bore therethrough having at least three sections, the largest section being at the inlet to the body with the other sections being progressively smaller, a shoulder between said largest section and the adjacent section, a plug element within said adjacent section and having helical threads thereon dividing the bore into a



plurality of elongated helical passages, and a central nose portion on the plug for directing aerosol into the helical passages, said shoulder, nose portion and helical passages each being in the path of incoming aerosol to promote reclassification of aerosol liquid particles both by impingement and pronounced changes in direction and velocity of aerosol flow.

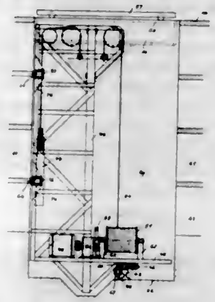
2,840,186
LUBRICATION SYSTEM
J. Arthur Nyland, Swartz Creek, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 2, 1954, Serial No. 441,017
1 Claim. (Cl. 184—6)



A differential drive unit which includes a gear case having a lubricant reservoir provided therein, a differential gear carrier rotatably mounted within said case, a pump housing concentrically disposed about one end of said carrier and fixedly secured to said gear case, a pump impeller enclosed within said housing and operatively connected to said carrier extended therethrough, a conduit having one end disposed within said reservoir and the other end connected to the input side of said pump housing, a lubricant distributor member disposed apart from said housing and connected to the output side thereof, and a plurality of conduits connected to the output side of said distributor member and having the ends thereof disposed adjacent bearings and gear members of said differential drive unit requiring lubrication.

2,840,187
MOBILE FREIGHT ELEVATOR
Edoardo Bianca, Herrliberg, near Zurich, Switzerland
Application May 26, 1955, Serial No. 511,253
3 Claims. (Cl. 187—7)

1. An elevator supporting arrangement for garages and warehouses comprising, in combination, an upright elevator structure having a center of gravity; wheel means secured to the bottom portion of said elevator structure spaced in horizontal direction from a vertical plane passing through said center of gravity, said wheel means including a pair of wheels turnable about a horizontal axis, and at least one wheel turnable about a vertical axis; roller means secured to the top portion of said elevator structure for turning movement about non-horizontal axis; an elevator cabin mounted on said elevator structure for movement in vertical direction; horizontal rail means extending in one direction and being engaged by said wheel means on the bottom portion of said elevator structure, said rail means being spaced in horizontal direction from, and being located on one side of a vertical plane passing through said center of gravity so that said elevator structure is eccentrically supported whereby said elevator structure tends to tilt about said



rail means under the action of the tilting moment produced by gravity; and horizontal elongated guide means extending parallel to said rail means and being located above the same on the other side of said vertical plane, said elongated guide means being engaged by said roller means on the top portion of said elevator structure under the action of the tilting moment and holding said elevator structure in upright position by counteracting the horizontal force produced thereon by said tilting moment, said rail means and said elongated guide means supporting said elevator structure for movement in said direction.

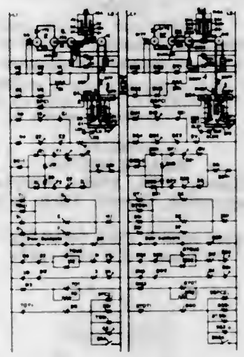
2,840,188
ELEVATOR SYSTEMS
Conwell Savage, New York, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 4, 1957, Serial No. 650,651
14 Claims. (Cl. 187—29)



14. In an elevator system, a structure having a plurality of vertically-spaced floors and a vertical hoistway, an elevator car, means mounting the elevator car for movement vertically through the hoistway to serve the floors, and control mechanism comprising a plurality of side-by-side non-extensible control elements mounted on the structure and extending vertically past the elevator car from a position adjacent the lowest travel of the elevator car to a position adjacent the highest travel of the elevator car, guide means for guiding each of the control elements through a separate path adjacent the elevator car which is horizontally fixed relative to the elevator car, and separate translating means mounted on the elevator car for each of the control elements, each of the translating means when in effective condition cooperating with the

associated one of the control elements to operate the translating means in response to arrival of the elevator car at predetermined positions relative to the structure.

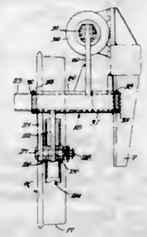
2,840,189
ELEVATOR SYSTEMS
Danilo Santini, Tenafly, and George Macredis, West Englewood, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 15, 1957, Serial No. 653,025
21 Claims. (Cl. 187—29)



6. In an elevator system for a structure having a first terminal floor, a second terminal floor and a plurality of intermediate floors positioned between the terminal floors, a plurality of elevator cars, motive means for moving each of the elevator cars relative to the structure to provide elevator service for the floors, and control means cooperating with the motive means for moving the elevator cars and stopping the elevator cars at desired floors of the structure, said control means comprising first call registering means for each of the intermediate floors operable for registering calls for elevator service towards the second terminal floors, second call registering means for each of the intermediate floors operable for registering calls for elevator service towards the first terminal floor, third call registering means operable for registering calls for each intermediate floor desired by passengers in each of the elevator cars, first means for moving the elevator cars between the terminal floors and stopping each of the elevator cars at each intermediate floor approached by the elevator car in response to a call registered by the registering means for the floor being approached by the elevator-car-to-be-stopped which may be served by such approaching elevator car, second means cooperating with the first-means in response to occurrence of a predetermined condition for conditioning a first one of the elevator cars on a plurality of first trips towards the second terminal floor to stop and reverse at a first one of the intermediate floors, and third means cooperating with the first means in response to occurrence of said predetermined condition for conditioning a second one of the elevator cars on a plurality of trips towards the second terminal landing to stop and reverse at a second one of the intermediate floors.

2,840,190
RAILWAY BRAKE
Walter R. Polanin and John A. Buvelot, Chicago, Ill., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application June 30, 1955, Serial No. 519,178
3 Claims. (Cl. 188—33)

1. In a railway car truck, a frame comprising side rails connected intermediate their ends by transoms, wheel and axle assemblies supporting said frame, and a unitary brake arrangement rigidly secured to the ends of the frame, said arrangement comprising bearing brackets secured to adjacent ends of said side rails, a shaft supported adjacent its ends by said brackets, a hub portion rotatably mounted on said shaft adjacent each of the wheels of said assembly, releasable means interlocking said shaft and brackets to prevent relative motion therebetween, opposed vertical arms carried by said hub por-



tion, a brake shoe assembly carried by the lower end of one of said arms, said brake shoe assembly being engageable with the wheel tread friction surface of one of the wheels of said assemblies, the other of said arms being disposed outboardly of said wheel, and a power cylinder secured to the frame outboardly of said wheel, said cylinder being operatively connected to the upper end of said other arm, said brake shoe assembly being the sole means to frictionally engage said wheel tread friction surface.

2,840,191
CLASP BRAKE
Wesley A. Helsten, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 4, 1955, Serial No. 538,372
2 Claims. (Cl. 188—33)

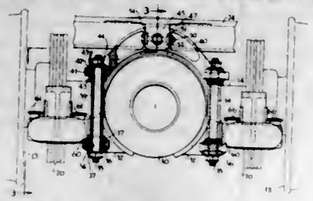


1. A brake arrangement for a railway car truck having a truck frame supported by spaced wheel and axle assemblies, an intermediate portion of said frame comprising a surface disposed at a level above the surfaces of the opposite ends of said frame, a pair of actuating levers disposed at said opposite ends, said levers being disposed above the surfaces of said ends and below the surface of said intermediate portion, power means and slack adjusting means, respectively, operably connected to the outboard ends of said pair of actuating levers, a tension rod connecting said actuating levers, said tension rod being disposed outboardly of said frame and below the surface of said intermediate portion, and brake means operably connected to the inboard ends of said actuating levers.

2,840,192
MOTOR-BRAKE MOUNT FOR POWER DRIVEN TRUCK
Albert G. Dean, Narberth, and Floyd S. Leas, Jr., Oreland, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application October 31, 1956, Serial No. 619,538
5 Claims. (Cl. 188—59)

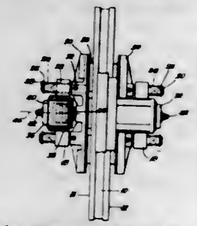
1. A motor-brake mount for a power driven truck having side frames, cross transoms and wheel-axle units, comprising in combination, a motor having a drive connection with an axle, a motor casing mounted on the axle for turning movement of the axle therein, a fitting carried on each side of the motor casing, support rods

connected at their lower ends to the casing fittings, an evener yoke pivotally mounted on a truck transom and



supporting said rods, and brake units carried by said fittings on each side of the motor.

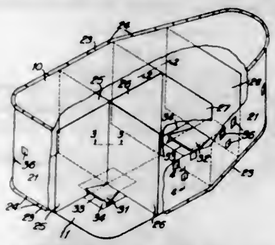
2,840,193
ROTOR BRAKE
William Mann and Bernard Maloney, Gary, Ind., assignors to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application January 25, 1955, Serial No. 483,914
2 Claims. (Cl. 188—73)



1. A rotor brake comprising a brake rotor having two external side faces, said side faces serving as radial friction surfaces, two brake arms fixed adjacent to and spaced from said side faces, guide rods snugly and slidably mounted in bushings fixed in the brake arms, said guide rods and bushings having central axes disposed normal to the adjacent rotor side faces, segmental shoe carrying brake head means fixed to and supported by said guide rods for motion therewith and engageable with the rotor side faces, the coengaging surfaces of the bushings and guide rods being the sole means for transmitting torque from the head means to the arms and being formed and arranged to assure substantial parallelism between the segmental shoes and the adjacent rotor side faces, spring means sleeved on said rods to urge the segmental shoes out of contact with the rotor side faces, and fluid cylinder means operatively connected to and interposed between each of the brake arms and the corresponding brake head means.

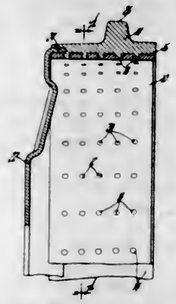
2,840,194
SHOCK-ABSORBING AIR CUSHION
John Rothwell Mitchell and William Thomas Rollings, Woking, England, assignors to G. Q. Parachute Company Limited, Woking, England, a British joint-stock company
Application November 28, 1955, Serial No. 549,365
Claims priority, application Great Britain December 6, 1954
2 Claims. (Cl. 188—87)

1. A shock-absorbing air cushion for a load falling to the ground, said cushion being made mainly of flexible material and including a surface area having sufficient porosity for escape of air through said surface area by slight air pressure inside said cushion, means for admission of air to said cushion during its descent with a load, and at least one outlet valve for escape of air from said cushion, said outlet valve comprising a flexible flap supported inside said cushion and cooperating with an aperture therein, said flap being normally clear of said aperture but adapted to close said aperture upon slight rise of pressure inside said cushion and thereafter to blow



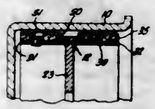
through said aperture for escape of air from said cushion when the air pressure inside said cushion increases due to collapse of said cushion when it strikes the ground.

2,840,195
BRAKE DRUM
Charles D. Holton, Clio, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 3, 1953, Serial No. 359,289
8 Claims. (Cl. 188—218)



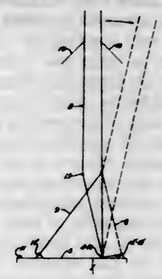
1. A brake drum comprising a sheet metal drum head in the general form of a disk, a cylindrical hard wear liner extending axially from said drum head and an annulus of backing material having a heat conductivity higher than that of said liner bonded to said liner over susbtantially the entire outer surface thereof, said wear liner having a multiplicity of perforations therein distributed both laterally and circumferentially throughout its entire surface through which said backing material extends to the inner surface of said liner to provide a composite brake wear surface having improved heat transfer characteristics consisting of alternating areas of said backing material and heat conductive material, said annulus of backing material also anchoring said sheet metal drum head at the outer peripheral portion thereof.

2,840,196
BRAKE SHOE
Jean A. Lignian, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 9, 1954, Serial No. 409,142
3 Claims. (Cl. 188—261)



1. A brake shoe for a vehicle brake, comprising, a brake shoe rim, a rim reinforcing web engaging one side of the rim, and a continuous friction lining on the opposite side of the rim fully engaging the same and having friction surfaces spaced one from the other forming thereby a space between the friction surfaces, said space being positioned radially outwardly from the web and of a width at least twice the width of engagement between the web and the rim, said space opening in a direction radially outwardly with respect to said lining whereby the friction surface of said lining in the area above said web is completely eliminated.

2,840,197
MULTIPLE WELL DRILLING APPARATUS AND METHOD
Cecil Jenkins, John Wesley Born, Homer J. Woolslayer, and Robert C. Maxwell, Tulsa, Okla., assignors to Lee C. Moore Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 19, 1955, Serial No. 541,468
19 Claims. (Cl. 189—11)



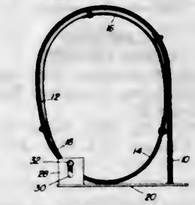
1. Apparatus for drilling a line of closely spaced wells, comprising a base adapted to be placed in fixed position over the site of said wells and extending lengthwise of said line, an upright drilling mast on the base in position to drill a well, a gin pole on the base beside the mast, a pivotal connection on the base for the lower end of the mast, a pivotal connection for the mast at the top of the gin pole, and means for tilting the mast lengthwise of the base on one of said pivotal connections and then swinging the mast upright again on the other of said pivotal connections, whereby the mast can be moved lengthwise of the base to drill another well.

2,840,198
APPARATUS AND METHOD FOR MULTIPLE WELL DRILLING
Homer J. Woolslayer, Cecil Jenkins, Robert C. Maxwell, and John W. Born, Tulsa, Okla., assignors to Lee C. Moore Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application December 23, 1955, Serial No. 555,080
6 Claims. (Cl. 189—11)



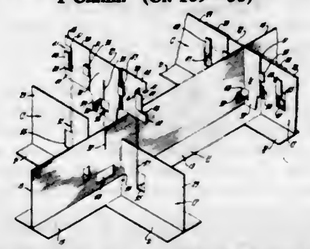
1. A multiple well drilling derrick comprising a base, an upright mast on the base in a well drilling position, a gin pole mounted in fixed position on the base, means pivotally supporting the mast at the top of the gin pole so that the mast can be tilted to locate its upper end in another well drilling position, and means for connecting the foot of the mast to the base in different locations to hold the mast in either upright or tilted position.

2,840,199
COLLAPSIBLE AERIALS
Richard Quentery Marris, Ealing, London, England, assignor to Ultra Electric, Inc., Wilmington, Del., a corporation of Delaware
Application March 23, 1953, Serial No. 343,995
5 Claims. (Cl. 189—26)



1. A collapsible aerial assembly comprising a base, a plurality of juxtaposed flexible spring metal leaves of arcuate cross-section aligned at one end and secured at their aligned ends to said base with their concave surfaces facing in the same direction, said spring metal leaves being of varying lengths with the convex surface of a leaf of longest dimension constituting one of the outer surfaces of the aerial, said leaves being capable of being coiled from the free end toward said base into a compact spiral with the concave surfaces facing inwardly and with said leaf of longest dimension outermost, a plurality of means cooperating with said leaves for retaining them in their juxtaposed relation while permitting relative sliding during flexure thereof, and means cooperating with said base and with said leaves for releasably retaining the latter in said compact spiral position adjacent said base, said aerial being self erecting upon release of said retaining means.

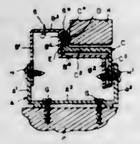
2,840,200
STRUCTURAL CONNECTOR
Herbert K. Wong, San Francisco, Calif., assignor to Cepco, Inc., San Francisco, Calif., a corporation of California
Application June 30, 1955, Serial No. 519,061
1 Claim. (Cl. 189—35)



A structural connector consisting of a single metal plate having two coplanar end portions, a central portion offset from said end portions to form two transverse shoulders between the central portion and the two end portions, said plate having a substantially straight upper edge extending across said central and end portions, said central portion being of greater width than said end portions so that the lower edge of the central portion is not in alinement with the lower edge of said end portions, each end of said plate having two slots extending inward lengthwise to form three tongues, the center one of said three tongues at each end of the connector being offset from the plane of said end portions in the same direction and by twice the amount that said central portion is offset, the two outer ones of said three tongues at each end of the connector

being coplanar with said end portions, two tabs cut out of and offset from respective ones of said end portions and extending outward lengthwise of the connector from said shoulders, said tabs being coplanar with said offset tongues, a transverse slot extending inward from the lower edge of said central portion, and a rectangular tab cut out of and bent substantially perpendicular to said central portion leaving a rectangular aperture therein, the plane of said last-mentioned tab being transverse to the connector, said transverse slot extending through said aperture.

2,840,201
DOOR FRAME
Victor E. Anderson, Bradenton, Fla., assignor to V. E. Anderson Manufacturing Company, Bradenton, Fla., a corporation of Kentucky
Application June 27, 1955, Serial No. 518,204
10 Claims. (Cl. 189—46)



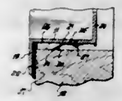
5. A metallic door frame adapted to be mounted within a door opening in a wall and comprising three structural members, two of said members fitting one within the other, one of said two being attachable to said wall at one side of said opening, the third structural member being upon the other of said two members and having a portion for receiving an edge of said door when in closed position, portions of said two members being arranged side by side and secured together, other portions of said two members being spaced apart, and a portion of said third member being between and connected to the spaced apart portions aforesaid of said two members.

2,840,202
WINDOW FASTENER CONSTRUCTION
Elmer T. Hehr, Pasadena, Calif.
Application September 5, 1956, Serial No. 608,072
7 Claims. (Cl. 189—75)



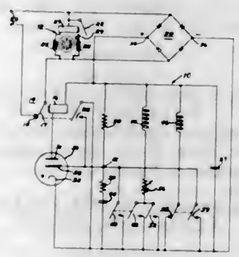
1. In a fastening arrangement for permanently securing a window frame structure in an opening in a wall section, peripheral surfaces of said opening being disposed substantially normal to opposite, substantially parallel side surfaces of said wall section: an integral flange forming one portion of said frame structure, said flange being disposed for engagement with one of said side surfaces of said wall section; a sill forming another integral portion of said frame structure; a plurality of groove sections disposed in spaced relationship in an outer peripheral surface of said sill portion of said frame structure; and a plurality of clips carried by said peripheral surfaces of said opening, said clips having free end portions disposed at an acute angle relative to said peripheral surfaces of said opening, an edge of each of said free end portions being adapted for engagement with one of said groove sections.

2,840,203
WINDOW FASTENER CONSTRUCTION
Elmer T. Hehr, Pasadena, Calif.
Application September 5, 1956, Serial No. 608,098
4 Claims. (Cl. 189—75)



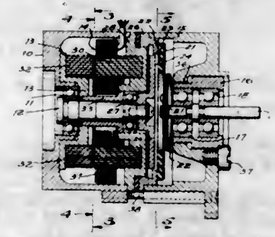
1. An arrangement for permanently securing a window frame within an opening in a wall comprising, in combination: a generally rectangular frame structure; a wall having a finite thickness and structural components of deformable material arranged to define said opening, peripheral surfaces of said opening being disposed substantially at right angles to inner and outer side surfaces of said wall; an outwardly extending flange forming one integral portion of said frame structure and engageable with one of said side surfaces of said wall; a sill portion in said frame structure, said sill portion being disposed in parallel spaced relationship relative to said surfaces of said opening; and plural clip means carried by said sill portion of said frame structure and adapted for deformable engagement with said material of said structural components and said surfaces of said opening whereby to secure said frame structure in said opening and said flange in permanent engagement with said one side surface of said wall.

2,840,204
TIME DELAY DEVICE
Flavius A. Mathamel, Allen Park, and John L. Emery, Oak Park, Mich., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application January 14, 1954, Serial No. 404,116
10 Claims. (Cl. 192—.02)



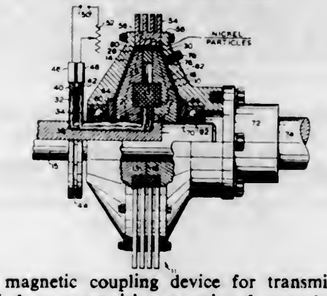
10. A control circuit for deenergizing an electrically energized device when a second device coupled to said electrically energized device ceases to operate comprising switch means connected to said electrically energized device for establishing, when closed, an electrical path thereto, electromagnetic switch operating means for operating said switch means, a time delay circuit connected in circuit with said switch operating means and having a predetermined timing cycle for opening said switch means a predetermined period of time after the start of the timing cycle, and reset means associated with the second device and responsive to off-on changes in said second device for resetting the time delay circuit means to zero time when said second device commences to operate and disabling said time delay circuit means for the period of time said second device continues to operate.

2,840,205
ELECTROMAGNETIC CLUTCH AND BRAKE
Ernest A. Linke, Washington Township, Bergen County, N. J., assignor to Air Associates, Inc., Teterboro, N. J., a corporation of New Jersey
Application November 1, 1954, Serial No. 465,900
7 Claims. (Cl. 192—18)



1. An electromagnetic clutch and brake comprising, a rotatable driver shaft coupled to a driver clutch plate and adapted for continuous rotation, a driven shaft in alignment with said driver shaft and spline-coupled to a driven clutch plate, a stationary annular surface which is normally in frictional engagement with a portion of said driven clutch plate, friction means mounted between the driver clutch plate and the driven clutch plate for engagement by both of said clutch plates, resilient means which stresses the driven plate toward said stationary surface, and electromagnetic means coupled to the driver shaft which moves the driver plate into engagement with the driven clutch plate and simultaneously disengages the driven clutch plate from engagement with the stationary surface.

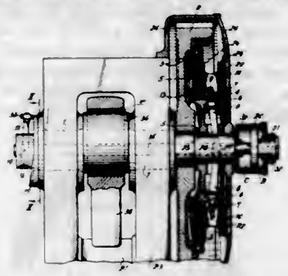
2,840,206
TORQUE TRANSMITTING DEVICE WITH MAGNETIC PARTICLES OF NICKEL
Frank G. Logan, Kirkwood, Mo., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application November 16, 1950, Serial No. 196,057
6 Claims. (Cl. 192—21.5)



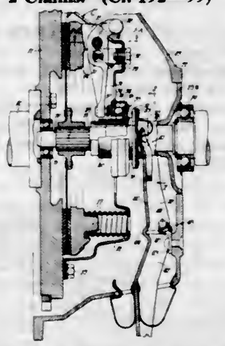
1. A magnetic coupling device for transmitting mechanical force comprising a pair of spaced relatively movable coupling members defining a gap therebetween, and means for transmitting mechanical force between said members, said means comprising means for establishing a magneitc field in said gap, and discrete nickel particles in said gap for establishing in response to said field a bond for opposing relative motion between said members.

2,840,207
OVERLOAD SAFETY DEVICE FOR POWER MACHINE TOOLS
Karl Keck, Goppingen, Germany, assignor to L. Schuler A. G., Goppingen, Wurttemberg, Germany
Application August 24, 1953, Serial No. 376,206
Claims priority, application Germany September 2, 1952
7 Claims. (Cl. 192—69)

1. A drive with friction coupling and overload safety device for power-driven machines such as presses, shears, punches and the like, comprising a frame, a shaft with an eccentric rotatably mounted in the frame and having an axially directed bore therein, a drive means on one end of the shaft, a clutch coupling connected to the drive means and the shaft, a cam on the frame adjacent the other end of the shaft, and means extending through the bore and connected to contact the cam to regulate the clutch engagement in accordance with the rotary position of the shaft and controlled by the cam.



2,840,208
CLUTCH WITH VIBRATION DAMPENER
Reinhold C. Zeidler, Detroit, and Daniel W. Lysett, Utica, Mich., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application September 1, 1951, Serial No. 244,778
2 Claims. (Cl. 192—99)

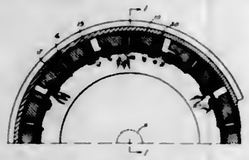


1. In a clutch having a rotatable support fixed against axial movement, a driving plate carried by said support and selectively movable axially, a driven plate engageable by said driving plate, means including a plurality of radially extending levers and an axially movable thrust bearing assembly for disengaging said driving plate from said driven plate, said thrust bearing assembly including a tubular metallic carrier having at one end an outwardly extending radial flange, lever means for actuating said thrust bearing assembly, vibration-dampening material interposed between the flange of said tubular carrier and said lever means to prevent vibrations therebetween and spring means for urging said lever means into engagement with said vibration-dampening material.

2,840,209
ARRANGEMENT OF LEAF SPRINGS IN CENTRIFUGAL FRICTION CLUTCHES
Richard Binder, Schweinfurt am Main, Germany, assignor to Fichtel & Sachs A. G., Schweinfurt am Main, Germany, a corporation of Germany
Application October 22, 1956, Serial No. 617,525
Claims priority, application Germany November 22, 1955
5 Claims. (Cl. 192—105)

1. A centrifugal friction clutch of the class described, comprising a revoluble driving member adapted to be connected to a prime mover for rotation thereby, said driving member having an axially extending wall which

symmetrically surrounds its axis of rotation, a driven drum coaxial with said driving member and having an inner cylindrical friction surface concentric with said axis of rotation, a plurality of symmetrically arranged radially movable centrifugal weights carried by said driving member exteriorly of said wall, each of said weights having a segmental cyclindrical surface disposed for frictional engagement with said friction surface of said driven member upon outward radial displacement of said weight, spring means pressing each of said weights directly



against the outer surface of said wall, a flexible leaf spring associated with each weight, each leaf spring being disposed interiorly of said wall, means fixedly securing one end portion of each leaf spring to the inner surface of said wall, and connecting means freely movable through said wall, said connecting means rigidly connecting the other end portion of each leaf spring to one of said weights for frictionless guiding of said weight during radial movement thereof in response to changes in the angular velocity of said driving member.

2,840,210

GUIDING CHANNEL-SHAPED BODIES

Hans K. Lorentzen, Montclair, N. J., assignor to Lorentzen Hardware Mfg. Corp., Hoboken, N. J., a corporation of New York

Original application September 9, 1950, Serial No. 184,055, now Patent No. 2,789,639, dated April 23, 1957. Divided and this application April 16, 1957, Serial No. 653,163

5 Claims. (Cl. 193—1)



1. A channel guide for supporting an inverted, painted, metal channel of rectangular cross section for movement along a fixed path by contact with the inside of the channel, said guide comprising: an upwardly inclined, planar, finlike member provided with a straight upper edge adapted to be received in an inner corner of the channel formed by the junction of the channel bottom and a side wall, with the member extending diagonally of the channel and the upper face of the finlike member receiving the inside of the opposite longitudinal edge of the channel.

2,840,211

DROP TRACK CONSTRUCTION

Felix F. Zawaski, Dearborn Township, Wayne County, Mich., assignor to Michigan Tool Company, Detroit, Mich., a corporation of Delaware

Application October 18, 1956, Serial No. 616,797

1 Claim. (Cl. 193—27)

A drop track for gravity feeding workpieces to a machine comprising a plurality of pairs of outer rails having generally semi-circular guide surfaces, a plurality of pairs of inner rails having generally semi-circular guide surfaces of smaller radius than the guide surfaces on said outer rails, generally semi-circular guides having radii intermediate the radii of said inner and outer rails, means for connecting said rails and said guides to define a generally semi-circular track assembly, and means connecting a plurality of said track assemblies in successively oppositely directed relationship to form a guideway, the



slope of which changes constantly and is reversed at spaced points.

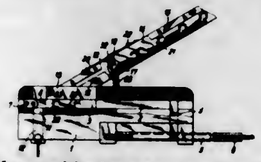
2,840,212

DEVICE FOR POSITIONING ELONGATED OBJECTS

Otto Selbach, Ludenscheid, Westphalia, Germany

Application February 23, 1955, Serial No. 490,091

2 Claims. (Cl. 193—43)



1. Device for positioning asymmetrical elongated objects having one end different from the other, comprising a block member formed with a first horizontally extending feed track and having a trap communicating with said feed track, a horizontally displaceable feed guide for said objects displaceably mounted over said trap, a slide member horizontally displaceable on said feed track with respect to said feed guide, said feed track, said feed guide and said slide member forming a chamber for aligning said object, tension means normally maintaining said feed guide over said trap, and means for periodically displacing said slide member and said object against said feed guide and the force of said tension means, whereby said feed guide is temporarily displaced from over said trap, thus opening the latter, and the said object is propelled by said slide member into the trap opening thus formed.

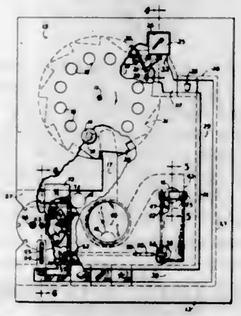
2,840,213

REWARDING AND EDUCATIONAL DEVICE FOR DEVELOPING A CHILD'S HABITS

Austin Gilmour, Springfield, Mass.

Application June 23, 1954, Serial No. 438,806

9 Claims. (Cl. 194—4)



1. An educational device comprising spaced walls forming a trackway extending from an entrance to an exit, a set of tokens shaped to be manually moved on the trackway, said walls providing access for moving the tokens in the groove without permitting lateral removal thereof, a movable carrier arranged to transport a coin, said carrier having lugs projecting into the path of and movable by a token in the groove, means for limiting the distance through which the carrier may be moved by a token engaging a lug thereon, the number of lugs and tokens being related so that the coin is moved by the carrier to a delivery point by the last token supplied for the purpose, spaced walls providing a coin groove extending from the carrier delivery point to an exit which receives and stores the coin delivered by the carrier, and means including a releasable lock which prevents removal of the coin from the groove exit.

2,840,214

VENDING MACHINE

Forrest B. Doud, Redondo Beach, Calif., assignor to Mercury International Research Company, Walteria, Calif., a corporation of California

Application June 13, 1955, Serial No. 514,845

12 Claims. (Cl. 194—9)



1. In a coin actuated machine for vending forms or the like, a supply of forms, photographic means past which said forms are adapted to be fed, said photographic means having one of said forms alined therewith when the machine is inoperative, each of said forms having a slit therein, means responsive to the insertion of coins into the machine for displaying to the photographic means through the slit in said one form indicia indicative of the amount of the coins inserted, means for feeding the forms in succession through the machine, and means responsive to operation of said feeding means to cause said photographic means to photograph said indicia and predetermined portions of said forms as they are fed past the photographic means.

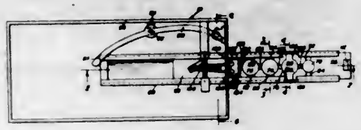
2,840,215

KEY AND COIN COMBINATION LOCK

Robert K. Hensley, Jr., Silver Spring, Md.

Application August 16, 1955, Serial No. 528,665

4 Claims. (Cl. 194—92)



1. A coin controlled device for actuating closure means comprising a channel-shaped guide, said guide including a bottom plate having upwardly extending sides, flanges extending inwardly towards each other from the upper part of said sides, a slide movably positioned in said guide having at least one aperture therethrough, said slide having recesses therein communicating with said aperture, said flanges overlying said recesses, a casing received in said aperture and said recesses, said flanges overlying said casing, an opening in said casing, and a key receivable in said opening.

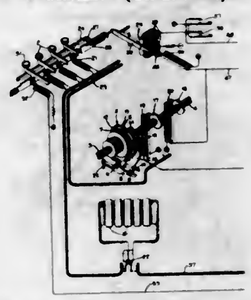
2,840,216

AUTOMATIC LOCKING MEANS FOR KEYBOARDS

Edward S. Larson and Carl A. Levin, Chicago, Ill., assignors to the United States of America as represented by the Secretary of the Navy

Application February 5, 1940, Serial No. 317,456

8 Claims. (Cl. 197—4)



1. Ciphering mechanism and printing mechanism responsive to operation of said ciphering mechanism, said ciphering mechanism including a rotatable cam sleeve. clutch means engageable to drive said sleeve, means to disengage said clutch means cyclically, a plurality of character keys each mounted on a key lever, a member operable by each of said key levers connected to release said clutch means for driving engagement with said sleeve, means to lock said member against operation, a first electromagnet to move said locking means to locking position, a pair of contacts individual to each said key disposed to be closable by the respective key lever, a first cam on said sleeve, character pulse contacts disposed to be closable by said cam and connected in series with each of said pairs of contacts, a second cam on said sleeve, lock pulse contacts closable by said second cam, said printing mechanism including a rotatable cam shaft, clutch means engageable to drive said shaft, means cyclically engageable with an element of the printing mechanism clutch means to disengage said element and retain the same latched in disengaged position, a second electromagnet disposed to release said element from latched position to effect driving of said cam shaft, means including said character pulse contacts connecting all said pairs of contacts to energize said second electromagnet each time any one of said character keys is depressed, a third cam on said shaft, a pair of locking contacts having a portion contacting said third cam whereby said contacts are opened when said shaft revolves, means connecting said lock pulse contacts and said locking contacts to energize said first electromagnet when said lock pulse contacts and said locking contacts are concurrently closed; an additional pair of contacts, means to close said additional contacts and means connecting said additional contacts and said lock pulse contacts to energize said first electromagnet when said additional contacts and said lock pulse contacts are closed concurrently.

2,840,217

DUAL SHEET FEED MECHANISM

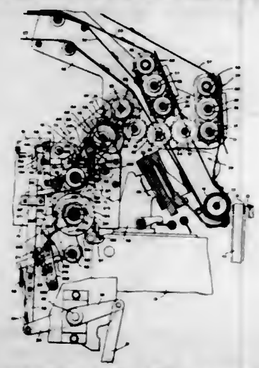
Arthur Nelson and William R. Schwolow, Norwalk, Conn., assignors, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware

Application December 24, 1953, Serial No. 400,248

17 Claims. (Cl. 197—133)

1. In a machine of the class described having an operating station for supporting sheet material, subdivided into a succession of form areas, in working relation to certain machine members operable thereon in each of a succession of spaced positions thereof, dual means for feeding separate sheets to said operating station comprising separate sheet impelling devices engaging each individual sheet and operable for spacing the engaged

sheet longitudinally past said operating station, and separate driving mechanism for each of said separate impelling devices, each of said driving mechanisms having means operable within a machine cycle for imparting a normal intra-form feed stroke to the associated impelling



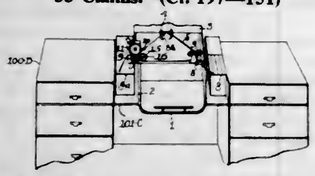
device and means operable within a machine cycle for imparting a compensating interform feed stroke to the associated impelling device, each said last mentioned means being separately controllable to operate in different machine cycles and to impart compensating feed strokes of different extent than the other.

2,840,218

TYPING APPARATUS AND SUPPLIES FOR TYPISTS TO ENABLE THEM TO SECURE FINER WRITING RESULTS AT LESS COST

George Ernest Pelton, Round Hill, Va., assignor to Ida S. Pelton, Round Hill, Va.

Application December 13, 1954, Serial No. 474,941
33 Claims. (Cl. 197—151)



2. A folded carbon paper typewriter ribbon for use in a carbon paper ribbon typing machine, said ribbon being not more than one-half inch wide and being zig-zag folded, the folds being not more than two feet apart; and said ribbon being suitable for use through a ribbon vibrator of said machine in a vertical position as the ribbon is used in writing in said machine.

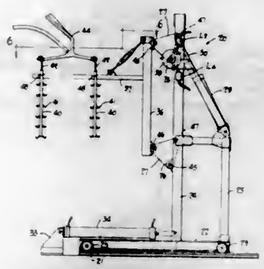
2,840,219

AUTOMATIC RACK UN-LOADER AND LOADER FOR PLATING MACHINES

Charles R. Mervyn, Mayfield Heights, Rudolph Listak, Wickliffe, and Harry E. Kaden, Cleveland Heights, Ohio, assignors to Newart Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application April 30, 1957, Serial No. 656,140
3 Claims. (Cl. 198—20)

1. In combination with a conveyor of the type having a plurality of arms for suspending work holding racks; the conveyor arms being cyclically indexed past a loading position when the racks are empty; a rack loader, comprising, a base member including a track aligned at one end with the aforesaid conveyor loading position and extending away therefrom to a work loading position; a carriage member mounted on said track and movable longitudinally thereof between said conveyor loading and work loading positions; a bell crank pivotally mounted on the carriage and movable between a first and a second position; a bracket member mounted on the bell crank and movable thereby through a vertical arcuate path relative to said carriage between a first extended position and a second retracted position; the bracket having two, spaced, parallel and forwardly extending fingers; means for moving said carriage toward the conveyor arm when the arm is in its loading position and the bracket in its first, extended position, wherein the bracket fingers are aligned with the empty racks suspended on the conveyor arm; means for pivoting the bell crank to its second posi-



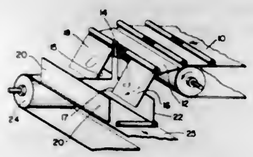
tion whereby the bracket member is moved to its second, retracted, position, wherein the racks are lifted from the conveyor arm by the fingers and supported thereby; means for moving the carriage and supported racks longitudinally of the track to the work loading position; means for returning the carriage and loaded racks along the track to the conveyor arm; means for pivoting the bell crank and bracket to their first positions, wherein the bracket fingers are aligned with the conveyor arm and the racks supported on the fingers are replaced on the conveyor arm; and means for moving the carriage longitudinally of the track, clear of the conveyor loading position.

2,840,220

CIGARETTE TURNING DEVICE

Dino Antonelli, Richmond, Va., assignor to American Machine & Foundry Company, a corporation of New Jersey

Application December 30, 1955, Serial No. 556,552
13 Claims. (Cl. 198—32)



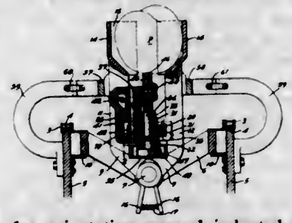
1. A device for turning tipped cigarettes so that all the tip ends will face in the direction desired comprising a conveyor for delivering two rows of cigarettes having the tip ends of the cigarettes in each row facing in opposite directions, to a cigarette turning station, an abutment positioned to be engaged by one of the ends of the cigarettes in each row and be retarded thereby, an inclined chute for directing and allowing the opposite ends of each cigarette to slide down the chute, and in so doing simultaneously effect the turning of each cigarette in each row in opposite directions to effect the turning of the cigarette to the desired direction.

2,840,221

FRUIT ORIENTATORS

Ellsworth W. Carroll, Redwood City, Calif., assignor to S & W Fine Foods, Inc., San Francisco, Calif., a corporation of California

Application March 27, 1950, Serial No. 152,069
10 Claims. (Cl. 198—33)



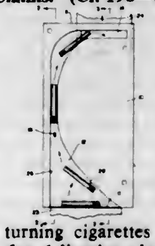
1. Means for orientating seamed indented fruit comprising a carrier, means for progressing said carrier over a horizontal path, a plurality of means each forming a fruit restraining recess mounted on said carrier and having a vertical slot in the wall of said recess bisecting each recess in a vertical plane, a movable wheel support carried by each recess forming means, a horizontal wheel axle fixed to said movable support, an orientation wheel rotatably mounted on said axle, means for moving each support with relation to its respective recess to place said wheel with the plane of rotation thereof in a vertical plane at the bottom of the recess in a position to support at least a portion of the weight of a fruit in said recess and in a position obstructing at least a portion of said slot, means for changing the vertical plane of rotation of said wheels during progression of said carrier, means for rotating said wheel on said axle constantly during a predetermined portion of said horizontal path, and means for moving said wheel support to clear said slot; said movable wheel support comprising a housing member to which said wheel axle is fixed, a swivel shaft attached vertically to said housing and positioned directly below said wheel in line with the extended diameter thereof, a pair of bushings rotatably surrounding said swivel shaft, each bushing having laterally extending cross pins secured thereto, a link member pivotally connected to each of said cross pins and extending substantially perpendicular to the direction of motion of said carrier, said links being also pivotally connected to said recess forming means at one side of said slot; and a stationary cam positioned to contact and control the position of said movable support in the path of motion thereof as provided by said links.

2,840,222

APPARATUS FOR TURNING CIGARETTES

Warren G. Palmer, Raleigh, N. C., assignor to American Machine & Foundry Company, a corporation of New Jersey

Application January 3, 1956, Serial No. 557,153
6 Claims. (Cl. 198—33)



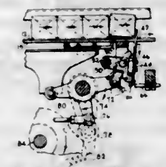
1. A device for turning cigarettes comprising an air passageway, means for delivering cigarettes transversely to the entrance to said air passageway, means for causing more air to flow through one side of said entrance than the other side to thereby cause cigarettes to commence turning around at the air entrance to said passageway, said air passageway having a funnel shaped entrance and an arcuate configuration which will cause the cigarette to continue its turning until the cigarettes have been turned into the direction desired, and a collecting belt for receiving said turned cigarettes.

2,840,223

ARTICLE FEEDING MEANS

Lawrence W. Schoppee, Springfield, Mass., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts

Application January 7, 1957, Serial No. 632,734
14 Claims. (Cl. 198—34)



7. An article feeding device for presenting articles to a work treating machine one at a time and spaced apart, which device includes a main frame, a plurality of belts spaced apart across the width of the device for receiving articles at the infeed side thereof, stop means in obstructive relation with articles on the belt to register such articles on the belts, said stop means comprising a transversely disposed plate having stop fingers extending between and above said belts, pivotal mounting means for said plate offset to the infeed side thereof, a second pivotal mounting means offset further toward the said infeed side and connecting at one end with said frame and at the other end with said first-named pivotal mounting means, said second mounting means having abutments adjacent said stop plate above and below its pivotal mounting means, a latch plate disposed beneath and adjacent the lower edge of the stop plate, spring means for urging said plate into engagement with the upper of said abutments and bringing the lower edge thereof to a position immediately above said latch plate to prevent downward movement below said belts unless said spring means is overcome by the pressure of an article fed against said stop fingers, separator means comprising spaced separator fingers positioned between and below said belts and immediately beneath the trailing edge of the foremost article registered on the belts, a conveyor having spaced pushers, said conveyor and said belt having coextensive portions beyond said stop means, common means extending from the work treating machine for driving said belts and said conveyor, means for raising said separator to lift the said trailing edge and bring the separator fingers into the path of travel of said articles thus providing a barrier for the next successive article, means connecting with said common driving means for thereafter moving said stop fingers out of said obstructive relation in timed relation to the movement of said conveyor pushers provided said spring means has been overcome prior to the actuation of said stop moving means whereby the foremost article in said supply may be carried away by said belts and captured between said spaced pushers, means for returning said stop fingers into said obstructive relation, and means connected with said common driving means for then lowering said separator below said belt.

2,840,224

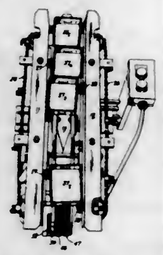
CONVEYING DEVICES FOR ACCELERATING AND TIMING ARTICLES

Frank M. Lefief, Palo Alto, Calif., assignor, by mesne assignments, to Baljak Corporation, Wilmington, Del., a corporation of Delaware

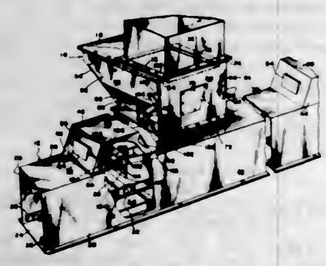
Application April 24, 1957, Serial No. 654,928
17 Claims. (Cl. 198—34)

1. A device for gradually accelerating articles, such

as folding boxes, supplied to the device in irregular order, to a predetermined velocity and for delivering the articles at such velocity in timed and spaced order, the device comprising, in combination, means forming a track along which said articles are movable; a receiving conveyor below said track for frictionally engaging and advancing articles on said track; a timing conveyor having spaced lugs laterally disposed with respect to the track for engaging the leading ends of articles moved on said track by said receiving conveyor, said timing conveyor being coextensive with a least the end portion of said receiving conveyor; means within the extent of said timing conveyor for laterally displacing at least the leading ends of articles on said track into engagement with lugs of said timing conveyor; an intermediate conveyor for receiving and frictionally engaging articles released by said timing conveyor at the end of the timing conveyor; a delivery conveyor having spaced lugs thereon, the beginning of the delivery conveyor being spaced from the end of the timing conveyor, but overlapping a portion of the extent of said intermediate conveyor, the lugs of the delivery conveyor being so timed that they move into the path of said track behind articles carried on said intermediate conveyor, the length of the delivery conveyor being sufficient to permit its lugs to catch up with articles conveyed by said friction conveyor so that its lugs engage the backs of articles moved by said friction conveyor and advance them positively; and common drive means for driving said conveyors at interrelated speeds of which the speed of the timing conveyor is the slowest, the speed of the receiving conveyor is higher, the speed of the intermediate conveyor is higher than the speed of the receiving conveyor, and the speed of the delivery conveyor is the highest.

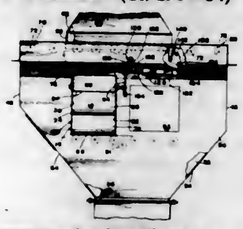


2,840,225
AUTOMATIC ACTUATING MECHANISM FOR CAPACITY CONTROL GATES AND THE LIKE
Corwin S. Jones, Tiffin, Ohio, assignor to Webster Manufacturing, Inc., Tiffin, Ohio, a corporation of Ohio
Application January 9, 1957, Serial No. 633,308
9 Claims. (Cl. 198—54)



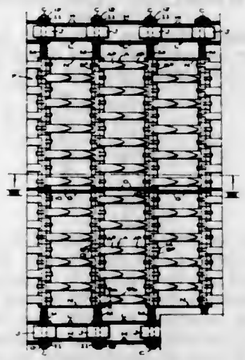
1. In an apparatus for handling loose comminuted or other materials commonly handled in bulk, in combination, a bin having a bottom wall provided with an opening therein for the discharge by gravity of the material therethrough, a horizontally reciprocable feed gate movable between a closed position wherein it closes said opening and an open position wherein it uncovers said opening, a trough-like conveyor casing extending below said opening and having a trough bottom, side walls and an open top in vertical register with said opening, a moving conveyor having an upper run supported on the trough bottom and movable therealong in one direction for conveying the material discharged into the casing from said opening along the casing in said one direction, a capacity control gate including a strickle plate pivoted within the casing in the path of movement of the material discharged into the casing from said opening, said plate being capable of swinging movement about a horizontal axis between a lowered operative position wherein it limits the flow of material passing along the casing to an elevated inoperative position wherein it is out of the path of such material, an operating lever positioned exteriorly of the casing and operatively connected to the strickle plate for swinging movements in unison therewith, a cam finger mounted on said feed gate and movable bodily therewith, a bell crank lever mounted for swinging movement about a fixed horizontal axis normal to the direction of movement of said feed gate and having an actuating pin on one arm thereof positioned in the path of movement of said finger and adapted to be displaced by the latter during the initial opening movements of said feed gate, and means operatively connecting the other arm of said bell crank lever to said operating lever for translating the movements of the former into movements of the latter.

2,840,226
AUTOMATIC CONTROL GATE ACTUATING MECHANISM FOR UNDERBUNKER COAL CONVEYOR SYSTEMS AND THE LIKE
Corwin S. Jones, Tiffin, Ohio, assignor to Webster Manufacturing, Inc., Tiffin, Ohio, a corporation of Ohio
Application January 9, 1957, Serial No. 633,309
5 Claims. (Cl. 198—54)



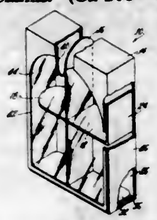
1. In an apparatus for handling loose comminuted or other materials commonly handled in bulk, in combination, a bin having a bottom wall provided with an elongated opening therein for the discharge by gravity of the material therethrough, a horizontally reciprocable feed gate selectively movable in opposite directions between an intermediate central closed position wherein it completely closes said opening and two laterally displaced open positions wherein different regions of the opening are uncovered for selective feeding of the material through the opening at horizontally displaced regions therealong, a conveyor extending beneath said opening and having a trough-like bottom, side walls and an open top in vertical register with one of said displaced regions, a conveyor proper having an upper run supported on said trough bottom and movable therealong in one direction for conveying the material discharged from said opening at said latter displaced region along the casing, a capacity control gate including a strickle plate pivoted within the casing in the path of movement of the material discharged into the casing through said opening, said plate being capable of swinging movement about a horizontal axis between a lowered operative position wherein it limits the flow of material therebeneath and an elevated position wherein it is out of the path of movement of the material passing along the casing, a bellcrank lever positioned exteriorly of the casing for swinging movement about a fixed horizontal axis normal to the direction of reciprocating movement of the feed gate and having a pair of spaced actuating pins mounted on one arm thereof on opposite sides of a vertical plane passing through said axis, a cam finger mounted on said feed gate and movable bodily therewith, said finger normally being disposed between said actuating pins when the feed gate is in its closed position with one of said pins being disposed in the path of movement of the finger when the feed gate moves in one direction of opening movement and with the other pin being disposed in the path of movement of the finger when the feed gate moves in the other direction of opening movement, a second bell crank lever mounted for swinging movement about a fixed axis normal to the direction of movement of said feed gate, a link connecting the other arm of said first mentioned bell crank lever to one arm of the second bell crank lever, and a link connecting the other arm of said second bell crank lever to said operating lever.

2,840,227
ENDLESS CONVEYOR FOR DISHWASHING MACHINE
George J. Federighi and Tore H. Noren, San Francisco, Calif.
Application December 31, 1956, Serial No. 631,901
4 Claims. (Cl. 198—131)



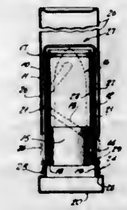
1. In an endless conveyor for supporting and moving dishes and the like through a dishwashing machine: a plurality of peg-carrying dish-supporting links; each link having a circular rod-receiving bore at its rear end and an oval-shaped rod-receiving bore at the front end; and a plurality of transversely-extending rods received in the bores of the links; each rod extending through the circular rear bores of a first set of links that extend forwardly of the rod, and also extending through the oval-shaped front bores of a second set of links that extend rearwardly from the same rod; the links in the second set alternating with the links in the first set; the oval-shaped front bore in each link having its longer axis lying in a plane that extends through the axes of the two bores in each link to thereby permit the link to expand or contract in the direction of its length due to changes in temperature without affecting the overall length of the conveyor; each of said links having a pair of upwardly-extending and rearwardly-inclined pegs; the pegs on each link being spaced apart to receive a dish or the like therebetween and against which the dish or the like may rest.

2,840,228
MODEL PACKAGING KIT
John Paul Takacs, New York, N. Y.
Application July 29, 1957, Serial No. 674,680
4 Claims. (Cl. 206—45.31)



1. A packing carton assemblable into a display case for displaying in three dimensional fashion scenic miniatures packed within the carton comprising a carton having a transparent cover hingedly connected thereto, a sheet having a scenic backdrop formed thereon removably positioned within the carton, said scenic sheet adapted to be curvilinearly fitted between side walls of said carton to provide a curved backdrop for said scenic miniatures which are ultimately positioned on an end wall to complete the scene, removable interior walls dividing said carton into a plurality of sections wherein the scenic miniatures are originally packed, a reflector for intensifying the illumination of the display packaged within said carton, said walls being adapted to be torn down and repositioned to support the reflector above the scene.

2,840,229
COSMETIC CONTAINER
Robert B. Hopgood, Cheshire, Conn., assignor to The Eyelet Specialty Company, Waterbury, Conn., a corporation of Connecticut
Application June 30, 1955, Serial No. 519,103
13 Claims. (Cl. 206—56)

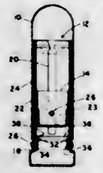


1. In a cosmetic container of the character indicated, a tubular body, means for supporting a lipstick or the like within said body and for dispensing the same out one end of said body, a base including a generally cylindrical land and radial shoulder joining the same to said body, a circumferentially resilient member having a radially inwardly extending portion seated on said shoulder and an axially extending circumferentially continuous skirt flaring outward in the direction away from said inwardly extending portion, and a closure cap fitting over said one end and of inner diameter intermediate the maximum and minimum outer diameters of said skirt, whereby upon placement of said closure cap over said skirt, said cap and base will be frictionally retained in assembled relation.

2,840,230
SEALED COSMETIC CONTAINER
Louis L. Lerner, Chicago, Ill., assignor, by mesne assignments, to The Eyelet Specialty Company, Waterbury, Conn., a corporation of Connecticut
Application July 8, 1955, Serial No. 520,743
4 Claims. (Cl. 206—56)

1. In a cosmetic container of the character indicated, an elongated tubular body, a tubular closure cap there-

for, means for supporting a cosmetic stick or the like within said body and for dispensing the same out one end of said body, said container having adjacent the other end of said body a pair of axially spaced radial shoulders, axially spaced first and second annular ribs on said container between said shoulders and respectively adjacent each of said shoulders, thereby defining a circumferential groove between said ribs, and a circumferentially con-



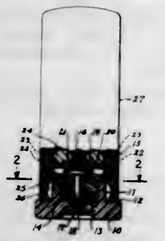
tinuous yieldable plastic member axially retained between said shoulders and radially retained by both said ribs, said member having a convex outer surface of maximum unstressed diameter in excess of the bore diameter of said cap and of minimum diameter less than the bore diameter of said cap, said closure cap fitting over said one end and having frictional engagement with said member.

2,840,231

MOISTURE PROOF PROPELLENT APPLICATOR

Howard F. Reichenbach, Middlebury, Conn., assignor to Eyelet Specialty Company, Waterbury, Conn., a corporation of Connecticut

Application August 16, 1955, Serial No. 528,620
10 Claims. (Cl. 206—56)



3. In a cosmetic container of the character indicated, an elongated tubular body, a tubular closure cap therefor, means for supporting a lipstick or the like within said body and for dispensing the same out one end of said body, said container having adjacent the other end of said body a pair of axially spaced radial shoulders, and a circumferentially continuous yieldable plastic member including portions axially retained by said shoulders, said member having a convex outer surface of maximum unstressed diameter in excess of the bore diameter of said cap and of minimum diameter less than the bore diameter of said cap, said closure cap fitting over said one end and frictionally engaging said member.

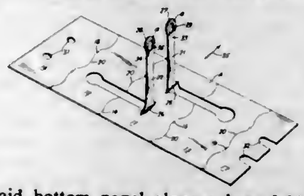
2,840,232

CARTON FOR PACKAGING MERCHANDISE IN MULTIPLE

Richard C. Poole, Jr., New Rochelle, N. Y., assignor to Walton D. Lynch, trustee, Hamden, Conn.

Application November 1, 1954, Serial No. 465,904
6 Claims. (Cl. 206—65)

1. A package of chime-end tin cans, the package comprising, a plurality of chime-end tin cans, arranged in two opposite and parallel rows containing equal numbers of cans, and an enclosing carton, the carton comprising, a one-piece bottom panel having can end-supporting areas thereon equal in number to the number of cans; two side wall panels articulated to said bottom panel along bottom fold lines spaced less than twice the diameter of the chime ends; a top structure including two top panels articulated to the tops of said side wall panels along top fold lines, said two top panels being secured together, the spacing of the top fold lines being equal to the spacing of the bottom fold lines; and a central structure comprising at least one strip cut from the stock of the bottom panel and of a side wall panel by a substantially U-shaped cut, the bight of the U lying in the side wall panel below the top fold line, said strip being staggered with regard to said areas and being integral with, and articulated at one



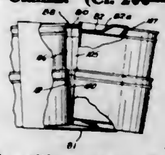
end to, said bottom panel along a base fold line intermediate said bottom fold lines, from which base fold line said strip extends at right angles with respect to said bottom panel, the other end of the strip being secured to said top panel structure; said side wall panels having chime apertures therein immediately adjacent said bottom and said top fold lines through which apertures the chimes of cans resting on said bottom may partially project, said apertures being staggered with regard to said strip and being in line with said areas.

2,840,233

HOLDER FOR CUPS, CANS, AND SIMILAR ARTICLES

Harold Grinspoon, Springfield, Mass.

Application November 29, 1954, Serial No. 471,553
9 Claims. (Cl. 206—65)



7. A holder of resilient paperboard or similar material, for packaging a row of generally circular articles having recessed tops surrounded by projecting rims, comprising: a continuous band passing around the row, having a top wall overlying said tops and side walls connected to said top wall; and a pair of substantially semicircular cuts in said top wall defining flaps adjacent the ends of the band, each of said flaps seating against the inside of a region of the rim of one of the end articles and locking the same against outward displacement in the holder; two pairs of slits, each communicating with one of said cuts and extending part way down either side wall, said cuts and slits defining a central strap having marginal portions engaging a portion of the outside of the rims of the end articles and locking the same against inward displacement in the holder.

2,840,234

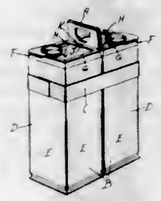
CARRYING HANDLE WITH LOCKING FEATURE

Stephen F. Jensen, City Island, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application May 9, 1955, Serial No. 506,747
5 Claims. (Cl. 206—65)

1. The combination of a pair of independent rectangular fibre containers having peripheral laterally projecting top ledges, said containers being disposed in juxtaposed relation with portions of said ledges arranged in transversely aligned parallel relation, means for tying said

containers together as a unitary package, a handle member interposed between said parallel ledge portions and extending above and below said ledges for carrying said package, said handle member comprising two integral contacting layers of material connected and folded at their upper ends and each layer terminating at its lower end in a tab member at one side defined by a rectangular notch at the opposite side thereof, the tab member of each layer being disposed in registry with the notch of the other layer, said tab members being medially folded



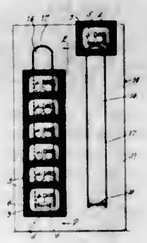
upwardly to constitute channel-like container support members of V-shape in cross section respectively extending downwardly through said notches and thence extending upwardly in free ends, each of said support members being locked against longitudinal shifting movement by the adjacent edge of one of said notches, said free ends of said channel-like support members respectively engaging beneath and against said transversely aligned ledge portions of the juxtaposed containers for supporting the containers in carrying position.

2,840,235

PACKAGE AND A DISPLAY STAND THEREFOR

Lloyd I. Volckening, Glen Ridge, and Frank J. Lefebvre, Caldwell, N. J., assignors to Ivers-Lee Company, Newark, N. J., a corporation of Delaware

Application October 6, 1954, Serial No. 460,636
1 Claim. (Cl. 206—79)



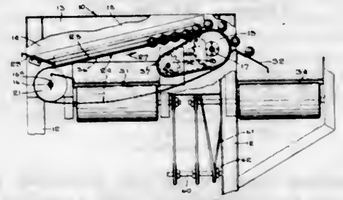
A package display comprising, in combination, an elongated sheet of cardboard or the like having an elongated vertical resilient tongue connected at its lower end to said sheet and disposed in approximately spaced and parallel relation to the plane of one side of said sheet with its upper end free from the sheet, and a plurality of substantially rectangular packages, each having a horizontal strap portion at one side of the package providing a loop through which said tongue is inserted to thereby detachably mount the package on the sheet, said strap portion being positioned with respect to the horizontal edges of the corresponding package so that the packages are positioned in a row along said tongue with one edge of the strap of one package abutting said tongue at the juncture of the lower end of the tongue with said sheet and with the upper edge of said strap of each package abutted by the lower edge of the next upper package, whereby the packages are held in predetermined spaced relation on said tongue.

2,840,236

SIZING MACHINE

Wilber C. Belk, Lakeland, Fla., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application October 22, 1953, Serial No. 387,615
6 Claims. (Cl. 209—84)



1. A sizing machine comprising a support structure, a drive shaft rotatably mounted in said support structure, first rotary drive means keyed to said shaft, an endless sizing belt mounted in said support structure and disposed in driven engagement with said rotary drive means for movement in a predetermined direction and having a plurality of openings arranged to permit passage through the upper run of the belt of fruit smaller than a predetermined size and to retain fruit larger than said predetermined size, a pair of spaced sprockets rotatably mounted on said drive shaft, an endless lifter belt trained around said sprockets and disposed below said sizing belt, the upper run of said lifter belt being arranged to move upwardly toward the underside of the upper run of said sizing belt and forwardly in the same direction as said sizing belt to pass under said sizing belt in spaced relation therewith to engage fruit disposed in said sizing belt openings and progressively lift the fruit out of said openings, and means operatively connected between said drive shaft and said lifter belt for driving said lifter belt from said drive shaft at a faster linear speed than the speed of said sizing belt.

2,840,237

MACHINE FOR SORTING RECORD FORMS

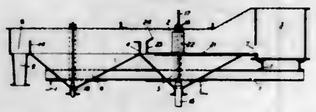
John Vander Tuin, Irondequoit, and Walter B. Payne, Rochester, N. Y., assignors, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application December 21, 1953, Serial No. 399,555
7 Claims. (Cl. 209—111)



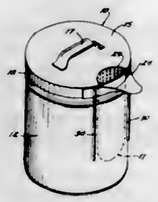
1. In a machine for sorting paper forms provided with code markings of fluorescent material at different locations thereon, the combination of means for holding a stack of said forms, means for feeding said forms from said stack successively and continuously along a pathway in said machine, means comprising a container having an ultra-violet light source with a filter for selectively transmitting said light and arranged for irradiating said markings of forms on said pathway, a container having a light-sensitive cell with a filter for selectively transmitting predetermined wave lengths of fluorescent emission projected from said irradiated markings normally to the surface of a form on said pathway, means for adjusting said containers longitudinally and transversely of said pathway, a plurality of bins provided respectively with gates spaced along said pathway in accordance with the locations of said markings on said forms, and means controlled conjointly by said cell and a form on said pathway for opening a gate in advance of said form corresponding to the posiiton of said irradiated marking thereon.

2,840,238
SAND CLASSIFYING APPARATUS
John Degory Baron Phipps, Broadway, England, assignor to Flontex Separations Limited, Broadway, England, a British company
Application February 14, 1955, Serial No. 487,918
Claims priority, application Great Britain February 23, 1954
6 Claims. (Cl. 209—156)



1. Classifying apparatus for sand comprising a tank to receive the sand suspended in water, a partition in the form of a weir extending from below the normal water level to the bottom of the tank to divide said tank into two compartments, inlet means for the sand and water suspension to one compartment at a position remote from the partition, an overflow launder at that end of the other compartment which is remote from the partition, a weir between the latter compartment and the launder, a substantially horizontal plate in the upstream compartment occupying substantially the whole width of the tank and the whole length of such compartment except for a gap at the downstream end, an upward extension of said plate at the downstream end thereof terminating approximately at the same level as the top of said partition, and a further continuation of said plate extending from said level upwardly at an angle between the vertical and horizontal in the upstream direction.

2,840,239
STRAINER AND SPOUT
Bert Wethammer, St. Paul, Minn.
Application September 6, 1955, Serial No. 532,643
7 Claims. (Cl. 210—467)



1. A combined strainer and spout device for use in conjunction with open topped pails, the structure comprising a pail cover, a trough-shaped strainer member extending downwardly from said cover near an edge thereof, the open side of the trough-shaped strainer member being directed outwardly from the axis of the cover, a closure member marginally secured to said trough-shaped strainer member, and a spout member secured to said cover outwardly of said strainer member, said cover having an opening therethrough in registry with said trough-shaped strainer member.

2,840,240
SAND REMOVING APPARATUS
Ernest F. Snyder, Long Beach, Calif., assignor to Begs Oil Tool Rentals, Inc., a corporation of California
Application December 20, 1956, Serial No. 629,588
2 Claims. (Cl. 210—512)

1. A device for removing particles carried in a drilling mud comprising, in combination: a cylindrical casing section having a tangential port opening through its side; a cylindrical sleeve of shorter axial length than said casing adapted to be telescoped within the upper portion of said casing to provide an internal liner about said upper portion, said sleeve having a tangential opening registering with said tangential port; means intermediate the upper and lower ends of said casing for securing said sleeve from axial movement within said casing; an upper cover member adapted to cover the upper peripheral end of said casing in fluid tight engagement, said upper cover member having a central opening and an annular groove on its undersurface to provide an in-



creased area portion in contact with drilling mud circulating about the interior of said sleeve; an outlet pipe adapted to be received and supported within said central opening in said cover, said outlet pipe extending axially within said casing section and sleeve and terminating at a point at substantially the same level as said tangential port opening; a lower cover member adapted to cover the lower peripheral end of said casing in fluid tight engagement; a discharge means supported by said lower cover member for passing said particles from the lower end of said casing section; and control valve means in said discharge means for controlling the rate of discharge flow.

2,840,241
CHAIR MOUNTED CLOTHES RACK
Roy A. Callais, Baton Rouge, La.
Application October 28, 1955, Serial No. 543,331
4 Claims. (Cl. 211—86)



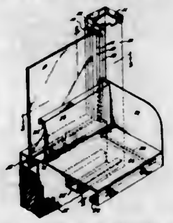
1. A chair mounted clothes rack comprising an elongated standard adapted to be detachably mounted in substantially an upright position on the back of a chair, said standard including an upper section and a lower section, garment supporting means mounted on the upper end of said upper section, said upper section including a forward side and a rear side, a downwardly opening hook member mounted on the forward side of said upper standard section below and spaced from said garment supporting means and adapted to engage over the upper portion of the back rest of the chair for mounting the upper portion of the standard thereon and for positioning said garment supporting means above the chair back rest; a lower portion of said lower standard section being provided with a pair of longitudinally spaced bores disposed crosswise thereof and substantially parallel to said front and rear sides of the upper standard section, said lower portion of the lower standard section having a slot opening outwardly of the lower end thereof and of side edges of said lower portion, said slot extending centrally through said bores from end-to-end thereof and being disposed in a plane substantially parallel to the axes of said bores, a pair of rods slidably and turnably disposed in said bores, clamping units carried by outer remote ends of said rods and adapted to be detachably clamped to rear legs of said chair, and clamping means engaging said slotted bottom portion of the lower standard section and adapted to be tightened for restricting the bores thereof to simultaneously and individually clamp the rods immovably to the lower standard section in selected adjusted positions relative to one another and to said standard.

2,840,242
CLOTHESLINE SUPPORT AND TENSIONING DEVICE
Wellington Hamrick, Boiling Springs, N. C.
Application August 19, 1955, Serial No. 529,399
7 Claims. (Cl. 211—119.15)



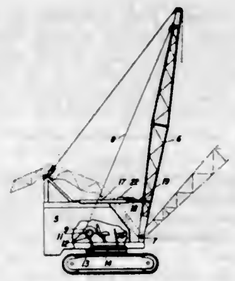
1. A clothesline support and tensioning device comprising a hollow upright support having a pair of alined apertures, a cross-arm rotatably mounted in said pair of apertures, means on said cross-arm for securing a plurality of clotheslines thereto, means on said cross-arm for rotating the same to tension the clotheslines secured thereto, a ratchet having a plurality of teeth connected to said cross-arm and confined within the upright support between the pair of apertures, and floating locking means positioned above said ratchet within the confines of said upright support for lockingly engaging the teeth of the ratchet to maintain the clotheslines in tensioned condition.

2,840,243
SHELF FOR PARTITION STRUCTURE
John H. Brinker, Norwood, and Leonard A. Ehrhart, Cincinnati, Ohio, assignors, by mesne assignments, to The Globe-Wernicke Co., a corporation of Ohio
Application June 13, 1955, Serial No. 514,844
4 Claims. (Cl. 211—135)



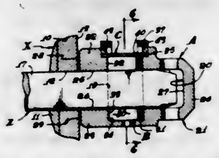
1. In a partition structure, wherein a partition extends between, and is secured to spaced posts, said partition being of less height than said posts, channel elements provided on the opposed faces of said posts above said partition receiving supplementary upper partition members; said channel elements having laterally extending portions, and flanges extending rearwardly from said laterally extending portions but terminating short of the respective faces of said posts, and a shelf unit having a rear wall and end walls, said end walls extending rearwardly beyond said rear wall and having inturned flanges, said shelf unit being positioned with said inturned flanges engaging behind the rearwardly extending flanges of said channel elements, and the bottoms of the flanges resting on said partition.

2,840,244
BOOM STOP RAM
Thomas W. Thomas, Jr., San Rafael, Calif.
Application June 22, 1953, Serial No. 363,139
1 Claim. (Cl. 212—39)



In a device of the character described the combination with a pivoted boom and means for raising said boom together with a remotely positioned boom holding brake, of a spring loaded ram having a casing and ramrod positioned in alignment with the pivotal path of movement of said boom, said ram being mounted remotely from the pivotal point of said boom whereby upward movement of said boom will engage said ramrod to compress said spring load to progressively build up resistance to the upward movement of said boom, a casing mounted on said ram casing, a valve formed in said casing, a valve rod slidable in said casing and connected to said valve, a finger mounted on said ramrod and adapted to engage and slide said valve rod to open said valve, and vacuum means controlled by said valve for actuating said remotely located boom-holding brake to arrest further upward movement of said boom.

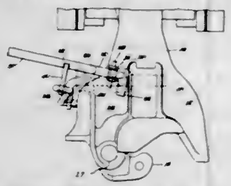
2,840,245
COUPLER DRAFT KEY RETAINER
Elon E. Packard, Los Angeles, Calif.
Application August 23, 1954, Serial No. 451,510
12 Claims. (Cl. 213—50.5)



2. A coupler draft key retainer including, a head engageable over the end portion of the draft key and having an opening positioned to align with a single opening through the draft key, a channel in the head intersecting the opening in the head, guides overlying the channel, a straight elongate pin engageable in the openings, and a fastener carried in the channel and engaged with the

guides and having deformable ears engageable with the head and closing the opening in the head thereby securing the pin in the openings.

2,840,246
RAILWAY CAR COUPLER
Frank H. Kayler, Alliance, Ohio, assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application March 1, 1955, Serial No. 491,494
11 Claims. (Cl. 213—133)



1. In a car coupler lock operating arrangement, a coupler head having a knuckle pivoted thereto, a rotor positioned centrally of the head at the bottom thereof, a rotor rod extending transversely of the coupler at the bottom of said head and having inboard and outboard ends, said inboard end being connected to said rotor, a bracket on one side of said head adjacent the bottom thereof, said rotor rod being supported by said bracket, a generally vertical connecting rod positioned at the side of said head and having upper and lower ends, the lower end being movably connected to the outboard end of said rotor rod, a generally horizontal operating rod extending transversely of the car and having inboard and outboard ends, the outboard end of said operating rod being supported by said car and comprising a handle, the inboard end of said rod being movably connected to and supported by said head, and a movable connection between the upper end of said connecting rod and said operating rod intermediate the ends of said operating rod.

2,840,247

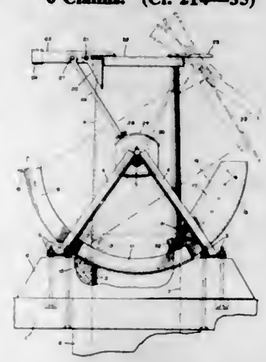
WITHDRAWN

2,840,248
SELF-PROPELLED TRAVERSE FOR MECHANICAL CAR PARKING SYSTEMS
Donald E. Grove, Northridge, and Carlisle F. Manaugh, Pacific Palisades, Calif.
Application May 27, 1955, Serial No. 511,584
11 Claims. (Cl. 214—16.1)



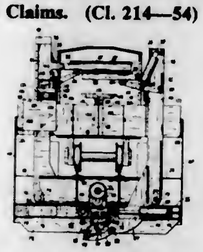
1. A traverse device for use in mechanical car parking systems, comprising: an elongated movable vehicle, means carried by the vehicle for propelling the latter in opposite directions, pairs of frame means at opposite ends of the vehicle with the frame means of each pair of frame means disposed at opposite sides of the vehicle, means mounting said frame means on the vehicle for horizontal movement between laterally extended and retracted positions relative to the vehicle, vertically movable lift means carried by each of said frame means, toggle linkage means connected between each of said lift means and its associated frame means for causing elevating of the lift means when the toggle means are operated in one direction and lowering of the lift means when the toggle means are operated in the other direction, and means for operating said toggle means, said last mentioned means also acting to extend and retract said frame means when said lift means are lowered.

2,840,249
INCINERATOR CHARGING APPARATUS
James H. Brodie, St. Paul, Minn.
Application August 8, 1955, Serial No. 526,816
6 Claims. (Cl. 214—35)



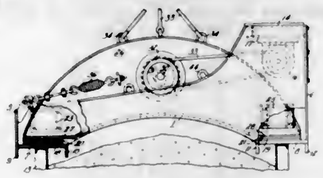
1. Apparatus for charging an incinerator having a charging hole comprising the combination of a charging container for material to be burned and provided with loading and discharge openings, means mounting said container for movement from a loading position to a discharge position in which its discharge opening registers with said charging hole, a refractory closure member for said charging hole, means connected to said container and member for moving said member to and from its closing position and said container respectively from and to its discharge position, a cover for the loading opening of said container, locking means for holding said cover in closed position, and means actuated by movement of said container to its loading position to release said locking means in the loading position of said container.

2,840,250
BOXCAR DOOR OPENING AND UNLOADING MECHANISM
Walter A. Kostick, Minneapolis, and Andrew P. W. Buck, St. Paul, Minn., assignors to Air-O-Flex Equipment Company, Minneapolis, Minn., a corporation of Minnesota
Original application February 2, 1954, Serial No. 407,748. Divided and this application April 23, 1956, Serial No. 580,695
2 Claims. (Cl. 214—54)



1. In unloading apparatus for a railroad boxcar of the type having conventional removable door sections at each side and loacted on support means for endwise tilting over a pit having a material-receiving and conveying device positioned at the bottom thereof, the combination of a door-breaking and retaining mechanism mounted at each side of said support means and each having an inwardly swingable plate angulated for breaking loose said door sections at the top, then sequentially downward, said plates being mounted on respective pivotal arms swingable upwardly in overlapping relation to dispose the door sections closely beneath the ceiling of the boxcar, a pair of upstanding material-penetrating and guiding vanes mounted one on each side of said support means, and means for simultaneously projecting and retracting said pair of vanes angularly through the respective doorways and in contact with the floor of the boxcar into juxtaposition in an apex to guide and direct said material downwardly and outwardly through the car doors when said car is in endwise raised position with said apex disposed at an upward angle, and a second pair of upstanding material-penetrating and guiding vanes mounted one on each side of said support means, and means for simultaneously projecting and retracting said second pair of vanes angularly in a similar manner through said doorways in contact with the floor of the boxcar into juxtaposition in an apex whose direction is opposed to that of said first mentioned apex whereby to guide and direct said material downwardly through the car doors when said car is in oppositely raised position with the second mentioned apex disposed at an upward angle.

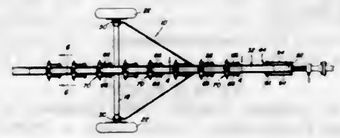
2,840,251
CAR SHAKER
Alexander J. Roubal, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Continuation of application Serial No. 152,180, March 27, 1950. This application October 13, 1953, Serial No. 385,777
7 Claims. (Cl. 214—83.3)



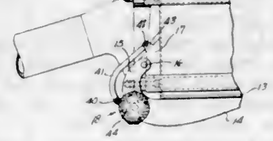
1. In a car shaker of the type described: an anvil frame comprising a pair of inverted channel members rigidly connected in laterally spaced, parallel relation by a pair of parallel side plate members arranged perpendicular to, and spaced axially of, said channel members; a rigid striker element resiliently mounted between said side plate members, and having contact portions in striking relation to the uppermost surfaces of said inverted channel members, said striker element carrying an unbalanced rotor journaled therein for rotation on an axis parallel to the plane of said contact portions; an electric motor resiliently mounted on said anvil frame; and flexible power transmission means connecting said motor to said rotor in driving relation.

2,840,252
ROLLER LIFT FOR BOAT TRAILER
James W. Weber, Freeport, Tex.
Application February 28, 1956, Serial No. 568,282
6 Claims. (Cl. 214—84)

1. In a boat trailer of the type including a central longitudinal supporting frame member, a combined keel support and roller assembly comprising a keel supporting a member overlying said supporting frame member, means mounting said keel supporting member on said supporting frame, a plurality of rollers spaced longitudinally of said keel supporting member, support means for said rollers connected to said supporting frame member and said keel supporting members, and means carried by said supporting frame member for shifting said keel supporting member relative to said supporting frame member to selectively raise and lower said rollers, whereby a keel of a boat may selectively ride on said rollers and be seated on said keel supporting member.



2,840,253
DIPPER DOOR BRAKE ASSEMBLY
James C. Thompson, Middlesboro, Ky.
Application April 20, 1956, Serial No. 579,492
2 Claims. (Cl. 214—146)



1. In a power shovel, a dipper having a door hinged thereto, a drum element rigidly secured to said door, a pair of opposing arcuate friction band segments mounted on said drum element for frictionally retarded rotation thereon, means hingedly connecting said band segments together at their ends, means connecting the opposite ends of said segments to retain said segments on said drum element, and a link member pivotally connected at one end to one of said friction band segments and pivotally connected at its opposite end to said dipper at a point spaced from the hinged connection of the door thereto.

2,840,254
CLAMSHELL EARTH-MOVING MACHINE
James I. Bevan, East McKeesport, Pa.
Application April 15, 1955, Serial No. 501,620
3 Claims. (Cl. 214—147)

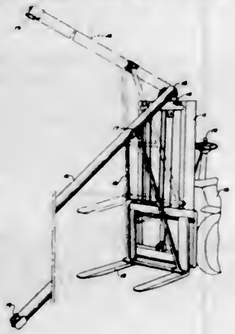
1. A self-contained earth-moving machine comprising a pivoted base having a live boom mounted thereon, a second boom telescopically positioned relative to the first boom, a bucket stick pivotally mounted on the outer end of said second boom, a cylinder and piston means connected between the upper end of the bucket stick and said

live boom to control the movement of the bucket stick relative to the boom, a joint means on the lower end of



said bucket stick, and a clamshell bucket suspended from said joint means.

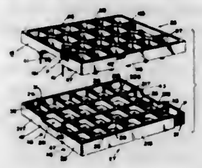
2,840,255
TRUCK BOOM
Marion D. Pollard, Lorain, Ohio, assignor to Lorain Products Corporation, Lorain, Ohio, a corporation of Ohio
Application June 22, 1956, Serial No. 593,216
6 Claims. (Cl. 214—513)



1. In combination with a fork lift truck of the type comprising a vehicle, an upright movably mounted on said vehicle and adapted to be raised and lowered, projecting tines movably mounted on said vehicle in association with said upright and adapted to be raised and lowered, an A-frame resting on said tines and having an apex, and a boom having a connecting end connected to said upright and a load bearing end, said boom being pivoted between the ends thereof to said apex whereby raising of the upright and tines raises the boom and simultaneously pivots the boom relative to said frame to raise the load bearing end and lowering of the upright and tines lowers the boom and simultaneously pivots the boom relative to said frame to lower the load bearing end.

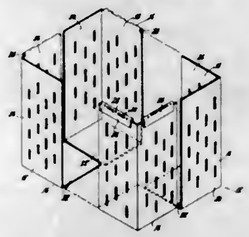
2,840,256
BEVERAGE BOTTLE CASE
James Walter Cobb, Jr., Memphis, Tenn.
Application May 3, 1956, Serial No. 582,539
11 Claims. (Cl. 220—4)

1. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least two independent sections, an upper section having an upper body and upper partitions, and a lower section having a lower body and lower partitions, said upper section partitions extending below said upper section body, said lower section partitions being disposed below the upper edge of said lower section body to accommodate said upper section partitions, a plurality of vertical supports attached to and inwardly extending from the inside of said lower section body, said supports being arranged to form vertical grooves in which are removably received the ends of said upper section partitions to hold said upper and lower sections in alinement, a plurality of bosses depending from said upper section, said lower section being formed with a plurality of depressions in register with said bosses and removably receiving said bosses, a ridge depending from said upper section body, said lower section being formed with a groove in alinement with said ridge and removably receiving said ridge, said bosses and said



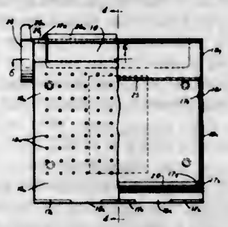
ridges respectively co-acting with said depressions and groove to provide additional means for holding said upper and lower sections in alinement, said lower section being provided with depending ribs for preventing slide of said case when in stacked relationship with other cases, said upper section being provided with depending threaded rods, said lower section being formed with bores in register with said rods, said rods being removably received in said bores and extending below the lower end thereof, means respectively engaging said rods for removably holding said upper and lower sections together, a wire basket bonded in said lower section, said basket being embedded in and surrounded by said lower section, said basket extending substantially co-extensive with the body of said lower section to provide structural strength to said lower section.

2,840,257
EXPANDABLE CONTAINER
Adolph Zeni, Brooklyn, N. Y.
Application June 12, 1957, Serial No. 665,233
3 Claims. (Cl. 220—8)



1. A self-adjusting packing case adapted to dimensionally adjust to the article packed therein comprising upper and lower box-shaped halves open at mating ends thereof, said halves adapted to slidably telescope into one another to form a single closed structure, each of said halves comprising four matching corner members, each corner member having two side walls connected perpendicularly to said side walls, each corner member pendicularly to one another and an end wall connected adapted to slidably overlap adjacent corner members to form an expandable and contractable box half, exterior flanges depending generally downwardly from the open end of each box half for maintaining said corner members in slidable engagement with one another, said flanges having openings formed therein to receive clamping means running generally longitudinally of said case to limit the further expansion of the case after the goods are packed therein.

2,840,258
ASH RECEPTACLE
Orville S. Caesar, Barrington, and Joseph G. Stieber, Skokie, Ill., assignors to The Greyhound Corporation, Chicago, Ill., a corporation of Delaware
Application July 19, 1954, Serial No. 444,244
6 Claims. (Cl. 220—18)



1. An ash receptacle comprising metal parts forming a chamber having a mouth, a barrel slotted along one side, bearings carried by said parts and having said barrel rotatably mounted therein across the mouth of said chamber for first receiving ashes therein, means secured to the rear side of said receptacle detachably securing said barrel against endwise movement while permitting rotation thereof to dump said ashes into said chamber, a support and means securing the rear side of said receptacle to said support in intimate contact therewith in a position wherein said barrel securing means is disposed between said rear side of said receptacle and said support, thereby rendering said securing means inaccessible.

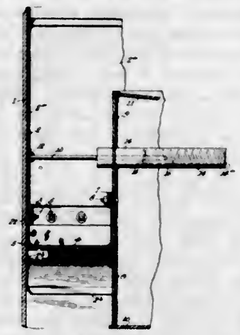
2,840,259
FABRIC SLOSH BULKHEAD
Robert H. Steidl, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application September 6, 1955, Serial No. 532,607
2 Claims. (Cl. 220—22)



1. In combination with an airplane fuel tank or the like, a sheet of textile material composed principally of strands which have inherent resilient elasticity disposed within said tank, in a plane transverse to expected sloshing movement of the liquid contents, and of a size and shape, when unstressed, approximating those of the tank at the sheet's location, supporting means distributed about the tank, in the plane common to the plane of the sheet, and a substantially inelastic cable surrounding and engaged at intervals with the periphery of the sheet, and engaging the tank-mounted supporting means, to retain the sheet stretched in its plane.

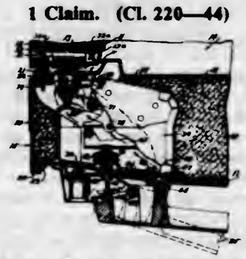
2,840,260
COMPOUND SHOE CONSTRUCTION FOR FLOATING ROOF SEALING MECHANISM
John H. Wiggins, Woodside, Calif.
Application August 3, 1955, Serial No. 526,117
1 Claim. (Cl. 220—26)

In a sealing mechanism for a floating roof for a substantially cylindrical upright tank for storing a liquid having corrosive characteristics, a substantially cylindrical compound sealing shoe assembly disposed about the periphery of said roof and spaced radially outwardly therefrom, said sealing shoe assembly including a primary upper shoe section and a secondary lower shoe section each substantially cylindrical in shape and each in intimate sliding engagement through the major portion of its height with the inner wall surface of said tank, said upper shoe section and said lower shoe section respectively constituting major and minor portions of the total height of said sealing shoe assembly, means carried by said roof and connected to said upper shoe section for supporting and maintaining said upper shoe section at a substantially constant elevation with respect to said roof and totally above the liquid in said tank, said upper



shoe section being formed of mild steel and the lower edge thereof terminating above and adjacent to the liquid in said tank so that said upper shoe section is totally out of direct contact with the liquid in said tank and is thus free of the major corrosive actions thereof, said lower shoe section being rigidly secured to and supported solely by said upper shoe section and depending therefrom and projecting into the liquid in said tank, said lower shoe section being formed of stainless steel so that it is not damaged by the normal corrosive actions of the liquid in said tank, means for sealing in gas-tight relation the lower portion of said upper shoe section and the upper portion of said lower shoe section, and a flexible gas-impervious curtain extending between and sealed in gas-tight relation with said roof and said sealing shoe assembly.

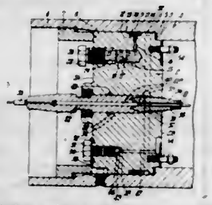
2,840,261
VACUUM RELEASE MECHANISM FOR REFRIGERATED CABINET
Robert L. Eichhorn and Richard D. Verdick, Evansville, Ind., assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Original application May 11, 1955, Serial No. 507,617, now Patent No. 2,810,493, dated October 22, 1957. Divided and this application May 6, 1957, Serial No. 658,477
1 Claim. (Cl. 220—44)



In a combined refrigerator latch mechanism and air pressure release, the combination of a hook shaped strike to be carried by a refrigerator having a door with an outer panel adjacent a door opening, said strike having a transverse retaining shoulder and a beveled camming

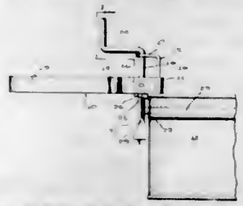
shoulder, with a latch and pressure release mechanism comprising a latch housing to be carried by the back of said outer door panel, and said housing having a sealing gasket to be positioned between the housing and the outer panel of the door, said gasket being clamped by threaded members securing said housing to said outer door panel, closing an opening in said outer door panel, a door handle having a grip pivotally mounted on said housing to be located outside the door, an elongated tubular bearing member carried by said housing and slidably supporting an actuating plunger for the latch, said plunger having a head located to be engaged by a heel of the door handle, said heel being located on the handle rear on that end of the handle which is beyond the pivot and opposite to the grip, a resilient bellows having its closed end secured to move with said plunger, and having its other end secured to the housing about said bearing, a latch pivoted on said housing to be retracted by engaging the beveled shoulder and to latch the door by engaging said transverse shoulder, a succession of pivoted levers acting on each other and pivoted on said housing and arranged to actuate said latch by means of said plunger, spring means for moving said latch toward latching position, spring means for urging the handle into a latched position with said heel out of engagement with said plunger, and a sealing pad carried by the rear of the handle on the grip thereof and located to engage and seal an opening extending through the outer door panel and through said housing to relieve the pressure differential in the refrigerator by the initial movement of the handle, lifting said pad off said plunger before the heel of the handle engages said plunger or moves said latch, said pad automatically sealing said aperture upon release of the handle.

2,840,262
CLOSURE SEAL
William Learmonth and Bryan Cooke, London, England, assignors to Vickers-Armstrongs Limited, London, England, a British company
Application July 6, 1954, Serial No. 441,613
Claims priority, application Great Britain July 6, 1953
5 Claims. (Cl. 220—46)



4. In a fluid-tight submersible communications-line repeater housing for containing electrical equipment to be connected to a communications cable, the repeater housing being adapted to withstand external pressure when submerged and including an elongated cylindrical shell, at least one end portion of which is provided with a cylindrical bore terminating in an annular shoulder inwardly from said end, a circular-sectioned plate-like bulkhead releasably mechanically secured in said cylindrical bore, the peripheral portion of the inner side of the bulkhead being forced towards said shoulder, a sealing ring including deformable metallic material located between said shoulder and said inner side of the bulkhead, means in said end portion of the housing bearing against the outer face of the bulkhead for forcing the bulkhead toward said shoulder to grip the sealing ring, the bulkhead having a peripheral cylindrical surface facing the inner surface of the cylindrical bore, said cylindrical surface of the bulkhead being provided with at least one annular groove open toward the inner surface of the cylindrical bore, a sealing means for preventing leakage of an external fluid past the periphery of the bulkhead, said sealing means comprising two spaced parallel annular strips of readily deformable material each laid in an annular groove in the cylindrical surface of the bulkhead, the bulkhead being provided with at least one passageway for supplying a pressure fluid between said strips to the inner surface of the bore of the shell at the location of the strips, and means in the bulkhead for forcing said pressure fluid along the passageway and into contact with said strips and for maintaining a pressure on the pressure fluid in excess of that of the external fluid, the cross-sectional dimensions of the strips being such that the pressure applied by the forcing means to the pressure fluid forces each strip against that side wall of the groove in which it is laid that is remote from the other strip and also against the inner surface of the bore of the shell and the bottom of the groove in which it is laid, said sealing ring including the deformable metallic material thereof being subject to compression by the pressure of the external fluid.

2,840,263
CAN OPENER FOR A CAN HAVING A TEAR STRIP
Leo G. Naekel, Valley City, N. Dak.
Application January 13, 1956, Serial No. 559,079
2 Claims. (Cl. 220—52)



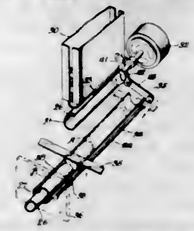
2. A can opener for removing a tear strip from a can comprising a horizontally-disposed frame having one end adapted to rest upon the top of a can to be opened, a handle projecting from the other end of said frame, a U-shaped bracket arranged so that its legs are in vertical spaced relation positioned within said frame with its bight adjacent to and fixedly secured to said one end of said frame and the legs facing said handle, the lower leg being above the lower face of said frame, a vertically-disposed shaft having its intermediate portion rotatably supported in the legs of said bracket, the lower end of said shaft having a slot extending inwardly therefrom adapted to receivably engage the free end portion of a tear strip of a can to be opened, a crank on the upper end of said shaft, and means embodying an upstanding boss arranged on one side of and spaced from said shaft and operatively connected to said frame and having the lower end portion adapted to bear against the periphery of the can top to prevent swinging movement of the can relative to said frame when said crank is turned to wind said tear strip on said shaft, said shaft being slidable upwardly and downwardly in the legs of said bracket so as to discharge from said slotted end the tear strip coil when wound thereon, each of the portions of said shaft adjacent the lower end of said slot being tapered outwardly to form a point.

2,840,264
POLYAMIDE RESIN COMPOSITION AND METHOD OF PREPARING SAME
James H. Groves, Barrington, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application October 8, 1957
Serial No. 688,843
8 Claims. (Cl. 220—81)

1. A resin composition comprising the reaction product of about 50% to 75% of a polyamide resin A consisting essentially of the polyacyl groups of a polymeric fat acid and the polyamino groups of a polyalkylene polyamine having terminal primary amino groups, and

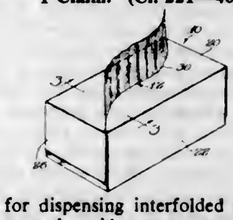
about 25% to 50% by weight of a polyamide resin B consisting essentially of the mixed polyacyl groups of a polymeric fat acid and a 3 to 8 carbon atom dicarboxylic acid free from ethylenic unsaturation and the diamino groups of an alkylene diprimary diamine, said mixed polyacyl groups resulting from a ratio of 85% to 98% by weight of said polymeric fat acid to 2% to 15% by weight of said dicarboxylic acid, said reaction product being formed by mixing and maintaining said polyamide resins A and B at a temperature of about 392° F. to 450° F. for a time of about 1 to 16 hours, the longer time being used with the lower temperature.

2,840,265
CURRENCY DISPENSING APPARATUS
Hiland B. Noyes, Western Springs, Ill., assignor to Hiland B. Noyes and Emerson E. Fies, a partnership doing business as Noyes and Fies, Western Springs, Ill.
Application January 11, 1954, Serial No. 403,306
9 Claims. (Cl. 221—9)



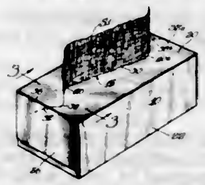
1. Dispensing apparatus for dispensing paper currency which has been placed in tubular containers having open ends, with the currency being rolled and inserted in the containers and extending from the open ends thereof, said apparatus including in combination, housing means having an opening therein, means for containing a plurality of containers with rolled currency therein, controlled means for moving the containers individually to a first position, means for engaging the end of the rolled currency in a container at said first position for moving said currency to a second position at which said currency extends through said opening in said housing, means in the path of movement of the container for currency moved to said second position for holding said container in a fixed position with said currency being moved with respect to said container as it moves to said second position, and means for releasing the container from said fixed position simultaneously with the movement of an additional container to said first position.

2,840,266
DISPENSING CARTON
Howard N. Nelson, Neenah, Wis., assignor, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware
Application May 31, 1955, Serial No. 511,841
1 Claim. (Cl. 221—48)



A carton for dispensing interfolded sheets which are arranged in a stack, said carton comprising means defining the walls of a generally rectangularly-shaped paperboard box having top, bottom, side and end panels, and means defining a dispensing opening in the top panel of said carton comprising a curved, linear cut extending from one corner of the carton to the diagonally opposite corner and arranged in centrosymmetrical relation to the intersection of the longitudinal and transverse axes of said top panel.

2,840,267
DISPENSING CARTON
Howard N. Nelson, Neenah, Wis., assignor to Kimberly-Clark Corporation, Neenah, Wis., a corporation of Delaware
Application October 10, 1955, Serial No. 539,374
3 Claims. (Cl. 221—48)

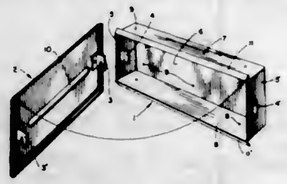


1. In combination with a stack of sheets which are interfolded and bonded at their edges to provide sequential feeding of each of the sheets from the stack in response to movement of the immediately overlying sheet away from the stack, a dispensing carton comprising means defining the walls of a generally rectangularly-shaped, paperboard box having top, bottom, side and end panels, the dimensions of the interior of the box being substantially the same as the dimensions of the interfolded stack of sheets, and means defining a dispensing opening in said top panel comprising a linear cut extending lengthwise substantially centrally and entirely across the top panel and including a long substantially straight portion and a pair of oppositely curving end portions extending generally transversely of said top panel a major portion of the distance from the center to the edge of the top panel and defining a pair of fingers disposed in spaced relation along said cut and extending in opposite directions, whereby the opening of said linear cut affords flexing of said top panel and provides a linear dispensing opening having the opposite edges thereof normally in substantial engagement with each other, so that when the leading one of said sheets is pulled through said linear dispensing opening one of said fingers is effective to retard the withdrawal movement of the succeeding one of said interfolded sheets, to thereby provide for relative movement between said leading sheet and said succeeding sheet and to aid in breaking the bond holding said leading sheet in the stack, and whereby the oppositely facing disposition of said fingers is adapted to alternately affect the bonds holding the leading sheets as they appear on opposite sides of the succeeding sheets.

2,840,268
TISSUE DISPENSER
Charles L. Casey, Riverside, and Raymond G. Doell, Niles, Ill.
Application September 6, 1955, Serial No. 532,507
2 Claims. (Cl. 221—49)

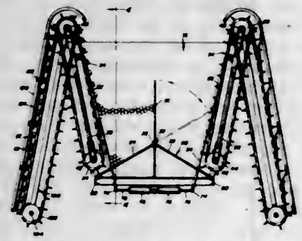
1. A tissue dispenser adapted for recessed mounting in the wall, said dispenser comprising a rectilinear enclosure having mutually joined panels forming a top, a bottom, a back and two ends, said rectilinear enclosure being dimensioned to receive a box of tissues, a face plate for covering the rectilinear enclosure and for overlapping a portion of the surrounding wall, an elongated opening in said face plate for removal of tissue therethrough, tabs struck from said ends of the enclosure and protruding inwardly therefrom, a pair of hooked mounting brackets on said face plate for detachably engaging said tabs, said tabs also centering the box of tissue between the ends of

the enclosure so that the elongated opening in said face plate will align with a similar opening in the box of tissue, and a plurality of flanges on the panels of the enclosure



adapted to engage the wall and position the enclosure outwardly therefrom, to provide spacing between the wall and the face plate.

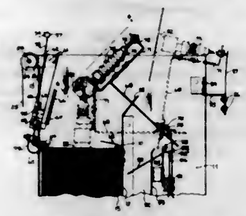
2,840,269
SUGAR CANE PLANTER
Robert J. Anderson, Labadieville, La.
Application September 14, 1953, Serial No. 379,825
4 Claims. (Cl. 221—185)



2. A sugar cane planter comprising a wheeled vehicle having a bed thereon including side walls and a bottom for carrying cane stalks longitudinally therein, elevating means in said bed for lifting cane stalks over the top of at least one side wall, said elevating means including at least two endless conveyors extending from the bottom to the top of said one side wall and being disposed at longitudinally spaced intervals along said one side wall, said conveyors each having at least one inner run thereof disposed within said bed adjacent said one side wall, cane engaging fingers on said conveyors, means disposed along said one side wall within said bed for selectively spacing cane from the inner runs of the conveyors, said cane spacing means being swingably attached to said one side wall adjacent the upper end thereof and extending toward the bottom of the bed, for inward swinging movement into the bed beyond the inner runs of said conveyors, means for maintaining said cane spacing means at selected positions away from said one side wall for maintaining the lowermost layers of cane out of engagement with the inner runs of the conveyors.

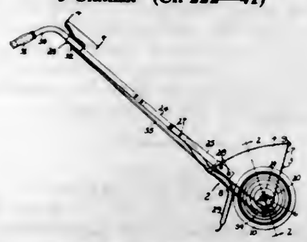
2,840,270
MERCHANDISE VENDING APPARATUS
Chester F. Gore, Chicago, Ill., assignor to Electro-Snap Switch & Mfg. Co., Chicago, Ill., a corporation of Illinois
Application March 2, 1954, Serial No. 413,576
3 Claims. (Cl. 221—211)

1. A card vending apparatus comprising means for supporting a vertical stack of cards, a chute at one side of said stack and extending in a substantially vertical plane and into which cards from said stack are adapted to be dropped with the plane of the cards in a substantially vertical plane, means for lifting a card perpendicularly from said stack and for delivering said card to said chute with the plane of said card in said vertical plane, said card lifting means including a vacuum cup adapted for vacuum connection with the topmost card of said stack and a flexible tubular member communicating with said cup and compressible in the direction of its length, means for moving said card lifting means in one direction to bear said cup against said topmost card and to compress said tubular member in said direction of its length and perpendicularly to the plane of said card and for moving said card lifting means in an opposite direction to permit said tubular member to expand to create said vacuum connection between the card and the cup and for further moving said card lifting means in said opposite direction to dispose said card in a position



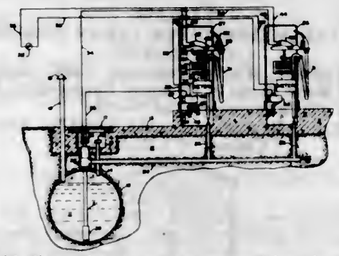
over said chute with the plane of said card in said vertical plane, means effective at the terminus of movement of said card lifting means in said opposite direction for breaking the vacuum in said cup to release said card for gravitation into said chute and automatic means for maintaining the uppermost card of said stack at a predetermined level, said automatic means including means for raising said stack of cards, means for connecting said means for raising to said means for moving for actuation thereby when the uppermost card is below the predetermined level and means for disconnecting said means for raising from said means for moving when said card obtains said predetermined level.

2,840,271
SEED AND FERTILIZER SPREADER
Harry A. Liljenberg, Cleveland, Ohio, assignor to Modern Tool & Die Company, Cleveland, Ohio, a corporation of Ohio
Application September 7, 1956, Serial No. 608,544
3 Claims. (Cl. 222—41)



1. In a material spreading apparatus having a wheeled hopper and shutter-controlled discharge means for the hopper, actuating means for the shutter of the shutter-controlled discharge means, said actuating means embodying a base member rigidly secured to said apparatus and provided with a slot forming a circular arc, an arresting member rotatably adjustably secured to said apparatus in axial alignment with the center of the circular arc of said slot and provided with a slot forming a circular arc aligned with the slot of said base member, and operating lever means for the shutter of the shutter-controlled discharge means, said operating lever means being pivotally supported in alignment with the centers of said circular arcs and including a lever arm extended through the slots in said base member and said arresting member to be limited to predetermined arcuate movements by end walls of said slots.

2,840,272
FLUID DISPENSING APPARATUS
Charles W. Blackburn and Herbert D. Maresh, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application June 18, 1956, Serial No. 592,131
10 Claims. (Cl. 222—76)



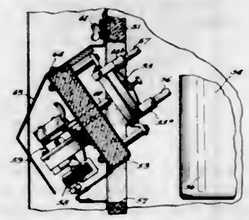
1. Fluid dispensing apparatus comprising, in combination: at least one pump, said pump having an outlet; a motor connected to drive said pump; a current source, a plurality of dispensing control switches connected in parallel with one another; a plurality of emergency switches connected in series with one another; and circuit means connecting said motor to said current source through said plurality of dispensing control switches and said plurality of emergency switches so that said motor is disconnected from said current source whenever any one of said emergency switches is opened.

2,840,273
COLLAPSIBLE TUBE DISPENSING DEVICE
Harry W. McEwen, Kansas City, Mo.
Application January 17, 1955, Serial No. 482,012
1 Claim. (Cl. 222—98)



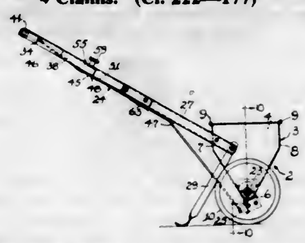
A device for storing and squeezing a collapsible tube to dispense material therefrom, said tube having a closed end and an opposite end provided with a material outlet opening, said device comprising: a frame having a pair of opposed, spaced, upright, side walls and a rear wall joining said side walls, each side wall being provided with a generally T-shaped slot therein, each slot including an elongated, upright leg portion and an elongated, straight, cross portion, the cross portion of each slot sloping by an acute angle downwardly from horizontal as the normally rearmost end thereof is approached, the leg and cross portions of each slot being of substantially the same widths, the leg portion of each slot extending upwardly from the lower extremity of the corresponding side wall to a zone of communication with the corresponding cross portion intermediate the ends of the latter; a pair of elongated rollers each having ends received within the corresponding slots, said ends of the rollers being shiftable along the leg portion of the slots for installation and removal of the rollers relative to the frame and being normally received by the cross portions of the slots for rotation therewithin and shifting movement therealong, that part of the cross portion of each slot disposed forwardly of said zone being shorter than the part thereof disposed rearwardly of said zone; means on the rearmost of the rollers adapted for holding the closed end of the tube; means on one of said rollers for manually rotating the same; and spring means on the frame engaging said rearmost roller and yieldably biasing the latter forwardly within the cross portions of the slots, said zone being so disposed and said rollers so dimensioned that the forwardmost roller is normally held in the forward part of the cross portions and the rearmost roller is normally retained in the rear part of the cross portions, both rollers being shiftable rearwardly within the cross portion against the action of the spring means to permit removal of first the forwardmost roller then the rearmost roller through the leg portion of the slots.

2,840,274
BEVERAGE DISPENSING APPARATUS
Leslie Arnett and William G. Freise, Chicago, Ill., assignors to Square Manufacturing Company, a corporation of Illinois
Application June 6, 1955, Serial No. 513,461
2 Claims. (Cl. 222—135)



1. In a beverage dispensing machine having ingredient containing means in a refrigerated ingredient housing, ingredient handling apparatus of the character described, comprising: a panel forming a part of said housing and movable between closed and open positions; yieldable conduit means in the housing for conducting ingredient from the containing means; and a pump associated with the conduit means for transferring said ingredient from said containing means through said housing to a beverage dispensing point and mounted on said panel, said pump being positioned within said housing when said panel is in closed position and being readily accessible when said panel is in open position while maintaining its association with the conduit means.

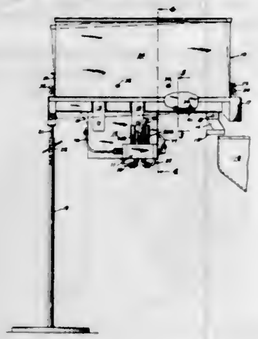
2,840,275
SEED AND FERTILIZER SPREADER
Harry A. Liljenberg, Cleveland, Ohio, assignor to Modern Tool & Die Company, Cleveland, Ohio, a corporation of Ohio
Application September 22, 1955, Serial No. 535,884
4 Claims. (Cl. 222—177)



1. In a material spreader, a wheel-supported hopper having discharge openings, shiftable shutter means controlling said discharge openings, a handlebar unit attached to the hopper, spring-actuated shifting means for the shutter means supported by the handlebar unit, operating means for the spring-actuated shifting means mounted on the handlebar unit, and coupling means connecting the

spring-actuated shifting means with the operating means, said coupling means embodying cooperating coupling members connected to the spring-actuated shifting means and the operating means and shiftably coupled with each other for limited movement with respect to each other to permit in predetermined positions of the coupling members independent individual operation of the operating means and individual actuation of the shutter means by the spring-actuated shifting means.

2,840,276
FEEDING DEVICE
William A. Dreyer, Jr., Piedmont, and Joseph J. Seligman, San Francisco, Calif.
Application October 28, 1955, Serial No. 543,444
8 Claims. (Cl. 222—185)



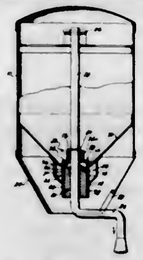
1. A food dispensing device comprising a hopper body, means disposed on the feed end of said body to feed material therefrom, a slide having a load bearing surface to receive material from said hopper body slidably mounted on the underside thereof, slide moving means for alternately moving said slide toward and away from said feed end, first adjustable means for regulating the speed of said slide movement toward said feed end, second adjustable means for regulating the speed of said slide movement away from said feed end, said first and second means adjustable independently of one another, and baffle members disposed internally of said body and above said slide to direct material in said body to a predetermined locus of the load bearing surface of said slide.

2,840,277
POWDER DEVICES
Jose Cervello Bach, Barcelona, Spain, assignor to Sociedad Regular Colectiva J. y L. Cervello, Barcelona, Spain
Application October 12, 1955, Serial No. 539,958
Claims priority, application Spain November 12, 1954
3 Claims. (Cl. 222—193)



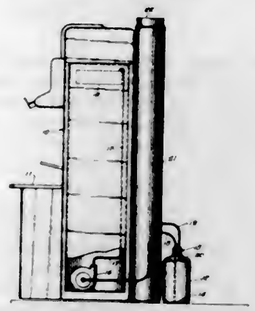
1. A powder dispensing device comprising a flexible container having a neck, a first plug in said neck, said first plug being provided with a first passage therethrough connected to a tube extending to the end of said container remote from said plug and being provided with at least one additional passage through said plug parallel to said first passage, and a second plug mounted in said neck spaced from said first plug, said second plug being provided with at least one opening, said opening being out of alignment with said passage in said first plug.

2,840,278
VALVE ADAPTED FOR USE IN POWDER DISPENSERS
Arthur Townhill, Pacific Palisades, Calif., assignor to United States Borax & Chemical Corporation, Los Angeles, Calif., a corporation of Nevada
Application December 18, 1956, Serial No. 629,013
7 Claims. (Cl. 222—305)



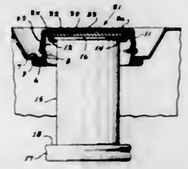
1. A valve structure of the character described, comprising two members each symmetric in form with respect to a longitudinal axis, said members having portions equally spaced about the axis which mutually interengage by relative longitudinal movement in any of a plurality of relatively rotated positions about said axis, and said members also having portions which define material receiving pockets of size dependent on the relative longitudinal positions of the members, and means setting the two members in different relative longitudinal positions for their several relative rotative positions.

2,840,279
CLOSURE FOR AMMONIUM HYDROXIDE CONTAINER
Nicholas E. Kob, Chicago, Ill.
Application February 15, 1955, Serial No. 488,342
8 Claims. (Cl. 222—331)



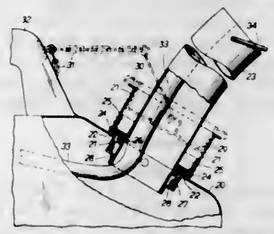
1. Apparatus for removal of ammonium hydroxide from the container in which it is stored which comprises: a neck on said container, said neck being threaded on its exterior surface; a resilient plug fitted tightly within the opening of said neck to form a vapor-tight seal with the neck, said plug having an outlet hole and an exhaust hole; a feed line formed of corrosion resistant material and extending from outside the container through said outlet hole into the container and to within a short distance of the bottom of the container, said feed line forming a vapor-tight seal with the resilient plug; an exhaust line formed of corrosion resistant material and extending from outside the container through said exhaust hole into the container, said exhaust line forming a vapor-tight seal with the resilient plug; a cap threaded on its interior surface and screwed into snug engagement with the container neck to press said resilient plug tightly into the neck, said cap having an opening permitting the feed line and exhaust line to pass through the cap; a pump connected to said feed line, said pump being adapted to draw ammonium hydroxide out of the container and to pump it to a predetermined station; and an exhaust conduit connected to said exhaust line to carry ammonia fumes away from the vicinity of the ammonium hydroxide container.

2,840,280
RETRACTABLE RIGID SPOUTS AND MOUNTINGS THEREFOR
Carl R. Bee, Warren, Ohio, assignor to American Flange & Manufacturing Co., Inc., New York, N. Y., a corporation of Delaware
Application May 11, 1954, Serial No. 428,932
4 Claims. (Cl. 222—478)



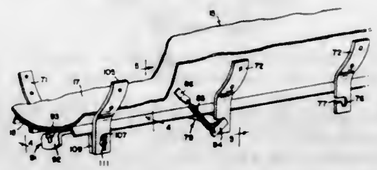
1. In spout construction, a nozzle formed as an inverted cup having a perforation through the bottom thereof, a shelf bordering said perforation, said shelf having a portion thereof notched outwardly from said perforation, a spout member having a cylindrical body with a diameter slightly less than the diameter of said perforation, said spout member being assembled with said nozzle, with said cylindrical body and perforation in slideable relation and a bead formed on one end of said spout member, said bead having an external diameter greater than the diameter of said perforation but less than the depth of said notch, whereby said bead will prevent said spout from falling into said container through said perforation but will leave a portion of said notch open for the escape of air while said container is being filled through said spout.

2,840,281
POURING DEVICE FOR CONTAINERS
Ernst Ostermann, Baarn, Netherlands
Application June 16, 1954, Serial No. 437,195
Claims priority, application Germany June 19, 1953
3 Claims. (Cl. 222—484)



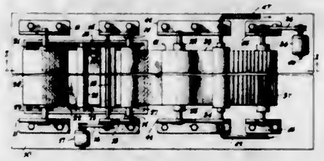
1. In a container having an opening therein, a pouring device comprising a mouthpiece tightly secured to said container around said opening, a removable cover adapted to close said mouthpiece, packing means in said mouthpiece surrounding said opening, a spout tube slidable in said packing means having a plurality of holes therein adjacent each end thereof, stop means on the inner end of said spout tube, said stop means bearing directly on said packing means when said tube is in the extended position, a bail on the outer end of said spout tube, resiliently held in two of said plurality of holes so that it lies against the outside of said tube and is positioned to act as stop means at the outer end of said tube, and an air pipe having one end within said container bent in a direction opposite to the direction of pouring and the other end opening out of the container through said mouthpiece.

2,840,282
GRAIN DRILL
Ernst E. Schnell, West Bend, Wis., assignor to John Deere Van Brunt Company, Horicon, Wis., a corporation of Wisconsin
Original application February 1, 1955, Serial No. 485,493. Divided and this application March 13, 1956, Serial No. 571,294
14 Claims. (Cl. 222—485)



1. In a fertilizer distributor, a hopper having openings in the bottom portion thereof, a slide movable along the bottom portion of said hopper and having openings cooperating with said hopper openings to provide the desired rate of flow, and means removably supporting said slide on the bottom portion of said hopper, said slide-holding means including spring biased means extending transversely across said movable slide and contacting the latter between the ends of said spring biased means for resiliently urging said slide against the hopper bottom, said spring biased means accommodating adjusting movement of the slide while resiliently urging the latter against the hopper bottom portion.

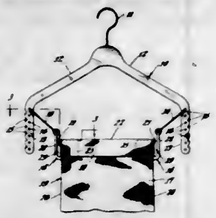
2,840,283
METHOD OF PLAITING AND APPARATUS FOR THE PRACTICE OF SUCH METHOD
Mary Roussos, Richmond Hill, N. Y.
Application October 25, 1955, Serial No. 542,682
14 Claims. (Cl. 223—30)



7. A machine for permanently pleating cloth comprising a tank adapted to contain a liquid, means rotatably mounting a roll of cloth above said tank, supports adjacent said tank for supporting said roll mounting means, a further support adjacent said tank, squeeze rollers rotatably mounted on said further support, excess liquid removing means mounted on said further support between said squeeze rollers and said tank means for actuating said liquid removing means, guide means within said tank for guiding said material therethrough, separate support means adjacent said tank and spaced therefrom, means for rotatably mounting rolls of paper secured to said separate support, heated rollers rotatably mounted on said separate support, means for pleating said cloth

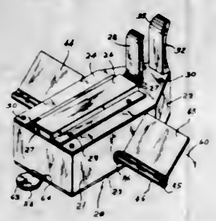
material and said paper between said paper roll mounts and said heated rollers, pleated material receiving means mounted adjacent said heated rollers and driving means associated with said receiving means—whereby said cloth material is drawn through said tank, past said liquid removing means, into association with said paper, through said pleating means, between said heated rollers and into association with said receiving means.

2,840,284
GARMENT HANGER
Howell Sherman, Fair Lawn, N. J.
Application October 3, 1955, Serial No. 538,216
3 Claims. (Cl. 223—95)



1. In a device for hanging trousers, a first unit and a second unit, said first unit being of one-piece construction and comprising a plurality of spaced plate members, each plate member having a generally vertical edge and a generally horizontal edge extending in one direction from the upper end of the vertical edge, each plate member being adapted to be inserted between portions of a corresponding leg and cuff of a pair of conventionally creased inverted trousers in a manner that its vertical edge is positioned substantially against and along the inside of the cuff crease and its horizontal edge is positioned substantially against and along the inside of the crease of such cuff and trouser leg, each plate member including a substantially coplanar extension at its lower end and extending in a horizontal direction away from the body of the plate member, and an upstanding plate-like arm secured to each extension and spaced from and generally parallel to the vertical edge of each plate member, said second unit comprising a part pivotally connected to the arm of the first unit and a part that is adapted to be secured to a support.

2,840,285
TROUSER REMOVER
Otto Boruvka, New York, N. Y.
Application August 15, 1956, Serial No. 604,106
4 Claims. (Cl. 223—111)



1. A trousers remover comprising in combination: a hollow box, said box having an upper cover plate with a slot therein, a channel member attached to said plate, a bar slidably disposed in said channel member and carrying a depending rod extending through the slot in said plate, a block supported on said rod and movable longitudinally in said box, said block having an inclined edge, a shaft pivotably disposed in said box, a short rod radially secured to said shaft and having its free end arranged to contact the inclined edge of said block, a spring member attached between said block and a wall of said box to retract said block, a pair of pedals secured to said shaft, said pedals being disposed at opposite sides of the box, a first upstanding finger fixed to a foreward portion of said box, and a second upstanding finger formed on said bar, said fingers having curved portions arranged to interfit with each other when said second finger is advanced, said second finger being advanced when one of said pedals is depressed, whereby a lower portion of a trousers leg may be gripped between said fingers when one of the pedals is depressed and whereby said trousers leg is released when said one pedal is released.

2,840,286
WATCH BAND
James R. Schermerhorn, St. Paul, Minn., assignor of fifty percent to Bullard Brothers Company, St. Paul, Minn., a corporation of Minnesota
Application April 24, 1956, Serial No. 580,386
1 Claim. (Cl. 224—4)

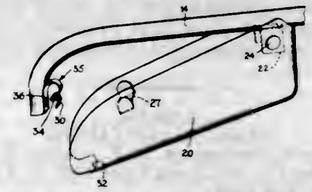


An assembly comprising a watch and a watch band, said watch having a first eyelet at one of its ends and a second eyelet at the other of its ends, the aperture in each of said eyelets extending parallel to the ends of said watch, said watch band comprising a first and second strip of material, the major portion of each of said strips being of cross-section smaller than the cross-section of said apertures, a tip of each of said strips being of cross-section greater than the cross-section of said apertures, the first of said strips being threaded through the first of said eyelets, from one direction, with its major portion projecting from one face of said first eyelet, the second of said strips being threaded through the second of said eyelets, from the opposite direction, with its major portion projecting from the opposite face of said second eyelet, the major portions of said strips thus projecting away from opposite faces of said eyelets in opposite directions, each of said strips being prevented from passing entirely through said eyelets by reason of its enlarged tip, each of said strips being characterized by being limited in its capacity to be bent back upon itself, by reason of which said characteristic, neither of said strips, as it emerges from its respective eyelet, will bend as acutely as 90° when the major portions of said two strips are drawn away from each other, said assembly being characterized by the feature that said watch will be caused to turn diagonally, but remain on its same plane, when the major portions of said two strips are drawn away from each other.

2,840,287
CROSSBAR TANK FOR CYCLES
Clifford Brooks Stevens, Milwaukee, Wis., assignor, by mesne assignments, to American Machine & Foundry Company, New York, N. Y., a corporation of New Jersey
Application August 30, 1955, Serial No. 531,431
5 Claims. (Cl. 224—35)

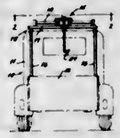
1. A crossbar tank for a cycle comprising an elongated tank having the upper elongated portion thereof open and the bottom elongated portion thereof closed, means

for pivoting one end of said tank to the underside of a crossbar of a cycle, a latch for releasably securing the other end of said tank against downward movement rela-



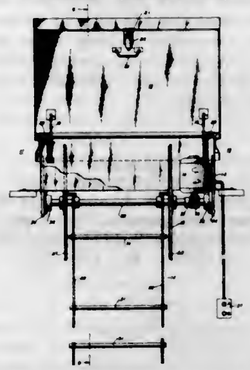
tive to said crossbar when the upper elongated open portion of said compartment tank has been moved into abutment with the crossbar to form a cover therefor.

2,840,288
ARTICLE HOLDER FOR TRUCK RACK
Norman C. Broddon, St. Louis, Mo.
Application September 23, 1955, Serial No. 536,146
5 Claims. (Cl. 224—42.1)



2. In combination with a truck rack including a horizontal rail member for carrying articles; a holder for securing said articles to said rail member, comprising a mounting member positioned on said rail member, rod-like means carried by said mounting member and vertically movable relative to said rail member, clamping means rotatably mounted on said rod-like means above said rail member and vertically movable with said rod-like means for securing an article to said rail member, and ratchet means releasably engageable with said rod-like means for preventing upward movement of said clamping means relative to said rail member when an article is secured therebetween.

2,840,289
SCUTTLE AND LADDER COMBINATION
John Joseph Murray, Short Hills, N. J.
Application September 14, 1953, Serial No. 379,842
3 Claims. (Cl. 228—42)



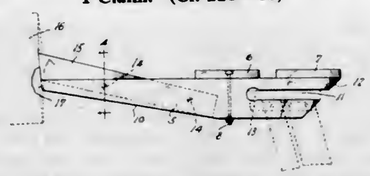
1. In combination, a rectangular scuttle frame, an upwardly opening closure member for said frame, means for pivoting said closure member around one edge of said frame, means for holding said closure member closed against the action of a spring, means for releasing said holding means, a flexible ladder for gaining access to said scuttle from a position below it, motor means for rolling up said ladder and for unrolling it, and means controlled by a push button for simultaneously releasing said holding means to allow said closure member to spring open and for starting the unrolling of said ladder.

2,840,290
TELESCOPIC LADDERS
John F. Roberts, Portland, Oreg., assignor to Eric Ladd, Portland, Oreg.
Application March 31, 1954, Serial No. 420,039
1 Claim. (Cl. 228—48)



A telescopic ladder structure comprising a flat elongate main frame including spaced side members constituted by inwardly open channels open at one end and closed at the other end, means for positioning said main frame substantially horizontally, a relatively short subframe including spaced side members constituted by inwardly open channels slidably nested in said main frame side channel members, said subframe having pivot means on the end thereof corresponding to the open channel ends of said main frame, a first ladder section including legs and rungs connected to the pivot means of the subframe, said subframe and legs slidably nesting in said side channel members of said main frame, said legs being constituted by channel-like members with the rungs disposed along one side thereof, said subframe extending substantially beyond the extremity of the channeled main frame when the subframe is fully extended, stop means on the side channels of the subframe to prevent the subframe from being completely withdrawn from the main frame, a second ladder section slidably in the legs of said first ladder section and the side channels of said subframe, and means on the main frame for releasably engaging an end of the second ladder section for retaining the subframe and telescoped ladder sections within the main frame.

2,840,291
STEP LADDER SLIP-ON PLATFORM
Alfred A. Becker, Indianapolis, Ind.
Application January 3, 1957, Serial No. 632,366
1 Claim. (Cl. 228—60)



A platform and brace attachment for step ladders comprising a pair of spaced side members providing a platform frame, a plurality of platform boards secured to the upper surfaces of said side members to form a relatively wide platform adjacent the upper side of said frame, each of said side members having a longitudinal slot extending inwardly from one of the respective ends thereof, for positioning over the top step of a step ladder whereby said platform rests upon said top step, and removably securing said attachment to said top step and in contact therewith, the other ends of said side members diverging

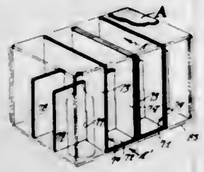
outwardly to provide a relatively wide prop for resting against the wall, or on opposite sides of a tree bole or corner or the like, spacing said ladder from said wall, and side bars secured to each side member, said side bars being inclined upwardly relative to the upper edges of said side members, the ends of said side bars being bevelled and perpendicular to said slots, to rest against a wall surface to insure close contact of said platform attachment with said wall surface while maintaining said platform level.

2,840,292
CUP SUPPORT
James J. Stoddard, Glenolden, Pa.
Application May 31, 1955, Serial No. 512,138
4 Claims. (Cl. 229—1.5)



1. A cup having a side wall and a bottom, and having near the top of the side wall and permanently secured thereto a tab which extends out from the side wall and is hingedly connected thereto on a horizontal axis, there being an opening in the tab which is disposed vertically, in combination with a spoon engaging in the opening of the tab and surrounded at the upper part of the bowl of the spoon by the walls of the opening, having a handle portion extending above the cup for holding by the hand and having a bowl portion which is too large to pass through the opening and which is retained below the tab.

2,840,293
SLOTTED PARTITIONS FOR SHIPPING CASES
Richard E. Paige, New York, N. Y.
Application June 17, 1954, Serial No. 437,398
1 Claim. (Cl. 229—15)



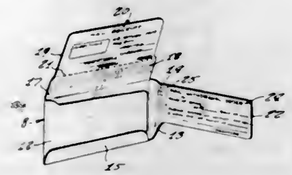
A bottle case having interlocked display partitions, two of said partitions each being U-shaped with an intermediate and connecting outer wing panels, the adjacent wing panels of said two partitions being in face to face contact with one another the intermediate panel of each partition providing one bottle space and said contacting wing panels lying in a medial transverse plane of the bottle case, each of said three panel partitions having parallel slots extending through the intermediate panel and into the outer wing panels, longitudinally-extending partitions extending through said slots and interlocking with the three panel partitions to provide the partitions of a bottle case, said longitudinally-extending partitions being slotted intermediate their length thereof to accommodate and retain the panels of the three panel partitions which lie adjacent one another, said bottle case being separable intermediate the length thereof and in the plane of said face contacting wing panels by a knife or saw cut whereby to provide half-cases, the wing panel of each three panel partition serving to close the end of the half-case, and the outer wing panels of each three panel partition displaying advertising matter and the severed longitudinal partitions adapted to be interlocked with one another and with one of the slots of the three panel partition to support the same in a display manner and provide an elevated support for the bottles.

2,840,294
MAILING CONTAINER
John S. Davis, Scarborough, N. Y., assignor to Equitable Paper Bag Co., Inc., Long Island City, N. Y., a corporation of New York
Application March 3, 1955, Serial No. 491,902
2 Claims. (Cl. 229—37)



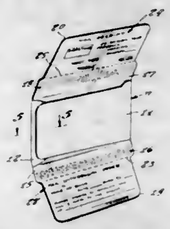
2. A container including a length of paper which is tubed to a rectangular cross-sectional form having flat walls of which one forms a longitudinally extending seam where the edge portions of said length come together, the corner portions of said form at both of its ends being severed so as to form end flaps for closing the ends of said form, and means for interfastening said edge portions and means for fastening said flaps in closed positions, said edge portions being butted together and both of said means being formed by a strip of paper having the width of said wall which forms said seam and being secured thereto and extending the length thereof so as to form a flat paper-covered wall, said flaps being closed at one end of said form and said strip extending thereover and being secured thereto so as to close said end, and said flaps at the other end of said form being free to open and close and said strip extending thereover to form a flap and the latter having its inside coated with an adhesive so that when said form's flaps are closed said strip's flap may be folded thereover and secured thereto, said length of paper being corrugated shipping paper faced with flap paper and arranged so that the corrugations extend transversely with respect to said form with the paper facing on the outside thereof.

2,840,295
ENVELOPE
Fred Fromm, Cranford, N. J., assignor to Berlin & Jones Company, Incorporated, New York, N. Y.
Application December 9, 1954, Serial No. 474,112
1 Claim. (Cl. 229—70)



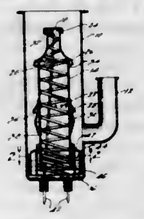
A self-contained banking envelope, including a laterally elongated front address panel having relatively short vertical ends, a laterally elongated rear panel having short vertical ends and at one of the latter being integrally connected to one of said vertical ends of the front address panel with the lower edge thereof substantially alined with the lower edge of said front panel but having the upper edge of said rear panel cut a short distance below and parallel to the upper edge of said front panel, a narrow laterally elongated bottom flap integral along the length thereof with the bottom of the front panel having a glue strip disposed along said bottom flap and serving to interconnect the bottom edges of both front and rear panels, a short end flap upon the other of the short vertical ends of said front panel having a vertically arranged glue strip thereon, another laterally elongated flap forming a lateral integral extension upon the outer end of said short end flap substantially alined with said front panel but having the bottom edge thereof cut substantially parallel to but at a sufficient distance above the bottom edge of said front panel to clear the narrow laterally elongated bottom flap upon said front panel, a laterally elongated main flap integral along the length thereof with the upper edge of the front panel and being of substantially of the same lateral extent therewith, but of greater width than that of said narrow bottom flap and having a glue strip disposed along the same within the upper edge thereof, and a single flap extension extending integrally from the upper edge of the main flap and having vertical short ends cut short of the lateral length of said main flap but said extension having a relatively greater vertical length and area than said main flap, the laterally elongated flap and said single flap extension having weakened tear lines disposed between the same and said short end flap and said main flap, respectively.

2,840,296
ENVELOPE
Fred Fromm, Cranford, N. J., assignor to Berlin & Jones Company, Incorporated, New York, N. Y.
Application December 9, 1954, Serial No. 474,111
1 Claim. (Cl. 229—70)



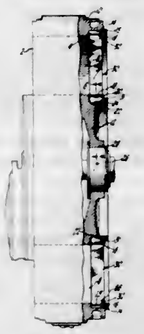
A self-contained banking envelope, including a laterally elongated front address panel having relatively short vertical ends with a short vertical end flap connected integrally to one vertical end, a laterally elongated rear panel with short vertical ends integrally connected at one vertical end to the other vertical end of said front panel and having the major portion of the upper edge thereof cut a short distance below alignment with the upper edge of said front panel but in parallelism with the latter, the elongated rear panel having a vertical glue strip on the other short vertical end forming the outer end thereof serving to connect it with the short vertical end flap, a relatively short but laterally elongated bottom flap integrally connected to the bottom of the front panel and having a laterally extending glue strip thereon, a laterally elongated flap extension with short vertical ends integrally connected along the length thereof to the lower edge of the bottom flap and having a laterally extending weakened tear line for removal of the flap extension from the bottom flap to form a mail deposit or mail withdrawal slip, said laterally elongated flap extension being cut shorter at both vertical ends thereof than said bottom flap, a relatively large laterally extending main closure flap integrally connected along the length thereof to the upper edge of said front panel and having a glue strip disposed along the upper edge of said closure flap, and a second laterally elongated flap extension with short vertical ends integrally connected along the length thereof to the upper edge of the main closure flap and having a laterally extending weakened tear line for removal of the second flap extension from the main closure flap to serve as a mail receipt slip, and said second flap extension also being cut shorter at both vertical ends thereof than said main closure flap to which said second flap extension is initially connected.

2,840,297
VAPOR OPERATED EJECTOR VACUUM PUMP
Kenneth C. D. Hickman, Rochester, N. Y., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application June 5, 1953, Serial No. 359,824
16 Claims. (Cl. 230—101)



1. In a vapor-operated ejector pump having a jet, a pot for containing a pool of liquid, means for heating the liquid of the pool to vaporize it, and a conduit connecting the pot to the jet for feeding the resulting vapor to the jet, the combination which comprises a reservoir connected to the pot below the level of the pool of liquid therein, and means for forcing the liquid of the pool into the reservoir and for forcing the liquid back from the reservoir into the pool.

2,840,298
HEATED COMPRESSOR VANE
William S. Castle and John M. Wetzler, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 9, 1954, Serial No. 448,633
2 Claims. (Cl. 230—132)

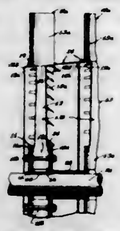


1. A heated compressor vane having vane faces defining a hollow vane, said vane having a fluid inlet at one end thereof and a fluid outlet in one of said vane faces adjacent said fluid inlet, and a longitudinally extending partition member within said vane extending be-

tween the leading and trailing edges thereof and including intermediate rib portions in engagement with a respective vane face to locate said partition member in laterally spaced relationship thereto and define pairs of longitudinally extending passages with each of said vane faces, said passages being in communication with each other at one end thereof with said partition member including laterally extending portions between said fluid inlet and said fluid outlet to close the other end of one pair of passages and the other end of one passage of the other pair of passages, whereby said other passage of said other pair will be in communication with said fluid inlet to direct the flow of heating fluid longitudinally of one portion of said one vane face and said one passage of said other pair will direct the flow of heating fluid in a reverse longitudinal direction of the other portion of said one vane face to said fluid outlet.

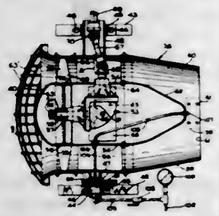
2,840,299
AXIAL FLOW COMPRESSOR ROTOR
Robert A. Paetz, University Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application September 22, 1952, Serial No. 310,867
5 Claims. (Cl. 230—134)

1. In an axial flow compressor including a central rotating member, a rotor including a central hub carried on said rotating member, a plurality of circumferentially spaced radially extending blades, a cylindrical drum with circumferentially spaced arcuate slots, each slot having a contour complemental to the cross section of a blade, each blade having an individual supporting spoke of thicker cross section than that of said blade and forming a shoulder for abutting the inner surface of said drum



around the edge of the associated arcuate slot, means fastening said spokes to said hub for holding each blade against radial displacement in said slot and for co-rotation of the rotating member and blade, and fluid dampening means interposed between said central rotating member and said spoke to dampen vibration.

2,840,300
SPRAYING APPARATUS
James P. Carr, Lansing, Mich., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Application January 9, 1956, Serial No. 558,103
6 Claims. (Cl. 230—235)



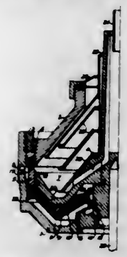
1. In a blower assembly, a blower housing, a propeller rotatably mounted in said housing, axially aligned trunnions extending laterally from said housing, means pivotally supporting the trunnions to mount the housing for rotary movement about a transverse axis, a drive shaft extending coaxially with one of said trunnions, a right angle gear drive mechanism mounted within the housing with its mean point of load application within said transverse axis and connected at one end to said drive shaft, and means connecting the other end of said drive mechanism to said propeller.

2,840,301
CENTRIFUGAL COUNTER-CURRENT CONTACTING APPARATUS
Walter J. Podbielniak, Chicago, Ill., assignor of one-half to Wladzia G. Podbielniak
Application July 6, 1955, Serial No. 520,203
4 Claims. (Cl. 233—15)



1. In a centrifugal contact apparatus, a rotor including a plurality of concentric perforated rings providing annular passageways therebetween, said passageways being laterally closed, at least one orifice in each of said rings having a large cross-sectional area compared to that of the perforations therein, and a nozzle mounted on each of said rings over said orifices, said nozzle projecting in only one radial direction from said rings into said passageways but terminating short of the next adjacent ring.

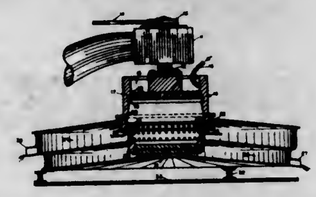
2,840,302
CENTRIFUGAL SEPARATORS
Peter Steinacker and Heinrich Hemfort, Oelde, Westphalia, Germany, assignors to Westfalia Separator A. G., Oelde, Westphalia, Germany, a corporation of Germany
Application June 1, 1954, Serial No. 433,709
1 Claim. (Cl. 233—20)



In a centrifugal separator having a centrifugal bowl with peripheral sludge outlet openings, a sleeve valve axially movable between a position opening and a position closing said openings, a bottom insert member defining the lower surface of the bowl interior and means for moving said sleeve valve for the periodic discharge of sludge from the bowl; and the improvement which comprises the sleeve valve positioned with a major portion of its outer surface in spaced relationship to the adjacent inner surface of the bowl, forming a free space therebetween in communication with said sludge outlet openings, said sleeve valve having an inwardly extending flange connected to the lower portion thereof, means for passing liquid into said space in the direction of said sludge outlet openings, which means includes a liquid

passage defined through said flange through the lower portion of said sleeve valve, means for passing liquid to said liquid passage and the bottom insert member defining an outer guide surface positioned in sliding contact with the inner surface of said sleeve valve.

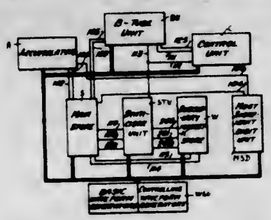
2,840,303
CENTRIFUGAL SEPARATOR
Joseph Stuart II, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware
Application July 6, 1955, Serial No. 520,267
12 Claims. (Cl. 233—28)



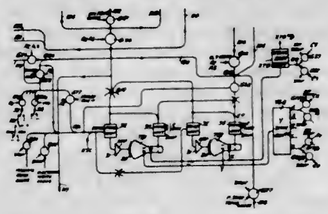
1. A centrifugal separator for liquids having in combination a bowl mounted to revolve about its vertical axis, means for revolving the bowl, and collecting means for the separated liquid components, said bowl comprising a receiving chamber at the top thereof for receipt of the liquid feed, a plurality of spaced passageways extending downwardly and outwardly through the wall of the bowl from a point adjacent the intersection of the bottom and the wall of the receiving chamber, a separating chamber disposed below the receiving chamber and in communication with the receiving chamber through the said passageways, a dam disposed at the bottom of the wall of the separating chamber and extending substantially horizontally inwardly and then substantially vertically downwardly, an exit annulus for the heavier liquid component leading outwardly from the horizontal surface of the dam at points adjacent the intersection of the wall of the separating chamber and the horizontal surface of the dam, and a plurality of spaced exit conduits for the lighter liquid component leading outwardly from the vertical surface of the dam at points adjacent the bottom of the separating chamber, said exit annulus and exit conduits for the liquid components being in communication with the said collecting means.

2,840,304
DATA STORAGE ARRANGEMENTS FOR ELECTRONIC DIGITAL COMPUTING MACHINES
Frederic Calland Williams, Timperley, Tom Kilburn, Manchester, Geoffrey Colin Tootill, Swindon, and Brian Watson Pollard, Hollinwood, England, and Gordon Eric Thomas, Port Talbot, and David Beverley George Edwards, Pontypridd, Wales, assignors to National Research Development Corporation, London, England
Application May 17, 1951, Serial No. 226,761
Claims priority, application Great Britain May 18, 1950
20 Claims. (Cl. 235—61)

1. A system for surging into a high speed storage, for demand use by an instruction execution device, desired data groups out of a cyclically operating storage device wherein the data are stored in groups, each group being identifiable, said system comprising means to identify on said cyclically operating storage device a desired data group, means responsive to said identifying means to read the data in said group in sequence into said high speed storage, means to address the position of said data group in said high speed storage and to address the read out sequence of said data to said instruction execution device, means responsive to the reading out of said data to control said last named means to address the next instruction to be executed, and means responsive to the execution of an instruction by said instruction execution device to call out of said high speed memory the next of said data which is required.

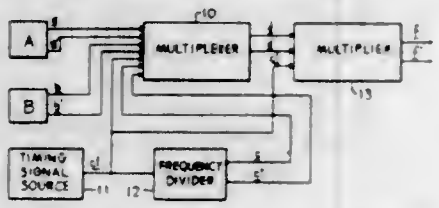


2,840,305
RHYTHM CONTROL MEANS FOR ELECTRONIC DIGITAL COMPUTING MACHINES
Frederic Calland Williams, Timperley, Tom Kilburn, Manchester, Geoffrey Colin Tootill, Swindon, and Brian Watson Pollard, Hollinwood, England, assignors to National Research Development Corporation, London, England
Application May 17, 1951, Serial No. 226,762
Claims priority, application Great Britain May 18, 1950
11 Claims. (Cl. 235—61)



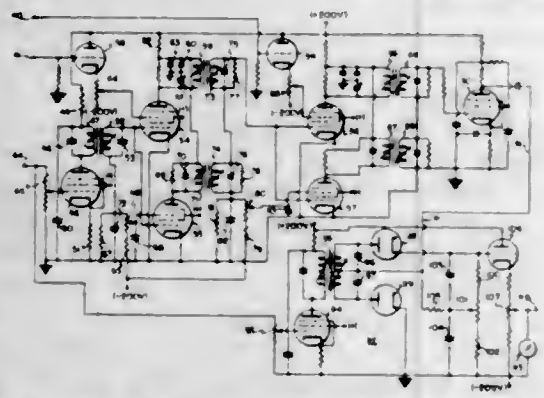
1. Rhythm control means for an electronic digital computing machine of the type operated at a rhythm involving a major operative cycle or bar composed of a plurality of minor cycles or beats comprising a continuously operating master timing oscillator, frequency-dividing means supplied with signals from said master oscillator providing beat-defining signals marking the end of each of said beat periods, prepulse-signal generating means providing a starting signal marking the commencement of each bar period, said pre-pulse signal generating means comprising gate circuit means for selecting one of said beat defining signals as said starting signal apparatus for generating a plurality of square pulse waveforms each comprising pulses defining respectively the time periods of each successive one of said beat periods of the operating rhythm of the machine and comprising a plurality of two stable state trigger circuits one for each of the maximum number of beats included in a normal operative bar, each trigger circuit having a triggering input terminal, a resetting input terminal and at least one output terminal, circuit means for supplying said prepulse starting signal to the triggering input terminal of a first one of said trigger circuits, circuit means including a differentiating circuit network connecting said output terminal of said first trigger circuit to the triggering input terminal of a second one of said trigger circuits and for similarly connecting the output terminal of such second trigger circuits to the triggering input terminal of a third one of said trigger circuits and so on to form a serially connected trigger circuit chain and circuit means including a differentiating circuit network for supplying said beat-defining signals in parallel to each of the resetting input terminals of each of said serially connected trigger circuits.

2,840,306
DI-FUNCTION MULTIPLEXERS AND MULTIPLIERS
Floyd G. Steele, La Jolla, Calif., assignor to Digital Control Systems, Inc., a corporation of California
Application November 22, 1952, Serial No. 322,094
16 Claims. (Cl. 235—61)



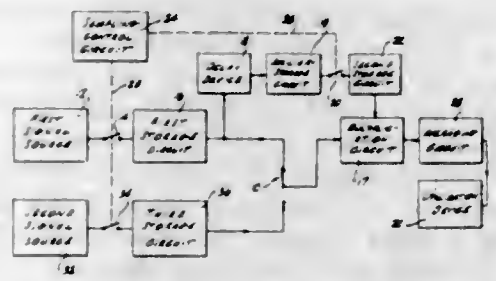
5. A device for multiplexing and multiplying 1st and 2nd di-function signals, each of said signals comprising a series of high and low voltage levels, each of said voltage levels appearing for an integral number of timing intervals, said device comprising: first and second electronic switching means, each of the switching means being responsive to 1st and 2nd input signals for producing high and low output voltage levels, respectively; means responsive to the high or low voltage level appearing in the 1st di-function signal during each timing interval for applying a 1st or 2nd signal, respectively, to said first switching means intermediate the timing interval; means responsive to the high or low voltage level appearing in the 2nd di-function signal during each timing interval for applying a 1st or 2nd signal, respectively, to said first switching means at the end of the timing interval; means for delaying each output voltage level produced by said first switching means one-half of a timing interval; means responsive to identical voltage levels appearing simultaneously in the output voltage level and the delayed output voltage level of said first switching means for applying a 1st signal to said second switching means; means responsive to different voltage levels appearing simultaneously in the output voltage level and the delayed output voltage level of said first switching means for applying a 2nd signal to said second switching means whereby the output voltage levels of said second switching means comprise the di-function chain product of the 1st and 2nd di-function signals.

2,840,307
DYNAMIC MULTIPLIER CIRCUIT
Willis S. Campbell, Gaithersburg, Md.
Application July 28, 1953, Serial No. 370,903
8 Claims. (Cl. 235—61)
(Granted under Title 35, U. S. Code (1952), sec. 266)



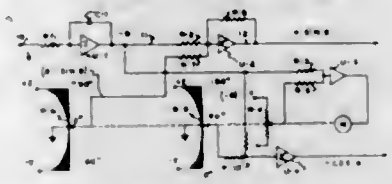
1. In apparatus for obtaining the product of a plurality of quantities, the combination of first and second amplification means each having two signal amplification paths for amplifying a carrier frequency signal, gain control means for a first signal path of said first amplification means operative to produce selected signal amplification thereby, gain control means for the second signal path of said first amplification means responsive to a first input quantity to vary the amplification thereof in accordance therewith, first combining means for producing primary output signals dependent upon amplitude differences between the signals passing through the first and second signal paths of the first amplification means, means connecting the output of said first combining means to the input of the second amplification means, gain control means for a first signal path of said second amplification means, means operative to produce a selected amplification thereby, gain control means for the second signal path of said second amplification means responsive to a second input quantity to vary the amplification thereof in accordance therewith, and secondary combining means for producing output signals dependent upon amplitude differences between the signals passing through the first and second signal paths of the second amplification means.

2,840,308
ELECTRONIC CORRELATOR
Thomas B. Van Horne, Culver City, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application June 2, 1955, Serial No. 512,598
6 Claims. (Cl. 235—61)



1. In an electronic correlator having at least one signal source for providing a signal representative of a function to be correlated, the combination comprising first and second storage devices, an auxiliary storage device coupled to said first storage device, means for periodically and simultaneously connecting said first and second storage devices to said one signal source and said auxiliary storage device, respectively, for predetermined intervals of time, and means for isolating said auxiliary storage device from said first storage device during said predetermined intervals whereby the potentials appearing on said first and second storage devices are representative of said signal and said signal delayed for an interval of time between periodic connectings, respectively.

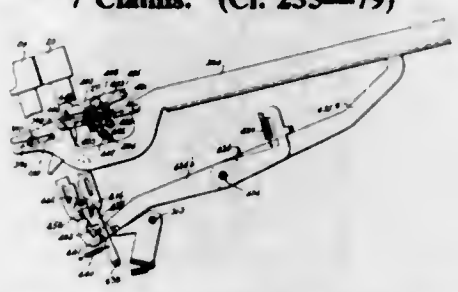
2,840,309
COMPUTER FUNCTION GENERATION
John M. Hunt, Binghamton, N. Y., assignor to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application October 18, 1955, Serial No. 541,180
7 Claims. (Cl. 235—61)



1. Apparatus for generating desired potentials which are substantially noise-free over a range of interest of a variable, which potentials vary as non-linear functions of said variable and which potentials are quantitatively accurate over an extended range comprising in combination, means for electronically generating a first potential as a linear function of said variable, means for electromechanically generating a second potential in accordance with the difference between the desired function of said variable and said linear function, and summing means

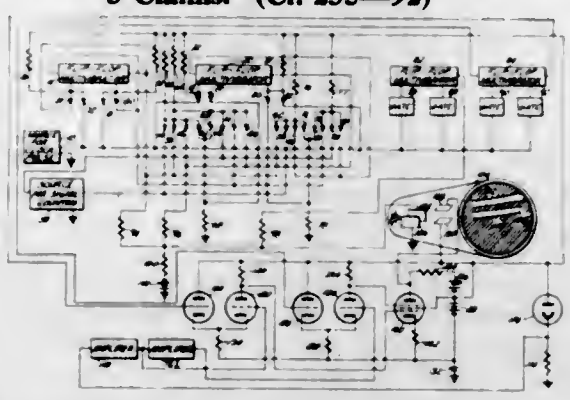
combining said first and second potentials to provide an output potential in accordance with said desired function of said variable.

2,840,310
REVERSIBLE COUNTER MECHANISM
Chris A. Christoff, San Gabriel, Calif., assignor to Clary Corporation, a corporation of California
Original application November 16, 1953, Serial No. 392,294. Divided and this application January 3, 1955, Serial No. 479,303
7 Claims. (Cl. 235—79)



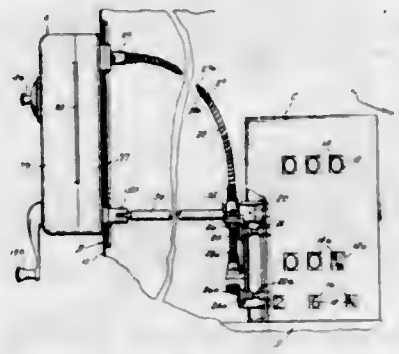
1. In a calculating machine having a reversible cycle counter, actuating mechanism therefor comprising the combination of an actuator for said counter, a reversible ratchet device operatively connected to said actuator, a reciprocable drive element cooperable with said ratchet device, means normally maintaining said drive element in a medial position, selectively operable means for moving said drive element in one direction or the other from said medial position whereby to advance said ratchet device in one or the other of opposite directions, respectively, and means for locating said drive element in either of two operative relations with said ratchet device whereby to enable said drive element to advance said ratchet device in one or the other of opposite directions, respectively.

2,840,311
CATHODE RAY TUBE COUNT INDICATOR
Vernon P. Magnuson, Gardena, and Glenn E. Hagen, Manhattan Beach, Calif., assignors to Northrop Aircraft, Incorporated, Hawthorne, Calif., a corporation of California
Application September 8, 1952, Serial No. 308,358
3 Claims. (Cl. 235—92)



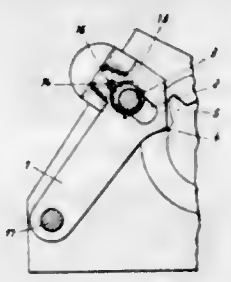
1. In combination, a cathode ray tube, means for deflecting a beam in the tube in a first direction, means for deflecting the beam in a second direction substantially perpendicular to the first direction, means for providing on the face of the tube opaque portions of diagonal configuration with respect to said first and said second directions, the opaque portions being disposed to provide a plurality of similarly diagonal parallel light-transmissive strips, means for providing a digital count of a finite quantity, means for providing increased displacements of the beam in the first direction with increases in the digital count, means for returning the beam to its initial position in the first direction upon each full displacement of the beam in that direction, and means for displacing the beam in the second direction through a distance dependent upon the total movement of the beam in the first direction.

2,840,312
RECORDER
Harold B. Vroom, Simsbury, Conn., assignor to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut
Application March 10, 1953, Serial No. 341,456
25 Claims. (Cl. 235—94)



1. In a recorder for use with an associated mechanism, the combination comprising a set of printing wheels including a wheel of lowest order, means for driving the wheel of lowest order from an associated mechanism including a lost motion connection for driving the wheel in retard of the associated mechanism, and means independent of the associated mechanism for advancing said printing wheels to align the indicia thereon prior to printing.

2,840,313
TRANSFER MECHANISM FOR CALCULATING MACHINES
Walter Werner and Willy Schlegel, Leipzig, Germany, assignors to Triumphator-Werk Veb, Molkau, near Leipzig, Germany
Application February 9, 1954, Serial No. 409,207
6 Claims. (Cl. 235—138)

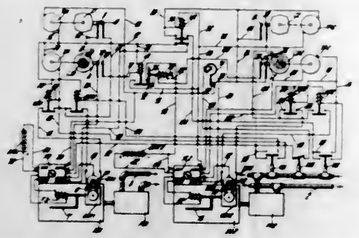


1. Tens carry device for calculating machines, comprising, in combination, an oblongly apertured tens carry lever, a bearing shaft on which the lever is pivotally mounted, an intermediate wheel shaft passing through an aperture of the lever and a locking spring member made of spring steel wire or band steel and mounted on the lever, said member contacting the intermediate wheel shaft and thereby holding the lever in either of two adjusted positions.

2,840,314
HEATING SYSTEM
Harold G. Haines, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 28, 1953, Serial No. 351,681
15 Claims. (Cl. 237—8)

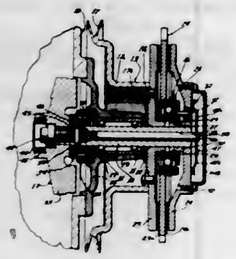
1. An automatic thermostatically controlled heating system comprising a heat generator, an engine connected to drive said heat generator, heat circulating means connected to said heat generator, a speed regulator connected to said engine, timing means connected to said regulator to periodically increase and decrease engine

speed, and temperature sensitive means connected to said heat circulating means and said timing means, said temperature sensitive means being responsive to temperatures in said heat circulating means below a predetermined temperature to start said timing means, said timing means



when started acting to periodically increase engine speed, said temperature sensitive means being responsive to temperatures in said heat circulating means above a predetermined temperature to start said timing means, said timing means when started acting to periodically decrease engine speed.

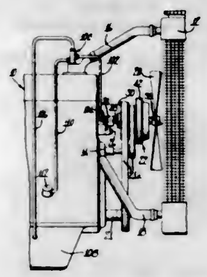
2,840,315
THERMOSTATICALLY CONTROLLED FAN
John P. Heiss, Flint, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 16, 1955, Serial No. 494,641
10 Claims. (Cl. 236—35)



1. In an internal combustion engine or the like, a coolant pump, a hollow shaft driving said pump, a driven pulley on said shaft, a clutch plate carried by said pulley, a stub shaft integral with said clutch plate, a fan rotatably mounted on said stub shaft and capable of sliding axially thereof into engagement with said clutch plate, a second clutch plate slidably received on said hollow shaft on the side of the fan remote from the first clutch plate, a thermostat in said pump, and means extending through the hollow shaft and actuated by said thermostat in response to temperature variations in said pump for controlling the fan speed by reciprocating said second clutch plate into engagement with said fan and clamping said fan between said first and second clutch plates for rotation with said pulley.

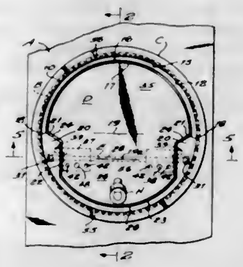
2,840,316
CLUTCH DRIVE UNIT AND CONTROL SYSTEM
Edward J. Herbenar, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 5, 1956, Serial No. 569,492
10 Claims. (Cl. 236—35)

8. In combination in a cooling system for engines, an engine fan, a fan shaft fixedly secured to said fan, a rotatable housing drivingly connected to said engine output shaft, bearing means in said housing for reciprocably and rotatably supporting said fan shaft coaxially with the housing, a friction clutch surface on an inside axially facing surface of said housing, a clutch member carried by said fan shaft within said housing for rotation with said fan shaft, a second friction clutch surface on said clutch member for axial cooperation with said first clutch member, said clutch member comprising a piston having a larger effective face on the side thereof opposite said



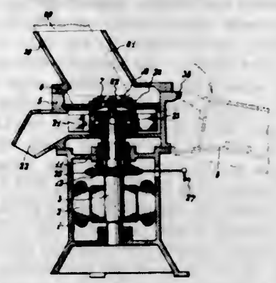
first friction surface, means applying fluid under pressure to the inside of said housing upon attainment of a predetermined engine temperature and an aperture in said piston permitting fluid trapped between said piston and said first clutch surface to vent to said opposite side of the piston whereby cushioned clutch engagement is achieved.

2,840,317
DRAFT REGULATOR
Joseph P. Kozak, Cliffwood Beach, N. J.
Application June 24, 1953, Serial No. 363,862
7 Claims. (Cl. 236—45)



1. A draft regulator comprising a circular frame having a cylindrical rearwardly extending attachment and a front peripheral flange and a swinging vane horizontally pivotally mounted to swing within said frame, said vane having a relatively wide upper semi-circular portion and a relatively narrow downwardly extending rectangular lower portion and said peripheral flange having its inside edge closely conforming to but slightly spaced from the edge of the vane and having wide portions adjacent the upper edges of the sides of the lower portion, horizontally aligned inwardly extending pins permanently mounted in said wide portions at each side thereof and extending into the opening inside of said flange and angle flanges mounted on the back of said vane having flange portions with openings in which said pins are received, said flange portions being perpendicular to the plane of the vane and said vane having channels aligned with said openings to receive said pins, and said angle flanges having extensions, one extension serving to limit the opening position of the vane and another extension serving to limit the closing position of the vane.

2,840,318
COMMINUTING MACHINE HAVING PERFORATED PLATE AND ROTARY CUTTER
Carl Schnell, Winterbach, near Schorndorf, Germany, assignor of one-half to The Griffith Laboratories, Inc., Chicago, Ill., a corporation
Application March 19, 1956, Serial No. 572,543
2 Claims. (Cl. 241—84)



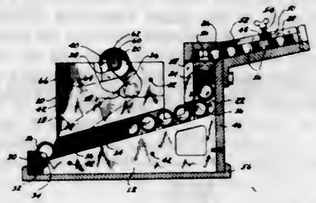
1. A comminuting machine comprising wall means defining a substantially cylindrical chamber, a perforated plate forming the bottom of said chamber and at least one rotary cutting arm movably contacting said plate and having an upwardly inclined forward surface, said chamber having an inwardly and upwardly inclined recirculating surface, said inclined surface being in a plane which is slightly above the plane of said cutting arm.

2,840,319
STORAGE AND DISPENSING RECEPTACLE FOR ROLLED PAPER
Michael Danko, Millfield, Ohio, assignor of one-half to J. E. Wade, Millfield, Ohio
Application May 2, 1956, Serial No. 582,254
3 Claims. (Cl. 242—55.3)



1. A combined storage cabinet and rolled paper dispenser comprising a generally vertically arranged casing structure including back, front, top and bottom walls, and a closed side wall, said casing being open at the side thereof opposite said closed side wall and defining an internal storage compartment for the reception of rolled paper, the closed side wall of said casing structure being extended vertically below the bottom wall thereof; a roll-receiving arbor secured at one end thereof to the vertically extended portion of said side wall and projecting generally horizontally below the bottom wall of said casing structure, said arbor terminating at the opposite end thereof in a free end portion over which a roll of paper may be freely passed; a door closure hingedly connected to the back wall of said casing structure and formed with a main body portion and a downward, vertical extension, said door closure being arranged to swing relative to said casing structure between a first position, wherein the main body portion of said door closure closes the open side of said casing structure and the downward extension obstructs the free end portion of said arbor, and a second position permitting free access both to the storage compartment of said casing structure and to the free end portion of said arbor; and means on the downward vertical extension of said door closure engageable with the free end portion of said arbor, when said door closure occupies said first-named position, for supporting the free end portion of said arbor in connection with said door closure.

2,840,320
TAPE WINDING BAR LOADER AND UNLOADER
Frank Csutor, Bristol, Pa.
Application May 10, 1956, Serial No. 583,988
9 Claims. (Cl. 242—68)



1. In combination with pluralities of cylindrical tape winding cores and spacer sleeves therefor, all being of substantially uniform axial length and having axial bores of substantially uniform diameter, and a tape winding bar of a suitable diameter and length for insertion through a series of axially aligned cores and sleeves, a device for loading such cores and spacer sleeves on said bar with said cores and sleeves in alternate relation and subsequently unloading the wound rolls of tape and spacer sleeves from said bar, said device including a stationary support for substantially rectangular construction, said support having a series of axially aligned and alternately arranged seats for cores and spacer sleeves extending along its lower rear end and another series of axially aligned and alternately arranged seats for spacer sleeves and spaces for cores and the rolls of tape wound thereon extending across the top of said support intermediate of its ends and in parallel relation with the series of seats in the rear end of the support, a platform attached to the upper front edge of said support, said platform sloping toward said support and having a sufficient area to receive thereon a number of cores, a series of laterally spaced chutes extending from said platform to the core seats in the lower rear end of said support, and another series of laterally spaced chutes extending from the sleeve seats in the upper surface of the support to the corresponding sleeve seats in the lower rear end of said support, the outlet end of each of said last mentioned chutes being disposed between the outlet ends of a pair of said first mentioned chutes, said chutes all being rectangular in cross-section, also declined rearwardly in the support and of suitable sizes to permit the free rolling passage therethrough of said cores and sleeves.

2,840,321
BOBBIN-HOLDER
Goffredo Fusaroli, Milan, Italy, assignor to S. A. M. P. R. E.-Soc. Az. Meccanica Precisione, Milan, Italy
Application December 6, 1955, Serial No. 551,421
Claims priority, application Italy December 7, 1954
1 Claim. (Cl. 242—130.2)

A bobbin holder comprising upper and lower hollow cylindrical bodies in axially telescopic engagement with each other, a removable bearing member in said upper body including a bushing axially slidable in said upper body and having upper and lower guides therein and a series of balls retained between said guides, a bearing head engaging said lower guide and extending axially upward out of said bushing and upper body for attachment to a creel board, a resilient retaining ring releasably holding said guides and balls within said bushing, a generally

U-shaped leaf spring having outwardly bent free ends and an eye at the bight thereof, said upper cylindrical body having diametrically opposed openings therein in which said free ends of the leaf spring releasably engage to anchor the latter within said upper body, a separator disk in said upper body below said bearing member and resting on said outwardly bent free ends of the leaf spring, said lower cylindrical body having an annular inner abutment and an annular outer ring at the same axial location and two diametrically opposed axially elongated slots, a hexagonal catch mounted within said lower body for rotation about a diametrically extending axis perpendicular to the plane extending through said slots so that said catch can turn between an inoperative position wholly within said lower body and an operative position in which points on said catch project radially out of said slots for retaining a bobbin on said lower body



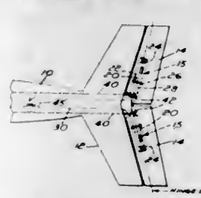
against said outer ring, a hairpin-shaped leaf spring suspended, at its bight, from said eye of the U-shaped leaf spring, said hairpin-shaped leaf spring having outwardly bent free ends which are resiliently urged apart to engage the lower end edge of said lower cylindrical body and thereby releasably hold the latter in assembled relationship with said upper body and a tooth projecting inwardly from one of the legs of the hairpin-shaped leaf spring at a substantial distance from the related free end, to actuate said catch between said operative and inoperative positions in response to movement of said catch with said lower body relative to said hairpin-shaped leaf spring, and a helical return spring bearing, at its opposite ends, against said annular inner abutment and said U-shaped leaf spring, respectively, to urge said lower body axially away from said upper body and into engagement, at its lower end edge, with said free ends of the hairpin shaped leaf spring.

2,840,322
AIR INTAKE FOR AIRCRAFT POWER PLANT INSTALLATIONS
Alan Arnold Griffith, Derby, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application September 22, 1953, Serial No. 381,663
Claims priority, application Great Britain September 23, 1952
15 Claims. (Cl. 244—15)



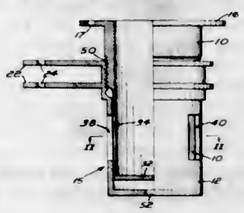
1. An air intake for an aircraft power plant installation of the kind in which an intake slot is formed between leading edge lip formations of external surface members of an aerodynamic structure, which slot leads through ducting to air-consuming power plant means, comprising a centre body extending lengthwise of the slot to divide the intake into two passages, which centre body has a wedge shape afforded by a forward portion of which the leading edge is at the junction of two rearwardly-diverging surfaces which are concave in section in planes parallel to the direction of airflow, and which are so shaped that at the design Mach number the shock wave formations therefrom extend outside or onto said leading edge lips, an intermediate portion having walls facing the leading edge lip formations, the walls affording surfaces which are straight lines in section in said planes and are smooth continuations of said concave surfaces and terminate substantially on the lines of impingement on said centre body of the inwardly-directed shock wave formations arising from the leading edge lips of the intake at the design Mach number to define between said lips and said lines of impingement intake throats, said walls of the intermediate portion being angularly adjustable relative to the forward portion towards and away from the leading edge lip formations and a rearward portion downstream of the intermediate portion and affording inner passage walls such that the passages are of a diffusing nature, means connected to effect said angular adjustment of the walls of the intermediate portion relative to the forward portion for varying the effective areas of the throats, whilst maintaining the continuity of said concave surfaces, said straight-section surfaces and said inner passage walls.

2,840,323
HINGED AIRFOIL WITH JET NOZZLE MEANS FOR AIRCRAFT FLIGHT CONTROL
Gordon K. Hood, Jr., Buffalo, and James A. O'Malley, Jr., North Tonawanda, N. Y., assignors to Bell Aircraft Corporation, Wheatfield, N. Y.
Application May 17, 1956, Serial No. 585,491
5 Claims. (Cl. 244—52)



1. An airplane flight attitude control means comprising in combination, a positionally fixed airfoil, a positionally movable airfoil disposed generally in flight-alignment with said fixed airfoil, a hinge device interconnecting said fixed airfoil and said movable airfoil whereby to mount the latter in hinged relation to said fixed airfoil for angular adjustments for control of the airplane attitude about a flight maneuvering axis, said hinge device comprising a pair of telescopically related cylindrical members relatively rotatable about the longitudinal axis thereof, one of said cylindrical members being mounted upon said fixed airfoil, the other of said cylindrical members being mounted upon said movable airfoil whereby the latter is hingedly connected to said fixed airfoil, duct means conveying pressured gas into the innermost of said cylindrical members, and rotationally registrable ports formed through side wall portions of said inner and outer cylindrical members, said ports being positionally arranged so that upon swinging of said movable airfoil away from its aerodynamic neutral position behind said fixed airfoil said ports cooperate to release pressured gas in jet form interiorly of said hinge device into the ambient atmosphere to provide jet reaction forces against the airplane in the region of the hinge device tending to rotate the airplane about a flight control axis supplementing the aerodynamic reaction forces of the concurrently deflected movable airfoil away from its neutral position behind said fixed airfoil.

2,840,324
AIRFOIL HINGE JET NOZZLE DEVICE
Stanley W. Smith, Lyndonville, N. Y., assignor to Bell Aircraft Corporation, Wheatfield, N. Y.
Application May 17, 1956, Serial No. 585,561
3 Claims. (Cl. 244—52)



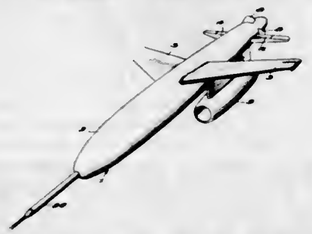
2. A combination hinge and jet reaction nozzle device comprising a pair of generally cylindrical telescopically and rotationally related members comprising an inner and an outer member, said inner member having one end thereof open and provided with connection means for fixed attachment to a stationary portion of an airplane structure and for fluid-pressure sealed connection with a source of pressured gas to be supplied to the interior of said inner member, said outer member being adapted for fixed attachment to a movable aerodynamic control airfoil component of said airplane structure and having a control crank arm extending radially therefrom, said cylindrical members comprising a rotation bearing device and having cooperating screwthreaded surface portions thereof interengaged to resist end thrust forces tending to relatively displace said members, said members having generally diametrically positioned ports through the cylindrical walls thereof adapted for relative registry upon rotation of said members longitudinally relative to one another, the inner end of said inner member being closed to prevent escape of pressurized gas therefrom except through said ports.

2,840,325
AIRCRAFT STRUCTURE
Alan Arnold Griffith, Derby, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application December 2, 1952, Serial No. 323,581
Claims priority, application Great Britain December 5, 1951
7 Claims. (Cl. 244—74)



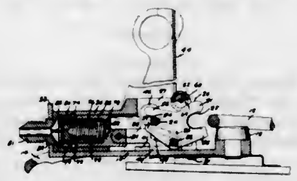
6. An aircraft designed for flight at supersonic speed and comprising a fuselage structure which includes a body portion having an external skin, a windscreen for pilot accommodation projecting from said external skin, the windscreen having an external surface lying substantially in the surface of a cone intersecting the external skin and disposed with its apex directed forwardly, whereby at supersonic speeds a shockwave formation is generated which is of conical surface form and has its apex substantially co-incident with the apex of the windscreen, the velocity of the air immediately behind the shock wave thereby being subsonic locally, and the fuselage structure also including air intake structure disposed coaxially with and rearwardly of the windscreen and affording a part-annular air intake opening which extends circumferentially around the base of the part-conical windscreen from adjacent said external skin on one side of the windscreen to adjacent said external skin on the other side of the windscreen, and which lies within the part-conical shock-wave formation, whereby the air intake opening lies within the region of local subsonic flow when the aircraft is flying at the designed supersonic speed, and the air intake structure further affording ducting within said fuselage, said ducting extending rearwardly from said part-annular intake opening, and said ducting being correspondingly part-annular adjacent the air intake opening and increasing in cross-section area in the downstream direction to its rearward end, and the aircraft comprising a plurality of air-consuming reaction-propulsion engines accommodated within the fuselage structure and having air intakes connected to the rearward end of said ducting to receive air therefrom.

2,840,326
AERODYNAMIC BRAKE FOR AIRCRAFT
Urban W. Richardson, Baltimore, and John Donald Rauth, Middle River, Md., assignors to The Martin Company, a corporation of Maryland
Application December 24, 1949, Serial No. 134,906
5 Claims. (Cl. 244—113)



2. An aerodynamic brake for an aircraft having a fuselage, comprising a brake vane arranged substantially perpendicular to the longitudinal axis of said fuselage and including an arm extending from the inner edge of said vane and rigid therewith, means pivotally connecting said arm to said fuselage on a fixed axis located at a point interiorly of but adjacent the peripheral wall of said fuselage for bodily swinging of said vane about said pivot axis in a plane substantially perpendicular to the longitudinal axis of said fuselage, said fuselage being provided with a slot adjacent said vane, and means for swinging said vane about said pivot to extend and retract said vane through said slot to control the speed of said aircraft.

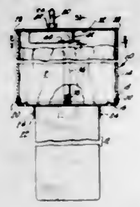
2,840,327
AIRCRAFT SAFETY BELT LATCH WITH PARACHUTE RELEASE LANYARD ATTACHING MEANS
Robert M. Stanley, Buffalo, N. Y., assignor to Stanley Aviation Corporation, Buffalo, N. Y.
Application August 27, 1954, Serial No. 452,577
9 Claims. (Cl. 244—122)



1. In combination, a safety belt including an end portion terminating in a bail, a latch mechanism for said belt adapted for manual and gas pressure actuation, said latch comprising a base, an attachment post carried by said base for engagement with the eye portion of said safety belt bail, a hook member carried by said base and having a detent slot movable relative to said

post to lock and unlock said bail, manual lever means pivotally mounted upon said base and operably connected for actuating said hook member, separate gas pressure actuating means carried by said base and operably connected for pivoting said hook member, and said hook member being mounted for independent actuation upon an eccentric pivot carried by the manual actuating means and also upon a pivot carried by the pressure actuated means.

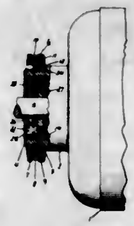
2,840,328
DELAYED OPENING PARACHUTE CONTAINER
Harold J. Moran, Trenton, N. J., assignor to Switlik Parachute Company, Inc., Trenton, N. J., a corporation of New Jersey
Application December 12, 1955, Serial No. 552,457
4 Claims. (Cl. 244—150)



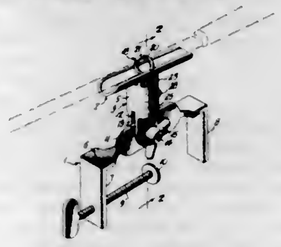
1. A delayed opening parachute pack comprising a container including a cup-like shell member open at one end and adapted to receive a parachute, and a cover member adapted to close said open end, a first spring means urging said cover member away from said shell member, a latch movably mounted on one of said members, a second spring means normally urging said latch into interlocking engagement with a part of the other of said members, an impact member movably mounted on said one member, a third spring means urging said impact member toward said latch, a lock engaging said impact member and normally holding the same in a retracted position against the force of said third spring means, means attachable to a static line for actuating said lock to release said impact member for movement by said third spring means toward said latch, a clockwork mechanism including a governor limiting the rate of operation thereof, and drive means connecting said impact member and said clockwork mechanism during the first portion only of the movement of said impact member, whereby pulling said static line actuates said lock to release said impact member for movement toward said latch initially at a controlled rate and ultimately at a free rate until it forcibly strikes said latch and moves the same against the resistance of said second spring means to disengage said latch from said other member and allow said first spring means to move said cover member away from said shell member to release said parachute.

2,840,329
RESILIENT MOUNTING MEANS
Lawrance W. Wightman, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application November 5, 1954, Serial No. 467,078
5 Claims. (Cl. 248—26)

1. In a machine, an open-ended hub having a shoulder formed thereon, a resilient mounting secured on said hub against said shoulder thereof, and a member for securing said mounting against axial and rotary movement relative to said hub; said mounting comprising an annulus of resilient material having a recess formed at the inner edge of a side thereof, said annulus being mounted on said hub against the shoulder thereof with said recess facing toward the end thereof, said member having a portion substantially covering the end of said hub, a peripheral flange on said portion tightly secured about said hub, and a projection extending outwardly from said flange and abutting against said annulus within said recess.

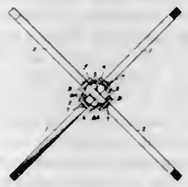


2,840,330
FISHING ROD HOLDER
Robert M. Minton, Midland, Tex., assignor of one-half to Art H. Hamner, San Angelo, Tex.
Application March 1, 1954, Serial No. 413,406
3 Claims. (Cl. 248—41)



1. Fishing rod holder comprising a component attachable to a boat and a complementary component attachable to a rod, said boat attachable component including a clamp, and a female coupling member pivoted on said clamp to swing in a vertical plane, said female coupling member being formed with a cylindrical socket axially radial with respect to the axis of swing of said female coupling member, said rod attachable component including a cradle forming a seat for the rod, and a cylindrical male coupling member attached to the under side of said cradle slidably and rotatably fitting the socket in said female coupling member, means for unitarily connecting said rod, cradle and male coupling member whereby said coupling members may be separated by the act of lifting the rod, said cradle and said female coupling member being provided with interdigitating teeth relatively circumferentially displaceable for adjustably changing the orientation of said rod.

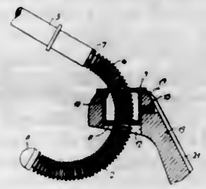
2,840,331
TREE HOLDER
Enoch Martin Clifton, Portland, Oreg.
Application February 15, 1954, Serial No. 410,184
1 Claim. (Cl. 248—48)



A knockdown holder for Christmas trees and like objects, comprising a base made of two indentical strips of

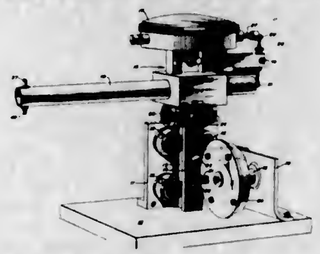
rigid material of rectangular shape in cross section, crossed and detachably interconnected at their centers so as to rest on one of their narrow sides, two pairs of vertically disposed identical socket-forming members each bifurcated at its bottom end and thereby engaged with and vertically stabilized by the top surface of the other narrow side and two vertical sides of said strips and a wood screw extending through the top end of each socket-forming member for securing the same to a tree butt vertically disposed centrally of the socket-forming members whereby the resultant interlocked opposed relationship of the members of one pair and their said engagement with the sides of their respective base strip will prevent tipping of the tree butt in the direction of the line of opposition of the members of the other pair.

2,840,332
ADJUSTABLE FITTINGS
Naum Julius Slutzky, London, England
Application September 18, 1953, Serial No. 381,021
5 Claims. (Cl. 248—124)



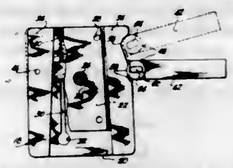
1. An adjustable support comprising a supporting base member capable of standing freely, the upper part of said support member being shaped to form a cylinder, an annular collar located within and secured with respect to said cylinder, two inwardly-directed flanges located at the upper and lower extremities of said collar respectively, a rigid support arm one end of which is curved into a crook, and closely spaced radial projections on said crook, said crook being loosely mounted and slidable within said collar and adjustably positionable therewithin and locatable at a selected position with a part of said upper flange engaged between two adjacent ones of said projections on one side of said crook and a part of said lower flange engaged between two others of said projections diametrically opposed to said first-mentioned adjacent projections, said flanges being bevelled to form edges, said edges having substantially the same thickness as the distance between any two of said projections.

2,840,333
MOUNT FOR GUN CHAMBER MEASURING GAGE
James C. Weaver, Fredericksburg, Va.
Application November 18, 1954, Serial No. 469,869
2 Claims. (Cl. 248—162)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A support for an internal bore precision measuring instrument comprising; a base, a planar stand fixed to the base arranged to extend normal thereto, roller bearings supported for rotation by one face of the stand in vertical-spaced horizontally-opposed pairs, a standard having one pair of opposite sides formed with guide channels and an opening therein adjacent one end thereof, said standard guide channels being receivable between said horizontally-opposed pairs of roller bearings such that the standard is slidably supported by said roller bearings for vertical movement, roller bearings engaged on each surface of one end of said standard rotatable about horizontal axes disposed in the same plane, a housing for carrying a precision instrument mounted on one end of said standard for azimuthal movement and having the housing undersurface in contact with each of the roller bearings engaged on the end of said standard, an upstanding flange fixedly engaged to said base having a planar face in spaced normal relationship to said planar stand, a shaft supported by the flange and disposed to extend laterally therefrom in a plane parallel to said planar stand, a coil spring casing mounted on one end of said shaft for rotation about the longitudinal axis of said shaft and arranged in a plane parallel to said upstanding flange, a coil spring carried within said casing fixed at one end to said shaft and at the other end to the inner wall of said casing so as to normally bias the casing in a clockwise direction, rigid link means disposed within said opening in said standard and secured to said coil spring casing such that the weight of the standard and instrument housing plus the weight of the instrument carried thereby urges the casing in a counterclockwise direction, and a stop carried by said flange and engageable by said rigid link as said coil spring casing is rotated a predetermined amount in said clockwise direction in response to said vertical movement of the standard for limiting the movement of the standard.

2,840,334
TRIPOD AND CAMERA INTERCONNECTING HEAD
David Cauthen, Prairie Village, Kans.
Application March 4, 1954, Serial No. 414,149
2 Claims. (Cl. 248—187)



2. A head for mounting a camera on a tripod comprising an elongated spring plate having a longitudinal, wedge-shaped groove in one face thereof, progressively increasing in width as one end of the plate is approached, said groove being transversely dovetailed; means for fastening the plate to a tripod; a bar, complemental to said groove and wedged therewithin; means for fastening the bar to a camera, said plate having a transverse groove in the opposite face thereof and a slit extending inwardly from the opposite end of the plate longitudinally thereof between said grooves, presenting a pair of legs; an elongated lever in said transverse groove; pivot means mounting the lever on one of said legs for swinging movement toward and away from said one end of the plate, the other of said legs having an outermost, longitudinal cam surface; and a projection on said lever provided with a resilient roller overlapping said surface and engageable therewith as the lever is swung toward said one end of the plate for squeezing said legs tightly against the bar, said surface being provided with a plurality of roller-receiving indentations.

2,840,335
FIXTURE FOR HOLDING CURTAIN ROD BRACKETS

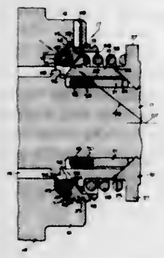
Charles H. Mills, Jackson Heights, N. Y.
Application March 5, 1956, Serial No. 569,429
3 Claims. (Cl. 248—261)



1. A fixture for holding curtain rods comprising end clamp means adapted to engage the inner vertical edges of the window frame above the window, means for mounting the curtain rods on said end clamp means, adjustable support means, said end clamp means being slidably supported upon the opposite ends of said support means, means for applying pressure to said end clamp means to force the same against the inner edges of the window frame, each of said end clamp means comprising a front wall integrally formed along the opposite vertical edges with a pair of flanges, said flanges having vertically elongated aligned slots, said front wall having a vertically elongated slit, said means for mounting the curtain rods on said end clamps comprising bolt means positioned within said vertically elongated front wall slots for engaging the curtain rod holders, said adjustable means for slidably mounting said end clamps comprising a first elongated bar having an outwardly offset tongue at one end slidably received through said flange slots of one of said end clamps, the innermost of the flanges of said end clamps having a flap extending away from said front walls and adapted to engage the inner edges of the window frame, said bar having a bottom wall extending away from said end clamp front walls at right angles thereto, a second elongated bar having a forwardly offset tongue portion at one end adapted to be received through the flange slots of the other of said end clamps, said second bar along the lower edge being integrally formed at right angles thereto with a second bottom wall extending away from the end clamp front wall and underlying said first bottom wall, said first and second bottom walls having elongated slots, and nut and bolt assembly means within said slots for locking said bars together at adjustable lengths depending on the width of the window.

2,840,336
SELF-ALIGNING POPPET VALVE

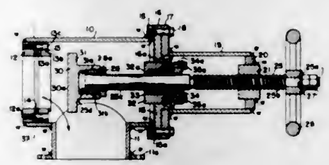
Robert A. Suthann, Burbank, Calif., assignor to Hydro-Aire, Inc., Burbank, Calif., a corporation of California
Application September 28, 1953, Serial No. 382,561
6 Claims. (Cl. 251—85)



1. In a self-aligning poppet valve structure, a metallic valve casing having a cylindrical passage therein, a valve seat ring mounted at one end of said passage, said seat ring being formed of a relatively deformable material and having a relatively sharp edge, a valve stem movably mounted in said passage and protruding from said one end thereof, a poppet ring mounted loosely around the protruding portion of said stem, said poppet ring being formed of a relatively hard material and having a substantially flat surface adapted to engage said edge and deform the same, and a back-up ring mounted on said stem at the side of said poppet ring remote from said seat ring, said back-up ring being adapted to force said poppet ring against said edge and being formed with an inclined abutment surface permitting said poppet to remain aligned relative to said edge after engagement therewith.

2,840,337
VALVE STRUCTURE FOR TANKS

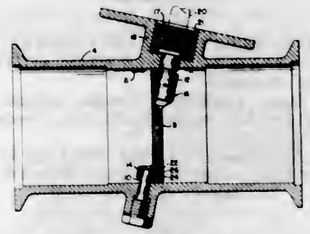
Curtis F. Sasserson and Harold A. Johnson, Warren, Pa., assignors to Pennsylvania Furnace and Iron Company, Warren, Pa., a corporation of Pennsylvania
Application July 1, 1954, Serial No. 440,596
4 Claims. (Cl. 251—86)



1. A vehicular tank control valve suitable for liquids of different viscosity and temperature including a relatively high temperature which comprises, a hollow longitudinally-extending integral housing body defining a liquid control chamber therein, said housing body having an inlet portion at one longitudinal end thereof for integral mounting on the tank and a closely adjacent outlet portion at substantially right angles to said inlet portion, said outlet portion being directly open to said inlet portion through the control chamber, a support body secured to project from the opposite end of said housing body, means associated with said support body to close off the opposite end of said housing body and provide a stuffing box and an adjustable guide portion, a valve stem adjustably carried by said adjustable guide portion and having a mounting end portion projecting longitudinally through said stuffing box into the control chamber, a reinforcing ring integrally secured within the inlet portion of said housing body and extending longitudinally therealong to define an inlet passageway, temperature-resistant insulating means on an inner end face of said reinforcing ring, a seat ring positioned in a radially spaced-apart relation with respect to and within the inlet portion of said housing body to insulate said seat ring with respect thereto, said seat ring having a forward end face positioned on said insulating means within the inlet portion at the control chamber, a seating lip on an inner end of said seat ring within the control chamber, mounting means within said seat ring and projecting behind an operating face of said seating lip and into said reinforcing ring to removably secure said seating ring on said reinforcing ring, said mounting means being accessible through said outlet portion for removing said seat ring through said outlet portion from the inside of the control chamber, a valve head operatively mounted on the mounting end portion of said valve stem for limited pivotal movement with respect thereto, and said valve head having a substantially planar forward seating face to engage said seating lip and close off fluid-flow through said reinforcing and seating rings to the control chamber.

2,840,338
BUTTERFLY VALVE

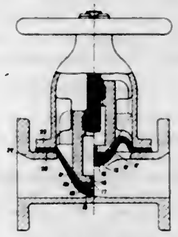
Robert H. Shaw, Concord, Mass., assignor to Standard-Thomson Corporation, Boston, Mass., a corporation of Delaware
Application April 10, 1953, Serial No. 347,876
3 Claims. (Cl. 251—306)



1. A butterfly valve having a cylindrical sealing section, a valve disk having a circumferential groove, two flat rings received in side-by-side relationship in the groove, each ring having a slot, inwardly-directed ears on both sides of said slot, and a single inwardly directed ear diametrically opposed to said slot and provided with a pin-receiving aperture, each ring tapering in width from a maximum near said single ear to a minimum near said slot, and a pair of pins each secured in the disk, engaging one of the rings in its aperture with a loose fit to accommodate contraction of the rings under normal operation and to prevent rotary motion thereof, and passing through the slot in the other ring between the ears on each side thereof.

2,840,339
DIAPHRAGM VALVES AND DIAPHRAGMS THEREFOR

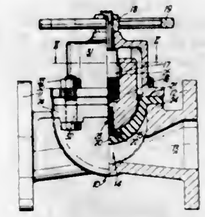
Richard Hector Price, Cwmbran, Newport, England, assignor to Saunders Valve Company Limited, Cwmbran, Newport, England, a British company
Application May 12, 1954, Serial No. 429,327
Claims priority, application Great Britain May 13, 1953
2 Claims. (Cl. 251—331)



2. A diaphragm valve of the type having a body with a substantially straight through passageway and free of any substantial obstructions, an opening in the side thereof and a clamping flange around said opening and a bonnet coverig said body opening with a clamping flange presented toward said body flange, a cone-shaped diaphragm covering said body opening and comprising a central conical bulge extending into the body and terminating in a rounded part which when the valve is closed engages the passageway opposite thereto and having peripheral portions extending between said body and bonnet flanges to be clamped therebetween, said diaphragm being preformed with said peripheral portions having surfaces adjacent said body clamping surface which converge therewith toward the opening prior to said clamping, whereby when clamped the outer side of the diaphragm is stressed in tension and the inner side of the diaphragm is stressed in compression.

2,840,340
STOP VALVES

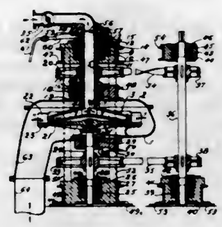
Adolf Ernest Kaufmann, London, England
Application January 17, 1955, Serial No. 482,339
Claims priority, application Great Britain January 20, 1954
1 Claim. (Cl. 251—331)



A stop valve comprising a valve body having a flow space therethrough for a liquid, a metal actuating member for closing the valve having a hemispherical working end which is substantially uniformly spaced from the valve body when the valve is closed, means for adjusting the actuating member to open and close the flow space, a hemispherical cupped membrane of rubber-like material engaging and fully supported by the working end of the actuating member, a flange formed integrally with said hemispherical cupped membrane and means for securing the flange to the valve body, the wall thickness of said hemispherical cupped portion in the open position decreasing substantially uniformly from the centre of the cupped portion to said flange whereby in the closed position the whole of said hemispherical cupped portion is of substantially uniform thickness.

2,840,341
TURBINE WITH ACTIVE AND REACTIVE ELEMENTS

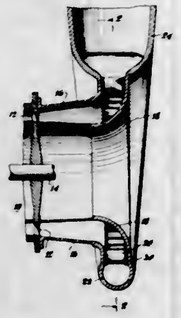
Theodor F. Hudyma, Newark, N. J., assignor to Essex County Welfare Board, a corporate entity of Essex County, N. J.
Application May 19, 1954, Serial No. 430,885
2 Claims. (Cl. 253—16.5)



1. In a device of the kind described, a pair of vertically aligned rotatable shafts, a pair of opposed radially extending hollow fluid actuated reaction elements fixed on the lower end of the upper one of said pair of shafts and having tangentially directed fluid discharge nozzles fixed at their outer ends, means including an inlet passage through said upper shaft to said hollow reaction elements to provide said elements with fluid under pressure and causing said elements to turn said one shaft in one direction, an impulse actuated element fixed on the upper end of the lower one of said pair of shafts and having peripherally spaced vanes for receiving exhaust fluid from the reaction elements and to turn said second shaft in the opposite direction, a third vertical rotor shaft spaced from said aligned shafts, and separate belt drive means connecting each of the pair of aligned shafts with the third rotor shaft including pulleys on the vertically aligned shafts and reduced pulleys on the third rotor shaft for

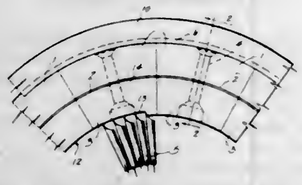
turning it in the direction of the shaft bearing said impulse actuated element at a speed at least equal to the relative speed of said aligned shafts, whereby the torque on the third rotor shaft is not greater than that of either one of said aligned shafts.

2,840,342
TURBINE EXHAUST
David H. Silvern, Olean, N. Y.
Application March 17, 1953, Serial No. 342,780
5 Claims. (Cl. 253—39)



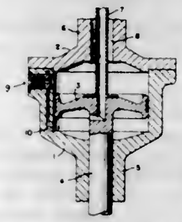
1. An exhaust for use in an axial flow turbine comprising a diffuser beginning at the last stage of the turbine and terminating in a radial turn for diverting the axial flow of the turbine gases into a radial flow; a radially extending collector ring, having a single exhaust conduit opening, surrounding and opening into the radial turn for collecting the gases exhausting therefrom and thereafter exhausting the collected gases through its exhaust conduit; a plurality of vanes separating the radial turn and the collector ring with the individual vanes so curved away from radial planes through the turbine axis as to separate the gases into two parts with both parts being simultaneously directed around opposite sides of the collector ring towards the exhaust conduit.

2,840,343
REDUCTION OF ROTATING TIP CLEARANCE USING SEGMENTED WEAR STRIPS
David E. Brandt, Jr., Derbyshire, England, David R. Fraser, Prairie Village, Kans., and Frederic D. Seaman, Kansas City, Mo., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 14, 1955, Serial No. 540,654
1 Claim. (Cl. 253—77)



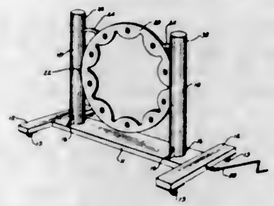
In a rotating machine having a rotor with a plurality of circumferentially disposed radially extending blades, a housing surrounding said rotor having an inner surface closely spaced with the free ends of said blades, and a lining carried on the inner surface of said housing having concentric layers of material including an inner wear surface in operative relation with said free ends of said blades; said lining comprising a ring of arcuate segments, each of said segments having an outer element of one material and an inner element of softer wear material, and means removably securing said inner and outer elements together; each of said segments being similar in size and shape and interchangeable with each other; said inner surface of said lining initially having no radial clearance with said free ends of said blades, and said blades wearing away excess material during their rotation.

2,840,344
DEVICE FOR REDUCTION OF RUNWAY SPEEDS OF PROPELLER TURBINES WITH ADJUSTABLE RUNNER BLADES
Ernst Erik Stage, Trollhattan, Sweden, assignor to Nydqvist & Holm Aktiebolag, Trollhattan, Sweden, a corporation of Sweden
Application February 25, 1953, Serial No. 338,819
Claims priority, application Sweden March 6, 1952
16 Claims. (Cl. 253—143)



1. In a hydraulic propeller turbine with angularly adjustable runner blades balanced to be angularly turned toward a position of maximum opening in response to an increasing rotational speed of the turbine and toward a position of maximum closing in response to a decreasing rotational speed of the turbine and wherein governing means responsive to the rotational speed of the turbine control the speed thereof by varying the angular position of the blades, the combination with safety means also controlled by the operational speed of the turbine and rendered operative by a rotational speed above a predetermined maximum value, the said safety means controlling said governing means and, when operated, render said governing means inoperative for control of the angular position of the blades thereby freeing the blades for angular movement into the position of maximum opening for limiting the turbine to a runaway speed corresponding to the maximum blade opening.

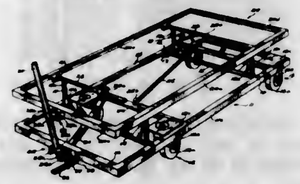
2,840,345
MOBILE HANDLING RACK FOR DIFFERENTIAL GEAR UNIT
William A. Atkinson, Greggton, Tex.
Application June 24, 1953, Serial No. 363,898
5 Claims. (Cl. 254—2)



5. In a mobile rack for removing and replacing a vehicle differential unit, a base, rollers mounted on said base for supporting said base for movement over a surface, a pair of parallel, upright standards spaced apart and secured to said base, a sleeve loosely telescoped over each of said upright standards, at least a semi-circular support member secured to said sleeves approximately mediate thereof for movement therewith, said support

member having apertures formed therein to register with certain apertures formed in said differential unit, said loosely fitting sleeves which telescope over the respective standards being slidable off the upper end of the respective standards.

2,840,346
LIFTING AND MOVING DEVICE
Albert Emil Du Moulin, St. Paul, Minn.
Application February 15, 1954, Serial No. 410,316
1 Claim. (Cl. 254—10)



A lifting and moving device having in combination, a supporting frame generally rectangular in plan, spaced casters supporting said frame, a handle pivoted to one end of said frame centrally transversely thereof, a second frame above said first frame, means connecting said frames for pivotally raising and supporting said second frame above said first frame, a roller carried at the front end portion of said second frame forming a fulcrum engageable by said handle, whereby said handle forms a lever to raise and lower said second frame, a lever having one end pivoted to said second frame at a point somewhat rearwardly of the front end thereof, a bracket depending from the front end portion of said first frame in vertical alignment with said handle and having said lever movable therethrough, said lever having a lower portion engageable in said bracket, said lever when engaged in said bracket being of a length to hold said second frame in its raised position just forward of its dead center position in relation to its supporting means, and means to prevent the withdrawal of said lever from said bracket, a second lever pivoted to one side of said bracket having a forwardly extending foot engaging portion, a spring connecting said foot engaging portion to said second frame normally to hold said lever in an inoperative position, said second lever having a transversely extending portion rearwardly thereof adapted to engage said first mentioned lever whereby when said foot engaging portion is depressed, said transversely extending portion engages and raises said first lever out of engagement with said bracket to permit said lever to slide forwardly through said bracket, whereby said second frame automatically lowers itself to a position of rest on said first frame.

2,840,347
DRILL FEEDING APPARATUS
Jacob E. Feucht, Garfield Heights, Ohio, assignor to Cleveland Rock Drill Division, Westinghouse Air Brake Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 26, 1954, Serial No. 471,286
1 Claim. (Cl. 255—45)

In a drilling apparatus, a stationary upright cylinder having a piston slidable therein, an abutment-engaging lower end for said cylinder, a piston rod extending from said piston through the upper end of said cylinder, means admitting pressure fluid within the lower end of said cylinder for effecting upward movement of said piston and rod, parallel guide-ways on the upper end portion of said cylinder, an upright frame alongside of said cylinder formed of two parallel channel bars mounted back to back in spaced relationship, said bars forming a first and a second pair of parallel guides extending the full length of said bars, said first pair being slidable within said guide-ways, a rigid connection between the upper ends of said rod and frame transmitting upward movement of the former to the latter, a drilling motor, parallel guide-ways on said drilling motor, said second pair of guides being slidable within last said guide-ways,



rollers between the ends of said bars, and a flexible member between said bars taut over said rollers and attached to said motor and the upper end of said cylinder whereby upward slidable movement of said frame is transmitted to said motor at a different rate of speed from that of said frame relative to said cylinder.

2,840,348
DRILL BIT
Carl V. Tilden, Capistrano Beach, Calif.
Application November 22, 1954, Serial No. 470,321
8 Claims. (Cl. 255—69)

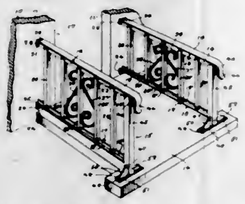


1. A drill for concrete and the like hard materials comprising a unitary one-piece cylindrical body, a spiral groove encircling said body, arcuately spaced cutting elements fixed to one end of said body extending inwardly from the periphery thereof toward the major axis of said body and ending short thereof, a straight bore extended through said body having an inlet opening adjacent said cutting elements, said bore being slanted with respect to the longitudinal major axis of said body to intersect the side wall thereof and to form an outlet opening intersecting said spiral groove a plurality of times.

2,840,349
ORNAMENTAL ALUMINUM RAILING
Edward E. Raymond, Guilderland, N. Y.
Application October 14, 1955, Serial No. 540,525
3 Claims. (Cl. 256—21)

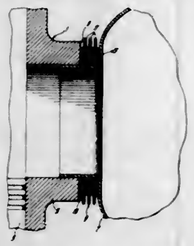
1. A railing embodying a pair of spaced parallel vertically disposed sections each comprising an upper and lower bar T-shaped in cross section, each of said bars embodying a horizontally disposed base and a vertically disposed flange, a plurality of vertically disposed hollow posts, said posts being arranged in spaced parallel relation with respect to each other, said posts being provided with slots for receiving said flanges, securing elements

connecting the flanges of said bars and said posts together, a plurality of L-shaped clips connected to the outer ends of the bases of said bars for securing the end portions of said bars to a supporting structure, certain of said clips being provided with slots for receiving therein flanges on the upper bars, an arcuate tongue extending from the outer end of each of said upper bars, vertically disposed standards secured to said bars, shoes secured to the lower ends of each of said standards, each of said shoes including a flat bottom wall and a triangular plate



extending upwardly from said bottom wall and secured to said standard, said standards having transverse slots therein for receiving said plates, and scrolls connected to certain of said posts, certain of said posts being provided with slots including enlarged circular portions having smaller straight sections communicating therewith, and securing elements extending from said scrolls and having enlarged heads thereon engaging said slots so as to prevent accidental disengagement of the scrolls from the posts.

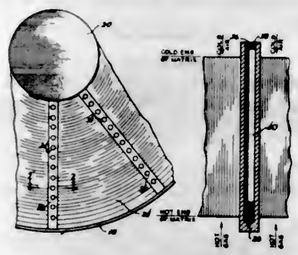
2,840,350
HIGH TEMPERATURE SEALS
Earl R. Pierce, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 10, 1955, Serial No. 514,466
3 Claims. (Cl. 257—1)



1. In a device of the type described, the combination comprising a first hot fluid conductor, a second hot fluid conductor interconnected with said first conductor, a resiliently compressible body member positioned between said first and second conductors to seal said interconnection and cooling means imbedded in said body member and having a portion extending therefrom to extract heat from said body member.

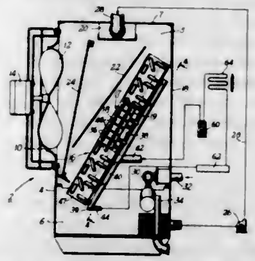
2,840,351
TEMPERATURE EQUALIZING MEANS FOR REGENERATIVE AIR PREHEATER STRUCTURE
Sven Holm, Hudson, Ohio, assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application September 10, 1953, Serial No. 379,337
5 Claims. (Cl. 257—6)

1. In a regenerative air preheater having a rotor internally divided into compartments containing a mass of heat transfer material exposed alternately to streams of hot gases and relatively cool air; the improvement comprising: partitions in the rotor creating said compartments and formed with a plurality of internal chambers lying parallel to the streams of gas and air; a body of vaporizable fluid occupying less than the volume of each



chamber; and means sealing said chambers whereby in the operation of said preheater fluid in said chambers becomes vaporized so that said chambers contain a saturated vapor.

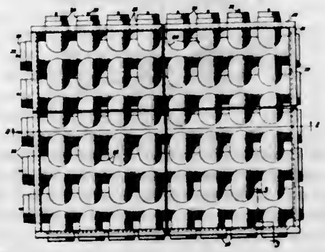
2,840,352
EVAPORATIVE CONDENSER
Madan L. Ghai, Manchester, and Cecil Boling, West Hartford, Conn., assignors, by mesne assignments, to Dunham-Bush, Inc., West Hartford, Conn., a corporation of Connecticut
Application September 1, 1955, Serial No. 532,053
4 Claims. (Cl. 257—37)



1. In a refrigeration system, an evaporative condenser assembly comprising, a casing having air inlet and outlet openings to permit transverse air flow, an evaporative condenser coil positioned within said casing and extending at an angle to the horizontal and across the path of said air flow, water distributing means overlying the upper inclined face of the evaporative condenser coil to distribute water uniformly over said face, a fan in the casing to cause air to flow through said casing and said evaporative condenser coil, said coil comprising a plurality of tubes interconnected to provide a plurality of individual fluid circuits, a pair of headers connected, respectively, to said individual fluid circuits to supply fluid thereto and withdraw fluid therefrom, a fin assembly on said tubes comprising a plurality of spaced fins having rows of aligned openings, the tubes of said coil extending through the openings transversely of the fins, each fin having channels projecting laterally from one side thereof between adjacent tubes of a row and extending throughout the width of the fin, said channels on each fin engaging the corresponding channels on the next adjacent fin to define a plurality of alternate passages between the engaging channels and between adjacent channels, each passage between adjacent channels extending from the upper to the lower inclined faces of the coil and enclosing at least one row of tubes, and the walls of said channels forming said passages dividing the upper face of the evaporative condenser coil into a plurality of adjacent openings to uniformly proportion the water supplied to each unit of area on the upper face of the coil which thereafter is confined to a passage as it

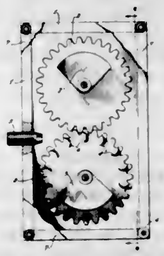
flows through the condenser coil whereby to cause the same quantity of water to pass through corresponding areas of the coil throughout its entire area.

2,840,353
RADIANT HEATING PANEL
Paul M. Muspratt, Kingston, Pa.
Application August 29, 1952, Serial No. 307,045
1 Claim. (Cl. 257—124)



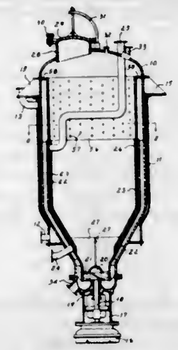
A construction element suitable for use as a structural building element of substantially reduced weight with high insulating qualities for use as a radiant heating unit comprising a substantially rectangular concrete block having a pair of parallel faces separated from one another by a distance equal to the thickness of said block, said block having a first plurality of parallel internal bores extending longitudinally through said block with the axes of said bores lying in a first plane parallel to said faces, said block including a second plurality of parallel internal bores extending transversely through said block and intersecting said first plurality of said bores to provide communication between said first and said second plurality of bores, the axes of said second plurality of bores lying in a second plane spaced from and parallel with said first plane, said bores defining flow paths for the passage of heat-exchange medium therethrough.

2,840,354
AIR DRIVEN VIBRATOR
John D. McKellar, Inglewood, Calif.
Application September 9, 1955, Serial No. 533,271
2 Claims. (Cl. 259—1)



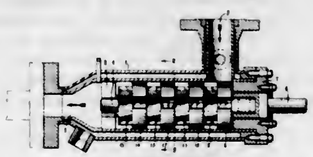
2. A vibrator comprising a housing, a wheel rotatable on a fixed axis therein, said wheel having an eccentric weighting portion thereon, concave turbine blades normal to one face of said wheel and arranged in a ring near the periphery of said wheel, a nozzle extending through said housing and directed at the concave sides of said blades, and a cover removably secured to said housing, said cover being spaced from said housing along at least one edge thereof by spacing means at the points of cover attachment, for fluid exit, said housing being otherwise closed.

2,840,355
MIXING VESSEL
Herbert W. Stratford, Leawood, Kans.
Application March 26, 1956, Serial No. 573,862
13 Claims. (Cl. 259—8)



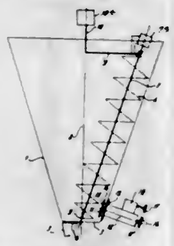
1. A mixing kettle for liquids comprising a vertical shell, a circulating tube positioned within said vertcal shell and essentally concentric thereto, said tube extending vertically only part of the height of said shell, impeller means for circulating liquids downwardly in said tube and upwardly outside of said tube, a power source for said impeller, product component input and output lines connected to said shell, a vertically extending tube sheet positioned on top of the circulating tube as an extension thereof into the space in the kettle thereabove, a plurality of relatively large holes formed in said tube sheet, whereby to create a level differential between the inside and outside of the circulating tube when the kettle is operated less than liquid full.

2,840,356
VISCOUS LIQUID MIXING APPARATUS
Thomas Mason Wills, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application April 5, 1956, Serial No. 576,312
2 Claims. (Cl. 259—9)



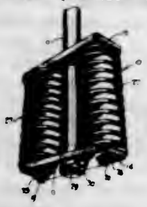
1. Apparatus for homogenizing a stream of viscous liquid comprising an elongated cylindrical vessel having a liquid inlet opening at one end and a liquid outlet opening at the opposite end, a driven shaft extending centrally of said vessel and for substantially the length thereof, a plurality of flat-faced rotors mounted face-to-face on, and driven by said shaft, each of said rotors mounted in contact with adjacent rotors and having four identical equally spaced flat-faced curved vanes lying in a plane perpendicular to the axis of said shaft, each vane having a curved leading edge and terminating in a curved tip edge corresponding in curvature to the curvature of the inside curved wall of the vessel and closely spaced from said wall, the vanes of each rotor having leading edges oppositely curved to the leading edges of the vanes of the rotors in contact therewith, said rotors and their vanes having a thickness about 0.3 of the inside diameter of the vessel, and the vanes of alternate rotors being displaced about 45° from the vanes of the rotor therebetween.

2,840,357
DEVICE FOR HOMOGENIZING POWDERY OR GRANULAR MATERIAL
Johannes Ewardus Nauta, Overveen, Netherlands
Application April 27, 1955, Serial No. 504,142
Claims priority, application Netherlands May 7, 1954
3 Claims. (Cl. 259—21)



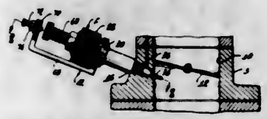
1. A mixing device for homogenizing powdery and granular materials comprising a mixing vessel for containing the materials to be homogenized and having a wall, at least one mixing member in said vessel operative to carry the materials in the vessel in a stream along said wall, a hollow shaft extending, at one end, through said wall into said vessel, a motor outside of said vessel and coupled to said shaft for rotating the latter at high speed, a disc-shaped homogenizing member mounted on said one end of the shaft within said vessel and having projections thereon, at least a plurality of said projections extending from said disc-shaped member parallel to said one end of the shaft in the direction away from said wall, a non-rotatable tube extending axially through said shaft to define a longitudinal channel in the latter and having an aperture opening from said channel at the side of said homogenizing member facing away from said wall, means for supplying a substance to be added to the materials in the vessel to said channel from a source of such substance located outside of said vessel, and two relatively rotatable parts defining a radially opening annular gap therebetween at the side of said homogenizing member facing away from said wall and communicating with said aperture to receive the substance supplied to said channel, one of said parts being fixed to said homogenizing member for rotation with the latter and the other of said parts being fixed to said non-rotatable tube, said two parts having diameters substantially less than that of said disc-shaped homogenizing member so that the substance supplied to said longitudinal channel is discharged through said annular gap into the operating region of said projections on the homogenizing member.

2,840,358
MIXING DEVICE
Anthony Artino, Cleveland, Ohio
Application May 24, 1957, Serial No. 661,323
3 Claims. (Cl. 259—130)



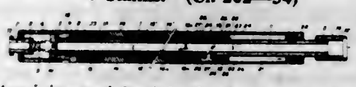
1. Mixing apparatus adapted to be immersed in a body of fluid materials to be mixed, comprising in combination, a drive shaft having a yoke mounted thereon including two spaced impeller shafts mounted laterally of each side of the drive shaft, at an angle thereto and to each other, and a plurality of coaxial, parallel and uniformly spaced conical disc impeller elements mounted on each of said impeller shafts: each of said conical disc elements being independently free to rotate on its impeller shaft.

2,840,359
SELF-CONTAINED FUEL SHUT-OFF DEVICE
George W. Cornelius, Portuguese Bend, Calif., assignor to Holley Carburetor Company, Van Dyke, Mich.
Application March 9, 1956, Serial No. 570,504
5 Claims. (Cl. 261—41)



1. A self-contained fuel shut-off device for use with an internal combustion engine having an intake manifold, carburetor means formed with a bore wherein a throttle valve is mounted and an idling fuel conduit that intersects said bore below said throttle valve, comprising: a body fixedly securable to said carburetor means and formed with a passage intersecting said idling fuel conduit; a collar aligned with and adjacent to the outer end of said body; a metering pin longitudinally slidably disposed within said passage, the end of said metering pin remote from said collar being formed with blocking means for stopping the flow of fuel through said idling conduit into said bore, said metering pin also being formed with passage means open to said bore below said throttle valve; a coil spring coaxial with said body and interposed between said body and said collar so as to constantly bias said collar outwardly away from said body whereby said blocking means will normally permit fuel to flow through said idling conduit into said bore; thread means interposed between the outer portion of said pin and said collar so as to permit longitudinal adjustment of said pin relative to said passage; a stop member extending from said body outwardly to a point aligned with the path followed by the outer portion of said metering pin, said stop member limiting the outward movement undergone by said metering pin relative to said body: adjustment means interposed between the outer portion of said stop member and the outer portion of said metering pin so as to limit the outward movement undergone by said pin relative to said body; and a cylindrical bellows coaxially interposed between said body and said collar, the space enclosed by said bellows communicating with said passage means of said metering pin whereby upon deceleration of said engine said bellows will contract so as to urge said collar and said metering pin towards said body in order that said blocking means may temporarily stop the flow of fuel through said idling fuel conduit.

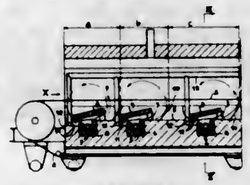
2,840,360
MINING TOOL FOR INJECTING LIQUID, SUCH AS WATER, AT HIGH PRESSURE
Jean Jerusel, Waziers, France
Application February 20, 1957, Serial No. 641,371
Claims priority, application France February 21, 1956
6 Claims. (Cl. 262—34)



1. A mining tool for injecting into a bore hole a liquid at high pressure, comprising in combination: a rigid tubular body having an axial core through which the liquid is injected from an inlet end to an outlet end; at the outlet end, an abutment cap screwed on the body; valve means controlling the ejection of said liquid and adapted to seat against said outlet end; a rigid sleeve spaced from

and encasing said body, forming a liquid receiving chamber around said body, said sleeve being longitudinal between said inlet and an intermediate cross-section of said body; said sleeve being adapted to move longitudinally along said body; near the inlet end of said body, a ring slidably carried by said body and screwed in the upstream end of said sleeve; between the downstream end of the sleeve and said abutment cap, a plurality of spaced deformable rings around said body; a first abutment member integral with the downstream end of said sleeve and contacting rollingly the outer surface of said body; intermediate said sleeve, a second abutment member integral and rigid with said body and bearing on the inner surface of said sleeve; a resilient skirt-shaped seal around the body and adjacent said second abutment member on the downstream side thereof; intermediate said first abutment member and said seal, a radial bore in the wall of said body, aligned diametrically with a hole provided in a third abutment member locked on said body and limiting the longitudinal motion of said sleeve by engaging respectively said first abutment member and said seal; the water flowing through said core under hydraulic pressure entering said chamber through said radial hole to move said sleeve toward said outlet end before said valve means are actuated; said motion of said sleeve compressing and expanding radially said deformable rings to lock the tool in its bore.

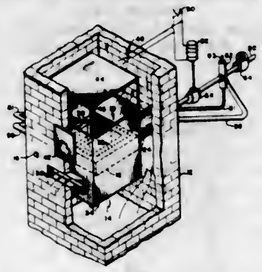
2,840,361
TUNNEL FURNACE FOR HEAT TREATING OBJECTS
Ferand Victor François Hermans, Uccle, Belgium
Application March 27, 1956, Serial No. 574,289
Claims priority, application Belgium April 1, 1955
5 Claims. (Cl. 263—8)



1. A tunnel furnace for heat treating objects having a floor, side walls and a roof, a permeable conveyor in position spaced away from the floor adapted to carry said objects from one end to the other of the tunnel through different temperature zones, means for forcing a general gas current above said objects from one end to the other, transverse rows of spaced burners disposed under the part of the conveyor carrying the objects to be treated, a combustion chamber for each burner at the exit of the latter, said combustion chambers having each an outlet with a cross section reduced relatively to their own cross section, said outlet sections being spaced from the floor and so disposed that the high speed jets of combustion gases issuing therefrom are directed in the direction opposite to that of the general gas current, and a transverse deflecting wall in front of each transverse row of combustion chambers for deflecting the induced current upwards through the permeable conveyor.

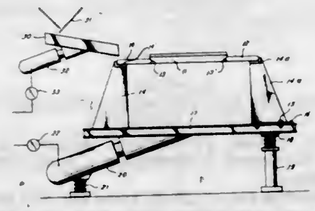
2,840,362
APPARATUS FOR HEATING GASES
Elvin L. Krieble, Newtown Square, and Eugene J. Houdry, Ardmore, Pa., assignors to Oxy-Catalyst, Inc.
Application June 4, 1954, Serial No. 434,576
1 Claim. (Cl. 263—19)

Apparatus for heating a stream of non-combustion-supporting gases flowing under negative draft within a confined passageway comprising an inspirator type burner, said burner having a burner head disposed within said passageway, said burner head being provided with a plurality of burner ports, a fuel supply line for supplying a gaseous fuel to said burner head, air supply ports opening into said fuel supply line permitting the inspiration of primary combustion air into said fuel line, a housing surrounding said burner head and having external surfaces adapted to divert said stream of non-combustion supporting gases around said burner head whereby flames issuing from said burner head are shielded from said stream of non-combustion-supporting gases, at least one opening communicating with the interior of said housing adjacent said burner head and permitting the flow of a separate stream of air from the atmosphere to the interior of said housing, said air opening being located down-stream from said burner head with respect to the flow of air through said housing whereby said air flows



into said housing and around said burner head in enveloping relationship thereto and thus supplies secondary air to the flame at said burner ports whereby sufficient quantities of secondary air are provided for burning of said mixture of fuel and primary air to produce a stream of hot combustion products, said housing being provided with portions opening into the interior of said passageway, said portions being located downstream from said burner head, baffle means adjacent said open portions in such manner that said stream of combustion products flows within said housing, through said open portions of said housing against said baffle means and is intermixed with said stream of non-combustion-supporting gases, said baffle means effecting complete and intimate intermixing of said streams whereby said stream of oxygen-deficient gases is heated to a temperature greater than its temperature prior to intermixture.

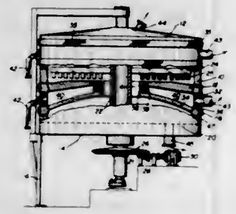
2,840,363
FURNACE STRUCTURE
Reynold J. Penrose, Houston, Tex.
Application February 14, 1956, Serial No. 565,509
3 Claims. (Cl. 263—21)



1. A furnace for heat treatment of materials comprising, a furnace chamber provided with oppositely-disposed side walls, said side walls having openings therein, a refractory conveyor extending freely through said openings and through said furnace chamber, said refractory conveyor including a central section extending through said furnace chamber from points adjacent inner sides of said side walls and including end sections pro-

jecting from each end of said central section completely through said openings, interfitting portions on each said end of said central section and its engaging end of each of said end sections, said interfitting portions provided with space voids providing barriers against transmission of heat to the outside of the furnace chamber, and means independent of the furnace supporting the refractory conveyor in assembled position, said means including a pair of compression members disposed exteriorly of the furnace chamber and engaging the ends of the end sections projecting through the openings and maintaining said refractory conveyor in said assembled position by compressive force.

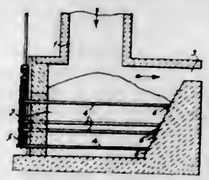
2,840,364
EXPANSIBLE SKEWBACK BUCK STAY BANDS
Robert H. Abbott, Lakewood, and George M. Meisel, Denver, Colo.
Application April 21, 1954, Serial No. 424,576
1 Claim. (Cl. 263—26)



An expansible support for a refractory arch in a vertical Skinner or similar cylindrical-type ore roaster which comprises a multi-sectioned buckstay band arranged to encircle a skewback ring supporting a refractory arch, said buckstay band including a plurality of curved metal band sections each having its width aligned with the axis of the roaster and a supporting member of substantially smaller width securely mounted on the concave side of each band section for engaging a mating surface in the skewback ring on which it is mounted, and joiners interconnected to the ends of each section and arranged to join the sections into a continuous expansible ring, said joiners including a pair of upright gusset plates mounted on each end of each section, said gusset plates being symmetrically opposed to each other on each end and extending lengthwise of said band, a lateral load carrying cross member secured between each set of gusset plates and spaced from the end of the band section, at least one adjusting tie member mounted through the cross members of adjoining band ends, spring tension means mounted on said tie member arranged to hold adjoining band ends under spring tension, and adjusting means mounted on each said tie member for securing said tie member in said cross members.

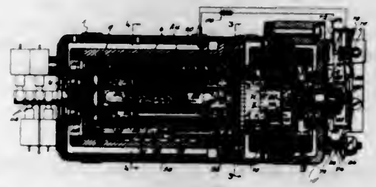
2,840,365
METHOD OF BREAKING FORMATION OF SOLID DEPOSITS
Gerrit Kruk, Heiloo, Netherlands, assignor to N. V. Springit, Zandvoort, Netherlands, a Dutch limited-liability company
Application June 7, 1955, Serial No. 513,847
Claims priority, application Netherlands June 11, 1954
7 Claims. (Cl. 263—45)

1. A method of breaking formations of solid deposits formed in a hot space such as an oven or a slag pocket for an oven, comprising introducing a tube into said space during the formation of the deposits in said space in the region of said space where such deposits are formed in operation, leading a cooling fluid through said tube during the formation of deposits in said space to preserve said tube, inserting an explosive into said tube after the forming of the deposits and detonating said explosive in



the furnace to break the tube and the deposits surrounding it.

2,840,366
ACCELEROMETERS
Willis G. Wing, Roslyn Heights, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application November 25, 1952, Serial No. 322,403
10 Claims. (Cl. 264—1)



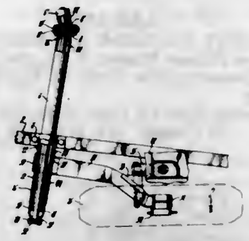
1. An integrating accelerometer comprising an outer container, a shell or cylinder rotatably mounted within said container and adapted to contain a liquid, a smaller cylinder mounted within said shell and adapted to be rotated therewith, an annular float of less length than said cylinders and mounted between said cylinders with predetermined interior and exterior clearances, means for spinning said shell with its contained parts and pick-off means responsive to relative longitudinal displacement of said float and said cylinders for producing a velocity signal proportional to such displacement.

2,840,367
SELF-ALIGNING BEARING
William A. Guss and Stanley Sankovich, Toledo, Ohio, assignors, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio
Application August 4, 1953, Serial No. 372,332
4 Claims. (Cl. 265—27)



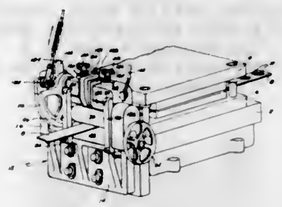
1. In a pivotal connection, in combination, a knife-edge, a V-bearing cooperating with the knife-edge, the V-bearing comprising a shank having an opening on the bottom and along the longitudinal axis of the shank, a frame, a seat in the frame into which the shank of the V-bearing extends, the shank being engageable with the sides of the seat transverse to the V-groove of the bearing to prevent shifting of the bearing transverse to the axis of the knife-edge, a member carrying the knife-edge and pivotally supported by the knife-edge on the V-bearing, the member being translatable in a direction to relieve the load on the V-bearing, and resilient means cooperating with the opening in the shank to permit substantial universal movement of the V-bearing about the resilient means and for urging the V-bearing from its seat when the member is so translated to maintain the V-bearing in contact with the knife-edge.

2,840,368
TORSION SPRING REAR SUSPENSION
Charles A. Chayne, Bloomfield Township, and Maurice A. Thorne, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 27, 1954, Serial No. 477,615
9 Claims. (Cl. 267—57)



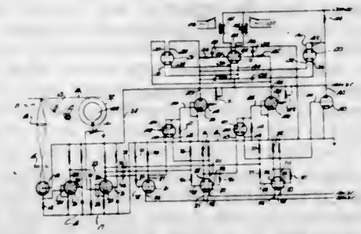
1. In a vehicle, a frame, a tubular member mounted on said frame and extending laterally outwardly therefrom, means forming internal splines at the inner end of said member, a second tubular member surrounding said first tubular member, means forming internal splines at the outer end of said second tubular member, a lever connected to said second tubular member, a road wheel rotatably mounted on said lever, and a torsion spring disposed interiorly of said first and second tubular members, said spring having its opposite ends splined externally for engagement with the internal splines of said first and second tubular members, and cover means engageable with the outer end of said second tubular member to maintain said spring against axial displacement.

2,840,369
STOCK-FEEDING APPARATUS
Joseph O. Burman, Attleboro, Mass., assignor to Progressive Machinery Corp., Attleboro, Mass., a corporation of Massachusetts
Application February 6, 1956, Serial No. 563,761
9 Claims. (Cl. 271—2.4)



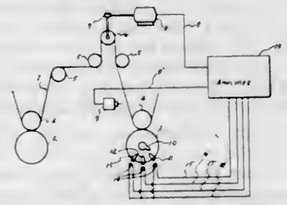
1. Apparatus for feeding stock into a press, comprising a base; standards mounted on said base; a pair of rolls mounted in bearings in said standards, the bearings of one roll being fixed in said standards and the bearings of the other roll being movable in said standards to enable said other roll to be moved toward and away from said one roll, the axes of said rolls lying in a common plane; a clutch mounted on said one roll and adapted to turn the latter in one direction but not the other; a gear attached to said clutch for turning the latter and thus said one roll; a reciprocable rack engaging said gear and by its motion adapted to rotate said gear in opposite directions; pressure means biasing said other roll into engagement with stock between said rolls; and means actuated by said rack periodically to relieve the engagement of said stock by said other roll whereby said stock is enabled to move in a direction opposite to that imposed by said rolls.

2,840,370
REGISTRATION CONTROL OR INDICATING DEVICE
Carl M. Noble, Danville, Ill., assignor to Electric Eye Equipment Co., Danville, Ill., a corporation of Delaware
Application August 7, 1956, Serial No. 602,562
18 Claims. (Cl. 271—2.6)



1. A registration control or indication device for use with apparatus operating upon a moving web, said apparatus including a first operating station and a second operating station spaced along the web, means at each station for functionally operating upon said web with the resulting effect being a continuous registered manifestation of the operations of the respective stations, means for applying a first discrete indicia of a first detectable character at the first station, means for applying a second discrete indicia of a second and different detectable character at the second station, the applying means having substantially the same positions relative the respective operating means and the stations being spaced apart an amount such that when registration of the consecutive operations has been achieved, the two consecutively applied indicia will have at least a portion thereof superimposed with predetermined spatial relation between one of the ends of the two indicia and said superimposed portion considering the direction of movement of the web, the superimposed portion having a third detectable character comprising the combination of the two first mentioned characters, a single sensing device juxtaposed relative the web and having the applied indicia passing the same on a single track to enable detection of the passage thereof and producing a different electrical signal in said sensing device for each of the said characters, and discriminating means activated by said signals for detecting the departure, if any, from said predetermined spatial relationship as a measure of the departure if any of said operations from registration.

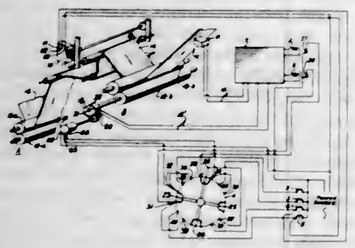
2,840,371
AUTOMATIC CORRECTION DEVICE
Joseph C. Frommer, Cincinnati, Ohio, assignor, by mesne assignments, to Electric Eye Equipment Company, Danville, Ill., a corporation of Illinois
Application January 31, 1955, Serial No. 484,985
16 Claims. (Cl. 271—2.6)



1. An electronic device for making corrections in the functioning of a machine comprising a capacitor; a first vacuum tube system having at least a cathode, a grid and an anode; a second vacuum tube system having at least a cathode, a grid, and an anode; at least one relay having

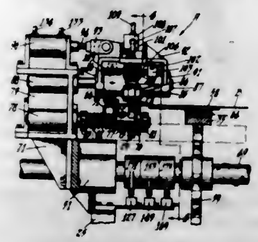
a coil and switching contacts; signalling elements and actuating elements; means biasing both of said systems to render the same normally non-conducting; means operable as a function of said signalling elements to render said systems conductive; said capacitor being connected to said cathode of said first vacuum tube system and to the anode of said second vacuum tube system to acquire a potential from the output of both systems; said first vacuum tube system being actuated by signals of said signalling elements indicating misfunctioning in one direction, said second vacuum tube system being actuated by signals of said signalling elements indicating misfunctioning in the opposite direction; said capacitor being connected to said actuating elements so as to cause action in one direction if its voltage reaches a certain upper point and action in the opposite direction if its voltage reaches a certain lower point; said coil being connected to said actuating elements and at least one of its said contacts being connected in a circuit between the electrodes of said capacitor so as to reset its voltage to a value between said upper point and said lower point when said actuating elements are actuated.

2,840,372
AUTOMATIC CONTROL SYSTEM
Richard J. Alhand, Danville, Ill., assignor, by mesne assignments, to Electric Eye Equipment Company, Danville, Ill., a corporation of Illinois
Application August 4, 1955, Serial No. 526,383
7 Claims. (Cl. 271—2.6)



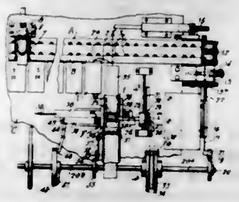
1. An automatic control system for maintaining in-register condition between two separate operations performed by a machine on a moving web consecutively at locations spaced along the web, and including first and second signal producing means normally responsive during the operation of the machine to produce first and second signals the occurrence of which have a predetermined relation with the respective operations whereby for in-register condition the signals are concurrent, means for continuously comparing the signals and their relative occurrence and providing an error signal output as a function of mis-register, mis-register correcting means, first electrical connecting means between said comparing means and mis-register correcting means whereby to control said mis-register correcting means by said error signal and automatically adjust the relative positions at which said operations are performed on the web to maintain in-register condition of said operations, signal aligning means for adjusting the physical space relationship of said signal producing means relative to one another with respect to said web whereby to vary the said predetermined relation of the occurrence of said first and second signals, second electrical connecting means between said comparing means and said signal aligning means normally inoperative during the automatic control of register, switch means for rendering said second connecting means operative during a set-up period to enable said error signal to automatically control said signal aligning means, said switch means simultaneously rendering said first connecting means inoperative, and means for manually controlling said mis-register correcting means while said second connecting means is operative whereby manual establishment of in-register condition will automatically operate said signal aligning means until there is concurrence of said first and second signals during said set-up period.

2,840,373
SHEET GAUGING APPARATUS
John E. Socke, Pelham Manor, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 23, 1956, Serial No. 580,047
13 Claims. (Cl. 271—48)



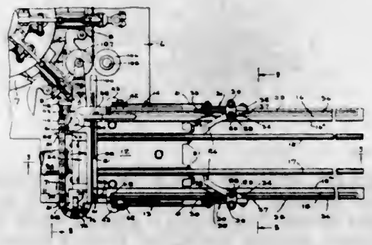
1. In a sheet gauging apparatus, the combination of a sheet registering gauge for locating an edge of the sheet in a predetermined gauged position, a plurality of pairs of cooperating gripper elements disposed adjacent opposing faces of said sheet with said pairs of elements arranged in spaced relation along said faces of the sheet, means for effecting relative movement of said elements towards one another for gripping said sheet between them, and means for shifting said gripping elements bodily toward said registering gauge to move the edge of said gripped sheet into engagement with said gauge, said pairs of gripper elements also preventing said sheet from turning in its plane during movement.

2,840,374
STRIP FEEDING MEANS WITH COMPENSATOR FOR STRIPS OF VARYING WIDTH
Leo Roseman, Newark, N. J.
Application January 31, 1956, Serial No. 562,409
14 Claims. (Cl. 271—55)



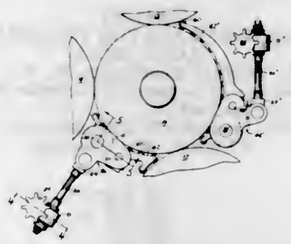
1. The combination of a bed, means on said bed for feeding elongate straps longitudinally and horizontally in succession in a straight path, a pair of elongate vertical plates normally spaced equidistantly from and parallel to the center line of said straight path of movement of said straps with the space between said plates greater than the width of said straps, and means mounting said plates on said bed to move at the same speed toward said center line to engage the longitudinal edges of a strap that is between the plates and laterally move the strap to align the center line of said strap with said center line of said path of movement.

2,840,375
CARTON STACK ADVANCING MECHANISM
Charles E. Kerr and Robert K. Galloway, Hoopeston, Ill., assignors to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
Original application September 10, 1951, Serial No. 245,778, now Patent No. 2,749,118, dated June 5, 1956. Divided and this application June 22, 1953, Serial No. 363,052
8 Claims. (Cl. 271—62)



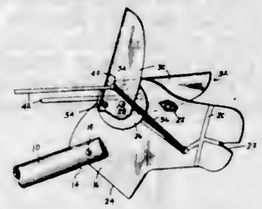
7. A carton stack advancing mechanism comprising a carton magazine having a pair of side walls, a track on the outside of each of said side walls, a carriage movable along each of said tracks, means for urging said carriages toward one end of said magazine, at least one of the carriages being individually retractable to a loading position, carton advancing means mounted upon said carriages for movement into and out of said magazine above and below said side walls, and means for urging said carton advancing means into said magazine.

2,840,376
PROPELLER ROLLERS FOR PRINTING MACHINES
Charles A. Harless, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
Application April 2, 1954, Serial No. 420,713
9 Claims. (Cl. 271—64)



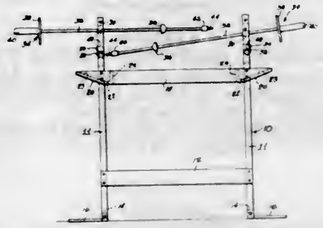
4. In a printing machine folder having a paper handling cylinder and propeller roller cooperating therewith, a propeller roller mounting comprising roller supporting arms mounted for movement toward and away from a cooperating cylinder, operating means for each said arm comprising a rod having a threaded end, a poppet carried by the arm and threadably receiving one end of the rod and a gear wheel carried by the other end of the rod and having teeth at an angle to the rod axis, and a shaft extending transversely of the said axis, gears carried thereby and in driving engagement with the first said gears and having teeth at a complementary angle to the shaft axis, and means operable selectively for turning the shaft to rotate the said rods and for moving the shaft axially to rotate the said rods, the said gears and thread being so related as to move the two arms equally in the same direction upon turning the shaft and in opposite directions upon moving the shaft axially.

2,840,377
HOBBYHORSE
Earl K. Jenks, Lamont, Iowa
Application March 29, 1955, Serial No. 497,485
4 Claims. (Cl. 272—1)



1. A hobbyhorse, comprising, a pole having a notch in one end, a simulated horse's head arranged in said notch for a pivotal movement to effect a nodding action by the head, a disc at each side of said head in the usual position for a horse's ear, said discs mounted for rotation individually about their respective axes, a simulated horse's ear secured at one end to each of said respective discs, yielding means to normally hold said ears in a predetermined position relative to said head, a rein secured to each respective disc at a point offset from the axis thereof whereby a slight pull on either or both reins will elevate said head on its pivot point and a continued pull on either or both reins will rotate a respective disc and move a respective ear accordingly.

2,840,378
FENCING GAME
Louis A. Harvey, Detroit, Mich.
Application October 27, 1955, Serial No. 543,074
13 Claims. (Cl. 273—85)

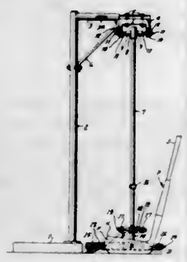


1. A fencing game comprising an elongated frame including a pair of upright structures disposed in longitudinally-spaced relationship, a thrust-limiting device anchorage mounted on each structure, a pair of fencing foil thrust-limiting devices connected one to each anchorage, a pair of fencing foils pointed toward one another in overlapping relationship and connected one to each thrust-limiting device, each thrust-limiting device being constructed and arranged to limit the thrust of its respective foil to a predetermined thrust distance away from its respective anchorage toward the opposing anchorage, and a target device mounted on each structure within the thrusting range of the tip of the opposing foil and responsive to scoring contact therewith of said opposing foil tip for automatically indicating such scoring contact.

2,840,379
GOLF CLUB GUIDE
John L. Santoro, Willowick, Ohio
Application October 25, 1957, Serial No. 692,464
6 Claims. (Cl. 273—192)

1. A device for the purposes described and comprising a base, a support mounted thereon and having a laterally offset portion spaced above the ground level, a pendulum

arm, a link arm, upper transverse horizontal pivotal means pivotally connecting the pendulum arm to said portion and constraining said pendulum arm to swing in a vertical plane extending forwardly and rearwardly of the support, a lower horizontal pivot means pivotally connecting the link arm to the lower end of the pendulum arm at a location spaced below the upper pivotal means and constraining the link arm to move parallel to said plane with the link arm and relative to the link arm, concurrently, a yoke arm, longitudinal pivotal means connecting the yoke



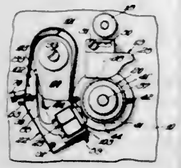
arm to the link arm for rocking of the yoke arm about a rocking axis parallel to said plane and to said link arm, said yoke arm having at its forward end a pair of arms between which a golf club head can be accommodated with its opposite ends adjacent the opposite arms, respectively, detachable pivotal means carried by the yoke arms and having an axis disposed in a plane normal to said rocking axis and engageable with opposite ends of the club head and positioned for connecting the club head and yoke for relative rocking movement of the head and yoke arm about the axis of the detachable pivotal means.

2,840,380

MAGNETIC RECORDER SOUND UNIT

Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois

Application January 23, 1952, Serial No. 267,815
5 Claims. (Cl. 274—4)



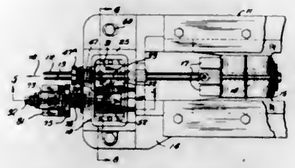
1. In a magnetic sound apparatus, a rotary stabilizing element, a base mounted adjacent said rotary stabilizing element, an eccentric member rotatably mounted in said base, a housing pivotally mounted on said base and having a slot therein, a pin carried by said eccentric member eccentrically thereto and riding in said slot for locking said housing in a retracted position, a spring-urged finger carried by said base and engaging said housing to urge the housing toward said rotary stabilizing element, an arm pivotally mounted in said housing, a wire spring engaging said housing and said arm to urge said arm toward said rotary stabilizing element, means carried by said housing limiting movement of said arm, said housing substantially enclosing said arm, and an electromagnetic transducer head carried by said arm and projecting from said housing for cooperation with said rotary stabilizing element to reproduce sound from a sound track traveling therebetween.

2,840,381

WIRE GRIPPING MECHANISM

Leo D. Mersek, Euclid, Ohio, assignor to The Ajax Manufacturing Company, Euclid, Ohio, a corporation of Ohio

Application July 2, 1953, Serial No. 365,611
7 Claims. (Cl. 279—1)



4. In a grip device for wire or the like, a plurality of relatively movable blocks having cooperating portions defining a through passage and a gripping means for the wire between adjacent blocks, said gripping means being effective to grip the wire in response to a relative closing movement of the blocks, support means supporting said blocks for such relative closing movement, a pair of relatively inclined and relatively movable thrust elements associated with said blocks, said thrust elements being in a spaced-apart relation defining a tapered guideway extending substantially parallel to said through passage, a wedge member reciprocably movable along said guideway for camming cooperation with said thrust elements to produce positive closing movement of said blocks for intermittently gripping said wire during the operation of the grip device, a rotatable shaft, and means for causing the reciprocation of said wedge member comprising spring means acting to move the wedge member in one direction along said guideway and thrust transmitting means effective between said shaft and said wedge member for moving the latter along said guideway in the other direction and in opposition to said spring means.

2,840,382

ANCHORING MEANS FOR THE SHANKS OF HAND TOOLS

Rudolph J. Velepec, Irondequoit, N. Y., assignor to Upson Brothers, Incorporated, Rochester, N. Y., a corporation of New York

Application December 20, 1954, Serial No. 476,172
4 Claims. (Cl. 279—102)



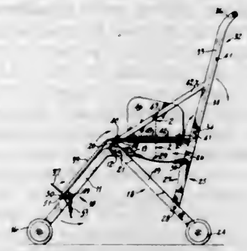
1. A hand tool comprising, in combination, a tool shank, a handle having an opening defining the side walls and means for anchoring the end of said shank in said side walls, said anchoring means comprising an insert for reception in said opening, said insert having a cavity for reception of said shank, said cavity being defined by an open end having a margin and side walls, said insert having at least one slot extending inward from said margin toward the opposite end of said insert to form resilient tanks adapted to grip said shank, the exterior of said tangs having projections for engaging said side walls, said projections being positioned so that they will imbed themselves in said side walls when an oversize shank is inserted in said cavity.

2,840,383

STROLLER

Murray Coven, Flushing, and Ferdinand T. Wiehl, Brooklyn, N. Y.

Application February 7, 1957, Serial No. 638,746
4 Claims. (Cl. 280—41)



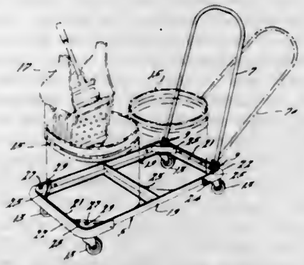
1. A collapsible stroller comprising a U-shaped front outwardly disposed hinge carriage member; a U-shaped middle hinged carriage member hinged at its top to the top of said front member; a W-shaped rearwardly disposed carriage member, the opposed upright arms of which are integrally connected to the inverted V-shaped member therebetween, said W-shaped member being pivotally secured at the base of said upright arms to the bottom of said middle member; a U-shaped handle member hingedly secured to the top ends of said upright arms, and flexible means secured to the apex of said V-shaped member and to the top of said front member to limit the outward movement of said rear carriage member.

2,840,384

CART WITH ADJUSTABLE HANDLE

Elmer H. Bard, Muskegon, Mich., assignor to Geerpres Wringer Inc., Muskegon, Mich., a corporation of Michigan

Application January 23, 1956, Serial No. 560,804
2 Claims. (Cl. 280—47.37)



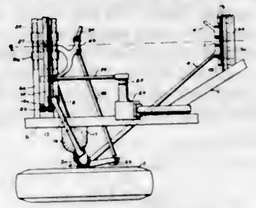
1. In a hand truck, a rigid chassis comprising a pair of longitudinal side bars, a pair of transverse end bars and a transverse central bar secured together so as to form two compartments adapted to support a pair of mopping buckets, a front and rear pair of swivel caster units having threaded pintles extending through the four corners of the said chassis for rolling the same, a pair of friction hinges secured to said chassis and disposed thereon to form a pair of horizontal friction pivot connections, each said friction hinge comprising a metal plate folded over on itself to form a tubular member and a pair of spaced upright plates supporting said tubular member and having face-opposed relation, said pair of upright plates terminating in a pair of bent-over plates having face-contacting relation, said bent-over plates having aligned apertures, the threaded pintles on said front pair of caster units projecting through said aligned apertures to secure said pair of bent-over plates to said chassis, said tubular member having formed therein a pair of spaced adjustable openings and a slot disposed therebetween, a pair of connector-pivots each comprising a pivot rod frictionally engaged and rotatably supported in each said pair of adjustable openings, each said connector-pivot also comprising a stud member perpendicularly secured to said pivot rod so as to rotate within said slot, a U-shaped tubular handle having a pair of free ends each disposed about and secured to one of said stud members whereby said tubular handle is pivotally mounted on said chassis and movable in an arc to automatically settable positions with respect thereto, and a pair of bolts projecting through each said pair of spaced upright plates, and an adjusting nut secured to each said bolt to urge each said pair of upright plates together to adjust the diameter of each said pair of openings of each said friction hinge so as to control the force of frictional engagement on each said pivot rod whereby to retain said handle in said settable positions.

2,840,385

SHOCK-ABSORBING SPRING SUSPENSIONS AND STEERING LINKAGE

Paul Heftler, Grosse Pointe Park, Mich., assignor to Victor Heron, Riverside, Ontario, Canada, as trustee

Application April 27, 1951, Serial No. 223,345
10 Claims. (Cl. 280—93)



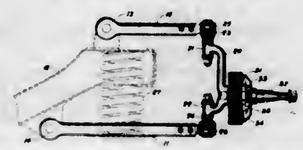
4. In a vehicle, a frame, a king-pin, a steering knuckle on the king-pin, a wheel on the steering knuckle, a steering arm fixed to the steering knuckle, a bracket resiliently movable sideways on the frame but not movable fore-and-aft, a link connecting the king-pin to the bracket, a steering lever pivoted on the bracket, a tie-rod connecting the steering lever to the steering arm, a steering gear fixed to the frame, and a drag link extending in a vertical fore-and-aft plane and connecting the steering gear to the steering lever.

2,840,386

FRONT SUSPENSION STEERING KNUCKLE WITH ELASTIC MEANS

Forest R. McFarland, Huntington Woods, and Paul P. Thomas, Detroit, Mich., assignors to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan

Application August 22, 1956, Serial No. 605,514
9 Claims. (Cl. 280—96.2)



1. A steering knuckle assembly for a vehicle having a frame comprising wheel support means operably connected to said frame for pivotal movement relative to said frame about a first generally vertically extending axis, an axle member operably connected to said support means and mounted for pivotal movement relative to said support means about a second generally vertically extending axis, and resilient means disposed between said axle member and said support means for resiliently resisting pivotal movement of said axle member relative to said support means.

2,840,387
CABLE CONTROL AUTO BODY LEVELING DEVICE
Nello Orlandi, San Francisco, Calif.
Application August 15, 1956, Serial No. 604,244
1 Claim. (Cl. 280—104)



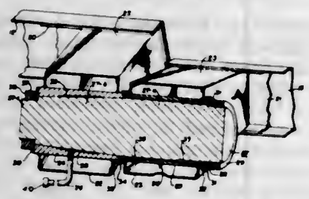
A leveling device for a vehicle having a frame and front and rear ground-engaging wheels resiliently connected thereto, said front wheels being connected to said frame by a pair of spaced yokes, said rear wheels being connected together by a rear axle, of a cable connected to the upper of each of said yokes and extending downwardly through an eye on said frame, thence diagonally rearwardly to the opposite rear side of said frame, a bell crank lever secured to each side of said frame, one end of said bell crank lever being connected to its respective cable, and a link connecting each of said bell crank levers with said adjacent end of said axle, a second cable connected to each of the other of said yokes and extending diagonally to the opposite rear side of said frame, a second bell crank lever pivoted to said frame, the end of the last mentioned cable being connected to the respective last mentioned bell crank lever, the free end of said last mentioned bell crank levers being connected to the adjacent ends of said axle and to the opposite side of said axle from said link connections and an adjustable flexible cable housing surrounding each of said cables.

2,840,388
FRAME MEMBERS
Godfrey Burrows, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 9, 1954, Serial No. 455,034
10 Claims. (Cl. 280—106)



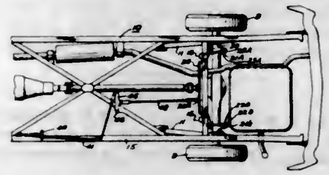
1. A vehicle frame comprising a pair of side rails disposed in parallel spaced relation and having brace members secured thereto and extended between adjacently disposed ends thereof, said side rails including seam welded tubular sections each of substantially constant diameter and comparatively of different diameters and an intermediate member having said tubular sections secured in end-to-end relation therewith.

2,840,389
SWIVEL CONNECTION BETWEEN VEHICLE SECTIONS
Raymond L. Page, Brecksville, Ohio, assignor to Truckstell Manufacturing Company, a corporation of Ohio
Application March 22, 1956, Serial No. 573,151
7 Claims. (Cl. 280—111)



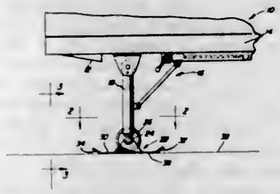
1. In a vehicle transversely divided into a forward portion and a rearward portion, each of said portions having transverse elements, respectively, the improvement of a sleeve member having a cylindrical bore extending therethrough secured to the transverse element of one of said portions, a socket member having a frusto-conical internal surface, said socket member being secured to the transverse element of the other of said portions, the bore of said sleeve member and the cavity of said socket member being adapted to be disposed in axial alignment, a pin member having a cylindrical portion mounted in said sleeve member and rotatable therein, said pin member having a pintle portion axially aligned with said cylindrical portion and protruding from said sleeve member, said pintle portion having a frusto-conical exterior surface, said pin member being insertable in said socket member and the frusto-conical external surface of the pintle portion being complementarily engageable by the frusto-conical internal surface of said socket member to frictionally interengage said pin member and socket member, and securing means for detachably securing said pin member and said socket member together against axial separation.

2,840,390
SWAY STABILIZER AND OVERLOAD SPRING FOR VEHICLE
Brooks Walker, Piedmont, Calif.
Application March 31, 1953, Serial No. 345,803
2 Claims. (Cl. 280—124)



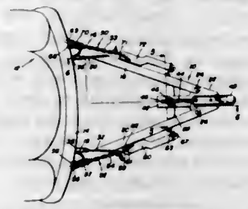
1. In a motor vehicle having a supporting structure, wheel supporting means at one end of the structure, resilient means connecting said wheel supporting means to said structure, a stabilizing bar having a central portion and arms extending laterally from the ends thereof, means pivotally supporting said central portion transversely across said structure, means pivotally connecting the ends of the arms to said wheel supporting means, an operating arm extending laterally from said central portion, means movably mounted on said structure and engaging said operating arm, and manually operable actuating means remote from said operating arm to actuate said engaging means to move said operating arm angularly and twist said central portion of said stabilizing bar independently of relative movement between said structure and wheel supporting means.

2,840,391
SAFETY-SHOE FOR RETRACTABLE SUPPORT ASSEMBLIES FOR SEMI-TRAILERS
Heinrich Stiel, Toronto, Ontario, Canada
Application March 14, 1956, Serial No. 571,509
4 Claims. (Cl. 280—150.5)



1. In a retractable semi-trailer support assembly including dual bearing wheels, a leg member including a lower transverse axle portion including opposite journal end portions, a bearing support wheel journaled on one end portion of the transverse axle portion, and a safety-shoe conversion assembly journaled on the other journal end portion of the transverse axle portion, said safety-shoe conversion assembly including a foot-plate member including an enlarged lower bearing surface portion engageable with the support surface upon which the semi-trailer rests, a support web portion extending from an upper surface portion of said foot-plate member, and a tubular journal sleeve element secured on an upper portion of the support web portion, said journal sleeve element being received on said other journal end portion of the transverse axle portion and replacing a bearing wheel normally carried thereon.

2,840,392
VEHICLE TOWBAR
Mearl J. Miles and Andrew J. Jones, The Dalles, Oreg.
Application October 9, 1956, Serial No. 614,880
1 Claim. (Cl. 280—493)



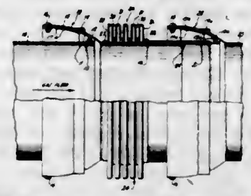
In a motor vehicle having a bumper and a pair of bumper guards, a tow bar comprising a pair of draft arms having inner ends fitting flush against the bumper between the bumper guards, a support on which the other ends of said arms are pivoted for swinging of said arms into diverging relation to position said inner ends against the bumper guards, a cross bar slidably adjustably mounted on said support between said arms for sliding engagement with said arms to swing the arms, and means for clamping the inner ends of said arms against said bumper comprising a pair of levers pivoted on said arms for swinging into an overcenter position, a pair of flexible members each having a pair of hooks on one end thereof engaging said bumper and one of said bumper guards and having their other ends connected to said levers for tightening of the members by swinging of said levers, and links pivoted on said arms for swinging over said levers to hold the levers in overcenter position.

2,840,393
BOOKKEEPING PAD ASSEMBLY EMPLOYING SHINGLED STRIPS
Vincent Richard Youngquist, Whittier, Calif., assignor, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application June 21, 1955, Serial No. 517,012
1 Claim. (Cl. 282—22)



In a device of the class described, the combination of: a front and a back cover; a group of duplicate rectangular journal sheets; means binding one vertical edge of the covers and each of the journal sheets forming a pad assembly that may be opened to lie flat; each of said sheets having a front and a back face, the front face of the sheet being exposed when the sheet is disposed to the right of said binding means, the back face of a sheet being exposed when the sheet is disposed to the left of said binding means; a group of shingled original entry sheets secured to the back face of each journal sheet at the free vertical edge thereof, opposite the binding means, whereby on opening of each journal sheet said entry sheets overlie the said journal sheets in a vertically overlapping relationship; each of said journal sheets having horizontal lines imprinted on both faces thereof, spaced apart a distance equal to the amount of overlapping of said entry sheets, the horizontal lines on the back face of each journal sheet being in substantial alignment with the horizontal lines on the front face of the succeeding sheet of said stack; each group of shingled original entry sheets being shorter than its journal sheet to expose a space on its journal sheet between the original entry sheets and the binding means, said exposed space of each journal sheet and the front face of its succeeding journal sheet being imprinted with vertical lines dividing same into vertical columns, thereby utilizing each journal sheet and the front face of its succeeding journal sheet for horizontal distribution of the data to be written on the original entry sheets; and means for transferring data entries on the original entry sheets to the journal sheet therebelow.

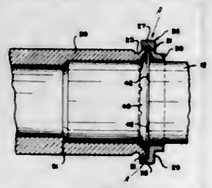
2,840,394
FLEXIBLE JOINT ENGINE EXHAUST DUCT WITH BELLOWS SEAL
Fred H. Rohr, San Diego, Calif., assignor to Rohr Aircraft Corporation, Chula Vista, Calif., a corporation of California
Continuation of abandoned application Serial No. 781,832, October 24, 1947. This application February 14, 1952, Serial No. 271,500
5 Claims. (Cl. 285—226)



1. A duct adapted to convey hot exhaust gas away from an internal combustion engine comprising, in combination: a first metallic conduit arranged to receive the hot exhaust gas at its upstream end, a second metallic conduit of cylindrical shape having its upstream end disposed adjacent the downstream end of said first conduit; means comprising cooperating ball and socket members connecting the downstream end of said first conduit to the upstream end of said second conduit; a third metallic cylindrical conduit with its upstream end continually in sliding, telescopic contact with the downstream end of said second conduit to form a slip joint therewith; a fourth metallic cylindrical conduit with its upstream end disposed adjacent the downstream end of said third conduit; means comprising cooperating ball and socket members connecting the downstream end of said third conduit to the upstream end of said fourth conduit; and an axially expansible metallic bellows, the entire bellows being disposed between and spaced axially from both of said ball and socket members, said bellows comprising a plurality of spaced apart thin radially extending flexible rings, the flexible ring at one end of the bellows having an integral cylindrical projecting rim in contact with and secured to the outer surface of the second conduit and the flexible ring at the opposite end of the bellows having an integral cylindrical projecting rim in contact with and secured to the outer surface of the third conduit near the upstream end thereof, the flexible rings

intermediate said end rings having inner portions which interconnect successive rings and are spaced a substantial distance outwardly from said second conduit, said bellows forming a sealed chamber arranged to receive any gas leakage passing through said slip joint, the increase in pressure in the bellows due to such leakage automatically causing an axial expansion of the bellows and a resulting increase in pressure between both of said ball and socket members, both of said ball and socket members being exposed to a cooling current of ambient air.

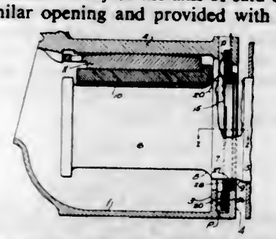
2,840,395
CONDUIT FITTING WITH SPRING WASHER RETAINING MEANS
Nathan Tarnow, Framington, Mich.
Application May 6, 1957, Serial No. 657,324
1 Claim. (Cl. 285—321)



A fitting for securing a conduit end comprising a tubular member which has a forward edge formed with an outwardly extending annular shoulder whose forward and rearward walls are beveled rearwardly and inwardly, the fitting also including an annular retaining ring of a cross section providing a cylindrical side portion and a flat forward portion, the ring side portion closely fitting around the shoulder of the tubular member and the ring forward portion fitting flat against such shoulder, and a flat thin annular spring washer between the ring forward portion and the shoulder and having internal teeth for biting into a conduit end inserted into the tubular member through the ring and washer, the washer being initially flat and being dished rearwardly by insertion of the conduit end into the fitting and when so dished preventing retraction of the conduit end from the fitting, the fitting being characterized by the fact that the washer has circularly spaced notches on its outer edge cooperating with circularly spaced inwardly projecting lugs of the ring side portion, which lugs are spaced rearwardly from the rear face of the ring forward portion for enabling the washer to be interlockingly fitted into the ring and held there in flat condition by the lugs whereby the washer may be applied to the ring to form with it a ring-washer assembly or sub-unit which can be applied to a tubular member, the outer edge of the shoulder of the latter having circularly spaced notches, with the lugs of the ring serving not only to hold the washer in the ring but also serving to interlock through the shoulder notches and behind the shoulder of the tubular member and to interlock the assembly to the tubular member, the circular spacing of the lugs, the shoulder notches and the washer notches all being identical to enable the washer notches to clear the ring lugs and to enable the ring lugs to clear the shoulder notches, thus enabling assembly and disassembly of the fitting.

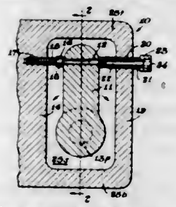
2,840,396
RAILWAY AXLE JOURNAL DUST GUARD AND OIL RETAINER
James J. Hennessy, Chambersburg, Pa., assignor to Hennessy Lubricator Company, Inc., Chambersburg, Pa., a corporation of Delaware
Application December 15, 1954, Serial No. 475,455
13 Claims. (Cl. 286—6)

1. In combination with a railway axle and journal box in which the axle includes a wheel seat portion, a journal portion, and an intermediate portion of larger diameter than the journal portion and of smaller diameter than the wheel seat portion, there being fillets between said journal portions, and the journal box has inner and outer upright walls forming a dust guard pocket between them and having openings normally surrounding the axle intermediate portion, an oil retaining device comprising a plate-like member movable into the dust guard pocket transversely of the axis of said openings and having a similar opening and provided with a collar-like



member surrounding said opening and projecting from the plate-like member into the opening in the outer upright wall a distance corresponding to the thickness of said end wall and terminating at its outer end in a radially inwardly extending flange, the internal diameter of which exceeds the diameter of said axle wheel seat portion whereby the flange is adapted to freely receive said axle portion, as the box shifts inwardly from the end of the axle, and thereby form a lubricant trap surrounding the fillet between said wheel seat portion of the axle and said intermediate portion of the axle.

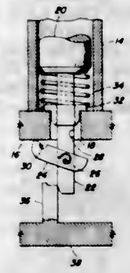
2,840,397
POSITIONING MEANS
James E. Tollar and Murrey O. Longstreth, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application February 20, 1956, Serial No. 566,529
6 Claims. (Cl. 287—14)



1. In an assembly wherein an internal movable part is located between an inner inaccessible member on one side of said movable part and an outer wall member on the accessible side of said movable part, said movable part having an aperture disposed therein in a direction between said inner inaccessible member and said outer wall member; positioning and adjusting means for said internal movable part comprising a screw, threaded into said inner inaccessible member, contacting the side of said movable part facing said inner member with the head of said screw being engageable through said aperture; and a hollow outer screw threaded through said outer wall member, contacting the accessible outer side of said movable part against and in communication with said aperture.

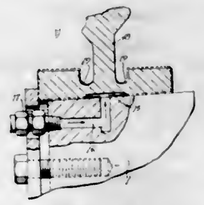
2,840,398
AUTOMATIC COUPLING OR LATCHING MECHANISM
Robert A. Chapellier, Whitestone, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application May 2, 1956, Serial No. 582,103
7 Claims. (Cl. 287—20.5)

6. An automatic coupling comprising in combination a member having an opening therein and having an outwardly extending generally radial surface at one end of the opening, an elongated member adapted to be inserted into said opening through the other end thereof, a locking lever pivoted to said elongated member about an axis generally normal to that of said elongated member, means releasably retaining said lever in a position permitting insertion thereof through said opening, said means in response to insertion of said member and lever a predetermined distance into said opening being operative to



release said lever for pivotal movement about its axis and upon further insertion into said opening said lever being pivotable to a locking position transversely of the opening and in overlying relation with said radial surface, and upon still further insertion into said opening being further pivotable in the same direction to a position permitting free withdrawal of said member from said opening, stop means defining this last named position and spring means urging said lever for pivotal movement into engagement with said stop means.

2,840,399
ATTACHMENT OF GEARS TO TAPERED SHAFT ENDS
Charles A. Harless, Riverside, Conn., and Emory W. Worthington, Hastings-on-Hudson, N. Y., assignors to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
Application July 26, 1952, Serial No. 301,066
7 Claims. (Cl. 287—53)



1. A keyless drive member comprising a hub having a tapered bore with an oil groove running circumferentially around the inside of the bore, and a web portion radially aligned with the groove, the hub having relieving exterior grooves around its entire periphery at each side of the web, and the internal and external grooves forming narrow sections at each side of the web, whereby the hub may be expanded on a shaft by pressure of a liquid introduced into the internal groove, so as to permit shrink fitting on the shaft, without substantial hindrance by rigidity of the web.

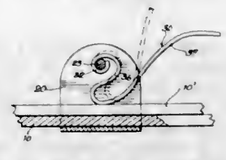
2,840,400
CLAMPING STRUCTURE FOR TUBULAR BARS
Errol P. D'Azzo, Brooklyn, N. Y.
Application November 28, 1952, Serial No. 323,027
5 Claims. (Cl. 287—55)

1. In a shelter structure, the combination comprising a pair of spaced bars, a clamp connecting said bars together, said clamp being disposed at one end of one of the bars and at an intermediate portion of the other of said bars; said clamp including two separable complementary parts each having an integral C-shaped portion at one end, said portions forming a clamping means when said parts are secured together, said intermediate portion of said other bar being disposed between said C-shaped portions, a bolt and nut securing the parts together, one of said parts having a shank formed with a recess at one side and receiving the head of said bolt therein, said



recess communicating with an oversize bolt hole extending through the shank to the other side thereof to allow an adjustable movement of the bolt in the hole, the other of said parts being formed with a fulcrum extension on its other end and having an oversize bolt hole at an intermediate portion thereof and extending therethrough so that said other part can tilt on the bolt, said nut having a rounded inner side to allow said other part to adjust to irregularities in said other bar, said one part having an integrally formed cylindrical socket at its other end receiving one end of said one bar.

2,840,401
LATCH FOR TROUSER CREASER OR THE LIKE
Otto Felix, Chicago, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application January 26, 1955, Serial No. 484,176
4 Claims. (Cl. 287—58)



1. In combination with a pair of relatively slidable parallel members, a latch for retaining said members in longitudinally fixed relation to each other comprising a trunnion slidably embracing both members, and a lever pivoted to said trunnion and having a resilient portion eccentric to the outer surface of an adjacent member, said lever having a free finger portion for actuating the same, whereby said lever may be rotated into clamping engagement with said outer surface, said lever being formed of a single piece of flexible and resilient tenuous material, one end of which forms a journal, said trunnion having bearing means supporting said journal.

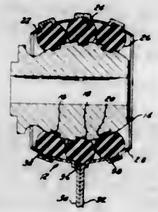
2,840,402
TELESCOPIC LOCK
Henrik B. Hassel, Boyd, Minn.
Application October 31, 1955, Serial No. 543,722
4 Claims. (Cl. 287—58)



1. A telescopic lock including an exterior tube, an interior tube telescopically situated with respect to said exterior tube, a stud concentric with and fixedly mounted in a first end of said interior tube to have position inside said exterior tube, a first camming member threadably and rotatably mounted on said stud inside of said exterior tube, a second camming member slidably situated in said

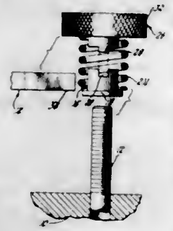
exterior tube around said stud and between said first end of said interior tube and said first camming member, third and fourth camming members each situated between said stud and an inner surface of a wall of said exterior tube and between said first and second camming members, each of said four camming members being provided with a pair of flat camming surfaces lying in planes which intersect at a line normal to the tubes axis and passing inside said wall of said exterior tube, and each of said pair of surfaces of each camming member lying in sliding, adjacent, contiguous camming relationship to a corresponding surface of an adjacent camming member.

2,840,403
UNIVERSAL JOINTS AND RESILIENT BUSHINGS
Frederick M. Guy and Curt Saurer, Detroit, Mich., assignors to U. S. Universal Joints Company, Detroit, Mich.
Continuation of application Serial No. 260,206, December 6, 1951. This application June 3, 1954, Serial No. 434,230
4 Claims. (Cl. 287—85)



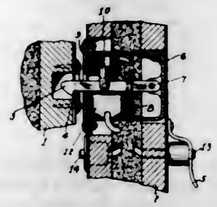
1. A flexible connector for coupling a driving element with a driven element comprising an inner member, an outer member spaced therefrom, and a plurality of separate completely spaced apart resilient blocks affixed to said inner and outer members, at least one of said blocks being disposed in a balanced position so that the normal inner face of said block lies adjacent said outer member and the normal outer face of said block lies adjacent said inner member, said resilient block thus having an internal force therein which tends to return it to its normal position when displaced from its balanced position, and at least one of said blocks being disposed between said inner and outer members in normal position with the normal inner face adjacent the inner member and the normal outer face adjacent the outer member.

2,840,404
FASTENING DEVICE
Urban A. Weber, Jr., Milwaukee, Wis., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 19, 1954, Serial No. 450,950
8 Claims. (Cl. 287—93)



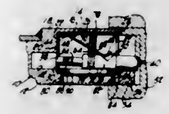
1. The combination of an externally threaded support member, a pair of internally threaded nut members on said support member, said nut members having interlocking means causing said nut members to rotate together, spring means compressed between said nut members and a supported member extending laterally with respect to said support member, said supported member being engaged between one end of said spring means and the adjacent nut member.

2,840,405
ELECTRICALLY-CONTROLLED REFRIGERATOR DOOR
Urban J. Feltz, St. Louis, Mo., and Charles C. Benn, East St. Louis, Ill.
Application August 17, 1956, Serial No. 604,828
1 Claim. (Cl. 292—122)



The combination with a refrigerator having a normally-closed latch-controlled door with a door handle movably mounted thereon, of an electromagnet cooperable with said latch to shiftably release the same to permit the opening of said door, an electrical plug for connection to a source of electric current, a reducing-voltage transformer between said plug and electromagnet for operation of the latter, an electric switch between said electromagnet and transformer for controlling the operation of said electromagnet to shift said latch into its released position to permit opening said door and a second switch located on the inside of the refrigerator door in a position lower than the latch of the door and adjacent to the door handle, said second switch in series with said electromagnet and transformer to provide control of said electromagnet from the inside of the refrigerator door.

2,840,406
WINDOW LATCHING DEVICE
Michael Rifkin, Lyndhurst, N. J.
Application December 13, 1956, Serial No. 628,073
11 Claims. (Cl. 292—149)



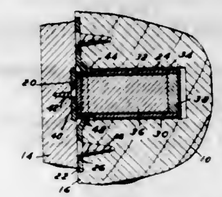
1. A latching device, comprising a bracket mounting a latching member for axial movement between first and second positions, and means for locking said latching member in one of said positions thereof comprising abutment means disposed in fixed relation with said bracket and a lock screw carried by said latching member disposed for engagement with said abutment means in the locking position thereof, said lock screw having a slotted head which is disposed in substantially flush relation with adjacent surface portions of said latching member in the locking position of said lock screw, said latching member surface portions having surface interruptions corresponding to said lock screw head in the region of the latter whereby to render lock screw removal burglarproof from a position without frontal visual access thereto.

2,840,407
LATCH
Raymond N. Sellon, Jr., Milwaukee, Wis., assignor to Stolper Steel Products Corporation, Menomonee Falls, Wis., a corporation of Wisconsin
Application March 19, 1956, Serial No. 572,399
10 Claims. (Cl. 292—169)



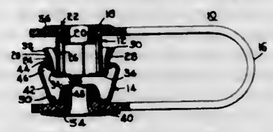
1. In a latch, the combination with a mounting member having a slotted wall, of a bolt wider than the slot in said wall and reciprocable on the outer face of the wall and provided with an embossed portion narrower than the bolt and corresponding in width to the slot of said member and disposed therein to guide the bolt in the course of its reciprocation with respect to the member, a slide wider than the bolt and fastened to the embossed portion of the bolt and spanning the slot along the inner face of the wall to retain the bolt on said wall, and means for reciprocating the bolt.

2,840,408
MAGNETIC LATCH
Hayes O. Scott and Raymond L. Pietsch, Flint, Mich., assignors to The Engineered Products Company, Flint, Mich., a corporation of Michigan
Application May 24, 1956, Serial No. 587,020
11 Claims. (Cl. 292—251.5)



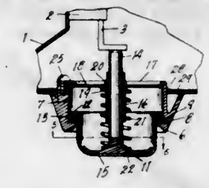
1. A magnetic bore-in latch for sliding doors including a face plate adapted to be mounted on the edge of the sliding door and a magnet assembly supported on said face plate and projecting therethrough, said magnet assembly including an outer cylindrical sleeve having an annular groove around the outer face thereof closely adjacent but spaced from the end of said magnet assembly projecting through said face plate, said face plate having an opening therein through which said magnet assembly projects, the portion of said face plate surrounding said opening being disposed within said annular groove to floatingly mount said magnet assembly on said face plate.

2,840,409
POST OFFICE FASTENER
Winthrop F. Ashworth, Wenham, Mass., assignor to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application September 24, 1956, Serial No. 611,705
3 Claims. (Cl. 292—317)



1. A locking snap fastener, comprising a sheet metal stud having a series of annularly arranged individual flexible legs with forwardly projecting flexible shank portions and free end portions extending from the forward end thereof which are bent outwardly and back to extend rearwardly alongside the shank portions, said free end portions being inclined outwardly from the shank portions to terminate in spaced relation thereto, and a sheet metal socket for receiving the stud in snapping engagement, said socket comprising a hollow cup-shaped body having a base and a peripheral wall disposed about the base, said wall extending outwardly from the base and terminating in a lip portion which is curled inwardly and downwardly toward the base forming a peripheral recess, and surrounding a stud entrance opening, said base having a peripheral groove formed therein adjacent to the wall which has a depth greater than the depth of the recess, the dimensions of the parts being such that when the stud is assembled into the socket, the free ends of the legs snap past the lip and spring outwardly against the inclined wall of the socket, said stud and said socket providing the only members of the locking snap fastener.

2,840,410
PUSH BUTTON DOOR HANDLE
Gerald V. Jakeway, Grand Rapids, Mich., assignor to Keeler Brass Company, Grand Rapids, Mich.
Application July 23, 1956, Serial No. 599,568
5 Claims. (Cl. 292—336.3)

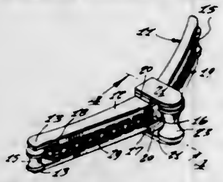


1. A handle comprising a grip and a head portion into which the grip merges, the head portion having an undercut portion provided with a socket open at both ends and having an inwardly facing shoulder at its outer end, said socket being of flattened horizontal section and having an opening in one side thereof, a cupped push button cross-sectionally flattened to conform to said socket and provided with an outwardly projecting flange at its inner end coacting with said shoulder of said socket to limit the outward movement of the push button, said push button being insertable and removable from the inner end of the socket, a support member detachably mounted on the inner end of said socket, a tubular stem guide fixedly secured to said support member to project inwardly therefrom, a push button stem reciprocatingly supported in said guide and provided with an elongated head supportedly engaged with and removably and nonrotatably seated within said push button, and a coil spring seated on said support member in embracing relation to said stem guide with its outer end in thrust engagement with said stem head, said stem, push button and spring being retained in assembled relation within said socket and to each other by said removable support member.

2,840,411
BUMPER CONSTRUCTION—ROLLAWAY BUMPER
Philip Edmond Mason, Brooklyn, N. Y.
Application March 7, 1955, Serial No. 492,643
1 Claim. (Cl. 293—72)

A rollaway bumper for an automotive vehicle, including a V-shaped channel member disposed with the apex thereof extending forwardly while the hollow interior of the channel member facing rearwardly, a pair of horizontal lateral end lugs or flanges spaced vertically apart at each end of the channel member and projecting integrally therefrom, an end roller and an inner roller operatively located between each pair of end flanges

for rotation about vertical axes, a pair of forwardly projecting horizontal flanges secured upon the channel member at the apex thereof, a single roller relatively larger than the end rollers rotatably mounted between the latter two flanges, a further inner pair of rollers mounted in the channel member within the apex thereof



and spaced a short distance apart, said channel member at said apex having a central opening, and a distinct endless chain mounted upon the inner roller at each end and the inner roller more adjacent of the further inner pair as well as about the web of said channel member upon each of the two branches of said V-shaped channel member.

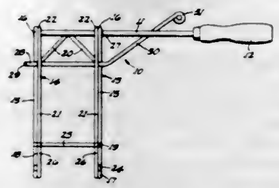
2,840,412
ZIPPER PULLER
Hester Lancaster, New York, N. Y.
Application January 14, 1957, Serial No. 634,047
2 Claims. (Cl. 294—26)



1. An actuating device for a slide fastener having an element with an opening therein, said device comprising a hook member adapted to engage said opening, a rectangular-shaped closed loop hingedly mounting said hook member, an elongated flexible and pliable straplike member attached at one end to the rectangular-shaped loop, a continuous circular loop hingedly attached to the other end of said strap-like flexible member, a second elongated flexible and pliable strap-like member attached at one end to said circular loop, said second strap-like member being longer than the first-named strap-like member, a second continuous circular loop hingedly connected to the other end of said second strap-like member, said latter loop serving as an end handle, and a third continuous circular loop hingedly connected to said second strap-like member midway its ends, said strap-like members when aligned being of a length sufficient to extend approximately from the waist to the shoulder of an average sized person whereby the user may manipulate a slide fastener up or down at the back of the garment worn by the user without having to maintain manually a grasp on the fastener element, by engaging said hook end in said opening in the fastener element and drawing said strap-like members upwardly to raise the fastener element or downwardly to lower the fastener element and means for fastening the second circular loop to the first circular loop, said last-named circular loop serving as an end handle when the second circular loop is fastened to the first circular loop.

2,840,413
PAN HANDLING DEVICE
Clarence A. Beihl, Monrovia, Calif.
Application August 3, 1956, Serial No. 602,014
2 Claims. (Cl. 294—31)

1. A culinary receptacle-handling device adapted to be held and manipulated by one hand comprising a rigid shaft having a handgrip fixed to one end thereof; a pair of tong jaws mounted along the opposite sides of the other end of said shaft, each of said jaws including a pair of arms bowed away from one another transversely of said shaft and having reversely-bent hooked ends shaped to engage beneath the rolled rim of a receptacle with the hooks on one jaw facing toward the hooks on the other jaw, at least one of said jaws being pivotable



about said shaft, the hooked ends of said jaws being cut on the bias to provide pointed ends adapted to enter upwardly into the longitudinal crease between the side walls of a culinary receptacle and the rolled rim thereof to lock said jaws engaged with said rim while a lifting force is being applied to the receptacle by said handling device and means secured to said pivotable jaw and selectively manipulatable by the user's thumb while grasping said handle to open and close said jaws toward and away from one another, as desired.

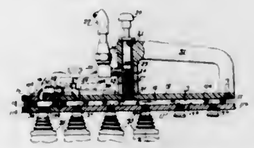
2,840,414
COMBINATION CULTIVATING SHOVEL AND FORK
Alfred T. LeBeau, Oakland, Calif., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application February 28, 1956, Serial No. 568,363
4 Claims. (Cl. 294—51)



1. An earth moving implement comprising: a cultivating fork including a yoke portion having a plurality of prongs extended therefrom in one direction and a handle member extended therefrom in the opposite direction; a movable interspace-filling member cooperable in size and conformation to substantially laterally and contiguously align with said prongs and fill the interspaces between said prongs; hinge means; a slidable member hingedly connected by said hinge means to said interspace-filling member at a location remote from the ends of said prongs; slidable mounting means slidable mounting said slidable member with respect to said yoke portion for limited lonigtudinal movement with respect to said yoke portion and said prongs; biasing spring means biasing said slidable member toward said handle member; securing means securing said interspace-filling member in substantially laterally contiguous alignment with said prongs and filling the interspaces between said prongs and including a plurality of perforations spaced transversely across said interspace-filling member and adjacent the ends of said prongs and cooperable to receive the ends

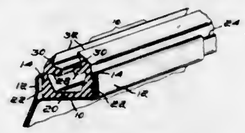
of said prongs therein upon relative slidable movement of said slidable member with respect to said yoke portion toward said handle member; and means for disengaging and reengaging said interspace-filling member in substantially laterally contiguous alignment with said prongs and filling the interspaces between said prongs and including; lever means attached to and extended outwardly from said slidable member and cooperable when forcibly pressed in a direction away from said handle member to move said interspace-filling member downwardly away from said handle member agfiainst the action of said biasing spring means and to disengage the ends of said prongs from said perforations, said hinge means connecting said interspace-filling member and said slidable member having spring means therein biased to swing said interspace-filling member outwardly from its lateral alignment with said prongs, said lever means being hinged to said slidable member and being cooperable to rotate about its hinge line into contact with the surface of the disengaged interspace-filling member and to rotate the latter back into laterally contiguously aligned interspace-filling relationship between said prongs, said biasing spring means biasing the slidable member toward the handle member being effective to move said slidable member toward said handle member causing reengagement of the ends of said prongs with said perforations in said interspace-filling member.

2,840,415
EGG HANDLING APPARATUS
Robert C. Morris, Trappe, Md., assignor to American Hatchery Engineers, Inc., Easton, Md., a corporation of Maryland
Application September 27, 1955, Serial No. 536,934
4 Claims. (Cl. 294—65)



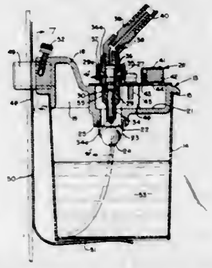
3. In an egg pickup device, a first flat plate, a second flat plate coextensive with said first plate disposed in spaced parallel relation thereto, a sealing member mounted on one of said first and second plates about the periphery thereof, spaced inwardly of the outer edge thereof, and disposed intermediate said first and second plates in sealing engagement with the other of said first and second plates to define a chamber therebetween, means defining an aperture opening into said chamber, means engaged with said first and second plates to compress said sealing member therebetween, a handle mounted on said first plate, means connecting said aperture to a source of vacuum, a plurality of suction cup elements mounted in said second plate, each comprising a resilient cup and a hollow shaft mounting said cup and opening at one end to the interior of said cup and at the other end to the interior of the chamber defined by said first and second plates, means dividing said chamber into main and minor chambers, said chambers normally disposed coplanar in side by side relation, auxiliary valve means intermediate said main and minor chambers, means to operate said valve means between first and second positions, said auxiliary valve means operable when in the first position to provide access between said main and minor chambers and apply suction to said minor chamber, and when in the second position, closing access between said chambers and opening said minor chamber to atmosphere to release suction therein.

2,840,416
GLASS RUN FOR AUTOMOBILE WINDOWS
Clement A. Woodward, Harvard, Mass., assignor to United-Carr Fastener Corporation, Cambridge, Mass., a corporation of Delaware
Application October 10, 1956, Serial No. 615,152
3 Claims. (Cl. 296—44.5)



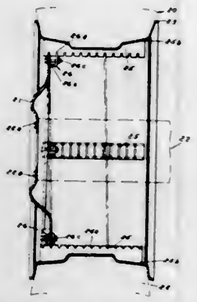
1. A glass run comprising an elongated strip formed integrally from thermoplastic organic polymeric material, the strip being of uniform cross-sectional contour and comprising a base having flanges of a cross-sectional contour providing a preferential zone of bending remote from the base and outwardly of the zone tapered edge portions normally spaced more widely than the thickness of the glass, there being between said edge portions parts extending inwardly into the path of a glass entered between said edge portions and serving to transmit therefrom a force bending the tapered extremities of said edge portions into contact with the sides of the glass.

2,840,417
NEBULIZING APPARATUS
John W. Dorsak, Lyndhurst, and Thomas F. Van Denberg, Chagrin Falls, Ohio, assignors to The Gordon Armstrong Company, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 12, 1957, Serial No. 639,662
4 Claims. (Cl. 299—86)



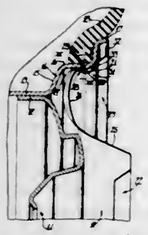
1. Nebulizing apparatus including a substantially cup-shaped receptacle for containing a reservoir of liquid to be nebulized, a removable head assembly carrying the entire nebulizing mechanism and designed to fit in an open end of the cup-shaped receptacle, said head having an outlet opening, an aspirating nozzle carried by the head assembly pointed into the receptacle and having a passage for the travel of a first gas therethrough, means to conduct liquid from said reservoir to the aspirating nozzle under the action of said travel of the gas to discharge into the receptacle a nebulized stream of globules of the liquid in the gas, an inlet opening provided in the removable head assembly to admit a second gas induced into the receptacle by the action of the nozzle to dilute the first gas in the receptacle, and a baffle supported by said head assembly below the nozzle and in the path of said stream, said baffle having a spherical surface against which the stream impinges to distribute the nebulized globules throughout the container and allow the finer globules to pass together with said first and second gases through the outlet opening of the head and to allow the heavier globules to gravitate back to the liquid reservoir to be renebulized.

2,840,418
TRACTOR WHEEL SPACING MEANS
George W. Findley and Andrew Blaauw, Birmingham, Mich., assignors to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application September 30, 1953, Serial No. 383,262
2 Claims. (Cl. 301—9)



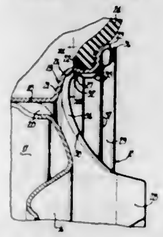
1. In a vehicle wheel, a disk-like body part having its circumference formed as a single turn helix, the ends of said helix terminating in radially extending and axially spaced thrust surfaces, a rim part, and means for operatively mounting said rim part on said body part in rotatable and axially shiftable relation thereto, said means comprising a series of guide elements secured on said rim part and disposed transversely of the plane of said rim part, said guide elements being respectively provided with a series of spaced slots adapted to threadably receive the circumferential helix portion of said body part to thereby permit adjustment of said rim part to different positions laterally of said body part upon relative rotation of said body part and said rim part, and a releasable lock operative to secure said body part and said rim against rotary displacement relative to each other, said lock comprising a pair of box-like body parts, said body parts being respectively provided with oppositely directed thrust surfaces adapted to abut said thrust surfaces of said helix, and lug portions extending from said body parts and adapted to fit within said slots of said guide elements, and means for securing said lock in clamping engagement with said thrust surfaces and said slots.

2,840,419
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application June 8, 1955, Serial No. 513,953
10 Claims. (Cl. 301—37)



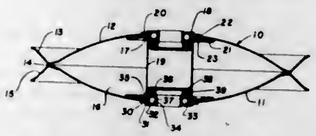
1. In a wheel structure including a stepped tire rim and body parts with the rim having a generally axially and radially outwardly inclined flange having an axially and radially inwardly inclined lead-in surface merging with a plurality of circumferentially spaced U-shaped cover retaining shoulders extending generally radially inwardly thereof, a cover including relatively rigid inner and outer cover portions joined together by a plurality of elongated resiliently deflectable spoke-like elements capable of being progressively cammed over said lead-in surface and thereafter lodged behind said retaining shoulder in snap-on, pry-off engagement with the wheel, said elements being of a generally U-shaped longitudinal cross section at the inner end thereof, a generally W-shaped cross section at the junction of said elements behind said cover retaining shoulders, and a generally U-shaped longitudinal cross section at the outer end thereof in order to be capable of being nestingly engaged over said shoulder to insure co-rotation of the wheel and cover, said elements being normally of a diameter slightly larger than the inside diameter of said flange to permit tensioned cover retaining engagement behind said retaining shoulder.

2,840,420
WHEEL COVER
George Albert Lyon, Detroit, Mich.
Application June 8, 1955, Serial No. 513,954
12 Claims. (Cl. 301—37)



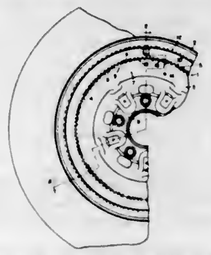
1. In a wheel structure including body and rim parts provided with a cover retaining shoulder, a cover to be disposed on the wheel having a plurality of generally radially projecting circumferentially spaced resilient spoke-like cover retaining elements of generally V-shaped longitudinal configuration, said elements being capable of retaining said cover on said wheel when stressed into bottomed engagement in said cover retaining shoulder, each of said elements being spaced from one another and each element including an individual set of generally radial at least slightly arcuate, spaced edges for biased engagement behind said shoulder and to provide means for facilitating co-rotation of the cover and wheel.

2,840,421
WHEEL STRUCTURE AND BEARING MEMBER FOR USE IN SAME
Alex Paul, Elmwood Park, Ill., assignor to Radio Steel & Mfg. Co., Chicago, Ill., a corporation of Illinois
Application March 31, 1955, Serial No. 498,149
1 Claim. (Cl. 301—63)



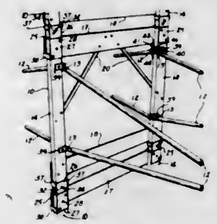
In a wheel structure of the type described having a pair of facing disc members having outwardly bowed central portions with aligned bearing openings therein through which the shaft extends for rotatably mounting the wheel and a sleeve member extending crosswise through the openings between the disc members for receiving the bearing members in the ends thereof, a bearing member comprising a cylindrical housing having a diameter corresponding to the inner wall to wall dimension of the sleeve, an annular flange extending outwardly from the forward end portion of the cylindrical housing and an annular flange extending inwardly from the end portion of the cylindrical housing to a distance to form an opening slightly greater than the diameter of the shaft upon which the wheel is adapted to be rotatably mounted, a sleeve section located within the cylindrical section having an inner diameter corresponding to the diameter of the shaft and having a flange extending outwardly from the inner end portion of the sleeve into a closely spaced relation with the inner wall of the cylindrical housing, said sleeve section being dimensioned to have a length to define a race between the flanged sleeve and the flanged end portion of the housing, ball bearings located within the race for permitting free rotational movement between the sleeve section and the housing, the length of the housing being substantially greater than the length of the flanged sleeve for engaging the wheel sleeve through a greater length thereof, and a spacer dimensioned to take up the greater length of the housing and means for confining the spacer and flanged sleeve section within the housing.

2,840,422
WHEEL
John A. Main, Birmingham, and Charles W. Sinclair, Detroit, Mich., assignors to Kelsey-Hayes Company, a corporation of Delaware
Application March 7, 1955, Serial No. 492,671
11 Claims. (Cl. 301—63)



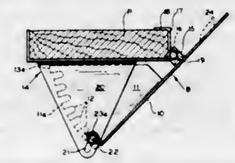
1. A vehicle wheel comprising a tire rim and a wheel body spot welded in angularly spaced regions to said tire rim, said wheel body having a web and peripheral transverse flange portions at said regions and said wheel body being formed with openings between the spot welds and at the web sides of the spot welds for controlling the direction of transmission of bending stress to the spot welds and reducing the bending stress upon the spot welds.

2,840,423
KNOCK-DOWN SCAFFOLD
Lloyd E. Dempsey, Portland, Oreg.
Application June 5, 1956, Serial No. 589,504
1 Claim. (Cl. 304—2)



In a scaffold, a rectangular unitary end frame comprising a pair of legs, each leg being a single wooden member of rectangular cross section, a lower horizontal cross member connected at its ends to said legs at a distance from the lower ends of the legs, an upper wooden horizontal cross member of rectangular cross section connected at its ends to the upper ends of said legs, the top edge of said upper cross member being flush with the top ends of said legs and the ends of said upper cross member being flush with the outer edges of said legs, both of said cross members being rigidly and permanently connected with said legs; a double socket connector on the upper end of each leg comprising a horizontal seat plate overlying the top end of the leg and the top edge of said upper cross member, a pair of parallel depending side plates on opposite lateral sides of said seat plate extending downward over the vertical faces of said leg and cross member, a pair of upstanding side plates on said seat plate parallel with said depending side plates and spaced apart a distance equal to the thickness of the leg to receive the lower end of another end frame leg, web plates interconnecting the vertical edges of said upstanding side plates to form a socket for said other end frame leg, all of said plates being integrally connected together in a rigid unit; a plurality of bolts rigidly and permanently connecting said depending plates to said leg and upper cross member, and quick releasable means for detachably connecting said upstanding plates to the lower end of said another end frame leg.

2,840,424
SHINGLING BRACKETS
Owen Broderick, Saginaw, Mich.
Application September 9, 1955, Serial No. 533,466
2 Claims. (Cl. 304—20)

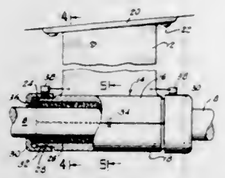


1. A shingling bracket for supporting a portion of a scaffold plank in horizontal disposition above a pitched roof surface comprising; a base plate adapted to be secured on said surface with its front end upward; a vertical segment on said plate having a curved rearward facing edge with circumferentially spaced notches therein defining a plurality of vertically spaced teeth; a plank supporting member hinged to said base plate intermediate its ends having a dependent section with a wall generally parallel to and alongside said segment; said wall having an elongated slot disposed to generally register with said notches when the plank supporting attachment is pivoted and said section swings said slot in an arc past said notches, with the slot having also an outer portion outward of said notches when the slot is registering therewith; clamping means extending transversely through said slot, in one position in said slot being accommodatable by one of said notches, and in another position being outward of the notches so that it is free thereof to permit adjustment of said section in an arc to register the slot with another notch; the slot being angularly disposed relative to the notches so that its top marginal edge restricts the mouth of the notch in which the securing means is disposed and prevents the clamping means from moving out of the said latter notch and the said section from pivoting downwardly even though the clamping means be relatively loose.

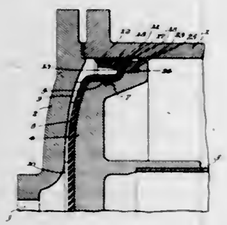
2,840,425
SPLIT SLEEVE BEARING
Kenneth L. Howell, West Palm Beach, Fla.
Application January 7, 1954, Serial No. 402,649
2 Claims. (Cl. 308—27)

1. A self-lubricating ship propeller-shaft bearing assembly which can be disengaged from the shaft without axial sliding or movement of shaft relative to bearing,

said bearing assembly comprising a shaft, a first longitudinally split-in-half tubular member encircling a portion of said shaft, a fixed supporting strut attached to said member, a second split-in-half tubular member mating with the first and enclosing an annular packing space around said shaft, said members being completely separable from each other from around said shaft without axial movement relative to said shaft, at least one common end of said members being engageable by a surrounding cap adapted to hold said members in encircling relation around said shaft, an integral tubular cap axially slidable along said shaft and engaging a common end of said members to hold them in shaft encircling relation, and a strand of self-lubricating packing material wound in a spiral around said shaft in said packing space and held closely around said shaft in said space by compression of said cap.

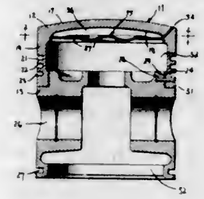


2,840,426
PISTON PACKINGS
Franz Anton Salansky, Vienna, Austria, assignor to Technica Establishment, Vaduz, Principality of Liechtenstein
Application August 16, 1954, Serial No. 450,013
4 Claims. (Cl. 309—4)



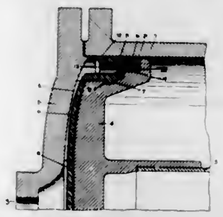
1. A packing for use with a piston slidable in a cylinder, said packing comprising means for attaching it over the pressure receiving end of the piston, a flange-like portion projecting substantially radially outwardly from said attaching means, and a peripheral flange on the outer periphery of said flange-like portion extending in the axial direction of said flange-like portion in both directions from said flange-like portion, the part of said peripheral flange extending toward the direction from which pressure is to be applied to said packing being flared outwardly, and the part of said peripheral flange extending away from the direction from which pressure is to be applied having an outer diameter less than the average diameter of the outwardly flared part of said peripheral flange when said outwardly flared part is under pressure, said peripheral flange having a groove in the outer surface thereof between the parts, said packing being resilient such that when pressure is applied thereto the part of said peripheral flange extending in the direction away from the direction in which pressure is to be applied continues to have a diameter less than the average diameter of the outwardly flared part.

2,840,427
PISTON
John Dolza, Davisburg, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 10, 1955, Serial No. 514,648
4 Claims. (Cl. 309—21)



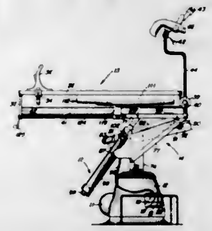
1. A piston for a diesel-type engine which comprises a head portion having inner and outer faces, a skirt having wrist pin bearings formed therein, said head being formed of a material less conductive of heat than the skirt, and an imperforate diaphragm member mounted in said head proximate the inner face intermediate said inner face and said wrist pin bearings, and a shoulder circumscribing said inner face adapted to receive said diaphragm, said diaphragm and inner face coacting to define a closed insulating chamber adapted to reduce the loss of heat from said inner face, the pressure within said chamber exceeding that within the remainder of the head during normal operating conditions.

2,840,428
PACKING FOR PISTONS
Bert Henry Browall, Malmo, Sweden, assignor to Technica Establishment, Vaduz, Principality of Liechtenstein
Application June 4, 1956, Serial No. 589,266
9 Claims. (Cl. 309—23)



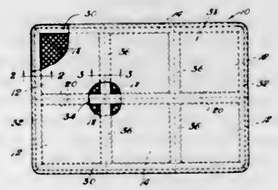
1. In combination, a cylinder, a piston operating in said cylinder and having a pressure side and a non-pressure side, a packing for said piston, being of elastic, resilient material and comprising an annular portion engaging said piston for retaining said packing on said piston, a peripheral flange forming a sealing lip in contact with the wall of said cylinder, and a portion extending substantially in a plane at right angles to the axis of said cylinder and piston and joining said peripheral flange and said annular retaining portion of said packing, and a resilient cushion yieldingly backing up said peripheral flange and said joining portion of said packing axially at the non-pressure side thereof and disposed in spaced relation to the wall of said cylinder in a circumferential recess provided in said piston and occupied only partially by said cushion and intended to be filled up for the rest with cylinder wall lubricant for obtaining extrusion of such lubricant from and suction of such lubricant into said recess along the wall of said cylinder at the non-pressure side of said piston on axial yielding and expansion, respectively, of said cushion in said recess.

2,840,429
MEDICAL EXAMINATION, OPERATING AND X-RAY TABLE
Robert L. McDonald, Rochester, N. Y., assignor to Ritter Company, Inc., Rochester, N. Y., a corporation of Delaware
Application October 1, 1953, Serial No. 383,518
9 Claims. (Cl. 311—6)



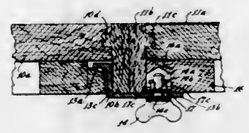
1. A medical examination table comprising, in combination, a table having a planar surface upon which the patient may recline, a leg and foot rest, means for slidably supporting said leg and foot rest, means for slidably supporting said leg and foot rest beneath said planar surface, said leg and foot rest being in an extended position when it is desired to place the patient in an essentially upright position, hydraulic means for raising and lowering said planar surface, means for tilting said planar surface about a movable horizontal transverse axis, and means independent of said hydraulic means for raising said planar surface simultaneously with its tilting so that the leg and foot rest does not strike the floor when in an extended position.

2,840,430
PANEL CONSTRUCTION HAVING A CELLULAR CORE
Ephraim Winer, Baltimore, Md., assignor to The National Plastic Products Company, Odenton, Md., a corporation of Maryland
Application November 28, 1952, Serial No. 322,906
21 Claims. (Cl. 311—106)



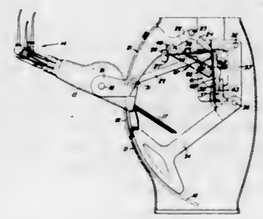
1. In a panel construction, a plurality of molded plastic cores, each of said cores comprising a cellular body, said cellular body including a bottom sheet and a series of vertical walls formed integral with said bottom sheet, said bottom sheet projecting outwardly beyond said cellular body to form a shelf-like portion, outer frame members defining the outer margins of said panel construction and engaging the outside edges of said cores, inner frame members engaging the inside edges of said cores, said inner and outer frame members securing said cores together, and a top member secured to said cores and forming the upper surface of said panel construction.

2,840,431
MODULAR OFFICE WORK SPACE AND PARTITION STRUCTURE
Steve G. Budai, Cincinnati, Ohio, assignor, by mesne assignments, to The Globe-Wernicke Co., a corporation of Ohio
Original application November 14, 1951, Serial No. 256,207, now Patent No. 2,708,292, dated May 17, 1955. Divided and this application March 10, 1955, Serial No. 493,589.
2 Claims. (Cl. 312—111)



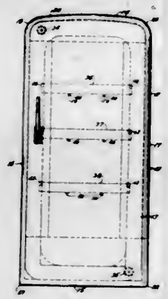
2. In a modular office work space structure in combination with a desk and a table unit, a separable fastening device for securing said units together, said device comprising a sheet metal member having an offset parallel flange, a bayonet slot in the underside of one of said units through which said flange extends, a key secured to said member and having a diametrically projecting engaging pin, an aperture for the passage of said key in the other of said units, and diametrically opposed rigid cam members beyond said aperture for engagement by said engaging pin upon rotation of said key, to draw said units tightly together.

2,840,432
SAFETY DEVICE FOR DENTAL UNITS
Norman E. Lauterbach, Pittsford, N. Y., assignor to Ritter Company, Inc., Rochester, N. Y., a corporation of Delaware
Application October 20, 1955, Serial No. 541,642
6 Claims. (Cl. 312—209)



1. In a medical equipment stand the combination of an electric motor and an instrument holder, means interconnecting said motor and holder for projecting the holder from a position within the equipment stand to an external position with respect thereto, means including a manually operated switch for initiating the operation of the motor and a "make" and "break" toggle in said interconnecting means for protecting the motor should it become overloaded, said toggle including two elements pivoted to each other one of which is connected to the motor and the other of which is connected to the holder, a stop between said members, a spring for normally holding one of said members against said stop and in a beyond dead center position and means including said motor for throwing said member away from said stop and to the other side of the dead center position should the motor become overloaded.

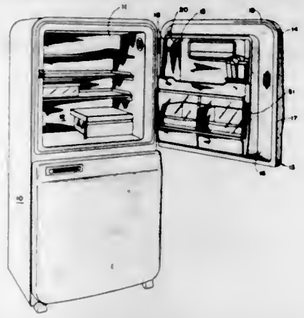
2,840,433
REFRIGERATOR DOORS AND DOOR SHELVES
William E. Richard and Thomas G. Scheitlin, Evansville, Ind., assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application August 11, 1954, Serial No. 449,062
1 Claim. (Cl. 312—214)



A refrigerator cabinet door panel which is outwardly bowed from the cabinet and inwardly recessed for shelves, and which comprises an integral insulating panel of sheet material adapted to cover the inside of a refrigerator door, said panel removably supporting a plurality of shelf units extending into the recess of said panel and projecting oppositely toward the cabinet, each shelf unit having an apertured bottom wall, a side wall and two end walls, the bottom wall and end walls conforming to the curvature of the panel, said shelf units carrying a plurality of rigid supporting lugs having bodies projecting through lug apertures in the panel while the unit engages the front of the panel, each lug having a hook-shaped end engaging the back of the panel adjacent each lug aperture, the lug apertures being of such length and clearance vertically that the hook-shaped ends may pass through the lug apertures, there being a pair of lugs, one at each end wall of the shelf near the top thereof, with an upwardly extending hook, and there being another pair of lugs carried by the bottom wall of the shelf intermediate the shelf ends, each having a downwardly extending hook, the said lug apertures being located in alignment with the bodies of said lugs with the vertical clearance of each lug aperture extending oppositely to the hook end of its lug, the said shelf unit being resilient and bendable centrally to permit one pair of lugs to be inserted and hooked in their apertures upwardly, and thereafter bending the shelf until the other pair of lugs have their hooks passed through their apertures, the latter lugs springing down with the straightening of the shelf, until the two pairs of hooks are oppositely secured in the panel.

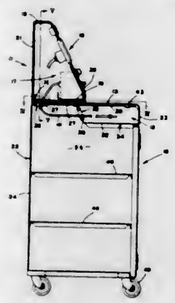
2,840,434
REFRIGERATOR INNER DOOR STRUCTURE
Robert E. Moore, Whittier, Calif., Warren R. Bower, Evansville, Ind., and Robert D. Strub, Coralville, Iowa, assignors to Amana Refrigeration, Inc., Amana, Iowa, a corporation of Iowa
Application February 13, 1956, Serial No. 564,924
4 Claims. (Cl. 312—214)

1. In a refrigerator door, an outer shell, an inner pan having a backwall and inwardly extending marginal flanges, a breaker frame extending between said shell and said pan and having portions projecting inward from the side flanges of said pan defining therewith a compartment of less height than said pan and of materially greater depth than the remainder thereof, and a shelf in said compartment secured to the side flanges and the back wall of said pan, said shelf extending inwardly beyond the side flanges of said pan and being secured to said inwardly projecting portions of said breaker frame, said shelf providing reinforcement for said backwall and side flanges and inwardly projecting portions effective for re-



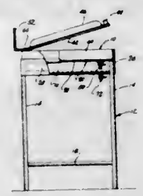
straining them against movement inwardly and outwardly of said pan.

2,840,435
CABINET STRUCTURE FOR A TESTING APPARATUS
Byron F. Campbell, Kalamazoo, Mich., assignor to Allen Electric & Equipment Company, Kalamazoo, Mich., a corporation of Michigan
Application March 5, 1956, Serial No. 569,560
2 Claims. (Cl. 312—279)



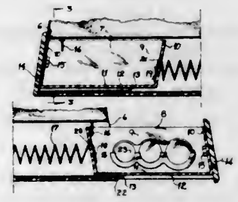
1. A base structure for use with a testing apparatus having an instrument panel and a plurality of elongated, flexible leads extendable therefrom, comprising: a cabinet having front, rear and side walls; a top plate on said cabinet, said top plate having a large opening therethrough adjacent said front wall and having a series of ports therethrough adjacent said rear wall; partition means including portions of said front and side walls defining a plurality of upwardly opening, substantially parallel compartments within the upper portion of the cabinet below said large opening; means defining ports through the rear walls of each of said compartments, said ports in said compartments being aligned with the ports in said top plate; a slidable cover plate for closing said large opening, said cover plate being slidably mounted on top of said top plate and being adapted to slide toward said rear wall to expose said large opening; means adjacent the ports in said top plate for blocking movement of said cover plate toward said rear wall before said cover plate overlies said ports in said top plate; means for supporting said testing apparatus on said cabinet above said top plate and spaced vertically from said cover plate so that said cover plate may slide freely thereunder, each of the leads from said testing apparatus being extendable, respectively, through a port in said top plate and through an aligned port in one of said compartments.

2,840,436
MULTI-VAT CHICKEN FRYER
Jesse B. Mason, Cheyenne, Wyo.
Application February 25, 1955, Serial No. 490,476
1 Claim. (Cl. 312—284)



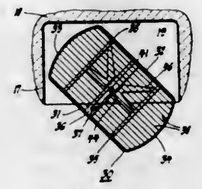
In a chicken fryer, a supporting frame; at least one compartment mounted in said frame and opening upwardly in the top of the frame, a splash pan secured to the frame at the top thereof and extending along the back end of the compartment, said splash pan being of a right-angular cross section, and including a vertical leg and a horizontal leg projecting forwardly from the lower edge of the vertical leg and fixedly secured to the frame; and a cover for said compartment having a hinge connection to the frame extending along the forward edge of the horizontal leg in the plane of said horizontal leg, said cover including a flat marginal part disposed in the plane of the horizontal leg in the closed position of the cover, and a central dome portion extending above said plane a distance substantially equal to the distance between the forward edge of the horizontal leg and juncture of said legs, whereby said cover may be swung upwardly to an open position slightly beyond the vertical with the dome portion engaged against the vertical leg of the splash pan to limit movement of the cover beyond said open position thereof, said dome portion having a flat top surface extending in area over the major part of the area of the dome portion, said top surface lying wholly in a plane parallel to the plane of the marginal part, said plane of the top surface being inclined from the vertical when in engagement with the splash pan, and engaging the splash pan along the top edge portion of the splash pan in the raised position of the cover.

2,840,437
POCKET BOOK STRUCTURE
Hyam Cohen, Rochester, N. Y.
Application October 4, 1954, Serial No. 460,207
5 Claims. (Cl. 312—319)



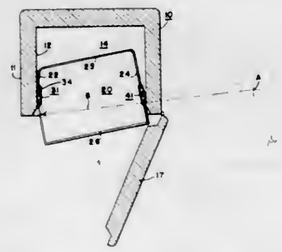
3. In a hand-bag of the type described, a compartment comprising a rectangular open ended shell, a slidable tray positioned at each end of said shell, said trays having end walls and a bottom with plates forming the outer end walls extending beyond the edges of the shell, a helical spring with means securing its ends one on each to the inner end walls of said trays, whereby the trays are normally tensioned in a closed position within the shell, and means for locking said trays in an open position against the tension of said spring means.

2,840,438
ADJUSTABLE REFRIGERATOR SHELF
Verlos G. Sharpe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 19, 1957, Serial No. 673,014
10 Claims. (Cl. 312—322)



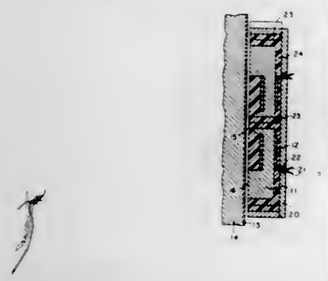
6. In combination, a cabinet having a compartment therein, a plurality of vertically spaced apart shelves in said compartment, means for supporting said shelves within said compartment, said means including a stationary jack-screw provided with a bracket thereon and having one of said shelves slidably interlocked with said bracket, said one shelf being slidable relative to said bracket and said jack-screw independently of other of said plurality of shelves in a straight line horizontal direction part way out of said compartment, and said one shelf also being rotatable while slid outwardly of said compartment whereby to thread said bracket interlocked thereto along said jack-screw for raising and/or lowering the one shelf relative to said other shelves.

2,840,439
REFRIGERATOR SHELF
Verlos G. Sharpe, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 8, 1956, Serial No. 614,627
13 Claims. (Cl. 312—351)



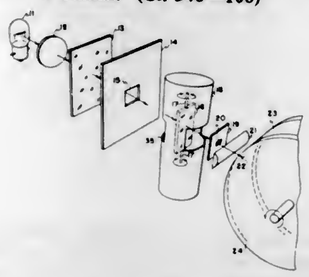
12. The combination with a cabinet having a compartment therein provided with an access opening and a door normally closing said opening which comprises, a shelf, means for mounting said shelf within said compartment, one side only of said shelf being curved from a point adjacent the front thereof toward its back about an arc having its axis located outside the boundary of said cabinet, said mounting means including a stationary means supporting said curved side of the shelf for sliding movement outwardly of said compartment when said door is opened, and said mounting means also including a means both pivotally and slidably supporting the side of said shelf opposite its curved side for causing the shelf to be rotated simultaneously with sliding thereof about said outside axis.

2,840,440
MAGNETIC RECORDING AND PICKUP SYSTEM
Donald J. McLaughlin and Frederick R. Fluhr, Washington, D. C.
Application October 7, 1953, Serial No. 384,804
5 Claims. (Cl. 346—74)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a magnetic recording-reproducing system a relatively thin magnetic record element, said record element being of a magnetic material of high reluctance and high coercive force, a bipolar recording-reproducing electromagnet having both pole faces situated on one side of the record element in close proximity to the adjacent surface of the latter and spaced therefrom not more than one-fiftieth of an inch, said pole faces being spaced apart a distance at least 50 times the thickness of the record element to provide a high reluctance path between the pole faces through the record element, and a low-reluctance base element having a thickness of at least that of the record element, said base element having a face situated on the other side of said record element in direct contact therewith and in overlapping relation to the space between the pole faces.

2,840,441
RECORDING ELECTRICAL SIGNALS WITH POLARIZED LIGHT
Herbert E. Owen, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application November 10, 1954, Serial No. 468,031
2 Claims. (Cl. 346—108)



1. An optical system for making a photographic record of an electrical transient which comprises means furnishing a beam of polarized light, a moving coil galvanometer, a sheet polarizer rotatably supported by said galvanometer wherein the axis of polarization of said sheet polarizer is arranged at an angle of about 45° from the axis of rotation of said galvanometer and at an angle of about 90° from the direction of polarizaiton of said beam of polarized light, and with said sheet polarizer being further characterized in being supported in the at-rest position of said galvanometer at an angle of approximately 30° out of the plane normal to said polarized light beam, whereby rotation of said galvanometer in one direction will increase, and rotation in the opposite direction will decrease, the amount of light transmitted through said sheet polarizer, a light barrier placed in the path of light passing through said sheet polarizer, said barrier having an aperture of selected size and shape in said light path, and means for moving a photographic medium past the aperture beyond the light barrier at a predetermined speed.

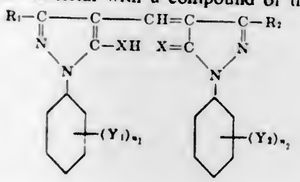
CHEMICAL

2,840,442
TREATMENT OF CELLULOSIC YARNS BY RUBBERY MATERIALS, AND TEXTILES THEREOF
Edward Abrams, Birmingham, Ala., and Neil H. Sherwood, Avon Lake, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
No Drawing. Application March 1, 1954
Serial No. 413,420
18 Claims. (Cl. 8—18)

1. The method of treating predominantly cellulose containing yarn to improve its abrasion resistance, to improve its resistance to crocking and bleeding when dyed and to reduce its shed loss which comprises applying to said yarn an aqueous dispersion containing from 3 to 55% by weight of solids of a rubbery material selected from the group consisting of a polymer of a diene monomer and a nitrile monomer and a polymer of a diene monomer and a nitrile monomer with up to 35% by weight of said second named polymer of a copolymerized monomer selected from the group consisting of styrene, chlorostyrene, methacrylic acid, methyl acrylate, methyl methacrylate, ethyl acrylate, ethyl methacrylate, 2-vinyl pyridine, methyl vinyl ketone and vinylidene chloride, said diene being an open chain conjugated diene hydrocarbon having from 4 to 8 carbon atoms and being present in said polymers in an amount of from 35 to 90% by weight and said nitrile being selected from the group consisting of acrylonitrile, methyl acrylonitrile, ethyl acrylonitrile and chloroacrylonitrile and mixtures thereof, to deposit from above 2 to 20% by weight of said solids on said yarn and drying said yarn containing said solids to a total moisture content of not more than about 5% by weight, to coagulate, set and obtain a discontinuous coating of said rubbery material on said yarn.

2,840,443
USE OF METHYLIDYNE BIS PYRAZOLONES FOR DYEING
Carl M. Smith, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application August 5, 1954
Serial No. 448,133
17 Claims. (Cl. 8—55)

1. A process comprising dyeing synthetic polymeric thermoplastic material with a compound of the formula



wherein R_1 and R_2 are selected from the group consisting of lower aliphatic and monocyclic aromatic radicals, X is selected from the group consisting of O and S, Y_1 and Y_2 are selected from the group consisting of hydrogen, halogeno, lower alkoxy, lower alkyl, and sulfonamido, and n_1 and n_2 are integers from 1 to 2, dispersed in a liquid medium.

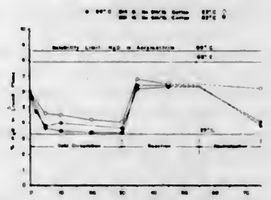
2,840,444
PROCESS FOR THE PRODUCTION OF COMPLEX COPPER COMPOUNDS OF DIRECT-DYEING DYESTUFFS ON THE FIBER
Emil Kraehenbuehl, Basel, Switzerland, assignor to Ciba Limited, Basel, Switzerland
No Drawing. Application October 4, 1954
Serial No. 460,260
Claims priority, application Switzerland October 13, 1953
3 Claims. (Cl. 8—72)

1. A process for producing complex copper compounds of direct-dyeing metallizable azo dyestuffs on the fiber, which comprises printing cellulosic fibers with a printing paste containing a direct-dyeing metallizable azo dyestuff of which the complex copper compound is sparingly soluble to insoluble in water and containing cuprous thiocyanate.

2,840,445
PROCESS OF RETANNING MINERAL TANNED LEATHER WITH RESORCINOL-FORMALDEHYDE
Douglas K. Severn, Norwich, Conn., assignor to Koppers Company, Inc., a corporation of Delaware
No Drawing. Application June 9, 1954
Serial No. 435,599
12 Claims. (Cl. 8—94.21)

1. A process for simultaneously retanning and increasing the shrink temperature of mineral pre-tanned leather comprising the steps of wetting said leather with water in excess of the amount said leather will absorb, draining said leather, intimately admixing said leather with resorcinol in an amount of approximately 2 to 5 percent based on the wrung out leveled weight of said pre-tanned leather, thereafter contacting the admixture of wet leather and resorcinol with formaldehyde in an amount of from approximately 1.5 to 3.0 moles per mole of said resorcinol, and establishing and maintaining the pH of said system in the range of approximately 6.0–7.5 until the supply of resorcinol and formaldehyde in the liquid present in said system is exhausted, the resulting retanned leather being capable of withstanding shrinkage in boiling water.

2,840,446
PROCESS OF CYANOETHYLATING NATIVE COTTON FIBERS WITH AN AQUEOUS EMULSION OF SODIUM HYDROXIDE AND ACRYLONITRILE
Jack Compton, Charlottesville, Va., and Catesby Perriman Jones, Bethesda, Md., assignors to Institute of Textile Technology, Charlottesville, Va., a corporation of Virginia
Application October 10, 1955, Serial No. 539,486
6 Claims. (Cl. 8—120)



1. The process of treating native cotton fibers to effect but a partial cyanoethylation of the cellulose and retain the natural physical structure of the cellulose which comprises circulating in contact with said fibers an emulsion of an aqueous solution of sodium hydroxide in acrylonitrile at a temperature of from about 24° C. to 93° C. and in which the ratio of sodium hydroxide to cotton by weight varies from 0.005 to 0.100, and continuing the circulation until the cotton is combined with such an amount of acrylonitrile that the nitrogen content thereof varies for different reaction conditions from 0.5% to 6.5% based on the weight of the cyanoethylated cotton.

2,840,447
PROCESS FOR PREPARING FILAMENTS FROM DISPERSIONS CONTAINING GRAFT POLYMERS OBTAINED FROM ETHYLENICALLY UNSATURATED MONOMERS
Duane L. Green, Potsdam, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 28, 1954
Serial No. 426,281
7 Claims. (Cl. 18—54)

1. The process of preparing filaments which comprises forming a dispersion of a polymer in particulate form by polymerizing an ethylenically unsaturated monomer in an aqueous medium, adding to the said dispersion after polymerization of the monomer is substantially complete but while the resultant polymer is still in the nascent state, a second ethylenically unsaturated monomer to obtain a particulate dispersion of a copolymer of the two said monomers, adding to the resultant dispersion a settable matrix-forming material which is soluble in the said dispersion, extruding the dispersion through a spinneret into a medium which precipitates the said matrix-forming material by rendering it insoluble, and thereafter coalescing the particles of the copolymer embedded in the matrix-forming material by contacting the same with a fluid which has a solvent action on the copolymer particles.

2,840,448
METHOD OF PRODUCING ALL SKIN RAYON
Byron A. Thumm, Prospect Park, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application June 29, 1955
Serial No. 518,932
7 Claims. (Cl. 18—54)

1. In a method of producing shaped bodies of regenerated cellulose consisting substantially entirely of skin, the step which comprises extruding viscose into an aqueous spinning bath in the presence of a small amount of monoaminopyridine, the bath containing from about 10% to 25% sodium sulfate, from about 3% to 15% zinc sulfate and sulfuric acid, the sulfuric acid content of the spinning bath exceeding the slubbing point but not exceeding about 9%.

2,840,449
METHOD OF PRODUCING ALL SKIN RAYON
Marion R. Lytton, West Chester, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application June 29, 1955
Serial No. 518,988
2 Claims. (Cl. 18—54)

1. In a method of producing shaped bodies of regenerated cellulose consisting substantially entirely of skin, the steps which comprise adding to and incorporating in viscose from about 0.5% to about 4%, based on the weight of the cellulose, of B-hydroxyethyl hydrazine, and extruding the viscose into an aqueous spinning bath containing from about 10% to 25% sodium sulfate,

from about 3% to 15% zinc sulfate and sulfuric acid, the sulfuric acid content of the bath exceeding the slubbing point but not exceeding about 9%.

2,840,450

PROCESS FOR SEPARATING AND RECOVERING CARBON DIOXIDE FROM GASEOUS MIXTURES

Giuseppe Giammarco, Porto Marghera, Italy, assignor to S. p. A. "Vetrocoke," Turin, Italy

No Drawing. Application December 6, 1955
Serial No. 551,196
Claims priority, application Italy December 6, 1954
4 Claims. (Cl. 23—2)

1. In a method of removing carbon dioxide from a gaseous mixture containing it which comprises the steps of bringing said gaseous mixture into contact with an aqueous solution of an alkaline absorbent for said carbon dioxide selected from the group consisting of aliphatic amino alcohols and carbonates, phosphates, borates, monovalent phenolates and polyvalent phenolates of a member of the group consisting of sodium, potassium and ammonium to effect absorption of said carbon dioxide, and regenerating said aqueous solution after contact with said gaseous mixture by heating to expel absorbed carbon dioxide, the further step which comprises incorporating in said first-named solution before contact with said gaseous mixture, an absorption activating agent selected from the group consisting of selenious acid, tellurous acid and their alkali metal salts.

2,840,451

SEPARATION OF INORGANIC SALTS FROM ORGANIC SOLUTIONS

Leonard I. Katzin, Plainfield, and James C. Sullivan, Downers Grove, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application September 20, 1951
Serial No. 247,556
10 Claims. (Cl. 23—14.5)

1. The process of recovering nonionized salts selected from the group consisting of uranyl nitrate, plutonium nitrate and a mixture of uranyl nitrate and plutonium nitrate from solutions in an organic oxygen-containing solvent selected from the group consisting of ketones, alcohols and ethers, consisting of contacting said solutions with a strong-base quaternary ammonium type anion exchange resin whereby sorption of the salt on the resin takes place, and separating the resin from a salt-depleted liquid.

2,840,452

RECOVERY OF URANIUM FROM PITCHBLENDE

Archie E. Ruehle, Kirkwood, Mo., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 12, 1951
Serial No. 231,263
10 Claims. (Cl. 23—14.5)

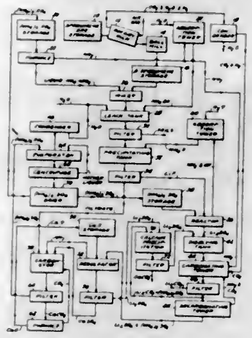
1. The process of recovering uranium from pitchblende ore, which comprises digesting pitchblende ore in an acidic medium containing nitric acid, separating the digest liquor from undissolved material, reducing the acidity of the liquor to a value between 0.5 and 2 N nitric acid, adding a polyhydric alcohol selected from the group consisting of mannitol, sorbitol and mixtures of mannitol and sorbitol in an amount at least several times the weight of molybdenum present in the aqueous solution, contacting the resulting solution with a substantially water-immiscible ether, and separating an ether extract phase containing uranyl nitrate from an aqueous phase containing a molybdenum complex of said polyhydric alcohol.

2,840,453

METHOD OF PRODUCING LITHIUM

Thiel E. Dwyer, Passaic, N. J., assignor to Tholand, Inc., New York, N. Y., a corporation of New York

Application December 2, 1953, Serial No. 395,740
5 Claims. (Cl. 23—32)



4. The method of producing refined lithium carbonate which comprises the following steps: (1) sulphating spodumene ore to convert the lithium content thereof to lithium sulphate, (2) extracting the sulphated ore with an aqueous ammoniacal leaching agent, (3) treating the leach liquor with ammonium fluoride to precipitate lithium fluoride therefrom, (4) separating the precipitated lithium fluoride and heating it with ammonium sulphate to form lithium sulphate and evolve ammonia and hydrogen fluoride, (5) dissolving the thus formed lithium sulphate to form an aqueous solution thereof and treating said solution with carbon dioxide and ammonia to precipitate a part of the lithium content thereof as normal lithium carbonate and to form a liquor containing lithium sulfate and ammonium sulfate, (6) separating the precipitated lithium carbonate from said liquor, (7) heating the liquor to evolve carbon dioxide and ammonia, (8) treating the liquor with calcium oxide to precipitate a portion of the sulphate content thereof as calcium sulphate and evolve ammonia therefrom, (9) separating the precipitated calcium sulphate from the resulting liquor, (10) recycling the liquor from step (9) as the medium for dissolving the lithium sulphate formed in step (4), (11) recycling the ammonia and carbon dioxide evolved in step (7) and using it to treat the lithium sulphate solution in step (5) and (12) reacting the ammonia and hydrogen fluoride evolved in step (4) to form ammonium fluoride for treating the leach liquor in step (3).

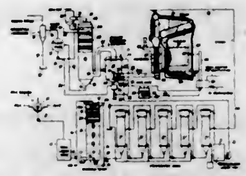
2,840,454

METHOD AND APPARATUS FOR RECOVERING HEAT AND CHEMICALS FROM THE RESIDUAL LIQUOR RESULTING FROM THE DIGESTION OF CELLULOSIC FIBROUS MATERIAL IN AN ALKALINE LIQUOR

George H. Tomlinson, Montreal, Quebec, and George H. Tomlinson II, Cornwall, Ontario, Canada, assignors to Howard Smith Paper Mills, Limited, Montreal, Quebec, Canada, a company of Canada

Application January 10, 1946, Serial No. 640,360
14 Claims. (Cl. 23—48)

1. The method of recovering heat and chemicals from the residual liquor resulting from the digestion of cellulosic fibrous material in an alkaline cooking liquor which comprises concentrating the residual liquor and absorbing gaseous sulphur oxides therein by a direct intimate contact of the residual liquor with hot flue gases containing gaseous sulphur oxides and chemical fume particles, centrifugally separating residual liquor entrained in the flue gases as a result of said liquor-gas contact from the flue gases, passing the flue gases after centrifugally separating substantially all of the residual liquor therefrom through a fume recovery zone in intimate contact with a recirculated aqueous liquid, withdrawing the recovered fume from the fume recovery zone in said aqueous liquid, adding make-up water to the aqueous liquid, concentrating the aqueous liquid containing the recovered fume, mixing the concentrated aqueous liquid with the residual liquor before incineration thereof, and incinerating the concentrated residual liquor to recover inorganic chemicals therefrom and to generate hot flue gases containing gaseous sulphur oxides and a chemical fume.

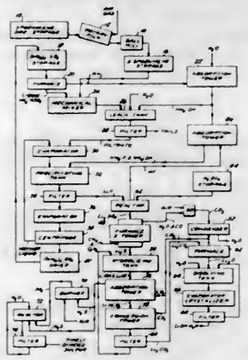


2,840,455

PRODUCTION OF LITHIUM CARBONATE

Thiel E. Dwyer, Passaic, N. J., assignor to Tholand, Inc., New York, N. Y., a corporation of New York

Application December 2, 1953, Serial No. 395,813
15 Claims. (Cl. 23—63)



1. The method of producing from spodumene ore refined lithium carbonate substantially free from other alkali metal carbonates which comprises sulfating the ore to convert the lithium therein to a sulfate, leaching the lithium sulfate from the ore, reducing the extracted lithium sulfate by treating it in the molten state with a wholly gaseous reducing agent to form lithium sulfide, dissolving the lithium sulfide to form an aqueous solution thereof, reacting the lithium sulfide in said solution with a carbonating agent to form a lithium carbonate and recovering normal lithium carbonate from the reaction mixture.

2,840,456

PROCESS FOR MAKING ALKALI METAL SILICATES

William T. Gooding, Jr., Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application January 4, 1954
Serial No. 402,163
15 Claims. (Cl. 23—110)

1. A process for forming crystalline, sodium silicate noncaking in a moist atmosphere, having a melting point of the order of 2000° F., and having an $Na_2O:SiO_2$ ratio within the range from approximately 1.65:1 to 2.25:1 comprising mixing a sodium hydroxide solution having a concentration within the range from about 55 to about 74% NaOH with a sodium silicate solution having an $Na_2O:SiO_2$ ratio within the range from approximately 1:1 to 1:3.4, the sodium silicate and sodium hydroxide being in quantities calculated to produce a reaction mixture having an $Na_2O:SiO_2$ ratio of at least about 3:1, heating said mixture to at least about 90° C., cooling the mixture to a temperature within the range from about 65 to about 90° C. and holding the mixture at a temperature within said range until crystallization is substantially complete, separating the crystals of high melting point sodium silicate from the mixture, and heat-drying the same.

14. A crystalline alkali metal silicate noncaking in a moist atmosphere, having a melting point of the order of 2000° F., and having an alkali metal oxide:silicon dioxide ratio within the range from approximately 1.65:1 to 2.25:1, said silicate having an X-ray diffraction pattern characteristic of alkali metal sesquisilicate and associated alkali metal hydroxide.

2,840,457

PREPARATION OF DISULFUR DECAFLUORIDE

Anton B. Burg, Los Angeles, Calif., and Norman R. Davidson, Chicago, Ill., assignors to the United States of America as represented by the Secretary of War

No Drawing. Application June 1, 1945
Serial No. 597,148
5 Claims. (Cl. 23—205)

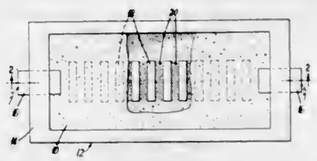
1. The method of preparing disulfur decafluoride which comprises contacting fluorine with solid sulfur at a suitably controlled rate while maintaining the temperature of the sulfur below its melting point.

2,840,458

HEATING FINELY DIVIDED SOLID REACTANTS

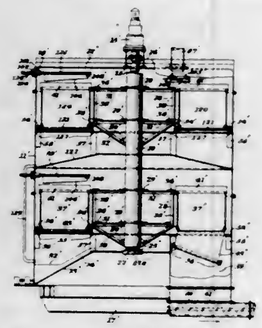
Victor C. Hamister, Lakewood, Ohio, assignor to Union Carbide Corporation, a corporation of New York

Application March 11, 1955, Serial No. 493,638
5 Claims. (Cl. 23—208)



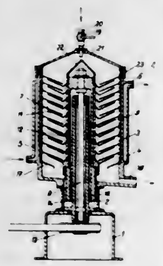
1. In the process of heating finely-divided solids at temperatures above about 1500° C. in which heat is generated by passage of an electric current through a mass of such solids, the improvement which comprises providing, in an electric resistance furnace, a charge to be heated; embedding centrally within said charge, transversely of the flow of current and substantially parallel to each other, a plurality of carbon conductor bars supported on said charge and arranged in a row extending between the terminal electrodes of said furnace and substantially parallel to the bottom of the furnace in a position in which the charge surrounds said row of bars substantially uniformly, said bars being spaced apart from each other and from said terminal electrodes; filling the spaces between said bars and between said bars and said terminal electrodes with granular resistor material; and passing an electric current through said electrodes whereby to heat said resistor material and said conductor bars and thereby to form a floating heating element within said charge.

2,840,459
CONTINUOUS SOLVENT EXTRACTOR AND SOLVENT EXTRACTION SYSTEM
George B. Karnofsky, Oakmont, Pa., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application May 4, 1949, Serial No. 91,372
32 Claims. (Cl. 23—310)



15. In a continuous system for the solvent extraction of vegetable oils or the like from solid organic particles, the steps comprising, separately confining a succession of masses of said solid organic particles, moving said succession along a closed path in a substantially horizontal plane, supplying solvent to said succession of masses in predetermined flooding zones along said path of movement, collecting solvent percolating through said succession of masses in separate zones along said path of movement, and adjusting the boundary of at least one of said separate zones relative to a flooding zone to vary the relative flow of solvent among said zones.

2,840,460
METHOD FOR CONTINUOUS PRODUCTION OF BUTTER
Antonín Mašek and Zdeněk Malík, Prague, Czechoslovakia, assignors to VSCHP, Vyzkummy ustav stroju chaladichich a potravinarskych, Prague, Czechoslovakia
Application December 10, 1954, Serial No. 474,414
Claims priority, application Czechoslovakia December 14, 1953
2 Claims. (Cl. 31—89)

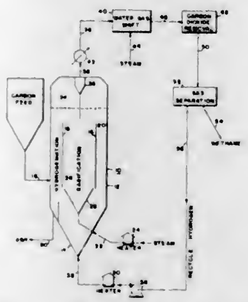


1. A method of producing butter from cream, comprising continuously introducing cream to the upper portion of a churning zone, passing the cream in form of a thin layer through a downwardly directed, substantially vertical and cylindrical zigzag-like course forming said zone, the zigzag course being constituted by outwardly and inwardly directed turns, the outward turns alternating with the inward turns, the outward turns being directed toward the outer surface of the cylindrical course, the inward being directed toward the axis of the cylindrical course, subjecting the cream to actions of centrifugal and agitating forces, while moving along the outward turns, thus making the cream move with relatively high velocity and with agitation along the outward turns, forcing the cream, while moving along each of the outward turns through a space of gradually decreasing height, causing the cream to move under the influence of gravity, that is, at low velocity, and without being agitated along the inward turns, and continuously withdrawing butter and buttermilk from the churning zone.

2,840,461
DIALKYL ALKANOL AMINES AS ANTI-STALLING ADDITIVES
Gordon W. Duncan, Westfield, William E. Lifson, Union, and Joseph P. Haworth, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application December 6, 1954
Serial No. 473,446
3 Claims. (Cl. 44—72)

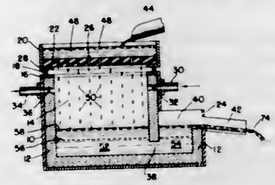
1. A gasoline having an ASTM 50% distillation point below about 310° F. containing from 0.1 to 0.5 vol. percent of a dialkyl alkanol tertiary amine in which each of the alkyl groups contains from 1 to 4 carbon atoms and the alkanol group contains from 2 to 3 carbon atoms.

2,840,462
PRODUCTION OF HIGH BTU-CONTENT GAS FROM CARBONACEOUS SOLID FUELS
Everett Gorin, Pittsburgh, Pa., assignor to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 12, 1955, Serial No. 507,813
5 Claims. (Cl. 48—197)



1. The method of preparing high B. t. u.-content gases from carbonaceous solids which comprises reacting carbonaceous solids with preheated steam at a conversion rate in excess of 40 percent in a gasification zone at a temperature in the range 1450 to 1600° F. and at a pressure exceeding 30 atmospheres, concurrently reacting carbonaceous solids with preheated hydrogen in a hydrogenation zone at a temperature in the range 1550 to 1700° F. and at a pressure exceeding 30 atmospheres, maintaining said hydrogenation zone at an average temperature of 20 to 100° F. above that of said gasification zone, transferring carbonaceous solids from said hydrogenation zone to said gasification zone, transferring carbonaceous solids from said gasification zone to said hydrogenation zone, recovering gaseous reaction products from each of said zones, reacting substantially all carbon monoxide therein with water to form carbon dioxide and hydrogen, thereafter removing therefrom substantially all carbon dioxide and hydrogen sulfide, recovering from the residue of said gaseous reaction products a high B. t. u.-content product gas and recycling the remainder of said gaseous reaction products as substantially pure hydrogen gas at an elevated temperature to said hydrogenation zone.

2,840,463
DEGASSING AND PURIFYING MOLTEN ALUMINOUS METAL
Philip T. Stroup, New Kensington, and Kenneth J. Brondyke, Oakmont, Pa., assignors to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 13, 1954, Serial No. 429,438
15 Claims. (Cl. 75—68)



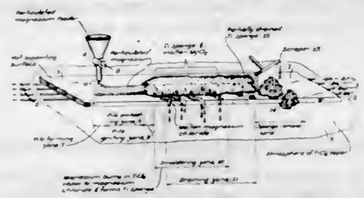
1. The method of degassing and purifying molten aluminous metal preliminary to casting the same comprising filling a confined space at substantially atmospheric pressure with an atmosphere containing aluminum chloride as the essential degassing component, introducing more aluminum chloride to said space while simultaneously withdrawing previously introduced aluminum chloride whereby a continuously changing atmosphere is provided in said space at substantially atmospheric pressure, subdividing the molten metal as it enters the confined space containing said atmosphere, passing said subdivided liquid metal through the atmosphere whereby the gas content of the metal is reduced and the metal is purified without substantial change in the aluminum content of the melt, collecting the treated liquid metal and thereafter discharging it while molten from said confined space.

2,840,464
METHOD OF SEPARATING FISSION PRODUCTS FROM FUSED BISMUTH-CONTAINING URANIUM
Richard H. Wiswall, Mount Sinai, N. Y., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application May 27, 1955
Serial No. 511,810
2 Claims. (Cl. 75—84.1)

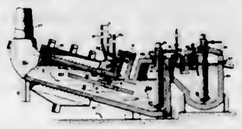
1. The method of separating at least some fission product metals selectively from dilute solution in fused bismuth in which uranium is present in solution without removal of more than 1% of said uranium, which comprises contacting said fused bismuth with a fused salt composition consisting of a plurality of chlorides selected from the group consisting of sodium, potassium and lithium chlorides, adding to said contacted compositions a quantity of bismuth chloride which is substantially the quantity stoichiometrically required to convert the quantity of the fission product metals to be removed to a condition for transferring said fission product metals to said fused salt composition, and thereafter separating said fused chloride and fused metal compositions.

2,840,465
METHOD OF PRODUCING TITANIUM
Douglas S. Chisholm and Don F. Hall, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application October 20, 1952, Serial No. 315,604
6 Claims. (Cl. 75—84.5)

1. The method of producing titanium sponge by reacting magnesium with titanium tetrachloride which comprises depositing upon a supporting surface in an atmosphere containing titanium tetrachloride vapor a pile of magnesium in particulate form, said surface having a temperature above the melting point of magnesium chloride whereby the magnesium particles burn in the titanium tetrachloride vapor forming titanium sponge in situ and molten magnesium chloride; removing heat from the burning pile at a rate sufficient to maintain the burning at a smoldering pace; and draining molten magnesium chloride from the pile as it smolders.



2,840,466
METHOD OF REDUCING METAL CHLORIDES
Herand K. Najarian, Beaver, Pa., assignor to St. Joseph Lead Company, New York, N. Y., a corporation of New York
Application October 29, 1954, Serial No. 465,539
7 Claims. (Cl. 75—84.5)



1. A method of producing a refractory metal of the group consisting of titanium and zirconium which comprises maintaining a stream of molten magnesium chloride at a temperature intermediate the melting point of magnesium and the boiling point of magnesium in continuous circulation in an inclined upward current from a lower body of magnesium chloride to an upper body of magnesium chloride having a free surface and in a downward current from said upper body to said lower body, introducing into the lower portion of the inclined upward current molten magnesium and a refractory metal chloride of the group consisting of titanium tetrachloride and zirconium tetrachloride in the proportion of at least two atoms of magnesium to each molecule of the refractory metal chloride, and withdrawing from the lower portion of the lower body a suspension of the refractory metal in magnesium chloride.

2,840,467
INHIBITION OF CORROSION
James E. Atherton, Jr., Catawissa, Pa., and David H. Gurinsky, Center Moriches, N. Y., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application May 26, 1955
Serial No. 511,442
7 Claims. (Cl. 75—134)

6. An alloy for use as a liquid in a nuclear reactor comprising bismuth, uranium in a concentration up to the maximum solubility of uranium in bismuth and concentration of zirconium of between 50 parts per million and the saturation value of zirconium in said alloy.

2,840,468
NOVEL GOLD ALLOYS AND POTENTIOMETER WIRES PRODUCED FROM THEM
Bert Brenner, Tenafly, N. J., assignor to Sigmund Cohn Corp., Mount Vernon, N. Y., a corporation of New York
No Drawing. Application February 4, 1958
Serial No. 713,099
7 Claims. (Cl. 75—165)

5. A potentiometer having as a component a wire winding comprising a gold alloy in which gold constitutes

the major proportion of the alloy, and which also contains between about 6% and 12% chromium and nickel in an amount of at least 75% of the chromium content and from about 6% up to about 30% of the alloy.

2,840,469

NICKEL-CHROMIUM-MOLYBDENUM ALLOY

Harold E. Gresham, Little Eaton, Marcus Alan Wheeler, Darley Abbey, and Jack Raymond Bird, Allenton, England, assignors to Rolls-Royce Limited, Derby, England, a corporation of Great Britain

No Drawing. Application June 2, 1955
Serial No. 512,876

Claims priority, application Great Britain June 18, 1954

8 Claims. (Cl. 75—171)

2. An alloy having a thermal shock index at 950° C. of at least about 60, and an hours to fracture characteristic under stress of 4480 lbs. per sq. inch at 1050° C. of at least about 30 hours, said alloy consisting essentially by weight of about 18 to 25% chromium, about 8.5 to 12% molybdenum, about 0.20 to 0.85% carbon, about 5 to 15% cobalt, and the balance nickel plus impurities.

2,840,470

METHOD OF PREPARING A FLUORESCENT SCREEN

Albert Kenneth Levine, Jersey City, N. J., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

No Drawing. Original application September 27, 1951, Serial No. 248,661. Divided and this application November 17, 1953, Serial No. 392,753

8 Claims. (Cl. 96—35)

2. The method of preparing a tri-color fluorescent screen including the steps of coating a screen surface with a first light hardenable film of photo-sensitive material, exposing designated areas of said first film to light through a mask, washing said film with a solvent to remove unexposed areas of said first film and to leave depressions at locations corresponding to said unexposed areas, filling said depressions with a first phosphor and adhering said first phosphor to said screen surface, removing the exposed and light hardened areas of said first film, coating said screen surface with a second light hardenable film of photo-sensitive material, exposing previously unexposed designated areas of said second film to light through a mask, washing said second film with a solvent to remove unexposed areas and to leave depressions at locations corresponding to said unexposed areas, filling said depressions with a second phosphor and adhering said second phosphor to said screen surface, removing the exposed and light hardened areas of said second film, coating said screen surface with a third light hardenable film of photo-sensitive material, exposing previously unexposed designated areas of said third film to light through a mask, washing said third film with a solvent to remove unexposed areas and to leave depressions at locations corresponding to said unexposed areas, filling said depressions with a third phosphor and adhering said third phosphor to said screen surface, and baking said screen to gasify remaining portions of said light hardened films leaving behind said first, second, and third phosphors on said screen surface.

2,840,471

PHOTOGRAPHIC FILM DEVELOPER

Francis G. Berry, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application September 6, 1956
Serial No. 608,410
1 Claim. (Cl. 96—66)

A photographic developer consisting of about the following composition:

	Grams
Sodium sulfite (anhydrous)	100
Hydroquinone	10
Aminoacetic acid (CH_2NH_2COOH)	10
1-phenyl-3-pyrazolidone	0.4
Sodium borate	3
Boric acid	3.5
Potassium bromide	1
Water to make 1 liter	

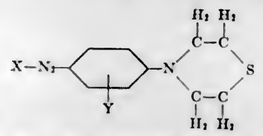
2,840,472

LIGHT SENSITIVE MATERIAL TO BE USED IN DIAZO PRINTING

Oskar Süs and Georg Werner, Wiesbaden-Biebrich, and Willy Wettlauffer, Wiesbaden, Germany, assignors, by mesne assignments, to Keuffel & Esser Co., Hoboken, N. J., a corporation of New Jersey

No Drawing. Application March 13, 1956
Serial No. 571,148
Claims priority, application Germany March 17, 1955
14 Claims. (Cl. 96—75)

1. Photoprinting material comprising a light sensitive diazo compound according to the following general formula



in which X is an acid radical, Y is selected from the group consisting of hydrogen, alkyl, alkoxy and halogen coated on a base sheet material.

2,840,473

RUMINANT FEED INGREDIENT

John H. Lux, Baltimore, Md., assignor to Shea Chemical Corporation, Baltimore, Md., a corporation of Maryland

No Drawing. Application March 31, 1955
Serial No. 498,422
18 Claims. (Cl. 99—2)

1. A ruminant feed composition containing carbohydrates and proteins and as a supplementary source of nitrogen a compound selected from the group consisting of dicyandiamide and its condensation products with non-toxic acids, and the acid reacting salts of such acids.

2,840,474

PELLUCID COMPOSITION AND METHOD FOR COATING FOODSTUFFS AND ARTICLES THEREBY OBTAINED

James R. Wirt, Harold C. Kelly, and Richard M. Krajewski, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application January 23, 1956, Serial No. 560,608
10 Claims. (Cl. 99—166)

1. Transparent coating composition for articles of food which consists of a mixture, adapted to be applied as a hot melt, of between about 19.0 and 28.0 parts by weight of an ethyl cellulose having an ethoxyl content between about 47.5 and 50 percent by weight and a viscosity less than about 30 centipoises, as determined in a 5 percent by weight solution thereof in an 80:20 mixture, by volume, of toluene and ethanol; between about 39.0 and 73.5 parts by weight of a refined mineral oil having a Saybolt viscosity at 100° F. between about 80 and 400 units; not more than about 5.0 parts by weight of a plasticizer selected from the group of plasticizers



consisting of glycerol mono-oleate, n-butyl stearate, glycerol monostearate, and mixtures thereof; not more than about 5.0 parts by weight of acetylated monoglyceride; and between about 7.0 and 20.0 parts by weight of castor oil.

2,840,475

METHOD OF COATING ARTICLES OF FOOD AND PRODUCT OBTAINED THEREBY

Lorraine E. Patten and Harold C. Kelly, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application June 17, 1957, Serial No. 665,987
9 Claims. (Cl. 99—166)



1. Method for coating articles of food which comprises applying to the article, while it is being maintained at a relatively lower temperature, a thin enveloping film having a thickness between about 10 and 100 mils of a coating from a composition in molten form and at a temperature between about 130° and 165° C., said composition consisting of between about 12 and 25 percent by weight, based on the weight of the composition, of a film-forming vinyl chloride polymer selected from the group consisting of polyvinylchloride and copolymers of vinyl chloride with vinyl acetate that contain in the polymer molecule at least about 85 percent by weight of vinyl chloride, said vinyl chloride polymer having a viscosity between about 1.4 and 2.5 centipoises as determined by measurement at 120° C. of a 2.0 percent by weight solution of the resin in ortho-dichlorobenzene; about 5 to 15 percent by weight of an epoxy type plasticizer for vinyl resins; and about 60 to 75 percent by weight of a non-toxic plasticizer for vinyl resins; and subsequently cooling the applied coating on the article to a hardened condition.

2,840,476

METHOD FOR COATING FOODSTUFFS AND ARTICLE THEREBY OBTAINED

James R. Wirt and Harold C. Kelly, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application August 29, 1957, Serial No. 681,099
16 Claims. (Cl. 99—166)

1. Method for coating articles of food which comprises the steps of (1) applying to the article, while it is being maintained at a relatively lower temperature, a thin enveloping film of a coating from a composition in molten form comprising essentially (*a*) from 19 to 70 percent by weight of the composition of an ethyl cellulose having an ethoxyl content between about 47.5 and 50 percent by weight and a viscosity between about 6 and 200 centipoises, as determined in a 5 percent by weight solution thereof in an 80:20 mixture, by volume, of toluene and ethanol; (*b*) between about 15 and 65 percent of a refined mineral oil having a Saybolt viscosity at



100° F. between about 80 and 400 units; and (*c*) between about 5 and 30 percent by weight, based on the weight of the composition, of a colorless, odorless, non-toxic plasticizer component which is a solvent for the cellulose ether; and (2) cooling the applied coating on the article to a hardened condition.

2,840,477

CORROSION INHIBITOR

D'Arcy A. Shock and John D. Sudbury, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application November 23, 1953, Serial No. 393,907
18 Claims. (Cl. 106—14)

1. A corrosion inhibitor composition consisting essentially on a weight basis of about 0.5 to about 4 parts of a mineral oil, about 1 part of an oil soluble sulfonate inhibitor selected from the group consisting of alkali and alkaline earth metal sulfonates of benzene alkylated with a polymer of propylene, and about 2 to about 20 percent, based on the weight of sulfonate, of an oil soluble polar organic compound selected from the group consisting of amine and metal salts of fatty acids containing from 8 to 24 carbon atoms, characterized further in that the cation of said metal salt of the fatty acids is selected from the group consisting of magnesium and aluminum.

2,840,478

COATING COMPOSITION

George Otto Orth, Jr., and John Spinelli, Seattle, Wash., assignors to American Potash & Chemical Corporation, a corporation of Delaware

No Drawing. Application October 28, 1955
Serial No. 543,577
4 Claims. (Cl. 106—18)

1. A protective coating composition, having good surface adherence characteristics and being resistant to elevated temperatures, comprising in substantially homogeneous admixture, an organic film-forming material, an inorganic coloring material in finely divided form, and from 5% to 15% on the weight of the composition on a wet basis of an inorganic frit consisting of the finely divided production of the fusion at about 370° C. of from about 20 to 50 parts of boric oxide, from about 25 to 60 parts of lead oxide, and from about 1 to about 20 parts of sodium fluoride.

2,840,479

OLEAGINOUS COMPOSITION AND METHOD OF USING SAME

Claude F. Rowell and John S. De Puy, Port Huron, and Ray Bailey, Alpena, Mich.

No Drawing. Application February 6, 1956
Serial No. 563,439
4 Claims. (Cl. 106—38.24)

1. A composition of matter for treating the concrete contacting surfaces of concrete molds consisting essentially of: a mixture having a minor proportion of poly-

sperm oil and a major portion of mineral oil, in which the polysperm oil is in the proportion of substantially 6% of the total mixture and the mineral oil is in the proportion of substantially 93% of the total mixture.

2,840,480

REFRACTORY COATING FOR GRAPHITE MOLDS

Stephen D. Stoddard, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 16, 1954
Serial No. 450,280
2 Claims. (Cl. 106—38.27)

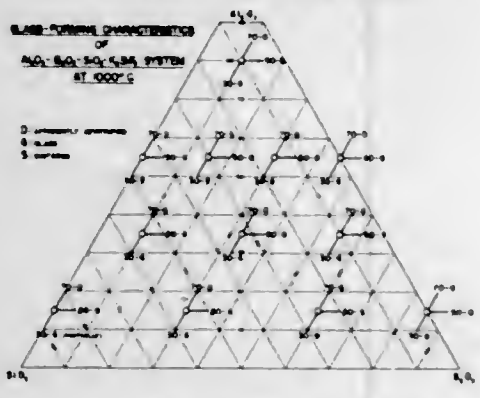
1. An alumino silicate refractory mold coating consisting essentially of an aqueous slurry of a mixture by weight of the dry ingredients of about 12 parts ball clay, about 18 parts kaolin, about 60 parts alumina cement, about 10 parts fused alumina, about 0.2 part soluble silicate salt and not more than 0.1 part soluble carbonate salt, all of said ingredients having an average particle size of 2.1 microns and a maximum of 44 microns.

2,840,481

POTASSIUM-FLUORINE GLASSES

Isador Mockrin, Philadelphia, Pa., and William J. Knapp, Los Angeles, Calif., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application February 27, 1952, Serial No. 273,671
7 Claims. (Cl. 106—48)



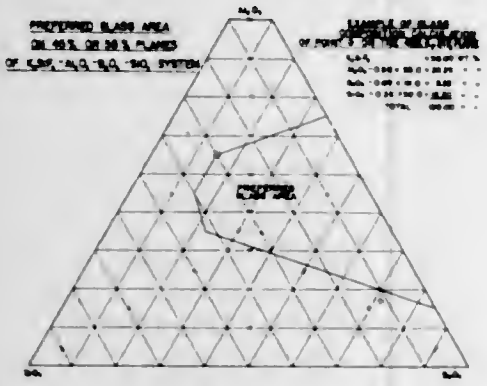
7. A glass composition consisting essentially of, on a calculated oxide basis, 21 to 28% fluorine, 17 to 23% K_2O, 11 to 38% SiO_2, 5 to 33% Al_2O_3 and 2 to 43% B_2O_3 in which the calculated fluorine and K_2O are present in the relative amounts of 1.0 to 1.4 parts fluorine per part of K_2O.

2,840,482

POTASSIUM-FLUORINE GLASSES

William J. Knapp, Los Angeles, Calif., and Isadore Mockrin, Philadelphia, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application February 27, 1952, Serial No. 273,672
9 Claims. (Cl. 106—48)



1. A glass composition containing on a calculated basis 45 to 55% by weight K_2SiF_6 and at least two materials of the group consisting of Al_2O_3, SiO_2 and B_2O_3 in amounts not substantially in excess of 36% by weight Al_2O_3, 47% by weight SiO_2 and 2% to 50% by weight B_2O_3, said K_2SiF_6, Al_2O_3, SiO_2, and B_2O_3 making up at least 90% of the total glass composition.

2,840,483

WELL CEMENTING COMPOSITION AND METHOD OF PREPARING AND USING SAME

Bryan E. Morgan, Houston, and George K. Dumbauld, Bellaire, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

No Drawing. Application December 9, 1955
Serial No. 552,223
19 Claims. (Cl. 106—90)

14. The method of cementing a well which comprises admixing with a Portland cement a liquid hydrocarbon selected from the class consisting of pure hydrocarbons and hydrocarbon mixtures having a viscosity at 100° F. less than 40 centipoises in an amount in the range from 15 cc. and 60 cc. per 100 grams of the dry cement, a water soluble organic dispersing agent selected from the class consisting of the calcium tolerant water soluble salts of lignin sulfonic acid, sulfonated phenolformaldehyde condensation product, aromatic sulfonic acid and the water soluble salts of lignin and its derivatives separated by chemical treatment from other constituents present in the wastes of pulp recovery processes in an amount in the range between 0.1% and 7.5% by weight based on the dry cement, and water in a sufficient amount in the range between 50% and 120% by weight based on the dry cement to provide a pumpable slurry consisting of said ingredients, said slurry having a density in the range from about 11 to approximately 12½ lbs. per gallon and having a tensile strength when set below 300 lbs. per sq. in., then pumping said slurry into the well, contacting the wall of said well with said slurry to form a filter cake thereon, and then removing excess slurry from the well.

2,840,484

PROCESS FOR PLASTIFYING CELLULOSE-DERIVATIVES

René Camille Gerbaux, Edegem-Antwerp, Belgium, assignor to Gevaert Photo-Producten N. V., Mortsel-Antwerp, Belgium, a Belgian company

No Drawing. Application July 5, 1955
Serial No. 520,111
Claims priority, application Netherlands July 7, 1954
4 Claims. (Cl. 106—178)

1. A composition of matter consisting of cellulose ester of a lower fatty acid and from 5 to 35% by weight of the cellulose ester of an N-substituted carbamate of the formula

$$R_1—NR_3—COOR_2$$

wherein R_1 and R_2 represent aryl groups selected from the group consisting of phenyl, benzyl, and phenyl and benzyl substituted in the phenyl nucleus by a member of the group consisting of chlorine, fluorine and lower alkyl radicals, and R_3 represents a member selected from the group consisting of hydrogen, methyl and ethyl.

2,840,485

THERMOPLASTIC COMPOSITIONS OF WATER-SOLUBLE CELLULOSE ETHERS

George K. Greminger, Jr., Midland, and Miles A. Weaver, Ithaca, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 25, 1953
Serial No. 394,476
8 Claims. (Cl. 106—182)

1. A thermoplastic composition consisting essentially of from 5 to 80 percent of a water-soluble cellulose ether selected from the group of alkyl cellulose, hydroxyalkyl cellulose, and alkyl hydroxyalkyl cellulose

in which the alkyl group contains from 1 to 3 carbon atoms and the hydroxyalkyl group contains from 2 to 3 carbon atoms, and correspondingly from 95 to 20 percent of an alkyl glycolate in which the alkyl group contains from 1 to 4 carbon atoms.

2,840,486

COMPOSITION OF MATTER CONTAINING PIGMENT AND CHLORINATED POLYPHENYL

Samuel N. Hunter, East St. Louis, Ill.

No Drawing. Application April 23, 1956
Serial No. 579,715
3 Claims. (Cl. 106—287)

1. A composition of matter comprising pigment and a wetting agent containing both volatile and non-volatile ingredients and having as its major non-volatile ingredient chlorinated polyphenyl having a chlorine content of at least 60%.

2,840,487

METHOD OF PREPARING A METAL SHEET WITH A CANVAS TEXTURED SURFACE

Leon Anthony Messina, Bellerose, N. Y.

Application June 29, 1954, Serial No. 440,063
1 Claim. (Cl. 117—10)



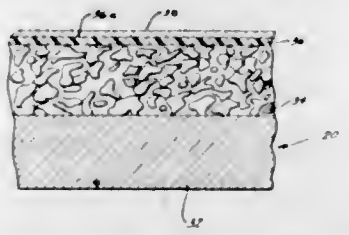
A method of making a canvas textured sheet adapted to provide a surface for artists' paintings, comprising the steps of roughening one surface of an imperforate aluminum sheet, applying to said roughened surface a priming coat of cadmium yellow paint and drying said priming coat, applying to said priming coat a coating of zinc white oil paint of relatively heavy consistency, immersing said sheet in a water bath while said zinc white coating is still soft and before it has set, pressing a canvas covered roller against said soft zinc white coating while the sheet is still immersed in the water bath and rolling said roller upon said sheet while pressing it against said soft zinc white coating to form a canvas impression therein, and finally removing said sheet from the water bath and drying the zinc white coating to set the canvas impression therein.

2,840,488

METHOD FOR ALUMINIZING CATHODE RAY TUBE SCREENS

William R. Watson, Flushing, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application November 16, 1955, Serial No. 547,190
7 Claims. (Cl. 117—33.5)



1. In the manufacture of a cathode-ray tube, the steps including settling a phosphor screen from a silicate settling solution containing a coagulant onto the screen-forming surface of the cathode-ray tube, decanting the settling solution, treating the retained residual solution held back by said screen with the vapors of a coaguiant to cause the retained residual solution to set in a gel having a smooth surface, applying an organic film-forming material in a volatile solvent onto said smooth surface to provide a barrier film, hardening said barrier film to present a smooth planar surface over said phosphor screen, and applying a reflecting metallic coating on said smooth planar film.

2,840,489

PROCESS FOR THE CONTROLLED DEPOSITION OF SILICON DIHALIDE VAPORS ONTO SELECTED SURFACES

Charles P. Kempter and Claudio Alvarez-Tostado, Stanford, Calif., assignors to Owens-Illinois Glass Company, a corporation of Ohio

No Drawing. Application January 17, 1956
Serial No. 559,539
6 Claims. (Cl. 117—106)

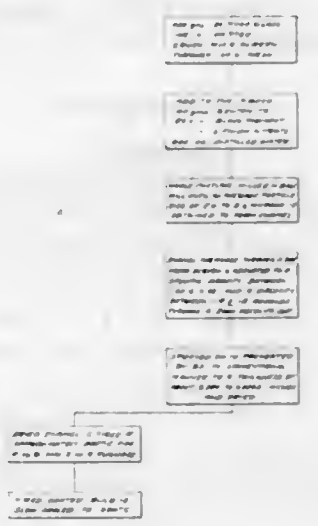
1. The process of coating a thin well-crystallized continuous layer of silicon onto a surface capable of withstanding without physical change thereto a temperature which is at least as high as the minimum equilibrium temperature of silicon dihalide vapors comprising the step of passing heated silicon dihalide vapors over and in contact with said surface at a predetermined flow rate, the temperature of said surface being relatively cooler than the temperature of said vapors and causing exothermic decomposition of said silicon dihalide vapors into free silicon and silicon tetrahalide vapors, said free silicon being deposited onto said surface.

2,840,490

LAMP ENVELOPE COATING AND METHOD OF APPLYING

Robert E. Collins, East Rutherford, and Vernon L. Plagge, East Orange, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 2, 1953, Serial No. 395,672
2 Claims. (Cl. 117—124)



1. In combination, a vitreous envelope of borosilicate glass having a melting point of about 820° C. and a coefficient of expansion of about 32.5×10^{-7} and an opaque exterior coating for said envelope consisting of a fired mixture of two finely-divided vitreous materials having admixed therewith an opaque pigment, one of said fired, mixed vitreous materials being a borosilicate glass having a coefficient of expansion and a melting point approximately equal to the coefficient of expansion and the melting point of said vitreous envelope, the other of said fired vitreous materials being a borosilicate glass having a softening point of about 755° C. and a coefficient of expansion about 36×10^{-7}, said other fired vitreous material constituting not less than 10% nor more than 60% by weight of said mixture of fired vitreous materials, said other fired vitreous material being partially fused in situ to said one fired vitreous material and partially fused in situ onto said vitreous envelope, and said coating having a thickness of not less than 0.003" nor more than 0.006".

2,840,491

METHOD FOR COATING POLYETHYLENE WITH HALOETHYLENE POLYMERS AND COMPOSITE ARTICLES THEREBY OBTAINED

Dallas G. Grenley, Midland, and Harold J. Townsend, Saginaw, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application September 4, 1956, Serial No. 607,725
20 Claims. (Cl. 117—138.8)



1. Method for coating a polyethylene article with a haloethylene polymer resin selected from the group consisting of vinyl chloride polymers that contain in the polymer molecule at least about 80 percent by weight of vinyl chloride and vinylidene chloride polymers that contain in the polymer molecule at least about 60 percent by weight of vinylidene chloride which comprises incorporating a minor proportion of a surface active polyelectrolyte material that contains a plurality of ionizable groups in its molecule and is a polymeric carboxylic acid compound, which acid compound is a mixture of free polymeric carboxylic acids having an average molecular weight between about 1200 and 1250 and capable of being approximately represented by the empirical formula:

$$(C_{18}H_{26}O_5)_4$$

in a coating composition consisting of a latex emulsion of said haloethylene polymer resin; applying a layer of the latex emulsion of the haloethylene polymer resin in which is incorporated the surface active polyelectrolyte material over the polyehylene surface, and subsequently drying the applied latex emulsion of the haloethylene polymer resin to effect a solid deposition of resin in a continuous deposited phase on the surface of the polyethylene.

2,840,492

BOX TOE MATERIALS

Cherry L. Emerson, Jr., Newton, Mass., assignor to Beckwith-Arden Inc., a corporation of New Hampshire

No Drawing. Application May 27, 1953
Serial No. 357,915
4 Claims. (Cl. 117—140)

1. A box toe blank comprising a fibrous base impregnated and stiffened with a resinous composition consisting essentially of a mixture of polystyrene and a styrene-butadiene copolymer having a styrene content in excess of 50% by weight based on the total weight of copolymer, wherein the ratio of total styrene to butadiene is not less than 75:25 and not more than 95:5, the ratio of said resinous compositions to said fibrous base on a dry basis being at least approximately 3:1, whereby the blank may be temporarily softened and made adhesive by the application thereto of solvent.

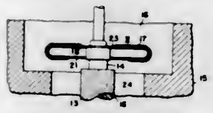
2,840,493

METHOD OF EMISSION SUPPRESSION IN VACUUM TUBES, ESPECIALLY MAGNETRON HATS

Ernest C. Okress, Montclair, and Ralph J. Green, Newark, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 22, 1952, Serial No. 321,976
2 Claims. (Cl. 117—216)

1. The method of forming an electron-emission-suppressive surface on a refractory metal base member, said refractory metal being selected from the group consisting of tantalum, tungsten and molybdenum, said method including the steps of forming a non-porous surface layer of said refractory metal admixed with from 5 to 10% of a non-alloying material having a substantially higher vapor pressure than said refractory metal, said non-alloying material being selected from the group consisting of nickel, tantalum chloride, tantalum iodide, naphthalene and camphor, heating said surface layer until a substantial portion of said non-alloying material is removed from said surface layer thereby forming a porous surface layer of approximately 5 to 10% porosity, and coating said porous surface layer with a continuous layer of low electron-emissive material selected from the group consisting of graphite, zirconium and zirconium oxide.

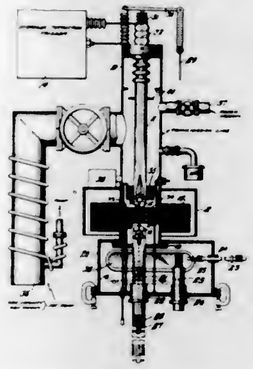


2,840,494

MANUFACTURE OF TRANSISTORS

Henry W. Parker, Flushing, N. Y.

Application December 31, 1952, Serial No. 329,071
23 Claims. (Cl. 148—1.5)



1. An npn transistor comprising a type n seed crystal of a metal selected from the group consisting of germanium and silicon, successive superposed thin films of type p of the same metal integrally united with each other and with said seed crystal in the same lattice formation to form a p-type layer and successive superposed thin films of type n of the same metal integrally united with each other and with said p-type layer in the same lattice formation to form an n-type layer superposed on said p-type layer.

2,840,495

METHOD OF PROCESSING SEMICONDUCTIVE MATERIALS

Robert G. Treuting, Chatham Township, Morris County, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 21, 1953, Serial No. 375,788
4 Claims. (Cl. 148—1.5)



1. The method of producing a p-n junction in a solid body of a semiconductive material selected from the group consisting of germanium and silicon, said body manifesting n-type conductivity and having a resistivity

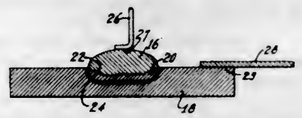
of at least one ohm-centimeter, comprising heating at least a portion of the said body to a temperature of above 60 percent of the melting temperature of the said semiconductive material on an absolute temperature scale, applying stress to the said body so as to strain only the said portion beyond its elastic limit whereby the strained portion is converted to p-type so that a p-n junction results between the said strained portion and the remainder of the body and cooling the said body.

2,840,496

SEMI-CONDUCTOR DEVICE

Dietrich A. Jenny, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 25, 1953, Serial No. 394,383
6 Claims. (Cl. 148—1.5)



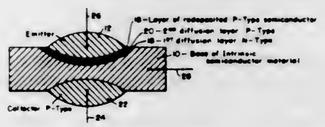
1. A semi-conductor device comprising a body of semiconductive cadmium telluride having an n-type semi-conductive region, the conductivity of said region being primarily determined by the presence in said region of impurity centers consisting of atoms of at least one element selected from the IIIa and the VIIa columns of the periodic table according to Mendeleeff.

2,840,497

JUNCTION TRANSISTORS AND PROCESSES FOR PRODUCING THEM

Richard L. Longini, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 29, 1954, Serial No. 465,638
14 Claims. (Cl. 148—1.5)



1. In the process of producing a junction transistor, the steps comprising applying to a body of substantially intrinsic, high resistivity crystalline semiconductor material, a member melting at a lower temperature than said body, said member comprising (1) a small proportion of a first doping material to confer a first type of semiconductivity, the first doping material being fast diffusing, and (2) a large proportion of a second doping material conferring the opposite type of semiconductivity, the second doping material being slower diffusing than said first doping material, heating the body and applied member to a temperature to cause the member to melt and to dissolve therein a part of the body material in immediate contact therewith, cooling the body and molten member to a lower temperature with a temperature gradient between the member and the body such that the body is slightly cooler than the molten member to cause the body material dissolved in the molten member to redeposit as a layer on the body, maintaining the assembly at a temperature near the temperature at which the member melts to cause diffusion of the two doping materials from the member and from the redeposited layer into the adjacent body material, and finally cooling the assembly, the diffusion producing a first layer of low resistivity body material of the first type of semiconductivity in contact with a large area of the intrinsic body material, a second layer of opposite type of semiconductivity of body material superimposed on the first layer, the second layer including the redeposited body material, and the solidified member being disposed in contact with the entire second layer.

2,840,498

COMPOSITION AND METHOD FOR PRODUCING COMBINATION CORROSION RESISTANT AND LUBRICATING COATINGS ON METALS

Earl Eugene Logue, Jr., Birmingham, and Ernest P. Bell, Detroit, Mich., assignors to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application June 8, 1953
Serial No. 360,353
10 Claims. (Cl. 148—6.15)

1. A composition of matter comprising an aqueous dispersion consisting essentially of water, a mono-aliphatic phosphoric acid ester having from 8 to 18 carbon atoms, a metal ion which forms a salt with the said phosphate and which is compatible with said dispersion in an amount equivalent to about 0.3–11 grams/liter of zinc, and an amine in an amount sufficient to produce a pH between about 3.0 and 5.5.

2,840,499

SOLDERING FLUX

Lester Aronberg, Chicago, Ill.

No Drawing. Application June 2, 1954
Serial No. 434,089
12 Claims. (Cl. 148—23)

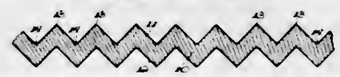
1. A soldering flux for use in the soldering of aluminum, said flux consisting essentially of an organic amine fluoride and an inorganic cobalt compound, said ingredients being present in a ratio to each other, by weight, of 10 parts of said fluoride to from 1 to 10 parts of said cobalt compound.

2,840,500

HEAT INSULATING SHEET OR PANEL

Howard J. Okoomian, West Haven, and Lovic Pierce Herrington, Hamden, Conn., assignors to John B. Pierce Foundation, New York, N. Y., a corporation of New York

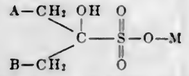
Application December 22, 1954, Serial No. 476,892
8 Claims. (Cl. 154—44)



1. A heat insulating panel comprising, a pair of bright metallic foil, heat reflecting sheets each having inner and outer heat-reflecting surfaces and each having a plurality of similar sharp angle corrugations which extend in the direction of their ridge lines normal to a plane passing through both sheets and which follow on each other in juxtaposed relation in said plane to render the cross-sections of said sheets in said plane of the same sawtooth shape, said sheets being mutually separated with respective corrugations thereof registering angle for angle and with corresponding faces of registering corrugations being parallel to thereby define between said sheets an interspace having in said plane a cross-section of sawtooth shape and of an inter-sheet width less than the dimension in said plane of the face of one of said corrugations, and a layer of fibrous glass wool occupying substantially all of said sawtooth-shaped interspace to the exclusion of air pockets therein, said glass wool layer and said sheets being bonded together to form a united panel structure.

2,840,501
AGRONOMICAL PRACTICE FOR THE PROTECTION OF CROPS
Lloyd J. Meuli, Long Beach, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application August 2, 1954
Serial No. 447,374
9 Claims. (Cl. 167—22)

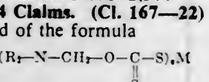
1. An agronomical practice which comprises impregnating fungi infected soil with from 5 to 50 parts by weight of a sulfonate compound per million parts by weight of said soil and thereafter planting the treated soil, the sulfonate compound being characterized by the formula



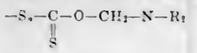
wherein A is a member of the group consisting of bromine and chlorine, B is a member of the group consisting of hydrogen and the halogen represented by A, and M is an alkali metal.

2,840,502
FUNGICIDAL COMPOSITIONS
Joseph A. Lambrech, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York
No Drawing. Application August 4, 1953
Serial No. 372,388
24 Claims. (Cl. 167—22)

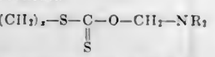
1. A compound of the formula



where: M is a member of the group consisting of metals of Groups I, II, III, IV, VII and VIII of the periodic table, lower-alkylamine radicals, a radical of the formula



a radical of the formula



v is an integer not greater than the valence of M; *n* and *x* are from 1 to 3 inclusive; R is a lower alkyl radical.

18. Method of combatting fungi which comprises applying to the host a compound as defined in claim 1.

2,840,503
SOIL FUMIGATION
Richard R. Whetstone, Denver, Colo., and Seaver A. Ballard, Orinda, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application February 20, 1956
Serial No. 566,345
11 Claims. (Cl. 167—39)

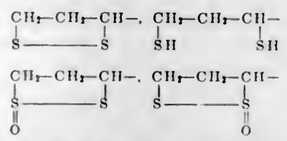
1. In the treatment of agricultural soil infested with phytopathogenic organisms, the step which comprises disseminating into the infested soil a substituted low molecular weight olefin characterized by the presence of a plurality of acyloxy substituent groups directly attached to the olefinic residue said olefinic residue having not more than 8 carbon atoms, in a concentration toxic to said phytopathogenic organisms.

2,840,504
PHENOTHIAZINE COMPOSITIONS
Donald E. Vierling, Pittsburgh, Pa.
No Drawing. Application September 28, 1955
Serial No. 537,285
8 Claims. (Cl. 167—53)

1. An anthelmintic composition comprising a liquid suspension of about one part by weight of phenothiazine and at least about one part by weight of an inert, non-toxic, palatable, liquid, viscous stable agent having adhering characteristics and substantially enveloping said phenothiazine, said stable agent being selected from the group of animal-edible syrups and oils consisting of lecithin, olive oil, corn syrup, mineral oil and cod liver oil, said composition possessing sufficient consistency to preclude its flowing freely through legumes and the like.

2,840,505
PROCESS OF TREATING ANIMALS FOR METAL POISONING WITH THIO-COMPOUNDS
Rudolf Richard Grunert, Wilmington, Del., Carl S. Marvel, Urbana, Ill., and Isaac Fletcher Walker, Hockessin, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application April 9, 1954
Serial No. 422,268
3 Claims. (Cl. 167—55)

1. A process for the treatment of warm blooded animals exposed to metal poisoning which consists in administering to a living warm blooded animal which has acquired a toxic amount of a metal, a composition comprising an organic compound of molecular weight not more than 500 and of the formula R—R′—COR″ wherein R is a monovalent radical of the class consisting of



and the C-alkyl derivatives of these radicals wherein the alkyl radical has not more than 4 carbons, R′ is a alkylene radical of not more than 8 carbon atoms and R″ is selected from the class consisting of hydroxyl and groups hydrolyzable thereto, in the amount of from 0.05 mg./kg. animal body weight/day to about 100 mg./kg. body weight/day.

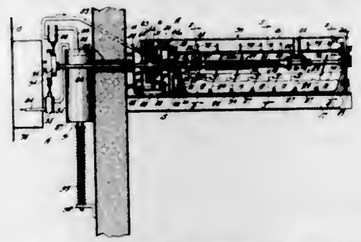
2,840,506
GASTRO-INTESTINAL THERAPEUTIC COMPOSITION CONTAINING UREA AND CARBON DIOXIDE
David J. Goodfriend, Philadelphia, Pa., assignor of one-half to Charles E. Vanderkleed, Collingswood, N. J.
No Drawing. Application February 6, 1957
Serial No. 638,434
7 Claims. (Cl. 167—55)

1. An aqueous composition for the treatment of gastroduodenal peptic ulcer and peptic ulcer syndrome comprising water saturated with carbon dioxide gas, about 3% by weight of urea, and a water-soluble buffer to maintain the solution at a pH from 6.0 to 7 at room temperature.

2,840,507
ICE MAKING MACHINE
Dudley E. Heath, Hastings-on-Hudson, N. Y., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application December 12, 1952, Serial No. 325,552
13 Claims. (Cl. 62—106)

1. In an automatic ice making machine of the type in which liquid is frozen into ice in repeated cycles as governed by a control means operable responsive to a condition related to the formation of ice, a cooling element, an ice mold in heat exchange relation to the cooling element and having grid walls dividing the mold into individual cells, a plurality of said grid walls being constructed for progressive movement relative to each other and at least one wall being mounted for bodily move-

ment, mechanism connected to progressively move the plurality of walls relative to each other to loosen the individual ice pieces frozen in the cells and thereafter



bodily move said one wall to sweep the loosened ice pieces from the side of the mold, and power means connected for initiation by the control means and mechanically connected to actuate the mechanism.

2,840,508
INJECTABLE STEROID HORMONE PREPARATIONS AND METHOD OF MAKING SAME
Karl Junkmann, Berlin, Josef Kathol, Berlin-Charlottenburg, and Hans Richter, Berlin-Steglitz, Germany, assignors to Schering A. G., Berlin, Germany, a corporation of Germany
No Drawing. Application May 13, 1952
Serial No. 287,628
Claims priority, application Germany May 17, 1951
2 Claims. (Cl. 167—74)

1. An injectable concentrated, substantially water-free repository hormone composition, fluid at body temperature, which composition consists of an ester of a steroid hormone selected from the group consisting of estrogenic, androgenic, progestational, and adrenocortical steroid hormones, said steroid hormone ester having a melting point above body temperature, and a non-toxic substance selected from the group consisting of guaiacol, phenyl salicylate, and urethane, said substance having a melting point below about 65° C. and forming, on melting together with said steroid hormone ester, a homogeneous molten mixture therewith, said steroid hormone ester and said organic substance being present in said repository hormone composition in the form of a molten homogeneous mixture remaining stable in its fluid form, the steroid hormone ester content of said mixture substantially exceeding 50 mg. per g. thereof.

2,840,509
LANOLIN COMPOSITION AND METHOD OF PREPARING SAME
Gus S. Kass, Chicago, Ill., assignor to Saint Cornelius The Centurion Chapel of Valley Forge Military Academy, Wayne, Pa., a church corporation
No Drawing. Application December 30, 1954
Serial No. 478,901
8 Claims. (Cl. 167—90)

1. A cosmetic which is liquid at room temperature, consisting essentially of 10–50% by weight of lanolin, at least 10% and not more than 75% by weight of oil selected from the class consisting of mineral and vegetable oils as a diluent imparting liquid properties to the composition at room temperature, and at least 2% and not more than 65% by weight of an oil-soluble alkoxylated compound selected from compounds having the following formulae

$$R(OR')_x OH \text{ and } R(OR')_x OR$$

wherein each R is a hydrocarbon radical, R′ is a C_2–C_3 alkylene group and *x* is an integer from 1 to 20.

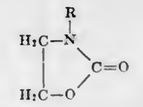
2,840,510
IODINE-SURFACE ACTIVE CARRIER GERMICIDAL PREPARATIONS
Albert Katz, Hollis Hills, N. Y., and Morris V. Shelanski, Atlantic City, N. J., assignors to West Laboratories, Inc., Long Island City, N. Y., a corporation of New York
No Drawing. Application November 19, 1956
Serial No. 622,784
11 Claims. (Cl. 167—93)

This invention relates to germicidal compositions

1. A germicidal composition comprising a complex of iodine with a surface active carrier selected from the group consisting of condensates of ethylene oxide with castor oil containing 8 to 60 mols of ethylene oxide per mol of castor oil, and condensates of ethylene oxide with a C_{12} to C_{18} alkyl fatty acid containing 8 to 60 mols of ethylene oxide per mol of alkyl fatty acid, and said complex containing about 0.5% to 15% of iodine based on the weight of said carrier.

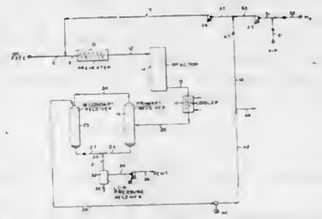
2,840,511
PROCESS OF EXTRACTION WITH 2-OXAZOLIDONE SOLVENTS
Paul N. Rylander and William A. Junk, Jr., Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application July 8, 1955
Serial No. 520,924
16 Claims. (Cl. 196—14.27)

1. A process for selectively separating a hydrocarbon from a mixture of hydrocarbons of diverse structural type which process comprises selectively extracting said mixture with a liquid 2-oxazolidone compound having the formula



wherein R is selected from the group consisting of hydrogen, methyl and hydroxyethyl.

2,840,512
STABILIZATION OF FURNACE OIL BY HYDROTREATING TO REMOVE SULFUR AND GUM
William P. Burton, Little Silver, and Charles E. Slyngstad, Rutherford, N. J., assignors to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
Application September 29, 1955, Serial No. 537,414
4 Claims. (Cl. 196—24)



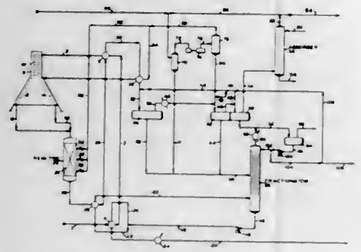
4. A process for desulfurizing and stabilizing a furnace oil containing gum forming constituents and sulfur compounds without changing the color thereof which comprises contacting the furnace oil with a cobalt molybdate catalyst under suitable conditions including a temperature of at least about 550° F. and not higher than about 700° F., a weight space velocity of about 5 to about 20, a pressure of about 150 to about 1500 p. s. i. g. and in the presence of added hydrogen in the amount of about 300 to about 2000 S. C. F. B.

2,840,513

PROCESS FOR SEPARATING RECYCLE HYDROGEN FROM ENTRAINED CONDENSED GASES IN HYDRODESULFURIZATION PROCESS

Marvin F. Nathan, New York, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

Application January 4, 1956, Serial No. 557,269
6 Claims. (Cl. 196—24)



4. In a process for the desulfurization of hydrocarbons in the presence of hydrogen in which the desulfurized product after preliminary heat exchange comprises a liquid-vapor hydrocarbon mixture containing hydrogen, in which the hydrogen is separated from the hydrocarbon mixture at a low temperature, said mixture being initially at an elevated temperature and pressure, and in which the mixture is further treated in a fractionating zone for the purpose of separating it into at least two fractions, the improvement which comprises introducing the liquid-vapor hydrocarbon mixture containing hydrogen to the first of a series of at least two zones, removing vapor from each of the zones and passing it to the succeeding zone in the series, introducing a liquid absorbent material obtained in a manner hereinafter described into at least one of the series of zones, providing sufficient cooling before at least the zones free of absorbent to condense a part of the vapor, removing the liquid from each zone of the series, passing the liquid from all but the last zone to a fractionating zone maintained at a pressure below the pressure in the last zone of the series wherein it is separated into an overhead vapor fraction and at least one heavier fraction, subjecting the overhead fraction to cooling whereby at least a portion of this material is condensed, introducing a portion of the condensed material to a zone not in the series which is maintained at a pressure intermediate between the pressure in the last zone of the series and the fractionating zone, passing condensed material which acts as an absorbent from the zone of the intermediate pressure into at least one of the series of zones as previously described whereby the concentration of light hydrocarbons in the vapor phase of said zone is decreased, passing the liquid from the last of the series of zones to the zone of intermediate pressure and removing a vapor rich in hydrogen from the last in the series of zones.

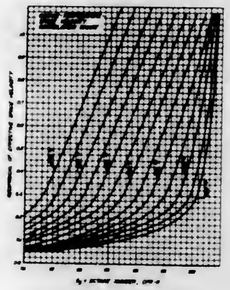
2,840,514

IMPREGNATED PLATINUM-ALUMINA CATALYSTS

Harry M. Brennan, Whiting, Herman S. Seelig, Valparaiso, and Roy W. Vander Haar, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application August 20, 1954, Serial No. 451,128
18 Claims. (Cl. 196—50)

1. A method for preparing an alumina-based hydroforming catalyst of improved activity having platinum uniformly distributed therein, which comprises impregnating solid, hydrous alumina containing between about 1 and 30 percent by weight of combined water in the presence of between about 0.001 and 0.02 mole of a substance selected from the group consisting of aluminum nitrate, aluminum sulfate, aluminum chloride, aluminum bromide, and aluminum iodide per mole of dry Al_2O_3 with a solution of a platinum compound in a quantity



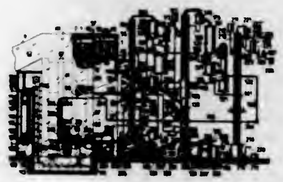
whereby platinum is added thereto in a proportion between about 0.01 and 1 percent by weight, based on dry Al_2O_3, and drying and calcining the resulting catalytic mixture.

2,840,515

SINGLE CIRCUIT PROCESS AND A PLANT FOR PRODUCING A SERIES OF PRODUCTS USING WOOD AS STARTING MATERIAL

Fernando Mario Mora, Buenos Aires, Argentina

Application August 12, 1952, Serial No. 304,026
2 Claims. (Cl. 202—57)



1. In a continuous process for the production of a calcium acetate liquor suitable for the production of acetone therefrom from the gaseous product collected during the carbonization of wood, the improvement which comprises separating insoluble tar from said gaseous product, cooling the remaining gaseous product to an intermediate temperature to simultaneously condense substantially only soluble tar and pyroligneous acid, precipitating said soluble tar with sulphuric acid and neutralizing said pyroligneous acid to produce said calcium acetate liquor.

2,840,516

WITHDRAWN

2,840,517

NICKEL-IRON-ZINC ALLOY ELECTROPLATING

Charles L. Faust and William H. Safranek, Columbus, Ohio, assignors, by mesne assignments, to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania

No Drawing. Application July 10, 1957
Serial No. 670,871
8 Claims. (Cl. 204—43)

1. A bath for depositing a nickel alloy electroplate, comprising an acidic aqueous solution of about 17 to 233 g./l. of nickel ions, about 0.3 to 5.6 g./l. of iron ions, about 0.03 to 1.25 g./l. of zinc ions, and a disulfonated benzopyrone in an amount equivalent to about 1 to 10 g./l. of coumarin disulfonic acid.

2,840,518

ACID COPPER ADDITION AGENTS AND PLATING ELECTROLYTES EMBODYING THE SAME

James W. Condon, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application July 19, 1954
Serial No. 444,387
8 Claims. (Cl. 204—52)

1. An aqueous electroplating electrolyte comprising as its essential ingredients copper sulfate, sulfuric acid, and from 0.005 to 0.2 ounce per gallon of yeast protein autolysate comprising the digest resulting from yeast acted upon by proteolytic enzymes naturally present therein, said digest being completely soluble and comprising soluble nitrogen compounds.

2,840,519

PEROXIDATION PROCESS

David R. Stern, Fullerton, and Joseph C. Schumacher, Los Angeles, Calif., assignors to American Potash & Chemical Corporation, a corporation of Delaware

No Drawing. Application May 6, 1957
Serial No. 657,021
7 Claims. (Cl. 204—82)

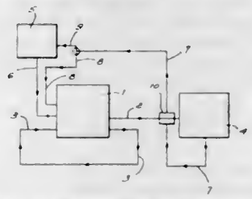
7. In a process for producing sodium perchlorate, the step of passing a current through an electrolyte between a lead dioxide anode and a cathode consisting essentially of nickel chemically plated on a metal base, the electrolyte consisting essentially of from about 400–700 grams per liter of sodium chlorate, the anode current density being substantially 1.0 ampere per square inch and the cathode current density being substantially 0.5 ampere per square inch.

2,840,520

PRODUCTION OF AMALGAMS

Alfred Wurbs, Karlsruhe, Germany

Application July 26, 1954, Serial No. 445,713
15 Claims. (Cl. 204—125)



1. An electrolytic metal recovering method comprising, in combination, the steps of subjecting an electrolyte solution containing alkali metal ions to electrolysis in an electrolytic cell utilizing liquid mercury as cathode means, whereby the metal formed by electrolysis is amalgamated with said mercury forming the amalgam of said metal; continuously removing the thus formed amalgam from said electrolytic cell; cooling a portion only of said removed amalgam; separating the mercury from said cooled portion of said removed amalgam so as to obtain said metal and free mercury; and continuously reintroducing said free mercury and the untreated remainder of said removed amalgam back into said electrolytic cell.

2,840,521

ELECTROLYTIC STRIPPING

Arthur Wasserman, Metuchen, N. J., assignor to Tiarco Corporation, Newark, N. J., a corporation of New Jersey

No Drawing. Application September 21, 1956
Serial No. 611,377
10 Claims. (Cl. 204—146)

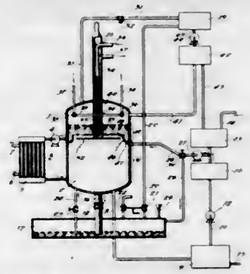
1. A process of stripping a metal coating from an underlying aluminum object, said process comprising making the coated aluminum object an anode in a dilute aqueous solution consisting essentially of sulphuric acid having a concentration less than approximately 15% by volume, said solution being maintained at a temperature below approximately 100° F., and passing current through said solution, the current density being in excess of approximately 4 amperes per square inch, the complete removal of coating metal being indicated by a zero reading of current.

2,840,522

REACTOR AND NOVEL METHOD

Gale J. Young and Leo A. Ohlinger, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application September 18, 1945, Serial No. 617,122
9 Claims. (Cl. 204—154.2)



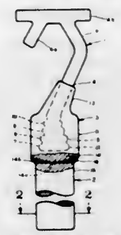
1. A self-sustaining neutronic reacting system comprising a tank containing a composition which comprises natural uranium dispersed in heavy water, the total volume thereof and the concentration of the composition therein being sufficient to provide a divergent neutronic chain reaction, and a partition for separating said volume into two portions including a cadmium plate, one of said portions being greater than critical size and the other of said portions being smaller than critical size, whereby a nuclear chain reaction can develop only in the larger of said portions.

2,840,523

LEAD ANODE FOR CHROMIUM PLATING

Walter Cibulskis, Scarsdale, N. Y., and Meyer Shacat, Waterbury, and Henry Mahlstedt, Old Greenwich, Conn., assignors, by mesne assignments, to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

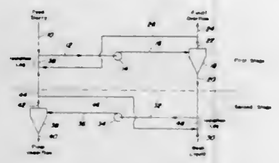
Application February 2, 1955, Serial No. 485,656
1 Claim. (Cl. 204—286)



An insoluble lead anode for a chromic acid chromium plating bath, comprising an upper portion of copper, an elongated lower portion of lead, and an intermediate portion of lead joining the upper and lower portions, the upper portion being integral and having a hook at its upper end and an enlarged conical portion at its lower end and a shank intermediate the hook and enlarged conical portion, the intermediate portion being cylindrical and the enlarged conical portion being coaxial with and disposed

entirely within the intermediate portion, the lower portion having a thickness in any lateral direction less than the diameter of the intermediate portion, the shank of the upper portion being inclined from the common axis of the enlarged conical portion and the intermediate portion and joining the enlarged conical portion at an obtuse angle, and a sleeve integral with the intermediate portion and of less diameter than the intermediate portion, the sleeve being inclined with the shank from the axis of the intermediate portion and enclosing a portion of the shank.

2,840,524
HYDROCYCLONE COUNTERCURRENT WASHING SYSTEM
Paul L. Stavenger and Elliot B. Fitch, Westport, Conn., assignors to Dorr-Oliver Incorporated, a corporation of Delaware
Application September 23, 1954, Serial No. 457,916
14 Claims. (Cl. 210—21)



13. A process for the continuous countercurrent washing of at least one constituent from a liquid-borne material containing such constituent which comprises the combination of steps of flowing said liquid-borne material, as a confined feed stream, and at predetermined average operative volume rate, to a pumping step; flowing washing liquid in a confined feed stream and at a predetermined average operative volume rate to said pumping step; in said pumping step, mixing said liquid-borne material with said wash liquid and imparting hydrostatic head to the mixture; passing the mixture under hydrostatic head at a predetermined volume rate in a confined stream into a confined, free-whirling liquid vortex; hydraulically separating said mixture in said vortex into an overflow fraction and an underflow fraction; hydraulically discharging said fractions from said vortex in separate and confined streams; recirculating a portion of one of said discharged fractions through a part of a feed stream to said pumping step; said part of a feed stream in which both recirculated fraction and wash liquid feed pass being an isolation leg, and said feed stream through which said portion of discharge fraction circulates being the wash liquid stream.

2,840,525
METHOD OF INHIBITING CORROSION OF METAL SURFACES
Loyd W. Jones, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
No Drawing. Original application October 1, 1953, Serial No. 383,689. Divided and this application August 2, 1956, Serial No. 609,334
7 Claims. (Cl. 252—8.55)

1. A method of inhibiting corrosion of metal surfaces by fluids containing water and a member of the group of corrosive materials consisting of oxygen, hydrogen sulfide, carbon dioxide, carboxylic acids containing from 2 to 4 carbon atoms per molecule, and combinations of these individual corrosive materials, comprising adding to said fluids at least about 5 parts per million by weight of a polyamine salt of a carboxylic acid, said acid being derived by liquid phase partial oxidation of a normally-liquid petroleum fraction, and said polyamine having the formula $RNHR'NH_2$, wherein R is a hydrocarbon radical containing at least about 10 carbon atoms, N is a nitrogen atom, H is a hydrogen atom, and R' is a hydrocarbon radical containing from 2 to 4 carbon atoms.

2,840,526
CORROSION PREVENTION
Howard F. Keller, Jr., Fullerton, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application April 1, 1957
Serial No. 649,603
14 Claims. (Cl. 252—8.55)

1. The method for reducing the corrosiveness of oil and gas well fluids comprising moisture and at least one acidic material selected from the class consisting of carbon dioxide and hydrogen sulfide towards ferrous metals which comprises introducing into said well fluid a corrosion inhibiting amount of a product prepared by reacting an ethylene polyamine of the general formula

$$NH_2—(C_2H_4NH)_x—H$$

wherein x represents an integer from 1 to 5, inclusive, with an alkyl ester of an unsaturated aliphatic carboxylic acid, the alkyl group of which contains from 4 to 22 carbon atoms, said reaction being carried out at a temperature below that at which any substantial amounts of amides are formed and between about 1 and about 6, but not more than $x+1$, moles of said alkyl ester being employed per mole of said ethylene polyamine.

2,840,527
PROMOTED PLATINUM-ALUMINA CATALYSTS
Harry M. Brennan, Hammond, Herman S. Seelig, Valparaiso, and Roy W. Vander Haar, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 29, 1955, Serial No. 497,751
10 Claims. (Cl. 252—438)

1. A method of preparing an alumina-based hydroforming catalyst of improved activity, which comprises commingling a platinum compound with alumina in a proportion between about 0.05 and 1 percent by weight of platinum, based on dry Al_2O_3, drying and calcining the resulting mixture to a water content between about 1 and 30 percent by weight, dry basis, introducing into the dried and calcined mixture a single substance selected from the group consisting of aluminum nitrate, aluminum sulfate, aluminum chloride, aluminum bromide, and aluminum iodide in a proportion above about 0.001 mole per mole of dry Al_2O_3, thereafter removing any added solvent, and calcining.

2,840,528
METHOD OF PREPARING CATALYST FOR REFORMING GASOLINE
George Alexander Mills, Swarthmore, and Thomas Henry Milliken, Jr., Moylan, Pa., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 26, 1956
Serial No. 561,659
2 Claims. (Cl. 252—442)

1. In the method of preparing dual-function reforming catalyst granules consisting of from 0.1 to 2% platinum on a carrier having a controlled acidic function distributed over a large surface area in excess of 5 $m.^2/g.$, said carrier being selected from the group consisting of silica-alumina and alumina, in which method granular particles of a large surface area carrier are impregnated with chloroplatinic acid and in which thereafter a hydrogen-containing gas stream is employed at an elevated temperature for forming catalyst granules comprising metallic platinum distributed on a large surface area carrier, the improvement which includes the steps of: subjecting granules impregnated with chloroplatinic acid to a drying treatment sufficiently severe to reduce the water content below 1 $mg./m.^2$ of surface area; subjecting the thus dried, impregnated granules to a gaseous sulfiding agent in an amount in excess of one sixth of the weight of the platinum content of the graules and in the substantial absence of steam and whereby at least a portion of the chloroplatinate is sulfided; and thereafter subjecting the thus sulfided granular particles to a hydrogen-containing gas stream at a temperature within the range from 500° F. to 1000° F. to form catalyst granules comprising metallic platinum distributed in said large surface area carrier, said catalyst granules possessing enhanced activity in the reforming of gasoline by reason of said drying, gaseous sulfiding, and reducing treatments.

2,840,529
ALUMINA CONTAINING CATALYST
Philip A. Lefrancois, Cranford, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
No Drawing. Application April 21, 1952
Serial No. 283,517
10 Claims. (Cl. 252—455)

2. A method of producing a catalyst consisting essentially of reacting aluminum, water and a compound of a metal selected from the group consisting of mercury, zinc and cadmium in an amount from 0.0005 to about 0.1 pound per pound of aluminum at a temperature of at least about 150° F. to produce alumina in a slurry having a pH between about 7.5 and about 9.5; combining a silica forming substance, the alumina and a suitable precursor material of a catalytic agent selected from the group consisting of molybdenum oxide and platinum; and subjecting the resultant mixture to an elevated temperature sufficient to produce a catalyst containing the catalytic agent supported on alumina and silica.

2,840,530
PREPARATION OF POROUS KAOLIN CATALYSTS
Thomas H. Milliken, Jr., Moylan, Pa., and Walter L. Weidman, Woodbury, N. J., assignors to Houdry Process Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application July 20, 1954
Serial No. 444,636
4 Claims. (Cl. 252—455)

1. A process of preparing granular particles of stable catalysts having a Cat-A activity greater than 20 from kaolin-type clay which comprises intimately mixing said kaolin-type clay in finely divided form with from about 5% to about 12% by weight, corresponding to at least 0.15 and not more than 1.0 volume ratio, of wood flour forming the resulting mixture into granular particles, heating said granular particles in an oxidizing atmosphere, whereby, said wood flour is burned out at a temperature of about 1500° F., well below the fusion temperature of said clay, and recovering said heated granular particles as hard, porous active and stable catalyst particles capable of selectively promoting formation of gasoline during the cracking of higher boiling hydrocarbons.

2,840,531
SELECTIVE HYDROGENATION CATALYST AND PROCESS FOR PRODUCING SAME
Harold W. Fleming, Louisville, and Ronald E. Reitmeier, Anchorage, Ky., assignors to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware
No Drawing. Application December 9, 1954
Serial No. 474,296
9 Claims. (Cl. 252—455)

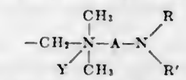
1. A nickel-chrome catalyst suitable upon reduction for the selective hydrogenation of acetylenic compounds in the presence of olefins and exhibiting excellent resistance to high temperature steaming, said catalyst comprising a calcined mixture of nickel oxide and chromic oxide supported upon a carrier, the amount of nickel in the catalyst being less than one percent by weight, the calcined mixture of oxides containing hexavalent chromium in an amount less than one percent by weight of the mixture, the calcined mixture of oxides constituting between about 2% and about 15% by weight of the catalyst, and said carrier being selected from the group consisting of: (1) high grade alumina containing less than 0.05% sodium on a Na_2O basis and (2) carrier mixtures comprising at least 20% hydraulic cement and at least 10% clay.

2,840,532
ALUMINA PLATINUM CATALYST AND PREPARATION THEREOF
Vladimir Haensel, Hinsdale, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application July 17, 1953
Serial No. 368,827
6 Claims. (Cl. 252—466)

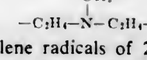
1. In the compositing of platinum with alumina, the step which comprises impregnating the alumina with a homogeneous aqueous solution of a water-soluble platinum compound and an acidic compound selected from the group consisting of nitric acid, sulfuric acid, phosphoric acid, aluminum nitrate, acetic acid, oxalic acid, formic acid, and propionic acid in an amount to impart to the solution a pH value below 2.5.

2,840,533
ANION-EXCHANGE RESINS CONTAINING WEAKLY AND STRONGLY BASIC FUNCTIONAL GROUPS
Jesse C. H. Hwa, Levittown, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application May 20, 1954
Serial No. 431,278
15 Claims. (Cl. 260—2.1)

1. An anion-exchange resin containing both weakly basic anion-adsorbing groups and strongly basic quaternary ammonium anion-adsorbing groups which comprises an insoluble, cross-linked copolymer of 98–99.5% of a monovinyl hydrocarbon and 0.5–2% of a polyvinylidene compound, said copolymer containing on the aromatic nuclei substituent groups having the general formula



in which A represents a member of the class consisting of the radical



and divalent alkylene radicals of 2 to 6 carbon atoms, R and R' each represent a member of the class consisting of a methyl radical, an ethyl radical, and a hydrogen atom, and Y represents an anion, the number of said groups being from 5 to 10 for every 10 aromatic nuclei.

2,840,534
METHOD OF USING AMMONIUM ALUM IN DISCOLORATION REDUCTION OF FOAMED VINYL CHLORIDE POLYMERS
Lawrence Clark and Algirdas C. Poshkus, Lancaster, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
No Drawing. Application January 30, 1956
Serial No. 562,020
6 Claims. (Cl. 260—2.5)

1. In the method of forming a cellular product by admixing a vinyl chloride polymer with a blowing agent

and heating the mixture to a temperature in the range of about 280°–325° F. sufficient to decompose the blowing agent, the improvement which comprises incorporating in said mixture before heating an amount of ammonium alum in the range of about 0.5%–7% by weight based on the total composition, said amount being effective to reduce discoloration in said product.

2,840,535

ARYL PHOSPHATE PLASTICIZED ALKYD RESIN ADHESIVE COMPOSITIONS AND METHOD OF PREPARING

Harry D. Crandon, Woodstock, Conn., and Thomas E. Burgess, Southbridge, Mass., assignors to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts

Application May 21, 1953, Serial No. 356,351
14 Claims. (Cl. 260—30.6)

1. A transparent water resistive cement for joining transparent elements comprising approximately from 75 to 85% of a resin comprising the polymer of diethylene glycol and maleic acid cross-linked with diallyl phthalate, and said resin being plasticized with approximately from 15% to 25% of a hydrophobic aryl compound selected from the group consisting of tricresyl phosphate and cresyl diphenyl phosphate compatible with the resin over a relatively wide range of temperatures for rendering the resin resistant to water.

2,840,536

AMINE SOLUTIONS OF HIGH MOLECULAR POLYESTERS

Otto Fuchs, Frankfurt am Main, Germany, assignor to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application March 2, 1954
Serial No. 413,699
Claims priority, application Germany March 7, 1953
4 Claims. (Cl. 260—32.6)

1. A solution comprising a high molecular linear aliphatic glycol polyester of terephthalic acid dissolved in a solvent of the formula $R_1—NH—R_2$ wherein R_1 is a radical selected from the group consisting of phenyl, chlorophenyl, lower alkyl phenyl having up to 4 carbon atoms in the alkyl chain, acetophenyl, carbo-lower alkoxy phenyl having up to 4 carbon atoms in the alkyl chain, pyridyl, lower alkyl pyridyl having up to 4 carbon atoms in the alkyl chain, naphthyl and hydronaphthyl radicals, and wherein R_2 is a radical selected from the group consisting of R_1, hydrogen and lower alkyl radicals having up to 4 carbon atoms, said solvent being present in at least about 1.5 times the weight of said polyester.

2,840,537

CONTINUOUS METHOD OF POLYCONDENSING DIOL ESTERS OF TEREPHTHALIC ACID IN A SOLVENT

Johannes Kleine, Munchen, Erhard Siggel, Laudenbach, Main, and Richard Gerlach, Obernburg, Main, Germany, assignors to Vereinigte Glanzstoff-Fabriken A. G., Wuppertal-Elberfeld, Germany, a corporation of Germany

No Drawing. Application August 3, 1954
Serial No. 447,642
Claims priority, application Germany August 3, 1953
4 Claims. (Cl. 260—33.6)

1. Process of continuously carrying out the polycondensation of diol esters of terephthalic acid in an organic solvent of the group of compounds and mixtures of said compounds selected from the class consisting of two cyclic nuclei linked directly to each other and two cyclic nuclei linked by a member of the group consisting of —O—, and $—[CH_2]_n—$, n being an integer in the series 1 to 4, and wherein the hydrogenation of the nuclei ranges from the partial to the complete state, and wherein said nuclei may carry inert nuclear substituents which comprises introducing the diol ester dissolved in said solvent into a standing reaction vessel at the top thereof, the reaction vessel being heated to a temperature increasing from 220° C. and 265° C. from the top towards the bottom, while a current of said solvent in vaporized form is conducted from the bottom towards the top of the reaction vessel at such rate that the quantity of the said solvent in the upper part of the reaction vessel is 4 to 8 times that of the quantity of the said solvent in the lower part of the reaction vessel whereby the polycondensate and the solvent in reduced amount ready for spinning may be withdrawn from the lower part of the reaction vessel.

2,840,538

POLYESTER RESINOUS MOLDING COMPOSITIONS AND ELECTRICAL CONDUCTOR FORMED THEREWITH

Herbert F. Minter, Pittsburgh, and Jack Swiss, Franklin Township, Westmoreland County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 12, 1955, Serial No. 500,764
9 Claims. (Cl. 260—40)

1. A resinous molding composition which thermosets to a tough and elastic solid comprising an intimate admixture of (A) from 10 to 70 parts by weight of a finely divided filler at least 70% by weight of which is a nonfibrous solid filler of an average particle size of below one micron and (B) from 90 to 30 parts by weight of a polyester resin derived by heating above 150° C. but not exceeding 250° C. (*a*) one mol of at least one unsaturated dicarboxylic acidic compound selected from the group consisting of fumaric acid, maleic acid, maleic anhydride, citraconic anhydride, and citraconic acid, (*b*) from 3 to 5 mols of adipic acid, (*c*) from 7 to 9 mols of succinic acid, (*d*) from 0.5 to 5 mols of propylene glycol, and (*e*) from 14 to 9 mols of ethylene glycol, the glycols providing sufficient hydroxyl groups to exceed by at least 5% but not over 15% the number of carboxyl groups in the acidic compounds.

2,840,539

STABLE AQUEOUS EMULSION OF ALKYLDIPHENYLAMINES

James W. L. Fordham, Hazardville, Conn., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 27, 1955
Serial No. 518,343
7 Claims. (Cl. 260—45.9)

1. The method of preparing a stable aqueous emulsion of monoheptyl diphenylamine which comprises adding 100 parts of monoheptyldiphenylamine with stirring to an aqueous solution containing 0.5 to 5.0 parts of a potassium salt of a fatty acid having 10–18 carbon atoms in its structure.

2,840,540

ETHOXYLINE RESIN-HEXACHLOROENDOMETHYLENETETRAHYDROPHTHALIC ANHYDRIDE COMPOSITIONS HAVING LONG POT LIFE

Joseph Rosenberg and Mary Anne Graff, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

No Drawing. Application November 10, 1954
Serial No. 468,160
13 Claims. (Cl. 260—47)

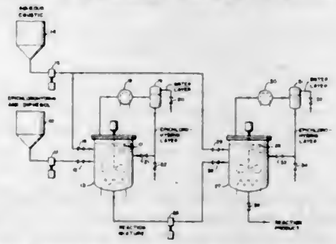
1. A composition of matter comprising the reaction product of (1) a complex epoxide resin containing 1,2-epoxide groups and comprising a polyether of a polyhydric organic compound selected from the class consisting of polyhydric alcohols and phenols having at least two phenolic hydroxy groups and (2) a composition comprising (*a*) a material selected from the class consisting of chlorinated benzene and chlorinated polyphenyls having at least three chlorine atoms per molecule and mixtures thereof and (*b*) a material selected from the class consisting of hexachloroendomethylenetetrahydrophthalic anhydride, and hexachloroendomethylenetetrahydrophthalic acid and mixtures thereof, the amount of (*a*) being from about 20 to 70 percent, by weight, of (*b*), and the amount of (*b*) being from about 5 to 70 percent, by weight, of said complex epoxide resin.

2,840,541

PROCESS FOR MANUFACTURE OF GLYCIDYL ETHERS OF POLYHYDRIC PHENOLS

Philip Pezzaglia, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application January 31, 1955, Serial No. 484,869
5 Claims. (Cl. 260—47)



1. In a process for continuous production of polyglycidyl ether of a polyhydric phenol wherein a polyhydric phenol and sufficient epichlorohydrin to amount to at least two molecules thereof per phenolic hydroxyl group are introduced continuously to the first of a series of reaction zones for reaction with alkali metal hydroxide, reaction mixture is continuously transferred from zone to zone in the series with continuous withdrawal from the last zone, and the reaction mixture in the several zones is agitated and boiled with azeotropic distillation of water and epichlorohydrin therefrom so that the water concentration in the reaction mixture is maintained at from about 0.5 to 2% by weight while regulating the rates of introduction of reactants, transfer of reaction mixture and withdrawal of product so the liquid contents in the several zones are maintained substantially constant, the improvement which comprises introducing the hydroxide to the several zones in fractions with the total thereof amounting to about an equivalent of the hydroxide per equivalent of the epichlorohydrin that reacts in the whole of the series of zones.

2,840,542

ETHERIFIED PHENOLIC RESINS

James H. Freeman, Hempfield Township, Westmoreland County, and Leonard E. Edelman, Penn Township, Allegheny County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application January 28, 1955
Serial No. 484,824
5 Claims. (Cl. 260—58)

1. The process which comprises establishing a mixture of methylolphenol compounds in which the ratio of methylol groups to phenolic nuclei is within the range of from 1.0 to 1.5, etherifying the phenolic hydroxyl groups on the methylolphenol compounds, and azeotropically distilling the etherified methylolphenol compounds in an anhydrous, non-alcoholic, water-immiscible solvent therefor in the presence of an acid employed in an amount and concentration sufficient to maintain the solution at a pH no greater than 4, when measured in an equal parts mixture with water, to cause methylol groups on certain of the etherified methylolphenol compounds to react with hydrogen atoms located on other etherified methylolphenol compounds in positions ortho and para to the etherified hydroxyl group to produce a resin of methylene bridged phenol units in which a predetermined number of the phenolic hydroxyl groups have been converted to ether groups.

2,840,543

ARTIFICIAL RESIN FROM FURFURYL ALCOHOL, FORMALDEHYDE, AND MAGNESIUM SULFATE, AND PROCESS OF MAKING THE SAME

Lloyd H. Brown, Oak Park, Edward A. Reineck, Highland Park, and Peter G. Huett, Chicago, Ill., assignors to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey

No Drawing. Application July 29, 1953
Serial No. 371,151
10 Claims. (Cl. 260—67)

1. Method of producing an artificial resin which comprises heating a mixture of furfuryl alcohol and formaldehyde in a ratio of from about 1/10 to 2 mols of formaldehyde per mol of furfuryl alcohol in the presence of about from 10 percent to 40 percent of anhydrous magnesium sulfate as a catalyst as calculated on the weight of the furfuryl alcohol to a temperature between about 98° and 128° C., the reaction being carried out at a hydrogen-ion concentration less than that equivalent to a pH of 4.0 and with continuous removal of the water formed as a result of the reaction.

2,840,544

CONDENSATION POLYMERS OF 2,6-DIHYDROXY-4-CARBOXY-PYRIDINE AND FORMALDEHYDE AND METHOD OF MAKING THE SAME

Frank M. Precoplo, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

No Drawing. Application December 20, 1954
Serial No. 476,543
9 Claims. (Cl. 260—67.5)

1. A condensation polymer product of 2,6-dihydroxy-4-carboxy-pyridine and formaldehyde prepared by reacting one mole of the pyridine with essentially two moles of formaldehyde in aqueous solution.

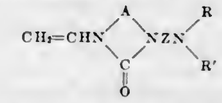
2,840,545

N-VINYL-N'-AMINOALKYL-N,N'-ALKYLENE-UREAS AND POLYMERS THEREOF

Robert S. Yost, Oreland, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application September 9, 1955
Serial No. 533,511
14 Claims. (Cl. 260—77.5)

1. A compound of the formula



where A is an alkylene group having 2 to 3 carbon atoms of which at least two extend in a chain between the adjoined N atoms, Z is an alkylene group having 2 to 18 carbon atoms of which at least two extend in a chain between the N atoms, R, when attached to R' only through the adjoining nitrogen atom, is selected from the group consisting of H, phenyl, benzyl, cyclohexyl, and alkyl and alkenyl groups having from 1 to 18 carbon atoms, R', when attached to R only through the adjoining nitrogen atom, is selected from the group consisting of H, phenyl,

benzyl, cyclohexyl, and alkyl and alkenyl groups having form 1 to 18 carbon atoms, and R and R′, when attached directly together, form a heterocyclic ring with the adjoining N atom of the formula and are selected from the group consisting of the morpholino residue

$$=(CH_2CH_2)_2O,$$

the piperidino residue $—(CH_2)_5—$ and the pyrrolidino residue $—(CH_2)_4—$.

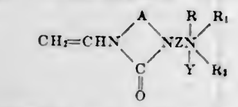
2,840,546

UNSATURATED QUATERNARY AMMONIUM COMPOUNDS AND POLYMERS

Robert S. Yost, Oreland, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 6, 1956
Serial No. 557,654
2 Claims. (Cl. 260—77.5)

1. A compound of the formula



where A is an alkylene group having 2 to 3 carbon atoms of which at least two extend in a chain between the adjoined N atoms, Z is an alkylene group having 2 to 18 carbon atoms of which at least two extend in a chain between the N atoms, R and R^1 are individually selected from the group consisting of phenyl, benzyl, cyclohexyl, and alkyl and alkenyl groups having from 1 to 18 carbon atoms and radicals which together and with the adjoining N atom of the formula form a heterocyclic ring selected from the group consisting of morpholino, piperidino, and pyrrolidino, Y is an anion, and R^2 is selected from the group consisting of phenyl, benzyl, cyclohexyl; alkylphenyl, alkenylphenyl, alkylbenzyl, and alkenylbenzyl groups in which the alkyl and alkenyl groups have from 1 to 18 carbon atoms; chlorine-substituted and bromine-substituted phenyl, benzyl, and cyclohexyl groups; chlorine-substituted and bromine-substituted alkylphenyl, alkenylphenyl, alkylbenzyl, and alkenylbenzyl groups in which the alkyl and alkenyl groups have from 1 to 18 carbon atoms; phenoxyalkyl, alkoxyalkyl; hydroxyalkyl; hydroxy-substituted aralkyl; $—CH_2R^3$ where R^3 is selected from the group consisting of furyl, thienyl, and naphthyl; and alkyl and alkenyl groups having from 1 to 18 carbon atoms.

2,840,547

PROCESS FOR PREPARING POLYCARBONAMIDES

William L. Stump, Kinston, N. C., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application June 30, 1955, Serial No. 519,065
3 Claims. (Cl. 260—78)

1. A process for the preparation of a synthetic, linear, fiber-forming polycarbonamide in which the recurring carbonamide linkages are an integral part of the polymer chain, which comprises blending the separately prepared melts of a diamine, the nitrogens of which are substituted with active hydrogen, and a dicarboxylic acid, both of which blend components melt above room temperature, in such proportion that neither component exceeds the other by more than about 3 mole percentage, maintaining the blend in molten form to produce a low molecular weight polymer partially soluble in water, and thereafter adjusting the proportion of the said diamine to the said dicarboxylic acid by addition of one of the said components so that the pH of an aqueous solution of the said low molecular weight polymer has a predetermined value, and such that the composition of the said low molecular weight polymer and the said added component is suitable for the preparation of a linear, fiber-forming polycarbonamide, and thereafter melt polymerizing the low molecular weight polymer to the fiber-forming stage.

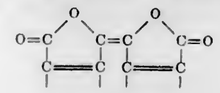
2,840,548

POLYMERIC REACTION PRODUCTS OF UNSATURATED DILACTONES AND COMPLEMENTARY POLYFUNCTIONAL REACTANTS

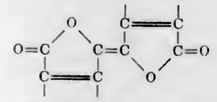
Benjamin W. Howk, West Chester, Pa., and John C. Sauer, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 25, 1955
Serial No. 549,153
15 Claims. (Cl. 260—78.3)

1. A polymeric reaction product of an unsaturated dilactone and an organic complementary polyfunctional reactant containing at least two groups selected from the class consisting of hydroxyl and primary and secondary amino groups, said unsaturated dilactone having one of the formulas



and



wherein one free valence of each ring in said formulas is satisfied by R and the other free valence of each ring in said formulas is satisfied by R′, and R and R′ being selected from the class consisting of hydrogen, alkoxyaryl where the alkoxy radical is not more than 12 carbon atoms and the aryl radical is hydrocarbon of not more than 10 carbon atoms, haloaryl where the aryl radical is hydrocarbon of not more than 10 carbon atoms, and monovalent hydrocarbon radicals, free from non-aromatic unsaturation, of not more than 12 carbon atoms.

2,840,549

ALKYL PHENOXY POLYOXYETHYLENE ETHANOL AS A DISPERSANT IN THE POLYMERIZATION OF MONOETHYLENICALLY UNSATURATED MATERIALS

Dorothy Grace McNulty and Robert I. Leininger, Columbus, Ohio, assignors, by mesne assignments, to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application June 10, 1954
Serial No. 435,910
6 Claims. (Cl. 260—80)

1. The process of producing a high quality polymer which consists essentially of dispersing in water, as a suspension which settles rapidly when agitation is discontinued, a polymerizable monoethylenic monomer with the aid of up to about 1.0% by monomer weight of an alkyl phenoxy polyoxyethylene ethanol and polymerizing said monomer while so suspended.

2,840,550

PROCESS FOR POLYMERIZING VINYL COMPOUNDS CONTAINING A BASIC NITROGEN ATOM

John A. Price, Stamford, and Walter M. Thomas, Noroton Heights, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 20, 1955
Serial No. 510,043
11 Claims. (Cl. 260—80.5)

10. A process which comprises polymerizing a major proportion of acrylonitrile and a minor proportion of a vinyl pyridine at a temperature between about 20 and about 70 degrees centigrade in an aqueous solution comprising between about 0.01 and about 1.0 percent of chlorate ions from an alkali metal chlorate, between about 0.01 and about 3.0 percent of sulfoxy ions from an alkali metal salt of sulfurous acid based upon the weight of polymerizable material and sufficient nitric acid to produce a pH between about 1 and about 5 in the solution.

11. A process according to claim 10 in which the polymerizable material charged comprises about 80 to about 90 percent by weight of acrylonitrile, about 5 to about 10 percent 2-methyl-5-vinyl pyridine and about 5 to 10 percent vinyl acetate.

2,840,551

OLEFIN POLYMERIZATION WITH CATALYSTS PREPARED FROM BORON COMPOUNDS AND TRANSITION METAL COMPOUNDS

Edmund Field, Chicago, Herbert N. Friedlander, Homewood, and Omar O. Juveland, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 18, 1955
Serial No. 529,323
21 Claims. (Cl. 260—93.7)

1. A process for the polymerization of an olefinic hydrocarbon, which process comprises contacting said hydrocarbon under polymerization conditions with a catalyst prepared by mixing a boron compound selected from the class consisting of hydride and hydrocarbon derivatives of boron with a polyvalent metal salt of a metal selected from Groups 4*a*, 5*a*, 6*a* and 8 of the Mendeleeff Periodic Table, and recovering a polymer thus produced.

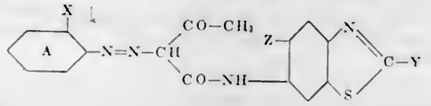
2,840,552

COBALT COMPLEXES OF MONOAZO DYES

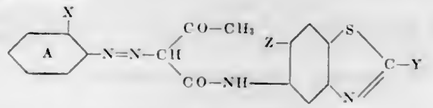
Robert Frederic Michel Sureau, Enghien-les-Bains, and Georges Raymond Henry Mienasson, Paris, France, assignors to Compagnie Française des Matières Colorantes, Paris, France, a French company

No Drawing. Application July 25, 1955
Serial No. 524,288
Claims priority, application France July 26, 1954
6 Claims. (Cl. 260—146)

1. The cobalt complexes of a mono-azo dyestuff selected from those having the following formulae:



and



in which X represents a member selected from the group consisting of the —OH and —COOH groups, the benzene nucleus A is substituted by members selected from the group consisting of hydrogen and chlorine atoms and the methyl, nitro, acylamino, suiphonamido, monomethylsulphonylamino, dimethylsulphonylamino, iso propylsulphonylamino, methylsulphone and ethylsulphone groups, Y represents a member selected from the group consisting of the hydrogen atom and the methyl, ethyl, phenyl, methoxy, ethoxy, methylthio and ethylthio groups and Z represents a member selected from the group consisting of the hydrogen and chlorine atoms and the methyl, ethyl, methoxy and ethoxy groups which complexes contain one atom of cobalt per two molecules of dyestuff.

2,840,553

METHOD OF PREPARING CAPROLACTAM

Josef Heinrich Fritz Pieper, Berlin-Lichterfelde-West, Germany, assignor, by mesne assignments, to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 29, 1956
Serial No. 574,606
Claims priority, application Germany
November 23, 1955
4 Claims. (Cl. 260—239.3)

1. The method of preparing ε-caprolactam comprising reacting a material of the group consisting of ε-hydroxycaproic acid amide, ammonium salt of ε-hydroxycaproic acid, and mixtures thereof, in aqueous ammonia solution under conditions of superatmospheric pressure and temperature from about 250° C. to about 300° C.

2,840,554

METHOD OF PREPARING CAPROLACTAM

Josef Heinrich Fritz Pieper, Berlin-Lichterfelde-West, Germany, assignor, by mesne assignments, to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 29, 1956
Serial No. 574,607
Claims priority, application Germany October 15, 1955
1 Claim. (Cl. 260—239.3)

The method of preparing ε-caprolactam comprising reacting an ester of ε-hydroxycaproic acid with an excess of concentrated aqueous ammonia solution under conditions of superatmospheric pressure and temperature from about 250° C. to about 300° C.

2,840,555

METHOD OF PREPARATION OF CYCLOPENTANOPHENANTHRENE DERIVATIVES

George Rosenkranz, Mexico City, Mexico, and Carl Djerassi, Birmingham, Mich., assignors, by mesne assignments, to Syntex, S. A., Mexico City, Mexico, a corporation of Mexico

No Drawing. Original application February 17, 1953, Serial No. 337,432, now Patent No. 2,776,969, dated January 8, 1957. Divided and this application October 3, 1956, Serial No. 616,905
Claims priority, application Mexico February 19, 1952
35 Claims. (Cl. 260—239.55)

1. A process for the production of an 11-mono ester of an allospirostan-11α-ol-3-one which comprises treating a corresponding diester of an allospirostan-3β,11α-diol with a molar equivalent of a mild saponifying agent to produce the corresponding 11-mono ester and oxidizing said 11-mono ester with an oxidizing agent selected from the group consisting of chromic acid, N-bromoacetamide and an aluminum alkoxide in the presence of a hydrogen acceptor.

7. A process for the production of a 23 brominated ester of Δ^4-spirosten-11α-ol-3-one, which comprises treating a corresponding 23 brominated ester of 2-iodo-Δ^4-spirosten-11α-ol-3-one with a reducing agent selected from the class consisting of chromous chloride, a tertiary amine and sodium sulfite.

2,840,556

PREPARATION OF SULFENMORPHOLIDES

Robert Chalk Kinstler, Dunellen, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

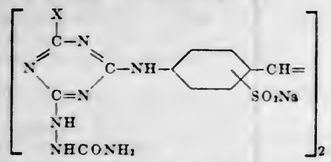
No Drawing. Application November 30, 1955
Serial No. 550,193
9 Claims. (Cl. 260—247.1)

1. In the preparation of sulfenmorpholides which comprises reacting N-chloromorpholine directly with a compound selected from the group consisting of free mercaptans and disulfides in an anhydrous, inert, volatile or-

ganic solvent containing sufficient free morpholine to fix by-product hydrogen chloride as morpholine hydrochloride, and recovering the sulfenmorpholide from the reaction liquor, the improvement in combination therewith of liberating morpholine from the morpholine hydrochloride which comprises: slurrying the morpholine hydrochloride in an inert organic solvent and saturating the slurry with anhydrous ammonia.

2,840,557
WHITE FLUORESCENT AGENT
William W. Williams, New York, N. Y., and William H. Libby, St. Paul, Minn., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application March 30, 1956
Serial No. 575,000
5 Claims. (Cl. 260—247.1)

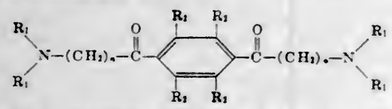
1. A whitener having the composition:



where X is selected from the group consisting of morpholinyl, dimethylamino, diethylamino and di-(hydroxyethyl)-amino.

2,840,558
MANNICH BASES OF AROMATIC POLYKETONES
Robert W. Martin, Lafayette, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 30, 1954
Serial No. 440,542
6 Claims. (Cl. 260—247.5)

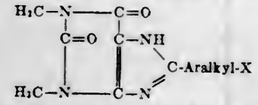
1. An aminoketone compound having the following structural formula



wherein R_1 represents a lower alkyl radical and each pair of R_1's attached to the same nitrogen atom form morpholine when taken together, R_2 is selected from the group consisting of methyl, methoxy, chlorine and hydrogen, and n is a whole number not greater than 2.

2,840,559
NUCLEARLY SUBSTITUTED 8-THEOPHYLLINES AND METHOD OF MAKING THE SAME
John C. Krantz, Jr., Ruxton, and Raymond M. Burgison and George P. Hager, Baltimore, Md.; said Burgison and said Hager assignors to said Krantz, Jr.
No Drawing. Application June 22, 1954
Serial No. 438,608
4 Claims. (Cl. 260—256)

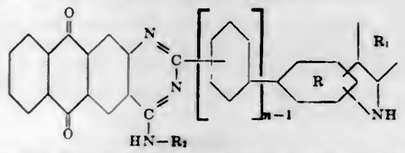
2. Compounds having the general formula:



wherein the aralkyl group has from one to two rings nuclearly substituted by no more than 2 groups of X wherein X is attached to the aromatic nucleus and is selected from the group consisting of chlorine and bromine atoms, amino, acetylamino, hydroxy, methoxy, methylene dioxy and ethoxy groups.

2,840,560
ANTHRAQUINONE VAT DYESTUFFS
Paul Sutter, Binningen, Switzerland, assignor to Ciba Limited, Basel, Switzerland
No Drawing. Application July 17, 1952
Serial No. 299,491
Claims priority, application Switzerland July 24, 1951
12 Claims. (Cl. 260—256.4)

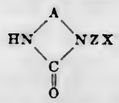
1. A vat dyestuff corresponding to the formula



in which n represents a whole number not greater than 2, R_1 represents an anthraquinonyl radical bound to the —NH— group by a ring carbon atom which is in a position vicinal to the carbon atom bound directly to the ring R, and R_2 represents an anthraquinone radical.

2,840,561
N-(AMINOALKYL)-N,N'-ALKYLENEUREAS AND METHODS OF PRODUCING THEM
Robert S. Yost, Oreland, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application September 9, 1955
Serial No. 533,510
7 Claims. (Cl. 260—256.4)

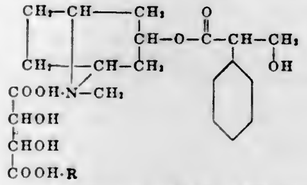
1. A method which comprises reacting at a temperature from room temperature to 200° C. an amine of the formula HNRR' with a compound of the formula



where A is an alkylene group having 2 to 3 carbon atoms of which at least two extend in a chain between the adjoined N atoms, Z is an alkylene group having 2 to 18 carbon atoms of which at least two extend in a chain between the N and X atoms, R is selected from the group consisting of H, cyclohexyl, and alkyl groups having from 1 to 18 carbon atoms, R' is selected from the group consisting of cyclohexyl and alkyl groups having from 1 to 8 carbon atoms, and X is a halogen selected from the group consisting of chlorine and bromine; and recovering an N-(aminoalkyl)-N,N'-alkyleneurea from the reaction medium.

2,840,562
SALTS OF POLYBASIC ACIDS, ATROPINE, AND ADRENERGIC AMINES
Ely Fein, Bayside, N. Y., assignor, by mesne assignments, to The Chemac Company, Yonkers, N. Y., a co-partnership
No Drawing. Application December 29, 1953
Serial No. 401,073
5 Claims. (Cl. 260—292)

1. A novel chemical compound represented by the formula



wherein R is a member of the class consisting of mephentermine, isopropylarterenol, amphetamine and ephedrine.

2,840,563
RUBBER ACCELERATOR
Robert C. Kinstler and Donn E. Young, Middlesex, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application August 1, 1956
Serial No. 601,348
7 Claims. (Cl. 260—306.5)

1. A method of pelletizing benzothiazolyldisulfide which comprises: agitating an aqueous slurry comprising benzothiazolyldisulfide and β-naphthol at an elevated temperature for sufficient time to agglomerate the benzothiazolyldisulfide, and separating resultant pellets.

2,840,564
RUBBER ACCELERATOR
Robert C. Kinstler, Dunellen, N. J., Robert S. Barker, Port Washington, N. Y., and Gosta Brunnstrom, Somerville, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application August 1, 1956
Serial No. 601,347
9 Claims. (Cl. 260—306.5)

1. A method of pelletizing benzothiazolyldisulfide which comprises: agitating an aqueous slurry comprising benzothiazolyldisulfide and aminothiophenol at an elevated temperature for sufficient time to agglomerate the benzothiazolyldisulfide, and separating resultant pellets.

2,840,565
OPTICAL ISOMERS OF 4-AMINO-3-ISOXAZOLIDONE
Frederick W. Holly, Cranford, and Charles H. Stammer, New Brunswick, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey
No Drawing. Application December 23, 1954
Serial No. 477,392
2 Claims. (Cl. 260—307)

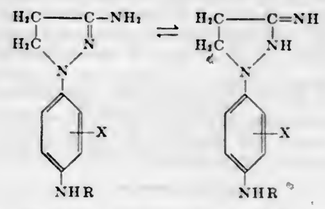
1. DL-4-amino-3-isoxazolidone.
2. L-4-amino-3-isoxazolidone.

2,840,566
PREPARATION OF N-VINYL ETHYLENE UREA COMPOUNDS
Robert S. Yost, Oreland, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application April 8, 1955
Serial No. 500,300
5 Claims. (Cl. 260—309.7)

1. A method which comprises heating N-(β-chloroethyl)-N,N'-ethyleneurea in an anhydrous hydrocarbon solvent at a temperature of 50° to 120° C. with a molar equivalent amount of an alkali metal alkoxide of an alcohol having 1 to 5 carbon atoms to react with hydrogen chloride, distilling off the alcohol during the reaction, then filtering the remaining material to remove alkali metal chloride, and distilling the solvent to leave N-vinyl-N,N'-ethyleneurea.

2,840,567
1-(p-AMINOPHENYL)-3-AMINOPYRAZOLINES AND PROCESS
Rudolf Mersch, Leverkusen-Bayerwerk, and Detlef Delfs, Opladen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application June 14, 1955
Serial No. 515,558
Claims priority, application Germany June 14, 1954
9 Claims. (Cl. 260—310)

1. As a new chemical compound, a member selected from the group consisting of the free bases and their salts of compounds having the tautomeric general formulae



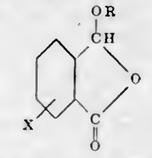
wherein R represents a member selected from the group consisting of hydrogen and alkyl, and X is a member selected from the group consisting of hydrogen, alkyl, alkoxyl, and halogen.

2,840,568
ACID MILLING OF PHTHALOCYANINE PIGMENTS
Robert E. Brouillard, Westfield, and Thomas D. Mutaffis, North Plainfield, N. J., and Marvin O. Shrader, Pittsburgh, Pa.
No Drawing. Application April 29, 1953
Serial No. 352,021
11 Claims. (Cl. 260—314.5)

1. A process comprising milling with forces predominantly shearing in nature, a mixture in the form of a doughy, kneadable mass comprising a phthalocyanine pigment, from about 0.5 to 5 parts by weight per part of pigment of an acid-stable, water-soluble inorganic salt and from about 0.5 to 2 parts by weight per part of pigment of a strong, normally liquid, non-reactive acid having a concentration ranging from 68 to 100 percent, and drowning the resulting milled mixture in water.

2,840,569
3-ALKOXYPHTHALIDES
Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application April 30, 1956
Serial No. 581,336
6 Claims. (Cl. 260—343.3)

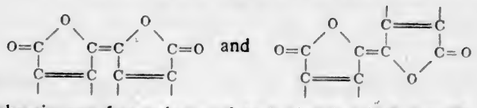
1. The phthalide having the formula



wherein R represents a lower alkyl radical containing from 4 to 8 carbon atoms, inclusive, and X is a member of the group consisting of chlorine and hydrogen.

2,840,570
DILACTONES AND THEIR PREPARATION FROM CARBON MONOXIDE AND ACETYLENES
John C. Sauer, Cragmere, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 25, 1955
Serial No. 549,155
11 Claims. (Cl. 260—343.6)

11. A dilactone having one of the structural formulas



wherein one free valence of each ring is satisfied by R

and the other free valence of each ring is satisfied by R', said R and R' being selected from the class consisting of hydrogen, alkoxyaryl where the alkoxy radical is not more than 12 carbon atoms and the aryl radical is hydrocarbon of not more than 10 carbon atoms, haloaryl where the aryl radical is hydrocarbon of not more than 10 carbon atoms, and monovalent hydrocarbon radicals, free from non-aromatic unsaturation, of not more than 12 carbon atoms, said dilactone giving a suberic acid on hydrogenation with a platinum catalyst in acetic acid.

2,840,571

PROCESS OF SYNTHESIZING ETHYL-PARA-BENZOQUINONE

Rolf Karl Ladisch, Lansdowne, Pa., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Original application April 14, 1955, Serial No. 501,457. Divided and this application August 10, 1956, Serial No. 603,452

2 Claims. (Cl. 260—396)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of making ethyl-para-benzoquinone which comprises adding o-ethylaniline to a slurry of a stoichiometric excess of sulphuric acid, water and comminuted Dry Ice, adding a first portion of an aqueous solution of an alkali metal dichromate, adding more comminuted Dry Ice to produce a hard but free moving mass, holding the mass under refrigeration below 5° C. for several hours until a quinone begins to form, gradually adding a second portion of an aqueous solution of alkali metal dichromate, said second portion of alkali metal dichromate being larger than said first portion and in slight stoichiometric excess of said o-ethylaniline, adding a substantially water-immiscible organic solvent having a low freezing point, holding the mixture under refrigeration until it separates into two phases, separating the upper phase which contains ethyl-para-benzoquinone in solution, cooling the solution to at least about —70° C. whereby crude ethyl-para-benzoquinone crystals are formed, collecting said crystals, and purifying said crystals.

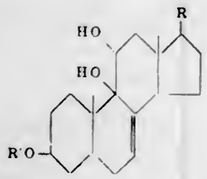
2,840,572

CHEMICAL COMPOUNDS AND PROCESSES FOR PREPARING THE SAME

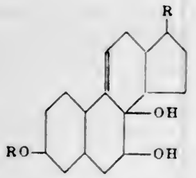
Earl M. Chamberlin, Westfield, and John M. Chemerda, Metuchen, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 2, 1955
Serial No. 550,776
13 Claims. (Cl. 260—397.1)

1. Trihydroxy compound selected from the group consisting of



and



wherein R is selected from the group consisting of an ergosterol side chain, a cholanic acid side chain and an esterified cholanic acid side chain and R' is selected from the group consisting of acyl and hydrogen.

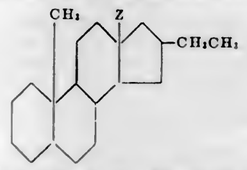
2,840,573

18-OXYGENATED ALLOPREGNANES

Neal L. McNiven, Shrewsbury, Mass., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application February 18, 1957
Serial No. 640,581
9 Claims. (Cl. 260—397.1)

1. A compound of the structural formula



wherein Z is a member of the class consisting of hydroxymethyl, formyl, carboxyl, and (lower) alkoxycarbonyl groups, and groups of the formula

$$-CH_2O\text{-acyl}$$

wherein the acyl radical is the acyl radical of a hydrocarbon carboxylic acid having fewer than nine carbon atoms.

2,840,574

PROCESS FOR PRODUCING Δ^7-3-HYDROXY STEROIDS

John M. Chemerda and William V. Ruyle, Metuchen, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application March 3, 1951
Serial No. 213,807
4 Claims. (Cl. 260—397.2)

1. A process of producing a Δ^7-3 hydroxy steroid which comprises selectively reducing a $\Delta^{5,7}$-3 hydroxy steroid with a Raney nickel catalyst and hydrogen in a neutral solvent to obtain a Δ^7-3 hydroxy steroid.

2,840,575

METHOD OF PRODUCING AN ISOMERISATION PRODUCT OF VITAMIN D OR AN ESTER THEREOF

Arie Lambertus Koevoet and Arie Verloop, Leiden, and Jan Anne Keverling Buisman, Weesp, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application April 4, 1956
Serial No. 576,221

Claims priority, application Netherlands
September 26, 1955

8 Claims. (Cl. 260—397.2)

1. A method of producing trans-isomers of a compound selected from the group consisting of vitamin D and esters thereof comprising the steps, forming a neutral to alkaline solution of said compound, introducing a catalyst capable of converting cis-isomers into trans-isomers into said solution, said catalyst being selected from the group consisting of iodine and eosine, and exposing said solution to visible light.

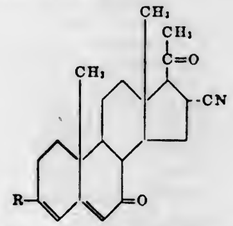
2,840,576

16-CYANOPREGNA-3,5-DIENE-7,20-DIONES

Charles W. Marshall, Skokie, Ill., and Robert H. Mazur, Cambridge, England, assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application March 28, 1957
Serial No. 649,024
3 Claims. (Cl. 260—397.3)

1. A compound of the formula



wherein R is selected from the group consisting of hydrogen and hydroxy radicals.

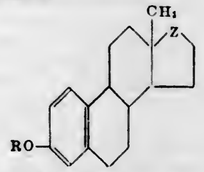
2,840,577

17-THIO DERIVATIVES OF ESTRATRIEN-3-OL AND OF ESTRATETRAEN-3-OL

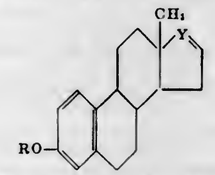
Raymond M. Dodson, Park Ridge, and Paul B. Sollman, Skokie, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application December 21, 1956
Serial No. 629,787
10 Claims. (Cl. 260—397.5)

1. A member of the class consisting of compounds of the structural formula



wherein R is a member of the class consisting of hydrogen, lower alkyl radicals, and acyl radicals of hydrocarbon carboxylic acids having fewer than 9 carbon atoms, and Z is a member of the class consisting of CS, CHSH, CHS(lower alkyl), CHS (lower alkyl)$_2$ halide, and CHS-acyl groups, the said acyl radical being the acyl radical of a hydrocarbon carboxylic acid having fewer than 9 carbon atoms; and compounds of the structural formula



wherein R is defined as hereinbefore and Y is a member of the class consisting of CS(lower alkyl) and CS-acyl groups, the said acyl radical being the acyl radical of a hydrocarbon carboxylic acid having fewer than 9 carbon atoms.

2,840,578

9α-HYDROXYPROGESTERONE

David Perlman, Princeton, and James D. Dutcher and Josef Fried, New Brunswick, N. J., and Elwood O. Titus, Kensington, Md., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application May 24, 1957
Serial No. 661,307
1 Claim. (Cl. 260—397.45)

9α-hydroxyprogesterone.

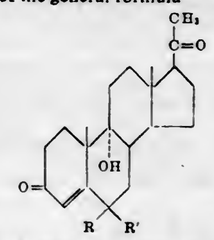
2,840,579

9α-HYDROXY-6-OXYGENATED PROGESTERONES

David Perlman, Princeton, and James D. Dutcher and Josef Fried, New Brunswick, N. J., and Elwood O. Titus, Kensington, Md., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application May 24, 1957
Serial No. 661,308
5 Claims. (Cl. 260—397.45)

1. A steroid of the general formula



wherein R is hydrogen, R' is selected from the group consisting of β-hydroxy and the β-acyloxy radical of a hydrocarbon carboxylic acid of less than ten carbon atoms, and together R and R' is oxygen.

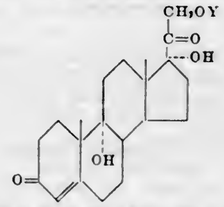
2,840,580

9α-HYDROXY STEROIDS

David Perlman, Princeton, James D. Dutcher and Josef Fried, New Brunswick, N. J., and Elwood O. Titus, Kensington, Md., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application May 24, 1957
Serial No. 661,309
2 Claims. (Cl. 260—397.45)

1. A steroid of the general formula



wherein Y is selected from the group consisting of hydrogen and the acyl radical of a hydrocarbon carboxylic acid of less than ten carbon atoms.

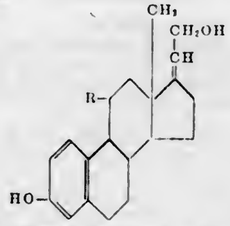
2,840,581

CARBONYLOXY STEROIDS

John A. Hogg, Kalamazoo Township, and Jerome Korman, Portage Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application December 17, 1956
Serial No. 628,549
5 Claims. (Cl. 260—397.45)

1. 19-nor-1,3,5(10),17(20)-pregnatetraene - 3,21 - diols of the formula



wherein R is selected from the group consisting of hydrogen, hydroxy, and keto.

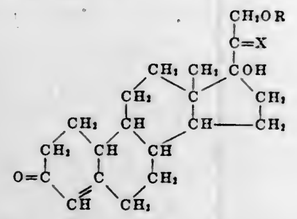
2,840,582

DERIVATIVES OF 13-METHYL-17-HYDROXY-1,2,3,6,7,8,9,10,11,12,13,14,16,17 - TETRADECAHYDRO-15H-CYCLOPENTA[a]PHENANTHREN-3-ONES

Frank B. Colton, Chicago, Ill., assignor, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application August 31, 1953
Serial No. 377,700
6 Claims. (Cl. 260—397.47)

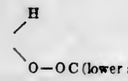
1. A compound of the structural formula



wherein =X is a member of the class consisting of =O,



and



radicals and R is a member of the class consisting of hydrogen and —OC—(lower alkyl) radicals.

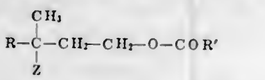
2,840,583

HALOGEN AND DIHALOPHOSPHATO DERIVATIVES OF ACYLOXYALKENES

Joseph Donald Surmatis, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 23, 1952
Serial No. 327,663
14 Claims. (Cl. 260—403)

1. A mixed organic-inorganic ester of the formula



wherein R represents an alkenyl radical having at least six carbon atoms selected from the class consisting of alka(mono)enyl and alka(di)enyl radicals, —COR′ represents an acyl radical selected from the group consisting of alkanoyl and monocyclic hydrocarbon aroyl, and —Z represents an inorganic acid radical selected from the group consisting of chloro, bromo and dichlorophosphato.

2,840,584

CORROSION INHIBITOR

Loyd W. Jones, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

No Drawing. Application October 1, 1953
Serial No. 383,689
4 Claims. (Cl. 260—404.5)

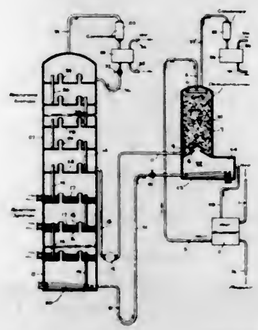
1. The salt of a polyamine and a carboxylic acid, said acid being derived by liquid phase partial oxidation of a normally liquid petroleum fraction and said polyamine having the formula $RNH(CH_2)_xNH_2$ wherein R is a hydrocarbon radical containing at least about 10 carbon atoms, and x is an integer from 2 to 4 inclusive.

2,840,585

CONTINUOUS METHOD OF TREATING GLYCERIDE OILS

George Barsky, New York, N. Y., assignor to E. F. Drew & Co., Inc., New York, N. Y., a corporation of Delaware

Application November 23, 1954, Serial No. 470,713
7 Claims. (Cl. 260—410.7)



7. A continuous method of treating glyceride oils to alter the characteristics thereof which comprises passing a mixture of said oil and higher fatty acid through a reaction zone, heating said zone to cause a reaction to take place releasing lower fatty acids in the vapor state, rectifying such vapors in a separate zone to condense said higher fatty acid and return them to said reaction zone, passing said reacted oil through a deacidification zone, heating said deacidification zone to vaporize free higher fatty acid from said reacted oil, introducing fresh oil into the path of said higher fatty acid vapors to absorb said vapors in said deacidification zone, passing the mixture of said fresh oil and higher fatty acid to said reaction zone for treatment in a cycle.

2,840,586

INTERMEDIATES FOR THE PREPARATION OF CAROTENOIDS

Hans Herloff Inhoffen, Braunschweig, Germany, assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application December 18, 1953
Serial No. 399,171
Claims priority, application Switzerland December 23, 1952
3 Claims. (Cl. 260—410.9)

2. 8 - [2′,6′,6′ - trimethylcyclohexene - (1′) - yl] - 2,6-dimethyl-octatriene-(2,4,6)-oic acid ester.

3. 8 - [2′,6′,6′ - trimethylcyclohexene - (1′) - yl] - 2,6-dimethyl-octatriene-(2.4.6)-ol-(1).

2,840,587

PROCESS FOR PRODUCING ETHIONINE AND ITS SALTS

Frederick H. Norton, Concord, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 7, 1954
Serial No. 441,943
3 Claims. (Cl. 260—429.9)

1. In a method for making ethionine from ethyl mercaptan and acrolein, through the sequential formation of beta-ethyl mercaptopropionaldehyde and 5(2-ethylmercaptoethyl) hydantoin, the improvement which consists in making the hydantoin directly from the crude unpurified beta-ethylmercaptopropionaldehyde.

2,840,588

PROCESS FOR THE PREPARATION OF DIFLUOROSILYLENE AND THE POLYMERS THEREOF

Donald C. Pease, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 22, 1956
Serial No. 573,075
5 Claims. (Cl. 260—448.2)

1. A process for the preparation of difluorosilylene which comprises bringing silicon tetrafluoride in contact, at a temperature in the range from about 1100° C. to about 1400° C. and at an absolute pressure of not more than about 50 mm. of mercury, with a member of the class consisting of elemental silicon, silicon alloys, silicon carbide, and the polyvalent metal silicides and immediately quenching the reaction products to a temperature below about 0° C.

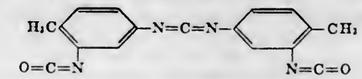
2,840,589

DI(3-ISOCYANATO-4-METHYLPHENYL) CARBODIIMIDE

Kenneth C. Smeltz, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 14, 1957
Serial No. 665,631
1 Claim. (Cl. 260—453)

The compound:



2,840,590

SYNTHESIS OF ALKYLATED BORON COMPOUNDS

Earl L. Muetterties, Chadds Ford, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 1, 1956
Serial No. 601,377
9 Claims. (Cl. 260—462)

1. The method of preparing an alkylated boron compound which comprises reacting an alkyl borate ester and an alkyl halide of the group consisting of alkyl chlorides, bromides, and iodides in the presence of metallic aluminum at a temperature of about 20–200° C., the alkyl groups of said alkyl borate ester and said alkyl halide containing not more than 12 carbon atoms each.

2,840,591

PREPARATION OF POTASSIUM DINITROCYANOMETHIDE

William V. Brown, Springfield, Mass., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application September 6, 1956
Serial No. 608,184
2 Claims. (Cl. 260—465.1)

1. A process for preparing potassium dinitrocyanomethide which comprises mixing trinitroacetonitrile with ethanol and an aqueous potassium bromide solution, reacting the resulting mixture between 35° and 60° C., and separating potassium dinitrocyanomethide.

2,840,592

PRODUCTION OF ACRYLONITRILE

Erwin L. Carpenter, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 14, 1956
Serial No. 628,238
6 Claims. (Cl. 260—465.3)

1. In the preparation of acrylonitrile by the reaction of acetylene and HCN in the presence of an aqueous acidic catalyst solution containing cuprous chloride in which tarry by-products are produced, the method for regenerating catalyst solution which comprises: diluting catalyst solution with water whereby copper is precipitated as cuprous chloride and cuprous cyanide, and tarry by-products remain in solution; and collecting said precipitate without further purification for use as catalyst.

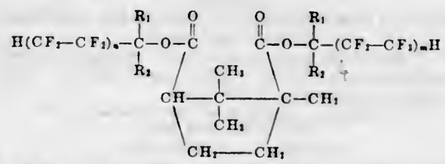
2,840,593

FLUORINE CONTAINING DIESTERS OF CAMPHORIC ACID

Earl E. Sommers, Wilmington, Del., and Bernard M. Sturgis, Pitman, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 11, 1956
Serial No. 584,161
4 Claims. (Cl. 260—468)

1. The compound



wherein R_1 and R_2 are taken from the group consisting of H, CH_3 and C_2H_5; the sum of the carbon atoms in R_1 and R_2 in each of the two ester groups is not greater than 2; and, n and m are integers whose sum is from 4 to 8.

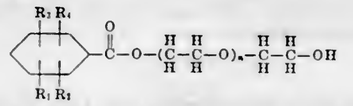
2,840,594

POLYETHOXY TERTIARY-ALKYL BENZOATES

Joseph F. Coates, Philadelphia, and Robert M. Lincoln, Media, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application September 4, 1956
Serial No. 607,549
5 Claims. (Cl. 260—476)

1. Polyethoxy tertiary alkyl benzoates having the general formula



wherein R_1, R_2, R_3, and R_4 are each a radical selected from the group consisting of a hydrogen atom and a tertiary alkyl radical containing from 4 to 16 carbon atoms, the number of radicals consisting of a hydrogen atom not exceeding three and the sum of the carbon atoms in the total number of said alkyl groups not exceeding 16, and wherein n has a value of from 10 to 29.

2. The products according to claim 1 in which n has a value of from 10 to 18.

2,840,595

LOWER-ALKYL ESTERS OF ETHIONINE

Donna Stevens, Concord, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 23, 1956
Serial No. 560,895
6 Claims. (Cl. 260—481)

1. A compound selected from the group consisting of (*a*) the lower-alkyl esters of ethionine and (*b*) the hydrogen chloride addition salts thereof.

2,840,596

PROCESS FOR THE PREPARATION OF 4-CARBOALKOXY-2-CHLOROBUTYRIC ACIDS

Arthur Francis Kirby, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 28, 1956
Serial No. 631,035
3 Claims. (Cl. 260—485)

1. A process for the production of a 4-carboalkoxy-2-chlorobutyric acid which comprises reacting chlorine with a monoalkyl ester of glutaric acid wherein the alkyl group contains from 1 to 4 carbon atoms, in the presence of a catalyst selected from the group consisting of phosphorus and phosphorus halides, phosphorus oxyhalides, phosphorus oxygen acids, and phosphorus oxides, at a temperature between about 50 and about 140° C., said chlorine and the said monoalkyl ester of glutaric acid being present in substantially stoichiometric quantities.

2,840,597

METHOD FOR PREPARING ESTERS OF α-CHLORO-ISOBUTYRIC ACID

Art C. McKinnis, Long Beach, Calif., assignor, by mesne assignments, to Collier Carbon and Chemical Corporation, a corporation of California

No Drawing. Application November 21, 1955
Serial No. 548,260
9 Claims. (Cl. 260—487)

1. A process for preparing a primary alkyl ester of α-chloro-isobutyric acid from a raw material selected from the class consisting of tert-butanol, isobutene and mixtures thereof, which comprises subjecting said raw material to nitration with aqueous nitric acid of 30–85% concentration at a temperature between about 90° and 220° C. and a pressure sufficient to maintain the reactants in the liquid phase, the initial mole-ratio of total raw material to nitric acid being within the range of about 2/1 to 20/1, whereby a nitration product is obtained which is predominantly α-nitro-isobutene and nitro-tert-butanol, removing excess unreacted raw material, and reacting said nitration product with a primary alkanol and hydrogen chloride at a temperature between about 40° and 160° C. under pressure sufficient to maintain the reactants in the liquid phase, thereby converting each of said nitration products to an alkyl ester of α-chloro-isobutyric acid, and recovering said ester from the reaction mixture.

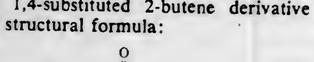
2,840,598

NEW BUTENE DERIVATIVE AND THEIR PREPARATION

Herbert Schwartz, Vineland, N. J., assignor to Vineland Chemical Company, Vineland, N. J., a firm

No Drawing. Application March 29, 1956
Serial No. 574,611
7 Claims. (Cl. 260—487)

1. A 1,4-substituted 2-butene derivative having the general structural formula:



wherein X represents a substituent selected from the group consisting of hydroxy, chlorine, bromine and a bromacetoxy group.

2,840,599

LOWER ALKANOIC ACID ESTERS OF PARA TERTIARY BUTYL CYCLOHEXANOL

Willard T. Somerville, Fair Haven, and Ernst T. Theimer, Rumson, N. J., assignors to Van Ameringen-Haebler, Inc., New York, N. Y., a corporation of New York

Application January 28, 1957, Serial No. 636,692
5 Claims. (Cl. 260—488)

1. A mixture of cis and trans isomers of para tertiary butyl cyclohexanyl ester containing a major proportion of said cis isomer, said ester radical being selected from the group consisting of lower alkanoic acids.

2,840,600

N-SUBSTITUTED TRIMETHYLENE DIAMINE-N'ALKANOIC ACIDS, SALTS, AND ESTERS

Paul L. Du Brow and Frederick W. Smith, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application February 2, 1955
Serial No. 485,801
16 Claims. (Cl. 260—501)

1. As a new and useful composition of matter, a compound selected from the group consisting of: (I) a compound of the formula $RNH(CH_2)_2NH—A—COOH$, wherein A is a divalent hydrocarbon radical having from 2 to 3 carbon atoms, and R is a radical of the group consisting of (A) aliphatic hydrocarbon radicals having from 8 to 22 carbon atoms; and (B) hydrocarbon radicals as contained in rosin and tall oil acids; (II) an alkali metal salt of I; (III) an alkaline earth metal salt of I; (IV) a monoamine salt of I wherein the monoamine is one of the formulae RNH_2, R_2NH and R_3N, wherein R is a radical of the group consisting of aliphatic hydrocarbon radicals having from 1 to 22 carbon atoms and hydrocarbon radicals as contained in rosin and tall oil acids; (V) a diamine salt of I, wherein the diamine of the formula $R'NH(CH_2)_nNH_2$, wherein R' is of the group consisting of aliphatic hydrocarbon radicals having from 8 to 22 carbon atoms and hydrocarbon radicals as contained in rosin and tall oil acids, and n is an integer of from 2 to 5; and (VI) a lower alkyl ester of I.

2,840,601

PREPARATION OF 2-HYDROXY-2-PHENYLETHANE-SULFONIC ACID AND SALTS

Frederick H. Norton, Concord, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 26, 1957
Serial No. 668,028
6 Claims. (Cl. 260—512)

1. A method of preparing a salt of 2-hydroxy-2-phenylethanesulfonic acid which comprises reacting styrene oxide and a water-soluble bisulfite salt in aqueous solution at a temperature above 60° C.

4. The method of claim 1 which comprises the further step of contacting the resulting aqueous solution of the 2-hydroxy-2-phenylethanesulfonic acid salt with a strongly acid cation exchange resin in the hydrogen ion form, thereby obtaining an aqueous solution of 2-hydroxy-2-phenylethanesulfonic acid.

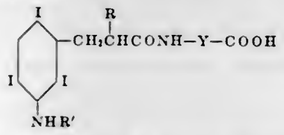
2,840,602

N-[β-(3-AMINO-2,4,6-TRIIODOPHENYL) PROPIONYL] AMINO ACIDS, N-ACYL DERIVATIVES THEREOF, AND PROCESS

Aubrey A. Larsen, Schodack Center, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application January 25, 1954
Serial No. 406,069
8 Claims. (Cl. 260—518)

1. A member of the group consisting of compounds having the formula



wherein R is selected from the group consisting of hydrogen and lower-alkyl groups having from one to four carbon atoms, R' is selected from the group consisting of hydrogen and lower-alkanoyl groups having from one to four carbon atoms, and Y is a lower-alkylene radical, the sum of the number of carbon atoms in R and Y not exceeding five; and non-toxic salts thereof.

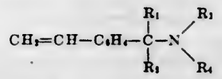
2,840,603

VINYLPHENYL ALIPHATIC AMINOCARBOXYLIC ACIDS

Richard A. Mock and Leo R. Morris, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application October 12, 1956
Serial No. 615,509
14 Claims. (Cl. 260—518)

1. A polymerizable vinylphenyl aliphatic aminocarboxylic compound having the formula



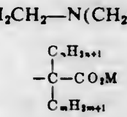
wherein the symbol R_1 represents a radical selected from the group consisting of —H, $—CO_2M$, and $—CH_2CO_2M$, the symbol R_2 represents a radical selected from the group consisting of —H and $—CH_3$, each of the symbols R_3 and R_4 individually represents a radical selected from the group consisting of —H, $—CH_3$,

$—CH_2—C_6H_4—CH=CH_2$, $—CH_2CO_2M$,

$—CH_2CH_2CO_2M$, $—CH(CO_2M)CH_2CO_2M$,

$—CH_2CH_2—N(CH_2CO_2M)_2$,

$—CH_2CH_2CH_2—N(CH_2CO_2M)_2$, and



where n is an integer from 1 to 4 and m is an integer from 0 to 2, M is a member of the group consisting of hydrogen, ammonium bases and metals, and wherein at least one of the radicals represented by the symbols R_1, R_2, and R_4 contains a carboxyl group.

2,840,604

SEPARATION OF AROMATIC ACIDS

George C. Feighner and Adolph C. Shotts, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application May 2, 1955, Serial No. 505,359
5 Claims. (Cl. 260—525)

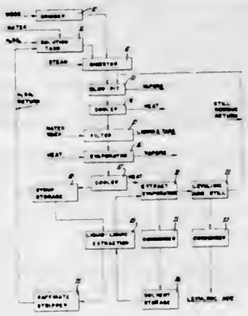
1. A process for the separation of a mixture of aromatic acids comprising per part of terephthalic acid in said mixture, 1 to 3.5 parts isophthalic acid, and .1 to .5 part benzoic acid, which comprises removing the benzoic acid from said mixture by extracting said mixture with about 3 parts acetic acid per part of said acid mixture, to form an extract comprising benzoic acid dissolved in said acetic acid, and an extrahend comprising isophthalic acid and terephthalic acid, then extracting the extrahend with about 35 to 350 parts of a solvent per part of said isophthalic acid selected from the group consisting of aliphatic alcohols having from 1 to 5 carbon atoms and ketones having from 3 to 5 carbon atoms, per part of isophthalic acid to form an extrahend comprising relatively pure terephthalic acid and an extract comprising isophthalic acid dissolved in said solvent, both extractions being carried out at a temperature of from 20 to 25° C., then concentrating the extracts, and filtering said concentrated extracts to remove the isophthalic acid, and benzoic acid from their respective solvents.

2,840,605

METHOD OF MAKING LEVULINIC ACID

Reid H. Leonard, Pensacola, Fla., assignor to Heyden Newport Chemical Corporation, Pensacola, Fla., a corporation of Delaware

Application April 26, 1957, Serial No. 658,912
6 Claims. (Cl. 260—528)



1. The method of making levulinic acid from ligno-cellulosic material, which comprises subjecting said material in comminuted form to the hydrolyzing action of a dilute sulfuric acid solution, the sulfuric acid solution containing from about 3 to 12% by weight of H_2SO_4 and being in the weight proportion to wood of between 10 to 1 and 1 to 1, heating the mass of ligno-cellulose material and sulfuric acid solution to a temperature of from about 140° to 210° C., holding the mass within that temperature range until at least about 15% by weight of the ligno-cellulose material on an air-dry basis has been converted into levulinic acid, cooling the hydrolysate mass including residual lignin substances to a temperature of at least about 50° C. at which hardening of tars present therein takes place, removing such tars by filtration through such residual lignin substances as a filter aid, extracting the resulting cooled substantially tar-free hydrolysate with a ketone immiscible with water, and recovering levulinic acid from the resulting extract.

2,840,606

NYLON HYDROLYSIS

Bruce M. Miller, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 15, 1955
Serial No. 501,736
9 Claims. (Cl. 260—537)

1. In alkaline hydrolysis of a polyamide characterized by separation into diacid and diamine components upon alkaline hydrolysis, the improvement comprising adding to the hydrolysis mix an aliphatic alcohol having from three to about eight carbon atoms in the molecule.

2,840,607

SEPARATION OF DIBASIC ACIDS

Edward C. Attane, Jr., Fullerton, and Thomas F. Doumani, Whittier, Calif., assignors to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application February 20, 1956, Serial No. 566,671
11 Claims. (Cl. 260—537)

1. A method for resolving a mixture of adipic and succinic acids which comprises subjecting said mixture

to a first fractional crystallization from a solvent selected from the class consisting of water and lower aliphatic ketones, to obtain a first crop of crystals containing a ratio of said acids one to another which is substantially different from the ratio remaining in its mother liquor, then evaporating said mother liquor to dryness and subjecting the residue to a second fractional crystallization from a solvent selected from the other of said solvent groups.

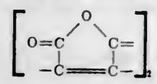
2,840,608

PREPARATION OF 4-KETOOCTANEDIOIC ACIDS BY HYDROGENATING CERTAIN DILACTONES WITH A PALLADIUM CATALYST

Robert James Crawford, Urbana, Ill., and Vaughn A. Engelhardt, Claymont, and Howard E. Holmquist, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 28, 1956
Serial No. 606,561
8 Claims. (Cl. 260—537)

1. Process for preparing 4-ketooctanedioic acids which comprises reacting hydrogen, in an acidic medium having a pH less than 2 and in contact with a palladium catalyst, with a dilactone having the general formula



wherein one of the ring doubly bonded carbon atoms has its free valence satisfied by R and the other of the ring doubly bonded carbon atoms has its free valence satisfied by R′, said R and R′ being selected from the class consisting of hydrogen, alkoxyaryl where the alkoxy radical is not more than 12 carbon atoms and the aryl radical is hydrocarbon of not more than 10 carbon atoms, haloaryl where the aryl radical is hydrocarbon of not more than 10 carbon atoms, and monovalent hydrocarbon radicals, free from non-aromatic unsaturation, of not more than 12 carbon atoms.

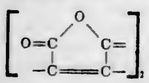
2,840,609

HYDROGENATION PROCESS FOR PREPARING 1,8-OCTANEDIOIC ACIDS FROM CERTAIN DILACTONES WITH A PLATINUM CATALYST

John C. Sauer, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 28, 1956
Serial No. 612,870
8 Claims. (Cl. 260—537)

1. Process for preparing a 1,8-octanedioic acid which comprises hydrogenating, in solution in a polar organic solvent and in contact with a platinum catalyst, a dilactone represented by the general formula



wherein one of the ring doubly bonded carbon atoms has its free valence satisfied by R and the other of the ring doubly bonded carbon atoms has its free valence satisfied by R′, said R and R′ being selected from the class consisting of hydrogen, alkoxyaryl where the alkoxy radical is not more than 12 carbon atoms and the aryl radical is hydrocarbon of not more than 10 carbon atoms, haloaryl where the aryl radical is hydrocarbon of not more than 10 carbon atoms, and monovalent hydrocarbon radicals, free from non-aromatic unsaturation, of not more than 12 carton atoms, and obtaining a 1,8-octanedioic acid as the resulting product.

2,840,610

PROCESS FOR PREPARING CORROSION INHIBITORS

Tillman R. Pullig, Beacon, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application July 2, 1956
Serial No. 595,087
4 Claims. (Cl. 260—552)

1. In a process for preparing a symmetrical disubstituted thiourea by reaction of carbon disulfide with a phenyl-substituted lower alkyl primary amine, the lower alkyl group of said amine having from 1 to 3 carbon atoms, the improvement which comprises forming a reaction mixture consisting essentially of substantially stoichiometric quantities of the amine and carbon disulfide, said reaction mixture being formed without inert solvent, and maintaining said reaction mixture under autogenous pressure at a temperature in the range of about 115° to about 270° C. until a symmetrical disubstituted thiourea is formed.

2,840,611

PREPARATION OF ACRYLAMIDE

Norbert M. Bikales, Stamford, Conn., and Mary L. Miller, New York, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 25, 1955
Serial No. 530,644
7 Claims. (Cl. 260—561)

1. A method of treating an aqueous iron-bearing solution of acrylamide which comprises precipitating iron by adding to said solution at least one compound containing an anion of an inorganic acid of phosphorus ad a cation selected from the group consisting of H, NH_4, the alkali metals and the alkaline earth metals.

2,840,612

METHOD OF PREPARING 3-ETHOXY-4-HEXENAL

Raymond I. Hoaglin and Donald G. Kubler, South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application August 1, 1956
Serial No. 601,354
12 Claims. (Cl. 260—602)

1. A method of preparing 3-ethoxy-4-hexenal which comprises forming a mixture of vinyl ethyl ether, at least one mole equivalent of crotonaldehyde relevant to said ether, and a Friedel-Crafts catalyst, under substantially anhydrous conditions, at a temperature in the range of 10° C. to 120° C.

2,840,613

PREPARATION OF ORGANIC COMPOUNDS

Benjamin Wilson Howk, West Chester, Pa., and John Carl Sauer, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 30, 1956
Serial No. 581,365
4 Claims. (Cl. 260—609)

1. An acetylenic acetal of the general formula:

$$R-C\equiv C-\underset{R'}{\underset{|}{C}}(XR'')_2$$

wherein R′ and R″ are members of the group consisting of lower alkyl and cyclohexyl, R is a member of the group consisting of hydrogen, lower alkyl, cyclohexyl and phenyl, and X is a chalcogen of atomic weight less than 33.

2. The process for preparing alkynyl acetals and orthoesters which comprises reacting an alkyne of the formula $R-C\equiv CH$ with an orthoester of the formula

$$R''XC(XR'')_3$$

in the presence of a catalyst selected from the group consisting of the halides, nitrates, sulfates, molybdites and carboxylates containing 1–18 carbon atoms of a metal of the group consisting of magnesium, mercury, zinc and cadmium, and wherein R and R′ are selected from the group consisting of hydrogen, lower alkyl, cyclohexyl and phenyl, R″ is selected from the group consisting of lower alkyl and cyclohexyl, X is a chalcogen of atomic weight less than 33, and n is a plural integer up to 3.

2,840,614

PROCESS OF MAKING METHYL MERCAPTAN

David W. Gobeen, Camas, Wash., assignor to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada

Application October 22, 1956, Serial No. 617,334
19 Claims. (Cl. 260—609)

1. A process of making methyl mercaptan which comprises providing an aqueous, alkaline, unsulfonated lignin-containing solution having a pH of from 10–14, reacting said solution with an inorganic sulfur-bearing material comprising at least one member of the group consisting of elemental sulfur, water-soluble sulfides, water-soluble hydrosulfides, water-soluble polysulfides, and water-soluble thiosulfates, the reaction being effectuated in a reaction zone at a temperature of from 170–500° C. for a time sufficient to produce a substantial amount of methyl mercaptan while leaving a liquid and pumpable residual lignin containing solution, and removing the methyl mercaptan from the reaction zone substantially as soon as it is produced.

2,840,615

PRODUCTION OF ACETALS WITH REACTIVATION OF CATALYST

Adin L. Stautzenberger, Corpus Christi, Tex., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application August 9, 1954
Serial No. 448,765
5 Claims. (Cl. 260—615)

1. Process for the production of acetals which comprises reacting in the presence of a strongly acidic cation-exchange resin a mixture of an alcohol and an aldehyde reactive with said alcohol to form an acetal, said mixture containing a minor amount of an aliphatic alkylene mono-epoxide which tends to deactivate said resin, separating the resulting acetal-containing mixture from said resin, and reacing the resulting at least partially deactivated resin with water at an elevated temperature and for a time sufficient to reactivate said resin.

2,840,616

PRODUCTION OF THYMOL

Robert R. Bottoms, Crestwood, Ky., assignor to National Cylinder Gas Company, Chicago, Ill., a corporation of Delaware

No Drawing. Application April 19, 1955
Serial No. 502,516
7 Claims. (Cl. 260—626)

6. The method of producing thymol from m-cresol which comprises heating m-cresol with 2 moles of sulfuric acid of density of at least 1.8 at a temperature of 50–80° over a period of two hours, adding to the reaction mixture at least 3 and not more than 5 moles of water per mole of m-cresol, heating said mixture at a temperature of 110 to 130° C. for two hours, isopropylating the resulting m-cresol sulfonic acid with isopropyl ether, heating said resulting mixture for a period of four hours, desulfonating the resulting thymol sulfonic acid by adding additional water and refluxing the reaction mixture for a period of four hours, and separating the thymol thus formed.

2,840,617

NEW POLYOLS, THEIR PREPARATION AND DERIVATIVES

Edward C. Shokal, Walnut Creek, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 25, 1954
Serial No. 464,590
14 Claims. (Cl. 260—635)

1. A process for preparing polyols having high functionality which comprises treating a polymer of an alpha,beta-ethylenically unsaturated aldehyde of the group consisting of acrolein and methacrolein which has been formed by polymerizing the alpha,beta-ethylenically unsaturated aldehyde in the presence of a catalyst of the group consisting of trihydrocarbyl phosphines, trihydrocarbyl arsines and trihydrocarbyl and dihydrocarbyl phosphites which has not been subjected to any hydrolytic treatment and which has a molecular weight of 400 to 4500 as determined ebullioscopically in tetrachloroethane, with hydrogen at a temperature between 50° C. and 300° C., and a pressure of between 50 p. s. i. and 3000 p. s. i. in the presence of a hydrogenation catalyst.

2,840,618

PRODUCTION OF ALKYNOLS AND ALKYNEDIOLS USING MULLITE-LIKE SILICEOUS CATALYST CARRIER

Otto Friedrich Hecht, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 30, 1954
Serial No. 478,883
10 Claims. (Cl. 260—635)

1. In a method of producing a catalyst for use in the production of alkynols by reacting a carbonyl compound with acetylene hydrocarbons, which method comprises depositing copper oxide on a siliceous carrier and heating the thus impregnated siliceous carrier to a temperature within the range of 400 to 800° C. for such a period of time that copper silicate is formed in the surface layer and the thus heat-treated catalyst when treated with acetylene at room temperature, does not form red copper acetylide the improvement which comprises employing therein a siliceous carrier prepared by forming a mixture consisting essentially of kaolin and a water-soluble synthetic organic polymeric binder into a shaped body, heating said body in the presence of air at temperatures of about 800 to 850° C. to burn out said binder and convert the kaolin to the montmorillonite, and then heating said body to temperatures of about 1000 to 1200° C. to produce a porous, mullite-like siliceous carrier having a mullite X-ray pattern.

2,840,619

HYDROGENATION CATALYST AND USE IN OXO PROCESS

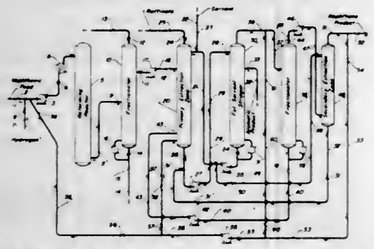
Ralph Burgess Mason, Denham Springs, and Rhea N. Watts, St. Francisville, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application July 25, 1956, Serial No. 600,130
6 Claims. (Cl. 260—638)

1. In the process for the production of alcohols by catalytic hydrogenation of a liquid carbonylation aldehyde product in the presence of water at temperatures from about 300° F. to about 500° F., and pressures from about 2000 to 4000 p. s. i. g., the improvement which comprises carrying out said hydrogenation with a catalyst prepared by pelleting a hydrogenation catalyst component selected from the class consisting of metal oxides and metals from reduced metal oxides mixed with finely divided aluminum, aluminum having a sintering point at a temperature in the range of the activation temperature of the catalyst, 850° to 1200° F., and

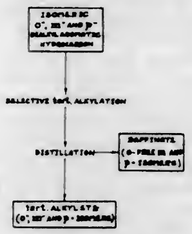
heating the resulting pellet in the presence of hydrogen at temperatures in the range of about 850° to 1200° F. so that the finely divided aluminum becomes sintered and bonded to the catalyst component in the pellets, thereby producing a catalyst of high strength and of undiminished catalytic activity.

2,840,620
SEGREGATION AND RECOVERY OF NAPHTHENIC HYDROCARBON CONCENTRATES
Clarence G. Gerhold, Riverside, and Donald B. Broughton, Chicago, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
Application July 12, 1954, Serial No. 442,728
11 Claims. (Cl. 260—668)



1. In a process for separating in a counter-current primary solvent extraction zone a mixture of hydrocarbons comprising paraffinic, naphthenic and aromatic components, employing a solvent more dense than said mixture and in which the naphthenic and aromatic components are at least partially soluble, removing from the lower portion of said zone a primary fat solvent stream, and removing from the upper portion of said zone a raffinate comprising the paraffinic components of said mixture, the method which comprises introducing said mixture into said zone at a point between the raffinate and fat solvent outlets of said zone, vaporizing from said primary fat solvent a light overhead comprising aromatic and naphthenic hydrocarbon components of said mixture, subjecting at least a portion of said overhead to solvent extraction in a secondary extraction zone and therein separating naphthenic from aromatic components, recovering a secondary raffinate from said secondary zone comprising the relatively low molecular weight naphthenic components of said mixture, and recycling a reflux stream selected from the group consisting of (1) a portion of said secondary raffinate and (2) a portion of said light overhead to said primary extraction zone, and introducing said reflux into said primary extraction zone below the inlet of said mixture therein.

2,840,621
SEPARATION OF DIALKYLAROMATIC HYDROCARBON ISOMERS
Ben Bennett Corson, William J. Heintzelman, and Raymond C. Odioso, Pittsburgh, Pa., assignors to Koppers Company, Inc., a corporation of Delaware
Application August 7, 1953, Serial No. 372,952
7 Claims. (Cl. 260—674)



1. In a process for removing an ortho-dialkylaromatic hydrocarbon from a mixture also containing an isomer of the ortho-dialkylaromatic hydrocarbon by means of a selective tertiary-alkylation process whereby the ortho-isomer is substantially alkylated to give a tertiary-alkylate predominantly that of the ortho-isomer together with lesser amounts of the tertiary-alkylate of the meta- and para-isomers, the steps which comprise separating said tertiary-alkylated isomers from the reaction mixture, passing said tertiary-alkylate over a clay dealkylation catalyst at a temperature of from about 250 to 300° C. to spring para-isomer, separating the dealkylate from remaining tertiary-alkylate, passing the remaining tertiary-alkylate over a clay dealkylation catalyst at a higher temperature of from about 325 to 400° C. to spring ortho-isomer, and separating dealkylate from residual tertiary-alkylate.

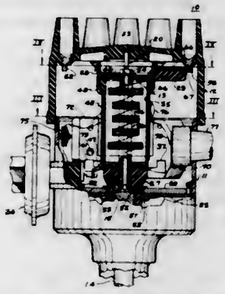
ELECTRICAL

2,840,622
SHIELDED IGNITION COIL
Carleton S. Marden, Waltham, Mass., assignor to National Products Corporation, Boston, Mass., a corporation of Massachusetts
Application February 2, 1953, Serial No. 334,662
8 Claims. (Cl. 123—148)



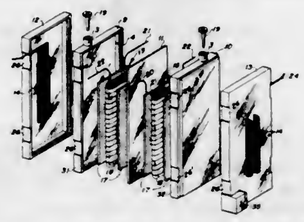
1. For connecting an ignition cable to a high voltage component having a cylindrical casing and a tubular socket terminal member, a shielded connector comprising a tubular metallic hood adapted to telescope over the casing and shield said terminal, means forming a cable entrance into said hood, means for connecting said cable to said socket terminal member including a removable insert fitting in said member, and an elastic sheath resiliently gripping said means, said sheath having a sleeve portion adapted to engage the outside of said terminal member to hold said connecting means attached thereto and enclose and seal said socket.

2,840,623
IGNITION SYSTEM FOR INTERNAL COMBUSTION ENGINES
Philip B. Middleton, Culver, Ind., assignor to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application February 23, 1956, Serial No. 567,274
11 Claims. (Cl. 123—148)



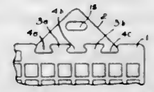
1. An ignition system comprising a direct current voltage source, a storage condenser supplied by said source, a main condenser charged by said storage condenser during each firing cycle, a high frequency ignition coil having primary and secondary windings, an oscillatory circuit including said primary winding and said main condenser, means for periodically rendering said oscillatory circuit conductive to effect the discharge of said main condenser to said primary winding after said main condenser is charged to a predetermined potential during each firing cycle, and spark plug distributor means connected with said secondary winding.

2,840,624
MULTI-CELL ELECTRIC BATTERIES
Folke Bäcklin, Björn Lennart Forsén, and Per Åke Löwnertz, Uppsala, Sweden, assignors to Yardney International Corp., New York, N. Y., a corporation of New York
Application April 26, 1955, Serial No. 503,938
13 Claims. (Cl. 136—30)



1. An electrochemical battery comprising a plurality of substantially identical cells; each of said cells comprising a rigid tray-like casing of insulating material including a frame and a wall plate spanning one side of said frame, an electrode assembly in said casing, and conductor means extending outwardly through said frame from said electrode assembly; said casing being assembled in a stack and forming a plurality of electrode compartments electrolytically isolated from one another by said wall plates, said stack further including a pair of end members substantially co-extensive with said casings; terminal means carried on each of said end members; and connector means joining said conductor means to one another and to said terminal means, said electrode assembly including at least one positive and at least one negative electrode, said conductor means comprising a first wire extending from said positive electrode through one side of said frame and a second wire extending from said negative electrode through the opposite side of said frame, said connector means joining alternate ones of said first and second wires together and to one of said terminal means in a first series circuit and separately joining alternate ones of said first and second wires together and to the other of said terminal means in a second series circuit.

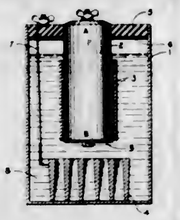
2,840,625
ELECTRODE PLATE SUSPENSION MEANS
Erik Gustav Sundberg, Nol, and Bror Gunnar Ousbäck, Goteborg, Sweden
Application October 27, 1954, Serial No. 465,066
3 Claims. (Cl. 136—79)



1. An electrode plate for storage batteries, said plate comprising an integral assembly of a flat-shaped grid formed of a relatively low strength conductive material having partially imbedded therein a coplaner flat-shaped

suspension lug formed of relatively higher strength insulative material with a suspension aperture therethrough, marginal edge portions of said lug being embraced within adjacent jaw-shaped marginal edge portions of said grid, said lug being thereby anchored in coplaner extending relation with said grid.

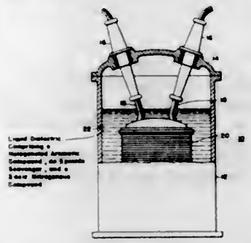
2,840,626
ALKALINE BATTERY CELLS
Fernand Portail, Paris, France, assignor to Compagnie Industrielle des Piles Electriques Cipel, Neuilly-sur-Seine, France, a corporation of France
Application September 16, 1955, Serial No. 534,686
Claims priority, application France September 18, 1954
2 Claims. (Cl. 136—102)



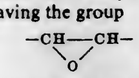
1. An air-depolarized electric cell comprising a container having a monovalent alkali metal hydroxide electrolyte therein, a positive depolarizing electrode of porous carbon having a vertical length which is substantially greater than the effective diameter of the cross-section thereof, said positive depolarizing electrode having an upper part in contact with the atmosphere and a lower part projecting into said electrolyte, a negative electrode of soluble zinc disposed in the bottom of said container and having its upper surface beneath said lower part of the positive depolarizing electrode with all parts of said negative soluble electrode being spaced downwardly from the level of the lowermost part of said positive depolarizing electrode, an insulating coating on the bottom end surface of said positive depolarizing electrode confronting said negative soluble electrode to prevent contact of said electrolyte with said bottom end surface and thereby prolong the paths of travel of ions between said negative soluble electrode and said positive depolarizing electrode, and a protective shield surrounding the side surface of said positive depolarizing electrode along a substantial portion of the length of the latter beginning at the bottom end of said positive depolarizing electrode, said shield being formed of an insulating material permeable by the electrolyte and impermeable to zinc oxide so that, when zinc oxide is deposited in the electrolyte by the action of the cell and settles on the bottom of said container, contact of the zinc oxide with the active side surface of the positive depolarizing electrode is prevented until the level of zinc oxide reaches above the top of said shield.

2,840,627
LIQUID DIELECTRICS AND APPARATUS EMBODYING THE SAME
Charles W. Lewis, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 4, 1952, Serial No. 307,933
5 Claims. (Cl. 174—17)

4. Electrical apparatus comprising, in combination, a casing, an electrical conductor in the casing, and a liquid dielectric disposed in the casing to insulate the conductor and to dissipate heat developed in the conductor, the dielectric consisting essentially of a chlorinated cyclic dielectric liquid as the major component, the halogenated cyclic liquid giving off hydrogen chloride when subjected



to arcing, from 0.05% to 5% by weight of at least one epoxy compound having the group



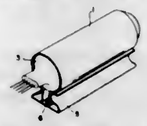
dissolved in the dielectric liquid, to react with any evolved hydrogen chloride, and from 0.001% to 0.02% by weight of a basic nitrogenous compound capable of forming a salt with hydrogen chloride whereby the rate of reaction of the epoxy compound with evolved hydrogen chloride is accelerated.

2,840,628
SPARK PLUG
Alfred Candelise, Flint, and Wilfred A. Bychinsky, Ann Arbor, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 2, 1952, Serial No. 285,688
5 Claims. (Cl. 174—35)



1. A spark plug comprising a metal shell, a unitary elongated ceramic insulator secured within said shell and a tubular metal shield secured to said shell surrounding and immediately adjacent to the upper portion of said insulator, said shield having a lower section and an upper section, the lower end of said upper section loosely surrounding and being permanently bonded to the upper end of said lower section and providing continuous substantial concentricity between the upper section of said shield and said insulator.

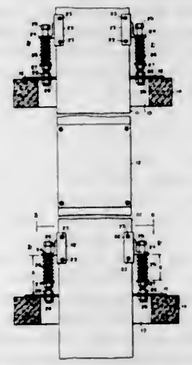
2,840,629
ELECTRON DISCHARGE TUBE SHIELD AND MOUNTING
Walter L. Roth and Andrew A. Bogdon, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application April 22, 1953, Serial No. 350,490
3 Claims. (Cl. 174—35)



1. Means for shielding, cooling and supporting an electron discharge tube on a chassis, said means comprising a

flat rectangular base member of resilient metal having an extension formed integrally with each of its longer sides and extending outwardly from the plane thereof, said extensions being shaped to form a channel having outwardly concave sides, a member of resilient metal having the shape of a longitudinally interrupted cylinder, with the edges of said cylinder along said longitudinal interruption being turned outwardly to form a pair of flanges of substantially straight cross-sectional configuration extending radially from said cylinder, said flanges being receivable between the sides of said channel when said cylindrical member is compressed to bring the said edges of said longitudinal interruption close together, and, when so received, diverging from their juncture with said cylinder to their free longitudinal edges, said cylindrical member being so dimensioned as to completely enclose and grip said tube snugly over substantially its complete length when said tube is contained therein and said flanges are at rest within said channel, whereby said members substantially completely shield and conduct heat away from the lateral surface of said tube.

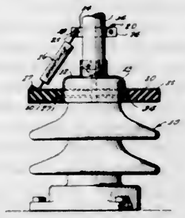
2,840,630
BUS DUCT
William F. Born and James B. Wallace, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application January 12, 1952, Serial No. 266,176
6 Claims. (Cl. 174—100)



1. In a bus duct, in combination, a housing having spaced channel members with outwardly extending flanges, cover members attached to the channel members, a generally C-shaped clamp having spaced arms spanning the housing and bolted to the channel flanges exteriorly of the housing, said arms being in planes parallel to the cover members, an angle-shaped bracket having one leg secured to the clamp and an opening in the other leg, a bolt slidably disposed in the opening and movable in a direction along the length of the housing, threaded means on the bolt for connecting it to a supporting structure, and a compression spring disposed on the bolt between said threaded means and said bracket.

2,840,631
ANIMAL GUARD FOR ELECTRICAL EQUIPMENT
Harold C. Marcroft, Baltimore, Md.
Application April 13, 1954, Serial No. 422,767
3 Claims. (Cl. 174—140)

1. In a guard for electrical equipment, the combination which comprises an insulator including a bushing having a plurality of sections and having a stem extended upwardly therefrom, a cup-shaped element mounted on the stem and extended over the inner bub portion of the uppermost section of said bushing, a disc of insulating material carried by the cup-shaped element, a rim of material capable of conducting electricity mounted on the periphery of the disc, a clamp secured to the stem



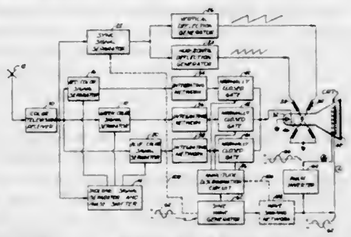
and spaced upwardly above the upper end of the bushing, and an impedance extended from the rim of the disc to the clamp on the stem of the bushing.

2,840,632
CATHODE SPOT TELEVISION RECEIVING SYSTEM
Henry W. Parker, Flushing, N. Y.
Application June 2, 1952, Serial No. 291,194
13 Claims. (Cl. 178—5.4)



1. Apparatus of the character disclosed comprising a line sweep wheel carrying similarly directed light concentrating cones, a modulated cathode spot tube, means for transmitting the modulated light from said tube to said cones, a frame sweep wheel carrying laminated light prisms in the range of said light concentrating cones, means for effecting the projection of the light images from said prisms onto a viewing screen and means for effecting rotation of said line sweep and frame sweep wheels synchronized to effect line projection and accumulation of lines in picture forming frames on said screen.

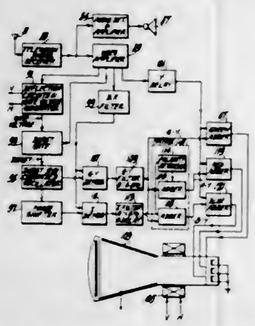
2,840,633
COLOR TELEVISION RECEIVER
Paul Raibourn, Southport, Conn.
Application October 6, 1952, Serial No. 313,251
4 Claims. (Cl. 178—5.4)



1. A polychrome television receiver incorporating an image-reproducing tube having a target electrode formed of a series of parallel phosphor strips arranged side-by-side in regularly-repeating sets, each set containing strips respectively fluorescing in several selected component colors, said image-reproducing tube also including means for developing a scanning beam and for deflecting said beam in a line-scanning direction parallel to said phosphor strips, means forming part of said receiver for detecting and amplifying a composite-color television signal in which information concerning the several com-

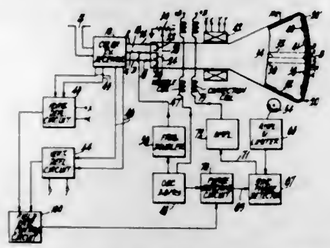
ponent colors is sequentially and cyclically made available at a predetermined rate, means for separating the said several component-colors into separate channels each respectively representative of a single component color, means for integrating the component-color signal in each said channel so that it is continuously available during normal operation of the receiver, a circuit for generating a control variation having a frequency determined in accordance with the desired rate at which different component colors of said image are presented to an observer, means for applying said control variation to said image-reproducing tube so as to modify the said line-scanning deflection of said scanning beam in a direction substantially perpendicular to the direction of said line scanning and to the longitudinal axes of said phosphor strips so that said beam normally impinges on each component-color strip of a particular set in a predetermined sequence during each line-scanning operation, and further means including an amplitude discrimination circuit for effectively applying said control variation to each of said component-color channels so as sequentially to regulate the passage of component-color signals therethrough in accordance with the instantaneous position of the said scanning beam relative to the phosphor strips of each said set.

2,840,634
COLOR TELEVISION
Alda V. Bedford, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 7, 1954, Serial No. 428,240
3 Claims. (Cl. 178—5.4)



1. In a color television receiver adapted to receive a color television signal representative of information relating to first, second and third primary colors indicative of a color image, said color television signal including a chrominance signal wherein a trio of different color difference information signals which correspond to said first, second and third colors respectively occur respectively at first, second and third phases, and also a fourth phase at which occurs a fourth color difference information signal corresponding to color information along an orange-cyan axis of information also relating to said color image, said first, second, third and fourth phases all related to a reference phase with said fourth phase lagging said reference phase by 57°, said color television signal also including color synchronizing burst having said reference phase; the combination of: first means responsive to said bursts to develop a first and second alternating current wave having respectively one of said first, second and third phases, and said fourth phase; first demodulating means responsive to said chrominance signal and coupled to said first means to be responsive to said second alternating current wave to demodulate said fourth color difference signal; second demodulating means responsive to said chrominance signal and coupled to said first means to be responsive to said first alternating current wave to demodulate the color difference signal occurring at the phase of said first alternating current wave in said chrominance signal; and means coupled to said first and second demodulating means and responsive to the color difference signals demodulated therein to develop color difference signals representative of the other two of said trio of color difference signals.

2,840,635
COLOR IMAGE REPRODUCTION APPARATUS
Leslie L. Burns, Jr., Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 1, 1955, Serial No. 512,426
9 Claims. (Cl. 178—5.4)

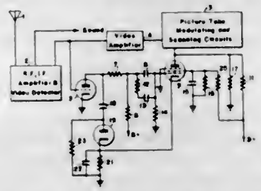


1. Color image reproducing apparatus which comprises: a color kinescope having a target screen made up of a plurality of groups of horizontally oriented light-emitting strip-like elements of respectively different color characteristics, each group having associated therewith a cathodoluminescent index element which is adapted to produce an index signal in response to electron impingement and which is located in a fixed position relative to one of said color elements of a certain color characteristic; the index elements in said fixed positions in alternate groups of color elements having a certain delay characteristic and the index elements in said fixed positions in intervening groups of color elements having a different delay characteristic, such that index signals produced by said index elements of such intervening groups are of a different phase with respect to a reference from the phase of index signals produced by said index elements of said alternate groups, said kinescope also having means for directing a plurality of electron beam components towards said screen; deflection means for causing said beam components to scan successive field rasters on said screen, the line of said rasters being substantially parallel to said strip-like color elements and to said index elements; means associated with said index elements for deriving index signals therefrom as said beam components scan said screen; and means operative at a field raster rate and responsive to the phase of said index signals for causing such beam components to scan only alternate groups of color elements during a first field and to scan only said intervening groups of color elements during the next succeeding field interval.

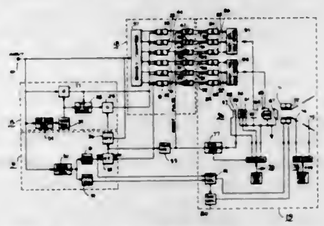
2,840,636
SYNC SEPARATOR FOR TV RECEIVERS
Norman S. Kornetz, Lewisburg, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 17, 1953, Serial No. 374,717
6 Claims. (Cl. 178—7.3)

1. In a television receiver adapted to receive television signals having a recurrent sychronizing pulse component, a synchronizing pulse separator channel having an input terminal to which is applied television signals and noise pulses, the recurrent synchronizing pulse component of said television signals extending in a positive direction,

said synchronizing pulse separating channel comprisng: a synchronzing signal separator comprising an electron tube having a cathode and a control electrode, means connecting the input terminal of said synchronizing pulse separator channel to the control electrode of said electron tube to apply thereto said signals including said noise pulses having a given polarity, a noise clipper circuit comprising a rectifier having an anode and a cathode, means including a capacitor connecting the input terminal of said synchronizing pulse separator channel to the anode of said rectifier so as to apply to said anode said signals including said noise pulses having said given polarity, a first resistor connected between the cathode of said rectifier and a point of reference potential, a second resistor connected between the anode of said rectifier and said point of reference potential, said capacitor and said second resistor having a large time constant relative to the period between occurrence of said synchronizing pulses so that said rectifier is prevented from conducting heavily by reason of the application of said synchronizing pulses to its anode in the absence of noise pulses having an amplitude greater than that of said synchronizing pulses, and means connecting the cathode of said rectifier to the cathode of said electron tube to apply thereto noise pulses developed across said first resistor when noise pulses having an amplitude greater than that of said synchronizing pulses are applied to the anode of said rectifier, the noise pulses applied to the cathode of said electron tube being of a polarity identical to the polarity of the noise pulses applied to the control electrode of said electron tube.

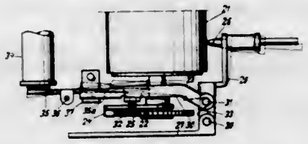


2,840,637
SYSTEM FOR CONVERTING TELEGRAPHIC CODE INTO CHARACTERS
Joseph T. McNaney, La Mesa, and Richard R. Tice, Studio City, Calif., assignors to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application February 28, 1955, Serial No. 491,116
5 Claims. (Cl. 178—15)



1. A system for converting telegraphic code into a visual presentation of characters including said code having selectively presented dot and dash signals and a cathode ray display tube having a matrix therein, comprising, first means responsive to said code for sensing and discriminating between said dot and dash signals, second means responsive to said code for sensing and effecting spacing of said signals and groups of said signals, coincidence means responsive to said first means for selective operation of said second means therethrough, third means responsive to said code, said first means and said coincidence means for selectively converting output of said first means and said second means into "yes" and "no" information, said second means having means supplying energy pulses to said third means for completing the output of said first means in said third means to the same number of elements of said "yes" and "no" information regardless of the number of dots or dashes in the code character received, fourth means responsive to said second means and said third means for presenting predetermined selection and deflection voltages to said display tube whereby a selected character of said matrix is positioned at a predetermined display position on said display tube, and means responsive to said second means for restoring said third means and said fourth means to their respective predetermined original conditions.

2,840,638
TELETYPEWRITER
Otto Moser, Bern, Switzerland
Application August 18, 1954, Serial No. 450,699
Claims priority, application Switzerland November 25, 1953
2 Claims. (Cl. 178—23)

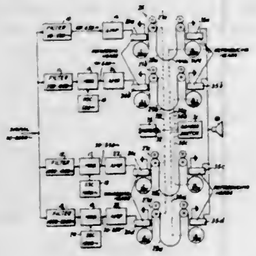


2. In combination, a page-printing teleprinter for communication in both directions comprising a carriage displaceable in the printing-line direction, a roller shaft revolvably mounted on said carriage parallel to said direction, a platen roller on said shaft, a line shift mechanism connected with said shaft for imparting stepwise revolution to said platen roller, a marking device for imprinting an identifying character indicative to the direction of communication, said marking device being mounted on said carriage to travel together therewith and having a type carrier near one end of said platen roller, said carrier being normally spaced radially from said roller and being movable toward said roller, a cam mounted on said shaft, a coupling member linked to said carrier for moving it in imprinting direction, said coupling member being normally disengaged from said cam, an electromagnet having a movable armature, means controlled by movement of said armature to move said coupling member into the operating range of said cam when said magnet is energized, said cam being operative to control said coupling member for operating said carrier during line-shift operation of said mechanism, and an electric energizing circuit connected with said magnet and comprising circuit-control means responsive to teleprinter operation in a given one of said directions of communication for energizing said magnet.

2,840,639
METHOD AND APPARATUS FOR SIGNAL PRESENTATION
Walton Graham, North Bergen, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application December 31, 1952, Serial No. 329,031
5 Claims. (Cl. 179—1)

1. A method of aural signal presentation of an audible tone in a given frequency bandwidth having a given signal-to-noise ratio and to which the human ear has a given critical bandwidth, said tone being inaudible at said given signal-to-noise ratio and said given critical bandwidth; comprising the steps of dividing a given period of said

given frequency bandwidth into a plurality of sub-band signals, transposing the frequency of said sub-band signals to a common predetermined sub-band of frequencies, and multiplying each of said transposed sub-band signals



by the same factor to a more advantageous critical bandwidth for said signal-to-noise ratio than said given critical bandwidth and aurally presenting said multiplied sub-band signals in succession.

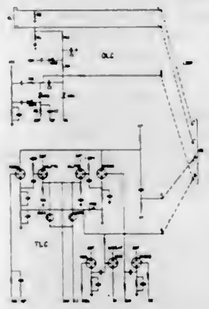
2,840,640
MECHANICAL FILTER FREQUENCY DISCRIMINATOR
Dean F. Babcock, Tarzana, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 14, 1955, Serial No. 553,000
7 Claims. (Cl. 250—36)



1. A frequency stabilization system comprising an input signal consisting of a plurality of equally separated subcarrier frequencies modulated on a carrier, a mixer including input and output means, a variable frequency oscillator having frequency control means, means for connecting said input signal and said variable frequency oscillator to the input of said mixer, dual phase shifting means having an input and dual output means, each of said phase shifting means having the same passband and comprising a different plurality of resonant sections with phase shift characteristic throughout said passband varying linearly from zero to $n\pi$ radians where n is the number of said resonant sections, the output of said mixer connected to the input of each of said phase shifting means, a phase detector having input and output means, means connecting the outputs of each of said phase shifting means to the input of said phase detector, said phase detector providing zero output for each output of said mixer corresponding to each said subcarrier frequency, and the output of said phase detector connected to said frequency control means of said variable frequency oscillator to vary the oscillator about a single frequency such that a frequency stabilized output from said mixer is obtained.

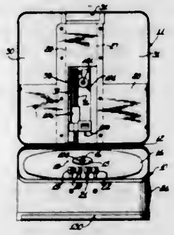
2,840,641
TELEPHONE SYSTEMS
Robin Devenish Allum and Gordon William Helsby, Liverpool, England, assignors to Automatic Telephone & Electric Company Limited, Liverpool, England, a British company
Application February 9, 1956, Serial No. 564,553
Claims priority, application Great Britain March 11, 1955
7 Claims. (Cl. 179—18)

1. An automatic telephone exchange including a plurality of groups of private branch exchange lines, a hunting circuit provided in common to all said groups of private branch exchange lines and having a number of stages equal to the largest number of anticipated lines in a group, means responsive to the dialling of the directory number of one group of private branch exchange lines



for marking the available and unavailable condition of the lines of said one group in the successive stages of said hunting circuit and means for initiating the stage-by-stage operation of said hunting circuit to take into use the first one of the available lines of said one group.

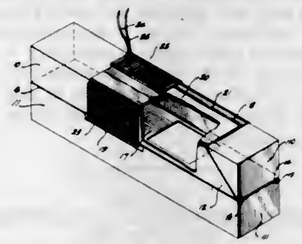
2,840,642
MAGNETIC TRANSDUCING ASSEMBLY
Marvin Camras, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
Application November 15, 1951, Serial No. 256,431
24 Claims. (Cl. 179—100.2)



1. A magnetic transducing assembly comprising a base, a turntable rotatably mounted on said base for receiving a disk magnetic record medium, a cover hingedly secured to said base and movable into an open and closed position with respect to said base, an electromagnetic head carried by said cover and arranged to engage a magnetic record medium on said turntable when said cover is in closed position, and means independent of said record medium for positively synchronizing movement of said head with rotation of said turntable, said positively synchronizing means comprising first means carried centrally of said turntable and second means carried with said cover and disposed for direct engagement with said first means upon movement of said cover to closed position.

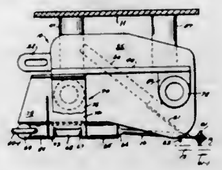
2,840,643
INTEGRAL TRANSFORMER ELECTROMAGNETIC TRANSDUCER
David F. Brower, Torrance, and Raymond Howard Griest, Los Angeles, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application April 4, 1955, Serial No. 499,142
10 Claims. (Cl. 179—100.2)

1. An electromagnetic transducer comprising a transformer core, a first endless winding on said core, said first winding being disposed about said core in such manner that the winding does not form a closed loop about said core, and a second winding wound over a portion of



said first winding, said first winding including a segment disposed on said core in such manner as to have an edge flush with the surface of an outer edge of said core.

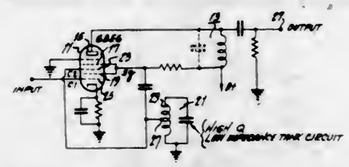
2,840,644
PHONOGRAPH PICKUPS
Harry F. Klingener, Valley Stream, N. Y., assignor to Sonotone Corporation, Elmsford, N. Y., a corporation of New York
Original application April 10, 1952, Serial No. 281,622, now Patent No. 2,717,929, dated September 13, 1955. Divided and this application June 9, 1955, Serial No. 514,307
3 Claims. (Cl. 179—100.41)



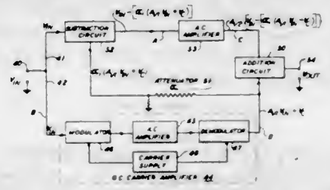
1. A self-supporting stylus drive structure arranged for detachable mounting on a separable mechano-electric transducer structure forming part of a phonograph pickup for connection to a driven element of the transducer structure and driving the same, which stylus drive structure comprises a relatively thin elongated drive member carrying at the forward end region thereof a single stylus only, an elongated body of elastomer material coaxial with and embracing and flexibly holding embedded therein an elongated rear end region of said drive member so that it may be flexed therein by said stylus in a direction lateral to its length, and a relatively stiff elongated mounting structure coaxial with said drive member and said elastomer body and embracing at least the major length of said elastomer body, said elastomer body constituting the sole connection between said stiff mounting structure and said drive member.

2,840,645
TELEVISION INTERMEDIATE FREQUENCY AMPLIFIERS
Morris D. Nelson, New York, and Benjamin Fisher, Forest Hills, N. Y., assignors to Radio Corporation of America, a corporation of Delaware
Application May 17, 1954, Serial No. 430,168
6 Claims. (Cl. 179—171)

1. In a signalling system provided with a source of signals, the combination comprising an electron discharge device including a cathode, a first control grid, a second control grid, a screen grid, and an anode, means for coupling said signal source between said first control grid and said cathode, an output circuit coupled between said anode and said cathode, means for applying a positive bias to said screen grid, means for bypassing said screen grid for desired signal components having frequencies falling in a first predetermined band, said bypassing means comprising a bypass network coupled between said screen grid and a point of reference potential, said bypass network presenting a relatively low impedance at frequencies within said first band, frequency selective means included in said bypass network for causing said bypass network to present a relatively high impedance at frequencies of undesired signal components falling in a second predetermined band whereby a phase inverted replica of signal components appearing at said first control grid and having frequencies falling within said second predetermined band is developed in said screen grid bypass network, and means for applying the phase inverted replica of such signal components developed in said network to said second control grid.



2,840,646
TWO-CHANNEL D. C. AMPLIFIERS
Norton W. Bell, Monrovia, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application July 26, 1954, Serial No. 445,518
5 Claims. (Cl. 179—171)

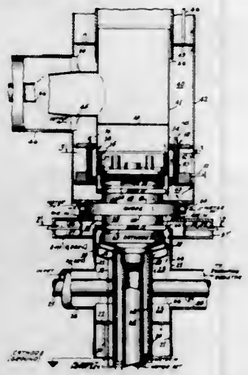


4. A direct current amplifier capable of operating over a wide band of frequencies comprising an input circuit, a pair of amplification channels having their inputs coupled to said input circuit, one of the channels having an amplifier for amplifying high frequency components and also having a signal combining circuit coupled between the input of the amplifier and said input circuit, the other channel having a direct current amplifier for amplifying direct current and low frequency signals, the amplifiers in the two channels having flat gain regions which overlap and having amplifications which are substantially the same in their flat gain regions, an attenuator coupled between the output of the direct current amplifier and the combining circuit and having a voltage attenuation ratio which is substantially equal to the amplification of the direct current amplifier in its flat region, an addition circuit, and means coupling the outputs of the two channels to the addition circuit to cause the output signals of the two channels to be added together.

2,840,647
INPUT AND OUTPUT COAXIAL-TYPE CIRCUITS FOR DOUBLE ENDED VACUUM TUBES
Leslie L. Koros, Camden, N. J., and Merle V. Hoover, Lancaster, Pa., assignors to Radio Corporation of America, a corporation of Delaware
Application May 23, 1956, Serial No. 586,690
12 Claims. (Cl. 179—171)

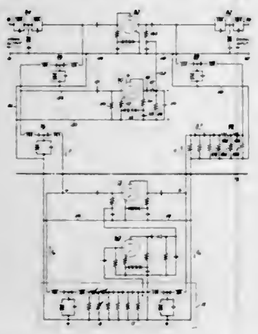
1. A vacuum tube circuit comprising a vacuum tube including cathode, grid, and anode electrodes generally

arranged in the form of progressively larger concentric cylinders; an input transmission line having inner and outer conductors coupled at one end to one end of said cathode and grid electrodes, respectively, an input terminating line having inner and outer conductors coupled at one end to the other ends of said cathode and grid electrodes, respectively, the other end of said input terminating line being terminated to provide a voltage maximum between the cathode and grid electrodes in said



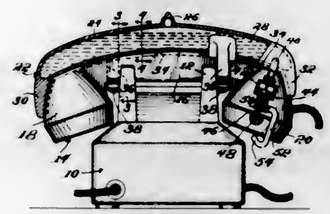
vacuum tube at the axial center of said electrodes, an output transmission line having inner and outer conductors coupled at one end to one end of said grid and anode electrodes, respectively, and an output terminating line having first and second conductors coupled at one end to the other end of said grid and anode electrodes, respectively, the other end of said output terminating line being terminated to provide a voltage maximum between the grid and anode electrodes in said vacuum tube at the axial center of said electrodes.

2,840,648
ELECTRIC SIGNAL TRANSMISSION
George F. Critchlow, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 15, 1956, Serial No. 622,435
2 Claims. (Cl. 179—171)



2. In combination, a first amplifier having a first input and a first output for amplifying electric signals having frequency components within a first predetermined frequency range, a positive feedback path for said first amplifier for causing the generation of electric oscillations having a first frequency which is outside the first signal frequency range, means responsive only to said oscillations having said first frequency for controlling the gain of said first amplifier, a second amplifier having a second input and a second output for amplifying electric signals having frequency components within a second predetermined frequency range excluding said first frequency, a positive feedback path for said second amplifier comprising said first amplifier for causing the generation of electric oscillations having a second frequency which differs from said first frequency and which is outside the frequency range of the signals amplified by said second amplifier, and means responsive only to said oscillations having said second frequency for controlling the gain of said second amplifier.

2,840,649
ANTISEPTIC DISPENSING ATTACHMENT FOR TELEPHONES
Robert T. Hodges, Fort Lauderdale, Fla.
Application May 3, 1955, Serial No. 505,640
4 Claims. (Cl. 179—185)

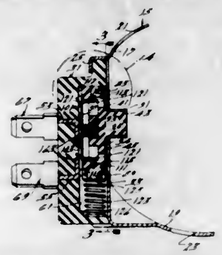


4. An antiseptic-dispensing attachment for a telephone hand set of the type including a combined receiver-transmitter having an elongated body terminating at one end in a mouthpiece and at the other end in a receiver, said attachment comprising an elongated container formed and arranged to be mounted in longitudinally contacting relation with said body and being hollowly formed from end to end thereof for holding a quantity of an antiseptic liquid, depending ears on the ends of said container engageable with the receiver and mouthpiece, respectively, to limit longitudinal movement of the container on the body, longitudinal ribs formed upon said container at opposite sides thereof and being formed and arranged to embrace opposite sides of the hand set body, depending clips formed upon said container at locations spaced longitudinally thereof, said clips being arranged in pairs with the clips of each pair being aligned transversely of the container, the clips being formed and arranged to embrace the hand set body between them and terminating in inwardly directed projections engageable against the underside of the body to hold the container assembled with the body, and means at one end of the container formed and arranged to discharge a quantity of the liquid confined therein against said mouthpiece.

2,840,650
SWITCH
Jasper Long, Sturgis, Mich., assignor to Wade Electric Products Co., Sturgis, Mich., a corporation of Michigan
Application September 18, 1956, Serial No. 610,582
17 Claims. (Cl. 200—16)

1. An electrical switch including a housing, contact means connected to said housing, actuated means including a slide block of insulating material slidably carried by said housing and having recesses therein, yieldably mounted bridging means carried by said slide block so as to slidably engage said contact means, said bridging means having snap-in detent means protruding into said recesses, shoulder means on said slide block for cooperating with said detent means to insure retention of said bridging means on said slide block, and

a coil spring carried by said block and pressing against said bridging means in opposition to said detent means



to bias the detent means toward engagement with the shoulder means.

2,840,651
ROTARY DRUM LIMIT SWITCH OPERATING MECHANISM
Walter P. Weglarz, Philadelphia, Pa., assignor to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
Application February 25, 1957, Serial No. 642,214
8 Claims. (Cl. 200—38)



1. Rotary limit switch operating apparatus, comprising in combination, a fixed inner support, a limit switch mounted on said support and provided with a cam follower adapted to be operated by a circumferentially moving cam, a cam drum mounted for rotation around said switch and its cam follower, said drum being provided with circumferentially elongated slots separated by short connecting elements, a plurality of cam units, each having a circumferentially extending cam segment disposed in a circumferential slot and a part lying outside the drum, a plurality of circumferential cam segments together forming a circumferential composite cam for actuating said cam follower, and means securing the cam units by their outside elements to the drum.

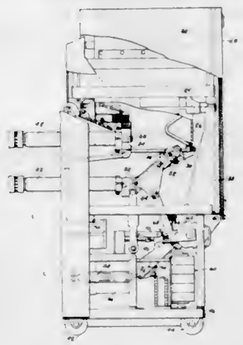
2,840,652
INTERLOCK FOR ELECTRIC SWITCHGEAR
Charles D. Elchelberger, Ridley Park, and William N. Lester, Norwood, Pa., assignors to General Electric Company, a corporation of New York
Application November 29, 1956, Serial No. 625,142
10 Claims. (Cl. 200—50)

1. In a switchgear unit, a first compartment containing a switch which includes switch-controlling means operable to produce opening and closing of said switch, a second compartment mounted adjacent said first compartment and containing an electrical device connected in series with said switch, said second compartment having an access door which is hinged at one side and is openable to afford access to said electrical device, a latch movably mounted on said door at a side opposite from said one side, said latch being operable in a latched position to lock said door closed and being movable into an unlatched position while said door is closed thereafter to permit opening of said door, linkage means operably interconnecting said switch-controlling means and said latch when the door is closed for insuring that said switch is open when said latch is moved to unlatched position while the door is closed, locking means operable in response to movement of said latch into said unlatched position while said door is closed for blocking switch-closing operation of said switch-controlling means so long as the latch of the closed door is in unlatched posi-



tion, means for disabling said locking means in response to movement of said latch of the closed door into latched position, and means permitting said switch-controlling means to be operated independently of said latch while said latch of the closed door is in latched position.

2,840,653
CIRCUIT BREAKER RACKING MECHANISM
Arthur S. Caswell, Glenside, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application December 19, 1956, Serial No. 629,391
13 Claims. (Cl. 200—50)



6. In a circuit controlling device movable between a test and operating position within a cubicle, said circuit controlling device having a pair of cooperable contacts movable between an engaged and a disengaged position, a racking mechanism fastened to said circuit controlling device for racking said circuit controlling device between said test and operating positions; said racking mechanism comprising a racking disk fastened to a shaft mounted on said circuit controlling device, at least one end of said shaft being terminated with an extending arm having an engaging means positioned thereon and displaced from the axis of said shaft; cooperating engaging means fastened to the wall of said cubicle for cooperating with said engaging means of said extending arms, rotation of said extending arm when said engaging means engages said cooperating engaging means fastened to said cubicle wall moving said circuit controlling device within said cubicle between said operating and test position; a racking disk latch means; said racking disk latch means being movable

into and out of latching engagement with respect to said racking disk when said circuit controlling device is in said test and said operating position for preventing and allowing respectively operation of said racking disk; in a first angular direction for racking from said test to said operating position, said racking disk being further constructed to move said racking disk latch means to said unlatched position responsive to rotation of said racking disk in an opposite angular direction; and biasing means operatively connected to said racking disk when said racking disk is rotated in said opposite angular direction to bias said racking disk in said first angular direction; said cooperating engaging means comprising a slot means for receiving said engaging means and a cam plate means in front of said slot means, said cam plate means engaging said engaging means when said circuit controlling device is inserted in said cubicle and causing rotation of said extending arm and racking disk in said opposite angular direction against the force of said biasing means, said engaging means being biased to move into said slot means when said slot means is reached by said engaging means by the bias of said biasing means to latch said circuit controlling device in position, said circuit controlling device being thereafter moved within said cubicle by rotation of said racking disk.

2,840,654
WARNING SIGNAL FOR MOVABLE CLOSURES SUCH AS DOORS, WINDOWS AND THE LIKE
Maurice E. Halpern, New York, N. Y.
Application April 26, 1956, Serial No. 580,742
4 Claims. (Cl. 200—61.8)



1. A warning signal for movable closures and in combination with a casing, normally closed switch means having normally closed contact fingers in said casing, an electric circuit adapted to lead from the switch to a warning signal device, said switch means comprising a spring-engaged switch slide carrying the switch fingers and being slidably supported for longitudinal movement within said casing, a slide actuator having a hand-operating member exterior of the casing, means within the casing and actuated by said slide actuator to move the switch slide against spring tension thereon, a plunger mounted for reciprocating movement transversely of said casing into the longitudinal path of movement of said switch means adapted to open the switch when in registry therewith and adapted to be engaged by a movable closure, means including said slide actuator for holding the switch slide with the switch fingers in register with said plunger, and means associated with a closure to act in the closing thereof for releasing the switch slide for movement in response to spring action thereon by said spring tension to carry the switch fingers out of register with the plunger in further response to subsequent withdrawal of the plunger from said switch means when the closure is opened in a direction away from the plunger.

2,840,655
ALARM SWITCH
George W. Rettie, North Miami Beach, Fla.
Application December 2, 1957, Serial No. 700,069
7 Claims. (Cl. 200—61.62)

2. A switch for an alarm comprising a support having a slot, bracket means mounted on said support adjacent said slot, cam means positioned on said bracket means, said cam means having a portion extending through said slot, a pair of pivot pins mounted on said bracket means, said cam means having a pair of arcuate slots receiving said pivot pins, spring means urging said cam means outwardly in the direction of said slot in said support and a pair of contacts mounted on said support, one of



said contacts engaging said cam, the other of said contacts being in spaced relation to said one of said contacts whereby upon the pivotal movement of said cam means said one of said contacts is brought into contact relation with said other of said contacts, and interengaging means mounted on said support and said cam for locking said switch to prevent the closing of said contacts.

2,840,656
LOW TRAVEL SWITCH MECHANISM
John O. Roeser, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application January 3, 1955, Serial No. 479,427
6 Claims. (Cl. 200—67)

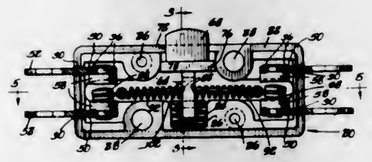


1. A snap switch mechanism comprising a movable switch structure having an elongated switch arm and a leg generally parallel thereto, said arm and leg being of substantially the same length, said arm and said leg tending to be substantially flat, means for maintaining a corresponding free end of said arm and of said leg fixed relative to one another but free for movement, an anchor member separate from and anchoring the opposite ends of said arm and leg adjacent one another, said anchor member maintaining said opposite ends longitudinally offset whereby said arm is maintained in tension and said leg in compression, said leg thereby being deformed into a serpentine shape, a fixed contact toward and away from which said switch structure is snapable, an actuating member engageable with said switch structure for effecting such snapping, electrical terminal means connected to said fixed contact, and electrical terminal means connected to said switch structure.

2,840,657
TWO CIRCUIT SNAP SWITCH
John O. Roeser, Chicago, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application March 23, 1955, Serial No. 496,209
10 Claims. (Cl. 200—67)

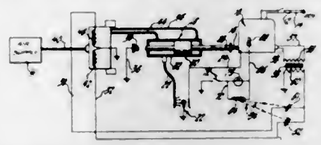
1. A snap switch mechanism comprising an insulating support, an actuator mounted in said support for slidable movement from a normal position to a second position, means for slidably moving said actuator relative to said support, means to return said actuator from said second position to its normal position, a pair of discrete switch blades pivoted on opposed sides of said actuator and extending generally transversely of said actuator, said switch blades being generally flat and each consisting of a pair of spaced arms interconnected at one end thereof

by a bight portion, said actuator having generally opposed means to provide a pivot for said blades and located on the actuator in a mean position between extremes of sliding movement of said actuator, a helical spring stretched between said switch blades and attached to means integral with each bight portion, electrical contact means carried by each of said switch blades substantially at the outer ends thereof, and a pair of spaced abutment means respectively on opposite sides of each switch blade in a position substantially adjacent the outer ends of each of said blades, said abutment means being carried by said support and disposed substantially about the mean



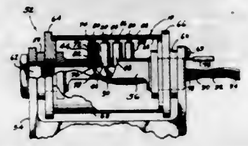
position of said pivot, a corresponding one of each pair of abutment means comprising an electrical contact aligned with the corresponding contact means carried by the switch blade, said switch blades synchronously snapping from a normal position engaging one of each pair of said abutment means to a second position engaging the other of each pair upon slidable movement of said actuator to carry the pivots of said blades on the actuator past a dead center position relative to said blades and spring means, said blades in one of said positions effecting with said contact means carried thereon a bridging electric circuit between said electrical contacts mounted on said abutment means.

2,840,658
HIGH TENSION CIRCUIT BREAKER SYSTEM
Frank A. Croskey, New Baltimore, and Charles Derwood Tuttle, Wyandotte, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Original application October 4, 1954, Serial No. 459,968. Divided and this application December 1, 1955, Serial No. 550,425
4 Claims. (Cl. 200—82)



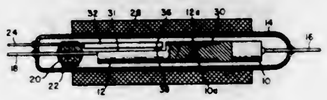
1. A high tension circuit breaker system for controlling the application and interruption of a high tension voltage from a high tension electrical source adapted to be connected by a coaxial cable to a load comprising, in combination, a pair of spaced electrical contacts, a conducting cylinder including a piston operating member in electrical contact therewith and movable therein between positions in electrical contact with either of said contacts, means for actuating said piston including a source of compressed air, valve means having an inlet connected to said air source and a pair of outlets communicating with said cylinder and operable to admit compressed air to either side of said piston, and control means controlling the operation of said valve means, conductor means connecting one of said electrical contacts to ground, and a coaxial cable connecting the other of said contacts to said high tension electrical source and said conducting cylinder to said load.

2,840,659
MOTION PICTURE ELECTRIC CIRCUIT CONTROL APPARATUS
Hal Cooley, Portland, Oreg., assignor to Wendell L. Thompson, Prattville, Ala.
Application December 21, 1954, Serial No. 476,717
4 Claims. (Cl. 200—87)



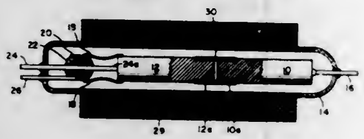
1. An electric switch adapted to be operated by a magnetic element carried by a movable strip of electrically non-conducting non-magnetic material, said switch comprising a frame, a hollow electrically conducting guide roller mounted on the frame and adapted to guide a movable strip over its outer surface, an electrically conducting magnet, electrically non-conducting support means within the roller arranged to support the magnet for movement substantially radially with respect to the roller, the magnet being normally spaced from the inner surface of the roller and being movable into contact with the inner surface of the roller upon attraction thereof by a magnetic element on a movable strip being guided over the outer surface of the roller, and conductor means connecting the roller and magnet in series in an electric circuit.

2,840,660
DOUBLE-THROW MAGNETICALLY OPERATED SEALED SWITCH
Adriano C. Ducati, Milan, Italy, assignor to G. M. Giannini & Co., Inc., Pasadena, Calif.
Application June 16, 1955, Serial No. 515,983
15 Claims. (Cl. 200—87)



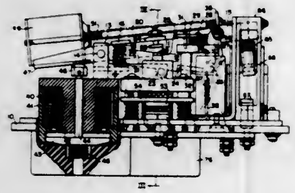
1. A magnetically operated switch device comprising an elongated sealed cylindrical envelope of non-magnetic material having two ends and a continuous cylindrical surface extending between said ends, first and second axially-aligned spaced members of magnetizable material within said envelope and having adjacent ends including first and second normally spaced overlapping closely adjacent contact surfaces, said members substantially filling a central portion of said envelope, a first electrically conductive element secured to said first member and extending out through a first end of said envelope, a second electrically conductive element secured to said second member and extending out through a second end of said envelope, at least one of said conductive elements being relatively thin compared with the member to which it is secured and resiliently supporting its member for lateral movement within said envelope of its contact surface toward and away from the other contact surface, a third contact surface in said envelope normally making electrical connection with the resiliently-supported member and in the same lateral plane as said first and second contact surfaces, a third electrically conductive element extending from said third contact surface out through one of the ends of said envelope, and operating means surrounding the cylindrical surface of said envelope and surrounding said first, second, and third contact surfaces.

2,840,661
MAGNETIC SWITCH DEVICE
Adriano C. Ducati, Milan, Italy, assignor to G. M. Giannini & Co., Inc., Pasadena, Calif.
Application June 16, 1955, Serial No. 515,987
12 Claims. (Cl. 200—87)



1. A magnetic switch device comprising a sealed envelope, two members of magnetizable material inside said envelope, said members being in spaced end-to-end relationship to each other and having longitudinal axes substantially in alignment with each other, the adjacent portions of said members providing electrical contact faces in closely spaced relationship, resilient mounting means supporting one of said members spaced from the inside wall of the envelope and arranged to permit said one member to move toward and away from the other member in a longitudinal direction generally parallel to said axes, said resilient mounting means being connected to said movable member on opposite sides of its axis, and a winding outside said envelope for magnetizing said members.

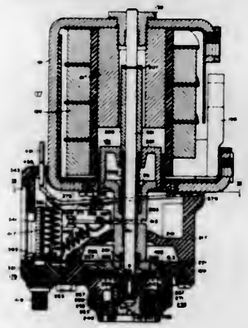
2,840,662
CONTACTORS
Ralph D. Jessee, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 25, 1955, Serial No. 549,026
7 Claims. (Cl. 200—106)



1. In a contactor, in combination, a base, a closing lever pivotally mounted on the base, contact means actuated to the closed position by movement of said lever, a closing coil for actuating said lever in a direction to close said contact means, spring means for biasing the lever in the other direction, a holding lever pivotally mounted on the base, latch means for latching said levers together when the latch means engages the holding lever, a holding coil for retaining both levers in the closed position when the latch means is engaged, said spring means actuating both levers toward the open position when both coils are deenergized, and the pivot point for the holding lever being located substantially midway between the pivot for the closing lever and the latching point so that the latch means is disengaged during movement of said levers toward the open position.

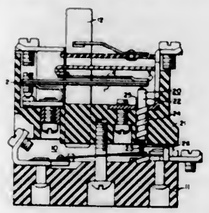
2,840,663
CIRCUIT BREAKER
Merl E. Horn, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 5, 1954, Serial No. 427,777
19 Claims. (Cl. 200—108)

1. In a circuit breaker comprising relatively movable contacts and operating means for closing said contacts, a trip device comprising a single trip member movable to effect automatic opening of said contacts, an electromagnet for moving said trip member, time delay means operable to effect a time delay in the tripping movement of said single trip member, time delay control means comprising a first control means operable in response to overload currents below a predetermined value to effect a relatively long time delay in the tripping movement of said single trip member, a second control means operable in response to overload currents above said predetermined



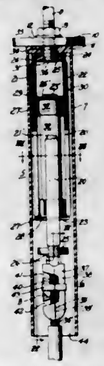
value to effect a relatively short time delay in the tripping movement of said trip member, and a third control means operable in response to overload currents above said predetermined value to effect instantaneous tripping movement of said single trip member, and a device operated by said operating means permitting said third time delay control means to take precedence over said second time delay control means during closing operations to effect instantaneous tripping movement of said single trip member.

2,840,664
AMBIENT-COMPENSATED THERMAL OVERLOAD RELAYS
Paul T. Anderson and James B. Ramsey, Chippewa Township, Beaver County, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 19, 1957, Serial No. 666,583
6 Claims. (Cl. 200—113)



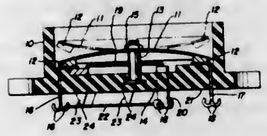
1. An ambient-compensated thermally responsive device, comprising a thermally expansible member which is subjected to various operative temperatures which are different from the ambient temperature, mounting-means for causing said thermally expansible member to have a movable portion which is capable of exerting a thermally responsive pushing-movement which increases with said operative temperatures, a force-actuated movable member, mounting-means whereby said force-actuated member is disposed at substantially said ambient temperature in a spaced relation with respect to said movable portion of said thermally expansible member, an actuator-pin, and mounting-means whereby said actuator-pin is movable in the direction of its length in a position adapted to transmit said thermally responsive pushing-movement to said force-actuated member, said actuator-pin having a thermal response which causes its overall length to contract in response to a rise in the ambient temperature.

2,840,665
TROLLEY TAPS
Fred M. Springer, Solana Beach, Calif.
Application June 1, 1954, Serial No. 433,625
8 Claims. (Cl. 200—115.5)



1. A fused trolley tap which comprises a trolley engaging hook member, a conductor-connector member, a pair of yoke members, said hook and connector each being secured to respective yoke members, a pair of contact cups, each yoke member having a contact cup secured thereto and facing but spaced from the other member secured to said yoke member, said yoke members being interlinked, movable relative to each other and adapted to be held in spaced facing relation by an elongate cartridge fuse disposed between and co-operatively engaging said contact cups which move toward each other as the hook and connector move toward aligned positions of greater separation.

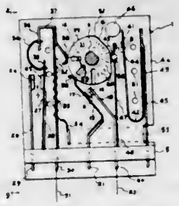
2,840,666
THERMAL MOTOR PROTECTION SWITCH
Joseph Greenhut, University Heights, Ohio
Application April 13, 1954, Serial No. 422,938
8 Claims. (Cl. 200—122)



1. In a circuit overload switch for electrical motors, the combination of a thermo-responsive switch-actuating member in said load circuit, a heater element connected in series in said circuit in energy-transmitting proximity to said member, a calibrating resistance element connected in parallel circuit with said heater element, and means interposed between said member and said resistance element to substantially isolate said member from the energy transmissions of said resistance element.

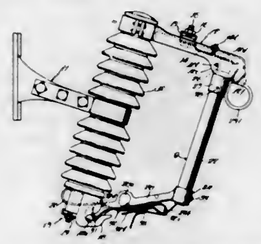
2,840,667
ELECTRIC SWITCH AND THERMOSTAT CONTROL
Leonard W. Atchison and Edward A. Zuercher, Jr., Louisville, Ky., assignors to General Electric Company, a corporation of New York
Application October 15, 1956, Serial No. 615,790
3 Claims. (Cl. 200—122)

1. A switch mechanism for selectively energizing two separate electrical circuits comprising a first switch for energizing one of said electrical circuits, a second switch for energizing said second electrical circuit, a bimetal blade arranged to actuate said second switch into the closed position, a resistance heater for said bimetal blade, said heater being arranged to cause movement of said bimetal blade to close said second switch when said heater is energized, a thermostat including a temperature sensing element movable in response to a variable tempera-



ture condition for energizing said resistance heater, said variable temperature condition being one caused by a source other than heat of said resistance heater, a control member selectively movable from an off position to a plurality of positions for first actuating said first switch and for then adjusting said thermostat to determine the temperature at which said temperature sensing element energizes said resistance heater.

2,840,668
FUSE ASSEMBLY FOR CUTOUTS
Edward H. Yonkers, Glencoe, Ill., assignor to Joslyn Mfg. & Supply Co., Chicago, Ill., a corporation of Illinois
Application February 24, 1956, Serial No. 567,596
33 Claims. (Cl. 200—127)

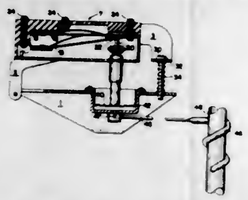


1. A fuse assembly for cutouts, comprising a pair of spaced contact members engageable with the terminal members of the cutout, and a structure of dielectric material supported between said contact members, said structure including parts formed of gas evolving material defining two elongated and concentrically arranged gas discharge passages both of which are closed at one end of the assembly and are vented to the atmosphere at the other end of the assembly, and having a plurality of interconnecting ports therebetween at points intermediate the ends thereof for transmitting gas evolved upon arc development in the inner one of said passages from said one passage to the outer one of said passages, the total cross-sectional area of said ports being less than the cross-sectional area of the outer one of said passages.

2,840,669
CONTROL DEVICE
Marvin E. Russell, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 6, 1956, Serial No. 626,627
4 Claims. (Cl. 200—140)

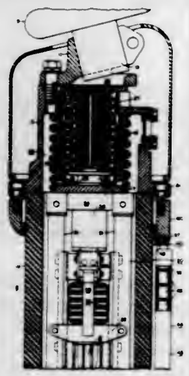
1. A control device comprising, circuit controlling means having an operator movable successively through a first range in which the circuit is open, a second range

in which the circuit is closed and a third range in which the circuit is open, an expansible chamber having a flexible wall operatively connected to said operator, a volatile thermostatic fluid filling said chamber, said operator and said flexible wall providing a bias tending to reduce the volume of said chamber, the bias being sufficient at temperatures below a predetermined value to maintain said



fluid entirely in the liquid state, said fluid in liquid state normally maintaining said operator in a position within its second range of movement, and said fluid vaporizing at a temperature above the predetermined value to supply sufficient pressure to move said flexible wall against the bias provided to move said operator into its third range to open the circuit.

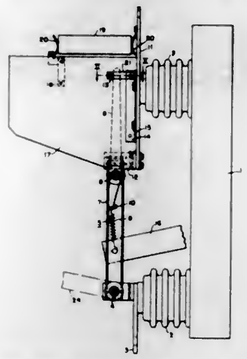
2,840,670
CIRCUIT INTERRUPTERS
Winthrop M. Leeds, Forest Hills, Benjamin P. Baker, Monroeville, and Robert E. Friedrich, Baldwin Boro, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 20, 1954, Serial No. 476,108
10 Claims. (Cl. 200—145)



1. A circuit interrupter including a plurality of cooperating pairs of contacts, means electrically connecting the pairs of contacts in series, means adding a shunting impedance for voltage distribution purposes across each of said pairs of contacts, and impedance means of less value across one outer pair of contacts adjacent a line terminal than across an intervening pair of contacts.

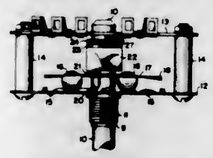
2,840,671
CIRCUIT INTERRUPTER
Friedrich Gieffers, Berlin-Siemensstadt, Germany, assignor to Siemens-Schuckertwerke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany
Application August 18, 1955, Serial No. 529,300
Claims priority, application Germany August 30, 1954
13 Claims. (Cl. 200—146)

4. A disconnecting switch including a two-part movable switch blade, means pivotally mounting one part adjacent one end thereof, means pivotally mounting the other part adjacent the free swinging end of said one part so that the outer free end of said other part extends considerably beyond said one part, means operatively connected to said switch blade for effecting the opening and closing rotative movements thereof for maintaining a circuit open and closed for appreciable lengths of time,



means biasing the two parts of the switch blade to an extended position, and means causing said other part to rotate only in one direction relative to said one part when the switch blade is in its extended position.

2,840,672
UNIDIRECTIONAL ROTARY ELECTRIC SWITCH
Joseph M. Martin, Sherman Oaks, Calif., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application May 22, 1956, Serial No. 586,446
8 Claims. (Cl. 200—155)



1. A control for unidirectional rotary switches, comprising a spindle for operating a switch to close and open a circuit, means actuated by turning said spindle in one direction for holding said switch in circuit closing position, a fixed stop means, a keeper carried by said spindle adapted to be intercepted by said fixed stop means, means mounting said keeper for sliding movement towards and away from said fixed stop means, spring means biasing said keeper toward said fixed stop means, a cam on the leading side of said keeper to shift said keeper past said stop means when said spindle is turned in one direction, and means on the trailing side of said keeper to abut said stop means to prevent shifting of said keeper when said spindle is turned in the reverse direction, whereby said spindle is locked against such reverse turning.

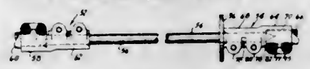
2,840,673
FLEXIBLE SHAFT POWER TOOL
Edward F. Burton, Los Angeles, Calif.
Application November 2, 1953, Serial No. 389,612
2 Claims. (Cl. 200—157)



1. Control means for an electric power tool having a power head, comprising: a rigid casing mounted on said

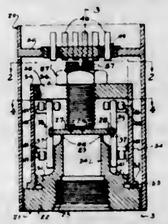
power head and provided with an opening in its radially outer side; an electric switch mounted within said casing and having a depressible control member extending, in non-operating condition, into said opening and being substantially flush with the contour of said casing; and an elastically deformable shield extending over said opening to exclude foreign matter and to prevent inadvertent operation of said switch, the shield being deformable under finger pressure to provide for depression of said control member.

2,840,674
ELECTRICAL BUS DISCONNECT
Nicholas E. Piccione, Huntington, N. Y., assignor to Burndy Engineering Co. Inc., a corporation of New York
Application August 12, 1955, Serial No. 528,048
3 Claims. (Cl. 200—163)



1. An electrical disconnect comprising a pair of spaced apart clamping elements, means for locking each clamping element into intimate contact with a supporting bus, a sliding contactor extending from one spaced clamping element to the other, and separate means for locking each clamping element about an end of the contactor to permit the sliding contactor to be locked into intimate contact with the clamping elements to form a closed disconnect.

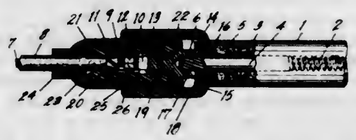
2,840,675
TRANSDUCER
Mario Di Giovanni, Pacific Palisades, Calif., assignor to Statham Instruments, Inc., a corporation of California
Application June 13, 1955, Serial No. 515,111
26 Claims. (Cl. 201—48)



1. A motion sensing device which comprises a frame, a flexible diaphragm, a flexure member connected to said frame and to said diaphragm at an angle intermediate the ends thereof, said diaphragm extending beyond said flexure member, said flexure member having an arcuate cross section and intersecting said diaphragm along spaced arcs intermediate the ends of said diaphragm, said diaphragm bending along lines of flexure radially of said arcs on application of a force against said diaphragm, means for applying a force to said diaphragm, an unbounded electrical resistance strain wire mechanically connected to said diaphragm, and an electrical connection at the ends of said strain wire.

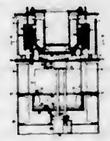
2,840,676
WATERPROOF ELECTRICAL COUPLINGS AND HEATING ELEMENT
Robert J. King, Allegan, Mich., assignor, by mesne assignments, to McGraw-Edison Company, a corporation of Delaware
Application May 18, 1956, Serial No. 585,723
14 Claims. (Cl. 201—67)

1. A waterproof flexible electrical connection for an electrical heating element having a rigid tubular metal sheath with an electrical resistance element packed in insulating magnesium oxide as a refractory therein with a rigid rod connected to the end of the resistance element and having a threaded end projecting from the end of the sheath comprising an insulating plug in the end of the sheath around the rod, a cylindrical tubular shell of flexible rubber material having a bottom wall seated against the end of said sheath and fitting snugly around the end of said rod, a boss on said shell projecting into said sheath, a nut threaded on the end of said rod, a washer under said nut pressing the bottom of said shell against the end of said sheath and pressing said boss into said plug, a smooth stud on the outer end of said nut projecting outwardly of said shell but recessed substantially inwardly from the outer end thereof, a flexible electrical conductor having a flexible insulating coating, a connector having a split band clamped around said coating and a second band clamped in electrical contact with



a bared portion of the end of the conductor, said connector having a concavely bent socket portion frictionally receiving said stud, an inner sleeve of relatively rigid synthetic plastic material sleeved around the end of said conductor and said connector and having an inner end of reduced inner diameter tightly engaged with said coating and abutted axially outwardly against said first band, the outer end of said sleeve being concave and seating against said nut, a second shell of relatively flexible rubber material having an inner end tightly engaging said coating and having its outer end tightly embracing said inner sleeve and projecting into tight sealing engagement in said first shell, said second shell having an external groove completely therearound, and an internal rib completely around the outer end of said first shell fitting in said groove, said insulating plug being formed of a thermo setting plastic material heat cured in place while in contact with said first tubular shell.

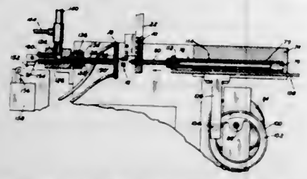
2,840,677
APPARATUS FOR INDUCTION HEATING
William A. Emerson, William B. Brown, and Clarence A. Kuhne, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 15, 1956, Serial No. 585,040
6 Claims. (Cl. 219—10.67)



6. In an induction furnace having a workpiece pathway and an induction coil surrounding a portion of said pathway for inductively heating hollow workpieces, the combination of a first plurality of peripherally spaced outer core leg members positioned adjacent the outside of said coil, a second plurality of inner core leg members spaced from the inside of said coil and substantially parallel to said outer core members, and a plurality of auxiliary core pieces movably supported in a first position spaced axially from the end of said coil and reciprocally movable to a second position adjacent the ends of said outer core members, said second position being such that said auxiliary core pieces are effective to

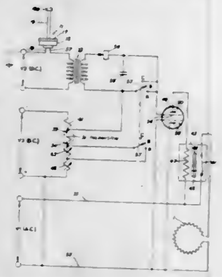
decrease the reluctance of the magnetic flux path between the ends of said outer core members and said inner core members.

2,840,678
RIVET MACHINE FEEDING MEANS
Emil H. Hill and Wilfred O. England, Portland, Oreg., assignors to Omark Industries, Inc., a corporation of Oregon
Application August 13, 1956, Serial No. 603,635
12 Claims. (Cl. 219—10.69)



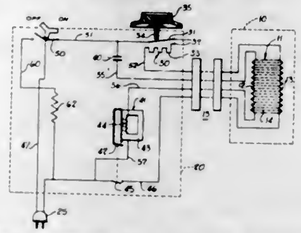
2. A machine for heat treating pivot pins having an enlarged central annular collar and concentric hubs of smaller diameter projecting oppositely therefrom, said machine comprising a support member having a horizontally aligned aperture for receiving a pivot pin hub, and a shoulder to engage the collar of the pivot pin, means for holding a pivot pin against said shoulder, means for heating a pivot pin held by said support member, means for ejecting a pivot pin from said support member after a predetermined period of time, means for retaining a supply of pivot pins, and means for feeding said pivot pins from said supply one at a time to said support member.

2,840,679
CONTROL FOR SURFACE HEATING ELEMENT
Thomas Gordon Hart, Toronto, Ontario, Canada, assignor to Moffats Limited, Weston, Ontario, Canada, a corporation
Application December 23, 1955, Serial No. 555,130
9 Claims. (Cl. 219—20)



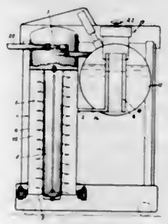
1. For heating a utensil containing liquid, the combination of a heating element, means for regulating the heat output of the heating element, a control unit including a transducer of the kind that causes a variable electrical output voltage in response to a vibratory mechanical input, the transducer having a movable part for receiving the mechanical input and having electrical output leads, the unit also including a mechanically vibratable member connected to said movable part, means for pressing the unit against the utensil with the vibratable member having a part in contact with the utensil to receive vibrations therefrom, electrical means connected to said output leads and responsive to said variable electrical output voltage for operating said heat output regulating means, and a thermoresponsive element on the vibratable member adjacent said utensil contacting part for causing a thermally variable voltage, said electrical means being connected to said thermoresponsive element, said electrical means including an electronic tube having a control grid to which said voltages are applied, and said heat output regulating means being an electrical relay operated by said tube.

2,840,680
HEAT COMPENSATOR FOR ELECTRIC BLANKET CONTROL UNITS
Edwin Ray Mills, Leaksville, N. C., assignor, by mesne assignments, to The New York Trust Company, a corporation of New York, and John H. Baile, Saddle River, N. Y., as trustees
Application September 17, 1956, Serial No. 610,251
3 Claims. (Cl. 219—20)



1. A control system for a thermo-sensitive heating element of an electric blanket comprising a cycling control circuit including a heater in series with said element for intermittently effecting the flow of current to the heating element, a series resonant circuit including an inductor relay linked with the blanket for cutting off the supply of power to the heating element when an overheated condition develops in the blanket, a case within which the heater and the inductor relay are contained, a manually operable switch interposed in a circuit between a source of current and the heater and the inductor relay, a resistor disposed within said case, means to electrically energize the resistor during intervals in which said switch is open and to de-energize the resistor during intervals in which said switch is closed, and the resistor having a capacity to heat the interior of said case to an extent substantially equal to the extent to which the interior of said case is heated by said inductor relay when the switch is closed.

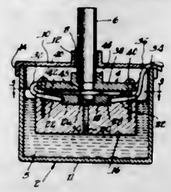
2,840,681
EVAPORATING DEVICES
Edward Bok and Hendrik Frederik Bok, Amsterdam, Netherlands
Application March 13, 1957, Serial No. 645,814
Claims priority, application Netherlands March 24, 1956
2 Claims. (Cl. 219—38)



1. A device for evaporating a volatile liquid comprising an evaporating chamber, an electric heating element in said evaporating chamber, a supply tank for said liquid, and a pressure equalizing channel connecting said evaporating chamber with the upper part of said supply tank and extending through the same, a liquid supply opening having a smaller cross section than said pressure equalizing channel being provided in the wall of

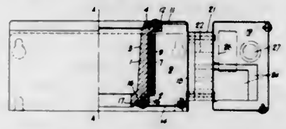
the same in the lower part of said supply tank, the part of said pressure equalizing channel contained within said supply tank including an enlarged heat transfer surface exposed to the liquid in said supply tank.

2,840,682
VAPORIZER
Robert Rubenstein and Sydney Weisberg, Chicago, Ill.
Application October 15, 1956, Serial No. 615,824
7 Claims. (Cl. 219—40)



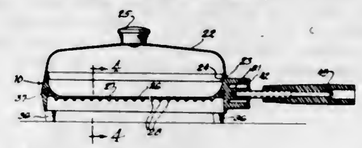
5. Vaporizing apparatus comprising: a float assembly for insertion in a container of water comprising a buoyant body having formed therein a liquid-heating recess and a liquid-feed passage extending from the bottom portion of said recess to the outside of the body for carrying water from the main body of liquid in said container to said recess, heating means in said recess comprising a pair of laterally spaced conductive electrodes separated by insulating members extending between the end portions of said electrodes and which, together with the electrodes, form a continuous inner surface defining the perimeter of a liquid-heating space for heating the liquid to be vaporized by passage of current through said liquid, said space communicating with said liquid feed passage, electrical conductors extending from said electrodes, and vapor discharging means for carrying vapor formed in said liquid-heating recess to the outside of said container.

2,840,683
HEATING APPARATUS
William Hubert Maxwell Butcher, Welling, England, assignor to The General Electric Company, Limited, London, England
Application August 31, 1955, Serial No. 531,652
9 Claims. (Cl. 219—43)



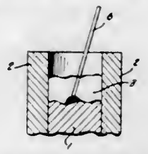
1. An electric heating apparatus comprising a cup-shaped member including side walls and a base formed of material of good heat conductivity, the member being adapted to receive and support a portable liquid container and the base of the member having one or more holes extending therethrough, an outwardly extending lip formed at the upper rim of said member, an electric heating element associated with the member and arranged to heat, by thermal conduction through the member, a liquid container received and supported by the member, a protective casing disposed laterally around and being laterally spaced from the member, means detachably securing the upper end of said casing to said lip, the casing and lip cooperating to shield the heating element from liquid falling on the apparatus, a terminal box disposed at one side of the casing and connected thereto, and supporting means for said terminal box constituted by at least one hollow arm of insulating material through which the electric conductors pass to the heating element.

2,840,684
COMBINATION FRYING PAN AND GRIDDLE AND METHOD OF HEATING THE OPERATIVE SURFACE THEREOF
William B. Watkins, Jr., Lake Geneva, Wis.
Application June 10, 1955, Serial No. 514,494
8 Claims. (Cl. 219—44)



1. As a new article of manufacture, a cooking utensil comprising upright side walls in substantially rectangular outline and having upper and lower edges, a relatively thin bottom wall disposed in a plane located between the said upper and lower edges of the side walls, said bottom wall contacting the side walls and being supported thereby, said bottom wall dividing the utensil into a frying pan and a grill in inverted relation to one another, said side walls being of varying thickness from edge to edge, with maximum thickness occurring substantially midway between said edges, a heating unit disposed in the region of maximum thickness of the side walls and adapted to heat the bottom wall by conduction from the side walls, and means on the utensil for supporting said utensil upon a table or the like with the edges of the side walls spaced from said table.

2,840,685
METHOD OF ELECTROWELDING AND PRODUCTS MADE THEREBY
Paul Müller, Halle (Saale), Germany, assignor to VEB (K) Schweisswerk Halle, Halle (Saale), Germany
Application November 9, 1955, Serial No. 545,948
9 Claims. (Cl. 219—73)

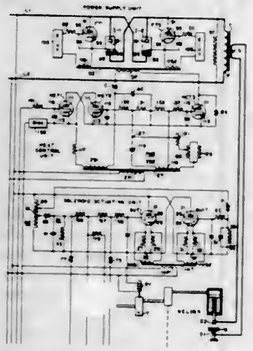


1. A method of welding with an entirely covered or substantially covered electric arc on ferrous base pieces, particularly cast iron chilled rollers and wobblers, said method comprising the steps of preheating a welding area of the cast iron base to 600°–700° C., applying a layer of liquefied slag-powder of a melting point below that of the cast iron base to said preheated welding area, inserting an arc-producing electrode comprising cast iron metal in said slag-bath, and then initiating the arc casting by firing an electric arc between said metal electrode and the work piece, said liquid slag layer being maintained during the entire welding process without withdrawing any of said slag.

2,840,686
HIGH SPEED RESISTANCE WELDING CONTROL
Hubert W. Van Ness, East Aurora, and William E. Large, Lancaster, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 28, 1955, Serial No. 490,872
16 Claims. (Cl. 219—114)

1. In combination alternating current power supply means having a first terminal and a second terminal, a first capacitor, a second capacitor, first, second and third electric discharge devices, each device having an anode,

a cathode and a control electrode, a rectifier, means connecting in series said first and second terminals, said first capacitor, said rectifier and said anode and cathode of said first device, means connecting said anode and cathode of said second device in inverse parallel with said rectifier, means connecting said anode and cathode of said third device in inverse parallel with said anode and cathode of said first device, means connected between said control electrode and cathode of said first device for impressing a potential displaced in phase with ref-



erence to said alternating potential between said control electrode and cathode of said first device, means connected between said control electrode and cathode of said second device for impressing a potential between the control electrode and cathode of said second device substantially in opposite phase to the potential between the control electrode and cathode of the first device, means connecting in series said terminals, said second capacitor and said anode and cathode of said third device, and means connected to the control electrode of said third device for impressing a timing signal thereon.

2,840,687
WELDING APPARATUS
Walter S. Rae, Jr., Shreveport, La.
Application February 19, 1954, Serial No. 411,409
7 Claims. (Cl. 219—158)



1. Apparatus for use in joining the end of a pipeline with a pipe section, comprising, a vehicular support, a beam for receiving said end of the pipeline and pipe section in end-to-end relation, means pivotally mounting said beam from said support at a point intermediate the ends of the beam to permit said beam to tilt to accommodate the natural curvature of the end of the pipeline when receiving the same, and means on the beam for axially aligning the ends of the pipeline and pipe section in abutting position on said beam.

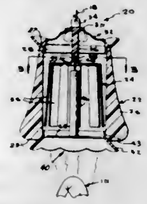
2,840,688
STRAP OPERATED BACK-UP LAMP FOR AUTOMOBILES
Martin Scott, Valhalla, N. Y.
Application April 11, 1957, Serial No. 652,171
2 Claims. (Cl. 240—8.3)

1. A back-up lamp for automobiles comprising a housing, means for mounting the housing on an automobile, an electric lamp mounted in the housing, a switch including relatively movable contact members, a lever pivotally mounted in said housing and upon which is mounted one of said contact members for movement into and out of engagement with the other upon swinging of said lever in opposite directions respectively, said housing having an opening and one end portion of said lever projecting out of the housing through said opening, and a



flexibly foldable strap having one end connected to said end portion of said lever and its other end portion to frictionally drag on a surface along which said automobile travels, said strap having a weight and frictional characteristics such as to react with customary traveling surfaces to move the lever sufficiently to operate the switch when the automobile is set into motion.

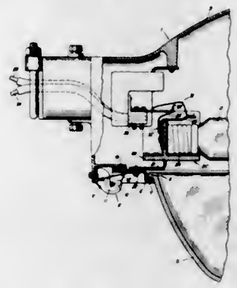
2,840,689
HEAT-ROTATED ILLUMINATED ORNAMENTS
Sylvin M. Kazor, Chicago, Ill.
Application March 15, 1957, Serial No. 646,417
8 Claims. (Cl. 240—10.1)



1. An ornament comprising a hollow translucent housing having upper and lower ends and a sidewall, an apertured top secured in said upper end having a depending central rod thereon having a lower end, a spider secured in the lower end of the housing comprising a horizontal plate having thereon an upstanding element having an upstanding needle bearing on its upper end, a rotor within said housing above said horizontal plate, said rotor comprising a perforated plate having therein a central bearing cone rotatably and supportably engaged on said needle bearing and engaged with the lower end of said rod, said perforated rotor plate having depending circumferentially spaced strips thereon, and propeller vanes on and rising angularly from the perforated rotor plate.

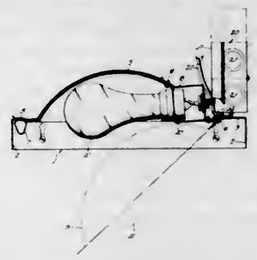
2,840,690
LAMP HOLDER ASSEMBLY FOR LUMINAIRE
Donald W. Harling, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application September 28, 1953, Serial No. 382,718
5 Claims. (Cl. 240—25)

1. In a luminaire comprising a stationary housing and a globe assembly providing a removable closure therefor, said globe assembly being movable from a closed position to an open position relative to said housing; a first pair of contact members biased towards electrical engagement with one another and arranged to complete an electrical series circuit on said engagement, a second electrical circuit including a conducting lamp socket and a second pair of contact members insulated from one another by means of a film cutout interposed therebetween and arranged for separable individual engagement with a respective contact of said first pair of contact members, one of said pairs being secured to said globe assembly for concurrent movement therewith for alternatively connecting said second circuit in series relationship with said first mentioned series circuit and



physically separating said first pair of contact members on movement of said globe assembly towards closed position, and to concurrently release said first pair of contact members towards engaged position and electrically isolate said second circuit from said first mentioned series circuit on movement of said globe assembly to open position.

2,840,691
RECESSED LIGHTING FIXTURE
Mitchell Bobrick, Pacific Palisades, and Jerome H. Feig, North Hollywood, Calif., assignors to Marvin Electric Manufacturing Company, Los Angeles, Calif., a corporation of California
Application January 11, 1957, Serial No. 633,765
3 Claims. (Cl. 240—78)



1. In a recessed lighting fixture a plaster frame, an arcuate reflector closing said frame, a hinge pivotally connecting said reflector to said frame, a latch carried by said frame to hold said reflector parallel to said frame, said reflector pivoting on said hinge to leave said frame open, telescoping means carried on the top of said frame, a junction box attached to said telescoping means and being accessible from the exterior of said frame by opening said reflector.

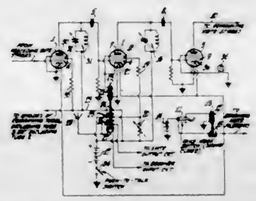
2,840,692
LAMP SHADE SUPPORT
Theophile Alphonse Stiffel, Chicago, Ill.
Application December 3, 1954, Serial No. 472,947
5 Claims. (Cl. 240—132)

1. A fixture for a table or floor lamp comprising a socket casing having an annular rim at the top thereof, a pair of oppositely positioned vertical channels formed in said annular rim, a harp having leg members with flattened end portion which are pivotally secured to the rim of said socket casing within said channels and confined in said channels when supporting said harp in an upright



position and positioned outwardly of said channels but pivotally connected thereto when in a collapsed position.

2,840,693
TRANSMITTER INTERLOCK CIRCUIT
Herbert E. Strauss, Philadelphia, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application December 21, 1953, Serial No. 399,321
The terminal 15 years of the term of the patent to be granted has been disclaimed
5 Claims. (Cl. 250—13)

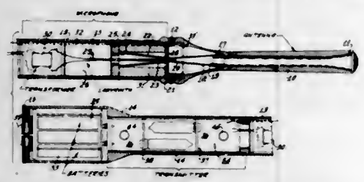


5. In a mobile radio communications system including a vehicle-mounted transmitter, said transmitter having a plurality of electron discharge devices coupled together for the transmission of signals therethrough, each of said devices having at least an anode electrode and a cathode electrode and one of said devices also having a control electrode: means for heating the cathode electrodes of all of said devices to electron-emitting temperature, a controllable circuit for energizing the heating means of all of said devices simultaneously, a source of unidirectional energizing voltage having a positive terminal and a negative terminal, means for applying the voltage of said source between the anode electrode and the cathode electrode of only said one device, an antenna, means acting in response to the flow of a predetermined current through said one device to apply the voltage of said source between the anode electrode and the cathode electrode of each of the remaining devices, to vary the value of an impedance in series circuit between said positive terminal and said control electrode, and also to connect said antenna to the output circuit of said transmitter, and an indicating lamp connected in series in the anode-cathode circuit of one of the said remaining devices.

2,840,694
PORTABLE RADIO TRANSMITTER WITH COMBINATION MICROPHONE HORN AND ANTENNA
Adolph R. Morgan, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 8, 1953, Serial No. 353,790
8 Claims. (Cl. 250—14)

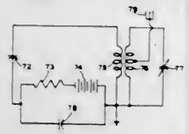
1. A portable light weight radio transmitter suitable for studio or similar uses comprising an elongated case of slim contour being capable of being grasped by the hand of the speaker, a microphone structure and a bat-

tery-operated radio transmitter circuit mounted within said case, and a metallic tubular element extending from, but electrically insulated with respect to said case, said tubular element being mechanically arranged with its in-



ner end near said microphone structure to serve as an acoustic horn therefor, and means electrically coupling the output of said transmitter circuit to said tubular element, whereby said elment serves as a radiator of radio frequency energy.

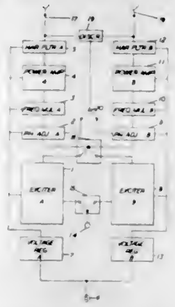
2,840,695
MEANS FOR TRANSDUCING ELASTIC WAVES
Glen Peterson, Tulsa, Okla.
Application February 20, 1950, Serial No. 145,279
16 Claims. (Cl. 250—17)



4. A transducer comprised of a spark gap having one or more optically-flat high-capacity electrodes elastically suspended from and in parallel alignment with one or more fixed optically-flat high-capacity electrodes, the separation of the electrodes forming the gap being generally less than one ten-thousandth of an inch, the elastically suspended gap electrodes being conductively connected to one terminal of a radio-frequency inductance coil, the fixed gap electrodes being conductively connected to a resistance in series with a source of electromotive force and the second terminal of this combination being connected to the second terminal of said radio-frequency inductance coil, said combination of resistance and source of electromotive force being shunted by a capacity, the radio-frequency coil being resonated by the capacity of the spark gap and suitably connected to an antenna.

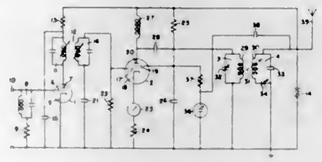
2,840,696
RADIO TRANSMITTING INSTALLATIONS
Arthur Cecil Beck and John Lloyd Storr-Best, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application June 22, 1955, Serial No. 517,348
Claims priority, application Great Britain July 7, 1954
5 Claims. (Cl. 250—17)

1. A radio multi-branch transmitter equipment comprising a source of modulating signals, two like exciter units, first switching means for applying said source of modulating signals to either of said exciter units to provide a high frequency output modulated in response to signals from said source, two like power amplifier branches each including a frequency multiplying stage preceded by a voltage-controlled phase adjusting device, second switching means for connecting said two power amplifier branches to either of said exciter units, phase discriminating means responsive to the phase difference between the respective outputs of said amplifier branches, third switching means for connecting the output of said discriminating means serving to supply the controlling voltage to either of said phase adjusting devices in the respective amplifier branches, and two power supply voltage control devices each associated with a respective one of said power amplifier branches



and adapted for control of the power supply input voltage to the associated branch to any desired voltage within a continuous range from substantially zero to full operating voltage.

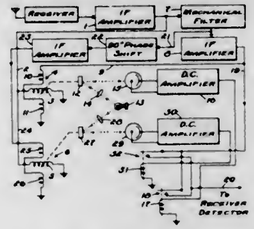
2,840,697
TRANSMITTER TUNING METHOD AND APPARATUS
Richard Ocko, Syracuse, and Kenneth K. Bay, Baldwinsville, N. Y., assignors to General Electric Company, a corporation of New York
Application January 12, 1956, Serial No. 558,819
5 Claims. (Cl. 250—17)



1. In combination, in a transmitter comprising an electron discharging device having a cathode, a grid, a screen grid and an anode, a tuned output circuit, a source of unidirectional operating potential, the anode-cathode discharge path of said device, said output circuit and said source of unidirectional potential being connected in circuit, a tuned antenna circuit variably coupled to said output circuit, an input circuit coupled between the grid and cathode of said discharge device, the cathode-screen grid discharge path of said device being connected in circuit with said source through a resistance, and another resistance and a glow discharge device connected in series between said screen grid and the negative terminal of said source, and means for coupling the output appearing across said tuned antenna circuit to said glow discharge device.

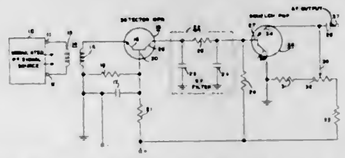
2,840,698
PHOTOELECTRIC SWITCHING DEVICE FOR MECHANICAL SQUELCH
Nathaniel Bercovitz, Jr., Burbank, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application February 28, 1956, Serial No. 568,287
3 Claims. (Cl. 250—20)

1. In a squelch device for a radio receiver, an electromechanical actuator having a yoke of low-loss highly permeable magnetic material, a pair of axial pole pieces extending inwardly from said yoke, a stationary winding being disposed on each of said pole pieces, a rotor winding, a shaft secured to said rotor winding for rotatably supporting said rotor winding between said pole pieces, a mirror securely mounted on said shaft; means for applying signal to said rotor winding, means for changing phase of said signal and for applying the signal of different phase to said stationary windings, a mechanical stop for stopping rotation of said rotor winding and associated mirror in a particular position, spring biasing means for positioning said rotor winding in a normal position away from said stop, said rotor winding being operated against said spring means in response to application of repetitive signal to said windings thereby to position said rotor winding and said mirror in said par-



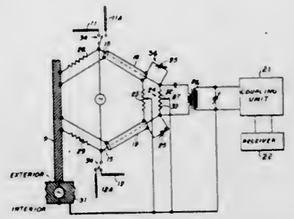
ticular position, said rotor winding being operated away from said particular position by said spring biasing means when signal applied to said windings is non-repetitive; a photoelectric system including a source of light, a photoelectric cell, means responsive to the operation of said photoelectric system for enabling receiving circuits, said mirror, said source of light, and said photoelectric cell being arranged so that movement of said mirror controls said system, and said system operated in response to positioning said mirror in said particular position to enable said receiving circuits.

2,840,699
TRANSISTOR SQUELCH SYSTEM OR THE LIKE
Frank C. Carpenter, Jr., Sierra Madre, Calif., assignor to Hoffman Electronics Corporation, a corporation of California
Application April 30, 1957, Serial No. 656,042
7 Claims. (Cl. 250—20)



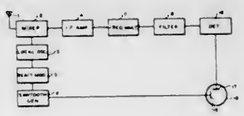
1. A transistor detector and squelch circuit including, in combination, first and second transistors of complementary types each having a base, an emitter, and a collector; an input circuit having a first end terminal coupled to said emitter of said first transistor and a second end terminal maintained at a common reference potential; a source of intermediate, direct current potential coupled to said base of said first transistor; a radio frequency filter having a first end terminal coupled to said collector of said first transistor and a second end terminal; an output load impedance having a first end terminal coupled to said second end terminal of said filter and a second end terminal maintained at a high potential relative to said common and intermediate potentials; said base of said second transistor being coupled to the junction of said filter and said output load impedance; said collector of said second transistor being maintained at said common reference potential; a voltage divider having first and second end terminals maintained at said common reference potential and said high potential, respectively, and a tap, said voltage divider tap being coupled to said emitter terminal of said second transistor; and an output coupling capacitor coupled to said emitter of said second transistor.

2,840,700
ELECTRODE VERY LOW FREQUENCY RADIO RECEIVING ANTENNA FOR SUBMARINES
Jewel D. Browder, San Diego, Calif.
Application June 30, 1954, Serial No. 440,569
15 Claims. (Cl. 250—20)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for receiving very-low-frequency signals from the electric field of passing radio waves comprising a first upper electrode, a first lower electrode, a second upper electrode substantially at right angles to said first electrode, and a second lower electrode substantially at right angles to said first lower electrode, an input circuit connecting one upper and one lower electrode to a receiver, and switching means for alternately connecting the first upper and lower electrodes and second upper and lower electrodes to said input circuit.

2,840,701
SPECTRUM ANALYZERS
Hyman Hurvitz, Washington, D. C., assignor, by mesne assignments, to Panoramic Radio Products, Inc., Mount Vernon, N. Y., a corporation of New York
Application February 28, 1955, Serial No. 490,787
6 Claims. (Cl. 250—20)



1. In a spectrum analyzer, a source of a wide band of frequencies, a narrow band filter, a scanning frequency converter for converting frequencies of said wide band of frequencies in succession to the frequency of said filter, at a rate of frequency scan

$$\frac{df}{dt}$$

a first output filter for said scanning frequency converter, said output filter having a band width of the order of

$$1.5\sqrt{\frac{df}{dt}}$$

a frequency multiplier in cascade with said filter, a second output filter for said frequency multiplier, said second output filter having a band width of the order of

$$1.5\sqrt{n\frac{df}{dt}}$$

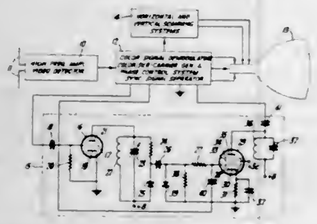
where n is the multiplication factor of said multiplier, means for visually displaying the output of said second filter as a plot against a base line, and means for generating said base line in synchronism with said scanning.

2,840,702
VARIABLE IMPEDANCE CIRCUIT
Maurice Charles Branch, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application December 11, 1952, Serial No. 325,485
Claims priority, application Great Britain December 20, 1951
1 Claim. (Cl. 250—27)



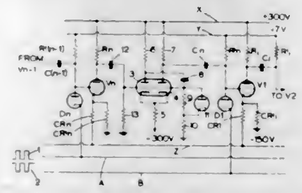
In a circuit for a discharge tube having electrodes including a cathode, a trigger, and an anode, a source of positive potential connected to said anode, and first and second sources of negative electrical potentials, the combination of a rectifier connected between said first negative potential source and the cathode, a resistance connected between the cathode and said second negative potential source, the potential of said second potential source being negative with respect to the first negative potential source, said rectifier being so poled that it prevents said cathode from going negative with respect to said first negative potential source, whereby when said tube is quiescent its cathode circuit impedance equals the forward resistance of said rectifier, a circuit for applying positive potential to the trigger without producing appreciable voltage change in the cathode, and a circuit for applying additional positive potential to the anode to cause the tube to pass current without increasing the cathode circuit impedance above that of said resistance.

2,840,703
TELEVISION SYNCHRONIZING SIGNAL SEPARATOR
Harold R. Dobson, Clarence, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application September 11, 1953, Serial No. 379,682
3 Claims. (Cl. 250—27)



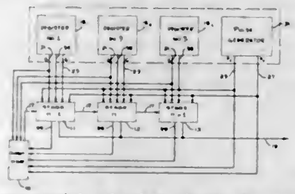
1. A television synchronizing signal separator comprising, an oscillatory circuit, an amplifier having input electrodes coupled to a source of pulse potentials and output electrodes including an anode coupled to said oscillatory circuit to develop thereacross a control voltage of pulse wave form of which each pulse follows in point of time a corresponding potential pulse applied to said input electrodes, a series circuit connected in shunt to said oscillatory circuit and including an oscillation-damping resistive impedance and a uni-directional conductive device, said device having a polarity opposing flow of current in said series circuit during build up of current through the inductive branch of said oscillatory circuit which produces said control voltage pulse, and a second amplifier having output electrodes included in an output circuit and input electrodes included in a self-bias circuit coupled to said oscillatory circuit to develop by peak rectification of said control pulses output circuit current pulses delayed by a pre-determined interval from the termination of said oscillatory circuit current pulse.

2,840,704
PREVENTION OF CIRCULATION OF PLURAL PULSES IN GENERATOR RING
Keith Gordon Huntley, Harlington, Hayes, England, assignor to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application March 30, 1954, Serial No. 419,880
Claims priority, application Great Britain April 7, 1953
7 Claims. (Cl. 250—27)



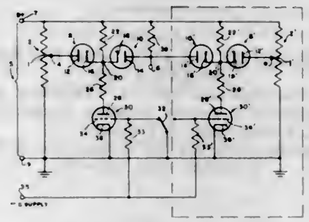
1. A pulse generator chain circuit comprising a plurality of switchable devices each having a stable condition and an unstable condition, a coupling from each device to a succeeding device to form a closed ring, each coupling being responsive to a transition of the first of two coupled devices from the unstable condition to the stable condition to produce the inverse transition of the second of two coupled devices, and means for applying switching pulses to the devices individually, said pulses being predetermined to switch a device from the unstable condition to the stable condition whereby the unstable condition can be circulated repeatedly round the ring with a circulation time determined by said switching pulses, one of said couplings including means to render the respective coupling responsive to transitions of the corresponding preceding device only after an interval which is between one half and the whole of said circulation time from a preceding response to cause the circuit to operate in a single mode at one time.

2,840,705
SEQUENTIAL SELECTION MEANS
John F. Scully, Glen Gardener, N. J., assignor to Monroe Calculating Machine Company, Orange, N. J., a corporation of Delaware
Application November 26, 1954, Serial No. 471,370
10 Claims. (Cl. 250—27)



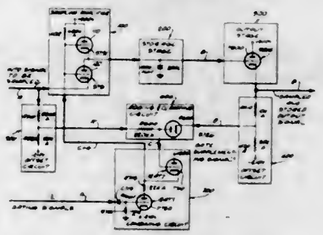
1. In a sequential selection circuit for connecting a plurality of devices with a common line selectively, each device producing a signal when such connection is desired, the combination in each of a plurality of stages of means for connecting a said device with the line, a first flip-flop set to one state to enable said means, a second flip-flop, timed means controlled by the second flip-flop to set the first flip-flop to said one state, timed means to reset the first flip-flop, means jointly controlled by: the signal from said device, and by a preceding stage first flip-flop set to said one state, to effect setting of the second flip-flop, and means actuated by the instant stage first flip-flop on setting thereof to reset the second flip-flop.

2,840,706
SAMPLING CIRCUIT
Munsey E. Crost, Asbury Park, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application December 31, 1954, Serial No. 479,256
3 Claims. (Cl. 250—27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



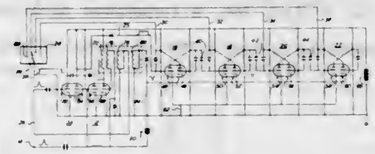
1. An apparatus for sequentially sampling a plurality of discrete reference voltages from separate sources at a common sampling point, comprising a source of direct-current potential having a positive and a negative terminal, a resistance connected between said positive terminal and said common sampling point and a plurality of branch circuits each comprising said common sampling point, a different one of the reference voltage sources, a pair of diodes connected in series between the reference voltage source and said common sampling point with their cathodes connected to each other and their anodes respectively connected to the reference voltage source and to said common sampling point, a voltage divider and a space discharge tube having a grid, a cathode and an anode, connected in series with each other between the positive and negative terminals of said direct-current potential source with one end of the voltage divider connected directly to said positive terminal, the cathode of said tube connected directly to said negative terminal and the anode thereof connected directly to the other end of the voltage divider, said voltage divider being connected at an intermediate voltage point directly to a junction point between the cathodes of said diodes, and switching means for applying at predetermined time intervals a bias to the grid of said tube to render said tube conductive, the circuit constants in each of said branch circuits being respectively selected so that the potential produced at the junction point when said tube is conductive is such as to render said diodes conductive to bring said common sampling point to the potential of the reference voltage source in the circuit.

2,840,707
FAST-ACTING SAMPLING CIRCUIT
Thomas J. Johnson, Jr., Los Angeles, Calif., assignor to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California
Application March 7, 1955, Serial No. 492,507
11 Claims. (Cl. 250—27)



8. In a sampling circuit including means to produce an input signal, a storage device, sampling means to pass said input signal to the storage device upon receipt of a gating signal, and gating means for producing a gating signal to operate said sampling means, a biasing circuit for said sampling means, said biasing circuit comprising: means for comparing said input signal to the stored output signal of said storage device to produce a gate supplementing signal proportional to said input signal when the difference between said input signal and said storage signal is of one algebraic sign and proportional to said storage signal when the difference between said input signal and said storage signal is of the opposite algebraic sign; and means for impressing the sum of said gate supplementing signal and said gating signal on said sampling means to operate it.

2,840,708
VARIABLE RING COUNTER
Robert E. Sandiford, Temple City, Calif., assignor to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Application January 13, 1956, Serial No. 558,951
4 Claims. (Cl. 250—27)

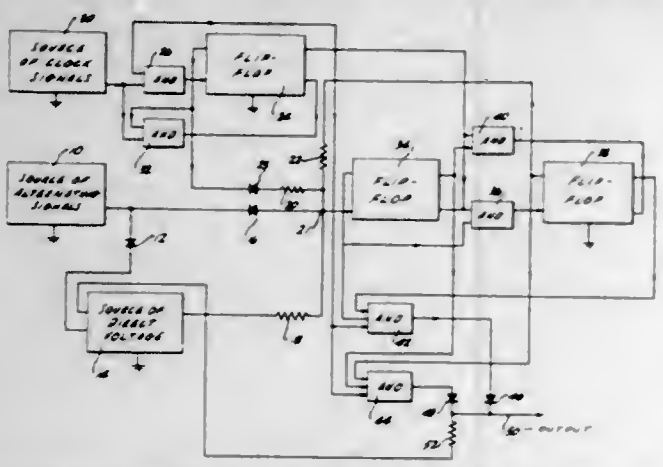


1. An electronic ring counter circuit comprising a plurality of bi-stable counter stages, means interconnecting the stages to cause the conductive condition of only one of the stages to be different from the conductive condition of the other stages at any time, an input circuit coupled to the counter stages for providing periodic actuating pulses simultaneously to each of these stages, a coincidence circuit coupled to the first stage of the counter, means coupling the input circuit to the coincidence circuit for supplying actuating pulses to the coincidence circuit simultaneously with the pulses applied to the counter stages, and means coupled between the outputs of the several stages and the coincidence circuit for selectively coupling the output of any last desired stage of the counter to the coincidence circuit, the output of the selected stage furnishing a gating signal when the stage is actuated which causes the coincidence circuit to re-actuate the first stage of the counter on receipt of the next actuating pulse, with the particular stage selected thereby determining the number of active stages included in the actuation cycle of the ring counter.

2,840,709
FREQUENCY TO DIGITAL CONVERSION
John V. Blankenbaker, Inglewood, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application July 2, 1956, Serial No. 595,252
14 Claims. (Cl. 250—27)

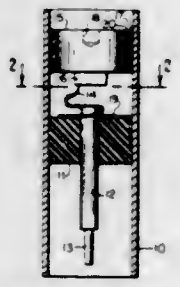
1. Apparatus for converting alternating signals into pulses indicating the frequency of the signals, including, means for providing clock signals having a frequency higher than the frequency of the alternating signals, means for sampling the amplitude of the alternating signals at periodic intervals related to the frequency of the clock signals to produce first control signals at a frequency dependent upon the frequency of the clock signals during at least a first polarity in the alternating signals, means for sampling the first control signals in accordance with the frequency of the clock signals to produce second control signals having an amplitude dependent upon the regularity of the first control signals, and means for operating

upon the first and second control signals and the clock signals in a particular manner to obtain output pulses at



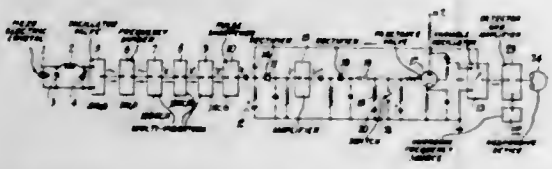
a frequency related to the frequency of the alternating signals.

2,840,710
ELECTRICAL CRYSTAL UNIT
Stephen L. Levy, Bedford, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application January 6, 1956, Serial No. 557,665
6 Claims. (Cl. 250—31)



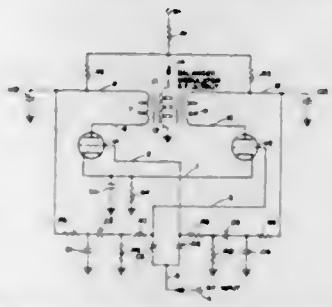
1. A crystal cartridge comprising an outer conductor, cooperating semiconductor and rectifying connection elements, means supporting said cooperating elements in fixed position with respect to said outer conductor, and means providing a direct current path from one of said elements to said outer conductor including a conductor element having at least one inductive turn in its length.

2,840,711
VARIABLE FREQUENCY OSCILLATORS
Alan Miller, Chelmsford, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application January 4, 1954, Serial No. 401,761
Claims priority, application Great Britain January 8, 1953
5 Claims. (Cl. 250—36)



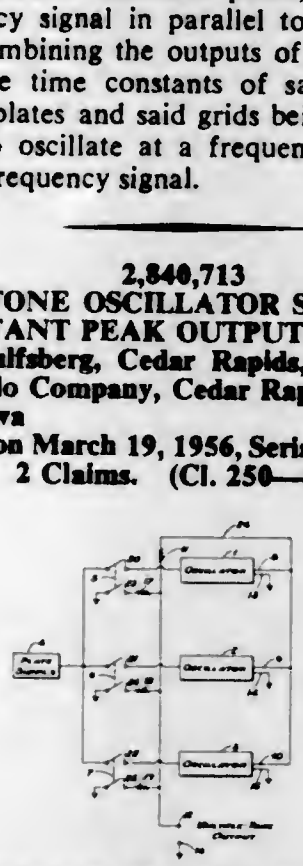
1. A variable frequency oscillation generator arrangement comprising a stabilized source of high frequency oscillations consisting of a crystal controlled variable frequency oscillator having tuning means connected therewith for tuning said oscillator over a limited frequency range, a generator of pulses synchronized by said source so that the frequency of said pulses is a sub-harmonic of said source, a pulse sharpener, a variably tunable oscillator, means for feeding the pulses to said pulse sharpener, a phase discriminator, means for feeding the output of the pulse sharpener and the output from the variably tunable oscillator to said phase discriminator whereby a control voltage is produced that is dependent upon the phase differences between said pulses and the oscillations from said variably tunable oscillator, said control voltage operating to phase lock the variably tunable oscillator to said pulses wherein said variably tunable oscillator is effectively stabilized by said stabilized source with substantially crystal stability over a continuous band of operating frequencies.

2,840,712
COMBINED OSCILLATOR AND BALANCED MODULATOR
Alfred A. Hemphill and John M. Tewksbury, Baltimore, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application March 4, 1957, Serial No. 643,644
3 Claims. (Cl. 250—36)



1. A combined oscillator and balanced modulator circuit comprising a pair of electron tubes each having a plate, a cathode and a control grid, phase shifting means coupling the plate of each of said tubes to the control grid of the other, means connecting said cathodes together and providing a common impedance between said cathodes and a ground reference plane, means applying a radio frequency signal in parallel to said control grids, and means combining the outputs of said tubes in phase opposition, the time constants of said coupling means between said plates and said grids being such as to cause said circuit to oscillate at a frequency lower than that of said radio frequency signal.

2,840,713
MULTIPLE TONE OSCILLATOR SYSTEM HAVING CONSTANT PEAK OUTPUT VOLTAGE
Arthur H. Wulfsberg, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application March 19, 1956, Serial No. 572,334
2 Claims. (Cl. 250—36)



2. In a multiple-tone generating system having a plurality of electronic oscillators and a pair of output terminals, a peak-voltage control circuit having a plurality of shunt resistors, a series resistor common to said oscillators, said oscillators having individual output circuits connected in parallel, said parallel output circuits being connected in series with said common series resistor and said pair of output terminals, each of said shunt resistors having small resistance compared with that of said series resistor, switching means operable to enable any number of said oscillators in any selected combination and to connect a corresponding number of said shunt resistors

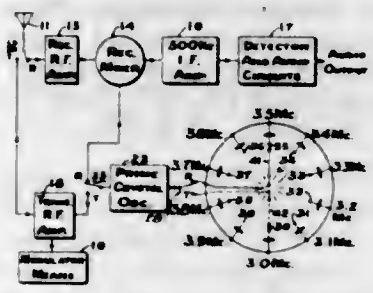
across said pair of output terminals, and said shunt resistors having selected resistance values for maintaining peak voltages across said output terminals substantially constant regardless of the number of said oscillators enabled for generating signal.

2,840,714

SIDESTEP OSCILLATION MEANS

Paul G. Wulfsberg, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application December 30, 1955, Serial No. 556,682
8 Claims. (Cl. 250—36)



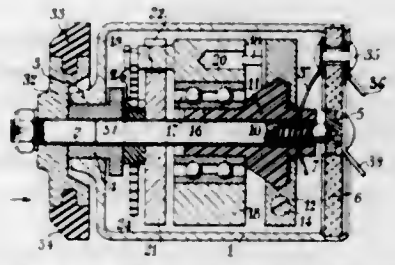
1. Sidestep oscillation means for a transceiver having at least one crystal oscillator utilizing a bank of crystals, comprising a double-layer wafer switch having stator contacts that are equally spaced and equal in number to the crystals in said bank, adjacent contacts located on opposite sides of said wafer switch connected in pairs, a single-pole rotor provided on each side of said wafer switch, said rotors being insulated from each other and having their poles situated approximately 180 degrees from each other, said crystals connected consecutively in the order of their frequency to said stator contacts, and means for connecting one of said poles to said oscillator for transceiver receiving and for connecting the other of said poles to said oscillator for transceiver transmitting, whereby the number of prime frequencies and the number of displacement frequencies provided from said oscillator each equal the number of crystals in said bank.

2,840,715

INERTIA FLY-WHEEL DEVICE FOR THE AUTOMATIC CONTROL OF BRAKING OF A WHEEL

Rene Lucien, Neuilly sur Seine, France, assignor to Societe a Responsabilite Limitee Recherches-Etudes-Production R. E. P., Paris, France, a corporation of France

Application April 23, 1956, Serial No. 580,120
Claims priority, application France March 13, 1956
8 Claims. (Cl. 200—61.46)



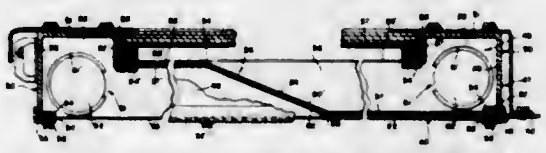
2. An inertia fly-wheel device of the type of accelerometer for the automatic control of the braking of a wheel, comprising: a shaft driven into rotation by the wheel and provided with longitudinal splines, an insulated member moulded around a portion of said shaft, a metallic collector surrounding a portion of said metallic member and rigidly fixed thereto an electric current conducting fly-wheel angularly rotatable around a portion of said insulated member and having, on one flat face, a cavity and on another flat face a nipple, a circular disc provided with axial splines engaging the splines of said shaft and having on its periphery a recess which engages said nipple, a spiral spring having an end rigidly fixed to said shaft and another end rigidly fixed to said nipple and wound around said shaft in the direction of its rotation, a conducting leaf spring rigidly fixed to the collector for wiping the face of the fly-wheel provided with the cavity but secured to the collector to extend into the cavity when the device is at rest, an insulating plate closing an end of the casing and carrying two terminals, said terminals being one for the input current, and another for the output current, respectively connected to said collector and to said shaft.

2,840,716

RAY SENSITIVE SCREEN UNIT AND ASSOCIATED APPARATUS

Robert Godbarsen, Jr., Milwaukee, Wis., assignor to General Electric Company, a corporation of New York

Application July 7, 1953, Serial No. 366,567
15 Claims. (Cl. 250—71)



1. Ray detecting means comprising a layer of ray sensitive material adapted to emit light when exposed to the action of rays to be detected, means to dispose said layer in the path of rays to be detected at an inclination with respect to the path of said rays whereby to provide inclined light emitting surfaces in said layer and facing in opposite directions laterally outwardly of the path of said rays, and a pair of photosensitive detectors spaced apart on opposite sides of the path of said rays in position each to be influenced by light emitted from a corresponding face of said layer.

2,840,717

METHOD OF DETERMINING THE POROSITY OF CORE SAMPLES

Leendert de Witte, Ponca City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application January 9, 1953
Serial No. 330,589
5 Claims. (Cl. 250—83)

3. The method of determining the porosity of a core sample taken from a well bore which comprises the steps of immersing the core into a molten bath of a normally non-flowing hydrogen-bearing organic material to saturate the same, thoroughly cooling the saturated bore to solidify the organic material in situ, directing a beam of fast neutrons of known intensity and cross sectional area through said saturated core, detecting the slow neutrons emanating from said core wherein said slow neutrons are the result of the deceleration of the fast neutrons passing through the organic saturant and the hydrogen-bearing compounds naturally present in said core sample, and then determining the porosity of said core sample by comparing the measured intensity of the slow neutrons emanating from said core to the measured intensity of slow neutrons emanating from a standard of known porosity.

2,840,718

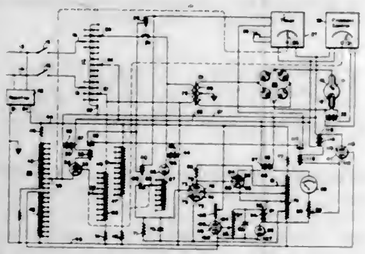
X-RAY APPARATUS

Robert L. Wright, North Linthicum Heights, and William C. Whittenberg, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 26, 1954, Serial No. 419,002
5 Claims. (Cl. 250—93)

1. In apparatus including an electrical discharge de-

vice having an anode and a cathode, with a voltage supply circuit connected to said device for applying energy to said device between said anode and said cathode, the combination of a timing device connected to said circuit for controlling said circuit in accordance with a selected time interval during which energy may be applied, voltage indicative means operable to provide a first signal corresponding to the voltage applied to said device, current indicative means operable to provide a second signal corresponding to the current level at which energy is to be applied, and time indicative means connected to be commonly operable with said timing device to provide a third signal corresponding to said selected time interval, an integrating measuring system connected with said voltage supply circuit for producing a fourth signal having a magnitude corresponding to the energy accumulated in said discharge device after the device



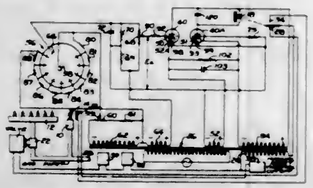
has been in operation, means connected with said measuring system for reducing the magnitude of said fourth signal at a rate corresponding to the rate of dissipation of said accumulated energy, means responsive to the resultant magnitude of said fourth signal and coupled to one of said indicative means so as to modify the signal provided thereby in accordance with said fourth signal, switch means connected in said voltage supply circuit between said source and said discharge device, trigger means connected to said switch means so as to actuate said switch means to prohibit delivery of energy to said discharge device, said voltage indicative means, said current indicative means and said time indicative means being connected to said trigger means to apply the combination of said first, second, and third signals thereto for actuating said trigger means when the combination of said voltage, said current level, said time interval corresponds to a quantity of energy exceeding the remaining available thermal capacity of said device.

2,840,719

SYSTEM FOR DERIVING AVERAGE INTENSITY OF FLAME AND COMPARING INSTANTANEOUS INTENSITY THEREWITH

Robert Leroy Peterson, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California

Application May 21, 1953, Serial No. 356,501
5 Claims. (Cl. 250—205)



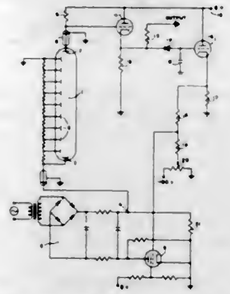
1. In a flame detecting apparatus of the character described, a first device having a cathode, a control grid and an anode, a first transformer winding connected between said cathode and said anode, a second transformer winding connected between said cathode and said control grid and poled such that, in the absence of a flame, it renders said control grid negative when said anode is positive to thereby render said device normally nonconducting, means connected between said cathode and said control grid for developing a voltage representative of the average intensity of a sporadically fluctuating flame, the last-mentioned means incorporating means for rendering said device conductive when said flame intensity is above a predetermined average level.

2,840,720

MULTIPLIER PHOTOTUBE STABILIZING CIRCUIT

Albert B. Van Rennes, Wayland, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 19, 1956, Serial No. 572,592
5 Claims. (Cl. 250—207)



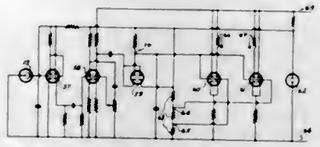
1. A control circuit for substantially eliminating drift in the quiescent anode current of a photomultiplier tube occasioned by aging of the tube or by slight changes in the illumination of the photosensitive cathode due to variations in the background density of the medium being scanned comprising, in combination, a relatively high negative potential source coupled to the interconnected dynodes of said phototube, a feedback control circuit connected between the output of said phototube and said potential source for changing the magnitude of said source in response to variations in the anode current of said tube, said feedback circuit containing a negative peak measuring diode-detector for rendering said feedback control circuit unresponsive to relatively rapid decreases in the output current of said phototube brought about by a sudden decrease in the illumination of the photosensitive cathode of said tube.

2,840,721

DETECTION DEVICE FOR MOVING WEBS

Joseph C. Frommer, Cincinnati, Ohio, assignor, by mesne assignments, to Electric Eye Equipment Company, Danville, Ill., a corporation of Illinois

Application May 28, 1954, Serial No. 433,230
11 Claims. (Cl. 250—219)



1. A device to detect the lateral position of a moving web having on it such recurrent visible patterns that at least one longitudinal track of the web has at least one recurrent informative portion in which light reflection varies substantially for small lateral displacements of said track and at least one recurrent reference portion

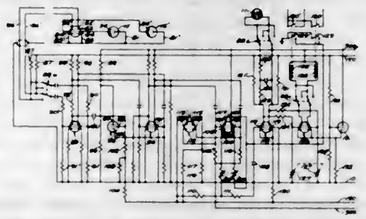
in which light reflection stays substantially unchanged for small lateral displacements of said track, comprising a single stationary photoelectric means generating signals as a function of light reflected from successive portions of said track passing in front of said stationary photoelectric means, monitoring means monitoring the passage of at least one informative portion of said track in front of said photoelectric means first storing means storing a first output corresponding to one extreme of all photoelectric signals generated by said photoelectric means, comparing means operatively connected to said photoelectric means and said monitoring means and generating a second output corresponding to the ratio between the photoelectric signals generated by said photoelectric means within one cycle monitored by said monitoring means and said first output of said first storing means, second storing means storing said second output provided by said comparing means and discharging means cancelling said information at a predetermined rate so that said second output stays above a predetermined value for a time duration depending on the lateral position of said web and controlling means controlling the lateral position of said web operatively connected to said second storing means thereby altering said lateral position during the periods of time said second output stays above said predetermined value.

2,840,722

DETECTION DEVICE FOR MOVING PIECES

Joseph C. Frommer, Cincinnati, Ohio, assignor, by mesne assignments, to Electric Eye Equipment Company, Danville, Ill., a corporation of Illinois

Application October 10, 1955, Serial No. 539,359
7 Claims. (Cl. 250—219)



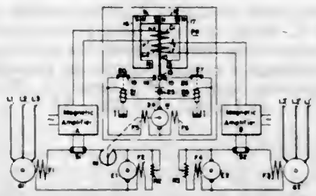
1. In a device for the detection of the lateral deviation from normal disposition of a piece with respect to a machine through which said piece runs in a predetermined direction parallel with a lateral edge of said piece and having a pair of tracks laterally spaced apart and extending in said direction along said piece, the improvement comprising means continually illuminating and defining said tracks, one track having periodic light reflective characteristics occurring in cycle and producing an increase in light variation when said piece deviates from normal disposition on one side of said one track and a decrease in light variation when said piece deviates on the other side of said one track, the second track having periodic light reflective characteristics occurring in the same cycle as the first-mentioned characteristics and producing a substantially lesser increase and decrease of light variation when said piece deviates as aforesaid, first and second photoelectric means scanning the respective tracks, said first photoelectric means thereby producing a first alternating voltage signal related to the variation of light in the first track, said second photoelectric means thereby producing a second alternating voltage signal related to the variation of light in said second track, an electronic comparison circuit, means adjusting the amplitudes of said signals with predetermined relationship one to the other such that for normal disposition of said piece the adjusted amplitude signals are substantially the same notwithstanding the fact that said first and second alternating voltage signals are not the same at said normal disposition, means applying the adjusted amplitude signals to said comparison circuit, detecting means connected to the output of said comparison circuit and influenced in opposite direction by the respective adjusted amplitude signals whereby the signals neutralize one another for said normal disposition, but provide a directional detectable difference for lateral deviation from normal one side or the other.

2,840,723

VOLTAGE BALANCING SYSTEM

Myron J. Brown, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application September 22, 1954, Serial No. 457,675
2 Claims. (Cl. 307—57)



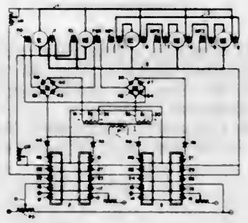
1. A control for balancing two alternators comprising means providing a first direct current voltage indicative of the condition of excitation of one of said alternators, means providing a second direct current voltage indicative of the condition of excitation of the other of said alternators, magnetic amplifiers having their inputs connected to said voltage providing means, and means including means using the outputs of said amplifiers for adjusting one of said alternators until said voltages are equal, said alternators having field windings with exciters connected thereto, in which the voltage providing means are shunts connected in series with said exciters and said windings, and in which the adjusting means comprises means for adjusting the voltage supplied by one of said exciters to one of said field windings.

2,840,724

MAGNETIC AMPLIFIER REGULATING SYSTEM

Alonzo F. Kenyon, Churchill, Pa., and Donald E. Abell, Buffalo, and Robert E. Hull, Eggertsville, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 29, 1955, Serial No. 556,140
19 Claims. (Cl. 307—84)



1. In an electric system of control for controlling the operation of a pair of electrical load devices and being operative with a source of alternating current having first

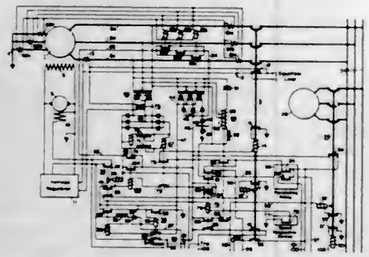
and second terminals, a first full-wave rectifier connected to each of said pair of load devices, a second full-wave rectifier connected to each of said pair of load devices, the rectifiers being so poled that direct current can traverse each of said load devices only in one direction, a first self-saturating magnetic amplifier and a similar second magnetic amplifier, with said first terminal of the alternating current supply being connected to the first alternating current terminals of the two full-wave rectifiers and the second terminal of the alternating current supply being connected to the input terminals of the magnetic amplifiers, and with the output terminals of the two magnetic amplifiers being connected respectively to the second alternating current terminals of the full-wave rectifiers.

2,840,725

ALTERNATING CURRENT GENERATOR SYSTEM

Raymond E. King, Jr., and Niles F. Schuh, Jr., Lima, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 12, 1955, Serial No. 500,774
20 Claims. (Cl. 307—87)



1. A control and protective system for an alternating current generator, said system comprising switch means for connecting said generator to a load bus, relay means responsive to the speed of the generator and having contact means actuated when said speed exceeds a predetermined value, relay means responsive to the phase sequence of the generator and having contact means actuated when the generator has a predetermined phase sequence, relay means responsive to the voltage of the generator and having contact means actuated when said voltage exceeds a predetermined value, the contact means of all three relays being connected in an energizing circuit for said switch means to effect operation of the switch means to connect the generator to the bus when all three contact means are actuated, said speed responsive relay means also including contact means connected to effect operation of the switch means to disconnect the generator from the bus when the generator speed falls below a predetermined value.

2,840,726

TRANSISTOR CURRENT GATE

Douglas J. Hamilton, Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application February 2, 1956, Serial No. 562,971
10 Claims. (Cl. 307—88.5)



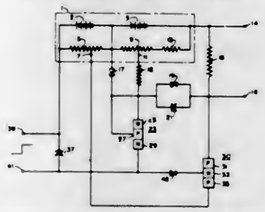
1. A transistor current gate for converting a signal obtained from a magnetic storage device into usable information for application to flip-flop circuits comprising: first and second junction transistors each including input, output, and control electrodes; a source of input signals; coupling means connected between said input signal source and said input electrodes for applying the input signals to said transistors; a source of potential; current control means connected between said control electrodes and said source of potential for determining the amount of current which will flow through said transistors in response to application of the input signals; first and second current flow paths connected across the control and output electrodes of said first transistor; third and fourth current flow paths connected across the control and output electrodes of said second transistor; and means connected to said first and third current flow paths for preventing current flow in said first and third paths in response to a control signal, said first and third current flow paths being adapted to present a low impedance to the output current of said first and second transistors respectively in the absence of a control signal, whereby output current flows in one of said first and third current flow paths during the absence of a control signal and in one of said second and third current flow paths during the presence of a control signal.

2,840,727

SELF-LOCKING TRANSISTOR SWITCHING CIRCUIT

Walter B. Guggi, Palo Alto, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 27, 1956, Serial No. 574,174
5 Claims. (Cl. 307—88.5)



1. In a trigger circuit responsive to a signal voltage at first and second signal input terminals thereof, the combination of first and second junction transistor devices of opposite conductivity types, with each transistor device including emitter, base and collector electrodes; a first bias voltage source having a plurality of terminals, and a second bias voltage source having a plurality of terminals, with one terminal of the first bias voltage source being connected to the emitter of said second transistor device; output impedance means connecting the collector of said second transistor device to one terminal of said second bias voltage source; capacitor means coupling a second terminal of said first bias voltage source to the collector of said first transistor means; said capacitor means being connected between said first and second input terminals; positive feedback means coupling the collector of said second transistor device to the base of said first transistor device and including parallel connected capacitor and first half-wave rectifier means, said first half-wave rectifier means being connected to maintain said first transistor device in the same conduction state as said second transistor device; with a third terminal of the first bias voltage source being connected in a common junction with a second terminal of the second bias voltage source; second half-wave rectifier means coupling said common junction to the base electrode of said first transistor device; resistance means connecting the emitter electrode of said first transistor device to a third terminal of the second bias voltage source; said second half-wave rectifier means being poled to normally bias said

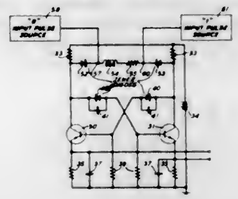
first transistor device to conduction by virtue of the voltage between the latter said third terminal and a common junction between said rectifier means; third half-wave rectifier means coupling the base electrode of said second transistor device to the collector electrode of said first transistor device and adapted to block leakage current from the emitter-to-base current conduction path of said second transistor device.

2,840,728

NON-SATURATING TRANSISTOR CIRCUITS

George Haugk, Jersey City, and Kenneth K. Kennedy, West Caldwell, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application April 26, 1955, Serial No. 503,888
6 Claims. (Cl. 307—88.5)



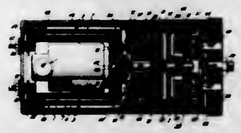
1. An electrical circuit comprising a pair of transistors each having an emitter, a collector, and a base, means cross-connecting said collectors and bases to define a bistable circuit, a series path directly connected between said collectors and including a pair of oppositely poled threshold devices, said devices being characterized by a first low resistance condition for voltages thereacross which are of one polarity and any magnitude, by a second low resistance condition for voltages thereacross which are of the opposite polarity and of magnitude exceeding a preassigned threshold value, and by an intermediate high resistance condition, said path also including impedance means between said devices to isolate said devices only on application of pulses to either of said devices, and input means individually connected to said path at opposite ends of said impedance means for placing one or the other of said transistors in its high conduction state.

2,840,729

ELECTROSTATIC GENERATOR CONSTRUCTION

Donald W. Kreuthmeir, Denver, Colo., assignor to Heckethorn Manufacturing & Supply Co., Littleton, Colo., a corporation of Colorado

Application January 23, 1956, Serial No. 560,759
14 Claims. (Cl. 310—6)



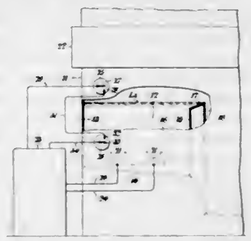
1. An electrostatic generator construction comprising a hollow, cylindrical housing; an electric motor positioned within the bore of said housing and at one end thereof; a drive shaft coupled to said motor and supported in axial alignment with the longitudinal axis of said housing and extending toward the other end of said housing; a conductive-conveyor primer generator including a hollow cylindrical rotor enveloping said motor and a rotor end wall coupled to said drive shaft, a plurality of circularly disposed conductive conveyors supported on said rotor, a plurality of circularly disposed inductors electrostatically coupled to said conveyors, and a plurality of circularly disposed contacts supported on said end wall and each individually connected to a different one of said conveyors; an insulating-conveyor generator including a hollow cylindrical rotor formed with a center supporting web coupled to said shaft, a cupped-shaped ionizer mount disposed within the bore section of said insulating rotor adjacent said rotor end wall, a plurality of ionizers supported on the outside surface of said mount and electrostatically coupled to the inside wall of said insulating rotor, a bearing and ionizer mount disposed within the bore section of said insulating rotor farthest removed fom said motor, a plurality of ionizers supported on the outside surface of said second mount and electrostatically coupled to the inside wall of said insulating rotor, a bearing carried by said second mount and supporting the terminal end of said shaft farthest removed from said motor, and a plurality of inductors coupled to the outside wall of said insulating rotor; a solenoid positioned over said shaft and within said first ionizer mount; a circular magnetic armature positioned over said shaft and between the closed end of said ionizer mount and the adjacent end of said salenoid; a contact support plate positioned over said shaft between said rotor end wall and the end of said solenoid adjacent thereto; a ring-like contact lever plate positioned over said shaft and between said rotor end wall and said contact support plate; a plurality of circularly disposed spring contacts carried by said support plate and each adapted normally to force said lever plate against said contact support plate; and a plurality of rods coupling said armature to said contact lever plate whereby the energization of said solenoid attracts said armature thereby forcibly driving the lever plate and its associated spring contacts into operative association with the contacts on said end wall.

2,840,730

LIQUID LEVEL AND TEMPERATURE APPARATUS

Stanley E. Jacke, Walled Lake, Mich., assignor to Detrex Chemical Industries, Inc., a corporation of Michigan

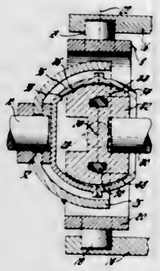
Application September 28, 1955, Serial No. 537,103
4 Claims. (Cl. 310—8.1)



1. In a well containing a chlorinated hydrocarbon liquid with an ultrasonic transducer submerged therein and with a vapor zone located above the surface of said liquid, an electrical generator and an electrical circuit connecting said transducer and generator, a liquid level and temperature control apparatus to protect said transducer from excessive heat, said apparatus comprising an upper thermostatic switch positioned in the well above the surface of the liquid and connected in said circuit, said upper switch being arranged to close when the temperature of said vapor zone reaches a predetermined value and to open when said temperature falls below said predetermined value, and a lower thermostatic switch submerged in the liquid and positioned above the ultrasonic transducer, said lower switch being connected in said circuit, said lower switch being arranged to open when

the liquid temperature exceeds a predetermined value and to close when said temperature falls below said predetermined value, said lower switch being arranged to open when said liquid is below a predetermined level between the lower switch and said transducer and said lower switch is contacted by said vapor at a temperature above a predetermined value.

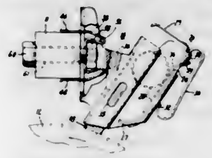
2,840,731
VARIABLE ANGLE MAGNETIC DRIVE
Edward P. Kupka, Berwyn, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 18, 1955, Serial No. 501,886
5 Claims. (Cl. 310—105)



1. A constant velocity ratio universal coupling for effecting a variable angle mechanical drive comprising a support, male and female driving and driven members rotary on variable angled axes having an intersecting point, a gimbal piece on said support oscillatory about an axis through said point during driving of said driven member by said driving member, a second gimbal piece mounted on said first gimbal piece oscillatory about an axis through said point perpendicular to the axis of movement of said first gimbal piece during driving of said driven member by said driving member and journaling one of said members, one of said members having flux concentrating polar members the outer peripheries of which are defined spherically with a center substantially at said point, the other member having an adjacent relatively uninterrupted inductor surface also defined spherically with a center substantially at said point, the resulting spherically defined polar peripheries of the flux concentrating polar members and said spherically defined conductor surface being spaced by means of a constant spherical air gap irrespective of the angle of said axes, and at least one annular excitation coil carried on one of said members in a plane substantially perpendicular to its axes of rotation and generating a toric flux field interlinking both of said members and passing through said polar members and through said inductor surface, the inductor surface and the polar members being magnetic.

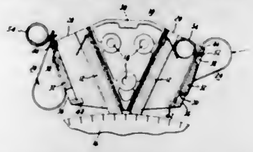
2,840,732
BRUSH HOLDER CLAMPING ARRANGEMENT
John F. Nottelmann and Carl E. Spaeder, Erie, Pa., assignors to General Electric Company, a corporation of New York
Application September 4, 1956, Serial No. 607,735
7 Claims. (Cl. 310—239)

1. A brush holder for use with a dynamoelectric machine comprising a body member adapted for receiving a carbon brush and a spring assembly biasing the brush into contact with a commutator for said machine, a support on said body member arranged to receive an aligning member movably mounted thereon, means immovably connecting said aligning member to a stud for preventing movement in a vertical direction and for selectively locating said body member in a fixed position radially of said commutator, and means provided on said



aligning member for fixing the position of said body member axially of said commutator.

2,840,733
BRUSH HOLDER AND SPRING ASSEMBLY
Richard J. Hanson, Erie, Pa., assignor to General Electric Company, a corporation of New York
Application September 4, 1956, Serial No. 607,734
5 Claims. (Cl. 310—246)



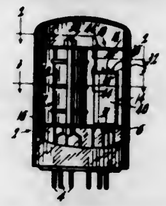
1. An improved brush holder and spring assembly comprising a holder having a box for supporting a carbon brush and a spring assembly adapted for urging the brush into contact with a commutator, said spring assembly comprising a pair of spring elements affixed to each other in back to back relationship, one of said spring elements arranged to contact said brush and exert a predetermined pressure thereon during the life of said brush, means on the other element engaging an indentation in a wall of said box for locking said spring assembly on said holder in an operative position and causing it to remain captive thereon when moved to an inoperative position.

2,840,734
SPRING ASSEMBLY FOR CARBON BRUSH HOLDER
John F. Nottelmann and Carl E. Spaeder, Erie, Pa., assignors to General Electric Company, a corporation of New York
Application September 4, 1956, Serial No. 607,736
8 Claims. (Cl. 310—246)



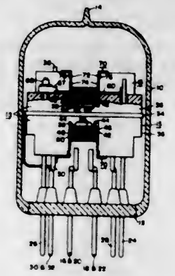
1. A spring assembly adapted for use with a carbon brush holder comprising a backing member having oppositely disposed ends turned inwardly on the same side of said member, a coil spring rigidly attached to one end of said backing member to permit the volute of said coil spring to rest on one of said inwardly turned ends and thereby relieve strain created by said spring at the point of attachment on said backing member, and locking means affixed to said backing member for coacting with a brush holder to prevent accidental dislodging of said spring assembly therefrom and for retaining said spring assembly captive on said brush holder during the time that a new brush is being inserted therein.

2,840,735
ELECTRON TUBE MOUNT
Herbert Ruzinsky, New York, N. Y., assignor to Radio Corporation of America, a corporation of Delaware
Application January 4, 1956, Serial No. 557,310
11 Claims. (Cl. 313—1)



1. An electron tube mount comprising a plurality of elongated electrode cages in side-by-side relation and having different axial extents and means including an element shielding each of said cages from the other fixing said cages in spaced apart relation.

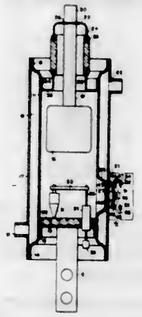
2,840,736
ELECTRON DISCHARGE DEVICE
Mitchell Aron, Newark, N. J., and Carl F. Miller, Bath, N. Y., assignors to Westinghouse Electric Corporation East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 17, 1955, Serial No. 540,777
4 Claims. (Cl. 313—6)



1. An electron discharge device comprising an envelope having an electrode assembly within said envelope, said electrode assembly comprising a plurality of planar type electrodes, means for positioning said electrodes within said assembly comprising a wafer having at least two grooves of different depths intersecting at an angle in one surface thereof, an electrode positioned within the lower portion of the deepest of said grooves, and another electrode within the other of said grooves to support and space said electrodes in a fixed relationship with respect to each other.

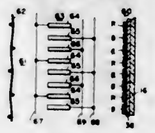
2,840,737
ELECTRIC DISCHARGE DEVICE
Donald E. Marshall, Montour Falls, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 26, 1954, Serial No. 412,868
7 Claims. (Cl. 313—13)

1. An electrical discharge device comprising an inner wall and an outer wall with a space between said walls adapted to conduct a cooling medium, said inner wall having an outwardly depressed dimple in intimate contact with said outer wall to provide an elemental area on the exterior surface of said outer wall representative of temperature of said inner wall, means for connecting a source of cooling medium to said space for cooling a portion of said device, a thermal conductive member positioned in intimate thermal contact with said elemental area and a portion of the surrounding area on the exterior surface of said outer wall, and a heat responsive element positioned on said thermal conductive member



for variably restricting flow of said cooling medium through said space to maintain the temperature of said inner wall at substantially a predetermined value.

2,840,738
COLOR TELEVISION TUBE
Andrew P. Kruper, Pittsburgh, William L. Roberts, Turtle Creek, George A. Kuntz, East McKeesport, and Charles H. Jones, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 5, 1954, Serial No. 427,814
2 Claims. (Cl. 313—78)



2. A color television tube comprising an image screen having a plurality of groups of phosphor strips, each of said groups comprising a first phosphor strip capable of emission of light of a first selected color, a second phosphor strip capable of emission of light of a second selected color, and a third phosphor strip capable of emission of light of a third selected color, an electron gun comprised of a cathode for generating and directing an electron beam toward said image screen, a planar type color control structure comprised of a plurality of conductive elements parallel to said phosphor strips and uniformly spaced so that a conductive element is positioned substantially in front of the center of each of said phosphor strips, elecrical conductive means for joining those conductive elements positioned in front of similar color emitting phosphor strips to form three insulated interleaved grids, a conductive grid member positioned between said electron gun and said color control structure, said grid operating at a positive potential, and means for varying the voltage applied to said interleaved grids of said parallel type color control structure near the potential of said cathode to cause said electron beam to strike the desired strip on said image screen.

2,840,739
CATHODE RAY TUBE GUN ASSEMBLY
Edward Joseph Lesovicz, Wallington, N. J., assignor to Thomas Electronics, Inc., Passaic, N. J., a corporation of New Jersey
Application October 12, 1956, Serial No. 615,673
6 Claims. (Cl. 313—82)

1. An electron gun comprising a cathode for emitting electrons along an electron beam path, an electron beam

creating and focusing structure through which said path passes, said structure comprising in order along said beam from said cathode, a first grid, a second grid, an anode, a focusing electrode and an accelerating anode,



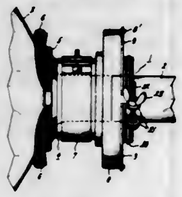
first insulating means supporting said anode, focusing electrode and accelerating anode, and second insulating means connected to and supporting said first grid, second grid and focusing electrode.

2,840,740

COMBINATION YOKE CLAMP AND TERMINAL COVER

Franklin H. Bickford, Liverpool, N. Y., assignor to General Electric Company, a corporation of New York

Application August 24, 1955, Serial No. 530,350
6 Claims. (Cl. 313—84)



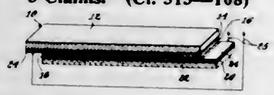
1. A positioner comprising a pair of clamping members, each clamping member having an arcuate portion presenting a concave engagement surface, a substantially flat, relatively thin cover portion extending from a side of said arcuate portion opposite said engagement surface, each clamping member having a radial slot extending through said arcuate portion and into said cover portion, a clamp ring engageable with said side of said arcuate portions, means to tighten said clamp ring whereby, when said clamping members are mounted on a device on which an element is to be positioned, they will be bent at the ends of said radial slots so that the engagement surfaces will closely contact said device.

2,840,741

ELECTROLUMINESCENT CELL

Willi Lehmann, East Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 1, 1954, Serial No. 466,014
3 Claims. (Cl. 313—108)



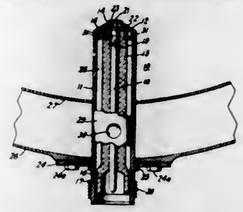
1. An electroluminescent cell comprising, two substantially parallel electrodes, at least one of which is light-transmitting, and electric field-responsive phosphor particles embedded in dielectric material between said electrodes, said dielectric material being solid at normal room temperatures, said phosphor particles being aligned in generally random fashion in a plurality of substantially straight-line particle groupings, adjacent phosphor particles in each of said groupings contacting one another, and each of said groupings being oriented substantially perpendicular to said electrodes.

2,840,742

SPARK PROJECTION IGNITION DEVICE

Clarence J. Watters, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application July 7, 1954, Serial No. 441,730
11 Claims. (Cl. 313—131)



1. A fuel combustion ignition device comprising a first electrode, an insulating member surrounding and supporting said electrode and forming a chamber surrounding one end thereof, said insulating member including a restricted opening in communication with said chamber, and a second electrode positioned adjacent to the portion of said insulating member enclosing said chamber, and not obstructing said restricted opening.

2,840,743

HIGH VACUUM GIMBALS

Ladislaus L. Marton and Roald A. Schrack, Washington, D. C., and John A. Simpson, Fairfax, Va., assignors to the United States of America as represented by the Secretary of the Air Force

Application February 28, 1957, Serial No. 644,708
(Filed under Rule 47(a) and 35 U. S. C. 116)
3 Claims. (Cl. 313—151)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An apparatus of the class described comprising in combination a high-vacuum envelope, a gimbal mounted in said envelope, a device mounted on said gimbal so it can be oriented in any direction, thermal control means inside the envelope connected to said gimbal for controlling the orientation of the device, and means outside the envelope connected to said thermal control means for actuating it.

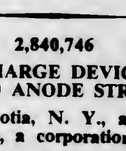
2,840,744

THYRATRON

Jesse Katzberg, Tenafly, N. J., assignor, by mesne assignments, to Tung-Sol Electric Inc., Newark, N. J., a corporation of Delaware

Application February 21, 1957, Serial No. 641,508
5 Claims. (Cl. 313—193)

1. A gaseous discharge device comprising; an envelope containing gas at a reduced pressure and including a cathode, a control electrode, an anode, and a shield; said shield enclosing the cathode and the control electrode and having a slot opening adjacent to the anode; said slot having a substantially uniform width for at least



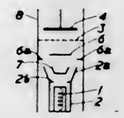
sixty percent of its length and a substantially greater width for the remainder of its length.

2,840,745

GAS FILLED DISCHARGE DEVICES

Ronald Ernest Lake, Chelmsford, England, assignor to English Electric Valve Company Limited, London, England, a British company

Application June 10, 1955, Serial No. 514,599
Claims priority, application Great Britain July 2, 1954
4 Claims. (Cl. 313—195)



1. A grid controlled gas filled discharge device comprising a heated cathode structure, an anode, a control gird positioned in the electron path between the cathode structure and the anode, a grid sputter shield adjacent said grid, and inserted in the cathode-grid discharge path, baffle means positioned between the cathode structure and control grid for preventing material sputtered from the cathode structure from reaching the grid, said baffle means being combined with electrode means for focussing the cathode discharge onto the control grid whereby a desired low trigger voltage is obtained and low anode "take-over" voltage is maintained despite the presence of the baffle means, and an envelope having an ionizable atmosphere sealed therein and containing all of the aforesaid components, and wherein the baffle means and electrode means for focussing the cathode discharge comprise two tapered inner and outer members, one within the other, constituting a double funnel structure with its smaller diameter and adjacent the cathode structure, the smaller end of the inner member being closed to provide one baffle and the smaller end of the outer member having an inward annular projection to provide another baffle which is nearer the cathode structure.

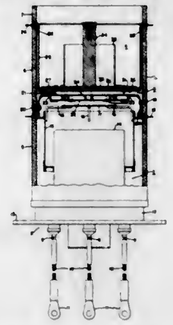
2,840,746

ELECTRIC DISCHARGE DEVICE INCLUDING IMPROVED ANODE STRUCTURE

Harvey N. Price, Scotia, N. Y., assignor to General Electric Company, a corporation of New York

Application October 22, 1956, Serial No. 617,362
10 Claims. (Cl. 313—217)

1. An electric discharge device comprising, an envelope including a cylindrical insulative section, an electrode assembly including a conductive member of thin metal extending across one end of said insulative section, said member being bonded to said one end of said insulative section and extending substantially outwardly therefrom, a metal plate bonded to one surface of said member for serving as an active surface of said assembly, and a member of low heat-retentivity material and having substantially the same thermal expansion and contraction characteristics as said plate bonded to the opposite surface of said conductive member.

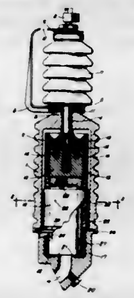


2,840,747

LIGHTNING ARRESTER

Francis V. Cunningham, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

Application October 15, 1954, Serial No. 462,447
3 Claims. (Cl. 313—231)



1. In a lightning arrester of the expulsion type including spaced electrodes, an insulating tubular retainer member having a bore, arc-extinguishing material contained within said bore, one of said electrodes being positioned at one end of said retainer member and having a portion extending radially outwardly therefrom; a tubular electro-static shield member formed of a conductive material structurally stronger than said retainer member and positioned externally circumjacent to said insulating tubular retainer member intermediate said spaced electrodes to prevent bursting of said retainer member, the marginal edge of one end of said shield and said radially extending portion of said one electrode jointly defining a predetermined annular, spaced gap dimension therebetween.

2,840,748

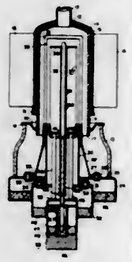
COAXIAL FILAMENT CONNECTOR

Sidney John Cherry and William A. Gerard, Elmira, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 26, 1953, Serial No. 364,354
6 Claims. (Cl. 313—273)

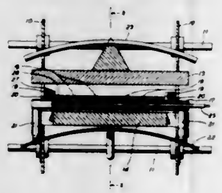
1. An electron discharge device comprising an envelope enclosing a plurality of electrodes including a cathode, a support for said cathode including a metallic cup-shaped upper terminal having a central aperture, a first set of equal length support leads connecting said cathode to said cup-shaped terminal, a tubular member having an outturned flange disposed within said cup-shaped ter-

minal, a second set of equal length support leads of the same length as said first set extending through apertures provided in said cup-shaped terminal connecting said cathode to said tubular member and a solid cylindrical



terminal connected to said tubular member of similar diameter as said cup-shaped terminal, said first and second set of support leads extending from said terminals to which they connected in the same direction.

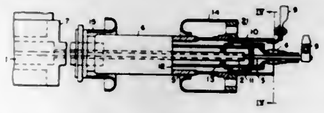
2,840,749
ELECTRON DISCHARGE DEVICES
Charles T. Goddard, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 17, 1952, Serial No. 315,284
6 Claims. (Cl. 313—296)



1. A high transconductance electron discharge device of the type having closely spaced interchangeable grid electrode means comprising a channeled insulator member, a cathode positioned in said channel, a plurality of individual fine wires equidistantly spaced and lying in a common plane across said channel, means insulatingly securing said wires to the sides of said channeled insulator member, said plurality of five wires including a first group of alternate wires extending beyond a first side of said channeled member and a second group of alternate wires extending boyond a second side of said channeled member, connector means to said first side electrically connecting said first group of alternate wires together and connector means to said second side electrically connecting said second group of alternate wires together whereby said first group of alternate wires define control electrode means and said second group of alternate wires define screen electrode means, and an anode adjacent said wires.

2,840,750
HIGH FREQUENCY CORONA SHIELD
Richard A. White, Horseheads, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 24, 1953, Serial No. 375,885
4 Claims. (Cl. 313—313)

1. A corona shield for linearly extending radio frequency conductors comprising a sheet of conductive material having an annular wall portion surrounding a radio frequency conductor, said wall portion having a diameter substantially greater than said conductor and a support therefor comprising an inner ring of conductive material engaging said conductor, and a plurality of



conductive spoke members extending outwardly from said inner ring to support said annular wall portion.

2,840,751
ELECTRODE COATING COMPOSITION AND ELECTRODE FOR COLD CATHODE GAS DISCHARGE LAMP
George Meister, Newark, and Thomas H. Heine, Cedar Grove, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 28, 1953, Serial No. 358,044
9 Claims. (Cl. 313—339)



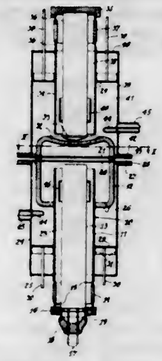
3. An electrode comprising a hollow cylindrical metal shell which is open at one end and carrying an electron-emissive coating on the inner surface thereof, said coating having been prepared by mixing together a first lithium compound which decomposes on heating to lithium oxide, and a second lithium compound which decomposes on heating to lithium metal while producing a non-oxidizing atmosphere, the molar ratios of said first lithium compound and said second lithium compound being from 1:1 to 1:3, forming a suspension of said mixed lithium compounds by mixing same with a binder and a solvent, coating said suspension onto the inner surface of said electrode shell, placing said coated electrode shell in an evacuated container, heating said coated electrode shell to a temperature of from 800° C. to 1000° C. to decompose said coating, and continuing said heating until degassing of said coating ceases.

2,840,752
BACKWARD WAVE TUBE
Cassius C. Cutler, Gillette, and John T. Mendel and Calvin F. Quate, Berkeley Heights, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,686
20 Claims. (Cl. 315—3.6)



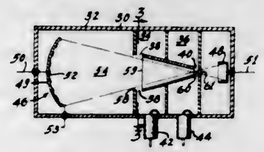
20. In an electronic device the combination of an electron source and a collector electrode for defining a path of flow for an electron beam and a helix, skewed such that alternate half turns are substantially perpendicular to the axis of the helix, located along the path of electron flow in coupling relation with the electron beam.

2,840,753
RESNATRON CONSTRUCTION
Hampton J. Dailey, deceased, late of Verona, N. J., by Ruth M. Dailey, executrix, Verona, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 27, 1953, Serial No. 339,219
5 Claims. (Cl. 315—5.24)



1. A resnatron construction comprising a cathode assembly and an electron reflector in aligned opposition to each other, said electron reflector having an end portion, a sealed envelope for said cathode assembly, a wall of said envelope extending between said cathode assembly and said electron reflector, a first cavity resonator substantially surrounding said cathode assembly, a second cavity resonator substantially surrounding said reflector, said end portion of said electron reflector having a convex curvature in the direction of said cathode assembly.

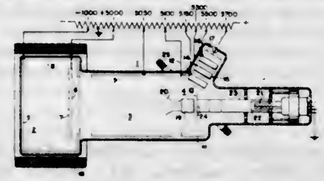
2,840,754
ELECTRON BEAM TUBE
Ernest G. Linder, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application September 1, 1954, Serial No. 453,537
12 Claims. (Cl. 315—5.34)



3. An electron beam tube comprising a vacuum envelope containing an astigmatic electron gun for producing a focused beam of electrons having a first thin-line focus and a second thin-line focus axially spaced from and perpendicular to the first thin-line focus, and means adapted to coact with said beam comprising first aperture means at the first thin-line focus shaped to pass substantially only said beam at said first focus and second aperture means at the second thin-line focus shaped to pass substantially only said beam at said second focus.

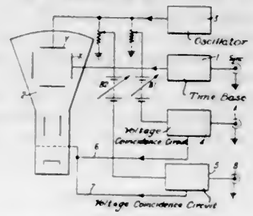
2,840,755
LARGE STORAGE LOW NOISE IMAGE TUBE
Richard L. Longini, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 21, 1952, Serial No. 277,780
6 Claims. (Cl. 315—11)

1. A television picture pickup tube comprising a photoelectric screen on which said picture may be focussed, a screen of glass which emits secondary electrons when primary electrons are incident upon it, means to accelerate electrons from said photoelectric screen into incidence with said glass screen with an energy greater than the second cross-over of the curve relating electron energy with secondary electron emission for said glass, means for producing an electron beam and means to



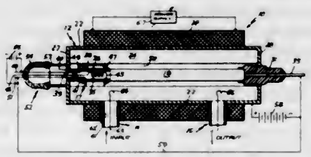
cause it to scan said glass screen with electrons having an energy less than said second cross-over, electron multiplier means laterally displaced from the origin of said electron beam, and means to produce a magnetic field having a substantial component transverse to the undeflected path of said electron beam and in the region adjacent the input of said electron multiplier.

2,840,756
OSCILLOSCOPES
Raymond J. D. Reeves, Chippenham, England, assignor to E. K. Cole Limited, Southend-on-Sea, England
Application October 26, 1955, Serial No. 542,997
Claims priority, application Great Britain October 30, 1954
5 Claims. (Cl. 315—22)



1. In an oscilloscope, a cathode ray tube, a time base circuit providing deflection means in one direction of the cathode ray beam, means for deflecting the beam at right angles to said first direction said latter means being operated by any convenient waveform, means whereby co-phased copies of this waveform are compared with an input waveform to be observed, said means including voltage coincidence circuits which supply a brightening pulse to the cathode ray tube whenever an input waveform and its reference waveform pass through voltage coincidence.

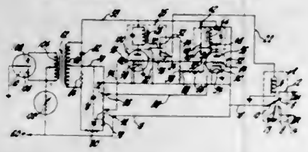
2,840,757
ELECTRON DISCHARGE DEVICE
Edward C. Dench, Needham, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application March 20, 1957, Serial No. 647,427
13 Claims. (Cl. 315—39.3)



1. A traveling wave electron discharge device comprising a slow wave propagating structure constructed

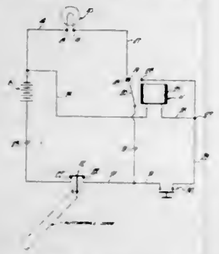
to produce along a path adjacent thereto fields of electromagnetic wave energy being transmitted, said fields rotating about the longitudinal axis of said structure, said propagating structure including an elongated electrically-conductive member and an even number of loading elements disposed along the inner periphery of said member, a cathode spaced from said propagating structure, and means for directing electrons from at least a portion of said cathode in paths rotating about said cathode in substantial synchronism with the rotation of said fields.

2,840,758
LIGHT SENSITIVE CONTROL SYSTEM
Charles W. Miller, Anderson, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 26, 1954, Serial No. 418,933
12 Claims. (Cl. 315—83)



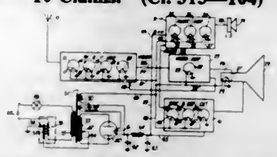
1. In a light controlled system, a source of electrical power, switching means connected to said source and to apparatus to be controlled, relay coil means for operating said switching means, a second relay switching means connected to the relay coil to control the energization thereof, light sensitive means connected to the source of power and to the second relay switching means to control the same dependent upon light falling thereon, time delay means connected to the light sensitive means to maintain the second relay switching means in a position to which it has been actuated for a given time and further light controlled switching means connected to the time delay means to render it ineffective upon a further increase in light.

2,840,759
AUTOMOBILE DOME LIGHT CIRCUIT
Wallace O. Stephenson, Lookout Mountain, Tenn.
Application November 19, 1956, Serial No. 622,977
3 Claims. (Cl. 315—84)



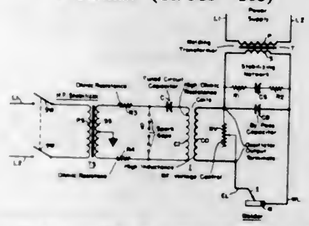
1. In a door-controlled dome light circuit for automobiles and the like, a power source, a dome light, a door-actuated switch biased to energize the lamp from said power source when the door is open and positioned to be engaged by the door when the latter is closed and shifted to dome light de-energizing position, relay means having normally closed contacts coupled in series with said dome light to selectively interrupt current flow from said power source to said dome light, a push button switch for energizing said relay to open said relay contacts upon manual actuation of the push button switch, hold circuit means responsive to opening of said relay contacts to maintain said relay energized following actuation of said push button switch, and means intercoupling said hold circuit means to said power source through said door-actuated switch for open-circuiting said hold circuit means when said door-actuated switch is shifted to dome light de-energizing position.

2,840,760
POWER SUPPLY
James A. Torrence, Chicago, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application June 14, 1957, Serial No. 665,752
10 Claims. (Cl. 315—104)



1. In a power supply system for operating equipment containing at least one thermionic vacuum tube having electrodes defining a space current path and a cathode heater element, and which power supply system includes direct current voltage providing means for the electrodes and heating current providing means for the heater element, the combination including, a control unit having therewith resistor means, a thermally activated switch, and means for mounting said resistor means and said switch in said control unit to provide heat transfer therebetween whereby said switch is activated by heat from said resistor means, a first circuit including said resistor means in said control unit connecting the cathode heater element to the heating current providing means, said resistor means initially presenting a substantial impedance to limit current flow to the cathode heater element and such impedance being reduced in response to heat produced by current flow through said resistor means, said thermally activated switch in said control unit including circuit changing means having a first unactivated position and a second position assumed thereby in response to heat from said resistor means, and a second circuit including said circuit changing means for applying the direct current voltage to the electrodes of the tube, said circuit being open when said circuit changing means is in said first position so that the electrodes of the tubes are unenergized and being completed when said circuit changing means assumes said second position to thereby apply the direct current voltage to the vacuum tube electrodes to energize the same, said circuit changing means assuming said second position after said resistor means reaches a predetermined temperature whereby the energization of the electrodes is delayed for the period required for said resistor means to reach the predetermined temperature.

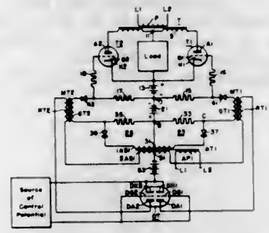
2,840,761
HIGH-FREQUENCY WELDING STABILIZER
Clifton S. Williams and William E. Pakala, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 5, 1954, Serial No. 427,738
9 Claims. (Cl. 315—163)



1. A spark gap oscillator comprising a pair of terminals for supplying a potential; a spark gap; resistance means;

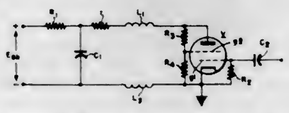
means for connecting in series said terminals, said spark gap and said resistance means; said terminals being adapted to supply a potential sufficient to break down said gap; capacitive means; inductive means; and means for connecting said capacitive and inductive means in series across said spark gap, that said resistive means being of such resistance that the rate of charging of said capacitive means through said resistive means when the gap becomes non-conducting after a train of oscillations is so low as to permit the gap to deionize between successive discharges.

2,840,762
ELECTRIC DISCHARGE APPARATUS
Fletcher E. McLane, Lancaster, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 7, 1956, Serial No. 585,918
5 Claims. (Cl. 315—168)



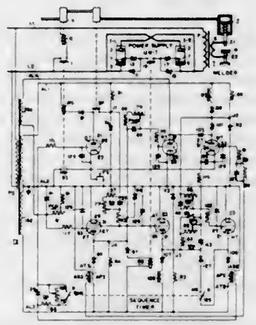
1. In combination an electric discharge device having an anode, a cathode and a control electrode, a magnetic-amplifier transformer of the highly saturable type having a gating winding and a reset winding, means connected between said anode and cathode for impressing an alternating potential between said anode and cathode, means connecting said gating winding in circuit with said control electrode and cathode, said connecting means including means for impressing in said circuit, through said gating winding, gating potential of flat-top wave form during alternate half periods of said alternating potential, means connected to said reset winding for impressing on said reset winding a reset potential effective during the intervening alternate half periods of said alternating potential, and means for controlling the magnitude of said reset potential, said flat-top of said gating potential having a duration of substantially one-half period of said alternating potential and a magnitude such that if said transformer is reset to saturation at one polarity at the beginning of a gating half period and said gating potential is impressed during the whole of said half period across said gating winding said transformer passes during the gating half period to saturation of the opposite polarity.

2,840,763
STROBOSCOPIC LAMP CONTROL ARRANGEMENTS
Sheldon I. Rambo, Baltimore, and Milton P. Vore, Catonsville, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 8, 1954, Serial No. 414,768
2 Claims. (Cl. 315—233)



1. A control circuit for a portable stroboscopic lamp of the type which discolors and darkens with the application of reverse voltages across its anode and cathode comprising, a direct current supply circuit having an output capacitor, a stroboscopic lamp having an anode, a cathode and a control grid and adapted for operation in an area remote from said supply circuit; an electrical cable connecting said capacitor across said anode and said cathode to supply energizing voltage over its length to said remotely disposed lamp, said electrical cable by reason of its length having sufficient inductance to form an oscillator circuit with said capacitor producing an oscillatory voltage across said anode and cathode and driving said anode negative with respect to said cathode, means for applying an intermittent voltage to said control grid to trigger said tube, and resistance means comprising a part of said oscillator circuit providing resistance damping to prevent said oscillator circuit from oscillating.

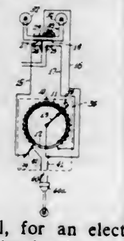
2,840,764
ELECTRONIC PULSATION SEQUENCE TIMER
Edward C. Hartwig, Walnut Creek, Calif., and Hubert W. Van Ness, East Aurora, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 4, 1953, Serial No. 378,446
14 Claims. (Cl. 315—252)



1. In combination a first electric discharge device of the gaseous type having an anode, a cathode and a control electrode; a second electric discharge device of the gaseous type having an anode, a cathode and a control electrode; a first conductor; a second conductor; a third conductor; said first, second and third conductors being electrically separate; means for impressing a first alternating potential between said first and said second conductors; inductive reactance means; means including said inductive reactance means for connecting said anode and cathode of said first device between said third conductor and said second conductor, respectively; means for connecting said anode and cathode of said second device between said first conductor and said second conductor respectively; a first time-constant network; a second time-constant network; means for connecting said first network in charging and blocking relationship in circuit with said anode and cathode of said second device and said control electrode and cathode of said first device; said first network being charged on the occurrence of a change in the conductivity of said second device and when so charged blocking said first device; means for connecting said second network in charging relationship between said anode of said first device and said control electrode of said second device so that said second network is charged by the positive current flowing from said anode of said first device to said control electrode of said second device while said first device is non-conducting and is permitted to discharge while said first device is conducting, said first device being maintained non-conducting when said first network is charged and said second

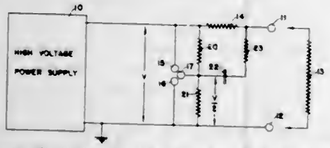
device being manitained non-conducting when said second network is charged, said first network being uncharged and said second network being charged in the stand-by condition of said combination, means independent of said first network for maintaining said first device non-conducting in the stand-by condition of said combination, and means independent of said network for rendering said first device conducting to start the operation of said combination.

2,840,765
REMOTE ELECTRICAL CONTROL
William P. Carpenter, Bristol, Conn., assignor to The Superior Electric Co., Bristol, Conn., a corporation of Connecticut
Application October 24, 1955, Serial No. 542,380
3 Claims. (Cl. 315—276)



1. A remote control, for an electric lamp having a plug, to control the luminosity thereof comprising a housing adapted to be supported on a support; a variable autotransformer mounted in and enclosed by the housing, said autotransformer having a manually operable knob accessible from the exterior of the housing for varying the output of the autotransformer; a multiwire cable connected to the autotransformer and terminating in an attachment plug; said plug having prongs for insertion into a standard household outlet and a socket for receiving the plug of the lamp whereby the cable and plug connects the input of the autotransformer with the prongs and the output of the autotransformer with the lamp.

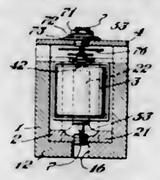
2,840,766
PROTECTIVE SPARK GAP
Victor Wouk, New York, N. Y., assignor to Sorensen & Company, Inc., Stamford, Conn., a corporation
Application January 15, 1957, Serial No. 634,201
5 Claims. (Cl. 317—16)



1. A protective circuit for a high voltage direct current power supply comprising, three electrodes arranged so as to provide three air gaps, one of said electrodes connected to a positive supply conductor, a second of said electrodes connected to a negative supply conductor, and a third of said electrodes connected to the mid-point of a voltage divider whose ends are connected respectively to said positive and negative supply conductors, and a capacitor connected between said third electrode and the positive supply conductor in series with a resistor.

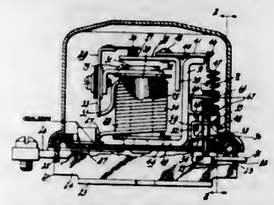
2,840,767
MOVING COIL INSTRUMENT
Roscoe A. Ammon, Manchester, N. H.
Application October 5, 1953, Serial No. 384,134
17 Claims. (Cl. 317—166)

1. A field assembly for an electrical instrument comprising a core, a yoke having opposed pole faces and a transverse face integral with the yoke and normal to said faces, a unitary frame having at one end a base portion telescopingly received and confined between said pole faces and abutting said transverse face, said frame



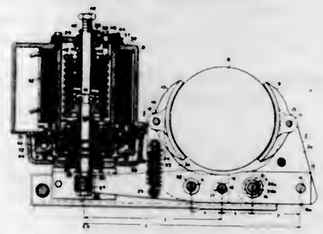
having a socket telescopingly receiving and abutting one end of said core, and a hold down member secured to said yoke and having means abutting the other end of said core thereby to confine said core and frame in said yoke.

2,840,768
TENSIONING DEVICE
Julius H. Bolles and Lyman A. Rice, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 29, 1953, Serial No. 371,133
3 Claims. (Cl. 317—198)



1. In a circuit controller the combination comprising; a frame supporting a core surrounded by a winding; a tension spring for urging the armature away from the core; a pair of apertured threaded ears extending from said frame and tending to converge toward one another; a guide member extending from the frame; a floating member attached to one end of the spring and having a forked end straddling the guide member; and an adjusting screw threaded in said ears and journalled in apertures of another end of the floating member whereby rotation of the screw will vary the position of the floating member relative to said frame for varying the tension of the spring on said armature.

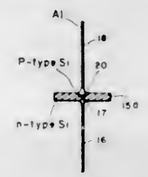
2,840,769
ELECTROMAGNETIC OPERATOR
Gilbert Currie, Williamsville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Original application October 3, 1951, Serial No. 249,497, now Patent No. 2,747,698, dated May 29, 1956. Divided and this application August 23, 1955, Serial No. 530,162
6 Claims. (Cl. 317—198)



1. An electromagnetic device, comprising a core having an opening therethrough a coil disposed about said core,

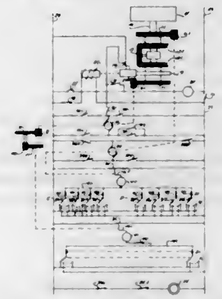
the axis of said opening substantially paralleling the axis of said coil, a rod slidably mounted in said opening, a member slidably fitted over said rod, an armature having an opening therein, said armature being disposed about said rod adjacent said core, and a lever pivotally connected to said armature and to said member, said lever having a portion thereon positively engageable with said rod upon movement of said armature toward said core when said electromagnet is energized.

2,840,770
SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURE
Edmond D. Jackson, Dallas, Tex., assignor to Texas Instruments Incorporated, Dallas, Tex., a corporation of Delaware
Application March 14, 1955, Serial No. 494,129
8 Claims. (Cl. 317—240)



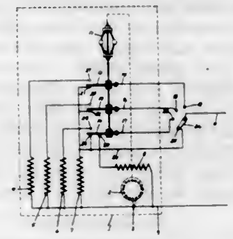
1. A semiconductor diode comprising a wafer of silicon of one type conductivity, and fused thereto at spaced intervals a silver wire connector for forming an ohmic contact with said wafer and a wire connector producing an opposite type conductivity in said silicon for forming a rectifying p-n junction with said wafer.

2,840,771
POSITIONING SERVOMECHANISM
Lawrence J. Kamm, Forest Hills, N. Y., assignor to Pratt & Whitney Company, Incorporated, West Hartford, Conn., a corporation of Delaware
Application February 9, 1955, Serial No. 487,163
13 Claims. (Cl. 318—28)



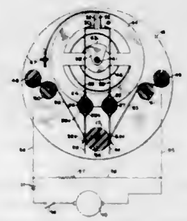
1. A positioning mechanism comprising a displacement adding means including an output displacement means, a first input displacement means, and a second input displacement means applied to said adding means, the resultant displacement of the output displacement means being proportional to the sum of the displacements caused by said first and second input displacement means; a fine positioning means associated with said first input displacement means; a coarse positioning means associated with said second input displacement means; and a displacement unitizing means coupled to said coarse positioning means.

2,840,772
MULTISPEED INDUCTION MOTOR
Richard E. Seely, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application June 6, 1957, Serial No. 663,944
2 Claims. (Cl. 318—221)



1. In a multispeed induction motor, n main windings, a start winding, said windings all being connected together at one end, speed responsive switch means having $(n-1)$ contact arms each having a first operative position below a predetermined motor speed and a second operative position above said predetermined motor speed, $(n-1)$ of said main windings being connected respectively at their other ends to said $(n-1)$ contact arms when said arms are in their second operative position, $(n-1)$ lines permanently connected to said $(n-1)$ contact arms respectively, another line connected directly to the other end of the other of said main windings, said other end of said other main winding also being connected to all said contact arms when they are in their first operative position, the other end of said start winding being connected to one of said contact arms when it is in its first operative position whereby, upon selection of one of said lines, said motor will start on said other main winding and said start winding and will run on whichever main winding is connected to the selected line.

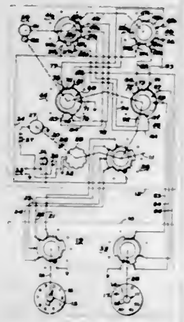
2,840,773
MOTOR SPEED GOVERNOR
Richard J. Kavanaugh, Bristol, Philip W. King, Meriden, and Loisius J. A. van Lieshout, Bethlehem, Conn., assignors to Consolidated Electronics Industries Corp., Waterbury, Conn., a corporation of Delaware
Application March 25, 1957, Serial No. 648,050
18 Claims. (Cl. 318—311)



1. In a governor for a variable speed motor and of the type including an electric circuit for supplying sufficient current to the motor to tend to cause the motor to operate at a speed above a predetermined value, a pair of contact elements in said circuit, motor driven means acting on said contact elements, and a constant speed means acting on said contact elements, said motor driven and constant speed means cooperating with one another while said motor is operating near said predetermined value to cause said contact elements to close at instants dependent upon the speed of said constant speed means and for durations dependent upon the speed of said motor; the im-

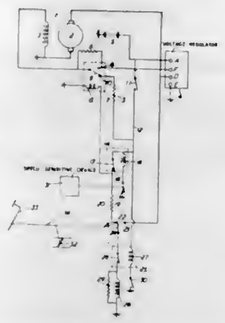
provement comprising a frame associated with said motor, said contact elements comprising a pair of contact arms mounted for pivotal movement on said frame about spaced axes intermediate the ends of the contact arms, said contact arms having contact means adjacent first ends thereof adapted when closed to complete a current path through said contact arms, said constant speed means comprising cam means supported by said frame adjacent one pair of adjacent ends of said contact arms and adapted to engage said arms, said motor driven means comprising cam means supported by said frame adjacent the other pair of adjacent ends of said contact arms and adapted when rotated to tend to effect pivotal movement of said contact arms substantially in unison about their respective spaced axes, said motor driven and constant speed cam means being positioned on opposite sides of said axes.

2,840,774
ELECTRIC MOTOR MULTITURN SHAFT POSITIONING MEANS
Gordon J. Nordstrom, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application January 16, 1956, Serial No. 559,187
6 Claims. (Cl. 318—467)



1. Multiturn shaft positioning means comprising, a first uniturn seeking switch system including a first control switch and a first rotary seeking switch, a second uniturn seeking switch system including a second control switch and a pair of seeking switches, an output shaft fixed to the rotor of said first seeking switch, a second shaft fixed to the rotors of said pair of seeking switches, a gear transmission having a transmission ratio equal in number to the stator contacts of one of said pair of seeking switches, said transmission coupled in a reduction arrangement from said second shafts to said output shaft, a plurality of cycling switches having rotors equal in number to the control wires and ground connection of said second control-switch, with each cycling switch having a continuously-engaging contact connected to a different one of said control wires and ground connection, each cycling switch also having a pair of opposite stator contacts, and an approximately semicircular rotor periphery that sequentially engages those contacts, the cycling switches each having one of their opposite contacts engaged at approximately the same rotational movement of said output shaft, the cycling switch contacts which are engaged at one time connected in the required seeking switch manner to one of said pair of seeking switches, and the opposite cycling switch contacts connected in the required seeking switch manner to the other of said pair of seeking switches.

2,840,775
GENERATOR CONTROL FOR VEHICLE TRANSMISSION SYSTEM
Clifford Stuart Steadman, Surbiton, England, assignor to Smiths America Corporation, Lakeland, Fla.
Application January 7, 1955, Serial No. 480,406
Claims priority, application Great Britain January 7, 1954
3 Claims. (Cl. 322—28)

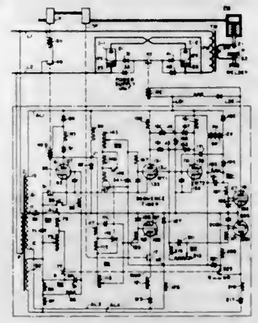


1. A power transmission system for a motor vehicle comprising an electrically energized clutch, a direct current generator driven directly by the engine of the vehicle, said generator having an armature and a field winding, the armature voltage being dependent upon engine speed and current in the field winding, electrical connections from the armature to the clutch, a voltage regulator giving an output rseponsive to the armature voltage, variable high resistance means connecting the voltage regulator output and the field winding, and means responsive to the speed of the vehicle to control said variable resistance means, said variable resistance means comprising a fixed resistor and a switch in parallel therewith, said speed-responsive means closing said switch when the vehicle speed exceeds a predetermined value, means to produce a substantially constant component of current in said field winding at speeds below said predetermined speed, said means to produce a substantially constant component of current comprising a battery and a further fixed resistor, said battery being connected to said field winding through a said further fixed resistor, the output of the voltage regulator is connected to the first fixed contact of a single-pole changeover relay having two fixed contacts and a moving contact, the fixed resistor is connected between the first fixed contact and the moving contact, the further fixed resistor is connected between the second fixed contact and the battery, and the speed-responsive means position the moving contact in contact with the second fixed contact below the predetermined speed and in contact with the first fixed contact above the predetermined speed.

2,840,776
SEQUENCE TIMER
Hubert W. Van Ness, Diablo, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 30, 1955, Serial No. 550,079
8 Claims. (Cl. 323—18)

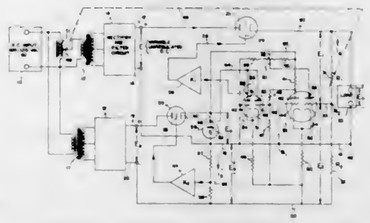
1. In combination, a first supply conductor, a second supply conductor, a first electric discharge path, a second electric discharge path, each path having an anode, a cathode and a control electrode, potential deriving means, a first rectifier, a second rectifier, means connecting in a first series circuit said first conductor, said second conductor, said potential deriving means, said first rectifier, and said anode and cathode of said first path, said first rectifier and said last-named anode and cathode being

poled to conduct in series, means connecting in a second series circuit said first conductor, said second conductor, said potential deriving means, said second rectifier and the anode and cathode of said second path, said second rectifier and said last-named anode and cathode being poled to conduct in series, a control network, means con-



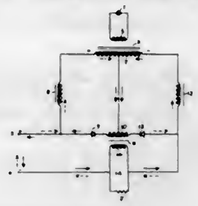
necting said network to the control electrodes of both said paths so that said network controls the conductivity thereof and means connecting said potential deriving means to said control electrodes of both said paths so that when one of said paths is rendered conducting potential derived from said deriving means is impressed to render the other of said paths conducting.

2,840,777
DIRECT CURRENT POWER SOURCE
Conrad G. De Blasio, Middletown, N. J.
Application March 21, 1955, Serial No. 495,619
10 Claims. (Cl. 323—22)



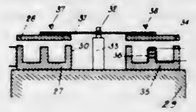
1. In a direct current power source of the character described, lines respectively positive and negative, control means series-connected in said positive line, means for applying direct current input voltage across the respective input terminals of said lines, the potential at said negative line being fixed equivalent to a ground, a third line, means for applying across said negative line and said third line a reference potential under conditions whereat the potential of said third line is always negative with respect to the potential of said negative line, resistances series-connected with respect to each other and constituting jointly a constant-current divider connected across said third line and the output side of said positive line, a comparator system having an input line connected to said constant-current divider, and means electrically connecting said comparator system and said control means and functional to correlate operating action of said comparator system and said control means in such wise that the potential of said input line during normal operation of said power source is substantially zero with respect to the potential of said negative line.

2,840,778
MAGNETIC AMPLIFIERS
Edwin L. Clarke, Gloucestershire, England, assignor to Smiths America Corporation, Lakeland, Fla.
Application July 13, 1955, Serial No. 521,846
Claims priority, application Great Britain July 16, 1954
9 Claims. (Cl. 323—89)



1. A magnetic amplifier to control the supply of power from an A. C. source to a load under the control of an A. C. signal having a substantial component in phase with the output of the source comprising transductors, each having a winding and a saturable core, power being transmitted from the source to the load through the respective windings; rectifiers connected one in series with each of said windings to provide self-excitation of the transductors, and means to apply said A. C. signal to said rectifiers, said rectifiers rectifying the A. C. signal and the A. C. signal establishing a unidirectional component of flux in each core to control the transmission of the power to the load through the associated winding comprising two similar transductors each having a rectifier in series with its winding, the two rectifiers being connected in series with each other and being rendered conductive in successive half cycles of the source and the A. C. signal being applied across the rectifiers wherein the rectifiers are connected in opposite senses and comprising means to develop between the terminals of the transductor windings remote from the rectifiers a voltage derived from the source, said means to develop a voltage between the transductor winding terminals comprising a first transformer, the said transformer having a centre-tapped secondary, the transductor windings being connected respectively to the extreme terminals of the secondary, and a second transformer, said second transformer having a centre-tapped primary, the extreme terminals of the primary being respectively connected to the terminals of the rectifiers remote from the transductor winding terminals and the centre-tap being connected to the centre-tap of the first transformer secondary, wherein a secondary of said second transformer is connected in series with the A. C. signal and the rectifiers effectively to decouple the input and output of the amplifier, said secondary of the second transformer being connected to the load.

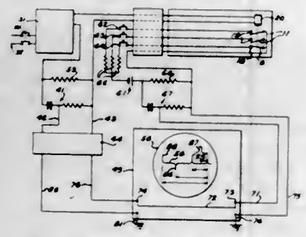
2,840,779
FREQUENCY MODULATION
Paul Emile Renaut, La Varenne-Saint-Hilaire, France
Application September 22, 1953, Serial No. 381,707
Claims priority, application France March 10, 1953
6 Claims. (Cl. 323—90)



1. Apparatus for modulating frequency, comprising a magnetic core composed of two parts, one of said parts being movable relatively to the other part, an oscillator coil carried by one said part, an electromagnet having

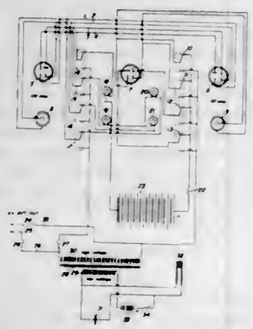
its winding fed by a low frequency oscillator, and a rigid bar pivotally mounted intermediate its ends, said bar carrying the movable core element at one end and carrying the electromagnet armature at its opposite end, said bar having a resonant frequency which is substantially equal to the frequency of said low frequency oscillator and being balanced in its pivotal movement.

2,840,780
METHODS OF AND APPARATUS FOR DYNAMICALLY GAGING RELAYS
John G. Weeks, Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application June 26, 1956, Serial No. 593,840
11 Claims. (Cl. 324—28)



1. The method of gaging relays comprising applying an energizing voltage across a coil of a relay to cause the relay to move an armature so as to sequentially operate a set of contacts of the relay and move into engagement with a stop of the relay, creating an electrical pulse from the operation of the set of contacts, creating an electrical pulse from the change in coil current as the armature strikes the stop, and measuring the time between the pulses.

2,840,781
TESTING DEVICE
Antonio Ragonese, Chicago, Ill.
Application April 6, 1955, Serial No. 499,609
1 Claim. (Cl. 324—51)



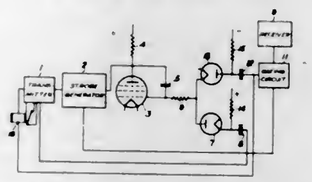
A testing device for locating defects in multiconductor cable comprising at least two receptacles for receiving the ends of the cable to be tested, a source of low voltage electrical power, another source of low voltage electrical power, transformer means connected to said another low voltage source for providing a high voltage output, switch means for interconnecting said transformer means to said low voltage source, a first set of switches selectively connecting said high voltage output or said first source of low voltage electrical power to said receptacles, a set of indicator lamps, a second set of switches for selectively connecting said indicator lamps to said first low voltage source and said receptacles, and shunt means connected between said first set of switches and said high voltage output for selectively bypassing said indicator lamps.

2,840,782
ELECTRICAL METER MOVEMENT
Roscoe A. Ammon, Manchester, N. H.
Application May 3, 1954, Serial No. 427,328
4 Claims. (Cl. 324—150)



1. A meter movement comprising a core magnet having two opposite poles defining a magnetic axis, a body of magnetic material spaced from one of said poles to form a single air gap therebetween, said core having a cross-sectional area normal to said axis substantially uniform between said air gap and the opposite pole, said body being joined to the other of said poles to form a flux path between said poles, said body extending from one side of said air gap to the other side of a plane through said air gap, a rectangular coil having a side extending through said air gap, and means pivotally mounting said coil on an axis at the opposite side of the coil and at the opposite end of said core from said air gap.

2,840,783
RADAR SYSTEMS
Terence Alexander McMullin, Welwyn Garden City, England, assignor to Murphy Radio Limited, London, England, a British company
Application September 28, 1953, Serial No. 382,665
4 Claims. (Cl. 343—7.3)

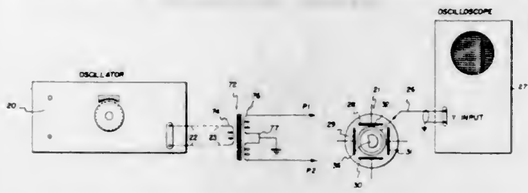


1. In a radar set the combination of an interrogation pulse generator and transmitter, a strobe pulse generator set in action simultaneously with each transmitted pulse by the interrogation pulse generator and producing a strobe pulse after an interval determined by an applied drift control voltage, a drift controller including a capacitor producing a control voltage and connected with the strobe generator to control the strobe drift, said drift controller being connected to the pulse generator and transmitter to receive from it simultaneously with each transmitted pulse, a pulse which modifies the charge of its capacitor.

2,840,784
METHOD OF TESTING ELECTRICAL DEVICES
Walter Adams, Chapel Hill, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application December 1, 1953, Serial No. 395,496
8 Claims. (Cl. 324—158)

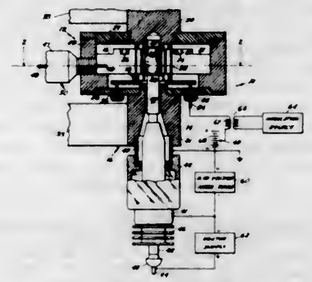
1. A method of testing electrical devices which have four fixed quadrature members and a rotatable member to determine the mechanical construction thereof, comprising the steps of connecting voltages which are equal

in magnitude and in phase opposition to a first two opposed quadrature members, connecting an output of said device to an indicating apparatus, rotating the rotatable member until two null points are indicated on said indicating apparatus, determining the angular displacement between the null points by noting the location of said



rotatable member when the null points occur, connecting the voltages to a second two opposed quadrature members, again rotating the rotatable member until two more null points are indicated on the indicating means, and noting the angular position of said rotatable member when these second null points occur.

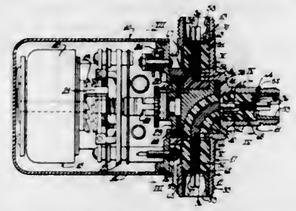
2,840,785
FREQUENCY MODULATED MAGNETRONS
Percy L. Spencer, Waban, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application June 29, 1954, Serial No. 440,132
14 Claims. (Cl. 332—5)



1. An electron discharge device comprising a cathode, a signal transmission network structure, means for directing electrons emitted from said cathode along paths adjacent to said network structure, a grid structure including a plurality of elements having a low secondary emission ratio and positioned between portions of said signal transmission network structure, said grid structure being maintained positive with respect to said signal transmission network structure, a modulating signal, and means including said grid structure responsive to said modulating signal for varying the number of electrons existing in said portions of said signal transmission network structure.

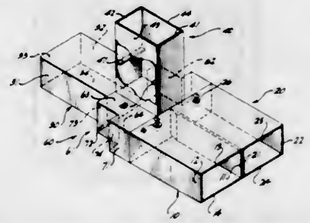
2,840,786
COAXIAL SWITCH
Carl F. Schunemann, East Cleveland, and Theodore R. Thoren, Russell Township, Geauga County, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application January 19, 1952, Serial No. 267,246
2 Claims. (Cl. 333—7)

2. A coaxial switch for operation with signals of a predetermined wave length comprising a stator having a rotor mounted therein, a plurality of coaxial lines extending into said stator and terminating in proximity to said rotor, said rotor having an interior surface defining an outer conductor passage extending between exterior surface portion of said rotor, an inner conductor extending within said outer conductor passage of said rotor, and a body of dielectric material supporting said inner conductor within said outer conductor passage, said interior surface having a cylindrical bore communicating with said outer conductor passage intermediate the ends of said passage and extending to an exterior surface portion of said rotor,



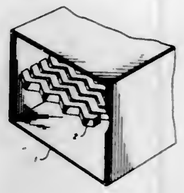
and dielectric material integral with said body of dielectric material and extending within said cylindrical bore, said cylindrical bore intersecting said outer conductor passage substantially an odd multiple of a quarter wave length from one end of said outer conductor passage to provide a capacitance effect opposing the capacitance effect introduced at the discontinuity between said one end of said outer conductor passage and the outer conductors in said stator cooperating therewith.

2,840,787
HYBRID T TYPE WAVEGUIDE JUNCTION
Mack Donald Adcock, Los Angeles, and Louis A. Kurtz, Pacific Palisades, Calif., assignors, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application September 11, 1952, Serial No. 309,086
10 Claims. (Cl. 333—11)



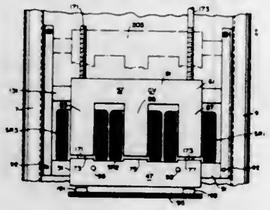
1. A waveguide structure of the hybrid T junction type comprising: first, second, third and fourth terminal hollow uniconductor rectilinear waveguides of rectangular cross section for transmitting electromagnetic waves in the TE_{10} mode only and a transitional hollow uniconductor waveguide section for providing an impedance matching coupling between said third waveguide and said first and second waveguides, said waveguide section being provided with an aperture for coupling said fourth waveguide to said first and second waveguides, said first and said second waveguide having respective contiguous narrow walls, said first and said second waveguide being coupled to said waveguide section, said third waveguide being coupled to said waveguide section forming a continuation of said first and second waveguides and having its longitudinal axis coplanar and symmetrical with respect to the longitudinal axes of said first and second waveguides, and said fourth waveguide extending substantially perpendicular to said first, second and third waveguides, the respective broad walls of said first, second and third waveguides being coplanar and the narrow walls of said third waveguide extending in planes parallel to the broad walls of said fourth waveguide.

2,840,788
LOADED WAVEGUIDES
Leslie Baden Mullett, Bernard Guest Loach, and George Lawson Adams, Malvern, Worcester, England, assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application December 11, 1952, Serial No. 325,306
4 Claims. (Cl. 333—31)



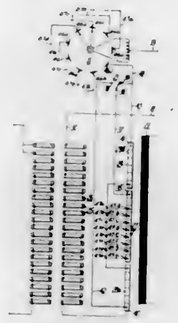
1. A rectangular waveguide having narrower and wider pairs of walls, means to excite the waveguide at a frequency below the cutoff frequency of the waveguide, an electrical conductor connected between the narrower pair of waveguide walls in the major median plane from directly opposite points on said walls, at least a portion of said conductor being displaced from the axis of the line connecting said directly opposite points, the electrical length of said conductor being greater than one-half wavelength at said frequency.

2,840,789
ARC WELDING APPARATUS
Joseph F. Miller, Buffalo, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 19, 1953, Serial No. 362,845
4 Claims. (Cl. 336—134)



1. A variable reluctance core assembly including a fixed core having leg means and a movable core having leg means to be disposed adjacent said fixed leg means characterized by means for supporting said movable core with the end of said leg means thereof adjacent the end of said leg means of said fixed core, the last said means comprising a supporting member having at least two internally threaded openings extending parallel to said leg means and symmetrically disposed in the cross sectional planes of said core, which planes are perpendicular to said leg means, at least two threaded shafts each passing through an internal threaded opening with the thread on said shaft engaging the internal thread of the opening, each said shaft having a shoulder in the portion thereof beyond the end of said leg means of said movable core, at least two thrust bearing means secured in said fixed core, each in alignment with a threaded opening, said thrust bearing means having openings through which its corresponding shaft passes, said shoulder on each said shaft engaging the boundary of its corresponding openings, means for driving one of said shafts, and means coupling the said other shaft to said one shaft near the ends of said shafts on the opposite side of said last-named openings from said driving means for driving said other shaft from said one shaft.

2,840,790
TAPPED WINDING ARRANGEMENT FOR VARIABLE RATIO TRANSFORMER
Fred J. Vogel, Wauwatosa, Wis., and James L. Moon, Terre Haute, Ind., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application June 12, 1956, Serial No. 590,936
11 Claims. (Cl. 336—150)



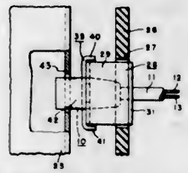
1. A winding assembly for a variable ratio transformer, said assembly comprising an insulating mold adapted to surround a core leg of said transformer, and a winding having first and second coaxially disposed radially spaced portions, said first portion comprising a plurality of coils wound on said mold to define a helical winding having a tapped section, said second portion comprising a plurality of serially connected disk type coils surrounding said helical winding and defining a disk winding, means connecting said first portion in series with said second portion, and means for connecting one end of said second portion to a line terminal of said transformer.

2,840,791
MOUNTING FOR PLUG-IN UNITS
Franklin Page, Jr., Arcadia, Calif., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 7, 1955, Serial No. 533,039
1 Claim. (Cl. 339—92)



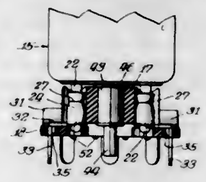
An electrical assembly comprising a plug-in unit, a receptacle for said plug-in unit, said receptacle having conducting means adapted to be connected to ground, mutually cooperating apertures in said plug-in unit and said receptacle, tubular means positioned in said apertures, said tubular means having internal threads, head means on one end of said tubular means in non-rotational engagement with said plug-in unit, bushing means telescopically positioned about the other end of said tubular means in engagement with said receptacle, said bushing means having a radially extending portion in engagement with said conducting means, and means having external threads in engagement with the internal threads of said tubular member for securing said plug-in unit to said receptacle.

2,840,792
MEANS FOR ADJUSTABLY MOUNTING AN ELECTRICAL PLUG CONNECTOR
Jack L. Herrold, Plainfield, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 28, 1956, Serial No. 594,406
4 Claims. (Cl. 339—126)



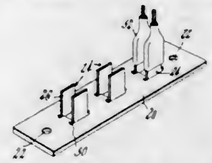
1. In combination with a panel having an opening therein and an electrical plug connector having a peripheral groove, means for mounting said plug connector in an adjustable position with respect to said panel comprising a first connector-retaining member having a central portion extending within the opening in said panel, and having end flanges positioned adjacent to the outer side of said panel for preventing said first connector-retaining member from passing through the opening in said panel, said central portion having an aperture therein, with marginal portions on the outer face of said central portion about said aperture being in engagement with portions of said plug connector on one side of said groove, and a second connector-retaining member positioned adjacent to the inner side of said panel and having an aperture therein, with marginal portions on the outer face of said second connector-retaining member about said aperture being in engagement with portions of said plug connector on the opposite side of said groove.

2,840,793
TUBE SOCKET
John Sunko, Elgin, and Clarence F. Race, Wheaton, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application May 18, 1954, Serial No. 430,664
3 Claims. (Cl. 339—193)



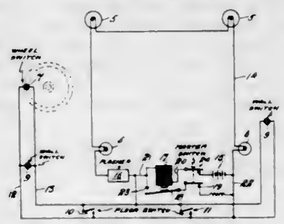
1. A socket for miniature electron valves and the like, including in combination, a cylindrical body of insulating material having upper and lower end surfaces, a peripheral wall surface, and a peripheral flange adjacent said lower end surface, said body having a plurality of circumferentially spaced pin receiving passages extending longitudinally therethrough, said flange having a plurality of radially extending vertically tapered slots adjacent said passages and having a plurality of vertically extending apertures one within each slot, said body having a plurality of slots in the peripheral wall surface thereof opening into each of said passages and extending from said upper wall surface to the slots in said flange, a plurality of tubular shaped pin receiving terminal members positioned one in each of said passages, each of said terminal members having a lower lug extending through the lower end of said passage and bent against the lower wall surface of said body, and each of said terminal members having a connector lug bent outward through and resting in a slotted flange and having an end portion bent downward through the aperture in said flange, with said connector lugs and said lower lugs securing said terminal members in place.

2,840,794
ELECTRIC JUNCTION BLOCK
Hugh W. Batcheller, Newton Highlands, Mass., assignor to Ark-Les Switch Corporation, Watertown, Mass., a corporation of Massachusetts
Application July 6, 1953, Serial No. 366,203
3 Claims. (Cl. 339—220)



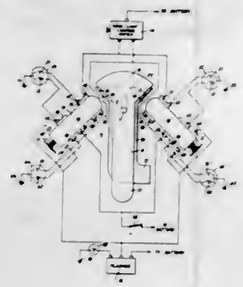
1. A junction block comprising a plate of insulation having an H-shaped aperture therethrough forming two tongues projecting toward each other, and a conducting member consisting of a metal strip bent to U-shape with two plane parallel arms and a connecting portion, said connecting portion bearing against the rear face of said tongues, said arms projecting forwardly through said aperture, the side edges of said arms having struck-out marginal portions adjacent the front face of said plate providing side edges, each of which terminates in a shoulder with a portion of each arm, said side edges adjacent the shoulders being wedged outwardly from the arms and downwardly into engagement with opposing surfaces of said plate to prevent rearward movement of said conducting member relative thereto.

2,840,795
DRIVER OR PASSENGER OPERATED CALL FOR HELP DISTRESS SIGNAL
Yun Gee, New York, N. Y.
Application July 30, 1957, Serial No. 675,131
1 Claim. (Cl. 340—63)



Signal system utilizing driving lights of a motor vehicle for broadcasting holdup of driver or passengers in the vehicle and comprising the combination with a vehicle lighting system having driving lamps, energy source and switch means for normal control of said driving lamps, a plurality of distress call switches including driver and passenger switches located within reach of driver and passengers in the vehicle, a flasher, distress call signal circuit connections from said driver and passenger switches to said flasher, driving lamps and energy source for closing a distress call circuit, flashing said lamps independently of the switch means normally controlling the same and including means for holding said distress call circuit completed when closed by any one of said driver or passenger switches and a master switch arranged to interrupt said distress call circuit from the driver and passenger switches through said flasher and to restore said vehicle lighting system to the normal control of said switch means.

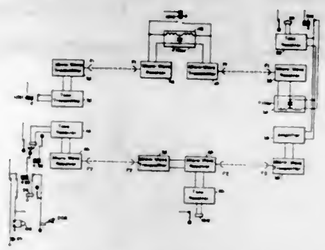
2,840,796
VEHICLE SIGNALLING CIRCUIT
Jesse R. Hollins, Brooklyn, N. Y., assignor, by mesne assignments, to Abraham Hollins and Jesse R. Hollins, Brooklyn, Lewis S. Hollins, Great Neck, and Theodore D. Davidson, New York, N. Y.
Application March 16, 1953, Serial No. 342,526
2 Claims. (Cl. 340—81)



1. In a vehicle signaling system; a pair of parking lamp means; a pair of signal lamp means; one parking lamp means and one signal lamp means being grouped on each side of the front of the vehicle; a pair of tail lamp means; a pair of stop lamp means; one tail lamp means and one stop lamp means being grouped on each side of the rear of the vehicle; a parking and tail lamp control switch; a stop lamp switch; a pair of turn signal switches each having a normal position and an operated position; means for selectively operating either of said turn signal switches; each turn signal switch being in circuit with the lamp means on a different side of the vehicle; means, including a source of current, said control switch, and said turn signal switches in the normal position constituting a steady energizing circuit for said parking and tail lamp means; means, including said source, said stop lamp switch, and said turn signal switches in the normal position constituting a steady energizing circuit for said stop lamp means when said stop lamp switch is closed; and means, including said source, a current interrupter, and one of said turn signal switches in the operated position for intermittently energizing circuit for the signal lamp means and stop lamp means on one side of the vehicle; and means for conjointly operating both turn signal switches independently of said selective operating means therefor.

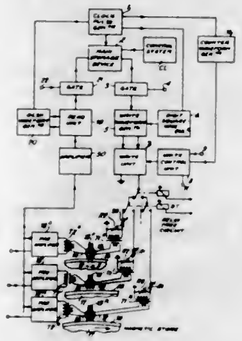
2,840,797
SUPERVISORY CONTROL SYSTEMS AND APPARATUS
Willard A. Derr, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 14, 1952, Serial No. 304,269
17 Claims. (Cl. 340—163)

1. In a supervisory control system having supervisory control equipment including sending and receiving supervisory relays, normally energized radio transmitting and receiving means, a tone transmitter, circuit means normally connecting the tone transmitted to modulate the radio transmitter signal, said circuit means including contacts responsive to operation of the supervisory sending relay connected in circuit with the tone transmitter to interrupt operation thereof, a tone receiver connected to be energized through the radio receiving means, circuit means connecting the supervisory receiving relay to be energized in response to receipt of a tone signal from the tone receiver, and supervision means operable in response to the maintenance of a predetermined



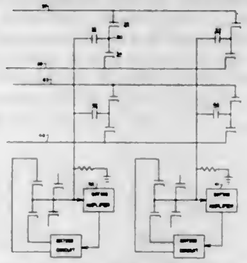
operating condition of the receiving relay for an interval longer than any signal interval.

2,840,798
MAGNETIC STORAGE SYSTEM
Frank Cooper and Harry Malbon, Hollinwood, England, assignors to National Research Development Corporation, London, England, a British corporation
Application February 19, 1952, Serial No. 272,476
Claims priority, application Great Britain February 27, 1951
15 Claims. (Cl. 340—174)



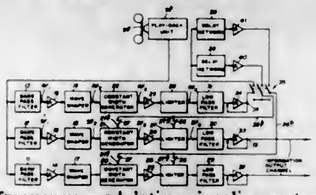
1. A magnetic storage system for the recording and subsequent reproduction of electric pulse signal trains in synchronism with a supervisory timing control and comprising a member carrying a magnetic recording medium, said member being movable at a speed synchronised with said supervisory timing control, a writing-in head structure including a magnetic flux gap adjacent said recording surface and an energising winding for said magnetic flux gap, means for supplying to said winding an energising current which includes an abrupt change of value at an instant related to said supervisory timing control, a reading-out head structure including a magnetic flux gap adjacent said recording surface at a position in advance of said flux-gap of said writing-in head structure relative to the direction of movement of said recording medium and an energised winding associated with said flux gap, current adjusting means between said current supply means and said energising winding for adjusting the proportion of available energising current for said energising winding of said writing-in head structure which is actually applied to said winding whereby the read-out signal from said energised winding of said reading-out head structure resulting from an abrupt change in the current previously supplied to said energising winding of said writing-in head structure may be altered in its timing relative to said supervisory timing control.

2,840,799
VERY RAPID ACCESS MEMORY FOR ELECTRONIC COMPUTERS
Arthur W. Holt, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of Commerce
Application August 8, 1952, Serial No. 303,452
17 Claims. (Cl. 340—174)
(Granted under Title 35, U. S. Code (1952), sec. 266)



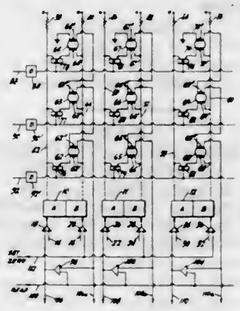
1. A capacitor memory system for use in electronic computers, comprising a plurality of capacitors one capacitor for storing each bit of each word to be stored in the memory for subsequent use by the arithmetic and control circuits of a computer, diode means connected to one plate of each of said capacitors and a first means including selection matrix means for applying voltage pulses to said diodes to cause selected capacitors to store desired information, said selection matrix means being operative to selectively apply voltage pulses to the diode means connected to the capacitors of the different words, and to simultaneously apply voltage pulses to the diode means connected to the capacitors which store the bits of a single word, the pulsed diode means being oriented to cause current flow through their associated capacitors and the unpulsed diode means being biased so as to prevent current flow through their associated capacitors.

2,840,800
FREQUENCY ERROR COMPENSATION IN F. M. SYSTEMS
William H. Chester, North Hollywood, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application May 12, 1955, Serial No. 507,850
8 Claims. (Cl. 340—174)



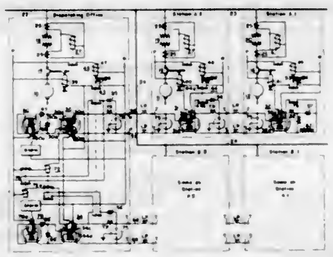
1. In a frequency modulation signaling system subject to error frequency shifts: means for transmitting an A. C. signal wave of one base frequency and frequency—modulated with a signal, and an A. C. reference wave of a second base frequency; means for receiving said signal and reference waves and separating them; means for detecting said separated reference wave and producing therefrom an output error potential proportional to departures of the received reference wave from its base frequency; and signal-detecting means responsive to both said separated signal wave and said error potential for producing an output signal potential proportional to departures of the signal wave from its base frequency, and inversely proportional to said error potential; whereby frequency shift errors common to said signal and reference waves are reduced in the output of said signal-detecting means.

2,840,801
MAGNETIC CORE INFORMATION STORAGE SYSTEMS
Ralph H. Beter, Philadelphia, William E. Bradley, Clifton Heights, and Morris Rubinoff, Sharon Hill, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application June 29, 1955, Serial No. 518,732
19 Claims. (Cl. 340—174)



11. A memory system for binary-coded information comprising *n* pairs of signal conductors, where *n* is the number of digits in the longest word to be stored, means for causing a difference in potential to exist between the two conductors of each pair, means for controlling selectively the polarity of said potential difference, a difference of one polarity representing certain information and a difference of the opposite polarity representing other information, a separate plurality of magnetic cores associated with each of said *n* pairs of signal conductors, each of said cores being provided with at least a magnetizing winding, an electrically controlled switching means connected in series with said magnetizing winding, and a sensing winding, said series combinations of magnetizing windings and switching means being connected in parallel between the two signal conductors associated therewith, thereby to form a plurality of digit columns, a plurality of address conductors to which signals for controlling said switching means may be supplied, each address conductor being coupled to a switching means in each of a plurality of said digit columns, and means for connecting the said sensing windings in each of said digit columns in series relationship.

2,840,802
CONTROL SYSTEMS
Willard A. Derr and Carl L. Cadwell, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 4, 1953, Serial No. 359,534
11 Claims. (Cl. 340—213)



1. In a control circuit for a plurality of circuit breakers, a relay connected to the circuit for each breaker operable in response to a voltage of a predetermined polarity

to trip the breaker, means associated with each breaker operated by a fault condition electrically affected by operation of the breaker to connect the circuit to a direct current source to applying a voltage of said polarity to the circuit to operate the relays, a line supervision relay connected to the circuit responsive to the opposite polarity, and means normally connecting the circuit to a source to apply a lower voltage of said opposite polarity to all of the relays.

2,840,803

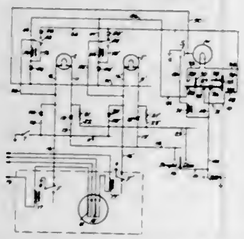
WITHDRAWN

2,840,804

MULTIPLE INDICATOR AND WARNING LIGHT SWITCHING SYSTEM

George H. Rodgers, Elsinore, Calif., assignor to Marco Industries Company, Anaheim, Calif.

Application December 11, 1956, Serial No. 627,673
6 Claims. (Cl. 340—213)



4. In a multiple indicator system: a plurality of electrical indicators having individual indicator functions; a plurality of corresponding indicator actuator circuits including a common power lead for connecting the respective indicators in parallel to a source of current, and each including a fault switch and a control connection therefrom to a respective indicator for energizing the latter upon closing of its fault switch; an electrical warning device; a circuit for actuating said device; a double throw holding relay having a normal position in which it establishes a connection in said actuating circuit and a reversed position for deactivating said device, said relay including means for holding the same in said reversed position and including means for returning it to said normal position; a circuit for energizing said relay to shift the same to said reversed position; a reset switch for controlling said energizing circuit; a plurality of remote control circuits, one for each of said indicators and each including a control device for controlling said returning means, including a connection to a respective fault switch control connection and a common connection to said relay and a common connection to said reset switch, whereby the closing of said reset switch will operate to shift said relay to said reversed position while simultaneously shifting the remote control device of the energized indicator to a condition in which it is inoperative for effecting said returning operation.

2,840,805

WITHDRAWN

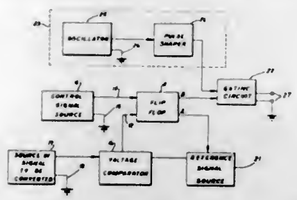
2,840,806

VOLTAGE STATE TO DIGITAL CONVERTER

Lee J. Bateman, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application October 12, 1955, Serial No. 540,117
7 Claims. (Cl. 340—347)

1. An analog-voltage to digital-signal converter comprising: a flip-flop including first and second input terminals and first and second output terminals; a voltage comparator connected to said first input terminal; means for applying a control signal connected to said second input terminal for changing said flip-flop from one of its stable states to the other, said flip-flop being adapted to return to its original state upon application of a pulse from said comparator; a source of analog signals to be converted connected to said comparator; a constant current source connected to said comparator at a junction point; comparing control means including a first diode connected between said first flip-flop output terminal and said junction point, and a second diode connected between said first flip-flop output terminal and a point of fixed potential; charge storage means connected between said junction point and said point of fixed potential, said



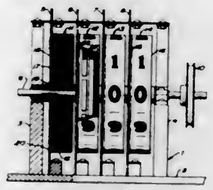
comparing control means being adapted to allow said charge storage means to assume a charge when said flip-flop is in one of its stable states and to discharge when said flip-flop is in the other one of its stable states, said comparator being adapted to produce an output pulse in response to the analog voltage and the charge across said charge storage means becoming substantially equal; gating means including an output terminal, said second flip-flop output terminal being connected to said gating means; and means for producing a continuously recurring signal connected to said gating means, whereby said recurring signal appears at said output of said gating means during the interval of time between the application of the control signal to said input terminal of said flip-flop and application of the pulse from said comparator to said first flip-flop input terminal.

2,840,807

NUMERAL DISPLAY DEVICE

Francis C. Todd and John L. Courtright, Columbus, Ohio, assignors, by mesne assignments, to Toledo Scale Corporation, Toledo, Ohio, a corporation of Ohio

Application February 25, 1954, Serial No. 412,447
5 Claims. (Cl. 340—378)



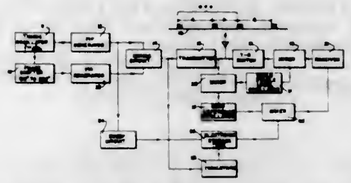
1. In a device for displaying numerical data, in combination, a generally cylindrical hollow drum bearing indicia on its cylindrical surface, said drum having along one end a series of teeth one for each indicium to be displayed, a continuously driven shaft on which the drum is journaled and frictionally driven, a fixedly mounted solenoid coaxial with said shaft located within the indicia bearing drum, a support plate for said solenoid, said plate having means engageable with said teeth, resilient means urging said drum away from said support plate to disengage said teeth and allow the drum to rotate with the shaft, an armature carried on the drum and cooperating with the solenoid for urging the drum toward the plate, a stationary commutator concentric with the solenoid, brushes carried by the drum and contacting the commutator, and circuit means controlled by said commutator for energizing said solenoid for stopping said drum in selected positions.

2,840,808

MOVING TARGET INDICATION SYSTEMS

William R. Woodward, Manhasset, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 19, 1946, Serial No. 655,437
7 Claims. (Cl. 343—7.7)



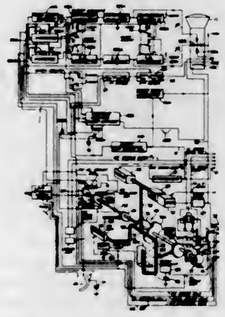
1. A radar moving target indication system comprising means for producing short high-power pulses of electromagnetic energy separated in time from one another by a first and a second interval in alternation, said first and second intervals being substantially different from one another, means for receiving incoming reflected radar echoes, means for beating said echoes with a fixed frequency continuous wave reference oscillation, a first supersonic delay line having a delay time equal to said first time interval, a second supersonic delay line having a delay time equal to said second time interval, means for controlling said first and second pulse spacing intervals, switching means for directing alternate echo beat waves to the inputs of said first and second delay lines, means responsive to the outputs of said first and second delay lines and the incoming echo beat waves, to obtain a difference signal, and an indicator responsive to said difference signal to show the presence of moving targets.

2,840,809

MEANS AND TECHNIQUES FOR INDICATING SCAN ANGLE AND ANTENNA BEAM

Robert G. Shaw, Los Angeles, and Robert W. Landee, Santa Monica, Calif., assignors to Gilfillan Bros., Inc., Los Angeles, Calif., a corporation of California

Application May 22, 1953, Serial No. 356,720
8 Claims. (Cl. 343—11)



1. In a system of the character described, first means at an origin position producing an antenna beam and scanning the same through space which includes a reference marker for producing a reference echo signal therefrom, second means operating synchronously with the first mentioned means and normally producing a display of said space with said display having an origin point corresponding to said origin position, echo receiving means coupled to said second means to produce a first reference point in said display, range mark generating means coupled to said second means to produce at least one range mark in said display, cursor generating means coupled to said second means and developing a line in said display intersecting said one range mark to define a second reference point at the point of intersection, third means normally ineffective to blank a first outer portion of said display on the boundary of a line which extends from said origin point to said first reference point and to blank a second outer portion of said display which is on the boundary of a line which extends from said origin point to said second reference point, and switching means interconnected between said second and said third means for rendering said third means effective.

2,840,810

BORE SIGHTING ERROR DETECTOR

Edwin M. Bailey, Jr., Stamford, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 8, 1946, Serial No. 668,028
3 Claims. (Cl. 343—17.7)



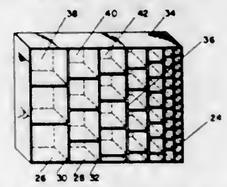
1. A circuit for determining the filtering action of a transmit-receive switch as used in radar systems comprising, a directional coupler coupled to said radar system for sampling power from each transmission of said radar system transmitter, the output of said coupler being coupled to the input of said transmit-receive switch, detecting means, variable attenuating means coupling said detecting means to the output of said transmit-receive switch, a modulation detector circuit coupled to said detecting means through an amplifying means, said modulation detector circuit being adapted to produce an output proportional to the modulation in said power sample, and a cathode ray tube indicator coupled to the output of said modulation detector circuit.

2,840,811

DIELECTRIC BODIES FOR TRANSMISSION OF ELECTROMAGNETIC WAVES

Edward B. McMillan, Ipswich, Mass.

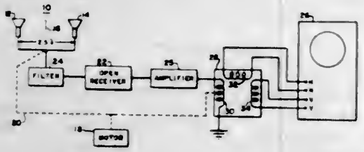
Application May 17, 1954, Serial No. 430,388
4 Claims. (Cl. 343—18)



1. A dielectric body for transmission of electromagnetic waves, comprising a substantially regular supporting structure of dielectric material in the form of a plurality of regularly positioned walls disposed at a high angle toward the wave receiving face of said body, and metallic

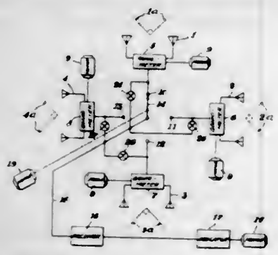
particles supported by said walls substantially uniformly distributed in electrically insulated relation along said walls, the effective size of spaces defined by said walls being below the cut-off wavelengths of electromagnetic waves to be transmitted.

2,840,812
FREQUENCY MEASUREMENT DEVICE
Anthony J. Di Giacomo, West Long Branch, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application August 3, 1954, Serial No. 447,683
3 Claims. (Cl. 343—118)
(Granted under Title 35, U. S. Code (1952), sec. 266)



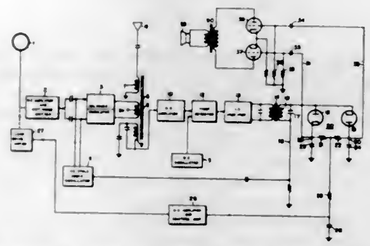
1. An apparatus for determining the frequency of a radio-frequency transmission source comprising a pair of similarly polarized receiving antennas spaced a predetermined distance apart and adapted to intercept signals from said transmission source, means for simultaneously rotating said antennas in the same direction of rotation about a predetermined axis, the antennas being connected so that the outputs thereof are combined in a predetermined phase-relationship, means responsive only to a prescribed range of frequencies connected to the output of said antennas, an open receiver responsive to the combined output of both of said antennas for producing demodulated signals corresponding to the intercepted signals as said antennas are rotated, a cathode-ray tube line-trace device responsive to the output of said receiver, and means for driving the cathode ray synchronously with the rotation of the antennas for producing a plurality of angularly displaced radial lobes symmetrically arranged about a predetermined reference line corresponding to the azimuth position of said transmission source with respect to said axis, the angular displacement between said reference line and a radial line bisecting one of said lobes being a measure of the frequency of said transmission source.

2,840,813
RADIO DIRECTION FINDER
Trevor H. Clark, Boonton, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application March 20, 1947, Serial No. 735,955
9 Claims. (Cl. 343—120)



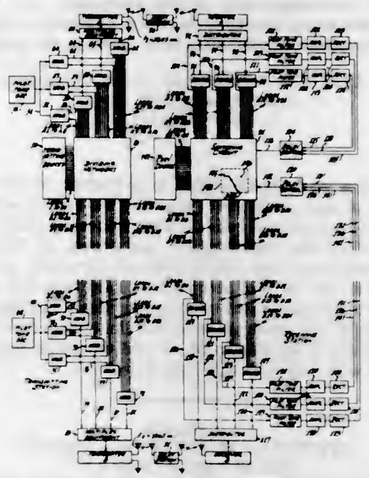
1. A direction finder for indicating the direction of transmitting stations within a given arc, comprising means for producng a plurality of directive radiant energy receiving patterns. means for sweeping the directive effect of said patterns successively through given contiguous angular portions to define together said given arc, indication means for producing in synchronism with the respective sweeps of said patterns through said angular portions an indication corresponding to respective angular portions of said arc, means for applying received energy to said indicator means from said directive patterns at a lower frequency, with respect to the frequency of the sweep of each angular portion indication to define the directive position of transmitting stations within said arc.

2,840,814
DIRECTIONAL ANTENNA CONTROL SYSTEM
Alfred A. Hemphill, Baltimore, and John Merle Tewksbury, Lutherville, Md., assignors to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
Application March 22, 1955, Serial No. 495,942
5 Claims. (Cl. 343—121)



1. A system for driving an antenna having a directional pattern including a null, said system driving said antenna until said null coincides with the direction of origin of a received signal, said system comprising: means amplifying and shifting the phase of said received signal by 90°, a balanced modulator, means applying said amplified and phase shifted signal to said balanced modulator, an audio oscillator, means applying the output of said audio oscillator to said balanced modulator in phase opposition, a non-directional antenna, means combining the output of said non-directional antenna with the output of said balanced modulator, thereby providing a resultant waveform having the frequency of said received signal and modulated with the output of said audio oscillator, the phase of said modulation being in one sense when the said null is on one side of the direction of origin of said signal and in the opposite sense when the said null is on the other side of said direction, means converting the signal frequency of said resultant waveform to an intermediate frequency, a synchronous detector, means applying said converted signal to said synchronous detector, means simultaneously applying the output of said audio oscillator to said synchronous detector, said synchronous detector comprising a pair of diodes, means connecting the cathode of one of said diodes to the anode of the other and having said converted signal and said audio oscillator output applied thereto, means including a capacitor connecting each of the remaining electrodes of said diodes to ground, means connecting said remaining electrodes to each other, the last named means comprising a pair of serially joined resistors, said resistors and capacitors having values such as to attenuate intermediate frequencies appearing at said remaining electrodes, but such as not to attenuate audio frequencies, an output connection to the junction of said resistors and an integrating network operable upon voltage appearing at said output connection, voltage responsive means driving said directional antenna in orientation and means applying the voltage present at said output connection to said driving means to control the operation thereof.

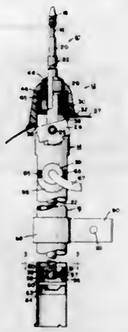
2,840,815
RADIO MULTIPLEX COMMUNICATION SYSTEM
Roy K. Andres, Glen Cove, and Clyde H. Backus, Lynbrook, N. Y., assignors to Radio Corporation of America, a corporation of Delaware
Application June 23, 1955, Serial No. 517,582
11 Claims. (Cl. 343—200)



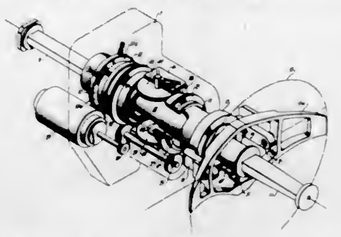
1. A radio communication system comprising, in combination, a transmitting station including a transmitting device adapted to transmit a message signal, first and second transmission systems electrically interconnecting said transmitting station and a remote receiving station, each of said transmission systems individually including a radio frequency transmitter located at said transmitting station and a radio receiver located at said receiving station, means for operating said transmitting device to transmit said message signal simultaneously over said transmission systems to said radio receivers at said receiving station, means located at said transmitting station for applying a pilot tone to said message signal, an electromagnetic relay switching circuit located at said receiving station and including a first and second relay device, means for operating said first relay device in response to the reception at the receiving station of the pilot tone transmitted with the message signal over said first transmission system, means for operating said second relay device in response to the reception at the receiving station of the pilot tone transmitted with the message signal over said second transmission system, said receiving station including means for feeding said message signals from said radio receivers to said switching circuit, and means including a selectively operated control device for controlling the operation of said switching circuit in response to the operation of said relay devices to selectively operate said switching circuit to pass the message signal transmittal over only one of said transmission systems at a time to a receiving device at said receiving station.

2,840,816
RADIO ANTENNA
Joseph B. Cejka, Highland Park, N. J., assignor to General Bronze Corporation, Garden City, N. Y., a corporation of New York
Application August 5, 1954, Serial No. 447,992
4 Claims. (Cl. 343—715)

1. A collapsible automobile radio antenna assembly comprising an antenna portion including a plurality of extensible telescoping sections, a base portion, having a longitudinal bore therethrough, mounting means for securing said base portion to an automobile body with said longitudinal bore projecting outside of said body, said base having a socket therein aligned with said bore, a tubular well secured in said socket and projecting from said base, one of said antenna sections extending from the outside of said body through said bore in said base and into said tubular well, a first insulator element slidably fitting within said well portion and supporting said one antenna section in spaced longitudinal relation within said well, a second insulator element secured within said base and slidably supporting said one antenna section in longitudinal spaced relationship within its bore, a third insulator element intermediate said first and second insulator elements and secured within said base portion in fixed position, said third insulator element having an opening therethrough through which said one antenna section projects, said third insulator element including a pillow portion within said opening engaging one side of said one antenna section, a spring contact element supported by said third insulator and resiliently engaging the opposite side of said one antenna section from said pillow portion, and electrical connection means in engagement with said contact element.



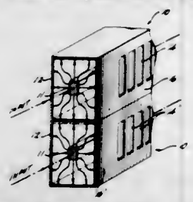
2,840,817
QUADRANT INFORMATION MECHANISM FOR RADAR SYSTEM
Glenn A. Walters, Palo Alto, and Arthur P. Notthoff, Jr., San Francisco, Calif., assignors, by mesne assignments, to Textron Inc., Providence, R. I., a corporation of Rhode Island
Application August 27, 1953, Serial No. 376,876
4 Claims. (Cl. 343—760)



1. A device of the class described, comprising a wave energy reflector, means for rotating the reflector about one axis while oscillating the reflector about another axis normal to the axis of rotation in a manner such that the reflector crosses over said axis of rotation during operation, means for indicating, with reference to a plane normal to the axis of rotation of the reflector and divided into quadrants by lines intersecting at the axis of rotation of the reflector, that quadrant toward which the reflector is directed when contact is made by the wave energy beam, the second-named means including dia-

metrically opposed conducting elements driven at the speed of rotation of said reflector, four equally spaced brushes arranged to be consecutively engaged by the conducting elements, a signaling means for each brush, and means associated with the signaling means for establishing electrical contact with one element when the member is pivoted to one side of its axis of rotation and to establish electrical contact with the other element when the reflector is pivoted to the opposite side of its axis of rotation, whereby the correct quadrant toward which the reflector is directed is indicated despite its crossing over its axis of rotation.

2,840,818
SLOTTED ANTENNA
Richard H. Reed and Robert J. Stegen, Los Angeles, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application April 15, 1954, Serial No. 423,400
7 Claims. (Cl. 343—770)



1. A radiator of electromagnetic energy comprising an elongated electromagnetic translator; said electromagnetic translator being adapted to propagate electromagnetic energy over a predetermined frequency range, said translator having a plurality of spaced elongated parallel non-resonant slots, and where the ratio of the elongation of said slots to the distance of separation of said slots is substantially greater than two.

2,840,819
REFLECTING SURFACES
Cyril E. McClellan, Glen Burnie, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 20, 1950, Serial No. 169,250
10 Claims. (Cl. 343—781)

1. A system for generating a directed beam of ultra-high frequency radio waves, comprising a wave guide having an output opening to which said ultra-high radio frequency waves are conveyed, a first wall totally reflective of incident ultra-high frequency radio waves, said wall extending transversely of the longitudinal axis of said wave guide and having a centered opening contiguous to the outer surface of said wave guide adjacent said output opening, a second wall extending transversely of the longitudinal axis of said wave guide, said second wall comprising mutually insulated conductive elements having cross-sectional sizes and spacings in planes of



impinging wave energy equal to a fraction of the wavelength of said radio waves whereby the second wall will transmit part of said incident high frequency radio waves and reflect the remainder of said waves so that they will impinge on said totally reflective first wall to be reflected back to said second wall, said first and second walls being spaced apart by a predetermined spacing along the axis of said wave guide so that the output of said system results from interaction of said ultra-high frequency waves with said first and second walls.

2,840,820
ARTIFICIAL MEDIUM OF VARIABLE DIELECTRIC CONSTANT
George C. Southworth, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 14, 1954, Serial No. 423,195
15 Claims. (Cl. 343—909)

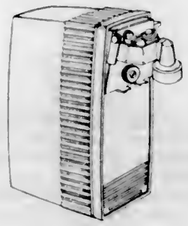


13. A composite dielectric member including a plurality of asymmetrically shaped resonators of the order of one-quarter wavelength long spaced apart from one another and oriented in such a manner as to produce in said member an effective dielectric constant greater than one, and means for varying the orientation of said resonators whereby the dielectric constant of said member may be varied.

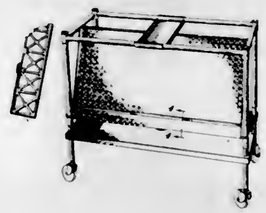
DESIGNS

JUNE 24, 1958

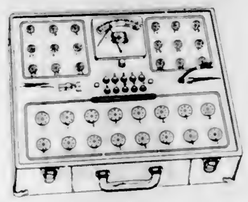
183,077
ELECTRIC CAN OPENER
Douglas W. Anderson, Palatine, Ill., assignor to Burgess Vibrocrafters, Inc., Grayslake, Ill., a corporation of Delaware
Application October 24, 1957, Serial No. 48,236
Term of patent 14 years
(Cl. D22—2)



183,078
COMBINED MAGAZINE RACK AND STAND FOR A ROOM AIR CONDITIONER OR THE LIKE
Harold G. Anderson, Cincinnati, Ohio, assignor to The Brunhoff Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio
Application December 17, 1956, Serial No. 44,232
Term of patent 14 years
(Cl. D62—4)



183,079
PORTABLE TUBE TESTER FOR VACUUM TUBES
Jacob Anthes, Atkinson, Wis.
Application May 31, 1957, Serial No. 46,430
Term of patent 14 years
(Cl. D26—1)



183,080
FLOOR TREATING MACHINE
Walter G. Ashton, Winnetka, Ill.
Application July 22, 1957, Serial No. 47,034
Term of patent 14 years
(Cl. D9—2)



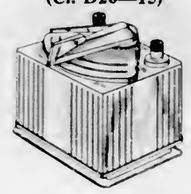
183,081
STAPLE EXTRACTOR
Harold G. Barton, San Gabriel, Calif.
Application December 16, 1957, Serial No. 48,928
Term of patent 14 years
(Cl. D74—1)



183,082
ICE BUCKET
Ralph B. Billig, Westlake, and Manuel S. Ziskin, Mayfield Heights, Ohio
Application November 8, 1957, Serial No. 48,391
Term of patent 14 years
(Cl. D58—17)



183,083
TRANSFORMER
Joseph L. Bonanno, South Orange, N. J., assignor to The Lionel Corporation, New York, N. Y., a corporation of New York
Application May 13, 1957, Serial No. 46,123
Term of patent 14 years
(Cl. D26—15)



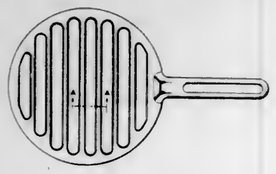
183,084
BALL CATCHING AND THROWING DEVICE
Clinton V. Carlson, Minneapolis, Minn., assignor to Cosom Industries, Inc., Minneapolis, Minn., a corporation of Minnesota
Application May 23, 1957, Serial No. 46,296
Term of patent 14 years
(Cl. D34—5)



183,085
WALLET
Herbert S. Chase, New York, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application September 6, 1956, Serial No. 42,905
Term of patent 7 years
(Cl. D87—3)



183,086
BROILER
Edward R. Collins and William Hatton Smaw, Atlanta, Ga.
Application February 13, 1956, Serial No. 40,135
Term of patent 14 years
(Cl. D44—1)



183,087
MEDALLION OR SIMILAR ARTICLE
Michael Disanza, Riverdale, N. Y.
Application January 31, 1957, Serial No. 44,684
Term of patent 14 years
(Cl. D29—19)



183,088
PLATE HOLDER
Carl A. Ebert, New York, N. Y.
Application September 12, 1957, Serial No. 47,715
Term of patent 3½ years
(Cl. D44—10)



183,089
DRINKING FOUNTAIN
Ernst Alden Eriksson, Lexington, Mass., assignor to Northern Industries, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application April 12, 1957, Serial No. 45,714
Term of patent 3½ years
(Cl. D91—4)



183,090
WASHING MACHINE OR SIMILAR ARTICLE
Dean H. Freund, Benton Harbor, Mich., assignor to Whirlpool Corporation, a corporation of Delaware
Application September 12, 1956, Serial No. 42,907
Term of patent 3½ years
(Cl. D49—1)



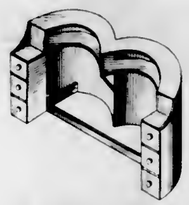
183,091
GOLF CLUB HEAD
Walter J. Handzlik, Jr., Detroit, Mich., assignor to Lyon Incorporated, Detroit, Mich., a corporation of Delaware
Application October 15, 1957, Serial No. 48,102
Term of patent 14 years
(Cl. D34—5)



183,092
GOLF CLUB HEAD
Walter J. Handzlik, Jr., Detroit, Mich., assignor to Lyon Incorporated, Detroit, Mich., a corporation of Delaware
Application October 15, 1957, Serial No. 48,103
Term of patent 14 years
(Cl. D34—5)



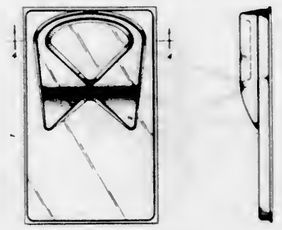
183,093
HEAD BOARD
William T. Harris, Missoula, Mont.
Original application November 7, 1955, Serial No. 38,769. Divided and this application May 21, 1957, Serial No. 46,265
Term of patent 7 years
(Cl. D5—4)



183,094
MONEY BOX OR SIMILAR ARTICLE
Edwin T. Heath and Roy I. Gandy, Macon, Ga., assignors to Heath-Gandy Corporation, Macon, Ga., a corporation of Georgia
Application August 29, 1957, Serial No. 47,544
Term of patent 14 years
(Cl. D34—11)



183,095
PROTECTIVE COVER FOR A SHIRT
Edward L. Hesse, Los Angeles, Calif.
Application August 12, 1957, Serial No. 47,319
Term of patent 14 years
(Cl. D58—12)



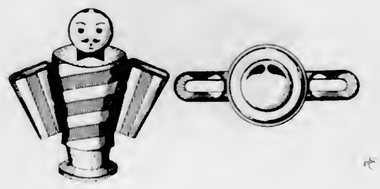
183,096
SPECTACLE TEMPLE
Irving Hirschman, Brooklyn, N. Y.
Application December 30, 1957, Serial No. 49,071
Term of patent 7 years
(Cl. D57—1)



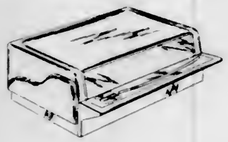
183,097
DERRICK
James Howard Holan, Rocky River, Ohio, assignor to J. H. Holan Corporation, Cleveland, Ohio, a corporation of Ohio
Application August 15, 1956, Serial No. 42,609
Term of patent 14 years
(Cl. D41—1)



183,098
COMBINED RAZOR AND BLADE RECEPTACLE
Paul Jacobs, Bronx, N. Y.
Application April 8, 1957, Serial No. 45,639
Term of patent 3½ years
(Cl. D4—3)



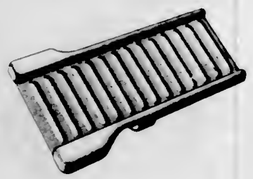
183,099
WEIGHING SCALE
Harold Lawrence King, Mount Vernon, N. Y.
Application May 20, 1957, Serial No. 46,231
Term of patent 3½ years
(Cl. D52—10)



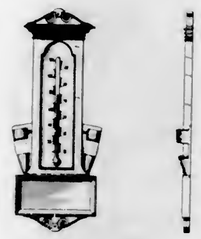
183,100
CHIME OR BELL INSTRUMENT VOLUME CONTROL FOR USE WITH AN ORGAN OR SIMILAR ARTICLE
Jacob T. Kunz, Collegeville, Pa., assignor to Schulmerich Electronics, Inc., Sellersville, Pa., a corporation of Pennsylvania
Application May 15, 1956, Serial No. 41,506
Term of patent 14 years
(Cl. D26—13)



183,101
HAND WASHBOARD
Antonio Longo, Cincinnati, Ohio
Application January 2, 1957, Serial No. 44,375
Term of patent 3½ years
(Cl. D49—1)



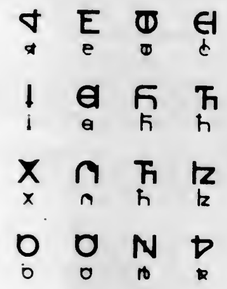
183,102
COMBINED THERMOMETER AND PENCIL HOLDER
Fred Lowenthal, New York, N. Y.
Application November 1, 1957, Serial No. 48,310
Term of patent 14 years
(Cl. D52—7)



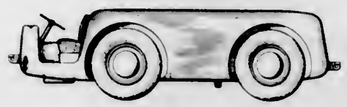
183,103
MOLDING FOR AN AUTOMOBILE
Clare M. MacKichan, Farmington, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 4, 1956, Serial No. 43,235
Term of patent 7 years
(Cl. D14—6)



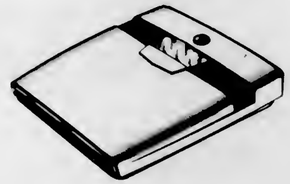
183,104
FONT OF PHONETIC TYPE
Philip Tyler Mitchell, Sierra Madre, Calif.
Application June 10, 1957, Serial No. 46,528
Term of patent 14 years
(Cl. D64—12)



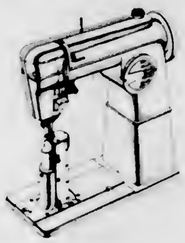
183,105
TOWING TRACTOR FOR AN AIRPLANE
Robert C. Norrie, Seattle, Wash., assignor to Pacific Car and Foundry Company, Seattle, Wash., a corporation of Washington
Application August 6, 1957, Serial No. 47,252
Term of patent 14 years
(Cl. D14—3)



183,106
BATHROOM SCALE
Joseph Palma, Jr., Wheaton, Ill., Courtney A. Leubner, Milwaukee, Wis., and Robert L. Deschamps, La Grange Highlands, Ill., assignors to The Brearley Company, Rockford, Ill., a corporation of Illinois
Application August 26, 1957, Serial No. 47,513
Term of patent 14 years
(Cl. D52—10)



183,107
SEWING MACHINE OR SIMILAR ARTICLE
Malcolm S. Park, Verplanck Point, N. Y., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 26, 1957, Serial No. 46,755
Term of patent 14 years
(Cl. D70—1)



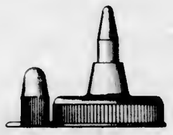
183,108
AIRCRAFT
Nathan C. Price, Mexico City, Mexico
Application June 11, 1956, Serial No. 41,846
Term of patent 14 years
(Cl. D71—1)



183,109
INCINERATOR
Nickolas Soltesz, Toledo, Ohio
Application December 19, 1957, Serial No. 48,965
Term of patent 14 years
(Cl. D81—1)



183,110
COMBINATION FLEXIBLE DISPENSING CLOSURE CAP AND SUPPORTING LOOP
Morton B. Stull, Garfield, N. J.
Application April 1, 1957, Serial No. 45,525
Term of patent 14 years
(Cl. D58—26)



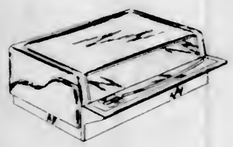
183,111
COMBINATION FLEXIBLE DISPENSING CLOSURE CAP AND SUPPORTING LOOP
Morton B. Stull, Garfield, N. J.
Application April 1, 1957, Serial No. 45,526
Term of patent 14 years
(Cl. D58—26)



183,112
NIB SECTION FOR A FOUNTAIN PEN
Arthur Winter, Weehawken, N. J.
Application February 12, 1957, Serial No. 44,841
Term of patent 14 years
(Cl. D74—17)



183,099
WEIGHING SCALE
Harold Lawrence King, Mount Vernon, N. Y.
Application May 20, 1957, Serial No. 46,231
Term of patent 3½ years
(Cl. D52—10)



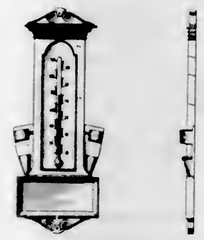
183,100
CHIME OR BELL INSTRUMENT VOLUME CONTROL FOR USE WITH AN ORGAN OR SIMILAR ARTICLE
Jacob T. Kunz, Collegeville, Pa., assignor to Schulmerich Electronics, Inc., Sellersville, Pa., a corporation of Pennsylvania
Application May 15, 1956, Serial No. 41,506
Term of patent 14 years
(Cl. D26—13)



183,101
HAND WASHBOARD
Antonio Longo, Cincinnati, Ohio
Application January 2, 1957, Serial No. 44,375
Term of patent 3½ years
(Cl. D49—1)



183,102
COMBINED THERMOMETER AND PENCIL HOLDER
Fred Lowenthal, New York, N. Y.
Application November 1, 1957, Serial No. 48,310
Term of patent 14 years
(Cl. D52—7)



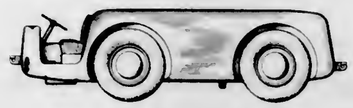
183,103
MOLDING FOR AN AUTOMOBILE
Clare M. MacKichan, Farmington, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 4, 1956, Serial No. 43,235
Term of patent 7 years
(Cl. D14—6)



183,104
FONT OF PHONETIC TYPE
Philip Tyler Mitchell, Sierra Madre, Calif.
Application June 10, 1957, Serial No. 46,528
Term of patent 14 years
(Cl. D64—12)



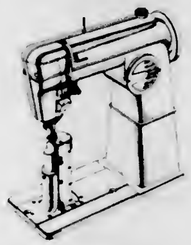
183,105
TOWING TRACTOR FOR AN AIRPLANE
Robert C. Norrie, Seattle, Wash., assignor to Pacific Car and Foundry Company, Seattle, Wash., a corporation of Washington
Application August 6, 1957, Serial No. 47,252
Term of patent 14 years
(Cl. D14—3)



183,106
BATHROOM SCALE
Joseph Palma, Jr., Wheaton, Ill., Courtney A. Leubner, Milwaukee, Wis., and Robert L. Deschamps, La Grange Highlands, Ill., assignors to The Brearley Company, Rockford, Ill., a corporation of Illinois
Application August 26, 1957, Serial No. 47,513
Term of patent 14 years
(Cl. D52—10)



183,107
SEWING MACHINE OR SIMILAR ARTICLE
Malcolm S. Park, Verplanck Point, N. Y., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 26, 1957, Serial No. 46,755
Term of patent 14 years
(Cl. D70—1)



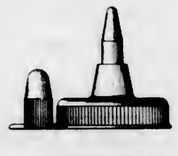
183,108
AIRCRAFT
Nathan C. Price, Mexico City, Mexico
Application June 11, 1956, Serial No. 41,846
Term of patent 14 years
(Cl. D71—1)



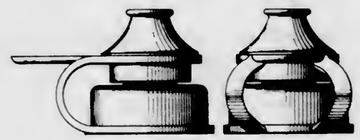
183,109
INCINERATOR
Nickolas Soltesz, Toledo, Ohio
Application December 19, 1957, Serial No. 48,965
Term of patent 14 years
(Cl. D81—1)



183,110
COMBINATION FLEXIBLE DISPENSING CLOSURE CAP AND SUPPORTING LOOP
Morton B. Stull, Garfield, N. J.
Application April 1, 1957, Serial No. 45,525
Term of patent 14 years
(Cl. D58—26)



183,111
COMBINATION FLEXIBLE DISPENSING CLOSURE CAP AND SUPPORTING LOOP
Morton B. Stull, Garfield, N. J.
Application April 1, 1957, Serial No. 45,526
Term of patent 14 years
(Cl. D58—26)



183,112
NIB SECTION FOR A FOUNTAIN PEN
Arthur Winter, Weehawken, N. J.
Application February 12, 1957, Serial No. 44,841
Term of patent 14 years
(Cl. D74—17)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 24TH DAY OF JUNE, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Avery, Robert W., to Burroughs Corp. Amplifier system using saturable magnetic elements. Re. 24,494, 6–24–58, Cl. 340—174.

Burroughs Corp.: *See*—
Avery, Robert W. Re. 24,494.

Gordon, Arthur, deceased, by G. E. Gordon, executrix. Supporting hanger for a closet bowl. Re. 24,492, 6–24–58, Cl. 4—252.

Gordon, Gerda E.: *See*—
Gordon, Arthur. Re. 24,492.

Philips, James M., to Salem-Brosius, Inc. Pallet with a collapsible container. Re. 24,493, 6–24–58, Cl. 220—6.

Salem-Brosius, Inc.: *See*—
Philips, James M. Re. 24,493.

LIST OF PLANT PATENTEES

Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,720, 6–24–58, Cl. 47—61.

Jackson & Perkins Co.: *See*—
Boerner, Eugene S. 1,720.

Mooney, Worth B., deceased, by M. R. Runty, executrix, to Stark Bro's Nurseries and Orchards Co. Apple tree. 1,721, 6–24–58, Cl. 47—62.

Runty, Mabel R.: *See*—
Mooney, Worth B. 1,721.

Stark Bro's Nurseries and Orchards Co.: *See*—
Mooney, Worth B. 1,721.

Tiret, Horace M. Fuchsia. 1,719, 6–24–58, Cl. 47—60.

LIST OF DESIGN PATENTEES

Anderson, Douglas W., to Burgess Vibrocrafters, Inc. Electric can opener. 183,077, 6–24–58, Cl. D22—2.

Anderson, Harold G., to The Brunhoff Mfg. Co. Combined magazine rack and stand for a room air conditioner or the like. 183,078, 6–24–58, Cl. D62—4.

Anthes, Jacob. Portable tube tester for vacuum tubes. 183,079, 6–24–58, Cl. D26—1.

Ashton, Walter G. Floor treating machine. 183,080, 6–24–58, Cl. D9—2.

Barton, Harold G. Staple extractor. 183,081, 6–24–58, Cl. D74—1.

Billig, Ralph B., and M. S. Ziskin. Ice bucket. 183,082, 6–24–58, Cl. D58—17.

Bonanno, Joseph L., to The Lionel Corp. Transformer. 183,083, 6–24–58, Cl. D26—15.

Brearley Co., The: *See*—
Palma, Joseph, Jr., Luebner, and Deschamps. 183,106.

Brunhoff Mfg. Co., The: *See*—
Anderson, Harold G. 183,078.

Burgess Vibrocrafters, Inc.: *See*—
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Cahn, Bernard, Co., Inc.: *See*—
Chase, Herbert S. 183,085.

Carlson, Clinton V., to Cosom Industries, Inc. Ball catching and throwing device. 183,084, 6–24–58, Cl. D34—5.

Chase, Herbert S., to Bernard Cahn Co., Inc. Wallet. 183,085, 6–24–58, Cl. D87—3.

Collins, Edward R., and W. H. Smaw. Broiler. 183,086, 6–24–58, Cl. D44—1.

Cosom Industries, Inc.: *See*—
Carlson, Clinton V. 183,084.

Deschamps, Robert L.: *See*—
Palma, Joseph, Jr., Leubner, and Deschamps. 183,106.

Disanza, Michael. Medallion or similar article. 183,087, 6–24–58, Cl. D29—19.

Ebert, Carl A. Plate holder. 183,088, 6–24–58, Cl. D44—10.

Eriksson, Ernst A., to Northern Industries, Inc. Drinking fountain. 183,089, 6–24–58, Cl. D91—4.

Freund, Dean H., to Whirlpool Corp. Washing machine or similar article. 183,090, 6–24–58, Cl. D49—1.

Gandy, Roy L.: *See*—
Heath, Edwin T., and Gandy. 183,094.

General Motors Corp.: *See*—
MacKichan, Clare M. 183,103.

Handzlik, Walter J., Jr., to Lyon Inc. Golf club head. 183,091, 6–24–58, Cl. D34—5.

Handzlik, Walter J., Jr., to Lyon Inc. Golf club head. 183,092, 6–24–58, Cl. D34—5.

Harris, William T. Head board. 183,093, 6–24–58, Cl. D5—4.

Heath, Edwin T., and R. I. Gandy, to Heath-Gandy Corp. Money box or similar article. 183,094, 6–24–58, Cl. D34—11.

Heath-Gandy Corp.: *See*—
Heath, Edwin T., and Gandy. 183,094.

Hesse, Edward L. Protective cover for a shirt. 183,095, 6–24–58. Cl. D58—12.

Hirschman, Irving. Spectacle temple. 183,096, 6–24–58, Cl. D57—1.

Holan, J. H., Corp.: *See*—
Holan, James H. 183,097.

Holan, James H., to J. H. Holan Corp. Derrick. 183,097, 6–24–58, Cl. D41—1.

Jacobs, Paul. Combined razor and blade receptacle. 183,098, 6–24–58, Cl. D4—3.

King, Harold L. Weighing scale. 183,099, 6–24–58, Cl. D52—10.

Kunz, Jacob T., to Schulmerich Electronics, Inc. Chime or bell instrument volume control for use with an organ or similar article. 183,100, 6–24–58, Cl. D26—13.

Leubner, Courtney A.: *See*—
Palma, Joseph, Jr., Leubner, and Deschamps. 183,106.

Lionel Corp., The: *See*—
Bonanno, Joseph L. 183,083.

Longo, Antonio. Hand washboard. 183,101, 6–24–58, Cl. D49—1.

Lowenthal, Fred. Combined thermometer and pencil holder. 183,102, 6–24–58, Cl. D52—7.

Lyon Inc.: *See*—
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Handzlik, Walter J., Jr. 183,092.

MacKichan, Clare M., to General Motors Corp. Molding for an automobile. 183,103, 6–24–58, Cl. D14—6.

Mitchell, Philip T. Font of phonetic type. 183,104, 6–24–58, Cl. D64—12.

Norrie, Robert C., to Pacific Car and Foundry Co. Towing tractor for an airplane. 183,105, 6–24–58, Cl. D14—3.

Northern Industries, Inc.: *See*—
Eriksson, Ernest A. 183,089.

Pacific Car and Foundry Co.: *See*—
Norrie, Robert C. 183,105.

Palma, Joseph, Jr., C. A. Leubner, and R. L. Deschamps, to The Brearley Co. Bathroom scale. 183,106, 6–24–58, Cl. D52—10.

Park, Malcolm S., to The Singer Mfg. Co. Sewing machine or similar article. 183,107, 6–24–58, Cl. D70—1.

Price, Nathan C. Aircraft. 183,108, 6–24–58, Cl. D71—1.

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Smaw, William H.: *See*—
Collins, Edward R., and Smaw. 183,086.

Soltesz, Nickolas. Incinerator. 183,109, 6–24–58, Cl. D81—1.

Stull, Morton B. Combination flexible dispensing closure cap and supporting loop. 183,110, 6–24–58, Cl. D58—26.

Stull, Morton B. Combination flexible dispensing closure cap and supporting loop. 183,111, 6–24–58, Cl. D58—26.

Whirlpool Corp.: *See*—
Freund, Dean H. 183,090.

Winter, Arthur. Nib section for a fountain pen. 183,112, 6–24–58, Cl. D74—17.

Ziskin, Manuel S.: *See*—
Billig, Ralph B., and Ziskin. 183,082.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 24TH DAY OF JUNE, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: *See*—
Brown, Morris C. 2,840,065.
Johnson, Eldon A., and White. 2,840,003.
Rayburn, Charles C., and Horsman. 2,840,134.

AMP Inc.: *See*—
Berg, Quentin. 2,839,824.

Abbott, Robert H., and G. M. Meisel. Expansible skewback buck stay bands. 2,840,364, 6–24–58, Cl. 263—26.

Abell, Donald E.: *See*—
Kenyon, Alonzo F., Abell, and Hull. 2,840,724.

Abitibi Power & Paper Co., Ltd.: *See*—
Stokes, Joseph L., and Attle. 2,840,127.

Abrahams, Alexander I.: *See*—
Schoengold, Herbert. 2,840,177.

Abrams, Edward, and N. H. Sherwood, to The B. F. Goodrich Co. Treatment of cellulosic yarns by rubbery material, and textiles thereof. 2,840,442, 6–24–58, Cl. 8—18.

Acme Steel Co.: *See*—
Reed, George H., and Porcelli. 2,839,753.

Adams, George L.: *See*—
Mullet, Leslie B., Loach, and Adams. 2840,788.

Adams, Horace B. Insulating frame construction. 2,839,789, 6–24–58, Cl. 20—4.

Adams, Walter, to Western Electric Co., Inc. Method of testing electrical devices. 2,840,784, 6–24–58, Cl. 324—158.

Adcock, Mack D., and L. A. Kurtz, to Hughes Aircraft Co. Hybrid tee type waveguide junction. 2,840,787, 6–24–58, Cl. 333—11.

Addressograph-Multigraph Corp.: *See*—
Morse, Lawrence H. 2,839,992.

Aero Zipp Fasteners Ltd.: *See*—
Backer, Joachim, and Koppel. 2,839,807.

Ahlgren, Axel W., and H. H. Ring, to Amerock Corp. Balancing mechanism. 2,839,938, 6–24–58, Cl. 74—99.

Air Associates, Inc.: *See*—
Linke, Ernest A. 2,840,205.

Air-O-Flex Equipment Co.: *See*—
Kostic, Walter A., and Buck. 2,840,250.

Air Preheater Corp., The: *See*—
Holm, Sven. 2,840,351.

Ajax Mfg. Co., The: *See*—
Mersek, Leo D. 2,840,381.

Akesson, Ivar W., to Chalmers Products Aktiebolag. Pressure oil burner for heavy oil. 2,840,148, 6–24–58, Cl. 158—76.

Aktiebolaget Gotaverken: *See*—
Johansson, Johan Erik. 2,840,060.

Alesi, John A. Compression molding apparatus. 2,839,786, 6–24–58, Cl. 18—16.

Alexander, John S., R. M. Winnan, and H. L. Majeske, to American Screen Products Co. Knockdown screen kit. 2,840,161, 6–24–58, Cl. 160—377.

Alexander Shipyard, Inc.: *See*—
Chapman, Gale H., and Durant. 2,840,027.

Alhand, Richard J., to Electric Eye Equipment Co. Automatic control system. 2,840,372, 6–24–58, Cl. 271—2.6.

Allen Electric & Equipment Co.: *See*—
Campbell, Byron F. 2,840,435.

Allis-Chalmers Mfg. Co.: *See*—
Roubal, Alexander J. 2,840,251.
Vogel, Fred J., and Moon. 2,840,790.
Washbond, Harry H. 2,839,850.

Allum, Robin D., and G. W. Helsby, to Automatic Telephone & Electric Co. Ltd. Telephone systems. 2,840,641, 6–24–58, Cl. 179—18.

Almestad, Henry C. Automobile fuel tank. 2,840,147, 6–24–58, Cl. 158—46.5.

Aluminum Co. of America: *See*—
Stroup, Philip T., and Brondyke. 2,840,463.

Alvarez-Tostado, Claudio: *See*—
Kempter, Charles P., and Alvarez-Tostado. 2,840,489.

Amana Refrigeration, Inc.: *See*—
Moore, Robert E., Bower, and Strub. 2,840,434.

American Can Co.: *See*—
Groves, James H. 2,840,264.
Jensen, Stephen F. 2,840,234.
Socke, John E. 2,840,373.

American Cyanamid Co.: *See*—
Bikales, Norbert M., and Miller. 2,840,611.
Carpenter, Erwin L. 2,840,592.
Kinstler, Robert C. 2,840,556.
Kinstler, Robert C., Barker, and Brunnstrom. 2,840,564.
Kinstler, Robert C. and Young. 2,840,563.
Price, John A., and Thomas. 2,840,550.

American Enka Corp.: *See*—
Breszeale, Francis B. 2,839,887.
De Langen, Lambertus H. 2,839,910.
De Wolf, Willem. 2,839,783.

American Flange & Mfg. Co., Inc.: *See*—
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American Hatchery Engineers, Inc.: *See*—
Morris, Robert C. 2,840,415.

American Home Products Corp.: *See*—
Dann, Morris, and Peterson. 2,840,075.

American Machine & Foundry Co.: *See*—
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Palmer, Warren G. 2,840,222.
Stevens, Clifford B. 2,840,287.

American Machine and Metals, Inc.: *See*—
Le Van, Ambrose E. 2,839,942.

American-Marietta Co.: *See*—
Benedict, Stephen W., and Camp. 2,839,811.

American Optical Co.: *See*—
Crandon, Harry D., and Burgess. 2,840,535.

American Potash & Chemical Corp.: *See*—
Orth, George O., Jr., and Spinelli. 2,840,478.
Stern, David R., and Schumacher. 2,840,519.

American Rock Wool Corp.: *See*—
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American Screen Products Co.: *See*—
Alexander, John S., Winnan, and Majeske. 2,840,161.

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Ammon, Roscoe A. Moving coil instrument. 2,840,767, 6–24–58, Cl. 317—166.

Ammon, Roscoe A. Electrical meter movement. 2,840,782, 6–24–58, Cl. 324—150.

Anderson, Clarence W. Supporting and centering clamps for cam blanks in cam cutting tools. 2,839,969, 6–24–58, Cl. 90—59.

Anderson, Paul T., and J. B. Ramsey, to Westinghouse Electric Corp. Ambient-compensated thermal overload relays. 2,840,664, 6–24–58, Cl. 200—113.

Anderson, Robert J. Sugar cane planter. 2,840,269, 6–24–58, Cl. 221—185.

Anderson, Thomas W. Weather strip for hinged doors. 2,839,797, 6–24–58, Cl. 20—68.

Anderson, V. E., Mfg. Co.: *See*—
Anderson, Victor E. 2,840,201.

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Andonov, Christ. Mechanical pencil. 2,840,042, 6–24–58, Cl. 120—143.

Andres, Roy K., and C. H. Backus, to Radio Corp. of America. Radio multiplex communication system. 2,840,815, 6–24–58, Cl. 343—200.

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Rabinow, Jacob, Andrews, and Bowling. 2,839,998.

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Armstrong, Gordon, Co., Inc., The: *See*—
Dorsak, John W., and Van Denberg. 2,840,417.

Arnett, Leslie, and W. G. Freise, to Square Mfg. Co. Beverage dispensing apparatus. 2,840,274, 6–24–58, Cl. 222—135.

Arnold, John H., to Hydrocarbon Research, Inc. Apparatus for partial combustion of gasiform hydrocarbons. 2,840,149, 6–24–58, Cl. 158—99.

Aron, Mitchell, and C. F. Miller, to Westinghouse Electric Corp. Electron discharge device. 2,840,736, 6–24–58, Cl. 313—6.

Aronberg, Lester. Soldering flux. 2,840,499, 6–24–58, Cl. 148—23.

Artino, Anthony. Mixing device. 2,840,358, 6–24–58, Cl. 259—130.

Ashworth, Winthrop F., to United-Carr Fastener Corp. Post office fastener. 2,840,409, 6–24–58, Cl. 292—317.

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Atherton, James E., Jr., and D. H. Gurinsky, to United States of America, Atomic Energy Commission. Inhibition of corrosion. 2,840,467, 6–24–58, Cl. 75—134.

Atkinson, William A. Mobile handling rack for differential gear unit. 2,840 345, 6–24–58, Cl. 254—2.

Atlantic Refining Co., The: *See*—
Coates, Joseph F., and Lincoln. 2,840,594.

Ator, Joe T., to General Controls Co. Flame responsive device using plugged compensatory tube. 2,840,145, 6–24–58, Cl. 158—28.

Attane, Edward C., Jr., and T. F. Doumani, to Union Oil Co. of California. Separation of dibasic acids. 2,840,607, 6–24–58, Cl. 260—537.

Attle, George: *See*—
Stokes, Joseph L., and Attle. 2,840,127.

Austin, Lewis M., to Owens-Illinois Glass Co. Glass rod and tube cutting mechanism. 2,839,871, 6–24–58, Cl. 49—48.

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Hurlburt, Wilbur F., Jr. 2,839,929.

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Babcock, Dean F., to Collins Radio Co. Mechanical filter frequency discriminator. 2,840,640, 6–24–58, Cl. 179—15.

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Brister, Paul M., and Singleton. 2,840,051.
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Durham, Edwin. 2,840,049.
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Rowand, Will H. 2,840,054.
Sprague, Theodore S., and Schoessow. 2,840,050.
Zoller, Ronald E. 2,840,057.

Bach, Jose C., to Sociedad Regular Colectiva J. y. L. Cervello. Powder devices. 2,840,277, 6–24–58, Cl. 222—193.

Backer, Joachim, and H. D. Koppel, to Aero Zipp Fasteners Ltd. Slider for a sliding clasp fastener. 2,839,807, 6–24–58, Cl. 24—205.15.

Bäcklin, Folke, B. L. Forsen, and P. Å. Löwnertz, to Yardney International Corp. Multi-cell electric batteries. 2,840,624, 6–24–58, Cl. 136—30.

Backus, Clyde H.: *See*—
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Baer, Henry, to Ulster Knife Co., Inc. Sheathed knives. 2,839,831, 6–24–58, Cl. 30—296.

Ballar, Charles O. Paper baler. 2,839,990, 6–24–58, Cl. 100—1.

Balle, John H.: *See*—
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Balley, Edwin M., Jr., to United States of America, Navy. Boresighting error detector. 2,840,810, 6–24–58, Cl. 343—17.7.

Bailey, Ray: *See*—
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Baillif, Ernest A., and A. D. Corn, to Whirlpool Corp. Ice cube ejector mechanism. 2,839,899, 6–24–58, Cl. 62—108.5.

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Leeds, Winthrop M., Baker, and Friedrich. 2,840,670.

Baldwin-Lima-Hamilton Corp.: *See*—
Dussling, Fred A. 2,840,025.
Lathrop, Robert P. 2,839,919.

Baldwin Piano Co., The: *See*—
Jones, Edward M. 2,839,960.

Balfour, Henry, & Co. Ltd.: *See*—
Meader, Campling W. 2,840,001.

Baljak Corp.: *See*—
Lefied Frank M. 2,840,224.

Ballard, Seaver A.: *See*—
Whetstone Richard R., and Ballard. 2,840,503.

Bard, Elmer H., to Geerpres Wringer Inc. Cart with adjustable handle. 2,840,384, 6–24–58, Cl. 280—47.37.

Barker, Robert S.: *See*—
Kinstler, Robert C., Barker, and Brunnstrom. 2,840,564.

Barnes, William E., to Sun Oil Co. Pipe calipering device. 2,839,837, 6–24–58, Cl. 33—178.

Barsky, George, to E. F. Drew & Co., Inc. Continuous method of treating glyceride oils. 2,840,585, 6–24–58, Cl. 260—410.7.

Baso Inc.: *See*—
Thornbery, John H. 2,840,095.

Batcheller, Hugh W., to Ark-Les Switch Corp. Electric junction block. 2,840,794, 6–24–58, Cl. 339—220.

Bateman, Lee J., to Hughes Aircraft Co. Voltage state to digital converter. 2,840,806, 6–24–58, Cl. 340—347.

Bates, Samuel E. Brake shoe spring tool. 2,839,820, 6–24–58, Cl. 29—227.

Baxter, Meriwether L., Jr., to The Gleason Works. Method and machine for making curved tooth gears. 2,839,873, 6–24–58, Cl. 51—33.

Bay, Kenneth K.: *See*—
Ocko, Richard, and Bay. 2,840,697.

Bazzuri, Louis A. Pocket insert. 2,839,758, 6–24–58, Cl. 2—279.

Beach, Robert E.: *See*—
Evans, Thomas, Cleveland, and Beach. 2,839,980.

Bean, Morris, & Co.: *See*—
Bean, Morris M. and X. L. 2,839,802.

Bean, Morris M. and X. L., to Morris Bean & Co. Method of casting metal. 2,839,802, 6–24–58, Cl. 22—209.

Bean, Xarifa L.: *See*—
Bean, Morris M. and X. L. 2,839,802.

Beasley, Max M. Backing fabric feed means for tufting machine and method. 2,840,019, 6–24–58, Cl. 112—79.

Beck, Arthur C., and J. L. Storr-Best, to International Standard Electric Corp. Radio transmitting installations. 2,840,696, 6–24–58, Cl. 250—17.

Becker, Alfred A. Step ladder slip-on platform. 2,840,291, 6–24–58, Cl. 228—60.

Beckwith-Arden Inc.: *See*—
Emerson, Cherry L., Jr. 2,840,492.

Bedford, Alda V., to Radio Corp. of America. Color television. 2,840,634, 6–24–58, Cl. 178—5.4.

Bedford, William A., Jr., to United-Carr Fastener Corp. Fastening device. 2,839,805, 6–24–58, Cl. 24—84.

Bee, Carl R., to American Flange & Mfg. Co., Inc. Retractable rigid spouts and mountings therefor. 2,840,280, 6–24–58, Cl. 222—478.

Begs Oil Tool Rentals, Inc.: *See*—
Snyder, Ernest F. 2,840,240.

Beihl, Clarence A. Pan handling device. 2,840,413, 6–24–58, Cl. 294—31.

Belk, Wilber C., to Food Machinery and Chemical Corp. Sizing machine. 2,840,236, 6–24–58, Cl. 209—84.

Bell Aircraft Corp.: *See*—
Hood, Gordon K., Jr., and O'Malley. 2,840,323.
Smith, Stanley W. 2,840,324.

Bell, Ernest P.: *See*—
Logue, Earl E., Jr., and Bell. 2,840,498.

Bell, Norton W., to Consolidated Electrodynamics Corp. Two-channel D. C. amplifiers. 2,840,646, 6–24–58, Cl. 179—171.

Bell Telephone Laboratories, Inc.: *See*—
Critchlow, George F. 2,840,648.
Cutler, Cassius C., Mendel, and Quate. 2,840,752.
Goddard, Charles T. 2,840,749.
Haugk, George, and Kennedy. 2,840,728.
Southworth, George C. 2,840,820.
Trouting, Robert G. 2,840,495.

Bellarts, Henry J., to United States of America, Atomic Energy Commission. Tube flanging apparatus having spiral cam actuated flanging rollers. 2,840,136, 6–24–58, Cl. 153—81.

Belliveau, Auber A.: *See*—
Hutchinson, John L., McLellan, and Belliveau. 2,839,778.

Bemis Bro. Bag Co.: *See*—
Scruggs, Thomas M. 2,840,117.

Bendix Aviation Corp.: *See*—
Chester, William H. 2,840,800.
Hemphill, Alfred A., and Tewksbury. 2,840,712.
Hemphill, Alfred A., and Tewksbury. 2,840,814.
Parsons, Darrell F. 2,840,110.
Roth, Walter L., and Bogdon. 2,840,629.
Roth, Wilfred, and Rich. 2,839,915.

Benedict, Stephen W., and P. T. Camp, to American-Marietta Co. Composition and method for curing concrete, said composition containing cyclized rubber and waxes. 2,839,811, 6–24–58, Cl. 25—154.

Benn, Charles C.: *See*—
Feltz, Urban J., and Benn. 2,840,405.

Benoit, Rafael. Shoelace structure. 2,839,804, 6–24–58, Cl. 24—73.

Bercovitz, Nathaniel, Jr., to Collins Radio Co. Photoelectric switching device for mechanical squelch. 2,840,698, 6–24–58, Cl. 250—20.

Berendt, Carl: *See*—
Demarest, Daniel D., Perkins, Karius, and Berendt. 2,839,780.

Berg, Quentin, to A M P Inc. Method of severing pin type connectors from strips thereof. 2,839,824, 6–24–58, Cl. 29—417.

Bergen Machine & Tool Co., Inc.: *See*—
Kovach, John E. 2,839,810.

Berlin & Jones Co., Inc.: *See*—
Fromm, Fred. 2,840,295.
Fromm, Fred. 2,840,296.

Berlin, Maier. Calendars. 2,839,859, 6–24–58, Cl. 40—112.

Berliner, Henry A. Method of manufacturing a structural panel. 2,839,812, 6–24–58, Cl. 25—154.

Berry, Dan E. Releasable coupling and safety sub. 2,840,168, 6–24–58, Cl. 166—219.

Berry, Francis G., to United States of America, Atomic Energy Commission. Photographic film developer. 2,840,471, 6–24–58, Cl. 96—66.

Berry, John E. Instructional building blocks. 2,839,841, 6–24–58, Cl. 35—18.

Best, Stanley G., to United Aircraft Corp. Servo control system for a variable pitch propeller. 2,840,170, 6–24–58, Cl. 170—160.2.

Better, Ralph H., W. E. Bradley, and M. Rubinoff, to Philco Corp. Magnetic core information storage systems. 2,840,801, 6–24–58, Cl. 340—174.

Bevan, James I. Clamshell earth-moving machine. 2,840,254, 6–24–58, Cl. 214—147.

Bianca, Edoardo. Mobile freight elevator. 2,840,187, 6–24–58, Cl. 187—7.

Bickford, Franklin H., to General Electric Co. Combination yoke clamp and terminal cover. 2,840,740, 6–24–58, Cl. 313—84.

Bigelow-Liptak Corp.: *See*—
Wolf, Ernest B. 2,840,017.

Bikales, Norbert M., and M. L. Miller, to American Cyanamid Co. Preparation of acrylamide. 2,840,611, 6–24–58, Cl. 260—561.

Billian, Donald L.: *See*—
Klikunas, Richard V., and Billian. 2,840,122.

Billingsley, William F., to The B. F. Goodrich Co. Tubeless tire and rim assembly. 2,840,133, 6–24–58, Cl. 152—396.

Binder, Richard, to Fichtel & Sachs A. G. Arrangement of leaf springs in centrifugal friction clutches. 2,840,209, 6–24–58, Cl. 192—105.

Bird, Jack R.: *See*—
Gresham, Harold E., Wheeler, and Bird. 2,840,469.

Birdsboro Steel Foundry and Machine Co.: *See*—
Peterson, Edward C. 2,839,956.

Bishop, Everett D. Window construction. 2,839,794, 6–24–58, Cl. 20—52.2.

Bishop, Jerald W., to Richardson Mfg. Co. Sickle guard extension for cutter bar. 2,839,884, 6–24–58, Cl. 56—318.

Blaauw, Andrew: *See*—
Findley, George W., and Blaauw. 2,840,418.

Blackburn, Charles W., and H. D. Maresh, to Phillips Petroleum Co. Fluid dispensing apparatus. 2,840,272, 6-24-58, Cl. 222—76.

Blankenbaker, John V., to Hughes Aircraft Co. Frequency to digital conversion. 2,840,709, 6-24-58, Cl. 250—27.

Blaskowski, Henry J., to Combustion Engineering, Inc. Method and apparatus for generating steam. 2,840,055, 6-24-58, Cl. 122—479.

Blaw-Knox Co.: *See*—
Karnofsky, George B. 2,840,459.
Pottmeyer, Edward W. 2,840,046.

Blumenfeld, Murray H.: *See*—
Carrion, Joseph. 2,840,044.

Bobrick, Mitchell, and J. H. Feig, to Marvin Electric Mfg. Co. Recessed lighting fixture. 2,840,691, 6-24-58, Cl. 240—78.

Boeing Airplane Co.: *See*—
Drakeley, George T. 2,839,891.
Fuller, Fred H. 2,839,836.
Hanger, Randolph T. 2,839,953.
Steidl, Robert H. 2,840,259.

Boettcher, Stephens A., to Crane Packing Co. Lapping machine. 2,839,877, 6-24-58, Cl. 51—131.

Bogdon, Andrew A.: *See*—
Roth, Walter L., and Bogdon. 2,840,629.

Bok, Edward and H. F. Evaporating devices. 2,840,681, 6-24-58, Cl. 219—38.

Bok, Hendrik F.: *See*—
Bok, Edward and H. F. 2,840,681.

Bolesiav, Ales, to Tesla, narodni podnik. Device for the reproduction of sound. 2,840,178, 6-24-58, Cl. 181—31.

Boling, Cecil: *See*—
Ghai, Madan L., and Boling. 2,840,352.

Bolles, Julius H., and L. A. Rice, to General Motors Corp. Tensioning device. 2,840,768, 6-24-58, Cl. 317—198.

Booth, Harry T., T. J. Lord, and P. R. Hughes, to United Aircraft Products. Oil tank with pressurized hopper. 2,840,068, 6-24-58, Cl. 123—196.

Borg-Warner Corp.: *See*—
Farrell, Eugene F. 2,839,826.
Zeidler, Reinhold C., and Lysett. 2,840,208.

Born, John W.: *See*—
Jenkins, Cecil, Born, Woolslayer, and Maxwell. 2,840,197.
Woolslayer, Homer J., Jenkins, Maxwell, and Born. 2,840,198.

Born, William F., and J. B. Wallace, to Westinghouse Electric Corp. Bus duct. 2,840,630, 6-24-58, Cl. 174—100.

Boruvka, Otto. Trouser remover. 2,840,285, 6-24-58, Cl. 223—111.

Boscarino, Joseph, Jr. Automatic self feed wax applier. 2,839,770, 6-24-58, Cl. 15—131.

Bottoms, Robert R., to National Cylinder Gas Co. Production of thymol. 2,840,616, 6-24-58, Cl. 260—626.

Boughton, Frank E. Envelope inserting machine. 2,839,880, 6-24-58, Cl. 53—188.

Bower, Warren R.: *See*—
Moore, Robert E., Bower, and Strub. 2,840,434.

Bowling, John W.: *See*—
Rabinow, Jacob, Andrews, and Bowling. 2,839,998.

Bradford, John A., to Food Machinery and Chemical Corp. Conveyor. 2,840,090, 6-24-58, Cl. 134—151.

Bradley, Robert O., and B. E. Robinson, to Toledo Scale Corp. Printing plate and holder therefor. 2,839,995, 6-24-58, Cl. 101—378.

Bradley, William E.: *See*—
Better, Ralph H., Bradley, and Rubinoff. 2,840,801.

Brancato, Leo J., to Heil-Coil Corp. Inserting tool for push-in inserts. 2,839,823, 6-24-58, Cl. 29—275.

Branch, Maurice C., to International Standard Electric Corp. Variable impedance circuit. 2,840,702, 6-24-58, Cl. 250—27.

Brand, Benson G.: *See*—
Johnston, Herbert N., Brand, and Lincoln. 2,840,138.

Brandt, David E., Jr., D. R. Fraser, and F. D. Seaman, to United States of America, Navy. Reduction of rotating tip clearance using segmented wear strips. 2,840,343, 6-24-58, Cl. 253—77.

Brazier, Halworth T. Water-line breaker. 2,840,099, 6-24-58, Cl. 137—216.

Breazeale, Francis B., to American Enka Corp. Thread guide. 2,839,887, 6-24-58, Cl. 57—106.

Breeback, Rudolph H., to Crown Cork & Seal Co., Inc. Liquid filling system. 2,840,098, 6-24-58, Cl. 137—170.1.

Brennan, Harry M., H. S. Seelig, and R. W. Vander Haar, to Standard Oil Co. Impregnated platinum-alumina catalysts. 2,840,514, 6-24-58, Cl. 196—50.

Brennan, Harry M., H. S. Seelig, and R. W. Vander Haar, to Standard Oil Co. Promoted platinum-alumina catalysts. 2,840,527, 6-24-58, Cl. 252—438.

Brenner, Bert, to Sigmund Cohn Corp. Novel gold alloys and potentiometer wires produced from them. 2,840,468, 6-24-58, Cl. 75—165.

Brettell, George A., Jr.: *See*—
Hartig, Henry E., and Brettell. 2,839,839.

Brinker, John H., and L. A. Ehrhart, to The Globe-Wernicke Co. Shelf for partition structure. 2,840,243, 6-24-58, Cl. 211—135.

Brister, Paul M., and J. C. Singleton, Jr., to The Babcock & Wilcox Co. Convection fluid heat exchange unit with integral soot blowers. 2,840,051, 6-24-58, Cl. 122—392.

Broddon, Norman C. Article holder for truck rack. 2,840,288, 6-24-58, Cl. 224—42.1.

Broderick, Owen. Shingling brackets. 2,840,424, 6-24-58, Cl. 304—20.

Brodie, James H. Incinerator charging apparatus. 2,840,249, 6-24-58, Cl. 214—35.

Brondyke, Kenneth J.: *See*—
Stroup, Philip T., and Brondyke. 2,840,463.

Broughton, Donald B.: *See*—
Gerhold, Clarence G., and Broughton. 2,840,620.

Brouillard, Robert E., T. D. Mataffis, and M. O. Shrader. Acid milling of phthalocyanine pigments. 2,840,568, 6-24-58, Cl. 260—314.5.

Browall, Bert H., to Technica Establishment. Packing for pistons. 2,840,428, 6-24-58, Cl. 309—23.

Browder, Jewel D. Electrode very low frequency radio receiving antenna for submarines. 2,840,700, 6-24-58, Cl. 250—20.

Brower, David F., and R. H. Griest, to Hughes Aircraft Co. Integral transformer electromagnetic transducer. 2,840,643, 6-24-58, Cl. 179—100.2.

Brown & Bigelow: *See*—
Fry, Clair V. 2,839,860.

Brown, Cicero C. Cross-over well apparatus. 2,840,167, 6-24-58, Cl. 166—152.

Brown, Lloyd H., E. A. Reineck, and P. G. Huett, to The Quaker Oats Co. Artificial resin from furfuryl alcohol, formaldehyde, and magnesium sulfate, and process of making the same. 2,840,543, 6-24-58, Cl. 260—67.

Brown, Morris C., to ACF Industries, Inc. Heat control for automatic choke thermostat. 2,840,065, 6-24-58, Cl. 123—119.

Brown, Myron J., to Westinghouse Electric Corp. Voltage balancing system. 2,840,723, 6-24-58, Cl. 307—57.

Brown, William B.: *See*—
Emerson, William A., Brown, and Kuhne. 2,840,677.

Brown, William V., to Rohm & Haas Co. Preparation of potassium dinitrocyanomethide. 2,840,591, 6-24-58, Cl. 260—465.1.

Brunnstrom, Gosta: *See*—
Kinstler, Robert C., Barker, and Brunnstrom. 2,840,564.

Bryan, Artis C., to Truckstell Mfg. Co. Control apparatus for clutching devices. 2,839,940, 6-24-58, Cl. 74—359.

Bryant Chucking Grinder Co.: *See*—
Maker, Paul. 2,839,874.

Buchi, Alfred. Internal combustion engines. 2,840,059, 6-24-58, Cl. 123—32.

Buck, Andrew P. W.: *See*—
Kostick, Walter A. and Buck. 2,840,250.

Buckeye Iron & Brass Works: *See*—
Klikunas, Richard V., and Billian. 2,840,122.

Buckwalter, Jacob S., and C. Mellinger. Pawl and ratchet actuated roller type tube bender. 2,839,957, 6-24-58, Cl. 81—15.

Budai, Steve G., to The Globe-Wernicke Co. Modular office work space and partition structure. 2,840,431, 6-24-58, Cl. 312—111.

Budd Co., The: *See*—
Dean, Albert G., and Leas. 2,840,192.
Eggert, Walter S., Jr. 2,840,026.
Weglarz, Walter P. 2,840,651.

Budreck, Frances, to Power Brake Parts Mfg. Co. Collapsible rear view mirror structure for use with a tractor-trailer combination. 2,839,965, 6-24-58, Cl. 88—98.

Buell, Richard W., W. A. Lobdell, and G. W. Wrinn, to Claude Sintz, Inc. Throttle control linkage adjustment. 2,839,949, 6-24-58, Cl. 74—586.

Bulsman, Jan A. K.: *See*—
Koevoet, Arie L., Verloop, and Bulsman. 2,840,575.

Bullard Brothers Co.: *See*—
Schermerhorn, James R. 2,840,286.

Bundy, John H., to Western Electric Co., Inc. Bending tool for shaping electrical conductors. 2,839,958, 6-24-58, Cl. 81—15.

Burg, Anton B., and N. R. Davidson, to United States of America, War. Preparation of disulfur decafluoride. 2,840,457, 6-24-58, Cl. 23—205.

Burgess, Thomas E.: *See*—
Crandon, Harry D., and Burgess. 2,840,535.

Burgison, Raymond M.: *See*—
Krantz, John C., Jr., Burgison, and Hager. 2,840,559.

Burlington Industries, Inc.: *See*—
Butler, Vaughn H. 2,839,907.

Burman, Joseph O., to Progressive Machinery Corp. Stock-feeding apparatus. 2,840,369, 6-24-58, Cl. 271—2.4.

Burndy Engineering Co. Inc.: *See*—
Piccione, Nicholas E. 2,840,674.

Burns, Leslie L., Jr., to Radio Corp. of America. Color image reproduction apparatus. 2,840,635, 6-24-58, Cl. 178—5.4.

Burroughs Corp.: *See*—
Martin, Joseph M. 2,840,672.
Mathamel, Flavius A., and Emery. 2,840,204.
Myers, Harold B. 2,840,083.
Vander Tuin, John, and Payne. 2,840,237.
Youngquist, Vincent R. 2,840,393.

Burrows, Godfrey, to General Motors Corp. Frame members. 2,840,388, 6-24-58, Cl. 280—106.

Burton, Edward F. Flexible shaft power tool. 2,840,673, 6-24-58, Cl. 200—157.

Burton, Walter C. C., Jr. Interchangeable anti-slip shoe sole attachment. 2,839,845, 6-24-58, Cl. 36—7.7.

Burton, William P., and C. E. Slyngstad, to The M. W. Kellogg Co. Stabilization of furnace oil by hydrotreating to remove sulfur and gum. 2,840,512, 6-24-58, Cl. 196—24.

Buser Fritz Maschinen-und Apparatebau: *See*—
Voegelin, Heinrich. 2,839,813.

Butcher, William H. M., to The General Electric Co., Ltd. Heating apparatus. 2,840,683, 6-24-58, Cl. 219—43.

Butler, Vaughn H., to Burlington Industries, Inc. Automatic length control mechanism for knitting machines. 2,839,907, 6-24-58, Cl. 66—55.

Buvelot, John A.: *See*—
Polanin, Walter R., and Buvelot. 2,840,190.

Bychinsky, Wilfred A.: *See*—
Candellse, Alfred, and Bychinsky. 2,840,628.

Cadwell, Carl L.: *See*—
Derr, Willard A., and Cadwell. 2,840,802.

Caesar, Orville S., and J. G. Stieber, to The Greyhound Corp. Ash receptacle. 2,840,258, 6-24-58, Cl. 220—18.

Caldwell, Lewis E., and E. O. Hausmann; said Caldwell assor. to Westinghouse Electric Corp., and said Hausmann assor. to Continental-Diamond Fibre Division of The Budd Co., Inc. Molded article of manufacture and method of making the same. 2,839,943, 6-24-58, Cl. 14—445.

Calfee, Virgil T., to Powerscope, Inc. Motion translating device. 2,839,937, 6-24-58, Cl. 74—61.

Callais, Roy A. Chair mounted clothes rack. 2,840,241, 6-24-58, Cl. 211—86.

Camp, Paul T.: *See*—
Benedict, Stephen W., and Camp. 2,839,811.

Campbell, Byron F., to Allen Electric & Equipment Co. Cabinet structure for a testing apparatus. 2,840,435, 6-24-58, Cl. 312—279.

Campbell, Donald A., and J. V. Margason, to Eclipse Fuel Engineering Co. Fluid proportioning apparatus. 2,840,153, 6-24-58, Cl. 158—119.

Campbell, John F. Variable area scheduling valve. 2,840,107, 6-24-58, Cl. 137—540.

Campbell, Willis S. Dynamic multiplier circuit. 2,840,307, 6-24-58, Cl. 235—61.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Magnetic recorder sound unit. 2,840,380, 6-24-58, Cl. 274—4.

Camras, Marvin, to Armour Research Foundation of Illinois Institute of Technology. Magnetic transducing assembly. 2,840,642, 6-24-58, Cl. 179—100.2.

Candellse, Alfred, and W. A. Bychinsky, to General Motors Corp. Spark plug. 2,840,628, 6-24-58, Cl. 174—35.

Capewell Mfg. Co., The: *See*—
Warner, Alden Y., Craven, and Stacherl. 2,839,809.

Caracristi, Virginius Z., to Combustion Engineering, Inc. Combustion zone control. 2,840,053, 6-24-58, Cl. 122—478.

Carlson, David G., to Hoffman Electronics Corp. Glow plug ignition systems or the like. 2,840,067, 6-24-58, Cl. 123—145.

Carpenter, Erwin L., to American Cyanamid Co. Production of acrylonitrile. 2,840,592, 6-24-58, Cl. 260—465.3.

Carpenter, Frank C., Jr., to Hoffman Electronics Corp. Transistor squelch system or the like. 2,840,699, 6-24-58, Cl. 250—20.

Carpenter, William P., to The Superior Electric Co. Remote electrical control. 2,840,765, 6-24-58, Cl. 315—276.

Carr, James P., to Food Machinery and Chemical Corp. Spraying apparatus. 2,840,300, 6-24-58, Cl. 230—235.

Carrion, Joseph, 15% to M. H. Blumenfeld. Servo braking control device for selective slow and high speed braking operation. 2,840,044, 6-24-58, Cl. 121—38.

Carroll, Ellsworth W., to S & W Fine Foods, Inc. Fruit orientators. 2,840,221, 6-24-58, Cl. 198—33.

Carruthers, Eben H. Machine for packing a predetermined weight of bulk products. 2,840,121, 6-24-58, Cl. 141—164.

Casey, Charles L., and R. G. Doell. Tissue dispenser. 2,840,268, 6-24-58, Cl. 221—49.

Castle, William S., and J. M. Wetzler, to General Motors Corp. Heated compressor vane. 2,840,298, 6-24-58, Cl. 230—132.

Caswell, Arthur S., to I-T-E Circuit Breaker Co. Circuit breaker racking mechanism. 2,840,653, 6-24-58, Cl. 200—50.

Cate, Robert M. Demolition firing device. 2,839,996, 6-24-58, Cl. 102—16.

Cauthen, David. Tripod and camera interconnecting head. 2,840,334, 6-24-58, Cl. 248—187.

Cejka, Joseph B., to General Bronze Corp. Radio antenna. 2,840,816, 6-24-58, Cl. 343—715.

Celanese Corp. of America: *See*—
Stautzenberger, Adin L. 2,840,615.
Weber, Harold, and Palat. 2,839,784.

Cepco, Inc.: *See*—
Wong, Herbert K. 2,840,200.

Chalmers Products Aktiebolag: *See*—
Akesson, Ivar W. 2,840,148.

Chamberlin, Earl M., and J. M. Chemerda, to Merck & Co., Inc. Chemical compounds and processes for preparing the same. 2,840,572, 6-24-58, Cl. 260—397.1.

Chamberlin, James A., and A. L. Sweet to General Electric Co. Shock-responsive inertia mechanism. 2,839,947, 6-24-58, Cl. 74—527.

Chamberlin, Margaret S.: *See*—
Chan, Charles R., and Woolley. 2,840,056.

Chan, Charles R., and C. H. Woolley, deceased, by M. S. Chamberlin, executrix, to The Babcock & Wilcox Co. Stoker fired steam generating unit with double convection section. 2,840,056, 6-24-58, Cl. 122—480.

Chapellier, Robert A., to Combustion Engineering, Inc. Automatic coupling or latching mechanism. 2,840,398, 6-24-58, Cl. 287—20.5.

Chapman, Gale H., and L. B. Durant, 50% to Mississippi Towing Corp., and 50% to Alexander Shipyard Inc. Barge construction. 2,840,027, 6-24-58, Cl. 114—73.

Chayne, Charles A., and M. A. Thorne, to General Motors Corp. Torsion spring rear suspension. 2,840,368, 6-24-58, Cl. 267—57.

Chemac Co., The: *See*—
Fein, Ely. 2,840,562.

Chemerda, John M.: *See*—
Chamberlin, Earl M., and Chemerda. 2,840,572.

Chemerda, John M., and W. V. Ruyle, to Merck & Co., Inc. Process for producing Δ7-3-hydroxy steroids. 2,840,574, 6-24-58, Cl. 260—397.2.

Cherry, Sidney J., and W. A. Gerard, to Westinghouse Electric Corp. Coaxial filament connector. 2,840,748, 6-24-58, Cl. 313—273.

Chester, William H., to Bendix Aviation Corp. Frequency error compensation in F. M. systems. 2,840,800, 6-24-58, Cl. 340—174.

Chicago Bridge and Iron Co.: *See*—
Lankenau, Henry G. 2,840,154.

Chisholm, Douglas S., and D. F. Hall, to The Dow Chemical Co. Method of producing titanium. 2,840,465, 6-24-58, Cl. 75—84.5.

Chouinard, Alfred F., and E. P. Spencer to National Cylinder Gas Co. Adjuvant powder control for flame cutting. 2,840,016, 6-24-58, Cl. 110—22.

Christensen, Bruce V., and P. F. McAdams, to Clark Equipment Co. Adjustable bulldozer. 2,839,849, 6-24-58, Cl. 37—144.

Christoff, Chris A., to Clary Corp. Reversible counter mechanism. 2,840,310, 6-24-58, Cl. 235—79.

Church, Joseph H., and G. J. Kessenich, to United States of America, Army. Shaped charges. 2,839,997, 6-24-58, Cl. 102—24.

Ciba Ltd.: *See*—
Kraehenbuehl, Emil. 2,840,444.
Sutter, Paul. 2,840,560.

Cibuskis, Walter, M. Shacat, and H. Mahlstedt, to Metal & Thermit Corp. Lead anode for chromium plating. 2,840,523, 6-24-58, Cl. 204—286.

Clark Equipment Co.: *See*—
Christensen, Bruce V., and McAdams. 2,839,849.

Clark, Lawrence, and A. C. Poshkus, to Armstrong Cork Co. Method of using ammonium alum in discoloration reduction of foamed vinyl chloride polymers. 2,840,534, 6-24-58, Cl. 260—2.5.

Clark, Millard J. Hygienic pad. 2,840,080, 6-24-58, Cl. 128—296.

Clark, Trevor H., to International Telephone and Telegraph Corp. Radio direction finder. 2,840,813, 6-24-58, Cl. 343—120.

Clarke, Edwin L., to Smiths America Corp. Magnetic amplifiers. 2,840,778, 6-24-58, Cl. 323—89.

Clary Corp.: *See*—
Christoff, Chris A. 2,840,310.

Classen, Raymond J. Internal combustion engine system. 2,840,062, 6-24-58, Cl. 123—6.5.

Cleveland, Rex: *See*—
Evans, Thomas, Cleveland, and Beach. 2,839,980.

Cleveland Rock Drill Division, Westinghouse Air Brake Co.: *See*—
Feucht, Jacob E. 2,840,347.

Clifton, Enoch M. Tree holder. 2,840,331, 6-24-58, Cl. 248—48.

Cline, Leon E., to Owens-Illinois Glass Co. Glass cane and tube severing apparatus. 2,839,872, 6-24-58, Cl. 49—48.

Clymer, Joseph D., to Tokheim Corp. Safety disconnect valve with swivel joints. 2,840,108, 6-24-58, Cl. 137—565.

Coates, Joseph F., and R. M. Lincoln, to The Atlantic Refining Co. Polyethoxy tertiary-alkyl benzoates. 2,840,594, 6-24-58, Cl. 260—476.

Cobb, James W., Jr. Beverage bottle case. 2,840,256, 6-24-58, Cl. 220—4.

Cogley, Vaughn J. Combination rail and ladder for bunk beds. 2,839,765, 6-24-58 Cl. 5—317.

Cohen, Hyam. Pocket book structure. 2,840,437, 6-24-58, Cl. 312—319.

Cohn Sigmund Corp.: *See*—
Brenner, Bert. 2,840,468.

Cole, E. K., Ltd.: *See*—
Reeves, Raymond J. D. 2,840,756.

Collier Carbon and Chemical Corp.: *See*—
McKinnis, Art C. 2,840,597.

Collings, Ova J. Building sheet construction. 2,839,790, 6-24-58 Cl. 20—4.

Collins Radio Co.: *See*—
Babcock, Dean F. 2,840,640.
Bercovitz, Nathaniel, Jr. 2,840,698.
Nordstrom, Gordon J. 2,840,774.
Wulfsberg, Arthur H. 2,840,713.
Wulfsberg, Paul G. 2,840,714.

Collins, Robert E., and V. L. Plagge, to Westinghouse Electric Corp. Lamp envelope coating, and method of applying. 2,840,490, 6-24-58, Cl. 117—124.

Collins, Sarrah L.: *See*—
Walsh, Loren. 2,839,983.

Colton, Frank B., to G. D. Searle & Co. Derivatives of 13-methyl - 17 - hydroxy - 1,2,3,6,7,8,9,10,11,12,13,14,16,17-tetradecahydro - 15 H - cyclopenta [a] phenanthren-3-ones. 2,840,582, 6-24-58, Cl. 260—397.47.

Combustion Engineering, Inc.: *See*—
Blaskowski, Henry J. 2,840,055.
Caracristi, Virginius Z. 2,840,053.
Chapellier, Robert A. 2,840,398.
Huet, Andre. 2,839,818.
Jackson, Alonso C. and F. B., and Lasater. 2,840,150.
Jackson, Francis B. 2,840,151.
Schroeder, Henry. 2,840,048.

Compagnie Francaise des Matieres Colorantes: *See*—
Sureau, Robert F. M., and Mingasson. 2,840,552.

Compagnie Industrielle Des Piles Electriques Cipel: *See*—
Portail, Fernand. 2,840,626.

Compton, Jack, and C. P. Jones, to Institute of Textile Technology. Process of cyanoethylating native cotton fibers with an aqueous emulsion of sodium hydroxide and acrylonitrile. 2,840,446, 6-24-58, Cl. 8—120.

Condon, James W., to Westinghouse Electric Corp. Acid copper addition agents and plating electrolytes embodying the same. 2,840,518, 6-24-58, Cl. 204—52.

Congoleum-Nairn Inc.: *See*—
Worts, Francis J. 2,840,137.

Consolidated Electrodynamics Corp.: *See*—
Bell, Norton W. 2,840,646.
Hickman, Kenneth C. D. 2,840,297.
Sandiford, Robert E. 2,840,708.

Consolidated Electronics Industries Corp.: *See*—
Kavanaugh, Richard J., King, and van Lieshout. 2,840,773.

Continental-Diamond Fibre Division of The Budd Co., Inc.: *See—*
Caldwell, Lewis S., and Hausmann. 2,839,943.

Continental Oil Co.: *See—*
De Witte, Leendert. 2,840,717.
Feighner, George C., and Shotts. 2,840,604.
Shock D'Arcy A., and Sudbury. 2,840,477.

Conway, Thomas J., and A. W. Keema. Urinal bag. 2,840,079, 6–24–58, Cl. 128—295.

Cook, Edward G.: *See—*
Van Valkenburg, Howard E., and Cook. 2,839,916.

Cooke, Bryan: *See—*
Learmonth, William, and Cooke. 2,840,262.

Cooley, Hal, to W. L. Thompson. Motion picture electric circuit control apparatus. 2,840,659, 6–24–58, Cl. 200—87.

Cooper, Frank, and H. Malbon, to National Research Development Corp. Magnetic storage system. 2,840,798, 6–24–58, Cl. 340—174.

Corbin, Russell G., and B. D. Priestman, to General Motors Corp. Tail gate latch. 2,839,912, 6–24–58, Cl. 70—141.

Corn, Adolph D.: *See—*
Baillif, Ernest A., and Corn. 2,839,899.

Cornelius, George W., to Holley Carburetor Co. Self-contained fuel shut-off device. 2,840,359, 6–24–58, Cl. 261—41.

Corson, Ben B., W. J. Heintzelman, and R. C. Odioso, to Koppers Co., Inc. Separation of dialkylaromatic hydrocarbon isomers. 2,840,621, 6–24–58, Cl. 260—674.

Cotton, William, Ltd.: *See—*
McCarthy, Patrick G., and Winfield. 2,839,908.

Coulter, Earl E., W. H. Rowand, and T. S. Sprague, to The Babcock & Wilcox Co. Evaporator cooler and method effected thereby. 2,840,182, 6–24–58, Cl. 183—26.

Courtright, John L.: *See—*
Todd, Francis C., and Courtright. 2,840,807.

Coven, Murray, and F. T. Wiebl. Stroller. 2,840,383, 6–24–58, Cl. 280—41.

Crandon, Harry D., and T. E. Burgess, to American Optical Co. Aryl phosphate plasticized alkyd resin adhesive compositions and method of preparing. 2,840,535, 6–24–58, Cl. 260—30.6.

Crane Packing Co.: *See—*
Boettcher, Stephena A. 2,839,877.

Craven, Wilbur J.: *See—*
Warner, Alden Y., Craven, and Stacherl. 2,839,809.

Crawford, H. E., Co., Inc.: *See—*
Crawford, Herman E. 2,839,906.

Crawford, Herman E., to H. E. Crawford Co., Inc. Widening and narrowing means for circular knitting machines. 2,839,906, 6–24–58, Cl. 66—48.

Crawford, Robert J., V. A. Engelhardt, and H. E. Holmquist, to E. I. du Pont de Nemours and Co. Preparation of 4-ketooctanedioic acids by hydrogenating certain dilactones with a palladium catalyst. 2,840,608, 6–24–58, Cl. 260—537.

Critchlow, George F., to Bell Telephone Laboratories, Inc. Electric signal transmission. 2,840,648, 6–24–58, Cl. 179—171.

Croskey, Frank A., and C. D. Tuttle, to General Motors Corp. High tension circuit breaker system. 2,840,658, 6–24–58, Cl. 200—82.

Crost, Munsey E., to United States of America, Army. Sampling circuit. 2,840,706, 6–24–58, Cl. 250—27.

Crown Cork & Seal Co., Inc.: *See—*
Breeback, Rudolph H. 2,840,098.

Crown Zellerbach Corp.: *See—*
David, Frank A., Jr. 2,839,881.
Goheen, David W. 2,840,614.

Cantor, Frank. Tape winding bar loader and unloader. 2,840,320, 6–24–58, Cl. 242—68.

Cunningham, Francis V. to McGraw-Edison Co. Lightning arrester. 2,840,747, 6–24–58, Cl. 313—231.

Currie, Gilbert, to Westinghouse Electric Corp. Electromagnetic operator. 2,840,769, 6–24–58, Cl. 317—198.

Cutler, Cassius C., J. T. Mendel, and C. F. Quate, to Bell Telephone Laboratories, Inc. Backward wave tube. 2,840,752, 6–24–58, Cl. 315—3.6.

Dailey, Hampton J., deceased, by R. M. Dailey, to Westinghouse Electric Corp. Resnatron construction. 2,840,753, 6–24–58, Cl. 315—5.24.

Dailey, Ruth M.: *See—*
Dailey, Hampton J. 2,840,753.

Danforth Anchors: *See—*
Ogg, Robert D. 2,840,029.

Danias, Spiro G. Water level indicator for automobile radiators. 2,840,034, 6–24–58, Cl. 116—118.

Danko, Michael, ½, to J. E. Wade. Storage and dispensing receptacle for rolled paper. 2,840,319, 6–24–58, Cl. 242—55.3.

Dann, Morris, and J. J. Peterson, to American Home Products Corp. Blood telltale syringe. 2,840,075, 6–24–58, Cl. 128—218.

Darnell, George, W. Davis, and S. D. Yarm, to Lirita Corp. Paint spray masking device. 2,840,039, 6–24–58, Cl. 118—505.

David, Andrew M. Nail clipper. 2,839,827, 6–24–58, Cl. 30—28.

David, Frank A., Jr., to Crown Zellerbach Corp. Container closing device. 2,839,881, 6–24–58, Cl. 53—287.

Davidson, Norman R.: *See—*
Burg, Anton B., and Davidson. 2,840,457.

Davidson, Theodore D.: *See—*
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Davis, Alfred, to United States of America, Army. Electromechanical means of generating subsonic energy. 2,840,176, 6–24–58, Cl. 101—.5.

Davis, John S., to Equitable Paper Bag Co., Inc. Mailing container. 2,840,294, 6–24–58, Cl. 229—37.

Davis, Walter: *See—*
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Dawson, Ernest D., to Radio Corp. of America. Uni-control tuning mechanism for multi-band signal receivers and the like. 2,839,936, 6–24–58, Cl. 74—10.54.

D'Azzo, Errol P. Non-sagging loading dock canopy frame. 2,840,091, 6–24–58, Cl. 135—5.

D'Azzo, Errol P. Clamping structure for tubular bars. 2,840,400, 6–24–58, Cl. 287—055.

Dean, Albert G., and F. S. Leas, Jr., to The Budd Co. Motorbrake mount for power driven truck. 2,840,192, 6–24–58, Cl. 188—59.

De Bastos, Emil N., and A. W. Weller, to Resina Automatic Machinery Co., Inc. Container capping machines. 2,839,882, 6–24–58, Cl. 53—315.

De Blasio, Conrad G. Direct current power source. 2,840,777, 6–24–58, Cl. 323—22.

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Harrington, Roy E. 2,840,140.

Deere, John, Van Brunt Co.: *See—*
Schnell, Ernst E. 2,840,282.

Deere Mfg. Co.: *See—*
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De Langen, Lambertus H., to American Enka Corp. Apparatus for the wet treatment of yarns in warp form. 2,839,910, 6–24–58, Cl. 68—181.

Delfs, Detlef: *See—*
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Demblak, Matthew. Method of making hollow plastic or rubber articles. 2,839,788, 6–24–58, Cl. 18—58.3.

Dempsey, Lloyd E. Knock-down scaffold. 2,840,423, 6–24–58, Cl. 304—2.

Den Beste, Marion: *See—*
Whitman, Ross, and Den Beste. 2,840,086.

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Rowell, Claude F., De Puy, and Bailey. 2,840,479.

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Derr, Willard A., to Westinghouse Electric Corp. Supervisory control systems and apparatus. 2,840,797, 6–24–58, Cl. 340—163.

Derr, Willard A., and C. L. Cadwell, to Westinghouse Electric Corp. Control systems. 2,840,802, 6–24–58, Cl. 340—213.

Detert, Ernst R., to Firma Eduard Gerloch G. m. b. H. Cigar or the like and method of making the same. 2,840,085, 6–24–58, Cl. 131—140.

Detrex Chemical Industries, Inc.: *See—*
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De Witte, Leendert, to Continental Oil Co. Method of determining the porosity of core samples. 2,840,717, 6–24–58, Cl. 250—83.

De Wolf, Willem, to American Enka Corp. Spinnerets for melt-spinning high polymeric substances. 2,839,783, 6–24–58, Cl. 18—8.

Diamond Alkali Co.: *See—*
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McNulty, Dorothy G., and Leininger. 2,840,549.

Di Giacomo, Anthony J., to United States of America, Army. Frequency measurement device. 2,840,812, 6–24–58, Cl. 343—118.

Di Giovanni, Mario, to Stratham Instruments, Inc. Transducer. 2,840,675, 6–24–58, Cl. 201—48.

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Dillingham, Waldo R., J. H., and T. 2,839,822.

Dillingham, Thomas: *See—*
Dillingham, Waldo R., J. H., and T. 2,839,822.

Dillingham, Waldo R., J. H., and T. Grease cup removing tool with wedge fulcrum. 2,839,822, 6–24–58, Cl. 29—245.

Dilworth, Thomas B., to General Motors Corp. Railway vehicle truck. 2,840,009, 6–24–58, Cl. 105—198.

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Dobson, Harold R., to Sylvania Electric Products Inc. Television synchronizing signal separator. 2,840,703, 6–24–58, Cl. 250—27.

Dodson, Raymond M., and P. B. Sollman, to G. D. Searle & Co. 17-thio derivatives of estratrien-3-ol and of estratetraen-3-ol. 2,840,577, 6–24–58, Cl. 260—397.5.

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Dorsak, John W., and T. F. Van Denberg, to The Gordon Armstrong Co., Inc. Nebulizing apparatus. 2,840,417, 6–24–58, Cl. 299—86.

Doud, Forrest B., to Mercury International Research Co. Vending machine. 2,840,214, 6–24–58, Cl. 194—9.

Douglas, James K., to The Oilgear Co. Control for hydrodynamic machines. 2,840,045, 6–24–58, Cl. 121—41.

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Attane, Edward C., Jr., and Doumani. 2,840,607.

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Greminger, George K., Jr., and Weaver. 2,840,485.
Grenley, Dallas G., and Townsend. 2,840,491.
Meuli, Lloyd J. 2,840,501.
Mock, Richard A., and Morris. 2,840,603.
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Norton, Frederick H. 2,840,601.
Patten, Lorraine E., and Kelly. 2,840,475.
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Wirt, James R., and Kelly. 2,840,476.

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Dreyer, William A., Jr., and J. J. Seligman. Feeding device. 2,840,276, 6–24–58, Cl. 222—185.

Du Bois, Robert C., to Minneapolis-Honeywell Regulator Co. Pressure dividing apparatus. 2,840,096, 6–24–58, Cl. 137—86.

Du Brow, Paul L., and F. W. Smith, to Armour and Co. N-substituted trimethylene diamine-N'-alkanoic acids, salts and esters. 2,840,600, 6–24–58, Cl. 260—501.

Ducati, Adriano C., to G. M. Giannini & Co., Inc. Double-throw magnetically operated sealed switch. 2,840,660, 6–24–58, Cl. 200—87.

Ducati, Adriano C., to G. M. Giannini & Co., Inc. Magnetic switch device. 2,840,661, 6–24–58, Cl. 200—87.

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Howk, Benjamin W., and Sauer. 2,840,613.
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Sauer, John C. 2,840,609.
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Durham, Edwin, to The Babcock & Wilcox Co. Fluid heating unit. 2,840,049, 6–24–58, Cl. 122—333.

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Perlman, David, Dutcher, Fried, and Titus. 2,840,579.
Perlman, David, Dutcher, Fried, and Titus. 2,840,580.

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Edwards, Clyde H., Jr., and T. S. Whitsel, Jr., to Phillips Petroleum Co. Carbon black producing furnace and method of construction. 2,839,825, 6–24–58, Cl. 29—455.

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Eichhorn, Robert L., and R. D. Verdick, to Whirlpool Corp. Vacuum release mechanism for refrigerated cabinet. 2,840,261, 6–24–58, Cl. 220—44.

Elachens, Ralph J. Pickup device with endless belt pickup reel. 2,839,885, 6–24–58, Cl. 56—364.

Eisenbeis, Matthew. Abrasive disc and holder therefor. 2,839,879, 6–24–58, Cl. 51—195.

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Frommer, Joseph C. 2,840,721.
Frommer, Joseph C. 2,840,722.
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Electric & Musical Industries Ltd.: *See—*
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Electric Storage Battery Co., The: *See—*
Lund, Arthur D. 2,840,120.

Electro-Snap Switch & Mfg. Co.: *See—*
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England, Wilfred O.: *See—*
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Engram, Frank P.: *See—*
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Eyelet Specialty Co., The: *See—*
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Fairchild Engine and Airplane Corp.: *See—*
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Falcon Alarm Co., Inc.: *See—*
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Farbenfabriken Bayer Akt.: *See—*
Mersch, Rudolf, and Delfs. 2,840,567.

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Farkas, Thomas P., to United Aircraft Corp. Tank level equalizer. 2,840,097, 6–24–58, Cl. 137—98.

Farkas, Thomas P., to United Aircraft Corp. Propeller control system. 2,840,169, 6–24–58, Cl. 170—135.74.

Farrell, Eugene F., to Borg-Warner Corp. Method of making hydrodynamic couplings. 2,839,826, 6–24–58, Cl. 29—530.

Faust, Charles L., and W. H. Safranek, to Rockwell Spring and Axle Co. Nickel-iron-zinc alloy electroplating. 2,840,517, 6–24–58, Cl. 204—43.

Faust, Francis S., to R. G. Wright Co., Inc. Container washing machine. 2,840,089, 6–24–58, Cl. 134—81.

Federighi, George J., and T. H. Noren, Endless conveyor for dishwashing machine. 2,840,227, 6–24–58, Cl. 198—131.

Feig, Jerome H.: *See—*
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Feighner, George C., and A. C. Shotts, to Continental Oil Co. Separation of aromatic acids. 2,840,604, 6–24–58, Cl. 260—525.

Fein, Ely, to The Chemac Co. Salts of polybasic acids, atropine and adrenergic amines. 2,840,562, 6–24–58, Cl. 260—292.

Felix, Otto, to Sears, Roebuck and Co. Latch for trouser creaser or the like. 2,840,401, 6–24–58, Cl. 287—58.

Feltz, Urban J., and C. C. Benn. Electrically-controlled refrigerator door. 2,840,105, 6–24–58, Cl. 292—122.

Feucht, Jacob E., to Cleveland Rock Drill Division, Westinghouse Air Brake Co. Drill feeding apparatus. 2,840,347, 6–24–58, Cl. 255—45.

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Field, Edmund, H. N. Friedlander, and O. O. Juveland, to Standard Oil Co. Olefin polymerization with catalysts prepared from boron compounds and transition metal compounds. 2,840,551, 6–24–58, Cl. 260—93.7.

Fields, Robert E., to Whirlpool Corp. Door structure. 2,839,793, 6–24–58, Cl. 20—35.

Fies, Emerson E.: *See—*
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Findley, George W., and A. Blaauw, to Ford Motor Co. Tractor wheel spacing means. 2,840,418, 6–24–58, Cl. 301—9.

Firma Eduard Gerloch G. m. b. H.: *See*—
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Fischer, Walter, to Getreideflocken A. G. Apparatus for cutting the strip at the tops of bags. 2,840,163, 6-24-58, Cl. 164—42.
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Nelson, Morris D., and Fisher. 2,840,645.
Fitch, Elliot B.: *See*—
Stavenger, Paul L., and Fitch. 2,840,524.
Fleming, Charles V. Conveyor for poultry. 2,840,041, 6-24-58, Cl. 119—82.
Fleming, Harold W., and R. E. Reitmeier, to National Cylinder Gas Co. Selective hydrogenation catalyst and process for producing same. 2,840,531, 6-24-58, Cl. 252—455.
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Phipps, John D. B. 2,840,238.
Fluhr, Frederick R.: *See*—
McLaughlin, Donald J., and Fluhr. 2,840,440.
Fohrman, Seymour F. Adjustable measuring device. 2,839,928, 6-24-58, Cl. 73—429.
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Belk, Wilber C. 2,840,236.
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Fordham, James W. L., to Monsanto Chemical Co. Stable aqueous emulsion of alkyldiphenylamines. 2,840,539, 6-24-58, Cl. 260—45.9.
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Fowler, Alexander. Control for press brake. 2,840,135, 6-24-58, Cl. 153—21.
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Brandt, David E., Jr., Fraser, and Seaman. 2,840,343.
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Fried, Josef: *See*—
Perlman, David, Dutcher, Fried, and Titus. 2,840,578.
Perlman, David, Dutcher, Fried, and Titus. 2,840,579.
Perlman, David, Dutcher, Fried, and Titus. 2,840,580.
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Field, Edmund, Friedlander, and Juveland. 2,840,551.
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Friedman, Philip and G. J. Door lock closure and assembly. 2,839,913, 6-24-58, Cl. 70—146.
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Fromm, Fred, to Berlin & Jones Co., Inc. Envelope. 2,840,295, 6-24-58, Cl. 229—70.
Fromm, Fred, to Berlin- & Jones Co., Inc. Envelope. 2,840,296, 6-24-58, Cl. 229—70.
Frommer, Joseph C., to Electric Eye Equipment Co. Automatic correction device. 2,840,371, 6-24-58, Cl. 271—2.6.
Frommer, Joseph C., to Electric Eye Equipment Co. Detection device for moving webs. 2,840,721, 6-24-58, Cl. 250—219.
Frommer, Joseph C., to Electric Eye Equipment Co. Detection device for moving pieces. 2,840,722, 6-24-58, Cl. 250—219.
Fry, Clair V., to Brown & Bigelow. Car visor calendar. 2,839,860, Cl. 40—121.
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Gaffney, John E. Screen cleaner. 2,839,970, 6-24-58, Cl. 92—31.
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Green, Frederick H. 2,839,900.
Green, Frederick H. 2,839,901.
Gavin, William W., to Symington Wayne Corp. Pumping assembly. 2,840,119, 6-24-58, Cl. 141—21.
Gee, Yun. Driver or passenger operated call for help distress signal. 2,840,795, 6-24-58, Cl. 340—63.
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Geiss, Harry S. Sleeve structure for garments. 2,839,756, 6-24-58, Cl. 2—125.
Gelazier, Martin, to Hydraulic Tool and Equipment Co., Inc. Scarifier and scraper. 2,839,851, 6-24-58, Cl. 37—145.
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Smith, Carl M. 2,840,443.
Williams, William W., and Libby. 2,840,557.
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General Controls Co.: *See*—
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Ray, William A. 2,840,146.
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McNaney, Joseph T., and Tice. 2,840,637.
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Chamberlin, James A., and Sweet. 2,839,947.
Eichelberger, Charles D., and Lester. 2,840,652.
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Hanson, Richard J. 2,840,733.
Nottelmann, John F., and Spaeder. 2,840,732.
Nottelmann, John F., and Spaeder. 2,840,734.
Ocko, Richard, and Bay. 2,840,697.
Precopio, Frank M. 2,840,544.
Price, Harvey N. 2,840,746.
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Seely, Richard E. 2,840,772.
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Croskey, Frank A., and Tuttle. 2,840,658.
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Dolza, John. 2,840,427.
Elder, Gordon B., and Harry. 2,840,002.
Glover, Earl W. 2,839,902.
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Kupka, Edward P. 2,840,731.
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Pierce, Earl R. 2,840,350.
Purchas, William J., Jr. 2,840,063.
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Gerhardt Carl W. Explosion relief valve. 2,840,103, 6-24-58, Cl. 137—467.
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Ducati, Adriano C. 2,840,660.
Ducati, Adriano C. 2,840,661.
Manildi, Joseph F. 2,839,922.
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Goddard, Charles T., to Bell Telephone Laboratories, Inc. Electron discharge devices. 2,840,749, 6-24-58, Cl. 313—296.
Goheen, David W., to Crown Zellerbach Corp. Process of making methyl mercaptan. 2,840,614, 6-24-58, Cl. 260—609.
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Green, Duane L., to E. I. du Pont de Nemours and Co. Process for preparing filaments from dispersions containing craft polymers obtained from ethylenically unsaturated monomers. 2,840,447, 6-24-58, Cl. 18—54.
Green, Frederick H., to The Garrett Corp. Multiple vortex tube generator cooling unit. 2,839,898, 6-24-58, Cl. 62—2.
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Greminger, George K., Jr., and M. A. Weaver, to The Dow Chemical Co. Thermoplastic compositions of water-soluble cellulose ethers. 2,840,485, 6-24-58, Cl. 106—182.
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Guggi, Walter B., to Westinghouse Electric Corp. Self-locking transistor switching circuit. 2,840,727, 6-24-58, Cl. 307—88.5.
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Haag, Charles W., to Whirlpool Corp. Adjustable door stop hinge assemblies. 2,839,779, 6-24-58, Cl. 16—191.
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Hartig, Henry E., and G. A. Brettell, Jr., to United States of America, Navy. Bathythermograph simulator. 2,839,839, 6-24-58, Cl. 35—11.
Hartwig, Edward C., and H. W. Van Ness, to Westinghouse Electric Corp. Electronic pulsation sequence timer. 2,840,764, 6-24-58, Cl. 315—252.
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Hayner, Paul F., to Sanders Associates, Inc. Gyroscope. 2,839,930, 6–24–58, Cl. 74—5.

Hayner, Paul F., to Sanders Associates, Inc. Gyroscope. 2,839,932, 6–24–58, Cl. 74—5.5.

Heath, Dudley E., to Whirlpool Corp. Ice making machine. 2,840,507, 6–24–58, Cl. 62—106.

Hecht, Otto F., to General Aniline & Film Corp. Production of alkynols and alkynediols using mullite-like siliceous catalyst carrier. 2,840,618, 6–24–58, Cl. 260—635.

Heckethorn Mfg. & Supply Co.: *See*—
Kreuthmeir, Donald W. 2,840,729.

Heffel, Harold. Reel clamp. 2,839,863, 6–24–58, Cl. 43—22.

Heftler, Paul, to V. Heron. Shock-absorbing spring suspensions and steering linkage. 2,840,385, 6–24–58, Cl. 280—93.

Hehr, Elmer T. Window fastener construction. 2,840,202, 6–24–58, Cl. 189—75.

Hehr, Elmer T. Window fastener construction. 2,840,203, 6–24–58, Cl. 189—75.

Heidecke, Reinhold, and W. Knauf, to Franke & Heidecke Fabrik Photographischer Prazisions-Apparate. Focusing hood for reflex cameras. 2,839,977, 6–24–58, Cl. 95—47.

Heidman, William A., Jr. Flush valves for water closet tanks. 2,839,761, 6–24–58, Cl. 4—56.

Heine, Thomas H.: *See*—
Meister, George, and Heine. 2,840,751.

Heintzelman, William J.: *See*—
Corson, Ben B., Heintzelman, and Odioso. 2,840,621.

Heiss, John P., to Thompson Products, Inc. Thermostatically controlled fan. 2,840,315, 6–24–58, Cl. 236—35.

Heli-Coil Corp.: *See*—
Brancato, Leo J. 2,839,823.

Helsby, Gordon W.: *See*—
Allum, Robin D., and Helsby. 2,840,641.

Helsten, Wesley A., to American Steel Foundries. Clasp brake. 2,840,191, 6–24–58, Cl. 188—33.

Heltzel, Carl J.: *See*—
Heltzel, John N. and C. J. 2,839,973.

Heltzel, John N., deceased, by Union Savings & Trust Co., and C. J. Heltzel, executors. Concrete expansion joints. 2,839,973, 6–24–58, Cl. 94—18.

Hemeon, James R., to General Motors Corp. Hydraulic driving apparatus. 2,839,895, 6–24–58, Cl. 60—51.

Hemfort, Heinrich: *See*—
Steinacker, Peter, and Hemfort. 2,840,302.

Hemphill, Alfred A., and J. M. Tewksbury, to Bendix Aviation Corp. Combined oscillator and balanced modulator. 2,840,712, 6–24–58, Cl. 250—36.

Hemphill, Alfred A., and J. M. Tewksbury, to Bendix Aviation Corp. Directional antenna control system. 2,840,814, 6–24–58, Cl. 343—121.

Hemstreet, Harold S., to Link Aviation, Inc. Night landing simulator for training aircraft operators. 2,839,840, 6–24–58, Cl. 35—12.

Henderson, Frank J., and M. Pachuta, to Jervis B. Webb Co. Pivoting plate switch for double rail conveyor tracks. 2,840,005, 6–24–58, Cl. 104—101.

Henderson, Frank J., to Jervis B. Webb Co. Conveyor track switch. 2,840,006, 6–24–58, Cl. 104—102.

Hennessy, James J., to Hennessy Lubricator Co., Inc. Railway axle journal dust guard and oil retainer. 2,840,396, 6–24–58, Cl. 286—6.

Hennessy Lubricator Co., Inc.: *See*—
Hennessy, James J. 2,840,396.

Hensley, Robert K., Jr. Key and coin combination lock. 2,840,215, 6–24–58, Cl. 194—92.

Herbenar, Edward J., to Thompson Products, Inc. Clutch drive unit and control system. 2,840,316, 6–24–58, Cl. 236—35.

Herbruggen, Heinrich J. B., to Archer-Daniels-Midland Co. Sand blowing apparatus for making molds. 2,839,799, 6–24–58, Cl. 22—36.

Hercules Powder Co.: *See*—
Pieper, Josef H. F. 2,840,553.
Pieper, Josef H. F. 2,840,554.
Stuart, Joseph H. 2,840,303.

Herman, John. Ventilator for non-porous fabric structures. 2,839,986, 6–24–58, Cl. 98—37

Hermans, Fernand V. F. Tunnel furnace for heat treating objects. 2,840,361, 6–24–58, Cl. 263—8.

Heron, Victor: *See*—
Heftler, Paul. 2,840,385.

Herrington, Lovic P.: *See*—
Okoomian, Howard J., and Herrington. 2,840,500.

Herrold, Jack L., to Westinghouse Electric Corp. Means for adjustably mounting an electrical plug connector. 2,840,792, 6–24–58, Cl. 339—126.

Hersh, Herman I. Hair setting composition and method for use of same. 2,840,087, 6–24–58, Cl. 132—7.

Heyden Newport Chemical Corp.: *See*—
Leonard, Reid H. 2,840,605.

Hickman, Kenneth C. D., to Consolidated Electrodynamics Corp. Vapor operated ejector vacuum pump. 2,840,297, 6–24–58, Cl. 230—101.

Hill, Edward J. Beach pins. 2,840,092, 6–24–58, Cl. 135—005.

Hill, Emil H., and W. O. England, to Omark Industries, Inc. Rivet machine feeding means. 2,840,678, 6–24–58, Cl. 219—10.69.

Hinrichs, Hans G., to Archer-Daniels-Midland Co. Core blowing apparatus. 2,839,798, 6–24–58, Cl. 22—10.

Hoaglin, Raymond L., and D. G. Kubler, to Union Carbide Corp. 3-ethoxy-4-hexenal and method of preparing same. 2,840,612, 6–24–58, Cl. 260—602.

Hodges, Robert T. Antiseptic dispensing attachment for telephones. 2,840,649, 6–24–58, Cl. 179—185.

Hodler, Fritz. Method of and apparatus for damping shocks in die-casting machines. 2,839,800, 6–24–58, Cl. 22—68.

Hoe, R., & Co., Inc.: *See*—
Harless, Charles A. 2,840,376.
Harless, Charles A., and Worthington. 2,840,399.

Hofer, Max, to Maschinenfabrik Augsburg-Nurnberg A. G. Automatic cut-off device. 2,840,064, 6–24–58, Cl. 123—97.

Hoffman Electronics Corp.: *See*—
Carlson, David G. 2,840,067.
Carpenter, Frank C., Jr. 2,840,699.

Hoffmann-La Roche Inc.: *See*—
Inhoffen, Hans H. 2,840,586.
Surmatis, Joseph D. 2,840,583.

Hogg, John A., and J. Korman, to The Upjohn Co. Carbonyloxy steroids. 2,840,581, 6–24–58, Cl. 260—397.45.

Holley Carburetor Co.: *See*—
Cornelius, George W. 2,840,359.

Hollins, Abraham: *See*—
Hollins, Jesse R. 2,840,796.

Hollins, Jesse R., to A. J. R., and L. S. Hollins, and T. D. Davidson. Vehicle signalling circuit. 2,840,796, 6–24–58, Cl. 340—81.

Hollins, Lewis S.: *See*—
Hollins, Jesse R. 2,840,796.

Holly, Frederick W., and C. H. Stammer, to Merck & Co., Inc. Optical isomers of 4-amino-3-isoxazolidone. 2,840,565, 6–24–58, Cl. 260—307.

Holm, Sven, to The Air Preheater Corp. Temperature equalizing means for regenerative air preheater structure. 2,840,351, 6–24–58, Cl. 257—6.

Holmquist, Howard E.: *See*—
Crawford, Robert J., Engelhardt, and Holmquist. 2,840,608.

Holt, Arthur W., to United States of America, Commerce. Very rapid access memory for electronic computers. 2,840,799, 6–24–58, Cl. 340—174.

Holton, Charles D., to General Motors Corp. Brake drum. 2,840,195, 6–24–58, Cl. 188—218.

Hood, Gordon K., Jr., and J. A. O'Malley, Jr., to Bell Aircraft Corp. Hinged airfoil with jet nozzle means for aircraft flight control. 2,840,323, 6–24–58, Cl. 244—52.

Hoover, Merle V.: *See*—
Koros, Leslie L., and Hoover. 2,840,647.

Hopgood, Robert B., to The Eyelet Specialty Co. Cosmetic container. 2,840,229, 6–24–58, Cl. 206—56.

Horn, Meri E., to Westinghouse Electric Corp. Circuit breaker. 2,840,663, 6–24–58, Cl. 200—108.

Horsman, Harold M.: *See*—
Rayburn, Charles C., and Horsman. 2,840,134.

Horwitz, Herbert: *See*—
Suchecki, Josef. 2,839,768.

Houdry, Eugene J.: *See*—
Krieble, Elvin L., and Houdry. 2,840,362.

Houdry Process Corp.: *See*—
Milliken, Thomas H., and Weidman. 2,840,530.
Mills, George A., and Milliken. 2,840,528.

House, Perry W.: *See*—
Hartzell, Herman L., House, Tice, and Smith. 2,839,935.

Howell, Kenneth L. Split sleeve bearing. 2,840,425, 6–24–58, Cl. 308—27.

Howk, Benjamin W., and J. C. Sauer, to E. I. du Pont de Nemours and Co. Polymeric reaction products of unsaturated dilactones and complementary polyfunctional reactants. 2,840,548, 6–24–58, Cl. 260—78.3.

Howk, Benjamin W., and J. C. Sauer, to E. I. du Pont de Nemours and Co. Preparation of organic compounds. 2,840,613, 6–24–58, Cl. 260—609.

Hudyma, Theodor F., to Essex County Welfare Board. Turbine with active and reactive elements. 2,840,341, 6–24–58, Cl. 253—16.5.

Huet, Andre, to Combustion Engineering, Inc. Widening bore of tubular bend. 2,839,818, 6–24–58, Cl. 29—157.6.

Huett, Peter G.: *See*—
Brown, Lloyd H., Reineck, and Huett. 2,840,543.

Hughes Aircraft Co.: *See*—
Adcock, Mack D., and Kurtz. 2,840,787.
Bateman, Lee J. 2,840,806.
Blankenbaker, John V. 2,840,709.
Brower, David F., and Griest. 2,840,643.
Hamilton, Douglas J. 2,840,726.
Reed, Richard H., and Stegen. 2,840,818.
Van Horne, Thomas B. 2,840,308.

Hull, Yynn D. Torso support. 2,839,766, 6–24–58, Cl. 5—338.

Hull, Robert E.: *See*—
Kenyon, Alonzo F., Abell, and Hull. 2,840,724.

Hunt, John M., to Link Aviation, Inc. Computer function generation. 2,840,309, 6–24–58, Cl. 235—61.

Hunter, Marion D. Bottle brush. 2,839,771, 6–24–58, Cl. 15—164.

Hunter, Samuel N. Composition of matter containing pigment and chlorinated polyphenyl. 2,840,486, 6–24–58, Cl. 106—287.

Huntley, Keith G., to Electric & Musical Industries Ltd. Prevention of circulation of plural pulses in generator ring. 2,840,704, 6–24–58, Cl. 250—27.

Hurlburt, Wilbur F., Jr., to Automatic Switch Co. Solenoid operated trip mechanism. 2,839,929, 6–24–58, Cl. 74—2.

Hurvitz, Hyman, to Panoramic Radio Products, Inc. Spectrum analyzers. 2,840,701, 6–24–58, Cl. 250—20.

Hutchinson, John L., W. F. McLellan, and A. A. Belliveau, 33⅓% to said Hutchinson, 33⅓% to said McLellan and 33⅓% to A. R. Pellegrino. Adjustable hinge. 2,839,778, 6–24–58, Cl. 16—129.

Hutchison, John S.: *See*—
Eckel, John E., and Hutchison. 2,840,166.

Huxtable, Leonard G., and E. L. Staiger, to Millers Falls Co. Abrading tool holder. 2,839,817, 6–24–58, Cl. 29—80.

Hwa, Jesse C. H., to Rohm & Haas Co. Anion-exchange resins containing weakly and strongly basic functional groups. 2,840,533, 6–24–58, Cl. 260—2.1.

Hydraulic Tool and Equipment Co., Inc.: *See*—
Geiszler, Martin. 2,839,851.

Hydro-Aire, Inc.: *See*—
Suthann, Robert A. 2,840,336.

Hydrocarbon Research, Inc.: *See*—
Arnold, John H. 2,840,149.

I-T-E Circuit Breaker Co.: *See*—
Caswell, Arthur S. 2,840,653.

Illinois Tool Works: *See*—
Roeser John O. 2,840,656.
Roeser, John O. 2,840,657.

Ingram, Frank P.: *See*—
Stearns Austin J. 2,840,072.

Inhoffen, Hans H., to Hoffmann-La Roche Inc. Intermediates for the preparation of carotenoids. 2,840,586, 6–24–58, Cl. 260—410.9.

Inland Container Corp. (Indiana): *See*—
Johnston, Herbert N., Brand, and Lincoln. 2,840,138.

Institute of Textile Technology: *See*—
Compton, Jack, and Jones. 2,840,446.

International Harvester Co.: *See*—
Harstick, William H. and May. 2,839,981.
Shallenberg, Robert L. 2,839,999.
Smith, Hiram P., and Haas. 2,840,018.
Toland, Wayne G., and Murray. 2,839,979.

International Standard Electric Corp.: *See*—
Beck, Arthur C., and Storr-Best. 2,840,696.
Branch, Maurice C. 2,840,702.

International Telephone and Telegraph Corp.: *See*—
Clark, Trevor H. 2,840,813.
Graham, Walton. 2,840,639.

Interrante, Michael. Needle guard. 2,840,023.

Ivers-Lee Co.: *See*—
Volckening, Lloyd I., and Lefebvre. 2,840,235.

Jacke, Stanley E., to Detrex Chemical Industries, Inc. Liquid level and temperature apparatus. 2,840,730, 6–24–58, Cl. 310—8.1.

Jackson, Alonzo C. and F. B., and J. A. Lasater, to Combustion Engineering, Inc. Gas burner of multisection port construction. 2,840,150, 6–24–58, Cl. 158—114.

Jackson, Edmond D., to Teras Instruments Inc. Semiconductor device and method of manufacture. 2,840,770, 6–24–58, Cl. 317—240.

Jackson, Francis B.: *See*—
Jacgson, Alonzo C. and F. B., and Lasater. 2,840,150.

Jackson, Francis B., to Combustion Engineering, Inc. Gas burner of multisection port construction. 2,840,151, 6–24–58, Cl. 158—114.

Jakeway, Gerald V. to Keeler Brass Co. Push button door handle. 2,840,410, 6–24–58, Cl. 292—336.3.

Jardine, John, Ltd.: *See*—
Haslam-Jones, Frank T. 2,839,962.

Jarvis, Donald S. Poultry suspending device. 2,839,781, 6–24–58, Cl. 17—44.1.

Jay, James E. Fishing lure. 2,839,866, 6–24–58, Cl. 43—41.

Jedrziewski, Chester M., and D. P. Ramaker, to United Aircraft Corp. Control system for a variable pitch propeller. 2,840,171, 6–24–58, Cl. 170—160.2.

Jenkins, Cecil: *See*—
Woolslayer, Homer J., Jenkins, Maxwell, and Born. 2,840,198.

Jenks, Earl K. Hobbyhorse. 2,840,377, 6–24–58, Cl. 272—1.

Jenkins, Cecil, J. W. Born, H. J. Woolslayer, and R. C. Maxwell, to Lee C. Moore Corp. Multiple well drilling apparatus and method. 2,840,197, 6–24–58, Cl. 189—11.

Jenny, Dietrich A., to Radio Corp. of America. Semi-conductor device. 2,840,496, 6–24–58, Cl. 148—1.5.

Jensen, Stephen F., to American Can Co. Carrying handle with locking feature. 2,840,234, 6–24–58, Cl. 206—65.

Jerusel, Jean. Mining tool for injecting liquid, such as water, at high pressure. 2,840,360, 6–24–58, Cl. 262—34.

Jessee, Ralph D., to Westinghouse Electric Corp. Contactors. 2,840,662, 6–24–58, Cl. 200—106.

Johansson, Johan E. to Aktiebolaget Gotaverken. Two-stroke cycle internal combustion engine of the opposed piston type comprising two crank shafts. 2,840,060, 6–24–58, Cl. 123—41.

Johnson, Eldon A., and J. M. White., to ACF Industries, Inc. Fuel pump diaphragm assembly. 2,840,003, 6–24–58, Cl. 103—150.

Johnson, Harold A.: *See*—
Sasserson, Curtis F., and Johnson. 2,840,337.

Johnson, Joel R., G. W. Mattson, and J. H. Tomlin, to Western Electric Co., Inc. Apparatus for folding and assembling wiper pads in metal clips. 2,839,821, 6–24–58, Cl. 29—235.

Johnson, Thomas J., Jr., to Gilfillan Bros., Inc. Fast-acting sampling circuit. 2,840,707, 6–24–58, Cl. 250—27.

Johnston, Herbert N., B. G. Brand, and W. B. Lincoln, Jr., to Inland Container Corp. (Indiana). Wiltproofing paper and method of corrugating. 2,840,138, 6–24–58, Cl. 154—33.05.

Jones, Andrew J.: *See*—
Miles, Mearl J., and Jones. 2,840,392.

Jones, Catesby P.: *See*—
Compton, Jack, and Jones. 2,840,446.

Jones, Charles H.: *See*—
Kruper, Andrew P., Roberts, Kuntz, and Jones. 2,840,738.

Jones, Corwin S., to Webster Mfg., Inc. Automatic actuating mechanism for capacity control gates and the like. 2,840,225, 6–24–58, Cl. 198—34.

Jones, Corwin S., to Webster Mfg., Inc. Automatic control gate actuating mechanism for underbunker coal conveyor systems and the like. 2,840,226, 6–24–58, Cl. 198—34.

Jones, Edward M., to The Baldwin Piano Co. Electronic synchronizing system for producing pitch discs and the like. 2,839,960, 6–24–58, Cl. 84—1.8.

Jones, John P.: *See*—
Doering, Fred W., Jones, and Morison. 2,839,954.

Jones & Laughlin Steel Corp.: *See*—
Wynn, George. 2,840,036.

Jones, Loyd W., to Pan American Petroleum Corp. Method of inhibiting corrosion of metal surfaces. 2,840,525, 6–24–58, Cl. 252—8.55.

Jones, Loyd W., to Pan American Petroleum Corp. Corrosion inhibitor. 2,840,584, 6–24–58, Cl. 260—404.5

Joslyn Mfg. & Supply Co.: *See*—
Yonkers, Edward H. 2,840,668.

Jovis, Arthur. Muffin tearing devices. 2,840,129, 6–24–58, Cl. 146—72.

Jung Schleifmaschinen H. Gaub.: *See*—
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Junger, Miguel C. Sound-absorbing panels. 2,840,179, 6–24–58, Cl. 181—33.

Junk, William A., Jr.: *See*—
Rylander, Paul N., and Junk. 2,840,511.

Junkmann, Karl, J. Kathol, and H. Richter, to Schering A. G. Injectable steroid hormone preparations and method of making same. 2,840,508, 6–24–58, Cl. 167—74.

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Field, Edmund, Friedlander, and Juveland. 2,840,551.

Juy, Lucien C. Change-speed gear. 2,839,939, 6–24–58, Cl. 74—217.

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Kamm, Lawrence J., to Pratt & Whitney Co., Inc. Positioning servomechanism. 2,840,771, 6–24–58, Cl. 318—28.

Kane, Athur L., and A. L. Kemp. Anchoring apparatus. 2,840,031, 6–24–58, Cl. 114—208.

Karassik, Igor J. Control means to prevent flashing of emergency feedwater delivered to boiler feed pumps in a closed type feedwater system. 2,840,052, 6–24–58, Cl. 122—451.

Karius, William: *See*—
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Karnofsky, George B., to Blaw-Knox Co. Continuous solvent extractor and solvent extraction system. 2,840,459, 6–24–58, Cl. 23—310.

Kass, Guss S., to Saint Cornelius The Centurion Chapel of Valley Forge Military Academy. Lanolin composition and method of preparing same. 2,840,509, 6–24–58, Cl. 167—90.

Kathol, Josef: *See*—
Junkmann, Karl, Kathol, and Richter. 2,840,508.

Katz, Albert, and M. V. Shelanski, to West Laboratories,, Inc. Isodine-surface active carrier germicidal preparations. 2,840,510, 6–24–58 Cl. 167—93.

Katzberg, Jesse to Tung-Sol Electric Inc. Thyratron. 2,840,744, 6–24–58, Cl. 313—193.

Katzin, Leonard, and J. C. Sullivan, to United States of America, Atomic Energy Commisison. Separation of inorganic salts from organic solutions. 2,840,451, 6–24–58, Cl. 23—14.5.

Kaufmann, Adolf E. Stop valves. 2,840,340, 6–24–58, Cl. 251—331.

Kavanaugh, Richard J., P. W. King, and L. J. A. van Lieshout, to Consolidated Electronics Industries Corp. Motor speed governor. 2,840,773. 6–24–58, Cl. 318—311.

Kayler, Frank H., to American Steel Foundries. Railway car coupler. 2,840,246, 6–24–58, Cl. 213—113.

Kazor, Sylvin M. Heat-rotated illuminated ornaments. 2,840,689, 6–24–58, Cl. 240—10.1.

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Keeler Brass Co.: *See*—
Jakeway Gerald V. 2,840,410.

Keema, Alexander W.: *See*—
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Keller, Howard F., Jr., to Union Oil Co. of California. Corrosion prevention. 2,840,526, 6–24–58, Cl. 252—8.55.

Kellogg, M. W., Co., The: *See*—
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Lefrancois, Philip A., 2,840,529.
Nathan, Marvin F. 2,840,513.

Kelly, Harold C.: *See*—
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Wirt, James R., Kelly, and Krajewski. 2,840,474.
Wirt, James R., and Kelly. 2,840,476.

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Kemp, Alton L.: *See*—
Kane, Arthur L., and Kemp. 2,840,031.

Kempter, Charles P., and C. Alvarez-Tostado, to Owens-Illinois Glass Co. Process for the controlled deposition of silicon dihalide vapors onto selected surfaces. 2,840,489, 6–24–58, Cl. 117—106.

Kennedy, Kenneth K.: *See*—
Haugk, George, and Kennedy. 2,840,728.

Kenyon, Alonzo F., D. E. Abell, and R. E. Hull, to Westinghouse Electric Corp. Magnetic amplifier regulating system. 2,840,724, 6–24–58, Cl. 307—84.

Kerr, Charles E., and R. K. Galloway, to Food Machinery and Chemical Corp. Carton stack advancing mechanism. 2,840,375, 6–24–58, Cl. 271—62.

Kerr, Ralph L. Dampener and floating barrier seal. 2,840,111, 6–24–58, Cl. 138—26.

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Church, Joseph H., and Kessenich. 2,839,997.

Keuffel & Esser Co.: *See*—
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Keyko, George J., to Teacher Toys, Inc. Educational block assemblage. 2,839,842, 6–24–58, Cl. 35—22.

Keyko, George J., to Teacher Toys, Inc. Educational apparatus. 2,839,843, 6–24–58, Cl. 35—35.

Kikas, Leonhard. Temporary porthole closure. 2,840,028, 6–24–58, Cl. 114—174.

Kilburn, Tom: *See*—
Williams, Frederic C., Kilburn, Tootill, Pollard, Thomas, and Edwards. 2 840,304.
Williams, Frederic C., Kilburn, Tootill, and Pollard. 2,840,305.

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Nelson, Howard N. 2,840,266.
Nelson, Howard N. 2,840,267.

Kinderman, Walter J.: *See*—
Yarnall, David R., and Kinderman. 2 840,112.

King, Baldwin. Drapery suspension device. 2,840,159, 6–24–58, Cl. 160—348.

King, Philip W.: *See*—
Kavanaugh, Richard J., King, and van Lieshout. 2,840,773.

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King, Robert J., to McGraw-Edison Co. Waterproof electrical couplings and heating element. 2,840,676, 6–24–58, Cl. 201—67.

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Kinstler, Robert C., and D. E. Young, to American Cyanamid Co. Rubber accelerator. 2,840,563, 6–24–58, Cl. 260—306.5.

Kinstler, Robert C., R. S. Barker, and G. Brunnstrom, to American Cyanamid Co. Rubber accelerator. 2,840,564, 6–24–58, Cl. 260—306.5.

Kinstler, Robert C., to American Cyanamid Co. Preparation of sulfenmorpholides. 2 840,556, 6–24–58, Cl. 260—247.1.

Kirby, Arthur F., to E. I. du Pont de Nemours and Co. Process for the preparation of 4-carboalkoxy-2-chlorobutyric acids. 2,840,596, 6–24–58. Cl. 260—485.

Kirksey, Charles E., 1/6% to Waller, Threlkeld and Whitlow, and 1/6% to J. E. Kirksey. Portable power saw having oppositely reciprocating blades. 2,840,125, 6–24–58, Cl. 143—68.

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Kleine, Johannes, E. Siggel, and R. Gerlach, to Vereinigte Glanzstoff-Fabriken A. G. Continuous method of polycondensing diol esters of terephthalic acid in a solvent. 2,840,537, 6–24–58, Cl. 260—33.6.

Klikunas, Richard V., and D. L. Billian, to Buckeye Iron & Brass Works. Locomotive tank filling nozzle. 2,840,122, 6–24–58. Cl. 141—207.

Klingener, Harry F., to Sonotone Corp. Phonograph pickups. 2,840,644, 6–24–58. Cl. 179—100.41.

Knapp, Raymond. Razor with stationary blade and movable shear plate. 2,839,829, 6–24–58, Cl. 30—43.

Knapp, William J.: *See*—
Mockrin Isador, and Knapp. 2,840,481.

Knapp, William J., and I. Mockrin, to Pennsalt Chemicals Corp. Potassium-fluorine glasses. 2,840,482, 6–24–58, Cl. 106—48.

Knauf, Wilhelm: *See*—
Heidecke, Reinhold, and Knauf. 2,839,977.

Knight, Harvey M. Trash spring member. 2,839,984, 6–24–58, Cl. 97—193.

Knutsen, Alfred D. Ground trap for birds. 2,839,867, 6–24–58, Cl. 43—62.

Kob, Nicholas E. Closure for ammonium hydroxide container. 2,840,279, 6–24–58, Cl. 222—331.

Koch, Erich, to Jung Schleifmaschinen H. Gaub. Combined hydraulic and mechanical control apparatus. 2,839,896, 6–24–58, Cl. 60—52.

Koevoet, Arie L., A. Verloop, and J. A. K. Buisman, to North American Philips Co., Inc. Method of producing an isomerisation product of vitamin D or an ester thereof. 2,840,575, 6–24–58, Cl. 260—397.2.

Koppel, Henry D.: *See*—
Backer, Joachim, and Koppel. 2,839,807.

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Korber, Kurt, & Co., K. G.: *See*—
Rudszinat, Willy. 2,840,164.

Korman, Jerome: *See*—
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Kornetz, Norman S., to Westinghouse Electric Corp. Sync separator for TV receivers. 2,840,636, 6–24–58, Cl. 178—7.3.

Koros, Leslie L., and M. V. Hoover, to Radio Corp. of America. Input and output coaxial-type circuits for double ended vacuum tubes. 2,840,647, 6–24–58, Cl. 179—171.

Kostick, Walter A., and A. P. W. Buck, to Air-O-Flex Equipment Co. Boxcar door opening and unloading mechanism. 2,840,250, 6–24–58, Cl. 214—54.

Kovach, John E., to Bergen Machine & Tool Co., Inc. Aggregate feed apparatus for concrete block machines. 2,839,810, 6–24–58, Cl. 25—103.

Kozak, Joseph P. Draft regulator. 2,840,317, 6–24–58, Cl. 236—45.

Kraehenbuehl, Emil, to Ciba Ltd. Process for the production of complex copper compounds of direct-dyeing dyestuffs on the fiber. 2,840,444, 6–24–58, Cl. 8—72.

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Wirt, James R., Kelly, and Krajewski. 2,840,474.

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Kreuthmeir, Donald W., to Heckethorn Mfg. & Supply Co. Electrostatic generator construction. 2,840,729, 6–24–58, Cl. 310—6.

Krieble, Elvin L., and E. J. Houdry, to Oxy-Catalyst, Inc. Apparatus for heating gases. 2,840,362, 6–24–58, Cl. 263—19.

Kruk, Gerrit, to N. V. Springit. Method of breaking formation of solid deposits. 2,840,363, 6–24–58, Cl. 263—43.

Kruper, Andrew P., W. L. Roberts, G. A. Kuntz, and C. H. Jones, to Westinghouse Electric Corp. Color television tube. 2,840,738, 6–24–58, Cl. 313—78.

Kubler, Donald G.: *See*—
Hoaglin, Raymond I., and Kubler. 2,840,612.

Kuhne, Clarence A.: *See*—
Emerson, William A., Brown, and Kuhne. 2,840,677.

Kuntz, George A.: *See*—
Kruper, Andrew P., Roberts, Kuntz, and Jones. 2 840,738.

Kupka, Edward P., to General Motors Corp. Variable angle magnetic drive. 2,840,731, 6–24–58, Cl. 310—105.

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Adcock, Mack D., and Kurtz. 2,840,787.

Kushner, Arnold. Finger nail mask. 2,840,088, 6–24–58, Cl. 132—88.5.

Labombarde, Raymond A. Apparatus for folding trailing flaps. 2,839,972, 6–24–58, Cl. 93—49.

Ladd, Eric: *See*—
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Ladisch, Rolf K., to United States of America, Army. Process of synthesizing ethyl-para-benzoquinone. 2,840,571, 6–24–58, Cl. 260—396.

Lake, Ronald E., to English Electric Valve Co. Ltd. Gas filled discharge devices. 2,840,745, 6–24–58, Cl. 313—195.

Lambert, Ulysses L. Cooks' spatula cleaner and holder. 2 839 772, 6–24–58. Cl. 15—236.

Lambrech, Joseph A., to Union Carbide Corp. Fungicidal compositions. 2,840,502, 6–24–58, Cl. 167—22.

Lancaster, Hester. Zipper puller. 2,840,412, 6–24–58, Cl. 294—26.

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Lankenau, Henry G., to Chicago Bridge and Iron Co. Multiple effect evaporator. 2,840,154, 6–24–58, Cl. 159—20.

La Porte, Gordon G. Oil condition testing and indicating device for automobiles. 2,840,035, 6–24–58, Cl. 116—118.

Large, William E.: *See*—
Van Ness, Hubert W. and Large. 2,840,686.

Larsen, Aubrey A., to Sterling Drug Inc. N-(β-(3-amino-2,4,6-triiodophenyl) propionyl) amino acids, N-acyl derivatives thereof, and process. 2,840,602, 6–24–58, Cl. 260—518.

Larsen, Edward S., and C. A. Levin, to United States of America, Navy. Automatic locking means for keyboards. 2,840,216, 6–24–58, Cl. 197—4.

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Jackson, Alonzo C. and F. B., and Lasater. 2,840,150.

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Lathrop, Robert P., to Baldwin-Lima-Hamilton Corp. Dynamometer block. 2,839,919, 6–24–58, Cl. 73—141.

Lauterbach, Norman E., to Ritter Co., Inc. Safety device for dental units. 2,840,432, 6–24–58, Cl. 312—209.

Learmonth, William, and B. Cooke, to Vickers-Armstrongs Ltd. Closure seal. 2,840,262, 6–24–58, Cl. 220—46.

Leas, Floyd S., Jr.: *See*—
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Le Beau, Alfred T., 1/10 to Gadget-Of-The-Month Club, Inc. Combination cultivating shovel and fork. 2,840,414, 6–24–58, Cl. 294—51.

Lee, Earnest M., to Roll-O-Matic Chain Co. Chain closure for openings. 2,840,158, 6–24–58, Cl. 160—327.

Lee, Walter. Door. 2,839,791, 6–24–58, Cl. 20—16.

Leeds, Winthrop M., B. P. Baker, and R. E. Friedrich, to Westinghouse Electric Corp. Circuit interrupters. 2,840,670, 6–24–58. Cl. 200—145.

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Volckening, Lloyd L., and Lefebvre. 2,840,235.

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Lehmann, Willi, to Westinghouse Electric Corp. Electroluminescent cell. 2,840,741, 6–24–58, Cl. 313—108.

Lehnkering, Carl F. Mathematical instruction game. 2,839,844, 6–24–58, Cl. 35—70.

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Lerner, Louis L., to The Eyelet Specialty Co. Sealed cosmetic container. 2,840,230, 6–24–58, Cl. 206—56.

Lesovicz, Edward J., to Thomas Electronics, Inc. Cathode ray tube gun assembly. 2,840,739, 6–24–58, Cl. 313—82.

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Levy, Stephen L., to Sylvania Electric Products Inc. Electrical crystal unit. 2,840,710, 6–24–58, Cl. 250—31.

Lewis, Charles W., to Westinghouse Electric Corp. Liquid dielectrics and apparatus embodying the same. 2,840,627, 6–24–58, Cl. 174—17.

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Williams, William W., and Libby. 2,840,557.

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Liljenberg, Harry A., to Modern Tool & Die Co. Seed and fertilizer spreader. 2,840,271, 6–24–58, Cl. 222—41.

Liljenberg, Harry A., to Modern Tool & Die Co. Seed and fertilizer spreader. 2,840,275, 6–24–58, Cl. 222—177.

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Coates, Joseph F., and Lincoln. 2,840,594.

Lincoln, Willis B., Jr.: *See*—
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Linder, Ernest G., to Radio Corp. of America. Electron beam tube. 2,840,754, 6–24–58, Cl. 315—5.34.

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Hunt, John M. 2,840,309.

Linke, Ernest A., to Air Associates, Inc. Electromagnetic clutch and brake. 2,840,205, 6–24–58, Cl. 192—18.

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Listak, Rudolph: *See*—
Mervyn, Charles R., Listak, and Kaden. 2,840,219.

Loach, Bernard G.: *See*—
Mullett, Leslie B., Loach, and Adams. 2,840,788.

Lobdell, Webster A.: *See*—
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Locke, David R., to Sperry Rand Corp. Means for retaining and operating a pivoted hairpocket. 2,839,828, 6–24–58, Cl. 30—41.

Lodvick, George D., and W. L. Martignoni. Cable attachment and carrier. 2,840,008, 6–24–58, Cl. 104—200.

Logan, Frank G., to Vickers Inc. Torque transmitting device with magnetic particles of nickel. 2,830,206, 6–24–58, Cl. 192—21.5.

Logue, Earl E., Jr., and E. P. Bell, to Parker Rust Proof Co. Composition and method for producing combination corrosion resistant and lubricating coatings on metals. 2,840,498, 6–24–58, Cl. 148—6.15.

Long, Jasper, to Wade Electric Products Co. Switch. 2,840,650, 6–24–58, Cl. 200—16.

Longini, Richard L., to Westinghouse Electric Corp. Junction transistors and processes for producing them. 2,840,497, 6–24–58, Cl. 148—1.5.

Longini, Richard L., to Westinghouse Electric Corp. Large storage low noise image tube. 2,840,755, 6–24–58, Cl. 315—11.

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Lord, John G., to United States of America, Army. Split breech block. 2,839,966, 6–24–58, Cl. 89—22.

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Loredo Serra, Miguel A. Apparatus for the inhalation of gases. 2,840,074, 6–24–58. Cl. 128—188.

Lorentzen, Hans K., to Levolor Lorentzen, Inc. Lift cord separator for Venetian blinds. 2,840,157, 6–24–58, Cl. 160—173.

Lorentzen, Hans K., to Lorentzen Hardware Mf'g. Corp. Guiding channel-shaped bodies. 2,840,210, 6–24–58, Cl. 193—1.

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Lorentzen, Levolor, Inc.: *See*—
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Lorenz, Anton. Chair with reclinable seat and back-rest and coordinated leg-rest. 2,840,141, 6–24–58, Cl. 155—106.

Lotz, Otto, to The Babcock & Wilcox Co. Fuel burning apparatus. 2,840,047, 6–24–58, Cl. 122—235.

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Lucien, Rene, to Societe a Responsabilite Limitee Recherches-Etudes-Production R. E. P. Inertia fly-wheel device for the automatic control of braking of a wheel. 2,840,715, 6–24–58 Cl. 200—61.46.

Lund, Arthur D., to The Electric Storage Battery Co. Storage battery grid pasting machine. 2,840,120, 6–24–58, Cl. 141—32.

Lutz, Friedrich, to Union Special Maschinenfabrik G. m. b. H. Sewing machine. 2,840,021, 6–24–58, Cl. 112—159.

Lux, John H., to Shea Chemical Corp. Ruminant feed ingredient. 2,840,473, 6–24–58, Cl. 99—2.

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Lyon, George A. Wheel cover. 2,840,420, 6–24–58, Cl. 301—37.

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MacAneaple, Thomas G., to The Glenn L. Martin Co. Sea state wave meter. 2,839,920, 6–24–58, Cl. 73—170.

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Mackey, Theodore L. Hydraulic tilting blade controls for bulldozers. 2,839,848, 6–24–58, Cl. 37—144.

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Mann, William, and B. Maloney, to American Steel Foundries. Rotor brake. 2,840,193, 6–24–58, Cl. 188—73.

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Marcroft, Harold C. Animal guard for electrical equipment. 2,840,631, 6–24–58, Cl. 174—140.

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Marshall, Charles W., and R. H. Mazur, to G. D. Searle & Co. 16-cyanopregna-3,5-diene-7,20-diones. 2,840,576, 6–24–58, Cl. 260—397.3.

Marshall, Donald E., to Westinghouse Electric Corp. Electric discharge device. 2,840,737, 6–24–58, Cl. 313—13.

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Martin, Joseph M., to Burroughs Corp. Unidirectional rotary electric switch. 2,840,672, 6–24–58, Cl. 200—155.

Martin, Paul, to himself as trustee. Handles for implements. 2,839,864, 6–24–58, Cl. 43—23.

Martin, Robert W., to Shell Development Co. Mannich bases of aromatic polyketones. 2,840,558, 6–24–58, Cl. 260—247.5.

Martinet, André, to E. W. Dunn. Vehicle parking systems. 2,839,854, 6–24–58, Cl. 40—10.

Martino, James. Water flush toilet double dump valve assembly. 2,839,759, 6–24–58, Cl. 4–37.

Marton, Ladislaus L., R. A. Schrack, and J. A. Simpson, to United States of America, Air Force. High vacuum gimbals. 2,840,743, 6–24–58, Cl. 313—151.

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Maschinenfabrik Augsburg-Nürnberg A. G.: *See*—
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Mašek, Antonín, and Z. Malik, to VSCHP, Vyzkumny ustav stroju chaladicich a potravinarskych. Method for continuous production of butter. 2,840,460, 6–24–58, Cl. 31—89.

Mason, Jesse B. Multi-vat chicken fryer. 2,840,436, 6–24–58, Cl. 312—284.

Mason, Philip E. Bumper construction-rollaway bumper. 2,840,411, 6–24–58, Cl. 293—72.

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McClellan, Cyril E., to Westinghouse Electric Corp. Reflecting surfaces. 2,840,819, 6–24–58, Cl. 343—781.
McDonald, Robert L., to Ritter Co., Inc. Medical examination, operating and X-ray table. 2,840,429, 6–24–58, Cl. 311—6.
McEwen, Harry W. Collapsible tube dispensing device. 2,840,273, 6–24–58, Cl. 222—98.
McFarland, Forest R., and P. P. Thomas, to Studebaker Packard Corp. Front suspension steering knuckle with elastic means. 2,840,386, 6–24–58, Cl. 280—96.2.
McGill Daniel F. Gear pump type hydraulic transmission. 2,839,889, 6–24–58, Cl. 60—19.
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McGraw, George P., Jr., to Western Electric Co., Inc. Method of making stacked type capacitors. 2,839,816, 6–24–58, Cl. 29—25.42.
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McKinnis, Art C., to Collier Carbon and Chemical Corp. Method for preparing esters of α-chloro-isobutyric acid. 2,840,597, 6–24–58, Cl. 260—487.
McLane, Fletcher E., to Westinghouse Electric Corp. Electric discharge apparatus. 2,840,762, 6–24–58, Cl. 315—168.
McLaughlin, Donald J., and F. R. Fluhr. Magnetic recording and pickup system. 2,840,440, 6–24–58, Cl. 346—74.
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McMillan, Edward B. Dielectric bodies for transmission of electromagnetic waves. 2,840,811, 6–24–58, Cl. 343—18.
McMillen, Foster, to Kearfott Co., Inc. Heated window wiper. 2,839,773, 6–24–58, Cl. 15—250.5.
McMullin Terence A., to Murphy Radio Ltd. Radar systems. 2,840,783, 6–24–58, Cl. 343—7.3.
McNair, Samuel L. Electrical vibrating device in combination with a cushion. 2,840,071, 6–24–58, Cl. 128—33.
McNaney, Joseph T., and R. R. Tice, to General Dynamics Corp. System for converting telegraphic code into characters. 2,840,637, 6–24–58, Cl. 178—15.
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McNulty, Dorothy G., and R. I. Leininger, to Diamond Alkali Co. Alkyl phenoxy polyoxyethylene ethanol as a dispersant in the polymerization of monoethylenically unsaturated materials. 2,840,549, 6–24–58, Cl. 260—80.
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Mersek, Leo D., to The Ajax Mfg. Co. Wire gripping mechanism. 2,840,381, 6–24–58, Cl. 279—1.
Mervyn, Charles R., R. Listak, and H. E. Kaden, to Newart Mfg. Co. Automatic rack un-loader and loader for plating machines. 2,840,219, 6–24–58, Cl. 198—20.
Messina, Leon A. Method of preparing a metal sheet with canvas textured surface. 2,840,487, 6–24–58, Cl. 117—10.
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Metcalfe, Gordon S. Hydraulic engine oil aspirator. 2,840,123 6–24–58, Cl. 141—285.
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Moncrieff, Alexander D. F. 2,839,968.
Zawaski, Felix F. 2,840,211.
Middleton, Philip B., to Studebaker-Packard Corp. Ignition system for internal combustion engines. 2,840,623. 6–24–58, Cl. 123—148.
Miles, Mearl J., and A. J. Jones. Vehicle towbar. 2,840,392, 6–24–58, Cl. 280—493.
Miller, Alan, to Marconi's Wireless Telegraph Co. Variable frequency oscillators. 2,840,711, 6–24–58, Cl. 250—36.
Miller, Bruce M., to E. I. du Pont de Nemours and Co. Nylon hydrolysis. 2,840,606, 6–24–58, Cl. 260—537.
Miller, Carl F.: *See*—
Aron, Mitchell, and Miller. 2,840,736.
Miller, Charles W., to General Motors Corp. Light sensitive control system. 2,840,758, 6–24–58, Cl. 315—83.
Miller, Joseph F., to Westinghouse Electric Corp. Arc welding apparatus. 2,840,789, 6–24–58, Cl. 336—134.
Miller, Mary L.: *See*—
Biknies, Norbert M., and Miller. 2,840,611.
Millers Falls Co.: *See*—
Huxtable, Leonard G., and Staiger. 2,839,817.
Milliken, Thomas H., and W. L. Weidman, to Houdry Process Corp. Preparation of porous kaolin catalysts. 2,840,530, 6–24–58, Cl. 252—455.
Milliken, Thomas H., Jr.: *See*—
Mills, George A., and Milliken. 2,840,528.
Mills, Charles H. Fixture for holding curtain rod brackets. 2,840,335 6–24–58, Cl. 248—261.
Mills, Edwin R., to The New York Trust Co., and J. H. Balle, trustees. Heat compensator for electric blanket control units 2,840,680 6–24–58, Cl. 219—20.
Mills, George A., and T. H. Milliken, Jr., to Houdry Process Corp. Method of preparing catalyst for reforming gasoline. 2,840,528, 6–24–58, Cl. 252—442.
Mingasson, Georges R. H.: *See*—
Sureau, Robert F. M., and Mingasson. 2,840,552.
Minneapolis-Honeywell Regulator Co.: *See*—
Du Bois, Robert C. 2,840,096.
Russell, Marvin E. 2,840,669.
Minneapolis-Moline Co.: *See*—
Evans, Thomas, Cleveland, and Beach. 2,839,980.
Minter, Herbert F., and J. Swiss, to Westinghouse Electric Corp. Polyester resinous molding compositions and electrical conductor formed therewith. 2,840,538, 6–24–58, Cl. 260—40.
Minton, Robert M., ½ to A. H. Hammer. Fishing rod holder. 2,840,330, 6–24–58, Cl. 248—41.
Mississippi Towing Corp.: *See*—
Chapman, Gale H., and Durant. 2,840,027.
Mitchell, John R., and W. T. Rollings, to G. Q. Parachute Co. Ltd. Shock-absorbing air cushion. 2,840,194, 6–24–58, Cl. 188—87.
Mock, Richard A., and L. R. Morris, to The Dow Chemical Co. Vinylphenyl aliphatic aminocarboxylic acids. 2,840,603, 6–24–58, Cl. 260—518.
Mockrin, Isador: *See*—
Knapp, William J., and Mockrin. 2,840,482.
Mockrin, Isador, and W. J. Knapp, to Pennsalt Chemicals Corp. Potassium-fluorine glasses. 2,840,481, 6–24–58, Cl. 106—48.
Modern Tool & Die Co.: *See*—
Liljenberg, Harry A. 2,840,271.
Liljenberg, Harry A. 2,840,275.
Moerdyk, Earl M. Window screen. 2,840,162, 6–24–58, Cl. 160—377.
Moffats Ltd.: *See*—
Hart, Thomas G. 2,840,679.
Moncrieff, Alexander D. F., to Michigan Tool Co. Hobbing machine. 2,839,968, 6–24–58, Cl. 90—4.
Monroe Calculating Machine Co.: *See*—
Scully, John F. 2,840,705.
Monsanto Chemical Co.: *See*—
Fordham, James W. L. 2,840,539.
Moon, James L.: *See*—
Vogel, Fred J., and Moon. 2,840,790.
Moore, Lee C., Corp.: *See*—
Jenkins, Cecil, Born, Woolslayer, and Maxwell. 2,840,197.
Woolslayer, Homer J., Jenkins, Maxwell, and Born. 2,840,198.
Moore, Robert E., W. R. Bower, and R. D. Strub, to Amana Refrigeration, Inc. Refrigerator inner door structure. 2,840,434, 6–24–58, Cl. 312—214.
Moose, Dale H. Naval cord bander. 2,840,081, 6–24–58, Cl. 128—303.
Mora, Fernando M. Single circuit process and a plant for producing a series of products using wood as starting material. 2,840,515, 6–24–58, Cl. 202—57.
Moran, Harold J., to Switlik Parachute Co., Inc. Delayed opening parachute container. 2,840,328, 6–24–58, Cl. 244—150.
Morgan, Adolph R., to Radio Corp. of America. Portable radio transmitter with combination microphone horn and antenna. 2,840,694, 6–24–58, Cl. 250—14.
Morgan, Bryan E., and G. K. Dumbauld, to Esso Research and Engineering Co. Well cementing composition and method of preparing and using same. 2,840,483, 6–24–58, Cl. 106—90.
Morgan, John E. Knitted fabric. 2,839,909, 6–24–58, Cl. 66—198.
Morgan, Willie A. Combination cast protector and diaper holder. 2,840,077, 6–24–58, Cl. 128—284.
Morison, James C.: *See*—
Doering, Fred W., Jones, and Morison. 2,839,954.
Morley, Frederick W. W., to Rolls-Royce Ltd. Variable area jet nozzles for gas turbine units. 2,839,890, 6–24–58, Cl. 60—35.6.
Morris, John N., ½ to The S. U. Carburetter Co. Ltd., and ½ to Simmonds Aerocessories, Inc. Fuel injection pumps. 2,840,066, 6–24–58, Cl. 123—140.
Morris, Leo R.: *See*—
Mock, Richard A., and Morris. 2,840,603.
Morris, Robert C., to American Hatchery Engineers, Inc. Egg handling apparatus. 2,840,415, 6–24–58, Cl. 294—65.
Morsch, Jesse J. Accelerator pedal latches. 2,839,946, 6–24–58 Cl. 74—513.
Morse, Lawrence H., to Addressograph-Multigraph Corp. Offset printing machine. 2,839,992, 6–24–58, Cl. 101—218.
Moser, Friedrich, to Ri-Ri-Werk A. G. Slide for slide fasteners. 2,839,806, 6–24–58, Cl. 24—205.14.
Moser, Otto. Teletypewriter. 2,840,638, 6–24–58, Cl. 178—23.
Moss, Norman L., and H. A. Thomas, to Lever Brothers Co. Light transmission inspection device for liquids. 2,839,963, 6–24–58, Cl. 88—14.

Motorola, Inc.: *See*—
Sunko, John, and Race. 2,840,793.
Torrence, James A. 2,840,760.

Muetterties, Earl L., to E. I. du Pont de Nemours and Co. Synthesis of alkylated boron compounds. 2,840,590, 6–24–58, Cl. 260—462.

Müller, Paul, to VEB (K) Schweisswerk Halle. Method of electrowelding and products made thereby. 2,840,685, 6–24–58, Cl. 219—73.

Mullett, Leslie B., B. G. Loach, and G. L. Adams, to United States of America, Atomic Energy Commission. Loaded waveguides. 2,840,788, 6–24–58, Cl. 333—31.

Munters, Carl G. Apparatus for impregnating multi-layer paper insulation. 2,839,838, 6–24–58, Cl. 34—75.

Murphy Radio Ltd.: *See*—
McMullin, Terence A. 2,840,783.

Murray, Donald A.: *See*—
Toland, Wayne G., and Murray. 2,839,979.

Murray, John J. Scuttle and ladder combination. 2,840,289, 6–24–58, Cl. 228—42.

Murtagh, James J., and C. C. Kinker, to J. J. Murtagh. Burnishing machine. 2,839,876, 6–24–58, Cl. 51—99.

Muspratt, Paul M. Radiant heating panel. 2,840,353, 6–24–58, Cl. 257—124.

Myers, Harold B., to Burroughs Corp. Card container. 2,840,083, 6–24–58, Cl. 129—16.

N. V. Springit: *See*—
Kruk, Gerrit. 2,840,365.

Naekel, Leo G. Can opener for a can having a tear strip. 2,840,263, 6–24–58, Cl. 220—52.

Naill, Eugene J., and R. W. Reynolds, to Machlett Laboratories, Inc. Lathes. 2,839,959, 6–24–58, Cl. 82—28.

Najarian, Herand K., to St. Joseph Lead Co. Method of reducing metal chlorides. 2,840,466, 6–24–58, Cl. 75—84.5.

Nathan, Marvin F., to The M. W. Kellogg Co. Process for separating recycle hydrogen from entrained condensed gases in hydrodesulfurization process. 2,840,513, 6–24–58, Cl. 196—24.

National Cylinder Gas Co.: *See*—
Bottoms, Robert R. 2,840,616.
Chouinard, Alfred F., and Spencer. 2,840,016.
Fleming, Harold W., and Reitmeier. 2,840,531.

National Plastic Products Co., The: *See*—
Winer, Ephraim. 2,840,430.

National Products Corp.: *See*—
Marden, Carleton S. 2,840,622.

National Research Development Corp.: *See*—
Cooper, Frank, and Malbon. 2,840,798.
Squire, John R., and Rowe. 2,840,069.
Williams, Frederic C., Kilburn, Tootill, Pollard, Thomas, and Edwards. 2,840,304.
Williams, Frederic C., Kilburn, Tootill, and Pollard. 2,840,305.

Nauta, Johannes E. Device for homogenizing powdery or granular material. 2,840,357, 6–24–58, Cl. 259—21.

Nelman, Howard S., Jr., to George P. Pilling & Son Co. Eating utensil. 2,839,830, 6–24–58, Cl. 30—147.

Nelson, Arthur, and W. R. Schwolow, to Sperry Rand Corp. Dual sheet feed mechanism. 2,840,217, 6–24–58, Cl. 197—133.

Nelson, Howard N., to Kimberly-Clark Corp. Dispensing carton. 2,840,266, 6–24–58, Cl. 221—48.

Nelson, Howard N., to Kimberly-Clark Corp. Dispensing carton. 2,840,267, 6–24–58, Cl. 221—48.

Nelson, Morris D., and B. Fisher, to Radio Corp. of America. Television intermediate frequency amplifiers. 2,840,645, 6–24–58, Cl. 179—171.

Nelson, Paul H., to The Stanley Works. Aligning bracket for accordion door. 2,839,776, 6–24–58, Cl. 16—1.

Newart Mfg. Co.: *See*—
Mervyn, Charles R., Listak, and Kaden. 2,840,219.

Newsom, William G. Dispenser for flush tank deodorant bottle. 2,839,763, 6–24–58, Cl. 4—227.

New York Trust Co., The: *See*—
Mills, Edwin R. 2,840,680.

Nitchman, Joseph H. Alarm device. 2,840,033, 6–24–58, Cl. 116—112.

Noble, Carl M., to Electric Eye Equipment Co. Registration control or indicating device. 2,840,370, 6–24–58, Cl. 271—2.6.

Nobles, Daniel, and N. L. Meyerson, to Worthington Corp. Means for reducing acoustical energy in a fluid translating system. 2,840,180, 6–24–58, Cl. 181—42.

Noell, William. Garden tool. 2,839,982, 6–24–58, Cl. 97—68.

Nomura, Ryutaro. Portable pools. 2,839,762, 6–24–58, Cl. 4—172.

Nordstrom, Gordon J., to Collins Radio Co. Electric motor multiturn shaft positioning means. 2,840,774, 6–24–58, Cl. 318—467.

Noren, Tore H.: *See*—
Federighi, George J., and Noren. 2,840,227.

Norgren, C. A., Co.: *See*—
Norgren, Carl A. 2,840,185.

Norgren, Carl A., to C. A. Norgren Co. Aerosol reclassifier. 2,840,185, 6–24–58, Cl. 183—79.

North American Philips Co., Inc.: *See*—
Koevoet, Arie L., Verloop, and Buisman. 2,840,575.

Northrop Aircraft, Inc.: *See*—
Magnuson, Vernon P., and Hagen. 2,840,311.

Norton, Frederick H., to The Dow Chemical Co. Process for producing ethionine and its salts. 2,840,587, 6–24–58, Cl. 260—429.9.

Norton, Frederick H., to The Dow Chemical Co. Preparation of 2-hydroxy-2-phenylethanesulfonic acid and salts. 2,840,601, 6–24–58, Cl. 260—512.

Nottelmann, John F., and C. E. Spaeder, to General Electric Co. Brush holder clamping arrangement. 2,840,732, 6–24–58, Cl. 310—239.

Nottelmann, John F., and C. E. Spaeder, to General Electric Co. Spring assembly for carbon brush holder. 2,840,784, 6–24–58, Cl. 310—246.

Notthoff, Arthur P., Jr.: *See*—
Walters, Glenn A., and Notthoff. 2,840,817.

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Noyes, Hiland B. 2,840,265.

Noyes, Hiland B., to H. B. Noyes, and E. E. Fies, doing business as Noyes and Fies. Currency dispensing apparatus. 2,840,265, 6–24–58, Cl. 221—9.

Nydqvist & Holm Aktiebolag: *See*—
Stage, Ernst E. 2,840,344.

Nyland, J. Arthur, to General Motors Corp. Lubrication system. 2,840,186, 6–24–58, Cl. 184—6.

Ocko, Richard, and K. K. Bay, to General Electric Co. Transmitter tuning method and apparatus. 2,840,697, 6–24–58, Cl. 250—17.

Odioso, Raymond C.: *See*—
Corson, Ben B., Heintzelman, and Odioso. 2,840,621.

Ogg, Robert D., to Danforth Anchors. Anchors. 2,840,029, 6–24–58, Cl. 114—208.

Ohlinger, Leo A.: *See*—
Young, Gale J., and Ohlinger. 2,840,522.

Oilgear Co., The: *See*—
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Okoomian, Howard J., and L. P. Herrington, to J. B. Pierce Foundation. Heat insulating sheet or panel. 2,840,500, 6–24–58, Cl. 154—44.

Okress, Ernest C., and R. J. Green, to Westinghouse Electric Corp. Method of emission suppression in vacuum tubes, especially magnetron hats. 2,840,493, 6–24–58, Cl. 117—216.

Olin Mathieson Chemical Corp: *See*—
Perlman, David, Dutcher, Fried, and Titus. 2,840,578.
Perlman, David, Dutcher, Fried, and Titus. 2,840,579.
Perlman, David, Dutcher, Fried, and Titus. 2,840,580.

O'Malley, James A., Jr.: *See*—
Hood, Gordon K., Jr., and O'Malley. 2,840,323.

Omark Industries, Inc.: *See*—
Hill, Emil H., and England. 2,840,678.

Ondeck, Elmer J., to Supreme Products Corp. Reversible power tool drive attachment. 2,839,952, 6–24–58, Cl. 74—750.

Orlandi, Nello. Cable control auto body leveling device. 2,840,387, 6–24–58, Cl. 280—104.

Orth, George O., Jr., and J. Spinelli, to American Potash & Chemical Corp. Coating composition. 2,840,478, 6–24–58, Cl. 106—18.

Orthwin, Sidney. Tailor tacker. 2,839,993, 6–24–58, Cl. 101—368.

Ostermann, Ernst. Pouring device for containers. 2,840,281, 6–24–58, Cl. 222—484.

Ousbäck, Bror G.: *See*—
Sundberg, Erik G., and Ousbäck. 2,840,625.

Owen, Herbert E., to Esso Research and Engineering Co. Recording electrical signals with polarized light. 2,840,441, 6–24–58, Cl. 346—108.

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Austin, Lewis M. 2,839,871.
Cline, Leon E. 2,839,872.
Kempter, Charles P., and Alvarez-Tostado. 2,840,489.

Oxy-Catalyst, Inc.: *See*—
Krieble, Elvin L., and Houdry. 2,840,362.

Pachuta, Martin: *See*—
Henderson, Frank J., and Pachuta. 2,840,005.

Package Machinery Co.: *See*—
Schopnee, Lawrence W. 2,840,223.

Packard, Elon E. Coupler draft key retainer. 2,840,245, 6–24–58, Cl. 213—50.5.

Paetz, Robert A., to Thompson Products, Inc. Axial flow compressor rotor. 2,840,299, 6–24–58, Cl. 230—134.

Page, Franklin, Jr., to United States of America, Navy. Mounting for plug-in units. 2,840,791, 6–24–58, Cl. 339—92.

Page, Raymond L., to Truckstell Mfg. Co. Swivel connection between vehicle sections. 2,840,389, 6–24–58, Cl. 280—111.

Paige, Richard E. Slotted partitions for shipping cases. 2,840,293, 6–24–58, Cl. 229—15.

Paist, Walter D.: *See*—
Weber, Harold, and Paist. 2,839,784.

Pakala, William E.: *See*—
Williams, Clifton S., and Pakala. 2,840,761.

Palmer, Frederick L.: *See*—
Palmer, Richard L. and F. L. 2,840,132.

Palmer, John M., and R. A. Schmidt. Displays. 2,839,855, 6–24–58, Cl. 40—33.

Palmer, Richard L. and F. L., 9/10 to R. L. Palmer and 1/10 to F. L. Palmer. Rim carrying detachable tire lug. 2,840,132, 6–24–58, Cl. 152—225.

Palmer, Warren G., to American Machine & Foundry Co. Apparatus for turning cigarettes. 2,840,222, 6–24–58, Cl. 198—33.

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Jones, Loyd W. 2,840,525.
Jones, Loyd W. 2,840,584.

Panoramic Radio Products, Inc.: *See*—
Hurvitz, Hyman. 2,840,701.

Pappas, Mike. Arch supports. 2,839,846, 6–24–58, Cl. 36—71.

Parker, Henry W. Manufacture of transistors. 2,840,494, 6–24–58, Cl. 148—1.5.

Parker, Henry W. Cathode spot television receiving system. 2,840,632, 6–24–58, Cl. 178—5.4.

Parker Rust Proof Co.: *See*—
Logue, Earl E., Jr., and Bell. 2,840,498.

Parkin, Leslie: *See*—
Simpson, John, and Parkin. 2,840,113.

Parry, Lucille S., 1/2 to W. Parry. Boat anchor. 2,840,030, 6–24–58, Cl. 114—208.

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Parry, Lucille S. 2,840,030.

Parsons, Darrell E., to Bendix Aviation Corp. Positive action build-up and vent valve. 2,840,110, 6–24–58, Cl. 137—625.27.

Parsons, Stuart W., and G. E. Gilpatrick, to The Stanley Works. Door check. 2,839,777, 6–24–58, Cl. 16—66.

Patten, Lorraine E., and H. C. Kelly, to The Dow Chemical Co. Method of coating articles of food and product obtained thereby. 2,840,475, 6–24–58, Cl. 99—166.

Paul, Alex, to Radio Steel & Mfg. Co. Wheel structure and bearing member for use in same. 2,840,421, 6–24–58, Cl. 301—63.

Paul, Joseph N. Cam assembly. 2,839,948, 6–24–58, Cl. 74—568.

Pauli, Karl-Heinz. Outside thermometer particularly for motor vehicles. 2,839,924, 6–24–58, Cl. 73—349.

Payne, Walter B.: *See*—
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Pearce, Dixon F., and R. L. Freeman. Quill feeding apparatus. 2,840,116, 6–24–58, Cl. 139—245.

Pease, Donald C., to E. I. du Pont de Nemours and Co. Process for the preparation of difluorosilylene and the polymers thereof. 2,840,588, 6–24–58, Cl. 260—448.2.

Pellatt, Howard S. Self-threading shuttle eye. 2,840,115, 6–24–58, Cl. 139—223.

Pellegrino, Alfred R.: *See*—
Hutchinson, John L., McLellan, and Bellliveau. 2,839,778.

Pelton, George E., to I. S. Pelton. Typing apparatus and supplies for typists to enable them to secure finer writing results at less cost. 2,840,218, 6–24–58, Cl. 197—151.

Pelton, Ida S.: *See*—
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Pennsalt Chemicals Corp.: *See*—
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Mockrin, Isador, and Knapp. 2,840,481.

Pennsylvania Furnace and Iron Co.: *See*—
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Penrose, Reynold J. Furnace structure. 2,840,363, 6–24–58, Cl. 263—21.

Peras, Lucien J., to Regie Nationale des Usines Renault. Cooling systems of vehicle engines. 2,840,061, 6–24–58, Cl. 123—41.48.

Perkins, Robert M.: *See*—
Demarest, Daniel D., Perkins, Karius, and Berendt. 2,839,780.

Perlman, David, J. D. Dutcher, J. Fried, and E. O. Titus, to Olin Mathieson Chemical Corp. 9 α-hydroxyprogesterone. 2,840,578, 6–24–58, Cl. 260—397.45.

Perlman, David, J. D. Dutcher, J. Fried, and E. O. Titus, to Olin Mathieson Chemical Corp. 9 α-hydroxy-6-oxygenated progesterones. 2,840,579, 6–24–58, Cl. 260—397.45.

Perlman, David, J. D. Dutcher, J. Fried, and E. O. Titus, to Olin Mathieson Chemical Corp. 9 α-hydroxy steroids. 2,840,580, 6–24–58, Cl. 260—397.45.

Persinger, Laverne O.: *See*—
Persinger, William G. 2,839,989.

Persinger, Merle L.: *See*—
Persinger, William G. 2,839,989.

Persinger, William G., to L. O. and M. L. Persinger. Barbeque grill attachment. 2,839,989, 6–24–58, Cl. 99—421.

Peters, Donald R., to General Motors Corp. Machine control and tolerance gauging device. 2,839,878, 6–24–58, Cl. 51—165.

Peterson, Edward C., to Birdsboro Steel Foundry and Machine Co. Auxiliary manipulator. 2,839,956, 6–24–58, Cl. 80—49.

Peterson, Glen. Means for transducing elastic waves. 2,840,695, 6–24–58, Cl. 250—17.

Peterson, John J.: *See*—
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Peterson, Robert L., to General Controls Co. System for deriving average intensity of flame and comparing instantaneous intensity therewith. 2,840,719, 6–24–58, Cl. 250—205.

Pezzaglia, Philip, to Shell Development Co. Process for manufacture of glycidyl ethers of polyhydric phenols. 2,840,541, 6–24–58, Cl. 260—47.

Pfaff, Elmer F. Fastener driving tool. 2,839,754, 6–24–58, Cl. 1—47.

Philco Corp.: *See*—
Better, Ralph H., Bradley, and Rubinoff. 2,840,801.

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Edwards, Clyde H., Jr., and Whitsel. 2,839,825.
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Phipps, John D. B., to Floatex Separations Ltd. Sand classifying apparatus. 2,840,238, 6–24–58, Cl. 209—156.

Piccione, Nicholas E., to Burndy Engineering Co. Inc. Electrical bus disconnect. 2,840,674, 6–24–58, Cl. 200—163.

Pieper, Josef H. F., to Hercules Powder Co. Method of preparing caprolactam. 2,840,553, 6–24–58, Cl. 260—239.3.

Pieper, Joseph H. F., to Hercules Powder Co. Method of preparing caprolactam. 2,840,554, 6–24–58, Cl. 260—234.3.

Pierce, Earl R., to General Motors Corp. High temperature seals. 2,840,350, 6–24–58, Cl. 257—1.

Pierce, John B., Foundation: *See*—
Okoomian, Howard J., and Herrington. 2,840,500.

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Scott, Hayes O., and Pietsch. 2,840,408.

Pilling, George P., & Son Co.: *See*—
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Pittsburgh Consolidation Coal Co.: *See*—
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Plagge, Vernon L.: *See*—
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Platte, William N., to Westinghouse Electric Corp. Weldable sintered molybdenum. 2,839,819, 6–24–58, Cl. 29—182.

Podbielniak, Walter J., ½ to W. G. Podbielniak. Centrifugal counter-current contacting apparatus. 2,840,301, 6–24–58, Cl. 233—15.

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Podbielniak, Walter J. 2,840,301.

Polanin, Walter R., and J. A. Buvelot, to American Steel Foundries. Railway brake. 2,840,190, 6–24–58, Cl. 188—33.

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Williams, Frederic C., Kilburn, Tootill, Pollard, Thomas, and Edwards. 2,840,304.

Pollard, Marion D., to Lorain Products Corp. Truck boom. 2,840,255, 6–24–58, Cl. 214—513.

Ponce, Lucien G., to Libbey-Owens-Ford Glass Co. Rear view mirror. 2,839,964, 6–24–58, Cl. 88—98.

Poole, Richard C., Jr., to W. D. Lynch. Carton for packaging merchandise in multiple. 2,840,232, 6–24–58, Cl. 206—65.

Pope, Harold W., to Sanders Associates, Inc. Gyroscope. 2,839,931, 6–24–58, Cl. 74—5.

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Portail, Fernand, to Compagnie Industrielle des Piles Electriques Cipel. Alkaline battery cells. 2,840,626, 6–24–58, Cl. 136—102.

Poshkus, Algirdas C.: *See*—
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Pottmeyer, Edward W., to Blaw-Knox Co. Metallic skewback beam. 2,840,046, 6–24–58, Cl. 122—6.

Powell, George C.: *See*—
Routledge, James H. 2,840,105.

Power Brake Parts Mfg. Co.: *See*—
Budreck, Frances. 2,839,965.

Powers-Samas Accounting Machines Ltd.: *See*—
Thomas, Arthur. 2,840,165.

Powerscope, Inc.: *See*—
Calfee, Virgil T. 2,839,937.

Pratt & Whitney Co., Inc.: *See*—
Kamm, Lawrence J. 2,840,771.

Precopio, Frank M., to General Electric Co. Condensation polymers of 2,6-dihydroxy-4-carboxy-pyridine and formaldehyde and method of making the same. 2,840,544, 6–24–58, Cl. 260—67.5.

Price, Harvey N., to General Electric Co. Electric discharge device including improved anode structure. 2,840,746, 6–24–58, Cl. 313—217.

Price, John A., and W. M. Thomas, to American Cyanamid Co. Process for polymerizing vinyl compounds containing a basic nitrogen atom. 2,840,550, 6–24–58, Cl. 260—80.5.

Price, Richard H., to Saunders Valve Co. Ltd. Diaphragm valves and diaphragms therefor. 2,840,339, 6–24–58, Cl. 251—331.

Priestman, Bewley D.: *See*—
Corbin, Russell G., and Priestman. 2,839,912.

Profos, Paul, to Sulzer Freres, Société Anonyme. Temperature measuring system. 2,839,925, 6–24–58, Cl. 73—364.

Progressive Machinery Corp.: *See*—
Burman, Joseph O. 2,840,369.

Pryne, Ralph, to Emerson-Pryne Co. Ventilating hood construction. 2,839,987, 6–24–58, Cl. 98—115.

Pullig, Tillman R., to The Texas Co. Process for preparing corrosion inhibitors. 2,840,610, 6–24–58, Cl. 260—552.

Pullman-Standard Car Mfg. Co.: *See*—
Roen, Thor R. 2,840,010.

Purchas, William J., Jr., to General Motors Corp. Hydraulic valve lifter. 2,840,063, 6–24–58, Cl. 123—90.

Pure Oil Co., The: *See*—
Zollinger, William J. 2,839,835.

Quaker Oats Co., The: *See*—
Brown, Lloyd H., Reineck, and Huett. 2,840,543.

Quate, Calvin F.: *See*—
Cutler, Cassius C., Mendel, and Quate. 2,840,752.

Quoss, Henry N. Sealing threshold. 2,839,796, 6–24–58, Cl. 20—64.

Rabinow, Jacob, L. M. Andrews, and J. W. Bowling, to United States of America, Army. Inertia and air-operated arming mechanism. 2,839,998, 6–24–58, Cl. 102—81.2.

Race, Clarence F.: *See*—
Sunko, John, and Race. 2,840,793.

Radio Corp. of America: *See*—
Andres, Roy K., and Backus. 2,840,815.
Bedford, Alda V. 2,840,634.
Burns, Leslie L., Jr. 2,840,635.
Dawson, Ernest D. 2,839,936.
Jenny, Dietrich A. 2,840,496.
Koros, Leslie L., and Hoover. 2,840,647.
Linder, Ernest G. 2,840,754.
Morgan, Adolph R. 2,840,694.
Nelson, Morris D., and Fisher. 2,840,645.
Ruzinsky, Herbert. 2,840,735.
Strauss, Herbert E. 2,840,693.

Radio Steel & Mfg. Co.: *See*—
Paul, Alex. 2,840,421.

Rae, Walter S., Jr. Welding apparatus. 2,840,687, 6–24–58, Cl. 219—158.

Ragonese, Antonio. Testing device. 2,840,781, 6–24–58, Cl. 324—51.

Ragsdale, La Verne B., to General Motors Corp. Single track seat adjuster. 2,840,139, 6–24–58, Cl. 155—14.

Raibourn, Paul. Color television receiver. 2,840,633, 6–24–58, Cl. 178—5.4.

Ramaker, Donald P.: *See*—
Jedrziewski, Chester M., and Ramaker. 2,840,171.

Rambo, Sheldon I., and M. P. Vore, to Westinghouse Electric Corp. Stroboscopic lamp control arrangements. 2,840,763, 6–24–58, Cl. 315—233.

Ramsey, James B.: *See*—
Anderson, Paul T., and Ramsey. 2,840,664.

Rand, Rufus R. Shoe polishing devices. 2,839,774, 6–24–58, Cl. 15—258.

Rasmusson, Martin B. Stick holder. 2,840,011, 6–24–58, Cl. 107—8.

Rauth, John D.: *See*—
Richardson, Urban W., and Rauth. 2,840,326.

Ray, William A., to General Controls Co. Flame detecting means. 2,840,146, 6–24–58, Cl. 158—28.

Rayburn, Charles C., and H. M. Horsman, to ACF Industries, Inc. Module mounting device having cam actuated, pivotally mounted tab bending arms. 2,840,134, 6–24–58, Cl. 153—17.

Rayette, Inc.: *See*—
Whitman, Ross, and Den Beste. 2,840,086.

Raymond, Edward E. Ornamental aluminum railing. 2,840,349, 6–24–58, Cl. 256—21.

Raytheon Mfg. Co.: *See*—
Dench, Edward C. 2,840,757.
Spencer, Percy L. 2,840,785.

Rector, Gaylard A. Vehicle parking means. 2,840,174, 6–24–58, Cl. 180—1.

Reed, George H., and W. P. Porcelli, to Acme Steel Co. Stapling machine. 2,839,753, 6–24–58, Cl. 1—2.

Reed, Richard H., and R. J. Stegen, to Hughes Aircraft Co. Slotted antenna. 2,840,818, 6–24–58, Cl. 343—770.

Reed, Robert D., to John Zink Co. Gas burner heads. 2,840,152, 6–24–58, Cl. 158—116.

Reeves, Charles E. G., to Falcon Alarm Co., Inc. Portable signalling device. 2,840,032, 6–24–58, Cl. 116—112.

Reeves, Raymond J. D., to E. K. Cole Ltd. Oscilloscopes. 2,840,756, 6–24–58, Cl. 315—22.

Reeves, Samuel E., and D. L. Scott, said Reeves assor. to said Scott. Features restoring aid. 2,839,815, 6–24–58, Cl. 27—21.

Regie Nationale des Usines Renault: *See*—
Peras, Lucien J. 2,840,061.

Reichenbach, Howard F., to Eyelet Specialty Co. Moisture proof propellent applicator. 2,840,231, 6–24–58, Cl. 206—56.

Reineck, Edward A.: *See*—
Brown, Lloyd H., Reineck, and Huett. 2,840,543.

Reiner, Stewart, and S. Domeshek, to United States of America, Navy. Automatic rectification system. 2,839,974, 6–24–58, Cl. 95—12.5.

Reishauer-Werkzeuge A. G.: *See*—
Rickenmann, Alfred. 2,839,875.

Reitmeier, Ronald E.: *See*—
Fleming, Harold W., and Reitmeier. 2,840,531

Renaut, Paul E. Frequency modulation. 2,840,779, 6–24–58, Cl. 323—90.

Resina Automatic Machinery Co. Inc.: *See*—
De Bastos, Emil N., and Weller. 2,839,882.

Rettie, George W. Alarm switch. 2,840,655, 6–24–58, Cl. 200—61.62.

Reynolds, Robert W.: *See*—
Naill, Eugene J., and Reynolds. 2,839,959.

Ri-Ri-Werk A. G.: *See*—
Moser, Friedrich. 2,839,806.

Rice, Lyman A.: *See*—
Bolles, Julius H., and Rice. 2,840,768.

Rich, Stanley R.: *See*—
Roth, Wilfred, and Rich. 2,839,915.

Richard, William E., and T. G. Scheitlin, to Whirlpool Corp. Refrigerator doors and door shelves. 2,840,433, 6–24–58, Cl. 312—214.

Richardson Mfg. Co.: *See*—
Bishop, Jerald W. 2,839,884.

Richardson, Urban W., and J. D. Rauth, to The Martin Co. Aerodynamic brake for aircraft. 2,840,326, 6–24–58, Cl. 244—113.

Richter, Hans: *See*—
Junkmann, Karl, Kathol, and Richter. 2,840,508.

Richter, Herbert M. Replacement unit valve device, adapted for use in faucets, or the like. 2,840,102, 6–24–58, Cl. 137—454.6.

Rickenmann, Alfred, to Reischauer-Werkzeuge A. G. Machine for the grinding of cylindrical, conical and crowned spur gears and helical gears by the generating principle. 2,839,875, 6–24–58, Cl. 51—95.

Rifkin, Michael. Window latching device. 2,840,406, 6–24–58, Cl. 292—149.

Ring, Harold H.: *See*—
Ahlgren, Axel W., and Ring. 2,839,938.

Ritter Co. Inc.: *See*—
Lauterbach, Norman E. 2,840,432.
McDonald, Robert L. 2,840,429.

Robbins, Noel. Surgical instrument for intradermal injection of fluids. 2,840,076, 6–24–58, Cl. 128—253.

Roberts, John F., to E. Ladd. Telescopic ladders. 2,840,290, 6–24–58, Cl. 228—48.

Roberts, Seward M., and S. H. Ericson, to American Flange & Mfg. Co., Inc. Capseal applying tool. 2,839,883, 6–24–58, Cl. 53—348.

Roberts, William L.: *See*—
Kruper, Andrew P., Roberts, Kuntz, and Jones. 2,840,738

Robinson, Bruce E.: *See*—
Bradley, Robert O., and Robinson. 2,839,995.

Robinson, Robert M. Windrow type box. 2,839,975, 6–24–58, Cl. 94—44.

Rockwell Spring and Axle Co.: *See*—
Faust, Charles L., and Safranek. 2,840,517.

Rodgers, George H., to Marco Industries Co. Multiple indicator and warning light switching system. 2,840,804, 6–24–58, Cl. 340—213.

Roen, Thor R., to Pullman-Standard Car Mfg. Co. Hatch frame arrangement. 2,840,010, 6–24–58, Cl. 105—377.

Roeser, John O., to Illinois Tool Works. Low travel switch mechanism. 2,840,656, 6–24–58, Cl. 200—67.

Roeser, John O., to Illinois Tool Works. Two circuit snap switch. 2,840,657, 6–24–58, Cl. 200—67.

Rohm & Haas Co.: *See*—
Brown, William V. 2,840,591.
Hwa, Jesse C. H. 2,840,533.
Yost, Robert S. 2,840,545.
Yost, Robert S. 2,840,546.
Yost, Robert S. 2,840,561.
Yost, Robert S. 2,840,566.

Rohr Aircraft Corp.: *See*—
Rohr, Fred H. 2,840,394.

Rohr, Fred H., to Rohr Aircraft Corp. Flexible joint engine exhaust duct with bellows seal. 2,840,394, 6–24–58, Cl. 285—226.

Roll-O-Matic Chain Co.: *See*—
Lee, Earnest M. 2,840,158.

Rollings, William T.: *See*—
Mitchell, John R., and Rollings. 2,840,194.

Rolls-Royce Ltd.: *See*—
Gresham, Harold E., Wheeler, and Bird. 2,840,469.
Griffith, Alan A. 2,840,322.
Griffith, Alan A. 2,840,325.
Morley, Frederick W. W. 2,839,890.

Roseman, Leo. Strip feeding means with compensator for strips of varying width. 2,840,374, 6–24–58, Cl. 271—55.

Rosenberg, Joseph and M. A. Graff, to General Electric Co. Ethoxyline resin-hexachloroendomethylenetetrahydrophthalic anhydride compositions having long pot life. 2,840,540, 6–24–58, Cl. 260—47.

Rosenblum, Robert A., and R. F. Windstrup. Extractor for recoil-operated, revolver-type automatic gun. 2,839,861, 6–24–58, Cl. 42—68.

Rosenkranz, George, and C. Djerassi, to S. A. Syntex. Method of preparation of cyclopentanophenanthrene derivatives. 2,840,555, 6–24–58, Cl. 260—239.55.

Rosenthal, Henry. Gas turbine cycle employing secondary fuel as a coolant, and utilizing the turbine exhaust gases in chemical reactions. 2,839,892, 6–24–58, Cl. 60—39.05.

Ross, Arthur. To General Motors Corp. Windshield header vent. 2,839,985, 6–24–58, Cl. 98—2.

Roth, Walter L., and A. A. Bogdon, to Bendix Aviation Corp. Electron discharge tube shield and mounting. 2,840,629, 6–24–58, Cl. 174—35.

Roth, Wilfred, and S. R. Rich, to Bendix Aviation Corp. Method and apparatus for measuring viscosity, etc., of fluid-like materials. 2,839,915, 6–24–58, Cl. 73—59.

Rothemund, Max, to Maschinenfabrik Augsburg-Nürnberg A. G. Starting of gas turbine plants. 2,839,893, 6–24–58, Cl. 60—39.14

Rothoff, Arnold H., to Dixie Type and Supply Co. Rotary numbering attachment for offset printing press. 2,839,991, 6–24–58, Cl. 101—77.

Roubal, Alexander J., to Allis-Chalmers Mfg. Co. Car shaker. 2,840 251, 6–24–58 Cl. 214—83.3.

Roussos, Mary. Method of plaiting and apparatus for the practice of such method. 2,840,283, 6–24–58, Cl. 223—30.

Routledge, James H., 40% to G. C. Powell. Venting device. 2,840,105, 6–24–58, Cl. 137—493.

Rowand, Will H.: *See*—
Coulter, Earl E., Rowand, and Sprague. 2,840,182.

Rowand, Will H., to The Babcock & Wilcox Co. Power generating and superheating method, and apparatus therefor. 2,840,054, 6–24–58, Cl. 122—479.

Rowe, David S.: *See*—
Squire, John R., and Rowe. 2,840,069.

Rowell, Claude F., J. S. De Puy, and R. Bailey. Oleaginous composition and method of using same. 2,840,479, 6–24–58, Cl. 106—38.24.

Rubenstein, Robert, and S. Weisberg. Vaporizer. 2,840,682, 6–24–58, Cl. 219—40.

Rubinoff, Morris: *See*—
Better, Ralph H., Bradley, and Rubinoff. 2,840,801.

Rudszinat, Willy, to Kurt Korber & Co., K. G. Device for cutting cigarette filter rods. 2,840,164, 6–24–58, Cl. 164—59.

Ruehle, Archie E., to United States of America, Atomic Energy Commission. Recovery of uranium from pitchblende. 2,840,452, 6–24–58, Cl. 23—14.5.

Rugen, Vernon L., to Deere Mfg. Co. Transmission and control therefor. 2,839,941, 6–24–58, Cl. 74—359.

Ruggles, Donald H., to Ventaire Co. Louvered awnings. 2,839,795, 6–24–58, Cl. 20—57.5.

Russell, Marvin E., to Minneapolis-Honeywell Regulator Co. Control device. 2,840,669, 6–24–58, Cl. 200—140.

Russell, Robert C., to Eaton Mfg. Co. Transmission mechanisms. 2,839,950, 6–24–58, Cl. 74—677.

Ruyle, William V.: *See*—
Chemerda, John M. and Ruyle. 2,840,574.

Ruzinsky, Herbert, to Radio Corp. of America. Electron tube mount. 2,840,735, 6–24–58, Cl. 313—1.

Rylander, Paul N., and W. A. Junk, Jr., to Standard Oil Co. Process of extraction with 2-oxazolidone solvents. 2,840,511, 6–24–58, Cl. 196—14.27.

S. A. M. P. R. E.-Soc Az. Meccanica Precisione: *See*—
Fusaroli, Goffredo. 2,840,321.

S. D. A. Vetrocoke: *See*—
Giammarco, Giuseppe. 2,840,450.

S. U. Carburetter Co. Ltd., The: *See*—
Morris, John N. 2,840,066.

S & W Fine Foods, Inc.: *See*—
Carroll, Ellsworth W. 2,840,221.

Safranek, William H.: *See*—
Faust, Charles L., and Safranek. 2,840,517.

Saint Cornelius The Centurion Chapel of Valley Forge Military Academy: *See*—
Kass, Gus S. 2,840,509.

St. Joseph Lead Co.: *See*—
Najarian, Herand K. 2,840,466.

Salansky, Franz A., to Technica Establishment. Piston packings. 2,840,426, 6–24–58, Cl. 309—4.
Salvatore, Joseph E. Elastic band expanding device. 2,840,082, 6–24–58, Cl. 128—303.
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Hayner Paul F. 2,839,930.
Hayner Paul F. 2,839,932.
Pope, Harold W. 2,839,931.
Shomphe, George J. 2,839,933.
Shomphe, George J. 2,839,934.
Sanders, Paul L., and F. E. and R. G. Haley. Slab door. 2,839,792, 6–24–58, Cl. 20—35.
Sandiford, R. E., to Consolidated Electrodynamics Corp. Variable ring counter. 2,840,708, 6–24–58, Cl. 250—27.
Sands, Donald J.: *See*—
Haug, Donald H. 2,840,142.
Sankovich, Stanley: *See*—
Guss, William A., and Sankovich. 2,840,367.
Santinni, Danilo, and G. Macredis, to Westinghouse Electric Corp. Elevator systems. 2,840,189, 6–24–58, Cl. 187—29.
Santoro, John L. Golf club guide. 2,840,379, 6–24–58, Cl. 273—192.
Sasserson, Curtis F., and H. A. Johnson., to Pennsylvania Furnace and Iron Co. Valve structure for tanks. 2,840,337, 6–24–58, Cl. 251—86.
Sauer, John C.: *See*—
Howk, Benjamin W., and Sauer. 2,840,548.
Howk, Benjamin W., and Sauer. 2,840,613.
Sauer John C., to E. I. du Pont de Nemours and Co. Dilactones and their preparation from carbon monoxide and acetylenes. 2,840,570, 6–24–58, Cl. 260—343.6.
Sauer, John C., to E. I. du Pont de Nemours and Co. Hydrogenation process for preparing 1,8-octanedioic acids from certain dilactones with a platinum catalyst. 2,840,609, 6–24–58 Cl. 260—537.
Saunders Valve Co. Ltd.: *See*—
Price, Richard H. 2,840,339.
Saurer, Curt: *See*—
Guy, Frederick M., and Saurer. 2,840,403.
Savage, Conwell, to Westinghouse Electric Corp. Elevator systems. 2,840,188, 6–24–58, Cl. 187—29.
Saylor, Arthur D. Plumbing system. 2,840,101, 6–24–58, Cl. 137—335.
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Richard, William E., and Scheitlin. 2,840,433.
Scherer, Karl. Accordions. 2,839,961, 6–24–58, Cl. 84—376.
Schering A. G.: *See*—
Junkmann, Karl, Kathol, and Richter. 2,840,508.
Schermerhorn, James R., 50% to Bullard Brothers Co. Watch band. 2,840,286, 6–24–58, Cl. 224—4.
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Werner, Walter, and Schlegel. 2,840,313.
Schloer, Henry C. Spring biased self-opening gate. 2,839,852, 6–24–58, Cl. 59—43.
Schmidt, Lewis W. Topping unit for sugar beet harvesters. 2,840,173, 6–24–58, Cl. 171—37.
Schmidt, Rudolf A.: *See*—
Palmer, John M., and Schmidt. 2,839,855.
Schmitt, Helmut. Power operated automatic screw driver. 2,840,126, 6–24–58, Cl. 144—32.
Schmitz, Henri. Combustion device for fuel oils. 2,830,144, 6–24–58, Cl. 158—4.
Schnell, Carl, ½ to The Griffith Laboratories, Inc. Comminuting machine having perforated plate and rotary cutter. 2,840,318, 6–24–58, Cl. 241—84.
Schnell, Ernst E., to John Deere Van Brunt Co. Grain drill. 2,840,282, 6–24–58, Cl. 222—485.
Schoengold, Herbert, to Alexander I. Abrahams. Loudspeaker diaphragm support. 2,840,177, 6–24–58, Cl. 181—31.
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Sprague, Theodore S., and Schoessow. 2,840,050.
Schoppee, Lawrence W., to Package Machinery Co. Article feeding means. 2,840,223, 6–24–58, Cl. 198—34.
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Schroeder, Henry, to Combustion Engineering, Inc. Grate organization. 2,840,048, 6–24–58, Cl. 122—235.
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King, Raymond E., Jr., and Schuh. 2,840,725.
Schuler, L., A. G.: *See*—
Keck, Karl. 2,840,207.
Schumacher, Joseph C.: *See*—
Stern, David R., and Schumacher. 2,840,519.
Schunemann, Carl F., and T. R. Thoren, to Thompson Products, Inc. Coaxial switch. 2,840,786, 6–24–58, Cl. 333—7.
Schwartz, Herbert, to Vineland Chemical Co. New butene derivatives and their preparation. 2,840,598, 6–24–58, Cl. 260—487.
Schwarz, Henry G. Juice extractors. 2,840,130, 6–24–58, Cl. 146—76.
Schweitzer, Howard V.: *See*—
Verba, Richard J. 2,840,037.
Verba, Richard J. 2,840,038.
Schwolow, William R.: *See*—
Nelson, Arthur, and Schwolow. 2,840,217.
Scott, Dennis L.: *See*—
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Scott, Hayes O., and R. L. Pietsch, to The Engineered Products Co. Magnetic latch. 2,840,408, 6–24–58, Cl. 292—251.5.
Scott, Martin. Strap operated back-up lamp for automobiles. 2,840,688, 6–24–58, Cl. 240—8.3.
Scruggs, Thomas M., to Bemis Bro. Bag Co. Method of selvage and seam manufacture and products thereof. 2,840,117, 6–24–58, Cl. 139—383.
Scully, John F., to Monroe Calculating Machine Co. Sequential selection means. 2,840,705, 6–24–58, Cl. 250—27.
Seaman, Frederic D.: *See*—
Brandt, David E., Jr., Fraser, and Seaman. 2,840,343.
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Colton, Frank B. 2,840,582.
Dodson, Raymond M., and Sollman. 2,840,577.
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McNiven, Neal L. 2,840,573.
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Brennan, Harry M., Seelig, and Vander Haar. 2,840,527.
Seely, Richard E. to General Electric Co. Multispeed induction motor. 2,840,772, 6–24–58, Cl. 318—221.
Sells, Herbert F. Baker's peel. 2,840,013, 6–24–58, Cl. 107—67.
Selbach, Otto. Device for positioning elongated objects. 2,840,212, 6–24–58, Cl. 193—43.
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Sellon, Raymond N., Jr., to Stolper Steel Products Corp. Latch. 2,840,407, 6–24–58, Cl. 292—169.
Severn, Douglas K., to Koppers Co., Inc. Process of retanning mineral tanned leather with resorcinol-formaldehyde. 2,840,445, 6–24–58, Cl. 8—94.21.
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Shafer, Homer J. 2,840,104.
Shallenberg, Robert L., to International Harvester Co. Liquid fuel pumping and metering distributor with rotating pumping and distributing plunger. 2,839,999, 6–24–58, Cl. 103—2.
Sharpe, Verlos G., to General Motors Corp. Adjustable refrigerator shelf. 2,840,438, 6–24–58, Cl. 312—322.
Sharpe, Verlos G., to General Motors Corp. Refrigerator shelf. 2,840,439, 6–24–58, Cl. 312—351.
Shaw, Robert G., and R. W. Landee, to Gilfillan Bros. Inc. Means and techniques for indicating scan angle and antenna beam. 2,840,809, 6–24–58, Cl. 343—11.
Shaw, Robert H., to Standard-Thomson Corp. Butterfly valve. 2,840,338, 6–24–58, Cl. 251—306.
Shea Chemical Corp.: *See*—
Lux, John H. 2,840,473.
Shelanski, Morris V.: *See*—
Katz, Albert, and Shelanski. 2,840,510.
Shell Development Co.: *See*—
Martin, Robert W. 2,840,558.
Pezzaglia, Philip. 2,840,541.
Shokal, Edward C. 2,840,617.
Whetstone, Richard R., and Ballard. 2,840,503.
Sherman, Howell. Garment hanger. 2,840,284, 6–24–58, Cl. 223—95.
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Shock, D'Arcy A., and J. D. Sudbury, to Continental Oil Co. Corrosion inhibitor. 2,840,477, 6–24–58, Cl. 106—14.
Shokal, Edward C., to Shell Development Co. New polyols, their preparation and derivatives. 2,840,617, 6–24–58, Cl. 260—635.
Shomphe, George J., to Sanders Associates, Inc. Gyroscope. 2,839,933, 6–24–58, Cl. 74—5.5.
Shomphe, George J., to Sanders Associates, Inc. Gyroscope. 2,839,934, 6–24–58, Cl. 74—5.7.
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Feighner, George C., and Shotts. 2,840,604.
Shrader, Marvin O.: *See*—
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Shutts, Leroy W., and C. F. Hayes, to General Motors Corp. Supporting arrangement for a gas turbine combustion chamber. 2,839,894, 6–24–58, Cl. 60—39.31.
Sides, Everett E., to Steel Heddle Mfg. Co. Loom harness. 2,840,114, 6–24–58, Cl. 139—96.
Siemens-Schuckertwerke Akt.: *See*—
Gleffers, Friedrich. 2,840,671.
Siemon, Larry A.: *See*—
Zeltzer, Harry L., and Siemon. 2,840,073.
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Silvern, David H. Turbine exhaust. 2,840,342, 6–24–58, Cl. 253—39.
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Simpson, John, and L. Parkin, to United-Carr Fastener Corp. End caps or closures for tubular members. 2,840,113, 6–24–58, Cl. 138—89.
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Marton, Ladislaus L., Schrack, and Simpson. 2,840,743.
Sinclair, Charles W.: *See*—
Main, John A., and Sinclair. 2,840,422.
Singleton, John C., Jr.: *See*—
Brister, Paul M., and Singleton. 2,840,051.
Sintz, Claude, Inc.: *See*—
Buell, Richard W., Lobdell, and Wrinn. 2,839,949.
Skiles, A. J. Tire bead breaking press assembly. 2,840,143, 6–24–58, Cl. 157—1.26.
Slusser, George L. Reversible action cutting bit assembly. 2,840,128, 6–24–58, Cl. 144—241.
Slutzky, Naum J. Adjustable fittings. 2,840,332, 6–24–58, Cl. 248—124.
Slyngstad, Charles E.: *See*—
Burton, William P., and Slyngstad. 2,840,512.
Smeltz, Kenneth C., to E. I. du Pont de Nemours and Co. Di (3-isocyanato-4-methylphenyl) carbodiimide. 2,840,589, 6–24–58, Cl. 260—453.
Smith, Carl M., to General Aniline & Film Corp. Use of methylidyna bis pyrazolones for dyeing. 2,840,443, 6–24–58, Cl. 8—55.

Smith, Clayton W.: *See*—
Hartzell, Herman L., House, Tice, and Smith. 2,839,935.
Smith, Cuba I. Sanitary napkin and holder. 2,840,078, 6–24–58, Cl. 128—290.
Smith, Frederick W.: *See*—
Du Brow, Paul L., and Smith. 2,840,600.
Smith, Hiram P., and C. C. Haas, to International Harvester Co. Planter valve mechanism. 2,840,018, 6–24–58, Cl. 111—51.
Smith, Howard, Paper Mills Ltd.: *See*—
Tomlinson, George H. and G. H., II. 2,840,454.
Smith, Stanley W., to Bell Aircraft Corp. Airfoil hinge jet nozzle device. 2,840,324, 6–24–58, Cl. 244—52.
Smith, Warren H., to General Motors Corp. Free piston engine. 2,839,911, 6–24–58, Cl. 60—97.
Smiths America Corp.: *See*—
Clarke, Edwin L. 2,840,778.
Steadman, Clifford S. 2,840,775.
Snyder, Ernest F., to Begs Oil Tool Rentals, Inc. Sand removing apparatus. 2,840,240, 6–24–58, Cl. 210—512.
Sociedad Regular Colectiva J. y. L. Cervello: *See*—
Bach, Jose C. 2,840 277.
Societe a Responsabilite Limitee Recherches-Etudes-Production R. E. P.: *See*—
Lucien, Rene. 2,840,715.
Socke, John E., to American Can Co. Sheet gauging apparatus. 2,840,373, 6–24–58, Cl. 271—48.
Sollman, Paul B.: *See*—
Dodson Raymond M., and Sollman. 2,840,577.
Somerville, Willard T., and E. T. Theimer, to Van Ameringen-Haebler, Inc. Lower alkanoic acid esters of para tertiary butyl cyclohexanol. 2,840,599, 6–24–58, Cl. 260—488.
Sommers, Earl E., and B. M. Sturgis, to E. I. du Pont de Nemours and Co. Fluorine containing diesters of camphoric acid. 2,840,593, 6–24–58, Cl. 260—468.
Sonotone Corp.: *See*—
Klingener, Harry F. 2,840,644.
Sorensen & Co., Inc.: *See*—
Wouk Victor. 2,840,766.
Southworth, George C., to Bell Telephone Laboratories, Inc. Artificial medium of variable dielectric constant. 2,840,820, 6–24–58, Cl. 343—909.
Spaeder, Carl E.: *See*—
Nottelmann, John F., and Spaeder. 2,840,732.
Nottelmann, John F., and Spaeder. 2,840,734.
Spencer, Edward P.: *See*—
Chouinard, Alfred F., and Spencer. 2,840,016.
Spencer, Percy L., to Raytheon Mfg. Co. Frequency modulated magnetrons. 2,840,785, 6–24–58, Cl. 332—5.
Sperry Products, Inc.: *See*—
Van Valkenburg, Howard E., and Cook. 2,839,916.
Sperry Rand Corp.: *See*—
Locke, David R. 2,839,828.
Nelson, Arthur, and Schwolow. 2,840,217.
Wing, Willis G. 2,840,366.
Spinelli, John: *See*—
Orth, George O., Jr., and Spinelli. 2,840,478.
Sprague Meter Co., The: *See*—
Whitworth, Fairchild. 2,839,923.
Sprague, Theodore S.: *See*—
Coulter, Earl E., Rowand, and Sprague. 2,840,182.
Sprague, Theodore S., and E. E. Schoessow, to The Babcock & Wilcox Co. Synthesis gas reactor with fluid cooled jacket for the reaction chamber. 2,840,050, 6–24–58, Cl. 122—338.
Spring Machinery Co.: *See*—
Gail, Charles H. 2,840,118.
Springer, Fred M. Trolley taps. 2,840,665, 6–24–58, Cl. 200—115.5.
Springfield Metallic Casket Co., Inc., The: *See*—
Harter, Edgar F. 2,839,814.
Square Mfg. Co.: *See*—
Arnett, Leslie, and Freise. 2,840,274.
Squire, John R., and D. S. Rowe, to National Research Development Corp. Penetrating instruments such as hypodermic needles and their use in an imbibition pressure meter. 2,840,069, 6–24–58, Cl. 128—2.
Stacherl, John: *See*—
Warner, Alden Y., Craven, and Stacherl. 2,839,809.
Stage, Ernst E., to Nydqvist & Holm Aktiebolag. Device for reduction of runaway speeds of propeller turbines with adjustable runner blades. 2,840,344, 6–24–58, Cl. 253—143.
Staiger, Eugene L.: *See*—
Huxtable, Leonard G., and Staiger. 2,839,817.
Stammer, Charles H.: *See*—
Holly, Frederick W., and Stammer. 2,840,565.
Stampe, Gerhard K. E. H., and H. O. Tietze, to O. H. Drager. Support for filter material. 2,840,184, 6–24–58, Cl. 183—49.
Standard Oil Co. (Indiana): *See*—
Brennan, Harry M., Seelig, and Vander Haar. 2,840,514.
Brennan, Harry M., Seelig, and Vander Haar. 2,840,527.
Field, Edmund, Friedlander, and Juveland. 2,840,551.
Kylander, Paul N., and Junk. 2,840,511.
Standard-Thomson Corp.: *See*—
Shaw, Robert H. 2,840,338.
Woods, John E., and Giles. 2,839,926.
Stanley Aviation Corp.: *See*—
Stanley, Robert M. 2,840,327.
Stanley, Robert M., to Stanley Aviation Corp. Aircraft safety belt latch with parachute release lanyard attaching means. 2,840,327, 6–24–58, Cl. 244—122.
Stanley Works, The: *See*—
Nelson, Paul H. 2,839,776.
Parsons, Stuart W., and Gilpatrick. 2,839,777.
Statham Instruments, Inc.: *See*—
Di Giovanni, Mario. 2,840,675.
Stautzenberger, Adin L., to Celanese Corp. of America. Production of acetals with realtivation of catalyst. 2,840,615, 6–24–58, Cl. 260—615.
Stavenger, Paul L., and E. B. Fitch, to Dorr-Oliver Inc. Hydrocyclone countercurrent washing syatem. 2,840,524, 6–24–58, Cl. 210—21.
Steadman, Clifford S., to Smiths America Corp. Generator control for vehicle transmission system. 2,840,775, 6–24–58, Cl. 322—28.
Stearns, Austin J., ½ to F. P. Engram. Massage bed. 2,840,072, 6–24–58, Cl. 128—57.
Steel Heddle Mfg. Co.: *See*—
Sides, Everett E. 2,840,114.
Steele, Floyd G., to Digital Control Systems, Inc. Di-function multiplexers and multipliers. 2,840,306, 6–24–58, Cl. 235—61.
Stegen, Robert J.: *See*—
Reed, Richard H., and Stegen. 2,840,818.
Steidl, Robert H., to Boeing Airplane Co. Fabric slosh bulkhead. 2,840,259, 6–24–58, Cl. 220—22.
Steinacker, Peter, and H. Hemfort, to Westfalia Separator Ag. Centrifugal separators. 2,840,302, 6–24–58, Cl. 233—20.
Stephenson, Joe B., 10% to W. H. Hamblen and W. T. McNeil. Pipe line tapping assembly. 2,840,100, 6–24–58, Cl. 137—318.
Stephenson, Wallace O. Automobile dome light circuit. 2,840,759, 6–24–58, Cl. 315—84.
Sterlas, John L. Baseball catcher's mask. 2,839,755, 6–24–58, Cl. 2—9.
Sterling Drug Inc.: *See*—
Larsen, Aubrey A. 2,840,602.
Stern, David R., and J. C. Schumacher, to American Potash & Chemical Corp. Peroxidation process. 2,840,519, 6–24–58, Cl. 204—82.
Stern, Morton L. Shower curtain assembly. 2,840,155, 6–24–58, Cl. 160—124.
Stevens, Clifford B., to American Machine & Foundry Co. Crossbar tank for cycles. 2,840,287, 6–24–58, Cl. 224—35.
Stevens, Donna, to The Dow Chemical Co. Lower-alkyl esters of ethionine. 2,840,595, 6–24–58, Cl. 260—481.
Stevens, Everett G., to Western Electric Co., Inc. Apparatus for molding powdered granular material into preformed articles. 2,839,787, 6–24–58, Cl. 18—30.
Stevens, William H., to E. I. du Pont de Nemours and Co. Film advancing roll. 2,839,785, 6–24–58, Cl. 18—15.
Stieber, Joseph G.: *See*—
Caesar, Orville S., and Stieber. 2,840,258.
Stiel, Heinrich. Safety-shoe for retractable support assemblies for semi-trailers. 2,840,391, 6–24–58, Cl. 280—150.5.
Stiffel, Theophile A. Lamp shade support. 2,840,692, 6–24–58, Cl. 240—132.
Stillwagon, George B., Jr., ½ to K. G. Fraser. Pinning for heavy duty universal joint and method of making same. 2,839 903, 6–24–58, Cl. 64—17.
Stoddard, James J. Cup support. 2,840,292, 6–24–58, Cl. 229—1.5.
Stoddard, Stephen D., to United States of America, Atomic Energy Commission. Refractory coating for graphite molds. 2,840,480, 6–24–58, Cl. 106—38.27.
Stokes, Joseph L., and G. Attle, to Abitibi Power & Paper Co., Ltd. Apparatus for making wood shavings. 2,840,127, 6–24–58, Cl. 144—172.
Stolper Steel Products Corp.: *See*—
Sellon, Raymond N., Jr. 2,840,407.
Storr-Best, John L.: *See*—
Beck, Arthur C., and Storr-Best. 2,840 696.
Stratford, Herbert W. Mixing vessel. 2,840,355, 6–24–58, Cl. 259—8.
Strauss, Herbert E., to Radio Corp. of America. Transmitter interlock circuit. 2,840,693, 6–24–58, Cl. 250—13.
Stringer, Kenneth E. Alternating piston type internal combustion engine. 2,840,058, 6–24–58, Cl. 123—11.
Stroup, Phillip T., and K. J. Brondyke, to Aluminum Co. of America. Degassing and purifying molten aluminous metal. 2,840,463, 6–24–58, Cl. 75—68.
Strub, Robert D.: *See*—
Moore, Robert E., Bower, and Strub. 2,840,434.
Stuart, Joseph, II, to Hercules Powder Co. Centrifugal separator. 2,840,303, 6–24–58, Cl. 233—28.
Studebaker-Packard Corp.: *See*—
McFarland, Forest R., and Thomas. 2,840,386.
Middleton, Philip B. 2,840,623.
Von Rucker, Nikolaus. 2,839,944.
Stump, William L., to E. I. du Pont de Nemours and Co. Process for preparing polycarbonamides. 2,840,547, 6–24–58, Cl. 260—78.
Sturgis, Bernard M.: *See*—
Sommers, Earl E., and Sturgis. 2,840,593.
Suchecki, Josef, to H. Horwitz. Pipe and coil cleaner apparatus. 2,839,768, 6–24–58, Cl. 15—3.51.
Sudbury, John D.: *See*—
Shock, D'Arcy A., and Sudbury. 2,840,477.
Sullivan, James C.: *See*—
Katzin, Leonard, and Sullivan. 2,840,451.
Sulzer Freres, Société Anonyme: *See*—
Profos, Paul. 2,839,925.
Sun Oil Co.: *See*—
Barnes, William E. 2 839,837.
Sundberg, Erik G., and B. G. Ousbäck. Electrode plate suspension means. 2,840,625, 6–24–58, Cl. 136—79.
Sunko, John, and C. F. Race, to Motorola, Inc. Tube socket. 2,840,793, 6–24–58, Cl. 339—193.
Superior Electric Co., The: *See*—
Carpenter, William P. 2,840,765.
Supreme Products Corp.: *See*—
Ondeck, Elmer J. 2,839,952.

Sureau, Robert F. M., and G. R. H. Mingasson, to Compagnie Francaise des Matieres Colorantes. Cobalt complexes of monoazo dyes. 2,840,552, 6–24–58, Cl. 260—146.

Surmatis, Joseph D., to Hoffmann-La Roche Inc. Halogen and dihalophosphato derivatives of acyloxyalkenes. 2,840,583, 6–24–58, Cl. 260—403.

Sus, Oskar, G. Werner, and W. Wettlauffer, to Keuffel & Esser Co. Light sensitive material to be used in diazo printing. 2,840,472, 6–24–58, Cl. 96—75.

Suthann, Robert A., to Hydro-Aire, Inc. Self-aligning poppet valve. 2,840,336, 6–24–58, Cl. 251—85.

Sutter, Paul, to Ciba Ltd. Anthraquinone vat dyestuffs. 2,840,560, 6–24–58, Cl. 260—256.4.

Swank, Richard E. Automatic display apparatus. 2,839,856, 6–24–58, Cl. 40—36.

Sweet, Alva L.: *See*—
Chamberlin, James A., and Sweet. 2,839,947.

Swiss, Jack: *See*—
Minter, Herbert F., and Swiss. 2,840,538.

Switlik Parachute Co., Inc.: *See*—
Moran, Harold J. 2,840,328.

Switzer, Robert C. Flaw detection. 2,839,918, 6–24–58, Cl. 73—104.

Syler, Harrison B. Disc-dialing keyless lock. 2,839,914, 6–24–58, Cl. 70—156.

Sylvania Electric Products Inc.; *See*—
Dobson, Harold R. 2 840,703.
Levine, Albert K. 2,840,470.
Levy, Stephen L. 2,840,710.
Watson, William R. 2,840,488.

Symington Wayne Corp.: *See*—
Gavin, William W. 2,840,119.

Syntex, S. A.: *See*—
Rosenkranz, George, and Djerassi. 2,840,555.

Takacs, John P. Model packaging kit. 2,840,228, 6–24–58, Cl. 206—45.31.

Taplin, John F., to Fairchild Engine and Airplane Corp. Speed control system. 2,840 094, 6–24–58, Cl. 137—29.

Tarnow, Nathan. Conduit fitting with spring washer retaining means. 2,840,395, 6–24–58, Cl. 285—321.

Teacher Toys, Inc.: *See*—
Keyko, George J. 2,839,842.
Keyko, George J. 2,839,843.

Teal, Bert E.: *See*—
Walsh, Loren. 2 839,983.

Technica Establishment: *See*—
Browall, Bert H. 2,840 428.
Salansky, Franz A. 2,840,426.

Tecnifax Corp.: *See*—
Trump, Frederick O. 2,839,978.

Teller, Oscar. Multiple frame for interchangeable picture. 2,839,857, 6–24–58, Cl. 40—64.

Templeton, John A.: *See*—
Hammer, Clarence F., Jr., Templeton, and MacGregor. 2,839,967.

Tesla, narodni podnik: *See*—
Boleslav, Ales. 2,840,178.

Tewksbury, John M.: *See*—
Hemphill, Alfred A., and Tewksbury. 2,840,712.
Hemphill, Alfred A., and Tewksbury. 2,840,814.

Texas Co., The: *See*—
Pullig, Tillman R. 2,840,610.

Texas Instruments Inc.: *See*—
Jackson, Edmund D. 2,840,770.

Textron Inc.: *See*—
Walters, Glenn A., and Notthoff. 2,840,817.

Thelmer, Ernst T.: *See*—
Somerville, Willard T., and Thelmer. 2,840,599.

Tholand, Inc.: *See*—
Dwyer, Thiel E. 2,840,453.
Dwyer, Thiel E. 2,840,455.

Thomas, Arthur, to Powers-Samas Accounting Machines Ltd. Punch mechanism for punching statistical records. 2,840,165, 6–24–58, Cl. 164—114.

Thomas Electronics, Inc.: *See*—
Lesovicz, Edward J. 2,840,739.

Thomas, Gordon E.: *See*—
Williams, Frederic C., Kilburn, Tootill, Pollard, Thomas, and Edwards. 2,840,304.

Thomas, Horace A.: *See*—
Moss, Norman L., and Thomas. 2,839,963.

Thomas, Paul P.: *See*—
McFarland, Forest R., and Thomas. 2,840,386.

Thomas, Thomas W., Jr. Boom stop ram. 2,840,244, 6–24–58, Cl. 212—39.

Thomas, Walter M.: *See*—
Price, John A., and Thomas. 2,840,550.

Thompson, James C. Dipper door brake assembly. 2,840,253, 6–24–58, Cl. 214—146.

Thompson Products, Inc.: *See*—
Heiss, John P. 2,840,315.
Herbenar, Edward J. 2,840,316.
Paetz, Robert A. 2,840,299.
Schunemann, Carl F., and Thoren. 2,840,786.

Thompson, Wendell L.: *See*—
Cooley, Hal. 2 840,659.

Thoren, Theodore R.: *See*—
Schunemann, Carl F., and Thoren. 2,840,786.

Thornbery John H., to Baso Inc. Burner control system. 2,840,095, 6–24–58, Cl. 137—66.

Thorne, Maurice A.: *See*—
Chayne, Charles A., and Thorne. 2,840,368.

Thumm, Byron A., to American Viscose Corp. Method of producing all skin rayon. 2,840,448, 6–24–58, Cl. 18—54.

Tiarco Corp.: *See*—
Wasserman, Arthur. 2,840,521.

Tice, Clarence E.: *See*—
Hartzell, Herman L., House, Tice, and Smith. 2,839,935.

Tice, Richard R.: *See*—
McNaney, Joseph T., and Tice. 2,840,637.

Tichenor, Raymond L. Shower bath curtain. 2,840,160, 6–24–58, Cl. 160—349.

Tietze, Hermann O.: *See*—
Stampe, Gerhard K. E. H., and Tietze. 2,840,184.

Tilden, Carl V. Drill bit. 2,840,348, 6–24–58, Cl. 255—69.

Tillotson, Wesley T., to American Rock Wool Corp. Apparatus for fiberization. 2,839,782, 6–24–58, Cl. 18—2.6.

Titus, Elwood O.: *See*—
Perlman, David, Dutcher, Fried, and Titus. 2,840,578.
Perlman, David, Dutcher, Fried, and Titus. 2,840,579.
Perlman, David, Dutcher, Fried, and Titus. 2,840,580.

Todd, Francis C., and J. L. Courtright, to Toledo Scale Corp. Numeral display device. 2,840,807, 6–24–58, Cl. 340—378.

Tolliemire, Benjamin F. Light-directing surgical retractor instrument. 2,840,070, 6–24–58, Cl. 128—11.

Tokheim Corp.: *See*—
Clymer, Joseph D. 2,840,108.

Toland, Wayne G., and D. A. Murray, to International Harvester Co. Two-way plow. 2,839,979, 6–24–58, Cl. 97—26.

Toledo Scale Corp.: *See*—
Bradley, Robert O., and Robinson. 2,839,995.
Guss, William A., and Sankovich. 2,840,367.
Todd, Francis C., and Courtright. 2,840,807.

Tollar, James E., and M. O. Longstreth, to The Dow Chemical Co. Positioning means. 2,840,397, 6–24–58, Cl. 287—14.

Tomlin, James H.: *See*—
Johnson, Joel R., Mattson, and Tomlin. 2,839,821.

Tomlinson, George H., and G. H. Tomlinson, II, to Howard Smith Paper Mills Ltd. Method and apparatus for recovering heat and chemicals from the residual liquor resulting from the digestion of cellulosic fibrous material in an alkaline liquor. 2,840,454, 6–24–58, Cl. 23—48.

Tomlinson, George H., II: *See*—
Tomlinson, George H., and G. H. Tomlinson, II. 2,840,454.

Tootill, Geoffrey C.: *See*—
Williams, Frederic C., Kilburn, Tootill, and Pollard. 2,840,305.
Williams, Frederic C., Kilburn, Tootill, Pollard, Thomas, and Edwards. 2,840,304.

Torrence, James A., to Motorola, Inc. Power supply. 2,840,760, 6–24–58, Cl. 315—104.

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Towler, John M. 2,839,897.

Towler, Frank H. and J. M., to Electraulic Presses Ltd. Hydraulic variable pressure relief valves. 2,840,106, 6–24–58, Cl. 137—538.

Towler, John M.: *See*—
Towler, Frank H. and J. M. 2,840,106.

Towler, John M., deceased, by F. H. Towler, executor, to Electraulic Presses Ltd. Control valves for hydraulic presses. 2,839,897, 6–24–58, Cl. 60—52.

Townhill, Arthur, to United States Borax & Chemical Corp. Valve adapted for use in powder dispensers. 2,840,278, 6–24–58, Cl. 222—305.

Townsend, Harold J.: *See*—
Grenley, Dallis G., and Townsend. 2,840,491.

Trbojevich, Nikola J. Constant velocity universal joint. 2,839,905, 6–24–58, Cl. 64—21.

Treuting, Robert G., to Bell Telephone Laboratories, Inc. Method of processing semiconductive materials. 2,840,495, 6–24–58, Cl. 148—1.5.

Triolo, Louis. Box making and assembling machines. 2,839,971, 6–24–58, Cl. 93—39.

Tritt, Charles W. Filter head for coffee makers. 2,839,988, 6–24–58, Cl. 99—307.

Triumphator-Werk Veb: *See*—
Werner, Walter, and Schlegel. 2,840,313.

Truckstell Mfg. Co.: *See*—
Bryan, Artis C. 2,839,940.
Page, Raymond L. 2,840,389.

Trump, Frederick O., to Tecnifax Corp. Slip screen structure for dry-type developing machines. 2,839,978, 6–24–58, Cl. 95—94.

Tung-Sol Electric Inc.: *See*—
Katzberg, Jesse. 2,840,744.

Turner, Herman B. Variable poultry feeder. 2,840,040, 6–24–58, Cl. 119—61.

Tuttle, Charles D.: *See*—
Croskey, Frank A., and Tuttle. 2,840,658.

Ulinski, Bronislaus I., to The Yale & Towne Mfg. Co. Industrial truck handle operated control. 2,840,175, 6–24–58, Cl. 180—13.

Ulster Knife Co., Inc.: *See*—
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Ultra Electric, Inc.: *See*—
Marris, Richard Q. 2,840,199.

Union Carbide Corp.: *See*—
Hamister, Victor C. 2,840,458.
Hoaglin, Raymond T., and Kubler. 2,840,612.
Lambrech, Joseph A. 2,840,502.

Union Oil Co. of California: *See*—
Attane, Edward C., Jr., and Doumani. 2,840,607.
Keller, Howard F., Jr. 2,840,526.

Union Savings & Trust Co.: *See*—
Heltzel, John N. 2,839,973.

Union Special Maschinenfabrik G. m. b. H.: *See*—
Lutz, Friedrich. 2,840,021.

United Aircraft Corp.: *See*—
Best, Stanley G. 2,840,170.
Dernbach, Anthony F. 2,840,172.
Farkas, Thomas P. 2,840,097.
Farkas, Thomas P. 2,840,169.
Jedrziewski, Chester M., and Ramaker. 2,840,171.

United Aircraft Products: *See*—
Booth, Harry T., Lord, and Hughes. 2,840,068.

United-Carr Fastener Corp.: *See*—
Ashworth, Winthrop F. 2,840,409.
Bedford, William A., Jr. 2,839,805.
Simpson, John, and Parkin. 2,840,113.
Woodward, Clement A. 2,840,416.
United Shoe Machinery Corp.: *See*—
Haas, Otto R. 2,840,024.
United States Borax & Chemical Corp.: *See*—
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Air Force: *See*—
Marton, Ladislaus L., Schrack, and Simpson. 2,840,743.
Army: *See*—
Church, Joseph H., and Keesenich. 2,839,997.
Crost, Munsey E. 2,840,706.
Davis, Alfred. 2,840,176.
Di Gincomo, Anthony J. 2,840,812.
Ladisch, Rolf K. 2,840,571.
Lord, John G. 2,839,966.
Rabinow, Jacob, Andrews, and Bowling. 2,839,998.
Atomic Energy Commission: *See*—
Atherton, James E., Jr., and Gurinsky. 2,840,467.
Bellarts, Henry J. 2,840,136.
Berry, Francis G. 2,840,471.
Katzin, Leonard, and Sullivan. 2,840,451.
Mullett, Leslie B., Loach, and Adams. 2,840,788.
Ruehle, Archie E. 2,840,452.
Stoddard, Stephen D. 2,840,480.
Wiswall, Richard H. 2,840,464.
Young, Gale J., and Ohlinger. 2,840,522.
Commerce: *See*—
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Navy: *See*—
Bailey, Edwin M., Jr. 2,840,810.
Brandt, David E., Jr., Fraser, and Seaman. 2,840,343.
Hammer, Clarence F., Jr., Templeton, and MacGregor. 2,839,967.
Hartig, Henry E., and Brettell. 2,839,839.
Larson, Edward S., and Levin. 2,840,216.
Page, Franklin, Jr. 2,840,791.
Reiner, Stewart, and Domeshek. 2,839,974.
Van Rennes, Albert B. 2,840,720.
Woodward, William R. 2,840,808.
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Burg, Anton B., and Davidson. 2,840,457.
U. S. Universal Joints Co.: *See*—
Guy, Frederick M., and Saurer. 2,840,403.
Universal Oil Products Co.: *See*—
Gerhold, Clarence G., and Broughton. 2,840,620.
Haensel, Vladimir. 2,840,532.
Upjohn Co., The: *See*—
Hogg, John A., and Korman. 2,840,581.
Upson Brothers, Inc.: *See*—
Velepac, Rudolph J. 2,840,382.
VEB (K) Schweisswerk Halle: *See*—
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287— 14: 2,840,397
20.5: 2,840,398
53: 2,840,399
55: 2,840,400
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93: 2,840,404
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336.3: 2,840,410
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301— 9: 2,840,418
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284: 2,840,436
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322: 2,840,438
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13: 2,840,737
78: 2,840,738
82: 2,840,739
84: 2,840,740
106: 2,840,741
131: 2,840,742
151: 2,840,743
193: 2,840,744
195: 2,840,745
217: 2,840,746
231: 2,840,747
273: 2,840,748
296: 2,840,749
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315— 3.6: 2,840,752
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5.34: 2,840,754
11: 2,840,755
22: 2,840,756
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84: 2,840,759
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252: 2,840,764
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317— 16: 2,840,766
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311: 2,840,773
467: 2,840,774
322— 28: 2,840,775
323— 18: 2,840,776
22: 2,840,777
89: 2,840,778
90: 2,840,779
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51: 2,840,781
150: 2,840,782
158: 2,840,784
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333— 7: 2,840,786
11: 2,840,787
31: 2,840,788
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150: 2,840,790
339— 92: 2,840,791
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CLASSIFICATION OF DESIGNS

D 4— 3: Des. 183,098
D 5— 4: Des. 183,093
D 9— 2: Des. 183,080
D14— 3: Des. 183,105
6: Des. 183,103
D22— 2: Des. 183,077
D26— 1: Des. 183,079
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D29—19: Des. 183,087
D34— 5: Des. 183,084
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D34— 5: Des. 183,092
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D81— 1: Des. 183,109
D87— 3: Des. 183,085
D91— 4: Des. 183,089

OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

June 24, 1958 Volume 731 Number 4

TRADEMARKS

NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

Reg. No. 75,365 (ALLIGATOR BRAND AND DESIGN), Ferguson Waterproof Co., Oiled clothing; **Reg. No. 251,201** (ALLIGATOR), The Alligator Co., Fabric coats, jackets, pants, etc., made of waterproofed fabric such as silk, **filed** May 8, 1958, D. C., S. D. N. Y., Doc. 133/157, *The Alligator Co. v. Armored Hosiery Corp. et al.*

Reg. No. 137,160 (CORO), Cohn and Rosenberger, Inc., Pocketbooks, bill-cases, etc.; **Reg. No. 141,099**, same, Articles of jewelry; **Reg. No. 389,406** (PADDOCK BY CORO AND DESIGN), same; **Reg. No. 389,906** (HI-JINKS BY CORO AND DESIGN), same; **Reg. No. 399,064** (MOONBEAM BY CORO AND DESIGN), same; **Reg. No. 399,278** (STERLING CRAFT BY CORO AND DESIGN), same; **Reg. No. 402,504** (RAPTURE BY CORO AND DESIGN), same, **Reg. No. 427,417** (CORO AND DESIGN), Coro, Inc., Jewelry; **Reg. No. 531,268** (CORO), same, **filed** May 1, 1958, D. C., S. D. N. Y., Doc. 133/20, *Coro, Inc. v. Curo Company.* Consent judgment for permanent injunction May 14, 1958.

Reg. No. 141,099. (See Reg. No. 137,160.)

Reg. No. 251,201. (See Reg. No. 75,365.)

Reg. No. 389,406. (See Reg. No. 137,160.)

Reg. No. 389,906. (See Reg. No. 137,160.)

Reg. No. 399,064. (See Reg. No. 137,160.)

Reg. No. 399,278. (See Reg. No. 137,160.)

Reg. No. 402,504. (See Reg. No. 137,160.)

Reg. No. 427,417. (See Reg. No. 137,160.)

Reg. No. 531,268. (See Reg. No. 137,160.)

Reg. No. 561,807 (FASCINATION), John T. Gibbs, Pin ball machine, **filed** May 13, 1958, D. C., S. D. N. Y., Doc. 133/239, *John T. Gibbs v. H. Rapps, doing business as Fascination et al.*

Reg. No. 608,556 (SATIN-TONES), Plastile Products, Inc., Plastic wall tile, **filed** May 12, 1958, D. C., E. D. Mich. (Detroit), Doc. 18048, *Plastile Products, Inc. v. Color-Craft Products, Inc.*

Reg. No. 641,027 (BLANKETUCK), L. E. Frey, Beds, bed springs and bed frames; **2,832,966**, same, Bed spring, **filed** May 8, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c827, *Louis Elliott Frey et al. v. Columbia Bedding, Inc.*

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancelation will be proceeded with as in the case of default.

R & H Laboratories, Detroit 3, Mich., Reg. No. 438,676, Canc. No. 7085.

William C. Rath & Sons (William C. Rath, assignee substituted), New York, N. Y., Reg. No. 414,323, Canc. No. 7096.

Mitts Manufacturing Co., Inc., Brooklyn, N. Y., Reg. No. 405,000, Canc. No. 7079.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

CONDITION OF TRADEMARK APPLICATIONS AS OF APRIL 30, 1958

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)] 11,733
Date of oldest new application ..... Sept. 5, 1957
Date of oldest amended application ..... Sept. 16, 1957

J. H. MERCHANT, Director, Trademark Examining Operation

TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION

	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 31, 32, 34, 35, 36, 50	10-16-57	9-16-57
(II) R. F. SHRYOCK, Classes 6, 18, 27, 28, 30, 33, 44, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200	9-5-57	10-9-57
(III) K. I. HANCOCK, Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52, and Certification Marks	10-4-57	12-9-57
Renewals (All Classes)	3-26-58	4-25-58
Sec. 12 (c) Publications (All Classes)	2-17-58	4-25-58

Applications Filed During the Month of April 1958—1,965

Registrations Issued ..... 327—No. 663,284 to No. 663,610
Renewals Issued 86

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, $10.00 per annum, foreign mailing $2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.

As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1 — Raw or Partly Prepared Materials

SN 25,712. Modiglass Fibers, Inc., Bremen, Ohio. Filed Mar. 7, 1957.

MODIGLASS

For Rovings and Mats Made From Glass Fiber and Made From Glass Fibers in Combination With Natural and Synthetic Fibers.
First use Feb. 7, 1957.

SN 31,286. United States Plywood Corporation, New York, N. Y. Filed June 3, 1957.

WELDRON

Owner of Reg. Nos. 601,821, 561,568, and others.
For Vinyl Plastic Sheeting Used Principally for Upholstery.
First use Feb. 1, 1957.

SN 40,421. Bonnie Brands, Inc., New York, N. Y. Filed Nov. 12, 1957.

BONNIE LASS

For Potting Soil.
First use Oct. 25,1957.

SN 40,621. Scott Paper Company, Chester, Pa. Filed Nov. 13, 1957.

SCOTTFOAM

For Flexible Polyurethane Foams in Sheet and Slab Form.
First use Oct. 10, 1957.

Class 2 — Receptades

SN 14,766. Schenley Distillers, Inc., d. b. a. I. W. Harper Distilling Co., New York, N. Y. Filed Aug. 28, 1956.

THE TRAVELLER

For Receptacles Consisting of Plastic Protective Carrying Cases for Bottles of Distilled Spirits.
First use July 13, 1956.

SN 30,699. J. S. Turner & White Metal Co., New Brunswick, N. J. Filed May 24, 1957. Sec. 2(f).

TURNER TUBES

The term "Tubes" is disclaimed apart from the mark as shown.
For Collapsible Metal Tubes Intended To Contain Materials To Be Dispensed Therefrom.
First use about 1916.

SN 35,883. Riverside Manufacturing Co., Inc., Murfreesboro, N. C. Filed Aug. 20, 1957.

PLYTAINER

For Containers—Namely, Boxes and Cartons.
First use Aug. 9, 1957.

SN 37,507. The Linen Thread Co., Inc., New York, N. Y. Filed Sept. 19, 1957.

TWINEDOMES

For Dispenser Containers for Cordage, Twines, and String.
First use Aug. 26, 1957.

Class 4 — Abrasives and Polishing Materials

SN 40,849. Kennametal Inc., Latrobe, Pa. Filed Nov. 18, 1957.

KENGRIT

For Tungsten Carbide Abrasive Grit.
First use about Aug. 21, 1957.

SN 42,102. Wilson-Frye Products Co., Bakersfield, Calif. Filed Dec. 9, 1957.

LEO'S

For Furniture Polish.
First use Nov. 22, 1957.

Class 5 — Adhesives

SN 35,914. Corn Products Refining Company, New York, N. Y. Filed Aug. 21, 1957.

CP

The mark consists of the letters CP" in a cross-sectional representation of an ear of corn.
For Amylaceous and Proteinaceous Materials for Adhesives.
First use Mar. 14, 1957.

Class 6 — Chemicals and Chemical Compositions

SN 13,574. Diamond Alkali Company, Cleveland, Ohio. Filed Aug. 8, 1956. Sec. 2(f).

SUPERSILICATE

For Silicate of Soda.
First use in 1935.

SN 24,439. Handy & Harman, New York, N. Y. Filed Feb. 14, 1957.

HANDY

HI-TEMP

For Brazing Flux.
First use Dec. 17, 1956.

SN 30,995. The Chemstrand Corporation, Decatur, Ala. Filed May 29, 1957.

CHEM-NYLE

For Chemical Composition Used as a Dyeing Assistant in the Textile Field.
First use Nov. 21, 1956.

SN 31,612. V-O-H Products, Inc., Somerville, N. J. Filed June 7, 1957.

re-nu-lon

For Fluorescent Chemical Used To Whiten and Brighten Nylon and Other Fabrics.
First use Apr. 25, 1954.

SN 31,973. Cesalpinia S. p. A., Milan, Italy. Filed June 14, 1957.

INDALCA

For Thickening Agent for Printing Pastes.
First use June 1952; in commerce June 1952.

SN 37,029. Merck & Co., Inc., Rahway, N. J. Filed Sept. 11, 1957.

MARMAG

For Magnesium Oxide.
First use Apr. 30, 1957.

SN 38,318. Septimus Adams, Brooklyn, N. Y. Filed Oct. 4, 1957.

ASTRAL WIZARD

For Incense.
First use June 22, 1956.

SN 39,723. Hanson-Van Winkle-Munning Company, Matawan, N. J. Filed Oct. 29, 1957.

SILVER-LUME

Owner of Reg. No. 636,279.
For Addition Agent for Electroplating Solutions.
First use in August 1956.

SN 39,724. Hanson-Van Winkle-Munning Company, Matawan, N. J. Filed Oct. 29, 1957.

NICKEL-LUME

For Addition Agent for Electroplating Solutions.
First use in August 1956.

SN 40,557. Claire Manufacturing Co., Chicago, Ill. Filed Nov. 13, 1957. Sec. 2(f).

ODOR GONE

Owner of Reg. No. 560,016.
For Room Deodorizers and Room Deodorants.
First use in October 1948.

SN 40,660. Cetox Products Company, Baltimore, Md. Filed Nov. 14, 1957.

MIGHTY-MITE

For Diffusion Type Chemical Deodorant for Room Air.
First use Apr. 15, 1957.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 31,608. U. S. Industries, Inc., Santa Barbara Airport, Goleta, Calif. Filed June 7, 1957

USI

For Ammunition-Handling Apparatus Including Ammunition Actuators for Moving Ammunition in an Automatic Armament System.
First use Jan. 15, 1957.

SN 34,148. Lakeville Arms Incorporated, Lakeville, Conn. Filed July 22, 1957.

HARVEY PROT-X-BORE

For Bullets and Bullet Mould Blocks.
First use on or about Sept. 15, 1952.

SN 34,149. Lakeville Arms Incorporated, Lakeville, Conn. Filed July 22, 1957.

HARVEY JUGULAR

For Bullets and Bullet Casting Kits.
First use on or about Nov. 25, 1955.

SN 38,055. Lakeville Arms Incorporated, Lakeville, Conn. Filed Sept. 30, 1957.

HARVEY MAGLASKA

For Rifles and Rifle Cartridges.
First use on or about July 8, 1957.

Class 10 — Fertilizers

SN 30,579. Ferro Corporation, Cleveland, Ohio. Filed May 23, 1957.

F N

For Friable Glass-Like Substances in Finely Divided Form Containing Essential Plant Foods for Use as a Fertilizer.
First use May 8, 1957.

SN 32,769. The Organic Development Co., Fullerton, Md. Filed June 27, 1957.

FERTRELL

For Fertilizers and Soil Conditioners.
First use Jan. 9, 1956.

Class 12 — Construction Materials

SN 34,846. Drymix Concrete Company, Franklin Park, Ill. Filed Aug. 2, 1957.

SLAGCRETE

For Mixture of Portland Cement and Ground Slag for Cement Construction.
First use July 31, 1957.
Subj. to Intf. with SN 38,492.

SN 38,492. Slag Processors, Inc., Hammond, Ind. Filed Oct. 7, 1957.

SLAGCRETE

For Dry Mixed Concrete Material.
First use on or about July 16, 1957.
Subj. to Intf. with SN 34,846.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

SN 18,449. Midwest Wholesale Hardware Company, Akron, Ohio. Filed Oct. 30, 1956.



For Hardware for Windows.
First use July 31, 1956.

SN 40,850. Laclede Steel Company, St. Louis, Mo. Filed Nov. 18, 1957.

LEVELOK

For Fencing.
First use Oct. 29, 1957.

SN 41,001. British Ermeto Corporation Limited, Maidenhead, Berkshire, England. Filed Nov. 20, 1957.

MERETO

Owner of British Reg. Nos. B762,785, dated Feb. 22, 1957; B766,171, dated May 31, 1957; and B766,172, dated May 31, 1957.
For Metallic and Non-Metallic Pipes, Pipe Junctions, Tubes, Valves, Fittings, and Washers.

Class 15 — Oils and Greases

SN 10,640. The Andersons, Maumee, Ohio. Filed June 21, 1956.



The lining reproduces the lines appearing on the specimens.
For Oil and Grease.
First use February 1953.

Class 16 — Protective and Decorative Coatings

SN 42,453. Devoe & Raynolds Company, Inc., Louisville, Ky. Filed Dec. 16, 1957.

AQUAPLAST

For Exterior Protective and Decorative Marine Coatings.
First use at least as early as April 1947.

SN 45,064. Perry-Austen Manufacturing Company, Incorporated, Grasmere, Staten Island, N. Y. Filed Jan. 31, 1958.

ESTEREX

For Synthetic Coating.
First use Jan. 14, 1958.

SN 45,331. The Lowe Brothers Company, Dayton, Ohio. Filed Feb. 5, 1958.



Owner of Reg. Nos. 58,562, 633,881, and 648,804.
For Paints, Enamels, Varnishes, Lacquers, Primers, Undercoaters, Stains, Fillers, Sealers, Driers, Oils, Glazing Liquids, Thinners, and Surface Conditioners.
First use Jan. 17, 1957.

SN 45,563. Harry Griver, d. b. a. Pennsylvania Lacquer Center, Philadelphia, Pa. Filed Feb. 10, 1958.

MENEECOLOR

For Paints.
First use Dec. 11, 1957.

SN 45,692. Maas & Waldstein Co., Newark, N. J. Filed Feb. 11, 1958.

ECO

Owner of Reg. Nos. 513,300, 525,881, and others.
For Coating Compositions, Primers, and Paint Removers.
First use on or about Jan. 25, 1940.

SN 45,841. Allentown Paint Manufacturing Company, Allentown, Pa. Filed Feb. 14, 1958.

Allen-eze

Owner of Reg. Nos. 615,111 and 360,528.
For Mixed Paints.
First use Jan. 2, 1957.

SN 45,842. Allentown Paint Manufacturing Company, Allentown, Pa. Filed Feb. 14, 1958.

ALLENPLEX

Owner of Reg. Nos. 615,111 and 360,528.
For Mixed Paints.
First use June 26, 1957.

SN 45,891. Lord Manufacturing Company, Erie, Pa. Filed Feb. 14, 1958.

CHEMLOK

Owner of Reg. No. 647,649.
For Sealers for Floor and Wood Penetrating and Sealing Compounds Used in Glazing.
First use Jan. 10, 1958.

Class 17 — Tobacco Products

SN 33,067. General Cigar Co., Inc., New York, N. Y. Filed July 2, 1957.



Owner of Reg. No. 599,880.
For Cigar Binder Tobacco.
First use June 14, 1957.

SN 40,162. United Vintners, Inc., d. b. a. Petri Cigar Company, San Francisco, Calif. Filed Nov. 5, 1957.

ROUND UP

For Cigars and Cigarettes.
First use Oct. 23, 1957.

Class 18 — Medicines and Pharmaceutical Preparations

SN 10,712. David Abrams, d. b. a. Shane Laboratories, Philadelphia, Pa. Filed June 21, 1956.

ALFEX

For Alfalfa Extract Tablets for the Relief of Minor Arthritic and Rheumatic-Like Conditions.
First use Mar. 1, 1955.

SN 32,331. Milligan & Son, Inc., Sioux City, Iowa. Filed June 20, 1957.



For Medicated Salt for Veterinary Use Containing Procaine Penicillin.
First use Mar. 29, 1957.

SN 33,583. Jerome M. Traub, d. b. a. Tu Cheek Company, Hamilton, Ohio. Filed July 11, 1957.

TU CHEEK

For Pharmaceutical Preparation in Cream Form for Treatment of Tender and Irritated Skin.
First use June 4, 1957.

SN 33,771. The Upjohn Company, Kalamazoo, Mich. Filed July 15, 1957.

BIO-DELTA-CORTEF

Owner of Reg. Nos. 587,375, 656,724, and others.
For Hormonal and Antibiotic Preparation.
First use Apr. 21, 1955.

SN 34,595. Endo Laboratories, Inc., Richmond Hill, N. Y. Filed July 30, 1957.

FASIN

For Medicinal Preparation Used as a Metabolic Product for Nutrition Supplement.
First use July 15, 1957.

SN 34,958. K. V. Products Company, Oklahoma City, Okla. Filed Aug. 5, 1957.



For Dietary Supplements Containing Vitamins and Minerals.
First use Feb. 28, 1957.

SN 35,126. G. D. Searle & Co., Skokie, Ill. Filed Aug. 7, 1957.

DARTALAN

Owner of Reg. No. 655,741.
For Pharmaceutical Preparation Useful for the Amelioration of Mood.
First use Aug. 1, 1957.

SN 36,199. Lloyd Brothers, Inc., Cincinnati, Ohio. Filed Aug. 26, 1957.

COPOIETIN

For Medicinal Preparations for Use in Treating Anemia and Produced in Fluid and Tablet Form.
First use on or about July 26, 1957.

SN 36,370. Gides, Incorporated, Beverly Hills, Calif. Filed Aug. 28, 1957.

Guide-u-all

Owner of Reg. Nos. 588,173, 621,694, and 656,333.
For Dietary Vitamin Food Supplements.
First use Aug. 23, 1957.

SN 36,765. American Cyanamid Company, New York, N. Y. Filed Sept. 6, 1957.

LEDERFOL

For Liver With Folic Acid.
First use Aug. 13, 1957.

SN 37,603. Sterwin Chemicals Inc., New York, N. Y. Filed Sept. 20, 1957.

TRITHIADOL

For Preparation for the Treatment and Prevention of Coccidiosis in Animals.
First use Feb. 1, 1957.

SN 38,338. Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. Filed Oct. 4, 1957.

ANGIDYNE

For Medicinal Preparation for the Treatment of Certain Cardiovascular Disorders.
First use Sept. 19, 1957.

SN 40,982. Vitamix Corporation, Philadelphia, Pa. Filed Nov. 19, 1957.

HISTACHLOR

For Pharmaceutical Preparations of Chlorprophenpyridamine Maleate for Intermuscular Injection and Oral Administration.
First use Sept. 15, 1954.

SN 41,003. Carter Products, Inc., New York, N. Y. Filed Nov. 20, 1957.

MEPROCAP

For Pharmaceutical Preparation for Use in the Treatment of Tension and as a Muscular Relaxant in a Timed Disintegration Capsule.
First use Sept. 18, 1957.

SN 41,122. The Upjohn Company, Kalamazoo, Mich. Filed Nov. 21, 1957.

PANALBA KM

Owner of Reg. No. 643,183.
For Antibiotic Preparation.
First use Oct. 17, 1957.

SN 41,145. Carter Products, Inc., New York, N. Y. Filed Nov. 22, 1957.

MEPROSULE

For Pharmaceutical Preparation for Use in the Treatment of Tension and as a Muscular Relaxant in a Timed Disintegration Capsule.
First use Sept. 18, 1957.

SN 41,188. Professional Drug Service, Inc., d. b. a. Storck Pharmaceuticals, St. Louis, Mo. Filed Nov. 22, 1957.

ENEVAC

For Rectal Suppository.
First use Mar. 4, 1957.

SN 41,299. New England Research Laboratories, Inc., Portland, Maine. Filed Nov. 25, 1957.

TRIUMPH

For Medication for Use in the Treatment of Acne and Pimples.
First use Aug. 19, 1957.

SN 41,325. Sterling Drug Inc., New York, N. Y. Filed Nov. 25, 1957.

TRIQUIN

For Preparation for the Treatment of Lupus Erythematosus, Light-Sensitive Dermatitis, and Rheumatoid Arthritis.
First use Nov. 6, 1957.

SN 41,619. Ciba Limited, Basel, Switzerland. Filed Dec. 2, 1957.

MEXAFORM

Owner of Swiss Reg. No. 161,830, dated July 4, 1956.
For Pharmaceutical Preparation for the Treatment of Intestinal Diseases.

SN 41,722. Standex Laboratories, Inc., Columbus, Ohio. Filed Dec. 3, 1957.

STANNITOL

For Ethically Sold Sedative.
First use Sept. 7, 1948.

SN 41,723. Standex Laboratories, Inc., Columbus, Ohio. Filed Dec. 3, 1957.

PYRANISTAN

For Antihistamine Preparation.
First use Sept. 7, 1951.

SN 41,724. Standex Laboratories, Inc., Columbus, Ohio. Filed Dec. 3, 1957.

GERASTAN

For Vitamin Preparation.
First use Jan. 2, 1952.

SN 41,726. Standex Laboratories, Inc., Columbus, Ohio. Filed Dec. 3, 1957.

STAN-A-SYN

For Ethically Sold Synthetic Vitamin A.
First use Sept. 7, 1957.

SN 42,976. Drug Research Corporation, New York, N. Y. Filed Dec. 24, 1957.

ROYAL JELLAVITE

For Vitamin Food Supplement in Tablet and Liquid Form.
First use Dec. 9, 1957.

SN 43,222. Vivian Exton, d. b. a. Biofoods Company, New York, N. Y. Filed Dec. 30, 1957.

YGRENE

For Concentrate in the Nature of a Dietary Supplement.
First use March 1949.

SN 43,702. R. J. Smasal, d. b. a. Marlene's Company, Chicago, Ill. Filed Jan. 9, 1958.

MYNEX

For Pharmaceutical Preparations for the Reduction of Superfluous Flesh.
First use Jan. 15, 1949.

Class 19 — Vehicles

SN 13,766. Jacob Press' Sons, Inc., Chicago, Ill. Filed Aug. 10, 1956.



For Motor Truck and Trailer Bodies.
First use on or about Dec. 29, 1941.

SN 39,511. S. Blickman, Inc., Weehawken, N. J. Filed Oct. 25, 1957.

Foodveyor

For Power-Driven Mobile Food Trucks.
First use Sept. 19, 1957.

SN 42,056. Harold Radford & Company Limited, London, England. Filed Dec. 9, 1957.

COUNTRYMAN

Owner of British Reg. No. 712,275, dated Nov. 13, 1952.
For Bodies for Motor Land Vehicles of the Four Door Saloon Type.

SN 42,071. Standard Mirror Company, Inc., Buffalo, N. Y. Filed Dec. 9, 1957.



For Rear Vision and Vanity Mirrors for Automobiles.
First use in 1939.

SN 42,300. Missouri Dry Dock & Repair Co., Inc., Cape Girardeau, Mo. Filed Dec. 12, 1957.

RUBBUMPER

For Shock Absorbing Resilient Fenders for Vessels, Vehicles, and Docks.
First use Sept. 10, 1956.

Class 21 — Electrical Apparatus, Machines, and Supplies

SN 29,187. Westinghouse Electric Corporation, Pittsburgh, Pa. Filed Apr. 3, 1957.

BEAUTY TONE

For Light Producing Devices—Namely, Electric Lamps.
First use on or about Sept. 23, 1955.

SN 29,637. International Television Corporation, Los Angeles, Calif. Filed May 8, 1957.

ROGER-CHARLES

For Hi-Fidelity Speaker Systems and Electronic Devices Used in Connection With Radio and Television Equipment.
First use Apr. 20, 1957.

SN 33,852. Ferrostaal A. G., Essen, Germany. Filed June 11, 1957.

FERROSTAAL

Owner of German Reg. No. 673,127, dated Mar. 17, 1955.
For Switch and Control Apparatus for the Control and Connection of Electric Current; Generators; Cables and Electric Supply Lines; Electromotors.

SN 36,974. McGraw-Edison Company, Elgin, Ill. Filed Sept. 10, 1957.

POWER HOUSE

For Electric Hand Drills.
First use at least as early as June 3, 1949.

SN 38,208. Guyan Machinery Company, Logan, W. Va. Filed Oct. 2, 1957. Sec. 2(f).

GUYAN

For Electrical Resistors, Choke Starters, Magnetic Starters, Electrical Switches, and Trolley Guards.
First use in July 1948.

SN 38,302. The Pure Oil Company, Chicago, Ill. Filed Oct. 3, 1957.

BE SURE WITH PURE

Owner of Reg. No. 588,008.
For Battery Chargers.
First use about September 1950.

SN 38,505. U. S. Electrical Motors, Inc., Los Angeles, Calif. Filed Oct. 7, 1957.

HOLLOSHAFT

For Electric Motors for Operating Pumps.
First use Sept. 7, 1957.

SN 38,676. Electrical Engineers Equipment Co., Melrose Park, Ill. Filed Oct. 10, 1957.

3E

Owner of Reg. No. 156,664.
For Indoor and Outdoor High Tension Switches, Switch Mountings and Operating Mechanisms, Potheads, Sub-Stations, T-Connectors, Bus Bars, Conductors, and Fittings.
First use Dec. 13, 1955; as early as Dec. 1, 1917, in an earlier form.

SN 38,978. Burndy Corporation, Norwalk, Conn. Filed Oct. 16, 1957.

BURCAP

Owner of Reg. No. 575,152.
For Electrical Connectors.
First use July 24, 1957.

SN 40,693. N. V. Neglin Lamp Industrial Company (Neglin Lampen Industrielle Maatschappij), Nijmegen, Netherlands. Filed Nov. 14, 1957.

NEGLIN

Owner of Dutch Reg. No. 116,609, dated Oct. 1, 1953.
For Electric Lighting Installations, Particularly Electric Incandescent Lamps, Flash Lamps, Discharge Lamps, Fluorescent Lamps, Mercury-Vapour Lamps, Sodium Lamps, Neon Lamps, Lighting Ornaments, Fittings, Bulbs, Reflectors, Searchlights; Auxiliary Apparatus, Exclusively Destined for Use in the Electric Lighting Field, Such as Choke-Coils, Condensers, Transformers, Resistances, Ignition Switches, Safety-Fuses.

SN 40,862. Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. Filed Nov. 18, 1957.

ACTIONATOR

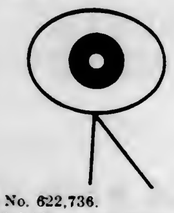
For Electric Motor for Operating Rotary Slip-Stem and Butterfly Valves, Dampers, and Other Final Control Elements.
First use not later than September 1954.

SN 41,179. Magna Power Tool Corporation, Menlo Park, Calif. Filed Nov. 22, 1957.

HOMESMITH

For Vacuum Cleaners and Vacuum Cleaner Systems.
First use Oct. 14, 1957.

SN 41,243. Columbia Broadcasting System, Inc., Bridgeport, Conn. Filed Nov. 25, 1957.



Owner of Reg. No. 622,736.
For Pre-Recorded Magnetized Tape.
First use Aug. 26, 1957.

SN 41,414. Ward Leonard Electric Co., Mount Vernon, N. Y. Filed Nov. 26, 1957.

CONTROLETTE

For Electric Lighting Control Apparatus, Specifically for an Electric Illumination Control.
First use Oct. 23, 1957.

SN 41,457. JFD Manufacturing Co., Inc., Brooklyn, N. Y. Filed Nov. 27, 1957.

SATELLITE

For Television Antennas.
First use Nov. 15, 1957.

SN 41,474. Peerless Tree Lite Co., Brooklyn, N. Y. Filed Nov. 27, 1957.

CHARM

For Christmas Tree Lights.
First use July 1, 1957.

SN 41,507. Amphenol Electronics Corporation, Chicago, Ill. Filed Nov. 29, 1957.

VI·FI

For Television Antennas.
First use Oct. 23, 1957.

SN 41,539. General Motors Corporation, Detroit, Mich. Filed Nov. 29, 1957.

GUIDE

Owner of Reg. Nos. 194,519 and 627,685.
For Automatic Headlight Controls for Motor Vehicle Headlights.
First use Jan. 25, 1952.

SN 41,554. Walter G. Legge Company, Inc., New York, N. Y. Filed Nov. 29, 1957.

SOLESTAT

For Grounding Devices for Conducting Static Electric Charges From Individuals to the Ground.
First use Oct. 29, 1957.

SN 41,881. Bel Fuse Inc., Union City, N. J. Filed Dec. 6, 1957.

BELIMITER

For Fuses.
First use Nov. 7, 1957.

SN 41,886. The Philip Carey Manufacturing Company, Lockland, Cincinnati, Ohio. Filed Dec. 6, 1957.

VISITUNE

For Door Chimes.
First use Nov. 25, 1957.

SN 41,930. Ohmite Manufacturing Company, Skokie, Ill. Filed Dec. 6, 1957.

OHMITE

Owner of Reg. Nos. 252,608 and 523,146.
For Resistors, Rheostats, Chokes, Tap Switches, Capacitors, Relays, and Variable Transformers.
First use Aug. 1, 1925.

Class 22 — Games, Toys, and Sporting Goods

SN 26,889. Stuart, Inc., St. Paul, Minn. Filed Mar. 25, 1957.

"MR. I. V. LEAGUE"

For Stuffed Animal and Doll-Like Figures for Ornament or Play.
First use Feb. 26, 1957.

SN 32,426. True Temper Corporation, Cleveland, Ohio. Filed June 21, 1957.

PRO FIT

For Golf Shafts.
First use Apr. 15, 1957.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

SN 24,212. Spincraft, Inc., Milwaukee, Wis. Filed Feb. 11, 1957.

Spincraft

Owner of Reg. Nos. 344,118, 557,012, and 616,780.
For Ladles and Skimmers for Handling Molten Die Cast Metal.
First use 1941 on ladles; 1926 on ball joints.

SN 38,720. Twentieth Century Mfg. Co., Libertyville, Ill. Filed Oct. 10, 1957.

SUPERBORE

Owner of Reg. Nos. 509,812 and 618,612.
For Counterbores and Boring Tools.
First use in March 1948.

SN 39,046. Clevite Corporation, Cleveland, Ohio. Filed Oct. 17, 1957.

CLEVITE

For Bearing Cartridges.
First use May 9, 1957.

SN 41,763. Lamson Mobilift Corporation, Portland, Oreg. Filed Dec. 4, 1957.

MOBIL-MATIC

Owner of Reg. No. 592,971.
For Lift Trucks Equipped With an Automatic Drive Mechanism.
First use August 1953.

SN 42,317. Screw Conveyor Corporation, Hammond, Ind. Filed Dec. 12, 1957.

WINONA

For Elevating and Conveying Apparatus Comprising Endless Belt and Carrier Elevating and Conveying Systems and Parts Thereof Including Elevator Buckets.
First use May 1, 1956.

SN 42,381. Household Manufacturing Co., Los Angeles, Calif. Filed Dec. 13, 1957.

PERMA-WOOD

For Kitchen and Barbecue Tools—Namely, Knives, Forks, Spoons, Potato Mashers, Spatulas, Ladles, and Turners.
First use in April 1957.

SN 42,496. Lamson Mobilift Corporation, Portland, Oreg. Filed Dec. 16, 1957.

LEV-R-MATIC

For Drive Controls for Fork Lift Trucks and the Like.
First use in September 1949.

SN 42,513. Midwest Mower Corporation, St. Louis, Mo. Filed Dec. 16, 1957.

EVER-READY

For Hand- and Power-Driven Lawn Mowers.
First use Nov. 15, 1957.

SN 42,525. The Osborn Manufacturing Company, Cleveland, Ohio. Filed Dec. 16, 1957.

KEB

For Brushes Forming Parts of Industrial Machines, Power Operated Rotary Brushes for Removing Burrs, Polishing and Cleaning, Especially Wire Cup Brushes, and Similar Brushes With Bristles, Directed Generally Axially of Such Brushes.
First use Oct. 31, 1955.

SN 42,537. Utica Cutlery Company, Utica, N. Y. Filed Dec. 16, 1957.

WISTFUL

For Table Knives, Forks and Spoons, and Pie Knives, All of Base Metal.
First use Oct. 24, 1957.

SN 43,741. Clark Equipment Company, Buchanan, Mich. Filed Jan. 10, 1958.

MICHIGAN

Owner of Reg. Nos. 589,748 and 619,468.
For Road Construction and Maintenance Machinery, Earth Moving Machinery, and Timber and Lumber Handling Machinery—Namely, Scrapers, Bulldozers, Tractor and Pulpwood Loggers and the Like.
First use June 12, 1957.

SN 44,590. The David Brown Corporation (Sales) Limited, London, England. Filed Jan. 24, 1958.

VARICON

Owner of British Reg. No. 739,826, dated Mar. 1, 1955.
For Variable Speed Gear Mechanisms not for Land Vehicles.

SN 44,818. Hammel, Riglander & Company, Inc., New York, N. Y. Filed Jan. 28, 1958. Sec. 2(f).

SCHILLING'S

For Watchmakers' Tools—Namely, Main Spring Winders, Lathes and Parts Thereof, Balance Chucks.
First use 1934 for lathes, parts thereof, and balance chucks.

SN 44,948. Bell & Gossett Company, Morton Grove, Ill. Filed Jan. 30, 1958. Sec. 2(f).

MARLOW

Owner of Reg. Nos. 439,734, 531,758, and 651,700.
For Pumps, Including Self-Priming Centrifugal Pumps and Diaphragm and Plunger Pumps, and Parts Thereof.
First use April 1935.

SN 45,049. Giustina & C. S. p. A., Turin, Italy. Filed Jan. 31, 1958.

RUL

For Ball, Roller and Needle Bearings, and Antifriction Bearings Generally Both of the Axial and Thrust Bearing Type, Loose Balls, Rollers and Needles Therefor.
First use Apr. 26, 1948; in commerce May 26, 1952.

SN 45,148. The DoAll Company, Des Plaines, Ill. Filed Feb. 3, 1958.

PanArm

For Articulated Contour Band Sawing Machine for Machining Large and Heavy Work Sections.
First use on or before Aug. 31, 1956.

SN 45,371. Carey-McFall Company, Philadelphia, Pa. Filed Feb. 6, 1958.

RAILMASTER

For Machine for the Production of Venetian Blind Steel Channels, Steel Bottom Rails, Steel Tilt Rods.
First use Feb. 1, 1950.

SN 45,816. Oneida Ltd., Oneida, N. Y. Filed Feb. 13, 1958.

SHASTA

For Stainless Steel Flat Tableware.
First use Dec. 31, 1957.

SN 45,817. Oneida Ltd., Oneida, N. Y. Filed Feb. 13, 1958.



For Stainless Steel Flat Tableware.
First use Dec. 31, 1957.

Class 24 — Laundry Appliances and Machines

SN 34,740. Salmanson & Co., Inc., New York, N. Y. Filed July 31, 1957.

Dependa-Bilt

Owner of Reg. No. 439,121.
For Folding and Adjustable Ironing Tables.
First use May 9, 1957.

Class 26—Measuring and Scientific Appliances

SN 14,848. Bailey Meter Company, Cleveland, Ohio. Filed Aug. 30, 1956.

DATAK

For Automatic Digital-Data Observing, Collecting and Translating System for the Testing of Central Station Components Such as Steam Generators and Turbines and the Auxiliaries Therefor.
First use Apr. 10, 1956.

SN 15,735. The Technicon Company, Chauncey, N. Y., to The Technicon Company, Inc., Chauncey, N. Y. Filed Sept. 14, 1956.

AUTOANALYZER

For Apparatus for Analyzing Blood and Other Body Fluids.
First use July 26, 1955.

SN 15,857. Barnes Engineering Company, Stamford, Conn. Filed Sept. 18, 1956.

Barnes Engineering Co.

Owner of Reg. No. 635,174.
For Scientific Instruments Utilizing Infra-Red Radiation, e. g. on Radiation Sources, Reference Sources, Detectors, and for Optical Instruments Such as Refractometers.
First use Mar. 15, 1956, on apparatus utilizing infra-red reference sources.

SN 16,000. Zeiss Ikon Aktiengesellschaft, Stuttgart, Germany. Filed Sept. 19, 1956.

MOVITRIX

Owner of German Reg. No. 516,656, dated Oct. 13, 1939.
For Titling Devices and Masking Devices Therefor and Parts Thereof for Use With Motion Picture Cameras.

SN 20,988. Charles Bruning Company, Inc., Chicago, Ill. Filed Dec. 13, 1956.

STAINLESS-SUPREME

Owner of Reg. No. 179,228.
For Drawing Instruments Either in Sets or as Individual Instruments and Accessories Related Thereto Including Drawing Sets, Pens, Pencils, Compasses, Dividers, and Accessories Therefor.
First use August 1956.

SN 25,924. Dennert & Pape, Hamburg-Altona, Germany. Filed Mar. 25, 1957.

MULTILOG

Owner of German Reg. No. 652,978, dated Feb. 6, 1954.
For Slide Rules.
First use 1953; in commerce Oct. 18, 1953.

SN 29,428. Burroughs Corporation, Pasadena, Calif. Filed May 6, 1957.

CARDATRON

For Electronic Apparatus for Processing Information in Numerical or Alphabetical Form.
First use Dec. 14, 1956.

SN 30,664. George F. Kapell, Jr., Gardena, Calif. Filed May 24, 1957.

KAPETTE

For Filter Mouthpieces for Pipettes.
First use Apr. 1, 1957.

SN 30,878. Addiator Rechenmaschinen-Fabrik C. Kübler, Berlin-Charlottenburg, Germany. Filed May 28, 1957.

ARITHMA

For Calculating Devices—Namely, Mechanical and Electric Calculating Machines, Miniature Calculating Machines.
First use July 20, 1950; in commerce July 20, 1950.

SN 31,145. Precision Thermometer & Instrument Co., Philadelphia, Pa. Filed May 31, 1957.

STA ZON

For Etched Stem Glass Thermometers.
First use Oct. 5, 1956.

SN 31,609. U. S. Industries, Inc., Santa Barbara Airport, Goleta, Calif. Filed June 7, 1957.

USI

For Telemetering System Components Including Specially Designed Power Supplies for Use in Scientific Data-Handling Systems.
First use Dec. 3, 1956.

SN 32,444. American Gage & Machine Company (Simpson Electric Company Division), Chicago, Ill. Filed June 24, 1957.

ROTO RANGER

For Electrical Measuring Apparatus, Specifically Volt-Ohm-Milliammeters.
First use on or about Jan. 1, 1941.

SN 34,473. The Teleregister Corporation, Stamford, Conn. Filed July 26, 1957.

TELEFILE

For Integrated Automatic Electrical Systems for Storing and Posting Data, and for Interrogating and Reading Out the Stored Data, and for Processing, Tabulating, Filing, Computing and Displaying Information Required in Connection With Industrial and Business Operations, Such as Inventory Control, Production Planning and Customer Invoicing.
First use Nov. 15, 1955.

SN 35,057. Peerless Camera Stores, Inc., New York, N. Y. Filed Aug. 6, 1957.

PEEROTAR

For Lenses for Cameras.
First use at least as early as June 18, 1957.

SN 35,507. H. V. Hardman Co. Incorporated, Belleville, N. J. Filed Aug. 14, 1957.

TRIPLEMATIC

For Proportioning Pumps Adapted To Mix and Deliver Measured Volumes of a Plurality of Liquids.
First use June 15, 1956.

SN 35,936. Industrial Nucleonics Corporation, Columbus, Ohio. Filed Aug. 21, 1957.

AccuDrafter

Owner of Reg. Nos. 585,217, 631,750, and 646,469.
For Automatic Equipment Controlling the Material Properties, Such as Weight per Unit Length of Tows, Slivers, Slubbings, and Yarn by Regulating Textile Drafting Processes.
First use Aug. 2, 1957.

SN 36,702. Essex Wire Corporation, Fort Wayne, Ind. Filed Sept. 5, 1957. Sec. 2(f).

HERMANN

Owner of Reg. No. 656,387.
For Apparatus for Forming Test Sheets From Pulps and for Evaluating the Physical Properties of Pulps—Namely, Disintegrators, Sheet Making Machines, Couching Equipment, Presses, Pumps for Presses, and Drying Plates and Rings.
First use on or about Mar. 28, 1931.

SN 39,210. Ferranti Electric, Inc., New York, N. Y. Filed Oct. 21, 1957. Sec. 2(f).

FERRANTI

Owner of Reg. No. 529,536.
For Electric and Electronic Measuring Instruments—Namely, Voltmeters, Ammeters, and Watthour Meters; Electrical and Electronic Testing Apparatus—Namely, Clip-on Voltammeters and High Voltage Testers; Electronic Computers and Calculating Machines and Parts Thereof; Electric and Electronic Viscometers.
First use Sept. 10, 1926, on voltmeters.

SN 39,407. Alex F. Millar, d. b. a. The Firestat Company, Evanston, Ill. Filed Oct. 23, 1957.

FIRESTAT

Owner of Reg. No. 507,799.
For Thermostats.
First use July 1933.

SN 39,593. Comptometer Corporation, Chicago, Ill. Filed Oct. 28, 1957.

COMPTOTAPE

For Calculating and Recording Units.
First use Oct. 23, 1957.

SN 40,935. Foster Grant Co., Inc., Leominster, Mass. Filed Nov. 19, 1957.

Opti-Clipover

Owner of Reg. No. 615,752.
For Sunglasses of the Clip-on Type, and Sunglass Carrying Cases.
First use Oct. 15, 1957.

SN 41,153. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Sept. 10, 1957.

SN 41,155. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

CINE-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Sept. 10, 1957.

SN 41,156. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

ORTHICO-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Sept. 13, 1957.

SN 41,158. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

TELE-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Sept. 13, 1957.

SN 41,159. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

VIDEO-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Oct. 2, 1957.

SN 41,161. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

FARROGON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Oct. 2, 1957.

SN 41,162. Farrand Optical Co., Inc., New York, N. Y. Filed Nov. 22, 1957.

MEGA-FARRON

Owner of Reg. No. 441,362.
For Optical and Photographic Lenses.
First use Oct. 21, 1957.

SN 42,954. C. S. Warner Corporation, Boston, Mass. Filed Dec. 23, 1957.

Close-ups

For Folding Binoculars.
First use Sept. 5, 1957.

SN 43,227. Autron Engineering, Inc., Los Angeles, Calif. Filed Dec. 31, 1957.

NEURON

For Counters.
First use Dec. 6, 1957.

SN 43,555. The Rust Industrial Company, Inc., Manchester, N. H. Filed Jan. 7, 1958.

rustrak

For Strip Recorders and Parts Thereof.
First use Dec. 12, 1957.

SN 43,922. Charles Bruning Company, Inc., Mount Prospect, Ill. Filed Jan. 14, 1958.

KWIK-BOB

For Plumb Bobs.
First use Dec. 17, 1954.

SN 44,156. Brown & Sharpe Manufacturing Company, Providence, R. I. Filed Jan. 17, 1958.

Hite-icator

For Micrometer Height Gage With Dial Indicator.
First use on or about Dec. 11, 1957.

SN 44,157. Brown & Sharpe Manufacturing Company, Providence, R. I. Filed Jan. 17, 1958.

Hite-Set

For Micrometer Height Gages.
First use on or about Nov. 17, 1955.

SN 44,231. Vent-Air Contact Lens Specialists, Inc., New York, N. Y. Filed Jan. 17, 1958.

SIGHT UNSEEN

For Contact Lenses.
First use Oct. 1, 1957.

SN 44,352. The FR Corporation, New York, N. Y. Filed Jan. 20, 1958.



Owner of Reg. Nos. 351,148, 619,900, and others.
For Photographic Film.
First use Sept. 27, 1957.

Class 28 — Jewelry and Precious-Metal Ware

SN 39,093. Ring Guild of America, Inc., New York, N. Y. Filed Oct. 17, 1957. COLLECTIVE MARK.

R G A

For Finger Rings and Mountings Therefor.
First use on or about June 2, 1957.

Class 29 — Brooms, Brushes, and Dusters

SN 37,246. Eklind Tool and Manufacturing Co., Chicago, Ill. Filed Sept. 16, 1957.

WALL-WONDER

For Wall Cleaning Implements—Namely, Handle Mounted Wiping Sponges.
First use on or about June 10, 1957.

SN 40,197. Zephyr Manufacturing Co., Sedalia, Mo. Filed Nov. 6, 1957.



For Brooms, Brushes, and Mops.
First use Sept. 1, 1957.

SN 40,331. Easy Day Manufacturing Company, d. b. a. Suburbanite Mop Company, Brookline, Mass. Filed Nov. 8, 1957.

SUBURBANITE

For Dry and Wet Mops.
First use Oct. 15, 1957.

Class 31 — Filters and Refrigerators

SN 29,400. Sweden Freezer Manufacturing Company, Seattle, Wash. Filed May 3, 1957.

SWEDEN SOFT SERVER

For Refrigerating Machine for Dispensing Soft Ice-Cream.
First use Dec. 5, 1955.

Class 32 — Furniture and Upholstery

SN 664,076. Schnadig Corporation, Chicago, Ill., from S. Karpen & Bros., Incorporated. Filed Apr. 7, 1954. Sec. 2(f) as to "Karpen."



Owner of Reg. Nos. 514,420, 576,887, and others.
For Upholstered Chairs and Sofas.
First use Dec. 1, 1953; 1884 as to "Karpen."

SN 34,516. Debs Hospital Supplies, Inc., Chicago, Ill. Filed July 29, 1957.

LAZY D

For Chairs.
First use May 15, 1957.

SN 47,840. De Luxe Metal Furniture Company, Warren, Pa. Filed Mar. 17, 1958.

OCTOPAK

For Metal Shelving, Including Boltless Structural Components for Steel Shelving.
First use on or about Oct. 12, 1957.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 37,389. Vulcan-Hart Manufacturing Company, Baltimore, Md. Filed Sept. 17, 1957.

VULCAN

Owner of Reg. Nos. 63,250 and 438,904.
For Cooking Equipment—Namely, Ranges; Broilers; Combination Broiler-Griddle-Toasters; and Ovens.
First use in 1890.

SN 37,390. Vulcan-Hart Manufacturing Company, Baltimore, Md. Filed Sept. 17, 1957.

VULCAN

The drawing is lined for red. Owner of Reg. Nos. 63,250 and 438,904.
For Ovens, Ranges, and Deep Fat Fryers.
First use in September 1953; in 1890 as to "Vulcan."

SN 38,524. Big Boy Manufacturing Co., Inc., d. b. a. Western King Manufacturing Company, Burbank, Calif., to Seidelhuber Steel Rolling Mill Corporation, Burbank, Calif. Filed Oct. 8, 1957.



For Portable Barbecues of Metal.
First use on or about Sept. 4, 1957.

SN 39,692. N. Wasserstrom & Sons, Inc., Columbus, Ohio. Filed Oct. 28, 1957.

Food-O-matic

For Dry Heated Hot Food Tables.
First use July 1, 1957.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 34,786. Gering Products, Inc., Kenilworth, N. J. Filed Aug. 1, 1957.

Lawn-Queen

For Sprinkler Hose and Watering Hose for Lawns and Gardens.
First use Dec. 28, 1955.

SN 42,161. Selberling Rubber Company, Barberton, Ohio. Filed Dec. 10, 1957.

POWER RIB

For Pneumatic Truck Tires.
First use June 18, 1956.

SN 43,078. Dunlop Tire and Rubber Corporation, Buffalo, N. Y. Filed Dec. 27, 1957.

GOLD SEAL

For Tires.
First use Dec. 3, 1957.

Class 36—Musical Instruments and Supplies

SN 30,992. Francis X. Cashin, d. b. a. Avoca Record Co., Brooklyn, N. Y. Filed May 29, 1957.



For Grooved Phonograph Records.
First use Jan. 30, 1956.

SN 30,993. Francis X. Cashin, d. b. a. Avoca Record Co., Brooklyn, N. Y. Filed May 29, 1957.

AVOCA

For Grooved Phonograph Records.
First use Jan. 30, 1956.

SN 32,436. Albert W. H. Hirsch, d. b. a. Hirsch Engraving Company, Tampa, Fla. Filed June 24, 1957.



For Batons (Twirling Batons for Majorettes and Marching Bands).
First use Feb. 5, 1956.

SN 32,740. Contact Associates, Inc., New York, N. Y. Filed June 27, 1957.



For Grooved Phonograph Records.
First use Oct. 30, 1956.

SN 39,974. Mercury Record Corporation, Chicago, Ill. Filed Nov. 1, 1957.

LOOK

For Grooved Phonograph Records.
First use on or about Oct. 4, 1957.

SN 39,975. Mercury Record Corporation, Chicago, Ill. Filed Nov. 1, 1957.

SMASH

For Grooved Phonograph Records.
First use on or about Oct. 4, 1957.

SN 39,976. Mercury Record Corporation, Chicago, Ill. Filed Nov. 1, 1957.

LIMELIGHT

For Grooved Phonograph Records.
First use on or about Oct. 4, 1957.

SN 39,983. The New American Library of World Literature, Inc., New York, N. Y. Filed Nov. 1, 1957.

MENTOR

Owner of Reg. Nos. 510,998 and 527,265.
For Grooved Phonograph Records.
First use Sept. 20, 1957.

SN 40,305. Athens Records, Inc., Nashville, Tenn. Filed Nov. 8, 1957.

Athens

For Grooved Phonograph Records.
First use Aug. 15, 1957.

SN 40,340. Goya and Matteo, New York, N. Y. Filed Nov. 8, 1957.

MATTEO

For Musical Instruments—Namely, Castanets.
First use Aug. 13, 1957.

SN 40,635. Winter & Company, Inc., New York, N. Y. Filed Nov. 13, 1957.



Owner of Reg. Nos. 548,105, 548,108, and 614,843.
For Pianos.
First use on or about May 1, 1957.

SN 41,596. Waters-Conley Co., Inc., Rochester, Minn. Filed Nov. 29, 1957.

DUO-FI

For Phonographs.
First use Dec. 1, 1955.

Class 37—Paper and Stationery

SN 30,996. Dufaylite Developments Limited, London, England. Filed May 29, 1957.

DUFAYLITE

Owner of British Reg. No. B752,849, dated Apr. 12, 1956.
For Honeycomb Sheet Material Made Wholly or Principally of Paper or Cardboard.

SN 34,926. Creative Aids, Inc., New York, N. Y. Filed Aug. 5, 1957.



For Envelope Folder File.
First use July 22, 1957.

SN 35,193. The Heinn Company, Milwaukee, Wis. Filed Aug. 8, 1957.

COLORIFIC

Owner of Reg. No. 656,464.
For Loose-Leaf Binders.
First use July 25, 1957.

SN 40,302. Alva Pen Co., New York, N. Y. Filed Nov. 8, 1957.

ALVA

For Ball Point Pens, Pencils, and Fountain Pens.
First use in or about June 1946.

Class 38—Prints and Publications

SN 25,535. L. Ron Hubbard, Washington, D. C. Filed Dec. 2, 1957.

Ability

For Magazine.
First use Feb. 1, 1955.

SN 37,345. Irene Dash Greeting Card Co., Inc., New York, N. Y. Filed Sept. 17, 1957.

CHRISTMAS OMNIBUS

For Albums and/or Books Containing a Collection of Christmas and Greeting Cards.
First use June 1, 1957.

SN 37,370. Purchasing Agents Association of Cleveland, Inc., Cleveland, Ohio. Filed Sept. 17, 1957.



Owner of Reg. No. 405,101.
For Monthly Magazine.
First use June 1943.

SN 37,469. American Artists Group, Inc., New York, N. Y. Filed Sept. 19, 1957.



Christmas Elegancies

For Albums and/or Books Containing a Collection of Christmas and Greeting Cards.
First use June 1, 1957.

SN 41,860. Topflight Corporation, York, Pa. Filed Dec. 5, 1957.

CAL-STIX

For Pressure-Sensitive Adhesive Labels in Roll Form or Individual Labels Having a Protective Backing Strip or Sheet Removable Therefrom.
First use June 14, 1955.

SN 41,861. Topflight Corporation, York, Pa. Filed Dec. 5, 1957.

MAIL-O-STIX

For Mailing Cards Having a Removable Portion Provided With Pressure-Sensitive Adhesive and Arranged To Be Affixed as an Information Label by Said Adhesive to a Telephone Book or Bulletin Board.
First use June 30, 1955.

SN 41,862. Topflight Corporation, York, Pa. Filed Dec. 5, 1957.

VIN-L-STIX

For Pressure-Sensitive Adhesive Labels Having a Protective Backing Strip or Sheet Removable Therefrom.
First use June 6, 1956.

SN 41,863. Topflight Corporation, York, Pa. Filed Dec. 5, 1957.

MYCAL

For Pressure-Sensitive Adhesive Labels Having a Protective Backing Strip or Sheet Removable Therefrom.
First use May 8, 1957.

SN 41,899. El Diario Publishing Company, Inc., New York, N. Y. Filed Dec. 6, 1957.

EL DIARIO
DE NUEVA YORK

For Newspaper.
First use Sept. 15, 1948.

Class 39—Clothing

SN 697,143. Consolidated Retail Stores, Inc., New York, N. Y. Filed Oct. 26, 1955.

Couturé

For Shoes.
First use October 1939.

SN 24,875. Louis Tedoff and Son, Inc., Brooklyn, N. Y. Filed Feb. 21, 1957.

GRIPPERALL

For Infants' and Children's Wear—Namely, Skirts, Creepers, Shorts, Overalls, Slacks, and Coordinate Sets Consisting of Boys' and Girls' Shirts With Trousers and Girls' Halters With Trousers or Skirts.
First use Feb. 1, 1957.

SN 26,726. Ripon Knitting Works, Ripon, Wis. Filed Mar. 22, 1957.

FUNTIME FOOTWEAR

The word "Footwear" is disclaimed apart from the mark as shown. Owner of Reg. No. 622,765.
For Footwear—Namely, Shoes, Slippers, and Slipper Socks, Made of Leather, Plastic, or Fabric or Combinations Thereof.
First use Oct. 21, 1954.

SN 27,973. Peter Pan Foundations, Inc., New York, N. Y. Filed Apr. 11, 1957.



The design of the girdle is disclaimed apart from the mark as shown.
For Girdles.
First use May 10, 1956.

SN 31,939. Lana Lobell, Inc., Hanover, Pa. Filed June 13, 1957.

Grace Smart

For Women's Half-Size Clothing—Namely, Coats, Dresses, Suits, Skirts, Blouses, Sweaters, Slacks, Shorts, Brassieres, Slips, Nightgowns, and Girdles.
First use on or about Mar. 30, 1957.

SN 36,425. Bulluck Hosiery, Inc., New York, N. Y. Filed Aug. 29, 1957.

BEE BRAND

No claim is made to the word "Brand," apart from the mark shown.
For Hosiery.
First use May 2, 1957.

SN 37,298. Select Sportswear, Inc., New York, N. Y. Filed Sept. 16, 1957.

SLOPPY-JANE

For Knitted Sweaters.
First use July 31, 1941.

SN 37,299. Select Sportswear, Inc., New York, N. Y. Filed Sept. 16, 1957.

BONNIE CAMERON

For Knitted Sweaters.
First use Dec. 16, 1943.

SN 37,920. Van Raalte Company, Inc., New York, N. Y. Filed Sept. 26, 1957.

HOLD-UPS

For Knee-High Hosiery.
First use Feb. 1, 1953.

SN 38,376. Nu-Way Shoe Co. Inc., New York, N. Y. Filed Oct. 4, 1957.

FASHION TRED

Owner of Reg. No. 368,521.
For Women's Shoes.
First use in December 1937.

SN 38,666. The Boulevard Frocks Company, Minneapolis, Minn. Filed Oct. 10, 1957.

A Boulevard FROCK

No exclusive use in the word "Frock" is claimed other than in the association shown.
For Ladies', Misses', and Juniors' Skirts, Dresses, and Slacks.
First use on or about May 23, 1955; May 1, 1927, as to "Boulevard" on dresses.

SN 39,776. Blue Bonnet Shoe Co., Inc., Lawrence, Mass. Filed Oct. 30, 1957.

BLUE STAR

For Children's Shoes.
First use May 15, 1957.

SN 39,846. Timely Clothes, Inc., Rochester, N. Y. Filed Oct. 30, 1957.

DC-7

For Men's Suits.
First use about June 20, 1957.

SN 40,101. Samuel Weisberger, New York, N. Y. Filed Nov. 4, 1957.

d'Esterelle

For Knitted Blouses and Knitted Pants for Women, Young Women, and Children.
First use Aug. 21, 1957.

SN 40,211. Daisy Mills, Inc., High Point, N. C. Filed Nov. 7, 1957.

TEAM-MATES

For Hosiery.
First use Oct. 31, 1957.

SN 40,212. Daisy Mills, Inc., High Point, N. C. Filed Nov. 7, 1957.

TEEN-MATES

For Hosiery.
First use Oct. 31, 1957.

SN 40,307. Barad Lingerie Co., St. Louis, Mo. Filed Nov. 8, 1957.

SKIDDOO

For Women's Nightgowns, Pajamas, and Lingerie.
First use Sept. 27, 1957.

SN 40,311. Biflex Foundations, Inc., New York, N. Y. Filed Nov. 8, 1957.

LADY LUCK

For Brassieres and Girdles.
First use Oct. 14, 1957.

SN 40,336. Bloch Freres, Incorporated, New York, N. Y. Filed Nov. 8, 1957.

LUCKY 13 DOZEN

For Handkerchiefs.
First use Oct. 21, 1957.

SN 40,337. Gamm Shoes, Inc., St. Louis, Mo. Filed Nov. 8, 1957.

Alfreds

For Shoes.
First use Jan. 1, 1957.

SN 40,376. Rockingham Shoe Company, Newmarket, N. H. Filed Nov. 8, 1957.

BEAU-TEENS

For Women's, Misses', Growing Girls', Children's, and Infants' Shoes.
First use Aug. 9, 1957.

SN 41,825. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed Dec. 5, 1957.

CRESCENDO

For Brassieres.
First use Nov. 8, 1957.

SN 41,906. Goodman & Goldie, Inc., New York, N. Y. Filed Dec. 6, 1957.

LINDA SUE

For Ladies' Dresses.
First use Oct. 28, 1957.

Class 40—Fancy Goods, Furnishings, and Notions

SN 14,724. Howard H. Born, d. b. a. B & S Products Co., New York, N. Y. Filed Aug. 28, 1956.

CHAMPION

Owner of Reg. No. 557,607.
For Hair Curl Holders and Curling Rollers.
First use Oct. 1, 1950.

SN 18,484. Appliques Incorporated, Manila, Republic of the Philippines. Filed Oct. 31, 1956.

Apli-pats

For Printed and Plain, Cut and Uncut Fabric Designs for Transfer, Sewing or Direct Application to Apparel, Other Textile Articles, or to the Surface of Any Other Article.
First use July 19, 1956; in commerce July 19, 1956.

SN 18,485. Appliques Incorporated, Manila, Republic of the Philippines. Filed Oct. 31, 1956.

Ap-pel-ons

For Printed and Plain, Cut and Uncut Fabric Designs for Transfer, Sewing or Direct Application to Apparel, Other Textile Articles, or to the Surface of Any Other Article.
First use July 19, 1956; in commerce July 19, 1956.

SN 18,486. Appliques Incorporated, Manila, Republic of the Philippines. Filed Oct. 31, 1956.

Apli-ons

For Printed and Plain, Cut and Uncut Fabric Designs for Transfer, Sewing or Direct Application to Apparel, Other Textile Articles, or to the Surface of Any Other Article.
First use July 19, 1956; in commerce July 19, 1956.

SN 36,279. Clarkson Brooke & Company Limited, Leeds, Yorkshire, England. Filed Aug. 27, 1957.

LEAF EDGE BRAND EDGE TAPES

No claim is made to exclusive rights in the words "Brand" and "Edge Tapes" apart from the mark as shown. Owner of British Reg. No. 717,286, dated Apr. 29, 1953.
For Edge Tapes To Be Sewn Into Edges of Outer Garments.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 32,791. Wellington Sears Company, New York, N. Y. Filed June 27, 1957.

POMBO DUCK

The word "Duck" is disclaimed apart from the mark as a whole.
For Cotton Duck.
First use September 1956.

SN 33,154. The James Company of Hickory, N. C., Inc., Hickory, N. C. Filed July 3, 1957.

FULLINE

For Towels and Wash Cloths.
First use May 15, 1957.

SN 36,818. Tomlinson of High Point, High Point, N. C. Filed Sept. 6, 1957.

Symphony in Color

Owner of Reg. Nos. 371,263 and 523,861.
For Fabrics for Upholstery, Draperies, and Slip Covers.
First use Jan. 9, 1939.

SN 39,818. McCampbell & Company, Inc., New York, N. Y. Filed Oct. 30, 1957.

Tikmate

For All-Cotton Coordinated Denim Fabrics.
First use July 11, 1957.

SN 39,820. McCampbell & Company, Inc., New York, N. Y. Filed Oct. 30, 1957.

Checkmate

For All-Cotton Coordinated Denim Fabrics.
First use June 11, 1957.

SN 40,090. J. P. Stevens & Co., Inc., New York, N. Y. Filed Nov. 4, 1957.

JODONNI

For Piece Goods of Wool and Synthetic Fibers.
First use Aug. 2, 1957.

SN 41,749. Deering, Milliken & Co. Inc., New York, N. Y. Filed Dec 4, 1957.

Wearon

For Textile Buffing Fabrics.
First use Sept. 10, 1957.

SN 41,943. The Russell Manufacturing Company, Middletown, Conn. Filed Dec. 6, 1957.

RUSLON

For Woven Fabric Adapted for Use in Power Transmission Elevating and Conveyor Belts, in Molded Fabric Clutch Facings and Brake Linings; in Molded Fabric Oilless Antifriction Bearings for Automotive, Aero, and Industrial Uses.
First use January 1953.

SN 42,064. Cecil Saydah, Los Angeles, Calif. Filed Dec. 9, 1957.

SPARKLE-DRI

For Hand-Screened Printed Terry Towels and Terrycloth.
First use Mar. 9, 1956.

Class 43—Thread and Yarn

SN 39,920. Talbott Knitting Mills, Inc., New York, N. Y. Filed Oct. 31, 1957.

TARALAN

Owner of Reg. No. 654,190.
For Yarn.
First use Oct. 22, 1957.

SN 40,587. Modiglass Fibers, Inc., Bremen, Ohio. Filed Nov. 13, 1957.

MODIGLASS

For Threads of Glass Fibers Alone and in Combination With Natural and Synthetic Fibers.
First use Feb. 7, 1957.

SN 42,305. Patchogue-Plymouth Corporation, New York, N. Y. Filed Dec. 12, 1957.

PLASTI-KRAFT

For Yarn.
First use Sept. 16, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 40,534. Mettler Electronics Corporation, Pasadena, Calif. Filed Oct. 21, 1957.

SONICATOR

For Ultrasonic Generating Devices for Applying Ultrasonic Vibrations to the Surfaces of the Human Body.
First use Mar. 1, 1957.

SN 40,708. The Seamless Rubber Company, New Haven, Conn. Filed Nov. 14, 1957.

CRYSTAL

For Water Bottles, Fountain Syringes and Combination Syringes Made of Rubber.
First use Sept. 16, 1957.

SN 40,817. Contour Chair-Lounge Co., Inc., St. Louis, Mo. Filed Nov. 18, 1957.

THERMONIC

For Heat and Massage Pillows.
First use July 4, 1957.

SN 40,904. The Wilson Rubber Company, Canton, Ohio. Filed Nov. 18, 1957.

WILMED

For Medical Gloves.
First use on or about Oct. 1, 1957.

SN 41,558. Mine Safety Appliances Company, Pittsburgh, Pa. Filed Nov. 29, 1957.

EAR DEFENDERS

For Devices Fitted Into the Ear for Protection From Harmful Noises.
First use at least as early as December 1940.

SN. 41,874. Aeroplast Corporation, Dayton, Ohio. Filed Dec. 6, 1957.

VI-DRAPE

For Sterilizable Plastic Sheeting for Isolating and Protecting Areas of Human Skin During Surgery and Other Treatment.
First use on or about July 15, 1957.

Class 46—Foods and Ingredients of Foods

SN 697,590. Tid-Bit Products Company, Cleveland, Ohio. Filed Nov. 2, 1955.

SMOKIES

For Dried, Smoked Beef Sausage.
First use April 1948.

SN 16,337. The Froedtert Corporation, Milwaukee, Wis., now by change of name Basic Products Corporation. Filed Sept. 25, 1956.

F

For Malt for Food Purposes.
First use Nov. 2, 1953.

SN 24,128. Crest Importing Company, Inc., San Diego, Calif. Filed Feb. 11, 1957.

COMPASS

Owner of Reg. No. 601,114.
For Frozen, Fresh Shrimp.
First use Aug. 10, 1956.

SN 31,338. Rodgers Bros., d. b. a. Tenn-E-C-Maid Cocoanut Co., Lebanon, Tenn. Filed June 4, 1957.

TENN-E-C-MAID

For Fresh Frozen Grated Cocoanut.
First use Jan. 1, 1957.

SN 32,583. H. C. Christians Co., Chicago, Ill. Filed June 25, 1957.

Ayr-lac

For Product Consisting of Whey, Milk Solids, and Soya Flour for Use as an Ingredient in Bakery Products.
First use October 1954.

SN 32,820. Hardy Salt Company, St. Louis, Mo. Filed June 28, 1957.

IROX

For Salt for Stock Feeding and Land Dressing.
First use in July 1939.

SN 42,283. Fullerton & Co., Inc., Paterson, N. J. Filed Dec. 12, 1957.

FULA

For Shortening.
First use Sept. 27, 1957.

SN 42,445. Comet Rice Mills, Houston, Tex. Filed Dec. 16, 1957.

103

For Rice.
First use Oct. 8, 1954.

SN 42,968. American Molasses Company, New York, N. Y. Filed Dec. 24, 1957.

CRESTGOLD

For Sugar.
First use on or about Sept. 1, 1957.

SN 42,984. H. P. Hood & Sons, Inc., d. b. a. H. P. Hood & Sons, Boston, Mass. Filed Dec. 24, 1957.

Hood

Owner of Reg. Nos. 645,833 and 649,413.
For Concentrated Orange Juice.
First use June 3, 1957.

SN 43,072. Comet Rice Mills, Houston, Tex. Filed Dec. 27, 1957.



The drawing is lined for the colors red, blue, and yellow.
Owner of Reg. Nos. 655,595, 77,427, and others.
For Rice.
First use Sept. 15, 1957.

SN 43,127. John N. Wright, Jr., Federalsburg, Md. Filed Dec. 27, 1957. Sec. 2(f).

DECECCO

For Tomato Puree and Canned Tomatoes.
First use Oct. 3, 1950, on canned tomatoes.

Class 47 — Wines

SN 22,038. Widmer's Wine Cellars, Inc., Naples, N. Y. Filed Jan. 2, 1957.

LAKE ROSELLE

For Wine.
First use Nov. 5, 1956.

Class 48 — Malt Beverages and Liquors

SN 8,548. Heidelberg Brewing Co., Tacoma, Wash. Filed May 18, 1956. Sec. 2(f). CONCURRENT USE to be restricted to Washington, Oregon, California, Idaho, Utah, Arizona, and Nevada, and the Territories of Hawaii and Alaska. Concurrent Use with Reg. Nos. 565,877 and 113,900 to be restricted to the United States and its Territories and possessions except Washington, Oregon, California, Idaho, Utah, Arizona, and Nevada, and the Territories of Hawaii and Alaska.

Heidelberg

Owner of Reg. No. 565,832.
For Beer.
First use Mar. 19, 1934; Feb. 15, 1900, as to "Heidelberg."

SN 21,641. Miller Brewing Company, Milwaukee, Wis. Filed Dec. 26, 1956. Sec. 2(f).

THE CHAMPAGNE OF BOTTLE BEER

Owner of Reg. No. 516,116.
For Beer.
First use July 1, 1937.

Class 49 — Distilled Alcoholic Liquors

SN 39,283. Schenley Distillers, Inc., d. b. a. The Dant Distillery Company, New York, N. Y. Filed Oct. 21, 1957.

PEPPERTINI

Owner of Reg. No. 47,605.
For Prepared Alcoholic Cocktails.
First use Sept. 25, 1957.

Class 50 — Merchandise Not Otherwise Classified

SN 31,512. Safe-Lad Manufacturing Company, Portland, Oreg. Filed June 6, 1957.

SAFE-LAD

For Combined Mobile Ladder and Platform.
First use Nov. 8, 1954.

SN 39,838. Charles C. Radcliffe, d. b. a. Radcliffe Products, Chicago, Ill. Filed Oct. 30, 1957.

NEW LOOK

For Rat and Mouse Traps.
First use Sept. 27, 1957.

Class 51 — Cosmetics and Toilet Preparations

SN 40,227. The Gillette Company, d. b. a. The Toni Company, Boston, Mass. Filed Nov. 7, 1957.

TWIRL

Owner of Reg. Nos. 412,160 and 578,218.
For Hair Sprays.
First use Nov. 7, 1956; on or about Nov. 19, 1951, on a hair lacquer.

SN 40,282. The Upjohn Company, Kalamazoo, Mich. Filed Nov. 7, 1957.

DEOMYCIN

For Antiperspirant.
First use Apr. 22, 1957.

SN 40,630. George H. Weyer, Inc., Kansas City, Mo. Filed Nov. 13, 1957.

JUSTRITE

For Hair Tonic.
First use April 1932.

SN 40,633. George H. Weyer, Inc., Kansas City, Mo. Filed Nov. 13, 1957.

DIOCIDE

For Shave Lotion.
First use April 1932.

SN 40,674. The Fuller Brush Company, Hartford, Conn. Filed Nov. 14, 1957.

HI HAT

For After Shave Lotion, Hair Pomade, Cologne, and Deodorant Stick.
First use on or about Oct. 21, 1957.

SN 40,801. Avon Products, Inc., New York, N. Y. Filed Nov. 18, 1957.

SIREN SONG

For Colognes.
First use Nov. 13, 1957.

Class 52 — Detergents and Soaps

SN 34,841. Hazel Bishop, d. b. a. Miss Hazel Bishop, New York, N. Y. Filed Aug. 2, 1957.

LEATHER LAV

For Liquid Composition for Cleaning and Treating Leather.
First use Apr. 2, 1955.

SN 39,050. Dearborn Chemical Co., Chicago, Ill. Filed Oct. 17, 1957.

DEARBOLINE

For Cleaning Fluid.
First use Jan. 18, 1950.

SN 40,504. Marion B. Rowland, d. b. a. The Castlewood Company, Park Ridge, Ill. Filed Nov. 12, 1957.

Pronto

Owner of Reg. No. 351,041.
For Type Cleaner.
First use Nov. 6, 1956.

SN 40,776. Rust Master Chemical Corporation, Cambridge, Mass. Filed Nov. 15, 1957.

PARTS MASTER

Owner of Reg. Nos. 374,898, 401,513, and others.
For Chemical Composition for Cleaning Automotive Engine Parts and Metal Fittings.
First use Sept. 27, 1954.

SN 41,131. American Mortolin Company, Inc., New York, N. Y. Filed Nov. 22, 1957.

MORTOCLEAN

For Liquid for Cleaning Tanks, Especially Those of Steamships.
First use Sept. 3, 1956.

SN 41,500. The Winzer Company, Dallas, Tex. Filed Nov. 27, 1957.

LOT

For Liquid Detergents.
First use on or about Aug. 5, 1957.

SERVICE MARKS

Class 101 — Advertising and Business

SN 13,669. Home Building Industry Presentations, Inc., New York, N. Y. Filed Aug. 9, 1956.



For Promoting the Goods and Services of Others by Means of Trade Expositions.
First use Apr. 24, 1956.

SN 15,128. Ralph C. Hubsch, d. b. a. Artcraft Printing & Display, Jacksonville, Fla. Filed Sept. 5, 1956.



For Advertising Services—Namely, Preparation of Advertising Material for Use by Loan and Finance Companies.
First use July 7, 1956.

Class 102 — Insurance and Financial

SN 36,718. Lawyers Title Insurance Corporation, Richmond, Va. Filed Sept. 5, 1957.



For Underwriting of Title Insurance.
First use Feb. 15, 1934.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 27,539. Sigma Sigma Sigma Inc., Denison, Tex. Filed Apr. 4, 1957.



The mark consists of the Greek letters "Sigma Sigma Sigma."
For Indicating Membership in a National Collegiate Fraternal Organization.
First use Apr. 20, 1898.

TRADEMARK REGISTRATIONS ISSUED
PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

663,284. FLORALIFE'S POSEY KLAY AND DESIGN. Floralife, Inc. SN 653,468. Pub. 4–8–58. Filed 9–21–53.

663,285. PLASKON. Allied Chemical & Dye Corporation. SN 696,395. Pub. 4–8–58. Filed 10–14–55.

663,286. CARGO-PAK. Wood Conversion Company. SN 19,081. Pub. 4–8–58. Filed 11–9–56.

663,287. DESIGN OF AN INDIAN. Dr. Stefan Ansbacher, d. b. a. Jocinah Farms. SN 19,861. Pub. 4–8–58. Filed 11–26–56.

663,288. SFS AND DESIGN. Shoe Factory Supplies Co. SN 20,057. Pub. 4–8–58. Filed 11–28–56.

663,289. PLASTI-COPPER. Anchor Plastics Company, Inc. SN 26,048. Pub. 4–8–58. Filed 3–13–57.

663,290. SWS. Minerals & Chemicals Corporation of America. SN 27,963. Pub. 4–8–58. Filed 4–11–57.

663,291. QUIK-GLO. Embree Manufacturing Company. SN 28,130. Pub. 4–8–58. Filed 4–15–57.

663,292. NON • TAC AND DESIGN. Herbert B. Strauss, d. b. a. H. B. Strauss Co. SN 28,465. Pub. 4–8–58. Filed 4–18–57.

663,293. FAMCO-FIBER. Famco, Inc. SN 28,502. Pub. 4–8–58. Filed 4–19–57.

663,294. ZIBELLINO. Donovan Industries, Inc. SN 29,201. Pub. 4–8–58. Filed 5–1–57.

663,295. GENERAL PLASTICS ETC. AND DESIGN. The General Tire & Rubber Company. SN 34,692. Pub. 4–8–58. Filed 7–31–57.

663,296. BUTTERNUT. Armour and Company. SN 35,723. Pub. 4–8–58. Filed 8–19–57.

663,297. BAYOU. Armour and Company. SN 35,724. Pub. 4–8–58. Filed 8–19–57.

663,298. CHANTILLY. Armour and Company. SN 35,725. Pub. 4–8–58. Filed 8–19–57.

663,299. KORONET. Armour and Company. SN 35,726. Pub. 4–8–58. Filed 8–19–57.

663,300. CHANBUCK. Armour and Company. SN 35,727. Pub. 4–8–58. Filed 8–19–57.

Class 2 — Receptacles

663,301. CONTROL PAK. The Hollinger Corporation. SN 27,436. Pub. 4–8–58. Filed 4–3–57.

663,302. GAY-BELL. Gay-Bell Corporation. SN 32,177. Pub. 4–8–58. Filed 6–18–57.

663,303. CATER-CUP. Sutherland Paper Company. SN 32,906. Pub. 4–8–58. Filed 7–1–57.

663,304. ICE-O-LATOR. Arvey Corporation. SN 34,656. Pub. 4–8–58. Filed 7–31–57.

663,305. TURRET TAINER. Wallace Silversmiths, Inc. SN 35,215. Pub. 4–8–58. Filed 8–8–57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

663,306. LENNOX. Lennox Manufacturing Company. SN 34,061. Pub. 4–8–58. Filed 7–19–57.

663,307. BRIEF-RITE AND DESIGN. The Leather Specialty Co. SN 36,457. Pub. 4–8–58. Filed 8–29–57.

Class 5 — Adhesives

663,308. CROWELL. The Crowell Corporation. SN 26,780. Pub. 4–8–58. Filed 3–25–57.

663,309. DOW CORNING AND DESIGN. Dow Corning Corporation. SN 34,406. Pub. 4–8–58. Filed 7–26–57.

663,310. SCRIBBLE. Gem Color Company, Inc. SN 36,368. Pub. 4–8–58. Filed 8–28–57.

Class 6 — Chemicals and Chemical Compositions

663,311. X–22. The FR Corporation. SN 695,715. Pub. 4–8–58. Filed 10–3–55.

663,312. QUIK-AIRE. Robert J. Kerr Chemicals, Incorporated, now by change of name Kerr Chemicals, Inc. SN 11,776. Pub. 4–8–58. Filed 7–9–56.

663,313. FS AND DESIGN. Illinois Farm Supply Company. SN 15,040. Pub. 4–8–58. Filed 9–4–56.

663,314. PENTA-GUARD. Atlantic Chemicals, Inc. SN 25,818. Pub. 1–7–58. Filed 3–11–57.

663,315. AROMIN. Esso Standard Oil Company. SN 31,829. Pub. 4–8–58. Filed 6–12–57.

663,316. SPRING BREEZE. Pennsalt Chemicals Corporation. SN 32,336. Pub. 4–8–58. Filed 6–20–57.

663,317. GARDIT. Robert B. Ellsworth, d. b. a. Ellsworth Equipment & Engineering Co. SN 33,610. Pub. 4–8–58. Filed 7–12–57.

663,318. BITS O' SUNSHINE AND DESIGN. Frank J. Curran Co. SN 34,776. Pub. 4–8–58. Filed 8–1–57.

663,319. QO ETC. AND DESIGN. The Quaker Oats Company. SN 35,059. Pub. 4–8–58. Filed 8–6–57.

663,320. WELGICIDE. Bradford J. Cotey, d. b. a. Cotey Chemical Company. SN 35,631. Pub. 4–8–58. Filed 8–16–57.

663,321. ESTEROQUINONE. Compagnie Francaise des Matieres Colorantes, S. A. SN 36,136. Pub. 4–8–58. Filed 8–2–57.

663,322. CIBADUR. Ciba Limited. SN 36,565. Pub. 4–8–58. Filed 9–3–57.

663,323. CARBOFLOC. The B. F. Goodrich Company. SN 37,156. Pub. 4–8–58. Filed 9–13–57.

663,324. CONVERTASE. Schwarz Laboratories, Inc. SN 37,452. Pub. 4–8–58. Filed 9–18–57.

663,325. TRENISOL. Alco Oil and Chemical Corporation. SN 37,610. Pub. 4–8–58. Filed 9–20–57.

Class 7 — Cordage

663,326. PORTCO. Portco Corporation. SN 28,187. Pub. 4–8–58. Filed 4–16–57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

663,327. POWERMASTER. Wham-O Powermaster Corporation. SN 857. Pub. 4–8–58. Filed 1–16–56.

663,328. GALESI. Industria Armi Galesi, to Giuseppe Galesi, d. b. a. Industria Armi Galesi. SN 14,341. Pub. 4–8–58. Filed 8–21–56.

Class 10 — Fertilizers

663,329. P AND M. W. R. Grace & Co. SN 1,083. Pub. 4–8–58. Filed 1–19–56.

663,330. "NEW PLANT LIFE." Excell Laboratories, Inc. SN 29,795. Pub. 4–8–58. Filed S. R. 5–10–57. Am. P. R. 12–4–57.

663,331. ANDERSON'S TRI-SUL AND DESIGN. Walter J. Anderson, d. b. a. Anderson's Lynn-Dell Nurseries. SN 32,659. Pub. 4–8–58. Filed 6–26–57.

663,332. SOILSWEET AND DESIGN. Campbell Limestone Company. SN 33,461. Pub. 4–8–58. Filed 7–10–57.

663,333. SOILSWEET. Campbell Limestone Company. SN 33,462. Pub. 4–8–58. Filed 7–10–57.

Class 11 — Inks and Inking Materials

663,334. ROL-FLO AND DESIGN. Diagraph-Bradley Industries, Inc. SN 29,045. Pub. 4–8–58. Filed 4–29–57.

663,335. LO-THERM. Sun Chemical Corporation. SN 33,844. Pub. 4–8–58. Filed 7–16–57.

Class 12 — Construction Materials

663,336. PLYTILE. Southern Plywoods, Inc. SN 30,202. Pub. 4–8–58. Filed 5–16–57.

663,337. PROPAC. North State Pyrophyllite Company, Inc. SN 33,494. Pub. 4–8–58. Filed 7–10–57.

663,338. THERMASIL. Ebret Magnesia Manufacturing Company. SN 36,789. Pub. 4–8–58. Filed 9–6–57.

663,339. WOODMASTER. New Castle Products, Inc. SN 36,806. Pub. 4–8–58. Filed 9–6–57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

663,340. JUNKERS. Junkers & Co. Gesellschaft mit beschrankter Haftung. SN 26,946. Pub. 4–8–58. Filed 3–26–57.

663,341. HUB RAK. Hubbard & Company. SN 30,905. Pub. 4–8–58. Filed 5–28–57.

Class 14 — Metals and Metal Castings and Forgings

663,342. AIRCOMATIC. Air Reduction Company, Incorporated. SN 26,588. Pub. 4–8–58. Filed 3–21–57.

663,343. VASCO ULTRASONICALLY TESTED AND DESIGN. Vanadium-Alloys Steel Company. SN 29,244. Pub. 4–8–58. Filed 5–1–57.

663,344. BEAN AND DESIGN. Morris Bean & Company. SN 32,046. Pub. 4–8–58. Filed 6–17–57.

Class 15 — Oils and Greases

663,345. PENN-MAR. Penn Petroleum Corporation. SN 18,344. Pub. 4–8–58. Filed 10–29–56.

663,346. MARVEL. Emerol Manufacturing Co., Inc. SN 26,615. Pub. 4–8–58. Filed 3–21–57.

663,347. ALBA. Union Oil Company of California. SN 38,106. Pub. 4–8–58. Filed 9–30–57.

663,348. ED-LYN. Byron E. Wilkerson, d. b. a. The Ed-Lyn Co. SN 38,112. Pub. 4–8–58. Filed 9–30–57.

Class 16 — Protective and Decorative Coatings

663,349. LETHER-X. Maas & Waldstein Co. SN 25,707. Pub. 4–8–58. Filed 3–7–57.

663,350. PRO-COAT. American-Marietta Company. SN 28,417. Pub. 4–8–58. Filed 4–18–57.

663,351. MOIST BOND. American-Marietta Company. SN 28,420. Pub. 4–8–58. Filed 4–18–57.

663,352. GALVA-KOTE. American-Marietta Company. SN 28,421. Pub. 4–8–58. Filed 4–18–57.

663,353. CHELCO. Chemical Products Corporation. SN 28,757. Pub. 4–8–58. Filed 4–24–57.

663,354. DURACRYL. Pittsburgh Plate Glass Company. SN 34,006. Pub. 4–8–58. Filed 7–18–57.

663,355. FIELDS MASTER. Enterprise Stores, Inc., d. b. a. J. M. Fields. SN 38,677. Pub. 4–8–58. Filed 10–10–57.

663,356. Mc TUFF. McCloskey Varnish Company. SN 41,105. Pub. 4–8–58. Filed 11–21–57.

663,357. LIQUI-PRENE. The Lockrey-Fater Corporation. SN 41,176. Pub. 4–8–58. Filed 11–22–57.

663,358. PRECISION. Precision Paint Corporation. SN 41,184. Pub. 4–8–58. Filed 11–22–57.

663,359. BAER BROS. AND DESIGN. Baer Bros. Paint & Varnish Co. Inc. SN 41,434. Pub. 4–8–58. Filed 11–27–57.

Class 17 — Tobacco Products

663,360. HICKORY. John Middleton, Inc. SN 9,478. Pub. 4–8–58. Filed 6–1–56.

663,361. HTL. General Cigar Co., Inc. SN 33,068. Pub. 4–8–58. Filed 7–2–57.

663,362. AMBASSADOR. Philip Morris Incorporated. SN 34,974. Pub. 4–8–58. Filed 8–5–57.

663,363. AMPHORA. Douwe Egberts Koninklijke Tabaksfabriek-Koffiebranderijen-Theehandel N. V. SN 33,404. Pub. 4–22–58. Filed 7–9–57.

663,364. MANOLI. Rupert Tobacco Corporation (Proprietary) Ltd. SN 35,456. Pub. 4–8–58. Filed 8–13–57.

663,365. FERDINAND MAGELLAN. Rupert Tobacco Corporation (Proprietary) Limited. SN 35,457. Pub. 4–8–58. Filed 8–13–57.

663,366. REYBLEND. R. J. Reynolds Tobacco Company. SN 36,397. Pub. 4–8–58. Filed 8–28–57.

Class 18 — Medicines and Pharmaceutical Preparations

663,367. APERNYL. Farbenfabriken Bayer Aktiengesellschaft. SN 15,460. Pub. 4–8–58. Filed 9–11–56.

663,368. DR. SCHOLL'S FOOT BALM AND DESIGN. The Scholl Mfg. Co., Inc. SN 18,918. Pub. 4–8–58. Filed 11–7–56.

663,369. PIG-PLUS. Ralston Purina Company. SN 28,637. Pub. 4–8–58. Filed 4–22–57.

663,370. PIGEMIA. Ralston Purina Company. SN 28,638. Pub. 4–8–58. Filed 4–22–57.

663,371. SPREE. John B. Aitchison, d. b. a. Aitchison Laboratories and The Chex Company. SN 32,572. Pub. 4–8–58. Filed 6–25–57.

663,372. PENTAZETS. Merck & Co., Inc. SN 33,262. Pub. 4–8–58. Filed 7–5–57.

663,373. NATRINIL. The National Drug Company. SN 33,899. Pub. 4–8–58. Filed 7–17–57.

663,374. USNO. Laake Oy. SN 34,710. Pub. 4–8–58. Filed 7–31–57.

663,375. MI PET. Middle West Distributors, Inc. SN 36,723. Pub. 4–8–58. Filed 9–5–57.

663,376. MICOFUR. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories. SN 36,975. Pub. 4–8–58. Filed 9–10–57.

663,377. A. Abbott Laboratories. SN 37,394. Pub. 4–8–58. Filed 9–18–57.

663,378. REMAXEEN. Diva Laboratorium Aktiengesellschaft. SN 37,722. Pub. 4–8–58. Filed 9–24–57.

663,379. FLEXILON-HC. McNeil Laboratories Incorporated. SN 38,060. Pub. 4–8–58. Filed 9–30–57.

663,380. FLEXILON. McNeil Laboratories Incorporated. SN 38,061. Pub. 4–8–58. Filed 9–30–57.

Class 19 — Vehicles

663,381. CROWN. Al Rose, Inc. SN 8,025. Pub. 4–8–58. Filed 5–9–56.

663,382. WINKIE. Welsh Co. SN 12,917. Pub. 4–8–58. Filed 7–26–56.

663,383. MURRAY AND DESIGN. The Murray Ohio Manufacturing Company. SN 20,205. Pub. 4–8–58. Filed 11–30–56.

663,384. EVANS AND DESIGN. Evans Products Company. SN 20,926. Pub. 4–8–58. Filed 12–12–56.

663,385. DESIGN OF HAWK. Studebaker-Packard Corporation. SN 29,970. Pub. 4–15–58. Filed 5–13–57.

663,386. MAINLINER AND DESIGN. Peerless Manufacturing Corporation. SN 30,108. Pub. 4–8–58. Filed 5–15–57.

663,387. APR. Motor Parts Depot. SN 31,135. Pub. 4–8–58. Filed 5–31–57.

663,388. E-Z-GO. E-Z-Go Car Corporation. SN 35,566. Pub. 3–18–58. Filed 8–15–57.

663,389. CALUMET. Manorette, Inc. SN 36,203. Pub. 4–8–58. Filed 8–26–57.

663,390. CONTEMPORI. Contempori Mobile Homes, Inc. SN 36,283. Pub. 4–8–58. Filed 8–27–57.

663,391. PENT HOUSE. Mid-States Corp. SN 36,309. Pub. 4–8–58. Filed 8–27–57.

663,392. TRAIL O MATIC. Trail-O-Matic Corporation. SN 36,679. Pub. 4–8–58. Filed 9–4–57.

Class 21 — Electrical Apparatus, Machines, and Supplies

663,393. P AND DESIGN. Transistor Products, Inc., to Clevite Corporation. SN 639,400. Pub. 12–1–53. Filed 12–12–52.

663,394. STA-PUT. Kurt Versen Company. SN 20,675. Pub. 4–8–58. Filed 12–7–56.

663,395. HI-POWER. International Distributors. SN 22,007. Pub. 4–8–58. Filed 1–2–57.

663,396. EUC AND DESIGN. Electrical Utilities Company. SN 25,081. Pub. 4–8–58. Filed 2–26–57.

663,397. ZENITH. Zenith Radio Corporation. CONSOLIDATED CERTIFICATE. SN 26,308, pub. 3–25–58, filed 3–15–57, Cl. 21; SN 26,306, pub. 3–25–58, filed 3–15–57, Cl. 36; SN 26,307, pub. 3–25–58, filed 3–15–57, Cl. 44.

663,398. TRAP-EASE. Jerrold Electronics Corporation. SN 26,464. Pub. 4–8–58. Filed 3–19–57.

663,399. TWIN-BLOK. Unilectric, Inc. SN 28,819. Pub. 4–8–58. Filed 4–24–57.

663,400. VAREX. The Ohio Brass Company. SN 30,596. Pub. 4–8–58. Filed 5–23–57.

663,401. BASMOR. Bastian-Morley Co., Inc. SN 31,375. Pub. 4–8–58. Filed 6–5–57.

663,402. ALCO AND DESIGN. Auto Lamp Manufacturing Company. SN 33,041. Pub. 4–8–58. Filed 7–2–57.

663,403. SWIRL KLEEN. Globe American Corporation. SN 33,614. Pub. 4–8–58. Filed 7–12–57.

663,404. LOK-SLOT. Stahlin Brothers Fibre Works, Inc. SN 35,702. Pub. 4–8–58. Filed 8–16–57.

663,405. O AND DESIGN. Columbia Broadcasting System, Inc. SN 35,905. Pub. 4–8–58. Filed 8–21–57.

663,406. MASTERWORK. Columbia Broadcasting System, Inc. SN 35,906. Pub. 4–8–58. Filed 8–21–57.

663,407. SYNCRAMENTAL. G. H. Leland, Inc. SN 35,939. Pub. 4–8–58. Filed 8–21–57.

663,408. MID-RIP. General Cable Corporation. SN 36,073. Pub. 4–8–58. Filed 8–23–57.

663,409. REIGN SEAL AND DESIGN. Peters Manufacturing Company. SN 36,222. Pub. 4–8–58. Filed 8–26–57.

663,410. BRISKER. Arthur A. Simpson. SN 36,242. Pub. 4–8–58. Filed 8–26–57.

663,411. HUBBELL ETC. AND DESIGN. Harvey Hubbell, Incorporated. SN 36,659. Pub. 4–8–58. Filed 9–4–57.

Class 22 — Games, Toys, and Sporting Goods

663,412. AQUAIR. U. S. Divers Corporation, to U. S. Divers Co. Inc. SN 13,099. Pub. 4–8–58. Filed 7–30–56.

663,413. AQUAMATIC. U. S. Divers Corporation, to U. S. Divers Co. Inc. SN 13,100. Pub. 4–8–58. Filed 7–30–56.

663,414. AQUAMASTER. U. S. Divers Corporation, to U. S. Divers Co. Inc. SN 13,101. Pub. 4–8–58. Filed 7–30–56.

663,415. SNAP-BAC. The Barr Rubber Products Company. SN 33,662. Pub. 4–8–58. Filed 6–21–57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

663,416. V-LINE. Vickers Incorporated. SN 21,042. Pub. 4–8–58. Filed 1–8–57.

663,417. HELIOS-MACHINERY. Winkler & Dünnebier, Maschinenfabrik und Eisengiesserei K. G. SN 21,283. Pub. 4–8–58. Filed 12–18–56.

663,418. WINKLER & DUNNEBIER AND DESIGN. Winkler & Dünnebier, Maschinenfabrik und Eisengiesserei K. G. SN 21,285. Pub. 4–8–58. Filed 12–18–56.

663,419. MUTE. Wilhelm S. Everett. SN 24,581. Pub. 4–8–58. Filed 2–18–57.

663,420. SUPER VEND-O-MART. Folz Vending Company, Inc. SN 25,245. Pub. 4–8–58. Filed 2–28–57.

663,421. PRINTMASTER. R. Roe & Co., Inc. SN 27,861. Pub. 4–8–58. Filed 4–10–57.

663,422. FLUIDLIFT. Gebrüder Bühler. SN 28,780. Pub. 4–8–58. Filed 4–24–57.

663,423. LAY-ON-AIR. Vits-Elektro G. m. b. H. SN 31,363. Pub. 3–11–58. Filed 6–4–57.

663,424. 2 IN 1. Sprayers & Nozzles, Inc. SN 32,264. Pub. 4–8–58. Filed 6–19–57.

663,425. BATCH-O-MATIC. American Machine and Metals, Inc. SN 35,310. Pub. 4–8–58. Filed 8–12–57.

663,426. POP'S AND DESIGN. Ralph E. Wentling. SN 36,408. Pub. 4–8–58. Filed 8–28–57.

663,427. ROTO-EGG. FM Engineering Company, Inc. SN 36,578. Pub. 4–8–58. Filed 9–3–57.

663,428. AIR-O-MATIC. Salsbury Corporation. SN 36,926. Pub. 4–8–58. Filed 9–9–57.

663,429. HYDRAGUIDE AND DESIGN. Cincinnati Lathe & Tool Co. SN 36,996. Pub. 4–8–58. Filed 9–11–57.

663,430. US BERKEL ENTERPRISE AND DESIGN. U. S. Slicing Machine Company, Inc. SN 40,401. Pub. 4–8–58. Filed 11–8–57.

663,431. MISS AMERICA. Bulova Watch Company, Inc. SN 40,654. Pub. 4–8–58. Filed 11–14–57.

663,432. LEDEEN. Ledeen, Inc. SN 40,851. Pub. 4–8–58. Filed 11–18–57.

663,433. RUSH. The Eraser Company, Inc. SN 41,260. Pub. 4–8–58. Filed 11–25–57.

663,434. THOR. Thor Power Tool Company. SN 41,491. Pub. 4–8–58. Filed 11–27–57.

663,435. MOLE-DRIL. Gardner-Denver Company. SN 45,161. Pub. 4–8–58. Filed 2–3–58.

663,377. A. Abbott Laboratories. SN 37,394. Pub. 4–8–58. Filed 9–18–57.

663,378. REMAXEEN. Diva Laboratorium Aktiengesellschaft. SN 37,722. Pub. 4–8–58. Filed 9–24–57.

663,379. FLEXILON-HC. McNeil Laboratories Incorporated. SN 38,060. Pub. 4–8–58. Filed 9–30–57.

663,380. FLEXILON. McNeil Laboratories Incorporated. SN 38,061. Pub. 4–8–58. Filed 9–30–57.

Class 19 — Vehicles

663,381. CROWN. Al Rose, Inc. SN 8,025. Pub. 4–8–58. Filed 5–9–56.

663,382. WINKIE. Welsh Co. SN 12,917. Pub. 4–8–58. Filed 7–26–56.

663,383. MURRAY AND DESIGN. The Murray Ohio Manufacturing Company. SN 20,205. Pub. 4–8–58. Filed 11–30–56.

663,384. EVANS AND DESIGN. Evans Products Company. SN 20,926. Pub. 4–8–58. Filed 12–12–56.

663,385. DESIGN OF HAWK. Studebaker-Packard Corporation. SN 29,970. Pub. 4–15–58. Filed 5–13–57.

663,386. MAINLINER AND DESIGN. Peerless Manufacturing Corporation. SN 30,108. Pub. 4–8–58. Filed 5–15–57.

663,387. APR. Motor Parts Depot. SN 31,135. Pub. 4–8–58. Filed 5–31–57.

663,388. E-Z-GO. E-Z-Go Car Corporation. SN 35,566. Pub. 3–18–58. Filed 8–15–57.

663,389. CALUMET. Manorette, Inc. SN 36,203. Pub. 4–8–58. Filed 8–26–57.

663,390. CONTEMPORI. Contempori Mobile Homes, Inc. SN 36,283. Pub. 4–8–58. Filed 8–27–57.

663,391. PENT HOUSE. Mid-States Corp. SN 36,309. Pub. 4–8–58. Filed 8–27–57.

663,392. TRAIL O MATIC. Trail-O-Matic Corporation. SN 36,679. Pub. 4–8–58. Filed 9–4–57.

663,406. MASTERWORK. Columbia Broadcasting System, Inc. SN 35,906. Pub. 4–8–58. Filed 8–21–57.

663,407. SYNCRAMENTAL. G. H. Leland, Inc. SN 35,939. Pub. 4–8–58. Filed 8–21–57.

663,408. MID-RIP. General Cable Corporation. SN 36,073. Pub. 4–8–58. Filed 8–23–57.

663,409. REIGN SEAL AND DESIGN. Peters Manufacturing Company. SN 36,222. Pub. 4–8–58. Filed 8–26–57.

663,410. BRISKER. Arthur A. Simpson. SN 36,242. Pub. 4–8–58. Filed 8–26–57.

663,411. HUBBELL ETC. AND DESIGN. Harvey Hubbell, Incorporated. SN 36,659. Pub. 4–8–58. Filed 9–4–57.

Class 22 — Games, Toys, and Sporting Goods

663,412. AQUAIR. U. S. Divers Corporation, to U. S. Divers Co. Inc. SN 13,099. Pub. 4–8–58. Filed 7–30–56.

663,413. AQUAMATIC. U. S. Divers Corporation, to U. S. Divers Co. Inc. SN 13,100. Pub. 4–8–58. Filed 7–30–56.

663,414. AQUAMASTER. U. S. Divers Corporation, to U. S. Divers Co. Inc. SN 13,101. Pub. 4–8–58. Filed 7–30–56.

663,415. SNAP-BAC. The Barr Rubber Products Company. SN 33,662. Pub. 4–8–58. Filed 6–21–57.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

663,416. V-LINE. Vickers Incorporated. SN 21,042. Pub. 4–8–58. Filed 1–8–57.

663,417. HELIOS-MACHINERY. Winkler & Dünnebier, Maschinenfabrik und Eisengiesserei K. G. SN 21,283. Pub. 4–8–58. Filed 12–18–56.

663,418. WINKLER & DUNNEBIER AND DESIGN. Winkler & Dünnebier, Maschinenfabrik und Eisengiesserei K. G. SN 21,285. Pub. 4–8–58. Filed 12–18–56.

663,419. MUTE. Wilhelm S. Everett. SN 24,581. Pub. 4–8–58. Filed 2–18–57.

663,420. SUPER VEND-O-MART. Folz Vending Company, Inc. SN 25,245. Pub. 4–8–58. Filed 2–28–57.

Class 26—Measuring and Scientific Appliances

663,436. PERKIN ELMER. The Perkin-Elmer Corporation. SN 17,960. Pub. 4–8–58. Filed 10–22–56.

663,437. B AND DESIGN. Bijur Lubricating Corporation. SN 22,080. Pub. 4–8–58. Filed 1–4–57.

663,438. CINESALESREEL AND DESIGN. Edwin Busch, d. b. a. Busch Film and Equipment Company. SN 22,245. Pub. 4–8–58. Filed 1–8–57.

663,439. DILLON. W. C. Dillon & Company, Inc. SN 26,251. Pub. 4–8–58. Filed 3–15–57.

663,440. NATARIT. Agfa Camera-Werk Aktiengesellschaft, to Agfa Aktiengesellschaft. SN 27,003. Pub. 4–8–58. Filed 3–27–57.

663,441. HI-Q AND DESIGN. Tecnifax Corporation. SN 29,182. Pub. 4–8–58. Filed 4–30–57.

663,442. SHURFLEX. General Aniline & Film Corporation. SN 29,447. Pub. 4–8–58. Filed 5–6–57.

663,443. ROYAL LADY. Art-Craft Optical Company, Inc. SN 29,584. Pub. 4–8–58. Filed 5–8–57.

663,444. W AND DESIGN. T. D. Williamson, Inc. SN 30,870. Pub. 4–8–58. Filed 5–27–57.

663,445. CONSUL. Kovo Podnik Zahranièního Obchodu pro Dovoz a Vývoz Výrobkù Pøesného Strojírenství. SN 31,884. Pub. 4–8–58. Filed 4–9–57.

663,446. OPTA-MOUNT. Optics Manufacturing Corporation. SN 31,997. Pub. 4–8–58. Filed 6–14–57.

663,447. OPTA-FILE. Optics Manufacturing Corporation. SN 31,998. Pub. 4–8–58. Filed 6–14–57.

663,448. RISOMATIC. Photographic Importing and Distributing Corp. SN 32,014. Pub. 4–8–58. Filed 6–14–57.

663,449. CAL- AND DESIGN. Cal-Tronics Corporation. SN 33,683. Pub. 4–8–58. Filed 7–15–57.

663,450. LIC AND DESIGN. Lanes Industries Corporation. SN 35,358. Pub. 4–8–58. Filed 8–12–57.

663,451. GYRO-MATIC. Replogle Globes, Inc. SN 35,453. Pub. 4–8–58. Filed 8–13–57.

663,452. CTS. Chicago Telephone Supply Corporation. SN 36,352. Pub. 4–8–58. Filed 8–28–57.

663,453. CTS AND DESIGN. Chicago Telephone Supply Corporation. SN 36,353. Pub. 4–8–58. Filed 8–28–57.

663,454. DESIGN OF CROWN AND CIRCLES. Chicago Telephone Supply Corporation. SN 36,354. Pub. 4–8–58. Filed 8–28–57.

663,455. EMPRO. Empco Manufacturing Co. SN 37,248. Pub. 4–8–58. Filed 9–16–57.

Class 27—Horological Instruments

663,456. CZP. Max Buslik, d. b. a. Capello Watch Company. SN 28,571. Pub. 4–8–58. Filed 4–22–57.

663,457. CZA. Max Buslik, d. b. a. Canoe Watch Company. SN 28,572. Pub. 4–8–58. Filed 4–22–57.

Class 28—Jewelry and Precious-Metal Ware

663,458. SCULPTURED BEAUTY. The International Silver Company. SN 26,176. Pub. 4–8–58. Filed 3–14–57.

663,459. DELTAH. Heller-Sperry, Inc. SN 33,961. Pub. 4–8–58. Filed 7–18–57.

Class 29—Brooms, Brushes, and Dusters

663,460. FLO-TIP. Whiting-Adams Company, Inc. SN 36,639. Pub. 4–8–58. Filed 9–3–57.

663,461. ABSORBA. Fickett-Brown Manufacturing Company. SN 36,650. Pub. 4–8–58. Filed 9–4–57.

663,462. PIERRE AUGUSTE RENOIR. M. Grumbacher, Inc. SN 37,257. Pub. 4–8–58. Filed 9–16–57.

663,463. SILVER CREST. Hanlon & Goodman Co. SN 37,260. Pub. 4–8–58. Filed 9–16–57.

Class 32—Furniture and Upholstery

663,464. DESIGN TRENDS. Erwin-Lambeth, Inc. SN 36,791. Pub. 4–8–58. Filed 9–6–57.

663,465. PAMPER. R. G. Barry Corporation. SN 39,775. Pub. 4–8–58. Filed S. R. 10–30–57. Am. P. R. 2–11–58.

663,466. FAIRYLAND. Eagle Roll Leaf Stamping Co. SN 42,117. Pub. 4–8–58. Filed 12–10–57.

663,467. BO-TREE. Whitney McDermut. SN 42,294. Pub. 4–8–58. Filed 12–12–57.

Class 33—Glassware

663,468. KEEPSAKE HOUSE. Louis Madow, d. b. a. Keepsake House. SN 695,097. Pub. 4–8–58. Filed 9–21–55.

Class 34—Heating, Lighting, and Ventilating Apparatus

663,469. VAPOR. Vapor Heating Corporation. SN 15,993. Pub. 4–8–58. Filed 9–19–56.

663,470. RIVIERA. Warren Webster & Company. SN 32,790. Pub. 4–8–58. Filed 6–27–57.

663,471. BREEZ-OUT. Installation Service Company. SN 32,825. Pub. 4–8–58. Filed 6–28–57.

663,472. SHELHED AND DESIGN. Metro Sales & Service Co., Inc., d. b. a. Metromatic Oil Burner Co. SN 35,945. Pub. 4–8–58. Filed 8–21–57.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

663,473. VELVETOUCH CERAMIC AND DESIGN. The S. K. Wellman Co. SN 29,848. Pub. 4–8–58. Filed 5–10–57.

663,474. DEEP SKID. The Dayton Rubber Company. SN 37,075. Pub. 4–8–58. Filed 9–12–57.

Class 36—Musical Instruments and Supplies

663,397. CONSOLIDATED CERTIFICATE. See Class 21.

663,475. SILVER STAR SERIES. Coral Records, Inc. SN 16,329. Pub. 4–8–58. Filed 9–25–56.

663,476. REGENCY. Thalson Company. SN 35,070. Pub. 4–8–58. Filed 8–6–57.

Class 37—Paper and Stationery

663,477. TILT-O-MATIC "PHONE MATE" AND DESIGN. Braden Steel Corporation. SN 13,271. Pub. 4–8–58. Filed 8–2–56.

663,478. HUMBOLDT. Crown Zellerbach Corporation. SN 28,842. Pub. 4–8–58. Filed 4–25–57.

663,479. TRIMATIC. Ferber Corporation. SN 31,918. Pub. 3–11–58. Filed 6–13–57.

663,480. FLEX-LOCK. Struble & Moffitt Company. SN 33,298. Pub. 4–8–58. Filed 7–5–57.

663,481. CAROLINA. Caskie Paper Company, Inc. SN 34,220. Pub. 4–8–58. Filed 7–23–57.

Class 38—Prints and Publications

663,482. NATIONAL ARCHITECT. Talmadge C. Hughes. SN 6,006. Pub. 4–8–58. Filed 4–9–56.

663,483. PERDIA. Arnold Perrot. SN 24,375. Pub. 4–8–58. Filed 2–13–57.

663,484. THE CHICAGO MARKET DAILY. American Publications, Inc. SN 25,675. Pub. 4–8–58. Filed 3–7–57.

663,485. MALE POLISH. General Features Corporation. SN 27,024. Pub. 4–8–58. Filed 3–27–57.

663,486. A POSITIVE INVESTMENT POLICY. Dean Witter & Co. SN 28,409. Pub. 4–8–58. Filed 4–17–57.

663,487. AUTO KNOW HOW. John Borthwick Powell. SN 31,683. Pub. 4–8–58. Filed 6–10–57.

663,488. COATINGS PARADE. Union Carbide Corporation. SN 32,707. Pub. 4–8–58. Filed 6–26–57.

663,489. SKIDMORE AND DESIGN. Skidmore Music Co. Inc. SN 33,507. Pub. 4–8–58. Filed 7–10–57.

663,490. NATIONAL BUSINESS WOMAN. The National Federation of Business and Professional Women's Clubs, Inc. SN 34,390. Pub. 4–8–58. Filed 7–24–57.

663,491. DEFENDERS OF AMERICA. Henry Nathan. SN 35,444. Pub. 4–8–58. Filed 8–13–57.

663,492. TATTOOTIES. Harry A. Adams, Jr., d. b. a. Synthex Products Co. SN 36,413. Pub. 4–8–58. Filed 8–29–57.

663,493. THE SCIENTIFIC MONTHLY. American Association for the Advancement of Science. SN 36,417. Pub. 4–8–58. Filed 8–29–57.

663,494. ALUMINATION. Kaiser Aluminum & Chemical Corporation. SN 37,088. Pub. 4–8–58. Filed 9–12–57.

663,495. "ALL THE NEWS THAT'S FIT TO PRINT." The New York Times Company. SN 38,225. Pub. 4–8–58. Filed 10–2–57.

Class 39—Clothing

663,496. HUNT & WINTERBOTHAM. Hunt & Winterbotham, Limited. SN 18,758. Pub. 4–8–58. Filed 11–5–56.

663,497. SKUDDIES. Simon Pearl, Incorporated. SN 22,952. Pub. 4–8–58. Filed 1–22–57.

663,498. KYLE. Joseph H. Cohen & Sons, Inc. SN 24,933. Pub. 4–8–58. Filed 2–25–57.

663,499. MOCOT. Wheeler Protective Apparel, Inc. SN 25,809. Pub. 4–8–58. Filed 3–8–57.

663,500. KNITEES. Norwich Mills, Inc. SN 27,812. Pub. 4–8–58. Filed 4–9–57.

663,501. THE SCIENTIFIC WALKER ETC. AND DESIGN. Lester Pincus Shoe Corporation. SN 28,540. Pub. 4–8–58. Filed 4–19–57.

663,502. WEDGEWOOD. Towncliffe, Inc. SN 31,798. Pub. 4–8–58. Filed 6–11–57.

663,503. NAUGHTLESS O–. The Joseph & Feiss Company. SN 31,845. Pub. 4–8–58. Filed 6–12–57.

663,504. MATTERHORN. H. H. Brown Shoe Co., Inc. SN 31,895. Pub. 4–8–58. Filed 6–13–57.

663,505. BECOMING ATTRACTIONS BY MOVIE STAR. Movie Star, Inc. SN 32,110. Pub. 4–8–58. Filed 6–17–57.

663,506. ROSE D'OR. Chadbourn Gotham, Inc. SN 32,734. Pub. 4–8–58. Filed 6–27–57.

663,507. CLAYSHIRE. Claymore, Incorporated. SN 32,913. Pub. 4–8–58. Filed 7–1–57.

663,508. BON'TRI. Hudson Hosiery Company. SN 33,072. Pub. 4–8–58. Filed 7–2–57.

663,509. INNUENDO. Maiden Form Brassiere Company, Inc. SN 33,725. Pub. 4–8–58. Filed 7–15–57.

663,510. SABEL'S BASIC SHOES AND DESIGN. I. Sabel, Inc. SN 33,914. Pub. 4–8–58. Filed 7–17–57.

663,511. CLIP-ON-DRYBROW. American Allsafe Company, Inc. SN 33,936. Pub. 4–8–58. Filed 7–18–57.

663,512. SURETY. The May Department Stores Company. SN 34,157. Pub. 4–8–58. Filed 7–22–57.

663,513. FASHION STEP. Nu-Way Shoe Company, Inc. SN 34,164. Pub. 4–8–58. Filed 7–22–57.

663,514. RAYN LADY. Cambridge Rubber Company. SN 34,219. Pub. 4–8–58. Filed 7–23–57.

663,515. MERRYLINE. Gem-Dandy, Inc. SN 34,852. Pub. 4–8–58. Filed 8–2–57.

663,516. LUCKY PENNY. Medwed Footwear Co. SN 34,893. Pub. 4–8–58. Filed 7–25–57.

663,517. AKVAREX. Trelleborgs Gummifabriks Aktiebolag. SN 35,013. Pub. 4–8–58. Filed 8–5–57.

663,518. TOP-SIDER. United States Rubber Company. SN 35,214. Pub. 4–8–58. Filed 8–8–57.

663,519. HOOD AND DESIGN. The B. F. Goodrich Company. SN 35,588. Pub. 4–8–58. Filed 8–15–57.

663,520. BONNY-LOU. Enoch J. Gilbert, d. b. a. Jack Gilbert of New York. SN 35,770. Pub. 4–8–58. Filed 8–19–57.

663,521. CHER-LON. Cheralaine Knitwear, Inc. SN 35,849. Pub. 4–8–58. Filed 8–20–57.

663,522. BURRI. Henry Pollak, Inc. SN 35,878. Pub. 4–8–58. Filed 8–20–57.

663,523. GRAND ENTRY. International Hat Company. SN 36,375. Pub. 4–8–58. Filed 8–28–57.

Class 40—Fancy Goods, Furnishings, and Notions

663,524. FLEXICOMB. Ben-Hur Products, Inc. SN 25,226. Pub. 9–3–57. Filed 2–28–57.

Class 41—Canes, Parasols, and Umbrellas

663,525. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,942. Pub. 4–8–58. Filed 3–12–57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

663,526. MARTINIQUE. Somersville Mfg. Co. SN 682,498. Pub. 11–1–55. Filed 2–28–55.

663,527. ANDESIA. S. Stroock & Co., Inc. SN 14,511. Pub. 4–8–58. Filed 8–22–56.

663,528. ISOFOAM. Isocyanate Products, Inc. SN 26,701. Pub. 4–8–58. Filed 3–22–57.

663,529. AQUAVEL. Piedmont Plush Mills, Inc. SN 32,117. Pub. 4–8–58. Filed 6–17–57.

663,530. SERENEAU. Fieldcrest Mills, Inc. SN 35,506. Pub. 4–8–58. Filed 8–14–57.

663,531. MEMENTEAU. Fieldcrest Mills, Inc. SN 35,922. Pub. 4–8–58. Filed 8–21–57.

663,532. SALONEAU. Fieldcrest Mills, Inc. SN 35,923. Pub. 4–8–58. Filed 8–21–57.

Class 44—Dental, Medical, and Surgical Appliances

663,397. CONSOLIDATED CERTIFICATE. See Class 21.

663,533. DE TREY'S SYNTHETIC PORCELAIN. Emmanuel de Trey. SN 6,909. Pub. 4–8–58. Filed 4–23–56.

663,534. VISETTE. Sanborn Company. SN 35,064. Pub. 4–8–58. Filed 8–6–57.

663,535. CXC AND DESIGN. Continental X-Ray Corporation. SN 36,371. Pub. 4–8–58. Filed 9–3–57.

663,536. EMERGIKIT. E & J Manufacturing Company. SN 36,576. Pub. 4–8–58. Filed 9–3–57.

663,537. NON-SKID. Surgical Appliance Industries, Inc. SN 36,816. Pub. 4–8–58. Filed 9–6–57.

Class 46 — Foods and Ingredients of Foods

663,538. TINGLES. General Foods Corporation. SN 2,975. Pub. 4–8–58. Filed 2–20–56.

663,539. LIQUANOX. American Cyanamid Company. SN 10,745. Pub. 4–8–58. Filed 11–20–57.

663,540. WORTHMORE BRAND. Phil J. Hock, d. b. a. Phil J. Hock & Co. SN 24,545. Pub. 4–8–58. Filed 2–15–57.

663,541. VERA CRUZ AND DESIGN. Limpert Brothers, Incorporated. SN 25,102. Pub. 4–8–58. Filed 2–26–57.

663,542. VODKA. Norman Whitman, d. b. a. Whitman Nut Co. SN 26,583. Pub. 4–8–58. Filed 3–20–57.

663,543. PROMUL. Process Chemicals Company. SN 27,133. Pub. 4–8–58. Filed 3–28–57.

663,544. MRS. PAUL'S. The E. J. McAleer & Co., Inc. SN 31,994. Pub. 4–8–58. Filed 6–14–57.

663,545. MIDGET. Wise Potato Chip Co. SN 33,018. Pub. 4–8–58. Filed 7–1–57.

663,546. MISTER SOFTEE AND DESIGN. Mister Softee, Inc. SN 33,729. Pub. 4–8–58. Filed 7–15–57.

663,547. REN'O'TIZED. Chr. Hansen's Laboratory, Inc. SN 34,424. Pub. 4–8–58. Filed 7–26–57.

663,548. GAMMALAC. Fabrique Suisse des Produits au Lait Guigoz S. A. SN 35,340. Pub. 4–8–58. Filed 8–12–57.

663,549. RICO AND DESIGN. River Brand Rice Mills Inc. SN 35,813. Pub. 4–8–58. Filed 8–19–57.

663,550. MOUNTAIN BROOK RANCH. John P. Gaty, d. b. a. Mountain Brook Ranch. SN 37,253. Pub. 4–8–58. Filed 9–16–57.

663,551. DOUBLE O–L. C & D Flavor Company. SN 38,129. Pub. 4–8–58. Filed 10–1–57.

663,552. HALL OF FAME. Standard Brands Incorporated. SN 38,169. Pub. 4–8–58. Filed 10–1–57.

663,553. BONITA. Standard Brands Incorporated. SN 38,171. Pub. 4–8–58. Filed 10–1–57.

663,554. FINE 'N' DANDY. Standard Brands Incorporated. SN 38,172. Pub. 4–8–58. Filed 10–1–57.

663,555. GOLDEN GLOW. Standard Brands Incorporated. SN 38,174. Pub. 4–8–58. Filed 10–1–57.

663,556. CONCORD. South Coast Fisheries, Inc. SN 38,494. Pub. 4–8–58. Filed 10–7–57.

Class 48 — Malt Beverages and Liquors

663,557. SASSY. Sassy International, Inc. SN 22,578. Pub. 4–8–58. Filed 1–14–57.

Class 49 — Distilled Alcoholic Liquors

663,558. JOHAN VAN RIEBEECK. Distillers Corporation (S. A.) Limited. SN 23,688. Pub. 4–8–58. Filed 2–4–57.

Class 50 — Merchandise Not Otherwise Classified

663,559. TRIM-MAGIC. World Wide Enterprises, Inc., d. b. a. Fluffy Snow Co. SN 35,609. Pub. 4–8–58. Filed 8–15–57.

663,560. HAN-D-MAN AND DESIGN. The Goshen Manufacturing Company, Inc. SN 36,798. Pub. 4–8–58. Filed 9–6–57.

663,561. STERLING. Sterling Last Corporation. SN 37,004. Pub. 4–8–58. Filed 9–18–57.

663,562. SELL-EM-SIGNS. John B. Wathen, d. b. a. The Wathen Company. SN 37,202. Pub. 4–8–58. Filed 9–13–57.

Class 51 — Cosmetics and Toilet Preparations

663,563. FLOR DE CANA. Rafael Fabelo Guitart, d. b. a. Fabielo. SN 684,216. Pub. 4–8–58. Filed 3–25–55.

663,564. OLD EMPIRE. Old Empire, Inc. SN 5,543. Pub. 4–8–58. Filed 3–30–56.

663,565. LUSTRE CLING. Richard Hudnut. SN 23,919. Pub. 4–8–58. Filed 2–6–57.

663,566. LUSTRE LIFE. Richard Hudnut. SN 24,263. Pub. 4–8–58. Filed 2–12–57.

663,567. OLD AND NEW. Corina Ruiz de Lahoud. SN 24,836. Pub. 4–8–58. Filed 2–21–57.

663,568. PENELITE. House of Westmore, Inc. SN 24,984. Pub. 4–8–58. Filed 2–25–57.

663,569. AIDA. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711 gegenuber der Pferdepost von Ferd. Mülhens. SN 26,006. Pub. 4–8–58. Filed 3–12–57.

663,570. SHAVE WHIP. Campbell Products Co. SN 27,277. Pub. 4–8–58. Filed 4–1–57.

663,571. CRENUM. Société Francaise des Cosmétiques Biologiques. SN 27,542. Pub. 4–8–58. Filed 4–4–57.

663,572. BOVAY. Bovay, Inc. SN 28,236. Pub. 4–8–58. Filed 4–16–57.

663,573. SCULPTONE. Germaine Montell Cosmetiques Corporation. SN 31,839. Pub. 4–8–58. Filed 6–12–57.

663,574. HYDRASOLAIRE. Roger Jean Thirion. SN 33,445. Pub. 4–8–58. Filed 7–5–57.

663,575. MARY SHERMAN. Mary Sherman, Inc. SN 33,917. Pub. 4–8–58. Filed 7–17–57.

663,576. BEHAVE. The Gillette Company, d. b. a. The Toni Company. SN 34,855. Pub. 4–8–58. Filed 8–2–57.

663,577. GLO FLAGE. Richard Hudnut. SN 34,949. Pub. 4–8–58. Filed 8–5–57.

663,578. ADDIT. Alvin Lurie, d. b. a. Nyval Laboratories. SN 37,441. Pub. 4–8–58. Filed 9–18–57.

663,579. POWDERAMA. Coty, Inc. SN 37,720. Pub. 4–8–58. Filed 9–24–57.

Class 52 — Detergents and Soaps

663,580. TOPS AND DESIGN. Carl E. Sykes, Sr., d. b. a. The Tops Chemical Mfg. Co. SN 12,305. Pub. 4–8–58. Filed 7–17–56.

663,581. LAZY BOY. Fine Laboratories, Inc. SN 17,455. Pub. 4–8–58. Filed 10–15–56.

663,582. AIDA. Ferdinand Mülhens, d. b. a. Eau de Cologne- & Parfümerie-Fabrik Glockengasse No. 4711, gegenuber der Pferdepost von Ferd. Mülhens. SN 26,005. Pub. 4–8–58. Filed 3–12–57.

663,583. GUARDSMAN. Grand Rapids Varnish Corporation. SN 26,347. Pub. 4–8–58. Filed 3–18–57.

663,584. MAXADE. Hagan Chemicals & Controls, Inc. SN 29,632. Pub. 4–8–58. Filed 4–8–57.

663,585. E-Z STRIP. Pennsalt Chemicals Corporation. SN 34,629. Pub. 4–8–58. Filed 7–30–57.

663,586. KE-SONIC. Kelite Corporation. SN 35,593. Pub. 4–8–58. Filed 8–15–57.

663,587. GRIFFIN'S AND DESIGN. Griffin Bros. Inc. SN 36,583. Pub. 4–8–58. Filed 9–3–57.

663,588. PACKER'S CHARM. Packers Tar Soap, Inc. SN 36,829. Pub. 4–8–58. Filed 9–6–57.

Service Marks

Class 101 — Advertising and Business

663,589. EAGLE. Eagle-United, Inc. SN 16,031. Pub. 4–8–58. Filed 9–20–56.

Class 102 — Insurance and Financial

663,590. YENOM. Seaboard Finance Company. SN 29,555. Pub. 4–8–58. Filed 5–7–57.

Class 103 — Construction and Repair

663,591. NORCO. Clair I. Hull, d. b. a. Northwest Venetian Blind Company and/or Norco Metal Products Company. SN 7,439. Pub. 4–8–58. Filed 5–1–56.

Class 105 — Transportation and Storage

663,592. GIFTOURS BY GARBER AND DESIGN. Garber's Travel Service, Inc., d. b. a. Garber's Travel Service. SN 24,338. Pub. 4–8–58. Filed 2–13–57.

663,593. WE GO FOR YOU AND DESIGN. York Transportation Company, Inc. SN 28,002. Pub. 4–8–58. Filed 4–11–57.

663,594. MAGIC CARPET. Mueller Transportation Company. SN 36,209. Pub. 4–8–58. Filed 8–26–57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 1 — Raw or Partly Prepared Materials

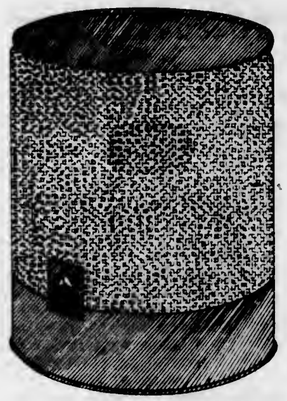
663,595. E. H. Russell & Co., Inc., Bloomington, Ill. SN 27,984. Filed P. R. 4–11–57. Am. S. R. 4–30–58.

SEED-ROLZ

For Wadding Impregnated With Flower Seeds.
First use Mar. 7, 1957.

Class 4 — Abrasives and Polishing Materials

663,596. Columbia Wax Company, Glendale, Calif. SN 17,993. Filed P. R. 10–23–56. Am. S. R. 7–19–57.



The drawing is lined for brown and yellow. The wording appearing on the container shows applicant's trademark "Columbia Wax" and the letters "C. W. C." and the words "Quality," "Value," "Uniformity." Applicant makes no claim to the words "Wax," "Quality," "Value," and "Uniformity."

For Waxes for Floors; and Liquid and Paste Waxes for All Types of Surfaces.

First use July 9, 1956; Apr. 12, 1950, as to "Columbia Wax" and shield design.

Class 18 — Medicines and Pharmaceutical Preparations

663,597. The Pfeiffer Co., St. Louis, Mo. SN 11,791. Filed P. R. 7–9–56. Am. S. R. 12–23–57.

METHYL-RUB

For Analgesic Balm.
First use June 27, 1956.

663,598. Polk Miller Products Corporation, Richmond, Va. SN 24,079. Filed P. R. 2–8–57. Am. S. R. 12–30–57.

WORM-AWAY

For Anthelmintic for Large Roundworms in Dogs and Puppies.
First use Dec. 20, 1956.

Class 23 — Cutlery, Machinery, and Tools, and Parts Thereof

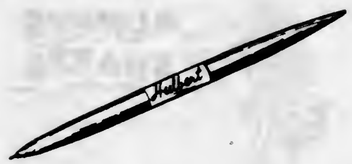
663,599. The Miller Sprender Corporation, Youngstown, Ohio. SN 31,774. Filed P. R. 6–11–57. Am. S. R. 4–28–58.

LUTE - O - RAKE

For Asphalt Spreading Tool.
First use June 1, 1956.

Class 37 — Paper and Stationery

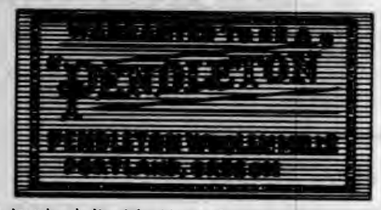
663,600. Ray E. Hulbert, Rockaway, N. J. SN 29,908. Filed P. R. 5–13–57. Am. S. R. 4–17–58.



For Fountain Pens and Ball Point Pens.
First use January 1956.

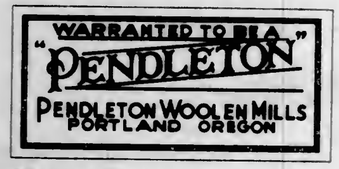
Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

663,601. Pendleton Woolen Mills, Portland, Oreg. SN 7,836. Filed P. R. 5–7–56. Am. S. R. 4–23–58.



The drawing is lined for blue and gold.
For Piece Goods, Blankets, Motor Robes, Bed Throws, and Steamer Rugs, of Wool, Cotton, Silk, Rayon, Nylon, and Other Natural and Synthetic Fibers.
First use 1895 on blankets.

663,602. Pendleton Woolen Mills, Portland, Oreg. SN 17,659. Filed P. R. 10–17–56. Am. S. R. 4–23–58.



The drawing is lined for gold.
For Blankets.
First use June 7, 1943.

663,603. Frank S. Gerardi, Providence, R. I. SN 20,745. Filed P. R. 12–10–56. Am. S. R. 5–6–58.

KANT-SLIDE

For Textile Scatter Rugs.
First use on or about March 1955.

Class 44—Dental, Medical, and Surgical Appliances

663,604. Premier Dental Products Company, Philadelphia, Pa. SN 22,574. Filed 1–14–57.

ALLSPEEDS

For Dental Instruments—Namely, Contra-Angles and Hand-Pieces.
First use February 1954.

Class 46—Foods and Ingredients of Foods

663,605. The United Salt Corporation, Houston, Tex. SN 34,190. Filed P. R. 7–22–57. Am. S. R. 4–8–58.



For Table Salt.
First use Apr. 1, 1957.

663,606. General Grocer Company, St. Louis, Mo. SN 41,537. Filed 11–29–57.

DINE WITH THE FINEST

For Canned, Bottled, and Jarred Foods—Namely, Fruit Juices, Vegetables, and Fruits.
First use Sept. 13, 1956.

Class 47—Wines

663,607. Paul Alfons Fürst von Metternich-Winneburg, Schloss Johannisberg (Rheingau), Germany. SN 688,376. Filed P. R. 5–26–55. Am. S. R. 3–24–58.



Owner of German Reg. No. 81,238, dated Aug. 17, 1905.
For Wines.

Class 51—Cosmetics and Toilet Preparations

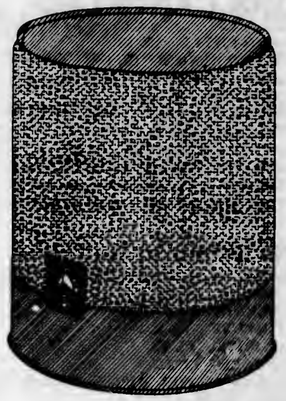
663,608. Bendt Wikke, Copenhagen, Denmark. SN 21,418. Filed P. R. 12–21–56. Am. S. R. 3–26–58.



The mark consists of a representation of a spoked wheel with a rubber tire thereon formed in the shape of a cap for a collapsible tube. The drawing is lined for red and black.
Owner of Danish Reg. No. 120/56, dated June 23, 1956.
For Tooth Paste.

Class 52—Detergents and Soaps

663,609. Columbia Wax Company, Glendale, Calif. SN 17,992. Filed P. R. 10–23–56. Am. S. R. 7–19–57.



The drawing is lined for brown and yellow. The wording appearing on the container shows applicant's trademark "Columbia Wax" and the letters "C. W. C." and the words "Quality," "Value," "Uniformity." Applicant makes no claim to the words "Wax," "Quality," "Value," and "Uniformity."
For Concentrated Liquid Cleaner for Removing Wax From All Flooring Surfaces and for Removing Soil From All Washable Surfaces.
First use July 9, 1956; Apr. 17, 1950, as to "Columbia Wax" and shield design.

Service Mark

Class 101—Advertising and Business

663,610. National Standard Parts Association, Chicago, Ill.; Motor and Equipment Manufacturers Association, New York, N. Y.; and Motor and Equipment Wholesalers Association, Chicago, Ill. SN 696,813. Filed P. R. 10–20–55. Am. S. R. 6–12–57.

AUTOMOTIVE SERVICE INDUSTRIES SHOW

For Services in Arranging for Exhibit of the Automotive Products of Applicants' Members; Promoting and Conducting Expositions and Conventions for Manufacturers Whose Products Are Sold in the Automotive Field; and in Educating and Acquainting Salesmen and Shopmen in the Performance as Well as the Selling of the Automotive Parts, Accessories, and Equipment Manufactured by Their Suppliers.
First use during 1930.

TRADEMARK REGISTRATIONS RENEWED

120,210. N AND DESIGN. Cl. 2. 1–15–18.
120,707. REPRESENTATION OF ROOSTER AND DESIGN. Cl. 32. 3–5–18.
121,288. MENNEN'S AND PORTRAIT. Cl. 51. 4–23–18.
121,468. SUPRE-MACY AND DESIGN. Cl. 39. 4–30–18.
121,591. KEYSTONE LUBRICATING CO. ETC. Cl. 15. 5–14–18.
121,982. WALDEN WORCESTER WRENCHES AND DESIGN. Cl. 23. 6–11–18.
122,266. CHAMOIS SKIN. Cl. 52. 7–16–18.
122,269. REPRESENTATION OF FLAG LINED FOR RED. Cl. 46. 7–16–18.
122,808. NALCO. Cl. 21. 9–17–18.
353,345. VETA-RONI. Cl. 46. 1–4–38.
353,375. THE FAMOUS CINCI. Cl. 48. 1–4–38.
354,432. BEL-DINE. Cl. 46. 2–15–38.
354,702. FUJI AND DESIGN. Cl. 46. 2–22–38.
354,874. CONDI-LITE. Cl. 34. 3–1–38.
355,854. OILEX. Cl. 18. 4–5–38.
356,039. LACTA. Cl. 23. 4–12–38.
356,083. TIMBERLINE. Cl. 22. 4–12–38.
356,140. ARISTOCRAT. Cl. 39. 4–12–38.
356,146. TECHNALLOY. Cl. 14. 4–12–38.
356,147. TECHNICHILL. Cl. 14. 4–12–38.
356,148. TECHNIGRAIN. Cl. 14. 4–12–38.
356,149. TECHNISAND. Cl. 14. 4–12–38.
356,236. MACY'S. Cl. 4. 4–19–38.
356,261. A YOUNGER CROWD FASHION. Cl. 39. 4–19–38.
356,382. MACY'S. Cl. 42. 4–26–38.
356,613. ALPHABET. Cl. 36. 5–3–38.
356,770. MACY'S. Cl. 18. 5–10–38.
356,946. PAPAGAYO ARROZ AND DESIGN. Cl. 46. 5–17–38.
357,141. CLINCO. Cl. 46. 5–24–38.
357,151. D AURALYT AND DESIGN. Cl. 6. 5–24–38.
357,264. TATRA AND DESIGN. Cl. 19. 5–31–38.
357,306. BAND-IT. Cl. 13. 5–31–38.
357,409. TRANSART. Cl. 38. 6–7–38.
357,504. RED RING AND RING DESIGN. Cl. 4. 6–7–38.
357,517. ENHANCE. Cl. 39. 6–7–38.
357,541. RESOLUTE. Cl. 39. 6–7–38.
357,559. BUDGET HOME. Cl. 42. 6–7–38.
357,568. FENWAL AND DESIGN. Cl. 44. 6–7–38.
357,903. SPOT-MASTER. Cl. 19. 6–21–38.
357,922. ROYAL AND DESIGN. Cl. 46. 6–21–38.
357,923. ROYAL BAKING POWDER AND DESIGN. Cl. 46. 6–21–38.
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558,419. CELLODERME. Cl. 44.
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558,424. SHU-LINE. Cl. 39.
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287,757. THE G AND E RED ARROW AND DESIGN. Cl. 21. 10–6–31. Gas and Electric Heater Co. FauceHot Heater Co., La Porte, Ind. Amended to appear:

RED ARROW

532,949. TELESTATUS REPORT. Cl. 38. 1–8–52. Broadcasting Publications, Inc., Washington, D. C. Amended to appear:

TELESTATUS

561,181. DR PEPPER. Cl. 45. 7–8–52. Dr. Pepper Company, Dallas, Tex. Amended to appear:

DR PEPPER

569,128. WASHINGTON PUMP ISLAND AND DESIGN. Cl. 38. 1–13–53. The Irving-Cloud Publishing Company, Chicago, Ill. Amended to appear:

WASHINGTON PUMP ISLAND

571,371. JALA. Cl. 46. 3–3–53. Osceola Foods, Inc., Osceola, Ark. Amended to appear:

JALA

646,185. ROD'S AND DESIGN. Cl. 46. 5–28–57. Rod's Food Products, Inc., Alhambra, Calif. Amended to appear:

ROD'S

657,653. OASIS AND DESIGN. Cl. 17. 1–28–58. Liggett & Myers Tobacco Company, New York, N. Y. Corrected: In column 1, line 1, "and" should be *&*.

658,448. OASIS. Cl. 17. 2–18–58. Liggett & Myers Tobacco Company, New York, N. Y. Corrected: In column 1, line 1, "Meyers" should be *Myers*.

661,512. ROSE LEAF. Cl. 6. 5–13–58. Diamond Black Leaf Company, Cleveland, Ohio. Corrected: In column 1, line 3, after "Ohio" , *assignor to Diamond Alkali Company (Delaware corporation), Cleveland, Ohio* should be inserted.

661,642. AUDIOLATOR. Cl. 26. 5–13–58. Kay Electric Company, Pine Brook, N. J. Corrected: In column 1, line 3, "N. Y." should be *N. J.*

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

357,038. AR-MOR-CASE. Cl. 2. Abner A. Ruben. 5–24–38. New Cert. Sec. 7(c), to N. S. Meyer, Inc., New York, N. Y., 6–24–58.

357,435. "DRESENTIALS". Cl. 39. Abner A. Ruben. 6–7–38. New Cert. Sec. 7(c), to N. S. Meyer, Inc., New York, N. Y., 6–24–58.

558,795. PYRO-SERV ETC. AND DESIGN. Cl. 26. Pyrometer Service Company. 5–13–52. New Cert. Sec. 7(c), to Pyrometer Service Co., Inc., North Arlington, N. J., 6–24–58.

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Agfa Camera-Werk Aktiengesellschaft.
Agfa Camera-Werk Aktiengesellschaft, Munich, Germany, to Agfa Aktiengesellschaft, Leverkusen, Germany. 663,440, pub. 4-8-58. Cl. 26.
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American Machine and Metals, Inc., East Moline, Ill. 663,425, pub. 4-8-58. Cl. 23.
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C & D Flavor Co., Houston, Tex. 663,551, pub. 4-8-58. Cl. 46.
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Crowell Corp., The, Yorklyn, Del. 663,308, pub. 4–8–58. Cl. 5.
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Prepper, Rachel F., d. b. a. Rachel Andres, New York, N. Y. 558,526, canc. Cl. 39.
Prince Macaroni Mfg. Co., Lowell, Mass. 353,345, ren. 1–4–58. Cl. 46.
Process Chemicals Co., Los Nietos, Calif. 663,543, pub. 4–8–58. Cl. 46.
Pyrometer Service Co., to Pyrometer Service Co., Inc., North Arlington, N. J. 558,795, new cert. Cl. 26.
Pyrometer Service Co., Inc.: *See*—
Pyrometer Service Co.
Quadson Instrument Co.: *See*—
Eckert, William G.
Quaker Oats Co., The, Chicago, Ill. 663,319, pub. 4–8–58. Cl. 6.
Ralston Purina Co., St. Louis, Mo. 663,369–70, pub. 4–8–58. Cl. 18.
Recorg Supply Corp., Chicago, Ill., to P. M. Cooter, d. b. a. The Cooter Co., San Francisco, Calif. 354,432, ren. 2–15–58. Cl. 46.
Recorg Supply Corp.: *See*—
Merchants Service Corp.
Remind-A-Meter Corp., New York, N. Y. 558,490, canc. Cl. 26.
Replogle Globes, Inc., Chicago, Ill. 663,451, pub. 4–8–58. Cl. 26.
Reynolds, R. J., Tobacco Co., Winston-Salem, N. C. 663,366, pub. 4–8–58. Cl. 17.
Rio Grande Valley Citrus Exchange, to Texsun Corp., Weslaco, Tex. 360,463, ren. 9–20–58. Cl. 46.
River Brand Rice Mills Inc., New York, N. Y. 663,549, pub. 4–8–58. Cl. 46.
Rod's Food Products, Inc., Alhambra, Calif. 646,185. Am. 7(d). Cl. 46.
Roe, R., & Co., Inc., New York, N. Y. 663,421, pub. 4–8–58. Cl. 23.
Rose, Al, Inc., El Monte, Calif. 663,381, pub. 4–8–58. Cl. 19.
Rousseau, William H., Jr., d. b. a. Hamilton Feature Service, Orangeburg, S. C. 558,546, canc. Cl. 38.

Ruben, Abner A., to N. S. Meyer, Inc., New York, N. Y. 357,038, new cert. Cl. 2.
Ruben, Abner A., to N. S. Meyer Inc., New York, N. Y. 357,435, new cert. Cl. 39.
Rublinsky, Al, New York, N. Y. 558,527, canc. Cl. 3.
Rupert Tobacco Corp. (Proprietary) Ltd., Stellenbosch, Union of South Africa. 663,364–5, pub. 4–8–58. Cl. 17.
Russell, E. H., & Co., Inc., Bloomington, Ill. 663,595. Cl. 1.
S. A. R. L. Societe d'exploitation des Produits des Laboratoires Fournier et Cie, Dijon, France. 558,419, canc. Cl. 44.
Sabel, I., Inc., Philadelphia, Pa. 663,510, pub. 4–8–58. Cl. 39.
Salisbury Corp., Los Angeles, Calif. 663,428, pub. 4–8–58. Cl. 23.
Sanborn Co. Waltham, Mass. 663,534, pub. 4–8–58. Cl. 26.
Sassy International, Inc., Waukesha, Wis. 663,557, pub. 4–8–58. Cl. 48.
Schieffelin & Co., New York, N. Y. 292,268, canc. Cl. 52.
Scholl Mfg. Co., Inc., The, Chicago, Ill. 663,368, pub. 4–8–58. Cl. 18.
Schubert, Ray E., d. b. a. Checker Co., Hamden, Conn. 558,566, canc. Cl. 51.
Schwarz Laboratories, Inc., Mount Vernon, N. Y. 663,324, pub. 4–8–58. Cl. 6.
Seaboard Finance Co., Los Angeles, Calif. 663,590, pub. 4–8–58. Cl. 102.
Sears, Roebuck and Co., Chicago, Ill. 357,559, ren. 6–7–58. Cl. 42.
Sebel, D., and Co. Ltd., Erith, Kent, England. 558,561, canc. Cl. 22.
Sherman, Mary, Inc., St. Louis Mo. 663,575, pub. 4–8–58. Cl. 51.
Shoe Factory Supplies Co., St. Louis, Mo. 663,288, pub. 4–8–58. Cl. 1.
Silzle, E. A., Corp.: *See*—
Silzle, Earl, Co.
Silzle, Earl, Co., to E. A. Silzle Corp., Anaheim, Calif. 359,968, ren. 9–6–58. Cl. 46.
Simon, Pearl, Inc., Boston, Mass. 663,497, pub. 4–8–58. Cl. 39.
Simpson, Arthur A., New Orleans, La. 663,410, pub. 4–8–58. Cl. 21.
Skidmore Music Co. Inc., New York, N. Y. 663,489, pub. 4–8–58. Cl. 38.
Smith, Alexander, Inc.: *See*—
Smith, Alexander, & Sons Carpet Co.
Smith, Alexander, & Sons Carpet Co., Yonkers, N. Y., now by change of name Alexander Smith, Inc. 558,495, canc. Cl. 1.
Societe Francaise des Cosmetiques Biologiques, Nice, France. 663,571, pub. 4–8–58. Cl. 51.
Somersville Mfg. Co., Somersville, Conn. 663,526, pub. 11–1–55. Cl. 42.
South Coast Fisheries, Inc., Terminal Island, Calif. 663,556, pub. 4–8–58. Cl. 46.
Southern Plywoods, Inc., Greenville, Fla. 663,336, pub. 4–8–58. Cl. 12.
Sprayers & Nozzles, Inc., St. Petersburg, Fla. 663,424, pub. 4–8–58. Cl. 23.
Stahlin Brothers Fibre Works, Inc., Belding, Mich. 663,404, pub. 4–8–58. Cl. 21.
Standard Brands Inc.: *See*—
Clinton Co.
Hansen, John, & Sons.
Standard Brands Inc., New York, N. Y. 357,922, ren. 6–21–58. Cl. 46.
Standard Brands Inc., New York, N. Y. 357,923, ren. 6–21–58. Cl. 46.
Standard Brands Inc., New York, N. Y. 357,957, ren. 6–21–58. Cl. 46.
Standard Brands Inc., New York, N. Y. 663,552–5, pub. 4–8–58. Cl. 46.
Stauffer Chemical Co., San Francisco, Calif. 558,436, canc. Cl. 6.
Sterling Last Corp., Long Island City, N. Y. 663,561, pub. 4–8–58. Cl. 50.
Stevens Walden, Inc.: *See*—
Walden-Worcester, Inc.
Stop Publications, Inc., New York, N. Y. 558,550, canc. Cl. 38.
Stor-Aid Closet Accessories, Inc., New York, N. Y. 558,426, canc. Cl. 2.
Stores Publishing Co., Inc., to Woman's Day, Inc., New York, N. Y. 359,967, ren. 9–6–58. Cl. 38.
Strauss, H. B., Co.: *See*—
Strauss, Herbert B.
Strauss, Herbert B., d. b. a. H. B. Strauss Co., New York, N. Y. 663,292, pub. 4–8–58. Cl. 1.
Stroock, S., & Co., Inc., New York, N. Y. 663,527, pub. 4–8–58. Cl. 42.
Struble & Moffitt Co., Philadelphia, Pa. 663,480, pub. 4–8–58. Cl. 37.
Studebaker-Packard Corp., South Bend, Ind. 663,385, pub. 4–15–58. Cl. 19.
Sun Chemical Corp., Long Island City, N. Y. 663,335, pub. 4–8–58. Cl. 11.
Surgical Appliance Industries, Inc., Cincinnati, Ohio. 663,537, pub. 4–8–58. Cl. 44.
Sutherland Paper Co., Santa Clara, Calif. 663,303, pub. 4–8–58. Cl. 2.
Sykes, Carl E., Sr., d. b. a. The Tops Chemical Mfg. Co., Norfolk, Va. 663,580, pub. 4–8–58. Cl. 52.
Synthex Products Co.: *See*—
Adams, Harry A., Jr.
Tatra, Narodni Podnik: *See*—
Tatra Works Ltd.
Tatra Works Ltd., Prague-Smichov, to Tatra, Narodni Podnik, Koprivnice, Czechoslovakia. 357,264, ren. 5–31–58. Cl. 19.
Tecnifax Corp., Holyoke, Mass. 663,441, pub. 4–8–58. Cl. 26.
Texsun Corp.: *See*—
Rio Grande Valley Citrus Exchange.
Thalson Co., San Francisco, Calif. 663,476, pub. 4–8–58. Cl. 36.
Thirion, Rober J., Paris, France. 663,574. Cl. 31.
Thompson-Long Co., Chicago, Ill. 558,477, canc. Cl. 16.
Thor Power Tool Co., Chicago, Ill. 663,434, pub. 4–8–58. Cl. 23.
Toni Co., The: *See*—
Gillette Co., The.
Top Tunes Co., The: *See*—
French, Edward R.
Tops Chemical Mfg. Co., The: *See*—
Sykes, Carl E., Sr.
Towle Mfg. Co., Newburyport, Mass. 360,869, ren. 9–27–58. Cl. 28.
Towle Mfg. Co., Newburyport, Mass. 360,870, ren. 9–27–58. Cl. 28.
Towncliffe, Inc., New York, N. Y. 663,502, pub. 4–8–58. Cl. 39.
Trail-O-Matic Corp., Longview, Wash. 663,392, pub. 4–8–58. Cl. 19.
Transart Aktiebolag, Goteborg, Sweden. 357,409, ren. 6–7–58. Cl. 38.
Transistor Products, Inc., Boston, Mass., to Clevite Corp., Cleveland, Ohio. 663,393, pub. 12–1–53. Cl. 21.
Trelleborgs Gummifabriks Aktiebolag, Trelleborg, Sweden. 663,517, pub. 4–8–58. Cl. 39.
Unilectric, Inc., Milwaukee, Wis. 663,399, pub. 4–8–58. Cl. 21.
Union Carbide Corp., New York, N. Y. 663,488, pub. 4–8–58. Cl. 38.
Union Oil Co. of California, Los Angeles, Calif. 663,347, pub. 4–8–58. Cl. 15.
United Salt Corp., The, Houston, Tex. 663,605. Cl. 46.
U. S. Divers Co. Inc.: *See*—
U. S. Divers Corp.
U. S. Divers Corp., Los Angeles, Calif., to U. S. Divers Co, Inc. 663,412–14, pub. 4–8–58. Cl. 22.
United States Rubber Co.: *See*—
United States Rubber Products, Inc.
United States Rubber Co., New York, N. Y. 663,518, pub. 4–8–58. Cl. 39.
United States Rubber Products, Inc., to United States Rubber Co., New York, N. Y. 360,204, ren. 9–13–58. Cl. 35.
U. S. Slicing Machine Co., Inc., La Porte, Ind. 663,430, pub. 4–8–58. Cl. 23.
Vanadium-Alloys Steel Co., Latrobe, Pa. 663,343, pub. 4–8–58. Cl. 14.
Vapor Heating Corp., Chicago, Ill. 663,469, pub. 4–8–58. Cl. 34.
Versen, Kurt, Co., Englewood, N. J. 663,394, pub. 4–8–58. Cl. 21.
Vickers Inc., Detroit, Mich. 663,416 pub. 4–8–58. Cl. 23.
Visilite Corp., Saginaw, Mich. 558,551, canc. Cl. 19.
Vits-Elektro G. m. b. H., Duesseldorf, Germany. 663,423, 3–11–58. Cl. 23.
Volker, William, & Co. of Missouri, Inc., Kansas City, Mo. 558,570, canc Cl. 32.
Von Metternich-Winneburg, Paul A. F., Schloss Johannisberg (Rheingau), Germany 663,607. Cl. 47.
Walden-Worcester, Inc., to Stevens Walden, Inc., Worcester, Mass. 121,982, ren. 6–11–58. Cl. 23.
Wallace Silversmiths, Inc., Wallingford, Conn. 663,305, pub. 4–8–58. Cl. 2.
Waples-Platter Co., Richland Hills, Tex. 360,725, ren. 9–27–58. Cl. 46
Warner Brothers Co., The, Bridgeport, Conn. 356,613, ren. 5–3–58. Cl. 39.
Wartsila-Yhtyma O/Y-Wartsila-Koncernen A/B.: *See*—
Kone Ja Silta O. Y.-Maskin Och Bro A. B.
Wathen Co., The: *See*—
Wathen, John B.
Wathen, John B., d. b. a. The Wathen Co., Upper Darby, Pa. 663,562, pub. 4–8–58. Cl. 50.
Webster, F. S., Co., Cambridge, Mass. 358,439, ren. 7–12–58. Cl. 11.
Webster, Warren, & Co., Camden, N. J. 663,470, pub. 4–8–58. Cl. 34.
Wellman, S. K., Co., The, Bedford, Ohio. 663,473, pub. 4–8–58. Cl. 35.
Welsh Co., St. Louis, Mo. 663,382, pub. 4–8–58. Cl. 19.
Wentling, Ralph E., Austin, Tex. 663,426, pub. 4–8–58. Cl. 23.
West Texas Cottonoil Co., Abilene, Tex., to Anderson, Clayton & Co., Houston, Tex. 358,440, ren. 7–12–58. Cl. 1.
Wham-O Powermaster Corp., San Gabriel, Calif. 663,327, pub. 4–8–58. Cl. 9.
Wheeler Protective Apparel, Inc., Chicago, Ill. 663,499, pub. 4–8–58. Cl. 39.
Whitin Machine Works, Whitinsville, Mass. 360,203, ren. 9–13–58. Cl. 23.
Whiting-Adams Co., Inc., Boston, Mass. 663,460, pub. 4–8–58. Cl. 29.
Whitman, Norman, d. b. a. Whitman Nut Co., Omaha, Nebr. 663,542, pub. 4–8–58. Cl. 46.
Whitman Nut Co.: *See*—
Whitman, Norman.
Wikke, Bendt, Copenhagen, Denmark. 663,608. Cl. 51.
Wilkerson, Byron E., d. b. a. The Ed-Lyn Co., Seattle, Wash. 663,348, pub. 4–8–58. Cl. 15.
Williamson, T. D., Inc., Tulsa, Okla. 663,444, pub. 4–8–58. Cl. 26.
Winkler & Dunnebier, Maschinenfabrik und Eisengiesserei K. G., Neuwied, Rhineland, W. Germany. 663,417–18, pub. 4–8–58. Cl. 23.
Wise Potato Chip Co., Berwick, Pa. 663,545, pub. 4–8–58. Cl. 46.

Witter, Dean, & Co., San Francisco, Calif. 663,486, pub. 4–8–58. Cl. 38.
Woman's Day, Inc.: *See*—
Stores Publishing Co., Inc.
Wood Conversion Co., St. Paul, Minn. 663,286, pub. 4–8–58. Cl. 1.
World Wide Enterprises, Inc., d. b. a. Fluffy Snow Co., Chicago, Ill. 663,559, pub. 4–8–58. Cl. 50.
York Transportation Co., Inc., York, Pa. 663,593, pub. 4–8–58. Cl. 105.
Zenith Radio Corp., Chicago, Ill. 663,397, pub. 3–25–58. Cl. 21, 36, and 44.

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